Statement of Qualifications
3.2 Letter of Submittal
February 13, 2012

Mr. John C. Daoulas, PE
Virginia Department of Transportation (VDOT)
1401 East Broad Street
Richmond, VA 23219

RE: Statement of Qualifications
Interstate 66 Widening
From: Approximately 1.2 miles west of US Route 15 (James Madison Hwy.)
To: Approximately 0.2 miles west of US Route 29 (Lee Hwy.)
A Design-Build Project
State Project No: 0066-076-003, P101, R201, C501, B674, B675
Federal Project No: NH-5A01(194)
Contract ID No: C00093577DB48

Dear Mr. Daoulas:

Facchina Construction Company (Facchina) is pleased to submit ten (10) identical paper copies of our Statement of Qualifications (SOQ) for the Interstate 66 Widening Design-Build project. This qualifications submittal package follows the requirements per the Request for Qualifications dated December 20, 2011, the Project Information Meeting on January 4, 2012 and the RFQ Questions and Answers dated January 25, 2012. A single cohesive Adobe PDF file is also included on CD-ROM containing our entire Qualifications Submittal.

PROJECT TEAM

Facchina is one of the Washington Metropolitan area’s most respected providers of superior construction services. Initially established as a heavy/highway civil contractor, Facchina has evolved into a multi-discipline provider of heavy highway, concrete frames, site development and infrastructure, development, and commercial building construction services. Facchina’s headquarters are located in La Plata, MD, with additional offices in Northern Virginia; Baltimore, MD; and Miami FL.

Facchina performs preconstruction, general contracting, construction management, design/build and specialty subcontract construction services to clients in both the private and public sector. From multi-million dollar highway projects to hospitals and residential developments, Facchina boasts a resume of diversified projects.

Over the past 24 years, Facchina has contributed to some of the most recognized projects such as the 11th Street Bridge Project for DC Department of Transportation, the InterCounty Connector (ICC) for the MD SHA, and the Dulles Corridor Metrorail Project in Dulles, VA. Our vast resources along with our knowledge, experience and long-term relationships, defines Facchina Construction Company as the perfect team to build your project.

Joining Facchina as the lead designer for the project is Johnson, Mirmiran & Thompson, Inc. (JMT). With over 41 years in the transportation industry, JMT is a multi-disciplined civil/structural engineering and transportation
design firm. JMT has provided professional planning and design services to the Commonwealth of Virginia for over 25 years and to other mid-Atlantic clients in the region for 41 years.

JMT has consistently delivered innovative projects and services on time and within budget and has extensive experience in Mega and Design-Build projects throughout the eastern United States for DOTs and FHWA-EFLHD for which it has provided transportation planning, design and construction management and inspection services. JMT has been involved in the design-build project delivery method for nearly 15 years and has completed many design-build projects in the mid-Atlantic region.

Johnson, Mirmiran & Thompson, Inc. (JMT) is currently serving as the lead designer on the $260 million 11th Street Bridge Design-Build project in Washington, DC, which is currently under construction by the Skanska/Facchina JV team. This experience assures that VDOT will receive not only the benefits inherent in design-build, but will have the advantage of a team with an established relationship and ability to work together to provide innovative, cost-effective solutions that respond to customer and community concerns and problems.

3.2.1 OFFICIAL REPRESENTATIVE AND POINT OF CONTACT

Facchina’s Point of Contact for this procurement is Robert Brooks, Chief Estimator
102 Centennial St. Suite 201
La Plata, MD 20646
240-776-7000
F: 240-776-7001
rbrooks@facchina.com

3.2.2 PRINCIPAL OFFICER

Facchina’s principal officer is:
Paul V. Facchina, Sr.
President
Facchina Construction Company, Inc.

3.2.3 TEAM STRUCTURE

Facchina Construction Company is a corporation and will serve as the “offeror” on the project. Facchina will be financially responsible for the project through bonding and insurance as required by VDOT. Facchina has identified partner organizations that will be a part of our team and we will manage the companies as a single, integrated design-build entity.

Facchina will provide VDOT with performance and payment bonds for the project’s construction costs in its entirety. At this time, there are no limits, qualifications, or caps for Facchina’s liability and indemnification for VDOT.

3.2.4 AFFILIATED OR SUBSIDIARY COMPANIES

Facchina’s affiliated companies are:
- Asil/FCC Joint Venture III, LLC
  102 Centennial St. Suite 201
  La Plata, MD 20646
- Centennial Partners Prop. Management Group
  PO Box 2886 La Plata, MD 20646
- Facchina Brothers, Inc.
  PO Box 2885 La Plata, MD 20646
- Facchina Contractors, Inc.
  PO Box 2885 La Plata, MD 20646
- Facchina Crane Rental, LLC
  PO Box 2885 La Plata, MD 20646
- Facchina Development, LLC
  PO Box 2885 La Plata, MD 20646
- Facchina Easement Properties, LLC
  PO Box 2885 La Plata, MD 20646
- Facchina Formworks, LLC
  PO Box 2885 La Plata, MD 20646
- Facchina Global Services
  102 Centennial St.
  La Plata, MD 20646
- Facchina Group of Companies, LLC
  PO Box 2885 La Plata, MD 20646
- Facchina McGaughan, LLC
  7101 Wisconsin Ave.
  Bethesda, MD 20814
- FCC/FSI/FFW Joint Venture LLC
  PO Box 2885 La Plata, MD 20646
- FSI Equipment, LLC
  PO Box 2885 La Plata, MD 20646

2 of 20
Facchina Construction Company, Inc. is licensed by the Commonwealth of Virginia State Corporation Commission (license number 2701 032916A) and a prequalified corporation with VDOT (vendor number F236). Evidence of Facchina’s prequalification with VDOT is included in the Appendix of this submission.

3.2.7 SURETY LETTER

Facchina has included our surety letter stating Facchina’s capability of obtaining a performance and payment bond that will cover the project for any warranty periods. The Team’s Surety Letter is located in the Appendix of this SOQ.

3.2.8 PROFESSIONAL SERVICES INFORMATION

The tables below indicate registration information for each team member. Our team complies with the requirements set forth in RFQ Section 3.2.8 and subsections 1 through 4, where applicable.

3.2.6 PREQUALIFICATION

3.2.8.1 – SCC Registrations

<table>
<thead>
<tr>
<th>Name</th>
<th>Registration Number</th>
<th>Type of Corporation</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facchina Construction Company, Inc.</td>
<td>F0585812</td>
<td>Foreign Corporation</td>
<td>Active</td>
</tr>
<tr>
<td>JMT</td>
<td>F1499013</td>
<td>Foreign Corporation</td>
<td>Active</td>
</tr>
<tr>
<td>Olmusto</td>
<td>F0378606</td>
<td>Foreign Corporation</td>
<td>Active</td>
</tr>
<tr>
<td>3e</td>
<td>05049416</td>
<td>Corporation</td>
<td>Active</td>
</tr>
<tr>
<td>TIB</td>
<td>F1183591</td>
<td>Foreign Corporation</td>
<td>Active</td>
</tr>
</tbody>
</table>
**Full Size Copies of each member of the Facchina Team’s SCC supporting registration documentation are provided in the Appendix Section of this proposal.**

### 3.2.8.2 – DPOR Registration (Offices)

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Registration Type</th>
<th>Registration Number</th>
<th>Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Facchina</strong></td>
<td>102 Centennial Street, Suite 201&lt;br&gt;PO Box 2286&lt;br&gt;La Plata, MD 20646</td>
<td>Class A Contractors License</td>
<td>2701 032916A</td>
<td>09/30/2012</td>
</tr>
<tr>
<td><strong>JMT</strong></td>
<td>9201 Arboretum Parkway Suite 310&lt;br&gt;Richmond, VA 23236</td>
<td>Professional Land Surveyors Engineers</td>
<td>0411 000029</td>
<td>02/29/2012</td>
</tr>
<tr>
<td></td>
<td>272 Bendix Road Suite 260&lt;br&gt;Virginia Beach, VA 23452</td>
<td>Professional Land Surveyors Engineers</td>
<td>0411 000440</td>
<td>02/29/2012</td>
</tr>
<tr>
<td></td>
<td>13921 Park Center Road Herndon, VA 20171</td>
<td>Professional Engineers</td>
<td>0411 000441</td>
<td>02/29/2012</td>
</tr>
<tr>
<td></td>
<td>72 Loveton Circle Sparks, MD 21152</td>
<td>Professional Landscape Architects Architects Engineers Land Surveyors</td>
<td>0407 001314</td>
<td>12/31/2013</td>
</tr>
<tr>
<td><strong>SMMA</strong></td>
<td>21351 Ridgetop Circle Suite 200&lt;br&gt;Dulles, VA 20166</td>
<td>Professional Engineers</td>
<td>0407 003176</td>
<td>12/31/2013</td>
</tr>
<tr>
<td><strong>3e</strong></td>
<td>8525 Bell Creek Rd Mechanicsville, VA 23116&lt;br&gt;201 Church Street&lt;br&gt;Blacksburg, VA 24060</td>
<td>Professional Engineers</td>
<td>0407 003798</td>
<td>12/31/2013</td>
</tr>
<tr>
<td><strong>TLC</strong></td>
<td>1400 Eye Street NW STE 440 Washington, DC 20005</td>
<td>Professional Engineers</td>
<td>0405 001479</td>
<td>12/31/2015</td>
</tr>
</tbody>
</table>

*Full Size Copies of each member of the Facchina Team’s DPOR supporting registration documentation are provided in the Appendix Section of this proposal.*
3.2.8.3 – DPOR Registration (Key Personnel)

<table>
<thead>
<tr>
<th>Name</th>
<th>Office Location</th>
<th>Address</th>
<th>Registration Type</th>
<th>Registration Number</th>
<th>Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frederick Paul Crozier, PE</td>
<td>Alpha Corporation</td>
<td>808 Des Moines Ave Morgantown, WV 26505</td>
<td>Professional Engineer</td>
<td>0402045291</td>
<td>10/31/2012</td>
</tr>
<tr>
<td>Quality Assurance Manager</td>
<td>Dulles, VA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>William E. Schaub, PE</td>
<td>Johnson, Mirmiran &amp; Thompson Sparks, MD</td>
<td>3805 Three Wood Drive Hampstead, MD 21074</td>
<td>Professional Engineer</td>
<td>0402047571</td>
<td>07/31/2012</td>
</tr>
<tr>
<td>Design Manager</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arthelius Augustus</td>
<td>Johnson, Mirmiran &amp; Thompson Richmond, VA</td>
<td>402 Waveny Road Richmond, VA 23229</td>
<td>Professional Engineer</td>
<td>0402023335</td>
<td>06/30/2012</td>
</tr>
<tr>
<td>“Trip” Phaup, III, PE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead Structural Engineer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Randy Lawrence Boice</td>
<td>Johnson, Mirmiran &amp; Thompson Herndon, VA</td>
<td>6071 Greenway Court Manassas, VA 20112</td>
<td>Professional Engineer</td>
<td>0402030511</td>
<td>12/31/2012</td>
</tr>
<tr>
<td>Lead Traffic/ITS Designer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Full Size Copies of each key personnel member of the Facchina Team’s DPOR supporting registration documentation are provided in the Appendix Section of this proposal.

3.2.8.4 DPOR Registration (Non-APELSCIDLA)

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Registration Type</th>
<th>Registration Number</th>
<th>Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2.9 DBE PARTICIPATION GOAL

Facchina is committed to achieving a thirteen percent (13%) Disadvantaged Business Enterprise (DBE) participation goal for the entire value of the contract. On past projects, we have utilized DBE firms to provide quality assurance services, environmental management, permitting, materials provision (for example, rebar), hauling, signage, maintenance of traffic, painting and paving, to name a few areas. At this stage of the procurement process the Facchina team has selected the following highly qualified Virginia based subconsultants, most of whom have worked on previous projects with Facchina and/or JMT:
Alpha Corporation (Alpha) (SWaM Certification #9964) will be our Independent Quality Assurance Team and will provide a highly qualified Quality Assurance Manager, Frederick Paul Crozier, PE, with over 30 years of specialized experience. (Resume included in Appendix)

EEE Consulting, Inc. (EEE) (SWaM #7052) will provide environmental compliance and permitting services. EEE has worked on multiple D-B projects including Fairfax County Parkway, Springfield, VA and 11th Street Corridor, Washington, DC. EEE and JMT have also teamed together on several VDOT On-Call contracts.

Thomas L. Brown Associates, PC (TLB) (VA DBE #626715) will provide geotechnical engineering services. TLB has worked on multiple D-B projects including 11th Street as well as numerous VDOT projects.

The Miles Agency (Miles) (VA DBE #776) will provide public relations services.

SUMMARY

We have assembled a qualified team with extensive Design-Build experience and an understanding of VDOT’s vision for the I-66 Widening Project. Our expertise and knowledge of the Design-Build process and our proven track record of success on similar projects of this magnitude demonstrate our commitment to deliver projects on time, safely, and utilizing the most up-to-date construction methodology and scheduling. The Facchina team offers VDOT the following advantages:

- **Design-Build Experience.** We have a successful history of mega DOT design-build projects with JMT to support our understanding of the challenges of delivering a complex infrastructure project among communities such as the I-66 Widening. These projects include the MD InterCounty Connector and the reconstruction of 11th Street over the Anacostia River.

- **Focused Approach.** We plan work activities in a manner governed by our experience and understanding of the Owner’s goals, the project’s critical demands and constraints, safety of our employees and safety of the traveling public.

- **Innovation.** Facchina & JMT have teamed together on multiple expressway contracts for multiple DOT agencies in the Washington DC area. We leverage our Design-Build experience in order to innovate, generate, and demonstrate the most modern and economic designs to meet the project’s toughest requirements and challenges.

- **Resources.** We bring an experienced, multi-disciplined team that understands how to design and build a highway project like the I-66 Widening project. Facchina and JMT can identify context sensitive elements and requirements, and work toward a consensus in developing the best and lowest cost solution.

We look forward to the opportunity to perform the engineering and construction services for this contract, and we are confident that our team will complete this project in a high quality, timely, and economical manner, while integrating sustainable ideas and solutions that will preserve a legacy for future generations.

Very Truly Yours,

Paul V. Facchina, Sr.
President, Facchina Construction Company, Inc.
3.3 Team Structure
3.3.1 – TEAM STRUCTURE

The Facchina and JMT personnel assigned to the I-66 Widening D-B Project are highly qualified design and construction professionals with extensive experience on similar projects. The Facchina/JMT Team structure employs best management practices, emphasizes intra-team communications, and empowers team members to solve issues at the most appropriate organizational level. Our Key Personnel and support staff have a long history working with VDOT on transportation projects and have experience working on recent D-B projects in Virginia. The Facchina/JMT Team will keep these Key Personnel, as well as all identified support team members, on this project for the duration of this contract. For the I-66 Widening D-B Project, the Facchina/JMT Team commits the following six Key Personnel (Resumes for each of our Key Personnel can be found in the Appendix Section of our SOQ):

3.3.1.1 Design-Build Project Manager

Mr. Jeffery Siddens (Facchina) will serve as the Design-Build Project Manager for this project. Mr. Siddens has over 34 years of experience in Heavy Civil and Heavy Highway related construction and construction management. He has played a key role in the management of numerous projects throughout the eastern third of the United States, gaining experience with several Transportation Agencies as well as other Contracting Agencies. Many of these projects were constructed in complex, high profile, schedule driven and environmentally sensitive areas requiring extensive coordination with multiple agencies, contractors and communities. Currently Mr. Siddens is working on DC DOT’s largest construction project the 11th Street Bridge Design-Build Project. As Facchinas’s Design-Build Construction Manager on the project, Mr. Siddens participates in the overall design review for the project including reviews for constructability. He also provides guidance to the design direction relative to means, methods and constructability.

Previous to his work on 11th Street, Mr. Siddens had been involved with several Emergency Design-Build projects that were the result of catastrophic flooding in the Northeast US. These projects required a comprehensive management approach which included Right-of-Way acquisition, securing all Permits, achieving Environmental Compliance, proactive Community Relations, solution driven Design Development and successful on-time Construction. His experience on D-B project includes:

- 11th Street Bridge Design-Build Project, Washington, D.C.
- SR29 in Susquehanna County, Pennsylvania
- SR4024 in Wayne County, Pennsylvania
- SR4008 in Wayne County, Pennsylvania

3.3.1.2 Quality Assurance Manager

Mr. Fred Crozier, PE (Alpha) will serve as the Quality Assurance Manager for the project. Mr. Crozier has more 30 years of experience in the construction of major transportation projects including serving as QA Manager on PPTA and D-B projects in Northern Virginia for VDOT. Prior to this, he served as District Engineer for the MDOT State Highway Administration in western Maryland, where he managed the completion of corridor improvements on I-81, I-70 and I-68 (over $300M) and led a team of CM/CI staff including State employees and consultant personnel. His duties have included development and implementation of QA/QC procedures for projects, change orders review and approval, claims review and settlement negotiations, constructability reviews, documentation review of construction inspection and materials control, leading or participating in meetings with project stakeholders, and corresponding with elected...
officials, news media and the general public. His experience on D-B projects includes:

- US 50 D-B Project at Gilbert’s Corner, VDOT Loudon County, VA
- Battlefield Parkway D-B Project, VDOT, Leesburg, VA
- Pacific Boulevard D-B Project, VDOT, Dulles VA

3.3.1.3 Design Manager

**Mr. William E. Schaub, PE (JMT)** will serve as Design Manager for this project. Mr. Schaub has more than 33 years of experience in the planning and design of highways/bridges including engineering services from conceptual design through preliminary engineering, final design and construction services. Many of his projects have involved design in environmentally sensitive (natural and community) areas where retaining walls, noise barriers and complex drainage methods have been used to avoid and minimize impacts. His recent experience on D-B projects includes:

- Fairfax County Parkway (FCP), Phase I, II, & IV D-B Project, Springfield, VA
- 11th Street Corridor D-B Project, Washington, DC
- D-B Taylor Street Bridge Replacement, Washington, DC
- D-B 9th Street Bridge Replacement, Washington, DC
- D-B US 40/MD 715 Interchange Reconstruction, MDSHA

3.3.1.4 Construction Manager

**Mr. Komran Aghazadeh (Facchina)** will serve as the Construction Manager for this project. Mr. Aghazadeh has more than 21 years of construction experience in heavy/civil construction with an emphasis on management, site safety, estimating, bidding and complete construction of bridge/roadway rehabilitation and replacement projects. As a Project Manager for Facchina for the past 5 plus years, Mr. Aghazadeh has successfully managed the on-site construction offices of several key heavy/highway projects with contract revenues totaling more than $100 million dollars. He has been responsible for site safety inspections/toolbox safety talks, subcontractor coordination, weekly quantity reporting and job/cost tracking, shop drawing submittals, change order pricing and negotiations and CPM scheduling.

3.3.1.5 Lead Structural Engineer

**Mr. Arthelius A. “Trip” Phaup, III, PE (JMT)** will serve as the Lead Structural Engineer for this project and will report directly to the Design Manager. Mr. Phaup has 22 years of progressive experience in the analysis, design and preparation of preliminary and final bridge plans, special provisions, and construction cost estimates for a variety of highway, railway and miscellaneous structures. His experience includes projects covering a range of engineering complexity and site characteristics, including new structures, replacement structures, temporary highway structures, and railway structures. Many of these structures required staged construction design.

Mr. Phaup has also provided inspection, office engineering, and consultation services during the construction of highway and railway structures. In addition, Mr. Phaup has designed temporary structures for contractors, including formwork for concrete slab bridges and sheeting, shoring, and cofferdam structures facilitating foundation and substructure construction. His experience on D-B projects includes:

- Fairfax County Parkway (FCP), Phase I, II, & IV D-B Project
- Route 61 over New River, Route 460, and Old Virginia Avenue D-B Project, Town of Narrows
- Route 288 PPTA D-B Project, VDOT Richmond District
3.3 Team Structure

- Route 1 (Monroe Avenue) over Potomac Yards D-B Project, City of Alexandria
- Pentagon Secure Access Road Improvements at Route 27/244 D-B Project, Arlington County

Mr. Phaup will review and verify all designs. If necessary, he will modify designs as field conditions and construction activities warrant and demand, such activities to include dismantling and removing portions of existing structures, installing foundation structures, handling and erecting bridge girders, and making substructure and superstructure repairs.

Mr. Phaup is a current member of VTCA’s Design-Build Committee

3.3.1.6 Lead Traffic/ITS Designer

Mr. Randy L. Boice, PE (JMT) will serve as Lead Traffic Engineer and ITS Designer. Mr. Boice has more than 20 years of experience in traffic engineering, highway and traffic signal system design, and traffic management system analysis and design, and the design of communications systems between central operations centers and field equipment. He is thoroughly familiar with VDOT, FHWA, AASHTO and IESNA processes and standards regarding traffic engineering. His experience on D-B projects includes:

- Fairfax County Parkway (FCP), Phase I, II, & IV D-B Project
- Route 61 over New River, Route 460, and Old Virginia Avenue D-B Project, Town of Narrows
- ICC Design-Build Contract C, Prince George's and Montgomery Counties, MD

3.3.2 Team Organizational Chart

The organizational chart provided at the end of this section shows the “chain of command” while identifying major functions to be performed by the Facchina/JMT Team. The organizational chart also shows the reporting relationships of Key Personnel responsible for the management of design, construction, and quality control/quality assurance activities.

The Facchina/JMT Team has clearly defined roles and relationships. The team organization is optimized to present clear, logical, reporting relationships to manage the design and construction of the I-66 Widening D-B Project, while maintaining distinct responsibilities and project controls. The project organization is organized to facilitate timely and effective communication among all personnel, regardless of position. Practical lines of communication run between design, construction, and the independent QA/QC support staff, with the D-B PM ensuring all levels function as a team. This organization is a successful model used by Facchina and JMT on past and present projects.

Organization Chart Narrative

Design-Build Project Manager (D-B PM)

The Facchina/JMT Team organizational chart starts with VDOT at the pinnacle of the hierarchy. The Facchina/JMT Team recognizes that all final decisions rest with VDOT. The team’s primary interface with VDOT will be through the D-B PM, Mr. Jeffrey Siddens.

In accordance with sound management practice and VDOT guidance, the D-B PM serves in the most crucial role, one that defines success for all aspects of the project. The D-B PM is the principal conduit for communication with VDOT, and also directly controls the design, construction, and quality assurance functions. One feature of the Facchina/JMT Team proposal is the independence of the key support staff of specialty professionals whose role is to assure that the highest levels of quality and safety is maintained in both the design and construction phases of the project.
The organizational chart further depicts that the main production staff interfaces with the D-B PM will be the Design Manager (DM), the Environmental Compliance Manager (ECM), the Construction Manager (CM), and the Quality Assurance Manager (QAM) allowing effective communication among the Key Personnel. The DM, the ECM, the CM, and the QAM will support the D-B PM as points of contact with VDOT in their respective areas of expertise. The D-B PM will rely on the DM, the ECM, the CM, and the QAM to effectively coordinate their individual Team elements and will use these Key Personnel to communicate to all Team members during design and construction.

Mr. Siddens will also coordinate directly with those shown in the roles of Executive Advisory Board and Public Relations Specialist (Provided by Miles). These personnel serve important support roles for the project team and provide specific areas of expertise to benefit the entire project.

**Safety Engineer**

Don McMoran, Facchina Construction Company, will be the Safety Engineer for this project. He will be responsible for planning, executing, evaluating, and monitoring all aspects of the Safety Program in close coordination with the D-B PM, the CM, and field staff.

**Public Relations**

The Miles Agency (Miles) will assist the Team’s stakeholder coordination and public participation activities for the project. Mr. Delceno Miles will lead Miles public participation and communications effort.

The DB-PM, in conjunction with Miles, will work with VDOT to develop and implement a public participation program including conducting both public information meetings and individual one-on-one meetings, developing and updating a project web site, preparing monthly project mailers, and securing media coverage through newspapers, and securing media coverage through radio, and television.

**Design Manager (DM)**

The Facchina/JMT organizational chart clearly defines that all design disciplines for the project will report to the DM, Mr. William Schaub, PE. The approach to staffing these disciplines hinges on the concept of matching the requirements of this project to the experience and depth of knowledge of staff best suited to fulfill these specific requirements. While the majority of the disciplines will be covered by JMT professionals, the team does include several specialty subconsultants who will augment the Team and report directly to the DM. The DM will report directly to the D-B PM.

During the design phase of the project, Mr. Schaub will interface directly with each of the discipline leaders, whether that individual is a JMT staff member or a subconsultant contracted with JMT.

In addition, JMT, a VDOT prequalified right-of-way contracting consultant, will manage and provide all right-of-way acquisition services for the project. During the appraisal and appraisal review process, JMT will engage the services of a VDOT prequalified fee appraiser and VDOT prequalified review appraiser.

Mr. Schaub will also establish and oversee the QA/QC program for design. The responsibilities of the QA/QC team will be separated between Design QC and Design QA. The design QA/QC program will be managed by the Design QA Manager.

The discipline specific Design QC Managers will operate independent of the original design team and will evaluate and compare the design to the established design criteria and ensure that the design QC process is complete. The Design QC
Managers will report to the Design QA Manager. In general, the Design QC Managers will evaluate whether the designer appropriately assessed design issues and problems, provide design checks, will verify that designers applied the correct analysis techniques, and will ensure qualified personnel are assigned to the task. The Design QA Manager will address whether the solution is practical and cost effective, whether the design is appropriate and provide oversight to ensure the Design QA/QC program is functioning adequately. Facchina/JMT has identified Mr. Rodney Hayzlett, PE of JMT to serve as the Design QA Manager. He will interface and report directly to the DM. Mr. Hayzlett has provided design quality assurance services on numerous projects during his engineering career.

The Design QC Team will be staffed with individual discipline specific Design QC Managers that are not involved in the original design process. They will report to the Design QA Manager. Reviewers that are independent from day-to-day design activities ensures that the QC Team is truly providing a fresh set of eyes to plan development. The independent QC reviews will determine whether the design and plans conform to the established design criteria and design processes. In general, the QC Team will review math and engineering computations; check technical accuracy; verify conformance with contract requirements; review form, content, and spelling; and verify coordination with other design disciplines and the project sequence of construction.

**Construction Manager (CM)**

The Facchina/JMT Team organizational chart identifies Mr. Komran Aghazadeh as the CM for the project who will oversee all major construction activities and will manage the construction QC program. The structures superintendent and roadway/utility superintendent will all report directly to the CM. His responsibilities will include CPM schedule development and updating, resource planning and allocation (materials, labor, and equipment), budgetary and cost control, subcontractor scheduling, maintenance of traffic, E&SC, and shop drawing review. The CM will report directly to the D-B PM.

Since the project will involve a number of utility relocations, the Team has included a utility superintendent. The utility superintendent will be responsible for the construction activities related to the physical relocation of all utilities. He will also be responsible for the post-design phase, pre-construction phase activities necessary to ensure public and private utilities are on-board and ready to move when scheduled. The utility superintendent will aggressively and persistently monitor the utility’s progress, will assist with coordination between Team and utility, and will serve as the physical conduit for information between the Team and utility.

In addition, the CM will be responsible for Construction Quality Control activities including construction quality control testing and off-site materials sampling and testing. The Construction QC Manager will report directly to the CM.

**Quality Assurance Manager (QAM)**

The Facchina/JMT Team organizational chart identifies Alpha Corporation as the independent firm to provide the Construction Quality Assurance services for this project. Alpha commits Mr. Fred Crozier, PE to serve as the QAM in a leadership capacity for the project’s construction quality assurance program. He will oversee a QA staff including a lead senior inspector, project inspectors, and a records administrator, as well as oversee the activities of the independent off-site materials sampling and testing laboratory. The QAM will report directly to the D-B PM.
3.3.2 ORGANIZATIONAL CHART
3.4 Experience of Offeror’s Team
3.4 – EXPERIENCE

Introduction

Facchina Construction Company (Facchina) is one of the Washington Metropolitan area’s most respected providers of superior construction services. Initially established as a heavy/highway civil contractor, Facchina has evolved into a multi-discipline provider of heavy highway, concrete frames, site development and infrastructure, development, and commercial building construction services. Facchina’s headquarters are located in La Plata, MD, with additional offices in Northern Virginia; Baltimore, MD; and Miami FL.

Facchina performs preconstruction, general contracting, construction management, design-build and specialty subcontract construction services to clients in both the private and public sector. From multi-million dollar highway projects to hospitals and residential developments, Facchina boasts a resume of diversified projects.

Over the past 24 years, Facchina has contributed to some of the most recognized projects such as the 11th Street Bridge Project for DC Department of Transportation; the InterCounty Connector (ICC) for the Maryland Transportation Authority; and the Dulles Corridor Metrorail Project in Dulles, VA for Dulles Transit Partners/Metropolitan Washington Airport Authority. Our vast resources along with our knowledge, experience and long-term relationships, defines Facchina Construction Company as the perfect team to build your project.

Facchina’s capabilities have been highlighted on numerous projects through several industry and safety awards. The Pentagon Secure Bypass project was awarded the St. Paul Travelers/Willis Construction Services Safety Excellence Award for 2003 for 741,706 man-hours worked without a lost time accident. The Tier 2 project at Dulles Airport received more than 10 quarterly safety awards for the duration of the project and the 2008 Metro Washington Associated Builders and Contractors (ABC) Excellence in Construction Award for Specialty Concrete.

Facchina’s Experience Includes:

- Reconstruction of I-295, I-395 and 11th Street Interchange over the Anacostia River for DDOT (Design-Build) ($260 Million) (Work History Form Included in Appendix)
- InterCounty Connector for MTA (Design-Build) ($500 Million) (Work History Form Included in Appendix)
- Early Roadwork For MWAA / Dulles Transit Partners – Metro Silver Line including the Dulles Connector Road, VA Route 123, VA Route 7, Dulles Toll Road and Dulles International Access Highway ($36 Million) (Work History Form Included in Appendix)
- Pentagon Secure Bypass (Design Build) for Pen-Ren including reconstruction and realignment of VA Route 110 in Arlington County ($45 Million)
- Permanent Roadwork For MWAA / Dulles Transit Partners – Metro Silver Line including the Dulles Connector Road, VA Route 123, VA Route 7, Dulles Toll Road and Dulles International Access Highway ($36 Million)
- North Area Roads at Dulles Airport for MWAA including new freeway off ramps and 4 new bridges for the Dulles Toll Road and VA Route 28 ($23 Million)
- Concourse C Tier 2 Cut and Cover Subway Station at Dulles Airport for MWAA ($98 Million)
3.4 Experience of Offeror’s Team

- Consolidated Rental Car Facility at Baltimore Washington International Airport for MTA ($96 million)
- MD I-695 and I-83 Interchange for MD SHA ($21 Million)
- MD I-270 and Old Georgetown Rd Interchange for MD SHA ($25 Million)
- MD Route 4 and MD 260 Interchange for MD SHA ($14 Million)
- MD Route 5 and Coventry Rd Interchange for MD SHA ($25 Million)
- MD Route 5 and Allentown Rd Interchange for MD SHA ($18 Million)

Johnson, Mirmiran & Thompson, Inc. (JMT) is a full service ENR top 500 design firm (#96 in 2011) and is #30 among ENR's Top 50 Transportation Design Firms. JMT has offices in Richmond, Herndon and Virginia Beach, Virginia as well as in Maryland, West Virginia, Pennsylvania, Washington DC, Delaware, New Jersey, New York and Florida. JMT has continuously provided road and bridge design and surveying services to VDOT from our Virginia offices for over 25 years. With more than 41 years of experience in the design of highway projects, JMT has total staff of over 700 professionals including a staff of over 80 in the Commonwealth of Virginia.

JMT has designed major projects for VDOT, Maryland State Highway Administration (MD SHA), Maryland Transportation Authority (MDTA), Pennsylvania Department of Transportation (PennDOT) and the Metropolitan Washington Airports Authority (MWAA). JMT’s transportation design capabilities have been recognized numerous times in the recent past by virtue of the many awards our projects have received. The Woodrow Wilson Bridge Project won “The 2008 America’s Transportation Award Grand Prize” February 24, 2009. JMT was a Section Designer for I-95/I-495/I-295 Interchange for this award winning project. The American Society of Civil Engineers (ASCE) honored the Woodrow Wilson Bridge Project as its Outstanding Civil Engineering Achievement for 2008. In 2003, JMT was awarded the Award of Excellence, Partnering-Major Project by the Maryland Quality Initiative, Maryland State Highway Administration for the Elkton Main Street (MD 7D) Detail/Build project in Cecil County, MD. In 2010 American Council of Engineering Companies of VA (ACEC of VA) awarded the Leesburg Park and Ride in Loudoun County, VA and the Fairfax County Parkway D-B Project in Fairfax County, VA Merit Awards.

JMT’s Experience Includes:

- FHWA-EFLHD: Fairfax County Parkway (D-B), Fairfax County (Work History Form Included in Appendix)
- MDTA: I-95 Section 100 Preliminary and Final Engineering Services, MD (Work History Form Included in Appendix)
- MSHA: I-95/I-495/I-295 Interchange at Woodrow Wilson Bridge (WWMB), MD (Work History Form Included in Appendix)
- FHWA-EFLHD: 9th Street Bridge Replacement (D-B), Washington, DC
- FHWA-EFLHD: Taylor Street Bridge Replacement (D-B), Washington, DC
- VDOT: Route 61 (MacArthur Avenue) over New River, Route 460, and Old Virginia Avenue (D-B), Town of Narrows
- VDOT: Route 3rd Street (Route 15/460) over Buffalo Creek (D-B), Town of Farmville
- VDOT: Route 7 Fairfax County
- VDOT: Route 105, City of Newport News and York County
- Prince William County: USMC Heritage Center Roadway Improvements
- Prince William County: Route 1 Improvements (Joplin Road to Brady’s Hill Road)
- Prince William County: James Madison Highway (Route 15) Improvements (D-B)
- MWAA: North Area Roads Improvements, Washington Dulles International Airport, Loudon and Fairfax County
Facchina and JMT History

The Facchina/JMT Team has a long history of working successfully together on many previous Design-Build projects including currently working together on the 11th Street Corridor Design-Build Project in Washington, DC (the largest construction project in District DOT history).

The 11th Street Corridor project is a stipulated sum D-B Project of $260M for design and construction. The engineer’s original estimate for this project was $460M (including initial and ultimate construction); due to budget constraints, DDOT used the D-B procurement method to maximize construction of project elements, functional replacement of existing bridges, and interchange modifications. The ultimate portion of the project not built within the stipulated sum of $260M but will be advertised as a separate contract and is valued at approximately $80M.

By utilizing innovative design in revising the planning document alignments and interchanges to reduce cost, and environmental/community impacts to save substantial construction cost, JMT’s initial design and ultimate design total construction value is approximately $340M resulting in a $120M savings to DDOT from the original engineer’s estimate. JMT also authored the NEPA Environmental Reevaluation of the FEIS and is providing all environmental compliance and permitting efforts for this project. To date the project has had perfect compliance with all 188 environmental commitments. JMT is providing Visual Quality Control coordination as well.

DBE Subconsultants

Facchina and JMT have developed and organized a team in order to provide VDOT with sufficient, knowledgeable, and qualified staff to successfully complete this project. Based on the project size, we selected four qualified subconsultant firms to provide the expertise, experience, qualifications, and staff resources to accomplish the anticipated work. Brief descriptions of the qualifications of each subconsultant are provided below.

Alpha Corporation (Alpha) (SWaM Certification #009964) is a full-service consulting firm offering a wide array of Program and Construction Management, Project Controls, and Engineering services. The firm’s services have ranged from pre-construction feasibility studies, design and constructability reviews, risk analysis and management to construction phase management and quality assurance or quality control services.

Based on their experience as construction managers and engineering consultants working on behalf of both Owners and Contractors, as well as their active participation in the Design-Build industry, Alpha is well suited to provide engineering and management support in procuring and delivering projects through the Design-Build procurement method.

Alpha will be assisting the D-B Team as our Independent Quality Assurance Team as well as providing a key Quality Assurance Manager, Fred Crozier, PE. (Resume included in the Appendix Section).

EEE Consulting, Inc. (EEE) (SWaM Certification #7052) specializes in environmental engineering, environmental studies, planning and environmental education. Four partners, all of whom have significant experience formed EEE Consulting in June 1998. The partners include a Professional Engineer, Professional Geologist, Certified Planner, and Qualified Environmental Professional. The partners include a former EPA Project manager and a former DEQ Program Planner who is also on the faculty of Virginia Commonwealth University’s Center for Environmental Studies.

EEE will be assisting the D-B Team with the environmental permits and environmental compliance monitoring required for the project.
Thomas L. Brown Associates, PC (TLB) (VA DBE #626715) specializes in the discipline of geotechnical engineering, pavement & materials engineering and ground water hydrology aspects of site development, feasibility studies and facility maintenance/renovations.

To complement their geotechnical engineering services, the firm offers a full range of support services that includes contract drilling, field explorations, in-situ testing, field instrumentation, groundwater and environmental monitoring, laboratory testing and construction inspection services.

TLB will be assisting the D-B Team with Geotechnical Engineering Services.

The Miles Agency (Miles) (VA DBE #776), is a niche marketing and public relations firm based in Virginia Beach, Virginia. Miles specializes in creating and developing programs through advertising, public and community relations, and promotions that communicate specific messages to target groups (niches) in the market place. They use such methods as focus groups, SWOT Analysis, telephone and in-person interviews, surveys or group discussions.

Miles will be assisting the D-B team with the public relations required for this project.

3.4.1 Work History Forms

Facchina and JMT have each provided three work history forms describing relevant projects of similar scope and complexity as the I-66 Widening D-B Project. The project descriptions are provided on Attachment No. 3.4.1 (a) Lead Contractor Work History Form and Attachment 3.4.1(b) Lead Designer Work History Form in the Appendix Section.

3.4.1 (a) Lead Contractor Work History Forms

Facchina has chosen three projects that are identical or similar to the work that is required for the I-66 Widening D-B Project. The InterCounty Connector for MDTA and the Reconstruction of 11th Street and I-295 Interchange for DDOT were both Design Build Projects for urban freeways requiring intense maintenance of traffic and safety supervision, multiple bridge structures, extensive grading, storm sewer, asphalt paving and independent quality assurance/quality control programs. The Early Roadwork was chosen because it was built to VDOT standards and specifications. Facchina also designed all the maintenance of traffic plans and safely conveyed all traffic for the required road improvements in a high speed urban roadway environment identical to the I-66 widening project requirements. Extensive safety, maintenance of traffic, grading, storm sewer, asphalt paving and an independent quality control program were also required.

3.4.1 (b) Lead Designer Work History Form

JMT has chosen three projects that are identical or similar to the work that is required for the I-66 Widening D-B Project. Fairfax County Parkway was a major Design-Build project with FHWA-EFLHD with extensive review and oversight from VDOT, NOVA Mega Projects GEC, U.S. Army Garrison Fort Belvoir, and the I-95 HOT Lanes P3 team. Similar design services to I-66 include: Design-Build contracting method, highway design, structural engineering, multiple retaining walls, noise walls, SWM, permitting, roadway lighting, traffic control, and utility relocation.

I-95 Section 100 was a major highway project involving the latest technologies in Traffic and ITS Management. Similar design services to I-66 include: Highway Design, Structural Engineering (retaining walls, noise barriers and sign structures); ROW, SWM, H/H analysis, permitting, and extensive public involvement.

I-95/I-495/I-295 Interchange at Woodrow Wilson Bridge was an award winning interchange design project. Similar design services to I-66 include: highway and major bridge design, retaining walls, MOT, public outreach, surveying, ROW, signing and lighting, environmental permits, H/H, SWM, and utility relocation.
3.5 Project Risk
3.5.1 Three Critical Risks

The Facchina/JMT Team has evaluated the existing project information contained in the RFQ documents including existing plans, RFQ plans, and reports; has visited the project site on numerous occasions; and has met with local individuals familiar with the project. Based on this research, the Facchina/JMT Team has identified a number of potential project risks including:

- Developing a sequence of construction to address the new culvert crossings while maintaining storm water flows
- Developing a maintenance of traffic plan that is constructible and maintains access along I-66, meets the requirements that Catharpin Road and Old Carolina Road
- Potential for encountering naturally occurring asbestos conditions
- Obtaining water quality permits, mitigating wetland impacts
- Performing utility relocation and coordination in a timely manner
- Understanding and coordinating with the design and construction of adjacent projects
- Developing a good public participation and involvement plan
- Overcoming the challenge in obtaining the full DBE requirement of 13% for the entire project
- Performing right-of-way acquisition in a timely manner

The Facchina/JMT Team has weighed each potential risk described above and has identified three critical risks that the Team considers most relevant and critical to the success of the project. A narrative for each risk is provided below that describes why the risk is critical, indicates the impact the risk may have on the project, discusses the mitigation strategies that the Team may implement to address the risk, and describes the role that the Team expects VDOT or other agencies may have in addressing the risk.

**Critical Risk 1 - Develop a sequence of construction to address the new culvert crossings while maintaining storm water flows**

Many of Facchina employees are Virginia residents and have driven through this highway corridor as it has been widened during the last 20 years. The I-66 widening from Route 234 Business to Route 234 Bypass is very similar to this project in terms of the existing and proposed roadway sections, right of way width, pavement lane geometry and dimensions. This project was built by Moore Brothers in 2004-2006 (Facchina was the second place bidder on this project).

The previous widening project was basically a 2 phase project. The outside portions of the project were completed during the first phase. Traffic was shifted onto the new pavement (outward) during phase 2 and the median portion was completed accordingly.

**Why the risk is critical and the impact the risk will have on the Project.** Maintaining drainage on this project will be difficult. Invert and outlet elevations of the existing storm sewer will become obsolete in both elevation and offset as the Interstate is widened and the work progresses. New storm sewer crossings will be built in multiple stages and ineffective until final completion. Open cut of the Freeway for storm sewer construction under traffic will be impractical if not prohibited.

Large median areas may be subject to ponding water in low vertical curve or flat areas. Maintaining optimum moisture in earth embankments in wet areas will be difficult except during warmer summer months. The compaction abilities, pumping action and bearings values of the local soil geology (silts) are fair to poor when these wet conditions are encountered.

This same condition occurred on the Moore Brother’s project. Little or no work was done in
areas for prolonged period of times which delayed overall job progress and increased local motorist’s inconvenience.

Mitigation strategies the Team may implement to address the risk. The Facchina/JMT team will develop a sequence of construction to address the new crossings while maintaining storm water flows. Temporary pipe extensions of existing culverts and temporary inlets will be used to maintain flow in new pavement areas or fills. New drainage crossings will be expedited and operational as soon as possible. Jacking and boring will be utilized when economically feasible. Existing pipes and structures will be removed or abandoned with flowable fill as they become obsolete.

Drainage will be maintained at all times to insure dry building conditions for all roadway embankments.

Role the Team expects VDOT or other agencies may have in addressing these project risks. The team expects that VDOT will provide timely reviews of the storm system plans as outlined in the contract documents.

Critical Risk 2 – Ensuring safety through the work zones during construction while minimizing impacts to the traveling public will be a critical risk for the project

A multi-phase, maintenance of traffic plan will need to be developed that safely conveys traffic through the work zone along I-66. The new bridge crossings at Old Carolina Road and Catharpin Road will also be studied to understand impacts to the traveling public. It is understood that the Old Carolina Road can be closed to traffic during reconstruction. This will greatly improve safety but will necessitate installing a detour during construction. The reconstruction of Catharpin Road crossing will be completed under traffic. It is understood that one lane of traffic will be required to be maintained at all times and allow passage of fire and rescue. The single lane will also allow public access in the northbound direction only.

Why the risk is critical and the impact the risk will have on the Project. This risk is critical because providing a safe work zone and minimizing impacts to the traveling public are core values and goals on projects designed and constructed by VDOT. In general, there are two approaches to building the project. The first approach is to construct the project using a minimum number of phases by working concurrently in multiple areas to construct the project in the shortest period of time. The result of this approach will be a larger impact to traveling public but for a shorter time period. The second approach is to construct the project using multiple phases by working in only one area at a time to construct the project requiring a longer construction time. The results of this approach will be a smaller impact to traveling public over a longer time period. This project contains a combination of both scenarios. The widening of I-66 will likely be constructed behind barriers for the entire length of the project. This will allow the contractor to work in multiple locations along the planned construction and reduce the overall duration of the project. The reconstruction of the Old Carolina Road and Catharpin Road overpasses are not to be constructed concurrently, therefore, the completion of the replacement overpasses are likely to extend through a longer than normal duration for overpass construction. The detour route for Old Carolina Road will be evaluated to ensure it is safe for use and that the roadway system, including pavement, can sustain the expected increase in traffic.

Mitigation strategies the Team may implement to address the risk. The Team will implement traffic strategies in our maintenance of traffic plans and Transportation Management Plan (TMP) that are feasible and most importantly, that provide safe work zones for construction personnel and the traveling public. The team will assign experienced, knowledgeable design staff
that will work with the contractor’s construction staff to review the plans for constructability and safety. Construction activities need to progress in an order that provides immediate improvements to the project in an incremental fashion. The MOT plans need to be developed to allow work in concurrent areas where possible and need to be founded on solid traffic analysis for each phase, with the plans geared to match the need for each phase. The entire project team and 3rd party stakeholders will need to work together during development of the MOT plans and the TMP. The Engineer needs to prepare safe, feasible, and constructible MOT plans. The Contractor needs to work with the Engineer to develop the MOT plans and TMP, needs to sequence work in a logical order, and needs to perform work in accordance with the plans in a safe manner. The Public needs the ability to provide input into construction hours of operations and needs to be aware of the construction activities, the hours of work, the roadways affected, and alternate routes.

The construction of the I-66 Widening project will require a Category 3 Transportation Management Plan (TMP). This is a requirement of the 2004 Federal Highway Administration (FHWA) publication of the Final Rule on Work Zone Safety and Mobility, 23 CFR 630 Subpart J (Final Rule) and adopted fully by the Virginia Department of Transportation and extended through the Instructional and Informational Manual, IIM-LD-241.5, TED 351.3 directive to include all work zones activities on roadways that have been accepted in the State Highway System. VDOT through this directive affirms commitment to providing safe and efficient movement of motorized and non-motorized traffic through or around roadway work zones as well as providing protection for workers and equipment located within work zones. Both the Final Rule and the IIM 241 require agencies to implement policy to address work zone impacts throughout the various stages of a project’s development and construction. The TMP requires that more consideration be given to work zone impacts during the development of the project to prepare a work zone plan that is thorough and complete with substantial detail to avoid unexpected field revisions necessary to complete the work because the sequence of construction that was proposed contained conflicts. In addition, the TMP requires procedures for management of the work zone during construction and an assessment of the work zone performance after implementation in order to build a lessons learned database that can be applied to future projects. The TMP is made of the following three major components:

- **Temporary Traffic Control Plan (TCP)** - Major components will consist of Detailed Plans, Typical Sections, and as necessary Special Details/Cross Sections/Profiles. The TCP includes a detailed sequence of construction, general notes, typical section and special details for implementing over various phases of construction. The TCP will include detour plans and signage requirements.

- **Public Communications Plan** - The Public Communications Plan is the means by which all information regarding the construction schedule, temporary road closures, and other information is relayed to the public and among contractors engaged in other active projects in the area.

- **Transportation Operations Plan** - The Transportation Operations Plan will include several strategies including notifying Regional Smart Traffic Center of closures, provide contact list of local emergency response agencies, and procedures to respond to traffic incidents that may occur in the work zone.

JMT’s lead roadway designer, Jeffrey Cronin, PE, has extensive experience in preparing MOT plans. He has prepared transportation management and MOT plans for all three types of projects (Type A, B, and C) defined in VDOT L&D IIM-LD-241.5 and TED-351.3 and holds an Advanced Work
Zone Traffic Control Training Certificate issued by VDOT. In addition, Mr. Cronin holds a Guardrail Installation Replacement and Repair (GRIT) certification issued by VDOT. The Team has assigned the traffic data collection and analysis services to JMT with their extensive VDOT experience. JMT is currently providing traffic related engineering services on a VDOT Statewide Traffic Engineering Term Contract and on a VDOT Statewide Location and Design Term Contract. In addition, the Team has established an independent Safety Director assigned to the project. The Safety Director is not a member of Facchina’s day to day construction forces but an independent entity providing unbiased safety reviews on the project. The Fairfax County Parkway project, the 3rd Street (Route 15/460) Bridge over Buffalo Creek, and the Route 360 Bridge over the Dan River provided the Team with excellent opportunities to develop and hone MOT plans skills including evaluating all possible MOT scenarios, conducting citizens meetings, issuing public notices, and updating the project website to keep all project stakeholders informed of project activities.

Role the Team expects VDOT or other agencies may have in addressing these project risks. The Team expects that VDOT will provide timely reviews of MOT plans as outlined in the Contract Documents. The Team also expects that VDOT will provide assistance when possible in dealing with 3rd party stakeholders.

Critical Risk 3 – VDOT’s 2010 Annual ESC and SWM Standards and Specifications

As a condition of VDOT’s 2010 Annual ESC and SWM Standards and Specifications, effective January 1, 2012 projects must consider the total post construction impervious area (new plus existing) within the project site (limits) depending on the status and progression of the project.

Why the risk is critical and the impact the risk will have on the Project. Detailed in Section 19 of VDOT’s Post Development Stormwater Management Instructional and Informational Memorandum (IIM-LD-195.7), Design-Build projects that have been advertised for a Public Hearing/Willingness or progressed beyond a similar phase (where no Public Hearing/Willingness is required) but which have not progressed to the PAC or similar phase (based on the normal time schedule for such): implement to the extent practicable the total post construction impervious area within the identified right of way requirements except where the project construction schedule will be compromised in doing so. The Facchina/JMT Team has determined that there is a possibility that if the total impervious area requires stormwater management, then additional right-of-way may be required to accommodate stormwater BMPs resulting in an increase in the costs and schedule to complete the project.

Mitigation strategies the Team may implement to address the risk. Early in the design process, the Facchina/JMT Team will evaluate the post-construction stormwater management requirements to determine if the total post construction impervious area criteria would apply. If that is the case, the DB team will make every effort to fit the SWM requirements within the current ROW, even though the project will presumably be required to manage more impervious area than is currently planned.

Role the Team expects VDOT or other agencies may have in addressing these project risks. The Facchina/JMT Team expects that VDOT will provide direction as to which of the subsections of Section 19 applies to the widening of I-66 and make the determination as to whether the total post construction impervious area criteria must be applied to the project without delaying the current schedule and/or acquiring new ROW. As part of VDOT reviews, the DB Team expects VDOT to review and approve the appropriate post construction management facilities consistent with the regulatory agency requirements and as outlined in the RFP.
3.1.2 Checklist
ATTACHMENT 3.1.2

0066-076-003, P101, R201, C501, B674, B675
STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

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

<table>
<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
<th>RFQ Cross reference</th>
<th>Included within 20-page limit?</th>
<th>SOQ Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statement of Qualifications Checklist and Contents</td>
<td>Attachment 3.1.2</td>
<td>Section 3.1.2</td>
<td>no</td>
<td>Appendix 3.1.2</td>
</tr>
<tr>
<td>Acknowledgement of RFQ, Revision and/or Addenda</td>
<td>Attachment 2.10</td>
<td>Section 2.10</td>
<td>no</td>
<td>Appendix 2.10</td>
</tr>
<tr>
<td>Letter of Submittal (on Offeror's letterhead)</td>
<td></td>
<td></td>
<td></td>
<td>1-6</td>
</tr>
<tr>
<td>Offeror's point of contact information</td>
<td>NA</td>
<td>Section 3.2.1</td>
<td>yes</td>
<td>2</td>
</tr>
<tr>
<td>Authorized Representative's signature</td>
<td>NA</td>
<td>Section 3.2.1</td>
<td>yes</td>
<td>6</td>
</tr>
<tr>
<td>Principal officer information</td>
<td>NA</td>
<td>Section 3.2.2</td>
<td>yes</td>
<td>2</td>
</tr>
<tr>
<td>Offeror's Corporate Structure</td>
<td>NA</td>
<td>Section 3.2.3</td>
<td>yes</td>
<td>2</td>
</tr>
<tr>
<td>Affiliated/subsidiary companies</td>
<td>NA</td>
<td>Section 3.2.4</td>
<td>yes</td>
<td>2-3</td>
</tr>
<tr>
<td>Debarment forms</td>
<td>Attachment 3.2.5(a)</td>
<td>Section 3.2.5</td>
<td>no</td>
<td>3</td>
</tr>
<tr>
<td>Offeror's VDOT prequalification evidence</td>
<td>Attachment 3.2.5(b)</td>
<td>Section 3.2.5</td>
<td>no</td>
<td>3</td>
</tr>
<tr>
<td>Evidence of obtaining bonding</td>
<td>NA</td>
<td>Section 3.2.6</td>
<td>no</td>
<td>3-5</td>
</tr>
<tr>
<td>Professional Services Evidence</td>
<td>NA</td>
<td>Section 3.2.7</td>
<td>yes</td>
<td>3</td>
</tr>
</tbody>
</table>

1 of 3
<table>
<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
<th>RFQ Cross reference</th>
<th>Included within 20-page limit?</th>
<th>SOQ Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full size copies of SCC and DPOR registration documentation (appendix)</td>
<td>NA</td>
<td>Section 3.2.8</td>
<td>no</td>
<td>Appendix 3.2.8</td>
</tr>
<tr>
<td>SCC Registration</td>
<td>NA</td>
<td>Section 3.2.8.1</td>
<td>yes</td>
<td>3</td>
</tr>
<tr>
<td>DPOR Registration (Offices)</td>
<td>NA</td>
<td>Section 3.2.8.2</td>
<td>yes</td>
<td>4</td>
</tr>
<tr>
<td>DPOR Registration (Key Personnel)</td>
<td>NA</td>
<td>Section 3.2.8.3</td>
<td>yes</td>
<td>5</td>
</tr>
<tr>
<td>DPOR Registration (Non-APELSCIDLA)</td>
<td>NA</td>
<td>Section 3.2.8.4</td>
<td>yes</td>
<td>5</td>
</tr>
<tr>
<td><strong>DBE statement within Letter of Submittal confirming</strong> Offeror is committed to achieving the required DBE goal</td>
<td>NA</td>
<td>Section 3.2.9</td>
<td>yes</td>
<td>5-6</td>
</tr>
<tr>
<td><strong>Offeror's Team Structure</strong></td>
<td></td>
<td></td>
<td></td>
<td>7-11</td>
</tr>
<tr>
<td>Identity of and qualifications of Key Personnel</td>
<td>NA</td>
<td>Section 3.3.1</td>
<td>yes</td>
<td>7-9</td>
</tr>
<tr>
<td>Key Personnel Resume – DB Project Manager</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.1</td>
<td>no</td>
<td>Appendix 3.3.1</td>
</tr>
<tr>
<td>Key Personnel Resume – Quality Assurance Manager</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.2</td>
<td>no</td>
<td>Appendix 3.3.1</td>
</tr>
<tr>
<td>Key Personnel Resume – Design Manager</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.3</td>
<td>no</td>
<td>Appendix 3.3.1</td>
</tr>
<tr>
<td>Key Personnel Resume – Construction Manager</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.4</td>
<td>no</td>
<td>Appendix 3.3.1</td>
</tr>
<tr>
<td>Statement of Qualifications Component</td>
<td>Form (if any)</td>
<td>RFQ Cross reference</td>
<td>Included within 20-page limit?</td>
<td>SOQ Page Reference</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>---------------</td>
<td>---------------------</td>
<td>--------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Key Personnel Resume – Lead Structural Engineer</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.5</td>
<td>no</td>
<td>Appendix 3.3.1</td>
</tr>
<tr>
<td>Key Personnel Resume – Lead Traffic/ITS Designer</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.6</td>
<td>no</td>
<td>Appendix 3.3.1</td>
</tr>
<tr>
<td>Organizational chart</td>
<td>NA</td>
<td>Section 3.3.2</td>
<td>yes</td>
<td>12</td>
</tr>
<tr>
<td>Organizational chart narrative</td>
<td>NA</td>
<td>Section 3.3.2</td>
<td>yes</td>
<td>9-11</td>
</tr>
</tbody>
</table>

**Experience of Offeror’s Team**

| Lead Contractor Work History Form                        | Attachment 3.4.1(a) | Section 3.4      | no                             | Appendix 3.4.1 (a) |

| Lead Designer Work History Form                          | Attachment 3.4.1(b) | Section 3.4      | no                             | Appendix 3.4.1 (b) |

**Project Risk**

| Identify and discuss three critical risks for the Project | NA           | Section 3.5.1    | yes                            | 17-20              |
2.10 Form C-78-RFQ
ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO.  C00093577DB48
PROJECT NO.:  0066-076-003, P101, R201, C501, B674, B675

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 December 20, 2011 (Date)

2. Cover letter of (Date)

3. Cover letter of (Date)

SIGNATURE

DATE 2/13/12
3.2.5 Debarment Forms
ATTACHMENT NO. 3.2.5(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R201, C501, B674, B675

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

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

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

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

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

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

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

Signature: __________________________  Date: 2/13/12  Title: Paul V. Facchina, Sr. President

Facchina Construction Company, Inc.

Name of Firm


ATTACHMENT NO. 3.2.5(a)
CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R201, C501, B674, B675

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

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

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

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

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

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

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

[Signature] February 9, 2012 [Executive Vice President]

[Signature] Date [Title]

Johnson, Mirmiran & Thompson

Name of Firm
ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R201, C501, B674, B675

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

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

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

[Signature]
February 7, 2012
Principal

[Name of Firm]
ATTACHMENT NO. 3.2.5(h)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Projects: 0066-076-003, P101, R201, C501, B674, B675

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

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

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

[Signature]  February 7, 2012  [President]
[Date]  [Title]

Thomas L. Brown Associates, P.C.
Name of Firm
ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R201, C501, B674, B675

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

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

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

Signature January 26th, 2012 Date President Title

EEE Consulting, Inc.
Name of Firm
ATTACHMENT NO. 3.2.5(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R201, C501, B674, B675

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

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

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

Signature  1/27/12  President/CEO
Name of Firm

ATHDEL VENTURES INC DBA THE MILES AGENCY
Title
3.2.6 VDOT Prequalification
Facchina Construction Company, Inc.

Vendor Number: F236

In accordance with the Regulations of the Virginia Department of Transportation, you are hereby notified that the following Rating and Classifications has been assigned to you by the Commissioner:

PREQUALIFIED (Currently Inactive)

Work Classes: Grading, Major Structures, Minor Structures

Issue Date: May 31, 2011

This Rating and Classification will expire: May 31, 2012

Don E. Silles, State Construction Contract Officer

Suzanne R. Lucas, Prequalification Officer
I have reviewed the qualifications of Facchina Construction Company, Inc, and I find them acceptable for the purpose of bidding this project. Therefore, I hereby waive the bidding restriction on your firm for this project. If in the future you desire to bid beyond what your prequalification status allows, please continue to make a request to me by email. State which project you wish to bid on and that I have granted a waiver in the past. I will keep the supportive information on file so you do not need to send it again. I would welcome additional supportive information if available. I look forward to your bid.

Don Silies  
Assistant Division Administrator  
Scheduling and Contract Division  
Virginia Department of Transportation  
(804) 786-1630  
Don.Silies@vdot.virginia.gov

Facchina Construction Company, Inc. intends to submit a bid for the VDOT RFQ for the Design/Build Interstate 66 Widening State Project No: 0066-076-003, P101, R201, C501, B674, B675. The project is advertised at $78,000,000.00. We hereby request a waiver of our $2 million bidding capacity in order to submit a bid on this project. We have previously received a waiver, specifically to bid on the C85 and D07 projects as well as other projects. Facchina Construction Company, Inc. has over 24 years experience in heavy/highway, civil, and infrastructure projects. I have previously sent you project reference sheets that demonstrate Facchina Construction’s ability in completing projects similar to the referenced project. Your attention is greatly appreciated. Thank you. Dawn Trice

Dawn Trice  
Marketing Information Manager  
Facchina Construction Company, Inc  
102 Centennial St, Suite 201  
La Plata, MD 20646  
240.776.7000 Main Office  
240.776.7084 Direct  
240.776.1008 Fax  
301.848.9094 Cell  
www.facchina.com
3.2.7 Surety Letter
January 17, 2012

John C. Daoulas, PE
Virginia Department of Transportation
1211 East Broad Street
Main Building, 4th Floor
Richmond, VA 23219

RE: Facchina Construction Company, Inc.
Interstate 66 Widening, Contract ID Number: C00093577DB48

Dear Mr. Daoulas:

Travelers Casualty and Surety Company of America provides Facchina Construction Company, Inc. with surety bond capacity (contract bond line of credit) in excess of $200,000,000 for a single project and in excess of $600,000,000 aggregate.

Facchina Construction Company, Inc. is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction for the captioned project, and said bonds will cover the Project and any warranty periods on behalf of Facchina, in the event that Facchina is the successful bidder and enters into a contract for this project.

It is understood, that any arrangement for surety bonds is a matter between Facchina Construction Company, Inc. and Travelers Casualty and Surety Company of America, and we reserve the right to perform normal underwriting at the time of a bond request to include, but not limited to, the acceptability of the project contract documents, bond forms and financing. We assume no liability to third parties or to you if for any reason we do not execute the said bonds.

Travelers Casualty and Surety Company of America is listed in the United States Department of Treasury, Federal Register, Circular 570: Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies; and is licensed to transact surety business in the Commonwealth of Virginia. AM Best rates them A+ (Superior), with a Financial Size Category of XIV.

We trust this information will enable you to consider Facchina Construction Company, Inc. for the abovementioned project.

If you have any questions or require additional information, please contact us.

Very truly yours,

Travelers Casualty and Surety Company of America

By: 
Jane L. Cole, Attorney-in-fact

Copy to: Mr. Kevin C. Alexander, Underwriting Director, Travelers Bond & Financial Products
POWER OF ATTORNEY

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

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

Attorney-In Fact No. 223430

Certificate No. 004133403

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

Christopher F. Mulvaney, Wendy Lee Wadkins, William Hyndman IV, Mark V. Niemeyer, Jane L. Cole, Thomas C. Curtiss Jr., Lawrence E. Dlugos, and Vicki Rasmussen

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

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 28th day of March, 2011.

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

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

State of Connecticut
City of Hartford ss.

By: George W. Thompson, Senior Vice President

On this the 28th day of March, 2011, before me personally appeared George W. Thompson, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal. My Commission expires the 30th day of June, 2011.

Marie C. Lecomte, Notary Public
3.2.8 SCC & DPOR Registration
CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That FACCHINA CONSTRUCTION COMPANY, 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 August 12, 1988; 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 17, 2012

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

State Corporation Commission

I Certify the Following from the Records of the Commission:

Johnson, Mirmiran & Thompson, Inc., a corporation existing under the laws of MARYLAND, holds a certificate of authority to transact business in Virginia, and is in good standing.

The certificate was issued on October 17, 2008.

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
June 22, 2010

Joel H. Peck, Clerk of the Commission
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:

[Signature]
Clerk of the Commission
Commonwealth of Virginia

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
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:
November 15, 2011

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

STATE CORPORATION COMMISSION

Richmond, June 23, 1998

This is to Certify that the certificate of incorporation of

EEE Consulting, Inc.

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

June 23, 1998

State Corporation Commission

[Signature]

Clerk of the Commission
Commonwealth of Virginia

STATE CORPORATION COMMISSION

Richmond, October 21, 1993

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

THOMAS L. BROWN ASSOCIATES, P.C.

a corporation organized under the laws of WASHINGTON, D.C.

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

State Corporation Commission

Attest:

William J. Bridge

Chief of the Commission
STATE CORPORATION COMMISSION

Richmond, October 16, 2007

This is to certify that the certificate of incorporation of

ATHDEL VENTURES, 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: October 16, 2007

State Corporation Commission
Attest:

[Signature]
Clerk of the Commission
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

BOARD FOR CONTRACTORS
CLASS A CONTRACTORS LICENSE

FACCHINA CONSTRUCTION COMPANY INC
102 CENTENNIAL STREET
PO BOX 2286
LA PLATA MD 20646

*CLASSIFICATIONS* BLD H/H

Gordon N. Dixon, Director

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

FOOD CARD
COMMONWEALTH OF VIRGINIA
BOARD FOR CONTRACTORS - CLASS A
CONTRACTOR LICENSE - CLASSIFICATIONS: BLD H/H

NUMBER: 2701 032916A EXPIRES: 09-30-2012
FACCHINA CONSTRUCTION COMPANY INC
102 CENTENNIAL STREET
PO BOX 2286
LA PLATA MD 20646

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

NUMBER
0407001314

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

PROFESSIONS: ENG, LA, ARC, LS

JOHNSON MIRMIRAN & THOMPSON INC
72 LOVETON CIRCLE
SPARKS, MD 21152

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

EXPIRES ON
02-29-2012

NUMBER
0411000029

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

PROFESSIONS: LS, ENG

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

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

COMMONWEALTH OF VIRGINIA

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000029  EXPIRES: 02-29-2012
PROFESSIONS: LS, ENG
JOHNSON, MIRMIRAN & THOMPSON, INC.
9201 ARBORETUM PKWY
SUITE 310
RICHMOND, VA 23236

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.
PROFESSIONS: LS, ENG

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

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

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

PROFESSIONS: ENG

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

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: (604) 367-8600

EXPIRES ON
12-31-2013

NUMBER
0407003176

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

PROFESSIONS: ENG

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

Gordon N. Dixon, Director

COMMONWEALTH OF VIRGINIA
BOARD FOR AELESCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407003176 EXPIRES: 12-31-2013
PROFESSIONS: ENG
ALPHA CONSTRUCTION & ENGINEERING CORPORATION
ALPHA CORPORATION
21351 RIDGETOP CIRCLE
SUITE 200
DULLES, VA 20166

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

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

PROFESSIONS: ENG

EEE CONSULTING INC
201 CHURCH ST
BLACKSBURG, VA 24060

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

POCKET CARDS
COMMONWEALTH OF VIRGINIA
BOARD FOR APES/CLI/DA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000435 EXPIRES: 02-29-2012
PROFESSIONS: ENG
EEE CONSULTING INC
201 CHURCH ST
BLACKSBURG, VA 24060
THOMAS L BROWN ASSOCIATES P.C.
1400 EYE ST NW STE 440
WASHINGTON, DC 20005
3.3.1 Key Personnel Resumes
## ATTACHMENT 3.3.1
### KEY PERSONNEL RESUME FORM

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a. Name &amp; Title:</strong></td>
</tr>
<tr>
<td><strong>Jeffery Siddens</strong></td>
</tr>
<tr>
<td><em>Design-Build Project Manager</em></td>
</tr>
<tr>
<td><strong>b. Project Assignment:</strong></td>
</tr>
<tr>
<td><strong>Design-Build Project Manager</strong></td>
</tr>
<tr>
<td><strong>c. Name of Firm with which you are now associated:</strong></td>
</tr>
<tr>
<td><strong>Facchina Construction Company, Inc.</strong></td>
</tr>
<tr>
<td><strong>d. Years experience:</strong></td>
</tr>
<tr>
<td><em>With this Firm: 4 Years</em></td>
</tr>
<tr>
<td><em>With Other Firms: 28 Years</em></td>
</tr>
<tr>
<td>Please list chronologically your employment history, position and general experience or fields of practice for the last fifteen (15) years:</td>
</tr>
<tr>
<td>Facchina Construction Company, Inc. – Design/Build Project Manager – 4 years</td>
</tr>
<tr>
<td>Minichi, Inc. – General/Operations Manager – 2 years</td>
</tr>
<tr>
<td>American Infrastructure – Construction Manager/Sr. Manager – 7 years</td>
</tr>
<tr>
<td>Balfour Beatty Construction. – General Superintendent/Project Superintendent/Structure Superintendent – 9 years</td>
</tr>
<tr>
<td><strong>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</strong></td>
</tr>
<tr>
<td>Southern Illinois University/BS/1986/Civil Engineering Technology</td>
</tr>
<tr>
<td><strong>f. Active Registration: Year First Registered/ Discipline/VA Registration #:</strong></td>
</tr>
<tr>
<td><strong>g. Document the extent and depth of experience and qualifications relevant to the Project.</strong></td>
</tr>
<tr>
<td>1. Note your specific responsibilities and authorities for each assignment, not those of the firm.</td>
</tr>
<tr>
<td>2. Note whether experience is with current firm or with other firm.</td>
</tr>
<tr>
<td>3. Provide beginning and end dates for each assignment.</td>
</tr>
<tr>
<td>(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)</td>
</tr>
<tr>
<td><strong>(1.) District Department of Transportation (DDOT), 11th Street Bridge Design-Build Project</strong></td>
</tr>
<tr>
<td><em>Design-Build Construction Manager:</em> Mr. Siddens is currently serving as Facchina’s Design-Build Construction Manager on the $260 million 11th Street Bridge Project in Washington D.C. As part of the Joint Venture Design-Build team, Mr. Siddens serves as Facchina’s management on the project. The project reconstructs and reconfigures the interchanges of the Southeast/Southwest Freeway and Anacostia Freeway. The new work includes 17 new bridges and construction of 16 lane-miles of new pavement for interstate, ramps, and local roadways. Mr. Siddens participates in the overall design review including reviews for constructability. He provides guidance to the design direction relative to means and methods and constructability. He attends weekly design review meetings, biweekly meetings with the owner for design and construction updates and coordinates daily with the owner on necessary issues. As design/build construction manager Mr. Siddens is responsible for the overall construction management, construction scheduling including reviews and updates, the temporary work design oversight as well as scheduling and management of resources, equipment, and manpower. Additionally, he is responsible for the project’s cost review and management as well as change management. He participates in community involvement meetings to ensure that residents are aware of the elements of the ongoing project as well as DBE participation meetings to garner additional minority firm involvement on the project.</td>
</tr>
<tr>
<td><em>Firm:</em> Facchina Construction Company</td>
</tr>
<tr>
<td><em>Project Dates:</em> 2009-present</td>
</tr>
<tr>
<td><strong>(2.) Pennsylvania Department of Transportation (PennDOT), Sr29 Susquehanna County Pennsylvania, SR4024 Wayne County Pennsylvania, SR4008 Wayne County Pennsylvania</strong></td>
</tr>
<tr>
<td><em>Design-Build Project Manager:</em> Responsible for three ongoing simultaneously built emergency design-build projects for the Pennsylvania Department of Transportation. These projects were underway concurrently, requiring Mr. Siddens’ to manage multiple teams of ROW specialists, Environmental and Permit specialists, design teams and multiple Construction teams. All of the projects involved environmentally sensitive high quality watersheds (including pristine trout streams), in depth community involvement and stringent completion</td>
</tr>
</tbody>
</table>
schedules. Mr. Siddens participated in design and construction reviews both at the start of the projects and on an ongoing basis and the emergent needs of the projects required. He oversaw the development of the environmental plans for the three roadway projects to ensure sensitivity of the watershed. He attended meetings with the owner and the management team to handle construction issues. Mr. Siddens was responsible for the overall construction management, construction scheduling reviews, scheduling and management of resources, equipment, and manpower.

Firm: Minichi, Inc.
Project Dates: 2007

(3.) PennDot Contract SR 202 (403)

Construction Manager. Responsible for all aspects of construction for this $33 million limited access highway project near King of Prussia, PA. The project included a new interchange with SR 202, SR 422 and I-76 as well as several county and township peripheral streets. Major items of work included earthwork, storm water mgmt., drainage, 4 bridges, and 11 retaining walls. In addition to overall management of construction on the project, Mr. Siddens attended periodic coordination meetings with the owner and management throughout the project.

Firm: American Infrastructure
Project Dates: 2004
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

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

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
</tr>
</thead>
</table>
| Fred Crozier, PE | Quality Assurance 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 | 4 Years  
| With Other Firms | 30 Years  
| Please list chronologically your employment history, position and general experience or fields of practice for the last fifteen(15) years: |  

**Alpha Corporation, Dulles, VA**

Start Date: July 2007  
End Date: Present  
Position: Quality Assurance Manager  
Responsibilities: Quality Assurance Manager on several VDOT Design/Build projects. Responsible for providing onsite quality assurance inspections.  

**Johnson, Mirmiran & Thompson, Morgantown, WV**

Start Date: February 2005  
End Date: January 2007  
Position: Branch Manager  
Responsibilities: Project manager for several projects, including the Lewisburg Transportation Management Study. Managed construction inspection personnel on WVDOH projects on I-64, Corridor D and Corridor H.  

**Maryland State Highway Administration, District 6, Lavale, MD**

Start Date: 1997  
End Date: 2004  
Position: District Engineer  
Responsibilities: Directed SHA’s activities in Western Maryland (Garrett, Allegany and Washington Counties)  
  - Assistant District Engineer Maintenance, 1995 to 1997: Managed maintenance activities for District 6, which consists of approximately 1900 lane miles of roadways in Western Maryland (including Interstates 70, 81 and 68).  

<table>
<thead>
<tr>
<th>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Virginia University, Morgantown, WV/BS/1984/Civil Engineering</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>f. Active Registration: Year First Registered/ Discipline/VA Registration #:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996/Virginia Registered Professional Engineer # 0402 045291</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>g. Document the extent and depth of experience and qualifications relevant to the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Note your specific responsibilities and authorities for each assignment, not those of the firm.</td>
</tr>
<tr>
<td>2. Note whether experience is with current firm or with other firm.</td>
</tr>
<tr>
<td>3. Provide beginning and end dates for each assignment.</td>
</tr>
<tr>
<td>(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)</td>
</tr>
</tbody>
</table>

(1.) US 50 Design/Build Project at Gilbert's Corner, VDOT, Loudoun County, VA, Alpha Corporation  
Quality Assurance Manager, responsible for QA inspection and testing of all materials used and work performed on the Project, including monitoring the contractor's QC activities. Ensuring that all work and materials, testing and sampling is performed in conformance with contract requirements and the “approved for construction” plans. Also participates in meetings with project stakeholders, documentation review of construction inspection and materials control. This project involves the construction of a new connector road and four roundabouts.  
Firm: Alpha Corporation  
Project Dates: May 2008 to Fall 2009

(2.) Battlefield Parkway Design/Build Project, VDOT, Leesburg, VA, Alpha Corporation  
Quality Assurance Manager: Responsible for QA inspection and testing of all materials used and work performed on the Project including monitoring of the contractor’s QC activities. Ensuring that all work and
materials, testing and sampling is performed in conformance with contract requirements. This is a new $35 million segment of the Parkway 4-lane divided highway with parallel 10-foot shared-use path.

**Firm:** Alpha Corporation  
**Project Dates:** December 2008 to December 2009

(3.) **Pacific Boulevard Design/Build Project, VDOT, Dulles, VA, Alpha Corporation**  
*Quality Assurance Manager,* responsible for QA inspection and testing of all materials used and work performed on the Project to including monitoring of the contractor’s QC activities. Ensuring that all work and materials, testing and sampling is performed in conformance with contract requirements and the “approved for construction” plans. This $19 million project will extend Pacific Boulevard for ½ mile from Severn Way to Autoworld Drive, up and over the W&OD Railroad Regional Park and across Cabin Branch.

**Firm:** Alpha Corporation  
**Project Dates:** Feb 2009 to Summer 2010
Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title:
   William Schaub, PE
   Senior Civil/Structural Engineer

b. Project Assignment:
   Design Manager

c. Name of Firm with which you are now associated:

   Johnson, Mirmiran & Thompson, Inc.
   Start Date: February 2008   End Date: Present   Position: Vice President/Design-Build Manager
   Responsibilities: Was promoted to Vice President in February of 2008 and currently leads all of JMT’s transportation design-build efforts throughout the eastern United States.

   Johnson, Mirmiran & Thompson, Inc.
   Start Date: January 2005   End Date: January 2008   Position: Senior Associate/Civil-Structural Engineer
   Responsibilities: Worked on worked on numerous transportation and facility projects for state agencies such as the Maryland State Highway Administration, Maryland Port Administration (MPA), and Maryland Transportation Authority (MDTA) as well as the Federal Highway Administration (FHWA).

   Wallace Montgomery and Associates, LLP
   Start Date: August 2003   End Date: December 2004   Position: Structural Engineer/Project Manager
   Responsibilities: Managed the construction document preparation of numerous highway and bridge projects using MicroStation, InRoads and AutoCAD software.

   STV, Inc.
   Start Date: May 1983   End Date: August 2003   Position: Project Manager/Chief Structural Engineer/GIS Mgr.
   Responsibilities: Managed the construction document preparation of numerous highway and bridge projects using MicroStation, InRoads and AutoCAD software. Experienced in planning and design of structures and highways. The types of highway structures for which he designed include concrete, steel and timber bridges for roads and railroads. His bridge design experience includes both rehabilitation and new design. Also he supervised the firm's GIS efforts. His experience includes both interior and exterior infrastructure/facility GIS development using Intergraph’s MGE/MGA and GeoMedia and ESRI’s Arc/Info and ArcView software.

d. Years experience: With this Firm 6 Years   With Other Firms 28 Years
   Please list chronologically your employment history, position and general experience or fields of practice for the last fifteen(15) years:

   Johnson, Mirmiran & Thompson, Inc.
   Start Date: February 2008   End Date: Present   Position: Vice President/Design-Build Manager
   Responsibilities: Was promoted to Vice President in February of 2008 and currently leads all of JMT’s transportation design-build efforts throughout the eastern United States.

   Johnson, Mirmiran & Thompson, Inc.
   Start Date: January 2005   End Date: January 2008   Position: Senior Associate/Civil-Structural Engineer
   Responsibilities: Worked on worked on numerous transportation and facility projects for state agencies such as the Maryland State Highway Administration, Maryland Port Administration (MPA), and Maryland Transportation Authority (MDTA) as well as the Federal Highway Administration (FHWA).

   Wallace Montgomery and Associates, LLP
   Start Date: August 2003   End Date: December 2004   Position: Structural Engineer/Project Manager
   Responsibilities: Managed the construction document preparation of numerous highway and bridge projects using MicroStation, InRoads and AutoCAD software.

   STV, Inc.
   Start Date: May 1983   End Date: August 2003   Position: Project Manager/Chief Structural Engineer/GIS Mgr.
   Responsibilities: Managed the construction document preparation of numerous highway and bridge projects using MicroStation, InRoads and AutoCAD software. Experienced in planning and design of structures and highways. The types of highway structures for which he designed include concrete, steel and timber bridges for roads and railroads. His bridge design experience includes both rehabilitation and new design. Also he supervised the firm's GIS efforts. His experience includes both interior and exterior infrastructure/facility GIS development using Intergraph’s MGE/MGA and GeoMedia and ESRI’s Arc/Info and ArcView software.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
   - University of Maryland, College Park, MD/BS/1984/Civil Engineering
   - Essex Community College, Essex, MD/AA/1981/General Studies
   - Dale Carnegie Management Training

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
   - 2010/Virginia Registered Professional Engineer #0402 47571


g. Document the extent and depth of experience and qualifications relevant to the Project.
   1. Note your specific responsibilities and authorities for each assignment, 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 assignment.
   (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)

   4. Federal Highway Administration (FHWA) – Eastern Federal Lands Highway Division (EFLHD)/Virginia Department of Transportation (VDOT), Fairfax County Parkway (FCP), Phases I/II & IV (Design-Build), Springfield, VA ($112.5M)
   Design Manager: Responsible for executing the design and QA/QC program of this D-B project which included...
roadways, interchanges, bridges, retaining walls and sound walls. The FCP project had an extremely aggressive schedule of 750 calendar days. FCP is located between U.S. 1 and Route 7. FCP runs for approximately 1.5 miles through the western and southern portions of the Fort Belvoir EPG and was a critical link to the success of the BRAC Initiative at EPG. Mr. Schaub oversaw the multi-disciplined design effort utilizing over 75 engineers, CADD technicians and other specialists with multiple design firms whose work included geotechnical, roadway, structural, traffic, SWM, drainage, ESC, a multipurpose trail, lighting, utility coordination. In depth coordination with USACE BRAC Integration office, Fort Belvoir DPW, ENRD and Fairfax County. Mr. Schaub received “Star Partner” awards for their exceptional dedication, teamwork, and professionalism in support of the project's goals by the NGA and USACE.

Firm: Johnson, Mirmiran & Thompson, Inc.

Project Dates: October 2008 to September 2010 (Phase I/II) and October 2008 to July 2011 (Phase IV)

(5.) Federal Highway Administration (FHWA) – Eastern Federal Lands Highway Division (EFLHD)/
District Department of Transportation (DODT), 9th Street Bridge Replacement over CSXT and Amtrak Rail and New York Avenue, Washington, DC ($51M)

Design Manager: Mr. Schaub was the lead designer, responsible for the QA/QC program and primary point of contact for the Design-Build Team, which included a multi-disciplined design effort that included geotechnical, roadway, structural, traffic, SWM, drainage, ESC, lighting, utility designs and electric traction design to facilitate the phased removal and complete reconstruction of an existing structure and the reconstruction of the 9th Street-NY Avenue Interchange. The Design-Build Team consisted of over 50 engineers, CADD technicians and other specialists with multiple design firms. The bridge was a 645' long four-span structure, spanning New York Avenue (U.S. 50) and CSXT and Amtrak railroads. The project included context sensitive solutions, which resulted in numerous user enhancements including widened sidewalks and bicycle lanes and aesthetic architectural elements.

Firm: Johnson, Mirmiran & Thompson, Inc.
Project Dates: September 2006 to July 2011

(6.) Maryland Transportation Authority (MDTA)
I-95 Express Toll Lanes (ETL) Section 100 - (I-95/I-695 Interchange), Baltimore County, MD ($450M)

Deputy Design Manager: Responsible for the preliminary and final design for the I-95/I-695 interchange which is part of the $875 million I-95 ETL Section 100 mega project which involves 3 major interchanges and interstate design. Mr. Schaub participated in the supervision of the design of highways, bridges, retaining walls, utility relocations, geotechnical program and drainage facilities. The design team consisted of a staff of over 100 from several design firms. The I-95/I-695 interchange design involved 11 lane-miles of I-95, 12 lane-miles of I-695, 1 lane-mile of local roads and 16 lane-miles of ramps, 22 bridges, 30 retaining walls, 6 noise barriers and 5 culverts. Environmental elements included stream restoration assessment, environmental construction monitoring and design for Stemmer’s Run; drainage; ESC; SWM; and H/H modeling. The projects geotechnical subsurface exploration program included obtaining more than 500 borings.

Firm: Johnson, Mirmiran & Thompson, Inc.
Project Dates: April 2005 to April 2011

(7.) District Department of Transportation (DDOT)
11th Street Corridor (Design-Build), Washington, DC ($260M)

Lead QA for Structures: Responsible for implementing QA/QC plan as it relates to structures for this project which includes three new major continuous steel multi-girder bridge crossings of the Anacostia River and two complex interchanges. Bridges include a 5-span 866 foot long bridge, a 5-span 926 foot long bridge and a 10 span 1650 foot long bridge. Spans range up to 234 feet for the main span over the River. In addition, several existing bridges are being rehabilitated for use in the new interchanges.

Firm: Johnson, Mirmiran & Thompson, Inc.
Project Dates: April 2009 to May 2013

(8.) Maryland State Highway Administration (MSHA)
U.S. 40 at MD 715 Interchange Improvements, Harford County, MD ($17M)

Design Manager: Responsible for the interchange enhancements project, adjacent to Aberdeen Proving Ground (APG) is needed to accommodate additional personnel being relocated to APG as part of the U.S. Department of Defense's BRAC initiative. In charge of upgrading the interchange that includes widening the bridge on MD 715 over U.S. 40, design improvements to U.S. 40 and MD 715, connecting ramps, and adjoining roadways, for a total project length of approximately 2.40 miles.

Firm: Johnson, Mirmiran & Thompson, Inc.
Project Dates: November 2011 to July 2013
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Name &amp; Title:</td>
</tr>
<tr>
<td><strong>Komran Aghazadeh</strong></td>
</tr>
<tr>
<td><em>Project Manager</em></td>
</tr>
<tr>
<td>b. Project Assignment:</td>
</tr>
<tr>
<td><strong>Construction Manager</strong></td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated:</td>
</tr>
<tr>
<td><em>Facchina Construction Company, Inc.</em></td>
</tr>
<tr>
<td>d. Years experience: With this Firm <strong>12</strong> Years</td>
</tr>
<tr>
<td>With Other Firms <strong>9</strong> Years</td>
</tr>
<tr>
<td>Please list chronologically your employment history, position and general experience or fields of practice for the last fifteen (15) years:</td>
</tr>
<tr>
<td>Facchina Construction Company, Inc. – Project Manager – 8 years</td>
</tr>
<tr>
<td>Facchina Construction Company, Inc. – Assistant Project Manager – 2 years</td>
</tr>
<tr>
<td>Facchina Construction Company, Inc. – Sr. Project Engineer – 1 year</td>
</tr>
<tr>
<td>Facchina Construction Company, Inc. – Project Engineer – 1 year</td>
</tr>
<tr>
<td>Industrial Construction Company, Inc. – Site Superintendent - 9 years</td>
</tr>
<tr>
<td>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</td>
</tr>
<tr>
<td>- University of Maryland/BA/1991/Economics</td>
</tr>
<tr>
<td>f. Active Registration: Year First Registered/ Discipline/VA Registration #:</td>
</tr>
<tr>
<td>Mr. Aghazadeh currently holds or will hold a Responsible Land Disturber Certification and a VDOT Erosion and Sediment Control Contractor Certification prior to the beginning of construction.</td>
</tr>
<tr>
<td>g. Document the extent and depth of experience and qualifications relevant to the Project.</td>
</tr>
<tr>
<td>1. <em>Note your specific responsibilities and authorities for each assignment, not those of the firm.</em></td>
</tr>
<tr>
<td>2. <em>Note whether experience is with current firm or with other firm.</em></td>
</tr>
<tr>
<td>3. <em>Provide beginning and end dates for each assignment.</em></td>
</tr>
<tr>
<td>(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)</td>
</tr>
<tr>
<td>(1.) <strong>Dulles Corridor Metrorail Extension, Phase 1, West Falls Church Metro to Wiehle Ave</strong></td>
</tr>
<tr>
<td><em>Project Manager.</em> Project value $38 million. The project involved shifting of traffic and construction of roadways in high density urban areas to allow for the construction of Dulles Silver Line Metrorail on the Dulles Connector Road, Route 123 &amp; Route 7 through Tyson’s Corner, the Dulles Toll Road and the Dulles Airport Access Highway. The project included excavation, installation of new storm sewer &amp; water utilities, paving, cast in place concrete and mechanically stabilized retaining walls. Responsibilities included: Inspection and tracking of all work in progress to ensure conformance with plans and specifications including all quality control activities. Managing and monitoring of all aspects of the construction process including administration, project scheduling, personnel &amp; equipment management, change order pricing &amp; negotiations and subcontractor coordination.</td>
</tr>
<tr>
<td><em>Firm:</em> Facchina Construction Company</td>
</tr>
<tr>
<td><em>Project Dates:</em> 2009 to Present</td>
</tr>
<tr>
<td>(2.) <strong>North Area Roadways – Phase III – Dulles Airport</strong></td>
</tr>
<tr>
<td><em>Project Manager.</em> A $22 million project at Dulles Airport that included construction of four (4) new bridges, 2 miles of new collector/distributor roadway entering Dulles Airport. The job also included rock excavation, 2,000 LF of concrete barrier, 5,000 LF of RC Pipe, 32,000 SF of MSE wall construction and deep sanitary sewer encasement. Responsibilities included: Inspection and tracking of work in progress to ensure conformance with plans and specifications including all quality control activities. Managing and monitoring of all aspects of the construction process including administration, project scheduling, personnel &amp; equipment management, change order pricing &amp; negotiations and subcontractor coordination.</td>
</tr>
<tr>
<td><em>Firm:</em> Facchina Construction Company</td>
</tr>
<tr>
<td><em>Project Dates:</em> 2006-2008</td>
</tr>
</tbody>
</table>
(3.) **Four Mile Run Trail in Arlington Virginia**  
*Project Manager.* The Four Mile Run Trail project included a 2,000 LF pedestrian bridge spanning S. Glebe Rd to Shirlington Rd., 1,600LF of new 48" PCCP Sanitary Sewer pipe placement and encasement, sidewalk and median construction. Responsibilities included: Inspection and tracking of work in progress to ensure conformance with plans and specifications including all quality control activities.

Managing and monitoring of all aspects of the construction process including administration, project scheduling, personnel & equipment management, change order pricing & negotiations and subcontractor coordination.  

**Firm:** Facchina Construction Company  
**Project Dates:** 2007-2009

(4.) **Tier II/Concourse C APM Station, Dulles Airport, VA**  
*Project Manager.* A $77 million dollar project that included the construction of an underground cut and cover subway station. The project included rock excavation, storm sewer, water mains, sanitary sewers, jet fuel lines, electrical duct banks, structural concrete, structural steel, concrete paving, jet fuel resistant waterproofing, mechanical and electrical systems and all interior finishes. Responsibilities included: Inspection and tracking of work in progress to ensure conformance with plans and specifications including all quality control activities. Managing and monitoring of all aspects of the construction process including administration, project scheduling, personnel & equipment management, change order pricing & negotiations and subcontractor coordination.

**Firm:** Facchina Construction Company  
**Project Dates:** 2005-2008

(5.) **Pentagon Secure Bypass, Arlington, VA**  
*Senior Project Engineer.* A $38 million dollar design/build highway project which relocated VA Route 110 away from the Pentagon. Work included maintenance of traffic, excavation, storm sewer, paving and bridge construction. Responsibilities included estimating, material sourcing, submittals, ordering materials, quantity and scheduling.

**Firm:** Facchina Construction Company  
**Project Dates:** 2002-2005
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

| Brief Resume of Key Personnel anticipated for the Project. |
|-----------------|-----------------|
| **a. Name & Title:** Arthelius “Trip” Phaup, II, PE  
Senior Associate |
| **b. Project Assignment:** Lead Structural Engineer |
| **c. Name of Firm with which you are now associated:** |
| **d. Years experience:** With this Firm 6 Years  
With Other Firms 28 Years |

Please list chronologically your employment history, position and general experience or fields of practice for the last fifteen(15) years:

**Johnson Mirmiran & Thompson**  
**Start Date:** March 2009  
**End Date:** Present  
**Position:** Project Manager/Senior Engineer  
**Responsibilities:** Serves as Project Manager accountable for the quality, schedule, and budget on assigned road and bridge projects. Performs structural design and quality control reviews of structural design of highway and miscellaneous structures including preparing design calculations, plan details, construction cost estimates, and special provisions. Provides construction engineering design services for contractors including sheeting and shoring, cofferdam, and other temporary structure design, and value engineering redesigns of awarded projects. Performed quality assurance reviews of construction plans for bridges and structures for VDOT under an On-Call Quality Plan Review contract.

**CH2M Hill**  
**Start Date:** June 2008  
**End Date:** February 2009  
**Position:** Group Leader/Project Manager  
**Responsibilities:** Served as Group Leader overseeing the performance and development of a staff of transportation engineers and technicians. Served as Project Manager accountable for the quality, schedule, and budget on numerous transportation projects. Performed structural design and quality control reviews of structural design of highway and miscellaneous structures including preparing design calculations, plan details, construction cost estimates, and special provisions. Performed quality assurance reviews of construction plans for bridges and structures for VDOT under a General Engineering Consultant contract.

**STV/Ralph Whitehead Associates**  
**Start Date:** September 2003  
**End Date:** May 2008  
**Position:** Group Leader/Project Manager/Senior Engineer  
**Responsibilities:** Served as Group Leader overseeing the performance and development of a staff of structural engineers and technicians. Served as Project Manager accountable for the quality, schedule, and budget on numerous bridge and structures projects. Performed structural design and quality control reviews of structural design of highway, railway, and miscellaneous structures including preparing design calculations, plan details, construction cost estimates, and special provisions. Reviewed shop drawings and provided consultation during construction. Provided construction engineering design services for contractors including sheeting and shoring, cofferdam, and other temporary structure design, and value engineering redesigns of awarded projects.

**Earth Tech**  
**Start Date:** December 1999  
**End Date:** August 2003  
**Position:** Group Leader/Project Manager/Senior Engineer  
**Responsibilities:** Served as Group Leader overseeing the performance and development of a staff of structural engineers and technicians. Served as Project Manager accountable for the quality, schedule, and budget on numerous bridge and structures projects including Design-Build projects. Performed structural design and quality control reviews of structural design of highway and miscellaneous structures including preparing design calculations, plan details, construction cost estimates, and special provisions. Reviewed shop drawings and provided consultation during construction.

**RK&K Engineers**  
**Start Date:** September 1998  
**End Date:** November 1999  
**Position:** Senior Engineer
**Responsibilities:** Performed structural design of highway and miscellaneous structures including preparing design calculations, plan details, construction cost estimates, and special provisions.

**Ralph Whitehead Associates**

**Start Date:** August 1991  **End Date:** August 1998  **Position:** Project Manager/Senior Engineer

**Responsibilities:** Performed structural design of highway, railway, and miscellaneous structures including preparing design calculations, plan details, construction cost estimates, and special provisions. Reviewed shop drawings and provided consultation during construction.

---

e. **Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:**
   - Virginia Commonwealth University, Richmond, VA/MBA/2002/Business
   - Virginia Tech, Blacksburg, VA/MS/1988/Civil Engineering emphasis in Structures
   - Virginia Tech, Blacksburg, VA/BS/1987/Civil Engineering

f. **Active Registration: Year First Registered/ Discipline/VA Registration #:**
   - 1992/Virginia Registered Professional Engineer #23335

---

g. **Document the extent and depth of experience and qualifications relevant to the Project.**
   
   a. *Note your specific responsibilities and authorities for each assignment, not those of the firm.*
   
   b. *Note whether experience is with current firm or with other firm.*
   
   c. *Provide beginning and end dates for each assignment.*

   (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)

1. **Federal Highway Administration (FHWA) – Eastern Federal Lands Highway Division (EFLHD)/Virginia Department of Transportation (VDOT), Fairfax County Parkway (FCP), Phases I/II & IV (Design-Build), Springfield, VA ($112.5M)**

   *Lead Structural Engineer.* Structural Engineer responsible for the QA/QC of the structural design and detailing of this design-build project with Cherry Hill, Inc. (Contractor). The QA/QC review included the bridges for Phase II of the design and construction plans. The QA/QC responsibility included the new bridge for the EPG Access Highway over Fairfax County Parkway (103'-8" and 91'-8" span continuous prestressed concrete bulb ‘T’ structure with fully integral abutments and column bent pier; dual 3-span continuous steel girder structures (spans 130'- 160'- 130') with semi-integral abutments and 80' tall column bents supported on drilled rock caissons and a simple span (110'-9") prestressed concrete bulb ‘T’ structure with full integral abutments. The reviews included checks to coordinate the bridge geometry with the roadway along with the bridge plans meeting VDOT design and criteria.

   **Firm:** Johnson, Mirmiran & Thompson, Inc.

   **Project Dates:** October 2008 to September 2010 (Phase I/II) and October 2008 to July 2011 (Phase IV)

2. **VDOT, Route 61 (MacArthur Avenue) over New River, Route 460, and Old Virginia Avenue Bridge Replacement (Design-Build), Town of Narrows, Giles County, VA ($11.7M)**

   *Project Manager and Lead Structural Engineer* responsible for the Route 61 Bridge Replacement Design-Build project in the Town of Narrows, Giles County, VA. The $15.6M project will replace the existing, structurally deficient bridge that crosses the New River, Route 460, and Old Virginia Avenue with a new, 1140’, two-lane bridge with sidewalks and includes reconstruction of the roadway approaches at both ends of the proposed structure. Described by VDOT as a “utility relocation project with a bridge on it”, the project also includes relocation of water, sewer, gas, telecommunications, and electrical lines serving the Town. The design scope of services includes survey, subsurface utility engineering, road design, bridge design, drainage and stormwater management design, hydrologic and hydraulic analysis, geotechnical engineering, environmental permit acquisition, utility coordination and relocations, right-of-way acquisition, signing and marking, and public involvement. Total design fee for the project is $1.3M including JMT and engineering subconsultants.

   **Firm:** Johnson, Mirmiran & Thompson, Inc.

   **Project Dates:** August 2010 to Current

3. **VDOT, Route 620 (Edwards Shop Road) over Mountain Run Bridge Replacement**

   *Project Manager* responsible for final road plans for the Route 620 (Edwards Shop Road) over Mountain Run Bridge Replacement Project that involves the replacement of an existing, substandard bridge with a new, 150 foot long, two-span structure located on new alignment including approximately 700 feet of new approach roadway south of the proposed bridge and 765 feet of new approach roadway north of the proposed bridge. The MOT plan requires the project to be constructed in four (4) phases and includes dismantling and removing the existing bridge and obscuring and removing portions of the existing roadway while maintaining two-way traffic at all times. In addition to preparing final roadway construction plans, JMT developed a Pre-Advertisement Construction Schedule (Category III project) and prepared a Contract Time Determination Report for VDOT for
the project to assist the Department in determining the construction contract time.

**Firm:** Johnson, Mirmiran & Thompson, Inc.  
**Project Dates:** September 2009 to April 2010

---

**Route 288 Public Private Transportation Act, Design-Build Project, Goochland County, Virginia**  
**Lead Structural Engineer and Field Engineer.** Lead Structural Engineer responsible for the design and plan preparation of four (4) bridges on VDOT's Route 288 Public Private Transportation Act, Design-Build Project in VDOT’s Richmond District including:

- **Route 288 (NBL and SBL) over West Creek Parkway**  
- **Route 6 (Patterson Avenue) over Route 288 (NBL and SBL)**  
- **Route 650 (River Road) over Route 288 (NBL and SBL)**  

Responsibilities included working closely with the Design-Build Bridge Contractor to develop economical bridge designs that met the contract requirements. Similar value engineering solutions were incorporated into the design for each bridge to provide economies of scale during manufacturing and construction of the structures, including use of prestressed concrete bulb tee beams, laminated elastomeric bearing pads, and MSE retaining walls. Similar geometry was used for cast-in-place concrete elements to further enhance efficiencies in construction, including deck slab overhang widths; pier cap, column, and footing sizes; abutment cap sizes; and drilled shaft sizes and details. Provided all structural design and quality control reviews of structural design for four (4) bridges on the project. Managed the geotechnical subconsultant performing investigations and preparing foundation recommendations for the four bridges. Served as field engineer during construction of 25 bridges on the project. Reviewed material and shop drawings for conformance with the plans and specifications, responded to Contractor submitted request for information, resolved field issues during construction, and assisted bridge inspection staff. Conducted close coordination and interaction with other Design-Build Team members including roadway, geotechnical, traffic, hydraulic, and utility engineers; construction managers, superintendents, and foremen; and quality assurance and quality control staff. Worked closely with VDOT Structure and Bridge engineers to finalize project specific details and to obtain structure and bridge plan approval and with VDOT Construction personnel responsible for approving construction activities.

**Firm:** EarthTech  
**Project Dates:** 2000-2003

---

**Route 15 over Rivanna River, Fluvanna County, Virginia**  
**Lead Structural Engineer.** Lead Structural Engineer responsible for design and plan preparation for a value engineering redesign of bridge pier foundations for the Route 15 Bridge over the Rivanna River in Fluvanna County. The original bridge plans required construction of three (3), cast-in-place concrete piers with concrete spread footings founded on rock. Construction of the piers, as detailed on the plans, required installation of three (3) cofferdams within the river in order to construct the spread footings and the portion of the columns below the waterline. The value engineering redesign replaced the spread footings and portion of columns below the waterline with drilled shafts. Using drilled shafts, eliminated the need for cofferdams and reduced the amount of cast-in-place concrete for the spread footings. The project was designed and detailed in accordance with VDOT and AASHTO standards and included performing a seismic analysis of piers for Seismic Performance Category B.

**Firm:** STV/Ralph Whitehead Associates  
**Project Dates:** 2006 to 2006
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Name &amp; Title:</td>
</tr>
<tr>
<td><strong>Randy Boice, PE</strong></td>
</tr>
<tr>
<td><strong>Senior Associate</strong></td>
</tr>
<tr>
<td>b. Project Assignment:</td>
</tr>
<tr>
<td><strong>Lead Traffic/ITS Designer</strong></td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated:</td>
</tr>
<tr>
<td><img src="#" alt="JMT Logo" /></td>
</tr>
<tr>
<td>d. Years experience: With this Firm 6 Years With Other Firms 28 Years</td>
</tr>
<tr>
<td>Please list chronologically your employment history, position and general experience or fields of practice for the last fifteen(15) years:</td>
</tr>
</tbody>
</table>

**Johnson Mirmiran & Thompson**  
Start Date: December 2005   End Date: Present   Position: Senior Associate  
Responsibilities: Manage and lead the traffic engineering and analysis practice for Virginia as well as the ITS practice for the company.  

**HNTB Corporation**  
Start Date: September 1995   End Date: December 2005   Position: Project Engineer/Assistant Department Head - ITS  
Responsibilities: Project engineer and project task manager for major ITS and traffic engineering projects such as I-95 Widening, Springfield Interchange, I-495/Route 1 Interchange and various other projects across the United States.  

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:  
- Clarkson University/ Potsdam, New York/BS/1991/Civil and Environmental Engineering  
f. Active Registration: Year First Registered/ Discipline/VA Registration #:  
- 1996/Virginia Registered Professional Engineer # 030511  
- 2011/VDOT Guardrail Inspection (GRIT) # ISP-0310110-06  
g. Document the extent and depth of experience and qualifications relevant to the Project.  
   a. Note your specific responsibilities and authorities for each assignment, not those of the firm.  
   b. Note whether experience is with current firm or with other firm.  
   c. Provide beginning and end dates for each assignment.  
   (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)  

(1.) Federal Highway Administration (FHWA) – Eastern Federal Lands Highway Division (EFLHHD)/ Virginia Department of Transportation (VDOT), Fairfax County Parkway (FCP), Phases I/II & IV (Design-Build), Springfield, VA ($112.5M)  
Traffic Engineer. Design of the Fairfax County Parkway (FCP) between Rolling Road (Route 638) on the north and Fullerton Road on the south. This project is the final segment required to complete the FCP, and includes construction of a $100M four-lane divided, limited access highway, designed to facilitate future widening to 6 lanes within the project right-of-way. Responsibilities include the signing and pavement marking design for the mainline, side streets and ramps; traffic analysis; signal designs for 6 intersections; and, roadway lighting design. Corridors with new signals were modeled and optimized. CORSIM, VISSIM and Synchro were all used in the design development and corridor optimization.  
Firm: Johnson, Mirmiran & Thompson, Inc.  
Project Dates: October 2008 to September 2010 (Phase I/II) and October 2008 to July 2011 (Phase IV)  

(2.) Maryland Transportation Authority (MDTA) I-95, Section 100 Preliminary and Final Engineering Services, MD ($450M)  
Traffic Engineer. Responsible for the design of signing, pavement markings, and ITS equipment and communications for the I-95/695 Interchange Improvement Project north of Baltimore as part of the Express Toll
(3.) VDOT, Limited Services Term Contract for Statewide Traffic Engineering Design
Project Manager. Responsible for the quality assurance and control, budgeting and scheduling of various tasks assigned by VDOT. Current tasks include a transportation study in southeastern Virginia and the design of signals, signing and pavement markings as well as an automatic gate system for a fire department in northwestern Virginia. Projects have included:

- **Hampton Roads Bridge-Tunnel Expansion Feasibility Study** – Supervised a feasibility study for the expansion of the Hampton Roads Bridge Tunnel facility along I-64. The study accounted for the traffic management system.
- **Route 658 Relocation** – Supervised the design of signing, pavement markings and a traffic signal for the relocation of Route 658 in Warren County. The project also included the design of an access gate for the fire department impacted by the improvements.
- **Traffic Signal Designs and Modifications** – Led the design of 21 traffic signal installations and modifications in multiple regions of the Commonwealth. Some have included incidental curb ramp and roadway designs.
- **I-95/Route 630 (Stafford County) Interchange IMR** – JMT is leading the development of an Interchange Modification Report for the main interchange for Stafford, VA. This included data collection, traffic, development, and environmental reviews and analysis, coordinating with the County, VDOT, and FHWA, and developing the report based on input from all stakeholders.
- **Walnut Avenue Detour Analysis (Roanoke)** – Overseeing the analysis of a detour route to be used for the closure of a bridge along a minor collector distributor roadway. Data collection and analysis using SYNCHRO is being utilized.
- **US Route 17 Turn Lane Length Assessments (Falmouth)** – Tasked with comparing the SYNCHRO modeling and accompanying analysis report with design plans developed for the widening of US Route 17 just west of I-95 in Falmouth, VA.

**Firm:** Johnson, Mirmiran & Thompson, Inc.
**Project Dates:** April 2005 to April 2011

(4.) VDOT Route 7 (Leesburg Pike), Fairfax County, VA
Traffic Engineer. Supervised the design of traffic signals, signing and pavement marking along VA Route 7 in Fairfax County. Work included analyzing several alternatives for turn lanes onto Georgetown Pike (VA 193) which consists of sensitive neighborhoods and presenting the alternatives to elected officials.

**Firm:** Johnson, Mirmiran & Thompson, Inc.
**Project Dates:** June 2011 to Current

(5.) I-95/Route 1 Interchange, Alexandria, VA
Team Leader. Responsible for the design of signing, pavement markings, traffic signal installations and TMS equipment and communications for the I-95/US Route 1 Interchange Improvement Project in northern Virginia as part of the Woodrow Wilson Bridge replacement. Obtained traffic volume data for use in developing initial timing plans for traffic signal installations at intersections along Route 1 and Washington Street that will be impacted as part of the interchange reconstruction. Supervised the reduction of the data and the SYNCHRO model that was used to develop said timing plans. Also reviewed the model output developed by the Woodrow Wilson Bridge GEC for various temporary signals proposed during separate phases of the maintenance of traffic plans.

**Firm:** Johnson, Mirmiran & Thompson, Inc.
**Project Dates:** May 2001 to Current
3.4.1(a) Contractor Work History
ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

Work by Lead Contractor - three (3) projects which best illustrates current qualifications relevant to this Project.

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Narrative describing nature of Firm’s Responsibilities</th>
<th>c. Client/Owner/Project Manager who can verify Firm’s responsibilities. Include address and current phone number.</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Estimated Value (in Thousands)</th>
</tr>
</thead>
</table>

b. Narrative describing nature of Firm’s Responsibilities

In November of 2007, the IC3-A Joint Venture was awarded this $527,000,000 Design Build Contract for Section C of the Intercounty Connector by the Maryland Transportation Authority. Facchina Construction Company, as a Joint Venture Partner, had the primary roles on the project to provide preconstruction design reviews, construction management and as a self perform trade contractor. This project is the third leg of the a new 6-lane highway that links existing and proposed development areas between the I-270 and I-95/US 1 corridors spanning Montgomery and Prince George's County with a state-of-the-art, multi-modal East-West highway that limits access and accommodates the movement of passengers and goods.

The project consisted of approximately 4.0 miles of a new 6-lane highway with 2.5 miles of auxiliary lanes and C-D (Collector-Distributor) ramps, including a three level interchange at US 29, a new interchange at Briggs Chaney Road and another three level interchange with I-95. The contract included 23 Bridges (steel & concrete), 40,000 SF of Retaining & MSE walls, 140,000 SF of Noise Barrier, 2.4 Million CY of Excavation & Embankment, 53,000 LF of Storm Drain (Including Deep Trunkline Drainage), 14 SWM ponds, Soil Improvements (including Soil Cement & Wick Drains), Relocation of numerous Public Utilities (BGE, Comcast, Colonial Pipe, Montgomery County, Pepco, Verizon, Washington Gas, and WSSC), Electrical and Lighting (Including ITS & ETC), Signage, Major MOT operations on two of the State’s most heavily traveled roadways (I-95&US 29), and extensive protective Erosion and Sediment undertakings to protect the environment and meet the strict Maryland Department of the Environment Requirements.

The Dewberry Design Team, which included Johnson, Mirmiran, & Thompson, Inc., used innovative design solutions to completely redesign the I-95/MD 200 interchange along with ground improvements (wick drains and surcharge loading) in the East Wash Pond area to eliminate bridges and significantly reduce the overall contract price. This required significant coordination with FHWA and the revisions to the IAPA. Additionally, the Design Team developed typical section design changes to the section that runs along the Cross Creek Golf Club’s 14th hole. The team reduced the section, realigned the hiker/biker trail and noise wall and made changes to the landscaping design to Reduce cuts/fills and Project LOD, eliminating impacts to the tee box, fairway and green. This effort required significant coordination with the Cross Creek Community and Golf Club.
Work by Lead Contractor - three (3) projects which best illustrates current qualifications relevant to this Project.

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Narrative describing nature of Firm’s Responsibilities</th>
<th>c. Client/Owner/Project Manager who can verify Firm’s responsibilities. Include address and current phone number.</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Estimated Value (in Thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2) 11th Street Bridge Design/Build Project</td>
<td>See below detailed Narrative</td>
<td>District of Columbia, Department of Transportation (DDOT) Ronaldo Nicholson PE, Deputy Director/Chief Engineer 202-371-4691</td>
<td>2013</td>
<td>2013</td>
<td>$260,000,000</td>
</tr>
</tbody>
</table>

b. Narrative describing nature of Firm’s Responsibilities

The 11th Street Bridge Design/Build project reconstructs and reconfigures the interchanges of the Southeast/Southwest Freeway and Anacostia Freeway. As is typical with a Design/Build job, the 11th Street Bridge Project required a significant design period. During this timeframe Johnson, Mirmiran & Thompson (JMT), the lead designer, worked with the Skanska/Facchina JV team and the DC DOT to complete a design of the project taking into account both the owners needs and constructability.

Construction operations include reconstruction of Interstates I-295 and I-695 to provide missing traffic movements, more capacity, and a safer roadway. The work includes 17 new bridges, three of which are 1,000’ long crossings over the Anacostia River. Skanska/Facchina is constructing 16 lane-miles of new pavement for interstate, ramps, and local roadways. 7 lane-miles of existing roads will be milled and overlaid. The project also includes 160,000SF of MSE walls for site retaining walls and abutments. Several walls are top-down construction, required for the maintenance of traffic. Naturally, all existing traffic movements must be safely maintained during the reconfiguration. The project recently completed three major traffic switches along the North Side of the project. Detailed and significant Maintenance of Traffic operations were required to ensure the safety of the construction and traveling public during these switches.

The project requires 200,000CY of excavation and 400,000CY of fill. Additionally, some dredging of the Anacostia River was necessary, which also included properly disposing of contaminated materials.

The project requires that approximately 12 existing bridges be demolished. Some existing poor ground conditions require wick drains and surcharge or geopiles in order to solve excessive settlement conditions. The JV, in partnership with DDOT, is responsible for obtaining the permits for the project. The Skanska/Facchina team coordinates with the local utility companies in order to maintain and relocate their services during the project.

The greatest challenge of the project has been in identifying, negotiating, and satisfying the varied needs of the project’s numerous stakeholders. The stakeholders include: DDOT, FHWA, National Park Service, National Park and Planning Commission, Coastguard, DDOE, other federal and District agencies, utilities, neighborhood organizations, local residents, and the traveling public. Doing all of this was necessary while continuing to satisfy contractual commitments and obligations, maintaining schedule and controlling cost of the project.
<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Narrative describing nature of Firm’s Responsibilities</th>
<th>c. Client/Owner/Project Manager who can verify Firm’s responsibilities. Include address and current phone number.</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Estimated Value (in Thousands)</th>
<th>Original Contract Value</th>
<th>Final or Estimated Contract Value</th>
<th>Dollar Value of Work for Which Firm Was/Is Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3) Dulles Corridor Metrorail Project – Early Site Work Package</td>
<td>See below detailed Narrative</td>
<td>Metropolitan Washington Airports Authority 1 Aviation Circle Washington, D.C. 20001 Kevin Vollbrecht 703-572-0505</td>
<td>2013</td>
<td>2013</td>
<td>$37,000,000</td>
<td>$37,000,000</td>
<td>$37,000,000</td>
<td></td>
</tr>
</tbody>
</table>

**b. Narrative describing nature of Firm’s Responsibilities**

Facchina has recently performed the early roadwork and maintenance of traffic as a subcontractor for Dulles Transit Partners on their project to extend the Metrorail Silver Line from Falls Church, VA to Dulles Airport. Facchina was responsible for installing Maintenance of Traffic (MOT) and performing all civil/roadway work for the first phase of the extension which brings the Metrorail to Wiehle Ave. Facchina constructed retaining walls, widened roads, installed traffic signals and overhead signs, provided concrete flat work and paving, along with the MOT for the project. Facchina also designed and obtained regulatory approval for all MOT, temporary roadway alignment shifts, and intersection signalization.

Facchina was subcontracted this $37 million portion of the overall $1.6 billion project consisting of heavy civil/structural work over an eleven mile stretch through some of the most congested areas and highly traveled roadways in the Washington DC Metro area. The entire project extends from Route 66 to Wiehle Ave. on the Dulles Toll Road and includes significant civil work along Route 7 through Tysons Corner, VA. The project is a design-build deliverable. Facchina has had to vary (both delay and accelerate) its construction pace in order to service the client’s needs, which are driven by developments in the rest of the project. Our team has managed multiple crews to ensure that we maintain the overall project schedule. Construction operations include reconstruction and realignment of Interstates I-66, the Dulles Connector Road, the Dulles International Airport Access Highway, State Route 7, and Local Route 123. The work includes multiple traffic switches along the length of the project, MOT phasing, and close coordination with surrounding projects that make up the VDOT “Mega Projects” program.

The project requires 160,000 CY of excavation, 7 new retaining walls (cast in place, MSE, modular block), 18,000 lf of storm sewer, 2,000 lf of 24” water main, and the design/reconstruction of over 20 temporary and permanent intersections. Facchina was responsible for Quality Control associated with our scope of work. QC testing and inspections were performed by EMC2 of Rockville, MD.

Facchina’s major subcontractors on the project are Portico Services (electrical/signalization), Senate Asphalt/VA Paving, Tobar Construction (site concrete), Penn Line Services (guardrail), and A Annandale (striping).

The greatest challenge of the project has been working safely and efficiently in a heavily congested, highly traveled road way system while satisfying the varied needs of the project’s numerous stakeholders including VDOT, MWAA, DTP, utility owners, local residents, pedestrians, and the traveling public. Doing all of this was necessary while continuing to satisfy contractual commitments and obligations, maintaining schedule and controlling cost of the project.
3.4.1(b) Designer Work History
## LEAD DESIGNER - WORK HISTORY FORM

### (LIMIT 1 PAGE PER PROJECT)

| Work by Lead Designer - three (3) projects which best illustrates current qualifications relevant to this Project. |
|-------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| a. Project Name & Location                      | b. Narrative describing nature of Firm’s Responsibilities    | c. Client/Owner/Project Manager who can verify Firm’s responsibilities. Initial addressing and current phone number. | d. Contract Completion Date (Original)            | e. Contract Completion Date (Actual or Estimated) |
| (1) Fairfax County Parkway Phases I/II & IV (Design-Build) Project Springfield, VA | Please see detailed description below. Lead Contractor (Cherry Hill Construction, Inc.) | Federal Highway Administration Eastern Federal Lands Highway Div. Loudoun Technical Center 21400 Ridgetop Circle Sterling, VA 22170 Mr. Robert Morris, Project Manager T 703.404.2002 F 703.404.6217 E robert.morris@fhwa.dot.gov | Phases I/II December 2010 Phases I/II September 2010 (Actual) | Phases IV July 2010 (Actual) |
|                                                |                                                                |                                                                 | TOTAL: $85,472                                   | TOTAL: $112,500                                    | TOTAL: $11,397 |
|                                                |                                                                |                                                                 | Original Contract Value                          | Final or Estimated Contract Value                 | Dollar Value of Work for Which Firm Was/Is Responsible |

**b. Narrative describing nature of Firm’s Responsibilities**

Fairfax County Parkway (FCP) Phase I & II Extension Project between U.S. Route 1 on the southern terminus and State Route 7 at the northern terminus, completes a vital link to I-95. This project provides the needed highway improvements to address traffic impact of the U.S. Army relocating 8,500 jobs to the National Geospatial-Intelligence Agency (NGA) Campus East at Fort Belvoir North Area in VA as part of the BRAC Program. This project was highly publicized as critical to the success of the regions BRAC initiative. In fact, President Obama made two visits to the project, initially to indicate the importance of the project to the Northern VA roadway network and secondly, for the future Phase IV (opened to traffic July 2011) which was heralded for the projects timely and effective use of ARRA funds. This fast track project was accomplished using the Design-Build (D-B) contracting method and addressed many environmental challenges such as the presence of contaminated soil/groundwater, and possible unexploded ordinance in the Fort Belvoir EPG which the alignment traversed. The D-B Team of JMT and Cherry Hill Construction, Inc. were selected as the best value team for the $112M FCP, Phases I/II & IV project by the FHWA-EFLHD, VDOT and U.S. Army Garrison Fort Belvoir. During the bidding process, JMT prepared alternate technical concepts (ATCs) that improved the overall project design and provided significant reductions in construction costs. The project begins at Rolling Rd. and proceeds southeastward on a new alignment and ends at the bridge over Backlick Rd., a distance of approximately 1.5 miles. The new highway is a four lane divided limited access road and includes two new interchanges at Boudinot Dr. and at the new Barta Rd. entrance to NGA Campus East at Fort Belvoir North Area.

**Design Elements:** The project begins at Rolling Rd. and proceeds southeastward on a new alignment for a distance of approximately 1.5 miles and includes two new interchanges at Boudinot Drive and Barta Road entrance to NGA. The work included: interchange design, multi-purpose trails along FCP, grading for a future Park-n-Ride, geotechnical engineering, six new bridges, one bridge widening, multiple retaining walls, two noise walls, two box culvert extensions, grading, drainage, storm water management, erosion and sediment control, permitting, traffic analysis, traffic simulation, traffic signal design, signing, pavement markings, lighting, utility relocation, MOT plans and widening of I-95 to accommodate a new exit lane for direct access to the PGA.

**Environmental Compliance:** The highway alignment traverses through the EPG and crosses five former firing ranges and testing sites, including three Resource Conservation and Recovery Act sites that had significant groundwater and soil contamination, and stringent Land Use Controls required by an EPA Consent Order to protect human health and the environment. These environmental issues required special coordination with Fort Belvoir environmental staff due to the presence of contaminated soil/groundwater and the possibility of unexploded ordinance on the site, as well as environmental permitting with the U.S. Army Corps of Engineers for the Accotink Creek bridge construction. All environmental impacts were successfully addressed.

**Partnering, Agency, Community and Stakeholder Coordination:** A driving factor contributing to the success of this project was the establishment of a formal partnering agreement between the project stakeholders. It was evident from the notice to proceed that the project would be schedule driven but also had to address the goals of the numerous and diverse stakeholders. To address this major project concern, the Design-Build Team instituted project partnering. Partnering began with formal sessions and continued throughout the design and construction. Bi-weekly partnering or task force meetings were held with all major stakeholders. Representations at the bi-weekly meetings was mandatory and included the Federal Highway Administration -Eastern Federal Lands Highway Division, VDOT, Fort Belvoir DPW, Fort Belvoir Environmental and Natural Resource Division, NGA, U.S. Army Corps of Engineers- BRAC Integration Office and Fairfax County DOT.

**Schedule:** Construction of the FCP Extension began with the ground-breaking in November 2008. The D-B Team has met all schedule milestones, with the mainline paving being substantially complete and open to traffic on September 19, 2010, two months ahead of the scheduled December 31, 2010 overall completion date. With the completion of Phase I & II, motorists have a direct route to I-95 through the southern portion of the area formerly known as the Fort Belvoir EPG in Springfield, VA. The ribbon-cutting ceremony was held on September 13, 2010 which included the dedication ceremony of the road as the “Trooper Charles Mark Cassidy Memorial Highway.” The project was recognized by ACEC/VA and ACEC/MD with “Awards of Excellence” and proposed key staff members Bill Schank, P.E. and Rodney Hayzlett, P.E. of JMT received “Star Partner” awards for their exceptional dedication, teamwork, and professionalism in support of the project's goals by the NGA and USAEC.
**ATTACHMENT 3.4.1(b)**

**LEAD DESIGNER - WORK HISTORY FORM**

**(LIMIT 1 PAGE PER PROJECT)**

- **a. Project Name & Location**
- **b. Narrative describing nature of Firm’s Responsibilities; Identify the Lead Contractor**
- **c. Client/Owner/Project Manager who can verify Firm’s responsibilities. Include address and current phone number.**
- **d. Contract Completion Date (Original)**
- **e. Contract Completion Date (Actual or Estimated)**
- **f. Estimated Value (in Thousands)**

| 2. I-95 Section 100 Preliminary and Final Engineering Services | Please see detailed description below. Maryland Transportation Authority 300 Authority Drive Baltimore, MD 21222 Mr. David LaBella, P.E. Supervisory Engineer T 410.931.6808 F 410.288.8475 E dlabella@mdta.state.md.us | April 2011 | April 2011 (Actual) | TOTAL: $450,000 | TOTAL: $450,000 | TOTAL: $26,000 |
| --- | --- | --- | --- | --- | --- |

- **b. Narrative describing nature of Firm’s Responsibilities**

Johnson, Mirrman & Thompson, Inc. (JMT) was responsible for developing the planning and preliminary design for Section 100 of the I-95 Express Toll Lane project. This $1 billion project involves complete replacement of 3 major interchanges and mainline interstate design which will implement the latest technologies in Traffic and ITS Management. Section 100 is the first project within Maryland to implement both general purpose lanes and managed lanes in the same facility. Preliminary and final design services include:

- **Highway Design** - The preliminary design included developing and analyzing multiple concepts for General Purpose and Managed Lanes for I-95’s mainline. In addition JMT evaluated multiple line and grade options for the I-695 MD 43, and I-895 interchanges. One of the unique challenges was the re-design of the existing “double-braided” directional I-695 interchange to a fully directional multilevel design serving both the Express Toll Lanes and the General Purpose lanes of I-95. The preliminary design encompassed an array of design elements i.e. horizontal and vertical alignment, typical sections, developing and reviewing design standards, minimizing impacts to the existing ROW and utilities. JMT provided final design services for the $450 million 1-695/1-95 interchange, which is to be advertised in two construction contracts. The first contract has been advertised and construction is complete. The second contract is pending funding approval. Final design included 11 lane-miles of I-95, 12 lane-miles of I-695, 1 lane-mile of local roads & 16 lane-miles of ramps.

- **Structural Engineering** - JMT prepared preliminary layouts of bridge structures in a complex network of multilevel interchange design at the MD 43, I-695 & I-895 interchanges involving many elevated structures for the directional ramps. The preliminary structural design work included superstructure types, span arrangements, pier location and sizes and phased construction. JMT prepared final design plans for 22 bridges, 38 retaining walls, 6 noise barriers and 5 culverts at the 1-95/1-695 interchange.

- **Additional Services** - Preliminary and final design includes wetland and forest delineation, coordination with environmental agencies (MDE, USACE, MHT etc.), permitting requirements, drainage and SWM, utility coordination and relocations, H&I analyses and an extensive public involvement and interagency coordination. JMT used focus group meetings with agencies and communities to establish the Purpose and Need, ARDS document and FONSI. Brochures, displays and material for the I-95 Section 100 page were prepared. All design was performed using GEOP/AK and MicroStation, in accordance with MDTA, AASHTO and MSHA guidelines.

This project will be advertised in two construction contracts. Contract No. 1 for the I-95/L-95 interchange was a $208 million project for which the final design was fast tracked in only ten months and was advertised for construction on August 8, 2006. The often time-consuming process of right-of-way acquisition was expedited by having JMT responsible for the right-of-way acquisition and relocation assistance for a minimum of 96 properties. The design of the project incorporated many cost control design techniques to reduce costs without reducing functionality or aesthetics. Some examples include: cement treatment of subgrade to reduce the asphalt pavement thickness, select use of integral pier caps to lower the profile of the interchange, use of reinforced “slow” slopes to minimize retaining walls and careful selection of structure types to reduce “first costs” and long term maintenance costs.

This project includes extensive public involvement and interagency coordination. JMT used focus group meetings with agencies and communities to establish the Purpose and Need, ARDS document and FONSI. Brochures, displays and material for the I-95 Section 100 page were prepared. This project received the ACEC/MD – Honor Award for Studies, Research and Consulting Engineering Services.
**ATTACHMENT 3.4.1(b)**

**LEAD DESIGNER - WORK HISTORY FORM**

*(LIMIT 1 PAGE PER PROJECT)*

| Work by Lead Designer - three (3) projects which best illustrates current qualifications relevant to this Project. |
|---|---|---|---|---|---|---|
| a. Project Name & Location | b. Narrative describing nature of Firm’s Responsibilities; Identify the Lead Contractor | c. Client/Owner/Project Manager who can verify Firm’s responsibilities. Include address and current phone number. | d. Contract Completion Date (Original) | e. Contract Completion Date (Actual or Estimated) | f. Estimated Value (in Thousands) |
| **(3)** 1-95/1-495/1-295 Interchange at Woodrow Wilson Memorial Bridge (WWMB) Prince George’s Co., MD | Please see detailed description below: Lead Contractor (G.A. & F.C. Wagonman, Inc.) | Maryland State Highway Administration 707 North Calvert Street Baltimore, MD 21202 Ms. Shirlene Cleveland Project Director WWB T 410.545.8838 F 410.209.5001 E scleveland@sha.state.md.us | December 2008 | December 2008 (Actual) | TOTAL: $255,000 TOTAL: $250,000 TOTAL: $8,069 |

b. Narrative describing nature of Firm’s Responsibilities

Johnson, Mimran & Thompson, Inc. (JMT) as the lead of a Joint Venture Team designed a new $250M interstate interchange in conjunction with the WWMB replacement project. The Task Order type design contract has 26 distinct tasks. 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. The Interchange is arguably the most complex interchange in MD. By virtue of its location, the interchange was in the middle of four adjacent and concurrent projects. In addition to the WWMB to west, other projects included the reconstruction of the MD 210 Interchange to the east, the reconstruction of I-295 by the DDOT to the north, and the I-95+ National Harbor development project to the south. The Interchange contract included a complex coordination requirement to accommodate the expected 1,000+ construction workers and construction deliveries necessary to build the four adjacent projects. Further complicating MOT and coordination was the fact that the new WWMB abutment would be 25 feet higher than the existing bridge and located immediately adjacent to it. The solution was to phase the roadway and ramp construction such that they could provide temporary access to the adjoining project sites. For example, the future I-295 entrance ramp to National Harbor was designed to provide an inbound connection from southbound I-95, an outbound haul road connection to the Bridge project, and an inbound connection from I-295. To accommodate the new higher WWMB, temporary retaining walls were designed to allow for phasing of MOT while changing the profile of lanes of traffic by as much as 25 feet.

The design included highway and major bridge ramps, secondary roads, access ramps, HOV lanes, and ingress/egress ramps for HOV Lanes and Express Lanes. Structures on the interchange include 8-1/95 mainline bridges, 16 ramp bridges, 3 pedestrian trail bridges, 31 permanent retaining walls, 6 temporary retaining walls, headwalls and a large drainage structure. Key comments of the project included:

- **Major Bridges** - Three continuous multi-span curved steel girder bridges over 1,400 feet long were designed for Ramsay E and F. Their design was complicated by the roadway geometrics that required the Ramp E and F structures to have variable widths while the Ramp J structure included a reverse curve. Integral steel pier caps were used in the Ramps E and F bridges to alleviate horizontal and vertical clearance issues. A pier shape was developed that could be used for both the integral and non-integral types without compromising the aesthetics of the interchange.

- **Maintenance of Traffic** - Performed various traffic engineering studies and evaluations of traffic operations for the construction of the I-95/1-495/1-295 interchange. This included performing traffic counts, gathering traffic count data and performing traffic analysis for various MOT alternatives to maintain an ADT of nearly 200,000 vehicles per day. Vast coordination was required between several other adjoining projects. Evaluations included determining the number of lanes needed during construction and the impacts of rerouting of traffic. Performed Highway Capacity and CORSIM analysis.

- **Public Outreach** - Presentation material for the community was prepared by the JV team. After approval by the community and resource agencies, the design elements were included in the project design. For example, the northeast quadrant of the interchange contains a residential community of single family housing that was previously buffered from I-95 traffic by dense woods. While the right-of-way adjacent to their community was in the public domain and previously designated for transportation use, the community was concerned about the project impacts. A joint meeting was held with the residents to determine how their concerns could be mitigated. As a result of the meeting a decorative fence was installed that protected the community and allowed views of the Potomac River.

- **Additional Services** - Surveying, ROW plans, traffic engineering, complex MOT, signing and lighting, geotechnical investigations, value engineering, environmental permits, H/H, SWM, E/S control, on-site engineering support, landscape architecture, forest & wetland delineation, mitigation plans and permits, utility relocation and post award services. Various rail alignment studies for the inclusion of WMATA were performed to accommodate future inclusion of double tracks and a station within the median of I-95. Documents were in accordance with AASHTO, FHWA, and SHA policies. Attended Partnering Meetings with MSHA, GEC (URS, RK&K & PB), KCl Technologies (Designers for the I-95/1-495 MD 210 Interchange) and stakeholders.

This project has received numerous awards including: ASCE National OPAL Award - Outstanding Civil Engineering Achievement; APWA VA-DC-MD Chapter - Project of the Year Award; multiple ACEC/MD Awards including Outstanding Transportation Project and MdQI Awards of Excellence in Highway Design, Bridge Design and Partnering for Major Projects.