

Interstate 64 Capacity Improvements - Segment 1

Design-Build Project



Request For Qualifications



Submitted to the Virginia Department of Transportation - VDOT
State Project No. 0064-965-264, P101, R201, C501, B616, B617, B618, B619, B620, D601, D602
Federal Project No. NHS-064-3 Contract ID No. C00104905DB75

April 17, 2014



In Association With



3.2 Letter of Submittal



QUALITY CONSTRUCTION
"ON-TIME, WITHIN BUDGET"

P.O. BOX 65128
VIRGINIA BEACH, VA 23467
(757) 420-1140 - FAX: (757) 420.7250
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April 17, 2014

3.2 - LETTER OF SUBMITTAL

Mr. Joseph A. Clark, PE
Alternate Project Delivery Office
Virginia Department of Transportation
1401 East Broad Street
Richmond, Virginia 23219

Statement of Qualifications:
I-64 Capacity Improvements – Segment I
RFQ No.: C00104905DB75

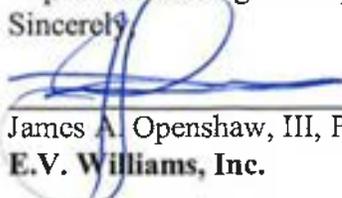
Dear Mr. Clark:

E.V. Williams, Inc. (EVW) is pleased to present our Statement of Qualifications for the above-referenced project to the Virginia Department of Transportation (VDOT). EVW is currently active in Design-Build highway work and has successfully completed VDOT projects similar in size and complexity to the I-64 Capacity Improvements-Segment I project. We have combined our talents with **Whitman, Requardt & Associates, LLP (WR&A)** because of their quality engineering documents, thoroughness of planning, evaluation and analysis, and their flexible and open communication style. The EVW DB Team presented in this submission is comprised of committed personnel with a record of proven delivery of VDOT’s requirements to meet or exceed the quality, safety and schedule demands of this Project.

- 3.2.1 Full Legal Name and Address of the Offeror:** E. V. Williams, Inc., P.O. Box 65128 • Virginia Beach, VA 23467
- 3.2.2 Offeror’s Point of Contact:** Mr. Bruce McIntosh, P.E. – DBPM • P.O. Box 65128 • Virginia Beach, VA 23467 • 757.420.1140 • 757.420.7250 (fax) • E-mail: bruce.mcintosh@evwilliams.com
- 3.2.3 Offeror’s Principal Officer:** Mr. James A. Openshaw, III, President • P.O. Box 65128 • Virginia Beach, VA 23467 • 757.420.1140 • 757.420.7250 (fax) • E-mail: jayo@evwilliams.com
- 3.2.4 Offeror’s Corporate Structure:** E.V. Williams, Inc. is a registered Corporation in the Commonwealth of Virginia and will take full financial responsibility for the Project without limitation.
- 3.2.5 Full legal name of Lead Contractor and Lead Designer:** E.V. Williams, Inc. (EVW) is Offeror and Lead Contractor. Whitman, Requardt & Associates, LLP (WR&A) is the Lead Designer.
- 3.2.6 Affiliated/Subsidiary Companies – see Appendices**
- 3.2.7 Certificate Regarding Debarment Forms – see Appendices**
- 3.2.8 Offeror’s VDOT Prequalification – Pre-qualification # W488, Status is Active-see Appendices**
- 3.2.9 Surety or Insurance Company Letter – see Appendices**
- 3.2.10 Professional Services Evidence – see Appendices**
- 3.2.10.1 Evidence of Registration with the Virginia State Corporation Commission – see Appendices**
- 3.2.10.2 Evidence of Registration with the Virginia Department of Professional and Occupational Regulation – see Appendices**
- 3.2.10.3 Key Personnel Registration with Virginia DPOR – see Appendices**
- 3.2.10.4 Non-APELSCIDLA Registration with Virginia DPOR – see Appendices**
- 3.2.11 Disadvantaged Business Enterprises Statement (2%):** We are committed to achieving a 2% DBE participation for the entire value of the contract.

The EVW DB Team appreciates the opportunity to provide our Statement of Qualifications for the I-64 Capacity Improvements-Segment I project. We look forward to your review of our submittal.

Sincerely,


James A. Openshaw, III, President
E.V. Williams, Inc.

April 17, 2014
Date of Signature

3.3 Offeror Team Structure

3.3 Offeror's Team Structure

The Team of *E.V. Williams, Inc. (EVW)* and *Whitman, Requardt & Associates, LLP (WR&A)*, not only has the professional personnel and experience to be selected the design-builder of the I-64 Capacity Improvements project, we also have firsthand knowledge of the risks as well as the more subtle nuances that come from designing and constructing many of the interstate projects in the local area.

EVW was the prime contractor on three VDOT projects and a major subcontractor on a fourth VDOT project, which expanded capacity on I-64 including the ten-mile section from the east end of the I-64 Capacity Improvement Segment I Project eastward to the I-64/I-664 Interchange. These four projects contained construction and design elements similar to the I-64 project including soil conditions, drainage issues, traffic, bridges, structures, and environmental features.



EVW was also the prime contractor on the recently completed VDOT Fort Eustis Boulevard project designed by a member of our Team *Johnson, Mirmiran & Thompson, Inc. (JMT)* that widened approximately 3.3 miles of Fort Eustis Boulevard from two lanes to four between Jefferson Avenue and George Washington Memorial Highway (Route 17) and as a subcontractor to Tidewater/Skanska to build the ½ -mile roadway portion of the second access to Fort Eustis.

WR&A has provided engineering, planning and construction management services to VDOT for over 60 years including major sections of I-64 and I-664 in the Hampton Roads District. WR&A is currently designing the Atkinson Boulevard project for the City of Newport News and beginning the design of the Denbigh Boulevard project for VDOT. Both projects include a new bridge over I-64 within the proposed project limits. WR&A has an engineering on-call contract with the City of Newport News and is currently designing utility and transportation improvements for the City. WR&A also has the Hampton Roads Sanitation District (HRSD) on-call engineering contract providing the Team a complete understanding of the potential utility impacts of the project.

WR&A and JMT are working on four Design-Build projects with *Branch Highways, Inc.*, a sister company of EVW. Our past and current working relationships along with our local knowledge will bring a unique skill set and expertise to this project.

3.3.1 Key Personnel

Resumes of the Key Personnel are included as Attachment 3.3.1-Key Personnel Resume Forms and can be found in the Appendices.



Bruce McIntosh, P.E. Design-Build Project Manager E.V. Williams, Inc. 35 years of Experience

Bruce McIntosh, P.E. will coordinate the entire Team throughout the duration of this project, will be the single point contact to VDOT and is a registered and licensed Professional Engineer in the Commonwealth of Virginia. He will have complete authority over all aspects of this endeavor including responsibility for the overall project design, construction, quality management, and contract administration. He will be responsible for ensuring that the DB Team is performing at high levels of

productivity and responsible for their roles on the Team. Mr. McIntosh will coordinate with the Public Relations Manager and represent the EVW Team at public events.

DB **Frederick Crozier, P.E.** **Quality Assurance Manager** **Alpha Corporation** **35 years of Experience**

Fred Crozier, P.E. will adhere to the *VDOT Minimum Requirements for Quality Assurance and Quality Control on Design Build and Public-Private Transportation Projects dated January of 2012* and will ensure the project meets and exceeds the QA requirements of the contract. He will have full responsibility to ensure the project is in compliance with the contract documents and “approved for construction” plans and specifications and will be in charge of all aspects of the QA program including independent QA inspections, sampling and testing. The QAM will report directly to the DBPM and also has the autonomy to report to VDOT and the Executive Committee. He has the authority to stop work and withhold payment for work not in compliance with the contract documents. It is his responsibility to assure a clear distinction between the QA and QC functions and separation of the management, inspection, sampling and testing of each function. He will be assigned to this project on a full-time basis and has no current assignments. Fred is a registered and licensed Professional Engineer in Virginia.

DB **John Maddox, P.E.** **Design Manager** **WR&A** **28 years of Experience**

John Maddox, P.E. will serve as the Design Manager (DM) for this project and is a registered and licensed Professional Engineer in Virginia. Mr. Maddox will report to the DBPM and will be responsible for coordinating the individual design disciplines and ensuring the overall project design is in conformance with the Contract Documents. In addition, he will establish and oversee the design QA/QC program that meets or exceeds the *VDOT Minimum Requirements for Quality Assurance and Quality Control on Design Build and Public-Private Transportation Projects dated January of 2012* for all appropriate disciplines involved in the design of the project including review of design, working plans, shop drawings, specifications and constructability for the project. He will be responsible for leading the design efforts of WR&A and JMT and will coordinate with **Robert Gallagher, P.E.**, Lead Roadway Engineer on the design of the project.

DB **Mark Osenbaugh** **Construction Manager** **E.V. Williams, Inc.** **32 years of Experience**

Mark Osenbaugh will serve as the Construction Manager on this project and will report to the DBPM. Prior to construction Mr. Osenbaugh will be involved in constructability reviews and work with the Safety Manager to develop project specific Safety and Emergency Response plans. He will work with the QC Manager to establish QC communication to ensure materials and work meet the contract requirements and the “approved for construction” plans and specifications, as well as refine the CPM Construction Schedule. During construction he will be responsible for the management of all construction and Quality Control aspects of the project. He holds a Virginia DCR (DEQ) Responsible Land Disturber Certification (RLD) #41768 and a VDOT Erosion and Sediment Control Contractor Certification (ESCCC) #5138C. He will be assigned to the project full-time and a list of his current assignments is provided on his resume.

DB **Jeremy Schlussel, P.E.** **Lead Structural Engineer** **WR&A** **18 years of Experience**

Jeremy Schlussel, P.E. will lead the bridge, retaining walls and other structures design efforts for the I-64 project and is a registered and licensed Professional Engineer in Virginia. He will report to the DM. He will ensure all structural designs are completed in accordance with VDOT’s Road and Bridge

Standards and design manuals and the project Design QA/QC requirements. He will review all existing bridge structures and box culverts in relation to the risks outlined in **3.5: Project Risks** section of this SOQ. During design he will work with our Geotechnical Engineer to analyze and mitigate risks to existing and new bridge structures. During construction, Mr. Schlüssel will continue project involvement with responsibilities such as shop drawing review, RFI responses and field meetings. Mr. Schlüssel is providing similar bridge design services on two Design-Build projects in Virginia for **Branch Highways, Inc.**, a sister company of **E.V. Williams, Inc.**

 **Robert Gallagher, P.E.** **Lead Roadway Engineer** **JMT** **27 years of Experience**

Robert Gallagher, P.E. will serve as our Lead Roadway Engineer and report directly to the DM and is a registered and licensed Professional Engineer in Virginia. He will coordinate closely with the Geotechnical Engineer, Lead Structural Engineer, WR&A Roadway Design Manager, Hydraulic Design and Traffic Engineering/ITS and TMP. Mr. Gallagher will ensure all applicable Federal, State and local requirements and the Design QA/QC plan are adhered to as well as working with the Geotechnical Engineer to mitigate risk associated with geotechnical/insitu soil concerns throughout the project, as outlined in Section 3.5 Project Risks. During construction he will continue to be engaged in the project performing submittal reviews, respond to RFIs as well as on site meetings.

 **Lauren Hansen** **Public Relations Manager** **PRR, Inc.** **14 years of Experience**

Lauren Hansen will serve as the Public Relations Manager. Although she will be a direct report to the DBPM, she will have the autonomy to report to VDOT and the Executive Committee. Her past experience as the VDOT Hampton Roads District Public Affairs and Communications Manager and pre-existing contacts with VDOT and many of the third-party stakeholders will allow her to work with a great deal of autonomy. Ms. Hansen will be responsible for developing the public relations plan and managing all external communications with third-party stakeholders, the media and the general public during design and construction of the I-64 project.

Additional Key Staff Members

Each individual listed above has extensive experience in their respective role for this project as well as experience in Design-Build projects. Equally important is the vast level of experience this group has working in the local market with the same stakeholders as will be found on this project. Although the RFQ does not list the geotechnical engineer or the traffic engineer as key personnel, we included them as a part of our internal key personnel due to their importance in mitigating the geotechnical/insitu material and the maintenance of traffic risks. These additional key personnel and their crucial involvement in helping to mitigate risk are as follows:

Geotechnical Engineer: Bruce A. Spiro, P.E – Bruce has over 30 years of experience providing professional geotechnical engineering services in the region and will lead the efforts of **GET Solutions, Inc.**, who has worked with EVW on several local projects to address poor soil conditions. Mr. Spiro has acquired extensive experience in geotechnical analysis and design in the Hampton Roads area working on many of the largest and most challenging civil construction projects in the region. His analysis, insights and recommendations will be an invaluable asset to our design approach.

He will have a major influence in assisting the numerous design disciplines to mitigate risks associated with this project as well as providing advice on suitability of on-site material for designing SWM

facilities to meet the most current requirements. He will work closely with the roadway and structural lead engineers to address the impacts and risks of the poor soils along the project. The expected settlement of the poor soils will impact the foundation design of the bridges, box culverts, sound barrier walls, and retaining walls. He will work closely with the CM to address potential geotechnical impacts to the schedule.

Maintenance of Traffic: Dana Trone, P.E., PTOE – Dana will be the Lead Responsible Engineer for WR&A in developing the Traffic Management Plan for this project and will lead the ITS and traffic engineering portions of the design. Dana has 17 years of traffic engineering experience including traffic analysis, IMRs, traffic signals, signing and pavement markings. She has successfully completed the development of TMPs for complex interstate projects including the I-64 corridor. We anticipate the Traffic Management Plan being a Type C plan that will include a traffic analysis of each phase of construction to determine the safest and least disruptive plan for the motoring public, while still allowing efficient access for construction. In addition to I-64, she will look closely at Fort Eustis Boulevard to analyze how closing a lane in each direction to construct the bridge foundations will impact traffic exiting I-64. Traffic operations at the Fort Eustis interchange are a major risk to the success of the project. Having an experienced Design Team of WR&A and JMT, who have successfully developed and implemented the TMP for the I-95/495/295 Interchange just north of the Woodrow Wilson Memorial Bridge, will ensure an effective TMP will be implemented on the I-64 project. Dana will work with the EVW MOT Coordinator, Design-Build Project Manager, Safety Manager and Public Relations Manager in the design phase to ensure constructability of the design and development of an effective TMP. Input from Virginia State Police, local emergency responders and VDOT Traffic and Safety personnel will also be solicited for inclusion in the TMP.

3.3.2 Organizational Chart

The EVW Team Organizational Chart is shown on the last page of this section (Page 7). We have used solid lines to show direct or primary reporting responsibility, dashed lines to show communication lines, a key symbol to indicate Key Personnel as well as a color-coded legend to depict the various companies involved. Please note that our Team at this stage has three DBE firms. Additional firms will be added on the construction side to meet or exceed the DBE commitment on this project.

Organizational Chart Narrative

VDOT: VDOT will coordinate directly with our DBPM, as the primary contact, for all aspects of design and construction oversight of the project. We anticipate a close working relationship to resolve design concerns, public relations coordination, coordination with VDOT construction and maintenance work in the area as well as our Traffic Management Plan. VDOT will communicate with the Quality Assurance Manager and Public Relations Manager.

The Executive Committee: These executives are an important component in managing the risk associated with the project. The committee will meet quarterly to review the risk log and assure that risk mitigation strategies are being followed or adjusted as circumstances warrant. This committee will have the autonomy to solicit input from any team members associated with the project as well as identified third-party stakeholders or other interested parties.

Design-Build Management Team: Our DBPM will serve as VDOT's single point of contact. Reporting to the DBPM are seven discipline managers QAM, DM, CM, PR Manager, Utility Manager, ROW Manager, and Safety Manager. The DBPM and the discipline managers will meet weekly to review the schedule, address potential risks, and establish an action plan for the next two-week period.

The Management Team will establish Task Teams to address main elements of work that are critical to the schedule, major cost elements, risks, safety, MOT, and communications; which are critical for the success of the project. Each Task Team will report weekly to the DBPM and will be chaired by one of the discipline managers.

Quality Assurance Team: *Alpha Construction & Engineering Corporation* will provide QA services for the project. Alpha currently holds the Hampton Roads CEI contract and has 210 employees supporting their efforts in the region. The proposed QAM, *Fred Crozier, P.E.* has recently performed as a QAM on four projects in Virginia, which gives him a full understanding of the QA process. *Engineering and Testing Consultants, Inc.* will provide independent QA testing for the Alpha QA Team.

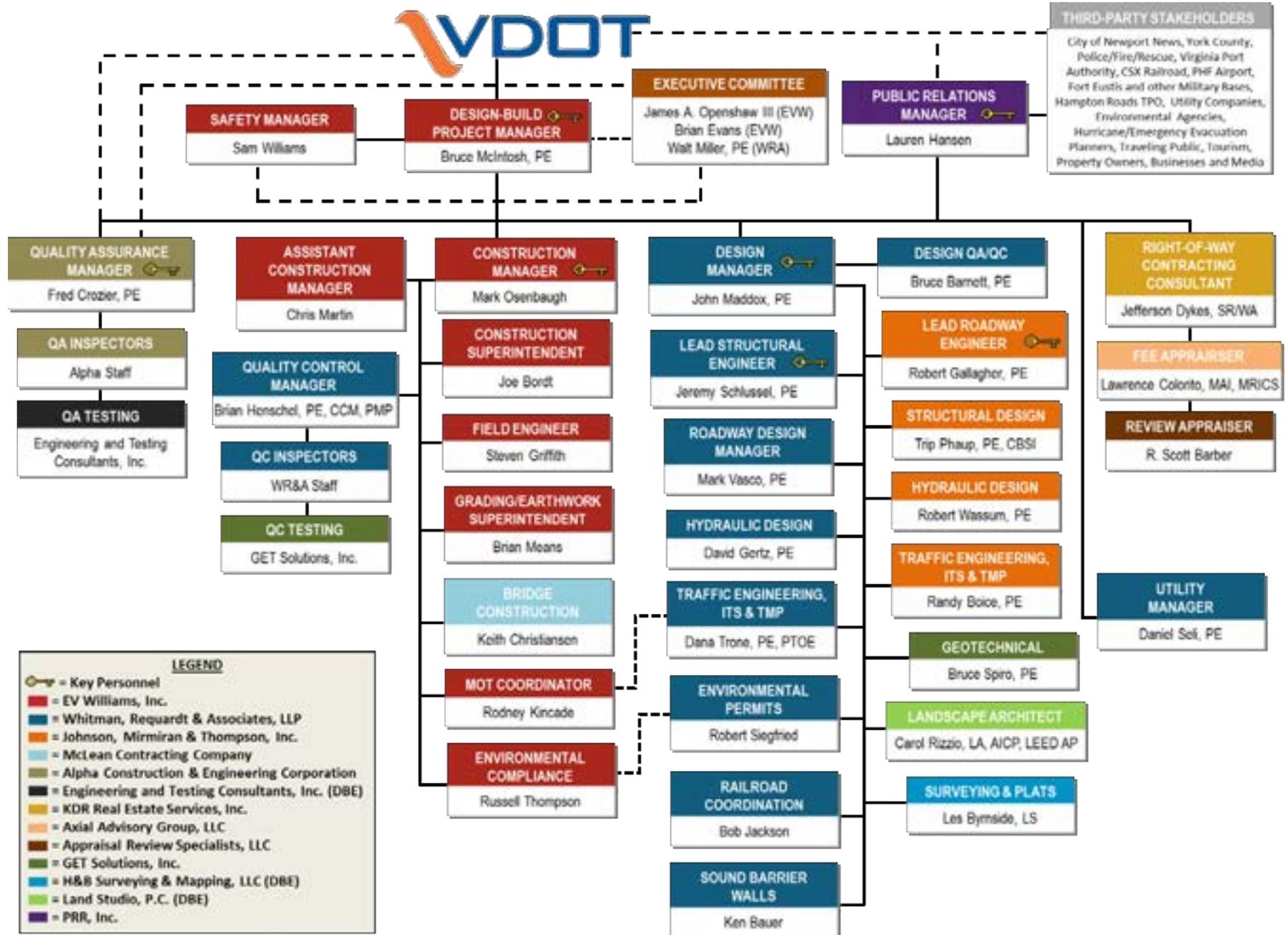
Design Team: Due to the size, complexity and aggressive schedule desired for the project, WR&A selected JMT as a major design partner for the I-64 project. WR&A and JMT have formed a joint-venture before, to deliver a \$250 million interstate reconstruction of the interchange at I-95/495/295. Additionally, both firms are currently working with EVW's sister company, *Branch Highways, Inc.*, on Design-Build projects in Virginia and have extensive Design-Build experience in the Mid-Atlantic region. The DM will coordinate between the firms and will assign the west end of the project to *Robert Gallagher, P.E.*, the Lead Roadway Engineer, of JMT and the east end to *Mark Vasco, P.E.* of WR&A. Both firms will work closely with *H&B Surveying and Mapping, LLC* for topographic surveys, utility designations and Right-of-Way plan sheets. The Design Team will also coordinate with *Land Studio, P.C.* to develop a landscaped median within the I-64 corridor in the areas designated in the RFQ Plans.

Design QA/QC: *Bruce Barnett, P.E.*, with 24 years of experience, will report directly to the DM. He will use as a guide the *VDOT Minimum Requirements for Quality Assurance and Quality Control on Design Build and Public-Private Transportation Projects dated January of 2012* as minimum design QA and QC standards for this project. All QA and QC reviews will be completed prior to submission of documents to the DBPM. The QAM will certify compliance with the QA/QC Plan before transmission to VDOT.

Safety Manager: *Sam Williams* will work with the DBPM and the MOT Manager to identify safety risks and develop a project specific Safety and Emergency Response Plan prior to construction. Mr. Williams will make regular visits to check for compliance, identify any issues and report directly to the DBPM. He will also communicate openly with the CM to coordinate appropriate training of construction crews. He will have the authority to stop any activity he deems unsafe. Under his leadership, EVW's EMR rating has averaged .78 for the past six years, proving EVW's dedication to safety.

Construction QC Manager: *Brian Henschel, P.E., CCM, PMP* will lead the QC program and report directly to the CM. He will manage the QC inspectors and the independent testing lab *GET Solutions, Inc.*

Right-of-Way Acquisitions: *Mr. Jefferson Dykes, SR/WA* of *KDR Real Estate Services, Inc.* will lead the Right-of-Way acquisition services for the project. KDR is a VDOT pre-qualified right-of-way consultant. KDR will utilize the *Axial Advisory Group, LLC* for fee appraisal services and an independent review appraiser, *Appraisal Review Specialists, LLC*; both of whom are pre-qualified with VDOT for fee appraisals and review appraisals respectively.



3.4 Project Experience

3.4 Offeror's Project Experience

Please refer to Attachment 3.4.1 (a) Lead Contractor Work History Forms and Attachment 3.4.1 (b) Lead Designer Work History Forms, located in the Appendices.

3.5 Project Risks

3.5 Project Risks

The EVW Design-Build Team has a complete understanding of the importance of the I-64 corridor in Virginia and the risks associated with major widening projects along the corridor based on our past project experience. The I-64 Corridor serves over 120,000 VPD and is a vital link for tourism, trucks accessing the Virginia ports, numerous military bases and is the critical Hurricane Evacuation route for the Hampton Roads region. The EVW DB Team understands the importance and risk associated with the I-64 Corridor based on the successful completion of four major widening projects totaling over \$225 million. These projects included expanding the capacity on I-64 over a ten-mile stretch from the east end of the I-64 Capacity Improvement Segment I project eastward to the I-64/I-664 Interchange.

Our Design-Build Team includes *McLean Contracting Company*, who has constructed numerous bridges along the I-64 corridor, including the bridges for EVW’s I-64 Battlefield Blvd. Interchange project and EVW’s I-64 Mercury Blvd. McLean also constructed the bridges for EVW’s Route 13/158 Design-Build contract – all three projects are highlighted on EVW’s Work History Forms located in *Attachment 3.4.1 (a)* of this SOQ. We have utilized this extensive past experience to complete a preliminary risk analysis of the I-64 project and assembled a Design-Build Team to specifically manage these risks to ensure the successful completion of the project. The EVW Design-Build Team has completed a preliminary analysis of the risks beginning with identifying each major risk and then assessing the likelihood of the occurrence and severity the risk poses to the project success. The Design-Build Team has determined the following three key risks, which are discussed in further detail in Section 3.5.1:

- **Geotechnical – Insitu Soils within the Project Limits:** EVW has successful experience with constructing projects in all soil conditions presented in the GDR and selected *GET Solutions, Inc.* as the geotechnical engineer for the project for their extensive knowledge and experience in the region and past working relationship with EVW and WR&A.
- **Utilization of Existing Bridge Elements (foundations, columns, pier caps and superstructure elements) in the Proposed Widening of the Existing I-64 Bridges:** The EVW Design-Build Team includes WR&A and McLean, who have extensive experience working together designing and constructing bridge projects in the region. McLean has extensive history working with EVW on the I-64 corridor. WR&A’s expertise in investigating existing structure conditions and determining necessary rehabilitation will be an important aspect of mitigating this risk.
- **Maintenance of Traffic:** The WR&A Traffic Engineering Group has recently completed several complex TMPs along I-64. EVW will have full-time MOT crews on site, which allows faster response to the complex needs of traffic in this heavily traveled corridor. The end result will be a safer work zone with minimal impact to traffic operations.

The table below highlights other potential risks that the EVW Design-Build Team identified and evaluated in our analysis.

Secondary Risks Identified and Evaluated by the EVW DB Team		
Risk Description	Impacts if Risk is not Mitigated	Likelihood of Risk to Occur
Potential design exceptions for existing pavement cross slopes and outside shoulder widths.	I-64 will require milling and/or overlay to correct the cross slopes and outside shoulders to be widened.	Medium – Design Exception or revised plans will be included in RFP documents.
Design and construction of sound barrier walls to not impact future widening of I-64.	Future I-64 widening could require reconstruction of sound barrier walls.	Medium – The location of the sound barrier walls can be detailed during the RFP stage.

Secondary Risks Identified and Evaluated by the EVW DB Team

Risk Description	Impacts if Risk is not Mitigated	Likelihood of Risk to Occur
Widening of existing bridges could potentially be impacted by I-64 widening and future interchange improvements.	Bridges would need to be reconstructed by future I-64 project.	High – Dependent upon future design that can be detailed during the RFP stage.
Pollution of Lee Hall Reservoir from construction activities – storm run-off or hazmat spill.	Temporary closure of the Lee Hall Reservoir, the primary source for drinking water to the region.	Low – The project will follow stringent E&S controls and monitoring during construction and include a formal plan for hazmat containment.

3.5.1. – Critical Risks of the Project

Critical Risk 1: Geotechnical – Insitu Soils within the Project Limits

Why Risk Is Critical: Based on the EVW Design-Build Team’s experience in the Hampton Roads region, it was quickly recognized that the insitu soils pose the most critical risk to the success of the project. While reviewing the GDR, the Bridge Plans and the Plan-Profile sheets accompanying the RFQ along with our field visits, we identified the following areas of risk:

- 1. Unsuitable Median Material:** A note from the 1963 plans states, “Undercut to be used as topsoil or as fill off shoulders.” Based on our past experience with constructing projects along the I-64 corridor, this material was frequently deposited into the median, which resulted in substantial undercuts or other ground improvements to create a sub-base suitable for pavement.
- 2. Negative Skin Friction on Bridge Piles:** Stress increases due to soil consolidation will affect the existing abutment piles in the form of negative skin friction.
- 3. Excessive Consolidation Settlements:** According to a note on Page 4 of the GDR and our review of the borings, excessive consolidation settlements are expected in situations where fill depths in excess of 8-10 feet are applied. Depending on the mitigation strategy this may have a significant impact on construction duration.
- 4. Connection of Box Culverts with Differing Foundations:** From reviewing the as-built plans, the box culvert on I-64 eastbound lanes at approximately Station 1507 was constructed on wooden piles; while the box culvert on the westbound lanes was not supported by wooden piles. Rigidly connecting these differing structures could result in long-term maintenance concerns.
- 5. Connection of Existing Box Culverts and Drainage Pipes in Embankments above 8 feet:** The potential for settlement at drainage structures will need to be carefully considered during design. For example, at approximately Eastbound Station 1742+25 box culverts D-601 and D-602 have had years to compress the poor soils below. Rigidly tying these two boxes together and subsequently inducing added loads to the new section of the box culvert may generate excessive stress at the connection to the existing box culverts.
- 6. GDR Information for Sound Barrier Walls:** The sound barrier walls are proposed in areas with no soil borings included in the RFQ GDR. This significantly reduces the ability of the Design Build Team to assess the risk of the sound barriers.
- 7. GDR Information for Stormwater Management Ponds:** The stormwater management ponds are proposed in areas with no soil borings included in the RFQ GDR. This impacts the ability of the Design-Build Team to assess the risk of sizing the ponds.

Risk Impacts:

All the above risks ultimately manifest as impacts to cost and schedule, which are critical to the success of

the project and can be addressed with proper design and construction. An additional risk is safety. Based on our extensive experience on projects along the I-64 corridor, we know that exporting and importing material into the median construction zone will have a severe impact to motorists' safety and operations. Impacts to existing bridges, box culverts and drainage pipes caused by excessive compression settlement of the soft marine clays will need to be analyzed carefully. The structural integrity of the existing bridge structures may be compromised as a result of the negative skin friction on the piles impacting the scope of the bridge construction. Additionally, the excessive shear stresses at junctions between existing and new sections of box culverts or pipes in areas with fills in excess of 8 feet could impact future maintenance. The lack of borings and subsequent geotechnical report in the median and at anticipated sound barrier wall locations will require an overly conservative design during development of the Technical and Price Proposals resulting in a higher Price Proposal.

Mitigation Strategies:

1. Unsuitable Median Material: We propose a well-planned geotechnical investigation to generate an assessment of the magnitude of unsuitable materials in the median. With this additional information we will be able to generate an effective mitigation strategy, which could include undercutting and backfilling, geotextile fabrics, geo-grids, lime or cement stabilization, wick drains, surcharging, lightweight fills, and in worst case scenarios ground improvement piles. Our main goal would be to minimize the volume of material entering and leaving the median; therefore, minimizing the impacts to the traveling public, similar to our experience on the I-64 Battlefield Boulevard project.

Dominion Blvd. Wick Drains Installation



2. Negative Skin Friction on Bridge Piles: A detailed geotechnical and structural analysis will be performed to fully evaluate the impacts to the existing bridge abutment piles. At each of the abutments we anticipate potential negative skin friction. Page 4 of the GDR states in part, “due to the



Dominion Blvd. Pile-Supported Embankment at Bridge Approach

extensive amount of compressible clays encountered throughout the project alignment, fills in excess of 8-10 feet would like result in excessive settlements ...”. Negative skin friction could occur at both the Industrial Park Drive and Fort Eustis Boulevard bridges. The reservoir bridges have the added risk of creating negative skin friction due to consolidation of surrounding soils generated by vibrations from driving piles for the new bridge sections. Our mitigation strategy would further investigate options such as lightweight fills at the abutments, vibration monitoring of existing bridges while driving piles, as well as investigating alternatives to typical square concrete piles such as augercast piles.

3. Excessive Consolidation Settlements: Mitigation of this risk will quite likely be a multi-faceted approach. Typically the most cost effective method of consolidating soft clay soils is with a surcharge. Utilizing this strategy has the disadvantage of potentially having severe impacts on the schedule. For this reason scheduling and sequencing of construction will be critical. Early construction of substantial fills and surcharges in areas with a high risk of substantial consolidation can be a key part of the mitigation strategy. In areas where early fills may not be possible including locations involving bridge construction, other solutions such as lightweight fills or installation of wick drains will be investigated.

4. Connection of Box Culverts with Differing Foundations: In reviewing the GDR, the area at Station 1507 contains some of the most challenging soils on the project. Further geotechnical analysis and

evaluation of the structural integrity of the existing box culvert will be required to determine the best mitigation strategy. The Team will assess the challenges of tying the pile-supported structure to a non-pile supported structure and subsequently inducing additional settlement by adding the proposed fill required to bring the area up to grade. Mitigation could range from a special design structural detail to replacement of the existing box culvert.

5. **Connection of Existing Box Culverts and Drainage Pipes in Embankments above 8 feet:** Our mitigation strategy will include a thorough review of the existing structures, soil conditions, anticipated loads and various alternative designs, construction means and methods, and material options to develop the best solution. We will review areas where differential consolidation between the existing and proposed lanes are anticipated, which will require the evaluation of the potential risk of shearing the pipe joint near the transition from existing to new fill, or a progressive tipping of the pipe resulting from construction of the fills.
6. **GDR Information for Sound Barrier Walls:** Our mitigation will include generating a preliminary Noise Abatement Design Report to determine the location of sound barrier walls. Since there are no soil borings in the GDR included in the RFQ for these areas, additional geotechnical investigations will be obtained to determine the most economical foundation design during the Technical Proposals.
7. **GDR Information for Stormwater Management Ponds:** A major element in the sizing of SWM basins is the soil encountered in constructing the basin. Based on the fact that land for most of the intended SWM basins will need to be acquired for the project, the importance of designing SWM basins has a substantial impact on the amount of ROW to be acquired. Sizing of SWM ponds and resultant ROW acquisition is difficult without the information to determine permeability and infiltration capacity. The presence or absence of groundwater within the vertical limits of the pond design depth, along with classification of materials within the subsurface profile, will have significant impact on proper sizing of the ponds. To mitigate this risk, we will perform additional soil investigations for proposed SWM ponds.

Role of VDOT and Other Agencies:

We recommend that VDOT expands the GDR to include the median, sound barrier walls and SWM facilities. This will significantly reduce the risk during the Technical Proposal and pricing phase, resulting in significant cost savings to VDOT. VDOT's role will be to completely review submittals in a timely manner.

Critical Risk 2: Utilization of Existing Bridge Elements (foundations, columns, pier caps and superstructure elements) in the proposed widening of the Existing I-64 Bridges

Why Risk Is Critical: There are multiple risks associated with utilizing the existing structural elements for the proposed widening of the six existing bridges. The first risk is **condition** based – the existing bridge structures were built in the 1960s as simple span bridge structures and have been in-service for over 50 years; exposing the reinforced concrete and structural steel elements to yearly freeze/thaw cycles and roadway salts. Based on available information from the latest Bridge and Large Culvert report, none of these bridges have had any major rehabilitation performed since their completion. The second risk is **design** based – the existing bridge structures were designed under the 1961 AASHTO Standard Design Specifications. Subsequently, the bridge over Industrial Park Drive was widened under the 1977 AASHTO Standard Design Specifications. These standards did not take into consideration various design elements that are currently accounted for in today's codes/standards, including, but not limited to shear design, earthquake loading, foundation design (including pier impact), geometry standards (shoulder width and vertical clearances) and service life.

Risk Impacts:

- **Material Risk (all 6 bridges):** As with many projects built in the 1960s, these bridges were designed and built as simple span bridges and with a more permeable concrete than what is used today. The presence of joints and the more permeable concrete causes the bridge structures to be more susceptible to being contaminated with chlorides from roadway salts. In addition, the existing structural steel coatings for the bridge structures over Industrial Park Drive and Fort Eustis Blvd. may contain lead, which is an environmental hazard that will require mitigation. The bridge located over Industrial Park Drive poses significant risk as the existing bridge deck included a 1½-inch asphalt overlay, when widened in 1982. This asphalt overlay has trapped moisture and chlorides for over 30 years, which could lead to significant deterioration of the underlying concrete deck and poses significant risk during the proposed widening.
- **Design Risk:** As with all projects where existing elements are proposed to be re-used and widened, it is critical that the Engineer review how the existing bridge structures were designed and how current service loads may impact the existing bridge elements. For all of the bridge structures to be widened, fill will be required adjacent to existing conditions and with the presence of poor soils, installation of new foundations adjacent to existing foundations could affect the existing bridge structures. In addition to the fill requirements, the RFQ package only shows proposed work along the median with the final shoulder configuration on both the left and the right being 12 ft. The final shoulder width poses a design risk for sub-standard shoulders (less than/equal to 12 ft.) for the design year hourly truck volumes and with proposed work only shown for the median side, the existing exterior parapet will not meet the guidelines as set-forth in *Vol. V, Part 2, Ch. 25*; both of these will require design exceptions.

At the **Industrial Park Drive** overpass, several design risks are present. With the overhead electrical lines, the design and installation of new foundations elements and setting of new beams/girders will be challenging to maintain minimum crane clearances. Additionally, pier protection will be required to be added to the existing columns adjacent to the underpass, which could impact geometric standards along Industrial Park Drive. In addition, the widened bridge structure will require a fence over the railroad span, which could pose a design issue with the existing beam along the shoulder. The existing vertical clearance (less than 16'-6") on the bridge structures located over **Fort Eustis Blvd.** is sub-standard. This will require a design waiver and the existing barriers in-front of the piers do not meet current requirements. To design and construct the widened pier and pier protection will require closure of one lane of Route 105, which will impact traffic through the interchange and could affect final lane geometry. The bridge structure over **Lee Hall Reservoir** has a sound barrier wall shown on the roadway plans, which will more than likely be carried across the bridge structure. This could impact the load carrying capacity of the existing exterior beam. To widen the abutment, a cofferdam could be required to facilitate construction. Any one of these elements could require either a design exception or waiver to document why the current standards are unable to be met. However, if the design exceptions or waivers are not approved, it could result in additional work or possible replacement of the bridge structures.

Mitigation Strategies:

- **Material Mitigation Strategy:** To mitigate the material condition, a full hands-on field investigation will take place to record any deficient concrete elements present in the sub-structure and superstructure condition (steel and concrete); this will include material testing programs to record the concrete chemical compositions. The chemical composition analysis will include half-cell potential, chloride measurements, petrographic analysis, and/or compressive strength tests to provide a comprehensive understanding of existing material conditions. Once the results of the material testing

have been received, the long-term material performance risks can be minimized by including a passive cathodic protection system or a combination of chloride extraction and long-term cathodic protection.

- **Design Mitigation Strategy:** WR&A is a leader in design and rehabilitation of VDOT bridges and has worked on over 175 bridge projects that have involved investigating existing conditions and how to apply the current codes appropriately. Working with *McLean*, who has over 100 years of bridge building experience; our Team will determine the most appropriate solution for these bridges from both a design and construction perspective. Our Team will conduct a review of the existing elements to identify where the sub-structure might be deficient compared to current standards and determine how these existing elements can be incorporated into the project with minimal impacts. Such strategies will include the review of external reinforcing, such as carbon fiber wrap, the use of lightweight concrete, and review of superstructure types (i.e., structural steel vs. concrete) and simple span with continuous for live load versus fully continuous superstructure to eliminate the joints, which is a goal of the VDOT S&B Division.

The proposed Team will minimize the risk to VDOT by providing a single source to evaluate, design and construct solutions for the widening of the six bridge structures along this corridor. Having designed and built hundreds of projects similar to this one for VDOT, our Team will undertake an extensive material testing program. This program will identify the existing material conditions in conjunction with a Life Cycle Cost Analysis (LCCA) and evaluate the most appropriate superstructure option to provide long-term low maintenance solutions.

Role of VDOT and Other Agencies:

VDOT's role will involve review and oversight of these activities during the scope validation period and will be responsible for approval of major changes in the scope of the project such as a superstructure or bridge replacement. VDOT will also review and comment on the final design packages for the bridges.

Critical Risk 3: Maintenance of Traffic at Fort Eustis Boulevard and Phasing of Construction

Why Risk Is Critical: This entire corridor, especially in the vicinity of both east and westbound I-64 at the Fort Eustis Boulevard interchange, has an unacceptably high crash rate. While the completed project should reduce this crash rate, the MOT requirements of the project create the potential for increased crashes, resulting in even more delays for the traveling public. Areas of concern are as follows:

1. **Reduced Typical Section:** We will be eliminating the shoulders along both eastbound and westbound I-64 and Fort Eustis Boulevard in the vicinity of the interchange while we construct the inside widening; therefore, eliminating the acceleration, deceleration and/or weave areas serving the interchange loops and ramps.
2. **Outside Shoulder Strengthening:** Initial outside shoulder work to increase the pavement thickness to accommodate the shifting of traffic onto the outside shoulder will require night-time lane closures with approximately a 10" drop-off at the outside edge of the existing outside lane along both eastbound and westbound I-64.
3. **Temporary Elimination of the Shoulders:** Lack of available shoulders for vehicles involved in crashes, mechanical problems or other emergencies to pull out of the flow of traffic and obtain a greater degree of safety.
4. **Phasing for Construction Outside the Median:** The lack of available work space for activities on the outside of the interstate resulting in a longer project duration and night-time lane closures.

Risk Impacts:

A poorly planned, designed and implemented maintenance of traffic plan could have fatal consequences for motorists and our workers along this very congested interstate corridor. Every incident along the

corridor will impact the commute of thousands of motorists, and Route 60 and Jefferson Avenue that parallels I-64, which significantly impacts the City of Newport News. Stakeholder public perception of the project will be critical to the success of the project and any future projects along the I-64 Corridor. Stakeholder feedback during construction has the potential to impact the duration of the project by reducing opportunities for critical construction operations.

Mitigation Strategies:

The EVW Design-Build Team mitigation strategies would begin with the development of Type C Transportation Management Plan (TMP) that has a major focus on incident management and communication. The TMP will be influenced by the lessons learned by EVW's and McLean's vast experience constructing projects along the I-64 Corridor. The public communication plan will be guided by the extensive experience of **PRR, Inc.** developing communication plans on the interstate system in Hampton Roads. Below we have demonstrated our mitigation strategy for several major elements of the MOT for the I-64 project.

1. Reduced Typical Section: The I-64 at Fort Eustis Boulevard Interchange is known for having a very high crash rate, approximately four times similar roadways. In fact, one of Hampton Roads TPO's other priority projects is to reconstruct the entire Fort Eustis Boulevard interchange to improve safety and operations. Eliminating the right shoulder and the auxiliary lanes between the loop ramps as well as the added distraction of construction activity will potentially contribute to additional incidents during construction, resulting in additional lane closures and potentially a full closure of I-64 temporarily to clear incidents. A Work Zone Traffic Impact Assessment will be performed to identify and evaluate mitigation strategies to minimize impacts to operations at the interchange. Potential mitigation strategies include:

- Installing stop control at the ramp termini for the loop ramps will be considered; however, an analysis will be performed to confirm that this will not result in excessive queuing, especially along the mainline of I-64, increasing the potential for rear end crashes. To mitigate this, potentially eliminating a through lane along Fort Eustis Boulevard and allowing the loop ramp to enter Fort Eustis Boulevard as an added lane will be considered (especially for the westbound I-64 to westbound Fort Eustis Boulevard loop ramp, which has a very high volume – over 1,100 vph in the AM peak hour and over 600 vph in the PM peak).
- Closing the loop ramp from eastbound Fort Eustis Boulevard and diverting them to northbound Jefferson Avenue to access westbound I-64 from Jefferson Avenue. An assessment of queues and operations at the Jefferson Avenue at Fort Eustis Boulevard intersection will be performed to confirm the diverted traffic can be accommodated and will not cause other negative impacts.

In both cases, a part of our mitigation strategy will be to construct the I-64 bridge and approaching lanes over Fort Eustis Boulevard on an early completion schedule to allow traffic to be shifted back to the original lane configuration as quickly as possible.

2. Outside Shoulder Strengthening: We anticipated that traffic will be required to be shifted onto a portion of the outside shoulder for an extended time period to construct the additional lanes in the median. Prior to shifting traffic, the shoulder will need to be strengthened. The median shoulder depth is inadequate to carry traffic volume while the outside shoulder is being strengthened, requiring nighttime lane closures for this work with approximately a 10" drop-off at the edge of the right lane in the work zone. A Work Zone Impact Assessment will be performed to compare hourly traffic volumes to the work zone capacity and establish appropriate nighttime work hour restrictions to minimize impacts to traffic. To mitigate this risk, we intend to involve State Police to assist in increasing driver awareness and slowing traffic, keep the beginning of the closure as tight to the nighttime work zone as possible and provide a high level of advance notification to the public through a

comprehensive outreach program. A critical element is ensuring the outside shoulder will be opened each morning by planning for potential equipment and asphalt production failures.

3. **Temporary Elimination of Shoulders:** During construction of this project, there will be no place for vehicles involved in crashes or having mechanical issues to pull off on the outside shoulder. If vehicles cannot move out of one or more of the travel lanes, traffic backups and delays will grow quickly, emergency vehicles will not be able to respond as quickly to incidents and the traveling public will be severely impacted. As part of our mitigation strategy, we will work to establish pull-off areas in accordance with the Virginia Work Area Protection Manual and in close coordination with VDOT and the State Police to create temporary areas on the median side where traffic can pull out of the travel lanes for emergencies.
4. **Construction Phasing for Construction Activities Outside the Median:** Activities that will need to be completed on the outside edge of the travel lanes include installation of sign structures, ITS elements, SWM ponds and sound barrier walls. Our mitigation strategy to minimize impacts to the project duration include:
 - Completing these activities always has a major impact to traffic often requiring additional nighttime lane closures or extended project duration to complete the construction in a separate phase. Providing construction access to the outside work areas from Jefferson Avenue, Industrial Park Drive and Richneck Road would minimize impacts to traffic.
 - Due to the anticipation of three miles of sound barrier wall along westbound I-64, it will be important to complete large portions if not all of the westbound capacity expansion in time to allow two lanes of traffic to be placed on the inside two lanes to allow work from behind a temporary concrete barrier to construct the sound barrier walls along the shoulder.

Role of VDOT and Other Agencies:

We request VDOT provide crash data, traffic counts and existing traffic models for the EVW Team to utilize in developing the TMP and provide review and comment of the TMP for the project. We will invite VDOT to participate in preparatory meetings for major shifts in I-64 traffic and during the implementation of the traffic shift. VDOT will assist with coordination with State Police for all activities that impact traffic and provide support from the traffic operations center to help communicate traffic operations during construction. The EVW Design-Build Team will also provide regular updates to VDOT to address questions from third-party stakeholders and update VDOT's project website.

In summary, EVW has an established process for risk management on all projects. On the I-64 Capacity Improvements project the entire Team will follow this process to manage and mitigate risk. In addition to the previously identified critical risks, secondary risks and all future risks identified as the project progresses through design and construction will be logged into the risk matrix. At our weekly meeting each newly identified risk will be analyzed to determine the potential impacts of each risk and the likelihood of the risk occurring. A team member will be assigned to be the champion of each risk.

The champion will be responsible for weekly updates of potential impacts and mitigation strategies. All team members will assist in further analyzing potential impacts as well as mitigation strategies for each risk. The champion will also prepare a narrative of each assigned risk and its' current status for inclusion in the monthly risk report for the Executive Committee. The Executive Committee will review the status of each risk at their quarterly meeting to ensure adequate focus is being maintained by the champion and Team.

Appendices

SOQ Checklist

ATTACHMENT 3.1.2

Project: 0064-965-264

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

ATTACHMENT 3.1.2

Project: 0064-965-264

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
SCC and DPOR registration documentation (Appendix)	Attachment 3.2.10	Section 3.2.10	no	Appendices
Full size copies of SCC Registration	NA	Section 3.2.10.1	no	Appendices
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	no	Appendices
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	no	Appendices
Full size copies of DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.10.4	no	Appendices
DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	Page 1
Offeror's Team Structure				Pages 2-7
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	Pages 2-4
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Appendices
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	Appendices
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	Appendices
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	Appendices
Key Personnel Resume – Lead Structural Engineer	Attachment 3.3.1	Section 3.3.1.5	no	Appendices
Key Personnel Resume – Lead Roadway Engineer	Attachment 3.3.1	Section 3.3.1.6	no	Appendices
Key Personnel Resume – Public Relations Manager	Attachment 3.3.1	Section 3.3.1.7	no	Appendices

ATTACHMENT 3.1.2

Project: 0064-965-264

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Organizational chart	NA	Section 3.3.2	yes	Page 7
Organizational chart narrative	NA	Section 3.3.2	yes	Pages 5-7
Experience of Offeror's Team				
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	Appendices
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	Appendices
Project Risk				Pages 8-15
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	Pages 8-15

Form C-78-RFQ

ATTACHMENT 2.10**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

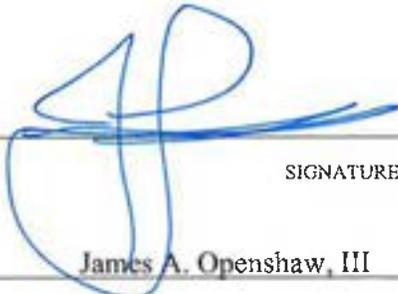
RFQ NO. C00104905DB75
PROJECT NO.: 0064-965-264

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 03/14/2014
(Date)
2. Cover letter of RFQ Addendum No. 1 03/28/2014
(Date)
3. Cover letter of _____
(Date)

	<u>April 17, 2014</u>
SIGNATURE	DATE
<u>James A. Openshaw, III</u>	<u>President</u>
PRINTED NAME	TITLE

Attachment 3.2.6: List of Affiliated and Subsidiary Companies

**Attachment 3.2.7 (a) and (b):
Primary and Lower-Tier
Debarment Forms**

ATTACHMENT NO. 3.2.7(a)

**CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS**

Project No.: 0064-965-264

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

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

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

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

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

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

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

 Signature	April 17, 2014 Date	President Title
E. V. Williams, Inc. Name of Firm		

ATTACHMENT NO. 3.2.7(b)

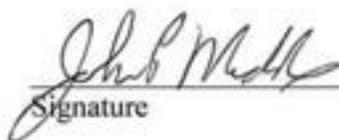
**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-965-264

- 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

Senior Vice President

Title

Whitman, Requardt & Associates, LLP

Name of Firm

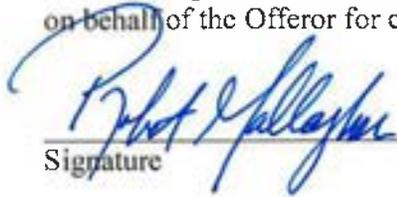
ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-965-264

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



Signature

April 17, 2014
Date

Senior Vice President
Title

Johnson, Mirmiran and Thompson, Inc.

Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-965-264

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	8 APR 2014	President
Signature	Date	Title

Alpha Corporation
Name of Firm

ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-965-264

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 4/15/2014 President
Signature Date Title

ENGINEERING AND TESTING CONSULTANTS, INC.
Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-965-264

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Signature

4/4/2014

Date

Senior Managing Director

Title

Valbridge Property Advisors, Axial Advisory Group

Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-965-264

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4/02/2014

Managing Partner

Signature

Date

Title

Appraisal Review Specialists, LLC

Name of Firm

ATTACHMENT NO. 3.2.7(b)

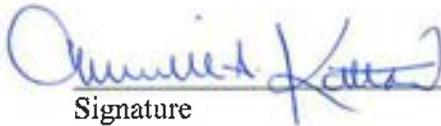
**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-965-264

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Signature

March 21, 2014

Date

Principal Geotechnical Engineer

Title

GET Solutions, Inc.

Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-965-264

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	<u>March 28, 2014</u>	<u>Vice President</u>
Signature	Date	Title

H&B Surveying and Mapping, LLC
Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-965-264

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Signature

4/1/14

Date

President

Title

Lane Studio

Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-965-264

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Signature

3-24-14
Date

President
Title

PRR, Inc.
Name of Firm

VDOT Pre-Qualification Certificates

TRANSPORT - E22
LSPPREQ

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PREQUALIFIED VENDORS SORTED BY VENDOR NAME
THIS LIST INCLUDES ALL PREQUALIFIED LEVELS
AS OF 03/24/2014
- W -

03/24/2014
10:25 AM
PAGE 470

W466

B. WILLIAMS RESOURCES, INC.
PREQ. EXP : 10/31/2014

--PREQ ADDRESS -----	WORK CLASSES (LISTED BUT NOT LIMITED TO)
P. O. BOX 638	022 - INCIDENTAL CONCRETE
DANTE, VA 24237-0638	023 - REINFORCING STEEL PLACEMENT
PHONE : 276-495-8235	070 - EROSION CONTROL
FAX : 276-889-5043	180 - SLIP FORMING

BUSINESS CONTACT: WILLIAMS, THOMAS CECIL
EMAIL: BWRES24@YAHOO.COM

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

DBE TYPE : DBE
DBE CONTACT: WILLIAMS, THOMAS CECIL
=====

W488

E. V. WILLIAMS, INC.
PREQ. EXP : 10/31/2014

--PREQ ADDRESS -----	WORK CLASSES (LISTED BUT NOT LIMITED TO)
P. O. BOX 65128	002 - GRADING
VIRGINIA BEACH, VA 23467-5128	005 - DRAINAGE STRUCTURES
PHONE : 757-420-1140	006 - PORTLAND CEMENT CONCRETE PAVING
FAX : 757-420-6518	045 - UNDERGROUND UTILITIES

BUSINESS CONTACT: MILLER, DENNIS JAMES
EMAIL: ESTIMATING@EVWILLIAMS.COM

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

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



COMMONWEALTH OF VIRGINIA



CERTIFICATE OF QUALIFICATION

MCLEAN CONTRACTING COMPANY

Vendor Number: **M047**

In accordance with the Regulations of the Virginia Department of Transportation, you are hereby notified that the following Rating and Classifications have been assigned to your firm:

PREQUALIFIED

Work Classes: MAJOR STRUCTURES

Issue Date: 6/19/2013

This Rating and Classification will Expire: 7/31/2014

A handwritten signature in cursive script, appearing to read "Suzanne FR Lucas".

Suzanne FR Lucas, State Prequalification Officer

A handwritten signature in cursive script, appearing to read "Don E. Silies".

Don E. Silies, State Contract Officer

Surety Letter

March 24, 2014



Virginia Department of Transportation
1401 E. Broad Street
Richmond, VA 23219

Re: E.V. Williams, Inc.
Virginia Beach, VA

Project: I-64 Capacity Improvements – Segment I, RFQ No. C0010490DB75

To Whom It May Concern:

E.V. Williams, Inc., a subsidiary of The Branch Group, Inc. has been a client of The Hartford Insurance Group for nearly 20 years. During that time, we have supported The Branch Group in their pursuit of projects in the \$125,000,000 range and total programs in excess of \$750,000,000.

We are prepared to provide a 100% Performance and Payment Bond on the referenced project, provided E.V. Williams, Inc. accepts an award of the contract and makes application to us on or about the time the work is to commence, and we are satisfied with the prevailing underwriting conditions, including but not limited to acceptable contract terms and job specifications, acceptable bond forms, and confirmation of full financing.

E.V. Williams, Inc. bonds are issued through Hartford Fire Insurance Company which is listed on the U.S Treasury Department List and has an A.M. Best Rating of A. They are licensed to conduct business in the Commonwealth of Virginia.

We recommend this contractor highly and should you have any questions, please let us know.

This letter will expire one hundred and eighty (180) days from the above date.

Sincerely,

William D. Taylor
Regional Director

cc: Scott Insurance
E.V. Williams, Inc.

Bond Department
Richmond Branch Office
4480 Cox Road, Suite 200
Glen Allen, VA 23060-6751
Office (804) 747 7000 x2
Toll-Free (800) 552 3429 x2
Fax (866) 212 4423

Attachment 3.2.10: SCC Certificates and DPOR Registrations

ATTACHMENT 3.2.10

State Project No. 0064-965-264

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
E.V. Williams, Inc.	0478466-6	Corporation	Active	P.O. Box 65128 Virginia Beach, VA 23467	Class A Contractor	2705 037384	02/28/2015
Whitman, Requardt & Associates, LLP (Baltimore, MD)	K000382-4	Limited Liability Partnership	Active	801 South Caroline Street Baltimore, MD 21231	ARC, ENG, LS, LA	0407001676	12/31/2015
Whitman, Requardt & Associates, LLP (Richmond, VA)	K000382-4	Limited Liability Partnership	Active	9030 Stony Point Parkway, Suite 220 Richmond, VA 23235	ENG	0411000133	02/29/2016
Whitman, Requardt & Associates, LLP (Fairfax, VA)	K000382-4	Limited Liability Partnership	Active	3701 Pender Drive, Suite 450 Fairfax, VA 22030	ENG	0411000134	02/29/2016
Whitman, Requardt & Associates, LLP (Lynchburg, VA)	K000382-4	Limited Liability Partnership	Active	103 Paulette Circle, Suite C Lynchburg, VA 24502	ENG	0411000774	02/29/2016
Johnson, Mirmiran & Thompson, Inc. (Virginia Beach, VA)	F149901-3	Corporation	Active	272 Bendix Road, Suite 260 Virginia Beach, VA 23452	ENG, LS, CID, LA	0411000440	02/29/2016
Johnson, Mirmiran & Thompson, Inc. (Richmond, VA)	F149901-3	Corporation	Active	9201 Arboretum Parkway, Suite 310 Richmond, VA 23236	ENG, LS, CID, LA	0411000029	02/29/2016
Johnson, Mirmiran & Thompson, Inc. (Herndon, VA)	F149901-3	Corporation	Active	13921 Park Center Road, Suite 140 Herndon, VA 20171	ENG, LS, CID, LA	0411000441	02/29/2016
McLean Contracting Company	F004392-9	Corporation	Active	6700 McLean Way Glen Burnie, MD 21060	Class A Contractor	2701000100	08/31/2014
Alpha Construction & Engineering Corporation	F037860-6	Corporation	Active	101 West Main Street, Suite 7100 Norfolk, VA 23510	ENG	0411000633	02/29/2016

ATTACHMENT 3.2.10

State Project No. 0064-965-264

SCC and DPOR Information

Alpha Construction & Engineering Corporation	F037860-6	Corporation	Active	21351 Ridgetop Circle, Suite 200 Dulles, VA 20166	ENG	0407003176	12/31/2015
Engineering and Testing Consultants, Inc.	0408097-4	Corporation	Active	509 Viking Drive, Suite B Virginia Beach, VA 23452	ENG	0407003186	12/31/2015
KDR Real Estate Services, Inc.	0571210-4	Corporation	Active	2500 Grenoble Road Richmond, VA 23294	Real Estate Board	0226 007129	12/31/2014
Axial Advisory Group, LLC	S071976-7	Limited Liability Company	Active	656 Independence Parkway, Suite 220 Chesapeake, VA 23320	Real Estate Appraisal	4008001594	12/31/2015
Appraisal Review Specialists, LLC	T049068-2	Limited Liability Company	Active	3058 Mount Vernon Road, Suite 12 Hurricane, WV 25523	Real Estate Appraisal	4008001735	04/30/2014
Geotechnical Environmental and Testing Solutions, Inc. (Williamsburg, VA)	0541847-0	Corporation	Active	1592 Penniman Road, Suite E Williamsburg, VA 23185	ENG	0411000366	02/29/2016
Geotechnical Environmental and Testing Solutions, Inc. (Virginia Beach, VA)	0541847-0	Corporation	Active	204-B Grayson Road Virginia Beach, VA 23462	ENG	0407004018	12/31/2015
H&B Surveying and Mapping, LLC	S290560-4	Limited Liability Company	Active	612 Hull Street, Suite 101B Richmond, VA 23224	LS	0407005432	12/31/2015
Land Studio, P.C.	0617554-1	Corporation	Active	5750 Chesapeake Blvd., Suite 203A Norfolk, VA 23513 P.O. Box 10801 Norfolk, VA 23513	LA, ENG	0405001516	12/31/2015
PRR, Inc.	0184328-3	Corporation	Active	*PRR, Inc. is providing non-professional services; therefore does not require DPOR Licensing	N/A	N/A	N/A

ATTACHMENT 3.2.10

State Project No. 0064-965-264

SCC and DPOR Information

DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)						
Business Name	Individual's Name	Office Location Where Professional Services will be Provided (City/State)	Individual's DPOR Address	DPOR Type	DPOR Registration Number	DPOR Expiration Date
E.V. Williams, Inc.	Bruce McIntosh	Virginia Beach, Virginia	328 Hagenspring Road Chesapeake, VA 23320	Professional Engineer	0402053331	04/30/2016
Whitman, Requardt & Associates, LLP	John Maddox	Richmond, Virginia	2825 Willbrook Drive Richmond, VA 23233	Professional Engineer	0402026613	01/31/2016
Whitman, Requardt & Associates, LLP	Jeremy Schlussel	Richmond, Virginia	9105 Carrington Hills Court Glen Allen, VA 23060	Professional Engineer	0402033974	01/31/2016
Whitman, Requardt & Associates, LLP	Mark Vasco	Richmond, Virginia	2601 Whiteclift Drive Richmond, VA 23233	Professional Engineer	0402021622	10/31/2014
Whitman, Requardt & Associates, LLP	Dana Trone Ozlin	Richmond, Virginia	5005 Fremont Place Glen Allen, VA 23059	Professional Engineer	0402045607	02/28/2015
Whitman, Requardt & Associates, LLP	David Gertz	Richmond, Virginia	10841 Snowmass Ct. Glen Allen, VA 23060	Professional Engineer	0402018547	06/30/2014
Whitman, Requardt & Associates, LLP	Daniel Seli	Richmond, Virginia	2205 Albion Road Midlothian, VA 23113	Professional Engineer	0402023410	06/30/2014
Whitman, Requardt & Associates, LLP	Brian Henschel	Lynchburg, Virginia	103 Carol Court Forest, VA 24551	Professional Engineer	0402035154	01/31/2015
Whitman, Requardt & Associates, LLP	Bruce Barnett	Fairfax, Virginia	2440 Brussels Court Reston, VA 20191	Professional Engineer	0402035159	09/30/2014
Johnson, Mirmiran & Thompson, Inc.	Robert Gallagher	Richmond, Virginia	10004 Studley Farms Drive Mechanicsville, VA 23116	Professional Engineer	0402023016	01/31/2016
Johnson, Mirmiran & Thompson, Inc.	Randy Boice	Herndon, Virginia	6071 Greenway Ct. Manassas, VA 20112	Professional Engineer	0402030511	12/31/2014
Johnson, Mirmiran & Thompson, Inc.	Robert Wasssum II	Richmond, Virginia	12936 Grove Hill Road, Apt. 101 Midlothian, VA 23114	Professional Engineer	0402051352	01/31/2015
Johnson, Mirmiran & Thompson, Inc.	Arthelius "Trip" Phaup III	Richmond, Virginia	402 Waveny Road Richmond, VA 23229	Professional Engineer	0402023335	06/30/2014

ATTACHMENT 3.2.10

State Project No. 0064-965-264

SCC and DPOR Information

Alpha Construction & Engineering Corporation	Frederick Crozier	Norfolk, Virginia	1436 Roosevelt Street Morgantown, WV 26505	Professional Engineer	0402045291	10/31/2014
Axial Advisory Group, LLC	Lawrence Colorito Jr.	Chesapeake, Virginia	656 Independence Parkway Suite 220 Chesapeake, VA 23320	Real Estate Appraiser	4001 002033	01/31/2015
Appraisal Review Specialists, LLC	R. Scott Barber	Hurricane, West Virginia	3058 Mount Vernon Road Suite 12 Hurricane, WV 25526	Real Estate Appraiser	4001 012258	03/31/2015
GET Solutions, Inc.	Bruce Spiro	Virginia Beach, Virginia	5111 Brookstone Way Suffolk, VA 23435	Professional Engineer	0402015791	01/31/2016
H&B Surveying and Mapping, LLC	Leslie Byrnside	Richmond, Virginia	4100 Ketcham Drive Chesterfield, VA 23832	Land Surveyor	0403002362	06/30/2015
Land Studio, P.C.	Carol Rizzio	Norfolk, Virginia	3645 Nottaway Street Norfolk, VA 23513	Landscape Architect	0406000881	02/29/2016

NOTE: We have included copies of Mark Osenbaugh (Construction Manager) required Virginia Department of Conservation and Recreation (Department of Environmental Quality) – Responsible Land Disturber Certification #41768 – Expires: 04/09/2017 and his VDOT Erosion and Sediment Control Contractor Certification #5138C Expires: 9/18/2014

NOTE 2: As noted in the RFQ, KDR Real Estate Services, Inc. is a VDOT prequalified right-of-way contracting consultant. Axial Advisory Group, LLC is a VDOT prequalified Fee Appraiser. Appraisal Review Specialists, LLC is a VDOT prequalified Review Appraiser.

E.V. Williams, Inc. SCC and DPOR

Commonwealth of Virginia



State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That E. V. WILLIAMS, INC. is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is January 27, 1997;

That the period of its duration is perpetual; and

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

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
March 26, 2014*

Joel H. Peck

Joel H. Peck, Clerk of the Commission



Commonwealth of Virginia
State Corporation Commission

Virg

CISM0180

CORPORATE DATA INQUIRY

04/15/14

15:40:50

CORP ID: 0478466 - 6 STATUS: 00 ACTIVE STATUS DATE: 03/07/13
 CORP NAME: WILLIAMS, INC., E. V.

DATE OF CERTIFICATE: 01/27/1997 PERIOD OF DURATION: INDUSTRY CODE: 00
 STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK
 MERGER IND: CONVERSION/DOMESTICATION IND:
 GOOD STANDING IND: Y MONITOR INDICATOR:
 CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:
 R/A NAME: MELANIE F WHEELER

STREET: 442 RUTHERFORD AVE NE AR RTN MAIL:

CITY: ROANOKE STATE : VA ZIP: 24016
 R/A STATUS: 2 OFFICER EFF. DATE: 01/11/08 LOC : 217
 ACCEPTED AR#: 214 02 8763 DATE: 01/27/14 ROANOKE CITY
 CURRENT AR#: 214 02 8763 DATE: 01/27/14 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
14	100.00					5,000

 (Screen Id:/Corp_Data_Inquiry)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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

EXPIRES ON
02-28-2015

NUMBER
2705037384

BOARD FOR CONTRACTORS
CLASS A CONTRACTOR
CLASSIFICATIONS H/H

EV WILLIAMS INC
925 SOUTH MILITARY HWY
PO BOX 65128
VIRGINIA BEACH, VA 23467-5128



Gordon N. Dixon
Gordon N. Dixon, Director

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

(POCKET CARD)

COMMONWEALTH OF VIRGINIA

CLASS A BOARD FOR CONTRACTORS
CONTRACTOR

CLASSIFICATIONS H/H
NUMBER: 2705037384 EXPIRES: 02-28-2015

EV WILLIAMS INC
925 SOUTH MILITARY HWY
PO BOX 65128
VIRGINIA BEACH, VA 23467-5128



(FOLD)

(DETACH HERE)

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

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

**EXPIRES ON
04-30-2016**

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 387-8500

**NUMBER
0402053331**

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

**BRUCE ALFRED MCINTOSH
328 HAGENSPRING RD
CHESAPEAKE, VA 23320**



Nick A. Christner
Nick A. Christner, Interim Director

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	<p>COMMONWEALTH OF VIRGINIA Soil and Water Conservation Board 203 Governor Street, Suite 206, Richmond, Virginia 23219 Telephone (804) 786-2064</p>	
<p>EROSION AND SEDIMENT CONTROL RESPONSIBLE LAND DISTURBER</p>		
<p>Expires 04/09/2017</p>	<p>Mark D Osenbaugh</p>	<p>Certificate Number 41768</p>
<p>DCR <small>Department of Conservation & Recreation 1700 COMMONWEALTH AVENUE, RICHMOND, VIRGINIA 23260</small></p>	<p><i>Ginny Snead</i> Director Division of Soil & Water Conservation</p>	

	<p>COMMONWEALTH OF VIRGINIA Soil and Water Conservation Board 203 Governor Street, Suite 206 Richmond, Virginia 23219 Telephone (804) 786-2064</p>	
<p>EROSION AND SEDIMENT CONTROL RESPONSIBLE LAND DISTURBER</p>		
<p>Expires 04/09/2017</p>	<p>Mark D Osenbaugh</p>	<p>Certificate 41768</p>

COMMONWEALTH OF VIRGINIA
Virginia Department of Transportation
1401 E. Broad Street
Richmond, VA 23219

Erosion & Sediment Control
Contractor Certification Program
Certificate of Completion
for

Expires
9/18/2014

Cert. #
5138C

Mark D. Osenbaugh

Please contact VTCA at 804-330-3312 with changes of employment or change of address.

Whitman, Requardt & Associates, LLP SCC and DPOR

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, August 10, 2000

This is to Certify that the statement of registration of

Whitman, Requardt & Associates, LLP

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



State Corporation Commission

Attest:

Joel H. Beck

Clerk of the Commission

Commonwealth of Virginia



State Corporation Commission

CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

On August 10, 2000, a statement of registration as a registered limited liability partnership was filed in this office by WHITMAN, REQUARDT & ASSOCIATES, LLP, a Maryland registered limited liability partnership.

As of the date below, this statement of registration is in effect.

Nothing more is hereby certified.

*Signed and Sealed at Richmond on this Date:
June 17, 2013*



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



COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

Office of the Clerk

May 28, 2013

CT CORPORATION SYSTEM
4701 COX RD STE 301
GLEN ALLEN, VA 23060-6802

RECEIPT

RE: WHITMAN, REQUARDT & ASSOCIATES, LLP

ID: K000382 - 4

DCN: 13-05-28-0509

Dear Customer:

This is your receipt for \$50.00 to cover the fee for filing the annual continuation report for the above-referenced registered limited liability partnership.

The annual continuation report was filed on May 28, 2013.

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

Sincerely,

Joel H. Peck
Clerk of the Commission

GPACCEPT
CIS0363

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON

12-31-2015

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

NUMBER

0407001676

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

PROFESSIONS: ARC, ENG, LS, LA

WHITMAN, REQUARDT AND ASSOCIATES LLP
801 SOUTH CAROLINE STREET
BALTIMORE, MD 21231



Gordon N. Dixon
Gordon N. Dixon, Director

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(POCKET CARD)

COMMONWEALTH OF VIRGINIA

BOARD FOR APPLSCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407001676 EXPIRES: 12-31-2015
PROFESSIONS: ARC, ENG, LS, LA
WHITMAN, REQUARDT AND ASSOCIATES LLP
801 SOUTH CAROLINE STREET
BALTIMORE, MD 21231



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

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10010 (7/11) 107028-3

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-29-2016

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

NUMBER
0411000133

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

PROFESSIONS: ENG

WHITMAN REQUARDT AND ASSOCIATES
9030 STONY POINT PKWY STE 220
RICHMOND, VA 23235



Gordon N. Deane
Gordon N. Deane, Director

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(POCKET CARD)

COMMONWEALTH OF VIRGINIA
BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000133 EXPIRES: 02-29-2016
PROFESSIONS: ENG
WHITMAN REQUARDT AND ASSOCIATES
9030 STONY POINT PKWY STE 220
RICHMOND, VA 23235



(FOLD)

(DETACH HERE)

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

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-29-2016

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

NUMBER
0411000134

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

PROFESSIONS: ENG

WHITMAN REQUARDT AND ASSOCIATES
3701 PENDER DRIVE
SUITE 450
FAIRFAX, VA 22030-6045



Nick A. Christner
Nick A. Christner, Interim Director

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-29-2016

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

NUMBER
0411000774

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

PROFESSIONS: ENG

WHITMAN REQUARDT AND ASSOCIATES LLP
103 PAULETTE CIRCLE
SUITE C
LYNCHBURG, VA 24502



Gordon N. Dixon
Gordon N. Dixon, Director

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(POCKET CARD)

COMMONWEALTH OF VIRGINIA
BOARD FOR APPELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000774 EXPIRES: 02-29-2016
PROFESSIONS: ENG
WHITMAN REQUARDT AND ASSOCIATES LLP
103 PAULETTE CIRCLE
SUITE C
LYNCHBURG, VA 24502



(FOLD)

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

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

EXPIRES ON
01-31-2016

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

NUMBER
0402026613

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

JOHN PATRICK MADDOX
2825 WILLBROOK DRIVE
RICHMOND, VA 23233



Gordon N. Dixon
Gordon N. Dixon, Director

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COMMONWEALTH OF VIRGINIA
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS,
LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402026613 EXPIRES: 01-31-2016

JOHN PATRICK MADDOX
2825 WILLBROOK DRIVE
RICHMOND, VA 23233



(FOLD)

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

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
01-31-2016

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 357-8500

NUMBER
0402033974

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

JEREMY SCHLUSSEL
9105 CARRINGTON HILLS CT
GLEN ALLEN, VA 23060



Gordon N. Dixon
Gordon N. Dixon, Director

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

(POCKET CARD)

(DETACH HERE)

COMMONWEALTH OF VIRGINIA
BOARD FOR APPEALS
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402033974 EXPIRES: 01-31-2016

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

JEREMY SCHLUSSEL
9105 CARRINGTON HILLS CT
GLEN ALLEN, VA 23060



(FOLD)

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
10-31-2014

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

NUMBER
0402021622

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

MARK S VASCO
2601 WHITECLIFT DR
RICHMOND, VA 23233



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

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

**EXPIRES ON
02-28-2015**

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

**NUMBER
0402045607**

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

**DANA TRONE OZLIN
5005 FREMONT PLACE
GLEN ALLEN, VA 23059**



Gordon N. Dixon
Gordon N. Dixon, Director

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

(POCKET CARD)

COMMONWEALTH OF VIRGINIA

**BOARD FOR PROFESSIONAL ENGINEERS
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402045607 EXPIRES: 02-28-2015**

**DANA TRONE OZLIN
5005 FREMONT PLACE
GLEN ALLEN, VA 23059**



(FOLD)

(DETACH HERE)

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

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
06-30-2014

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

NUMBER
0402018547

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

DAVID SCOTT GERTZ
10841 SNOWMASS CT
GLEN ALLEN, VA 23060



Gordon N. Dixon
Gordon N. Dixon, Director

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

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

EXPIRES ON
06-30-2014

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

NUMBER
0402023410

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

DANIEL JOSEPH SELI
2205 ALBION ROAD
MIDLOTHIAN, VA 23113



Charles W. Stone, Director
Charles W. Stone, Director

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

(POCKET CARD)

COMMONWEALTH OF VIRGINIA

BOARD FOR PROFESSIONAL ENGINEERS
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402023410 EXPIRES: 06-30-2014

DANIEL JOSEPH SELI
2205 ALBION ROAD
MIDLOTHIAN, VA 23113



(FOLD)

(DETACH HERE)

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

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

EXPIRES ON

01-31-2015

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 387-8500

NUMBER

0402035154

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

BRIAN ANDREW HENSCHEL
103 CAROL CT
FOREST, VA 24551



Gordon N. Dixon
Gordon N. Dixon, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
09-30-2014

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

NUMBER
0402035159

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

BRUCE JAY BARNETT
2440 BRUSSELS COURT
RESTON, VA 20191



Gordon N. Dixon
Gordon N. Dixon, Director

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

Johnson, Mirmiran & Thompson, Inc. SCC and DPOR

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, February 8, 2002

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

Johnson, Mirmiran & Thompson, 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

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That Johnson, Mirmiran & Thompson, Inc., a corporation incorporated under the law of Maryland, is authorized to transact business in the Commonwealth of Virginia;

That it obtained a certificate of authority to transact business in Virginia from the Commission on October 17, 2006; and

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

Nothing more is hereby certified.



Signed and Sealed at Richmond on this Date:

November 12, 2013

A handwritten signature in cursive script that reads "Joel H. Peck".

Joel H. Peck, Clerk of the Commission



Commonwealth of Virginia
State Corporation Commission

Virg

CISM0180

CORPORATE DATA INQUIRY

04/08/14

09:46:46

CORP ID: F149901 - 3 STATUS: 00 ACTIVE STATUS DATE: 10/17/06
 CORP NAME: Johnson, Mirmiran & Thompson, Inc.

DATE OF CERTIFICATE: 10/17/2006 PERIOD OF DURATION: INDUSTRY CODE: 70
 STATE OF INCORPORATION: MD MARYLAND STOCK INDICATOR: S STOCK
 MERGER IND: CONVERSION/DOMESTICATION IND:
 GOOD STANDING IND: Y MONITOR INDICATOR:
 CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:
 R/A NAME: ROBERT GALLAGHER

STREET: 9201 ARBORETUM PKY STE 140 AR RTN MAIL:

CITY: RICHMOND STATE : VA ZIP: 23236
 R/A STATUS: 2 OFFICER EFF. DATE: 09/06/07 LOC : 120
 ACCEPTED AR#: 213 56 5183 DATE: 02/20/14 CHESTERFIELD CO
 CURRENT AR#: 213 56 5183 DATE: 02/20/14 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
13	100.00					1,000

 (Screen Id:/Corp_Data_Inquiry)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-29-2016

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

NUMBER
0411000440

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

PROFESSIONS: ENG, LS

JOHNSON MIRMIRAN & THOMPSON INC
272 BENDIX ROAD
SUITE 260
VIRGINIA BEACH, VA 23452



Nick A. Christner
Nick A. Christner, Interim Director

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

(POCKET CARD)

COMMONWEALTH OF VIRGINIA
BOARD FOR APPLICANTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000440 EXPIRES: 02-29-2016
PROFESSIONS: ENG, LS
JOHNSON MIRMIRAN & THOMPSON INC
272 BENDIX ROAD
SUITE 260
VIRGINIA BEACH, VA 23452



(DETACH HERE)

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

(FOLD)

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-29-2016

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

NUMBER
0411000029

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

PROFESSIONS: ENG, LS

JOHNSON, MIRMIRAN & THOMPSON, INC.
9201 ARBORETUM PKWY
SUITE 310
RICHMOND, VA 23236



Nick A. Christner
Nick A. Christner, Interim Director

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

(POCKET CARD)

COMMONWEALTH OF VIRGINIA

BOARD FOR APPEALS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000029 EXPIRES: 02-29-2016
PROFESSIONS: ENG, LS
JOHNSON, MIRMIRAN & THOMPSON, INC.
9201 ARBORETUM PKWY
SUITE 310
RICHMOND, VA 23236



(FOLD)

(DETACH HERE)

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

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON

02-29-2016

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

NUMBER

0411000441

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

PROFESSIONS: ENG, LS

JOHNSON MIRMIRAN & THOMPSON INC
13921 PARK CENTER RD
SUITE 140
HERNDON, VA 20171



Nick A. Christner
Nick A. Christner, Interim Director

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

(POCKET CARD)

COMMONWEALTH OF VIRGINIA

BOARD FOR APESCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000441 EXPIRES: 02-29-2016
PROFESSIONS: ENG, LS
JOHNSON MIRMIRAN & THOMPSON INC
13921 PARK CENTER RD
SUITE 140
HERNDON, VA 20171



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(DETACH HERE)

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

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10010 (7/11) 107028-3

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
01-31-2016

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

NUMBER
0402023016

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

ROBERT TAYLOR GALLAGHER
10004 STUDLEY FARMS DRIVE
MECHANICSVILLE, VA 23116



Gregory N. Dixon
Gregory N. Dixon, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2014

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 357-8500

NUMBER
0402030511

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

RANDY LAWRENCE BOICE
6071 GREENWAY COURT
MANASSAS, VA 20112



Gordon N. Dixon
Gordon N. Dixon, Director

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
01-31-2015

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

NUMBER
0402051352

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

ROBERT HOWE WASSUM III
12936 GROVE HILL RD
APT. B01
MIDLOTHIAN, VA 23114



Gordon N. Dixon
Gordon N. Dixon, Director

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

(POCKET CARD)

COMMONWEALTH OF VIRGINIA
BOARD FOR APPEALS
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402051352 EXPIRES: 01-31-2015

ROBERT HOWE WASSUM III
12936 GROVE HILL RD
APT. B01
MIDLOTHIAN, VA 23114



FOUR

(DETACH HERE)

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

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
06-30-2014

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

NUMBER
0402023335

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

ARTHELIUS AUGUSTUS PHALP III
402 WAVENY ROAD
RICHMOND, VA 23229



Charles N. High
Charles N. High, Director

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

POCKET CARD:

COMMONWEALTH OF VIRGINIA
BOARD FOR ARCHITECTS,
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402023335 EXPIRES: 06-30-2014

ARTHELIUS AUGUSTUS PHALP III
402 WAVENY ROAD
RICHMOND, VA 23229



PHALP

(DETACH HERE)

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

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McLean Contracting Company SCC and DPOR

Commonwealth OF Virginia



State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That MCLEAN CONTRACTING COMPANY, a corporation incorporated under the law of Delaware, is authorized to transact business in the Commonwealth of Virginia;

That it obtained a certificate of authority to transact business in Virginia from the Commission on August 3, 1933; and

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

Nothing more is hereby certified.



Signed and Sealed at Richmond on this Date:
April 1, 2014

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



Commonwealth of Virginia
State Corporation Commission



CISM0180

CORPORATE DATA INQUIRY

04/08/14

09:38:00

CORP ID: F004392 - 9 STATUS: 00 ACTIVE STATUS DATE: 09/13/11
CORP NAME: MCLEAN CONTRACTING COMPANY

DATE OF CERTIFICATE: 08/03/1933 PERIOD OF DURATION: INDUSTRY CODE: 00
STATE OF INCORPORATION: DE DELAWARE STOCK INDICATOR: S STOCK
MERGER IND: CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: MON NO: MON STATUS: MONITOR DTE:
R/A NAME: VB BUSINESS SERVICES, LLC

STREET: 500 WORLD TRADE CTR AR RTN MAIL:
101 W MAIN ST
CITY: NORFOLK STATE : VA ZIP: 23510
R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 12/07/10 LOC : 212
ACCEPTED AR#: 213 12 3256 DATE: 08/08/13 NORFOLK CITY
CURRENT AR#: 213 12 3256 DATE: 08/08/13 STATUS: A ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
13 1,700.00 500,000

(Screen Id:/Corp_Data_Inquiry)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
08-31-2014

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

NUMBER
2701000100

BOARD FOR CONTRACTORS
CLASS A CONTRACTOR
CLASSIFICATIONS H/H MCC

MCLEAN CONTRACTING COMPANY
6700 MCLEAN WAY
GLEN BURNIE, MD 21060-6480



Geoffrey N. Dixon
Geoffrey N. Dixon, Director

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THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.

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

Alpha Construction & Engineering Corporation SCC and DPOR

Commonwealth OF Virginia



State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That ALPHA CONSTRUCTION AND ENGINEERING CORPORATION, a corporation incorporated under the law of Maryland, is authorized to transact business in the Commonwealth of Virginia;

That it obtained a certificate of authority to transact business in Virginia from the Commission on January 16, 1981; and

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

Nothing more is hereby certified.



Signed and Sealed at Richmond on this Date:

January 14, 2014

A handwritten signature in cursive script that reads "Joel H. Peck".

Joel H. Peck, Clerk of the Commission



STATE CORPORATION COMMISSION

Richmond, January 16, 1981

This is to Certify, that Alpha Construction and Engineering Corporation

a corporation organized under the laws of Maryland

having complied with all the requirements of law, is hereby authorized to transact business in the State of Virginia in so far as not in conflict with and subject to the laws of the State.

State Corporation Commission

Attest:

[Signature]

Clerk of the Commission

THEODORE V. MORRISON, JR.
CHAIRMAN

HULLIHEN WILLIAMS MOORE
COMMISSIONER

CLINTON MILLER
COMMISSIONER

COMMONWEALTH OF VIRGINIA



WILLIAM J. BRIDGE
CLERK OF THE COMMISSION
P. O. BOX 1197
RICHMOND, VIRGINIA 23218-1197

STATE CORPORATION COMMISSION

June 25, 1996

ELIZABETH J. TEVELOW
FUREY, DOOLAN & ARBELL
8401 CONNECTICUT AVE., SUITE 1100
CHEVY CHASE, MD 20815-5803

RE: ALPHA CONSTRUCTION AND ENGINEERING CORPORATION
ID: F037860 - 6
DCN: 96-06-25-2311

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:

ALPHA CORPORATION

The filing fee of \$10.00 has been received.

Sincerely yours,

A handwritten signature in black ink that reads "William J. Bridge". The signature is written in a cursive style.

William J. Bridge
Clerk of the Commission

FICTACPT
CIS20460

1006



Commonwealth of Virginia
State Corporation Commission

Virg

CISM0180

CORPORATE DATA INQUIRY

04/15/14

15:15:12

CORP ID: F037860 - 6 STATUS: 00 ACTIVE STATUS DATE: 02/05/08
 CORP NAME: ALPHA CONSTRUCTION AND ENGINEERING CORPORATION

DATE OF CERTIFICATE: 01/16/1981 PERIOD OF DURATION: INDUSTRY CODE: 00
 STATE OF INCORPORATION: MD MARYLAND STOCK INDICATOR: S STOCK
 MERGER IND: CONVERSION/DOMESTICATION IND:
 GOOD STANDING IND: Y MONITOR INDICATOR:
 CHARTER FEE: MON NO: MON STATUS: MONITOR DTE:
 R/A NAME: CT CORPORATION SYSTEM

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

CITY: GLEN ALLEN STATE : VA ZIP: 23060
 R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 10/04/13 LOC : 143
 ACCEPTED AR#: 214 50 0669 DATE: 12/02/13 HENRICO COUNTY
 CURRENT AR#: 214 50 0669 DATE: 12/02/13 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
14	130.00					10,000

 (Screen Id:/Corp_Data_Inquiry)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2015

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 387-8500

NUMBER
0407003176

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

PROFESSIONS: ENG

ALPHA CONSTRUCTION & ENGINEERING
CORPORATION
ALPHA CORPORATION
21351 RIDGETOP CIRCLE
SUITE 200
DULLES, VA 20166



Gordon N. Dixon
Gordon N. Dixon, Director

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

POCKET (ARD)

COMMONWEALTH OF VIRGINIA

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS,
CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY REGISTRATION
NUMBER: 0407003176 EXPIRES: 12-31-2015
PROFESSIONS: ENG
ALPHA CONSTRUCTION & ENGINEERING CORPORATION
ALPHA CORPORATION
21351 RIDGETOP CIRCLE
SUITE 200
DULLES, VA 20166



(FOLD)

(DETACH HERE)

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

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON

02-29-2016

9980 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER

0411000633

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

PROFESSIONS: ENG

ALPHA CONSTRUCTION & ENGINEERING
CORPORATION
ALPHA CORPORATION
101 WEST MAIN ST STE 7100
NORFOLK, VA 23510



Nick A. Christner
Nick A. Christner, Interim Director

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THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
10-31-2014

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

NUMBER
0402045291

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

FREDERICK PAUL CROZIER
1436 ROOSEVELT STREET
MORGANTOWN, WV 26505



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.

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

Engineering and Testing Consultants, Inc. SCC and DPOR

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, April 14, 1993

This is to Certify that the certificate of incorporation of
Engineering and Testing Consultants, Inc.

was this day issued and admitted to record in this office
and that the said corporation is authorized to transact its
business subject to all Virginia laws applicable to the
corporation and its business. Effective date: April 14, 1993



State Corporation Commission

William J. Bridge

Clerk of the Commission



Commonwealth of Virginia
State Corporation Commission

Virg

CISM0180

CORPORATE DATA INQUIRY

04/15/14

15:34:15

CORP ID: 0408097 - 4 STATUS: 00 ACTIVE STATUS DATE: 04/14/93
 CORP NAME: **ENGINEERING AND TESTING CONSULTANTS, INC.**

DATE OF CERTIFICATE: 04/14/1993 PERIOD OF DURATION: INDUSTRY CODE: 00
 STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK
 MERGER IND: CONVERSION/DOMESTICATION IND:
 GOOD STANDING IND: Y MONITOR INDICATOR:
 CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:
 R/A NAME: DEBORAH CACACE

STREET: 509 VIKING DR STE B AR RTN MAIL:

CITY: VIRGINIA BEACH STATE : VA ZIP: 23452 7323
 R/A STATUS: 2 OFFICER EFF. DATE: 06/20/02 LOC : 228
 ACCEPTED AR#: 213 06 3142 DATE: 03/28/13 VIRGINIA BEACH
 CURRENT AR#: 213 06 3142 DATE: 03/28/13 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
14	100.00				100.00	5,000

 (Screen Id:/Corp_Data_Inquiry)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2015

8960 Mayland Dr., Suite 400, Richmond, VA 23220
Telephone: (804) 267-8500

NUMBER
0407003196

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

PROFESSIONS: ENG

ENGINEERING AND TESTING CONSULTANTS INC
509 VIKING DRIVE SUITE B
VIRGINIA BEACH, VA 23452



Richard N. High
Richard N. High, Secretary

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

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

POCKET CARD

COMMONWEALTH OF VIRGINIA
BOARD FOR APPLICABLE
BUSINESS ENTITY REGISTRATION
NUMBER: 0407003196 EXPIRES: 12-31-2015
PROFESSIONS: ENG
ENGINEERING AND TESTING CONSULTANTS INC
509 VIKING DRIVE SUITE B
VIRGINIA BEACH, VA 23452



DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
8960 Mayland Dr., Suite 400, Richmond, VA 23220

FILED

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.

KDR Real Estate Services, Inc. SCC and DPOR

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, January 30, 2002

This is to Certify that the certificate of incorporation of

KDR Real Estate Services, Inc.

was this day issued and admitted to record in this office and that the said corporation is authorized to transact its business subject to all Virginia laws applicable to the corporation and its business. Effective date: January 30, 2002



State Corporation Commission

Attest:

Joel H. Beck

Clerk of the Commission



Commonwealth of Virginia
State Corporation Commission

Virg

CISM0180

CORPORATE DATA INQUIRY

04/08/14

09:38:36

CORP ID: 0571210 - 4 STATUS: 00 ACTIVE STATUS DATE: 07/07/03
 CORP NAME: KDR REAL ESTATE SERVICES, INC.

DATE OF CERTIFICATE: 01/30/2002 PERIOD OF DURATION: INDUSTRY CODE: 00
 STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK
 MERGER IND: CONVERSION/DOMESTICATION IND:
 GOOD STANDING IND: Y MONITOR INDICATOR:
 CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:
 R/A NAME: ALLEN G DORIN JR

STREET: 2500 GRENOBLE RD AR RTN MAIL:

CITY: RICHMOND STATE : VA ZIP: 23294
 R/A STATUS: 2 OFFICER EFF. DATE: 07/09/03 LOC : 143
 ACCEPTED AR#: 214 01 0878 DATE: 11/18/13 HENRICO COUNTY
 CURRENT AR#: 214 01 0878 DATE: 11/18/13 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
14	100.00					100

 (Screen Id:/Corp_Data_Inquiry)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2014

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

NUMBER
0226 007129

REAL ESTATE BOARD
REAL ESTATE CORPORATION, PARTNERSHIP, ASSOCIATION LICENSE
POST IN A CONSPICUOUS PLACE
THIS LICENSE TO BE KEPT IN CUSTODY AND CONTROL OF PRINCIPAL BROKER

KDR REAL ESTATE SERVICES INC
2500 GRENOBLE RD
RICHMOND, VA 23294



Gertraud N. Dixon
Gertraud 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.

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

Axial Advisory Group, LLC SCC and DPOR



STATE CORPORATION COMMISSION

Richmond, January 17, 2002

This is to Certify that the certificate of organization of

Axial Advisory 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: January 17, 2002



State Corporation Commission

Attest:

Joel H. Peck

Clerk of the Commission



Commonwealth of Virginia
State Corporation Commission



04/08/14

LLCM3220

LLC DATA INQUIRY

09:35:02

LLC ID: S071976 - 7 STATUS: 00 ACTIVE STATUS DATE: 10/27/10

LLC NAME: Axial Advisory Group, LLC

DATE OF FILING: 01/17/2002 PERIOD OF DURATION: INDUSTRY CODE: 00

STATE OF FILING: VA VIRGINIA MERGER INDICATOR:

CONVERSION/DOMESTICATION INDICATOR:

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

STREET: 1000 SMOKEY MOUNTAIN TRAIL

CITY: CHESAPEAKE STATE: VA ZIP: 23320-0000

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

R/A NAME: GREGORY J MONTERO

STREET: INMAN & STRICKLER

575 LYNNHAVEN PKWY STE 200 RTN MAIL:

CITY: VIRGINIA BEACH STATE: VA ZIP: 23452-0000

R/A STATUS: 4 MEMBER OF VSB EFF DATE: 12/24/04 LOC: 228 VIRGINIA BEACH

YEAR FEES PENALTY INTEREST BALANCE

14 50.00

(Screen Id:/LLC_Data_Inquiry)

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

EXPIRES ON
12-31-2015

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

NUMBER
4008001594

**REAL ESTATE APPRAISER BOARD
APPRAISAL BUSINESS REGISTRATION**

AXIAL ADVISORY GROUP LLC
656 INDEPENDENCE PKWY STE 220
CHESAPEAKE, VA 23320



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.

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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

EXPIRES ON

01-31-2015

NUMBER

4001 002033

REAL ESTATE APPRAISER BOARD
CERTIFIED GENERAL REAL ESTATE APPRAISER

LAWRENCE J COLORITO JR
656 INDEPENDENCE PARKWAY SUITE 220
CHESAPEAKE VA 23320 0000



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.

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

Appraisal Review Specialists, LLC SCC and DPOR

Commonwealth OF Virginia



State Corporation Commission

CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

That Appraisal Review Specialists, LLC, a limited liability company organized under the law of West Virginia, obtained a certificate of registration to transact business in Virginia from the Commission on February 3, 2012; and

That it is registered to transact business in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
June 24, 2013*

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
04-30-2014

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 387-8500

NUMBER
4008 001735

REAL ESTATE APPRAISER BOARD
BUSINESS REGISTRATION

APPRAISAL REVIEW SPECIALISTS LLC
3058 MOUNT VERNON ROAD SUITE 12
HURRICANE WV 25523



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.

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

POCKET CARD:

COMMONWEALTH OF VIRGINIA

REAL ESTATE APPRAISER BOARD
BUSINESS REGISTRATION
NUMBER: 4008 001735 EXPIRES: 04-30-2014
APPRAISAL REVIEW SPECIALISTS LLC
3058 MOUNT VERNON ROAD SUITE 12
HURRICANE WV 25523



FOUR

(DETACH HERE)

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

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
03-31-2015

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

NUMBER
4001 012258

REAL ESTATE APPRAISER BOARD
CERTIFIED GENERAL REAL ESTATE APPRAISER

RAYMAN SCOTT BARBER
3058 MOUNT VERNON RD
HURRICANE WV 25526



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.

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

GET Solutions, Inc. SCC and DPOR

Commonwealth OF Virginia



State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That Geotechnical Environmental and Testing Solutions, Inc. is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is June 16, 2000;

That the period of its duration is perpetual; and

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

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
June 7, 2013*

Joel H. Peck

Joel H. Peck, Clerk of the Commission



Commonwealth of Virginia
State Corporation Commission

Virg

CISM0180

CORPORATE DATA INQUIRY

04/08/14

09:50:06

CORP ID: 0541847 - 0 STATUS: 00 ACTIVE STATUS DATE: 08/04/04
 CORP NAME: **Geotechnical Environmental and Testing Solutions, Inc.**
 DATE OF CERTIFICATE: 06/16/2000 PERIOD OF DURATION: INDUSTRY CODE: 00
 STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK
 MERGER IND: CONVERSION/DOMESTICATION IND:
 GOOD STANDING IND: Y MONITOR INDICATOR:
 CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:
 R/A NAME: TERENCE MURPHY
 STREET: KAUFMAN & CANOLES PC AR RTN MAIL:
 150 W MAIN ST STE 2100
 CITY: NORFOLK STATE : VA ZIP: 23510 1609
 R/A STATUS: 4 ATTORNEY EFF. DATE: 07/17/02 LOC : 212
 ACCEPTED AR#: 213 09 1311 DATE: 05/24/13 NORFOLK CITY
 CURRENT AR#: 213 09 1311 DATE: 05/24/13 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
14	100.00				100.00	5,000

 (Screen Id:/Corp_Data_Inquiry)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-29-2016

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

NUMBER
0411000366

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

PROFESSIONS: ENG

GEOTECHNICAL ENVIRONMENTAL TESTING SOLUTIONS
INC
1592 PENNIMAN RD STE E
WILLIAMSBURG, VA 23185



Nick A. Christner
Nick A. Christner, Interim 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.

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

(POCKET CARD)

COMMONWEALTH OF VIRGINIA

BOARD FOR APPLSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000366 EXPIRES: 02-29-2016
PROFESSIONS: ENG
GEOTECHNICAL ENVIRONMENTAL TESTING SOLUTIONS INC
1592 PENNIMAN RD STE E
WILLIAMSBURG, VA 23185



(FOLD)

(DETACH HERE)

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

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON

12-31-2015

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

NUMBER

0407004018

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

PROFESSIONS: ENG

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



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.

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

(POCKET CARD)

COMMONWEALTH OF VIRGINIA

(DETACH HERE)

BOARD FOR APPELSCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407004018 EXPIRES: 12-31-2015
PROFESSIONS: ENG
GEOTECHNICAL ENVIRONMENTAL & TESTING SOLUTIONS INC
204-B GRAYSON ROAD
VIRGINIA BEACH, VA 23462



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

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.

10010 (7/11) 10702A-3

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
01-31-2016

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

NUMBER
0402015791

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

BRUCE R SPIRO
5111 BROOKSTONE WAY
SUFFOLK, VA 23435



Nick A. Christner
Nick A. Christner, Interim 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.

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

H&B Surveying and Mapping, LLC SCC and DPOR

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, April 27, 2009

This is to certify that the certificate of organization of

H & B Surveying and Mapping, 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: April 27, 2009



State Corporation Commission

Attest:

Joel H. Beck
Clerk of the Commission

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON

12-31-2015

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

NUMBER

0407005432

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

PROFESSIONS: LS

H & B SURVEYING & MAPPING LLC
612 HULL ST
SUITE 101B
RICHMOND, VA 23224



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.

Gordon N. Dixon
Gordon N. Dixon, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON

06-30-2015

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

NUMBER

0403002362

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

LESLIE RAY BYRNSIDE
4100 KETCHAM DR
CHESTERFIELD, VA 23832



Georgia N. Dixon
Georgia 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.

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

Land Studio, P.C. SCC and DPOR

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, May 20, 2004

This is to certify that the certificate of incorporation of

Land Studio P.C.

was this day issued and admitted to record in this office and that the said corporation is authorized to transact its business subject to all Virginia laws applicable to the corporation and its business. Effective date: May 20, 2004



State Corporation Commission

Attest:

Joel H. Peck
Clerk of the Commission



Commonwealth of Virginia
State Corporation Commission

Virg

CISM0180

CORPORATE DATA INQUIRY

04/08/14

09:45:10

CORP ID: 0617554 - 1 STATUS: 00 ACTIVE STATUS DATE: 06/18/12
 CORP NAME: Land Studio P.C.

DATE OF CERTIFICATE: 05/20/2004 PERIOD OF DURATION: INDUSTRY CODE: 70
 STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK
 MERGER IND: CONVERSION/DOMESTICATION IND:
 GOOD STANDING IND: Y MONITOR INDICATOR:
 CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:
 R/A NAME: R JOEL ANKNEY

STREET: VIRGINIA ENTREPRENEUR LAW OFFICE PC AR RTN MAIL:
 4669 SOUTH BLVD., SUITE 107
 CITY: VIRGINIA BEACH STATE : VA ZIP: 23452
 R/A STATUS: 4 ATTORNEY EFF. DATE: 08/15/12 LOC : 228
 ACCEPTED AR#: 213 06 3520 DATE: 03/28/13 VIRGINIA BEACH
 CURRENT AR#: 213 06 3520 DATE: 03/28/13 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
14	100.00				100.00	5,000

 (Screen Id:/Corp_Data_Inquiry)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON

12-31-2015

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

NUMBER

0405001516

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

PROFESSIONS: LA, ENG

LAND STUDIO PC
PO BOX 10801
NORFOLK, VA 23513



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.

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

(POCKET CARD)

COMMONWEALTH OF VIRGINIA

BOARD FOR AP/ELSC/DLA
PROFESSIONAL CORPORATION REGISTRATION
NUMBER: 0405001516 EXPIRES: 12-31-2015
PROFESSIONS: LA, ENG
LAND STUDIO PC
PO BOX 10801
NORFOLK, VA 23513



(FOLD)

(DETACH HERE)

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

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.

10010 (7/11) 107028-3

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-29-2016

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

NUMBER
0406000881

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

CAROL ANN RIZZIO
3645 NOTTAWAY STREET
NORFOLK, VA 23513



Nick A. Christner
Nick A. Christner, Interim 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.

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

(POCKET CARD)

COMMONWEALTH OF VIRGINIA
BOARD FOR APPEALS
LANDSCAPE ARCHITECT LICENSE
NUMBER: 0406000881 EXPIRES: 02-29-2016

CAROL ANN RIZZIO
3645 NOTTAWAY STREET
NORFOLK, VA 23513



(FOLD)

(DETACH HERE)

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

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.

**P.R.R., Inc.
SCC and DPOR**

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, November 9, 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

**PRR Capital Region, Inc. (USED IN VA BY: PRR,
Inc.)**

a corporation organized under the laws of WASHINGTON 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. Peck
Clerk of the Commission



COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

Office of the Clerk

November 9, 2010

CT CORPORATION SYSTEM
KATIE BUSH
4701 COX RD STE 301
GLEN ALLEN, VA 23060-6802

RECEIPT

RE: PRR Capital Region, Inc. (USED IN VA BY: PRR,
Inc.)
ID: F184159 - 4
DCN: 10-11-08-1230

Dear Customer:

This is your receipt for \$125.00, to cover the fees for filing an application for a certificate of authority to transact business in Virginia with this office.

This is also your receipt for \$100.00 to cover the fee(s) for expedited service(s).

The effective date of the certificate is November 9, 2010.

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

Sincerely,

Joel H. Peck
Clerk of the Commission

CORFACPT
CIS0368



Commonwealth of Virginia
State Corporation Commission

Virg

CISM0180

CORPORATE DATA INQUIRY

04/15/14

17:02:17

CORP ID: F184159 - 4 STATUS: 00 ACTIVE STATUS DATE: 11/09/10
 CORP NAME: PRR Capital Region, Inc. (USED IN VA BY: PRR,
 Inc.)
 DATE OF CERTIFICATE: 11/09/2010 PERIOD OF DURATION: INDUSTRY CODE: 00
 STATE OF INCORPORATION: WA WASHINGTON STOCK INDICATOR: S STOCK
 MERGER IND: CONVERSION/DOMESTICATION IND:
 GOOD STANDING IND: Y MONITOR INDICATOR:
 CHARTER FEE: 100.00 MON NO: MON STATUS: MONITOR DTE:
 R/A NAME: CT CORPORATION SYSTEM
 STREET: 4701 COX ROAD, SUITE 285 AR RTN MAIL:
 CITY: GLEN ALLEN STATE : VA ZIP: 23060
 R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 10/04/13 LOC : 143
 ACCEPTED AR#: 213 56 3142 DATE: 01/06/14 HENRICO COUNTY
 CURRENT AR#: 213 56 3142 DATE: 01/06/14 STATUS: A ASSESSMENT INDICATOR: 0
 YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
 13 370.00 50,000

 (Screen Id:/Corp_Data_Inquiry)

Attachment 3.3.1
Key Personnel Resumes

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title:	Bruce McIntosh, P.E. – Design-Build Manager
b. Project Assignment:	<i>Design-Build Project Manager</i>
c. Name of Firm with which you are now associated:	E.V. Williams, Inc. 
d. Years experience: With this Firm <u>1</u> Years With Other Firms <u>35</u> Years Please list chronologically (most recent experience first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):	<p><i>E.V. Williams, Inc.</i> <i>Design-Build Project Manager</i> <i>2013 – Present</i> Concentrating on pursuit and management of Design-Build projects as well as preparing statement of qualifications, technical and price proposals. Serving as Design-Build Project Manager involving Alternate Project Delivery.</p> <p><i>Lawrence Construction Company</i> <i>Design-Build Project Manager</i> <i>2012 – 2013</i> Senior Manager with responsibility to procure and manage Design-Build and CM-at-risk projects. Worked as Design Build Project Manager on Joint Venture with Ferrovial Agroman on a (\$115 million) Design-Build project. Served as DBPM on Accelerated Bridge Construction projects. Managing design, permitting, right-of-way, QA/QC, project controls and project administration.</p> <p><i>Jr. Davis Construction Co.</i> <i>Design-Build Project Manager</i> <i>2000 – 2012</i> Started as Chief Estimator promoted to a Design Build Project Manager in 2008 specializing in CM-at-Risk and Design Build projects. Responsible for preparing SOQ's, technical proposals and price proposals for projects in central Florida. During this time served as DBPM on 7 Design-Build and CM-At-Risk roadway projects built for FDOT and local municipalities. On these projects Mr. McIntosh, responsibilities included directing and overseeing design partners, quality control, contract administration, direct construction oversight and interfacing with owners.</p> <p><i>ZHA, Inc.</i> <i>Project Controls Manager</i> <i>1991 – 2000</i> Program Manager for Orlando-Orange County Expressway System Expansion (\$1.0 billion) – Head of Professional Staff of 18 reporting to Program Executive. Responsible for eight major roadway contracts running concurrently. Duties included contract administration and overseeing eight CEI consultants working on the projects. Also worked at Orlando Int'l Airport Expansion, Terminal, Airside and Roadway Improvements – (\$1.2 billion) as Project Control Administrator – Responsible for project master schedule and oversight of contractor submitted schedules.</p>
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:	<i>University of Florida – Gainesville, Florida/B.S./1974/Civil Engineering</i>
f. Active Registration: Year First Registered/ Discipline/VA Registration #:	<i>2014/Professional Engineer/Virginia/#053331; 1982/Professional Engineer/Florida/#32633</i>
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 project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> (List at least three (3), but no more than five (5) relevant projects* for which you have performed a similar function.) * On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.	<p><i>East West Connector – Polk County, Florida – Florida Department of Transportation</i></p> <p>1. Mr. McIntosh served full-time in dual role as Design-Build Project Manager and Construction Manager on \$38 million project, where he led a Team comprised of Jr. Davis Construction, APAC Southeast Inc. and Jacobs Engineering as well as numerous subconsultants and subcontractors. The project consisted of building six miles of multi-lane roadway providing access between SR-33 and the Polk County Expressway for the new Florida Polytechnic University. This project was built under an accelerated schedule using fast track techniques to complete design, permitting and construction in 26 months. <i>Design:</i> Mr. McIntosh's involvement and responsibilities included partnering with designers and FDOT to break the project into 4 segments that permitted construction on the first segment to start within four months, while still working on design, ROW acquisition and permitting on the other segments. <i>Teaming:</i> Another successful teaming strategy was holding weekly meetings with all key design and construction personal until final plans were approved for construction. Challenges created by an abandoned</p>

phosphate strip mine running throughout the project were resolved by teaming with the Geotechnical Engineer, Design Manager, and FDOT. Weekly construction schedule meetings included the Design Manager and appropriate Design Discipline Leaders to facilitate communication, partnering and problem resolution with key members of the construction team. As each new scope of work began a meeting was held including Designers, QA, QC staff and construction personnel to review design, QA and QC questions as well as witness and hold points. **Construction:** All issues were resolved before the project was completed resulting in zero claims. He incorporated major scope additions to the project without impacting any major milestones or the completion date. **QA/QC:** Supervised the QC consulting firm and lab as well as reviewed the results for QA compliance. **Partnering:** Formally partnered with FDOT, the City of Lakeland, Florida Polytechnic University, Skanska (Contractor on new college), local land owner (Williams Co.) and Utility Companies. **Public Outreach:** Informally partnered with all stakeholders on an ongoing basis including local homeowners, ranchers, Florida Dept. of Wildlife, U.S. Army Corps of Engineers and Florida Dept. of Environmental Protection (Fla DEP). **Project Controls:** Created and updated the schedule that integrated design, permitting and construction. Hosted a weekly schedule meeting with the Designers, Subcontractors, FDOT and the third-party Stakeholders. Generated and maintained submittal, transmittal, RFI, Work Order requests and correspondence logs for the project. **Risk Management:** Created detailed mass-diagram that balanced materials to allow materials with low level contamination to remain on site in permitted locations. **Permitting & Environmental Compliance:** Oversaw environmental permitting process including meeting regularly with Corps of Engineers and Fla. DEP in the field to negotiate permit special conditions. Responsible for environmental compliance in order to protect multiple wet lands and endangered species including Sand Hill Crane and Bald Eagle nesting sites.

2. **Firm: Jr. Davis Construction Co.**

3. **October 2010 – March 2012**

John Young & Osceola Parkways – Osceola County, Florida

1. Mr. McIntosh was responsible as Design-Build Project Manager for the roadway and bridge components and utilized a CM-at-Risk delivery model, working directly for Clancy and Theys. The \$22.3 million project included 1.5 miles of urban widening/reconstruction with major intersection improvements, extensive underground utilities and constructing a major bridge across the intersection. **Design:** Mr. McIntosh's involvement and responsibilities included directing the design team to review and incorporate numerous best-value alternatives to meet design and cost goals. Teamed with designers to accommodate numerous out of plan utility relocations. Oversaw construction phasing and MOT plans that had to be adjusted multiple times to accommodate complex utility relocation. **Construction:** Served on the Executive Team which held final responsibility for QA/QC, schedule, project controls, project cost and complete contract and permit compliance. **Public Outreach/Risk Management:** Partnered with numerous businesses to minimize time or season critical access and egress impacts caused by project construction. **Project Controls:** Assisted in the preparation of project schedule that integrated design, construction and permitting. Monitored for compliance with company policies regarding submittal, transmittal, RFI, Work Order requests and correspondence logs for the project.

2. **Firm: Jr. Davis Construction Co.**

3. **August 2008 – October 2010**

Narcoossee Road (Had dual-responsibility along with John Young & Osceola Parkways Project) – Osceola County, Florida

1. As Design-Build Project Manager, Mr. McIntosh was responsible for the roadway and bridge design and construction, employing a CM-at-Risk delivery model with Balfour Beatty. The project, \$20.5 million, included 6 miles of urban widening/reconstruction with major bridge, intersection improvements and extensive underground utilities. **Design:** Mr. McIntosh's responsibilities included coordinating three different design firms that worked on various sections of the project. During pre-construction, prepared numerous constructability reviews of the different designs as well as coordinated improvements to phasing and MOT plans. Design schedule and coordination at this stage was critical to the on-time completion of the project. **Safety:** Minimized the impact to traffic and improved traffic safety by developing an earthwork plan to accommodate the efficient utilization of fill from the various SWM ponds, minimizing trucks crossing active travel lanes. **ROW:** Consulted with the designers and ROW acquisition team on determining the ROW requirements of the project and to schedule the acquisitions to best accommodate the construction schedule. In many cases worked with the team to adjust the construction schedule when ROW acquisition dates changed. **Construction:** Held final responsibility for QA/QC, schedule, project controls, project cost and complete contract and permit compliance as part of the Executive Project Team. **Risk Management:** Managed use of high plastic and organic soils to eliminate export. **Public Outreach/Partnering:** Partnered with school board, accelerating certain sections of the roadway, over the summer to minimize impacts to the two schools located within the project limits. **Project Controls:** Created the project schedule, which integrated design, permitting, ROW and construction. Reviewed cost and schedule targets throughout the project duration.

2. **Firm: Jr. Davis Construction Co.**

3. **August 2008 – October 2010**

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. **Not Applicable**

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title:	Fred Crozier, P.E. – Senior Project Manager
b. Project Assignment:	Quality Assurance Manager
c. Name of Firm with which you are now associated:	Alpha Corporation 
d. Years experience: With this Firm <u>7</u> Years With Other Firms <u>28</u> Years Please list chronologically (most recent experience first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):	<p><i>Alpha Corporation Senior Project Manager/Quality Assurance Manager July 2007 – Present</i> Mr. Crozier is a Senior Project Manager, serving as a Quality Assurance Manager, Responsible Charge Engineer and Project Manager on Design-Build, PPTA, and Design-Bid Build transportation projects in Virginia and Maryland. Responsibilities have included performing the full responsibilities of a QA Manager on three VDOT Design-Build projects and VDOT's Route 28 PPTA projects/program, including ensuring compliance with all requirements of the plans, specifications, QA/QC Plan and Minimum Requirements for QA and QC on Design-Build and PPTA Projects. Setting up Inspection and Testing frequencies and quality oversight program. Participate in all phases of the Design-Build Project, from Commencement, Scope Validation, design reviews, construction, and project close-out. Facilitated constructability reviews, progress meetings, Preparatory Meetings and AR Plan implementation meetings. Issued non-conformance reports, and oversaw correction of deficiencies. Oversaw inspection and testing frequencies, and daily diaries, checklists, and test reporting. Responsible for QA/QC Plan requirements. Monitored the Materials certification process, checking for conformance, issuing LT# and other material certifications, and maintaining the Materials Book. Provided oversight for QA Inspection personnel. Reviewed and certified monthly Pay Applications. Working for an Owner, assisted in the assembly of an Owner's independent assurance program, including setting up testing and inspection frequencies. Provided dispute resolution and claims analysis on District Wide and State Wide term services contracts.</p> <p><i>Johnson, Mirmiran & Thompson, Inc. Branch Manager February 2005 – January 2007</i> Managed JMT's branch office in Morgantown, WV. Activities included providing and supervising Construction Management & Construction Inspection staffing for West Virginia Division of Highways contracts and projects, including major roadway and bridge projects. Oversaw QA inspection and testing services in accordance with required frequencies. Ensured inspectors were equipped and trained, and performed services in accordance with all specifications, policies and guidelines. Provided field support for construction staff, including recommendations for resolution of field issues and changed conditions.</p> <p><i>Maryland State Highway Administration District 6 – District Engineer 1997 – 2004</i> Served as senior administrator of all SHA activities in District 6 (western Maryland), including project development, construction, maintenance, and traffic operations. Coordinated with state, county, and local elected officials and staff to develop and deliver SHA's Consolidated Transportation Program, which included major projects, safety improvements, system preservation, community enhancements, and environmental enhancements. Supervised the construction management staff (ADE, Area Engineer, Project Engineers, Inspectors). Reviewed and approved change orders (e.g. changes to scope of work, quantities, unit prices, schedule, design modifications). Reviewed claims and negotiated settlements with contractors. Served as liaison with other SHA offices, other agencies, news media and elected officials. Assumed overall responsibility for the construction process. Managed over \$200 million in construction projects, including corridor improvements along I-81, I-70 and I-68. Performed public relations and led community/PR meetings to advise public of upcoming work.</p>
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:	West Virginia University, Morgantown, WV / B.S. / 1984 / Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #:	Professional Engineer / Virginia / 2008 / #045291
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. Note your specific responsibilities and authorities for each project, not those of the firm. 2. Note whether experience is with current firm or with other firm. 3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.	
(List at least three (3), but no more than five (5) relevant projects* for which you have performed a	

similar function.)

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

Pacific Boulevard Design-Build – Dulles, VA – VDOT

1. Mr. Crozier served as the Quality Assurance Manager for this \$19 million VDOT Design-Build project, a half-mile extension of Pacific Boulevard, with bridges over the W&OD Railroad Regional Park and over Cabin Branch. Served as QA Manager through all phases of the project, from Commencement and Design phases, through Construction, and to Project Close-out. As QAM, he was responsible for QA inspection and testing of all materials used and work performed on the Project, including monitoring the contractor's Quality Control (QC) program, and ensuring that all work and materials, testing and sampling was performed in conformance with contract requirements and the "approved for construction" plans and specifications. Attended preconstruction and commencement meetings. Implemented the requirements of the QA/QC Plan, including accepting and rejecting work, assigning the QA inspection and testing processes and overseeing documentation, participating in regular progress meetings, reviewing QC documentation, and certifying monthly payment applications. He facilitated Preparatory Meetings and other Hold Points. Coordinated with QA Laboratory to provide QA lab testing and reporting. Reviewed Fuel, Price and other adjustments in payments.
2. ***Firm: Alpha Corporation***
3. ***February 2009 – October 2010***

Route 50 Design-Build Project at Gilbert's Corner – Loudoun County, VA – VDOT

1. Mr. Crozier served as the Quality Assurance Manager for this \$16 million VDOT Design-Build traffic improvement project on Route 50 and Route 15, which included construction of a new connector road and four roundabouts. As QAM, he was responsible for QA inspection and testing of all materials used and work performed on the Project, including monitoring the contractor's Quality Control (QC) program, and ensuring that all work and materials, testing and sampling was performed in conformance with contract requirements and the "approved for construction" plans and specifications. Attended weekly coordination meetings with VDOT to determine progress, quality and to coordinate testing. Implemented the requirements of the QA/QC Plan, including accepting and rejecting work, assigning the QA inspection and testing processes and overseeing documentation, participating in regular progress meetings, reviewing QC documentation, and certifying monthly payment applications. He facilitated Preparatory Meetings and other Hold Points. Coordinated with QA Laboratory to provide QA lab testing and reporting. Reviewed Fuel, Price and other adjustments in payments. Implemented the Quality Assurance Auditing and Nonconformance Recovery Plan (AR Plan).
2. ***Firm: Alpha Corporation***
3. ***May 2008 – December 2009***

Battlefield Parkway Design-Build Project – Leesburg, VA – VDOT

1. Mr. Crozier served as the Quality Assurance Manager responsible for this \$35 million VDOT Design-Build project to construct a segment of the Parkway including a 4-lane divided highway with a parallel 10-foot shared-use path and a bridge over the Tuscarora Creek and the W & OD Railroad Trail. As QAM, he was responsible for QA inspection and testing of all materials used and work performed on the Project, including monitoring the contractor's Quality Control (QC) program, and ensuring that all work and materials, testing and sampling was performed in conformance with contract requirements and the "approved for construction" plans and specifications. Attended weekly coordination meetings with VDOT to determine progress, quality and to coordinate testing. Implemented the requirements of the QA/QC Plan, including accepting and rejecting work, assigning the QA inspection and testing processes and overseeing documentation, participating in regular progress meetings, and certifying monthly payment applications. He facilitated Preparatory Meetings. Coordinated with QA Laboratory to provide QA lab testing and reporting. Reviewed Fuel, Price and other adjustments in payments. Implemented the AR Plan, including issuing Non-Conformance Reports.
2. ***Firm: Alpha Corporation***
3. ***May 2008 – October 2009***

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

- 1) Route 28 PPTA projects (Responsible Charge Engineer) – Ongoing segments of the projects will be completed by Fall 2014, and will allow for full-time assignment to the I-64 Design-Build project.
- 2) District 6 Scheduling and Claims Review, Maryland SHA (Project Manager) – The current contract will expire in July 2014. The contract may be extended to complete current task orders, but will conclude by the end of 2014.
- 3) On-call contracts for engineering services for VDOT, Maryland SHA, and other public works agencies (Engineering Support) – Current work involves providing services as needed for constructability, schedule and claims review, cost estimating and other engineering support. These assignments are short-term in nature, and will be concluded prior to the start of construction activities for the I-64 Capacity Improvements project.

****Mr. Crozier will be available full-time for the duration of the I-64 project.***

design of over **70,000 sf of noise walls**. **The FCP Bridge over Route 50 was widened from four to six lanes**. The project included an extensive MOT plan with multiple phases of construction for maintaining over 45,000 vpd during the construction of the project. Mr. Maddox provided oversight and coordination for all elements of the project including roadway, hydraulic, SWM, structural, utility relocation, traffic engineering, environmental permits, traffic forecast and analysis, public involvement, and Quality Assurance. Mr. Maddox provided a leadership role in stakeholder outreach to the existing Homeowners' Associations, Fair Lakes League and the Fairfax County Park Authority to minimize right-of-way impacts. During construction, attended progress and partnering meetings with the Construction Team, shop drawing review and technical support.

2. **Firm: Whitman, Requardt and Associates, LLP**

3. **October 2001 – October 2013**

I-81 Bridge Replacement over the New River and Exit 105 Improvements – Montgomery and Pulaski Counties, VA – VDOT

1. Mr. Maddox is the Project Design Manager responsible for the design of the \$90 million project, which includes 1.67 miles of improvements to the existing four-lane divided interstate. The improvements consist of the replacement of the existing two-lane bridges over the New River with three-lane bridges in each direction. The bridges are approximately 1,600 feet long and are 80 feet above the river. I-81 will be widened to provide deceleration and acceleration lanes along I-81. The design includes a complex Type B Category IV TMP for multiple phases of construction. The Exit 105 interchange is reconstructed requiring an IMR and the replacement of the Route 232 bridge over I-81. The project is being developed under a "Turnkey Delivery" and Mr. Maddox is providing oversight and coordination for all elements of the design including surveys, roadway, hydraulics, SWM, structural, geotechnical, and traffic engineering, ITS, TMP, environmental permits, utility design, and Quality Assurance. He provides a leadership role in public outreach including stakeholder meetings, citizen information meetings and a public hearing. Mr. Maddox also leads monthly meetings with VDOT, subconsultants and key staff to ensure all elements of the project are proceeding on schedule. The scheduling is enhanced by utilizing CMP scheduling to clearly define the critical path of the design, environmental and right-of-way tasks.

2. **Firm: Whitman, Requardt and Associates, LLP**

3. **February 2011 – Right-of-Way Plans: September 2014 Construction: September 2016**

Route 29 Bypass Sweet Briar Interchange – Amherst County, VA – VDOT

1. Mr. Maddox served as the Project Design Manager for the design of a \$35 million project, which included the relocation and extension of existing Route 29 to Business Route 29 by elevating the four-lane divided roadway a maximum of 28' over the proposed Route 29 Bypass. The innovative design separated the local traffic on Business Route 29 from the high speed traffic on the Bypass. Rutledge Creek and its associated FEMA Floodplain traversed the project through four box culverts requiring a detailed analysis to ensure the 100-year floodplain was not impacted by the project. A complex sequence of construction and the maintenance of traffic plan were required to extend the Bypass and Route 624 under the Norfolk Southern Railway. **The railroad effort included a one-mile relocation of the track and the construction of two railroad bridges, requiring extensive coordination with Norfolk Southern.** Mr. Maddox provided oversight and coordination for all elements of the design including traffic forecast and analysis, interchange design, railroad relocation, highway design, three new highway bridges and two railroad bridges, retaining walls, drainage, stormwater management, public involvement, and Quality Assurance. During construction provided shop drawing reviews and coordination with the Construction Team.

2. **Firm: Whitman, Requardt and Associates, LLP**

3. **1996 – 2005**

Route 123 Interchange at Route 1– Prince William County, VA – VDOT

1. Mr. Maddox is the Project Design Manager responsible for the design of a \$70 million project, which includes a tight urban interchange at Route 123 and Route 1 and the widening from four to six lanes 1.7 miles of Route 1 and Route 123. The project requires two new bridges; Route 123 over Route 1 and **Route 123/Belmont Bay Drive over CSXT Railroad**. Route 123 and the connecting ramps are elevated on MSE retaining walls to reduce the right-of-way impacts of the project. The replacement of the existing bridge over Marumsc Creek required a detailed analysis of the FEMA floodplain. A complex MOT plan is also required to maintain traffic operations during multiple phases of construction including a complete traffic analysis of each phase of construction. Mr. Maddox provides oversight and coordination for all elements of the design including surveys, roadway, hydraulics, SWM, structural, geotechnical, traffic engineering, ITS, TMP, traffic forecasting and analysis, permitting, public involvement, and Quality Assurance.

2. **Firm: Whitman, Requardt and Associates, LLP**

3. **December 2007 – Right-of-Way Plans: May 2012 Construction: December 2014**

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. – **Not Applicable**

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title:	Mark Osenbaugh – Senior Construction Manager
b. Project Assignment:	Construction Manager
c. Name of Firm with which you are now associated:	E.V. Williams, Inc. 
d. Years experience: With this Firm <u>9</u> Years With Other Firms <u>23</u> Years Please list chronologically (most recent experience first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):	<p>E.V. Williams, Inc. Senior Construction Manager 2005 – Present Senior Construction Manager of Heavy Civil projects with values ranging from \$500,000 to over \$100 million. Involves on-site management of larger projects or remote management of smaller projects. Responsible for all aspects of construction including project budgets, schedules and schedule updates, subcontracts and purchase agreements, RFIs, submittals, billings and close-out of the contract. Coordinates QC function on Design-Build projects. Working through the project superintendent assures project is in compliance with all contract requirements.</p> <p>Skanska USA Construction Manager 2000 – 2005 Worked on site on Heavy Civil projects. Performed Quality Control administration and inspection as contractor's representative. Responsible for engineering, design and constructability analysis for various construction activities. Prepared contract administration documentation in compliance with Specifications and Bid Documents. Developed work plans, performed layout, coordinated subcontractors, oversaw safety and supervised scheduling for estimating and project construction.</p> <p>Vico Construction Corporation Project Engineer 1997 – 2000 Performed all construction surveying and field layout for state, municipal, commercial and private projects related to utility installation and road construction. Calculated survey control. Responsible for adherence to company safety policies and quality control. Prepared daily diaries and project documentation. Designed concrete formwork, precast drainage structures and rigging required for various types of construction projects.</p>
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:	Old Dominion University – Norfolk, Virginia/CE A.A.S/2000/Civil Engineering Technologies
f. Active Registration: Year First Registered/ Discipline/VA Registration #:	Virginia Department of Conservation and Recreation (Department of Environmental Quality) – Responsible Land Disturber Certification #41768 – Expires: 04/09/2017 VDOT Erosion and Sediment Control Contractor Certification #5138C Expires: 9/18/2014
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 project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> (List at least three (3), but no more than five (5) relevant projects* for which you have performed a similar function.) * On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project. Design-Build Route 13/158 – Gates & Hertford Counties, NC – NCDOT	<p>1. Mr. Osenbaugh serves as Senior Construction Manager on this \$54.5 million Design-Build project, which includes widening of 7.1 miles of US-13/158 from two lanes to a four-lane divided highway. Project structures include single span dual bridges over Buckhorn Creek, dual bridges over NC-45, a 1,200 LF bridge over the Chowan River, and the rehabilitation of the existing bridge over the Chowan River. Other major items were 218,000 CY of undercut, 1,131,000 CY of borrow fill, 22,000 LF of storm drain pipe, and 25,000 LF of water line.</p> <p>Mr. Osenbaugh was involved in the design and construction of this project. Design: He provides constructability reviews on the roadway design. The one responsibility was to select the most cost effective way to handle the</p>

highly organic soil conditions are as much as 24 feet deep. Mr. Osenbaugh also was in charge of obtaining 6 permits, and in acquiring local borrow pits for the project. **ROW:** Mr. Osenbaugh leads the team that successfully acquired property from over 70 different owners including additional ROW during construction when NCDOT increased the project length by .7 miles. **Risk Management:** Mr. Osenbaugh managed changes in interchange design and reconstruction which reduced the quantity of unsuitable soil excavation, eliminated the need for a temporary roadway to maintain traffic, avoided the relocation of utilities, as well as added protection to an existing 12 inch gas main. Project Controls: Mr. Osenbaugh has responsibility for the project schedule and all updates as well as maintaining appropriate logs for RFIs, transmittals, submittals, correspondence and meeting minutes. MOT: His traffic management plan is phased so that throughout the sequence of construction no roadways would be required to be completely closed or detrimentally impede the current traffic flow.

2. **Firm: E.V. Williams, Inc.**
3. **July 2011 – April 2015 (Estimated End Date)**

Battlefield Boulevard and I-64 – City of Chesapeake, Virginia – VDOT

1. Mr. Osenbaugh served as Construction Manager on this \$102 million Design-Bid-Build project. This complex primary Interstate project completely rebuilt the existing four travel lanes to eight travel lanes of reinforced concrete pavement, phased replacement of Battlefield Blvd., widening the CSX railroad bridges and construction of braided bridges from Greenbrier Parkway to I-64. As the Construction Manager Mr. Osenbaugh was able to complete and deliver this complex high profile project over three months ahead of the project completion date and earn the entire available early completion bonus. Innovations included incorporating the demolished concrete, crushed to a 21A gradation, into the Cement Treated Aggregate as required for the roadway section. This work and the production of the concrete were performed within the right-of-way, without the material leaving the site or interfacing with traffic. Utilizing the existing ramps at Battlefield Boulevard, the Team was able to begin a critical activity, the reconstruction of the Battlefield Boulevard bridge 6 months ahead of schedule. Working with the Department, a revised sequence of construction allowed the CD lanes to be constructed and existing traffic to be shifted off the mainline, saving the department \$750K and reducing the construction schedule by three months.
2. **Firm: E.V. Williams, Inc.**
3. **February 2006 – July 2009**

Birdneck Road Improvements – City of Virginia Beach, Virginia – VDOT

1. Mr. Osenbaugh served as Construction Manager on this \$32 million Design-Bid-Build project. The Birdneck Road project consisted of widening 2.9 miles of two-lane roadway to four lanes of divided roadway. This included installation of new utilities within a network of existing utilities, new roadway pavement sections, ground improvements, traffic control, sound abatement walls, landscaping, brick paver walkways, signalization, lighting, and smart traffic systems, all built within a swampy marsh area and under current traffic conditions of an existing two-lane road. This heavily congested and highly traveled thoroughfare required complex phasing of construction. E.V. Williams, working with the Department, was able to revise the MOT plan from five phases to three phases and reduced the project duration by five months. One of Mr. Osenbaugh’s major goals was to complete the project while minimizing the impact to the existing traffic flow. One way he accomplished this was by scrutinizing the MOT plan of every intersection. He then worked with VDOT construction, VDOT design and the City of Virginia Beach Traffic Engineering to incorporate ways to add additional turn lanes, improve queue length, decrease pinch points, increase turn radiuses, simplify the traffic patterns and generally add capacity. This proved very successful and helped to maximize the traffic flow and avoid problems.

Another challenge on this project was highly plastic and organic soils encountered, which is a risk factor on I-64. The industry standard of undercutting and backfill was not a viable option in many areas due to a large number of buried dry utilities. EVW worked with the Department to utilize cement and lime stabilization (depending on subgrade soil types) of the subgrade to minimize utility relocations while providing a stable subgrade. Partnering with the VDOT Team, Mr. Osenbaugh was able to decrease the time and reduced the monetary impacts to the project by \$200,000.

2. **Firm: E.V. Williams, Inc.**
3. **January 2009 – February 2012**

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

Current Assignment	Role	Anticipated Duration
Route 13/158 Gates County DB	Construction Manager	Complete 4/2015

***Mr. Osenbaugh will be assigned to the I-64 project full-time, once construction begins.**

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title:	Jeremy Schlussel, P.E. – Vice President
b. Project Assignment:	Lead Structural Engineer
c. Name of Firm with which you are now associated:	Whitman, Requardt & Associates, LLP 
d. Years experience: With this Firm <u>13</u> Years With Other Firms <u>5</u> Years Please list chronologically (most recent experience first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):	<p>Whitman, Requardt & Associates, LLP Bridge Project Manager 2006 – Present Manages the Virginia Structure and Bridge Group of WR&A and he has designed and managed a wide variety of new design and maintenance and repair bridge projects for VDOT and local municipalities since 2006. The projects that he works range from 20 ft bridges to over 10,000 ft long bridge structure and encompass bridge rehabilitations, replacements and widening's, many of which are on primary and interstates, including projects located over CSXT property throughout Virginia. In addition, he has worked on two Design-Build projects with Branch Highways, Inc. a sister company of E.V. Williams. The projects that he has worked on range in bridge construction costs from less than \$1 million to over \$15 million.</p> <p>Whitman, Requardt & Associates, LLP Bridge Project Engineer May 2001 – 2006 Responsible for designing a wide variety of projects from bridge replacement projects on primary and interstate roadways to feasibility reports for bridge structure options. Projects included structural steel, including hybrid steel designs, and pre-stressed concrete bridge structures and sub-structure design. As the bridge project engineer, he worked on major Interstate Replacement projects which widened the interstate and Design-Build projects.</p> <p>Site-Blauvelt Engineers, Inc. Bridge Engineer 1996 – 2001 Responsibilities increased over the time from supporting senior level engineers to leading bridge design efforts on major bridge projects throughout Virginia. Projects that were designed ranged from interchange bridge structures to rehabilitation projects throughout Virginia.</p>
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:	West Virginia University – Morgantown, West Virginia/M.S./1996/Civil Engineering – Structures Virginia Military Institute – Lexington, Virginia/B.S./1994/Civil Engineering VDOT Transportation Project Management Institute (TPMI) – 2010 Certification Safety Inspection of In-Service Bridges
f. Active Registration: Year First Registered/ Discipline/VA Registration #:	Professional Engineer/Virginia/2000/#033974; Professional Engineer/North Carolina/2010/#036510; Professional Engineer/Pennsylvania/2000/#PE057355E
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. Note your specific responsibilities and authorities for each project, not those of the firm. 2. Note whether experience is with current firm or with other firm. 3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation. (List at least three (3), but no more than five (5) relevant projects* for which you have performed a similar function.) * On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.	<p>Route 123 (Ox Road) over Campus Drive – Fairfax County, VA – George Mason University Design-Build – Subconsultant to Branch Highways, Inc. (a sister company of EV Williams, Inc.)</p> <p>1. Lead Structural Engineer for the Design-Build project that will connect the east and west campuses of GMU via a new connector road to be located under the existing Route 123 profile. The bridge structure will require excavation of approximately 25 ft. of existing roadway, while maintaining four lanes of traffic. The bridge structure will be a</p>

90 ft. simple span VDOT Bulb-T bridge supported by a semi-integral abutment. During the design, challenges included working around various fiber-optic lines and designing an aesthetically pleasing bridge structure.

2. **Firm: Whitman, Requardt and Associates, LLP**
3. **September 2012 – July 2014 (Under Construction)**

Route 636 over CSX – PPTA – Augusta County, VA – Subconsultant to Branch Highways, Inc. (a sister company of EV Williams, Inc.)

1. Structural Project Manager for the PPTA project for the county to relocated approximately 0.75 miles of an unimproved roadway, which will remove a sub-standard underpass under the railroad and build a new overpass to meet today's geometric requirements. The proposed bridge structure will span the entire CSXT ROW and will be on an approximate 40-degree skew. The project is being designed to have Phase 1 build two lanes now with the ability to add two additional lanes in the future.
2. **Firm: Whitman, Requardt and Associates, LLP**
3. **January 2013 – July 2014 (Under Construction)**

I-81 Widening and Bridge Replacements over Buffalo Creek and Maury River – Rockbridge County, VA – VDOT

1. Bridge Design Project Engineer for the design of four continuous steel girder bridges over the Buffalo Creek and Maury River. The Buffalo Creek four-span bridges had total lengths of 635 ft. (NBL) and 570 ft. (SBL). The Maury River NBL Bridge with 5 spans and a total length of 825 ft. and the SBL Bridge with 4 spans and a total length of 743 ft. Responsibilities for both projects included the design of the hybrid structural steel superstructure, special design abutments and completed quality control reviews of the pier designs – with pier heights up to 110 ft. for the Buffalo Creek bridges and up to 60 ft. in height on the Maury River bridges. The special design abutment on all four bridges embedded the ends of the steel girders in concrete to provide complete separation from the toothed expansion joints at the abutments. The Buffalo Creek NBL Bridge design efforts had to take into account the two-staged construction.
2. **Firm: Whitman, Requardt and Associates, LLP**
3. **August 1999 – December 2007**

Fairfax County Parkway (FCP) Widening and Interchange at Fair Lakes Parkway – Fairfax County, VA – VDOT

1. Bridge Design Project Manager responsible for the design of two single-span, prestressed concrete bulb-tee bridges carrying Fairfax County Parkway over Fair Lakes Parkway and Monument Drive. These two new bridge structures are part of the three miles of roadway improvements to create grade separations at these two locations and widen Fairfax County Parkway from 4 to 6 lanes. Responsibilities on the project included overall project management for the two new bridge structures and the design of the reinforced concrete decks and geometry of the new bridge structures. The Fair Lakes Parkway bridge structure consists of a 69-inch bulb-tee with semi-integral abutments and the Monument Drive bridge structure consist of a 61-inch bulb tee with semi-integral abutments. The entire project was designed to maintain traffic 100% of the time and incorporated the ashlar stone pattern along the MSE abutments and wingwalls for an aesthetic treatment desired by the community.
2. **Firm: Whitman, Requardt and Associates, LLP**
3. **October 2001 – December 2013**

I-64 EB & WB over Route 33 (Nine Mile Road) Bridge Replacement and Widening – Henrico County, VA – VDOT

1. Bridge Design Project Manager for the design of the replacement of the two existing bridge structure and widening over Route 33. The original bridges were built in the 1960s as part of the original I-64 corridor and were in need of rehabilitation. As part of the project, the team evaluated the bridges for their existing conditions and after preparation of the report and life cycle cost analysis came to the conclusion it was more cost effective to replace the existing 3-span bridges with two new single span bridges to be built in phases. To facilitate this work, I-64 is being widened to the median in phase 1 to shift the current traffic to maintain four lanes at all times and then the phase 2 rebuilds the existing conditions and when completed, shift traffic back to the original alignment. The widening was developed to not preclude future widening the future, which includes incorporating the 14 ft shoulder throughout the project limits.
2. **Firm: Whitman, Requardt and Associates, LLP**
3. **August 2013 – January 2014**

- h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. – ***Not Applicable***

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title:	Robert Gallagher, P.E. – Senior Vice President
b. Project Assignment:	Lead Roadway Engineer
c. Name of Firm with which you are now associated:	Johnson, Mirmiran & Thompson, Inc. 
d. Years experience: With this Firm <u>7</u> Years With Other Firms <u>20</u> Years Please list chronologically (most recent experience first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):	<p>Johnson Mirmiran & Thompson, Inc. Senior Vice President-Richmond Office Manager February 2007 – Present Responsible for operations of JMT's Richmond Office and serves as JMT's Transportation discipline leader for Virginia. Oversees all roadway and bridge design, construction inspection, and right-of-way acquisition within the Commonwealth. Mr. Gallagher also serves as JMT's Project Manager on major projects and VDOT Statewide Limited Services Design contract.</p> <p>Earth Tech President-Senior Section Manager July 1998 – February 2007 Manager of Transportation engineering services for the Richmond office. Responsible for the major transportation disciplines of roadway and bridge design, construction inspection and right-of-way acquisition. Served as the Project Manager and Principal-in-Charge for design and administration of many VDOT and municipal VDOT-funded highway projects. Served as Project Manager for multiple VDOT Limited Services Design contracts and on major project specific contracts.</p> <p>Earth Tech Transportation Project Manager and Engineer April 1990 – July 1998 Served in various engineering and project manager roles for VDOT and municipal funded Virginia Transportation projects. Experience centered on highway design, structure design and analysis, roadway hydraulics and storm water management.</p>
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:	<p>Trine University – Angola, Indiana/B.S./1987/Civil Engineering State University of New York Agricultural & Technical College – Alfred, NY/A.A.S./1984/Construction Technology</p>
f. Active Registration: Year First Registered/ Discipline/VA Registration #:	<p>Professional Engineer/Virginia/1992/#023016</p>
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 project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> (List at least three (3), but no more than five (5) relevant projects* for which you have performed a similar function.) * On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.	<p>Fairfax County Parkway (Route 7100) Design-Build – Fairfax County, VA</p> <p>1. Design Contract Manager – Managed and coordinated the major disciplines of roadway design; traffic design including signals, signing and pavement markings; structural design; water resources; MOT; lighting; landscaping; project website; utility coordination and subsurface utility engineering; land surveys for the design. This \$112 million Design-Build project was one segment of the Fairfax County Parkway between Rolling Road (Rte. 638) and Fullerton Road. This project included construction of approximately 1.5 miles of a four-lane divided, limited access highway designed to facilitate future widening to 6 lanes. The project includes relocation of portions of Rolling Road; a multipurpose trail; interchanges at Rolling Road/EPG Access Road, Boudinot Drive Interchange; I-95 SB DAR access ramp; and 6 new multi-lane bridges; 1 interstate ramp widening and UXO and Hazmat accommodations. The western half of the project received conditional approval for clearing, grading and E&S 2 months ahead of original schedule. JMT has received five awards for the Fairfax County Parkway project, the most recent one being was an Honor Award Winner for the 2012-2013 ACEC/MW Engineering Excellence Awards</p>

selected by The American Council of Engineering Companies of Metropolitan Washington (ACEC/MW).

2. **Firm: Johnson, Mirmiran & Thompson, Inc.**
3. **October 2008 – September 2009 (Phase I&II)/November 2009 (Phase IV)**

VDOT PPTA Design-Build – Route 288 PPTA – Goochland County, VA

1. **Design Manager/Principal-In-Charge** – Served in a highway designer role and assistant project management for a traditional design-bid-build VODT project that was converted to a design-build delivery system under a new project using the Virginia Public Private Transportation Act (PPTA). Responsible for roadway, bridge design and water resources work performed as a subconsultant to the PPTA design-builder. Services included completion of the roadway and select bridge plans for this 7.1-mile segment of the Route 288 western bypass around Richmond from the James River to I-64. Segment included four interchanges and extensive environmental permitting. Required extensive coordination efforts for a 6-month period to accommodate planned development of the Capital-One 8,000 employee campus style facility of the West Creek Business Park adjacent to the project at the interchange of Route 288 and Ridgefield Road. Additional efforts included field support for contractor Request for Information and structural shop drawings submittals.
2. **Firm: Earth Tech**
3. **2000 – 2002**

Pentagon Renovation Program for Roads, Grounds and Security Projects – Design-Build Assignments, Secure Access Lane Design-Build – Arlington, VA

1. **Principal-In-Charge** for the engineering side of contractor/engineer design-build team. Project was done under a five year prequalified design build source selection contract for project assignments for internal and surrounding transportation networks (\$50 million max. contract capacity). **Representative project includes the Secure Access Lane Design-Build.** This fast track project provided a dedicated secure access lane to the Pentagon's 250,000-square foot Remote Delivery Facility. The \$10 million project involved modification of the CR 27 and Route 244 interchange, additional security checkpoint areas, and increased truck queuing capacity. The project was delivered on an extremely aggressive schedule in response to 9/11/2001. The project received the 2004 Design-Build Award of Excellence from Associated Builders and Contractors' Metropolitan Washington and Virginia Chapters for this project.
2. **Firm: Earth Tech**
3. **2002 – 2004**

VDOT – Route 460 – Montgomery County, VA

1. **Roadway Designer and Management** – Assisted with the engineering design and project management for the design of five interchanges on Route 460 Bypass (line 3A) between Blacksburg and Christiansburg and for the extension of 460 Business to I-81. Prepared roadway, right-of-way and construction plans for three interchanges, one of which involves a complex urban interchange at Blacksburg with connections to Route 460 Bypass, Route 460 Bus., Main Street, and the Smart Highway; an extremely complex urban multilevel interchange. Main responsibilities were roadway design, traffic analyses (CORSIM) and Interstate Access Request. (\$52 million)
2. **Firm: Earth Tech**
3. **1995 – 2001**

I-95/Walthall Interchange – Chesterfield County, VA

1. Project Manager and Lead Roadway Designer for the fast-track development of right-of-way and construction plans for the improvements of an existing six-leg interchange in one of the county's highest commercial growth areas along I-95. Ultimate plans to accommodate a planned County East-West Expressway were also developed and incorporated into the proposed improvements in order to protect design integrity and to secure necessary right-of-way for future improvements. Managed roadway design, traffic analysis and functionality of alternatives, preparation of EA/FONSI, Interstate Access Modification Request, bridge design (4 structures: 2 over I-95, 1 over CSX, and 1 over a regulated floodway), and hydraulic and hydrologic analysis for proposed structure over Ashton Creek. Project constraints included close paralleling of Route 1, heavy commercial and industrial development along with several major motels, regulated floodway, Civil War battle site and prehistoric Native American site. (\$20 million)
2. **Firm: Earth Tech**
3. **1996 – 2000**

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. – ***Not Applicable***

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title:	Lauren Hansen – Senior Associate
b. Project Assignment:	Public Relations Manager
c. Name of Firm with which you are now associated:	PRR, Inc. 
d. Years experience: With this Firm <u>≤1</u> Years With Other Firms <u>13</u> Years Please list chronologically (most recent experience first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):	<p>PRR, Inc. <i>Public Relations Manager/Senior Associate</i> <i>October 2013 – Present</i> Lead communications, public involvement, stakeholder management, community outreach and planning, toll marketing, and website development for the Elizabeth River Tunnels Project.</p> <p>VDOT – Hampton Roads District <i>Public Affairs and Communications Manager</i> <i>October 2008 – October 2013</i> Planned, developed, and oversaw regional public relations initiatives.</p> <p>VDOT – Hampton Roads District <i>Public Affairs Sepcialist III</i> <i>September 2004 – October 2008</i> Executed community relations and outreach efforts, providing complex information to the public.</p> <p>Wilson Farms, Inc. – Lexington, MA <i>Public Relations and Advertising Manager</i> <i>July 2000 – November 2003</i> Project Manager of product promotions and public awareness initiatives in the Boston Metro area.</p>
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:	Northeastern University – Boston, MA/B.S./1999/Journalism, Public Relations and Advertising Massachusetts College of Art – Boston, MA/Coursework/2000/Graphic Design
f. Active Registration: Year First Registered/ Discipline/VA Registration #:	
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 project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> (List at least three (3), but no more than five (5) relevant projects* for which you have performed a similar function.) * On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.	<p>Elizabeth River Tunnels – City of Norfolk, VA to City of Portsmouth, VA</p> <p>1. Specific responsibilities and authorities: Project Manager – Co-located to the Elizabeth River Crossings, LLC office and leading PRR, Inc.’s Team for communications, public involvement, stakeholder management, community outreach and planning, toll marketing, and website development. The Elizabeth River Tunnels project involves the design, construction, and tolling for the \$2 billion Midtown Tunnel/Downtown Tunnel/MLK Freeway Extension transportation corridor improvements. The project will improve the transportation corridor by adding a new two-lane tunnel and providing direct access from Portsmouth to the existing interstate. This is one of VDOT’s first public-private partnership (P3) projects and one of the state’s first E-Z Pass tolling projects. Project relevance: Major regional transportation project impacting residents, commuters, and tourists in the Hampton roads market. The I-64 widening project will also require extensive communications outreach with the public, including advertising around major construction impacts, outreach to businesses, stakeholder engagement, and military coordination.</p> <p>2. Firm: PRR, Inc.</p> <p>3. October 2013 – Present</p> <p>“Reach the Beach” Alternate Route Marketing Campaign – Hampton Roads, VA – VDOT</p> <p>1. Specific responsibilities and authorities: Public Affairs Manager and Communications Lead. A substantial electrical lighting upgrade to the I-64 East Hampton Roads Bridge-Tunnel was needed, requiring significant lane closures for three years and conflicting with time-of-year tourism demands. To help motorists avoid work zone</p>

construction travel delays, a large scale marketing and earned media campaign was implemented to encourage commuters and tourists visiting the Virginia Beach, Virginia and Outer Banks, North Carolina areas to use the less traveled alternate route of I-664 Monitor-Merrimac Memorial Bridge-Tunnel. Results included a statistically significant traffic diversion, especially by travelers to tourism destinations, and wide-scale earned media coverage featuring the VDOT marketing program's diversion techniques to balance included a statistically significant traffic diversion, especially by travelers to tourism destinations, and wide-scale earned media coverage featuring the VDOT marketing program's diversion techniques to balance tourism, commuter and construction demands. The public relations campaign was recognized with five industry awards for communications and public outreach. **Project relevance:** Created a public relations and marketing program to influence motorist behavior and divert them around construction activities at the I-64 bridge-tunnel, especially during peak traffic, tourism months. The I-64 Widening Project will also require a corridor diversion strategy for the tourism industry at points west and south so as to not overwhelm the parallel Newport News Routes 143 and 60 between Memorial Day and Labor Day.

2. **Firm:** VDOT – Hampton Roads District

3. **August 2009 – September 2012**

Fort Eustis Boulevard Widening – City of Newport News, VA and York County, VA – VDOT

1. **Specific responsibilities and authorities:** Public Affairs Manager over the Project. The \$15.8 million project widened Fort Eustis Boulevard between Jefferson Avenue (Route 143) in Newport News and George Washington Memorial Highway (Route 17) in York County from one to two lanes in each direction, and included installation of a landscaped median, new turn lanes, a new traffic signal, sound walls and a new roadway drainage system to improve storm water runoff. The project had major impacts for motorists accessing and exiting Fort Eustis Army Base. A strategic communications strategy was implemented to engage the public, both localities and the military. **Project relevance:** Similar to the I-64 Widening Project, the Fort Eustis Boulevard Widening Project required close coordination across locality boundaries and with the Fort Eustis Boulevard Military Base.

2. **Firm:** VDOT – Hampton Roads District

3. **October 2009 – April 2012**

Warwick Boulevard Widening – City of Newport News, VA – VDOT

1. **Specific responsibilities and authorities:** Public Affairs Specialist and Communications Lead for the Project. The Warwick Boulevard Improvement Project widened a two mile corridor in the city of Newport News, while integrating the unique needs of the expanding Christopher Newport University campus, residents, students, local businesses and motorists. The \$42 million widening project was divided into three phases or sub-projects to expedite the construction process and involved extensive improvements to the intersection of Warwick and J. Clyde Morris boulevards, utility relocation and upgrades, and roadway widening of US Route 60 from four to six lanes. A grassroots communications campaign was deployed to engage the community that included direct mail, email subscription blasts, and earned media strategies. Crisis communications were essential to the project's outreach plan with efforts becoming an example for other projects to follow in the VDOT Hampton Roads District. A citizen advisory council was established to gauge the effectiveness of communications efforts. **Project relevance:** As with the I-64 Widening Project, this Project held significant economic impacts for the city of Newport News and Christopher Newport University.

2. **Firm:** VDOT – Hampton Roads District

3. **February 2006 – January 2010**

I-64/Battlefield Boulevard – City of Chesapeake, VA – VDOT

1. **Specific responsibilities and authorities:** Public Affairs Manager over the Project. Led VDOT's efforts for a multi-dimensional communications strategy targeting businesses, residents, motorists and key elected officials that utilized advertising and marketing collateral including direct mail, earned and paid media campaigns. Crisis communications planning was instrumental to the project's success. Annual citizen and business satisfaction surveys were commissioned to validate the outreach's results and help adjust the targeted approach. The \$103 million I-64 Battlefield Boulevard Project improved a major chokepoint for the Hampton Roads Beltway in the City of Chesapeake with over 100,000 vehicles using this corridor per day. The project included the expansion of I-64 from six lanes to fourteen lanes, four new interstate bridges, demolition and replacement of the existing Battlefield Boulevard bridge over I-64, a replacement bridge widened from four lanes to six lanes, a sound barrier wall, ten mechanically stabilized earth retaining walls, the completion of the fiber optic traffic management system (TMS) throughout the project limits, and installation of the first braided collector-distributor lanes in Hampton Roads. Public relations efforts were recognized with four industry awards for communications campaign and public outreach. **Project relevance:** This significant Interstate 64 Widening Project mirrors the type of coordination and commitment that will be required to successfully educate the public at large for I-64 Widening Project on the Peninsula.

2. **Firm:** VDOT – Hampton Roads District

3. **May 2006 – July 2009**

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. – **Not Applicable**

Attachment 3.4.1(a)
Lead Contractor Work History Forms

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR – WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.	d. Contract Completion Date (Original)	e. Construction 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)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: Battlefield Blvd. & I-64 Location: Chesapeake, Virginia	Name: Kimley-Horn & Associates Inc.	Name of Client: VDOT Phone: Project Manager: Mr. Michael Johnson Phone: (757) 494-5470 Email: Michael.J.Johnson@vdot.Virginia.gov	July 2009	July 2009	\$98,000	\$102,000	\$37,000

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 the work can be considered accordingly.



Relevant Project Scope and Complexity – E.V. Williams Inc., was the prime contractor on this large scale urban highway project which involved the complete re-construction of I-64 from Greenbrier Boulevard to the I-464 Interchange. Also included in the scope of work was an additional widening of I-64 from the I-464 Interchange to the High Rise Bridge. The project involved reconstructing and widening four miles of I-64, re-configuring a standard cloverleaf intersection to include the addition of Collector Distributor Roadways for the entire length of the project, installation of several mechanically-stabilized earth retaining walls, design and construction of concrete sound walls, installation of traffic management systems and the incorporation of large storm water management facilities within the footprint of the I-64 corridor. **E.V. Williams, Inc. teamed up with McLean Contracting Company** to construct the new Battlefield Blvd. bridge which consisted of two new pre-stressed concrete girder bridges, two existing bridge widening’s over the CSX Railroad, and two “braided” bridges on the C-D Roadways between Greenbrier Parkway and Battlefield Blvd. I-64. Four miles of I-64 was widened from four into eight mainline lanes and added four C-D feeder lanes at the braided bridges and cloverleaf interchanges. Mainline pavement sections included 13” of continuous reinforced concrete over cement treated aggregate. Feeder lanes consisted of full depth asphalt paving over cement treated aggregate. An additional asphalt pavement travel lane was added to the existing I-64 between I-464 and the High Rise Bridge.

One of the top challenges on this project was how to construct this very complicated project, which required multiple phases and shifting traffic patterns while avoiding shutting down this vital access point for Chesapeake’s merchants and residents. EVW accomplished this by daily adhering to the highest standards for temporary traffic control and by being innovative to find better solutions. One example is by working with VDOT, EVW was able to modify the original traffic control plan by utilizing the existing ramps in lieu of constructing temporary ramps allowing EVW to start the construction of the CD lanes and bridge widening six months ahead of schedule.

Successful Delivery & Good Performance – The project completion date was fixed at July 30, 2009. The project was substantially complete by March 2009, earning E.V. Williams, Inc. the maximum early completion bonus. This allowed the department to reconfigure a major tie-in and add an enhancement of an additional CD lane at the Route 168 interchange.

Proven Cooperative Work and Teaming Experience – The existing four travel lanes of reinforced concrete pavement were scheduled for demolition and disposal. Working with the department, E.V. Williams was able to incorporate the demolished concrete, crushed to a 21A gradation, into the Cement Treated Aggregate as required for the roadway section. This work was performed within the right-of-way, without the material leaving the site or interfacing with traffic. Additionally, utilizing the existing ramps at Battlefield Boulevard, the team was able to begin a critical activity, the reconstruction of the Battlefield Boulevard bridge 6 months ahead of schedule.

Skills and Qualifications to Successfully Construct as Evidenced by this Project – Working with the Department, a revised sequence of construction allowed the CD lanes to be constructed and existing traffic to be shifted off the mainline, saving the department \$750,000 and reducing the construction schedule by three months. Working as a Team with the owner allowed us to solve the challenges of high traffic volumes, the complexities of a large project as well as the inevitable minor setbacks resulted in a win-win project for VDOT, EVW and Third Party Stakeholders.

E.V. Williams is proud to have been presented on this project with the American Council of Engineering Companies – 2010 Engineering Excellence Honor Award

LESSONS LEARNED	
Lessons Learned on this Project	How they apply to I-64
<ul style="list-style-type: none"> Having the design engineer on-board and attending each progress meeting eliminates bottlenecks and resolves issues in a timely manner. 	<ul style="list-style-type: none"> Our approach will be very similar, to have the complete integration of the design and construction team to identify and solve problems before they become road blocks
<ul style="list-style-type: none"> Storms, accidents and even one of the bridges on the project being damaged in an accident highlighted the importance of traffic management and contingency plans prior to major traffic shifts and various types of work. 	<ul style="list-style-type: none"> Since I-64 is the lifeline of Hampton Roads we will develop a number of contingency plans to allow for such occurrences as hurricane evacuations, major accidents and relief of congestion at high travel times especially in the summer tourist season.
<ul style="list-style-type: none"> Public outreach to keep local businesses, homeowners, and the motoring public informed of progress improved public appreciation and understanding during the construction process. 	<ul style="list-style-type: none"> Working closely with the stakeholders starts on day one of the design. Managing the design and construction we will make every effort to accommodate all legitimate requests and keep stakeholders involved and informed.

*For multiple phase projects, only a single phase of construction (or single contract) will be considered as a Project. If additional phases are shown under the same Work History Form, only the first phase (or contract) listed will be evaluated.

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 and their Project Manager who can verify Firm’s responsibilities.	d. Contract Completion Date (Original)	e. Construction 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)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: I-64 Mercury Boulevard Location: Hampton, Virginia	Name: Parsons Transportation Group	Name of Client: VDOT Phone: See Below Project Manager: Thomas Druhot Phone: 757-592-6068 E-mail: Thomas.Druhot@VDOT.Virginia.Gov	December 2004	June 2006	\$66,000	\$108,000	\$51,000

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 the work can be considered accordingly.



Relevant Project Scope and Complexity – This project is the easternmost section of I-64 Capacity Improvements on the Peninsula. Even with its’ more urban location, the scope had many similarities to the I-64 Capacity Improvement Phase I project; it is within 8 miles of the eastern project limits. It had a Level of Service (LOS) rating of “F” prior to the project being built and the I-64 Capacity Improvement Project Phase I has a similar LOS in the “D”-“E” range. EVW began the project by increasing the depth of pavement on the outside shoulders to allow traffic to be shifted to the outside. Similar to the I-64 project, EVW began this project with replacing a grass median with new drainage, one travel lane and a full inside shoulder in each direction. This project also had similar soil conditions resulting in undercutting and refilling as well as the use of lightweight aggregates. In many ways the I-64 at Mercury Blvd. Interchange project was more complex due to the inclusion of 6 new bridges, 150,000 SF of MSE walls and a MOT plan complicated by the Mercury Blvd. interchange being near the center of the project. The project was further complicated by design issues resulting in substantial time and cost impacts to the project.



Successful Delivery and Good Performance – *E. V. Williams, Inc. teamed up with McLean Contracting Company* to construct the four new structural steel bridges at the Mercury Blvd. Interchange, 1 new structural steel bridge at Magruder Blvd. over I-64 and 1 bridge superstructure replacement on mainline I-64. This project achieved the goal of increasing the capacity of a busy interchange while safely maintaining full traffic. In spite of the time impacts resulting from the design issues on the project E. V. Williams, Inc. was able to complete the project ahead of the impacted project schedule and earn the maximum allowed early completion bonus.

Proven Cooperative Work and Teaming Experience – When a project is completed late and over budget it is easy to assume a lack of cooperation between the prime contractor and owner. While there were some contentious issues, in large part this project is a showcase of how important cooperation and teaming are. When it was determined the existing soil cement was not sufficient as a pavement base VDOT and EVW worked together to generate the most cost effective means of removing the soil cement and replacing it with CTA. When it became apparent the original MOT plans may compromise the safety of the traveling public, EVW came forward with a conceptual solution that was adopted and improved upon by VDOT. When there were problems with the initial MSE wall panels used on the project, VDOT worked with EVW to monitor the problem and ultimately resolved the issue in a fair and equitable manner. When a new District Administrator entered the picture, we collectively initiated formal Partnering. These are but a few examples of cooperation and teaming that allowed all parties to get through a very difficult project.

Skills and Qualifications to Successfully Construct as Evidenced by this Project – This project involved the complete re-construction of one of the busiest highways and interchanges in Hampton Roads, Virginia. Any project with high traffic volumes, limited access points, complex MOT and numerous adjustments resulting from unforeseen conditions demands the following to be successful:

1. Cooperation and open communication with all stakeholders.
2. Intense and continuous planning.
3. Flexibility to adjust to change.
4. Focus on safety, quality and the final completion requirements of the project.

Due to the numerous challenges encountered by both VDOT and EVW on this project these skills were honed by both parties and have become the skills and qualification that have led to numerous successful projects such as Battlefield Blvd. and I-64 as well as numerous other smaller projects we have worked together on.

LESSONS LEARNED	
Lessons Learned on this Project	How they apply to I-64
<ul style="list-style-type: none"> • <i>Early identification of issues and constructability will minimize overall impacts to the project.</i> 	<ul style="list-style-type: none"> • <i>EVW has a first-hand knowledge of the type of problems that will be encountered on I-64 that we can design and/or plan for before construction begins.</i>
<ul style="list-style-type: none"> • <i>According to the original Traffic Control Plans EVW was required to divert the main line traffic on to the shoulders. After investigating the existing shoulder pavement it was determined that they couldn’t withstand the traffic loading. To fix this problem we had to strengthen the shoulders before we could put traffic on them.</i> 	<ul style="list-style-type: none"> • <i>To avoid this problem on I-64 we will investigate all existing pavements that will be used for temporary travel lanes. Any area that is not adequate for the extreme traffic will be strengthened the appropriate amount.</i>
<ul style="list-style-type: none"> • <i>Unanticipated undercuts adjacent to the existing travel lanes caused concern about negatively impacting the stability of the pavement. This issue was resolved through the use of temporary sheeting prior to undercutting taking place.</i> 	<ul style="list-style-type: none"> • <i>The EVW/WR&A Team will review all available data and acquire additional geotech information as needed to ensure protection of the motoring public as well as VDOT assets within the project limits.</i>

*For multiple phase projects, only a single phase of construction (or single contract) will be considered as a Project. If additional phases are shown under the same Work History Form, only the first phase (or contract) listed will be evaluated.

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 and their Project Manager who can verify Firm’s responsibilities.	d. Contract Completion Date (Original)	e. Construction 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)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: Design-Build Route 13/158 Location: Gates and Hertford Counties, NC	Name: Rummel, Klepper & Kahl, LLP	Name of Client./ Owner: NCDOT Phone: (252) 332-4514 Project Manager: Scott Emory Phone: (252) 332-4514 Email: semory@ncdot.gov	12/2014	04/2015 NCDOT added 3,700 feet to the project limits resulting in contract extension.	\$54,500	\$56,000 NCDOT added 3,700 feet to the project limits resulting in additional contract value.	\$27,000

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 the work can be considered accordingly.

Relevant Scope and Complexity – This **Design-Build** Project in Hertford and Gates Counties widens US 13/US 158 from US 158/NC45 near Winton to the US 158 Bypass in Tarheel. The improvements include 7.1 miles of four-lane divided facility, bridges, and constructing an interchange at US 158/NC 45. Similar to I-64 the major challenge in building this project is dealing with very poor soil conditions. Project structures include new single-span dual bridges at Buckhorn Creek, dual bridges at the Route 13 over NC 45 interchange, a new 1,200-foot long bridge over the Chowan River and the rehabilitation of the existing bridge over the Chowan River consisting of removal of 1 ¼” of the deck and placing with Latex Modified Concrete. Other major items were 218,000 CY of undercut, 1,131,000 CY of borrow fill, 22,000 LF of storm drain pipe, 187,000 tons AGB, and 25,000 LF of water line.



1,200 foot Bridge over Chowan River




Undercutting organic soils and replacing with embankment in a Swamp

Successful Delivery & Good Performance – Interchange Design and Reconstruction: By reversing the grade separation at the Route 13/158 interchange and having Route 13 cross over Route 158, we were able to reduce the quantity of excavation of unsuitable soils. Further, we were able to remove the need for a temporary roadway to maintain traffic as well as minimize the relocation and protection of an existing 12” sewer force main. **Traffic Management:** Utilizing innovative traffic control measures, our Team was able to phase the project’s sequence of construction to eliminate the need for any complete closure of the roadway (as allowed by the RFP), which improved traffic operations and safety of the project. An existing signalized intersection was also relocated on the newly proposed ramps reducing the construction activity and minimizing impacts to the traveling public.

LESSONS LEARNED	
Lessons Learned on this Project	How they apply to I-64
<ul style="list-style-type: none"> Moving the roadway location to the west side at Chowan River we were able to save NCDOT over \$8,000,000 and six months construction time. As a result of this saving and other cost savings we were able to submit a price \$17.5 million lower than the next bidder. 	<ul style="list-style-type: none"> Beginning at the RFP stage the EVW Team will study and investigate all aspects of the design to determine the best value solution.
<ul style="list-style-type: none"> Identifying all the areas where unsuitable soils exist and using our expertise gained from over 50 years’ experience in similar conditions has been critical to keeping the project on time and on budget. 	<ul style="list-style-type: none"> We will start early to evaluate the soil conditions that will affect the project. Our approach is to do a detailed analysis of each problem location and determine the best solution for that location.
<ul style="list-style-type: none"> ROW Acquisition – EVW was responsible for over 70 different parcels that were finalized without having to go to condemnation. 	<ul style="list-style-type: none"> EVW will start early to identify all ROW that is required. Once we have determined the project requirement we will be diligent to conclude the negotiations with the property owners in a timely manner.

Proven Cooperative Work and Teaming Experience – Many of the same team as I-64: On this project, E.V. Williams, Inc. is teamed with McLean Contracting Company building the bridges. They will be on our I-64 project as well. Our Construction Management team will be the same on I-64 including the Senior Construction Manager (Mark Osenbaugh), Construction Manager (Chris Martin) and Superintendent (Joe Bordt). **Roadway Design, Reconstruction and Widening:** The E.V. Williams Team was able to add value to the project by improving the sight distance and increasing the design speed. This was accomplished by adjusting the vertical and horizontal curves and did not require additional ROW. **ROW and Adjacent Property Owners:** On this project we were required to minimize the impact to a Historical District. To date EVW has completed all ROW acquisition on over 70 different parcels. We were responsible for appraisals and negotiations that we were able to accomplish without having to go to condemnation. **Innovation:** During the RFP phase, the EVW Team identified problems associated with locating the new roadway to the west of the existing road as called for in the RFP documents. Field exploration by our staff showed that on the west side unsuitable organic material extended well under the existing roadway and slope. On the east side we found that proper undercutting and replacement with good embankment had already been accomplished. We also determined that the Department owned right-of-way on the east side of the roadway. Adding further complication to the west side expansion was the presence of a 12” gas main, which runs parallel and within the NCDOT right-of-way in this area. Utilizing this information we developed an ATC (Alternate Technical Concept) and submitted it to the Department for approval. This innovation saved the Department five million dollars directly on undercutting and ROW and an additional \$3,000,000 by avoiding relocating the existing 12” gas main in its current location crossing the Chowan River. It also reduced the construction schedule by six months. **Added Value:** Because of EVW cost effective handling of the project and excellent working relationship, NCDOT added .7 of a mile to the project limits under this contract improving service for the traveling public.

Skills and Qualifications to Successfully Construct as Evidenced by this Project – Dealing with Bad Soils: To date EVW has removed over 164,000 cy of undercut up to 24’ deep on the project. Working in extreme conditions our know-how and experience has been critical to keeping the project on schedule. **Quality in the Final Roadway:** EVW is constructing over 280,000 sy of new roadway by using the latest GPS technology to speed production and provide a higher quality product. We build terrain models in-house on AutoCAD 3D and use GPS on our finish dozer and graders.



GPS Dozers and Graders are being used for grading and base installation

*For multiple phase projects, only a single phase of construction (or single contract) will be considered as a Project. If additional phases are shown under the same Work History Form, only the first phase (or contract) listed will be evaluated.

Attachment 3.4.1(b)
Lead Designer Work History Forms

ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract 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: I-95/I-495/I-295 Interchange at Woodrow Wilson Memorial Bridge (WWMB) Location: Prince George's County, MD	Name: G.A. & F.C. Wagman, Inc.	Name of Client: Maryland State Highway Administration Phone: See below Project Manager: Ms. Shirlene Cleveland Phone: (410) 545-8838 E-mail: scleveland@sha.state.md.us	May 2009	November 2009 Adjusted by Owner for Requested Change in Scope	\$215,000	\$205,000	\$6,369 WR&A Design Fee

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.



Relevant Project Scope and Complexity – WR&A and JMT Joint Venture Team designed a new \$215 million interstate interchange in conjunction with the Woodrow Wilson Memorial Bridge (WWMB) replacement project. This project adjoins the \$1 billion Woodrow Wilson Bridge to the west, the \$1+ billion development of National Harbor to the south, the I-95/MD 210 Interchange to the east, and the D.C. widening of I-295 to the north.

The project included the interstate widening and reconstruction of I-95/I-495 to accommodate six highway lanes in each direction in an Express/Local configuration from the Woodrow Wilson Bridge to west of MD 210. I-295 from MD 210 to the D.C. line was widened and reconstructed into a six-lane divided interstate. This project was unique due to the complexity of the design and the considerations required for the development of plans for Maintenance of Traffic (MOT) and construction phasing to maintain an Average Daily Traffic (ADT) of nearly 200,000 vehicles per day as well as coordinating MOT between adjoining major projects. The mainline of the Capital Beltway had to be raised nearly 40 feet at the approach to the new Woodrow Wilson Memorial Bridge, while maintaining traffic.

The design included highway and major bridge ramps, secondary roads, access ramps, HOV lanes, and ingress and egress ramps for HOV Lanes and Express Lanes. Three continuous multi-span curve girder bridges over 1,200 feet long were designed, two of which utilized steel integral pier caps due to limited space for piers between roadways. Temporary retaining walls were designed to allow for phasing of MOT while changing the profile between adjacent lanes of traffic by as much as 25 feet. This project included:

- 8 I-95 Mainline Bridges
- 16 Ramp Bridges
- 3 Pedestrian Trail Bridges
- 31 Permanent Retaining Walls
- Environmental and Right-of-Way Concerns

Proven Cooperative Work and Teaming Experience – The WR&A and JMT Joint Venture Team worked seamlessly together in coordinating both the design and construction phases within a Project Team that included the entire I-95/I-495 WWMB projects in Virginia and Maryland (seven major project teams). The development of each design package included a maintenance of traffic plan and CPM schedule to be coordinated with the adjacent projects as well as the design and construction teams. Major efforts by WR&A included providing approval for the implementation of all MOT in field including ensuring all interstate signing, marking, and ITS elements required for each traffic shift, were in place and operational.

Successful Delivery and Good Performance – This project was unique due to the complexity of the design, development of plans for MOT and construction phasing while maintaining an ADT of nearly 200,000 vehicles per day and the vast coordination required between adjoining projects. Heavy project coordination with the adjoining Woodrow Wilson Memorial Bridge and National Harbor projects was critical to the success of this project. Special attention was given to the environmental and aesthetic aspects of the highway and structure designs because of the location along the Potomac River and its proximity to the nation's capital. The WR&A/JMT Joint Venture Team applied creativity and innovation for the design of this complex major highway interchange project, which included the reconstruction of I-95/I-495 to accommodate six highway lanes in each direction in an express/local configuration from the Woodrow Wilson Memorial Bridge to west of MD 210. Project received numerous awards including the ASCE National OPAL Award for Outstanding Civil Engineering Achievement.

Skills and Qualifications to Successfully Design as Evidenced by this Project – WR&A provided the geotechnical design for the project, which included designing the approach embankments to the WWMB over an area of very poor soils. The innovative design significantly reduced the construction cost by utilizing the first two-phase MSE walls designed in Maryland, due to an anticipated pre-consolidation of the soils. To achieve the pre-consolidation in a timely manner a complex system of wick drains and surcharge was utilized.

*For multiple phase projects, only a single phase of construction (or single contract) will be considered as a Project. If additional phases are shown under the same Work History Form, only the first phase (or contract) listed will be evaluated.

LESSONS LEARNED	
Lessons Learned on this Project	How they apply to I-64
<ul style="list-style-type: none"> • <i>Coordination of MOT during design, construction scheduling and implementation during construction with adjacent projects under design and construction is critical to ensure the safety within the work zone and minimize project cost.</i> • <i>In areas of poor soil conditions, pre-consolidation can be cost effective, if the design and construction schedules are developed early in the project development process.</i> • <i>Partnering during design and construction is critical to the success of projects on major interstate facilities with high volumes (200,000 VPD)</i> 	<ul style="list-style-type: none"> • <i>During design and construction there will be the Atkinson Blvd. project by the City of Newport News and the Denbigh Blvd. by VDOT both under design by WR&A that will be proposing new bridges over I-64. Being able to coordinate these efforts will be critical to the success of the I-64 Capacity Improvements project.</i> • <i>The I-64 GDR has identified poor soil conditions along the corridor and having GET Solutions, Inc. as an integral part of the Design Team will ensure the design and construction efforts carefully consider alternatives to address the poor soil conditions.</i> • <i>The Design-Build delivery method will ensure effective partnering of the project with all stakeholders. This will minimize impacts to motorists and increase safety along the corridor during construction.</i>

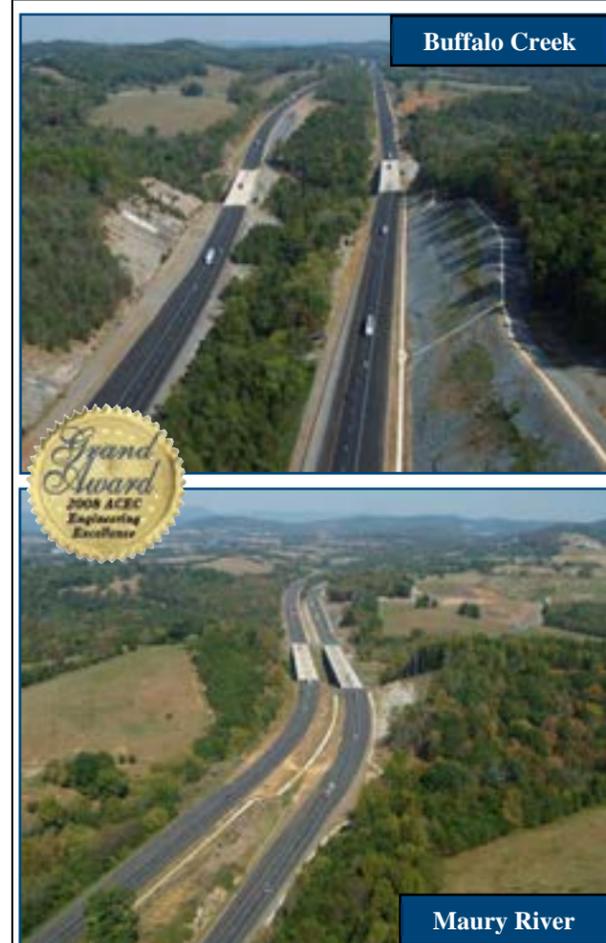
ATTACHMENT 3.4.1(b)

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: I-81 BRIDGES OVER BUFFALO CREEK AND MAURY RIVER VDOT Design Contract No. 99LD299 Location: Rockbridge County, VA	Name: Buffalo Fairfield Echols, LLC (Fairfield Skanska, Inc.) Maury Orders Construction Company	Name of Client: VDOT Phone: See below Project Manager: Mr. Wayne Nolde Phone: (540) 332-7724 Email: Wayne.Nolde@VDOT.Virginia.gov	Buffalo July 2007 Maury October 2006	Buffalo July 2007 Maury November 2006	\$27,151	\$27,073	\$2,221

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.



Relevant Project Scope and Complexity – WR&A was selected as the prime designer for the I-81 bridge replacement projects for both the Buffalo Creek and Maury River bridges under a single design contract No. 99LD299. The construction projects were advertised separately due to VDOT funding constraints. WR&A completed over 90% of the design from our Richmond, Virginia office. The bridges had reduced shoulder width and were classified as functional obsolete. The projects were to be the first part of the I-81 reconstruction efforts and were designed to widen I-81 from 4 to 6 lanes. The projects required the reconstruction of approximately two miles of the interstate facility. The design required total replacement of the existing pavement section, which required the roadway typical section to be shifted to the east to ensure two travel lanes were maintained during construction at all times. The projects required a detailed hydraulic analysis of both Buffalo Creek and Maury River to ensure the project had no impact to the 100-year flood elevation. Five stormwater management facilities were designed for the projects and all existing CM drainage pipes were replaced requiring the boring and jacking of several pipes. The projects also included the design of the extension of 3 box culverts.

WR&A provided all geotechnical engineering services for the projects, which included an extensive testing and boring program to locate potential karst features. At the Buffalo Creek northbound bridge it was determined the existing median contained a major underground stream network. The bridge and roadway improvements were shifted to the outside of the existing northbound I-81 lanes to avoid the karst features. WR&A provided a detailed geotechnical report including the design of a major embankments, rock cut slopes and bridge foundations.

The structural design of the two I-81 bridges over the Buffalo Creek gorge with a depth well over 100 feet on I-81 was a main focus of the design. The bridges were on independent alignments and grading with approximately 1,000' distance between the roadways. The NBL bridge was the more challenging design due to the requirement that it be constructed in two stages just downstream from the existing bridge, and due to the site topography. Alignment studies also revealed the need to raise the profiles of the bridges approximately 8 feet to meet current FHWA Interstate Design Standards. The design consists of continuous hybrid steel plate girder bridges with the following span configurations: NBL Bridge: 137'-166'-166'-137' = 606' and the SBL Bridge: 138'-154'-154'-138' = 584'. The NBL Bridge is on a curved alignment while the SBL Bridge is on a tangent alignment. Both bridges required tall piers of up to 110 feet in height due to the depth of the gorge.

The Maury River bridges are three lanes wide with 14-foot wide shoulders on each side. The new bridges are on parallel alignments and are of different lengths and layouts due to the topography and constraints of the site. The NBL bridge is 825 feet in length with five spans (137'-151'-164'-177'-193') and the SBL bridge is 743 feet in length with four spans (193'-177'-177'-193'). They are on tangent alignments, but the NBL bridge has a 1°-45' curve in the southernmost end span. The bridges have fully-continuous hybrid steel superstructures with 73-inch deep plate girders. The sequence of construction and maintenance of traffic required all existing travel lanes to remain open during construction. This required phased construction of the bridges. WR&A provided all presentation materials and participated in the Design Public Hearing for the project.

Proven Cooperative Work and Teaming Experience – Due to the complex geology, WR&A, VDOT and the contractor coordinated closely on the approval of the subsurface condition at the bridge piers; to ensure the foundations were set on sound material meeting the required specifications. This coordination was critical to maintaining the schedule of the contractor.

Skills and Qualifications to Successfully Design and Construct as Evidenced by this Project – The geotechnical Report required the total replacement of the existing pavement on I-81, while maintaining two travel lanes in each direction. This required several major shifts in traffic requiring detailed MOT plans for each phase of construction. The Buffalo Creek project had a history of severe truck crashes prior to construction and the proposed design achieved the goal of no severe crashes during construction.

Successful Delivery & Good Performance – The projects were completed on schedule and on budget. The projects received the following awards:
BUFFALO CREEK: VDOT Virginia Statewide Construction Quality Award, NPHQ Award “Breaking The Mold” and ACEC Grand Award For Design Excellence
MAURY RIVER: ACEC Grand Award For Design Excellence

LESSONS LEARNED	
Lessons Learned on this Project	How they apply to I-64
<ul style="list-style-type: none"> • Early Involvement of geotechnical staff can have a significant enhancement to constructability and cost of project. 	<ul style="list-style-type: none"> • The marine clays will require early involvement by GET Solutions, Inc. to ensure proper pre-consolidation is achieved during construction in a cost-effective manner.
<ul style="list-style-type: none"> • Maintenance of traffic plans should carefully consider the strengthening of existing paved shoulders for each phase of construction. 	<ul style="list-style-type: none"> • The I-64 outside shoulders will need to be strengthened in the first phase of construction during night-time lane closures. Ensuring the duration of this critical construction activity is minimized, will improve the safety of the project.
<ul style="list-style-type: none"> • Early detailed evaluation of existing pipe and concrete box culvert systems can result in a significant reduction of risk during design and construction. 	<ul style="list-style-type: none"> • At least one existing I-64 concrete box culverts has timber pile foundations and early evaluation of condition of the existing box culverts will result in a reduction of risk during design and construction.

*For multiple phase projects, only a single phase of construction (or single contract) will be considered as a Project. If additional phases are shown under the same Work History Form, only the first phase (or contract) listed will be evaluated.

ATTACHMENT 3.4.1(b)

LEAD DESIGNER – WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

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: DESIGN-BUILD I-95/I-495 AT ARENA DRIVE FROM MD 202 TO MD 214 Location: Prince George’s County, MD	Name: Lane Construction Corporation	Name of Client: <i>Maryland State Highway Administration (MSHA)</i> Phone: See below Project Manager: Mr. Eric Marabello Phone: (410) 545-8770 Email: emarabello@sha.state.md.us	August 2009	December 2009 Adjusted by owner for Requested Change in Scope	\$26,600	\$29,500 (Est. Final) Owner requested change for additional ramp and I-495 pavement cross slopes	\$1,700

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.



Relevant Project Scope and Complexity – WR&A was the lead design firm for this Design-Build project responsible for preparing final engineering design documents and approvals for improvements to I-95/495 interchange at Arena Drive. The project design was led from WR&A’s Baltimore, Maryland office. Services included performing field surveys, highway design including design exceptions, hydrologic and hydraulic design, stormwater management (SWM) design, erosion and sediment control design, geotechnical engineering, pavement evaluation and design, maintenance of traffic, signing, lighting, pavement markings, traffic signalization, bridge structural modifications, landscape architecture services, public involvement, and coordination with project stakeholders. Also, WR&A acquired MDE SWM/ESC approval, updated/modified the forest impacts permit, updated/modified the wetland impact plates and permit, performed utility coordination, prepared revisions to plans under construction, participated in Partnering During Construction with SHA, and performed construction related services.

To open the Arena Drive interchange full-time required the construction of an additional lane in each direction in the median of I-95/495 to accommodate three through lanes and two collector-distributor lanes; removal of the northeast and northwest loop ramps of MD 214; removal of the northeast loop ramp at MD 202; widening of quadrant ramps at MD 214 and MD 202; resurfacing of I-95/495; reconstruction of existing local roadways; new closed drainage systems; installation of concrete median barrier; construction of a new SWM facility; revised signing, which included two relocated cantilever signs, two relocated overhead signs, two relocated overhead dynamic message systems, and four new cantilever sign structures; new pavement markings; modifications to roadway lighting including installing 80 roadway lighting poles; four new and one reconstructed traffic signals; and roadway landscaping. Extensive multi-phase maintenance of traffic plans were required to maintain traffic on I-95/495 and to maintain traffic throughout the interchanges since over 190,000 vehicles per day currently travel on I-95/495.

Proven Cooperative Work and Teaming Experience – WR&A participated in the project partnering agreement, which sets goals and objectives during the early stages of work. Subsequent monthly meetings were held to ensure goals and objectives were being met by discussing the project progress, quality, resolve issues, and current/future schedule.

Skills and Qualifications to Successfully Design and Construct as Evidenced by this Project – WR&A’s extensive experience designing improvements to the I-95/495 corridor, ensured the traffic operations of both the finished project and each phase of construction had appropriate signing, lighting, ITS facilities, and pavement markings – to provide for the safety of motorists and construction staff.

Successful Delivery & Good Performance – The project was delivered on an accelerated schedule and coordinated with an adjacent project on Arena Drive. The innovative design and construction reduced the number of major traffic shifts during construction, which minimized impacts to motorists on I-95/495.

LESSONS LEARNED	
Lessons Learned on this Project	How they apply to I-64
<ul style="list-style-type: none"> Accurate existing pavement elevations are necessary to determine pavement cross-slopes to ensure AASHTO criteria is being met. Maintenance of traffic plans needs to carefully consider concrete joint locations and outside shoulder strength during each phase of construction. 	<ul style="list-style-type: none"> The existing pavement elevation will be critical, especially in the areas with existing grades less than a 0.50% and to ensure pavement cross-slopes meet design criteria. The potential repairs to the existing concrete pavement could significantly impact traffic phasing of the project and the existing outside shoulders will need to be strengthened.

*For multiple phase projects, only a single phase of construction (or single contract) will be considered as a Project. If additional phases are shown under the same Work History Form, only the first phase (or contract) listed will be evaluated.

Interstate 64 Capacity Improvements - Segment 1 *Design-Build Project*

I-64 Mercury Boulevard



I-64 HOV Lanes



Battlefield Blvd. and I-64 Interchange



I-95/495/295 Interchange



Submitted to:

Virginia Department of Transportation - VDOT

State Project No. 0064-965-264, P101, R201, C501, B616, B617, B618, B619, B620, D601, D602

Federal Project No. NHS-064-3

Contract ID No. C00104905DB75

April 17, 2014



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