

A Design-Build Project I-81 BRIDGE REPLACEMENT AT EXIT 114 Montgomery County / Town of Christiansburg, Virginia

From: 0.381 Mi. South of Christiansburg SCL
To: 0.510 Mi. North of Christiansburg SCL

State Project Nos.: 0081-154-733, P101, R201, C501, B601, B616

Federal Project No.: IM-081-2(992)

Contract ID Number: C00093074DB96



Submitted to:



Submitted by:



BLYTHE DEVELOPMENT CO.

In association with:





3.2 Letter of Submittal



BLYTHE DEVELOPMENT CO.

1415 EAST WESTINGHOUSE BOULEVARD • CHARLOTTE, NORTH CAROLINA 28273 • TEL (704) 588-0023 • FAX (704) 588-9935

September 6, 2017

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

RE: Statement of Qualifications, I-81 Bridge Replacement at Exit 114, RFQ No: C00093074DB96

Dear Mr. Kindy:

Blythe Development Company (Blythe) is pleased to submit one original paper version of our Statement of Qualifications (SOQ), ten abbreviated copies of the original paper version, and one CD-ROM containing the entire original in a single PDF file to provide design-build services for the **I-81 Bridge Replacement at Exit 114, RFQ No.: C00093074DB96** project. Blythe has thoroughly reviewed the Request for Qualifications (RFQ).

The following is request information and/or attachments separated by numbered tabs with sections corresponding to the order set forth in Section 3.2

Acknowledgement of Receipt of RFQ, Revisions, and /or Addenda (Form C-78-RFQ) and SOQ Checklist

- Completed and included as Attachments 2.10 and 3.1.2 in the appendix.

3.2.1 Blythe Development Company (Blythe), 1415 E. Westinghouse Boulevard, Charlotte, NC 28273, is the legal entity who will execute the contract with VDOT. We have examined the RFQ, attended the Project Information Meeting and visited the project site. Blythe appoints the following:

3.2.2 **Travis Padgett, P.E., Design-Build Project Manager**, will serve as the **Point of Contact** for the Offeror:
1415 E. Westinghouse Boulevard, Charlotte, NC 28273 / P: (704) 588-0023/ F: (704) 588-9935
tpadgett@blythedevelopment.com

3.2.3 **Luke Blythe, Vice President of Operations**, will serve as the **Principal Officer** for the Offeror.
1415 E. Westinghouse Boulevard, Charlotte, NC 28273 / P: (704) 588-0023/ F: (704) 588-9935
lblythe@blythedevelopment.com

3.2.4 Blythe is a North Carolina corporation, authorized to conduct business in Virginia by the SCC, and will be the sole major participant firm and responsible party to the design-build contract with VDOT. Blythe will hold all financial responsibility for the contract.

3.2.5 **Lead Contractor:** Blythe Development Company (Blythe) / **Lead Designer:** Rummel, Klepper & Kahl, LLP (RK&K)

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

3.2.7 Certification Regarding Debarment Forms (Attachment 3.2.7(a) and 3.2.7(b)) have been signed and are included in the Appendix.

3.2.8 VDOT Prequalification Certificate (#B1096, Active) evidence is included in the Appendix

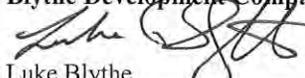
3.2.9 A Surety Letter is included in the Appendix

3.2.10 SCC and DPOR information are listed in Attachment 3.2.10 with supporting documentation in the Appendix

3.2.11 Blythe is committed to achieving an 8% DBE participation goal for the entire value of the contract,

Our Team (Blythe and RK&K) is enthusiastic about the opportunity to participate in the design-build process for the I-81 Bridge Replacement at Exit 114, RFQ No.: C00093074DB96 project and is confident we will complete this project on time and within budget. Collectively, Blythe and RK&K bring the leadership, skills and shared core values to assist VDOT in delivering a project that sets the standards for others to follow.

Sincerely,
Blythe Development Company


Luke Blythe
Vice President of Operations



3.3 Offeror's Team Structure

3.3 TEAM STRUCTURE

With a track record of successfully delivering over \$250 million in design-build roadway and bridge projects, **Blythe Development Company (Blythe)** comes to VDOT with a familiar design partner and the hands-on experience and top notch personnel it takes to effectively execute the design and construction, as well as to manage the risks of the Design-Build I-81 Bridge Replacement at Exit 114. During our design-build history, Blythe has exceeded owners' expectations in the on-time, on-budget delivery of high-quality projects, while meeting some of the most strenuous maintenance of traffic and environmental commitments.

Blythe has built a solid reputation of strategically aligning with the design-build partners most suited to meet the specific needs and requirements of the project at hand. For this project, we have selected **Rummel, Klepper & Kahl, LLP (RK&K)** as our lead design firm, along with the added depth of highly qualified sub-consultants. Together these firms make up the Blythe Design-Build (DB) Team.

Blythe has successfully worked with RK&K on the Macy Grove Road Improvement DB project in Kernersville, NC; the I-73/PTI Project in Greensboro, NC; the Grier Road Grade Separation & Bridge project in the City of Charlotte and Mecklenburg County, NC; and the I-40 Widening and Bridge Replacement DB project over the Yadkin River located in Davie and Forsyth Counties, NC. Therefore, the two firms understand and know how to work with each other's strengths and abilities.

Established working relationships are vital to the success of any DB project. Since the individuals on our Team have a rapport and knowledge of each other's abilities, skills, and working style, the framework for the project implementation is strengthened. The I-81 Bridge Replacement at Exit 114 design and construction phases will not be a "training ground" for the Blythe DB Team, but instead will be one additional example of our Team's success.

Additional Subconsultants

Additionally, under subcontract to Blythe and RK&K are the following highly qualified subconsultants:

- 3B Consulting Services, LLC (QAM)
- Schnabel Engineering (Geotechnical & AMRL Certified QC Lab)
- H&B Survey and Mapping (Survey)
- KDR Real Estate Services (ROW)

3.3.1 KEY PERSONNEL

The Blythe DB Team is comprised of highly-qualified and experienced individuals and we've structured them accordingly for optimal performance on this project. Our key personnel all have a shared history on successful projects and have established working relationships. The chart below introduces our Key Personnel (resumes in Appendix - Attachment 3.3.1):

Name	Position	Company
Travis Padgett, PE	Design Build Project Manager	Blythe Development Co.
Preston Breeding, PE, CCM	Quality Assurance Manager	3B Consulting Services (3BCS)
James Long, PE, DBIA	Design Manager	RK&K
Maureen "Mo" Stough	Construction Manager	Blythe Development Co.

3.3.2 ORGANIZATIONAL CHART

The Blythe DB Team organizational chart illustrates our "chain of command" and identifies key personnel team members. Solid lines identify the reporting relationships of our team members in managing, designing and constructing the project, and illustrate clear reporting lines from the DBPM to the design and construction team. Dashed lines represent indirect reporting and obligations to the owner. The chart also shows that a clear separation exists between QA and Construction QC inspection and field/laboratory testing.



Reporting Relationships of Key Personnel

A **DB** icon has been placed next to the names of our team members with design-build experience.

DB **D-B Project Manager (DBPM), Travis Padgett, PE (Blythe)** will report to VDOT and serve as VDOT's central point of contact. Mr. Padgett will be the primary point of contact for VDOT for the overall project design and construction and will facilitate communication, integration and direction of the entire DB Team, including design, construction, quality assurance, MOT, safety, utilities and environmental permitting/protection. He will

be responsible for the execution of the work under the contract including corresponding with third parties and project stakeholders, coordinating design activities, oversight of construction quality, and managing the project risks and schedule to ensure timely completion. He will work with the DB Team to ensure that the design complies with the owner's specifications and meets contract obligations. He will also coordinate any public outreach efforts. Mr. Padgett served key roles (Quality Manager and Assistant DBPM) as part of the management team overseeing the successful completion of the NCDOT I-73 / PTI Guilford County, NC DB project and is serving in the same role on the NCDOT DB I-40 Widening, Davie & Forsyth Counties, NC. Working shoulder to shoulder with our CM, Mo Stough. Mr. Padgett and Ms. Stough's combined 49 years of experience bring to this project the required working relationship and leadership to successfully manage this project, identify and mitigate risks before they become schedule critical.

DB Quality Assurance Manager (QAM), Preston Breeding, PE, CCM (3BCS) will report directly to the DBPM and be responsible for establishing and overseeing the Quality Assurance Program and leading the Quality Assurance Team ensuring all work, materials, testing, and sampling conform to the contract requirements and the "approved for construction" plans and specifications. Mr. Breeding will have direct, independent access to VDOT and keep VDOT informed of the project status and quality of construction and any issues. He will have the authority to stop construction, enforce compliance with all specifications, and issue/require resolution of all Non-Conformance Reports (NCRs). The QAM Team will conduct independent and concurrent tests and analysis of the work with the construction Quality Control Team. Mr. Breeding will maintain project quality records and approve and submit pay estimates. In addition, he will submit monthly written reports to the VDOT project manager and the Executive Committee. He has a solid background in coordinating activities with internal and external parties, as well as interacting with citizens regarding projects, perceived impacts, and benefits. Mr. Breeding has extensive experience with oversight of VDOT funded construction projects administered through both the design-build and design-bid-build delivery methods. Mr. Breeding manages 3BCS's design-build program where he has served as both a QAM and DB for multiple VDOT design-build projects. His DB experience includes Route 460 Connector Phase I DB, Route 460 Connector Phase II DB, US Route 121/460 Poplar Creek Section Phase A DB, US Route 121/460 Intersection DB, and the Region 2, project 2 Multiple Culvert Rehabilitation DB.

DB Design Manager (DM), James Long, PE, DBIA (RK&K) will report directly to the DBPM and will be responsible for leading and coordinating the individual design disciplines including the coordination of bridge and roadway designs, drainage, utilities, right-of-way, maintenance of traffic and environmental permitting and compliance which will report directly to him. He will maintain close communication with the DBPM and will ensure the overall project design is completed in accordance with the contract documents. He will provide VDOT with design plans for review and approval. Mr. Long will establish and oversee the Quality Assurance/Quality Control (QA/QC) Program for design, including design review, VDOT review coordination, specifications and constructability. He has 24 years of experience designing and managing transportation projects on interchange, interstate and other facilities in Virginia requiring extensive, coordinated maintenance of traffic with construction phasing and transportation management plans. This experience will be instrumental in the design and construction sequencing needed on the I-81 Bridge Replacement at Exit 114 project.

DB Construction Manager (CM), Maureen "Mo" Stough (Blythe), will report directly to the DBPM and will be on-site full-time for the duration of the project and have the overall responsibility of the daily operations. She will manage the construction schedule and process including all QC activities to ensure the materials used and work performed meet contract requirements and the construction plans and specifications. She will also review all construction QC reports and lab results. Ms. Stough will play a key role in conjunction with the Design/Construction Coordinator in constructability reviews for all aspects of the design and work with him to oversee the coordination between the design and construction forces regarding utilities and MOT. She will also coordinate with the DM during construction for the proper and timely issuance and review of any RFI's and shop drawings, as well as preparation of as-builts and plan revisions. Ms. Stough has 20 years of experience in construction management on comparable roadway and bridge construction projects. Ms. Stough has completed her DEQ Responsible Land Disturber (RLD) Certification and will attend the next available VDOT Erosion and Sediment Control Contractor Certifications Class and obtain this certification prior to the commencement of project construction. Ms. Stough has been involved in many projects that have complex construction phasing and traffic management including the I-77 Hot Lanes Project for the NCDOT in Mecklenburg County, NC.

Additional Design and Construction Support

The Blythe DB Team also includes the following highly skilled team professionals that have been selected because of their proven competencies in engineering, construction and design-build. Each member was hand-selected based on their experience relative to this project's scope and complexities, as well as their familiarity working together as a team.

DB Lead Structural Engineer/Deputy DM, Chris Vaught, PE, DBIA (RK&K), will report directly to the DM. Mr. Vaught will be involved in all aspects of bridge design for this project. He has eight years of progressive bridge design experience with new and rehabilitated structures. His extensive project management experience, formal training and hands-on participation in inspection, design and construction engineering assignments afford him in-depth knowledge of project requirements. Additionally, his experience with DB projects has developed his full understanding of the implementation of bridge plans and projects through construction. Mr. Vaught's relevant experience includes his role as the Structural Engineer on the Rio Road element of the Route 29 Solutions DB project.

DB Roadway Design Engineer, James Durbin, PE, LEED AP (RK&K), will report directly to the DM. Mr. Durbin brings more than 27 years of experience designing and managing complex bridge and roadway projects. Working on those projects has given him an extensive working knowledge of VDOT's policies and procedures; as well as the experience to lead design teams and manage a project's development. He performed similar services on the I-64 Widening and Route 623 Interchange Improvements DB and Route 29 Solutions. He was also the Senior Roadway Engineer for the I-81 Exit 105 and I-81, Exit 14 Interchange Modifications projects which have similar design elements to the I-81 Exit 114 Bridge Replacement project.

DB Maintenance of Traffic, Howard Humphreys, PE (RK&K), will report directly to the DM and lead the Maintenance of Traffic design. Mr. Humphreys has 30 years of experience in the design of roadway projects as lead roadway engineer and lead developer of MOT concepts. He will ensure that all MOT designs allow for the safe travel of vehicles through the construction zone as well as safe work zones and ingress / egress of construction equipment and vehicles in accordance with the VWAPM and the MUTCD. Most recently Mr. Humphreys lead the MOT design for the very complex phasing of the reconstruction of I-81 Exit 105 including the reconstruction of the bridges over the New River.

DB Right of Way, Al Dorin, MAI, SRA, RW-NAC (KDR), will report directly to the DM and will facilitate timely and yet sensitive ROW acquisition services while maintaining the VDOT reputation as a fair and responsive adjoining property owner. He will perform all right of way activities including appraisal, negotiations, settlement and title services in a timely manner. Mr. Dorin has 36 years of experience and has managed numerous ROW and acquisition projects including conducting negotiations with property owners.

DB Drainage/Hydraulics Design Engineer, Michael Hogan, PE (RK&K), will report directly to the DM. Mr. Hogan has more than 19 years of advanced technical roadway and drainage training and experience on both rural and urban design projects. His project experience includes the design project management of drainage designs, hydrologic studies, hydraulic bridge studies, and bridge scour analysis for many of VDOT's largest projects including projects on new location, reconstruction and interstate widening, and major drainage improvement projects. Mr. Hogan served as the Lead Drainage Engineer on the I-64 Widening and Route 623 Interchange Improvements DB project as well as on multiple projects assigned under RK&K's statewide VDOT On-Call Drainage and River Mechanics contract.

DB Geotechnical Engineer, Ed Drahos, PE (Schnabel), will report directly to the DM. Mr. Drahos will oversee all aspects of geotechnical engineering and evaluation for the project. With 40 years of experience, he has served as the lead geotechnical engineer for multiple VDOT projects in the region with varying project delivery systems, and many with RK&K. He also has considerable experience in VDOT DB projects throughout the Commonwealth and was the Geotechnical Engineer of Record on the Route 1 Widening, the Military Highway DB, and the Route 29 Solutions DB project.

DB Landscape Architect, David Mitchell, LA, LEED AP (RK&K), will report directly to the DM. Mr. Mitchell has 22 years of experience as a site designer specializing in site grading, planting plans, conceptual site planning and preparation of construction documents. His experience includes all aspects of site design and environmental design, as well as all facets of landscape architectural services. His ability to integrate elements with minimal disturbance and financial impact has gained the respect from clients and consultants.

DB Wetland Delineation & Environmental Permitting Coordinator, Ricky Woody, II, PWS, (RK&K) will report directly to the DM. Mr. Woody has 28 years of experience providing project management and preparation of various NEPA documents, securing wetlands and water quality permits and promoting compliance with environmental clearances for both large and small transportation projects. He has a strong foundation in environmental resource studies which is required for successful document/permit approvals. Mr. Woody has experience in performing project reviews and providing corrective action recommendations to remain compliant with project specific environmental commitments. He has been involved in numerous VDOT projects providing environmental engineering and services and has managed all environmental aspects of several major and minor infrastructure projects, including the I-64 Widening and Route 623 Interchange Improvements DB project, Route 29 Solutions DB project, King Street Improvements DB project, Woodrow Wilson Bridge, Manassas Bypass, and Fairfax County Parkway.

DB Signing & Striping Engineer, Stuart Samberg, PE, PTOE (RK&K), will report directly to the DM. Mr. Samberg has 12 years of experience specializing in the design of traffic control devices for VDOT, and local counties and municipalities. He is a skilled traffic engineer with strong credentials in design, analysis and modeling and knowledge of MUTCD, FHWA, AASHTO, and ITE best practices. Mr. Samberg's expertise encompasses traffic signal design, signing and marking plans, lighting analysis and design. He has performed similar services on previous VDOT design-build projects, the I-64 Widening and Route 623 Interchange Improvements DB project, the Route 29 Solutions DB project, and with similar roles on multiple DB projects in North Carolina and Maryland.

DB Surveying/Plats, Les Byrnside, LS (H&B), will report directly to the DM. Mr. Byrnside offers more than 30 years of survey experience that includes all aspects of surveying. This experience has included miles of design surveys, bridge situation surveys and aerial mapping control surveys. His knowledge of right-of-way surveys is supplemented by extensive boundary surveying experience outside of VDOT assignments. He offers complete mastery of VDOT rules and methodology and his ability to manage teams.

DB Erosion and Sediment Control Engineer, Alice Ortman, PE (RK&K), will report to the DM and CM. Ms. Ortman has 14 years of experience in stormwater, erosion and sediment control design and other water resources engineering services for transportation projects. Ms. Ortman served eight years at VDOT as an Associate Hydraulic and River Mechanic Engineer. Her experience includes the design of roadway drainage systems, stormwater management design, storm water pollution and prevention plans, and erosion and sediment control plans for both rural and urban projects, as well as Hydrologic and Hydraulic Analyses (H&HA's) and scour computations. Computer skills include Microstation, GEOPAK Drainage and Road, HEC-RAS, HY-8, Ensoft Hydro Suite, Visual Urban, TerrainPro, and other hydraulics programs used by VDOT. Ms. Ortman was the Hydraulic Engineer for the VDOT I-64 Widening and Route 623 Interchange Improvements DB Project.

DB Utility Coordinator, Jeffrey Kapinos, PE (RK&K), will report to the DM and CM and will coordinate directly with the design and construction utility leads. Mr. Kapinos will be responsible for coordination and construction of all utility relocations during the design and construction and remain committed to the project until completion. He will verify conflicts; work to mitigate conflicts; determine cost responsibilities; conduct utility field inspections; review and coordinate utility relocation designs; review and recommend approval of utility relocation plans; verify and modify designs if necessary based on field conditions and construction activities; and ensure continuity of service. Mr. Kapinos was the Lead Utility Engineer on the VDOT I-64 Widening and Route 623 Interchange Improvements DB Project, the City of Fairfax drainage and utility relocation project in the Old Town District, and the utility projects along State Route 3 in King George County.

DB Lead Traffic Engineer/ITS/Lighting, Jeff Kuttesch, PE, PTOE (RK&K), will report to the DM and CM. Mr. Kuttesch is experienced in all facets of traffic engineering from planning and analysis to design for roadways, highways, transit facilities, and bicycle and pedestrian access improvements. Mr. Kuttesch served two years as VDOT's Area Traffic Engineer for the Richmond District where he oversaw the traffic engineering reviews for federally and state funded projects. Mr. Kuttesch has been involved in traffic engineering projects for various state and local transportation agencies, including VDOT and provides traffic analysis and design services throughout the Commonwealth. His experience includes traffic studies, signal design, signal timing optimization, corridor studies, traffic signing and marking plans, maintenance of traffic plans, roadway lighting, and intersection geometric improvements. He performs necessary analysis using Synchro, Highway Capacity Software, VISSIM and Sidra. Mr. Kuttesch was the project engineer responsible for the development of the IMR for modifications for the I-81 New River Bridge and Exit 105 Improvements and the I-81 Exit 14 Improvements.

DB Design QA/QC Manager, Owen Peery, PE (RK&K), will report directly to the DM. Mr. Peery will arrange for design quality assurance and design quality control procedures in accordance with the quality control plan. He will verify that checks and reviews have been made prior to submissions, including review comment checking, contract conformance reviews, interdisciplinary reviews, and constructability reviews. With over 34 years of experience, Mr. Peery will serve as a DB resource to the team. Mr. Peery leads RK&K's transportation efforts throughout Virginia focusing on the layout and design of urban and rural interstates, roadways, interchanges, and intersections. He has managed approximately 150 VDOT project assignments and multiple VDOT DB pursuits. Mr. Peery provides the hands-on efforts needed to ensure adequate resources are assigned, accelerated schedules are maintained, and the team is responsive to clients. Mr. Peery served as the DM on the I-64 Widening and Route 623 Interchange Improvements DB project and the Route 29 Solutions DB project. In addition to being the DM on those projects, Mr. Peery also served as Design Quality Manager for each of these projects.

DB Public Outreach Manager, Leo Rutledge, VSLD (RK&K), will lead all public involvement efforts on the project reporting to the DBPM. He will have an open line of communication to stakeholders, third party representatives, and VDOT where he will initiate and facilitate public hearings and communication necessary to

announce lane closures and timing of other construction milestones. Mr. Rutledge is experienced in all areas of creative services, public affairs, community outreach, marketing, advertising, strategic planning and communications plans. Before joining RK&K in 2011, Mr. Rutledge was VDOT's Urban Project/Program Manager overseeing and participating in every aspect of project design, starting with programming the project to be included in VDOT's six-year improvement program, scoping meetings, field reviews and inspections, developing brochures and comment sheets for Citizen Information Meetings/Public Hearings and working with involved divisions and district staffs to move a project forward on time and on budget. Through these avenues, he developed a thorough understanding of the policies and procedures relating to public involvement. The last VDOT areas that he managed were the Culpeper and Salem Districts.

DB Construction QC Manager (CQC Manager), Calvin Myers (RK&K), will report to the CM. Mr. Myers has 26 years of experience with the oversight and construction of highways, secondary and primary roads, and bridges on major interstates. His expertise pertinent to this project includes supervision of inspectors; quality control and assurance; and coordination with FHWA, VDOT, and state officials. Mr. Myers will arrange for all quality assurance and quality control procedures in accordance with the quality control plan. He will provide contract conformance reviews, interdisciplinary reviews, and constructability reviews by the Blythe DB Team. He will also coordinate the third-party QC testing lab and testing technicians.

DB Design/Construction Coordinator (DCC), Richard Kirkman, PE, (Blythe) will report directly to the DBPM. Mr. Kirkman offers 24 years of experience working in heavy-highway construction, specializing in bridge and roadway construction projects. He has led all of Blythe's DB bridge projects, including the NCDOT Macy Grove DB and road construction project in Kernersville, NC. Serving as a resource to the DBPM, his role will be coordinating between the engineering and construction teams, to ensure that all VDOT's expectations and requirements are met. He will review all design submittals for conformance to project requirements, constructability and specific project scheduling needs.

DB Safety Manager, Bruce Poling (Blythe), will report directly to the CM providing regular oversight of plans and field activities to deliver a safe environment for VDOT, construction workers and the traveling public. Mr. Poling has more than 20 years of experience and will provide all needed safety training for the project and aid in developing a job-specific safety plan to address unique project hazards that will enhance our standard Blythe policies, including subcontractor protocols. He has the authority to stop work which does not meet Blythe's strict safety requirements.

DB Grading Superintendent/Environmental Manager/Utility Manager/MOT Manager, Mike Parker (Blythe), will report directly to the CM. Mr. Parker will supervise all roadway construction for the project. His role will extend to managing the environmental controls as well as overseeing all MOT operations. Any utility construction and relocation will be coordinated by Mr. Parker. His 30 years of heavy highway experience and recent involvement in NCDOT design-build projects brings the oversight and knowledge to the project that will be needed for success.

DB Bridge Superintendent, Marvin Leatherwood (Blythe), will report directly to the CM. Mr. Leatherwood will manage all aspects of bridge construction. He will give oversight to our in-house bridge crews and manage all subcontractor work. His experience with bridge replacement projects and 29 years of construction experience will ensure that the project will be built at the highest quality and will be delivered on time.

Functional Relationships

Design-Build unites the contractor and designer more than just contractually. It integrates innovative design and construction techniques that benefit schedule and cost, which ultimately lead to client satisfaction. Our Design/Construction Coordinator, **Richard Kirkman, PE**, will ensure the required interface between Blythe's management/field crews and the designers occurs in a timely manner with the concerns of each openly discussed. Having a dedicated Design/Construction Coordinator work on the project during the early design stages eliminates subsequent delays or rework, streamlines reviews, and eliminates potential construction field issues. Additional ways in which our team will be fully integrated include:

- Blythe constructability reviews of design, especially for MOT, highway and bridge plans
- Weekly schedule meetings to review the previous week's work and develop the two week look ahead, and monthly scheduling meetings to review CPM progress during design development and construction
- Weekly foreman meetings to discuss the schedule and coordination
- Morning huddles with the crews to set the safety and production goals for the day
- Weekly progress meetings with the owner to review and discuss quality, submittals, and progress payments once construction begins

- Monthly partnering meetings with all stakeholders for issue resolution
- Inter-disciplinary design reviews prior to milestones to ensure design disciplines are coordinated

Keys to Success

Proper communication and coordination between the many parties involved in this project are the keys to success. This cooperation will be based upon open and honest communication plus frequent meeting and updates. The Blythe DB Team will have internal weekly meetings during the design phases with key construction and design staff present. Tracking sheets will be developed to monitor progress of utilities, and various design disciplines efforts, as well as environmental and design approvals. Once construction starts, the design participants will be reduced to the DM, DCC, Design QA/QC Manager, and key design discipline leaders. Added to the weekly meetings as the construction begins will be the superintendents, field surveyors, MOT Manager and Construction QC Manager. Key stakeholder representatives including utility companies, EMS responders, etc. will be invited to these weekly meetings. Monthly meetings will also be held with the Blythe DB Team, as well as VDOT, QAM, stakeholders and others required to enhance the partnering effort and resolve any pertinent issues.

Quality Assurance efforts will be coordinated with, but independent of the day to day QC and construction efforts. The QAM, **Preston Breeding, PE, CCM (3BCS)**, will be given timely notice of all construction activities so his QA staff can be onsite at the appropriate and required times to document compliance. Mr. Breeding will have access to all meetings and records he feels are required to provide independent assurance that the construction complies with all contractual and design requirements. He will report directly to the DBPM and provide VDOT and the project's Executive Committee with the reports and assurances required. Mr. Breeding will have unrestricted access to the construction and fabricator sites/facilities. The DBPM and his staff will work with the QAM and/ or his designee to deliver a high quality project.

From a design perspective, this major bridge project along a highly-congested corridor will require close coordination between the following disciplines:

- Structural Team, led by Chris Vaught, PE, DBIA (RK&K)
- Roadway Team, led by James Durbin, PE, LEED AP (RK&K)
- Drainage/Hydraulics Team, led by Mike Hogan, PE (RK&K)
- Geotechnical Team, led by Ed Drahos, PE (Schnabel)
- Maintenance of Traffic, led by Howard Humphreys, PE (RK&K)

Building on their previous experience working together on similar projects, including Virginia design-build projects with interstate bridge replacements, this design team, under the leadership of **James Long, PE, DBIA** will work closely with the construction team to arrive at the best solution for this project. This previous experience working together is critical to ensure that a cost-effective and efficient design is achieved and delivered.

Executive Committee

The Executive Committee consists of owners of the DB Team firms and will serve as a guiding group and resource to the Blythe DB Team. They will ensure that all team partners, including VDOT, are on the same page and that proper and sufficient resources are allocated to the project. The Executive Committee will meet monthly to discuss the overall progress and performance of the team.

Public Relations/Public Involvement

Leo Rutledge, VSLD will lead all public involvement efforts. Mr. Rutledge has extensive experience in public process and public information meetings associated with various transportation projects. His work will include research, marketing strategy, digital/social media design and development, broadcast/outdoor/print design and development, media planning and buying, public affairs outreach and community coalition building. Mr. Rutledge has successfully worked on many VDOT projects, he organized and participated in community meetings and public hearings. He facilitated the public meetings associated with the Route 250 Bypass at McIntire Road in Charlottesville that required extensive public outreach, graphics, and meeting with stakeholders, City Council and other parties. His experience preparing public information and developing outreach strategies for numerous projects will be instrumental during the evaluation, design and construction phases.

Commitment to Keep Team Intact

The Blythe DB Team understands the importance of keeping the proposed team intact throughout the life of the project. With this understanding, we have selected specific personnel with current assignments that will allow them to serve on this project in the capacity needed. It is our intention that the individuals identified in this Statement of Qualifications, both Key Individuals and non-Key Individuals, will serve on this project through completion of construction.



3.4 Experience of Offeror's Team

3.4 TEAM EXPERIENCE

Blythe and RK&K's successful delivery of DB projects will enhance the team's ability to identify, openly discuss and solve issues as they arise on the project. Also, the additional Blythe DB Team members listed below have a solid history of working with Blythe and RK&K, as well as strong DB experience. The Blythe DB Team members include:



Blythe Development Company will serve as the Lead Design-Build Contractor. Blythe was founded in 1989 and is headquartered in Charlotte, NC as a licensed general contractor specializing in heavy highway and site work construction in Virginia, North Carolina, and South Carolina. Blythe performs nearly \$275 million in civil improvement projects per year and is currently ranked among the 100 largest privately held corporations in North Carolina, as well as ranked 353rd by *Engineering News Record (ENR)* in the list of "Top 400 Contractors." Blythe self performs erosion control, grading, maintenance-of-traffic (MOT), storm drain, water, sewer, asphalt paving, flatwork concrete, structures, MSE wall, sound wall and culvert construction. They hold employee and public safety to a high standard and our 0.91 EMR ranks Blythe in the top of the upper quartile of civil contractors validating our commitment to quality. *Blythe has successfully worked with RK&K on the Macy Grove Road Improvement DB project in Kernersville, NC; the I-73/PTI DB Project in Greensboro, NC; the Grier Road Grade Separation & Bridge project in the City of Charlotte and Mecklenburg County, NC; and the recently awarded I-40 Widening and Bridge Replacement over the Yadkin River DB located in Davie and Forsyth Counties, NC.*



Rummel, Klepper, & Kahl, LLP (RK&K), will serve as Lead Designer and will provide overall project management for all design activities. RK&K is ranked 76th on the 2017 *Engineering News Record's* listing of the "Top 500 Design Firms," and serves an array of federal, state, and local clients from four Virginia offices and multiple offices throughout the Mid-Atlantic and Southeast US. RK&K has provided professional engineering and construction support services on assignments to be procured and administered in accordance with design-build, public-private partnership (P3), general engineering consultant (GEC) or program management consultant (PMC) for more than for 20 years. With more than \$2.1B of DB projects in the region, the firm has significant design-build and alternative delivery project experience. *RK&K has relevant experience delivering road and bridge DB projects as well as a solid reputation of strategically aligning teams to meet the specific needs and requirements of this project. Additionally, RK&K has worked with on many projects in a prime role with the selected subconsultants.*



3B Consulting Services, LLC (3BCS) will provide construction Quality Assurance. 3BCS is a multi-disciplinary engineering firm specializing in project controls, construction engineering & inspection, Quality Assurance Management, cost estimating, analysis, hydrologic and hydraulic analyses, environmental services, and utility coordination. 3BCS has managed significant transportation DB projects in the Commonwealth including bridges, structures and roadways. They offer quality control experience, technical knowledge, and expertise in both the public and private sectors on projects ranging from complex bridge replacement projects to low-volume rural roads. SWAM Certification #703753.



Schnabel Engineering, LLC (Schnabel) is a multi-discipline engineering consulting firm specializing in geotechnical engineering, geostructural design, tunnel and underground engineering. Their staff has intimate knowledge of the local geologic conditions in each of the VDOT Districts. The Salem District includes significant areas of karst terrain characterized by sinkholes, depressions, soft clay (aka epi-karst), and other karst features. Schnabel's DB experience ranges from \$10M to \$2B projects, providing expedited project schedules and cost-effective alternatives for DB teams. This expertise has proven crucial on VDOT projects. *Schnabel has been a subconsultant on 19 VDOT statewide term contracts since 2005 including five contracts with RK&K. In addition, Schnabel has been providing geotechnical engineering services on the western regional geotechnical contract, which includes the Salem, Bristol, Staunton and Lynchburg Districts.*



H&B Survey & Mapping (H&B) provides topographic, design, and construction surveys to the public and private sectors on projects involving bridges, streets and highways, water and sewer line projects, boundary and topographic design type surveys for water and sewer line projects. *H&B has teamed with RK&K on more than 30 projects since 2010 including the VDOT I-64 Widening & Route 623 Improvements and King Street Improvements DB projects.* SWAM Certification #679423



KDR Real Estate Services (KDR) is a VDOT pre-qualified right-of-way and easement acquisition firm with significant experience in the research and preparation of appraisals for right-of-way and easement acquisition. They also perform negotiations, closings and relocation assistance and condemnation (eminent domain) documentation. *KDR and RK&K have worked together since 2012 on many transportation projects including the King Street Improvements DB project in the City of Roanoke.* SWAM Certification #651893.

Experience in the Salem District

The Blythe DB Team's relationship with Salem District goes back over 20 years beginning with RK&K's CEI work in the Salem District performing construction inspection for improvements to I-581, guardrail upgrades, bridge repairs and deck overlays and various maintenance projects. Over the last 17 years, RK&K has been providing design services on projects in the Salem District. The scope of these projects covers a wide range of roadway types and complexity ranging from rural 3R type projects to complex interstate and interchange projects. RK&K's recent experience in the Salem District includes the following projects:

Project Name	Structures	Roadway	Drainage/SWM	MOT	E&SC	Public Involvement	Geotechnical	Traffic Analysis	Signs / Signals	Utilities
Riverland Road, City of Roanoke, VA		•	•	•	•	•		•	•	
10th Street (North), City of Roanoke, VA		•	•	•	•	•		•	•	
10th Street (South), City of Roanoke, VA		•	•	•	•	•		•	•	
13th Street, City of Roanoke, VA		•	•	•	•	•		•		
Givens Lane, Town of Blacksburg, VA	•	•	•	•	•	•	•	•	•	
North Main Street, Town of Blacksburg, VA	•	•	•	•	•	•	•	•	•	•
Tyler Road to E. Main Street Connector, City of Radford, VA		•	•			•		•		
Park Road, City of Radford, VA		•				•		•		
Park Road to Tyler Road Connector, City of Radford, VA		•						•		
I-81 Exit 150 Signal & Safety Improvements, Botetourt County, VA								•	•	
I-81 Exit 105 Bridges over the New River & Interchange Modifications, Pulaski & Montgomery Counties		•	•	•	•			•		
I-81 Safety Study Exit 165 to Exit 170, Botetourt County, VA		•	•							
West Main Street Widening, Roanoke County, VA	•	•	•	•	•	•				
Route 693 Spot Improvements, Pulaski County, VA		•	•	•	•	•				
Route 220 Safety Improvements, Roanoke County, VA		•	•	•	•	•	•	•		•

As previously mentioned, all four of our subconsultants have experience working in the Salem District providing services required on this project. This experience, coupled with Blythe and RK&K's experience offers the Blythe DB Team an advantage of knowing the localities, the soil conditions and community stakeholders.

Demonstrated Team Experience

The following table demonstrates Blythe DB Team's experience on projects of similar scope and project elements as the I-81, Exit, 114 Bridge Replacement project. It also demonstrates the well-integrated organization with proven work histories and teaming experience.

Project Name	Project Scope Elements							Blythe DB Team					
	Structures	Interstate	Innovative Design/Construction	Utility Design/Relocation	Limiting Impacts	Risk Mitigation	Complex MOT	Blythe	RK&K	3B Consulting	Schnabel	H&B	KDR
NCDOT Macy Grove Road Improvements DB, <i>Kernersville, NC</i>	•	•	•	•	•	•	•	•	•				
NCDOT I-40 Widening and Bridge Replacement over the Yadkin River DB, <i>Davie & Forsyth Counties, NC</i>	•	•	•	•	•	•	•	•	•				
NCDOT I-73 PTI DB, <i>Guilford County, NC</i>	•	•	•	•	•	•	•	•	•				
Grier Road Grade Separation & Bridge, <i>City of Charlotte & Mecklenburg County, NC</i>	•		•	•	•	•	•	•	•				
VDOT Route 29 Solutions DB, <i>Albemarle, County, VA</i>	•		•	•	•	•	•		•		•		
Route 250 Bypass at McIntire Road, <i>City of Charlottesville, VA</i>	•		•	•	•	•	•		•				•
VDOT I-64 Widening & Route 623 Improvements DB, <i>Goochland & Henrico Counties, VA</i>	•	•	•	•	•	•	•		•		•	•	
VDOT I-81, Exit 14 Interchange Modifications, <i>Washington & Town of Abington, VA</i>	•	•		•	•	•	•		•				
VDOT Middle Ground Boulevard DB, <i>Newport News, VA</i>	•		•	•	•	•	•		•		•		•
King Street Improvements DB, <i>City of Roanoke, VA</i>	•		•	•	•	•	•		•			•	•
Route 13/158 DB, <i>Hertford & Gates County, NC</i>	•	•	•	•	•	•	•		•				
VDOT Military Highway Continuous Flow Intersection, <i>City of Norfolk, VA</i>	•			•	•	•	•		•		•		

3.4.1 Work History Forms

Work History Forms (Attachments 3.4.1(a) and (b)) as required for Blythe (Lead Contractor) and RK&K (Lead Designer) are included in the Appendix.



3.5 Project Risks

3.5 PROJECT RISKS

The Blythe DB Team will employ the CMAA endorsed approach to risk management through the use of a “Risk Register” which includes a formal list of identified risks, potential impacts to the project, and mitigation strategies for each issue. Our team’s risk management process has already commenced, will continue throughout design and construction, and enable the team to respond to changes in an organized and proactive way as specific project issues unfold. The Blythe DB Team will employ a five-step risk management approach to the project including the following stages:

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

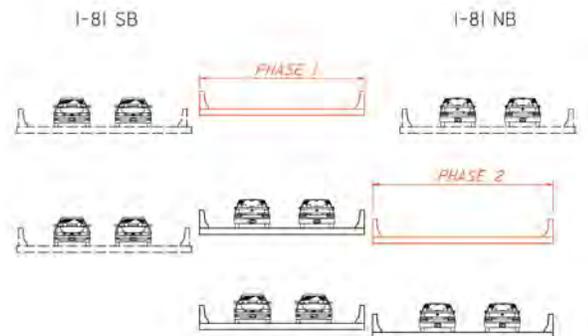


We have reviewed the available information for the project, visited the site during various traffic and weather conditions, and jointly discussed the major risks. With the mindset of project *risk* being defined as an issue that has the potential to impact the project schedule, budget, or both, the team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

Risk No. 1 – Phased Construction on Existing Bridges

Risk Identification: To keep traffic moving at all times, a well-defined and well-thought-out maintenance of traffic plan shall be developed in coordination with a phased construction plan. One option, as presented in the RFQ Plans, is to slightly overlap a new bridge within the foot print of the existing bridge. To do this, phased construction on the existing bridge is necessary which involves demolishing a portion of the existing bridge to make way for a new bridge.

During partial demolition, traffic is temporarily shifted on the existing bridge and a temporary barrier will need to be placed on the existing deck. Per the most recent inspection reports, the condition ratings of the existing deck, superstructure, and substructure are 4, 4, and 5, respectively, which makes them structurally deficient. The decks have been patched several times and continue to exhibit spalling and cracking while the girders have locations of heavy corrosion and fatigue cracking that limit their capacity. In the most recent load ratings, both bridges are shown that they can no longer support the inventory design load, while the southbound bridge can no longer support the operating design load. Modifying the existing bridges will change the loading pattern and poses a safety risk to the travelling public due to potential overload of structure.



Why this Risk is Critical: Shifting traffic on a structurally deficient bridge is a safety risk that at best, should be avoided; and at worst, should be carefully monitored. Fatigue cracks are known to grow very quickly under loading smaller than what the members were originally designed to support. When the traffic pattern is modified, a girder that currently displays fatigue cracking could potentially receive more load, which would quicken the crack propagation and potentially fail the girder before traffic could be moved to the new bridge. Steel corrosion also visibly limits the intended girder capacity due to loss of section.

Additionally, temporary barriers are necessary when demolishing a portion of the bridge. VDOT requires the temporary barriers to be attached to the existing deck for support in the event of a crash. Due to the poor condition of the existing deck, this attachment could be difficult and may require further rehabilitation of the deck to gain

the lateral capacity necessary before the temporary barriers are placed. If the existing deck is not sound under the temporary barrier attachment, the barrier may fail if a crash occurs which is a safety, schedule, and cost concern.

Risk Impact to the Project & Mitigation Strategies: Structural integrity of a bridge is of paramount importance to the public for both safety and perception. While safety is the key risk impact to the project, other impacts include schedule delays and cost increases from potential investigation and clean up that would occur if a structural failure occurred.

While studying potential concept alternatives, the Blythe DB Team identified several possible mitigation strategies to avoid the catastrophic outcomes of a structural failure. The first strategy is to avoid phasing construction on the existing bridges altogether. Our team has identified a way to place a new bridge completely in between the existing bridges without the need to temporarily shift traffic on the existing bridges, thus upsetting its normal behavior.

By using this strategy, the new bridge will be built faster and we will be able to shift traffic to the new structure faster, which minimizes the time the public is travelling on structurally deficient bridges. This also eliminates the risk of attaching temporary barrier to an unsound concrete deck.

Alternative strategies involve in-depth analysis and more frequent monitoring of the existing structure in its current condition to accurately depict its behavior. The concrete deck may need to be repaired before a temporary barrier is attached to ensure it is secured to sound concrete that provides the capacity necessary for safety.

A finite element analysis of the existing girders under the new loading pattern with the fatigue cracks included would also be performed to predict its behavior. It is assumed that the current load rating was performed using AASHTOWare BrR per general VDOT guidelines, which can account for corrosion, but does not account for fatigue cracks. Due to the heavy truck traffic on the I-81 corridor and the tendency for fatigue cracks to propagate quickly, this analysis would include a time analysis that includes more than the number of repetitions that are expected to occur while traffic is shifted as a conservative approach.

Role of VDOT and other Agencies: To use the first mitigation strategy mentioned above, a design waiver from VDOT will be required to reduce the shoulder width suggested in the VDOT Design Aids to the width required by AASHTO. This was mentioned as a preference in the Project Information Meeting on 07/25/17 to keep the scope and cost of the current project minimal.

To eliminate the assumption of the load rating method, a copy of the current load rating analysis would be beneficial and could save time to gain an understanding of exactly what was included in the rating. This would impact our analysis of the existing bridge condition during the project if shifting traffic on the existing bridge is necessary.

Risk No. 2 – Bridge and Roadway Geotechnical and Karst Geologic Conditions

Risk Identification: Our team has identified the karst topography of this site as being one of the three key risks on this project. The site is within the Elbrook formation which is characterized by soluble dolomite rock and the resulting karst topography. Karst topography includes the possible presence of sinkholes, caves or voids and other solution features within the rock, rock pinnacles, slots within the rock, soft residual soils (aka epi-karst), internal drainage and similar features. In addition, the 1998 VDMME publication “Selected Karst Features of the Central Valley and Ridge Province, Virginia” indicates the presence of caves and sinkholes within the Elbrook formation near the project site.

The Blythe DB Team has reviewed the as-built plans for the I-81 Bridges over Route 8 at Exit 114. Boring data included in these plans show that the site is underlain by generally stiff residual clay with several soft clay layers, weathered rock and dolomite rock of the Elbrook Formation. The dolomite rock includes numerous clay seams up to about 16 ft thick. The rock surface elevation is highly variable from approximately El 2118 to 2155 (37 ft difference). The plans also indicate the bridges are supported on HP 10x42 piles. Pile lengths were extremely variable with abutment piles varying from approximately 20 to 93 ft (73 ft difference) and pier piles varying from 12 to 72 ft (60 ft difference). In addition, two of the pier footings had to be enlarged due to piles drifting from their planned locations during installation.

The Blythe DB Team also reviewed the Preliminary Discussion of Subsurface Conditions and Geotechnical Engineering Considerations produced by GET Solutions, Inc. This report did not include any soil borings, rock coring or laboratory testing. The report indicates the site is underlain by the Lower Ordovician / Upper Cambrian

Group, and that the upper part of the Group is composed of cherty dolomite interbedded with limestone, both of which can be prone to karst formation.

Why this Risk is Critical: Karst-related issues anticipated for this site include but may not be limited to the following:

- **Bridge Foundations:** The new bridge will likely be supported on deep foundations consisting of driven H-piles or drilled shafts to rock. However, since the rock elevations and existing pile lengths are extremely variable in this karst environment, the cost of the bridge foundations will be difficult to predict especially since the variation in pile length was much greater than the variation in rock elevation. In addition, piles may drift from their planned locations due to the presence of sloping rock which would result in the need to modify footings to accommodate the drifted piles.
- **Approach Embankment Settlement:** The bridges will be shortened and MSE walls will be used at the abutments. The weight of new fill behind the MSE walls will cause the underlying soils to settle. Settlement could be significant depending on whether soft epi-karst soils are present as indicated in several of the original borings. If the underlying soils are compressible, additional wait time could be required for settlements to dissipate. Surcharge fills could also be needed to reduce potential long-term settlement.
- **Embankment Fill Materials:** Most of the soils in the original borings were classified as clay. Clay soils in karst areas are typically highly plastic and locally available soils may also consist of plastic clay. Depending on the plasticity of these karst residual soils, they may not be considered suitable for use as embankment fill.
- **Pavements:** High-plasticity residual clay soils in karst areas may also have low California Bearing Ratio (CBR) values and relatively high swell during testing. These materials will not be suitable pavement subgrade and will likely need to be undercut or modified in place using lime.
- **Sinkholes:** Sinkholes often occur during highway construction due to changes in overburden pressure (i.e. both cutting and filling) and changes in site drainage. These features would have to be mitigated if they occur on site during construction.

Risk Impact to the Project & Mitigation Strategies: Mitigation strategies would include those performed during the design phase to reduce the number of unknowns and to incorporate mitigation measures into the design, and those performed during the construction phase to minimize costs and delays. A summary of these strategies is as follows:

- Perform additional subsurface exploration and geophysics to better delineate the risk. The additional exploration would include the number and depths of borings to meet or exceed the requirements of the VDOT Materials Manual of Instructions, Chapter III. This could include additional borings and/or air-track probing to evaluate the variability of the rock surface for driven piles or drilled shafts. Geophysical techniques such as two-dimensional resistivity could be used to better delineate the rock surface between borings and to evaluate whether there are any potential voids or soft layers within the rock.
- Provide index and CBR tests for design of subgrade mitigation if needed and pavement design. If CBR values are below the minimum required, we will estimate the necessary amount of undercut and replacement and/or evaluate the amount of lime needed to mitigate these soils in place.
- Provide triaxial shear strength testing on proposed embankment materials for global stability analyses of MSE walls.
- Provide consolidation tests on natural and existing fill soils and analyses to predict whether embankment settlement will result in unacceptable magnitude or time-rate-of settlement.
- Selection of appropriate foundation systems to reduce the amount of uncertainty in estimating the length of proposed foundations.
- Include standardized remedial design information on the plans to illustrate how the impacts should be mitigated during construction. An example would be details and special provisions indicating how sinkholes should be mitigated.

Our team will work with VDOT to identify issues and options to work towards an optimal solution for any karst condition encountered.

Role of VDOT and other Agencies: VDOT has an important role in protecting the interests of the Commonwealth. Although the design-builder will likely have the responsibility for quality assurance (QA) and quality control (QC), VDOT will need to assure that the QA/QC plan addresses the potential risks on this project. Other agencies may also have a role regarding related issues such as environmental review.

Risk No. 3 – Compatibility with Future Widening

Risk Identification: The horizontal location of the replacement bridges must be carefully considered if I-81 is to be efficiently and economically widened in the future. This Project can achieve significant cost savings and reduced impacts to motorists and the community by considering the ultimate bridge locations now. The overall Interchange Improvement Project could potentially be rolled out in three steps depending on funding availability:

Step 1- Current Project (Bridge Replacements);

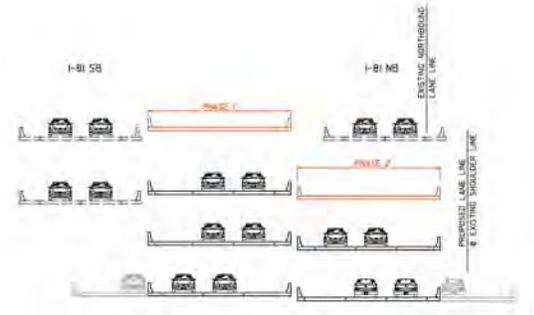
Step 2- Third Lane Widening Project; and

Step 3- Interchange Modification Project.

With a little foresight and planning at this early stage, considerable benefits can be achieved.

Why this Risk is Critical: The strategic location of the replacement bridges will set the stage for the future success of the ultimate interchange configuration and can minimize the overall cost of all Project implementation Steps. Additionally, not having to stage individual bridge construction now will save time and dollars. More importantly, the strategic placement of the ultimate bridges that would accommodate a future widening could minimize/eliminate future retaining walls and potentially additional Right of Way.

The proposers were informed at the Project Information Meeting on July 25, 2017 that the scope of work had been reduced to strictly bridge replacement using AASHTO criteria. The bridge width results in 42 feet per bridge assuming two 12 foot lanes, a 10-foot right shoulder and a 4-foot left shoulder with outer parapet walls. Future bridge widening results in 64 feet per bridge assuming three 12 foot lanes, and two 12-foot shoulders with outer parapet walls. To minimize total future interchange reconstruction, potential retaining walls and potential R/W impacts, strategic placement of the replacement bridges is necessary.



Risk Impact to the Project & Mitigation Strategies: The RFQ Plans currently provide a reasonable location and staging for the bridge construction. However, without a properly developed plan that considers the ultimate condition, VDOT may be faced with added costs, additional MOT and undesirable public perception. To mitigate this risk, The Blythe DB Team suggests placing the ultimately widened proposed easternmost northbound lane line in the general vicinity of the existing easternmost northbound shoulder line such that the future bridge widening would not require a significant horizontal realignment of NB I-81. Hence, the entire east side of the interchange would generally keep its current location except for slope sliver widenings and gore adjustments. Thus, the ramp intersections at Rte. 8 could remain at their current location.

Placing the ultimate northbound structure in this location results in the easternmost parapet wall of the new 42-foot wide northbound structure being placed generally along the existing northbound lane line and resulting in minimal roadway alignment shift. The possibility then exists to construct the new southbound bridge in such a manner that phased, temporary construction on the existing bridges is not required and the ultimate bridge widths will coincide with the ultimate lane locations. The result is that the risk of temporary construction activities on the existing structurally deficient bridges is eliminated and pavement for future widening will already be in place. Only the new bridges will need to be widened and those structures will be laid out in a manner to easily accommodate both widening details and the approach roadway.

The Blythe DB Team believes this approach offers a significant benefit to VDOT, the highway user, and the neighboring community not to mention cost saving with the initial bridge replacement project (by not having to stage an individual bridge) and the ultimate widening (by not having to widen the interchange footprint and minimizing retaining walls).

Role of VDOT and other Agencies: The role of VDOT and/or other agencies would be no different than any other design-build bridge replacement project; review and approval.

Overall Project Risk Summary

The Blythe DB Team understands that risks are inherent in design-build projects and proposes on this design-build project with our eyes wide open. We fully take on the risk of this project as required in the RFQ and subsequent RFP.



Appendices

ATTACHMENT 3.1.2

Project: 0081-154-733

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

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

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

ATTACHMENT 3.1.2

Project: 0081-154-733

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Offeror's VDOT prequalification evidence	NA	Section 3.2.8	no	Appendix
Evidence of obtaining bonding	NA	Section 3.2.9	no	Appendix

SCC and DPOR registration documentation (Appendix)	Attachment 3.2.10	Section 3.2.10	no	Appendix Attachment 3.2.10
Full size copies of SCC Registration	NA	Section 3.2.10.1	no	Appendix
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	no	Appendix
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	no	Appendix
Full size copies of DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.10.4	no	Appendix
DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	Page 1
Offeror's Team Structure				Pages 2-8
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	Pages 2-4
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Appendix Attachment 3.3.1
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	Appendix

ATTACHMENT 3.1.2

Project: 0081-154-733

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
				Attachment 3.3.1
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	Appendix Attachment 3.3.1
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	Appendix Attachment 3.3.1
Organizational chart	NA	Section 3.3.2	yes	Page 3
Organizational chart narrative	NA	Section 3.3.2	yes	Pages 3-8
Experience of Offeror’s Team				Pages 9-11
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	Appendix Attachment 3.4.1(a)
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	Appendix Attachment 3.4.1(b)
Project Risk				Pages 12-15
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	Pages 12-15

ATTACHMENT 2.10**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

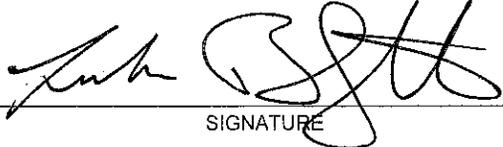
RFQ NO. C00093074DB96
 PROJECT NO.: 0081-154-733, P101, R201, C501, B601, B616

ACKNOWLEDGEMENT OF RFQ, REVISION AND/OR ADDENDA

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

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

1. Cover letter of RFQ – July 12, 2017
(Date)
2. Cover letter of RFQ Addendum No. 1 – August 23, 2017
(Date)
3. Cover letter of _____
(Date)

 <hr/> SIGNATURE	<u>8/25/17</u> <hr/> DATE
<u>Luke Blythe</u> <hr/> PRINTED NAME	<u>VP of Operations</u> <hr/> TITLE



Debarment Sheets

ATTACHMENT 3.2.7(a)

**CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS**

Project No.: 0081-154-733

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

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

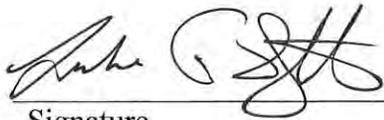
b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under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

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

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

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

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



Signature

August 16, 2017

Date

Vice President of Operations

Title

Blythe Development Company

Name of Firm

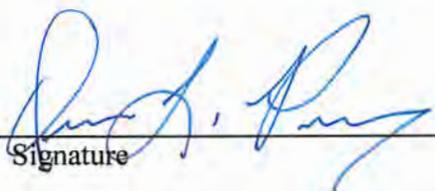
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-154-733

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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


Signature

September 6, 2017
Date

Director, Transportation
Title

Rummel, Klepper & Kahl, LLP (RK&K)
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-154-733

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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



Signature

09/06/2017

Date

Vice-President

Title

3B Consulting Services, LLC

Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-154-733

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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


Signature

July 27, 2017
Date

Vice President
Title

H&B Surveying and Mapping, LLC
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-154-733

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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



Signature

July 26, 2017

Date

President

Title

KDR Real Estate Services, Inc.

Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-154-733

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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

Edward G. Draker

Signature

July 31, 2017

Date

Senior Reviewer

Title

Schnabel Engineering, LLC

Name of Firm



Offeror's VDOT Prequalification Certificate



COMMONWEALTH OF VIRGINIA



CERTIFICATE OF QUALIFICATION

BLYTHE DEVELOPMENT CO.

Vendor Number: **B1096**

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

PREQUALIFIED (PROBATIONARY)

Your firm specializes in the noted Classification(s):

GRADING; ASPHALT CONCRETE PAVING; ROADWAY MILLING;
UNDERGROUND UTILITIES; EXCAVATING

Issue Date: February 28, 2017

This Rating and Classification will Expire: February 28, 2018

A handwritten signature in cursive script, reading "S. M. Lucas".

Suzanne FR Lucas, State Prequalification Officer

A handwritten signature in cursive script, reading "Don E. Silies".

Don E. Silies, Director of Contracts

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



Department's List of Prequalified Vendors
Includes All Qualified Levels As Of 8/11/2017

- B -

Vendor ID: B063
Vendor Name: BLYTHE CONSTRUCTION, INC.
Prequal Level: Prequalified (Currently Inactive)
Prequal Exp: 02/28/2018

-- PREQ Address --

P. O. BOX 31635
CHARLOTTE, NC 28231-0000
Phone: (704)375-8474
Fax: (704)375-7814

Work Classes (Listed But Not Limited To)

002 - GRADING
003 - MAJOR STRUCTURES
004 - ASPHALT CONCRETE PAVING
101 - EXCAVATING

Bus. Contact: BRADLEY, ROY LEE
Email: LEE.BRADLEY@BLYTHECONSTRUCTION.COM

-- DBE Information --

DBE Type: N/A
DBE Contact: N/A

Vendor ID: B1096
Vendor Name: BLYTHE DEVELOPMENT CO.
Prequal Level: Prequalified (Probationary)
Prequal Exp: 02/28/2018

-- PREQ Address --

1415 E. WESTINGHOUSE BOULEVARD
CHARLOTTE, NC 28273
Phone: (704)588-0023
Fax: (704)588-9935

Work Classes (Listed But Not Limited To)

002 - GRADING
004 - ASPHALT CONCRETE PAVING
013 - ROADWAY MILLING
045 - UNDERGROUND UTILITIES
101 - EXCAVATING

Bus. Contact: BLYTHE, FRANKLIN WILLIAMS
Email: FRANKB@BLYTHEDEVELOPMENT.COM

-- DBE Information --

DBE Type: N/A
DBE Contact: N/A

From: Silies, Don E. (VDOT) [<mailto:Don.Silies@VDOT.Virginia.gov>]
Sent: Wednesday, July 26, 2017 4:05 PM
To: Travis Padgett <tpadgett@blythedevelopment.com>
Cc: Patel, Shailendra G., P.E. (VDOT) <Shailendra.Patel@VDOT.Virginia.gov>; Prequalification (VDOT) <Prequalification@VDOT.Virginia.gov>
Subject: RE: Blythe Development Company bid waiver

I have reviewed the qualifications of Blythe Development Co. and I find them acceptable for the purpose of bidding this Design/Build project. Therefore, I hereby waive the bidding restriction on your firm for this project.

As discussed previously, this waiver is predicated on your compliance with the rules for prequalification. The rules state that you are limited to no more than three projects at any given time, not exceeding a total cost of \$6 million. This waiver allows you to bid beyond that dollar limit, but should you be successful on this project, you will be ineligible for any further VDOT work as a prime contractor until you receive a satisfactory VDOT performance evaluation.

VDOT looks forward to your proposal.

Don E. Silies

Director of Contracts

(804) 786-1630



From: Travis Padgett [<mailto:tpadgett@blythedevelopment.com>]
Sent: Wednesday, July 26, 2017 9:08 AM
To: Silies, Don E. (VDOT)
Cc: Richard Kirkman
Subject: Blythe Development Company

Don,

Thank you for discussing the direction Blythe Development Co. (BDC) needs to go in order to receive a waiver to submit an SOQ for the

"I-81 Bridge Replacement at Exit 114, RFQ No: C00093074DB96" project in Montgomery County. I have included the correspondence from the waiver you approved for BDC to submit on the Halls Bottom Rd Design Build (State Project No. 0081-095-038 UPC 107116).

The Scope for the current project is very similar to that on the Halls Bottom Rd Project with an estimated construction value of \$21 Million rather than the \$13 Million on Halls Bottom Rd.

Blythe Development Co understands as stated in the previous correspondence that if successful BDC will be unable to bid on any further VDOT work until a satisfactory score is received on this project.

If you need any further information to issue a waiver to BDC's prequalification probationary status please advise.

Thank You,

Travis E. Padgett, PE | Design Build Manager

Blythe Development Co. | 1415 E. Westinghouse Blvd. Charlotte, NC 28273
P: 704.588.0023 F: 704.588.9935 | www.blythedevelopment.com
C: 980.200.2747 | tpadgett@blythedevelopment.com



Surety Letter



August 16, 2017

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

Re: Our Client: Blythe Development Company
Project: I-81 Bridge Replacement at Exit 114, RFQ No. C00093074DB96
Montgomery County, VA
State Project No. 0081-154-733; Contract ID No. C00093074DB96
Value: \$21,000,000

Dear Mr. Kindy:

It is a pleasure to comment on the bonding qualifications of Blythe Development Company. We have handled the contract Performance and Payment bond requirements on behalf of the above firm for over fifteen (15) years. Their current bonding limits through the Liberty Mutual Insurance Company are \$80,000,000 single job / \$475,000,000 aggregate work program. Current unutilized bonding capacity is \$100,000,000.

We consider Blythe Development Company to be on of the more outstanding contractors in this area and we recommend them highly. Blythe Development Company is well managed, capably staffed and sufficiently finance to process the work they are bidding.

It is our understanding that the above referenced project has an estimated value of approximately \$21,000,000. Liberty Mutual Insurance Company would be most willing to provide the Performance and Payment Bond, in the event they are awarded the contract and enter into a contract satisfactory to all parties.

As surety for Blythe Development Company, Liberty Mutual Insurance Company, with an A.M. Best Financial Strength Rating of "A" (Excellent) and a Financial Size Category of XV (\$2 Billion or greater), is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction, and said bonds will cover the Project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm is the successful bidder and enter into a contract for this Project.

Please note that the decision to issue performance and payment bonds is a matter between Blythe Development Company and Liberty Mutual Insurance Company and will be subject to our standard underwriting at the time of the final bond request, which will include but not be limited to the acceptability of the contract documents, bond forms and finance. We assume no liability to third parties or to you if for any reason we do not execute said bonds.

It is our pleasure to share this information with you.

Sincerely,

LIBERTY MUTUAL INSURANCE COMPANY


Angela D. Ramsey, Attorney-In-Fact



THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No 7662391

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company West American Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Angela D. Ramsey; Diane Gibson; Donna K. Ashley; G Timothy Wilkerson; Larry L. Langevin

all of the city of Charlotte, state of NC each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 9th day of March, 2017.



The Ohio Casualty Insurance Company
Liberty Mutual Insurance Company
West American Insurance Company

By: David M. Carey
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 9th day of March, 2017, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute 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 have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS – Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, 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 16 day of August, 2017.



By: Renee C. Llewellyn
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.



DPOR and SCC Registrations

ATTACHMENT 3.2.10

State Project No. 0081-154-733

SCC and DPOR Information

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

SCC & DPOR INFORMATION FOR BUSINESSES (RFQ Sections 3.2.10.1 and 3.2.10.2)							
Business Name	SCC Information (3.2.10.1)			DPOR Information (3.2.10.2)			
	SCC Number	SCC Type of Corporation	SCC Status	DPOR Registered Address	DPOR Registration Type	DPOR Registration Number	DPOR Expiration Date
Blythe Development Company	F1627514	Foreign Corporation	Active	1415 E Westinghouse Boulevard Charlotte, NC 28273	Class A Contractor	2705094714	05-31-2019
Rummel, Klepper & Kahl, LLP (RK&K)	K0004178	Limited Liability Partnership	Active	2100 East Cary Street, Suite 309, Richmond, VA 23223	ENG	0411000271	02-18-2018
				81 Mosher Street Baltimore, MD 21217 <i>Note: Baltimore Headquarters has moved and awaiting new DPOR. New address is:</i> 700 E. Pratt, suite 500 Baltimore, MD 21202	ENG	0407002860	12-31-2017
				2901 S. Lynnhaven Road, Suite 300 Virginia Beach, VA 23452	ENG	0411000667	02-28-2018
3B Consulting Services, LLC	S4231561	Limited Liability Company	Active	135 Highland Drive Lebanon, VA 24266	ENG, LS	0411001108	02-28-2018
				140 Hilltop Avenue Lebanon, VA 24266	LS, ENG	0407006181	12-31-2017
Schnabel Engineering, LLC	S0889123	Limited Liability Company	Active	900 JEB Stuart Pkwy, Suite 200 Glen Allen, VA 23059	ENG	0407004386	12-31-2017
H&B Survey & Mapping, LLC	S2905604	Limited Liability Company	Active	2105 Electric Road SW, Suite 103, Roanoke, VA 24018	LS	0411001268	02-28-2018

ATTACHMENT 3.2.10

State Project No. 0081-154-733

SCC and DPOR Information

				612 Hull Street, Suite 101B, Richmond, VA 23224	LS	0407005432	12-31-2017
KDR Real Estate Services, Inc.	05712104	Corporation	Active	2500 Grenoble Road Richmond VA 23294	Real Estate Firm	0226007129	12-31-2018

DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)

Business Name	Individual's Name	Office Location Where Professional Services will be Provided (City/State)	Individual's DPOR Address	DPOR Type	DPOR Registration Number	DPOR Expiration Date
Rummel, Klepper & Kahl, LLP (RK&K)	James William Long, III, PE	Virginia Beach, VA	4777 Cranbrook Court Virginia Beach, VA 23464	Professional Engineer	0402033496	04-30-2019
3B Consulting Services, LLC	Preston Edward Breeding, PE, CCM	Lebanon, VA	140 Hilltop Ave Lebanon, VA 24266	Professional Engineer	0402040251	12-31-2018
KDR Real Estate Services, Inc.	Allen Gunn Dorin, Jr.	Richmond, VA	2500 Grenoble Road Richmond VA 23294	Real Estate Broker	0225108043	03-31-2019



SCC Licenses

FIRM SCC DOCUMENTATION

Blythe Development Co.

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BLYTHE DEVELOPMENT CO.

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Business Entities

UCC or Tax Liens

Court Services

Additional Services

General

SCC ID: F1627514
Entity Type: Foreign Corporation
Jurisdiction of Formation: NC
Date of Formation/Registration: 5/10/2005
Status: Active
Shares Authorized: 100000

Select an action

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Principal Office

1415 E WESTINGHOUSE BLVD
CHARLOTTE NC28273

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Registered Agent/Registered Office

MICHAEL M COLLINS
275 W MAIN ST
COVINGTON VA 24426
ALLEGHANY COUNTY 102
Status: Active
Effective Date: 5/10/2005

Commonwealth of Virginia



State Corporation Commission

CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

On September 25, 2001, a statement of registration as a foreign registered limited liability partnership was filed in the Clerk's Office of the Commission by Rummel, Klepper & Kahl, LLP, a Maryland limited liability partnership.

As of the date below, this statement of registration is in effect.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
January 12, 2016*

Joel H. Peck

Joel H. Peck, Clerk of the Commission

CISDJD



COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

Office of the Clerk

June 22, 2016

CT CORPORATION SYSTEM
4701 COX ROAD, SUITE 285
GLEN ALLEN, VA 23060

RECEIPT

RE: RUMMEL, KLEPPER & KAHL, LLP

ID: K000417 - 8

DCN: 16-06-22-0506

Dear Customer:

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

The annual continuation report was filed on June 22, 2016.

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

Sincerely,

Joel H. Peck
Clerk of the Commission

GPACCEPT
CISCCJ

P.O. Box 1197, Richmond, VA 23218-1197
Tyler Building, First Floor, 1300 East Main Street, Richmond, VA 23219-3630
Clerk's Office (804) 371-9733 or (866) 722-2551 (toll-free in Virginia) www.scc.virginia.gov/clk

3B Consulting Services, LLC

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3B Consulting Services, LLC

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Business Entities

UCC or Tax Liens

Court Services

Additional Services

General

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

Select an action

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Principal Office

140 Hilltop Avenue
Lebanon VA24266

[New Search](#)

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Registered Agent/Registered Office

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

Schnabel Engineering, LLC

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Schnabel Engineering, LLC

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Business Entities

UCC or Tax Liens

Court Services

Additional Services

General

SCC ID: S0889123
Entity Type: Limited Liability Company
Jurisdiction of Formation: VA
Date of Formation/Registration: 12/19/2002
Status: Active

Select an action

[File a registered agent change](#)
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Principal Office

9800 JEB STUART PARKWAY
SUITE 200
GLEN ALLEN VA23059

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[Home](#)

Registered Agent/Registered Office

CT CORPORATION SYSTEM
4701 COX ROAD, SUITE 285
GLEN ALLEN VA 23060
HENRICO COUNTY 143
Status: Active
Effective Date: 10/4/2013

H&B Survey and Mapping

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FAST. SIMPLE. SECURE.

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Business Entity Details

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H & B Surveying and Mapping, LLC

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- Certificate Verification
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- Contact Us
- Give Us Feedback

Business Entities

UCC or Tax Liens

Court Services

Additional Services

General

SCC ID: S2905604
Entity Type: Limited Liability Company
Jurisdiction of Formation: VA
Date of Formation/Registration: 4/27/2009
Status: Active

Principal Office

612 HULL STREET STE 101B
RICHMOND VA23224

Registered Agent/Registered Office

TIMOTHY H GUARE
TIMOTHY H GUARE PLC
6802 PARAGON PL STE 100
HENRICO VA 23230
HENRICO COUNTY 143
Status: Active
Effective Date: 7/2/2009

Select an action

- [File a registered agent change](#)
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- [Resign as registered agent](#)
- [File a principal office address change](#)
- [Pay annual registration fee](#)
- [Order a certificate of fact of existence](#)
- [Submit a PDF for processing \(What can I submit?\)](#)
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KDR Real Estate Services, Inc.

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Business Entity Details

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KDR Real Estate Services, Inc.

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Business Entities

UCC or Tax Liens

Court Services

Additional Services

General

SCC ID: 05712104
Entity Type: Corporation
Jurisdiction of Formation: VA
Date of Formation/Registration: 1/30/2002
Status: Active
Shares Authorized: 100

Principal Office

2500 GRENOBLE RD
RICHMOND VA23294

Registered Agent/Registered Office

ALLEN G DORIN JR
2500 GRENOBLE RD
RICHMOND VA 23294
HENRICO COUNTY 143
Status: Active
Effective Date: 7/9/2003

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Blythe Development Co.

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

EXPIRES ON
05-31-2019

NUMBER
2705094714

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

 **BLYTE DEVELOPMENT CO**
1415 E WESTINGHOUSE BLVD
CHARLOTTE, NC 28273



July W. DeBoer
July W. DeBoer, Director

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

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DPOR-LIC (02/2017)

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

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

EXPIRES ON
02-28-2018

NUMBER
0411000271

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

PROFESSIONS: ENG

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



July W. DeBoer
July W. DeBoer, Director

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

COMMONWEALTH of VIRGINIA
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 9960 Mayland Drive, Suite 400, Richmond, VA 23233
 Telephone: (804) 367-8500

EXPIRES ON
12-31-2017

NUMBER
0407002860

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

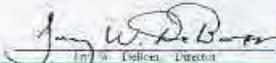
PROFESSIONS: ENG



RUMMEL KLEPPER & KAHL LLP
 81 MOSHER ST
 BALTIMORE, MD 21217



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


James W. DeBorja
 Director

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

EXPIRES ON
02-28-2018

NUMBER
0411000667

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

PROFESSIONS: ENG



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



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


James W. DeBorja
 Director

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS) DPOR-LIC (03/2015)

3B Consulting Services, LLC

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License Details

Related Licenses



Name	3B CONSULTING SERVICES LLC
License Number	0411001108
License Description	Business Entity Branch Office Registration
Business Type	LLC - Limited Liability Company
Rank	Business Entity Branch Office
Address	135 HIGHLAND DR, LEBANON, VA 24266
Initial Certification Date	2014-04-14
Expiration Date	2018-02-28

The license information in this application was last updated at Wed Aug 16 02:50:20 EDT.

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License Details Related Licenses

Name	3B CONSULTING SERVICES LLC
License Number	0407006181
License Description	Business Entity Registration
Firm Type	LLC - Limited Liability Company
Rank	Business Entity
Address	140 HILLTOP AVENUE, LEBANON, VA 24268
Initial Certification Date	2012-09-24
Expiration Date	2017-12-31

The license information in this application was last updated at Wed Aug 16 02:50:20 EDT

[License Lookup legal disclaimer](#)

Schnabel Engineering, LLC

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

EXPIRES ON
12-31-2017

NUMBER
0407004386

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

PROFESSIONS: ENG

SCHNABEL ENGINEERING, LLC
 9800 JEB STUART PKWY STE 200
 GLEN ALLEN, VA 23059

Jan W. DeBorja
 Jan W. DeBorja, Director

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

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DPOR-LIC (05/2015)

H&B Survey and Mapping

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

EXPIRES ON
02-28-2018

NUMBER
0411001268

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

PROFESSIONS: LS

H & B SURVEYING & MAPPING LLC
 2105 ELECTRIC RD SW STE 103
 ROANOKE, VA 24018

Jan W. DeBorja
 Jan W. DeBorja, Director

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

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DPOR-LIC (05/2016)

COMMONWEALTH of VIRGINIA
 Department of Professional and Occupational Regulation
 9960 Mayland Drive, Suite 400, Richmond, VA 23233
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EXPIRES ON
12-31-2017

NUMBER
0407005432

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

PROFESSIONS - LS



H & B SURVEYING & MAPPING LLC
 612 HULL ST
 SUITE 101B
 RICHMOND, VA 23224



Jan W. DeBorja
 Director

Status can be verified at <https://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS) DPOR-LIC (05/2015)

KDR Real Estate Services, Inc.

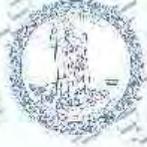
COMMONWEALTH of VIRGINIA
 Department of Professional and Occupational Regulation
 9960 Mayland Drive, Suite 400, Richmond, VA 23233
 Telephone: (804) 367-8500

EXPIRES ON
12-31-2018

NUMBER
0226007129

**REAL ESTATE BOARD - FIRM LICENSE
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KDR REAL ESTATE SERVICES INC
 2500 GRENOBLE RD
 RICHMOND, VA 23294




Jan W. DeBorja
 Director

Status can be verified at <https://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS) DPOR-LIC (05/2015)



DPOR Individual Licenses

KEY PERSONNEL DPOR

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

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

EXPIRES ON
04-30-2019

NUMBER
0402033496

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



JAMES WILLIAM LONG III
4777 CRANBROOK COURT
VIRGINIA BEACH, VA 23464



James W. DeBoer
James W. DeBoer, Director

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

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DPOR-LIC (02/2017)

3B Consulting Services, LLC

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

EXPIRES ON
12-31-2018

NUMBER
0402040251

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



PRESTON EDWARD BREEDING
140 HILLTOP AVE
LEBANON, VA 24266



James W. DeBoer
James W. DeBoer, Director

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

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DPOR-LIC (05/2015)

KDR Real Estate Services, Inc.

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

EXPIRES ON
03-31-2019

NUMBER
0225108043

REAL ESTATE BOARD - PRINCIPAL BROKER LICENSE
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THIS LICENSE TO BE IN CUSTODY AND CONTROL OF PRINCIPAL BROKER



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



James W. DeBoer
James W. DeBoer, Director

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (05/2015)



Attachment 3.3.1

Key Personnel Resumes

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
Name & Title: TRAVIS PADGETT, PE – DESIGN BUILD MANAGER	
Project Assignment: DESIGN BUILD PROJECT MANAGER	
a. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) : Blythe Development Co. (Full-time)	
b. Employment History: With this Firm <u>1</u> Years With Other Firms <u>27</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below): Design Build Manager, Blythe Development Co., (2016-present): Mr. Padgett offers more than 28 years of combined construction experience in both highways and bridges. He directs and leads design-build projects ensuring all project activities are in accordance with contract specifications. He interacts with the Design Manager, Construction Manager and owner representatives to complete projects on time and within budget by overseeing the safety program, budgets, schedules, change orders, expenditures and billings. He also assigns and manages project resources including staff resources and equipment. Mr. Padgett is a licensed professional engineer in the state of Georgia. Area Construction & Plants Manager, Rogers Group, Inc. (2009–2016): Area Manager overseeing project managers and construction staff for multiple NCDOT & SCDOT heavy highway projects. These projects included widening and rehabilitation of highways and interstates in both North and South Carolina. The volume of work under Mr. Padgett’s responsibility was more than \$40 million annually, with contracts ranging in value to \$45 million, and personnel of more than one hundred employees. Other responsibilities included safety, estimate review, budgeting, and resource management. Area Construction & Plants Manager, Rea Contracting a Division of Lane Construction (2004–2008): Area Manager overseeing multiple project managers and construction staff for all NCDOT and municipal projects in the Raleigh, NC market area. These projects included bridge, grading, drainage and paving disciplines. Responsibilities included the oversight of the Divisions construction activities including safety, field operations, means and methods of construction, project staffing and equipment allocation. Responsible for annual volumes of \$70 million with individual projects exceeding \$25 million. Vice President, C.W. Matthews Contracting Co. (1993–2004): Vice President of division with \$100 million annual revenue and individual projects exceeding \$30 million. Responsibilities included management of project managers, superintendents, quality control, budgets, cost control and safety.	
c. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Georgia Institute of Technology, Atlanta, GA / BS / 1987 / Civil Engineering	
d. Active Registration: Year First Registered/ Discipline/VA Registration #:	
e. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> (List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)	
NCDOT, I-40 Widening Davie & Forsyth Counties, NC (Design–Build)	
Name of Firm: Blythe Development	Project Role: Quality Manager & Assistant Design Build Project Manager
Beginning Date: January 2017	End Date: Dec. 2020
Specific Responsibilities: As Blythe Development’s Representative in this JV, Mr Padgett is fulfilling the role as Assistant Design-Build Project Manager. His responsibilities include prebid design coordination, Site investigation, innovation and estimating thru the successful pursuit and award of this project. After award, Mr. Padgett’s responsibilities include design coordination, Owner communication, subcontractor negotiations, document control, staffing, construction, MOT and the supply of adequate resources Project Relevance: This \$71M Design Build project consists of the replacement of twin 1100 foot bridges over the Yadkin River on I-40 requiring three phases of construction. Thru prebid design coordination with RK&K, our Team was able to reduce the schedule of this contract by more than six months. This section of I-40 has a heavy volume of truck traffic requiring a MOT plan and process to minimize the effects upon all traffic on this facility. The relationship and previous experiences with RK&K significantly enhanced the process of our prebid process and is continuing into the design stage with areas of work being managed to begin on areas that a permit is not required further enhancing the schedule for this project.	

NCDOT, I-40 Business, Winston-Salem, NC (Design-Build)	
Name of Firm: Blythe Development Company	Project Role: Assistant Design Build Project Manager
Beginning Date: May 2016	End Date: Dec. 2020
<p>Specific Responsibilities: Mr. Padgett is leading the Blythe Development's interest during the pursuit of this project and is assisting with the procurement including the coordination during the prebid design proposal and price submittal. After award of the contract, he will direct coordination with the design team thru the process of reaching RFC Plans, permit, and ROW.</p> <p>Project Relevance: This \$100 million DB project includes the demo and replacement of eleven bridges on a 1.2 mile stretch of I-40 Business thru downtown Winston Salem, NC. The project has required a high level of oversight throughout the design process to ensure that the required structures may be demoed and built within a corridor of high levels of traffic requiring an intense MOT design and execution. This project is also requiring a significant amount of public interaction due to the issues associated with level of construction in such a small project limit with extreme traffic needs.</p>	
NCDOT, I-73 / PTI, Greensboro, NC (Design Build)	
Name of Firm: Blythe Development Company	Project Role: Quality Manager & Assistant Design Build Project Manager
Beginning Date: May 2016	End Date: Oct. 2017
<p>Specific Responsibilities: As Blythe Development's representative in the JV, Mr. Padgett assumed the role of Asst. Design Build Project Manager when the previous Assist. DBPM resigned from the company. His responsibilities include continued administration of the contract, communicating with the Owner, document control, ensuring adequate staff and equipment resources and monitoring the project schedule. The project scope includes the of widening 1.5 miles of existing NC68 (Phased construction & in-depth-MOT) and 9.4 miles of new location construction of I-73. The project is phased based on permitting which allowed construction to begin six months after award. Total construction duration was 32 months. Approximately 4.8 million cubic yards of material was moved and 15 structures were constructed. The list of structures included a \$12 million taxiway bridge for the Greensboro/PTI airport and dual 7 span bridges over Reedy Fork.</p> <p>Project Relevance: This \$181 million DB project consisted of the widening of NC 68 and new location work for the extension of I-73. The project had multiple bridges with several of these bridges requiring phasing over multi-lane routes. Interstate widening was required and the tie in with existing I-73 required extremely detailed MOT. Blythe Development was also teamed with our current design partner, RK&K, on this project.</p> <p>* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.</p>	
<p>f. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. N/A</p>	

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
Name & Title: PRESTON E. BREEDING, PE, CCM	
Project Assignment: QUALITY ASSURANCE MANAGER	
a. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) : 3B Consulting Services, LLC (Full-time)	
b. Employment History: With this Firm <u>5</u> Years With Other Firms <u>12</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below): Vice President, 3B Consulting Services, LLC (3BCS) (2012-present): Mr. Breeding has extensive experience with oversight of VDOT funded construction projects administered through both the design-build and design-bid-build delivery methods. He manages and oversees 3BCS's design-build program where he has served as both a Quality Assurance Manager and a Design Manager on multiple VDOT design-build projects. Additionally, his experience with design-build projects has developed his full understanding of the implementation of roadway plans and projects through construction. He has working knowledge of VDOT's Construction Division Manuals, its policies and procedures, VDOT Road & Bridge Standards and Specifications, the Work Area Protection Manual as well as FHWA and AASHTO design guidelines. Senior Associate, A. Morton Thomas & Associates, Inc. (2007-2012): Mr. Breeding managed up to 120 construction inspection personnel throughout a six-state territory with a primary focus on Virginia. He served as Construction Inspection Coordinator for numerous on-call, district-wide CEI contracts where he managed up to 60 construction inspectors. Mr. Breeding also served as a Quality Assurance Manager for VDOT Design-Build projects in both the Bristol and Lynchburg Districts. Mr. Breeding was also assigned as a responsible charge engineer construction engineer for significant projects in the Bristol and Fredericksburg Districts. Project Controls Engineer, VDOT Bristol District (2005-2007): Mr. Breeding served as the Project Controls Engineer for the Bristol District. His duties included oversight of the District's internal quality control program intended to improve the overall district CQIP average, review of project schedules, and analysis of claims. Mr. Breeding was also responsible for oversight of the District's two on-call CEI contracts and one project specific CEI contract. Senior Engineer, AMEC Foster Wheeler, f/k/a MACTEC Engineering and Consulting, Inc. (2002-2005): Mr. Breeding's role as Senior Engineer included duties focused primarily on large scale geotechnical engineering projects and comprehensive construction engineering roles. He managed the geotechnical investigation and provided Quality Control Inspection and Testing on project assignments.	
c. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: University of Tennessee, Knoxville, TN / BS / 2000 / Civil Engineering	
d. Active Registration: Year First Registered/ Discipline/VA Registration #: 2004 / Professional Engineer / VA (#0402040251); 2008 / Professional Engineer / TN (#00113185); 2008 / Professional Engineer / NC (#035567); 2014 / Professional Engineer / WV (#18263); 2014 / Professional Engineer / KY (#30387); 2016 / Professional Engineer / AL (#36189); 2017 / Professional Engineer / SC (#34718); CCM / CMAA 2009	
e. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none">1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i>2. <i>Note whether experience is with current firm or with other firm.</i>3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> (List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)	
VDOT, Route 460 Connector Phase II, Buchanan County, VA (Design-Build)	
Name of Firm: 3B Consulting Services, LLC	Project Role: Quality Assurance Manager
Beginning Date: July 2013	End Date: Present (projected finish May 2018)
Specific Responsibilities: Mr. Breeding is serving as the Construction Quality Assurance Manager for this \$108 million design-build project. He is responsible for the development of the QA/QC Plan for the project, manages the day-to-day construction QA team, is responsible for project records management, reviews payment applications, reviews the project schedule updates, issues NCR's where appropriate, maintains the Issue Tracking Log, and develops materials for monthly reports to VDOT. Mr. Breeding also served as the Design Manager during the design phase of the project where he oversaw roadway plan development, permitting, ROW acquisition, and geotechnical engineering. He was instrumental in leading constructability reviews of plans at each stage of development and ensuring that contractor personnel were engaged in the design process at all levels.	
Project Relevance: This design-build project includes construction of 6.4 miles of rough grade roadway in mountainous terrain. The project relevance includes the design-build delivery method, implementation of the QA/QC Plan in accordance with VDOT's Minimum Guidelines for PPTA/DB Projects, close coordination with design team members to implement construction lessons learned, completion of constructability reviews, and oversight of the QA inspection process.	

VDOT, Route 460 Connector Phase I, Buchanan County, VA (Design-Build)	
Name of Firm: 3BCS / AMT	Project Role: Engineering Project Manager / QAM / QC
Beginning Date: Nov. 2008	End Date: May 2015
<p>Specific Responsibilities: Mr. Breeding served as the Engineering Project Manager who assembled the design team for this \$90 million design-build project. He worked with closely with Bizzack Construction to develop the design team members to deliver this challenging project in remote southwestern Virginia. Mr. Breeding provided constructability reviews, played a key role in structure type selection, and developed the QA/QC Plan for design and construction. Mr. Breeding served as the QAM for the project during the team's first selection as the DB (the project was cancelled as a result of a court order) and managed the QAM during the second selection and completion of the project. Mr. Breeding served as interim QAM during two medical absences of the QAM. After leaving AMT, Bizzack Construction engaged 3BCS to provide oversight of the QC testing program and Mr. Breeding returned to the project as the QC Manager to provide oversight to the critical phases of structural inspection including grouting and post-tensioning operations.</p> <p>Project Relevance: The Route 460 Connector Phase I project features the two largest bridges ever built in the Commonwealth of Virginia. At a height of over 265 above the valley floor, these twin cast-in-place segmental box girder bridges feature 500-foot spans supported by solid H-shaped piers. The twin structures over Grassy Creek also included construction of two tail spans which featured 120-foot long concrete bulb tees. The abutments featured MSE walls nearly 50 feet tall. Foundation types included spread footings on rock, drilled shafts, and micropiles. The project also featured a second bridge over Hunts Creek. The Hunts Creek bridge was 433 feet long, constructed with concrete bulb tees, and founded on drilled shafts. The project relevance includes the design-build delivery method, implementation of an extensive QA/QC Plan, management of project records and materials notebook, and coordination between Contractor and VDOT on a complex project.</p>	
VDOT, Poplar Creek Phase A / Route 460/121, Buchanan County, VA (Design-Build)	
Name of Firm: 3B Consulting Services, LLC	Project Role: Design Quality Assurance Manager
Beginning Date: May 2014	End Date: Oct. 2018 (Estimated)
<p>Specific Responsibilities: Mr. Breeding is serving as the Quality Assurance Manager and Design Manager for the Poplar Creek Phase A project in the Bristol District. He leads the design team where he oversees roadway design, structural design, survey, permitting, geotechnical engineering, utility coordination, and ROW. Mr. Breeding was responsible for the development of the QA/QC Plan for Design and is currently developing the QA/QC Plan for Construction. He leads the day-to-day design activities for the project and closely coordinates with the DBPM and VDOT.</p> <p>Project Relevance: This project includes a multi-disciplined design team under the design-build delivery method. Mr. Breeding was responsible for leading a thorough review of design alternatives which resulted in the replacement of the Poplar Creek Bridge with a 2,300-foot long triple box culvert. The design change saved VDOT over \$80 million and reduced the overall environmental impacts by more than 10%. The relevance to the Exit 114 project include the design-build delivery method, implementation of a QA/QC Plan, structural design alternatives, constructability reviews, and project reporting.</p>	
* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.	
f. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.	
N/A	

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
Name & Title: JAMES W. LONG, PE, DBIA – PROJECT MANAGER, TRANSPORTATION
Project Assignment: DESIGN MANAGER
a. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) : RK&K (Full-time)
b. Employment History: With this Firm <u>1</u> Years With Other Firms <u>23</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below): Project Manager, RK&K (2016-present): Mr. Long has 24 years of combined experience in civil design and project management where he has been the design manager and/or the lead project engineer on a wide range of bridge projects, many transportation and civil engineering projects for VDOT, local transportation agencies, and private sector clients. His responsibilities include management of in-house engineering staff, client and owner/agency coordination, the direction of design by in-house discipline staff and subconsultant personnel, establishing and overseeing quality control programs, public interaction including public hearings and workshops, and the management of budgets and schedules. His extensive design management experience, formal training (MBA) and hands-on participation in inspection, design and construction engineering assignments afford him in-depth knowledge of project requirements. Additionally, his experience with design-build projects has developed his full understanding of the implementation of bridge plans and projects through construction. He has working knowledge of VDOT's policies and procedures, the VDOT Road & Bridge Standards and Work Area Protection Manual as well as FHWA and AASHTO design guidelines. His extensive experience assures VDOT that he is more than capable of leading the design management of this I-81 project to a successful conclusion. Major Projects Director, VDOT Hampton Roads District (2015-2016): Responsible for delivery of the Hampton Roads Transportation Accountability Commission (HRTAC) program. The HRTAC program is funded by Hampton Roads Transportation Fund (HRTF) revenues that are projected to be \$1.1 Billion over the next six years. Managed the overall execution of the HRTAC projects and was responsible for ensuring delivering the projects were delivered on time and within the budget agreements established between HRTAC and VDOT. Chief Engineer, Chesapeake Bay Bridge and Tunnel District (2014-2015): Responsible for planning, organizing and directing the design, inspection and construction of capital improvement programs; ensuring compliance with federal and state policies, rules and regulations; maintains records and files; and preparing reports for 20-mile toll facility across the mouth of the Chesapeake Bay that includes 34-lane miles of bridges and two subaqueous tunnels, each, approximately one mile long. Oversaw the early stages of a Parallel Thimble Shoals Tunnel project, the District's largest capital improvement project. District Structure & Bridge Engineer, VDOT Hampton Roads District (2010-2014): Responsible for the inspection, maintenance, and design of the Hampton Roads Structure & Bridge inventory and program within a diverse region that varies from rural to urban including the largest bridges and the most diverse inventory within Virginia. Worked across the agency with Maintenance, Operations, Preliminary Engineering and Construction to ensure the safety of the traveling public and achieving the goal of ensuring structurally deficient bridges did not exceed 8%. District Structure & Bridge Safety Engineer, VDOT Hampton Roads District (2009-2010): Program Manager for the District's bridge safety inspection program. Responsible for managing an inventory that includes 1,700 bridges and culverts, 500 signs and 7,000 ancillary structures. Regional Manager/Lead Structural Engineer, Collins Engineering, Inc. (2006-2009): Project Manager and Lead Structural Engineer for bridge and miscellaneous structural projects. Oversaw staff of 10 structural engineers. Served as Engineer of Record on bridge projects in Virginia, West Virginia, District of Columbia and Maryland. Senior Financial Analyst, Northrop Grumman, Newport News Shipbuilding (2004-2006): In this role, Mr. Long was responsible for acting as the liaison between Newport News Shipbuilding the Defense Contract Audit Agency (DCAA). Mr. Long was responsible for preparing the shipyard's yearly overhead submission to the Federal government. Additionally, Mr. Long was responsible for coordinating and overseeing the various system audits performed by DCAA and providing internal guidance on allowable versus unallowable overhead expenses. Senior Structural Engineer, Parsons, Brinckerhoff, Quade & Douglas (1995-2004): Senior Structural Engineer in the Norfolk, Virginia office responsible for the management, design and construction support of bridges across the country. In this role, Mr. Long worked on both design-build projects and design-bid-build projects. Mr. Long's projects ranged in construction value from \$10M design-bid-build projects to \$500M+ design-build projects.
c. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: College of William and Mary, Williamsburg, VA / MBA / 2003 / Business Administration University of Connecticut, Storrs, CT / MS / 1998 / Civil Engineering University of Hartford, West Hartford, CT / BS / 1993 / Civil Engineering
d. Active Registration: Year First Registered/ Discipline/VA Registration #: 1999 / Professional Engineer / VA (#0402033496); DBIA / 2014

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

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

VDOT, Midtown Tunnel/Downtown Tunnel/MLK Expressway Extension, Norfolk & Portsmouth, VA

Name of Firm: VDOT	Project Role: Project Manager
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Beginning Date: May 2015	End Date: May 2016
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Specific Responsibilities: As VDOT's Project Manager, Mr. Long was responsible for the overall oversight of the \$2.1B concession between VDOT and Elizabeth River Crossings which included the construction of a new Midtown Tunnel, rehabilitation of the existing Midtown and Downtown Tunnel, and the extension of Martin Luther King Freeway as a limited access roadway from its current termination to Interstate 264. Mr. Long was responsible for managing six VDOT staff and ten consultant staff who supported independent oversight/independent verification of the design-build project associated with the construction and rehabilitation of these facilities. Mr. Long was also responsible for managing the oversight of Elizabeth River Crossings to ensure their maintenance and operations were in accordance with the comprehensive agreement

Project Relevance: As VDOT's Project Manager for this project, Mr. Long has a keen understanding of the needs of the Owner and anticipates the Owner's needs prior to them requesting them. This project included approximately \$1.5B of construction performed under a design-build methodology. This project was successfully delivered for VDOT with change orders amounting to less than 1% of the overall construction value. The project is currently working towards final acceptance.

CSX Railroad over the Anacostia River, Washington, DC

Name of Firm: Collins Engineers, Inc.	Project Role: Project Manager
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Beginning Date: January 2006	End Date: December 2006
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Specific Responsibilities: Project Manager providing construction engineering support to McLean Contracting. This project involved the reconstruction of the substructure approaches of a heavily travelled 910-foot long railroad bridge over the Anacostia River in Washington DC. In order to accelerate construction, McLean Contracting wanted to change the construction of the substructure from cast-in-place concrete to precast concrete. Mr. Long worked directly with McLean Contracting to develop the precast concrete concept alternative which saved McLean both time and cost with this new construction method.

Project Relevance: Mr. Long worked directly with the Contractor on this assignment in a collaborative manner, much like a design-build project. Working directly with the Contractor, Mr. Long determined the best means and methods for the Contractor while satisfying the requirements of the owner, CSX Railroad. As a result of this project, McLean Contracting was able to save significant time and money while providing CSX Railroad with a durable long-term fix of this structure. Mr. Long's experience on this project gives him the understanding of how to work with a Contractor while meeting the needs of the Owner.

Route 895 over Interstate 95 and the James River, Richmond, VA

Name of Firm: Parsons Brinckerhoff	Project Role: Senior Structural Engineer
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Beginning Date: September 1998	End Date: December 2001
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Specific Responsibilities: Mr. Long was a Senior Structural Engineer for the design of the 4,800-foot crossing of Interstate 95 and the James River. Specific tasks included the substructure design for both approaches which included traditional loadings from AASHTO and construction loadings that accounted for two different construction methods; precast concrete balanced cantilever construction with a gantry on the west approach and precast concrete balanced cantilever construction on the east approach. In addition to the design work, Mr. Long was responsible for supporting the project through construction including the review and coordination of shop drawings and Contractor initiated requests for information (RFI's). This roadway is now known as Pocahontas Parkway.

Project Relevance: This project was one of VDOT's earliest design-build projects under Virginia's Public-Private Transportation Act (PPTA). Mr. Long's worked on this project from design through construction, getting a broad understanding of design-build project from cradle to grave.

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

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

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
Name & Title: MAUREEN STOUGH, SENIOR PROJECT MANAGER	
Project Assignment: CONSTRUCTION MANAGER	
a. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) : Blythe Development Co. (Full-time)	
b. Employment History: With this Firm <u>18</u> Years With Other Firms <u>4</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below): Sr. Project Manager, Blythe Development Co. (2012-present): Ms. Stough has more than 20 years of experience in the construction industry and is responsible for managing project construction efforts including quality control activities. Her responsibilities include overseeing daily construction, managing subcontractors, coordinating with the QAM, and ensuring all materials used and work performed are in compliance with specifications. She is responsible for project cost, staffing, subcontractors and scheduling. She has served as Project Manager and Construction Manager on many transportation infrastructure projects. She is actively involved in the pursuit of design-build projects. Her recent bridge projects include new locations, widenings, railroad grade separations and bridge replacement, both staged and new construction. Division Manager, Blythe Development Co. (2009-2012): Division Manager for Grading Division. Oversaw a team of 4-5 project managers responsible for multiple grading projects, both public and private. Managed overall costs, budgets and schedules for heavy highway and sitework projects, including grading, erosion control, sewer, water, storm drain, curb and gutter, and asphalt. Project Manager, Blythe Development Co. (2006-2009; 1998-2005): Project Manager and Lead Engineer for multiple NCDOT and SCDOT heavy highway projects. Projects included new location, improving existing infrastructure and replacing existing structures. As Project Manager, her duties included budget set-up, vendor buy-out, subcontract administration, schedule creation and maintenance, field operation management along with the superintendent.	
c. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Polytechnic and State University, Blacksburg, VA / BA / 1992 / Architecture University of North Carolina at Charlotte, Charlotte, NC / Graduate Studies / 1995 / Structural Engineering	
d. Active Registration: Year First Registered/ Discipline/VA Registration #:	
e. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> (List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)	
NCDOT, Macy Grove Rd. over I-40 Business, Forsyth County, Kernersville, NC (Design-Build)	
Name of Firm: Blythe Development Co.	Project Role: Sr. Project Manager
Beginning Date: June 2012	End Date: September 2015
Specific Responsibilities: Ms. Stough's responsibilities on this project were the same as those assigned for her CM role on the I-81 Bridge Replacement at Exit 114 project including verification that all work meets contract requirements and "approved for construction" plans and specs. As the Sr. Project Manager, she was responsible for coordination and scheduling of Blythe Development's bridge crews, subcontractors, design coordination and constructability review, oversight of crew and work conditions, NCDOT coordination, safety and equipment, contract compliance, and costing. She was responsible for the direct management of the project's schedule and budget. She oversaw the operations team that managed all aspects of construction including subcontractor and vendor selection, document control, submittal tracking, utility coordination, and resource management. She worked with RK&K, the Lead DB Designer, during construction, coordinating constructability reviews of numerous design packages and managing project construction.	
Project Relevance: The Macy Grove Design-Build project consisted of three new structures including an 18,000 sf steel girder bridge over Interstate I-40 Business, a new alignment, prestressed concrete girder bridge over Norfolk Southern Railway, and a new alignment prestressed concrete girder bridge over an existing secondary road. The project also consisted of the removal of two existing structures. The existing bridge over I-40 Business required demolition, along with a second bridge over an existing secondary roadway. There were extensive traffic considerations that had to be managed, including detours, interstate lane closures and road closures, and night work.	
NCDOT, I-77 HOT Lanes South Segment, Charlotte, NC (Design-Build)	
Name of Firm: Blythe Development Co.	Project Role: Sr. Project Manager
Beginning Date: Feb. 2017	End Date: May 2018

Specific Responsibilities: As Senior Project Manager for bridge construction, Ms. Stough is responsible for planning, directing, and coordination of all construction activities, including project budget control and management of all subs. She also oversees the Project Manager and project team ensuring the coordination of all bridge construction activities. She is the direct contact with the Owner for all budget and schedule correspondence. As a design-build job, she also works closely with the Owner to assist with design issues during construction. She works directly with the project superintendents and project manager in order to manage resources, control budgets and maintain schedule. She reviews status reports and ensures all designs adhere to contract specifications.

Project Relevance: The \$8.9 million contract for labor/equipment includes construction of four bridges along the I-77 corridor in Charlotte, NC. Two of the structures are phased bridge replacements that include demolishing half of the existing bridge, building the first phase of the new bridge, demolishing the second half of the existing bridge and building the second phase of the new bridge. Both structures consist of multiple spans of prestressed concrete girders, concrete bridge deck, drilled caisson foundations and are over the existing interstate. Another structure is a 5-span prestressed concrete girder interstate ramp bridge. After completion of the new bridge, the existing structure will be removed. The contract also includes the widening of an existing interstate bridge. All work for the project requires extensive traffic control coordination for interstate work, night work for girder erection, demolition and any work over or adjacent to traffic. The scope of the project also includes temporary shoring walls (sheet piling and wire basket walls).

NCDOT, Salisbury Road over I-40 Business Bridge Replacement, Forsyth County, NC

Name of Firm: Blythe Development Co.	Project Role: Project Manager
Beginning Date: June 2012	End Date: Nov. 2012

Specific Responsibilities: As Project Manager for the Salisbury Road over I-40 Business Bridge Replacement, Ms. Stough was responsible for all aspects of bridge and roadway construction and coordination, and was the direct contact with the Owner. She managed the project schedule and coordination of project work that were crucial to the Berkmar Drive Extension, eriod - PA subcontractors, as well as the planning, directing, and coordination of project budget, construction, and coordination of subcontractors. She also coordinated with Lead Designer including constructability reviews. Other project management duties included document control, submittal tracking, and material procurement.

Project Relevance: The \$2 million project included removing the existing 4-span, concrete girder bridge over I-40 Business. The new 2-span bridge consisted of prestressed concrete girders, concrete deck, and decorative classic bridge rail. Temporary shoring was required to support the existing interstate while excavating and constructing the center bent footing and columns. Numerous improvements to the roadway approaches and nearby intersecting city streets were completed, including drainage structures, water and sewer lines, curb and gutter, sidewalk, asphalt paving and a cast-in-place gravity retaining wall.

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

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

- Senior Project Manager for Structures, I77 Hot Lanes, Charlotte NC. Estimated completion May 2018
- Senior Project Manager for Bridge Replacement, Steele Creek, York County SC. Estimated completion October 2017
- Senior Project Manager for Bridge Construction, Sugar Creek Rd, Charlotte, NC. Estimated completion April 2018



Attachment 3.4.1(a)

Lead Contractor-Work History Form

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: NC-16 over I-40 Bridge Replacement Location: Catawba Co., NC	Name: NCDOT Staff Engineers	Name of Client/ Owner: NCDOT Phone: 704.480.9020 Project Manager: Larry Carpenter, PE Phone: 704.480.9020 Email: lcarpenter@ncdot.gov	10/2012	02/2013 (Owner approved time extensions)	\$3,132	\$2,931 (Reduced from original contract amount due to quantity underruns)	\$2,931

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

Similar Scope of Work: <ul style="list-style-type: none"> Roadways Interstate Survey Structures and Bridges Environmental Geotechnical Hydraulics Traffic Control Devices Transportation Management Plan Maintenance of Traffic QA/QC Right-of-Way Utilities Guardrail Public Involvement/Relations Construction Engineering and Inspection 	PROJECT SCOPE	
Proposed Personnel on Project: Mo Stough (Blythe) Marvin Leatherwood (Blythe)	<p>Blythe Development Co. served as the Lead Contractor for this NC-16 over I-40 Bridge Replacement project and was responsible for all aspects of demolition, removal of existing bridge and construction of new bridge and upgrades to the roadway approaches. The project scope included the removal of the existing 4-span, 320' long concrete deck-steel girder bridge over I-40 on NC-16 and replacement with a 2-span, 200' long bridge consisting of pre-stressed concrete girders, concrete deck, sidewalk, and three bar metal rail, founded on three piers. MSE walls were built at each abutment location to allow for the use of shorter span lengths. A system similar to this operation will be investigated for I-81 Bridge Replacement at Exit 114 project.</p> <p>Numerous improvements to the roadway approaches were completed at both ends of the project, including construction and installation of drainage structures, RCP, curb & gutter, sidewalk, driveways and new asphalt pavement.</p> <p>Blythe's Team was responsible for the bridge demolition; bridge construction; MOT, environmental permits and protection, erosion control; utility coordination, concrete flatwork construction including curb; gutter, sidewalk and driveways; stormwater system construction including drainage structure and pipe installation; roadway grading including collector and arterial road tie-ins.</p> <p>The scope of work for this project posed numerous challenges for the Blythe team. Thorough and detailed planning by Blythe project management team allowed for successful resolution of these challenges, as follows:</p> <p>Challenge 1: The contract only allowed for pacing of traffic and 20 minute closures to allow for demolition of existing structure over interstate traffic Resolution: The Blythe Team proposed MOT revisions to improve traffic flow and presented to the owner. These revisions were implemented once approved by the Owner, and an interstate detour plan, which called for a full interstate closure at night, allowed for the uninterrupted demolition of the existing bridge.</p> <p>Challenge 2: Original contract time was very tight at just ten months with potential of significant contractual liquidated damages (\$2000/per calendar day) Resolution: The Blythe Team developed and actively managed an aggressive critical path schedule. This enabled the timely design approval and delivery of key permanent materials, scheduling of key subcontractors and additional labor crews and ensured the team stayed ahead of any potential issues which could negatively affect the schedule.</p>	
RELEVANT PROJECT ELEMENTS TO I-81 BRIDGE REPLACEMENT AT EXIT 114		
<ul style="list-style-type: none"> Interstate corridor bridge demolition 		
SUCCESSFUL DELIVERY		
<p>This project was delivered under-budget and with a perfect safety record for the construction team and the travelling public. Late in the contract, the owner made significant design changes to a portion of the project, which necessitated negotiation of additional contract time. Blythe worked with the designers to efficiently integrate these owner-directed changes and Blythe completed the project on-schedule with the additional time granted by the owner.</p>		

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: New Interchange with Macy Grove and I-40 Business Location: Forsythe Co., NC	Name: RK&K	Name of Client/ Owner: NCDOT Phone: 919.707.6617 Project Manager: David Hering, PE Phone: 919.707.6617 Email: dhering@ncdot.gov	10/2015	10/2015	\$38,000	\$39,300 (Change order for utility betterment)	\$39,300

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

<p align="center">Similar Scope of Work:</p> <ul style="list-style-type: none"> • Design-Build • Roadways • Survey • Structures and Bridges • Environmental • Geotechnical • Hydraulics • Traffic Control Devices • Transportation Management Plan • Maintenance of Traffic • QA/QC • Noise Walls • Right-of-Way • Utilities • Landscaping • Guardrail • Public Involvement/Relations • Construction Engineering and Inspection • ITS 	<p align="center">PROJECT SCOPE</p> <p>This fast-track, Blythe Development led design-build project consisted of the construction of a new interchange and three bridges at Macy Gove and I-40 Business to enable traffic to flow with the highest efficiency both in its final pattern and temporary patterns throughout the phasing required for this project. As the Design-Builder, Blythe was 100 percent responsible for all aspects of construction and design, including highways and structures, MOT, environmental permits and protection, public relations, coordination with adjacent properties and utility protection and relocation. Daily coordination occurred onsite and weekly meetings were held. RK&K was the Lead Designer on this project. The scope of the project included the demolition and removal of the existing bridge over I-40 business that carried approximately 55,000 vehicles a day with a new 156 foot, single-span structural steel bridge with MSE walls used to minimize span length. Two additional bridges were included as part of this project scope and were constructed to carry Macy Grove Road traffic over a NSRR and over East Mountain Street. With traffic control and safety being of paramount concern, much of the construction was completed at night and during off-peak traveling. Utility coordination and ROW acquisition were major components of the project and were managed by the RK&K Team.</p>	
<p align="center">Proposed Personnel on Project:</p> <p>Mo Stough (Blythe) Mike Parker (Blythe) Marvin Leatherwood (Blythe) Richard Kirkman (Blythe)</p>	<p align="center">RELEVANT PROJECT ELEMENTS TO I-81 BRIDGE REPLACEMENT AT EXIT 114</p> <p>Structural Engineering: Similar to what may be utilized on the I-81 Bridge Replacement at Exit 114 Project, median crossovers and the existing ramps with potential modifications along with phased construction helped manage the MOT. Utility coordination and ROW acquisition were major components of the project and were managed by the RK&K team.</p> <p>Utilities: The D-B Team acquired all permits for construction and coordinated all utility construction and relocation. After right-of-way plans were developed, utility coordination quickly began. Close coordination was maintained with utility companies to finalize designs and begin construction as soon as right-of-way was acquired.</p> <p>Right of Way: Right-of-way acquisition and permitting were two schedule critical activities that led to getting the construction phase off to a good start. Post-award investigation by the RK&K Team of the permit requirements resulted in a nationwide permit being obtained instead of an individual permit. This allowed construction to begin earlier than originally scheduled. The construction management team, along with RK&K, developed a priority list of parcel acquisitions which allowed construction to progress.</p>	
<p align="center">SUCCESSFUL DELIVERY</p> <p>This project was delivered 10 days beyond schedule with a perfect safety record. There were no recordable safety incidents for the construction team or the travelling public. The delay in schedule was due to an equipment failure by a subcontractor at the completion of the project. The project was also delivered on budget for the original scope. The increase in contract value was for a utility betterment of extending a 24 inch waterline. This waterline was delivered for an overall lower cost to the owner, compared to a standalone contract to conduct the work.</p>		
<p align="center">LESSONS LEARNED</p> <ul style="list-style-type: none"> • Due to the high volume of train traffic on the NSRR, construction of the structure over NSRR took longer than anticipated. Bridge crews worked longer hours and on the weekend to overcome the delay. In the future, a longer duration will be accounted for in the schedule for structures over railroads with a high volume of train traffic. • A large part of the success of the project was the role of the Blythe's Team Design Build Coordinator, Richard Kirkman. Mr. Kirkman was the liaison between the construction and design teams and kept both sides focused on the most critical parts of the project. He will serve in a similar role on the Exit 81 Bridge Replacement at Exit 114. 		

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: Bridge Replacement on Salisbury Street over I-40 Location: Forsyth Co., NC	Name: NCDOT Staff Engineers	Name of Client/ Owner: NCDOT Phone: 333.246.6255 Project Manager: Dale Swicegood, PE Phone: 336.249.6255 Email: dswicegood@ncdot.gov	11/2012	11/2012	\$2,226	\$2,120 (Reduced from original contract amount due to quantity overruns)	\$2,120

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

Similar Scope of Work:	PROJECT SCOPE	
<ul style="list-style-type: none"> Roadways Interstate Survey Structures and Bridges Environmental Geotechnical Hydraulics Transportation Management Plan Maintenance of Traffic QA/QC Right-of-Way Utilities Public Involvement/Relations Construction Engineering and Inspection 	<p>Blythe Development Company served as the Lead Contractor for the bridge replacement on Salisbury Street over I-40 project. This project included the removal of the existing 4-span, 190' long reinforced concrete deck-girder bridge and replacement with a 2-span, 200' long concrete bridge consisting of pre-stressed concrete girders, concrete deck, sidewalk & decorative classic bridge rail, founded on three piers. Temporary shoring was required to support the existing interstate while excavating and constructing the center pier footings and columns. Numerous improvements to the roadway approaches and nearby intersecting city streets were completed, including construction and installation of drainage structures, water & sewer lines, RCP, curb & gutter, sidewalk, driveways and new asphalt pavement. In addition, a 100' long CIP concrete gravity retaining wall was built in order to facilitate road widening in close proximity to an existing church.</p> <p>Blythe's Team was responsible for the bridge demolition; temporary shoring installation; cast-in-place gravity retaining wall construction; all aspects of bridge construction from H-pile installation to barrier rail construction; erosion control, concrete flatwork construction including; curb & gutter, sidewalk and driveways; stormwater system construction including drainage structure and pipe installation; utility coordination and construction including water and sewer; all aspects of roadway grading including collector and arterial road tie-ins.</p>	
Proposed Personnel on Project:	RELEVANT PROJECT ELEMENTS TO I-81 BRIDGE REPLACEMENT AT EXIT 114	
Mo Stough (Blythe) Marvin Leatherwood (Blythe)	<p>Interstate Corridor Bridge Demolition: As will be required on the I-81 project, intensive demolition plans were required involving both equipment and traffic plans to allow for the demo of the existing structures.</p> <p>Interstate Corridor Bridge Construction: Limited access created logistical situations that required a high level of planning to ensure an expedited schedule that minimized the impacts on the traveling public and maximized the safety of the site and traffic thru the project.</p> <p>MOT of High Volume Roadway: The use of crossovers and staged construction was required as will be on much of the construction on I-81</p> <p>Night Construction: Much of the roadway, bridge demo and placement of girders was performed at night during off peak hours to minimize the impacts on the heavily traveled section of I-40. In addition to these situations the tie in work for crossovers and placement of traffic into its final pattern required the activities to be performed when lane closures were allowed. Similar use of traffic control during night hours will be required for the I-81 project.</p>	

SCOPE CHALLENGES AND RESOLUTIONS

The scope of work for this project posed numerous challenges for the Blythe team. Thorough and detailed planning by Blythe project management staff allowed for successful resolution of these challenges, as follows:

Challenge 1: Ingress & egress to a narrow interstate median with reduced sight distances in both directions. **Resolution:** Minor material deliveries were scheduled for low peak traffic times, with major material deliveries scheduled for night time, using escort vehicles to pace traffic

Challenge 2: Installation of temporary shoring (driven sheeting) in a tight median space immediately adjacent to interstate traffic was required, **Resolution:** One lane of interstate traffic was closed in each direction at night to allow for installation of sheeting

Challenge 3: Contract only allowed for pacing of traffic and 20 minute closures to allow for demolition of existing structure over interstate traffic. **Resolution:** Blythe's management team developed, presented to the owner and received approval for an interstate detour plan which called for a full interstate closure at night, allowing for the uninterrupted demolition of the existing bridge.

SUCCESSFUL DELIVERY

This project was delivered on-time and under budget. This project was also delivered with a perfect safety record for the construction team as well as the travelling public. There were no reported incidents on this project. This is a testament to the importance Blythe places on safety.



Attachment 3.4.1(b)

Lead Designer Work History Form

ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: I-64 Widening and Route 623 Interchange Improvements (Short Pump) Location: Goochland and Henrico Counties, VA DESIGN-BUILD	Name: Corman Construction	Name of Client./ Owner: VDOT Phone: 804.524.6433 Project Manager: Shane Mann Phone: 804.524.6433 Email: shane.mann@vdot.virginia.gov	10/2013	11/2015	\$33,238	\$34,862*	\$2,500

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<p align="center">Similar Scope of Work:</p> <ul style="list-style-type: none"> • Design-Build • Roadways • Survey • Structures and Bridges • Environmental • Geotechnical • Hydraulics • Traffic Control Devices • Transportation Management Plan • Maintenance of Traffic • QA/QC • Public Involvement/Relations 	<p align="center">PROJECT SCOPE</p> <p>RK&K's Richmond office served as the Lead Designer for this DB project involving the inside widening of 4.5 miles of I-64 from a four-lane divided freeway to a six-lane divided freeway. The project began west of the interchange with Route 623 and extended to Route 295 (Pouncy Tract Road), and included two replacement bridges and improvements to the I-64/Route 623 interchange. The I-64 interchange with Route 288 is also located within the project limits. This segment of I-64 provides a critical link between downtown Richmond and Richmond's "West End" with traffic volumes in the area at nearly 50,000 vehicles per day. The project is an excellent match to I-81 Exit 114 in both scope and complexity, specifically in the design of interstate bridge replacements and design for complex Maintenance of Traffic (MOT). This project also shows our understanding and ability to account for Interstate widening, which is a future VDOT goal at I-81 Exit 114.</p>
<p align="center">Proposed Personnel on Project:</p> <p>Owen Peery (RK&K) Stuart Samberg (RK&K) Michael Hogan (RK&K) Richard Woody (RK&K) Jeff Kapinos (RK&K) James Durbin (RK&K)</p>	<p align="center">RELEVANT PROJECT ELEMENTS TO I-81 BRIDGE REPLACEMENT AT EXIT 114</p> <p>Structures and Bridges: Structures design included 130' simple span prestressed concrete girder bridges for I-64 over Little Tuckahoe Creek to replace the existing three-span steel girder bridges. Design included foundations, substructure, and superstructure. Special considerations included significant skew, extreme scour conditions, and staged construction to support maintenance of traffic during bridge replacement. The two replacement bridges provided VDOT with new structures with a longer life and fewer maintenance issues than rehabilitating and maintaining the existing bridges, at a lower cost than repair and rehabilitation. Structural design tasks on this project also included design of foundations for signal and sign structures, upgrades to pier protection barriers to meet current standards at existing overpasses.</p> <p>Interstate Widening: Design and construction of this freeway, with a 75-mph design speed, included the following roadway improvements: widening of the existing I-64 to provide one 12-foot wide lane in each direction of I-64 median; addition of a 12-foot-wide paved shoulder in each direction; median guardrail installation; and outside shoulder guardrail replacement. Upgrades to the existing outside shoulder included full depth reconstruction for a portion of the project length, as well as 2" mill and overlay of the existing travel lanes and remaining shoulder. Improvements to the I-64/Route 623 interchange included widening both off ramps from I-64 to Route 623 to provide additional turn lanes, the addition of a left turn lane on Route 623 to access I-64 eastbound, and upgrading the existing traffic signal.</p> <p>Limiting Impacts to the Traveling Public/Businesses/Communities/Safety: RK&K developed a comprehensive Transportation Management Plan (TMP) and Maintenance of Traffic (MOT) plan to manage traffic during construction, which included a traffic operations plan, temporary traffic control plan and public communications plan. Access to entrance and exit ramps at all three interchanges were maintained while completing the improvements. Other innovations, including the use of MSE walls in lieu of culvert extensions resulted in reduced construction durations, limiting impacts to the traveling public.</p> <p>Innovative Design/Construction Techniques: The bridges over Little Tuckahoe Creek utilized an innovative abutment design of rock-socketed steel H-piles with MSE-type straps carrying a portion of the lateral loads, reducing the number of augured piles required for lateral stability of the abutments. Another innovative design and construction technique was the use of five MSE retaining walls at existing culvert locations which reduced the cost of the project, review times, and construction durations.</p> <p>Implementing/Maintaining QA/QC Plan: Our design quality management plan, developed specifically for this project, resulted in quality design submittals that were easily reviewed by VDOT. Efficient reviews allowed the design and construction to proceed on schedule. Because of our ability to maintain an effective Quality Assurance and Quality Control Plan, this project earned the second highest CQIP score for a design-build project.</p> <p>MOT/TMP: The sequence of construction was designed so that construction could be accomplished in two phases, with two lanes of traffic in each direction maintained throughout construction. Access to entrance and exit ramps at all three interchanges were maintained while completing the improvements. The TMP was designed in accordance with the allowable work hours and holiday and weekend restrictions implemented by VDOT for this project. The WZTIA was used to evaluate traffic impacts associated with construction activities and refine the MOT to minimize congestion during construction.</p> <p>Environmental: RK&K provided full service environmental design and permitting for this project, including: wetland delineations and stream assessments; determination of wetlands/stream mitigation requirements; securing rare, threatened and endangered species clearances; securing cultural resource clearances from the Virginia Department of Historic Resources; acquiring water quality permit authorizations/ modifications; securing Clean Water Act Individual Permit, State Programmatic General Permit, Water Protection General Permit, and Virginia Stormwater Management Permit from the VDEQ; and compliance with environmental commitments contained in the NEPA document.</p> <p>Geotechnical: Full geotechnical services on project included subsurface explorations; laboratory testing & soil classification, strength, and consolidation parameters; pavement design; assessment and mitigation for unsuitable soils; foundation design for overhead sign/signal structures; and analysis of MSE retaining walls at culvert locations. Foundation design for the replacement bridges and associated wingwalls was also provided.</p> <p>Hydraulics/Drainage: RK&K performed a full Hydrologic and Hydraulic Analysis (H&HA) for the bridge crossings over Little Tuckahoe Creek, including HEC-RAS modeling and scour analysis. RK&K determined that a replacement bridge with a smaller hydraulic opening than the original bridge was feasible, resulting in significant cost savings related to the bridges. Drainage design included design of stormwater management facilities, erosion and sediment control measures, bridge deck drainage, adequate outfall analysis, underdrains, storm sewer systems, and design of temporary drainage needs for MOT sequencing. <i>The project contract value increased as a result of owner initiated changes to the project scope.</i></p>



ATTACHMENT 3.4.1(b)

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					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: Route 29 Solutions – Rio Road Element Location: Albemarle, VA DESIGN-BUILD	Name: LANE/Corman	Name of Client: VDOT Phone: 434.422.9373 Project Manager: David Covington, PE Phone: 434.422.9373 Email: Dave.covington@vdot.virginia.gov	03/2015	10/2017	\$116,700*	\$128,700**	\$2,900***

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The three elements were: Route 29 and Rio Road Grade Separated Intersection; Route 29 Widening from four lanes to six lanes from Polo Grounds Rd. to Towncenter Dr.; and Berkmar Dr. Extension of 2.3 miles on new alignment from Hilton Heights Rd. to Towncenter Dr. This work History Form focuses on the Rio Road element. The contract required that the depressed travel lanes and associated bridge along Route 29 in the center of the Rio Road intersection be constructed within one summer in a period of 103 days. The Rio Road project element is complete, while the Route 29 Widening and Berkmar project elements are nearing completion and are scheduled to be complete approximately three months ahead of the fixed completion date. Work was performed in RK&K’s Richmond and Fairfax offices.</p> <p align="center">RELEVANT PROJECT ELEMENTS TO I-81 EXIT 114 BRIDGE REPLACEMENT</p> <p>Roadway: RK&K was the lead engineer for the Rio Road grade separated intersection project element.. The project required significant roadway design for several different roadway types and typical sections with a mix of roadway rehabilitation, widening, and new construction.</p> <p>Structures Engineering: RK&K performed the structural engineering of the Rio Road Grade Separated Intersection using an innovative design method that had never been constructed in Virginia. The abutments were integrally placed on top of the soldier pile retaining wall to minimize the footprint of the bridge and allow traffic on Route 29 to remain open throughout the construction process. The bridge superstructure was designed to act as a strut to support the retaining walls horizontally while also supporting truck and roadway traffic vertically. This design concept was chosen because of the limited amount of space in the intersection and the requirement to keep traffic open at all times during the project. The bridge and retaining walls were built in the congested intersection without acquiring additional right-of-way in an extremely tight schedule.</p> <p>Limiting Impacts to the Traveling Public/Businesses/Communities/Safety: The innovations discussed above significantly contributed to the Team’s ability to deliver the project in advance of the required completion date. In such a tight, urban environment, this reduction in construction duration effectively limited permanent and temporary impacts to the traveling public, businesses and the surrounding communities. Through the collaboration and the partnership between VDOT and our team, the project was successfully delivered ahead of the fixed completion date. In addition , the extremely aggressive interim requirement to complete the grade separation in 103 days was completely surpassed by the this D-B Team’s ingenuity, allowing that phase of the work to be completed in 58 days.</p> <p>Implementing/Maintaining QA/QC Plan: RK&K utilized a project specific design quality plan for this project which included necessary coordination between the primary designers on each of the three elements, to ensure consistency between approaches and contractual compliance. Due to the unique and innovative solutions used at the Rio Road Intersection, constructability reviews required by the design quality plan were enhanced to ensure that there were no flaws in the plans or construction means and methods that would prevent completion of the work within the allowable closure period.</p> <p>Maintenance of Traffic: RK&K provided traffic engineering, the regional transportation management plan (TMP), and maintenance of traffic (MOT) for the Rio project element. MOT on the Rio project was critical because the contract required all existing lanes to be maintained during the day except for a 103 days in the summer. RK&K used the WZTIA to predict the impacts associated with detouring Rio’s left turn and through movements in this interim period and included two temporary U-turns on US 29 to improve operations. The TMP included re-timing and phasing of Route 29 corridor signals to facilitate the modified traffic patterns, development of queue lengths at the U-turn locations and the use of detours to reduce the number of U-turning vehicles. The TMP included outreach in conjunction with VDOT to publicize the detours and re-timed signals. RK&K monitored traffic impacts after implementing each traffic change and made adjustments to optimize the plan to fit actual conditions.</p> <p>Environmental: RK&K provided full service environmental design and permitting including: wetland delineations and stream assessments; determination of wetlands and stream compensatory mitigation requirements; secured rare, threatened and endangered species clearances; and secured numerous other clearances and permits.</p> <p>Public Outreach/Involvement: Our Team provided a Public Relations Manager to work alongside VDOT’s Public Outreach Manager, providing support to the Project Development Advisory Panel and providing updates to VDOT from the D-B team. The Public Relations Manager handled Hot Line calls, met with citizens, business owners, homeowners associations and others to brief on project developments and upcoming events. Many visits were performed just ahead of when construction activities were about to impact a property or facility. The results of this outreach can be seen in the Evidence of Performance listed below.</p> <p>Safety: The project included design and construction of bike lanes and multi-use paths, increasing safety for these users. On Rio Road, separating the local and through traffic at this intersection, which had a history of high crash rates, improved safety.</p> <p><i>* The project contract value is representative of the entire Route 29 Solutions contract as values for each element were not specified. ** Contract value increased as a result of owner initiated changes to the project scope and the incentive bonus.*** Indicated Design Fee for Rio Road Element only; Design Fee for entire project was \$10,444 (in thousands).</i></p>	<p align="center">EVIDENCE OF PERFORMANCE</p> <p>“LANE/CORMAN and RK&K did an excellent job of selecting the right design for a unique need, designing the bridge quickly to meet the needs of an aggressive schedule, working closely with VDOT to provide solutions for long-term maintenance and providing high quality design and construction.” —David Covington, PE, Regional Manager, VDOT</p> <p>“This project brought something that you cannot pay for: Good will ... This should become the default model for community engagement.” —Liz Palmer, Chair, Albemarle County Board of Supervisors</p> <p>“The partnership between VDOT and LANE/CORMAN, as well as the cooperation of Albemarle County, the nearby businesses and neighborhoods and the community at large, were instrumental in the success of this project. Without the involvement of the businesses and the community – and their understanding for the inconveniences they experienced – we would not have attained this successful outcome.” — Charles Kilpatrick, VDOT Commissioner</p>
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ATTACHMENT 3.4.1(b)

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Name: I-4744: I40 Widening Location: Wake County, NC DESIGN-BUILD	Name: S.T. Wooten	Name of Client: North Carolina DOT Phone: 919.707.2900 Project Manager: Roger Rochelle, PE Phone: 919.707.2900 Email: rdrochelle@ncdot.gov	6/2009	6/2011	\$49,000	\$49,000	\$3,900

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<p align="center">Proposed Personnel on Project:</p> <p>Stuart Samberg, PE (RK&K)</p>	<p align="center">RELEVANT PROJECT ELEMENTS TO I-81 BRIDGE REPLACEMENT AT EXIT 114</p> <p>Structural Engineering: The bridges carrying I-40 over Wade Avenue and U.S. 1/64 were widened to carry the traffic capacity of eight lanes. Both sets of dual bridges are curved with chorded steel girders and are along a vertical curve, making it a challenge to tie into the existing bridge. At the time of construction, the existing bridges were approximately thirty years old. During construction, two lanes of traffic in each direction was maintained.</p> <p>The dual bridges over Wade Avenue are three-span, 265-foot long structures. The bridge superstructure consists of simple span steel plate girders. The abutments are supported by steel piles and the two interior post and beam bents are supported by drilled shafts.</p> <p>The dual bridges over U.S. 1/64 are five-span, 320-foot bridges in a highly congested area. The bridge superstructure consists of simple span steel rolled beams. The abutments are supported by steel piles, while two of the four interior post and beam bents are supported by steel pile footings, and two are supported by drilled shafts. Specialized shoring was designed to construct the interior bents due to the proximity of the existing bridge and the site soil conditions. Both sets of dual bridges were widened approximately 30 feet to the median.</p> <p>Limiting Impacts to the Traveling Public/Businesses/Communities/Safety: Widening to the median presented construction access challenges, including safety issues resulting from slow moving construction traffic entering and exiting the high speed travel lanes. To alleviate these concerns, our team used alternate means of delivering materials to the median whenever possible to limit the exposure to traffic and reduce construction time. Additional traffic studies were also conducted to evaluate the most appropriate times and days of the week that construction activities could be performed adjacent to active travel lanes.</p> <p>Innovative Design/Construction Techniques: Because a significant amount of work was confined to the median, where right of way and permit requirements were minimized, our team staged design and construction submittals for the median work to allow this work to proceed very early during the project. The remaining work outside of the median followed a more typical design schedule, and construction was able to be expedited since significant construction progress had already been made on the median work. The innovative scheduling allowed the project to be completed a full year ahead of the client's required completion date.</p> <p>Interstate Widening: I-40 is a high volume, critical freeway in Wake County, NC. This rolling urban freeway with a 70-mph design speed included the following roadway improvements: design and construction of median widening to provide one additional 12-foot wide lane in each direction of I-40 (expanding the interstate from four to six lanes); additional of a 12-foot-wide paved shoulder in each direction; median guardrail installation; shoulder guardrail replacement; and widening of the roadway from two to three at the eastbound I-40/Wade Avenue split.</p>
<p align="center">EVIDENCE OF PERFORMANCE</p>	
<p>Implementing/Maintaining QA/QC Plan: RK&K developed a project specific design QA/QC plan requiring design quality checks, peer reviews, constructability reviews, environmental reviews, and cross-discipline coordination. Special care was taken to coordinate erosion and sediment control plans with the contractor's staff, such that plans and procedures were easily followed during construction resulting in minimal impacts to adjacent natural resources.</p> <p>Utilities: RK&K led the utility coordination efforts and was responsible for obtaining Level "A" S.U.E. data, coordination with the utility companies, and development of the utility conflict matrix. In addition to utility coordination and relocations required for construction of the project, utility design included the design and permitting of water services for the construction office and asphalt plant facilities.</p>	
<p>"I commend the entire Design-Build Team for completing this project quickly, safely, and cost effectively. The Design-Build Team's efforts exceeded NCDOT's expectations in innovation during both design and construction. Despite the numerous and complicated traffic control, schedule, subgrade, and public information challenged of this project, the S.T. Wooten/RK&K total 'team approach' and responsiveness to the NCDOT contributed to one of North Carolina's finest transportation achievements." – Mr. Rodger Rochelle, PE Director of the NCDOT Transportation Program Management Unit - Source: ACEC Award - Endorsement Letter</p>	

