Statement of Qualifications

Design-Build

I-64 Capacity Improvements - Segment II

State Project Number: 0064-965-264, P101, R201, C501, B627, B628, B629, B630, B631, B632, B633, B634, B635, D603, D604, D605, D606, D607, D608

Contract ID Number: C00106665DB82

Submitted to: VDOT Virginia Department of Transportation

Submitted by: Corman Construction evanwilliams McLean Contracting Company In association with: RK&K
3.2 Letter of Submittal
May 27, 2015
Mr. Joseph A. Clarke, PE, DBIA
Alternate Project Delivery Office
Virginia Department of Transportation
1401 East Broad Street
Richmond, Virginia 23219

RE: Letter of Submittal: Design-Build Interstate 64 Capacity Improvements – Segment II
State Project No.: 0064-965-264
Contract ID Number: C00106665DB82

Dear Mr. Clarke:

3.2.1 Corman-EV Williams-McLean JV (CWM JV), 925 S. Military Highway, Virginia Beach, VA 23464 is the legal entity who will execute the contract with VDOT and submits the following:
- One original Statement of Qualifications (SOQ) with full supporting documentation
- One CD-ROM containing the entire SOQ in a single cohesive Adobe PDF file
- Ten abbreviated copies of the original SOQ

The CWM JV appoints the following:

<table>
<thead>
<tr>
<th>3.2.2 Point of Contact</th>
<th>Alternate Point of Contact</th>
<th>3.2.3 Principal Officer of Legal Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark Osenbaugh, Project Manager</td>
<td>Louis Robbins, PE, DBIA, Vice President Corman Construction, Inc.</td>
<td>James A. Openshaw, III, President E.V. Williams, Inc.</td>
</tr>
<tr>
<td>E.V. Williams, Inc.</td>
<td>Corman Construction, Inc.</td>
<td>925 S. Military Highway</td>
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<tr>
<td>925 S. Military Highway, Virginia Beach, VA 23464</td>
<td>12001 Guilford Rd</td>
<td>Virginia Beach, VA 23464</td>
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<tr>
<td>757.420.1140 Telephone</td>
<td>410.792.9400 Telephone</td>
<td>757.420.1140 x22036 Telephone</td>
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<td>757.420.7250 Fax</td>
<td>301.953.0384 Fax</td>
<td>757.420.7250 Fax</td>
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<td><a href="mailto:marko@evwilliams.com">marko@evwilliams.com</a></td>
<td><a href="mailto:lrobbins@cormanconstruction.com">lrobbins@cormanconstruction.com</a></td>
<td><a href="mailto:jayo@evwilliams.com">jayo@evwilliams.com</a></td>
</tr>
</tbody>
</table>

3.2.4 CWM JV is a construction joint venture of Corman Construction, Inc., E.V. Williams, Inc., and McLean Contracting Co. The CWM JV will share financial responsibility for the project. Corman, E.V. Williams, Inc., and McLean will be jointly and severally liable with no limitations. CWM JV will provide a single 100% performance bond and single 100% payment bond.

3.2.5 Lead Contractor: CWM JV | Lead Designer: RK&K

3.2.6 Affiliated and/or Subsidiary Companies Table (Attachment 3.2.6) is in the Appendix.

3.2.7 Certification Regarding Debarment Forms (Attachments 3.2.7(a) and 3.2.7(b)) are in the Appendix.

3.2.8 Corman Construction (C097-Active) Prequalification Certificate, E.V. Williams, Inc. (W488-Active) VDOT Prequalification evidence, and McLean Contracting Co. (M047-Active) are in the Appendix.

3.2.9 Surety Letters are in the Appendix.

3.2.10 SCC and DPOR information are in Attachment 3.2.10; supporting documentation is in the Appendix.

3.2.11 CWM JV is committed to achieving a 12% DBE participation goal for the entire value of the contract.

We present to you a design-build team equipped with the experience, knowledge, and resources to partner with the Virginia Department of Transportation in successfully delivering the Interstate 64 Capacity Improvements – Segment II Design-Build project.

Sincerely,

Corman Construction, Inc.

E.V. Williams, Inc.

McLean Contracting Co.

[Signatures]
Arthur C. Cox, III, Vice President
James A. Openshaw, III, President
George Bosmajian, III, President/CEO
3.3 Team Structure
3.3 OFFEROR’S TEAM STRUCTURE

The Corman-E.V. Williams-McLean Joint Venture (CWM JV) Team provides VDOT with an experienced and integrated Design-Build (DB) Team for the I-64 Capacity Improvements – Segment II Project. We have chosen to perform the work as a three-way JV because success on this project for VDOT, our JV, and all third party stakeholders demands this project is completed on or ahead of schedule. The CWM JV has strategically assembled a team to create redundancy of resources. We have two team members capable of constructing any or all of the bridges. We have two team members capable of all other aspects of the project. Creating this team mitigates the risk of having a finite set of resources available to meet the inevitable challenges a project of this size and complexity will have. Each firm has successfully worked together in a three-way JV including the Dominion Boulevard project located in Chesapeake, Virginia and the I-695/95 Interchange project in Baltimore, Maryland.

We recognize that strong working relationships are vital to the success of any Design-Build project, and the individuals on our team have already developed a rapport and knowledge of each other’s abilities, skills, and working style. For this reason, the framework for the project implementation is strengthened and the project’s design and construction phases will not be a “training ground” for our team, but instead will be one additional example of our team’s success.

3.3.1 KEY PERSONNEL

The CWM JV Team has assembled a team of highly-qualified and seasoned individuals, and structured them accordingly for optimal performance on this project. The Key Personnel described below offer extensive road construction, along with exceptional design expertise. Our Team, including Key Personnel, will remain intact for the duration of the Project providing constant leadership throughout each phase. A \[\text{DB}\] icon has been placed next to the names of the individuals with Design-Build experience.

\[\text{DB}\] Design-Build Project Manager (DBPM): We have committed Mark Osenbaugh, DBIA (EVW) for the DBPM role. He will serve as the primary point of contact and main communication link between the CWM JV Team and VDOT. Coordinating with the entire team throughout the duration of this project, his responsibilities will include the execution of work, coordination of design activities, and oversight of construction including clarification of the contract documents, and managing project risks and schedule to ensure timely completion. He will work closely with the Responsible Charge Engineer ensuring the Design is performed properly, the required constructability reviews are performed, and that the design is properly implemented during Construction. He will also be involved with and work closely with the Safety Manager to develop project specific Safety and Emergency Response Plans. Additionally, he will work with the Team’s QC Manager establishing communication to ensure materials and work meet the contract documents. He will also work closely with our Public Relations Manager coordinating public outreach efforts. Mr. Osenbaugh will have complete authority over all aspects of this endeavor including responsibility for the overall project design, construction, quality management, and contract administration. He will be responsible for ensuring that the CWM JV Team is performing at high levels of productivity and for their roles on the Team. The QAM, DM, CM, RCE and MOT Manager will report to the DBPM.

\[\text{DB}\] Responsible Charge Engineer (RCE) / Design Construction Integrator: Our Team structure provides distinct positive influences on design and constructability. For this reason, Ryan Gorman, PE, DBIA (CCI) will fulfill dual roles of the RCE and Design-Build Integrator. As RCE, he accepts full professional responsibility for engineering services relating to the final work product. Reporting directly to the DBPM, Mr. Gorman will be fully integrated among the entire project team, including subconsultants, and will communicate regularly in order to maintain open lines of communication with the Department, DM, CM, and QAM. He will oversee the coordination of the project from both a design and construction perspective. With his involvement in the current Route 29 Solutions DB project, Mr. Gorman is the first to ever fulfill the role of RCE for the Design-Builder on a VDOT DB project. His role as RCE on the Route 29 Solutions DB will become part-time in the coming months, affording him full access and availability for the RCE role on this project. The JV has vested him with the authority to act on behalf of CWM JV to make any necessary decisions to keep the project progressing efficiently. He also has the authority to cease project work if warranted.
3.3.1.3 Quality Assurance Manager (QAM): Michael R. Davis, PE, CCM (AMT) has progressive construction oversight and management experience and will serve as the QAM for this project. He will make sure that work is performed and carried out in conformance with the contract requirements and the “approved for construction” documents. He will be responsible for development and adherence to the QA Plan, QA inspection and testing of all materials used and work performed. Mr. Davis will report directly to the DBPM, but will remain independent and impartial for all Quality Assurance concerns. As an independent entity, Mr. Davis will audit and monitor the Construction Quality Control Program. He will have the ability to stop construction, enforce compliance with all specifications, and issue/require resolution of all Non-Conformance Reports (NCRs). The QA Team will conduct independent and concurrent tests and analysis of the work with the construction quality control team. He will maintain project quality records and approve and submit pay estimates. In addition, he will submit monthly written reports to the VDOT project manager and the Executive Committee. Mr. Davis’ recent VDOT DB experience includes three contracts, valued at $100M and located in the Hampton Roads District. See resume for duration of each assignment.

3.3.1.4 Design Manager (DM): Gary S. Johnson, PE, DBIA (RK&K) will serve as DM for the Project reporting to the DBPM. He will be responsible for providing a quality product, meeting all design milestones and interfaces, and overseeing the design QA/QC program and ensuring the Design QA/QC Manager’s involvement. Mr. Johnson was chosen specifically for this project based on his strong DB experience on interstate projects. He is adept at managing the overall design process, including monitoring project schedules, assigning staff, reviewing work plans, and ensuring project goals and budgets are met. He recently completed the design of the I-64 Widening and Route 623 Interchange Design-Build project with Corman and will be completing the design of the Rio Road Bridge in the summer of 2015, also with Corman and Ryan Gorman as the RCE. The Rio Road Bridge is part of the Route 29 Solutions Design-Build project near Charlottesville. These assignments will be complete before the start of the I-64 Capacity Improvements Segment II project, allowing him to be dedicated to this project.

3.3.1.5 Construction Manager (CM): Chris Martin (EVW) will fulfill the CM position and he will remain on-site full-time for the duration of construction. He will coordinate with the DB Team from the initial design phase and remain as CM for the duration of the construction phase, providing constant leadership, project oversight, and ensuring that the construction is performed safely and in accordance with the approved construction documents. His daily duties will include project scheduling, safety, coordination of subcontractors, and the oversight of construction QC activities. In a management role, Mr. Martin has successfully solved complex problems and overseen the success of multiple projects serving as the CM including RK&K’s $54M DB project of US 13 in Gates County with NCDOT which is similar to the I-64 Capacity Improvements – Segment II project as it is a Design-Build and includes multiple structures. He will report directly to the DBPM and manage the efforts of the on-site construction team.

3.3.1.6 Maintenance of Traffic (MOT) Manager: We have strategically selected John McDowell, PE (RK&K) for the role of MOT Manager due to his extensive DB experience and ability to serve as the lead to develop and implement the TMP for this project. He will be a key point of contact and work diligently to resolve issues that arise relative to temporary roadway Geometrics and MOT while ensuring that construction activities are coordinated with utility and roadway work in the I-64 corridor, as well as make sure that work is communicated to the traveling public. Mr. McDowell recently was involved with the I-64 Widening and Route 623 Interchange DB and Route 29 Solutions DB projects (both with Corman) where he managed the complex design of a roadway to meet Interstate standards and complexity. Mr. McDowell will serve as Deputy Design Manager and report directly to the DM.

Additional Design and Construction Support

Geotechnical Engineer: Randy Wirt, PE (ECS) will be in charge of all aspects of geotechnical engineering and evaluation for the project, including evaluation of abutment and pier foundation support, potentially unsuitable soils, slope and embankment stability and settlement, pavements, and geotechnical construction considerations. He will also assist the DM and the CM during construction, as needed, for earthwork and geotechnical project questions. Mr. Wirt has more than 14 years of experience in geotechnical engineering related directly to similar transportation projects for various state agencies including VDOT. He has served as the lead geotechnical engineer for multiple design-build VDOT projects including VDOT Route 28 Corridor Improvements PPTA, several
VDOT Design-Build projects along the Route 7 Corridor in Loudoun and Fairfax Counties. Mr. Wirt has provided similar services on VDOT I-64 Widening and Route 623 Interchange Improvements DB project in Henrico County, Virginia for Corman. Mr. Wirt will report to the DM.

**Environmental Permitting Coordinator:** Ricky Woody (RK&K) will be responsible for ensuring the work performed by the DB Team is in compliance with federal and state environmental regulations, and that specific project commitments are implemented. He has 27 years of planning and scientific experience with transportation projects including DB projects. Before joining RK&K, Mr. Woody was the Natural Resource Program Manager for VDOT where he secured and managed natural resource clearances for DB projects, wetland and stream compensatory mitigation projects and banks as well as all types of transportation improvement projects. He possesses an expert technical and regulatory knowledge on environmental policies, agency standard operating procedures, streamlining agreements, and environmental laws and regulations. Mr. Woody was the Environmental Permitting Coordinator on the I-64 Widening and Route 623 Interchange Improvements DB project in Henrico and Goochland Counties, Virginia with Corman. Mr. Woody will report to the DM.

**Public Relations Manager:** Lauren Hansen (PRR, Inc.) joins our DB Team as the PR Manager and will report directly to the DBPM. She will have an open line of communication to stakeholders, third party representatives, and VDOT where she will initiate and facilitate public hearings and communication necessary to announce lane closures and timing of other construction milestones. Ms. Hansen is experienced in all areas of creative services, public affairs, community outreach, marketing, advertising, strategic planning and communications plans. She is currently working with RK&K providing similar services in the Hampton Roads District on The Elizabeth River Tunnels project and previously on the I-64 Widening at Battlefield in Chesapeake, Virginia with EVW. She will report to the DBPM.

**Roadway Engineer:** Mike Merritt, PE (RK&K) is a Sr. Roadway Project Manager with 25 years of experience in the preparation of roadway design plans for state, federal and municipal transportation projects. He excels in the design and coordination of rural and urban roadway and highway facilities. He served as an Assistant Project Design Engineer in the NCDOT Roadway Design Unit for more than four years. His responsibilities include the management, coordination and preparation of roadway plans from planning stages through final plans and specifications. He recently completed the $137M Triangle Parkway DB project where he managed the design of a roadway to Interstate standards and complexity. He also worked with EVW and McLean on the Route 13/158 Design-Build. Mr. Merritt will report to the DM.

**ROW Manager:** Al Dorin, Jr., MAI, SRA, RW-NAC (KDR) will be actively involved in the project including the overall coordination of appraisals, negotiations, project management, invoicing, and contract related matters. Mr. Dorin is currently finishing the ROW efforts on VDOT’s Fall Hill Avenue and Mary Washington Boulevard DB project in Fredericksburg with Corman and will be available for this new project. Mr. Dorin will report to the DM.

**Bridge Design / Structural Engineer:** Ashley Johnson, PE (RK&K) will be involved in all aspects of structural design for this project. She has eight years of experience in the design of new and replacement bridges, as well as rehabilitation of existing structures. Ms. Johnson provided preliminary design of three bridges as part of the extension of Jones Branch Connector in Fairfax County which involved designing the widening and extension of existing bridges over I-495. She is also currently involved in the construction aspects of replacement of twin interstate bridges as part of VDOT’s I-64 Widening and Route 623 Interchange Improvements DB project in Henrico and Goochland Counties, Virginia with Corman. Ms. Johnson will report to the DM.

**H&HA / Drainage Engineer:** Michael Hogan, PE, (RK&K) is providing similar services on the I-64 Widening and Route 623 Interchange Improvements DB project with Corman and offers more than 16 years of advanced technical roadway and drainage experience, as well as rural and urban design project experience. Mr. Hogan has extensive experience in design, and consultant management oversight of general drainage, hydrologic studies, hydraulic bridge studies, and bridge scour analysis for many of VDOT’s largest projects including various types of municipal and roadway design projects on new location, reconstruction and widening, and major drainage improvement projects. Mr. Hogan will report to the DM.

**Traffic, ITS, Lighting Engineer:** Jyothirmai Paladugu, PE, (Sabra Wang Associates) Ms. Paladugu has 13 years of experience in lighting design, Intelligent Transportation Systems (ITS), signal timing optimization, signal...
design, signing and pavement marking design, developing work zone traffic control plans and traffic analysis. She will report the DM.

**Wet Utilities Coordinator:** Dave Plum, PE (RK&K) will lead the coordination of utilities. He offers more than 33 years of management, planning, and design of a wide range of infrastructure engineering and multi-disciplinary projects, including water and wastewater for municipal, state, federal, and international agencies. He has been actively involved in the planning, design, and construction of Virginia’s infrastructure projects for over 25 years, providing industry leadership through addressing the region's infrastructure needs. Mr. Plum was the Lead Utility Design Engineer on the I-64 Widening and Route 623 Interchange Improvements DB project in Henrico and Goochland Counties, Virginia with RK&K and Corman. Mr. Plum will report to the DM.

**Dry Utilities Coordinator:** Dale Kniffen (Utility Pros) has more than 25 years of experience in coordinating utility installations and relocations. He will be the single point of contact to coordinate all dry utility service relocations and will work with the service providers to ensure timely service delivery. Mr. Kniffen will track milestone project dates and provides complete utility notifications while consolidating documentation tracking of all service correspondence to further ensure timely service deliveries are attained. He has worked with Corman on the Route 1 Improvements at Fort Belvoir, the Fall Hill Avenue and Mary Washington Boulevard Extension DB and with the Corman/RK&K Team on the I-64 Widening and Route 623 Interchange Improvements DB. Mr. Kniffen will report to the DM.

**Noise Analysis Designer:** Joseph Rauseo (RK&K) brings more than 20 years of experience to this project. He is responsible for fulfilling all functions and tasks associated with traffic and construction noise analyses, noise abatement design, development of noise abatement design specifications and the noise-related aspects of the public involvement process. Mr. Rauseo will report to DM.

**Landscape Architect:** John Schmidt, ASLA (LPDA) has 20 years of experience as a site designer specializing in site grading, planting plans, conceptual site planning and preparation of construction documents. His experience includes all aspects of site design and environmental design, as well as all facets of landscape architectural services for infrastructure projects. Mr. Schmidt will report to the DM.

**Design QC Manager:** Tommy Peacock, PE, PLS (RK&K) will arrange for all design quality assurance and design quality control procedures in accordance with the quality control plan. He will verify that checks and reviews have been made prior to submissions, including review comment checking, contract conformance reviews, interdisciplinary reviews, and constructability reviews by the CWM JV staff. Mr. Peacock, with over 48 years of experience, will serve as a valuable resource to the team ensuring resources are assigned, accelerated schedules are maintained, and the team is responsive to clients. Mr. Peacock will report to the DM.

**Safety Manager:** Sam Williams (EVW) will work with the DBPM to mitigate identified safety issues and risks. He will analyze the scope of the project and communicate possible safety issues and concerns related to design to the DM. Mr. Williams will make regular visits to check for compliance, identify any issues. He will also communicate openly with the CM to coordinate appropriate training of construction crews. Under his leadership, EVW’s EMR rating has averaged 0.78 for the past five years, proving EVW’s dedication to safety. Mr. Williams will report to the CM.

### 3.3.2 ORGANIZATIONAL STRUCTURE

The following Organizational Chart depicts VDOT-identified Key Personnel, the major functions each will perform, and the designated reporting structure of the team. 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 team. Dashed lines represent indirect reporting and obligations to the owner and/or corporate management. The chart also shows that a clear separation exists between QA and Construction QC inspection and field/laboratory testing.

**Functional Relationships – Integrate to Facilitate**

The foundation of our organizational structure is our Key Personnel and their positions. Information regarding their qualifications and experience can be found in the Appendix. 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. Through our DBPM, DM, RCE, QAM and CM, we will create a
firm relationship that sets the foundation to interact and partner with VDOT and third-party stakeholders. Additional ways in which our team will be fully integrated include:

- Inter-disciplinary design reviews prior to milestones to ensure design disciplines are coordinated
- Constructability reviews of design, especially for MOT, highway and bridge plans
- Weekly schedule meetings to review the previous weeks work and develop the two week look ahead, and monthly scheduling meetings to review CPM progress during design development and construction
- Weekly foreman meetings to discuss the schedule and coordination
- Morning huddles with the crews to set the safety and production goals for the day
- Weekly progress meetings with the owner to review and discuss quality, submittals, and progress payments
- Monthly partnering meetings with all stakeholders for issue resolution

**Commitment to Keep the Team Intact**

The CWM JV Team understands the importance of keeping the proposed team intact throughout the life of the project. With this understanding, we have selected specific personnel with current assignments that will allow them to serve on this project in the capacity needed. The individuals identified in this Statement of Qualifications, both Key Individuals and non-Key Individuals, will serve on this project through completion of construction.
3.4 Team Experience
3.4 EXPERIENCE OF OFFEROR’S TEAM

The CWM JV is comprised of leading Design-Build contractors, designers and specialty subconsultants with a proven capability of delivering design-build road infrastructure projects throughout the Commonwealth. Each team member was specifically selected due to their previous experience delivering projects of similar complexity as the I-64 Segment II project, as well as their attention to detail and commitment to safety and quality. We have chosen to perform the work as a three-way JV as success on this project for VDOT, our JV, and all third party stakeholders demands this project is completed on or ahead of schedule. The CWM JV has strategically assembled a team to create redundancy of resources. We have two JV members fully capable of constructing any or all of the bridges. Similarly, we have two JV members fully capable of constructing all other aspects of the project. By creating a fully integrated team, with such a strong resource base, we have mitigated the risk of having a finite set of resources available to meet the inevitable challenges a project of this size and complexity will encounter. Each firm has successfully worked together in a three-way JV including the Dominion Boulevard project located in Chesapeake, Virginia and the I-695/95 Interchange project in Baltimore, Maryland.

**Corman Construction, Inc. (CCI)** is a licensed heavy civil contractor specializing in highway, bridge, restoration, and heavy utility construction. With a corporate headquarters in Annapolis Junction, MD and offices in Richmond and Chesapeake, Virginia, near the project location. Corman prides itself as a “Best in Class” contractor. The firm’s “A” ratings confirm the quality of their work. With a track record of successfully delivering over $1.5 billion in design-build (DB) roadway and bridge projects, Corman comes to VDOT with the hands-on experience and top notch personnel it takes to effectively execute the design and construction, as well as manage the risks of the I-64 Capacity Improvements – Segment II Design-Build Project. Corman’s history on design-build roadway and bridge projects includes many of similar scope and complexity to this project for clients such as VDOT, DDOT, NCDOT, and MSHA. Corman’s DB experience includes:

- VDOT Route 29 Solutions, Albermarle County, VA (with RK&K)
- VDOT I-64 Widening & Route 623 Improvements, Henrico and Goochland Counties, VA (with RK&K)
- VDOT Fall Hill Ave and Martha Washington Rd Extension, Fredericksburg, VA
- Tidewater Drive, City of Norfolk, VA(with EVW)
- Route 17, Hampton, VA (with EVW)
- VDOT I-64 / Route 15 Interchange Improvements (DDI), Zions Cross Roads, VA
- CSX Arkendale to Powells Creek, Stafford and Prince William Counties, VA (with RK&K)
- MDTA ICC A&B, Montgomery County, MD (with RK&K)
- MD Route 216 US 29 to I-95, Howard County, MD (with RK&K)
- E. Deer Park Rd. Bridge Emergency Rehab., Gaithersburg, MD (with RK&K)
- Frederick Douglass Bridge/South Capitol Street over Anacostia River, Washington, DC (with RK&K)

**E. V. Williams, Inc. (EVW)** has the capabilities of leading design-build projects regardless of the project size. EVW is a full-service prime contractor specializing in heavy highway construction with extensive experience with VDOT and public sector road and bridge construction work in eastern Virginia. Furthermore, EVW is currently active in DB highway work and has successfully completed projects similar to the Interstate 64 Capacity Improvements – Segment II project. EVW is currently working with RK&K and McLean on a $55 million design-build project for NCDOT on Route 13/158 Design-Build as well as a $3 million design-build project at the Dam Neck military base in Virginia Beach. EVW is proud to have been presented with the American Council of Engineering Companies – 2010 Engineering Excellence Honor Award for I-64 Battlefield Blvd Intersection in Chesapeake, Virginia; the VTCA – 2008 - 2011 Contractor Safety Award; and an Honorable Mention for the Governors Transportation Safety Award – 2003 Motor Carrier Safety.

**McLean Contracting Company** has more than 100 years of bridge building experience and joins the team providing expertise and manpower in that critical discipline. McLean has extensive DB structure experience including EVW’s and RK&K’s Route 13/158 DB contract. McLean also worked on VDOT’s first PPTA project for the Route 895 Pocahontas Parkway Bridge and the first DB project for the bridge over Garden Creek Canal project. They have constructed bridges along the I-64 corridor, including the bridges for EVW’s I-64 Battlefield Blvd. Interchange project and EVW’s I-64 Mercury Blvd project. On this project, McLean will assist in the required bridge reconstruction / widening. To expedite the construction schedule and minimize impacts to the travelling public, McLean and Corman crews (Team A & B) will share the structural efforts each performing individual bridge widening as best suits their abilities and manpower availability. **McLean has teamed**
with E. V. Williams on a three way JV for the Dominion Blvd Bridge in Chesapeake, Virginia and another three way JV with Corman on the I-95/I-695 Interchange project in Baltimore, Maryland.

Partnering with Corman-EV Williams-McLean JV, Rummel, Klepper & Kahl, LLP (RK&K) is serving as the Lead Designer. RK&K is a multi-disciplinary consulting firm providing a wide range of planning and design services for infrastructure design and rehabilitation, including the design of roadways, bridges, transit, water/sewer and site design. The firm employs 900+ engineers, planners, environmental specialists, surveyors, designers, draftsmen/CADD technicians, construction managers, inspectors, and support personnel including over 80 professional engineers registered in Virginia. RK&K is ranked 73rd on the 2015 Engineering News Record’s listing of the “Top 500 Design Firms,” and serves an array of federal, state, and local clients from four Virginia offices and multiple offices throughout the Mid-Atlantic and Southeast US. RK&K has completed 12 design-build projects in the region. RK&K has worked with Corman on six design-build projects with a construction value over $1 Billion. They are currently working with Corman on the VDOT I-64 Widening & Route 623 Improvements and the Route 29 Solutions Design-Build projects. RK&K’s relevant DB experience, exclusively with Corman-EV Williams-McLean JV, includes:

- Route 13, Gates County, NC (with EV Williams & McLean)
- VDOT Route 29 Solutions, Albemarle County, VA (with Corman)
- VDOT I-64 Widening & Route 623 Improvements, Henrico and Goochland Counties, VA (with Corman)
- CSX Arkendale to Powells Creek, Stafford and Prince William Counties, VA (with Corman)
- MDTA ICC A&B, Montgomery County, MD (with Corman)
- MD Route 216 US 29 to I-95, Howard County, MD (with Corman)
- E. Deer Park Rd. Bridge Emergency Rehab., Gaithersburg, MD (with Corman)
- Frederick Douglass Bridge over Anacostia River, Washington, DC (with Corman)

DB Experience Working Together

Simply having individuals and individual firms with design-build experience is not enough to ensure successful delivery of a project. You need people and firms with experience delivering design-build and other projects. There are multiple overlaps of projects between the major players on our team. In fact, the individual team members have worked together on over 25 successful joint projects with a construction value of over $3 billion. Many of our other design partners have also worked on these projects. This existing team partnership will prove to be an asset to VDOT on the delivery of this project.

Established, strong working relationships are vital to the success of any design-build project. Since the individuals on our team have already developed a rapport and knowledge of each other’s abilities, skills, and working style, the framework for the project implementation is strengthened. The I-64 Capacity Improvements – Segment II project will not be a “training ground” for the CWM JV Team, but instead will be one additional example of our Team’s success. Not only does each partner have DB experience, we have this experience working together. Team members from Corman, EVW, McLean and RK&K slated for this project have worked together successfully on past design-build projects for VDOT, DDOT, NCDOT, MSHA and various other transportation agencies.

Executive Committee

The Executive Committee will serve as a guiding group and resource to the CWM JV Team. They will ensure that all team partners, including VDOT, are on the same page and will meet monthly to discuss the overall progress and performance of the Team.

Subconsultants

We have judiciously selected the firms described below to meet the needs of VDOT on this project and to further enhance our DB Team capabilities.

A. Morton Thomas and Associates (AMT) will provide construction Quality Assurance. They have managed and provided inspection services for some of the most significant and challenging transportation projects in the Commonwealth including roadways, structures and bridges. These
projects have included extensive environmental issues; complex maintenance of traffic; coordination with property owners, local government and law enforcement agencies, suppliers, utility companies and other stakeholders; review of the contractor’s schedule and plan of operations; field engineering; quantity verifications and cost estimates; and maintenance of comprehensive project records, among others. AMT is currently providing Design and/or QA/QC services on Corman’s Route 1 Widening at Ft Belvoir, Fall Hill / Mary Washington, I-64 Widening and Route 623 Interchange DB, and the Route 29 Solutions DB projects.

**Precision Measurements, Inc. (PMI)** joins our team providing survey services. PMI is a full service land surveying firm offering a wide range of surveying services including topographic surveys, hydrographic survey services utilizing fully digital equipment, volumetric surveys, horizontal and vertical control surveys, acquisition plating, easement acquisition, 3-D scanning, geodetic surveys, aerial photo control, construction field engineering, route surveys, infrastructure surveys, deformation monitoring surveys, antenna alignment surveys, utility location services and construction inspection. PMI is a certified DBE/SWaM firm.

**ECS Mid-Atlantic, LLC (ECS)** will provide all geotechnical engineering services. ECS is a multi-discipline engineering consulting firm specializing in the related fields of geotechnical, environmental, and construction materials engineering. Their staff includes registered professional engineers and geologists, certified lab technicians and construction inspectors, and field engineers. ECS is currently working with Corman and RK&K in a similar capacity on the VDOT I-64 Widening & Route 623 Improvements project in Henrico and Goochland Counties, Virginia.

**KDR Real Estate Services (KDR)** will lead right of way efforts. KDR is a certified small business, VDOT-pre-qualified right-of-way and easement acquisition firm. They have significant experience in the research and preparation of appraisals for right-of-way and easement acquisition. KDR also performs negotiations, closings and relocation assistance and condemnation (eminent domain) documentation. Our DB Team has extensive experience working together with KDR to secure ROW (or easements) for transportation projects for VDOT. KDR is currently working with Corman in a similar capacity on the Fall Hill / Mary Washington VDOT DB project.

**Sabra, Wang & Associates, Inc. (SWA)** will lead traffic, ITS, and lighting design efforts. SWA is a multi-disciplinary DBE/MBE engineering firm. SWA consistently delivers cost-effective, efficient, and cutting-edge solutions to clients in the Mid-Atlantic region on the federal, state, and local level as well as in the private sector, on such projects as the Intercounty Connector Design-Build Contracts (A, B and C) and VDOT’s On-Call Traffic Engineering for the Northern Operations Region.

**Utility Professional Services, Inc. (Utility Pros)**, a certified DBE/WBE/SWaM company joins our team providing dry utility services. Utility Pros provides turn-key design-build and project management services for dry utilities and all dry utility infrastructure associated with roadway projects for service feasibility, relocations, and new service installations. Utility Pros has provided similar services on Route 1 Widening at Ft Belvoir and Fall Hill / Mary Washington DB projects with Corman.

**PRR, Inc.** will lead our public relations efforts as needed, including research, marketing strategy, digital/social media design and development, broadcast/outdoor/print design and development, media planning and buying, public affairs outreach and community coalition building. PRR is a certified DBE, small business, public relations, advertising, and marketing agency specializing in projects encompassing a wide variety of transportation infrastructure projects. PRR has successfully worked on VDOT projects such as Elizabeth River Tunnels Project and will be providing public involvement and communications support for the Hampton Roads Crossing Study (HRCS).

**Land Planning Design & Associates (LPDA)** is a landscape architecture and planning firm that will provide design and consultation. Their staff’s in-depth knowledge of native plants and broad construction and inspection experience, results in planting plans that are both beautiful and hardy, and designs that are beautifully executed and long-lasting. LPDA has been involved in DB projects throughout the Commonwealth including VDOT rest areas, roadway widening and intersection modifications. They are currently working with Corman and RK&K on the Route 29 Solutions DB project in Albemarle County.

### 3.4.1 WORK HISTORY FORMS

Work History Forms (Attachments 3.4.1 (a) and (b)) as required by the Lead Contractor and Lead Designer are included in the Appendix.
3.5 Project Risks
3.5 PROJECT RISKS

The CWM JV Team will employ the Construction Management Association of America (CMAA) endorsed approach to risk management through the use of a “Risk Register” which includes a formal list of identified risks, potential impacts to the project, and mitigation strategies for each issue. A successful risk management process is robust because it must consider project risks throughout all facets of the project’s life and delivery processes. Our Team’s risk management process has already commenced, will continue throughout design and construction, and enable our Team to respond to changes in an organized and proactive way as specific project issues unfold. The Team will employ a five step risk management approach to the project including the following stages:

1. **Identify** – name risks facing the project, determine cause and effect, and categorize risks
2. **Assess** – assign probability of occurrence, severity of impact, and determine response
3. **Analyze** – quantify risk severity, determine risk exposure, establish risk tolerance level, and determine risk contingency (applicable during preliminary design and pricing)
4. **Manage** – define response plans and actions, establish ownership of risk, and manage response (after NTP)
5. **Monitor / Review** – monitor/review/update risks, monitor response plans, update risk exposure, analyze trends, and produce reports (after Notice to Proceed, during design, during construction).

We have reviewed the available information for the project, visited the site during various traffic and weather conditions, and jointly discussed the major risks. With the mindset of project risk being defined as an issue that has the potential to impact the project schedule, budget, or both, our Team has identified the three most critical risks facing the DB Team during the course of the project.

**RISK NO. 1 – ENSURING ENVIRONMENTAL COMPLIANCE**

**Risk Identification**: The Environmental Risk on this project is broken down into the following subsets:

**Cultural Resources**
- The project has two battlefields within its limits of construction. The Yorktown Battlefield on the eastern end of the project and the Williamsburg Battlefield on the west end of the project.
- The project stormwater management basins shown in the RFP plans have not had a Phase I Archeological Survey conducted.
- A Confederate Peninsular defenses campaign, identified as Redoubt 9, is located in the median and has been determined individually eligible for the National Register by the Virginia Department of Historic Resources (VDHR) and it appears it could be effected by the project tie-in on the west end in the median.

**Threatened and Endangered Species (T&E)**
- Northern Long Ear Bat (*Myotis septentrionalis*) was listed on May 4, 2015 as a Federal Threatened Species and was not addressed in the project NEPA Document.
- The Small whorled pogonia (*Isotria medeoloides*) survey prepared to support the project Environmental Impact Statement (EIS) has expired.
- The Mabee's salamander (*Ambystoma mabee*) is on the State Threatened list and the project EIS shows that its habitat may be present within the project area.
- The Canebrake rattlesnake (*Crotalus horridus*) is on the State Endangered list and the project EIS shows that its habitat may be present within the project area.
- Anadromous fish are known to exist within the York River and the James River, and the King Creek crossing within the project limits may be identified as having anadromous, potentially requiring a Time of Year (TOY) restriction for in-stream work.

**Wetlands and Streams**
- Wetlands systems shown as jurisdictional in the EIS and RFP plans were never confirmed by the Corps of Engineers.
- Stream jurisdiction was not determined by the currently recognized method of the unified stream methods and may need to be redone.
- Stream impacts associated with culvert extension in median were not shown as impacts considered in the EIS or VDOT plans.
- The project crosses two watersheds: York on the western end and the James on the eastern end, which effects the potential project compensatory mitigation opportunities and the stormwater management requirements.
East end of project tie-in in the environmental documents does not show a crossing of Curtis Creek.

**Why this Risk is Critical and an Impact on the Project:** Not securing environmental compliance will derail a project. Not securing environmental compliance in a timely manner will delay a project, increase project costs, and affect the overall success of the project. For these reasons, this risk is very critical for both VDOT and the Design-Builder. Following is a description of the impacts on the subsets of environmental compliance:

**Cultural Resources**
- The identification of previously unidentified archaeological and cultural resources that may be identified during the required additional Phase I archaeological surveys for the stormwater management basin could delay the project. In addition, it is anticipated that a Phase III Treatment/Data Recovery plan will be required for Redoubt #9. Both of these will require revisiting the current cultural resource clearances resulting in the FHWA, the lead federal agency, to coordinate with the State Historic Preservation Officer (SHPO) to complete Section 106 of the National Historic Preservation Act coordination because of the NEPA Document and federal water quality permits. In addition, FHWA may be subject to making a Section 4(f) determination for any potentially eligible archaeological site which requires the assessment of avoidance and minimization alternatives which requires additional project designs affecting the project design schedule.

**Threatened and Endangered Species**
- With respect to the Northern Long Ear Bat and Small whorled pogonia (*Isotria medeoloides*), the risk impact with Federal T&E is that Section 7 consultation is required between the Federal Highway Administration and U.S. Fish and Wildlife Service (FWS). This consultation will affect the project delivery schedule because species survey will need to be conducted and the design modification evaluated. The project overall schedule will be affected because of the preparation of the Biological Assessment for each species. The FWS regulatory prescribed timeframe of 135 days to issue their Biological Assessment will need to be completed prior to the NEPA reevaluation and water quality permit issuance. It is further complicated by time of year (TOY) restrictions on the actual surveys for species identification. The project design will be affected because avoidance and minimization efforts will be required to be incorporated into the project design. It will also affect the project construction with the implementation of TOY restrictions in accordance with the current FWS guidance, specifically April 15 to September 15 for the Northern Long Ear Bat for no tree cutting.
- The **Mabee's salamander** poses a huge schedule risk because the species identification requires two consecutive year surveys to determine a present or absent and may result in replacement habitat as compensation.
- The **Canebrake rattlesnake** will require species survey and coordination with the state resource agencies with a potential up to a 1:3 ratio compensation requirement anticipated for replacement habitat.
- **Anadromous fish** will affect in-stream work because of the TOY restriction of February 15 to June 15 of any given year.

**Wetlands and Streams**
This risk element is critical because the wetland delineation methods for the EIS did not use the current USACE guidance including the Regional Supplement to the USACE Wetlands Delineation Manual applicable to the Atlantic and Gulf Coastal Plain Region for the wetlands identified in the EIS. Using the current delineation methods may result in more wetlands within the project corridor than identified in the EIS. In addition, a number of the channels have not been identified as streams in the RFP plans and wetlands shown in EIS have not been field reviewed or confirmed by the Corps of Engineers. Road side ditches and water seeps are prevalent along the corridor and the regulatory agencies have their own nuances of assessing regulatory jurisdiction. In addition, crossing two stream basins (York and James) increases the risk to providing the stormwater management and the wetlands and stream compensatory mitigation. These can result in project delays with longer permitting timeframes and increases in costs for both design and construction. Unavoidable impacts to wetlands and stream require compensatory mitigation and if improperly identified will increase project wetlands and streams impacts beyond those identified in the EIS.

**Risk Mitigation Strategy:** Our overall mitigation strategy is to demonstrate that all alternatives with fewer impacts are impracticable and do not meet the purpose and need of the project. In addition, during the project design, our team will avoid and minimize impacts to wetlands, streams, fish, plant, and wildlife and their habitats and cultural resources by evaluating the cross-section to avoid wetlands areas, spanning/bridging streams, countersinking of culverts, limiting clearing of existing vegetation to the greatest extent possible, strict adherence to erosion and sediment control guidelines and the implementation of stormwater best management practices. Our Team understands the regulatory agencies expectations for each regulated environmental resources within our project limits, thus eliminating surprises and minimizing the risk of delays to the project schedule. Our Environmental Permitting Coordinator, Ricky Woody, will lead this effort and he will lean on his 26 years at VDOT in the role of Natural Resource Program Manager and his experience in negotiating agreements with the
regulatory and resource agencies to ensure that the project submittals are regulatory compliant, complete, and address each of the agency expectations. Specific mitigation strategies for each subset are:

**Cultural Resources**

To mitigate this risk, we will prepare a draft approach for conducting Phase I archaeological survey in the early stages of project development during the technical proposal development process. This will provide the team with necessary information to know any previously unidentified potentially eligible archaeological sites and design accordingly to avoid them. We will coordinate with the State Historic Preservation Officer “SHPO” to set the stage to complete Section 106 of the National Historic Preservation Act early on in the project. After NTP, we will work with the FHWA and assist in preparing the Section 4(f) de-minus determination for any potentially eligible archaeological sites which will require the assessment of avoidance and minimization alternatives. By finding these avoidance areas early on in the process, we mitigate the risk by removing the unknown project impacts from archaeological resources and provide a clearly defined approach to preparing the necessary NEPA finding these avoidance areas early on in the process, we mitigate the risk by removing the unknown project eligible archaeological sites which will require the assessment of avoidance and minimization alternatives. This has benefits to schedule and price.

**Threatened and Endangered (T&E) Species**

For T&E, if their habitat is determined to be present, compensatory mitigation will be required in the form of conservation bank credit purchases. We will mitigate this risk in the following ways:

- Investigate on site preservation of habitat at a ratio of 1:1
- Investigate offsite purchase of land that is located within the natural range of these species and provides suitable habitat
- Purchase at a 1:1 ratio of wetlands and associated uplands at a mitigation bank known to support these species. All of these possible mitigation approaches will minimize the impact to cost and schedule.

**Wetlands and Streams**

To mitigate the wetland and stream risks, we will rely on our Team’s vast experience with negotiating with the regulatory agencies to ensure their jurisdiction is appropriately applied. Our relationships with individuals at the regulatory and resources agencies streamline the process and keep the project on schedule. Our Team will present in-field factors to eliminate or minimize the project stream impacts by clarifying the stream impacts as either road side ditches or have them classified as jurisdictional ditches, neither of which will require stream compensatory mitigation. In addition, our team will present parameters that the stream features are actually linear wetlands thus reducing the stream compensation requirements on the project. To further remediate the permit risk, we will secure a Corps jurisdictional determination using current recognized delineation guidance and advance the project’s hydrologic design to file for water quality permits early in the project development process. Our Team will assess the effect on the project construction schedule as a result of the required TOY restrictions and apply it during the project’s preliminary engineering and construction activities. Our Team will evaluate the alternatives during the project design for innovative stormwater management within each watershed. In addition, our Team is aware of the relief for providing compensatory mitigation for linear projects that cross multiple watersheds provided in the Code of Virginia and we are experienced at providing the appropriate documentation to comply with the Code to secure this relief in the project’s compensatory mitigation decision.

**Role of VDOT and Other Agencies**

It is anticipated the Department will enter into a programmatic agreement with the SHPO for this project that will prescribe specific actions required prior to design approval and construction. VDOT, with our assistance, will lead agency negotiations with the FHWA, SHPO and FWS. State and federal resource agencies will provide resource information under their jurisdiction, comment on our project proposal and review / approve our project’s avoidance, minimization and mitigation strategies for these resources identified in the state environmental review process and NEPA clearances. Should a NEPA reevaluation be required, we will perform required studies and provide VDOT with the required information to lead the discussions. Our Team will take on this responsibility without hesitation and remain in the lead position to meet the environmental commitments on the Project.

**Risk Identification:** The project is located in the Atlantic Coastal Plain Physiographic Province of Virginia. This is characterized by a series of south-easterly dipping layers of relatively consolidated sandy clay deposits, with lesser amounts of gravel. Specifically, the roadway alignment passes through a formation that primarily includes alluvial and terrace deposits consisting of pebble to boulder sands overlain by fine to coarse sand interbedded with peat and clayey silt rich in organics. Based on our review of the Geotechnical Data Report, the near surface soils (below topsoil layer) are generally anticipated to include existing Fill (typically CL and SC) ranging in thickness from 0 to about 12 feet and
transitioning to the alluvial and terrace deposit soils (SM, SC, and CL) to depths of about 50 feet. The near surface alluvial and terrace deposit soils may contain significantly thick deposits of soft, compressible, and high plasticity soils (CH, MH and OH). Ground water will likely be encountered at shallow depths given the proximity to the York River and James River. We see these existing subsurface conditions as comprising risks related to potential unsuitable subgrade soils, settlement due to new fill placement, and soft/loose soils for deep foundations bridge structure locations.

**Why this Risk is Critical and an Impact on the Project:** The recognition and mitigation of these geotechnical conditions will impact traffic, public safety, quality, schedule (including the critical path), and construction costs.

**Traffic and Public Safety** – Removal and replacement of unsuitable materials would increase trucks entering and exiting the project site and present traffic and safety impacts for the traveling public. Maintaining traffic on the existing bridges during placement of fill may present a safety risk for the traveling public if the bridge foundations experience down drag.

**Quality** – Unanticipated settlement could require additional fill material to maintain the roadway grade and create future maintenance issues for the roadway. The impact of down drag on foundation elements could have an effect on the performance of the bridge joints and bearings, which would impact the quality of work and could end up providing an uneven riding surface.

**Construction Duration and Costs** – Unsuitable subgrade materials, settlement of embankment fills, and bridge foundation serviceability issues all have the potential to extend the duration of construction and increase costs.

The description of risks and impacts are presented in more detail below.

**Potential Unsuitable Soils**

Based on the geographic location of the project alignment, there is the likelihood that subgrade soils could be unsuitable for roadway embankment and pavement subgrades. Unsuitable soils per VDOT standards are typically identified by (a) exhibiting natural moisture contents greater than 20 to 30 percent above the respective soils optimum moisture content, (b) classifying as highly-plastic clays and silts (CH and MH), (c) low California Bearing Ratio (CBR) value as compared to minimum pavement design value, and (d) soft or loose relative density. Subgrade soils that are unsuitable must be modified in-place or removed entirely. These soils pose a risk to the project due to the additional time required to delineate the extent of these soils, the time required to modify or remove and replace these soils with suitable fill, and the uncertainty it creates with earthwork quantity estimation.

**Settlement of Embankment Fill**

New embankment fills will be constructed within the existing median along the corridor for new travel lanes and shoulder construction. Substantial fills, greater than 5 feet, will be required at isolated locations of deeper ravines and for bridge structure approaches. Soft soil layers were identified in the GDR soil test borings; therefore, new fill induced settlement must be evaluated by the Team prior to construction. The risk of fill induced settlement, if not addressed during construction, could potentially lead to post-construction settlement of new pavements, affecting the levelness and “rideability” of the new lanes and approaches. Settlement monitoring of the deeper fill areas, if necessary, could impact the project schedule if unaccounted for early in the construction process.

**Soft/Loose Soils for Deep Foundations at Bridges**

The bridge foundation design will be dependent on soil types and relative densities/consistencies. The borings presented in the Geotechnical Data Report (GDR) show very soft/loose to soft/loose soil profiles to the termination depth of the bridge borings. Significant risk to the project can occur without sufficient geotechnical boring data up to and beyond the anticipated foundation bearing elevation(s). Soft and loose soil deposits can have a significant impact on overall serviceability of bridge structures. As such the performance of the structure foundation has to be analyzed for (a) foundation type and size, (b) anticipated settlement of discrete soils layers that can lead to “down drag” forces on individual pile/shaft elements, (c) lateral squeeze factor of safety, and (d) overall slope stability of approach embankments. Further, these soil conditions are critical factors because they affect not only the new foundations but the existing adjacent substructure units as well.

**Risk Mitigation Strategy:** We will mitigate the geotechnical risks associated with the Project by confirming the extent of the potential impacts, selecting appropriate design and remediation strategies in coordination with VDOT’s recommendations, and safely and efficiently managing construction operations to minimize cost and schedule impacts. The mitigation strategies are presented in more detail below.

**Potential Unsuitable Soils**

To mitigate the potential for unsuitable soils to negatively affect the project schedule, the Project Team will focus early phase geotechnical explorations around low-lying areas and portions of the alignment where unsuitable soils have been noted in the existing Standard Penetration Test (SPT) soil test boring logs. The early phase exploration
will also focus on laboratory tests of the samples to include natural moisture contents, gradation, Atterberg Limits (VTM-7), Standard Proctor (VTM-1) and CBR (VTM-8) tests. The results of these tests will help delineate the lateral extent and depth of unsuitable soils to allow for proactive measures to be taken in early earthwork construction phases. Locations where unsuitable soils are anticipated to be encountered will be delineated on the project drawings (both depth and lateral extent). A Soils Remediation Plan will be developed and approved by VDOT’s geotechnical and materials engineers prior to the commencement of construction. The Soils Remediation Plan may include undercut/replacement, in-place drying/scarification, lime modification (moisture reduction), or lime/cement stabilization (altering the plasticity of the soil). Potential borrow sources will be identified and approved by VDOT prior to the start of construction to provide suitable fill material for the roadway fills and potential undercuts.

Settlement of Embankment Fill
In-situ testing consisting of Cone Penetrometer Testing (CPT), including pore pressure dissipation testing, Dilatometer Testing (DMT), and/or Pressure Meter Testing (PMT) can be performed at deep fill locations to compliment traditional SPT and laboratory consolidation testing. The test results will be used to determine settlement rates, magnitudes and provide anticipated settlement monitoring durations for inclusion in the project schedule. To mitigate against large anticipated settlement values or long-term settlement behavior alternative construction techniques may include (a) utilizing light weight fill material, (b) installing stabilization geosynthetic grids or fabrics, or (c) surcharging embankment fills that may or may not include vertical drains. These approaches will be evaluated by the Team and our approach finalized in alignment with VDOT.

Soft/Loose Soils for Deep Foundations at Bridges
Deep foundation systems developing most of their capacity from skin friction should be considered in lieu of non-displacement deep foundation systems such as H-piles. This reduces the overall number of foundation elements for each structure and accommodates the “soil setup” capacity increase common in this geology. Deeper borings and in-situ tests can be completed at the bridge locations to evaluate the depth and consistency of deeper soil strata that can also contribute to increased skin friction and end bearing capacity. If bridge foundation “downdrag” or negative skin friction is deemed to be a viable risk after further investigation, mitigation strategies may include (a) oversizing the foundation elements to accommodate the anticipated downdrag load, (b) use of light weight fill material to minimize settlement of subsurface soils, (c) bituminous coating of piles to reduce friction of subsurface soils pulling down on the pile, or (d) working with the team to modify the construction sequencing to allow for settlement of subsurface soils to occur prior to driving of foundation elements. To mitigate against long-term movement of new and/or existing structures, the proposed and existing structures can be monitored for adjacent ground movement. Existing piers and bridge beams will be protected during construction will be sequenced to ensure global stability of the foundations during construction.

Role of VDOT and other Agencies: None, other than the traditional review of the Team’s geotechnical investigation plan and designs. We take on the geotechnical risk fully per the RFP requirements.

Risk No. 3—Full Depth Reconstruction

Risk Identification: The scope of the project originally called for the mill and overlay of the existing travel lanes, as indicated in the Alternatives Development Technical Memorandum dated December 2013. Since that time and the release of the RFQ, the scope of work has changed to a full depth reconstruction of the existing travel lanes. This change has a significant impact on many parts of the project and thus constitutes a major risk for the project.

Why this Risk is Critical and an Impact on the Project: The following components are critical and have an impact on the Project.

Stormwater Management
With the change to full-depth reconstruction, the stormwater management plan must now account for the treatment of the existing lanes and the proposed lanes, not just the new proposed pavement. The Public Hearing Plans and ROW areas denoted on the RFQ plans appear to have Best Management Practices (BMPs) sized for just treating the widened section, as if it is a mill and overlay project. Drainage in the median during the pavement removal process is also a significant risk. Overall, this is critical as more ROW may be required for the newly required BMPs and this fact yields other issues noted below.

Increased ROW Needs
The need for more BMPs calls for more ROW than was shown in the Public Hearing Plans and RFQ plans. This fact is further complicated by the three mile stretch of the project adjacent to the Yorktown Naval Weapons Station where no ROW for BMPs have been identified. In this section, it will be difficult to obtain sites for BMPs, as right-of-way acquisition from the Yorktown Naval Weapons Station will be difficult and I-64 is flanked by Route 143 (Merrimac Trail) and a railroad line to the south. This is critical for the project’s approval.
**Increased Cultural Resource Survey Needs**
The increase in BMP needs also increases a need for an expanded Cultural Resource Survey as these new BMP sites were not previously surveyed. This Survey may find additional cultural resource sites. This risk has an impact on the project as a newly found cultural resource site may require relocation avoidance or mitigation. The impact, in turn, may increase time and cost to the project.

**Increased Wetland and Stream Impacts**
With an increase in possible ROW needs, there may also be increased impacts on natural resources such as wetlands and streams. The risk is delay due to the permit acquisition timeframes as the project may go from a general permit authorization to an individual permit for the project.

**Complexity of Maintenance of Traffic (MOT)**
The change from mill and overlay, as currently being utilized in I-64 Segment I, to full depth reconstruction greatly complicates the MOT. With full depth reconstruction, traffic will need to be completely removed from the existing pavements to remove and rebuild the pavements. This will likely mean a more complex MOT plan consisting of more phases, longer times to construct phases and possible detours. The impact of this item will be more inconvenience and delay to the traveling public, higher risk of work-zone related incidents and much tighter schedule constraints.

**Risk Mitigation Strategy:**

**Stormwater Management (SWM)**
To mitigate this risk, we can utilize larger BMPs in areas identified, such as the Celco property. This mitigation will likely require more piping, but will reduce the overall risk to the project. We will avoid extensive SWM facilities in the median in order to preserve the existing trees that are so important to the community in this area, especially where the alignment passes thought the Yorktown Naval Weapons Station. If other options do not suitably accommodate the stormwater treatment requirements, underground treatment and/or pre-manufactured BMP solutions may be considered. Also, stormwater attenuation requirements may be accomplished by capturing upstream runoff and controlling its flow rate through the project limits. For drainage needs during the pavement removal process, we will design a temporary drainage system specifically for this operation to mitigate this risk.

**Increased ROW needs**
Successful application of the strategies considered in the above section will help minimize or eliminate the need for additional ROW.

**Increased Cultural Resource Survey Needs**
Again, our first attempt is to eliminate or minimize the need for additional property for stormwater treatment. If more ROW is still needed, we will identify possible additional BMP locations during the proposal phase. Armed with this information, our team will conduct a preliminary cultural resource survey of these areas to determine if additional cultural resource sites exist. If there is a possibility of the cultural resource site at or near a newly proposed BMP, we will first seek to relocate the BMP in order to mitigate the risk.

**Increased Wetland and Stream Impacts**
If we cannot fully mitigate the need for additional ROW, we may propose natural channel design to promote self-compensation within the project limits. This approach also reduces the amount of wetland credits needed for the project.

**Complexity of Maintenance of Traffic**
Our Team will build upon the simpler MOT developed as part of RK&K’s Technical Proposal for I-64 Segment I project and modify it to work for the full-depth Segment II project. Specifically, we may request the allowance of lane closures for the full project length instead of the VDOT standard two mile maximum. With this allowance and our three way JV providing almost unlimited labor, multiple crews can work concurrently and provide a more efficient and condensed schedule. Work affecting traffic will be performed during the fall, winter and spring months, whenever possible, to avoid the higher traffic volumes during the summer tourist season. If work is required during the summer, 24 hour work periods during week days will be explored to avoid impacts during the heaver traveled weekends. Existing paved shoulders will be strengthened to support traffic loads so that traffic can be shifted to the outside to allow for constructing of the two inside lanes. Lane shifts will be more complicated at interchanges, where work zones may interfere with exit and entrance ramps. When a work zone interferes with a ramp, temporary ramp alignments will be provided and the work zone will be adjusted to allow for the temporary ramps.

**Role of VDOT and other Agencies:** None other than VDOT will enter into a programmatic agreement with the SHPO for this project and will, with our assistance, lead the agency negotiations with the FHWA and Corps of Engineers.
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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# ATTACHMENT 3.1.2

## Project: 0064-965-264, Contract ID#: C00106665DB82

### 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 15-page limit?</th>
<th>SOQ Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCC and DPOR registration documentation (Appendix)</td>
<td>Attachment 3.2.10</td>
<td>Section 3.2.10</td>
<td>no</td>
<td>A29 – A31</td>
</tr>
<tr>
<td>Full size copies of SCC Registration</td>
<td>NA</td>
<td>Section 3.2.10.1</td>
<td>no</td>
<td>A32 – A40</td>
</tr>
<tr>
<td>Full size copies of DPOR Registration (Offices)</td>
<td>NA</td>
<td>Section 3.2.10.2</td>
<td>no</td>
<td>A41 – A46</td>
</tr>
<tr>
<td>Full size copies of DPOR Registration (Key Personnel)</td>
<td>NA</td>
<td>Section 3.2.10.3</td>
<td>no</td>
<td>A47 – A48</td>
</tr>
<tr>
<td>Full size copies of DPOR Registration (Non-APELSCIDLA)</td>
<td>NA</td>
<td>Section 3.2.10.4</td>
<td>no</td>
<td>A49</td>
</tr>
</tbody>
</table>

**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 15-page limit?</th>
<th>SOQ Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>Section 3.2.11</td>
<td>yes</td>
<td>1</td>
</tr>
</tbody>
</table>

**Offeror's Team Structure**  

| Key Personnel Resume – DB Project Manager     | Attachment 3.3.1 | Section 3.3.1.1 | no | A50 – A51 |
| Key Personnel Resume – Responsible Charge Engineer | Attachment 3.3.1 | Section 3.3.1.2 | no | A52 – A53 |
| Key Personnel Resume – Quality Assurance Manager | Attachment 3.3.1 | Section 3.3.1.3 | no | A54 – A55 |
| Key Personnel Resume – Design Manager         | Attachment 3.3.1 | Section 3.3.1.4 | no | A56 – A57 |
| Key Personnel Resume – Construction Manager   | Attachment 3.3.1 | Section 3.3.1.5 | no | A58 – A59 |
| Key Personnel Resume – Maintenance of Traffic Manager | Attachment 3.3.1 | Section 3.3.1.6 | no | A60 – A61 |
| Organizational chart                          | NA               | Section 3.3.2     | yes | 6           |
| Organizational chart narrative                | NA               | Section 3.3.2     | yes | 5 – 6       |
## 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 15-page limit?</th>
<th>SOQ Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experience of Offeror’s Team</strong></td>
<td></td>
<td></td>
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<tr>
<td>Lead Contractor Work History Form</td>
<td>Attachment 3.4.1(a)</td>
<td>Section 3.4</td>
<td>no</td>
<td>A62 – A64</td>
</tr>
<tr>
<td>Lead Designer Work History Form</td>
<td>Attachment 3.4.1(b)</td>
<td>Section 3.4</td>
<td>no</td>
<td>A65 – A67</td>
</tr>
<tr>
<td><strong>Project Risk</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Identify and discuss three critical risks for the Project</td>
<td>NA</td>
<td>Section 3.5.1</td>
<td>yes</td>
<td>10 – 15</td>
</tr>
</tbody>
</table>
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** 04/21/2015  
   (Date)

2. Cover letter of **RFQ Addendum No. 1** 05/18/2015  
   (Date)

3. Cover letter of  
   (Date)

_____________________________  __________________________
SIGNATURE  DATE

_____________________________  __________________________
PRINTED NAME  TITLE
ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO. C00106665DB82
PROJECT NO.: 0064-965-264

ACKNOWLEDGEMENT OF RFQ, REVISION AND/OR ADDENDA

Acknowledgement shall be made of receipt of the Request for Qualifications (RFQ) and/or any and all revisions and/or addenda pertaining to the above designated project which are issued by the Department prior to the Statement of Qualifications (SOQ) submission date shown herein. Failure to include this acknowledgement in the SOQ may result in the rejection of your SOQ.

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1. Cover letter of RFQ 04/21/2015 (Date)

2. Cover letter of RFQ Addendum No. 1 05/18/2015 (Date)

3. Cover letter of (Date)

[Signature]  May 28, 2015
SIGNATURE DATE

Arthur C. Cox, III Vice President
PRINTED NAME TITLE
ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO. C00106665DB82
PROJECT NO.: 0064-965-264

ACKNOWLEDGEMENT OF RFQ, REVISION AND/OR ADDENDA

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2. Cover letter of RFQ Addendum No. 1 05/18/2015 (Date)

3. Cover letter of (Date)

[Signature] 5/21/2015
SIGNATURE DATE

GEORGE BOSMAJIAN III
PRINTED NAME PRESIDENT

A6
Offerors shall complete the table and include the addresses of affiliates or subsidiary companies as applicable. By completing this table, Offerors certify that all affiliated and subsidiary companies of the Offeror are listed.

<table>
<thead>
<tr>
<th>Relationship with Offeror (Affiliate or Subsidiary)</th>
<th>Full Legal Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E. V. Williams, Inc.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PARENT COMPANY</td>
<td>The Branch Group</td>
<td>P. O. Box 4004, Roanoke, VA 24022</td>
</tr>
<tr>
<td>SUBSIDIARY</td>
<td>E. V. Williams, Inc.</td>
<td>925 South Military Highway, Virginia Beach, VA 23464</td>
</tr>
<tr>
<td>SUBSIDIARY</td>
<td>Branch Highways, Inc.</td>
<td>P. O. Box 4004, Roanoke, VA 24022</td>
</tr>
<tr>
<td>SUBSIDIARY</td>
<td>Branch &amp; Associates, Inc.</td>
<td>P. O. Box 40051, Roanoke, VA 24022</td>
</tr>
<tr>
<td>SUBSIDIARY</td>
<td>G. J. Hopkins, Inc.</td>
<td>P. O. Box 12467, Roanoke, VA 24025</td>
</tr>
<tr>
<td><strong>Corman Construction, Inc.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PARENT COMPANY</td>
<td>CG Enterprises, Inc.</td>
<td>12001 Guilford Road, Annapolis Junction, MD 20701</td>
</tr>
<tr>
<td>AFFILIATE (SISTER)</td>
<td>Corman Marine Construction, Inc.</td>
<td>711 East Ordnance Road, Suite 715, Baltimore, MD 21226</td>
</tr>
<tr>
<td>AFFILIATE (JOINT VENTURE)</td>
<td>CK Constructors, A Joint Venture</td>
<td>c/o Corman Construction, Inc., 12001 Guilford Road, Annapolis Junction, MD 20701</td>
</tr>
<tr>
<td>AFFILIATE (JOINT VENTURE)</td>
<td>Intercounty Constructors Joint Venture</td>
<td>c/o Granite Construction Northeast, Inc., 120 White Plains Road, Suite 310, Tarrytown, NY 10591</td>
</tr>
<tr>
<td>AFFILIATE (JOINT VENTURE)</td>
<td>MD 200 Constructors, A Joint Venture</td>
<td>c/o Kiewit Infrastructure South Co., 450 Dividend Drive, Peachtree City, GA 30269</td>
</tr>
<tr>
<td>AFFILIATE (JOINT VENTURE)</td>
<td>Wagman, Corman, McLean Joint Venture</td>
<td>c/o GA &amp; FC Wagman, Inc., 3290 North Susquehanna Trail, York, PA 17406</td>
</tr>
<tr>
<td>AFFILIATE (JOINT VENTURE)</td>
<td>Corman-Wagman, A Joint Venture</td>
<td>c/o Corman Construction, Inc., 12001 Guilford Road, Annapolis Junction, MD 20701</td>
</tr>
<tr>
<td>AFFILIATE (JOINT VENTURE)</td>
<td>KC Constructors, A Joint Venture</td>
<td>1800 South Bell Street, Suite 300, Arlington, VA 22202</td>
</tr>
<tr>
<td>AFFILIATE (JOINT VENTURE)</td>
<td>LANE/Corman Joint Venture</td>
<td>c/o The Lane Construction Corp., 90 Fieldstone Court, Cheshire, CT 06410</td>
</tr>
<tr>
<td><strong>McLean Contracting Company</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUBSIDIARY</td>
<td>Norcur, Inc.</td>
<td>6700 McLean Way, Glen Burnie, Md 21060</td>
</tr>
</tbody>
</table>
ATTACHMENT NO. 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0064-965-264
Contract ID#: C00106665DB82

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

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

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

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

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

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

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

[Signature]
05/28/2015

Vice President
Title

Arthur C. Cox, III
Corman Construction, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0064-965-264
Contract ID#: C00106665DB82

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

May 28, 2015

Signature: James A. Openshaw, III
Date

E. V. Williams, Inc.
Name of Firm

President
Title
ATTACHMENT NO. 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0064-965-264
Contract ID#: C00106665DB82

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

[Signature] 5/1/15 [Ass't. Vice Pres] [Date] [Title]

McLean Contracting Co.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-965-264
Contract ID#: C00106665DB82

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

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

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

[Signature] May 28, 2015 [Director, Structures]
Date Title

Rummel, Klepper & Kahl, LLP (RK&K)

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-965-264
Contract ID#: C00106665DB82

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[Signature]
Date: 4/29/15

Principal
Title

A. Morton Thomas & Associates, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-965-264
Contract ID#: C00106665DB82

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__________________________  5/6/2015  
Signature          Date          Chief Engineer

__________________________
Name of Firm

ECS Mid-Atlantic, LLC
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-965-264
Contract ID#: C00106666DB82

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

Signature

April 28, 2015

Date

President

Title

KDR Real Estate Services, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-965-264
Contract ID#: C00106665DB82

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.

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

[Signature] May 11, 2015 [Date]

Vice President
Title

Land Planning and Design Associates, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-965-264
Contract ID#: C00106665DB82

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Signature 4/29/2015  President
Date
Title

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

CERTIFICATION REGARDING DEBARTMENT LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-965-264
Contract ID#: C00106665DB82

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Signature: ___________________________ Date: 5/6/2015

Principal: ___________________________ Title: __________

Sabra, Wang & Associates, Inc. ___________________________

Name of Firm: ___________________________
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-965-264
Contract ID#: C00106665DB82

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[Signature] 4/30/2015 [Title]

Utility Professional Services Inc.
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-965-264
Contract ID#: C00106665DB82

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

[Signature] 5/19/2015
Signature Date

Co-President

Title

PRR, Inc.

Name of Firm
Offeror's VDOT Prequalification Certificate
CERTIFICATE OF QUALIFICATION

E. V. WILLIAMS, INC.

Vendor Number: W488

In accordance with the Regulations of the Virginia Department of Transportation, your firm is hereby notified that the following Rating has been assigned to your firm:

PREQUALIFIED

Your firm specializes in the noted Classification(s):

GRADING; DRAINAGE STRUCTURES;
PORTLAND CEMENT CONCRETE PAVING; UNDERGROUND UTILITIES

Issue Date: October 31, 2014

This Rating and Classification will Expire: October 31, 2015

Suzanne FR Lucas, State Prequalification Officer

Dan E. Silley, Director of Contracts

It is not permissible to alter this document, use after posted expiration date, or use by persons or firms other than those named on this certificate.
COMMONWEALTH OF VIRGINIA

CERTIFICATE OF QUALIFICATION

CORMAN CONSTRUCTION, INC.

Vendor Number: C097

In accordance with the Regulations of the Virginia Department of Transportation, your firm is hereby notified that the following Rating has been assigned to your firm:

PREQUALIFIED

GRADING: MAJOR STRUCTURES; UNDERGROUND UTILITIES

Your firm specializes in the noted Classification(s):

This Rating and Classification will Expire: March 31, 2016

Suzanne R. Lucas, State Prequalification Officer
It is not permissible to alter the document, use after posted expiration date, or use by persons or firms other than those named on the certificate.
CERTIFICATE OF QUALIFICATION

MCLEAN CONTRACTING COMPANY

Vendor Number: M047

In accordance with the Regulations of the Virginia Department of Transportation, your firm is hereby notified that the following Rating has been assigned to your firm:

PREQUALIFIED

Your firm specializes in the noted Classification(s):

MAJOR STRUCTURES

Issue Date: July 31, 2014

This Rating and Classification will Expire: July 31, 2015

Suzanne FR Lucas, State Prequalification Officer

Don E Silies, State Contract Officer

It is not permissible to alter this document, use after posted expiration date, or use by persons or firms other than those named on this certificate.
May 28, 2015

Virginia Department of Transportation
Alternate Project Delivery Office
1401 East Broad Street
Richmond, VA  23219
Attn:  Mr. Joseph A. Clarke, P.E., DBIA

Re:  Corman Construction, Inc. – Surety Qualification
     In Association with a JV Proposal with E.V. Williams Inc. and McLean Contracting Co.
     Interstate 64 Capacity Improvements – Segment II:  A Design-Build Project
     Contract ID No.: C00106665DB82

Dear Mr. Clarke:

As Surety for Corman Construction, Inc., Fidelity and Deposit Company of Maryland and Zurich American Insurance Company with A.M. Best Financial Strength Ratings “A+” and Financial Size Category “XV” are capable of providing 100% Performance Bond & 100% Labor and Materials Payment Bond in the anticipated amount of $185,000,000.00 and said bonds will cover the Project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this project.

If Corman Construction, Inc., as a member of the Joint Venture, is short-listed and/or awarded a contract for the referenced project and requests that we provide the necessary Bid and Performance and Payment Bonds, we will be prepared to execute the bonds subject to our acceptable review of the contract terms and conditions, bond forms and any other underwriting considerations at the time of the request.

Fidelity and Deposit Company of Maryland and Zurich American Insurance Company are proud to have represented Corman Construction, Inc.’s as its surety for over twenty (20) years. Based on Corman Construction, Inc.’s financial strength and track record, we are prepared to consider jobs of $250,000,000 single/$600,000,000 aggregate total program.

Our consideration and issuance of bonds is a matter solely between Corman Construction, Inc. and ourselves, and we assume no liability to third parties or to you by the issuance of this letter.

We trust that this information meets with your satisfaction. If there are further questions, please feel free to contact me.

Sincerely,

Robert A. Chlada,
Attorney-in-Fact
Commonwealth of Virginia

STATE CORPORATION COMMISSION

July 1, 2014

FIDELITY AND DEPOSIT COMPANY OF MARYLAND
600 RED BROOK BLVD
OWINGS MILLS MD 21117-5153

is hereby licensed to transact the business of

Aircraft Liability
Auto Liability
Auto Physical Damage
Boiler & Machinery
Burglary & Theft
Commercial Multi-Peril
Credit
Credit Property Insurance
Fidelity
Fire
Glass
Homeowners Multi-Peril
Inland Marine
Liability Other than Auto
Mls Property & Casualty
Ocean Marine
Surety
Water Damage
Workers Compensation & Employers’
Liability

in the Commonwealth of Virginia through the thirtieth day of June next succeeding the date hereof unless this license shall be sooner revoked or otherwise cancelled.

ID: 39306

State Corporation Commission
Bureau of Insurance

By: [Signature]
Commissioner
Commonwealth of Virginia

STATE CORPORATION COMMISSION

July 1, 2014

ZURICH AMERICAN INSURANCE COMPANY
ONE LIBERTY PLAZA
165 BROADWAY
NEW YORK NY 10006-1404

is hereby licensed to transact the business of
Accident & Sickness
Aircraft Liability
Aircraft Physical Damage
Auto Liability
Auto Physical Damage
Boiler & Machinery
Burglary & Theft
Commercial Multi-Peril
Credit
Credit Accident & Sickness
Farmowners Multi-Peril
Fidelity
Fire
Glass
Homeowners Multi-Peril
Inland Marine
Legal Services
Liability Other than Auto
Misc Property & Casualty
Ocean Marine
Surety
Water Damage
Workers Compensation & Employers' Liability

in the Commonwealth of Virginia through the thirtieth day of June next succeeding the date hereof unless this license shall be sooner revoked or otherwise cancelled.

ID: 16535

State Corporation Commission
Bureau of Insurance

By: [Signature]
Commissioner
FIDELITY AND DEPOSIT COMPANY
OF MARYLAND
600 Red Brook Blvd., Suite 600, Owings Mills, MD 21117

Statement of Financial Condition
As Of December 31, 2014

**ASSETS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonds</td>
<td>$142,720,308</td>
</tr>
<tr>
<td>Stocks</td>
<td>$21,816,223</td>
</tr>
<tr>
<td>Cash and Short Term Investments</td>
<td>$2,077,768</td>
</tr>
<tr>
<td>Reinsurance Recoverable</td>
<td>$10,375,303</td>
</tr>
<tr>
<td>Other Accounts Receivable</td>
<td>$46,778,921</td>
</tr>
<tr>
<td><strong>TOTAL ADMITTED ASSETS</strong></td>
<td><strong>$223,768,523</strong></td>
</tr>
</tbody>
</table>

**LIABILITIES, SURPLUS AND OTHER FUNDS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Reserve for Taxes and Expenses</td>
<td>$1,321,332</td>
</tr>
<tr>
<td>Ceded Reinsurance Premiums Payable</td>
<td>$49,965,411</td>
</tr>
<tr>
<td>Securities Lending Collateral Liability</td>
<td>$4,009,064</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES</strong></td>
<td><strong>$55,295,807</strong></td>
</tr>
<tr>
<td>Capital Stock, Paid Up</td>
<td>$5,000,000</td>
</tr>
<tr>
<td>Surplus</td>
<td>$163,472,717</td>
</tr>
<tr>
<td>Surplus as regards Policyholders</td>
<td>$168,472,716</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$223,768,522</strong></td>
</tr>
</tbody>
</table>

Securities carried at $58,191,540 in the above statement are deposited with various states as required by law.

Securities carried on the basis prescribed by the National Association of Insurance Commissioners. On the basis of market quotations for all bonds and stocks owned, the Company's total admitted assets at December 31, 2014 would be $227,936,393 and surplus as regards policyholders $172,640,586.

I, DENNIS F. KERRIGAN, Corporate Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing statement is a correct exhibit of the assets and liabilities of the said Company on the 31st day of December, 2014.

![Signature]

Corporate Secretary

State of Illinois
City of Schaumburg } SS:

Subscribed and sworn to, before me, a Notary Public of the State of Illinois, in the City of Schaumburg, this 15th day of March, 2015.

![Notary Public Seal]
# ZURICH AMERICAN INSURANCE COMPANY
## COMPARATIVE BALANCE SHEET
### ONE LIBERTY PLAZA, 165 BROADWAY, 32nd FLOOR, NEW YORK, NY 10006
### As of December 31, 2014 and December 31, 2013

<table>
<thead>
<tr>
<th>Assets</th>
<th>12/31/2014</th>
<th>12/31/2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonds</td>
<td>$17,933,136,241</td>
<td>$18,990,565,123</td>
</tr>
<tr>
<td>Preferred Stock</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Common Stock</td>
<td>3,213,594,517</td>
<td>2,411,755,638</td>
</tr>
<tr>
<td>Other Invested Assets</td>
<td>2,602,435,930</td>
<td>2,505,133,631</td>
</tr>
<tr>
<td>Short-term Investments</td>
<td>707,396,303</td>
<td>327,019,081</td>
</tr>
<tr>
<td>Receivable for securities</td>
<td>20,334,654</td>
<td>123,787,865</td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>9,155,828</td>
<td>(65,045,649)</td>
</tr>
<tr>
<td>Securities lending/reinvested collateral assets</td>
<td>167,993,212</td>
<td>208,060,537</td>
</tr>
<tr>
<td>Employee Trust for Deferred Compensation Plan</td>
<td>140,606,122</td>
<td>142,420,097</td>
</tr>
<tr>
<td><strong>Total Cash and Invested Assets</strong></td>
<td><strong>$24,794,652,816</strong></td>
<td><strong>$24,643,676,505</strong></td>
</tr>
<tr>
<td>Premiums Receivable</td>
<td>$3,317,513,374</td>
<td>$3,338,946,105</td>
</tr>
<tr>
<td>Funds Held with Reinsurers</td>
<td>2,357,701</td>
<td>2,383,155</td>
</tr>
<tr>
<td>Reinsurance Recoverable</td>
<td>492,669,841</td>
<td>391,812,478</td>
</tr>
<tr>
<td>Accrued Investment Income</td>
<td>116,594,177</td>
<td>113,886,701</td>
</tr>
<tr>
<td>Federal Income Tax Recoverable</td>
<td>941,023,188</td>
<td>940,033,456</td>
</tr>
<tr>
<td>Due from Affiliates</td>
<td>83,375,591</td>
<td>183,852,738</td>
</tr>
<tr>
<td>Other Assets</td>
<td>561,819,984</td>
<td>549,410,052</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td><strong>$30,310,026,672</strong></td>
<td><strong>$30,184,001,188</strong></td>
</tr>
</tbody>
</table>

### Liabilities and Policyholders’ Surplus
### Liabilities:
- Loss and LAE Reserves | $13,922,755,027 | $13,894,112,327 |
- Unearned Premium Reserve | 4,502,959,029 | 4,321,146,577 |
- Funds Held with Reinsurers | 191,291,300 | 185,460,548 |
- Loss in Course of Payment | 306,093,345 | 357,922,606 |
- Commission Reserve | 79,627,248 | 68,132,284 |
- Federal Income Tax Payable | 115,512,766 | 290,773,995 |
- Remittances and Items Unallocated | 123,759,621 | 111,710,530 |
- Payable to parent, subs and affiliates | 154,224,298 | 154,428,297 |
- Provision for Reinsurance | 59,189,897 | 43,942,761 |
- Ceded Reinsurance Premiums Payable | 721,709,366 | 807,651,125 |
- Securities Lending Collateral Liability | 167,993,212 | 208,060,537 |
- Other Liabilities | 1,849,229,451 | 1,842,241,242 |
| **Total Liabilities** | **$22,294,290,200** | **$22,345,382,849** |

### Policyholders’ Surplus:
- Common Capital Stock | $5,000,000 | $5,000,000 |
- Paid-In and Contributed Surplus | 4,394,131,321 | 4,394,131,321 |
- Surplus Notes | - | - |
- Special Surplus Funds | 57,824,000 | 34,865,000 |
- Cumulative Unrealized Gain | 572,072,362 | 505,136,565 |
- Unassigned Surplus | 2,986,708,790 | 2,459,225,434 |
| **Total Policyholders’ Surplus** | **$8,015,736,472** | **$7,998,418,339** |

| Total Liabilities and Policyholders’ Surplus | **$30,310,026,672** | **$30,184,001,188** |

I, Dennis F. Kerrigan, Corporate Secretary of ZURICH AMERICAN INSURANCE COMPANY do hereby certify that the foregoing statement is a correct exhibit of the assets and liabilities of the said Company, on the 31st day of December, 2014, according to the best of my information, knowledge and belief.

![Signature]

Corporate Secretary

State of Illinois
County of Cook

Subscribed and sworn to, before me, a Notary Public of the State of Illinois, in the City of Schaumburg, this 15th day of March, 2015.

![Notary Public Seal]

DARRYL JOINER
OFFICIAL SEAL
Notary Public - State of Illinois
My Commission Expires February 24, 2018
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by THOMAS O. MCCLELLAN, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Joseph A. PIERSON, Robert A. CHLADA, Cynthia M. CHARVAT, Dennis C. OURAND, Steven A. DZURIK, JR., John J. MARKOTIC and Diane S. LOUGHRY, all of Hunt Valley, Maryland, EACH its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, as and as its act and deed: any and all bonds and undertakings, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 21st day of August, A.D. 2014.

ATTEST:

ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND

By: ____________________________

Secretary
Eric D. Barnes

By: ____________________________

Vice President
Thomas O. McClellan

State of Maryland
County of Baltimore

On this 21st day of August, A.D. 2014, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, THOMAS O. MCCLELLAN, Vice President, and ERIC D. BARNES, Secretary, of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposed and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Constance A. Dunn

Constance A. Dunn, Notary Public
My Commission Expires: July 14, 2015

PCA-F 025-0066C
EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8. Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 28th day of May, 2015.

[Seals]

Michael Bond, Vice President
### SCC and DPOR Information

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

**SCC & DPOR INFORMATION FOR BUSINESSES (RFQ Sections 3.2.10.1 and 3.2.10.2)**

<table>
<thead>
<tr>
<th>Business Name</th>
<th>SCC Information (3.2.10.1)</th>
<th>DPOR Information (3.2.10.2)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SCC Number</td>
<td>SCC Type of Corporation</td>
<td>SCC Status</td>
</tr>
<tr>
<td>E. V. Williams, Inc.</td>
<td>04784666</td>
<td>Corporation</td>
<td>Active</td>
</tr>
<tr>
<td>Corman Construction, Inc.</td>
<td>F0467987</td>
<td>Foreign Corporation</td>
<td>Active</td>
</tr>
<tr>
<td>McLean Contracting Company</td>
<td>F0043929</td>
<td>Foreign Corporation</td>
<td>Active</td>
</tr>
<tr>
<td>Rummel, Klepper &amp; Kahl, LLP (RK&amp;K)</td>
<td>K0004178</td>
<td>LLP</td>
<td>Active</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
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<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# ATTACHMENT 3.2.10

State Project No. 0064-965-264, Contract ID#: C00106665DB82

## SCC and DPOR Information

<table>
<thead>
<tr>
<th>Company Name</th>
<th>ID Number</th>
<th>Legal Form</th>
<th>Status</th>
<th>Address</th>
<th>City, State, Zip Code</th>
<th>Contact Class</th>
<th>License Number</th>
<th>Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Morton Thomas &amp; Associates, Inc.</td>
<td>F0494312</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>1530 Breezeport Way, Building 4, Suite 300</td>
<td>Suffolk, VA 23435</td>
<td>ENG</td>
<td>0411000693</td>
<td>02-29-2016</td>
</tr>
<tr>
<td>ECS Mid-Atlantic, LLC</td>
<td>S1208216</td>
<td>LLC</td>
<td>Active</td>
<td>108 Ingram Road, Ste 1</td>
<td>Williamsburg, VA 23188</td>
<td>ENG</td>
<td>0411000382</td>
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<tr>
<td>KDR Real Estate Services, Inc.</td>
<td>0571210-4</td>
<td>Corporation</td>
<td>Active</td>
<td>2500 Grenoble Rd</td>
<td>Richmond, VA 23294</td>
<td>Real Estate Firm License</td>
<td>0226007129</td>
<td>12-31-2016</td>
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<tr>
<td>Land Planning &amp; Design Associates, Inc.</td>
<td>01425545</td>
<td>Corporation</td>
<td>Active</td>
<td>310 E Main Street, Suite 200</td>
<td>Charlottesville, VA 22902</td>
<td>LA</td>
<td>0407001789</td>
<td>12-31-2015</td>
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<tr>
<td>Precision Measurements, Inc.</td>
<td>04504361</td>
<td>Corporation</td>
<td>Active</td>
<td>813 Diligence Drive Suite 121B</td>
<td>Newport News, VA 23606</td>
<td>LS</td>
<td>0411000292</td>
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<tr>
<td>PRR, Inc.</td>
<td>F1841594</td>
<td>Foreign Corporation</td>
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<tr>
<td>Sabra, Wang &amp; Associates, Inc.</td>
<td>F1343203</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>101 W Broad St, Suite 301</td>
<td>Falls Church, VA 22046</td>
<td>ENG</td>
<td>0407005636</td>
<td>12-31-2015</td>
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<tr>
<td>Utility Professional Services, Inc.</td>
<td>05889878</td>
<td>Corporation</td>
<td>Active</td>
<td>PO Box 923</td>
<td>Colonial Beach, VA 22443</td>
<td>ENG</td>
<td>0407005942</td>
<td>12-31-2015</td>
</tr>
<tr>
<td>Business Name</td>
<td>Individual’s Name</td>
<td>Office Location Where Professional Services will be Provided (City/State)</td>
<td>Individual’s DPOR Address</td>
<td>DPOR Type</td>
<td>DPOR Registration Number</td>
<td>DPOR Expiration Date</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>------------------</td>
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<td>-----------------------------</td>
<td>-----------</td>
<td>--------------------------</td>
<td>---------------------</td>
<td></td>
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</tr>
<tr>
<td>Corman Construction, Inc.</td>
<td>Ryan Gregory Gorman, PE, DBIA</td>
<td>Richmond, VA</td>
<td>2660 Old Timber Way Powhatan, VA 23139</td>
<td>Professional Engineer</td>
<td>0402033522</td>
<td>06-30-2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rummel, Klepper &amp; Kahl, LLP (RK&amp;K)</td>
<td>Gary Sebastian Johnson, PE, DBIA</td>
<td>Richmond, VA</td>
<td>3808 Ivory Court Richmond, VA 23233</td>
<td>Professional Engineer</td>
<td>0402033863</td>
<td>09-30-2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rummel, Klepper &amp; Kahl, LLP (RK&amp;K)</td>
<td>John Michael McDowell, PE</td>
<td>Richmond, VA</td>
<td>10306 Eaton Place, Suite 240, Fairfax, VA 22030</td>
<td>Professional Engineer</td>
<td>0402015983</td>
<td>11-30-2015</td>
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</tr>
<tr>
<td>A. Morton Thomas &amp; Associates, Inc.</td>
<td>Michael Ray Davis, PE, CCM</td>
<td>Suffolk, VA</td>
<td>29070 Sunbeam Road Franklin, VA 23851</td>
<td>Professional Engineer</td>
<td>0402028305</td>
<td>07-31-2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDR Real Estate Services, Inc.</td>
<td>Allen Gunn Dorin, Jr.</td>
<td>Richmond, VA</td>
<td>2500 Grenoble Rd Richmond, VA 23294</td>
<td>Principal Broker License</td>
<td>0225108043</td>
<td>03-31-2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Allen G Dorin, Jr.</td>
<td>Richmond, VA</td>
<td>2500 Grenoble Rd Richmond, VA 23294</td>
<td>Certified Real Estate Appraiser</td>
<td>4001000562</td>
<td>11-30-2015</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### E. V. Williams, Inc.

#### General
- **SCC ID:** 04794666
- **Entity Type:** Corporation
- **Jurisdiction of Formation:** VA
- **Date of Formation/Registration:** 1/27/1997
- **Status:** Active
- **Shares Authorized:** 5000

#### Principal Office
- **Address:** 925 S MILITARY HWY
- **City:** VA BEACH
- **Zip Code:** 23464

#### Registered Agent/Registered Office
- **Name:** MELANIE F WHEELER
- **Address:** 442 RUTHERFORD AVE NE
- **City:** ROANOKE
- **Zip Code:** 24015

### Corman Construction, Inc.

#### General
- **SCC ID:** 03457687
- **Entity Type:** Foreign Corporation
- **Jurisdiction of Formation:** DE
- **Date of Formation/Registration:** 11/2/1984
- **Status:** Active
- **Shares Authorized:** 1000

#### Principal Office
- **Address:** 12001 GUILFORD ROAD
- **City:** ANNAPOLIS JUNCTION
- **Zip Code:** MD20701

#### Registered Agent/Registered Office
- **Name:** CT CORPORATION SYSTEM
- **Address:** 4701 COX ROAD, SUITE 205
- **City:** GLEN ALLEN
- **State:** VA
- **Zip Code:** 23060
- **County:** HENRICO COUNTY
Appendix - SCC Registration Documentation

McLean Contracting Company

SCC eFile
Business Entity Details

MCLEAN CONTRACTING COMPANY

General
- SCC ID: P0049029
- Entity Type: Foreign Corporation
- Jurisdiction of Formation: DE
- Date of Formation/Registration: 8/3/1993
- Status: Active
- Shares Authorized: 500000

Principal Office
- 6700 MCLEAN WAY
- GLEN BURNIE MD 21060

Registered Agent/Registered Office
- VB BUSINESS SERVICES, LLC
- 500 WORLD TRADE CTR
- 301 W MAIN ST
- NORFOLK VA 23510
- NORFOLK CITY 212
- Status: active
- Effective Date: 12/7/2010

Select an action
- File a registered agent change
- File a registered office address change
- Return to registered agent
- File an annual report
- Pay annual registration fee
- Order a certificate of good standing
- View eFile transaction history
- Manage email notifications
Commonwealth of Virginia
State Corporation Commission

CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

On September 25, 2001, a statement of registration as a foreign registered limited liability partnership was filed in this office by Rummel, Klepper & Kahl, LLP, a Maryland limited liability partnership.

This certificate of registration is in effect as of this date.

Nothing more is hereby certified.

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

Joel H. Peck, Clerk of the Commission

CIS0357
Commonwealth of Virginia

STATE CORPORATION COMMISSION

Richmond, March 24, 2006

This is to Certify that the statement of registration of

Rummel, Klepper & Kahl, LLP
(Date of registration - September 25, 2001)

a partnership registered as a limited liability partnership under the laws of MARYLAND, was 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
COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION
Office of the Clerk

June 23, 2014

CT CORPORATION SYSTEM
4701 COX ROAD SUITE 285
GLEN ALLEN, VA 23080

RECEIPT

RE: RUMMEL, KLEPPER & KAHL, LLP
ID: K000417-8
DCN: 14-06-23-0501

Dear Customer:

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

The annual continuation report was filed on June 23, 2014.

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

Sincerely,

Joel H. Peck
Clerk of the Commission

GPACCEPT
CIS0313

Appendix - SCC Registration Documentation
A. Morton Thomas

A. MORTON THOMAS & ASSOCIATES, INC.

General

- SCC ID: F0494312
- Entity Type: Foreign Corporation
- Jurisdiction of Formation: MD
- Date of Formation/Registration: 11/26/1997
- Status: Active
- Shares Authorized: 52000

Principal Office

- 800 KING FARM BOULEVARD 4TH FL.
- ROCKVILLE MD20850

Registered Agent/Registered Office

- CT CORPORATION SYSTEM
- 4700 LEX ROAD, SUITE 285
- GLEN ALLEN VA 23060
- HENRICO COUNTY 143
- Status: Active
- Effective Date: 10/4/2013

ECS Mid-Atlantic

ECS - Mid-Atlantic, LLC

General

- SCC ID: 51208216
- Entity Type: Limited Liability Company
- Jurisdiction of Formation: VA
- Date of Formation/Registration: 4/16/2004
- Status: Active

Principal Office

- 14025 THUNDERBOLT PL STE 100
- CHANTILLY VA20151

Registered Agent/Registered Office
PRECISION MEASUREMENTS, INC.

General

- SCC ID: 04504361
- Entity Type: Corporation
- Jurisdiction of Formation: VA
- Date of Formation/Registration: 7/24/1995
- Status: Active
- Shares Authorized: 5000

Principal Office

- 851 SEAHWAK CIRCLE
- SUITE 103
- VIRGINIA BEACH VA 23452

Registered Agent/Registered Office

- DOUGLAS W DAVIS
- WYNGATE BUSINESS PARK
- 536 BAYLOR CT.
- CHESAPEAKE VA 23320
- CHESAPEAKE CITY 233
- Status: Active
- Effective Date: 6/4/2002

P探究, Inc.

P探究 Capital Region, Inc. (USED IN VA BY: P探究, Inc.)

General

- SCC ID: F1841594
- Entity Type: Foreign Corporation
- Jurisdiction of Formation: WA
- Date of Formation/Registration: 11/9/2010
- Status: Active
- Shares Authorized: 50000

Principal Office

- 1501 FORUTH AVENUE
- SUITE 550
- SEATTLE WA 98101

Registered Agent/Registered Office

- CT CORPORATION SYSTEM
- 4701 COY ROAD, SUITE 285
- GLEN ALLEN VA 23060
- HENRICO COUNTY 143
- Status: Active
- Effective Date: 10/4/2013
E.V. Williams, Inc.

Corman Construction, Inc.

McLean Contracting Company
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9980 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

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

PROFESSIONS: ENG

RUMMEL KLEPPER & KAHL LLP
RK & K
2100 EAST CARY ST
SUITE 309
RICHMOND, VA 23223

Nick A. Christner, Interim Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9980 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

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

PROFESSIONS: ENG

RUMMEL KLEPPER & KAHL LLP
2901 S. LYNNHAVEN RD
SUITE 300
VIRGINIA BEACH, VA 23452

Nick A. Christner, Interim Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9980 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

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

PROFESSIONS: ENG

RUMMEL KLEPPER & KAHL LLP
RK & K
721 LAKEFRONT COMMONS
SUITE 203
NEWPORT NEWS, VA 23606

Nick A. Christner, Interim Director

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)
A. Morton Thomas

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

PROFESSIONS: ENG

A MORTON THOMAS AND ASSOCIATES INC
1530 BREEZPORT WAY, BUILDING 4
SUITE 300
SUFFOLK, VA 23435

Nick A. Christen
Intermediate Director

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

ECS-Mid Atlantic, LLC

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

PROFESSIONS: ENG

ECS-MID-ATLANTIC LLC
108 INGRAM RD STE 1
WILLIAMSBURG, VA 23188

Nick A. Christen
Intermediate Director

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

Land Planning and Design Associates, Inc.

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

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

PROFESSIONS: LA

LAND PLANNING AND DESIGN ASSOCIATES INC
310 E MAIN STREET
SUITE 200
CHARLOTTESVILLE, VA 22902

(EXPIRES ON 12-31-2015)

NUMBER 0407001789

Precision Measurements, Inc.

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

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

PROFESSIONS: LS

PRECISION MEASUREMENTS INC
813 DILIGENCE DRIVE
SUITE 121B
NEWPORT NEWS, VA 23606

(EXPIRES ON 02-29-2016)

NUMBER 0411000292

Utility Pros
Appendix - DPOR Individual Licenses

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
06-30-2016

NUMBER
0402033522

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

RYAN GREGORY GORMAN
2660 OLD TIMBER WAY
POWHATAN, VA 23139

RK&K

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
09-30-2015

NUMBER
040203363

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

GARY SEBASTIAN JOHNSON
3808 IVORY CT
RICHMOND, VA 23233

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
11-30-2015

NUMBER
0402015963

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

JOHN MICHAEL MCDOWELL
10306 EATON PLACE
SUITE 240
FAIRFAX, VA 22030
Appendix - DPOR Individual Licenses

KDR Real Estate Services

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPRES ON: 03-31-2017

NUMBER: 0225108043

REAL ESTATE BOARD - PRINCIPAL BROKER LICENSE
POST IN A CONSPICUOUS PLACE
THIS LICENSE TO BE IN CUSTODY AND CONTROL OF PRINCIPAL BROKER

ALLEN GUNN DORIN JR
KDR REAL ESTATE SERVICES INC
2500 GRENOBLE RD
RICHMOND, VA 23294

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

(SEE Reverse Side For Name And/or Address Change)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPRES ON: 11-30-2015

NUMBER: 4001000562

REAL ESTATE APPRAISER BOARD
CERTIFIED GENERAL REAL ESTATE APPRAISER

ALLEN G DORIN JR
2500 GRENOBLE ROAD
RICHMOND, VA 23294

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

(SEE Reverse Side For Name And/or Address Change)
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: Mark D. Osenbaugh, DBIA – Project Development Manager</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: E. V. Williams, Inc.</td>
</tr>
<tr>
<td>d. Employment History: With this Firm 10 Years With Other Firms 21 Years</td>
</tr>
<tr>
<td>Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):</td>
</tr>
<tr>
<td>Project Manager – E. V. Williams, Inc. (June 2005 – Present): Mr. Osenbaugh manages EVW’s design-build projects in North Carolina and Virginia. He manages all aspects of multiple design-build projects with responsibilities including budgets, schedules, expenditures and billings, project change orders, subcontracts, and purchase agreements. He also assigns and manages project resources including personnel, equipment, and subcontractors. He has managed and completed projects ranging from $500K to $102M for both public and private clients.</td>
</tr>
<tr>
<td>Construction Manager – Skanska (March 2000 – June 2005): Responsible for engineering, design and constructability analysis for various construction activities including design build projects. Developed work plans, performed layout, coordinated subcontractors, oversaw safety and performed quality control inspections as contractor’s representative. Prepared Quality Control Administration and inspection as Owner’s representative. Prepared Contract Administration Documentation in compliance with Specifications and Bid Documents.</td>
</tr>
<tr>
<td><strong>SUMMARY OF RELEVANT EXPERIENCE</strong></td>
</tr>
<tr>
<td>▪ Multiple Design-Build Projects</td>
</tr>
<tr>
<td>▪ High Traffic Volumes</td>
</tr>
<tr>
<td>▪ Complex I-64 Widening</td>
</tr>
<tr>
<td>▪ Local Geotechnical Knowledge</td>
</tr>
<tr>
<td>▪ High Profile/Public Awareness</td>
</tr>
<tr>
<td>▪ Environmental Stewardship</td>
</tr>
<tr>
<td>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</td>
</tr>
<tr>
<td>Old Dominion University, Norfolk, VA/AAS/2000/Civil Engineering Technologies; 2012/DBIA Professional (#135409)</td>
</tr>
<tr>
<td>f. Active Registration: Year First Registered/ Discipline/VA Registration #:</td>
</tr>
<tr>
<td>Will hold Virginia Department of Environmental Quality - Responsible Land Disturber Certification and a VDOT Erosion and Sediment Control Contractor Certification prior to and for the duration of Construction.</td>
</tr>
<tr>
<td>g. Document the extent and depth of your experience and qualifications relevant to the Project.</td>
</tr>
<tr>
<td>1. Note your role, responsibility, and specific job duties for each project, not those of the firm.</td>
</tr>
<tr>
<td>2. Note whether experience is with current firm or with other firm.</td>
</tr>
<tr>
<td>3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</td>
</tr>
<tr>
<td>(List at least three (3), but no more than five (5) relevant projects* for which you have performed a similar function.)</td>
</tr>
<tr>
<td><strong>Route 13/158 Design-Build, Gates &amp; Hertford Counties, NC ($56M)</strong></td>
</tr>
<tr>
<td>1. Design-Build project that included the widening of 7.1 miles of US-13/158 from two lanes to a four-lane divided highway. Project structures included single span dual bridges over Buckhorn Creek, dual bridges over NC-45, a 1,200 LF bridge over the Chowan River, and the rehabilitation of the existing bridge over the Chowan River. Other major items were 218,000 CY of undercut, 1,131,000 CY of borrow fill, 22,000 LF of storm drain pipe, and 25,000 LF of water line. As the DBPM, Mr. Osenbaugh led both the design management, with RK&amp;K, and construction field staff of this project. He provided constructability reviews on the roadway design. He was responsible for selecting the most cost effective way to handle the highly organic soil conditions that can be as much as 24 feet deep. He was in charge of obtaining permits, and in acquiring local borrow pits for the project. Mr. Osenbaugh led the team that successfully acquired property from over 70 different owners including additional ROW during construction when NCDOT increased the project length by .7 miles. He also managed changes in interchange design and reconstruction which reduced the quantity of unsuitable soil excavation, eliminated the need for a temporary roadway to maintain traffic, avoided the relocation of some utilities as well as added protection to an existing 12 inch gas main. He was responsible for the project schedule and all updates as well as verifying compliance.</td>
</tr>
</tbody>
</table>

**Relevance to the Project**

- Design-Build
- Geotechnical
- Environmental
- Roadway Widening
- Bridge Construction
- McLean
- RK&K
for all appropriate logs for RFI's, transmittals, submittals, correspondence and meeting minutes. His traffic management plan was phased so that throughout the sequence of construction no roadways would be required to be completely closed or detrimentally impede the current traffic flow. This project will be completed before the I-64 Capacity Improvements – Segment II project begins allowing Mr. Osenbaugh’s full dedication to project.


VDOT I-64 Widening at Battlefield Blvd, Chesapeake, VA ($102M)

1. This complex primary interstate project completely rebuilt the existing four travel lanes to eight travel lanes of reinforced concrete pavement, phased replacement of the Battlefield Blvd. widening of the CSX railroad bridges and construction of braided bridges from Greenbrier road to the high rise bridge. As Project Manager, Mr. Osenbaugh was responsible for all construction activities on this Interstate widening project and was able to complete and deliver this complex high profile project over three months ahead of the project completion date. Innovations led by Mr. Osenbaugh included incorporating the demolished concrete, crushed to a 21A gradation, into the Cement Treated Aggregate as required for the roadway section. This work and the production of the concrete were performed within the right-of-way, without the material leaving the sit or interfacing with traffic. Utilizing the existing ramps at Battlefield Boulevard, the team was able to begin a critical activity, the reconstruction of the Battlefield Boulevard bridge was six months ahead of schedule. Working with the Department, he oversaw a revised sequence of construction allowing the CD lanes to be constructed and existing traffic to be shifted off the mainline, saving the department $750K and reducing the construction schedule by three months.


VDOT Birdneck Road Improvements, Virginia Beach, VA ($32M)

1. The Birdneck Road project consisted of widening 2.9 miles of two-lane roadway to four lanes of divided roadway within the highly travelled beach access corridor. This included installation of new utilities within a network of existing utilities, new roadway pavement sections, ground improvements, traffic control, sound abatement walls, landscaping, brick paver walkways, signalization, lighting, and smart traffic systems, all built within a swampy marsh area and under current traffic conditions of an existing two-lane road. Mark, as the Project Manager, led the construction efforts on this heavily congested and highly traveled thoroughfare that required complex phasing. The project phasing required five phases for the maintenance of traffic to complete the project. Mr. Osenbaugh, working with the Department, was able to revise the MOT plan to three phases and reduce the project duration by five months. One of Mr. Osenbaugh’s major goals was to complete the project while minimizing the impact to the existing traffic flow. One way he accomplished this was by scrutinizing the MOT plan of every intersection. He then worked with VDOT construction, VDOT design and the City of Virginia Beach Traffic Engineering to incorporate ways to add additional turn lanes, improve queue length, decrease pinch points, increase turn radiiuses, simplify the traffic patterns and generally add capacity. This proved very successful and helped to maximize the traffic flow and avoid problems. Another challenge on this project was highly plastic and organic soils encountered which is a risk factor on the DB I-64 Capacity Improvements – Segment II project. The industry standard of undercutting and backfill was not a viable option in many areas due to a large number of buried dry utilities. Mr. Osenbaugh worked with the Department to utilize a cement stabilization of the subgrade to minimize utility relocations while providing a stable subgrade. Partnering with the VDOT Team, he was able to dramatically decrease the time and reduced the monetary impacts to the project by $200K.


Relevance to the Project
✓ I-64 Widening
✓ High Profile
✓ Local Geotechnical Knowledge
✓ MOT Requirements

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

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.
### 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> Ryan Gorman, PE, DBIA – Design-Build Manager</td>
</tr>
<tr>
<td><strong>b. Project Assignment:</strong> Responsible Charge Engineer</td>
</tr>
<tr>
<td><strong>c. Name of Firm with which you are now associated:</strong> Corman Construction, Inc.</td>
</tr>
<tr>
<td><strong>d. Employment History:</strong></td>
</tr>
<tr>
<td>With this Firm</td>
</tr>
<tr>
<td>19 Years</td>
</tr>
<tr>
<td>With Other Firms</td>
</tr>
<tr>
<td>1 Years</td>
</tr>
<tr>
<td><strong>Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):</strong></td>
</tr>
<tr>
<td><strong>Design-Build Manager/Senior Estimator – Corman Construction (Jan. 2012-Present):</strong> Mr. Gorman leads Corman’s South Design-Build efforts and estimating where he works on Corman Construction design-build procurements and project coordination of Engineering and Construction teams.</td>
</tr>
<tr>
<td><strong>Operations Manager – Corman Construction (Sept. 2009-Jan. 2012):</strong> Oversaw the Corman 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><strong>Project Engineer/Superintendent/Project Manager/Sr. Project Manager – Corman Construction (Oct. 1996-July 2009):</strong> Progressed from Project Engineer to Superintendent, Project Manager and Sr. Project Manager assigned to road, road widening, bridge, and combined sewer overflow projects for VDOT, City of Richmond, and Henrico County.</td>
</tr>
<tr>
<td><strong>Board Member / Virginia Transportation Construction Alliance (VTCA):</strong> Current Board Member and is currently serving as Vice Chair on the Contractor Leadership Committee.</td>
</tr>
<tr>
<td><strong>SUMMARY OF RELEVANT EXPERIENCE</strong></td>
</tr>
<tr>
<td>![Design-Build]![Roadway Improvements]![Road Widening]</td>
</tr>
<tr>
<td>![Bridge Construction]![Local VDOT Projects]![MOT]</td>
</tr>
<tr>
<td>![Utility Relocation]![TMP]![Permitting]</td>
</tr>
<tr>
<td><strong>e. Education:</strong> Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</td>
</tr>
<tr>
<td>Virginia Polytechnic and State University, Blacksburg, VA/2001/Transportation Construction Management Institute Course; Clarkson University, Potsdam, NY/BS/1995/Civil Engineering</td>
</tr>
<tr>
<td><strong>f. Active Registration:</strong> Year First Registered/ Discipline/VA Registration #:</td>
</tr>
<tr>
<td>2002/Professional Engineer/VA (#04020033522); 2006/VDOT Erosion &amp; Sediment Control Contractor Certification (#3121C); 2012/Designated Design-Build Professional (DBIA) #125243</td>
</tr>
<tr>
<td><strong>g. Document the extent and depth of your experience and qualifications relevant to the Project.</strong></td>
</tr>
<tr>
<td>1. <strong>Note your role, responsibility, and specific job duties for each project, not those of the firm.</strong></td>
</tr>
<tr>
<td>2. <strong>Note whether experience is with current firm or with other firm.</strong></td>
</tr>
<tr>
<td>3. <strong>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</strong></td>
</tr>
<tr>
<td><em>(List at least three (3), but no more than five (5) relevant projects</em> for which you have performed a similar function.)</td>
</tr>
<tr>
<td><strong>VDOT Route 29 Solutions Design-Build, Albemarle County, VA ($116M)</strong></td>
</tr>
<tr>
<td>1. The Route 29 Solutions project was the first VDOT Design-Build project requiring a Design-Build Responsible Charge Engineer (RCE). As RCE, Mr. Gorman accepts full professional responsibility on this $116M project for engineering decisions relating to the final work product. He is <em>facilitating coordination between the design team and construction team</em>. Working directly with the DM and the CM, he is responsible to ensure what is designed for each project element is constructible and meets VDOT’s needs for this project. Most importantly, he is overseeing coordination of the design project elements from both a design and construction perspective. He is working shoulder to shoulder with our Design Manager, Gary Johnson in a co-located project office. His duties will be reduced to part-time once the design is completed later this year and will allow him to have adequate time to perform as the RCE on the I-64 Capacity Improvements - Segment II DB project.</td>
</tr>
<tr>
<td><strong>Relevance to the Project</strong></td>
</tr>
<tr>
<td>✓ Responsible Charge Engineer</td>
</tr>
<tr>
<td>✓ Design-Build</td>
</tr>
<tr>
<td>✓ RK&amp;K Lead Designer</td>
</tr>
<tr>
<td>✓ Roadway Improvements</td>
</tr>
<tr>
<td>✓ VDOT Project</td>
</tr>
<tr>
<td>✓ Bridge construction</td>
</tr>
<tr>
<td>✓ Complex MOT</td>
</tr>
</tbody>
</table>
1. Performed bridge constructability reviews for replacement of exiting I-64 bridge. **Mr. Gorman coordinated with the designer to improve the bridge and roadway (MOT) designs from a compliance and constructability perspective.** Corman was the contractor responsible for this project which widened 4.52 mile length of I-64 1.05 miles west of Route 199 to 0.54 miles east of Route 238 from a four- to a six-lane divided highway, as well as interchange improvements at Route 623 which included traffic signal upgrading, widening the I-64 westbound ramp to Route 623 for an additional turn lane, adding a left turn lane on Route 623 southbound on I-64 eastbound, and widening the I-64 eastbound off-ramp to Route 623 for an additional turn lane.

2. Corman Construction, Inc.; Constructability Reviewer

### VDOT Route 1 Tie-In to Woodrow Wilson Bridge Urban Deck VA-4, Alexandria, VA ($62.7M) - Portions of the project were Design-Build

1. $62.7M two-phased, multi-level bridge and roadway demolition/reconstruction project. Widened ½ mile of the I-9 / 495 Beltway from six lanes to the final 14-lane configuration, one mile reconstruction of Washington Street and a new South Washington Street Urban Deck Bridge over I-495. **Mr. Gorman was the Project Manager responsible for the project, managed design completion and review (formwork, access platforms, support of excavation, utility support systems, temporary bridges, sound walls, value engineering proposals, MOT staging and erection drawings), ensured timely and accurate completion of office and project engineering requirements, as well as technical supervision of field operations. Portions of the project were Design-Build.** Mr. Gorman managed engineers, superintendents, and subcontractors and was responsible for short/long-range scheduling, purchasing, cost control, safety management, QC oversight, resource management, and troubleshooting. **He received a VDOT Commissioner's Award for Outstanding Achievement.** All eight project schedule milestones were met.

2. Corman Construction, Inc.; Project Manager

### Route 29 Solutions Design-Build, Albemarle County, VA – As Responsible Charge Engineer

Mr. Gorman’s time commitment to Design Management will decrease on the 29 project as the construction of the project commences this fall. Design is currently at the 60% stage.
**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. Project Title: Michael Davis, PE, CCM - Associate</td>
</tr>
<tr>
<td>b. Project Assignment: Quality Assurance Manager</td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated: A. Morton Thomas and Associates, Inc. (AMT)</td>
</tr>
<tr>
<td>d. Employment History: With this Firm 3 Years With Other Firms 22 Years</td>
</tr>
</tbody>
</table>

Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):

**Associate, AMT (Feb. 2013-Present):** Mr. Davis is an integral team member in senior management with a concentration in the management and quality assurance of complex, sizeable transportation projects. He oversees design-build projects providing oversight and inspection services and ensuring the Quality Assurance and Quality Control plans are followed. This entails QA records review for compliance along with final audits of all QAM records for contractual compliance.

**Assistant District Administrator – District Construction Engineer, VDOT (Oct 2010 – Feb. 2013):** Mr. Davis managed the Hampton Roads District Construction Program which included independently overseeing the Construction and Materials Unit in administering maintenance and construction contracts. He was responsible for the Quality Assurance of projects through the oversight of his staff and the contractor for each project performing the roles of QA and QC inspection. He ensured staff were trained and met performance metrics established for the District and State. By 2013, the program consisted of 51 projects valued at $460M. Mr. Davis was responsible for the QC and QA of all projects through the use of Construction Division staff and Material Division staff. By adhering to the Manual of Instructions and specifications, the District delivered quality projects meeting VDOT’s QA/QC Program.

**Area Construction Engineer, VDOT (Oct. 2005 – Oct. 2010):** As ACE, Mr. Davis worked exclusively to manage quality assurance of VDOT projects in the District. He executed construction management for all construction and maintenance projects within District including two of the four underwater tunnels. He managed Quality Assurance of a team of inspectors and construction managers meeting the performance metrics of on time, on budget, CQIP, and Environmental Compliance yearly, while ensuring VDOT’s Quality Management Plan was met. A typical construction season consisted of up to 20 contracts ($20-$30M). Mr. Davis was responsible for ensuring his staff of managers and inspectors performed all necessary QA and QC inspections and testing in accordance with the Materials Manual of Instructions to ensure quality built projects.

**Acting Project Controls Engineer – Area Construction Engineer, VDOT (May 2008-Aug. 2008):** Mr. Davis served dual roles, Acting Project Controls Engineer and Area Construction Engineer where he was provided Quality Assurance on projects and was responsible for consultant contracts providing inspectors and engineering review service. He collaborated with Preliminary Engineering in the development of Special Provisions and Budgets for contacts during design phase. He also oversaw timely and accurate reporting of project data such as budget expenses and schedules for individual projects.

**Project Manager, McLean Contracting Company – Southern Division (May 2003-Oct. 2005):** Mr. Davis established tracking methods and tracked performance for awarded contracts. This was performed through tracking equipment, man hours and production rates throughout the life of the project. He issued subcontracts and purchase orders, as well as developed project schedules and ensured appropriate timetables. He was responsible for all project submittals and negotiated change orders. He provided QA inspection and reviewed QC of work and materials and provided false work design calculations as needed. He provided QC management for Navy contracts through setting up the contracts QC plan and overseeing in the field. Navy contracts followed a very similar process of having the contractor managing QA and QC. Mr. Davis was responsible for drafting and administering the QA/QC plans.

**Superintendent, McLean Contracting Company – Southern Division (June 1998-May 2003):** Mr. Davis successfully completed major bridge and pier contracts on time and within budget. He was responsible for managing the contract and delivery quality projects at the jobsite level. He provided quality assurance inspection and was responsible for the scheduling of the jobsite work and maintenance of all on-site equipment, and oversaw the quality and production of the jobsite work.

**SUMMARY OF RELEVANT EXPERIENCE**

- Understands VDOT’s QA/QC Program
- Knows the Material Approval process
- Managed multiple projects as Responsible Charge.
- Keen understanding of VDOT specifications and process during construction
- Experienced in managing Inspection Staff
- Experienced in Bridge and Roadway Construction

**e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:**

Old Dominion University, Norfolk, VA – BS/1989/Civil Engineering Technology
f. Active Registration: Year First Registered/ Discipline/VA Registration #:
1998/Professional Engineer/VA (#0402028305); 2013/Professional Engineer/NC (#040498); 2012/Certified Construction Manager (#A2364); 2009/Master’s Certificate for Project Management from George Mason University

g. Document the extent and depth of your experience and qualifications relevant to the Project.
1. Note your role, responsibility, and specific job duties for each project, not those of the firm.
2. Note whether experience is with current firm or with other firm.
3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.
(List at least three (3), but no more than five (5) relevant projects* for which you have performed a similar function.)

**I-264 Pavement Rehabilitation, Hampton Roads, VA ($61M)**

1. Provided VDOT oversight and inspection services for this $61M design-build project. Represented the District by ensuring the Quality Assurance and Quality Control plans were followed. Developed auditing documents for VDOT to perform reviews on contractor to ensure compliance with VDOT DB Manual and specifications. Assisted VDOT in performing reviews on Design submittals and Construction Documentation submittals in addition to overseeing justification for all work orders issued. Duties includes auditing all QAM documentation to ensure compliance with VDOT Manual during the life of the project and performing final audit on all QAM records to ensure compliance for payment. 

   **Relevance to the Project**
   ✓ Design-Build
   ✓ DB QA/QC requirements
   ✓ Managing Field Conflicts

   **Duties**
   Includes auditing all QAM documentation to ensure compliance with VDOT Manual during the life of the project and performing final audit on all QAM records to ensure compliance for payment. This experience provides Mr. Davis with a keen awareness of the DB process and what is needed to provide VDOT with a quality project backed up with the proper records.

2. AMT; Quality Control & Assurance Manager

**I-64 & I-264 Pavement Rehabilitation, Hampton Roads, VA ($30.7M)**

1. Provided VDOT oversight and inspection services for this $30.7M design-build project. Represented the District by ensuring the Quality Assurance and Quality Control plans were followed. Developed auditing documents for VDOT to perform reviews on contractor to ensure compliance with VDOT DB Manual and specifications. Assisted VDOT in performing reviews on Design submittals and Construction Documentation submittals in addition to overseeing justification for all work orders issued. Duties includes auditing all QAM documentation to ensure compliance with VDOT Manual during the life of the project and performing final audit on all QAM records to ensure compliance for payment. This experience provides Mr. Davis with a keen awareness of the DB process and what is needed to provide VDOT with a quality project backed up with the proper records.

2. AMT; Quality Control & Assurance Manager

**Hampton Boulevard Grade Separation, Hampton Roads, VA ($38M)**

1. This project involved the Grade Separation of Hampton Boulevard (Route 337) and Norfolk Southern Railroad allowing traffic on Hampton Boulevard to cross under the main rail road line leading into the Port. Project spans five miles with work which includes utilities, milling, asphalt replacement/paving, pavement marking, MOT both day and night. This project involved ensuring that subgrades, piles, and concrete structures were built in accordance to the specifications. Mr. Davis managed the project’s Quality Assurance through a staff of inspectors, engineers, and other resources, to ensure that the project was built to the quality as defined in the specifications. This project also included multiple negotiations with the Navy, Railroad, FHWA, and the City of Norfolk. This project involved VDOT inspectors inspecting and testing a multitude of materials including pile driving, concrete bridge placement, and asphalt pavement. As DCE, Mr. Davis oversaw that the Materials Division and Construction Division properly inspected and tested all components of the materials as required by Contract and ensured it was well documented.

2. VDOT; District Construction Engineer (DCE)

Mr. Davis’ current list of assignments and the anticipated duration of each assignment for all VDOT Design-Build projects in which he is obligated includes the following projects in the Hampton Roads District:
- UPC 104329; Part-time through November 2015
- UPC 104330; Part-time through June 2015
- UPC 104331; Part-time through November 2015

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

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

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: Gary S. Johnson, PE, DBIA – Director of Design-Build

b. Project Assignment: Design Manager

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

d. Employment History: With this Firm 5 Years With Other Firms 17 Years

Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):

**Director of Design-Build – RK&K (Sept. 2010-present):** As the Director of Design-Build, Mr. Johnson is responsible for the successful delivery of all design-build projects in Virginia. He is also responsible for all Structures projects in Virginia. He has more than 20 years of project management, design and construction inspection experience in structures, roadways, and mass transit stations. His extensive project management experience, formal training (MBA) and hands-on participation in inspection (NBIS), design and construction engineering assignments afford him in-depth knowledge of project requirements. Additionally, his experience with design-build projects has developed his full understanding of the implementation of bridge plans and projects through construction. He is a former member of the VTCA Engineering Consultant Leadership Committee and currently serves as the vice-chairman of the VTCA/VDOT Design-Build Committee where he serves as a voice of the industry to VDOT.

**Mid-Atlantic Unit Manager – T.Y. Lin International (May 2005-Sept. 2010):** Project Manager and Lead Structural Engineer for dozens of bridge projects. Oversaw staff of 20 structural engineers. Served as Engineer of Record on bridge replacement projects. Served as Principal in Charge for design-build projects in Virginia, North Carolina and Washington DC.

**Director of Virginia Operations – Ammann & Whitney (June 1993-May 2005):** Project Manager and Lead Structural Engineer for projects throughout Massachusetts, Pennsylvania and Virginia. Served as Engineer of Record on bridge replacement and rehabilitation projects. Focused on rehabilitation of bridges damaged from over height loads and emergency response.

**SUMMARY OF RELEVANT EXPERIENCE**

- 20 years of transportation experience
- 10 years of Design-Build experience in multiple states
- Masters in Business (MBA)
- DBIA Professional
- Expertise in roadway improvements projects
- Coordinates multidisciplinary engineering services

**e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:**

Virginia Commonwealth University, Richmond, VA – MBA/2003/Business Administration

University of New Hampshire, Durham, NH - BSCE/1993/Civil Engineering

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

1999/Professional Engineer/VA (#0402033863); 2010/DBIA Professional (#125387)

g. Document the extent and depth of your experience and qualifications relevant to the Project.

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

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

**I-64 Widening and Route 623 Interchange Improvements (Design-Build), Henrico and Goochland Counties, VA ($34.8M)**

1. This project being performed with Corman as the Design-Builder and involves the widening of 4.5 miles of Interstate 64 to the inside from a four-lane divided freeway to a six-lane divided freeway and improvements to the I-64/Route 623 Interchange. It also includes two mainline bridge replacements. The interchange improvements include upgrading the existing traffic signal, widening the I-64 westbound ramp to Route 623 to provide an additional turn lane, adding a left turn lane on Route 623 southbound to I-64 eastbound, and widening the I-64 eastbound off ramp to Route 623 to provide an additional turn lane.

Relevance to the Project

- Design-Build
- Virginia Project
- Widening of I-64
- Bridge Design
- Retaining Walls
- Experience with Corman
- Extensive MOT
Mr. Johnson also led the design of the bridges for this project, as well as multiple retaining walls required for the project. He was responsible for structural design including culvert design. Design is complete and construction is scheduled for completion in November 2015. During the proposal process, Mr. Johnson served as the lead coordinator amongst all of the disciplines to pull together the successful proposal. During the delivery of the project, Mr. Johnson serves as the Principal in charge for this project and is fully involved in the entire design process as well as leading the structure design.

2. RK&K; Principal-in-Charge / Lead Structural Engineer

### Route 29 Solutions (Design-Build), Albemarle County, VA ($116.7M)
1. Mr. Johnson serves as the Principal in charge for this project and is fully involved in the entire design process. He also serves as the Lead Structural Engineer he is responsible for structural design of the bridges and retaining walls for the overall project that will reduce congestion on the busiest north-south corridor in the Charlottesville / Albemarle County region. Project will improve Route 29 between Polo Grounds Road and Towncenter Drive, extend Berksmar Drive from Hilton Heights Road to Towncenter Drive, and construct a grade-separated intersection at Route 29 and Rio Road. Mr. Johnson’s responsibilities include coordination with multiple subconsultants, managing the design schedule, ensuring conformance with the contract documents, and adhering to the aggressive design schedule. He personally oversaw the development of an advanced design where the Rio Road Bridge superstructure serves as a strut to support the retaining walls below. This innovative design will allow for the Grade Separated Intersection (GSI) to be constructed in 103 days. His extensive coordination with subconsultants and disciplines, including roadway, stormwater, right-of-way, utilities, traffic, geotechnical, lighting, and fire code experts is instrumental to delivering this design. This experience will prove to be an asset on the I-64 Capacity Improvements - Segment II project. Corman is JV partner of Design-Build Team. Design for this project will be completed prior to the start of this new I-64 Capacity Improvements – Segment II project.

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<th>Relevance to the Project</th>
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<tr>
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<td>Bridge Design</td>
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<td>VDOT</td>
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<tr>
<td>Experience with Corman</td>
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<td>Extensive MOT</td>
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2. RK&K; Principal-in-Charge / Lead Structural Engineer

### NCDOT US 158 Over Yadkin River (Design-Build), Mocksville, NC ($17M)
1. Design Manager and Lead Structural Engineer for a roadway widening and bridge replacement project that included a nine-span bridge structure with a length of 1150 feet. The superstructure span arrangement consists of three, 3-span units made continuous for live load utilizing 72” Modified Bulb Tee girders. The substructure consists of three column bents founded on drilled shaft foundations. Mr. Johnson led a multi-member, multi-disciplined project design team (including utilities, roadway, right-of-way, environmental, structures, and hydraulics) from proposal development through construction. Complicating the project was extensive right-of-way negotiations, complex maintenance of traffic, complex hydraulic analysis, and an aggressive schedule. Maintenance of Traffic was complicated by a horizontal curve at the end of the bridge as well as the requirement to maintain all lanes during construction while replacing the bridge on its current alignment. Mr. Johnson was fully involved and in-charge of all design-related aspects from the pursuit to the project closeout. During construction, he was hands-on with the day-to-day management with the contractor and subcontractors performing the construction as well as serving as a liaison to the Client.

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<td>Roadway Widening</td>
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2. T.Y. Lin International; Design Manager/Lead Structural Engineer

### DDDOT New York Avenue (Design-Build), Washington, DC ($18M)
1. This is a major bridge replacement project in downtown Washington DC consisting of multi-span steel plate girders founded on multi-column piers constructed integrally with railroad crashwalls. The overall project was complicated by a significant substructure skew. Maintenance of Traffic during construction was the main driving force of the project and it was a deciding factor on bridge type and construction methods. Coordination with the railroad and overall MOT drove the most applicable structural alternatives. Mr. Johnson, as the Design Manager, worked closely with the client, railroad, and contractor to arrive at the most feasible bridge replacement options. Superstructure Options investigated by Mr. Johnson and his team included precast concrete, steel box girders, and concrete segmental construction. Working with the available budget, an overall project, consisting of a staged steel plate girder superstructure, was developed and delivered to a satisfied client.

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</table>

2. T.Y. Lin International; Design Manager

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

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

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: Chris Martin – Construction Manager

b. Project Assignment: Construction Manager

c. Name of Firm with which you are now associated: E. V. Williams, Inc.

d. Employment History: With this Firm 5 Years With Other Firms 14 Years

Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):

Construction Manager – E. V. Williams, Inc. (May 2010 – Present): As Project Construction Manager, Mr. Martin works directly with designers, subcontractors and in-house construction forces overseeing every aspect of the construction. He carries extensive experience in complicated traffic phasing projects, permitting, ROW acquisition, Value Engineering and public outreach.

- Construction Manager in charge of the Design-Build US-13 – Widening through Gates and Hertford Counties, NCDOT ($54.5M)
- Construction Manager for the Wesleyan Dr Improvement/Northampton Blvd Intersection Improvement Project – Cities of Norfolk and Virginia Beach ($8.2M)
- Construction Manager in charge of the I-64 Norview Ave. Improvement Project – VDOT ($3.9M)

Construction Manager/GPS Manager – Mainline Contracting, Inc. (Feb. 2006 – Oct. 2009): In the role as Construction Manager, Mr. Martin was responsible for multiple street construction, utility, and site projects. Scheduled project resources using SureTrack and Primavera software, coordinated materials and subcontractors, as well as ensured projects were operating on schedule and within budget.

Construction Manager/GPS Manager – Mountain States Contractors (Div. Jones Bros., Inc.) (2000 – 2006): As Construction Manager, Mr. Martin was responsible for large interstate and site construction projects involving multiple phases, utility relocations and complicated MOT under tight schedule constraints. He was also responsible for implementing GPS technology, using Terramodel software files, contributing to the efficiency of operations.

- Construction Manager on 75-acre site development project – Asheville, NC ($11M)
- Construction Manager on concrete highway and bridge project I-30 Interstate Loop – TXDOT ($56M)
- Construction Engineer on US-171 Expansion paving and grading project – Florien, LA ($40M)

SUMMARY OF RELEVANT EXPERIENCE

- Design-Build
- Complicated MOT
- Environmental Compliance
- Local VDOT Projects
- Local Geotechnical Knowledge
- High traffic Volumes

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:

LeTourneau University, Longview, TX - AS/1998/Design Technology; Undergraduate Studies – Engineering

University of Memphis, Memphis, TN - 1999/Undergraduate Studies – Architecture

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

Mr. Martin will hold a Virginia Department of Environmental Quality - Responsible Land Disturber Certification and a VDOT Erosion and 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 role, responsibility, and specific job duties for each project, not those of the firm.
2. Note whether experience is with current firm or with other firm.
3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.

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

Route 13/158 North Carolina Design-Build, Gates & Hertford Counties, NC ($56M)

1. Project included the widening of 7.1 miles of US-13/158 from two lanes to a four-lane divided highway. Project structures include single span dual bridges over Buckhorn Creek, dual bridges over NC-45, a 1,200 LF bridge over the Chowan River, and the rehabilitation of the existing bridge over the Chowan River. Other major items were 17,000 CY of undercut, 1,131,000 CY of borrow fill, 22,000 LF of storm drain pipe, and 25,000 LF of water line. As Construction Manager, Mr. Martin was responsible for the construction of

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<td>RK&amp;K &amp; McLean</td>
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<td>Multiple Structures</td>
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<td>Geotechnical</td>
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<td>Environmental</td>
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<tr>
<td>Large Earthwork Volumes</td>
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</table>
**US-171 Expansion paving and grading project - Florien, LA ($40M)**

1. This project consisted of conversion of US-171 from a two lane asphalt highway to a four lane divided concrete facility, including construction of four bridges. Mr. Martin served as the construction engineer for the contractor on this project, monitoring the construction of nearly 10 miles of new roadway. This earthwork consisted of cut to fill operations, undercut and replacement as well as soil stabilization and a number of surcharges. Mr. Martin coordinated the earthwork, including many locations involving stabilizing of soils, coordinated stabilization work with the client, including calculating condition dependent application rates of lime and cement additives. **As CM, Mr. Martin held weekly meetings with the field staff as well as coordinating the activities of the major subcontractors, bridge construction, and coordinating the contractor’s GPS grading equipment with the DOT provided survey layout.**

2. E. V. Williams, Inc.; Construction Manager

3. July 2011- Present

**Relevance to the Project**
- Multiple Bridges
- Length of Project
- Large Earthwork Volumes
- Varying soil types and conditions

**I-30/US-71 Interstate Loop – TXDOT ($56M)**

1. Bowie County US-71 Hwy Bypass of the Southwest quadrant of Texarkana, TX, and connecting into Arkansas was jointly built for the two states. This project consisted of 3.75 miles of new construction from US-59 to future Southbound I-49. This turnkey project consisted of one 2,460 ft. steel tub girder flyover, dual 4,900 ft. elevated roadway bridges (consisting of concrete pile trestle and concrete U-beam construction) over sensitive environmental areas, 500,000 CY of excavation, 1,300,000 CY of embankment, and 225,000 SY of continuously reinforced concrete paving. Mr. Martin served as the Construction Manager for the contractor, Jones Bros Inc., finishing the project on time, and receiving in 2003 the AGC a “Construction Award for Recognition of Exemplary Cooperation and Performance in Construction of HP 735(1), US 71, Bowie County, Atlanta District.” Mr. Martin was responsible for daily project progress, coordination of plan changes, correction of plan discrepancies with actual measurement, survey adjustment, traffic changes, conducted Monthly project conferences, maintained the schedule of the project, and coordinated all activities of subcontractor’s as well as various trades. Mr. Martin maintained a daily communication with personnel on site to progress the project thru all challenges that arose.


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<tr>
<td>High Traffic Volumes</td>
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<td>Extensive MOT</td>
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<tr>
<td>Flyover Bridge</td>
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<td>Extensive Bridgework</td>
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<td>Environmentally Sensitive areas</td>
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</table>

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

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

**Route 13/158 North Carolina Design-Build; Completion Date Aug. 2015**

**VDOT Project C-35 Turnpike Boulevard;** Mr. Martin will be completed with his tasks on this project and will be available full-time for the I-64 Capacity - Segment II project when construction starts in the Fall 2016. He will be available to start his part-time duties during the design phase starting at the NTP which is slated for December 2015.
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
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<tbody>
<tr>
<td>a. Name &amp; Title: John M. McDowell, PE – Senior Manager, Transportation</td>
</tr>
<tr>
<td>b. Project Assignment: Maintenance of Traffic Manager</td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated: RK&amp;K</td>
</tr>
<tr>
<td>d. Employment History: With this Firm 3 Years With Other Firms 31 Years</td>
</tr>
</tbody>
</table>

Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):

**Senior Manager, Transportation – RK&K (2011 – Present):** In his role as Senior Manager for Transportation, Mr. McDowell is responsible for leading and directing the geometric design and plans productions for the roadway design, preparation of the Traffic Control Plans, Maintenance of traffic (MOT) Plans, as well as interfacing with the various elements of the roadway design including structures, drainage, signals and lighting design. Mr. McDowell has been responsible for developing the Traffic Management Plans and Maintenance of Traffic Plans for a wide variety of roadway projects in Virginia, including projects ranging from minor intersection improvements in congested urban areas to major interstate widening projects along I-495 and I-64. Mr. McDowell was certified in Advanced Work Zone Traffic Control in other states and is scheduled to complete the Virginia Advanced Work Zone Traffic Control Course in June 2015.

**Associate Vice President, Project Director – HNTB (2007 – 2010):** Mr. McDowell oversaw and led the roadway design practice for the firm’s local office in Jacksonville, Florida. In this capacity, he was responsible for producing roadway design plans, Maintenance of Traffic (MOT) plans, Traffic Control Plans and contract documents for various state and local agencies.

Mr. McDowell managed and led design of several urban roadway and interstate design projects, including serving as Deputy Design Manager for the I-495 HOT Lanes Project, Section 5 in Northern Virginia, including a review of the MOT for this high-profile project. He was responsible for managing project teams consisting of multiple disciplines and as many as five subconsultants on an individual project.

**Senior Practice Builder – Kimley-Horn and Associates, Inc. (2002 – 2007):** Mr. McDowell managed and directed design of numerous state and local government roadway design projects, both widening of existing roads and roadways on new alignments. This included the maintenance of Traffic Plan for converting an existing arterial intersection to an interchange in Jacksonville, FL and the conversion of a highway overpass to an interchange in Sumter County, Florida.

**Transportation Program Leader – Reynolds, Smith and Hills, Inc. (1996 – 2002):** Mr. McDowell managed an interdisciplinary department of 38 people engaged in transportation planning and design. He also managed some of the most complex assignments, requiring interdisciplinary coordination and coordination among several subconsultants.

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**SUMMARY OF RELEVANT EXPERIENCE**

- 35 years of transportation experience
- 30 years of design management experience
- VDOT Project Experience
- Roadway widening and rehabilitation
- Coordinates multidisciplinary engineering services
- Relevant design-build experience

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**e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:**

Drexel University, Philadelphia, PA – BS/1980/Civil Engineering

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

1985/Professional Engineer/VA (#0402015983); 1984/Professional Engineer/NC (#11801); 1984/Professional Engineer/SC (#10201); 1996/Professional Engineer/FL (#50507); 1984/Professional Engineer/OH (#48649)

*Virginia Advanced Work Zone Certification will be obtained prior to Notice to Proceed.

**g. Document the extent and depth of your experience and qualifications relevant to the Project.**

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

(List at least three (3), but no more than five (5) relevant projects* for which you have performed a similar function.)
# I-64 Widening and Route 623 Interchange Improvements (Design-Build), Henrico and Goochland Counties, VA ($34.8M)

1. This D-B project involves the widening of I-64 from a four-lane divided freeway, to a six-lane divided freeway and improvements to the I-64/Route 623 Interchange. The project begins at approximately 0.99 Miles West of Route 623 and ends approx. 0.38 Miles West of Route 271. The project length is approximately 4.52 miles. The additional through lanes will be constructed to the inside of I-64 in both directions. The interchange improvements will include upgrading the existing traffic signal, widening the I-64 westbound ramp to Route 623 to provide an additional turn lane, adding a left turn lane on Route 623 southbound to I-64 eastbound, and widening the I-64 eastbound off ramp to Route 623 to provide an additional turn lane. Working directly with Corman, Mr. McDowell performed various design activities and roadway QC. **Mr. McDowell was also instrumental in the development of the MOT plan for the project, including phasing, detours and plan development.** Mr. McDowell worked closely with our proposed Design Manager (Gary Johnson) on this project as well.

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## Relevance to the Project

- Design-Build w/ Corman
- Fast Track Design
- I-64 widening
- Extensive MOT / TMP considerations

**2.** RK&K; Roadway Engineer/ Maintenance of Traffic Manager

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### I-495 Express Lanes and Jones Branch Connector Interchange (Design-Build), Tyson Corner ($56M)

1. Mr. McDowell served as the Lead Roadway/MOT Engineer for the planning and preliminary design of a new connector road from Jones Branch Road to Route 123 in the Tysons Corner area of Fairfax County. Mr. McDowell was responsible for the oversight of all planning design activities and coordinating between various team members including roadway, structures, drainage, traffic, MOT and landscape design components. **He was also directly responsible for the development of the roadway design and MOT design for the project, which included several phases and traffic shifts in order to maintain traffic on this busy corridor during construction.** A portion of the road was constructed as part of the Capital Beltway HOT Lanes project; we are widening bridges and extending the road across I-495 and connecting with Route 123. The project also includes the planning and design of a new roadway connecting the ramp of the Dulles Toll Road with the new Jones Branch Connector. This project was designed in accordance with the “complete streets” concept which provides accessible facilities for pedestrians and bicycles in addition to automobile traffic.

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**2.** RK&K; Project Manager / Maintenance of Traffic Manager

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### Capital Beltway (I-495) HOT Lanes, Section 5, Fairfax County, VA; Virginia Department of Transportation ($1B)

1. Mr. McDowell was the Deputy Project Manager and Lead MOT Engineer for the addition of HOT Lanes to the I-495 corridor at I-66 in Fairfax County. Mr. McDowell was responsible for overseeing the roadway design, developing the MOT plan and coordinating between various team members including roadway, structures, drainage, and traffic design. **He was directly responsible for the development of the MOT design for the project.** Mr. McDowell developed a complex multi-phase MOT plan to maintain traffic along this corridor which included staging to construct three cell box culvert across the travel lanes of I-495 as well as staging for the widening/replacing overhead bridge structures within the project limits.

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**2.** HNTB; Lead Roadway / Maintenance of Traffic Manager

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### I-10/Hammond Boulevard "Marietta" Interchange, Duval County, Florida Department of Transportation

**District 2, Jacksonville, FL ($56M)**

1. Mr. McDowell served as the Lead Roadway/MOT Engineer for the reconstruction/relocation of this interstate interchange. He led the design of the new interchange to provide full movement access between Hammond Boulevard and I-10 and included the realignment of several local roads to meet the new interchange configuration. The project also include a new proposed bridge over I-10, traffic signals, a CSX mainline crossing improvement, lighting and sound walls along the north right-of-way line of I-10. Mr. McDowell was responsible for the management and coordination of all disciplines on the assignment. This project involved constructing a bridge over I-10. **Mr. McDowell developed a complex MOT plan that used nighttime lane closures on mainline of I-10 and routed traffic over the new interchange ramps to allow uninterrupted use of the work site for the bridge construction.** In addition, the reconstruction of the CSX railroad crossing required that the traffic on the road be detoured while the crossing was improved. Mr. McDowell created a detour plan to accommodate traffic over local roads during the railroad crossing reconstruction.

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**2.** HNTB; Project Manager/ Maintenance of Traffic Manager

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h. **For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.**
Attachment 3.4.1(a)

Lead Contractor-Work History Form
**LEAD CONTRACTOR - WORK HISTORY FORM**

(LIMIT 1 PAGE PER PROJECT)

<table>
<thead>
<tr>
<th>Name: I-64 Widening at Battlefield</th>
<th>Name: Kimley-Horn &amp; Associates Inc.</th>
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</thead>
<tbody>
<tr>
<td>Location: Chesapeake, VA</td>
<td>Name of Client/Owner: VDOT</td>
</tr>
<tr>
<td></td>
<td>Phone: 757.494.5470</td>
</tr>
<tr>
<td></td>
<td>Project Manager: Mr. Michael Johnson</td>
</tr>
<tr>
<td></td>
<td>Phone: 757.494.5470</td>
</tr>
<tr>
<td></td>
<td>Email: <a href="mailto:MichaelJ.Johnson@vdot.Virginia.gov">MichaelJ.Johnson@vdot.Virginia.gov</a></td>
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</tbody>
</table>

**Contact Information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.**

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-64 Widening at Battlefield</td>
<td>Kimley-Horn &amp; Associates Inc.</td>
</tr>
</tbody>
</table>

**Contract Completion Date (Original)**

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<tr>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
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</thead>
<tbody>
<tr>
<td>07/2009</td>
<td>03/2009</td>
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</table>

**Contract Value (in thousands)**

<table>
<thead>
<tr>
<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$102,000</td>
<td>$102,000 (Owner directed additional scope)</td>
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</tbody>
</table>

**Original Contract**

**Final or Estimated Contract Value**

**Scope and Complexity Similarities**

- Interstate Design
- Full Depth Pavement Reconstruction
- Intersect & Bridge Widening
- Project Size and Scope of Work
- High Profile
- Access Management
- Utility Coordination and Relocation
- Improvements Project
- Phased Bridge Construction
- High Cal Vest Construction/Extension
- Extensive Public/Community Relations
- Landscaping
- Bridge Design
- Bridges over Railroad
- VDOT Project
- D&R Sound Barrier Walls
- ISTS/Communication System

**Proper Personnel for I-64 Capacity Improvements Project**

Mark Osenbaugh, Project Manager, (EYV)
Keith Christiansen, Project Manager, (McLean)

**Modifications**

- Traffic Management: Utilizing the existing ramps at Battlefield Boulevard, the Team was able to begin a critical activity, the reconstruction of the Battlefield Boulevard bridge, six months ahead of schedule.
- Traffic Management: Working closely with the Department, a revised sequence of construction allowed the CD lanes to be constructed and existing traffic to be shifted off the mainline, saving the Department $750,000 and reducing the construction schedule by three months.
- Traffic Management: Working as a team with the owner allowed us to solve the challenges of high traffic volumes, the complexities of a large project as well as the inevitable minor setbacks which resulted in a win-win project for VDOT, EVW and Third Party Stakeholders.

**Quality in the Final Roadway**

- Utilizing a modified median barrier, EVW, working with the Department, was able to successfully control stormwater runoff and minimize any drainage/MOT impacts during construction and eliminate the risk of any median ponding within the project corridor.

**Lessons Learned**

- Having the design engineer on-board and attending each progress meeting eliminated bottlenecks and resolved issues in a timely manner.
- Storms, accidents and even one of the bridges on the project being damaged in an accident highlighted the importance of traffic management and contingency MOT plans.
- Developing contingency plans to allow for relief during hurricane evacuations, major accidents and tourist season greatly increased the project’s success.
- Utilization of the median during off-peak hours for material deliveries and storage, minimized interfacing of construction activities with commuter traffic.
- Public outreach to keep local businesses, homeowners, and the motoring public informed of progress improved public appreciation and understanding during the construction process.

**NARRATIVE DESCRIPTION**

E.V. Williams, Inc. (EV Williams) was the prime contractor on this large scale urban highway project which involved the complete re-construction of I-64 from Greenbrier Boulevard to the I-464 Interchange. Also included in the scope of work was an additional widening of I-64 from the I-464 Interchange to the High Rise Bridge. The project involved reconstructing and widening four miles of I-64 from four to eight mainline lanes, re-configuring a standard cloverleaf intersection to include the addition of Collector Distributor (CD) Roads for the entire length of the project, installation of several mechanically-stabilized earth retaining walls, design and construction of concrete sound walls, installation of traffic management systems, installation and rehabilitation of box culverts under the existing and proposed I-64, and the incorporation of large stormwater management facilities within the footprint of the I-64 corridor. Over five miles of new stormwater management piping and over four miles of modified median barrier were installed to control the drainage during construction activities. Mainline pavement sections included 13" of continuous reinforced concrete over cement treated aggregate. Feeder lanes consisted of full depth asphalt paving over cement treated aggregate. An additional asphalt pavement travel lane was added to the existing I-64 between I-464 and the High Rise Bridge.

**EVW teamed up with McLean Contracting Company** to construct the new Battlefield Blvd. bridge which consisted of two new pre-stressed concrete girder bridges, two existing bridge widenings over the CSX Railroad, and two "braided" bridges on the CD Roads between Greenbrier Parkway and Battlefield Blvd. The construction of the Battlefield Blvd. bridge required multiple phases of new construction with demo of the existing structure while maintaining existing traffic lanes over I-64and without disruption to traffic on I-64 below.

One of the top challenges on this project was how to construct this very complicated project, which required multiple phases and shifting traffic patterns, while reducing traffic impacts and avoiding shutting down access to this vital access point for Chesapeake’s merchants and residents. The Team accomplished this by daily adhering to the highest standards for temporary traffic control and by being innovative to find better solutions. One example of this is that by working closely with VDOT, EVW was able to modify the original traffic control plan and utilize the existing ramps in lieu of constructing temporary ramps, allowing the Team to start the construction of the CD lanes and bridge widening six months ahead of schedule. An additional innovation was to place the concrete pavement operation within the project median with construction materials being delivered during off-peak and night hours. This allowed the construction operation to perform the concrete paving with no MOT impacts and provide a high quality product.

**SUCCESSFUL DELIVERY**

- Innovation: The project completion date was fixed at July 30, 2009. The project was substantially complete by March 2009, earning EVW the maximum early completion bonus.
- Innovation: The Department reconfigured a major tie-in and add an enhancement of an additional CD lane at the Route 168 interchange.
- Innovation: The existing four travel lanes of reinforced concrete pavement were scheduled for demolition and disposal. Working with the department, the Team incorporated the demolished concrete, crushed to a 21A gradation, into the Cement Treated Aggregate as required for the roadway section. This work was performed within the right-of-way, without the material leaving the site or interfacing with traffic.
- Innovation: Utilizing the median during off-peak hours for material deliveries and storage, minimized interfacing of construction activities with commuter traffic.

**2010 ACCE Engineering Excellence Honor Award**

*For a project with multiple phases or multiple contracts, only one phase or one contract will be considered. If additional phases or contracts are shown under the same Work History Form, only the first phase or contract listed will be evaluated.*

E.V. Williams is proud to have been presented on this project with the American Council of Engineering Companies – 2010 Engineering Excellence Honor Award.
h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly.

Scope and Complexity Similarities

- Widening of a major interstate roadway
- Phased bridge construction with multiple traffic shifts
- Widening of existing 40+ year old structures
- Construction/extension of 11 box culverts
- Coordination with adjacent Interstate roadway construction
- Extensive public/community relations
- Traffic management
- Sound barrier walls
- Landscaping
- Rainwater irrigation
- VDOT project
- Coordination with third-party stakeholders
- Utility coordination and relocations
- Environmental permitting and protection
- Installation of “state of the art” IT/IT’s communication systems

NARRATIVE DESCRIPTION

This fast-track, Corman-led Joint Venture project consisted of reconstructing the Telegraph Road Interchange and widening/reconstructing approximately 2.5 miles I-95/I-495, west of Route 1 to the Eisenhower Connector exit, to enable traffic to enter and exit Virginia by crossing the new Woodrow Wilson Bridge. Improvements included roadway/bridge reconstruction, intersection improvements, and utility relocations. The new grade-separated interchange provides access to eastbound Huntington Avenue and North Kings Highway from the Beltway Outer Loop and southbound Telegraph Road through elevated ramps over Telegraph Road, as opposed to signalized intersections, and refines traffic flow and provides easier/safer pedestrian access. Scope included constructing 11 ramps and bridges totaling 380,000 SF of bridge deck, driving approximately 80,000 LF of concrete and steel piles, drainage improvements, utility location and relocation, micro-tunneling, 11 box culverts, 36,500 CY of low permeability concrete, new traffic control systems, lighting, traffic and overhead signs, traffic management system upgrades, guardrails, railroad coordination with CSX, Norfolk Southern, WMATA, and VDOT, obtained right-of-way, landscaping, 25,000 SF of temporary retaining walls with soil anchors, E&S controls that included General Water Permits, and an environmental mitigation project at nearby Cameron Run Wetlands. There were improvements to 24 lane miles with 321,000 SF of roadway paving, milling and resurfacing, extensive MOT, pavement marking, approximately 500,000 CY of excavation, 23 retaining and MSE walls (D-B element), four sound walls (D-B element), ADA compliant handicap ramps, and storm drainage with six storm water management ponds.

Maintaining traffic for an ADT of 160,000 was the most critical aspect of the project’s success. Six lanes (three lanes in each direction) of I-95 were maintained at all times during construction. The project team constructed a section of roadway, switched traffic to the new lanes and began improvements to the old roadway. With traffic control and safety being big concerns, much of the construction was completed at night and during off-peak hours. The Corman-led JV project team developed the “Safety Time” Program which required crews to stop for five minutes at 9:00 am, 11:00 am and 1:30 pm to inspect, discuss and immediately correct safety issues. Topics included identifying potential safety risks, reviewing methods, tools and equipment used, evaluating/discussing if work is being performed the safest way and what can be done to improve safety, and reviewing housekeeping (tripping, falling, pinching, struck-by hazards, etc.). Since instituting this program, injuries have been significantly reduced.

SUCCESSFUL DELIVERY

We successfully delivered on time and on budget with the substantial completion date achieved 112 days early and the completion date 17 days less than the full incentive date. Actual completion date was June 27, 2015, 99% complete as of April 3, 2015, and was officially completed three days early. This project was also the winner of the 2013 VTCRA Transportation Engineering Award.

APPLICATIONS LEARNED

- Since effective coordination among all Woodrow Wilson Bridge projects was paramount, corridor coordination and job progress meetings were held discussing issues/solutions, scheduling, partnering, safety, MOT, which mitigated conflicts and eased the flow of each project.
- Due to excessive traffic congestion, Corman proposed MOT revisions to improve traffic flow which eliminated three phases of construction and reduced traffic shifts. These revisions were implemented with VDOT’s approval, resulting in improved public traveling.
- Contract drawings showed no utility conflicts. As work began, it became clear many conflicts existed. Rather than wait to discover them, Corman proactively identified and recorded all existing utility locations for the entire project. As a result, the original schedule was maintained with extensive relocations coordinated with the schedule.
- The Corman-led JV developed the “Safety Time” Program which required crews to stop for five minutes at 9:00 am, 11:00 am and 1:30 pm to inspect, discuss, and immediately correct safety issues. Topics included identifying potential safety risks, reviewing methods, tools and equipment used, evaluating/discussing if work is being performed the safest way and what can be done to improve safety, and reviewing housekeeping (tripping, falling, pinching, struck-by hazards, etc.). Since instituting this program, injuries have been significantly reduced.

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## ATTACHMENT 3.4.1(a)

### LEAD CONTRACTOR - WORK HISTORY FORM

**LIMIT 1 PAGE PER PROJECT**

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design.</th>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Original Contract Value</th>
<th>g. Final or Estimated Contract Value</th>
<th>h. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)</th>
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<tbody>
<tr>
<td>Name: Route 13/158 (Design-Build)</td>
<td>Name: Rummel, Klepper &amp; Kahl, LLP (RK&amp;K)</td>
<td>Name of Client/Owner: North Carolina DOT</td>
<td>Phone: 252.332.4514</td>
<td>Project Manager: Scott Emory</td>
<td>Phone: 252.332.4514</td>
<td>Email: <a href="mailto:senemy@ncdot.gov">senemy@ncdot.gov</a></td>
<td>f. Contract Value (in thousands)</td>
</tr>
<tr>
<td>Location: Gates &amp; Hertford Counties, NC</td>
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<td></td>
<td>12/2014</td>
<td>08/2015 (NCOT added 3,700 feet to the project limits resulting in contract extension.)</td>
<td>$54,500</td>
<td>$56,000</td>
<td>$56,000</td>
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### NARRATIVE DESCRIPTION

This Design-Build Project in Hertford and Gates Counties widens US 13/US 158 from US 158/NC45 near Winton to the US 158 Bypass in Tarheel. The improvements included 7.1 miles of four-lane divided facility, bridges, and the construction of an interchange at US 158/NC 45. Similar to I-64 Capacity Improvements – Segment II project, a major challenge was dealing with very poor soil conditions and maintaining current traffic volumes. The E. V. Williams, Inc. Team included RK&K providing the design services and McLean Contracting Company constructing project structures that includes a single new-span 1,200-foot long bridge over the Chowan River, dual bridges at Buckhorn Creek, dual bridges at the Route 13 over NC 45 interchange and the rehabilitation of the existing bridge over the Chowan River that consisted of the removal of 1 1/2” of the deck and replacing with latex modified concrete. Other major items were 218,000 CY of undercut, 1,131,000 CY of borrow fill, 22,000 LF of storm drain pipe, 187,000 tons AGB, and 25,000 LF of water line.

One of the major risks on the project was performing the undercut soils remediation without detours or impacting the existing traffic. The Team utilized a slide rail system to accomplish the deep undercut to minimize any impacts to the existing roadway and traveling public. Additional innovation included providing phasing that eliminated the project and allowed detours without impacts to the project schedule.

### SUCCESSFUL DELIVERY

- **Interchange Design and Reconstruction** – By reversing the grade separation at the Route 13/158 Interchange and having Route 13 cross over Route 158, we were able to reduce the quantity of excavation of unsuitable soils. Further, we were able to remove the need for a temporary roadway to maintain traffic as well as minimize the relocation and protection of an existing 12” sewer force main.
- **Traffic Management** – Utilizing innovative traffic control measures, the Team was able to phase the project’s sequence of construction to eliminate the need for any complete closure of the roadway (as allowed by the RFP), which improved traffic operations and safety of the project. An existing signalized intersection was also relocated on the newly proposed ramps reducing the construction activity and minimizing impacts to the traveling public.
- **Roadway Design, Reconstruction and Widening** – An added value was brought to the project by improving the sight distance and increasing the design speed. This was accomplished by adjusting the vertical and horizontal curves and did not require additional ROW.
- **ROW and Adjacent Property Owners** – It was a requirement on the project to minimize the impact to a Historical District. The Team completed all ROW acquisition on over 70 different parcels and was responsible for appraisals and negotiations that secured all ROW without having to proceed to condemnation on any parcel.
- **Innovation** – During the RFP phase, the Team identified problems associated with locating the new roadway to the west of the existing road as called for in the RFP documents. Field exploration by staff showed that on the west side, unsuitable organic material extended well under the existing roadway and slope. On the east side, the Team discovered that proper undercutting and replacement with good embankment had already been accomplished. The Team also determined that the Department owned right-of-way on the east side of the roadway. Adding further complication to the west side expansion, the presence of a 12” gas main was discovered that ran parallel and within the NCDOT right-of-way in this area. Utilizing this information, the Team developed an ATC (Alternate Technical Concept) and submitted it to the Department for approval. This innovation saved the Department $5,000,000 directly on the project.
- **Innovation** – By moving the roadway location to the west side at Chowan River, we saved NCDOT over $8,000,000 and six months construction time. As a result, the Department saved $7,5M over the next responsible bidder.
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### LESSONS LEARNED

- **Added Value** – Because of the Team’s cost effective handling of the project and excellent working relationship, NCDOT added .7 of a mile to the project limits under this contract that when completed, will improve service for the traveling public.
- **Quality in the Final Roadway** – Over 280,000 sf of new roadway was constructed by using the latest GPS technology to speed production and provide a higher quality product. Terrain models were built in-house on AutoCAD 3D and the use of GPS on finish dozer and graders.

**For a project with multiple phases or multiple contracts, only one phase or one contract will be considered. If additional phases or contracts are shown under the same Work History Form, only the first phase or contract listed will be evaluated.**
Attachment 3.4.1(b)

Lead Designer Work History Form
**ATTACHMENT 3.4.1(b)**

**LEAD DESIGNER - WORK HISTORY FORM**

**LIMIT 1 PAGE PER PROJECT**

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime/ general contractor responsible for overall construction of the project.</th>
<th>c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Construction Contract Start Date</th>
<th>e. Construction Contract Completion Date (Original)</th>
<th>f. Construction Contract Value (Original)</th>
<th>g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement. (in thousands)</th>
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<tr>
<td>I-64 Widening and Route 623 Interchange Improvements (Design-Build)</td>
<td>Corman Construction, Inc.</td>
<td>Name of Client: Virginia DOT Phone: (804) 524.6433 Client Contact: Shane Mann Phone: (804) 524.6433 Email: <a href="mailto:shane.mann@vdot.virginia.gov">shane.mann@vdot.virginia.gov</a></td>
<td>09/2013</td>
<td>11/2015</td>
<td>$33,238</td>
<td>$34,862 (Owner Approved Changes)</td>
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**NARRATIVE DESCRIPTION**

RK&K’s Richmond office served as the Lead Designer for this Corman/RK&K/ECS project which involved widening 4.5 miles of I-64 from a four-lane divided freeway to a six-lane divided freeway, with additional through lanes constructed to the inside of I-64 in both the eastbound and westbound directions. The project began west of the interchange with Route 623 and extended to Route 295 (Pouency Tract Road), and included two replacement bridges and improvements to the I-64/Route 623 interchange. The I-64 interchange with Route 288, is also located within the project limits. This project is an excellent match to the I-64 Capacity Improvements – Segment II project in both scope and complexity. We offer the same team of Lead Designer (RK&K), Geotechnical Engineer (ECS) and Contractor (Corman) for the I-64 Capacity Segment II project, bringing with us the experience gained from the I-64/Route 623 project.

**Roadway Design** – This segment of I-64 provides a critical link between downtown Richmond and the Richmond’s “West End,” with traffic volumes in this area at nearly 50,000 vehicles per day. I-64 also serves as the primary connection between the cities of Richmond and Charlottesville. Design on this freeway, with a 75- mph design speed, included the following roadway improvements: addition of one 12-foot wide lane in each direction of I-64, a 12-foot-wide paved shoulder in each direction, median guardrail installation and outside shoulder guardrail replacement. Upgrades to the existing outside shoulder included full depth reconstruction for a portion of the project length, as well as 2” mill and overlay for the remaining portions of the project. Improvements to the I-64/Route 623 interchange included widening both off ramps from I-64 to Route 623 to provide additional turn lanes, the addition of a left turn lane on Route 623 southbound to access I-64 eastbound, and upgrading the existing traffic signal.

**Structures and Bridges** – Twin replacement bridges were designed for I-64 over Little Tuckahoe Creek. The I-64/Route 524 interchange involved widening both off ramps from I-64 to the Tuckahoe Creek bridge, which included the design of a 12-foot wide lane in each direction, median guardrail installation and outside shoulder guardrail replacement. Upgrades to the existing outside shoulder included full depth reconstruction for a portion of the project length, as well as 2” mill and overlay for the remaining portions of the project. Improvements to the I-64/Route 623 interchange included widening both off ramps from I-64 to Route 623 to provide additional turn lanes, the addition of a left turn lane on Route 623 southbound to access I-64 eastbound, and upgrading the existing traffic signal.

**Geotechnical** – As part of the Corman/RK&K Team, ECS provided full geotechnical services for this project. Work included subsurface explorations, laboratory testing including soil classification, strength, and consolidation parameters, design of permanent and temporary pavement sections, assessment and mitigation for unstable soils, foundation design for overhead sign and signal structures, and analysis of MSE retaining walls at culvert locations. ECS also provided foundation design for the replacement bridges and associated wingwalls, utilizing rock-socketed steel H-piles and an innovative design where MSE-style reinforcement straps were used to reduce the lateral load on abutment piles.

**Hydraulics / Drainage** – RK&K performed a full Hydrologic and Hydraulic Analysis (H&HA) for the bridge crossings over Little Tuckahoe Creek, including HEC-RAS modeling and scour analysis. Drainage design included design of stormwater management facilities, erosion and sediment control measures, bridge deck drainage, adequate outfall analysis, underdrains, storm sewer systems, and design of temporary drainage needs for MOT sequencing.

**SUCCESSFUL DELIVERY**

Plan submittals were delivered on schedule, allowing construction to begin on time: Two replacement bridges were designed that provided VDOT with new structures with a longer life and fewer maintenance issues than rehabilitating and maintaining the existing bridges, at a lower cost than repair and rehabilitation; Innovative use of MSE retaining walls at culvert locations to reduce cost and environmental impacts; This project earned the second highest Construction Quality Improvement Program (CQIP) score for a Design-Build project; Construction is on schedule to be completed by contract completion date; The DBE goal of 10% was exceeded.

**LESSONS LEARNED**

Innovative Design – When implementing innovative design concepts in DB projects (such as the use of MSE straps at the abutments), it is important to engage VDOT early on in the project and make plan and design submittals as early as possible to allow time for VDOT review and approval. It is also important to weigh all of the impacts of a decision early on, making sure that the full cost benefit to the project is fully understood (i.e. – If adding retaining walls at culvert locations changes a borrow job to a waste job ensures that the retaining wall option still provides the best cost benefit to the job). Design During Pursuit – By doing a full hydraulic analysis during the pursuit phase of this project, RK&K determined that a replacement bridge with a smaller hydraulic opening than the original bridge was feasible, resulting in significant cost savings related to the bridges.

“*I travel this road several times a day and am very pleased with the traffic safety and direction signage. The travel through this area is very smooth and hope that the work is completed soon. Thank you very much for a job well done – Ron Brady, Goochland Resident*

*For a project with multiple phases or multiple contracts, only one phase or one contract will be considered. If additional phases or contracts are shown under the same Work History Form, only the first phase or contract list will be evaluated.*
Name: I-4744: I40 Widening & Signing (Design-Build)  
Location: Wake County, NC

Name: S.T. Wooten  
Name of Client: North Carolina DOT  
Phone: 919.707.6601  
Project Manager: Rodger Rochelle, PE  
Phone: 919.707.6601  
Email: rdrochelle@dot.state.nc.us

- **Project Name & Location**: I-4744: I40 Widening & Signing (Design-Build)  
  Location: Wake County, NC
- **Name of Client**: North Carolina DOT  
  Phone: 919.707.6601  
  Project Manager: Rodger Rochelle, PE  
  Phone: 919.707.6601  
  Email: rdrochelle@dot.state.nc.us
- **Contract Start Date**: 06/2009  
  **Construction Completion Date**: 06/2011  
  **Contract Value (Original)**: $49,000  
  **Construction Contract Value (Actual or Estimated)**: $49,000  
  **Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement (in thousands)**: $3,900

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

**NARRATIVE DESCRIPTION**

RK&K's Raleigh office served as the Lead Designer for the entire project with assistance from RK&K's Richmond office. The 6.4 miles of I-40, from west of Wade Avenue to east of Jones Franklin Road is a critical commuter freeway with traffic volumes that exceed 130,000 per day. The project widened the existing four-lane divided roadway to a six-lane divided facility and included widening dual bridges over US 1/US 64 and dual bridges over eastbound Wade Avenue. With innovation and an aggressive design and construction schedule, the project approach circumvented complex traffic issues and was successfully completed nearly a full year ahead of schedule.

Highway/Roadway Design – I-40, known as the Triangle's "Main Street," is also a critical freeway. Traffic volumes exceeded 130,000 per day, which is far above the capacity of a freeway in this area. This rolling urban freeway with a 70-mph design speed included the following roadway improvements: design of one 12-foot wide lane in each direction of I-40 expanding the interstate from four to six lanes; a 12-foot-wide paved shoulder in each direction; median guardrail installation and shoulder guardrail replacement; at the eastbound I-40/Wade Avenue split, the roadway was expanded from two to three lanes.

- **Scope and Complexity Similarities**
  - Design-Build
  - Interstate Design
  - Interstate Widening
  - Project Size
  - Bridge Design

**Proposed Personnel for I-64 Capacity Improvements Project**

- Mike Merritt, PE (RK&K)
- Joe Rauseo (RK&K)
- Pavement Markings and Signing – As a heavily traveled urban facility, special attention was focused on signing and pavement markings.
- Intelligent Traffic Systems – Responsible for the design of ITS communications cable routing plans, CCTV cameras, and ITS.
- Bridge Design: Structures were designed for the bridge widening at Wade Avenue and US 1 / 64, as well as two sound barrier walls.
- Utilities – Responsible for the identification of conflicting utilities, coordination of Level “A” S.U.E. data and management of utility coordination efforts. Utility design included the design and permitting of water services for the construction office and asphalt plant facilities.

**SUCCESSFUL DELIVERY**

- This project was awarded the 2011 NAPA Safety Innovations Award.
- Creative and innovative design and construction techniques completed this project a full year ahead of the client’s required June 15, 2012 completion date.
- The project was delivered ahead of schedule and within budget through the use of innovative designs and creative construction techniques.
- Strict adherence to sediment and erosion control measures resulted in minimal environmental impacts.
- The project was noted by the client as one of their “finest transportation achievements.” This project received several awards demonstrating the high quality of the team.
- Awards – ACEC/NC Engineering Excellence Award; 2011 AGC Pinnacle Award for Best Highway Project in the Carolinas; 2010 NAPA Safety Innovation Award.

**LESSONS LEARNED**

- Work Zone Access – When widening to the median, using alternate methods for delivering materials to the median reduces exposure to traffic and reduces construction time.
- Coordination – Close coordination with subconsultants and the Contractors is vital to a successful design-build project.
- Design Work Packages – Using staged submittals of design plans (structure, traffic controls, erosion control, etc.) allowed work to begin much earlier than following the typical process. The process works especially well for median widening because right of way and permits are minimal.
- Maintenance of Traffic – Additional traffic studies may yield more efficient MOT scenarios. These traffic studies are quite beneficial to the design-builder, owner, and traveling public.

"I commend the entire Design-Build Team for completing this project quickly, safely, and cost effectively. The Design-Build Team’s efforts exceeded NCDOT’s expectations in innovation during both design and construction. Despite the numerous and complicated traffic control, schedule, subgrade, and public information challenges of this project, the S.T. Wooten/RK&K total ‘team approach’ and responsiveness to the NCDOT contributed to one of North Carolina's finest transportation achievements." – Mr. Rodger Rochelle, PE Director of the NCDOT Transportation Program Management Unit - Source: ACEC Award - Endorsement Letter.

*For a project with multiple phases or multiple contracts, only one phase or one contract will be considered. If additional phases or contracts are shown under the same Work History Form, only the first phase or contract listed will be evaluated.
## LEAD DESIGNER - WORK HISTORY FORM

### (LIMIT 1 PAGE PER PROJECT)

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime/ general contractor responsible for overall construction of the project.</th>
<th>c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Construction Contract Start Date</th>
<th>e. Construction Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement. (in thousands)</th>
</tr>
</thead>
</table>
| I-95 Express Toll Lanes   | Cherry Hill Construction  
| Location: Baltimore, MD   | Maryland Transportation Authority (MDTA)  
| Name of Client:          | Phone: 410.931.0808  
| Project Manager:        | David Labella  
| Phone: 410.931.0808     | Email: dlabella@mdta.state.md.us |
|                          | $148,000  
|                          | $148,000  
|                          | $8,832 |

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

#### NARRATIVE DESCRIPTION

The I-95 Express Toll Lanes project addressed improvements to approximately 6.5 miles of I-95 on the northeast side of Baltimore, including the reconstruction of three major interchanges and the addition of four Express Toll Lanes (ETL’s). RK&K’s Baltimore office, with assistance from their Richmond office, was responsible for the design of the I-95 interchange with MD 43, which was a traditional cloverleaf configuration. The new interchange also included direct connects to the ETLs. In addition to an expanded bridge crossing of MD 43 over I-95, RK&K designed new bridges over the interchange directional ramps as well as the I-95 bridge over Campbell Boulevard.

#### Roadway Design:

The major modification to I-95 consisted of adding two Express Toll Lanes (ETL) in each direction. The eight General Purpose Lanes (GPL) were maintained. The ETLs are located in the middle of the roadway and separated from the GPLs by a concrete barrier. Access from the ETL’s to MD 43 is via ramps in the median to a signalized intersection with MD 43. Directional ramps to and from the GPL’s replace the loop ramps in the MD 43 interchange. This change required four additional bridges within the limits of the interchange, having a total of six new bridges. In order to accommodate the wider I-95 typical section, all of the existing bridges have been reconstructed.

#### Drainage Design:

Drainage Design of I-95 to a signalized intersection with MD 43. Directional ramps to and from the GPL’s replace the loop ramps in the MD 43 interchange. This change required four additional bridges within the limits of the interchange, having a total of six new bridges. In order to accommodate the wider I-95 typical section, all of the existing bridges have been reconstructed.

#### Maintenance of Traffic:

- **Provided innovative design solutions for staging the construction of the MD 45 bridges while maintaining high volumes of traffic on I-95 and MD 43.
- Four MSE Walls were used to save costs to ramp ETL Ramps to the MD 43 bridge.
- Worked closely with all utility owners in preparing relocation design plans in a timely manner to meet project schedules.
- Developed an innovative solution to install a 21 foot high retaining wall and noise wall adjacent to a very old 108 inch owned water main. Required a complex containment system to protect the water line during and after construction.
- Designers worked closely with the contractor during construction responding to RFIs, shop drawings, MOT change requests, and etc. to meet construction completion dates. Response times to RFIs and shop drawings were completed within a couple of days and well in advance of the allotted review time of two weeks to expedite construction.
- Assisted MDTA in preparing graphic displays and write-ups for the Public Outreach efforts for the project.
- Impacts to environmental features were maintained or reduced to the original permits for the project.

### LESSONS LEARNED

- **Construction Phasing** – Phasing of bridge removal and reconstruction was complex and required temporary piers to support the bridge until the I-95 lanes could be reconstructed.
- **Utilities** – Coordination with utilities was extremely important. Baltimore Gas and Electric (BGE) was relocating a line through the area and substantial roadway cuts needed to be coordinated with them to ensure that the BGE line was installed at appropriate locations before the road construction commenced.
- **Maintenance of Traffic** – An intensive MOT plans was developed that required significant amounts of temporary pavement on temporary ramp connections. Detailed alignments, profiles and cross sections were required to appropriately prepare the temporary roadways for traffic use.

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