



STATEMENT OF QUALIFICATIONS DESIGN+BUILD



I-95 SOUTHBOUND CD LANES – RAPPAHANNOCK RIVER CROSSING

Stafford County/ City of Fredericksburg, Virginia

State Project No.: 0095-111-259 | Federal Project No.: IM-5111(235)

Contract ID Number: C00101595DB94

FEBRUARY 7, 2017

SUBMITTED BY:





3.2. LETTER OF SUBMITTAL



February 7, 2017

Attention: Suril R. Shah
Alternative Project Delivery Division
Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

RE: Letter of Submittal | Design-Build | I-95 Southbound CD Lanes-Rappahannock River Crossing | Stafford Co. | City of Fredericksburg, VA | State Project No.: 0095-111-259 | Federal Project No.: IM-5111(235)

Dear Mr. Shah,

Flatiron | Branch Civil, a Joint Venture (Flatiron | Branch) formally expresses our interest in being selected by the Virginia Department of Transportation (VDOT) as the design-build team to efficiently and safely design and construct the I-95 Southbound CD Lanes – Rappahannock River Crossing (the Project). **Flatiron Constructors, Inc.** (Flatiron) will be the Lead Contractor for this Project supported by their joint venture partner **Branch Civil, Inc.** (Branch), **A. Morton Thomas and Associates, Inc.** (AMT) as the Lead Designer, and **STV Incorporated** as the Structural Design Lead. Our Team **combines nationally recognized industry leaders with local knowledge and dedicated resources ready to address critical project elements, and successful national design-build experience in highway and bridge projects** similar to the I-95 Rappahannock Project. As requested in **Section 3.2 – Letter of Submittal**, the Flatiron Team offers the following:

3.2.1 Full Legal Name and Address of the Offeror:

Flatiron | Branch Civil, a Joint Venture; 385 Interlocken Crescent; Suite 900; Broomfield, CO 80021

3.2.2 Name, Title, Address, Phone/Fax Numbers, and Email for Offeror's Point of Contact:

Adam Mathews – Design-Build Project Manager; 860 Aviation Parkway, Suite 1000, Morrisville, NC 27560; Phone: (415) 345-7046; Fax: (919) 460-5708; Email: amathews@flatironcorp.com

3.2.3 Name, Title, Address, and Phone/Fax Numbers for Offeror's Principal Officer:

Ted Kirk – Vice President, Southeast Region; 860 Aviation Parkway, Suite 1000, Morrisville, NC 27560; Phone: (919) 460-5393; Fax: (919) 460-5708; Email: tkirk@flatironcorp.com

3.2.4 Offeror's Legal Structure:

Flatiron | Branch, a Joint Venture is a construction joint venture of Flatiron and Branch. Flatiron | Branch will share financial responsibility for the Project. Flatiron | Branch will be jointly and severally liable with no limitations. Flatiron | Branch will provide a single 100% performance bond and a single 100% payment bond.

3.2.5 Full Legal Name of Lead Contractor and Designer:

Flatiron | Branch Civil, a Joint Venture will act as the Lead Contractor with A. Morton Thomas and

Associates, Inc. as the Lead Designer.

3.2.6 Affiliated and Subsidiary Companies: See the Affiliated and Subsidiary Companies Form in Appendix.

3.2.7 Debarment Forms: See the Certification Regarding Debarment Form(s) Primary Covered Transactions and Certification Regarding Debarment Form(s) Lower Tier Covered Transactions in Appendix.

3.2.8 Offeror's VDOT Prequalification Status and Certification: Flatiron's Prequalification No. is F319, currently listed as inactive with VDOT (See our VDOT waiver letter and certificate in Appendix) and Branch's Prequalification is B319. Flatiron | Branch's Joint Venture Prequalification is **JV082**.

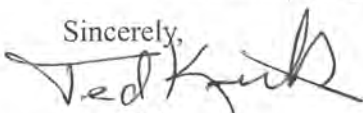
3.2.9 Surety Letter: Included in the Appendix.

3.2.10 DPOR Licenses and SCC Registrations: See full size copies of DPOR Licenses, SCC Registrations, and Attachment 3.2.10 in Appendix.

3.2.11 DBE Commitment: The Flatiron | Branch is committed to achieving the ten percent DBE participation goal for the entire value of the contract and fully understand Virginia's SWaM goals under the Governor's Executive Order No. 20 to participate for federally funded projects.

Flatiron | Branch is the right choice for this project, bringing the experience, innovation, quality, and attention to detail in every aspect of the planning, resources, and commitment to achieve joint project success with VDOT. Our team is committed to the expeditious and efficient completion of this important project. Thank you for your consideration. We look forward to creating a strong relationship with VDOT and other stakeholders associated with the Project.

Sincerely,



Ted Kirk
Vice President – Southeast Region
Flatiron Constructors, Inc.



Patrick Bartorillo
President
Branch Civil, Inc.



3.3 OFFEROR'S TEAM STRUCTURE



3.3 Offeror’s Team Structure

Introduction

Flatiron | Branch, along with our partner firms, provides the Virginia Department of Transportation (VDOT) a team with proven experience and resources to successfully and safely deliver the I-95 Rappahannock Project. Please see **Table 3.3 – Key Team Members**.

For a major design-build project, the team’s organization must be multi-faceted and disciplined while directing all project elements from design through construction. It must also correspond to the Owner’s organization and maintain well-defined lines of responsibility, reporting, and communication. **Our project organizational chart details the contractual relationships governing the management responsibilities of Flatiron | Branch, AMT, STV, and all subconsultants.** Cross-discipline task forces, comprised of design, quality, and construction personnel, will meet throughout design and construction phases to coordinate schedules; resources and equipment needs; and innovative concepts which contribute to a quick project start and timely project completion.

Table 3.3 – Key Team Members

Role	Firm
Offeror Lead Contractor	Flatiron Branch Civil, a Joint Venture (Flatiron Branch)
Lead Designer	A. Morton Thomas and Associates, Inc. (AMT)
Lead Structures	STV Incorporated (STV)
Subconsultants	<ul style="list-style-type: none"> • NXL Construction Services, Inc. (NXL): Independent quality assurance management (DBE) • DMY Engineering Consultants, Inc. (DMY): Geotechnical and quality control (DBE) • Diversified Property Services, Inc. (DPS): Right-of-way (DBE) • Sabra, Wang & Associates, Inc. (SWA): ITS and lighting design (DBE) • Siddall Communications, LLC (Siddall): Public outreach (SWaM) • Schnabel Engineering, Inc. (Schnabel): QA testing • HMMH: Noise analysis (DBE)

3.3.1 Key Personnel

.1 Design-Build Project Manager (DBPM): Previously serving as preconstruction project manager for the Wellsburg Bridge in West Virginia and design-build project manager for the Presidio Parkway in

California and Yadkin River Bridge in North Carolina, **Adam Mathews (Flatiron)** will lead the Flatiron | Branch team. He will be supported by key personnel and design-build delivery experts to successfully deliver the Project to VDOT. Adam will provide overall project design, construction, quality management, and contract administration. Acting as the single point-of-contact for VDOT, he will promote efficient communication and coordination between the design and construction team while enforcing safety and environmental compliance. Additionally, Adam will use his design-build expertise to foster innovative solutions for project design and construction means and methods.

.2 Responsible Charge Engineer (RCE): Reporting directly to the DPBM, **Harold Dyson, P.E. (AMT)** will supervise and provide independent oversight of design and construction. He will take full professional responsibility for engineering decisions related to the final design and be fully integrated into the Flatiron | Branch team. Harold will respond to design-related issues and/or construction engineering decisions. **He has 37 years of experience with large transportation programs and design-build projects for VDOT.**

.3 Quality Assurance Manager (QAM): **Michael Saunders, P.E., CCM, DBIA (NXL)** will report directly to the DBPM for full independence from design and construction operations. He will coordinate with the Quality Manager on Quality Assurance (QA) inspection, testing, and monitoring the Lead Contractor’s Quality Control (QC) program. Any work activity failing to meet minimum standards will be rejected and corrected immediately. Construction personnel will hold no authority over QA inspection staff. Michael (and the DBPM) will resolve issues brought to his attention by construction personnel. As QAM, Michael will hold authority to stop work if quality issues warrant. All QA inspectors will report directly to him, and together, be assigned to the Project on a full-time basis for the duration of construction.

.4 Design Manager (DM): Reporting directly to the DBPM, **Laura Mehiel, P.E. (AMT)** will maintain close communication with the DBPM and Design-Build Coordinator. She will coordinate all design disciplines, including subconsultants, so that overall project design conforms to the contract. All design disciplines will report directly to Laura who will provide VDOT design plans for review and approval. She will oversee the design QA/QC program and communicate with the Construction Manager.


.5 Construction Manager (CM): **Greg Suttle (Branch)** will report directly to the DBPM and will be on-site full-time for the duration of construction operations. Greg has over 28 years of experience managing the construction process through an accurate project baseline schedule including QC activities so that materials used and work performed


meet contract requirements and approved construction plans. He will oversee all on-site construction team including project controls, QC Manager, superintendents, and project field staff, including scheduling, safety, environmental compliance, utilities, and maintenance of traffic. Greg will coordinate weekly meetings with the QAM and QC Manager to discuss the current schedule and ongoing activities.


.6 Lead Structural Engineer: Reporting directly to the DM, **Ronald Briggs, P.E. (STV)** will be responsible for all structural design for the Project. He will implement a quality checking program for all structural design and plan production. As an expert in VDOT design aids and standards, Ronald will be supported by structural engineers from STV who are experienced with long-span bridges over waterways using both steel girder and prestressed concrete girder design. Ronald has over 41 years of experience as a structural engineer for the design and construction of highway and roadway bridge projects throughout the Mid-Atlantic Region.

For reporting relationships among Key Personnel, see the Project Organizational Chart on page 6.


VALUE-ADDED PERSONNEL


In addition to the key personnel previously listed and resumes included within **Appendix 3.3.1a and 3.3.1b**, Flatiron | Branch has included the following value-added staff to complete our team so that all project activities are proactively addressed. A  symbol represents individuals with design-build experience.


 **Jeff McKay, P.E. – Lead Roadway Engineer:** Jeff McKay (AMT) will report directly to the DM and act as the backup point-of-contact for design. He has 23 years of experience in design and management of significant highway improvement projects for VDOT and Virginia localities including Route 123 Widening in Tyson's Corner, Route 460/Southgate Drive DDI in Blacksburg, Northampton Blvd./I-64 Ramp Improvements at Lake Wright East, Route 288 Improvements in Chesterfield County, Route 28/625 Interchange in Loudoun County, and the I-95 Bridges Rehabilitation project in Richmond where he recently served as roadway design manager.


 **Alex Meitzler, P.E., PTOE – Lead Traffic Engineer:** Alex Meitzler (AMT) will report to the DM and serve as the lead traffic engineer responsible for developing the Transportation Management Plan. With 25 years of experience in traffic analysis and engineering for major highway and interchange projects in the eastern region of the U.S., Alex's clients have included VDOT, DDOT, and MDOT. Recent project experience examples are the FHWA/VDOT Route 1 Design-Build project in Fort Belvoir (TMP), the VDOT Southgate Drive/US 460 Bypass Interchange in Blacksburg (IJR, TMP, MOT), and the MDOT US Route 1/I-695 Interchange Improvements

project in Baltimore City (IAPA, MOT).

 **Ollie Taylor – Safety Manager:** Reporting to the DBPM, Ollie Taylor will consistently communicate with the CM to oversee the safety and welfare of the Flatiron | Branch team and travelling public during construction. With over 16 years of experience, Ollie has the ability to effectively engage employees and partner with management for enhanced productivity and advancement of a zero-incident culture. Recently, he served as safety manager for the Carolina Bays Parkway project in South Carolina.


 **Don Rissmeyer, P.E., CFM – H&HA/Scour/Stormwater Management:** Reporting to the DM, Don Rissmeyer (AMT) will provide drainage design, stormwater management, and erosion/sediment control plans for the Project. He has over 26 years of experience in roadway drainage design, stormwater management, floodplain studies, and river mechanic studies with use of the VDOT drainage manual and preferred design software. His experience includes I-64 HOV Widening in Chesapeake/Virginia Beach, the Oak Grove Connector and projects on Church Street, Waterside Drive, Hampton Boulevard, and Kempsville Road in Southside Hampton Roads. Currently, Don worked on the Southgate Drive and U.S. Route 1 design-build projects with Laura Mehiel to provide similar services to VDOT.


 **Brian Bernstein, AICP – Environmental Permitting:** Brian Bernstein (AMT) will report to the DM and will provide wetland and stream delineation, protected species investigations, and coordination of cultural resources. Brian has 27 years of specialized experience with transportation and infrastructure projects in the Mid-Atlantic Region. He routinely provides coordination and permitting services through various state, federal, and local agencies for NEPA compliance on federally funding projects including VDOT, DEQ, DCR, USACE, and numerous other agencies. He has served as the natural environmental deputy on MDOT's InterCounty Connector Design-Build and MTA's I-95 Section 100 project involving 14 bridges.


 **Keith Sinclair, P.E. – Utility Design:** Keith Sinclair (AMT) will report to the DM and provide utility coordination and design services. With over 40 years of consulting engineering experience in Virginia, Keith is highly knowledgeable regarding identification of potential utility conflicts, coordination with utilities providers and impacted parties, and design of relocations or new utilities. He recently served as the lead utility coordination manager for the FHWA/VDOT Route 1 Design-Build project at Ft. Belvoir, which impacted numerous wet and dry utilities and involved regular utility task force meetings as well as careful construction phasing.

 **Peng "Paul" Zhang, P.E. – Geotechnical:** Paul Zhang (DMY) will report to the DM and will provide

subsurface soils investigation and analysis for the design of pavement within the project limits. He brings over 17 years of experience in geotechnical engineering, construction materials testing and inspection, and construction management. Paul has extensive experience in the public sector, especially in transportation, and has successfully completed numerous projects for VDOT, Virginia municipal clients, and has worked with AMT multiple times previously. Previously, he provided geotechnical investigations, testing and design for the Prince William Parkway Design-Build project and extensive work on the 23-mile extension of the Dulles Metrorail Corridor.


 **Christopher Menge – Noise Analysis:** Reporting to the DM, Christopher Menge (HMMH) will be responsible for acoustical design of noise barrier walls and other noise tasks. For over 40 years, Christopher has focused on highway noise assessment and control. He has managed noise assessments for environmental documents requiring state-specific impact analyses and preliminary noise abatement design. He has directed acoustical design and community relations portions for several detailed noise barrier design studies. Working with different departments of transportation (DOT), Christopher has experience on all aspects of noise barrier implementation including noise reduction, final barrier placement, barrier materials, installation requirements, costs, aesthetics, community presentations, and other surveys.


 **Jason Mroz – Design-Build Coordinator:** Jason Mroz (Flatiron) will provide a direct channel of communication and a vital coordination role between construction and design disciplines throughout the Project. He will be involved during the procurement phase and continue until final design is completed. Meeting with the DM, on a weekly basis at a minimum, Jason will review status of design, interface segments, and coordination elements; provide constructability input; and resolve any outstanding matters. With over 14 years of experience, Jason has acted as project manager and assistant manager for projects in Virginia and throughout the Mid-Atlantic Region including the I-395 Seminary Road HOV Ramp and I-95 Richmond Bridges.


 **Fred Wagner, P.E. – Design QA/QC Manager:** Reporting to the DM, Fred Wagner (AMT) will verify checks and reviews made prior to submissions. This includes review comment checking, contract conformance reviews, interdisciplinary reviews, and constructability reviews. Fred will arrange design QC procedures per the QC Plan. With over 34 years of transportation design experience, Fred is experienced with design and traffic engineering elements along with thorough understanding of VDOT's design manuals, IIMs, design standards, and criteria. He has worked on innovative interchange projects that include continuous flow, divergent diamonds, and round-a-bout projects in Virginia and Maryland. Acting

as designer and QA/QC manager, Fred has worked on the design-build Route 1 project at Ft. Belvoir, the Route 460/Southgate project, and the 460 P3 from Richmond to Norfolk.

Ross Szlasa – Construction QC Manager: Ross Szlasa (Flatiron) will report directly to the CM and will be on-site full-time for the duration of construction. He will be responsible for managing the QC process, inspection, and testing which includes all preparatory meetings, construction QC activities, ensure the materials used and work performed meet contract requirements along with approved construction plans and specifications. Ross will maintain all project material logs and as-builts in accordance with requirements of the QC plan. For the past nine years, Ross has acted as QC manager for large-scale projects such as the Charlotte International Airport Elevation Roadway System in Charlotte, NC; JFK Airport Runway 4L/22R in New York, NY; and Plaza Substation and Queens Structures in Long Island, NY.

 **Tom Franzino – Incident Management Coordinator:** Reporting directly to the CM, Tom Franzino (Branch) will act as an on-call contact for VDOT for emergencies. Tom will respond to all incidents by maintaining two-way communication with VDOT and notifying appropriate parties once the incident is cleared. In collaboration with TMP developer, Alex Meitzler, necessary incident response protocols will be incorporated into the TMP and the site-specific safety plan. With over seven years of experience, Tom has performed similar duties on the Lorton Road project in Fairfax County for the last two years. Additionally, he is First Aid and CPR trained and is a member of Branch's NOVA Region Crisis Management team.

 **Matt Sellers – Utility/Right-of-Way Manager:** Reporting to the CM, Matt Sellers (Flatiron) will manage utility coordination, collaborating with utility owners, the project management team, and VDOT. He will be responsible for utility coordination with all utility owners, utility relocation design and plan preparation, interaction with VDOT and other team members for utility conflict identification and resolution, preparation of technical specifications, utility adjustment schedules, utility cost estimates, utility contract preparation and evaluation, and utility permitting. Matt has more than 10 years of experience with a number of large, high profile projects. Recently, Matt was the utility manager for a \$1B, three-segment high mast cable-stay bridge crossing the Ohio River. On that project, Matt was responsible for organizing utility coordination, relocation, and design.

 **Gina Anthony, SR/WA – Right-of-Way:** Gina Anthony (DPS) will report to the DBPM and will provide right-of-way services such as title research, appraisals, independent appraisal reviews, approved just compensation/offer, negotiations, relocation assistance,

and settlement and recordation. With 33 years of experience employed by the Maryland State Highway Administration, Gina brings extensive knowledge of the considerations, issues, policies, and procedures associated with transportation improvement projects. She has been active in the International Right of Way Association since 1984, holding positions on Chapter and International levels. Since joining Diversified last year, Gina has handled the right-of-way management for VDOT's Military Highway project and will remain focused on VDOT work.

John Siddall – Stakeholder Coordination and Public Outreach: John Siddall (Siddall) will report to the DBPM and will manage public and community relations, collaborating with VDOT. John will be responsible for identifying stakeholders, engaging the public and maintaining clear, two-way communications between the contractor, VDOT, local stakeholders, and the public. He will lead the public relations strategy, messaging, public outreach, and creative development of project communications materials and education programs. John has more than 40 years of experience in all areas of public affairs, community outreach, marketing, advertising, and strategic public communications. He has extensive relevant experience including a messaging campaign for VDOT's I-95 Bridge Restorations (11 bridges over a seven-mile stretch in Richmond) and a surveying and public notification campaign for VDOT's Springfield Interchange project.

3.3.2 Organizational Chart

Flatiron | Branch has established an organizational chart, on the following page, that demonstrates our reporting and functional structure of our Key Personnel and Value-Added team members. Functional relationships are indicated by the solid black lines identifying the reporting relationships of our team members in managing, designing, and constructing the Project. They illustrate reporting lines from the DBPM to the design and construction teams. Dashed orange lines represent primary coordination activities and obligations to the Owner and/or Executive Sponsors. Additionally, the organizational chart identifies the construction QC function as clearly separate from the QA team, with the dashed line indicating the QA and QC will interface regularly although their functions are independent. Additional ways in which the team will coordinate include:

- Task Force Meetings to provide a forum for construction personnel and project stakeholders to participate in design development.
- A clear process (VDOT and stakeholders) to provide over-the-shoulder reviews of plans and submittals to maintain the schedule, especially for TMP and bridge plans.
- A definitive plan that denotes the roles and responsibilities of all parties, including VDOT and

the project team, as well as interface point for the contractor.

- Morning huddles with crews to set safety and production goals for the day.
- Weekly or bi-weekly progress meetings with VDOT to discuss submittals, progress payments, etc.

PARTNERING

The I-95 Rappahannock Project will require extensive coordination and integration to execute a successful project. Flatiron | Branch will work cooperatively with VDOT, stakeholders, subcontractors, and consultants. Our team believes that the success of a project comes with effective partnership among all stakeholders. We have developed a partnering process that has proven successful, as evidenced by 45 Partnering Awards won over the past decade. We believe the foundation for continued, long-term partnering success throughout the Project is built on the following principles:

- **Open and Honest Communication:** Peer-to-peer, face-to-face communication most effectively resolves many issues that come up on a project, while written communication is used to maintain a record of decision.
- **Expedient Issue Resolution:** Our issue resolution policy is simple: all issues should be immediately identified and resolved quickly at the lowest practical level. This same process is used for both contractor and subcontractor issues, with subcontractor personnel attending the appropriate level meetings.

With this in mind, Flatiron | Branch's partnering program seeks to avoid conflicts and mitigate issues before they arise. In addition, it strives to build a culture of teamwork and cooperation, with the core value being the safe and successful completion of the Project. Partnering also ensures that, if the lines of communication deteriorate for any reason, we can work to rebuild trust and relationships among team members.

Our team recognizes the importance of constructive dialogue and collaborative efforts among members of a project team. We have a philosophy of and reputation for working collaboratively with our infrastructure owners to accomplish their project goals. We will establish a structure focused on timely resolution united with risk assessment and mitigation approaches.

THIRD PARTY STAKEHOLDERS: VDOT Transportation Operations Center; GWRC; FAMPO; County of Stafford; Stafford County Sheriff’s Office; Stafford County Fire & Rescue; City of Fredericksburg; Fredericksburg Police Department; Fredericksburg Fire Department; Virginia State Police; Mary Washington Hospital; University of Mary Washington; I-95 Travellers; Local Businesses, Spotsylvania Towne Centre, Central Park; Local Residents/HOA; Rappahannock River Users; County of Spotsylvania; Spotsylvania County Sheriff’s Office; Spotsylvania County Fire, Rescue & Emergency Mgmt; FHWA; Fredericksburg Regional Alliance; Virginia Railway Express; 95 Express Lanes, LLC

UTILITY STAKEHOLDERS: Dominion VA Power; Summit IG; Comcast; Verizon; Columbia Gas; City of Fredericksburg; Stafford County



+ PUBLIC RELATIONS
John Siddall (Siddall)

DESIGN-BUILD PROJECT MANAGEMENT
DESIGN-BUILD PROJECT MANAGER
Adam Mathews (Flatiron)
RESPONSIBLE CHARGE ENGINEER
Harold Dyson, P.E. (AMT)

EXECUTIVE COMMITTEE
Ted Kirk (Flatiron)
Patrick Bartorillo (Branch)
Michael Wiercinski, P.E. (AMT)

+ SAFETY MANAGER
Ollie Taylor (Flatiron)

QUALITY ASSURANCE
Quality Assurance Manager:
Michael Saunders, PE, CCM, DBIA (NXL)
Lead QA Bridge Inspector
Lead QA Roadway Inspector
QA Testing:
Schnabel

DESIGN MANAGEMENT

Design Manager:
Laura Mehiel, P.E. (AMT)

+ Lead Roadway Engineer:
Jeff McKay, P.E. (AMT)

Lead Structural Engineer:
Ronald Briggs, P.E. (STV)

Traffic Engineer:
Charles O’Connell, P.E. (AMT)

+ Lead Traffic Engineer:
Alex Meitzler, P.E., PTOE (AMT)

+ H&HA/ Scour/ Stormwater Management:
Don Rissmeyer, P.E., CFM (AMT)

Erosion & Sediment Control:
Stephen Stewart, P.E., CFM (AMT)

ITS & Lighting:
Jyothi Paladugu, P.E., PTOE (SWA)

+ Environmental Permitting:
Brian Bernstein, AICP (AMT)

Surveying:
John Claytor, LS (AMT)

+ Utility Design:
Keith Sinclair, P.E. (AMT)

+ Geotechnical:
Peng “Paul” Zhang, P.E. (DMY)

Subsurface Locating:
Art Worthman (AMT)

+ Noise Analysis:
Christopher Menge (HMMH)

+ DESIGN-BUILD COORDINATOR
Jason Mroz (Flatiron)

QUALITY CONTROL

+ Design QA/QC Manager:
Fred Wagner, P.E. (AMT)

+ Construction QC Manager:
Ross Szlasa (Flatiron)

QC Inspection & Testing:
(DMY)

CONSTRUCTION MANAGEMENT

Construction Manager:
Greg Suttle (Branch)

Project Engineer:
Ryan Buckley (Flatiron)

Structures Superintendent:
Jeremy Kloeker (Flatiron)

Roadway Superintendent:
Steve Morris (Branch)

+ Incident Management Coordinator:
Tom Franzino (Branch)

+ Environmental Compliance:
Gregory Reynolds (Flatiron)

+ Utility/ Right-of-Way Manager:
Matt Sellers (Flatiron)

Project Controls:
Linda Brumfield (Flatiron)

RIGHT-OF-WAY
+ Gina Anthony, SR/WA (DPS)

LEGEND

Key Personnel	Project Executives	Quality Control	STV = STV Incorporated	DPS = Diversified Property Services, Inc.
Value Added Personnel	Construction Team	Third Parties	NXL = NXL Construction Services, Inc.	SWA = Sabra, Wang, & Associates, Inc.
Direct Communication	Design Team	Flatiron = Flatiron Constructors, Inc.	DMY = DMY Engineering Consultants, Inc.	Schnabel = Schnabel Engineering, Inc.
Coordination Activities/ Obligations	Independent QA Firm	AMT = A. Morton Thomas and Associates, Inc.	Siddall = Siddall Communications, LLC	HMMH = Harris Miller Miller & Hanson, Inc.




3.4 EXPERIENCE OF OFFEROR'S TEAM




3.4 Experience of the Offeror’s Team

As illustrated in **Attachment 3.4.1(a) and 3.4.1 (b) in the Appendix**, Flatiron | Branch has the demonstrated experience and team credentials to successfully deliver the I-95 Rappahannock Project. Our team has delivered some of the most challenging roadway and bridge projects in the United States, similar in scope and size as the Project, and has a proven history of partnering with clients to provide exceptional results exceeding expectations when faced with technical, environmental, archaeological, and stakeholder challenges. As a result, we are able to deliver high quality projects safely, timely, and at a significantly lower price than our competitors. Additionally, we bring valuable lessons learned and promote collaboration to continue our success on each new project. Accomplishing this can only occur with an experienced team of technical experts who collaborate and are unified with the project owner on its goals.

Please see **Table 3.4.1 – Experience Successfully Delivering Similar Projects** for a summary of design-build and relevant projects that illustrate our background in projects of similar size and complexity. Each of these projects reflects our commitment to schedule, innovation, safety, and client partnership.

 **Flatiron Constructors, Inc.** (Flatiron) is a leading transportation, energy, and water infrastructure contractor in North America, having successfully completed 22 design-build projects with a combined valued at over \$6.5B and six more under construction worth an additional \$3.2B. Of the 28 design-build projects, 19 included major bridge structure, 10 of which were award-winning bridges over water including the U.S. 17 Washington Bypass and Cooper River Bridge. Flatiron, consistently **ranked as a Top 20 Transportation Contractor (#8), Top Highway Contractor (#5), and Top 10 Bridge Builder by Engineering-News Record (ENR)**, brings extensive experience managing traffic along active interstates, including the **award-winning \$136M I-85 NCDOT Yadkin River Bridge and \$134M Knightdale Bypass projects with designer STV Incorporated.**

 **Branch Civil, Inc.** (Branch) is a full-service heavy highway contractor with successful projects throughout the Mid-Atlantic Region. As a local contractor, Branch’s offices are located in Roanoke (headquarters), Manassas, and Virginia Beach, Virginia along with Cary, North Carolina. Branch continuously **ranks among the ENR’s Top 400 Contractors in the**

FLATIRON | BRANCH TEAM STRENGTHS



Team partners are based in VA and bring local knowledge and resources

MEET AND BEAT AGGRESSIVE MILESTONES

Yadkin River Bridge
(8 months ahead)
US 17 Washington Bypass
(7 months ahead)



TRUSTED PROVIDER

Strong relationships with local subcontractors and suppliers

READILY AVAILABLE RESOURCES AVAILABLE BY MID 2017





1500+ EMPLOYEES combined in the Mid-Atlantic Region

History of working on **complex environmental** projects




US, currently ranked No. 195 overall nationally. As one of the largest Virginia-based contractors, Branch’s experience includes managing designers, right-of-way (ROW) acquisition, utility relocation and coordination, and environmental permit acquisition and monitoring on numerous successful design-build projects. Branch is currently constructing the I-95 Express Lanes Southern Terminus Extension project located 10 miles north as well as the I-95 Safety Improvements at Route 3 project that will connect to this project.


 **A. Morton Thomas and Associates, Inc.** (AMT) is a respected provider of transportation design, construction management, and inspection services in Virginia and the Mid-Atlantic Region. **For over 60 years, AMT has delivered design services for some of Virginia’s busiest interstates and roadways** and has demonstrated success on major design-build projects involving highway widening, interchanges, bridge replacement, and rehabilitation for major state highways and local roads throughout Virginia. This includes highly visible VDOT projects such as the Woodrow Wilson Bridge; U.S. Route 1 at Fort Belvoir; U.S. 460 Connector Phase I; I-81 Resurfacing; and I-66.


 **STV Incorporated** (STV) has completed 35 design-build projects in the Mid-Atlantic and Southeast Region including the I-581/Valley View Blvd. Interchange in Virginia; I-485/I-85 Turbine Interchange in North Carolina; and Route 199/College Creek in Virginia. **For over 100 years, STV has provided a full range of transportation design**

services for major highway bridges, having designed **40 highway-waterway crossings in excess of 1,000-foot-long**. Their portfolio includes fixed and movable bridges over navigable waterways, long-span and complex structures, horizontally curved steel structures, post-tensioned structures, and structures with integral pier caps, straddle bents, and integral straddle bents. **STV has continually supported VDOT since 1985 and is ranked #13 in ENR's Top 25 in Bridges.**

Dedicated Subconsultant Partners

 **DMY Engineering Consultants, Inc. (DMY)** will provide geotechnical engineering, materials testing, and quality control services. Located in Dulles, Virginia, **DMY is a minority-owned, certified DBE with 10 professional engineers on staff along with supporting engineers, drillers, inspectors, and administrators. DMY is highly experienced with managing and delivering complex geotechnical and construction testing/inspection projects on-time and within budget.** They also have an in-house drilling division and AASHTO-certified soils and concrete laboratories. Recently, **AMT and DMY worked together** on the U.S. Route 1 at Fort Belvoir project.

 **NXL Construction Services, Inc. (NXL)** will provide the Quality Assurance Manager and associated quality assurance services. **For over nine years in Virginia, NXL has managed quality assurance on projects ranging from bridge replacements and bus rapid transit systems to extensive, multi-lane roadway widening and reconstructions. NXL has a solid, working relationship with both AMT and STV.** Over the last two years, NXL worked closely with STV to facilitate a claims analysis for CSXT and is currently working on the GRTC Bus Rapid Transit systems in Richmond, Virginia. Previously employed by VDOT, NXL's Quality Assurance Manager, Michael Saunders, has extensive knowledge of Northern Virginia and the Fredericksburg area.

 **Diversified Property Services, Inc. (DPS)** will provide ROW acquisition services. **Formed in 1988 and a certified DBE firm, DPS consists of approximately 28 professionals including ROW agents, relocation agents, technicians, appraisers, review appraisers, and project managers. DPS has been involved in ROW projects as part of a "team approach" supplying specific services and staff people to assist in overall completion of projects. Most recently, DPS worked with AMT on the U.S. Route 1 at Fort Belvoir project.**



Sabra, Wang & Associates, Inc. (SWA) will provide ITS and lighting design services. **SWA is a multi-disciplinary engineering firm with offices in Virginia, Maryland and the District of Columbia. A Virginia-certified DBE, SWA employs more than 140 people, including over 60 people in the Traffic Engineering and Transportation Planning Divisions. SWA's traffic engineering experience ranges from design of traffic control devices, signage, and pavement markings to ITS coordination and design, lighting design, signal timing evaluation and optimization, and construction inspection of traffic control devices.**



Siddall Communications, LLC (Siddall) will provide public and stakeholder outreach services. **Siddall has extensive experience directing communications for more than a dozen large transportation and infrastructure initiatives throughout Virginia** including the I-95 Bridge Rehabilitation project that received the PRSA Medallion and an AASHTO Communications Award.



Schnabel Schnabel Engineering, Inc. (Schnabel) will provide geotechnical services and is a foremost provider of geotechnical, dam, and tunnel engineering services throughout the Mid-Atlantic Region. **Over the past 10 years, Schnabel has supported numerous VDOT transportation projects such as the Fairfax County Parkway Extension to I-95; Widening of Route 1 through Fort Belvoir in Fairfax County; Route 3 Widening in Culpeper County; Staffordboro Park and Ride in Stafford County; Widening of Garrisonville Road in Stafford County; and the Route 1 Bridge Replacement over Rappahannock Creek in the City of Fredericksburg.**



Harris Miller Miller & Hanson, Inc. will provide noise analysis and is **an international leader in environmental and transportation planning including noise and vibration control.** HMMH's work in Virginia includes noise analysis/preliminary abatement design for the Tri-County Parkway Location Study in Loudoun, Fairfax, and Prince William Counties; environmental reevaluation of the Draft Environmental Impact Statement for the Bi-County Parkway Location Study Loudoun and Prince William Counties; and a noise and vibration analysis and air quality evaluation for the I-66 Corridor Tier 1 Environmental Impact Statement in Fairfax and Prince William Counties.

3.4.1 Lead Contractor Work History Forms

Please see **Attachment 3.4.1(a)** for our Team’s recent relevant roadway and bridge construction experience.

3.4.2 Lead Designer Work History

Please see **Attachment 3.4.1(b)** for our relevant roadway and bridge design experience.

TABLE 3.4.1: Experience Successfully Delivering Similar Projects

	Project Name and Location	Cost	Delivery Method	Roadway Const./ Widening	Bridge Structures	Environmentally Sensitive Areas	Utility Coord./ Relocation	Permitting	Complex MOT	Drainage/ Stormwater	Stakeholder Relations
FLATIRON	Washington Bypass, Washington, NC	\$199M	DB	■	■	■	■	■	■		■
	Cooper River Bridge, Charleston, SC	\$541M	DB	■	■	■	■	■	■	■	■
	Harbor Bridge Replacement, Corpus Christi, TX	\$898M	DBOM		■	■	■	■			■
	John J. Audubon Bridge, New Roads, LA	\$409M	DB		■	■				■	■
	Knightdale Bypass, Raleigh, NC	\$134M	DB	■	■	■	■	■			■
	I-85/ I-385 Interchange, Greenville, SC	\$230M	DB	■	■	■	■	■	■		■
BRANCH	I-95 Express Lanes Southern Terminus Extension, Stafford, VA	\$31M	DB	■	■		■	■	■		■
	Route 3 Widening Improvements, Culpeper, VA	\$24M	DB	■	■		■	■	■		■
	I-95 Express Lanes, Stafford, VA	\$922M	DB	■	■	■	■	■	■	■	■
	Military Highway CFI, Norfolk, VA	\$59M	DB	■	■	■	■	■	■	■	■
AMT	US 460 Connector Phase I, Breaks, VA	\$113M	DB	■	■	■	■	■	■	■	■
	US Route 1 at Fort Belvoir, Fairfax County, VA	\$76M	DB	■	■	■	■	■	■	■	■
	Southgate Drive / US 460 Interchange, Blacksburg, VA	\$47M	DBB	■	■	■	■	■	■	■	■
	InterCounty Connector, Montgomery/Prince George’s County, MD	\$1.04B	DB	■	■	■	■	■	■	■	■
STV	I-581 at Valley View Boulevard Interchange, Roanoke, VA	\$43M	DB	■	■	■	■	■	■	■	■
	I-95 Bridge Replacement over Meherrin River, Emporia, VA	\$22M	DBB	■	■	■	■	■	■	■	■
	Capitol Crossing Final Design, Washington, DC	\$1.3B	DB	■	■	■	■	■	■	■	■
	Fantasy Harbour Bridge, Myrtle Beach, SC	\$46M	DBB	■	■	■	■	■	■	■	■



3.5 PROJECT RISKS



3.5 Project Risks

Flatiron | Branch is prepared to address project risks by using a formal risk management approach endorsed by the Construction Management Association of America. Through this process, the team will identify risks, potential project impacts, and mitigation strategies for each issue. This “risk register” is comprised of the following five steps:

1. **Identify Risks:** Establish risks; cause and effect; and potential consequences and responses.
2. **Qualitative Risk Analysis:** Assign probability of occurrence; rank priority and severity; and categorize.
3. **Quantitative Risk Analysis:** Quantify risk severity; determine risk exposure; establish tolerance; and probability of achieve time and cost objectives.
4. **Plan Risk Responses:** Define response plans and actions; establish risk ownership; and manage response.
5. **Monitor/Control Risks:** Monitor and update; assess outcomes and trends; and close risks no longer applicable.

After review of available I-95 Rappahannock Project information and the project site, Flatiron | Branch design and construction team members have identified the following project risks and mitigation strategies.

Risk 1 – Environmental Compliance

RISK IDENTIFICATION: Many natural and cultural resources that require environmental compliance must be addressed throughout the project site yet also provide opportunities to reduce impacts during construction. Focal points of Flatiron | Branch’s Environmental Compliance Plan (ECP) include:

- Work adjacent to and over the Rappahannock River, Hazel Run, Falls Run, and Fall Quarry Run.
- Overall project-wide impacts associated with water quality; wetlands and floodplains; threatened and endangered species; anadromous fish; Section 4(f); and cultural resources.

Strategic environmental compliance is a critical risk since, if not mitigated appropriately, it could adversely affect success of the Project.

RISK IMPACT: A well developed ECP and its implementation help mitigate unforeseen or unanticipated environmental concerns and can lead to significant problems such as project schedule delays; increasing environmental compliance requirements and studies; and poor agency or public perception during construction. Any

design changes modifying project area as evaluated in the Environmental Assessment could add months to the project schedule. New areas of impact may require additional natural and cultural resource studies including Wetland and Waters of the United States (WOUS) delineations; cultural resources investigations; Section 4(f) (Parkland and Section 106 Resources) evaluations; and threatened and endangered species habitat surveys.

Detailed impact analysis for environmental compliance risks include:

- **Potential Impacts to Schedule:** During pre-construction, several specific permits (i.e. Wetland Joint Permit Application, VSMP General Discharges of Stormwater, Others) must be identified and secured. All required environmental permits must be obtained prior to construction or schedule delays may occur.
- **Time of Year Restrictions (TOYR):** Construction activities must be scheduled in conjunction with several TOYR applying to the project area, largely associated with the Rappahannock River. Considered anadromous fish water, work within the Rappahannock River is restricted from February 15th to June 30th. Additional TOYR may include:
 - Sturgeon (must be coordinated with NOAA)
 - Bridal Shiner from May 15th to July 30th
 - Dwarf Wedgemussel from March 15th to May 31st and August 15th to October 15th
 - Green Floater (long-term brooder) from April 15th to June 15th and August 15th to September 30th
 - Bald Eagle Nest from December 15th to July 15th
- **Environmental Impacts and Permits** – An ECP will help maintain and possibly minimize environmental impacts from prior review and appropriation of locations and method before construction. Additional impacts, besides those outlined in the Environmental Assessment, could cause additional studies by regulatory agencies or increase resource permitting requirements. Additionally, since multiple permits and approvals are required for the Project, consistent agency coordination is required throughout project duration since schedules and trust of agencies could waiver causing additional impacts and potential new studies.

MITIGATION STRATEGY:

Early Focus and Preparation: For the ECP and during pre-construction, Flatiron | Branch will identify environmental critical paths and address each one. We understand that starting the process early and prioritizing

the need to meet environmental requirements is critical in meeting the project schedule.

Develop Permit/Approval Strategy: During pre-construction, our environmental team will draft an environmental compliance strategy. Based on past VDOT experience, the key to successfully meet the permit schedule is to bring agency partners in early; have both environmental and design work focus toward the same goal; and documentation and follow-up.

Coordination to Minimize Impacts: Our environmental team will collaborate with the design and construction staff to minimize impacts, when possible. The goal is to not just accept impacts described by the EA, but to also identify opportunities to reduce impacts (i.e. reduce slopes, shift alignments). This demonstrates our commitment to environmental stewardship and to our permitting agency partners. Additionally, we will determine a construction methodology to reduce impacts to surrounding areas while maintaining an aggressive schedule. Risks from design changes will be reduced through rigorous internal communication between design and environmental staff as plans are developed and changes proposed.

Agency and Stakeholder Collaboration: Ongoing agency and stakeholder coordination and input is critical to successfully develop an ECP. Meetings allow each agency and stakeholder to identify their needs so that they are addressed during ECP development. Key stakeholders include VDOT, environmental agencies (i.e. USEPA, USFWS, VDEQ), local agencies, and community groups.

Addressing Individual Environmental Concerns: Several environmentally sensitive areas, including federally regulated resources, will be addressed within our ECP such as:

- **Rappahannock River Water Quality:** Since water quality is already identified as “impaired”, our ECP must minimize the impact area to the river crossing. Strict sediment and erosion control measures will need to be maintained (i.e. Virginia DEQ Permit, VDOT/DEQ Approval of SWPPP Addressing E&S Control). A Construction General Permit will be obtained since the Project will result in land disturbance greater than one acre. Close coordination will occur for compliance with the Stormwater Pollution Prevention Plan and while minimizing impacts to existing resources. All field staff will obtain the required VDOT Erosion & Sediment Control Contractor Certification training. Potential effects to anadromous fish will be minimized by following strict sedimentation and water quality



Flatiron and STV collaborated on this innovative work trestle configuration to minimize environmental impacts and accelerate construction. The \$140M project won a DBIA National Award in 2014 for design-build excellence.

measures with periodic sensitivity during the spawning season. Other river impacts, discussed below, could be associated with dwarf wedgemussels, and wetland and stream impacts.

- **TOYR:** Covering a significant portion of the calendar year, Flatiron | Branch may require a waiver or exception for some in-river work or the project will be severely restricted to working in the river. As part of construction sequencing, these efforts will be closely coordinated with regulatory agencies to present viable rationales for any waivers.
- **Reducing Temporary Impacts to Wetlands/Floodplains:** Wetlands adjacent to the Project will be avoided as much as possible. Both USACE and VDEQ are responsible for regulation of jurisdictional wetlands and WOUS through Section 404 and 401 of the Clean Water Act. State law requires a Virginia Water Protection Permit to be obtained before any disturbance. However, this Project could be permitted under a nationwide permit (possibly an Individual Permit (IP)) based on expected disturbance to jurisdictional wetlands and WOUS. Issued by the USACE Norfolk District, an IP requires public notification and a meeting held to inform the public that impacts to wetlands are expected due to construction activity. Subsequently, Flatiron | Branch will identify minimization opportunities to reduce the level of required permitting. Additionally, we will closely work with USACE, VDEQ, and VMRC during permitting efforts. Our designers will attend permit meetings to allow agency collaboration of various design impact reductions – this increases agency trust and the approval process.
- **Awareness of Endangered/Threatened Species:** The ECP will be prepared using known habitat locations of endangered or threatened species, specifically

habitats for dwarf wedgemussels, small whorled pogonia, and northern long-eared bats. Appropriate and recommended distances from any land-based habitats will be maintained with no additional impacts beyond those initially determined. This is key for two reasons:

1. A number of federal and state agencies may need to be coordinated with (i.e. USFWS, NMFS, VDGIF, VDCR, VDACS). New impact areas can take time to research and document for agency review.
 2. There may be TOYR on some activities. Schedule limitations will be addressed so that specific construction activities are not performed during critical spawning/mating, nesting, or migration periods. Neither ADEQ or USACE can approve a permit without a determination of “no adverse effect” on species listed as threatened or endangered under the Endangered Species Act. All threatened and endangered species coordination must be no older than six months at time of notice to proceed. Coordination will be managed accordingly so that project schedule is not compromised.
- **Section 4(f) Impacts:** Flatiron | Branch will coordinate with VDOT to ensure FHWA has concurred Final Section 4(f) Evaluation. We understand the importance of not creating impacts to parkland and Section 106 resources and will explain the challenges of altering an existing approved Section 4(f) evaluation (requires an extended schedule) to the design team. Ideally, this avoids any additional Section 4(f) impacts from occurring during the design phase.
 - **Minimize Impacts to Forested Lands:** Since the surrounding project area is considered forested land, impacts to the established forest will be minimized. Forest clearing could affect habitat for sensitive species including a portion of the 21 Species of Conservation Concern identified within a two-mile radius of the project area.
 - **Cultural Resources:** Coordination with the Virginia Department of Historic Resources (VDHR) to execute numerous tasks defined in the scope of work regarding historic properties will be required. Review and approval by VDHR is a prerequisite to acceptance of plans and reports generated to fulfill stipulations of the 2012 Programmatic Agreement.

ROLE OF VDOT AND OTHER AGENCIES:

We anticipate VDOT’s presence at meetings in which environmental requirements or NEPA commitments will be communicated.

Risk 2 – Geotechnical Engineering

RISK IDENTIFICATION: Our team has reviewed project site geological data and information with special emphasis on the geological stratum underlying the Rappahannock River at the proposed site of the southbound (SB) collector-distributor (CD) lanes bridge. Geological mapping, the Draft Geotechnical Data Report dated November 28, 2016, and existing bridge plan boring logs indicate that the location of bridge foundations are in the upper reaches of the fall line separating hard bedrock of the Piedmont physiographic province from soft sediments of the Coastal Plain physiographic province.

Removal of the Embrey Hydropower Dam located downstream of the I-95 bridges also reopened the area below the bridges to Class I and II whitewater rapids which is a recreational attraction to canoeists and kayakers. It also allows free movement of anadromous fish species to once more use the upper reaches of the Rappahannock River to spawn.

Existing bridge plans from both original and widening of the I-95 bridges illustrate water depths ranging from three to seven feet in the vicinity of the proposed substructure units. Spread footings approximately five to six feet in depth are founded on tremie seal concrete sub-footings with typical thickness of four to eight feet.

Additionally, composition and variation of the riverbed rock surface creates significant project risk to establish the type and depth of proposed footings to meet adequate bearing requirements and in selecting installation methods to reach bedrock layers. The subsurface strata are composed of varying thickness course to medium sand and gravel, interspersed with boulders, and decomposed granite overlaying a hard gray granite bedrock.

Composition and variation of soil and rock conditions occurring within the footprint of the proposed bridge crossing of the Rappahannock River is a project risk.

RISK IMPACT: Please see **Table 3.5.1 – Geological Engineering Risks** for our team’s identified risks and their impact.

MITIGATION STRATEGY:

Field Exploration and Laboratory Testing Program:

Our team understands the importance of identifying and mitigating geotechnical risk associated with variable soil and rock conditions through a well-planned geotechnical investigation and laboratory testing program. Additional sampling of subsurface soils and materials will be performed to further delineate areas of concern and to

identify adequate foundation recommendations for bridge construction. We plan to employ several approaches to execute these investigations including in-water capable equipment. This will allow our team to develop appropriate mitigation strategies for risk associated with variable rock surfaces by confirming the extent of potential impacts and selecting appropriate design options. It will also increase safety during construction while reducing cost and schedule impacts.

From our team’s past experience, risk associated with variable foundation conditions are best mitigated by selecting an experienced and local geotechnical engineering firm; executing a well-planned field exploration and laboratory testing program; and integrating our geotechnical engineer within the design team to select engineering solutions for different foundation conditions and as an integral member of the construction team.

Our bridge design team will identify the optimum span arrangement to accommodate our proposed superstructure/substructure types for the bridge over the Rappahannock River and to strategically locate substructure units to minimize impacts within the river. Span arrangement will consider optimization of pier orientation to minimize the potential for accumulation of flood debris. Locations of substructure units will be mapped and a detailed boring layout program will be developed with onsite field verification to identify access for drilling equipment. Specialized drilling equipment, such as a track-mounted marsh buggy drill rig will be used to perform the drilling in the waterway.

Material testing will include rock cores to identify rock quality (RQD) to be used during scour analysis. The median core size and top-most elevation of rock core with an RQD>50 will be recorded according to Chapter



Remediation of local soils during construction of Branch’s I-95 HOT Lanes project.

III of VDOT’s *Manual of Instructions* with the latest revisions. A thorough geotechnical exploratory program will also identify depth of bedrock elevations to provide required bearing capacities for foundation support. In addition, core samples in the vicinity of the old quarry site will be evaluated to determine if prior quarry operations, including blasting, have fractured the existing rock layers. On previous projects, our team has encountered the acid-sulfate soils that are prevalent in the area. The material testing program will include the pH and acid-based accounting testing of soils to establish effective design criteria for bridge substructure units in contact with soil to compensate for any deleterious soils that may be encountered. An increase in concrete cover for reinforcing bar or the use of epoxy coatings for piles have been utilized on past projects where acid-sulfate soils have been encountered.

Installation of Foundations: Foundation design will dictate installation procedures. Spread footing foundations have proved successful on previous bridges and are a viable option depending on the findings from the field exploration and scour analysis. However, construction of spread footings will require use of cofferdams and rock

TABLE 3.5.1 – GEOLOGICAL ENGINEERING RISKS

Risks	Impact
Subsurface Exploration Program	Due to variations in depth and quality of bedrock foundation layers, a comprehensive subsurface exploration and investigation program will need to be completed on an expedited schedule. Site constraints for river access further complicate the exploratory geotechnical program necessary to validate design assumptions. Variations from assumed foundation elevations can result in significant quantity differences which impact both project schedule and cost.
Foundation Installation	Rock foundation bedding stratum variations potentially create difficult installation methods. Challenges include varying water depths, possible periodic river flooding during construction, and excessive rock excavation due to low-quality disintegrated granite stratum.
Riverbed Variable Rock Surface	Creates risk establishing depths of proposed footings that meet adequate bearing requirements and installation methods to reach bedrock layers. The subsurface strata is comprised of varied thickness coarse to medium sand and gravel that is interspersed with boulders and decomposed granite overlaying a hard gray granite bedrock.

excavation. As an alternative, drilled shaft foundations will be considered. Using cased drilled shafts socketed into solid rock will minimize or eliminate the use of cofferdams and reduce the risk of variable rock surfaces while providing high bearing capacities.

During construction, our geotechnical engineer will be an integral member of the construction team and assist Flatiron | Branch to develop an installation plan for foundation construction. The geotechnical engineer will visit the site to review foundation operations; verify that work is consistently completed within the geotechnical recommendations; and modify recommendations, if needed, based on conditions encountered.

ROLE OF VDOT AND OTHER AGENCIES: Our team will inform and coordinate with VDOT when challenging subsurface conditions are identified during the design phase and will share our planned mitigation strategies.

Risk 3 – Corridor Access

RISK IDENTIFICATION: Corridor access is a critical risk since maintaining mobility throughout the I-95 corridor is unique due to a variety of populations and services (i.e. public safety, roadway freight, national defense, local tourism economy, residents) within the Fredericksburg Area Metropolitan Planning Organization (FAMPO), and the George Washington Region. Corridor capacity, for local services and construction access, will need to be preserved. A strategic access plan throughout the I-95 corridor is extremely important with focal points that include addressing work adjacent to and over the Rappahannock River, minimizing impacts to local residents and businesses, identify access routes with the least amount of environmental impacts, and minimizing right-of-way (ROW) impacts.

Corridor Access is a critical risk and must be maintained at all times otherwise it could impact the success of the Project.

RISK IMPACT: Corridor access, if not reviewed early, can lead to significant problems such as schedule delays, increasing environmental impacts, or creating poor public perception during construction. Due to the high visibility and importance of this Project, all construction must be performed efficiently and expeditiously. The following are potential impacts to the project that could be realized if our access plans fail to address the following or have the needed collaboration:

- **Potential Impacts to Schedule:** If not addressed during pre-construction, corridor access could significantly

I-95 Corridor Significance: Daily and Future Volumes



ANNUAL AVERAGE DAILY TRAFFIC VOLUME OF 75,000+ VEHICLES PER DAY SOUTHBOUND



CURRENT I-95 PM PEAK HOUR TRAFFIC LOS RANKING, INCLUDING EXIT 130 & 133 RAMPS



PROJECTED ANNUAL DAILY VOLUMES OF 190,800 IN 2040 FOR SOUTHBOUND DIRECTION



CURRENT CRASH RATES EXCEED REGIONAL AVERAGES

impact project schedule. In particular, the site includes wetlands, proximity to archaeological sites, endangered/threatened species habitats, and crosses the Rappahannock River. Specific access related permits will be obtained prior to construction or it will delay critical construction activities. Delays to the schedule increase the project’s exposure (and the travelling public and all stakeholders) which is not acceptable to our team.

- **Environmental / ROW Impacts:** Access may be required in environmentally sensitive areas and areas requiring additional ROW acquisition. Both elements are typically problematic during the construction phase. We must identify and mitigate impacts by reviewing access locations and construction methods during the pre-construction phase to allow us to develop design plans that do not arbitrarily add impacts. For example and as part of the access plan, detailed means and methods will be determined to allow construction over the river while limiting our permanent and temporary impacts. This will be the key focus of our plan, since the river is the most challenging access point of the Project.
- **Impacts to the Public:** Corridor access impacts the public both physically and economically. If an access plan is not properly prepared, it could unnecessarily impact local businesses and residents. The access plan must be prepared early, shared with stakeholders, and executed properly to help eliminate public criticism of this highly visible Project.

MITIGATION STRATEGY:

Early Focus and Preparation: During pre-construction, in our site access plan, it is important to focus on site access so it does not impact project schedule. By developing the site access early and in collaboration with the designer, the project schedule will not be impacted. Additionally, access



To ensure minimal disturbance to the surrounding environment, Flatiron developed a variation of a top-down construction technique for the U.S. 17 Washington Bypass project. In 2009, it won an Environmental Excellence Award from the Federal Highway Administration.

related needs can be incorporated during development of construction plans which is exceedingly important for the structure design over the river. It will also mitigate late design changes.

Construction Means and Methods that Minimize Impacts: Flatiron | Branch has extensive experience with difficult and unique bridge construction projects including those constructed over water using innovative techniques such as a temporary access trestle, overhead gantry, “top-down”, and barge construction. For example, on the U.S. 17 Washington Bypass, this innovation significantly minimized wetland/river impacts and allowed early completion ahead of an aggressively established schedule. Temporary access plans across the river will be developed in a collaborative effort throughout pre-construction for the most efficient and least-impactful design. Our design team has significant experience working with third party stakeholders in the FAMPO and George Washington Region to avoid unplanned critical impacts to corridor mobility. We understand the challenges of working in the river next to a highly congested interstate highway and our focus will remain on developing access plans that avoid impacts to environmentally sensitive areas, historic areas, ROW, and other key elements identified through key stakeholder communication.

Although the main focal point of access is Rappahannock River, there are several other critical access points. Temporary access roads will be developed, connecting the I-95/US17 interchange and I-95/VA 3 interchange to optimize construction operations and minimize impacts to the I-95 corridor. Branch has received the intent to award for the Route 3 Safety Improvements at I-95 which will

begin in the Spring of 2017. Coordination efforts between these projects will be easier since Branch is a team member. We will coordinate temporary access needs with stakeholders and adjacent projects to ensure key areas are not impacted.

Collaboration with Stakeholders: Open communication will alleviate public and stakeholder concerns while promoting safety and awareness. An effective public communications plan and strong public outreach effort led by Siddall Communications (Siddall) will help keep motorists and other stakeholders informed of construction progress, as well as upcoming traffic pattern changes. Maintaining open lines of communication throughout construction will be beneficial and minimize public frustration. Safe and efficient access to the work zone will also be critical to keep construction activities on schedule while not further impacting the travelling public. Within the I-95 corridor, two interchanges (I-95/VA 3 and I-95/US 17) will provide our team access to additional roadways. Impacts will occur at project tie-in points. We will thoroughly plan work zones and monitor these location during construction to maintain team and public safety at all times.

Development and implementation of a detailed Transportation Management Plan (TMP) will be key to the success of the project. AMT’s Lead Traffic Engineer, Alex Meitzler, PE, PTOE, will work closely with Branch’s Incident Management Coordinator, Tom Franzino, to ensure that the safety of both the travelling public and construction personnel is the main focus of the TMP. Tom will coordinate regularly with the Northern Virginia Traffic Operations Center, Fredericksburg District, VDOT Public Affairs, and Virginia State Police. He will have authority to make changes to the TMP during construction operations as required by traffic conditions or incidents.

All communication techniques will be coordinated with VDOT Public Affairs to provide a comprehensive approach. Additionally, Flatiron | Branch will coordinate with future plans for “Celebrate Virginia” and “Central Park” sites, as needed.

ROLE OF VDOT AND OTHER AGENCIES: We will coordinate communication efforts through VDOT and anticipate typical involvement for communication of lane closures and project updates. For meetings that address key interests and access requirements by the design-build team, we will request that VDOT and identified stakeholders/agencies attend.



APPENDICES





3.1.2 SOQ CHECKLIST



ATTACHMENT 3.1.2

Project: 0095-111-259

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

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

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Statement of Qualifications Checklist and Contents	Attachment 3.1.2	Section 3.1.2	no	A-1
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	A-4
Letter of Submittal (on Offeror's letterhead)				1
Authorized Representative's signature	NA	Section 3.2.1	yes	1
Offeror's point of contact information	NA	Section 3.2.2	yes	1
Principal officer information	NA	Section 3.2.3	yes	1
Offeror's Corporate Structure	NA	Section 3.2.4	yes	1
Identity of Lead Contractor and Lead Designer	NA	Section 3.2.5	yes	1
Affiliated/subsidiary companies	Attachment 3.2.6	Section 3.2.6	no	A-5
Debarment forms	Attachment 3.2.7(a) Attachment 3.2.7(b)	Section 3.2.7	no	A-6 to A-16
Offeror's VDOT prequalification evidence	NA	Section 3.2.8	no	A-17 to A-20
Evidence of obtaining bonding	NA	Section 3.2.9	no	A-21 to A-46

ATTACHMENT 3.1.2

Project: 0095-111-259

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15- page limit?	SOQ Page Reference
SCC and DPOR registration documentation (Appendix)	Attachment 3.2.10	Section 3.2.10	no	A-47 to A-51
Full size copies of SCC Registration	NA	Section 3.2.10.1	no	A-52 to A-74
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	no	A-75 to A-82
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	no	A-82 to A-84
Full size copies of DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.10.4	no	A-84 to A-90
DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	1
Offeror's Team Structure				
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	2 to 6
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	A-91 to A-92
Key Personnel Resume – Responsible Charge Engineer	Attachment 3.3.1	Section 3.3.1.1	no	A-93 to A-94
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	A-95 to A-96
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	A-97 to A-98
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	A-99 to A-100
Key Personnel Resume – Lead Structural Engineer	Attachment 3.3.1	Section 3.3.1.7	no	A-101 to A-102

ATTACHMENT 3.1.2

Project: 0095-111-259

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Organizational chart	NA	Section 3.3.2	yes	6
Organizational chart narrative	NA	Section 3.3.2	yes	5
Experience of Offeror's Team				
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	A-103 to A-105
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	A-106 to A-108
Project Risk				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	10 to 15



2.10 FORM C-78-RFQ



ATTACHMENT 2.10

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

RFQ NO. C00101595DB94
PROJECT NO.: 0095-111-259

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 – November 1, 2016
(Date)
- 2. Cover letter of RFQ Addendum No.1 – December 19, 2016
(Date)
- 3. Cover letter of RFQ Addendum No.2 – January 23, 2017
(Date)

Ted Kirk February 7, 2017
SIGNATURE DATE

Ted Kirk Vice President
PRINTED NAME TITLE



3.2.6 LIST OF AFFILIATED AND SUBSIDIARY COMPANIES



ATTACHMENT 3.2.6

State Project No. 0095-111-259

Affiliated and Subsidiary Companies of the Offeror

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

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

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
Affiliate	Flatiron Corp.	385 Interlocken Crescent, Suite 900 Broomfield, CO 80021
Subsidiary	Flatiron West, Inc.	385 Interlocken Crescent, Suite 900 Broomfield, CO 80021
Subsidiary	FECO Equipment LLC	385 Interlocken Crescent, Suite 900 Broomfield, CO 80021
Subsidiary	Flatiron Constructors Canada Limited	385 Interlocken Crescent, Suite 900 Broomfield, CO 80021
Subsidiary	Flatiron Equipment Company Canada Limited	385 Interlocken Crescent, Suite 900 Broomfield, CO 80021
Affiliate	Flatiron/Dragados LLC	385 Interlocken Crescent, Suite 900 Broomfield, CO 80021
Affiliate (Parent Company to Branch)	The Branch Group, Inc.	P.O. Box 40004, Roanoke, Virginia 24022
Affiliate	Branch and Associates, Inc.	P.O. Box 40051, Roanoke, Virginia 24022
Affiliate	G.J. Hopkins, Inc.	P.O. Box 12467, Roanoke, Virginia 24025



3.2.7 DEPARTMENT FORMS



ATTACHMENT NO. 3.2.7(a)

**CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS**

Project No.: 0095-111-259

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

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

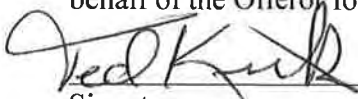
b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under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

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

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

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

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


Signature

2/7/17
Date

Vice President, Southeast Division
Title

Flatiron Constructors, Inc.
Name of Firm

ATTACHMENT NO. 3.2.7(a)

**CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS**

Project No.: 0095-111-259

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

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

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

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

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

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

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

Scott K. Bontaglio 1-26-17 President
Signature Date Title

Branch Civil, Inc.
Name of Firm

ATTACHMENT NO. 3.2.7(b)

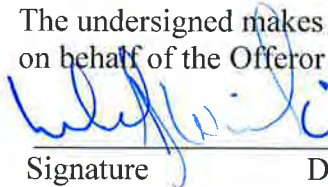
**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0095-111-259

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

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

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

	February 3, 2017	Principal
Signature	Date	Title

A. Morton Thomas and Associates, Inc.

Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0095-111-259

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

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

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

	January 30, 2017	Senior Vice President
Signature	Date	Title
E. Richard Capps Jr., P.E.		
STV Incorporated dba STV Group Incorporated		
Name of Firm		

ATTACHMENT NO. 3.2.7(b)

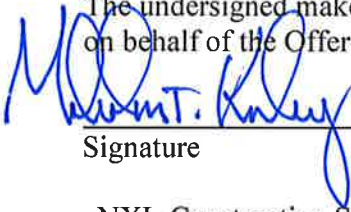
**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0095-111-259

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

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



Malcolm T. Kerley January 25, 2017
Signature Date

Malcolm T. Kerley, PE, President
Title

NXL Construction Services, Inc
Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0095-111-259

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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.



1/25/2017

Vice President

Signature

Date

Title

DMY Engineering Consultants Inc.

Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0095-111-259

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

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

Patricia E. Pablock 1/25/2017 President
Signature Date Title

Diversified Property Services, Inc.

Name of Firm

ATTACHMENT NO. 3.2.7(b)

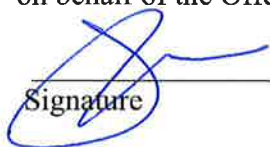
**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0095-111-259

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

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

	January 30, 2017	Principal-In-Charge
Signature	Date	Title
Sabra, Wang & Associates, Inc.		
Name of Firm		

ATTACHMENT NO. 3.2.7(b)

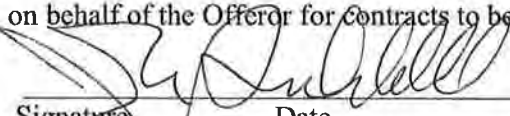
**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0095-111-259

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

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


Signature _____ Date 1/25/17 Title CEO
Siddall Communications, LLC
Name of Firm _____

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0095-111-259

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

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

Edward G. Drakos

01/30/2017

Senior Vice President

Signature

Date

Title

Schnabel Engineering, LLC

Name of Firm

ATTACHMENT NO. 3.2.7(b)


**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0095-111-259

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

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

 _____
Signature Date 01/30/17 President & CEO
Title

Harris Miller Miller & Hanson Inc.
Name of Firm



OFFEROR'S VDOT PREQUALIFICATION CERTIFICATE



From: "Prequalification (VDOT)" <Prequalification@VDOT.Virginia.gov>
Date: February 2, 2017 at 9:19:25 AM EST
To: "'tkirk@flatironcorp.com'" <tkirk@flatironcorp.com>
Subject: Flatiron | Branch Civil, A Joint Venture -Your assigned Joint Venture # is JV082

Dear Flatiron Constructors, Inc.
Branch Civil, Inc.,

Thank you for submitting the Joint Venture agreement to the Prequalification Office.
We have processed the paperwork and the Joint Venture, Flatiron | Branch Civil, A Joint Venture is assigned the JV# **JV082**.

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

Thank-you

Suzanne Lucas,CAPM

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

Email: Prequalification@VDOT.Virginia.gov

From: DePorter, Katie
Sent: Wednesday, November 30, 2016 3:48 PM
To: Walker, Jodi
Subject: FW: I-95 Rappahannock River Bridge Waiver Request
Attachments: 05 06 2010 1037 Washington Bypass Testimonial.pdf; 06 20 2006 1018 Cooper River BridgeTestimonial.pdf; 1018-CooperRiverBridge.pdf; 1037-WashingtonBypass.pdf; 1052-Yadkin River Bridge.pdf; 2013 NCDOT Letter for Yadkin River.pdf; Waiver Request Letter.pdf

From: Silies, Don E. (VDOT) [<mailto:Don.Silies@VDOT.Virginia.gov>]
Sent: Wednesday, November 30, 2016 2:07 PM
To: DePorter, Katie <KDeporter@flatironcorp.com>
Cc: Roland, Molly (VDOT) <Molly.Roland@VDOT.Virginia.gov>; Lucas, Suzanne F., CAPM (VDOT) <SFR.Lucas@VDOT.Virginia.gov>; Patel, Shailendra G., P.E. (VDOT) <Shailendra.Patel@VDOT.Virginia.gov>
Subject: FW: I-95 Rappahannock River Bridge Waiver Request

I have reviewed the qualifications of Flatiron Constructors, Inc. and I find them acceptable for the purpose of submitting a proposal on the captioned project. Therefore, I hereby waive the contract dollar value limit imposed by your Probationary Prequalification status for this project. VDOT is looking forward to Flatiron's submittal on this project.

Don E. Silies

Director of Contracts

(804) 786-1630



From: DePorter, Katie [<mailto:KDeporter@flatironcorp.com>]
Sent: Tuesday, November 29, 2016 12:32 PM
To: Silies, Don E. (VDOT)
Subject: I-95 Rappahannock River Bridge Waiver Request

Good Morning Don,

Attached please find the formal letter from Flatiron requesting the letter of waiver for I-95 Rappahannock River Bridge, along with 3 projects sheets and owner testimonials. We have additional projects we are happy to submit if you feel there is a need. Please feel free to contact me direct with any questions, concerns or additional information needed.

We look forward to hearing from you

Have a Great Day!

Katie DePorter
Flatiron Small and Disadvantage Business Manager/



COMMONWEALTH OF VIRGINIA



CERTIFICATE OF QUALIFICATION

FLATIRON CONSTRUCTORS, INC.

Vendor Number: F319

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 (CURRENTLY INACTIVE)

Your firm specializes in the noted Classification(s):

MAJOR STRUCTURES; MARINE CONSTRUCTION; BRIDGE REPAIRS; EXCAVATING

Issue Date: August 18, 2016

Suzanne FR Lucas, State Prequalification Officer

This Rating and Classification will Expire: May 31, 2017

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.



COMMONWEALTH OF VIRGINIA



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: January 01, 2017

This Rating and Classification will Expire: February 28, 2017

Suzanne FR Lucas, State Prequalification Officer

Don E. Silies, Director of Contracts

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



SURETY LETTER



February 1, 2017

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

Re: Flatiron/Branch Civil, a Joint Venture
Request For Qualifications
I-95 Southbound CD Lanes – Rappahannock River Crossing From: Exit 130 to: 0.66 Miles North of Exit
133 A Design-Build Project
State Project No.: 0095-111-259, Federal Project No.: IM-5111(235). Contract ID Number C00101595DB94
Estimated Contract Value: \$100,000,000.00

Gentlemen:

This letter confirms that Flatiron/Branch Civil, a Joint Venture comprised of Flatiron Constructors, Inc. and Branch Civil, Inc. is supported by the following co-sureties, Liberty Mutual Insurance Company, Travelers Casualty and Surety Company of America, Zurich American Insurance Company, Federal Insurance Company, The Continental Insurance Company, Berkshire Hathaway Specialty Insurance Company and Hartford Fire Insurance Company. All Sureties are listed in the U.S. Treasury listing dated July 1, 2016 and licensed to do business in all states.

The undersigned sureties agree that, Flatiron/Branch Civil, a Joint Venture is well qualified to perform the above captioned project. Furthermore, the undersigned sureties confirm the joint venture is capable of obtaining a 100% Performance and 100% Labor and Materials Payment Bond based on the current estimated contract value referenced in Section 2.1 of the RFQ which bonds will cover the Project and any warranty periods in the event the Team is the successful bidder and enters into a contract for this Project.

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

We are pleased to share with you our favorable experience and high regard for Flatiron/Branch Civil, a Joint Venture.

Sincerely,

Liberty Mutual Insurance Company – A.M. Best Rating A XV
175 Berkeley Street, Boston, MA 02116 (Massachusetts Corporation)

Travelers Casualty and Surety Company of America – A.M. Best Rating A++ XV
Construction Services, One Tower Square, Hartford, CT 06183 (Connecticut Corporation)

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

Federal Insurance Company – A.M. Best Rating – A++ XV
15 Mountain View Road, Warren, NJ 07061 (Indiana Corporation)

The Continental Insurance Company – A.M. Best Rating – A XV
333 Wabash Avenue, Chicago, IL 60604 (Pennsylvania Corporation)

Berkshire Hathaway Specialty Insurance Company – A.M. Best Rating A++ XV
100 Federal Street, 20th Floor, Boston, MA 02110

Hartford Fire Insurance Company - A.M. Best Rating - A+ XV
One Hartford Plaza, Hartford, CT 06155-0001

By: 
Mary R. McKee Attorney-In-Fact

CORPORATE ACKNOWLEDGMENT

Form 152

STATE OF NEW JERSEY

COUNTY OF BERGEN

On this 1st day of February, 2017, before me personally came MARY R. McKEE to me known, who, being by me duly sworn, did depose and say that she/he resides in SADDLE BROOK, NEW JERSEY that she/he is the ATTORNEY IN FACT of the LIBERTY MUTUAL INSURANCE COMPANY the corporation described in and which executed the above instrument that she/he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(SEAL)



LISA M. SCAVETTA
NOTARY PUBLIC OF NEW JERSEY
ID # 50016460
My Commission Expires 6/4/2020



LIBERTY MUTUAL INSURANCE COMPANY
FINANCIAL STATEMENT — DECEMBER 31, 2015

Assets	Liabilities
Cash and Bank Deposits..... \$753,038,641	Unearned Premiums..... \$6,580,520,311
*Bonds — U.S Government..... 1,547,613,446	Reserve for Claims and Claims Expense..... 16,917,138,677
*Other Bonds..... 11,088,162,545	Funds Held Under Reinsurance Treaties..... 210,794,503
*Stocks 9,919,835,033	Reserve for Dividends to Policyholders..... 358,033
Real Estate..... 295,926,247	Additional Statutory Reserve..... 29,659,093
Agents' Balances or Uncollected Premiums..... 4,487,501,643	Reserve for Commissions, Taxes and
Accrued Interest and Rents..... 120,872,424	Other Liabilities <u>2,789,478,276</u>
Other Admitted Assets..... <u>14,130,266,527</u>	Total <u>\$26,527,948,893</u>
Total Admitted Assets <u>\$42,343,216,506</u>	Special Surplus Funds..... \$67,890,944
	Capital Stock..... 10,000,000
	Paid in Surplus..... 8,829,183,823
	Unassigned Surplus..... 6,908,192,846
	Surplus to Policyholders <u>15,815,267,613</u>
	Total Liabilities and Surplus <u>\$42,343,216,506</u>



* Bonds are stated at amortized or investment value; Stocks at Association Market Values.
The foregoing financial information is taken from Liberty Mutual Insurance Company's financial statement filed with the state of Massachusetts Department of Insurance.

I, TIM MIKOLAJEWSKI, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the foregoing is a true, and correct statement of the Assets and Liabilities of said Corporation, as of December 31, 2015, to the best of my knowledge and belief.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Corporation at Seattle, Washington, this 15th day of March, 2016.

T. Mikolajewski

Assistant Secretary

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 7564489

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company West American Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Elliot W. Wolfe; Lisa M. Scavetta; Maria L. Spadaccini; Mary R. McKee; Nicholas F. Walsh; Sherryanne M. DePirro; Vincent C. Miseo

all of the city of Paramus, state of NJ each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 7th day of December, 2016.



The Ohio Casualty Insurance Company
Liberty Mutual Insurance Company
West American Insurance Company

By: David M. Carey
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 7th day of December, 2016, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2017
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS – Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this _____ day of _____, 20_____

FEB 01 2017



By: Renee C. Llewellyn
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

CORPORATE ACKNOWLEDGMENT

Form 152

STATE OF NEW JERSEY

COUNTY OF BERGEN

On this 1st day of February, 2017, before me personally came
MARY R. McKEE to me known, who, being by me duly sworn, did depose
and say that she/he resides in SADDLE BROOK, NEW JERSEY that she/he is
the ATTORNEY IN FACT of the TRAVELERS CASUALTY AND SURETY
COMPANY OF AMERICA the corporation described in and which executed the above
instrument that she/he knows the seal of said corporation; that the seal affixed to said
instrument is such corporate seal; that it was so affixed by order of the Board of Directors
of said corporation, and that she/he signed her/his name thereto by like order.

(SEAL)



LISA M. SCAVETTA
NOTARY PUBLIC OF NEW JERSEY
ID # 50016460
My Commission Expires 6/4/2020

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

HARTFORD, CONNECTICUT 06183

FINANCIAL STATEMENT AS OF DECEMBER 31, 2015

CAPITAL STOCK \$ 6,480,000

ASSETS		LIABILITIES & SURPLUS	
CASH AND INVESTED CASH	\$ 54,550,881	UNEARNED PREMIUMS	\$ 862,633,464
BONDS	3,500,572,838	LOSSES	735,725,171
STOCKS	245,901,111	LOSS ADJUSTMENT EXPENSES	278,900,106
INVESTMENT INCOME DUE AND ACCRUED	43,905,720	COMMISSIONS	35,388,814
OTHER INVESTED ASSETS	3,580,975	TAXES, LICENSES AND FEES	11,351,717
PREMIUM BALANCES	200,990,913	OTHER EXPENSES	39,468,867
NET DEFERRED TAX ASSET	65,751,186	CURRENT FEDERAL AND FOREIGN INCOME TAXES	15,158,620
REINSURANCE RECOVERABLE	22,532,968	REMITTANCES AND ITEMS NOT ALLOCATED	4,995,722
SECURITIES LENDING REINVESTED COLLATERAL ASSETS	11,772,178	AMOUNTS WITHHELD / RETAINED BY COMPANY FOR OTHERS	33,959,553
RECEIVABLES FROM PARENT, SUBSIDIARIES AND AFFILIATES	28,659,492	RETROACTIVE REINSURANCE RESERVE ASSUMED	898,144
OTHER ASSETS	5,685,697	POLICYHOLDER DIVIDENDS	9,080,181
		PROVISION FOR REINSURANCE	3,834,904
		ADVANCE PREMIUM	1,572,635
		PAYABLE FOR SECURITIES	8,000,000
		PAYABLE FOR SECURITIES LENDING	11,772,178
		CEDED REINSURANCE NET PREMIUMS PAYABLE	26,036,328
		ESCHEAT LIABILITY	664,927
		OTHER ACCRUED EXPENSES AND LIABILITIES	1,858,650
		TOTAL LIABILITIES	\$ 2,081,307,981
		CAPITAL STOCK	\$ 6,480,000
		PAID IN SURPLUS	433,803,760
		OTHER SURPLUS	1,863,312,028
		TOTAL SURPLUS TO POLICYHOLDERS	\$ 2,103,585,788
TOTAL ASSETS	\$ 4,184,903,769	TOTAL LIABILITIES & SURPLUS	\$ 4,184,903,769

STATE OF CONNECTICUT)
 COUNTY OF HARTFORD) SS.
 CITY OF HARTFORD)

MICHAEL J. DOODY, BEING DULY SWORN, SAYS THAT HE IS SECOND VICE PRESIDENT, OF TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA, AND THAT TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT STATEMENT OF THE FINANCIAL CONDITION OF SAID COMPANY AS OF THE 31ST DAY OF DECEMBER, 2015.

Michael J. Doody
 SECOND VICE PRESIDENT

Susan M. Weissleder
 NOTARY PUBLIC

SUSAN M. WEISSLEDER
 Notary Public
 My Commission Expires November 30, 2017

SUBSCRIBED AND SWORN TO BEFORE ME THIS
 18TH DAY OF MARCH, 2016





POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 231084

Certificate No. 007038953

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Mary R. McKee, Sherryanne M. DePirro, Maria L. Spadaccini, Nicholas F. Walsh, Elliott W. Wolffe, Vincent C. Miseo, and Lisa M. Scavetta

of the City of Paramus, State of New Jersey, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory 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, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 9th day of November, 2016.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut
City of Hartford ss.

By: [Signature]
Robert L. Raney, Senior Vice President

On this the 9th day of November, 2016, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2021.



[Signature]
Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this FEB 01 2017 day of _____, 20____.


Kevin E. Hughes, Assistant Secretary



To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.

CORPORATE ACKNOWLEDGMENT

Form 152

STATE OF NEW JERSEY

COUNTY OF BERGEN

On this 1st day of February, 2017, before me personally came
MARY R. McKEE to me known, who, being by me duly sworn, did depose
and say that she/he resides in SADDLE BROOK, NEW JERSEY that she/he is
the ATTORNEY IN FACT of the ZURICH AMERICAN INSURANCE COMPANY the
corporation described in and which executed the above instrument that she/he knows the
seal of said corporation; that the seal affixed to said instrument is such corporate seal;
that it was so affixed by order of the Board of Directors of said corporation, and that
she/he signed her/his name thereto by like order.

(SEAL)

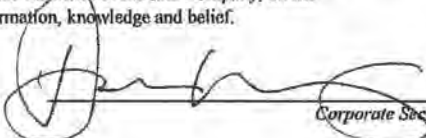


LISA M. SCAVETTA
NOTARY PUBLIC OF NEW JERSEY
ID # 50016460
My Commission Expires 6/4/2020

ZURICH AMERICAN INSURANCE COMPANY
COMPARATIVE BALANCE SHEET
ONE LIBERTY PLAZA, 165 BROADWAY, 32nd FLOOR, NEW YORK, NY 10006
As of December 31, 2015 and December 31, 2014

	12/31/2015	12/31/2014
Assets		
Bonds	\$ 17,260,128,973	\$ 17,933,136,241
Preferred Stock	-	-
Common Stock	3,457,354,146	3,213,266,911
Real Estate	743,791,691	-
Other Invested Assets	2,048,959,102	2,602,435,930
Short-term Investments	403,620,083	707,396,303
Receivable for securities	86,823,468	20,334,654
Cash and cash equivalents	182,127,374	9,155,828
Securities lending reinvested collateral assets	86,554,110	167,993,212
Employee Trust for Deferred Compensation Plan	153,274,854	140,606,132
Total Cash and Invested Assets	\$ 24,422,633,801	\$ 24,794,325,211
Premiums Receivable	\$ 3,598,435,742	\$ 3,317,513,374
Funds Held with Reinsurers	1,906,522	2,357,701
Reinsurance Recoverable	321,790,582	492,689,841
Accrued Investment Income	123,257,424	116,594,177
Federal Income Tax Recoverable	1,045,367,647	941,023,188
Due from Affiliates	200,022,690	83,375,591
Other Assets	558,041,597	561,819,983
Total Assets	\$ 30,471,456,005	\$ 30,309,699,066
Liabilities and Policyholders' Surplus		
Liabilities:		
Loss and LAE Reserves	\$ 14,173,584,657	\$ 13,922,765,027
Unearned Premium Reserve	4,463,409,342	4,502,895,029
Funds Held with Reinsurers	203,459,214	191,291,330
Loss In Course of Payment	386,200,590	306,093,345
Commission Reserve	120,630,088	79,627,248
Federal Income Tax Payable	93,480,741	115,512,376
Remittances and Items Unallocated	178,038,986	123,759,621
Payable to parent, subs and affiliates	69,640,403	154,224,298
Provision for Reinsurance	44,528,436	59,189,897
Ceded Reinsurance Premiums Payable	939,196,923	721,709,366
Securities Lending Collateral Liability	86,554,110	167,993,212
Other Liabilities	1,947,276,015	1,949,229,453
Total Liabilities	\$ 22,705,999,505	\$ 22,294,290,202
Policyholders' Surplus:		
Common Capital Stock	\$ 5,000,000	\$ 5,000,000
Paid-In and Contributed Surplus	4,394,131,321	4,394,131,321
Surplus Notes	-	-
Special Surplus Funds	56,772,000	57,824,000
Cumulative Unrealized Gain	430,546,047	572,072,362
Unassigned Surplus	2,879,007,132	2,986,381,181
Total Policyholders' Surplus	\$ 7,765,456,500	\$ 8,015,408,864
Total Liabilities and Policyholders' Surplus	\$ 30,471,456,005	\$ 30,309,699,066

I, Dennis F. Kerrigan, Corporate Secretary of ZURICH AMERICAN INSURANCE COMPANY do hereby certify that the foregoing statement is a correct exhibit of the assets and liabilities of the said Company, on the 31st day of December, 2015, according to the best of my information, knowledge and belief.



 Corporate Secretary

State of Illinois
 County of Cook

} SS:

Subscribed and sworn to, before me, a Notary Public of the State of Illinois, in the City of Schaumburg, this 15th day of March, 2016.





 Notary public

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

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by **MICHAEL BOND, Vice President**, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Mary R. MCKEE, Maria L. SPADACCINI, Sherryanne M. DEPIRRO, Nicholas F. WALSH, Lisa M. SCAVETTA, Elliott W. WOLFFE and Vincent C. MISEO, all of Paramus, New Jersey, EACH** its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

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

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND**, this 12th day of August, A.D. 2016.

ATTEST:

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



By: *Eric D. Barnes*
 Secretary
 Eric D. Barnes

Michael Bond
 Vice President
 Michael Bond

State of Maryland
 County of Baltimore

On this 12th day of August, A.D. 2016, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **MICHAEL BOND, Vice President, and ERIC D. BARNES, Secretary**, of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

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

Maria D. Adamski
 Maria D. Adamski, Notary Public
 My Commission Expires: July 8, 2019

EXTRACT FROM BY-LAWS OF THE COMPANIES

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

CERTIFICATE

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this ____ day of **FEB 01 2017**, 20____



Gerald F. Haley

Gerald F. Haley, Vice President

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

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

CORPORATE ACKNOWLEDGMENT

Form 152

STATE OF NEW JERSEY

COUNTY OF BERGEN

On this 1st day of February, 2017, before me personally came
MARY R. McKEE to me known, who, being by me duly sworn, did depose
and say that she/he resides in SADDLE BROOK, NEW JERSEY that she/he is
the ATTORNEY IN FACT of the FEDERAL INSURANCE COMPANY the corporation
described in and which executed the above instrument that she/he knows the seal of said
corporation; that the seal affixed to said instrument is such corporate seal; that it was so
affixed by order of the Board of Directors of said corporation, and that she/he signed
her/his name thereto by like order.

(SEAL)



LISA M. SCAVETTA
NOTARY PUBLIC OF NEW JERSEY
ID # 50016460
My Commission Expires 6/4/2020

FEDERAL INSURANCE COMPANY

STATEMENT OF ASSETS, LIABILITIES AND SURPLUS TO POLICYHOLDERS

Statutory Basis

DECEMBER 31, 2015

(in thousands of dollars)

<i>ASSETS</i>	<i>LIABILITIES AND SURPLUS TO POLICYHOLDERS</i>
Cash and Short Term Investments..... \$ 687,917	Outstanding Losses and Loss Expenses \$ 12,174,848
United States Government, State and Municipal Bonds 9,544,097	Unearned Premiums..... 3,726,665
Other Bonds..... 4,491,238	Dividends Payable to Stockholder 1,400,000
Stocks 692,901	Ceded Reinsurance Premiums Payable 329,694
Other Invested Assets..... 2,187,839	Provision for Reinsurance 35,560
	Other Liabilities..... 1,295,093
TOTAL INVESTMENTS 17,603,992	TOTAL LIABILITIES 18,961,860
Investments in Affiliates:	Capital Stock 20,980
Chubb Investment Holdings, Inc. 3,679,770	Paid-In Surplus..... 3,106,809
Pacific Indemnity Company..... 2,930,246	Unassigned Funds 10,150,916
Executive Risk Indemnity Inc..... 1,267,144	
Chubb Insurance Investment Holdings Ltd... 1,020,650	
CC Canada Holdings Ltd..... 590,955	
Great Northern Insurance Company 469,230	SURPLUS TO POLICYHOLDERS 13,278,705
Chubb Insurance Company of Australia Ltd. 404,845	
Vigilant Insurance Company 306,232	
Chubb European Investment Holdings SLP .. 294,200	
Other Affiliates 566,480	
Premiums Receivable 1,659,749	
Other Assets 1,447,072	
TOTAL ADMITTED ASSETS \$ 32,240,565	TOTAL LIABILITIES AND SURPLUS TO POLICYHOLDERS..... \$ 32,240,565

Investments are valued in accordance with requirements of the National Association of Insurance Commissioners.
At December 31, 2015, investments with a carrying value of \$546,611,273 were deposited with government authorities
as required by law.

State, County & City of New York, — ss:

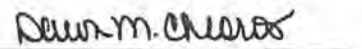
Dawn M. Chloros, Assistant Secretary _____ of the Federal Insurance Company
being duly sworn, deposes and says that the foregoing Statement of Assets, Liabilities and Surplus to Policyholders of said
Federal Insurance Company on December 31, 2015 is true and correct and is a true abstract of the Annual Statement of said
Company as filed with the Secretary of the Treasury of the United States for the 12 months ending December 31, 2015.

Subscribed and sworn to before me
this March 11, 2016.



Notary Public

JEANETTE SHIPSEY
Notary Public, State of New York
No. 02SH5074142
Qualified in Nassau County
Commission Expires March 10, 2019



Assistant Secretary

Power of Attorney

Federal Insurance Company | Vigilant Insurance Company | Pacific Indemnity Company

Attn: Surety Department | 15 Mountain View Road | Warren, NJ 07059

Know All by These Presents, That FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, and PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, do each hereby constitute and appoint Sherryanne M. DePirro, Mary R. McKee, Vincent C. Misco, Lisa M. Scavetta, Maria L. Spadaccini, Nicholas F. Walsh and Elliott W. Wolfe of Paramus, New Jersey

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY have each executed and attested these presents and affixed their corporate seals on this 30th day of June, 2016.

Tina M. Hawkins, Assistant Secretary

David B. Norris, Jr., Vice President



STATE OF NEW JERSEY

County of Somerset

On this 30th day of June, 2016 before me, a Notary Public of New Jersey, personally came Tina M. Hawkins, to me known to be Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY, the companies which executed the foregoing Power of Attorney, and the said Tina M. Hawkins, being by me duly sworn, did depose and say that she is Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By-Laws of said Companies; and that she signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that she is acquainted with David B. Norris, Jr., and knows him to be Vice President of said Companies; and that the signature of David B. Norris, Jr., subscribed to said Power of Attorney is in the genuine handwriting of David B. Norris, Jr., and was thereto subscribed by authority of said By-Laws and in deponent's presence.

Notarial Seal



KATHERINE J. ADELAAR
NOTARY PUBLIC OF NEW JERSEY
No. 2318685
Commission Expires July 16, 2019

Katherine J. Adelaar, Notary Public

CERTIFICATION

Extract from the By-Laws of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY:

"Except as otherwise provided in these By-Laws or by law or as otherwise directed by the Board of Directors, the President or any Vice President shall be authorized to execute and deliver, in the name and on behalf of the Corporation, all agreements, bonds, contracts, deeds, mortgages, and other instruments, either for the Corporation's own account or in a fiduciary or other capacity, and the seal of the Corporation, if appropriate, shall be affixed thereto by any of such officers or the Secretary or an Assistant Secretary. The Board of Directors, the President or any Vice President designated by the Board of Directors may authorize any other officer, employee or agent to execute and deliver, in the name and on behalf of the Corporation, agreements, bonds, contracts, deeds, mortgages, and other instruments, either for the Corporation's own account or in a fiduciary or other capacity, and, if appropriate, to affix the seal of the Corporation thereto. The grant of such authority by the Board or any such officer may be general or confined to specific instances."

I, Tina M. Hawkins, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY (the "Companies") do hereby certify that

- (i) the foregoing extract of the By-Laws of the Companies is true and correct,
(ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U.S. Treasury Department; further, Federal and Vigilant are licensed in the U.S. Virgin Islands, and Federal is licensed in Guam, Puerto Rico, and each of the Provinces of Canada except Prince Edward Island; and
(iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this 1st day of February, 2017.



Tina M. Hawkins, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT THE ADDRESS LISTED ABOVE OR BY Telephone (908) 903-3493 Fax (908) 903-3656 e-mail: surety@chubb.com

CORPORATE ACKNOWLEDGMENT

Form 152

STATE OF NEW JERSEY

COUNTY OF BERGEN

On this 1st day of February, 2017, before me personally came MARY R. McKEE to me known, who, being by me duly sworn, did depose and say that she/he resides in SADDLE BROOK, NEW JERSEY that she/he is the ATTORNEY IN FACT of THE CONTINENTAL INSURANCE COMPANY the corporation described in and which executed the above instrument that she/he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(SEAL)



LISA M. SCAVETTA
NOTARY PUBLIC OF NEW JERSEY
ID # 50016460
My Commission Expires 6/4/2020

THE CONTINENTAL INSURANCE COMPANY
 Radnor, Pennsylvania
 Statement of Net Admitted Assets and Liabilities
 December 31, 2015

ASSETS

Bonds	\$ 1,029,630,968
Stocks	154,739,571
Cash and short-term investments	246,391,807
Receivables for securities	18,845
Investment income due and accrued	14,125,269
Amounts recoverable from reinsurers	122,240,351
Funds held by or deposited with reinsured companies	1,850,091
Net deferred tax asset	73,791,202
Premiums and considerations	23,054,396
Other assets	1,019,110
Total Assets	\$ 1,666,861,610

LIABILITIES AND SURPLUS

Losses	\$ 774,879,701
Loss adjustment expense	36,650,259
Other expenses	736,867
Unearned premiums	-
Ceded reinsurance premiums payable (net of ceding commissions)	27,199,039
Provision for reinsurance	76,000,000
Other liabilities	(717,874,026)
Total Liabilities	\$ 197,591,840

Surplus Account:

Capital paid up	\$ 53,566,360
Gross paid in and contributed surplus	1,423,436,994
Special Surplus	136,028,695
Unassigned funds	(143,762,279)
Surplus as regards policyholders	\$ 1,469,269,770
Total Liabilities and Capital	\$ 1,666,861,610

I, Troy Wray, Assistant Vice President of The Continental Insurance Company hereby certify that the above is an accurate representation of the financial statement of the Company dated December 31, 2015, as filed with the various Insurance Departments and is a true and correct statement of the condition of The Continental Insurance Company as of that date.

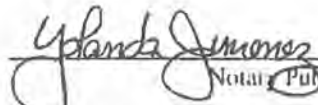
The Continental Insurance Company

By 
 Assistant Vice President

Subscribed and sworn to me this 21st day of March, 2016.

My commission expires:




 Notary Public

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That The Continental Insurance Company, a Pennsylvania insurance company, is a duly organized and existing insurance company having its principal office in the City of Chicago, and State of Illinois, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

Mary R McKee, Sherryanne M Depirro, Maria L Spadaccini, Nicholas F Walsh, Elliott W Wolffe, Vincent C Miseo, Lisa M Scavetta, Individually

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

- In Unlimited Amounts -

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

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

In Witness Whereof, The Continental Insurance Company has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 12th day of August, 2016.

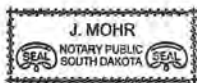


The Continental Insurance Company

Paul T. Bruflat
Paul T. Bruflat Vice President

State of South Dakota, County of Minnehaha, ss:

On this 12th day of August, 2016, before me personally came Paul T. Bruflat to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is a Vice President of The Continental Insurance Company, a Pennsylvania insurance company, described in and which executed the above instrument; that he knows the seal of said insurance company; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said insurance company and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said insurance company.



My Commission Expires June 23, 2021

J. Mohr
J. Mohr Notary Public

CERTIFICATE

I, D. Bult, Assistant Secretary of The Continental Insurance Company, a Pennsylvania insurance company, do hereby certify that the Power of Attorney herein above set forth is still in force, and further certify that the By-Law and Resolution of the Board of Directors of the insurance company printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said insurance company this _____ day of **FEB 01 2017**.



The Continental Insurance Company

D. Bult
D. Bult Assistant Secretary

Authorizing Resolutions

ADOPTED BY THE BOARD OF DIRECTORS OF THE CONTINENTAL INSURANCE COMPANY;

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the Board of Directors of the Company at a meeting held on May 10, 1995.

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

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

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

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

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

CORPORATE ACKNOWLEDGMENT

Form 152

STATE OF NEW JERSEY

COUNTY OF BERGEN

On this 1st day of February, 2017, before me personally came MARY R. McKEE to me known, who, being by me duly sworn, did depose and say that she/he resides in SADDLE BROOK, NEW JERSEY that she/he is the ATTORNEY IN FACT of the BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY the corporation described in and which executed the above instrument that she/he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(SEAL)



LISA M. SCAVETTA
NOTARY PUBLIC OF NEW JERSEY
ID # 50016460
My Commission Expires 6/4/2020

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY

1314 Douglas Street, Suite 1400, Omaha, Nebraska 68102

ADMITTED ASSETS*

	<u>12/31/2015</u>	<u>9/30/2015</u>	<u>12/31/2014</u>
Total invested assets	\$ 3,186,498,049	\$ 3,136,760,813	\$ 3,496,596,431
Premium & agent balances (net)	111,888,220	87,914,911	1,575,140
All other assets	73,200,653	57,838,968	23,436,525
Total Admitted Assets	<u>\$ 3,371,586,922</u>	<u>\$ 3,282,514,692</u>	<u>\$ 3,521,608,096</u>

LIABILITIES & SURPLUS*

	<u>12/31/2015</u>	<u>9/30/2015</u>	<u>12/31/2014</u>
Loss & loss exp. unpaid	\$ 33,586,302	\$ 22,748,711	\$ 7,856,614
Unearned premiums	62,997,856	33,154,834	454,617
All other liabilities	230,891,273	195,785,652	279,153,584
Total Liabilities	<u>327,475,431</u>	<u>251,689,197</u>	<u>287,464,815</u>
Total Policyholders' Surplus	<u>3,044,111,491</u>	<u>3,030,825,495</u>	<u>3,234,143,281</u>
Total Liabilities & Surplus	<u>\$ 3,371,586,922</u>	<u>\$ 3,282,514,692</u>	<u>\$ 3,521,608,096</u>

* Assets, liabilities and surplus are presented on a Statutory Accounting Basis as promulgated by the NAIC and/or the laws of the company's domiciliary state.

A.M. Best: A++ Rating

Standard & Poor's: AA+ Rating



Power Of Attorney

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

Know all men by these presents, that BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at 100 Federal Street, 20th Floor, Boston, Massachusetts 02110, NATIONAL INDEMNITY COMPANY, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at 3024 Harney Street, Omaha, Nebraska 68131, and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, a corporation existing under and by virtue of the laws of the State of Connecticut and having an office at 100 First Stamford Place, Stamford, Connecticut 06902 (hereinafter collectively the "Companies"), pursuant to and by the authority granted as set forth herein, do hereby name, constitute and appoint: Sherryanne M. DePirro, Elliott Wolffe, Mary R. McKee, Maria L. Spadaccini, Nicholas F. Walsh, Lisa M. Scavetta, Vincent C. Misco, 650 From Road of the city of Paramus State of New Jersey, their true and lawful attorney(s)-in-fact to make, execute, seal, acknowledge, and deliver, for and on their behalf as surety and as their act and deed, any and all undertakings, bonds, or other such writings obligatory in the nature thereof, in pursuance of these presents, the execution of which shall be as binding upon the Companies as if it has been duly signed and executed by their regularly elected officers in their own proper persons. This authority for the Attorney-in-Fact shall be limited to the execution of the attached bond(s) or other such writings obligatory in the nature thereof.

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

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY,

NATIONAL INDEMNITY COMPANY, NATIONAL LIABILITY & FIRE INSURANCE COMPANY,

[Signature of David Fields]

[Signature of David Fields]

By: David Fields, Executive Vice President

By: David Fields, Vice President



NOTARY

State of Massachusetts, County of Suffolk, ss:

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

[Notary Seal]



[Signature of Vikki S. Soutere]

Notary Public

I, Brennan Neville, the undersigned, Assistant Secretary of BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies which is in full force and effect and has not been revoked. IN TESTIMONY WHEREOF, I have hereunto affixed the seals of said companies this date of February 1, 2017.



[Signature of Brennan Neville]

Assistant Secretary

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

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY (BYLAWS)

ARTICLE V.

CORPORATE ACTIONS

....

EXECUTION OF DOCUMENTS:

....

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

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

NATIONAL INDEMNITY COMPANY (BY-LAWS)

Section 4. Officers, Agents, and Employees:

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

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

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

NATIONAL LIABILITY & FIRE INSURANCE COMPANY (BY-LAWS)

ARTICLE IV

Officers

Section 1. Officers, Agents and Employees:

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

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

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

CORPORATE ACKNOWLEDGMENT

Form 152

STATE OF NEW JERSEY

COUNTY OF BERGEN

On this 1st day of February, 2017, before me personally came Mary R. McKee to me known, who, being by me duly sworn, did depose and say that she/he resides in Saddle Brook, NJ that she/he is the Attorney-In-Fact of the Hartford Fire Insurance Company the corporation described in and which executed the above instrument that she/he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(SEAL)



LISA M. SCAVETTA
NOTARY PUBLIC OF NEW JERSEY
ID # 50016460
My Commission Expires 6/4/2020

HARTFORD FIRE INSURANCE COMPANY

Hartford, Connecticut
Financial Statement, June 30, 2016
 Statutory Basis

ASSETS

U.S. Government Bonds	\$ 511,271,791
Bonds of Other Governments	143,805,859
State, County Municipal Miscellaneous Bonds	12,010,958,895
Stocks	5,644,194,495
Short Term Investments	373,530,086
	<u>\$ 18,683,761,126</u>
Real Estate	\$ 361,230,861
Cash	72,583,334
Agents' Balances (Under 90 Day)	3,003,227,502
Other Invested Assets	438,950,733
Miscellaneous	3,042,353,045
Total Admitted Assets	<u>\$ 25,602,106,601</u>

LIABILITIES

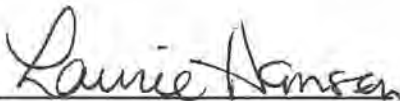
Reserve for Claims and Claim Expense	7,690,472,270
Reserve for Unearned Premiums	2,163,378,783
Reserve for Taxes, License and Fees	55,987,906
Miscellaneous Liabilities	2,597,812,034
Total Liabilities	<u>\$ 12,507,650,993</u>
Capital Paid In \$ 55,320,000 Surplus	<u>13,039,135,608</u>
Surplus as regards Policyholders	<u>\$ 13,094,455,608</u>
Total Liabilities, Capital and Surplus	<u>\$ 25,602,106,601</u>

STATE OF CONNECTICUT
 COUNTY OF HARTFORD
 CITY OF HARTFORD

} SS.

Michael R. Hazel, Vice President and Controller, and Allen R. Craig, Assistant Secretary of the Hartford Fire Insurance Company, being duly sworn, each deposes and say that the foregoing is a true and correct statement of the said company's financial condition as of June 30, 2016.

Subscribed and sworn to before me
 this 1st day of September, 2016.



Notary Public

LAURIE HANSEN
 NOTARY PUBLIC
 State of Connecticut
 My Commission Expires
 December 31, 2018


 Vice President and Controller


 Assistant Secretary

POWER OF ATTORNEY

Direct Inquiries/Claims to:

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

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

Agency Name: TURNER SURETY & INS BROKERAGE INC
 Agency Code: 13-653035

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** :

Sherryanne M. DePirro, Mary R. McKee, Vincent C. Miseo, Lisa M. Scavetta, Maria L. Spadaccini, Nicholas F. Walsh, Elliott W. Wolfe of PARAMUS, New Jersey

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

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



John Gray

John Gray, Assistant Secretary

M. Ross Fisher

M. Ross Fisher, Senior Vice President

STATE OF CONNECTICUT }
 COUNTY OF HARTFORD } ss. Hartford

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



CERTIFICATE

Nora M. Stranko

Nora M. Stranko
 Notary Public

My Commission Expires March 31, 2018

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 February 1, 2017.

Signed and sealed at the City of Hartford.



Kevin Heckman

Kevin Heckman, Assistant Vice President



3.2.10 SCC AND DPOR INFORMATION TABLES



ATTACHMENT 3.2.10

State Project No. 0095-111-259

SCC and DPOR Information

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

SCC & DPOR INFORMATION FOR BUSINESSES (RFQ Sections 3.2.10.1 and 3.2.10.2)							
Business Name	SCC Information (3.2.10.1)			DPOR Information (3.2.10.2)			
	SCC Number	SCC Type of Corporation	SCC Status	DPOR Registered Address	DPOR Registration Type	DPOR Registration Number	DPOR Expiration Date
Flatiron Constructors, Inc.	F178756-5	Foreign Corporation	Active/ Good Standing	385 Interlocken Crescent, Suite 900 Broomfield, CO 80021	Class A Contractor H/H	2705142856	09-30-2017
Branch Civil, Inc.	0295618-3	Corporation	Active/ Good Standing	PO Box 40004 Roanoke, VA 24022-0004	Class A Contractor Classification H/H	2701029434	03-31-2017
A. Morton Thomas and Associates, Inc.	F049431-2	Foreign Corporation	Active/ Good Standing	100 Gateway Centre Parkway, Suite 200 Richmond, VA 23235	ENG, LS	0411000587	02-28-2018
A. Morton Thomas and Associates, Inc.	F049431-2	Foreign Corporation	Active/ Good Standing	One Jadip Lane, Suite 111, Fredericksburg, VA 22405	ENG	0411000758	02-28-2018
A. Morton Thomas and Associates, Inc.	F049431-2	Foreign Corporation	Active/ Good Standing	14555 Avion Parkway, Suite 150 Chantilly, VA 20151	ENG, LS	0411000586	02-28-2018

ATTACHMENT 3.2.10**State Project No. 0095-111-259****SCC and DPOR Information**

A. Morton Thomas and Associates, Inc.	F049431-2	Foreign Corporation	Active/ Good Standing	800 King Farm Blvd, 4th Floor Rockville, MD 20850	ENG, LA	0407003077	12-31-2017
A. Morton Thomas and Associates, Inc.	F049431-2	Foreign Corporation	Active/ Good Standing	1520 Breezeport Way, Suite 500 Suffolk, VA 23435	ENG	0411000693	02-28-2018
STV Incorporated dba STV Group Incorporated	F025345-2	Foreign Corporation	Active/ Good Standing	10800 Midlothian Turnpike, Suite 302 Richmond, VA 23235	ENG	0411000462	02-28-2018
NXL Construction Services, Inc.	0349742-7	Corporation	Active/ Good Standing	114 E Cary St Suite 200 Richmond, VA 23219	ENG, LS	0407003031	12-31-2017
DMY Engineering Consultants, Inc.	0768895-5	Corporation	Active/ Good Standing	45662 Terminal Drive, Suite 110 Dulles, VA 20166	ENG	0407005631	12-31-2017
Diversified Property Services of Virginia, Inc.	F130410-6	Foreign Corporation	Active/ Good Standing	20 E Timonium Road, Suite 111	Appraisal	4008001190	11-30-2018
Sabra, Wang & Associates, Inc.	F134320-3	Foreign Corporation	Active/ Good Standing	101 West Broad Street, Suite 301; Falls Church, VA 22046	ENG	0407005636	12-21-2017
Siddall Communications, LLC	0161902-2	LLC	Active/ Good Standing	N/A	N/A	N/A	N/A

ATTACHMENT 3.2.10

State Project No. 0095-111-259

SCC and DPOR Information

Schnabel Engineering, LLC	S0889123	Limited Liability Company	Active	9800 JEB Stuart Parkway, Suite 100 Glen Allen, VA 23059	ENG	0411000322	02/28/2018
Harris Miller Miller & Hanson Inc.	F1451857	Foreign Corporation	Active/ Good Standing	N/A	N/A	N/A	N/A

DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)

Business Name	Individual's Name	Office Location Where Professional Services will be Provided (City/State)	Individual's DPOR Address	DPOR Type	DPOR Registration Number	DPOR Expiration Date
A. Morton Thomas and Associates, Inc.	Laura Michelle Mehiel	Chantilly, VA	2 East Read St 4th Floor Baltimore, MD 21202	ENG	0402034707	04-30-2017
A. Morton Thomas and Associates, Inc.	Harold Judson Dyson	Richmond, VA	106 Buckingham Drive Colonial Heights, VA 23834	ENG	0402040771	06-30-2017
A. Morton Thomas and Associates, Inc.	Jeffrey Scott McKay	Richmond, VA	11113 Sterling Cove Drive Chesterfield, VA 23838	ENG	0402034639	06-30-2018
A. Morton Thomas and Associates, Inc.	Michael Joseph Wiercinski	Rockville, MD	2706 Lubar Drive Brookeville, MD 20833	ENG	0402016426	05-31-2018
A. Morton Thomas and Associates, Inc.	Thomas Alexander Meitzler	Rockville, MD	2908 Videre Drive Wilmington, DE 19808	ENG	0402040367	10-31-2018

ATTACHMENT 3.2.10

State Project No. 0095-111-259

SCC and DPOR Information

A. Morton Thomas and Associates, Inc.	Charles Kenneth O'Connell	Chantilly, VA	12977 Hampton Forest Court Fairfax, VA 22030	ENG	0402024735	02-28-2018
A. Morton Thomas and Associates, Inc.	Donald J Rissmeyer	Richmond, VA	100 Gateway Centre Parkway, Suite 200 Richmond, VA 23235	ENG	0402026104	06-30-2017
A. Morton Thomas and Associates, Inc.	Stephen Eric Stewart	Suffolk, VA	2204 Cancun Court Virginia Beach, VA 23456	ENG	0402040298	12-31-2018
A. Morton Thomas and Associates, Inc.	John Claytor	Richmond, VA	9409 Derbyshire Road Richmond, VA 23229	LS	0403002288	01-31-2018
STV Incorporated dba STV Group Incorporated	Ronald Briggs	Richmond, VA	14413 Clipper Cove Court, Midlothian, VA 23112	ENG	0402011415	06-30-2017
NXL Construction Services, Inc.	Michael William Saunders	Richmond, VA	4500 Litchfield Drive Chesterfield, VA 23832	ENG	0402041295	12-31-2017
DMY Engineering Consultants, Inc.	Peng Zhang	Dulles, VA	45662 Terminal Drive, Suite 110 Dulles, VA 20166	ENG	0402048994	07-31-2017
DMY Engineering Consultants, Inc.	Wamiq Bin Hamid	Dulles, VA	20368 River Bank Street Sterling, VA 20165	ENG	0402045984	07-31-2018

ATTACHMENT 3.2.10

State Project No. 0095-111-259

SCC and DPOR Information

Sabra, Wang & Associates, Inc.	Ziad A. Sabra	Columbia, MD	7055 Samuel Morse Drive, Ste 100, Columbia, MD 21046	ENG	0402031146	03-31-2018
Sabra, Wang & Associates, Inc.	Jyothi Paladugu	Falls Church, VA	96 Clifford Blvd., Annapolis, MD 21401	ENG	0402049803	04-30-2018
Schnabel Engineering, LLC	Theron R. Fluker, PE	Glen Allen, VA	1815 Maple Shade Lane, Richmond, VA 23227	Professional Engineer	0402038893	01-31-2018

Virginia State Corporation Commission Registrations

Commonwealth of Virginia



State Corporation Commission

*CERTIFICATE OF GOOD STANDING**I Certify the Following from the Records of the Commission:*

That Flatiron Constructors, Inc., a corporation incorporated under the law of Delaware, 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 April 16, 2009; 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:

July 14, 2016

Handwritten signature of Joel H. Peck.

Joel H. Peck, Clerk of the Commission

CISECOM

Document Control Number: 1607146051

1/24/2017

https://cisiweb.scc.virginia.gov/z_container.aspx

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Virginia.gov

01/24/17

CISM0180

CORPORATE DATA INQUIRY

11:34:48

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: INDUSTRY CODE: 00
STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK
MERGER IND: S SURVIVOR CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: MON NO: MON STATUS: MONITOR DTE:
R/A NAME: MELANIE F WHEELER

STREET: 442 RUTHERFORD AVE NE AR RTN MAIL:

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

1612060375

ARTICLES OF AMENDMENT
OF
BRANCH HIGHWAYS, INC.

The undersigned, on behalf of the corporation set forth below, pursuant to § 13.1-710 of the Code of Virginia, states as follows:

FIRST: The current name of the corporation is Branch Highways, Inc.

SECOND: The name of the corporation is changed to Branch Civil, Inc.

THIRD: The foregoing amendment was adopted by consent of the sole shareholder on December 8, 2016.

BRANCH HIGHWAYS, INC.

By: Patrick K. Bartorillo

Name: Patrick K. Bartorillo

Title: President

Dated: 12/8/2016

SCC ID: 0295618-3

8687/17/7810903v1

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

AT RICHMOND, DECEMBER 20, 2016

The State Corporation Commission has found the accompanying articles submitted on behalf of
Branch Civil, Inc. (formerly BRANCH HIGHWAYS, INC.)

to comply with the requirements of law, and confirms payment of all required fees. Therefore, it
is ORDERED that this

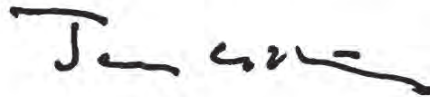
CERTIFICATE OF AMENDMENT

be issued and admitted to record with the articles of amendment in the Office of the Clerk of the
Commission, effective January 1, 2017, at 12:01 AM.

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



James C. Dimitri
Commissioner

16-12-16-1206
AMENACPT
CIS0343

Commonwealth OF Virginia



State Corporation Commission

I Certify the Following from the Records of the Commission:

The foregoing is a true copy of the articles of amendment filed in the Clerk's Office of the Commission on December 20, 2016 by Branch Civil, Inc. effective as of January 1, 2017.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
December 22, 2016*

Joel H. Peck

Joel H. Peck, Clerk of the Commission

21S0505

1612060376

ARTICLES OF MERGER
 OF
 E. V. WILLIAMS, INC. 0478466-6
 WITH AND INTO
 BRANCH HIGHWAYS, INC. 0295618-3

Pursuant to the provisions of Section 13.1-720 of the Virginia Stock Corporation Act, Branch Highways, Inc., a Virginia corporation (the “Surviving Corporation”), as the surviving corporation, hereby adopts the following Articles of Merger:

FIRST: The Plan of Merger (the “Plan”) pursuant to which E. V. Williams, Inc., a Virginia corporation, will merge into the Surviving Corporation (the “Merger”), is attached hereto as Exhibit A and made a part hereof.

SECOND: The Plan was duly approved and adopted on December 8, 2016 by unanimous consent of the Board of Directors of the Surviving Corporation. E. V. Williams, Inc. is a wholly owned subsidiary of the Surviving Corporation. Pursuant to Section 13.1-718F of the Virginia Stock Corporation Act (the “Act”), no approval of the shareholders of the Surviving Corporation was required. Pursuant to Section 13.1-719 of the Act, no approval of the Board of Directors or shareholders of E.V. Williams, Inc. was required.

THIRD: Pursuant to Section 13.1-606 of the Act, the effective date of the Merger shall be 12:01 A.M., January 1, 2017.

BRANCH HIGHWAYS, INC.

12/8/2016
 Date of Execution

By: Patrick K. Bartorillo
 Name: Patrick K. Bartorillo
 Title: President

SCC ID: 0295618-3

8687/17/7672754v2

EXHIBIT A**PLAN OF MERGER**

THIS PLAN OF MERGER made and entered into as of this 8th day of December, 2016, by and between E. V. WILLIAMS, INC., a Virginia Corporation (hereinafter referred to as "Merged Corporation") and BRANCH HIGHWAYS, INC., a Virginia Corporation (hereinafter referred to as "Surviving Corporation").

- A. Merged Corporation is a wholly owned subsidiary of Surviving Corporation.
- B. The Board of Directors of Surviving Corporation has approved the merger of Merged Corporation with and into Surviving Corporation by a statutory merger upon the terms and conditions set forth herein.

NOW THEREFORE, Merged Corporation and Surviving Corporation agree as follows:

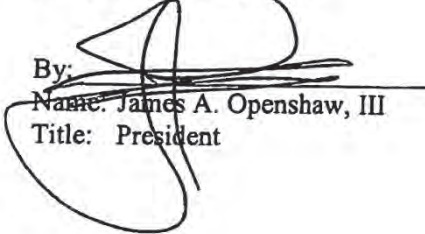
1. Merger. At the Effective Time (as defined below), Merged Corporation shall be merged with and into Surviving Corporation (the "Merger") in accordance with the provisions of Article 12 of the Virginia Stock Corporation Act; Surviving Corporation shall be and continue in existence as the surviving corporation; and the separate corporate existence of Merged Corporation shall cease.
2. Effective Time. Pursuant to Section 13.1-606 of the Virginia Stock Corporation Act, the effective date of the Merger shall be 12:01 A.M., January 1, 2017 (the "Effective Time").
3. Effect of Merger on Outstanding Shares.
 - (a) At the Effective Time, each issued and outstanding share of Common Stock of Merged Corporation shall be cancelled.
 - (b) The issued and outstanding shares of Common Stock of the Surviving Corporation shall remain outstanding after the Merger and shall not be affected in any way by the Merger.
4. Articles of Incorporation and Bylaws. The Articles of Incorporation and Bylaws of Surviving Corporation in effect at the Effective Time shall continue (until amended or repealed as provided by applicable law) to be the Articles of Incorporation and Bylaws of the Surviving Corporation after the Effective Time.

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1612060376

IN WITNESS WHEREOF, Merged Corporation and Surviving Corporation have caused this Plan of Merger to be executed as of the day and year first written above.

E. V. WILLIAMS, INC.

By: 
Name: James A. Openshaw, III
Title: President

BRANCH HIGHWAYS, INC.

By: 
Name: Patrick K. Bartorillo
Title: President

8687/17/7672754v2

0295618 - 3

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

AT RICHMOND, DECEMBER 20, 2016

1612060376

The State Corporation Commission finds the accompanying articles submitted on behalf of
BRANCH HIGHWAYS, INC.

comply with the requirements of law and confirms payment of all required fees. Therefore, it is
ORDERED that this

CERTIFICATE OF MERGER

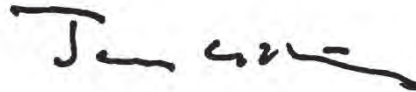
be issued and admitted to record with the articles of merger in the Office of the Clerk of the
Commission, effective January 1, 2017, at 12:01 AM. Each of the following:

E. V. WILLIAMS, INC.

is merged into **BRANCH HIGHWAYS, INC.**, which continues to exist under the laws of
VIRGINIA with the name **BRANCH HIGHWAYS, INC.**, and the separate existence of each non-
surviving entity ceases.

STATE CORPORATION COMMISSION

By



James C. Dimitri
Commissioner

MERGACPT
CIS0343
16-12-16-1205

Commonwealth OF Virginia



State Corporation Commission

I Certify the Following from the Records of the Commission:

The foregoing is a true copy of the articles of merger filed in the Clerk's Office of the Commission on December 20, 2016 by Branch Civil, Inc. effective as of January 1, 2017.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
December 22, 2016*

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

IS0505

Commonwealth of Virginia



State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That A. MORTON THOMAS & ASSOCIATES, INC., a corporation incorporated under the law of Maryland, 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 November 26, 1997; 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:
September 26, 2013*

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

CISECOM

Document Control Number: 1309265678



Commonwealth of Virginia
State Corporation Commission

CISM0180

CORPORATE DATA INQUIRY

06/01/16

10:58:27

CORP ID: F049431 - 2 STATUS: 00 ACTIVE STATUS DATE: 12/15/09
 CORP NAME: THOMAS & ASSOCIATES, INC., A. MORTON

DATE OF CERTIFICATE: 11/26/1997 PERIOD OF DURATION: INDUSTRY CODE: 00
 STATE OF INCORPORATION: MD MARYLAND STOCK INDICATOR: S STOCK
 MERGER IND: CONVERSION/DOMESTICATION IND:
 GOOD STANDING IND: Y MONITOR INDICATOR:
 CHARTER FEE: MON NO: MON STATUS: MONITOR DTE:
 R/A NAME: NATIONAL CORPORATE RESEARCH, LTD.

STREET: 250 BROWNS HILL COURT

AR RTN MAIL:

CITY: MIDLOTHIAN

STATE : VA ZIP: 23114-0000

R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 09/30/15 LOC : 120

ACCEPTED AR#: 215 15 3245 DATE: 10/05/15 CHESTERFIELD CO

CURRENT AR#: 215 15 3245 DATE: 10/05/15 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
15	400.00					52,000

Commonwealth of Virginia



State Corporation Commission

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
Joel H. Peck, Clerk of the Commission

CISECOM
Document Control Number: ·1202175574

Commonwealth of Virginia



State Corporation Commission

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

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

Joel H. Peck, Clerk of the Commission

CIS0357



SCC eFile
Business Entity Details

[?](#) [Help](#)

NXL Construction Co., Inc.

- SCC eFile
- SCC eFile Home Page
- Check Name
- Distinguishability
- Business Entity Search
- Certificate Verification
- FAQs
- Contact Us
- Give Us Feedback
- Business Entities**
- UCC or Tax Liens**
- Court Services**
- Additional Services**

General

SCC ID: 03497427
Entity Type: Corporation
Jurisdiction of Formation: VA
Date of Formation/Registration: 11/17/1989
Status: Active
Shares Authorized: 5000

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](#)
- [Submit a PDF for processing \(What can I submit?\)](#)
- [View eFile transaction history](#)

[New Search](#) [Home](#)

Principal Office

114 E CARY STREET SUITE 200
RICHMOND VA 23219

Registered Agent/Registered Office

NICOMEDES L DE LEON
9606 GEORGE'S BLUFF RD
RICHMOND VA 23229
HENRICO COUNTY 143
Status: Active
Effective Date: 10/8/1998

Screen ID: e1000

Commonwealth OF Virginia



State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That DMY ENGINEERING CONSULTANTS INC. is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is September 6, 2013;

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:
October 31, 2016*

Joel H. Peck

Joel H. Peck, Clerk of the Commission

CISECOM

Document Control Number: 1610315812

Commonwealth of Virginia



State Corporation Commission

I Certify the Following from the Records of the Commission:

DIVERSIFIED PROPERTY SERVICES OF VIRGINIA, INC. (USED IN VA BY: DIVERSIFIED PROPERTY SERVICES, INC.), a corporation existing under the laws of MARYLAND, holds a certificate of authority to transact to transact business in Virginia, and is in good standing.

The certificate was issued on August 05, 1997.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
August 18, 2009*

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

CIS0353

Commonwealth OF Virginia



State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That SABRA, WANG & ASSOCIATES, INC., a corporation incorporated under the law of Maryland, 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 June 30, 1998; and

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

Nothing more is hereby certified.



Signed and Sealed at Richmond on this Date:

June 6, 2012

Joel H. Peck

Joel H. Peck, Clerk of the Commission

CISECOM

Document Control Number: 1206065601



SCC eFile
Business Entity Details

[Help](#)

SABRA, WANG & ASSOCIATES, INC.

SCC eFile

- SCC eFile Home Page
- Check Name
- Distinguishability
- Business Entity Search
- Certificate Verification
- FAQs
- Contact Us
- Give Us Feedback

Business Entities

UCC or Tax Liens

Court Services

Additional Services

General

SCC ID: F1343203
Entity Type: Foreign Corporation
Jurisdiction of Formation: MD
Date of Formation/Registration: 6/30/1998
Status: Active
Shares Authorized: 5000

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](#)

Principal Office

101 WEST BROAD STREET
SUITE 301
FALLS CHURCH VA22046

Registered Agent/Registered Office

RAYMOND H SUTTLE JR
701 TOWN CENTER DRIVE
SUITE 800
NEWPORT NEWS VA 23606
NEWPORT NEWS CITY 211
Status: Active
Effective Date: 4/14/2011

Screen ID: e1000

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We provide external links throughout our site.

- [PDF \(.pdf\) Reader](#)
- [Excel \(.xls\) Viewer](#)
- [PowerPoint \(.ppt\) Viewer](#)
- [Word \(.doc\) Viewer](#)

Build #: 1.0.0.24456

Commonwealth of Virginia



State Corporation Commission

CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

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

That the date of its organization is July 30, 2013; 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:
February 6, 2014*



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

SECOM
Document Control Number: 1402065816



SCC eFile
Business Entity Details

[Help](#)

Schnabel Engineering, LLC

General

SCC ID: S0889123
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 VA23059

Registered Agent/Registered Office

CT CORPORATION SYSTEM
4701 COX ROAD, SUITE 285
GLEN ALLEN VA 23060
HENRICO COUNTY 143
Status: Active
Effective Date: 10/4/2013

Select an action

- [File a registered agent change](#)
- [File a registered office address change](#)
- [Resign as registered agent](#)
- [File a principal office address change](#)
- [Pay annual registration fee](#)
- [Order a certificate of fact of existence](#)
- [Submit a PDF for processing \(What can I submit?\)](#)
- [View eFile transaction history](#)
- [Manage email notifications](#)

[New Search](#) [Home](#)

- SCC eFile
- SCC eFile Home Page
- Check Name
- Distinguishability
- Business Entity Search
- Certificate Verification
- FAQs
- Contact Us
- Give Us Feedback
- Business Entities
- UCC or Tax Liens
- Court Services
- Additional Services

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, December 6, 2000

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

Harris Miller Miller & Hanson Inc.

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



State Corporation Commission

Attest:

Joel H. Beck

Clerk of the Commission


Virginia Department of Professional and Occupational Regulations Licenses Offices

EXPIRES ON
09-30-2017


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

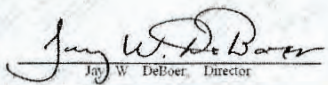
NUMBER
2705142856

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



FLATIRON CONSTRUCTORS INC
 385 INTERLOCKEN CRESCENT
 900
 BROOMFIELD, CO 80021






Jay W. DeBoer, Director

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

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




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

***CLASSIFICATIONS* H/H**
 NUMBER: 2705142856 EXPIRES: 09-30-2017

FLATIRON CONSTRUCTORS INC
 385 INTERLOCKEN CRESCENT
 900
 BROOMFIELD, CO 80021

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



fold

DPOR-PC (05/2015)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
03-31-2017

NUMBER
2701029434

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.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

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



COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

CLASS A BOARD FOR CONTRACTORS
CONTRACTOR

CLASSIFICATIONS H/H
NUMBER: 2701029434 EXPIRES: 03-31-2017

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



(FOLD)

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

DPOR-PC (05/2015)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
02-28-2018

NUMBER
0411000587

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

PROFESSIONS: ENG, LS



A MORTON THOMAS AND ASSOCIATES INC
100 GATEWAY CENTRE PKWY
SUITE 200
RICHMOND, VA 23235



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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

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



COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR AP/LS/CID/LA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000587 EXPIRES: 02-28-2018
PROFESSIONS: ENG, LS

A MORTON THOMAS AND ASSOCIATES INC
100 GATEWAY CENTRE PKWY
SUITE 200
RICHMOND, VA 23235



(FOLD)

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
0411000758

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

PROFESSIONS: ENG



A MORTON THOMAS AND ASSOCIATES INC
ONE JADIP LANE
SUITE 111
FREDERICKSBURG, VA 22405



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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

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



COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000758 EXPIRES: 02-28-2018
PROFESSIONS: ENG
A MORTON THOMAS AND ASSOCIATES INC
ONE JADIP LANE
SUITE 111
FREDERICKSBURG, VA 22405



(FOLD)

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

DPOR-PC (05/2015)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
02-28-2018

NUMBER
0411000586

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

PROFESSIONS: LS, ENG



A MORTON THOMAS AND ASSOCIATES INC
14555 AVION PKWY STE 150
CHANTILLY, VA 20151



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

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COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000586 EXPIRES: 02-28-2018
PROFESSIONS: LS, ENG
A MORTON THOMAS AND ASSOCIATES INC
14555 AVION PKWY STE 150
CHANTILLY, VA 20151



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COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
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EXPIRES ON
02-28-2018

NUMBER
0411000693

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

PROFESSIONS: ENG



A MORTON THOMAS AND ASSOCIATES INC
1520 BREEZEPORT WAY
STE 500
SUFFOLK, VA 23435



Jay W. DeBoer
Jay W. DeBoer, Director

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

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Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000693 EXPIRES: 02-28-2018
PROFESSIONS: ENG
A MORTON THOMAS AND ASSOCIATES INC
1520 BREEZEPORT WAY
STE 500
SUFFOLK, VA 23435



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DPOR-PC (05/2015)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
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EXPIRES ON
12-31-2017

NUMBER
0407003077

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

PROFESSIONS: ENG, LA



A MORTON THOMAS AND ASSOCIATES INC
800 KING FARM BLVD, 4TH FLOOR
ROCKVILLE, MD 20850



Jay W. DeBoer
Jay W. DeBoer, Director

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

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COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407003077 EXPIRES: 12-31-2017
PROFESSIONS: ENG, LA
A MORTON THOMAS AND ASSOCIATES INC
800 KING FARM BLVD, 4TH FLOOR
ROCKVILLE, MD 20850



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

DPOR-PC (05/2015)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON

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



Jay W. DeBoer
Jay W. DeBoer, Director

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

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COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000661 EXPIRES: 02-28-2018
PROFESSIONS: ARC, ENG
STV INCORPORATED
STV GROUP INCORPORATED
2722 MERRILEE DR SUITE 350
FAIRFAX, VA 22031



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DPOR-PC (05/2015)

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STV Incorporated

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

0411000462

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



Jay W. DeBoer
Jay W. DeBoer, Director

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

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COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000462 EXPIRES: 02-28-2018
PROFESSIONS: ENG
STV INCORPORATED DBA STV GROUP INC
STV GROUP INC
10800 MIDLOTHIAN TNPK SUITE 302
RICHMOND, VA 23235



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DPOR-PC (05/2015)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON

12-31-2017

NUMBER

0407003031

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

PROFESSIONS: ENG, LS



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



Jay W. DeBoer
Jay W. DeBoer, Director

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

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BOARD FOR APESCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407003031 EXPIRES: 12-31-2017
PROFESSIONS: ENG, LS
NXL CONSTRUCTION CO INC
NXL CONSTRUCTION SERVICES INC
114 E CARY ST STE 200
RICHMOND, VA 23219



(FOLD)

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

DPOR-PC (05/2015)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON

12-31-2017

NUMBER

0407005631

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

PROFESSIONS: ENG



DMY ENGINEERING CONSULTANTS INC
45662 TERMINAL DRIVE
SUITE 110
DULLES, VA 20166



Jay W. DeBoer
Jay W. DeBoer, Director

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

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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

EXPIRES ON
11-30-2018

NUMBER
4008001190

REAL ESTATE APPRAISER BOARD
APPRAISAL BUSINESS REGISTRATION



DIVERSIFIED PROPERTY SERVICES OF VIRGINIA INC
20 E TIMONIUM ROAD
SUITE 111
TIMONIUM, MD 21093-0000



Jan W. DeBoer
Jan W. DeBoer, Director

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

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COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

REAL ESTATE APPRAISER BOARD
APPRAISAL BUSINESS REGISTRATION
NUMBER: 4008001190 EXPIRES: 11-30-2018

DIVERSIFIED PROPERTY SERVICES OF VIRGINIA INC
20 E TIMONIUM ROAD
SUITE 111
TIMONIUM, MD 21093-0000



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DPOR-PC (05/2015)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
12-31-2017

NUMBER
0407005636

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

PROFESSIONS: ENG



SABRA, WANG & ASSOCIATES, INC
101 W BROAD ST
SUITE 301
FALLS CHURCH, VA 22046



Jan W. DeBoer
Jan W. DeBoer, Director

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

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COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APESCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407005636 EXPIRES: 12-31-2017
PROFESSIONS: ENG

SABRA, WANG & ASSOCIATES, INC
101 W BROAD ST
SUITE 301
FALLS CHURCH, VA 22046



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
0411000322

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

PROFESSIONS: ENG



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




 Jay W. DeBoer, Director

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

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Key Personnel

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
04-30-2017

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

NUMBER
0402034707

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

LAURA MICHELLE MEHIEL
 2 EAST READ ST
 4TH FLR
 BALTIMORE, MD 21202




 Jay W. DeBoer, Director

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
06-30-2017

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

NUMBER
0402040771

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

HAROLD JUDSON DYSON
106 BUCKINGHAM DRIVE
COLONIAL HEIGHTS, VA 23834



Jay W. DeBoer
Jay W. DeBoer, Director

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COMMONWEALTH OF VIRGINIA
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402040771 EXPIRES: 06-30-2017

HAROLD JUDSON DYSON
106 BUCKINGHAM DRIVE
COLONIAL HEIGHTS, VA 23834



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9960 Mayland Dr., Suite 400, Richmond, VA 23233

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COMMONWEALTH OF VIRGINIA

EXPIRES ON
06-30-2017

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

NUMBER
0402011415

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

RONALD C BRIGGS
14413 CLIPPER COVE CT
MIDLOTHIAN, VA 23112



Jay W. DeBoer
Jay W. DeBoer, Director

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EXPIRES ON

12-31-2017


NUMBER

0402041295

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

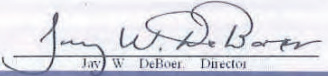


MICHAEL WILLIAM SAUNDERS
 4500 LITCHFIELD DRIVE
 CHESTERFIELD, VA 23832



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Jay W. DeBoer, Director

DPOR-LIC (05/2015)

Non-APELSCIDLA

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

EXPIRES ON

06-30-2018


NUMBER

0402034639

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




JEFFREY SCOTT MCKAY
 11113 STERLING COVE DRIVE
 CHESTERFIELD, VA 23838



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Jay W. DeBoer, Director

DPOR-LIC (05/2015)

COMMONWEALTH of VIRGINIA

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Telephone: (804) 367-8500

EXPIRES ON
05-31-2018

NUMBER
0402016426

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



MICHAEL JOSEPH WIERCINSKI
2706 LUBAR DRIVE
BROOKEVILLE, MD 20833



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

EXPIRES ON
12-31-2018

NUMBER
0402040298

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



STEPHEN ERIC STEWART
2204 CANCUN CT
VIRGINIA BEACH, VA 23456



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BOARD FOR APESCIDLA
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402040298 EXPIRES: 12-31-2018

STEPHEN ERIC STEWART
2204 CANCUN CT
VIRGINIA BEACH, VA 23456



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COMMONWEALTH of VIRGINIA

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EXPIRES ON
10-31-2018

NUMBER
0402040367

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



THOMAS ALEXANDER MEITZLER
2908 VIDERE DR
WILMINGTON, DE 19808



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DPOR-LIC (05/2015)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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

EXPIRES ON
06-30-2017

NUMBER
0402026104

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

DONALD J RISSMEYER
A. MORTON THOMAS & ASSOCIATES INC.
100 GATEWAY CENTRE PARKWAY
SUITE 200
RICHMOND, VA 23235



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COMMONWEALTH OF VIRGINIA

BOARD FOR APESCIDLA
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402026104 EXPIRES: 06-30-2017

DONALD J RISSMEYER
A. MORTON THOMAS & ASSOCIATES INC.
100 GATEWAY CENTRE PARKWAY
SUITE 200
RICHMOND, VA 23235



(DETACH HERE)

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

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

EXPIRES ON
02-28-2018

NUMBER
0402024735

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

CHARLES KENNETH O'CONNELL
 12977 HAMPTON FOREST CT
 FAIRFAX, VA 22030

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

Jay W. DeBoer, Director

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS) DPOR-LIC (05/2015)

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

EXPIRES ON
01-31-2018

NUMBER
0403002288

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

JOHN SCOTT CLAYTOR
 9409 DERBYSHIRE ROAD
 RICHMOND, VA 23229

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

Jay W. DeBoer, Director

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DPOR COMMONWEALTH of VIRGINIA
 Department of Professional and Occupational Regulation

BOARD FOR APESCIDLA
 LAND SURVEYOR LICENSE
 NUMBER: 0403002288 EXPIRES: 01-31-2018

JOHN SCOTT CLAYTOR
 9409 DERBYSHIRE ROAD
 RICHMOND, VA 23229

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DPOR-PC (05/2015)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
07-31-2017

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

NUMBER
0402048994

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

PENG ZHANG
45662 TERMINAL DRIVE
SUITE 110
DULLES, VA 20166



Jay W. DeBoer
Jay W. DeBoer, Director

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

EXPIRES ON
07-31-2018

NUMBER
0402045984

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



WAMIQ BIN HAMID
20368 RIVER BANK ST
STERLING, VA 20165



Jay W. DeBoer
Jay W. DeBoer, Director

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

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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

EXPIRES ON
04-30-2018

NUMBER
0402049803

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



JYOTHIRMAI PALADUGU
23468 BELVOIR WOODS TERRACE
ASHBURN, VA 20148



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COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

BOARD FOR APESCIDLA
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402049803 EXPIRES: 04-30-2018

JYOTHIRMAI PALADUGU
23468 BELVOIR WOODS TERRACE
ASHBURN, VA 20148



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DPOR-PC (05/2015)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
03-31-2018

NUMBER
0402031146

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



ZIAD ADEL SABRA
SABRA WANG AND ASSOC., INC
7055 SAMUEL MORSE DR
SUITE 100
COLUMBIA, MD 21046



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

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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

EXPIRES ON
01-31-2018

NUMBER
0402038893

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



THERON RANDALL FLUKER
1815 MAPLE SHADE LANE
RICHMOND, VA 23227


Jay W. DeBor
Director

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (05/2015)



3.3.1a and 3.3.1b **KEY PERSONNEL RESUME FORMS**





ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

<p>Brief Resume of Key Personnel anticipated for the Project.</p>
<p>a. Name & Title: Adam Mathews Project Manager</p>
<p>b. Project Assignment: Design-Build Project Manager</p>
<p>c. Name of all Firms with which you are employed at the time of submitting SOQs. In addition, please denote the type of employment (Full time/Part time): Flatiron Constructors, Inc. Full Time Employment</p>
<p>d. Employment History: With this Firm <u>15</u> Years With Other Firms <u>10</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):</p> <p><u>Firm 1: Flatiron Constructors, Inc., 2002 - Present</u> With over 25 years of experience, Adam serves as project manager for various infrastructure projects, including three recent Flatiron projects totaling \$676 million in construction value. He is a knowledgeable and conscientious project manager with a knack for public interaction and exceeding the expectations of project owners. His project management experience includes the \$400M Presidio Parkway, where he served as project manager for this high-profile project, the \$136 million Yadkin River Bridge, and the \$140 million Highway 92/I-880 Interchange reconstruction project.</p> <p><u>Firm 2: CONSTAIN Limited, 2001-2002</u> Adam served as section manager and was responsible for overseeing the construction of seven steel box girder bridges and two culverts on an approximately \$87.4 million (£70 million) design-build project encompassing nine miles of new roadway with heavy earthworks and 14 major structures. Adam oversaw a team of five engineers. He planned each section, completed progress reports, managed safety and subcontractor coordination, and implemented the project quality assurance system. In addition, he also managed the completion works for the carriageway once the structures were completed.</p> <p><u>Firm 3: Kvaerner Construction, 1991 - 2001</u> As section engineer, Adam was responsible for project coordination as assigned, including such projects as the approximately \$75 million (£60 million) refurbishment of the Avonmouth bridge in M5 Bristol, UK and the \$43.7 million (£3.5 million) Peasdown St. John Bypass design-build project in Bath, UK. His responsibilities included technical support, subcontractor coordination, progress reporting, short-range work programming, material procurement, and acting as liaison with the owner and design team(s).</p>
<p>e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Taunton Technical College United Kingdom Higher National Certificate in Construction Studies 1998 Kings Lynn Technical College United Kingdom Ordinary National Certificate in Building Studies BTECH 1995</p>
<p>f. Active Registration: Year First Registered/ Discipline/VA Registration #: N/A</p>
<p>g. Document the extent and depth of your experience and qualifications relevant to the Project.</p> <ol style="list-style-type: none"> <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> <i>Note whether experience is with current firm or with other firm.</i> <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <p>(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)</p>

Wellsburg Bridge, WVDOH, Wellsburg, WV

Key Personnel Role: Preconstruction Project Manager

Experience with Current Firm: Yes

Project/Assignment Duration: 2016 - 2017

Design/Construction Value: \$131 million

Project Description: As West Virginia's first alternative delivery project, the Wellsburg Bridge will be a new main span crossing the Ohio River approximately one mile south of Wellsburg, WV that will include a new connection to West Virginia Route 2 and Third Street in Brilliant, OH. A shared-use path on the new main span will directly tie into the Brooke Pioneer Trail. A portion of West Virginia Route 2, located in an area with historically problematic slope stability and rock fall, will be realigned and reconstructed to provide a safer route for the motoring public and lower long-term costs to WVDOH by making the roadway less susceptible to rock fall. An additional bridge traversing Ohio State Route 7 will be constructed to accommodate any future interchange requirements.

Responsibilities: As Preconstruction Project Manager, Adam was responsible for project set-up and coordination with the design and preliminary engineering team to optimize design to move the Project into the construction phase.

Presidio Parkway, CALTRANS, San Francisco, CA

Key Personnel Role: Project Manager

Experience with Current Firm: Yes

Project/Assignment Duration: 2012-2015

Design/Construction Value: \$400 million

Project Description: Presidio Parkway was the first public-private partnership transportation project delivered in California under the recently enacted PPP statute. The \$400 million project was a collaborative effort by the California Department of Transportation, the San Francisco County Transportation Authority, and the Federal Highway Administration. Presidio Parkway replaced Doyle Drive, the aging approach to the Golden Gate Bridge used by more than 120,000 vehicles each day. Originally built in 1936, the roadway was structurally and seismically deficient. The project worked to improve seismic, structural, and traffic safety, as well as integrate the roadway into the national park setting and create additional recreation space. Construction included the northbound Presidio Viaduct and Battery Tunnel, the Main Post Tunnels, and the new Girard Road Interchange with a direct connection to the Presidio.

Responsibilities: As Project Manager, Adam oversees design and construction for managing partner Flatiron. He is responsible for the work of the entire joint venture, including the work of Flatiron's JV partner and lead designer. Since maintenance of traffic is a major component along this stretch of highway, Adam's team maintains access to and from the Golden Gate Bridge at all times during construction. Working closely with the owner, Adam and the Flatiron team executed an extensive public communications campaign.

Yadkin River Bridge Design-Build, NCDOT, Salisbury, NC

Key Personnel Role: Project Manager

Experience with Current Firm: Yes

Project/Assignment Duration: 2010 - 2012

Design/Construction Value: \$136 million

Project Description: This \$136 million high-profile design-build project included design and construction of the dual I-85 bridge using a single, temporary work bridge, all while causing minimal disruption to I-85 traffic. Flatiron widened approximately three miles of the four-lane I-85 to eight lanes, including the north and south approaches to the bridges. The project won the Pinnacle Award from the Carolina AGC in 2013; the NCDOT Safety Award in 2013; and the NCDOL Safety Award in 2012. It was named No. 3 in the Top 10 Roads of 2012 by Roads and Bridges Magazine.

Responsibilities: As Project Manager, Adam was responsible for all joint venture work and management of the design team. Under Adam's leadership, the team proposed a value engineering solution to use a single trestle to access the interstate bridge in lieu of two trestles to reduce environmental impact and ensure minimal disruption to I-85 traffic during construction. He oversaw construction of the six-million-pound trestle over stringently monitored wetland areas and an active railroad line.

* 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.

N/A



ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: Harold Dyson, P.E. Associate
b. Project Assignment: Responsible Charge Engineer
c. Name of all Firms with which you are employed at the time of submitting SOQs. In addition, please denote the type of employment (Full time/Part time): A. Morton Thomas and Associates, Inc. Full-Time Employment
d. Employment History: With this Firm <u>3</u> Years With Other Firms <u>34</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below): <u>Firm 1: A. Morton Thomas and Associates, Inc., 2013 - Present</u> As an Associate with AMT, Harold specializes in the construction management and oversight of major transportation projects with an emphasis on construction or rehabilitation of roadways, bridges, and structures. He applies advanced engineering planning and project scheduling principles to projects, conducts constructability reviews, oversees contractor work, and provides resolution of construction issues. <u>Firm 2: Virginia Department of Transportation, 2001 – 2013</u> Over the past 12 years, Harold has served in various positions that included: <ul style="list-style-type: none">• From 2008-2013, Harold acted as Architect Engineer II – Richmond District Construction and Materials Engineer. He was responsible for a construction program in a geographical region comprised of 14 counties currently valued at more than \$350 million. Additionally, Harold managed a materials section responsible that tested construction projects and geotechnical and pavement designs for projects not yet advertised.• From 2005-2007, Harold served as Architect Engineer II – Responsible Charge Engineer / Project Manager. He was responsible Charge Engineer for the administration of all construction activities for the Route 5 - Judith Stewart Dresser Memorial Bridge replacement contract and acted as Northern Region Area Construction Engineer for approximately six months in 2007.• From 2004-2005, Harold served as Architect Engineer II – Professional Engineer. Additionally, Harold acted as Program Manager (Responsible Charge) for the Virginia Capital Trail and Project Manager for the replacement of the Barrett’s Ferry Bridge/Route 5 over the Chickahominy River.• From 2001-2004, as Transportation Engineer Senior, Harold assisted the District Administrator and District Construction Engineer in effectively managing the construction program throughout the Richmond District.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Tech Blacksburg, VA Bachelor of Science in Civil Engineering 1979
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2005 Professional Engineer Virginia #40771 Also registered in DC, DE, MD, NC, PA, and TN.
g. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none">1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i>2. <i>Note whether experience is with current firm or with other firm.</i>3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> (List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

Virginia Capital Trail Design-Build, VDOT, Charles City and Henrico Counties, VA

Key Personnel Role: Responsible Charge Engineer

Experience with Current Firm: Yes

Project/Assignment Duration: 2013 – 2015

Design/Construction Value: Four design-build contracts valued at more than \$39 million

Project Description: Design, right-of-way acquisition, and construction of more than 24 miles of shared use path and bridges along the historic Route 5 corridor in Charles City and Henrico Counties, VA.

Responsibilities: Harold's responsibilities included were not limited to submittal reviews and responses, coordination with various design disciplines and design/build contractor, resolution of design and construction issues, schedule reviews, and negotiation of change orders. Worked closely with Richmond District staff to address schedule and scope changes to ensure the project is opened to the public on time. Conduct the regular progress meetings with the design/builder to assess and mitigate risk to the project schedule. Review and approve pay documents and conduct regular reviews of the work to ensure compliance with all contract requirements.

Huguenot Memorial Bridge Replacement, VDOT, Henrico, VA

Key Personnel Role: Responsible Charge Engineer

Experience with Current Firm: No

Project/Assignment Duration: 2010 - 2013

Design/Construction Value: \$38 million

Project Description: Replacement of Route 147 over the James River. This \$38 million project included construction of a new two lane structure with bike lanes, demolition of the existing bridge, major utility work and reconstruction of roadway in an urban environment.

Responsibilities: Harold was responsible for construction management including contractor oversight, resolution of construction issues, contractor payments, staffing and resolution of utility relocation conflicts. This project required very close coordination with localities during utility relocations to avoid potential outages. In addition, this project involved an extensive public outreach campaign to keep stakeholders informed of project activities and progress

Route 5 Bridge Replacement, VDOT, Charles City, VA

Key Personnel Role: Responsible Charge Engineer/Project Engineer

Experience with Current Firm: No

Project/Assignment Duration: 2007 - 2010

Design/Construction Value: \$35 million

Project Description: Construction of a one-half mile long bridge, realignment and construction of over one-half mile of approaches along with the demolition of the existing bridge in an environmentally sensitive location.

Responsibilities: Harold was responsible for all construction activities for the replacement of the Route 5 bridge over the Chickahominy River. Pre-award responsibilities included constructability/bid ability reviews, cost estimating, development of the construction schedule and development of the contract document and Special Provisions. Post award responsibilities included conducting the pre-construction meeting and monthly progress meetings, schedule analysis, responding to all contractor inquiries, working with the design team to develop plan revisions as needed, co-ordination with local governments, review and approval of pay documents and coordinating review and approval of shop drawings. Ensured that construction was completed in accordance with all contract documents

* 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.

N/A



ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

<p>Brief Resume of Key Personnel anticipated for the Project.</p>
<p>a. Name & Title: Michael Saunders, P.E., CCM, DBIA VP, Director of Construction</p>
<p>b. Project Assignment: Quality Assurance Manager</p>
<p>c. Name of all Firms with which you are employed at the time of submitting SOQs. In addition, please denote the type of employment (Full time/Part time): NXL Construction Services, Inc. Full-Time Employment</p>
<p>d. Employment History: With this Firm <u>5</u> Years With Other Firms <u>15</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):</p> <p><u>Firm 1: NXL Construction Services, Inc., 2011 - Present</u> Serving as Vice President and Director of Construction Management, Michael currently manages and coordinates the workload of in-house staff and subconsultants including four prime VDOT district-wide contracts. He provides consistency and coordination across all assigned tasks, coordinates progress meetings, established regular communications with clients, provides project review, and quality control/quality assurance management. As Quality Assurance Manager, he provided services for the Route 3 Widening in Culpepper, Virginia; Virginia Capital Trail Varina Phase in Richmond, Virginia; I-64/I-264 Pavement Rehabilitation in Norfolk, Virginia; and the Route 36 BRAC Improvements in Richmond, Virginia.</p> <p><u>Firm 2: Virginia Department of Transportation, 2001 - 2011</u> Over ten years, Michael served in various positions that included:</p> <ul style="list-style-type: none"> • In 2011, Michael served as Project Control Engineer/Area Construction Engineer for DB and LAP. He was responsible for coordinating constructability review; performing district-wide NOI and claims analysis; day-to-day activities as directed by the District Construction Engineer; and acted as the Responsible Charge Project Manager for various design-build projects in the Richmond District. • From 2007-2011, Michael acted as the Area Construction Engineer in the Richmond District/Southern Area Construction. He was responsible for executing a six-year program to include managing all aspects of construction and maintenance contracts safely (i.e. safety, quality, on-time, within budget); supervised all phases of multi-operational roadway and structural projects; performed responsible charge duties on various contracts; and assisted the Fredericksburg District with the administration of a regional design-build bridge replacement project. • From 2005-2007, Michael served as Construction Project Manager for the Salem District/Southern Area Construction. He supervised all phases of multi-operation roadway and structural construction projects. • In 2005, Michael acted as the Permits/Subdivision Supervisor for the Christiansburg Residency. He was responsible for the supervision and administration of the subdivision, rural streets and land use permits programs, including direct responsibility for supervising the performance and development of three staff members. • From 2004-2005, Michael served as an Architect/Engineer I for the Salem and Bedford Residencies. He assisted land development and maintenance program operations along with performing Acting Assistant Resident engineering duties and construction project management. • From 2001-2004, a Transportation Engineer Associate for the Christiansburg Residency, Michael completed the Associate Engineer Program in the Salem District.
<p>e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Tech Blacksburg, VA Bachelor of Science in Civil Engineering 2001</p>
<p>f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2005 Professional Engineer Virginia #041295 Certified Construction Manager Design Build Institute of America</p>
<p>g. Document the extent and depth of your experience and qualifications relevant to the Project.</p> <ol style="list-style-type: none"> 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i>

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

Route 3 Widening, VDOT, Culpeper, Virginia

Key Personnel Role: Quality Assurance Manager

Experience with Current Firm: Yes

Project/Assignment Duration: 2014 – 2017

Design/Construction Value: \$24 million

Project Description: Improvement of a 5.1-mile stretch of Route 3 from two lanes to a four-lane divided highway between Stevensburg and Lignum. This is the final section of Route 3 in Culpeper County to be widened to four lanes.

Responsibilities: Michael was responsible for preparing the project Quality Assurance (QA)/ Quality Control (QC) along with oversight of the QA procedures and plan. He is responsible for performance and coordination of quality assurance testing and inspection in accordance with VDOT's design-build guidelines throughout the project. Michael's other responsibilities include monitoring the contractor's QC program and liaison with VDOT for project compliance so that IA/IV testing is performed. He approves QC inspection, project staffing assignments, and the QC frequency testing plan before submission to VDOT. Michael handles the preparation, maintenance, and submission of associated project documentation including diaries, EEO, materials/notebook/documentation, as-built sketches, approval of monthly pay packages, and preparation/submission of final records. He also manages project QA staff so that sufficient staff is provided for compliance with the contract, plans, and specifications.

Virginia Capital Trail Varina Phase, VDOT, Richmond, Virginia

Key Personnel Role: Quality Assurance Manager

Experience with Current Firm: Yes

Project/Assignment Duration: 2013 – 2016

Design/Construction Value: \$10.5 million

Project Description: Construction of approximately 7.6-miles of 10-foot-wide trail extending from Longbridge Road in Henrico County to 1/2-mile south of the Richmond city limits. The trail splits at the Park Phase, extending north through Four Mile Creek and Dorey Parks in Henrico County.

Responsibilities: Michael prepared the project QA/ QC plan and oversight of the project QA procedures and plan. He was also responsible for performance and coordination of QA testing and inspection in accordance with VDOT's project design-build guidelines. Other responsibilities included monitoring the contractor's QC program and serving as liaison with VDOT for project compliance so that IA/IV testing was performed. He approved QC inspection, project staffing assignments, and the QC frequency testing plan before submission to VDOT. Michael handled the preparation, maintenance, and submission of associated project documentation including diaries, EEO, materials/ notebook/ documentation, as-built sketches, approval of monthly pay packages, and preparation/submission of final records. He also managed project QA staff so that sufficient staff is provided for compliance with the contract, plans, and specifications.

I-64/I-264 Pavement Rehabilitation, VDOT, Norfolk, Virginia

Key Personnel Role: Quality Assurance Manager

Experience with Current Firm: Yes

Project/Assignment Duration: 2014 – 2015

Design/Construction Value: \$36.5 million

Project Description: Major restoration and pavement rehabilitation of I-64 roadway from Little Creek Road Bridge to Curlew Drive and I-264 from Claiborne Avenue to Broad Creek Bridge for a total of 10-miles or 67 lane miles.

Responsibilities: Michael prepared the project QA/QC plan and oversaw the project's QA procedures and plan. He was responsible for the performance and coordination of QA testing and inspections in accordance with VDOT's project design-build guidelines. He monitored the contractor's QC program and served as liaison with VDOT for project compliance to perform IA/IV testing. Michael approved QC inspection, project staffing assignments, and QC frequency testing prior to submission to VDOT. He handled the preparation maintenance, and submission of associated project documentation including diaries, EEO, materials/notebook/documentation, as-built sketches, the approval of monthly pay packages, and preparation/submission of final records. Michael also managed project QA staff so that sufficient staff is provided for compliance with the contract, plans, and specifications.

* 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.

N/A



ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: Laura Mehiel, P.E. Associate
b. Project Assignment: Design Manager
c. Name of all Firms with which you are employed at the time of submitting SOQs. In addition, please denote the type of employment (Full time/Part time): A. Morton Thomas and Associates, Inc. Full-Time Employment
d. Employment History: With this Firm <u>5</u> Years With Other Firms <u>25</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below): <u>Firm 1: A. Morton Thomas and Associates, Inc., 2011 - Present</u> Senior Project Manager and Associate in Charge of mega projects and innovative delivery projects. Oversees highway development/design teams for transportation projects throughout the Commonwealth of Virginia, including design QC responsibilities. DPM for design-build and other innovative contracting techniques. <u>Firm 2: HNTB Corporation, 1998 - 2011</u> Senior Project Manager/Operations Manager who oversaw highway development/design teams for transportation projects including design/build throughout Virginia, Maryland, and Washington D.C. including QC role. Engineer-in-Charge of the Columbia, MD office, supervising a staff of highway, hydraulics, traffic, and construction professionals. Held operational, business development, and technical oversight roles.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: University of Delaware Newark, DE Chemical Engineering Degree in Civil Engineering 1986
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1992 Professional Engineer Virginia #34707 Also registered in DC, DE, MD, NC, PA, and TN
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> (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.) <u>Route 1 at Fort Belvoir Design-Build, FHWA-Eastern Federal Lands/VDOT, Fairfax County, VA</u> Key Personnel Role: Design Manager Experience with Current Firm: Yes Project/Assignment Duration: 2013 – 2016 Design/Construction Value: \$76 million Project Description: The project includes roadway widening/new alignment, safety and capacity improvements, bridges and culverts, new trail and sidewalk, retaining walls, and pile-stabilized slopes. Two intersections of the project carry on average more than 62,000 vehicles per day during construction, requiring well planned maintenance of traffic design to keep traffic safely moving through the work zone. Responsibilities: Laura was responsible for managing a multi-disciplinary team for widening/new alignment of 3.6 miles of US Route 1 from 4 lanes undivided to a 6-lane divided facility. Laura and her team designed the project in three stages with seven sub-phases, generally by widening to the west, shifting traffic to the new pavement, then completing the reconstruction of the existing lanes to serve as northbound. Extensive temporary drainage measures were required to carry storm flows across the existing roadway while carrying traffic. She managed all design including geometric alignments, intersection improvements, traffic analysis, bridge and wall design, maintenance of traffic plans/transportation master plans, drainage and stormwater management design, wet-land/stream permits, topographic

and utility surveys, geotechnical explorations, right-of-way plans and acquisition. She ran the design public hearing and conducted stakeholder design workshops. A total of 24 separate “release for construction packages” were prepared, including two advance grading packages to initiate grading early and to facilitate utility relocations. Laura has been involved in the construction phase, providing design support such as refined MOT sequencing, shop drawing reviews, requests for information, and partnering. She also managed the right of way acquisition process, with her direct team preparing all right-of-way plans, and her subconsultant providing appraisals, negotiations, COTs, and relocations.

Southgate Drive / US 460 Bypass Interchange, VDOT, Blacksburg, VA

Key Personnel Role: Design Project Manager

Experience with Current Firm: Yes

Project/Assignment Duration: 2012 – 2014

Design/Construction Value: \$47 million

Project Description: The project included traffic analysis and highway design for a total of over three miles of roadway improvements adjacent to Virginia Tech. The scope of the project included eliminating an existing signalized at-grade T-intersection by providing a diverging diamond interchange (DDI) 250 feet to the south of the existing intersection. The new interchange design was accompanied by the relocation of nearby campus roads, a regional trail, and was developed in coordination with an adjacent airport expansion project. The DDI was designed to allow for future widening of Route 460 and Southgate Drive, and will allow for a future fourth leg to the interchange that will complete a bypass of Prices Fork Road.

Responsibilities: Laura oversaw a cutting edge design project that incorporated multiple innovative intersections including two roundabouts, and a diverging diamond interchange. Laura and her team provided extensive alternatives analyses, and public hearing through 100% plans, specifications and estimates following VDOT standards, in a period of 20 months. She provided technical leadership for the design of highway, interchange, and shared-use path geometrics, roundabout design, stormwater management, and drainage facilities, and managed the production team performing traffic modeling of multiple intersection and interchange alternatives, bridge and retaining wall design, geotechnical investigations, TMP/SOC, right of way plans, design waivers, and environmental permit support. Laura organized and facilitated a stakeholder outreach plan which included alter-native workshops, design charrettes, graphics, simulations and renderings for the Design Public Hearing. A first for the VDOT Salem District, Laura and her team provided “turn-key” project management support as an extension of VDOT staff. Ranked as the #1 priority project for the Salem District, it is adjacent to Virginia Tech and will eliminate the existing signalized at-grade T-intersection to relieve a source of major congestion and improve safety on US 460 Bypass. The shared use trail is grade separated in three locations, and the project includes gateway aesthetic treatments on walls and abutments.

I-495 HOT (Express) Lanes, Fluor-Lane/VDOT, Fairfax County, VA

Key Personnel Role: Area 1 Design Manager

Experience with Current Firm: No

Project/Assignment Duration: 2007 - 2010

Design/Construction Value: \$270 million

Project Description: The Area 1 portion of project for which Laura served as Design Manager included I-495 mainline widening for a distance of about 4.5 miles, and four interchanges from south of Braddock Road to north of US 50. It was part of a \$2 billion effort to expand and improve a 14-mile section the I-495 Capital Beltway in Fairfax County. In addition to adding four new managed HOT lanes (two in each direction) and reconstructing the existing general purpose lanes, the overall project included construction of over 50 bridges and overpasses, close to a dozen interchanges, and dedicated HOV ramps.

Responsibilities: Laura managed and supervised the design-build team’s design of I-495 mainline widening and four interchanges from south of Braddock Road to north of US 50. She oversaw design production of over fifty staff and subconsultants in producing 55 design packages for grading/drainage, erosion control, final grading/roadway, noise and retaining walls, 13 bridges, utility relocations, and ROW plans, 80% of which was completed in a 10-month period. Included complex MOT staging requiring traffic modeling for each phase, to maintain existing interchange movements and property access throughout construction. Provided retaining walls to mitigate impacts to Accotink Creek, and designed outfall improvements at degraded outfalls throughout Wakefield Park meeting MS-19. Ensured QC procedures and utilization of VDOT CAD Standards. Worked closely with the Contractor and GEC reviewers on a daily basis by use of over the shoulder reviews, comment resolution meetings, and discipline-specific design sessions to maintain production schedule and meet the project construction goals.

* 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.

N/A

KEY PERSONNEL RESUME FORM

<p>Brief Resume of Key Personnel anticipated for the Project.</p>
<p>a. Name & Title:</p> <p>Greg Suttle Project Manager</p>
<p>b. Project Assignment:</p> <p>Construction Manager</p>
<p>c. Name of all Firms with which you are employed at the time of submitting SOQs. In addition, please denote the type of employment (Full time/Part time):</p> <p>Branch Civil, Inc. Full Time Employment</p>
<p>d. Employment History: With this Firm 26Years With Other Firms 2Years 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):</p> <p><u>Firm 1: Branch Civil, Inc., 1998 - Present</u> Acting as Construction Manager/ Project Manager, Greg is responsible for project construction including Quality Control (QC), executes work in accordance with “approved for construction” plans/specifications, and is accountable for compliance with material and construction requirements. Additional responsibilities include planning, scheduling, and allocation of manpower/equipment resources. He also managed owner, subcontractor, and supplier contracts. Greg supports EEO compliance, enforcement, and compliance with corporate safety regulations and training. He has worked on design-build and design-bid-build interstate widenings, primary and secondary road widening/relocations, and interchange work for various state and local departments of transportation, federal agencies, and private corporations.</p> <p>Previously, Greg has acted as a Construction Manager/General Superintendent and has worked jointly with the Project Manager for assigned project success. He was accountable for meeting schedule, controlling costs, QC, and hands-on management of manpower, equipment, and subcontractors. Greg placed an emphasis on workplace safety and training while meeting or exceeding owner’s expectations. His daily involvement with the work created a solid foundation for his understanding and working knowledge of the impacts associated with geotechnical challenges, maintenance of traffic, and utility relocation issues.</p>
<p>e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:</p> <p>West Virginia Institute of Technology Montgomery, West Virginia Bachelor of Science in Mining Engineering 1987</p>
<p>f. Active Registration: Year First Registered/ Discipline/VA Registration #:</p> <p>2003 Virginia Dept. of Environmental Quality (DEQ) Responsible Land Disturber (RLD) # RLD03021 1995 VDOT Erosion & Sediment Control Contract Certification #1-01135 1999 Virginia Blaster – Unrestricted E269250 2013 ACI Concrete Certification 01273969</p>
<p>g. Document the extent and depth of your experience and qualifications relevant to the Project.</p> <ol style="list-style-type: none"> <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> <i>Note whether experience is with current firm or with other firm.</i> <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <p>(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)</p> <p><u>Design-Build Route 3 Widening, VDOT, Culpeper, VA</u> Key Personnel Role: Construction Manager Experience with Current Firm: Yes</p>

Project/Assignment Duration: October 2015 – August 2017 (anticipated completion)

Design/Construction Value: \$23.5 million

Project Description: Five-mile section of road widening from two to four-lane divided highway on Route 3, just 25 miles from the I-95 Rappahannock project.

Responsibilities: Greg worked closely with VDOT and their project staff to coordinate scheduling and work flow as various stages of the project become accessible for construction activities. One critical responsibility is coordinating extensive utility relocations throughout the entire corridor, including Verizon, AT&T, Level 3, Qwest, Century Link, Dominion Virginia Power, Transco/Williams Gas, and Columbia Gas. Greg's responsibility and participation in the environmental permitting and compliance process from its inception have been essential. Remediation of substantial geotechnical issues resulting from unsuitable soils, rock, and highly plastic clays have been one of Greg's primary focuses throughout the project. Maintaining effective communication with residents and local commercial, agricultural, and industrial businesses has also been an important consideration in Greg's strategy to effectively mitigate shareholder impacts. It can be anticipated that Greg's Construction Manager duties on the I-95 Rappahannock project will include working with the same categories of shareholders and utility providers, dealing with similar geotechnical challenges as well as managing overall construction and QA/QC activities.

Design-Build I-95 HOT/HOV Express Lanes Segment 1, VDOT, Prince William & Stafford Counties, VA

Key Personnel Role: Construction Manager

Experience with Current Firm: Yes

Project/Assignment Duration: 2011 -2015

Design/Construction Value: \$46 million

Project Description: Nine miles of new I-95 HOT Lanes, including 1.5+ miles of interstate widening, is located a mere 20-miles from the I-95 Rappahannock project.

Responsibilities: As Construction Manager, Greg directed Branch's efforts as a key subcontractor. Consequently, Greg and the Branch Project Team successfully mitigated similar Geotechnical and MOT challenges as can be expected on this project. He coordinated Branch's work with the concessionaire, contractors, and sub-tier specialty contractors to accommodate an aggressive construction schedule. His diligent communication, effective planning, and global awareness of the project and its needs created an environment where resources were allocated as needed to maximize efficiency of operation.

Design-Build Route 15 James Madison Highway, Prince William County, Haymarket, VA

Key Personnel Role: Construction Manager/Project Superintendent

Experience with Current Firm: Yes

Project/Assignment Duration: 2007 - 2009

Design/Construction Value: \$55 million

Project Description: Widening of the existing Route 15 from a two-lane roadway to a four-lane median divided facility along with improvements to several adjacent secondary roadways.

Responsibilities: Greg directed the project team including three area superintendents along with foremen, project engineers and staff. His responsibilities included constructability reviews during design for the five distinct and separate roadway segments adjacent to the I-66/US-15 Interchange, including five bridges. He was instrumental in developing and enforcing the QC Program prior to and during construction, much as he will do for the I-95 Rappahannock project. Coordinating with DEQ and USACE, Greg created/executed Construction Sequencing Plans that allowed early starts to construction activities in each segment, including MOT coordination with VDOT and Prince William County. This 22-lane-mile project had utility relocations throughout. Greg scheduled crews and clearing to expedite initial critical relocation activities, such as pole installations and underground conduits/trenching. Another feature similar and significant to this project involves geotechnical challenges and remedies. There were intermittent segments of highly plastic, light, and/or saturated soils and rock in all five segments and each required a unique mitigation approach, including removal/replacement, mechanical manipulation, and chemical stabilization. He met with local businesses, communities, and developers through public outreach and simple face-to-face communications to address concerns and create a team atmosphere with shareholders.

* 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 Construction Manager, Greg is currently 100% dedicated to the Route 3 Widening project which is scheduled to be completed in August 2017. Afterwards, he will be 100% dedicated to the construction of I-95 Rappahannock project which will commence in the Fall of 2018.



ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

<p>Brief Resume of Key Personnel anticipated for the Project.</p>
<p>a. Name & Title: Ronald C. Briggs, P.E. Project Manager – Special Projects</p>
<p>b. Project Assignment: Lead Structural Engineer Full-Time Employment</p>
<p>c. Name of all Firms with which you are employed at the time of submitting SOQs. In addition, please denote the type of employment (Full time/Part time): STV Incorporated dba STV Group Incorporated</p>
<p>d. Employment History: With this Firm <u>31</u> Years With Other Firms <u>10</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below): <u>Firm 1: STV Incorporated dba STV Group Incorporated, 1985 - Present</u> Ronald is a senior project manager and structural engineer with extensive experience overseeing the design and construction of highway bridge projects. He has coordinated the work of diverse specialists covering a multitude of disciplines for major projects that include bridges on new alignment, bridge replacements, bridge widenings, and bridge rehabilitations. Ronald has expertise preparing feasibility studies, including constructability assessments, cost estimates, alternative analyses, and cost/benefit analyses. His experience includes overseeing the engineering design on numerous multidisciplinary projects, coordinating all aspects of roadway design, bridge design, utility relocation, right-of-way plans, environmental permitting, and geotechnical analysis. In addition to the projects described below, Ronald has served as Lead Structural Designer on several bridge designs for structures over major waterways with bridge lengths ranging from 900-feet to 3642-feet.</p>
<p>e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Polytechnic Institute and State University Blacksburg, VA Bachelor of Science in Civil Engineering 1975 University of Virginia Charlottesville, VA Master of Engineering Civil Engineering 1981</p>
<p>f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1979 / Professional Engineer Virginia #0402011415</p>
<p>g. Document the extent and depth of your experience and qualifications relevant to the Project.</p> <ol style="list-style-type: none"> 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <p>(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)</p> <p><u>I-581 at Valley View Boulevard Interchange Design-Build, VDOT, Roanoke, VA</u> Key Personnel Role: Lead Structural Engineer Experience with Current Firm: Yes Project/Assignment Duration: 2013 – Present Design/Construction Value: \$43 million Project Description: Widening and rehabilitation of the existing 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 feet of sound barrier walls. The bridge carrying Valley View Boulevard is a 2-span 240-foot continuous steel plate girder bridge and is being modified to eliminate deck joints by using deck slab extensions. The existing superstructure is being modified and strengthened to meet current LRFD design requirements. Staged construction is being implemented to complete the bridge widening, modification, and rehabilitation work. The bridge carrying the shared use path is a 2-span 251-foot continuous steel plate girder bridge with a composite reinforced concrete deck and mechanically stabilized earth retaining walls. Responsibilities: Ronald is responsible for the design of all bridges and structures associated with the construction of the I-581 Valley View Boulevard interchange in Roanoke, VA. Ronald is responsible for plan checking and review of structural plans. He is responsible for coordinating structural design with other disciplines and making sure the structural design is in conformance with contract documents. He is responsible for overseeing QC for the structural design, including the review of designs, working plans, shop drawings, specifications, and constructability. Ronald</p>

coordinated work of staff for all structural plan development, including consultation on constructability issues during design and construction. Elements of this design-build project to convert the existing interchange to a diverging diamond interchange in Roanoke include bridge widening, retaining walls, sound barrier walls, and the relocation of the Lick Run Greenway shared-use path, including the design of a new pedestrian bridge over I-581. Ronald coordinated the resolution of foundation issues associated with the karst topography of the project area, including pile designs, driving criteria, and adjustments during installation due to varying subsurface site conditions encountered.

I-95 Bridge Replacement over Meherrin River , VDOT, Emporia, VA

Key Personnel Role: Project Manager

Experience with Current Firm: Yes

Project/Assignment Duration: 2012 – Present

Design/Construction Value: \$22 million

Project Description: Replacement of the functionally obsolete 540-foot-long dual bridges carrying I-95 over the Meherrin River in the City of Emporia, VA including 1.1 miles of roadway reconstruction, Maintenance of Traffic Plans, permit drawings, foundation investigations, and hydraulic design.

Responsibilities: Ronald oversaw management of the design and preparation of a bridge concept study, preliminary field inspection plans, public hearing plans, Stage I report, preliminary bridge plans, and final bridge and roadway plans. Eight staged construction concepts and alignments were developed for the bridge concept study to address construction of the new bridges to limit disruptions to traffic on the interstate. Ronald met with key project stakeholders and affected property owners during the project development process. He was responsible for coordinating individual design disciplines and making sure overall project design is in conformance with the contract documents. Ronald established and oversaw QA/QC programs for all pertinent disciplines involved in design, including the review of designs, specifications, and constructability. Foundation design for the bridge structures included steel piles, spread footings and drilled shafts due to complex subsurface conditions and the potential for scour of the river. Alternate designs for foundations were developed to encourage competitive bidding of different foundation systems.

Hampton Boulevard Grade Separation, VDOT, Norfolk, VA

Key Personnel Role: Project Manager

Experience with Current Firm: Yes

Project/Assignment Duration: 1996 - 2016

Design/Construction Value: \$38 million

Project Description: Lowering of the six-lane Hampton Boulevard below grade to accommodate highway bridge and railroad bridge construction across this major urban roadway to provide unimpeded access for both vehicles and trains into the Norfolk International Terminal and to alleviate intermittent blocking of traffic on Hampton Boulevard as trains move into and out of the Port Facility. Included the design of all bridge, roadway and retaining wall structures required to depress the roadway and provide Port access. Since the depressed roadway was below the surrounding water table, a pump station was included in the design.

Responsibilities: To accomplish the grade separation, Ronald oversaw the development of plans for depressing 1,170 feet of Hampton Boulevard below the Norfolk Portsmouth Belt Line (NPBL) tracks. The depressed portion of the roadway consisted of a pile supported concrete slab surrounded by retaining walls up to 26-feet in height. Since the water table in the area is very high, the entire depressed roadway, including the retaining walls and pile supported slabs, were waterproofed and a pump station was incorporated into the project providing drainage for the underpass. The depressed roadway was constructed in stages to maintain rail traffic into the Port and a six lane detour roadway was designed to provide unrestricted flow of traffic around the site during construction. To facilitate the staged construction of the depressed roadway, Ronald designed plans to realign the NPBL tracks 260-feet to the north and designed a 100-foot-long, two span, two track ballast deck railroad bridge to carry the tracks over Hampton Boulevard. He also oversaw design of an adjacent 118-foot-long, single-span highway bridge to carry the Pier 3 Access Road over Hampton Boulevard. Ronald led the design team that included the design for the pump station, roadway improvements, bridges, structures, retaining walls, hydraulics design, and railroad track design. Additionally, Ronald led the public hearing process including working with a local citizens committee that was established to resolve issues of concern for the local community. Stakeholders included the NPBL Railroad, Norfolk Southern Railway, Virginia Port Authority, City of Norfolk, the U.S. Navy, and adjacent property owners.

* 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.

N/A



3.4.1a LEAD CONTRACTOR WORK HISTORY FORMS





ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: U.S. 17 Washington Bypass Location: Washington, NC	Name: AECOM	Name of Client/ Owner: North Carolina Department of Transportation (NCDOT) Phone: 877-368-4968 Project Manager: B. Ed Eatmon Phone: 252-439-2800 Email: beatmon@ncdot.gov	11/2010	3/2010 Actual	\$192,000	\$199,000 (Owner Directed Changes to Scope of Work)	\$119,900

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.

ROLE AND SCOPE OF WORK

As the lead joint venture partner, Flatiron managed the construction of the new \$192 million 6.8-mile lane Highway 17 Bypass around Washington and Chocowinity, N.C. The new bypass was **completed eight months early and was the largest construction contract ever awarded by NCDOT at the time of bid.** The project consisted of constructing a four-lane new location freeway with two interchanges and six bridges, including the 2.8-mile-long bridge over the Tar River and its adjoining environmentally sensitive wetlands. Additional scope of work included drainage, erosion control, signing, traffic control, signals, and right-of-way acquisition. To further reduce environmental disturbances, all operations were performed without the use of temporary access trestles.



Completed 2.8-mile bridge over the Tar River.

The main bridge was divided into two work segments, north and south of the Tar River. The now-patented process consisted of two self-contained gantries capable of performing all the tasks associated with the bridge construction, including driving 124-foot-long precast piles, erecting 50-ton bent caps, erecting 121-foot-long precast girders, and supporting deck pouring operations. The two self-launching 594-foot-long gantries, each weighing about 750 tons, worked simultaneously from each end of the bridge toward the middle of the structure.

As a span was completed and the deck was cured, the gantry was launched ahead to begin the pile driving on the next span. Each system was designed to be a totally self-contained bridge-building machine. It was capable of driving piles, erecting the bent caps, erecting the girders, and pouring the deck.

RELEVANCE TO PROJECT

- ✓ **Lead joint venture partner for a design-build bridge with a vertical clearance of 45 feet over a 2,000-foot navigable water channel**
- ✓ **Completed eight months early with no environmental violations**
- ✓ **Innovative patented, proprietary top-down construction technique to minimize footprint over wetlands**
- ✓ Required utility relocation, permitting, and right-of-way acquisition
- ✓ **Exceeded the project DBE goal of 8.8% with an actual usage of 9.7%**
- ✓ **Ten national awards received** for this project including the American Road and Transportation Builders Association - Globe Award Honorable Mention, 2011, and the Associated General Contractors of America - Aon Build America Award, 2011

VALUE ADDED

Challenge: Both design and construction of the 2.8-mile-long, four-lane bridge structure over the Tar River and environmentally sensitive wetlands proved to be challenging. Additionally, this region is often in the path of hurricanes that land on the North Carolina Coast.

Solution: A new and innovative top-down construction approach using a unique overhead gantry dramatically reduced impacts on more than 14 acres of wetlands and accelerated the construction schedule when compared with conventional construction techniques. This dramatic reduction in wetland disturbance was warmly embraced by

NCDOT, the US Army Corps of Engineers, NC Division of Water Quality, NC Department of Natural Resources, US Coast Guard, and other environmental agencies during the permitting process. **The world's first application of the pile driving operation from an erection gantry is the most unique feature of the system** and the essential element that truly eliminated the need for equipment and temporary access trestles and ground work in the fragile wetlands.

A pair of 592-foot-long, 750 ton, custom-built gantries, one at each end of the bridge working toward the middle of the bridge structure, built the entirety of the structure from the top down. The gantries were manufactured by DEAL and Birmingham under direction from Flatiron. The self-launching truss system performed the complete sequence of construction activities — from driving 30-inch square pre-stressed concrete piling to setting precast post-tensioned bent caps and 72-inch modified Bulb-T girders to handing materials for construction of the cast-in-place concrete deck. Construction activities occurred simultaneously across three spans (typically 120 feet in length) in an assembly line progression. As a span is completed and deck cured, the gantry is launched ahead to begin the pile driving on the next span. Additionally, the bridge was designed to withstand incredible loads far greater than normal traffic service load — from the construction activities to storm surge and 100 mph from hurricane events. This design allowed construction activities to proceed normally until wind speeds reached 45 mph, at which time the gantry was secured in place in a short-term out-of-service condition. If wind speeds exceeded 64 mph, the gantry was retracted to a position over a completed span and securely anchored to the deck. This section of the Tar River is also subject to tidal action and the potential scour from storm surge intensified the loading to the substructure elements.



Custom-built gantries were used for top-down construction of the bridge.

PROJECT DESCRIPTION

The project included **construction of a three-mile bridge over the Tar River and environmentally sensitive wetlands.** To ensure minimal disturbance to the surrounding environment, **Flatiron developed innovative construction methods and utilized a patented variation of the top-down construction technique.** This span-by-span construction method used the newly constructed permanent structure for personnel access and material deliveries. The process consisted of self-contained gantries capable of performing all tasks associated with the bridge construction, including driving the precast piles, building the bent caps, erecting the 120-foot-long precast girders and pouring the deck. Top-down construction, a commonly used construction method worldwide, was improved and customized for the portions of the new Tar River Bridge over wetlands. The new method **significantly reduced temporary impacts on wetlands beneath and around the new bridge,** and allowed these areas to recover more quickly than if they had been covered by a temporary work bridge that would have been necessary with conventional construction methods. It also **allowed an accelerated construction schedule in which the team completed the project eight months early.**



ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: Yadkin River Bridge Location: Salisbury, NC	Name: STV Incorporated (formerly known as STV/Ralph Whitehead Associates)	Name of Client/ Owner: NCDOT Phone: 877-368-4968 Project Manager: S. Pat Ivey, PE Phone: 336-703-6500 Email: pivey@ncdot.gov	12/2013	04/15/2013 Actual (Delayed due to railroad preventing access to right-of-way)	\$136,000	\$140,482 (Owner Directed Changes to Scope of Work)	\$77,265

ROLE AND SCOPE OF WORK

As the lead joint venture partner of this design-build project, **Flatiron reconstructed the deteriorating, 55-year-old segment of I-85 over the Yadkin River** near Salisbury, NC to relieve a significant highway bottleneck, bolster economic development, and improve safety. **The new dual bridges are 72-foot-wide and 2,914-foot-long, spanning a wetland, the river, and three sets of railroad tracks (freight, passenger, and high-speed rail).** Construction began in late 2010, the dual -bridges opened to traffic in March 2012, and the project was substantially completed in July 2013.

PROJECT DESCRIPTION

The I-85 corridor between Charlotte and Greensboro, NC, over the Yadkin River has long been one of the most congested and dangerous corridors in the state. The original I-85/Yadkin River Bridge, built in the 1950s, had become one of the most notorious bridge crossings in all of North Carolina due to being dangerously narrow and deterioration of its structure. Initially designed to carry 10,000 vehicles per day, the bridge currently carries 80,000 vehicles per day, including heavy tractor-trailer traffic. **This necessitated a massive reconstruction initiative including the erection of 3,000-foot-long dual bridges.**



Completed new dual bridges over the Yadkin River.

Flatiron constructed the new dual I-85 bridge using a single temporary work bridge, with minimal disruption to I-85 traffic. Using a single work bridge allowed rapid construction in the environmentally sensitive Yadkin River basin, while providing contractors with safe access to the work site (away from vehicular traffic). **During one phase of construction, crews set 200-foot-long, 10-foot deep steel girders each day during short four-hour railroad closure windows.** Once the parallel southbound lane (SBL) bridge was completed, traffic was separated and placed in its respective patterns (northbound and southbound). **The new dual bridges are 72-foot-wide and 2,914-foot-long spanning a wetland, the river, and railroad tracks (freight, passenger, and high-speed rail).**

In addition to the I-85 bridge replacement, the project **included replacing the adjacent U.S. 29/70 bridge spanning the Yadkin River**, dual bridges located south of the river over the Duke Power Industrial Spur and dual bridges located north of the river over the North Carolina Railroad; **approximately three miles of the four-lane I-85 was widened to eight lanes** including the north and south approaches to the bridges; and **the design and construction of storm drainage systems, noise walls, and guardrails.**

RELEVANCE TO PROJECT

- ✓ **Lead joint venture partner for a design-build bridge over a navigable waterway along with highway construction and reconstruction**
- ✓ **Completed over eight months early with no environmental violations and \$44 million below the Owner's budget**
- ✓ **Complex highway phasing for a heavily traveled stretch of interstate highway**
- ✓ **Coordination with Owner, stakeholders, and local community**
- ✓ **Coordinated all railroad operations with numerous entities**, including: NCDOT Rail Division, the U.S. Department of Transportation, Amtrak, Norfolk Southern, and the North Carolina Railroad Company
- ✓ Conducted partnering sessions with utility owners to successfully manage utility coordination for nearby transmission lines and other facilities conflicting with the new construction
- ✓ Development of an Incident Management Plan that placed emphasis on addressing potential highway accidents/incidents and that implemented pre-defined detour routes, quick coordination with state agencies and highway patrol officers in the event of an accident and plans for the safe and efficient removal of vehicles
- ✓ **Success of the erosion control and environmental protection efforts that Flatiron put forth at the Yadkin River Project have been well documented by various federal, state, and local agencies.**
- ✓ **Construction of a six million pound trestle - Flatiron's longest trestle to date at nearly a half mile long – over stringently monitored wetland areas, and the railroad** since both bridges cross a major line with 60 to 80 trains passing through each day to serve the East coast
- ✓ **Exceeded the project DBE goal of 10.36% with an actual usage of 12.20%**
- ✓ **Six national awards received** for this project including the Design-Build Institute of America – Award of Merit in Transportation, 2014, and Roads and Bridges – Top 10 Roads (#3), 2012

VALUE ADDED

NCDOT chose to accelerate the project via a design-build procurement using a “best value” selection process. **Flatiron's team was chosen as “Best Value Provider”** partly due to its superior technical proposal; receiving the top technical proposal score of 92, which allowed them to overcome an \$8 million difference in raw bid price compared to the low bidder. Additionally, innovative techniques greatly enhanced the value of the project, including:

- **Modified Work Bridge Configuration** – The planning document and RFP for the project envisioned a 46-foot median and separate temporary work bridges for the dual (northbound and southbound) Yadkin River bridges. **The team discovered that by slightly widening the median to 70 feet, a single work bridge could be constructed in the center median (instead of two separate bridges), reducing the project's cost, timeframe, and environmental impacts.** The \$7 million work bridge provided access to all construction elements and was capable of supporting more than eight million pounds of construction equipment, including large Manitowoc cranes.
- **Accelerated Intermediate Completion** – Due to safety and structural deterioration concerns, getting traffic off the existing Yadkin River Bridge was a priority. The team devised a traffic phasing scheme that involved building the northbound lane (NBL) bridge first, and then quickly shifting both NBL and SBL traffic (in a 4-lane, 2-way pattern) to this single bridge. This was successfully achieved in November 2012, allowing NCDOT to close the old bridge and remove it from service. Once the parallel SBL bridge was completed, traffic was separated and placed in its respective patterns (northbound and southbound), **enabling the project to be completed eight months early.**



Construction of the new dual bridges over the Yadkin River.

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: I-95 HOT/HOV Express Lanes Segment 1 Design-Build/PPTA Location: Prince William and Stafford Counties, VA	Name: HDR, Inc.	Name of Client/ Owner: Fluor-Lane JV Phone: 703-839-7248 Project Manager: Jeff Taylor, PE Phone: 703-244-6685 Email: Jeff.Taylor@FluorLane95.com	12/2014	07/2015 <small>(Client modified for additional sound wall work)</small>	\$46,999	\$46,847	\$46,847

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.

ROLE AND SCOPE OF WORK
As a key contractor for this project, Branch was the primary constructor/coordinator of nine new miles of roadway (Segment 1), which extended the I-95 HOT/Express Lanes from south of Exit 152 in Dumfries to Exit 143 in Garrisonville. Similar to the the I-95 at Rappahannock Project, Segment 1 included **construction of new express lanes in the median between existing general purpose lanes and general purpose lane widening in three locations totaling over 7,500 LF to provide ingress and egress to newly constructed HOT/Express Lanes.** Major items of work in the corridor were clearing, erosion and sediment control in highly sensitive areas, nearly 1,000,000 CY of earthwork, extensive drainage improvements, box culverts, sound wall construction for nearly the entire length of the project, two new flyover bridges with interchange improvements, MSE & retaining walls, and installation of ITS & electrical components. Extensive coordination was necessary with other trades and contractors on the project to ensure that all work was performed in the most cost effective, efficient way possible.

PROJECT DESCRIPTION
One of the first contractors to join the project, Branch **participated in working design review meetings, providing constructability analysis before and during construction.** The schedule for this project was critical, requiring precise coordination between all major work types in order to bring the project to a successful completion in such a short amount of time. **Through careful planning and extensive coordination, Branch was able to accelerate the schedule** for their contractual work which included: *All Earthwork including access and final grading, MSE Retaining Walls/Bridge Approaches, Subbase, Soil Nail Retaining Wall, RW3 Retaining Walls, Storm Drainage, Retention Ponds, Water Quality Structures, Paved Ditches, E&S Control, Wetland Protection, MOT, and Demolition.*



I-95 HOT/HOV Express Lanes Segment 1

Branch also coordinated with and provided additional access grading for activities performed by other subcontractors so that all phases of work could achieve their respective milestones such as bridges & abutments, soundwalls, permanent barrier wall, ITS & VDOT utilities, paving, signage, guardrail, and pavement markings. Branch played an active role in mitigating various conflicts and challenges throughout the project. **Numerous Field Design Changes (FDC) were initiated to resolve design conflicts and make efficient use of onsite material. These FDCs resulted in reductions to both cost and schedule.** One of the first priorities was designing safe ingress/egress throughout the project. **Construction entrances were designed to minimize impacts to the traveling public and reduce cost** by utilizing existing guardrail and shoulder facilities wherever possible. Diligent maintenance to these entrances ensured that minimal repairs were needed at the conclusion of the project.

- RELEVANCE TO PROJECT**
- ✓ **Identical I-95 Corridor Location/Traffic Volume**
 - ✓ **VDOT Design-Build**
 - ✓ FHWA Guidelines and Requirements
 - ✓ Interstate construction and widening with median crossovers
 - ✓ Complex construction sequencing and coordination
 - ✓ Soundwall construction
 - ✓ ITS and lighting facilities
 - ✓ Right-of-way acquisition
 - ✓ Utility relocations
 - ✓ Environmental permitting and monitoring
 - ✓ Geotechnical challenges and treatments
 - ✓ TMP and high volume MOT
 - ✓ Public involvement and communications
 - ✓ QA/QC coordination
 - ✓ **Exceeded the DBE goal of 10% with an actual usage of 23.9% of the contract.**

VALUE-ADDED
Challenge: High plasticity clay, highly weathered acidic rock, and saturated materials each presented its own set of geotechnical concerns and were dealt with on a case-by-case basis.
Solution: Although off-site disposal was employed for the worst material encountered, **thorough analysis of in-situ materials presented the opportunity to use mechanical and chemical manipulation to generate suitable roadway fill. These methods accelerated**

schedule, and in some cases reduced cost. It is likely that similar conditions will be encountered on the proposed I-95 at Rappahannock. Branch has the proven knowledge and experience to mitigate them efficiently and effectively.

Challenge: Extensive noise barrier requirements placed an enormous demand on available design and fabrication resources. The I-95 at Rappahannock Project may encounter similar instances as many projects along the corridor have proposed noise barriers that will be under construction at the same time.
Solution: Our experience and relationships with local wall suppliers make us uniquely suited to manage this work effectively.

Challenge: ITS and electrical, similar to the I-95 Rappahannock Project, was a critical component to meet the project schedule.
Solution: Branch coordinated with design and construction for the roadway prism to allow ample time installation and testing of ITS & electrical facilities.

Challenge: Limiting impacts to traveling public and affected business and communities including commitments to effective strategies to minimize congestion during construction.
Solution: Safe ingress/egress was designed throughout the project. Construction entrances minimized motorist impacts and reduced cost by using existing guardrail and shoulder facilities wherever possible. Diligent maintenance of these entrances required minimal repairs at the conclusion of the project.

Challenge: Developing and managing effective communication strategies with business owners and other key stakeholders.
Solution: Regularly scheduled meetings were held to inform area business owners and stakeholders of the construction schedule, any pending traffic pattern changes and to resolve any outstanding issues.



3.4.1b LEAD DESIGNER WORK HISTORY FORMS





ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in Thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement. (in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: New Interchange and Roadway Improvements at Southgate Drive and US 460 Bypass Location: Blacksburg, VA	Branch Civil, Inc.	Name: VDOT Salem District Phone: (540) 387-5320 Project Manager: Phillip Hammack, PE Phone: (540) 378-5041 Email: Phillip.Hammack@VDOT.Virginia.gov	04/2015	12/2018 (Estimated)	\$46,700	\$46,700 (Estimated)	\$4,916

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.

ROLE AND SCOPE OF WORK

AMT provided full design services on this critical roadway improvement project for an overall total of 3.6 miles of roadway alignment, adjacent to Virginia Tech in Blacksburg. The purpose was to eliminate the existing signalized at-grade T-intersection at the heaviest used, primary entrance to Virginia Tech campus. This traffic signal is currently the only signal on the limited access bypass segment of U.S. Route 460 in the Town of Christiansburg, Montgomery County and the Town of Blacksburg. The intersection experiences significant backups during the morning and evening peak hours as well as during major/special events and hampers through movements along the 460 Bypass, also creating a safety concern due to rear-end collisions. The project provides a grade separated interchange in a new location southeast of the existing intersection to accommodate current and planned traffic movements and realignment of Route 314 from US 460 to the Virginia Tech campus. AMT provided the following services, serving as an extension of VDOT staff and performing many reporting and management functions that VDOT would typically self-perform.



Rendering of Route 314, Southgate Drive, US Route 460, Roundabout.

- AMT was the **Lead Designer** who oversaw, managed and provided the following services:
- Traffic Analysis, including traffic/crash data collection and analysis, traffic operation analysis, no-build and build forecasts, origin/destination study, safety analysis, and travel time study.
 - Roadway Design and Trail Relocation Design, for a total of 3.6 miles of roadway alignment, 1.5 miles of "off-line" trail including two grade separated trail crossings, and two reconfigured at-grade intersections.
 - Interchange Justification Report which included alternative grade separation/interchange configurations and assessment for each alternate of the following: meets purpose and need (functionality), geometrics, traffic operations (LOS) and sensitivity analysis, safety, right of way impacts, environmental impacts, roadway construction cost, hydraulics, bridge and structure costs, utilities, and constructability.
 - Traffic Engineering, including signing plans, signal design, lighting design, maintenance of traffic plans, Transportation Management Plan, and marking plans.
 - Hydraulic Design including drainage, erosion and sediment control, and stormwater management following the most recent DEQ and VDOT requirements (VSMP and SWPPP).

- Bridge Design and Retaining Wall Design for one new bridge structure, and up to 4,000 feet of retaining walls, including soil nail and MSE/Reinforced Earth
- Public and Stakeholder Outreach – AMT, as the lead designer, developed a tailored coordination/ communication plan for each stakeholder. AMT services also included full Public Hearing support including brochure, displays, simulations, and renderings to convey the project to the public
- Geotechnical Engineering to support bridge foundation design, wall design, and pavement design. Prepared alternative foundation designs as "bid options" due to presence of shallow rock found at some boring locations. Options included drilled shafts, and driven piles in combination with socketed piles.
- Landscape Architecture/Aesthetic Design to provide a gateway design for the entrance to the University
- Right of Way plans per VDOT requirements.
- Utility relocation design per Municipality/Owner Requirements

PROJECT DESCRIPTION

- Roadway widening and realignment for safety and congestion relief
- Shared-use trail realignment and improvements
- New grade separation of signalized intersection
- Significant Maintenance of Traffic/Phasing
- Extensive Environmental Resource Protection
- Reconstruction of existing roadways and intersections on Campus
- Stormwater management meeting the new DEQ requirements
- Phased erosion/sediment control corresponding to MOT phases
- Coordination with several adjacent projects in close proximity, including airport runway extension, US 460 Connector, Huckleberry Trail project and power station expansion.

RELEVANCE TO PROJECT

- ✓ High profile project, long planned project (>30 years) – located at Virginia Polytechnic and State University main entrance
- ✓ Significant sized project - \$46.7 million
- ✓ Widening within tight ROW, including use of retaining walls to minimize impacts
- ✓ Combination of both thru and local traffic
- ✓ Weathered rock encountered throughout project site
- ✓ VDOT project
- ✓ Detailed TMP required to maintain traffic movements during construction
- ✓ Included Safety features such as increased clear zone, traffic barriers, and rumble strips."
- ✓ Utility relocation and coordination

VALUE ADDED

- Completed PAC milestone within 19 months of NTP
- Conducted successful public hearings with positive feedback from Virginia Tech, Blacksburg, and VDOT District Administrator



Relocated Southgate Drive (Route 314) under Construction



ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in Thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement. (in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: US Route 460 Phase I Location: Buchanan County, VA	Bizzack Construction, LLC	Name: VDOT, Bristol District Phone: (276) 669-6151 Project Manager: Amanda Cox, PMP Phone: (276) 669-6151 Email: Amanda.Cox@VDOT.Virginia.gov	08/2009	09/2015	\$113,000	\$113,000	\$5,800

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.

ROLE AND SCOPE OF WORK

AMT was the **lead road designer and construction quality assurance manager** for this \$113 million design-build project in southwestern region of Virginia. The US 460 Connector will ultimately link federal highways in Virginia and Kentucky along a route known as "Corridor Q," a part of the Appalachian Development Highway System. AMT **provided and oversaw all highway design services (roadway, drainage, phasing/traffic control, signing, stormwater management, erosion and sediment control, and utilities)** of this four-lane Rural Principal Arterial with connections to local routes and other local roadway improvements.



New US 460 Connector Roadway Pavement Placement

AMT provided design services for the US 460 Connector and realignment of Route 80 connecting the current roadway with the new US Route 460 Connector Phase I project. The **project includes one mile of new Connector roadway and 0.56 miles of widening and realignment of Route 80**. Services included roadway design, hydraulic design and erosion and sediment control plan development. The project also **includes three bridges: twin 1,733-foot-long cast-in-place hollow box concrete structures crossing Grassy Creek and Route 610 at a maximum height of 267 feet, and a 300-foot-long bulb-T girder bridge crossing Hunts Creek**. The widening of the shoulders and clear zone of Route 80 for safety improvements was also included. MSE retaining walls were designed in areas where right of way or environmental features were a concern.

The roadway is cut into steep terrain with benched side slopes engineered to minimize earthwork and disturbance to the environment. To address the extensive earthwork needs stemming from the terrain and topography, approximately 2.6 million cubic yards of excavated material was placed in an engineered waste area on the project site. Stormwater management facilities and erosion control features were designed to minimize impacts to sensitive local streams and to control increases in stormwater runoff as a result of the large footprint of the project.

AMT provided roadway design and coordinated closely with members of the structural engineering team throughout the project. More than 50 construction packages were developed to address the roadway, drainage, utility and traffic control related needs under our purview. In addition to the standard construction packages, due to the unique soil and subsurface conditions in the area, AMT prepared Well and Surface Mining Plans. AMT prepared the Transportation Management Plan, and also provided construction quality assurance for testing and/or inspection of items of construction work for conformance with the contract plans and specifications. Another aspect of AMT's scope included leading the preparatory meetings for several items of construction, including erosion/sediment control, clear and grub, permanent re-vegetation, traffic control and drainage installation.

PROJECT DESCRIPTION

- A 0.8-mile four-lane divided highway (US Route 460) starting at the Kentucky State Line.
- An access ramp to Route 80, improving access to Breaks Interstate Park. This **includes the construction of a bridge** crossing Route 768.
- Secondary connections to Routes 609 and 693 from Route 80, including:
 - Connection to existing Route 80
 - Overlay and improvement along existing Route 80
 - Relocation of existing Route 693
 - Relocation of existing Route 768
 - Relocation of existing Route 609
 - New connection of Route 768 with relocated Route 609
- **Twin high-level bridges, 1700 linear feet in length**, located over Conaway Road (Route 610) and Grassy Creek. **When completed the over 250-foot-high bridges will be the tallest in Virginia.**



New US 460 Connector Roadway Base Asphalt & Temporary Guardrail

RELEVANCE TO PROJECT

- ✓ One of the three most urgently needed infrastructure improvement projects for the region.
- ✓ **Close coordination between roadway designer and contractor.**
- ✓ **Design-build delivery method.**
- ✓ Extensive earthwork: > two million CY.
- ✓ Unique soil and subsurface conditions.
- ✓ Significant sized project - \$113 million.
- ✓ **VDOT project.**

VALUE ADDED

- **AMT received a letter of recognition from VDOT's Project Manager, Amanda Cox, PMP, for excellent performance.**
- AMT gained valuable experience working on **VDOT's largest active design-build contract at the time.**
- AMT structured its electronic filing system to enhance internal file sharing, access, and review to facilitate extensive quality control and quality assurance reviews.
- AMT designers also extracted information from the construction team members who may not normally be fluent in design terminology.
- AMT also worked in a fast paced design environment where multiple designers were advancing concepts concurrently, requiring regular communication and cross-discipline reviews.
- Construction phase staff were involved with all the design staff early and often to provide constructability reviews.

ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)



a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in Thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement. (in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: Design-Build US Route 1 Improvements at Fort Belvoir Location: Fairfax County, Virginia	Name: Corman Construction, Inc. / Wagman, Inc. Joint Venture	Name of Client/Owner: Eastern Federal Lands Highway Division / VDOT Northern Virginia District VDOT NOVA Phone: (800) 367-7623 VDOT Project Manager: Timothy Hartzell Phone: (703) 259-2749 Email: Timothy.Hartzell@VDOT.Virginia.gov	06/2013	06/2017 (Substantial Completion)	\$76,000	\$76,000	\$6,314

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.

ROLE AND SCOPE OF WORK

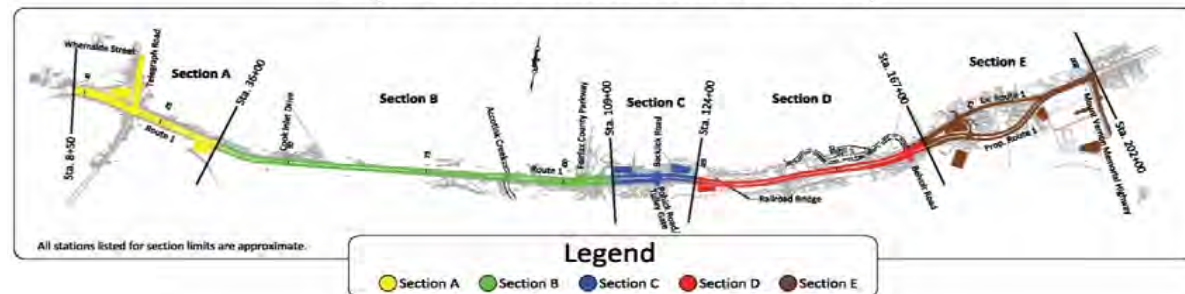
AMT is the **Lead Designer and Construction Quality Control Manager** for this \$70 million design-build project in northeastern region of Virginia, which provides traffic relief and safety for the ongoing BRAC consolidation occurring in the vicinity of Fort Belvoir. The Route 1 Improvements project implements a series of enhancements along Route 1 from the Telegraph Road intersection north to /Mt Vernon Memorial Highway for a distance of 3.68 miles. These improvements generally widen Route 1 from four to six lanes, provide a one-mile new alignment, improve intersection safety, operations and capacity with new traffic signals and turn lanes, and provide parallel pedestrian and bicycle facilities for the entire length. In addition, this project has new bridges over Accotink Creek, several wildlife crossing structures under Route 1, and removal of an existing military railroad crossing.

AMT's design of improvements utilizes the existing pavement to the maximum extent possible. Through the use of milling, overlay, and build-up in area where allowable, proposed maintenance of traffic was greatly simplified requiring smaller shifts in traffic to address grade changes at the curb line and provide widening as needed. In areas of complete reconstruction, AMT developed a bifurcated roadway profile to help minimize earthwork and limit impacts on the adjacent Fort Belvoir and other historic properties. AMT also provided phase drainage/culvert construction plans, creative stormwater management approach to minimize the number of facilities (using the "1 percent rule" and nutrient banking), and advance grading packages to facilitate early utility construction.

The project is coordinated with several projects administered by others - North Post Access Control Point (Fort Belvoir), Lyndam Hill Development, Accotink Village and Mulligan Road. Twenty-five parcels required either partial or total acquisition, and more than 100 tenants were provided relocation as part of the design-build project, under the management of AMT.

Highway design services (roadway, drainage, phasing/traffic control, signing, stormwater management, erosion and sediment control, and utilities) are provided by AMT. Utility protection/relocation including designation and test holes for the existing utilities are also provided by AMT. AMT is also providing the Construction Quality Control Manager for the project. This includes managing/providing quality control inspection and testing services.

Sequence of Construction Summary



PROJECT DESCRIPTION

- An improved 3.68-mile six-lane divided highway (US Route 1), including a widened raised median to accommodate future transit
- Twin bridges, 332 linear feet in length, lifting the existing roadway out of the Accotink Creek Floodplain
- Extensive TMP to provide safe and efficient traffic flow during construction
- More than 300 drainage structures, 5 miles of storm drain pipe, 5 SWM ponds, and extensive E/S control (phased with MOT)
- Permits for multiple impacts to stream channels (500 LF) and wetlands (approximately 1 acre), with time of year restrictions
- Relocated Utility poles along entire alignment



Route 1 Construction Progress Photos

RELEVANCE TO PROJECT

- ✓ Design-build delivery method
- ✓ Significant size project - \$70 million
- ✓ VDOT owned and maintained
- ✓ Combination of both thru and local traffic
- ✓ Strategic maintenance of traffic and phasing
- ✓ Offset roadway alignment/widening, with extensive new drainage systems to be built and "daylighted" while maintaining traffic
- ✓ Extensive Right-of-Way Acquisitions
- ✓ Utility relocations (pole lines, gas, and others)
- ✓ Innovative stormwater management approach
- ✓ Coordination with adjacent projects

VALUE ADDED

- AMT structured its delivery of the project to provide parts of the project immediately available for construction and delaying portions of the project to allow for adequate time for outreach and community input while obtaining the necessary approvals.
- Excellent community feedback on social media, for example: "Thank you so very much for the work efforts made in the design and construction of U.S. Route 1. You have provided posters, maps, and scale models to allow us to understand ... the proposed infrastructure changes. Project Team members have shared information and answered questions at scheduled meetings and programs in communities like mine. There have been creative and safe detours and temporary closures with signs providing news regarding current and future changes. Use of the orange cones/barrels and construction vehicles has been exceptional!"



SUBMITTED BY:



SUBMITTED TO:



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Department of Transportation
Central Office Mail Center
Loading Dock Entrance
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Richmond, VA 23219