STATEMENT OF QUALIFICATIONS

Design-Build

I-64/Route 15 (Zion Crossroads) Interchange Improvement

Louisa County, Virginia

“Where the diamond meets the crossroad”

From: 0.30 MI. W. Int. Rte. 15 (I-64 EB & WB)
To: 0.35 MI. E. Rte. 15 (I-64 EB & WB)

State Project No.
0064-054-703, P101, R201 & C501

Federal Project No.
IM-064-2(155)

Contract ID No.
C00086453DB48

February 3, 2012

Submitted to:

Prepared by:
3.2 LETTER OF SUBMITTAL
February 3, 2012

Mr. Ian Millikan, PE
Alternate Project Delivery Office
Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

RE: Design Build I-64/Route 15 (Zion Crossroads) Interchange Improvement
State Project No.: 0064-054-703, P101, R201 & C501
Federal Project No.: IM-064-2(155) / Contract ID Number: C00086453DB48
Letter of Submittal

Dear Mr. Millikan:

Corman Construction, Inc. (Corman) is pleased to submit 10 copies of our Statement of Qualifications and one CD-ROM containing the entire Statement of Qualifications in a single cohesive Adobe PDF file to provide design-build services for the I-64/Route 15 (Zion Crossroads) Interchange Improvement project in Louisa County, Virginia. Corman, as the Design-Build Contractor, has a distinguished history of successfully completing large, complex transportation projects. When combined with our Lead Design Firm, Parsons Transportation Group, who has firsthand Diverging Diamond Interchange (DDI) design-build experience, Corman is unmatched in our quest to deliver the Virginia Department of Transportation an innovative, safe, and high-quality project.

The Corman/Parsons Team confirms we examined the RFQ and supporting information, acknowledge RFQ Questions and Answers dated 1/17/12, attended the Project Information Meeting, and visited the project site. Leading the charge, Corman appoints the following:

<table>
<thead>
<tr>
<th>3.2.1 Point of Contact</th>
<th>3.2.2 Principal Officer Of the Legal Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ryan Gorman, PE</strong></td>
<td><strong>William G. Cox</strong></td>
</tr>
<tr>
<td>Business Development Manager/Sr. Estimator</td>
<td>President</td>
</tr>
<tr>
<td>Corman Construction, Inc.</td>
<td>Corman Construction, Inc.</td>
</tr>
<tr>
<td>16500 Happy Hill Road</td>
<td>12001 Guilford Road</td>
</tr>
<tr>
<td>Colonial Heights, VA 23834</td>
<td>Annapolis Junction, MD 20701</td>
</tr>
<tr>
<td>804-520-9766-Telephone / 804-520-9810-Fax</td>
<td>410-792-9400-Telephone / 301-953-0384-Fax</td>
</tr>
<tr>
<td><a href="mailto:rgorman@cormanconstruction.com">rgorman@cormanconstruction.com</a></td>
<td><a href="mailto:bcox@cormanconstruction.com">bcox@cormanconstruction.com</a></td>
</tr>
</tbody>
</table>

3.2.3 Corporate Structure – Corman will be the design-build contracting entity for the Design-Build I-64/Route 15 (Zion Crossroads) Interchange Improvement project. Corman is a corporation titled in Delaware and a wholly-owned subsidiary of CG Enterprises, Inc. and will be the sole major participant firm and responsible party to the design-build contract with VDOT. Corman will hold all financial responsibility for the contract.

3.2.4 Affiliate and/or Subsidiary Companies-Corman Affiliates (Corman has no subsidiaries):

| CG Enterprises, Inc.                                                                    | Corman Marine Construction, Inc.          |
| 12001 Guilford Road                                                                    | 711 East Ordnance Road, Suite 715         |
| Annapolis Junction, MD 20701                                                            | Baltimore, MD 21226                        |
### CK Constructors, a Joint Venture
12001 Guilford Road
Annapolis Junction, MD 20701

### Intercounty Constructors Joint Venture
C/o Granite Construction Northeast, Inc.
120 White Plains Road, Suite 310
Tarrytown, NY 10591

### MD 200 Constructors, a Joint Venture
C/o Kiewit Infrastructure South Co.
11710 Beltsville Drive
Beltsville, MD 20705

### Wagman, Corman, McLean Joint Venture
C/o GA & FC Wagman, Inc.
3290 North Susquehanna Trail
York, PA 17406-9754

#### 3.2.5 Certification Regarding Debarment Form(s) Primary Covered Transactions (Attachment 3.2.5(a))
and Certification Regarding Debarment Form(s) Lower Tier Covered Transactions (Attachment 3.2.5(b)) have been signed and are in the Appendices.

#### 3.2.6 VDOT Prequalification Certificate
An 8 1/2 x 11 copy is attached to this Letter of Submittal.

#### 3.2.7 A Surety Letter
A Surety Letter stating Corman is capable of obtaining a performance and payment bond is attached to this Letter of Submittal.

#### 3.2.8 Commercial/Professional Registration Requirements
Commercial/Professional Registration Requirements are outlined below with supporting documentation in the Appendices.

##### 3.2.8.1 Virginia State Corporation Commission Registration Numbers
for team member firms:

<table>
<thead>
<tr>
<th>TEAM MEMBER FIRM</th>
<th>SCC#</th>
<th>TYPE</th>
<th>STATUS</th>
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</thead>
<tbody>
<tr>
<td>Corman Construction, Inc.</td>
<td>F046798-7</td>
<td>Incorporated</td>
<td>Active</td>
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<tr>
<td>Lead Design-Build Contractor</td>
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<td>Parsons Transportation Group, Inc. of Virginia Lead</td>
<td>0162617-5</td>
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<tr>
<td>Designer</td>
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<td>LLP</td>
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<tr>
<td>McDonough Bolyard Peck, Inc. (MBP) Quality Assurance</td>
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<td>Incorporated</td>
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<tr>
<td>Endesco, Inc. (DBE) –Hydraulic &amp; Permitting</td>
<td>F133736-1</td>
<td>Incorporated</td>
<td>Active</td>
</tr>
<tr>
<td>Continental Acquisition Services, Inc. d/b/a Continental Field Service Corp. –Right of Way</td>
<td>F167489-6</td>
<td>Incorporated</td>
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<tr>
<td>Precision Measurements, Inc. (DBE) –Survey</td>
<td>0450436-1</td>
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<tr>
<td>Schnabel Engineering Consultants, Inc. Geotechnical</td>
<td>0712674-1</td>
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</tr>
<tr>
<td>S&amp;ME, Inc. QA Laboratory</td>
<td>F115456-8</td>
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<td>Active</td>
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<tr>
<td>RJM Engineering, Inc. (DBE) Design/Civil Support</td>
<td>F129602-1</td>
<td>Incorporated</td>
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</table>

##### 3.2.8.2-3.2.8.4 Commonwealth of Virginia Department of Professional and Occupational Regulation Registration Information:

<table>
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<tr>
<th>TEAM MEMBER FIRM</th>
<th>OFFICE</th>
<th>DPOR REGISTRATION</th>
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<tr>
<td>Corman Construction, Inc.</td>
<td>Board for Contractors</td>
<td>2701 014794A</td>
<td>10/31/13</td>
</tr>
<tr>
<td>12001 Guilford Road</td>
<td>Class A Contractors</td>
<td></td>
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</tr>
<tr>
<td>Annapolis Junction, MD 20701</td>
<td>License</td>
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<tr>
<td>Parsons Transportation Group, Inc. of Virginia</td>
<td>Professional Corp.-Eng</td>
<td>0405001589</td>
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<tr>
<td>3926 Pender Dr., Ste. 100 Fairfax, VA 22030</td>
<td>Branch Office-Eng</td>
<td>0410000214</td>
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</tr>
<tr>
<td>100 M Street, SE, Washington, DC 20003</td>
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<td>Company Name</td>
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<tr>
<td>---------------------------------</td>
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<tr>
<td>Wallace, Montgomery, &amp; Assocs., LLP</td>
<td>Business Entity-Eng</td>
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<tr>
<td>110 West Road, Ste. 300, Towson, MD 21204</td>
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<tr>
<td>7400 Beaufont Spring Dr., Ste. 403 Boulders II Richmond, VA 23225</td>
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<td>0411000604</td>
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<tr>
<td>Endesco, Inc. (DBE)</td>
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<td>438 N. Frederick Ave., Ste. 455, Gaithersburg, MD 20877</td>
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<tr>
<td>851 Seahawk Cir, Ste., 103, Virginia Beach, VA 23452</td>
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<tr>
<td>1047 Technology Park Dr., Glen Allen, VA 23059</td>
<td>Bus. Entity Branch-Eng</td>
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<tr>
<td>One Cary Street, Richmond, VA 23220</td>
<td>Branch Office-Eng</td>
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<tr>
<td>2020 Avon Ct, Ste. 15, Charlottesville, VA 22902</td>
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<tr>
<td>S&amp;ME, Inc.</td>
<td>Bus Entity Branch-Eng</td>
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<td>2/29/12</td>
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<tr>
<td>8211 Hermitage Rd., Richmond, VA 23228</td>
<td>Bus Entity Branch-Eng</td>
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<tr>
<td>RJM Engineering, Inc. (DBE)</td>
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<tr>
<td>6021 University Blvd., Ste. 530, Ellicott City, VA 21043</td>
<td>Branch Office-Eng</td>
<td>0411000614</td>
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<tr>
<td>700 Princess St., Ste. 207, Alexandria, VA 22314</td>
<td>Branch Office-Eng</td>
<td>0411000614</td>
<td>2/29/12</td>
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</tbody>
</table>

**KEY PERSONNEL PROVIDING PROFESSIONAL SERVICES/ OFFICE LOCATION**

| Duncan Stewart, PE - QA Manager MBP 7400 Beaufont Spring Drive, Suite 403 Boulders II Richmond, VA 23225 | Professional Engineer | 0402036991 | 6/30/12 |
| Joshua Wade, PE - Design Manager Parsons Transportation Group 3926 Pender Drive, Suite 100 Fairfax, VA 22030 | Professional Engineer | 0402032924 | 1/31/13 |

3.29 Corman is committed to achieving a 17% DBE participation goal for the entire value of the contract.

William G. Cox, President

We present to you a design-build team equipped with the experience, knowledge, dedication, and resources to partner with the Virginia Department of Transportation in successfully delivering the I-64/Route 15 (Zion Crossroads) Interchange Improvement Design-Build project.

Sincerely,

CORMAN CONSTRUCTION, INC.

William G. Cox, President
CERTIFICATE OF QUALIFICATION

Corman Construction, Inc.

Vendor Number: C097

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

Work Classes:  Grading, Major Structures, Minor Structures, Underground Utilities

Issue Date:  March 31, 2011  
This Rating and Classification will Expire:  March 31, 2012

Suzanne FR Lucas  Prequalification Officer

Don E. Stiles, State Construction Contract Officer
February 3, 2012

Ian Millikan, P.E.
Alternative Project Delivery Office
Virginia Department of Transportation
1221 East Broad Street
Main Building, 4th Floor
Richmond, VA 23219

RE: Corman Construction, Inc.

Project: RFP - Design/Build Project-I-64/Route 15 (Zion Crossroads) Interchange Improvement
From: 0.30 Mi. W. Int. Rte. 15 (I-64 EB & WB) to: 0.35 Mi. E. Rte. 15 (I-64 EB & WB)
State Project No. 0064-054-703,P101,R201 & C501
Federal Project No. IM-064-2(155)
Contract ID Number: C00086453DB48

It is our understanding that Corman Construction, Inc. is submitting a proposal on the referenced project. As surety for the above named Contractor, Fidelity and Deposit Company of Maryland with an A.M. Best Rating of A and Financial Size Category of XV is capable of obtaining a 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction with a current estimate of $10,000,000. and said bonds will cover the Project and any warranty periods on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this project.

Our firm in conjunction with Fidelity and Deposit Company of Maryland have handled all of Corman Construction, Inc.'s bonding needs for over ten years. Based on their excellent financial strength and track record of profitability, Fidelity and Deposit Company of Maryland has extended a bond program of $150,000,000 single/$400,000,000 total program. These are not the maximum limits they would consider but rather are general parameters to handle the company's day to day bonding needs.

In closing, we highly recommend this contractor and should you desire more specific information feel free to give me a call.

Sincerely,

Patricia Lewis
Attorney-In-Fact
3.3 Team Structure
3.3 TEAM STRUCTURE
With a track record of successfully delivering over $1.2 billion in design-build roadway and bridge projects, Corman comes to VDOT with the hands-on experience and top-notch personnel it takes to effectively manage the design, construction and risks of the I-64/Route 15 (Zion Crossroads) Interchange Improvement Design-Build Project. During our 12-year design-build history, Corman exceeded owner’s expectations in the on-time, on-budget delivery of high-quality projects, without any claims, while meeting some of the most strenuous environmental commitments. Out of these ventures, $1 billion included contractor-led QC programs.

Through the years, Corman built a solid reputation of strategically aligning with the right design-build partners for the job and navigating them toward award-winning results. Boasting proven diverging diamond interchange (DDI) experience, we selected Parsons Transportation Group (PTG) as our lead design firm with the added depth of sub-consultant Wallace, Montgomery, & Associates (WM). PTG was the lead designer for the DDI at the I-15 and Main Street Interchange in American Fork, Utah which opened August 2010. Featured in “Roads and Bridges” magazine, this is the second DDI open to traffic in the US. Adding to their distinguished DDI portfolio, PTG is currently providing design services for a DDI in Kentucky and one in North Carolina.

PTG has been providing VDOT turn-key transportation consulting services for more than 30 years and is a US transportation DB industry leader for over 18 years executing more than $10 billion in complex DB transportation projects.

**Working Together = Success:** Corman and PTG recently collaborated on the long-anticipated $1 Billion DB Intercounty Connector Contracts (ICC) A and B in Maryland. These two mega projects totaled 14 miles of six-lane toll road with multiple interchanges and monumental environmental stewardship. One important message Corman and PTG walked away from this endeavor is that DB projects prosper from fully-integrated teams. Having the design team work seamlessly with the construction team, integrating constructability concerns with the design, and planning the job from the perspective of building it, optimizes the outcome.

Following this proven DB approach and experience, Corman and PTG are poised to work in unison. During design, a Corman DB coordinator will work in PTG’s design office to facilitate communication, speed coordination, and enhance reviews to deliver a successful project under an aggressive schedule. To streamline design and construction, the Design-Build Project Manager (DBPM) works closely with key design and construction staff to incorporate construction means and methods into design.

The Corman/PTG team is comprised of experienced DB personnel who have worked together on several DB projects. From these individuals, VDOT, and third-party stakeholders, comes a pool of ideas which will be integrated into the designs to satisfy goals and needs. Conducting over-the-shoulder, interdisciplinary, and constructability reviews early and often tends to lead to the most innovative, cost effective, constructible, and best engineered product possible.

3.3.1 KEY PERSONNEL—Corman has assembled a team of highly-qualified and experienced individuals and structured them accordingly for optimal performance. These key staff and design firms come together with a shared past history on successful projects, have established working relationships, and are ready to hit the
ground running. Though our task leaders and technical staff are responsible for items, such as design, public involvement and/or construction, everyone is ultimately responsible for the project. The chart below introduces Key Personnel with resumes (Attachment 3.3.1) in the Appendices:

**Design and Construction Team**—Experienced professionals are slated to fill key roles identified in the RFQ in addition to others who will support the Design-Build and Design Managers and contribute to project success.

**Ryan Gorman, PE, Design-Build Project Manager**, with over 16 years experience, will lead the charge for the project. Ryan is a VA PE and served as DBPM on past VDOT projects. Ryan has worked as Corman’s Field Supervisor from Superintendent to Operations Manager and is proficient in troubleshooting problems and cultivating innovative solutions. He was the Sr. PM for the $62.7M Woodrow Wilson Bridge VA-4 project where he was a successful manager, earning a 99.29% C-36 score and receiving VDOT’s Commissioner’s Award for Outstanding Achievement.

**Duncan Stewart, PE, Quality Assurance Manager** from MBP has over 14 years experience in project controls for transportation projects. Recently he completed a four-year assignment as QAM for the Airport Connector Road DB Project.

**Joshua Wade, PE, Design Manager**, has 17 years of civil engineering design and management experience and is currently wrapping up his DM role working with Corman on the DB ICC B project with over seven miles of new six-lane roadway with two major interchanges. Having worked with Corman for the past five years, he will apply valuable DB lessons learned to this project.

**Dennis Brown, Construction Manager**, with over 14 years experience, will apply his DB skills from ICC A as CM of Structures for 4+ years, where he provided valuable leadership to design development with PTG from a constructability viewpoint. He oversaw all structure field work and was involved with QC planning/scheduling, utility relocations, MOT and intensive environmental compliance. Dennis will also serve in the vital role as Utility Coordinator where he will coordinate with Prakash Patel, Lead Utility Engineer, as he did on ICC A, to identify/relocate all utilities affected by the project.
Stephen Walter, Public Relations Manager will employ his in-depth experience with PR Outreach programs to our team. Stephen has over 34 years of experience in transportation planning, engineering, and project management. He provided technical, management, and public relations services for major public works and construction projects ranging from new roadways, bridges, utility corridors, water treatment plants, marinas, and commercial developments. Stephen was the agency coordinator responsible for securing state and federal permits. He manages the public relations for all of PTG’s complex Virginia projects, including the Capital Beltway Improvement, I-66 Tier 1 EIS, Woodrow Wilson Bridge, and the Springfield Interchange.

Introducing our Three DDI Experts
James Kramer, PE*, DDI Specialist, was the Deputy Design and Highway Design Manager for the Utah I-15/Main Street DDI. He has over 33 years of civil engineering experience in the design/management of major interstate, expressway, and arterial projects, including interchange design, MOT plans, corridor location studies, environmental studies and impact statements, access management, project development, alignment and drainage design, hydrology, hydraulics and structural coordination. James will provide oversight and valuable lessons learned to the design team developing DDI details.

Dave Ayala, PE* PTOE, DDI Specialist is PTG’s Project Manager for the I-77/I-75 & KY 338 DDI project in Boone County, Kentucky. He has over 13 years of transportation engineering experience in the design/management of interstate, expressway, arterial, interchange, and local road projects. He oversees/coordinates roadway, rail, drainage, and roadway lighting design, traffic engineering and control layout, construction phasing, alternative development, corridor studies, cost estimating preparation, technical reports, surveying, ROW documents, and value engineering. Using his DDI design experience, Dave will provide lessons learned and direction during design development.

Gil Chlewicki, PE*, DDI Specialist is a recognized national DDI expert with a dozen years experience. He has 15 years of transportation engineering experience in traffic and geometric design. Gil is a member of TRB’s Operational Effects of Geometric Committee and is chairing a Work Group on Alternative Intersections. He has worked on several DB’s, including a DDI project in North Carolina and the ICC’s A and C in Maryland.

Additional Design-Support
Paul Schray, ROW Manager of Continental Field Service will provide the small, but critical right of way acquisition for the Corman/PTG Team. Since ROW acquisition can have a direct impact on the project schedule, this is a vital role. Paul comes with 28 years experience in the acquisition of property for public transportation and private development projects, with over 12 years as a consultant for VDOT. He has managed acquisition, relocation, and appraisal functions, title research, ROW design review, acquisition negotiations, relocation assistance, administrative value determinations, ROW cost estimates, appraisal technical review, and condemnation trial preparation and testimony. To support Paul, we will select a VDOT prequalified Fee Appraiser and Review Appraiser from firms most familiar with Louisa County and the Zion Crossroads area.

Greg Anderson, PE* will lead Design QA/QC with over 25 years QC experience and ensure PTG’s QC procedures are followed by reviewing/tracking QC documents. All QC findings must be cleared prior to submitting to the owner or for permit review. Greg recently worked with Corman on ICC B and was the QA/QC Manager for PTG’s Virginia operations for the last several years.

Bob Reed, PE, Lead Roadway Engineer has over 39 years of experience in civil engineering and transportation projects. He prepared urban intersection and street designs and conducted design and VE for numerous interchanges. Bob developed detailed MOT programs, traffic signing and marking and drainage designs for many projects. Bob is a Certified Traffic Control Design Specialist by VDOT and ATSSA. He
recently completed the Battlefield Parkway, Pacific Boulevard and 30% plans for the I-81 Widening North of Christiansburg projects for VDOT.

Laura Wilton, PE, Lead MOT Engineer has over 23 years of design experience on highway projects with intersections, interchanges, and pedestrian movements. Laura completed the Virginia Advanced Work Zone Traffic Control Training and is ATSSA certified to prepare transportation management plans, two critical elements of this project. Laura and Bob Reed recently completed the MOT plans and TMPs for several Type C Projects, including the Rt. 27/244 and I-95 FBNA Ramp projects.

Prakash Patel, PE, Lead Utility Engineer will coordinate with the construction utility coordinator and utility companies. He has over 33 years of civil engineering design and management experience, including working in the same role with Corman on the ICC A and B projects and worked with Dennis Brown. Prakash was the Design Manager for the award-winning Wards 3 and 4 DB projects in Washington, DC, a $36M endeavor involving design/construction of 108 roadways with critical utilities and utility coordination.

Partha Sarathi, PE of Endesco, Inc., Lead Hydraulics & Hydrology Engineer has over 56 years experience in water resources, including H&H, hydrology, SWM design, E&S control, bridge hydraulics, bank/bed scour, Item 113 rating, stream relocation and restoration. He was the Drainage Design PM for many VDOT projects, including Fairfax County Parkway and Dulles Toll Road Widening, Rt. 895 (DB) in Henrico County, Neabsco Creek Bridge in Prince William County and I-81 Widening (Preliminary Designs) in Roanoke County. His comprehensive knowledge of Virginia regulations and Endesco’s working history with Corman and PTG on ICC’s A and B projects will contribute to this project’s success.

Alan Kite, PE will serve as the Lead Structural Engineer. Alan has over 34 years of structural design experience, including Lead Structural Engineer for ICC’s A and B and the Woodrow Wilson Bridge project.

3.3.2 ORGANIZATIONAL CHART-The Corman/PTG Team organizational chart illustrates our “chain of command” and notes key personnel team members. Solid lines identify the reporting relationships of our team members in managing, designing and constructing the project and illustrate clear reporting lines from the DBPM to the design and construction teams (See page 11 at the end of this section).

Functional Relationships -Integrate to Facilitate-Design-build unites the contractor and designer more than just contractually. It integrates innovative design and construction techniques that benefit schedule and cost which ultimately lead to client satisfaction. The PTG design team will interface with Corman’s DBPM, CM, Superintendent, and construction personnel throughout design and project execution. Through this, we create a firm relationship that sets the foundation to interact and partner with VDOT and Third-Party stakeholders, streamlines reviews, eliminates potential construction field issues, and delivers the project safely, as early as possible, and on budget.

Design-Build Project Manager (DBPM) Ryan Gorman, PE has full authority of design and construction for the Corman/PTG team. He will manage the project from start to finish, is VDOT’s primary point of contact, and is responsible for contract management. Ryan will coordinate, integrate and direct the DB team, including design, construction, QA, environmental compliance, safety, ROW, and utilities. He will supervise the Design, Construction, Safety, and QA Managers, provide constructability reviews, oversee the quality management program, preconstruction, design, construction and completion, and play an essential role in public outreach and third-party communication.

Quality Assurance Manager (QAM) Duncan Stewart, PE from MBP reports to the DBPM, avoids conflicts of interest with other team members, and has direct access to VDOT. He ensures work is per contract and “approved for construction” plans/specifications. He is responsible for developing and adhering to the QA/QC Plan, QA
inspection and testing of all materials used and work performed, including monitoring Corman’s QC Program. He can stop construction, enforce specification compliance, and issue/require resolution of all Non-Conformance Reports. He will manage the QA program, including QA inspector, independent QA testing firm, and testing technicians. The QA team will conduct separate and concurrent tests and analysis of the work with the construction QC team. Duncan will also maintain project quality records and approve/submit pay estimates.

**Design Manager (DM) Joshua Wade, PE** reports to the DBPM and is responsible for providing a quality product, schedule input, meeting design milestones, and interfaces with the QA/QC Design Manager. He will manage designs, including roadway, structural, hydraulic, environmental, permitting, traffic, ROW, and geotechnical and assure they are in accordance with current policies, procedures, and guidelines. He will oversee design sub-consultants, coordinate design and review schedules, develop/implement corrective measures, if needed, integrate environmental compliance measures into the design, and assign resources as needed. He will stay involved once construction begins to oversee plan modifications and review construction with the CM as work progresses. Josh will manage the permit process and fulfill all commitments included in the NEPA Document and acquisition of all water quality permits for the DB Team. On the ICC, Josh coordinated and obtained approvals for over 40 permits and/or permit modifications which were the DB Team’s responsibility.

**Construction Manager (CM) Dennis Brown**, reporting to the DBPM, will supervise/manage construction, QC, and maintain the schedule. He will be onsite full-time throughout construction and play a vital role in design development and constructability reviews. He will coordinate with the QC Manager, Project Engineers and Superintendent to ensure all materials and work are per contract and approved plans. He will coordinate plan revisions and construction reviews with the DM during construction. As **Utility Coordinator**, he will work with the Lead Utility Engineer to develop utility relocations, interface with utility representatives and coordinate with the ROW Manager to prioritize and schedule acquisitions. Dennis holds a Virginia DCR Responsible Land Disturber certification and will hold the VDOT E&S Control Contractor certification prior to commencement of construction.

**Stephen Walter, Public Relations Manager** will report to the DBPM and work with the DM and CM as the project progresses. Stephen will act as liaison between the Corman/PTG Team, third-party stakeholders, media and general public to facilitate communication regarding traffic movements throughout the interchange during construction and conversion to the reconfigured DDI. Formal progress updates will be distributed and stakeholders will be invited to monthly partnering meetings to discuss schedule and maintain close coordination. Dispersing advance warnings and training will be profound towards a flawless transition to a DDI. A proactive and effective Public Outreach Program is essential as stakeholders, such as the BP Truck Stop, Wal-Mart Distribution Center, Recycling Center, Retail Businesses and the Spring Creek Business Park rely on positive traffic flow for their businesses.

**Paul Schray, ROW Manager** of Continental Field Service reports to the DM and will lead ROW acquisition during preconstruction. Balancing preconstruction activities, such as clearing parcels, is vital to maintain the schedule. Proactively working with property owners in partnership with our design team promotes fair, equitable, and constructive negotiations.

**Jamie Hansen, QC Manager**, reporting to the CM, will manage/coordinate QC activities separate from the QA team. He will coordinate the third-party QC testing lab and testing technicians. Jamie will attend weekly two-week look-ahead meetings and keep abreast of the project schedule for accurate scheduling of inspection staff.

**Safety Manager Jason Dodge** reports to the DBPM and will oversee plans and field activities to provide VDOT, construction workers and motorists a safe environment. Jason will supply the safety training and aid in developing a job-specific safety plan to address unique hazards that enhance standard Corman policies, including subcontractor protocols. Jason has the authority to stop work.

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**STATEMENT OF QUALIFICATIONS**

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**CONSTRUCTION**
3.4 Team Experience
3.4 Corman Team Experience

The Corman/PTG Team are successful professionals experienced with similar projects and Diverging Diamond Interchange (DDI) design. PTG was the lead designer for the I-15 and Main Street Interchange in American Fork, Utah, the second DDI to open in the US and is currently designing DDI’s in North Carolina and Kentucky. An added team member is nationally-recognized DDI expert Gil Chlewicki, PE* of Wallace, Montgomery, & Associates (WM). Gil studied DDI’s long before they made their way into the US and contributed to FHWA’s do’s and don’ts of DDI engineering solutions.

Corman has a longstanding history of successfully delivering projects with roadwork, MOT, utility coordination and public outreach, including DB’s. Corman and PTG worked side-by-side for the past six years on two of the three mega DB Intercounty Connector Projects in Maryland. Each was delivered on time and on budget with many of the design and construction personnel allocated in key and supporting roles for this project.

Corman Construction will serve as the Lead Design-Build Contractor. A privately-held family business since 1920, Corman is a licensed heavy civil contractor specializing in highway, bridge, restoration, and heavy utility construction. With a corporate headquarters in Annapolis Junction, Maryland and an office near Richmond, Virginia, Corman prides itself as a “Best in Class” contractor where our “A” ratings confirm the quality in our projects. Known for unparalleled partnering, Corman delivers projects on time and on budget without lingering disputes. We hold employee and public safety to a high standard and our 0.70 EMR validates this commitment. Throughout the last few years, Corman received 18 local and national awards on four design-build projects. Other recent honors include the 2011 Maryland Washington Minority Contractors Association Prime Contractor of the Year Award, 2010 VTCA Transportation Contractor Safety Award, and 2011 ARTBA Women Leadership in Transportation Glass Hammer Award. Corman has constructed projects in Virginia for over 30 years. We consistently earn outstanding performance ratings and currently hold a CQIP of 94.2, CPE of 94.3 and C-36’s in the high 90’s.

Parsons Transportation Group (PTG) is ranked by Engineering News Record as a Top 10 Transportation Design firm nationwide. PTG maintains ISO 9001:2008 certification and brings to the team one of the largest and most experienced transportation engineering groups in the industry. In the past 10 years, PTG was the lead designer or joint venture partner on over 35 DB transportation projects. For the last 30 years, PTG prepared plans for transportation projects throughout the Commonwealth. They have had the privilege of providing professional services to many VDOT Divisions/Districts, including Culpeper and other local clients, including FHWA-Eastern Federal Lands Highway Division, Fairfax County, Prince William County, Montgomery County, and the Town of Blacksburg. Their consultant performance reviews, including 3.6 average scores on the NOVA Design On-Call task orders serve as a testament of the quality of work they deliver.

PTG is unmatched when it comes to DDI exposure. They were the lead designer for the DDI at the I-15 and Main Street Interchange in American Fork, Utah which opened back in August 2010. Featured in “Roads and Bridges” magazine, this is the second DDI up and running in the US. Fast forwarding to 2012, they are busy at work designing the DDI at I-71/I-75 and KY 338 Interchange in Kentucky and the DDI at I-26/NC 280 interchange in Asheville, NC.

Gil Chlewicki, PE* of Wallace, Montgomery, & Associates (WM) is a DDI pioneer with nearly 12 years experience in analyzing/designing DDI’s and is credited with introducing this concept in the US. He presented in a dozen states/provinces across North America and served as a global resource with his website www.divergingdiamond.com. Gil authored several DDI publications on topics, such as “How to optimally design the DDI” and “Why the DDI is likely to be the preferred signalized diamond interchange based on costs and traffic operations.”

*Licensed elsewhere; VA PE pending
Gil presented to TRB including his paper, “Operational Effects of the Diverging Diamond Interchange” (2010), which illustrated how to design the geometric and traffic features to optimize the operation and safety aspects of DDI’s. He also demonstrated how, based on cost and turning movements, DDI’s are proving to be the best signalized diamond interchange solution. As an extraordinary asset to our team, Gil will interface with the design team during design development and provide design QC for the DDI design work.

Derived from FHWA findings, design experience, and Gil’s research, the following are DDI knowledge and lessons learned:

**FHWA Findings**

- Driver confusion is not a factor in DDI’s, especially when compared to conventional interchanges. This is due to the fact that drivers do not choose the incorrect direction because of the reduced decision points, assuming that proper geometry, signing, and striping are developed.
- DDI’s, when designed correctly, are a much safer design over traditional diamond interchanges due to the reduction of conflict points from 26 to 14 spread out over greater distances.

**MoDOT I-44 / SR 13 Springfield DDI**

- This DDI reconfigured the previous traditional diamond and reduced collisions by over 50%.
- Headlight glare was found not to be a problem.
- Left turns from the ramps were kept as a yield condition and not signalized. There was no driver confusion or any other noticeable safety issues. Chlewicki’s paper “New Interchange and Intersection Designs: The Synchronized Split-Phasing Intersection and the Diverging Diamond Interchange” (2003) tested a yield-controlled left vs. a signalized left turn and found no significant difference in operations. A yield-controlled left may be a way to reduce cost without sacrificing quality in safety or operations.
- This DDI showed that splitting the right turn ramps from the interstate causes extra driver confusion resulting in u-turns throughout the area. Though improved signing and striping alleviated the issue, it is recommended to avoid this configuration.

**Utah I-15/American Fork Main Street DDI**

- Branded a huge success, as featured in the “Roads and Bridges” article, there were invaluable lessons learned. Signal head placements are significant design elements because they were not visible to drivers until the beginning of the crossover curve, giving limited time to react. This DDI also had higher design speeds for the crossover movements, i.e. larger radii which may have contributed to the signal head placement issues. The signal heads must be checked and incorporated in the geometric design of the interchange.
- This design showed that high jersey walls designed to prevent drivers from seeing opposing traffic and create safer refuge in the median sidewalk caused the following: Right turns no longer had the proper sight distance, and in the case of power outages, the through movement would also not have proper sight distance. Due to these issues, sight distance must take precedence when developing DDI’s.

Furthermore, we found that for the crossover movement, it is advisable to have a tangent section for all lanes throughout the entire intersection in every direction. The intersection angle (i.e. skewed intersection) is not as vital as long as drivers are guided with the geometry in the right direction (along with proper signing, striping, signal head placements, etc.). The biggest issue with skewed intersections is designing the turning movements. This is a non-issue in DDI’s. Bicycle accommodation can easily be provided by treating crossover movements similarly to one-way streets. Bicycle lanes would remain to the right of the right-most vehicle lane and have the added safety advantage of avoiding all left turning movements.
Work History Forms for these relevant projects are in the Appendices:

Corman Construction Projects

**DESIGN-BUILD MD 30 HAMPSTEAD BYPASS, HAMPSTEAD, MD-$43M-MDOT/SHA**
Awarded Best Value. First DB for MSHA to include structure design. 4.5 mile new two-lane bypass with four bridges and 22 design packages to advance work by obtaining MDE permits faster.

**Relevant Highlights**
- Included new roadway, roadway widening, signalization, & pavement markings.
- Stakeholders included manufacturing sites, distribution centers, retail business centers, farmers & homeowners.
- Working in a rural area. Involved stakeholders in partnering meetings for open communication on outages, access/egress modifications, MOT & detours.
- Design-Build.

**ROUTE 1 TIE-IN TO WOODROW WILSON BRIDGE URBAN DECK VA-4-$62.7M–VDOT**
Phased reconstruction and widening of ½ mile of I-495 Beltway from the Route 1 Interchange to the west abutment for the Woodrow Wilson Bridge, including an Urban Deck Bridge (Washington St.) over I-495.

**Relevant Highlights**
- Reconstructing Washington St. Interchange @ I-495
- Extensive MOT on I-495 and Washington Street. Corman planned & executed a complete shift of the I-495 by closing the beltway to one lane each direction. Work was done each weekend ahead of schedule and with minimal public impact.
- Extensive Public Outreach.
- Two DB elements: Noise Wall & MOT.
- New roadway & widening, signalization, MOT & utility relocations.
- Proposed team member Ryan Gorman, PE was the Project Manager on this project.

**DESIGN BUILD 3RD STREET OVER BUFFALO CREEK, FARMVILLE, VA- $2.9M –VDOT**
Replacement of approach roadways and structurally deficient, four-lane, seven-span concrete bridge carrying Route 15 (Third Street) over Buffalo Creek.

**Relevant Highlights**
- VDOT Design-Build.
- Included new roadway, roadway widening, pavement, marking, & MOT.
- DB Team was integral with Public Relations Outreach Program.
- Proposed team member Ryan Gorman, PE was the DBPM on this project.
- Located in a rural setting on “Route 15”, 60 miles south of Zion Crossroads. DB Team implemented a design that maintained two lanes for efficient vehicular flow rather than concept of signalized alternating one lane that enhanced our partnership with local stakeholders.
Statement of Qualifications

Parsons Transportation Group Projects

**Design-Build Intercounty Connector Contracts A & B, Montgomery County, MD – MDOT/SHA**

Over 14 miles of six-lane highway with five interchanges and 28 bridges recently opened to traffic.

- Proposed Company Team Members: Corman (JV contractor), Parsons (Lead Designer), Schnabel, & Endesco worked together on this project.
- Proposed team members: DM Joshua Wade, PE, CM Dennis Brown, Lead Structural Engineer Alan Kite, PE, Lead Utility Engineer Prakash Patel, PE, Designer Gil Chlewicki, PE*, Lighting Engineer, Azim Mohammed, PE*, & Craig A. Richardson, RLA, ASLA worked together on this project.
- Used tasks forces to guide disciplines/solve complex or critical items.

**Relevant Highlights**

- A SPUI with extensive MOT to construct in halves while maintaining full traffic section. This eliminated a temporary structure to re-route traffic.
- An integrated schedule managed the true critical path & showed full impacts of changes/delays to design or other early items.
- Phased construction optimized the schedule, controlled critical path items, & maximized innovation.

**Design-Build Utah I-15 / Main Street DDI, American Fork, Utah – $180M**

Six miles of a five-lane urban arterial on a new alignment in northern Utah County and a new DDI for I-15 and American Fork.

**Relevant Highlights**

- DDI configuration; the second one to open in the US.
- Comparable MOT.
- Design-Build.
- Proposed individual James Kramer, PE* was the Deputy Design and Highway Design Manager.

**I-71/I-75 & KY 338 DDI, Boone County, Kentucky**

Design for the reconstruction of the KY 338 Interchange into a DDI while maintaining the existing I-71/75 bridge over KY 338.

**Relevant Highlights**

- Proposed team member Dave Ayala, PE* is the PM.
- Accommodated heavy truck traffic similar to Zion Crossroads.
- Retaining the existing bridge structure.
- Comparable MOT.
- Design-Build DDI.

Licensed elsewhere; VA PE pending
Addition Corman Experience:

**Telegraph Road Interchange Improvements - $236M – VDOT** - This fast-track, Corman JV project consists of reconstructing the Telegraph Road Interchange and widening/reconstruction of approximately 2.5 miles of I-95/I-495 at the WWB. Construction is occurring in six stages with 12 traffic shifts. All six interim milestones have been achieved to date and the project is on track to finish early. Of special note: (1) In mid-2010, Corman proposed MOT revisions to improve traffic flow which eliminated four phases and reduced the amount of MOT shifts. VDOT approved the revisions which improved traveling conditions. (2) Project was to be free of utility conflicts, however, as work began, it was clear many existed. Corman proactively identified all existing utility conflicts for the entire project requiring extensive relocations. Quote from VDOT PM, Jalal Masumi in reference to a 95.3% CQIP review: “Scoring 95.3% for a project of the enormity and complexity of our VB 236 contract [the largest VDOT construction contract awarded to-date] is a truly significant positive achievement. It reflects our meeting the partnering mission statement commitments. I would like to extend my sincere appreciation to the VDOT/PCC/CKC partnership team for their steadfastness and resolve. I congratulate the team for having met the challenges in achieving this score, and thank them again. Let’s keep up the good work”.

**Frederick Douglass Bridge -$34.4M – Design-Build –DDOT** - Reconfigured South Capitol Street to establish a boulevard along the new Nationals Baseball Stadium. A key requirement was to demolish a section of the existing bridge, hydraulically lower four spans of the bridge to form a new approach, and completely reconstruct five blocks of South Capitol Street within a 62-day closure period and constituted $20M of the contract. Bridge was reopened eight days ahead of schedule, including $2M of bridge structural steel repairs added on the contract during the closure. Key to success was timely reviews of design submittals and issue resolution. Both the Corman DB Team and DDOT saw the urgency from Day One and committed champions to advance items expediently. *Project earned maximum early completion and five Engineering Excellence Awards.*

### 3.4.2 Subconsultants and/or Major Subcontractors - Selecting the “right” subconsultants and subcontractors is essential. The Corman/PTG Team selected firms for their *proven* past work history/experience and based our selection on:

- Proven Experience
- Performance Evaluations
- Proposed Personnel Technical Capabilities
- Shared Working History
- Knowledge of the Geographic Site, such as the Geo-tech Firm
- Close Proximity to the Project, such as the Testing Labs

**Wallace, Montgomery, & Associates (WM)** is a leading consulting engineering firm in Towson, Maryland. Ranked Maryland’s 16th largest engineering firm according to the *Baltimore Business Journal*, they specialize in the design and construction of highways, bridges, and traffic facilities. Founded in 1975, WM began as a small firm focused on bridge and structural engineering. After 35 years of successful growth and a dedicated staff of nearly 100 professional engineers, designers and technicians, they offer a wide range of services, including highway engineering/planning, water resources engineering, traffic engineering, structural engineering, transit engineering, pavement design, environmental analyses, stream restoration design, wetlands/forestlands delineation, noise analyses, civil design, utility engineering, professional land surveying, right-of-way plat preparation, asset management and construction management & inspection. WM enjoys a strong reputation in Civil Engineering service and understands our industry is measured by quality engineering solutions delivered on time and within budget.

**McDonough Bolyard Peck, Inc. (MBP)** is ideally-suited for the Quality Assurance role and has worked on VDOT CEI, QC and QA assignments for nearly 20 years. MBP has a thorough knowledge of VDOT construction practices, policies and procedures in every VDOT District in the Commonwealth and is recognized for their high quality through honors, such as the *VDOT Commissioner’s*
Design-Build
I-64/Route 15 (Zion Crossroads) Interchange Improvement, Louisa County, Virginia
State Project No. 0064-054-703, P101, R201 & C501
Federal Project No. JM-064-2(155). Contract ID Number: C00086453DB48

Award for Outstanding Achievement and the Construction Management Association of America’s Project Achievement awards. MBP has successfully completed quality assurance on DB projects in Virginia, has unparalleled knowledge of VDOT’s QA/QC procedures, and assisted VDOT’s Innovative Project Delivery office in developing the Minimum Requirements for QA & QC on DB & PPTA Projects, a document widely used on all VDOT DB projects today.

Endesco, founded in 1997 in Gaithersburg, MD, will serve as PTG’s subconsultant to handle the drainage engineering. Endesco is a multi-disciplinary engineering design, planning and consulting certified minority-owned DBE firm. Team members developed, designed, and managed engineering projects from conception to completion — including planning, feasibility studies, preliminary designs, environmental impact analyses, detailed engineering design, preparation of contract documents, contract negotiations, and contract administration/management. Notable PTG/Endesco projects include DB Intercounty Connector Contracts A and B.

Continental Field Service, a Division of Continental Acquisition Services, Inc. (CFS) has acted as a general consultant to government agencies in the management and conduct of ROW acquisition and relocation programs since its founding in 1966. In this capacity, the firm has developed and implemented property acquisition and relocation policies and procedures on behalf of its clients, and developed scheduling and control systems to track individual parcel activities and costs. As one of the nation’s oldest and largest ROW services firms, CFS provided services in VA, FL, SC, NC, GA, AL, PA, MA, CA, NY and TX. CFS maintains a local office in Springfield, VA managed by Paul Schray, ROW Program Manager. CFS was PTG’s subconsultant on VDOT’s Martin Luther King (MLK) Freeway Extension Public-Private Partnership (PPP) General Engineering Consultant (GEC) and FHWA’s BRAC Defense Access Road (DAR) I-95 Fort Belvoir Ramp in Fairfax County.

Precision Measurements, Inc. (PMI), a DBE and SWAM, full-service land surveying firm with four Virginia locations will provide surveying. The Richmond office, approximately 2-3 hours from the project, will supply resources. Possessing years of VDOT experience and currently working on six VDOT Annual Land Surveying Contracts, PMI is thoroughly familiar with VDOT requirements and specifications.

Schnabel Engineering, a nationally-recognized firm for over 55 years, is a premier provider of geo-tech engineering services who will provide geotechnical and geotechnical engineering and geophysical and geosciences services. Schnabel has seven branch offices throughout Virginia resulting in extensive experience with local soil and bedrock conditions. Schnabel will provide an engineering analysis and design program using field and laboratory data collected during subsurface exploration to develop cost-effective, safe designs for the project’s geotechnical elements. Schnabel supported Corman and PTG for the DB Intercounty Connector Contracts A and B projects.

RJM Engineering, Inc., a Virginia SWAM and DBE/MBE firm specializing in civil and structural design and inspection, utility coordination, and ROW identification, will serve as PTG’s subconsultant for design support. Expertise also includes civil site design, structural design, geotechnical engineering, water resources, traffic engineering and construction phase services. Notable RJM’s projects are VDOT’s I-64/I-264 Interchange Improvements Project in Virginia Beach, VA and Route 3 Widening Project in Culpeper County, VA, and DB MD 237 Project, St. Mary’s County, MD.
3.5 Project Risks
3.5 PROJECT RISKS

Critical Risk #1: Design Concerns/MOT/Construction Phasing

This project is unprecedented as it is the first DDI in Virginia. Presently, there are 11 DDIs that grace America’s roads, but this unique design and traffic configuration is uncharted for many, including engineers, contractors, truck drivers, and the general public. Since this will be Virginia’s first, the success of each stage rides on every detail, such as design, MOT, and construction phasing.

If designs are not developed correctly, then MOT runs the risk of being a confusing, unsafe tangle for the heavy truck traffic generated by local retail, construction and the Wal-Mart Distribution Center. They can stir problems within construction phasing and cause delays and additional designs. Budget, schedule and safety, from those using the facility to those building it, will feel the weight of these impacts.

The first step is to assemble a design team well versed in DDIs who can apply previous lessons learned here. The Corman/PTG Team includes savvy designers thoroughly familiar with DDIs. James Kramer, PE* was the Design Manager for the Utah I-15 / Main Street DDI, Dave Ayala, PE* is the Project Manager for the I-71 / I-75 & KY 338 DDI, and Gil Chlewicki, PE* introduced this concept to the US and is a notable TRB speaker on DDI analyses, investigations and conclusions. All have a “DDI niche” and are an added value strategically placed to set the Corman/PTG Team apart from the competition.

The second step is to take their experience and lessons learned, (detailed in Section 3.4 and the project data sheets), and incorporate them into our designs. To accomplish this, we will conduct over the shoulder reviews with VDOT, third-party coordination for plan acceptance and constructability and environmental reviews.

A very important part of the plan set for this project will be the MOT and TMP plans. Developing MOT and TMP Plans in Virginia takes finesse, experience and certified professionals. Our design staff is made up of Certified Traffic Control Design Specialists by VDOT and the American Traffic Safety Services Association (ATSSA), including Lead Roadway Engineer Bob Reed and Lead MOT Engineer Laura Wilton. Collectively, they encompass over 60 years of design experience and have prepared MOT Plans and TMPs for VDOT and these Type C projects (Significant Projects – Project Management Category V): Route 27/244 (Washington Blvd and Columbia Pike) and I-95 FBNA Ramp.

Bob and Laura are also finishing up Route 7/15 and Sycolin Road TMP and MOT Plans and the TMP for the Sycolin Road Bridge Overpass at Route 7/15.

VDOT’s Role: To help set the tone for a partnering environment which gets the project off and running, provide input, review and approve our MOT Plan and TMP and any activity constraints during design. Immediately notify us of any changes to project requirements, provisions to accommodate community, or third party needs so we can incorporate into our plans. Also provide information and discuss potential issues/impacts VDOT feels can be mitigated prior to construction.

Critical Risk #2: Public Outreach/Retail Access

As mentioned in Critical Risk #1, this is Virginia’s first DDI, therefore, project success rests on stakeholder buy in. If the public perceives it as a disjointed, perplexing, bad decision, then the project is the target of negative publicity and public rejection, even when designed and constructed soundly. Adding to this risk, motorists and EMS personnel unfamiliar with this new DDI configuration, construction phasing or MOT can cause safety hazards for the public and those constructing the improvements.

*Licensed elsewhere; VA PE pending
**Project Impacts**

Project impacts may include a deluge of negative press, public rejection, lack of stakeholder and third-party participation/coordination, and unsafe work zones.

**Mitigation**

Our proposed mitigation includes pulling together a team thoroughly experienced in DDI MOT and public involvement in Virginia. The Corman/PTG Team has designers who developed MOT associated with DDI’s as discussed in Critical Risk #1. The team also has PTG’s Stephen Walter who is an established public involvement leader for complex VDOT projects.

A successful project also takes a proactive Public Outreach program consisting of:

- A project website and 800 number to update the public on progress, next steps, and MOT
- Mail and hand out informational flyers
- Community meetings with stakeholders, including trucking supervisors to discuss MOT and final configuration concerns, as well as the general public to educate them on the design/construction phasing
- Educational videos on the project website and/or at meetings to demonstrate DDI configuration and progress
- VMS boards to inform motorists of upcoming changes in traffic patterns
- Press releases announcing conditions and progress
- Local TV and/or radio ads
- Social media sites to reach additional stakeholders and offer feedback

Meetings will also be held with EMS personnel, the local fire marshal, and the local chamber of commerce.

**VDOT’s Role**: Assist in determining which tools to reach the broadest cross section of impacted stakeholders, assist/review in developing materials, and assist in coordinating with stakeholders.

**Critical Risk #3: Right of Way**

There are several real estate parcels that may need to be obtained to construct the project. Some are permanent acquisitions for construction or easements while others are temporary for construction. Both are deemed critical to project success. The greatest potential ROW risk lies with changing real property values in the market area. The ROW agent will use appraisals based on market prices of equivalent sales not influenced by the project; a challenge proven difficult. Changing land values as a result of knowledge of the proposed project will likely set the stage for property owners refusing presented offers or responding with unreasonable counteroffers. If negotiations fail, then eminent domain by VDOT prevails. Historically, this generates negative public and media perception, compromising the Department’s integrity and the project’s objectives.

Keeping the project on schedule and budget has its own set of challenges. It is imperative that all state and federal laws, rules and regulations be followed during the ROW acquisition and relocation program. Noncompliance, such as presenting a landowner with a non-bona fide offer, can result in a new offer being made, which could delay clearing the parcel for construction.

**Project Impacts**

Obtaining additional ROW can be difficult and time consuming which can impact the schedule.
Mitigation

As a responsible design-builder, minimize ROW acquisitions and the area required to build the project. This can be attained thorough design and constructability reviews during design. During constructability reviews, areas slated as permanent acquisitions may instead become temporary construction easements. Minimizing real estate acquisitions reduces VDOT’s cost and maximizes the schedule allowing more time for construction. To mitigate schedule and cost impacts, we must review the preliminary design to reduce and/or eliminate impacts. This can be accomplished by coordinated efforts between VDOT, designers, constructors, a ROW acquisition firm, environmental compliance manager, property owners and other stakeholders. Corman and Parsons worked together on the Intercounty Connector Contract A in acquiring additional ROW through a cost-saving alternative concept to reduce project and maintenance costs. We worked closely with Maryland DOT to obtain a critical piece of real estate that eliminated bridge structures and retaining walls. We also worked with environmental agencies and developed the ROW plats.

On Intercounty Connector Contract B, Corman and Parsons again successfully collaborated to obtain temporary construction easements to erect the precast girders. We developed the drawings, completed the surveys, and coordinated with the property owner and environmental agencies. After construction, the area was returned to the owner and restored. Other easements were cleared environmentally and rights of entry negotiated for utility relocations.

The ROW contracting consultant will work with the design team to develop ROW strategies to minimize property owner conflicts and move the project forward. One approach employed on similar VDOT agreements is to define risks associated with variables in land values and place a value on that risk that VDOT and the design builder agree to early on. However, in setting such precedence, it is imperative to not compromise fairness and consistency and that timing of the settlement when concessions must be considered does not jeopardize negotiations not yet finalized. For those unavoidable acquisitions, we will assist VDOT with ROW as described in the *VDOT Right of Way Manual* and per applicable state and federal laws and regulations. Our VDOT prequalified ROW contracting consultant, Paul Schray of Continental Field Service, has the experience and know how to complete these complex acquisitions.

**VDOT’s Role:** We encourage VDOT to partner with the Corman/PTG Team in coordinating with utility owners and any potentially impacted property owners early on and often. VDOT’s assistance in developing, reviewing and approving plans will also be of the utmost importance.
Offerors shall furnish a copy of this Statement of Qualifications (SOQ) Checklist, with the page references added, with the Statement of Qualifications.

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<td>NA</td>
<td>Section 3.2.4</td>
<td>yes</td>
<td>1-2</td>
</tr>
<tr>
<td>Debarment forms</td>
<td>Attachment 3.2.5(a) Attachment 3.2.5(b)</td>
<td>Section 3.2.5</td>
<td>no</td>
<td>Appendices</td>
</tr>
<tr>
<td>Offeror’s VDOT prequalification evidence</td>
<td>NA</td>
<td>Section 3.2.6</td>
<td>no</td>
<td>Appendices</td>
</tr>
<tr>
<td>Evidence of obtaining bonding</td>
<td>NA</td>
<td>Section 3.2.7</td>
<td>yes</td>
<td>5</td>
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</table>

**Professional Services Evidence**

| Full size copies of SCC and DPOR registration | NA | Section 3.2.8 | no | Appendices |
# ATTACHMENT 3.1.2

0064-054-703, P101, R201 & C501

**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

<table>
<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
<th>RFQ Cross reference</th>
<th>Included within 20-page limit?</th>
<th>SOQ Page Reference</th>
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<td>documentation (appendix)</td>
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<td>SCC Registration</td>
<td>NA</td>
<td>Section 3.2.8.1</td>
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<td>DPOR Registration (Offices)</td>
<td>NA</td>
<td>Section 3.2.8.2</td>
<td>yes</td>
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<td>DPOR Registration (Key Personnel)</td>
<td>NA</td>
<td>Section 3.2.8.3</td>
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<tr>
<td>DPOR Registration (Non-APELSCIDLA)</td>
<td>NA</td>
<td>Section 3.2.8.4</td>
<td>yes</td>
<td>N/A</td>
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**DBE statement within Letter of Submittal** confirming Offeror is committed to achieving the required DBE goal

<table>
<thead>
<tr>
<th>Form (if any)</th>
<th>RFQ Cross reference</th>
<th>Included within 20-page limit?</th>
<th>SOQ Page Reference</th>
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<tr>
<td>NA</td>
<td>Section 3.2.9</td>
<td>yes</td>
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</table>

**Offeror’s Team Structure**

| Identity of and qualifications of Key Personnel | NA | Section 3.3.1 | yes | 6-8 |
| Key Personnel Resume – DB Project Manager      | Attachment 3.3.1 | Section 3.3.1.1 | no | Appendices |
| Key Personnel Resume – Quality Assurance Manager | Attachment 3.3.1 | Section 3.3.1.2 | no | Appendices |
| Key Personnel Resume – Design Manager          | Attachment 3.3.1 | Section 3.3.1.3 | no | Appendices |
| Key Personnel Resume – Construction Manager    | Attachment 3.3.1 | Section 3.3.1.4 | no | Appendices |
| Key Personnel Resume – Public Relations Manager| Attachment 3.3.1 | Section 3.3.1.5 | no | Appendices |
| Organizational chart                           | NA | Section 3.3.2  | yes | 11  |
| Organizational chart narrative                 | NA | Section 3.3.2  | yes | 9-10 |

**Experience of Offeror’s Team**

<p>| | | | |</p>
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<thead>
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<th></th>
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<td>Statement of Qualifications Component</td>
<td>Form (if any)</td>
<td>RFQ Cross reference</td>
<td>Included within 20-page limit?</td>
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<tr>
<td>----------------------------------------------------</td>
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<td>---------------------</td>
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</tr>
<tr>
<td>Lead Contractor Work History Form</td>
<td>Attachment 3.4.1(a)</td>
<td>Section 3.4</td>
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<tr>
<td>Lead Designer Work History Form</td>
<td>Attachment 3.4.1(b)</td>
<td>Section 3.4</td>
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<td><strong>Project Risk</strong></td>
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<td>Identify and discuss three critical risks for the Project</td>
<td>NA</td>
<td>Section 3.5.1</td>
<td>yes</td>
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</table>
ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO. C00086453DB48
PROJECT NO.: 0064-054-703, P101, R201 & C301

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 12/06/11
   (Date)

2. Cover letter of RFQ Questions & Answers 1/17/12
   (Date)

3. Cover letter of New SOQ Checklist
   (Date)

[Signature] 2/3/12
DATE
CERTIFICATE OF QUALIFICATION

Corman Construction, Inc.

Vendor Number: C097

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

Work Classes: Grading, Major Structures, Minor Structures, Underground Utilities

Issue Date: March 31, 2011     This Rating and Classification will Expire: March 31, 2012

Suzanne FR Lucas, Prequalification Officer

Don E. Stiles, State Construction Contract Officer
Certification Regarding Debarment
Primary Covered Transactions
ATTACHMENT NO. 3.2.5(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0064-054-703, P101, R201 & C501

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]  1-16-2012 [Date] [Title]

Corman Construction, Inc.

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

Project No.: 0064-054-703, P101, R201 & C501

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] 1-16-2012 [Title]

CG Enterprises, Inc.

Name of Firm
Certification Regarding Debarment
Lower Tier Covered Transactions
ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-054-703, P101, R201 & C501

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: ____________________________ Date: February 3, 2012
Vice President: _______________________
Title: ________________________________

Parsons Transportation Group Inc. of Virginia
Name of Firm
ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-054-703, P101, R201 & C501

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]
Date 1/16/12

Partner
Title

Wallace, Montgomery & Associates, LLP

Name of Firm
ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-054-703, P101, R201 & C501

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2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this 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] 1/19/2012  Senior Vice President/Regional Manager
Signature  Date  Title

MBP

Name of Firm
ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-054-703, P101, R201 & C501

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2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this 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 24, 2012  President
Date  Title

Endesco, Inc.
Name of Firm
ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-054-703, P101, R201 & C501

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2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this 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]  Jan. 25, 2012  Right of Way Program
Signature  Date  Manager

[Signature]  Jan. 25, 2012  Title

Continental Acquisition Services, Inc., dba Continental Field Service
Name of Firm
ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-054-703, P101, R201 & C501

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2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this 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] 1/19/12 [President]
[Date] [Title]

Precision Measurements, Inc.
Name of Firm
ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-054-703, P101, R201 & C501

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 Offerer for contracts to be let by the Commonwealth Transportation Board.

[Signature] January 19, 2012 [Principal]
[Signature] [Date] [Title]

Schnabel Engineering Consultants, Inc.
Name of Firm
ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-054-703, P101, R201 & C501

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: 
Date: 1/24/2012
Title: Branch Manager

Sime Inc.
Name of Firm
ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-054-703, P101, R201 & C501

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2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this 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 19, 2012  Principal
[Signature] Date  Title

RJM Engineering, Inc.
Name of Firm
CISMO180

CORPORATE DATA INQUIRY

01/13/12
11:29:06

CORP ID: F046798 - 7 STATUS: 00 ACTIVE STATUS DATE: 01/06/06

CORP NAME: CORMAN CONSTRUCTION, INC.

DATE OF CERTIFICATE: 11/02/1984 PERIOD OF DURATION: 10 YEARS INDUSTRY CODE: 00

STATE OF INCORPORATION: DE DELAWARE STOCK INDICATOR: S STOCK

MERGER IND: CONVERSION/DOMESTICATION IND:

GOOD STANDING IND: Y MONITOR INDICATOR:

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

R/A NAME: CT CORPORATION SYSTEM

STREET: 4701 COX RD STE 301 AR RTN MAIL:

CITY: GLEN ALLEN STATE: VA ZIP: 23060 6802

R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 01/05/04 LOC: 143

ACCEPTED AR#: 211 19 1728 DATE: 11/14/11 HENRICO COUNTY

CURRENT AR#: 211 19 1728 DATE: 11/14/11 STATUS: A ASSESSMENT INDICATOR: 0

YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES

11 100.00

(Screen Id:/Corp_Data_Inquiry)
CISM0180  CORPORATE DATA INQUIRY

CORP ID: 0162617 - 5  STATUS: 00 ACTIVE  STATUS DATE: 02/04/04
CORP NAME: PARSONS TRANSPORTATION GROUP INC. OF VIRGINIA

DATE OF CERTIFICATE: 11/07/1975 PERIOD OF DURATION: INDUSTRY CODE: 70
STATE OF INCORPORATION: VA VIRGINIA  STOCK INDICATOR: S STOCK
MERGER IND: CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y  MONITOR INDICATOR:
CHARTER FEE:  MONNO: MON STATUS: MONITOR DTE:
R/A NAME: CT CORPORATION SYSTEM
STREET: 4701 COX RD STE 301
CITY: GLEN ALLEN  STATE: VA ZIP: 23060 6802
R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 01/05/04 LOC: 143
ACCEPTED AR#: 211 52 7052 DATE: 11/08/11  HENRICO COUNTY
CURRENT AR#: 211 52 7052 DATE: 11/08/11 STATUS: A ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
11 100.00

(Screen Id:/Corp_Data_Inquiry)
Commonwealth of Virginia

STATE CORPORATION COMMISSION

Richmond, October 13, 2010

This is to Certify that the statement of registration of

Wallace, Montgomery & Associates, LLP

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

State Corporation Commission
Attest: 

[Signature]
Clerk of the Commission
NATIONAL REGISTERED AGENTS INC
201 N UNION ST STE 140
ALEXANDRIA, VA 22314

RECEIPT

RE: Wallace, Montgomery & Associates, LLP

ID: K000734 - 6
DCN: 10-10-08-0501

Dear Customer:

This is your receipt for $100.00 to cover the fees for filing a statement of registration as a registered limited liability partnership with this office.

The effective date of the statement is October 13, 2010.

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

Sincerely,

Joel H. Peck
Clerk of the Commission

GPACCEPCT
CIS0436
COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

UPA-138
(07/10)

STATEMENT OF REGISTRATION AS A FOREIGN
REGISTERED LIMITED LIABILITY PARTNERSHIP

The undersigned, on behalf of the foreign partnership or limited partnership set forth below, pursuant to Title 50, Chapter 2.2, Article 9.1 of the Code of Virginia, states as follows:

MARK ONE: This statement of registration is for □ a partnership OR □ a limited partnership.

1. The name of the foreign registered limited liability partnership ("applicant") that hereby applies for status as a foreign registered limited liability partnership is (include, if required, any "for use in Virginia" name in parentheses)

Wallace, Montgomery & Associates, LLP

2. A. The jurisdiction in which the applicant is registered as a limited liability partnership and the laws of which govern the agreement pursuant to which it was formed is ____________________________ (state or other jurisdiction)

B. The applicant’s SCC ID number (if one has been previously issued) is ____________

C. (Mark if applicable:) □ The applicant was previously authorized or registered to transact business in Virginia as a foreign business entity. (See instructions.) Set forth the additional required information on an attachment.

3. The principal office address, including the street and number, if any, of the applicant is

110 West Road, Suite 300 Towson MD 21204

(number/street) (city or town) (state) (zip)

4. A. The name of the applicant’s Virginia registered agent is

National Registered Agents, Inc.

B. The registered agent is (mark appropriate box):

(1) an INDIVIDUAL who is a resident of Virginia and

☐ a general partner of the applicant.

☐ an officer or director of a corporate general partner of the applicant.

☐ a general partner of a general or limited partnership that is a general partner of the applicant.

☐ a member or manager of a limited liability company that is a general partner of the applicant.

☐ a trustee of a trust that is a general partner of the applicant.

☐ a member of the Virginia State Bar.

OR

(2) ☑ a domestic or foreign stock or nonstock corporation, limited liability company, or registered limited liability partnership authorized to transact business in Virginia.

5. The VIRGINIA registered office address, including the street and number, if any, which is the business office of the registered agent, is

201 N. Union Street, Suite 140 Alexandria VA 22314

(number/street) (city or town) (state) (zip)

which is physically located in the ☐ county or ☑ city of ____________________________.

Signatures of at least two partners of a partnership or one or more authorized general partners of a limited partnership:

[Signature]

Frank S. Weesche III Partner 9/10/2010

(printed name) (title) (date)

[Signature]

Stuart B. Taub Partner 9/10/10

(printed name) (title) (date)

PRIVACY ADVISORY: Information such as social security number, date of birth, maiden name, or financial institution account numbers is NOT required to be included in business entity documents filed with the Office of the Clerk of the Commission. Any information provided on these documents is subject to public viewing.

SEE INSTRUCTIONS ON THE REVERSE
CISM0180  CORPORATE DATA INQUIRY

01/19/12  17:15:25

CORP ID: 0351800 - 8  STATUS: 00 ACTIVE  STATUS DATE: 02/05/09

CORP NAME: MCDONOUGH BOLYARD PECK, INC.

DATE OF CERTIFICATE: 12/29/1989  PERIOD OF DURATION:  INDUSTRY CODE: 00
STATE OF INCORPORATION: VA VIRGINIA  STOCK INDICATOR: S STOCK
MERGER IND:  CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y  MONITOR INDICATOR:
CHARTER FEE: 500.00  MON NO:  MON STATUS:  MONITOR DTE:  
R/A NAME: REES BROOME, PC

STREET: 8133 LEESBURG PIKE, NINTH FLOOR  AR RTN MAIL:

CITY: VIENNA  STATE: VA  ZIP: 22182 1911
R/A STATUS: 4  ATTORNEY  EFF. DATE: 10/26/10  LOC: 129
ACCEPTED AR#: 211 19 7162  DATE: 11/29/11  FAIRFAX COUNTY
CURRENT AR#: 211 19 7162  DATE: 11/29/11  STATUS: A
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
11 1,570.00  

(Screen Id:/Corp_Data_Inquiry)

https://cisiweb.scc.virginia.gov/z_container.aspx  1/19/2012
Please note: The SCC website will be unavailable Thursday, January 19, from 6:00 until p.m. for system maintenance.
We apologize for the inconvenience and appreciate your patience.

CORPORATE DATA INQUIRY

CORP ID: F133736 - 1  STATUS: 00  ACTIVE  STATUS DATE: 05/07/98
CORP NAME: ENDESCO, INC.
DATE OF CERTIFICATE: 05/07/1998  PERIOD OF DURATION:  INDUSTRY CODE: 00
STATE OF INCORPORATION: MD MARYLAND  STOCK INDICATOR: S STOCK
MERGER IND:  CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y  MONITOR INDICATOR:
CHARTER FEE: 200.00  MON NO:
R/A NAME: CORPORATION SERVICE COMPANY
STREET: Bank of America Center, 16th Floor  AR RTN MAIL:
1111 East Main Street  
CITY: RICHMOND  STATE: VA  ZIP: 23219
R/A STATUS: 5  B.E. AUTH IN VI  EFF. DATE: 04/29/11  LOC: 216
ACCEPTED AR#: 211 09 0574  DATE: 04/29/11  RICHMOND CITY
CURRENT AR#: 211 09 0574  DATE: 04/29/11  STATUS: A  ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
11 670.00

(Screen id:/Corp_Data_Inquiry)
CISM0180

CORPORATE DATA INQUIRY

01/27/12
16:43:11

CORP ID: F167489 - 6 STATUS: 00 ACTIVE STATUS DATE: 09/09/11
CORP NAME: Continental Acquisition Services, Inc.

DATE OF CERTIFICATE: 07/14/2006 PERIOD OF DURATION: INDUSTRY CODE: 00
STATE OF INCORPORATION: NY NEW YORK STOCK INDICATOR: S STOCK
MERGER IND: CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:
R/A NAME: NATIONAL REGISTERED AGENTS INC

STREET: 4001 North Ninth Street, Suite 227 AR RTN MAIL:

CITY: ARLINGTON STATE: VA ZIP: 22203
R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 12/30/10 LOC : 106
ACCEPTED AR#: 211 52 0895 DATE: 09/09/11 ARLINGTON COUNT
CURRENT AR#: 211 52 0895 DATE: 09/09/11 STATUS: A ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
11 100.00 10.00

(Screen Id:/Corp_Data_Inquiry)

CISM0180

CORPORATE DATA INQUIRY

01/20/12
09:21:35

CORP ID: 0450436 - 1 STATUS: 00 ACTIVE STATUS DATE: 07/24/95
CORP NAME: PRECISION MEASUREMENTS, INC.

DATE OF CERTIFICATE: 07/24/1995 PERIOD OF DURATION: INDUSTRY CODE: 00
STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK
MERGER IND: CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:
R/A NAME: DOUGLAS W DAVIS

STREET: WYNNGATE BUSINESS PARK AR RTN MAIL:
516 BAYLOR CT
CITY: CHESAPEAKE STATE: VA ZIP: 23320
R/A STATUS: A ATTORNEY EFF. DATE: 06/04/02 LOC: 236
ACCEPTED AR#: 211 11 3653 DATE: 06/13/11 CHESAPEAKE CITY
CURRENT AR#: 211 11 3653 DATE: 06/13/11 STATUS: A ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
11 100.00

(Screen Id:/Corp_Data_Inquiry)
Please note: The SCC website will be unavailable Thursday, January 19, from 6:00 p.m. for system maintenance. We apologize for the inconvenience and appreciate your patience.

Commonwealth of Virginia
State Corporation Commission

CISM0180
CORPORATE DATA INQUIRY

CORP ID: 0712674 - 1 STATUS: 00 ACTIVE STATUS DATE: 08/12/09
CORP NAME: Schnabel Engineering Consultants, Inc.

DATE OF CERTIFICATE: 08/12/2009 PERIOD OF DURATION: INDUSTRY CODE: 00
STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK
MERGER IND: CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:
R/A NAME: CT CORPORATION SYSTEM

STREET: 4701 COX RD STE 301 AR RTN MAIL:

CITY: GLEN ALLEN STATE: VA ZIP: 23060 6802
R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 06/16/11 LOC: 143
ACCEPTED AR#: 211 12 3663 DATE: 06/29/11 HENRICO COUNTY
CURRENT AR#: 211 12 3663 DATE: 06/29/11 STATUS: A ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
11 130.00

(Screen Id:/Corp_Data_Inquiry)

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

1/19/2012
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Commonwealth of Virginia

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

NUMBER
0407005814

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

PROFESSIONS: ENG

WALLACE, MONTGOMERY & ASSOCIATES, LLP
110 WEST RD
STE 300
TOWSON, MD 21204

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

COMMONWEALTH OF VIRGINIA

BOARD FOR APELSCI.DLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407005814 EXPIRES: 12-31-2013
PROFESSIONS: ENG
WALLACE, MONTGOMERY & ASSOCIATES, LLP
110 WEST RD
STE 300
TOWSON, MD 21204

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

PROFESSIONS: ENG

MCDONOUGH BOLYARD PECK INC
3040 WILLIAMS DR., STE 300
FAIRFAX, VA 22031

NUMBER 0407002955

DERRICK T. DIAZ, DIRECTOR

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COMMONWEALTH OF VIRGINIA
BOARD FOR APESCOILDA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407002955 EXPIRES: 12-31-2013
PROFESSIONS: ENG
MCDONOUGH BOLYARD PECK INC
3040 WILLIAMS DR., STE 300
FAIRFAX, VA 22031

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

PROFESSIONS: ENG

ENESCO, INC.
438 N FREDERICK AVE
SUITE 455
GAITHERSBURG, MD 20877

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: LS

PRECISION MEASUREMENTS INC
1047 TECHNOLOGY PARK DRIVE
GLEN ALLEN, VA 23059

Gordon N. Dixon, Director
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

S&ME INC.
8211 HERMITAGE RD
RICHMOND, VA 23228

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(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 REGISTRATION

PROFESSIONS: ENG

RJM ENGINEERING INC
6021 UNIVERSITY BLVD
SUITE 530
ELLIOTT CREST, MD 21043

EXPIRES ON
12-31-2013

NUMBER
0407005491

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Attachment 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>a. Name &amp; Title: Ryan Gorman, PE: Business Development Manager/Sr. Estimator</td>
</tr>
<tr>
<td>b. Project Assignment: Design-Build Project Manager</td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated: Cormac Construction, Inc.</td>
</tr>
<tr>
<td>d. Years experience: With this Firm 15 Years With Other Firms 1 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>Business Development Manager and Sr. Estimator .................. Cormac Construction 2012-Present</td>
</tr>
<tr>
<td>Recently promoted where he is leading Cormac South's Estimating, Marketing and Design-Build Departments.</td>
</tr>
<tr>
<td>Operations Manager .................................. Cormac Construction 2009-Present</td>
</tr>
<tr>
<td>Oversaw the Cormac South office where he provided personnel supervision, assisted in evaluating current/proposed systems, policies and procedures, determined labor requirements, outlined project plans, inspected/reviewed projects for safety and quality compliance and ensured projects are completed on time.</td>
</tr>
<tr>
<td>Superintendent/Project Engineer/Project Manager/Sr. Project Manager Cormac Construction 1996-2009</td>
</tr>
<tr>
<td>Initially performed as Superintendent, then moved up to Project Engineer, Project Manager and Sr. Project Manager assigned to various bridge, road widening and combined sewer overflow projects for clients, including VDOT, City of Richmond, and Henrico County.</td>
</tr>
<tr>
<td>Professional Association ............... Virginia Transportation Construction Alliance (VTCA)</td>
</tr>
<tr>
<td>Ryan is currently serving as Chairman of the Contractual Administration Subcommittee to the Contractor Leadership Committee.</td>
</tr>
<tr>
<td>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</td>
</tr>
<tr>
<td>Virginia Tech/2001/Transportation Construction Management Institute</td>
</tr>
<tr>
<td>Clarkson University/BS/1995/Civil Engineering</td>
</tr>
<tr>
<td>f. Active Registration: Year First Registered/ Discipline/VA Registration #:</td>
</tr>
<tr>
<td>2002/Virginia Professional Engineer/#033522</td>
</tr>
<tr>
<td>2006/VDOT Erosion &amp; Sediment Control Contractor Certification/#3121C</td>
</tr>
<tr>
<td>g. Document the extent and depth of experience and qualifications relevant to the Project.</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>Project Name: Design-Build Multiple Culvert Rehabilitation, Richmond, Fredericksburg &amp; Northern Virginia</td>
</tr>
<tr>
<td>Name of Firm: Cormac Construction, Inc.</td>
</tr>
<tr>
<td>Start Date: March 2009 End Date: 2010</td>
</tr>
<tr>
<td>Project Role/Responsibilities: As Design-Build Project Manager on this $3.1M project that consisted of drainage culvert replacement/rehabilitation at nine locations in various districts throughout Virginia, Ryan oversaw design/construction, and managed the Design, Construction, and QA Managers. Ryan developed/reviewed designs, QC and QA plans and oversaw selection and contractual terms with the QC and QA testing firms. He was responsible for the financial, schedule and production outcomes. He worked daily with the construction team and Construction Manager overseeing scheduling, quality, management contract administration and coordination of labor, equipment, and subcontractors.</td>
</tr>
<tr>
<td>Owner: Virginia Dept. of Transportation</td>
</tr>
<tr>
<td>Project Name: Design-Build Farmville 3rd Street Over Buffalo Creek, Farmville, VA</td>
</tr>
<tr>
<td>Name of Firm: Corman Construction, Inc.</td>
</tr>
<tr>
<td>Start Date: Feb. 2007 End Date: Aug. 2008</td>
</tr>
<tr>
<td>Project Role/Responsibilities: As Design-Build Manager, Ryan performed daily scheduling, quality management, contract administration, and coordination of labor, equipment and subcontractors for on-time, on-budget project delivery. He oversaw design, construction, quality management and contract administration. He assisted with procurement, developed the QC Plan with designer, strategically supervised implementation, and managed the Design, Construction, and QA Managers. Project was the $2.9M design/construction of a new bridge and approach work on Rt. 460/15 (Third St.). The design eliminated the need for causeways, trestles, or creek crossings. Although it was required to maintain one lane of traffic via temporary signalization, Corman implemented a design that maintained two lanes for efficient vehicular flow. Project was completed on time and under budget.</td>
</tr>
<tr>
<td>Owner: Virginia Dept. of Transportation</td>
</tr>
</tbody>
</table>

| Project Name: Route 1 Tie-In to Woodrow Wilson Bridge Urban Deck VA-4, Alexandria, VA  |
| Name of Firm: Corman Construction, Inc.  |
| Start Date: Jan. 2003 End Date: 2006  |
| Project Role/Responsibilities: As Project Manager, Ryan managed engineers, superintendents, and subcontractors for on time/under budget completion. Responsibilities included short/long-range scheduling, purchasing, cost control, safety management, QC oversight, resource management, and troubleshooting for this $62.7 million two-phased demolition/construction and widening ½ mile of I-95 Beltway project, including approx. one mile cast-in-place cantilever concrete retaining walls to support excavation for the widened beltway and extensive maintenance of traffic. Ryan also managed design completion and review (formwork, access platforms, support of excavation, utility support systems, temporary bridges, sound walls, value engineering proposals, and erection drawings) and ensured timely and accurate completion of office and project engineering requirements, as well as technical supervision of field operations. Ryan was awarded the VDOT Commissioner's Award for Outstanding Achievement for his contributions.  |
| Owner: Virginia Dept. of Transportation  |

| Project Name: Woolridge Road Widening, Chesterfield, VA  |
| Name of Firm: Corman Construction, Inc.  |
| Start Date: March 2009 End Date: June 2010  |
| Project Role/Responsibilities: As Sr. Project Manager, Ryan provided oversight of Project Management team, scheduling, quality and subcontractor management, and contract administration. He coordinated all labor and equipment for on-time/on-budget project delivery for this $7.4M project that widened the causeway carrying Woolridge over the Swift Creek Reservoir to four lanes with a raised median, curb and gutter. Constructed in four phases, traffic was detoured for causeway and bridge construction while maintaining heavy traffic.  |
| Owner: Chesterfield County  |

| Project Name: River Road Reconstruction, Hopewell, VA  |
| Name of Firm: Corman Construction, Inc.  |
| Start Date: 2006 End Date: Oct. 2007  |
| Project Role/Responsibilities: As Sr. Project Manager, Ryan, provided oversight of Project Management team, scheduling, quality and subcontractor management, and contract administration. He coordinated all labor and equipment for on-time/on-budget delivery for this $5.5M project consisting of reconstruction/widening two-lane roadway, grading, storm drain, curb and gutter, asphalt paving, landscaping, retaining walls, striping, and a new pre-cast arch bridge. Construction was performed while maintaining two lanes of traffic. Project was and successfully completed on schedule and within budget.  |
| Owner: Virginia Dept. of Transportation  |
## Key Personnel Resume Form

### Brief Resume of Key Personnel Anticipated for the Project.

<table>
<thead>
<tr>
<th>Name &amp; Title</th>
<th>Duncan K. Stewart, PE, Branch Operations Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Assignment</td>
<td>Quality Assurance Manager</td>
</tr>
</tbody>
</table>

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

**d. Years experience:** With this Firm 13 Years With Other Firms 2 Years

Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked.):

- Engineer, Senior Engineer, Project Manager, Branch Operations Manager...MBP 1999-Present
- Mr. Stewart has more than 14 years of hands-on construction experience providing project controls, critical path method (CPM) scheduling, resident engineering, training, claims analysis, and program and project management. He has provided these services for several transportation, airport, K-12 school, commercial, municipal, federal, and military projects.

**e. Education:**

- Name & Location of Institution/Degree(s)/Year/Specialization: Royal Military College of Canada, Ontario, BE/1997/Civil Engineering

**f. Active Registration:** Year First Registered/Discipline/VA Registration #:

- 2002/Professional Engineer (PE)/036991

**g. Document the extent and depth of your 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.)

**Project Name:** Airport Connector Road

<table>
<thead>
<tr>
<th>Name of Firm</th>
<th>MBP</th>
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</thead>
<tbody>
<tr>
<td>Start Date</td>
<td>2008</td>
</tr>
<tr>
<td>End Date</td>
<td>2011</td>
</tr>
</tbody>
</table>

Project Role/Responsibilities: As Quality Assurance Manager, oversaw quality assurance processes for structures, roadways, and bridges on the project. Also, researched, identified and implemented solutions to construction problems, while managing a staff of several inspectors and technicians.

Owner: VDOT

**Project Name:** Richmond District-Wide

<table>
<thead>
<tr>
<th>Name of Firm</th>
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</thead>
<tbody>
<tr>
<td>Start Date</td>
<td>2006</td>
</tr>
<tr>
<td>End Date</td>
<td>2008</td>
</tr>
</tbody>
</table>

Project Role/Responsibilities: As Project Manager, provided quality assurance, inspection, project controls, claims support and administrative management for multiple procurement and construction phase contracts in the Richmond District.

Owner: VDOT

**Project Name:** VDOT Finals Region 2

<table>
<thead>
<tr>
<th>Name of Firm</th>
<th>MBP</th>
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<tbody>
<tr>
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<td>2008</td>
</tr>
<tr>
<td>End Date</td>
<td>ongoing</td>
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</tbody>
</table>

Project Role/Responsibilities: As Project Manager, provided quality assurance and auditing on approximately $200 million of completed VDOT project records for compliance and independent oversight. Overall responsibility for completing all tasks on-time and to the degree of quality management, reporting and as-built documents.

Owner: VDOT
**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>: Joshua Wade, P.E., Project Manager / Design Director</td>
</tr>
<tr>
<td><strong>b. Project Assignment</strong>: Design Manager</td>
</tr>
<tr>
<td><strong>c. Name of Firm with which you are now associated</strong>: Parsons Transportation Group Inc.</td>
</tr>
</tbody>
</table>
| **d. Years experience**
  | With this Firm: 17 Years
  | With Other Firms: 9 Years
  | Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked): |
  | **Project Manager / Design Director………..Parsons Transportation Group Inc.** 1994-Present |
| **e. Education**
  | Name & Location of Institution/Degree(s)/Year/Specialization:
  | Bachelor of Science, Civil Engineering, University of Maryland-College Park, 1993
  | Master of Business Administration, Business Administration, University of Maryland University College (UMUC), 2009 |
| **f. Active Registration**
  | Year First Registered/Discipline/VA Registration #:
  | Professional Engineer VA: 1999 / Civil / 0402 032924 |
| **g. Document the extent and depth of your experience and qualifications relevant to the Project.**
  | 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.)

**Project Name**: Intercounty Connector, Contract B, Montgomery County, MD

**Name of Firm**: Parsons Transportation Group, Inc.

**Start Date**: 2008  
**End Date**: Present

**Project Role/Responsibilities**: Design Manager

As the design manager, Joshua is responsible for the design efforts of the large design-build project. The project consists of approximately 7.0 miles of new, controlled access, six-lane, tolled roadway, and two interchanges: ICC/MD 182 and ICC/MD 650. Construction of Contract B is in some of the most sensitive environmental areas along the complete ICC alignment. The work also includes mainline, ramps, cross roads, and pavement design; utility relocations; bridges; retaining walls; noise walls; earth berms; drainage facilities; landscaping; signing, signals, lighting and pavement markings; tolling infrastructure; maintenance of traffic; ITS devices; public relations support; and environmental compliance.

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

At the peak of the project Josh was managing over 100 engineers onsite from Parsons and the many sub consultants including dozens working remotely. The success of such a complex project also relied on the use of several tools and lessons learned including:

- **Discipline and/or challenge specific task forces** – Where representatives from each group (client, third parties, design disciplines, construction and environmental) would come together on a weekly basis to work through issues on the project in an open respectful atmosphere.

- **Electronic document and file control along with Projectwise for design file management** – These tools allowed for the full management of all documentation and design development throughout the project and eliminated waste and errors caused by emailing or sending files in other methods. This not only eliminated errors by allowing the "checking out" and instant availability of design changes it eliminated any lost time spent sending CD's or record sets through the mail.
Interdisciplinary, constructability and Environment Reviews – Early and frequent reviews of the challenges and designs by each of the engineering disciplines, construction staff and environmental personnel drastically reduced the number of field changes and issues encountered in the field later in the project. These reviews, along with the reviews of the client and third parties, helped to foresee problems, and improve the overall designs. Electronic file control including the use of Projectwise assisted greatly with these reviews.

Phased Construction – The use of phased construction is one of the largest benefits of the Design Build process. This allows the DB team to get construction teams rolling sooner (as opposed to developing full plan sets prior to starting construction) and allows for adjustments to be made a conditions in the field are more fully realized. It also allows for a greater ability to handle critical path elements by allowing the contractor to work around long lead items or to innovate on means or methods reducing costs or improving schedule times.

Integrated schedule – An integrated schedule helps to show the impact on delays or changes to design or other elements of the project. Changes to the design schedule immediately show the impact to the construction schedule and can be used to determine staffing needs well in advance. The integrated schedule also allows you to see what the critical path is for the overall schedule (not just construction) and allows the DB team to maximize their planning efforts saving time and money.

---

Owner: Maryland State Highway Administration

Project Name: FHWA Eastern Federal Lands Services On-Call, Northern Region
Name of Firm: Parsons Transportation Group, Inc.
Start Date: Sept. 2007 End Date: Dec. 2007

Project Role/Responsibilities: Program Manager
The assignments include roadway and bridge designs, environmental studies, traffic engineering and transportation planning, hydraulics and hydrology, value engineering/value analyses, geotechnical investigations, and surveying and mapping. Joshua’s responsibilities included the overall program management, as well as individual project management for several tasks.

---

Owner: Federal Highway Administration

Project Name: US Route 58 Design, Patrick, Floyd, and Carroll Counties, VA
Name of Firm: Parsons Transportation Group, Inc.
Start Date: Dec. 1997 End Date: June 2006

Project Role/Responsibilities: Project Engineer
Joshua as project engineer developed construction plans for this nearly six-mile, limited-access section of Route 58, including design of alignment, grading, drainage, SWM, erosion, and sediment control plans. Work was coordinated with FHWA that provided design plans for the proposed new bridge for the Blue Ridge Parkway over Route 58.

---

Owner: Virginia Dept. of Transportation

Project Name: Union Station Bicycle Transit Center, Washington, D.C.
Name of Firm: Parsons Transportation Group, Inc.
Start Date: Aug. 2005 End Date: Aug. 2008

Project Role/Responsibilities: Project Manager
The bike station project, the first of its kind on the East Coast, consisted of the planning, design and CM of a 1700-square-foot structure meant to house 150 bicycles and add to the multimodal options at the historic Union Station. Joshua provided overall project management, including oversight of roadway, structural, systems, architecture, and CM. This included coordination with National Park Service, Architect of the Capitol, Amtrak, WMATA, and USRC. The project received the 2010 ACEC (American Council of Engineering Companies) National Engineering Excellence Honor Award. As stated by U.S. Secretary of Transportation Ray LaHood on his weekly blog: “This is a smart investment in truly multi-modal commuting. It is attractive; it is green; it provides what bicycling commuters need. And it is a model of the sustainable, livable mobility this nation needs now.”

Owner: District of Columbia Dept. of Transportation
# KEY PERSONNEL RESUME FORM

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

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
<th>Robert &quot;Dennis&quot; Brown - Project Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment:</td>
<td>Construction Manager</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>c. Name of Firm with which you are now associated:</th>
<th>Corman Construction, Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>d. Years experience: With this Firm</td>
<td>2005-Present</td>
</tr>
<tr>
<td>Years With Other Firms</td>
<td>15 years</td>
</tr>
</tbody>
</table>

Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked):

**Project/Construction Manager**

Dennis held Project Manager, Construction Manager, Construction Manager/Structures and Deputy Construction Manager positions on four major DB and DBB bridge/roadway projects with an aggregate contract value exceeding $700M. With a diversified background in critical survey layout, forming and pouring structural concrete, working on “confined” projects, and demolition involving hazardous materials, Dennis continually demonstrates construction management skills in planning/executing complex highway/bridge work, project schedule adherence, crew/equipment resources, and subcontractor/supplier coordination.

**Assistant Superintendent to Superintendent**

Dennis oversaw construction on commercial and residential buildings where he monitored subcontractors’ work/manpower and scheduled work and subcontractors to maximize production while maintaining cost and safety. Dennis was also a Safety Officer where he conducted weekly foreman safety meetings involving conflicts and resolutions.

**Head/Assistant Surveyor/QA/QC Engineer**

Dennis was assigned to the $95 Million Creve Coeur Memorial Park Bridge project where he surveyed for the construction of two five-lane, double box girder, cast-in-place, segmental bridges – layout, QA of formwork, and geometry control using FinleyMcNary CIP Software; provided Engineering Dept. and Superintendent support; provided concrete scheduling/coordination, and QA/QC for superstructure; and monitored project progress and quality evaluation.

**Quality Control Technician**

Dennis was assigned to the $275 Million Design-Build Olmsted Lock & Dam project where he ensured QA/QC for concrete formwork, concrete, backfill, water testing, welding and safety. Project included batching and pouring 700,000 CY of concrete and placing 61,000,000 lbs of rebar.

**Technician Trainee/Project Coordinator**

Dennis was an Engineering Technician Trainee for road surveys and Project Coordinator for a community park upgrade for the layout and construction of a one-acre park with walkways, bridge overpass, cabin and parking facilities. Also, layout of a five-mile, two-lane highway relocation, including cross sectioning and slope staking.

| e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: |
|------------------------------------------------|--------------------------|
| Southern Illinois University - Carbondale, IL | 1994-1997/Education Major |
| Shawnee Community College - Ullin, IL | 1994/Science |

| f. Active Registration: Year First Registered/Discipline/VA Registration #: |
|------------------------------------------------|--------------------------|
| 2011/DCR Virginia Erosion & Sediment Control Responsible Land Disturber/#36926 |

Dennis will hold the VDOT Erosion & Sediment Control Contractor Certification prior to the commencement of construction.

| g. Document the extent and depth of your 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.)

**Project Name:** Design-Build Intercounty Connector Contract A, Montgomery County, MD

**Name of Firm:** Corman Construction, Inc.

<table>
<thead>
<tr>
<th>Start Date:</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>End Date:</td>
<td>July 2010</td>
</tr>
</tbody>
</table>

**Project Role/Responsibilities:** As Construction Manager / Structures of this $478M project consisting of 7.2
miles "state of the art" controlled-access tri-lane divided highway, including 18 steel girder or precast concrete girder bridges and bridge widenings highlighted by a 625' deck-over structure, a "Signature" Arch Bridge spanning Rock Creek and a "Gateway" Bridge at the MD 97 Interchange. Dennis provided Design-Build coordination for structures to ensure utility relocations, roadway construction, drainage systems and maintenance of traffic complement overall construction. Regarding structures, he participated in all task force meetings, was integral with design development and provided constructability reviews. He oversaw bridge, culvert and sound wall construction (18 bridges, eight culverts) on this highly environmentally-sensitive project and collaborated hourly with the Project Construction Manager. Dennis managed five field engineers and worked with 20 production crews, five superintendents and subcontractors. He was instrumental in all phases of construction management, including preparing formal work plans; constructability reviews of design drawings; review/coordination of shop drawings; maintaining construction schedule; crew/equipment resources; construction quality control; major materials procurement; and as-built confirmation of conformance with project requirements. Project was completed on time, on budget and won three awards, including ENR Northeast Region Best Project of Year Award for 2011.

Owner: Maryland Dept. of Transportation/State Highway Administration

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Design-Build I-70 Phase 2D, Frederick, MD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Firm</td>
<td>Corman Construction, Inc.</td>
</tr>
<tr>
<td>Start Date/End Date</td>
<td>July 2010/Sept. 2010</td>
</tr>
<tr>
<td>Project Role/Responsibilities</td>
<td>As Construction Manager of this $35.4M project, Dennis procured subcontractors/materials, chaired the initial utility coordination meeting, and formulated the budget and schedule. Project includes widening approx. one mile of I-70, ramp realignments/replacements, adjusting the vertical profile(s) of mainline I-70 and ramps, replacement of the two I-70 bridges, and new intersection traffic signals.</td>
</tr>
</tbody>
</table>

Owner: Maryland Dept. of Transportation

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Woodrow Wilson Bridge VA Approach Spans VAC, Alexandria, VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Firm</td>
<td>Corman Construction, Inc.</td>
</tr>
<tr>
<td>Start Date/End Date</td>
<td>Aug. 2005/Aug. 2007</td>
</tr>
<tr>
<td>Project Role/Responsibilities</td>
<td>As Deputy Construction Manager of this $126.8M project consisting of two-phase segmental bridge construction, placement of two CIP concrete bridge decks, demolition/removal of a six-lane structure and foundation construction of inner loop bridges, Dennis managed bridge demolition and superstructure construction and was instrumental in planning/executing complex structural erection operations. He worked effectively with the structures team to plan/schedule massive on-site precast operations and was the liaison between contractor and local municipal/emergency/enforcement agencies. Project was completed on time and within budget.</td>
</tr>
</tbody>
</table>

Owner: Maryland Dept. of Transportation

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Route 1 Tie In to Woodrow Wilson Bridge Urban Deck, Alexandria, VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Firm</td>
<td>Corman Construction, Inc.</td>
</tr>
<tr>
<td>Start Date/End Date</td>
<td>April 2005/August 2005</td>
</tr>
<tr>
<td>Project Role/Responsibilities</td>
<td>As Deputy Construction Manager of this $62.7 million two-phased demolition/construction and widening ½ mile of I-495 Beltway project, including approx. one mile cast-in-place cantilever concrete retaining walls to support excavation for the widened beltway and extensive maintenance of traffic. Dennis oversaw major bridge construction, scheduling, and subcontractor coordination. He supervised project engineers and shared field crew supervision with the superintendent. Dennis worked with the project team in coordinating complex MOT schemes on and around I-495, Route 1 and Washington Street. He received VDOT’s Commissioner’s Award for Outstanding Achievement for his contributions.</td>
</tr>
</tbody>
</table>

Owner: Virginia Dept. of Transportation
**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> Stephen C. Walter</td>
</tr>
<tr>
<td><strong>b. Project Assignment:</strong> Public Relations Manager</td>
</tr>
<tr>
<td><strong>c. Name of Firm with which you are now associated:</strong> Parsons Transportation Group, Inc.</td>
</tr>
</tbody>
</table>
| **d. Years experience:** With this Firm 34 Years With Other Firms 1 Years  
Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked.): |
| Project Manager....................................Parsons Transportation Group Inc. 1977-Present |
| **e. Education:** Name & Location of Institution/Degree(s)/Year/Specialization:  
Master of Science, Environmental Science, University of New Haven, 1985  
Bachelor of Science, Environmental Conservation, Virginia Polytechnic Institute & State University (VA TECH), 1976 |
| **f. Active Registration:** Year First Registered/Discipline/VA Registration #:  
Certified Parsons Project Manager; Parsons, 2006 |
| **g. Document the extent and depth of your 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.) |
| Project Name:  
I-495 Capital Beltway Study; Fairfax County, VA |
| **Name of Firm:** Parsons Transportation Group Inc. |
| **Start Date:** Jan. 1995  
**End Date:** July 2006 |
| **Project Role/Responsibilities:** Stephen served as Project Manager for the Environmental Impact Statement (EIS) for the 14-mile section of improvements from Springfield Interchange to the American Legion Bridge. Improvements include widening the Beltway mainline to include two additional managed lanes (HOV and / or HOT) in each direction and upgrading of ten interchanges. Public information tools used during the course of the studies included a project website, newsletters, information kiosks and hotline. Stephen also served as project spokesman for a wide variety of meetings ranging from simple “driveway meetings” with affected neighborhoods, to Fairfax County officials and Supervisor meetings, to formal Citizen Information Meetings and Public Hearings. He provided extensive coordination with regional transportation agencies including WMATA, MWAA, Fairfax County DOT and Maryland State Highway Administration. |
| **Owner:** Virginia Dept. of Transportation |
| **Project Name:** I-95/I-395/I-495 Interchange Improvements; Springfield, VA |
| **Name of Firm:** Parsons Transportation Group Inc. |
| **Start Date:** Oct. 1994  
**End Date:** Dec. 2002 |
| **Project Role/Responsibilities:** Project Manager  
Stephen was responsible for preparing the environmental documents for the redesign of the largest interchange in Northern Virginia / Metro DC area. He managed the multi-disciplined teams that conducted the Location Study / Environmental Assessment and the public involvement/relations program. The FHWA’s Finding of No Significant Impact for this project is largely attributed to the successful public involvement/relations program and extensive agency coordination effort undertaken during the NEPA study. Local coordination efforts involved County Supervisors from the Lee and Springfield Districts as well as a Citizen Information Group comprised of local residents. Stephen assisted project engineers during the subsequent phases to ensure that all environmental requirements and “public commitments” were satisfied during design and construction. |
<p>| <strong>Owner:</strong> Virginia Dept. of Transportation |</p>
<table>
<thead>
<tr>
<th>Project Name:</th>
<th>Theodore Roosevelt Bridge Improvements, Arlington, VA - Washington, DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Firm:</td>
<td>Parsons Transportation Group Inc.</td>
</tr>
<tr>
<td>Start Date:</td>
<td>Jan. 1999</td>
</tr>
<tr>
<td>End Date:</td>
<td>June 2007</td>
</tr>
<tr>
<td>Project Role/Responsibilities:</td>
<td>Project Manager</td>
</tr>
<tr>
<td>Stephen was responsible for the preparation of an Environmental Assessment (EA) and associated Toll Feasibility Study for the proposed widening of the 6-lane bridge carrying I-66 across the Potomac River. Alternatives included new lanes to carry additional general purpose lanes, dedicated busways and toll-only lanes. Extensive coordination with the project’s multijurisdictional coordination committee, as well as with a large number of stakeholders from the general public, was conducted.</td>
<td></td>
</tr>
<tr>
<td>Owner:</td>
<td>District of Columbia Dept. of Transportation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Name:</th>
<th>Western Transportation Corridor Study; Northern VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Firm:</td>
<td>Parsons Transportation Group Inc.</td>
</tr>
<tr>
<td>Start Date:</td>
<td>Nov. 2000</td>
</tr>
<tr>
<td>End Date:</td>
<td>Dec. 2001</td>
</tr>
<tr>
<td>Project Role/Responsibilities:</td>
<td>Project Manager</td>
</tr>
<tr>
<td>Stephen was responsible for the development and evaluation of preliminary alternatives for a new 50-mile, multi-modal transportation corridor between I-95 and Route 7 in Northern Virginia. Project includes: an extensive 1,400-square mile study area, containing numerous environmental, social and cultural constraints; Advisory Committee of local elected officials, and; an extensive public involvement/relations program.</td>
<td></td>
</tr>
<tr>
<td>Owner:</td>
<td>Virginia Dept. of Transportation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Name:</th>
<th>Union Pacific/Southern Pacific Merger Environmental Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Firm:</td>
<td>Parsons Transportation Group Inc.</td>
</tr>
<tr>
<td>Start Date:</td>
<td>Jan. 1996</td>
</tr>
<tr>
<td>End Date:</td>
<td>June 1998</td>
</tr>
<tr>
<td>Project Role/Responsibilities:</td>
<td>Stephen served as Project Manager for NEPA compliance and agency coordination involving 25 states, public outreach activities, technical assessment of impacts, and development of mitigation measures for impacts resulting from rail abandonments and improvements to rail lines, yards and intermodal facility operations. The programmatic and site specific NEPA documents needed for the second largest rail merger in US history were completed in 7 months. Upon completion of the NEPA phase, performed mitigation studies, which included grade separations, track, and crossing improvements, which allowed changes in train operations and other measures (such as quiet zones) that would mitigate specific impacts. The study included extensive public involvement/relations and was under intense political scrutiny. The mitigation actions developed were successfully applied by STB as further conditions of the merger approval.</td>
</tr>
<tr>
<td>Owner:</td>
<td>Surface Transportation Board</td>
</tr>
</tbody>
</table>
DPOR’s for Key Personnel Practicing or Offering to Practice Professional Services in Virginia

Duncan Stewart, PE
Quality Assurance Manager

Joshua Wade, PE
Design Manager
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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

DUNCAN KENNETH STEWART
11001 CORRYVILLE RD
RICHMOND, VA 23236

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

EXPRES ON
01-31-2013

NUMBER
0402032924

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

JOSHUA SHEPPARD WADE
43346 RIVERPOINT DRIVE
LEESBURG, VA 20176

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

Gordon N. Dixon, Director

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

POCKET CARD

COMMONWEALTH OF VIRGINIA
BOARD FOR APESCIOLA
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402032924 EXPIRES: 01-31-2013

JOSHUA SHEPPARD WADE
43346 RIVERPOINT DRIVE
LEESBURG, VA 20176

ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OTHER THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.
Attachment 3.4.1(a)

Lead Contractor
Work History Forms

CORMAN
CONSTRUCTION
<table>
<thead>
<tr>
<th>Work by Lead Contractor - three (3) projects which best illustrates current qualifications relevant to this Project:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Project Name &amp; Location</td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>(1) Design-Build MD 30 Hampstead Bypass</td>
</tr>
</tbody>
</table>

**Project Narrative:** 4.5 miles of two-lane asphalt road constructed to return the Town of Hampstead to its residents by allowing commuter and commercial traffic to bypass the town center and mitigate gripping rush-hour congestion.

There were numerous stream/wetland crossings and four bridges spanning them, three roundabouts, new storm drainage, extensive stormwater management facilities, water/west relocations, eight cross culverts, approx. 900,000 CY cut-to-fill, including 236,000 CY of rock excavation, signing, pavement markings, traffic signals, ROW acquisition, two major traffic tie-in, and BGE, Verizon and Adelphia utility relocations. Milled/resurfaced tie-in connections at the north and south termini points. Highway lighting was installed at the roundabouts and maintained traffic at the north and south tie points and at each roadway crossing. One noise wall is adjacent to the Singer Heights community and the other is adjacent to the Westwood Community totaling 3,500 LF.

Approximately 1,040’ of temporary road was constructed as a detour to maintain traffic while bridge and approach roadway was constructed on an existing alignment. Worked with adjacent residents to maintain access, reset fences, and rebuild driveways. Temporary fencing protected students from the construction zone as a middle and high school was in close proximity.

An Alternative Technical Concept shifted an alignment of a road to avoid a costly detour road. This involved a permanent shift of the centerline of Houcksville Road, approx. 40’ of its current location at the station where it was proposed to bridge over the bypass. Conceptual plans proposed constructing a detour road approx. 150’ east of the proposed bridge to maintain traffic on the detour road while the bridge and approach road was constructed on the existing Houcksville Road alignment. The temporary detour road introduced sharp 30 mph design speed curves on a straight section of Houcksville Road. The permanent relocation of Houcksville Road as proposed by our team required 1,425’ of permanent road thereby saving 390’ of road construction. Permanently shifting Houcksville Road expedited construction and benefitted local homeowners by shifting the final road location away from their homes. It also lowered the profile over the bypass, improved the adjacent grading and driveway profiles over what was proposed in the conceptual plans, eliminated the substandard 30 mph detour road on a currently straight section of Houcksville Road and reduced relocation work required for Baltimore Gas & Electric (BGE) lines.

**Lead Designer:** WBCM

**Corman Role:** As general contractor, Corman was responsible for construction and managing design partner, WBCM. Corman performed 100% (49% of contact was subcontracted).

Partnering was successful during the entire project, including special requests from local owners and farmers. The Design-Build team worked with the owner in public outreach keeping the local community informed of schedules and impacts. Corman maintained an “800” line for public contact was subcontracted). Corman and designer included innovations such as:

- **Eliminated noise barrier and replaced with earth berm which reduced production of concrete wall and transportation to the project site.**
- **Initiated pulling in the LOD to minimize disturbances and avoid unnecessary clearing.**
- **Design/construction of SWM weir walls for less maintenance, reduce seepage and erosion compared to risers and barrels, and provide long-term sustainability.**
- **Used grass channels to provide water quality benefits and shut-off valves in ponds in the influence of the Bog Turtle Habitat.**
- **Purchased hydro-seeders for daily stabilization of disturbed areas.**

**Awards:**

- **2010 DBIA National and Mid-Atlantic Region Design-Build Excellence Awards for a Transportation Project Under $50M**
- **2010 ARTBA “Globe” Environmental Award - Local & Secondary Roads - $10-$100M**
- **2010 MDQI Awards of Excellence for Environmental, Green Transportation & Consultant Highway Design**
- **2010 ACEC/Maryland – Honor Award**

**Lessons Learned:**

- Owner preferences delayed design approvals. Our team presented concerns to MSHA which resulted in instructing reviewers that RFP requirements were the guidelines for approvals. There was a delay and the owner granted additional time. MSHA carried this forward to other DB projects.
- A plan was designed by a sub-consultant approved by the owner, and work constructed, when a sight distance problem was detected. After further investigation, the design was at fault. A re-design was required and the road reconstructed. Corman added resources to mitigate a schedule delay. Lesson learned was to employ more stringent design QC.
- Assumptions were made at bid to use a con-span as a bridge structure. Scour calculations would not prove out and the design was changed to a conventional bridge. Lesson learned is contingencies at bid need to be discussed for probability and cost risks.

**Verifiable Evidence of Good Performance:** Project was awarded on best value and set a precedent as the first Maryland SHA Design-Build to include a bridge design by the Design-Build Partner. All Erosion & Sediment incentives were earned with a final average score of 97.9%. We collected the maximum incentives available; additional incentives were earned for environmental design mitigation (preserving additional wetlands and minimizing clearing and grubbing). Project maintained “A” ratings in environmental, MOT, and contractor performance. One regulator noted that this project with its total commitment to erosion & sediment control may have saved the bog turtle habitat for the State of Maryland.
and eight on Washington Street.

were crucial and included shifting traffic four times on the production piles during a sheet pile operation. Major MOT efforts residents and utilized vibration
meetings were held at GEC offices to discuss work plans and with VDOT’s GEC. Daily coordination occurred onsite and weekly utility companies which were handled by Corman in conjunction Project required extensive coordination with local residents and saving nine months of construction time so construction could begin on the next stage sooner, Connector to the Woodrow Wilson Bridge by shifting the capital construction by constructing an
A new storm drainage system in the footprint of the Beltway and along environmental Quality
Regarding the Beltway Shift, Nick Nicholson, Project Manager, Woodrow Wilson Bridge commented, “The outcome was surprisingly better than expected. The shift was completed ahead of schedule and without incident-and with no significant traffic delays.”

Corman Role: General contractor responsible for all aspects of construction. Corman initiated an innovation solution to advance construction by constructing an “award winning” Virginia Advance Connector to the Woodrow Wilson Bridge by shifting the capital beltway traffic so construction could begin on the next stage sooner, saving nine months of construction time.

Project required extensive coordination with local residents and utility companies which were handled by Corman in conjunction with VDOT’s GEC. Daily coordination occurred onsite and weekly meetings were held at GEC offices to discuss work plans and public information. Corman and VDOT partnered to relocate several residents and utilized vibration-less sheet pile pre-augered production piles during a sheet pile operation. Major MOT efforts were crucial and included shifting traffic four times on the Beltway and eight on Washington Street.

### Project Narrative:
Two phased demolition/construction and widening ½ mile of I-495 Beltway. Constructed new roadways with pavement markings, signing, cantilever and overhead sign structures, and a new intersection traffic signal. Approximately one mile cast-in-place cantilever concrete retaining walls were constructed to support the 140,000 CY excavation for the widened beltway and extensive MOT. Utility relocations included water mains, sewer lines, storm drains, CCTV, lighting and electrical facilities. Sewer upgrades included ½ mile of 42” and 300’ of 30” micro-tunnel. A portion of the project was design build and Corman worked with the designer (JMT) to design and build a temporary low-density cementitious fill ramp bridge and with the sound wall producer to design and build the noise walls. There was also one-mile Washington Street reconstruction and the new South Washington Street Urban Deck Bridge over I-495, with its distinctive hour glass design and build the noise walls.

A new storm drainage system in the footprint of the Beltway and along Washington Street was also installed. Virginia Dept. of Environmental Quality erosion & sediment control measures were implemented, including silt fence, super silt fence, earth dams, construction entrances and hydro-seeding.

Working in a heavily-traveled area among other Woodrow Wilson Bridge projects resulted in proactive daily communication and formal weekly corridor-wide MOT coordination meetings. Both Saint Mary’s and the Civil War Era Freedmen’s Cemeteries, deemed historical, were in close proximity to the Urban Deck’s northern quadrant, northwest retaining wall and southeast trail construction. To minimize impact, strict environmental constraints were in place and vibration, sound and air-quality monitoring devices were installed.

Verifiable Evidence of Good Performance: The project had eight milestones which were successfully met and $1.5M in incentives were earned and included successful acceleration. Project finished with a 0.24 Lost Time Incident Rating and a 1.96 Recordable Incident Rating with a second best record among the Woodrow Wilson Bridge projects respectively. Corman also maintained a 99.29% C-36 rating for our efforts. Regarding the Beltway Shift, Nick Nicholson, Project Manager, Woodrow Wilson Bridge commented, “The outcome was surprisingly better than expected. The shift was completed ahead of schedule and without incident-and with no significant traffic delays.”

### Awards
- **2008 VDOT Commitment to Excellence Award for Environmental Compliance Distinction**
- **2006 VDOT Commissioner’s Award for Outstanding Achievement for the “Beltway Shift” –Innovation & Quality Improvement**

### Lessons Learned
- The original plan was to install 5-26’ dia. jack plates and 5 to 6’ receiving pits averaging 30’ deep using liner plates and ribs, but due to poor ground conditions, circular sheeting shaft was more cost-effective. Since the ground was close to sea level, pits were well below the water table requiring extensive dewatering and sealing so crews could continue working. A reinforced slab in saturated soils was constructed as a work platform at the bottom of each pit for the micro-tunneling subcontractor.
- Sheet pile driving with vibratory hammers was problematic for adjacent apartment buildings as the plaster and lath ceiling began collapsing even with vibrations at specified levels. Collectively, VDOT and Corman devised a solution by using a vibrationless method for excavation support.
### 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>(3) Design-Build 3rd Street Over Buffalo Creek Town of Farmville, Virginia</td>
<td>See Below.</td>
<td>Virginia Dept. of Transportation 4219 Campbell Avenue Lynchburg, VA 24501 Terry Meadows 434-856-8317 –Telephone Terry.Meadows@VDOT. virginia.gov</td>
<td>8/30/08</td>
<td>8/12/08</td>
<td>$2,972</td>
</tr>
</tbody>
</table>

#### Project Narrative

Design/construction of a new bridge and approach work to replace the structurally deficient, four-lane, seven span concrete bridge carrying Route 15 (Town of Farmville –Third Street) over Buffalo Creek.

The Corman DB Team succeeded in designing and constructing this project with minimal impacts to Buffalo Creek. The design concept lengthened the structure in an environmentally-sensitive manner to improve hydraulic capacity while minimizing approach roadwork by maintaining the vertical alignment. This eliminated the need for significant approach work, causeways, trestles, or creek crossings.

Although it was required to maintain one lane of traffic via temporary signalization, Corman implemented a design that maintained two lanes for efficient traffic flow. This enhanced our partnership with the local fire department, who was our immediate neighbor, and motorists.

The new bridge and its floodplain is a low maintenance, four-lane, three-span integral structure with weathering steel girders constructed in two phases to maintain traffic with a third phase to install a 5’ sidewalk on the north side. The superstructure has seven steel plate girders supporting a concrete deck/riding surface. The supporting piers are solid wall-type piers founded on steel H-piles driven to refusal rock. The abutments are fully integral supported on H-piles that have their weak axis perpendicular to the longitudinal axis of the bridge.

Proposed DBPM Ryan Gorman, PE was the DBPM for this project.

---

#### Verifiable Evidence of Good Performance

Project had no lost-time accidents and was completed on time and under budget.

#### Lessons Learned

At the time this project was built, VDOT’s design-build program was still in its infancy stages and the first for the Lynchburg District. Since VDOT had not yet published nor specified design-build QC and QA guidelines, we conducted QA and QC the same way as in a bid-build job. This meant 100% QA testing, inspection and management for the life of the project, a far cry from the 100% QC and 10% QA requirements you see today. The QC portion of our plan primarily consisted of management procedures to ensure the job was constructed correctly.

QA was outsourced to our Lead Design Firm JMT, who in turn hired former VDOT employees from other districts as the QAM and inspection staff. Since each district conducts business differently and design-build was new to everyone, this proved problematic. Corman became proactive, worked with VDOT and JMT to replace the QAM, and opened lines of communication to ensure a quality product. After re-educating our staff about QC and QA and clearly defining their responsibilities, things started falling into place and a quality project was delivered to VDOT on time and under budget.

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#### Corman Role: General contractor involved in all aspects of construction.

Corman provided efficient and timely permit application data and sketches and facilitated/coordinated with utility owners/Town of Farmville for utility relocations. We partnered with project stakeholders, including the local community, VDOT, utility owners, and environmental agencies for timely flow of information, including progress and any changes in traffic patterns to project partners and the public.

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Corman Role: General contractor involved in all aspects of construction. Corman developed a Quality Control/Quality Assurance Plan with Lead Designer JMT and strategically supervised its implementation to accommodate the Minimum Quality Control and Quality Assurance Requirements for Design-Build and Public-Private Transportation Act Projects.

Corman provided efficient and timely permit application data and sketches and facilitated/coordinated with utility owners/Town of Farmville for utility relocations. We partnered with project stakeholders, including the local community, VDOT, utility owners, and environmental agencies for timely flow of information, including progress and any changes in traffic patterns to project partners and the public.
Attachment 3.4.1(b)

Lead Designer
Work History Forms

PARSONS
| Work by Lead Contractor - 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. Include address and current phone number. | d. Contract Completion Date (Original) | e. Contract Completion Date (Actual or Estimated) | f. Original Contract Value | f. Final or Estimated Contract Value | f. Dollar Value of Work for Which Firm Was/Is Responsible |

**Project Narrative:**

**Contract A:**
- The 7.2-mile project consisted of the first segment of the 18-mile toll road that connects Montgomery and Prince George’s counties in Maryland. Parsons, as part of a design JV, widened six lanes, designed three new interchanges, and designed 18 bridges. A key feature of the JV’s design was the innovative reconfiguration of the Metro Access interchange, which was approved pre-bid as an alternative technical concept (ATC). Other notable features include a 611-foot-long deck-over structure where the ICC crosses under the residential community of Olde Mill Run. The deck-over was landscaped with soil and plantings, mitigating the highway’s presence in the community. There were 85 utility relocations required in order to build the project. Agreements between the owner and utility companies that were executed pre-bid greatly facilitated utility design and effectively took the utility work off the critical path.

**Contract B:**
- The 6.9-mile project consisted of a six-lane, controlled-access toll road, including a diamond interchange, a single-point interchange, and 10 new bridges. Other project features included traffic signals, signing and pavement marking, stream restoration, more than 80 acres of reforestation, miles of hiker and biker trails along the roadway, and relocation of six side roads.

The project also included extensive ITS and ETC components. The ITS elements included integration with the existing administration’s Authority Operations Center (AOC) and Coordinated Highways Action Response Team (CHART) program. These elements also consisted of closed-circuit television (CCTV), dynamic message signs (DMS), highway advisory radio (HAR), road weather information system (RWIS), fiber-optic communications, telephone communications, electrical services, and other improvements to provide a fully functioning ITS.

This portion of the toll road is through a sensitive environmental area of the county and crosses through two important watersheds. The project requirements called for numerous environmental protections, mitigations, and construction methods. As the lead designer, Parsons designed and met these stringent environmental requirements and developed several innovative designs to minimize impacts to the surrounding environment. What resulted from the work of more than 150 designers is a successful and environmentally friendly roadway project that was designed under challenging conditions, within a condensed schedule.

**Lead Contractor:** Contract A: Granite, Corman and Wagman | Contract B: Kleiwit, Corman and Wagman

**Verifiable Evidence of Good Performance:**

**Contract A:**
- Most of Parsons' design team was co-located in a hub office with the owner and contractor. The very aggressive 18-month design schedule was achieved by mobilizing up to 110 engineers and support staff. Additionally, approximately 500 design submittals were made during the design phase, and each was audited by design quality control staff for compliance with the established procedures. The end result was 100% compliance with contract requirements.

**Contract B:**
- Through its experience gained with Contract A, Parsons garnered a comprehensive understanding of the communities, businesses, and the traveling public that were impacted along the ICC corridor. To alleviate public concern, Parsons and the entire design-build team prepared a work plan that included a well defined approach to the public outreach and community relations. Parsons’ proactive public involvement approach ensured streamlined communication with the affected public early and often.

**Innovations**

- Reconfiguring an interchange from a fully directional arrangement to a trumpet-style configuration, eliminating four major bridges, reducing environmental impacts, simplifying MOT, and reducing required embankment
- Including five miles of sound walls and berms, reducing the visual and noise impacts from the ICC.

**Lessons Learned**

- Efficient and early interdisciplinary, constructability and environmental reviews of the designs drastically reduced the number of field changes and field issues.
- Phased construction allowed construction to start sooner and for necessary adjustments in the field to be implemented faster. It also resulted in greater ability to handle critical path elements by enabling the contractor to work around long lead items or to innovate on means or methods, reducing costs or improving schedule times.
- An integrated schedule helped show the impact on delays or changes to design or other elements of the project.

**Parsons’ Role:** Parsons served as lead designer for the first two major segments – Contracts A and B – of the Intercounty Connector (ICC). Both were performed on an accelerated schedule through a Design-Build delivery process.

**Contract A:** Parsons was responsible for the overall design of this toll road, including mainline, ramps and crosstown roads, utility relocations, bridges, retaining walls, noise walls, earth berms, drainage facilities, landscaping, signing, signals, lighting, pavement markings, tolling infrastructure, maintenance of traffic (MOT), intelligent transportation devices, public relations support, and environmental compliance.

**Contract B:** Parsons was responsible for the overall design of this toll road, including intelligent transportation systems (ITS), electronic toll collection (ETC), traffic signals, signing and pavement marking, more than 80 acres of reforestation, miles of hiker and biker trails, and the relocation of six side roads.
The project featured major elements of work, including:

- Major elements of construction; and geometric design and traffic analysis.
- Promoting revegetation within construction limits.
- Designing and building the longest and heaviest documented precast prestressed spans moved into place using SPMTs in the US. As a result of the collaborative design efforts on the project, UDOT has now implemented design standards and guidelines for future DDIs incorporated within their system.

**Innovations**

- Proposing a DDI that reduced right-of-way requirements and increased safety for the traveling public.
- The innovative DDI solution, which used the existing roadway alignment, provided sustainability benefits by significantly reducing the project footprint and resulting impacts.
- Designing and building the longest and heaviest documented precast prestressed spans moved into place using SPMTs in the US.
- Parsons met 100 percent of its environmental design commitments — promoting revegetation within the construction area and providing the client, consumers, and the environment with an interchange built with care.

**Awards**

- 2010 ACEC Grand Award Winner, transportation category from American Council of Engineering Companies (ACEC) on November 4, 2010
- 2010 Transportation Project of the Year from Associated General Contractors of Utah
- Top 10 Road Project for 2010 from Roads & Bridges magazine

**Lessons Learned**

- Signal head placements are significant design elements because they were not visible to drivers until the beginning of the crossover curve, giving limited notice to proceed.
- This DDI also had higher design speeds for the crossover movements, i.e. larger radius which can have may have contributed to the signal head placement issues. Signal heads must be checked and be incorporated in the geometric design of the interchange.
- Teams needed to be ready to hit the ground running. With an aggressive construction schedule, it important to have an early full notice to proceed versus limited notice to proceed.
- There may be ROW issues that affect design. It is important to clearly understand the schedule for acquisition/right-of-entry of parcels and how this will affect early construction activities, particularly with respect to early geotechnical investigation.
- Teams need to have comprehensive understanding of the scope of utilities to provide adequate resources to address early utility relocations.
- Submit the draft quality management plan (QMP) to the owner for approval early to ensure that it does not delay design package submittals. is also important to follow-up with the complete QMP submittal.

**Verifiable Evidence of Good Performance**

- This project marks the successful implementation of two major milestones: the second DDI and the longest and heaviest documented precast prestressed spans moved into place using SPMTs in the US. As a result of the collaborative design efforts on the project, UDOT has now implemented design standards and guidelines for future DDIs incorporated within their system.
**Project Narrative:** The Kentucky Transportation Cabinet (KYTC), in cooperation with the Federal Highway Administration, prepared an Interchange Justification Study (IJS) for the reconstruction of the KY 338 and I-71/75 interchange. The IJS identified the preferred alternative for this interchange to be a DDI and reconstruction of KY 338 from Paddock Drive to US 25. The development of the US 25 corridor includes creating a grade separation for KY 338 at US 25 and the Norfolk Southern rail crossing.

Parsons is a member of the design team for this DDI project which will be the second DDI in Kentucky. The total cost for this reconstruction is estimated at approximately $35 million. This project will also include improvements to the intersection of KY 338 with US 25.

A unique design aspect includes maintaining the existing I-71/75 bridge structure over KY 338. The project also includes creating a grade separating US 25 and Norfolk Southern Railroad over KY 338. The corridor experiences over 30% trucks with heavy turning movements on and off I-71/75. The project will address the high truck volumes and other access management issues within the interchange influence area and will improve the overall traffic operations and mobility.

**Unique Features:**
- Implementing a proper DDI geometric design while maintaining the existing bridge structure.
- Providing extensive traffic demand modeling to reconcile and coordinate with adjacent projects.
- Developing access management strategies that will improve operations and enhance economic development.
- Developing a MOT/construction sequencing plan for project growth compatible with short- and long-term funding allocations.
- Implementing a multi-faceted approach to public involvement and education coordinated with adjacent projects.
- Coordinating the environmental process along the I-71/75, KY 338 and the US 25 corridors.
- Developing and evaluating alternatives along KY 338 outside of the interchange influence area, including traffic micro-simulation modeling.

**Verifiable Evidence of Good Performance:** KYTC chose the Parsons team based on our proven success and national expertise in DDIs. Parsons is currently ahead of schedule on the design of project and on target to meeting and/or exceeding goals and objectives.

The team’s project goals include:
- Improving interchange functionality and influence area by creating geometric modifications that will enhance the overall traffic operations and mobility.
- Reducing traffic delays in the interchange area.
- Increasing the safety of the corridor by reducing the number of accidents.
- Creating a grade separation for KY 338 at US 25 and the Norfolk Southern rail crossing and eliminate a second at-grade crossing at Shoreland Drive.
- Providing auxiliary lanes on I-71/75 to improve merge/weave movements to the north.
- Providing a transportation facility that can accommodate a large percentage of truck traffic.

**Lessons Learned**
- Because a DDI is a unique design, the team will develop a 3D animation video for public involvement and public awareness purposes to inform the public about the benefits of a DDI.
- Laying out the guide signs, regular signing, pavement markings, signals in the preliminary design phase is a necessity to ensure that there is adequate sight distance on all of these elements.
- It is important to determine where to place pedestrians – inside or outside. There are advantages and disadvantages to both options. The team has decided to place pedestrians on one side of the outside of the project.
- If there is an adjacent intersection that is very close, this may result in weaving concerns from the exit ramps making a right weaving with through traffic. To eliminate the weaving concern for this project, the team will propose to make the exit ramps signalized instead of the preferred free flow condition.
- Developing a VISSIM model to look at the corridor as a whole network is key. The team is in the process of developing a model which will identify design issues ahead of time, giving the team ample time to mitigate identified issues.