**Statement of Qualifications** 

A Design-Build Project

## I-81 Bridge Replacement at Exit 114 From: 0.381 Mi. South of Christiansburg SCL To: 0.510 Mi. North of Christiansburg SCL

Montgomery County / Town of Christiansburg, Virginia



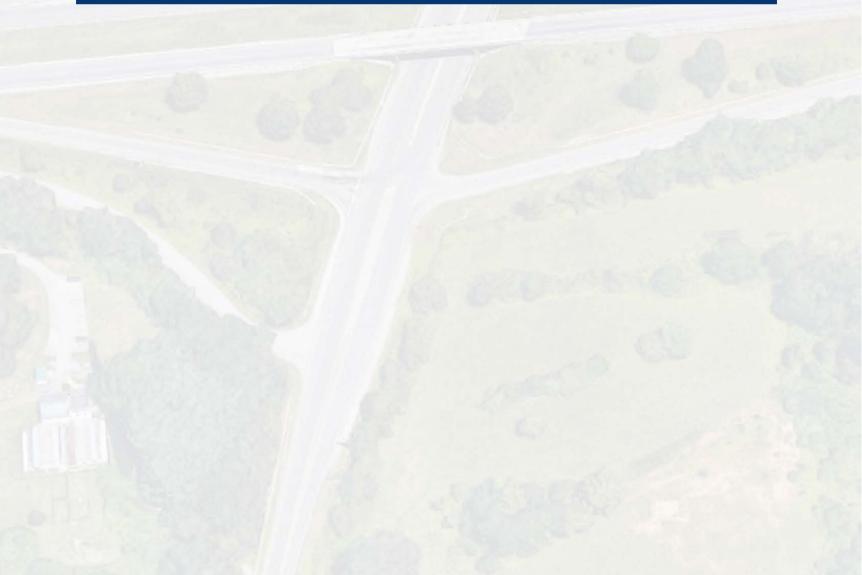
State Project No.: 0081-154-733, P101, R201, C501, B601, B616 Federal Project No.: IM-081-2(992) Contract ID Number: C00093074DB96, 2017 September 6, 2017







# **3.2 Letter of Submittal**





371 Expansion Drive, Hillsville, VA 24343 www.dlb-digs.com | Phone: 276-728-2137 Fax: 276-728-2069

Commonwealth of Virginia Department of Transportation (VDOT) Central Office Mail Center Loading Dock Entrance 1401 E. Broad Street Richmond, Virginia 23219 Attention: Stephen D. Kindy, PE (APD Division)

#### Re: I-81 Bridge Replacement at Exit 114, RFQ No.: C00093074DB96

Dear Mr. Kindy:

DLB Enterprises, LLC (DLB) is pleased to submit our Statement of Qualifications for the VDOT I-81 Bridge Replacement at Exit 114 Design-Build Project. DLB has assembled a strong and efficient Team of highly qualified professionals with exceptional expertise to successfully meet the goals and objectives of this project.

3.2.1/3.2.2 Authorized Representative/Point of Contact Jeremy L. Hendrick, Vice President of Operations 371 Expansion Drive, Hillsville, VA 24343 P: 276-728-2137 | F: 276-728-2069 Email: jhendrick@dlb-digs.com

3.2.3 Principal Officer of the Offeror **Donald L. Branscome, President** 371 Expansion Drive, Hillsville, VA 24343 P: 276-728-2137 | F: 276-728-2069 Email: dbranscome@dlb-digs.com

3.2.4 Offeror's Structure, Financial Responsibility, and Bonding Approach. DLB is a limited liability company and will take financial responsibility for this project; we have no liability limitations. A single 100% performance bond and 100% payment bond shall be provided for the total Design-Build contract value.

3.2.5 Full Legal Name of Lead Contractor: DLB Enterprises, LLC; Lead Designer: Volkert, Inc.

3.2.6 Affiliated and Subsidiary Companies. The full legal name and address of all affiliated and/or subsidiary companies are provided on Attachment 3.2.6 in the Appendix.

3.2.7 Certificates Regarding Debarment. Certificates Regarding Debarment for the Upper Tier firms (Attachment 3.2.7 (a)) and the Lower Tier firms (Attachment 3.2.7 (b)) are included in the Appendix.

3.2.8 VDOT Prequalification Certification. DLB's VDOT prequalification number is D1153, and our status is active and in good standing; the prequalification certification is included in the Appendix.

3.2.9 Evidence of Obtaining Bonding. A letter of surety is found in the Appendix stating DLB is capable of obtaining a performance and payment bond based on the current estimated design build contract value referenced. This bond will cover the project and any warranty period.

3.2.10 Compliance with Laws and Required Registration. Current SCC Certificates, DPOR licenses, and staff licenses are included in the Appendix.

**3.2.11 DBE Commitment.** DLB is committed to an 8% DBE participation goal for the entire contract value.

DLB has a long and successful history serving Virginians on numerous projects. As a single, integrated Design-Build Team, we will design and construct the VDOT I-81 Bridge Replacement at Exit 114 Design-Build Project in a manner to ensure the greatest opportunity for success. We will create a transparent working relationship with VDOT and the numerous third party stakeholders to promote trust, confidence, and collaboration. Thank you for the opportunity to submit our Statement of Qualifications.

Respectfully,

leun Jeremy L. Hendrick

Vice President of Operations **DLB** Enterprises, LLC

# **3.3 Offeror's Team Structure**

Per RFQ Instructions, Key Personnel Resume forms are provided in the Appendix.

**DLB Enterprises, LLC (DLB) - Offeror, Legal Entity, Lead Contractor.** DLB will be responsible for managing the entire project, supervising the construction, and performing a majority of the construction work. With a long history as an industry leader in the heavy highway sector in Southwest Virginia and headquartered less than 50 miles from the *I-81 Bridge Replacement at Exit 114* project site, DLB has first-hand knowledge of the elements of this project.

Utilizing our staff of 100+ employees, DLB's projects throughout Central and Southwest Virginia include bridge, roadway, utility, and boring operations. This broad diversity of project types results in crew specialization that affords DLB the unique ability to call upon "in-house" personnel for many of the challenges encountered on transportation projects. This ability differentiates DLB from many contractors, and allows DLB to seamlessly provide VDOT with a high-quality project more efficiently. DLB's ability to self-perform multiple work functions provides VDOT with a highquality project, more efficiently.

DLB selected a team that understands the importance of the commitment to keep the team and key personnel intact for the duration of the project. To complement our local experience and knowledge, DLB has built a team of highly qualified firms and individuals with extensive experience working for and with VDOT in the Salem District. They bring in-depth knowledge of the department's expectations, policies and procedures, along with proven experience delivering successful projects with similar risks and complexities. DLB specifically selected a team that understands the importance of the commitment to keep the team and key personnel intact for the duration of the project. Our team of subcontractors and subconsultants has been carefully selected based on their pertinent expertise, relevant past experience and established working history of project success with VDOT, DLB, Volkert and/or one another.

#### SUBCONTRACTORS

While DLB has the capability to self-perform a majority of the work of this project, we intend to meet or exceed the 8% DBE goal through the use of specialty subcontractors for items such as pavement marking, guardrail, seeding, rebar installation, and fencing.



As a subcontractor to DLB, ECS will be providing **Quality Control** (**QC**) services, with **Brian Wyatt** serving as **QC Manager**. Over the last 10 years, ECS has completed more than 300 transportation projects and/or task orders supporting new or existing VDOT infrastructure, including providing construction materials testing and construction inspection.

CONSULTANTS

OLKERT Lead Designer and Quality Assurance Management

Volkert provides multidisciplinary transportation engineering and construction management services. They have earned a national reputation as a leading provider of design-build best practices for complex transportation infrastructure – the result of excellent performance on some of the most complex and regionally significant projects in the country, providing structural and roadway design and quality assurance services for projects ranging in value up to \$210M. Volkert brings a full cadre of roadway, structural and traffic engineers to provide full, integrated services in concert with the specialty practitioners they have brought on board.

Volkert will serve as **Lead Designer** and **Keith Weakley, PE, DBIA**, the **Design Manager**, will be responsible for coordinating all of the design disciplines and design activities, overseeing design QA/QC, and ensuring the design is in conformance with the Contract Documents. Volkert's in-house design team will provide roadway, structural, and traffic engineering. Staff dedicated to this project are seasoned design practitioners with the requisite experience handling karst conditions and complex traffic.

Volkert's construction engineers provide constructability reviews throughout the entire project life-cycle. Volkert will also be providing **Quality Assurance (QA)** services, and the **Quality Assurance Manager (QAM)**, **Ben Lineberry**, **PE** will be responsible for the QA inspection and testing of all materials used and work performed. These services will include monitoring the contractor's Quality Control program; and ensuring that all work, materials, testing and sampling are performed in compliance with the contract requirements and "approved for construction" plans and specifications. Volkert's in-house construction

engineering staff also contributes to the quality of the design and the integration of design and construction by providing constructability reviews throughout the entire project – both the design and construction phases.

GeoConcepts Engineering, Inc. (GeoConcepts) is a DBE firm bringing the team 36 years of experience providing geotechnical engineering services for projects located in karst and limestone geology, more than 500 projects in karstprone areas of Virginia alone. This experience contributes to our team's strength in detecting, characterizing and remediating karst features to mitigate impediments to project design, construction, budget and schedule.

GeoConcepts has provided geotechnical engineering for 60 VDOT projects including 28 VDOT D-B projects.





BB CONSULTING SERVICES LLC Practical People, Practical Solutions Right of Way Services

Environmental Compliance Utility Coordination

#### 3.3.1 IDENTITY AND QUALIFICATIONS OF KEY PERSONNEL

The DLB Team – including Key Personnel – will remain intact for the duration of the project. DLB assembled a team of highly-qualified and experienced individuals, and structured the team for optimal performance. These key staff and firms are not only well-trained in their disciplines, they also come together with a shared past history on successful projects and have established working relationships. Many of the team members have spent significant amounts of time working in the Salem District with the same VDOT staff members who will be responsible for this design build (D-B) project. Our Key Personnel offer extensive experience not only with construction and roadway, structural and traffic engineering but also with

delivering D-B projects to VDOT standards. The DLB D-B Team – including Key Personnel – will remain intact for the duration of the Project, providing VDOT and the Project with continuous and consistent leadership and services. Our Key Personnel have noteworthy experience on transportation projects similar to their roles on the *I-81 Bridge Replacement at Exit 114* project.

Detailed information regarding their qualifications and experience can be found in their resumes in Section 3.3.1 of the Appendix.

K	ey Personnel	
ENT	Jeremy Hendrick, PE Design Build Project Manager	<ul> <li>Worked for VDOT - both as an employee and a consultant - managing design and QA for</li> </ul>
***	Primary Point of Contact for VDOT and all other	VDOT, and as a heavy civil contractor.
	stakeholders.	Multiple D-B projects and projects with relevant
***	Responsibilities	elements
	<ul> <li>Coordination of all aspects of the project design and</li> </ul>	o Interstate bridge construction,
	construction	o Highly variable sub-surface conditions
	<ul> <li>Meeting Design-Builder's obligations, and avoiding</li> </ul>	• Complex maintenance and protection of traffic
	and resolving disputes	<ul> <li>Significant stakeholder coordination and public</li> </ul>
	<ul> <li>Leading all public outreach and public meetings</li> </ul>	engagement experience

<ul> <li>Ben Lineberry, PE Quality Assurance Manager</li> <li>Reports directly to the DBPM and has direct, independent access to VDOT</li> <li>Responsibilities         <ul> <li>QA inspection and testing</li> <li>Monitoring contractor's QC program</li> <li>Ensuring all work and materials, testing and sampling are in compliance with plans and specifications</li> </ul> </li> </ul>	<ul> <li>Design and construction of transportation infrastructure</li> <li>Ten years working for VDOT, most recently as an ACE in the Staunton District</li> <li>With Volkert involved with providing quality assurance services on six VDOT D-B projects</li> <li>Brings a partnering approach as a key to project risk mitigation</li> </ul>
<ul> <li>Keith Weakley, PE, DBIA Design Manager</li> <li>Reports directly to the DBPM</li> <li>Responsibilities         <ul> <li>Coordination of all design disciplines</li> <li>Ensuring design is in conformance with Contract Documents</li> <li>Establishing design QA/QC program</li> </ul> </li> </ul>	<ul> <li>Manages complex projects, coordinating multiple design disciplines, while ensuring designs conform with Contract Documents</li> <li>As structural and roadway design engineer brings invaluable perspective to the project</li> <li>Expert in jointless bridge technology</li> <li>Excellent technical manager of support staff</li> </ul>
<ul> <li>Gene Hubbard Construction Manager</li> <li>Reports directly to the DBPM</li> <li>Will be on site for the duration of the project</li> <li>Responsibilities:         <ul> <li>Managing construction process including QC</li> <li>Ensuring materials and work meet contract requirements and approved plans and specifications</li> </ul> </li> </ul>	<ul> <li>33 years of construction management experience, including complex bridge projects.</li> <li>Broad background provides foresight to prevent issues before they arise.</li> <li>Familiar with the Salem VDOT staff with knowledge of accepted work practices</li> </ul>

#### **3.3.2 ORGANIZATIONAL CHART**

The DLB D-B Team Organizational Chart on Page 6 identifies Key Personnel members and depicts the reporting structure of the team. Great care has been taken to provide the team and VDOT with access to all areas of expertise with the potential to impact the project – regardless of the magnitude of the impact. This comprehensive knowledge allows the team to seamlessly coordinate design and construction, integrating common sense engineering with efficient construction means and methods.

The DLB Team's Organizational Chart illustrates the interconnected and collaborative relationships among our design, construction and support teams. **Solid lines** identify the direct lines of reporting relationships of our team members from the DBPM to the Design, Construction and QA teams. **Dashed lines** represent

#### The following firms will support DLB and Volkert on this project:

- ECS Mid-Atlantic QC inspection & laboratory services
- GeoConcepts Engineering geotechnical engineering
- Mattern & Craig survey services
- 3B Consulting Services ROW
- Stantec Consulting Services environmental compliance and utility coordination

indirect reporting relationships along with obligations and communications to the DBPM and team members.

The DLB Team will seamlessly coordinate design and construction, integrating common sense engineering with efficient construction means and methods. The Organizational Chart also includes VDOT and third-party stakeholders, all integral partners in the successful delivery of the Project. We recognize the importance of inclusivity of the stakeholders throughout the development of the Project, and how they will contribute to successful delivery.

A clear and independent separation of QA and QC for construction activities has also been shown. Independent AMRL-certified QA and QC labs will be

used; and the reporting structure for Quality Assurance shows a clear separation from the Construction

operations and field/laboratory testing duties. Our Quality (both QA and QC) staff's responsibilities go beyond keeping records and testing materials. Their roles include the traditional duties of a VDOT inspector and providing definitive direction to address non-compliance/non-conformance issues.

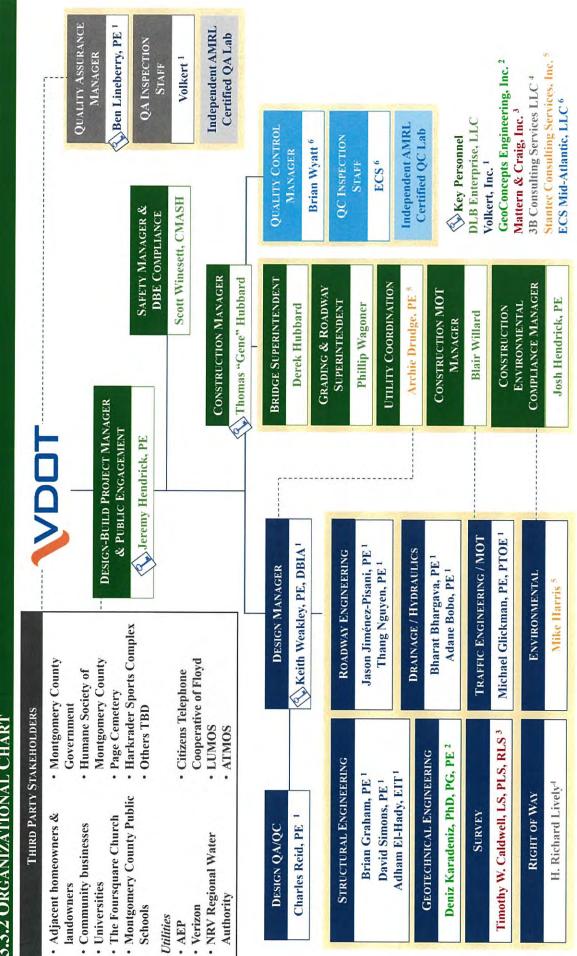
Our goal regarding QA/QC is to establish a partnering relationship that minimizes or even eliminates non-conformances prior to occurrence by convening regular pre-activity meetings, ensuring that Contract requirements are included in the plan.

ADDITIONAL EXPERTISE ON THE ORG CHART

In addition to the Key Personnel with resumes in Section 3.3.1, the DLB Team has personnel with specific expertise pertinent to the elements of the *I*-81at Exit 114 project. They also are committed for the duration of the project, in the critical roles noted below:

Personnel	Expertise
Deniz Karadeniz, PhD, PG, PE Geotechnical Engineering 18 years of experience Reports to DM Archie Drudge Utility Coordination 43 years of experience Reports to CM	<ul> <li>Providing geotechnical services, offering a unique combination of geotechnical and geologic engineering</li> <li>20+ transportation projects in the last two years</li> <li>Eight VDOT design-build projects in the last two years</li> <li>PM and transportation engineer</li> <li>Projects including the design, utility relocation / coordination and construction of small urban intersections, rural roadway improvements and large interstate highway projects</li> </ul>
Michael Glickman, PE, PTOE MOT/Traffic Engineering 21 years of experience Reports to DM	<ul> <li>Roadway design projects, TMPs, MOT plans and traffic impact studies.</li> <li>Experience working on the I-81 corridor – managed Phase 1 design of modifications for the I-81, Exit 310 Interchange.</li> <li>Developed complex Type C TMPs for VDOT D-B projects:         <ul> <li>I-495 Shoulder Lane Use</li> <li>Rehabilitation of I-66</li> <li>MLK Expressway Extension on the MidTown Tunnel Project,</li> </ul> </li> </ul>
Blair Willard Construction MOT Manager 8 years of D-B experience Reports to CM	<ul> <li>Six D-B projects in North Carolina, Virginia, and Tennessee – all of which occurred on the Interstate Highway System</li> <li>Cumulative experience provides requisite expertise to manage and facilitate the MOT along the heavily congested I-81 corridor</li> </ul>
Mike Harris Environmental Services 20+ years of experience Reports to DM	<ul> <li>Develops and manages environmental compliance and mitigation programs</li> <li>Provides site and cultural resource assessments, natural resources surveys, water quality permitting and stream and wetland restoration designs</li> <li>Previously served as an Environmental Planner for VDOT's Salem District         <ul> <li>Prepared environmental studies and reports and analyses to assess impacts of highway and maintenance projects</li> <li>Managed environmental and natural resource compliance</li> <li>Responsible for early scoping, permit acquisition, T&amp;E studies/coordination, cultural resource coordination, and mitigation</li> </ul> </li> </ul>
Josh Hendrick, PE Construction Environmental Compliance Manager 11 years of experience Reports to CM	<ul> <li>Worked on a wide variety of environmentally sensitive projects</li> <li>Designed, inspected, and installed environmental and stormwater management facilities</li> </ul>
H. Richard (Rick) Lively Right of Way Services 30+ Years of experience Reports to DM	<ul> <li>Former VDOT Special Projects Team Leader, Western Region, providing project review, oversight and director for D-B, PPTA, PE and LAPs</li> <li>Project Manager for the successful \$108 million 460 Phase 2 Connector Project</li> </ul>

# **3.3.2 ORGANIZATIONAL CHART**



## 3.4 Experience of Offeror's Team

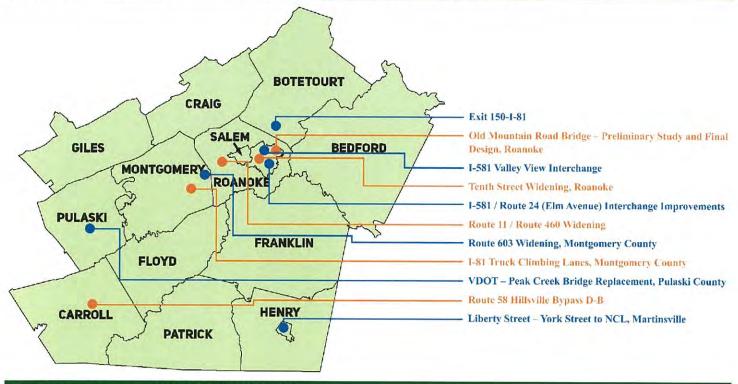
Per RFQ Instructions, Lead Contractor and Designer Work History forms are provided in the Appendix.

The DLB Design-Build Team members have successfully delivered numerous VDOT Design-Build and Design-Bid-Build projects and have a proven track record of completing projects within schedule and budget. The Team's firms and personnel bring invaluable knowledge to the project: how to construct the project, with whom we need to coordinate, and how to facilitate seamless coordination throughout design and construction, and with all of the stakeholders. Our collective experience and expertise results in a highly-

With multiple team members with experience not only serving VDOT as a consultant, but also having worked for VDOT, the Team knows how to successfully integrate design and construction, and what it takes to deliver a successful project within budget and schedule.

qualified team for the *I-81 Bridge Replacement at Exit 114* project, well-equipped to provide common-sense engineering solutions seamlessly integrated with construction delivered within budget and schedule.

Not only do our team members bring knowledge of their disciplines and one another through shared project experience, they also bring substantial experience working in and for the Salem District.



#### LEAD CONTRACTOR - DLB ENTERPRISES

Mr. Donald Branscome founded DLB in 1978 and remains the President of the company today, still operating from their original home office in Hillsville, VA. While DLB was acquired by Fielder's Choice Enterprises – another road and bridge contractor, located in Charlottesville, VA – DLB still operates as an independent organization, bringing VDOT their design-builder and local expertise.

As Lead Contractor and Offeror, DLB has been serving the Commonwealth for more than 40 years, and has successfully delivered several hundred projects, including numerous projects demonstrating experience with the scope, risks and associated mitigation strategies relevant to the *I-81 Bridge Replacement at Exit 114* project. Since 1997 this expertise has been honed by delivering more than 100 contracts for VDOT as a prime contractor, representing more than \$217M in construction value, while completing more than 30 additional transportation contracts for localities and NCDOT, representing another \$116M in construction value. In addition to the projects provided in Attachment 3.4.1 (a), the following projects highlight DLB's ability to self-perform the construction of relevant projects, providing VDOT with seamless and efficient services.

**Route 114 Widening and Pedestrian Bridge** – DLB provided complete construction services for the addition of two through lanes, one center turn lane, associated turn lanes, a four-span pedestrian bridge, and the reconstruction of the two existing lanes for a two-mile segment of Route 114 within the limits of the Town of

Christiansburg. This challenging \$13.5M project included the implementation of a meticulous maintenance of traffic plan to safely accommodate the 15,000+ motorists that travel Route 114 daily. To accommodate the roadway construction, extensive utility relocation was necessary along the entire length of the project. Additionally, a four-span pedestrian bridge was constructed to provide a safe means of passage across Route 114 for patrons utilizing the Huckleberry Trail.

Route 11 / Route 460 Widening, Salem and Roanoke County, VDOT - DLB provided complete construction services for the widening of 2.2-mile section of three-lane roadway to five lanes. (I-81 Bridge Replacement at Exit 114 QA Services provider, Volkert provided the full spectrum of construction engineering and inspection for the project.) This \$23M project included a raised median, left- and right-turn lanes at intersections and crossovers, a bridge with 35 drilled shaft foundations, triple- and double-box culverts, traffic signals, more than two miles of water and sanitary sewer mains and six miles of storm drainage with stormwater management ponds and outfalls under the Norfolk Southern Railroad tracks into the Roanoke River. Unknown and complex soil conditions complicated the installation of the storm drain pipes and the 36-inch drilled shafts for the new bridge were challenging given the karst topography.

Progress Street Extension/ Givens Lane - Blacksburg, VA - This \$7.3M project was constructed for the Town of Blacksburg in coordination with VDOT's Salem District as a Locally Administered Project. It consisted of the reconstruction of Givens Lane and construction of the Progress Street Extension, including more than 1.4 miles of roadway construction as well as a single span bridge across a walking trail. The bridge was constructed on top of H pile foundations and included approach slabs on either end. The project included two roundabouts, utilities, curb and gutter, asphalt pavement, segmental block retaining walls, and MSE retaining walls. (I-81 Bridge Replacement at Exit 114 QA Services provider, Volkert provided the full spectrum of construction engineering and inspection for the project.)



#### SUBCONTRACTOR - QUALITY CONTROL



Over the last 10 years, ECS has completed 300+ transportation projects in support of new or existing VDOT infrastructure. The following projects demonstrate their substantial experience with

providing testing and laboratory services for projects similar to I-81 Bridge Replacement at Exit 114:

Route 58 Hillsville Bypass D-B, Hillsville, VA provided QC Testing including CTA testing and coring of previous placed cement-treated aggregate, compaction and laboratory testing for embankment fills, soil cement, cement-treated base, portions of two bridges, and other miscellaneous concrete.

addition of the southbound exit and northbound entry ramps, auxiliary lanes to Hershberger Road interchange, repair and widening of the Valley View Boulevard Bridge, the retaining walls along the auxiliary lanes, and the northbound exit/entry ramps.

I-581/Rte. 24 (Elm Avenue) Interchange Improvements D-B, Roanoke, VA, VDOT - ECS provided Quality Assurance testing in both the field and laboratory for the improvements of the existing I-581 and Elm Avenue interchange immediately adjacent to Downtown Roanoke. The improvements encompassed the widening of the existing bridges carrying Elm Avenue traffic across I-581 and the Norfolk Southern Railroad parallel to I-581

I-581 Valley View Interchange D-B, Roanoke, VA, **VDOT** - provided QA laboratory testing for the

VOLKERT, INC. - LEAD DESIGNER & QUALITY ASSURANCE

As designers, Volkert works closely with design-build contractors to develop 30% KERT design plans for owner evaluation and prepares final plans often on accelerated schedules, for highway and bridge infrastructure projects. Design services include:

- Planning and implementation of roadway design
- Bridge design (new, rehabilitation, widening, replacement) ranging in complexity and cost
- Alternative intersection and interchange analyses and design
- \*\*\* Development of concurrent design and construction activities involving complex phased construction and sequencing plans

- Analyses of constructability and traffic management issues on urban roads and interstates with high traffic volumes
- Development of Transportation Management Plans
- CPM schedule development and analyses

The Volkert design team brings a flexible, collaborative and solutionsoriented approach to each project. Whether the challenge is karst topography, high-volume/high-speed traffic, demolition issues, utility coordination, environmental compliance or a combination of these elements, they have a proven history of partnering with the design-build contractor, VDOT and 3<sup>rd</sup> party stakeholders to reach optimal solutions.

Volkert's quality assurance team brings a partnering approach to every project as a primary risk mitigation strategy. Lines of communication are established and issues are resolved at the lowest level possible.

#### As Quality Assurance Managers (QAM), Volkert's construction engineers and senior inspectors

Volkert's design team brings demonstrated experience fostering cohesive and collaborative design and construction teams who have planned risk avoidance measures during the design process which results in the successful delivery of projects on schedule and within budget.

conduct QA testing and inspection services to confirm that construction, material testing, and sampling are performed in compliance with contract requirements, approved construction plans, and specifications. Their value to the team lies in their partnering approach to projects and their ability to bring innovative solutions to issues in the field.

In addition to the projects provided in Attachment 3.4.1 (b) which highlight projects similar to *I-81 Bridge Replacement at Exit 114* the following projects demonstrate Volkert's expertise on design-build projects for which the firm provided design and QAM services:

**I-495 Northern Section Shoulder Lane Use Design-Build Project, Fairfax County, VDOT** – As Lead Designer and QAM, Volkert provided civil and traffic engineering and quality assurance services for this \$15M project providing use of a shoulder lane. The team met the accelerated design schedule of two months, and provided justification for a design waiver. The QA team successfully resolved challenges related to the increase of the super elevations across five lanes, and the interfacing of existing technology with the new ITS elements.

**I-66 Rehabilitation Design-Build Project, Fairfax County, VDOT -** As Lead Designer and QAM, Volkert provided design, quality assurance, and public outreach services for this \$43M pavement rehabilitation project along a 6.5-mile segment of I-66. Volkert developed a complex TMP that maintained traffic for more than 170,000 motorists per day. Design and construction was divided into seven work packages which allowed for greater flexibility as potential issues with one work package did not delay construction on other components of the project. The work packages were quickly approved by VDOT based on Volkert's proactive approach, design quality, and compliance with VDOT requirements. A temporary pre-cast modular patching system, devised by Volkert and the D-B contractor, was used to extend nighttime production hours and accelerate construction. QA services included meticulous project documentation, meeting federal ARRA requirements.

**Rolling Road / Franconia-Springfield Parkway Interchange Improvements D-B, Fairfax County VDOT** – Volkert provided structural design and QAM services to support the D-B delivery of improvements to this interchange. Volkert developed plans for the rehabilitation of a three-span, steel-girder, concrete-slab bridge, including the demolition and adjustment of the bridge median; retaining walls; overlaying the existing bridge deck with latex concrete; and repairs to the superstructure and substructure, which included pier protection.

Volkert's QAM worked with the contractor and quality control team to plan safety for motorists and pedestrians into every operation; and to anticipate and resolve field issues before schedule and budget were affected. For example, Volkert's review of the contractor's sequence of construction plans found that it was out of sequence for proper joint reconstruction. Once the issue was identified, it was quickly resolved and delays were avoided. In addition, Volkert determined mitigation measures to resolve areas of unsuitable soils during excavation including the use of geo-grid to reinforce the soil, replacement of soil with on-site suitable soil, and replacement with suitable soil with lime and other amendments. Volkert modified the temporary traffic control plans to increase safety and efficiency; and replacing barrels with concrete barriers eliminated the need to put up and take down a safety wedge of dirt and stone to protect motorists from a 12-inch drop off.

#### SUBCONSULTANTS

GeoConcepts Engineering, Inc.

Geotechnical Services VDOT Route 603

Widening, Elliston, VA - Provided geotechnical services including 61 soil test borings with 630 linear feet of rock coring and groundwater monitoring wells. Services also included planning, coordination, implementation, and interpretation of an electric resistivity geophysical survey that included 15 survey segments. The survey was completed in order to determine if - *as expected on the I-81 Bridge Replacement at Exit 114 project* karst features related to limestone geology were present. GeoConcepts provided recommendations regarding depth to bedrock and the potential for the presence of mud seams, voids, and sinkholes within the planned roadway widening area.

**VDOT I-81 Exit 310 Interchange Modifications, Frederick County, VA -** As a subconsultant to Volkert, conducted a geotechnical engineering investigation for the demolition and construction of several lanes and ramps. A thrust fault running along the eastern side of the clover-leaf area at Route 11 increased the potential for sinkhole formation. As a result, provided recommendations for sinkhole remediation during site development.

**VDOT Harrisonburg Residency Bridge Replacement Projects, Rockingham and Augusta Counties, VA:** As a subconsultant to Volkert, provided geotechnical engineering design services for the replacement of five bridges. Geophysical testing (electric resistivity) was utilized in some areas due to the local karst topology.

VDOT Sycolin Road Overpass of the Route 7/Route 15 Bypass Design-Build, Leesburg, Loudoun County, VA - Provided geotechnical engineering services for construction of a grade separated bridge similar to the *I-81 Bridge Replacement at Exit 114 project*. Recommendations were provided regarding bridge foundations, bridge abutment retaining walls, noise barrier walls, pavements, pipe culverts, earthwork, rock excavation, and global and slope stability.



#### Survey Services

**Roanoke County, VA** - Complete location survey for two miles of Limited Access Roadway on I-81. Survey responsibilities included: GPS project control, aerial photography control, property research, hydraulic, and bridge. Corridor Study, Right of Way & Construction Plans Erickson Avenue / Stone Spring Road Connection and Bridge, Harrisonburg, VA – For

a project very similar to the *I-81 Bridge Replacement at Exit 114* project, provided aerial mapping and topographic survey for the project which included replacement of bridge over I-81 for Stone Spring Road, design of two crossings of NS railroad mainline tracks, one at-grade crossing and one grade separation, a four-five lane urban minor arterial, sidewalks and on-street bicycle lanes; two miles of widening and 1.4 miles on new location.

VDOT Region III Bridge Replacements,

Staunton, Culpeper & NOVA Districts - Complete engineering and surveying services for field inspection, survey and preparation of bridge, approach roadway, permit, right-of-way, maintenance of traffic, quality control/quality assurance, erosion and sediment control documents for 23 bridge superstructure replacements and one bridge deck replacement of Route 657 Bridge over I-81 as part of design-build project for VDOT on a 12 month fast-track schedule.



Environmental Services Utility Coordination

**Route 603 Ironto /Elliston** 

**Connector, Montgomery County, VA -** Provided environmental services including natural resources, permit determination, documenting avoidance and minimization, threatened and endangered species clearance, and permit acquisition for the realignment of a 2.01-mile section of Route 603. In addition to permit acquisition, acquired clearances for the federal and state endangered Roanoke logperch and Indiana bat through completion of a Maternity Roost Tree Habitat Assessment.

**Route 773 Bridge Replacement over Roanoke River, Montgomery County, VA -** Provided environmental monitoring for the purpose of evaluating and documenting construction operations to ensure compliance with the US Fish and Wildlife Service's Biological Opinion Terms and Conditions and USACE permit conditions. The replacement of the existing Route 773 bridge over the Roanoke River required construction within the ordinary high-water limits of the Roanoke River. This was complicated by the presence of the federal and state endangered Roanoke logperch Roanoke logperch at the site.

**Route 1 North Widening Project, Prince William County, VA** – As Stantec will be doing for the *I-81 Bridge Replacement at Exit 114 project*, provided utility design and relocation coordination for the two-mile road widening improvement project upgrading from an existing four lane undivided section to six lane divided roadway. Services included 10,000 feet of new water main, 1,000 feet of sanitary sewer, and approximately 1.5 miles of dry utility duct bank.



DEMONSTRATED COLLABORATIVE SUCCESS

served as the Project Manager for right-of-way acquisition for this project with a combined parcel count of 210 with 15 relocations. He managed and coordinated the work efforts of the consultants, as well as working with numerous VDOT department personnel and City representatives to ensure the project was a success.

#### I-81, Exit 150, Botetourt County, VDOT

Mr. Lively served as the PM for this project which consisted of 24 commercial property parcels, which included two total acquisitions and the relocation of a truck stop, which involved 36 relocations. Mr. Lively successfully negotiated six of these parcels to settlement when negotiations stalled.



As demonstrated by chart below the DLB Team brings strength through the shared and combined experience of our subconsultant firms. Individually each team member firm is strong and reputable with relevant experience. They each bring expertise to address specific project elements, mitigate anticipated risks and ensure successful project delivery. Together, the DLB Team is exceptional as shared experience and combined expertise will allow the team to find innovative solutions to issues as they arise. (Shown to the left: I-581 Valley View Interchange D-B on which multiple members of the DLB team worked.)

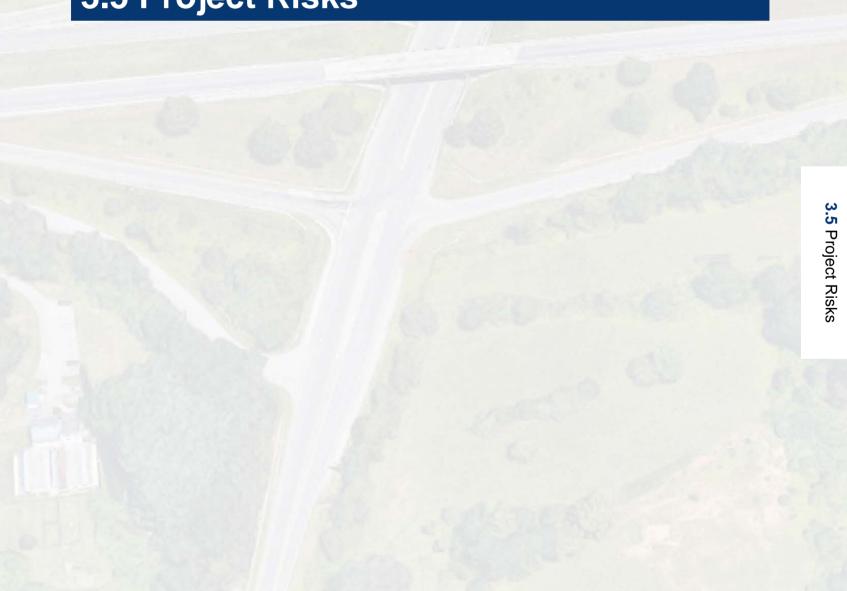
		DI	BI	'ean		mbe				Mit	tigat	ed R	lisks	_
<b>VDOT Project Name and Location</b> *Some projects were performed by team personnel before they joined a team member firm.		ECS Mid-	Volkert - Design	Volkert - QA	GeoConcepts	Mattern & Craig	Stantec	<b>3B</b> Consulting	Complex MOT			Bridge	Utility	Environmental
I-581/Route 24 (Elm Avenue) Interchange Improvements D-B	~	~	~					~	~	~	~	~	~	~
I-581Valley View Interchange D-B	$\checkmark$	$\checkmark$				~		$\checkmark$	~	~		~	$\checkmark$	$\checkmark$
I-81 Truck Climbing Lanes D-B, Montgomery County	$\checkmark$						$\checkmark$	$\checkmark$	~	-				$\checkmark$
Route 58 Hillsville Bypass D-B	$\checkmark$	$\checkmark$	~				$\checkmark$	$\checkmark$		$\checkmark$		~	$\checkmark$	$\checkmark$
Stone Spring Road over I-81			~			$\checkmark$			~	~	~	~	$\checkmark$	
I-81/Route 50 Interchange Ramp over Abram's Creek			~	$\checkmark$					~	~	$\checkmark$	~	$\checkmark$	$\checkmark$
I-81 Exit 310 Interchange Modifications			$\checkmark$		$\checkmark$				~	~	~	~	$\checkmark$	$\checkmark$
Route 603 Widening	$\checkmark$				~	1.1	~		$\checkmark$	~	11		$\checkmark$	$\checkmark$
Bridge Replacement over Cedar Creek, Phase IA		e ()	~		$\checkmark$		(in 1		~	~		~	$\checkmark$	$\checkmark$
US Route 15/17/29 Business Interchange, Phase I	1-1		$\checkmark$		~		$\checkmark$				~	~		
Harrisonburg Residency Bridge Replacements			~		$\checkmark$			100	~	~	$\checkmark$	~	~	
Tye River Bridge and Approaches D-B				$\checkmark$	$\checkmark$				~	~		~	~	$\checkmark$
Route 11 / Route 460 Widening	$\checkmark$	1		$\checkmark$					$\checkmark$	~		~	~	$\checkmark$
Tenth Street Widening, Roanoke	$\checkmark$	1	-					$\checkmark$	~	~			~	~

#### 3.4.1 WORK HISTORY FORMS

Work History Forms for the Lead Contractor (Attachments 3.4.1(a)) and the Lead Designer (Attachments 3.41(b)) are included in the Appendix.

VDOT I-81 BRIDGE REPLACEMENT AT EXIT 114, RFQ NO.: C00093074DB96

# 3.5 Project Risks



#### **3.5.1 Identification of Three Unique Risks**

The DLB Team recognizes the importance of mitigating all risks to the project in order to successfully deliver the project. Through thorough and careful review of all RFQ package documents and after numerous site visits to understand existing conditions and constraints, the team has identified the three most significant risks to the project. The DLB Team not only has the requisite experience but each member is also committed to resolving these risks by proactively establishing strategies for mitigation as outlined below.

#### **RISK # 1: IMPACTS OF GRADE DIFFERENTIAL**

*Risk Identification:* There exists a grade differential between the two structures along I-81 that are to be replaced during this project. In its current condition, the southbound (SB) bridge is located at a grade that is approximately three feet higher than that of the northbound (NB) bridge. While reconstructing the bridges is a priority because of their less than desirable physical condition, this project will also provide an increase in the clearance height over Route 8. Being able to accommodate the needed clearance of the structures over Route 8 requires that the new SBL and NBL finish grade lines be increased by at least four feet and three feet respectively. The grade separation that is present in the existing structures will be further complicated during construction as the structures are raised, and poses a significant risk to the success of the project not only because of inherent constructability issues but also because of the complications to directing traffic through the work zone in a safe manner.

Why this Risk is Critical: Phased bridge construction while maintaining traffic is always difficult because the work area is typically limited in size, and oftentimes traffic is flowing on both sides of the work zone. Introducing a grade separation such as shown on the *I-81 Bridge Replacement at Exit 114* project greatly compounds the complexity of the project because not only will we deal with phased construction, but we will also have to address drop off conditions created by the grade separation. This has the potential to affect both safety and quality on the project.

Introducing a grade separation in addition to the phased bridge construction greatly compounds the complexity of the project.

*Risk Impact to the Project*: The biggest risk in association with the grade separation is safety for both the traveling public and the construction forces that will complete the work. Given the fact that during portions of the project the NB and SB traffic will be moved closer to one another there is an increased risk for vehicular accidents. The grade separation also creates a higher risk because not only is there concern about side or angle impact collisions, but the retaining walls and temporary shoring systems that will be utilized must protect

#### The biggest risk is safety of both the traveling public and the construction forces.

against collisions with fixed objects <u>and</u> the potential for a vehicle to be launched into oncoming traffic that is at a lower elevation. The vehicles traveling through the work zone pose a safety risk to construction personnel, and there is also a risk of flying objects thrown or falling from vehicles traveling at an elevation above the construction workers.

An additional associated risk item requiring attention is overcoming the quality challenges that exist when constructing roadway sections and structures with grade separation. Referencing the RFQ plans both temporary and permanent measures will be required to construct the new structures as shown and attention must be given to the process of matching adjoining roadway sections so no problems develop with the fill material or asphalt

The DLB Team recognizes that risks increase at a more rapid rate as project time elapses.

sections along these longitudinal marriage lines. The DLB Team recognizes that these risks do not have a linear relationship with time spent on the project. Rather the correlation between time and safety/quality is an exponential relationship meaning the risks increase at a more rapid rate as time lapses.

*Mitigation Strategies:* The most logical and effective way to mitigate the risk associated with the grade separation is to lessen the amount of time that the traveling public will be shifted into temporary traffic patterns and navigating the grade separation construction. The DLB Team has spent significant time researching the RFQ plans and possible design options to shorten the construction time line in order to get vehicles into their final traffic pattern as quickly as possible.

Review of the RFQ plans shows the two proposed structures being completed in three phases of construction with demolition taking place in the latter two phases. A brief summary of the planned activities:

- 1. Build approximately two-thirds (2/3) of the new SB bridge in the median area of I-81 with NB traffic then temporarily switched onto the new structure.
- 2. The existing NB bridge will then be demolished and the new NB structure will be built. After completion, the NB traffic will be switched onto the new structure and placed in its final configuration.

- 3. At this point the SB traffic will be temporarily shifted to the inside portion of the new SB structure completed in the first phase. The old SB structure will then be demolished and construction of the remaining one-third (1/3) of the bridge completed.
- 4. When all of this work is completed, all traffic lanes will be placed into final configuration.

The DLB Team proposes the following changes to the bridge design so construction can be completed in two phases. This plan places the interstate traffic into its final configuration much more quickly, therefore reducing the risks mentioned above - which as noted increase

exponentially over time. The DLB team's proposed design will have one large bridge structure instead of two. By raising the proposed elevation of the NB bridge, we can construct one larger bridge instead of two separate structures. Therefore, while there will still be temporary grade separation challenges during a portion of construction, the impacts will be minimized The DLB Team proposes completing the bridge design in two phases, in order to mitigate the risks to safety of the traveling public associated with the construction traffic patterns.

due to the time savings and the grade separation will be eliminated once the project is in its final configuration. The phasing will be as follows:

- 1. Build the new NB portion bridge in the median of I-81. *Please Note: building this bridge at a higher elevation will not cause the project limits to be extended.* Following completion of this portion of the structure the SB traffic will then be placed on the new bridge structure.
- 2. During the second phase, the old SB structure will be demolished and the remainder of the new bridge will be constructed.
- 3. Traffic can then be placed into its final configuration on the new facility. Once the traffic change occurs the old NB bridge will be demolished. However, this will have minimal impact to the traveling public and will not affect their permanent traffic configuration.

By altering the design as DLB proposes, we reduce the number of phases of construction which allows the substantial completion of the project to be accelerated. This acceleration will reduce the time the traveling public is inconvenienced which yields a safer and higher quality project. In addition, by eliminating the grade separation in the new design, the proposed retaining walls running within the median both to the north and south of Route 8 can be eliminated, resulting in time and cost savings.

*Role of VDOT and Other Agencies:* VDOT Salem District's role will include the review and approval of the new structure design, Sequence of Construction (SOC) and the Transportation Management Plan (TMP) submittal packages. It is anticipated that the District staff will remain involved in the public outreach process during the course of the design and construction of the project.

#### **RISK # 2: BRIDGE DEMOLITION**

**Risk Identification:** One of main reasons the bridge structures on this project are being replaced is due to their current condition. When performing a visual inspection of the bridge the areas of concern and need for corrective action are very evident. Areas of concern included delamination of the concrete deck, damage to the steel girders and their coatings, bearings that need replacing, substructure components with cracking and exposed rebar, as well as damaged joint seals.

The poor condition of these two bridges presents an elevated risk in the area of demolition which is twofold. First, we must protect the traveling public on Route 8 that will be driving underneath this structure during the life of the construction project. Secondly, we must also be cautious about the effect that demolition efforts will have to portions of the existing structures which remain under traffic.

*Why this Risk is Critical:* On every construction project that takes place the DLB Team recognizes that safety is *always* paramount and in the forefront of every work activity. Not only are we cognizant of the safety for our construction team members but we are also proactive in our approach to safety for vehicles and pedestrians that travel through our work zones.

Demolition activities are always sensitive portions of work because we must prevent construction debris from falling onto the citizens traveling beneath our work operations – in this particular case it would be Route 8 traffic. Falling debris may cause damage to property but also could cause bodily injury or death, and the fragile state of the bridges raises the probability of falling debris.

In addition to safety concerns noted above, the traveling public could be greatly inconvenienced if the demolition causes weakening of the structure in other areas of the bridge that are open to traffic. Anytime we create traffic backups on I-81 there is a negative effect on the area in terms of both safety and economic impacts, not to mention the public relations implications.

*Risk Impact to the Project:* The impacts to the project due to the risk associated with demolition are both minor and major safety concerns. In addition, there is the potential need to close open lanes of traffic or even shut down the interstate. Neither one of these scenarios is an option.

*Mitigation Strategies:* The mitigation strategy for the increased risk of

Demolition activities are always sensitive portions of work because we must mitigate the unsafe conditions associated with falling construction debris.

demolition has two components. The first component, which was outlined in the Risk #1 Impacts of Grade Differential discussion, is the DLB Team's proposal of an alternate design which involves constructing a single bridge on the same grade instead of two independent structures with a grade differential. This new design shortens the construction duration and places traffic back into its permanent configuration at an accelerated rate. By shortening the construction duration, the existing bridges are taken out of service more quickly, decreasing the probability of further structural deficiencies and the associated negative impacts to traffic.

To enhance safety, DLB proposes a complete and thorough protection system when the demolition process is over Route 8 traffic.

The second component to the mitigation is a complete and thorough protection system when the demolition process is over Route 8 traffic. Some contractors will provide a phased protection system, and others will propose night time work with intermittent lane closures and flagging operations on the roadway beneath.

Rather than these approaches. The DLB Team will couple a complete protection system with minimizing traffic impacts through the use of night

time operations during construction and removal of the falsework system. When demolition starts we will build a "falsework" system underneath all parts of the structure with any potential to reach the pedestrians and vehicles traveling on Route 8. The system will consist of plywood forms attached to the underside of the existing steel bridge beams, which keeps the existing vertical clearance for Route 8 virtually the same (less than an inch difference). Once this "falsework" is in the place the bridge deck and concrete parapet will be removed and disposed of.

A complete protection system and a shorter construction duration provides a much safer project.

This work will take place during daytime operations with work forces increased through longer shifts so the time frame for demolition is minimized. Once all of the concrete is removed the small pieces that remain on top of the falsework will be cleared (and even vacuumed) to make sure there are no remaining hazards. The crews will then switch to night time operations to remove the falsework operation. A crane will then be utilized to remove the old steel girders over Route 8.

Using this approach, the estimated time for demolition of the bridge areas over Route 8 will be three weeks for each structure for a total of six weeks. This is a very aggressive but attainable schedule and DLB has proven this method on previous projects.

Strategy Benefits: Providing a shorter construction schedule and the devices mentioned above will provide a much safer project for both the construction team and the traveling public on I-81 as well as those passing under the construction area on Route 8.

*Role of VDOT and Other Agencies*: VDOT will be responsible for review and approval of the demolition sequence and plan of operations. VDOT will assist the contractor in public outreach during these operations to make sure everyone is aware of the demolition activities and the temporary traffic disruptions that will be required on Route 8 for the few night shift operations needed in association with the falsework and removing the steel girders. It will also be essential for the DLB Team and VDOT to work together to maximize windows of work opportunity so the required work shifts can be minimized which reduces the risks during demolition.

#### **RISK # 3: BRIDGE CONSTRUCTION IN KARST TERRAIN**

Identification: According to the Geologic Map of Virginia, the project site is located in the Great Valley Subsection of the Valley and Ridge Physiographic Province, and is mapped as underlain by the "Lower Ordovician and Upper Cambrian Formations Undivided" as defined in the 1993 Geologic Map of Virginia. This unit can include the Pinesburg Station Dolomite, Rockdale Run Formation, Beekmantown Formation, Stonehenge Limestone, and Conococheague Formation. All of these units are either limestone or dolomite, and therefore are prone to solution activity forming karst terrain, characterized by the presence of sinkholes, caves, large springs, and a pinnacled and irregular bedrock/overburden interface. These formations are located in the relatively undeformed "Christiansburg Window" within the Pulaski Thrust Zone, an area of low-angle thrust faults.

The project site is underlain by limestone bedrock that is susceptible to solutioning and karst activity that may result in short and long-term project risks. A major difficulty with karst is locating subsurface anomalies. The construction of bridge piers and retaining walls/embankments over the karst terrain may result in differential settlement of the existing soil/rock profile under the weight of new fill, from subsurface erosion, or from sinkhole collapse.

*Why this Risk is Critical:* This risk is critical due to the chance of differential settlement if structures are built on cutter-and-pinnacle karst. Settlement magnitude and duration can require staged embankment construction, which lengthens overall construction schedules, while delivering poor performance. Subsurface erosion and sinkhole collapse can lead to structural failure and pavement subsidence.

*Mitigation Strategies:* The DLB Team fully understands that no two karst sites are exactly alike in topography and geology, and each site requires the use of different combinations of investigation methods. Accordingly, a robust field investigation program will be developed to support accurately determining the subsurface profile.

In order to verify the variability of the existing soil/rock at the bridge location, we will drill test borings and perform air-track probes (*see photo to right*) during the design phase of the project. The DLB Team understands that the more specific data we can collect at exact foundation locations, the higher the chance of mitigating this risk. For example, if micropiles are utilized then we would do as many air-track probes in the same location and orientation as the proposed design. Accomplishing this task requires a thorough foundation design so our team will work expeditiously upon contract execution to provide an acceptable design so the sub-surface investigation can begin.



Air-Track Probe

The DLB Team understands that the more specific data we can collect at exact foundation locations, the higher the chance of success at mitigating this risk. The investigation will be supplemented with geophysical surveys which better delineate the subsurface profile and depth-to-bedrock. In-house geophysical capabilities include electrical resistivity imaging (ERI), ground penetrating radar (GPR), Terrain Conductivity, and Seismic Refraction. The integrated interpretation of geophysical testing and drilling observations will best identify subsurface anomalies (karst features).

If karst features are encountered, cost-effective design/construction methods will be developed to remediate karst features and/or to minimize sinkhole development, such as reverse grading backfill of sinkholes. Based on the information gathered from the subsurface investigation and geophysical survey, foundation recommendations will be developed suitable to support the *I-81 Bridge Replacement at* 

The integrated interpretation of geophysical testing and drilling observations will best identify karst features.

*Exit 114* in the karst-prone geology. Both shallow and deep foundations will be evaluated, including micropile foundations if karst features are encountered below sub-structures. In addition to considerations regarding functionality, the foundation types selected will also take into consideration constructability methods and impacts to the overall project schedule.

Multiple methods of investigating and evaluating conditions will lead to the best mitigation strategies for the anticipated karst geology. *Strategy Benefits:* Explorations with various geophysical methods can provide useful information, but the degree of reliability varies. The test borings are planned to explore anomalies detected by geophysical explorations and terrain analysis. Once cavity presence has been confirmed at certain locations, air-track probes will be used for further evaluation. All of these methods will be used to delineate the significance and extent of the cavities; leading to the most cost-effective and efficient design of structures.

**Role of VDOT and Other Agencies:** As part of the RFP documents, it is expected that VDOT will provide a geotechnical data report (GDR) and boring logs in gINT or microstation format to help develop technical and price proposals for the improvements. Also, as-built plans of the existing bridge will be helpful to evaluate the future widening impact on the existing substructure. During design, it is assumed VDOT will provide the normal role of reviewing and approving the geotechnical investigation program and recommendations. A field exploration plan will be provided to VDOT's District Material Engineer for approval prior to commencing our field investigation. During construction, it is anticipated that VDOT will provide independent QA testing.



# 3.1.2 SOQ Checklist

3.1.2 SOQ Checklist

#### ATTACHMENT 3.1.2 Project: 0081-154-733

#### STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

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

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15- page limit?	SOQ Page Reference
Statement of Qualifications Checklist and Contents	Attachment 3.1.2	Section 3.1.2	no	Appendix
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	Appendix
Letter of Submittal (on Offeror's letterhead)				1
Authorized Representative's signature	NA	Section 3.2.1	yes	1
Offeror's point of contact information	NA	Section 3.2.2	yes	1
Principal officer information	NA	Section 3.2.3	yes	1
Offeror's Corporate Structure	NA	Section 3.2.4	yes	1
Identity of Lead Contractor and Lead Designer	NA	Section 3.2.5	yes	1
Affiliated/subsidiary companies	Attachment 3.2.6	Section 3.2.6	no	Appendix
Debarment forms	Attachment 3.2.7(a) Attachment 3.2.7(b)	Section 3.2.7	no	Appendix
Offeror's VDOT prequalification evidence	NA	Section 3.2.8	no	Appendix
Evidence of obtaining bonding	NA	Section 3.2.9	no	Appendix

#### ATTACHMENT 3.1.2

#### Project: 0081-154-733

#### STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15- page limit?	SOQ Page Reference
SCC and DPOR registration documentation (Appendix)	Attachment 3.2.10	Section 3.2.10	no	Appendix
Full size copies of SCC Registration	NA	Section 3.2.10.1	no	Appendix
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	no	Appendix
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	no	Appendix
Full size copies of DPOR Registration (Non- APELSCIDLA)	NA	Section 3.2.10.4	no	Appendix
<b>DBE statement within Letter of Submittal</b> confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	1
Offeror's Team Structure				2-6
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	3-4
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Appendix
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	Appendix
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	Appendix
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	Appendix
Organizational chart	NA	Section 3.3.2	yes	6
Organizational chart narrative	NA	Section 3.3.2	yes	4-5

#### ATTACHMENT 3.1.2

#### Project: 0081-154-733

#### STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15- page limit?	SOQ Page Reference
Experience of Offeror's Team				7-11
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	Appendix
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	Appendix
Project Risk				12-15
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	12-15

# 2.10 Form C-78-RFQ

Acknowledgement of RFQ, Revision and/or Addenda

Form C-78-RFO

#### ATTACHMENT 2.10

#### COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION

RFQ NO. C00093074DB96

PROJECT NO .: 0081-154-733, P101, R201, C501, B601, B616

#### 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 – July 12, 2017 (Date)	
2. Cover letter of	Addendum No. 1 - August 23, 2017 (Date)	
3. Cover letter of		
Jeren 2 Hen SIGNATURE		2017 ATE
Jeremy L. Hendi		unt of Operations

PRINTED NAME

TITLE

# 3.2.6 List of Affiliated & Subsidiary Companies

#### ATTACHMENT 3.2.6

#### State Project No. 0081-154-733

#### Affiliated and Subsidiary Companies of the Offeror

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.

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
Affiliate	Fielder's Choice Enterprises, Inc.	1020 Linden Avenue, Charlottesville, VA 22902

# 3.2.7 (a) Certification Regarding Debarment – Primary

#### **CERTIFICATION REGARDING DEBARMENT** PRIMARY COVERED TRANSACTIONS

#### Project No.: 0081-154-733

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.

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:

Are not presently indicted for or otherwise criminally or civilly charged by a c) 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.

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

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

Signature

President of Operations

Name of Firn

# 3.2.7 (b) Certification Regarding Debarment – Lower Tier

#### <u>CERTIFICATION REGARDING DEBARMENT</u> <u>LOWER TIER COVERED TRANSACTIONS</u>

#### Project No.: 0081-154-733

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

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

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

Senior Vice President Jourson September 6, 2017 Date Title

Volkert, Inc.

Name of Firm

#### <u>CERTIFICATION REGARDING DEBARMENT</u> <u>LOWER TIER COVERED TRANSACTIONS</u>

#### Project No.: 0081-154-733

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

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

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

Signature

8/2/17 Date President Title

GeoConcepts Engineering, Inc.

Name of Firm

#### **CERTIFICATION REGARDING DEBARMENT** LOWER TIER COVERED TRANSACTIONS

#### Project No.: 0081-154-733

The prospective lower tier participant certifies, by submission of this proposal, that neither it 1) 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.

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

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

8/4/17P.E., Principal, EngineerDateTitle

Mattern & Craig, Inc. Name of Firm

#### <u>CERTIFICATION REGARDING DEBARMENT</u> <u>LOWER TIER COVERED TRANSACTIONS</u>

#### Project No.: 0081-154-733

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

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

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

August 10, 2017 Senior Principal Signature Date Title Stantec Consulting Services Inc. Name of Firm

#### ATTACHMENT 3.2.7(b)

#### <u>CERTIFICATION REGARDING DEBARMENT</u> <u>LOWER TIER COVERED TRANSACTIONS</u>

#### Project No.: 0081-154-733

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

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

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

ud

<u>/11/17</u>

President Title

3B Consulting Services, LLC

Name of Firm

#### ATTACHMENT 3.2.7(b)

#### CERTIFICATION REGARDING DEBARMENT LOWER TIER COVERED TRANSACTIONS

#### Project No.: 0081-154-733

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

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

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

Signature

8/21/2017 Date Vice President \_\_\_\_\_\_ Title

ECS Mid-Atlantic, LLC Name of Firm

# 3.2.8 Offeror's VDOT Prequalification Certificate



Vendor ID:D1153Vendor Name:DLB ENTERPRISES LLCPrequal Exp:04/30/2018

002 - GRADING
003 - MAJOR STRUCTURES
007 - MINOR STRUCTURES
045 - UNDERGROUND UTILITIES
Information
ONRY CORPORATION
Work Classes (Listed But Not Limited To)
022 - INCIDENTAL CONCRETE
056 - MASONRY CONSTRUCTION
180 - SLIP FORMING
SILVA
Information

DBE Contact: N/A

# **3.2.9 Letter of Surety**

3.2.9 Letter of Surety



August 15, 2017

Stephen D. Kindy, P.E. Alternative Project Delivery Division Virginia Department of Transportation 1401 East Broad Street Richmond, VA 23219

RE: DLB Enterprises, LLC Request for Qualification A Design-Build Project I-81 Bridge Replacement at Exit 114 From: 0.381 Mi. South of Christiansburg SCL To: 0.510 Mi. North of Christiansburg SCL Montgomery County / Town of Christiansburg, VA State Project No.: 0081-154-733, P101,R201,C501,B601,B616 Federal Project No.: IM-081-2(992) Contract ID Number: C00093074DB96

Dear Mr. Kindy:

The Hartford, through its various operating entities, has issued surety bonds to DLB Enterprises, LLC since 2015. During this time we have favorably considered projects up to \$30,000,000 with an aggregate program of \$50,000,000. Our experience with DLB Enterprises, LLC has been excellent, and we highly recommend them to you.

As surety for DLB Enterprises, LLC, The Hartford is capable of obtaining 100% Performance Bond and 100% Labor and Material 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, subject to acceptable review of the contract documents and bond forms, financing, availability of reinsurance, and DLB Enterprises, LLC continuing to satisfy other underwriting considerations at the time the bonds are requested.

Please understand that any arrangement for any bonds is a matter between DLB Enterprises, LLC and The Hartford and we assume no liability to third parties or you if, for any reason, we do not issue requested bonds.

 Bond Department

 Richmond Defined Office

 4480 Cox Road, Suite 200

 Glen Allen, VA 23060-6751

 Office
 804-747-7000 x 2

 Toll-Free
 800-552-3429 x 2

 Fax
 866-212-4423

DLB Enterprises, LLC bonds are issued through Hartford Fire Insurance Company which is listed on the U.S. Treasury Department List and has an A.M. Best Rating of "A+" with Financial Size Category: XV (\$2 Billion or greater). They are licensed to do business in the State of Virginia.

Sincerely,

•

٠

Sithe Al. Jel

,

William D. Taylor Regional Director The Hartford

# **POWER OF ATTORNEY**

Direct Inquiries/Claims to: THE HARTFORD BOND, T-12 ONE HARTFORD PLAZA HARTFORD, CONNECTICUT 06115 bond.claims@thehartford.com call: 888-266-3488 or fax: 860-757-5835

#### KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Code: n/a (Richmond Bond Dept)

X Hartford Fire Insurance Company, a corporation duly organized under the laws of the State of Connecticut х Hartford Casualty Insurance Company, a corporation duly organized under the laws of the State of Indiana Hartford Accident and Indemnity Company, a corporation duly organized under the laws of the State of Connecticut X Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, up to the amount of unlimited:

William D. Taylor, Judy S. Crutchfield, Margaret D. Elliott, Eric Champion, Kaylyn Pascarella, Taylor Mann

of Glen Allen, VA

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by 🖾, and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on May 6, 2015 the Companies have caused these presents to be signed by its Senior Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



John Gray, Assistant Secretary

#### STATE OF CONNECTICUT

Hartford

#### COUNTY OF HARTFORD

On this 11th day of January, 2016, before me personally came M. Ross Fisher, to me known, who being by me duly sworn, did depose and say: that he resides in the County of Hartford, State of Connecticut; that he is the Senior Vice President of the Companies, the corporations described in and which executed the above instrument; that he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that he signed his name thereto by like authority.



Nora M. Stranko

Notary Public My Commission Expires March 31, 2018

I, the undersigned, Assistant Vice President of the Companies, 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 still in full force effective as of 8/15/2017. Signed and sealed at the City of Hartford



Kevin Heckman, Assistant Vice President

# 3.2.10 SCC & DPOR Information

## ATTACHMENT 3.2.10

## State Project No. 0081-154-733

## **SCC and DPOR Information**

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

	SCC	& DPOR INFORM	ATION FO	R BUSINESSES (RFQ Se	ctions 3.2.10.1	and 3.2.10.2)	
	SCC Ir	nformation (3.2.10	).1)			ormation (3.2.10.2)	
Business Name	SCC Number	SCC Type of Corporation	SCC Status	DPOR Registered Address	DPOR Registration Type	DPOR Registration Number	DPOR Expiration Date
DLB Enterprises, LLC	S6547170	Limited Liability Company	Active	371 Expansion Drive Hillsville, VA 24343	Contractor – Class A	2705163562	2019-04-30
Volkert, Inc.	F1366592	Foreign Corporation	Active	6225 Brandon Avenue Suite 540 Springfield, VA 22150	Business Entity - ENG, LA	0407002610	2017-12-31
GeoConcepts Engineering, Inc.	05167671	Corporation	Active	19955 Highland Vista Drive Suite 170 Ashburn, VA 20147	Business Entity - ENG	0407004404	2017-12-31
Mattern & Craig, Inc.	02313781	Corporation	Active	701 First Street, SW Roanoke, VA 24016	Business Entity - ENG, LS	0407003038	2017-12-31
Stantec Consulting Services, Inc.	F1493198	Foreign Corporation	Active	5238 ValleyPointe Parkway Suite 3 Roanoke, VA 24019	Business Entity - ENG	0411001284	2018-02-28
3B Consulting Services, LLC	S4231561	Limited Liability Company	Active	140 Hilltop Avenue Lebanon, VA 24266	Business Entity- ENG, LS	0411001108	2018-02-28
ECS Mid-Atlantic, LLC	S1208216	Limited Liability Company	Active	7670 Enon Drive, Suite 101 Roanoke, VA 24019	Business Entity - ENG	0411000381	2018-02-28

## ATTACHMENT 3.2.10

## State Project No. 0081-154-733

## SCC and DPOR Information

	DPOR IN	FORMATION FOR INDIV	/IDUALS (RFQ Sections 3.2.10.	3 and 3.2.10	).4)	
Business Name	Individual's Name	Office Location Where Professional Services will be Provided (City/State)	Individual's DPOR Address	DPOR Type	DPOR Registration Number	DPOR Expiration Date
DLB Enterprises, LLC	Jeremy Hendrick, PE	Hillsville, VA	95 Daleview Drive Hillsville, VA 24343	PE	0402040762	2018-06-30
DLB Enterprises, LLC	Joshua A. Hendrick, PE	Hillsville, VA	1194 East Stuart Drive Hillsville, VA 24343	PE	0402050057	2018-06-30
Volkert, Inc.	Keith Weakley, PE DBIA	Springfield, VA	124 Meadow Lane Stanley, VA 22851	PE	0402031697	2018-01-31
Volkert, Inc.	Charlie Reid, PE	Virginia Beach, VA	3300 Middle Plantation Quay Virginia Beach, VA 23452	PE	0402006751	2017-10-31
Volkert, Inc.	Brian Graham, PE	Springfield, VA	4062 Shrayer Court Warrenton, VA 20187	PE	0402037140	2019-06-30
Volkert, Inc.	David Simons, PE	Springfield, VA	7326 Glendower Court Springfield, VA 22153	PE	0402050532	2018-04-30
Volkert, Inc.	Jason Jiménez-Pisani, PE	Springfield, VA	5300 Holmes Run Parkway, #PH15 Alexandria, VA 22304	PE	0402051500	2018-01-31
Volkert, Inc.	Thang Nguyen, PE	Springfield, VA	6525 Spring Valley Drive Alexandria, VA 22312	PE	0402048469	2019-06-30
Volkert, Inc.	Bharat Bhargava, PE	Springfield, VA	18321 McKernon Way Poolesville, MD 20837	PE	0402020686	2019-04-30
Volkert, Inc.	Adane Bobo, PE	Springfield, VA	4501 Arlington Boulevard, Apt #710 Arlington, VA 22203	PE	0402055443	2017-11-30
Volkert, Inc.	Michael Glickman, PE, PTOE	Springfield, VA	2211 Lamp Post Lane Frederick, MD 21701	PE	0402038666	2019-07-31
Volkert, Inc.	Ben Lineberry, PE	Springfield, VA	200 Shawnee Avenue Winchester, VA 22601	PE	0402032576	2018-04-30
GeoConcepts Engineering, Inc.	Deniz Karadeniz, PhD, PG, PE	Ashburn, VA	43229 Becontree Terrace Broadlands, VA 20148	PE	0402050668	2018-02-28
GeoConcepts Engineering, Inc.	Deniz Karadeniz, PhD, PG, PE	Ashburn, VA	43229 Becontree Terrace Broadlands, VA 20148	PG	2801001909	2017-08-31
Mattern & Craig, Inc.	Timothy W. Caldwell, LS, PLS, RLS	Roanoke, VA	701 First Street, SW Roanoke, VA 24016	LS	0403003105	2019-01-31
3B Consulting Services, LLC	H. Richard Lively	Lynchburg, VA	101 Millbrook Terrace Forest, VA 24551	Cert. Gen. Real Estate Appraiser	1004001989	2017-10-31
ECS Mid-Atlantic, LLC	Brian Wyatt, PE	Roanoke, VA	4777 Saunders Grove Drive Moneta, VA 24121	PE	0402035334	2019-01-31

# 3.2.10.1 SCC Registration

3.2.10.1 SCC Registration

Alert to corporations rega	rding unsolicited mailings from VIRGINIA COUNCIL FOR CO website.	RPORATIONS is available from the	e Bulletin Archive link of the Clerk's Office
		Home   Site Map   About SCC   Co	ontact SCC   Privacy Policy
SCC eFile > Entity Search > Entity I	Details		Login   Create an Account
SCC eFile	Busines	SCC eFile s Entity Details	() Help
SCC eFile	DLB Enterprises LLC		
SCC eFile Home Page Check Name Distinguishability	General	Select an action	
Business Entity Search Certificate Verification FAQs Contact Us Give Us Feedback Business Entities UCC or Tax Liens	SCC ID: S6547170 Entity Type: Limited Liability Company Jurisdiction of Formation: VA Date of Formation/Registration: 12/30/2016 Status: Active	File a registered agent File a registered office Resign as registered a File a principal office a Pay annual registration Order a certificate of f	address change gent address change n fee act of existence
Court Services Additional Services	Principal Office 102 S. First Street, Suite 301 Charlottesville VA22902	Submit a PDF for proc           View eFile transaction           Manage email notificat           New Search           Home	
	Registered Agent/Registered Office		
	GEORGE B. MCCALLUM, III 250 EAST HIGH STREET CHARLOTTESVILLE VA 22902 CHARLOTTESVILLE CITY 203 Status: Active Effective Date: 12/30/2016		
	Screen ID: e1000		
	Need additional information? Contact <u>sccinfo@scc.virginia.gov</u> Websiti We provide external links throughd <u>PDF(.pdf) Reader</u> <u>Excel (.xls) Viewer</u> PowerPoir Build #: 1.0.0.2322	ut our site. t (.ppt) Viewer 🖺 Word (.doc) Viewer	<u>rainia.gov</u>

SCC eFile Business Entity Details CC eFile Business Entity Details CONVERT, Inc. Contract US Note Us Feedback Liness Entities Contract Liens Contract Liens CC and Contract Contract of File and Contract of File			Home   Site Map   About SCC   Con	tact SCC   Privacy Policy
CORFORATION SERVICE COMPANY BARK OF AMERICA CENTER, 16TH FLOOR 1111 EAST MAIN ST. RICHMOND QU 23219 RICHMOND QU 23219 RICHMO	File > Entity Search > Entity	Details		Login   Create an Acc
File       Cefie Home Page set Name       Select an action       File a registered agent change         General       SCC ID: F1366592       Entity Vige: Foreign Corporation       Jurisdiction of Formation: AL       Select an action         Date of Formation/Registration: 1/21/1999       Status: Active       Shares Authorized: 2250       File a registered agent change         Principal Office       3809 MOFFETT RD       NoBILE AL36618       New Search       Home         Registered Agent/Registered Office       Corporation SERVICE COMPANY       New Search       Home         Registered Agent/Registered Office       Corporation SERVICE COMPANY       New Search       Home         Reconstruction of America, 111 LEAST MAIN ST.       RICHMOND CITY       216       Status: Active			SCC eFile	
Volkert, Inc. Principal Office Services Principal Office Registered Agent/Registered Office Registered Agent/Registered Office Registered Agent/Registered Office CORPORATION SERVICE COMPANY BANK OF AMERICA CENTER, 16TH FLOOR 1111 EAST MAIN ST. RICHMOND VA 23219 RICHMOND CITY 216 Status: Active Status: Active Registered Agent/Registered Office CORPORATION SERVICE COMPANY BANK OF AMERICA CENTER, 16TH FLOOR 1111 EAST MAIN ST. RICHMOND VA 23219 RICHMOND CITY 216 Status: Active Status: Active Status: Active Registered Agent/Registered Office CORPORATION SERVICE COMPANY BANK OF AMERICA CENTER, 16TH FLOOR 1111 EAST MAIN ST. RICHMOND CITY 216 Status: Active Status: Active Stat				() Help
Cefie Home Page eck Name tinguishability siness Entity Search triticate verification 3g re US Feedback       General       Select an action         SCC ID: F1366592 Entity Type: Foreign Corporation Jurisdiction of Formation: AL Date of Formation/Registration: 1/21/1999 Status: Active or Tax Llens       Select an action         t Services       Principal Office       File a registered agent change file a registered agent change or Tax Llens         t Services       Principal Office       Order a certificate of good standing View efile transaction history MoBILE AL36618         Registered Agent/ Registered Office       CORPORATION SERVICE COMPANY BANK OF AMERICA CENTER, 16TH FLOOR 1111 EAST MAIN ST. RICHMOND VA 23219 RICHMOND VA 23219 RICHMOND VA 23219 RICHMOND CITY       View Search		Volkert, Inc.		
eek Name triguishability siness Entity Search rificate verification QG       SCC ID: F1366592 Entity Type: Foreign Corporation Jurisdiction of Formation: AL Date of Formation/Registration: 1/21/1999 Status: Active Shares Authorized: 2250       File a registered agent change File a registered agent File a registered agent Pay annual registration fee Order a certificate of good standing View eFile transaction history Manage email notifications         Principal Office 3809 MOFFETT RD MOBILE AL36618       New Search Home         Registered Agent/ Registered Office 1111 EAST MAIN ST. RICHMOND VA 23219 RICHMOND VA 23219 RICHMOND VG CITY 216 Status: Active       New Search Home		Concernel		
Date of Formation/Registration: 1/21/1999 Status: Active Shares Authorized: 2250 Principal Office 3809 MOFFETT RD MOBILE AL36618 Registered Agent/Registered Office CORPORATION SERVICE COMPANY BANK OF AMERICA CENTER, 16TH FLOOR 1111 EAST MAIN ST. RICHMOND VA 23219 RICHMOND VA 23219 RICHMOND CITY 216 Status: Active	heck Name istinguishability usiness Entity Search ertificate Verification AQs ontact Us	SCC ID: F1366592 Entity Type: Foreign Corporation	File a registered agent of File a registered office a	ddress change
Intional Services       Principal Office         3809 MOFFETT RD       Manage email notifications         MOBILE AL36618       New Search         Registered Agent/ Registered Office       New Search         CORPORATION SERVICE COMPANY       BANK OF AMERICA CENTER, 16TH FLOOR         1111 EAST MAIN ST.       RICHMOND VA 23219         RICHMOND CITY       216         Status: Active       Manage email notifications	siness Entities	Status: Active	Pay annual registration Order a certificate of go	od standing
3809 MOFFETT RD       New Search         MOBILE AL36618       New Search         Registered Agent/ Registered Office       CORPORATION SERVICE COMPANY         BANK OF AMERICA CENTER, 16TH FLOOR       1111 EAST MAIN ST.         RICHMOND VA 23219       RICHMOND CITY         RICHMOND CITY       216         Status: Active       New Search	urt Services			
MOBILE AL36618         Registered Agent/ Registered Office         CORPORATION SERVICE COMPANY         BANK OF AMERICA CENTER, 16TH FLOOR         1111 EAST MAIN ST.         RICHMOND VA 23219         RICHMOND CITY       216         Status: Active	litional Services	Principal Office		
CORPORATION SERVICE COMPANY BANK OF AMERICA CENTER, 16TH FLOOR 1111 EAST MAIN ST. RICHMOND VA 23219 RICHMOND CITY 216 Status: Active			New Search Home	
BANK OF AMERICA CENTER, 16TH FLOOR 1111 EAST MAIN ST. RICHMOND VA 23219 RICHMOND CITY 216 Status: Active		Registered Agent/Registered Office		
		BANK OF AMERICA CENTER, 16TH FLOOR 1111 EAST MAIN ST. RICHMOND VA 23219 RICHMOND CITY 216		

		Home   Site Map   About SCC   C	ontact SCC   Privacy Policy
eFile > Entity Search > Entity	y Details		Login   Create an Acco
	c	CC eFile	
CC eFile		Entity Details	? Help
CeFile	GeoConcepts Engineering, Inc.		
GCC eFile Home Page Check Name Distinguishability Business Entity Search	General	Select an action	
Certificate Verification	SCC ID: 05167671 Entity Type: Corporation	File a registered agen File a registered office	
AQs Contact Us	Jurisdiction of Formation: VA	Resign as registered a	
Give Us Feedback	Date of Formation/Registration: 2/25/1999	File an annual report	<u></u>
siness Entities	Status: Active	Pay annual registratio	n fee
C or Tax Liens	Shares Authorized: 5000	Order a certificate of o	good standing
			cessing (What can I submit?)
urt Services		View eFile transaction	
ditional Services	Principal Office	Manage email notifica	tions
	19955 HIGHLAND VISTA DRIVE		
	SUITE 170	New Search Home	
	ASHBURN VA20147		
	Registered Agent/Registered Office		
	VIVIAN LEWIS		
	GEOCONCEPTS ENGINEERING INC		
	19955 HIGHLAND VISTA DR #170		
	ASHBURN VA 20147		
	LOUDOUN COUNTY 153		
	Status: Active		
	Effective Date: 11/24/2004		
	Screen ID: e1000		
	Need additional information? Contact sccinfo@scc.virginia.gov Website		Instate en.

		ontact SCC   Privacy Policy
Elle > Entity Search > Entity Details		Login   Create an Acco
CC eFile	SCC eFile Business Entity Details	
MATTERN & CRAIG, IN	С.	
SCC eFile Home Page Check Name Distinguishability	Select an action	
Business Entity Search Certificate Verification AQs Contact Us Sive Us Feedback Date of Formation/Rec	ion: VA Resign as registered a	e address change
siness Entities Status: Active Shares Authorized: 10	Pay annual registration           0000         Order a certificate of           Submit a PDF for processing	good standing cessing (What can I submit?)
ditional Services Principal Office	View eFile transaction Manage email notifica	
701 FIRST ST SW ROANOKE VA24016	(New Search ) (Home )	
Registered Agent/Re	gistered Office	
STEVEN A CAMPBELL 701 FIRST ST SW ROANOKE VA 24016 ROANOKE CITY 2 Status: Active Effective Date: 7/25/2	2005	



#### SCC effe > Entity Search > Entity Details



#### SCC eFile Business Entity Details

#### Stantec Consulting Services Inc.

## SCC eFile

SCC eFile Home Page Check Name Discliquis nability Business Encloy Search Cercificase Verificacion FAQs Consoct Us Give Us Feedback

#### Business Entities

UCC or Tax Liens

Court Services

### General

SCC ID: F1493198 Entity Type: Foreign Corporation Jurisdiction of Formation: NY Date of Formation/Registration: 12/4/2001 Status: Active Shares Authorized: 3250000

#### **Principal Office**

200, 10160 - 112 STREET T5K 2L6 CANADA EDMONTON, AB

#### Registered Agent/Registered Office

CORPORATION SERVICE COMPANY Bank of America Center, 16th Floor 1111 East Main Street RICHMOND VA 23219 RICHMOND CITY 216 Status: Active Effective Date: 4/29/2011

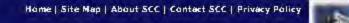
#### Select an action

File a registered agent change File a registered office address change Resign as registered agent File an annual report Pay annual registration fee Order a certificate of good standing View eFile transaction history Manage email notifications

#### New Search Home

Screen ID: e1000

Need additional information? Contact <u>secinfo@sec.viiginia.gov</u> Website question? Contact: <u>webmaster@sec.viiginia.gov</u> We provide external links throughout our site. <u>PDF(.pdf) Reader</u> <u>Excel (.xts) Viewer</u> <u>PowerPoint (.ppt) Viewer</u> <u>Ward (.doc) Viewer</u> Build V: 1.0.0.23229











#### SCC efile > Entity Search > Entity Details



#### SEC eFile

SCC eFile Home Page Creck Name Discinguis naoilley Business Entry Search Cercificace Verlificacion FAQs Contact Us Give Us Reedback

Business Entities

UCC or Tax Liens

Court Services

Additional Services

#### **3B Consulting Services, LLC**

#### General

SCC ID: S4231561 Entity Type: Limited Liability Company Jurisdiction of Formation: VA Date of Formation/Registration: 9/20/2012 Status: Active

#### Principal Office

140 Hilltop Avenue Lebanon VA24266

#### Registered Agent/Registered Office

CRYSTAL L BREEDING 140 HILLTOP AVENUE LEBANON VA 24266 RUSSELL COUNTY 183 Status: Active Effective Date: 9/20/2012

Screen ID: e1000

#### Select an action

File a registered agent change File a registered office address change Resign as registered agent File a principal office address change Pay annual registration fee Order a certificate of fact of existence Submit a PDF for processing (What can I <u>submit?</u>) View eFile transaction history Manage email notifications

New Search Home

#### SCC eFile Business Entity Details

Need additional information? Contact <u>sociala@soc.viginia.gov</u> Websile questions? Contact: <u>webmaster@soc.viginia.gov</u> We provide external links throughout our site. <u>PDF(.pdf) Reader</u> <u>Excel (.xb) Viewer</u> <u>PowerPoint (.ppt) Viewer</u> <u>Word (.doc) Viewer</u> Build Y: 1.0.0.23229

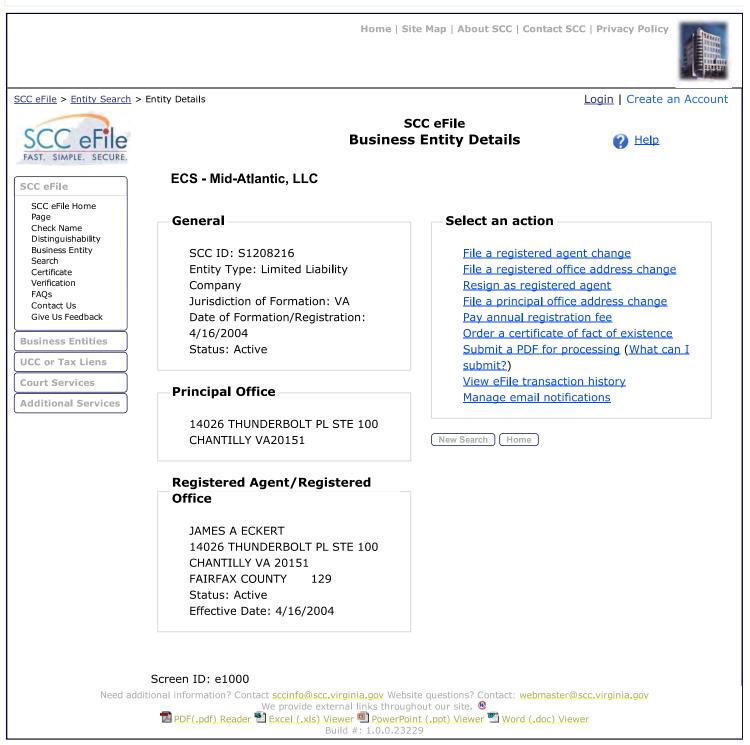








Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

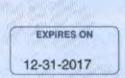


# 3.2.10.2 Firm DPOR Registration



(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)



#### COMMONWEALTH of VIRGINIA Department of Professional and Occupational Regulation 9960 Mayland Drive, Suite 400, Richmond, VA 23233 Telephone: (804) 367-8500

NUMBER 0407002610

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

PROFESSIONS ENG. LA

VOLKERT INC 6225 BRANDON AVE STE 540 SPRINGFIELD, VA 22150 DP OR

Status can be verified at http://www.dpor.virginia.gov

(SEE DEVEDSE SIDE EOD DDIVII EGES AND INSTRUCTIONS)





Status can be verified at http://www.dpor.virginia.gov

DPOR-PC (05/2015)

Name License Number License Description Firm Type Rank Address Initial Certification Date Expiration Date

MATTERN & CRAIG, INC. 0407003038 Business Entity Registration Corporation Business Entity 701 FIRST STREET SW, ROANOKE, VA 24016 1991-12-06 2017-12-31

ē

The license information in this application was last updated at Tue Aug 01 02:50:19 EDT.

License Lookup legal disclaimer



Status can be verified at http://www.dpor.virginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

COMMONWEALTH of VIRGINIA Department of Professional and Occupational Regulation

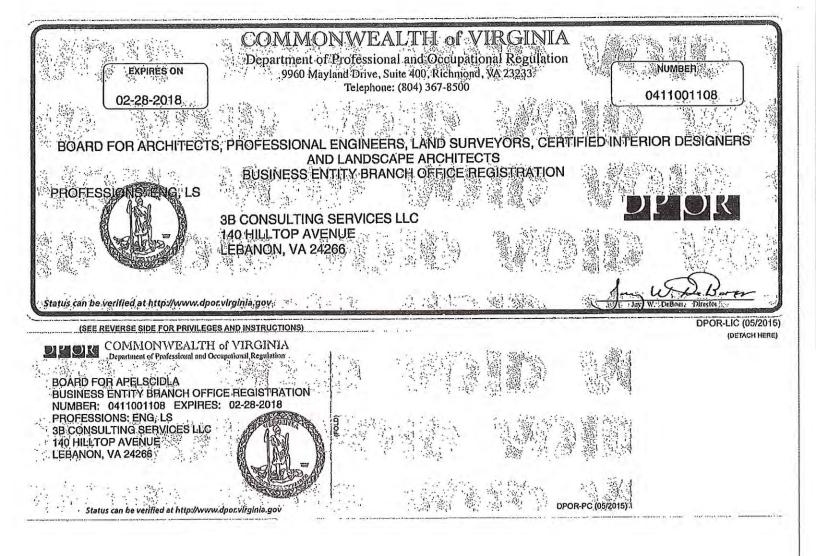
BOARD FOR APELSCIDLA

BUSINESS ENTITY BRANCH OFFICE REGISTRATION NUMBER: 0411001284 EXPIRES: 02-28-2018 PROFESSIONS: ENG STANTEC CONSULTING SERVICES INC 5238 VALLEYPOINTE PKWY STE 3 ROANOKE, VA 24019

Status can be verified at http://www.dpor.virginia.gov

DPOR-LIC (05/2015) (DETACH HERE)

DPOR-PC (05/2015)





(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (05/2015)

# 3.2.10.3 Key Personnel DPOR Registration



## COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation 9960 Mayland Drive, Suite 400, Richmond, VA 23233 Telephone: (804) 367-8500

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

> JEREMY LEE HENDRICK 95 DALEVIEW DRIVE HILLSVILLE, VA 24343

DPDK

DPOR-LIC (05/2015)

NUMBER

0402040762

Status can be verified at http://www.dpor.virginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

EXPIRES ON 06-30-2018

## COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation 9960 Mayland Drive, Suite 400, Richmond, VA 23233 Telephone: (804) 367-8500

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

> JOSHUA A HENDRICK 1194 EAST STUART DRIVE HILLSVILLE, VA 24343



NUMBER

0402050057

Status can be verified at http://www.dpor.virginia.gov

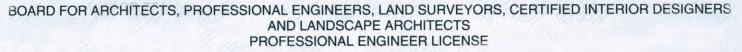
(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

#### DPOR-LIC (05/2015)



## COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation 9960 Mayland Drive, Suite 400, Richmond, VA 23233 Telephone: (804) 367-8500



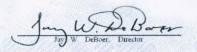


#### KEITH PAUL WEAKLEY 124 MEADOW LANE STANLEY, VA 22851



NUMBER

0402031697

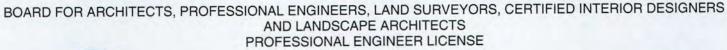


Status can be verified at http://www.dpor.virginia.gov



## COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation 9960 Mayland Drive, Suite 400, Richmond, VA 23233 Telephone: (804) 367-8500





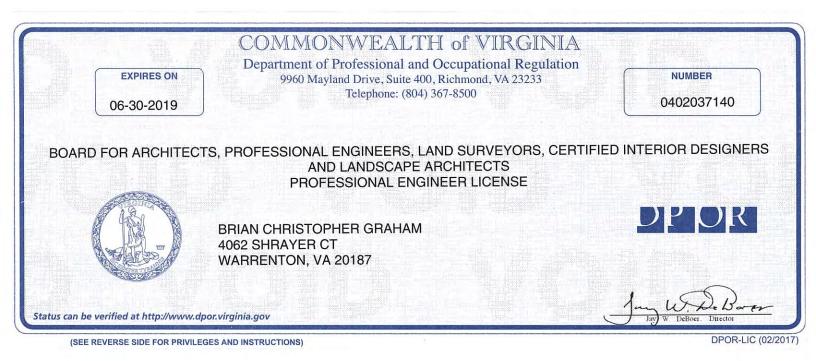
C J REID 3300 MIDDLE PLANTATION QUAY VIRGINIA BEACH, VA 23452



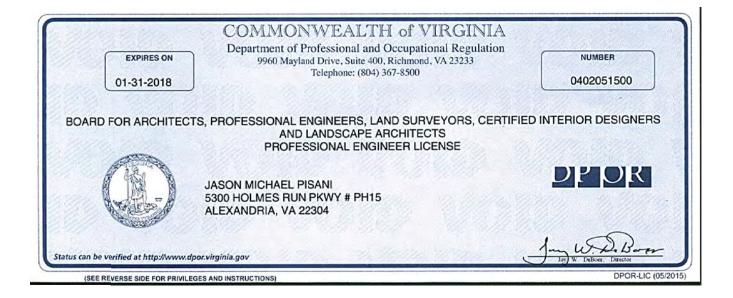
NUMBER

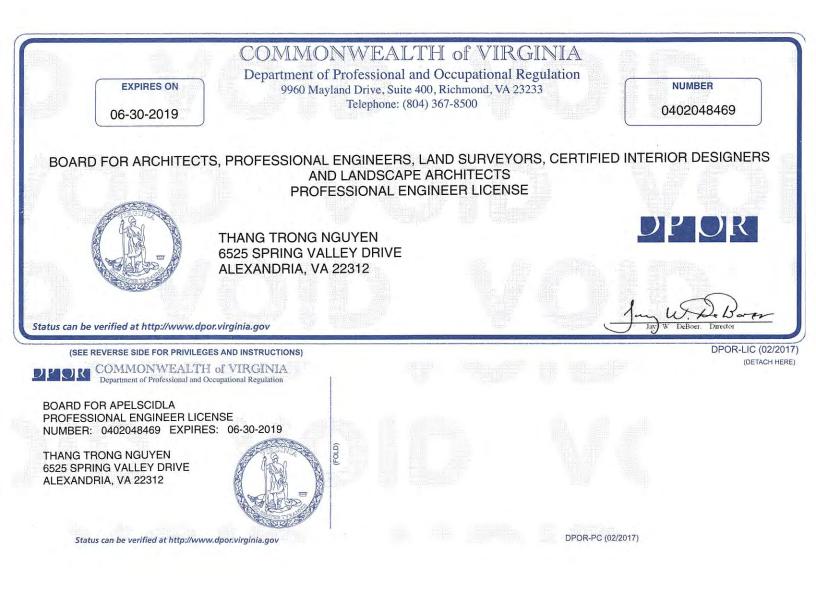
0402006751

Status can be verified at http://www.dpor.virginia.gov

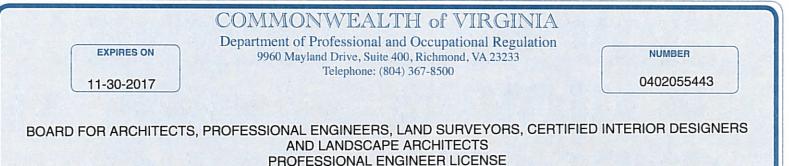














ADANE MARE BOBO 4501 ARLINGTON BLVD APT #710 ARLINGTON, VA 22203 DPDR

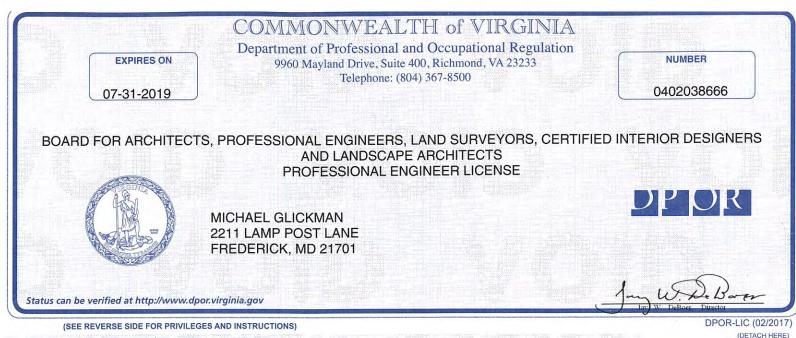
Status can be verified at http://www.dpor.virginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

COMMONWEALTH of VIRGINIA Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA PROFESSIONAL ENGINEER LICENSE NUMBER: 0402055443 EXPIRES: 11-30-2017

ADANE MARE BOBO 4501 ARLINGTON BLVD APT #710 ARLINGTON, VA 22203 DPOR-LIC (05/2015) (DETACH HERE)



DPOR-PC (02/2017)

DECOMMONWEALTH of VIRGINIA Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA PROFESSIONAL ENGINEER LICENSE NUMBER: 0402038666 EXPIRES: 07-31-2019

MICHAEL GLICKMAN 2211 LAMP POST LANE FREDERICK, MD 21701

Status can be verified at http://www.dpor.virginia.gov



# COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation 9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500



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



BEN HARRY LINEBERRY JR 200 SHAWNEE AVENUE WINCHESTER, VA 22601

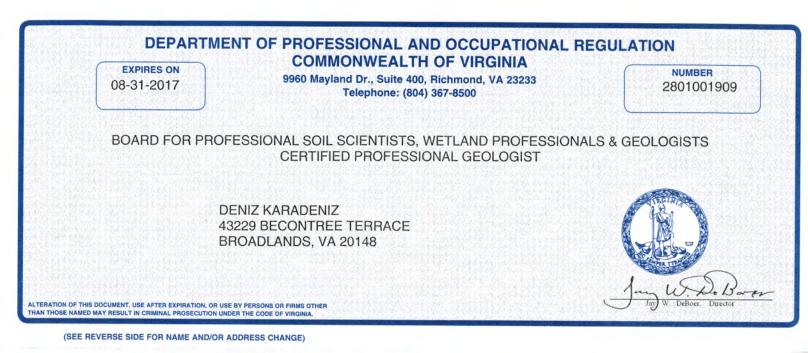


Status can be verified at http://www.dpor.virginia.gov



(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (05/2015)



#### Name License Number License Description Rank Address Initial Certification Date Expiration Date

CALDWELL, TIMOTHY WAYNE 0403003105 Land Surveyor License Land Surveyor ROANOKE, VA 24018 2011-01-20 2019-01-31

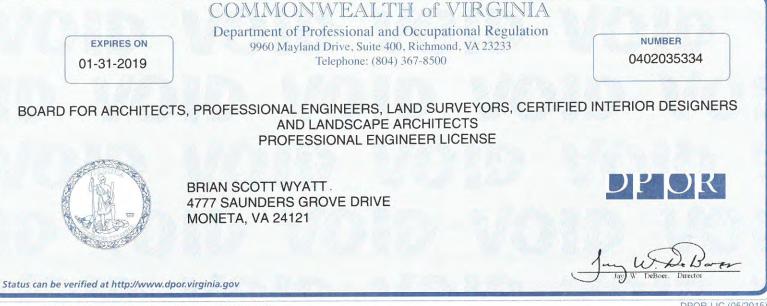
The license information in this application was last updated at Tue Aug 01 02:50:19 EDT.

License Lookup legal disclaimer

ê



(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)



(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (05/2015)

# **3.3.1 Key Personnel Resume Forms**

# ATTACHMENT 3.3.1

#### **KEY PERSONNEL RESUME FORM**

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

a. Name & Title: Jeremy L. Hendrick, PE, Vice President of Operations

b. Project Assignment: Design-Build Project Manager

c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) : DLB Enterprises (Full Time)

d. Employment History: With this Firm <1 Years With Other Firms 15 Years

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

Mr. Hendrick has more than 15 years of progressively responsible experience with both public and private sector engineering projects, including roadway and bridge design, utility design/relocations, construction and quality management, and maintenance operations. Prior to joining DLB, Mr. Hendrick's transportation infrastructure experience came via a wide variety of projects completed in Southwest Virginia while working for VDOT, contractors, and engineering firms. The depth and breadth of his experience brings the design-build (D-B) team a project manager well-versed in the management of design, construction, and contract administration, along with procuring and furnishing all materials, equipment, services and labor in compliance with the Contract Documents. From design through substantial completion, he understands the perspectives of all involved stakeholders, and has the requisite experience to mitigate any issues, demonstrated by the formal partnering utilized on multiple projects as a strategy to avoid and mitigate contract disputes.

#### Name of Firm: DLB Enterprises

Position: Vice President of Operations. As the vice president of operations, Mr. Hendrick is directly responsible for delivering successful projects, including a mix of bridges, structures, roadway, utility, and grading operations. With more than 100 employees and work throughout the Commonwealth of Virginia, Mr. Hendrick manages complex projects and teams, delivering high quality projects within the allotted budget and schedule.

#### Name of Firm: ATCS, P.L.C.

**Position:** Operations Manager. As operations manager for the Southwestern portion of Virginia, Mr. Hendrick was responsible for managing all company personnel and operations for a group of 25+ employees and subconsultants. A majority of the work he managed was roadway and bridge construction projects for VDOT. The work included task management, resource allocation, budget tracking, training, and stakeholder coordination on multiple concurrent contracts.

#### Name of Firm: Nehemiah Engineering

Position: President and Owner. As the President of Nehemiah Engineering, Inc., Mr. Hendrick was responsible for serving as the Responsible Charge Engineer for design work, including roadway, land development, utility design, construction inspection, and construction management. Mr. Hendrick provided leadership to a staff of up to seven employees; maintained budgets; coordinated with clients, including government personnel, to deliver quality projects in an acceptable time frame. He also provided traffic engineering work zone training as needed to contractors and localities.

#### Name of Firm: Blue Ridge Paving & Patching

Position: Project Manager. Mr. Hendrick was responsible for concurrent oversight and direction of two to three different work crews, including up to eight people. He provided estimates and developed work schedules to facilitate providing efficient service, resulting in the tripling of annual gross revenue during his tenure.

Name of Firm: VDOT, Hillsville Residency Start Date: 2005 Position: Assistant Residency Administrator. As an Assistant Residency Administrator, Mr. Hendrick was responsible for overseeing the construction program and coordinating inspectors in Carroll and Floyd Counties, including roadway and bridge projects. He was also responsible for the maintenance and administration budget as well as overseeing the maintenance work force which consisted of 100 employees.

#### Name of Firm: VDOT, Martinsville Residency

Start Date: 2002 **End Date: 2005** Position: Engineer Trainee - Project Engineer. Progressing through the engineer trainee program Mr. Hendrick had the opportunity to participate in all activities within the Residency, including construction, maintenance, and land development. He was also able to work within all of the divisions at the Salem District. As Mr. Hendrick neared the end of his two-year program he worked closely with the resident engineer performing duties typical of an assistant engineer such as operating as hiring manager, reviewing land development plans, supervising construction personnel, and working with government officials as well as local citizens to resolve problems. Prior to leaving, he was promoted to *Project Engineer*, and was responsible for overseeing the construction program in Patrick and Henry

#### Start Date: 2017 End Date: Present

# **Start Date: 2012**

Start Date: 2006

# **End Date: 2017**

#### Start Date: 2008 **End Date: 2012**

**End Date: 2006** 

**End Date: 2009** 

Counties. The projects involved ranged in price up to more than \$20M. He also coordinated all inspection efforts by VDOT Inspectors in both counties.

- e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Tech, Blacksburg, VA / BS / 2001 / Civil Engineering
- f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2006 / Professional Engineer / VA #040762
- g. Document the extent and depth of your experience and qualifications relevant to the Project.
  - 1. Note your role, responsibility, and specific job duties for each project, not those of the firm.
  - 2. Note whether experience is with current firm or with other firm.
  - 3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.

(List only three (3) relevant projects\* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

I-581 and Valley View Interchange Design-Build, VDOT - IA/IV Project Manager. Mr. Hendrick served as

VDOT's on-site representative for the project, and the primary point of contact not only for the D-B contractor, but also the various sections within VDOT's Salem District for the project. The Valley View Boulevard Interchange was a \$40M, designbuild project intended to help alleviate traffic congestion along the I-581 corridor within the City of Roanoke. The contractor utilized a Diverging Diamond Interchange (DDI) design model for this interchange which was operating as a partial interchange. The Valley View Boulevard Bridge over I-581 was widened and

#### Relevance to I-81 at Exit 114

- ✤ Interstate design-build project
- ✤ Complex maintenance of traffic
- Highly variable sub-surface conditions
- Significant public engagement
- Coordinated efforts with VDOT Salem District Staff

was a large part of the project in association with the new ramp construction. A separate shared-use path bridge was also built over I-581. Mr. Hendrick provided baseline and monthly update reviews of the CPM schedule, oversight of IA/IV inspection staff, review of design documents, review and approval of monthly pay estimates, and provided project updates to businesses as well as local news agencies.

**Firm:** ATCS, P.L.C. | **Dates:** 2013 – 2017 | **\$40M D-B** 

# I-581 / Route 24 (Elm Avenue) Interchange Improvements

**Design-Build, VDOT** – *IA/IV Project Manager*. As VDOT's on-site representative, Mr. Hendrick was responsible for working closely with VDOT's Project Manager and Salem District Construction Engineer, as well as serving as the primary point of contact not only for the D-B contractor, but also for the various sections within the Salem District. Mr. Hendrick provided reviews of the baseline schedule and monthly schedule updates, as well as the design documents. He also reviewed and

#### Relevance to I-81 at Exit 114

- ✤ Bridge over traffic
- Interstate design-build project
- ✤ Karst conditions/challenging foundations
- ✤ Complex maintenance of traffic
- Busy intersection critical to local workforce

approved monthly pay estimates and progress reports. He worked closely with the contractor and their QA/QC staff to facilitate a clean transition from design to construction, and was onsite daily to ensure that a quality project was built. The I-581 and Elm Avenue Interchange is a very prominent interchange in Roanoke that serves as a lifeline to the downtown Roanoke area, as well as the Carilion Medical Facilities located nearby. The project included replacing and widening the superstructure on two bridges (one over I-581 and one over Norfolk Southern Railroad), providing additional lanes on the off ramps, and increasing vehicle capacity by constructing turning lanes on Elm Avenue. **Firm:** ATCS, P.L.C. | **Dates:** 2012 – 2016 | **\$20.5M D-B** 

#### Route 58 Meadows of Dan Bypass PPTA, VDOT - Construction Project Manager. Mr. Hendrick was

responsible for serving as VDOT's on-site representative and providing oversight services for the QA/QC inspection program provided by the contractor. The project included three (3) miles of new alignment grading, as well as a cast-in-place concrete arch bridge over the Blue Ridge Parkway. He worked closely with VDOT personnel, government officials, the National Park Service, and contractor representatives to resolve problems and

Relevance to I-81 at Exit 114

- Bridge over traffic
- Limited space for bridge construction
- Coordination with multiple VDOT

disciplines

maintain the on-time status of the project. Mr. Hendrick was also responsible for reviewing design drawings, as well as Critical Path Method (CPM) construction schedules.

#### Firm: VDOT | Dates: 2003 – 2005 | Cost of Construction: \$20M

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

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

# ATTACHMENT 3.3.1

#### KEY PERSONNEL RESUME FORM

Drief Decume of Key Devectored enticipated for the Dreiset	
Brief Resume of Key Personnel anticipated for the Project. a. Name & Title: Ben H. Lineberry, PE	
<ul> <li>a. Name &amp; Title: Ben H. Lineberry, PE</li> <li>b. Project Assignment: Quality Assurance Manager (QAM)</li> </ul>	
a. Name of all Firms with which you are employed at the time of	of submitting SOO. In addition, please denote
the type of employment (Full time/Part Time): Volkert, Inc. (Ful	
b. Employment History: With this Firm <u>8</u> Years With Other Firr	
Please list chronologically (most recent first) your employm and duration of employment for the last fifteen (15) years. (NOT employment history, please list the history for those years you h shall be included in Section (g) below): Mr. Lineberry has 26 years of experience with the design and construct	ent history, position, general responsibilities, E: If you have less than 15 years of have worked. Project specific experience
experience with VDOT as an Assistant Resident Engineer and an Area	
Lineberry was responsible for the construction program including brid widening projects, and maintenance and resurfacing projects on inters has managed the project delivery of concurrent transportation projects than \$200M and large inspection staffs of more than 95 VDOT and corresponsible for QA management services for design-build projects with	Ige reconstructions, urban reconstruction and tate, primary, and secondary road systems. He s with a combined construction value of more onsultant inspectors. With Volkert, he has been th a total value in excess of \$100M, ensuring
conformance with contract requirements throughout construction, and resolve complex construction issues. He has substantial expertise in ri risk management plans, document management, and partnering with c utility providers; and other key stakeholders to resolve complex desig	sk management including the development of contractors; VDOT, FHWA, and local officials;
with VDOT and FHWA requirements.	
Name of Firm: Volkert, Inc. Position: Vice President, Construction Services Mid-Atlantic Region QAM. Responsible for construction management and inspection servi the District of Columbia including personnel management, training, at construction inspection; and materials, schedule, cost, risk, and docum	ces for projects in the Virginia, Maryland, and nd performance; quality assurance management;
Name of Firm: Volkert, Inc.	<b>Start Date:</b> 2009 <b>End Date:</b> 2014
<b>Position:</b> <i>Regional Construction Manager</i> . Responsible for managen VDOT and local governments in Virginia, the District of Columbia, a	nent of construction inspection projects for
Name of Firm: Virginia Department of Transportation	Start Date: 2004 End Date: 2009
<b>Position:</b> Area Construction Engineer, Staunton District. Responsible a wide range of projects related to interstates, highways, structures, drai	
Name of Firm: Virginia Department of Transportation	Start Date: pre-2002 End Date: 2005
<b>Position:</b> Assistant Resident Engineer, Staunton District. Provided of way, and construction of a wide range of transportation projects; mana assisted in administering the Six-Year Secondary Roads Construction Development Section.	aged construction inspectors; developed and
c. Education: Name & Location of Institution(s)/Degree(s)/Yea	r/Specialization:
Virginia Tech, Blacksburg, VA / Bachelor of Science / 1990 / Civ	•
d. Active Registration: Year First Registered/ Discipline/VA Re	egistration #:
1998 / Professional Engineer / Virginia # 0402 032576	
<ul> <li>e. Document the extent and depth of your experience and quations.</li> <li>1. Note your role, responsibility, and specific job duties for 2. Note whether experience is with current firm or with oth 3. Provide beginning and end dates for each project; proconsidered for evaluation.</li> </ul>	r each project, not those of the firm. her firm.
(List only three (3) relevant projects* for which you have p projects are shown in excess of three (3), the SOQ may be r the first three (3) projects listed will be evaluated.)	
<b>Replacement of Route 61 over the New River Design-Build,</b> <b>Narrows, VDOT</b> – <i>Quality Assurance Manager</i> . Managed quality assurance services for the \$22M design and construction of a new, two-lane, prestressed-concrete beam, bulb-t bridge (1,131 feet in length) replacement of a structurally deficient bridge. The project	<ul> <li><i>Relevance to I-81 at Exit 114</i></li> <li>Bridge replacement</li> <li>MSE retaining walls</li> <li>Coordination with D-B contractor,</li> </ul>

two-lane, prestressed-concrete beam, bulb-t bridge (1,131 feet in length) replacement of a structurally deficient bridge. The project also included construction of 5,970 LF of MSE wall and 174 LF of additional retaining wall, roadway approaches, storm drainage system, bike lanes, sidewalks, and utilities. The project required communication and coordination with the VDOT project manager and staff, OIA/OVST inspectors, and the contractor. He managed QA inspection and materials testing, including preparation of the QA testing plan, review and approval of the QC testing plan, supervision of QA testing technicians, coordination with the testing laboratory, and review of testing results. He conducted plan reviews prior to each submission to VDOT, and prepared monthly summary reports. Evaluated materials documentation to confirm compliance with specifications; confirmed accurate maintenance of testing documentation; reviewed and approved nonconformance recovery plans, monitored corrective actions and retests; and prepared noncompliance reports. *Evidence of Good Management Practices:* Mr. Lineberry maintained close daily contact daily with the contractor, informing them of required submissions, documents, and approvals well in advance of each work activity. As a proactive mitigation measure, he led preparatory meetings prior to major work activities; and worked with the contractor and QC team to anticipate and resolve field issues before schedule and budget were affected.

#### Firm: Volkert, Inc. | Dates: 2013 – 2014 | \$15.6M D-B

#### I-81 / Route 50 / Route 522 Interchange Reconstruction, City of Winchester, VDOT - Area Construction

*Engineer*. Managed (on behalf of VDOT) the inspection and reconstruction of an urban cloverleaf interchange to eliminate safety hazards. The \$8M project involved the reconstruction and realignment of the I-81 northbound entrance ramp including a new bridge over Abrams Creek utilizing some of the longest concrete bulb – T beams used in Virginia. The southbound off-ramp and deceleration lane were rebuilt to eliminate a dangerous high-speed weave movement on southbound I-81. Overhead signs, new signals,

#### Relevance to I-81 at Exit 114

- ✤ Brings familiarity with the I-81 Corridor
- ✤ Bridge replacement widening
- ✤ Management of QA
- Oversight of construction staff
- Redesign of ramps for cost savings

full-depth reconstruction of Route 50/Route 522, storm drainage and sidewalks were also constructed. The project improved the level-of-service of the intersections of Route 50/Route 522 and the I-81 northbound access ramp by constructing multiple turn-lanes, through lanes, and realigned right-turn lanes. Mr. Lineberry managed QA, verifying that construction complied with specifications, standards, and contract documents and oversaw materials testing including density, moisture, slump, and air content of concrete, and compressive strength on concrete. He addressed non-conformance issues regarding concrete quality and failed subgrades, monitored corrective actions, and maintained detailed documentation; monitored schedule, budget, and compliance with work zone safety, environmental, and EEO/DBE regulations; and oversaw document control procedures and quality. *Evidence of Good Performance:* Mr. Lineberry saved VDOT over \$100,000 by redesigning the construction of the northbound on-ramp. In addition, redesigned the southbound off ramp connection to Route 50 where significant improvements in flow of traffic and maneuverability by large trucks through the intersection were realized. He negotiated and resolved an issue with excessive camber in the precast bulb-T concrete beams at no additional cost and delay to the Department. The resolution involved on-site testing of the beams to confirm strength, as well as close coordination with VDOT's Research Council and Assistant State Bridge Engineer.

#### Firm: VDOT | Dates: 2006 - 2007 | Cost of Construction: \$8M

#### I-81 Exit 323 Interchange Widening and Reconstruction, Winchester, VDOT – Assistant Resident Engineer.

Managed (on behalf of VDOT) the reconstruction of this interstate interchange to increase capacity and eliminate a deficient bridge over the interstate. The \$7M project involved reconstruction and widening of a two-lane bridge over I-81 to six lanes, the reconstruction and lengthening of all access ramps, and overhead signage and signalization. In addition, the intersection with Route 11 was widened and improved with additional turning lanes and new signalization. The typical section and location of

#### Relevance to I-81 at Exit 114

- ✤ Brings familiarity with the I-81 Corridor
- ✤ Bridge widening
- Ramp lengthening
- ✤ Management of QA
- Oversight of construction staff

the ramps were modified so that the ramps could remain in service. Managed QA, verifying that construction complied with specifications, standards, and contract documents and oversaw materials testing including density, moisture, slump, and air content of concrete, and compressive strength on concrete. Prior to the start of major construction activities, managed inspection and testing personnel and conducted preparatory meetings and inspections. Addressed non-conformance issues regarding concrete quality and failed subgrades, monitored corrective actions, and maintained detailed documentation; monitored schedule, budget, and compliance with work zone safety, environmental, and EEO/DBE regulations; and oversaw document control procedures and quality. *Evidence of Proactive Stakeholder Coordination:* Mr. Lineberry worked closely with the VDOT Right-of-Way Division and Environmental Section to resolve accessibility and impacts to an historic church and graveyard at the intersection of Rt. 11. The maintenance-of-traffic was a significant challenge due to the site's proximity to a large truck stop and the West Virginia state line; he managed coordination with WVDOH for lane closures.

#### Firm: VDOT | Dates: 2002 – 2003 | Cost of Construction: \$7M

\* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.
 f. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

# ATTACHMENT 3.3.1

#### KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title: Keith Weakley, PE, DBIA, Chief Engineer	
b. Project Assignment: Design Manager	
<ul> <li>a. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please deno the type of employment (Full time/Part Time) : Volkert, Inc. (Full Time)</li> <li>b. Employment History: With this Firm <u>6</u> Years With Other Firms <u>17</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):</li> </ul>	
Mr. Weakley has 23 years of experience with the development, design, and project management of transportation projects in the Commonwealth. He has extensive experience managing complex projects and coordinating multiple design disciplines, while ensuring the design is in conformance with the Contract Documents. At Volkert, in his role a a Project Manager and Design Manager, he frequently establishes and monitors design QA/QC programs, incorporating all involved disciplines. From design and constructability review, through review of working drawings, specifications and shop drawings, Mr. Weakley is committed to QA/QC as a key element of design and project management. Prior to joining Volkert, he worked at VDOT for 16 years, and brings a long history of collaborating wi VDOT and FHWA officials, local agency representatives, elected officials, special interest groups, and concerned citizens to resolve a wide range of transportation issues including traffic and environmental impacts. Through his extensive work with VDOT he brings the ability to identify the potential need for design waivers along with expertise with their preparation, often with significant time and cost savings. Name of Firm: Volkert, Inc. Start Date: 2010 End Date: Present Position: <i>Vice President and Chief Engineer</i> . Provides technical guidance and manages multidisciplinary teams for design-build and high-visibility projects including staff, scope, schedule, budget, risk, and quality management. Oversees engineering services for the offices in Volkert's Mid-Atlantic Region including resource management, staff performance, quality assurance, and client satisfaction.	th e t
Name of Firm:Virginia Department of TransportationStart Date: 2007End Date: 2010Position:District Structure & Bridge Engineer.Directed all aspects of bridge program for VDOT's Staunton DistricSupervised a staff of 60+, oversaw \$180M construction program and managed \$21M maintenance budget.Managedconsultant contracts.Served on Statewide Project Controls Committee and Jointless Bridge Committee (and continues to serve to the present time.)	
Name of Firm:Virginia Department of TransportationStart Date: 2004End Date: 2007	
<b>Position:</b> Assistant District Structure & Bridge Engineer for Design. Managed bridge design, maintenance/repair, an project management for the Staunton District Bridge office, working with municipalities and contractors to solve construction problems. Managed and negotiated consultant contracts. Responsible for QA/QC and constructability of bridge plans.	
Name of Firm:Virginia Department of TransportationStart Date:pre-2002End Date:2004Position:Senior Structural Engineer.Designed highway & pedestrian bridges, earth retaining and other highwaystructures in VDOT's Staunton District.Performed estimating and construction coordination.	
<ul> <li>c. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization: University of Virginia, Charlottesville, VA / ME / 2006 / Civil Engineering (Structural) Virginia Tech, Blacksburg, VA / BS / 1993 / Civil Engineering</li> </ul>	
<ul> <li>Active Registration: Year First Registered/ Discipline/VA Registration #: 1998 / Professional Engineer / Virginia #0402 031697</li> </ul>	
<ul> <li>e. Document the extent and depth of your experience and qualifications relevant to the Project.</li> <li>1. Note your role, responsibility, and specific job duties for each project, not those of the firm.</li> <li>2. Note whether experience is with current firm or with other firm.</li> <li>3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not k</li> </ul>	he
considered for evaluation. (List only three (3) relevant projects* for which you have performed a similar function. If addition	al
projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, on the first three (3) projects listed will be evaluated.)	ıy

I-581 / Route 24 (Elm Avenue) Interchange Improvements Design-Build, Roanoke, VDOT – *Structural Design Manager*. Managed rehabilitation and widening design for two bridges over I-581 and the Norfolk Southern (NS) Railroad tracks in association with mobility and accessibility improvements to the I-581/Elm Avenue interchange for

this design-build project. Structural design included superstructure replacements and substructure widening to add new turn lanes in each direction and correct the substandard vertical clearance. The design converts a four-lane urban highway structure over I-581 to a six-lane bridge including sidewalks and lighting. One new pier was added to the median to convert three spans of simple steel girders to a four-span, continuous and jointless steel-girder bridge to meet current vertical clearance criteria. The design also converts a four-lane urban highway structure to a seven-lane bridge over the NS

#### Relevance to I-81 at Exit 114

- Bridges over traffic
- ✤ Complex maintenance-of-traffic
- ✤ Supervised design
- Prepared design waivers
- Coordinated multiple disciplines
- Developed and implemented design QA/QC
- Constructability and shop drawing review

Railroad tracks including sidewalks and lighting. A jointless bridge was produced by replacing simple-span, concrete, box beams with three-span, continuous, steel girders. Deck extensions were used on both bridges to eliminate joints at the abutments. The widening of the piers is supported by drilled shaft foundations and widening of abutments is supported by driven steel H-piles. Buried approach slabs were employed to reduce maintenance and minimize disruptions to traffic. Two lanes of traffic were maintained in each direction by employing three stages of construction for both bridges. *Evidence of Good Performance:* Mr. Weakley led the structural team's original design of both bridges, meeting an extremely compressed time schedule – 2.5 months; and delivered the project foundation redesigns within an extremely quick turnaround time. The entire project was designed within ten months. The effective sequence-of-construction and the transportation management plans accounted for high-volume, high-speed traffic on the interstate below, traffic volumes on Elm Avenue, and time and closure restrictions, thereby meeting an expedited construction schedule.

#### Firm: Volkert, Inc. | Dates: 2012 – 2015 | **\$20.5M D-B**

Stone Spring Road over I-81 Harrisonburg, VDOT – VDOT Structural Design Manager. Managed structural

design of a city-administered bridge replacement project consisting of two bridges and associated roadway and connections. Worked closely with the City to coordinate structural design of the new bridge which consisted of a twospan, 341-foot long continuous haunched composite steelplate girder with semi-integral abutments. The bridge was phase-constructed, and constructed on end-bearing steel Hpiles. *Evidence of Good Performance:* Designed additional reinforcement on low clearance bridge to minimize need for repairs due to inevitable future impacts. Coordinated with the

#### Relevance to I-81 at Exit 114

- Replacement of bridges over I-81
- ✤ Complex maintenance-of-traffic
- ✤ Karst geology
- ✤ Supervised design
- Coordinated multiple disciplines
- Developed and implemented design QA/QC
- Constructability and shop drawing review

contractor during pile driving operations due to highly variable subsurface conditions to minimize delays and maintain foundation capacity. Foundations were inspected and evaluated as piles were driven to keep the project on schedule, while meeting project requirements.

Firm: VDOT | Dates: 2005 – 2010 | Cost of Construction: \$25M

**I-81/Route 50 Interchange Ramp over Abram's Creek Winchester, VDOT** – *VDOT Structural Design Manager.* Managed the design team for new bridge over Abrams Creek and Shenandoah University Access Road. The 266-foot long, two-span, composite PSC Bulb-T structure featured deck slab extensions, buried approach slabs, and was continuous for live load. A study was conducted to determine the best beam layout to accommodate future widening and a life cycle cost analysis was conducted to determine if adjacent mainline structures would be replaced as part of future projects. Mr. Weakley supervised all aspects of the design, and shop drawing and temporary shoring plan review. Close coordination with roadway designers was necessary to avoid 4(f) right-of-way impacts to Shenandoah University. *Evidence of Good Performance:* Mr. Weailey worked closely with the geotechnical engineers to design road fill that accommodated subsurface drainage, while facilitating pile driving. Responsive resolution of issues in the field included redesigning pier footings for spread footings, eliminating piles, and addressing excessively cambered beams with effective coordination between the fabricator, contractor and other stakeholders. The solution to accommodate camber, while ensuring desired performance, was accomplished by adjusting the finished grade and bolsters, which avoided costly delays and potential litigation.

Firm: VDOT | Dates: 2000 - 2007 | Cost of Construction: \$8.3M

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

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

# ATTACHMENT 3.3.1

#### KEY PERSONNEL RESUME FORM

#### Brief Resume of Key Personnel anticipated for the Project. a. Name & Title: Thomas "Gene" Hubbard, Senior Project Manager b. Project Assignment: Construction Manager a. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) : DLB Enterprises, LLC (Full time) b. Employment History: With this Firm 9 Years With Other Firms 24 Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below): Mr. Hubbard has 33 years of progressively responsible construction management experience, and has managed complex bridge construction projects, always ensuring materials used and work performed met contract requirements, including "approved for construction" plans and specifications. His construction management experience and expertise earned him and his employer a VDOT commendation in 2007 for excellence in time management and performance on the Route 340 Bridge Replacement project in the Culpepper District. Name of Firm: DLB Enterprises, LLC Start Date: 2008 **End Date:** Present Position: Senior Project Manager/General Superintendent. Provides technical guidance and manages multidisciplinary teams for the entire bridge division along with high-visibility projects including staff, scope, schedule, budget, risk, and quality management. Oversees resource management, staff performance, quality assurance, and client satisfaction. Name of Firm: Burleigh Construction Start Date: 2003 **End Date: 2008 Position:** Bridge Superintendent. Supervised a staff of 8+ employees; and was responsible for troubleshooting all projects that were experiencing deadline or design difficulties. Received VDOT commendations for excellence in the areas of time management and performance on Route 340 Bridge Replacement near Elkton, VA. Name of Firm: Branch Highways Start Date: 2002 End **Date: 2003 Position:** Bridge Superintendent. Supervised a staff of 12 + employees responsible for managing all phases of bridge construction while ensuring peak efficiency and quality assurance. c. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: N/A d. Active Registration: Year First Registered/ Discipline/VA Registration #: Responsible Land Disturber (RLD) #RLD07237 / expires 07/10/2020 VDOT ESCCC # 1-01081 / expires 10/4/2018 NCCCO Crane Certification / expires 9/30/2021 ACI (American Concrete Institute) Field Inspector Certification / expires 1/30/2019 Document the extent and depth of your experience and gualifications relevant to the Project. e. 1. Note your role, responsibility, and specific job duties for each project, not those of the firm. 2. Note whether experience is with current firm or with other firm. 3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation. (List only three (3) relevant projects\* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.) Relevance to I-81 at Exit 114 Route 58 Widening (Washington County), VDOT -Construction of two bridges General Superintendent. Mr. Hubbard was responsible ✤ Bridge demolition for managing the construction of two bridges with a span

of 350 feet each, reconstruction of two miles of roadway from a two-lane to a four-lane configuration, a triple barrel box culvert with a length of 100 feet, construction

- Challenging geotechnical conditions
- ✤ Coordination with businesses and residents
- ✤ Meticulous MOT set-up

of multiple mass concrete retaining walls, and the demolition of the existing two-lane bridge. He also monitored all Quality Control (QC) activities, ensuring all materials and work met contract requirements and complied with the approved for construction plans and specifications. The project also included significant stormwater management, earthwork and shoring.

*Evidence of Good Performance:* A delay in the relocation of overhead utilities prevented the use of the most efficient construction methods, and unsuitable soils encountered required the re-design of retaining walls. Mr. Hubbard played a key role in expediting a solution which included the use of two soil nail walls in addition to the planned mass concrete retaining walls and was able to complete the project in just two additional months.

#### Firm: DLB Enterprises | Dates: 2010 - 2012 | Cost of Construction: \$20M

#### Route 58 Bypass, Phase 2 PPTA Design-Build, VDOT - General Superintendent. Mr. Hubbard was

responsible for managing the construction activities associated with seven bridges and the rehabilitation and widening of one bridge. The structures ranged from single spans of approximately 100 feet in length to a triple span totaling more than 400 feet and providing a grade separation of more than 80 feet from the roadway below. The foundations utilized in the construction of the eight structures included driven steel H piles, drilled socket H

#### Relevance to I-81 at Exit 114

- Construction of seven bridges
- ✤ Grade separation
- Challenging geotechnical conditions
- ✤ Maintenance of traffic involving
- special events

piles, and mass spread footings. The project included an 80-foot grade separation and the use of MSE walls for slope stabilization on three of the structures.

*Evidence of Good Performance:* The impacts to the traveling public were reduced by accelerating construction schedules and adjusting phases of the project around key events where peak traffic was anticipated. These benefits provided not only savings of time to the daily users, but lessened the potential economic impact to local businesses when tens of thousands of visitors pass through Hillsville during events such as the annual flea markets.

Firm: DLB Enterprises | Dates: 2008 - 2011 | Cost of Construction: \$83M

#### I-81 Bridge Replacements over Route 658 (Scratch Gravel Road) – General Superintendent. Mr.

Hubbard was responsible for managing the construction activities associated with replacing two existing bridges with very poor condition ratings, providing a safer longterm option for the traveling public. The bridges cross over Route 658 (Scratch Gravel Road) a high-volume, primary route for residents on the southeast side of Interstate 81 to drive into the Town of Marion. While the existing bridges had sufficient vertical clearance above Route 658, the project was still critical given the poor conv

- Relevance to I-81 at Exit 114
- Construction of two bridges
- Demolition of bridges with poor condition ratings
- ♦ Grade separation
- Maintenance of high volumes of
- traffic, including for special events

Route 658, the project was still critical given the poor condition of the existing structures.

*Evidence of Good Performance:* Mr. Hubbard managed the mitigation of the risks associated with the demolition of the existing structures with poor condition ratings through the utilization of a complete protection system beneath the structures.

Firm: DLB Enterprises | Dates: 2011 – 2012 | Cost of Construction: \$5.8M

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

f. 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.

Mr. Hubbard is currently working as a project manager on the Route 11 Bridge Replacement Project over Beckner Branch in Botetourt (0011-011-111, B607) which will be complete in October 2018. The I-81 Bridges at Exit 114 will start construction in late 2018 or early 2019 so Mr. Hubbard will be available and committed full time to this project.

# 3.4.1 (a) Lead Contractor Work History Forms

# ATTACHMENT 3.4.1(a)

## **LEAD CONTRACTOR - WORK HISTORY FORM**

# (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Va Construction Contract Value (Original)	Alue (in thousands) Construction Contract Value (Actual or Estimated)	g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
Name: Route 58 Hillsville By-pass Phase 2, PPTA Design-Build Location: Hillsville, VA	Name: HNTB	Name of Client/Owner: <b>Branch Civil</b> Phone: (540) 379-5603 Project Manager: <b>Pete Copes</b> Phone: (540) 982-1678 Email: <b>pete.copes@branchcivil.com</b>	11/2011	11/2011	\$83,000	\$83,195	\$11,151

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, element, and/or contract listed will be evaluated.





# DLB Played an Integral Role in this Regionally Important Project

The Hillsville Bypass was completed as a PPTA design-build project and is part of the Route 58 Corridor Development Program. With the Program's goal of enhancing economic development potential, the Hills Bypass included the construction of three interchanges and 5.2 miles of four-lane divided highway, provi connection to I-77 with increased safety, reliability, and capacity.

This Hillsville Bypass D-B project successfully designed and constructed seven bridges and the rehabilitation and widening of one bridge. The structures ranged from single spans of approximately 100 feet in length triple span totaling more than 400 feet and providing a grade separation of more than 80 feet from the road below. The foundations utilized in the construction of the eight structures included driven steel H piles, of socket H piles, and mass spread footings. Three of the structures utilized MSE walls for slope stabilization reducing the span of the structures while maximizing the available width below for roadway elements.

# DLB Successful Delivered All Eight Project Structures...

Serving as a subcontractor to Branch Highways, DLB, Inc. (DLB) was key to the delivery of a successful time, and on-budget project with their contribution of executing the construction of all eight of the structure the Hillsville Bypass. While time was of the essence, the standard of quality and safety was not comprom and in fact was raised for this critical project. By delivering the necessary expertise and resources these structures were completed in a manner that reduced the overall impact to the traveling public, while main safety and quality as top priorities.

## ... While Minimizing Impacts to the Traveling Public

The fly -over structure crossing Route 58 Business, the two structures crossing Route 670 (Snake Creek H and the rehabilitation and widening of an existing structure of Route 58 were all completed while maintait traffic. The impacts to the traveling public were reduced by accelerating construction schedules and adju phases of the project around key events where peak traffic was anticipated. These benefits provided not of savings of time to the daily users, but lessened the potential economic impact to local businesses when text thousands of visitors pass through Hillsville during events such as the annual flea markets.

	<b>Relevant Project Elements</b>
	Design-Builder's Construction
ı	Manager was the General
	Superintendent for the project
	✤ With accelerated schedule due to the
	design-build process, delivered seven
	(7) complete structures and one (1)
	rehabilitated structure in less than four
	(4) years
	✤ MSE walls reduced span of structures
	<ul> <li>Challenging geotechnical conditions</li> </ul>
r [	Just on the construction of L 91 of Evit
r	Just as the construction of I-81 at Exit
	114 project will need to minimize
	impacts to the traveling public and the
	local economy by taking into account
	special events, the DLB Team managed
	the Route 58 project so that the tens of
	thousands of visitors attending events
	such as the annual flea markets were not
	impacted. Virginia Tech football fans
	and Harkrader sports enthusiasts will be
	appreciative, too.

#### ATTACHMENT 3.4.1(a)

#### **LEAD CONTRACTOR - WORK HISTORY FORM**

#### (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design	c. Contact information of the Client or	d. Contract	e. Contract	f. Contract Valu	ue (in thousands)	g. Dollar Value of Work
	consulting firm responsible for the	Owner and their Project Manager who	Completion	Completion	Original Contract	Final or Estimated	Performed by the Firm identified
	overall project design.	can verify Firm's responsibilities.	Date	Date (Actual	Value	Contract Value	as the Lead Contractor for this
			(Original)	or Estimated)			procurement.(in thousands)
Name: Route 58 Widening – VDOT Project #0058- 095-108, C504, B607, B608	Name: Rummel Klepper & Khal, LLP	Name of Client/Owner: VDOT Phone: (276) 669-6151 Project Manager: Craig Jones, PE Phone: (276) 228-2154	06/2012	08/2012 (Due to Substantial Increase in	\$20,095	\$20,319 (Due to Substantial Increase in Scope)	\$14,424
Location: Washington County, VA		Email: <b>ct.jones@vdot.virginia.gov</b>		Scope)		increase in scope)	

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, element, and/or contracts the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.



#### DLB Provided Total Construction Services for Two Bridges and Two Miles of Roadway

This project showcases DLB Enterprises' (DLB's) wide range of technical capabilities and expertise. The scope of work included the construction of two bridges with a span of 350 feet each, reconstruction of two miles of roadway from a two-l to a four-lane configuration, a triple barrel box culvert with a length of 100 feet, construction of multiple mass concrete retaining walls, and the demolition of the existing two-lane bridge.

#### **Construction Sequencing Focused Minimizing Impacts to the Traveling Public**

Major items within the project included the bridge construction, shoring methods, maintenance of traffic, environmental controls, and utility relocation. The bridge construction included specific sequencing and required the use of two temporar work bridges and multiple traffic shifts. The sequencing provided for an efficient construction schedule while minimizing impacts to the traveling public. This was accomplished by bringing all elements to as near completion as possible prior to next construction phase, reducing the need to impact traffic at a later time to finish miscellaneous items. An array of shorin techniques were employed and a cross section of DLB's expertise was actively engaged with the installation of multiple techniques including: sheet pile shoring, soldier pile shoring, hilfiker shoring, and soil nail retaining walls.

#### **Extensive Work Required Meticulous MOT Set-Up**

The bridge construction coupled with the two miles of roadway construction presented an extensive work zone that required meticulous MOT set up. Providing a safe passage through the work zone was completed by implementing the necessary facets of the Virginia Work Area Protection Manual, cooperative effort with VDOT on any necessary field changes to the standard installation, and providing daily inspections of the work zone and performing maintenance as necessary. These efforts also required coordination with the neighboring businesses and residents in order to ensure their access was not impeded during construction.

#### **Environmental Impacts Minimized**

The environmental impacts of a project of this scale can be tremendous, especially with the close proximity of the project to the Middle Fork Holston River. This project involved the implementation and maintenance of a host of erosion control techniques. In additional to nominal erosion control items, four (4) sediment basins were constructed with the project, and were converted to permanent storm water management facilities at its completion. The sensitivity to and successful execution of environmental protection efforts displayed with this project clearly demonstrate that with the proper attention environmental impacts and disturbances can be minimized and maintained within regulatory limits.

#### DLB's Work-Arounds When Encountering Challenges - Utility Relocations and Unsuitable Soils - Minimized Delays to the Schedule

While this project was completed two months beyond the original completion date, it was still a success given the unforeseen obstacles that were encountered during construction. The items that contributed to the contract changes were relocation of the existing overhead utilities and differing soil conditions. A delay in the relocation of the overhead utilities prevented the most efficient construction methods and forced a constant coordination with the adjacent railroad operator. Work proceeded despite having to use less-than-desirable methods. During the construction of the associated retaining walls, a differing soil condition was encountered and consultation was immediately prompted by DLB. The native soils presented a condition that would have caused the retaining walls to become inadequate as designed. Coordination of DLB and its engineering support staff with VDOT resulted in an alternative solution that was viable and accepted as a change order by the Department. The solution entailed the construction of two soil nail retaining walls in addition to the planned mass concrete retaining walls. DLB played a key role in the expedited solution that reduced the potential impacts to the project's successful completion.

	<b>R</b> ELEVANT <b>P</b> ROJECT ELEMENTS
	Four-lane two-span bridges
*	Additional lanes on Rt. 58 and
	reconstruction of existing lanes
*	Challenging geotechnical conditions
*	Critical maintenance and protection of traffic
*	Utility relocations
*	Extensive erosion control protection
	SWM meeting DEQ requirements
*	

# ATTACHMENT 3.4.1(a)

# **LEAD CONTRACTOR - WORK HISTORY FORM**

# (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design	c. Contact information of the Client or Owner and	d. Contract	e. Contract	f. Contract Valu	ie (in thousands)	g. Dollar Value of Work
	consulting firm responsible	their Project Manager who can verify Firm's	Completion	Completion	Original Contract	Final or Estimated	Performed by the Firm identified
	for the overall project design.	responsibilities.	Date	Date (Actual	Value	Contract Value	as the Lead Contractor for this
			(Original)	or Estimated)			procurement.(in thousands)
Name: I-81 Bridge	Name: <b>VDOT</b>	Name of Client/Owner: <b>VDOT - Bristol District</b>					
<b>Replacements over Route</b>		Phone: (276) 669-6151					
658 (Scratch Gravel Road)		Project Manager: Craig Jones, PE	09/2012	09/2012	\$5,675	\$5,827	\$4,079
		Phone: (276) 228-2154	07/2012	072012	ψ5,075	$\psi J, 0 Z T$	φ+;072
Location: Smyth County, VA		Email: ctjones@vdot.virginia.gov					

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

#### **Relevant Project Elements**

- Provided total construction services to replace twin structures on Interstate 81
- Demolition of bridges in poor condition
- Maintenance and protection of traffic, including for special events
- ✤ Grade separation between NB and SB traffic
- ✤ Restricted foot print and minimal approach



# **DLB Provided Total Construction Services for Two Bridges along Interstate 81**

This project replaced two existing bridges with very poor condition ratings, providing a safer long-term option for the traveling public. The bridges cross over Route 658 (Scratch Gravel Road) a high-volume, primary route for residents on the southeast side of Interstate 81 to drive into the Town of Marion. While the existing bridges had sufficient vertical clearance above Route 658, the project was still critical given the poor condition of the existing structures.

## Horizontal Curve on Both Bridges Added Complexity

The scope of this project included the complete replacement of both bridges including the sub-structures. The footprint was minimized resulting in very little work on both I-81 approaches. Both bridges contained three spans each and had a length of 222 linear feet. The width of the bridges provided for two lanes of through traffic in each direction, a 6-foot inside shoulder, and a 12-foot outside shoulder. Temporary shoring was needed in multiple locations to accommodate the grade separation (*similar to the one on the I-81 at Exit 114 project*) that existed between the north and southbound directions of traffic. What added complexity to the job was the horizontal curve across the length of both bridges. The foundation type at the abutments included driven H piles in a plumb and battered orientation. The piers for both bridges were constructed on top of spread footings. There was concrete slope protection under both bridges and the girders for these new structures were steel.

## Demolition of Bridges with Poor Condition Ratings Created Additional Risk

Bridge demolition was also a key component of the project because of the volume of traffic coming in and out of the Town of Marion. The poor condition rating of the existing structures created more risk during the demolition process because of the traveling public coming under the work zone and the additional potential during demolition of structural deficiencies being exacerbated in areas with live traffic. DLB mitigated these risks with the utilization of a complete protection system beneath the structures during demolition.

## Phased Construction Maintained One Lane of Traffic In Both Directions on I-81...

This project was built utilizing a phased approach, maintaining at least one lane of traffic in both directions on I-81. The DLB Team installed and maintained all temporary traffic control devices that were needed throughout the life of the project.

## ...While Minimizing Traffic Disruptions and Accommodating Special Events

The DLB team also worked hard to minimize traffic disruptions and collaborated with VDOT on special events such as the Bristol Race so traffic would flow as smoothly as possible.

## Meeting the Schedule

The DLB Team worked hard to maintain the project schedule for the replacement of the two structures, finishing on-time and within the total budget allocated by VDOT.



As DLB is proposing for the I-81 at Exit 114 project, they mitigated risk during demolition with the utilization of a complete protection system beneath the structures.

# 3.4.1 (b) Lead Designer Work History Forms

# ATTACHMENT 3.4.1(b)

# **LEAD DESIGNER - WORK HISTORY FORM**

# (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general	c. Contact information of the Client and	d. Construction	e. Construction	f. Contract Valu	ue (in thousands)	g. Design Fee for the Work
	contractor responsible for overall	their Project Manager who can verify Firm's	Contract Start	Contract	Construction	Construction	Performed by the Firm identified
	construction of the project.	responsibilities.	Date	Completion	Contract Value	Contract Value	as the Lead Designer for this
				Date (Actual	(Original)	(Actual or	procurement.(in thousands)
				or Estimated)		Estimated)	
Name:	Name:	Name of Client.: Elizabeth River Crossing,					
<b>Route 58 (Martin Luther</b>	SKW Constructors	LLC & VDOT	Design	Design			
King Expressway)	(Skanska, Kiewit, Weeks	Phone: (757) 932-4400	08/2010	05/2013	\$210,000	\$210,000	\$11,922
Extension	Marine Joint Venture)	Project Manager: Jeff Sullivan	Construction	Construction	\$210,000	\$210,000	\$11,922
Location: Portsmouth, VA		Phone: (757) 673-9483	10/2012	12/2016			
		Email: jeff.sullivan@kiewit.com					

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts shall not be evaluated.



Working from offices in Springfield, Virginia, Volkert managed engineering and design of the Martin Luther King Expressway (Route 58) Extension — a significant component of the \$2.1B Elizabeth River Crossing PPTA project. Services provided as a subconsultant to Lead Designer, WSP | Parsons Brinckerhoff included project management; civil, structural, traffic, and hydraulic engineering; landscape architecture; and construction phase services. To provide controlledaccess connectivity to historic downtown Portsmouth and the Midtown tunnel, Volkert developed the design of . . .

- A one-mile, four-lane, limited-access toll facility
- Two new urban interchanges at I-264 and High Street
- Modifications to the London Boulevard interchange
- Two bridge widenings on I-264

- Widening of I-264 to add auxiliary lanes
- Side road improvements and an urban plaza
- MSE retaining walls
- New stormwater management facilities

## Design Focused on Cost-Effective Alternatives and Materials...

A segment of the project incorporates 18 EPS and MSE walls as a cost-effective alternative to bridge construction, helping to reduce the project footprint and minimize right of way impacts. The lightweight EPS retaining walls decreased the load on the highly compressible underlying soils and reduced settlement. Significant cost savings were achieved by using cost-

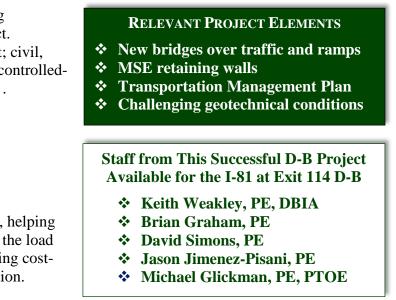
effective materials such as hybrid plate girders and a fiberglass reinforced plastic deck drainage system, which reduced the amount and size of equipment required for construction. High-performance steel reduced the overall quantity and cost of steel.

# ... And Minimized Impacts

The context-sensitive design minimizes impacts to historic resources; maintains connectivity between neighborhoods with pedestrian friendly amenities; incorporates streetscape enhancements and an urban plaza on High Street to serve as a gateway into the historic district; incorporates aesthetic treatments on and under the bridges; and turned stormwater management ponds into attractive water features. The design of the BMP stormwater management facilities complies with the performance criteria of the Chesapeake Bay TMDL and maximizes the available space for stormwater management facilities to minimize impacts on an aging and over-taxed storm drain system. To minimize impacts to historic resources, Volkert carefully designed the ramps of the new interchange at I-264 to avoid Mt. Olive Cemetery, a historic African American cemetery, and provided documentation supporting a design exception for a ramp with a 20 mph design radius at the modified interchange at London Boulevard to preserve the historic Calvary Baptist Church. Retaining walls were used to preserve properties in the historic Prentiss Park neighborhood. In addition, the ramps of the new I-264 interchange were designed to avoid disturbance to a hazmat area. The plans minimized impacts to approximately 70 properties.

Sequence-of-Construction and Type C TMP Maintained 70,000 vehicles Per Day on I-264, existing interchanges, and side streets through four phases of construction. The complex project required detours to accommodate long-term partial and full lane and ramp closures at two interchanges and along the mainline of I-264. Volkert conducted traffic analyses to determine impact of the detours on the surrounding roadway network during the four phases of construction. The analyses involved traffic data collection and the analyses of 21 intersections under pre-construction and detour conditions. The study also evaluated mitigation measures including signal phasing and timing optimization to accommodate the impacts. As a result of the study, Volkert developed a TMP designed to maintain traffic for the 70,000 vehicles per day along I-264 while meeting the construction schedule.

Evidence of Good Performance - With an extremely fast-track design, the project progressed from 30% construction plans to RFC (100%) drawings within a span of approximately 10 months.



## ATTACHMENT 3.4.1(b)

# **LEAD DESIGNER - WORK HISTORY FORM**

# (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general	c. Contact information of the Client and their	d. Construction	e. Construction	f. Contract Va	lue (in thousands)	g. Design Fee for the Work
	contractor responsible for overall	Project Manager who can verify Firm's	Contract Start	Contract	Construction	Construction	Performed by the Firm identified
	construction of the project.	responsibilities.	Date	Completion	Contract Value	Contract Value	as the Lead Designer for this
				Date (Actual or	(Original)	(Actual or	procurement.(in thousands)
				Estimated)		Estimated)	
Name:	Name:	Name of Client.: VDOT Hampton Roads		Design: 04/2014			
<b>Courtland Interchange on</b>	Curtis Contracting, Inc.	District	Design	Supplement:			
Route 58 Design		Phone: (540) 332-9075	04/2012	07/2016		\$15,258	
Location:		Project Manager: Bruce Duvall, PE		Construction Est.	\$15,000	(Estimated)	\$2,601
Southampton County, VA		Phone: (757) 494-5480	Construction	02/2018		(Estimated)	
		Email: bruce.duvall@vdot.virginia.gov	02/2016	Construction			
				Contract: 12/2018			

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.



"I can convey that the District Project Management Office is very pleased with Volkert's responsiveness, technical and professional guidance, and aggressive design advancement on this project. Another very strong trait that the Volkert team has brought to this project is its thorough knowledge of VDOT's project development process; which, I believe, is invaluable."

> ~ Bruce Duvall, PE, District Manager **Project Management Office, VDOT**

US Route 58 is a four-lane, divided, east-west highway and a National Highway Safetydesignated corridor. From offices in Springfield, VA Volkert provided multidisciplinary services: project management, roadway design, and structural, traffic, and hydraulic engineering services for the design of a new interchange on Route 58. Volkert's services also included hydraulic analysis; wetland permit sketches; plat preparation for right-of-way acquisition; supplemental survey; and geotechnical engineering. In addition, Volkert also prepared the Interchange Justification Report (IJR) to justify the need for the new interchange that consolidates three intersections on Route 58 (Southampton Parkway)— at Route 742 (Old Bridge Road); at the Route 58 Business spur, and at Route 58 Business (Jerusalem Road).

## **Design Achieves Operationally Efficient and Safe Interchange**

The design includes a new interchange bridge and ramps; a new bridge over wetlands; MSE retaining walls; two roundabouts; roadway widening to add an auxiliary lane; constructed wetlands; and signs and pavement markings. Volkert's approach involved multiple disciplines to achieve a context-sensitive design that preserves the scenic and environmental resources of the area – wetlands and property owned by the Cheroenhaka Indian Tribal Heritage *Foundation* – and adds lasting value while achieving VDOT's goal for an operationally efficient and safe interchange.

Structural Design Features Low Maintenance Jointless Technology and MSE Walls to Minimize Impacts Both pre-stressed concrete bulb-tee bridges are jointless, providing long-term low maintenance solutions for VDOT. One bridge is 525 feet long bridge and over wetlands, with five spans and MSE walls. The second is a 224-foot-long overpass over Route 58, with two spans, integral abutments, and also with MSE walls. The use of MSE walls helped reduce impacts to right of way and wetlands.

## **Design Innovations Reduce Impacts & Maximize Safety**

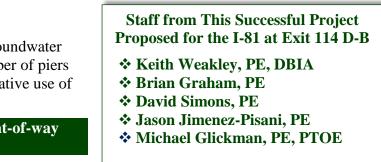
The design of surface-flow constructed wetlands was an innovative way of dealing with high groundwater elevations; and impacts to wetlands were minimized with longer bridge spans, reducing the number of piers

supporting the new bridge, and with pile bents to eliminate excavation. Utility relocations and ROW acquisition were reduced by widening Route 58 in the median. The innovative use of roundabouts replaced stop-controlled intersections which eliminated stops, increased safety, and calmed traffic.

Satisfaction of VDOT's Objectives: Volkert met VDOT's design schedule on-time and within budget, providing a cost-effective design that reduced wetlands and right-of-way (ROW) impacts, eliminated left turns, provided safer access, and calmed traffic.

# **Relevant Project Elements**

- **♦** Grade Separation
- \* New bridge over Primary highway and ramps
- ✤ MSE retaining walls
- Challenging geotechnical conditions
- Transportation Management Plan



# ATTACHMENT 3.4.1(b)

# **LEAD DESIGNER - WORK HISTORY FORM**

# (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general	c. Contact information of the Client and	d. Construction	e. Construction	f. Contract Valu	ue (in thousands)	g. Design Fee for the Work
	contractor responsible for overall	their Project Manager who can verify Firm's	Contract Start	Contract	Construction	Construction	Performed by the Firm identified
	construction of the project.	responsibilities.	Date	Completion	Contract Value	Contract Value	as the Lead Designer for this
				Date (Actual	(Original)	(Actual or	procurement.(in thousands)
				or Estimated)		Estimated)	
Name: I-581/Elm Avenue	Name:	Name of Client: American Infrastructure					
Interchange Design-Build	American Infrastructure, Inc.	Phone: (804) 290-8500	Design	Design	\$20,445	\$20,750	
Project		Project Manager: Ben Bushey	05/2013	05/3013	Entire Project	Entire Project	¢699
Location: Roanoke, VA		Phone: (671) 721-0754	Construction	Construction	\$6,700	\$6,700	\$688
		Email:	03/2016	03/2016	Bridge Only	Bridge Only	
		ben.bushey@americaninfrastructure.com					

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts shall not be evaluated.



#### **Constrained Project Footprint in the Heart of Roanoke**

I-581 is Virginia's most heavily travelled road west of Richmond. Mobility and accessibility improvements at the interchange with Elm Avenue benefit the entire region by reducing congestion at the interchange and improving traffic flow on I-581. This was accomplished with cost-effective modifications to widen ramps and bridges, and extend turn lanes. The design-build team constructed these modifications within a constrained project footprint while maintaining traffic on the bridges. Modifications and improvements also included the lane additions to both off-ramps from I-581, reconstruction of all four interchange ramps, retaining walls, utility relocations, signal and lighting upgrades, signs and pavement markings, new drainage structures, and stormwater management facilities.

## Structural Design Focused on Durability, Low Maintenance and Economy

As the structural designer responsible for the rehabilitation of two bridges within the interchange, Volkert served as a key subconsultant member of the design-build team. Working from offices in Springfield, VA Volkert developed the cost-effective bridge rehabilitation design with a focus on durability, low maintenance, and economy. In addition, they developed a sequence-of-construction for both bridges allowing construction to advance as efficiently as possible.

Bridge rehabilitation consisted of superstructure replacements and substructure widenings of two bridges over I-581 and active Norfolk Southern Railroad tracks to add turn lanes, extend left-turn lanes, and correct the substandard vertical clearance. The design converted a 200-foot-long, four-lane urban highway structure over I-581 to a six-lane bridge with sidewalks and pedestrian-scale lighting. One new pier in the median was added to the existing layout to convert three spans of simple steel girders to a four-span, continuous and jointless steel-girder bridge to meet current vertical clearance criteria. Converting the bridge to a jointless structure contributes to future low maintenance and economy. The design of the second bridge converted a 150-foot-long four-lane urban highway structure to a seven-lane bridge over the Norfolk Southern Railroad tracks with sidewalks and pedestrian-scale lighting. Simple-span concrete box beams were replaced with three-span, continuous, weathering steel girders.

## Evidence of Good Performance: Volkert met an extremely compressed schedule for the original design of both bridges, and delivered the project foundation re-designs within an extremely quick turnaround time as well.

Staff from This Project Available for the I-81 at Exit 114 Project

- \* Keith Weakley, PE, DBIA
- ✤ Brian Graham, PE
- ✤ David Simons, PE
- \* Charles Reid, PE

\*The DBPM was VDOT's IA/IV Manager

**Design Waivers -** Volkert's in-depth knowledge of VDOT design standards coupled with long-term relationships in the District bring value to the team especially when schedule is critical. On the Elm Avenue project the designers obtained waivers for a temporary condition on the bridge (delayed sidewalk installation) and no pier protection for the railroad bridge.

**Complex Subsurface Conditions -** Deck extensions and buried approach slabs were used on both bridges to eliminate joints at the abutments, reduce maintenance, and minimize traffic disruptions. Due to varying subsurface conditions, including pinnacle rock as deep as 100 feet, the widening of the piers is supported by drilled shaft foundations and widening of abutments are supported by driven steel H piles.

Meeting an Expedited Schedule - On-time substantial completion was achieved despite numerous unforeseen issues. Volkert's initial designs of the bridges rehabilitations were completed on an accelerated schedule of less than three months, and the entire project was designed within ten months. Also key to meeting the schedule was Volkert's effective sequence-of-construction and the transportation management plans which accounted for high-volume, high-speed traffic on the interstate below, traffic volumes on Elm Avenue, and time and closure restrictions.

#### **Relevant Project Elements**

- Mobility and accessibility improvements
  Karst geology
- Constrained project footprint
- ✤ Construction over traffic
- ✤ TMP
- ✤ Retaining walls

