3.2 Letter of Submittal

August 28, 2014

Ms. Brenda L. Williams
Commonwealth of Virginia Dept. of Transportation (VDOT)
Central Office Mail Center, Loading Dock Entrance
1401 E. Broad Street
Richmond, VA 23219

Reference: Route 29 Solutions Design-Build Project,
Contract ID No. C00077383DB80

Dear Ms. Williams:

3.2.1 Offeror’s Identification and Signature

Conti Enterprises Inc. (Conti) submits this Statement of Qualifications (SOQ) in response to the referenced Request for Qualifications (RFQ). Founded in 1906 in New Jersey, Conti is a design-build contractor with nearly 50 major highway/bridge projects safely completed over the past 20 years, meeting accelerated schedules with minimal disruption to the community.

3.2.2 Point of Contact Information

Conti’s point of contact for this project is Bob Scerbo, VP Estimating, 2045 Lincoln Highway, Edison, NJ 08817, phone (732) 520-5009, fax (908) 561-7427, email bscerbo@conticorp.com.

3.2.3 Principal Officer Information

Conti’s principal officer is Bob Scerbo, VP Estimating, 2045 Lincoln Highway, Edison, NJ 08817, phone (732) 520-5009, fax (908) 561-7427, email bscerbo@conticorp.com.

3.2.4 Offeror’s Corporate Structure

Conti Enterprises Inc. is a corporation and will undertake financial responsibility for the project with no known liability limitations. We can provide a single 100% performance bond and a single 100% payment bond.

3.2.5 Identity of Lead Contractor and Lead Designer

Conti Enterprises Inc. (Conti) is the Lead Contractor with design-build management oversight as well as overall construction responsibility for this project, and The Louis Berger Group, Inc. (Louis Berger) is Conti’s subcontractor and the Lead Designer with overall design responsibility for this project.
3.2.6 Affiliated and/or Subsidiary Companies
The full legal name and address of all companies affiliated with Conti Enterprises Inc. is disclosed in Attachment 3.2.6, included in Appendix C of this submittal.

3.2.7 Certification Regarding Debarment
Included in Appendix D of this submittal are the completed Attachments 3.2.7(a) and 3.2.7(b), Certification Regarding Debarment Forms, for Conti and our team stating that neither the company nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any Federal department or agency.

3.2.8 VDOT Prequalification Evidence
The VDOT prequalification number for Conti Enterprises Inc. is C974, see Appendix E.

3.2.9 Surety or Insurance Company Letter
Conti is capable of obtaining a performance and payment bond for the project. Our current bonding capacity is $1.5B in aggregate and $750M per single project. A surety letter is included in Appendix F of this submittal.

3.2.10 Registrations and Licenses
Virginia State SCC registrations and DPOR licenses are listed in Appendix G and supporting information is included in Appendix H. As requested by VDOT, we have also registered “The Conti Group” as a DBA of Conti Enterprises Inc.

3.2.11 DBE Statement
Conti is committed to achieving a 13% DBE participation goal for the entire value of this contract. We invest time up front on each project to identify capable and reliable DBE design consultants and construction subcontractors. Based on our successful past track record (where in a 5-year period on 52 projects, Conti subcontracted about 21% of its total contract value to small businesses), we are confident that our project team has the discipline and conditioning to develop and implement an effective plan to complete work by meeting our obligations to the small business community.

We appreciate this opportunity to work with VDOT. Please contact me with any questions.

Best regards,

Robert A. Scerbo
Vice President, Estimating

Enclosures
3.3 Offeror’s Team Structure

Conti’s Route 29 Solutions DB project team is presented in Figure 3-1. Members of our team have worked together on similar projects, and our complementary skills and experience will provide VDOT with an integrated project delivery team for this project.

**Figure 3-1: Conti VDOT Route 29 Project Team Introduction**

<table>
<thead>
<tr>
<th>Prime Contractor / Lead Contractor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conti Enterprises, Inc.</strong></td>
</tr>
<tr>
<td>▪ Lead DB Contractor and Constructor</td>
</tr>
<tr>
<td>▪ Established 1906 in NJ</td>
</tr>
<tr>
<td>▪ 52 DOT road/bridge projects in 4 states since 1982</td>
</tr>
<tr>
<td>▪ 50+ projects managing congested traffic (e.g., NYC)</td>
</tr>
<tr>
<td>▪ 10 construction projects in VA in past 14 years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lead Designer</th>
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</thead>
<tbody>
<tr>
<td><strong>The Louis Berger Group, Inc.</strong></td>
</tr>
<tr>
<td>▪ Lead Designer</td>
</tr>
<tr>
<td>▪ Established 1953 in VA</td>
</tr>
<tr>
<td>▪ 20+ VDOT projects (30+ yrs)</td>
</tr>
<tr>
<td>▪ Designer for NJ/PA Trenton-Morrisville Toll Bridge, Conti Constructor</td>
</tr>
<tr>
<td>▪ Several joint DB proposals with Conti since 1999</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Tier 1 Subcontractors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CES</strong></td>
</tr>
<tr>
<td>▪ Quality Assurance Manager</td>
</tr>
<tr>
<td>▪ Established 2010 in VA</td>
</tr>
<tr>
<td>▪ SWaM/DBE</td>
</tr>
<tr>
<td>▪ 3+ yrs of VDOT experience</td>
</tr>
<tr>
<td><strong>FCE</strong></td>
</tr>
<tr>
<td>▪ Construction Subcontractor</td>
</tr>
<tr>
<td>▪ Established 1987 in VA</td>
</tr>
<tr>
<td>▪ SWaM</td>
</tr>
<tr>
<td>▪ 6+ yrs of VDOT experience</td>
</tr>
<tr>
<td>▪ 15+ projects in Albemarle Cty</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Tier 2 Subcontractors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Siddall Communications</strong></td>
</tr>
<tr>
<td>▪ Public Information Coordinator</td>
</tr>
<tr>
<td>▪ Established 2013 in VA</td>
</tr>
<tr>
<td>▪ Certified Small Business</td>
</tr>
<tr>
<td>▪ 20 yrs of VDOT experience</td>
</tr>
<tr>
<td><strong>KDR</strong></td>
</tr>
<tr>
<td>▪ Right-of-Way Coordinator</td>
</tr>
<tr>
<td>▪ Established 2002 in VA</td>
</tr>
<tr>
<td>▪ SBE</td>
</tr>
<tr>
<td>▪ 35 yrs of VDOT experience</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Parish &amp; Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Structural Design/QC</td>
</tr>
<tr>
<td>▪ Established 2013, office in VA</td>
</tr>
<tr>
<td>▪ 30+ yrs working with VDOT, 200+ projects</td>
</tr>
<tr>
<td><strong>DMY</strong></td>
</tr>
<tr>
<td>▪ Geotechnical Design/QC</td>
</tr>
<tr>
<td>▪ Established 2009 in VA</td>
</tr>
<tr>
<td>▪ SWaM/MBE/DBE/LDBE</td>
</tr>
<tr>
<td>▪ 10 VDOT projects</td>
</tr>
<tr>
<td><strong>AMEC</strong></td>
</tr>
<tr>
<td>▪ Environmental Design/QC</td>
</tr>
<tr>
<td>▪ Established 1882, office in VA</td>
</tr>
<tr>
<td>▪ Top 14 US environmental firms</td>
</tr>
<tr>
<td>▪ 100+ VDOT projects (20 yrs)</td>
</tr>
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<tr>
<th>Hurt &amp; Proffitt</th>
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</thead>
<tbody>
<tr>
<td>▪ Survey/SUE Design/QC</td>
</tr>
<tr>
<td>▪ Established 1973 in VA</td>
</tr>
<tr>
<td>▪ SWaM</td>
</tr>
<tr>
<td>▪ 500+ VDOT projects</td>
</tr>
<tr>
<td>▪ 20+ projects in Albermarle Cty</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Draper Aden Associates</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Utility Coordinator</td>
</tr>
<tr>
<td>▪ Established 1972 in VA</td>
</tr>
<tr>
<td>▪ SWaM</td>
</tr>
<tr>
<td>▪ 40 yrs of VDOT experience</td>
</tr>
<tr>
<td>▪ 8 projects in Albermarle Cty</td>
</tr>
</tbody>
</table>
3.3.1 Key Personnel

Figure 3-2 presents Conti’s Key Personnel and Resume Forms are included in Appendix I.

<table>
<thead>
<tr>
<th>Position</th>
<th>Qualifications</th>
<th>Role</th>
</tr>
</thead>
</table>
| 1 Design-Build Project Manager Mike Prudente | - Conti degreed Civil Engineer  
- 17 yrs urban construction experience working with DOTs  
- 10 yrs experience as major transportation/infrastructure PM  
- PM for award-winning $154M NJDOT Rt 18 project (App J) commended on “professionalism & cooperative nature”  
- DB experience, including $400M+ project in urban Ghana  
- Expert at fast track schedules w/complex traffic control (on Rt 18 managed 955 lane closures w/14 major traffic shifts)  
- “very responsive & resourceful in resolving issues” (NJTA)  
- Managed communication and PR in highly urban NYC area | - Serve as single point of contact to provide clarity, consistency and expediency, working directly with VDOT  
- Guide team to an efficient, high quality, cost effective project  
- Responsible for overall project design, construction, quality, safety and contract admin. |
| 2 Quality Assurance Manager Avtar Singh, P.E, CCM, PMP | - LB registered PE in VA (PE #0402035169)  
- 16 yrs experience in quality mgmt. on DBB projects  
- 10+ yrs experience on VDOT projects  
- 20+ yrs experience on projects involving grade separation, bridge construction and highway widening  
- 5 yrs experience working as VDOT Area Construction Engineer with 28+ road and bridge construction projects  
- 4 yrs as consultant CCM ACE, worked exclusively to manage and construct VDOT bridge and highway projects | - From third-party firm, not involved in construction ops  
- Reports to the DB PM  
- Communicates directly with VDOT  
- Develops and implements the project DB QA/QC Plan  
- Responsible for QA testing and inspection |
| 3 Design Manager Dean Hatfield, PE | - LB registered PE in VA (PE #0402018960)  
- 25 yrs experience managing design of multi-disciplinary highway/bridge projects  
- Experience with highway design, bridge design, complex foundations, earth retaining and drainage structures  
- DB experience, including traffic mgmt. and pedestrian safety  
- PM for the NCDOT SR 1118 (Fayetteville Road) / I-40 Single Point Urban Interchange, Durham County, NC, built to accommodate The Streets of Southpoint Mall | - Reports to the DB PM  
- Coordinates disciplines of design so overall project design is well-integrated and in conformance with the specs  
- Responsible for design portion of project QA/QC Plan and will make sure construction documents are in compliance |
| 4 Construction Manager Bill Koepppe | - Conti 21+ yr seasoned construction manager  
- 23 yrs experience managing major transportation and infrastructure construction projects  
- CM for 3 major transportation projects w/proposed DB PM  
- DB experience w/proposed DB PM in urban Accra, Ghana, including traffic management and pedestrian safety  
- Experience with highly urban NYC projects, environmental sensitivity, utility relocations, and community outreach  
- Expert at fast track schedules w/complex traffic control (on Rt 18 managed 955 lane closures w/14 major traffic shifts)  
- Will obtain VA DEQ RLD Cert and VDOT ESCCC | - On site for duration of construction activities  
- Manages construction process, including QC and safety  
- Reports to the DB PM  
- Serves as Superintendent to oversee production forces in the field, including foremen assigned to each work activity |
| 5 Lead Structural Engineer Amir Fouladgar, PE | - P&P registered PE in VA (PE # 0402017431)  
- 20+ yrs experience with structural design in DB projects, 100+ VDOT projects  
- 40+ yrs experience in the design of 200+ bridges in 12 states  
- Hands-on designer, veteran PM, bridge expert & solutions provider, well-respected among bridge industry professionals  
- Supervised, managed projects ranging from that of national significance & complexity to repair/rehabilitation projects | - Reports to the DM  
- Responsible for structural design of bridges and retaining walls  
- Available to review, verify, and modify designs, if necessary, based on field conditions and construction activities |
<table>
<thead>
<tr>
<th>Position</th>
<th>Qualifications</th>
<th>Role</th>
</tr>
</thead>
</table>
| **Lead Traffic Engineer**      | ▪ LB registered PE in VA (PE # 0402029273)  
▪ 28+ yrs traffic design experience in DBB & DB projects  
▪ 10 VDOT projects  
▪ Experience with level of service and traffic analysis, CORSIM analysis and traffic signal warrant analysis for Change in Control of Access reports, Interstate Justification Reports, Traffic Studies, and Corridor Studies  
▪ Experience preparing signing, striping, lighting, traffic signal, ITS, construction staging and traffic control plans; specs; and cost estimates for freeway, urban arterial and traffic projects | ▪ Reports to the DM  
▪ Responsible for project traffic studies and operational analysis  
▪ Responsible for developing, implementing and monitoring the Transportation Management Plan and detailing phases of work for safe and efficient operation in the work zones |
| Nancy Geisler, PE              |                                                                                                                                                |                                                                                              |
| **Lead Geotechnical Engineer** | ▪ DMY registered PE in VA (PE # 04020446684)  
▪ 29+ yrs experience in geotechnical design for DBB and DB projects  
▪ 20+ VDOT projects  
▪ 25+ yrs experience in geotech., structural, transportation, and site civil engineering; construction mgmt.; construction engineering inspection; and engineering laboratory mgmt.  
▪ Geotech. engineering experience includes shallow and deep foundations, retaining wall design, slope stability analysis, support of excavation design, tunnel constructions, soil mod and stabilization, groundwater issues, geotech. instrumentation, and pavement design | ▪ Reports to the DM  
▪ Responsible for geotech. design of retaining walls, foundations, soil & rock cut and fill slopes, embankment materials and construction, ground improvement, geotech. Instrumentation, and pavement subgrade and structure  
▪ Available to review, verify, and modify designs, if necessary, based on field conditions and construction activities |
| John Ding, PE                  |                                                                                                                                                |                                                                                              |
| **Lead Utility Coordination Manager** | ▪ DAA registered PE VA (PE # 0402035201)  
▪ 17 yrs utility coordination experience in DBB & DB projects  
▪ 20+ VDOT projects  
▪ PM for design of approx. 2,000lf of 12-in water main in residential section of Charlottesville on East Market St Water Main Replacement project  
▪ PM for design of approx. 2,000lf of 8-in water main in residential section of Charlottesville on Cherry Ave Water Main Replacement project  
▪ PM for design of approx. 10,000lf of 12 and 16-in water mains within heavily congested US Rte 1 corridor in Henrico Cty on Brook Rd Water Main Improvements project | ▪ Reports to the DM  
▪ Responsible for the coordination of utility relocations and design, verifying conflicts, determining costs responsible, conducting utility field inspections, and reviewing and recommending approval of utility relocation plans and estimates |
| Michael Haggerty, PE           |                                                                                                                                                |                                                                                              |
| **Public Relations Manager**   | ▪ Sidall Comm. public relations expert  
▪ 39 yrs public relations experience in construction industry  
▪ 20 VDOT projects  
▪ Managed public information (PI) for The Springfield Interchange project, adding 50 bridges and widening roadway to 24 lanes, where public support reached 70% all-time high for VDOT  
▪ Managed PI programs for I-95 Richmond Bridge Restoration Project, a decade long program that used public outreach to keep traffic flowing on I-95 as 13 bridges were re-decked  
▪ Awards include AASHTO Excel Communications Award for James River Bridge Project; PRSA Medallion for Springfield Interchange Improvement | ▪ Reports to the DM PM  
▪ Supports the DB PM in external communications to project stakeholders, media, and the general public to manage this critical element of the project, in close contact with VDOT |
| John Siddall                   |                                                                                                                                                |                                                                                              |
Conti’s project organization includes the key project personnel listed in Figure 3-2. As added benefit, we propose the roles listed in Figure 3-3 for project execution to capitalize on the inherent benefits of integrated DB delivery for increased cost/schedule certainty and reduced risk to VDOT:

<table>
<thead>
<tr>
<th>Position</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design-Build Coordinator</td>
<td>Conti will utilize this dedicated role to work directly with the Design and Construction Managers for transparent communication to integrate inputs for constructability reviews as well as design services during construction. Regular joint meetings will be held with the design and construction teams to discuss status.</td>
</tr>
<tr>
<td>Project Safety Manager(s)</td>
<td>Conti’s safety oversight manager(s) are responsible for developing and implementing the project specific safety plan in adherence with Conti and VDOT standards.</td>
</tr>
<tr>
<td>Design QA Manager</td>
<td>The Design QA Manager, reporting to the DM, will be responsible for the oversight of each design discipline QA and QC function. As part of the Quality Team, Conti will employ third parties for independent quality assurance oversight and material inspection and testing in specialty areas as well as across each engineering discipline.</td>
</tr>
<tr>
<td>Construction QC Manager(s)</td>
<td>The Construction QC Manager(s), reporting to the CM, will oversee the Construction QC testing technicians. The technicians will be responsible for QC testing of the construction work to make sure it is in compliance with the project QC Plan and specifications.</td>
</tr>
<tr>
<td>Third Party Coordinator</td>
<td>This role will support the PM, in contact with VDOT, to coordinate and remain in constant communication with project stakeholders (e.g., utilities).</td>
</tr>
<tr>
<td>Right-of-Way Coordinator</td>
<td>This role will be utilized to support the PM in timely efforts, in close contact with VDOT. The Coordinator will play an integral role in pre-construction activities by leading all elements of ROW Acquisition and Relocation Advisory and Assistance Services for the project team and VDOT.</td>
</tr>
</tbody>
</table>

3.3.2 Organizational Chart

Our design-build organizational chart for the VDOT Route 29 Solutions project is shown in Figure 3-4. Conti will be the single responsible entity to deliver a successful project to VDOT. We are organized by multi-disciplined design functional roles and construction activities by project segment.

**Design and Construction Integration**

From past experience on DB projects, such as Conti’s NYC DOT $192M St. George Ferry Terminal Roadway Project in 2013, we understand the dynamic relationship between designer and constructor. We know how to successfully leverage the “best of the best” ideas using an integrated DB process on a fast-track schedule to make the project a win-win for VDOT and Conti.

Our team’s integrated design-build logistics management process, shown in Figure 3-5, presents how our team will execute this project. Key to the success of this process is ongoing collaboration and communication through the active engagement of VDOT and key stakeholders, interdisciplinary coordination and constructability reviews from project initiation through final design, and integrated design services during construction to ensure the design intent is efficiently and cost-effectively achieved. We will develop an accelerated project schedule to fast track design and construction sequencing so that activities occur on overlapping/parallel paths.
Figure 3-4: Conti Route 29 Project Team Organizational Chart

- Company Confidential -

Statement of Qualifications

Page 7
The team’s integrated Design-Build management process is centered on gaining efficiencies and avoiding rework using strong collaboration and communication throughout the entire project. Understanding this process will be a key agenda item for our project kickoff and partnering meetings. These meetings will serve as the platform for developing a clear understanding of VDOT’s direction and vision for the project, and for the successful interaction with regulatory and state and local community stakeholders, for incorporation into our work plan.

Our project approach utilizes a two-part process where we will first quickly provide the specific information on scope, cost and schedule needed for a management decision, and then implement a combined design and construction phase to execute the project as agreed.

**Quality Assurance/Quality Control Program**

The DB QA/QC Plan, implemented by the QAM, relates to both technical and administrative aspects of the engineering service life cycle of a project, including proposal preparation, staffing, design activities, field activities, internal and external communication, project review, field operations, inspection and construction observation, and document storage. Checklists will be customized to monitor special projects needs and/or engineering activities for this project.

A QC Testing Technician will be assigned for each of the three project elements, and will share information and best practices for cross collaboration of QC activities across the Route 29 Solutions project. Speciality QC functions (such as standard and customized checklists) will be integrated into the team, and report to Conti’s Chief Administrative Officer. This structure will strengthen the team’s quality management processes and mitigate challenges created by distance between work sites. Conti’s daily QC reports submitted to VDOT will include items such as control methods utilized, products used, application rates, tests taken, report results received, and inspections performed.
3.4 Experience of Offeror’s Team

Conti and Louis Berger are experienced in the DB of transportation and infrastructure projects. We have a 15-year relationship which includes the Trenton-Morrisville Toll Bridge project for roadway restoration/widening serving 50,000 vehicles daily, and the I-95 NJ Exit 15X Ramp project for vehicular and bus access to a metro station serving 17,000 rail passengers daily.

**Figure 3-6** provides our six projects showing our team’s work history on projects similar to the VDOT Route 29 Project. Details are provided on the work history forms in Appendix J. A summary of our work history specifically relevant to Route 29 is provided below.

**Multiple Projects Concurrently on Fast Track Schedule**

Conti is skilled and capable of executing multiple projects simultaneously at various locations on a fast track schedule. During peak periods under one such contract for the Army Corps of Engineers, for example, we managed as many as 39 small projects concurrently across 16 locations, some with rapid mobilization requirements. Most of Conti’s transportation projects include performing complex construction in project segments or phases with concurrent operations, such as NJDOT Route 18 which was sequenced in five major stages with 15 concurrently project segment work locations (e.g., roadways, bridges, overpasses, waterfront). We have become very adept at sequencing work to accelerate the project schedule. Conti has developed formal project controls processes and an enterprise management information system (MIS) specifically configured to support the management of multiple, simultaneous projects. This system enables real time information on project progress and equipment and labor availability for additional resources. Local operations have the ability to draw on personnel and equipment from our national pool to keep projects on schedule. Our fully integrated MIS reduces risk by eliminating stand-alone data that would otherwise need to be reconciled regularly.

Louis Berger also has a system in place for managing multiple tasks and/or projects concurrently, which uses management and computer-based techniques to manage projects with the highest vision: to deliver the highest quality products to their clients. They have a complete business unit dedicated to delivering planning, project, and construction management services to federal, state, and private clients.

**Projects in Urban Areas & Limiting Impact to the Public**

Conti is accustomed to working with traffic, vibration, and noise constraints and has considerable experience working in highly urban and residential areas, including 500+ projects completed in the NYC area without interrupting access or service for hundreds of millions of travelers. This includes planning and executing major traffic shifts and lane closures on active highways for highway projects, such as our Route 18 project in NJ, which serves over 85,000 motorists daily. Just like the Route 29 project, our Route 18 project was located in a highly urban area and required 955 lane closures, 14 major traffic shifts, and 2,610 flagging hours. We have learned from our past experiences that constant
communication with the utility companies, residents and business owners in the area allows for a smooth process. This experience will prove very useful in implementing traffic control measures for the Route 29 Solutions project.

Louis Berger has extensive experience working in urban areas of the Commonwealth of Virginia, including their work on Telegraph Road, Route 29, and Gallows Road in Fairfax County. They work carefully with public and private stakeholders to identify issues and work through solutions while the plans are being developed. They seek public input and guidance from elected officials and the technical staffs. Louis Berger’s US Route 29 and Gallows Road project is an example of extraordinary coordination with various VDOT project managers on adjoining projects (I-495 HOT lanes), three adjoining major developers, including the Merrifield Town Center, county staff and citizen’s organizations to build consensus. With a very tightly integrated public relations manager they kept the public well informed throughout the project with current and accurate estimates of the design process.

**Innovative Design Solutions and Construction Techniques**

Persistence and innovation are two of Conti’s core values by which the company and all of its employees operate. Our project teams are trained not to accept mediocrity but rather look for new ways to achieve our client’s goals. Value engineering is a tool that Conti uses to stay ahead of the competition, avoid complacency amongst our personnel and most important, exceed our client’s expectations. Conti design team routinely consults with our construction teams on matters such as transportation constraints, site access, construction staging, maintenance of traffic, constructability, installation procedures, and elements where repetition may be applied to save time or cost. This early involvement by construction management professionals during the design stage often results in cost and schedule savings. For example, on the Route 18 project, original staging plans did not account for various grade differences that were evident when Conti started planning our execution. Such grade differences would have prevented traffic from being transferred where the plans had proposed it to be. To mitigate this problem, Conti proposed structuring transitions that allowed traffic flow and adjusted scheduling to accommodate the additional work that was required to open up new areas for work. The client adopted our proposed solution, and, Conti’s proactive plan mitigated the issues that would have arose had we executed according to the original plans.

Examples of specific innovative design and construction techniques are illustrated in our Work History Forms in **Appendix J**.

**Design-Build Experience**

Conti has a vast background with design build projects of various sizes from a few million dollars to over $250M. We aim to reduce the risk to the Owner, lower the overall costs of a project and provide a single point of contact for the Owner for the design and construction of the project. Some examples of our past design-build projects include:

- NYC Department of Transportation St. George Ferry Terminal Infrastructure: Design and construction for the extension of roadways for the reconstruction of this highly trafficked ferry terminal. Extensive coordination with the designer, URS.
- Architect of the Capitol DB Infrastructure Improvements: DB to install new and upgrade existing tunnel egress. Required extensive coordination of high profile stakeholders, such as the Supreme Court.
- Port Authority of NY and NJ Port Elizabeth Intermodal Rail Transfer Facility: Provided and managed the design and construction of the facility and 4 miles of railroad track.

Louis Berger has 60 years of experience designing over 100,000 miles of roadway and 3,000 bridges worldwide in design-bid-build, P3, and design-build efforts. Some examples of their past design-build projects include:

- VDOT US Route 50 Lee Jackson Highway 3.5 Mile Arterial Widening Project: Accelerated schedule from concept design, thru preliminary field inspection, and thru public hearing. Louis Berger worked creatively to develop the DB RFQ and RFP plans for VDOT to advertise/solicit DB proposals.
- NC Department of Transportation I-77 HOT Lanes: Conversion and expansion of current HOV facility from I-277 in Charlotte to Exit 36 at NC150 for approximately 24 miles.
- NV Department of Transportation I-80 DB from Robb Drive to Vista Boulevard: Provided technical services including review and recommendations for roadway concepts and verification and involvement with the development of procurement documents (RFQ/RFP).

Our team understands the fundamental DB challenge and recognizes that this type of project succeeds by first understanding the client’s complete scope of work and overall objectives and then working closely as an integrated team throughout the process. We also understand the dynamic relationship between designer and constructor.

**Effective Communication Strategies with Stakeholders**

Team communication and stakeholder engagement are critical to project success. We will utilize a communications plan to help avoid confusion and potential missteps that might undermine an understanding of project issues and cause delays in project progress. As an experienced provider of infrastructure projects, we have developed a collaborative communication system geared to working with the owner, multiple government agencies and other key project stakeholders during the planning and execution of large scale projects. Our responsive culture dedicated to ethics, high-quality, accountability and commitment to our customers and the public is what sets us apart.

To keep the project streamlined and on track, the DB team will integrate its planning, design and construction activities through constant communication and coordination with the project stakeholders, including:

- Enables a smooth transition from NTP to project completion
- Sets the stage for strong team work to meet project schedule milestones
- Avoids surprises and schedule concerns later in the project
- Provides an outlet for stakeholders to voice their concerns

Conti performed the $180 million design-build of New York’s St. George Ferry Terminal approach ramps and associated features.
- VDOT. Conti’s Route 29 Solutions DB project team will meet early and often with VDOT to understand special requirements or processes, and complete the initial submittals quickly.
- Albermarle County Area Residents and Businesses. In coordination with VDOT, our DB team will work closely with local residents and businesses to minimize disruption. We will provide safe access for traffic through the work area. We will also set up a hotline to gather and resolve issues related to our work as well as a website to share project information with the public.
- Utilities. Communication with the utility companies will be critical to manage the coordination of the utility work required for this project.
- Vendors and Suppliers. The DB team will contact primary and back-up vendors and suppliers integral to keeping the project ahead of schedule. These resources help us mobilize quickly and efficiently, so that workers and materials are on site when we need them. We will procure critical materials with long lead times during preconstruction. We will submit material certifications to VDOT for approval prior to procurement and delivery.

Taking and Managing Risks

Conti and our DB team have developed tools and procedures to identify, manage and mitigate risks that might impact the achievement of project goals and objectives. Our team works closely with our clients to identify and limit risk while making sure the original goals of the project are maintained. Specific risk management examples are included in our Work History Forms, and our process to identify and manage risk is described in the Project Risks section.

Coordination of Complex Utility Relocation

Conti has experience in performing the disconnection, rerouting and relocation of utilities necessary as well as incidental work or construction to surrounding structures. Conti provides the as-built locations of utilities that we replace during field operations. We have delivered numerous utility relocation/restoration projects including the Rapid Response Utility Relocation project in New Orleans where we repaired multiple utility lines and duct banks to improve structural integrity.

Commitment to Disadvantage Business Enterprise Program

Conti is committed to achieving small business participation goals on our projects. We invest time upfront on each project to identify capable and reliable small business subcontract firms, as demonstrated by our successful past track record (where in a 5-year period on 52 projects, Conti subcontracted nearly 21% of its total contract value to small businesses).
## Figure 3-6: Conti Team Project Experience

<table>
<thead>
<tr>
<th>#</th>
<th>Project Name, Location</th>
<th>Value</th>
<th>Duration</th>
<th>D B</th>
<th>Construct Bridge, Roadway, Grade Separation</th>
<th>Traffic Control</th>
<th>Utility Work</th>
<th>Fast Track Sched</th>
<th>Urban Area / Over Water</th>
<th>Traffic Volume (ADT)</th>
<th>3rd Party Coord</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NJDOT State Route 18 Grade Separated Highway, New Brunswick, NJ (2 miles ROADWAY)</td>
<td>$154M</td>
<td>03/2005-03/2010</td>
<td>D B B</td>
<td>Construct 4 vehicle &amp; 4 pedestrian bridges; construct 4 new grade-separated interchanges; 4-8 lanes</td>
<td>955 lane closures, 14 major traffic shifts, 2,610 flagging hrs</td>
<td>Underground utility installation/ relocation</td>
<td>Yes</td>
<td>Highly urban area; over water</td>
<td>85,000 ADT</td>
<td>City, univ., hospital, public, utilities</td>
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<tr>
<td>2</td>
<td>TBTA Whitestone Bridge Highway Widening Bronx, NY (0.4 miles ROADWAY)</td>
<td>$206.5M</td>
<td>10/2008-07/2013</td>
<td>D B B</td>
<td>Construct 2,091-ft approach; Widen roadway 10-12 lanes</td>
<td>Maintained 5 open lanes, 12 traffic shifts</td>
<td>Electrical conduits, transformer, lighting</td>
<td>Yes</td>
<td>Highly urban area</td>
<td>120,000 ADT</td>
<td>City, DOT, public, utilities</td>
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<td>3</td>
<td>NJTA Driscoll Bridge Keasbey, NJ (0.76 miles BRIDGE)</td>
<td>$103.4M</td>
<td>12/2006-08/2009</td>
<td>D B B</td>
<td>Rehab/widen 4,500-ft-long bridge; approx. 30,000cy concrete poured; 12-15 lanes</td>
<td>Maintained 7 open lanes, 6 traffic shifts</td>
<td>Roadway lighting and ITS facilities</td>
<td>Yes</td>
<td>Highly urban area; over water</td>
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<td>City, DOT, public, utilities</td>
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<td>4</td>
<td>NJTA Interchange 6-9 Widening Program, Interchange 7A Roadway &amp; Toll Plaza, NJ (2.5 miles ROADWAY)</td>
<td>$150M</td>
<td>07/2009-08/2014</td>
<td>D B B</td>
<td>Design 12 replacement bridge structures; 6-12 lanes; toll plaza 10-13 lanes</td>
<td>Extensive, highly detailed, 5 major traffic shifts</td>
<td>Major utility relocations - power, local, and private utilities</td>
<td>Yes</td>
<td>Rural, high volume national freeway</td>
<td>240,000 ADT</td>
<td>9 Cities, 3 counties, DOT, public, utilities</td>
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<tr>
<td>5</td>
<td>VDOT Route 29 &amp; Gallows Road, Fairfax County, VA (1.5 miles ROADWAY)</td>
<td>$26M</td>
<td>01/2009-10/2012</td>
<td>D B B</td>
<td>Concept design at-grade and split grade of Rt 29/ Gallows intersection in PE stage; 4-6 lanes undivided to divided</td>
<td>Extensive multi-phase TMP</td>
<td>Extensive relocations, public and private utilities</td>
<td>Yes</td>
<td>Highly urban area</td>
<td>55,000 ADT</td>
<td>City, DOT, develop, public, utilities</td>
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<tr>
<td>6</td>
<td>VDOT Fairfax County Parkway (FCP) Bridges, Fairfax Co., VA (P&amp;P) (2.3 miles BRIDGE)</td>
<td>$90M</td>
<td>01/1997-05/1999</td>
<td>D B B</td>
<td>Design 6 major bridges, 4,000ft anchored retaining walls to support access roads next to Rte 29 under FCP.</td>
<td>Develop TMP</td>
<td>Counterfort walls on piles over 2- 42-in. sewer pipes</td>
<td>Yes</td>
<td>Highly urban area</td>
<td>24,000 ADT</td>
<td>DOT, county, public, utilities</td>
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</tbody>
</table>

### Lead Contractor: Conti Enterprises, Inc.

- **1.** NJDOT State Route 18 Grade Separated Highway, New Brunswick, NJ (2 miles ROADWAY)
- **2.** TBTA Whitestone Bridge Highway Widening Bronx, NY (0.4 miles ROADWAY)
- **3.** NJTA Driscoll Bridge Keasbey, NJ (0.76 miles BRIDGE)
- **4.** NJTA Interchange 6-9 Widening Program, Interchange 7A Roadway & Toll Plaza, NJ (2.5 miles ROADWAY)
- **5.** VDOT Route 29 & Gallows Road, Fairfax County, VA (1.5 miles ROADWAY)
- **6.** VDOT Fairfax County Parkway (FCP) Bridges, Fairfax Co., VA (P&P) (2.3 miles BRIDGE)

### Lead Designer: The Louis Berger Group, Inc.

- **4.** NJTA Interchange 6-9 Widening Program, Interchange 7A Roadway & Toll Plaza, NJ (2.5 miles ROADWAY)
- **5.** VDOT Route 29 & Gallows Road, Fairfax County, VA (1.5 miles ROADWAY)
- **6.** VDOT Fairfax County Parkway (FCP) Bridges, Fairfax Co., VA (P&P) (2.3 miles BRIDGE)
3.5 Project Risks

Conti has selected five critical Rt. 29 project risks for VDOT, as summarized in Figure 3-10 and described below. These risks, prioritized by criticality of impact, are: 1) Rio Road Intersection Bridge Construction Schedule, 2) Rio Road Underpass Drainage Design, 3) Rt. 29 Right-of-Way Actions, 4) Rio Road Intersection Traffic Management, and 5) Berkmar Drive Bridge Structure Design and Permitting.

We assessed risk by first understanding VDOT’s objectives for this project, mainly to increase capacity and mobility, to improve safety and operational deficiency, and to minimize impact to local businesses and the traveling public during construction. We then carefully evaluated major potential risks by reviewing the plans and specifications, visiting the site, and applying our design-build experience from previous similar transportation infrastructure projects. To select and prioritize risks, Conti used the risk management process shown in Figure 3-7.

Once we identified the critical Rt. 29 risks, we classified potential events, defined risk conditions and consequences, and prioritized the risks for severity, likelihood, manageability, and criticality. For each risk factor, we assessed the variances and the most likely outcome, and assigned probabilities to each per Figure 3-8. Associating each risk factor with the probability of occurrence, and including cost ramifications, helped us determine the risk strategy. We then developed the mitigation plans and appropriate actions for each risk.

Conti will create a risk register for the Rt. 29 Project (see sample in Figure 3-9), coordinating with VDOT for inputs. We will update it biweekly to capture, monitor and control potential project quality, safety, cost and schedule issues, and to integrate risk mitigation measures into design solutions and construction methodologies. The risk register is a living document drafted in the proposal development phase of the project. Incorporating this process into our estimating activities, as well as when delivering the Rt. 29 Project, provides overall best value to VDOT.

<table>
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<tr>
<th>Item No.</th>
<th>Type</th>
<th>Description of Risk Element</th>
<th>Risk Prob.</th>
<th>Cost Impact ($ Millions)</th>
<th>Schedule Impact (Months)</th>
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<td></td>
<td></td>
<td></td>
<td>Low</td>
<td>Middle</td>
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<tr>
<td>1</td>
<td>Schedule</td>
<td>Permits and Approvals</td>
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<tr>
<td>2</td>
<td>Schedule</td>
<td>Utility Coordination</td>
<td>40%</td>
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<tr>
<td>3</td>
<td>Schedule</td>
<td>Community Participation</td>
<td>15%</td>
<td></td>
<td>0.06</td>
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</table>
### Figure 3-10: Summary of Five Critical Project Risks for Route 29

<table>
<thead>
<tr>
<th>Description of Risk</th>
<th>Why Risk is Critical to Project</th>
<th>Impact of Risk on Project</th>
<th>Risk Mitigation Strategies</th>
<th>Department &amp; Other Agencies Role in Addressing Risk</th>
<th>VDOT Project Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Rio Rd. Intersection Bridge Construction Schedule</td>
<td>Must meet aggressive 8-week schedule, with 5 weeks to complete most of the work.</td>
<td>Significant delays</td>
<td>Use ABC method for design options</td>
<td>VDOT design reviews, approvals, exceptions/ waivers, and communication mtgs.</td>
<td><a href="#">✓</a> <a href="#">✓</a> <a href="#">✓</a> <a href="#">✓</a> <a href="#">✓</a></td>
</tr>
<tr>
<td>2) Rio Rd. Underpass Drainage Design</td>
<td>Possible flooded roadway on a main state highway is undesirable and unsafe.</td>
<td>Angry public (injuries, fatalities from unsafe driving conditions)</td>
<td>Design drainage solutions</td>
<td>VDOT design reviews, approvals, exceptions/ waivers, and communication mtgs.</td>
<td><a href="#">✓</a> <a href="#">✓</a> <a href="#">✓</a> <a href="#">✓</a> <a href="#">✓</a></td>
</tr>
<tr>
<td>3) Rt. 29 Right-of-Way Actions</td>
<td>ROW actions need to have swift buy-in to avoid schedule delays</td>
<td>Angry property owners</td>
<td>Design solutions to avoid impact to community</td>
<td>VDOT design reviews, approvals, exceptions/ waivers, and communication mtgs.</td>
<td><a href="#">✓</a> <a href="#">✓</a> <a href="#">✓</a> <a href="#">✓</a> <a href="#">✓</a></td>
</tr>
<tr>
<td>4) Rio Rd. Intersection Traffic Management</td>
<td>Safety hazards, onsite equipment and material delivery logistics, and traffic disruption may delay the project.</td>
<td>Safety</td>
<td>Develop MOT Plan, with rail coordination</td>
<td>VDOT oversight and approvals (staying informed)</td>
<td><a href="#">✓</a> <a href="#">✓</a> <a href="#">✓</a> <a href="#">✓</a> <a href="#">✓</a></td>
</tr>
<tr>
<td>5) Berkmar Dr. Bridge Structure Design &amp; Permitting</td>
<td>Close proximity to hydro power plant and wetlands must be designed in.</td>
<td>Catastrophic failure of bridge, waste of public money</td>
<td>Design bridge to withstand forces</td>
<td>VDOT design reviews, approvals, exceptions/ waivers, and communication mtgs.</td>
<td><a href="#">✓</a> <a href="#">✓</a> <a href="#">✓</a> <a href="#">✓</a> <a href="#">✓</a></td>
</tr>
</tbody>
</table>
CRITICAL RISK 1 – Rio Road Intersection Bridge Construction Schedule

Description of Risk: Timely competition of the Rio Road intersection grade separation bridge construction portion of the Rt. 29 project is of prime importance to the VDOT and the local community. This work must be done between May 23, 2016 and September 2, 2016; preferably completing major work by July 1, 2016. The 8-week schedule is very aggressive for completing the entire intersection and bridge, with only 5 weeks for most of the work, so that two lanes of traffic and all turning at all four corners are in service.

Why Risk is Critical: This tight timeline for such a significant scope of work must be carefully planned from day one. It needs to be fully integrated into the design, and the bridge design must be done in a way such that the constructability of the overall intersection is possible within the scheduled time with minimized impact to traffic.

Impact of Risk: This risk is directly linked to the overall project’s objective. If not carefully planned from every aspect this could cause significant delays during the UVA footing opening game as Rt. 29 is one of the main arterial accesses to Scott Stadium located in very close proximity of this intersection. Delays could cause general public and business community outrage and its impact on VDOT.

Mitigation Strategies: Our plan is to minimize this risk through design alternatives, such as the following:

- Design the bridge using ABC (Accelerated Bridge Construction) methodologies involving a bridge abutment and bent design using a precast section. This method ensures expedited field construction of the overall bridge and related interchange work.
- The proposed Rio Road bridge will be approx. 240 feet, and alternatively the bridge can also be designed as a simple one span bridge with NO intermediate pier; however it will exacerbate Risk# 1 identified above as this long of a span would need very deep fabricated girders and is a less likely option.
- Another optimum solution may be designing an overpass on Rt. 29 or Rio Rd. rather than an underpass for Rt. 29 with a bridge on Rio. Rd.
- All of these alternatives would be designed with ABC technology leveraging a precast abutment/pier system for accelerated bridge construction with minimized impact.
- Retaining walls along Rt. 29 to support the sides could be tie-back walls or keystone type precast block walls, aesthetically pleasant and accepted by local business communities (to be negotiated during right-of-way acquisition).
- With just a few of the possible solutions noted, we are certain that we can achieve the tight project schedule with smart pre-planning from the early design phase through well-planned construction execution. We have done this before at many crucial locations, such as NYC Whitestone Bridge where we beat the 59-day window for connection to Anchorage Rd.

VDOT Role: Timely design reviews and approvals from VDOT.
CRITICAL RISK 2 – Rio Road Underpass Drainage Design

Description of Risk: It is anticipated that the proposed grade separated intersection of Rt. 29 with Rio Rd. is to be a bridge on Rio Rd. with Rt. 29 under the bridge.

Why Risk is Critical: This creates a natural risk of low point drainage with an increased impervious overall surface area and the unknown capacity of the existing system to manage/handle additional flow from a water quantity and quality prospective. The risk can be easily designed and managed; however, the unknowns and costs associated with it may warrant a thorough review and close attention during design phase.

Impact of Risk: Impact of this risk to the project is fairly obvious, a flooded roadway along a main state highway is undesirable and unsafe for the motorist. It could result into accidents and unsafe driving conditions through the underpass and may result in a full closure of the underpass in the event of a heavy/intense rain or storm conditions. If the water quality treatment system/chamber is not installed within project limits it may enhance environmental risk as untreated water may enter the drainage system from this newly created impervious area with a significant low elevation point.

Mitigation Strategies: Our plan is to minimize risk through design as follows:

- We will put a close emphasis on the drainage design in particular to ensure that we gather all necessary and accurate INPUT data for the Hydraulic and Hydrological modeling. Ultimately the design solution is only feasible and sustainable if accurate INPUT data are used for design.
  - Obtaining and understanding existing drainage system in the area and its capacity
  - 100-yr flood elevation
  - Hourly hydrograph data and verifying them by getting rain intensity data from more than one source
  - Overall watershed rain historical data
  - Current major tributary and drain path from project’s vicinity up to major water body (river/creek)
  - Impact to the current drain path and tributaries due to construction of this project
  - Examine necessity of pumping

- The above mentioned approach will yield an accurate and reliable set of input data for Hydraulic and Hydrological modeling to analyze the impact of this risk on the project.

- It may be found that an overpass solution is more cost effective and yields a more safe and reliable solution; however, it is too early to make that assessment without getting into the details of all identified major risks with the goal to optimize the overall project objectives as identified within the RFQ documents.

VDOT Role: Timely design reviews and approvals from VDOT.
CRITICAL RISK 3 – Rt. 29 Right-of-Way Actions

Description of Risk: The Rt. 29 project will have an impact on businesses and communities located along both sides of the proposed Rt. 29 grade separation corridor between Dominion Drive and Woodbrook Drive. Due to the minimum vertical distance requirement of the proposed Rt. 29 underpass and the maximum longitudinal grade slope, the underpass will have an impact on entrance/exit for many businesses located in close proximity (such as Pizza Hut at the NW corner, Union Bank at NW corner, Sun-Trust Building at NE corner, Albemarle Sq. mall access on NE corner along Rt.29, Hardee’s at SW corner, Shopping Complex with The Vitamin Shoppe & Discount Mattress on SE corner).

Why Risk is Critical: Right-of-way (ROW) actions need to have swift buy-in from the key stakeholders and business owners involved to stay on schedule. The overall ROW property acquisition cost and timeline must be in accordance with VDOT’s ROW guidelines.

Impact of Risk: Certain businesses may no longer have access from Rt. 29 into their properties, which may adversely impact the business’s performance. Also, inability to get timely ROWs may delay the project; likewise, unnecessary ROWs will increase project cost and schedule.

Mitigation Strategies: Our plan is as follows:

- Have unique property enhancements customized for the property owner impacted during ROW negotiations. (For example, retaining block wall with pleasant architecture for a property owner whose business is impacted could be a win-win.)

- Develop the bridge design with a shorter vertical profile to reduce the slope of the cut
  - Determine the minimum vertical clearance needed for the underpass.
  - Figure using rolled girders or pre-stressed concrete girders for 100 feet +/- span bridge over Rt. 29 with a center abutment. This would keep the depth of girder to a minimum and allow for an overall lower cut required along Rt. 29.
  - Assuming an 18-foot minimum vertical clearance requirement would mean a total of a 26-foot grade drop at the intersection.
  - Assuming a 4% +/- longitudinal slope of the Rt. 29 roadway, a minimum of 650 to 700 feet along Rt. 29 and at both sides of Intersection are heavily impacted.
  - Keeping the total grade to a minimum with a rolled section girder / precast pre-stressed concrete girder would minimize this impact along proposed Rt. 29.

- Opt for a diamond intersection or a hybrid of diamond and cloverleaf intersection at the underpass, thus minimizing the overall real estate needs, ultimately minimizing the impact on adjacent properties and also minimizing the cost and timeline for ROW alongside Rt. 29.

VDOT Role: Timely design reviews and approvals from VDOT.
CRITICAL RISK 4 – Rio Road Intersection Traffic Management

Description of Risk: One of the main objectives of this project is to have minimized impact to travelling motorist and businesses at the Rio Road intersection during construction of the bridge structure and retaining walls, while managing the necessary utility relocation, electrical and communication duct bank relocations, drainage relocation, and gas-main relocation (if any).

Why Risk is Critical: Working in high volume traffic poses potential safety hazards to people and property, and could severely disrupt the orderly, expeditious flow of the traveling public.

Impact of Risk: Impacts to the project could be public/worker safety, negative public reaction to traffic disruption, and getting temporary right-of-ways to continue work. Any of these risks could cause construction productivity loss and schedule delays, as well as significantly increasing project costs.

Mitigation Strategies: Our plan is as follows:

- Management of Traffic. We will leverage this DB project to develop an MOT Plan with efficient staging of alternative schemes. We will take into account the number and duration of possible stages required, safety, impact to traffic, potential detour plans, lay-down and staging areas, interruptions of service due to utility relocations, stakeholder coordination, access to surrounding properties, seasonal traffic needs, and coordination with other construction projects.

- Accelerated Bridge Construction. Conti will use the ABC approach to reduce onsite construction time and to decrease mobility impact time. We will evaluate where our resources can be put to the greatest use, engaging in Time Impact Analyses and Recovery Planning efforts to proactively manage milestones. We will perform tasks in parallel, working at night as needed, to beat the project schedule.

- Public Involvement. We will create and implement a multi-faceted plan to support VDOT’s Public Information Plan, assigning a Public Relations Manager, so that the public has a voice during design and construction, and will be informed of project status, lane changes, safety, air quality, noise and vibration mitigation, etc. Among Conti’s successes with traffic management is its $154M NJDOT Route 18 project where we performed 955 lane closures and 14 major traffic shifts with 2,610 flagging hours. To maintain safety and a steady traffic flow, we announced traffic shifts and lane closures onsite using VMS boards and online. We also combined smaller traffic shifts into larger ones, removing stages to improve our overall productivity, compress the schedule, and greatly reduce impact to the community.

VDOT Role: VDOT is responsible for reviewing and approving our traffic control and public involvement plans. We will coordinate with the state and federal agencies as necessary so that material delivery will not impact traffic. We will also work with VDOT to educate and inform the public of traffic changes and project status, meeting on a weekly basis.
CRITICAL RISK 5 – Berkmar Drive Bridge Structure Design & Permitting

Description of Risk: The proposed extension of Berkmar Drive from Hilton Heights road to Town Center drive includes a bridge over the south fork of the Rivanna River. This proposed bridge structure is in very close proximity to the existing hydro power plant water body reservoir (+/- 2200 feet).

Why Risk is Critical: This location poses some risk for the bridge design, and also the coordination needs and risks during construction of the bridge. Also, based on preliminary review, it appears that a portion of the proposed bridge abutments over this river may fall under the area called out as PF01A, indicating that this area is protected Freshwater Shrub Wetlands, and hence it would pose some permitting and constructability risk with respect to disturbance to the wet-land area, both permanent from the bridge construction and temporary during construction.

Impact of Risk: The possibility of structural undermining of the bridge exists from the large hydraulic and hydrostatic forces in the event of a large water quantity flow. There may be potential delays in construction if this is not coordinated and planned properly with input from the hydro station management. There may also be potential delays due to permitting from the USACE and DEP if not designed properly from inception to keep impact to wetlands at minimum.

Mitigation Strategies: Our plan is to minimize risk through design as follows:

- Design the bridge as a one-span continuous structure spanning the entire width of the river, assuming a total bridge span of 150 feet +/- and thus eliminating an expensive mid-river pier structure that could be directly in the path of a large water discharge from the water. However, if later it is found that the span length is in excess of 150 feet, an alternative design solution will be developed.
- Consideration of the highest water elevation from the worst possible discharge can be analyzed to ensure the bridge superstructure clears it.
- Planning and getting input from the hydro station during the design and construction phase is crucial, with close coordination and transparent frequent communication.
- Once a preliminary design is complete, we would apply for the necessary permits with the USACE as early as possible to allow ample review and feedback time to avoid delays to the project schedule.

VDOT Role: Timely design reviews and approvals from VDOT.
Appendix A – SOQ Checklist

Included in this section is Conti’s completed Attachment 3.1.2 Statement of Qualifications Checklist and Contents.
Offerors shall furnish a copy of this Statement of Qualifications (SOQ) Checklist, with the page references added, with the Statement of Qualifications.

<table>
<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
<th>RFQ Cross-Reference</th>
<th>Included within 20-page limit</th>
<th>SOQ Page Reference</th>
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<td>Section 3.1.2</td>
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<td>Section 2.10</td>
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<td>Section 3.2.7</td>
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<td>Section 3.2.8</td>
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<td>Evidence of obtaining bonding</td>
<td>NA</td>
<td>Section 3.2.9</td>
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## ATTACHMENT 3.1.2

### DESIGN BUILD PROJECT FOR ROUTE 29 SOLUTIONS, CONTRACT ID C00077383DB80

#### STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

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<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
<th>RFQ Cross-Reference</th>
<th>Included within 20-page limit</th>
<th>SOQ Page Reference</th>
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<td>Section 3.2.10.2</td>
<td>no</td>
<td>Appendix G</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>Appendix G</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>Appendix G</td>
</tr>
<tr>
<td><strong>DBE statement within Letter of Submittal</strong> confirming Offeror is committed to achieving the thirteen (13%) DBE goal</td>
<td>NA</td>
<td>Section 3.2.11</td>
<td>yes</td>
<td>2</td>
</tr>
<tr>
<td><strong>Offeror’s Team Structure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identity and qualifications of Key Personnel</td>
<td>NA</td>
<td>Section 3.3.1</td>
<td>yes</td>
<td>4</td>
</tr>
<tr>
<td>Key Personnel Resume – DB Project Manager</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.1</td>
<td>no</td>
<td>4</td>
</tr>
<tr>
<td>Key Personnel Resume – Quality Assurance Manager</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.2</td>
<td>no</td>
<td>4</td>
</tr>
<tr>
<td>Key Personnel Resume – Design Manager</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.3</td>
<td>no</td>
<td>4</td>
</tr>
<tr>
<td>Key Personnel Resume – Construction Manager</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.4</td>
<td>no</td>
<td>4</td>
</tr>
<tr>
<td>Key Personnel Resume – Lead Structural Engineer</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.5</td>
<td>no</td>
<td>4</td>
</tr>
<tr>
<td>Key Personnel Resume – Lead Traffic Engineer</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.6</td>
<td>no</td>
<td>5</td>
</tr>
<tr>
<td>Key Personnel Resume – Lead Geotechnical Engineer</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.7</td>
<td>no</td>
<td>5</td>
</tr>
<tr>
<td>Key Personnel Resume – Lead Utility Coordination Manager</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.8</td>
<td>no</td>
<td>5</td>
</tr>
<tr>
<td>Key Personnel Resume – Public Relations Manager</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.9</td>
<td>no</td>
<td>5</td>
</tr>
<tr>
<td>Organizational chart</td>
<td>NA</td>
<td>Section 3.3.2</td>
<td>yes</td>
<td>7</td>
</tr>
<tr>
<td>Statement of Qualifications Component</td>
<td>Form (if any)</td>
<td>RFQ Cross-Reference</td>
<td>Included within 20-page limit</td>
<td>SOQ Page Reference</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------------</td>
<td>---------------------</td>
<td>-------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Organizational chart narrative</td>
<td>NA</td>
<td>Section 3.3.2</td>
<td>yes</td>
<td>4</td>
</tr>
<tr>
<td><strong>Experience of Offeror’s Team</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead Contractor Work History Form</td>
<td>Attachment 3.4.1(a)</td>
<td>Section 3.4</td>
<td>no</td>
<td>Appendix J</td>
</tr>
<tr>
<td>Sub-Contractor Work History Form, if applicable</td>
<td>Attachment 3.4.1(b)</td>
<td>Section 3.4</td>
<td>no</td>
<td>Appendix J</td>
</tr>
<tr>
<td>Lead Designer Work History Form</td>
<td>Attachment 3.4.1(c)</td>
<td>Section 3.4</td>
<td>no</td>
<td>Appendix J</td>
</tr>
<tr>
<td>Sub-Consultant Work History Form, if applicable</td>
<td>Attachment 3.4.1(d)</td>
<td>Section 3.4</td>
<td>no</td>
<td>Appendix J</td>
</tr>
<tr>
<td><strong>Project Risk</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify and discuss five critical risks for the Project</td>
<td>NA</td>
<td>Section 3.5.1</td>
<td>yes</td>
<td>14</td>
</tr>
</tbody>
</table>
Appendix B – Form C-78-RFQ

Included in this section is Conti’s completed and signed Attachment 2.10 (Form C-78-RFQ) acknowledging the receipt of the RFQ as well as Addendum 1 for the Route 29 Solutions project.
ATTACHMENT 2.11

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PROJECT:  Design-Build Project for Route 29 Solutions
CONTRACT ID:  C00077383DB80

ACKNOWLEDGEMENT OF RFQ, REVISION AND/OR ADDENDA

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

By signing this Attachment 2.10, the Offeror acknowledges receipt of the RFQ and/or following revisions and/or addenda to the RFQ for the above designated project which were issued under cover letter(s) of the date(s) shown hereon:

1. Cover letter of RFQ 07/24/2014 (Date)

2. Cover letter of Addendum No. 1 08/15/2014 (Date)

3. Cover letter of  (Date)

______________________________
Signature

Robert A. Scerbo 8/27/2014
Printed Name

Vice President Estimating
Title
Appendix C – List of Affiliated and Subsidiary Companies

Included in this section is Conti’s completed Attachment 3.2.6 Affiliated/Subsidiary Companies.
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.

- **The Offeror does not have any affiliated or subsidiary companies.**
- **Affiliated and/or subsidiary companies of the Offeror are listed below.**

<table>
<thead>
<tr>
<th>Relationship with Offeror (Affiliate or Subsidiary)</th>
<th>Full Legal Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliate</td>
<td>Conti Federal Services, Inc.</td>
<td>2045 Lincoln Highway, Edison, NJ 08817</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Conti International, LLC</td>
<td>2045 Lincoln Highway, Edison, NJ 08817</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Conti of New York, LLC</td>
<td>2045 Lincoln Highway, Edison, NJ 08817</td>
</tr>
<tr>
<td>Affiliate</td>
<td>SunDurance Energy, LLC</td>
<td>2045 Lincoln Highway, Edison, NJ 08817</td>
</tr>
</tbody>
</table>
Appendix D – Debarment Forms

Included in this section are the completed and signed Attachments 3.2.7 (a) and (b) Debarment Forms from Conti and our design/build team.
ATTACHMENT NO. 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

| Project: | Design-Build Project for Route 29 Solutions |
| Contract ID: | C0077383DB80 |

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] [Date] 8/28/2014

Robert A. Siero, VP Estimating
Title

Conti Enterprises, Inc.
Name of Firm
ATTACHMENT NO. 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

| Project: | Design-Build Project for Route 29 Solutions |
| Contract ID: | C00077383DB80 |

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] 8/20/2014  [Title]

[Name of Firm]
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: Design-Build Project for Route 29 Solutions
Contract ID: C00077383DB80

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: [Signature]  Date: 8-25-2014
Title: President

[Signature]  Name of Firm

Fielder's Choice Enterprises, Inc.
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: Design-Build Project for Route 29 Solutions
Contract ID: C00077383DB80

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

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

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

[Signature] [Date] [President]
[Name of Firm]
ATTACHMENT NO. 3.2.7(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project:  Design-Build Project for Route 29 Solutions
Contract ID:  C00077383DB80

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

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

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

[Signature]
Date  8/20/2014
Title  CEO

Name of Firm  SIDDALL COMMUNICATIONS LLC
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: Design-Build Project for Route 29 Solutions
Contract ID: C00077383DB80

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

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

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

[Signature] [Date] [Title]

[Name of Firm]

KDR REAL ESTATE SERVICES
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: Design-Build Project for Route 29 Solutions
Contract ID: C00077383DB80

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 contracts to be let by the Commonwealth Transportation Board.

Signature: ____________________________
Date: August 21, 2014

Senior Vice President: ____________________________
Title: ____________________________

Parrish & Partners, LLC

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: Design-Build Project for Route 29 Solutions
Contract ID: C00077383DB80

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
08/21/2014
Date

President
Title

DMY Inc.
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: Design-Build Project for Route 29 Solutions
Contract ID: C00077383DB80

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] 8-21-2014  Principal

Date Title

AMEC Environment & Infrastructure, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: Design-Build Project for Route 29 Solutions
Contract ID: C00077383DB80

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] 8-21-14          [Chairman of the Board]
[Date] [Title]

Hurt & Proffitt, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: Design-Build Project for Route 29 Solutions
Contract ID: C00077383DB80

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.

Jeffrey M. Lightbourn 8/11/14  
Signature Date

Draper Aden Associates  
Name of Firm

CEO/President  
Title
Appendix E – Offeror’s VDOT Prequalification Certificate

Included in this section is Conti’s VDOT prequalification certificate. Per the email received from Don Silies on August 5, 2014, the bidding restriction has been waived for this pursuit and we are approved to submit our statement of qualifications and proposal for this project.
CERTIFICATE OF QUALIFICATION

CONTI ENTERPRISES, INC.

Vendor Number: C974

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

PREQUALIFIED (PROBATIONARY)

Work Classes: GRADING; MINOR STRUCTURES; UNDERGROUND UTILITIES

Issue Date: 10/28/2013

This Rating and Classification will Expire: 03/31/2015

Suzanne FR Lucas, State Prequalification Officer

Don E. Silies, State Contract Officer
Appendix F – Surety Letter

Included in this section is Conti’s surety letter from our surety company, Travelers Casualty and Surety Company.
August 27, 2014

Commonwealth of Virginia
Department of Transportation (VDOT)
Central Office Mail Center
Loading Dock Entrance
1401 E. Broad Street
Richmond, Virginia 23219
Attention: Brenda L. Williams

Re: Conti Enterprises, Inc.
Request for Qualifications – Design-Build Project for Route 29 Solutions, Albemarle County, Virginia
Estimated Contract Value: $185,000,000.00

Dear Ms. Williams:

The Travelers Casualty and Surety Company has extended surety bonds to the Conti Enterprises, Inc. for more than 15 years, during which time we have supported bonding projects with a single job size of $750,000,000 within an aggregate program of $1,500,000,000. Our experience with Conti has been excellent, and we highly recommend them to you.

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

The Travelers Casualty and Surety Company expressly reserves the right to review the terms and conditions of the contract or task order and bond forms, evaluate pertinent underwriting data, and verify the adequacy of project financing prior to the issuance of the aforementioned bonds.

Best regards,

Travelers Casualty and Surety Company

AnnMarie Keane, Attorney-in-Fact
POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company
St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Certificate No. 005852540

Attorney-In-Fact No. 227511

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


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

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereeto affixed, this 4th day of April, 2014.

Farmingtion Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company
St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

State of Connecticut
City of Hartford ss.

On this the 4th day of April, 2014, before me personally appeared Robert L. Roney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

By: Robert L. Roney, Senior Vice President

In Witness Whereof, I hereto set my hand and official seal.
My Commission expires the 30th day of June, 2016.

Sincerely yours,

[Signature]
Marie C. Lefleur, Notary Public

56440-8-12 Printed in U.S.A.
This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 27th day of August 2014.

Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.
TRAVELERS CASUALTY AND SURETY COMPANY
HARTFORD, CONNECTICUT 06193

FINANCIAL STATEMENT AS OF DECEMBER 31, 2013
CAPITAL STOCK $25,000,000

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>LIABILITIES &amp; SURPLUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASH AND INVESTED CASH</td>
<td>$849,717,644</td>
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<tr>
<td>BONDS</td>
<td>9,955,587,028</td>
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<td>STOCKS</td>
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<td>OTHER INVESTED ASSETS</td>
<td>701,988,946</td>
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<tr>
<td>PREMIUM BALANCES</td>
<td>1,321,183,954</td>
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<tr>
<td>INVESTMENT INCOME DUE AND ACCRUED</td>
<td>107,486,276</td>
</tr>
<tr>
<td>NET DEFERRED TAX ASSET</td>
<td>2,987,302,029</td>
</tr>
<tr>
<td>RECEIVABLES FROM PARENT, SUBSIDIARIES AND AFFILIATES</td>
<td>55,593,326</td>
</tr>
<tr>
<td>UNDISTRIBUTED PAYMENTS</td>
<td>36,710,722</td>
</tr>
<tr>
<td>EQUITIES AND DEPOSITS IN POOLS &amp; ASSOCIATIONS</td>
<td>17,854,711</td>
</tr>
<tr>
<td>REINSURANCE RECOVERABLE</td>
<td>3,644,128</td>
</tr>
<tr>
<td>FUNDS HELD BY / DEPOSITED WITH REINSURERS</td>
<td>2,365,030</td>
</tr>
<tr>
<td>AMOUNTS RECEIVABLE UNDER HIGH DEDUCTIBLE POLICIES</td>
<td>16,405,171</td>
</tr>
<tr>
<td>SECURITIES LENDING REINVESTED COLLATERAL ASSETS</td>
<td>25,781,863</td>
</tr>
<tr>
<td>STATE SURCHARGES RECEIVABLE</td>
<td>9,594,907</td>
</tr>
<tr>
<td>GUARANTY FUNDS RECEIVABLE OR ON DEPOSIT</td>
<td>743,617</td>
</tr>
<tr>
<td>OTHER ASSETS</td>
<td>327,774</td>
</tr>
</tbody>
</table>

TOTAL ASSETS | $16,664,481,449 | CAPITAL STOCK | $25,000,000 |
| | | PAID IN SURPLUS | 2,079,024,596 |
| | | OTHER SURPLUS | 3,923,821,920 |
| | | TOTAL SURPLUS TO POLICYHOLDERS | $6,668,646,605 |

TOTAL LIABILITIES & SURPLUS | $16,454,861,449 |

STATE OF CONNECTICUT
COUNTY OF HARTFORD
CITY OF HARTFORD


SUBSCRIBED AND SWORN TO BEFORE ME THIS 19TH DAY OF MARCH, 2014

NOTARY PUBLIC
NOTARY PUBLIC
My Commission Expires November 30, 2017

August 27, 2014
Appendix G – SCC and DPOR Information Tables

Included in this section is the completed Attachment 3.2.10 SCC and DPOR Information.
ATTACHMENT 3.2.10

DESIGN-BUILD PROJECT FOR ROUTE 29 SOLUTIONS, CONTRACT ID C0077383DB80

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.

<table>
<thead>
<tr>
<th>Business Name</th>
<th>SCC Information (3.2.10.1)</th>
<th>DPOR Information (3.2.10.2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SCC Number</td>
<td>SCC Type of Corporation</td>
</tr>
<tr>
<td>Conti Enterprises, Inc.</td>
<td>#F127979-5 Corporation</td>
<td>Active</td>
</tr>
<tr>
<td>The Louis Berger Group, Inc.</td>
<td>#F1393679 Corporation</td>
<td>Active</td>
</tr>
<tr>
<td>Fielder’s Choice Enterprises, Inc.</td>
<td>03067113 Corporation</td>
<td>Active</td>
</tr>
<tr>
<td>CES Consulting</td>
<td>#S341600 LLC</td>
<td>Active</td>
</tr>
<tr>
<td>Siddall Communications</td>
<td>#S4650075 LLS</td>
<td>Active</td>
</tr>
<tr>
<td>KDR Real Estate Services, Inc.</td>
<td>0571210 Corporation</td>
<td>Active</td>
</tr>
</tbody>
</table>
## SCC and DPOR Information

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<thead>
<tr>
<th>Name</th>
<th>#</th>
<th>Type</th>
<th>Address</th>
<th>Contact Information</th>
<th>Category</th>
<th>Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parrish and Partners, LLC</td>
<td>#T0536955</td>
<td>LLC</td>
<td>3141 Fairview Park Dr., Suite 450 Falls Church, VA 22042</td>
<td>Engineering 0411001081</td>
<td>2/29/2016</td>
<td></td>
</tr>
<tr>
<td>DMY Engineering Consultants, Inc.</td>
<td>#07688955</td>
<td>Corporation</td>
<td>45662 Terminal Drive, Suite 110, Dulles, VA 20166</td>
<td>Engineering 0407005631</td>
<td>12/31/2015</td>
<td></td>
</tr>
<tr>
<td>AMEC Environment &amp; Infrastructure, Inc.</td>
<td>#0407004079</td>
<td>Corporation</td>
<td>2028 Dabney Road, Suite E-18, Richmond, Virginia 23230</td>
<td>Engineering 0411000909</td>
<td>02/29/2016</td>
<td></td>
</tr>
<tr>
<td>Hurt &amp; Proffitt, Inc.</td>
<td>#0142895-2</td>
<td>Corporation</td>
<td>2524 Langhorne Road Lynchburg, VA 24501</td>
<td>LS, ENG 0407003927</td>
<td>12/31/2015</td>
<td></td>
</tr>
<tr>
<td>Draper Aden Associates Inc.</td>
<td>0146634</td>
<td>Corporation</td>
<td>8090 Villa Park Dr Richmond, VA 23228</td>
<td>LS, ENG 0411000419</td>
<td>02/29/2016</td>
<td></td>
</tr>
</tbody>
</table>
### DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)

<table>
<thead>
<tr>
<th>Business Name</th>
<th>Individual's Name</th>
<th>Office Location Where Professional Services will be Provided (City/State)</th>
<th>Individual's DPOR Address</th>
<th>DPOR Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>CES Consulting</td>
<td>Avtar Singh</td>
<td>13991 Virginia Cedar Court Gainesville, VA 20155</td>
<td>13991 Virginia Cedar Court Gainesville, VA 20155</td>
<td>PE</td>
<td>0402035169</td>
<td>01/31/2015</td>
</tr>
<tr>
<td>The Louis Berger Group, Inc.</td>
<td>Dean Hatfield</td>
<td>801 E. Main St., Suite 500 Richmond, VA 23219</td>
<td>1509 Oakboro Dr Raleigh, NC 27614</td>
<td>PE</td>
<td>0402018960</td>
<td>11/30/2014</td>
</tr>
<tr>
<td>Parish &amp; Partners, LLC</td>
<td>Amir Fouladgar, P.E.</td>
<td>3141 Fairview Park Dr., Suite 450 Falls Church, VA 22042</td>
<td>12303 Glen Road Potomac, MD 20854</td>
<td>PE</td>
<td>0402017431</td>
<td>12/31/2014</td>
</tr>
<tr>
<td>The Louis Berger Group, Inc.</td>
<td>Nancy Geisler</td>
<td>801 E. Main St., Suite 500 Richmond, VA 23219</td>
<td>3006 Three Bridges Rd Midlothian, VA 23112</td>
<td>PE</td>
<td>0402029273</td>
<td>07/31/2016</td>
</tr>
<tr>
<td>DMY Engineering Consultants, Inc.</td>
<td>John Ding</td>
<td>45662 Terminal Drive, Suite 110, Dulles, VA 20166</td>
<td>14618 Lander Rd Midlothian, VA 23113</td>
<td>PE</td>
<td>04020446684</td>
<td>04/30/2016</td>
</tr>
<tr>
<td>Draper Aden Associates Inc.</td>
<td>Michael Haggerty</td>
<td>8090 Villa Park Dr Richmond, VA 23228</td>
<td>9728 Fireside Drive Glen Allen, VA 23060</td>
<td>PE</td>
<td>0402035201</td>
<td>07/31/2015</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Business Name</th>
<th>SCC Number</th>
<th>SCC Type of Corporation</th>
<th>SCC Status</th>
<th>DPOR Registered Address</th>
<th>DPOR Registration Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conti Enterprises, Inc.</td>
<td>#F127979-5</td>
<td>Corporation</td>
<td>Active</td>
<td>2045 Lincoln Highway Edison, NJ 08817</td>
<td>Class A Contractor Classifications H/H</td>
<td>2705037901</td>
<td>03/31/2015</td>
</tr>
<tr>
<td>The Louis Berger Group, Inc.</td>
<td>#F1393679</td>
<td>Corporation</td>
<td>Active</td>
<td>801 E. Main St., Suite 500 Richmond, VA 23219</td>
<td>Engineering</td>
<td>0407003926</td>
<td>12/31/2015</td>
</tr>
<tr>
<td>Fielder’s Choice Enterprises, Inc.</td>
<td>03067113</td>
<td>Corporation</td>
<td>Active</td>
<td>102 S First St, Ste 201 Charlottesville, VA 22902</td>
<td>Class A Contractor Classification BLD EMC H/H ISC</td>
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<tr>
<td>CES Consulting</td>
<td>#5341600</td>
<td>LLC</td>
<td>Active</td>
<td>13991 Virginia Cedar Court Gainesville, VA 20155</td>
<td>Engineering</td>
<td>0407005783</td>
<td>12/31/2015</td>
</tr>
<tr>
<td>Siddall Communications</td>
<td>#54650075</td>
<td>LLS</td>
<td>Active</td>
<td>715 East 4th st #9 Richmond, VA 23224</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>KDR Real Estate Services, Inc.</td>
<td>0571210</td>
<td>Corporation</td>
<td>Active</td>
<td>2500 Grenoble Road Richmond, VA 23294</td>
<td>Real Estate Broker</td>
<td>0226 007129</td>
<td>12/13/2014</td>
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### SCC and DPOR Information

<table>
<thead>
<tr>
<th>Company Name</th>
<th>#</th>
<th>Status</th>
<th>Address</th>
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<th>DMY</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parrish and Partners, LLC</td>
<td>#T0536955</td>
<td>LLC</td>
<td>3141 Fairview Park Dr., Suite 450 Falls Church, VA 22042</td>
<td>Engineering</td>
<td>0411001081</td>
<td>2/29/2016</td>
</tr>
<tr>
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</tr>
<tr>
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<td>LS, ENG</td>
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<td>12/31/2015</td>
</tr>
<tr>
<td>Draper Aden Associates Inc.</td>
<td>0146634</td>
<td>Corporation</td>
<td>8090 Villa Park Dr Richmond, VA 23228</td>
<td>LS, ENG</td>
<td>0411000419</td>
<td>02/29/2016</td>
</tr>
</tbody>
</table>
**ATTACHMENT 3.2.10**

**DESIGN-BUILD PROJECT FOR ROUTE 29 SOLUTIONS, CONTRACT ID C00077383DB80**

**SCC and DPOR Information**

<table>
<thead>
<tr>
<th>Business Name</th>
<th>Individual’s Name</th>
<th>Office Location Where Professional Services will be Provided (City/State)</th>
<th>Individual’s DPOR Address</th>
<th>DPOR Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>CES Consulting</td>
<td>Avtar Singh</td>
<td>13991 Virginia Cedar Court, Gainesville, VA 20155</td>
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<td>PE</td>
<td>0402035169</td>
<td>01/31/2015</td>
</tr>
<tr>
<td>The Louis Berger Group, Inc.</td>
<td>Dean Hatfield</td>
<td>801 E. Main St., Suite 500, Richmond, VA 23219</td>
<td>1509 Oakboro Dr, Raleigh, NC 27614</td>
<td>PE</td>
<td>0402018960</td>
<td>11/30/2014</td>
</tr>
<tr>
<td>Parish &amp; Partners, LLC</td>
<td>Amir Fouladgar, P.E.</td>
<td>3141 Fairview Park Dr., Suite 450, Falls Church, VA 22042</td>
<td>12303 Glen Road, Potomac, MD 20854</td>
<td>PE</td>
<td>0402017431</td>
<td>12/31/2014</td>
</tr>
<tr>
<td>The Louis Berger Group, Inc.</td>
<td>Nancy Geisler</td>
<td>801 E. Main St., Suite 500, Richmond, VA 23219</td>
<td>3006 Three Bridges Rd, Midlothian, VA 23112</td>
<td>PE</td>
<td>0402029273</td>
<td>07/31/2016</td>
</tr>
<tr>
<td>DMY Engineering Consultants, Inc.</td>
<td>John Ding</td>
<td>45662 Terminal Dr., Suite 110, Dulles, VA 20166</td>
<td>14618 Lander Rd, Midlothian, VA 23113</td>
<td>PE</td>
<td>04020446684</td>
<td>04/30/2016</td>
</tr>
<tr>
<td>Draper Aden Associates Inc.</td>
<td>Michael Haggerty</td>
<td>8090 Villa Park Dr, Richmond, VA 23228</td>
<td>9728 Fireside Drive, Glen Allen, VA 23060</td>
<td>PE</td>
<td>0402035201</td>
<td>07/31/2015</td>
</tr>
</tbody>
</table>
Appendix H – Full Size SCC and DPOR Supporting Documentation

Included in this section are the full size SCC and DPOR license and registration documentation noted in Appendix G.
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

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

CONTI ENTERPRISES INC
2045 LINCOLN HIGHWAY
EDISON, NJ 08817

[SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE]

COMMONWEALTH OF VIRGINIA
CLASS A BOARD FOR CONTRACTORS
CONTRACTOR
"CLASSIFICATIONS" H/H
NUMBER: 2705037901
EXPIRES: 03-31-2015

[DETACH HERE]

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

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

Richmond, January 9, 1997

This is to certify that a certificate of authority to transact business in Virginia was this day issued and admitted to record in this office for

CONTI ENTERPRISES INC.

a corporation organized under the laws of NEW JERSEY

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

State Corporation Commission

Attest:

William F. Bridge
Chairman of the Commission
COMMONWEALTH OF VIRGINIA
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY REGISTRATION

PROFESSIONS: ENG

THE LOUIS BERGER GROUP INC
801 E. MAIN ST.
SUITE 500
RICHMOND, VA 23219
STATE CORPORATION COMMISSION

Richmond, September 20, 1999

This is to certify that a certificate of authority to transact business in Virginia was this day issued and admitted to record in this office for

The Louis Berger Group, Inc.

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

State Corporation Commission
Attest:

[Signature]

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

BOARD FOR CONTRACTORS
CLASS A CONTRACTOR
*CLASSIFICATIONS* BLD EMC H/H ISC

FIELDERS CHOICE ENTERPRISES INC
102 S FIRST ST
STE 201
CHARLOTTESVILLE, VA 22902

Gordon A. Dixon, Director

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)
CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That FIELDER'S CHOICE ENTERPRISES, INC. is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is July 17, 1987;

That the period of its duration is perpetual; and

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

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
January 12, 2012

Joel H. Peck, Clerk of the Commission
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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

NUMBER
0407005783

EXPIRES ON
12-31-2015

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

PROFESSIONS: ENG

CES CONSULTING LLC
13991 VIRGINIA CEDAR COURT
GAINESVILLE, VA 20155

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

POCKET CARD:
COMMONWEALTH OF VIRGINIA
BOARD FOR APELS/CLLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407005783 EXPIRES: 12-31-2015
PROFESSIONS: ENG
CES CONSULTING LLC
13991 VIRGINIA CEDAR COURT
GAINESVILLE, VA 20155

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.
<table>
<thead>
<tr>
<th>Field</th>
<th>Information</th>
</tr>
</thead>
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<tr>
<td>LLC ID</td>
<td>S341600 - 7</td>
</tr>
<tr>
<td>STATUS</td>
<td>00 ACTIVE</td>
</tr>
<tr>
<td>STATUS DATE</td>
<td>10/14/10</td>
</tr>
<tr>
<td>LLC NAME</td>
<td>CES Consulting, LLC</td>
</tr>
<tr>
<td>DATE OF FILING</td>
<td>10/14/2010</td>
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<tr>
<td>PERIOD OF DURATION</td>
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<td>INDUSTRY CODE</td>
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<td>STATE OF FILING</td>
<td>VA VIRGINIA</td>
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<tr>
<td>MERGER INDICATOR</td>
<td></td>
</tr>
<tr>
<td>CONVERSION/DOMESTICATION INDICATOR</td>
<td></td>
</tr>
<tr>
<td>PRINCIPAL OFFICE ADDRESS</td>
<td></td>
</tr>
<tr>
<td>STREET</td>
<td>13991 VIRGINIA CEDAR COURT</td>
</tr>
<tr>
<td>CITY</td>
<td>GAINESVILLE</td>
</tr>
<tr>
<td>STATE</td>
<td>VA</td>
</tr>
<tr>
<td>ZIP</td>
<td>20155-0000</td>
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<tr>
<td>REGISTERED AGENT INFORMATION</td>
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</tr>
<tr>
<td>R/A NAME</td>
<td>AVTAR SINGH</td>
</tr>
<tr>
<td>STREET</td>
<td>13991 VIRGINIA CEDAR COURT</td>
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<tr>
<td>STATE</td>
<td>VA</td>
</tr>
<tr>
<td>ZIP</td>
<td>20155-0000</td>
</tr>
<tr>
<td>R/A STATUS</td>
<td>1 MEMBER/MANAGER</td>
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<tr>
<td>EFF DATE</td>
<td>01/04/13</td>
</tr>
<tr>
<td>LOC</td>
<td>176 PRINCE WILLIAM</td>
</tr>
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<td>YEAR FEES PENALTY INTEREST</td>
<td>14 50.00 50.00</td>
</tr>
<tr>
<td>BALANCE</td>
<td></td>
</tr>
</tbody>
</table>
CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

That Siddall Communications, LLC is duly organized as a limited liability company under the law of the Commonwealth of Virginia;

That the date of its organization is July 30, 2013; and

That the limited liability company is in existence in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
February 6, 2014

Joel H. Peck, Clerk of the Commission
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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

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

Gordon N. Dixon, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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

Gordon N. Dixon, Director

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

STATE CORPORATION COMMISSION

Richmond, January 30, 2002

This is to Certify that the certificate of incorporation of

KDR Real Estate Services, Inc.

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

State Corporation Commission
Attest:

Joel H. Reck
Clerk of the Commission
CORPORATE DATA INQUIRY

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

DATE OF CERTIFICATE: 01/30/2002 PERIOD OF DURATION: 00
STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK
MERGER IND: 0 CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: 50.00  MCN NO:  MONON STATUS:  MONITOR DTE:
R/A NAME: ALLEN G DORIN JR

STREET: 2500 GRENCBLE RD AR RTN MAIL:

CITY: RICHMOND STATE: VA ZIP: 23294
R/A STATUS: 2 OFFICER EFF. DATE: 07/09/03 LOC : 143
ACCEPTED AR#: 213 01 0179 DATE: 11/20/12 HENRICO COUNTY
CURRENT AR#: 213 01 0179 DATE: 11/20/12 STATUS: A ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
13 100.00

100
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-29-2016

NUMBER
0411001081

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

PROFESSIONS: ENG

PARRISH AND PARTNERS, LLC
3141 FAIRVIEW PARK DR STE 450
FALLS CHURCH, VA 22042

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

Richmond, June 14, 2013

This certificate of registration to transact business in Virginia is this day issued for

Parrish and Partners, LLC

a limited liability company organized under the laws of SOUTH CAROLINA and the said company is authorized to transact business in Virginia, subject to all Virginia laws applicable to the company and its business.

State Corporation Commission
Attest:

Joel H. Beck
Clerk of the Commission
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2015

NUMBER
0405001794

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

PROFESSIONS: ENG

DMY INC
14241 MIDLOTHIAN TNPK
SUITE 230
MIDLOTHIAN, VA 23113

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)
<table>
<thead>
<tr>
<th>Year</th>
<th>Fees</th>
<th>Penalty</th>
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</tbody>
</table>

CORP ID: 0724389 - 2  STATUS: 00 ACTIVE  STATUS DATE: 06/14/10
CORP NAME: DMY Inc.
DATE OF CERTIFICATE: 06/14/2010  PERIOD OF DURATION: INDUSTRY CODE: 70
STATE OF INCORPORATION: VA VIRGINIA  STOCK INDICATOR: S STOCK
MERGER IND:  CONVERSION/DOMESTICATION IND: 
GOOD STANDING IND: Y  MONITOR INDICATOR: 
CHARTER FEE: 50.00  MON NO:  MON STATUS:  MONITOR DTE: 
R/A NAME: JOHN Z DING
STREET: 14241 MIDLOTHIAN TPKE, SUITE 230  AR RTN MAIL: 
CITY: MIDLOTHIAN  STATE: VA ZIP: 23113
R/A STATUS: 1  DIRECTOR  EFF. DATE: 10/18/11  LOC: 120
ACCEPTED AR#: 213 53 6052  DATE: 08/02/13  CHESTERFIELD CO
CURRENT AR#: 213 53 6052  DATE: 08/02/13  STATUS: A  ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
13 100.00
Richmond, April 10, 2012

This is to certify that a certificate of authority to transact business in Virginia was issued and admitted to record in this office for

AMEC Environment & Infrastructure, Inc.
(Formerly known as AMEC EARTH & ENVIRONMENTAL, INC.)
(Date of qualification - September 20, 2000)

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

State Corporation Commission
Attest:

[Signature]
Clerk of the Commission
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2015

NUMBER
0407003927

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

PROFESSIONS: LS, ENG

HURT & PROFFITT INC
2524 LANGHORNE RD
LYNCHBURG, VA 24501

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

(POCKET CARD)

COMMONWEALTH OF VIRGINIA

BOARD FOR APELSCLDIA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407003927 EXPIRES: 12-31-2015
PROFESSIONS: LS, ENG
HURT & PROFFITT INC
2524 LANGHORNE RD
LYNCHBURG, VA 24501

10010 (7/11) 107028-3
**ADDRESS CHANGE REQUESTED:** Please indicate which address you are changing:

1. Physical Address (PO Box not acceptable) □ 2. Mailing Address □  or  3. Both □

Physical Address ................................................................. Mailing Address .................................................................
City, State, Zip Code ............................................................. City, State, Zip Code .............................................................
Telephone Number (  ) ......................................................... Fax Number (  ) .................................................................

**NAME CHANGE:** Include a copy of marriage certificate, divorce decree, court order, or other documentation which verifies the individual name change.

**INDIVIDUAL NAME CHANGE:** ............................................ FIRST ................................................................. MIDDLE ................................................................. LAST .................................................................

**BUSINESS NAME CHANGE:** (applies to Business Licenses only) .................................................................

IS THIS NAME CHANGE A RESULT OF A CHANGE OF OWNERSHIP?  No □  Yes □  (If yes, see Board Regulations for requirements)

SIGNATURE .................................................................................................. DATE .................................................................
CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That HURT & PROFFITT, INC. is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is January 9, 1973;

That the period of its duration is perpetual; and

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

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
January 5, 2012

[Signature]
Joel H. Peck, Clerk of the Commission
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-29-2016

NUMBER
0411000419

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

PROFESSIONS: ENG, LS

DRAPER ADEN ASSOCIATES INC
8090 VILLA PARK DR
RICHMOND, VA 23228

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

COMMONWEALTH OF VIRGINIA

BOARD FOR APELSCIHLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000419 EXPIRES: 02-29-2016
PROFESSIONS: ENG, LS
DRAPER ADEN ASSOCIATES INC
8090 VILLA PARK DR
RICHMOND, VA 23228

ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OR FIRMS OTHER THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.
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<td>Gentry Locke Rakes &amp; Moore</td>
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<td></td>
<td>10 Franklin Road SE Ste 800</td>
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<tr>
<td>CITY</td>
<td>Roanoke</td>
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<td>R/A STATUS</td>
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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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

AVTAR SINGH
13991 VIRGINIA CEDAR COURT
GAINESVILLE, VA 20155

Nick A. Chistre
Nich A. Chistre, Interim Director

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(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
11-30-2014

NUMBER
0402018960

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

DEAN DOUGLAS HATFIELD
1509 OAKBORO DR
RALEIGH, NC 27614

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)

BOARD FOR APPLIED PROFESSIONAL LICENSING
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
9960 Mayland Dr., Suite 400, Richmond, VA 23233
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
PROFESSIONAL ENGINEER LICENSE

NANCY L GEISLER
3006 THREE BRIDGES RD
MIDLOTHIAN, VA 23112

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)
JOHN Z DING
14618 LANDER ROAD
MIDLOTHIAN, VA 23113
Appendix I – Key Personnel Resume Forms

Included in this section are the competed Attachment 3.3.1 Key Personnel Resume Forms for the following key personnel proposed for the Route 29 Solutions project:

1. Mike Prudente – Design-Build Project Manager
2. Avtar Singh, PE, CCM, PMP – Quality Assurance Manager
3. Dean Hatfield, PE – Design Manager
4. Bill Koeppe – Construction Manager
5. Amir Fouladgar, PE – Lead Structural Engineer
6. Nancy Geisler, PE – Lead Traffic Engineer
7. John Ding, PE – Lead Geotechnical Engineer
8. Michael Haggerty, PE – Lead Utility Coordination Manager
9. John Siddall – Public Relations Manager
**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: Michael Prudente, Senior Project 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: Conti Enterprises, Inc.</td>
</tr>
<tr>
<td>d. Years experience: With this Firm 14 Years With Other Firms 3 Years</td>
</tr>
</tbody>
</table>

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

**Conti Enterprises, Inc., Edison, NJ, 01/2000 - Present, Senior Project Manager**
Responsibilities as a senior project manager include managing the internal kickoff meeting that transitions the bid from the estimators to the project management team. Monitors that the entire project team (Design Team, Project Managers, Superintendents, Fields Engineers, and Foreman) are communicating daily to confirm that the project is being run efficiently and being designed and built on schedule. Guides the design/build team toward an efficient, high quality, cost effective project. Consults with the Design Team to develop technical construction plans, specification and contract documents. Manages project controls, assist and supervises the development of schedules, quality control submittals, cost data collection, and estimating. Serves as the point of contact to provide clarity, consistency and expediency during the project. Calculates or manage all related engineering tasks so that our constructability means are safe, efficient, and most cost effective. Oversees and follows up on general project documentation, such as; correspondence, transmittals, submittals logs, memos, daily diary, meeting minutes, and daily reports to confirm that this information is being kept current and filed, in an organized manner, in accordance with the internal company procedures. Prepares project reports including weekly/monthly progress, detailed cost reporting, and approves all invoices. Oversees and directs all subcontractors on the project. Allocates budget up to the value of the project among work elements. Terminates personnel/subcontractors not in conformance with company or contract standards/requirements.

**Bette & Cringe, LLC., Latham, NY, 05/1997 - 01/2000, Project Manager**
Managed nine heavy highway bridge projects including: bidding, negotiation of all subcontracts, change order pricing and negotiations, purchasing, scheduling of subcontractors, labor and equipment, cost analysis, deliveries, preparation of all submittals, shop drawing review, tracking job costs, project profits, and interface with field personnel to obtain resolutions to problems that surfaced. Implemented traffic control and management plans to maintain vehicle, pedestrian, and worker safety at all times.

<table>
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<tr>
<th>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/ Specialization:</th>
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<tbody>
<tr>
<td>Union College, NJ / BA / 1997 / Civil Engineering</td>
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<th>f. Active Registration: Year First Registered/ Discipline/ VA Registration #:</th>
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</thead>
<tbody>
<tr>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>g. Document the extent and depth of your experience and qualifications relevant to the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Note your specific responsibilities and authorities 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>
</tbody>
</table>

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

**Accra Metropolitan Assembly, Accra Sanitary Sewer and Storm Water Drainage Alleviation Project, Accra, Ghana, Africa, $400+M, 03/2012 - 03/2014 (Conti).** Responsible for multiple aspects of this design/build project including project development (concept, scope), project financing, contract negotiations, Value For Money process, drafting the Environmental & Social Impact Statement and Resettlement Action Plan, procuring local subcontractors, public relations, and working with various stakeholder Ministries (Finance, Water Resources, Local Government, Attorney General, etc.). Extensive community outreach was necessary as many residents and structures were within the work area right-of-way.

**New Jersey Department of Transportation, Bridge Deck Rehabilitation, Secaucus, NJ, $143M, FUP, 08/2011 - 03/2012 (Conti).** Responsible for project execution oversight including effective subcontractor management and owner relations for a highly congested corridor of the NJ Turnpike which serves thousands of commuters daily. This project involved the complex staging and shifting of traffic to permit the removal and replacement of the existing bridge deck, structural steel repairs and retrofits, jacking of bridge and replacement of existing bearings, spall repairs to existing
concrete structure, blasting and painting of the entire superstructure, installation of a temporary access platform under bridge, repairs to existing fender system around the piers in the river, milling, paving, drainage, median curbs and parapets, and installation of a new highway lighting system. The project had design-build components associated with column supported and stage line embankment systems. Conti designed and constructed an embankment system to prevent movement in the adjacent cemetery since tie-backs were not permitted. Work was performed with zero reduction in existing roadway capacity.

**New Jersey Department of Transportation, Route 18 Section 2F, 7E & 11H, New Brunswick, NJ, $154M, FP, 08/2005 – 03/2010 (Conti).** Partner with project designers to develop several value engineering options including re-designing an abutment footing to avoid a utility which would have delayed construction, and using pre-cast panels along the road instead of cast-in-place. Performed critical coordination and project execution responsibilities, such as field execution, planning and scheduling, labor force and subcontractor management, and project closeout. This was a fast-tracked multi-staged reconstruction project for more than two miles of urban highway which was executed while keeping the highway open to serve 85,000 travelers each day. Traffic management required extensive planning to execute 955 lane closures, 14 major traffic shifts which required 2,610 flagging hours. Because of the project’s location, it entailed a variety of high-profile stakeholders, including the City of New Brunswick, Rutgers University, and Johnson & Johnson’s world headquarters. With colleges and hospitals nearby protecting the heavy pedestrian traffic was essential. Before any traffic switch coordination with the design team was key to maintaining traffic flow and keeping pedestrian and the construction crews safe. New grade separated roadways were built to separate local traffic from the expressway traffic. Both the northbound and southbound local roadways now allow access to and from the city by meeting new bridges at George Street, Commercial Avenue, New Street and Albany Street. Under PM leadership, this project won 7 awards from industry for project excellence. Also commended by NJDOT on “professionalism & cooperative nature” and by the NJ Governor for bringing the project in on time and on budget.

**New Jersey Turnpike Authority, Secaucus Interchange (NJ TA SIP-301), Seaview Drive Ramp, Secaucus, NJ, $36M, FUP, 02/2004 – 12/2004 (Conti).** Responsible for the management of field execution on this project which involved the new construction of a 3,000-foot-long elevated bridge for a new interchange. The project consisted of 21 spans, 900 concrete-filled pipe piles, two abutments, two crash walls, and 44 pier caps. The foundations for the piers and abutments rested on concrete-filled pipe piles. The team built the reinforced concrete bridge deck in a series of 77 pours. Bridge piers were constructed atop foundations built in designated wetlands over an active rail line. The project required extensive coordination and planning for traffic management around the site, as well as scheduling of multiple subcontractors and vendors, and coordination with adjacent contractors. Under PM leadership, Conti received ACI’s Grand Award for Outstanding Concrete Project of the Year.

**Port Authority of New York and New Jersey, Newark International Airport Terminal C Project, Newark, NJ, $41M, FFP, 01/2000 – 11/2002 (Conti).** Supported the project manager and project team with various activities on this project. This project involved the reconstruction of roadways and bridges leading into the central terminal artery, near Terminals A & B, major traffic management, pile installations for new bridge structures, major concrete and asphalt work, and major underground utility relocations and new installations.

* 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. Currently he is assigned to Conti’s Estimating Department. Duration is temporary and he is available to begin working on this project upon receiving notice to proceed.
<table>
<thead>
<tr>
<th><strong>Brief Resume of Key Personnel anticipated for the Project.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Name &amp; Title: Avtar Singh, PE, CCM, PMP, Associate DBIA, President</td>
</tr>
<tr>
<td>b. Project Assignment: Quality Assurance Manager (QAM)</td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated: CES Consulting LLC</td>
</tr>
<tr>
<td>d. Years experience: With this Firm 3.7 Years With Other Firms 17 Years</td>
</tr>
<tr>
<td>Please list chronologically (most recent experience first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):</td>
</tr>
<tr>
<td><strong>CES Consulting LLC</strong> (Jan 2011 to Present)</td>
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<tr>
<td>As consultant Construction Manager/Area Construction Engineer, worked exclusively to manage and construct VDOT bridge and highway projects.</td>
</tr>
<tr>
<td>• March 2013 to Present – Construction Manager for $42 million I-95 Widening Project</td>
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<tr>
<td>• January 2011 to March 2013 – Responsible Charge Engineer to review VDOT contract plans and contracts for biddability and constructability. Worked as structural engineer to inspect overhead structures for VDOT acceptance.</td>
</tr>
<tr>
<td>• September 2011 to March 2013 – Construction Manager responsible for seven plant mix contracts ($60+ million) in Fairfax County. Manage QA staff of 40 inspectors.</td>
</tr>
<tr>
<td>• February 2012 to July 2012 – Consultant Area Construction Engineer for Culpeper Northern Area</td>
</tr>
<tr>
<td><strong>Virginia Department of Transportation</strong> (January 2005 to December 2010)</td>
</tr>
<tr>
<td>As VDOT Area Construction Engineer, managed over 28 road and bridge construction projects with a total value of $230 million. Managed QA staff of 2 construction managers and over 20 inspectors.</td>
</tr>
<tr>
<td>• September 2009 to December 2010 – Responsible Charge Engineer for $12 million Gainesville Utility Relocation Project</td>
</tr>
<tr>
<td>• June 2006 to September 2009 - Responsible Charge Engineer for $103 million I-66 &amp; Route 29 Interchange</td>
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<tr>
<td>• June 2007 to June 2009 – Responsible Charge Engineer for $18 million University Blvd Bridge Overpass</td>
</tr>
<tr>
<td>• July 2007 to September 2008 – Responsible Charge Engineer for $12 Route 15 Widening Project</td>
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<tr>
<td>• January 2005 to June 2007 - Responsible Charge Engineer for $23 million Route 123 Widening Project</td>
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<td>• June 2005 to July 2007 - Responsible Charge Engineer for $21 million Route 234 Widening (Manassas)</td>
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<tr>
<td>• June 2005 to July 2007 - Responsible Charge Engineer for $17 million Route 234 Widening (Dumfries)</td>
</tr>
<tr>
<td>• June 2005 to June 2006 - Responsible Charge Engineer for $46 million I-66 Widening Project</td>
</tr>
<tr>
<td>• January 2005 to July 2005 - Responsible Charge Engineer for $24 million Route 123 Occoquan Bridge</td>
</tr>
<tr>
<td>• January 2005 to December 2010 – Responsible Charge Engineer on multiple concurrent road and bridge projects, biddability and constructability reviews, project scopings and project development phases.</td>
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<tr>
<td><strong>NXL Construction Services</strong> (December 2004 to August 2005)</td>
</tr>
<tr>
<td>As consultant Project Construction Engineer, worked exclusively to manage and construct VDOT bridge and highway projects.</td>
</tr>
<tr>
<td>• February 2004 to December 2004 – Project Engineer for $24 million Route 123 Occoquan Bridge</td>
</tr>
<tr>
<td>• August 2002 to January 2004 – Project Engineer on multiple road and bridge projects in Salem, Lynchburg, Richmond and Staunton Districts</td>
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<tr>
<td>• January 2002 to July 2002 – Project Engineer on Springfield Interchange</td>
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<td>• August 1998 to March 2001 – Project Manager for $12 million Smart Bridge Project in Blacksburg</td>
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<td>2001/Civil Engineer/0420235169</td>
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<tr>
<td>Also registered as professional engineer in State of Maryland and District of Columbia</td>
</tr>
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<td>g. Document the extent and depth of your experience and qualifications relevant to the Project.</td>
</tr>
<tr>
<td>1. Note your specific responsibilities and authorities 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>
</tbody>
</table>
(List at least three (3), but no more than five (5) relevant projects* for which you have performed a similar function.)

**VDOT, I-95 Widening Project, Dumfries, VA, $42M, 03/2013 - 03/2015 (CES Consulting LLC).** Construction Manager on this 7-mile-long I-95 widening project. This project entails the widening of roadway, installation of drainage pipes, extensive ITS installation, overhead signs and extensive coordination with concurrent Express Lane construction in the same footprint of our project. The project also requires corridor wide (from I-95 in Alexandria to Spotsylvania) Traffic Management System for all lane closures, incident management and working as a team to minimize inconveniences to the travelling public during construction. Responsible for all Quality assurance related to materials testing, design liaison with VDOT L&D and consultant design engineers, documentation and payment of work on site, working with FHWA/Design Engineer and contractor to resolve field construction issues. Enforcing VDOT specifications/standards and ensuring that all Non-Conforming Work is properly documented, remediated & closed out.

**VDOT, Fairfax Plant Mix Program, Fairfax, VA, $60M+, 09/2011 - 03/2013 (CES Consulting LLC).** Construction manager on this plant mix program (seven projects). These projects entailed milling and overlay of subdivision, secondary and primary roads in Fairfax County. Managed a staff of 5 VDOT senior inspectors and 35 consultant inspection staff. These projects required extensive public outreach to surrounding businesses, local government officials (elected/employees) and local citizens to ensure that inconveniences were minimized and was responsible for addressing and closing out all incoming concerns. Worked with multiple contractors to ensure that quality of work was uniform across all contracts and all VDOT specifications and standards were followed across all contracts. Worked on ensuring that all work orders, pay estimates and project closeouts met FHWA/VDOT processes.

**VDOT, I-66 HOV Widening from 234 Bypass to Route 29, Gainesville, VA, $103M, 06/2006 - 09/2009 (VDOT).** Responsible Charge Engineer (on site) for widening this project comprising 2.8 miles of I-66 with the construction of 2 new lanes each direction and the construction of 5 new bridges over Route 29 along with storm sewer, 84” jack/bore, waterline, lighting and TMS work. The project was completed on time and on budget while reconstructing three new bridges that only to be retrofitted. Responsible for CEI budget of $14.6 million and QA staff of over 20 managers/inspectors; meet with VDOT/consultant design engineers prior to contract bid for constructability/biddability, direct oversight of all QA testing/submittals/shop drawings, serve as technical source for field and design issues; partner with the contractor to accelerate project using traffic detours and multiple ramp closures; review and negotiate change orders to build new bridges and work with design engineers to expedite design (construction was allowed to proceed prior to full design plans as part of partnering approach between contractor, owner and designer); schedule analysis and review and final project closeout. There were no claims on the project and project success was attributed to complete trust between the contractor and owner aspiring to the same goals of successful project delivery. Extensive public outreach with local HOAs, shopping centers, local hospitals, school board and schools, PW C parks and local civic organizations (Lions Clubs, Rotary Club, scouts, etc.).

**VDOT, University Boulevard Overpass, Gainesville, VA, $18M, 06/2007 - 06/2009 (VDOT).** Responsible Charge Engineer for construction of this steel girder bridge and 1.3 miles of roadway over I-66. Bridge construction and approach roadway was built on new alignment. Responsible for day to day to project management/quality assurance and supervision of 1 VDOT CM and 5 construction inspectors. Worked with contractor to expedite design reviews, reviewed contractor schedules and worked to expedite work as possible. Used extensive but convenient detours to allow installation of steel girders over I-66 to ensure public safety and project staff safety.

**VDOT, Route 234 Widening Project (Dumfries and Manassas), Prince William County, VA, $37M, 06/2005 - 07/2007 (VDOT).** Responsible Charge Engineer for construction of adjacent/concurrent projects to widen 6.9 miles of Route 234 (primary road) from 2 lanes to 4 lanes with turning lanes, extensive drainage, waterline and sewer line work. Roadway widening included use of CTA, extensive undercut, lime stabilization and cut to fill earthwork. Managed staff of 2 VDOT CM’s, 15 inspection/office staff and worked to ensure that all field issues were resolved without impact to schedule and budget. Coordinated design changes with VDOT/consultant design engineers. Extensive testing of materials and QA documentation. Worked extensively with local supervisors’ offices to provide outreach on upcoming work, lane closures.

*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.

I-95 Widening Project, Dumfries, VA. Project Manager - Project will be completed in December 2014.
ATTACHMENT 3.3.1
KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: Dean Hatfield, PE, Vice President
b. Project Assignment: Design Manager
c. Name of Firm with which you are now associated: Louis Berger
d. Years experience: With this Firm 14 Years With Other Firms 3 Years
   Please list chronologically (most recent experience first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):

   Louis Berger, Richmond, VA and Raleigh, NC, 08/2004 - Present, Director of Transportation Engineering and Vice President for Southeast Transportation Engineering
   Director of transportation engineering and now vice president for Louis Berger’s transportation engineering operation in the Southeast Region. He is responsible for the design development, engineering management, and construction inspection of transportation projects. Focusing on complete project delivery to clients that include VDOT, NCDOT and SC DOT.

   Parsons Brinckerhoff, Raleigh, NC, 06/1989 - 08/2004, Senior Project Manager.
   Senior project manager responsible for leading the transportation design group and managing projects delivering transportation infrastructure projects in Virginia and the Carolinas. Responsible for plan development, design quality, project delivery, and budget.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
   West Virginia Institute of Technology, Montgomery, West Virginia, MS, 1983, Civil Engineering
   West Virginia Institute of Technology, Montgomery, West Virginia, BS, 1981, Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1986, Professional Engineer, Virginia, VA # 18960; 2014 Professional Engineer, Maryland, MD # 44994; 1989 Professional Engineer, North Carolina NC # 16003; 1988 Professional Engineer, South Carolina SC # 12410; 1985, Professional Engineer, West Virginia WV # 9929; 2012 Professional Engineer, Florida, FL # 75290

g. Document the extent and depth of your experience and qualifications relevant to the Project.
   1. Note your specific responsibilities and authorities for each project, not those of the firm.
   2. Note whether experience is with current firm or with other firm.
   3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.

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

   VDOT, U.S. 29 at Gallows Road, Fairfax County, VA, Design 2008-2010, Construction Complete 2012 (Louis Berger). Design manager for the project which includes multiple lane widening, raised medians, shared use paths, extensive utility coordination, and the complete reconstruction of portions of U.S. 29 and Gallows Road in the vicinity of I-495. Design responsibilities include developing roadway geometrics, cross sections, intersection details, ROW plans, construction plans, and plan quantity calculations.

   NCDOT, SR 1118 (Fayetteville Road) / I-40 Single Point Urban Interchange, Durham County, NC, Design 2001-2003, Construction Complete 2004 (Louis Berger). As part of the required off-site improvements required for The Streets of Southpoint Mall, a 1.5 million square foot regional shopping and entertainment facility developed by Urban Retail Properties, Dean served as Project Manager for the design development and the final construction plans to completely re-configure and re-built the existing diamond interchange for Fayetteville Road and Interstate 40. A Single Point Urban Interchange (SPUI) was proposed to allow the interchange to operate at an acceptable level of service. The design of the new ramp movements of the re-configured interchange accounted for maintaining traffic while tying to the existing ramp gores. Impact to travel lanes along interstate 40 was avoided. The project specifics included structure design, traffic control plans, pavement markings, signing, signalization, and construction engineering support. To meet the required vertical clearance over the interstate and to accommodate the geometry of the structure, a grade change of four feet was required for Fayetteville Road. The new structure design integrated the future widening of interstate 40 from a four-lane grassed median section to six-lane concrete barrier section. The design concept also provided for the interstate’s ultimate widening to an eight-lane facility by using a retaining wall at both end bents.
NCDOT, I-77 HOT Lanes, Charlotte, NC, Design 2012-2014, Construction Complete 2017 (Louis Berger). Design project manager for converting the existing HOV lanes on I-77 in Charlotte to HOT (High Occupancy Toll) lanes and widening I-77 from MM 11 (I-277/NC 16 interchange with I-77) to MM 36 (NC 150 interchange with I-77) to provide additional HOT lanes throughout the project. The managed lanes were added in order to provide more stable travel times between Charlotte and the suburban areas to the north. Also included in the project was the widening of I-277 from N. Brevard Street to I-77 in order to provide one HOT lane in each direction with a direct connection ramp between I-277 and I-77. The project also included widening the bridges on I-277, extending several bridges on I-77, and replacing four bridges crossing I-77. The I-277 widening portion of the project required coordination with Norfolk/Southern Railroad, CSX Railroad, and North Carolina Railroad in the area of the bridge carrying the interstate over their rights-of-way. Provisions for a future interchange at Westmoreland Road (SR 2147) were included in the design. Environmental concerns included extending the culvert carrying Irwin Creek under I-77 and protecting Irwin Creek from excessive disturbance in the area where it runs parallel to the highway; and three causeways carrying I-77 across parts of Lake Norman. Hazardous spill basins were designed to protect Lake Norman (Charlotte’s main water supply) and its tributaries. Historic properties and districts listed or eligible for listing on the National Register for Historic Places limited the choice of alignments, especially in the southern section of the project. Nearly 10 miles of traffic noise barrier walls were designed to protect sensitive areas from excessive noise as a result of the proposed improvements.

Nevada Department of Transportation (NDOT), I-515/U.S. 95/U.S. 93 Freeway Widening, Las Vegas, NV, Design 2005-2007, Construction Complete 2017 (Louis Berger). Project engineer for the development of preliminary roadway construction plans (30 percent plans) to widen I-515/U.S. 95/U.S. 93 from an existing six lane freeway to a 12-lane facility. The purpose of the improvement and widening project is to decrease traffic congestion in the country’s fastest growing metropolitan area. The ultimate goal of these improvements is to enhance traffic operations for motorists traveling from the I-15 Spaghetti Bowl Interchange to the I-215 Henderson Spaghetti Bowl Interchange. In conjunction with the additional lanes, improvements to existing ramps for 13 interchanges were re-designed. The design of two new SPUIs was also provided. Careful attention was paid to the maintenance of traffic through this 20-mile congested corridor. A multi-purpose trail was integrated into the preliminary design for the entire I-515 corridor. This included trail design by other projects, utilization of the existing network, and new location segments as part of the freeway widening.

* 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.

N/A
### KEY PERSONNEL RESUME FORM

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

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
<th>Bill Koeppe, Superintendent</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment:</td>
<td>Construction Manager</td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated:</td>
<td>Conti Enterprises, Inc.</td>
</tr>
<tr>
<td>d. Years experience:</td>
<td>With this Firm 21 Years With Other Firms 2 Years</td>
</tr>
</tbody>
</table>

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

**Conti Enterprises, Inc., Edison, NJ, Superintendent (06/1993 - Present)**

Mr. Koeppe responsibilities as a superintendent include organizing, strategizing, and planning the field operations to ensure work is being performed with speed, quality, cost effectiveness, and profitability. Oversees that traffic management, safety, and quality plans are being executed. Responsible for maintaining the project schedule and following-up on deliveries for all materials. Manages subcontractors and monitors their work so that all tasks are progressing as planned. Conducts weekly Tool Box Meetings to provide all members of the project team with important safety information and reinforce the importance of safety on the jobsite. Trains the project foreman on quality work, planning, surveying, plan reading, and time saving techniques to increase the speed, efficiency, and quality of the crews' workmanship. Reviews the cost codes and tracks that they are both reliable and accurate. Has the authority to stop field work at any time and if it is not in compliance with project plans he implements immediate corrective action. Represents the Project Manager in his/her absence and ensures that all work is performed in accordance with approved Site Safety and Health Plan and in accordance with all quality control objectives.

| e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: |
|-----------------------------|-----------------------------|
| New Jersey Institute of Technology, NJ / BS / 1991 / Civil Engineering |

<table>
<thead>
<tr>
<th>f. Active Registration: Year First Registered/ Discipline/VA Registration #:</th>
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<tr>
<td>Prior to commencement of the project Mr. Koeppe will have obtained the Virginia Department of Environmental Quality (DEQ) Responsible Land Disturber (RLD) Certification and the VDOT Erosion and Sediment Control Contractor Certification (ESCCC)</td>
</tr>
</tbody>
</table>

<table>
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<th>g. Document the extent and depth of your experience and qualifications relevant to the Project.</th>
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</table>

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

**New Jersey Turnpike Authority, Bridge Deck Rehabilitation, Secaucus, NJ, $143M, FUP, 09/2011 - 01/2013 (Conti).** Responsible for the field supervision for reconstruction of structural concrete deck roadway slab for bridge over Hackensack River, spanning approximately 5700LF along the eastern spur of mainline NJ Turnpike on Highway I-95 between exits 15E and 15X. Directed the work efforts of the craft labor and subcontractors and monitored that the work was executed in accordance with the work plans. Made sure that all work met established quality standards and was performed in accordance with the Site Safety and Health Plan. Implemented the staging and shifting of traffic to permit the removal and replacement of the existing bridge deck. Over saw the structural steel repairs and retrofits, jacking of the bridge and replacement of existing bearings, spill repairs to existing concrete structure, blasting and painting of the entire superstructure. Managed the installation of a temporary access platform under bridge, repairs to existing fender system around the piers in the river, milling, paving, drainage, median curbs and parapets, and installation of a new highway lighting system.

**New York Department of Transportation, Reconstruction of Rt. 120, Chappaqua, NY, $17M, FUP, 03/2009 - 02/2012 (Conti).** Supervised the demolition and replacement of the complex Rt. 120 Bridge, which lies over the Metro-North Rail Road and Railroad Street. The bridge at its peak carried 14,000 vehicles per day. Managed field crews, maintained the project schedule, and the procurement of material. Coordinated the traffic management and pedestrian safety plans to minimize any interruptions to the normal traffic flow. Additional project scope included the reconstruction of roadway approaches and widening of the bridge with associated grading, paving and drainage, and construction of new pedestrian walkways. The project required coordinating track outages with Metro North while minimizing impact to the surrounding community and the railroad operations. Responsible for organizing, strategizing, and planning the field operations so the work was executed with speed, quality, and cost effectiveness. Followed-up on
deliveries for all materials and conduct weekly Tool Box Meetings for the project staff. He represented the Project Manager in his absence and monitored that safety and quality procedures were followed by all employees.

New Jersey Department of Transportation, Route 18 Section 2F, 7E & 11H, New Brunswick, NJ, $154M, FP, 07/2005 – 04/2007 (Conti). Responsible for the supervision of all field activities including crew size and composition, crew direction, equipment management, project schedule, and project quality. This was a fast-tracked highway project to reconstruct two-miles of roadway which serves 85,000 travelers each day. The roadway was widened from a four-lane highway to eight lanes. Traffic management required extensive planning and coordination with the design team to execute 955 lane closures, 14 major traffic shifts which required 2,610 flagging hours. The project scope also included the reconstruction of three bridges and the construction of a new bridge and four pedestrian bridges; the construction of four grade-separated interchanges; the construction of numerous noise barriers and retaining walls utilizing caissons, soldier piles with soil anchors, precast post and panel elements, MSE walls, and conventional cast-in-place construction with extensive architectural enhancements; as well as utility work which included the installation of new networks for storm and sanitary sewers, water mains, and underground electrical service.

Port Authority of New York & New Jersey, New Jersey Port Elizabeth Marine Terminals, Intermodal Transfer Facility, Elizabeth, NJ, $25M, FP, 01/2003 – 08/2004 (Conti). Responsible for the organization, planning and supervision of field operations. He conducted weekly Tool Box meetings to provide team members with important safety-related information, directed subcontractor performance, and monitored quality control of construction activities. Executed the traffic management plan onsite for a facility that is the largest container port in the eastern United States. This was a design-build project of an intermodal transfer facility included grading, paving, lighting, water, drainage, sewage, railroad track, and other facilities and involved site utilities, including approximately 5,000 feet each of drainage piping, water piping, duct banks, and compressed air piping. The finished site included a rail yard with eight tracks (3.2 miles of track), 23,000 feet of reinforced concrete equipment runways, and 120,000 square yards of asphalt pavement.

Port Authority of New York & New Jersey, CTA Roadway and Bridges, Newark, NJ, PANYNJ, $41M, FP, 01/2000 – 12/2002 (Conti). Responsible for overseeing the reconstruction of roadways and bridges leading into the CTA near Terminals A and B at EWR Airport. Part of the team that coordinated with the client, their architects and design engineers to successfully complete this highly visible project. Participated in daily meetings to discuss current work activities and value engineering proposals. Under his direction this complex, multi-tasked construction project was completed safely and on time. The project involved major traffic management, pile installations for new bridge structures, major concrete and asphalt work, and major underground utility relocations and new installations. Maintaining airport operations and security during road work activities was imperative for the airport which serves over 35 million passengers annually. A major component of the project was coordinating with the client to provide the necessary traffic controls to minimize disruptions to the airports normal operations. Work was performed in stages to maintain the normal traffic flow and protect the safety of traffic and pedestrians near the work areas.

* 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. Currently Mr. Koeppe is not assigned as key personnel to any project and would be available to begin working on Route 29 Solutions after receiving notice to proceed.
ATTACHMENT 3.3.1
KEY PERSONNEL RESUME FORM

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

a. Name & Title: Amir Fouladgar, P.E., Senior Vice President

b. Project Assignment: Lead Structural Engineer

c. Name of Firm with which you are now associated: Parrish & Partners, LLC (P&P)

d. Years experience: With this Firm 1 Year; With Other Firms 40 Years

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

**Parrish & Partners, Falls Church, VA, 2013 - Present, Senior Vice President**

Responsible for overseeing surface transportation operations in the Eastern Region encompassing Virginia, Maryland, and DC, and is responsible for providing quality control oversight, leadership of major design projects, support for marketing initiatives and development of strategic growth offices. His main focus is on overall project delivery to clients through design-build, design-bid-build, PPTA, and P3, for VDOT bridge and transportation design contracts.

**LPA Group/Michael Baker Corporation, 2007 - 2013, Regional Vice President**

Responsible for leading the bridge and transportation design group in the Falls Church, VA office, and management of transportation infrastructure design projects throughout the Mid-Atlantic and Southeastern regions for contracts involving bridge and structure design, bridge safety inspection, load rating, construction management, construction engineering and inspection services. He has served as Principal-in-Charge, QA/QC Manager and Project Manager for major design projects in the Falls Church office, responsible for plan development, design quality, project delivery, and budget.

**TRC Engineers, Inc., 2004 - 2007, Senior Vice President and National Transportation Design Director**

Oversaw the functioning of design aspects for transportation design projects firm-wide with focus on providing solutions for transportation infrastructure projects of varying scope, magnitude, and complexity. Offering specialization in the discipline of structural engineering, his expertise has been leveraged to meet complex grade-separation and river crossing structure projects throughout the country, including design-build procurements.

**Wilbur Smith Associates, 1984 - 2004, Vice President and National Practice Leader for Structural Design**

Responsible for leading the pursuit of major design projects and providing firm-wide support and guidance for structural design. Projects include major transportation infrastructure involving design of bridge and highway structures, and design of building structures and parking garages. Other responsibilities were to provide quality control oversight, support marketing efforts, develop strategic growth initiatives, identify and implement staff training, and identify staff needs. Throughout his tenure, he has held a variety of roles within the firm, such as Associate-in-Charge and Structural Department Manager of the Falls Church, VA office overseeing major transportation design projects including new structures, rehabilitation design, plan preparation, inspection and construction supervision, and quality control.

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

   University of Kentucky / B.S., Civil Engineering / 1971 / Civil Engineering

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

   1980 / Civil / VA Professional EngineerRegistration No. 0402017431 and in the following states of:

   LA, KY, TN, MD, NY, PA, AR, FL, DC, WI, SC

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

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

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

   **VDOT, Rollins Ford Road Bridge over Broad Run, Prince William County, VA, Design 2011-2012, Construction 2014 (LPA Group/Michael Baker Corporation)**. Principal-in-charge, QA/QC Manager for the design of dual, two-span bridges on combined tangent and curved horizontal alignment with pedestrian sidewalk and shared use path. The bridge structure consists of two-span, continuous curved steel plate girders (365 feet long) with composite concrete deck supported by hammerhead piers and tall cantilever abutments. Lightweight backfill was used to manage lateral pressure...
on abutment walls. Wingwalls included both concrete cantilever walls and MSE walls, with MSE walls being utilized beyond the channel where scour was not a concern. Foundations consist of five-foot diameter drilled shafts bearing on bedrock. Responsibilities included design of superstructure, deck, hammerhead piers, and drilled shafts.

MoDOT Safe & Sound Bridge Improvement Program (Design-Build), Statewide, MO, $487M, Design 2010-2011, Construction 2012 (LPA Group/Michael Baker Corporation). QA/QC Manager for replacement design of over 50 bridges of this design-build project that included replacing 554 bridges throughout the state of Missouri. MoDOT created a statewide program, known as Safe & Sound, in order to partner with contractors and consultants to address several of the state’s deficient bridges at one time. The majority of the bridge replacements involved stream crossings, so hydraulic considerations governed the selection of structure types and span arrangements for many sites; although, geotechnical and structural considerations were also evaluated. Most sites used precast/prestressed concrete box beams and cored slabs on simple spans. Structure type selections and span arrangements were determined for each site during initial scoping by the design-build team, and these selections were re-examined frequently based on new data that was obtained from surveys and soil borings at each site as the program progressed. Standard substructure plans were also developed to account for varying geotechnical conditions throughout Missouri.

Eastern Federal Lands Highway Division, Southern Avenue Bridge over Suitland Parkway (Design-Build), Washington, DC, 2001 (Wilbur Smith Associates). Project Manager/Director for the design-build of a cast-in-place, post-tensioned, concrete box girder built on false work. The bridge consists of a three-span, continuous structure with a 264'-0" main span and two 184'-6" end spans. The superstructure includes two double-cell trapezoidal box girders with a closure pour in between. The out-to-out width of the superstructure is 59'-11", including a roadway of 44'-0" and two sidewalks that are each 6'-0" wide. The foundation consists of steel H piles with concrete pile caps. However, a drilled shaft foundation was used to support one of the piers due to the proximity of the pier to a power line. Construction staging consisted of two lanes of traffic to be maintained on Southern Avenue, one lane in each direction. Pedestrian traffic remained open at all times. Construction was completed in two stages. In each stage, one of the double-cell boxes was constructed and post-tensioned. Finally, the closure pour, 1'-6" wide and 10" deep, was placed between the two cells to complete the top slab. A silica fume, protective overlay that is 1 ¼" thick was then applied on the roadway.

VDOT, Route 7 EBL and WBL over Route 50, Fairfax County, VA, Design 2000, Construction 2002 (Wilbur Smith Associates). Project Manager for the preliminary and final design of the deck replacements and widening of two (2) simple-span, highly skewed bridges using modular precast concrete panels on existing built-up steel girders and post-tensioning. The scope included installation of new railings, substructure modifications, and maintenance of traffic. These two bridges were designed for nighttime construction in three stages maintaining two lanes of traffic in each direction, with all travel lanes being opened to traffic during the daytime. This project received the Grand Design Award in the CEC/MW 2000 Engineering Excellence Awards, the 2000 Outstanding Concrete Structure by the ACI National Capital Chapter, and 2000 Best Rehabilitated Bridge by PCI.

VDOT, I-95 / Atlee-Elmont Interchange, Richmond, VA, Design 1999-2000, Construction 2002 (Wilbur Smith Associates). Project Manager for the preliminary and final design of six bridges and three retaining walls for a relocated interchange. Responsible for coordinating the survey, test borings, geotechnical investigation, and design efforts for three additional structures that were designed by subconsultants. Structure types included single- and multi-span curved variable width and highly-skewed bridges. This project included the design of a new fly-over ramp which entailed a 600-foot, three-span (190'-220'-190'), continuous curved steel plate girder structure. High Performance Steel (HPS) was utilized for the girder segment over piers. All of the bridges were designed in accordance with AASHTO earthquake requirements. Also supervised the construction project management of the interchange. This project included the following nine bridges.

* 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.

N/A
ATTACHMENT 3.3.1
KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: Nancy L Geisler, Traffic Manager
b. Project Assignment: Lead Traffic Engineer
c. Name of Firm with which you are now associated: Louis Berger
d. Years experience: With this Firm 20 Years With Other Firms 8 Years
   Please list chronologically (most recent experience first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):

Louis Berger, 01/2002 – Present, Traffic Department Manager
Managed three design projects that included PS&E documents and post design services for roadway and drainage improvements. This includes plans and details for roadways, drainage, utility relocations, and traffic control devices. Prepared PS&E documents signing, pavement markings, lighting, traffic signs, and maintenance of traffic for construction for freeways, arterial streets, and local roads. Conducted traffic studies which included collecting existing traffic counts, trip generation, trip distribution and assignment of proposed traffic, level of service analysis, signal warrant analysis, and accident analysis.

Louis Berger, 05/1996 – 01/2002, Senior Traffic Engineer
Prepared PS&E documents for signing, pavement markings, lighting, traffic signs, and maintenance of traffic for construction for freeways, arterial streets, and local roads. Conducted traffic studies which included collecting existing traffic counts, trip generation, trip distribution and assignment of proposed traffic, level of service analysis, signal warrant analysis, and accident analysis.

ej. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Carnegie Mellow University / BS / 1984 / Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
1997 / Civil Engineering / 0402029273

g. Document the extent and depth of your experience and qualifications relevant to the Project.
   1. Note your specific responsibilities and authorities for each project, not those of the firm.
   2. Note whether experience is with current firm or with other firm.
   3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.

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

Nevada Department of Transportation, Cactus Avenue Interchange on I-15, Las Vegas, NV, $38.9M (Louis Berger). Senior traffic engineer in responsible charge for final traffic design plans and cost estimates for the construction of an interchange on I-15 at Cactus Avenue including roadway improvements for Cactus Avenue. The proposed traffic improvements include freeway and arterial street signing, overhead sign structures, sign formats, freeway and arterial street striping, high mast lighting, arterial street lighting and traffic signal installations. Ms Geisler was also responsible for the CORSIM analysis for the addendum to the I-15 South Corridor Chang in Control of Access Report and the Cactus Avenue Change in Access Report. This included existing conditions models for calibration and future 2030 conditions models for SPU1 and TUDI build comparisons, opening year 2014, horizon year 2030 build and horizon year 2030 no build alternatives. Ms Geisler Professional Services: on-going; Construction: on-going; Size: 1.7 miles;

City of North Las Vegas Department of Public Works, North 5th Street Improvement Project - Owens Avenue to Cheyenne Avenue, City of North Las Vegas, NV, $120M (Louis Berger). Senior traffic engineer in responsible charge for the preparation of final striping, signing ITS, and lighting design plans, specifications and cost estimates that includes bike lanes, pedestrian enhancements, and transit stops for the widening of Las Vegas Boulevard from Stewart Avenue to Owens Avenue. Ms Geisler also conducted the traffic analysis for the Traffic Study. This included coordinating AM and PM existing counts at eight intersections, projecting 2030 traffic

City of Las Vegas, Las Vegas Boulevard Widening, Las Vegas, NV, $17M (Louis Berger). Senior traffic engineer in responsible charge for the final traffic design plans for two miles of urban arterial as a limited access “super arterial” with three interchanges and three grade separations. This included signing and striping for bus lanes, geometry coordination, overhead guide signs, street and path lighting, four traffic signal installations, four traffic signal modifications and ITS with fiber optic along the complete corridor. Professional Services: on-going; Construction: on-going; Size: 2 miles;
volumes for no-build and build alternatives, accident analysis, and LOS analysis. Also. Professional Services: on-going; Construction: on-going; Size: 1.2 miles.

Clark County Department of Public Works, Hacienda Avenue/Union Pacific Railroad Grade Separation, Las Vegas, NV, $11M (Louis Berger). Senior traffic engineer responsible for the final traffic design plans, specifications, and cost estimates for the construction of a 900 foot long cast-in-place concrete post-tensioned structure, extensive retaining walls, and roadway improvements for Hacienda Avenue for the approaches to the bridge. The traffic improvements included arterial signing and striping, street lighting, underdeck lighting, traffic signal installation at Arville Street, and traffic signal modifications to the existing traffic signal at Valley View Boulevard. Professional Services: 2009; Construction: 2009; Size: 0.5 miles.

Regional Transportation Commission of Southern Nevada (RTC), Sahara Avenue Bus Rapid Transit Project, Las Vegas, NV, $35M (Louis Berger). Senior traffic engineer in responsible charge for the traffic analysis and final signing, striping, lighting, and ITS design plans, specifications and cost estimates for the construction of 11 miles of exclusive bus lanes along Sahara Avenue from Hualapai Way to Boulder Highway. The proposed traffic improvements included arterial street signing, arterial street pavement markings, including bus lane markings, relocation of street lighting and updating and completing ITS infrastructure for the entire corridor. Professional Services: 2012; Construction: 2012; Size: 11 miles

* 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.

N/A
Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: John Z. Ding, P.E., President/Principal Engineer

b. Project Assignment: Lead Geotechnical Engineer

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

d. Years experience: With this Firm 4 Years With Other Firms 25 Years

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

<table>
<thead>
<tr>
<th>Firm</th>
<th>Years</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMY Inc., 2010 – 2014, President/Principal Engineer</td>
<td>4</td>
<td>Responsible for the overall project management</td>
</tr>
<tr>
<td>AMEC (MACTEC), 2008 - 2010, Senior Principal Engineer</td>
<td>2</td>
<td>Responsible for project management and QA/QC</td>
</tr>
<tr>
<td>ECS-MidAtlantic, LLC, 2008 - 2008, Senior Principal Engineer</td>
<td>2</td>
<td>Responsible for the project QA/QC</td>
</tr>
<tr>
<td>TesTech Inc., 1999 - 2008, Senior Geotechnical Engineer</td>
<td>9</td>
<td>Responsible for the overall project management</td>
</tr>
</tbody>
</table>

Mr. Ding has over twenty five years of experiences in geotechnical engineering, structural engineering, transportation engineering, site civil engineering, construction management, construction engineering Inspection (CEI), and engineering laboratory management.

Mr. Ding’s experiences on geotechnical engineering cover a broad area on shallow and deep foundations, retaining wall design, slope stability analysis, support of excavation design, tunnel constructions, soil modification and stabilization, groundwater issues, geotechnical instrumentation, and pavement design.

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

- M.S. / Zhejiang University / 1986 / Geotechnical Engineering
- B.S. / Central South University / 1983 / Transportation Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2008, Professional Engineer, Virginia #044684

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

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

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

VDOT, Salem District, I-581 Valley View Interchange, Phase II (Federal Project No. NH-581-5(035), Roanoke, VA, 2013-2015 (DMY). Project Manager for this Federal Oversight Project located at the interchange of Valley View Boulevard with I-581/ U.S. Route 220 in the City of Roanoke. The project included the addition of the southbound exit & northbound entry ramps serving I-581/ U.S. Route 220 north of the interchange and accompanying auxiliary lanes along I-581/ U.S. Route 220 to the Hershberger Road interchange. As a part of the Design-Build team, DMY is responsible for the review of the geotechnical information obtained during the field exploration and performing the pavement design for the entire project. As the project manager, John Ding is responsible for the overall project management working with VDOT and the design-build team members.

VDOT, Salem District, Rte.634 Bridge Replacement (UPC 62650), Bedford and Franklin Counties, VA, 2013-2015 (DMY). Project Manager for this project to replace the existing bridge carrying Rte. 634 (Hardy Road) over the Roanoke River (Smith Mountain Lake). The existing bridge has been recommended for replacement in order to correct its low sufficiency rating of 26.8. The structure is also structurally deficient and contains facture critical members. The structure is currently posted for a 21-ton weight restriction. Geotechnical investigations include water barge drilling and rock coring. The geotechnical design include many challenging issues, such as drilled shaft and driven pile deep foundations, retaining wall, slope stability analysis. As the project manager, John Ding is responsible for the overall project.
| VDOT, Richmond International Airport Connector, Richmond, VA, 2008-2010 (AMEC). | The Richmond Airport Connector Road is an approximately 1.6 mile roadway connecting Route 895 (Pocahontas Parkway) to Charles City Road in Henrico County, VA, consisting of a 4-lane, toll roadway limited access highway. The project includes the construction of interchanges, bridges, retaining (MSE) walls, storm water management (SWM) ponds, and drainage structures. MACTEC was retained for the peer review of the preliminary geotechnical report and performed additional soil exploration for the critical areas in accordance with VDOT requirements. Served as the senior principal geotechnical engineer for the review of the reports and coordination with design and construction teams. |
| VDOT, Capital Beltway (Hot-Lanes) Expansion, Fairfax, VA, 2008-2013 (AMEC). | Served as the Licensed Professional Geotechnical Engineer (LPGE) and senior principal geotechnical engineer leading the effort for the post design construction services including inspections for drilled shafts, embankment slope, retaining wall, pavement subgrade, culver foundation, and other structural foundations. The major duties for the LPGE include coordination and meetings with major design and construction teams; make frequent visits to the project site throughout the construction to review the drilled shaft construction and other operations; consultation with the inspectors; review and determine the O-Cell and CSL test locations; final acceptance of drilled shafts; evaluate CAPWAP and CSL tests and advise if further investigations are required; evaluate O-cell tests, confirm shaft design parameters, and recommend if further tests are required; review and approve drill shafts deficiency repair procedures with VDOT concurrence; review any required modifications to the drilled shaft installation procedures. |

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

* 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. |
N/A
**ATTACHMENT 3.3.1**  
**KEY PERSONNEL RESUME FORM**

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

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
<th>Michael S. Haggerty, PE, Senior Project Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment:</td>
<td>Lead Utility Coordination Manager (Public Utilities)</td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated:</td>
<td>Draper Aden Associates</td>
</tr>
<tr>
<td>d. Years experience:</td>
<td>With this Firm 12 Years With Other Firms 6 Years</td>
</tr>
<tr>
<td></td>
<td>(Please list chronologically (most recent experience first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):)</td>
</tr>
<tr>
<td></td>
<td>Draper Aden Associates, Richmond, VA 06/2002-Present, Senior Project Manager</td>
</tr>
<tr>
<td></td>
<td>Responsible for engineering design and management of water and sewer projects in the Richmond office. Oversees the entire project design team to include Survey, SUE, Geotechnical, CAD technicians, and project engineers to ensure the project is being designed on schedule. Responsibilities also include overseeing the bidding process and performing construction administration services. Serves as the direct point of contact with the client to ensure quality, efficiency, and deliverables are all met with success. Oversees the project budget and all project documentation including correspondence, transmittals, submittals, memos, meeting minutes, and reports.</td>
</tr>
<tr>
<td></td>
<td>Timmons, Richmond, VA, 1996-2001, Project Engineer</td>
</tr>
<tr>
<td></td>
<td>Project Engineer for the design of various water and wastewater system improvement projects for municipal clients including Chesterfield County and Hanover County ranging in size from 8-inch through 30-inch diameters. Involved in all aspects of design from preliminary planning through final contract document preparation. Project responsibilities also included bidding and construction administration services.</td>
</tr>
<tr>
<td>e. Education:</td>
<td>Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</td>
</tr>
<tr>
<td></td>
<td>B.S./1995/Civil Engineering/Virginia Tech</td>
</tr>
<tr>
<td>f. Active Registration:</td>
<td>Year First Registered/ Discipline/VA Registration #:</td>
</tr>
<tr>
<td></td>
<td>Professional Engineer/2001/VA/0402035201</td>
</tr>
<tr>
<td>g. Document the extent and depth of your experience and qualifications relevant to the Project.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Note your specific responsibilities and authorities for each project, not those of the firm.</td>
</tr>
<tr>
<td></td>
<td>2. Note whether experience is with current firm or with other firm.</td>
</tr>
<tr>
<td></td>
<td>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.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>City of Charlottesville Department of Public Works, East Market Street Water Main Replacement, Charlottesville, VA, 04/2012-03/2014 (DAA).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager for the design of approximately 2,000 linear feet of 12-inch water main along East Market Street in a residential section of the City of Charlottesville. Responsibilities included overseeing survey, subsurface utility engineering as well as all aspects of the project design including review of preliminary alignments and coordination with the City’s Department of Public Utilities. Evaluated options for replacement of the existing water main that minimized water main shutdowns and lessened impacts to residents throughout the project corridor.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>City of Charlottesville Department of Public Works, Cherry Avenue Water Main Replacement, Charlottesville, VA, 05/2014 - Present (DAA).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager for the design of approximately 2,000 linear feet of 8-inch water main along Cherry Avenue in a residential section of the City of Charlottesville. Responsibilities included overseeing all aspects of the project design including review of preliminary alignments and coordination with the City’s Department of Public Utilities. Field walked the project corridor to evaluate potential utility conflicts as well as evaluate traffic impacts and an adjacent stream crossing.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Henrico County Department of Public Utilities, Brook Road Water Main Improvements - Henrico County, VA, 09/2010 - Present (out for bid) (DAA).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager for the design of approximately 10,000 linear feet of 12 and 16-inch water mains within the heavily congested U.S. Route 1 corridor. Preliminary engineering work involved evaluating preliminary water main alignments and coordinating selection of the ultimate alignment with Henrico County and VDOT. Field walked the project corridor to evaluate potential existing utility conflicts that impacted the ultimate alignment. Coordinated location of various existing utilities throughout the project corridor with utility owners, specifically gas mains and telephone duct banks. Final contract documents included traffic control plans throughout the length of the project.</td>
</tr>
</tbody>
</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.

N/A
ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: John Siddall, Chief Executive Officer
b. Project Assignment: Public Information/Public Relations Manager
c. Name of Firm with which you are now associated: Siddall Communications, LLC
d. Years experience: With this Firm 1 Years With Other Firms 38 Years
   Please list chronologically (most recent experience first) your employment history, position, general
   responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15
   years of experience, please list the experience for those years you have worked. Project specific experience
   shall be included in Section (g) below):

   Siddall Communications, LLC, 07/2014 - Present. Management of the firm. Supervisor of Public Information
   programs for VDOT related projects: I-95 Richmond bridge Restoration Project; VDOT Infrastructure and Asset
   Naming Project; Coal Fields Expressway

   related projects: Route 250 Shadwell Bridge Project; James River Bridge Restoration; Springfield Interchange
   project; I-66 HOV Restoration; I-95 and I-495 HOV introduction.

   Relevant Client Experience: Department of Rail of Public Transportation, Virginia Department of Transportation,
   Atlanta Committee for the Olympic Games, General Motors Electric Vehicles, Georgia Department of
   Transportation, Illinois Environmental Protection Agency, National Capital Region Emergency Alert System,
   Pennsylvania Department of Transportation, Potomac and Rappahannock Transportation Commission,
   Department of Environmental Quality, Virginia Department of Motor Vehicles

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

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

g. Document the extent and depth of your experience and qualifications relevant to the Project.
   1. Note your specific responsibilities and authorities for each project, not those of the firm.
   2. Note whether experience is with current firm or with other firm.
   3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be
      considered for evaluation.

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

   VDOT, The Springfield Interchange, VA, 1999-2004 (Siddall Inc.). Managed public information for The Springfield
   Interchange at the intersection of I-495 and I-95. Responsible for overall supervision of the public information
   effort. The Interchange added 50 bridges and grew to 24 lanes. Public support for Springfield Interchange
   construction project reached 70% an all-time high for VDOT.

   VDOT, I-95 Richmond Bridge Restoration Project, Richmond, VA, 1998-2014 (Siddall Inc.). Managed public
   information programs for I-95 Richmond Bridge Restoration Project, a decade long program that used public outreach
   to keep traffic flowing on I-95 as 13 bridges were re-decked. The project began as the James River Bridge Restoration in
   2002. The project expanded in 2010 to add eleven additional bridges on that portion of I-95 that bisects downtown
   Richmond, Virginia. Responsible for overall and day-to-day management of the project. The project serves as a model
   of stakeholder and public information outreach. It was twice selected by AASHTO for their annual Excel Award as the
   best transportation communication program in the nation. The public information campaign was robust and effectively
   communicated the times of construction as well as alternate routes. By 2014, research reported that 87% of residents said
   they changed their route or time of travel to avoid delays. Six out of ten residents reported that they had received all the
   information they needed to avoid construction delays, a new Gold Standard for VDOT projects. Finally, the Richmond
   Convention and Visitor's Bureau selected VDOT for its first ever Tourism Impact Award.

   VDOT, Route 250 Shadwell Bridge Project, Charlottesville, VA, 2012 (Siddall Inc). Provided public information for
   the re-decking the Shadwell Bridge required closing Route 250, the primary corridor for local residents and commerce,
   for ten weeks. Detouring local traffic onto Interstate 64 was the best solution. To reduce inconvenience and help
   residents understand what was planned, Siddall launched public information messages on Charlottesville radio stations
   and online with Facebook and Google. The public outreach generated positive comments to VDOT from citizens. The
Shadwell Bridge Project not only received no vocal criticism, it created positive comment from those involved--construction workers, state police, emergency response and VDOT - that the project went more smoothly than they ever expected.

Additionally, Mr. Siddall has worked on the following VDOT projects which have received awards:

- The James River Bridge Project (AASHTO Excel Communications Award)
- I-95 Richmond Bridge Restoration Project (AASHTO Excel Communications Award)
- Springfield Interchange Improvement Project (PRSA Medallion Award)
- I-66 HOV Lanes (ACT Award)

* 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.

N/A
Appendix J – Work History Forms

Included in this section are the competed Attachment 3.2.1 (a) and (b) Lead Contractor and Lead Designer Work History Forms. These projects include the following:

1. NJDOT State Route 18 Grade Separated Highway, New Brunswick, NJ
2. TBTA Whitestone Bridge Highway Widening, Bronx, NY
3. NJTA Driscoll Bridge, Keasbey, NJ
4. NJTA Interchange 6-9 Widening Program, Interchange 7A Roadway & Toll Plaza Widening, NJ
5. VDOT Route 29 & Gallows Road, Fairfax County, VA
6. VDOT Fairfax County Parkway (FCP) Bridges, Fairfax County, VA
ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 2 PAGE PER PROJECT)

a. Project Name & Location

b. Name of the prime design consulting firm responsible for the overall project design.

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

d. Contract Completion Date (Original)

e. Contract Completion Date (Actual)*

f. Original Contract Value

Original Contract Value

f. Contract Value in (thousands)

Final Contract Value**

f. Dollar Value of Work Performed by the Firm identified as the Lead Contractor in this procurement. (in thousands)

<table>
<thead>
<tr>
<th>Name</th>
<th>State Route 18 Grade Separated Highway (ROADWAY)</th>
<th>Name of Client/Owner</th>
<th>Department of Transportation (NJDOT)</th>
<th>Project Manager</th>
<th>Phone</th>
<th>Fax</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Brunswick, NJ</td>
<td>Gannett Fleming, Inc.</td>
<td>New Jersey Department of Transportation (NJDOT)</td>
<td>Ms. Joanne Schutz</td>
<td>732-947-7465</td>
<td>Email: <a href="mailto:Joanne.Schutz@dot.state.nj.us">Joanne.Schutz@dot.state.nj.us</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12/2009 | 03/2010 | $144,555 | $154,000 | $154,000 |

Project Overview

Conti constructed four new grade-separated interchanges with separated inner-express lanes incorporated to complement outer collector distributor local roads. This greatly improved the aesthetics of the area, using a variety of architectural features including stone veneers, brick, tinted concrete, and wrought iron fencing. Conti also constructed multi-use paths to interconnect the city’s major institutions with its redeveloped residential areas, and improved the riverside park area for the community to enjoy.

In addition to Highways and roadways, Conti constructed more than 35 permanent structures, including six bridges, seven concrete cast-in-place retaining walls, and 10 mechanically stabilized earth (MSE) walls. Conti excavated more than 300,000cy of material and constructed a sealant and shotcrete through the Raritan River. Conti self-performed 70% of the scope, including 35,000sf of sheet pile driving, all casion drilling and concrete work, and the complicated installation of the precast arch and spandrel.

The project was an extremely complex undertaking that required constant collaboration between Conti, the NJDOT, and the designer. Conti was responsible for the demolition, construction, and rehabilitation of six bridge structures, as well as the development of local and express lanes of traffic requiring 25 retaining wall structures. Conti also installed a new Intelligent Transportation System (ITS) “Smart Road”. All deliveries on the project required fast track execution, while safety keeping the roadway open during construction.

Urban Corridor

This logistically complex two-mile urban corridor safety improvement accessibility and revitalization project was located in downtown New Brunswick, NJ. As a primary highway (65 MPH) thoroughfare in the Route 18 region, Conti runs along the city’s Raritan River waterfront, serves 85,000 regional and local travelers daily, and provides access to New Brunswick, Rutgers University, hospitals, major corporations, as well as various nearby neighborhoods and inter-modal connections via New Brunswick Station.

Design-Build Experience: Conti was the construction prime contractor for the Route 18 project, which at its groundbreaking was the largest project ever undertaken by the NJDOT. Conti worked very closely with the design prime contractor, Gannett Fleming (GF), for design updates during construction.

Managing Risk & Overcoming Challenges

Fast Track Schedule: Conti sequenced the project in five major phases to cover 15 concurrent work locations, which required design and construction of project segments covering a wide variety of scopes such as bridge footings, retaining walls, highway and roadways, earth embankments, architectural elements, and water front and marine work. Conti’s preplanning and coordination efforts supported a smooth project execution, addressing the project’s complexity and aggressive schedule. Due to the magnitude of the project, it was extremely important the project team was always cognizant of the schedule. To successfully track and manage the project, Conti used the Critical Path Method (CPM) to lay out each of the major items according to the staging drawings. Several value engineering options were proposed to save time, including re-designing an abutment footing to avoid a utility which would have delayed construction, and using pre-cast panels along the road instead of cast-in-place. We met and adjusted operations and staging to improve construction efficiency and minimize the project’s impact on the local community and commuters. Each week, Conti and NJDOT discussed the 4 week look-ahead schedule, ensuring all parties were aware of upcoming work. Conti met all milestones on a fast track schedule and received early completion incentives, receiving additional work and avoiding liquidated damages.

Traffic Impact to Public: Conti constructed the project with live traffic traveling at slower speeds of 50 MPH, using careful sequencing to prioritize material and crew safety. Dust control, regular street sweeping, jersey barriers, and glare screens were essential to minimize safety concerns, as well as coordination with police. Conti performed 955 lane closures and 14 major traffic shifts on heavily congested Route 18 and the adjacent Route 1, which required 2,630 flagging hours, throughout the five-year project duration. Conti maintained steady traffic flow and a high level of safety by announcing traffic shifts and lane closures both on site through the use of overhead electronic variable message signs and online for several days before the actual shifts took place. Shifts occurred after midnight to minimize traffic impact and accommodate community events. Demolition of four existing structures required temporary traffic pattern re-alignments to maintain standard traffic flow. By combining traffic stages, Conti reduced the duration of the project and increased workforce productivity.

When it became apparent that third party utility relocations would not meet the schedule, Conti proposed value engineering efforts to minimize impact on the project. For example, the team redesigned the Albany Street Bridge foundations by changing from driven piles to spread footings to avoid the utility below.

Utility Relocation: Conti improved the existing underground utility infrastructure which included upgrading and updating the storm sewer, sanitary sewer, water main, and underground electrical utilities that all service the city along the 2-mile span of the project. Conti installed 27,500 feet (5.2 miles) of storm sewer pipe, 12,000 feet (2.25 miles) of ductile iron pipe for sanitary sewer improvements, 14,500 feet (2.75 miles) of ductile iron pipe for water main improvements, and 8,800 feet (1.67 miles) of concrete encased electrical duct banks.

Rt 18 Similarities to Rt 29 Project

✓ Work on urban corridor (85,000 ADT, 65 MPH)
✓ Construct 4 new grade-separated interchanges
✓ Widen roadway from 4 to 8 lanes
✓ Construct 4 vehicle and 4 pedestrian bridges
✓ Construct 25 retaining wall structures
✓ Manage traffic to keep Rt. 18 open (955 lane closures, 34 traffic shifts, 2,630 flagging hrs)
✓ Relocate/install over 2 miles of utilities
✓ Coordinate with multiple stakeholders
✓ Conduct extensive public outreach

Work in 15 concurrent work locations

Perform complex work in 5 major phases

Use VE to fast track schedule with incentives

* If actual contract completion date is different from the original contract completion date (i.e. early or late), please explain under Section (h) above. If early completion was due to an incentive please provide details.

** If actual contract value is different from the original contract value (i.e. more or less), please explain under Section (h) above.

*** For multiple phase projects, only single phase of construction (or single contract) will be considered as a Project. If additional phases are shown under the same Work History Form, only the first phase (or contract listed) will be evaluated.
Communications: The project was primarily overseen by NJDOT, with various other agencies such as Highland Park, Rutgers University, the New Brunswick Community, private corporations such as Johnson & Johnson, and St. Peters and Robert Wood Johnson hospitals all involved as significant stakeholders. Conti held quarterly meetings that brought the parties together to update and inform them regarding the project’s overall cost, quality, and schedule. The schedule was adjusted to accommodate major stakeholder activities (e.g., fast-tracking aesthetic activities prior to Johnson & Johnson’s annual shareholder meeting, minimizing traffic delays on Rutgers University football games).

Conti coordinated a massive team effort for this project, including up to 16 Conti crews and 36 specialized subcontractors. At the project peak, 14 subcontractor teams and 200 Conti crew members were onsite simultaneously performing both night and day shifts at 35 concurrent locations along the two-lane approach for the arches, and anchoring sidle piles and lagging walls to the deadline as an alternative means and methods using more efficient material than the originally considered expensive lightweight fill material.

Innovative Solutions

Precast Arch Bridge Milestones: The George Street Bridge is one of several features in this project that elevated industry standards. Once completed, it became one of the largest structures of its kind in North America. Designed as a precast concrete arch bridge that measures 593ft in length and 60.7ft in width, it has eight arch barrels, each with a span of 66ft and a rise of 20ft. To achieve the 66-ft span, a twin leaf configuration was used. A total of 16 precast concrete arch segments were cast at Conti’s precast facility in Highland Park. The arch segments were constructed using 5,050-pound-per-square-inch concrete and were cast with crown ends to allow them to mate properly. The arches were designed as three-beam arches using six precast panels to compute horizontal and vertical forces in each piece. Early designs for the bridge called for an arch that would be placed on top of wall piles. The design was later revised to a drilled shaft/multi-column pier configuration to allow for the construction of a one-lane access road below and parallel to the structure.

First in the World Execution: The height and weight of the George Street Bridge presented a unique challenge. The arch structure was to be supported on multi-column piers, engineering needed to find a way to reduce the mass of this large structure to reduce the seismic loads imparted to the piers. Conti worked with GF to accomplish this by specifying the use of an engineered flowable fill consisting of lightweight cellular concrete mix. This material significantly reduced dead load and seismic forces on the piers when compared to the use of a more traditional soil fill. The George Street Bridge became the first in the world to combine precast concrete with a lightweight cellular concrete fill.

CSS Approach: By taking a Context Sensitive Solutions (CSS) approach and collaborating with key stakeholders, community input was easily incorporated into design and construction sequencing. For example, the community consensus was to maintain the existing traffic light at Paulus Blvd. instead of constructing an overpass at that intersection. Neighborhood noise walls were constructed prior to major construction to minimize impact on the community.

Value Engineering: Conti collaborated with the designer and NJ DOT on several value engineering efforts, which saved the client time and money, including minimizing the impact of aesthetics utility on the project to avoid potential third-party delays and reengineering the tie back system beneath the George Street Arches. For George Street, Conti used 12,330-cubic-yard material, including spread footings, sheet piles, cofferdams, driven piles, drilled large and small diameter shafts, and rail and lagging walls. Similarly, many types of concrete methods were used, including cast-in-place methods, precast methods, and the use of shotcrete. Superstructures included traditional structural steel, precast concrete girders, and precast concrete girders, all of which supported cast-in-place high-performance concrete bridge decks. Conti assigned experts to major scopes and held overall coordination meetings to ensure effective integration.

Other challenges included closely spaced interchanges and ingress/egress to the city, coordination with city redevelopment projects, the project site’s location within the Raritan River floodplains, and exposed unstable rock face supporting an area historic function, and site contamination.

Function & Aesthetic Quality: As a result of Conti’s solutions, the enhancement to parkland was very important, Boyd Park is a city facility located along the banks of the Raritan River and was vastly undeniably dead. Through construction of multi-use pathways and pedestrian bridges, Boyd Park has now been reconnected to the city. Conti undertook a new amphitheater, promenade, and connecting eastward to support and improve existing active uses. Conti also extended the existing park, and constructed a new boat ramp and picnic pavillion along with benches, comfort stations, and parking. Conti added new sidewalks with decorative lighting to enhance safety.

Live Lab for Research: The project also served as an educational opportunity, lending access to on-site research studies by Villanova University’s Civil Engineering Department and Rutgers University’s Construction Management program. Conti worked with each group (one, for example, was studying self-consolidating concrete).

Design/Construction Quality & Craftsmanship: The project included several features to reduce cost and schedule while maintaining the high level of quality required for this very visible state project. Key examples include:

• The project was originally designed in eight phases. Conti worked collaboratively with GF to re-sequence and adjust the construction methods to fast-track the schedule, allowing concurrent execution whenever possible. By reducing the project to five major phases, one year from the schedule was eliminated.

• Several minor planned traffic shifts were combined into larger ones, thereby improving overall productivity, compressing the schedule, and greatly reducing construction’s impact on the community.

• Construction planning incorporated community impact, such as rescheduling particular traffic shifts and noisy activities to accommodate events, including Johnson & Johnson’s annual shareholder meeting, and the demolition of the old pedestrian walkway not originally included in the project.

• Quality control was imperative. Conti accomplished this through extensive use of sample “mock-up” components for primary elements. Mock-ups were required for simulated cut stone MSE panels, simulated balustrades, picket fencing, stone veneers, simulated rock surfaces, pavers, and sidewalk treatments. Final production work was not permitted to commence until approval of the mock-up panels was granted. After approval, the mock-ups served as a performance standard for production work.

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Contract Date/Value: Because of work efficiencies and value engineering, Conti compressed the schedule by many months, and as a result received extra work during the contract which was added to the original contract amount. Most of the new scope was for and a pedestrian bridge on improvements to the adjacent Boyd Park and D&R Canal/Raritan River waterfront.

DBE Commitment: The state mandated small and disadvantaged business goals for this project were not met. However, Conti exceeded the goal with almost 14%. The total subcontracted dollars were allocated to approximately 10 small business. Examples include Women-Owned small businesses such as Structural Services, Inc., for steel erection, piers, and substructure; and Minuteman Company for noise installation.
**Project Overview**

The Bronx Whitestone Bridge (a 2-mile / 7,000-foot long crossing) was originally opened as a four lane bridge in 1939 and has been expanded over the years to accommodate approximately 120,000 commuters each day. The bridge is a major artery for commuters as it connects Queens and the Bronx via intersecting I-678 (I-678) over the East River in New York City, and, like many of the aging structures throughout major urban metropolitan areas, it required extensive repairs to bring it up to 21st century safety and capacity standards. As a result of the team’s strategy for logistics, Conti was able to receive and place over 13 million pounds of steel to the site, as well as concrete and other materials, on schedule, by required extended working hours and working closely with the client to deliver quality construction in accordance with the contract. The project posed significant challenges to Conti’s project managers, and the team was able to overcome these through value engineering (VE), problem solving and teamwork working closely with the client to deliver quality construction in accordance with the contract.

**Fast Track Schedule**

With an aggressive schedule of 42 months, Conti organized the project into three tightly coordinated phases. The first phase consisted of substructure work to include installing a temporary sharing system, constructing 15 new double arch piers and foundations, and reconstructing the Bronx Lower Garage service building. Once these items were completed Conti moved onto the superstructure phase which included widening of the roadway via new girders and new concrete deck, as well as extensive steel repairs on the Queens approach. Conti constructed new concrete piers in advance underneath the roadway and installed extensive temporary supports for the existing viaduct so that sections could be demolished in stages while remaining sections could continue to carry traffic. Conti also installed specialty equipment to monitor the vibration impact of the team’s remediation and installation work. The project received the receipt and placement of all materials within limited site access conditions, as the site entry and exit point was located under a viaduct to avoid impacting adjacent wetlands. As a result of the team’s strategy for logistics, Conti was able to receive and place over 13 million pounds of steel to the site, as well as concrete and other materials, on schedule, by requiring extended working hours and working closely with the client to deliver quality construction in accordance with the contract.

**Traffic Impact to Public**

With over 5,000 vehicles per hour at peak passing over the Bronx-Whitestone Bridge on the I-678 Highway, Conti undertook the major challenge to keep at least five lanes of 50 MPH traffic flowing while performing construction activities. To achieve this, the team kept all lanes open during the day as per client specifications, and conducted minimal lane closures and related work at night and off-hours. Existing traffic capacity was maintained during peak drive times using a movable barrier that allowed the normal three lanes of traffic to the Bronx in the mornings and three lanes to Queens in the afternoon. Conti successfully completed these lane closures, with 12 major traffic shifts, using a staging plan that included utilizing all the space available. Conti’s incentive to complete the lane closures early was to avoid liquidated damages (LDA) at $54,000 per day for any closures over the 329-day window. Conti completed the work in 308 days, beating the schedule. The Bronx Whitestone Bridge (a 2-mile / 7,000-foot long crossing) was originally opened as a four lane bridge in 1939 and has been expanded over the years to accommodate approximately 120,000 commuters each day. The bridge is a major artery for commuters as it connects Queens and the Bronx via intersecting I-678 (I-678) over the East River in New York City, and, like many of the aging structures throughout major urban metropolitan areas, it required extensive repairs to bring it up to 21st century safety and capacity standards. As a result of the team’s strategy for logistics, Conti was able to receive and place over 13 million pounds of steel to the site, as well as concrete and other materials, on schedule, by requiring extended working hours and working closely with the client to deliver quality construction in accordance with the contract. The project posed significant challenges to Conti’s project managers, and the team was able to overcome these through value engineering (VE), problem solving and teamwork working closely with the client to deliver quality construction in accordance with the contract.

**Managing Risk & Overcoming Challenges**

Conti was the construction prime contractor and worked closely with the designer PB/Seds to execute this complex multi-phase project while maintaining vehicle access at all times to the roadway.

Once these items were completed Conti moved onto the superstructure phase which included widening of the roadway via new girders and new concrete deck, as well as extensive steel repairs on the Queens approach. Conti constructed new concrete piers in advance underneath the roadway and installed extensive temporary supports for the existing viaduct so that sections could be demolished in stages while remaining sections could continue to carry traffic. Conti also installed specialty equipment to monitor the vibration impact of the team’s remediation and installation work. The project received the receipt and placement of all materials within limited site access conditions, as the site entry and exit point was located under a viaduct to avoid impacting adjacent wetlands. As a result of the team’s strategy for logistics, Conti was able to receive and place over 13 million pounds of steel to the site, as well as concrete and other materials, on schedule, by requiring extended working hours and working closely with the client to deliver quality construction in accordance with the contract. The project posed significant challenges to Conti’s project managers, and the team was able to overcome these through value engineering (VE), problem solving and teamwork working closely with the client to deliver quality construction in accordance with the contract. The project posed significant challenges to Conti’s project managers, and the team was able to overcome these through value engineering (VE), problem solving and teamwork working closely with the client to deliver quality construction in accordance with the contract. The project posed significant challenges to Conti’s project managers, and the team was able to overcome these through value engineering (VE), problem solving and teamwork working closely with the client to deliver quality construction in accordance with the contract.

**Utility Relocation**

Conti executed several complex electrical utility removals, relocations, and installations. The electrical work was performed in multiple locations. Conti first needed to remove existing conduit/wiring (and eventually replace these items) from the garage storage area underneath the roadway. Then we relocated a Con Edison service transformer and protected the 4 kV switchgear which feeds power to the bridge from the Bronx substation. A key component of the upgrade was the widening of the structure to 12-foot roadway lanes and proper shoulders that meet present day width standards. Design Build Experience: Conti was the construction prime contractor and worked closely with the designer PB/Seds to execute this complex multi-phase project while maintaining vehicle access at all times to the roadway.

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**Project Similarities to Rt 29 Project**

- Construction of multi-phase traffic staging (5000 vehicles per hour, 30 MPH)
- Held regular stakeholder meetings with subcontractors, regulatory agencies, the NY DOT, and the public
- Executed aggressive schedule only 42 months
- Widened roadway from 10 to 12 lanes
- Constructed 15 new bridge piers
- Implemented complex phased staging plan
- Coordinated project in highly urban area
- Bronx population 1.4M
- Peformed electrical utility work (replaced all conduits/wiring and moved transformer)

**Roadway: I-678 Whitestone**

1. Narrative describing the work performed by the firm identified as the Lead Contractor for the project. 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.

2. Project Name & Location

Name: I-678 Whitestone Bridge
Location: Bronx, NY

3. Completed by the firm identified as the Lead Contractor for this procurement.

4. Contract History Form (LIMIT 2 PAGE PER PROJECT)

- **Completion Date (Original):** 08/2012
- **Completion Date (Actual):** 07/2013
- **Original Contract Value:** $192,777
- **Final Contract Value:** $206,500

5. If actual contract completion date is different from the original contract completion date (i.e. early or late), please explain under Section (h) above. If early completion was due to an incentive please provide details.

6. If actual contract value is different from the original contract value (i.e. more or less), please explain under Section (h) above.

7. For multiple phase projects, only single phase of construction (or single contract) will be considered as a Project. If additional phases are shown under the same Work History Form, only the first phase (or contract) listed will be evaluated.
fixtures and accessories on the approach. During construction Conti disabled the grid power being fed to the bridge from the Bronx side, and installed an emergency generator to maintain a power source for the bridge should the Queens side power source go down. In addition, Conti installed all the temporary roadway lighting on the superstructure of the bridge prior to the demolition of the existing lighting and median. We relocated the temporary lighting as Conti progressed through the different work locations of the project before we ultimately installed new permanent fixtures.

**Communications:** Such a complex and high-profile project required major coordination and communication. Daily stakeholder communication was critical to keep the project running smoothly. Conti constantly relayed information to the client, multiple subcontractors and partners, regulatory agencies, the New York Department of Transportation, and the public through daily communications, weekly progress meetings, and weekly subcontractor coordination meetings, where issues were raised and resolved.

**Innovative Solutions**

Because of Whitestone’s high traffic and limited work space, Conti used new technologies and methodologies to complete work without stopping traffic, especially during peak hours.

**Mini-Pile Installation:** Most notably, the team needed to construct the new bridge piers in advance of roadway deck demolition under the existing structure, which required very low headroom equipment (in order to install micro-piles and pier construction within the minimum clearance available). Conventional drilling methods would not be feasible with these site conditions. Instead, Conti used innovative means and methods to design and install the over 722 micro-piles. The method utilized reverse-circulation (RC) drill rods and down-hole hammers (DHH) along with grouting through the DHH bit. The overall construction consisted of drill-down, grout-up, place reinforcing in-situ to auger grout-piling. The extremely tough drilling conditions required the use of a percussive DHH. This methodology also allowed Conti to minimize vibrations and disturbations to the rest of the roadway/bridge structure. This drilling was performed within inches of the existing foundation and underneath the bridge during live traffic, without disruption to existing structures or the public. The total savings in piling costs was in excess of 20% over conventional methods.

**Roadway Construction:** The contract called for all substructure construction which required lane closures to be completed in a difficult 313-day window. Conti planned the schedule aggressively, including an extremely complex staging program that essentially consisted of constructing a bridge under a bridge. Conti and design partner PB/Sells designed and constructed temporary false work underneath the roadway to hold up the existing structure, all while very active, heavy traffic ran above. Conti also built a new widened portion of the approach adjacent to the existing viaduct so that traffic could be diverted to a new over-lane, installed extensive temporary supports for extending the existing viaduct so that sections could be demolished in sections while remaining sections could continue carrying traffic, and installed new girders and placed new concrete roadway decks one lane at a time using temporary lane closures during off-hours. Conti utilized a movable barrier system to provide three lanes of traffic in the peak direction for the morning and afternoon rush hours.

**Lead Abatement:** The abatement of the lead paint and maintaining the work force’s safety while making those repairs was one of the most crucial tasks. The entirety of the work structure was covered with lead paint which made up a large portion of the remediation work of the superstructure. Hand tools were used to remove the lead paint and expedite repair is to the structure of the bridge. Most of the Queen’s approach was located above a public park, and three spans of the bridge were located directly above a children’s playground. As a result of this sensitive project location, Conti was required to complete all of the repair work prior to the end of the school year, because the park and playground would be filled with children in the summer time. Conti self-performed the lead abatement work using stable hand-held devices that mechanically removed the lead paint down to bare steel, while simultaneously vacuuming and storing the paint chips in sealed 55-gallon drums. With this method, Conti completed the lead abatement in an environmentally safe and responsible manner.

**Resource Coordination:** Another challenge was coordination of resources. As more equipment arrived, larger amounts of materials were delivered, and more contractors came on site to work on the project. Conti developed detailed logistics plans to efficiently manage materials and staff resources both coming onto and off of the project site. Conti actively managed 46 subcontractors under this project.

**Safety:** Conti completed repairs on the underside of the bridge decks at a great height. In order to protect the workforce, the team strictly enforced Conti’s safety program throughout the site. For example, Conti instituted a zero tolerance safety policy for fall protection violations. Conti held daily safety briefings prior to beginning the jobsite. In addition, all Conti personnel and subcontractors were required to do a daily Task Safety Awareness (TSA) discussion before work commenced, to make sure safe behaviors were planned into the day’s work.

**Design/Construction Quality & Craftsmanship**

Conti typically conducts strict quality control measures on every project, but the Whitestone Bridge roadway project required a particularly high amount of management by the teams Quality Control Managers due to its complexity, logistical challenges, and high profile. Conti began with a feasibility study and conceptual design to determine the best course of action for the aging and functionally obsolete bridge roadway approaches, which led to final design and construction for the complete replacement of the Bronx Approach. By project completion, Conti’s Quality Control Managers had oversaw the placement of over 2,1 million pounds of uncoated reinforcing bars, 150,000 pounds of epoxy coated reinforcing bars, 11,500 cubic yards of high performance structural concrete, 4,500 square feet of T-wall installed on reinforced concrete footings, 3 million pounds of galvanized reinforcing and 6,100 cubic yards of high performance concrete with friction aggregate steel reinforced superstructure bridge deck, and 150 cubic yards of concrete that made up galvanized reinforced prestressed post-tensioned. Conti’s Quality Control Managers reviewed submittals to make sure that all quantities were accurate, oversaw construction activities to confirm that they were being performed according to specifications and designs, and constantly communicated with other members of the team on a daily basis.

Conti’s heightened quality control measures also enabled the team to rapidly respond to unexpected challenges. For example, while Conti was awaiting approval of their steel repair shop during the bi-annual bridge inspection, the Whitestone Bridge was undergoing its bi-annual bridge inspection, during which two unforeseen “red flag” areas were discovered. The client directed Conti to immediately proceed with the repairs at these locations. Conti responded by quickly designing the needs of the two locations, and then worked closely with its in-house fabrication shop to expedite the procurement and delivery of the new beams and bearing plates required.

**Function & Aesthetic Quality:** The project's main purpose was to rehabilitate the Whitestone Bridge roadway, making it safer and wider for over 12,000 daily commuters, and to make the bridge less costly in the long run for the TBTA to maintain. Conti collaborated closely with design partner, PB/Sells, to make this a reality by planning efficient, quick, and cost-effective construction while keeping the public interest and tax payer dollars top of mind.

The team matched the existing historical architecture, as the bridge was originally constructed in 1939. While the project scope updated the roadway structurally, it also maintained the image of early 20th century New York City. The design involved steel and concrete that matched those architectural styles, including three-column piers with arched cap beams, seven-foot square columns with one-foot square cutouts on each corner. These not only serve as an architectural feature but accommodate stronger seismic reinforcement under all types of | volcanic and tectonic loading. The piers were designed to accommodate future widening.

Conti also utilized a wide variety of formtypes throughout the project to balance aesthetics and sound construction in different settings. These included removable forms for pile caps, abutment, wing walls, and the garage; reusable forms for pier columns, arches, pier caps, and barriers, and stay-in-place forms for roadway deck.

**Contract Dates/values:** During construction of the roadway the clients engineer discovered the existing bridge deck was in need immediate repair. The TBTA added the repair work to Conti’s scope which added significant cost and time to the final overall value and schedule of the contract. The result was a 1 year schedule increase and 7% cost increase to the project.

**DBE Commitment:** The state mandated small and disadvantaged business goals for this project were 7% MBE and 3% WBE. Conti exceeded the goals by awarding contracts to 9.7% MBE and 3.8% WBE subcontractors. Subcontracted dollars were allocated to over 15 different small businesses.
## LEAD CONTRACTOR - WORK HISTORY FORM

### (LIMIT 2 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)*</th>
<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>Garden State Parkway Driscoll Bridge (BRIDGE) Location: Keasbey, NJ</td>
<td>Name: URS</td>
<td>Name of Client/Owner: New Jersey Turnpike Authority (NJTA) Phone: (732) 750-5300</td>
<td>08/2009</td>
<td>08/2009</td>
<td>$100,272</td>
<td>$103,472</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Project Manager: Frank Corso, PE Phone: (732) 750-5300 Email: <a href="mailto:corso@turnpike.state.nj.us">corso@turnpike.state.nj.us</a></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### Project Overview

The Alfred E. Driscoll Bridge on the Garden State Parkway (GSP) over the Raritan River is one of the busiest Highways in the U.S. It was built in 1954, expanded to accommodate increasing traffic in 1972, and overhauled in the 2000s. The NJ TA required renovation of this bridge to significantly increase its carrying capacity and to change its existing profile. Conti constructed two entirely new bridges approx. 1-mile (4,500 ft) long to expand Driscoll from 12 to 15 lanes, making it the widest bridge in the U.S. Conti performed demolition, removal, and construction of two parallel bridge deck superstructures each 65 ft wide. Conti realigned the approaches, relocated utilities, performed steel rehabilitation, replaced bridge bearings and steel bolsters, and installed roadway lighting, sign structures and Intelligent Transportation System (ITS) facilities. Work was performed all while maintaining seven lanes of traffic northbound across the bridge during daytime hours.

### Design-build Experience

Conti was the construction prime contractor, working closely with both the client, the bridge inspector Parsons Brinckerhoff and the design consultant URS (with whom we recently completed the NYC DOT $329M St. George Ferry Terminal Roadway Project where URS was a subcontractor to Conti as the Design-Build contractor).

### Managing Risk & Overcoming Challenges

#### Fast Track Schedule

Conti worked on a fast track schedule to build the two new bridges in two years (one per year), completing the project on time. Conti developed an efficient staging system for higher productivity. In order to maintain traffic, minimizing impact to the public, Conti sequenced the construction work into two main stages. The first stage involved construction of the Northbound Outer (NBO) bridge roadway and structure, and the second stage was almost a repeat of the first stage and involved construction of the Northbound Inner (NBI) bridge roadway and structure. While one bridge was being constructed the other bridge maintained traffic in both directions.

Because Conti was working in the traffic flow on two live bridges, we created a lean manufacturing style process for loading/unloading materials. The staging system included loading material at night and working during the day, using a train over the bridge, spreading work out across the bridge, and coordinating lane traffic with the State Police. This was a ‘just-in-time’ process which created space between operations, reducing congestion of the labor force in small spaces and opening the work ahead.

Conti also used Accelerated Bridge Construction (ABC) methods to reduce onsite construction time and to decrease mobility impact time on this project. We engaged in Time Impact Analyses and Recovery Planning efforts to proactively manage milestones.

In addition, use of Conti’s Catch System avoided the cost of marine work using man-lifts on barges, which gained time and reduced costs.

Conti’s incentive to complete the project early was to avoid liquidated damages (LDs) at $5,000 per day. Conti completed the project per the original end date with no LDs assessed. This was achieved to include performing the additional steel corrosion work noted below.

### Traffic Impact to Public

Conti managed seven active lanes of traffic during daylight hours. Through barrier curbs, extensive construction signage, a public relations campaign and proactive communication with the State Police each time, Conti closed lanes during night shift hours. Conti was able to maintain traffic flow on the bridge with limited interruption. The project required 6 major traffic shifts over its 32-month duration.

The work area for this project was between two live bridges, Garden State Parkway North and South, with very limited construction work access. Getting in and out of the work sites was dependent on road and lane closures, as well as being accessible for emergencies. As a result, Conti’s work area was very restricted, also due to the minimum number of lanes required to be open. All laydown areas were pre-planned and communicated as work progressed across the bridge. No additional equipment or supplies were located in the work area when it was unneeded so that access ways were clear at all times and available space was maximized.

In addition, safety considerations were paramount on this bridge that sits 150 feet high over the water. Conti took precautions using barrier curbing and a safety fence to section off the work limits. We held daily Task Safety Awareness meetings to remind crews of dangers.

### Utility Relocation

Conti worked with the utility companies to relocate the bridge lighting. We installed all the temporary roadway lighting on the bridge and relocated the temporary lighting as Conti progressed through the different work locations of the project before we ultimately installed new permanent fixtures. We also worked with the telecommunication utility to install the ITS.

### GSP Driscoll Bridge Similarities to Rt 29 Project

- Work on urban corridor (270,000 ADT, 65 MPH)
- Construct 2 new bridges 4,500-ft-long
- Manage heavy traffic to keep 7 active lanes open (6 major traffic shifts)
- Conduct extensive concrete pouring
- Coordinate with multiple stakeholders
- Conduct extensive public outreach
- Construction work on bridge over water
- Relocate/install utilities
- Perform complex work in 2 major phases
Communications: Conti was in constant communication with the client and other project stakeholders throughout the duration of the project. Weekly lane closure requests were submitted to NJTA and, upon approval, Conti coordinated with the NJ State Police. Project information was published on the NJTA website as well as over the radio to keep the public informed. The project also involved dozens of subcontractors. At its peak, Conti’s project workforce topped 200, including crews and subcontractors executing multiple scopes in both day and night shifts, with concurrent crews working in locations across 75% of the bridge. Extensive coordination and meetings were required throughout the duration of the project. Daily foremen meetings were also held.

Unexpected Steel Corrosion: While performing the first stage of the bridge deck demolition, Conti discovered significant amounts of corrosion and section loss on the top and bottom flanges and the webs of the existing steel stringers that supported the bridge deck. These steel stringers were intended to remain in-place during construction for the support of the reconstructed bridge deck. Conti documented the deteriorated locations and made the necessary structural repairs. Due to schedule and logistical constraints, the steel stringer repair work had to be performed in a piece-meal fashion, immediately following the progressive removal of the existing deck.

Upon project completion, Conti spent approx. 6,100 man-hours safely repairing a total of 122 corroded stringer locations. Conti was able to incorporate the new steel repair work into the existing construction schedule and sequence-of-work without impacting the progress and performance of the ongoing construction work.

Efficient Concrete Pours: Conti met stringent specifications for high quality concrete and poured approx. 30,000cy in dozens of 300 yd sections for the bridge. We used a mix design to avoid cracking from the summer heat and to avoid traffic delays in getting the concrete material from the plant to the bridge. We also managed complex staging to the site, especially given the great height of bridge and the large volume of traffic. Trucks either parked in closed lanes adjacent to live traffic, or came in at night or during specific non-rush hour times. We poured concrete mostly at night to minimize traffic impact and decrease operation costs, since the pouring operation only proceeds as fast as the concrete could be supplied.

Innovative Solutions

Catch System: To mitigate the potential danger of demolition and steel repair debris falling into the river, Conti designed and fabricated an innovative Catch System. This patent-pending, first-time developed solution was assembled modularly from a series of steel and fiberglass panels that were barged to the middle of the river and hung by a Conti-designed gantry crane 15 feet beneath the bridge in 64 ft by 22 ft sections. The system provided a weight-bearing platform for both the workforce and materials, allowing access and accommodating the extensive demolition and steel repair/post tensioning work. Use of Conti’s Catch System avoided the cost of marine work using man-lifts on barges, which fast-tracked the project and reduced costs.

High Performance Concrete: For the extensive concrete pours, Conti collaborated with Rutgers University to design a special concrete mix, HPC, which is more durable and longer lasting than typical concrete.

Jacking Scheme: Two kinds of jacking systems were used on the project. On the outside of the bridge, a complex post extension and friction collar system was used as the existing piers were not sufficient supports. On the inner of the bridge, a typical jacking system used the existing piers as they were much stronger.

Contract Data/Values

Because of the unforeseen steel corrosion conditions found during construction, mainly the steel corrosion and quantities added for the bolsters to properly modify the profile of the structure, the project cost increased but only marginally.

DBE Commitment: The state-mandated small and disadvantaged business goal for this project was 25% of the projects subcontracted amount. Conti met the goal by subcontracting scopes such as electrical, concrete drilling, and survey and shielding designs.

GSP Driscoll Bridge Awards & Commendations

- American Society of Civil Engineers, 2009 Project of the Year Award
- The Building of America Network, 2009 Building of America Award
- NJTA 2009 Letter of Commendation

“Through the diligent efforts of Conti’s team of construction professionals all key project milestones were met ensuring final completion on time. Conti’s demonstrated commitment to excellence in every aspect of the project ensured its great success.”

Frank Corso, P.E, Supervision Engineer, NJTA
ATTACHMENT 3A1(c)

**LEAD DESIGNER - WORK HISTORY FORM**

**(LIMIT 2 PAGE PER PROJECT)**

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
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<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>
<tbody>
<tr>
<td>Name: NJ TA Interchange 6-9 Widening Program, Interchange 7A Roadway &amp; Toll Plaza (ROADWAY)</td>
<td>Name: PKF Mark III EIEW Construction Group (two construction contracts)</td>
<td>Name of Client: New Jersey Turnpike Authority (NJ TA) Phone: 732.750.5300, Project Manager: John Keller Phone: 732.750.5300, Email: <a href="mailto:keller@turnpike.state.nj.us.com">keller@turnpike.state.nj.us.com</a></td>
<td>05/2014</td>
<td>08/2014</td>
<td>$140,000 Combined</td>
<td>$150,000 Combined (including change order for LED lighting)</td>
</tr>
<tr>
<td>Location: New Jersey</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$142,500</td>
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</tr>
</tbody>
</table>

**Project Overview**

Few Highways in America are busier than the New Jersey Turnpike, which serves an average of 680,000 vehicles a day. Completed in 1952 as a 118-mile route with 18 interchanges, it has since grown to 148 miles with nearly double the number of interchanges. The New Jersey Turnpike Authority initiated the widening of 35 miles of the Turnpike to improve traffic flow. Louis Berger assisted the Authority in assessing traffic and preparing a plan to ensure the highway will accommodate traffic growth over the next 25 years. In conjunction with plans to widen the highway, Louis Berger performed final design services for Interchange 7A, which involved developing alternative configurations for the interchange to improve its traffic handling capacity and provide access to three separate areas. The team also identified and held responsible environmental constraints posed by nearby properties, such as wetlands, preserved farmland, special habitats and hazardous materials sites.

**Managing Risk & Overcoming Challenges**

**Roadway/Bridge**

Louis Berger designed the replacement of 12 bridge structures throughout the interchange to be built concurrently on an accelerated schedule to minimize impact to traffic. These designs included several bridges carrying local traffic, two bridges carrying 1-95 traffic and six structures carrying Turnpike ramp traffic. Six of the structures span both the inner and outer roadways of the interchange to be built concurrently on an accelerated schedule to minimize impact to traffic. Staff obtained local permits, such as the soil erosion and sediment control permit for the construction contracts in addition to three local road crossings, each of which had local utility relocations and agreements. Louis Berger coordinated with NJ TA and two major utility owners including Public Service Electric and Gas Company which operates 500kv transmission lines parallel to the Turnpike. The reconfigured interchange crossed those transmission lines twice. This detailed coordination ensured utility relocations were safely accomplished, kept on budget, and on schedule.

**Innovative Solutions**

**Public Involvement/Relations**

Louis Berger established two public information centers and conducted four public hearings to garner support. The meetings included key stakeholders, including three counties and six municipalities through which the widening passed. Louis Berger coordinated the design of the local road crossings in its design section directly with the Town of Robbinsville.

**Significant Upfront Savings**

Louis Berger completed the preliminary engineering and environmental documentation in 16 months and $1 million under budget, which freed up funds for further interchange studies connected to the project.

**Design/Construction Quality & Craftsmanship**

**Roadway**

Louis Berger prepared the horizontal and vertical design for 2.5 miles of new outer roadways for the Turnpike, as well as 0.75 miles of Interstate 195. Three local road crossings over the Turnpike were lengthened and realigned, and nearly five miles of new ramps designed and constructed. The ramps had to traverse over the Turnpike, under a local road and back over the Turnpike in order to make the required direct connection from the toll plazas to the mainline roadways.

**Environmental and Utilities**

Personnel prepared the EIS for the entire widening program and secured permits, including permitting of more than 120 acres of wetland impacts. Staff obtained local permits, such as the soil erosion and sediment control permit for the construction contracts in addition to three local road crossings, each of which had local utility relocations and agreements. Louis Berger coordinated with NJ TA and two major utility owners including Public Service Electric and Gas Company which operates 500kv transmission lines parallel to the Turnpike. The reconfigured interchange crossed those transmission lines twice. This detailed coordination ensured utility relocations were safely accomplished, kept on budget, and on schedule.

Louis Berger completed preliminary engineering for the entire $2.7 billion widening program, and was also the designer of record for the construction of new interchanges, utility relocations, toll plazas and roadway widening as part of the Interchange 7A reconstruction.

“Louis Berger played a key role in the successful performance of several key components of the Widening Program including Preliminary Design, Environmental Consultant, and Final Design, in which Berger was responsible for the design of over $200 million in actual construction of various roadways, bridges, retaining walls, toll plazas, expansion and roadway widening, all having been reviewed and approved by the NJ TA Commissions, PA Cub Company which operates 500kv transmission lines parallel to the Turnpike. The reconfigured interchange crossings those transmission lines twice. This detailed coordination ensured utility relocations were safely accomplished, kept on budget, and on schedule.

John M. Keller, PE, PMP, Program Manager, NJ TA

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**NJ TA Interchanges Similarities to Rt 29 Project**

- Complexe and highly detailed TMP prepared, close coordination with NJ TA & local agencies
- Design development for $2.7B program
- Extensive design coordination with all utilities

**NJ TA Interchanges Awards & Commendations**

- NJ Distinguished Engineering Award, 2014
- NJ TA Commendation Letter

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** If actual contract value is different from the original contract value (i.e. more or less), please explain under Section (h) above and if design was a factor.

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**ATTACHMENT 3.4.1(c)**

**LEAD DESIGNER - WORK HISTORY FORM**

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<td><strong>f. Construction Value (Original)</strong></td>
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<tr>
<td><strong>h. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.</strong></td>
</tr>
</tbody>
</table>

| **Name:** Route 29 and Gallows Road (ROADWAY) | **Location:** Fairfax Co., VA |
| **Name:** A&W Contracting Corporation | **Phone:** 703-259-1940 |
| **Project Manager:** Arif Rahman | **Phone:** 703-259-1940 |
| **Email:** MD.Rahman@vdot.virginia.gov | **Construction Completion Date (Actual or Estimated):** 10/2012 |
| **Construction Contract Completion Date (Original):** 10/2012 |
| **Construction Value (Original):** $18,000 Roadway Construction | **Construction Value (Actual or Estimated):** $18,000 Roadway Construction |
| $8,000 Advanced In-plan Utility ≥ $26,000 total | $8,000 Advanced In-plan Utility ≥ $26,000 total |
| **Construction Completion Date (Original):** 10/2012 | **Construction Completion Date (Actual or Estimated):** 10/2012 |
| **Project Overview:** Louis Berger was the prime consultant for this principle urban arterial project in Fairfax County in close proximity to the Beltway around Washington, DC. The project consisted of reconstruction and widening of 1.5 miles of US Route 29 and Gallows Road, widening Gallows Road from four-lane undivided to six-lanes divided roadway with curb and gutter and raised grass medians. The final Louis Berger Design included five reconfigured intersections with improved turn lane capacity and signalization improvements. In support of VDOT’s effort to increase the capacity and safety of the roadway, Louis Berger identified development alternatives and prepared conceptual and preliminary engineering designs to widen the road. Louis Berger engineers prepared a design to widen the existing road to a six-lane facility with a raised median, bike lane, shared-use paths and sidewalks. Louis Berger also designed for several other improvements along the urban corridor, including several intersecting streets and roadways. Louis Berger’s design work on this project demonstrates capabilities in the three main risk areas identified in the Route 29 project including (1) traffic management (2) plan development with multiple 3rd party stakeholders, and (3) high utility impacts. The project team delivered multiple projects concurrently on a fast-track schedule, executed projects in developed urban corridors, provided innovative design solutions and construction techniques with a focus on limiting public/property congestion during construction, developed and managed effective communication strategies with business owners and other key stakeholders, successfully mitigated the risk and maximized incentives, and applied efficiencies gained from previous success in coordinating complex utility renovations. The project team demonstrated capabilities in mitigating risk in traffic management, plan development with 3rd party input, and utilities relocations. |

| **Managing Risk and Overcoming Challenges** |
| **Unexpected Conditions:** Louis Berger worked collaboratively to redesign the project to accommodate changes in the project plan because of constraints related to funding, adjacent development, utility relocation costs and right-of-way costs. Louis Berger also provided an advanced utility relocation construction plan, prepared in conjunction with others to mitigate construction risk prior to VDOT’s bidding process for the roadway construction contract. |

| **Innovative Solutions** |
| **Diverse Design Methods:** Louis Berger developed the Initial Route 29 Conceptual Study which included a series of traditional and non-traditional alternative solutions to improve capacity issues at the prominent Lee Highway (US Route 29) and Gallows Road intersection, including at-grade and split-grade alternatives. The team developed a comprehensive Traffic Software Integrated System simulation model to assess all four alternatives and presented it during a Citizen’s Information Meeting. The selected alternative was a reconfigured and widened at-grade intersection to accommodate Design Year 2035 volumes with a forecast ADT of 55,000 vehicles per day. |

| **Urban Transportation Design:** The team applied access management principles to the design, including elimination of full access control at certain areas with the construction of raised medians. The design included pedestrian and bicycle improvements to the Merrifield Area with the construction of “shared roadways” for bicycles, sidewalks, shared use paths, improved pedestrian crossings. |

| **Urban Corridor:** The Gallows Road project featured three adjacent projects affecting the development of the plan including the I-495 HOT-Lanes project, the Merrifield Town Center development valued near $100 million, and a 30-person Citizen/Business Task Force to address issues with rights-of-way, utilities, and effects on adjacent projects. Due to several project constraints including funding, the intense adjacent private development, exorbitant utility relocation and right of way acquisition costs identified just prior to R/W plan submission, Louis Berger redesigned the project to accommodate changing project visions and prepared a unique construction plan wherein a “child” advanced in-plan utility contract was developed to relocate several water mains and laterals prior to the commencement of the roadway construction project in 2011. |

| **Traffic Safety and Management:** The team developed extensive multi-phased Transportation Management Plans to ensure safety of construction workers, vehicular and non-vehicular traffic, and efficient construction of this complicated project. |

| **Design/Construction Quality & Craftsmanship** |
| **Louis Berger services covered the breadth and depth of technical and developmental transportation issues on the project, including meeting the VDOT R/W staff and individual property owners to develop design modifications that assisted in R/W negotiations, reviewing and advising VDOT on private development plans including proffer language; partnering In November 2010, Louis Berger submitted final construction plans to VDOT and received a 4.5 out of 5 performance rating from the VDOT project manager for its work and was cited for exceptions coordination with Third Party developers and utility owners. The team exceeded VDOT DBE participation goals.** |

| **Rt 29 Gallows Rd Similarities to Rt 29 Project** |
| ✔ Extensive capacity improvements at five key intersections including Lee Hwy at Gallows Rd Multi-model design |
| ✔ Extensive maintenance of traffic with TMPs Reducing utility relocation cost and conflicts with innovative design solutions and product delivery |

| **Rt 29 Gallows Rd Awards & Commendations** |
| ✔ VDOT Performance Rating of 4.5 out of 5, with exceptional third party and utility coordination Exceeded VDOT DBE participation goals |
| ✔ Completed below budget and ahead of schedule |

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**SUB-CONSULTANT - WORK HISTORY FORM**

**ATTACHMENT 3.4.1(a)**

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<th>e. Contract Completion Date (Actual)*</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Design Fee for the Work performed by the Firm identified as the Sub-Consultant for this procurement. (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: Fairfax County Parkway (FCP) Bridges (BRIDGE) Location: Fairfax Co., VA</td>
<td>Name: Wilbur Smith &amp; Associates (Designer), Falls Church, VA Shirley Contracting (Contractor)</td>
<td>Name of Client: VDOT Phone: (703) 383-VDOT Project Manager: Ray Burkhardt Phone: (703) 259-2967 Email: <a href="mailto:R.Burkhardt@VDOT.Virginia.gov">R.Burkhardt@VDOT.Virginia.gov</a></td>
<td>1999</td>
<td>1999</td>
<td>$90,000</td>
<td>$7,000 (Design Fee)</td>
</tr>
</tbody>
</table>

h. Narrative describing the Work Performed by the Firm identified as the Sub-Consultant 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.

**Project Overview**

In Fairfax County, our staff led the design of 6 major or bridges along a 2.3 mile stretch of the Fairfax County Parkway (FCP) (SR 286) located between the cities of Centerville and Fairfax, VA. The FCP is a primary state highway providing a north-south arterial route in Fairfax County with a mix of interchanges and signalized and unsignalized intersections. This portion of the FCP project is a four-lane, divided highway extending from Interstate 66 at the north end and Braddock Road at the south, and consisted of 3 interchanges, two of which involve major highways – Interstate 66 and US Route 29 (Lee Highway). The project included final design of six bridges: I-66 Collector EB over the FCP, I-66 Collector WB over the FCP, FCP over Route 29 dual bridges (NB & SB), FCP over realigned Braddock Rd dual bridges (NB & SB). Other services included construction sequencing, maintenance of traffic plans, traffic analysis, TMP, and life cycle cost analysis.

**Urban Corridor** The Fairfax County Parkway connects all major roadways in Fairfax County and mitigated the traffic impact that resulted from the sudden influx of new residential and commercial developments in Fairfax County and Loudon County areas in the years preceding the project. With this project encompassing major interchanges at I-66, Route 29 and Route 620 (Braddock Road) the original at-grade intersections at the Route 29, an urban Other Principal Arterial Highway, involving multiple local streets, made the design of these 3 interchanges complex and introduced additional risks.

**Design-build Experience** Wilbur Smith Associates – Prime Designer; Lead Bridge Designer/ Manager – Amir Fouladgar, P.E.

**Managing Risk & Overcoming Challenges**

**Fast Track Schedule** The design of three major interchanges was performed concurrently under the same accelerated schedule. A major challenge was that no lane shift or closures on I-66 were permitted during construction. To solve this we designed an interchange utilizing the CD roads located within the existing right-of-way to resolve the issue. With the construction of the I-66 EB and I-66 WB collector distributor bridges over the FCP mainline the traffic on I-66 was unaffected.

**Traffic Impact to Public** The traffic management plan was a key factor during construction to alleviate the bottlenecks in the highly congested area. Across the existing multiple roadways at the location of the interchange along with the major principal arterial highway crossing made the design complex. Designing the FCP interchange to mitigate the existing traffic impact, rather than adding to the existing congestion, was the challenge. By creating a depressed roadway and bypassing Route 29 complete separation of traffic from the construction was assured and provided unobstructed mainline traffic across the interchange. The MOT of FCP interchange at Route 29 was affected by MOT at major interchanges at I-66 and Route 620 in addition to Route 608 and other local roads. The TMP involving all these roads helped to coordinate the traffic movements and resulted in an MOT that was most feasible.

**Communications** Construction of substructure and foundations in the median and sides of FCP involved challenges in the roadway below, however were resolved with close coordination with the Geotechnical sub-consultant Law Engineering and also with the utility owners. One other successful area was the coordination with the VDOT.

**Northern Virginia District managers in delivering a complex project in such an aggressive schedule. Effective management and coordination was a major element in the success of this schedule accelerated project.**

**FCP Similarities to Rt 29 Project**

- Unobstructed traffic through the intersection by the three-level interchange design
- The back retaining wall design allowing safety during construction and feasible MOT connecting local roads
- Eliminated costly utility relocation

**Utility Relocations** Underground utilities were not interfered with during the lowering in the median of existing Route 29.

Utilities that crossed Route 29 were handled utilizing the cross over bridges except those below the final grade line. Lowering the profile of Route 29 improved existing grades and did not create a low point near the interchange but drained along the natural slope about 2,000 feet north.

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Innovative Solutions

Three-level interchanges could be costly. However, with the use of innovative systems that are cost-effective and at the same time benefit the construction and traffic management can control cost. The FCP interchange at Route 29 exemplified this principle. Cost-effective use of retaining systems (soldier pile and lagging with tie-back) that were utilized during construction where traffic could be managed without interference.

The two major 42" diameter sewer lines existing under the depressed Route 29 had to be incorporated into the new retaining wall in a special design which utilized counterfort retaining wall founded on steel piles with block-outs around the sewer line. The separation of construction activity from normal traffic had been of paramount benefit in this project. All the construction on Route 29 was confined within the median marked between the new tie-back walls, so that unobstructed traffic flow could be maintained on the CD roads.

The schedule for construction of this project was reduced due to the prudent choices made during the project development process. The retaining walls alongside the CD roads significantly reduced the construction time by the utilizing tie-back walls. The abutments of the cross-over bridges were also incorporated as part of the wall system thus making for faster construction.

Stakeholders: Third party coordination, public hearing and public relation tasks were performed through sub-consultant task. The neighborhood and church representatives in the local community involved in the multiple public hearings and provided their valuable visions to the development of the project. The leaders gratefully commented on such a carefully delivered project with minimal to no interruption to their lives during construction. Although other alternatives for the interchange configuration was considered and presented the three-level configuration was accepted at the public hearing due to significant advantages from safety, traffic mobility and cost.

Design/Construction Quality & Craftsmanship

The construction support was performed in the areas of shop drawing reviews, construction value engineering and quality control. The cast-in-place wall panels were replaced by precast panels eliminating design for retaining earth as per recommendations from value engineering review. Shop drawings of special vendor items were reviewed and approved according to the latest products and industry standards that required compliance with quality material specifications as approved by VDOT. The retaining wall using tie-back out-weighted conventional retaining walls due to functionality merits as well as cost savings. During value engineering the tie-back retaining wall as originally designed using soldier piles and cast-in-place concrete wall facing was later revised to use precast concrete panels with soldier piles in lieu of cast-in-place panels, thus eliminating the use of temporary sheet piling. This saved VDOT time and money.

Function and Aesthetic Quality of the Design: The final scheme utilizing a three-level interchange facilitated unobstructed traffic flow along the mainlines while providing connections to the local streets through CD roads, thus eliminating one of the major traffic bottlenecks in Northern Virginia and significantly improving the traffic movements at the original at-grade crossings.

The three-level interchange, FCP at Route 29, consisted of: Level 1 - Rte.29 mainline, Level 2 - CD Roads and Level 3 - FCP mainline. The value engineering study showed significant cost savings and functionality merits to this complex interchange.

The existing Rte. 29 was widened to accommodate CD roads on both sides, at grade, that provided connections to the local streets crossing Rte.29. The through lanes of Rte.29 mainline were redesigned to be depressed, located between the CD roads at grade. The CD roads were maintained at-grade using tie-back retaining walls. Cross-over CD bridges were utilized for local street connections.