Design-Build Project For
I-64 Southside Widening and High Rise Bridge, Phase 1
City of Chesapeake, Virginia

Contract ID Number: C00106692DB93

Statement of Qualifications

Skanska-Archer Western 2 Joint Venture

October 2016
# Statement of Qualifications

3.2 Letter of Submittal ................................................................. 1
3.3 Offeror’s Team Structure ....................................................... 3
3.4 Experience of the Offeror’s Team ........................................... 9
3.6 Project Risks ........................................................................ 13

# Appendices

3.1.2 SOQ Checklist .................................................................. 21
2.1.1 Form C-78-RFQ ............................................................... 25
3.2.6 List of Affiliated and Subsidiary Companies ....................... 26
3.2.7 Certification Regarding Debarment Forms .......................... 28
  3.2.7(a) Certification Regarding Debarment Form(s)
      Primary Covered Transactions) ............................................. 28
  3.2.7(b) Certification Regarding Debarment Form(s)
      Lower Tiered Covered Transactions .................................... 34
3.2.8 Offeror’s VDOT Prequalification Certificate ...................... 43
3.2.9 Surety Letter ..................................................................... 45
3.2.10 SCC and DPOR Information Tables ................................. 64
  3.2.10.1 Full Size Copies of SCC Registration ......................... 68
  3.2.10.2 Full Size Copies of DPOR Registration
      (Offices) ............................................................................ 91
  3.2.10.3 Full Size Copies of DPOR Registration
      (Key Personnel) ................................................................. 101
  3.2.10.4 Full Size Copies of DPOR Registration
      (Non-APELSCVIDLA) ......................................................... 114
3.3.1 Key Personnel Resume and Reference Forms .......... 115
3.4.1 Work History Forms .......................................................... 136
   3.4.1(a) Lead Contractor Work History Forms ............ 136
   3.4.1(b) Subcontractor Work History Forms .............. 141
   3.4.1(c) Lead Designer Work History Forms .............. 142
   3.4.1(d) Subconsultant Work History Forms .............. 144
3.5 Lead Contractor Safety Qualifications Forms .......... 145
Statement of Qualifications

I-64 Southside Widening and High Rise Bridge, Phase 1
3.2 Letter of Submittal
October 13, 2016
Mr. Jeffrey A. Roby
Commonwealth of Virginia
Department of Transportation (VDOT)
Central Office Mail Center
Loading Dock Entrance
1401 E. Broad Street
Richmond, Virginia 23219

RE: Request for Qualifications Design-Build Project for I-64 Southside Widening and High Rise Bridge, Phase 1 State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

Dear Mr. Roby,

Skanska-Archer Western 2 Joint Venture (SAW2JV) is pleased to share our credentials, experience and ideas on how to work collaboratively with VDOT and the community for a successful I-64 Southside Widening and High Rise Bridge, Phase 1 Project (I64HRB). SAW2JV combines two of the most respected and experienced U.S. design-build (DB) contractors, Skanska USA Civil Southeast Inc. and Archer Western Construction, LLC to specifically address the unique needs of I64HRB. Our long-time partner, Parsons Brinckerhoff, Inc., which has more than 50 years experience in the area working with us and VDOT, is our lead design firm.

Since 1932, Skanska has been in Hampton Roads constructing some of the largest, most challenging projects in the area: the Second Hampton Roads Bridge-Tunnel, the Berkley Bridge, the I-264 and I-64 HOV lanes and, most recently, the Elizabeth River Tunnels (ERT). Our Design-Build Project Manager, Mr. Tom Fulton, and many of the management staff and work force required for the I64HRB will come from the ERT project, which will finish early next year. Our local team’s knowledge of suppliers, subcontractors, stakeholders, construction workforce, environmental concerns and geology is critical to successfully delivering the I64HRB. As an added benefit, Bayshore Concrete Products, the largest producer of precast concrete bridge elements on the east coast is a wholly owned subsidiary of Skanska and will deliver the highest-quality bridge components needed for I64HRB on-time.

3.2.1 Offeror: SAW2JV is structured as a “joint-and-several-liability” joint venture between Skanska USA Civil Southeast Inc. and Archer Western Construction, LLC and is the legal entity that will execute the contract with VDOT. SAW2JV will be governed by an Executive Board with members from each of our two companies who will be in place from design through construction.

3.2.2 Point of Contact:
Mr. Stephen Davis
Vice President of Estimating
Skanska USA Civil Southeast Inc.
295 Bendix Road, Suite 400
Virginia Beach, VA 23452
T 757-578-4184/ F 757-420-3551
stephen.davis@skanska.com

3.2.3 Principal Officer Information:
Mr. Salvatore F. Taddeo
Chief Operating Officer/Executive Vice President
Skanska USA Civil Southeast Inc.
295 Bendix Road, Suite 400
Virginia Beach, VA 23452
T 757-578-4162/ F 757-420-3551
salvatore.taddeo@skanska.com
3.2.4 Offeror’s Corporate Structure: SAW2JV is a “joint and several” joint venture. As described in our JV agreement, SAW2JV is an integrated JV. SAW2JV is financially responsible for the referenced Project and does not have any liability limitations. Skanska and Archer Western are joint and severally liable for the performance of the work. A single 100% performance bond and single 100% payment bond will be provided for SAW2JV by our surety. Both Skanska and Archer Western are registered with the State Corporation Commission (SCC). Our surety letter and SCC certificates are included in the Appendices of our original Statement of Qualifications, with copies in the electronic file.

3.2.5 Identity of Lead Contractor and Lead Designer: SAW2JV is the Offeror and Lead Contractor responsible for overall contract execution and construction and will serve as the legal entity who will execute a contract with VDOT. Parsons Brinckerhoff is the Lead Designer responsible for the overall design of the Project, supported by Dewberry Consultants, LLC as a dedicated subconsultant.

3.2.6 Affiliated/Subsidiary Companies: Please refer to the Attachment 3.2.6 to review the list of Skanska’s and Archer Western’s Affiliated/Subsidiary Companies.

3.2.7 Debarment Forms: Skanska and Archer Western have provided executed Certification Regarding Debarment Forms in Attachment 3.2.7 (a) – Primary Covered Transactions. Subcontractors have provided executed forms in Attachment 3.2.7 (b) – Lower Tier Covered Transactions.

3.2.8 Offeror VDOT Prequalification Forms: SAW2JV’s prequalification number JV076 is active and in good standing to bid on the Project. Prequalification documents and SCC certifications for Skanska and Archer Western are located in Attachment 3.2.8.

3.2.9 Bonding. SAW2JV’s surety letter located in Attachment 3.2.9 attests to our ability to obtain Performance and Payment bonds.

3.2.10 State Corporation Commission (SCC)/Department of Professional and Occupational Regulations (DPOR) Requirements: Attachment 3.2.10 provides evidence and certifies that SAW2JV complies with the requirements set forth in RFQ Section 3.2.10 subsections .1 through .4.

3.2.11 Disadvantaged Business Enterprise (DBE) and Small, Women-owned, and Minority-owned Business (SWaM) Commitment: SAW2JV is committed to meeting or exceeding the eight percent (8%) DBE participation goal for the Project. Additionally, our Team’s formal subcontracting program will ensure maximum use of SWaM firms.

SAW2JV is the right team to deliver the I-64 HRB project! Our local team brings the resources needed to provide you with innovative, cost effective solutions to deliver this project under budget and ahead of schedule, while limiting impacts to the traveling public. Our team combines two of the largest, most experienced design-build contractors in the country, Skanska and Archer Western. With our long-standing design partner, Parsons Brinckerhoff, we create an integrated team that is focused on meeting your primary objective for the project, to increase mobility and safety along the I-64 corridor.

We look forward to working with you on this critical project for the Hampton Roads region and the Commonwealth.

Sincerely,

Stephen Davis
Authorized Representative
Skanska-Archer Western 2 Joint Venture
3.3 Offeror’s Team Structure
3.3 Offeror’s Team Structure

The Offeror, Skanska–Archer Western 2 Joint Venture (SAW2JV) brings together two leading Virginia and Southeastern United States construction firms with the resources, experience and capabilities to manage and construct high-profile highway projects in the Hampton Roads area. Supporting team members, many of whom are locally based with a long history in the area, were carefully selected based on previous work relationships and capabilities in providing complementary services and resources in design, quality, and right-of-way acquisition services. In working together to develop the I-64 Southside Widening and High Rise Bridge Phase 1 Project (I64HRB), we offer an organizational structure with local experience and established internal and external relationships that will serve as the foundation for our work with VDOT on the I64HRB. This preparation will help us manage the accelerated schedule from day one.

The SAW2JV Team

Table 3.3-1 shows the members of the SAW2JV team.

Skanska USA Civil Southeast Inc. (Skanska) headquartered in Virginia Beach, is a leading heavy civil and marine construction contractor with an extensive portfolio of providing solutions in bridges and highways, rail, and marine construction. This breadth of experience allows us to address unique aspects of a project and apply our expertise and lessons-learned on numerous roadway projects in Virginia and the southeastern U.S. Our construction equipment yard, the Southern Branch Yard, (SBY) is located one mile south of the existing bridge on the Southern Branch of the Elizabeth River, providing a ready base of operations to start construction. Our corporate offices have been in the Hampton Roads since 1932, and Skanska has self-performed construction on many of the tunnels, bridges, highways, and marine facilities in the area over the years, working with VDOT.

Table 3.3-1. The members and roles of the SAW2JV team.

<table>
<thead>
<tr>
<th>The SAW2JV Team</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAW2JV</strong></td>
</tr>
<tr>
<td>VDOT Prequalification Joint Venture No. JV076</td>
</tr>
<tr>
<td><strong>Parsons Brinckerhoff, Inc.</strong></td>
</tr>
<tr>
<td><strong>Dewberry Consultants LLC</strong></td>
</tr>
<tr>
<td><strong>Tuhin Basu and Associates, Inc.</strong></td>
</tr>
<tr>
<td>DBE/MBE No. 626752</td>
</tr>
<tr>
<td><strong>Sabra, Wang &amp; Associates, Inc.</strong></td>
</tr>
<tr>
<td>DBE/WBE No. 705236</td>
</tr>
<tr>
<td><strong>Hassan Water Resources, PLC</strong></td>
</tr>
<tr>
<td>MBE No. DB2010-033702015</td>
</tr>
<tr>
<td><strong>Harris Miller Miller &amp; Hanson Inc.</strong></td>
</tr>
<tr>
<td>DBE/WBE No. 705236</td>
</tr>
<tr>
<td><strong>Precision Measurements, Inc.</strong></td>
</tr>
<tr>
<td>DBE/WBE No. 5346</td>
</tr>
<tr>
<td><strong>Cardno Ltd.</strong></td>
</tr>
<tr>
<td><strong>Stantec, Inc.</strong></td>
</tr>
<tr>
<td><strong>Stantec, Inc.</strong></td>
</tr>
</tbody>
</table>
Archer Western Construction, LLC (AWC). A general contracting, construction management, and design-build firm, AWC is a part of the Walsh Construction Group, a fourth-generation family-owned business dating back 118 years. This $4.2 billion per year construction company is ranked as the largest bridge builder, the second largest domestic heavy contractor, and the third largest transportation contractor in the U.S. according to the 2015 Engineering-News Record. AWC has maintained its presence in Virginia since the 1980s, completing projects such as the I-95 Richmond Bridge Replacement and the I-95 Springfield interchange that connects to the Woodrow Wilson Bridge. AWC traditionally self-performs the majority of scopes on infrastructure projects including demolition, wet utilities, storm drainage, paving, concrete work, earthwork, foundations, bridges, and retaining walls.

Parsons Brinckerhoff, Inc. (PB). The Lead Designer is a global consulting firm assisting public and private clients to plan, develop, design, construct, operate, and maintain thousands of critical global infrastructure projects. With a strong commitment to technical excellence, a diverse workforce, and service to its clients, PB has maintained a Virginia presence since the 1950s, and currently has over 200 employees throughout the state, including a major presence in Southeastern Virginia. In the last 10 years, PB has completed more than 460 projects with 43 active projects in the Virginia Beach area.

Dewberry Consultants, LLC (Dewberry). This local consultant provides experience in design for highway widening in urban areas, developing innovative ideas working on design-build projects, and a long history of working with VDOT. They are also known for extensive experience working closely with regulatory agencies to acquire permits expeditiously on I-64 Segment 1.

### 3.3.1 Identity Of And Information About The Key Personnel

SAW2JV has made the individuals in Table 3.3-2 available for the duration of I64HRB to fill the key roles. Resumes for each individual are located in Attachment 3.3.1 of the Appendices.

<table>
<thead>
<tr>
<th>Table 3.3-2. SAW2JV Key Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Qualification Highlights</strong></td>
</tr>
</tbody>
</table>
| Tom Fulton, P.E. - Design-Build Project Manager / Responsible Charge Engineer - VA P.E. No. 034653 | - ERT, Portsmouth VA  
- Huguenot Bridge, Richmond VA  
- Route1/I-95/I-495 Alexandria VA |
| Julie Hartman, P.E. - Quality Assurance Manager - VA P.E. No. 0402044099 | - Middle Ground Boulevard, Newport News VA  
- Ohio River Bridge, Parkersburg WV  
- James Ramsey Bridge Replacement, Sheperdstown, WV |
| Derek Piper, P.E. - Design Manager - VA P.E. No. 0402046886 | - MLK Extension, Portsmouth VA  
- ERT, Portsmouth VA  
- Dominion Blvd Widening, Chesapeake VA |
| David Kampman - Construction Manager | - ERT, Portsmouth VA  
- 11th Street Bridges, Washington DC  
- Cooper River Bridge, Charleston SC |
| Rex Gilley, P.E. - Lead Structural Engineer - VA P.E. No. 04020225213 | - Dominion Blvd Widening, Chesapeake VA  
- Route 33 Pamunkey River Bridge, West Point VA  
- Cooper River Bridge, Charleston SC |
| Joe Morffi - Incident Management Coordinator | - I-4 Ultimate PPP, Orlando, FL  
- I-595 Express PPP, Broward County, FL |
3.3.2 Organizational Chart Showing the “Chain Of Command”

Our organization chart, Figure 3.3-1, shows the “chain of command” which identifies major functions and defines the reporting relationships of personnel responsible for the management of design, construction, and QA/QC activities.

We have organized our lower level supervision and management team to align with the project segments – East Approach, Main Bridge, and Western Approach. Staffing matches the organization to ensure elements with fast-track schedules, such as the Great Bridge Interchange will be completed on-time. SAW2JV is building upon the structure and relationships it developed both internally and with stakeholders for the Elizabeth River Tunnels (ERT) and our long history in the area to:

- Foster communication within our organization, including VDOT and involved stakeholders such as the U.S. Coast Guard, U.S. Army Corps of Engineers, local businesses, residents, Dominion Virginia Power and other utilities
- Respond to fast-track schedule
- Allocate resources efficiently to respond to project challenges
- Provide independence for quality, safety and environmental personnel.

Our proposed Design-Build Manager, Design Manager, and Construction Manager will transition from ERT.

Functional Relationships

SAW2JV is optimized to present clear and logical reporting relationships to manage design and construction while maintaining distinct responsibilities and project controls.

Key Personnel

Design-Build Project Manager (DBPM) - Tom Fulton P.E. reports to the SAW2JV Executive Board. Mr. Fulton will have primary responsibility for execution of design, construction, project management, quality, safety and customer/stakeholder relations. He is the principal point of contact for communication with VDOT. Mr. Fulton will have six direct reports: the QA Manager, Design Manager, Construction Manager, DB Coordinator, Safety Manager and ROW Manager.

Quality Assurance Manager (QAM) - Julie Hartman, P.E. is the independent QAM and will report directly to the DBPM. Direct reports include the two lead quality assurance inspectors and the off-site materials sampling and testing laboratory. Through the DBPM, the QAM organization will establish communication paths to the construction quality control and construction organization to ensure that the QAM is apprised of activities and to ensure that corrective activities and remediation are implemented as quickly as possible.

Design Manager (DM) - Derek Piper, P.E. will report to the DBPM. During the design phase of the project, the design discipline leads and design subconsultants will report to Mr. Piper. The environmental team will report to Mr. Piper during the design stage.

Construction Manager (CM) - Dave Kampman will report to the DBPM. He will be responsible for managing the construction process, which includes all QC activities. The Construction QC Manager will report to the CM and will be a Virginia-certified ESCCC and RLD.

Lead Structural Engineer (LSE) - Rex Gilley, P.E. reports to the DM. He is responsible for structural design and integration of bridges and retaining walls. Additional responsibilities include review of structural design, verification of modifications to the design, review of structural RFIs and shop drawings, and preparation of load ratings for VDOT project acceptance.

Responsible Charge Engineer (RCE) - Tom Fulton P.E. will also serve as the RCE. He will be responsible for rejecting or approving both engineering and construction work in progress and the final product. He will ensure all engineering services are performed by professionals properly licensed in the Commonwealth of Virginia and plans are signed and sealed by such professionals.
Figure 3.3-1. SAW2JV Organizational Chart.

---

**Third Party Stakeholders**
- City of Chesapeake
- HRTAC
- Travelling Public
- FIWA
- Local Businesses
- Police, Fire & Rescue
- City of Chesapeake
- Schools
- Local Residents
- Regulatory Agencies
- Norfolk Southern RR
- HRTPO
- NPBL RR
- Utility Owners
- USCG
- VMA
- VA DEQ
- USACE

---

**Right-of-Way Manager**
- Timothy Copeland
  - Stantec

**Safety Manager**
- Jim Concannon
  - Skanska

**Construction Manager**
- Dave Kampman
  - Skanska

**Design-Build Coordinator**
- Alvaro Alonso
  - Skanska

---

**VDOT**
- Design-Build Project Manager / Responsible Charge Engineer
  - Tom Fulton, PE
    - Stantec

---

**DBE Compliance Officer**
- Kosal Sarou
  - Skanska

---

**Design Manager**
- Derek Piper, PE, AICP
  - Parsons Brinckerhoff

**Design Quality Assurance Manager**
- Scott Lovell, PE
  - Parsons Brinckerhoff

---

**Project Controls and Support**
- Project Engineers
- Cost Engineers
- Schedulers
- Field Engineers
- Business Managers
- APAR

**Craft Superintendents**
- East Approach Superintendent
  - Brian Hunt
    - Skanska
- Main Bridge Superintendent
  - Mike Thompson
    - Skanska
- West Approach Superintendent
  - Eugene Ritchie
    - Archer Western

**Craft Workforce**
- Craft Superintendent
- Craft Superintendent
- Craft Superintendent

**Subcontractors**
- Craft Superintendent
- Craft Superintendent
- Craft Superintendent

---

**Quality Control Manager**
- QC Testing/Lab & Inspectors

**Utility Coordinator**
- Utility Design/Coordination
  - Tim Anderson, PE
    - Parsons Brinckerhoff

**ESC Manager**
- Utility Design/Coordination
  - Tim Anderson, PE
    - Parsons Brinckerhoff

---

**Lead Structural Engineer**
- Rex Gilley, PE
  - Parsons Brinckerhoff

**Lead Geotechnical Engineer**
- Ian Chaney, PE
  - Parsons Brinckerhoff

**Bridge Hydraulic Analysis**
- Hasan Water Resources

**Drainage/SWM Design**
- Melissa Simpson, PE
  - Parsons Brinckerhoff

**Utility Designation/SUE Services**
- Cardno

**Utility Design/Coordination**
- Tim Anderson, PE
  - Parsons Brinckerhoff

**Lead Environmental Manager**
- Kim Larkin
  - Dewberry Consultants

**Landscape Design**
- Greg Hues, PE
  - Parsons Brinckerhoff

**Railroad Coordination**
- Derek Piper, PE, AICP
  - Parsons Brinckerhoff

**Lead Roadway Engineer**
- Michelle Martin, PE
  - Parsons Brinckerhoff

**Roadway/Bridge Design Support**
- Dewberry Consultants
  - Tuhin Ban & Associates

**MOT/TM/ITS**
- Tim Rayner, PE, PE
  - Parsons Brinckerhoff

**Signage & Pavement Markings**
- Robin Hurbeck, PE
  - Parsons Brinckerhoff

**Roadway and Marine Navigation Lighting Design**
- Sabhu Wang & Associates

**Field Surveys**
- Precision Measurements

**Noise Analysis/ Mitigation**
- HIMH

---

**Third Party Stakeholders**
- City of Chesapeake
- HRTAC
- Travelling Public
- FIWA
- Local Businesses
- Police, Fire & Rescue
- City of Chesapeake
- Schools
- Local Residents
- Regulatory Agencies
- Norfolk Southern RR
- HRTPO
- NPBL RR
- Utility Owners
- USCG
- VMA
- VA DEQ
- USACE

---

**Figure 3.3-1. SAW2JV Organizational Chart.**

---

**LEGEND**
- Key Position
- Value-added Position
- Design
- Construction
- Quality Assurance
- Quality Control
- Right of Way
- Third Parties
Incident Management Coordinator (IMC) - Joe Morffi will report to the CM. He is responsible for responding to all incidents within the project limits. He will be the key point of contact for VDOT when issues arise relative to incident management and will be on site full-time for the duration of construction operations.

Joe will complete the FHWA SHRP2 “TIM” Responder Training; FEMA ICS/NIMS 100, 200 and 700; and FEMA/VDEM Hazardous Materials Awareness Classes prior to commencement of construction.

Value-Added Personnel

Additionally, we commit three value-added positions that will facilitate constructability and coordination between design and construction, enhance our commitment to both the safety of the traveling public and the construction work force and focus on ROW acquisition.

Design-Build Coordinator (DBC) - Alvaro Alonso will facilitate communication between design, construction and project management. The DBC will report to the DBPM and his duties include actively participating in design meetings, constructability reviews and conveying field information.

Safety Manager (SM) - Jim Concannon will report to the DBPM. He will be responsible for all aspects of safety during the life of the project. He will be responsible for developing the project-specific safety plan and ensuring that the program is being followed to ensure the safety of workers and the traveling public.

Right-of-Way Manager - Tim Copeland will report to the DBPM. He will be responsible for all aspects of ROW acquisition, ensuring that the program is being properly followed and protecting the rights of land holders affected by the project.

Communications

Developing and maintaining clear and open lines of communication both within the team, with our customer and with stakeholders is key to providing VDOT with a successful, quality project.

In addition to utilizing the reporting lines shown on our organization chart, we will rely upon lessons learned from our most successful DB projects. These include:

Partnering. Formal partnering with VDOT, the GEC and stakeholders is a key component on our projects. By aligning goals and establishing a framework for communications early in the project, we will be better able to respond to concerns in an atmosphere of mutual trust, and to work together to resolve issues before they significantly affect I64HRB. We have found working in a formal partnering process resolves disputes early and mitigates risk to VDOT.

Internal communications. Keys to ensure suitable levels of interaction between design and construction include co-location of design and construction personnel and regularly scheduled weekly meetings of task working groups (TWGs). In addition, we will establish strong communication lines that benefit I64HRB through informal meetings, the DBC, and events such as joint constructability reviews.

Coordination of Design and Construction. The design team organization for I64HRB will be based on the three operational segments of the construction organization as shown in Figure 3.3-1. The TWGs are the forum in which the engineers and contractors will focus on the operational segments of I64HRB to exchange ideas, coordinate design requirements with means and methods, and develop innovative solutions to specific challenges presented through the design process. As I64HRB progresses, TWGs will include staff from VDOT, GEC and other major stakeholders.

While coordination between VDOT, the contractor and the engineers is essential to the DB process, coordination of various design disciplines is also critically important to ensure the quality and constructability of the design and life-cycle of I64HRB.

Linear projects by nature involve many differing disciplines that must work in concert to provide a quality product. I64HRB involves structural, geotechnical, civil, environmental, and electrical
disciplines as well as safety and quality issues that must all be closely coordinated in the TWGs to minimize the potential for conflicts in the field during construction. SAW2JV has proven this approach on other DB projects and will use this avenue of communication on I64HRB. Figure 3.3-2 illustrates how our design and construction teams integrate throughout the design process.

Outreach – Tom Fulton, our DBPM, will be responsible for ensuring that the team interacts with stakeholders, businesses, and residents. The Team will take part in outreach events.

Description of the QA/QC Program and Associated Elements

SAW2JV will develop and execute the Quality Management System Plans (QMSP) in accordance with VDOT’s “Minimum Requirements for QA and QC on DB and PPTA Projects” (January 2012) and will include Design and Construction Quality Management Plans (DQMP and CQMP). The QMSP will be prepared by the on-site quality management team and submitted to VDOT for review and approval. The QA team will employ two lead QA inspectors: one for the bridge element and one for roadway elements for the project. They will report directly to the QAM as shown on Figure 3.3-1.

Design QA/QC Plan. PB will implement a DQMP program consistent with ISO 9001 to verify that the drawings, specifications and other submittals are prepared in accordance with generally accepted design practices. The DQMP program will include cross-company QA review of all design documents.

Construction QA/QC Plan. The SAW2JV Construction QA/QC Plan will detail our quality oversight including sampling, testing, inspection, document control, and communication.

QA Independent of QC. The QA process will be independent and fully staffed. QA personnel will not be assigned other duties or responsibilities. The QAM will have the authority to suspend field activities in the event QA tasks or issues are not complete or found to be non-conforming.

Ensuring Delivery of a Quality Product. In addition to independent quality organizations, SAW2JV will emphasize quality:

- All SAW2JV employees will receive regular quality training as part of daily, weekly and monthly training
- Each project work plan will include a specific quality plan
- Quality reports will be reviewed by the DBPM and the Executive Advisory Board
- Superintendent metrics will include quality performance and superintendents will be held responsible for the quality of the work performed under their direction

Our attitude and approach are the most vital aspects in delivering a quality product. We believe that quality is the responsibility of every person in the entire organization, regardless of title. To ensure this, we provide every employee with the tools, knowledge and support they need. We make them responsible for the quality of the work they do. To affirm this, we give each worker the authority and responsibility to stop any work that does not meet quality standards.
3.4 Experience of the Offeror’s Team
SAW2JV in combination with Parsons Brinckerhoff (PB) offer significant experience and capability to deliver this challenging project. We have worked together before. Our approach to business and ethics are the same, and our skills and experience are complementary, making ours a very deep team with a broad range of capability. Each company is accustomed to working in integrated joint ventures in which a team is formed based on the strengths of individuals, not company association. This leads to a highly effective project team.

These same attributes are the reason why Skanska and Archer Western, through our parent companies Skanska Civil and Walsh, are partners on the largest P3 project in the country - the LaGuardia Airport Central Terminal B project valued at more than $4 billion. PB is also the Lead Designer on that project.

Our Team’s impressive design-build (DB) successes on similar major transportation projects are described in the Work History Forms, Attachment 3.4.1. We have extensive experience with high-level bridges over navigable channels throughout the Mid-Atlantic and Southeast. The Team has designed and constructed projects in highly congested urban areas: Hampton Roads and Richmond, Virginia; Orlando, Florida; Washington DC; and Atlanta, Georgia. The Team’s comprehensive project experience with similar design and construction challenges will allow our key staff to apply their lessons learned to the benefit of the I-64 Southside Widening and High Rise Bridge Phase 1 Project (I64HRB).

Throughout the projects reflected in our Work History Forms, we have worked and built relationships with our entire team of design subconsultants. These experiences will enable us to deliver quality work in record time — with little or no learning curve. The Team has been collaborating on I64HRB since the beginning of the year, to develop a thorough understanding of the project risks and potential mitigations for a quick project start.

Table 3.4-1 demonstrates further SAW2JV project experience beyond the Work History Forms.

**Our Strengths For The Project**

**Virginia Presence and Experience**

Skanska, PB and Dewberry are all located in the same commercial complex in Virginia Beach, VA: we are already collocated for efficient communication. As shown in the Work History Forms and Table 3.4-1, Skanska has a successful and proven cooperative work history with PB which spans more than 60 years, starting at the Coleman Bridge and continuing on nine other projects including the largest P3 contract in Virginia, the ERT project (Figure 3.4-1).

**Figure 3.4-1. The ERT project has provided regional knowledge and working relationships to benefit the Team’s quick start on I64HRB.**

The Work History Forms show we have the basis to understand the risks associated with geotechnical and environmental factors in the Hampton Roads region that will impact project substructure design and approach to construction. We also have well-established working relationships with local regulatory organizations from the following projects:

- I-264 Widening/MLK Extension, Portsmouth and Norfolk VA
- US-17 (Dominion Boulevard), Chesapeake, VA
- I-64 Capacity Improvements, Segment 1, Newport News and James City County, VA
Table 3.4-1. SAW2JV Experience in addition to the Work History Forms.

<table>
<thead>
<tr>
<th>Project</th>
<th>Team Members</th>
<th>Design-Build Delivery</th>
<th>Interstate Widening (Urban)</th>
<th>Bridges Over Navigable Water</th>
<th>Environmental Considerations (Wetland Impacts)</th>
<th>ROW Acquisition</th>
<th>Utility Relocations</th>
<th>Work Adjacent to Railroad Coordination Required</th>
<th>Multiphase MOT Plan</th>
<th>Noise Mitigation (Walls)</th>
<th>Public Information Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elizabeth River Tunnels, Norfolk, VA</td>
<td>S/P</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>I-95/I-495/Telegraph Road Interchange, Farifax County, VA</td>
<td>VDOT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IH-35E Managed Lanes, Carrolton, TX</td>
<td>TXDOT</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>I-66 Widening, Prince William County, VA</td>
<td>VDOT</td>
<td>A</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>I-4 Crosstown Connector, Tampa, FL</td>
<td>FDOT</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Innerbelt Bridge Replacement, Cleveland, OH</td>
<td>ODOT</td>
<td>A</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>I-66/Route 29 Interchange &amp; HOV Widening, Prince William County, VA</td>
<td>VDOT</td>
<td>D</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>11th Street Bridges, Washington, D.C.</td>
<td>DDOT</td>
<td>S</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Three Mile Bridge, Pensacola, FL</td>
<td>FDOT</td>
<td>S/P</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>I-10 Bridges Over Escambia Bay, Pensacola, FL</td>
<td>FDOT</td>
<td>S/P</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Rt. 1/I-495, Alexandria, VA</td>
<td>VDOT</td>
<td>S</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>I-95 Richmond Bridge Replacement, Richmond, VA</td>
<td>VDOT</td>
<td>A</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>I-85 Widening/Reconstruction, Newnan, GA</td>
<td>GDOT</td>
<td>A</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Allegheny River Bridge Replacement, Cheswick, PA</td>
<td>PennDOT</td>
<td>A</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>I-75 Widening/Reconstruction, Cordele, GA</td>
<td>GDOT</td>
<td>A</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Monongahela River Bridge, Denbo, PA</td>
<td>PDOT</td>
<td>A</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Rt. 33 Pamunkey River Bridge, West Point, VA</td>
<td>VDOT</td>
<td>S/P</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>US 331 Choctawhatchee Bridge, Walton County, FL</td>
<td>FDOT</td>
<td>S/P</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Coleman Bridge, Yorktown, VA</td>
<td>VDOT</td>
<td>S/P</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SR 60 Interchange, Tampa, FL</td>
<td>FDOT</td>
<td>S</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Indian River Inlet Bridge, Sussex County, DE</td>
<td>DelDOT</td>
<td>S</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

S - Skanska, A - Archer Western, P - Parsons Brinckerhoff, D - Dewberry
Innovative Design Solutions and Construction Techniques

**I-10 Bridges over Escambia Bay:** An innovative design approach to expedite construction - the first use and design of 36” square prestressed, precast, voided, concrete piles for bridge foundations in Florida.

**Coleman Bridge Replacement:** The first use of ABC by prefabricating and floating in the entire bridge superstructure in 6 elements (2,540 feet) over 9 days in one shut down.

**Design-Build Experience**

Seven of the eight Work History Forms provided are for DB projects and 11 more are provided in Table 3.4-1.

**Interstate Widening**

Our team has extensive experience with the design and construction of interstate widening projects, including several in Hampton Roads. The I-264/MLK project involves widening of I-64 as well as a new interchange; and the I-64 Segment 1 project, designed by our subconsultant Dewberry, involves median widening with similar technical solutions identical to our approach on the I64HRB.

**Traffic Management in Developed Urban Corridors**

All Work History Forms provided are for transportation projects requiring major traffic management. Many of the projects in Table 3.4-1 were constructed in urban settings including Ultimate I-4, Orlando, FL; 11th Street Bridges, Washington, D.C.; I-95 Bridge Replacement, Richmond, VA (shown in Figure 3.4-2); and Route 1/I-495/I95, Alexandria, VA.

**Success in Construction of Major Bridges over an Active Navigable Channel**

Successful bridges over active navigable channels are demonstrated by our Work History Forms for I-10 Bridges, US 90 Bridges, and the Cooper River Bridge (shown in Figure 3.4-3), and other past projects: Coleman Bridge, Indian River Inlet, Monongahela River and Pamunkey River Bridges.

**Figure 3.4-3. The Cooper River Bridge was built on budget and one year ahead of schedule.**

**Delivery of Projects Through Segmentation**

As I64HRB will be segmented to meet schedule, so too were the Northwest Corridor Managed Lanes, (6 segments), NC-540 Western Wake Freeway (5 segments), ERT projects (8 segments), Cooper Bridge project (5 segments), and the 11th Street Corridor (3 segments).

**Previous Success in Taking and Managing Calculated Risk and Realizing Incentive**

The following projects all achieved early completion bonuses: I-10 Escambia Bay, I-275, Huguenot Bridge Reconstruction, US-90 St. Louis Bay Bridge and the Coleman Bridge project.

**Environmental and Geotechnical Risk**

As indicated above, the Team has substantial understanding of mitigation measures associated with these local risks. Section 3.6 shows the value of this knowledge as we address our approach to these risks in detail.

Figure 3.4-4 is an example of our construction experience in coastal wetlands. A Skanska joint venture received an ARTBA Globe Award for Environmental Excellence for work on the Cooper River Bridge Project in creating a site-specific ISO 14001 compliant program for all operations that could have an environmental impact.
As part of this program, we held quarterly meetings with Coast Guard to review spill prevention. Less than one acre of wetlands (0.84) was impacted by construction activities and under five acres of wetland were temporarily impacted. The use of a trestle, as shown in the figure, protected the marsh from contamination from construction materials and equipment. We also used containment curtains (silt fence) to localize any effects of excavation. All hydraulic systems operated near water or wetlands used biodegradable hydraulic oil.

**DBE Participation**

Skanska has a long history of implementing a comprehensive DBE program that has achieved great success in exceeding the DBE goals on design-build/P3 projects, such as the ERT project in Portsmouth, VA and on I-275 in Tampa, FL.

We are exceeding the 12% DBE goal on ERT, a $1.6-billion project, and we have achieved about 13% to date. On I-275, a $225-million highway project, we exceeded the 8.6% DBE goal and achieved 11.73% at contract completion.

Our comprehensive DBE Program is implemented in two stages, Proposal Stage and Award Stage. **During the Proposal Stage**, we have an aggressive solicitation process to ensure that every DBE firm is given the opportunity to provide a quote. **During the Award Stage**, we implement our five-part DBE Program that consists of a Proactive DBE Outreach Program Plan, Good Faith Negotiation, Instructional Guidance Training, Collaboration with Stakeholders and Good Faith Effort Documentation.

**Past and Ongoing Safety Performance**

Attachment 3.5 provides Skanska and Archer Western safety statistics for the last three years. The Team will continue our outstanding performance and continual commitment to safety on I64HRB. We are dedicated to the health and safety of everyone contacting the project area and are committed to partnering with VDOT to create a zero accident zone.

We are committed to creating an Injury Free Environment® (IFE) on the Project. IFE is the shared corporate and individual belief that safety is a value that is not compromised by cost or schedule. Everyone has the right to go home safely at the end of the day.

Following award, the Safety Manager will prepare the safety plan for I64HRB. The plan will follow the Skanska Environmental, Health and Safety Manual (EHS Manual), an OHSAS 18001-certified plan and will include procedures that focus on mitigating site-specific safety issues: Working in a marine environment and boater safety; Managing heavy traffic; Ensuring the safety and security of nearby businesses and residences; and Communicating project activities and safety practices to reduce risk of injury to residents, drivers and property.

The safety plan and required training encompasses all aspects of the job, from the designers to contractors and subcontractors. Figure 3.4-5 is an example of one of our many training programs that we use to make our safety program successful.

![Figure 3.4-4. Award-winning effort to minimize wetland impacts on the Cooper River Bridge Project.](image)

**Figure 3.4-4.** Award-winning effort to minimize wetland impacts on the Cooper River Bridge Project.

In addition to in-the-field and classroom training, the SAW2JV team will benefit from training on an equipment simulator, which lessens risk of injury while replicating real-world scenarios, controls, and environments.

![Figure 3.4-5.](image)

**Figure 3.4-5.** In addition to in-the-field and classroom training, the SAW2JV team will benefit from training on an equipment simulator, which lessens risk of injury while replicating real-world scenarios, controls, and environments.
3.6 Project Risks
We have reviewed the available project information, visited the site during various traffic flow and congestion conditions during AM/PM peak periods, and evaluated potential risks based on our experience with similar projects in the Hampton Roads area. In completing our risk assessment, we considered numerous potential risks to the project.

With project risk defined as an issue that has the potential to adversely impact the project objective, schedule, budget, and/or the traveling public, we evaluated the probability and severity of each potential risks using the “heat map” presented in Figure 3.6-1.

Our risk management strategy is to take ownership of the project risks and minimize the potential impacts to the Project by aggressively implementing mitigation strategies. In the subsections below, we answer the following questions for each risk:

A. Why is the risk critical?
B. What is the impact on the I64HRB?
C. What is the mitigation strategy?
D. What is the role of VDOT or other agencies in mitigation?

Risk No. 1– Environmental Permitting

A. Why The Risk Is Critical

Obtaining the environmental approvals from the numerous agencies in a timely manner is a critical risk to the Project. Failure to do so would result in delays to the project schedule or jeopardize the overall project. Environmental permits will be required for the following aspects and from the following agencies:

- Tidal and non-tidal wetland impacts, requiring Department of Environmental Quality (DEQ) and U.S Army Corps of Engineers (USACE) approval
- A major crossing of a Section 10 navigable water, requiring US Coast Guard (USCG) approval
- A USACE federal navigation channel, requiring Section 408 authorization
- Coastal Zone Management Act (CZMA) consistency determination
- Environmental Protection Agency (EPA) superfund site and other documented releases downstream and adjacent to the High Rise Bridge crossing
- Impacts to floodplains, requiring approvals from Federal Emergency Management Agency (FEMA) and VDOT
- Impacts to protected species and fishery populations, potentially resulting in time-of-year restrictions.
Effective management, and a coordinated approach between all design, utility, right-of-way, construction, and environmental personnel will be necessary to ensure permits acquired for the Project are comprehensive and received in a timely manner.

B. Impact On The Project

To complete a project of this magnitude, construction must be underway concurrently in multiple areas to ensure project completion on time and in an efficient manner, with minimal impacts to the traveling public. While the signature feature of I-64HRB is the High Rise Bridge over the Southern Branch of the Elizabeth River, environmental permits will be necessary for almost every element of the Project, including the 7-mile widening of I-64 and the associated sound barrier walls, stormwater management and drainage improvements. **Obtaining the multiple necessary permits will be critical to successful and on-time completion of the Project.**

Environmental permits related to potential impacts include:

**Section 408 and Coast Guard Permits**

Based on the Environmental Assessment (EA) documentation, the Virginia Maritime Association (VMA) and other shipping companies requested a bridge vertical clearance of 135 feet to match that of the Gilmerton Bridge. VDOT and the USCG have met with these owners and the USCG has issued a preliminary determination supporting 100 feet of vertical clearance. Nonetheless, there is a risk that those same owners could protest the issuance of the final regulatory permits, potentially delaying permit approval.

**Acquisition of USACE and DEQ Permits**

The ability to obtain the necessary USACE and DEQ permits for wetland and stream impacts is also at risk due to concerns for the vertical clearance of the High Rise Bridge. In the event any substantive concerns or protests are raised as part of the public notice process, a full hearing by the State Water Control Board may be necessary, or could even result in USACE legal challenges that could delay the permit issuance. Either of these processes would be detrimental to the project schedule, extending the timeframe to obtain the permits to approximately one year.

**Acquisition of Wetland Mitigation**

We reviewed the USACE’s Regulatory In-Lieu Fee and Bank Information Tracking System database to determine the availability of wetland bank credits within the project hydrologic unit code. This research shows that, while there is adequate non-tidal wetland mitigation available, there is a shortage of tidal wetland and waters mitigation. Unless adequate mitigation is available for all impact types and permit requirements, issuance of the permit could be delayed.

**Virginia Stormwater Management Program (VSMP)**

The Project includes a significant increase in impervious area that must be accounted for in development of the stormwater management system. The impacts to stormwater quantity/quality must be addressed in accordance with the Virginia Stormwater Management Act and the accompanying VSMP Permit Regulations. This is a key risk due to the significant increase in impervious area from the widening of I-64 and limited locations/opportunities for stormwater management facilities, coupled with the flat terrain of the area.

C. Mitigation Strategies

One of the primary advantages of our Team is we have been through all the above processes and recognize not only the process and timelines needed to obtain approvals, but also ways to avoid potential impacts from the outset of design and permitting. We will implement the following strategies to ensure on-time completion:

**Section 408 and Coast Guard Permits**

At the outset of design, we propose “early coordination” meetings with the VMA, the three shipping interests upstream of the High Rise Bridge, and the new biofuel company southeast of the bridge to understand any outstanding concerns with the proposed vertical clearance. Based on the information obtained from the early coordination meetings, we will initiate a pre-application
meeting during design development with VDOT, USCG, USACE and DEQ to explain the rationale of the preferred alternative and the justification for the 100-foot vertical clearance.

Through this pre-application meeting, we will provide the information and documentation necessary for permitting agencies to provide responses to and address comments that may arise through the public input process, avoiding the need for additional hearings or legal challenges.

**Acquisition of USACE and DEQ Permits**

By addressing the concerns from adjacent properties, we anticipate obtaining USACE and DEQ permits will be a relatively smooth process. Developing roadway, bridge, drainage and utility relocation designs prior to submitting a permit application to either agency will be critical to obtaining permits for I64HRB with a single application.

Temporary construction easements that are adequate for all stages of construction, including beam erection for all bridges (not just the High Rise Bridge), will be identified with the original permit application to prevent permit modifications that could delay construction of critical elements.

Additionally, prior to submitting the permit applications, we will hold a pre-application meeting with the USACE and DEQ to identify probable impact, minimization and avoidance efforts that have been incorporated to reduce them. **This pre-application meeting will ensure concerns related to the permit, if any, are addressed prior to formal submission.**

**Acquisition of Wetland Mitigation**

VDOT has provided the Preliminary Jurisdictional Determination to define existing wetlands in the project area. To address the lack of sufficient mitigation for waters and wetlands, we will work during design to reduce or avoid tidal wetland impacts to the fullest extent possible. Figure 3.6-2 shows a tidal marsh that could be affected.

We believe avoidance and reductions of impacts will address the bulk of the tidal wetland impact mitigation concerns, but we also plan to utilize the in-lieu fee fund to mitigate for tidal area impacts.

Finally, after identifying potential areas of impact early in the design process, we will contact our typical wetland banking partners to determine if additional mitigation sites are under development and will be available during later stages of the Project. If so, we may look to phase certain areas of work, and develop plans accordingly, so that acquisition of mitigation is sequenced with the work and will not delay overall construction activities.

**Virginia Stormwater Management Program**

Mitigation will start with a detailed evaluation of stormwater management requirements during technical proposal development to determine:

- Location and sizing of stormwater facilities
- Development of a drainage collection system that minimizes utility impacts
- Development of stormwater management phasing to coincide with overall Project construction phasing.

Of course, mitigation will include all appropriate erosion control measures, improved stormwater management facilities, specific treatments for stormwater management facilities located in impaired watersheds, to be detailed in a Stormwater Pollution Prevention Plan (SWPPP).
D. Role Of VDOT and Other Agencies in Mitigation

No additional efforts will be needed by VDOT or other agencies. VDOT has already performed a significant amount of work to coordinate with the USCG and receive the Preliminary Navigation Clearance Determination (PNCD). We anticipate that VDOT will provide documents related to the public process completed in advance of this approval so that proper documentation can be provided to the permitting agencies during final design activities. We welcome VDOT to remain actively engaged in all meetings and coordination with the permitting agencies and in obtaining the VSMP permit.

As noted previously, numerous agencies will be involved for review and approval of permits, and will include the USCG, Virginia DEQ, and USACE, as well as their consulting agencies such as the US Fish and Wildlife Service, the National Marine Fisheries Service, the EPA and other Virginia resource agencies. We are committed to providing comprehensive applications with sufficient supporting documentation to facilitate timely reviews by these agencies.

Risk No. 2 – MOT During Construction

Interstate widening projects, including both high traffic volumes and high-speed traffic immediately adjacent to the work zone, involve a risk in providing a safe work environment and safe movement of traffic through the work zone. The changes in traffic patterns, additional queuing from implementation of the work zone, and access to the work zone in the median area are challenges specifically addressed below.

A. Why The Risk Is Critical

For the most part, I-64 between Bowers Hill and I-464 has minimal left shoulders, a narrow grass median, and two existing travel lanes in each direction, and currently carries approximately 89,000 VPD (2015 data). Unstable flow conditions routinely occur during morning and evening rush hours. Implementation of work zone traffic controls and changes to traffic patterns have the potential to exacerbate existing travel delay and traffic queues. This can translate into more frequent incidents and additional periods of unstable traffic flow.

Construction adjacent to the existing I-64 (in the median and south of the existing High Rise Bridge) will be a source of distraction for drivers. The limited project footprint will necessitate extensive use of precast traffic barrier service to protect the construction workers and drivers on I-64.

However, the use of such barriers:
- Effectively narrows the roadway/recovery area due to additional objects within the clear zone
- Creates a less forgiving environment for through traffic (restricts access to the work zone for construction vehicles)

Experience shows that the result of implementation of Maintenance of Traffic (MOT) plans is often congestion and queuing in places where it previously did not occur, and exacerbation of existing problem areas. MOT during construction is a critical risk since implementation of the work zone will both decrease capacity on I-64 and increase the potential for crashes.

B. Impact On The Project

The reduction in roadway capacity along I-64 due to the implementation of the work zone will:
- Increase traffic queuing
- Change the location of traffic queues
- Increase the potential for crashes both within the work zone and queues approaching the work zone
- Create traffic issues on alternate routes (e.g., I-264 and Military Highway) due to diverted traffic

Crashes within the work zone can involve both workers and drivers. Incidents, regardless of severity, impede traffic flow and increase congestion and queuing, further increasing the potential for crashes.
A comprehensive MOT design will minimize traffic incidents. However, incidents will still occur on the approach to and within the work zone. Each incident, regardless of severity, takes time to clear and for traffic flow to return to normal. During that clean-up time, traffic flow is decreased and queued traffic develops in both directions of travel, especially during peak traffic periods. This often results in secondary crashes, further exacerbating the delays. The longer it takes to clear an incident, the more risk of secondary crashes.

In reviewing the plans provided in the RFQ information package, we noted the following three areas where “traffic safety and construction staging” will be significantly impacted. These will be addressed in our MOT planning.

**Constructing the East End of the New High Rise Bridge**

Sheets 29 and 29A of the RFQ plans indicate that the new bridge and abutment extend over existing I-64 WB (i.e., I-64 traveling toward Virginia Beach). Specifically, from the existing east abutment (near Bainbridge Boulevard) to the end of the new bridge, and until the approach roadway comes close to existing ground:

1. The new outside lanes would have to be constructed first
2. I-64 WB traffic would have to be shifted onto the new bridge
3. The inside lanes of the new bridge and approach roadway could be completed

Alternatively, there may be the possibility of using temporary widening to shift existing I-64 to the north in order to accommodate construction of the east end of the new bridge.

**Keeping the I-64 WB Exit Ramps Open through Superelevation Corrections**

The I-64 WB exit ramps to Great Bridge Boulevard and Route 168 SB are on the outside of curves that are to receive superelevation corrections (see Sheets 2B(1) and 31 in the RFQ plans for the former and Sheets 2B(2) and 32 in the RFQ plans for the latter). As shown on the RFQ profiles (Sheets 31D and 33D), the proposed elevation differences in the vicinity of the ramp gores are substantial. During final design, we will address these areas to ensure that any drop-offs are protected and that proper ramp lane widths are maintained.

**Providing a New Closed Drainage System East of I-464**

Sheets 35 and 36 of the RFQ plans indicate that a new closed drainage system is proposed along the MB-7D median barrier between the I-64 WB mainline lanes and the CD road. Based on our knowledge of existing conditions, the concrete pavement east of I-464 (approximately Station 1442+00) to Battlefield Boulevard and points further east appears to be in good condition. Open cutting to install a new closed system could require shoulder and/or lane closures, potentially resulting in substantial traffic queuing and delay. During final design, we will evaluate this area in detail to determine the optimal balance of design requirements, preservation of existing assets and minimization of disruptions to the travelling public.

**C. Mitigation Strategies**

Mitigation starts with early planning and scheduling. We will establish a sequence of work for each project segment that allows the concurrent work required to meet the schedule and to minimize the number of traffic shifts during construction. For each construction phase in which there is a traffic shift we will provide MOT drawings defining:

- Staging areas and access points to the construction zones to minimize the impact of construction traffic on I-64 travel lanes - we will evaluate temporary access to the median work zone from the Rotunda Avenue, Yadkin Road, Shell Road, and/or Military Highway crossings
- Work zone barriers
- Temporary traffic-lane configuration, delineation and traffic controls
• Work schedule to minimize traffic impacts e.g. off-peak delivery of materials and equipment
• Alternate routes around the work zones to minimize traffic
• Alternate access to affected businesses and homes

In areas where there is greater congestion and potential for existing infrastructure interference, such as interchanges, 3D design can be used to optimize configuration of temporary works for safety and maximum traffic flow.

Traffic Management Plan
All the associated drawings and plans will become part of the approved Traffic Management Plan along with Public Communications, Transportation Operations and Incident Management Plans.

To minimize traffic impacts, our Incident Management Coordinator (IMC) will augment the current Service Safety Patrol to quickly recover and store disabled or damaged vehicles.

Incident Management Plan
Recognizing that accidents can occur, our IMC Joseph Morffi, will lead the preparation of the required Incident Management Plan to be ready for such events. This will be done in coordination with the VDOT Transportation Operations Center (TOC), the Service Safety Patrol, and other first responders. The IMC will coordinate with the:

• TOC to determine the possibility of adding temporary cameras in the project corridor and its potential in enhancing response times to provide medical support and to clear involved vehicles quickly. We will pursue the potential of using the TOC’s Active Traffic Management system to set variable speed limits through temporary dynamic message signs.

• Service Safety Patrol, which already serves the corridor, to define ways to expedite response and clearing of accidents. We plan to define accessible pull-off areas to allow removing vehicles from traffic lanes as soon as possible and to provide on-call towing service.

• First Responders in the area to define a workable response plan. Before a traffic switch, the IMC will: brief first responders on changes to traffic flow; explain how they can access the corridor; and address any concerns regarding their ability to respond within their service area. It is our practice to execute a drill with first responders every six months to help ensure a rapid, efficient response if required.

Community
Cooperation of the community is key to success in an MOT Plan. Experience shows that if the public is warned beforehand and understands the need, activity, duration and impacts, there is less controversy. Before every traffic shift there will be media notices and opportunities for community briefings. To further avoid controversy:

• A hotline will be established for complaints, which will be addressed quickly

• We recommend continuing outreach to foster patience in addressing inconvenience

Figure 3.6-4 is an example of a roadside billboard in Orlando that was successful in decreasing accidents.
D. Role of VDOT in Mitigation

No additional efforts will be needed by VDOT or other agencies. We welcome active engagement with VDOT staff in review and approval of the final TMP and Incident Management Plan. This will confirm that best practices from VDOT experience are included and implemented. We also recognize VDOT’s responsibility for formal review and approval of the MOT plan and TMP, while providing formal notification to first responders and the traveling public of scheduled lane-closures or other traffic restrictions.

Risk No. 3 – Geotechnical Issues

A. Why the Risk is Critical

Based on our experience on nearby projects with similar subsurface conditions, such as US 17/Dominion Boulevard and the MLK Expressway, soft soils above the Yorktown formation pose numerous issues during both construction and post-construction. These must be addressed during design and project development. Potential adverse impacts include:

- Schedule delays from continued settlement
- Traffic safety and public perception due to settlement of the existing roadways
- Settlement and damage of adjacent existing structures due to foundation construction.

B. Impact on the Project

Based on our review of the RFP documents, soft and loose soils above the Yorktown formation are present throughout the project site. These soils are prone to surface settlement when loaded and need to be considered in all phases of design and project development. For instance, the areas immediately adjacent to the bridges will typically have the highest embankments, and hence are most susceptible to excessive settlement. Excessive settlement, if not addressed in the design and construction of the Project, could impart negative skin friction (down-drag) on the foundation piles, adversely affecting the construction schedule and cause settlements of the proposed and existing roadway and walls.

C. Mitigation Strategies

We will manage settlement risks at every stage of the project development. At the onset of final design, we will obtain supplementary soil borings augmented with Cone Penetration testing to define the extent of any settlement-prone areas. With this data in hand, we will design and construct the project to address settlement-related risks. Similar to how we addressed poor subsurface conditions on the US 17 (Dominion Boulevard) Project, we will employ mitigation measures to accommodate the specific concerns and expedite the construction schedule at each location.

For instance, in locations where the existing bridges are to be widened to the inside (i.e., I-64 over Military Highway, over Yadkin Road and over Shell Road, as shown in the RFQ plans) and relatively low fill heights are expected, we may be able to accommodate the settlement by:

- Use of Mechanically Stabilized Earth (MSE) walls with slip joints placed at critical locations to allow movement
- Use of lightweight fill
- Use of Extended Polystyrene (EPS) embankments as shown in Figure 3.6-5.

Figure 3.6-5. EPS embankment construction for Ramp EN, adjacent to I-264 (Portsmouth, VA).
In these areas, negative skin friction on proposed and existing bridge piles will also be evaluated. 

With the proposed High Rise Bridge being constructed to the south of the existing structure and the relative scale of fill-heights and structure-sizes significantly larger for the new bridge, the settlement-related risks, and the means by which they are mitigated, are greater and more open, respectively.

We will evaluate the embankment fill-heights with respect to expected settlements to facilitate final determination of the most-efficient location of the abutments. We will also consider the impact of the proposed embankment on the existing embankment. Settlement of the existing embankment must be mitigated to avoid impacting existing traffic. When the abutment locations are determined, we will investigate various methods to address the expected settlement, including:

- Preloading (surcharge) programs
- Ground improvement schemes
- Use of lightweight fill
- Wick drains
- EPS embankments
- Phased, two-stage MSE walls

Concerning the existing bridges, and most notably, the existing High Rise Bridge, preconstruction surveys will be performed to provide a baseline condition. As the existing structures are relatively aged and close to the proposed construction, the foundations and adjacent construction will be designed and constructed to avoid damage or adverse impact to the existing structures and roadways. During installation of the proposed foundation elements, monitoring of the vibrations and settlement will provide verification that the existing facilities will not be impacted. We will develop foundation layouts for the proposed High Rise Bridge to avoid conflicts with piles from the existing bridge.

**D. Role Of VDOT in Mitigation**

No additional efforts will be needed by VDOT or other agencies. We recognize that VDOT has already performed a great amount of data collection in an effort to mitigate potential risks associated with unknown subsurface conditions. SAW2JV recognizes VDOT’s role in review and final approval of bridge foundation and settlement mitigation strategies. We also recognize that VDOT will implement Independent Assurance testing to confirm SAW2JV QA/QC testing.
Appendices
3.1.2 SOQ Checklist
## ATTACHMENT 3.1.2

**Project: I-64 SOUTHSIDE WIDENING AND HIGH RISE BRIDGE, PHASE 1**

### STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

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

<table>
<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
<th>RFQ Cross reference</th>
<th>Included within 20-page limit?</th>
<th>SOQ Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statement of Qualifications Checklist and Contents</td>
<td>Attachment 3.1.2</td>
<td>Section 3.1.2</td>
<td>no</td>
<td>21</td>
</tr>
<tr>
<td>Acknowledgement of RFQ, Revision and/or Addenda</td>
<td>Attachment 2.11 (Form C-78-RFQ)</td>
<td>Section 2.11</td>
<td>no</td>
<td>25</td>
</tr>
<tr>
<td>Letter of Submittal (on Offeror’s letterhead)</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Authorized Representative’s signature</td>
<td>NA</td>
<td>Section 3.2.1</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>Offeror’s point of contact information</td>
<td>NA</td>
<td>Section 3.2.2</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>Principal officer information</td>
<td>NA</td>
<td>Section 3.2.3</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>Offeror’s Corporate Structure</td>
<td>NA</td>
<td>Section 3.2.4</td>
<td>yes</td>
<td>2</td>
</tr>
<tr>
<td>Identity of Lead Contractor and Lead Designer</td>
<td>NA</td>
<td>Section 3.2.5</td>
<td>yes</td>
<td>2</td>
</tr>
<tr>
<td>Affiliated/subsidiary companies</td>
<td>Attachment 3.2.6</td>
<td>Section 3.2.6</td>
<td>no</td>
<td>26</td>
</tr>
<tr>
<td>Debarment forms</td>
<td>Attachment 3.2.7(a)</td>
<td>Section 3.2.7</td>
<td>no</td>
<td>28</td>
</tr>
<tr>
<td>Offeror’s VDOT prequalification evidence</td>
<td>NA</td>
<td>Section 3.2.8</td>
<td>no</td>
<td>43</td>
</tr>
<tr>
<td>Evidence of obtaining bonding</td>
<td>NA</td>
<td>Section 3.2.9</td>
<td>no</td>
<td>45</td>
</tr>
</tbody>
</table>
## Statement of Qualifications Checklist and Contents

<table>
<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
<th>RFQ Cross Reference</th>
<th>Included within 20-page limit?</th>
<th>SOQ Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCC and DPOR registration documentation (Appendix)</td>
<td>Attachment 3.2.10</td>
<td>Section 3.2.10</td>
<td>no</td>
<td>68</td>
</tr>
<tr>
<td>Full size copies of SCC Registration</td>
<td>NA</td>
<td>Section 3.2.10.1</td>
<td>no</td>
<td>68</td>
</tr>
<tr>
<td>Full size copies of DPOR Registration (Offices)</td>
<td>NA</td>
<td>Section 3.2.10.2</td>
<td>no</td>
<td>91</td>
</tr>
<tr>
<td>Full size copies of DPOR Registration (Key Personnel)</td>
<td>NA</td>
<td>Section 3.2.10.3</td>
<td>no</td>
<td>101</td>
</tr>
<tr>
<td>Full size copies of DPOR Registration (Non-APELSCIDLA)</td>
<td>NA</td>
<td>Section 3.2.10.4</td>
<td>no</td>
<td>114</td>
</tr>
<tr>
<td><strong>DBE statement within Letter of Submittal</strong> confirming Offeror is committed to achieving the required DBE goal</td>
<td>NA</td>
<td>Section 3.2.11</td>
<td>yes</td>
<td>2</td>
</tr>
<tr>
<td><strong>Offeror’s Team Structure</strong></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Identity of and qualifications of Key Personnel</td>
<td>NA</td>
<td>Section 3.3.1</td>
<td>yes</td>
<td>4</td>
</tr>
<tr>
<td>Key Personnel Resume – DBPM</td>
<td>Attachment 3.3.1(a)</td>
<td>Section 3.3.1.1</td>
<td>no</td>
<td>115</td>
</tr>
<tr>
<td>Key Personnel Reference – DBPM</td>
<td>Attachment 3.3.1(b)</td>
<td>Section 3.3.1.1</td>
<td>no</td>
<td>117</td>
</tr>
<tr>
<td>Key Personnel Resume – RCE</td>
<td>Attachment 3.3.1(a)</td>
<td>Section 3.3.1.2</td>
<td>no</td>
<td>130</td>
</tr>
<tr>
<td>Key Personnel Reference – RCE</td>
<td>Attachment 3.3.1(b)</td>
<td>Section 3.3.1.2</td>
<td>no</td>
<td>132</td>
</tr>
<tr>
<td>Key Personnel Resume – QAM</td>
<td>Attachment 3.3.1(a)</td>
<td>Section 3.3.1.3</td>
<td>no</td>
<td>118</td>
</tr>
<tr>
<td>Key Personnel Reference – QAM</td>
<td>Attachment 3.3.1(b)</td>
<td>Section 3.3.1.3</td>
<td>no</td>
<td>120</td>
</tr>
<tr>
<td>Key Personnel Resume – DM</td>
<td>Attachment 3.3.1(a)</td>
<td>Section 3.3.1.4</td>
<td>no</td>
<td>121</td>
</tr>
</tbody>
</table>
## Statement of Qualifications Checklist and Contents

<table>
<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
<th>RFQ Cross Reference</th>
<th>Included within 20-page limit?</th>
<th>SOQ Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Personnel Reference – DM</td>
<td>Attachment 3.3.1(b)</td>
<td>Section 3.3.1.4</td>
<td>no</td>
<td>123</td>
</tr>
<tr>
<td>Key Personnel Resume – CM</td>
<td>Attachment 3.3.1(a)</td>
<td>Section 3.3.1.5</td>
<td>no</td>
<td>124</td>
</tr>
<tr>
<td>Key Personnel Reference – CM</td>
<td>Attachment 3.3.1(b)</td>
<td>Section 3.3.1.5</td>
<td>no</td>
<td>126</td>
</tr>
<tr>
<td>Key Personnel Resume – Lead Structural Engineer</td>
<td>Attachment 3.3.1(a)</td>
<td>Section 3.3.1.6</td>
<td>no</td>
<td>127</td>
</tr>
<tr>
<td>Key Personnel Reference – Lead Structural Engineer</td>
<td>Attachment 3.3.1(b)</td>
<td>Section 3.3.1.6</td>
<td>no</td>
<td>129</td>
</tr>
<tr>
<td>Key Personnel Resume – IMC</td>
<td>Attachment 3.3.1(a)</td>
<td>Section 3.3.1.7</td>
<td>no</td>
<td>133</td>
</tr>
<tr>
<td>Key Personnel Reference – IMC</td>
<td>Attachment 3.3.1(a)</td>
<td>Section 3.3.1.7</td>
<td>no</td>
<td>135</td>
</tr>
<tr>
<td>Organizational chart</td>
<td>NA</td>
<td>Section 3.3.2</td>
<td>yes</td>
<td>6</td>
</tr>
<tr>
<td>Organizational chart narrative</td>
<td>NA</td>
<td>Section 3.3.2</td>
<td>yes</td>
<td>5</td>
</tr>
</tbody>
</table>

**Experience of Offeror’s Team**

<table>
<thead>
<tr>
<th>Form</th>
<th>RFQ Cross Reference</th>
<th>Included within 20-page limit?</th>
<th>SOQ Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead Contractor Work History Form</td>
<td>Attachment 3.4.1(a)</td>
<td>Section 3.4</td>
<td>no</td>
</tr>
<tr>
<td>Subcontractor Work History Form</td>
<td>Attachment 3.4.1(b)</td>
<td>Section 3.4</td>
<td>no</td>
</tr>
<tr>
<td>Lead Designer Work History Form</td>
<td>Attachment 3.4.1(c)</td>
<td>Section 3.4</td>
<td>no</td>
</tr>
<tr>
<td>Subconsultant Work History Form</td>
<td>Attachment 3.4.1(d)</td>
<td>Section 3.4</td>
<td>no</td>
</tr>
</tbody>
</table>

**Safety**

<table>
<thead>
<tr>
<th>Form</th>
<th>RFQ Cross Reference</th>
<th>Included within 20-page limit?</th>
<th>SOQ Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead Contractor Safety Qualifications Form</td>
<td>Attachment 3.5</td>
<td>Section 3.4</td>
<td>no</td>
</tr>
</tbody>
</table>
## Project: I-64 Southside Widening and High Rise Bridge, Phase 1

### Statement of Qualifications Checklist and Contents

<table>
<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
<th>RFQ Cross reference</th>
<th>Included within 20-page limit?</th>
<th>SOQ Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Risk</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify and discuss three critical risks for the Project</td>
<td>NA</td>
<td>Section 3.6</td>
<td>yes</td>
<td>13</td>
</tr>
</tbody>
</table>

**ATTACHMENT 3.1.2**
2.11 Form C-78-RFQ
ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PROJECT: I-64 SOUTH SIDE WIDENING AND HIGH RISE BRIDGE, PHASE 1

State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

Federal Project No. NHPP-064-3(488)

Contract ID Number C00106692DB93

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 – August 16, 2016
   (Date)
2. Cover letter of RFQ Addendum No. 1 09/16/2016
   (Date)
3. Cover letter of RFQ Addendum No. 2 10/04/2016
   (Date)

[Signature]

Stephen Davis

[Printed Name]

October 13, 2016

[Date]

Attorney-in-Fact

[TITLE]
3.2.6
List of Affiliated and Subsidiary Companies
ATTACHMENT 3.2.6
State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

Affiliated and Subsidiary Companies of the Offeror

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

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

<table>
<thead>
<tr>
<th>Relationship with Offeror (Affiliate or Subsidiary)</th>
<th>Full Legal Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
<td>Skanska USA Civil Inc.</td>
<td>75-20 Astoria Boulevard, Queens, NY 11370</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Skanska USA Civil Northeast Inc.</td>
<td>75-20 Astoria Boulevard, Queens, NY 11370</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Skanska USA Civil Midwest Inc.</td>
<td>75-20 Astoria Boulevard, Queens, NY 11370</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Skanska USA Civil West Inc.</td>
<td>1995 Agua Mansa Road, Riverside, CA 92509</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Skanska Koch Inc.</td>
<td>400 Roosevelt Avenue, Carteret, NJ 07008</td>
</tr>
<tr>
<td>Subsidiary</td>
<td>Bayshore Concrete Products Corp.</td>
<td>1134 Bayshore Road, Cape Charles, VA 23310</td>
</tr>
<tr>
<td>Subsidiary</td>
<td>TEC Skanska, Inc.</td>
<td>295 Bendix Road, Suite 400, Virginia Beach, VA 23452</td>
</tr>
<tr>
<td>Subsidiary</td>
<td>CDK Skanska Inc.</td>
<td>295 Bendix Road, Suite 400, Virginia Beach, VA 23452</td>
</tr>
<tr>
<td>Subsidiary</td>
<td>I4 Leasing, LLC</td>
<td>295 Bendix Road, Suite 400, Virginia Beach, VA 23452</td>
</tr>
</tbody>
</table>
Offerors shall complete the table and include the addresses of affiliates or subsidiary companies as applicable. By completing this table, Offerors certify that all affiliated and subsidiary companies of the Offeror are listed.

The Offeror does not have any affiliated or subsidiary companies.

- **Affiliated and/or subsidiary companies of the Offeror are listed below.**

<table>
<thead>
<tr>
<th>Relationship with Offeror (Affiliate or Subsidiary)</th>
<th>Full Legal Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliate</td>
<td>Archer Western Contractors, LLC</td>
<td>2410 Paces Ferry Road, Suite 600, Atlanta, GA 30339</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Walsh Construction Company, LLC</td>
<td>929 West Adams, Chicago, IL 60607</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Walsh Construction Company of Canada</td>
<td>800 Bay Street, Suite 401, Toronto, ON M5S3A9</td>
</tr>
</tbody>
</table>
3.2.7 Certification Regarding Debarment Forms
3.2.7(a)
Certification Regarding Debarment Form(s) Primary Covered Transactions

I-64 Southside Widening and High Rise Bridge, Phase 1
CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

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] October 6, 2016
Signature Date

[Title] Attorney-in-Fact

[Name] Skanska-Archer Western 2 Joint Venture
Name of Firm
POWER OF ATTORNEY

Skanska USA Civil Southeast Inc. ("Skanska"), a Virginia corporation and Archer Western Construction, LLC, an Illinois limited liability company (collectively, "Grantors"), are co-venturers in a Joint Venture known as Skanska-Archer Western 2 Joint Venture ("Joint Venture"), and as such are submitting a bid for the I-64 Southside Widening and High Rise Bridge, Phase 1 ("Project").

Grantors do hereby make, constitute, and appoint Salvatore Taddeo, Chief Operating Officer and Executive Vice President of Skanska, Bob Rose, Senior Vice President of Skanska, and Stephen Davis, Vice President of Skanska, as their true and lawful Attorneys-in-Fact ("Attorneys-in-Fact") for the Joint Venture. The Attorneys-in-Fact are authorized to and may act individually to do and perform all acts on behalf of the Joint Venture necessary to submit a bid for the Project, including but not limited to, executing the bid forms, proposal and any other documents necessary for the submission of the bid, and to take all other actions to represent the Joint Venture in accordance with the Joint Venture Agreement.

The foregoing appointment of Attorney-in-Fact is hereby specifically made subject to revocation or amendment thereof. This Power of Attorney may be revoked or amended by a written revocation or amendment signed by the Grantors listed herein and signing below. This Power of Attorney shall remain in full force and effect as to all governmental entities, corporations, persons or other organizations which act in reliance thereon prior to receipt of a written revocation authorized by the Grantors. This Power of Attorney shall remain in effect for a period of six (6) years from the issued date unless revoked at an earlier date or superseded by any amendment to the Joint Venture Agreement between the Grantors.

The Grantors contemplate the Attorneys-in-Fact will be executing contracts on behalf of the Joint Venture and the Grantors and shall ratify and confirm all contracts, agreements or other legal obligations undertaken by the Attorneys-in-Fact by virtue of this Power of Attorney.

This Power of Attorney may be signed in counterparts.

SIGNATURES ON FOLLOWING PAGES
SKANska USA Civil Southeast Inc.

By: [Signature]
Its: Vice President

Witness: [Signature]
Witness: [Signature]

COMMONWEALTH OF VIRGINIA
CITY OF VIRGINIA BEACH

Subscribed and sworn to me this 22nd day of September, 2016, by [Signature], acting in his/her capacity as Vice President for and on behalf of Skanska USA Civil Southeast Inc.

[Signature]
Notary Public

My commission expires: December 31, 2017
Subscribed and sworn to me this 23rd day of September, 2016, by Daniel P. Walsh, acting in his/her capacity as President for and on behalf of Archer Western Construction, LLC.

My commission expires: 6-6-19
ATTACHMENT NO. 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

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: [Signature]
Date: October 6, 2016
Title: [Title]

Name of Firm: Skanska USA Civil Southeast Inc.
ATTACHMENT NO. 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

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 Stephen P. Carter, Jr. Date October 5, 2016

Senior Vice President Title

Archer Western Construction, LLC Name of Firm
3.2.7(b)
Certification Regarding Debarment Form(s) Lower Tiered Covered Transactions
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

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.

Scott D. Lowell 09/30/2016  
Signature Date  
Vice President Title

Parsons Brinckerhoff, Inc.  
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

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

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

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

Signature

Date

Title

Name of Firm

Dewberry Consultants LLC
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

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

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

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

[Signature] 9/13/2016 [President]
[Date] [Title]

Precision Measurements, Inc.
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

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

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

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

[Signature] 9/19/16 Asst. Vice President / Principal

Date Title

Cardno, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(h)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

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

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

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

Signature  Date  President & CEO  Title

9/16/16

Harris Miller Miller & Hanson Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

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.

Tuhin K. Basu
Signature

09/13/2016
Date

President
Title

Tuhin Basu & Associates, Inc.
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

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

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

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

__________________________
Signature

__________________________
Date

__________________________
Principal-In-Charge
Title


__________________________
Name of Firm

__________________________
September 13, 2016
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

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

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

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

[Signature]
Date: 9/13/2016
Title: President

[Name of Firm]

HASSAN WATER RESOURCES, PLC
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

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

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

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

Signature:

Date: 9/21/16

Senior Principal

Title

Stantec Consulting Services Inc.

Name of Firm
3.2.8 Offeror’s VDOT Prequalification Certificate
Vendor ID: S1331
Vendor Name: SJW COMMERCIAL CONCRETE, LLC
Prequal Exp: 09/30/2017

-- PREQ Address --
3002 E. BOUNDRY TERRACE
MIDLOTHIAN, VA 23112
Phone: 804-744-1323
Fax: 804-744-1395

Bus. Contact: WATERS, SHAWN JOSEPH
Email: SHAWN@SJWCONCRETE.COM

-- DBE Information --
DBE Type: N/A
DBE Contact: N/A

Vendor ID: T009
Vendor Name: SKANSKA USA CIVIL SOUTHEAST INC.
Prequal Exp: 11/30/2016

-- PREQ Address --
295 BENDIX RD., STE. 400
VIRGINIA BEACH, VA 23452-0000
Phone: 757-420-4140
Fax: 757-420-3551

Bus. Contact: DAVIS, STEPHEN ASHLEY
Email: SOUTHEAST_ESTIMATING@SKANSKA.COM

-- DBE Information --
DBE Type: N/A
DBE Contact: N/A
CERTIFICATE OF QUALIFICATION

ARCHER WESTERN CONSTRUCTION, LLC

Vendor Number: A210

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;
PORTLAND CEMENT CONCRETE PAVING; MINOR STRUCTURES

Issue Date: January 31, 2016

This Rating and Classification will Expire: January 31, 2017

Suzanne FR Lucas, State Prequalification Officer
Don E. Sites, 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.
3.2.9
Surety Letter
September 28, 2016

Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219
Attn: Jeffrey Roby

RE: Design-Build Project for I-64 Southside Widening and High Rise Bridge, Phase 1
RFQ NO: C00106692DB93, Federal Project No: NHPP-064-3 (488)

Dear Mr. Roby:

We understand that Skanska-Archer Western 2 Joint Venture will be submitting a proposal on the abovecaptioned project. Fidelity and Deposit Company of Maryland/Zurich American Insurance Company, Liberty Mutual Insurance Company, Federal Insurance Company, The Continental Insurance Company, Berkshire Hathaway Specialty Insurance Company and Travelers Casualty and Surety Company of America, have the pleasure of extending surety credit to the partners of Skanska—Archer Western 2 Joint Venture: Skanska USA Civil Inc. and Archer Western Construction, LLC.

As sureties for Skanska-Archer Western 2 Joint Venture, Fidelity and Deposit Company of Maryland/Zurich American Insurance Company, Federal Insurance Company, Liberty Mutual Insurance Company, The Continental Insurance Company, Berkshire Hathaway Specialty Insurance Company and Travelers Casualty and Surety Company of America hereby confirm that the above named Joint Venture, is capable of obtaining a performance and payment bond in the amount of the anticipated contract value for this project, and said bonds will cover the project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this Project. The named sureties are prepared to execute the bonds subject to our acceptable review of the final contract terms and conditions, bond forms, appropriate contract funding and any other underwriting considerations at the time of the request.

Please note that any arrangement for surety bonds is a matter strictly between the Contractor and the co-sureties, and the sureties assume no liability to third parties or to you by issuance of the letter. The Zurich American Insurance Company/The Fidelity and Deposit Company of Maryland has an A.M. Best Rating of A+XV, Federal Insurance Company has an A.M. Best Rating
of A++XV, Liberty Mutual Insurance Company has an A.M. Best Rating of A XV, The Continental Insurance Company has an A.M. Rating of A XV, Berkshire Hathaway Specialty Insurance Company has an A.M. Best Rating of A ++XV and Travelers Casualty and Surety Company of America has an A.M. Best Rating of A++XV

If we can provide any further assurance or assistance, please do not hesitate to call me at 516-396-4291.

Signed, Sealed and dated this 28th day of September, 2016

Very truly yours,

ZURICH AMERICAN INSURANCE COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
FEDERAL INSURANCE COMPANY
LIBERTY MUTUAL INSURANCE COMPANY
THE CONTINENTAL INSURANCE COMPANY
BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY
TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

By: Beverly A. Woolford, Attorney-In-Fact
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 GERALD F. HALEY, 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 Nancy SCHNEE, Andrea E. GORBERT, Valorie SPATES, Beverly A. WOOLFORD and Anne POTTER, all of Jericho, New York, 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 20th day of May, 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
State of Maryland
County of Baltimore

On this 20th day of May, A.D. 2016, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, GERALD F. HALEY, 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, deposed 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.

By: Constance A. Dunn, Notary Public
My Commission Expires: July 9, 2019

POA-F 093-7185C
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 of 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 SEP 28 2015.

Michael Bond, Vice President
FIDELITY AND DEPOSIT COMPANY
OF MARYLAND
600 Red Brook Blvd., Suite 600, Owings Mills, MD 21117

Statement of Financial Condition
As Of December 31, 2015

ASSETS

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonds</td>
<td>$142,878,497</td>
</tr>
<tr>
<td>Stocks</td>
<td>22,315,096</td>
</tr>
<tr>
<td>Cash and Short Term Investments</td>
<td>337,835</td>
</tr>
<tr>
<td>Reinsurance Recoverable</td>
<td>24,731,651</td>
</tr>
<tr>
<td>Other Accounts Receivable</td>
<td>19,935,844</td>
</tr>
<tr>
<td><strong>TOTAL ADMITTED ASSETS</strong></td>
<td><strong>$210,198,923</strong></td>
</tr>
</tbody>
</table>

LIABILITIES, SURPLUS AND OTHER FUNDS

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserve for Taxes and Expenses</td>
<td>$46,436</td>
</tr>
<tr>
<td>Ceded Reinsurance Premiums Payable</td>
<td>40,456,309</td>
</tr>
<tr>
<td>Securities Lending Collateral Liability</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES</strong></td>
<td><strong>$40,502,745</strong></td>
</tr>
<tr>
<td>Capital Stock, Paid Up</td>
<td>$5,000,000</td>
</tr>
<tr>
<td>Surplus</td>
<td>164,696,178</td>
</tr>
<tr>
<td>Surplus as regards Policyholders</td>
<td>169,696,178</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$210,198,923</strong></td>
</tr>
</tbody>
</table>

Securities carried at $57,996,983 in the above statement are deposited with various states as required by law.

Securities carried on the basis prescribed by the National Association of Insurance Commissioners. On the basis of market quotations for all bonds and stocks owned, the Company's total admitted assets at December 31, 2015 would be $212,137,795 and surplus as regards policyholders $171,635,049.

I, DENNIS F. KERRIGAN, Corporate Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, 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.

[Signature]
Corporate Secretary

State of Illinois
City of Schaumburg } 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.

[Signature]
Notary Public
# ZURICH AMERICAN INSURANCE COMPANY

## Comparative Balance Sheet

**One Liberty Plaza, 165 Broadway, 22nd Floor, New York, NY 10005**

As of December 31, 2015 and December 31, 2014

### Assets

<table>
<thead>
<tr>
<th></th>
<th>12/31/2015</th>
<th>12/31/2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonds</td>
<td>$17,260,128,973</td>
<td>$17,933,136,241</td>
</tr>
<tr>
<td>Preferred Stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Stock</td>
<td>3,457,534,146</td>
<td>3,213,266,911</td>
</tr>
<tr>
<td>Real Estate</td>
<td>743,791,691</td>
<td></td>
</tr>
<tr>
<td>Other Invested Assets</td>
<td>2,048,925,102</td>
<td>2,062,435,020</td>
</tr>
<tr>
<td>Short-term Investments</td>
<td>403,620,083</td>
<td>707,396,303</td>
</tr>
<tr>
<td>Receivable for Securities</td>
<td>86,823,468</td>
<td>20,334,654</td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>182,127,374</td>
<td>9,155,828</td>
</tr>
<tr>
<td>Securities lending reinvested collateral assets</td>
<td>86,584,110</td>
<td>167,093,212</td>
</tr>
<tr>
<td>Employee Trust for Deferred Compensation Plan</td>
<td>153,274,854</td>
<td>140,606,132</td>
</tr>
<tr>
<td><strong>Total Cash and Invested Assets</strong></td>
<td><strong>$24,422,633,801</strong></td>
<td><strong>$24,794,325,211</strong></td>
</tr>
<tr>
<td>Premium Receivable</td>
<td>$3,598,435,742</td>
<td>$3,317,513,374</td>
</tr>
<tr>
<td>Funds Held with Reinsurers</td>
<td>1,905,522</td>
<td>2,357,701</td>
</tr>
<tr>
<td>Reinsurance Recoverable</td>
<td>521,790,582</td>
<td>492,689,841</td>
</tr>
<tr>
<td>Accrued Investment Income</td>
<td>123,257,424</td>
<td>116,594,177</td>
</tr>
<tr>
<td>Federal Income Tax Recoverable</td>
<td>1,045,367,647</td>
<td>941,023,188</td>
</tr>
<tr>
<td>Due from Affiliates</td>
<td>200,022,690</td>
<td>83,375,591</td>
</tr>
<tr>
<td>Other Assets</td>
<td>558,041,597</td>
<td>561,819,983</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td><strong>$30,471,455,005</strong></td>
<td><strong>$30,309,699,066</strong></td>
</tr>
</tbody>
</table>

### Liabilities and Policyholders' Surplus

#### Liabilities:

<table>
<thead>
<tr>
<th>Liabilities:</th>
<th>12/31/2015</th>
<th>12/31/2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss and LAE Reserves</td>
<td>$14,173,594,657</td>
<td>$13,922,765,027</td>
</tr>
<tr>
<td>Unearned Premium Reserve</td>
<td>4,463,409,342</td>
<td>4,502,895,029</td>
</tr>
<tr>
<td>Funds Held with Reinsurers</td>
<td>203,439,214</td>
<td>191,291,330</td>
</tr>
<tr>
<td>Loss In Course of Payment</td>
<td>386,200,590</td>
<td>366,092,345</td>
</tr>
<tr>
<td>Commission Reserve</td>
<td>120,630,686</td>
<td>79,647,248</td>
</tr>
<tr>
<td>Federal Income Tax Payable</td>
<td>93,480,741</td>
<td>113,512,376</td>
</tr>
<tr>
<td>Reserves and Items Unallocated</td>
<td>178,038,886</td>
<td>133,759,621</td>
</tr>
<tr>
<td>Payable to parent,ubs and affiliates</td>
<td>89,640,403</td>
<td>154,234,298</td>
</tr>
<tr>
<td>Provision for Reinsurance</td>
<td>44,525,436</td>
<td>59,189,807</td>
</tr>
<tr>
<td>Ceded Reinsurance Premiums Payable</td>
<td>939,196,923</td>
<td>721,709,266</td>
</tr>
<tr>
<td>Securities lending collateral liability</td>
<td>86,554,110</td>
<td>167,903,212</td>
</tr>
<tr>
<td>Other Liabilities</td>
<td>1,947,276,015</td>
<td>1,949,220,453</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td><strong>$22,705,999,505</strong></td>
<td><strong>$22,284,290,202</strong></td>
</tr>
</tbody>
</table>

#### Policyholders' Surplus:

<table>
<thead>
<tr>
<th>Policyholders' Surplus:</th>
<th>12/31/2015</th>
<th>12/31/2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Capital Stock</td>
<td>$5,000,000</td>
<td>$5,000,000</td>
</tr>
<tr>
<td>Paid-In and Contributed Surplus</td>
<td>4,394,131,321</td>
<td>4,394,131,321</td>
</tr>
<tr>
<td>Surplus Notes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Surplus Funds</td>
<td>56,772,000</td>
<td>57,824,000</td>
</tr>
<tr>
<td>Cumulative Unrealized Gain</td>
<td>-330,546,047</td>
<td>572,072,362</td>
</tr>
<tr>
<td>Unassigned Surplus</td>
<td>2,879,007,132</td>
<td>2,986,381,181</td>
</tr>
<tr>
<td><strong>Total Policyholders' Surplus</strong></td>
<td><strong>$7,365,456,500</strong></td>
<td><strong>$8,013,408,854</strong></td>
</tr>
</tbody>
</table>

**Total Liabilities and Policyholders' Surplus**: $30,471,455,005

---

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.

State of Illinois
County of Cook

[Signature]

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.

Darryl Jonker
Notary Public

February 26, 2016
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 Andrea E. Gorbert, Anne Potter, Nancy Schnee, Valerie Spates and Beverly A. Woolford of Jericho, New York—

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 6th day of May, 2016.

Dawn M. Chloros, Assistant Secretary

David B. Norris, Jr., Vice President

STATE OF NEW JERSEY

County of Somerset

On this 6th day of May, 2016 before me, a Notary Public of New Jersey, personally came Dawn M. Chloros, 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 Dawn M. Chloros, being by me duly sworn, did deprecate and swear 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 the 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 due course of business.

Notarial Seal

KATHERINE J. ADELAAR
NOTARY PUBLIC OF NEW JERSEY
No. 2316665
Commission Expires July 16, 2019

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, Dawn M. Chloros, 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

Dawn M. Chloros, Assistant Secretary

SEP 28 2016

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 ADDRESS

LISTED ABOVE, OR BY Telephone (908) 923-3450 Fax (908) 923-3464 e-mail: surety@chubb.com

Form 15-10-02288-U GEN CONSENT (rev. 07-15)

51
# FEDERAL INSURANCE COMPANY

## STATEMENT OF ASSETS, LIABILITIES AND SURPLUS TO POLICYHOLDERS

Statutory Basis

**DECEMBER 31, 2015**

(in thousands of dollars)

<table>
<thead>
<tr>
<th>ASSETS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and Short Term Investments</td>
<td>$ 687,917</td>
</tr>
<tr>
<td>United States Government, State and</td>
<td></td>
</tr>
<tr>
<td>Municipal Bonds</td>
<td>9,544,097</td>
</tr>
<tr>
<td>Other Bonds</td>
<td>4,491,238</td>
</tr>
<tr>
<td>Stocks</td>
<td>682,901</td>
</tr>
<tr>
<td>Other Invested Assets</td>
<td>2,187,839</td>
</tr>
<tr>
<td><strong>TOTAL INVESTMENTS</strong></td>
<td><strong>17,603,992</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LIABILITIES AND SURPLUS TO POLICYHOLDERS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding Losses and Loss Expenses</td>
<td>$ 12,174,848</td>
</tr>
<tr>
<td>Unearned Premiums</td>
<td>3,726,565</td>
</tr>
<tr>
<td>Dividends Payable to Stockholder</td>
<td>1,400,000</td>
</tr>
<tr>
<td>Ceded Reinsurance Premiums Payable</td>
<td>329,694</td>
</tr>
<tr>
<td>Provision for Reinsurance</td>
<td>35,560</td>
</tr>
<tr>
<td>Other Liabilities</td>
<td>1,295,093</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES</strong></td>
<td><strong>18,961,860</strong></td>
</tr>
</tbody>
</table>

| Investments in Affiliates:              |       |
| Chubb Investment Holdings, Inc.         | 3,679,770 |
| Pacific Indemnity Company               | 2,930,246 |
| Executive Risk Indemnity Inc.           | 1,287,144 |
| Chubb Insurance Investment Holdings Ltd.| 1,020,850 |
| CC Canada Holdings Ltd.                 | 590,955 |
| Great Northern Insurance Company        | 469,230 |
| Chubb Insurance Company of Australia Ltd.| 404,945 |
| 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** |

<table>
<thead>
<tr>
<th>TOTAL LIABILITIES AND SURPLUS TO POLICYHOLDERS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SURPLUS TO POLICYHOLDERS</strong></td>
<td><strong>13,278,705</strong></td>
</tr>
</tbody>
</table>

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, — as:

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.

[Signature]

**JEANETTE SHIPSEY**

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

Form 15-10-0031A (Rev. 3/16)
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.

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

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations 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, _Andreas E. Gerber; Anne Pettey; Beverly A. Woodford; Jennifer L. Jakaitis; Nancy Schnae; Susan A. Welch; Valorie Spates

all of the city of Jericho state of NY 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 surely 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 _17th_ day of August 2016

STATE OF PENNSYLVANIA
COUNTY OF MONTGOMERY

On this _12th_ day of August 2016, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Insurance Company, Liberty Mutual Insurance Company, The Ohio Casualty Insurance Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes herein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have heretounto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.

COMMONWEALTH OF PENNSYLVANIA

Notary Seal
Teresa Pastella, Notary Public
Plymouth Twp., Montgomery County
My Commission Expires March 28, 2021

By: 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 American Fire and Casualty Company, 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 surely 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 surely 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 surely 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, Gregory W. Davenport, the undersigned, Assistant Secretary, of American Fire and Casualty Company, 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 heretounto set my hand and affixed the seals of said Companies this _28_ day of SEP 2016, 2016.

By: Gregory W. Davenport, Assistant Secretary
LIBERTY MUTUAL INSURANCE COMPANY
FINANCIAL STATEMENT — DECEMBER 31, 2015

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

* 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.

[Signature]
Assistant Secretary
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

Nancy Schnee, Valorie Spates, Andrea E Gorbert, Beverly Woolford, Anne Potter, Individually, of Jericho, NY
Debra A Deming, Vivian Carti, Evangelina L Dominick, Cynthia Farrell, Sandra Diaz, Edward Reilly, Peter Healy,
Susan A Welsh, Individually, of New York, NY

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 26th day of August, 2016.

The Continental Insurance Company

Paul T. Brulat
Vice President

State of South Dakota, County of Minnehaha, ss:
On this 26th day of August, 2016, before me personally came Paul T. Brulat 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.

J. Mohr
Notary Public

My Commission Expires June 23, 2021

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 SEP 2-8-2016 day of

The Continental Insurance Company

D. Bult
Assistant Secretary

Form F6850-4/2012
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."
### Statement of Net Admitted Assets and Liabilities

**December 31, 2015**

**ASSETS**

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

**LIABILITIES AND SURPLUS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Losses</td>
<td><strong>$774,879,701</strong></td>
</tr>
<tr>
<td>Loss adjustment expense</td>
<td>$36,650,259</td>
</tr>
<tr>
<td>Other expenses</td>
<td>$736,867</td>
</tr>
<tr>
<td>Unearned premiums</td>
<td></td>
</tr>
<tr>
<td>Ceded reinsurance premiums payable (net of ceding commissions)</td>
<td>$27,199,039</td>
</tr>
<tr>
<td>Provision for reinsurance</td>
<td>$76,000,000</td>
</tr>
<tr>
<td>Other liabilities</td>
<td>(717,874,026)</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td><strong>$197,591,840</strong></td>
</tr>
</tbody>
</table>

**Surplus Account:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital paid up</td>
<td>$53,566,360</td>
</tr>
<tr>
<td>Gross paid in and contributed surplus</td>
<td>$1,423,436,994</td>
</tr>
<tr>
<td>Special Surplus</td>
<td>$136,028,695</td>
</tr>
<tr>
<td>Unassigned funds</td>
<td>(143,762,279)</td>
</tr>
<tr>
<td><strong>Surplus as regards policyholders</strong></td>
<td><strong>$1,469,269,770</strong></td>
</tr>
<tr>
<td><strong>Total Liabilities and Capital</strong></td>
<td><strong>$1,666,861,610</strong></td>
</tr>
</tbody>
</table>

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 [Signature]

Assistant Vice President

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

My commission expires:

[Stamp]

Yolanda Jimenez

Official Seal

Commission Expires September 24, 2017
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: Andrea E. Gorbet, Beverly A. Welford, Anne Pattey, Nancy Schnee, Valorie Spates, 350 North Broadway of the city of Jericho State of New York, 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,

By:

David Fields, Executive Vice President

NATIONAL INDEMNITY COMPANY,
NATIONAL LIABILITY & FIRE INSURANCE COMPANY,

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]

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 seal of said companies this date of September 28, 2016.

Assistant Secretary

BHSIC, NICO & NLF POA (2014)
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.

BHSIC, NICO & NLF POA (2014)
Berkshire Hathaway Specialty Insurance Company
1314 Douglas Street, Suite 1400, Omaha, Nebraska 68102

**Admitted Assets**

<table>
<thead>
<tr>
<th></th>
<th>12/31/2015</th>
<th>9/30/2015</th>
<th>12/31/2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total invested assets</td>
<td>$3,186,498,049</td>
<td>$3,136,760,813</td>
<td>$3,496,596,431</td>
</tr>
<tr>
<td>Premium &amp; agent balances (net)</td>
<td>111,888,220</td>
<td>87,914,911</td>
<td>1,575,140</td>
</tr>
<tr>
<td>All other assets</td>
<td>73,200,653</td>
<td>57,838,968</td>
<td>23,436,525</td>
</tr>
<tr>
<td><strong>Total Admitted Assets</strong></td>
<td><strong>$3,371,586,922</strong></td>
<td><strong>$3,282,514,592</strong></td>
<td><strong>$3,521,608,096</strong></td>
</tr>
</tbody>
</table>

**Liabilities & Surplus**

<table>
<thead>
<tr>
<th></th>
<th>12/31/2015</th>
<th>9/30/2015</th>
<th>12/31/2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss &amp; loss exp. unpaid</td>
<td>$33,566,302</td>
<td>$22,748,711</td>
<td>$7,856,614</td>
</tr>
<tr>
<td>Unearned premiums</td>
<td>62,997,856</td>
<td>33,154,834</td>
<td>454,617</td>
</tr>
<tr>
<td>All other liabilities</td>
<td>230,891,273</td>
<td>195,785,652</td>
<td>279,153,584</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td><strong>327,457,431</strong></td>
<td><strong>251,689,197</strong></td>
<td><strong>287,464,815</strong></td>
</tr>
<tr>
<td>Total Policyholders' Surplus</td>
<td>3,044,111,491</td>
<td>3,030,825,495</td>
<td>3,234,143,281</td>
</tr>
<tr>
<td><strong>Total Liabilities &amp; Surplus</strong></td>
<td><strong>$3,371,586,922</strong></td>
<td><strong>$3,282,514,692</strong></td>
<td><strong>$3,521,608,096</strong></td>
</tr>
</tbody>
</table>

*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

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. 231293
Certificate No. 006961130

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

Nancy Schnee, Andrea E. Gorbert, Valerie Spates, Beverly A. Woolford, Anne Potter, Jennifer L. Jakaitis, and Susan A. Welsh

of the City of Jericho, State of New York, 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 hereunto affixed, this 31st day of August, 2016.

By: Robert L. Raney, Senior Vice President

State of Connecticut
City of Hartford ss.

On this the 31st day of August, 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.

Notary Public

.navigateByUrl
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 28 day of SEP 2016.

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.
<table>
<thead>
<tr>
<th>ASSETS</th>
<th>LIABILITIES &amp; SURPLUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASH AND INVESTED CASH</td>
<td>$54,550,861</td>
</tr>
<tr>
<td>BONDS</td>
<td>3,500,572,056</td>
</tr>
<tr>
<td>STOCKS</td>
<td>245,591,114</td>
</tr>
<tr>
<td>INVESTMENT INCOME DUE AND ACCRUED</td>
<td>43,900,720</td>
</tr>
<tr>
<td>OTHER INVESTED ASSETS</td>
<td>3,880,975</td>
</tr>
<tr>
<td>PREMIUM BALANCES</td>
<td>200,990,013</td>
</tr>
<tr>
<td>NET DEFERRED TAX ASSET</td>
<td>85,751,186</td>
</tr>
<tr>
<td>REINSURANCE RECOVERABLE</td>
<td>22,532,368</td>
</tr>
<tr>
<td>SECURITIES LENDING REINVESTED COLLATERAL ASSETS</td>
<td>11,772,178</td>
</tr>
<tr>
<td>RECEIVABLES FROM PARENT, SUBSIDIARIES AND AFFILIATES</td>
<td>26,650,492</td>
</tr>
<tr>
<td>OTHER ASSETS</td>
<td>5,085,697</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

STATE OF CONNECTICUT

COUNTY OF HARTFORD

CITY OF HARTFORD


SECOND VICE PRESIDENT

NOTARY PUBLIC

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

SUSAN M. WEISSLEDER
Notary Public
Not Commission Expires November 30, 2017
3.2.10 SCC and DPOR Information Tables
## ATTACHMENT 3.2.10

State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

### 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)**

<table>
<thead>
<tr>
<th>Business Name</th>
<th>SCC Number</th>
<th>SCC Type of Corporation</th>
<th>SCC Status</th>
<th>DPOR Registered Address</th>
<th>DPOR Registration Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skanska USA Civil Southeast Inc.</td>
<td>0038275-4</td>
<td>Corporation</td>
<td>Active</td>
<td>295 Bendix Road, Suite 400, Virginia Beach, VA 23452</td>
<td>CBC EMC H/H</td>
<td>2701000041</td>
<td>10/31/2016</td>
</tr>
<tr>
<td>Archer Western Construction, LLC</td>
<td>T043700-6</td>
<td>Foreign LLC</td>
<td>Active</td>
<td>929 W. Adams St. Chicago, IL 60607</td>
<td>BLD H/H</td>
<td>2705141795</td>
<td>7/31/2017</td>
</tr>
<tr>
<td>Parsons Brinckerhoff, Inc.</td>
<td>F0501603</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>One Penn Plaza, New York, NY 10119</td>
<td>ENG, ARC, LA, LS</td>
<td>041100137</td>
<td>2/28/2018</td>
</tr>
<tr>
<td>Dewberry Consultants, LLC</td>
<td>S0447336</td>
<td>Limited Liability Company</td>
<td>Active</td>
<td>4801 Arlington Blvd. Fairfax, VA 22031</td>
<td>ENG, ARC</td>
<td>0407003966</td>
<td>12/31/2017</td>
</tr>
<tr>
<td>Precision Measurements, Inc.</td>
<td>04504361</td>
<td>Corporation</td>
<td>Active</td>
<td>851 Seahawk Circle, Suite 103, Virginia Beach, VA 23452</td>
<td>LS</td>
<td>0407003345</td>
<td>12/31/2017</td>
</tr>
<tr>
<td>Cardno, Inc.</td>
<td>F1882150</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>10004 Park Meadows Dr. Suite 300, Lone Tree, CO 80124</td>
<td>ENG</td>
<td>0411001140</td>
<td>2/28/2018</td>
</tr>
<tr>
<td>Harris Miller Miller &amp; Hanson, Inc.</td>
<td>F1451857</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>77 South Bedford St. Burlington, MA 01803</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Tuhin Basu &amp; Associates, Inc</td>
<td>05243340</td>
<td>Corporation</td>
<td>Active</td>
<td>7921 Jones Branch Dr. Suite LL08 Mclean, VA 22102</td>
<td>ENG</td>
<td>0407003991</td>
<td>12/31/2017</td>
</tr>
<tr>
<td>Sabra Wang Associates, Inc.</td>
<td>F1343203</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>101 West Broad Street, Suite 301 Falls Church, VA 22046</td>
<td>ENG</td>
<td>0407005636</td>
<td>12/31/2017</td>
</tr>
<tr>
<td>Hassan Water Resources, PLC</td>
<td>S2293282</td>
<td>Limited Liability Company</td>
<td>Active</td>
<td>2255 Parkers Hill Dr. Maidens, VA 23102</td>
<td>ENG</td>
<td>0413000299</td>
<td>12/31/2017</td>
</tr>
</tbody>
</table>
## ATTACHMENT 3.2.10

State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

### SCC and DPOR Information

<table>
<thead>
<tr>
<th>Company</th>
<th>SCC Number</th>
<th>Address</th>
<th>City</th>
<th>Province</th>
<th>Postal Code</th>
<th>PSID</th>
<th>Registration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stantec Consulting Services, Inc.</td>
<td>F1493198</td>
<td>200, 10160 – 112 Street, T5K 2L6 Edmonton AB</td>
<td>Eng</td>
<td></td>
<td>041100981</td>
<td>2/28/2018</td>
<td></td>
</tr>
</tbody>
</table>
### ATTACHMENT 3.2.10

State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

#### SCC and DPOR Information

<table>
<thead>
<tr>
<th>DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual’s Name</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>Skanska USA Civil Southeast Inc.</td>
</tr>
<tr>
<td>Stantec Consulting Services, Inc.</td>
</tr>
<tr>
<td>Parsons Brinckerhoff, Inc.</td>
</tr>
<tr>
<td>Parsons Brinckerhoff, Inc.</td>
</tr>
<tr>
<td>Parsons Brinckerhoff, Inc.</td>
</tr>
<tr>
<td>Parsons Brinckerhoff, Inc.</td>
</tr>
<tr>
<td>Parsons Brinckerhoff, Inc.</td>
</tr>
<tr>
<td>Parsons Brinckerhoff, Inc.</td>
</tr>
<tr>
<td>Parsons Brinckerhoff, Inc.</td>
</tr>
<tr>
<td>Parsons Brinckerhoff, Inc.</td>
</tr>
</tbody>
</table>
### ATTACHMENT 3.2.10
State Project No. 0064-131-811, P101, R201, C501, B662-B669, D637, D638

**SCC and DPOR Information**

<table>
<thead>
<tr>
<th>Company</th>
<th>Name</th>
<th>Address</th>
<th>PO Box</th>
<th>City, State</th>
<th>Phone</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parsons Brinckerhoff, Inc.</td>
<td>Timothy Raymond Rayner</td>
<td>Virginia Beach, VA</td>
<td>PO Box 55019</td>
<td>Virginia Beach, VA 23471</td>
<td>ENG</td>
<td>0402041012</td>
</tr>
<tr>
<td>Parsons Brinckerhoff, Inc.</td>
<td>Melissa Jean Simpson</td>
<td>Virginia Beach, VA</td>
<td>3052 Bradwell Rd. Richmond, VA 232256</td>
<td>ENG</td>
<td>0402049366</td>
<td>12/31/2017</td>
</tr>
</tbody>
</table>
3.2.10.1

Full Size Copies of SCC Registration
CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That Skanska USA Civil Southeast Inc. is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is May 9, 1932;

That the period of its duration is perpetual; and

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

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
September 14, 2016

Joel H. Peck, Clerk of the Commission

CISECOM
Document Control Number: 1609145857
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL I CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

CORPORATE DATA INQUIRY

CISM0180

CORP ID: 0038274 - 4 STATUS: 00 ACTIVE STATUS DATE: 06/22/11

CORP NAME: Skanska USA Civil Southeast Inc.

DATE OF CERTIFICATE: 05/09/1932 PERIOD OF DURATION: 09/07/16

STATE OF INCORPORATION: VA VIRGINIA INDUSTRY CODE: 00

MERGER IND: S SURVIVOR CONVERSION/DOMESTICATION IND:

GOOD STANDING IND: Y MONITOR INDICATOR:

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

R/A NAME: CORPORATION SERVICE COMPANY

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

CITY: RICHMOND STATE: VA ZIP: 23219-0000

R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 07/01/14 LOC: 216

ACCEPTED AR#: 216 07 2757 DATE: 04/25/16 RICHMOND CITY

CURRENT AR#: 216 07 2757 DATE: 04/25/16 STATUS: A ASSESSMENT INDICATOR: 0

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

1,000,000

(Screen Id:/Corp_Data_Inquiry)
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

Skanska USA Civil Southeast Inc.

General
- SCC ID: 00382754
- Entity Type: Corporation
- Jurisdiction of Formation: VA
- Date of Formation/Registration: 5/9/1932
- Status: Active
- Shares Authorized: 1000000

Principal Office
- 295 BENDIX RD STE 400
- VIRGINIA BEACH VA 23452

Registered Agent/Registered Office
- CORPORATION SERVICE COMPANY
- BANK OF AMERICA CENTER, 16TH FLOOR
- 1111 EAST MAIN STREET
- RICHMOND VA 23219
- RICHMOND CITY 216
- Status: Active
- Effective Date: 7/1/2014

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
- Manage email notifications

Screen ID: el000

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

We provide external links throughout our site.
Archer Western Construction, LLC

General

SCC ID: T0437006
Entity Type: Foreign Limited Liability Company
Jurisdiction of Formation: IL
Date of Formation/Registration: 6/30/2010
Status: Active

Principal Office

929 W ADAMS ST
CHICAGO IL60607

Registered Agent/Registered Office

CORPORATION SERVICE COMPANY
Bank of America Center, 16th Floor
1111 East Main Street
RICHMOND VA 23219
RICHMOND CITY  216
Status: Active
Effective Date: 4/29/2011

Select an action

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

Screen ID: e1000

Please note: The SCC website will be unavailable Thursday, August 18, from 6 p.m. until 10 p.m., for system maintenance. We apologize for the inconvenience and appreciate your patience.
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk’s Office website.

SCC eFile will be unable to accept transactions requiring payment beginning Thursday, October 6, at 11:45 p.m. through Friday morning, October 7, 2016, at 3:00 a.m., due to payment vendor site maintenance.
CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That Parsons Brinckerhoff, Inc., 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 February 11, 1986; 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:  
March 25, 2013

Joel H. Peck, Clerk of the Commission
Welcome to SCC eFile
Business Entity Details

Parsons Brinckerhoff, Inc.

SCC ID: F0501603
Business Entity Type: Foreign Corporation
Jurisdiction of Formation: NY
Date of Formation/Registration: 2/11/1986
Status: Active
Shares Authorized: 30000

Principal Office
ONE PENN PLAZA
NEW YORK NY 10119

Registered Agent/Registered Office
CT CORPORATION SYSTEM
4701 COX RD STE 301
GLEN ALLEN VA 23060-6802
HENRICO COUNTY 143
Status: Active
Effective Date: 1/5/2004

Users are encouraged to create an SCC eFile account to:
- Conveniently monitor business entities through the use of a "Favorites" list
- Perform easy step-by-step online transactions for certain types of filings, such as registered agent changes
- Quickly access online filing history

To view our Privacy Policy, click here

View Entity's eFile History

Screen ID: e1000

Need additional information? Contact sccinfo@scc.virginia.gov Website questions? Contact: webmaster@scc.virginia.gov
We provide external links throughout our site.
CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

That Dewberry Consultants LLC is duly organized as a limited liability company under the law of the Commonwealth of Virginia;

That the date of its organization is January 01, 2000; and

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

As of the date below, this certificate of organization is in effect and the company is current in the payment of all annual registration fees assessed against it by the Commission.

I further certify that the following is a list of all documents relating to the articles of organization filed in the Clerk's Office of the Commission on behalf of Dewberry Consultants LLC.

ARTICLES OF ORGANIZATION          January 1, 2000
ARTICLES OF AMENDMENT             September 21, 2012

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
August 11, 2016

Joel H. Peck, Clerk of the Commission
Dewberry Consultants LLC

**General**
- SCC ID: S0447336
- Entity Type: Limited Liability Company
- Jurisdiction of Formation: VA
- Date of Formation/Registration: 1/1/2000
- Status: Active

**Principal Office**
- 8401 ARLINGTON BLVD
- FAIRFAX VA22031

**Registered Agent/Registered Office**
- CORPORATION SERVICE COMPANY
- Bank of America Center, 16th Floor
- 1111 East Main Street
- RICHMOND VA 23219
- RICHMOND CITY 216
- Status: Active
- Effective Date: 4/29/2011

Select an action
- File a registered agent change
- File a registered office address change
- Resign as registered agent
- File 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

Screen ID: e1000

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

We provide external links throughout our site:
Commonwealth of Virginia

State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That PRECISION MEASUREMENTS, INC. is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is July 24, 1995;

That the period of its duration is perpetual; and

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

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
May 23, 2014

Joel H. Peck, Clerk of the Commission

CISECOM
Document Control Number: 1405235693
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

SCC eFile > Entity Search > Entity Details

SCC eFile
Business Entity Details

PRECISION MEASUREMENTS, INC.

General

<table>
<thead>
<tr>
<th>SCC ID:</th>
<th>04504361</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entity Type:</td>
<td>Corporation</td>
</tr>
<tr>
<td>Jurisdiction of Formation:</td>
<td>VA</td>
</tr>
<tr>
<td>Date of Formation/Registration:</td>
<td>7/24/1995</td>
</tr>
<tr>
<td>Status:</td>
<td>Active</td>
</tr>
<tr>
<td>Shares Authorized:</td>
<td>5000</td>
</tr>
</tbody>
</table>

Principal Office

851 SEAHAWK CIRCLE
SUITE 103
VIRGINIA BEACH VA23452

Registered Agent/Registered Office

DOUGLAS W DAVIS
WYNNGATE BUSINESS PARK
516 BAYLOR CT
CHESAPEAKE VA 23320
CHESAPEAKE CITY 236
Status: Active
Effective Date: 6/4/2002

Screen ID: e1000

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

Build #: 1.0.0.30644
CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That Cardno, 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 December 13, 2011; 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:
March 24, 2016

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

General

SCC ID: F1882150  
Entity Type: Foreign Corporation  
Jurisdiction of Formation: DE  
Date of Formation/Registration: 12/13/2011  
Status: Active  
Shares Authorized: 1000

Principal Office

10004 PARK MEADOWS DR  
SUITE #300  
LONE TREE CO80124

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 an annual report  
Pay annual registration fee  
Order a certificate of good standing  
View eFile transaction history  
Manage email notifications

Screen ID: e1000

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

We provide external links throughout our site.

Downloadable viewers:
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:

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

I Certify the Following from the Records of the Commission:

That TUHIN BASU & ASSOCIATES, INC. is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is July 16, 1999;

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:
June 21, 2016

Joel H. Peck, Clerk of the Commission
TUHIN BASU & ASSOCIATES, INC.

General

SCC ID: 05243340
Entity Type: Corporation
Jurisdiction of Formation: VA
Date of Formation/Registration: 7/16/1999
Status: Active
Shares Authorized: 5000

Principal Office

7921 JONES BRANCH DRIVE
STE LL08
MCLEAN VA22102

Registered Agent/Registered Office

INCORP SERVICES INC
7288 HANOVER GREEN DRIVE
MECHANICSVILLE VA 23111
HANOVER COUNTY 142
Status: Active
Effective Date: 6/12/2009

Screen ID: e1000

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

We provide external links throughout our site.
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, Clerk of the Commission
An ALERT to Virginia Corporations Regarding Solicitations from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk’s Office website.

SABRA, WANG & ASSOCIATES, INC.

**General**

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

**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
STATE CORPORATION COMMISSION

Richmond, July 16, 2007

This is to certify that the certificate of organization of

Hassan Water Resources, PLC

was this day issued and admitted to record in this office and that the said limited liability company is authorized to transact its business subject to all Virginia laws applicable to the company and its business. Effective date: July 16, 2007

State Corporation Commission
Attest:

Clerk of the Commission
Hassan Water Resources, PLC

General

SCC ID: S2293282
Entity Type: Limited Liability Company
Jurisdiction of Formation: VA
Date of Formation/Registration: 7/16/2007
Status: Active

Principal Office

2255 PARKERS HILL DR
MAIDENS VA23102

Registered Agent/Registered Office

GAMAL E HASSAN
2255 PARKERS HILL DR
GOOCHLAND COUNTY 137
Status: Active
Effective Date: 5/4/2010

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

Screen ID: e1000

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

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

We provide external links throughout our site.

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

Build #: 1.0.0.30644
Commonwealth of Virginia

State Corporation Commission

I Certify the Following from the Records of the Commission:

The foregoing is a true copy of an application for an amended certificate of authority to transact business in Virginia filed in this office by Stantec Consulting Services Inc.

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
April 19, 2005

Joel H. Peck, Clerk of the Commission
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.
3.2.10.2 Full Size Copies of DPOR Registration (Offices)
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

9860 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

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

ARCHER WESTERN CONSTRUCTION LLC
929 W ADAMS ST
CHICAGO, IL 60607

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)

ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OR FIRMS OTHER THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.
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
0411000137

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

PROFESSIONS: ENG, ARC

PARSONS BRINCKERHOFF INC
277 BENDIX ROAD
SUITE 300
VIRGINIA BEACH, VA 23452

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY REGISTRATION

PROFESSIONS: LS

PRECISION MEASUREMENTS INC
851 SEAHAWK CIR
SUITE 103
VIRGINIA BEACH, VA 23452

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

BOARD FOR APES/CIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407003345 EXPIRES: 12-31-2017
PROFESSIONS: LS
PRECISION MEASUREMENTS INC
851 SEAHAWK CIR
SUITE 103
VIRGINIA BEACH, VA 23452

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

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

PROFESSIONS: ENG

TUHIN BASU & ASSOCIATES INC
7921 JONES BRANCH DR STE LL08
MC LEAN, VA 22102

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

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

EXPIRES ON
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

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
9650 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

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

PROFESSION: ENG

HASSEAN WATER RESOURCES PLC
HWR
2255 PARKERS HILL DRIVE
MAIDENS, VA 23102-2244

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

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

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

PROFESSIONS: ENG

STANTEC CONSULTING SERVICES INC
10800 MIDLOTHIAN TURNPIKE
SUITE 310
RICHMOND, VA 23235

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

DFOR-UC (05/2015)
(DETACH HERE)

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000981  EXPIRES: 02-28-2018
PROFESSIONS: ENG
STANTEC CONSULTING SERVICES INC.
10800 MIDLOTHIAN TURNPIKE
SUITE 310
RICHMOND, VA 23235

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

DFOR-PC (05/2015)
3.2.10.3
Full Size Copies of DPOR Registration (Key Personnel)
COMMONWEALTH OF VIRGINIA

BOARD FOR APELSCIDLA
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402034653  EXPIRES: 07-31-2017

THOMAS JONATHAN FULTON
1717 WESTERFIELD ROAD
VIRGINIA BEACH, VA 23455

ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OR FIR
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

9980 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 357-8500

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

SCOTT A LOVELL
PB AMERICAS, INC.
2641 LOWER GREENS PLACE
VIRGINIA BEACH, VA 23456

ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OR FIRMS OTHER
THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHAGE)
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
06-30-2017

NUMBER
0402042450

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

MICHELLE LEE MARTIN
1773 SEATON DR
VIRGINIA BEACH, VA 23464

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)

COMMONWEALTH OF VIRGINIA
BOARD FOR APELSCIDLA
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402042450 EXPIRES: 06-30-2017

MICHELLE LEE MARTIN
1773 SEATON DR
VIRGINIA BEACH, VA 23464

ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OR FIRMS OTHER THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPLORES ON
06-30-2017

NUMBER
0402040134

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

TIMOTHY PAUL ANDERSON
227 43RD STREET
VIRGINIA BEACH, VA 23451

ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OR FIRMS OTHER
THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.

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

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

EXPIRES ON
12-31-2017

NUMBER
0406001737

GREGORY GEORGE HOER
6500 BEVERLY RD
BALTIMORE, MD 21239

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

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

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

EXPIRES ON
01-31-2018

NUMBER
0402038150

ROBIN RENEE HUELSBECK
1017 JAMIE DRIVE
PENSACOLA, FL 32506

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (05/2015)
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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

TIMOTHY RAYMOND RAYNER
PO BOX 55019
VIRGINIA BEACH, VA 23471

ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OTHER
THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)
3.2.10.4
Full Size Copies of DPOR Registration (Non-APELSCVIDLA)
NONE PROVIDED AT THIS TIME
3.3.1 Key Personnel Resume and Reference Forms
**Brief Resume of Key Personnel anticipated for the Project.**

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
<th>Thomas Fulton, PE, Vice President Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment:</td>
<td>Design-Build Project Manager</td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated:</td>
<td>Skanska USA Civil Southeast Inc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>d. Employment History:</th>
<th>With this Firm 30 Years With Other Firms 0 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):</td>
<td></td>
</tr>
</tbody>
</table>

Skanska USA Civil Southeast, Inc., Jul. 1986 to Present. For the past twelve years, Thomas Fulton has been a Project Executive and Project Manager. Prior to that, Mr. Fulton was a Superintendent.

Mr. Fulton is a Vice President of Operations, Project Executive/Project Manager with Skanska:

- **As a Project Executive**, Mr. Fulton provides corporate oversight and coordination for projects. He actively maintains and improves customer communications and relations, provides project oversight, project strategic direction, and project reporting to senior management. He reviews the safety and quality statistics with the Project Manager and keeps in constant contact with safety/environmental and quality control managers to ensure the progress, compliance and success of projects. He is also responsible for providing project financial forecasts.

- **As a Project Manager**, He has been assigned to provide on-site project management for specific projects, where he has direct responsibility for project staffing, schedule, budget and cost control, subcontractor relations, and provides direction and coordination for superintendents and other supervisory staff. Projects where Mr. Fulton assumed project manager duties were high visibility projects with particular needs that matched well with Mr. Fulton’s capabilities. Descriptions of three such projects are provided in Block f.

- **As a Superintendent**, Mr. Fulton provided on-site direction for daily activities for various highway and bridge projects in Virginia. He was responsible for ensuring compliance with corporate quality, safety, and environmental programs; training; leading the construction team; subcontractor management; managing field work; ensuring that required materials, equipment and personnel were available to ensure successful completion of the assigned tasks and to maintain project productivity within schedule and cost constraints. He was responsible for documentation, reporting, and identifying, managing and mitigating risk on the project, as well as working closely with the project manager to ensure work was coordinated with other superintendents.

  Many of Mr. Fulton’s projects as a superintendent included extensive marine work such as pile driving, substructure and superstructure construction and land tie-ins in sensitive marine environments and often in very congested areas where the team was required to maintain normal operations.

<table>
<thead>
<tr>
<th>e. Education:</th>
<th>Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Manchester School of Science and Technology, Manchester England / B.S. /1986 / Building Technology (1st Class)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Active Registration:</th>
<th>Year First Registered/ Discipline/VA Registration #:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001 / Professional Engineer / Commonwealth of Virginia, #034653</td>
<td></td>
</tr>
</tbody>
</table>

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

(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. Provide references for each of the three (3) projects using Key Personnel References form-Attachment 3.3.1(b))
1. **Elizabeth River Tunnels PPP, Norfolk, VA – Design-Build Project Manager, 2013-2018, Skanska USA Civil Southeast Inc.**

   **Specific Responsibilities:** Mr. Fulton is responsible for managing the approach construction for this $1.5 billion design-build project. His duties include oversight and reporting of safety and quality on his segment; setting schedules, procurement and budget in consultation with the project director; preparation of project activity plans, including activity hazard analysis plans; subcontractor management; coordinating activities with other segment managers, particularly the segment manager responsible for the submerged tunnels operations; and coordination of utility relocations.

   This work is adjacent to an active maritime channel, and the work is in an environmentally sensitive environment. MOT is a challenge because of high traffic flow - AADT of 99,000 vehicles at the Midtown Tunnel crossing, Shutdowns are limited to time of low traffic volume, mostly nights and weekends. The work is in older sections of Portsmouth and Norfolk, VA, requiring extensive coordination with local utilities. Community and customer relations are a high priority, especially because of the proximity of the largest hospital in Norfolk, requiring special attention to noise, vibration, and access for emergency vehicles. Special efforts were made to engage and utilize local small business.

2. **Huguenot Bridge Replacement, Richmond, VA – Project Manager, 2010-2013, Skanska USA Civil Southeast Inc.**

   **Specific Responsibilities:** Mr. Fulton, as the on-site Project Manager, was responsible for all aspects of project management for this $37 million project, including customer relations, community relations, quality, safety and environmental oversight, and schedule and cost control. He was also responsible for material equipment and personnel acquisition. As Project Executive, he was responsible for project oversight, project reporting, reviewing safety, schedule, and cost activities; reporting to executive management and ensuring customer satisfaction, and ensuring the project had access to resources to successfully complete the project.

   In this project, Mr Fulton’s team colocated with VDOT, the client, to strengthen communication and accelerate issue resolution. The project involved a 2,900-foot-long bridge and roadway and utility work on the approaches. Community outreach with stakeholders and neighbors was important in working next to the existing bridge and over railroad tracks as well as working through environmentally sensitive areas and parkland.

3. **Route 1/I-95/I-495, Alexandria, VA – Project Manager, 2005-2009, Skanska USA Civil Southeast Inc.**

   **Specific Responsibilities:** Mr. Fulton provided corporate and customer communications and general oversight. He was responsible for on-site administration, leadership and technical direction for this $189 million project. He had overall responsibility for quality and safety, performance, customer communication and reporting, and maintaining schedule. Mr. Fulton was also responsible for subcontractor relations; documentation and compliance with contract specifications, laws and regulations, As an on-site manager, He was responsible for supervising staff, and ensuring all work plans and documentation complied with Skanska and customer requirements.

   This project expanded I95/I495 from 12 lanes to14 lanes. MOT was important in working adjacent to moving traffic (AADT 220,000 vehicles). Communication and coordination was important in working in the corridor with seven other contractors working on adjacent projects. The project included demolishing 7 bridges and building 19, all over traffic. Utilities issues in the corridor and on bridges were resolved without affecting the project schedule.

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

| g. 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. |

Mr. Fulton is currently assigned full-time to the Elizabeth River Tunnels project in Portsmouth, VA as project manager for the tunnel approaches. While the project is scheduled to complete in 2018, the tunnel approach work is scheduled to be competed in 2016.
<table>
<thead>
<tr>
<th>PROJECT NAME</th>
<th>POSITION HELD ON THE PROJECT</th>
<th>DURATION IN THAT POSITION</th>
<th>NAME OF REFERENCE</th>
<th>REFERENCE’S LOCATION</th>
<th>NAME OF REFERENCE’S EMPLOYER</th>
<th>REFERENCE’S TITLE/POSITION</th>
<th>REFERENCE’S PHONE</th>
<th>REFERENCE’S EMAIL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>495 Express Lanes</td>
<td>Design Manager</td>
<td>12 Months as Design Manager</td>
<td>John Doe</td>
<td>Fairfax, VA</td>
<td>ABC Engineering Inc.</td>
<td>Vice President</td>
<td>Ph: (203) 111-222-3333</td>
<td><a href="mailto:reference@company.com">reference@company.com</a></td>
</tr>
<tr>
<td>Elizabeth River Tunnels PPP</td>
<td>Project Manager</td>
<td>43 Months</td>
<td>James Utterback</td>
<td>Suffolk, VA</td>
<td>Virginia Department of Transportation</td>
<td>District Administrator</td>
<td>Ph: 757-925-2511</td>
<td><a href="mailto:james.utterback@vdot.virginia.gov">james.utterback@vdot.virginia.gov</a></td>
</tr>
<tr>
<td>Huguenot Bridge Reconstruction</td>
<td>Project Manager</td>
<td>20 months</td>
<td>Shane Mann</td>
<td>Richmond, VA</td>
<td>Virginia Dept. of Transportation</td>
<td>District Construction Engineer</td>
<td>Ph: 804-720-4229</td>
<td><a href="mailto:shane.mann@vdot.virginia.gov">shane.mann@vdot.virginia.gov</a></td>
</tr>
<tr>
<td>Route 1/I-95/I-495</td>
<td>Project Manager</td>
<td>26 months</td>
<td>Jalal Masumi</td>
<td>Arlington, VA</td>
<td>Virginia Dept. of Transportation</td>
<td>Project Manager</td>
<td>Ph: 703-259-2215</td>
<td><a href="mailto:jalal.masumi@vdot.virginia.gov">jalal.masumi@vdot.virginia.gov</a></td>
</tr>
</tbody>
</table>
**ATTACHMENT 3.3.1(a)**

(Addendum No. 1 – reference form on 2nd page removed)

**KEY PERSONNEL RESUME FORM**

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Name &amp; Title: Julie W. Hartman, PE, Associate / Senior Engineer</td>
</tr>
<tr>
<td>b. Project Assignment: Quality Assurance Manager</td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated: Stantec</td>
</tr>
<tr>
<td>d. Employment History: With this Firm <strong>1.75</strong> Years With Other Firms <strong>15.25</strong> Years</td>
</tr>
</tbody>
</table>

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):

**Stantec Inc., Nov 2014-Present.** Ms. Hartman’s work with Stantec has focused on transportation-related construction management, construction inspection, and quality assurance and quality control. She performs contract administration and has served as Quality Assurance Manager (QAM) on various locality projects within the state. As the QAM, she reviews all materials used on the project as well as their applicable QC/QA sampling and testing and certifies conformity to plans and specifications. She manages the QA inspection team and their materials testing activities as well their project documentation.

**Volkert Inc., March 2012-Nov 2014.** Ms. Hartman served as the Assistant Vice President in Volkert, Inc.’s Virginia Construction Engineering and Inspection (CEI) group. She also served as both a Construction Inspection Coordinator and Quality Assurance Manager on District-wide and design-build contracts with the Virginia Department of Transportation (VDOT).

**City of Harrisonburg, VA, June 2007 – March 2012.** Ms. Hartman was the Public Works Engineer for the City and as such managed design consultant contracts and provided construction management of their improvement projects. She was responsible for coordination of utility relocations associated with improvement projects and associated Right of Way acquisitions. Some improvement projects were part of VDOT’s Local Assistance program so she met often with VDOT and FHWA for oversight and reviews.

**West Virginia Division of Highways, Sept 1999 – June 2007.** Ms. Hartman was a Highway Engineer/Project Manager for Construction projects in WVDOH’s District 5 as well as District 3. She supervised construction inspectors both DOH and consultants as well as provided construction management of various construction projects ranging from $5 million to $120 million in construction costs.

<table>
<thead>
<tr>
<th>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Virginia University, Morgantown, WV/ B.S. / 1996 / Civil Engineering</td>
</tr>
<tr>
<td>f. Active Registration: Year First Registered/ Discipline/VA Registration #:</td>
</tr>
<tr>
<td>2001 / Professional Engineer / WV # 014864 and 2007/Professional Engineer/VA # 0402044099</td>
</tr>
<tr>
<td>g. Document the extent and depth of your experience and qualifications relevant to the Project.</td>
</tr>
<tr>
<td>1. <strong>Note your role, responsibility, and specific job duties for each project, not those of the firm.</strong></td>
</tr>
<tr>
<td>2. <strong>Note whether experience is with current firm or with other firm.</strong></td>
</tr>
<tr>
<td>3. <strong>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</strong></td>
</tr>
</tbody>
</table>

(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. Provide references for each of the three (3) projects using Key Personnel References form-Attachment 3.3.1(b))

1. **Middle Ground Boulevard, Newport News, VA – Quality Assurance Manager, Dec 2012 – Nov 2014, Volkert, Inc.**

**Specific Responsibilities:** Ms. Hartman was the Quality Assurance Manager (QAM) during the construction of this $32-million DB project. Her responsibilities included:

- Providing confirmation that the construction, material testing, and sampling performed by the Design-Build QC inspectors were in accordance with the contract requirements
- Managed the QA team, materials testing activities, and project documentation
- Working with the contractor and QC team to resolve nonconforming materials and construction work
- Preparing noncompliance reports, reviewing recovery plans, and monitoring corrective actions and retests
- Reviewing contractor’s pay application and confirming payment of all items

118
Communicating and coordinating with the VDOT project manager and with OIA/OVST inspectors. This project consisted of a new 4-lane roadway, intersection improvements, a bridge over the CSX Railroad, a sidewalk, shared-use path, and enhanced landscaping. The project also included intersection improvements, a bridge over the CSX Railroad, a sidewalk, shared-use path, and enhanced landscaping.

2. **Blennerhassett Island Bridge or Ohio River Bridge, Parkersburg, WV – Highway Engineer, June 2005 – June 2007, West Virginia Division of Highways**

**Specific Responsibilities:** Ms. Hartman was the state’s Highway Engineer/Project Manager on site and in charge of the construction of this $120-million bridge project. Her responsibilities included:
- Provided construction management and supervised construction inspectors, both DOH and consultant staff.
- Met with utilities, other DOTs, FHWA, US Coast Guard, and other government agencies on regular basis.
- Reviewed contractor’s submitted baseline CPM Schedules and monthly updates.
- Reviewed inspector’s daily reports. Ensured Erosion and Sedimentation inspections were performed.
- Reviewed RFI’s submitted by contractor and coordinated their responses. Coordinated and managed shop drawing and submittal process with contractor and design consultant.
- Reviewed and approved contractor’s monthly payments. Resolved design conflicts in field and negotiated change orders and prices for additional work.
- Conducted and oversaw monthly progress meetings with contractor, inspectors, and design consultant by preparing agendas, documenting meetings, and distributing meeting minutes.
- Reviewed material certifications and monitored QC/QA materials testing.

At the time of construction, this project was West Virginia DOH’s largest contract ever awarded at $120 million (construction) and had the longest network tied arch of its kind in the world. The bridge was nationally and internationally recognized and was one of Road and Bridge Magazine’s Top Ten Bridges in 2008. The bridge is 4,008 feet in length and 12 spans long. The main span is 878-feet-long and utilized the tied arch to span the main channel of the Ohio River. The other 11 spans consist of structural steel plate girders. Ten of 11 piers were founded utilizing drilled shafts and the remaining pier and abutments were driven pile foundations. MSE walls were utilized at both the WV abutment as well as the Ohio abutment. The bridge spans from West Virginia to Ohio and was funded by FHWA, West Virginia DOH, and Ohio DOT.


**Specific Responsibilities:** Ms. Hartman was the state’s Highway Engineer/Project Manager on site and in charge of the construction of this $17-million bridge replacement project. Her responsibilities included:
- Provided construction management and supervised construction inspectors, both DOH and consultant staff.
- Met with other DOTs, FHWA, US National Park Services, and other government agencies on regular basis.
- Reviewed contractor’s submitted baseline CPM Schedules and monthly updates.
- Reviewed inspector’s daily reports. Ensured E & S inspections were performed.
- Reviewed RFI’s submitted by contractor and coordinated their responses. Coordinated and managed shop drawing and submittal process with contractor and design consultant.
- Reviewed and approved contractor’s monthly payments. Resolved design conflicts in field and negotiated change orders and prices for additional work.
- Conducted and oversaw monthly progress meetings with contractor, inspectors, and design consultant by preparing agendas, documenting meetings, and distributing meeting minutes.
- Reviewed material certifications and monitored QC/QA materials testing.

This replacement project included a 1,085-foot bridge that comprises three spans utilizing structural steel plate girders with a maximum span of 425 feet. This project was $17 million in construction costs. The project contained 11 different retaining wall systems including the use of MSE walls at the abutments. Pier foundations were spread footer for the one and micropiles for the other. Abutments utilized driven piles for their foundation. The bridge spans the Potomac River and the C&O Canal National Historic Park from West Virginia to Maryland. The project included construction of pedestrian single span bridge for National Park Service to access tow path as well as construction of a parking lot. The project was funded by FHWA, West Virginia DOH, and Maryland State Highway Administration (SHA).

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

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

Ms. Hartman is assigned to two on-call services contracts that extend through 2020. These can be reassigned and will not limit Ms. Hartman’s full-time availability.
<table>
<thead>
<tr>
<th>PROJECT NAME</th>
<th>POSITION HELD ON THE PROJECT</th>
<th>DURATION IN THAT POSITION</th>
<th>NAME OF REFERENCE</th>
<th>REFERENCE’S LOCATION</th>
<th>NAME OF REFERENCE’S EMPLOYER</th>
<th>REFERENCE’S TITLE/POSITION</th>
<th>REFERENCE’S PHONE</th>
<th>REFERENCE’S EMAIL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>495 Express Lanes</td>
<td>Design Manager</td>
<td>12 Months as Design Manager</td>
<td>John Doe</td>
<td>Fairfax, VA</td>
<td>ABC Engineering Inc.</td>
<td>Vice President</td>
<td>Ph: (203) 111-222-3333, Fax: (203) 111-222-4444</td>
<td><a href="mailto:reference@company.com">reference@company.com</a></td>
</tr>
<tr>
<td>Middle Ground Blvd Newport News, VA</td>
<td>Quality Assurance Manager</td>
<td>23 months</td>
<td>Brad Bushey</td>
<td>Richmond, VA</td>
<td>Allan Myers</td>
<td>Senior Project Engineer</td>
<td>Mobile: 571-437-6163</td>
<td><a href="mailto:brad.bushey@allanmyers.com">brad.bushey@allanmyers.com</a></td>
</tr>
<tr>
<td>Blennerhassett Island Bridge Parkersburg, WV</td>
<td>Highway Engineer / Project Manager</td>
<td>25 months</td>
<td>Todd Rumbaugh, PE</td>
<td>Charleston, WV</td>
<td>WV Division of Highways</td>
<td>Deputy State Highway Engineer—Construction &amp; Development</td>
<td>Phone: 304-558-6266</td>
<td><a href="mailto:stephen.t.rumbaugh@wv.gov">stephen.t.rumbaugh@wv.gov</a></td>
</tr>
<tr>
<td>James Rumsey Bridge Replacement Shepherdstown, WV</td>
<td>Highway Engineer / Project Manager</td>
<td>22 months</td>
<td>Todd Rumbaugh, PE</td>
<td>Charleston, WV</td>
<td>WV Division of Highways</td>
<td>Deputy Highway Engineer—Construction &amp; Development State</td>
<td>Phone: 304-558-6266</td>
<td><a href="mailto:stephen.t.rumbaugh@wv.gov">stephen.t.rumbaugh@wv.gov</a></td>
</tr>
</tbody>
</table>
**KEY PERSONNEL RESUME FORM**

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name &amp; Title:</strong> Derek J. Piper, PE, AICP, Assistant Vice President, Senior Project Manager</td>
</tr>
<tr>
<td><strong>Project Assignment:</strong> Design Manager</td>
</tr>
<tr>
<td><strong>a. Name of Firm with which you are now associated:</strong> Parsons Brinckerhoff, Inc.</td>
</tr>
<tr>
<td><strong>b. Employment History:</strong> With this Firm <strong>20 Years</strong> With Other Firms <strong>11 Years</strong></td>
</tr>
<tr>
<td>Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):</td>
</tr>
<tr>
<td>Parsons Brinckerhoff, Inc., 1996-Present. Derek Piper has 31 years of progressively responsible engineering experience, including 20 years managing complex highway/roadway/bridge improvement projects for VDOT, PennDOT, SCDOT and numerous local governments. From 1999-2009, Mr. Piper held progressively responsible positions (including Sr. Project Manager, Manager of Engineering &amp; Planning, and Area Manager) for Parsons Brinckerhoff in Columbia, SC. In 2009, Derek relocated to the Virginia Beach office to serve in a design management role on the Elizabeth River Tunnels Project. His technical specialties include program/project management, highway and intersection design, traffic data analysis; stormwater management plan development, environmental permitting, utility coordination, and utility design.</td>
</tr>
<tr>
<td>His responsibilities as a Design Manager have included coordinating the individual design disciplines, ensuring overall project design is in conformance with contract documents and delivered on time and within budget. He is responsible for conducting quality reviews for all deliverables and ensuring client satisfaction. He has established working relationships with VDOT/FHWA staff, permitting agency staff, regional utility company personnel, the City of Chesapeake, and national/regional rail entities in the Hampton Roads region</td>
</tr>
<tr>
<td><strong>c. Education:</strong> Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization: University of Pittsburgh, Pittsburgh, PA / Bachelor of Science / 1985 / Civil Engineering</td>
</tr>
<tr>
<td><strong>d. Active Registration:</strong> Year First Registered/ Discipline/VA Registration #:</td>
</tr>
<tr>
<td>2009 / Professional Engineer / VA Registration #0402046886;</td>
</tr>
<tr>
<td>2000 / Certified Planner / 017279;</td>
</tr>
<tr>
<td>1990 / Professional Engineer / Pennsylvania PE-039967-E</td>
</tr>
<tr>
<td><strong>e. Document the extent and depth of your experience and qualifications relevant to the Project.</strong></td>
</tr>
<tr>
<td>1. <strong>Note your role, responsibility, and specific job duties for each project, not those of the firm.</strong></td>
</tr>
<tr>
<td>2. <strong>Note whether experience is with current firm or with other firm.</strong></td>
</tr>
<tr>
<td>3. <strong>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</strong></td>
</tr>
<tr>
<td><em><em>(List only three (3) relevant projects</em> 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. Provide references for each of the three (3) projects using Key Personnel References form-Attachment 3.3.1(b))</em>*</td>
</tr>
</tbody>
</table>

1. VDOT, I-264 Widening and Martin Luther King Highway (MLK) Extension Final Design - Design-Build, Portsmouth, VA – Design Manager, May 2012 – March 2017 (Anticipated), Parsons Brinckerhoff, Inc.  

**Specific Responsibilities:** Mr. Piper served as the Design Manager for a Skanska construction joint venture for over $200M worth of improvements to I-264 and including the MLK Extension in urban Portsmouth, VA during both the **final design and continuing into construction.** Mr. Piper’s responsibilities for this project included:  
- Managing final roadway, structure and bridge design, TMP and maintenance of traffic plans; water quality and stormwater permitting, aesthetic treatments design, utility coordination and in contract utility relocation design (water and sewer);  
- Managing a team of 25+ Parsons Brinckerhoff design and 13 subconsultants;  
- Coordinating design and ROW issues with the DB Contractor and VDOT;  
- Ensuring project design in conformance with the contract documents; and  
- Establishing and overseeing a QA/QC program for the disciplines involved in the design of the project, including review of the design, working plans, shop drawings, specifications, and constructability.
The design for this project is complete. Construction is over 80% complete and scheduled for completion by March 2017. Derek is currently leading Parsons Brinckerhoff’s efforts providing design support during construction, including shop drawing reviews, preparing responses to RFIs, and As-Built documentation for the overall Elizabeth River Tunnels Project including the I-264 Widening/MLK Extension. Specific scope elements included:

- Widening of I-264 to accommodate the new interchange at MLK Extension;
- The design of the MLK Extension including an approximately 3,900-foot multi-lane mainline bridge over urban Portsmouth and CSX’s Portsmouth Yard;
- Five new bridges carrying I-264 ramps, two I-264 bridge widenings including widening the existing bridge over N&PBL railroad;
- 11 stormwater ponds/basins (including significant aesthetic treatments);
- Three sound barrier walls;
- Significant overhead guide signage; landscaping and aesthetic treatments; and
- Replacement/upgrades to the ITS system along I-264 and new ITS systems along the MLK Extension.

2. VDOT, Downtown Tunnel (DTT), Midtown Tunnel (MTT), and MLK Extension Preliminary Design, Design-Build, Norfolk and Portsmouth, VA – Deputy Design Manager, May 2010 – May 2012, Parsons Brinckerhoff, Inc.

Specific Responsibilities: Mr. Piper was the Deputy Design Manager for a Skanska construction joint venture, for preliminary design development and permitting for the Elizabeth River Tunnels Project. In this role, he:

- Led roadway design, stormwater management design, utility relocation (in contract water and sewer) design, significant environmental permitting and agency coordination with USACE, USCG, and VDEQ for dredging, dredge material disposal, wetlands impacts, and federal channel impacts during construction, and preparation of a NADR for the overall Elizabeth River Tunnels Project.
- Was involved with water quality and stormwater permitting, for 21 acres of impacts to subaqueous river bottom.
- Was responsible for project design in conformance with the contract documents.
- Established and oversaw a QA/QC program for the disciplines involved in the design of the project including review of the design drawings.

The design for this project was completed in June 2011, with permitting continuing through May 2012. Construction is over 80% complete and scheduled for completion by March 2017. Derek is currently leading Parsons Brinckerhoff efforts providing design support during construction, including shop drawing reviews, preparing responses to RFIs, and As-Built documentation for the overall Elizabeth River Tunnels Project including the I-264 Widening/MLK Extension.


Specific Responsibilities: Mr. Piper performed QA/QC of roadway plans for this $188M improvement to US 17. In this role, he:

- Provided formal review of the design plans, including roadway widening, intersections, stormwater management and drainage collection systems, MOT and utility relocations.
- Coordinated plan reviews with various discipline leads and provided constructability comments to improve traffic control and reduce property impacts.

The project involved roadway widening under heavy traffic volumes and converted an existing two-lane suburban roadway into a four-lane controlled access facility. The project design included a phased TMP/MOT plan to construct grade-separated interchanges while maintaining existing traffic flows at the major intersections with US 17. The project included two nearly 6,000 foot long mainline bridge crossing the Elizabeth River, six new stormwater management facilities; modifications to both lengthen and convert an existing twin-cell box culvert to a triple-cell box culvert; stream modifications; 120,000-square-feet of MSE retaining wall at 20 locations; two sound barrier walls; and significant utility relocations. The design for this project is complete. Construction is over 85% complete with completion expected early 2017.

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

f. 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. NA
### ATTACHMENT 3.3.1(b)

**KEY PERSONNEL REFERENCE FORM**

<table>
<thead>
<tr>
<th>PROJECT NAME</th>
<th>POSITION HELD ON THE PROJECT</th>
<th>DURATION IN THAT POSITION</th>
<th>NAME OF REFERENCE</th>
<th>NAME OF REFERENCE’S LOCATION</th>
<th>NAME OF REFERENCE’S EMPLOYER</th>
<th>REFERENCE’S TITLE/POSITION</th>
<th>REFERENCE’S PHONE</th>
<th>REFERENCE’S EMAIL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>495 Express Lanes</td>
<td>Design Manager</td>
<td>12 Months as Design Manager</td>
<td>John Doe</td>
<td>Fairfax, VA</td>
<td>ABC Engineering Inc.</td>
<td>Vice President</td>
<td>Ph: (203) 111-222-3333 Fax: (203) 111-222-4444</td>
<td><a href="mailto:reference@company.com">reference@company.com</a></td>
</tr>
<tr>
<td>I-264 Widening and the MLK Extension, Final Design - DB</td>
<td>Design Manager</td>
<td>57 months</td>
<td>Bradley Weidenhammer, P.E.</td>
<td>Portsmouth, VA</td>
<td>Virginia Department of Transportation</td>
<td>Megaprojects Engineer</td>
<td>Ph: 757-932-4484</td>
<td><a href="mailto:Bradley.Weidenhammer@vdot.virginia.gov">Bradley.Weidenhammer@vdot.virginia.gov</a></td>
</tr>
<tr>
<td>DTT/MTT/MLK Extension Preliminary Design - DB</td>
<td>Deputy Design Manager</td>
<td>24 months</td>
<td>Frank Fabian, P.E.</td>
<td>Chesapeake, VA</td>
<td>Virginia Department of Transportation</td>
<td>Project Manager</td>
<td>Ph: 757-494-5477 Cell: 757-272-9203</td>
<td><a href="mailto:Frank.Fabian@vdot.virginia.gov">Frank.Fabian@vdot.virginia.gov</a></td>
</tr>
<tr>
<td>US 17 (Dominion Blvd.) Widening</td>
<td>Design QA/QC</td>
<td>54 months</td>
<td>Earl Sorey, P.E.</td>
<td>Chesapeake, VA</td>
<td>City of Chesapeake</td>
<td>City Engineer</td>
<td>Ph: 757-382-6290 Cell: 757-297-6998</td>
<td><a href="mailto:easorey@cityofchesapeake.net">easorey@cityofchesapeake.net</a></td>
</tr>
</tbody>
</table>
**ATTACHMENT 3.3.1(a)**

*(Addendum No. 1 – reference form on 2nd page removed)*

**KEY PERSONNEL RESUME FORM**

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Name &amp; Title: David Kampman, Construction Manager</td>
</tr>
<tr>
<td>b. Project Assignment: Construction Manager</td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated: Skanska USA Civil Southeast Inc.</td>
</tr>
<tr>
<td>d. Employment History: With this Firm 26 Years With Other Firms 1 Years</td>
</tr>
<tr>
<td>Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):</td>
</tr>
<tr>
<td>Skanska USA Civil Southeast Inc., Construction Manager/Senior Superintendent, 2001-Present. Since 2001, Mr. Kampman has been a Construction Manager and Senior Superintendent for Skanska USA Civil Southeast Inc., Mr. Kampman has over 25 years of construction experience at all levels. As Construction Manager, Mr. Kampman’s general duties include preparing work plans, supervision of personnel, subcontractor oversight, scheduling, documentation and reporting, and procurement of equipment and materials. He has responsibility and oversight for quality, safety and environmental practices in his areas of responsibility. On design-build projects, he works with engineers, designers and other project personnel to review drawings and make suggestions for improving the constructability of the design. Mr. Kampman has extensive experience in constructing complex interchanges and bridge structures, including substructures (foundations, piles) and superstructures, and working with various materials, including concrete and steel. His experience encompasses both marine and land-based structural construction. Mr. Kampman joined Skanska USA Civil Southeast Inc. as a Field Engineer in 1988 and was later promoted to Superintendent in 1998. His background of alignment calculations, surveying, coordination of craft labor, and quality control make him well-qualified to lay out and supervise bridge and road construction. His expertise and project experience encompass multiple aspects of construction including complex road construction, design-build projects, and industrial complexes, marine construction, and rail construction.</td>
</tr>
<tr>
<td>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization: High School Diploma</td>
</tr>
<tr>
<td>f. Active Registration: Year First Registered/ Discipline/VA Registration #: N/A</td>
</tr>
<tr>
<td>g. Document the extent and depth of your experience and qualifications relevant to the Project.</td>
</tr>
<tr>
<td>1. Note your role, responsibility, and specific job duties for each project, not those of the firm.</td>
</tr>
<tr>
<td>2. Note whether experience is with current firm or with other firm.</td>
</tr>
<tr>
<td>3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</td>
</tr>
<tr>
<td>(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated. Provide references for each of the three (3) projects using Key Personnel References form-Attachment 3.3.1(b))</td>
</tr>
<tr>
<td>1. VDOT, Elizabeth River Tunnels, Portsmouth and Norfolk, VA – Construction Manager, 2012–2018, Skanska USA Civil Southeast Inc.</td>
</tr>
<tr>
<td>Specific Responsibilities: Mr. Kampman, as Construction Manager on the ERT segement of the Martin Luther King Jr. Freeway, plans and directs daily on-site activities to ensure project progress is in coordination with scheduling and budget. Mr. Kampman’s duties include knowledge of contract documents, specifications and scope of work; ensuring compliance with corporate safety, environmental, and quality programs; plans and policies; and training employees. Mr. Kampman regularly reviews and inspects project progress, provides reports and documentation for identifying, analyzing, mitigating, and managing risk on the project. He is responsible for subcontractor relations and works directly with the project manager. A main focus is working with key DBE and SWaM subcontractors to ensure they are successful and that commitments to VDOT are met.</td>
</tr>
</tbody>
</table>
2. **DDOT, 11th Street Bridge D-B Project, Washington, DC – Construction Manager, 2009-2015, Skanska USA Civil Southeast, Inc.**

   **Specific Responsibilities:** Mr. Kampman’s responsibilities as Construction Manager included installation of piers and pier caps, structural steel girders, and concrete bridge decks for three 920-ft-long bridges over the Anacostia River. He managed barges with larger crawler cranes and multiple materials barge movements in tight areas. In January 2011, he assumed greater responsibilities including managing construction of six additional structural steel concrete deck bridges, managed fill and mechanically stabilized earth walls and asphalt roads, traffic control, survey crews, and drainage pipe installation. He managed salaried engineers and superintendents, and approximately 100 hourly workers.


   **Specific Responsibilities:** Mr. Kampman was the Superintendent responsible for the $90 million I-26 interchange reconstruction segment for this $540 million design-build project. His responsibilities included oversight for quality, safety and environmental activities; management of schedule, cost and materials procurement; worker and subcontractor management; reporting and documentation; and coordination with senior project management and other lead superintendents with adjoining segments of the project. The Cooper River Bridge project was broken into five segments, each with its own management and staff, equipment, and schedule, coordinated by senior project management.

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

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

   **Mr. Kampman is currently assigned to the Elizabeth River Tunnels project as a Construction Manager. His part of the project is scheduled for completion in the Fall 2016, freeing him to assume responsibilities on the I64HRB project. He will be 100% committed to the construction phase of the project.**
# ATTACHMENT 3.3.1(b)

## KEY PERSONNEL REFERENCE FORM

<table>
<thead>
<tr>
<th>PROJECT NAME</th>
<th>POSITION HELD ON THE PROJECT</th>
<th>DURATION IN THAT POSITION</th>
<th>NAME OF REFERENCE</th>
<th>REFERENCE’S LOCATION</th>
<th>NAME OF REFERENCE’S EMPLOYER</th>
<th>REFERENCE’S TITLE/POSITION</th>
<th>REFERENCE’S PHONE</th>
<th>REFERENCE’S EMAIL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>495 Express Lanes</td>
<td>Design Manager</td>
<td>12 Months as Design Manager</td>
<td>John Doe</td>
<td>Fairfax, VA</td>
<td>ABC Engineering Inc.</td>
<td>Vice President</td>
<td>Ph: (203) 111-222-3333</td>
<td><a href="mailto:reference@company.com">reference@company.com</a></td>
</tr>
<tr>
<td>Elizabeth River Tunnels</td>
<td>Construction Manager</td>
<td>38 months</td>
<td>James Utterback</td>
<td>Suffolk, VA</td>
<td>Virginia Department of Transportation</td>
<td>District Administrator</td>
<td>Ph: 757-925-2511</td>
<td><a href="mailto:james.utterback@vdot.virginia.gov">james.utterback@vdot.virginia.gov</a></td>
</tr>
<tr>
<td>11th Street Corridor</td>
<td>Construction Manager</td>
<td>24 months</td>
<td>Joseph Dorsey, PE</td>
<td>Washington, DC</td>
<td>District Department of Transportation</td>
<td>Project Manager</td>
<td>Ph: 202-210-4542</td>
<td><a href="mailto:joseph.dorsey@dc.gov">joseph.dorsey@dc.gov</a></td>
</tr>
<tr>
<td>Cooper River Bridge</td>
<td>Superintendent</td>
<td>42 months</td>
<td>Leland Colvin, PE</td>
<td>Columbia, SC</td>
<td>South Carolina Department of Transportation</td>
<td>Chief Engineer for Operations</td>
<td>Ph: 803-737-5028</td>
<td><a href="mailto:colvinld@scdot.org">colvinld@scdot.org</a></td>
</tr>
</tbody>
</table>
**KEY PERSONNEL RESUME FORM**

<table>
<thead>
<tr>
<th><strong>Brief Resume of Key Personnel anticipated for the Project.</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a. Name &amp; Title:</strong> Rex Gilley, PE, Structural Engineering Manager</td>
<td></td>
</tr>
<tr>
<td><strong>b. Project Assignment:</strong> Lead Structural Engineer</td>
<td></td>
</tr>
<tr>
<td><strong>c. Name of Firm with which you are now associated:</strong> Parsons Brinckerhoff, Inc.</td>
<td></td>
</tr>
</tbody>
</table>
| **d. Employment History:** With this Firm 17 Years With Other Firms 9 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): |  |
| Parsons Brinckerhoff, Inc., 1999-Present. Rex has 26 years of progressively responsible engineering design experience, including the last 24 years which have been focused on VDOT projects as well as Locally Administered Projects utilizing VDOT standards. He has served as Lead Structural Engineer on projects as well as Project Manager on VDOT’s 2008 Bridge On-call which resulted in 13 bridge replacements. His technical experience includes structural engineering of bridge structures over active navigable channels, major highway structures, retaining walls, overhead sign structures, design of new fender systems, in addition to design of various foundation types for transportation structures. His work includes preliminary and final design of reinforced concrete, prestressed concrete, and structural steel elements on complex, environmentally sensitive, bridge structures in order to improve capacity, enhance safety, and improve ability for emergency/evacuation routes. In addition, he also has construction phase experience which provides valuable insight in producing and coordinating designs that incorporate both owner standards and contractor preferences. |  |
| **e. Education:** Name & Location of Institution(s)/Degree(s)/Year/Specialization:  
University of Tennessee, Knoxville, TN / M.S. / 1991 / Civil Engineering;  
University of Memphis, Memphis, TN / B.S. / 1988 / Civil Engineering |  |
| **f. Active Registration:** Year First Registered/ Discipline/VA Registration #: 1994 / Professional Engineer / VA 04020225213 |  |
| **g. Document the extent and depth of your experience and qualifications relevant to the Project.** |  |
| 1. **Note your role, responsibility, and specific job duties for each project, not those of the firm.** |  |
| 2. **Note whether experience is with current firm or with other firm.** |  |
| 3. **Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.** |  |
| (List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated. Provide references for each of the three (3) projects using Key Personnel References form-Attachment 3.3.1(b)) |  |
| **1. Route 33 Bridge Replacement, West Point, VA– Lead Structural Engineer February 2002 – May 2008, Parsons Brinckerhoff, Inc.** |  |
| Specific Responsibilities: Mr. Gilley served as the Lead Structural Engineer for final design and load-rating activities for the replacement of two movable bridges through the town of West Point. Rex was responsible for:  
- Leading all substructure and superstructure design activities related to the fixed spans on three bridges.  
- Coordinating bridge elements with geotechnical, roadway, drainage, traffic, MOT, lighting, and architectural disciplines as well as all related plan production activities  
The project consisted of:  
- 2.39 miles of highway and bridge replacement  
- A 5,354-foot-long, four-lane crossing of Thorofare Creek, Pamunkey River and Norfolk Southern Railroad  
- A movable span to accommodate a 90-foot-wide channel with 55 feet of vertical clearance in the closed position  
- A 3,545-foot-long crossing of the Mattaponi River providing 35 feet of vertical clearance |  |
The superstructures consisted of precast PCBT-45 beams made continuous for live load for the low-level trestle units. Lightweight, precast PCEF 89-95.5-60 beams and lightweight deck were utilized in the high-level approaches as well as the spliced-girder units. Low-level trestles are supported on pile bents utilizing driven 24-inch square precast piles. High-level approach and spliced-girder units are supported on multi-column piers utilizing driven 24-inch-square precast piles. The bascule piers are supported on driven 66-inch-diameter cylinder piles. The pile caps for the multi-column piers and bascule pier were set at an elevation that provides protection of the piles from barge impacts. Rex continued to lead the structural effort through the construction phase providing timely responses that maintained the project schedule.


Specific Responsibilities: Rex was Lead Structural Engineer for the following ramp structures located on the Charleston Interchange end of this cable-stayed river crossing carrying US 17 over the Cooper River: Line 1C (647 feet), Line 4C (271 feet), Line 5 (1066 feet), Line 6 (563 feet) and Line 15 (798 feet). He was responsible for:

- Design coordination and plan preparation for ramps consisting of 79-inch, bulb-tee prestressed precast concrete beams on single column/drilled shaft hammerhead piers located in the Charleston Low Level Approaches.
- Coordinating modifications to accommodate contractor formwork requirements for the US 17 Mainline Low Level Approach Section which utilized post-tensioned pier caps.

The span range of the 79-inch, Modified Bulb-T beams is 120 feet to 148 feet with a typical spacing of 10 feet 9 inches. All structures were designed to resist 500-year and 2500-year return-period earthquakes to Seismic Performance Category D levels, which resulted in unique bearing details to accommodate significant movement under seismic loads. Rex worked closely with the contractor regarding plan revisions, field issues, load ratings, and record drawings.


Specific Responsibilities: Mr. Gilley served as lead structural engineer in the early phases of this contract and also performed QA/QC and oversight of preparation of final bridge plans for this $188M improvement to US 17. He provided formal review of the design for 9 bridges, including the two main line bridges carrying US 17 (Dominion Boulevard) over the Southern Branch of the Elizabeth River. The project involved roadway widening under heavy traffic volumes and converted an existing two-lane suburban roadway into a four-lane controlled access facility. The project design included plans for constructing grade separated interchanges while maintaining existing traffic flows at the major intersections with US 17. The project included two mainline bridges crossing the Elizabeth River (5,262 feet and 5,982 feet in length) that provide 125 feet of horizontal clearance and 95 feet of vertical clearance at the channel; modifications to both lengthen and convert an existing twin-cell box culvert to a triple-cell box culvert; 120,000-square-feet of MSE retaining wall at 20 locations. The design for this project is complete. Construction is over 85% complete with expected completion early 2017. Rex’s involvement in the construction phase has helped keep the construction on schedule.

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

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. N/A
**ATTACHMENT 3.3.1(b)**

**KEY PERSONNEL REFERENCE FORM**

Rex Gilley

<table>
<thead>
<tr>
<th>PROJECT NAME</th>
<th>POSITION HELD ON THE PROJECT</th>
<th>DURATION IN THAT POSITION</th>
<th>NAME OF REFERENCE</th>
<th>NAME OF REFERENCE’S LOCATION</th>
<th>NAME OF REFERENCE’S EMPLOYER</th>
<th>REFERENCE’S TITLE/POSITION</th>
<th>REFERENCE’S PHONE</th>
<th>REFERENCE’S EMAIL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>495 Express Lanes</td>
<td>Design Manager</td>
<td>12 Months as Design Manager</td>
<td>John Doe</td>
<td>Fairfax, VA</td>
<td>ABC Engineering Inc.</td>
<td>Vice President</td>
<td>Ph: (203) 111-222-3333 Fax: (203) 111-222-4444</td>
<td><a href="mailto:reference@company.com">reference@company.com</a></td>
</tr>
<tr>
<td>Route 33 Bridge Replacement</td>
<td>Lead Structural Engineer</td>
<td>42 months</td>
<td>Annette Adams, P.E.</td>
<td>Fredericksburg, VA</td>
<td>VDOT</td>
<td>District Bridge Engineer</td>
<td>Ph: 540-372-3583 Cell: 540-273-1008</td>
<td><a href="mailto:Annette.Adams@VDOT.Virginia.gov">Annette.Adams@VDOT.Virginia.gov</a></td>
</tr>
<tr>
<td>Arthur J. Ravanel Jr. Bridge over the Cooper River</td>
<td>Senior Structural Engineer</td>
<td>140 months</td>
<td>Leland Colvin, P.E.</td>
<td>Columbia, SC</td>
<td>SCDOT</td>
<td>Deputy Secretary of Transportation</td>
<td>Ph: 803-737-7900 Cell: 803-429-3352</td>
<td><a href="mailto:colvinld@scdot.org">colvinld@scdot.org</a></td>
</tr>
<tr>
<td>US 17 Widening</td>
<td>Lead Structural Engineer</td>
<td>137 Months</td>
<td>Earl Sorey, P.E.</td>
<td>Chesapeake, VA</td>
<td>City of Chesapeake</td>
<td>City Engineer</td>
<td>Ph: 757-382-6290 Cell: 757-297-6998</td>
<td><a href="mailto:easorey@cityofchesapeake.net">easorey@cityofchesapeake.net</a></td>
</tr>
</tbody>
</table>
### KEY PERSONNEL RESUME FORM

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

| a. Name & Title: | Thomas Fulton, P.E. Vice President of Operations |
| b. Project Assignment: | Responsible Charge Engineer |
| c. Name of Firm with which you are now associated: | Skanska USA Civil Southeast Inc. |

| d. Employment History: With this Firm | 30 Years With Other Firms 0 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):

**Skanska USA Civil Southeast, Inc., July 1986 - Present.** For the past twelve years, Thomas Fulton has been a Project Executive and Project Manager. Prior to that, Mr. Fulton was a Superintendent.

As a Project Manager and Project Executive, Tom has repeatedly demonstrated the ability to supervise and control design and construction activities for projects of the size and complexity of this project. This is clearly established in the project descriptions below. His success is based on comprehensive involvement in a project. As a project manager, he is expected to shut down a project when warranted. He also has the authority to commit company resources to a project to ensure successful completion.

Mr. Fulton is a Vice President of Operations, Project Executive/Project Manager with Skanska:

- **As a Project Executive**, Mr. Fulton provides corporate oversight and coordination for projects. He actively maintains and improves customer communications and relations, provides project oversight, project strategic direction, and project reporting to senior management. He reviews the safety and quality statistics with the Project Manager and keeps in constant contact with safety/environmental and quality control managers to ensure the progress, compliance and success of this project. He is also responsible for providing project financial forecasts.

- **As a Project Manager**, He has been assigned to provide on-site project management for specific projects, where he has direct responsibility for project staffing, schedule, budget and cost control, subcontractor relations, and provides direction and coordination for superintendents and other supervisory staff. Projects where Mr. Fulton assumed project manager duties were high visibility projects with particular needs that matched well with Mr. Fulton’s capabilities. Descriptions of three such projects are provided in Block f.

- **As a Superintendent**, Mr. Fulton provided on-site direction for daily activities for various highway and bridge projects in Virginia. He was responsible for ensuring compliance with corporate quality, safety, and environmental programs; training; leading the construction team; subcontractor management; managing field work; ensuring that required materials, equipment and personnel were available to ensure successful completion of the assigned tasks and to maintain project productivity within schedule and cost constraints. He was responsible for documentation, reporting, and identifying, managing and mitigating risk on the project, as well as working closely with the project manager to ensure work was coordinated with other superintendents.

Many of Mr. Fulton’s projects as a superintendent included extensive marine work such as pile driving, substructure and superstructure construction and land tie-ins in sensitive marine environments and often in very congested areas where the team was required to maintain normal operations.

| e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: |
| University of Manchester School of Science and Technology, Manchester, England / B.S. / 1986 / Building Technology (1st Class) |

| f. Active Registration: Year First Registered/ Discipline/VA Registration #: |
| 2001 / Professional Engineer / Commonwealth of Virginia, #034653 |
Document the extent and depth of your experience and qualifications relevant to the Project.

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

(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated. Provide references for each of the three (3) projects using Key Personnel References form-Attachment 3.3.1(b))

1. **VDOT, Elizabeth River Tunnels, Norfolk, VA – Project Manager, 2013-2018, Skanska USA Civil Southeast, Inc.**
   **Specific Responsibilities:** Mr. Fulton is responsible for managing the approach work (construction) for this $1.5 billion design-build project. His duties include oversight and reporting of safety and quality on his segment; setting schedules, procurement and budget in consultation with the project director; preparation of project activity plans, including activity hazard analysis plans; subcontractor management; coordinating activities with other segment managers, particularly the segment manager responsible for the submerged tunnels operations; and coordination of utility relocations.

   Mr. Fulton is managing the construction of the approaches to the Elizabeth River Tunnels, a design-build project. This work is adjacent to an active maritime channel, and the work is in an environmentally sensitive environment. MOT is a challenge because of high traffic flow - AADT of 99,000 vehicles at the Midtown Tunnel crossing, Shutdowns are limited to time of low traffic volume, mostly nights and weekends. The work is in older sections of Portsmouth and Norfolk, VA, requiring extensive coordination with local utilities. Community and customer relations are a high priority, especially because of the proximity of the largest hospital in Norfolk, requiring special attention to noise, vibration, and access for emergency vehicles. Special efforts were made to engage and utilize local small business.

2. **VDOT, Route 1/I-95/I-495, Alexandria, VA – Project Manager, 2005-2009, Skanska USA Civil Southeast, Inc.**
   **Specific Responsibilities:** Mr. Fulton, as on-site Project Manager, was responsible for all aspects of project management for this $37 million project, including customer relations, community relations, quality, safety and environmental oversight, and schedule and cost control. He was also responsible for material equipment and personnel acquisition. He was responsible for project oversight, project reporting, reviewing safety, schedule, and cost activities; reporting to executive management and ensuring customer satisfaction, and ensuring the project had access to resources to successfully complete the project.

   In this project, Mr Fulton’s team colocated with VDOT, the client, to strengthen communication and accelerate issue resolution. The project involved a 2,900-foot-long bridge and roadway and utility work on the approaches. Community outreach with stakeholders and neighbors was important in working next to the existing bridge and over railroad tracks as well as working through environmentally sensitive areas and parkland.

3. **VDOT, Pamunkey River Bridge, West Point, VA – Superintendent, 2004-2007, Skanska USA Civil Southeast, Inc.**
   **Specific Responsibilities:** Skanska constructed a $90-million double-leaf bascule bridge over the Pamunkey River. Other work included roadway, drainage, utility and signal improvements, and demolition of the existing bridge. The 5,354-foot-long Pamunkey River Bridge spans an operating pulp mill as well as the small town of West Point in New Kent County. The project site is surrounded by several historic communities and sensitive wetlands. About 3,000 linear-feet of the bridge was built from a temporary access trestle over the wetlands. The new bridge includes four lanes and a separate outside shoulder for bicycle traffic and a double-leaf bascule span over the 100-foot-wide navigation channel of the Pamunkey River. The vertical clearance at high tide is 55 feet. Skanska performed approach realignment work to accommodate the longer length of the new bridge.

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

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

Mr. Fulton is currently assigned full-time to the Elizabeth River Tunnels project in Portsmouth, VA as a project manager for construction of the tunnel approaches. While the project is scheduled to complete in 2018, the tunnel approach work is scheduled to be competed in 2016.
# Attachment A3.3.1(b)

**Key Personnel Reference Form**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Position Held On The Project</th>
<th>Duration In That Position</th>
<th>Name Of Reference</th>
<th>Reference’s Location</th>
<th>Name Of Reference’s Employer</th>
<th>Reference’s Title/Position</th>
<th>Reference’s Phone</th>
<th>Reference’s Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>495 Express Lanes</td>
<td>Design Manager</td>
<td>12 Months as Design Manager</td>
<td>John Doe</td>
<td>Fairfax, VA</td>
<td>ABC Engineering Inc.</td>
<td>Vice President</td>
<td>Ph: (203) 111-222-3333</td>
<td><a href="mailto:reference@company.com">reference@company.com</a></td>
</tr>
<tr>
<td>Elizabeth River Tunnels</td>
<td>Project Manager</td>
<td>43 months</td>
<td>James Utterback</td>
<td>Suffolk, VA</td>
<td>Virginia Department of Transportation</td>
<td>District Administrator</td>
<td>Ph: 757-925-2511</td>
<td><a href="mailto:james.utterback@vdot.virginia.gov">james.utterback@vdot.virginia.gov</a></td>
</tr>
<tr>
<td>Route 1/I-95/I-495</td>
<td>Project Manager</td>
<td>26 months</td>
<td>Jalal Masumi</td>
<td>Arlington, VA</td>
<td>Virginia Department of Transportation</td>
<td>Deputy Project Manager</td>
<td>Ph: 703-259-2215</td>
<td><a href="mailto:jalal.masumi@vdot.virginia.gov">jalal.masumi@vdot.virginia.gov</a></td>
</tr>
<tr>
<td>Pamunkey River Bridge</td>
<td>Project Manager</td>
<td>36 months</td>
<td>Marcie Parker, P.E.</td>
<td>Fredericksburg, VA</td>
<td>Virginia Department of Transportation</td>
<td>District Maintenance Engineer</td>
<td>Ph: 540-899-4233</td>
<td><a href="mailto:marcie.parker@vdot.virginia.gov">marcie.parker@vdot.virginia.gov</a></td>
</tr>
</tbody>
</table>
**KEY PERSONNEL RESUME FORM**

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

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
<th>Joseph Morffi, O&amp;M Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment:</td>
<td>Incident Management Coordinator</td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated:</td>
<td>Skanska USA Civil Southeast Inc.</td>
</tr>
<tr>
<td>d. Employment History: With this Firm 2 Years With Other Firms 20 Years</td>
<td></td>
</tr>
<tr>
<td>Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):</td>
<td></td>
</tr>
<tr>
<td><strong>Skanska USA Civil Southeast Inc., O&amp;M Manager, 2014-Present.</strong> Joe is responsible for O&amp;M and Incident Management Coordination functions within the construction zone of Skanska projects.</td>
<td></td>
</tr>
<tr>
<td><strong>ACS, O&amp;M Manager, 2010-2014.</strong> As O&amp;M Manager, Joe was responsible for the operations and maintenance functions of the project. He provided oversight of periodic and routine maintenance work activities during the operations and maintenance phase of the project, as well as, during the initial construction phase. He was responsible for developing the annual maintenance work program and budget, as well as, coordinating and organizing the maintenance work and defining how and when the work should be done, for both reactive and proactive maintenance activities, while ensuring that all maintenance activities be performed in a safe and efficient manner that complies with FDOT standards. As the O&amp;M Manager he provided oversight of the coordination effort between the TMC, O&amp;M Crews and subcontractors to respond to accidents, incidents and debris removal. He also assisted in identifying safety training needs with the Safety Officer or other Outside Source. Additionally, he assisted in designing and implementing a Maintenance Management System that allows for effective planning, organizing, coordination and control of the budgeted resources to carry out activities required to meet the continuing maintenance needs of the project.</td>
<td></td>
</tr>
<tr>
<td><strong>City of Miami, Construction Manager, 2008-2010.</strong> Responsible for the oversight of four high profile construction projects, while working for the Capital Improvement Program (CIP), In Belle Meade, Downtown, and Overtown. The scope of work includes the installation of an underground pump station in Belle Meade, Streetscaping or Beautification in Downtown and a community revitalization project on Overtown.</td>
<td></td>
</tr>
<tr>
<td><strong>GBF Engineering, Project Administrator, 2003-2008.</strong> Project Administrator for several projects for Broward County Transit related to the Construction of ADA code compliant bus stops. Managed Construction and Maintenance Contracts for the City of Miami, as well as, Managed Hurricane Restoration efforts for FDOT District 4 and the City of Miami.</td>
<td></td>
</tr>
<tr>
<td><strong>Florida Department of Transportation, Area Manager, 1993-2005.</strong> As Area Manager for the Florida Department of Transportation in Fort Lauderdale, FL, Joe was responsible for routine roadway maintenance, signage maintenance and repair, and managing inspection teams.</td>
<td></td>
</tr>
<tr>
<td>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</td>
<td></td>
</tr>
<tr>
<td>University of Miami, Coral Gables, FL / B.S / 1994 / Civil Engineering</td>
<td></td>
</tr>
<tr>
<td>f. Active Registration: Year First Registered/ Discipline/VA Registration #:</td>
<td></td>
</tr>
<tr>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>g. Document the extent and depth of your experience and qualifications relevant to the Project.</td>
<td></td>
</tr>
<tr>
<td>1. Note your role, responsibility, and specific job duties for each project, not those of the firm.</td>
<td></td>
</tr>
<tr>
<td>2. Note whether experience is with current firm or with other firm.</td>
<td></td>
</tr>
<tr>
<td>3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</td>
<td></td>
</tr>
<tr>
<td>(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated. Provide references for each of the three (3) projects using Key Personnel References form-Attachment 3.3.1(b)).</td>
<td></td>
</tr>
</tbody>
</table>
Mr. Morffi will complete the FHWA SHRP2 "TIM" Responder Training; FEMA ICS/NIMS 100, 200 and 700; and FEMA/VDEM Hazardous Materials Awareness Classes prior to commencement of construction.

1. **FDOT, I-4 Ultimate PPP, Orlando, FL – O&M Manager, Sep 2014-Mar 2021 (anticipated), Skanska USA Civil Southeast, Inc.**
   
   **Specific Responsibilities:** Joe has responsibility for all aspects of day-to-day operations and maintenance of a construction zone encompassing 21 miles of interstate highway, interchanges, and associated connecting roads for this $2.3 billion project in Orlando, FL. Activities include traffic incident response and management, organizing and coordinating operations and maintenance activities, scheduling, ensuring safe practices for O&M workers and travelers in the work zone. He provides documentation and regular reports to the concessionaire and senior management. Specifically, he:
   - Manages the day-to-day operation of the road, within the project limits, responding to incidents in an efficient manner and ensuring the safety of the workers and the motorists during the initial construction phase
   - Oversees coordination with the traffic management coordinator (TMC), O&M Crews and subcontractors to respond to accidents, incidents and debris removal
   - Is responsible for developing the annual maintenance work program and budget, as well as coordinating and organizing maintenance work
   - Defines how and when the work should be done, for both reactive and proactive maintenance activities, while ensuring that all maintenance activities will be performed in a safe and efficient manner that complies with FDOT standards without conflicting with construction
   - He assists in identifying safety training needs with the Safety Office, and serves as the performance noncompliance coordinator and coordinates conflict resolution and field issues related to performance measures with Area teams.

2. **FDOT, I-595 Express PPP Project, Broward County, FL – O&M Manager, Mar 2010 – Feb 2014, ACS**
   
   **Specific Responsibilities:** Joe’s specific duties for this $1.8 billion public private partnership included:
   - Coordinate response to accidents, incidents and debris removal
   - Oversight of maintenance activities in the construction zone,
   - Utility coordination development of in-house performance and quality standards
   - Citizen and FDOT complaints resolution
   - Review and analysis of planned versus actual accomplishments
   - MMS standards within construction work zone,
   - Collection of data on status of work,
   - Quality assurance of O&M Work effort
   - Coordinate and plan permit work for third party permits
   - Prepare monthly O&M Report
   - Oversight of the monthly and annual maintenance

   
   **Specific Responsibilities:** As Project Administrator, Joe worked with various cities throughout Broward County to coordinate the construction of ADA code compliant bus stops, while managing several contractors and assisting County personnel in overseeing the administration of contract dollars and invoicing. Additionally, supported ongoing utility coordination efforts on all projects.

* 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.

Mr. Morffi is currently assigned as O&M Manager on the I-4 Ultimate project. Mr. Morffi will be able to join the High Rise Bridge team at the start of construction.
## KEY PERSONNEL REFERENCE FORM

<table>
<thead>
<tr>
<th>PROJECT NAME</th>
<th>POSITION HELD ON THE PROJECT</th>
<th>DURATION IN THAT POSITION</th>
<th>NAME OF REFERENCE</th>
<th>LOCATION</th>
<th>NAME OF REFERENCE'S EMPLOYER</th>
<th>REFERENCE'S TITLE/POSITION</th>
<th>PHONE</th>
<th>EMAIL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>495 Express Lanes</td>
<td>Design Manager</td>
<td>12 Months as Design Manager</td>
<td>John Doe</td>
<td>Fairfax, VA</td>
<td>ABC Engineering Inc.</td>
<td>Vice President</td>
<td>Ph: (203) 111-222-3333 Fax: (203) 111-222-4444</td>
<td><a href="mailto:reference@company.com">reference@company.com</a></td>
</tr>
<tr>
<td>I-4 Ultimate PPP</td>
<td>O&amp;M Manager</td>
<td>24 months</td>
<td>Loreen Bobo, P.E.</td>
<td>Orlando, FL</td>
<td>Florida Department of Transportation</td>
<td>I-4 Ultimate Construction Program Manager</td>
<td>Ph: 407-670-2341 Cell: 386-956-4193</td>
<td><a href="mailto:loreen.bobo@dot.state.fl.us">loreen.bobo@dot.state.fl.us</a></td>
</tr>
<tr>
<td>I-595 Express PPP Project</td>
<td>O&amp;M Manager</td>
<td>42 months</td>
<td>Paul Lampley, P.E.,</td>
<td>Ft. Lauderdale, FL</td>
<td>Florida Department of Transportation</td>
<td>I-595 Construction Project Manager</td>
<td>Ph: 954-845-9552</td>
<td><a href="mailto:Paul.lampley@dot.state.fl.us">Paul.lampley@dot.state.fl.us</a></td>
</tr>
<tr>
<td>Broward County Transit and Design Contract Project</td>
<td>Project Administrator</td>
<td>22 months</td>
<td>Enrique Tamayo, P.E.,</td>
<td>Ft. Lauderdale, FL</td>
<td>Broward and Dade County (on contract)</td>
<td>GBF Supervisor</td>
<td>Ph: 786-999-9671</td>
<td><a href="mailto:enriquet@tamayoengineering.com">enriquet@tamayoengineering.com</a></td>
</tr>
</tbody>
</table>
3.4.1 Work History Forms
3.4.1(a)

Lead Contractor

Work History Forms
**Project Name & Location**
NC-540 Western Wake Expressway, Raleigh, NC

**Roadway Project Design-Build**

**Name of Client/Owner:** NCDOT  
**Phone:** (919) 707-2400  
**Project Manager:** Ron Hancock  
**Email:** rhancock@ncdot.com

**Project Segmentation to Meet Schedule:** The project was divided into 5 segments with longer duration parcels having priority. This minimized impact on the project schedule.

**Right-of-Way:** The project involved acquisition of 229 parcels (full and partial takes) as well as permanent easement acquisition. R.O.W. acquisition services were a part of the design-build contract. The parcels were categorized based on acquisition duration during the design phase with longer duration parcels having priority. This minimized impact on the project schedule.

**Project Segmentation to Meet Schedule:** The project was divided into 5 segments with concurrent construction which ultimately led to the project opening 6 months ahead of schedule.

**Use of Innovative Solutions:** This project included NCDOT’s first widespread use of the Alternative Technical Concept (ATC). Examples of accepted ATCs included incorporation of concrete girder shapes from Florida, use of manufactured screenings for MSE wall backfill and an alternate concrete pavement section.

**Design-Build Experience:** This was NCDOT largest contract using the design-build delivery method.

**Limiting Impacts to Traffic:** While this was a greenfield project several of the new interchanges tied into existing roads. Multi-phase MOT plans were developed, short-term detours and off-peak hour construction were all examples of techniques used to minimize impacts to the public.

**Meeting or Exceeding DBE Program Commitments:** A robust outreach program was used during the pursuit and design phases of the project to generate interest and share information with the DBE contracting community. The challenging goal was achieved through the use of over 45 different DBE firms.

**Dealing with Environmental Sensitivity and Permits:** The project crossed several wetlands. The use of temporary access bridges (trestles) was a key factor in reducing impacts and enhancing the schedule. AWC partnered with the North Carolina Department of Environmental and Natural Resources (NCDENR) and the NCDOT Roadside Environmental Unit, to review the erosion control plan and approach, and as a result this project implemented new policies and procedures that have subsequently been installed as statewide standards and the model for large project construction.

**Working over Railroads:** In addition to bridges constructed over existing CSX railroad lines, a new CSX railroad bridge was constructed. Coordination efforts with CSX began early in the project with the intent of keeping that work off of the critical path.

**Right-of-Way:** The project involved acquisition of 229 parcels (full and partial takes) as well as permanent easement acquisition. R.O.W. acquisition services were a part of the design-build contract. The parcels were categorized based on acquisition duration during the design phase with longer duration parcels having priority. This minimized impact on the project schedule.

**Project Segmentation to Meet Schedule:** The project was divided into 5 segments with concurrent construction which ultimately led to the project opening 6 months ahead of schedule.

**Awards:**
- 2014 Carolina AGC Pinnacle Award
- 2013 ACEC Excellence Award
- 2014 ACPS Excellence in Concrete Paving, Gold Award
- 2012 Southeastern Association of State Highway and Transportation Officials Award for the “On Time” category
- 2012 Carolina AGC Pinnacle Award for Best Highway Project
- NCDOT GOLD award for safety

**DBE Performance:** Goal 14.00% / Actual 14.17%

**Similar Scope Elements**
- Design-build
- Interstate design and construction
- Stormwater management
- Significant utility relocations,
- Environmental permits
- ROW acquisition service performed,
- Multiple stakeholders
- Public involvement/relations
- Multi-phase MOT at the interchanges
- New location elevated expressway over active rail lines (CSX)
- Sound barrier walls
- Work in and around environmentally sensitive areas
- Similar construction techniques (concrete girder bridges, concrete pavement, asphalt pavement)

**Firm’s Role:** Archer Western was the majority partner (60%) in the Raleigh Durham Roadbuilders Joint Venture as the Design-builder and Prime Contractor of this new toll road.

**Project Narrative:** The NC-540 Western Wake Expressway is a new 12.6-mile, six-lane, median-divided, toll road in Raleigh, NC. The project scope included design, permitting, and construction through 72 environmentally sensitive wetland areas. The roadway scope included the 6-lane mainline, 14 crossroads, ramps, loops, auxiliary lanes, collector-distributors, and service roads. The services scope included ROW acquisition services, environmental permitting through multiple agencies, and utility relocations with multiple companies. The project featured 34 new bridges at 24 different sites, three major interchanges, and the construction of a new CSX railroad bridge.

**Use of Innovative Solutions:** This project included NCDOT’s first widespread use of the Alternative Technical Concept (ATC). Examples of accepted ATCs included incorporation of concrete girder shapes from Florida, use of manufactured screenings for MSE wall backfill and an alternate concrete pavement section.

**Design-Build Experience:** This was NCDOT largest contract using the design-build delivery method.

**Limiting Impacts to Traffic:** While this was a greenfield project several of the new interchanges tied into existing roads. Multi-phase MOT plans were developed, short-term detours and off-peak hour construction were all examples of techniques used to minimize impacts to the public.

**Meeting or Exceeding DBE Program Commitments:** A robust outreach program was used during the pursuit and design phases of the project to generate interest and share information with the DBE contracting community. The challenging goal was achieved through the use of over 45 different DBE firms.

**Dealing with Environmental Sensitivity and Permits:** The project crossed several wetlands. The use of temporary access bridges (trestles) was a key factor in reducing impacts and enhancing the schedule.

**AWC partnered with the North Carolina Department of Environmental and Natural Resources (NCDENR) and the NCDOT Roadside Environmental Unit, to review the erosion control plan and approach, and as a result this project implemented new policies and procedures that have subsequently been installed as statewide standards and the model for large project construction.**

**Working over Railroads:** In addition to bridges constructed over existing CSX railroad lines, a new CSX railroad bridge was constructed. Coordination efforts with CSX began early in the project with the intent of keeping that work off of the critical path.

**Right-of-Way:** The project involved acquisition of 229 parcels (full and partial takes) as well as permanent easement acquisition. R.O.W. acquisition services were a part of the design-build contract. The parcels were categorized based on acquisition duration during the design phase with longer duration parcels having priority. This minimized impact on the project schedule.

**Project Segmentation to Meet Schedule:** The project was divided into 5 segments with concurrent construction which ultimately led to the project opening 6 months ahead of schedule.

**Awards:**
- 2014 Carolina AGC Pinnacle Award
- 2013 ACEC Excellence Award
- 2014 ACPS Excellence in Concrete Paving, Gold Award
- 2012 Southeastern Association of State Highway and Transportation Officials Award for the “On Time” category
- 2012 Carolina AGC Pinnacle Award for Best Highway Project
- NCDOT GOLD award for safety

**DBE Performance:** Goal 14.00% / Actual 14.17%
ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design.</th>
<th>c. Contract information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest Corridor Managed Lanes Project, Marietta, GA</td>
<td>Parsons Transportation Group</td>
<td>Name of Client/Owner: GDOT Phone: (404) 631-1300 Project Manager: John Hancock Phone: (404) 631-1315 Email: <a href="mailto:jhancock@dot.ga.gov">jhancock@dot.ga.gov</a></td>
<td>12/2018</td>
<td>12/2018 Estimated</td>
<td>$598,533</td>
<td>$601,555 Estimated</td>
</tr>
</tbody>
</table>

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

Firm’s Role: Archer Western is the majority partner (60%) in the Northwest Express Roadbuilders Joint Venture as the Design-builder and Prime Contractor of this managed lane road project.

Project Narrative: This 29.7-mile design-build-finance project involves the addition of reversible managed lanes along I-75 and I-575 in Atlanta, Georgia. The proposed improvements extend the existing High Occupancy Vehicle lanes from the current terminus at Akers Mill Road northward along I-75 and I-575. Scope of work includes design, permitting, and construction of all infrastructure including open-road tolling. The project includes 39 bridges mostly precast concrete girders. There are 4 bridges made of curved steel plate girders. Also included are over 650,000 sf of MSE walls, 1.4 million sf of noise walls, 313,000 sf of concrete paving, and 1.6 million cy of earthwork.

Use of Innovative Solutions: This project included GDOT’s first time use of soil nail walls faced with MSE panels reducing excavation, ROW needs, and, in 2 locations, utility relocations.

Previous Design-Build Experience: This is GDOT’s largest contract using the design-build delivery method

Limiting Impacts to the Traveling Public: Through minor re-alignment of the new managed lanes, we were able to reduce the number of traffic shifts from 3 to 2 along the I-75 portion of the project.

Bridge piers were located such that traffic did not have to be shifted for construction. At the new interchanges (access locations) multi-phase MOT plans were developed, short-term detours, and off peak hour construction were all examples of techniques used to minimize impacts to the public.

Meeting or Exceeding DBE Program commitments: A robust outreach program was used during the pursuit and design phases of the project to generate interest and share information with the DBE contracting community. The challenging goal was achieved through the use of over 30 different DBE firms.

Dealing With Environmental Sensitivity and Permits: Minor alignment changes and use of bridges instead of culverts were the reasons that our design was able to reduce the stream impact by over 10% from the concept plans provided by GDOT. There were no wetland impacts associated with the project. Additionally, we completed the fill operations of open water areas from the upland side of the project. This confines all proposed impacts to the footprint of the permanent impacts.

Eliminating the need for temporary impacts associated with placement of fill in the open water areas.

Working Over Railroads: The project includes the construction of a bridge over an existing railroad spur that is privately owned. Our team worked closely with the railroad and manufacturing facility it serves to temporarily close the spur, construct our bridge, then reconstruct the spur to new standards.

Right-of-Way: The project involved acquisition of 57 parcels (full and partial takes) as well as permanent easement acquisition. R.O.W. acquisition services were a part of the design-build contract. The parcels were categorized based on acquisition duration during the design phase with longer duration parcels having priority. This minimized impact on the project schedule.

Project Segmentation to Meet Schedule: The project was divided into 6 segments with concurrent construction along the 29 mile corridor to meet the aggressive 3 year construction schedule.

Similar Scope Elements
- Design-build
- Interstate design and construction
- Stormwater management
- Significant utility relocations,
- Extensive coordination with Environmental permitting agencies
- Railroad Coordination
- Urban project with high traffic volumes
- ROW Acquisition Services performed,
- Multiple stakeholders

DBE Performance:
- Goal 14.00% / Actual 14.04%

- Public involvement/relations
- New location elevated expressway over active rail lines (CSX)
- Sound barrier walls
- Multi-phase MOT
- Similar construction techniques (concrete girder bridges, concrete pavement, asphalt pavement)
- Work in and around environmentally sensitive areas
Firms Role: Skanska-led joint venture (70/30) to increase capacity, modernize the traffic management systems, increase the road’s integrity and plan for future growth, for reconstruction of four miles of urban interstate, including replacing the 6 lanes with 8 lanes of concrete pavement and wider shoulders.

Project Narrative: I-275 is a major interstate highway, with an annual average daily traffic count of 200,000 through the corridor. This highway is a backbone for commerce, linking Tampa, St. Petersburg and Clearwater into a unified economic corridor. This highway is a backbone for commerce, linking Tampa, St. Petersburg and Clearwater into a unified economic corridor. It is a backbone for commerce, linking Tampa, St. Petersburg and Clearwater into a unified economic corridor. It is a backbone for commerce, linking Tampa, St. Petersburg and Clearwater into a unified economic corridor. The design allows for a future six-lane roadway and a 6-foot median that can accommodate multimodal facilities. The design-build team replaced or widened 21 bridges, added lanes to a bridge over the Hillsborough River, and improved operations at interchanges by adding intelligent transportation systems (ITS). Improvements included the reconstruction of several bridges, including the Rise Bridge Phase 1 Project in that it had a similar scope and complexity, was constructed as the Lead Contractor for this procurement. Parsons Brinckerhoff served as the lead design firm.

Innovative Solutions: Partnering with FDOT, the team used electronic billboards in the corridor to promote drive awareness and coming measures to reduce accidents and protect construction workers.

Traffic Management: The project is similar to the I-64 Southside Widening and High Rise Bridge Phase 1 Project in that it had a similar scope and complexity, was constructed in an urban environment, with highAADT requiring extensive maintenance of traffic. Maintenance of traffic efforts communicated as part of the public relations and community outreach efforts included:

- Making provisions for football games and other sporting events in nearby stadiums.
- Ensuring the city was engaged and informed about proposed design changes.
- Upcoming traffic shifts.

Community Interaction: Coordination involved working with other road operators and public agencies affected by the project. Most of the interchanges connect to streets owned and maintained by the City of Tampa, and where the project crosses the Hillsborough River is over the proposed Tampa Riverwalk, one of the most significant public projects the City has undertaken in 25 years and what will be a signature feature of downtown Tampa.

Aesthetics: Landscaping and aesthetic features were included where right-of-way allowed. Architectural features were incorporated into the walls and bridge structures with emphasis being placed on areas of high visibility. Aesthetic enhancements such as specialty lighting, fencing, and paving were also included in the project. Sound barrier walls were also constructed in areas where they have been determined to be warranted.

Integrated Team: The project was led by an integrated JV team, who cooperated fully on the project. The team also worked closely with the designer, actively participating during the design phase on constructability reviews of the design. The FDOT customer was also very active during design and construction of the project. Parsons Brinckerhoff served as the lead design firm.

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.
**ATTACHMENT 3.4.1(a)**

**LEAD CONTRACTOR - WORK HISTORY FORM**

**LIMIT 1 PAGE PER PROJECT**

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design.</th>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooper River Bridge, Charleston, SC</td>
<td>Parsons Brinckerhoff, Inc.</td>
<td>Name of Client/ Owner: South Carolina Department of Transportation Phone: 855-467-2368 Project Manager: Leland Colvin Phone: 803-737-5028 Email: <a href="mailto:eshvidish@scedot.org">eshvidish@scedot.org</a></td>
<td>7/2001</td>
<td>07/2005</td>
<td>$531,000</td>
<td>$541,000</td>
</tr>
</tbody>
</table>

**h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement.** If the Offeror chooses to submit work completed by an affiliate 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.

**Firm’s Role:** A Skanska-led consortium (60/40) was awarded a design-build contract to construct a 2.5-mile bridge over the Cooper River from I-26 in Charleston to Coleman Boulevard in Mount Pleasant. Lead designer, Parsons Brinckerhoff, prepared the Environmental Impact Statement (EIS), developed the preliminary and final designs, and provided support services during the project’s construction.

**Use of Innovative Solutions:** In order to expedite construction of the mega-structure, the joint venture used a project approach that separated the project into five distinct segments with activities occurring simultaneously on all segments. Each segment had its own field management team, budget, schedule, manpower and equipment resources, allowing the project to finish one year ahead of schedule.

The project included many innovative structural engineering solutions including: offset stay cable anchors to reduce main span tower moments; very long continuous approach spans; a 4,351-foot-long west approach and a 2,090-foot-long east approach, that minimized the number of bearings and joints; and elimination of almost all footings by using large diameter drilled shafts that framed directly into the pier columns.

**Limiting Impacts to Traffic:** Skanska managed traffic using permanent detours, temporary lane closures, and traffic pattern shifts. When the new bridge approaches crossed the alignment of the existing approaches, Skanska established nightly closures. Prior to the closures, Skanska made improvements to the detour route and proactively publicized the closures.

**Major Bridges over Navigable Channel:** The main span of bridge is 186 feet above the river (rising in the center to 200 feet), and with a 1,000 foot wide navigation channel. The 572-foot-high diamond-shaped towers of the bridge are founded on 22 drilled shafts, each 10 feet in diameter and up to 230 feet deep.

**Project Narrative:** The project, completed one year ahead of schedule, was a fast tracked with a total duration of 48 months for design and construction. The new bridge is eight lanes wide with a 12-foot-wide bicycle/pedestrian lane. The 1,546-foot main span, which is 186 feet above the river, is one of the longest cable-stayed spans in North America providing for eight lanes of traffic. The bridge was designed to meet stringent standards – category 5 hurricanes, earthquakes measuring up to 7.3, and impacts from some of the largest freighters in the world. The bridge greatly enhances shipping accessibility to the Port, provides economic development to the entire area and serves as a stunning visual landmark. The bridge has won multiple awards for design, construction, and environmental responsibility.

**Dealing With Environmental Sensitivity and Permits:** 75% of the project was over, in or adjacent to sensitive wetland areas. Protection of the fragile low country environment was given a high priority. Portions of the bridge and approaches were constructed within environmentally sensitive wetlands.

**Community Interaction:** The team kept the waterway below the structures open to marine vehicles during construction. Parsons Brinckerhoff and Skanska developed a design that staged construction with minimal shipping traffic disturbance. A schedule was created that met the client and outside stakeholders' expectations, while minimizing community and businesses impact.

Skanska’s employee-development program earned national recognition by training 64 unemployed and minority individuals from the local community to attain journeyman proficiency in their crafts. Keeping the community and tourists informed concerning all road closures, lane relocations and alternate routes was a critical element in an area where traffic congestion is commonplace hurricane evacuation routes is paramount.

**Awards:**
- 2007, National Achievement Award – South Carolina (NPHQ)
- 2007, Best Bridge with Spans Greater Than 150 Feet (Co-Winner), PreCast Design (PCI)
- 2005, Globe Award for Environmental Excellence (ARTBA)
- 2005, National Award (National Steel Bridge Alliance)
- 2005, Best Transportation Project (Southeast Construction Magazine)
- Early completion bonus for finishing the project one year ahead of schedule

**DBE Performance:** Goal 8% / Actual 10.28%

**Proposed SAW21JV Personnel Involved:**
- David Kampman: Construction Manager
- Rex Gilley, PE: Lead Structural Engineer

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design.</th>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooper River Bridge, Charleston, SC</td>
<td>Parsons Brinckerhoff, Inc.</td>
<td>Name of Client/ Owner: South Carolina Department of Transportation Phone: 855-467-2368 Project Manager: Leland Colvin Phone: 803-737-5028 Email: <a href="mailto:eshvidish@scedot.org">eshvidish@scedot.org</a></td>
<td>7/2001</td>
<td>07/2005</td>
<td>$531,000</td>
<td>$541,000</td>
</tr>
</tbody>
</table>
**ATTACHMENT 3.4.1(a)**

**LEAD CONTRACTOR - WORK HISTORY FORM**

**LIMIT 1 PAGE PER PROJECT**

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design.</th>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 90 St. Louis Bay Bridge, Pass Christian, MS</td>
<td>HNTB Corporation</td>
<td>Name of Client/Owner: MDOT</td>
<td>Phone: (601) 359-7001</td>
<td>Project Manager: Harry Lee James, P.E.</td>
<td>Phone: (601) 359-7004</td>
<td>Email: <a href="mailto:hjames@mdot.state.ms.us">hjames@mdot.state.ms.us</a></td>
</tr>
</tbody>
</table>

**Firm’s Role:** Archer Western was the majority partner in the Archer Western/Granite Construction Joint Venture which served as the Design-builder and Prime Contractor of bridge reconstruction.

**Project Narrative:** Six months after the US 90 Bridge over St. Louis Bay was destroyed by Hurricane Katrina, forcing traffic to be diverted for more than 40 miles, Archer Western was awarded the State's first ever Design-Build contract by the Mississippi DOT to replace the bridge. The contract also included removal of the remnants of the original 11,000 foot hurricane destroyed structure.

The new concrete bridge has four, 12-foot travel lanes with shoulders separated by a concrete median barrier. It is 1.9-miles-long and includes a 12-foot pedestrian and bicycle lane on its south side. The new structure is founded on 36” square concrete piles and has a navigation channel of 250 feet with a vertical clearance of 95 feet.

**Use of Innovative Solutions:** As schedule was the overall critical aspect of the project, measures were implemented to aid, maintain, and accelerate the project schedule. Use of precast items (piles, beams, caps, railing) were maximized. To overcome a unsuitable soil challenge at the abutments the use of surcharge with wick drains was implemented to accelerate our ground improvements.

**Design-Build Experience:** This was an emergency design-build project (MSDOT’s first) to replace the existing bridge destroyed by Hurricane Katrina.

**Limiting Impacts to Traffic:** As the traveling public was severely impacted by the destruction of the existing bridge, our project contained an interim milestone for the opening of a lane in each direction when an AWC met that milestone.

**Major Bridge Over a Navigable Channel:** The new bridge is 1.9-miles-long. The structure has a 250 foot wide navigation channel with a vertical clearance of 95 feet. The work required an extensive fleet of barge-mounted cranes, material barges, and marine-support tugs and crew boats.

**Meeting or exceeding DBE Program commitments:** A robust outreach program was used during the pursuit and design phases of the project to generate interest and share information to the DBE contracting community. The challenging goal was achieved through the use of 12 different DBE firms.

**Dealing with Environmental Sensitivity and Permits:** This project included environmental compliance and control that respected the unique and sensitive marine environment. Through a joint effort between the joint venture (JV) team, USACE, MDOT, and state and local agencies, the project management team developed and implemented an environmental compliance plan and crews were trained in work methods that minimized disturbance to the bay’s habitat and wildlife.

**Schedule Award:** The project had two milestones – interim completion of one lane of traffic in each direction by May 2007 (#1) and completion of the entire project by December of 2007 (roughly 23 months after notice to proceed) (#2). All dates were met, and a $5,000,000 bonus was paid for the attainment of the first milestone.

**Similar Scope Elements**

- Design-build
- Bridge demolition
- Significant utility relocations
- Bridge project over navigable water requiring marine construction techniques
- Stormwater management
- Extensive coordination with Environmental permitting agencies
- Environmental Compliance and reporting required
- Multiple stakeholders
- Coordination with local communities - extensive public outreach

**Awards:**

- **AASHTO 2008 People’s Choice Award Winner in the Category of Schedule**
- **Incentive award for on-time attainment of Milestone #1**

**DBE Performance:**

- Goal 8.00% / Actual 8.13%

- New location elevated expressway over active rail lines (CSX)
- Located in a tidally influenced zone
- Work in and around environmentally sensitive areas
- Similar construction techniques (concrete girder bridges, concrete pavement, asphalt pavement)
3.4.1(b)
Subcontractor
Work History Forms
NONE PROVIDED AT THIS TIME
3.4.1(c)

Lead Designer

Work History Forms
a. Project Name & Location: I-264 Widening/MLK Extension Portsmouth and Norfolk, VA

b. Name of the prime/ general contractor responsible for overall construction of the project: SKW Constructors (A Skanska led joint-venture)

c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities: Name of Client: VDOT
Project Manager: Brad Weidenhammer, P.E.
Phone: (757) 396-6581
Email: bradley.weidenhammer@vdot.virginia.gov

<table>
<thead>
<tr>
<th>d. Construction Contract Start Date</th>
<th>e. Construction Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/2012</td>
<td>03/2017</td>
<td>$250,000</td>
<td>$12,000</td>
</tr>
</tbody>
</table>

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 consultant. 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.

Firms Role: PB delivered final construction plans for the widening and modifications to I-264 and the MLK Extension (a new one mile elevated freeway) over urban Portsmouth, Virginia. PB was the Lead Designer on a Design-Build team lead by SKW Constructors (a Skanska lead construction joint venture).

Project Narrative: Specific scope elements of the overall Project included:

- Widening of I-264 for auxiliary lanes/lit width new widened bridges including new bridges over CSX rail lines and new & widened bridges over N&PBL
- 11 stormwater ponds/basins (including significant aesthetic treatments to two)
- Preparation of the Noise Abatement Design Report (NADR) for three new noise barriers
- 18 retaining walls
- Significant overhead guide signage
- Transportation Management Plan (TMP) developed for phased MOT
- I-64 system replacement/upgrades along I-264
- PB is currently providing design support during construction, including shop drawing reviews, preparing responses to RFIs, and As-Built documentation.

Use of Innovative Solutions: PB worked closely with SKW to develop cost-effective and low risk solutions for ground improvements. Specifically, the Project included the use of lightweight fill, EPS embankments, and surcharging at specific locations to minimize the potential for long-term settlement. The project also included architectural panels, obelisks, and aesthetic stormwater pond treatments (requested by the City of Portsmouth). The use of EPS embankments involved special details to avoid the placement of drainage collection structures within the EPS embankment material.

Limiting Impacts to Traffic: PB developed a Transportation Management Plan (TMP) as a “living document” for this multi-phased project. As such, components of the TMP were released in advance of specific construction components, to facilitate the overall project schedule. Disruptions to I-264 traffic were generally limited to temporary closures for placing superstructure elements over the existing roadway. During construction, MOT and detours were closely coordinated with the City of Portsmouth and VDOT to minimize impacts.

Design-Build Experience: PB was the lead designer for a Skanska led JV. This project is part of the largest DB project in the history of the Commonwealth of Virginia.

Right-of-Way: PB worked closely with SKW and the Right-of-Way (ROW) acquisition consultant to facilitate ROW acquisition. On several occasions, plan changes were incorporated to either eliminate or reduce right-of-way impacts, which reduced VDOT’s acquisition cost and facilitated owner approval of the acquisition. ROW acquisition was completed in accordance with VDOT’s ROW Manual and all applicable state and federal laws and regulations.

Community Interaction: The project traverses through a developed area of Portsmouth, requiring close coordination with the City to relocate local utilities, close and relocate local streets, maintain access to properties along the project route, and coordinate with both CSX and N&PBL for bridge crossings.

Geotechnical: The project included significant geotechnical investigations and alternatives analysis for poor soil conditions, resulting in the use of EPS (Extended Polystyrene) embankment, the use of lightweight fill, and surcharging. The 20-foot-high high EPS embankments eliminated potential risks associated with long-term settlement of bridge approach embankments for the subsurface problem soils of the I-264 corridor.

Sound Barrier Walls: The Project included preparation of a formal Noise Abatement Design Report and public surveys for three sound barrier walls along the I-264 corridor. PB prepared the NADR and coordinated the review and approval by VDOT.

DBE Program Commitments: As the Lead Designer, PB met DBE and SWaM value goals as required by the Design-Builder, SKW Constructors. PB subcontracted design work to 6 DBE firms and 6 SWaM firms as part of the overall project.

Similar Scope Elements
- Design-build
- Interstate widening
- Widening of the I-264 bridge over N&PBL railroad
- Stormwater management
- Utility relocations
- Environmental permits
- Interstate lighting
- Signaling
- MOT Phasing
- Multiple stakeholders
- Work performed in urban/ commercial area
- New location elevated expressway over active rail lines (CSX)
- Bridge structures over urban streets
- Sound barrier walls
- ROW
- ITS
- new interstate guide signage
- Public involvement/ relations
- Constrained site conditions

Proposed Personnel Involved
- Scott Lovell, PE: Design QA
- Derek Piper, PE: Design Manager
- Rex Gilley, PE: Lead Structural Engineer
- Ian Chaney, PE: Lead Geotechnical Engineer
- Melissa Simpson, PE: Drainage/SWM Design
- Tim Anderson, PE: Utility Design/Coordination
- Phil Lohr, PE, PTOE: Lead Roadway Engineer
- Tim Rayner, PE, PTO: MOT/TMP/ITS
- Robin Huelsbeck, PE: Signage & Pavement
- Ray Maganuco: Noise Analysis
ATTACHMENT 3.4.1(c)
LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location

US 17 (Dominion Boulevard) Widening, Chesapeake, VA

b. Name of the prime/general contractor responsible for overall construction of the project.

Dominion Boulevard Constructors, LLC

Project Manager: Earl Sorey
Phone: (757) 382-6513
Email: easorey@cityofchesapeake.net

US 17 (Dominion Boulevard) Widening, Chesapeake, VA

Name of Client: City Of Chesapeake

Project Manager: Earl Sorey
Phone: (757) 382-6513
Email: easorey@cityofchesapeake.net

01/2012 (design is complete)

02/2017 (estimated)

$188,000

$194,000

$12,604

g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)

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.

**Firms Role:** Parsons Brinckerhoff prepared preliminary and final design, and construction documents, for widening and improvements to US 17 (Dominion Boulevard) from Interstate 64 to south of Cedar Road, a distance of approximately 4 miles. The project included widening of the existing two lane roadway into a four-lane divided freeway that includes a new high level fixed bridge (95' vertical clearance) over the Southern Branch of the Elizabeth River, just upstream of the High Rise Bridge, and three interchanges. Parsons Brinckerhoff is currently providing design support during construction, including shop drawing reviews, site visits, preparing responses to RFIs, and As-Built documentation.

**Project Narrative:** As the Lead Designer, Parsons Brinckerhoff self-performed the majority of the design effort including: roadway widening and bridge design (including 7 interchange bridges); geotechnical analysis and design; TMP/MOT plans; stormwater management design; utility coordination and relocation design; signing & pavement marking plans; drainage design, including design of a major triple-cell box culvert under US 17; 120,000-square-feet of MSE wall at 20 locations; preparation of the Noise Abatement Design Report (NADR) and ITS design; and preparation of permit applications, including a US Coast Guard permit for construction over a navigable channel; and design of a wetland mitigation site.

The project also involved development of specifications for an "open-road" toll collection system, and coordination of the design for all associated civil element (overhead gantries, conduits, equipment housing).

**Use of Innovative Solutions:** Parsons Brinckerhoff utilized an innovative "risk based" approach to addressing settlement issues associated with the soft subsurface soils prevalent throughout the project area, in particular in areas near the bridge abutments. PB evaluated the critical path for the project and determined that the settlement "wait times" associated with a traditional wick drain and surcharge approach would unnecessarily extend the construction schedule. As a result, a combination of pile-supported embankments in areas where construction activities were on the critical path, and wick drain and surcharge in areas where the settlement wait times did not impact the overall schedule, was utilized. This resulted in significant project cost savings while eliminating adverse post-construction settlements.

**Limiting Impacts to Traffic:** The project design involved development of traffic plans that included a detailed and specific construction sequence and maintenance of traffic plans in order to maintain traffic on existing US 17 and crossing roadways, such as Great Bridge Boulevard, during construction. The northbound lanes were constructed as the initial phase and carried bi-directional mainline US 17 traffic while the new, fixed span, southbound bridge and roadway widening was constructed on existing alignment. The plan included several stages of construction involving maintenance of roadway traffic as well as marine traffic on the Atlantic Intracoastal Waterway (AIW) through coordination with the United States Coast Guard.

**Major Bridge Over a Navigable Channel:** The project includes two major bridges over the Southern Branch of the Elizabeth River, located approximately one mile upstream of the High Rise Bridge. The new bridges provide 93' of vertical and 125' of horizontal clearance at the main channel span. The northbound and southbound structures are 5,262 feet and 5,982-feet in length, respectively. Similar to the phasing plan for the new High Rise Bridge, the northbound bridge was constructed adjacent to a double leaf bascule bridge that remained in service during construction of the first crossing. Both bridges consist of low level truss, mid-level approaches and concrete spliced girder river-span units. To provide a cost effective design, costs were developed to consider superstructure and substructure costs for the different bridge heights in order to determine optimal span lengths for each type of unit. This same methodology will be key to providing a cost-effective design for the new I-64 High Rise Bridge.

**ROW Acquisition.** The project involved acquisition of 167 parcels (full and partial takes) as well as permanent easement acquisition. Parsons Brinckerhoff worked closely with the City of Chesapeake’s right-of-way consultant, Stantec, the city’s legal staff, and private utility companies to identify right-of-way and easement limits and to prepare acquisition plats. Acquisitions by the City were conducted in accordance with VDOT’s Right of Way Manual and all applicable state and federal laws and regulations. Parsons Brinckerhoff design staff provided assistance to the city through numerous plan changes to either eliminate or reduce right-of-way impacts, resulting in project cost savings.

**Meeting or Exceeding DBE Program Commitments:** PB met DBE and SWaM value goals as required by the City of Chesapeake. PB subcontracted design work to 6 DBE firms and 6 SWaM firms as part of the overall project.

**Similar Scope Elements**
- High Level fixed bridge (95") over the Atlantic Intracoastal Waterway
- Coordination with the City of Chesapeake, VDOT and FHWA
- US Coast Guard Permit acquisition
- Roadway widening to interstate standards
- Extensive MOT and phased construction
- Stormwater management
- Environmental documentation (EA) and permitting
- Environmental mitigation
- Open Road Tolling

**Construction adjacent to an active existing double leaf bascule bridge**
- Geotechnical investigation and design
- Sound barrier walls
- ROW acquisition
- ITS
- New interstate guide sign
- Public involvement/relations
- Constrained site conditions
- Utility coordination & relocation design
- Signalization
- Multiple stakeholders

**Proposed SAW2JV Personnel Involved:**
- Derek Piper, PE: Design Manager
- Rex Gilley, PE: Lead Structural Engineer
- Scott Lovell, PE: Design QA/QC
- Ian Chaney, PE: Lead Geotechnical Engineer
- Melissa Simpson, PE: Drainage/SWM Design
- Tim Anderson, PE: Utility Design/Coordination
- Phil Lehr, PE, PTOE: Lead Roadway Engineer
- Tim Rayner, PE, PTO: MOT/TMP/ITS
- Robin Huesbeck, PE: Signage & Pavement Markings
- Ray Magasanos: Noise Analysis

143
3.4.1(d)
Subconsultant Work History Forms
**Firm’s Role:** In 2015, Dewberry, as part of the Shirley-Dewberry design-build Team, was awarded the contract to widen I-64 in Newport News from 4-lanes to 6-lanes for a distance of approximately 5 miles.

**Project Narrative:** Widenning was completed through construction of a single additional lane in each direction in the median, and either a raised or depressed median was incorporated to maintain drainage depending on the remaining median width. Originally identified as an option to the contract, the auxiliary lanes at the Fort Eustis Boulevard Interchange were also lengthened to improve capacity and safety. Four existing bridges on I-64 were widened to accommodate the 6-lane section (2 over the Lee Hall Reservoir and 2 over Fort Eustis Boulevard), and the 2 existing bridges over Industrial Park Drive and CSX Railroad were completely demolished and replaced. Additional project elements included approximately 12,500 ft of sound barrier walls, stormwater management facilities, drainage improvements, geotechnical ground improvements for soft and unsuitable soils, concrete pavement patching and repair, and asphalt pavement overlay.

During design, VDOT issued a contract modification to strengthen the outside shoulders between the Fort Eustis Boulevard Interchange and the eastern project limit to allow operation of a 4-thru lane in each direction in the future. Shoulder strengthening was incorporated by removal of the existing shoulder pavement and partial subbase removal, and replacement with a full-depth pavement section. In addition to all engineering services, Dewberry also completed all design field surveys, environmental permitting and documentation, and quality control (QC) during construction. Dewberry also oversaw sub-consultant services to complete updated aerial mapping, utility designations and test pits, geotechnical investigations and recommendations, noise analysis, and pipeline video inspections.

**Dealing with Environmental Sensitivity and Permitting:** Dewberry obtained Section 404/401 Individual Permits from the US Army Corps of Engineers (USACE) and the Virginia Department of Environmental Quality (DEQ) and a Virginia Marine Resource Commission individual permit for unavoidable impacts to jurisdictional waters of the US. An integral part of the permitting process was to coordinate the proposed project with the DEQ Office of Environmental Impact Review for Coastal Zone Management Act (CZMA) Consistency. The Corps cannot issue their individual permit without a CZMA consistency determination.

**Limiting Impacts to Traffic:** Dewberry developed and received approval on an advance temporary traffic control plan set which allowed for advance night-time operations to remove and strengthen the existing outside shoulders to facilitate the necessary traffic switch to complete the median widening. Median barrier placement was coordinated with construction access points, and long construction acceleration areas were incorporated to reduce speed differentials between left lane traffic and construction vehicles entering and exiting the work zone.

**DBE Performance:** While the 12% DBE goal was not separated between design and construction, Dewberry achieved approximately 23% for DBE design sub-consultant services. The DBE goal for the overall project is also being achieved.

**Bridges over Waterways:** Widening and repairs for the parallel bridges over the Lee Hall Reservoir were designed such that a 15’ wide channel width was maintained for boats at all times and through all phases of construction. Cofferdams were utilized for construction of the center pier, which was located in the middle of the bridge crossing of the reservoir.

---

**ATTACHMENT 3.4.1(d)**

**SUBCONSULTANT - WORK HISTORY FORM**

**LIMIT 1 PAGE PER PROJECT**

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime/ general contractor responsible for overall construction of the project</th>
<th>c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities</th>
<th>d. Construction Contract Start Date</th>
<th>e. Construction Contract Completion Date (Actual or Estimated)</th>
<th>f. Construction Contract Value (Original)</th>
<th>g. Design Fee for the Work Performed by the Firm identified as the Subconsultant for this procurement.(in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-64 Capacity Improvements – Segment I, Newport News, VA Roadway Project Design-Build</td>
<td>Shirley Contracting Company, LLC</td>
<td>Name of Client: VDOT Project Manager: Janet M. Hedrick, PE Phone: 757-494-5478 Email: <a href="mailto:Janet.Hedrick@vdot.virginia.gov">Janet.Hedrick@vdot.virginia.gov</a></td>
<td>March 2015</td>
<td>December 2017</td>
<td>$84,879</td>
<td>$6,024</td>
</tr>
<tr>
<td>144</td>
<td>144</td>
<td>144</td>
<td>144</td>
<td>144</td>
<td>144</td>
<td>144</td>
</tr>
</tbody>
</table>

**Personnel Involved**

- **Steve Kuntz, PE, DBIA:** Design Manager
- **Jim Davidson, PE, DBIA:** Lead Structural Engineer
- **Kim Larkin:** Environmental Manager
- **Jerry Meykalo, PE, PTOE:** Traffic Management Design

<table>
<thead>
<tr>
<th>Similar Scope Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Design-Build Delivery</td>
</tr>
<tr>
<td>✓ Sound barrier walls</td>
</tr>
<tr>
<td>✓ Complete Project Field Surveys</td>
</tr>
<tr>
<td>✓ Complex Geotechnical Challenges and Solutions</td>
</tr>
<tr>
<td>✓ Temporary Traffic Control and TMP</td>
</tr>
<tr>
<td>✓ Quality Assurance / Quality Control</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated</th>
<th>Actual or</th>
<th><strong>Contract Value</strong></th>
<th><strong>Completion Date</strong></th>
<th><strong>Contractor</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>$6,024</td>
<td>$84,879</td>
<td>$96,221</td>
<td>March 2015</td>
<td>Dewberry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subject to</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Median Widening of Interstate</td>
</tr>
<tr>
<td>✓ Roadway Design</td>
</tr>
<tr>
<td>✓ Interstate Bridge Widening and Repairs</td>
</tr>
<tr>
<td>✓ Bridges over Waterways</td>
</tr>
<tr>
<td>✓ Environmental Permitting</td>
</tr>
<tr>
<td>✓ Hydraulic and Stormwater Management Design</td>
</tr>
</tbody>
</table>

**Dealing with Environmental Sensitivity and Permitting:** Dewberry obtained Section 404/401 Individual Permits from the US Army Corps of Engineers (USACE) and the Virginia Department of Environmental Quality (DEQ) and a Virginia Marine Resource Commission individual permit for unavoidable impacts to jurisdictional waters of the US. An integral part of the permitting process was to coordinate the proposed project with the DEQ Office of Environmental Impact Review for Coastal Zone Management Act (CZMA) Consistency. The Corps cannot issue their individual permit without a CZMA consistency determination.
3.5 Lead Contractor Safety Qualifications Forms
ATTACHMENT 3.5
(Addendum No. 1 Form 3.5)

LEAD CONTRACTOR SAFETY QUALIFICATIONS FORM

The following information will be used to understand and evaluate the Offeror’s past performance on safety in accordance with RFQ Section 3.5.

<table>
<thead>
<tr>
<th>Company Name:</th>
<th>Skanska USA Civil Southeast, Inc.</th>
<th>Date:</th>
<th>10/06/2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Employees:</td>
<td>435</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Workers’ Compensation Experience Modification Ratio (EMR) and/or Experience Modification Factor (EMF)</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5.1.1 List your company’s Worker’s Compensation EMR/EMF calculated by National Council on Compensation Insurance, Inc. or other similar advisory organization or rating bureau for the past 3 years.</td>
<td>0.58</td>
<td>0.58</td>
<td>0.59</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accident and Illness</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5.1.2 List your company’s recordable injuries and illnesses rate for the past 3 years.</td>
<td>2.07</td>
<td>1.59</td>
<td>1.76</td>
</tr>
<tr>
<td>3.5.1.3 List your company’s days away from work injury incident rate for the past 3 years.</td>
<td>0.59</td>
<td>0.32</td>
<td>0</td>
</tr>
<tr>
<td>3.5.1.4 Submit a completed Occupational Safety and Health Administration (OSHA) Form 300A, Summary of Work-Related Injuries and Illnesses, for the past three (3) years.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
OSHA's Form 300A (Rev. 01/2004)
Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete.

Using the Log, count the individual entries you make for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases write "0." Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.38, in OSHA’s Recordkeeping rule, for further details on the access provisions for these forms.

**Number of Cases**

<table>
<thead>
<tr>
<th>Case Category</th>
<th>Total Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of cases with days away from work</td>
<td>163</td>
</tr>
<tr>
<td>Total number of cases requiring days away from work</td>
<td>297</td>
</tr>
</tbody>
</table>

**Number of Days**

<table>
<thead>
<tr>
<th>Days Away from Work</th>
<th>Days of Job Transfer or Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td>163</td>
<td>297</td>
</tr>
</tbody>
</table>

**Injury and Illness Types**

<table>
<thead>
<tr>
<th>Type of Injury</th>
<th>Total Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Injury</td>
<td>0</td>
</tr>
<tr>
<td>(2) Skin Disorder</td>
<td>0</td>
</tr>
<tr>
<td>(3) Respiratory Condition</td>
<td>0</td>
</tr>
<tr>
<td>(4) Donor Blood</td>
<td>0</td>
</tr>
<tr>
<td>(5) Hearing Loss</td>
<td>0</td>
</tr>
<tr>
<td>(6) All Other Illnesses</td>
<td>0</td>
</tr>
</tbody>
</table>

---

**Establishment Information**

<table>
<thead>
<tr>
<th>Information</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your establishment name</td>
<td>Spartan Civil USA SouthEast, Inc.</td>
</tr>
<tr>
<td>Street</td>
<td>295 Sands Road</td>
</tr>
<tr>
<td>City</td>
<td>Virginia Beach</td>
</tr>
<tr>
<td>State</td>
<td>Va</td>
</tr>
<tr>
<td>Zip</td>
<td>23452</td>
</tr>
<tr>
<td>Industry description (e.g., Manufacture of motor vehicles)</td>
<td>Civil Construction</td>
</tr>
<tr>
<td>Standard Industrial Classification (SIC), if known (e.g., SIC 3710)</td>
<td></td>
</tr>
<tr>
<td>NAICS, if known (e.g., NAICS 333119)</td>
<td></td>
</tr>
</tbody>
</table>

**Employment Information**

<table>
<thead>
<tr>
<th>Information</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of employees</td>
<td>250</td>
</tr>
<tr>
<td>Total hours worked by all employees last year</td>
<td>670,280</td>
</tr>
</tbody>
</table>

**Sign Here**

<table>
<thead>
<tr>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert Rose</td>
<td>17-Jan-14</td>
</tr>
<tr>
<td>Company executive</td>
<td>257-420-4160</td>
</tr>
</tbody>
</table>

Post the Summary page from February 1 to April 30 of the year following the year covered by the form.

Publication duties for the collection of information is estimated to average 0.5 hours per response, including time to review the instruction, search and gather the data needed, and complete and send the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of the data collection, contact the US Department of Labor, OSHA Office of Statistics, Room N-3599, 200 Constitution Ave. NW, Washington, DC 20210. Do not send the completed forms or this office.
OSHA's Form 300A (Rev. 01/2004)
Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees become employers, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35. In OSHA's Reorganization rules for further details on the access provisions for these forms.

Number of Cases

<table>
<thead>
<tr>
<th>Total number of cases</th>
<th>Total number of cases with days away from work</th>
<th>Total number of cases with job transfer or restriction</th>
<th>Total number of other recordable cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>(G)</td>
<td>(H)</td>
<td>(I)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Number of Days

<table>
<thead>
<tr>
<th>Total number of days away from work</th>
<th>Total number of days of job transfer or restriction</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>199</td>
</tr>
</tbody>
</table>

Injury and Illness Types

<table>
<thead>
<tr>
<th>Total number of...</th>
<th>Injury</th>
<th>Skin Disorder</th>
<th>Respiratory Condition</th>
<th>All Other Illnesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>(M)</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(N)</td>
<td>4</td>
<td>5</td>
<td>9</td>
<td>0</td>
</tr>
</tbody>
</table>

Establishment Information

- Your establishment name: Stonecliff USA Southeast, Inc.
- Street: 208 Benefit Road
- City: Virginia Beach
- Industry description (e.g., Manufacturing of motor truck trailers)
  - Civil Construction
- Standard Industrial Classification (SIC), if known (e.g., 8412.318)
- OR North American Industrial Classification (NAICS), if known (e.g., 336213)

Employment Information

- Annual average number of employees: 300
- Total hours worked by all employees last year: 120,000

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Bob Rose
Company executive
707-440-4140

This Summary page from February 1 to April 30 of the year following the year covered by the form.
OSHA's Form 300A (Rev. 01/2004)
Summary of Work-Related Injuries and Illnesses

A copy must be kept on the job site for at least 5 years for the duration of the job.

Using the Log, count the individual entries made for each category. Then write the totals below, making sure you've inserted the entries from every page of the Log. If you had no cases, write "0.

Employers, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 201 or its equivalent. See OSHA 1904.35, to OSHA's Recordkeeping rules, for further details on the access provisions for these forms.

<table>
<thead>
<tr>
<th>Number of Cases</th>
<th>Total number of cases with days away from work</th>
<th>Total number of cases with job transfer or restriction</th>
<th>Total number of other recordable cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Days</th>
<th>Total number of days away from work</th>
<th>Total number of days of job transfer or restriction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Injury and Illness Types</th>
<th>Total number of (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Injury</td>
<td>5</td>
</tr>
<tr>
<td>(2) Skin Disorder</td>
<td>0</td>
</tr>
<tr>
<td>(3) Respiratory Condition</td>
<td>0</td>
</tr>
<tr>
<td>(4) Poisoning</td>
<td>0</td>
</tr>
<tr>
<td>(5) Hearing Loss</td>
<td>0</td>
</tr>
<tr>
<td>(6) All Other Illnesses</td>
<td>0</td>
</tr>
</tbody>
</table>

Establishment Information

- Your establishment name: [missing]
- Street: 225 Canal Road
- City: Virginia Beach
- State: Virginia
- Zip: 23456
- Industry description (e.g., Manufacture of motor vehicles): Civil Engineering
- Standard Industrial Classification (SIC), if known (e.g., 3715): 3715
- OR North American Industry Classification (NAICS), if known (e.g., 332112): 332112

Employment Information

- Annual average number of employees: 270
- Total hours worked by all employees last year: 100,167

Sign here

Knealingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

[Signature]
Company executive
757-436-1140
Phone
15 Jan 10
ATTACHMENT 3.5

(Addendum No. 1 Form 3.5)

LEAD CONTRACTOR SAFETY QUALIFICATIONS FORM

The following information will be used to understand and evaluate the Offeror’s past performance on safety in accordance with RFQ Section 3.5.

<table>
<thead>
<tr>
<th>Company Name:</th>
<th>Archer Western Construction, LLC</th>
<th>Date:</th>
<th>October 5, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Employees:</td>
<td>2,985</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Workers’ Compensation Experience Modification Ratio (EMR) and/or Experience Modification Factor (EMF)</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5.1.1 List your company’s Worker’s Compensation EMR/EMF calculated by National Council on Compensation Insurance, Inc. or other similar advisory organization or rating bureau for the past 3 years.</td>
<td>.72</td>
<td>.62</td>
<td>.63</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accident and Illness</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5.1.2 List your company’s recordable injuries and illnesses rate for the past 3 years.</td>
<td>1.29</td>
<td>1.42</td>
<td>1.01</td>
</tr>
<tr>
<td>3.5.1.3 List your company’s days away from work injury incident rate for the past 3 years.</td>
<td>.32</td>
<td>.61</td>
<td>.48</td>
</tr>
<tr>
<td>3.5.1.4 Submit a completed Occupational Safety and Health Administration (OSHA) Form 300A, Summary of Work-Related Injuries and Illnesses, for the past three (3) years.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
OSHA's Form 300A (Rev. 01/2004)
Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases, write "0." Employees, owners, and their representatives have the right to review the OSHA Form 300 in its entirety. They may also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.

### Number of Cases

<table>
<thead>
<tr>
<th>Total number of deaths</th>
<th>Total number of cases with days away from work</th>
<th>Total number of cases with job transfer or restriction</th>
<th>Total number of other recordable cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>3</td>
<td>9</td>
</tr>
</tbody>
</table>

### Number of Days

<table>
<thead>
<tr>
<th>Total number of days away from work</th>
<th>Total number of days of job transfer or restriction</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>14</td>
</tr>
</tbody>
</table>

### Injury and Illness Types

<table>
<thead>
<tr>
<th>(M) Total number of...</th>
<th>(N) Injury</th>
<th>(O) Illness</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Injury</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>(2) Illness Disorder</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(3) Respiratory Injury</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Condition</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(4) Poisoning</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(5) Hearing Loss</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(6) All Other Illnesses</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burdens for this collection of information is estimated to average 50 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to this collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: U.S. Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this address.

### Establishment Information

<table>
<thead>
<tr>
<th>Your establishment name</th>
<th>Archer Western Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street</td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>Various</td>
</tr>
<tr>
<td>State</td>
<td>Various</td>
</tr>
<tr>
<td>Zip</td>
<td></td>
</tr>
<tr>
<td>Industry description</td>
<td>General Construction</td>
</tr>
<tr>
<td>Standard Industrial Classification (SIC), if known (e.g., SIC 3715)</td>
<td>5 4 1 6 5 4 2</td>
</tr>
<tr>
<td>OR North American Industrial Classification (NAICS), if known (e.g., 336212)</td>
<td>2 3 6 3 3 3 2</td>
</tr>
</tbody>
</table>

### Employment Information

<table>
<thead>
<tr>
<th>Annual average number of employees</th>
<th>881</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total hours worked by all employees last year</td>
<td>1,852,262</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sign here</th>
</tr>
</thead>
</table>

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

<table>
<thead>
<tr>
<th>Jack Brand</th>
<th>Company executive</th>
</tr>
</thead>
<tbody>
<tr>
<td>312-492-5646</td>
<td>Phone</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Corporate Safety Director</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/15/2013</td>
</tr>
</tbody>
</table>
OSHA's Form 300A (Rev. 01/2004)
Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you’ve added the entries from every page of the log. If you had no cases write “0.”

Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA’s Recordkeeping rule, for further details on the access provisions for these forms.

### Number of Cases

<table>
<thead>
<tr>
<th>Case Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of deaths</td>
<td>0</td>
</tr>
<tr>
<td>Total number of cases with days away from work</td>
<td>0</td>
</tr>
<tr>
<td>Total number of cases with job transfer or restriction</td>
<td>9</td>
</tr>
<tr>
<td>Total number of other recordable cases</td>
<td>11</td>
</tr>
</tbody>
</table>

### Number of Days

<table>
<thead>
<tr>
<th>Day Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of days away from work</td>
<td>0</td>
</tr>
<tr>
<td>Total number of days of job transfer or restriction</td>
<td>167</td>
</tr>
</tbody>
</table>

### Injury and Illness Types

<table>
<thead>
<tr>
<th>Illness Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injuries</td>
<td>20</td>
</tr>
<tr>
<td>Poisoning</td>
<td>4</td>
</tr>
<tr>
<td>Skin Disorder</td>
<td>0</td>
</tr>
<tr>
<td>Hearing Loss</td>
<td>0</td>
</tr>
<tr>
<td>Respiratory Condition</td>
<td>0</td>
</tr>
<tr>
<td>All Other Illnesses</td>
<td>0</td>
</tr>
</tbody>
</table>

### Establishment Information

- **Your establishment name**: Archer Western Construction
- **Street**: Various
- **City**: Various
- **State**: Various
- **Zip**: 151
- **Industry description (e.g., Manufacture of motor truck trailers)**: General Construction
- **Standard Industrial Classification (SIC), if known (e.g., SIC 3715)**: NAICS 336212
- **North American Industrial Classification (NAICS), if known (e.g., 336212)**: 336212

### Employment Information

- **Annual average number of employees**: 1411
- **Total hours worked by all employees last year**: 2095290

### Sign here

- **I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.**
- **Company executive**: Jack Brazil
- **Corporate Safety Director**: Various
- **Phone**: 972-457-8600
- **Date**: 01.05.2015

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.
Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you’ve added the entries from every page of the log. If you had no cases write “0.” Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA’s Recordkeeping rule, for further details on the access provisions for these forms.

### Number of Cases

<table>
<thead>
<tr>
<th>Total number of deaths</th>
<th>Total number of cases with days away from work</th>
<th>Total number of cases with job transfer or restriction</th>
<th>Total number of other recordable cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>5</td>
<td>2</td>
<td>10</td>
</tr>
</tbody>
</table>

### Number of Days

<table>
<thead>
<tr>
<th>Total number of days away from work</th>
<th>Total number of days of job transfer or restriction</th>
</tr>
</thead>
<tbody>
<tr>
<td>397</td>
<td>78</td>
</tr>
</tbody>
</table>

### Injury and Illness Types

<table>
<thead>
<tr>
<th>Total number of...</th>
<th>(M)</th>
<th>(N)</th>
<th>(O)</th>
<th>(P)</th>
<th>(Q)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injury</td>
<td>17</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin Disorder</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory Condition</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poisoning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Hearing Loss</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>All Other Illnesses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to this collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspect of this data collection, contact the U.S. Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this address.

---

**Establishment information**

<table>
<thead>
<tr>
<th>Your establishment name</th>
<th>Archer Western Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street</td>
<td>307 S. Sangamon</td>
</tr>
<tr>
<td>City</td>
<td>Chicago</td>
</tr>
<tr>
<td>State</td>
<td>IL</td>
</tr>
<tr>
<td>Zip</td>
<td>60607</td>
</tr>
</tbody>
</table>

**General Construction**

- Standard Industrial Classification (SIC), if known (e.g., SIC 3715)
  - 1
  - 5
  - 4
  - 1
  - 4
  - 5
  - 4
  - 2

- North American Industrial Classification (NAICS), if known (e.g., 336212)
  - 2
  - 3
  - 6
  - 2
  - 2
  - 0

**Employment information**

- Annual average number of employees: 1,615
- Total hours worked by all employees last year: 3,360,216

**Sign here**

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Jack Brazil, Corporate Safety Director

972/457/8500 Phone

1/5/2016 Date