

RFQ Submittal for a
Design-Build Project

I-64 Exit 91 Interchange Improvements

Augusta County, VA



Submitted by

State #: 0064-007-111, P-101, R-201, C-501, B-627

Federal #: NH-064-2(152)

Contract ID #: C00075877DB47

January 6, 2012



in association with
Volkert, Inc.



GENERAL EXCAVATION, INC.

9757 RIDER ROAD
WARRENTON, VA 20187
T 540.439.2202 | F 540.439.3795

3.2 LETTER OF SUBMITTAL

January 6, 2012

Mr. John Daoulas, PE
VDOT, Alternate Project Delivery Office
1401 East Broad Street
Richmond, Virginia 23219

RE: I-64 Exit 91 Interchange Improvements Design-Build, Augusta County, Virginia
State Project No.: 0064-007-111, P101, R-201, C-501, B-627
Federal Project No.: NH-064-2(152)
Contract ID Number: C00075877DB47

Dear Mr. Daoulas,

General Excavation, Inc. (GEI), a full-service prime contractor specializing in heavy highway construction, is pleased to submit this SOQ for the I-64 Exit 91 Interchange Improvement project. This submittal details the GEI design-build team organizational structure, qualifications and management strategies as well as the anticipated risks associated with the project.

As the prime offeror, GEI has comprehensive responsibility for the execution of the project and serves as lead contractor. GEI's team includes Volkert, Inc. as lead engineer providing engineering design, environmental compliance, right of way, construction quality assurance, CEI and supplemental services. Volkert will manage and coordinate the work of the team's design subconsultants. Fairfield-Echols, LLC is GEI's bridge subcontractor.

Established in 1983, GEI is active in VDOT design-build highway work and is SWaM certified. Over the past 28 years, GEI has grown into a well-established and respected general contractor with over 200 employees and annual revenues exceeding \$40 million.

GEI has been widely recognized for its dedication to providing quality work, on time and on budget. In 2010, GEI received an Excellence in Construction Award for the Best Project in the Southern Region in the Staunton District. In 2009, GEI received two excellence in construction awards for VDOT projects in the Staunton District, the Best Project in the Harrisonburg Residency and the Best Project in the Staunton District. In 2008, GEI was awarded two excellence in construction awards for the Best Project in the Edinburg Residency, and the Best Project in the Luray Residency. This illustrates the commitment to quality that the GEI design-build team brings to VDOT work and the proven relationship we have established with the Staunton District.

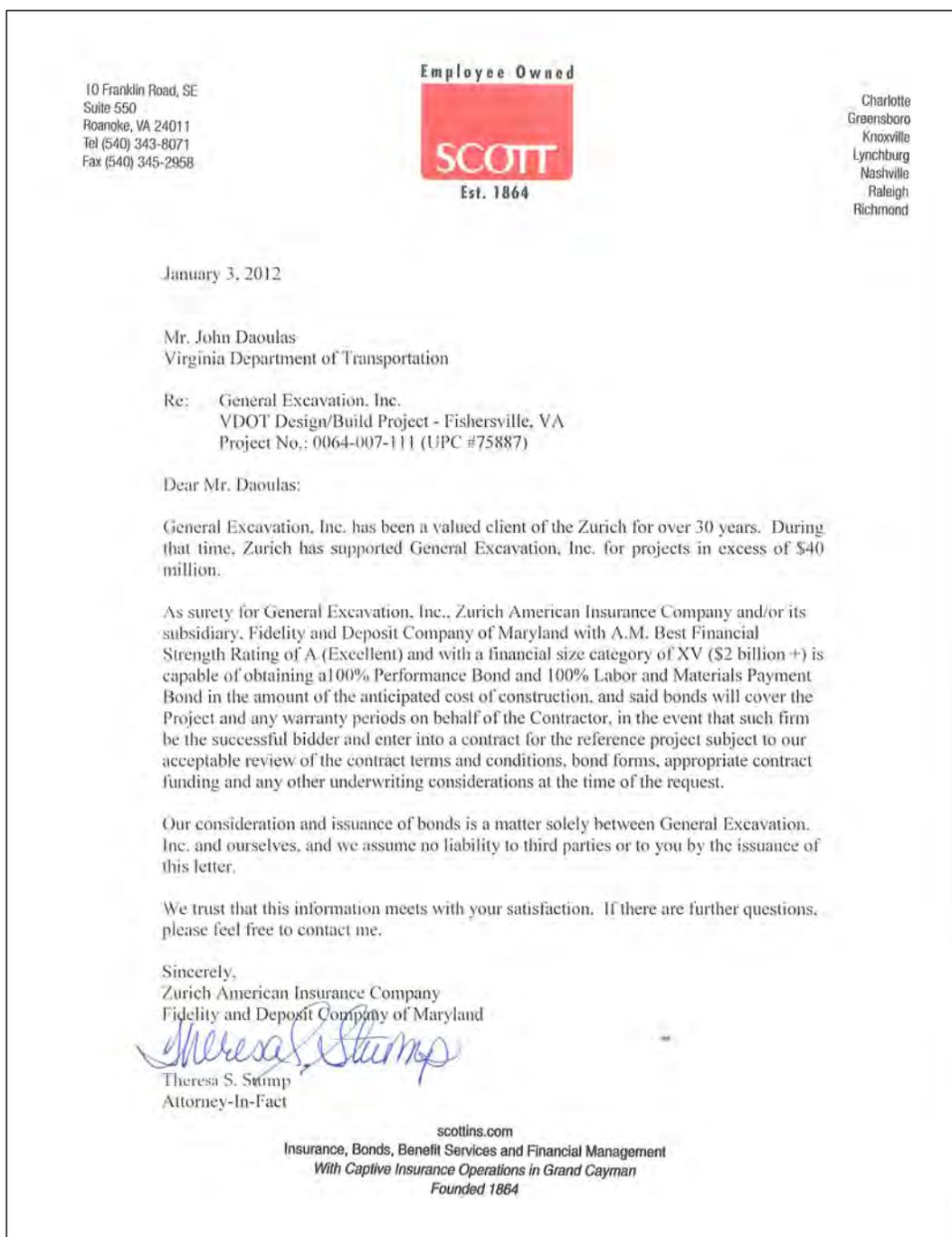
3.2.1 The GEI Point of Contact for this contract is:

Scott C. Hunter, Vice President
9757 Rider Road, Warrenton, Virginia 20187
540-439-2202 (P) ~ 540-439-3795 (F) ~ shunter@gei-va.com

3.2.2 The GEI principal officer, address, and phone numbers are as follows:

Scott C. Hunter, Principal Officer
9757 Rider Road, Warrenton, Virginia 20187
540-439-2202 (P) ~ 540-439-3795 (F) ~ shunter@gei-va.com

- 3.2.3** Structure of Offeror. GEI is a Virginia corporation and will undertake complete financial responsibility for the design and construction without liability limitations.
- 3.2.4** Affiliated/ Subsidiary Companies. GEI has no affiliated or subsidiary companies.
- 3.2.5** Certification Regarding Debarment. All of the firms participating on the GEI design-build team are in good standing. Executed Certification Regarding Debarment Forms, Attachment 3.2.5(a) and (b), indicating such are located in Attachment 3.2.5 of this submittal.
- 3.2.6** The Offeror's VDOT Prequalification Certificate is in Attachment 3.2.6 of this submittal.
- 3.2.7** A letter from GEI's Surety Company, is included below.



3.2.8 Governmental Licensure - SCC and DPOR

.1 SCC Registration

Firm	Registration No.	Type of Corporation	Status of Business Entity
General Excavation, Inc.	02400679	S, Corporation	Active, In Good Standing
Fairfield-Echols, LLC	S1665795	Limited Liability Co.	Active, In Good Standing
Volkert, Inc.	F1366592	S, Corporation	Active, In Good Standing
Sabra, Wang & Assoc., Inc.	F1343203	S, Corporation	Active, In Good Standing
Schnabel Engineering, Inc.	07126741	S, Corporation	Active, In Good Standing
Racey Eng. PLLC	S0844995	C, Corporation	Active, In Good Standing
Froehling & Robertson, Inc.	00272112	S, Corporation	Active, In Good Standing
Crider & Associates, Inc.	F1878588	Corporation	Active, In Good Standing
Lorraine Davis Appraisal & Consulting, LLC	S3063825	Limited Liability Co.	Active, In Good Standing
EBA Engineering, Inc.	F123900	S, Corporation	Active, In Good Standing

.2 DPOR for Each Office Offering Services

Firm Name and Address	Registration Type	Registration Number	Expiration Date
General Excavation, Inc. 9757 Rider Road Warrenton, VA	Class A Contractors License	27101 026132A	04/30/13
Fairfield-Echols, LLC PO Box 479 Fishersville, VA 22939	Class A Contractors License	2705 116070A	7/31/13
Volkert, Inc. 5400 Shawnee Rd, Suite 301 Alexandria, VA 22312	ENG	0407 002610	12/31/13
Sabra, Wang and Assoc., Inc. 101 E. Broad Street Suite 301 Falls Church, VA	ENG	0407 005636	12/31/13
Sabra, Wang and Assoc., Inc. 1540 Joh Aavenue, Suite 160 Baltimore, MD 21227	ENG	0411 000839	2/29/12
Schnabel Engineering, Inc. 2020 Avon Court Suite 15 Charlottesville, VA 22902	ENG	0411 000698	2/29/12
Racey Eng. PLLC 312 W. Main Street PO Box 387 Luray, VA 22835	ENG, LS	0413 000251	12/31/13
Froehling & Robertson, Inc. 6181 Rockfish Gap Turnpike Crozet, VA 22932	ENG	0411 000052	2/29/12
EBA Engineering, Inc. 287 Shingle Oak Lane Nellysford, VA 22958	ENG	0411 0000659	02/29/12

EBA Engineering, Inc. 714 Westwood Office Park Fredericksburg, VA 22401	ENG	0411 000871	02/29/12
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.3 DPOR License for Key Personnel

Firm Name and Address	Registration Type	Registration Number & Office Location	Expiration Date
Keith Weakley, PE 124 Meadow Lane Stanley, VA	Professional Engineer	0402 031697 <i>Office Location:</i> Alexandria	01/31/12
Kia Nejad, PE 7804 Green Twig Road Bethesda, MD 20817	Professional Engineer	0402 030510 <i>Office Location:</i> Alexandria	12/31/12
Ben Lineberry, PE 423 Kern St. Woodstock, VA 22664	Professional Engineer	0402 032576 <i>Office Location:</i> Alexandria	04/30/12

.4 DPOR License for Non APELSCIDLA (i.e. Real Estate Appraisal)

Firm Name and Address	Registration Type	Registration Number & Office Location	Expiration Date
Crider & Associates, Inc. 2 Ridgeway Avenue Greenville, SC 29607	Real Estate Appraiser Board	4008 001721	12/31/13
Lorraine Davis Appraisal & Consulting, LLC 647 Beall Ave Luray, VA 22835	Real Estate Appraiser Board	4008 001643	03/31/12

3.2.9 DBE commitment statement. GEI is committed to achieving a minimum goal of twelve percent (12%) DBE participation for the entire value of the contract.

The GEI design-build team is committed to meeting VDOT's goals for the project completion schedule and cost efficiencies, while exceeding expectations for quality on the I-64 Exit 91 Interchange Improvement project. Please feel free to contact me with questions or for any additional information.

Sincerely,
 GENERAL EXCAVATION, INC.



Scott C. Hunter
 Vice President

3.3 OFFEROR'S TEAM STRUCTURE

As prime offeror, GEI will be solely responsible for all aspects of the design, construction, and quality control on the project. The principle members of the GEI design build team have a history of working together on both VDOT and locally administered projects that have received funding from VDOT. From these past experiences, the GEI team brings established working relationships and a wealth of "lessons learned" expertise, both of which provide the foundation for our "Success Builds Success" approach. The GEI team is led by Mr. Scott Hunter (GEI) who will serve as the Design-Build Project Manager (DBPM). Mr. Page Gallihugh (GEI) will be the Construction Manager (CM). Team members include:

- General Excavation, Inc.(GEI) – Prime offeror, grade and utility construction
- Volkert, Inc. (Volkert) – Design, quality assurance, and environmental compliance
- Fairfield-Echols, LLC (FELLC) – Structure and bridge construction
- EBA Engineering (EBA) – Quality control
- Froehling & Robertson, Inc. (F&R) – Quality control laboratory testing
- Schnabel Engineering (Schnabel) – Quality assurance laboratory testing
- Lorraine Davis Appraisals & Consulting, LLC (LDAC) – Right-of-way review
- Crider & Associates (Crider) – Right-of-way appraisal
- Racey Engineering, PLLC (Racey) – Design survey
- Sabra Wang & Associates, Inc. (SWA) – Traffic/ITS/MOT design services

3.3.1 KEY PERSONNEL

Detailed resumes for the six (6) key personnel are provided in Attachment 3.3.1.

.1 Design-Build Project Manager, Scott Hunter (GEI) is responsible for the successful delivery of the I-64 Exit 91 Interchange Improvement project. His role is to manage all functions of the project and coordinate the activities of the designers and construction staff. He will oversee scheduling, project controls, reporting, compliance, and stakeholder outreach. Mr. Hunter will coordinate regularly and serve as the point of contact with VDOT. Mr. Hunter has 25 years of experience working on VDOT construction projects and served as DBPM on the VDOT Pacific Boulevard Design-Build project in Loudoun County. Mr. Hunter's additional experience includes:

- Route 234 / I-95 Interchange, Prince William County –Replacement of the Route 234 bridges over Interstate 95 and construction of the HOV lanes on I-95 from Dale Boulevard to Route 234
- Nutley Street Interchange, Fairfax County –Demolition and replacement of the Nutley Street bridge over I-66 and the Metro Rail
- Route 28 Interchange and Bridges over the Dulles Toll Road and Airport Access Roads
- I-66/I-495 Interchange Improvements –Ramps and HOV lanes to Interstate 66 and construction of access ramp bridges over both I-66 and I-495

.2 Quality Assurance Manager – Ben Lineberry, P.E. (Volkert) will establish and oversee the QA program while leading the QA team to ensure that materials, testing and sampling conform to contract requirements and construction plans and specifications. He operates independently from the contractor operations overseeing the QA inspection and testing. Additionally, as the QAM, Mr. Lineberry and his staff will independently monitor and review the testing and inspection work performed by the construction QC team which will be managed and run separately by EBA Engineering. Mr. Lineberry, a Virginia registered professional engineer, has significant experience on

similar urban interchange projects having served as an Area Construction Engineer in the Staunton District prior to joining Volkert.

.3 Design Manager – Keith Weakley, P.E. (Volkert) is responsible for coordination of all design disciplines and leading the team in the development of a quality design product. All design disciplines report directly to Mr. Weakley. He is responsible for developing and monitoring the design quality assurance and quality control program which includes review of design, specifications and constructability. Mr. Weakley is a licensed Virginia professional engineer who thoroughly understands the VDOT process. Mr. Weakley worked in the Staunton District bridge office for 16 years and served as the District Bridge Engineer from 2007 to 2010, prior to joining Volkert.

.4 Construction Manager – Page Gallihugh (GEI) is responsible for managing the daily construction activities and will be located at the project site throughout the duration of the construction. Mr. Gallihugh will monitor the quality control activities and ensure that the materials and work meet the contract requirements, approved construction plans and specifications. Mr. Gallihugh has VDOT design-build experience having provided management and oversight of the field operations on VDOT's Pacific Boulevard Design-Build project. Mr. Gallihugh has 23 years of CM experience and holds a DCR Responsible Land Disturber Certification and a VDOT Erosion and Sediment Control Contractor Certification.

.5 Lead Structural Engineer – Kia Nejad, P.E. (Volkert) has 24 years structural engineering experience. In the past 8 years he has served as senior engineer for major interchange bridge and structures design including retaining walls. He has significant design-build experience serving as technical structural engineer on the complex \$513 million Inter-County Connector project in Maryland, the VDOT \$35 million D-B Battlefield Parkway project in Leesburg, and the FHWA D-B Southern Ave. over Suitland Parkway in Washington, DC. Mr. Nejad is a Virginia registered professional engineer. He is available throughout the duration of design and construction of the bridges and retaining walls to review and modify designs as field conditions dictate.

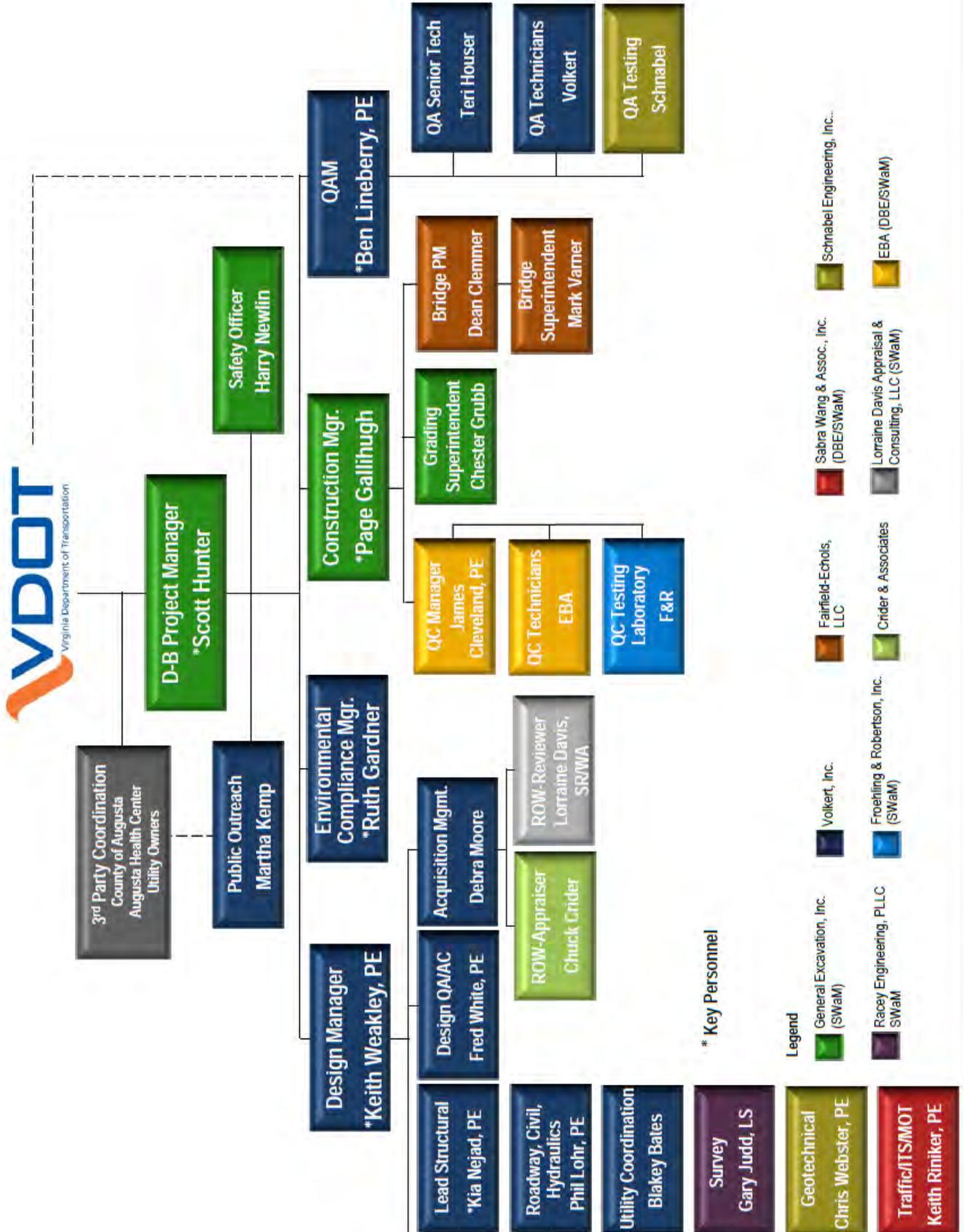
.6 Environmental Compliance Manager – Ruth Gardner (Volkert) For nearly 30 years, Ms. Gardner worked for VDOT's Staunton District, Environmental Section securing environmental clearance for both state and federally funded highway improvement projects. Her experience includes field reviews to determine the type of water quality permit required and filing permit applications with agencies such as USACE, VMRC and DEQ. She has worked with project designers to avoid and/or to mitigate environmental impacts during the design phase, and during construction she has provided oversight to ensure that all environmental commitments were implemented. Ms. Gardner also worked for the County of Augusta in a similar role.

3.3.2 ORGANIZATIONAL STRUCTURE

The GEI design-build team organization chart (*on the following page*) shows the reporting relationships and structure for the I-64 Exit 91 project. Illustrated are the reporting relationships between VDOT, the DBPM and the primary functions of design, quality assurance, construction, and environmental compliance as well as the support team that address all facets of the project and provide a comprehensive, committed team.

GEI selected Fairfield-Echols (FELLC) to provide the bridge construction for this project. FELLC is located adjacent to the project in the Expo Industrial Park and has previously worked with GEI on four VDOT construction projects.

GEI and Volkert key staff Keith Weakley and Ben Lineberry have coordinated and/or worked together on several past VDOT projects. Volkert has worked recently with both GEI and Fairfield on over a dozen design-bid-build projects in the Staunton District and in other locations. Environmental key



staff, Ruth Gardner, has worked with Mr. Weakley, Mr. Lineberry, and additional Volkert design staff on VDOT projects in the Staunton District. As lead design engineer, Volkert provides all key design roles including structure, roadway, civil, hydraulics, utility coordination, design QA/QC, acquisition management and management of subconsultant firms. Volkert's engineers work together daily on similar VDOT interchange, bridge and roadway projects. Volkert's quality assurance management group regularly works with both the designers and contractors in the execution of their work.

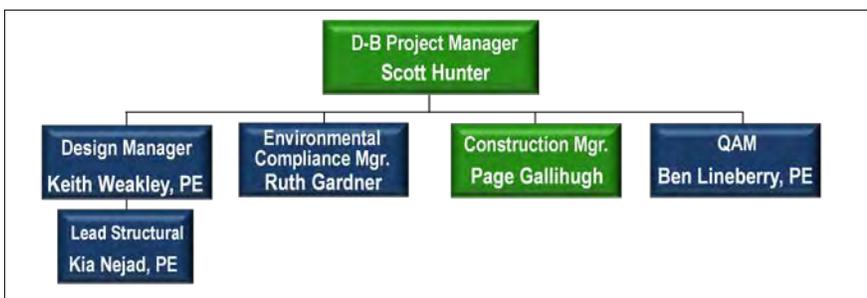
GEI, Volkert and FELLC bring working experience and relationships on comparable past projects. This team also brings extensive experience working with VDOT and local stakeholders, review and permitting agencies. The team is fully prepared and staffed to undertake this project and provide responsive, well-coordinated, cost-effective and on-time construction services.

Functional Relationships

Design-Build Project Manager-The primary point of contact with VDOT is the GEI DBPM, Scott Hunter. Mr. Hunter has experience serving in this crucial role and is fully responsible to VDOT and the third party stakeholders for contract administration, risk management, and successful delivery of the project. He directs the team in the execution of the contract and is responsible for and oversees the design, construction, environmental and quality assurance to fully integrate the delivery of the contract to VDOT's quality standard.



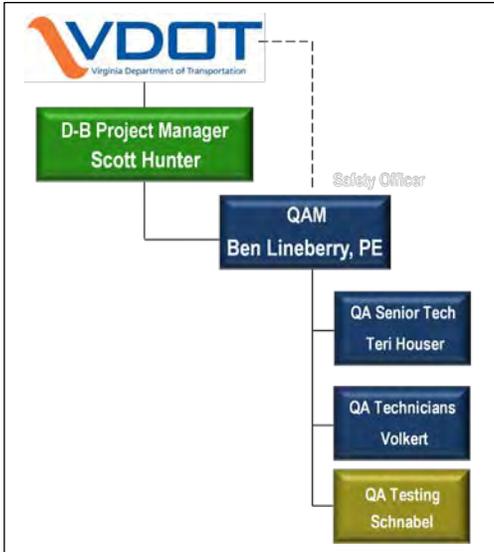
The DBPM will hold monthly progress meetings and pre-event and milestone meetings from project startup through completion with key personnel and staff to review, document, and determine next steps and actions needed to meet milestones and project goals. The DBPM will work with key staff to track schedule, deliverables, submittals, RFIs, witness/hold points, shop drawings and other items critical to project completion.



Key Staff - The primary staff working with Mr. Hunter in design, management and implementation are the DM, ECM, CM, QAM, and SE. Mr. Hunter will require these staff members to coordinate within and between their assigned staffs to ensure that the project

goals are communicated consistently within all levels of the organization. The core team of management professionals supports the DBPM with the needed expertise to keep the project on-time, keep the surrounding area safe and accident free, and keep the public well informed. The SE will work directly for the DM in the development of the bridge replacement design and throughout construction.

Quality Assurance Team – The QAM role is performed by Volkert and led by Mr. Ben Lineberry, PE. Mr. Lineberry is responsible for independent QA oversight for all construction activities and managing the daily work of the QA technical staff and QA testing firm, Schnabel Engineering, Inc.



The QAM is directly responsible to the DBPM to make sure that the VDOT quality standards are followed and that hold and witness points are observed throughout the life of the project. The QAM has the authority to stop the project should he discover work that does not meet VDOT or the GEI team's requirements. With Mr. Lineberry's past experience as a Staunton District Area Construction Engineer, his oversight provides the assurance that QA work is being performed from a VDOT and GEI team quality perspective.

The QAM will work with the DBPM to develop a project specific QA plan to govern the procedures of the QA staff. This plan will specify the exact procedures for conducting and documenting sampling, testing, and inspections. These procedures will be reviewed at the preparatory inspection meetings prior to each construction activity/work package.

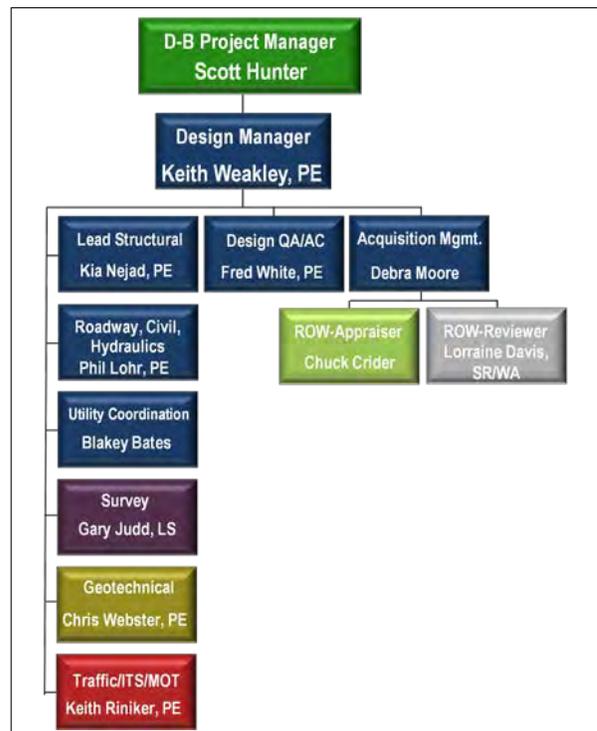
The QAM will review QC reports prepared by EBA Engineering, who is providing quality control for construction including QC inspection. EBA has been practicing construction quality control services for 30 years in the mid-Atlantic area. The QAM will also monitor the QC testing performed and reports prepared by F&R, the team's QC testing firm.

Mr. Lineberry will be available to VDOT and stakeholders to resolve QA problems that arise.

Volkert senior structural engineer, Fred White, P.E. an engineer not involved in the design process is responsible for quality assurance for the design. Having managed VDOT projects for more than 17 years, he is very knowledgeable of current VDOT standards, practices, and policies.

The team's QAM, QC and design QA/QC structure provides for verification of compliance with the quality requirements contained in VDOT's Minimum Quality Control/Quality Assurance Requirements for Design-Build and PPTA Projects Manual 2008 (and adaptable to the pending updates) by qualified individuals who operate independently of project designers and construction staff and who do not have direct responsibility for performing the work. The team's structure and functional organization was developed to maintain the integrity of the QA/QC process through a clear and independent separation between design, construction QA, and construction QC. Our complete QA/QC program will require minimal QA/QC efforts by VDOT, such as IA & IV testing and periodic monitoring. In addition, the QAM will interact with the CM to address field issues and determine strategies to efficiently resolve non-conforming work. The QAM will also coordinate with the CM for preparatory inspection meetings.

Design Team - Keith Weakley, Design Manager (DM) directs all design disciplines and reports to the



DBPM. Mr. Weakley will ensure that all design disciplines coordinate with utility relocations, right-of-way limitations, MOT requirements, existing conditions and environmental permitting activities.

Kia Nejad, P.E., Lead Structural Engineer (SE) will work under the direction of the DM to develop functional solutions to the bridge substructure and superstructure replacement, and retaining wall selection and design. The DM and SE will collaborate with Volkert's civil engineer, Phil Lohr, PE and utility coordinator, Blakey Bates to develop the components of the structure, the roadway geometrics, and utility coordination requirements. Mr. Lohr brings to the team experience on complex interchange improvement projects having served as project manager for the award winning I-65 / Corridor X Interchanges, Birmingham, AL. Mr. Bates has 32 years of experience and formerly served as a VDOT District Right of Way and Utilities supervisor responsible for utility relocation in the Culpeper District.

Supporting the Volkert in-house design team are Gary Judd, LS of Racey Engineering providing design survey services; Chris Webster, PE, Schnabel Engineering, providing geotechnical services, and Keith Riniker, PE of Sabra Wang providing traffic, ITS and MOT services.

Acquisition Management – Also working under the direction of the DM are the right of way acquisition services team, managed and coordinated by Ms. Debra Moore. For 20 years, Ms. Moore worked in the VDOT Right of Way division, most recently serving as Assistant Manager responsible for managing all aspects of the negotiation and legal functions in the NOVA District. Ms. Moore will work with the appraiser and reviewer to coordinate and meet VDOT requirements and comply with the Code of Virginia.

Right of Way Appraisals, Crider & Associates, Inc. is a full service appraisal company with over 20 years appraisal experience. Mr. Charles Crider, MAI is a designated member of the Appraisal Institute, and will work as part of the GEI team providing the appraisal services for this contract.

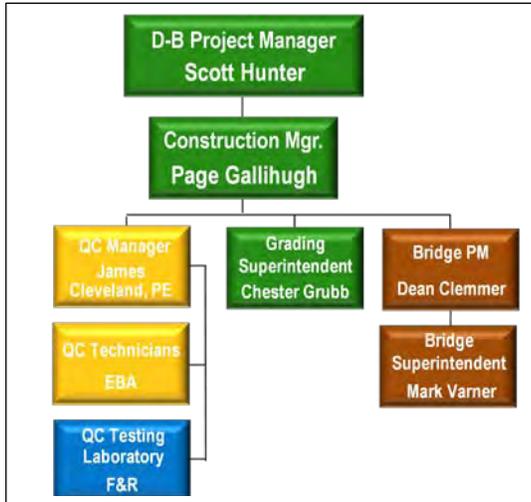
Right of Way Reviews, Lorraine Davis Appraisals & Consulting, LLC is based in Luray Virginia, and is a SWAM enterprise incorporated in Virginia in 2009. Ms. Davis is a former VDOT Staunton District right of way specialist and is thoroughly familiar with the review process in this area. She will provide the right of way review services for this contract.

Mr. Weakley (DM) will coordinate with the construction staff and QAM regarding when the plans will be ready for review as well as when comments should be returned. The CM will review the design plans and provide feedback on construction means and methods, as well as perform constructability reviews. The QAM will review the plans for constructability and compliance with the contract requirements. The QAM will also coordinate with the DM on identifying risks and corresponding mitigation of those risks.

Mr. Weakley and Mr. White (Design QA/QC) will conduct a design QA review and discuss any findings with the DBPM prior to submittal of the documents to VDOT and other agencies for review and comments. Once all VDOT and government agency comments are received, the designers and construction personnel will meet again to review the comments, and assemble the final plans.



Environmental Compliance – Ms. Gardner, ECM will report directly to the DBPM, and work with both the design and construction key personnel. She will ensure compliance with all environmental commitments required by the design and permits during the construction of the project. She will provide design input and review, and provide modifications to the design based on field conditions and construction activities.



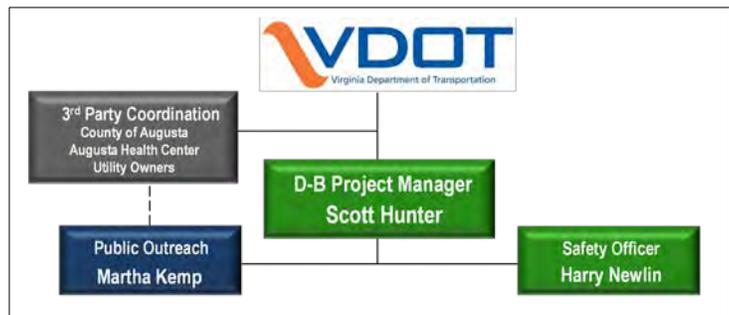
Construction Team - The CM for the project is Mr. Page Gallihugh who will direct the construction administration effort with the assistance of the project superintendents and foremen, reporting directly to the DBPM. He will oversee the QC program which includes QC testing to be performed by F&R, and QC inspections by EBA. The CM will be present at the site at all times during the performance of construction activities, and will be responsible for the day-to-day construction administration duties. As the project proceeds, the CM will provide as-built information to the DM.

The Grading Superintendent, Chester Grubb and Bridge Project Manager, Dean Clemmer report directly to the CM. Mr. Grubb and Mr. Clemmer are responsible for

acquisition of materials, scheduling, and resource allocation for the project. Bridge Superintendent, Mark Varner is responsible for on-site bridge, retaining walls, and culvert construction activities.

The CM will manage the construction QC plan and staff. The QC plan is managed by Mr. Jim Cleveland, PE of EBA. Mr. Cleveland served as a construction engineer/manager with VDOT for 20 years and brings the owner's perspective to the QC activities associated with the project. F&R will provide QC laboratory testing. The QC plan addresses a variety of elements including bridge components, earthwork, erosion control and environmental, paving, and utilities, and includes all subcontractors. The CM will meet with the DBPM and QAM to discuss any quality issues and implement any recommendations to correct the issue. The CM will assure that all project daily reports and other requested information will be sent to the QAM for approval.

Support Functions – Safety Officer, Mr. Harry Newlin reports directly to the DBPM. Mr. Newlin is a retired state police officer and VDOT- certified work zone traffic control instructor. He has comprehensive safety and construction experience and has managed the safety program on numerous highway projects. He will work closely with the design and construction team to ensure that all safety measures are implemented and will monitor safety for all work performed on the project to be sure that work is in compliance with project specific and company-wide standards.



Public Outreach Coordinator, Ms. Martha Kemp reports to the DBPM and works with the design and construction teams to provide coordination and outreach to 3rd party stakeholders including Augusta County, the Augusta Health Center, local utility owners, businesses, churches, elected officials and citizens on a regular basis. Ms. Kemp has 12 years of transportation public outreach experience working with stakeholders, elected officials and public agencies in the implementation of successful public information and project communication plans.

3.4 EXPERIENCE OF THE OFFEROR'S TEAM

As the prime offeror, GEI has ultimate responsibility for the successful delivery of this project. The team's projects chosen for Section 3.4.1 underscore the Contractor's and the Designer's strong work history with VDOT. The work demonstrates the team's ability to design and construct in environmentally and historically sensitive areas, stage construction over interstates, provide interchange design and effective traffic management in critical corridors, and work with the local community, businesses and elected officials to successfully deliver the project.

KEY TEAM MEMBER EXPERIENCE DELIVERING PROJECTS

GEI, a full-service contractor specializing in heavy construction, has a 29 year history of successfully delivering VDOT projects. GEI is capable of constructing projects ranging up to \$100 million and will self-perform the grading and utility work on this project.

FELLC has been headquartered in Staunton and Augusta Co. since 1963. They have constructed numerous bridges for VDOT, ranging in size from \$100,000 to over \$30 million. They are located adjacent to the I-64 Exit 91 Interchange project in the Expo Industrial Park and will perform bridge construction.

Volkert has provided engineering and CEI services for 85 years. Volkert has experience throughout Virginia and is designing a \$200 million VDOT PPTA project with features similar to the Exit 91 project. Volkert staff has a long work history in the Staunton District. Volkert will be providing design, QAM and CEI services for this project.

Figure 1 below is representative of the many projects the GEI design- build team and staff have worked on cooperatively.

CONTRACTOR EXPERIENCE

Rte. 340 Overall Run, Page County - This project was a team effort with GEI and FELLC as the constructors, with the involvement of Volkert DM and Volkert QAM. The \$11 million project included a 300 ft. bridge and approach roadways, including intersection relocations. The traffic volume was high, and it was a critical corridor having considerable detours as it serves as the main north-south route in the area. MOT was a major concern on this project, as well as environmental and

Projects	GEI	FELLC	VOLKERT CEI	VOLKERT Design
Rte 340 Br. over Jeremy's Run, Page Co. <i>(Award Winner)</i>	X	X	X	X
I-81, Frederick County <i>(Award Winner)</i>	X	X	X	X
Rte 340 Br. over Overall Run, Page Co.	X	X	X	X
Rte 644, Rockingham Co. <i>(Award Winner)</i>	X		X	X
I-81 Br. over Buffalo Ck., Rockbridge Co. <i>(Award Winner)</i>		X	X	X
Rte 262 Staunton Bypass Loop, Augusta Co.		X	X	X
I-81 & Route 7 Interchange, Winchester	X	X	X	
Rte 522 NBL Br. over Opequon Creek, Frederick Co.	X	X		X
Rte 340 Br. over Rte 683 & NSRR, Page Co. <i>(Award Winner)</i>		X		X
Rte 250 Br. over Middle River, Augusta Co. <i>(Award Winner)</i>		X		X
I-81 Truck Climbing Lanes D-B, Rockbridge Co.		X		X
Erickson Avenue over I-81, Harrisonburg		X		X

Figure 1 - Includes firm and staff experience

impacts to an adjacent battlefield and rural historic district. The design incorporated aesthetic and context sensitive features to help it blend into the surroundings. The project was built in a karst environment, included rock excavation and posed significant challenges due to subsurface material.

Route 81 over Buffalo Creek - This project was built by FELLC as a prime contractor. The \$23 million project included the replacement of 2 bridges (586 & 610 ft. long) on interstate 81, and 2.1 miles of approach roadway. Considerable approach roadway construction was involved, which included raising the grade approximately 10 ft. Both bridges were stage constructed in a very high volume traffic situation, with high truck traffic. Due to the staged construction and sequencing, various traffic pattern changes were required. Because of successful coordination and proactive communication and involvement of all of the stakeholders, there were no traffic related accidents during the 3 year duration of the project, despite the higher than normal accidents at this location. The project was constructed in a highly karst environment that required careful coordination with the VDOT Bridge office. Through extensive planning and cooperation, and constant communication, this project won the **2008 National Partnership for Highway Quality-Making a Difference Silver Award for Breaking the Mold, 2007 VDOT State Construction Quality Award, 2007 Staunton District Best Project Award and 2007 Lexington Residency Best Project Award.**

Interstate 66 & 29 at Linton Hall-Advanced Detour and Access Road - GEI completed this project in September of 2011. It was a \$9 million project for the construction of 1.2 miles of roadway and advanced detour in advance of the larger project. Construction and relocation of several utilities was required. The project was in an urban environment, with considerable traffic and complex phasing. There were several crossings of the railroad in Gainesville, which were time sensitive and required considerable coordination. Because of the number and variety of utilities involved in this project, the team learned that advance and timely utility relocation is required to preserve the project schedule and reduce delays. This means early identification of and coordination with 3rd party owners. This will be a key aspect to successfully deliver the Exit 91 project on time.

Erickson Avenue over I-81 - FELLC is currently completing the bridge on Erickson Avenue (Stone Spring Road) in Harrisonburg. The bridge is a 320 foot long jointless 2 span continuous steel girder and was staged constructed. In many ways, this project location closely resembles the project location of I-64 Exit 91, and likely will have a similar structure type. FELLC has completed the final deck pour and is on the way to an early completion. Aside from the structural characteristics of this bridge, the operational aspect of dismantling the existing structure in close proximity to the newly constructed first phase, demolition activities over the interstate, and erection of structural steel over the interstate are pertinent to the Exit 91 project. The project was also constructed in a highly karst environment, with several foundation issues that had to be interactively solved with the design staff.

Rte. 262 Staunton Loop - FELLC completed this project in 2006, which consisted of several miles of roadway on new alignment, 4 interchanges and 6 bridges at a value of \$32 million. This project was in a rural area, but did include utility work and interaction with traffic at interchanges and project tie-ins. Early and often coordination with utility owners was crucial to the success of the project. FELLC used message boards and communications with EMS to minimize issues related to traffic impacts. The project also had several bridges in karst areas. To mitigate the potential delays with variable foundation conditions, these were excavated early to allow time for redesign. They also worked closely with VDOT staff to implement modifications cooperatively. The project included several locations of environmentally sensitive wetlands. To reduce the risk and exposure, FELLC minimized the footprint of the project including access roads and causeways.

DESIGN AND QAM EXPERIENCE

Interchange Design -Volkert has designed interchange projects ranging from routine to complex for VDOT and other DOT clients. Volkert designed and provided CEI services for the I-75 Interchange at

Enterprise South for Tennessee DOT. The \$23 million project consisted of 2 miles of roadway widening from 4 to 8 lanes, a new bridge, signals, interchange lighting, retaining wall design, and drainage. Volkert designed the I-81/Rte. 460 interchange bridges in Christiansburg, as well as the Rte. 419/81 interchange modifications in Salem. Both of these interchanges required coordination for many businesses such as hotels, fast food establishments, gas stations with respect to access management guidelines. The design efforts also involved public outreach to incorporate concerns from property-owners and citizens. Volkert is providing design for the I-81 Exit 310 project in Frederick County and the Rte. 29/666 and the Rte. 15/17/29 interchanges in the Culpeper District. Many of the design features are consistent with the I-64 Exit 91 project. Constrained right of way, accommodation of local businesses, and effective management of traffic are significant elements in the design of these facilities.

VDOT Bridge Design - Volkert holds one of the regional statewide new bridge design on-call contracts with VDOT. In the past 3 years, Volkert has received 15 tasks for 16 different structures. These projects include a variety of different site conditions and structure types, including 2 structures crossing I-66. All projects were delivered on or ahead of schedule, and underscore Volkert's design expertise in bridge design and construction phasing. Volkert is on the team selected in 2011 for next Statewide New Design contract, confirming Volkert's quality of work. For Glebe Road / Route 50 interchange improvement in Arlington, Volkert developed a phased construction plan to replace the bridge located in a highly urban area, with significant traffic volumes and issues, and complicated staged construction requiring 10 phases. In order to minimize the impacts to traffic, accelerated construction methods and night work are being used to avoid daytime delays in this already congested area. Some of the traffic mitigation strategies used on Glebe Road can also be applied to I-64 Exit 91.

Design-Build for Replacement of Rte 29 over the Tye River, Amherst Co. - Volkert is providing QAM services during the design and construction of a \$6.7 million VDOT design-build project for a new, 2-lane, pre-stressed concrete girder bridge and approaches to replace a structurally deficient steel-girder bridge on the northbound lanes of Route 29 and to raise the roadway profile to match the profile of the southbound bridge. The project included switching traffic to the NBL to construct the bridge, as well as working around a trail, which needed continuous access as well as environmental constraints due to an endangered mussel population.

CEI for Route 221 Widening, Roanoke Co. – Volkert is providing CEI for this \$20.2-million VDOT construction project to widen a 0.94-mile section of 2-lane road to 4 lanes. The project includes 3 bridges crossing the environmentally sensitive Back Creek, considerable excavation in mountainous terrain, numerous connections, and high traffic volumes with challenging MOT. The project also involved the installation of specialized slope drains and MSE walls.

LESSONS LEARNED

The GEI team has identified key areas applicable to the Exit 91 project, where lessons learned on past projects will be implemented to improve the safety and quality and ensure on-time delivery.

Traffic Management: The TMP for a project must be developed with input from all stakeholders. Based on experiences gained from Erickson Ave., I-66, Buffalo Creek, the team has learned what works. Unrestricted access to the Augusta Health Center will be maintained at all times and local businesses will be contacted during the preliminary design phase to obtain information about peak traffic times, and to develop contingency plans. Particular attention has to be given to ensure that ingress and egress points are well marked and safely maintained. Pre-event meetings held with VDOT, VSP, EMS, etc. ensure smooth operations when employing strategies such as rolling road blocks for girder erection.

Utility Coordination: Early and accurate identification of utility relocations is key to maintaining the project schedule. Establishing contacts with each utility owner and involving them in the design process ensures that workable relocation solutions are developed without interrupting service. The Utility Team must meet regularly to review progress and identify potential issues that could impact progress. The team will ensure that the maintenance of traffic plan facilitates the installation of all utilities in a functional manner and is closely coordinated with both the grading plans and phased bridge construction. Utility coordination requires frequent follow-up to avoid delays. This is the process that was learned on the Pacific Blvd. & Linton Hall Rd. projects.

ROW Acquisition: Recent experience on Pacific Blvd. has taught the team that thorough research of land records to identify property owners, especially absentee owners and properties with multiple owners such as trusts associations, is critical. Strict attention must be paid to the VDOT Right of Way Manual and the Code of Virginia for the prescribed timelines regarding appraisals, offers, negotiations, and condemnation proceedings should they become necessary. A "Friendly Condemnation" will be pursued in order to keep the process moving forward since it establishes an endpoint for the negotiator and the property owner without delaying work on the project.

Environmentally Sensitive Areas: Every effort must be made to minimize both the project footprint and the potential disturbance of nearby environmentally sensitive areas. As we learned on Rte 221, 340 Overall, and Tye River projects, particular attention will be directed to the wetlands adjacent to Goose Creek and the historic properties associated with the Tinkling Spring Church, as well as potential stream channelization. These efforts need to involve early input from construction personnel and the ECM to be successful, as well as continuous monitoring to ensure permits are adhered to, thus avoiding impacts and delays.

Public Outreach: Involving the local community, businesses, and the traveling public, and keeping them well informed, is vital to the ultimate success of the project. People are more likely to respond favorably to the improvements if they are well informed and know exactly how the project will impact them. These steps were critical to the past and ongoing success of the MLK Freeway, Rte. 221, 340 Overall, and I-66 projects. The TMP will include public communications plan that will be implemented during construction. The GEI team will conduct public progress meetings and one-on-one meetings with the property owners, as necessary, to keep the surrounding communities and businesses informed of upcoming activities and changes to traffic patterns.

Constructability: Performing constructability reviews on the plans must be done to ensure a successful project, but it also must be done throughout the life of plan development. Based on recent experiences on the Rte. 221, Rte. 340 Overall, and Glebe Rd. projects, early cooperation between field and design professionals is needed to prepare a thorough and buildable set of plans. This will result in a higher quality end product, and fewer delays.

Established Working Relationship: For a team to function well together, they need to have a foundation of trust and respect. The key personnel have well established working relationships and a proven history of delivering award winning projects as evidenced in Figure 1. The many projects the team has worked on cooperatively demonstrate long standing relationships and history of successful project delivery. A communications protocol for making decisions during design and construction will be implemented to make sure that everyone affected by the decisions are informed in a timely manner.

Knowledge of Locality: Members of the GEI team live and work in the Fishersville area. FELLC's corporate office is located in Expo Industrial Park. Our relationships with surrounding businesses and property owners have enabled us to secure access to all of the borrow material needed for the project. Our public outreach effort is already underway with our local presence, proximity to the project (FELLC), and the contacts we have made. This presence has enabled us to become knowledgeable of local ordinances, permitting requirements, disposal sites, and adjacent properties.

3.5 PROJECT RISKS

The GEI design-build team has reviewed the project in detail and has identified the risks described below as critical to address and resolve early in the project.

TRAFFIC AND THE COMMUNITY AND 3RD PARTY IMPACTS

The project's most immediate risk is the impact to the community, and how it affects the traveling public and other stakeholders. Due to the project's location with the presence of an interstate interchange and the proximity to businesses, maintenance of traffic will be a primary concern for the design, construction and inspection personnel. An effective Transportation Management Plan (TMP) as well as coordinated public outreach will be crucial in minimizing impacts to the travelling public, on both Route 285/608 and I-64. The key to this approach is proactive, constant, and accurate communication. This entails reaching out to, and involving key stakeholders in developing approaches to handling normal traffic, as well as addressing special considerations, unique to this project location. The GEI team will employ both regularly scheduled progress meetings to inform the community, as well as the development of contingency plans to address unforeseen issues and emergencies.

The most critical aspect at this site is the access of Emergency Management Services (EMS). Due to the location of the Augusta Health Center (AHC), on the northern end of the project, EMS traffic is higher than most other locations. This includes not only the ambulances and other emergency vehicles, but access to accommodate the 60,000 Emergency Room (ER) visits and approximately 500,000 regular visits to the facility each year. Access is also critical for 2000 employees, including accommodations for spikes in traffic volumes associated with shift changes. For activities that will be known in advance, those will be covered with the stakeholders, specifically the hospital Public Information Officer, Ms. Lisa Schweck, and other members of the EMS community. In situations where incidents occur that cannot be forecasted, the GEI team will communicate with Mr. Scott Masincup, Environment of Care Coordinator. He will be the first line of communication, along with EMS, to alert the hospital of situations that may adversely affect response times, or obstruct access to the facility. The GEI team will work closely with him to develop call/text/email trees, or other necessary procedures to ensure that AHC is quickly alerted to any issue that may affect their operations.

Although the greatest potential for construction related impacts will be on Rte. 285, there will also be some effects on I-64. This relates to ramp work, pier construction, demolition, and beam erection and superstructure forming operations. The GEI team has experience successfully dealing with and mitigating these types of foreseeable construction related impacts. FELLC has dealt with much heavier traffic volumes and truck traffic on recent VDOT projects such as I-81 at Stone Spring Road and Rte. 716 in the Truck Climbing Lanes project. In addition to normal traffic control devices and procedures, this involved intermittent rolling roadblocks to allow for the erection of structural steel girders. This operation was performed in close coordination with Virginia State Police, VDOT Traffic Operations Center (TOC), and the localities that experienced increased traffic from those trying to avoid the area.

The general traffic and community impacts are related to normal traffic complicated by peak volumes. To mitigate potential added delays or congestion due to the workzone, careful consideration will be given to special vehicles, patterns, and volumes. Workzones must be conducive to large turning radii required by school buses, and the morning/afternoon patterns with larger volumes of these vehicles. This is also a consideration for other larger vehicles, such as tractor trailers and fuel tanker trucks. The location of the Expo Industrial Park on the southwest quadrant of the project creates a significant amount of truck traffic. This is especially true of the Overnight trucking facility and UPS. The UPS facility creates a considerable queue, especially in the morning hours between 7:00 and 9:00. As

timeliness is critical to their business, this schedule will be incorporated not only with the TMP, but also with the construction schedule to limit disruptions to traffic during these times. There are also other shipping/delivery operations adjacent to each end of the project (Wilson Trucking & FedEx), as well as building contractors moving larger pieces of equipment.

The presence of fast food and fuel retail facilities at both ends of the project creates another traffic/community issue. Aside from traffic volumes, these facilities introduce transient, non-local drivers who are not familiar with the area or the workzones. Transient drivers can become confused trying to negotiate the interchange, which can be complicated by traffic control devices. Knowing this, the GEI team will provide clear signage and pavement marking, as well as appropriate use of barrels and cones, with additional variable message boards to clearly communicate to the travelling public. This logic is also true for younger drivers who frequent the three churches which have active youth groups and are located on the north end of the project. This can be further complicated by special events, such as those held at Augusta Expo Land. These events will be addressed in the project schedule, and coordinated closely with the venue, organizers, as well as VDOT TOC.

Having constructed projects adjacent to the Celanese plant on Rte. 460 in Giles Co. and both for and over NS and CSX railroads in the past, the GEI team has dealt with these situations and successfully delivered the projects while eliminating impacts to the businesses.

The team will consider rapid construction techniques, and concurrent phasing in an effort to reduce the project duration, thus decreasing not only impacts to business, but impacts to all sectors of the community.

The GEI team will work closely with the Augusta County Chamber of Commerce, located within the project area, to ensure efforts are made to minimize impacts on existing businesses. These efforts will also be extended to startup businesses, such as those underway at the former Schoffner facility, just to the north of the project.

The presence of several utilities in the area also poses a potential impact to the community, should construction activities interrupt their service. This includes not only power and communication lines, but the water supply, operated by the Augusta County Service Authority. To minimize the possibility of conflicts, the GEI team, including Utilities Manager Blakey Bates, will perform on site walk-throughs and test pits to verify utility locations before starting the design phase. This will ensure accurate location and depiction of utilities on the plans, in order to minimize conflicts during construction and allow for relocations in advance of construction activities. This will involve compilation of relevant as-built information and additional and persistent follow-up with utility owners.

The GEI team is committed to timely, accurate, and proactive communication with all those affected by this project. Major milestones such as traffic pattern changes or structural steel erection will be preceded by “pre-event community and/or business meetings” to communicate and involve major stakeholders. Periodic updates will be accomplished by weekly status updates to the VDOT TOC and VDOT Public Relations, as well as the County of Augusta, EMS, the Chamber of Commerce. To help disseminate the information, the team will develop a project brochure that will explain the project purpose and need and include a schedule, potential community impacts, and contact information. This will also be made available online on a website, which will also serve as a central point of information for the project. This will allow users to download the project brochure, as well as subscribe to twitter feeds, blogs, and other social media outlets that will be used to reach the widest audience possible.

ENVIRONMENTAL

The primary source of environmental concern is the presence of wetlands, with the potential for approximately 0.5 acres of impacts. These impacts affect not only production during the construction phase, but also during the design phase, specifically coordination with various regulatory agencies at the Inter Agency Coordination Meeting (IACM), and local VDOT environmental staff. Wetland impacts can also result in additional cost to the project, through payments to the wetland bank, which could reach \$35,000 for this project. In order to minimize these impacts and any potential delays associated with coordination, mitigation payments, and permitting, the GEI team will first pursue minimization by decreasing the footprint during the design phase to maximize avoidance of these areas. This will include use of creative staging and design aspects to keep construction limits contained, potential use of geosynthetically reinforced slopes to further reduce footprints, and non-invasive construction techniques to minimize or eliminate the use of construction traffic in these areas.

Stream relocation near the Goose Creek culvert crossing is an additional environmental challenge. Currently, the potential stream channelization impacts exceed the limit of 300 LF, which requires additional coordination and payments to the trust fund. The added time requirements for coordination and estimated cost of more than \$60,000, can also adversely affect the project. The GEI team will also use similar approaches to minimize or eliminate those impacts.

Encountering contaminated soil is a less likely, but is a potential risk in certain areas of the project. The presence of existing fuel facilities and abandoned facilities pose a risk of encountering either underground storage tanks or soil contaminated by leakage from tanks. Despite the low risk, the delays and cost could be substantial if not proactively addressed. In order to mitigate this risk, the first step will be to minimize the areas of disturbance in these locations. The next step would be to conduct the necessary due diligence, research the areas, and self-verify the potential sites. Once this has been completed, the GEI team will develop a contingency plan, and retain a hazmat disposal firm, such as Hazmat2000, Inc. in Staunton, on an on-call basis to quickly react to such a situation. The contingency plan would also include all of the necessary contact information (fire marshall, safety officer, etc.) so that proper notifications can quickly be made, to reduce time delays to the project.

Additional hazardous materials issues exist with the bridge, which is designated as a Type B structure. We anticipate the potential for lead paint on the girders and asbestos fibers in a variety of locations. The GEI team has considerable experience with this type of hazmat situation. Lead abatement and asbestos removal are routine and anticipated.

Tinkling Spring Church and associated properties are located close to the project, and the impacts associated with the reconstruction of their entrance present additional risks. This is heightened by the fact that their property is on the National Register of Historic Places. Although no impacts to the building are anticipated, normal construction activities can create secondary impacts, such as damage to trees, vibrations, etc. The first approach will be to minimize areas of impact. It will also include careful coordination and cooperation with the church trustees. The use of blasting will be minimized, and eliminated where possible. If it is used, the GEI team will employ pre-blast inspections and walk-throughs of the structures. The GEI team will also refrain from blasting in the vicinity of The Tinkling Spring, so that water table levels are not affected, which can occur in karst environments. The GEI team will pursue the use of bioretention storm water management (SWM) facilities in lieu of more obtrusive basins, to preserve the aesthetics of the area. The project supervisory and field staff will be well informed of any and all of these issues as they will be a first line of communication in the field.

Though there are no defined threatened or endangered species within the project limits, there is a potential for the presence of the threatened Madison Cave Isopod in the vicinity of the project. This species is typically found in karst areas, where caves and springs are prevalent. Since the majority of the project is in a shale formation (non-karst), there is little potential for encountering this species. However, as a precaution, the field staff will be well aware of the need to strictly adhere to all prescribed E&S controls.

The key to addressing all of the potential environmental risks is knowledge and experience of the site, the system, and all of the necessary regulations. The GEI team includes an Environmental Compliance Manager with 30 years of experience with VDOT coordinating water quality permits, federal documents, coordinating with the IACM, and other functions critical to a successful project.

Because of the proximity of the hospital, the Hampton Inn, and three churches, noise abatement will be a significant concern. Construction activities tend to generate noise that is considered an annoyance. As a result, the GEI team will make every effort to mitigate the sources of this noise to minimize impacts to local businesses, and residents. This may include limiting particularly noisy activities, such as hoe-ramming, in the earlier hours and on Sunday mornings, so as not to disturb sleep or worship services. Although there will be local ordinances mandating some restrictions, the GEI team abatement measures will be taken to higher level.

SCHEDULE

Maintaining or advancing the project schedule will mitigate some of the other risks already discussed, including impacts to the community, traffic, businesses, noise issues, safety, and many others.

Although most of the project falls in a shale formation, there are karst features in close proximity to the project specifically an outcrop on I-64 just east of the interchange and a quarry located behind the Wendy's property, on the south end of the project. Given this close proximity, there exists some risk of encountering karst features, such as sinkholes, highly variable rock formations, solution cavities, etc. The GEI team has extensive experience dealing with construction in this type of environment on the Districtwide Slide and Sinkhole repair contract. This type of condition is considered a "known unknown" where an approach can be developed to offset any encounters during construction. This may include bridge foundation types that can be adapted to either end bearing steel piles or spread footings, with small changes, thereby eliminating time delays for redesign work.

Staff responsible for design on this project has first-hand experience with both the evaluation and approvals of such foundations in the Staunton District. FELLC has extensive experience successfully dealing with these issues on projects such as Rte. 262, Erickson Ave., and several projects along the Route 340 corridor in Page County.

Encountering unsuitable materials is a risk to any project, and can adversely affect the project by requiring undercutting of such material, and the trucking of borrow material from offsite to replace the unsuitable material. Identifying borrow sites in advance will alleviate any delays in permitting and approvals necessary to allow extraction of materials. Since fill materials will be needed early in the project, this is a key step in maintaining the project schedule. The GEI team has made the proactive move to identify a potential borrow site within one mile of the project, and secured a commitment to use this site. Once shortlisted, the GEI team will perform necessary materials testing to ensure that the material is adequate for the project. This will include additional borings to more accurately identify where these areas are located, and to quantify them. The GEI team is also prepared to utilize geosynthetics, lime stabilization, and other improvement methods to minimize the need for excavation

and borrow materials. These strategies have been successfully used on the Rte 340 Jeremy's Run project and currently on the Rte 640 project in Augusta County. Another aspect is to determine necessary disposal sites for the unsuitable materials, and other items which are in need of disposal. The GEI team already has an approved disposal site close to the project location, which will allow the team to quickly get to work.

As with unsuitable material, the abundance of rock also creates issues with excavation. Rock excavation is a critical phase of the project, as it must be done efficiently, while not damaging potential foundations or adjacent structures. The project is expected to be shale, which would present few obstacles to excavation. The type of shale found here is anticipated to be rippable, and no special methods for removal would be needed. However, as previously discussed, there does exist a possibility that limestone or dolomite may be encountered, due to nearby karst features. In anticipation of that, the GEI team would be prepared to utilize hoe rams, and other alternatives to blasting to accomplish this type of excavation, where necessary.

The availability of materials can also have an adverse effect on a project schedule. One potential issue is the availability of the Corrosion Resistant Reinforcement (CRR) required for the bridge. The Structure & Bridge IIM 81.4 states that for an Urban Minor Arterial, stainless clad reinforcing bars would be required in the deck and superstructure. Recently, there have been serious issues related to the availability of such materials. This is complicated by the fact that one of the main producers is located in the United Kingdom, which creates issues with the "buy America" clause. Although there is verbiage in the IIM that would allow for use of Low Carbon/Chromium (e.g. MMFX), if there are no producers at biddability review, this would create a hold point in the schedule while the issue was debated. This could easily result in lost time while the issue is discussed amongst all of the stakeholders, most of all VDOT, who is the eventual owner. To alleviate this, the GEI team is prepared to use solid stainless, which is a higher category of CRR. This will eliminate those discussions, and the hold point, allowing the project to move forward in a more predictable manner. It also has the added benefit of providing VDOT with a better value and lower life cycle cost with less frequent maintenance operations.

Obtaining water quality permits, and other environmental clearances has historically been a scheduling issue not only during construction, but also during plan development. Since the development of design drawing is critical to advancing the project to construction, it is important to successfully negotiate those processes and incorporate any necessary requirements into the design and in the construction phase. By having an Environmental Compliance Manager on staff with first-hand experience in all of these aspects, the potential for delays will be greatly reduced, allowing the project to move to construction quickly, and therefore be completed at an accelerated pace.

One of the greatest risks to the project schedule is the acquisition of right of way and easements necessary to construct the project. This process must be closely tied to plan development, and those involved must have intimate knowledge of the VDOT process. The GEI team includes an experienced appraiser, as well as a reviewer with first-hand experience having worked as a VDOT ROW/ Acquisitions Manager in the Staunton District. These individuals have the knowledge and experience that will help to move the process along in a timely and efficient manner. In addition, GEI has recent experience on the Pacific Boulevard Design-Build project with ROW acquisition. GEI's recent experience of what works well, and what does not, is a lessons learned that will help keep the process moving forward to keep the project on schedule.

As discussed, minimizing the footprint and therefore minimizing ROW impacts, will help to reduce the number of affected properties and minimize the magnitude of the impacts to those properties which are impacted. By avoidance and timely execution of the acquisition process, the contractor can get to work more quickly and preserve the schedule.

ATTACHMENT 3.1.2

0064-007-111, P101, R201, C501, B627

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 20-page limit?	SOQ Page Reference
Statement of Qualifications Checklist and Contents	Attachment 3.1.2	Section 3.1.2	no	Attachment 3.1.2
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	Attachment 2.10
Letter of Submittal (on Offeror's letterhead)				
Offeror's point of contact information	NA	Section 3.2.1	yes	1
Authorized Representative's signature	NA	Section 3.2.1	yes	4
Principal officer information	NA	Section 3.2.2	yes	1
Offeror's Corporate Structure	NA	Section 3.2.3	yes	2
Affiliated/subsidiary companies	NA	Section 3.2.4	yes	2
Debarment forms	Attachment 3.2.5(a) Attachment 3.2.5(b)	Section 3.2.5	no	Attachment 3.2.5
Offeror's VDOT prequalification evidence	NA	Section 3.2.6	no	Attachment 3.2.6
Evidence of obtaining bonding	NA	Section 3.2.7	yes	2
Professional Services Evidence				

ATTACHMENT 3.1.2

0064-007-111, P101, R201, C501, B627

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 20-page limit?	SOQ Page Reference
Full size copies of SCC and DPOR registration documentation (appendix)	NA	Section 3.2.8	no	Attachment 3.2.8
SCC Registration	NA	Section 3.2.8.1	yes	3
DPOR Registration (Offices)	NA	Section 3.2.8.2	yes	3-4
DPOR Registration (Key Personnel)	NA	Section 3.2.8.3	yes	4
DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.8.4	yes	4
DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.9	yes	4
Offeror's Team Structure				
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	5-6
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Attachment 3.3.1
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	Attachment 3.3.1
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	Attachment 3.3.1
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	Attachment 3.3.1
Key Personnel Resume – Lead Structural Engineer	Attachment 3.3.1	Section 3.3.1.5	no	Attachment 3.3.1
Key Personnel Resume – Environmental Manager	Attachment 3.3.1	Section 3.3.1.6	no	Attachment 3.3.1

ATTACHMENT 3.1.2

0064-007-111, P101, R201, C501, B627

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 20-page limit?	SOQ Page Reference
Organizational chart	NA	Section 3.3.2	yes	7
Organizational chart narrative	NA	Section 3.3.2	yes	8-11
Experience of Offeror's Team – Experience Narrative				12-15
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	Attachment 3.4.1
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	Attachment 3.4.1
Project Risk				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	16-20

ATTACHMENT NO. 3.2.5(a)

**CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS**

Project No.: 0064-007-111, P101, R-201, C-501, B-627

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

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

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

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

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

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

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

 1/5/2012 Vice President

Signature Date Title

General Excavation, Inc.

Name of Firm

ATTACHMENT NO. 3.2.5(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

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

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

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

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

[Handwritten Signature] *12/15/11* *President*
Signature Date Title

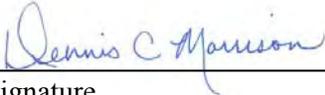
Fairfield-Echols, LLC
Name of Firm

ATTACHMENT 3.2.5(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: 0064-007-111, P101, R-201, C-501, B-624

- 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.

	December 20, 2011	Senior Vice President
Signature	Date	Title

Volkert, Inc.
Name of Firm

ATTACHMENT NO. 3.2.5(b)

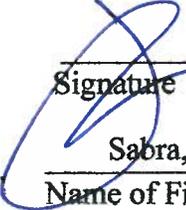
**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-007-111, P101, R-201, C-501, B-627

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

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

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


Signature

Date

12/14/2011

Principal
Title

Sabra, Wang & Associates, Inc.

Name of Firm

ATTACHMENT NO. 3.2.5(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-007-111, P101, R-201, C-501, B-627

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.

Edward G. Dwyer

Signature

Date

Title

Name of Firm

ATTACHMENT NO. 3.2.5(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-007-111, P101, R-201, C-501, B-627

- 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.

 12/07/2011 Principal
Signature _{PF} Date Title

Racey Engineering, PLLC
Name of Firm

ATTACHMENT NO. 3.2.5(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-007-111, P101, R-201, C-501, B-627

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.

<u>JAMES H. ROBITZ</u>	<u>12/5/2011</u>	<u>PRESIDENT</u>
Signature	Date	Title
<u>FROENING & ROBERTSON, INC.</u>		
Name of Firm		

ATTACHMENT NO. 3.2.5(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-007-111, P101, R-201, C-501, B-627

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.

Lorraine Davis 12-20-2011 Manager
Signature Date Title

Lorraine Davis Appraisal & Consulting, LLC
Name of Firm

ATTACHMENT NO. 3.2.5(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-007-111, P101, R-201, C-501, B-627

- 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.

Kimal Gangopadhyay 12/15/11
Signature Date

First Executive Vice President
Title

EBA Engineering, Inc. (EBA)

Name of Firm



COMMONWEALTH OF VIRGINIA



CERTIFICATE OF QUALIFICATION

General Excavation, Inc.

Vendor Number: **G181**

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

PREQUALIFIED

Work Classes: Grading, Minor Structures, Incidental Concrete, Underground Utilities

Issue Date: May 7, 2011

This Rating and Classification will Expire: May 31, 2012



Suzanne FR Lucas Prequalification Officer



Don E. Silies, State Construction Contract Officer

SCC & DPOR REGISTRATION

Section 3.2.8

SCC REGISTRATION

Section 3.2.8.1

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, August 14, 2009

This is to certify that the certificate of incorporation of

GENERAL EXCAVATION, INC.

was issued and admitted to record in this office and that the said corporation is authorized to transact its business subject to all Virginia laws applicable to the corporation and its business. Effective date: March 28, 1983



State Corporation Commission

Attest:

Joel H. Beck
Clerk of the Commission

Commonwealth OF Virginia



State Corporation Commission

I Certify the Following from the Records of the Commission:

GENERAL EXCAVATION, INC. is a corporation existing under and by virtue of the laws of Virginia, and is in good standing.

The date of incorporation is March 28, 1983.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
August 14, 2009*

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

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, September 27, 2005

This is to certify that the certificate of organization of

Fairfield-Echols, LLC

was this day issued and admitted to record in this office and that the said limited liability company is authorized to transact its business subject to all Virginia laws applicable to the company and its business. Effective date: September 27, 2005



State Corporation Commission

Attest:

Joel Heck
Clerk of the Commission

Business Entity Details - Windows Internet Explorer
 https://www.scc.virginia.gov/... Virginia State Corporation Commission [...]
 Google scc va Search More >>
 Favorites Gmail - Inbox (1) - allybgo... Business Entity Details x
 Home Page Safety Tools >>>

Business Entities/UCC **Financial Institutions** **Insurance** **Securities/Retail Franchising** **Utility Regulation** **Utility/Railroad Safety** **Legal Support** **Admin**

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Business Entity Details

Fairfield-Echols, LLC

Quick Links

- [Division Home](#)
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SCC ID: S1665795

Business Entity Type: Limited Liability Company

Jurisdiction of Formation: VA

Date of Formation/Registration: 9/27/2005

Status: Active

Principal Office

FIRST UNION TOWER
 10 S JEFFERSON ST STE 1400
 ROANOKE VA 24011-

Registered Agent/Registered Office

TALFOURD H KEMPER JR
 WACHOVIA TOWER STE 1400
 10 S JEFFERSON ST
 ROANOKE VA 24011-0000
 ROANOKE CITY 217
 Status: Active
 Effective Date: 3/1/2007

Users are encouraged to create an SCC eFile account to:

- Conveniently monitor business entities through the use of a "Favorites" list
- Perform easy step-by-step online transactions for certain types of filings, such as registered agent changes
- Quickly access online filing history

To view our Privacy Policy, click [here](#)

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, December 7, 2009

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

Volkert, Inc.

(Formerly known as Volkert & Associates, Inc.)

(Formerly known as David Volkert & Associates, Inc.)

(Date of qualification – January 21, 1999)

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



State Corporation Commission

Attest:

Joel H. Beck
Clerk of the Commission

Commonwealth OF Virginia



State Corporation Commission

I Certify the Following from the Records of the Commission:

Volkert, Inc., a corporation existing under the laws of ALABAMA, holds a certificate of authority to transact business in Virginia, and is in good standing.

The certificate was issued on January 21, 1999.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
December 7, 2009*

Joel H. Peck

Joel H. Peck, Clerk of the Commission



STATE CORPORATION COMMISSION

Richmond, June 30, 1998

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

SABRA, WANG & ASSOCIATES, INC.

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



State Corporation Commission

Attest:

William J. Bridg

Clerk of the Commission

Commonwealth of Virginia



State Corporation Commission

I Certify the Following from the Records of the Commission:

SABRA, WANG & ASSOCIATES, INC., a corporation existing under the laws of MARYLAND, holds a certificate of authority to transact business in Virginia, and is in good standing.

The certificate was issued on June 30, 1998.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
March 4, 2010*

Joel H. Peck

Joel H. Peck, Clerk of the Commission

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, August 12, 2009

This is to certify that the certificate of incorporation of

Schnabel Consultants, Inc.

was this day issued and admitted to record in this office and that the said corporation is authorized to transact its business subject to all Virginia laws applicable to the corporation and its business. Effective date: August 12, 2009



State Corporation Commission

Attest:

Joel H. Beck
Clerk of the Commission

**COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION**

AT RICHMOND, NOVEMBER 12, 2009

The State Corporation Commission has found the accompanying articles submitted on behalf of
**Schnabel Engineering Consultants, Inc. (formerly Schnabel Consultants,
Inc.)**

to comply with the requirements of law, and confirms payment of all required fees. Therefore, it
is **ORDERED** that this

CERTIFICATE OF AMENDMENT

be issued and admitted to record with the articles of amendment in the Office of the Clerk of the
Commission, effective November 12, 2009.

The corporation is granted the authority conferred on it by law in accordance with the articles,
subject to the conditions and restrictions imposed by law.

STATE CORPORATION COMMISSION

By

A handwritten signature in black ink, reading "Judith William Jagdmann". The signature is written in a cursive style with a large initial "J".

Commissioner

09-10-30-0071
AMENACPT
CIS0436

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Business Entity Details

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- Division Home
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Schnabel Engineering Consultants, Inc.

SCC ID: 07126741
Business Entity Type: Corporation
Jurisdiction of Formation: VA
Date of Formation/Registration: 8/12/2009
Status: Active
Shares Authorized: 10000

Principal Office
1054 TECHNOLOGY PARK DR
GLEN ALLEN VA 23059

Registered Agent/Registered Office
CT CORPORATION SYSTEM
4701 COX RD STE 301
GLEN ALLEN VA 23060-6802
HENRICO COUNTY 143
Status: Active
Effective Date: 6/16/2011

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Order certificate of good standing New Search Back Homepage

View Entity's eFile History

SCC ID: 1000

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, September 26, 2002

This is to certify that the certificate of organization of

RACEY ENGINEERING, PLLC

was this day issued and admitted to record in this office and that the said limited liability company is authorized to transact its business subject to all Virginia laws applicable to the company and its business. Effective date: September 26, 2002



State Corporation Commission

Attest:

Joel H. Beck

Clerk of the Commission

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- QUICK LINKS**
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- Court Services**
- Additional Services**

RACEY ENGINEERING, PLLC

SCC ID: S0844995
Business Entity Type: Limited Liability Company
Jurisdiction of Formation: VA
Date of Formation/Registration: 9/26/2002
Status: Active

Principal Office
312 W MAIN ST
PO BOX 387
LURAY VA 22835-

Registered Agent/Registered Office
MARK N REED
16 S COURT STREET
PO BOX 766
LURAY VA 22835-0000
PAGE COUNTY 169
Status: Active
Effective Date: 9/26/2002

Users are encouraged to create an SCC eFile account to:

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Screen ID: e1000

Commonwealth OF Virginia



State Corporation Commission

I Certify the Following from the Records of the Commission:

FROEHLING & ROBERTSON, INCORPORATED, (Entity ID# 0027211-2), is a stock corporation existing under and by virtue of the laws of Virginia, and is in good standing.

The date of incorporation is October 11, 1924.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
August 13, 2009*

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

Business Entity Details - Windows Internet Explorer

https://sccfile.scc.virginia.gov/BusinessEntity/BusinessEntityDetails.aspx?EntityId=1000&EntityName=FROEHLING%20&ROBERTSON%20INCORPORATED&Jurisdiction=VA&Status=Active&DateOfFormation=10/11/1924&SharesAuthorized=1100000

Virginia State Corporation Commission

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Business Entity Details

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Welcome to SCC eFile Business Entity Details

FROEHLING & ROBERTSON, INCORPORATED

SCC ID: 00272112
 Business Entity Type: Corporation
 Jurisdiction of Formation: VA
 Date of Formation/Registration: 10/11/1924
 Status: Active
 Shares Authorized: 1100000

Principal Office

3015 DUMBARTON ROAD

RICHMOND VA 23228

Registered Agent/Registered Office

WILLIAM H HOOFNAGLE III

1900 ONE JAMES CENTER

901 E CARY ST

RICHMOND VA 23219

RICHMOND CITY 216

Status: Active

Effective Date: 9/21/2011

Users are encouraged to create an SCC eFile account to:

- Conveniently monitor business entities through the use of a "Favorites" list
- Perform easy step-by-step online transactions for certain types of filings, such as registered agent changes
- Quickly access online filing history

To view our Privacy Policy, click [here](#)

Done Internet | Protected Mode: On 120% 1:30 PM

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, November 3, 2011

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

Crider & Associates, Inc.

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



State Corporation Commission

Attest:

Joel H. Beck
Clerk of the Commission

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- UCC or Tax Liens**
- Court Services**
- Additional Services**

Welcome to SCC eFile Business Entity Details

Crider & Associates, Inc.

SCC ID: F1878588
Business Entity Type: Foreign Corporation
Jurisdiction of Formation: SC
Date of Formation/Registration: 11/3/2011
Status: Active
Shares Authorized: 1000

Principal Office
2 RIDGEWAY AVE
GREENVILLE SC 29607

Registered Agent/Registered Office
NATIONAL REGISTERED AGENTS INC
4001 N NINTH ST STE 227
ARLINGTON VA 22203
ARLINGTON COUNTY 106
Status: Active
Effective Date: 11/3/2011

- QUICK LINKS**
- Division Home
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 - Law & Regulations
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Users are encouraged to create an SCC eFile account to:

- Conveniently monitor business entities through the use of a "Favorites" list
- Perform easy step-by-step online transactions for certain types of filings, such as registered agent changes
- Quickly access online filing history

To view our Privacy Policy, click [here](#)

Login Create Account

Order certificate of good standing New Search Back Homepage

View Entity's eFile History

Commonwealth OF Virginia



State Corporation Commission

CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

That Lorraine Davis Appraisal & Consulting, LLC is duly organized as a limited liability company under the law of the Commonwealth of Virginia;

That the date of its organization is October 15, 2009; and

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

Nothing more is hereby certified.

*Signed and Sealed at Richmond on this Date:
December 20, 2011*



Joel H. Peck

Joel H. Peck, Clerk of the Commission

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- Court Services**
- Additional Services**

Welcome to SCC eFile Business Entity Details

Lorraine Davis Appraisal & Consulting, LLC

SCC ID: S3063825
Business Entity Type: Limited Liability Company
Jurisdiction of Formation: VA
Date of Formation/Registration: 10/15/2009
Status: Active

- QUICK LINKS**
- Division Home
 - Division Contact
 - Laws & Regulations
 - Bulletin Archive
 - External Links



Principal Office
647 BEALL AVE

LURAY VA 22835-

Registered Agent/Registered Office
LORRAINE A DAVIS
647 BEALL AVE

LURAY VA 22835-0000
PAGE COUNTY 169
Status: Active
Effective Date: 10/15/2009

Users are encouraged to create an SCC eFile account to:

- Conveniently monitor business entities through the use of a "Favorites" list
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- Quickly access online filing history

To view our Privacy Policy, click [here](#)

Login Create Account

Order a certificate of fact of existence New Search Back Homepage

View Entity's eFile History

Screen ID: e1000

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, January 2, 1996

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

EBA Engineering, Inc.

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



State Corporation Commission

Attest:

William J. Bridge

Clerk of the Commission



Commonwealth of Virginia
State Corporation Commission



CISM0180

CORPORATE DATA INQUIRY

09/08/11

11:42:14

CORP ID: F123900 - 5 STATUS: 00 ACTIVE STATUS DATE: 12/03/07

CORP NAME: **EBA ENGINEERING, INC.**

DATE OF CERTIFICATE: 10/22/1997 PERIOD OF DURATION: INDUSTRY CODE: 70
 STATE OF INCORPORATION: MD MARYLAND STOCK INDICATOR: S STOCK
 MERGER IND: CONVERSION/DOMESTICATION IND:
 GOOD STANDING IND: Y MONITOR INDICATOR:
 CHARTER FEE: 2000.00 MON NO: MON STATUS: MONITOR DTE:
 R/A NAME: CT CORPORATION SYSTEM

STREET: 4701 COX RD STE 301 AR RTN MAIL:

CITY: GLEN ALLEN STATE : VA ZIP: 23060 6802

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

ACCEPTED AR#: 210 28 8198 DATE: 10/28/10 HENRICO COUNTY

CURRENT AR#: 210 28 8198 DATE: 10/28/10 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
11	1,700.00				1,700.00	1,000,000

(Screen Id:/Corp_Data_Inquiry)

DPOR REGISTRATION (OFFICES)

Section 3.2.8.2

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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

EXPIRES ON

04-30-2013

NUMBER

2701 026132A

BOARD FOR CONTRACTORS
CLASS A CONTRACTORS LICENSE

GENERAL EXCAVATION INC

9757 RIDER ROAD

WARRENTON VA 20187

CLASSIFICATIONS H/H SDS

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

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

(POCKET CARD)

(DETACH HERE)

COMMONWEALTH OF VIRGINIA

BOARD FOR CONTRACTORS - CLASS A

CONTRACTOR LICENSE - CLASSIFICATIONS: H/H
SDS

NUMBER: 2701 026132A EXPIRES: 04-30-2013
GENERAL EXCAVATION INC

9757 RIDER ROAD

WARRENTON VA 20187
ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OR FIRMS OTHER THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.



Gordon N. Dixon
Gordon N. Dixon, Director

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



DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
07-31-2013

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

NUMBER
2705 116070A

BOARD FOR CONTRACTORS
CLASS A CONTRACTORS LICENSE

FAIRFIELD-ECHOLS LLC

PO BOX 479
FISHERSVILLE VA 22939

CLASSIFICATIONS H/H



Gordon N. Dixon
Gordon N. Dixon, Director

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2013

9960 Mayland Dr., 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
5400 SHAWNEE RD
STE 301
ALEXANDRIA, VA 22312



Gordon N. Dixon
Gordon N. Dixon, Director

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION

COMMONWEALTH OF VIRGINIA

9980 Mayland Dr., Suite 400, Richmond, VA 23233

Telephone: (804) 367-9500

EXPIRES ON

12-31-2013

NUMBER

0407/005636

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

PROFESSIONS: ENG

SABRA, WANG & ASSOCIATES, INC
101 WEST BROAD ST
STE 301
FALLS CHURCH, VA 22046



Gordon N. Dixon
Gordon N. Dixon, Director

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

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

(POCKET CARD) COMMONWEALTH OF VIRGINIA

(DETACH HERE)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
9980 Mayland Dr., Suite 400, Richmond, VA 23233

BOARD FOR APELSCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407/005636 EXPIRES: 12-31-2013
PROFESSIONS: ENG
SABRA, WANG & ASSOCIATES, INC
101 WEST BROAD ST
STE 301
FALLS CHURCH, VA 22046



**DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA**

EXPIRES ON
02-29-2012

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

NUMBER
0411000839

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

PROFESSIONS: ENG

SABRA, WANG & ASSOCIATES, INC
1540 JOH AVENUE
SUITE 160
BALTIMORE, MD 21227



Gordon N. Dixon
Gordon N. Dixon, Director

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COMMONWEALTH OF VIRGINIA

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

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000839 EXPIRES: 02-29-2012
PROFESSIONS: ENG

SABRA, WANG & ASSOCIATES, INC
1540 JOH AVENUE
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BALTIMORE, MD 21227



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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON

02-29-2012

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

NUMBER

0411000698

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

PROFESSIONS: ENG

SCHNABEL ENGINEERING CONSULTANTS, INC
2020 AVON CT.
SUITE 15
CHARLOTTESVILLE, VA 22902



July W. DeBoer
July W. DeBoer, Director

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COMMONWEALTH OF VIRGINIA

BOARD FOR AP/LS/CID/LA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000698 EXPIRES: 02-29-2012
PROFESSIONS: ENG
SCHNABEL ENGINEERING CONSULTANTS, INC
2020 AVON CT.
SUITE 15
CHARLOTTESVILLE, VA 22902



(FOUR)

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

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COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2013

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

NUMBER
0413000251

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
PROFESSIONAL LIMITED LIABILITY COMPANY

PROFESSIONS: ENG, LS

RACEY ENGINEERING PLLC
312 WEST MAIN ST
PO BOX 387
LURAY, VA 22835



Gordon N. Dixon
Gordon N. Dixon, Director

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-29-2012

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

NUMBER
0411000052

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

FROEHLING & ROBERTSON, INC
6181 ROCKFISH GAP TURNPIKE
CROZET, VA 22932



James W. Dufresne
James W. Dufresne, Director

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(POCKET CARD) COMMONWEALTH OF VIRGINIA

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000052 EXPIRES: 02-29-2012
PROFESSIONS: ENG
FROEHLING & ROBERTSON, INC
6181 ROCKFISH GAP TURNPIKE
CROZET, VA 22932



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

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-29-2012

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

NUMBER
0411000659

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

PROFESSIONS: ENG

EBA ENGINEERING, INC
287 SHINGLE OAK LANE
NELLYSFORD, VA 22958



James W. DeBoer
James W. DeBoer, Director

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-29-2012

NUMBER
0411000871

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

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

PROFESSIONS: ENG

EBA ENGINEERING INC
714 WESTWOOD OFFICE PARK
FREDERICKSBURG, VA 22401



Gordon N. Dixon
Gordon N. Dixon, Director

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COMMONWEALTH OF VIRGINIA

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000871 EXPIRES: 02-29-2012
PROFESSIONS: ENG



EBA ENGINEERING INC
714 WESTWOOD OFFICE PARK
FREDERICKSBURG, VA 22401

(DETACH HERE)

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

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DPOR REGISTRATION (KEY PERSONNEL)

Section 3.2.8.3

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON

01-31-2012

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

NUMBER

0402031697

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

KEITH PAUL WEAKLEY
124 MEADOW LANE
STANLEY, VA 22851



Jay W. DeBoer
Jay W. DeBoer, Director

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION

COMMONWEALTH OF VIRGINIA

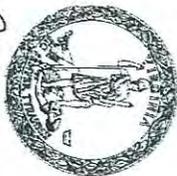
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8600

EXPIRES ON
10-31-2012

NUMBER
0402030510

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

KIA SHOKOUHI NEJAD
7804 GREEN TWIG ROAD
BETHESDA, MD 20817



Gordon N. Dixon
Gordon N. Dixon, Director

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**DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA**

EXPIRES ON
04-30-2012

NUMBER
0402032576

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

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

BEN HARRY LINEBERRY JR
423 KERN STREET
WOODSTOCK, VA 22664



James W. DeBor
JAMES W. DEBOR, Director

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COMMONWEALTH OF VIRGINIA

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

BOARD FOR APELSCIDLA
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402032576 EXPIRES: 04-30-2012

BEN HARRY LINEBERRY JR
423 KERN STREET
WOODSTOCK, VA 22664



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DPOR REGISTRATION (NON-APELSCIDLA)

Section 3.2.8.4

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
03-31-2012

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

NUMBER
4008 001643

REAL ESTATE APPRAISER BOARD
BUSINESS REGISTRATION

LORRAINE DAVIS APPRAISAL & CONSULTING LLC
647 BEALL AVE
LURAY VA 22835



Jay W. DeBoer
Jay W. DeBoer, Director

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
11-30-2013

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

NUMBER
4001 000349

REAL ESTATE APPRAISER BOARD
CERTIFIED GENERAL REAL ESTATE APPRAISER

LORRAINE A DAVIS
647 BEALL AVENUE

LURAY VA 22835



Gordon N. Dixon

Gordon N. Dixon, Director

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Real Estate Appraiser Business

Real Estate Appraiser Business

BUSINESS NAME:	CRIDER & ASSOICATES
TRADING NAME:	
ADDRESS:	2 RIDGEWAY AVE GREENVILLE, SC 29607-0000
BUSINESS TYPE:	CORPORATION
LICENSE NO:	4008001721
INITIAL CERTIFICATION DATE:	DECEMBER 27, 2011
EXPIRATION DATE:	DECEMBER 31, 2013

Open Complaints: None

"Open Complaints" reflect only those complaints for which a departmental investigation has determined that sufficient evidence exists to establish probable cause of a violation of the law or regulations. Only those cases that have proceeded through an investigation to the adjudication stage are displayed.

State law prohibits the disclosure of any information about open complaints [\[Code of Virginia Section 54.1-108\]](#). Members of the public may review official records and obtain copies only after a complaint investigation is closed.

Closed Complaints: None

"Closed Complaints" reflect complaints closed since 1990. Cases closed without disciplinary action are purged after three years in accordance with DPOR's record retention policy.

To inquire about any disciplinary actions prior to 1990, contact the department's Public Records Section at (804) 367-8583 or RecordsMgt@dpor.virginia.gov.

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON

12-31-2012

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

NUMBER

4001 014045

REAL ESTATE APPRAISER BOARD
CERTIFIED GENERAL REAL ESTATE APPRAISER

CHARLES FRANKLIN CRIDER
2 RIDGEWAY AVE

GREENVILLE SC 29607 0000



Gordon N. Dixon

Gordon N. Dixon, Director

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

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.		
a. Name & Title:	SCOTT C. HUNTER, VICE PRESIDENT	
b. Project Assignment:	DESIGN-BUILD PROJECT MANAGER	
c. Name of Firm with which you are now associated:	GENERAL EXCAVATION, INC.	
d. Years experience: With this Firm <u>4.5</u> Years With Other Firms <u>21</u> Years	Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen (15) years.	
Name of Firm: General Excavation, Inc. Start Date: May, 2007 End Date: Present		
Position: Vice President		
Responsibilities: Mr. Hunter is responsible for serving as Design-Build Project Manager (most recently on the Pacific Boulevard Widening project in Northern Virginia), managing the daily business operations, contract administration, project management staff, and estimating department. Business operations include general oversight and the development of company policies and procedures, accounts payable and receivable, business development, and company safety compliance. Contract administration and project management responsibilities involve the review and execution of all contracts and subcontracts, as well as oversight of project management staff to ensure proper communication with owners and project stakeholders is maintained, contract requirements are met, projects are completed on time, and DBE compliance requirements are attained. On bid build, operational oversight is provided to ensure there is a smooth transmission in the administration of the project between the estimating department and the project management and field management staffs. This transmission involves in-house meetings with the project manager, area superintendent, project superintendent, safety officer, and utility coordinator. Oversight of the estimating department includes a review of all bid submissions for completeness and correctness. This review ensures that the integrity of the competitive bidding process is maintained, and that all DBE requirements are met. Special attention is given to pricing offered by DBE firms that ensures their proposals are fairly reviewed and considered. This evaluation maximizes the opportunity for DBE participation. Mr. Hunter recently completed a term serving on the VTCA's Contractors Leadership Committee.		
Name of Firm: Lane Construction Start Date: December 2006 End Date: May 2007		
Position: Project Manager		
Responsibilities: During his five months as a Project Manager for Lane Construction, Mr. Hunter assisted the estimating and management staffs in the development of the 495 HOT Lanes proposal. Mr. Hunter also assisted the project management staff in closing out several VDOT projects in Northern Virginia. This assistance was limited to the administrative effort associated with project completion.		
Name of Firm: Moore Brothers Company, Inc. Start Date: 2003 End Date: November 2006		
Position: Vice President of Construction		
Responsibilities: Mr. Hunter was promoted to Vice President of Construction for Moore Brothers Company, Inc. in 2003 and as Vice President of Construction he was responsible for the daily project management and oversight of all field operations. This responsibility included daily communication and interaction with both Project Superintendents and VDOT Project Management staff to ensure that projects were successfully completed on time, within the allowable budget, and were noteworthy for their safety record and quality. Oversight for the daily scheduling and utilization of labor and equipment resources was also provided.		
Name of Firm: Moore Brothers Company, Inc. Start Date: 1999 End Date: 2003		
Position: General Superintendent		
Responsibilities: As General Superintendent Mr. Hunter was responsible for the management of Project Superintendents, crew and equipment resource allocation, and assisting with the development and utilization of project schedules to ensure jobs were completed on time. Mr. Hunter's role as General Superintendent also included serving as a liaison between upper management and the project field staff by assisting with contract management effort required between the bidding and construction phases.		
Name of Firm: Moore Brothers Company, Inc. Start Date: 1996 End Date: 1999		
Position: Superintendent		
Responsibilities: Daily production of project specific field operations. Management and supervision of foreman and work crews. Assisted in the development of project schedules and resources needed to ensure timely completion. Worked with VDOT Field Inspection Staff to resolve project specific issues. Responsible for the daily review and sign-off of quantities and verification of work performed. Direct report to General Superintendent.		

<p>e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Military Institute, Lexington, VA / Bachelor of Science / 1986 / Civil Engineering</p>
<p>f. Active Registration: Year First Registered/ Discipline/VA Registration #: N/A</p>
<p>g. Document the extent and depth of experience and qualifications relevant to the Project.</p> <ol style="list-style-type: none"> 1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each assignment.</i> <p>(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)</p> <p>Project: Pacific Boulevard Widening Design-Build, Loudoun County, Virginia Name of Firm: General Excavation, Inc. Start: May 20, 2010 Finish: January, 2012 (Estimated) Position: Design-Build Project Manager Responsibilities: Responsible In-Charge for the overall design, construction, quality control, quality assurance, and contract administration for Pacific Boulevard Widening project in Loudoun County. Project value was \$1,850,103 and consisted of constructing 2,100 L.F. of two lanes of secondary roadway; reconstructing and widening of 850 L.F. of two lanes of secondary roadway; building a new traffic signal at the intersection of Pacific Boulevard and Sterling Boulevard; providing power to the new signal; and relocating sanitary sewer facilities. Owner/Contact: VDOT, Mr. Timothy Hartzell, P.E., NOVA Location & Design. 703-259-2947</p> <p>Project: Route 340 over Jeremy’s Run, Page County, Virginia Name of Firm: General Excavation, Inc. Start: January 25, 2008 Finish: August, 2009 Position: Vice President Responsibilities: Principal-in-charge of contract administration and project management. Assisted the estimating department in the development and preparation of the bid submission. During construction assisted the project management staff with preparation of subcontracts, scheduling, issuance of purchase orders, budgets, and cost controls. The value of this award winning project was \$7,674,952 and consisted of construction a bridge over Jeremy’s Run; 698 L.F. of 12 inch steel pipe, 3,400 L.F. of roadway construction and approaches; demolition of existing bridge structure over Jeremy’s Run; 139,046 C.Y. of excavation; 2,000 L.F. of storm drain; 11,095 tons of aggregate base material; 7,938 tons of bituminous asphalt. This project was recognized for its Excellence in Construction as the Best Project in the Staunton District in 2009. Owner / Contact: VDOT, Mr. Robert Good, P.E., Area Construction Engineer. 540- 820-5717</p> <p>Project: Route 208, Spotsylvania County, Virginia Name of Firm: General Excavation, Inc. Start: January 11, 2007 Finish: December 2008 Position: Vice President Responsibilities: Principal-in-charge of contract administration and project management. Assisted the Department with the development of a revised sequence of construction and maintenance of traffic plan to better facilitate the safe flow of traffic, school buses, and emergency service vehicles through the limits of the project during construction. Supervised the project management staff with the development of the schedule, scoping, procurement, coordination of public notices, environmental compliance, and cost control measures. The value of this project was \$13,463,486 and included 4.82 K.M. of a 4 lane divided roadway with 188,357 C.M. of regular excavation; 161,508 C.M. of borrow material; 92,684 S.M. subgrade stabilization; an off-site mitigation area with 16,176 C.M. of excavation and wetland plants; 4 traffic signals; 25,182 M.T. of CTA; and 43,654 M.T. of bituminous asphalt. This project was closely coordinated with Spotsylvania County to minimize the impact of traffic disruptions to the County Courthouse and the nearby school that uses and crosses Route 208. Owner / Contact: VDOT, Mr. Dennis Williams, Construction Manager. 540-499-4055</p> <p>Project: I-66 HOV Lane Widening, Route 234 By-Pass to Route 234 Business, Manassas, Virginia Name of Firm: Moore Brothers Company, Inc. Start: August, 2004 Finish: December, 2006 Position: Vice President – Construction / General Superintendent Responsibilities: Principal-in-charge of construction management and administration for all field operations. The value of this project was \$38,000,000 and consisted of constructing 6.11 kilometers of HOV lanes (in each direction) in the median of I-66; 6.11 kilometers in each direction of pavement widening on the outside of I-66; bridge deck construction and</p>

widening I-66 EBL over Route 234 business; 5 box culverts – extensions to the outside of I-66 and closing; 260,000 cubic meters of excavation; 250,000 metric tons of bituminous asphalt paving; and more than 37,000 meters of temporary traffic barrier service.

Owner / Contact: VDOT, Mr. William Green, Construction Manager (retired). 540- 547-2588

Project: I-95/Route 627 Interchange Project, Stafford County, Virginia

Name of Firm: Moore Brothers Company, Inc.

Start: May, 2002

Finish: March, 2006

Position: Vice President – Construction / General Superintendent

Responsibilities: Supervised the on-site construction management staff and was the principle point of contact for the administration of the contract. Assisted the field staff with the assignment and allocation of resources, project management, quality control, and development of the construction schedule. The value of this project was \$46,000,000 and included the construction of a new interchange on I-95; the construction of two bridges over I-95, one bridge over Route 1, and one over a stream; the reconstruction of approximately 5,000 L.F. of Route 1; 1.3 million cubic meters of excavation; 4,800 meters of storm drain; 167,000 metric tons of bituminous asphalt; 2,800 meters of water main; a new traffic signal; and permanent traffic signs. Of significant note is the savings of over \$4 million that this project realized as a result of numerous VEP's that were approved throughout the duration of construction.

Owner / Contact: VDOT, Mr. Robert Shackelford, P.E., Area Construction Engineer (former). Currently with WRA, LLP. 804- 814-5782

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: BEN LINEBERRY, PE ASST. VICE PRESIDENT
b. Project Assignment: QUALITY ASSURANCE MANAGER
c. Name of Firm with which you are now associated: Volkert, Inc.
d. Years experience: With this Firm <u>3</u> With Other Firms <u>18</u> Years Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen (15) years. Name of Firm: Volkert, Inc. Start Date: 2009 End Date: Present Position: Construction Manager Provides management of construction inspection and quality assurance for VDOT and local government projects in Virginia including the supervision of inspection personnel, QA activities including preparatory inspection meetings and resolution of nonconformance issues to assure compliance with VDOT standards and client satisfaction. Works collaboratively with clients, designers, and contractors to resolve design, construction, and quality issues. Name of Firm: Virginia Dept. of Transportation Start Date: 2004 End Date: 2009 Position: Area Construction Engineer, Staunton District Responsible for the direct oversight and management of contract construction for a wide range of projects related to highways, structures, drainage and maintenance in 6 counties. Name of Firm: Virginia Dept. of Transportation Start Date: 1999 End Date: 2005 Position: Assistant Resident Engineer, Staunton District Oversight of preliminary engineering, right-of-way, and construction of wide range of transportation projects, managed construction inspectors, developed and assisted in administering the Six-Year Secondary Roads Construction Plan, and oversight of Land Development Section Name of Firm: Thompson + Litton, Inc. Start Date: 1998 End Date: 1999 Position: Project Manager and Construction Administrator Managed construction projects and supervised inspectors Name of Firm: Town of Easton, Maryland Start Date: 1996 End Date: 1998 Position: Assistant Town Engineer Managed the design and construction and maintenance projects related to the Towns civil infrastructure, managed the daily operations and personnel of the Department of Public Works, and administered annual operating and capital budgets
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Tech, Blacksburg, VA / Bachelor of Science / 1990 / Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1998, Professional Engineer, #0402 032576, Expires 4-30-2012
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each assignment.</i> (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.) Project: I-81 Exit 323 Interchange Widening and Reconstruction, Winchester, Virginia Owner: Virginia Dept. of Transportation (Staunton District) Name of Firm: VDOT Start Date: 2002 Finish Date: 2003 Project Role: Assistant Resident Engineer Responsibilities: Managed (on behalf of VDOT) the reconstruction of an interstate interchange to increase capacity and eliminate a deficient bridge over the interstate. Managed the QA to verify that the construction complied with the specifications, standards, and contract documents. Managed inspection and testing personnel and conducted preparatory meetings and inspections before major construction activities. Oversight of materials testing, including density, moisture, slump, air content and compressive strength of concrete. 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. Oversight of document control procedures and quality including the materials notebook, reviewed daily work reports, and submitted progress reports. Conducted punch list inspection of phased work. Worked with the FHWA, designers and contractor to resolve design, construction, schedule, and budget issues; managed construction inspection staff; and analyzed and negotiated change orders. Worked closely with the FHWA Area Engineer to gain approval of changes in the construction work and plans. The \$7-million project involved reconstruction and widening of a 2-lane bridge over I-81 to 6 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 the ramps were modified so that the ramps could remain in service.

Project: I-81/Route 50/Route522 Interchange Reconstruction, City of Winchester, Virginia

Owner: Virginia Dept. of Transportation

Name of Firm: VDOT (Staunton District)

Start: December 2006 **Finish Date:** 2007

Project Role: Area Construction Engineer

Responsibilities: Managed (on behalf of VDOT) the inspection and reconstruction of an urban cloverleaf interchange to eliminate safety hazards. Managed the QA to verify that the construction of the complete bridge replacement widening project complied with the Specifications, Standards, and Contract Documents. Managed the inspection and testing personnel and conducted preparatory meetings and inspections before major construction activities. Oversight of materials testing, including density, moisture, slump, and air content of concrete, and compressive strength on concrete. Addressed non-conformance issues regarding concrete quality and failed subgrades, monitored corrective actions, and maintained detailed documentation. Oversight of document control procedures and quality including the materials notebook, reviewed daily work reports, and submitted progress reports. Conducted punch list inspection of various phased work. Worked with designers and contractor to resolve design, construction, schedule, and budget issues; managed construction inspection staff; and analyzed and negotiated change orders. Worked closely with the FHWA Area Engineer to gain approval of changes to the foundation for the bridge pier and modifications to the final traffic configuration and alignment. The \$8-million 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. The project improved the level-of-service of the intersections of Routes 50, 522, and I-81 northbound access ramp by constructing multiple turn-lanes, through lanes, and realigned right-turn lanes. 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. Negotiated and resolved issue of 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.

Project: Winchester Medical Center Interchange, Winchester, Virginia

Owner: Virginia Dept. of Transportation

Name of Firm: VDOT (Staunton District)

Start Date: 2003 **Finish Date:** 2005

Project Role: Assistant Resident Engineer

Responsibilities: Managed (on behalf of VDOT) the design and construction of a new trumpet interchange on Route 37 to service the Winchester Medical Center and Shenandoah University Medical College. The \$12 million dollar interchange project included a 400-foot bridge with ramps, collector / distributor roads, and access roads to the Medical Center. The bridge included drilled shaft deep foundations for the piers and the abutments. The work included relocations of 4-inch sanitary sewer force main and 12-inch water main that was in conflict with the bridge. High voltage transmission overhead power lines created challenges in installing the drilled shafts on one abutment due to the limited overhead clearance. Managed the QA to verify that construction complied with the specifications, standards, and contract documents. Managed inspection and testing personnel and conducted preparatory meetings before major construction activities. Oversight of materials testing. Addressed non-compliance issues and monitored corrective actions. Oversight of schedule, budget, and compliance with work zone safety, environmental, and EEO/DBE regulations. Oversight of document control procedures and quality including the materials notebook, reviewed work reports, and submitted progress reports. Conducted punch list inspection of phased work. Worked with the FHWA, designers and contractor to resolve design, construction, schedule, and budget issues and managed construction inspection staff.

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: KEITH WEAKLEY, P.E. ASST. VICE PRESIDENT
b. Project Assignment: DESIGN MANAGER
c. Name of Firm with which you are now associated: Volkert, Inc.
d. Years experience: With this Firm <u>1</u> With Other Firms <u>17</u> Years Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen (15) years. Name of Firm: Volkert, Inc. Start Date: 2010 End Date: Present Position: Project Manager Directs Management of structural engineering and design-build projects. Name of Firm: Virginia Dept. of Transportation. Start Date: 2007 End Date: 2010 Position: District Structure & Bridge Engineer Directed all aspects of bridge program for VDOT's Staunton District. Supervised a staff of 60+, managed \$14 Million Maintenance Budget, and oversaw \$180 Million construction program. Chaired Statewide Jointless Bridge Committee. Served on VTCA Structures Committee. Managed consultant contracts. Served on Statewide Project Controls Committee. Name of Firm: Virginia Dept. of Transportation. Start Date: 2004 End Date: 2007 Position: Asst. Dist Structure & Bridge Engineer for Design Managed bridge design, maintenance/repair, and project management for the Staunton Dist Bridge office. Worked with municipalities and contractors to solve construction problems. Managed & negotiated consultant contracts. Responsible for QA/QC and constructability of bridge plans. Name of Firm: Virginia Dept. of Transportation. Start Date: 1994 End Date: 2004 Position: Senior Structural Engineer Designed highway & pedestrian bridges, earth retaining and other highway structures, in VDOT's Staunton District. Performed estimating and construction coordination. Participated in consultant selection process.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Tech, Blacksburg, VA/ Bachelor of Science/1993/Civil Engineering University of Virginia, Charlottesville, VA/2006/Master of Engineering Civil Engineering (Structural)
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1998, Professional Engineer, #0402 031697, Expires 1-31-2012
g. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none">1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i>2. <i>Note whether experience is with current firm or with other firm.</i>3. <i>Provide beginning and end dates for each assignment.</i> <p>(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)</p> Project: I-66 Pavement Rehabilitation Design-Build Project, Fairfax, Virginia Owner: Virginia Dept. of Transportation Name of Firm: Volkert, Inc. Start Date: Feb. 2011 Finish Date: Nov. 2012 (The project is currently 20% ahead of schedule) Project Role: Design Manager Responsibilities: Manages design, quality assurance, and coordination with the contractor for the construction of a \$43-million design-build project involving full-depth patching of concrete pavement and asphalt overly of a 6.5-mile segment of I-66. Prepared and implemented QA/QC plan for all design disciplines, reviews submittals, performed structural analysis and design, attends partnering and milestone meetings, and works with VDOT to develop design waivers. Project includes roadway improvements, drainage and utility upgrades, a TMP, ITS and lighting improvements, and public outreach. ITS plans include the replacement of loop detectors with non-intrusive detectors at 45 locations, sign plans, guardrail plans, and pavement marking plans. The project is located on a high-speed interstate with high traffic volumes and must be constructed within a very limited right-of-way. The design includes a complex Transportation Management Plan involving a study of traffic and crash data and an operational-level traffic analysis to create temporary

traffic control and transportation operations plans that maximize safety and minimize impacts to traffic flow and the work zone. The project includes a public communications plan to be implemented during construction.

Project: Erickson Ave. (Stone Spring Road) over I-81 Harrisonburg, Virginia

Owner: Virginia Dept. of Transportation

Name of Firm: Virginia Dept. of Transportation

Start Date: September 2005 **Finish Date:** Currently under construction.

Project Role: Structural Design Manager

Responsibilities: Manage structural design team for a bridge over I-81 in a \$25-million city-administered project consisting of 2 bridges and associated roadway and connections. Oversaw structural design of bridge over Rte 81, which consisted of a 2-span, 341-ft long continuous haunched composite steel-plate girder with semi-integral abutments. The bridge is phase constructed, and constructed on end bearing steel H-piles. Coordinated closely with the contractor during pile driving operations due to highly variable subsurface conditions to minimize delays and maintain foundation capacity. Worked closely with City of Harrisonburg to coordinate bridge design and review and critique adjacent consultant designed bridge crossing Blacks Run and Norfolk Southern Railroad.

Project: I-64 Bridge Repair & Widening, Covington, Virginia

Owner: Virginia Dept. of Transportation

Name of Firm: VDOT (Staunton District).

Start Date: 1994 **Finish Date:** May 2002

Project Role: Lead Structural Engineer

Responsibilities: Designed widening of bridge on Interstate 64 over Route 60/Route 220 Connector. \$7.7-million project with ramp reconfiguration, mainline bridge, CIP box culvert, and associated roadway. Mainline bridge was phase-constructed with both substructure and superstructure widening. The existing rolled steel beam superstructure was repaired by reconstructing the deck overhang and parapet, and bearing replacement. A latex HCC overlay was added to the existing deck after patching. All intermediate deck joints were eliminated by deck slab closures, and deck slab extensions and buried approach slabs were employed at the abutments to minimize future maintenance. The existing superstructure was retrofitted to match new design. This was the first use of buried approach slabs on an interstate in Virginia. Additional services included shop drawing reviews, estimating, technical assistance to field personnel, and interaction with contractor to mitigate field issues.

Project: I-81, Ramp over Abram's Creek Winchester, Virginia

Owner: Virginia Dept. of Transportation

Name of Firm: VDOT (Staunton District)

Start: December 2000 **Finish Date:** October 2007

Project Role: Structural Design Manager

Responsibilities: Managed design team for new bridge over Abrams Creek and Shenandoah University Access Road, as part of an \$8.3-million project to construct a new ramp for the Rte 50/I-81 interchange. The 2-span, 266-ft long composite PSC Bulb-Tee structure featured deck slab extensions, buried approach slabs, and was continuous for live load. Extensive study was conducted to determine best beam layout to accommodate future widening, and life cycle costing was used to determine if adjacent mainline structures would be utilized or replaced. Worked closely with road designers to avoid potential 4(f) ROW impacts to adjacent Shenandoah University, and with geotechnical engineers to design road fill to accommodate subsurface drainage, but facilitate pile driving. Supervised all aspects of design, shop drawing review, and temporary shoring plan review. Worked closely with contractor and field personnel to redesign pier footing for spread footings, and eliminate piles. Assisted in negotiations for change order. Worked closely with fabricator, contractor and other stakeholders to address excessively cambered beams. Helped devise solution to accommodate camber, ensure desired performance by adjusting finished grade and bolsters, thus avoiding costly delays and potential litigation.

Project: Route 11 over Lewis Creek and Route 254, Staunton, Virginia

Owner: Virginia Dept. of Transportation

Name of Firm: VDOT (Staunton District)

Start: 1997 **Finish Date:** 2002

Project Role: Lead Structural Engineer

Responsibilities: Designed the rehabilitation of a 162-foot bridge over Lewis Creek and Route 254. The bridge consisted of a superstructure replacement and abutment and pier rehabilitation to make the structure jointless. The new superstructure was constructed in phases, and consisted of composite rolled beam and plate girders with a deck extension. MOT plans maintained traffic in the urban area. Reviewed shop drawings, erection plans, and shoring plans, quantity takeoffs and estimating.

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title:	PAGE L. GALLIHUGH, JR., GENERAL SUPERINTENDENT
b. Project Assignment:	CONSTRUCTION MANAGER
c. Name of Firm with which you are now associated:	General Excavation, Incorporated
d. Years experience:	With this Firm <u>10</u> Years With Other Firms <u>13</u> Years Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen(15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked.):
Name of Firm:	General Excavation, Inc. Start Date: 1988 to Present
Position:	General Superintendent (2006-current) Area Superintendent (2001-2006) Regional Engineer (1988-2001)
	The positions held by Mr. Gallihugh have involved the following experience and fields of practice: <ul style="list-style-type: none">• Management and construction of a VDOT design build project, Loudoun County Virginia• Coordination and collaboration with engineers, project managers, quality assurance managers, quality control inspectors, utility companies and testing firms• Organize and manage human resources, safety and training• Oversight of subcontractors and professional service providers ensuring their timely delivery and productive conclusion• Establish and execute project schedules• Manage crews, equipment and material deliveries for their optimal efficiency• Productive interaction with citizens, elected officials, project stakeholders, VDOT project managers• Managed multiple roadway, bridge and site development projects to their successful completion• Construct major interstate, primary and secondary roads and bridges from start to finish• Demolition of roadways, dwellings, commercial structures, utilities and bridges• MOT plans through and around work zones coordination and implementation of short and long term traffic detours to minimize impact on traveling public• Coordination and oversight of utility relocations• Direct supervision of field management, shop staff and survey crews• Erosion and sediment control• Inspection of VDOT projects for safety issues, quality of construction, adherence to specifications and plans
CERTIFICATIONS:	VDEQ – Responsible Land Disturber #32627, Expires 9/3/2012 VDOT – Erosion & Sediment Control Contractor Certification #1754C, Expires 2/20/2014 VDOT - Instructor Work Zone Traffic Control #00044953 VDMME – General Mineral Miner #0010996 American Red Cross – Standard First Aid, Expires 1/28/2013 American Red Cross – CPR/AED – Adult, Expires 1/28/2013 Hazmat, Expires 12/22/2013
TRAINING:	OSHA – Subpart P, 30 Hour Attended 2/29/2008 ATTSA – Intermediate Work Zone Traffic Control Attended 10/10/2008 VDOT - Guardrail VDOT – Concrete Field VDOT – Nuclear Safety VDOT – Pavement Marking
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:	Orange County High School, 1988 Piedmont Virginia Community College 1998-2000
f. Active Registration: Year First Registered/ Discipline/VA Registration #:	N/A
g. Document the extent and depth of your experience and qualifications relevant to the Project.	<ol style="list-style-type: none">1. Note your specific responsibilities and authorities for each assignment, not those of the firm.2. Note whether experience is with current firm or with other firm.3. Provide beginning and end dates for each assignment (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)

Project: Pacific Boulevard Widening Design-Build Project, Loudoun Co., Virginia

Name of Firm: General Excavation, Inc

Start: 5/2010 **Finish:** 12/2011 (on-going)

Position: Construction Manager/Superintendent

Responsibilities: Management and oversight of the field operations for the VDOT Pacific Boulevard design-build project. The contract price \$1.9 million consisted of designing and constructing 0.56 miles of secondary roadway. Widening Pacific Blvd. from two to four lanes with raised median and dual turn lanes with improvements to the intersecting streets, signalization, asphalt trail and concrete sidewalk, utility relocation, quality control. Significant borrow material is necessary to complete the project. His duties include: negotiations with property owners of borrow sites essential to secure the required material; coordination with utility companies and the service authority for removal, replacement and relocation of existing utilities to meet the project schedule and mitigate conflicts; monitors quality control inspections and testing to make sure the required frequency is being met and that the results are acceptable.

Project: Rt. 610 Garrisonville Road, , Stafford Co., Virginia

Name of Firm: General Excavation, Inc.

Start: 11/2006 **Finish:** 6/2009

Position: General Superintendent

Responsibilities: Senior manager of this \$7.4 million VDOT bid-build project that consisted of 0.87 miles of grading, drainage, asphalt pavement, utilities, water, sanitary sewer, signage and traffic signals. The project included complex traffic control issues with 3 major intersections and a daily traffic count of 50,000 VPD. The project involved daily communication and problem resolution with the school system, VDOT and service authorities. Responsible for the safety of GEI employees and the traveling public. Mr. Gallihugh served as the point of contact with the Stafford County Utilities Department for the upgrade to their facilities during the widening of Garrisonville Road.

Project: Rt. 208 Lake Anna Parkway, Spotsylvania Co., Virginia

Name of Firm: General Excavation, Inc.

Start: 1/2007 **Finish:** 12/2008

Position: General Superintendent

Responsibilities: Management of a \$13.4 million VDOT bid-build project consisting of 4.82 KM of grading, drainage, excavation, asphalt pavement, curb & gutter, guardrail, landscaping, traffic signalization, electrical items, pavement markings, misc. concrete, pipe and structure installation and erosion & sediment control. His corporate responsibilities included senior management of all GEI field operations as well as the equipment staging, and maintenance and repair to ensure that field crews were equipped to perform their assigned tasks. Mr. Gallihugh was responsible for scheduling crews and equipment to accomplish the scope of work. He negotiated with property owners in order to secure borrow and disposal sites. He participated in planning and progress meetings that included VDOT management staff, Spotsylvania County elected officials and staff, as well as GEI project management staff and field supervisors. Mr. Gallihugh's knowledge of VDOT specification and standards and his ability to communicate complex ideas and details to non-technical stakeholders helped develop positive community relations.

Project: I-66/University Boulevard, Prince William Co., Virginia

Name of Firm: General Excavation, Inc.

Start: 10/2005 **Finish:** 9/2006

Position: Area Superintendent

Responsibilities: Managed an \$11.156 million VDOT bid-build project consisting of 0.922 mile long segment which involved the construction of a bridge across I-66 and the Norfolk Southern Railroad, grading, drainage, asphalt pavement, and traffic signalization. Managed the MOT plan which included I-66 traffic and Norfolk Southern rail traffic. Involved close coordination with the Norfolk Southern Railroad flagmen to ensure that construction activities within the railroad ROW did not interfere with train schedules and that the railroad flagmen were stationed as necessary to communicate with the rail engineers. During the erection of the steel bridge spans, complete closure of I-66 was necessary and was permitted in 15 minute intervals. Coordinated with the State Police to provide lane closures and traffic enforcement during the placement of the bridge steel over I-66. The project was completed ahead of schedule.

Project: Rt. 234 Dumfries Road at Lake Jackson Drive, Prince William Co., Virginia

Name of Firm: General Excavation, Inc.

Start: 8/2001 **Finish:** 9/2002

Position: Area Superintendent

Responsibilities: Managed a \$16.258 million VDOT bid-build project consisting of 2.071 miles of grading, the construction of 3 bridges, drainage, asphalt drainage, storm water management, signs, and signals. Project included installation of asphalt pavement, curb & gutter, guardrail, fence, pipe & structure installation and erosion & sediment control items. Mr. Gallihugh was responsible for managing pipe crews, grading crews and subcontractors assigned to the project. Materials delivery and staging was an integral part of his daily activities. Traffic controls including detours, lane shifts and maintenance of traffic through the work zone was included in his duties.

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: KIA NEJAD, P.E. SENIOR STRUCTURAL PROJECT MANAGER
b. Project Assignment: LEAD STRUCTURAL DESIGN
c. Name of Firm with which you are now associated: Volkert, Inc.
d. Years experience: With this Firm <u>>1</u> With Other Firms <u>24</u> Years Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen (15) years. Name of Firm: Volkert, Inc. Start Date: 2011 End Date: Present Position: Senior Structural Project Manager Manages structural projects and provides guidance to structural team. Name of Firm: Dewberry and Davis Start Date: 2007 End Date: 2011 Position: Technical Lead/Senior Structural Engineer Provided senior-level planning and design review. Provided advanced technical expertise on projects of high complexity and/or state of the art. Provided technical guidance on complex or unusual engineering jobs. Name of Firm: Wilbur Smith and Associates Start Date: 2004 End Date: 2007 Position: Senior Structural Project Manager Managed preliminary and final design of steel and concrete bridges in compliance with AASHTO and state standards. Rated analyses of existing bridges and rehabilitation designs, prepared construction specifications, provided construction support and shop drawing review, and conducted QA/QC constructability reviews. Name of Firm: HNTB Corporation Start Date: 1996 End Date: 2004 Position: Structural Project Manager Managed preliminary and final design of steel and concrete bridges in compliance with AASHTO and state regulations. Developed design sketches and provided analyses of existing bridges including rehabilitation design.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Florida A&M University, Tallahassee, Florida/1984/Bachelor of Science, Civil Engineering University of Maryland, College Park, Maryland/1987/Master of Science, Structural Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1996, Professional Engineer, #0402 030510, Expires 10-31-2012
g. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none">1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i>2. <i>Note whether experience is with current firm or with other firm.</i>3. <i>Provide beginning and end dates for each assignment.</i> <p>(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)</p> <p>Project: ICC Connector Design-Build, Contract C, Maryland State Highway Administration, Maryland Owner: Maryland State Highway Administration Name of Firm: Dewberry & Davis Start Date: 2010 Finish Date: November 2011 Project Role: Technical Structural Lead Responsibilities: This \$513-million project included 3.8 miles of the new 6-lane ICC roadway, 20 new bridges, a new 3-level interchange with Route 29, new interchange with Briggs Chaney Road, and a new 3-level interchange with I-95. Managed 10- structural professional engineers and CADD technicians for design of 7-plate haunched continuous plate girder bridge structures (1- structure staged replacement) with 1450' max bridge length on curved alignment (800' max radius), maximum span length of 225' and 70' tall piers, dual 5 span 530' long prestressed concrete girder bridge (PCEF-69) over sensitive environmental wetlands founded on multiple column piers and drilled shafts, box culverts, retaining wall, sound walls, and highway sign and toll gantry structures. Also responsible for the review of shop drawings answering contractor RFI's during construction.</p> <p>Project: Route 27/244 Interchange Modifications, Design-Build, Arlington County, Virginia Owner: Virginia Dept. of Transportation Name of Firm: Dewberry and Davis</p>

Start: 2009 **Finish Date:** 2011

Project Role: Structural Design Task Leader

Responsibilities: Provided innovative preliminary design in response to RFP to procure the project. The project involved replacement of a structurally deficient rigid frame reinforced concrete bridge with complex staging with an aesthetic 165 foot long single span structure. The structure was on a 45 degree skew which utilized the deck extension technology for a jointless structure. The exterior girders were haunched to mimic the existing rigid frame. Collaborated closely with contractor to develop schemes to satisfy the requirements of the RFP and to reduce overall construction cost. The project also included the replacement of a box culvert using staged construction, the bridge roadway approach, and retaining walls.

Project: Battlefield Parkway Design-Build over the W&OD Trail and Tuscarora Creek, Loudon County, Virginia

Owner: Virginia Dept. of Transportation

Name of Firm: Dewberry & Davis

Start Date: 2008 **Finish Date:** December 2009

Project Role: Structural Design Lead

Responsibilities: Managed bridge and structural design for this \$35 million project, which consisted of a 4 lane urban arterial roadway including dual 1,250 foot long bridges over the W&OD Trail and Tuscarora Creek. Reviewed shop drawings and answered contractor requests for information (RFI's) during construction. The dual bridges consisted of continuous straight and curved steel plate girders and are 8 spans with span lengths varying from 125 to 195 feet. The piers were tall cast-in-place concrete, multi-column bents supported on spread footings, one abutment was cast-in-place concrete supported on spread footings, the other was a cast-in-place concrete pile cap behind mechanically stabilized (MSE) walls.

Project: I-95/I-395/I-495 Interchange, Springfield, Virginia

Owner: Virginia Dept. of Transportation

Name of Firm: HNTB Corporation

Start Date: 1996 **Finish Date:** 2000

Project Role: Project Manager

Responsibilities: Managed preliminary design of 52 bridges and final design of 18 bridges for a tri-level interchange including widening, replacement of existing structures, and design of new structures. Several of the bridge designs incorporated jointless technology such as full- and semi-integral abutments to reduce maintenance and several of the bridges have severe skews. Project included the design of 52 bridges varying from simple span to a 5,200-foot long curved viaduct with minimum 270 feet radius of curvature and max span length of 290 feet. Bridges were supported on 100-foot tall piers with drilled shafts, some with integral post tensioned caps and steel straddle bent type pier caps to meet horizontal and vertical clearance requirements.

Project: I-95/Route 1 Interchange, Alexandria, Virginia

Owner: Virginia Dept. of Transportation

Name of Firm: HNTB Corporation

Start: 2000 **Finish Date:** 2003

Project Role: Project Manager

Responsibilities: Managed preliminary and final design of 17 bridges for a tri-level interchange as part of the Woodrow Wilson Bridge replacement over Potomac River. Five of the bridge designs incorporated jointless bridge technology to reduce maintenance and several were on severe skews. Project included 34 bridges varying from low level bridges to multi-span, curved, flyover structures with minimum radius of curvature of 285 feet and maximum span length of 180 feet.

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: RUTH GARDNER, ENVIRONMENTAL SPECIALIST
b. Project Assignment: ENVIRONMENTAL COMPLIANCE MANAGER
c. Name of Firm with which you are now associated: Volkert, Inc.
d. Years experience: With this Firm <u><1</u> With Other Firms <u>31</u> Years Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen (15) years. Name of Firm: Volkert, Inc. Start Date: 2010 End Date: Present Position: Environmental Specialist/Engineer Prepares environmental documents for state and federally funded transportation projects; Determines water quality permit requirements and obtains water quality permits from state and federal regulatory agencies. Name of Firm: County of Augusta Start Date: 2010 End Date: 2011 Position: Environmental Engineer Coordinated locally administered rural rustic VDOT projects with state and federal regulatory agencies to assure that projects were in compliance with state and federal law prior to project advertisement. Coordination included accessing various agency GIS databases and contacting agencies to determine the effects of projects on natural or cultural resources. Coordination also involved determining permit requirements for stream and wetland crossing and obtaining the necessary permits from state and federal regulatory agencies. Name of Firm: Virginia Dept. of Transportation. Start Date: 1980 End Date: 2009 Position: Environmental Engineer Interpreted state and federal regulations and prepared environmental documents, including NEPA and EIR documents for state and federally funded projects. Determined water quality permit types for projects and obtained water quality permits by filling out permit applications and presenting projects at VDOT's interagency coordination meetings to state and federal regulatory agencies. Conducted reviews of projects during construction for compliance with environmental commitments and state erosion and siltation control laws and reviewed projects through the SERP process to determine project impact, then negotiated agreements with participating state agencies to mitigate impacts.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Bridgewater College, Bridgewater, VA/Bachelor of Arts/1977/Biology
f. Active Registration: Year First Registered/ Discipline/VA Registration #:
g. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none">1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i>2. <i>Note whether experience is with current firm or with other firm.</i>3. <i>Provide beginning and end dates for each assignment.</i> <p>(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)</p> <p>Project: Routes 765, 756, 875, and 1220, Augusta County, Virginia Owner: County of Augusta Name of Firm: Augusta County Start: 2011 Finish Date: Spring 2011 Project Role: Environmental Specialist Responsibilities: Coordinated environmental clearances for 4 rural rustic VDOT projects administered by Augusta County. Contacted environmental regulatory agencies directly or used agencies' GIS databases to determine project effects on scenic byways, streams, wetlands, public water supplies, wild or scenic rivers, floodplains, air quality, underground storage tanks, cultural resources, threatened and endangered species, wildlife refuges, forestry land, farmland and public land. Worked with project designers to avoid, minimize and mitigate environmental impacts. Obtained all water quality permit clearances prior to project advertisement.</p>

Project: U000-306-102 Shenandoah County, Queens Street/Town of Strasburg

Owner: Virginia Department of Transportation

Name of Firm: Virginia Department of Transportation

Start Date: 2008 **Finish Date:** 2009

Project Role: Environmental Specialist

Responsibilities: Addressed environmental impacts by preparing a Categorical Exclusions for this federally funded project by accessing environmental databases and contacting local, state and federal agencies for their input on projects' effect on natural, cultural, social-economic and recreational resources. Worked with project designers and Department of Historic Resources to minimize and mitigate for impacts to the adjacent historic or archeological properties and prepared a De Mimimis 4(f) to address impacts to adjacent historic structures and district.

Project: Project 0744-085-289, P101 Route 744/Shenandoah County

Owner: Virginia Department of Transportation

Name of Firm: Virginia Department of Transportation

Start Date: 2008 **Finish Date:** 2009

Project Role: Environmental Specialist

Responsibilities: Addressed environmental impacts by preparing a Categorical Exclusion for this federally funded project by accessing environmental databases and contacting local, state and federal agencies for their input on projects' effect on natural, cultural, social-economic and recreational resources. Worked with project designers to avoid impacting adjacent historic properties. Obtained water quality permits from state and federal regulatory agencies by negotiating an acceptable time of year restriction and construction plan to protect endangered mussels during in stream work.

Project: 0081-034-125, PE101 Frederick County over Abrams Creek

Owner: FHWA

Name of Firm: Virginia Department of Transportation

Start Date: 2005 **Finish Date:** 2007

Project Role: Environmental Specialist

Responsibilities: Addressed environmental impacts by preparing a Categorical Exclusion for this federally funded project by accessing environmental databases and contacting local, state and federal agencies for their input on projects' effect on natural, cultural, social-economic and recreational resources. Worked with project designers to avoid a Section 4(f) use of land in the construction of this project. Also, applied for and obtained water quality permits from state and federal regulatory agencies. Identified and delineated wetlands adjacent to Abrams Creek and mitigated for these impacts by contributing monies to the Division of Natural Heritage trust fund.

Project: Route 647/Frederick County (Aylor Road)

Owner: Virginia Department of Transportation

Name of Firm: Virginia Department of Transportation

Start Date: 2004 **Finish Date:** 2006

Project Role: Environmental Specialist

Responsibilities: Coordinated proposed roadway improvement with state agencies through the State Environmental Review Process (SERP) then prepared a Categorical Exclusion for this federally funded project by negotiating with local, state and federal agencies to avoid potential 4(f) impacts to an adjacent school playground. Obtained water quality permits for this project prior to advertisement by completing a permit application and presenting this project to state and federal permit agencies for their review at the Inter-Agency Coordination Meeting. Coordinated with state and federal regulatory agencies to mitigate project impacts to wetlands by contributing monies to a trust fund administered by the Division of Natural Heritage.

ATTACHMENT 3.4.1(a)
LEAD CONTRACTOR - WORK HISTORY FORM

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

a. Project Name & Location	b. Narrative describing nature of Firm's Responsibilities	c. Client/Owner/Project Manager who can verify Firm's responsibilities. Include address and current phone number.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	Original Contract Value	Final or Estimated Contract Value	Dollar Value of Work for Which Firm Was/Is Responsible
Pacific Boulevard Design-Build Project Loudoun Co., Virginia Contract ID No. C00093889DB36 Project No. 1036-053-967,C501,P101,R201	See below	Virginia Dept. of Transportation 4975 Alliance Drive Fairfax, VA 22030 <i>Tim Hartzell (703) 259-2947</i> <i>Assistant District L&D Engineer</i>	July 2011	January 2012 (Estimated) (Substantial Completion was attained in July 2011. Final Acceptance has been delayed due to finalizing R.O.W. acquisition)	\$1,850	\$1,964	\$1,964



The Pacific Boulevard widening project is the first design-build project successfully completed by General Excavation, Inc. The project consisted of constructing 2,100 L.F. of two lanes of a four lane secondary roadway in Loudoun County. GEI had comprehensive responsibility for the execution of the project and served as the contractor for building the roadway widening. Elements performed and/or managed by GEI included the following:

- Design
- Construction
- Quality Assurance
- Quality control
- R.O.W. Acquisition
- Utility Relocation
- Traffic Signal Design & Construction
- Utilities-Power & Communication to Traffic Signal
- Grading
- Storm Drainage
- Bituminous Asphalt Paving



- Water & Sanitary Sewer Relocation and Adjustments

While straightforward, the project presented the General Excavation design-build team with several challenges.

- The first of these challenges was the acquisition of the right-of-way and easements required to construct the project. Since the project impacted nine (9) different properties and eleven (11) different owners, surveys were required to accurately develop and depict the plans and plats necessary for the appraisals and offers. The title research found that the smallest parcel impacted identified four (4) different property owners of a commercial condominium which was divided into a northern segment and southern segment with the majority of the owners being located in Colorado. Preparing and presenting an offer to a property with multiple owners who are represented by an association required a significant amount of time and effort to resolve.
- The second challenge involved preparing the design and acquiring the right-of-way and easements required to provide power to the new traffic signal. Determining the most cost effective and efficient alignment required the involvement and approval of both VDOT and the power company.
- The last noteworthy challenge related to the condition of the existing soils and material. Since the existing material was determined to be unsuitable, several options were presented when considering how best to treat the material, including the use of geotextile fabrics and soil stabilization treatments. To minimize impacts to the schedule, the material was undercut, removed from the project, and replaced with suitable material from several off-site borrow sources.

The lead design firm working with GEI on this contract is Kimley Horn & Associates.

Lessons Learned / Keys to Success

- Accurately determine property owners
- Develop accurate plans and plats
- Acquire necessary R.O.W. and easements early in the process
- Engage utility owners and Service Authorities early in design development process
- Perform geotechnical investigation early to determine the condition of the existing ground / material

Similar Project Features:

- Design-Build delivery
- Right of way acquisition
- Easement acquisition required
- New traffic signal
- Utility design and relocation
- Public relations outreach to First Responders, School Board, and surrounding businesses that are impacted by project construction
- Borrow material needed from off-site sources
- Disposal sites for unsuitable material

ATTACHMENT 3.4.1(a)
LEAD CONTRACTOR - WORK HISTORY FORM

Route 340 Bridge Replacement over Jeremy's Run, Page County, VA Project No. (NFO)0340-069-V20,C502,B605	See below	Virginia Dept. of Transportation 733 Forrest Drive Stanley, VA 22851 <i>Mr. Robert Good, P.E. (540) 778-2569</i> <i>Area Construction Engineer</i>	November 2009	August 2009 (Completed 2 Months Ahead of Schedule)	\$7,674	\$8,148 (6% Increase to the Final Contract Value was a result of Approved Change Orders, Quantity Overruns to Bituminous Asphalt and Aggregate Base Material, and Asphalt and Fuel Adjustments)	\$8,148
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General Excavation Inc. served as the prime contractor responsible for:

- Roadway Construction
- Bridge Construction
- Bridge Demolition
- Blasting
- Storm Drainage
- Maintenance of Traffic
- Scheduling
- Bituminous Asphalt Paving
- Construction Management of subcontractors

The Route 340 Bridge Replacement project over Jeremy's Run received **the award for Excellence in Construction as the Best Project in the Staunton District in 2009**. The award winning recognition this project received was directly attributable to the team members involved. Key among those members was our principle subcontractor / partner, Fairfield-Echols. The experienced field construction management staff that was instrumental in the success of this project began their relationship just a few miles away on the Route 340 Bridge Replacement project across Overall Run. The relationships that were

developed between General Excavation and Fairfield-Echols and the lessons learned on the Overall Run project, were applied to the Jeremy's Run project. The similar nature of these two projects, and the fact that the construction and management teams from General Excavation and Fairfield-Echols work well together, established the foundation for a successful partnership that resulted in the construction of an award winning project.

Key elements of the Jeremy's Run project were the replacement of the existing structure with a new 446 foot long bridge. There was 139,000 C.Y. of excavation on the project, most of which had to be blasted before being disposed of off-site. The biggest challenge to the earthwork on the project was finding a suitable disposal site. General Excavation's local knowledge of the surrounding area and relationships with nearby property owners enabled us to secure a disposal site adjacent to the project.

Prior to being demolished, the old bridge structure was classified as structurally deficient. The posted weight restriction limited the use of the bridge for the transportation of materials from one side of Jeremy's Run to the other. This presented the challenge of moving material on the project without crossing the bridge. Using a combination of smaller trucks with lighter loads and a lengthy detour route, the General Excavation / Fairfield-Echols team was able to move and deliver all of the construction materials without damaging the existing structure. Demolition of the existing bridge structure was performed without incident in an environmentally sensitive area by constructing protective shields that prevented debris from falling into or entering the surrounding environmentally restricted areas.

Lessons Learned / Keys to Success

- Application of Lessons Learned from Overall Run Project
- Consistency of construction management teams from General Excavation and Fairfield-Echols created an environment that produced an award winning project
- Local knowledge of area
- Established relationships with surrounding property owners
- Secure off-site disposal and borrow locations early
- Use of on-site materials (manufactured rip-rap for slope protection from on-site rock material that was blasted within the project limits)

Similar Project Features

- General Excavation Management Team
- Fairfield-Echols Management Team
- Local knowledge of project area
- Established relationships with surrounding businesses and land owners
- Bridge construction
- Bridge demolition
- Disposal of unsuitable materials off-site

ATTACHMENT 3.4.1(a)
LEAD CONTRACTOR - WORK HISTORY FORM

University Boulevard Prince William County, VA Project No. (FO)0066-076-113,C506,B636	See below	Virginia Dept. of Transportation 4975 Alliance Drive Fairfax, VA 22030 <i>William Green (571) 329-5418 (cell)</i> <i>Construction Manager (Retired)</i>	September 2006	September 2006	\$11,156	\$12,134 (8.8% Increase to the Final Contract Value was a result of Approved Changer Orders – one of significant value that added a retaining structure, and Asphalt and Fuel Adjustments)	\$12,134
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GEI served as the prime contractor for the construction of University Boulevard responsible for:

- Roadway construction
- Bridge construction
- MSE wall construction
- Construction of 2 new traffic signals
- Storm drainage
- Maintenance of traffic
- Scheduling
- Bituminous asphalt paving
- Construction management of subcontractors

University Boulevard is a 1.3 mile connector road in Prince William County that carries over 56,000 vehicles per day from Wellington Road to Route 29, north of the Route 29 /I-66 interchange. Since both Route 29 and Wellington Road are the primary routes utilized to access the concerts and events held at the Nissan Pavilion (now Jiffy Lube Live), special consideration was taken to ensure construction activities were closely coordinated with timing of these events to limit the impact the project would have on the flow of traffic to and from the Pavilion.

One of the significant features of this project was the construction of a 477' bridge structure over both I- 66 and the railroad right-of-way which is owned and operated by Norfolk Southern. The as-bid maintenance of traffic plan included a schedule that permitted traffic on I-66 to be stopped in 15 minutes increments during off-peak hours at night to erect and set the structural steel. After carefully reviewing traffic flows, an alternate plan was implemented that detoured traffic off of I-66 around the work zone. The utilization of this detour created a safer work environment, facilitated a longer work period, and significantly reduced the duration of the impact to the traveling public during the erection process. The maintenance of traffic plan was also implemented so that the concrete piers on both sides of Interstate 66, as well as in the median, were constructed without having to stop or detour traffic. Traffic barriers were placed on both sides of the highway to shift lanes away from the work crews and equipment so that traffic could flow smoothly and uninterrupted while the bridge work continued. The project also included the construction of a box culvert and MSE retaining walls.

Two new traffic signals were constructed where the alignment of University Boulevard intersected Route 29 and Wellington Road. Coordination with local utility companies was required to ensure that the appropriate power and communication services were available to both of these traffic signals when requested enabling the roadway to be opened to traffic and the project completed on time.

The University Boulevard project also required the removal of over 27,000 cubic yards of unsuitable material, and importing over 230,000 cubic yards of suitable borrow material.

Lessons Learned/Keys to Success

- Develop a Traffic Management Plan that reduces the impact to the traveling public and surrounding business while enabling safe construction practices
- Locate and secure disposal sites and borrow areas as soon as possible
- Engage local utility companies early in the design process to ensure the timely delivery of power to traffic signals

Similar Project Features

- Bridge Construction over an interstate
- Box culvert construction
- New traffic signals
- Significant quantity of borrow material needed
- Storm drainage
- Asphalt paving
- Potential impact to nearby businesses and facilities (Jiffy Lube Live has significant traffic associated with its events and operation, similar to the traffic associated with Augusta Health Center and businesses located in the Expo Industrial Park)



ATTACHMENT 3.4.1(b)
LEAD DESIGNER - WORK HISTORY FORM

Work by Lead Designer – three (3) projects which best illustrates current qualifications relevant to this project.

a. Project Name & Location	b. Narrative describing nature of Firm's Responsibilities	c. Client/Owner/Project Manager who can verify Firm's responsibilities. Include address and current phone number.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	Original Contract Value	Final or Estimated Contract Value	Dollar Value of Work for Which Firm Was/Is Responsible
I-66 Rehabilitation Design-Build Project Fairfax, Virginia	See below	Virginia Dept. of Transportation 4975 Alliance Drive Fairfax, VA 22030 <i>Susan Shaw, P.E. (703) 259-1995</i>	November 2012	August 2012 (Estimate)	\$38,000	\$43,000 (Additional work assigned by VDOT)	\$43,000



Volkert is providing design, QA (quality assurance), and public outreach services for a \$43-million rehabilitation project along a 6.5-mile segment of I-66. The project includes full-depth patching of concrete pavement; asphalt overlay; and roadway/geometric, drainage, ITS, and utility improvements. Volkert also developed signing, striping, sign illumination, and roadway lighting plans including the replacement of existing loop detection with non-intrusive traffic detection units at 45 locations and completion of a sign inventory.

Volkert and the contractor form a well-integrated team which includes a blend of engineers and construction personnel with expertise in the design of interstate infrastructure; schedule development and analysis; the analysis of constructability issues and traffic management issues in high traffic areas; safety; and the design, planning and implementation of concurrent design and construction including complex phased construction and sequencing plans.

Volkert and the contractor worked collaboratively to carefully plan an aggressive yet realistic integrated design and construction CPM schedule and plan and implement concurrent design and construction activities to maximize efficiency and flexibility. Design and construction was divided into 7 work packages. The first 2 packages included concrete slab on grade repairs and concrete median and roadside barrier modifications. During construction of the first 2 packages, Volkert obtained approval of the ITS plans and completed design of the 2 work packages for paving and guardrail adjustments. Drainage design was divided into 3 work packages and maintenance-of-traffic was divided into 4 work packages.

This organization of the work packages allowed for greater flexibility because potential issues with one work package would 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.

Volkert's design extended production and accelerated construction with the use of a temporary precast modular patching system and an innovative metal grate adjustment collar system which eliminated the need for precast and cast-in-place concrete, which have time and adjustment limitations. Weekly scheduling meetings and looking ahead 3 weeks to plan construction also helped to keep construction ahead of schedule.

The project is located on a high-speed interstate with high traffic volumes and must be constructed within very limited right-of-way. Volkert developed a Transportation Management Plan involving a study of traffic and crash data and an operational-level traffic analysis to determine the best variety of construction phasing and temporary traffic control techniques to meet the construction schedule while maintaining traffic flow and safety. Various management strategies and alternatives to detours and lane closures were analyzed. Due to very heavy traffic volumes, construction was conducted at night only. Two of 3 lanes plus the shoulder lane in both directions were open to traffic at all times during construction. Work on ramps was accomplished in a separate phase with partial ramp closures and detours. In addition, Volkert prepared and implemented a public communications plan.

Volkert conducts QA services to confirm that construction, material testing, and sampling performed by the design-build QC (quality-control) inspectors comply with the VDOT IPD Design-Build Manual (August 2007) and the approved construction plans and specifications. Key responsibilities involve development and implementation of the QA/QC plan, independent assurance testing for comparison with the QC inspectors' testing, meticulous documentation of construction activities and verification of compliance to federal ARRA requirements, resolution on non-conforming work, and monitoring of work zone safety and traffic control. Out of more than 40,000 square yards of repair work, only 200 square yards required corrective work, which was completed immediately.

The project is 20% ahead of schedule and VDOT has received positive feedback from Fairfax County citizens and I-66 motorists.

The lead contractor with whom Volkert worked on this design-build contract is Fort Meyer Construction Corporation.

Lessons Learned / Keys to Success

- Establish, implement, and adhere to a communications protocol for decision making for design and in the field
- Divide the work into more work packages that can be worked on concurrently to maximize flexibility and reduce delay (if a work package fails to reach approval, others can proceed)
- Include realistic review and revision times into the schedule
- When working near or on an interstate, build buffers in the schedule and have a backup plan in place to mitigate potential impacts caused by accidents and traffic backups on the interstate
- Anticipate and work into the design process potential scope changes before approval.
- During the design process, continuously consider options that accelerate construction and coordinate with construction engineers and the contractor to identify and avoid potential constructability issues



ATTACHMENT 3.4.1(b)
LEAD DESIGNER - WORK HISTORY FORM

I-65 / Corridor X Interchange (future I-22) Birmingham, Alabama	See below	Alabama Dept. of Transportation 1409 Coliseum Boulevard Montgomery, AL 36110 <i>Kasey Rogers (334) 242-6822</i>	November 2013	November 2013	\$320,000 (construction)	\$280,000 (Anticipated)	\$280,000
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Volkert designed a complex interstate project that included 7 interchanges, the widening of 5.4 miles of I-65 from 6 lanes to as many as 15 lanes, addition of collector-distributor roads, and 2 miles of a new controlled-access highway. The \$280-million project included 27 bridges, 14 over the Norfolk Southern Railroad. The main interchange was a 4-level directional interchange with 13 bridges connecting I-65 to the new controlled-access highway. Six bridges had tall piers. Twenty piers ranged from 50 to 75 feet in height and 3 piers ranged from 75 to 90 feet in height. The design also included 40+ overhead sign structures, lighting, drainage, stormwater management, erosion and sediment control and the relocation of high-pressure gas and power lines. Designers worked collaboratively with construction engineers to identify potential constructability issues and determine the best construction methods and sequencing of construction.

Close collaboration with the FHWA was required to confirm compliance with FHWA requirements and to obtain approvals. The FHWA Area Engineer participated in project review meetings. Volkert also coordinated with the Norfolk Southern Railroad and the Multimodal Transportation Bureau to work out clearance and drainage issues and obtain approvals.

The design addressed complex drainage issues. Drainage design included the following highlights:

- Created 3 detention ponds to meter the flow from significant rainfall events.
- Bypassed 2 landfills that constrained the project site completely avoiding an active landfill and rerouting the drainage around a closed, construction-debris landfill underlain by an aging and inadequate drainage system.
- Riprap energy basins to dissipate the energy at the outlets of an 8- ft. x 8-ft. box culvert under I-65 and an 10-ft. x 6-ft. box culvert under I-65. The latter mitigated a scour problem where the culvert enters Five Mile Creek. Both culverts needed major changes in their upstream drainage systems.
- Erosion and sediment control plans to protect 2 named creeks and 4 other “blueline” streams covering 5 phases of construction.

Traffic analyses were conducted to determine design solutions and to devise complex sequence-of-construction and maintenance-of-traffic plans that maintained 6 lanes of traffic (85 vehicles per day) on I-65 at all times during 4 phases of construction.

The project was showcased in *Roads and Bridges* twice. It was ranked as the #6 road project of 2007 in the October 2007 issue and was showcased again in the June 2008 issue.

The project was split into 6 construction projects with each is being constructed as funding is available. Two projects were constructed and 2 others are under construction. Construction for the 5th project will be let in July 2012.

Volkert conducted construction engineering inspection services for several of the projects.

Lessons Learned / Keys to Success

- Use a holistic approach to design to assure integration of all systems(e.g. bridges, retaining walls, drainage, utilities, lighting, etc) so there are no conflicts
- Use a partnering approach to include participation of the NS Railroad, utility providers, and other key stakeholder from the very beginning and establish, a communications protocol for efficient decision making and information sharing
- Begin analysis and development of MOT plan from the very start concurrently with design plans
- Frequent visits to the site during design to verify field conditions and feasibility of the design
- Carefully plan the proper sequencing of drainage construction to prevent ponding on the interstate and assure stability of construction slopes
- Develop several drainage design options (drainage systems through and bypassing a landfill) to account for unknown conditions associated with a landfill for which there was inadequate survey data to minimize redesign later in the process.
- Consider options that accelerate construction and coordinate with construction engineers to identify and avoid potential constructability issues



ATTACHMENT 3.4.1(b)
LEAD DESIGNER - WORK HISTORY FORM

Martin Luther King Freeway Extension for the Elizabeth River Crossing PPTA Project Portsmouth, Virginia	See below	Owner - VDOT Client – Parsons Brinkerhoff 6161 Kempsville Circle, Suite 110 Norfolk, VA 23502 <i>Fred Parkinson, P.E. (757) 466-9650</i>	August 2013	August 2013 (Anticipated)	\$207,000	\$207,000 (Anticipated)	\$207,000
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In the Tidewater area, I-264 and Route 58 serve as part of the regional highway network and are important commercial and commuter routes. In the City of Portsmouth, a direct connection does not exist between the Martin Luther King Freeway (Route 58) and I-264, forcing drivers, including a high percentage of truck and commercial traffic from the ports, to use local neighborhood streets. As a component of the Elizabeth River Crossing PPTA project, Martin Luther King Freeway will be extended from just south of London Boulevard to I-264 to provide controlled-access connectivity from the Midtown Tunnel to I-264. The project will achieve the following objectives:

- Increase capacity, reduce congestion and provide safe and efficient operations
- Significantly reduce the high percentage of truck and commuter traffic on neighborhood streets
- Develop a multi-modal transportation facility that may be integrated into the operations of a regional transportation network that serves as an emergency evacuation route
- Reduce and mitigate impacts to the environment and surrounding communities while supporting the movement of commercial traffic

Volkert is managing engineering and design of the Martin Luther King Freeway extension, a \$207-million, 2-mile, 4-lane, elevated, limited-access freeway (urban principal arterial), including a new urban trumpet interchange at I-264 and a new half-diamond interchange at High Street, modifications to the London Boulevard interchange, 2 bridge widenings, the widening of I-264 to add auxiliary lanes, side road improvements, retaining walls, new stormwater management facilities, and 2 new signals.

Interchange modifications include improvements to a substandard loop ramp, changes to horizontal curvature, grade adjustments on ramps to connect to the Martin Luther King Freeway extension, and drainage modifications to fit the revised grading and new roadways.

- The context-sensitive design maintains connectivity of neighborhoods, incorporates aesthetic treatments on the bridges, and minimizes impacts to historic resources.
- The mainline concept includes 30 steel and pre-stressed concrete spans and the ramp concept includes 29 ramp spans and 2 bridge widenings over railroad tracks and a local road. Pier locations and span lengths avoided conflicts with existing and proposed railroad tracks.
- Coordinated the design of span arrangements with the CSX Railroad to accommodate expansion plans for the rail yard.
- The design maximizes the available space for stormwater management facilities to minimize impacts on an aging and over-taxed storm drain system.

The lead contractor with whom Volkert worked on this PPTA contract is Skanska. Volkert is under contract to Parsons Brinkerhoff, lead design consultant.

Lessons Learned / Keys to Success

- Use a context-sensitive design approach to assure connectivity to neighborhoods, comply with community standards for aesthetics, and minimize impacts to historic resources
- Close and early coordination with the CSX Railroad to minimize impacts to the rail yard and avoid drainage issues
- Optimize use of the project footprint for the location of stormwater management ponds to minimize the need for additional right-of-way
- Use a holistic approach to design to assure integration of all systems(e.g. bridges, retaining walls, drainage, utilities, lighting, etc) so there are no conflicts
- Address solutions to poor soil conditions that would minimize impacts to the schedule early in the design process



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