STATEMENT OF QUALIFICATIONS
A DESIGN-BUILD PROJECT

I-64 Widening Exit 200 to 205
From: Interstate 295 | To: Exit 205 (Bottoms Bridge)

State Project No.: 0064-043-602
Federal Project No.: NHPP-064-3 (499)
Contract ID Number: C00107458DB95

December 15, 2016
**ATTACHMENT 3.1.2**

**Project: 0064-043-602, Contract ID#: C00107458DB95**

**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

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

<table>
<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
<th>RFQ Cross reference</th>
<th>Included within 15-page limit?</th>
<th>SOQ Page Reference</th>
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<td>no</td>
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<tr>
<td>Acknowledgement of RFQ, Revision and/or Addenda</td>
<td>Attachment 2.10 (Form C-78-RFQ)</td>
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<td>iv</td>
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<tr>
<td>Letter of Submittal (on Offeror’s letterhead)</td>
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<td>Authorized Representative’s signature</td>
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<td>Offeror’s Point of Contact information</td>
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<td>Principal Officer information</td>
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<td>Offeror’s corporate structure</td>
<td>NA</td>
<td>Section 3.2.4</td>
<td>yes</td>
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<td>Identity of Lead Contractor and Lead Designer</td>
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<td>Section 3.2.5</td>
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<td>Affiliated/subsidiary companies</td>
<td>Attachment 3.2.6</td>
<td>Section 3.2.6</td>
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<td>Appx. 3.2.6</td>
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<td>Debarment forms</td>
<td>Attachment 3.2.7(a) Attachment 3.2.7(b)</td>
<td>Section 3.2.7</td>
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<td>Appx. 3.2.7</td>
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<td>Offeror’s VDOT prequalification evidence</td>
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<td>Section 3.2.8</td>
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<td>Evidence of obtaining bonding</td>
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<td>Section 3.2.9</td>
<td>no</td>
<td>Appx. 3.2.9</td>
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<tr>
<td>SCC and DPOR registration documentation (Appendix)</td>
<td>Attachment 3.2.10</td>
<td>Section 3.2.10</td>
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<td>Appx. 3.2.10</td>
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<td>Full size copies of SCC Registration</td>
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<td>Section 3.2.10.1</td>
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<td>Full size copies of DPOR Registration (Offices)</td>
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**DBE statement within Letter of Submittal** confirming Offeror is committed to achieving the required DBE goal

- NA | Section 3.2.11 | yes | 2

**Offeror’s Team Structure**

- yes | 3-6

- Key Personnel Resume – DB Project Manager
  - Attachment 3.3.1 | Section 3.3.1.1 | no | Appx. 3.3.1

- Key Personnel Resume – Quality Assurance Manager
  - Attachment 3.3.1 | Section 3.3.1.2 | no | Appx. 3.3.1

- Key Personnel Resume – Design Manager
  - Attachment 3.3.1 | Section 3.3.1.3 | no | Appx. 3.3.1

- Key Personnel Resume – Construction Manager
  - Attachment 3.3.1 | Section 3.3.1.4 | no | Appx. 3.3.1

- Organizational chart
  - NA | Section 3.3.2 | yes | 4

- Organizational chart narrative
  - NA | Section 3.3.2 | yes | 5-6

**Experience of Offeror’s Team**

- yes | 7-8

- Lead Contractor Work History Form
  - Attachment 3.4.1(a) | Section 3.4 | no | Appx. 3.4.1
## ATTACHMENT 3.1.2

**Project:** 0064-043-602, **Contract ID#:** C00107458DB95

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<tr>
<td>Lead Designer Work History Form</td>
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<td>Appx. 3.4.1</td>
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<td><strong>Project Risk</strong></td>
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<td>Identify and discuss three critical risks for the Project</td>
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<td>Section 3.5.1</td>
<td>yes</td>
<td>9-15</td>
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ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO. C00107458DB95
PROJECT NO.: 0064-043-602

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 - November 3, 2016 (Date)
2. Cover letter of RFQ Addendum No. 1 - November 30, 2016 (Date)
3. Cover letter of (Date)

__________________________
SIGNATURE

12/7/2016
DATE

Andrew R. Curtis, Jr.
PRINTED NAME
12/7/2016
TITLE
3.2

Letter of Submittal
December 15, 2016

Commonwealth of Virginia
Department of Transportation (VDOT)
Central Office Mail Center
Loading Dock Entrance
1401 E. Broad Street
Richmond, Virginia 23219
Attention: Joseph A. Clarke, P.E. (APD Division)

Re: Letter of Submittal
I-64 Widening Exit 200 to 205
From: Interstate 295
To: Exit 205 (Bottoms Bridge)
Henrico and New Kent Counties, Virginia
State Project No.: 0064-043-602
Federal Project No.: NHPP-064-3 (499)
Contract ID Number/RFQ Number: C00107458DB95

Dear Mr. Clarke:

Curtis Contracting Inc. (CCI) is pleased to submit our proposal for the I-64 Widening Exit 200 to 205, RFQ No.: C00107458DB95 Design-Build project. As requested by the Department’s RFQ, our submission includes:

- One (1) original paper version of our Letter of Submittal with Attachments
- Ten (10) abbreviated paper versions of our Letter of Submittal with Attachments
- One (1) CD-ROM containing the entire Letter of Submittal in a single PDF file

CCI has thoroughly reviewed the Department’s RFQ, including RFQ Q&A (11/30/16) and Addendum #1. Following are responses to information and/or attachments requested in RFQ section 4.1.

3.2.1 Full Legal Name and Address of Offeror: Curtis Contracting Inc.

3.2.2 Official Representative and Point of Contact: Stephen L. Ordung, Vice President of Curtis Contracting, Inc. will serve as the Point of Contact for the Offeror.
Address: 7481 Theron Road, West Point, VA 23181 | PO Box 769, West Point VA 23181
Phone: (804) 843-4633 | Fax: (804) 843-2545 | E-mail: s.ordung@curtiscontracting.net

3.2.3 Principal Officer Information: Andrew R. Curtis, Jr. President of Curtis Contracting, Inc. will serve as the Principal Officer for the Offeror.
Address: 7481 Theron Road, West Point, VA 23181 | PO Box 769, West Point VA 23181
Phone: (804) 843-4633 | Fax: (804) 843-2545 | E-mail: a.curtis@curtiscontracting.net
3.2.4 Corporate Structure: CCI is a corporation titled in the Commonwealth of Virginia and will be the sole proposer/entity with whom VDOT would directly contract for this project. CCI will undertake the financial responsibility for this D-B project. CCI has no liability limitations. The corporate structure of CCI is as follows:

Andrew R. Curtis – Chief Executive Officer
Andrew R. Curtis, Jr. – President
Raymond E. Jarvis – Vice President Finance/Secretary
Stephen L. Ordung – Vice President Operations

3.2.5 Lead Contractor and Lead Designer: CCI is the Lead Contractor for this project, serving as the prime/general contractor responsible for overall construction. GAI Consultants, Inc. (GAI) will be our Lead Designer for the project, meaning the prime design consulting firm responsible for overall design.

3.2.6 Affiliated and/or subsidiary companies of the Offeror: The affiliated or subsidiary companies of Curtis Contracting, Inc. are included in the Appendix 3.2.6

3.2.7 Executed Certification Regarding Debarment: Forms are included in Appendix 3.2.7

3.2.8 VDOT Prequalification Evidence: CCI is pre-qualified to bid on the project as outlined in VDOT’s Rules Governing Prequalification Privileges (prequalification number C333, with an active status) A copy of the company’s VDOT prequalification certificate is included in Appendix 3.2.8

3.2.9 Performance and Payment Bonding: CCI has the capacity to obtain a performance and payment bond in excess of the $55,000,000 estimated contract value of the Project as exhibited by the surety letter in Appendix 3.2.9

3.2.10 Attachment 3.2.10 SCC and DPOR: Information and full-size copies of licenses are included in Appendix 3.2.10

3.2.11 DBE Requirements: CCI is committed to achieving and exceeding the DBE participation goal of ten percent (10%) for this project.

The signature below affirms that the information supplied in this proposal is true and accurate to the best of our knowledge. VDOT is hereby authorized to confirm all information contained in this proposal. The Curtis Contracting D-B Team is enthusiastic about the opportunity to participate in the D-B process for the I-64 Widening Design-Build project, and we are confident that our team will complete this project on time and within your budget.

Sincerely,
CURTIS CONTRACTING, INC.

Andrew R. Curtis Jr.
President
3.3

Team Structure
3.3.1 KEY PERSONNEL

Please refer to the following page for our organizational chart which illustrates the Team structure. The organizational chart illustrates the “chain of command” to include all key personnel. Our Team is organized to provide VDOT with a single source responsible for the delivery of a quality project. We have identified the participants who are responsible for major functions to be performed and illustrated their reporting relationships in managing, designing, QA/QC, and constructing the project. We will ensure that the chain of command is followed throughout design, quality assurance, and construction using a partnering style approach, where issues are resolved at the lowest possible level.

We have specifically designed our organization so there is a clear separation between quality assurance (QA) and construction quality control (QC). Our QA Manager (QAM) reports directly to the Design-Build Project Manager (DBPM) and works very closely with the VDOT Project Manager to ensure independent project quality. We have shown this indirect relationship with VDOT on our organization chart. We also recognize the importance of safety as a significant project issue and have designated a Safety Manager, for developing, maintaining, and communicating a safety plan for this project.

The administration of a project of this magnitude will require the type of partnership that our Team has exhibited on the previous successful projects that we have completed together and individually. Each participant identified within our organization chart has a specific responsibility and will have a clear understanding of the requirements, details, deliverables and the lines of communication to enable them to support the project. All participants understand that VDOT is the project owner and ultimately provides approval of the final design packages prior to construction. VDOT’s designated design project manager and construction manager will have an open invitation to participate in all project meetings to include the project “kick off”, initial design workshops, weekly design/permitting reviews and the weekly and monthly progress meetings held at the onsite project offices. Third-party stakeholder representatives will also be invited to attend each meeting so that they are continually kept abreast of the status of project progress or any items of concern. The DBPM will be the central point of contact for the Design Builder. For efficiency, the DBPM will authorize direct communications between the Design Manager and VDOT’s Design Project Manager for issues relative to design and permitting; however, the DBPM will retain ultimate responsibility for the Design Builder and will be involved in any discussions or communication that would include matters of contract compliance. During the design and permitting phases, we will involve third-party stakeholders as necessary to review and approve our plan or deliverables. As an added benefit of our Team, we provide and maintain a shared use website that contains links to the various project documents to include copies of permits, design submittals, project meeting minutes, QA and QC test reports, EEO documentation, project schedules, etc.

Quality Assurance will surround the entire project from the very beginning to the final document accounting. The Design Manager (DM) will be responsible for establishing and overseeing a QA/QC program for all pertinent disciplines involved in the design of the project. The DM will report to the DBPM and also provide assurance to VDOT relative to the project compliance. The QAM will be responsible for the QA inspection and testing of all materials used and work performed on the project, to include the monitoring of the contractor’s QC program. For example, the QAM will insure that all project documentation, delivery tickets, test reports, non-compliance resolution, etc. are in place prior to offering their approval of the periodic pay estimates. The QAM will be responsible for the development of the QA Plan for the project and its implementation and will report directly to the DBPM. The QAM will inform both VDOT and the DBPM of any deficiencies in the design or construction process that are being neglected by the Design and Construction Team members.

QC will be independent of the QA described above. The DBPM shall retain ultimate responsibility for the QC and will establish the QC Plan for the project specific needs and to insure compliance with the VDOT standards for Design-Build QC and Inspection. Coordination of the QC Program support personnel for inspection, testing, and documentation will be delegated to the Construction Manager and Design Manager for each member’s scope of work.
3.3.2 ORGANIZATIONAL CHART

3rd PARTY STAKEHOLDERS
- Division of Motor Vehicles
- State Police
- Henrico Utilities/EMS/Public Safety
- New Kent County Utilities/EMS/Public Safety
- Richmond International Airport Access
- New Kent County Airport Access
- FHWA
- DEQ
- DNR
- VMRC

PUBLIC RELATIONS MANAGER
Mike Carosi

DESIGN-BUILD PROJECT MANAGER
Steve Ordung

QUALITY ASSURANCE MANAGER
Matthew Weaver, PE, CCM

QA INSPECTION
Tommy Moore

QA TESTING
TBD

DESIGN MANAGER
Mark Burris, PE

MOT MANAGER
Conrad Scott, PMP, PE

CONSTRUCTION MANAGER
Bill Richards, PE

CONSTRUCTION MANAGER
Robert Schowengerdt

QC MANAGER
Robert Schowengerdt

QC INSPECTION
TBD

QC TESTING
TBD

SAFETY MANAGER
Phillip Cole

MOT MANAGER
Conrad Scott, PMP, PE

CONSTRUCTION MANAGER
Bill Richards, PE

QC MANAGER
Robert Schowengerdt

QC INSPECTION
TBD

QC TESTING
TBD

LEGEND
1. Curtis Contracting, Inc.
2. GAI Consultants, Inc.
3. Volkert, Inc.
4. Accompong Engineering Group, LLC
5. Bowman Consulting Group
6. Seventh Point Transportation PR

Denotes key personnel, resume included
3.3.1.1 DESIGN-BUILD MANAGER (DBPM) – Steve Ordung

Steve will be responsible for the success of the overall project, construction, quality management, and contract administration for the project. Steve has been a Senior Project Manager for over 20 years and has managed numerous complex transportation projects involving earthwork, structures, concrete and asphalt paving, utilities, and storm drainage. Steve maintains a very diverse background of large infrastructure improvement projects including highways, bridges, airports, water/waste water treatment facilities, roads, and parks. Clients have included the Virginia Department of Transportation, Maryland State Highway Administration, USACE, Department of the Navy, General Services Administration, York County, City of Hampton, James City County, City of Poquoson, and other private sector clients. Throughout his career, he has excelled at bringing quality transportation projects to completion on time and within budget. Steve has served as the Design-Build Project Manager for numerous Curtis Contracting design-build projects over the past 10 years. His most recent projects include: I-264/MLK Extension Interchange P3 Project in Portsmouth; I-264 Pavement Rehabilitation Design-Build Project in Virginia Beach; I-295/Meadowville Road Interchange Improvements Design-Build Project in Chesterfield County; and Midlothian Turnpike Widening Design-Build Project in Chesterfield County.

3.3.1.2 QUALITY ASSURANCE MANAGER (QAM) – Matthew Weaver, PE, CCM

Matthew is a Certified Construction Manager with 19 years of experience with the construction of transportation infrastructure throughout Virginia including interstates, primary roadways, bridges, complex interchanges, road improvements, and site developments. Having construction management experience on behalf of both owners and contractors for projects ranging in size in excess of $100 million, he brings in-depth knowledge of road and bridge construction methods, materials, standards and specifications, and VDOT’s procedures. He is skillful with CPM scheduling, reviewing plans, identifying and efficiently analyzing potential issues, and proactively working with contractors to mitigate them before budgets and schedules are affected.

3.3.1.3 DESIGN MANAGER (DM) – Mark Burris, PE

Mark has 30 years of experience primarily in the transportation industry for roadway, drainage, and structural design. He has supervised and mentored project managers and engineers as they design and develop transportation projects across Virginia. He has served in the role of project manager on numerous VDOT transportation projects including design-build and PPTA. He is highly practiced in the design process for transportation projects from early planning studies through final design, including all roadway disciplines, reviewing design plans for development and approval for final construction, shop drawings, specifications, and overall constructability. He will be responsible for establishing and overseeing the design QA/QC program for the project. He is very familiar with VDOT’s Minimum Quality Control and Quality Assurance Requirements for Design-Build and PPTA Projects. Mark will report directly to the DBPM and shall be responsible for ensuring the design and construction work are properly coordinated. Mark served as the Design Project Manager for the Route 199 Design-Build (PPTA) Project in James City County, Virginia, which Curtis Contracting was a lead member of the PPTA team. He has most recently served as Design Project Manager for the I-264 Pavement Rehabilitation Design-Build Project in Virginia Beach as part of the Curtis Contracting/GAI Consultants design-build Team and North Gayton Road Extension Design-Build in Henrico County, Virginia. Mark is a registered, licensed Professional Engineer in the Commonwealth of Virginia.

3.3.1.4 CONSTRUCTION MANAGER (CM) – Bill Richards, PE

Bill will be on the project site for the duration of the construction operations and will be responsible for managing the construction process, including all construction quality control activities, and to ensure the materials used and work performed meet contract requirements and the “approved for construction” plans and specifications. He will also assist with constructability reviews. Bill has over 25 years of experience working on roadway construction projects in Virginia. Bill most recently served as Construction Manager for: I-264 Pavement Rehabilitation Design-Build Project in Virginia Beach as part of the Curtis Contracting/GAI Consultants Design-Build Team; I-295/Meadowville Road Interchange Improvements Project in Chesterfield County; and Virginia Capital Trail Project in Charles City County. Bill is a registered, licensed Professional Engineer in the Commonwealth of Virginia.
Virginia. In addition, Bill is a Virginia Department of Conservation and Recreation (DCR) Responsible Land Disturber (RLD) and has VDOT Erosion and Sediment Control Contractor Certification (ESCCC).

ADDITIONAL CURTIS CONTRACTING TEAM MEMBERS ESSENTIAL FOR THE I-64 WIDENING PROJECT

MOT Manager (MOTM) – Conrad Scott, PMP, PE
Conrad has a diverse background in the planning, study, design, and the construction of transportation infrastructure projects. His experience includes performing roadway designs and maintenance of traffic plans for numerous roadways including complex urban streets, rural and urban freeways as well as a variety of interchanges. His roadway design and MOT/TMP experience include projects with utility and railroad coordination, interstate and limited access, high volume interstate highways, public involvement, accommodation of access to business throughout construction, and a variety of additional challenges including challenging soils, right-of-way limitation, and sensitive environmental constraints. His relevant experience on complex urban projects with impacts to interstate, interchange and bridges include:

- I-264 Pavement Rehabilitation in Virginia Beach, VA
- I-64 Noise Walls in Norfolk, VA
- Route 36 Design-Build in Prince George & City of Hopewell, VA
- I-95 Bridges Replacement over the Meherrin River in Emporia, VA
- Lynnhaven Boulevard Widening in Virginia Beach, VA
- Route 288 at Watkins Centre Parkway in Midlothian, VA
- I-64 at Route 156 Interchange in Henrico, VA

Public Relations Manager (PRM) – Mike Carosi
Mike has more than 20 years of experience in all areas of creative services, public affairs, community outreach, marketing, advertising, strategic planning, and deployment of communications plans as both vendor and client. Mike’s extensive knowledge and experience include all phases of logistics, planning, printing, purchasing, procurement, media, and workflow associated with marketing and transportation public relations. Mike is currently the Vice President of Public Affairs for Seventh Point Advertising, Marketing, and Public Relations. Mike has managed teams for all media relations for the I-64 Battlefield Boulevard in Chesapeake, Virginia and is currently managing the media teams for both the Gilmerton Bridge Replacement Project and VDOT’s District Wide Contract IV in Hampton Roads, Virginia. Additionally, he is currently managing the GRTC Rapid Bus Transit project in Richmond, Virginia and is a member of the I-264 Design-Build Project.

Construction Safety Director (CSD) – Phillip Cole
Phillip will be responsible for safety on the project and compliance with OSHA regulations. Phillip has been the Safety Director for Curtis Contracting for four years and has been involved in all Federal, State and Local company projects during that time. He has been involved in safety for 29 years.
3.4

Experience of Team
3.4 INTRODUCTION TO WORK HISTORY

Curtis Contracting, Inc. (CCI) is a local State of Virginia general contractor focused in the disciplines of major roadway, site development, and vertical construction projects. Established in 1985, CCI has over thirty years of experience and has formed a successful partnership with the Virginia Department of Transportation (VDOT) while we worked together on hundreds of roadway projects throughout the State. A unique benefit that separates CCI from our competition is that we maintain the capability and experience to self-perform, and therefore control, a much larger percentage of the work with our own labor and equipment. Specifically, relative to all the necessary roadway construction, paving, demolition, clearing, mass excavation, grading, site utilities, structures and concrete work that are included in the I-64 Widening project. CCI also maintains extensive VDOT design-build experience on local projects of similar magnitude.

CCI operations are based in West Point, Virginia, and within 20 miles of the project site. Our hub location consists of a 50 acre campus where support facilities, a full service shop, and an equipment fleet valued in excess of $15 Million is ideally positioned. CCI employs over 290 personnel to include Project Managers, Superintendents, Professional Engineers, Foreman, Carpenters, Concrete Finishers, Operators, Truck Drivers, Mechanics, and Laborers. In the history of CCI we have successfully completed over 500 projects. All projects included the management of our self-perform work in addition to the various trade subcontractors needed on each project. Our project management/control systems are designed to support the administrative tasks on each project relative to scheduling, material/subcontractor procurement, submittals, cost control, quality control, production and daily job reporting. We utilize state-of-the-art software for such items as Scheduling (Primavera), Cost Control (ViewPoint), Production Control, Project Reporting (HCSS HeavyJob), and Shop Drawing (AutoCAD Land Desktop 2008).

Our Team has experience and proven competence in subcontractor management, estimating, scheduling, and completing projects ahead of schedule, thus providing the best product to our customer. We are focused on being your most responsive contractor and we will demonstrate our commitment to that goal throughout. Our specialized experience helps us to continually refine the way we do business and gives us the ability to provide you with the best customer service and, ultimately, the best quality construction. Experience, self-performance, personnel, and financial strength make us an ideal partner for your project.

CCI has the experience and personnel to effectively manage and construct all of the design-build elements of the I-64 Widening project. Of key significance and value for the Department is the partnering approach that is experienced on every project constructed by CCI. The CCI/GAI Design-Build Team exemplifies a positive, all inclusive team approach on every single project we undertake. Both companies are founded on the philosophy of partnership with our client, each other, and stakeholders. We are accustomed to an “open book” operating standard that fosters respect, honesty, trust and accountability. We enjoy the work we do, and we take great pride in customer satisfaction. We want to be your design-builder of choice, and we will commit all necessary personnel to ensure that you feel this way upon completion of project delivery.

Because our Team members and Key Personnel have worked together on other design-build projects, to include the recently completed $75 million VDOT I-264 Pavement Rehabilitation Design-Build Project in Virginia Beach, we have developed close working relationships with each other. Having a thorough understanding of each other’s abilities, scope and responsibility allows us to more efficiently manage each discipline and reduces project risk. As an additional benefit to the Department is the local knowledge and experience of our personnel and proposed project staff. Our Project Managers, MOT Manager, Superintendents, and Foreman have all constructed significant projects in this area and have vast knowledge of the traffic control sensitivity, present geology, local business, socioeconomics, and most importantly, the type of work involved.

The Curtis Contracting Team’s experience with VDOT design-build projects began in 2003 as part of a team to construct the Route 199 Jamestown 2007 Corridor Improvements. The project included a widening of a major corridor in James City County, VA. This $31.8 million dollar PPTA project was successfully completed ahead of schedule in September 2005.
Since that project, the Curtis Contracting Team has worked on numerous other successful VDOT design projects to include the DBIA Award winning I-295/Meadowville Road Interchange, Route 60 Midlothian Turnpike Widening, Virginia Capital Trail. Our proposed Curtis Contracting Team for this I-64 Widening project is made up of nearly the same players as our I-264 Pavement Rehabilitation DB Project completed in November 2015. This $75 million DB project, as well as the Route 199 project, consisted of similar challenges and scope to the proposed I-64 Widening project. Mark Burris, GAI’s proposed Design Project Manager was the Designer of Record with the Curtis Contracting Team for this Route 199 project and the most recently completed the I-264 Pavement Rehabilitation Design-Build Project in Virginia Beach with essentially the same team as proposed for this I-64 Widening Project.

Other I-64 Widening team members who served similar roles for the I-264 Design-Build Project are:

- Conrad Scott, PMP, PE with Accompong Engineering – MOT Manager
- Mike Carosi with Seventh Point Transportation PR – Public Relations Manager
Project Risk
3.5 PROJECT RISKS

INTRODUCTION

The Curtis Contracting Team, with more than 12 years of experience on VDOT design-build projects and over 30 years of highway construction experience, believes risk assessments and their mitigation to be one of the more important aspects that determine a project’s success. With our Team’s extensive experience completing complicated design-build projects, we understand that a proactive approach is key when identifying risks, understanding their impacts, and developing a strategy to avoid or mitigate each risk. Our methodology has proven to reduce the risk for VDOT and the public and is demonstrated by the fact that all of our design-build projects have been completed on-time and within budget. The results have been a reduction of costs to VDOT with respect to right-of-way, utility relocations, and construction, while satisfactorily addressing the needs and concerns of the affected stakeholders.

In preparation of this Statement of Qualifications (SOQ), we have carefully reviewed all of the documents provided with the RFQ package, researched as-built plans, made numerous site visits and investigations, developed a project area soil report, as well as recognizing the concerns that have been raised in the past by the public during the preliminary development of this project. As requested for each risk, our methodology is to effectively evaluate the impact to the project that each risk will have and develop mitigation strategies our Team may implement to address each risk. Our goals are to minimize the role VDOT and other agencies may have in addressing these risks and safely and efficiently deliver the project on-time and within budget.

Critical Risk I - MOT Safety

I-64 is a major east-west artery for commuters, commerce, and tourists traveling to and from Richmond and Hampton Roads, currently carrying 36,000 vehicles per day, with an estimated 48,500 vehicles per day in design year 2040 within the limits of this project (MP 200 to MP 205). The combination of high traffic volumes and high travel speeds increases the importance of implementing a proper traffic operations plan and maintaining a safe work zone. This particular section of I-64 currently experiences significant under capacity issues during the morning and evening peak travel time periods, resulting in driver frustrations, traffic delays to motorists, construction delays, and safety issues for the public and construction personnel. Our Team recognizes the importance of this risk, and is planning to design and implement a maintenance of traffic (MOT) program focused on maximizing both safety and mobility throughout construction. Our Team’s most recent experience with I-264 Pavement Rehabilitation Design-Build Project in Virginia Beach was a very successful project due to the MOT and overall safety focus we implemented. This project was very challenging due to high volumes of traffic and excessive speeds combined with multiple simultaneous work zones during construction activities.

We are well versed in the development of Transportation Management Plans (TMPs) for Type B and Type C “significant” projects, as well as the development of site-specific Temporary Traffic Control (TTC) plans per VDOT’s IIM-LD-241.5 (Work Zone Safety and Mobility) process. We will also utilize the principals and requirements of both the new 2009 MUTCD and the new 2011 Virginia Work Area Protection Manual. Development of the TMP and TTC plans will be supervised by designers certified in VDOT Advanced Work Zone Traffic Control with significant experience in interstate widening design.

Understanding safe interstate work zone requirements, design should avoid abrupt lane shifts and tapers. These issues can be avoided by designing to the full recommended “L” length for the posted speed limit (double the minimum length). We also recognize the risks of pavement drop-off protection within the clear zone, for long stretches of high speed roadways to avoid vehicle rollover. Another critical issue is maintenance of sight distance because this can result in work
zone crashes. Our Team has extensive experience on past projects such as I-264, MLK, Route 199, etc. maintaining the necessary construction access while ensuring sight distance is not blocked by work zone features such as equipment, materials, and barrier.

Limiting temporary lane closures to hours where there is the minimal traffic volumes are less than the capacity of the open lane(s) along I-64 at the project site is essential to safety. A typical lane closure time frame can result in significant traffic delays as well as compromising safety. Our Team is experienced in verifying that acceptable operations will be maintained for off-peak temporary lane closures and for long-term shoulder closures as part of the work zone traffic analysis included in the Transportation Operations Plan section of the TMP. We will analyze all potential maintenance of traffic operations using software such as Quick Zone, HCS+, and Synchro to ensure construction efficiency while also limiting motorist delay. We also know the importance of maintaining the existing right shoulder on I-64 in order to not inhibit traffic during vehicle breakdown, accidents, or during police enforcement. As performed for I-264, we propose to develop a Quickzone network of the I-64 project corridor to give us the ability to quickly run sensitivity analyses for multiple lane closure scenarios 24 hours per day, seven days a week, as the schedule needs and construction activities dictate. This may reveal additional allowable working hours for lane closures outside of the ‘typical’ working windows in order to complete the scheduled work each night before lanes are opened to the morning rush-hour traffic. This would also determine if the structures and roadway segments could be worked on concurrently without traffic queues from the individual work zones impacting adjacent work sites.

We also understand the unique challenges of maintaining safe access to and from median work areas on interstates, as differences in speed between construction vehicles and the traveling public can also contribute to work zone crashes. This situation must be considered because the potential for these accidents is enhanced during median construction activities early in the first phases of the project. These potential accidents may be mitigated through our MOT staging by utilizing segmented construction. Our Team has discussed utilizing the following sequence:

- Temporarily strengthen outside shoulder (if required)
- Shift traffic out using the temporarily strengthened shoulder
- Install positive barrier
- Construct new inside lane and other median construction
- Shift traffic to 2 lanes using the new inside lane
- Complete construction on the outside lanes and shoulder
- Complete work

Temporarily strengthening the outside shoulder depends on the thickness and material section of the existing shoulder. Temporary pavement strengthening or build-up may be necessary prior to shifting traffic and placing temporary barrier. This first step in construction involves identifying the shoulder section, planning for the strengthening, and implementing the operation for the shoulder improvements. To mitigate this risk, our Team will investigate the existing pavement section through as-built information and pavement cores as early in the design process as possible. The proposed loading based on traffic volumes and construction duration will determine the need for pavement strengthening. The best time for temporary build-up of shoulders can be planned during night time activities. The operation on the existing shoulder would involve mill and overlay with a thickened asphalt section during the same night time activity. This can be done through a temporary lane closure in off-peak and/or night time hours to reduce impacts to the drivers of the facility. Proper installation of shoulder and lane closure devices, advance signage, and work zone lighting are critical to the success of this activity. The plan details for these task elements will be identified and proposed by our Team prior to actual construction.

Further safety enhancements would be to maintain 12’ wide traffic lanes, utilize strengthened shoulders for acceleration/deceleration, utilizing median emergency pull-offs that are combined with construction entrances. Providing areas for Emergency Pull-Offs (EPOs) is critical in maintaining traffic flow and safety during staged
construction. Given the project length of about four miles and target EPO spacing of approximately one mile in each direction, and considering the intermediate weigh station and interchanges may also be considered EPOs, existing wide areas will be utilized where feasible to provide at least two additional EPOs in each direction throughout construction. **It is important to note that as work progresses these EPOs may need to be relocated; but the same target spacing must be met, and the minimum number of pull-off areas must be accessible at all times.** Therefore when relocating an area, the new pull-off area must be provided and signage relocated prior to closing an area. We understand at times during construction the frequency of existing wide areas which can be used may be insufficient. In this case, we will look to build additional areas by excavating/filling as necessary. Items such as concrete barrier and guard rail may require removal, resetting, and/or relocating as necessary to accommodate the EPOs, but existing conditions will be restored at each area following construction.

This project’s success will be implementing MOT and construction phases to reduce crashes throughout construction. We have considerable experience in implementing safety and operational improvements in an interim condition prior to the final design solutions being constructed. These safety and operational improvements can be implemented early in the design and construction stage in an effort to improve safety.

The Curtis Contracting Team understands the importance of a public information campaign in order to communicate project information to the traveling public through the construction work zone. We have added a Public Relations Manager, Mike Carosi of Seventh Point to the Team. Mr. Carosi’s vast public relations experience adds value to manage the project issues and schedule with the public and other third party stakeholders.

Mr. Carosi and Seventh Point are currently working on the GRTC Bus Rapid Transit project in Richmond, and were also part of the Curtis Contracting Team on the I-264 Pavement Rehabilitation Project in Virginia Beach. Based on our Teams’ past design-build experience, we understand that keeping the public and stakeholders informed using a team approach coordinated with VDOT is crucial to a safer more successful project. One method of communicating utilizes Intelligent Transportation System devices like Portable Changeable Message Signs (PCMS). PCMS can be used to communicate immediately changing project conditions, and will be placed in advance of work zones and changes in traffic patterns during the entire construction activities phases. We also understand that the public is interested in the project milestones as well as future activities. Our Public Relations Manager, will coordinate with VDOT in preparing information documents prior to public distribution. These documents could include, a schedule for lane closures and traffic switches, detours or traffic changes and/or press releases as desired by VDOT or stakeholders. Utilizing these communication procedures and following these strategies our Team can greatly mitigate potential MOT and safety project issues through the life of the project.

**VDOT ROLE EXPECTATIONS**

*We expect VDOT's role to mainly include review and approval of the TCC and TMP plans. We understand that lane closure times and restrictions will be dictated in the RFP documents. We will coordinate with VDOT at appropriate design phases to make sure these closure times are best suited for the construction activities as planned and if additional restrictions are necessary based on more up-to-date traffic counts. As construction increases, we anticipate that VDOT will coordinate with our Team to ensure the project maintains the safest work site for all, including motorists and construction personnel.*

**Critical Risk II - Geotechnical**

Geotechnical and Pavement Section considerations are a critical risk for this project because of the geologic location, including some compressible soils, increasing customer expectations, and limited budgetary funding. The project structural components include two box culvert connections, one pedestrian culvert connection at the Weigh Station and the eastbound and westbound bridge widenings across the Chickahominy River. Potential poor soils present foundational settlement risk issues at these locations. Our team will address both total and differential settlement risks with respect to pavement and structural foundational design and construction issues.

Per RFQ Question and Answers question No. 2’s response, we understand that VDOT is currently finalizing the Geotechnical Data Report for this project. In advance of reviewing this document (when it becomes available),
our Team has developed a Custom Soil Resource Report for the I-64 Widening project in Henrico and New Kent Counties utilizing the United States Department of Agriculture and Natural Resources Conservation Service information and data. We have also researched as-built plans for the I-64 original construction plans from 0.143 miles west of Laburnum Avenue extension (Millers Lane) to 1.942 miles east of Henrico-New Kent County line for 1961 through 1964. Curtis Contracting also has extensive knowledge of this project corridor due to the close proximity to their main office and equipment storage facility (approximately 20 miles east of the project).

**Geology**

The project site lies within the Virginia Coastal Plain physiographic province. This province consists of marine deposits consisting of clay, silt, sand, and gravel. These deposits are thick and greater than 500 feet thick beneath the project site.

The project site falls within two major geologic formations, the Tertiary age Bacons Castle Formation (Tb) and recently deposited Alluvium (Qal) consisting of alluvial and swamp deposits. The recently deposited Alluvium is located within the Chickahominy River valley and consists of sand, gravel, silt, and clay. This material is deposited as gravel along beaches, sandy estuarine beaches, marsh mud, and river and stream bottom mud; and in swamps, these deposits can be mixed with peat. Along steep slopes this material can grade into the colluvium at the margins of the unit (Mixon et al, 1989).

The Bacons Castle Formation consists primarily of massive to thick bedded pebble and cobble gravel that grades upward into sand and silt (Mixon et al, 1989). Along steep slopes, this formation can slide creating colluvium deposits.

Soil information from the United States Department of Agriculture and Natural Resources Conservation Service show the surficial soils can be compressible and have high groundwater tables.

**Pavement and Pavement Subgrade Condition**

The significant cost involved in a major highway widening project is the cost of pavement which involves understanding the subgrade and geotechnical conditions of the existing pavement structure and the proposed widening areas.

The existing I-64 Project consists of four through lanes (two in each direction) of asphalt overlaid concrete pavement with asphalt shoulders. We understand from reviewing the as-built plans that the existing pavement was originally constructed in the mid 1960’s, with nine-inch reinforced cement concrete pavement. The Curtis Contracting Team has extensive rehabilitation experience with similarly aged concrete pavement based on experiences on the I-264 Rehabilitation Project (2013-2016) in Virginia Beach. The project team will analyze the actual condition and remaining useful life of the pavement.

Our Team has performed numerous widenings on interstate and other limited access facilities and understand the importance of the interface between the new and existing pavement sections. Under current traffic volumes and weights, it is expected that the widened lanes will most likely require a thicker pavement surface layer. The thicker pavements allow water to enter the pavement structure causing damage to the pavement. To prevent water getting trapped underneath the existing and the new pavements, we will design a proper drainage system, such as open graded drainage layer with edge drains and/or other adequate systems.

Special attention will be required between the joint of the new and existing pavement, as well as structural widening for the culverts and bridges, as it is very likely that long-term maintenance problems may occur there. Our Team understands that maintaining good rideability on the interstate is very important to the Richmond District.

**Long-Term Settlement Concerns Due to Compressible Site Soils**

Our soil analysis report indicates that the project is located in the Coastal Plain physiographic province and that we will likely encounter 39 various soil types within the project area. The NRCS soil survey indicates that much
of the soils along the project are highly compressible. Three areas of particular concern within the project corridor are the crossings at Boar Swamp, the Chickahominy River, and Higgins Swamp. There is an existing culvert at the crossing of Boar Swamp at approximately Station 2450. Soils in this area consist of Kinston and Mantachie (Kn) flood plain soils. Kinston and Mantachie soils consist of silt, clay and sandy loam, are poorly drained and have a high groundwater table.

The crossing at the Chickahominy River is the main structure within the project limit at approximately Station 2560. Soils in the area of this bridge and in the area of the existing culvert at Higgins Swamp, at approximately Station 2588, consist of Kinston silt loam (Km). These saturated cohesive soils require additional considerations to avoid long-term settlement after construction.

The first mitigation step for addressing the risk of excessive long-term settlement begins with a geotechnical program focused on obtaining the existing field data early in the project schedule. Our Team will consider several applicable options to mitigate the compressible soils. We will make an effort to reduce the amount of earthwork movement on the project. One successful method of reducing earthwork, particularly as it relates to pavement performance, is to treat the soils in place with lime or cement rather than removing and replacing poor subgrade soils. Our Team has successful relevant experience with these applications on several recent projects.

Utilizing soil treatment benefits the project by minimizing truck traffic into and out of the work zone. Subgrade stabilization will be customized to the actual field conditions. The project QC inspectors will monitor all excavation work and coordinate with the QC testing lab to take samples according to the guidelines in the 2012 VDOT Minimum Requirements for Quality Assurance and Quality Control on Design Build and Public-Private Transportation Act Projects (VDOT QA/QC Manual).

Construction schedule delays can be mitigated by early identification of substandard soil conditions. The Curtis Contracting Team can then develop and include the most appropriate treatment program during the design process and in the overall Project CPM and coordinate with other project disciplines.

Several techniques will be considered in order to reduce the risk of pavement cracking and other issues resulting from settlement of the newly placed embankment fills. These techniques fall into three broad categories: lightweight embankment materials, soil improvement techniques, and pile supported embankments. The final method of treatment will be selected based on cost, schedule impacts, constructability, and long-term reliability.

**Lightweight Embankment Materials**

Lightweight materials considered for use are Expanded Polystyrene (EPS) Foam blocks and Sintered Shale. EPS blocks have the advantage of being extremely light. However, this material dissolves when in contact with fuel or other petroleum products. Therefore, the blocks would need to be encapsulated in a geomembrane. Sintered shale is an aggregate product that is commonly used in many states as lightweight backfill behind structures and in embankments. We will consider the cost implications of this material. A third lightweight material to be considered is flowable fill. The flowable fill is a cementaceous produce that can be designed to be excavated at a later time. All materials will be placed in accordance with applicable VDOT specifications.

**Ground Improvement**

Most ground improvement techniques will stiffen the adjacent soft-soil matrix and/or provide stiffer elements to help span/arch/bridge those elements to mitigate (and/or expedite) settlement potential. These include the Controlled Modulus Columns (CMCs), jet grouting, rammed aggregate piers, stone columns, auger-cast piles (ACPs), and others. Most of these will require some sort of “load transfer platform” (typically comprised of aggregate, often times with embedded layers of geogrid reinforcement) to help span discrete stiff ground
improvement elements, and provide the base upon which the more traditional embankment material is placed. More traditional settlement mitigation strategies might include pre-loading (with or without wick drains), or over-excavation and replacement.

**Pile Support Embankment**
A drilled shaft or pile-supported embankment could also be constructed in a similar manner to what was described above with certain ground improvement techniques. These traditionally drilled or driven, very stiff elements would be constructed, and a load transfer platform would be installed to span between these elements before more traditional embankment is placed.

**VDOT ROLE EXPECTATIONS**
*VDOT’s role will be limited to the Independent Assurance testing required as the Owner. The Curtis Contracting Team’s experience successfully completing numerous Design-Build projects for VDOT, has enabled us to reduce VDOT’s additional QA and QC roles.*

**Critical Risk III - Environmental and Regulatory Compliance**
This I-64 Project is extremely challenging for environmental and regulatory compliance risks due to its location crossing numerous sensitive wetlands and the Chickahominy River. The Chickahominy River is located in the Lower James River and Chesapeake Bay Watershed. We understand that the FEIS did not identify any public water supplies within or adjacent to the proposed project; however the project crossing of the Chickahominy River is approximately 10 miles upriver to the Chickahominy Reservoir for Newport News. This recreational and public facility is a 1,230-acre water supply reservoir located along the New Kent-Charles City county line. This project also includes three major water crossings: Boars Swamp, Higgins Swamp, and the Chickahominy River, all of which are located in the Lower James River basin, ultimately contributing to the Chesapeake Bay. There are also additional water crossings that will be impacted. The Curtis Contracting Team has reviewed the Record of Decision for the Interstate 64 Peninsula Study Environmental Impact Statement dated August 26, 2016.

The project consists of approximately 3.9-miles of widening of I-64 from four to six lanes towards the median and within existing right-of-way. Per the Final Environmental Impact Statement (FEIS), a project goal will be to minimize additional right-of-way impacts as a result of stormwater/drainage requirements. We will work to minimize property impacts associated with these requirements in an effort to avoid modifications to the FEIS and potential delays associated with agency/public review and right-of-way acquisition. The RFQ documents show a preliminary design eliminating open channels in the median with the implementation new/additional pipes to replace the existing conveyance system. Our Team will analyze each drainage crossing as a result of the new median drainage requirements in order to determine impacts to construction staging of new pipe crossings and drainage needs outside of the pavement footprint. Installation of new pipes could introduce significant additional maintenance of traffic impacts as necessary to open cut and install the new pipes. We will investigate different ways to install proposed cross pipes, including jack and bore methods where adequate cover exists above the proposed facility, or open cut installation where travel lanes can be shifted to maintain the required number of lanes at all times, while the cross pipes are installed in phases. Detailed construction phasing and MOT plans will be developed to accommodate the preferred method of crossing pipe installation.

We will analyze the project for stormwater management needs and potential impacts to FEMA-regulated floodplains including the Chickahominy River Basin. We will analyze the project to understand what Best Management Practices (BMPs) are required. We understand that since this project will require SWPPP design to the “HB”
criteria, we will follow the requirements of the VDOT Stormwater Management Program Advisory (SWPA) 12-01 through 12-04 for final design of stormwater management elements of the project. We will identify stormwater management strategies and enhancements to minimize the need for additional off-site easements or additional right-of-way. This can be completed through design of grass swales or other narrow and minimal designs which are linear in nature and don’t require excavation of the large area that is typical for stormwater management basin construction. The treatment of stormwater adjacent to the Chickahominy River, which is upriver to a source of drinking water for thousands of people, has to be carefully planned. The Curtis Contracting Team has experience in design and construction next to reservoirs. Also, our Team will address how the project will not contribute to existing watershed problems for compliance with Total Maximum Daily Load (TMDL) Total Suspended Solids (TSS) requirements.

Our Team will investigate FEMA floodplains by comparing the existing models with the model developed for the proposed project condition to ensure that no increase to the floodplain elevation is introduced. Again, it is our Team’s goal to stay within the existing right-of-way and minimize changes to the FEIS document. We also understand that any required noise walls the FEIS analysis identified as feasible are not reasonable noise barriers along the proposed project, but will be further analyzed and incorporated into the final design of the proposed project, as appropriate.

Wetland permits and mitigation are anticipated. The mitigation measures for stream and wetland impacts will be determined as part of the permitting process during final design in consultation with the regulatory agencies. The current compensatory mitigation to impact ratios for non-tidal forested, scrub-shrub, and emergent wetlands are 2:1, 1.5:1 and 1:1, respectively. The typical compensatory mitigation to impact ratio for tidal emergent wetlands is 2:1. There is reasonable assurance that Section 404 permit from the USACE will be approved based on the US Army Corp of Engineers supporting Alternative 1 in their comments on the FEIS. A Subaqueous Bottomland permit is not likely required by the VMRC.

With respect to Threatened and Endangered Species and Critical Habitat, we understand that based on current site conditions and RFQ project plans, consultation with the U.S. Fish and Wildlife Service would be required to evaluate potential adverse impacts upon the swamp pink and/or the northern long-eared bat. If required, surveys for the marsh pink would need to be conducted during April/May to conclusively prove absence from the project area. Due to the inside widening proposed, the presence of long eared bat is unlikely and seasonal clearing restrictions would be unlikely.

Throughout the design process, VDOT’s role will be to facilitate our understanding of prior commitments with respect to environmental impacts and areas of required avoidance. The Curtis Contracting Team will coordinate with the VDOT District Environmental staff to ensure that the commitments in the FEIS are followed and the proper forms (such as the EQ-103 checklist) are filled out at the appropriate milestones.

**VDOT ROLE EXPECTATIONS**

*VDOT’s role will be limited to the Independent Assurance testing required as the Owner. The Curtis Contracting Team’s experience successfully completing numerous Design-Build projects for VDOT, has increased our understanding of how to reduce VDOT’s additional oversight roles for the QC and QA (Quality Assurance) requirements for these projects.*
APPENDIX 3.2.6

Affiliated/Subsidiary Companies
ATTACHMENT 3.2.6
State Project No. 0064-043-602, C00107458DB95

Affiliated and Subsidiary Companies of the Offeror

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

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

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1 of 1
ATTACHMENT NO. 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project: I-64 Widening Exit 200 to 205
Project No.: 0064-043-602

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

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

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

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

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

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

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

Signature  12/7/2016  President
Date
Title

Curtis Contracting, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: I-64 Widening Exit 200 to 205
Project No.: 0064-043-602

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

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

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

[Signature] 11/30/2016  NE Region Transportation Manager
Name of Firm

[Signature] 11/30/2016  Title

GAI Consultants, Inc.
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT LOWER TIER COVERED TRANSACTIONS

Project: I-64 Widening Exit 200 to 205
Project No.: 0064-043-602

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

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

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

[Signature] December 15, 2016
Signature Date

[Title]
Volkert, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: I-64 Widening Exit 200 to 205
Project No.: 0064-043-602

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

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

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

[Signature] 12/2/16 [Title]

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

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: I-64 Widening Exit 200 to 205
Project No.: 0064-043-602

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

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

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

[Signature] 12/2/2016
Signature Date

Chief Operating Officer
Title

Bowman Consulting Group, Ltd.
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: 1-64 Widening Exit 200 to 205
Project No.: 0064-043-602

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

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

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

[Signature]
12/12/16 Date

Seventh Point Transportation PR
Name of Firm

Vice President of Public Affairs
Title
APPENDIX 3.2.8

VDOT Prequalification Evidence
Vendor ID: C333
Vendor Name: CURTIS CONTRACTING, INC.
Prequal Exp: 03/31/2017

-- PREQ Address --
P. O. BOX 769
WEST POINT, VA 23181-0769
Phone: 804-843-4633
Fax: 804-843-2545

Work Classes (Listed But Not Limited To)
002 - GRADING
003 - MAJOR STRUCTURES
004 - ASPHALT CONCRETE PAVING
007 - MINOR STRUCTURES
179 - H.C.C. PAVEMENT

Bus. Contact: CURTIS, JR., ANDREW ROWLAND
Email: A.CURTIS@CURTISCONTRACTING.NET

-- DBE Information --
DBE Type: N/A
DBE Contact: N/A
December 7, 2016

Commonwealth of Virginia
Department of Transportation

Re: Curtis Contracting, Inc.
I-64 Widening Exit 200 to 205
From: Interstate 295
To: Exit 205 (Bottom Bridge)
Henrico and New Kent Counties, Virginia
State Project No.: 0664-043-602
Federal Project No.: NHPP-064-3(499)
Contract ID Number: C00107458DB95

To Whom It May Concern:

You have requested Curtis Contracting, Inc. provide evidence of bonding capacity in connection with the above captioned project. I am pleased to offer the following information.

It is the privilege of Travelers Casualty and Surety Company of America to provide surety bonds for Curtis. We have bonded single projects of over $75,000,000 within an aggregate program of up to $150,000,000 for a wide variety of owners.

As surety for the above named Contractor, Curtis Contracting, Inc., Travelers Casualty and Surety Company of America with an A.M. Best Rating of A++ and financial size category XV is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction, and said bonds will cover the Project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for the Project.

Regards,

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

Cynthia D. O’Bryan
**ATTACHMENT 3.2.10**

State Project No. 0064-043-602, C00107458DB95

**SCC and DPOR Information**

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

<table>
<thead>
<tr>
<th>Business Name</th>
<th>SCC Number</th>
<th>SCC Type of Corporation</th>
<th>SCC Status</th>
<th>DPOR Registered Address</th>
<th>DPOR Registration Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curtis Contracting, Inc.</td>
<td>02733335</td>
<td>Professional Corporation</td>
<td>Active</td>
<td>PO Box 769 West Point, VA 23181</td>
<td>Contractor (Class A)</td>
<td>2701031525</td>
<td>03-31-2018</td>
</tr>
<tr>
<td>GAI Consultants, Inc.</td>
<td>F039601-2</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>618 E. South Street, Suite 700 Orlando, FL 32801</td>
<td>Engineering &amp; Land Surveying</td>
<td>0407004210</td>
<td>12-31-2017</td>
</tr>
<tr>
<td>Volkert, Inc.</td>
<td>F1366592</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>6225 Brandon Ave. Suite 540 Springfield, VA 22150</td>
<td>Engineering &amp; Landscape Architecture</td>
<td>0407 002610</td>
<td>12-31-2017</td>
</tr>
<tr>
<td>Accompong Engineering Group, LLC</td>
<td>S283521-5</td>
<td>LLC</td>
<td>Active</td>
<td>9510 Iron Bridge Road, Suite 200 Chesterfield, VA 23832</td>
<td>Engineering</td>
<td>0407005442</td>
<td>12-31-2017</td>
</tr>
<tr>
<td>Bowman Consulting Group, Ltd.</td>
<td>04481982</td>
<td>S-Corp</td>
<td>Active</td>
<td>3951 Westerre Parkway, Suite 150, Richmond, VA 23233</td>
<td>Engineering &amp; Land Surveying</td>
<td>04411000610</td>
<td>02-28-2018</td>
</tr>
<tr>
<td>Bowman Consulting Group, Ltd.</td>
<td>04481982</td>
<td>S-Corp</td>
<td>Active</td>
<td>650 A Nelms Circle, Fredericksburg, VA 22406</td>
<td>Engineering &amp; Land Surveying</td>
<td>04411000421</td>
<td>02-28-2018</td>
</tr>
<tr>
<td>Bowman Consulting Group, Ltd.</td>
<td>04481982</td>
<td>S-Corp</td>
<td>Active</td>
<td>650 A Nelms Circle, Fredericksburg, VA 22406</td>
<td>Appraisal</td>
<td>4008001873</td>
<td>03-31-2018</td>
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<tr>
<td>Seventh Point Transportation PR</td>
<td>0267541-1</td>
<td>Corporation</td>
<td>Active</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
# SCC and DPOR Information

**DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)**

<table>
<thead>
<tr>
<th>Business Name</th>
<th>Individual's Name</th>
<th>Office Location Where Professional Services will be Provided (City/State)</th>
<th>Individual's DPOR Address</th>
<th>DPOR Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curtis Contracting, Inc.</td>
<td>William Richards</td>
<td>West Point, VA</td>
<td>212 Overlook Road Richmond, VA 23227</td>
<td>Engineer</td>
<td>0402027950</td>
<td>01-31-2018</td>
</tr>
<tr>
<td>GAI Consultants, Inc.</td>
<td>Mark Burris</td>
<td>Glenn Allen, VA</td>
<td>11013 Ridgebrook Drive Mechanicsville, VA 23116</td>
<td>Engineer</td>
<td>0402021215</td>
<td>07-31-2018</td>
</tr>
<tr>
<td>Volkert, Inc.</td>
<td>Matthew Weaver</td>
<td>Springfield, VA</td>
<td>43285 John Danforth Ct. Ashburn, VA 20147</td>
<td>ENG</td>
<td>0402 042650</td>
<td>01-31-2017</td>
</tr>
<tr>
<td>Accompong Engineering Group, LLC</td>
<td>Conrad Scott</td>
<td>Chesterfield, VA</td>
<td>8425 Lylwood Court Chesterfield, VA 23838</td>
<td>Engineer</td>
<td>0402041680</td>
<td>11-30-2017</td>
</tr>
</tbody>
</table>
CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That CURTIS CONTRACTING, INC. is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is July 15, 1985;

That the period of its duration is perpetual; and

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

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
May 7, 2015

Joel H. Peck, Clerk of the Commission
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

BOARD FOR CONTRACTORS
CLASS A CONTRACTOR
*CLASSIFICATIONS* ASB CBC H/H LSC RBC

CURTIS CONTRACTING INC
PO BOX 769
WEST POINT, VA 23181

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
01-31-2018

NUMBER
0402027950

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

WILLIAM EVANS RICHARDS
212 OVERLOOK ROAD
RICHMOND, VA 23227

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

(SEE Reverse Side for Privileges and Instructions)
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

<table>
<thead>
<tr>
<th>Corp ID:</th>
<th>P039601</th>
<th>Status: 00 ACTIVE</th>
<th>Status Date: 02/24/03</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corp Name:</td>
<td>G-A-I CONSULTANTS, INC.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date of Certificate:</td>
<td>11/04/1981</td>
<td>Period of Duration:</td>
<td>INDUSTRY CODE: 00</td>
</tr>
<tr>
<td>State of Incorporation:</td>
<td>PA PENNSYLVANIA</td>
<td>Stock Indicator:</td>
<td>S STOCK</td>
</tr>
<tr>
<td>Merger Ind:</td>
<td>Conversion/Domestication Ind:</td>
<td>Good Standing Ind:</td>
<td>Y</td>
</tr>
<tr>
<td>Charter Fee:</td>
<td>MON NO:</td>
<td>MON Status:</td>
<td>Monitor DTE:</td>
</tr>
<tr>
<td>R/A Name:</td>
<td>NATIONAL CORPORATE RESEARCH, LTD.</td>
<td>AR RTN MAIL:</td>
<td></td>
</tr>
<tr>
<td>Street:</td>
<td>250 BROWNS HILL COURT</td>
<td>City:</td>
<td>MIDLOTHIAN</td>
</tr>
<tr>
<td>State:</td>
<td>VA ZIP:</td>
<td>23114-0000</td>
<td>R/A Status: 5 B.E. AUTH IN VI EFF. Date: 10/19/12 LOC: 120</td>
</tr>
<tr>
<td>Accepted AR#:</td>
<td>215 54 1544</td>
<td>Date:</td>
<td>11/13/15</td>
</tr>
<tr>
<td>Current AR#:</td>
<td>215 54 1544</td>
<td>Date:</td>
<td>11/13/15</td>
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<tr>
<td>Year Fees Penalty Interest Taxes Balance Total Shares</td>
<td>15 1,270.00</td>
<td>200,000</td>
<td></td>
</tr>
</tbody>
</table>
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

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

MARK CHRISTOPHER BURRIS
11013 RIDGEBROOK DRIVE
MECHANICSVILLE, VA 23116

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk’s Office web.

Scc eFile will be unable to accept transactions requiring payment beginning Thursday, October 6, at 11:45 p.m. through Friday morning, October 7, 2016, at 3:00 a.m. due to payment vendor site maintenance.

Volkert, Inc.

General

Scc ID: F1366592
Entity Type: Foreign Corporation
Jurisdiction of Formation: AL
Date of Formation/Registration: 1/21/1999
Status: Active
Shares Authorized: 2250

Principal Office

3809 MOFFETT RD
MOBILE AL 36618

Registered Agent/Registered Office

CORPORATION SERVICE COMPANY
BANK OF AMERICA CENTER, 16TH FLOOR
1111 EAST MAIN ST.
RICHMOND VA 23219
RICHMOND CITY 216
Status: Active
Effective Date: 7/13/2011

Screen ID: e1000

Need additional information? Contact sccinfo@scc.virginia.gov Website questions? Contact: webmaster@scc.virginia.gov

PDF Reader Excel (.xls) Viewer PowerPoint (.ppt) Viewer Word (.doc) Viewer

Build # 1.0.0.36644
<table>
<thead>
<tr>
<th><strong>License Details</strong></th>
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<tbody>
<tr>
<td><strong>Name</strong></td>
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<tr>
<td><strong>License Number</strong></td>
</tr>
<tr>
<td><strong>License Description</strong></td>
</tr>
<tr>
<td><strong>Firm Type</strong></td>
</tr>
<tr>
<td><strong>Rank</strong></td>
</tr>
<tr>
<td><strong>Address</strong></td>
</tr>
<tr>
<td><strong>Initial Certification Date</strong></td>
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<tr>
<td><strong>Expiration Date</strong></td>
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<tr>
<td>License Details</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>Name</td>
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<tr>
<td>License Number</td>
</tr>
<tr>
<td>License Description</td>
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<tr>
<td>Rank</td>
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<tr>
<td>Address</td>
</tr>
<tr>
<td>Initial Certification Date</td>
</tr>
<tr>
<td>Expiration Date</td>
</tr>
</tbody>
</table>

The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform DPOR so that appropriate action may be taken.

DPOR License Lookup build 1,192 (built 2016-06-23 09:13:05).
Commonwealth of Virginia

STATE CORPORATION COMMISSION

Richmond, February 17, 2009

This is to certify that the certificate of organization of

Accompong Engineering Group, LLC

was this day issued and admitted to record in this office and that the said limited liability company is authorized to transact its business subject to all Virginia laws applicable to the company and its business. Effective date: February 17, 2009

State Corporation Commission
Attest:

[Signature]
Clerk of the Commission
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-3500

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

CONRAD ANTHONY SCOTT
8425 LYLWOOD COURT
CHESTERFIELD, VA 23838

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

DPOR LIC (05/2015)
(DELIVER HERE)

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APPLCSIDLA
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402041680 EXPIRES: 11-30-2017

CONRAD ANTHONY SCOTT
8425 LYLWOOD COURT
CHESTERFIELD, VA 23838

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

DPOR-PC (06/2015)
COMMONWEALTH OF VIRGINIA
Department of Minority Business Enterprise
1111 East Main Street, Suite 300
Richmond, Virginia 23219

VIRGINIA UNIFIED CERTIFICATION PROGRAM

June 8, 2013

Conrad Scott
Accompong Engineering Group, LLC
9510 Iron Bridge Road, Suite 200
Chesterfield, VA 23832

Dear Mr. Scott:

The Virginia Department of Minority Business Enterprise (VDMBE) has approved the continued certification of Accompong Engineering Group, LLC as a Disadvantaged Business Enterprise (DBE) subject to the requirements of the DBE Regulation 49 CFR, Part 26 and all the laws of this state applicable to the transaction of business. Your firm’s Certification Eligibility Period began May 19, 2009. Next year, prior to the anniversary of your certification, you will be required to submit updated information (Affidavit of Continued Eligibility, Updated Contact Information Form, business and personal federal tax returns for the last tax year—signed and dated—and a current Personal Financial Statement of the Owner(s)).

We are pleased to inform you that we have certified your company in the following NAICS Code(s):

- 237310 Construction management, highway, road, street and bridge
- 541330 Engineering Services

It is your responsibility to notify VDMBE immediately of any changes in your firm such as name, address, ownership, officers or Board of Directors. Please check the accuracy of your entry in our DBE Directory at www.dmbe.virginia.gov. Your firm’s certification is subject to our review at any time during the year and you may be required to provide any and all relevant documentation. Failure to cooperate by providing the requested information may lead to de-certification.

You may receive management and technical assistance by writing to the Department of Minority Business Enterprise, 1111 East Main Street, Suite 300, Richmond, VA 23219, or by calling (804) 786-6585. If you have questions, please contact Verniece Johnson at (804) 786-3100, or by email at verniece.johnson@dmbe.virginia.gov.

Sincerely,

Calvin M. Thweatt
Certification & Technical Services Manager

Certification Number:  DBE 678765
CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That BOWMAN CONSULTING GROUP, LTD. is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is June 7, 1995;

That the period of its duration is perpetual; and

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

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
October 21, 2016

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

STATE CORPORATION COMMISSION

Richmond, June 7, 1995

This is to Certify that the certificate of incorporation of
Bowman Consulting Group, P.C.
was this day issued and admitted to record in this office
and that the said corporation is authorized to transact its business
subject to all Virginia laws applicable to the corporation and its
business. Effective date:

June 7, 1995

State Corporation Commission

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

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

PROFESSIONS: ENG, LS

BOWMAN CONSULTING GROUP LTD
3951 WESTERRE PKWY
SUITE 150
RICHMOND, VA 23233

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-3500

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

PROFESSIONS: LS, ENG

BOWMAN CONSULTING GROUP LTD
650A NELMS CIRCLE
FREDERICKSBURG, VA 22406

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

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

REAL ESTATE APPRAISER BOARD
APPRAISAL BUSINESS REGISTRATION

BOWMAN CONSULTING GROUP LTD
650 A NELMS CIRCLE
FREDERICKSBURG, VA 22406

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)
This is to Certify that the certificate of incorporation of
HAMBRIGHT, CALCAGNO & DOWNING, INC.
was this day issued and admitted to record in this office
and that the said corporation is authorized to transact its
business subject to all the laws of the State applicable to the
corporation and its business.

State Corporation Commission

[Signature]
Clerk of the Commission
ARTICLES OF AMENDMENT
FOR THE ARTICLES OF INCORPORATION OF
HAMBRIGHT, CALCAGNO & DOWNING, INC.

I.

The name of the corporation is Hambright, Calcagno & Downing, Inc.

II.

The Amendment adopted is to change Article I of the Articles of Incorporation to change the corporation's name such that Article I, as amended, will read that: The name of the corporation is Seventh Point, Inc.

III.

The foregoing amendment was adopted on January 24, 2008.

IV.

The amendment was adopted by the unanimous consent of the shareholders and directors.

V.

This Certificate of Amendment shall become effective at the time such Certificate is issued by the State Corporation Commission.

The undersigned President declares that the facts herein stated are true as of the 24th day of January, 2008.

HAMBRIGHT, CALCAGNO & DOWNING, INC.

By:

Christopher A. Calcagno, President
COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

AT RICHMOND, FEBRUARY 1, 2008

The State Corporation Commission has found the accompanying articles submitted on behalf of
Seventh Point, Inc. (formerly HAMBRIGHT, CALCAGNO & DOWNING, INC.)
to comply with the requirements of law, and confirms payment of all required fees. Therefore, it
is ORDERED that this

CERTIFICATE OF AMENDMENT

be issued and admitted to record with the articles of amendment in the Office of the Clerk of the
Commission, effective February 1, 2008.

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

STATE CORPORATION COMMISSION

By

[Signature]

Commissioner

08-01-26-0084
AMENACPT
CIS0436
APPENDIX 3.3.1

Key Personnel Resumes
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Name &amp; Title: Stephen L. Ordung – Vice President Operations</td>
</tr>
<tr>
<td>b. Project Assignment: Design Build Project Manager</td>
</tr>
<tr>
<td>c. Name of all Firms with which you are employed at the time of submitting SOQs. In addition, please denote the type of employment (Full time/Part time): Curtis Contracting Inc. – Full Time</td>
</tr>
<tr>
<td>d. Employment History: With this Firm <em>10.5</em>__ Years With Other Firms <em>16</em>__ Years</td>
</tr>
<tr>
<td>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):</td>
</tr>
<tr>
<td>Present – 2006. Curtis Contracting, Inc.: Design Build Project Manager/Contracts Manager</td>
</tr>
<tr>
<td>• I-264 Roadway Rehabilitation Design-Build Project – November 2013 – November 2015 Design Build Project Manager responsible for managing the $73 million fast track design build of a 12 mile pavement rehabilitation, widening and improvements to the I-264 in the City of Virginia Beach.</td>
</tr>
<tr>
<td>• MLK Blvd Extension Design-Build P3 Project - August 2013 – December 2016 Senior Project Manager for $47 million Contract A widening of I-264 ramps, structures and new roadways to construct the new I-264/MLK Blvd intersection tying into the Elizabeth River Crossing/Midtown Tunnel</td>
</tr>
<tr>
<td>• I-295/Meadowville Road Interchange Design-Build Project – Sept 2010 – Nov 2011 Design Build Project Manager responsible for managing the Curtis Contracting/Parsons Brinckerhoff Team for this $11.7 million Chesterfield County project</td>
</tr>
<tr>
<td>• Warhill Infrastructure and Roadways Design-Build Project – April 2006 – Aug 2008 Design Build Project Manager responsible for managing the Curtis/Timmons Group/CHA LLP Team for this $37.4 million James City County project</td>
</tr>
<tr>
<td>2006 – 2003. Archer Western Contractors: Program Manager</td>
</tr>
<tr>
<td>• I-95/395/495 Springfield Interchange Phase 6&amp;7 – Responsible for the construction management of the $104 million interchange project, to include 14 bridge structures, in the I95/I495/I395 mixing bowl</td>
</tr>
<tr>
<td>• I-64/Staples Mill Interchange CSX ACCA Yard RR Bridge Widening – Responsible for the construction management of the $24 million bridge/roadway widening and replacement in Henrico County</td>
</tr>
<tr>
<td>2003 – 1998. Archer Western Contractors: Senior Project Manager</td>
</tr>
<tr>
<td>• I-64 Widening/Jefferson Avenue Interchange – Responsible for the construction management of the $39 million Interstate 64 widening, bridge structure replacement and complete interchange project in Newport News, VA</td>
</tr>
<tr>
<td>• RDU Airport Infrastructure – Responsible for the construction management of the $32 million roadway civil and structures project in support of the $110 million new parking structure and roadways at the Raleigh/Durham Airport</td>
</tr>
</tbody>
</table>

Over 26 years of experience on major infrastructure projects located throughout the Eastern United States including several projects in the Commonwealth of Virginia. Experience includes design/build, major airport facilities, athletic facilities, highway and bridge, water/wastewater treatment plants, and other site development projects. Clients have included FHWA, VDOT, NCDOT, MDSHA, USACE, USACE, US Navy, AAFES, and GSA.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: |
| Wentworth Institute of Technology, Boston, Massachusetts / BS / 1990 / Construction Management |
| US Army Corps of Engineers – CQM Certification CENAO-08-0387 |

f. Active Registration: Year First Registered/ Discipline/VA Registration #: |
| Virginia DCR Responsible Land Disturber Certification / #32306 (Exp. 7/13/2019) |

g. Document the extent and depth of your experience and qualifications relevant to the Project. |
| 1. **Note your role, responsibility, and specific job duties for each project, not those of the firm.** |
| 2. **Note whether experience is with current firm or with other firm.** |
| 3. **Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.** |
Mr. Ordung was responsible for the management of the overall design-build process including public relations, design, permitting, utility coordination, quality assurance & quality control, environmental protection, safety, schedule and construction for this $73 million project. The project elements included the pavement rehabilitation, widening, drainage improvements, barrier modification, guardrail and signage upgrades to current safety standards for a 12 mile segment of Interstate 264 in Virginia Beach, VA. Project details included significant traffic control to accomplish the installation of over 130,000 tons of asphalt paving, 100,000 square yards of full depth concrete roadway replacement, four miles of roadway widening, 70,000 LF of median and shoulder barrier modification, jack & boring of drainage culverts, drainage modifications, signage and over 1,000,000 LF of pavement markings. Mr. Ordung was the main point of contact for the Curtis Contracting Inc D/B Team and was responsible for the communication and coordination with VDOT, City of Virginia Beach, permitting agencies and other stakeholders on the project. Mr. Ordung was instrumental in expediting the schedule in order to advance design, permitting and allow the start of construction work within a 2 month period. Using the unique flexibility allowed only with the Design-Build process he then adjusted project sequence and schedule to overcome a potential 7 month schedule delay due to unforeseen conditions and incorporate $12 million in additional work; while maintaining the original contract completion schedule date. 

Mr. Ordung’s focus on safety and accident prevention has resulted in over 100,000 man hours without a single lost time injury for the project to date. Mr. Ordung was instrumental in the decision to salvage the existing concrete material within the I-264 concrete pavement removal and recycle the material in an environmentally positive way. He developed the original contract proposal, CPM Schedule, QA/QC Plan maintained all project controls, and completed all significant contract negotiations for this project. Owner Contact: VDOT Hampton Roads District, 1700 North Main St., Suffolk, VA 23434, Mr. James Utterback, (757) 925-2500

2) I-295/Meadowville Road Interchange Design-Build Project – Design Build Project Manager, Sept 2010 – Nov 2011. Mr. Ordung was responsible for the management of the overall design-build process including public relations, design, permitting, utility coordination, quality assurance & quality control, environmental protection, safety, schedule and construction for this $11.7 million project. The project elements included the construction widening of Interstate 295, Meadowville Road and on ramps and off ramps for Phase I of the I-295/Meadowville Road Interchange development. Project details included two signalized interchanges on Meadowville Road, signage, guardrail, asphalt pavement, concrete pavement, drainage, utility relocation, striping, clearing and mass grading. Mr. Ordung was the main point of contact for the Curtis/Parsons Brinckerhoff Team and was responsible for the communication and coordination with VDOT, Chesterfield County, permitting agencies and other stakeholders on the project. Mr. Ordung was instrumental in expediting the schedule in order to advance design, permitting and construction of all work within a 14 month period. Using the unique flexibility allowed only with the Design-Build process he steered the phased design submissions to allow for work to begin within 2 months of project Award and then obtain all approvals in order to complete all work on time and within budget. Mr. Ordung’s focus on safety and accident prevention resulted in over 100,000 man hours without a single recordable injury for the entire project. Mr. Ordung was instrumental in the decision to salvage the existing concrete material within the I-295 pavement shoulders and recycle the material in an environmentally positive way to incorporate this material into ground stabilization base material for the construction of new on/off ramp fills. He developed the original contract proposal, CPM Schedule, QA/QC Plan maintained all project controls, and completed all significant contract negotiations for this project. Owner Contact: VDOT Richmond District, 2430 Pineforest Drive, Colonial Heights, VA 23834, Mr. Shane Mann, (804) 524-6091

3) I-264/MLK Extension Interchange P3 Project – Senior Project Manager, Aug 2013 – Dec 2016. Mr. Ordung was responsible for the management of the overall project including public relations, permitting, utility coordination, quality control, environmental protection, safety, schedule and construction for this $47 million project. The project elements included construction of the widening of Interstate 264, on ramps and off ramps for Contract A of the I-264/MLK Extension Interchange development. Project details include construction of two new bridges, widening of two existing bridges, MSE walls, EPS, signals, lighting, overhead/roadway signage, guardrail, asphalt pavement, drainage, utility relocation, striping, clearing, mass grading, and maintenance of traffic. Mr. Ordung was responsible for the communication and coordination with SKW, Design Engineer, QA/QC, VDOT, City of Portsmouth, permitting agencies and other stakeholders on the project. Major items of work include approximately 200,000 cubic yards of mass excavation, 40,000 Cubic Yards of borrow excavation, 85,000 Tons of asphalt, 20,000 Tons of aggregate base material, 27,000 cubic yards of EPS/Geo-foam, 25,000 cubic yards of lightweight fill, construction of 46,000 square feet of MSE Wall, 4800 linear feet of barrier wall, and remove and replace a pedestrian bridge with approaches. Steve’s focus on safety enabled us and our subcontracts to complete all work to reach substantial completion a month ahead of schedule, to include over 200,000 man hours, without a single recordable injury. Owner Contact: SKW Constructors, LLC, 1500 Seaboard Avenue, Portsmouth, VA 23700, Mr. Wade Watson, Project Director (757) 673-9487

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. Mr. Ordung is not required to be on-site full-time for the duration of construction
### ATTACHMENT 3.3.1

**KEY PERSONNEL RESUME FORM**

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Name &amp; Title: Matthew Weaver, PE, CCM, Quality Assurance Manager</td>
</tr>
<tr>
<td>b. Project Assignment: Quality Assurance Manager (QAM)</td>
</tr>
<tr>
<td>c. Name of all Firms with which you are employed at the time of submitting SOQs. In addition, please denote the type of employment (Full time/Part time): Volkert, Inc. (Full time)</td>
</tr>
<tr>
<td>d. Employment History: With this Firm 2 Years With Other Firms 17 Years</td>
</tr>
</tbody>
</table>

**Mr. Weaver is a Certified Construction Manager with 19 years of experience with the construction of transportation infrastructure in Virginia including interstates, primary roadways, bridges, complex interchanges, road improvements, and site developments. Having construction management experience on behalf of both owners and contractors for projects ranging in size in excess of $100 million, he has in-depth knowledge of road and bridge construction methods, materials, standards, and specifications and VDOT’s procedures. He is skillful with CPM scheduling, reviewing plans, identifying and efficiently analyzing potential issues, and proactively working with contractors to mitigate them before budgets and schedules are affected.**

<table>
<thead>
<tr>
<th>Name of Firm: Volkert, Inc.</th>
<th>Start Date: 2014</th>
<th>End Date: Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position: Quality Assurance Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsible for management of construction inspection projects including the supervision of inspection personnel, and QA activities including preparatory inspection meetings and resolution of nonconformance issues to assure compliance with VDOT standards and client satisfaction.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of Firm: MBP</th>
<th>Start Date: 2007</th>
<th>End Date: 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position: Construction/Project Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provided construction management services for transportation improvement projects for VDOT and local county agencies, as well as facility projects for federal agencies, for projects ranging in size over $1B. Worked collaboratively with VDOT, engineers, and contractors to resolve design, construction, and quality issues. Responsibilities included contractor management; coordination of inspection staff; reviewing designs, submittals schedules, and budgets; and developing and executing work orders.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of Firm: CH2M Hill Construction, Inc.</th>
<th>Start Date: 2005</th>
<th>End Date: 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position: Construction Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coordinated and scheduled subcontractors to successfully deliver projects on time and under budget. Developed scopes of work, priced and procured subcontractors, and managed payments during projects. Managed change orders with the client as well as with subcontractors. Created and managed project baseline schedules.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of Firm: Shirley Contracting Company</th>
<th>Start Date: 1997</th>
<th>End Date: 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position: Construction/Project Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participated in estimating projects, developed scopes of work for subcontractors and executed subcontracts. Developed baseline schedules and managed SCC crews as well as subcontractors during construction. Responsible for monthly project budget updates and equipment utilizations. Executed projects in accordance with the contract and negotiated change orders with the owner and subcontractors.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: BS, 1996, Civil & Environmental Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2007, Professional Engineer, Virginia # 0402 042650

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

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

(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)
I-95 Interchange / Temple Avenue Improvements, Colonial Heights, VA – VDOT ($13.4M)

**Quality Assurance Manager.** Manages QA inspection and testing services for a project required due to an unacceptable level of congestion, delays and accidents at the intersection of Temple Avenue and the I-95 SB ramp. The project includes the realignment of portions of the off-ramp and on-ramp; relocation of the ramp termini to the west of the current locations; and the replacement of a signalized interchange intersection with a roundabout. This configuration requires the removal of the Temple Avenue bridges to allow for construction of the roundabout. The roundabout includes two lanes of circulation and a continuous bypass lane on the west bound approach. Responsibilities also include coordination with testing laboratory; review of testing results; evaluation of material documentation from suppliers to confirm compliance with specifications; application and tracking of DBT numbers; and verification of accurate and complete testing documentation including the materials notebook. Works with the contractor and QC team to anticipate and resolve field issues before schedule and budget are affected and to resolve nonconforming materials and construction work in the most efficient and cost-effective manner possible. Prepares noncompliance reports for items that do not meet specifications; and reviews and approves nonconformance recovery plans, monitors corrective actions and retests, and works with contractor on strategies to prevent reoccurrence. Communicates and coordinates with the VDOT project manager and staff and with OIA/OVST inspectors.

**Firm:** Volkert, Inc. | **Dates:** December 2014 – December 2017

Rolling Road / Franconia-Springfield Parkway Interchange, Springfield, VA – VDOT ($10M)

**Quality Assurance Manager.** Managed QA inspection and testing services for the upgrade of the 1.1-mile loop ramp from high speed roadways: Fairfax County Parkway onto Fairfax County Parkway/Franconia-Springfield Parkway. The project included the rehabilitation of a three-span, steel-girder, concrete-slab bridge (241 feet in length) including the demolition and adjustment of the bridge median, overlaying the existing bridge deck with latex concrete, and repairs to the superstructure and substructure, including pier protection. Responsibilities also included coordination with testing laboratory; review of testing results; evaluation of material documentation from suppliers to confirm compliance with specifications; application and tracking of DBT numbers; and verification of accurate and complete testing documentation, including the materials notebook. Worked with the contractor and QC team to anticipate and resolve field issues before the schedule and budget were affected, and to resolve non-conforming materials and construction work in the most efficient and cost-effective manner possible. Prepared noncompliance reports for items not meeting specifications; and reviewed and approved nonconformance recovery plans, monitored corrective actions and retests, and worked with contractor on strategies to prevent reoccurrence. Determined mitigation measures to resolve areas of unsuitable soils during excavation. Potential solutions included geo-grid to reinforce the soil, replacement of soil with on-site suitable soil, and replacement with suitable soil with lime and other amendments. Modified the MOT plan to increase safety and efficiency. Replacing barrels with concrete barriers eliminated the need to put up and take down a safety wedge of dirt and stone to protect motorists from a 12-inch drop off. Communicates and coordinates with the VDOT project manager and staff and with OIA/OVST inspectors.

**Firm:** Volkert, Inc. | **Dates:** December 2014 – August 2016

Sudley Manor Drive & Linton Hall Road Widening PPTA, Prince William County, VA – PWCDOT ($72M)

**Construction Management Project Manager.** Managed construction of 1.5-mile segment of a new four-lane, divided roadway with a bridge over Norfolk Southern Railroad tracks, as well as signalized intersections, storm water management ponds, retaining walls, triple box culvert, earthwork, grading, typical section, asphalt paving, wet and dry utility installations and relocations, pavement markings, guardrails, and signage. **Relevance to the I-64 Widening Project:** Prior to construction, performed constructability reviews as Phase 1 design plans were developed, and provided input for solutions that reduced right-of-way acquisition and saved the County time and money. Developed a baseline CPM that accelerated construction in order to open the road prior to the holiday shopping season and closely monitored the schedule to ensure on-time project delivery. Coordinated with utility providers during the utility relocation phase; assisted during the right-of-way acquisition phase by drafting rights-of-entry and speaking with land owners; coordinated with developers adjacent to the project limits; and assisted with the layout of environmental features and environmental permitting. Scoped, priced, procured and managed subcontractors; resolved field issues; and managed document, schedule, cost, and claims management services during construction, including change order negotiations with the County and subcontractors.

**Firm:** MBP | **Dates:** July 2005 – October 2007

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

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. Mr. Weaver is not required to be on-site full-time for the duration of construction.
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

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

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
<th>Mark Burris, PE – Director of Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment:</td>
<td>Design Manager</td>
</tr>
<tr>
<td>c. Name of all Firms with which you are employed at the time of submitting SOQs. In addition, please denote the type of employment (Full time/Part time):</td>
<td>GAI Consultants, Inc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>d. Employment History: With this Firm</th>
<th>4 Years With Other Firms</th>
<th>29 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>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):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- AECOM: 6 Years – Director of Transportation, Design-Build PM for transportation projects
- VDOT: 1.5 Years – Design Section Manager (Location and Design)
- Wilbur Smith Associates: 5 Years – Associate in Charge, Design-Build PM for transportation project

| e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: | Old Dominion University, Norfolk, Virginia / BS / 1983 / Civil Engineering |
| f. Active Registration: Year First Registered/ Discipline/VA Registration #: | 1990 / Professional Engineer / VA # 021215 |

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

(List 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.)

Mr. Burris has over 33 years of professional experience primarily with transportation projects. He has served in the role of project manager on numerous Virginia Department of Transportation (VDOT) roadway and bridge and design-build projects for the past 18 years. He is highly practiced in the design process for transportation projects from early planning studies through final design and construction. His experience includes managing and design of interstate widening, rehabilitation and improvements, major urban principal arterial widening, involving environmental permitting, utility relocations, right-of-way acquisition, maintenance of traffic during construction, coordination with federal, state and local municipal stakeholders, and construction engineering support services. Some of the representative projects he has managed include:

1) **I-264 Pavement Rehabilitation Design-Build Project; Virginia Beach, VA (2013-2015).** Design Project Manager for a $72M Design-Build project to design and construct a 10 mile section of Interstate 264 in Virginia Beach, VA from the I-64/I-264 interchange to Parks Ave for Curtis Contracting. Project features included concrete pavement patching, shoulder widening, safety hardware upgrades, and modifications to barriers, guardrails, curbs and signage. Drainage structures adjustments and upgrades in substandard locations. Responsibilities included environmental and cultural resources support, traffic management during construction and public involvement. Regulatory agency interactions to obtain and comply with construction permitting requirements and monitoring construction activities to address water quality measures. This was a major urban roadway project connecting Norfolk to Virginia Beach’s ocean front and involved extensive public and stakeholder communications to successfully and safely construct the improvements. The project’s stakeholders include Virginia Beach, VDOT, FHWA, Federal and State agencies, multiple churches, businesses, neighborhoods, emergency response departments and environmentally sensitive properties.

2) **North Gayton Road Extension Design-Build; Henrico County, VA (2007-2012).** Design Project Manager for the design and construction of a 2.1 mile extension of North Gayton Road in Henrico County, Virginia for English Construction. The $38 million design-build project involved widening the existing roadway from two lanes to four lanes, a new six lane divided roadway, a new bridge spanning I-64, two precast concrete culverts over small streams, driveway
improvements, traffic signals, grading diagram, utility design and relocation, and a complex maintenance of traffic sequence to minimize interruptions on the existing facility.

3) Jamestown Corridor Improvements PPTA Project; Jamestown and Williamsburg, VA (2003-2006). Design Project Manager for corridor improvements project to enhance transportation access for the 400th anniversary of Jamestown in 2007. The PPTA team was led by Jamestown 2007 Corridor Constructors, which included Curtis Contracting. The $32 million project involved the widening the existing two lane sections to four-lane divided roadway of Route 199, a bridge replacement over College Creek, sound barrier walls, intersection improvements at the intersection of Route 199 and Route 31, and a realignment of Route 359 on a new location outside the Jamestown Visitor’s Center to connect Route 359 with the Colonial Parkway. The project involved major geometric considerations, noise walls, intersection improvements, residential and commercial development accommodations, utility coordination, relocation and design, bridge replacement over a major stream, culvert design and significant grading and alignment improvement, environmental permitting and mitigation, right-of-way acquisition and overall construction engineering management. The project was completed on-budget and ahead of schedule.

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

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. Mr. Burris is not required to be on-site full-time for the duration of construction
ATTACHMENT 3.3.1
KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: William “Bill” Richards, PE, Construction Engineer

b. Project Assignment: Construction Manager

c. Name of all Firms with which you are employed at the time of submitting SOQs. In addition, please denote the type of employment (Full time/Part time): Curtis Contracting Inc. – Full Time

d. Employment History: With this Firm 16 Years With Other Firms 15 Years
   Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):

2000 – Current. Curtis Contracting, Inc.: Construction Engineer/Construction Manager
   • I-264 Roadway Rehabilitation Design-Build Project – November 2013 – November 2015 Design Build Project Construction Manager responsible for the construction of the $73 million fast track design build of a 12 mile pavement rehabilitation, widening and improvements to the I-264 in the City of Virginia Beach
   • I-295/Meadowville Road Interchange Design-Build Project – Sept 2010 – Nov 2011 Construction Manager responsible for the construction of this $11.7 million VDOT/Chesterfield County Interchange and Interstate Widening Project
   • Warhill Infrastructure and Roadways Design-Build Project – April 2006 – Aug 2008 Construction Manager responsible for the construction management on the Curtis/Timmons Group/CHA LLP Team for this $37.4 million James City County project
   • US Route 199 Widening Design-Build (PPTA) Project – May 2004 – April 2006 Construction Manager responsible for the construction on the Jamestown 2007 Constructors, LLC/Wilber Smith & Assoc Team for this $32.4 million VDOT/James City County project

1998 – 1999. Frederick R. Harris: Associate Vice President
1990 – 1997. VRTBA: Engineer Director
1987 – 1990. VDOT: Asst Resident Engineer Chesterfield

Over 30 years of experience on major infrastructure projects located throughout Virginia. Experience includes airport facilities, athletic facilities, highway and bridge, environmental, and other site development projects. Clients have included VDOT, Local Municipalities, DOD, GSA and FHWA.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Virginia Polytechnic Institute and State University, Blacksburg, Virginia / BS / 1984 / Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
   1998 / Professional Engineer / VA #027950
   Virginia DCR Responsible Land Disturber Certification / #RLD03340 (Exp. 2/1/2019)
   VDOT Erosion and Sediment Control Contractor Certification / #I-01053 (Exp. 2/21/2019)

g. Document the extent and depth of your experience and qualifications relevant to the Project.
   1. Note your role, responsibility, and specific job duties for each project, not those of the firm.
   2. Note whether experience is with current firm or with other firm.
   3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.
   (List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

1) I-264 Roadway Rehabilitation Design-Build Project – Design Build Construction Manager, Nov 2013 – Nov 2015. Mr. Richards was responsible for the management of the overall design-build construction including public relations, design review, utility coordination, quality assurance & quality control, environmental protection, safety, schedule and construction for this $73 million project. The project elements included the pavement rehabilitation, widening, drainage improvements, barrier modification, guardrail and signage upgrades to current safety standards for a
12 mile segment of Interstate 264 in Virginia Beach, VA. Project details included significant traffic control to accomplish the installation of over 130,000 tons of asphalt paving, 100,000 square yards of full depth concrete roadway replacement, four miles of roadway widening, 70,000 LF of median and shoulder barrier modification, jack & boring of drainage culverts, drainage modifications, signage and over 1,000,000 LF of pavement markings. Mr. Richards was the main point of contact on-site for the Curtis Contracting Inc D/B Team and was responsible for the daily communication and coordination with VDOT, City of Virginia Beach, permitting agencies and other stakeholders on the project. Mr. Richards was instrumental in expediting the schedule in order to advance design, permitting and allow the start of construction work within a 2 month period. Using the unique flexibility allowed only with the Design-Build process he then adjusted project sequence and schedule to overcome a potential 7 month schedule delay due to unforeseen conditions and incorporate $12 million in additional work; while maintaining the original contract completion schedule date. Mr. Richards focus on safety and accident prevention has resulted in over 100,000 man hours without a single lost time injury for the project to date. Mr. Richards was instrumental in the decision to salvage the existing concrete material within the I-264 concrete pavement removal and recycle the material in an environmentally positive way. He assisted with the development of the CPM Schedule, QA/QC Plan and maintained all project controls. Owner Contact: VDOT Hampton Roads District, 1700 North Main St., Suffolk, VA 23434, Mr. James Utterback, (757) 925-2500

2) I-295/Meadowville Road Interchange Design-Build Project – Construction Manager, Sept 2010 – Nov 2011. Mr. Richards was responsible for the management of construction for this $11.7 million Fast Track/Design-Build project. The project elements included the construction widening of Interstate 295, Meadowville Road and on ramps and off ramps for Phase I of the I-295/Meadowville Road Interchange development. Project details included significant traffic control, construction of two signalized interchanges on Meadowville Road, signage, guardrail, asphalt pavement, concrete pavement, drainage, utility relocation, striping, clearing and mass grading. Mr. Richards was responsible for the day to day construction operations, quality control oversight, environmental compliance, public and worker safety, subcontractor coordination and monitoring of the CPM schedule. Mr. Richard’s duties included daily coordination of labor and equipment resourcing, material deliveries, subcontractor activities and construction means and methods. He communicated daily with the QA/QC inspection staff to schedule timely inspections, discuss work operations and to coordinate all preparatory documentation for the start of any new major work activity. Mr. Richards was the on-site point of contact for the Curtis/Parsons Brinckerhoff Team and was responsible for the communication and coordination with VDOT’s Project Representative, Chesterfield County, visiting permitting agencies and adjacent property owners. Mr. Richards coordinated the daily and weekly progress meetings where the immediate on-site staff participated in a “micro” level scheduling of all activities, traffic control measures and to insure that all open action items were addressed to support construction and contract compliance. Owner Contact: VDOT Richmond District, 2430 Pineforest Drive, Colonial Heights, VA 23834, Mr. Shane Mann, (804) 524-6091

3) US Route 199 Widening Design Build (PPTA) Project – Construction Manager, May 2004 – April 2006. Mr. Richards was responsible for the construction management on the Jamestown 2007 Constructors, LLC/Wilber Smith & Assoc Team for this $32.4 million project. Elements of this project included Design-Build construction to complete expansion of the Route 199 corridor from 2 lanes to 4 lanes for approximately three (3) miles. The project included the construction of a 1,200 lf parallel bridge crossing over College Creek, 1,500 lf of sound absorptive concrete barrier wall, 300,000 cubic yards of excavation, 45,000 tons of asphalt pavement, interchange improvements and the relocation of Route 359 into the Colonial National Parkway at Jamestown. Mr. Richards was responsible for the day to day construction operations, quality control oversight, environmental compliance, public and worker safety, subcontractor coordination and monitoring of the CPM schedule. Mr. Richard’s duties included daily coordination of labor and equipment resourcing, material deliveries, subcontractor activities and construction means and methods. He communicated daily with the QA/QC inspection staff to schedule timely inspections, discuss work operations and to coordinate all preparatory documentation for the start of any new major work activity. Mr. Richards was the on-site point of contact for the Curtis/Wilber Smith & Assoc Team and was responsible for the communication and coordination with VDOT’s Project Representative, James City County, visiting permitting agencies and impacted property owners. Mr. Richards coordinated the daily and weekly progress meetings where the immediate on-site staff participated in a “micro” level scheduling of all activities, traffic control measures and to insure that all open action items were addressed to support construction and contract compliance. Owner Contact: VDOT Hampton Roads District, 1700 North Main St., Suffolk, VA 23434, Mr. Kevin Gregg, (757) 925-2500

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

Construction Manager – Route 288 Pavement Rehabilitation – Completion: January 2017
APPENDIX 3.4.1

Work History Forms
ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design.</th>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-264 Pavement Rehabilitation (Design Build)</td>
<td>Name: <strong>SEE BELOW</strong></td>
<td>Name of Client / Owner: VDOT</td>
<td>Phone: (757) 925-2500</td>
<td>Project Manager: Jim Utterback, PE</td>
<td>Phone: (757) 925-2500</td>
<td>Email: <a href="mailto:james.utterback@vdot.virginia.gov">james.utterback@vdot.virginia.gov</a></td>
</tr>
</tbody>
</table>

CCI, as the Design Builder, was responsible for all aspects of design and construction, including roadway, drainage improvements, MOT, barrier and guardrail modifications, signage, environmental protection, public relations, coordination with adjacent contracts and VDOT TOC. Project required extensive coordination with adjacent and overlapping projects which is handled by CCI in conjunction with VDOT’s GEC. Daily coordination occurred onsite and weekly meetings were held at Curtis offices to discuss plans, work schedule, public relations information and traffic control. This fast-track project consisted of the overall design-build process including public relations, design, permitting, utility coordination, quality assurance & quality control, environmental protection, safety, schedule and construction for this $72 million project. The project elements included the pavement rehabilitation, drainage and safety improvements for a 12 mile section of Interstate 264 in the City of Virginia Beach. Project scope included the installation of over 210,000 Tons of asphalt, 120,000 SY of full depth pavement replacement, 70,000 LF of shoulder and median barrier modification, over 400 nightly MOT/Lane Closures, 5,000 LF of trench drain, jack and boring of drainage pipe, 130 storm drain structure modifications, 70,000 LF of guardrail upgrades, signage and millions of LF of pavement markings. Curtis was responsible for the communication and coordination with VDOT, City of Virginia Beach, regulatory agencies and other stakeholders on the project. The Curtis Team was instrumental in expediting the schedule in order to advance design, permitting and construction of all work within a 22 month period. Using the unique flexibility allowed only with the Design-Build – we developed phased design submissions to allow for work to begin within 2 months of project award and then obtained all approvals in order to insure work will be completed on time schedule. This included incorporating over $10 million in added scope without changing the project completion date. The Curtis Team focused on safety and accident prevention has resulted, to date, in over 200,000 man hours without a single recordable injury for this project. Curtis was salvaging the existing concrete material within the I-264 full depth pavement repairs and will recycle over 60,000 Tons of material in an environmentally positive way. 

CCI was able to control the project schedule with its unique ability to self-perform all project management, maintenance of traffic, full depth roadway pavement replacement, roadway widening, barrier modifications, guardrail installations, erosion and sediment controls, and survey.

SCAPE AND COMPLEXITY SIMILARITIES
- Rehabilitation of a major commuter roadway under traffic
- VDOT Design Build Project
- Public Relations Efforts with local business and communities
- Fast Track Design and Construction
- Significant Asphalt Pavement
- Significant Traffic Control Requirements

VERIFIABLE EVIDENCE OF GOOD PERFORMANCE

This project had an aggressive 22 month schedule. Weekly design and construction progress meetings were held with the owner, as well as meetings dealing with MOT, scheduling and lane closures, to discuss coordination with the other ongoing projects. We also coordinated the work with the local city, police, fire and other emergency responders, and the traveling public. Despite the addition of over $10,000,000 of added scope on the project critical path, CCI developed a plan and provided all of the necessary resources to mitigate any schedule impact on the contract completion date.

CCI was innovative in their approach to the work zone safety risks. At their own expense they installed an electronic traffic speed sign trailer in each lane closure to bring to the attention of the traveling motorist their speed and monitor peak hours of speed violations. This allowed for motorist to “check-up” this speed when entering a work zone and also, allowed for Curtis to coordinate with law enforcement on the necessary peak periods for their presence. Curtis also implemented a “Orange Cones No Phones” campaign to bring motorist awareness to the workzone and in a direct effort to reduce the number of distracted drivers.

LESSONS LEARNED

1. Since effective coordination among all stakeholders, VDOT, utility owners and business was paramount, weekly coordination and job progress meetings were held to discuss issues/solutions, scheduling, partnering, safety, MOT, etc., which mitigated conflicts and ease the flow of the project.
2. Due to potential traffic congestion and emergency vehicle response impacts, Curtis proposed an extensive Public Relations outreach and communication program that consist of website, one on one contact and information distribution to all localities and emergency response divisions among this high volume traffic corridor. These processes were implemented with VDOT’s approval resulting in improved public travel and allowed for continuous/uninterrupted access for emergency response vehicles.
3. The project schedule required all design, permitting and construction to be completed within and aggressive 22 months of NTP. The Curtis Team developed a phased design approach that allowed for construction to commence within the first three months from Award.
ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design.</th>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.</th>
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<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Route 199 Segments 1B, 3, 4 (PPTA)</td>
<td>Wilbur Smith Associates</td>
<td>Name: VDOT Phone: (757) 253-5069 Project Manager: David Black Phone: (757) 253-5069 Email: <a href="mailto:david.black@vdot.virginia.gov">david.black@vdot.virginia.gov</a></td>
<td>2005 (1B) 2005 (3)</td>
<td>2004 (1B) 2005 (4)</td>
<td>$32,400</td>
<td>$32,400</td>
</tr>
</tbody>
</table>

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

In 2004, Curtis Contracting Inc., as a lead equity member of the Jamestown 2007 Corridor Constructors, LLC, was awarded a Design-Build (PPTA) contract by the Virginia Department of Transportation to expand the US Route 199 corridor from two (2) lanes to four (4) lanes with a divided median for approximately three (3) miles. The Design Build project included all environmental permitting, right-of-way acquisition, utility coordination, public outreach/relations and major traffic control to construct the new lanes of roadway while maintaining uninterrupted vehicular traffic on the existing corridor.

Project scope also included the construction of a 1,200 ft parallel bridge crossing over College Creek, 1,500 ft of sound absorptive concrete barrier wall, 300,000 cubic yards of excavation, 45,000 tons of asphalt pavement, interchange improvements at Route 31/Jamestown Road, and the relocation of Route 359 into the Colonial National Parkway at Jamestown. This time sensitive improvement was necessary to support the increased tourism and commercial traffic associated with the celebration of our country's 400th Anniversary.

The construction of six (6) new lane miles, along with the rehabilitation and improvements of the existing six (6) lane miles and interchange improvements, required exact planning and phased design and construction in order to achieve the aggressive schedule for a project of this length and magnitude. CCI was instrumental in partnering with all stakeholders early and often to make sure that a comprehensive CPM schedule was developed, including consideration of all hold points for VDOT, permitting, necessary design approvals, utility relocations, etc.; and that daily and weekly action items were not left unaddressed in order to support the needs of the project. CCI challenged teams members each day during the “mandatory” weekly meetings to come prepared to address items such as design submittals, revision or approval status, deficiency identification/correction and documentation, right-of-way acquisition negotiation status, and status of utility relocation. The partnering approach instilled by CCI gave all members a sense of “ownership” where each individual believed success was the only option and attendees were inspired to come prepared to support the progress of the work and performance of the Team.

Challenges to the constructability of this project included the soils surrounding College Creek and the tributary basin areas. The Design-Build Team worked together to develop a design for reinforced fills that would support the traffic loading while also minimizing any long term settlement below subgrade, which would result in a failing roadway section or create future maintenance issues. Confident in our ability, the Team further reinforced our commitment by enhancing the value of our proposal and agreeing to an extended seven (7) year warranty that included specific details concerning any settlement if it should occur. To date, the design and construction quality have produced a roadway that is performing tremendously under load and without any issues of settlement.

The US Route 199 corridor expansion is very similar to the requirements of this project, where a major roadway under traffic will be expanded while also accommodating the existing roadway cross slope, profile, and drainage features. Our experience brings forth many valuable lessons for consideration in order to accomplish this challenge. One example would be the emphasis of as-built data prior to establishing the baseline profiles for roadway and drainage design. We have found that the increments of topographic and baseline survey need to be sufficient to identify precisely the existing pavement profiles and cross sections so that the design for the widened roadway does not reach the point of final surface course and find the variables in pavement settlements or prior construction do not allow minimum, or will exceed maximum, allowable tolerance for the final roadway sections.

Historical and cultural resources were a significant concern on this project. In addition, the Department of Interior was an integral partner on the Team due to the sensitivity of work on the property of the National Park Service. CCI’s Team considered this risk during the development of our proposal to include hold points in the schedule and time for the necessary surveys and phased clearances of impacted properties along the corridor. All sites were cleared for construction and then monitored throughout as required by the permitting. CCI maintained great relationships with the stakeholders from the Historical and Cultural Resources and received high praise from the National Park Service for our attention to their concerns and the quality of our performance.

CCI’s focus on safety enabled us to complete all work, to include over 150,000 man hours, without a single recordable injury.

SCOPE AND COMPLEXITY SIMILARITIES

- Major Roadway Widening
- Environmental Impact Mitigation
- Extensive Storm Water Management
- Maintenance of Traffic Volumes
- Public Relations Outreach
- Geotechnical Complexities
- Major Structures
- Mass Grading and Storm Drainage
**LEAD CONTRACTOR - WORK HISTORY FORM**

**LIMIT 1 PAGE PER PROJECT**

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Martin Luther King Expressway Extension (Design Build)</td>
<td>Location: City of Portsmouth, VA</td>
<td>Name: Parsons Brinckerhoff</td>
<td>Name of Client / Owner: SKW Constructors, LLC</td>
<td>Phone: (757) 673-9487</td>
<td>Project Manager: Wade Watson</td>
<td>Phone: (757) 673-9487</td>
</tr>
</tbody>
</table>

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

CCI as a major contractor was responsible for all construction, including highways and structures, extensive MOT, environmental compliance and protection, coordination with adjacent contracts, utility installation and storm water management.

CCI was responsible for the overall environmental protection, safety, CPM schedule and construction for this $46.2 million project. The project elements included construction of the widening of Interstate 264, on ramps and off ramps for Contract A of the I-264/MLK Extension Interchange development. Project details included construction of two new bridges, widening of two existing bridges, MSE walls, EPS, signals, lighting, overhead/roadway signage, guardrail, asphalt pavement, drainage, utility relocation, stripping, clearing, mass grading, and maintenance of traffic. CCI was responsible for the communication and coordination with SKW, Design Engineer, QA/QC, VDOT, City of Portsmouth, permitting agencies and other stakeholders on the project. CCI was able to control the project schedule with its unique ability to self-perform all project management, mass excavation, roadway sub base, storm drainage/basin construction, pavement demolition, traffic control, bridge construction and guardrail installation. Major items of work included approximately 200,000 cubic yards of mass excavation, 40,000 Cubic Yards of borrow excavation, 85,000 Tons of asphalt, 20,000 Tons of aggregate base material, 27,000 cubic yards of EPS/Geo-foam, 25,000 cubic yards of lightweight fill, construction of 46,000 square feet of MSE Wall, 4800 linear feet of barrier wall, and remove and replace a pedestrian bridge with approaches. CCI's focus on safety enabled us and our subcontractors to complete all work to date, to include over 100,000 man hours, without a single recordable injury.

CCI was able to control the project schedule with its unique ability to self-perform grading, pavement, project management, maintenance of traffic, guardrail installation, erosion and sediment controls and bridge construction.

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE**

Through detailed scheduling, coordination and communication the MLK Extension Project was ahead of schedule. Curtis Contracting has been recognized by SKW for Quality, Erosion and Sediment controls, and MOT operations.

**LESSONS LEARNED**

1. Weekly coordination meetings have been key to eliminating delays, maintaining schedule, and communication with stakeholders
2. Due to multiple contracts MOT coordination has been key to minimize impacts to travelling public
3. Quality Control built into work plans has been key to eliminate rework and provide a quality project.
4. Daily MOT inspections have been key to maintaining traffic flow through the project and promptly addressing issues.

**SCOPE AND COMPLEXITY SIMILARITIES**

- Widening of major roadway under traffic
- VDOT Design Build Project
- Bridge Construction and Widening
- Installation of ITS communications and Signals
- Significant MOT
- Coordination with Railroad
- Coordination with many Stakeholders
**ATTACHMENT 3.4.1(b)**

**LEAD DESIGNER - WORK HISTORY FORM**

*(LIMIT 1 PAGE PER PROJECT)*

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime/ general contractor responsible for overall construction of the project.</th>
<th>c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Construction Contract Start Date</th>
<th>e. Construction Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)</th>
</tr>
</thead>
</table>
| I-264 Pavement Rehabilitation Design-Build | Curtis Contracting, Inc. | Name of Client: VDOT  
Phone: 757.494.5477  
Project Manager: Frank Fabian, PE  
Email: Frank.Fabian@vdot.virginia.gov | 12/2013 | 11/2015 | $60,950 | $75,456 *(Change order per Owner’s request)* |
| Location: Virginia Beach, VA | | | | | | $2,093 |

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

GAI Consultants, Inc. was the prime design consultant for this 10-mile pavement rehabilitation project on Interstate 264.

A 10-mile pavement rehabilitation project on Interstate 264 that extends from the railroad bridge west of Witchduck Road to Parks Avenue, and includes the westbound collector-distributor lanes of I-264 for the I-64/I-264 interchange to the east of Newtown Road. All roadway segments that have reinforced concrete pavement were upgraded. Damaged concrete pavement was patched full depth and replaced prior to overlaying with up to 6.5 inches of asphalt.

Other project features included four lane miles of shoulder widening, safety hardware upgrades, and modifications and adjustments for barriers, guardrail, curbs, and signage. Drainage structures were adjusted and upgrades made in substandard locations as necessary. GAI was also responsible for hydraulic analysis, design, and construction monitoring to address required water quality measures. The maintenance of traffic and public relations elements of this project were the responsibility of subconsultants.

**Lessons Learned:**
- Innovative design analysis resulted in saving the owner $3M from VDOT’s estimated cost
- Early and frequent multi-stakeholder involvement was a key to meeting the original contract schedule with a 200% increase in fixed bid quantity for concrete pavement replacement (a significant item on the critical schedule’s critical path)
- Additional traffic analysis and studies allowed for additional lane closures and extended work zone hours
- Additional lane closures, speed radar signs and “Orange Cones/No Phones” campaign to enhance work zone safety
- No fatalities occurred during the project’s construction schedule with 80,000 vehicles per day traffic

**SCOPE AND COMPLEXITY SIMILARITIES**
- Design-Build
- Utility Coordination/Relocation
- Roadway Widening
- Multiphase MOT
- Extensive Public/Multi-Stakeholder Outreach and Coordination
- Three 42” steel casing boring under live traffic up to 90’ long
- Environmental Permitting
- SWM Design and Permitting
I-95 Widening & I-4/US 92 Systems Interchange Reconstruction Design Build

Name: Archer Western

Name of Client: Florida Department of Transportation – District 5

Construction Project Manager: Bradley Bauknecht, PE

Phone: 386.943.5429

Email: Bradley.Bauknecht@dot.state.fl.us

01/2015

02/2017

 Estimated

Completed

7/2016

$205,000

$5,905

GAI Consultant, Inc. is the prime design engineer for this effort, leading a multi-disciplined team in widening the highway to six lanes from north of SR 44 in north of US 92, and providing Total Reconstruction of the I-4, I-95, US 92 systems interchange to add CD roadways and greatly improve safety and capacity.

The Florida Department of Transportation is widening Interstate 95 in Volusia County, adding lanes to this final section of I-95 in Florida to support the development of “Daytona Rising,” a major expansion surrounding the Daytona International Speedway. GAI’s scope includes more than 12 miles of roadway and interchange design, complex multi-phase maintenance of traffic plans, more than 20 bridge replacements, drainage design, environmental permitting, and ancillary improvements such as lighting, retaining walls, and ITS modifications.

All work is in accordance with FDOT and AASHTO specifications, and requires fast-track Interchange Modification Report (IMR) approval by FHWA to keep the project on track and meet an aggressive Design-Build schedule. At a cost of nearly $30,000 per day for schedule delays, GAI’s attention to detail and quality, coupled with an approach that meets all commitments, is the key to the project’s success.

Value Added Benefits:

GAI’s value-added design concepts eliminated 97% of the utility conflicts and 17 acres of ROW requirements. The use of polymer binder and bonded friction course saves the Department millions of dollars in future resurfacing and maintenance costs.
LEAD DESIGNER - WORK HISTORY FORM

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</tr>
</thead>
<tbody>
<tr>
<td>SR 9B (Future I-795) from SR-5/US-1 to I-295 Design Build Location: Duval County, FL</td>
<td>Name: Archer Western</td>
<td>Name of Client: Florida Department of Transportation – District 2 Construction Project Manager: Nelson Bedenbaugh Phone: 800.749.2967 Email: <a href="mailto:Nelson.Bedenbaugh@dot.state.fl.us">Nelson.Bedenbaugh@dot.state.fl.us</a></td>
<td>02/2010</td>
<td>01/2015</td>
<td>$70,000</td>
<td>$5,007</td>
</tr>
</tbody>
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GAI served as a prime consultant for the design and permitting of a new 3.5 miles divided highway designed to Interstate standards. GAI provided all highway design, drainage design and permitting. GAI is also provided Bridge Design, MSE Wall Design, and oversight of wetland permitting. This project had an 881-day Design and Construction Schedule with the design divided into numerous components allowing construction to begin early in the design process to meet this aggressive schedule. Major engineering components included:

- 13 Bridge structures over waterways, wetlands, and active interstate highways
- System to System Interchange at the I-295/SR 9B intersection designed to accommodate the ultimate future build-out configuration
- Three miles of new Interstate alignment
- PCCP Typical Section
- Stormwater Management Facility Design and Permitting
- Wetland Permitting Oversight
- MSE Wall Design
- Local Access Interchange at the intersection of SR 9B and US 1
- Water and Sanitary Force Main Design

SCOPE AND COMPLEXITY SIMILARITIES
- Design-Build
- Utility Coordination/Relocation
- Multiphase MOT
- ITS Modification
- Public Information Coordination
- SWM Design and Permitting