RESPONSE TO REQUEST FOR QUALIFICATIONS

I-64 Widening and Route 623 Interchange Improvements
A DESIGN-BUILD PROJECT
Goochland County and Henrico County, Virginia

State Project No.: 0064-964-110, P101, C501, B610-B614, B617, B616, D601-D606
Federal Project No.: NH-064-2(150)
Contract ID Number: C00070542DB55
November 15, 2012

Mr. Stephen D. Kindy, P.E.
Alternate Project Delivery Office
Virginia Department of Transportation
1401 East Broad Street
Annex Building, 8th Floor
Richmond, Virginia 23219

RE: I-64 Widening and Route 623 Interchange Improvements
From 0.99 Miles West Of Route 623 (WB-Route 622, EB-Route 623)
To 0.38 Miles West Route 271 (Pouncey Tract Road) in Short Pump
Goochland County and Henrico County, Virginia. Contract ID Number C00070542DB55
Letter of Submittal 3.2

Dear Mr. Kindy:

Shirley Contracting Company, LLC (Shirley), as the Offeror, is pleased to submit to the Virginia Department of Transportation (VDOT) our Letter of Submittal in response to your Request for Qualifications for the I-64 Widening and Route 623 Interchange Improvements Design-Build Project (the Project). For this pursuit, we have assembled a Team with unparalleled experience and expertise in the industry to assure VDOT that the Project will exceed all expectations.

The full legal name and address of the Offeror is as follows:
Shirley Contracting Company, LLC
8435 Backlick Road
Lorton, Virginia 22079

The Principal Officer for this Project will be:
Mr. Michael E. Post
President/CEO
Shirley Contracting Company, LLC
8435 Backlick Road
Lorton, Virginia 22079
(P) 703-550-8100 (F) 703-550-7899
mpost@shirleycontracting.com

Shirley Contracting Company, LLC, a limited liability company, will be the legal entity, will have financial responsibility for the Project and will have joint and several liability for the performance of the work. There are no liability limitations. Our bonding approach will be to provide performance and payment bonds for the total contract value and time period.

The Lead Contractor for the Project will be Shirley Contracting Company, LLC and the Lead Designer will be Dewberry Consultants LLC (formerly Dewberry & Davis LLC).

The full names and addresses of all affiliated and/or subsidiary companies of the Offeror are provided in Attachment 3.2.6
Signed Certification Regarding Debarment Forms for Primary and Lower Tiered Covered Transactions are included as an attachment.

Shirley Contracting Company, LLC is currently Prequalified (active status) with VDOT. Our Vendor Number is S018. A screen shot print out from VDOT’s on-line Prequalified List is attached.

Also attached is a letter from our surety that provides evidence that we are capable of obtaining a performance and payment bond for the current estimated contract value, and that these bonds will cover the Project and any warranty periods.

Virginia State Corporation Commission (SCC) and Virginia Department of Professional and Occupational Regulations (DPOR) registration information for all business entities on the Offeror’s team are included in Attachment 3.2.10. Full size copies of registrations and licenses are provided in the appendix to this Statement of Qualifications.

Finally, I am providing the following statement demonstrating our commitment to the project’s DBE goals:

_I personally commit to VDOT that the Shirley Team will achieve a DBE Participation goal of 10% for the entire value of the contract:_

________________________________________
Michael E. Post
President/CEO
Shirley Contracting Company, LLC

On behalf of our Team, we thank the Virginia Department of Transportation for the opportunity to submit this SOQ to the Request for Qualifications and we look forward to your review of our submittal.

Sincerely,

Michael E. Post
President/CEO
Shirley Contracting Company, LLC

Attachments:
SCC Registrations
DPOR Registrations
Evidence of Prequalification
Surety Letter
3.3 Offerors Team Structure

**INTRODUCTION**
Shirley Contracting Company, LLC (Shirley) has the experience and personnel to effectively manage all of the design-build elements of the I-64 Widening and Route 623 Interchange Improvements Project (the Project). Shirley is committing Team Members and Key Personnel to the Project that have been responsible for managing more than $500 million of design-build roadway and bridge projects in Virginia including the Route 28 Corridor Improvements Project, Dulles Greenway Capital Improvements Project, Fort Lee Roundabout, Battlefield Parkway, and Pacific Boulevard Design-Build Projects. On each of these projects, Shirley was the Lead Contractor and Dewberry Consultants LLC (formerly Dewberry & Davis LLC) was the Lead Designer. Further, each of these design-build projects have been, or will be, completed on or ahead of schedule, at a fixed price, and without a single claim or other outstanding issue. Moreover, because our Team members and Key Personnel have worked together on these critical design-build projects for over 10 years now, we have developed close working relationships with each other. Having a thorough understanding of each other’s abilities allows us to efficiently manage each discipline and reduces project risk.

**3.3.1 KEY PERSONNEL**
Information for the following Key Personnel are included as Attachment 3.3.1 - Key Personnel Resume Forms.

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design-Build Project Manager</td>
<td>Charles (Chuck) Smith</td>
<td>Shirley Contracting Company, LLC</td>
</tr>
<tr>
<td>Quality Assurance Manager (QAM)</td>
<td>Kenneth Shirley, PE</td>
<td>EBA Engineering, Inc.</td>
</tr>
<tr>
<td>Design Manager</td>
<td>Steve Kuntz, PE, DBIA</td>
<td>Dewberry Consultants LLC</td>
</tr>
<tr>
<td>Construction Manager</td>
<td>Tony Jefferys</td>
<td>Shirley Contracting Company, LLC</td>
</tr>
</tbody>
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As the resumes indicate, each of the individuals we have selected for the Key Personnel roles have extensive experience in the design, construction, and administration of VDOT design-build projects, as well as significant overall design and construction expertise.

Because design-build projects require a higher level of coordination and integration among the various disciplines, it is crucial that the Key Personnel of the design-build team have an extended history of working together and a clear understanding of how all the project disciplines interact. In addition to the design, construction and quality assurance/quality control aspects of a design-build project, a successful team must also integrate the right-of-way, utility, permitting, safety, third-party coordination, and public relations disciplines into a single, cohesive project. To that end, the Shirley Team is also committing two additional key managers to the Project who will each play a significant role in our ability to complete the work ahead of schedule, under budget, and in a safe, quality manner with minimal resource requirements from VDOT. These additional key managers include:

**Right-of-Way Manager** - A critical service that our Team brings to the Project is our in-house capability
of managing the acquisition of rights-of-way and easements needed to clear the project for construction. While most other firms must bring in outside consultants for right-of-way acquisition management, Shirley offers this service and expertise in-house, eliminating any potential rights-of-way inefficiencies on the Project. If the Project needs dictate changing the acquisition order, having ROW services in-house allows us to react quickly, to maintain the goals and schedule for the Project, and to more closely coordinate among the design, utility, permitting and construction disciplines. Our Right-of-Way Manager Seth Bourne, will be involved throughout the design stage, providing feedback and recommendations regarding minimizing property impacts. As the Project progresses and easements or right-of-way are needed, Seth will manage our VDOT prequalified consultants to complete the appraisals, appraisal reviews, title reports, offers, negotiations, certificates, and settlements.

We are aware that at this conceptual phase of project development that no right-of-way is anticipated to be needed for the project and VDOT has indicated they believe this to be the case based on the conceptual plans included in the RFQ Information package. While we also do not anticipate the need for right-of-way for the project, in the event an easement or other right-of-way is required as a result of the final design process, our team has the in-house resources available to respond immediately and not cause a delay to the project.

**Utility Manager** - A design-build project as important as the I-64 Widening and Route 623 Interchange Improvements Project cannot be successful without effectively managing the associated utility impacts. Shirley is in an excellent position to expedite this work because of our experience and knowledge of the existing utilities and the potential for impacts. Our Utility Manager, Todd Kief has managed the utility relocations for nearly $500 million in design-build construction in Virginia over the last 10 years through his work on the Route 28 Corridor Improvements, Dulles Greenway Capital Improvements, Fort Lee Roundabout, Battlefield Parkway and Pacific Boulevard Projects. More importantly, his relationship with the individual utility owners will be a significant benefit. Todd's design-build experience has enabled him to cultivate close relationships with the representatives of over 25 public and private utilities, including many of the known utilities located in the vicinity of the I-64 Widening and Route 623 Interchange Improvements Project.

Todd will be tasked with overseeing all aspects of the utility coordination process on the Project, starting with accurately identifying the existing utilities impacted and making contact with each utility owner. Our first priority is to review these utilities with the Design and Construction Teams to create a solution that avoids the utilities altogether. If avoidance is not possible, we will look at design alternatives that minimize utility relocations. If relocation is required, we will meet with each utility owner to review the impacts, determine prior rights and cost responsibility, and obtain relocation designs and cost estimates. The relocations will then be coordinated with the acquisition of right-of-way, permit approval, and construction schedule. We will then manage the utility relocation construction activities to conclusion, including coordinating with the construction activities in the field and tracking and updating the CPM schedule to ensure that the relocation work proceeds on schedule.

The keys to successfully managing utility relocations on the I-64 Widening and Route 623 Interchange Improvements Project will be first, to have a Team that has performed this function on time and on
budget on previous design-build projects, and second, to have a Team in place with established, positive relationships with the involved utility companies. Our Team excels in both of these criteria.

3.3.2 ORGANIZATIONAL CHART
The Shirley Team’s Organizational Chart for the Project is described narratively and graphically below. The “chain of command” is depicted on the chart by solid lines, which represent the primary reporting relationships, and by dashed lines, which represent communication relationships, between the major project disciplines and participants.

Major Project Disciplines include:

**VDOT:** As the Owner, VDOT will maintain oversight responsibility for all aspects of the Project to ensure compliance with the Contract Documents and to take final acceptance when complete. We anticipate that VDOT will also want to be the primary liaison between certain outside third-party stakeholders and the Project Team.

*Design-Build Project Manager (Charles “Chuck” Smith):* This Key Personnel position on our Team is tasked with full and complete authority over all aspects of the Shirley Team’s responsibilities. In
addition to being the primary point of contact with VDOT after award of the Project, the Design-Build Project Manager (D-B PM) has ultimate responsibility for Contract management and to coordinate and integrate the various project disciplines successfully, including design, construction, quality control, right-of-way, utilities, and safety. The D-B PM will also serve as the primary support to VDOT’s efforts to communicate with certain third-party stakeholders, and at VDOT’s discretion, can take the lead effort in communicating and coordinating with these third parties. Mr. Smith as the Design-Build Project Manager has managed a significant number of Shirley Contracting Company’s most challenging design-build projects. He brings over 24 years of experience to the Design-Build Project Manager role and has delivered each of his design-build projects on time and budget.

*Design Manager (Steve Kuntz, PE, DBIA):* Reporting to the D-B PM, this Key Personnel position has overall responsibility for management of all aspects of the design process, including roadway, structural, hydraulic, permitting, traffic, and geotechnical. In addition, the Design Manager will establish and oversee the Design QA/QC program. Of vital importance is the Design Manager’s role in integrating the various design disciplines with the Construction, Right-of-Way, Utility, and Safety elements. Mr. Kuntz is an experienced Design Manager with 14 years of experience. He has been the Design Manager on multiple design-build projects where Dewberry and Shirley have teamed together and also the Design Manager on significant interchange and widening projects for VDOT such as the Linton Hall Interchange and the I-66 Widening.

*Design QA (Timothy Belcher, PE):* This position will report directly to the Design Manager to lead the Design QA efforts and will not be involved in the design production or QC efforts for the Project. Following completion of the Design QC reviews and prior to submission to the Department, this individual will complete a QA review of each design document.

*Design QC:* For each design discipline the Design Manager will assign a qualified independent QC reviewer, who is not involved in the production of the design document, to complete a detailed QC review to ensure technical accuracy and conformance with the contract requirements.

*Right-of-Way Manager (Seth Bourne):* Reporting to the D-B PM, the Right-of-Way (ROW) Manager will manage the process to acquire all right-of-way and easements if needed to construct the Project. Reporting to the ROW Manager will be the VDOT Prequalified sub-consultants performing appraisals, appraisal reviews, title reports, offers, negotiations, and settlements. The ROW Manager will facilitate communication with the affected landowners and will at all times maintain the status of the process for VDOT. The ROW Manager will coordinate closely with the Design, Utility, and Construction disciplines.

*Utility Manager (Todd Kief):* The Utility Manager plays a vital role in achieving completion of the Project on time and within budget. Reporting to the D-B PM, the Utility Manager will actively coordinate existing and proposed utilities with the Design, Right-of-Way, Safety, and Construction Managers and disciplines. He will serve as the liaison with each individual utility company to ensure that utilities are integrated into the Project. Working with the design team, the Utility Manager’s first priority is to avoid relocations. If not possible, the focus will be to minimize these relocations to the greatest extent practical. When relocations are unavoidable, he will ensure that they are coordinated with construction and completed within schedule.
Mr. Kief brings extensive experience to the Utility Manager role having managed the utility relocations on over $500 million in design-build for the Shirley team in Virginia. Todd’s relationships with numerous utility companies in the area are one of the major reasons he is able to ensure utility relocations are properly managed.

**Safety Manager (Randy Reale):** Reporting to the D-B PM, the Safety Manager will review the plans and all field activities to provide a safe environment for VDOT, the construction workers, and the traveling public. The Safety Manager will train and inform those engaged on the Project of specific safety hazards and will enforce all aspects of applicable industry safety standards, Shirley’s Corporate Safety Policy and the Project’s Health, Safety and Welfare Plan. Working closely with the Construction Manager, the Safety Manager will monitor the field activities and crews and has full and complete authority to halt or suspend any activity not in compliance with the applicable safety standards. Mr. Reale’s extensive safety training and experience will be utilized to ensure the Shirley team will deliver a safe project for everyone involved in the construction of the project as well as the traveling public.

*Construction Manager (Tony Jefferys):* Reporting to the D-B PM, this Key Personnel position has the responsibility to manage all aspects of project construction and the Quality Control process. Prior to construction commencing, the Construction Manager will facilitate all constructability reviews for each aspect of the design, work closely with the Utility Manager to plan for necessary relocations, and coordinate with the Right-of-Way Manager to prioritize and schedule the acquisition process if required for the project. During construction, he will be on site at all times, and will maintain the project schedule, coordinate with the QC Manager, Project Manager, and Superintendent to ensure all construction materials and activities are in accordance with the Contract Documents. Additionally, the Construction Manager will communicate with the Design Manager to arrange for design engineer’s review of construction activities through the witness and hold points.

*Quality Assurance Manager (Kenneth Shirley, PE):* In this Key Personnel role, the Quality Assurance Manager (QAM) reports directly to the D-B PM and is completely independent from the construction operations and QC inspections. The QAM has full responsibility for assuring that the Project is in compliance with the Contract Documents, manages all aspects of the QA program, and will direct the QA inspections by the QA inspector and independent QA testing technicians from Engineering & Testing Services, Inc. This position is unique in that the QAM has the autonomy to report findings directly to VDOT in addition to the D-B PM, and if the work is not in compliance with the Contract Documents, he has the authority to unilaterally halt or suspend the work and the responsibility to assure corrective action is taken before the work is accepted and certified for payment.

*Denotes Key Personnel*
3.4 Experience of the Offeror’s Team
3.4 Experience of Offerors Team

Please see Attachment 3.4.1 for the Lead Contractor and Lead Designer Work History Forms.
3.5 Project Risks

**INTRODUCTION**
Addressing Project Risk is a fundamental part of any design-build project. Design-build projects by their very nature will have elements of risk which the Project team must identify and address to make the Project a success. The Shirley Team, with more than 10 years of experience on VDOT design-build projects, takes a very proactive approach when dealing with project risks. Our successful approach on past projects has reduced risks to VDOT, resulting in lower than anticipated project costs, and saved VDOT critical dollars. As a result of our approach to project risk and our ability to address these risks, the Shirley Team completed all of our design-build projects **on-time and on-budget**. The following section addresses what our Team has identified as the three most critical project risks to the I-64 Widening and Route 623 Interchange Improvements Project. We have described why each risk is critical, what steps our Team will take to mitigate each, and what VDOT’s role will be related to each risk.

**CRITICAL RISK #1**
*Modifications to Existing Drainage & Potential Property Impacts:* The Project consists of approximately 4.5 miles of widening of I-64 from four to six lanes. While the widening occurs in the median of the existing roadway and within existing right-of-way, the design must be carefully designed and constructed to avoid impacts to offsite properties since the Categorical Exclusion (CE) was approved under the assumption that all work was within existing right-of-way. Impacts to offsite properties associated with temporary culvert extensions, pipe relocations, ditch grading, and stormwater management improvements must be avoided during final design in an effort to avoid modifications to the CE and potential delays associated with added public input, agency review, and property acquisition. This up-front understanding of the limits of the environmental document will partially dictate how we complete final design. Based on the preliminary design provided with the RFP documents, there are several culverts draining to open channels in the median. Following construction of the pavement widening, these channels will need to be eliminated, and the pipes connected. Due to the increased culvert length, and the potential for additional bend losses in the system, the ultimate drainage system could increase the backwater condition adjacent to and upstream of the culvert/system which could require the acquisition of additional easements or regrading of the inflow ditches to avoid flooding concerns. To avoid the off-site impact concerns for this element, our Team will analyze each crossing to determine which ones will be adequate for extension and connection when the widening is completed. We understand the time impacts with revising the CE and will not introduce conditions which would require a modification. Crossings which are not adequate for extension and connection will be plugged and abandoned, replaced, or drainage divides will be adjusted so that culverts receive only the flow which can be adequately accommodated.

A second risk associated with the existing drainage facilities is the condition of the existing pipes and the ability to reuse them in the proposed design. The inability to reuse the existing pipes could introduce several concerns. First, if the existing pipes are not adequate based on condition or capacity, a new
crossing would need to be installed. Since new pipes would need to be located in slightly different locations that the existing pipes (for maintenance of drainage purposes during construction), headwalls and end sections may need to be located in areas where existing right-of-way or easements are not adequate, and drainage ditches may need to be regraded to tie to the new pipe entrance location. Based on the limits of existing right-of-way, our Team does not expect this to be a concern, and new pipes should not require additional right-of-way or easements. The second concern related to pipe adequacy is with the installation of new pipes across the existing roadway. Installation of new pipes could introduce significant additional maintenance of traffic impacts as necessary to open cut and install the new pipes. To avoid these concerns, our Team will investigate different ways to install proposed cross pipes, including jack and bore methods where adequate cover exists above the proposed facility, or open cut installation where travel lanes can be shifted to maintain the required number of lanes at all times while the cross pipes are installed in phases. Our Team has significant experience in these types of installations, having recently completed several box culvert and large pipe culvert phased installations on I-66 in Gainesville, Virginia, as well as several deep jack and bore crossings of the same facility. The phased installation of cross culverts will be completed in coordination with the pavement widening, so that travel lanes can be shifted partially onto the new pavement to allow for installation of pipes under the existing pavement. Temporary pavement widening will be kept to a minimum, and located such that temporary construction easements are not required from adjacent properties.

Finally, this project will need to be analyzed for stormwater management needs and potential impacts to the Little Tuckahoe Creek floodplain limits. With respect to stormwater management needs, we will analyze the project to understand what Best Management Practices (BMPs) are required. We understand that since this project held the Public Meeting prior to October 1, 2012 and the RFP was posted prior to October 1, 2012, Location and Design Instructional and Informational Memorandum (IIM) 195.7 will be followed to address the stormwater management requirements. Dewberry will follow the requirements of the VDOT Stormwater Management Program Advisory (SWPA) 12-01 through 12-04 for final design of stormwater management elements of the project. We will identify stormwater management strategies and enhancements so that additional off-site easements or additional right-of-way are not required. This can be completed through design of grass swales or other narrow and minimal designs which are linear in nature and don’t require excavation of a large area which is typical for stormwater management basin construction. With respect to the crossing of the Little Tuckahoe Creek floodplain, our Team will investigate the existing floodplain and develop models since it is a FEMA Zone A floodplain. Our Team will develop an existing model of the floodplain, and use it to compare to the model developed for the proposed condition to ensure that no increase to the floodplain elevation is introduced. HEC-RAS modeling software will be utilized for both models, and we will follow VDOT’s no rise policy which implies that “no rise” has a 0.05’ to 0.1’ tolerance depending on adjacent impacts. To avoid impacts to the floodplain as a result of the roadway and bridge improvements, construction features such as channel grading modifications will be investigated to ensure that a rise in the floodplain is not introduced and off-site easements are not required.

We are confident all elements of this project can be completed within the existing right-of-way and there
will be no need for a modification to the CE document. Our Team’s experience working on Interstate projects including significant drainage replacements and improvements provides the experience needed to properly identify project risks associated with drainage improvements, as well as how to implement the changes during construction. This experience is what makes our Team confident that all drainage improvements can be constructed with minimal impacts to the travelling public.

Throughout the design process, VDOT’s role will be to identify critical areas and help our Team better understand prior commitments with respect to environmental impacts and areas of required avoidance. We will also look to VDOT to provide any inspection information relative to the existing drainage facilities (if they exist) so we can better determine if existing structures are in a condition adequate for reuse. We will also work with VDOT to review inspection results for existing drainage facilities, and discuss the results to determine if reuse of the pipes is acceptable or if replacement will be required.

**Critical Risk #2**

*Modifications to Existing Bridges and Reuse of Existing Bridge Components:*

The preliminary bridge plans and the Stage I bridge reports included in the RFQ Information Package indicate that the recommendation for this project is to completely replace the existing superstructure of the two bridges and widen the bridges to accommodate an additional lane of traffic in each direction. The bridge plans and reports also indicate that the girders, presently simple spans, be made continuous over the piers. Finally, the reports indicate the piers will need to be strengthened to meet the AASHTO LRFD design criteria requirements. Information provided and available indicates that the existing bridges were constructed in approximately 1967 (finals were posted January 1968) and consist of three simple, steel-rolled beam spans supported on cast-in-place concrete abutments on steel piles and multi-column piers on spread footings.

The risk associated with the modifications to the bridges and the use of LRFD design criteria is that both the live and dead loads may be significantly greater than the capacity of the piers. The fact that the spans become continuous at the piers will most likely increase the unfactored reactions at the piers by approximately 10%. This increase, when coupled with the effects of using the LRFD design criteria, may show that the existing piers do not have sufficient capacity and require modifications, such as strengthening of the cap, columns, and footings. Strengthening of these elements can be completed in several manners, depending on the area which requires strengthening:

- If the **cap** does not have the capacity for the new loading, but the columns and footings have sufficient capacity, then the most effective way to achieve the required capacity is to demolish the existing pier cap(s) and construct new caps with the necessary capacity.
- If the analysis shows that the **columns** do not have sufficient capacity, the strengthening will depend on whether the deficiency is flexure (bending) or shear, and where on the column the deficiency occurs (top, bottom, middle). If it is flexure at the footing, the most likely solution would be to excavate to the footing, drill into the footing to install additional reinforcing steel and cast a larger column around the existing column. If it is shear, a similar solution as identified above could be one option, while another option could be to apply a carbon fiber wrap to the
columns and coat it with shotcrete.

- If the analysis shows that the caps and the columns have sufficient capacity, but the **footing** does not have sufficient bearing capacity for the new design loads, the only solution would be to enlarge the footing or completely replace it. Enlarging the footing could consist of drilling and dowelling into the existing footing in order to tie the new footing concrete into the existing so that they would act as a composite unit. Another option to enlarging the existing footing could be to demolish enough of the existing footing to allow new reinforcing steel to be lapped to the existing and then enlarge the existing footing to the dimensions required.

Based upon previous experience with rehabilitation of similar bridges constructed around the same time as the bridges for this project, it is highly likely that the caps and the columns will be adequate for the increased loads, but the footings are generally the item that does not have capacity. Strengthening of the footing is also the most invasive as the modification would require excavation within the channel of the creek (possibly requiring cofferdams, dewatering, etc.).

To minimize the impacts associated with this risk, our Team will endeavor to develop a methodology to reduce the loads on the existing piers in order to avoid the need to make significant modifications. Since the dead load reaction is generally the largest load on the pier, the use of lightweight concrete has the potential to reduce this load to acceptable levels. Another option is to modify the location of the girders to better distribute the loads more uniformly to the pier columns. We will also investigate the effects of incorporating the new pier columns into the existing pier (rather than have the discontinuity shown in the RFQ plans) to see if the additional columns added to the design model would have a positive effect on the loads carried by each of the existing columns.

Modification of the existing pier elements (particularly the columns and footings) would become the last resort, and will only be used if all other options prove inadequate to address the loads resulting from making the girders continuous and following the LRFD design criteria.

Throughout the design process, our Team will make VDOT aware of the progress of the bridge analysis and design. Depending on if deficiencies in the existing bridge are identified, and where they are located, we will make VDOT aware of the preliminary investigations and results. An additional alternative not mentioned above would be the complete replacement of the existing bridges. Given the age of the existing bridges, this could be a beneficial option to the Department depending on the level of improvements and amount of retrofitting required through the analysis process identified above. Our Team also has significant experience with this potential option having recently designed and constructed replacement bridges on I-66 and numerous other primary facilities. Complete bridge replacement would provide a completely new bridge as opposed to a new deck on a 45-year old substructure. This option would be discussed with the Department during design and analysis of the bridges, and would only be selected after close coordination and approval by VDOT.

VDOT’s role with respect to this risk will be through the plan review process and during the ongoing communication prior to formal submissions when preliminary analysis results are available and identified. Selection of the final improvement methods will be discussed with VDOT, and final details
of the bridge rehabilitation will need to be reviewed and accepted by VDOT prior to final design and construction.

**Critical Risk #3**

*Maintenance of Safety and Mobility during Construction:* I-64 is a crucial east-west artery for commuters, commerce, and tourists traveling to and from Richmond and the I-95 corridor, carrying 48,000 vehicles per day. The combination of high traffic volumes and high travel speeds increases the importance of implementing a proper traffic operations plan and maintaining a safe work zone. Negative impacts resulting from improper implementation range from causing unnecessary delays to motorists to driver frustration to accidents involving the public and construction personnel. Our Team recognizes the importance of this risk, and is well prepared to design and implement a maintenance of traffic (MOT) system focused on maximizing both safety and mobility throughout construction.

One concern with interstate widenings is the speed differential between thru traffic and construction traffic entering the travel lanes. The high speeds of interstate traffic combined with lower speeds and acceleration of heavy construction vehicles can combine for significant speed differentials on the interstate. For this I-64 project, we can incorporate construction acceleration lanes on the existing shoulder to help provide adequate acceleration room for construction vehicles before they re-enter the travel lanes. These acceleration areas will be provided by offsetting the temporary barrier to the back of the existing shoulder. Construction vehicles can then use this area to increase their speeds prior to merging into the travel lane. Signage will be installed so motorists are aware of the construction acceleration and access location, and barrels and other devices can be installed when the area is not in use, such as during overnight periods. Widening construction can be sequenced so that the location of the acceleration lanes is adjusted during construction, utilizing area of permanent widening while the original acceleration lane areas are removed and reconstructed.

A second risk associated with widening of a roadway is introduced by the placement of the temporary traffic barrier required to protect motorists from the work zone and to protect construction workers from the adjacent traffic. Installation of barrier introduces a hazard due to the minimal offset from the travel lane, and at the run-on location at the end of the barrier. To mitigate these risks, our Team will develop a temporary traffic control plan which provides the maximum offset to the face of the barrier as is possible. In most cases this will be a 2’ lateral offset, but providing openings in the barrier for acceleration areas as identified above will also provide increased distance to the face of barrier for the travelling public in the construction acceleration areas. To reduce the hazards introduced at the run-on end of the barrier, our Team will work closely between design and construction staff to identify areas where the barrier can be transitioned away from the travel lanes, reducing the locations where impacts could occur. We will do this by identifying areas where construction access is required. Where construction access is required, impact attenuators will be identified based on the design speed of the roadway and the width of construction opening required. Where possible, the barrier will be tapered away from the travel lanes to provide additional offset while still maintaining an entrance location for construction vehicles. The best option for run-on barrier conditions will be to transition the run-on end of the barrier away from traffic and out of the clear zone so that a hazard is not introduced immediately.
adjacent to the travel lanes. We will aim to implement this type of barrier placement at as many locations as possible, while maintaining adequate access to the site for construction vehicles.

A third element which impacts maintenance of traffic is the strength of the existing shoulder pavement section. In order to place barrier on the edge of the roadway to facilitate removal of the shoulder and widening of the travel lanes, traffic may need to be shifted to the opposite shoulder, which is the outside shoulder in the case of the I-64 improvements. Depending on the thickness and material section of the existing shoulder, temporary pavement strengthening or build-up may be necessary prior to shifting barrier and placing temporary barrier. The risk associated with this element is in properly identifying the shoulder section up front, planning for the placement, and properly implementing the operation to improve the shoulder. Our Team has significant experience with this exact type of work, having recently completed it on I-66, I-95 and on other primary and limited access facilities. To mitigate this risk, our Team will first investigate the existing pavement section through as-built information and pavement cores. Loading on the pavement will be determined based on traffic volumes and construction duration, and if needed a pavement improvement or strengthening will be identified. Based on our experience, temporary build-up of shoulders can be quickly completed during night time activities, where the existing shoulder is milled and stone removed to a specified depth, and immediately replaced with a thickened asphalt section during the same night time activity. This can be done through a temporary lane closure in off-peak and/or night time hours without significant impacts to the travelling public. Critical to this operation is proper implementation of shoulder and lane closure devices, proper advance signage, and work zone lighting. Each of these elements will be identified and detailed by our Team prior to implementation in the field if temporary pavement improvements are necessary.

In addition to the risk of barrier placement and construction interaction with public motorists identified above, additional maintenance of traffic risks may also be introduced from the drainage and bridge risks identified above. If new drainage cross pipes or culverts need to be installed, they will either need to be installed via jack and bore methods, or through phased installation. Phased installation will require additional traffic shifts to maintain the required number of lanes adjacent to the pipe installation area. These traffic shifts may require placement of temporary pavement, and temporary shoring may be required adjacent to the travel lanes depending on the depth of the pipe trench and pipe crossing. Any temporary lane shifts will be coordinated during design so that adequate temporary pavement widths are identified and so that proper taper rates and lengths are identified in the plans. As is our practice on all projects, the full transition length (length = width of shift x speed of facility, or L=WxS) will be identified in the plans as opposed to a reduced construction length which is sometimes identified for construction zones. Using the full transition length will help to maintain travel speeds through the work zone and eliminate abrupt changes in direction of travel, both of which could reduce in additional delays to motorists or additional hazards along the roadway. Complete replacement of the existing bridges within project limits would also introduce significant additional maintenance of traffic elements. This would be coordinated during design to identify the proper temporary traffic control elements which are required, including additional temporary pavement, temporary bridge widening, additional temporary shoring or sheeting, and additional temporary barrier placement. Our Team will identify the appropriate
and required temporary traffic control items during design so that construction is sequenced properly and efficiently, and so that proper traffic control is maintained throughout all phases of construction.

Each of the risks identified above only becomes a challenge if it is not identified early during the design process. The proper identification of the critical work elements which impact motorist safety and mobility is critical to eliminating concerns and hazards during construction. Our Team has significant experience working with these exact types of elements not only on interstate projects, but through working as a Team on interstate projects. We are well versed in the development of Transportation Management Plans (TMPs) for Type B and Type C “significant” projects, as well as the development of site-specific Temporary Traffic Control (TTC) plans per VDOT’s IIM-LD-241.5 (Work Zone Safety and Mobility) process. We are also well versed in the principals and requirements of both the new 2009 MUTCD and the new 2011 Virginia Work Area Protection Manual. The development of the TMP and TTC plans will also be supervised by designers certified in VDOT Advanced Work Zone Traffic Control with significant experience in interstate widening design. We know that the maintenance of sight distance is critical, as substandard sight distance is one of the leading contributors to work zone crashes. Our Team has significant experience with providing designs which maintain full access while ensuring sight distance is not blocked by work zone features such as barriers, equipment, or materials. It is this past experience which will help to avoid concerns and negative impacts during construction of the I-64 Widening and interchange improvements. Throughout the project duration, VDOT’s effort will be related to plan review and approval, and to aid in dissemination of information to the public to alert them of new traffic patterns, lane shifts, and temporary lane closures.

**ADDITIONAL AGENCY INVOLVEMENT**

The other major agency involvement will come from the Federal Highway Administration since this project involves Federal Funding and Federal Oversight. We anticipate their involvement to be limited to plan review and providing comments at milestone submissions. For each of the risks identified above, we do not expect additional participation beyond the normal Federal Oversight process.
Offerors shall furnish a copy of this Statement of Qualifications (SOQ) Checklist, with the page references added, with the Statement of Qualifications.

<table>
<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
<th>RFQ Cross reference</th>
<th>Included within 15-page limit?</th>
<th>SOQ Page Reference</th>
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<tr>
<td>Statement of Qualifications Checklist and Contents</td>
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<td>Section 3.1.2</td>
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<td>i, ii, iii</td>
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<td>Affiliated/subsidiary companies</td>
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<td>Section 3.2.6</td>
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## ATTACHMENT 3.1.2

Addendum No. 1

Project: 0064-964-110, P101, C501, RW201

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

<table>
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<tr>
<th>Statement of Qualifications Component</th>
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<td>Key Personnel Resume – DB Project Manager</td>
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## Statement of Qualifications Checklist and Contents

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<th>Included within 15-page limit?</th>
<th>SOQ Page Reference</th>
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ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO. C00070542DB55
PROJECT NO.: 0064-964-110, P101, C501, RW201

ACKNOWLEDGEMENT OF RFQ, REVISION AND/OR ADDENDA

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

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

1. Cover letter of RFQ 09/25/2012 (Date)
2. Cover letter of Addendum #1 - 11/01/2012 (Date)
3. Cover letter of (Date)

November 15, 2012

SIGNATURE DATE
3.2.6 Affiliated and/or Subsidiary Companies
**ATTACHMENT 3.2.6**

**State Project No. 0064-964-110, P101, C501, RW201**

**Affiliated and Subsidiary Companies of the Offeror**

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

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

<table>
<thead>
<tr>
<th>Relationship with Offeror (Affiliate or Subsidiary)</th>
<th>Full Legal Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliate</td>
<td>Atkinson Construction</td>
<td>7500 Old Georgetown Road, Bethesda, MD 20814</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Atkinson Contractors, LP</td>
<td>7500 Old Georgetown Road, Bethesda, MD 20814</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Shirley Design/Build, LLC</td>
<td>8435 Backlick Road, Lorton, Virginia 22079</td>
</tr>
<tr>
<td>Affiliate</td>
<td>SCC Infrastructure</td>
<td>7500 Old Georgetown Road, Bethesda, MD 20814</td>
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<tr>
<td>Affiliate</td>
<td>Clark Construction Group, LLC</td>
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<tr>
<td>Affiliate</td>
<td>Clark Enterprises</td>
<td>7500 Old Georgetown Road, Bethesda, MD 20814</td>
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<tr>
<td>Affiliate</td>
<td>Clark Civil Construction, LLC</td>
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<td>Affiliate</td>
<td>Clark Concrete Contractors, LLC</td>
<td>7500 Old Georgetown Road, Bethesda, MD 20814</td>
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<tr>
<td>Affiliate</td>
<td>Clark Construction International, LLC</td>
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<tr>
<td>Affiliate</td>
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<tr>
<td>Affiliate</td>
<td>Clark Facility Services, LLC</td>
<td>7500 Old Georgetown Road, Bethesda, MD 20814</td>
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<tr>
<td>Affiliate</td>
<td>Clark Foundations, LLC</td>
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<tr>
<td>Affiliate</td>
<td>Clark Global Technologies, LLC</td>
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<tr>
<td>Affiliate</td>
<td>Clark Real Estate Advisors, LLC</td>
<td>7500 Old Georgetown Road, Bethesda, MD 20814</td>
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</table>
# ATTACHMENT 3.2.6

**State Project No. 0064-964-110, P101, C501, RW201**

**Affiliated and Subsidiary Companies of the Offeror**

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<tr>
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<th>Full Legal Name</th>
<th>Address</th>
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<tbody>
<tr>
<td>Affiliate</td>
<td>Clark Strategic Operations Group, LLC</td>
<td>7500 Old Georgetown Road, Bethesda, MD 20814</td>
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<tr>
<td>Affiliate</td>
<td>Clark/Balfour Beatty NCE, A Joint Venture</td>
<td>7500 Old Georgetown Road, Bethesda, MD 20814</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Edgemoor Real Estate Services, LLC</td>
<td>7500 Old Georgetown Road, Bethesda, MD 20814</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Innovative Infrastructure, LLC</td>
<td>8435 Backlick Road, Lorton, Virginia 22079</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Loudoun County Transportation Networks, LLC</td>
<td>7500 Old Georgetown Road, Bethesda, MD 20814</td>
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<tr>
<td>Affiliate</td>
<td>Metro Earthworks,</td>
<td>8435 Backlick Road, Lorton, Virginia 22079</td>
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<tr>
<td>Affiliate</td>
<td>Route 28 Corridor Improvements, LLC</td>
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<td>Affiliate</td>
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</table>
3.2.7 Debarment Forms
ATTACHMENT NO. 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0064-964-110, P101, C501, RW201

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

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

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

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

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

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

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

_________________________    ___________________________
Signature                   Date

11/15/12                    President/CEO

Title

Shirley Contracting Company, LLC

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-964-110, P101, C501, RW201

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

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

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

Dave Mahoney, Dewberry Consultants LLC
Name of Firm

Signature Date
November 12, 2012

Executive Vice President
Title
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-964-110, P101, C501, RW201

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

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

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

[Signature] 11/06/12 [President]
Signature  Date  Title

GeoConcepts Engineering, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-964-110, P101, C501, RW201

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

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

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

Signature

Date

Nov. 8, 2012

First Executive Vice President

Title

EBA Engineering, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-964-110, P101, C501, RW201

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

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

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

[Signature] 11/7/2012 [Date] [Vice President] [Name of Firm]

[Title] Engineering and Testing Services, Inc.
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT 
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-964-110, P101, C501, RW201

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

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

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

[Signature] 11/6/12 [President]

[Title]

Diversified Property Services, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-964-110, P101, C501, RW201

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

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

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

[Signature]
[Date]

Title

Name of Firm
SHIRLEY CONTRACTING COMPANY, LLC
P REQ. EXP : 09/30/2013

--PREQ ADDRESS ------------------- WORK CLASSES (LISTED BUT NOT LIMITED TO)
8435 BACKLICK RD.
LORTON, VA 22079-1403
PHONE : 703-550-8100
FAX : 703-550-7897

002 - GRADING
003 - MAJOR STRUCTURES
007 - MINOR STRUCTURES
045 - UNDERGROUND UTILITIES

BUSINESS CONTACT: CLYMORE, DANIEL EDWARD
EMAIL: DCLYMORE@SHIRLEYCONTRACTING.COM

-----DBE INFORMATION-----

DBE TYPE : N/A
DBE CONTACT : N/A

HARLAND J. SHOEMAKER & SON, INC.
P REQ. EXP : 09/30/2013

--PREQ ADDRESS ------------------- WORK CLASSES (LISTED BUT NOT LIMITED TO)
P.O. BOX 733
NEW MARKET, MD 21774
PHONE : 301-865-2062
FAX : 301-865-4085

011 - CLEARING AND GRUBBING
033 - ROADSIDE DEVELOPMENT
036 - SOIL STABILIZATION
044 - UNDERDRAINS
101 - EXCAVATING

BUSINESS CONTACT: BURDETTE, III, MAYNARD LEE
EMAIL: MAYNARD@HARLANDSHOEMAKER.COM

-----DBE INFORMATION-----

DBE TYPE : N/A
DBE CONTACT : N/A
3.2.9 Surety Letter
One Tower Square  
Hartford, CT 06183  

November 9, 2012

Stephen D. Kindy, P.E  
Alternate Project Delivery Office  
Virginia Department of Transportation  
1401 East Broad Street  
Annex Building, 8th Floor  
Richmond, VA 23219

Re: Request for Qualifications - Contract ID Number: C00070542DB55 - A Design-Build Project  
I-64 Widening and Route 623 Interchange Improvements  
Estimated Contract Value: $31,000,000

Dear Mr. Kindy:

Travelers Casualty and Surety Company of America (A.M. Best Financial Strength Rating A+, Financial Size Category XV) and their co-surety partners, have the privilege of providing surety bonds for Shirley Contracting Company, LLC. The available bonding capacity on individual projects is in excess of $150,000,000 with an aggregate of $3,500,000,000.

In our opinion, Shirley is one of the finest, best managed construction firms in the country. Shirley has handled each of its projects in a professional manner and completed all satisfactorily.

As surety for the above named Contractor, Shirley Contracting Company, LLC, is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction, and said bonds will cover the project and any warranty periods on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this project, subject to acceptable review of the contract documents and bond forms, financing, availability of reinsurance, and Shirley Contracting Company, LLC continuing to satisfy other underwriting considerations at the time the bonds are requested.

This letter is not an assumption of liability and is issued only as a prequalification reference from our client.

Sincerely,

Travelers Casualty and Surety Company of America  
A.M. Best Rating A+ XV

By:  
Karen C. Bowling, Attorney-in-Fact
WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 219657

Certificate No. 004950139

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

Diana L. Parker, and Karen C. Bowling

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

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 5th day of July, 2012.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

State of Connecticut
City of Hartford ss.

By: George W. Thompson, Senior Vice President

On this the 5th day of July, 2012, before me personally appeared George W. Thompson, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

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

Marie C. Tetraault, Notary Public

58440-6-11 Printed in U.S.A.
This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

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

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

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

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing such or any other person or persons as such or any other person or persons as such or any other person or persons as such or any other person or persons as such, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or undertaking to which it is attached.

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

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 9th day of November, 2012.

Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.
3.2.10 SCC & DPOR Licenses & Registrations
## ATTACHMENT 3.2.10

**State Project No. 0064-964-110, P101, C501, RW201**

### SCC and DPOR Information

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

<table>
<thead>
<tr>
<th>Business Name</th>
<th>SCC Information (3.2.10.1)</th>
<th>DPOR Information (3.2.10.2)</th>
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<td>SCC Number</td>
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<td>Old Dominion Settlements, Inc. (key Title)</td>
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*Formerly known as Dewberry & Davis, LLC*
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<th>Business Name</th>
<th>Individual's Name</th>
<th>Office Location Where Professional Services will be Provided (City/State)</th>
<th>Individual's DPOR Address</th>
<th>DPOR Type</th>
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<td>Dewberry Consultants, LLC</td>
<td>Steven Kuntz</td>
<td>Fairfax, Va.</td>
<td>14571 Harmony Creek Ct., Haymarket, Va. 20169</td>
<td>Professional Engineer</td>
<td>0402039440</td>
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<td>EBA Engineering, Inc.</td>
<td>Kenneth Shirley</td>
<td>Fredericksburg, Va.</td>
<td>16255 Black Run Road Orange, Va. 22960</td>
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**DATE OF FILING:** 01/01/2000 **PERIOD OF DURATION:** **INDUSTRY CODE:** **00**

**STATE OF FILING:** VA VIRGINIA **MERGER INDICATOR:**

**CONVERSION/DOMESTICATION INDICATOR:**

**PRINCIPAL OFFICE ADDRESS:**

**STREET:** 8401 ARLINGTON BLVD

**CITY:** FAIRFAX **STATE:** VA **ZIP:** 22031-0000

**REGISTERED AGENT INFORMATION**

**R/A NAME:** CORPORATION SERVICE COMPANY

**STREET:** Bank of America Center, 16th Floor 1111 East Main Street

**CITY:** RICHMOND **STATE:** VA **ZIP:** 23219-0000

**R/A STATUS:** 5 **ENTITY AUTHORIZ EFF DATE:** 04/29/11 **LOC:** 216 RICHMOND CITY

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**CORPORATE DATA INQUIRY**

**CORP ID:** 0516767 - 1  **STATUS:** 00 ACTIVE  **STATUS DATE:** 02/25/99

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

**DATE OF CERTIFICATE:** 02/25/1999  **PERIOD OF DURATION:**  
**INDUSTRY CODE:** 00

**STATE OF INCORPORATION:** VA VIRGINIA  **STOCK INDICATOR:** S STOCK

**MERGER IND:** CONVERSION/DOMESTICATION IND:

**GOOD STANDING IND:** Y  
**MONITOR INDICATOR:**

**CHARTER FEE:** 50.00  **MON NO:** MONITOR DTE:

**R/A NAME:** VIVIAN LEWIS

**STREET:** GEOCONCEPTS ENGINEERING INC  
19955 HIGHLAND VISTA DR #170

**CITY:** ASHBURN  **STATE:** VA  **ZIP:** 20147

**R/A STATUS:** 2 OFFICER  **EFF. DATE:** 11/24/04  **LOC:** 153

**ACCEPTED AR #:** 212 01 8189  **DATE:** 01/05/12  
**LOUDAUN COUNTY**

**CURRENT AR #:** 212 01 8189  **DATE:** 01/05/12  **STATUS:** A  
**ASSESSMENT INDICATOR:** 0

**YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES**

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CISM0180

CORPORATE DATA INQUIRY

11/06/12
14:32:03

CORP ID: F130410

- 6

STATUS: 00 ACTIVE

STATUS DATE: 07/01/09

CORP NAME: DIVERSIFIED PROPERTY SERVICES OF VIRGINIA, INC. (U)

SED IN VA BY: DIVERSIFIED PROPERTY SERVICES, INC.)

DATE OF CERTIFICATE: 08/05/1997 PERIOD OF DURATION: INDUSTRY CODE: 00

STATE OF INCORPORATION: MD MARYLAND STOCK INDICATOR: S STOCK

MERGER IND: CONVERSION/DOMESTICATION IND:

GOOD STANDING IND: Y MONITOR INDICATOR:

CHARTER FEE: 50.00 MON NO: MONITOR DTE:

R/A NAME: BRENDAN R HANTZES

STREET: 3771 VERMACCHIA DR AR RTN MAIL:

CITY: CHANTILLY STATE : VA ZIP: 20151

R/A STATUS: 2 OFFICER EFF. DATE: 08/09/02 LOC : 129

ACCEPTED AR#: 212 12 1611 DATE: 07/19/12 FAIRFAX COUNTY

CURRENT AR#: 212 12 1611 DATE: 07/19/12 STATUS: A ASSESSMENT INDICATOR: 0

YEAR PENALTY INTEREST TAXES BALANCE TOTAL SHARES

FEE 12 100.00 5,000

(Screen Id:/Corp_Data_Inquiry)
**CORPORATE DATA INQUIRY**

**CORP ID:** 0243891 - 9  **STATUS:** 00 ACTIVE  **STATUS DATE:** 05/21/97

**CORP NAME:** OLD DOMINION SETTLEMENTS, INC.

**DATE OF CERTIFICATE:** 07/08/1983  **PERIOD OF DURATION:** INDUSTRY CODE: 35

**STATE OF INCORPORATION:** VA VIRGINIA  **STOCK INDICATOR:** S STOCK

**MERGER IND:** CONVERSION/DOMESTICATION IND:

**GOOD STANDING IND:** Y  **MONITOR INDICATOR:**

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

**R/A NAME:** RONALD H. LAZARUS

**STREET:** 7010 LITTLE RIVER TURNPIKE, SUITE 240  **AR RTN MAIL:**

**CITY:** ANNANDALE  **STATE:** VA  **ZIP:** 22003

**R/A STATUS:** 4 ATTORNEY  **EFF. DATE:** 09/05/95  **LOC:** 129

**ACCEPTED AR#:** 212 10 2802  **DATE:** 06/07/12  **FAIRFAX COUNTY**

**CURRENT AR#:** 212 10 2802  **DATE:** 06/07/12  **STATUS:** A

**ASSESSMENT INDICATOR:** 0  **YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES**

12 220.00 25,000

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(Screen Id:/Corp_Data_Inquiry)
CORPORATE DATA INQUIRY

CISM0180

CORP ID: 0557195 - 5  STATUS: 00 ACTIVE  STATUS DATE: 05/05/09

CORP NAME: Engineering and Testing Services, Inc.

DATE OF CERTIFICATE: 04/12/2001 PERIOD OF DURATION:  INDUSTRY CODE: 00

STATE OF INCORPORATION: VA VIRGINIA  STOCK INDICATOR: S STOCK

MERGER IND: CONVERSION/DOMESTICATION IND:

GOOD STANDING IND: Y  MONITOR INDICATOR:

CHARTER FEE: 50.00  MON NO:  MON STATUS:  MONITOR DTE:

R/A NAME: CHARBEL T NABHAN

STREET: 5226 INDIAN RIVER ROAD  AR RTN MAIL:

SUITE 103

CITY: VIRGINIA BEACH  STATE : VA  ZIP: 23464

R/A STATUS: 2 OFFICER  EFF. DATE: 04/08/10  LOC : 228

ACCEPTED AR#: 212 07 3071  DATE: 04/09/12  VIRGINIA BEACH

CURRENT AR#: 212 07 3071  DATE: 04/09/12  STATUS: A  ASSESSMENT INDICATOR: 0

YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
12 100.00

(Screen Id:/Corp_Data_Inquiry)
Details of license number 2705071652

Name: SHIRLEY CONTRACTING COMPANY LLC
License Number: 2705071652
License Description: Contractor (Class A)
Business Type: LLC
Address: 8435 BACKLICK ROAD
          LORTON, VA 22079
Specialties/Classifications:
  * HIGHWAY / HEAVY
Initial Certification Date: October 8, 2002
Expiration Date: October 31, 2014

Complaints

No Open Complaints

'Open Complaints' reflect only those complaints against regulated 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.

No Closed Complaints

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

To inquire about closed complaints, see the department's Public Records Access or contact the department's Information Management Section at (804) 367-8583 or publicrecords@dpor.virginia.gov.

Recovery Fund Claims include claims against a licensee where a judgment has been obtained for improper or dishonest conduct in a court of law. The Contractor's Transaction Recovery Fund and the Real Estate Transaction Recovery Fund provide monetary relief to consumers who incur losses through the improper and dishonest conduct of a licensed contractor or licensed real estate professional. The funds are supported entirely by assessments paid by licensed contractors and licensed real estate professionals, not by any tax revenues.
Details of license number 0407003966

Name: DEWBERRY CONSULTANTS LLC
License Number: 0407003966
Business Type: Business Entity Registration LLC
Address: 8401 ARLINGTON BLVD
FAIRFAX, VA 22031
Initial Certification Date: March 14, 2000
Expiration Date: December 31, 2013

Complaints

No Open Complaints

"Open Complaints" reflect only those complaints against regulators 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.

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To inquire about closed complaints, see the department's Public Records Access or contact the department's Information Management Section at (804) 367-8583 or publicrecords@dpor.virginia.gov.

Associated Professional Licensing Information

Name: COUTURE, DENNIS M
License Number: 0406000847
License Description: Landscape Architect License
Address: VIENNA VA, 22180
Initial Certification Date: March 9, 1998
Expiration Date: March 31, 2014

Name: BEIGHT, JAMES LADEN
License Number: 0401008756
License Description: Architect License
Address: HERNDON VA, 20170
Initial Certification Date: August 11, 1993
Expiration Date: August 31, 2013

Name: STONE, DONALD EDWARD, JR.
License Number: 0402026519
License Description: Professional Engineer License
Address: FAIRFAX VA, 22031
Initial Certification Date: November 27, 1995
Expiration Date: September 30, 2013

Name: ROBINSON, BRYANT L
License Number: 040300132
License Description: Land Surveyor License
Address: CULPEPER VA, 22701
Initial Certification Date: January 5, 1993
Expiration Date: January 31, 2013
Details of license number 0407004404

Name: GEOCONCEPTS ENGINEERING INC
License Number: 0407004404
License Description: Business Entity Registration
Address: CORP
19955 HIGHLAND VISTA DRIVE SUITE 170
ASHBURN, VA 20147
Initial Certification Date: March 28, 2003
Expiration Date: December 31, 2013

Complaints

No Open Complaints

"Open Complaints" reflect only those complaints against regulators 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.

No Closed Complaints

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

To inquire about closed complaints, see the department's Public Records Access or contact the department's Information Management Section at (804) 367-8583 or publicrecords@dpor.virginia.gov.

Associated Professional Licensing information

Professional Engineer License
BURKART, PAUL EDWARD
0402021556
Professional Engineer License
ASHBURN VA, 20147
August 30, 1990
March 31, 2014

Professional Engineer License
LEWIS, TADEUSZ WILLIAM
0402021276
Professional Engineer License
ASHBURN VA, 20147
July 16, 1990
April 30, 2014
Details of license number 0411000871

Name: EBA ENGINEERING INC
License Number: 0411000871
License Description: Business Entity Branch Office Registration
Address: 714 WESTWOOD OFFICE PARK
FRIDERSBURG, VA 22401
Initial Certification Date: October 17, 2011
Expiration Date: February 28, 2014

Complaints

No Open Complaints

"Open Complaints" reflect only those complaints against regulants 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.

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To inquire about closed complaints, see the department's Public Records Access or contact the department's Information Management Section at (804) 367-8983 or publicrecords@dpor.virginia.gov.

Associated Professional Licensing Information

<table>
<thead>
<tr>
<th>Name</th>
<th>SHIRLEY, KENNETH JAMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>License Number:</td>
<td>0402040380</td>
</tr>
<tr>
<td>License Description:</td>
<td>Professional Engineer License</td>
</tr>
<tr>
<td>Address:</td>
<td>ORANGE VA, 22960</td>
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<td>Initial Certification Date:</td>
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<td>Expiration Date:</td>
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<table>
<thead>
<tr>
<th>Name</th>
<th>ROMACK, GEORGE PATTON</th>
</tr>
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<tbody>
<tr>
<td>License Number:</td>
<td>0402041824</td>
</tr>
<tr>
<td>License Description:</td>
<td>Professional Engineer License</td>
</tr>
<tr>
<td>Address:</td>
<td>FREDERICKSBURG VA, 22405</td>
</tr>
<tr>
<td>Initial Certification Date:</td>
<td>February 2, 2006</td>
</tr>
<tr>
<td>Expiration Date:</td>
<td>February 28, 2014</td>
</tr>
</tbody>
</table>
Details of license number 4008001190

Name: DIVERSIFIED PROPERTY SERVICES OF VIRGINIA INC
License Number: 4008001190
License Description: Appraisal Business Registration
Business Type: Corporation
Address: 20 E TIMONIUM ROAD SUITE 111
TIMONIUM, MD 21093
Initial Certification Date: November 29, 2000
Expiration Date: November 30, 2014

Complaints

No Open Complaints

"Open Complaints" reflect only those complaints against regulated entities 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.

No Closed Complaints

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

To inquire about closed complaints, see the department's Public Records Access or contact the department's Information Management Section at (804) 367-8583 or publicrecords@dpor.virginia.gov.
Details of license number 0407005064

Name: ENGINEERING AND TESTING SERVICES INC
License Number: 0407005064
License Description: Business Entity Registration
Address: CORP
Initial Certification Date: 5226 INDIAN RIVER RD STE 103
Expiration Date: VIRGINIA BEACH, VA 23464
July 5, 2007
December 31, 2013

Complaints

No Open Complaints

"Open Complaints" reflect only those complaints against regulants 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.

No Closed Complaints

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To inquire about closed complaints, see the department's Public Records Access or contact the department's Information Management Section at (804) 367-8583 or publicrecords@dpor.virginia.gov.

Associated Professional Licensing Information

Name: SALLEE, YELDON R
License Number: 0402041765
License Description: Professional Engineer License
Address: CHESAPEAKE VA, 23323
Initial Certification Date: January 12, 2006
Expiration Date: June 30, 2013

Name: NABHAN, CHARBEL TOUFIC
License Number: 0402025133
License Description: Professional Engineer License
Address: VIRGINIA BEACH, VA, 23456
Initial Certification Date: June 24, 1994
Expiration Date: January 31, 2014
Details of license number 0402040380

Name: SHIRLEY, KENNETH JAMES
License Number: 0402040380
License Description: Professional Engineer License
Address: ORANGE VA, 22960
Initial Certification Date: August 23, 2004
Expiration Date: August 31, 2014

Complaints

No Open Complaints

"Open Complaints" reflect only those complaints against regulators 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.

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To inquire about closed complaints, see the department's Public Records Access or contact the department's Information Management Section at (804) 367-8583 or publicrecords@dpor.virginia.gov.
Details of license number 0402039440

Name: KUNTZ, STEVEN KLINE
License Number: 0402039440
License Description: Professional Engineer License
Address: MAYMARKET VA, 20169
Initial Certification Date: June 14, 2004
Expiration Date: June 30, 2014

Complaints

No Open Complaints

"Open Complaints" reflect only those complaints against regulators 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.

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To inquire about closed complaints, see the department's Public Records Access or contact the department's Information Management Section at (804) 367-8583 or publicrecords@dpor.virginia.gov.
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

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

| a. Name & Title: | Charles L. Smith, IV, Vice President |
| b. Project Assignment: | Design-Build Project Manager |
| c. Name of Firm with which you are now associated: | Shirley Contracting Company, LLC |
| d. Years experience: With this Firm | 23 Years With Other Firms 1 Years |

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

**Shirley Contracting Company, LLC - Vice President 2004–Present**

- **USCG Saint Elizabeths West Site Access Road**, June 2010 to 2013 - Design Assist/Construction Manager for $32 million roadway and utilities for main entrance into DHS/USCG Headquarters Campus for GSA.
- **Fairfax County Parkway Phase III**, January 2010 to December 2012 – Design-Build Construction Manager for this $27.7 million design-build project for FHWA/EFLHD & VDOT.
- **Fort Lee 'A' Gate Roundabout**, June 2011 to December 2012 - Design-Build Project Manager for $2.3 million entrance gate improvements at US Army Base Ft. Lee for FHWA/EFLHD.
- **Washington Headquarters Service DoD BRAC 133**, December 2008 to August 2011 – Design-Build Construction Manager on the $143 million design-build for the WHS Mark Center Site/Civil Construction Project.
- **I-95 4th Lane Widening, March**, 2008 to September 2011 – Construction Executive in charge of $91 million highway and bridge widening project for VDOT.
- **New Campus East – NGA Fort Belvoir**, May 2008 to January 2011 – Design-Build Construction Manager for three contracts for the overall site infrastructure for the US Army Corps of Engineers: North Loop Road and Bridge $36 million, West North Loop Road $16M, South Loop Bridge over Wetlands $3M.
- **Spotsylvania County Infrastructure Improvements**, October 2007 to Present – Design-Build Project Manager - $91 million design-build contract for 17 individual projects for Spotsylvania County VA.
- **Dulles Greenway Improvements**, May 2005 to July 2008, Construction Manager - $74 million design-build project for private toll road facility.
- **Quantico Bridge 15 Replacement**, June 2008 to November 2010 – Construction Executive for $6 million bridge demo and re-build for NAVFAC at MCB Quantico.
- **Monroe Avenue Bridge**, February 2006 to October 2009 – Design-Build Project Manager for $43 million bridge and roadway infrastructure at the Potomac Yard Alexandria development for Pulte Homes.
- **Telegraph Road Advance Utility Project**, August 2005 to December 2007 – Construction Manager for $25 million utility and interim improvements at I-95 & Telegraph Road Interchange for VDOT.

**Shirley Contracting Company, LLC - Contract Manager 2000–2004**

- **I-95 Springfield Interchange Phase IV**, November 2000 to July 2004 - Contract Manager for $139 million improvements to east portion of Springfield Interchange for VDOT.
- **I-95/Woodrow Wilson Bridge Corridor Projects**, 2002 to 2004 – Contract Manager for multiple Projects. Route 1 Ground Improvements $33 million, Telegraph Road Ground Improvements $3.5 million.
- **Potomac Yards** 2003 to 2005 – Contract Manager for $11 million site improvements for Crescent Resources.

| e. Education: | Name & Location of Institution(s)/Degree(s)/Year/Specialization: |
| University of Maryland at College Park, College Park, Maryland BS Civil Engineering 1987 |
| f. Active Registration: | Year First Registered/ Discipline/VA Registration #: None |
| g. Document the extent and depth of your experience and qualifications relevant to the Project. |

1. **Note your specific responsibilities and authorities for each assignment, not those of the firm.**
2. **Note whether experience is with current firm or with other firm.**
3. **Provide beginning and end dates for each assignment.**

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

1. **Fairfax County Parkway Phase III - Springfield, VA - Design-Build Construction Manager (2010 to 2012)**

Served as Design-Build Construction Manager and primary point of contact to FHWA for construction of the $27.7M Design-Build project. Mr. Smith was responsible for the design coordination, utility relocation process, environmental permitting, and constructability oversight of the bridge and roadway design. He performed the budgeting and scheduling of the project as the design was advanced and construction began in late 2010. Phase III of the Fairfax County Parkway Extension project represents the final segment of the Parkway through the Fort Belvoir Engineering Proving Grounds east of I-95. The scope of work includes 1.4 miles of six-lane divided, limited access highway and includes ramp...
improvements to the Franconia Springfield Parkway interchange. The relocation of Hoovers Road and a new bridge carrying relocated Rolling Road over the Fairfax County Parkway was necessary for the construction improvements as well as over 25,000 square feet of noise barrier walls. Mr. Smith worked with VDOT and FHWA to incorporate the addition of the Saratoga Park and Ride Facility as a Change Order the Contract. Shirley was able to meet the project budget and schedule constraints of VDOT, FHWA, Fort Belvoir and Fairfax County including the additional work.

Owner Contact: VDOT, Fairfax County, 703-440-9086


Construction Executive responsible for the overall construction effort on the $143 million Garage and Site Work Improvements Package for the design-build DoD/BRAC 133 at Mark Center Project including the Mark Center Road Improvements Project. Mr. Smith was responsible for the management and oversight of all site-work; on-site infrastructure, precast concrete parking structures, Remote Delivery, Remote Inspection, and Visitor Center Facilities. Mr. Smith managed Shirley’s self-perform work including the excavation and disposal of over 400,000 cubic yards of earthwork, installation of over 15,000 LF of stormwater, waterline and sanitary sewer utility piping as well as grading and paving. Mr. Smith was responsible for the design and coordination of all public and private utilities into the Mark Center Site. Under Mr. Smith’s direction, the Shirley Team completed the project six weeks early. Mr. Smith also served as the Construction Executive for the $4.8 million offsite roadway improvements associated with the DoD/BRAC 133 Project designed to mitigate impacts to local traffic. Owner Contact: Duke Realty Corporation, John VanVliet 703-578-7724


Responsible for the design-build management and construction oversight of three major infrastructure projects totaling over $55 million for New Campus East project for a Department of Defense Agency in Northern Virginia. Mr. Smith’s responsibilities included design/constructability reviews, scheduling, budgets, project management and quality control and safety. Project consisted of over two miles of new four lane highway with four signalized intersections, a 450-foot long, three span bridge over Accotink Creek and a 350-foot, six span bridge over protected wetlands. Utility infrastructure brought into the campus included over 5,000 LF of 18” watermain and 1,000 LF of 8” & 12” branch lines. 1,200-feet of electrical & communication ductbanks servicing Dominion Virginia Power and Verizon were also installed. Mr. Smith coordinated the schedule of roadway construction with Washington Gas contractors as 800 LF of gas main was installed from Backlick Road to the campus. Over 4,000 workers each day drove through the Shirley worksites to access the Project. Mr. Smith managed the design and construction of detours to maintain continuous construction traffic for the entire life of the project to safely deliver the projects on-time. Owner Contact: US Army Corps of Engineers, Wesley Wright 571-643-9884


As the Design-Build Project Manager, Mr. Smith was responsible integrating the design-build disciplines for the project including design, permitting, utility relocations and construction to ensure constructability and eliminate conflicts, contract administration, and the QA/QC program for this $43 million bridge project featuring a new 840-foot long, six lane, bridge carrying US Route 1 over an active rail corridor. The bridge was erected and the existing bridge was demolished over the heaviest traveled rail corridor on the East Coast. Mr. Smith managed the design, coordination, and installation of over 4,000 LF of 16” and 12” watermain for Virginia American Water, coordinated Shirley’s construction work around Dominion Virginia Power underground bulk feeder lines paralleling Route 1, and the installation of over 1,500-feet of new ductbanks for future power and communications services to Potomac Yards. The phased construction was sequenced with the eastern span of the new bridge opening mid-way through the project. All traffic was removed from the existing bridge, placed on the new span, and the existing bridge demolished and the second phase constructed in its place. Due to limited width on the three-lane bridge deck, the development and installation of the reversible center lane traffic signals were vital in the maintenance of traffic. Owner Contact: Potomac Yard Development, LLC, Gary Legraaf 703-277-7461


Responsible for management and oversight of construction of a $139 million segment of the Springfield Interchange rebuilding project. Mr. Smith’s contract management duties included construction, scheduling, subcontractor coordination, financial monitoring, change order administration, and owner relations for the largest single contract awarded on the entire “Mixing Bowl” project. The project consisted of roadway widening and improvements along the Capital Beltway from the Van Dorn Road Interchange to the interchange connection at I-95/I-495/I-395. Four new bridges were constructed as part of the project, one bridge carrying the Capital Beltway over the CSX Transportation and WMATA tracks. This work was completed in three phases working in close coordination with CSX and WMATA. The project’s signature bridge was a 4,300-foot long flyover bridge carrying I-495/I-95 traffic to a direct connection to I-95 southbound. The bridge exceeds 110 feet at its highest point. Mr. Smith led the Shirley team to a four month early completion of the project resulting in an early completion incentive bonus offered by VDOT. Owner Contact: VDOT, 1401 E. Broad Street, Richmond, VA. Charlie Warriach, 571-483-2583
ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: Steven Kuntz, PE, DBIA, Senior Associate

b. Project Assignment: Design Manager, Design QA/QC

c. Name of Firm with which you are now associated: Dewberry Consultants LLC

d. Years experience: With this Firm 13.5 Years With Other Firms 0 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.):

Dewberry Consultants LLC - June 1999 to Present

- July 2011 to November 2012 (design), Construction Support thru August 2015 – Client: VDOT. Roadway Design lead for the Route 27/244 Interchange Modification project in Arlington County for the Shirley Design-Build team.
- July 2011 to November 2011 (design), Construction Support thru August 2013, Client: VDOT. Design Manager for the Pacific Boulevard Extension project for the Shirley Design-Build Team
- February 2010 to October 2010 – Client: VDOT. Design Manager for the Waxpool Road/Loudoun County Parkway Intersection Improvements for the Shirley Design-Build team.
- October 2009 to December 2012 – Client: FHWA. Design Manager for the Fairfax County Parkway Phase III Improvements Project for the Shirley Design-Build team.
- February 2008 to July 2010 – Client: Loudoun County. Project Manager for the design of the Route 7/659 Interchange.
- July 2007 to September 2009 – Client: VDOT. Highway Design Engineer for the Battlefield Parkway Design-Build Project as part of the Shirley Design-Build team.
- September 2002 to December 2012 – Client: VDOT. Assistant Design Manager for the Route 28 Corridor Improvements Project as part of the Shirley Design-Build team
- June 1999 to January 2011 (design), Construction Support thru August 2015 – Client: VDOT. Project Manager for the design of the Route 29/Linton Hall Road Interchange.
- June 1999 to April 2006 – Client: VDOT. Assistant Project Manager for the design of the I-66 Mainline Widening Project from Route 234 Business to Route 29 (Gainesville)

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

Virginia Polytechnic Institute and State University, Blacksburg, VA / BS / 1999 / Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #: Professional Engineer / 2004 / Virginia #0402 039440 Professional Engineer / 2008 / Maryland #36172 Design Build Institute of America (DBIA) / 2010

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

1. Note your specific responsibilities and authorities for each assignment, not those of the firm.
2. Note whether experience is with current firm or with other firm.
3. Provide beginning and end dates for each assignment.

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

1. Fairfax County Parkway Phase III Improvements - Fairfax County, VA - Dewberry, Design Manager (October 2009 – December 2012)

Mr. Kuntz is currently serving as the Design Manager for this $27 million design-build project with Shirley Contracting under contract to the Federal Highway Administration, Eastern Federal Lands Highway Division (EFLHD). He is responsible for overseeing all aspects of design and for coordination of multiple subconsultants, as well as implementing and monitoring the design QA/QC process. Design elements included modifications to the existing Fairfax County Parkway/Franconia-Springfield Parkway/Rolling Road Interchange, widening of approximately 0.8 miles of Rolling Road (to become Fairfax County Parkway), relocation of Rolling Road and Hooes Road, a new bridge to carry Rolling Road over the Fairfax County Parkway, and a new park.
2. Route 28 Corridor Improvements Project - Fairfax and Loudoun Counties, VA - Dewberry, Assistant Design Manager (September 2002 – December 2012)
Mr. Kuntz helped to oversee the design of ten (10) interchanges along Route 28, resulting in creation of a limited access highway between Westfields Blvd. in Fairfax County and Route 7 in Loudoun County as part of this $350 million PPTA project. Mr. Kuntz was responsible for completion of conceptual interchange configurations for four (4) of the interchanges (Willard Road, Frying Pan Road, Innovation Avenue, and Nokes Boulevard) and for final design of six (6) of the ten interchanges, including the Innovation Avenue, Sterling Boulevard, and Nokes Boulevard Interchanges in Loudoun County and the Westfields Boulevard, Willard Road, and Barnsfield Road Interchanges in Fairfax County. As part of the final design efforts, Mr. Kuntz coordinated the design of each of the interchange bridges, stormwater management facilities, and utility relocation designs, and oversaw the design of all aspects of horizontal and vertical geometric design, drainage design, lighting design, signing and marking design and maintenance of traffic plans. He also helped to prepare cost estimates for additional work added to the PPTA contract including Atlantic Boulevard north of Church Road, Pacific Boulevard north of Sterling Boulevard, and Centreville Road north of Route 50. **Owner Contact:** VDOT – Northern Virginia District, 4975 Alliance Drive, Fairfax, VA 22030, Ms. Susan Shaw, PE, (703) 259-1995

Mr. Kuntz was the Highway Design Engineer for the Shirley/Dewberry Team for this $19 million design-build project for VDOT which extended Pacific Boulevard from Auto World Circle to Severn Way in Loudoun County. His responsibilities included overseeing all aspects of roadway design and plan completion, and for coordinating design efforts with the bridge, stormwater management, utility relocation and landscaping design disciplines. During design, Mr. Kuntz attended weekly coordination meetings with the Contractor and VDOT, and was responsible for all plan submissions to VDOT, the Northern Virginia Regional Park Authority, and the utility companies. Mr. Kuntz also attended coordination meetings with the impacted landowners, and led the design efforts to revise the design to include turn lane improvements which resulted in the dedication of right-of-way to VDOT for a majority of the project. **Owner Contact:** VDOT – Northern Virginia District, 4975 Alliance Drive, Fairfax, VA 22030, Ms. Christiana Briganti-Dunn, PE, (703) 259-2960

As the Highway Design Engineer for the Shirley/Dewberry Team for this $26.5 million design-build project for VDOT, Mr. Kuntz was responsible for overseeing the roadway design effort to extend Battlefield Parkway from Kincaid Boulevard to Route 7. His responsibilities included overseeing all aspects of roadway design and plan completion, and for coordinating design efforts with the bridge, stormwater management, lighting and landscaping design disciplines. Mr. Kuntz attended weekly coordination meetings with the Contractor and VDOT, and was responsible for all plan submissions to VDOT, the Town of Leesburg, and the Northern Virginia Regional Park Authority (since the design included a bridge over the W&OD Trail). **Owner Contact:** VDOT – Northern Virginia District, 4975 Alliance Drive, Fairfax, VA 22030, Ms. Susan Shaw, PE, (703) 259-1995

5. Route 29/Linton Hall Interchange and Railroad Grade Separation - Prince William County, VA - Dewberry, Project Manager for Design (June 1999 – January 2011, Under Construction until August 2015)
Beginning as a Project Engineer and continuing through being named the Project Manager in late 2008, Mr. Kuntz has worked on the design of the phased improvements to construct a single point urban interchange (SPUI) and railroad grade separation at the existing Route 29 intersection with Linton Hall Road. As Project Engineer, Mr. Kuntz was responsible for all elements of roadway design including horizontal and vertical geometry, drainage design, and maintenance of traffic and detour designs in preparation for phased right-of-way plan approvals in 2007 and 2008. As Project Manager, Mr. Kuntz oversaw the completion of the roadway plans and coordinated the design with the four (4) bridge plan packages in preparation for a December 2010 advertisement. He has served as the single point of contact for VDOT for the completion of parcel demolition plans (phase 1 completed in 2009), advance detour construction plans (advertised in October 2009), and a second parcel demolition contract which has been approved for advertisement in March 2010. He also attends monthly coordination meetings with VDOT project staff, coordinated with the in-plan utility relocations engineer (completed under separate contract to VDOT Central Office), provides design support to the VDOT right-of-way division as they continue to acquire the remainder of the impacted parcels, and works with VDOT Central Office in coordination efforts with Norfolk Southern Railroad. **Owner Contact:** VDOT – Northern Virginia District, 4975 Alliance Drive, Fairfax, VA 22030, Mr. Amir Salahshoor, PE, (703) 259-1957.
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a. Name &amp; Title:</strong> Kenneth J. Shirley, PE, CCM, Virginia Operations Manager</td>
</tr>
<tr>
<td><strong>b. Project Assignment:</strong> Quality Assurance Manager</td>
</tr>
<tr>
<td><strong>c. Name of Firm with which you are now associated:</strong> EBA Engineering, Inc.</td>
</tr>
<tr>
<td><strong>d. Years experience:</strong> With This Firm 1 Years With Other Firms 19 Years</td>
</tr>
<tr>
<td>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.):</td>
</tr>
<tr>
<td>• EBA Engineering, Inc, Operations Manager supervising construction engineering and inspection contracts and providing construction engineering/management QA/QC services as needed, October 2011-present.</td>
</tr>
<tr>
<td>• VDOT, Culpeper District Construction Engineer (DCE) managing the district materials laboratory and road and bridge contract administration program directly overseeing QA/QC efforts of materials, inspection and project documentation, February 2006- October 2011.</td>
</tr>
<tr>
<td>• VDOT, Fredericksburg DCE managing the road and bridge contract administration program directly overseeing QA/QC efforts of materials, inspection and project documentation, August 2005-February 2006.</td>
</tr>
<tr>
<td>• VDOT, Fredericksburg Residency Administrator managing the land use, maintenance and construction program for three counties, August 2004 – August 2005.</td>
</tr>
<tr>
<td>• Carter &amp; Burgess, Inc., Consultant Resident Engineer for Arkansas Highway and Transportation Department providing direct construction engineering and inspection management of three contracts totaling $37M interpreting contract specifications, resolving disputes and notice of intents, reviewing CPM schedules and adhering to QA/QC protocol, May 2002 – August 2004.</td>
</tr>
<tr>
<td>• Texas Department of Transportation (TxDOT), Southwest Dallas County Assistant Area Engineer managing the design, construction and maintenance programs for $250M in contracts and 9th largest maintenance section in the State, July 2001 to May 2002.</td>
</tr>
<tr>
<td>• TxDOT, Project Engineer/Manager providing direct construction engineering and inspection management services to ensure QA/QC compliance on projects ranging from $700k to $95 million. August 1995 – July 2001.</td>
</tr>
<tr>
<td>• TxDOT, Project Designer providing design services related to roads, bridges and special culverts, July 1992- August 1995.</td>
</tr>
<tr>
<td><strong>e. Education:</strong> Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</td>
</tr>
<tr>
<td>University of Texas at Arlington, Arlington, TX/BS/1992 Civil Engineering</td>
</tr>
<tr>
<td>University of Texas at Dallas, Richardson, TX/MS/1999/Management and Administrative Sciences</td>
</tr>
<tr>
<td><strong>f. Active Registration:</strong> Year First Registered/ Discipline/VA Registration #:</td>
</tr>
<tr>
<td>2004/Civil Engineering/VA 040380, 2011/Civil Engineering/DC 906475, 2011/Certified Construction Manager/CMAA A2102</td>
</tr>
<tr>
<td><strong>g. Document the extent and depth of your experience and qualifications relevant to the Project.</strong></td>
</tr>
<tr>
<td>1. <strong>Note your specific responsibilities and authorities for each assignment, not those of the firm.</strong></td>
</tr>
<tr>
<td>2. <strong>Note whether experience is with current firm or with other firm.</strong></td>
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<tr>
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</tr>
<tr>
<td>(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)</td>
</tr>
<tr>
<td><strong>1. Route 631 Meadow Creek Parkway - Albemarle County, VA (2009-2011)</strong></td>
</tr>
<tr>
<td>As the VDOT District Construction Engineer, Mr. Shirley provided the QAM responsibilities for the most complicated project under his oversight to date in Virginia. His direct personal involvement and design experience led to a re-sequencing of the maintenance of traffic and sequence of construction to expedite project delivery and overcome three months of delays by utility and railroad conflicts (having developed the advertised sequence of construction). He resolved all notice of intents and disputes; initiated, negotiated prices and approved necessary work orders; coordinated stakeholder public information of this high-profile, new location parkway with context sensitive roadway elements, sanitary sewer construction, advanced stormwater detention measures, vehicular and pedestrian structures, multi-use path and extensive landscaping. Additionally, Mr. Shirley provided expert witness testimony against a potential injunction to cease project activities during the clearing, grubbing and mass excavation/embankment phase of the project. As with past practices and success, he implemented advanced QA reviews of the project to ensure project contract compliance which resulted in a Construction Quality Improvement Program (CQIP) audit of 91.0%. The project was delivered early and under budget with 100% Environmentally Compliant Reports, despite the project starting with a three month utility/railroad delay. <strong>Owner Contact:</strong> James Utterback, PMP, 1601 Orange Road  Culpeper, VA (540) 829-7500</td>
</tr>
</tbody>
</table>
2. Route 229 Widening - Culpeper County, VA (2009-2010)
Mr. Shirley was the VDOT District Construction Engineer where he performed the duties of the Quality Assurance Manager (QAM). Of particular note, he proactively worked to identify issues associated with school related traffic entering and exiting the project during the reconstruction of their side street. He resolved unanticipated roadway and drainage related elements to facilitate an improved ultimate design for the school traffic. His implementation of advanced QA reviews of the project to ensure project contract compliance resulted in a Construction Quality Improvement Program (CQIP) audit of 94.5%. The project was delivered early and under budget. **Owner Contact:** James Utterback, PMP, 1601 Orange Road, Culpeper, VA (540) 829-7500

Mr. Shirley was the VDOT District Construction Engineer where he performed the duties of a QAM when resolving issues pertaining to access, worked to identify and provide alternatives to re-sequence construction and maintenance of traffic to expedite project delivery and overcome delays by utility owners, resolved notice of intents and disputes for a high-profile widening of a primary highway in the retail district of the Town of Culpeper with stormwater detention measures, pedestrian facilities and scheduled re-opening prior to holiday shopping season. He led preparatory inspection meetings, ensured inspection and materials testing was performed in accordance with established QA and QC schedules, ensured lab testing was performed by AASHTO accredited laboratories, monitored and reviewed project records for accuracy and timeliness, oversaw the resolution of test result discrepancies, monitored adherence to nonconformance recovery plans, rejected unacceptable materials, ensured inspection staff performed hold and witness point inspections and materials testing, and oversaw plant manufactured materials acceptance processes. He oversaw inspector documentation reviews to ensure progress payments to the Contractor were verifiable and accurate. He personally participated in punch list inspections of the project and ensured final inspection was completed in a timely manner. To facilitate the project goals, Mr. Shirley implemented advanced QA peer reviews of the project to ensure project contract compliance which resulted in a Construction Quality Improvement Program (CQIP) audit of 93.6%. The project was delivered 13 days early, under budget and 100% environmentally compliant. **Owner Contact:** James Utterback, PMP, 1601 Orange Rd., Culpeper, VA (540) 829-7500

As the VDOT District Construction Engineer, Mr. Shirley resolved issues pertaining to: access, reviewed the maintenance of traffic, assisted with construction re-sequencing to expedite project delivery. He assisted in identifying issues and alternatives to avoid delays. He resolved notice of intents and disputes of a major rural and divided highway widening. Executing the responsibilities of a QAM, he led preparatory inspection meetings, ensured inspection and materials testing was performed in accordance with established QA and QC schedules, ensured lab testing was performed by AASHTO accredited laboratories, monitored and reviewed project records for accuracy and timeliness, oversaw the resolution of test result discrepancies, monitored adherence to nonconformance recovery plans, rejected unacceptable materials, ensured inspection staff performed hold and witness point inspections and materials testing, and oversaw plant manufactured materials acceptance processes. Mr. Shirley oversaw inspector documentation reviews to ensure progress payments to the Contractor were verifiable and accurate. Mr. Shirley personally participated in punch list inspections of the project and ensured final inspection was completed in a timely manner. To facilitate the project goals, Mr. Shirley implemented weekly, onsite mini-QA reviews of the project to ensure project contract compliance which resulted in a Construction Quality Improvement Program (CQIP) audit of 94.1%. **Owner Contact:** James Utterback, PMP, 1601 Orange Road, Culpeper, VA (540) 829-7500

5. IH35E/SH190T Interchange - Dallas County, TX (1998-2001)
As the Construction Project Engineer/Manager providing onsite engineering services to ensure construction in accordance with the contract, plans, and specifications of $95M four-level interchange of six-lane interstate with two lane frontage roads intersecting with equivalent toll way, including interstate widening and reconstruction, complex maintenance of traffic and railroad re-alignment/reconstruction, Mr. Shirley ensured compliance with erosion and sediment control measures, reviewed QA and QC inspection and testing of materials by inspection and contractor staff, and reviewed traffic control setups for safe work zones. He initiated, negotiated and prepared work orders and design changes to keep contract on-time and under budget. He reviewed and accepted contractor submitted schedules, approved monthly payments and final material on hand submittals after reviewing contractor, inspector and record keeper documentation for supporting justification, and reviewed and approved shop drawings with specialty items submitted to District Sections for further review. He led weekly progress and utility meetings, monthly partnering meetings, inspection preparation meetings and ad hoc issue resolution meetings associated with witness and hold point inspections requiring nonconformance recovery plans. He led the public information campaign that led to zero vehicular incidents over a six-mile traffic switch. He implemented a record keeping protocol to expedite final acceptance of project records that normally took six weeks resulting in a two-week final records submission, with over 440 pay items to be finalized. Mr. Shirley’s onsite responsibilities were effectively that of a QAM, Construction Manager and Project Engineer. **Owner Contact:** C. Smith Jones, PE (retired) 12000 Greenville, Avenue Dallas, TX (972) 479-9747
## Brief Resume of Key Personnel anticipated for the Project.

### a. Name & Title:
Tony Jefferys, Senior Superintendent

### b. Project Assignment:
Construction Manager

### c. Name of Firm with which you are now associated:
Shirley Contracting Company, LLC

### d. Years experience:
- **With this Firm:** 13 Years
- **With Other Firms:** 25 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.):

- **USCG Saint Elizabeth’s West Site Access Road,** 2011 to 2013 - Superintendent and Construction Manager for $32 million roadway and utilities for main entrance into DHS/USCG Headquarters Campus for GSA.
- **Washington Headquarters Service DoD BRAC 133,** December 2008 to August 2011 – Construction Manager for the $143 million design-build for the WHS Mark Center Site/Civil Construction Project.
- **I-95 4th Lane Widening,** March 2008 to September 2011 – Project Superintendent in charge of $91 million highway and bridge widening VDOT project.
- **Dulles Greenway Capital Improvements,** Leesburg, VA, 2006-2008 - Superintendent on this $75 million design-build project that included the widening of 14 bridges, construction of over six miles of mainline widening, and expansion of the mainline toll plaza, and improvements to existing Greenway interchanges.
- **Route 606 Interchange Project,** Loudoun County, VA, 2005-2006 - Superintendent on one of the individual design-build components of the Route 28 Corridor Improvements Project, this new interchange at the intersection of Route 28 and Route 606 in Loudoun County consisted of construction of a relocated diverter intersection, eight new loops and ramps, a new bridge overpass, interchange lighting, and signalization.
- **Potomac Yard Offsite Sanitary Truck Sewer – Alexandria,** VA, 2002-2003 – Superintendent for 8,300 L.F. 30” diameter micro-tunnel sewer project.
- **I-95 Interchange Phases II/III & IV,** Springfield, VA, 1999 - 2003 – Superintendent for the construction of $200+ million reconstruction of interchanges, including 15 bridges, and 6 miles of interstate widening.

**The Lane Construction Corporation – Foreman 1974-1999**

### e. Education:
Name & Location of Institution(s)/Degree(s)/Year/Specialization: None

### f. Active Registration:
Year First Registered/ Discipline/VA Registration #: Will obtain Virginia Department of Conservation and Recreation DCR RLD and Virginia Erosion and Sediment Control Contractor Certification (ESCCC) prior to the commencement of construction.

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

1. **Note your specific responsibilities and authorities for each assignment, not those of the firm.**
2. **Note whether experience is with current firm or with other firm.**
3. **Provide beginning and end dates for each assignment.**

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

1. **Saint Elizabths West Site Access Road - Washington, DC - Construction Manager (2011 to 2013)**
   Responsible for Construction Management of the West Site Access Road for the new Saint Elizabths West Campus Improvements as part of the new USCG/DHS Headquarters facility for GSA. Shirley Contracting Company, LLC is constructing the 3,000 foot long West Access Road which will serve as the Main Entrance into the Campus. Mr. Jefferys is responsible for the entire construction effort which is highlighted by the construction of over 55,000 SF of a tied-back retaining wall system supporting the new roadway adjacent to the I-295 corridor. Managing three utility crews working simultaneously in order to meet schedule demands, Mr. Jefferys managed the successful installation of over 4,000 LF of stormwater piping and 2,500 LF of new waterline serving the campus. He also coordinated with DC Water in order to perform the tie-in connections to the existing watermains along Firth Sterling Avenue and I-295. Mr. Jefferys managed Shirley's earthwork and grade crews who have moved and disposed of over 150,000 cubic yards of soil, much containing contaminated fly ash materials in order to meet final roadway elevations. Stormwater systems including the use of Bio-Retention Basins and Storm Filters are being installed by Mr. Jefferys crews. Mr. Jefferys is also serving as Construction Manager for the new Intersection of the West Campus Access Road and Firth Sterling Avenue.
2. DoD/BRAC 133 Washington Headquarters Services - Alexandria, VA - Senior Project Superintendent (2008 to 2011)

Senior Project Superintendent responsible for the overall construction operations on the $143 million Design-Build Garage and Site Work Improvements Package for the DoD/BRAC 133 at Mark Center Project including the Mark Center Road Improvements Project. Shirley Contracting Company, LLC was the General Contractor for all site-work; on-site infrastructure, precast concrete parking structures, Remote Delivery, Remote Inspection, and Visitor Center Facilities. Managing a field manpower of over 200 people per day, Mr. Jefferys successfully managed the excavation and disposal of over 400,000 cubic yards or earthwork, installation of over 15,000 LF of stormwater, waterline and sanitary sewer utility piping as well as grading and paving of over two miles of internal roadway systems. Working with Dominion Virginia Power, Verizon, Alexandria Service Authority and Virginia American Water, Shirley Contracting Company, LLC and Mr. Jefferys managed the design and construction of these major utility services into the Mark Center site. An enormous coordination and teaming effort enabled the Shirley Team to complete the project six weeks early allowing for accelerated move-in date for the government and its clients. Mr. Jefferys also served as the Senior Superintendent for the $4.8 million Mark Center Offsite Roadway Improvements. These improvements included the newly opened widened portions of both Seminary Road and North Beauregard Street and other improvements associated with the DoD/BRAC 133 project designed to mitigate impacts to local traffic. Roadwork for the improvements was in both the City of Alexandria and VDOT right-of-way. Through Mr. Jefferys management efforts, the Shirley Team completed the project in time for the opening of the WHS Headquarters in September 2011.

Owner Contact: Duke Realty Corporation, John VanVliet 703-578-7724

3. I-95 4th Lane Widening Project - Fairfax County, VA - Senior Project Superintendent (2008 to 2011)

Mr. Jefferys was the Senior Project Superintendent on this $91 million project to widen I-95 from six to eight lanes from the Fairfax County Parkway (Route 7100) to Route 123 at the Prince William County line (approximately six miles). Mr. Jefferys was responsible for overseeing all day-to-day field construction activities including coordinating self-perform and subcontracted work, maintaining the CPM schedule, and coordinating with the Virginia Department of Transportation. This six mile long project included widening I-95 to four lanes in each direction, multiple bridge widenings including a bridge over the Occoquan River, extensive retaining and noise barrier walls as well as the maintenance of traffic for over 200,000 vehicles per day traveling through the project.

Owner Contact: Virginia Department of Transportation, Charlie Warriach 571-237-8229

4. Dulles Greenway Capital Improvements - Leesburg, VA - Senior Project Superintendent (2006 to 2008)

Mr. Jeffery’s was the Senior Project Superintendent for this $75 million design-build project that included the widening of 14 bridges, construction of over six miles of mainline widening, expansion of the mainline toll plaza, improvements to the existing Greenway interchanges at Route 606 and Route 772, and new interchanges at Routes 653 and Route 654. Mr. Jefferys was responsible for directing all Shirley Contracting crews and all project subcontractors for roadway construction activities. Mr. Jefferys monitored the construction activities for compliance with the VDOT standards and specifications as well as the standards of the private owners of the toll road facility. Using a fast-tracked phased design and construction process, the Shirley Team opened the mainline widening of the Greenway six months ahead of schedule.

Owner Contact: Toll Road Investors Partnership (TRIP II) Tom Sines 703-707-9096


Mr. Jeffery was responsible for the construction management and oversight of the $10 million design-build project which included the construction of the new remote delivery facility secure access lane and inspection queue for the Pentagon Force Protection Agency (PFPA) and reconstruction of the ramps at the Route 27 and Route 244 intersection at the Pentagon’s South Parking Lot. As part of the Pentagon Renovation Program for the Pentagon, an extensive effort was required to coordinate this project with the many other on-going projects and contractors working at the multiple construction sites in and around the Pentagon along with managing the many security requirements and strict safety requirements for this project site. Mr. Jefferys managed Shirley’s field construction activities that included installation of multiple new security facilities for all deliveries arriving to the Pentagon to be checked and inspected prior to entering the Pentagon site. This included multiple bullet proof guard booths, security cameras, hydraulic pop-up barriers and a 400 foot long blast wall along the access road. Mr. Jefferys coordinated the relocation of several existing utilities, an extensive landscaping package at the Pentagon site and along Washington Blvd and construction of a new multi-use asphalt path.

Client/Owner Contact: WHS Acquisition and Procurement Office, Pentagon Renovation Program, Mike Murtha, Construction Operations Representative, (703) 545-6700
3.4.1 Work History Forms
In 2002, the design-build team led by Shirley Contracting Company, LLC, serving as the Lead Contractor, was awarded the first Public-Private Transportation Act (PPTA) project to be implemented in the Northern Virginia area by VDOT. The scope included the design/build construction of ten (10) grade-separated interchanges and numerous secondary road improvements along the Route 28 Corridor between I-66 and Route 7. The Shirley Design-Build Team was responsible for all design and engineering, permitting, right-of-way acquisition, utility relocations, construction, maintenance of traffic, QA/QC, and coordination of public involvement for all project work. This complete scope of work performed by our Team has permitted VDOT to only assign three (3) full-time personnel to oversee the Project. To date, each and every component of the Project has been completed on or ahead of schedule and without a single claim.

Many of the Key Managers proposed for the I-64 Widening and Route 623 Interchange Improvements are the same Key Managers that have worked so closely together for the past ten (10) years on Route 28. We have developed, implemented, and improved upon proven techniques and practices during this time that allow us to efficiently manage the design-build process. From Route 28, we have learned that it is absolutely essential to integrate all of the various design and construction disciplines from the earliest stages of concept development until final completion. Our Construction Team members have day-to-day input on every stage of the design and our Team pledges to not submit any plans until this constructability review is complete. We create this “buy-in” from the Construction Team as early as possible to produce an efficient design and to begin to develop project elements that are critical for the right-of-way and utility disciplines to closely coordinate their work, and to further integrate these elements with the design documents and project schedule. We also have learned that it is critical to accurately identify all of the existing utilities that can be impacted by the design, to meet with the individual utility companies early to explain the project scope and start the design process, and to closely track and manage the entire utility relocation process.

Since having acquired more than 200 parcels of right-of-way on Route 28, we have learned how vital the timely completion of the right-of-way acquisition process is to the project schedule and budget. As part of the constructability process we focus our efforts on developing a right-of-way priority list early on, in order to optimize the construction and utility schedule. We also look early at whether there are any total takes or relocations that could affect the schedule, potholes that may exist, and any hazardous, historic, or other environmental issues affecting any property. We have also facilitated the negotiation of settlements whereby the property owner dedicates the necessary right-of-way in exchange for certain improvements being added to the project scope, requiring extensive coordination between the Design/Build Team, VDOT and adjacent property owners. These types of agreements have resulted in savings in the overall project cost while expediting the right-of-way acquisition process.

We are constantly looking for ways to reduce or eliminate property impacts. This keeps project costs down and helps the project schedule. This work particularly well on the Route 28/Westfields Interchange where all of the right-of-way anticipated for the interchange was acquired in the late-1990’s. However, by the time design was undertaken in 2003, changes in design standards and overall capacity requirements created the need for additional land. This would have negatively impacted both the budget and schedule. In partnership with the entire Team, Shirley worked with each landowner, and the utility companies and was ultimately successful in obtaining all of the necessary right-of-way at no additional cost to VDOT.

Another instance where our Team worked through significant right-of-way issues was on the Route 28/McLearen Road Interchange. Early in the design process for this interchange, Metropolitan Washington Airports Authority (MWAA) advised that they had planned development that was in conflict with the proposed interchange. Our Team redesigned the interchange to relocate the loop ramps 250 feet to the south, thus avoiding MWAA’s planned development. This design modification required MWAA to change their Airport Layout Plan (ALP) - a process that the Shirley Team supported and that took over a year for MWAA to complete. Even with this long delay, Shirley was able to re-sequence the construction schedule by prioritizing the work on the East side of Route 28 first, including the east abutment and pier of the bridge. After the revised ALP was approved, we then completed the bridge and work on MWAA property and were still able the complete the project prior to its original completion date with no increased cost to VDOT.

Through the Route 28 project we have developed close relationships with over 25 public and private utilities that will benefit the I-64 Widening Project. In constructing the ten interchanges and secondary road improvements we have successfully relocated more than 52,000 feet of overhead and underground power lines, 205,000 feet of communication/fiber optic lines, 11,000 feet of water lines, 6,400 feet of sanitary sewer, and 5,100 feet of gas lines. On the Centreville Road Widening Project, a component of the Route 28 Corridor Improvements Project, we were able to eliminate or reduce many utility relocations by coordinating with the utility companies, raising the roadway profile, and other innovative design changes. Shirley’s utility coordination effort contributed to a 35% reduction in the utility relocation costs on the project, saving VDOT over $1.9 million from the Utility Relocation Allowance.

In the Route 28 project we were constructed without permanent removal of any Project or traffic movements or reduction in traffic capacity during construction. One of the very first design activities conducted by the Team has been to evaluate the existing and projected traffic volumes and movements. From this data, the ultimate design concepts are created by our Team, presented to VDOT, the Counties, and other affected parties, and ultimately approved for final design. But along with this, the Team carefully evaluates the data to determine maintenance of traffic requirements during construction. By involving the construction teams early on in this process, we are better able to plan each phase of the work. For example, in most cases, the new interchanges by necessity have been located approximately in the same location as the existing signalized intersections. This has lead to innovative solutions for detour intersections during construction, but also for creative and well-thought out solutions for opening the new interchanges when construction is complete. One example of this is the Route 29/Westfields Blvd. Interchange. With significant input from the construction team, Dewberry adjusted the profiles of the detour intersection and ultimate ramp/loop profiles so that they were as close as possible. Thus when the new interchange was ready to open, traffic was to be minimum of work to do to switch traffic from the old detour pavement to the new pavement grades. As a result, we were able to open the new interchange in just 24 hours in non-peak traffic periods with virtually unnoticed impact to the traveling public. As an additional level of planning and coordination, we created detour plans that were distributed to the local media, Board of Supervisor’s office, homeowner associations, and posted on the project website to make sure the public was informed. This same level of effort was required on the Sterling Blvd, Waxpool Road, McLearen Road, and Old Ox Road Interchanges. Each of these complex projects were completed with minimal impacts to traffic. The I-64 Widening and Route 623 Interchange Improvements require very similar emphasis of maintenance of traffic and the interface of the new work with the existing roadways.
### ATTACHMENT 3.4.1(a)

#### LEAD CONTRACTOR - WORK HISTORY FORM

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design</th>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loudoun County, VA</td>
<td>Dewberry Consultants LLC (formerly Dewberry &amp; Davis LLC)</td>
<td>Tom Sines, Phone: 703-707-9096, Fax: 703-707-8876, Email: <a href="mailto:tsines@dullesgreenway.com">tsines@dullesgreenway.com</a></td>
<td>December 2007</td>
<td>December 2007</td>
<td>$64,994</td>
<td>$71,084*</td>
</tr>
</tbody>
</table>

**h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly.**

The Dulles Greenway Capital Improvement Program (Greenway) included eight individual projects combined into a single design-build program. The original scope of this program included two new interchanges at Battlefield Parkway and Shreve Mill Road, enhancements to an existing interchange at Route 606, widening of the mainline roadway from four to six lanes for a distance of 6.2 miles, construction of a new ramp to Dulles Airport, expansion of the mainline toll plaza, and widening of the existing twin 660 foot long, 100 foot high bridges over Goose Creek. Shirley and Dewberry provided all design, construction, permitting, utility relocations, and construction administration, all in a format to allow VDOT acceptance at completion. In August 2006, TRIP II awarded Shirley a Change Order to design and construct improvements to the Route 772/Greenway Interchange. Even with this added scope, the Design-Build Team completed the original contract work and the additional interchange by the original completion date of December 2007. The 6.2 miles of mainline widening from 4 to 6 lanes on the Greenway project is similar to the scope of work required for the I-64 Widening Project.

Impacts to traffic on this limited access roadway were not only a project safety concern and an inconvenience to the traveling public, but also directly affected the Owner’s profitability, which made this Project unique. In addition to enhanced safety features and increased capacity in final design, our Team developed detailed traffic management plans that focused on maintaining lane widths and travel speeds, and reduced the impact to traffic during interim construction phases. Shirley and Dewberry are committed to bringing this experience to the I-64 Widening and Route 623 Interchange Improvements Project in order to develop Traffic Management Plans (TMP) that minimize the impact to the traveling public during construction. Where possible our TMP will also include enhancements to address existing traffic concerns.

On the Battlefield Parkway Interchange, Shirley partnered with the Town of Leesburg and the local community to avoid impact to soccer fields during the summer of 2005. A segment of the Town’s right-of-way between the Greenway and Evergreen Mills Road that was acquired for the project was currently being used for little league soccer games. Shirley re-sequenced the CPM schedule to avoid impacting the area until after the completion of the soccer season allowing the community time to find alternate playing fields for the next season without impacting their 2005 season. This schedule re-sequencing was completed at no cost to the Owner, without impacting the project completion date and is an example our Team’s willingness to partner with the Owner and local communities to maintain positive public perception.

Our Team is committed to providing a safe and healthy environment for our employees, subcontractors and to the general public who may enter our jobsite or workzone. We consider the prevention of accidents to be an integral part of our operation, and to these ends, we established a comprehensive, project specific, Safety, Health and Welfare Program for the Greenway to assure the continued safety of everyone on the project. On the Greenway our employees logged more than 300,000 man hours with no lost-time accidents. We continue to develop and enhance our safety program and proactively train our employees and subcontractors to repeat this success on all future projects.

With Shirley as the Lead Contractor and Dewberry as the Lead Designer, the Dulles Greenway Capital Improvements Program provides yet another example of the Team’s proven design-build experience. Shirley and Dewberry completed this $71 million design-build program, including design, environmental permitting, utility relocations, construction, and VDOT acceptance in less than three years earning our Team recognition as a recipient of the 2008 Regional Design-Build Excellence Award for large transportation projects presented by the Design-Build Institute of America (DBIA).
a. Project Name & Location
b. Name of the prime design consulting firm responsible for the overall project design.
c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.
d. Contract Completion Date (Original)
e. Contract Completion Date (Actual or Estimated)
f. Contract Value (in thousands)
  - Original Contract Value
  - Final or Estimated Contract Value
  - $81,430*  
    *Difference Due to Owner added Scope
  - $81,430

g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.

Name: I-66 Widening Improvements
Location: Prince William County, VA

Name: Dewberry Consultants LLC (formerly Dewberry & Davis LLC)
Name of Client/Owner: VDOT
Project Manager: Helen L. Cuervo
Phone: 703-259-2345
Email: Helen.Cuervo@vdot.virginia.gov

In December 2006, Shirley Contracting Company, LLC was awarded the I-66 Widening Improvements project to extend the HOV lanes and add additional through lanes on Interstate 66 from the Route 234 bypass to approximately 1 mile beyond the I-66 and Route 29 interchange in Gainesville, Virginia. With a construction cost of approximately $81 million, the project consisted of widening over two miles of divided multi-lane interstate from four lanes to eight lanes, realignment of eight ramps and primary highway in a heavily congested area. The project utilized a phased construction approach and received an award from the State for the Ride-ability and Asphalt Pavement surface. The project consisted of the following major components of construction: approximately 369,000 cubic meters of earthwork including rock; maintaining heavy interstate traffic volumes with minimal impacts; construction and removal of many detours; storm, water and sanitary utility installation/relocation; over 514,000 metric tons of sub-base stone and asphalt concrete; four SWMP; Seven Jack and Bore Pipe runs including three 2100mm diameter approximately 8.5 meters deep; two box culverts; signal installation/modifications; roadway lighting and signage; two concrete retaining walls (one adjacent to the Norfolk Southern Railroad); five new bridges and three superstructure demolition and reconstruction and one complete demolition and reconstruction superstructure and substructure.

All construction activities were performed while maintaining and managing traffic volumes of approximately 144,000 vehicles per day passing through the project work zone along the I-66 Corridor and the I-66/Route 29 interchange. The lane restrictions were coordinated with VDOT Smart Traffic Center to allow for public notifications and potential upcoming impacts, which provided advance warning to the traveling public. In addition to the communication with Smart Traffic, Shirley and the VDOT team utilized onsite construction signage and many variable message boards strategically placed throughout the work zone to help promote primary awareness of upcoming construction impacts and clearly define vehicular paths/routes, which helped improve traffic flow and avoid delays. Substantial coordination and planning went into creating many detours and lane shifts for Route 29 Northbound and Southbound traffic and the Interchange Ramps to maintain free flowing traffic movements during critical components of work such as the steel girder erection on all five bridges and the bride demolition. Not only did these detours allow for improved traffic flows, but it also provided for a safer work zone for both the traveling public and Shirley’s construction team. Shirley is committed to using our experiences and creative construction approach to create the safest and most efficient work zone on the I-64 Widening and Route 623 Interchange Improvement project.

The project had three interim milestones, the first milestone was completed over five months ahead of schedule and the other two milestones were completed on or ahead of schedule, despite significant change orders for added scope. In recognizing the importance of the first milestone, associated with opening Ramp C to alleviate congestion and improve the traffic flows from Route 234 to Route 66 Eastbound, SCC partnered with VDOT to focus our efforts on this area and accelerate achievement of this milestone. This successfully allowed for a significant reduction in traffic delays and congestion for the public early in the project. Also, during construction VDOT issued change directives to Shirley to perform additional services and increased scope, which included additional bridge demolition and substructure reconstruction on three existing bridges that were to originally remain. On those three existing bridges (2 from I-66 Eastbound and 1 from I-66 Westbound), 6 piers were completely demolished from cap down to below grade footings and reconstructed without delaying the project schedule. Shirley also had to replace the complete superstructure of Bridge B627 (I-66 Eastbound), which included the complete removal and fabrication of new structural steel without adding any additional time to the project schedule.

This project was successfully constructed in a heavily congested area with phased construction and significant structural components similar to I-64 Widening and Route 623 Interchange Improvement project. We developed Traffic Maintenance Plans to minimize delays and impacts to the public during peak traffic rush hours; resolved issues quickly and efficiently, while emphasizing safety on the project for all parties including the traveling public; and communicated project details to promote public awareness and involvement to all parties directly and/or indirectly associated with the project. Shirley and VDOT partnered successfully throughout the duration of the project and we are committed to bringing our experience from the I-66 Widening project to the I-64 Widening and Route 623 Interchange Improvement project. We are fully aware of the traffic flows and volumes that will be encountered during the construction of the I-64 Widening and Route 623 Interchange Improvement project and understand what will be necessary to maintain a safe and effective work zone. Shirley, VDOT and Dewberry are extremely experienced working together as a result of our relationship on this and other projects and these relationships and our construction experience will allow us to successfully construct the I-64 Widening and Route 623 Interchange Improvement project.
### Lead Designer - Work History Form

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime/ general contractor responsible for overall construction of the project.</th>
<th>c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Construction Contract Completion Date (Actual or Estimated)</th>
<th>e. Construction Contract Completion Date (Original)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Contract Value (Original)</th>
<th>h. Design Fee for the Firm identified as the Lead Designer for this procurement (in thousands)</th>
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<tbody>
<tr>
<td>Route 28 Corridor Improvements Project - Phase 1</td>
<td>Shirley Contracting Company, LLC</td>
<td>VDOT Northern Virginia District Office</td>
<td>May 2007</td>
<td>April 2013</td>
<td>$168,965</td>
<td>$350,497</td>
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</tbody>
</table>

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

The Design-Build Team worked diligently to accelerate portions of the interchange and roadway which could be constructed without the need for utility relocations or right-of-way acquisitions. Constant communication between construction and design staff, facilitated by weekly meetings, helped to identify critical packages which needed to be finished early. In several cases, this resulted in advance steel packages for bridges, advance detour and MOT packages, or stand alone utility packages.

The lessons learned from the construction of the various interchanges and secondary road improvements on the Route 28 project will be utilized to assure expedited delivery of the I-66 Widening Project for VDOT. The knowledge of how to assess the critical path and prioritize items such as environmental permitting; utility easements, utility relocations, and avoidance of utility impacts; right-of-way issues, in particular issues with land owned by federal agencies; phased design development that coincides with construction activities; and proper construction execution and delivery are all processes that our Team has worked through in coordination with VDOT. With ten interchanges and five secondary road projects, the Route 28 Corridor Improvements Project is essentially equivalent to completing fifteen projects simultaneously for VDOT in the expedited design-build delivery mode. Our proven work processes and coordination not only with our Team, but with VDOT and all appropriate stakeholders will be utilized to make the I-66 Widening Project a success.

A specific example of how our experience on Route 28 will be utilized on the I-66 Widening Project is the advance consideration of the maintenance of traffic (MOT) issues and opportunities to mitigate them. For instance, at the Route 28/Willard Road Interchange, we recognized that existing northbound traffic turning left to go west on Willard Road was backing up into the mainline travel lane of Route 28. As we initiated design of a detour intersection, we proposed geometry that would allow construction of dual left turn lanes at this location instead of the single left. This additional capacity provided during the MOT phase greatly reduced potential congestion and safety hazards during construction, and in fact provided additional capacity beyond what existed, at no cost to VDOT. In the case of the I-64 Project, we recognize that there is heavy volume between the I-295 and Route 280 interchanges. Our Team will propose measures to mitigate this existing condition in the earliest phases of this project.

Another example occurred at the Route 28/Willard Blvd Interchange where our design and construction teams worked together to establish unique profiles for our detour phase that worked to dramatically reduce the time necessary to switch from the detour phase to the final interchange operation. This significant switch-over phase, which initially was projected to take weeks to accomplish (building up from the temporary detour elevations to the final roadway elevations and then paving) was planned instead to be completed over a three day period. The actual switch-over phase was then completed even faster than planned by Shirley, who made the ultimate switch-over in just a twenty-four hour period. This significantly reduced impact to the public and was only possible as a result of the extensive planning and coordination by the Design, Construction and VDOT Teams.

Additionally, extensive coordination with numerous parties for the replacement Sully Access Road was necessary as part of the Route 28/Barnsfield Road Interchange Project. Significant differences between the Metropolitan Washington Airports Authority (MWAA) and the Fairfax County Park Authority (FCPA) prevented the scheduled construction of the access road. This had the very real potential to have delayed the opening of the interchange, the only access to the newly constructed Air and Space Museum at Dulles Airport. Through close coordination with VDOT, Shirley and Dewberry created and implemented temporary access plans, which allowed the interchange to open on time. Over the next four years, Shirley, Dewberry, and VDOT worked extensively with MWAA, FCPA, various historic and regulatory agencies, and adjacent property owners to resolve any conflicts to allow design and construction of the access road to move forward. Finally, on the Route 28/Nokes Blvd Interchange, the discovery of approximately 49 historical graves in the vicinity of the proposed interchange could have caused significant delays to the schedule for design and construction. Shirley and Dewberry worked with the Department of Historical Resources (DHR), Loudoun County, and the descendants of the family cemetery to catalog and disinter the remains and relocate them to a cemetery location acceptable to the descendants. This potentially sensitive issue was coordinated swiftly and with appropriate sensitivities, which allowed the gravestones to be relocated and the project to proceed without impact to schedule.
The Design-Build Team of Dewberry as the Lead Designer and Shirley as the Lead Contractor constructed the Dulles Greenway Capital Improvement Program. This $71 million design-build program included two new interchanges at Route 653 and Route 654 (Battlefield Parkway), widening of the mainline roadway from four to six lanes for a distance of 6.2 miles, expansion of the mainline toll plaza from ten to eighteen lanes, four new ramp toll plazas, widening of the 660’ bridges over Goose Creek, a new ramp from the main toll plaza directly into Dulles Airport, and modifications to the existing Route 606 Interchange to add the ultimate ramp network and complete the cross-road widening. Following the start of construction, the Owner decided to add the design and construction of the ultimate improvements to the Route 772 Interchange to the contract, which was completed within the original contract timeline. Dewberry provided all roadway and interchange design, bridge design, stormwater management, aerial mapping, surveying, geotechnical investigations, floodplain studies, scour analysis, environmental investigations permitting, maintenance-of-traffic design, and utility relocation design. In addition to design and permitting, Dewberry also contracted separately with TRIP II to provide all QA and QC Testing and Inspection Services for the project.

The 6.2-mile mainline widening of the Dulles Greenway from four to six lanes part of the Capital Improvements is exactly similar in scope to this I-64 Widening project including the widening of several bridges over waterways.

While the layout for each improvement was anticipated in the 1980’s and 1990’s as part of the original project layouts, several improvements were modified based on adjacent development and to work with ongoing site plans, as well as the need to avoid all right-of-way acquisition. This design process required close coordination with VDOT, Loudoun County, the Town of Leesburg, MWAA, the US Army Corps of Engineers, the Department of Environmental Quality, as well as other permitting agencies. A major criteria to this Design-Build Project was the maintenance-of-traffic of over 75,000 vehicles per day on the existing Greenway, and the need to avoid traffic impacts so as to not reduce ridership and therefore revenue for the Owner. Shirley and Dewberry worked together with the Owner to create a Transportation Management Plan that minimized traffic disruptions during construction. Because of this planning there was no loss of capacity during construction.

In order to assure minimal disruption to traffic, our design-build team developed a maintenance-of-traffic (MOT) plan for the mainline Greenway widening that maintained the full travel lane widths and provided a full lane outside shoulder during construction. Temporary improvements with additional asphalt depths (milling and overlay) was required in order to shift traffic out onto the outside shoulders, similar to what our design had done in the past for VDOT on such projects as the I-66 Widening in Prince William County. Many of the lessons learned and processes of coordination expected between Shirley, Dewberry and VDOT, that were utilized on the Greenway to advance the design and construction activities, will be used on the I-64 Widening Design-Build Project. Identification of critical path activities and priorities were completed in coordination with the owner (TRIP II) as well as VDOT, which was involved in reviews and approvals. Multiple plan packages were developed as noted above, structural steel packages were completed in advance (to assure this long lead item was delivered to the site on time), environmental permitting was advanced (with early design support identified and completed to support this effort), and emphasis given to completing the mainline Greenway widening in a fashion to minimize disruption to the traveling public.

The Team also coordinated with the Greenway owner, the Town of Leesburg, and the adjacent developer to incorporate auxiliary lanes and intersection improvements to assure there would be no reconstruction efforts needed by the Greenway, the developer, the Town or VDOT. The coordination with the many intersecting roadways and working through issues with adjacent developers, utility owners and Loudoun County, was something our Team did as part of the Greenway project and that we are prepared to do on the I-64 Widening Design-Build Project.
**Lead Designer - Work History Form**

<table>
<thead>
<tr>
<th>Name: I-66 Improvements Manassas to Gainesville Phase III</th>
<th>Location: Manassas, Virginia (East of Exit / Mile Marker 47)</th>
<th>Gainesville, Virginia (West of Exit / Mile Marker 43)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name:</strong> Dewberry</td>
<td><strong>Name:</strong> VDOT Northern Virginia District Office</td>
<td><strong>Name:</strong> Shirley Contracting Co.</td>
</tr>
<tr>
<td><strong>Location:</strong> Manassas, Virginia (East of Exit / Mile Marker 47)</td>
<td><strong>Project Manager:</strong> Amir Salashbhoor, PE</td>
<td><strong>Project Manager:</strong> David Shirley, PE</td>
</tr>
<tr>
<td><strong>Phone:</strong> (703) 259-1957</td>
<td><strong>Email:</strong> <a href="mailto:A.Salashbhoor@VDOT.Virginia.gov">A.Salashbhoor@VDOT.Virginia.gov</a></td>
<td><strong>Email:</strong> <a href="mailto:D.Shiirley@ShirleyContracting.com">D.Shiirley@ShirleyContracting.com</a></td>
</tr>
<tr>
<td><strong>Phase I- General Excavation</strong></td>
<td><strong>Phase I, II &amp; III - General Excavation</strong></td>
<td><strong>Phase IV - General Excavation</strong></td>
</tr>
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<td><strong>Phase II - Moore Brothers</strong></td>
<td><strong>Phase III - Shirley Contracting Co.</strong></td>
<td><strong>Phase V - Shirley Contracting Co.</strong></td>
</tr>
<tr>
<td><strong>Phase IV - General Excavation</strong></td>
<td><strong>Phase V - Shirley Contracting Co.</strong></td>
<td><strong>Phase VI - Washt proprietary</strong></td>
</tr>
</tbody>
</table>

**Construction Contract Completion Date (Actual or Estimated):**

- **Phase I:** 2004
- **Phase II:** 2006
- **Phase III:** August 2010
- **Phase IV:** October 2011
- **Phase V:** June 30, 2015

**Value (in thousands):**

- **Construction Contract Value (Original):** $220,000
- **Construction Contract Value (Actual or Estimated):** $230,000 (Differences due to owner approved option in original contract)

**Design Fee for the Work Performed by the Firm identified as the Lead Designer for this Procurement (in thousands):** $10,008

**Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement, including the location of the project where the work was performed and whether the firm was the prime designer or a subconsultant:**

In 1997, Dewberry entered into contract with the Virginia Department of Transportation to design the widening of I-66 between Manassas (Exit 47, Route 234 Business) and Gainesville, VA (Exit 43, Route 29). The project widened the existing four-lane section to an eight-lane section, as well as ramp modifications to the Route 234 Business Interchange, ramp modifications to the Route 234 Bypass Interchange, and a complete reconstruction of the Route 29 Interchange in Gainesville. As part of the original contract, preliminary engineering and traffic studies were also completed to identify improvements to Route 29 which would also improve the flow of traffic along I-66. As part of those studies, Dewberry and their subconsultants completed traffic counts, projections, and analysis – all of which indicated the need for a new interchange at the existing intersection of Route 29 and Linton Hall ROAD, as well as grade separations of two at-grade railroad crossings along Route 29 and Gallerher Road. Additionally, to help the flow of traffic in the area, a new overpass of I-66 and Norfolk Southern Railroad was identified as a needed roadway network improvement. Dewberry completed an interchange justification report (IJR) for the new I-66/Route 29/Linton Hall Interchange, and final engineering services for both the University Boulevard and I-66/Route 29/Linton Hall Interchange were added to the contract. Dewberry served as the engineer of record for each of the roadway improvement projects. Services provided by Dewberry included: Completion of field surveys including aerial mapping, right-of-way and property boundary surveys, existing drainage surveys, utility designations and test pits, and project control, traffic management system (TMS) design, lighting and electrical design, signing and pavement marking design, traffic signal design, transportation management plan (TMP) design, public meeting/hearing preparation and attendance, roadway design, including horizontal and vertical geometry, environmental permit drawings, drainage design, including major hydraulic and hydrologic (H&HA) analysis, and structural design, including 9 new bridges, 1 bridge widening, and several retaining walls.

Due to funding constraints, the design contract was separated into five construction contracts: Phase I – I-66 Widening from Exit 47 (Route 234 Business) to Exit 44 (Route 234 Bypass), Phase II – University Boulevard over I-66; Phase III – I-66 Widening from Exit 44 (Route 234 Bypass) to Exit 43 (Route 29) and complete reconstruction of the I-66/Route 29 Interchange; Phase IV – Advance Detour and Access Road Construction for the I-66/Route 29/Linton Hall Interchange and Railroad Grade Separation; and Phase V – I-66/Route 29/Linton Hall Interchange and Railroad Grade Separation. The total overall construction contract value for these five projects is approximately $215 million. The design of each of the five phases is complete, and more than $140 million of the construction activities are complete, with only Phase V construction still ongoing.

Dewberry’s design contract included design of multiple complex elements. The Phase V improvements included two new bridge structures over Norfolk Southern Railroad. Both bridges were designed to accommodate future expansion of the railroad from one existing track to four future tracks. This accommodation of future expansion required significant closeout on both bridges. On the Phase III contract, a significant retaining wall was added along an interchange ramp, and the geometry of two interchange ramps were adjusted to avoid impacts to Norfolk Southern Railroad. The widening of I-66 was designed to avoid impacts to the Manassas National Battlefield, as well as to an existing cemetery between I-66 and Norfolk Southern Railroad, and sequence of construction plans were developed to maintain flow of more than 100,000 vehicles through the project site on a daily basis.

The Phase V improvements included designs of 10 significant retaining walls. The Phase V project required construction of a new detour facility, including two temporary at-grade railroad crossings of Norfolk Southern, to accommodate construction of the grade separations and interchange. Detailed plans, profiles, typical sections, signing and pavement marking plans, and temporary signal plans were developed for the temporary roadway, and the design was coordinated with Norfolk Southern to accommodate and properly function with the two temporary at-grade railroad crossings.

Other challenging elements of the Phase V project were the required right-of-way acquisition and utility relocations. Overall, 16 properties were completely acquired and required relocations, and another 56 properties were impacted and required partial fee acquisition or easement acquisitions. Dewberry also worked with VDOT and approximately 10 utility owners, including power, water, sewer, electric, gas, telephone, and cable TV, to develop utility corridors and easements that facilitated relocation of utilities around the interchange area. Right-of-way acquisition plans were separated into three phases so that “total take” acquisitions were advanced to allow for early acquisition, and so “partial take” properties could be acquired in a sequence to allow for phased relocation of utilities. This phased approach helped to accelerate the project by almost three years from the original advertisement date. Based on the accelerated schedule, Dewberry also worked with VDOT to develop the Phase IV plans, allowing for advance construction of the access roads and portions of the detour roads before utility relocations were complete.

These five construction projects completed under one design contract with VDOT provided detailed experience for the Dewberry staff in working on an interstate corridor with heavy traffic volumes where multiple construction sequences were required for successful completion of each of the projects.