

Submitted to:



August 27, 2013

Submitted by:



Archer Western
in association with
PARSONS

Statement of Qualifications
**ROUTE 606 LOUDOUN COUNTY PARKWAY/OLD OX ROAD
RECONSTRUCTION AND WIDENING**

From: Route 621 Evergreen Mills Road
To: Route 267 Dulles Greenway Loudoun County, Virginia

State Project No.: 0606-053-983
Federal Project No.: STP-5A01 (165)
Contract ID Number: C00097529DB64



1.

Letter of Submittal



August 27, 2013

Virginia Department of Transportation
1401 E. Broad Street
Richmond, Virginia 23219
Attention: Brenda L. Williams

SUBJECT: *Statement of Qualifications – Contract ID Number C0097529DB64
Route 606 Loudoun County Parkway/Old Ox Road Reconstruction and Widening
State Project Number 0606-053-983
Federal Project Number STP-5A01 (165)*

Dear Ms. Williams:

The design-build team of **Archer Western Construction, LLC (Archer Western)**, and **Parsons Transportation Group Inc. of Virginia (Parsons)** is pleased to submit this statement of qualifications for the Route 606 Loudoun County Parkway/Old Ox Road Reconstruction and Widening Project in Sterling. Archer Western and Parsons bring an established working relationship to the project. We are currently working together in a design-build capacity on the Virginia Department of Transportation's (VDOT's) \$55 million I-395 HOV Ramp Project in Alexandria, the \$849 million IH-35W Managed Lane Project in Dallas, Texas, and the \$599 million Northwest Corridor Managed Lanes Project in Atlanta, Georgia. In addition, Parsons is currently completing the design phase of the I-64/Route 15 (Zion Crossroads) Interchange Improvements Design-Build for VDOT and has been helping MWAA improve and expand Washington Dulles International Airport since 1988.

We have assembled a highly experienced team to further enhance our ability to successfully complete this challenging project. Our project team includes experts in those areas most needed for this project, including dam engineering and construction expertise, MWAA/airport coordination, National Environmental Policy Act documentation and commitment assurance, right-of-way acquisition, quality assurance, maintenance of traffic/transportation management plan/access design, and highway and bridge design and construction.

The Archer Western team has examined the request for qualifications and the information and data discussed therein. In addition, we have visited the project site, reviewed the additional information provided by VDOT, and we are familiar with the visible site conditions and specific requirements of this project. We are also familiar with applicable laws and regulations that may affect the cost, progress, and performance of the work.

3.2.1 OFFEROR'S NAME AND ADDRESS: As prime contractor and design-builder, the official representative for the project will be as follows:

*Offeror's Name: Archer Western Construction, LLC
Address: 4445 Willard Avenue, Suite 1040, Chevy Chase, MD 20815*

3.2.2 OFFEROR'S POINT OF CONTACT: Our proposed design-build project manager will serve as the point of contact:

*Offeror's Primary Contact: Brian Quinlan, PE, Senior Project Manager
Address: 4445 Willard Avenue, Suite 1040, Chevy Chase, MD 20815
Phone: (301) 347-4614 Mobile: (443) 744-2066 Fax: (404) 495-8701
Email: bquinlan@walshgroup.com*

- 3.2.3 PRINCIPAL OFFICER OF THE OFFEROR:** The principal officer of Archer Western is as follows:
Offeror's Principal Officer: Michael D. Manning, Vice President
Address: 2410 Paces Ferry Road, Suite 600, Atlanta, GA 30339
Phone: (404) 495-8700
- 3.2.4 STRUCTURE OF OFFEROR:** The legal structure of the team is organized such that Archer Western, as a limited liability company with all financial responsibility, will be the signatory to the design-build contract with VDOT. Additionally, Archer Western will provide all performance and payment bonds for the project. Parsons, serving as the lead designer, will be a subcontractor to Archer Western. Team members that will be subconsultants to Parsons include **Schnabel Engineering, Inc.; A. Morton Thomas and Associates, Inc.; Accompong Engineering Group, LLC (DBE); Continental Acquisition Services, Inc. (d.b.a. Continental Field Services, Inc.); Athavale, Lystad & Associates, Inc. (DBE); and PEI Engineers, Inc. (d.b.a. Prime Engineering, Inc.) (DBE).** McDonough Bolyard Peck, Inc. (SWaM), will be a subcontractor to Archer Western.
- 3.2.5 LEGAL NAMES OF LEAD CONTRACTOR AND LEAD DESIGNER:** The design-build team consists of **Archer Western Construction, LLC**, as the lead contractor/offeror and **Parsons Transportation Group Inc. of Virginia** as the lead designer.
- 3.2.6 AFFILIATES & SUBSIDIARIES:** Please refer to Appendix C for the completed Attachment 3.2.6.
- 3.2.7 DEBARMENT FORMS:** Please refer to Appendix D for executed debarment forms 3.2.7(a) and 3.2.7(b) from all team members.
- 3.2.8 VDOT PREQUALIFICATION CERTIFICATE:** Archer Western's prequalification ID is A210, and our status is active. Please refer to Appendix E for supporting documentation.
- 3.2.9 EVIDENCE OF BONDING:** The letter for evidence of bonding capability from Archer Western's surety is provided in Appendix F.
- 3.2.10 PROFESSIONAL SERVICES VERIFICATION:** Please refer to Appendix G for a completed Attachment 3.2.10. In Appendix H, we have attached copies of all Department of Professional and Occupational Regulation (DPOR) and State Corporation Commission (SCC) registrations for all team members that will be providing professional services.
- 3.2.11 DISADVANTAGED BUSINESS ENTERPRISE (DBE):** Archer Western is committed to meeting or exceeding the **14 percent** DBE participation goal.

We appreciate the opportunity to submit our qualifications for the design and construction of the Route 606 Loudoun County Parkway/Old Ox Road Reconstruction and Widening Project. With our proven experience, we are confident that the Archer Western team has the professional and financial resources to make this project a resounding success.

Sincerely,
Archer Western Construction, LLC


Michael D. Manning
Vice President

2.

Offeror's Team Structure

2. Offeror's Team Structure

THE ARCHER WESTERN TEAM

Archer Western (AWC) is a transportation sector-focused general contractor with a notable aptitude for high-profile, technically challenging projects. Examples of these include the recently completed \$465 million design-build (D-B) I-540 Western Wake Freeway in North Carolina (NC) and the \$68 million I-95 Bridges Reconstruction in Richmond.

Brian Quinlan, PE, our **D-B Project Manager** (DBPM), has worked on multiple heavy-highway programs along the Eastern seaboard, including VDOT's I-95 Bridges Reconstruction and Route 895 Pocahontas Parkway projects in Richmond; the I-95 Express Toll Lanes in Baltimore; the SR 836 Dolphin Expressway in Miami; the I-93 Central Artery in Boston, and the I-676 Vine Street Expressway in Philadelphia. He also has experience with dam construction, having managed the construction of Lock and Dam #5 on the Red River as well as MWAA experience having overseen four projects at Reagan National Airport. Brian has the necessary technical expertise for the project, plus the proven ability to satisfy complex, demanding requirements for maintenance of traffic (MOT), and cooperate with adjacent contractors and abutters.

Brian Quinlan, PE, DBPM

34 Years Exp. **✓ D-B Exp.** **✓ VDOT Exp.**

- Managed more than \$245 million of D-B projects, including serving as DBPM for expansion projects on SR 836 in Florida and I-395 HOV Ramp and Auxiliary Lane project in Virginia
- Oversaw the construction of the \$56 million Route 5 Hughesville Bypass for MdSHA
- Served as QC Manager and then Construction Manager for \$112 million U.S. Army Corps of Engineers (USACE) Lock and Dam #5 in Louisiana

Ali Abdolahi, PE, CCM, of McDonough Bolyard Peck, Inc. (MBP), will be the **Quality Assurance Manager (QAM)**. AWC teamed with MBP on VDOT's I-395/I-95/I-495 Springfield Interchange project and on a recent \$92 million USACE expansion of the Dalecarlia Water Treatment Facility in D.C. Our selection of MBP and Ali was based upon the success of those efforts. Ali is accustomed to ensuring all contract requirements and specifications are appropriately administered and applied, that all required quality control (QC) tests and independent quality assurance (QA) verification testing is carried out according to applicable

requirements, and that construction quality standards are met and payments are appropriately processed. Because of his familiarity with VDOT standards and procedures, he will be an ideal point of contact for VDOT on quality matters. Ali's staff will include experienced inspectors and technicians from MBP and an independent testing laboratory.

Ali Abdolahi, PE, QA Manager

31 Years Exp. **✓ D-B Exp.** **✓ VDOT Exp.**

- Started career with VDOT
- QAM on the Fairfax County Parkway and the I-395 HOV Ramp and Auxiliary Lane project
- VDOT Construction Manager for Route 147 Huguenot Bridge over James River
- Licensed Virginia Professional Engineer and Certified Construction Manager

For the role of **Design Manager**, we have selected **Josh Wade, PE**. Josh recently completed his assignment as the design manager of the \$561 million D-B Intercounty Connector (ICC), Contract B, in Maryland. Of particular interest from the ICC assignment are the lessons learned on the design and construction of two interchanges, five bridges carrying local traffic over the ICC, 2.7 miles of trails, more than 10 miles of local roadways, including widening, innovative stormwater management, permitting, right-of-way (ROW) requirements, neighborhood and business accommodation, and extensive public relations efforts (see Appendix J for more details on this project). Josh also offers relevant VDOT experience, having provided design services for the widening of a 6-mile, limited-access section of U.S. Route 58; design services for the I-95 HOV Ramp at Fort Belvoir's North Area; and support for many environmental documents, including the Manassas Battlefield Park Bypass and Route 29 Charlottesville Bypass environmental impact statements.

Josh also has experience coordinating with MWAA and Dulles International Airport (IAD) through his work on the Dulles Rail EIS and during proposal efforts for the successful Silver Line D-B team.

Josh is currently serving as the Design Manager for the VDOT I-64/Route 15 Interchange Modifications D-B project in Zion Crossroads, Virginia, where he is leading the design efforts for this innovative diverging diamond interchange (DDI) design. The Zion Crossroads project offers many similarities, including a VDOT's D-B process, VDOT compliant QC plan, MOT/traffic management plan (TMP) and the sequencing needs of minor arterials, ramp and intersection improvements, and access management

for nearby businesses and other land uses. The final construction drawings were approved on July 19, 2013.

Josh Wade, PE, Design Manager

19 Years Exp. ✓ **D-B Exp.** ✓ **VDOT Exp.**

- Design Manager for the ICC-B D-B project, where he managed more than 100 engineers
- Design Manager for two VDOT D-B projects
- 20 years of experience working with VDOT
- Experience minimizing local impacts

John Bridge, our **Construction Manager**, has a career distinguished by participation on award-winning infrastructure projects. His extensive D-B experience includes the I-540 Western Wake Freeway and the I-285 Structures project at the Atlanta airport, both of which received widespread industry recognition as outstanding successes. He has proven expertise in managing stringent MOT requirements, aggressive project schedules, and multiple stakeholder relationships; plus extensive bypass roadway and airport experience.

John currently holds NC certifications for MOT and erosion control, and he will hold the Virginia Department of Conservation and Recreation (DCR) responsible land distributor (RLD) certification and erosion and sediment control contractor certification (ESCCC) prior to the commencement of construction.

John Bridge, Construction Manager

11 Years Exp. ✓ **D-B Exp.**

- Experienced with MOT, utility coordination, and public outreach for major D-B projects
- Construction Manager on I-540 Western Wake Freeway – a new toll road that featured 32 bridges and more than 5 million cubic yards (cy) of earth work
- Assistant Construction Manager on I-285 Structures for new 5th Runway at the Atlanta airport

Greg Paxson, PE, who has more than 17 years of geotechnical and dam design experience, will serve as the **Lead Geotechnical Engineer**. Greg has extensive experience in analysis, design, and site layout for dam projects, which includes evaluation and upgrading of existing dams and design of new dams. His specific design experience includes hydrologic and hydraulic analyses, gravity dam stability, labyrinth spillways, roller compacted concrete (RCC), and slope stability and seepage analyses for earth dams. Greg's field experience includes dam inspections, construction

observation services for geotechnical tasks, and oversight of subsurface exploration, including foundation analyses and recommendations.

Greg Paxson, PE, Lead Geotechnical Engineer

17 Years Exp. ✓ **VDOT Exp.**

- Extensive high hazard dam and retaining wall experience
- Lead engineer for the Gunter Valley Dam in Pennsylvania that included an extensive subsurface exploration program consisting of geophysical investigations, test borings and test pits, installation of piezometers, and in situ testing of the soil and rock

Our team also includes multiple dam design experts. The most prominent are Jeremy Young, PE, and Gary Horninger, PE, who are identified as Key Personnel and whose resumes are included in Appendix I. **Jeremy Young, PE**, of Schnabel, will serve as the **Lead Dam Design Specialist** on our team. Jeremy's design experience includes surface water hydrology modeling, hydraulic design of dams and spillways, embankment evaluation and design, gravity design and stability analysis, and RCC design. Other engineering experience includes conducting visual inspections of dams, supervision of subsurface explorations and geotechnical instrumentation programs, and design of geosynthetically reinforced slopes and walls. Jeremy has provided these services on multiple high hazard dam projects including the Pohick Creek Watershed Dam No. 8 (Huntsman Lake) Rehabilitation in Fairfax County and the Lake Oneida Dam Upgrading in Pennsylvania.

Jeremy Young, PE, Lead Dam Design Specialist

13 Years Exp. ✓ **VDOT Exp.**

- Served as Project Manager and Lead Dam Engineer for dozens of dam projects.
- Expertise in dam evaluation and design, hydraulic and hydrologic analyses, and construction engineering services.

Gary Horninger, PE, of Schnabel, will also serve as a **Dam Design Specialist**. Gary has been involved in a wide range of dam design projects, including siting studies, site investigations, alternatives assessment, preparation of drawings and specifications, and construction phase services. Gary has also been a full-time Resident Engineer for six dam construction projects, and has provided QA constructability reviews and construction oversight on many other projects. Gary has performed these services on multiple dam projects, including Rocky Pen Run

Dam in Fredericksburg and the Sugar Hollow Dam in Charlottesville.

Gary Horninger, PE, Dam Design Specialist

24 Years Exp.

✓ VDOT Exp.

- Construction materials testing services Project Manager on multiple projects.
- Expertise in construction engineering services, dam evaluation and design, and source of supply study evaluations.

Andrew Pakes of AWC will serve as **Dam Construction Manager**. Andrew has been involved in two significant levee (dam) projects for the USACE in Louisiana. In both cases the height of existing earthen levees was increased, which required the import and placement of millions of cy of embankment. Andrew was intimately involved in the earthwork operations on both projects. His D-B experience includes the I-540 Western Wake Freeway, where he reported to Construction Manager John Bridge.

Andrew Pakes, Dam Construction Specialist

4 Years Exp.

✓ D-B Exp.

✓ VDOT Exp.

- Provided engineering support and field supervision for earthwork operations on two USACE levee construction projects.
- D-B experience with team on I-540 Western Wake Freeway project and I-95 Overland Bridge project.

In addition to the named Key Personnel for whom resume forms are included in Appendix I, the following value-added design individuals will report to Josh, lead their discipline task-force meetings, and handle the interdisciplinary reviews.

Bruce Swanson, CCM, who has more than 38 years of airport experience, will serve as **MWAA, FAA and Dulles International Airport (IAD) coordinator**. Bruce Swanson is one of the premier Aviation Program Managers in the world today. His ability to communicate and engage clients and stakeholders has led to the successful completion of some of the largest, most complex aviation programs with a value in excess of \$20 billion and he will lead the coordination efforts required for the construction of the proposed improvements. The Metropolitan Washington Airports Authority (MWAA), Federal Aviation Administration (FAA) and IAD have unique requirements and permits such as those needed to access areas of airport property before acquisition and for construction activities on or adjacent to their operations. Bruce served as Parsons' program

manager for their capital improvements contract at IAD from 2004 until 2010. His office is located there and his experience at the airport and with these key stakeholders will be a major asset to the team.

Greg Anderson, PE, who has more than 30 years of QC experience, will serve as the **Design Quality Manager**. He will ensure that Parsons' QC procedures are followed. Greg recently served as Design QC Manager, responsible for audits and the QA/QC compliance for ICC, Contracts A and B, and is currently serving in that same capacity for VDOT's I-64/Route 15 Interchange Modifications D-B.

Design Manager Josh Wade, Design Quality Manager Greg Anderson, and ten other discipline leads worked as a team in the same capacities on the ICC Contract B project.

Don Rissmeyer, PE, of A. Morton Thomas and Associates, Inc. (AMT), will support the **Dam Design Specialists** with his expertise in dam design and analyses, water resources and related modeling. Don's extensive dam and flood control experience includes the following projects in Virginia:

- Woodglen Lake Dam Rehabilitation, Fairfax County
- Royal Lake Dam Rehabilitation, Fairfax County
- Lake Mercer Flood Inundation Study, Fairfax County
- Lake of the Woods Dam Safety Services, Orange County

Don Rissmeyer, PE, Dam Design Specialist

16 Years Exp.

✓ VDOT Exp.

- Experience with the Natural Resources Conservation Service and DCR Dam Safety Division dam requirements.
- Expertise in environmental permits for dam projects included Waters of the U.S. studies and water quality impact assessments.

Stuart Tyler, PE, of Parsons, will serve as the **Environmental/National Environmental Policy Act (NEPA) Lead** and will ensure that all applicable commitments are met during the design phase of the project. Stuart has more than 36 years of experience in the management and preparation of environmental analyses (EAs) and environmental documents in compliance with NEPA, including coordinating with federal, state, and local agencies. Stuart has managed all levels of NEPA, Section 4(f), and Section 106 compliance documents for a wide variety of transportation project types, in various settings, from heavily developed urban corridors to predominantly

undeveloped agricultural areas. Stuart has also served as PM for VDOT's Statewide Environmental Document On-Call Contract for the last 17 years. He has conducted EAs for several projects in the project area, including the Pacific Boulevard Extension and several transportation improvements along Route 50.

Stuart Tyler, PE, Lead Environmental Engr.

36 Years Exp. ✓ **D-B Exp.** ✓ **VDOT Exp.**

- More than 100 VDOT environmental documents
- PM for VDOT's Statewide Environmental Document contracts and Statewide Wetlands & Water Quality Permits Contract
- Close working relationship with VDOT Environmental Divisions and federal/state environmental review agencies

In addition to these subject experts, we have supplemented the design team with subconsultants that have extensive D-B and VDOT experience:

- A. Morton Thomas and Associates, Inc. (AMT)
- Accompong Engineering Group, LLC (AEG)
- Athavale, Lystad & Associates, Inc. (ALA)
- Continental Acquisition Services, Inc. (d.b.a. Continental Field Service, Inc.) (CFS)
- MBP
- PEI Engineers, Inc. (d.b.a. PRIME Engineering, Inc.) (PEI)
- Schnabel Engineering Consultants, Inc. (Schnabel)

Information on their roles is provided on page 8.

ORGANIZATIONAL CHART NARRATIVE

The roles of the Key Personnel presented in the organizational chart on page 9 are described below.

DBPM Brian Quinlan, PE, has full authority for design and construction for the AWC team. He will be VDOT's primary point of contact and fully responsible for all aspects of the project, including coordination with third-party stakeholders. He will directly supervise the QA, Design, Construction, Safety, ROW, and Public Relations Managers; provide constructability reviews and construction oversight; and promote a project culture that emphasizes safety and quality.

QAM Ali Abdolahi, PE, from MBP, will be supervised by Brian Quinlan and will report to VDOT as needed. A licensed professional engineer in Virginia, he will ensure that work is performed according to the contract and approved-for-construction plans/specifications, and will ensure all work adheres to VDOT's *Minimum Requirements for Quality Assurance and Quality Control on Design Build Public-Private Transportation Act Projects*.

Ali will be responsible for the development of and adherence to the quality program and the QA inspection and testing of all materials used and work performed. He has the authority to stop construction, enforce specification compliance, and issue/require the resolution of all nonconformance reports. To fulfill these responsibilities, Ali will manage an independent QA team that includes inspectors, testing technicians, and a designated testing laboratory that will routinely conduct separate and concurrent tests and analyses of the work.

Design Manager Josh Wade, PE, will report to Brian Quinlan and will ensure that design work is in accordance with current VDOT policies, procedures, and guidelines. He will coordinate with the design, safety and quality teams and oversee design subconsultants; coordinate design and review schedules; develop and implement corrective measures, if needed; and integrate environmental compliance measures into the design. He will manage the permit process, and, through Stuart Tyler, will ensure that all design commitments from the NEPA and Section 106 documents are met. Josh will also stay involved once construction begins, allowing him to oversee design modifications and to review construction documents as work progresses.

Construction Manager John Bridge will report to Brian Quinlan and manage the construction process in accordance with the approved schedule, including the quality control effort that ensures that the materials used and work performed meet contract requirements. He will play a vital role in design development and constructability reviews; then be on-site full time throughout construction. He will supervise the Utilities Coordinator, Construction Quality Manager, Superintendent, and project engineers; while working with the Safety Manager to ensure that the work is performed safely. He will also coordinate plan revisions and construction document reviews with Design Manager Josh Wade.

Lead Geotechnical Engineer Greg Paxson, PE, will report to Josh Wade and manage all aspects of the project related to geotechnical engineering and pavement design. This will include the development of the exploration plan, oversight of the boring investigations, pavement condition surveys, foundation and slope recommendations, stability tests and subgrade recommendations and tests. He will also work hand in hand with the dam design specialists and the bridge designers and their teams in the analysis and design of the dam modifications and new bridge over the Horsepen Dam spillway. Greg's efforts will begin at the start of the design phase and will continue through the construction of the project.

Lead Dam Design Specialist Jeremy Young, PE, will report to Josh Wade and will lead the dam design efforts for the project, including the hydraulic analyses, embankment evaluation and design, gravity design and stability analysis as needed. He will lead Virginia Department of Environmental Quality and DCR coordination efforts to get the alteration permit, regular operation and maintenance certificate and other permits as needed for the high hazard potential dam.

Dam Design Specialist Gary Horninger, PE, will report to Josh Wade and assist Jeremy Young in the design and construction oversight of the Horsepen Dam modifications. Having served as a resident engineer for over 6 other dam projects his experience will prove invaluable to the construction activities as well as the early coordination between design and construction teams.

Dam Construction Specialist Andrew Pakes, will report to John Bridge and manage all construction work related to the reconstruction and expansion of the Horsepen Dam. This will include early coordination with Jeremy Young, Gary Horninger and the dam design team to optimize designs as well as coordination with Virginia Department of Environmental Quality and DCR throughout the design and construction phases to ensure a smooth process of modifying the existing dam and building the new bridge.

Utilities Coordinator Heather Bridge is another veteran of the successful D-B effort on the I-540 Western Wake Freeway, where she prioritized ROW acquisitions and coordinated more than 100 major utility relocations for owners such as Colonial Pipeline, MCI/Verizon, Dixie Pipeline, and Progress Energy. She will co-locate with the design team during the design phase, interacting with ROW Manager Paul Schray, Utilities Lead Thomas Fegley, and utility representatives. During construction, she will be the point of contact for utility relocations and for contract utility work.

Construction Quality Manager Matt Mroz, will report directly to John Bridge. Certified by the USACE in Construction Quality Management, he will manage the QC program, a role that he currently holds on the MWAA Reagan Runway 4-22 Safety Area project. In addition to AWC personnel, his staff will include third-party inspectors, certified technicians, and a certified lab.

Safety Manager Jose Cortez, CSM, will report to Brian Quinlan and will monitor field activities to provide VDOT, construction workers, and the traveling public a safe jobsite. Working with John Bridge, Jose will provide safety training and will assist in the development of a job-specific safety plan. Jose has the authority to stop work as needed.

Lead Environmental Manager Stuart Tyler, PE, will report to Josh Wade and will oversee the preparation of all documents necessary for compliance with federal and state environmental regulations and the implementation of project-specific commitments. Stuart will be involved in the interdisciplinary reviews of each design submittal.

Lead ROW Manager Paul Schray will report directly to Brian Quinlan and will oversee the acquisition process of the needed easements for the project. Paul has more than 27 years of experience in the acquisition of property for public transportation projects. His experience includes the management of all acquisition, relocation, and appraisal functions; title research; ROW plan design and review; acquisition negotiations; relocation assistance; administrative value determinations; appraisal technical review; and condemnation trial preparation and testimony. Paul will work with the design team to help reduce ROW needs and schedule impacts early in the process and, when needed, he will engage a qualified review appraiser and fee appraiser in the completion of the needed parcel acquisitions. CFS and Paul Schray have acquired more than 1,000 parcels for VDOT projects during the last 16 years.

Integrated Team Approach – A successful D-B project requires that the design team work seamlessly with the construction team. It is Brian's responsibility, working with and through the Design Manager and the Construction Manager, to establish and support this team approach. The following items are elements of our integrated team approach:

- Co-locate DBPM and Utility Coordinator with the design team.
- Conduct over-the-shoulder design reviews by multidisciplinary, environmental, and construction personnel to ensure constructability and environmental compliance.
- Set up a collaborative website for document management and project coordination.
- Implement our zipper strategy, which pairs designers with their construction counterparts.
- Establish task force teams composed of representatives from AWC, Parsons, VDOT, and third parties to expedite the resolution of issues, enhance plan development, and improve coordination.
- Conduct construction pre-task planning and activity work plan development that will involve the design team and the construction staff.

Team Member Roles and Responsibilities – Every firm on our team has previously worked with AWC and/or Parsons in their respective roles. The chart on the following page provides details on each of our team member firms.

Firm	Specialty
	<p>AEG is a Virginia-based DBE/SWaM firm providing professional services in transportation engineering and planning, civil engineering, environmental engineering, and program/project management. AEG will assist with the MOT/TMP elements of the project. AEG has recently completed designs for the TMPs and traffic safety plans for five intersections on the Route 36 D-B in Prince George's County and the city of Hopewell and is currently designing the TMP (Type C) for the I-95 bridge replacements over the Meherrin River in Emporia. Further, <i>AEG worked closely with both Parsons and AWC on the I-95/I-395/I-495 Interchange in Springfield. (DBE/SWaM firm)</i></p>
	<p>ALA is a civil and structural engineering consulting firm and has provided professional services in structural, civil, and hydraulic engineering as well as construction inspection services. The firm's experience on for transportation-related projects includes a wide range of public sector clients, including Fairfax County and VDOT. ALA will provide structural engineering, including scour analysis of the bridge over Broad Run. <i>ALA has worked with Parsons on multiple projects, including the I-395 HOV Ramp and Auxiliary Lane project for VDOT. (DBE firm)</i></p>
	<p>AMT, a firm of 375 employees, provides comprehensive transportation engineering services, including roadway and interchange design, hydraulic/hydrologic design, dam hydraulics, traffic engineering, utility relocation design, planning, surveying, environmental, landscape architecture and construction inspection services to federal, state and local governments. AMT has a proven track record of providing transportation engineering services to VDOT with a focus on providing a balance between sound engineering solutions, safety, environmental protection, aesthetic quality and economic benefit. Examples of AMT's VDOT design experience include Southgate Drive/U.S. 460 Bypass Interchange, U.S. Route 460 Connector PPTA, Route 460 Connector Phase I, and Region 2 Multiple Culvert Rehabilitation contracts. Further, <i>AMT worked with Parsons on ICC A and B, and Tom Fegley served as the Lead Utility Engineer on the Dulles International Airport Utilities project.</i></p>
	<p>Continental Acquisition Services, Inc. DBA Continental Field Service (CFS), is a small woman-owned business that has acted as a general consultant to government agencies in the management and conduct of ROW acquisition and relocation programs since its founding in 1966. CFS will provide ROW services and <i>has worked in this capacity for Parsons on the Zion Crossroads project as well as the Downtown/Midtown Tunnel project.</i></p>
	<p>Providing QA for the project, MBP is a multidisciplinary construction consulting firm experienced in assisting clients in managing the construction process from initial budget through design and construction to successful project closeout. MBP has managed more than \$90 billion in construction projects. <i>MBP worked closely with both Parsons and AWC on the I-95/I-395/I-495 Interchange in Springfield. (SWaM firm)</i></p>
	<p>PEI was formed in 2007 and has compiled a track record of successful project completions for many public sector clients. The firm provides a wide variety of integrated design services, including bridge design and inspection; civil/structural engineering; architecture; highway design; drainage and stormwater management design; and construction inspection and management. <i>PEI worked in a similar role with Parsons on the ICC A and B projects. (DBE/SWaM firm)</i></p>
	<p>Schnabel Engineering is very familiar with the local soil conditions from numerous current and completed projects in VDOT's Northern District. Schnabel has recently completed geotechnical investigations and engineering for several nearby projects, including work on Nokes Boulevard, Loudoun Water Raw Water Intake and Potomac Raw Water Pumping Station just outside Leesburg and the Broad Run Reclamation Facility immediately adjacent to the site. Their experience with the local soil conditions on this D-B project will enable the design team to proceed with preliminary concepts and schematic designs in the early stages of the project and through final design. <i>Schnabel has worked with Parsons on the ICC A and B, Zion Crossroads, and I-395 HOV Ramp and Auxiliary Lane projects.</i></p>



THIRD-PARTY STAKEHOLDERS	
VA DEQ/DCR	Dulles Loop Implementation Group (DLG)
Loudoun County	Washington Airports Task Force (WATF)
EMS	Dulles Area Transportation Association (DATA)
Dulles Greenway (TRIP II) Adjacent Neighborhoods	FHWA
Local Businesses	Other Concurrent Projects
MWAA, FAA and Dulles Int'l Airport	Silver Line
NOAA	Private Utilities
USACE	Public Utilities

DESIGN-BUILD PROJECT MANAGER
 Brian Quinlan, PE¹

EXECUTIVE OVERSIGHT
 Mike Manning¹

ROW ACQUISITION
ROW MANAGER
 Paul Schray⁶
REVIEW APPRAISER
FEE APPRAISER

PUBLIC RELATIONS MANAGER
 Steve Walter²

DESIGN

DESIGN MANAGER
 Josh Wade, PE²

DAM DESIGN SPECIALISTS Jeremy Young, PE ^{9*} Gary Horninger, PE ⁹ Don Rissmeyer, PE ⁴	MWAA/IAD/FAA COORDINATION Bruce Swanson, CCM ² LEAD STRUCTURAL ENGINEER Alan Kite, PE ³ HIGHWAY LEAD Dhimant Sojitra, PE ² LANDSCAPE ARCHITECT Craig Richardson, RLA ² H&H LEAD Stuart Robinson, PE ⁴	LIGHTING/SIGNALS LEAD Azim Mohammed, PE ^{2*} UTILITIES LEAD Thomas Fegley, PE ⁴ MOT ENGINEERS Laura Wilton, PE ² Conrad Scott, PE ⁸ NOISE ANALYSIS Areg Gharabegian, PE ^{2*} ITS LEAD Sajjad Alam, PE ²
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DESIGN QUALITY MGR.
 Greg Anderson, PE^{2*}

SUBCONSULTANTS

ALA Structural Engineering	CFS ROW	PRIME ENGINEERING Structural Engineering
ACCOMPONG ENGINEERING GROUP MOT, Traffic, and Drainage Design	SCHNABEL Geotechnical, Pavement, and Dam Engineering	A. MORTON THOMAS Drainage, Utilities, Dam Hydraulics, and Survey Engineering

CONSTRUCTION

CONSTRUCTION MANAGER
 John Bridge¹

SUPERINTENDENT Buck Washington ¹	DAM CONSTRUCTION SPECIALIST Andrew Pakes ¹
UTILITIES COORDINATOR Heather Bridge ¹	EEO OFFICER Sharon Perez ¹
TRAFFIC CONTROL SUPERVISOR Joe Clark ¹	PROJECT CONTROLS Tommera Roberson ¹
ESC MANAGER Mitch Palmer ¹	SCHEDULE ENGINEER Erika Donaubaauer ¹

SAFETY MANAGER
 Jose Cortez, CSM¹

QUALITY ASSURANCE

QUALITY ASSURANCE MANAGER
 Ali Abdolahi, PE, CCM⁷

QA INSPECTORS
QA TESTING
(QA and QC will have separate labs and inspectors)

QUALITY CONTROL

CONSTRUCTION QUALITY MANAGER
 Matt Mroz¹

QC INSPECTOR(S)
QC TESTING
(QA and QC will have separate labs and inspectors)

LEGEND

- 1 Archer Western Construction, LLC
- 2 Parsons Transportation Group Inc. of VA
- 3 Accompong Engineering Group, LLC
- 4 A. Morton Thomas & Associates, Inc.
- 5 Athavale, Lystad & Associates, Inc.
- 6 Continental Field Service, Inc.
- 7 McDonough Bolyard Peck, Inc.
- 8 PRIME Engineering, Inc.
- 9 Schnabel Engineering Consultants, Inc.

Key Personnel DBE SWaM
 *Licensed in a state other than Virginia

3.

Experience of Offeror's Team

3. Experience of Offeror's Team

The AWC team is ideally suited for this challenge. In addition to our team's impressive D-B successes on similar major roadway projects such as the I-540 Western Wake Freeway and the Maryland Department of Transportation/State Highway Administration ICC project, we have extensive experience with dam design and construction on projects throughout Virginia and the Mid-Atlantic; unmatched knowledge of MWAA, IAD, and FAA policies, procedures and requirements; and experience working together on D-B projects, including for VDOT on the I-395 HOV Ramp and Auxiliary Lane project in Alexandria. Furthermore, Parsons is currently serving as designer of VDOT's I-64/Route 15 Interchange Modifications (Zion Crossroads) D-B project in Louisa County, where the construction drawings recently received final approval. Key staff and their lessons learned from that project are now available to be applied to the design phase of this project. Through the projects noted above and our overall experience, we have worked alongside and built relationships with all of the design subconsultants proposed for this project. These stable teaming relationships enable us to deliver quality work in record time — with little or no learning curve.

This proposed transportation improvement project will enhance traffic operations, safety, and capacity to accommodate the forecasted traffic demand in the area. To ensure the successful design and construction of the facility, several items of concern need to be acknowledged and addressed. These include the design and construction of the modifications to the Horsepen Dam with the twin bridge structure over the reconstructed emergency spillway and relocated water sampling station; coordination with MWAA, IAD, and the FAA, including sensitive security and wildlife management issues; and coordination with the adjacent utilities, facilities, property owners, and other projects including Loudoun Water, Dominion Virginia Power (DVP), the Greenway (TRIP II), more than 40 impacted parcels and projects, such as the Dulles Metrorail Silver Line Phase II Extension, the Dulles Rail Maintenance Yard, the future Route 606 Metro Station, and the Airport's long-range plans.

The design and construction of the needed modifications to the Horsepen Dam will involve coordinating with its owner, MWAA, increasing the overall mass of the earthen structure, reconstruction of a portion of the spillway, spillway riser gate improvements, and design and construction of the twin bridge structure that will eventually carry Route 606 over the spillway. This effort will include the analysis of the existing structure and hydraulics, determination of the needed modifications, and

permit acquisition. The type, size, and location of the bridges including pier locations, foundations and abutment types will need to be closely coordinated with the dam design and analysis to ensure a successful project. Our team includes Schnabel and AMT, both of whom have extensive experience designing and building similar projects, including those listed in the table on page 11. One particular example is Schnabel's Lower Lake Dam project (included in the Design Work History Project Sheets in Appendix J). AMT brings extensive dam design experience in Virginia, including hydraulic analysis and modeling support experience. With Schnabel and AMT on our team we offer the experience necessary to design the dam modifications successfully, while AWC by virtue of the high-profile Katrina-related work it has done in Louisiana has the needed hands-on experience to successfully construct the dam modifications. *For additional details regarding our approach please see Section 4, Risk #1.*

Another opportunity for our D-B team to bring significant experience to bear is in the coordination with MWAA, IAD, and the FAA. Our team has extensive experience working on airport property and coordinating with airports. More importantly, much of that experience is with MWAA and the FAA at IAD. In particular, Parsons has been the program manager of capital improvements for MWAA at IAD since 1988 and managed the design and construction of more than 20 major expansion projects at the airport. We fully understand the airport's requirements regarding access control, fencing, time of year restrictions, FAA sight line requirements, and the long range plans for the facility. Additionally, AWC, the 3rd largest airport contractor as ranked by ENR, has one project underway at IAD, two projects underway at Ronald Reagan Washington National Airport (DCA), and recently completed the Runway 1-19 Extension and the ALSF-2 Pier Rehabilitation projects at DCA. Notably, the four projects at DCA fell under Parson's Program Management. *For additional details regarding our approach please see Section 4, Risk #2.*

Almost every project in northern Virginia of this size and scope involves impacts to existing utilities. The existing utilities on this project include Loudoun Water and DVP, and MWAA's water sampling station. Our team has extensive experience dealing with each of these entities. For instance, our proposed Utilities Lead Engineer Thomas Fegley is serving as the Lead Utility Engineer for the current Loudoun Water task order contract. Tom is also serving as the Lead Utility Engineer on AMT's on-call water and wastewater engineering contract for D.C. Water. On this same contract, AMT is responsible for water and wastewater pipeline engineering services associated

with the maintenance, repair, rehabilitation, and new construction projects that includes 12,000 linear feet of 30-inch transmission main adjacent to IAD. In addition, AWC is very familiar with DVP and their processes having recently coordinated DVP transmission line relocations on its I-95 Bridges Reconstruction project in Richmond. This experience provides assurance that we have full knowledge of DVP's requirements for design and construction activities adjacent to their lines and in their easements. *For additional details on this issue please see Section 4, Risk #3.*

With more than 40 parcels being impacted, including several currently owned by MWA, a team with experience in the acquisition process will be essential to avoiding schedule impacts associated with these acquisitions. CFS and Paul Schray have this proven experience, acquiring more than 1,000 parcels for VDOT projects in the past 16 years, including several from MWA on projects such as the I-495 HOT Lanes.

Lastly, coordinating with the multiple adjacent projects will be facilitated by having in-depth knowledge of these major projects. As mentioned above, Parsons has served as the program manager of capital improvements for MWA at IAD since 1988. In addition, Parsons is currently the lead designer of the Dulles Metrorail Silver Line Phase II and has held the general architectural and engineering contract with WMATA for the past 47 years. Parsons is intimately aware of WMATA's standards, processes and requirements, which will be important for the coordination at the Route 606 interchange where the future Route 606 Metro Station will be located.

Our team's unmatched knowledge of the airport's plans, processes and requirements along with the knowledge of the future rail line's in progress designs and goals will enable a smooth and successful project.

Similar Project Experience	Const. Cost (design only **)	Team Members	Design-Build	Airport Coordination	Roadway Widening	Neighborhood Interaction	ROW Acquisition	Dam Engineering/ Construction
Project Name and Location								
SR 400 Widening, GA	\$47M	A			☑	☑		
I-540 Western Wake Freeway, NC	\$465M	A	☑			☑	☑	
SR 9B Phase 1, FL	\$68M	A	☑			☑		
ICC, Contracts A and B, MD	\$1B	P	☑		☑	☑	☑	
I-294 Widening and Reconstruction	\$70	P			☑	☑	☑	
The New I-64	\$535	P	☑		☑	☑	☑	
LPV109.02a – Levee Enlargement	\$144M	A			☑	☑		☑
Lower Lake Dam, PA	\$3.3M	S						☑
Pacific Boulevard Extension, VA	\$0.3M**	P						
Route 7/15, VA	\$3M**	P	☑			☑	☑	
LPV 111 – Levee Enlargement, LA	\$295M	A			☑	☑		☑
SR 115/21st Street Interchange, FL	\$30M	A	☑		☑	☑		
Jimmy DeLoach Connector, GA	\$72M	AP	☑		☑	☑	☑	
Reagan National Runways 4-22 & 15-33, VA*	\$19M	AP		☑				
I-95 Bridges Reconstruction, VA	\$68M	A			☑	☑		
United Airlines New Wide Body Hangar at IAD, VA*	\$40M	A		☑				
I-395 HOV Ramp and Auxiliary Lane	\$55M	AP	☑		☑	☑	☑	
I-285 Runway/Taxiway Bridges, GA	\$159M	AP	☑	☑	☑	☑		
Escambia I-10 Widening, FL	\$56M	A		☑	☑	☑		

AP = Archer Western and Parsons • A = Archer Western • P = Parsons • S = Schnabel • * = MWA • ** = Design cost only
Projects shown in **bold** are provided in *Appendix J, Work History Forms.*

4.

Project Risks

4. Project Risks

Critical Risk 1

Dam design, permitting and construction

Why This Risk Is Critical and How This Risk Could Impact the Project – The risk related to the dam safety modifications is critical to the project design approach and schedule for design and construction. To obtain the Alteration Permit and the Regular Operation and Maintenance Certificate, some modifications to the design may be necessary, as noted herein. The schedule for obtaining approval from DCR and other permitting agencies will be part of the critical path of the project schedule. For example, modifications to the auxiliary spillway could instigate changes in the design of the bridge.

As noted in the Geotechnical Engineering Report (ECS, June 3, 2013), the dam is classified as a High Hazard Potential dam in accordance with the Virginia DCR Impounding Structure Regulations, primarily due to the potential for economic damage from a failure of the dam. As noted in Section 4VAC-20-40 of the regulations, economic damage to major roadways is among the criteria for the high hazard classification.

The primary risks related to this portion of the project include the following:

- Communication and coordination with Virginia DCR Dam Safety program to obtain an Alteration Permit and a Regular Operation and Maintenance Certificate upon completion of the project.
- Design of additional modifications that may be required to obtain approval of the Alteration Permit
- Potential environmental permitting requirements related to construction at the dam, including impacts to waters and wetlands
- Coordination with MWAA, the dam owner.

The preliminary design shows placement of a significant amount of earth fill on the downstream portion of the slope to construct the new roadway along with construction of a bridge over the existing auxiliary spillway. The additional fill for the road widening will require extension of the outlet conduit and construction of a new outlet structure for the primary spillway. To accomplish these modifications, we anticipate the following:

- The additional fill will generally improve the stability of the dam and lengthen the seepage path through the embankment; however, the construction of the retaining wall for the downstream slope is not considered typical. The operation and maintenance of the new

embankment and retaining walls will need to meet generally accepted practice for embankment dams. This includes, but is not limited to, maintaining the slopes and areas within 25 feet of the dam with no trees or woody vegetation, which may require extension of the ROW and/or limits of disturbance.

- The original design plans for the dam indicate rock fill placed on the downstream slope of the dam. If this material is left in place, a granular filter should be placed over this rock fill. This will prevent migration of newly placed soil fill into the rock fill and will serve as an extension of the existing drainage system for collecting and monitoring seepage.
- The conduit extension and outlet structure should be designed to meet current dam safety criteria. For example, the existing conduit includes anti-seep collars, which are no longer recommended for conduits. Modifications of the existing conduit will likely not be required; however, incorporation of design features such as a filter diaphragm are likely practical.
- According to DCR regulations, the spillway design flood for a high hazard dam is the Probable Maximum Flood (PMF) unless a lesser design flood can be justified through an incremental damage analysis. For this project, we don't believe that the design flood could be reduced since the hazard is the dam itself. The plans indicate that the peak stage for the PMF is below the proposed top of dam, indicating that the design meets DCR spillway capacity criteria.
- While the proposed modifications may include provisions to provide adequate hydraulic capacity to pass the PMF, dam engineering practice requires that the design prevent erosional failure of earth or rock cut auxiliary spillways; where failure is defined as headcutting erosion through the control section of the spillway that causes an uncontrolled release of stored water. The design of the dam will need to incorporate an evaluation of the geotechnical data and the stability of the auxiliary spillway. If the evaluation demonstrates that the spillway does not meet stability criteria, armoring or other protection of the spillway will be required.

How This Risk Could Impact the Project – The length of time needed to obtain the Regular Operation and Maintenance Permit and the Alteration Permit from Virginia DCR is significant. If not completed properly by experienced Virginia DCR-knowledgeable engineers the impacts to the schedule could be serious and would result in impacts to the overall schedule. The impacts could also include

delays to the traveling public while the roadway construction is delayed or halted.

Mitigation Strategy for This Risk – With their extensive experience in evaluation and design services for more than 130 dams in Virginia, Schnabel is very familiar with Virginia DCR dam safety staff, regulations, and the permit acquisition process. Their experience includes embankment modifications, spillway capacity upgrades, and armoring of earthen auxiliary spillways. From the early stages of the project through the submission of the record drawings and application for a Regular Operation and Maintenance Permit, we will work closely with Virginia DCR staff on the evaluation of the dam, potential modifications, and documentation of construction related to the Alteration Permit. Schnabel’s experience will be most valuable during the design phase, and when all existing design material is available. Their knowledge of the process will help maintain the project schedule and avoid any surprises during the DCR review process. Subsequently, during construction, our team’s experienced dam construction and inspection specialists will ensure strict adherence to permit and design requirements so there are no administrative delays or quality issues in the execution of the work. AWC successfully followed this quality-focused approach on the high-visibility LPV109.02a – Levee Enlargement in Louisiana, where we earned an “Outstanding” rating on our performance evaluation as a result of the exemplary work.

VDOT’S Role – Because of our team’s experience with dam safety modifications and permitting through Virginia DCR, we can mitigate this risk for VDOT to the point their role would be limited to normal review and approval activities.

Critical Risk 2

Coordination with MWAA, IAD and FAA

Why This Risk is Critical – Early activities in the project include items that require access to property adjacent to or owned by MWAA. Restrictions, especially in fall and winter months when secure access and hunting season constraints are most severe, would need to be accommodated. Failure to coordinate with MWAA, IAD, Dulles Metrorail Silver Line Phase II, the National Oceanic and Atmospheric Administration (NOAA) and FAA could result in major delays and impacts to the project such as unwanted redesign or shifts in alignment. These impacts could result in further escalating impacts to items such as safety, traffic delays and ROW as redesign could result in the shifting of the alignment

further into neighborhoods and commercial developments.

How This Risk Could Impact the Project – MWAA, IAD, Dulles Metrorail Silver Line Phase II, NOAA and FAA have requirements and standards that must be followed. Failure to recognize and plan for these elements would result in unexpected hurdles and restricted construction windows that could result in delays to the schedule and/or the need for redesign to work around these constraints. Either of these potential accommodations of MWAA, IAD, NOAA and FAA requirements could result in major budget and schedule implications.

Mitigation Strategy For this Risk – Parsons has worked with FAA since 1951, providing support through nationwide technical services contracts and has been the Managing Partner for the Parsons Management Consultants (PMC) Joint Venture since March of 1988, which serves as the MWAA’s program and construction manager. Under this contract Parsons has provided program management support services including program management, estimating and project controls, aviation planning, environmental planning, design management, construction management, commissioning agent, safety management, QA, procurement support, maintenance engineering, EEO outreach, public information, and activation on more than 20 major expansion projects at IAD for a total of more than \$7.5 billion. These expansion projects include the following:

- NOAA equipment upgrades
- International Arrivals Building
- Main terminal expansion
- New Midfield Concourse (Concourse B) and ramp control tower
- New airport traffic control tower and FAA facility
- Pedestrian walk-back tunnel (airside)
- Roadway improvements and expansions – various
- Runway/taxiway/apron improvements
- Concourse rehabilitation
- New airport traffic control tower and FAA facility utility building expansion and upgrade
- East and west automated people mover tunnels, stations, systems
- New and rehabilitated surface parking lots

Parsons currently serves as the lead designer for MWAA Dulles Metrorail Silver Line Phase II as part of the Capital Rail Constructors joint venture.

The AWC team has assigned key individuals and established processes to ensure proper coordination with MWAA, IAD, NOAA and FAA. This starts with

DBPM Brian Quinlan who has an ongoing positive relationship with MWAA through his oversight as Bid-Build Project Manager of approximately \$50 million of recent AWC contracts at DCA. In addition to Brian's MWAA experience and of particular importance is the assignment of Bruce Swanson, CCM, as the lead MWAA, IAD, NOAA and FAA coordinator. Bruce is one of the premier aviation program managers in the world today with extensive experience working with local stakeholders and supporting solutions unique to construction in and near large airports such as IAD. Bruce's ability to communicate and engage clients and stakeholders has led to the successful completion of some of the largest and most complex aviation programs with a value in excess of \$20 billion, and includes numerous IAD projects. From 2004 until 2010 Bruce served as Parsons' Program Manager for the PMC contract for MWAA. His knowledge of MWAA and IAD airport staff, programs, procedures, FAA, and needs will allow our team to immediately identify the areas of potential risk to the project. It will also allow our team to quickly begin coordination with MWAA, IAD, NOAA and FAA to reduce any potential conflicts or challenges associated with working adjacent to and with the airport and its facilities. Bruce's experience will also assist the team with internal coordination between design, construction and ROW teams, ensuring a smooth process and successful project.

During project planning, our experienced staff, including Bruce, will have significant input into the schedule so that their knowledge of MWAA, IAD, NOAA and FAA policies, procedures and restrictions can be fully accounted for. Their knowledge and input will allow for a reasonable and accurate schedule for the project completion, which will allow the team to properly schedule resources and ensure their availability.

VDOT's Role – It is the design-builder's responsibility to coordinate design and construction activities with MWAA, IAD, NOAA, and FAA. The team's experience with and sensitivity to working in multi-stakeholder environments will ensure proper and timely coordination, particularly in utility coordination and relocation will allow this effort to proceed smoothly. VDOT's role will be limited to normal review and approval of construction drawings.

Critical Risk 3

Adjacent Concerns (Utilities, Facilities, Property Owners and Projects)

Why This Risk is Critical – Failure to coordinate with adjacent projects, developments, and utility companies, on location and relocation, could result in significant schedule delays. For this project, the risk of adjacent concerns is not limited to simply coordinating construction access or schedules, but must address all of the following:

- Coordination with multiple stakeholders including utility owners such as Loudoun Water, D.C. Water, and DVP, facilities such as NOAA and IAD (discussed in detail in Risk 2), nearby neighborhoods such as Loudoun Valley Estates, adjacent developers, and other construction projects such as the Dulles Metrorail Silver Line Phase II and the Rail Maintenance Yard.
- Accommodation of new residential and commercial developments that are in various stages of planning and construction.
- Location and protection of existing utilities and avoidance of potential conflicts with existing utilities, particularly the Potomac Interceptor.

How This Risk Could Impact the Project – The priorities of project neighbors may not align with project goals, creating sources of friction and impediments to project progress. Aside from the overall integration of the project into the adjacent physical community, the relocation of existing utilities to eliminate conflicts or unintended impacts needs to be evaluated and identified early in order to prevent construction delays. The existing utilities need to be located as accurately as possible to reduce the potential for conflicts with relocated utilities, subsurface excavation or new foundations. The accurate location of the existing utilities is also required to determine potential relocations based on potential conflicts, improvements, and foundation placement. (Similarly, planned utilities need to be accommodated in the foundation designs and overall coordination.) Techniques for physically locating existing utilities include surveying to establish precise coordinates of exposed features and test pits for whatever is underground.

Adjacent facilities and property owners could also delay the project if temporary access is denied or additional property is required. Additionally, adjacent or nearby projects could cause reciprocal delays, impacting the traveling public and nearby neighborhoods.

Mitigation Strategy for This Risk – The AWC team has assigned key individuals and established processes to ensure coordination and proper handling of all adjacent concerns.

This includes two project staff members whose exclusive project responsibilities will be coordination with adjacent utility owners. The Utilities Coordinator is Heather Bridge from the construction side, while Tom Fegley is the design team's Utilities Lead. Heather recently filled the same role on the I-540 Western Wake Freeway where, among other things, she worked with Construction Manager John Bridge in coordinating with multiple owners and agencies to execute more than 100 significant utility-relocations. Tom has more than 30 years of experience in the design and construction of major transportation projects. Moreover, his experience with multiple, major utility relocations for complex D-B projects, such as the ICC Contracts A and B in Maryland and his recent experience with Loudoun Water and IAD makes him ideal for his role. In addition, Schnabel's recent experience with Loudoun Water on their new intake facility provides further insight into their needs, concerns, and processes.

The project area includes several private utilities as well as public water, sanitary sewer, and power lines. Our experienced full-time project Utilities Coordinator mitigates this risk. Heather will facilitate ongoing communication with the various utility owners. She will ensure that the AWC team understands the design, construction, and property rights requirements of each utility and that each utility has the information necessary for it to be responsive. Heather and the rest of the AWC team understand that there is no one size-fits-all solution for utility companies; each has specific administrative, procedural, and technical requirements. Adhering to these requirements mitigates the risk in coordinating with the utility companies. As an example, the AWC team will not overlook each utility's unique need for access to its facilities during construction and for access upon project completion.

Another part of this coordination effort will be to ensure accuracy and completeness in locating existing utilities. An early activity will be the AWC team's review of the existing utility information provided by VDOT. This information will be supplemented by a review of utility records, subsurface utility designating to Quality Level B, and subsurface utility locating to Quality Level A (test pits), as appropriate. The resulting utility survey will be provided to each utility company for its review and concurrence. Identifying the location of existing utilities will allow the design team to avoid utility relocations, to the greatest extent possible; as well as ensuring there are no unexpected conflicts. Our recent experience on

the I-395 HOV Ramp and Auxiliary Lane project for VDOT shows the importance of early coordination with the utility owners as well as adjacent projects that may have found unknown conflicts or abandoned utilities.

Coordination with adjacent property owners and projects will also be a key component of Heather's day to day activities. Project neighbors include Loudoun Water, NOAA, IAD, Dulles Metrorail Silver Line Phase II, and others. Heather will be actively involved with the design and onsite during construction, affording her the opportunity to reach out early and often to establish relationships with key abutters, utilities, and adjacent projects. As part of this effort, she will schedule and lead periodic meetings to review design concerns and work activities.

Of particular note is the need for coordination with the Dulles Metrorail Silver Line Phase II project, which includes a new Metro station at the Route 606 interchange. Early coordination with this effort is needed to ensure smooth construction, including full directional access to Dulles Greenway (TRIP II); and to eliminate any potential conflicts that could cause rework or delays. As the lead designer for the Capital Transit Partners team, the design-builder of the Dulles Metrorail Silver Line Phase II project, Parsons will ensure smooth coordination of efforts throughout the design and construction of both projects.

Acquisition of needed ROW calls for having an experienced ROW manager on the team such as Paul Schray who will help to minimize any impacts to the project schedule associated with this activity. Paul has more than 27 years of experience in the acquisition of property for public transportation projects and is a VDOT prequalified ROW contracting consultant. Paul has completed the acquisition process for more than 1,000 parcels in the area for multiple projects, including the Woodrow Wilson Bridge Project, Fairfax County Parkway Extension, and Sudley Manor Drive Reconstruction.

VDOT's Role – It is the design-builder's responsibility to coordinate design and construction activities with adjacent roadway projects, abutters, and utilities; including ROW acquisitions and easements. The team's experience with and sensitivity to working in multi-stakeholder environments will ensure proper and timely coordination, particularly in utility coordination and relocation, and will allow this effort to proceed smoothly. VDOT's role will be limited to normal review and approval of construction drawings.

5.

Appendices

A

The SOQ
Checklist

ATTACHMENT 3.1.2

Project: 0606-053-983, P101

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

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

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Statement of Qualifications Checklist and Contents	Attachment 3.1.2	Section 3.1.2	No	Appendix A
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	No	Appendix B
Letter of Submittal (on Offeror's letterhead)				
Authorized Representative's signature	NA	Section 3.2.1	yes	2
Offeror's point of contact information	NA	Section 3.2.2	yes	1
Principal officer information	NA	Section 3.2.3	yes	2
Offeror's Corporate Structure	NA	Section 3.2.4	yes	2
Identity of Lead Contractor and Lead Designer	NA	Section 3.2.5	yes	2
Affiliated/subsidiary companies	Attachment 3.2.6	Section 3.2.6	no	2 and Appx. C
Debarment forms	Attachment 3.2.7(a) Attachment 3.2.7(b)	Section 3.2.7	No	2 and App. D
Offeror's VDOT prequalification evidence	NA	Section 3.2.8	No	2 and Appx. E

ATTACHMENT 3.1.2

Project: 0606-053-983, P101

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Evidence of obtaining bonding	NA	Section 3.2.9	no	2 and App. F
SCC and DPOR registration documentation (Appendix)	Attachment 3.2.10	Section 3.2.10	no	Appendix H
Full size copies of SCC Registration	NA	Section 3.2.10.1	no	H-2
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	no	H-12
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	no	H-16
Full size copies of DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.10.4	no	N/A
DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	2
Offeror's Team Structure				
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	3
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Appx. I-1
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	Appx. I-3
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	Appx. I-5
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	Appx. I-7
Key Personnel Resume – Lead Geotechnical Engineer	Attachment 3.3.1	Section 3.3.1.5	no	Appx. I-9

ATTACHMENT 3.1.2

Project: 0606-053-983, P101

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Key Personnel Resume – Dam Design and Construction Specialist (optional)	Attachment 3.3.1	Section 3.3.1.6	no	Appx. I-11 through 16
Organizational chart	NA	Section 3.3.2	yes	9
Organizational chart narrative	NA	Section 3.3.2	yes	6
Experience of Offeror’s Team				Appendix J
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	J-1
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	J-4
Dam Construction Work History Form	Attachment 3.4.1(c)	Section 3.4	no	J-7
Dam Design Work History Form	Attachment 3.4.1(d)	Section 3.4	no	J-8
Project Risk				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	12

B

Form C-78-RFQ

ATTACHMENT 2.10

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

RFQ NO. C00097529DB64
PROJECT NO.: 0606-053-983, P101

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 07/12/2013
(Date)
2. Cover letter of RFQ Addendum No. 1 08/09/2013
(Date)
3. Cover letter of _____
(Date)

Michael D. Manning
SIGNATURE

August 27, 2013
DATE

C

List of Affiliated
and Subsidiary
Companies

ATTACHMENT 3.2.6

State Project No. 0606-053-983

Affiliated and Subsidiary Companies of the Offeror

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

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

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
Affiliate	Archer Western Contractors, LLC	2410 Paces Ferry Rd, Suite 600, Atlanta, GA 30339
Affiliate	Walsh Construction Company, LLC	929 West Adams, Chicago, IL 60607
Affiliate	Walsh Construction Company II, LLC	929 West Adams, Chicago, IL 60607
Affiliate	Walsh Construction Company of Canada	800 Bay Street, Suite 401, Toronto, ON M5S 3A9
Affiliate	RL Brosamer, Inc.	1777 Oakland Blvd, Walnut Creek, CA 94596

D

Debarment Forms

ATTACHMENT NO. 3.2.7(a)

**CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS**

Project No.: 0606-053-983

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.

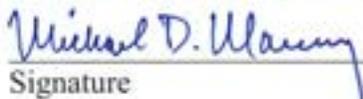
b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under 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.

	August 27, 2013	Vice President
Signature	Date	Title

Archer Western Construction, LLC
Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0606-053-983

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.

<u>Stephen Warr</u>	<u>August 8, 2013</u>	<u>Vice President</u>
Signature	Date	Title

Parsons Transportation Group Inc. of Virginia
Name of Firm

ATTACHMENT NO. 3.2.7(b)

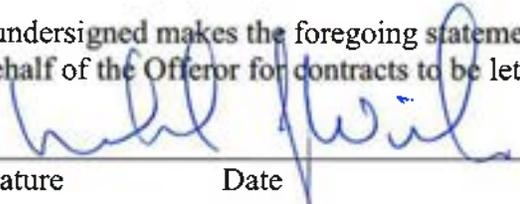
**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0606-053-983

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
Title

A. Morton Thomas and Associates, Inc.

Name of Firm

ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0606-053-983

- 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 participation shall attach an explanation to this proposal.

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

	8/7/13	President
Signature	Date	Title

Accompong Engineering Group LLC

Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0606-053-983

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.

Thomas Byrnes August 6, 2013 President
Signature Date Title

Athavale, Lystad & Associates, Inc.
Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0606-053-983

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.

Paul Schrey 8-13-13 ROW PROGRAM MGR
Signature Date Title
CONTINENTAL ACQUISITION SERVICES, INC.
dba CONTINENTAL FIELD SERVICE
Name of Firm

ATTACHMENT NO. 3.2.7(b)

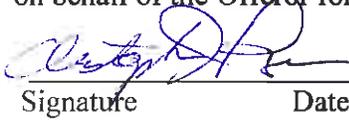
**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0606-053-983

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

August 6, 2013

Date

Senior Vice President/Regional Manager

Title

MBP

Name of Firm

ATTACHMENT NO. 3.2.7(b)

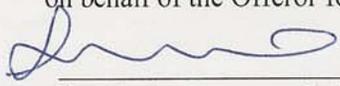
**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0606-053-983

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.

 08/12/13 _____
Signature Date Title

PRIME Engineering, Inc.

Name of Firm

ATTACHMENT NO. 3.2.7(b)

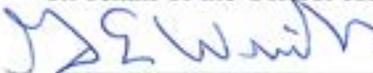
**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0606-053-983

- 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.

	<u>August 6, 2013</u>	<u>Sr. Vice President</u>
Signature	Date	Title

Schnabel Engineering Consultants, Inc.
Name of Firm

E

Offeror's VDOT
Prequalification
Certificate

TRANSPORT - E22
LSPPREQ

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PREQUALIFIED VENDORS SORTED BY VENDOR NAME
THIS LIST INCLUDES ALL PREQUALIFIED LEVELS
AS OF 05/10/2013
- A -

05/10/2013
2:03 PM
PAGE 23

=====

A210
ARCHER WESTERN CONSTRUCTION, LLC
PREQ. EXP : 01/31/2014

--PREQ ADDRESS ----- WORK CLASSES (LISTED BUT NOT LIMITED TO)
2410 PACES FERRY ROAD, SUITE 600 002 - GRADING
ATLANTA, GA 30339 003 - MAJOR STRUCTURES
PHONE : 404-495-8700 006 - PORTLAND CEMENT CONCRETE PAVING
FAX : 404-495-8701 007 - MINOR STRUCTURES

BUSINESS CONTACT: GILLIS, DONALD ALAN
EMAIL: DGILLIS@WALSHGROUP.COM

-----DBE INFORMATION-----

DBE TYPE : N/A
DBE CONTACT: N/A

=====

F

Surety Letter



Travelers Bond
215 Shuman Blvd., Naperville, IL 60563
Telephone: (630) 961-7052
Fax: (630) 961-7020

August 13, 2013

**RE: Route 606 Loudoun County Parkway/Old Ox Road
Reconstruction and Widening
From: Route 621 Evergreen Mills Road
To: Route 267 Dulles Greenway**

To Whom It May Concern:

As surety for **Archer Western Construction, LLC, Travelers Casualty and Surety Company of America** with A.M. Best Financial Strength Rating A+ and Financial Size Category XIV is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction, and said bonds will cover the Project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this Project.

Travelers Casualty and Surety Company of America's commitment to provide bonds is subject to our review and approval of acceptable contract terms, conditions and bond forms.

Should you have any questions, or need additional information, please feel free to contact me.

Yours truly,
Travelers Casualty and Surety Company of America

Kerry Pecora, Attorney-in-fact



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. 225482

Certificate No. 005426405

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 Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Brian R. Walsh, J. William Ernstrom, Jodi Wallace, and Kerry Pecora

of the City of Chicago, State of Illinois, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 26th day of March, 2013

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

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



State of Connecticut
City of Hartford ss.

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

On this the 26th day of March, 2013, 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, 2016.



[Signature]
Marie C. Tetreault, Notary Public

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

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 13 day of August, 2013.

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

Kevin E. Hughes
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.

G

SCC and DPOR
Information Tables

ATTACHMENT 3.2.10

State Project No. 0606-053-983

SCC and DPOR Information

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

SCC & DPOR INFORMATION FOR BUSINESSES (RFQ Sections 3.2.10.1 and 3.2.10.2)							
Business Name	SCC Information (3.2.10.1)			DPOR Information (3.2.10.2)			
	SCC Number	SCC Type of Corporation	SCC Status	DPOR Registered Address	DPOR Registration Type	DPOR Registration Number	DPOR Expiration Date
Archer Western Construction, LLC	T0437006	Foreign LLC	Active	929 W Adams St Chicago, IL 60607	Contractor Class A	2705141795	7/31/2015
Parsons Transportation Group Inc. of Virginia	01626175	Corporation	Active	3926 Pender Dr. Suite 100 Fairfax, VA 22030	Engineering	0405001589	12/31/2013
				100 M Street SE Washington, DC 20003	Engineering	0410000214	02/28/2014
A. Morton Thomas and Associates, Inc.	F049431-2	S-Corp.	Active	14900 Conference Center Drive, Suite 180 Chantilly, Virginia 20151	Engineering	0411000586	02/28/2014
				12750 Twinbrook Parkway Rockville, MD 20852	Engineering	0407003077	12/31/2013
				100 Gateway Centre Pkwy Suite 200 Richmond, VA 23235	Engineering	0411000587	2/28/2014
Accompong Engineering Group, LLC	S2835215	Limited Liability Company	Active	9510 Iron Bridge Rd Suite 200 Chesterfield, VA 23832	Engineering	0407005442	12/31/2013
Athavale, Lystad & Associates, Inc.	F0605842	Foreign Corporation	Active	8180 Greensboro Drive #550 Mclean, VA 22102	Engineering	0407002804	12/31/2013
Continental Acquisition Services, Inc. (d.b.a. Continental Field Service, Inc.)	F1674896	Foreign Corporation	Active	N/A	N/A	N/A	N/A

ATTACHMENT 3.2.10

State Project No. 0606-053-983

SCC and DPOR Information

McDonough Bolyard Peck, Inc.	03518008	Corporation	Active	3040 Williams Drive, Ste. 300 Fairfax, VA 22031	Engineering	0407002955	12/31/2013
PEI Engineers, Inc. <i>(d.b.a. Prime Engineering, Inc.)</i>	F1770793	Foreign Corporation	Active	300 Red Brook Blvd Suite 410 Owings Mills, MD 21117	Engineering	0407005609	12/31/2013
Schnabel Engineering Consultants, Inc.	07126741	Corporation	Active	46020 Manekin Plaza, Suite 110, Steling, VA 20166	Engineering	0411000701	02/28/2014

DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)

Business Name	Individual's Name	Office Location Where Professional Services will be Provided (City/State)	Individual's DPOR Address	DPOR Type	DPOR Registration Number	DPOR Expiration Date
Parsons Transportation Group Inc. of Virginia	Joshua Wade, PE	Fairfax, VA	43346 Riverpoint Dr. Leesburg, VA 20176	Professional Engineer	0402032924	01/31/2015
McDonough Bolyard Peck, Inc.	Ali Abdolahi, PE, CCM	Fairfax, VA	3040 Williams Drive, Ste. 300 Fairfax, VA 22031	Professional Engineer	0402031852	01/31/2014
Schnabel Engineering Consultants, Inc.	Greg Paxson, PE	Fairfax, VA	120 W Union Street West Chester, PA	Professional Engineer	0402045700	06/30/2015

H

Full size SCC and
DPOR supporting
registration/ license
documentation

Virginia State Corporation Commission (SCC) Licensure



SCC eFile > Entity Search > Entity Details

Login | Create an Account



SCC eFile Business Entity Details

Help

Archer Western Construction, LLC

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

General

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

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](#)

Principal Office

929 W ADAMS ST
 CHICAGO IL60607

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

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

Screen ID: e1000

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

PDF(.pdf) Reader
 Excel (.xls) Viewer
 PowerPoint (.ppt) Viewer
 Word (.doc) Viewer
 Build #: 1.0.0.30043

Commonwealth OF Virginia



State Corporation Commission

I Certify the Following from the Records of the Commission:

PARSONS TRANSPORTATION GROUP INC. OF VIRGINIA is a corporation existing under and by virtue of the laws of Virginia, and is in good standing.

The date of incorporation is November 07, 1975.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
March 18, 2010*

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



STATE CORPORATION COMMISSION

Richmond, February 17, 2009

This is to certify that the certificate of organization of

Accompong Engineering Group, LLC

was this day issued and admitted to record in this office and that the said limited liability company is authorized to transact its business subject to all Virginia laws applicable to the company and its business. Effective date: February 17, 2009



State Corporation Commission

Attest:

Joel H. Beck
Clerk of the Commission

Commonwealth of Virginia



State Corporation Commission

I Certify the Following from the Records of the Commission:

A. MORTON THOMAS & ASSOCIATES, INC., a corporation existing under the laws of MARYLAND, holds a certificate of authority to transact business in Virginia, and is in good standing.

The certificate was issued on November 26, 1997.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
August 20, 2009*

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

Commonwealth OF Virginia



State Corporation Commission

I Certify the Following from the Records of the Commission:

ATHAVALE, LYSTAD & ASSOCIATES, INC., a corporation existing under the laws of MARYLAND, holds a certificate of authority to transact business in Virginia, and is in good standing.

The certificate was issued on March 02, 1989.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
August 24, 2009*

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



[SCC eFile](#) > [Entity Search](#) > Entity Details

[Login](#) | [Create an Account](#)



SCC eFile Business Entity Details

[Help](#)

Continental Acquisition Services, Inc.

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

General

SCC ID: F1674896
Entity Type: Foreign Corporation
Jurisdiction of Formation: NY
Date of Formation/Registration: 7/14/2006
Status: Active
Shares Authorized: 200

Select an action

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

Principal Office

PO BOX 915
BEDFORD NY10506

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

Registered Agent/Registered Office

NATIONAL REGISTERED AGENTS INC
4701 COX ROAD
SUITE 301
GLEN ALLEN VA 23060
HENRICO COUNTY 143
Status: Active
Effective Date: 3/26/2012

Screen ID: e1000

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

We provide external links throughout our site.

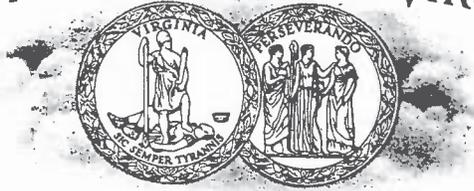
[PDF\(.pdf\) Reader](#) [Excel \(.xls\) Viewer](#) [PowerPoint \(.ppt\) Viewer](#) [Word \(.doc\) Viewer](#)

Build #: 1.0.0.30043

McDonough Bolyard Peck, Inc.

PRESTON C. SHANNON
CHAIRMAN
THEODORE V. MORRISON, JR.
COMMISSIONER
THOMAS P. HARWOOD, JR.
COMMISSIONER

COMMONWEALTH OF VIRGINIA



GEORGE W. BRYANT, JR.
CLERK OF THE COMMISSION
BOX 1197
RICHMOND, VIRGINIA 23209
TDD/VOICE: (804) 225-3806

STATE CORPORATION COMMISSION

February 26, 1990



THOMAS C. BROWN, JR.
Suite 900
8280 Greensboro Drive
McLean, VA 22102

RE: MCDONOUGH BOLYARD PECK, INC.
ID: 0351800 - 8
DCN: 90-02-26-2310

This will acknowledge receipt of an attested copy of an assumed or fictitious name certificate for the captioned corporation conducting business under the assumed or fictitious name(s) of:

MCDONOUGH BOLYARD PECK

The filing fee of \$10.00 has been received.

Sincerely yours,

George W. Bryant, Jr.
Clerk of the Commission

FICTACPT
CIS20436

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, January 11, 2010

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

PEI Engineers, Inc. (USED IN VA BY: Prime Engineering, Inc.)

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



State Corporation Commission

Attest:

Joel H. Beck
Clerk of the Commission

Commonwealth of Virginia



State Corporation Commission

I Certify the Following from the Records of the Commission:

Schnabel Engineering Consultants, Inc. is a corporation existing under and by virtue of the laws of Virginia, and is in good standing.

The date of incorporation is August 12, 2009.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
November 17, 2009*

Joel H. Peck

Joel H. Peck, Clerk of the Commission

Virginia Department of Professional and Occupational Regulations (DPOR) Licensure

Archer Western Construction, LLC

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
07-31-2015

NUMBER
2705141795

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

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



Gordon N. Dixon
Gordon N. Dixon, Director

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Parsons Transportation Group Inc. of Virginia – Fairfax, Virginia

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
12-31-2013

NUMBER
0405001589

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

PROFESSIONS: ENG

PARSONS TRANSPORTATION GROUP INC OF VIRGINIA
3926 PENDER DR STE 100
FAIRFAX, VA 22030



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Gordon N. Dixon, Director

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Parsons Transportation Group Inc. of Virginia – Washington, D.C.

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-28-2014

NUMBER
0410000214

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
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PROFESSIONAL CORPORATION BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG

PARSONS TRANSPORTATION GROUP INC OF VIRGINIA
100 M STREET SE
WASHINGTON, DC 20003



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A. Morton Thomas and Associates, Inc. – Chantilly, Virginia

**DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA**
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-28-2014

NUMBER
0411000586

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

PROFESSIONS: LS, ENG

**A MORTON THOMAS AND ASSOCIATES INC
14900 CONFERENCE CENTER DR STE 180
CHANTILLY, VA 20151**



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Gordon N. Dixon, Director

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A. Morton Thomas and Associates, Inc. – Rockville, Maryland

**DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA**
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
12-31-2013

NUMBER
0407003077

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

PROFESSIONS: ENG, LS, LA

**A MORTON THOMAS AND ASSOCIATES INC
12750 TWINBROOK PARKWAY
ROCKVILLE, MD 20852**



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Gordon N. Dixon, Director

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A. Morton Thomas and Associates, Inc. – Richmond, Virginia

**DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA**
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-28-2014

NUMBER
0411000587

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

PROFESSIONS: ENG, LS

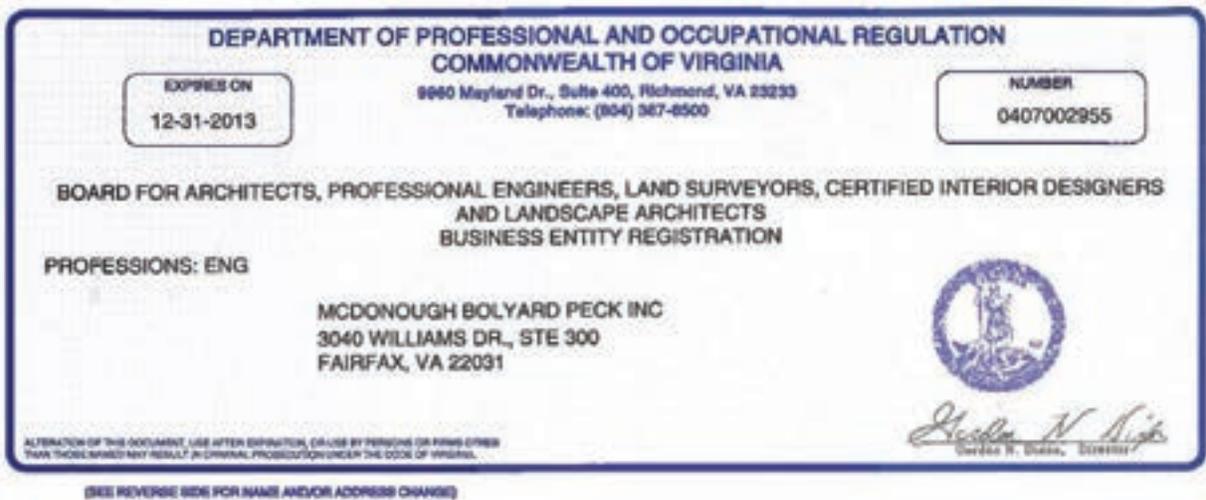
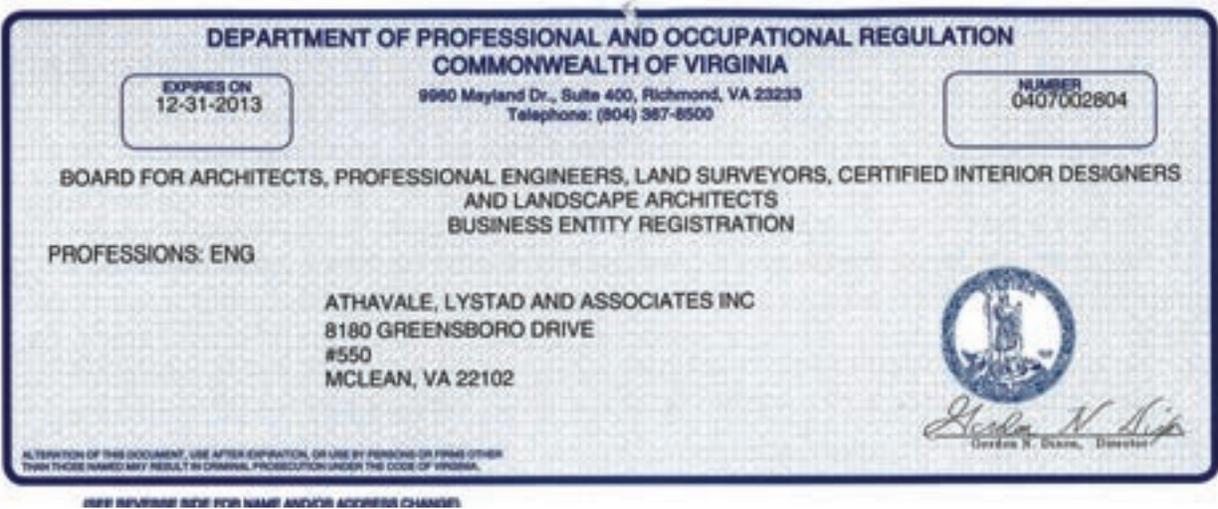
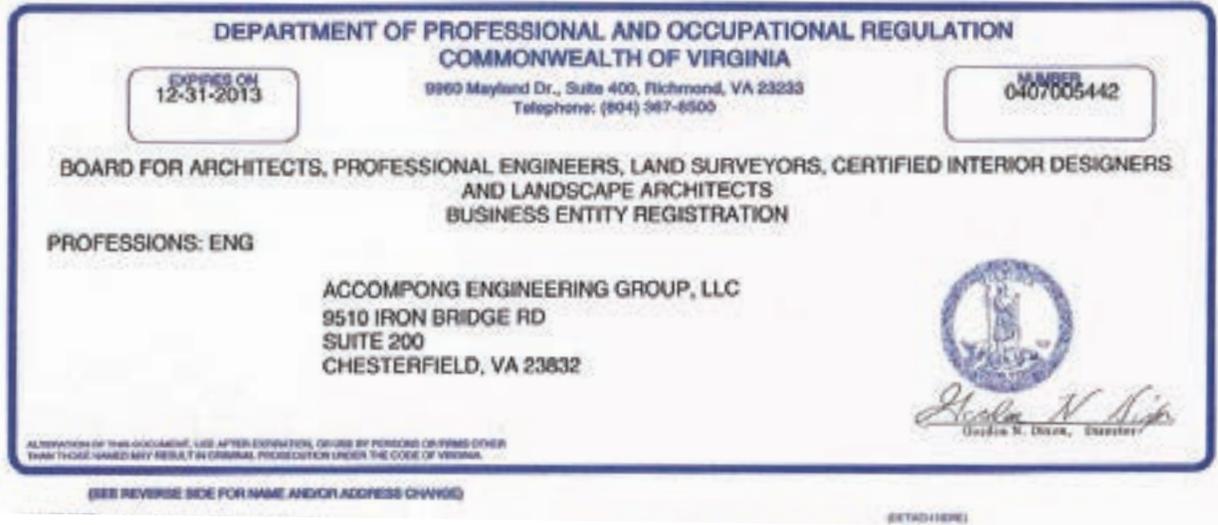
**A MORTON THOMAS AND ASSOCIATES INC
100 GATEWAY CENTRE PKWY
SUITE 200
RICHMOND, VA 23235**



Gordon N. Dixon
Gordon N. Dixon, Director

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PEI Engineers, Inc. (d.b.a. PRIME Engineering, Inc.)

**DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA**

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

EXPIRES ON: 12-31-2013 NUMBER: 0407005609

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AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY REGISTRATION

PROFESSIONS: ENG

PRIME ENGINEERING, INC
PEI ENGINEERS, INC
300 RED BROOK BLVD
SUITE 410
OWINGS MILLS, MD 21117



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Gordon N. Dixon, Director

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

Schnabel Engineering Consultants, Inc.

**DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA**

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

EXPIRES ON: 02-28-2014 NUMBER: 0411000701

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

PROFESSIONS: ENG

SCHNABEL ENGINEERING CONSULTANTS, INC
46020 MANEKIN PLAZA
SUITE 110
STELING, VA 20166

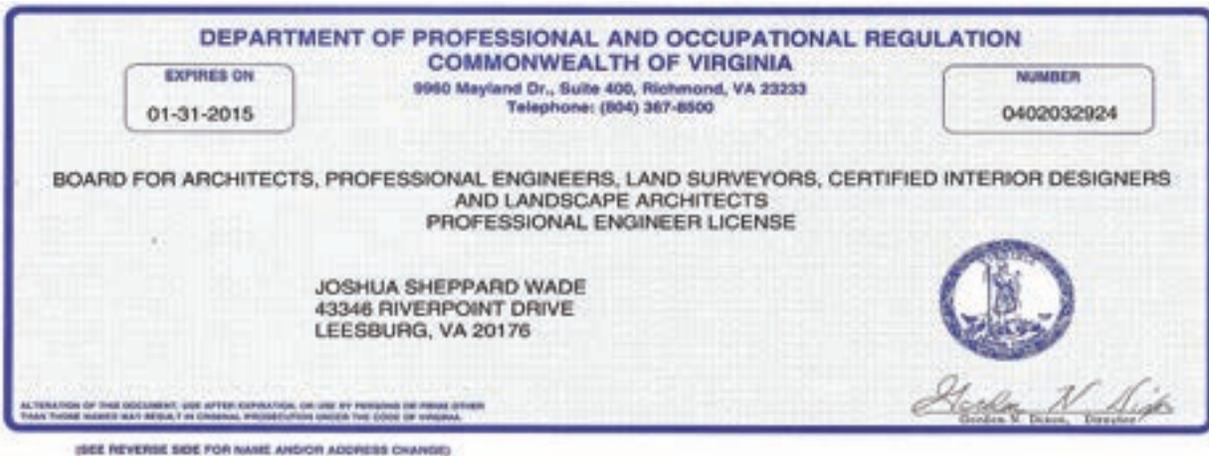


Gordon N. Dixon
Gordon N. Dixon, Director

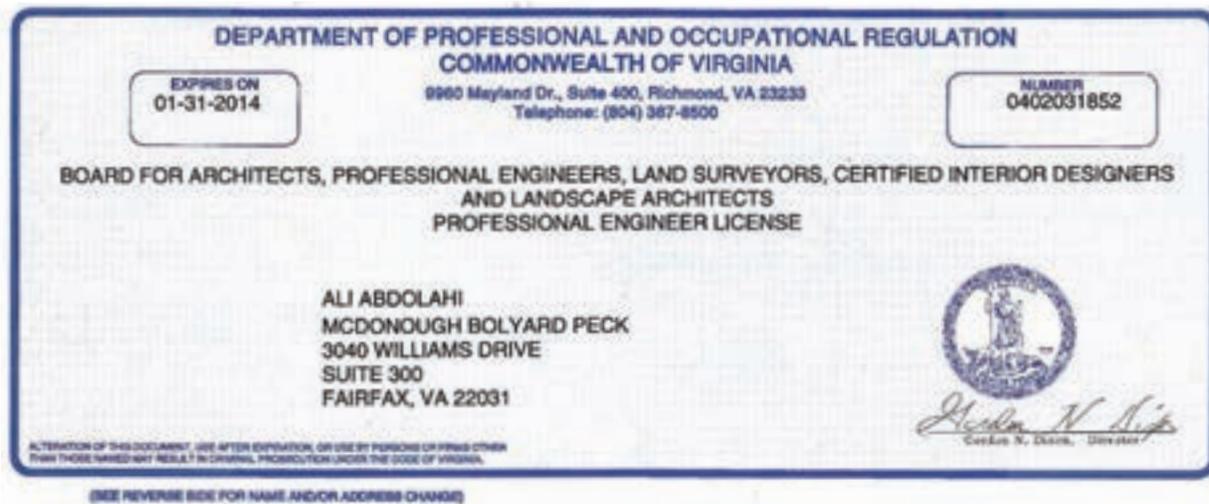
ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OR FIRMS OTHER THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.

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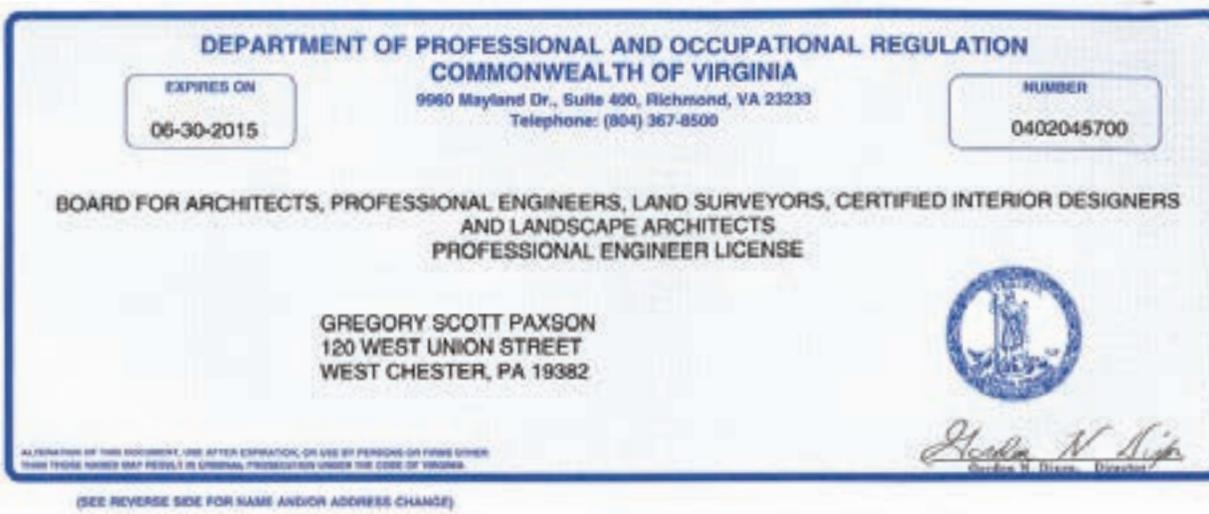
Joshua Wade, PE – Design Manager



Ali Abdolahi, PE, CCM – Quality Assurance Manager



Greg Paxson, PE – Lead Geotechnical and Pavement



I

Key Personnel Resume Forms

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.																			
a. Name & Title:	Brian Quinlan, PE, Senior Project Manager																		
b. Project Assignment:	Design-Build Project Manager																		
c. Name of Firm with which you are now associated:	Archer Western Construction, LLC																		
d. Years of experience: With this Firm <u>5</u> Years With Other Firms <u>29</u> Years Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked.):	Senior Project Manager, Heavy Civil Construction, Archer Western, 2008 to Present Operations Manager, Heavy Civil Construction, Cherry Hill Construction, 2005 to 2008 Operations Manager/Project Manager, Heavy Civil Construction, Condotte America, 1998 to 2005 Project Manager, Heavy Civil Construction, Perini Corporation, 1993 to 1998																		
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:	University of Maryland, College Park, MD, Masters, 2006, Business Administration Georgia Tech, Atlanta, GA, Bachelor of Science, 1979, Civil Engineering																		
f. Active Registration: Year First Registered/ Discipline/VA Registration #:	Professional Engineer VA: 1999/Civil/0402033291																		
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each assignment.</i> (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)	<p>VDOT I-395 HOV RAMP AT SEMINARY ROAD AND NB AUXILIARY LANE EXTENSION, Alexandria, VA</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Name of Firm:</td> <td style="width: 30%;">Archer Western</td> <td rowspan="4" style="width: 40%; background-color: #e0f0ff; padding: 5px;">RELEVANCE: VDOT ▪ Design Build ▪ Same role ▪ Same designer (Parsons) ▪ Road widening ▪ Multiphase MOT ▪ Sensitive Community Interface ▪ Commercial Abutters ▪ Noise Walls</td> </tr> <tr> <td>Dates:</td> <td>2012 – May 19, 2016</td> </tr> <tr> <td>Project Role:</td> <td>Design-Build Project Manager</td> </tr> <tr> <td>Construction Value:</td> <td>\$55 Million</td> </tr> </table> <p>Brian's specific responsibilities and authorities as the DBPM include overall responsibility for design and construction of the project and supervision of the Design Manager, Construction Manager, QA Manager, ROW Manager, Public Relations Manager, and Safety Manager, which he accomplishes through supervision of the estimating process, direction of the design effort, and oversight of construction. His specific tasks included development of bid and construction design concepts, management of the estimating team; coordination and management of subcontract and supplier solicitation, negotiation, and award; selection of salaried staff; selection of means and methods for self-performed work; cost control for self-performed work; development of the project schedule and the QC plan; and issue resolution with VDOT. The project purpose is rehabilitation of the Seminary Road Bridge, a new HOV Ramp to Seminary Road, and widening and reconstruction of I-395 northbound. As part of the bridge rehabilitation, Brian championed the value-added idea to replace the existing structural steel instead of the repairs/repainting required by the solicitation. He also led in the development of cost-effective designs for retaining walls and noise walls that are key components of the roadway widening. Specific features of work included expressway and local street MOT, bridge demolition, bridge construction, roadway reconstruction and widening, and retaining wall construction.</p> <p>MdSHA ROUTE 5 HUGHESVILLE BYPASS, Hughesville, MD</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Name of Firm:</td> <td style="width: 30%;">Cherry Hill</td> <td rowspan="4" style="width: 40%; background-color: #e0f0ff; padding: 5px;">RELEVANCE: Reconstruction and widening of existing highway ▪ Multiphase MOT ▪ Utility coordination ▪ Local street access coordination ▪ Challenging SWM requirements ▪ Similar role</td> </tr> <tr> <td>Dates:</td> <td>2006 – 2008</td> </tr> <tr> <td>Project Role:</td> <td>Bid-Build Project Manager</td> </tr> <tr> <td>Construction Value:</td> <td>\$56 Million</td> </tr> </table> <p>Brian's specific responsibilities and authorities included overall responsibility for construction of the project and supervision of the Construction Manager and Safety Manager. His specific tasks included coordination and</p>	Name of Firm:	Archer Western	RELEVANCE: VDOT ▪ Design Build ▪ Same role ▪ Same designer (Parsons) ▪ Road widening ▪ Multiphase MOT ▪ Sensitive Community Interface ▪ Commercial Abutters ▪ Noise Walls	Dates:	2012 – May 19, 2016	Project Role:	Design-Build Project Manager	Construction Value:	\$55 Million	Name of Firm:	Cherry Hill	RELEVANCE: Reconstruction and widening of existing highway ▪ Multiphase MOT ▪ Utility coordination ▪ Local street access coordination ▪ Challenging SWM requirements ▪ Similar role	Dates:	2006 – 2008	Project Role:	Bid-Build Project Manager	Construction Value:	\$56 Million
Name of Firm:	Archer Western	RELEVANCE: VDOT ▪ Design Build ▪ Same role ▪ Same designer (Parsons) ▪ Road widening ▪ Multiphase MOT ▪ Sensitive Community Interface ▪ Commercial Abutters ▪ Noise Walls																	
Dates:	2012 – May 19, 2016																		
Project Role:	Design-Build Project Manager																		
Construction Value:	\$55 Million																		
Name of Firm:	Cherry Hill	RELEVANCE: Reconstruction and widening of existing highway ▪ Multiphase MOT ▪ Utility coordination ▪ Local street access coordination ▪ Challenging SWM requirements ▪ Similar role																	
Dates:	2006 – 2008																		
Project Role:	Bid-Build Project Manager																		
Construction Value:	\$56 Million																		

management of subcontract and supplier solicitation, negotiation, and award; selection of salaried staff; selection of the means and methods for self-performed work; cost control for self-performed work; development of the project schedule; and problem resolution with MSHA. The project purpose was to construct a new four lane median-divided bypass around Hughesville and to upgrade the existing roadway through Hughesville. Specific features of work included highway and street MOT; structure demolition; utility relocation; overpass construction; highway construction, reconstruction, and widening; retaining wall construction sound wall construction local street reconstruction including a new rotary; temporary and permanent stormwater management facilities construction and maintenance; and landscaping.

MDX DESIGN-BUILD SR 836 DOLPHIN EXPRESSWAY AND FLORIDA’S TURNPIKE INTERCHANGE RECONSTRUCTION, Miami, FL

Name of Firm: Condotte America
Dates: 2003 – 2005
Project Role: Design-Build Project Manager
Construction Value: \$36 Million

RELEVANCE: Design-build ▪ Same role ▪ Multiphase MOT ▪ Bridge work ▪ Utility coordination/relocation

Brian’s specific responsibilities and authorities as the DBPM included overall responsibility for the design and construction of the project and supervision of the Design Manager, Construction Manager, Quality Manager, and Safety Manager. His specific tasks included development of bid and construction design concepts; oversight of the designers; coordination and management of subcontract and supplier solicitation, negotiation, and award; selection of salaried staff; selection of the means and methods for self-performed work; cost control for self-performed work; development of the project schedule and quality management plan; and problem resolution with MDX. One of three Condotte projects that Brian supervised on this corridor upgrade/extension program, this project’s purpose was to reconstruct the SR 386/Florida’s Turnpike interchange to increase capacity by adding lanes (widening) and improving geometry. The specific features of the work included urban expressway and local street MOT, utility relocation, bridge demolition, bridge construction, roadway construction, retaining wall construction, SWM ponds, and landscaping.

VDOT DESIGN-BUILD ROUTE 895 POCAHONTAS PARKWAY, Richmond, VA

Name of Firm: Condotte America
Dates: 1999 – 2002
Project Role: Construction Manager
Construction Value: \$115 Million(subcontract)

RELEVANCE: VDOT design-build ▪ Multiphase MOT ▪ Utility coordination ▪ Contractor QC

As Construction Manager for Condotte, Brian’s specific responsibilities and authorities included the day-to-day direction of all construction activities through supervision of the General Superintendent, Site Safety Officer, and engineering staff. His specific tasks included coordination and constructability reviews of bridge design; coordination and management of construction engineering for segmental operations; coordination and management of subcontractor and supplier solicitation, negotiation, award, and contract administration; selection of the means and methods for self-performed work; cost control for self-performed and subcontracted work; development and maintenance of the critical path method construction schedule; equipment procurement; material procurement; and daily interaction with the Fluor Daniel/Morrison Knudsen Project Manager, the VDOT QA representative, and the QC Manager. The project purpose was to extend Route 150 from I-95 to I-295, which included the construction of a new high-level crossing of I-95 and the James River, plus a three-ramp expansion of the existing I-95/Rte. 150 interchange. Specific features of work included expressway and street MOT, mainline and ramp bridge construction, and large diameter drilled shaft foundations.

USACE Lock and Dam #5 on the Red River, Shreveport, LA

Name of Firm: Perini/O&G JV
Dates: 1993 – 1994
Project Role: Construction Manager
Construction Value: \$112 Million

RELEVANCE: High Hazard Dam ▪ Earthen dam construction ▪ Concrete dam and spillway construction ▪ Massive earthworks ▪ Extensive dewatering system ▪ Contractor QC

As Construction Manager, Brian’s specific responsibilities and authorities included the day-to-day direction of all construction activities through the supervision of the General Superintendent, Engineering Manager, Project Controller, Site Safety Officer, and QC Manager. His specific tasks included coordination and management of subcontractors and suppliers; selection of the means and methods for self-performed work; cost control for self-performed and subcontracted work; management of the Contractor Quality Program, maintenance of the CPM construction schedule; equipment procurement; material procurement; and daily interaction with the Corps of Engineers. The project purpose was to build a new lock and dam on the Red River for navigation purposes. Specific features of work included a concrete dam with five tainter gates and a hinged crest gate, an 84’ by 705’ navigation lock, and an armored clay-core earthen dam across the old channel. The project included 13,000,000 CY of embankment, and 1,000,000 tons of rip rap, and 200,000 CY of job-batched concrete. Brian was the Project QC Manager in 1992, prior to being promoted to Construction Manager.

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title: Ali Abdolahi, PE, CCM, Project Manager	
b. Project Assignment: Quality Assurance Manager	
c. Name of Firm with which you are now associated: McDonough Bolyard Peck, Inc. (MBP)	
d. Years experience: With this Firm <u>19</u> Years With Other Firms <u>12</u> Years Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen(15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked.): MBP, 1993 – Present: Senior Engineer and Project Manager – Ali has more than 30 years of experience in field engineering and contract administration for sitework, highways, utilities, buildings, and residential construction. He has experience as a design-build QAM and as a VDOT Construction Manager. He has also performed constructability reviews and pre-construction cost estimate/budget reviews. He is certified by VDOT to perform concrete, asphalt, soils, nuclear testing, and erosion control inspections and by USACE in CQM.	
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Tech, Blacksburg, VA, MS, 2003, Architecture/Construction Management Florida International University, Miami, FL, BS, 1981, Construction Engineering	
f. Active Registration: Year First Registered/ Discipline/VA Registration #: Professional Engineer VA: 1998/Civil/0402031852 Certified Construction Manager: 2006	
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each assignment.</i> (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)	
VDOT ROUTE 147 HUGUENOT BRIDGE OVER JAMES RIVER, Richmond, VA	
Name of Firm: MBP	RELEVANCE: VDOT ▪ Bridge work ▪ Roadway construction ▪ Similar role
Dates: 2012 – 2013	
Project Role: VDOT Construction Manager	
Construction Value: \$38 Million	
VDOT Construction Manager supervising the consulting team providing construction inspection and testing to ensure all materials used and work performed are in conformance with the Contract plans and specifications. He manages the Lead Inspector and inspection staff, provides documentation control, approves progress payments, and reviews CPM schedule updates. This multiphase project requires significant coordination with commercial establishments at each end of the heavily utilized suburban bridge over the James River, as well as protection of Native American artifacts of historical significance.	
VDOT FAIRFAX COUNTY PARKWAY (ROUTE 7100) DESIGN-BUILD, Fairfax, VA	
Name of Firm: MBP	RELEVANCE: VDOT ▪ Design-build ▪ Same role ▪ Bridge work ▪ Contractor QA/QC ▪ Roadway construction ▪ Multi-purpose trail
Dates: 2008 – 2011	
Project Role: Quality Assurance Manager	
Construction Value: \$107 Million	
Quality Assurance Manager responsible for providing for the QA inspection and testing of all materials used and	

work performed, including monitoring the contractor's QC program. Ensured all work and materials, testing, and sampling were performed in conformance with "approved for construction" plans and specifications. Developed, implemented, and enforced the design-build QA/QC plan. This design-build project required construction of the Fairfax County Parkway between Rolling Road and Fullerton Road, running approximately 1.5 miles through the western and southern portions of Fort Belvoir. The project included the construction of a four-lane, divided, limited access highway; relocation of portions of Hooes Road and Rolling Road; construction of a multi-purpose trail; and construction of interchanges and bridges.

PRINCE WILLIAM COUNTY PARKWAY, Manassas, VA

Name of Firm: MBP
Dates: 2011 - 2012
Project Role: Project Manager
Construction Value: \$13.5 Million

RELEVANCE: Similar role ▪ QA ▪ County interface ▪ Widening of existing road ▪ Multi-Phase MOT ▪ Multi-Use Trail

As Project Manager, serves as the main point of contact to coordinate inspection assignments with County staff. Meets regularly to discuss staffing needs, prepares cost budget for inspection, and adjusts staffing as construction warrants. In addition, makes weekly visits to the project and performs internal quality assurance inspections and discusses with County staff. Performs audits of the project QC documentation. The project involved widening the Prince William Parkway between Hoadly Road and Old Bridge Road from four to six lanes, including modifications to three traffic signals and message board, storm drainage improvements, new water lines, new sanitary sewers, concrete curb and gutters, sidewalks, trails, grading operations, aggregate and asphalt paving, pavement markings and signage.

VDOT POHICK ROAD BRIDGE OVER FAIRFAX COUNTY PARKWAY, Fairfax, VA

Name of Firm: MBP
Dates: 2001 – 2002
Project Role: Sr. Construction Mgr./Inspector
Construction Value: \$2.4 Million

RELEVANCE: VDOT ▪ Fairfax County ▪ Inspection ▪ Shop drawing review ▪ Fab shop visits

As Senior Construction Manager, monitored construction activities, scheduled technicians for testing soils and concrete, reviewed contractor's monthly pay requisition, and performed project documentation. Served as MBP's primary on-site representative responsible for inspection, communication with Fairfax County and the contractor, arranging third-party materials tests and overall contract administration. Also responsible for overall project coordination; on-site inspection, review of construction and documentation; mill and shop inspection; shop drawing review; and as-built drawings, all in accordance with VDOT specifications. The \$2.4 million overpass project included a 210-foot-long, 70-foot-wide bridge over the Fairfax County Parkway, which consisted of two-span, continuous steel girders with center concrete pier and integral concrete abutments.

VDOT NORTHERN VIRGINIA DISTRICT PERMIT INSPECTION, Fairfax, Arlington, and Prince William Counties, VA

Name of Firm: MBP
Dates: 1999 – 2004
Project Role: Senior Inspector
Contract Value: \$3 Million

RELEVANCE: VDOT ▪ Fairfax County ▪ Permitting ▪ Inspection ▪ Interface with commercial establishments ▪ Utility relocations ▪ ROW procurement ▪ Multi-Purpose Trails

As senior inspector, performed inspections and issued construction permits throughout Fairfax County on a wide range of highway, developer, and utility projects. Inspected more than 14 miles of sound walls on Fairfax County Parkway, W&OD arch bridge and trail improvements in Reston, traffic signal installations, subdivision acceptances, landscaping, commercial and private entrances, street tie-ins, street lights, water main installations, and underground and overhead fiber-optic installation. In addition, performed traffic engineering design review of the ultimate signage and striping for the projects; reviewed and inspected the construction of new fiber-optic telecommunications network, including field coordination with various telecommunications and utility companies; and inspected and issued fiber-optic permits. Provided oversight in the review of all of the Cox Communications permits for their fiber-optics installation project throughout Fairfax County. Assisted the VDOT Permits Section with review of the utility checklist for the proposed dedicated right-of-way to the Commonwealth of Virginia by the developers, contractors, and the Fairfax County Government.

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.										
a. Name & Title:	Josh Wade, PE, Project Manager									
b. Project Assignment:	Design Manager									
c. Name of Firm with which you are now associated:	Parsons Transportation Group Inc. (Parsons)									
d. Years experience: With this Firm 19 Years With Other Firms 0 Years Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen(15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked.):	Project Manager/Design Director, Parsons Transportation Group Inc., 1994 to Present									
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:	MBA, Business Administration, University of Maryland University College (UMUC), 2009 BS, Civil Engineering, University of Maryland-College Park, 1993									
f. Active Registration: Year First Registered/ Discipline/VA Registration #:	Professional Engineer VA: 1999/Civil/0402 032924									
g. Document the extent and depth of your experience and qualifications relevant to the Project.										
<ol style="list-style-type: none"> 1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each assignment.</i> <p>(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)</p>										
<p>VDOT I-395 HOV RAMP AT SEMINARY ROAD WITH I-395 NB AUXILIARY LANE EXTENSION, Alexandria, VA</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Name of Firm:</td> <td>Parsons</td> <td rowspan="4" style="background-color: #e6f2ff; padding: 5px;">RELEVANCE: ▪ Same role ▪ VDOT design-build experience with same contractor (Archer Western) ▪ Multiple stake holders including federal agencies ▪ Local land use access TMP/MOT</td> </tr> <tr> <td>Dates:</td> <td>2012 – Present</td> </tr> <tr> <td>Project Role:</td> <td>Design Manager</td> </tr> <tr> <td>Construction Value:</td> <td>\$55 Million</td> </tr> </table> <p>The project is located in Alexandria, Virginia, at the I-395 and Seminary Road Interchange. The purpose of this project is to improve traffic operations and increase safety for HOV and transit users working at or near the Mark Center, a new BRAC-related DOD facility, as well as ramp and pedestrian improvements to mitigate impacts of the additional DOD staff on the surrounding neighborhoods and businesses. The project includes a new reversible HOV ramp on I-395, a new pedestrian bridge across I-395, and the widening of an existing mainline bridge on I-395. Though the project is not yet constructed, the design phase will be significantly completed prior to the anticipated NTP of February of next year for the Fall Hill Avenue Widening and Mary Washington Boulevard Extension. This project is similar to the Fall Hill Avenue and Mary Washington Boulevard Extension project because it is a design-build project for VDOT in the same corridor, involves an interstate, includes impacts to commercial property entrances, includes pedestrian facilities, and has a significant MOT component.</p>		Name of Firm:	Parsons	RELEVANCE: ▪ Same role ▪ VDOT design-build experience with same contractor (Archer Western) ▪ Multiple stake holders including federal agencies ▪ Local land use access TMP/MOT	Dates:	2012 – Present	Project Role:	Design Manager	Construction Value:	\$55 Million
Name of Firm:	Parsons	RELEVANCE: ▪ Same role ▪ VDOT design-build experience with same contractor (Archer Western) ▪ Multiple stake holders including federal agencies ▪ Local land use access TMP/MOT								
Dates:	2012 – Present									
Project Role:	Design Manager									
Construction Value:	\$55 Million									
<p>VDOT I-64/ROUTE 15 (ZION CROSSROADS) INTERCHANGE MODIFICATIONS DESIGN-BUILD, Louisa County, VA</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Name of Firm:</td> <td>Parsons</td> <td rowspan="4" style="background-color: #e6f2ff; padding: 5px;">RELEVANCE: ▪ Same role ▪ VDOT design-build experience ▪ Local land use access TMP/MOT ▪ Many of the same design leads and subs ▪ Interchange/intersection modifications</td> </tr> <tr> <td>Dates:</td> <td>2012 – Present</td> </tr> <tr> <td>Project Role:</td> <td>Design Manager</td> </tr> <tr> <td>Construction Value:</td> <td>\$6.8 Million</td> </tr> </table> <p>The project is located in Louisa County, Virginia, at the interchange of Route 15 and I-64. The purpose of the project is to improve traffic operations and increase safety at the interchange and along Route 15. The improvements will consist of a conversion of the interchange configuration from a standard diamond to a diverging diamond interchange (DDI). As the design manager, Josh is responsible for the design efforts of this VDOT design-build project. Parsons' winning concept modified the RFP plans and improved maintenance, safety, and operations further</p>		Name of Firm:	Parsons	RELEVANCE: ▪ Same role ▪ VDOT design-build experience ▪ Local land use access TMP/MOT ▪ Many of the same design leads and subs ▪ Interchange/intersection modifications	Dates:	2012 – Present	Project Role:	Design Manager	Construction Value:	\$6.8 Million
Name of Firm:	Parsons	RELEVANCE: ▪ Same role ▪ VDOT design-build experience ▪ Local land use access TMP/MOT ▪ Many of the same design leads and subs ▪ Interchange/intersection modifications								
Dates:	2012 – Present									
Project Role:	Design Manager									
Construction Value:	\$6.8 Million									

while reducing overall costs and construction time. Though the project is not yet constructed, the design phase is on schedule and will be completed by June of this year, well before the Fall Hill Avenue Widening and Mary Washington Boulevard Extension NTP. The Zion Crossroads project is similar to the project because it is a design-build project for VDOT, includes impacts to residential and commercial property entrances, and has a significant MOT component.

(See Appendix J for more information on this project)

MdSHA INTERCOUNTY CONNECTOR DESIGN-BUILD CONTRACT B, Montgomery County, MD

Name of Firm: Parsons
Dates: 2008 – 2011 (Substantial Complete)
Project Role: Design Manager
Construction Value: \$561 Million

***RELEVANCE:** ▪ Same role ▪ Design-build experience ▪ Many of the same design leads and subs ▪ Large corridor project ▪ Widening and roadway improvements under live traffic ▪ Extensive environmental compliance effort and documentation ▪ Many stakeholders and adjacent projects including utilities*

Recently won ENR's Best Transportation Project in the Mid-Atlantic Region.

As the design manager, Josh was responsible for the design efforts of the large design-build project. The project consisted of approximately 7 miles of new, controlled access, six-lane tolled roadway and two interchanges: ICC/MD 182 and ICC/MD 650. The construction of Contract B was in some of the most sensitive environmental areas along the complete ICC alignment, including environmental resources such as wildlife, habitat, and scenic waterways, along with historic and cultural resources, as well as historic properties and historic view sheds, along with nearby communities and businesses. The work also included mainline, ramps, cross roads, and pavement design; utility relocations; bridges; retaining walls; noise walls; earth berms; drainage facilities; landscaping; signing, signals, lighting, and pavement markings; tolling infrastructure; maintenance of traffic; ITS devices; public relations support; and environmental compliance.

Josh took a hands-on approach to the project, getting involved and overseeing every aspect of the design of the project. He assisted in the development of the overall project schedule, reviewed day-to-day progress, and ensured the successful completion of the project, on time and under budget. His hands-on, team-building approach to the project management ensured full involvement, from the client to each of the disciplines, including roadway and structures, environmental compliance, construction, and all third parties, and it resulted in a team atmosphere, where all voices and ideas were heard and respected. This team process, whereby all voices were heard and all viewpoints involved in early planning and design reviews, meant that, at the end of the process, all designs were the best they possibly could be, reducing impacts and maintaining the schedule and budget, all while producing a superior product.

(See Appendix J for more information on this project)

FHWA I-95 HOV RAMP FROM FORT BELVOIR'S NORTH AREA (FBNA), Springfield, VA FHWA EASTERN FEDERAL LANDS SERVICES ON-CALL, NORTHERN REGION, Washington, D.C.

Name of Firm: Parsons
Dates: 9/2007 – 12/2007
Project Role: Program Manager
Contract Value: \$1 Million/year

***RELEVANCE:** ▪ Federal Stakeholders (FHWA and USACE) ▪ Restricted access property ▪ Constructor through live traffic and MOT designed for minimal impact to existing traffic*

Completed under the FHWA Eastern Federal Lands Services Northern Region On-Call Contract, the assignments included on the on-call consisted of roadway and bridge designs, environmental studies, traffic engineering and transportation planning, hydraulics and hydrology, value engineering/value analyses, geotechnical investigations, and surveying and mapping. Josh's responsibilities included overall program management, as well as individual project management for several tasks. Included in the tasks Josh participated in for this contract is the I-95 Ramp from the Fort Belvoir North Area (FBNA). Parsons was responsible for the overall design of the ramp, including roadway design, the structural design of two bridges and MSE walls, a soil stabilization support system over an area of poor soils, the 3D analysis and bridge rating of the existing bridge, the development of a traffic management plan, and other related work. Josh was specifically responsible for the geometrics and roadway design of the I-95 Ramp from the FBNA.

(See Appendix J for more information on this project)

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.																			
a. Name & Title:	John Bridge, Project Manager																		
b. Project Assignment:	Construction Manager																		
c. Name of Firm with which you are now associated:	Archer Western Construction, LLC (Archer Western)																		
d. Years experience: With this Firm <u>11</u> Years With Other Firms <u>0</u> Years Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen(15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked.):	Project Manager, Heavy Civil Construction, Archer Western, 2007 to Present Assistant Project Manager, Heavy Civil Construction, Archer Western, 2004 to 2006 Project Engineer, Heavy Civil Construction, Archer Western, 2002 to 2003																		
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:	Purdue University, West Lafayette, IN, BS, 2002, Civil Engineering																		
f. Active Registration: Year First Registered/ Discipline/VA Registration #:	N/A																		
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each assignment.</i> (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)	<p>I-540 WESTERN WAKE FREEWAY, Design-Build, Raleigh, NC</p> <table border="0"> <tr> <td>Name of Firm:</td> <td>Raleigh Durham Roadbuilders (JV – Archer Western & Granite)</td> <td rowspan="4" style="background-color: #e0f0ff; padding: 5px;"><i>RELEVANCE: Design Build ▪ Same role ▪ Utility relocations ▪ Extensive SWM facilities ▪ Extensive coordination with adjacent businesses and residents.</i></td> </tr> <tr> <td>Dates:</td> <td>2010 – April 2013</td> </tr> <tr> <td>Project Role:</td> <td>Construction Manager</td> </tr> <tr> <td>Construction Value:</td> <td>\$465 Million</td> </tr> </table> <p>As Construction Manager, John’s specific responsibilities and authorities included day-to-day direction of construction activities through the supervision of the Site Superintendent, Site Safety Officer, Assistant Construction Manager Andrew Pakes, and engineering staff. His specific tasks included design coordination and constructability reviews; coordination with utility relocations; coordination and management of subcontractor and supplier solicitation, negotiation, award, and contract administration; selection of the means and methods for self-performed work; cost and quality control for self-performed and subcontracted work; development and maintenance of the CPM construction schedule; equipment procurement; material procurement; and daily interaction with the NCTA and the liaison from the design team. The project purpose was the design, permitting, and construction of 12 miles of new toll road. The project included 5 million cubic yards of earthwork, construction of 34 bridges and three major interchanges, extensive reconstruction of 15 existing intersecting roadways, construction of a replacement railroad bridge for CSX, construction of new roadway and trail bridges in floodplains, approximately 100 noteworthy utility relocations, drainage, SWM facilities, and MSE/sound walls. <i>(See Appendix J for more information on this project)</i></p> <p>MHJIT EMBANKMENT AND UTILITY RELOCATION PHASE II, Hartsfield Int’l Airport; Atlanta, GA</p> <table border="0"> <tr> <td>Name of Firm:</td> <td>Archer Western</td> <td rowspan="4" style="background-color: #e0f0ff; padding: 5px;"><i>RELEVANCE: Retaining walls ▪ Major earthworks ▪ Airport coordination ▪ Utility Relocation, ▪ Similar Role</i></td> </tr> <tr> <td>Dates:</td> <td>2007</td> </tr> <tr> <td>Project Role:</td> <td>Construction Manager</td> </tr> <tr> <td>Construction Value:</td> <td>\$66 Million</td> </tr> </table>	Name of Firm:	Raleigh Durham Roadbuilders (JV – Archer Western & Granite)	<i>RELEVANCE: Design Build ▪ Same role ▪ Utility relocations ▪ Extensive SWM facilities ▪ Extensive coordination with adjacent businesses and residents.</i>	Dates:	2010 – April 2013	Project Role:	Construction Manager	Construction Value:	\$465 Million	Name of Firm:	Archer Western	<i>RELEVANCE: Retaining walls ▪ Major earthworks ▪ Airport coordination ▪ Utility Relocation, ▪ Similar Role</i>	Dates:	2007	Project Role:	Construction Manager	Construction Value:	\$66 Million
Name of Firm:	Raleigh Durham Roadbuilders (JV – Archer Western & Granite)	<i>RELEVANCE: Design Build ▪ Same role ▪ Utility relocations ▪ Extensive SWM facilities ▪ Extensive coordination with adjacent businesses and residents.</i>																	
Dates:	2010 – April 2013																		
Project Role:	Construction Manager																		
Construction Value:	\$465 Million																		
Name of Firm:	Archer Western	<i>RELEVANCE: Retaining walls ▪ Major earthworks ▪ Airport coordination ▪ Utility Relocation, ▪ Similar Role</i>																	
Dates:	2007																		
Project Role:	Construction Manager																		
Construction Value:	\$66 Million																		

John's specific responsibilities and authorities included supervision of construction. His direct reports were the Site Superintendent and Safety Manager. His specific tasks included coordination and management of subcontract and supplier solicitation, negotiation, and award; selection of the means and methods for self-performed work; cost and quality control for self-performed work; development of the project schedule; and problem resolution with Airport Operations. The project consisted of site demolition, 1.8 million cubic yards of embankment, a 42-inch sanitary sewer line relocation, and 6-inch to 96-inch storm drainage installation. It also included support of excavation for deep utility installation; two utility tunnels including one for ongoing air operations; new airport roadways and guard booth and security checkpoints; maintenance and support of existing utilities; and MSE walls.

I-285 STRUCTURES FOR NEW 5TH RUNWAY AT ATLANTA HARTSFIELD JACKSON INTERNATIONAL AIRPORT, Atlanta GA

Name of Firm: Archer Western
Dates: 2004 - 2006
Project Role: Assistant Construction Manager
Construction Value: \$159 Million

RELEVANCE: Design-build ■ Multi-Phase MOT ■ Utility Coordination ■ Airport Coordination

As Assistant Construction Manager, John's specific responsibilities and authorities included coordination with designers, planning MOT operations, managing major subcontractors and suppliers, developing means and methods, and construction oversight. His specific tasks included the coordination and constructability reviews of runway bridge design; coordination and management of subcontractor and supplier solicitation, negotiation, award, and contract administration; selection of the means and methods for self-performed work; cost control for self-performed and subcontracted work; development and maintenance of the critical path method construction schedule; equipment procurement; material procurement; and daily interaction with the Airport Operations and GDOT. The project purpose was to construct two runway bridges over I-285 (10 lanes) for a new fifth runway and taxiway. The specific features of work included expressway and local street MOT, bridge construction over I-285, and relocation/reconstruction of I-285. It required extensive coordination with the Airport and GDOT to plan and implement four major I-285 traffic shifts.

MARTA RAIL SERVICE FACILITY STORAGE YARD, Atlanta GA

Name of Firm: Archer Western
Dates: 2002 - 2003
Project Role: Assistant Construction Manager
Construction Value: \$22 Million

RELEVANCE: Design Build ■ Utility Coordination ■ Bridge and wall construction ■ Abutter interface

As Assistant Construction Manager, John's specific responsibilities and authorities included coordination with designers, project scheduling, project cost and budget control, and construction oversight. His specific tasks included coordination and management of subcontractors and suppliers; cost control for self-performed and subcontracted work; maintenance of the critical path method construction schedule; material procurement; and daily interaction with MARTA, various utility company representatives, and various abutting property owners. The project purpose was to build a new MARTA maintenance facility and storage yard, including a train wash facility with a 1,000' concrete platform. Specific features of work included three new MARTA guideway bridges, SOE to protect existing railroad tracks, retaining walls, grading, drainage, sub-ballast, utilities, and six buildings.

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.																			
a.	Name & Title: Greg Paxson, PE, Principal																		
b.	Project Assignment: Lead Geotechnical and Pavement																		
c.	Name of Firm with which you are now associated: Schnabel Engineering Consultants, Inc. (Schnabel)																		
d.	Years experience: With this Firm <u>19</u> Years With Other Firms <u>0</u> Years Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen(15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked.): Schnabel, 1994 – Present: Principal – Greg Paxson, PE, has experience in analysis and design for dam engineering projects. His experience includes evaluation and upgrading of existing dams and design of new dams. Specific experience includes hydrologic and hydraulic analyses, gravity dam stability, labyrinth spillways, roller compacted concrete, and slope stability and seepage analyses for earth dams. He has extensive experience in site layout and design for dams. Greg's field experience includes dam inspections, construction observation services for geotechnical projects, and oversight of subsurface exploration programs.																		
e.	Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Villanova University, Villanova, PA, MS, 2000, Civil Engineering University of Delaware, Newark, DE, BS, 1993, Civil Engineering																		
f.	Active Registration: Year First Registered/ Discipline/VA Registration #: Professional Engineer VA: 2009/Civil/0402045700																		
g.	Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none">1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i>2. <i>Note whether experience is with current firm or with other firm.</i>3. <i>Provide beginning and end dates for each assignment.</i> (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.) COLES RUN DAM, Augusta County, Virginia <table style="width: 100%;"><tr><td style="width: 25%;">Name of Firm:</td><td>Schnabel</td><td rowspan="4" style="background-color: #e0f0ff; padding: 5px;">RELEVANCE: <i>Dam Rehabilitation</i></td></tr><tr><td>Dates:</td><td>2012 – Present</td></tr><tr><td>Project Role:</td><td>Project Manager</td></tr><tr><td>Construction Value:</td><td>\$5.25 Million (estimated)</td></tr></table> <p>Lead Engineer and Project Manager for the rehabilitation design of the water supply reservoir owned by Augusta County Service Authority. The dam was found to have inadequate spillway capacity to meet Virginia dam safety regulations and Mr. Paxson was responsible for the development of conceptual and final design for an enlarged replacement concrete spillway, raising the dam with a concrete parapet, flattening the downstream embankment slope, and replacement of the water supply and drawdown piping and intake structure. Construction ongoing.</p> PENNSYLVANIA FISH AND BOAT COMMISSION DAMS (PFBC) REHABILITATION DESIGN, Various Locations in Pennsylvania <table style="width: 100%;"><tr><td style="width: 25%;">Name of Firm:</td><td>Schnabel</td><td rowspan="4" style="background-color: #e0f0ff; padding: 5px;">RELEVANCE: <i>Dam Rehabilitation Design</i></td></tr><tr><td>Dates:</td><td>2010 – Ongoing</td></tr><tr><td>Project Role:</td><td>Project Manager</td></tr><tr><td>Construction Value:</td><td>\$1.9 Million</td></tr></table>	Name of Firm:	Schnabel	RELEVANCE: <i>Dam Rehabilitation</i>	Dates:	2012 – Present	Project Role:	Project Manager	Construction Value:	\$5.25 Million (estimated)	Name of Firm:	Schnabel	RELEVANCE: <i>Dam Rehabilitation Design</i>	Dates:	2010 – Ongoing	Project Role:	Project Manager	Construction Value:	\$1.9 Million
Name of Firm:	Schnabel	RELEVANCE: <i>Dam Rehabilitation</i>																	
Dates:	2012 – Present																		
Project Role:	Project Manager																		
Construction Value:	\$5.25 Million (estimated)																		
Name of Firm:	Schnabel	RELEVANCE: <i>Dam Rehabilitation Design</i>																	
Dates:	2010 – Ongoing																		
Project Role:	Project Manager																		
Construction Value:	\$1.9 Million																		

Project Manager responsible for the rehabilitation design of four dams owned by the PFBC through a contract with the Commonwealth of Pennsylvania Department of General Services. These four earthfill dams impound recreation lakes used for fishing and boating. The high hazard dams have been found to have inadequate spillway capacity to safely pass the Probable Maximum Flood (PMF) as required by the Pennsylvania Department of Environmental Protection (PADEP), Division of Dam Safety. Project includes evaluation of rehabilitation alternatives for rehabilitation, design of the selected alternative and development of plans and specifications, and consultation services during construction. The selected alternatives for upgrading include replacement of structural spillways and/or overtopping protection of the embankments with RCC or ACB.

POHICK CREEK WATERSHED DAM NO. 8 (HUNTSMAN LAKE) REHABILITATION, Fairfax County, Virginia

Name of Firm: Schnabel
Dates: 2012 – Present
Project Role: Engineer of Record
Construction Value: \$2.1 Million (Estimated)

RELEVANCE: Dam Rehabilitation Design

Engineer of Record for developing alternative plans and final design for the rehabilitation of the principal and auxiliary spillways for the dam. After the County and stakeholders approved the recommended alternative, Schnabel developed rehabilitation plans and provided permitting support. Bid and construction are scheduled for 2013 and Schnabel will provide bidding and construction administration services for the project.

COBBS CREEK DAM AND RESERVIOR, Cumberland County, Virginia

Name of Firm: Schnabel
Dates: 2011 – Present
Project Role: H&H Task Leader
Construction Value: \$43.4 Million

*RELEVANCE:
New Dam Design*

H&H Task Leader for this new offline storage reservoir, with pumping from and releases to the James River in Cumberland County, Virginia. The dam is planned to be approximately 4,800-ft long and 150-ft high, includes approximately 3,000,000 cy of zoned earth fill, a 1,150-ft high reinforced concrete inlet/outlet tower, a concrete overflow spillway, and three saddle dikes for the 1,100-acre reservoir. The intake will have a capacity of 150 MGD, the largest in the country. As the H&H Task Leader, Mr. Paxson managed the hydrologic analysis for development of Probable Maximum Flood, sizing of the primary spillway and outlet channel, design for upstream slope protection, modeling for sizing of the cofferdam in the James River and for the dam design, and a dam breach analysis and inundation mapping.

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.						
a.	Name & Title: Jeremy Young, PE, Associate Engineer					
b.	Project Assignment: Lead Dam Design Specialist					
c.	Name of Firm with which you are now associated: Schnabel Engineering Consultants, Inc. (Schnabel)					
d.	Years experience: With this Firm <u>13</u> Years With Other Firms <u>0</u> Years Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen(15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked.): Schnabel, 2000 – Present: Associate Engineer – Jeremy Young has experience with evaluation, design, and construction on a variety of dam engineering projects. Jeremy's primary role is Project Manager for dam rehabilitation projects and design staff team leader. Jeremy excels in project management and serves on Schnabel's companywide Project Management Improvement Group, tasked with improving Schnabel's tools for project management and providing training to staff. He has extensive experience preparing and reviewing construction documents for dam rehabilitation projects. The Construction Specifications Institute recognizes Jeremy as a Certified Construction Specifier, which demonstrates comprehensive knowledge of the design and construction process, contractual relations and use of construction documents. Jeremy's dam experience includes hydrologic modeling, hydraulic analysis and design of dams and spillways, embankment evaluation and design of seepage control measures, gravity dam design and stability analysis, and design of embankment overtopping protection (ACB and RCC). Other engineering experience construction contract administration and observation services, conducting visual inspections of dams, supervision of subsurface explorations and installation of geotechnical instrumentation and design of geosynthetically reinforced slopes and walls.					
e.	Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Villanova University, Villanova, PA, 2008, MS Civil Engineering The Pennsylvania State University, PA, 2000, BS Civil Engineering					
f.	Active Registration: Year First Registered/ Discipline/VA Registration #: Professional Engineer: Pennsylvania and Delaware CSI Certified Construction Specifier (CCS) CSI Construction Documents Technology (CDT)					
g.	Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none">1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i>2. <i>Note whether experience is with current firm or with other firm.</i>3. <i>Provide beginning and end dates for each assignment.</i> (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.) VENANGO COUNTY PARK AND NATURAL RESOURCES AUTHORITY, TWO MILE RUN DAM, SEEPAGE EVALUATION AND DAM BREACH ANALYSIS, Venango County, Pennsylvania <table style="width: 100%;"><tr><td style="width: 30%;">Name of Firm: Schnabel</td><td rowspan="4" style="background-color: #e0f0ff; padding: 5px;">RELEVANCE: <i>Dam Inspections</i> ▪ <i>Subsurface Exploration</i> ▪ <i>Embankment Evaluation</i> ▪ <i>Dam Breach Analysis</i> ▪ <i>Emergency Action Plan</i></td></tr><tr><td>Dates: 2005 – Present</td></tr><tr><td>Project Role: Engineer</td></tr><tr><td>Construction Value: N/A</td></tr></table> <p>Performed multiple annual inspections of this 85-ft high earth dam located in western Pennsylvania. Observed</p>	Name of Firm: Schnabel	RELEVANCE: <i>Dam Inspections</i> ▪ <i>Subsurface Exploration</i> ▪ <i>Embankment Evaluation</i> ▪ <i>Dam Breach Analysis</i> ▪ <i>Emergency Action Plan</i>	Dates: 2005 – Present	Project Role: Engineer	Construction Value: N/A
Name of Firm: Schnabel	RELEVANCE: <i>Dam Inspections</i> ▪ <i>Subsurface Exploration</i> ▪ <i>Embankment Evaluation</i> ▪ <i>Dam Breach Analysis</i> ▪ <i>Emergency Action Plan</i>					
Dates: 2005 – Present						
Project Role: Engineer						
Construction Value: N/A						

replacement of existing pneumatic piezometers with open standpipe piezometers for monitoring phreatic levels in the embankment and foundation. Performed an embankment seepage analysis. Performed a dam breach analysis for use in development of the Emergency Action Plan (EAP).

EVALUATION OF GUNTER VALLEY DAM, Franklin County, Pennsylvania

Name of Firm: Schnabel
Dates: 2006 – 2008
Project Role: Engineer
Construction Value: N/A

*RELEVANCE: Subsurface Exploration ▪
Embankment Evaluation ▪ Evaluation of
Rehabilitation Alternatives*

Gunter Valley Dam, an 83-ft high earth dam, has experienced serious seepage problems on the embankment and spillway; Pennsylvania Department of Environmental Protection has ordered the reservoir be maintained at least ten feet below normal pool due to these issues. Engineering services provided include a file review and visual inspection, subsurface investigation and geotechnical analysis, and evaluation of viable alternatives to address the seepage and stability concerns. Also coordinated the subsurface investigation and installation of 17 piezometers, and performed the slope stability analyses and seepage assessment.

NEWARK RESERVOIR DAM, City of Newark, Delaware

Name of Firm: Schnabel
Dates: 2008 – Present
Project Role: Project Manager
Construction Value: N/A

*RELEVANCE: Dam Inspection ▪ Outlet Inspection ▪
Emergency Action Plan Exercise*

Project Manager for an open ended contract with the City of Newark to provide dam engineering consultation on an as-needed basis. Schnabel has performed annual dam inspections for the City since 2008. Schnabel performed an evaluation of the auxiliary spillway, and observed repairs to leaky joints in the concrete control section. Schnabel also led an inspection of the low-level outlet and intake tower, and video inspection of the reservoir drainage system. Recently, Schnabel conducted an EAP tabletop exercise.

POHICK CREEK WATERSHED DAM NO. 8 (HUNTSMAN LAKE) REHABILITATION, Fairfax County, Virginia

Name of Firm: Schnabel
Dates: 2012 – Present
Project Role: Reviewer
Construction Value: \$2.1 Million (Estimated)

RELEVANCE: Articulating Concrete Block Design

Associate Engineer responsible for reviewing the design of an auxiliary spillway armored with articulating concrete block (ACB). The ACB design was developed as part of major rehabilitation for this high hazard earth dam with a maximum height of 43 ft. Hydraulic modeling was performed with HEC-RAS to estimate parameters used to evaluate ACB stability. Design calculations, plans and performance specifications were prepared to support the ACB design in accordance with VA DCR and NRCS criteria.

NORTHERN VIRGINIA COMMUNITY COLLEGE, WOODBRIDGE CAMPUS DAM, Prince William County, Virginia

Name of Firm: Schnabel
Dates: 2011 – Present
Project Role: Lead Designer and
Assistant Project Manager
Construction Value: \$0.275 Million

*RELEVANCE: Subsurface Exploration ▪
Embankment Evaluation ▪ Design Development ▪
Plans and Specifications*

Lead Designer and Assistant Project Manager responsible for the evaluation and design of seepage control measures for this 48-ft high earth dam. Plans and specifications were developed to upgrade the existing embankment drains with a modern drainage system. Coordinated the subsurface investigation, piezometer installation and embankment evaluation. Construction is scheduled for 2013.

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.									
a.	Name & Title: Gary Horninger, PE, Associate								
b.	Project Assignment: Dam Design Specialist								
c.	Name of Firm with which you are now associated: Schnabel Engineering Consultants, Inc. (Schnabel)								
d.	Years experience: With this Firm <u>15</u> Years With Other Firms <u>9</u> Years Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen(15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked.): Schnabel, 1998 – Present: Associate – Gary Horninger, PE, has experience primarily related to construction and dam engineering. He has been involved in a wide range of dam design projects including siting studies, site investigations, alternatives assessment, preparation of drawings and specifications, and construction phase services. Gary has also been a full-time Resident Engineer for six dam construction projects, and has provided quality assurance constructability reviews and construction oversight on many other projects. He has also been the Construction Materials Testing services Project Manager on a wide selection of projects that have ranged from construction of new storage buildings with post-tensioned slabs, to renovations of municipal buildings dating from the 1700s. He currently serves on the Board of Directors for the Eastern Pennsylvania and Delaware Chapter of the American Concrete Institute.								
e.	Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Drexel University, Philadelphia, PA, MS, 2001, Civil Engineering Drexel University, Philadelphia, PA, BS, 1989, Civil Engineering								
f.	Active Registration: Year First Registered/ Discipline/VA Registration #: Professional Engineer: Pennsylvania, Alabama, Delaware, New Jersey, West Virginia								
g.	Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each assignment.</i> (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.) ROCKY PEN RUN DAM, Fredericksburg, Virginia <table style="width: 100%;"><tr><td style="width: 30%;">Name of Firm:</td><td>Schnabel</td></tr><tr><td>Dates:</td><td>2007 – 2014 completion</td></tr><tr><td>Project Role:</td><td>Contract Administrator</td></tr><tr><td>Construction Value:</td><td>\$49 Million</td></tr></table> <div style="background-color: #e0f0ff; padding: 5px; margin-top: 5px;">RELEVANCE: <i>Dam engineering ▪ Dam construction administration</i></div> <p>Contract Administrator for the \$6.65 million foundation excavation contract, the \$8.8 million foundation grouting and preparation contract, and the \$33.6 million dam and pump station construction contract. Gary was also the project manager for the design review phase and participated in the third party reviews of the design for the cast-in-place concrete 5-cycle labyrinth. Duties included coordinating progress meetings, advising client on modifications, change orders, and payment estimates as well as conducting the project meetings. Gary also served as a liaison between field staff, office engineering staff, and the designer.</p>	Name of Firm:	Schnabel	Dates:	2007 – 2014 completion	Project Role:	Contract Administrator	Construction Value:	\$49 Million
Name of Firm:	Schnabel								
Dates:	2007 – 2014 completion								
Project Role:	Contract Administrator								
Construction Value:	\$49 Million								

LAKE ONEIDA DAM UPGRADING, Butler County, Pennsylvania

Name of Firm: Schnabel
Dates: August 2012 – Sept 2013
Project Role: Contract Administrator
Construction Value: \$6.75 Million

RELEVANCE:
Dam rehabilitation ▪ Dam construction administration

Contract Administrator for this \$6.75 million dam rehabilitation contract. Work on site included construction of a new cast-in-place concrete spillway, Roller Compacted Concrete (RCC) overtopping protection and piping and site work improvements. Duties included coordinating progress meetings, and advising client on modifications, change orders, and payment estimates. Gary also served as a liaison between the client, contractor, field staff, and office engineering staff and conducted the progress meetings. He provided technical support during the RCC placement.

LEASER LAKE DAM, Lehigh County, Pennsylvania

Name of Firm: Schnabel
Dates: 2010 – 2012
Project Role: Project Professional
Construction Value: \$2.7 Million

RELEVANCE:
Dam engineering

Project professional responsible for interpreting contract documents and responding to contractor and client questions and requests. Responsibilities included maintaining records and providing reports, submittals and Request For Information (RFI) responses in accordance with Pennsylvania Department of General Services (PA DGS) requirements.

POTOMAC CREEK DAM/ABEL LAKE SEEPAGE INVESTIGATION, Falmouth, Virginia

Name of Firm: Schnabel
Dates: 2013 – 2013
Project Role: Project Manager
Construction Value: \$10,000

RELEVANCE:
Dam engineering

Project Manager and client contact for completion of a groin drain design and installation for an existing earthen dam. Project was designed to be installed by client's staff as maintenance without requiring Virginia Dam Safety permitting.

LOWER OWL CREEK DAM, Lehigh County, Pennsylvania

Name of Firm: Schnabel
Dates: 2012 – 2013
Project Role: Technical Support
Construction Value: \$2.1 Million

RELEVANCE:
Dam engineering

Gary provided roller compacted concrete (RCC) technical support for the overtopping protection placed for Lower Owl Creek. Observations during the test section provided indications of areas to improve the RCC placement and procedures.

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title: Andrew Pakes, Assistant Construction Manager	
b. Project Assignment: Dam Construction Specialist	
c. Name of Firm with which you are now associated: Archer Western Construction, LLC (Archer Western)	
d. Years experience: With this Firm <u>4</u> Years With Other Firms <u>0</u> Years Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen(15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked.): Assistant Construction Manager, Heavy Civil Construction, Archer Western, 2009 to Present	
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: University of Nebraska, Lincoln, NE, BS, 2009, Construction Management	
f. Active Registration: Year First Registered/ Discipline/VA Registration #: N/A	
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each assignment.</i> (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.) FDOT I-95 OVERLAND BRIDGE INTERCHANGE, Jacksonville, FL Name of Firm: Archer Western Dates: 2013 – January 2014 Project Role: Assistant Construction Manager Construction Value: \$147 million <i>RELEVANCE: Design-Build ▪ Similar Role ▪ Extensive utility coordination/relocation ▪ Multiphase MOT</i> Andrew’s specific responsibilities and authorities included day-to-day direction of construction activities through the earthwork superintendent and engineering staff. His specific tasks included design constructability reviews; coordination and management of utility relocations; coordination and management of subcontractors and suppliers; selection of the means and methods for self-performed work; cost control for self-performed and subcontracted work; development and maintenance of the CPM construction schedule; recommendations for equipment procurement; material procurement; and daily interaction with the FDOT Resident Engineer and FDOT’s CEI Representative. The purpose of the project was the design and construction of the replacement of the I-95 Overland Bridge as well as the reconstruction of I-95, reconstruction of the southbound Collector/Distributor (CD) Road, construction of a new northbound CD Road, reconstruction to convert a partial interchange to a full interchange providing all traffic movements between I-95, Atlantic Blvd. and Philips Hwy., and realignment of Atlantic Blvd. in the vicinity of I-95. The improvements include the construction of 14 new bridges (including third level flyovers) and the widening of three bridges. The roadway reconstruction is concrete pavement, and includes substantial MSE Walls and complex Maintenance of Traffic. I-540 WESTERN WAKE FREEWAY, Design-Build, Raleigh, NC Name of Firm: Raleigh Durham Roadbuilders (JV – Archer Western & Granite) Dates: 2011 – December 2012 Project Role: Assistant Construction Manager Construction Value: \$465 million <i>RELEVANCE: Design Build ▪ High visibility ▪ Utility relocations ▪ Massive Earthwork ▪ Extensive coordination with adjacent businesses and residents. ▪ Similar role</i> As Assistant Construction Manager reporting to John Bridge, Andrew’s specific responsibilities and authorities include collaboration with the earthwork superintendent in the planning and execution of civil construction activities and supervision of engineering staff. His specific tasks included design constructability reviews; coordination and management of utility relocations; coordination and management of subcontractors and suppliers; cost control for self-performed and subcontracted work; maintenance of the CPM construction schedule; material procurement;	

long-term planning for earthwork activities, oversight of ongoing earthwork activities, and daily interaction with the NCDOT, the liaison from the design team, and the QC inspection team. The project purpose was the design, permitting, and construction of 12 miles of new toll road. The project included 5 million cubic yards of earthwork, 890,000 square yards of concrete paving, construction of 32 bridges and six interchanges, extensive work along 15 existing intersecting roadways, construction of a replacement railroad bridge for CSX, approximately 100 noteworthy utility relocations, drainage, SWM facilities, and MSE/sound walls. *(See Appendix J for more information on this project)*

USACE LPV109.02a – Levee Enlargement, Orleans Parrish, LA

Name of Firm: Archer Western
Dates: 2010 – 2011
Project Role: Field Engineer
Construction Value: \$144 million

RELEVANCE: Connection to existing levee/dam ■ High visibility ■ Utility relocations ■ Massive Earthwork (imported material) ■ Contractor controlled QC ■ Similar role

As Field Engineer for embankment operations, Andrew’s specific responsibilities and authorities included day-to-day engineering support and oversight of earthwork activities through collaboration with the earthwork superintendent, the Survey Manager, and the QC Manager and technicians. His specific tasks included the coordination and management of Archer Western and subcontractor embankment crews; coordination and management of utility relocations; coordination and management of civil subcontractors and suppliers; development of the means and methods for self-performed work including preparation of the mass diagram for control of earthwork operations; cost control for self-performed and subcontracted work; verification of compliance with quality requirements; material procurement; and daily interaction with the USACE. The project involved the replacement of the existing floodgates at Highway 11 and US Highway 90 and raising 7.4 miles of Katrina-damage levees from elevations that ranged from 13 to 18 feet above sea level to new elevations, ranging from 18.5 feet to 25 feet. The project also included relocation of an underground gas line, a fiber optic line, and a telephone line. The earthwork scope included placement of 3 Million CY of clay embankment in 11 months at a rate of roughly 25,000 CY per day. *(See Appendix J for more information on this project)*

USACE LPV 111 – LEVEE ENLARGEMENT, New Orleans, LA

Name of Firm: Archer Western
Dates: 2009 – 2010
Project Role: Field Engineer
Construction Value: \$295 million

RELEVANCE: Connection to existing levee/dam ■ High visibility ■ Utility relocations ■ Massive Earthwork (imported material) ■ Contractor controlled QC ■ Related role

As Field Engineer for embankment operations, Andrew’s specific responsibilities and authorities included day-to-day engineering support and monitoring of earthwork activities through collaboration with the earthwork superintendent, the Survey Manager, and the QC Manager and technicians. His specific tasks included the coordination of Archer Western and subcontractor embankment crews; coordination and management of utility relocations; coordination and management of subcontractors and suppliers; participation in development of the means and methods for self-performed work; cost control for self-performed and subcontracted work; verification of compliance with quality requirements; and daily interaction with the USACE. The purpose of the project is to reconstruct a 5.3 mile stretch of the New Orleans East Back Levee adjacent to the Gulf Intercoastal Waterway. The construction consists of 1.9 million cubic yards of clay embankment with earth stabilization - along with concrete T-walls, pump station reconstruction and utility relocations.

J

Work History
Forms

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)



a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
SR 400 Widening Atlanta, GA	Parsons Brinckerhoff	Thomas Howell 600 West Peachtree Street, NW Atlanta, GA 30308 Phone: (404) 631-1970	August 2007	August 2007	\$47,000	\$47,000	\$47,000

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.

Firm's Role:

Archer Western was the Prime Contractor for this 10 mile widening project on one of the busiest expressways in Georgia.

Project Narrative:

The project included 9.958 miles of widening for additional lanes, PCC paving, and Sound Barrier installation on SR 400 beginning at the Southbound Exit 7 Ramp and extending North to McFarland Road. There were three major scopes of work on the project. The reconstruction of the Southbound Exit 7 Ramp to Holcomb Bridge Road. The construction of additional travel lanes in the median from Holcomb Bridge Road to McFarland Road. Finally, the construction of new Sound Barrier at several locations throughout the project limits.

The reconstruction of the Southbound Exit 7 Ramp to Holcomb Bridge Road consisted of modifying the existing ramp by removing the existing asphalt pavement from the ramp and replacing it with concrete pavement. The ramp was widened and an additional turning lane added in the process. The signals and signs in the intersection were adjusted accordingly for the new vehicle traffic patterns, as well as for the additional pedestrian changes. The intersection work could only be worked on the weekends under lane closures and detours.

Relevance to Route 606 Reconstruction and Widening:

- Road widening project with multiple phase MOT plan
- Highway constructed under high traffic volumes
- Similar storm drain system scope of work
- Completed project on time and within budget
- Coordinated with multiple agencies and municipalities regarding schedule and work hours
- Complex phased construction
- Coordination with utilities during relocations

Lessons Learned:

- Weekly team meetings were used to work through issues on the project in an open partnering atmosphere.
- A safety committee was tasked with monthly jobsite inspections. Committee included craftsman and subcontractors. This process reduced the overall incident rate.
- Extensive planning of construction activities is essential to minimize impacts to the schedule and traveling public
- Attention to temporary signing is essential to maintaining smooth traffic flow through construction zones, particularly during Phase transitions.
- Project outcomes are directly related to the working atmosphere on the project so a positive relationship with the client is of paramount importance.
- Utility coordination meetings need to be held both as a group and individually to prevent relocations from impacting the project's progress



ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
I-540 Western Wake Freeway Raleigh, NC	Michael Baker Jr. (Formerly LPA GROUP)	NCDOT Ron Hancock, PE Phone: (919) 707-2400 rhancock@ncdot.gov	07/2013	06/2013	\$446,460	\$465,830	\$465,830

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.

Firm's Role:

Archer Western led the Raleigh Durham Roadbuilders Joint Venture in the construction of this design-build Interstate project



Project Narrative:

The I-540 Western Wake Freeway is a new six lane, median-divided toll road that provides a controlled access expressway to accommodate the increasing transportation demand in Western Wake County. The project scope included design, permitting, and construction of a 12.6 mile, 6-lane, tolled road through 72 environmentally sensitive wetland areas. New or improved roadways included the mainline, 14 crossroads, ramps, loops, auxiliary lanes, collector-distributors, service roads, and widening and improvements. The scope also included ROW acquisition services, environmental permitting through multiple agencies, and utility relocations with multiple agencies. Construction of the proposed roadway requires more than 5.5 million cubic yards of earthwork. The project also featured 34 new bridges at 24 different sites, which included three major interchanges.

Relevance to Route 606 Reconstruction and Widening:

- Construction Manager, Project Executive and Utility Coordinator held same roles
- Dam Construction Specialist had related role in earthwork operations
- Design-build delivery
- Massive earthwork operation involving not only cut to fill but import of embankment
- Complex phased construction
- Bridge construction over environmentally sensitive areas
- Requirement for coordination of schedule and work hours with multiple agencies
- ROW services and acquisition were a major project component
- Mixed-use trail system
- Coordination with over 15 separate utilities and approximately 100 relocations
- Contractor QA/QC Program
- Design-Builder led public outreach effort

Awards:

- 2012 Southeastern Association of State Highway and Transportation Officials Southeast Region Award for the "On Time" category
- 2012 Carolinas AGC Pinnacle Award for Best Highway Project
- NCDOL GOLD award for safety

Lessons Learned:

- Detailed work planning, and extensive coordination with local home owner associations and community groups resulted in positive relationship with NCDOT and community.
- Extensive planning of earthwork activities is essential to minimize impacts to the schedule and traveling public
- Attention to temporary signing is essential to maintaining smooth traffic flow through construction zones, particularly during Phase transitions.
- Project outcomes are directly related to the working atmosphere on the project so a positive relationship with the client is of paramount importance. A formal partnering process was instituted at the beginning of the project and it has been extremely successful.
- Meeting with utility companies early in the design process helps to keep utilities relocations off the critical path.
- Utility coordination meetings need to be held both as a group and individually to prevent relocations from impacting other utilities.



LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)



a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
SR 9b Phase 1 Design-Build Jacksonville, FL	GAI	Mr. Jeff Williams Florida Department of Transportation 2198 Edison Avenue, Mail Station 2803 Jacksonville, FL 32204 (386) 312-4831	08/2013	08/2013	\$68,473	\$68,473	\$68,473

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.

Firm's Role:

Archer Western was the design-builder and prime contractor for this new interstate connector in Jacksonville, Florida.



Project Narrative:

This design-build project consists of the design, permitting, and construction of the new 4-mile SR 9B from US Highway 1 to SR 9A. The project is the first of two phases that will ultimately provide a vital bypass from I-295 to I-95 south of Jacksonville. SR 9B consists of a concrete-paved, four-lane, divided, limited-access facility with three-lane bridges and auxiliary lanes at several locations. The project also includes the interchange at I-295 and a partial intersection at US 1. Roadwork includes the clearing of 208 acres of right-of-way and a 200-acre borrow site located adjacent to the corridor. Earthwork includes approximately 75,000 CY of unsuitable excavation, 300,000 CY of pond excavation from 10 on-site ponds, and 1,300,000 CY of embankment.

The project includes 13 bridges at seven locations, many of which cross designated wetland areas. All of the bridges are designed using precast concrete I-Beams and 24-inch prestressed concrete piles. The I-295 intersection bridge was designed to minimize the widening and reconstruction of the existing SR 9A northbound lanes.

Relevance to Route 606 Reconstruction and Widening:

- Design-build delivery method
- Reconstruction and widening
- Phased construction with stringent maintenance of traffic (MOT) criteria
- Required coordination of schedule and work hours with multiple agencies
- Construction in environmentally sensitive areas
- Extensive earthwork operations
- Similar SWM scope

Lessons Learned:

- Simplification of project phasing through innovative MOT planning will result in significant time savings, which will benefit the project.
- Attention to temporary signing is essential to maintaining smooth traffic flow through construction zones, particularly during phase transitions.
- Extensive preplanning of earthwork activities will minimize impacts to schedule and traveling public
- Public media is an important tool for creating public awareness of project activities.
- Early coordination with environmental permitting agencies is essential to receiving timely permits.



ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Completion Date (Original)	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: Intercounty Connector Design-Build, Contracts A and B Location: Montgomery and Prince George's Counties, MD	Name: Contract A: Granite, Corman, and Wagman Contract B: Kiewit, Corman, and Wagman	Name of Client: Maryland Dept. of Transportation/State Highway Administration Project Manager: Mr. Mark Coblentz Phone: (301) 586-9267 Email: mcoblentz@iccproject.com	Contract A: 04/2007 Contract B: 11/2011	Contract A: 12/2008 (design); 06/2011 (post-design svcs.) Contract B: 11/2011	Contract A: Design: \$38,600 Construction: \$478,700 Contract B: Design: \$40,900 Construction: \$561,000	Contract A: Design: \$44,200 Construction: \$478,000 Contract B: Design: \$40,900 Construction: \$561,000	Contract A: Design: \$44,200 Contract B: Design: \$40,900
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.							
<p>Firm's Role: Parsons served as lead designer for the first two major segments, Contracts A and B, of the Intercounty Connector (ICC). Both were performed on an accelerated schedule through a design-build delivery process.</p> <p>Contract A: Parsons was responsible for the overall design of this toll road, including mainline, ramps and cross roads pavement, utility relocations, bridges, retaining walls, noise walls, earth berms, drainage facilities, landscaping, signing, signals, lighting, pavement markings, tolling infrastructure, maintenance of traffic, intelligent transportation devices, public relations support, and environmental compliance.</p> <p>Contract B: Parsons was responsible for the overall design of this toll road, including intelligent transportation systems (ITS), electronic toll collection (ETC), traffic signals, signing and pavement marking, more than 80 acres of reforestation, miles of hiker and biker trails, and the relocation of six side roads.</p> <p>Project Narrative: Contract A: The 7.2-mile project consisted of the first segment of the 18-mile toll road that connects Maryland's Montgomery and Prince George's counties. Parsons, as part of a design joint venture, widened six lanes, designed three new interchanges, and designed 23 bridges. A key feature of the joint venture's design was the innovative reconfiguration of the Metro Access interchange, which was approved prebid as an alternative technical concept (ATC). Another notable feature includes a 611-foot-long deck-over structure where the ICC crosses under the residential community of Olde Mill Run. The deck-over was landscaped with soil and plantings, mitigating the highway's presence in the community. There were 85 utility relocations required in order to build the project. Agreements between the owner and utility companies that were executed prebid greatly facilitated utility design and effectively took the utility work off the critical path. Most of Parsons' design team was co-located in a hub office with the owner and contractor. The very aggressive 18-month design schedule was achieved by mobilizing up to 110 engineers and support staff. Additionally, approximately 500 design submittals were made during the design phase, and each was audited by design quality control staff for compliance with the established procedures. The end result was 100 percent compliance with contract requirements.</p> <p>Contract B: The 7-mile project consisted of a six-lane, controlled-access toll road, including a diamond interchange, a single-point interchange, and 10 new</p>		<p>bridges. Other project features included traffic signals, signing and pavement marking, stream restoration, more than 80 acres of reforestation, miles of hiker and biker trails along the roadway, and the relocation of six side roads.</p> <p>The project also included extensive ITS and ETC components. The ITS elements included integration with the existing administration's Authority Operations Center (AOC) and Coordinated Highways Action Response Team (CHART) program. These elements also consisted of closed-circuit television (CCTV), dynamic message signs (DMSs), highway advisory radio (HAR), road weather information system (RWIS), fiber-optic communications, telephone communications, electrical services, and other improvements, to provide a fully functioning ITS.</p> <p>This portion of the toll road is through a sensitive environmental area of the county and crosses through two important watersheds. The project requirements called for numerous environmental protections, mitigations, and construction methods. As the lead designer, Parsons designed and met these stringent environmental requirements and developed several innovative designs to minimize impacts to the surrounding environment. What resulted from the work of more than 150 designers is a successful and environmentally friendly roadway project that was designed under challenging conditions, within a condensed schedule.</p> <p>Through its experience gained with Contract A, Parsons garnered a comprehensive understanding of the communities, businesses, and traveling public that were impacted along the ICC corridor. To alleviate public concern, Parsons and the entire design-build team prepared a work plan that included a well-defined approach to the public outreach and community relations efforts. Parsons' proactive public involvement approach ensured streamlined communication with the affected public early and often.</p> <p>Relevance to Route 606 Loudoun County Parkway/Old Ox Road Reconstruction and Widening:</p> <ul style="list-style-type: none"> • Many of the proposed design leads and subconsultants served in the same roles. • Extensive coordination with the adjacent contracts, including the third segment of the corridor, environmental mitigation projects, and several local and utility projects in the area. 		<ul style="list-style-type: none"> • Widening and other improvements to interstates and local roadways with similar MOT concepts including the use of temporary wire walls to allow for innovative construction phasing. • Right-of-way acquisition was a necessary element of the project and was navigated through successfully during construction. • Extensive land use access management throughout the project that included a major public outreach effort to inform neighbors and the traveling public. <p>Lessons Learned:</p> <ul style="list-style-type: none"> • Weekly discipline and/or challenge-specific task forces were used to work through issues on the project in an open, respectful atmosphere. • Electronic document and file control for file management allowed for full control of design development and eliminated waste and errors. • Early and frequent interdisciplinary, constructability, and environmental reviews of the designs drastically reduced potential issues and delays. • Phased construction allowed construction to start sooner and for necessary adjustments in the field to be implemented faster. It also resulted in greater ability to handle critical-path elements by enabling the contractor to work around long-lead items or to innovate on means or methods, reducing costs or improving schedule times. • An integrated schedule helped show the impact on delays or changes to design or other elements of the project. 			

ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Completion Date (Original)	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: Tri-State Tollway (I-294) Widening and Reconstruction Location: Cook County, Illinois	Name: 1) FHP Tectonics Corp. 2) Walsh Construction Co.	Name of Client.: Illinois State Toll Highway Authority Phone: (630) 241-6800 Project Manager: Manar Nashif Phone: (630) 241-6800 x3841 Email: mnashif@getipass.com	2010	2010	\$70,000	\$70,000	\$6,000

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.



Parsons provided Phase II engineering services for the preparation of contract plans and specifications and project-related permits for the proposed add lane and reconstruction on the Tri-State Tollway (I-294) between Willow Road (M.P. 49.0) and Dundee Road (M.P. 51.6) in Cook County, Illinois.

This project is part of the Tollway's Congestion Relief Plan for the entire north Tri-State corridor. Willow Road is a major arterial maintained by the Illinois Department of Transportation and has a substantial interchange with the Tri-State Tollway. The improvements at the interchange were coordinated with IDOT's proposed improvements to the Willow Road corridor, and extended to the logical termini at Sanders and Landwehr Roads. I-294 was reconstructed and widened from a six-lane facility to an eight-lane facility and Willow Road was widened and reconstructed from a four-lane facility to a six-lane facility. The objective on both routes was to improve the pavement condition and provide increased traffic capacity.



The improvement included embankments, pavement, shoulders, bridge widening and reconstruction, retaining walls, permanent and temporary roadway lighting, permanent and temporary relocations of the Tollway's communications network, signing, drainage, pavement marking and delineation, traffic and noise barriers, maintenance of traffic (MOT), erosion control, traffic signal modernization and interconnect, and all appurtenant and miscellaneous items. The project was divided into more than one construction contract. The Willow Road bridge over the Tollway was removed and replaced, while the Sanders Road bridge's deck was replaced along with other minor repairs.

The project corridor is heavily constrained by development and adjacent Cook County Forest Preserve District property, so keeping the improvements within the existing right-of-way was a major focus. MOT was another key issue, as this six-lane facility carries approximately 120,000 vehicles per day.

Relevance to Route 606 Loudoun County Parkway/Old Ox Road Reconstruction and Widening:

- Similar size
- Designed by Parsons and Constructed by an affiliated of Archer Western
- Reconstruction and widening of urban arterial
- Geometric improvements
- Innovative MOT to minimize impacts to active traffic patterns and to maximize safety
- Major abutters requiring extensive coordination

ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Completion Date (Original)	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: The New I-64 Design-Build Location: St. Louis, Missouri	Name: Gateway Constructors JV (Joint venture of Granite, Weber, and Millstone-Bangert)	Name of Client.: Missouri Department of Transportation Phone: (314) 453-0580 Project Manager: Ronald Morris, PE Phone: (314) 453-5080 Email: ronald.morris@modot.mo.gov	7/2010	7/2010	535,000	535,000	\$36,000

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.



On November 15, 2006, the Missouri Highways and Transportation Commission voted unanimously to award the I-64 Design-Build (The New I-64) project to Gateway Constructors (a construction joint venture), with Parsons as the lead designer. The New I-64, located in St. Louis, Missouri, is the largest highway construction project in the state's history, and is the first Missouri Department of Transportation (MoDOT) project to use the design-build delivery method.

Built between the 1930s and '60s, the I-64 (also known as Highway 40) roadway and ramps were geometrically deficient by today's standards and many of its bridges had deteriorated to one inspection point away from being shut down. The reconstruction of I-64 was the No. 1 priority for MoDOT due to severe safety and capacity deficiencies.

The project reconstructed 10 miles of I-64, through St. Louis and six other cities; widened and reconstructed the entire roadway; rebuilt 38 bridges; improved 11 interchanges; and constructed extensive retaining and sound walls. A major project feature is the reconstruction of the I-64/I-170 interchange to a high-speed fully-directional facility.

A primary reason MoDOT chose Gateway Constructors was due to the team's aggressive construction schedule and maintenance-of-traffic (MOT) approach. The MOT plan included three phases: planning and preparation, construction of the West segment, and construction of the East segment. Parsons' staff worked with Gateway's construction staff to develop an approach that closed two segments of the existing freeway, each more than four miles long, to all traffic during each construction stage. The result is an approach with the least impact to regional traffic during the life of the project compared to other MOT schemes proposed by the city, county, and other bidders.

Construction began in spring 2007. The west half of the project — the 5-mile section west of I-170 — was completed two weeks ahead of schedule and opened to traffic in December 2008. At this time, all lanes of the project's eastern 5 miles were simultaneously closed for reconstruction until the end of December 2009. The entire project opened to traffic three weeks ahead of schedule in December 2009.

On December 6, 2009, MoDOT presented the grand opening of the New I-64 project. Through innovative design concepts and traffic management, Parsons provided significant cost savings and schedule acceleration. "It is important for us on the federal level to learn from each other. Missouri is setting a standard here," said Federal Highway Administrator, Victor Mendez of I-64. This project is now being used as an example for similar projects across the county. MoDOT Director, Pete Rahn indicated the design-build process allowed constructors to complete the project on budget and ahead of schedule. Work on the project in 2010 did not affect I-64 traffic. Highlights of the New I-64 include the following:

- Rebuilding and upgrading all pavement, bridges, and interchanges between Spoede Road in St. Louis County and Kings Highway Boulevard in St. Louis City.
- Developing a new, high-quality, interstate-to-interstate connection between I-64 and I-170.
- Adding one lane in each direction between Spoede Road and I-170.
- Increasing traffic flow through better design, including the elimination of short, tight entrance and exit ramps and merges, and the addition of dedicated exit lanes.
- Enhancing safety with wider shoulders and improved geometrics.
- Adding more than 60 owner-initiated changes with no impact to the promised design or construction schedule. Parsons mobilized a dedicated team of more than 100 design professionals within the first 30 days of notice to proceed.
- Preparing a detailed design quality management plan (DQMP) developed over years of design-build experience with detailed design checklists to ensure that technical requirements are incorporated. This effort resulted in the owner's design acceptance immediately after completion of the design effort.
- Completing quality audits on all design deliverables at each design stage. This resulted in zero design nonconformances at design completion.

Relevance to Route 606 Loudoun County Parkway/Old Ox Road Reconstruction and Widening:

- Reconstruction and widening
- Geometric improvements
- Innovative MOT to minimize impacts to active traffic patterns and to maximize safety
- Completed ahead of schedule

DAM CONSTRUCTION - WORK HISTORY FORM



(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Dam Construction Specialist for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
USACE LPV109.02a Orleans Parrish, LA	US Army Corps of Engineers	USACE Chester Ashley, PE 14970 Intercoastal Dr. New Orleans, LA Phone: (504) 862-1287	06/2011	08/2011	\$114,962	\$141,330	\$141,330

h. Narrative describing the Work Performed by the Firm identified as the contractor for Dam Construction for this Project.

Firm's Role:

Archer Western was the prime contractor for this levee enlargement project



"Quality of workmanship was outstanding in all disciplines. ...exceptionally responsive and professional in dealing with the USACE and stakeholders.... there were no lost time accidents speaks well for the manner in which the contractor's safety program was managed." *Chester Ashley, PE, Resident Engineer*

Project Narrative:

This U.S. Army Corps of Engineers (USACE) Hurricane Protection Project included replacement of the existing floodgates at Highway 11 and US Highway 90 and raising 7.4 miles of existing levees, damaged by Hurricane Katrina from existing elevations (that ranged from 13 to 18 feet) to new elevations, ranging from 18.5 feet to 25 feet. The project also included relocation of an underground gas line, fiber optic line, and telephone line, which involved sleeving through the sheet pile that was installed. The earthwork scope included placement of 3 Million CY of clay embankment in 11 months, roughly 25,000 CY per day. This timeframe included rainy winter months, which increased the necessary quantity placed during the ideal seasons. Archer Western utilized several borrow pits to obtain the 3 Million CY of clay and coordinated hundreds of material deliveries per shift.

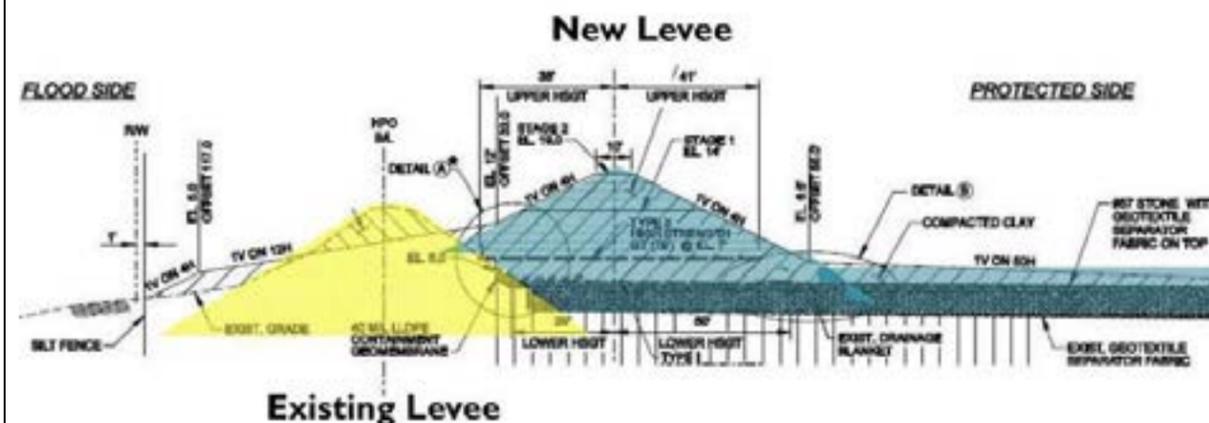
Relevance to Route 606 Reconstruction and Widening:

- Massive earthwork operation involving not only cut to fill but import of embankment
- New earthwork embankment that connects to existing earthen levee
- Construction within environmentally sensitive areas
- MOT along existing highway developed to minimize impacts and maximize material deliveries
- Multiple concurrent construction activities occurring along the entire project length
- Requirement for coordination of schedule and work hours with local agencies
- Coordinated with multiple utility agencies for temporary and permanent relocations
- Contractor QA/QC Program
- 367,129 Man-hours worked–Zero lost time incidents
- Dam Construction Manager performed in similar role

Lessons Learned:

- Detailed work planning, and extensive coordination with local community groups resulted in positive relationship with USACE and community.
- Extensive planning of earthwork activities is essential to minimize impacts to the schedule and traveling public
- Development of alternate earthen material sources is necessary to minimize impacts from weather and changes in material composition.
- Diligent attention to embankment classification, moisture control, and compaction is essential to proper construction.
- Project outcomes are directly related to the working atmosphere on the project so a positive relationship with the client is of paramount importance. (A formal partnering process was instituted at the beginning of the project and it has been extremely successful.)
- Meeting with utility companies impacted by the project early in the design process keeps the utilities relocations off the critical path.
- Utility coordination meetings need to be held both as a group and individually to prevent relocations from impacting other utilities.

Typical Levee Section



ATTACHMENT 3.4.1(d)

DAM DESIGN - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Completion Date (Original)	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Dam Design Specialist for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: Lower Lake Dam Location: Promised Lake State Park, Pike County, PA	Name: Fabcor, Inc.	Name of Client: Larson Design Group, Inc. Phone: 570-323-6603 Project Manager: David Gunsallas II, PE Email: deg@larsondesigngroup.com	05/2012	08/2012	\$3,700	\$3,255	\$102

h. Narrative describing the Work Performed by the Firm identified as the designer of the Dam for this Project. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant.

Schnabel supported Larson Design Group in the rehabilitation of the Lower Lake Dam for the Pennsylvania Department of Conservation and Recreation. To improve hydraulic efficiency and allow shortening of the bridge span, the proposed bridge was moved downstream of its original location (over the weir), and the weir was modified to an ogee shape. This allowed reduction of the existing 143-ft three-span bridge to a single 100-ft span, resulting in a significant cost savings, and increasing the hydraulic capacity of the spillway from 0.73 PMF (Probable Maximum Flood) to 0.82 PMF, and meeting Pennsylvania Department of Environmental Protection criteria.

Other benefits of the design included the following:

- The mass concrete of the existing weir and spillway was overlaid with concrete and incorporated into the new structure: an efficient ogee shape
- Leaving the structure in place allowed the weir to dually function as a cofferdam and bypass for flood flows, reducing the risk of failure while maintaining a full pool during construction
- Maintaining the water levels in the lake during construction allowed for uninterrupted recreational use within the Park (i.e., kayaking, boating, fishing, ice fishing)
- Maintaining the original bridge in place during construction of the new bridge allowed traffic to be maintained, allowing users in/out of Lower Lake's campgrounds, hiking trails, and boat launch
- The dam's original low level outlets were upgraded by slip-lining with HDPE pipe, replacing the sluice gates and operators, and construction of access bridges
- Design completed on time and within budget
- Current construction costs of \$445,000 were under budget

Relevance to Route 606 Reconstruction and Widening:

- Bridge over dam weir and spillway
- Modifications to existing weir and spillway
- Hydraulic analysis





Archer Western
in association with
PARSONS