A Design-Build Project
I-95 Express Lanes – Southern Terminus Extension
Stafford County, Virginia

State Project No.: 0095-969-720, P101, R201, C501
Federal Project No.: STP-000S (321)
Contract ID Number: C00108315DB90

Submitted By:
Branch Highways

In Association With:
Chesapeake Electrical Systems, Inc.
H&B Surveying & Mapping, LLC (DBE)
Froehling & Robertson, Inc. (SWaM)
Engineering & Materials Technology, Inc. (DBE)
Offerors shall furnish a copy of this Letter of Submittal Checklist, with the page references added, with the Letter of Submittal.

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## ATTACHMENT 4.0.1.1

**I-95 Express Lanes – Southern Terminus Extension**

**LETTER OF SUBMITTAL AND ATTACHMENTS CHECKLIST**

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<td>Confirmation that the information provided in the SOQ submittal remains true and accurate or indicates that any requested changes were previously approved by VDOT</td>
<td>NA</td>
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<td>Organizational chart with any updates since the SOQ submittal clearly identified</td>
<td>NA</td>
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ATTACHMENT 3.6

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFP NO. 0095-969-720
PROJECT NO.: C00108315DB90

ACKNOWLEDGEMENT OF RFP, REVISION AND/OR ADDENDA

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

By signing this Attachment 3.6, the Offeror acknowledges receipt of the RFP and/or following revisions and/or addenda to the RFP for the above designated project which were issued under cover letter(s) of the date(s) shown hereon:

   (Date)

2. Cover letter of RFP Addendum No. 1 – March 21, 2016
   (Date)

3. Cover letter of RFP Addendum No. 2 – March 29, 2016
   (Date)

4. Cover letter of RFP Addendum No. 3 – April 2, 2016
   (Date)

______________________________
Patrick K. Bartorillo
PRINTED NAME

4/4/2016
DATE

______________________________
President
TITLE
April 4, 2016
Mr. Suril R. Shah
Alternate Project Delivery Office
Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

Re: Design Build I-95 Express Lanes – Southern Terminus Extension
State Project No.: 0095-969-720
Federal Project No.: STP-000S(321)
Contract ID Number: C00T108315DB90
Section 4.1 Letter of Submittal

Dear Mr. Shah,

Branch Highways, Inc. (BRANCH), as the Offeror, is pleased to submit to the Virginia Department of Transportation (VDOT) this Letter of Submittal and accompanying Attachments in response to the Request for Proposals dated February 29, 2016 for the above-referenced project.

Section 4.1.2 Branch Highways, Inc., if selected, will enter into a contract with VDOT for the Project in accordance with the terms of the RFP.

Section 4.1.3 Pursuant to Part 1, Section 8.2, Branch Highways, Inc. declares that the offer represented by the Proposals will remain in full force and effect for one hundred twenty (120) days after the date of the Letter of Submittal and Attachments are actually submitted to VDOT.

Section 4.1.4 Mr. Pete Kramer will serve as the Point of Contact for Branch Highways, Inc.

Mr. Pete Kramer, Vice President – NOVA Region
Address: 10440 Balls Ford Road, Suite 270, Manassas, VA 20109
Tel: (571) 379-5603
Fax: (571) 379-5896
Email: PeteK@branchhighways.com

Section 4.1.5 Mr. Patrick Bartorillo will serve as the Principal Officer for Branch Highways, Inc.

Mr. Patrick Bartorillo, President
Address: 442 Rutherford Ave, NE, Roanoke, VA 24016
Tel: (540) 982-1678
Fax: (540) 982-4217
Email: Patrick.Bartorillo@branchhighways.com

Section 4.1.6 Branch Highways, Inc. proposes an Interim Completion Date of December 1, 2017 and a Final Completion Date of August 22, 2018.
Section 4.1.7 We have provided an original completed Attachment 9.3.1: Proposal Payment Agreement form as an attachment under the Tab labeled: Attachment 9.3.1: Proposal Payment Agreement Form.

Section 4.1.8 We have provided original Attachments 11.8.6 (a) & (b) Certification Regarding Debarment Forms as an attachment under the Tab labeled: Attachments 11.8.6 (a) & (b).

Section 4.1.9 This statement is to declare that Branch Highways, Inc. is committed to achieving or exceeding a fifteen (15%) DBE participation goal for the entire value of the contract.

The Branch Design-Build Team appreciates the opportunity to present this Letter of Submittal and associated attachments and we look forward to your review.

Sincerely,

Branch Highways, Inc.

Patrick K. Bartorillo, President
The organizational chart and Key Personnel proposed in the SOQ remains true and accurate for the Branch Design-Build Team. The following narrative and organizational chart describes the functional relationships of the team members and the clear “chain of command” to the DBPM.

TEAM STRUCTURE

Branch Highways, Inc. (Branch) will be responsible for managing the project in its entirety, supervising the construction, and performing major elements of the construction work. Additional subcontractors for various specialty items such as tolling systems, ITS, signage, guardrail, and pavement striping will be under direct subcontract to Branch. Whitman, Requardt & Associates, LLP (WRA) will lead the design effort for all aspects of the project and will be responsible for the design QA/QC. The Branch | WRA Design-Build Team includes highly qualified subconsultants that bring specific expertise to enhance the Team and ensure a quality project for VDOT. A listing of the Team follows and an organizational chart of the Team is included in at the end of this section.

Branch Highways, Inc. (Branch) – Offeror, Legal Entity, Lead Contractor

Branch is a member of The Branch Group of employee-owned companies, incorporated in 1986. Company headquarters are located in Roanoke, Virginia with a regional office located in the Manassas area of Northern Virginia. Branch is a full service heavy highway contractor with hundreds of successfully delivered projects to numerous public and private clients throughout the Mid-Atlantic region, including completed projects of similar size and scope to the I-95 Express Lanes – Southern Terminus Extension Project. Branch has an impressive record of successful Design-Build/PPTA projects for VDOT and local governments for over $425 million. Branch has been able to maintain a high level of client satisfaction and is well acquainted with working closely with owners on large and complex projects. Branch has assigned a Construction Design Coordinator (CDC) that greatly enhances the project structure of the Team by providing additional engineering oversight; similar to the role of Responsible Charge Engineer on other Design-Build projects.

Whitman, Requardt & Associates, LLP (WRA) – Lead Designer

WRA is a full service architectural and engineering firm that was founded over 100 years ago primarily serving state and local governments in the Mid-Atlantic region. WRA will serve as the Lead Designer for this project and will be responsible for the design QA/QC. In the last three years, WRA has worked on seven Design-Build projects in Virginia and is a Design-Build leader in the Mid-Atlantic region working on over 50 Design-Build projects for Federal, State, and Local government entities as well as private Design-Build projects.

Branch and WRA worked together on three Design-Build/PPTA projects over the last three years, which are listed below:

- **George Mason University (GMU) Campus Connector Design-Build ($13 million)** – Branch was the Lead Contractor for this project. WRA designed the Route 123 improvements, geotechnical engineering and provided QAM services for all construction in VDOT right-of-way.
- **Route 636 Extension over CSXT Augusta County PPTA ($14 million)** – WRA designed the Route 636 Bridge over CSXT, geotechnical engineering and provided QAM services for this Branch project.
- **Greenview Drive Design-Build ($16 million)** WRA is providing QAM services for this Branch project.

The combined Design-Build experience above and our common goal to put the quality and schedule of the project first has proven to be successful on our projects and will be for the I-95 Express Lanes projects. Branch and WRA have worked closely with Transurban on the I-495 and I-95/395 Express Lanes projects and will leverage those professional working relationships for this project.
Subconsultants
The Branch | WRA Design-Build Team is comprised of highly qualified subconsultants extremely knowledgeable in VDOT policies and procedures and experienced with similar VDOT Design-Build projects. The following subconsultants have been carefully selected based on their relevant past experience and established working history of project success with VDOT, Branch, and/or WRA.

Chesapeake Electrical Systems, Inc. (CES) was founded in 1993 and has grown to become the Mid-Atlantic Region’s electrical contractor of choice working on some of the region’s most recognizable landmarks. They bring significant experience with ITS system construction and integration of dynamic tolling infrastructure through their work on the Elizabeth River Crossing project, the I-495 Express Lanes project and the recently completed I-95 Express Lanes project.

H&B Surveying and Mapping, LLC (H&B) a Virginia-Certified, DBE/WBE (Woman-Owned Business) founded in 2009 will provide Surveying and Subsurface Utility Locating for the Branch Team. H&B has teamed with WRA to provide surveying services on over 75 projects throughout Virginia including VDOT Design-Build projects.

Froehling & Robertson, Inc. (F&R), a SWaM-certified firm founded in 1881, will provide a Quality Assurance Lab for the Branch Team. F&R’s in-house soil, materials, and asphalt laboratories are accredited by AASHTO (AMRL/CCRL), the US Army Corps of Engineers (USACE), and WACEL.

Engineering & Materials Technologies, Inc. (E.M. Tech) is a certified DBE firm and will provide QC Inspectors, Testing and Lab Services for the Branch Team. Their in-house laboratory has been inspected and/or accredited by AASHTO Materials Reference Laboratory (AMRL), the Washington Area Council of Engineering Laboratories (WACEL) and the Cement and Concrete Reference Laboratory (CCRL).

3.3.1 KEY PERSONNEL
Key personnel Resume Forms were included in Attachment 3.3.1 located in Appendix C of the SOQ. A summary of key personnel is described below, and more detailed project experience for each are listed on the Resume Forms.

Design-Build Project Manager: Pete Kramer (Branch – 34 years of experience)

Pete Kramer (DBPM) has 34 years of overall experience in the heavy civil/construction industry, 19 of which have been with Branch. He has served as DBPM on numerous high-profile projects in Virginia, including the Prince William County Route 15 PPTA Project ($52M), 2008 Stafford County Transportation Bond Referendum Projects PPTA/Design-Build ($20M), and recently completed Prince William County Parkway Improvements project ($14M). He has been responsible for successful management of overall project design, construction, planning, scheduling, quality, safety, overall contract administration, and procurement of proper resources on projects to which he has been assigned. His responsibilities will be the same for this project. Pete will be the primary point of contact for VDOT and any other stakeholders in the project, and will coordinate all aspects of the project and ensure that appropriate and consistent communication is maintained between all parties. He will be responsible for meeting obligations and avoidance/resolution of disputes per the Contract. The Design Manager, Construction Design Coordinator, Construction Manager, Safety Manager and the PR Manager will all report directly to Pete Kramer.

Quality Assurance Manager: Lenny Coleman, P.E., CCM, LEED AP (WRA – 11 years of experience)

Lenny Coleman (QAM) will report directly to the DBPM and will have direct, independent access to VDOT. He served in a similar role as Assistant QAM on the Fairfax County Parkway Interchange and
Widening Design-Build and held the role of QC Manager on the Fall Hill Avenue Widening & Mary Washington Boulevard Extension VDOT Design-Build project in Fredericksburg, VA, and the Walney Road Widening Design Build Project in Fairfax, VA. Lenny’s experience includes QA level oversight as Prince William County’s Construction Manager for Capital Improvement Program managing projects similar to the I-95 Express Lanes Southern Terminus Extension such as the Route 1 North Improvements PPTA project. Lenny will be responsible for the Quality Assurance program and will coordinate with VDOT, supervise project QA inspection staff, and coordinate with the QA Testing firm, F&R. He will ensure conformance with the Contract Documents including the “approved for construction” plans and specifications. Lenny will have overall responsibility for the development of and adherence to the Design-Build QA/QC Plan including coordination with the Design QA/QC Manager, Mike Russell, P.E. Lenny will report to the DBPM and he will function independently from the Construction QC Manager, auditing and monitoring Branch’s Quality Control Program. He will have the authority to stop construction activities to ensure compliance with the specifications and issue Non-Compliance Reports (NCRs) if necessary. In addition, Lenny will submit monthly written reports on the status of the QA Program to both VDOT and the Branch Design-Build Team.

**Design Manager: John Maddox, P.E. (WRA – 30 years of experience)**

**John Maddox (DM)** will also report directly to the DBPM. John has 30 years of experience designing and managing major transportation projects including over 20 years on VDOT projects. He is currently the Design Manager on VDOT’s Fall Hill Avenue Design-Build project in the City of Fredericksburg and was the Design Manager for the successfully completed VDOT Design-Build Walney Road Bridge Replacement and widening project in Fairfax County. John has also worked with Branch on two Design-Build projects the GMU Campus Connector project (Route 123 Bridge, geotechnical, roadway, drainage) and the Route 636 PPTA project in Augusta, VA (bridge, geotechnical and QAM). He will be responsible for providing a quality product, meeting all design milestones, continual Design-Build Team coordination and ensuring the Design QA/QC Manager’s involvement throughout the design phase. John is responsible for ensuring all design work is performed in accordance with current VDOT Policies, Procedures and Guidelines and the requirements of the VDOT Request for Proposals. He will manage all aspects of design including roadway; hydraulic; ITS, tolling system, traffic engineering; MOT; environmental; and geotechnical. He will assign resources as needed; oversee the design subconsultant for survey; coordinate design and review schedules; develop and implement corrective measures if necessary; and ensure environmental compliance measures are integrated into the design. He will coordinate the design with **CDC, Yieshak Shata** to ensure the timely completion of a quality constructible project. John will maintain involvement in the project once construction begins to oversee any plan modifications and shop drawings, and review construction activities with the CM as work progresses.

**Construction Manager: Steve Morris (Branch – 22 years of experience)**

**Steve Morris (CM)** has over 22 years of industry experience – 15 of which have been with Branch, and has successfully managed over $100M of Design-Build projects, including Branch’s subcontracted portion of the previous I-95 Express Lanes project. Steve will report to the DBPM and will be assigned solely to this Project for its duration, and will be responsible for planning and execution of both internally performed and subcontracted work activities and ensuring that said activities and associated materials meet contract requirements and “approved for construction” plans and specifications, including Quality Control (QC). He will also be accountable for overall project compliance with ancillary regulations, including, but not limited to, environmental, safety, and MOT. The ITS/Electrical Manager, Construction QC Manager, Grading/Roadway Superintendent, Construction Environmental/MOT Manager, Project Controls Manager and the DBE Compliance Manager will all report directly to Steve Morris.
Kevin Trippe (ITS EM) has worked for Chesapeake Electrical Systems (CES) since his graduation from his IBEW Apprenticeship Program in 2004. Kevin has served as Project Manager for CES for the installation and integration of the ITS systems for I-95 HOT/HOV Express Lanes, the I-495/Capital Beltway Express Lanes, and the I-495/95/395 Roadside Equipment Maintenance contract, which is on-going. Kevin is very familiar with the systems and work that will be required for the I-95 Express Lanes Southern Terminus Extension, and has proven his capabilities in efficiently handling issues related to ITS/Electrical design and its integration into the project as a whole. Kevin will be responsible for supervision of all designs developed by the ITS Design Team and throughout installation to ensure that the work is done on time and in accordance with a QA/QC Plan similar to the I-495 & 95 Express Lanes. The Master Electrician, Robert Preston is a Certified Master Electrician and will report directly to Kevin the ITS/Electrical Manager. Kevin will report directly to the CM, Steve Morris and will have a lead role in the ITS Integration Team.

3.3.2 ORGANIZATIONAL CHART

The Branch Design-Build Team Organizational Chart on Page 9 identifies key personnel members and depicts the reporting structure of the Team. Solid lines identify the direct lines of reporting relationships of our Team members from the DBPM to the Design, Construction and QA leads. Dashed lines represent indirect reporting relationships and obligations to the DBPM and the team members. Furthermore, the reporting structure shows a clear separation between the Construction Quality Control duties and the Quality Assurance duties. Each function will have independent materials testing laboratory services. To further enhance our Team structure and to ensure successful integration with the existing tolling system, specific team members will serve on our ITS Integration Team and are highlighted on the organizational chart.

As a continuation of the functional relationships for Key Personnel described above, the following narrative further defines the roles and functional relationships of the additional team members.

Safety Manager: Danny Minnix (Branch – 20 years of experience)

Danny Minnix will report to the DBPM and has held the position of Director of Safety and Risk at Branch for well over a decade, and has 20+ years of experience overall with large-scale heavy civil safety program development and management.

Construction Design Coordinator: Yisehak Shata, P.E. (Branch – 15 years of experience)

Yisehak Shata, P.E. (CDC) has 15 years of overall experience in the heavy civil construction industry, 11 of which have been with Branch, and extensive Design-Build project management experience, including the I-95/395 HOT/HOV/Bus Lanes PPTA project ($47M), Heritage Center Parkway D-B (PWC) ($6M), Route 15 Improvements Design-Build/PPTA (PWC) ($52M), and 2008 Stafford County Transportation Bond Referendum Projects Design-Build/PPTA ($20M). Yisehak has acted as DBPM on nearly $30M of Design-Build projects, where he was responsible for monitoring the design process for constructability and efficiency. Yisehak is able and qualified to make appropriate directives/decisions regarding design modifications when they arise, and is well versed in the process of managing the design-construction process that is exclusive to Design-Build projects. Yisehak will report to the DBPM, and he will work seamlessly with, and assist in directing, the DM, CM, QAM, and VDOT by maintaining and facilitating constant lines of communication.

Design

Roadway Engineer: Mark Vasco, P.E. will report to the DM and lead the roadway design efforts for the project. Mark has more than 32 years of experience in the design of transportation projects. Mark recently served as the lead designer of the Fairfax County Parkway Interchange at Fair Lakes Parkway in Fairfax County Virginia and the GMU Campus Drive Connector Design-Build with Branch Highways.
Geotechnical Engineer: Jeff Basford, P.E. has over 15 years of experience in subsurface explorations, geotechnical analysis, design of pavement sections and shallow and deep foundations, slope stability analysis, concrete and geosynthetic reinforced earth retaining structures, and in-situ testing and verification during construction. He has provided geotechnical expertise on Design-Build projects for WRA in Virginia and Maryland including the Route 636 Extension and the GMU Campus Connector with Branch Highways. Jeff will report to the DM and collaborate extensively with the CM and CDC.

ITS & Lighting Design: Jeff Cheng, P.E. will lead the ITS & Lighting Design. He has 11 years of experience and recently led the ITS & Lighting Design for the I-95 Newark Toll Plaza in Delaware for DelDOT. He has extensive experience on VDOT projects including the preliminary plans for the I-495 Shoulder Use project ITS and the Fairfax County Parkway Interchange at Fair Lakes Parkway project. Jeff will be supported by Dave Newberger, P.E., PTOE, who has extensive experience on the I-495 and I-95 Express Lanes ITS & Lighting systems through his lead role on the GEC contract reviewing the design. Jeff will report directly to the DM, coordinate directly with ITS/Electrical Manager and be a key person on the ITS Integration Team.

MOT/Traffic Engineer: Dana Trone, P.E., PTOE has over 19 years of experience in traffic engineering including development of transportation management plans (TMP) and MOT design. Dana has developed several TMPs for construction on interstates in Virginia, and numerous VDOT Design-Build projects. She also prepared the 30% design for the I-495 North Extension Shoulder Use Lane Design-Build project. Dana will report to the DM and collaborate with the Construction MOT Manager, Anthony Varrati.

Drainage/Hydraulics Engineer: David Gertz, P.E. will report to the DM and lead the design efforts for drainage and SWM. David has over 36 years of experience in roadway drainage design and stormwater management, and has designed numerous projects for VDOT utilizing the new Virginia stormwater regulations that took effect in July 2014. He most recently served as Lead Drainage/Hydraulics Engineer for three VDOT Design-Build projects.

Environmental Permitting: Taylor Sprenkle, PWD will report to the DM and secure any environmental permit modifications that may be needed for the project. Taylor has over 12 years of experience with environmental reviews and permitting required for transportation projects and will work closely with the Construction Environmental Manager, Anthony Varrati, to ensure all permit requirements are fulfilled.

Utility Coordination Engineer: Paul Martin has over 27 years of experience in highway and bridge construction including 12 years specializing in utility relocations for VDOT. Paul will report to the DM and will interact closely with the CM.

Erosion and Sediment Control Reviewer: Glenn Wilson has 18 years of experience in E&S Control design services for transportation projects. He is a certified DCR Combined Administrator (Certificate #684). Glenn will report to the DM and collaborate with the Construction Environmental Manager, Anthony Varrati.

Soundwall Design: Kenneth Bauer, P.E. will report to the DM and has 17 years of experience performing noise analyses and preparing soundwall designs including VDOT Design-Build projects such as Fall Hill Avenue and Route 7 over the Dulles Toll Road.
Design QA/QC

**Design QA/QC Manager, Mike Russell, P.E.** has over 26 years of progressive experience in the transportation industry including 14 years with VDOT most recently as Bristol District Engineer. He will report to the DM and will ensure compliance with the project’s QA/QC Plan. Mike has served as WRA’s PM on the Berkmar Drive Extension Design-Build project in Albemarle County. He also served as VDOT’s PE Manager for the Route 58 Hillsville Bypass PPTA project constructed by Branch.

Construction QC

**Construction QC Manager: Tom Franzino** has 5 years of industry experience, 2 of which have been with Branch. Tom will report directly to the Construction Manager and will be responsible for managing all QC work for Branch, including coordinating the EM Tech’s QC inspection staff and testing lab. Tom is extensively knowledgeable in all of VDOT Construction requirements, specifications, and testing methods and will coordinate with the QAM and the DBPM on the QC components of the project.

Construction

**Master Electrician: Robert Preston** is a Master Electrician licensed by the Virginia Department of Professional and Occupational Regulation Board for Contractors and Tradesmen with 39 years of experience performing and supervising ITS & electrical work. A relevant recent project is the I-95 HOT/ HOV Express Lanes, I-495 Express Lanes. Robert will report directly to **Kevin Trippe, the ITS/Electrical Manager**. He will be responsible for supervision and coordination of fiber, power, wiring, splicing, ITS and other associated device installation, inspection and testing. Robert is 30-Hour OSHA certified, which included Arc Flash Protection training, and has completed separate Lockout/Tagout training.

**DBE Compliance Officer: Sheri Maycock** has been with Branch for 24 years and will report to the DBPM. She currently serves as the DBE/EEO Compliance Officer for Branch and will oversees day to day DBE compliance for the project.

**Project Controls and PR Manager: Barry Frank** will report to the DBPM and has 5 years of industry experience, all with Branch.

**Grading/Roadway Superintendent: Scott Baldwin** has 29 years of heavy civil construction experience in the role of superintendent and will report to the CM. He has worked in the capacity of grading/roadway superintendent on numerous large-scale, high-profile interstate projects, including Phases 2-4 of the I-95/I-495/I-395 Springfield Interchange and the Seminary Road Widening.

**Construction Environmental and Construction MOT Manager: Anthony Varrati** will report to the CM and has 2 years of industry experience in the role of safety/environmental controls, and a B.S. in Safety Management.
3.3.2 ORGANIZATIONAL CHART

**I-95 EXPRESS LAKES CONCESSIONAIRE**

**DESIGN-BUILD PROJECT MANAGER**
- Pete Krampion (BHI)

**CONSTRUCTION DESIGN COORDINATOR**
- Yisochak Shata, PE (BHI)

**PROJECT MANAGEMENT TEAM**

**NEW PARTIES & STAKEHOLDERS**
- Stafford County Residents & Neighborhood Associations
- Stafford County Departments of Fire & Rescue, Utilities, Public Safety, Virginia State Police, Virginia Dominion Power, Commuter

**PUBLIC RELATIONS MANAGER**
- Barry Frank (BHI)

**CONSTRUCTION MANAGER**
- Steve Morris (BHI)

**QUALITY ASSURANCE MANAGER**
- Leonard Coleman, PE (WRA)

**MASTER ELECTRICIAN**
- Robert Preston, ME (CES)

**QA INSPECTORS**
- WRA Staff

**QA TESTING**
- Froehling & Robertson, Inc.

**DBE COMPLIANCE OFFICER**
- Sherri Maycock (BHI)

**PROJECT CONTROLS MANAGER**
- Barry Frank (BHI)

**GRADING/ROADWAY SUPERINTENDENT**
- Scott Baldwin (BHI)

**CONSTRUCTION ENVIRONMENTAL MANAGER & MOT MANAGER**
- Anthony Varrati (BHI)

**ITS/ELECTRICAL MANAGER**
- Kevin Trippe (CES)

**QC INSPECTION & LAB**
- EMT Staff

**RIGHT-OF-WAY MANAGER**
- Anticipate all work within existing right-of-way

**SDA & LIGHTING DESIGN**
- Jeff Cheng, PE (WRA)
- Dave Newberger, PE, PTOE (WRA)

**SURVEY/SUBSURFACE UTILITY LOCATING**
- H&B Surveying and Mapping, LLC

**ENVIRONMENTAL PERMITTING**
- Taylor Spenle, PW (WRA)

**E&S CONTROL REVIEWER**
- Glenn Wilson (WRA)

**MOT/TRAFFIC ENGINEER (T&M)**
- Dana Trone, PE, PTOE (WRA)

**ROADWAY ENGINEER**
- Mark Vasco, PE (WRA)

**DRAINAGE/ HYDRAULICS ENGINEER**
- David Gertz, PE (WRA)

**UTILITY RELOCATION & COORDINATION**
- Paul Martin (WRA)

**SOUNDWALL DESIGN**
- Kenneth Bauer, PE (WRA)

**GEOTECHNICAL ENGINEER**
- Jeff Baadso, PE (WRA)

**DESIGN QA/QC MANAGER**
- Mike Russell, PE (WRA)

**CONSTRUCTION QC MANAGER**
- Tom Franzino (BHI)

**LEGEND**
- BHI = Branch Highways, Inc.
- WRA = Whitman, Requardt & Associates, LLP
- CES = Chesapeake Electrical Systems, Inc.
- F&R = Froehling & Robertson, Inc.
- H&B = H&B Surveying & Mapping, LLC (DBE)
- EMT = Engineering & Materials Technologies, Inc. (DBE)
SECTION 4.2.4.2: SCHEDULE NARRATIVE

Per Part 1, Section 4.2.4.1 of the RFP, our Team has prepared a CPM proposal schedule that depicts the overall sequencing of the project. Major work items for design, permitting, and construction activities have been identified and included by our Team in the attached schedule, and the Critical Path has been identified based on the milestone dates outlined in the RFP. A summarized version of this schedule has also been included that has been filtered to show only critical items in an effort to illustrate the Critical Path as described herein. We have provided the schedules in Volume 2 located on Pages 52-57 and have also provided electronic copies in both PDF and .XER formats on the CDs included in our Proposal Package. The Branch Team is confident that the schedule we have prepared is both attainable and responsive to the Department’s and other Shareholders’ requirements.

Overall Plan

We have employed several strategies with regard to up-front design, permitting, and approval tasks to help expedite the start of construction activities onsite. First, we will submit an Advance Work Package in conjunction with 90% plans to expedite commencement of grading and deep drainage installation prior to final plan approval. Project plans will be submitted in packages to accommodate multiple review cycles, if necessary, for certain items of work such as soundwalls and ITS, without affecting grading and surface drainage operations. Twenty-one day turnaround times for concurrent VDOT, FHWA, and Transurban reviews per Exhibit 1 to Part 3, Sections 3.1.2 are included in this schedule. We have anticipated 2 rounds of review for all plan packages submitted, with the exception of the Advanced Work. Our schedule reflects that this package will be approved upon initial review. Following Notice to Proceed, a revised VPDES Permit will be obtained based on drainage variations from the RFP drawings, which primarily consists of minor modifications to the BMPs and storm drainage shown on RFP plans.

For both schedule and construction purposes, the site has been divided into 5 main “Areas.” Area 1 is from Sta. 2193+00 to Sta. 2244+00, including the Southbound Ramp onto the GP lanes. Area 2 is from Sta. 2244+00 to Sta. 2310+00. Area 3 is milling and overlay of the northernmost portion of the project, Sta. 83+00 to 121+00. Area 4 will be the Northbound on-ramp onto the Express Lanes, Sta. ~3140+00 to 3234+00. Area 5 is the area to the west of I-95 SB GP lanes, which includes Soundwall CNE NN.

We have conservatively assumed that Water Quality Permits will not be obtained until September 30, 2016, and have scheduled subsequent grading activities accordingly. In general, after clearing and Phase 1 E&S Controls are established, work in Areas 1 and 2 will be executed simultaneously. Appropriate resources will be assigned to each Area as needed to meet the Interim Milestone Completion date of December 1, 2017. Earthwork and roadway construction activities in Area 4 will be critical to attaining the Final Completion milestone date of August 22, 2018. Execution of productive earthwork, stone, and asphalt paving activities is typically challenging throughout the winter months. We have addressed this in our schedule by utilizing a winter weather calendar for these activities for the months of December through mid-March. Should actual conditions encountered allow for earthwork and/or asphalt paving operations to take place during this time frame, the progress schedule will be adjusted accordingly.

Critical Path

The schedule we have developed calculates Critical Path based on the Longest Path method, which does not specifically identify activities critical in meeting the Interim Milestone. To more clearly depict the items that are on the Critical Path for the Interim Milestone, we have included a separate schedule layout that depicts only these items. In general, critical items for the Interim Milestone include plan approvals and generator installations for ITS. We have anticipated that energizing the generators will take 14 weeks after installation and inspection.

Up-front critical path activities on this project include revised VPDES permitting and approval of revised drainage/SWM plans from that shown on the RFP drawings. Once these are obtained, the construction critical
path lies in Area 2. Critical activities will be performed in the following order, generally in a Finish-to-Start fashion:
1.) MOT/Construction Entrance
2.) Clearing
3.) Stormwater Management Basin
4.) Cut to Fill
5.) Surface Drainage
6.) Box & Balance (i.e., subgrade preparation)
7.) Underdrain Installation
8.) Stone Base
9.) Permanent Signage
10.) Final Dress-Up

The last area of the project that contains critical activities is Area 4, which includes the Northbound ramp onto the proposed Express Lane, as well as significant ITS and Lighting work. In this case as well, the Winter Weather Calendar we have applied to earthwork and stone/asphalt activities has forced these operations onto the critical path. Because ITS Level C testing cannot be performed prior to Intermediate Asphalt placement, Level C testing also falls on the Critical Path. Other ITS/Lighting activities must be coordinated with Cut to Fill as well; therefore, ITS activities are also sensitive to falling on the critical path for this area.

**Means and Methods**

In general, typical mass excavation and heavy highway construction means and methods will be utilized to execute the work on this project. Mass clearing activities will include tree removal, chipping, and hauling offsite. Mass earthwork will be performed utilizing excavators, off-road trucks, and rollers, with dozer/loader support. Deep drainage pipe will be installed prior to proposed fills to avoid unnecessary excavation/backfill efforts, and surface drainage in areas of proposed cut will not be installed until those cuts have been completed. In order to minimize the effects of traffic on GP lanes on activities involving trucking (including asphalt paving), night work may be performed. Stone base & asphalt placement activities will be performed in compliance with VDOT standards.

Throughout the duration of the project, ITS installation, particularly with regard to conduit, will be coordinated with grading operations to maximize efficiency/minimize overall duration. Conduit installation has Finish-to-Finish ties with Cut to Fill operations to reflect this coordination. Conduit installation will occur at the same time as foundation and sign installation for lighting, signage, and gates.

Generator sites will be graded and installed as early as possible to allow as much time as possible for Dominion Virginia Power to inspect and energize. It has been assumed that once graded and equipment installed, the energizing process will take approximately 16 weeks. While this item does not show as critical on our current schedule, it is close to being so, and the fact that the 16-week assumed duration is ostensibly out of the Design-Builder’s control, poses a potential schedule risk.

Within 15 days of Notice to Proceed, our Team will prepare and submit a cost-loaded Preliminary Schedule for all work planned during the first 120 calendar days that identifies work activities, milestones, and critical path. Along with this schedule, a narrative and a preliminary Earned Value Schedule will be prepared and submitted for review. Within 90 days of Notice to Proceed, a Baseline Schedule that conforms to Contract requirements, with accompanying Baseline Schedule Narrative and Baseline Earned Value Schedule. The baseline schedule, narrative, and value schedule will be updated monthly throughout the project.

The CPM schedule is the driving force behind all long-term and short-term planning. Design work and other preconstruction activities will be closely monitored with the schedule. A formal CPM schedule update will be submitted to VDOT monthly and distributed to project stakeholders.
ATTACHMENT 9.3.1
PROPOSAL PAYMENT AGREEMENT

THIS PROPOSAL PAYMENT AGREEMENT (this “Agreement”) is made and entered into as of this 4th day of April, 2016, by and between the Virginia Department of Transportation ("VDOT"), and Branch Highways, Inc. ("Offeror").

WITNESSETH:

WHEREAS, Offeror is one of the entities who submitted Statements of Qualifications ("SOQs") pursuant to VDOT’s January 4, 2016 Request for Qualifications ("RFQ") and was invited to submit proposals in response to a Request for Proposals ("RFP") for the I-5 Express Lanes – Southern Terminus Extension, Project No. 0095-969-720 ("Project"), under a design-build contract with VDOT ("Design-Build Contract"); and

WHEREAS, as part of the procurement process for the Project, Offeror has already provided and/or furnished to VDOT, and may continue to provide and/or furnish to VDOT, certain intellectual property, materials, information and ideas, including, but not limited to, such matters that are: (a) conveyed verbally and in writing during proprietary meetings or interviews; and (b) contained in, related to or associated with Offeror’s proposal, including, but not limited to, written correspondence, designs, drawings, plans, exhibits, photographs, reports, printed material, tapes, electronic disks, or other graphic and visual aids (collectively “Offeror’s Intellectual Property”); and

WHEREAS, VDOT is willing to provide a payment to Offeror, subject to the express conditions stated in this Agreement, to obtain certain rights in Offeror’s Intellectual Property, provided that Offeror submits a proposal that VDOT determines to be responsive to the RFP (“Offeror’s Proposal”), and either (a) Offeror is not awarded the Design-Build Contract; or (b) VDOT cancels the procurement or decides not to award the Design-Build Contract to any Offeror; and

WHEREAS, Offeror wishes to receive the payment offered by VDOT, in exchange for granting VDOT the rights set forth in this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth in this Agreement and other good and valuable consideration, the receipt and adequacy of which are acknowledged by the parties, the parties agree as follows:
1. **VDOT’s Rights in Offeror’s Intellectual Property.** Offeror hereby conveys to VDOT all rights, title and interest, free and clear of all liens, claims and encumbrances, in Offeror’s Intellectual Property, which includes, without restriction or limitation, the right of VDOT, and anyone contracting with VDOT, to incorporate any ideas or information from Offeror’s Intellectual Property into: (a) the Design-Build Contract and the Project; (b) any other contract awarded in reference to the Project; or (c) any subsequent procurement by VDOT. In receiving all rights, title and interest in Offeror’s Intellectual Property, VDOT is deemed to own all intellectual property rights, copyrights, patents, trade secrets, trademarks, and service marks in Offeror’s Intellectual Property, and Offeror agrees that it shall, at the request of VDOT, execute all papers and perform all other acts that may be necessary to ensure that VDOT’s rights, title and interest in Offeror’s Intellectual Property are protected. The rights conferred herein to VDOT include, without limitation, VDOT’s ability to use Offeror’s Intellectual Property without the obligation to notify or seek permission from Offeror.

2. **Exclusions from Offeror’s Intellectual Property.** Notwithstanding Section 1 above, it is understood and agreed that Offeror’s Intellectual Property is not intended to include, and Offeror does not convey any rights to, the Escrow Proposal Documents submitted by Offeror in accordance with the RFP.

3. **Proposal Payment.** VDOT agrees to pay Offeror the lump sum amount of Twenty Five Thousand and 00/100 Dollars ($25,000.00) ("Proposal Payment"), which payment constitutes payment in full to Offeror for the conveyance of Offeror’s Intellectual Property to VDOT in accordance with this Agreement. Payment of the Proposal Payment is conditioned upon: (a) Offeror’s Proposal being, in the sole discretion of VDOT, responsive to the RFP; (b) Offeror complying with all other terms and conditions of this Agreement; and (c) either (i) Offeror is not awarded the Design-Build Contract, or (ii) VDOT cancels the procurement or decides not to award the Design-Build Contract to any Offeror.

4. **Payment Due Date.** Subject to the conditions set forth in this Agreement, VDOT will make payment of the Proposal Payment to the Offeror within forty-five (45) days after the later of: (a) notice from VDOT that it has awarded the Design-Build Contract to another Offeror; or (b) notice from VDOT that the procurement for the Project has been cancelled and that there will be no Contract Award.

5. **Effective Date of this Agreement.** The rights and obligations of VDOT and Offeror under this Agreement, including VDOT’s ownership rights in Offeror’s Intellectual Property, vests upon the date that Offeror’s Proposal is submitted to VDOT. Notwithstanding the above, if Offeror’s Proposal is determined by VDOT, in its sole discretion, to be nonresponsive to the RFP, then Offeror is deemed to have waived its right to obtain the Proposal Payment, and VDOT shall have no obligations under this Agreement.
6. **Indemnity.** Subject to the limitation contained below, Offeror shall, at its own expense, indemnify, protect and hold harmless VDOT and its agents, directors, officers, employees, representatives and contractors from all claims, costs, expenses, liabilities, demands, or suits at law or equity ("Claims") of, by or in favor of or awarded to any third party arising in whole or in part from: (a) the negligence or wilful misconduct of Offeror or any of its agents, officers, employees, representatives or subcontractors; or (b) breach of any of Offeror’s obligations under this Agreement, including its representation and warranty under Section 8 hereof. This indemnity shall not apply with respect to any Claims caused by or resulting from the sole negligence or wilful misconduct of VDOT, or its agents, directors, officers, employees, representatives or contractors.

7. **Assignment.** Offeror shall not assign this Agreement, without VDOT’s prior written consent, which consent may be given or withheld in VDOT’s sole discretion. Any assignment of this Agreement without such consent shall be null and void.

8. **Authority to Enter into this Agreement.** By executing this Agreement, Offeror specifically represents and warrants that it has the authority to convey to VDOT all rights, title, and interest in Offeror’s Intellectual Property, including, but not limited to, those any rights that might have been vested in team members, subcontractors, consultants or anyone else who may have contributed to the development of Offeror’s Intellectual Property, free and clear of all liens, claims and encumbrances.

9. **Miscellaneous.**

a. Offeror and VDOT agree that Offeror, its team members, and their respective employees are not agents of VDOT as a result of this Agreement.

b. Any capitalized term used herein but not otherwise defined shall have the meanings set forth in the RFP.

c. This Agreement, together with the RFP, embodies the entire agreement of the parties with respect to the subject matter hereof. There are no promises, terms, conditions, or obligations other than those contained herein or in the RFP, and this Agreement shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties hereto.

d. It is understood and agreed by the parties hereto that if any part, term, or provision of this Agreement is by the courts held to be illegal or in conflict with any law of the Commonwealth of Virginia, validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term, or provisions to be invalid.

e. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia.
IN WITNESS WHEREOF, this Agreement has been executed and delivered as of the day and year first above written.

VIRGINIA DEPARTMENT OF TRANSPORTATION

By: ______________________________

Name: ____________________________

Title: _____________________________

BRANCH HIGHWAYS, INC.

By: ______________________________

Name: Patrick K. Bartonillo

Title: President
ATTACHMENT 11.8.6(a)
CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0095-969-720

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

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

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

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

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

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

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

Signature  Date  Title

3/04/16

Branch Highways, Inc.

Name of Firm
ATTACHMENT 11.8.6(b)  
CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS  

Project No.: 0095-969-720  

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

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

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

Signature  
Date  
Senior Vice President  
Title  

Whitman, Requardt & Associates, LLP  
Name of Firm
ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0095-969-720

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

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

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

Signature  3/7/16  President
Date  Title

Chesapeake Electrical Systems, Inc.
Name of Firm
ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0095-969-720

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

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

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

[Signature] March 18, 2016 [Vice President]
[Signature] Date [Title]

H&B Surveying and Mapping, LLC
Name of Firm
ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0095-969-720

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

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

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

[Signature] 3/18/2016

President
Title

Froehling & Robertson, Inc.
Name of Firm
ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0095-969-720

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

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

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

[Signature]
Date: 3.16.16
Principal Engineer
Title

Engineering & Materials Technologies, Inc. (E.M. Tech)
Name of Firm
VOLUME 2: Conceptual Plans and Proposal Schedule

A Design-Build Project

I-95 Express Lanes – Southern Terminus Extension

Stafford County, Virginia

State Project No.: 0095-969-720, P101, R201, C 501
Federal Project No.: STP-0005 (321)
Contract ID Number: C00108315DB90

Submitted By:

In Association With:

Chesapeake Electrical Systems, Inc.
H&B Surveying & Mapping, LLC (DBE)
Froehling & Robertson, Inc. (SWaM)
Engineering & Materials Technology, Inc. (DBE)
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

DESIGN BUILD PROJECT
95 EXPRESS LANES
SOUTHERN TERMINUS EXTENSION

From: MILE MARKER 142.5 (SOUTH OF GARRISONVILLE ROAD)
To: MILE MARKER 145.0 (NORTH OF GARRISONVILLE ROAD)

THE COMPLETE ELECTRONIC VERSION OF THE PLAN ASSEMBLY AS APPROVED IS AVAILABLE IN ELECTRONIC FILE FORMATS AT THE COMMERCE OF TRANSPORTATION WEBSITE, INCLUDING THE FULL CONTRACT DOCUMENTATION AND DESIGN SPECIFICATIONS. ALL DESIGNS ARE PUBLISHED AS WELL IN THE ORIGINAL CONTRACT DOCUMENTATION.

DESIGN FEATURES RELATING TO CONSTRUCTION OR REGULATION OF VARIOUS FEATURES MAY BE SUBJECT TO CHANGE AS DETERMINED AND REQUIRED BY THE DEPARTMENT.


THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY AS AWARDED, HAS BEEN SEALED AND SIGNED USING DIGITAL SIGNATURES.

THE ORIGINAL APPROVED TITLE SHEET(S), INCLUDING ORIGINAL PDF VERSION OF THE PLAN ASSEMBLY, IS APPROVED FOR CONSTRUCTION AND PERFORMED WITHIN EXISTING OMPLA'S LIMITS. PROJECT MANAGER IS DESIGNED BY THIS OFFICE, 500 POSTMARK STREET, GARRISONVILLE, VA.

ALL CONSTRUCTION IS TO BE PERFORMED WITHIN EXISTING LIMITS OF THE PLAN ASSEMBLY AND PERFORMED WITHIN EXISTING LIMITS OF THE PLAN ASSEMBLY.

Population Stafford County (2010 Census)

<table>
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<tr>
<th>State</th>
<th>Type</th>
<th>ID</th>
<th>Design</th>
<th>Project</th>
<th>TKN</th>
<th>DKN</th>
<th>USG</th>
<th>HM</th>
<th>RM</th>
<th>RT</th>
<th>LKM</th>
<th>0095-969-720, C501</th>
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All construction is to be performed within existing limits of the plan assembly.

The complete electronic version of the plan assembly as approved is available in electronic file formats at the commerce of transportation website, including all subsequent revisions, will be the official construction plan. For information relating to electronic files and related plans, see the general notes.

Design features relating to construction or regulation of various features may be subject to change as determined and required by the department.

The project is to be constructed in accordance with the department of transportation's 2007 road and bridge specifications, 2008 road and bridge specifications, 2011 virginia work area protection manual, the mutcd, 2011 vacc labeling systems, including all subsequent revisions, has been sealed and signed using digital signatures.

The complete electronic pdf version of the plan assembly as awarded, has been sealed and signed using digital signatures.

The original approved title sheet(s), including original pdf version of the plan assembly, is approved for construction and performed within existing limits. Project manager is designed by this office, 500 postmark street, garrisonville, va.
NOTES:

1. Shoulder width at left side 7' from Sta. 3220+00.00 to 3227+50.00
2. Pavement tapers from 12' to 16' from Sta. 3220+00.00 to 3225+43.27.00.
3. Graded shoulder on left side 7' from Sta. 3220+00.00 to 3227+50.00

Pavement Tapers from 12' to 16' from Sta. 3220+00.00 to 3225+43.27.00.

Additional shoulder width for gates and lighting infrastructure between
parking and road.

INSET A
INSET B
INSET C
INSET D

Pavement Section Notes:
1. Surfaced with asphalt concrete type SM-12.5E
2. Intermediate asphalt concrete type IM-19.0A
3. Base asphalt concrete B-25.0A
4. Drainage - 3" stabilized open graded drainage layer
5. Subbase element treated aggregate
6. Subbase - 4" aggregate base material type D80-25E
7. P.G.L.

See Inset B
See Inset C
See Inset A
See Inset D

See Inset D
See Inset B
See Inset C
See Inset A
UNDERDRAIN EXTENSION DETAIL

NOT TO SCALE

Proposed Pavement Structure

Proposed UD-4 Edgedrain

Proposed 6" No. 2 / No. 3 Aggregate Wrapped with Geotextile

Proposed 6" Aggregate Base Material No. 21B

Saw Cut Existing Asphalt Layers

Existing Edge of Paved Shoulder

Approx. 9" Exist.  Portland Cement Concrete

Approx. 9" Exist. Hot Mix Asphalt

Approx. 4" Mill and Overlay

Existing Soil and Gravel

Proposed Pavement

4 inches
EXISTING R/W & L/A LINE

Whitman, Requardt & Associates, LLP

Area

Surveyed:

RM-2 Fd.

Area

U/C

C/Pads

In Pl. Gravel Shoulder

16'

6'

1 17

189.04'

+93.85

R M -2 F d.

RM-2 Fd.

148.84'

+43.94

DESIGN FEATURES RELATING TO CONSTRUCTION
MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT OR TO REGULATION AND CONTROL OF TRAFFIC OR THE ACQUISITION OF RIGHT OF WAY.
EXISTING SIGN TO BE REMOVED

O/H SPAN SIGN SUPPORT

DOUBLE POST SIGN SUPPORT

AREA OBSCURED

PLAN ITEM

GROUND-MOUNTED EQUIPMENT CABINET
POLE-MOUNTED EQUIPMENT CABINET
MICROWAVE VEHICLE DETECTOR
CCTV CAMERA
AUTOMATED INCIDENT DETECTION CAMERA
STORAGE DEVICE POLE AND FOUNDATION
ROADWAY GATE
ROADWAY LIGHTING POLE, LOW-VOLTAGE, FIXED OR MOBILE, METERED ELECTRIC SERVICE, SERVICE PANEL
COMMUNICATION AND POWER DUCT BANK
COMMUNICATION DUCT BANK
POWER DUCT BANK
MONORAIL LIGHTING CONDUIT

PLAN SYMBOL

PROPOSED

EXISTING

SIGN CALL-OUTS

EXISTING SIGN TO BE REMOVED

EXISTING SIGN TO BE REMOVED

PROPOSED SIGN PANEL

GENERAL NOTES:

L ALL PAINTED MARKINGS SHALL BE TYPE 15G PATTERNED PREFORMED TAPES.

TRAFFIC KEY PLAN

TMS AND LIGHTING LEGEND
PLAN NOTES:

1. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.
2. ONLY PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION OF THE EXPRESS LANES EXTENSION ARE SHOWN. OTHER SIGN, REGULATORY AND WARNING SIGNS FOR THE NON-SEASONAL PURPOSE LANES MAY NOT BE SHOWN.

WARNING SIGNS FOR THE I-95 GENERAL PURPOSE LANES MAY NOT BE SHOWN. OTHER GUIDE, REGULATORY AND ONLY PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION

1. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.

- EXIT SIGHT LINE LOCATIONS
- ATTRACTIONS
- LODGING
- CAMPING

PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.
PLAN NOTES:

LIMIT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN. UNITS PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATIONS OF THE EXPRESS LANE EXPANSION ARE SHOWN. OTHER GUIDE, REGULATORY AND WARNING SIGNS FOR THE NON-EXPRESSION LANE LIMITS MAY NOT BE SHOWN.

WIRE GR (BY 0TH THROUGH 9TH) (EASEMENT REQUIRED)

NO SIGN LIGHTING PROPOSED

BELLADONNA LANE

OBTAIN SERVICE FROM

PLAN NOTES:

WARNING SIGNS FOR THE I-95 GENERAL PURPOSE LANES MAY NOT BE SHOWN. ONLY PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION EXTENSION ARE SHOWN. OTHER GUIDE, REGULATORY AND

1. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.

NO SIGN LIGHTING PROPOSED

95' SPAN STRUCTURE

(EASEMENT REQUIRED)

(17.5'x9'), (11'x2.5')

(21.5'x3'), (21.5'x8')(DMS), (21.5'x4'), (6'x2.5')

HUB CABINET

COMMUNICATIONS CONDITIONED (TYP. FOR EAST SIDE OF I-95 NB).

VDOT/SUMMIT IG FIBER OPTIC LINE

LOCATE DUCT BANK TO AVOID

AQUIFER

VEG.

FILE 1 ¼

FILE 1 ¼

GD

GD

B6

B6

I-95 SOUTH BOUND

I-95 NORTH BOUND

I-95 SOUTH BOUND

I-95 NORTH BOUND

I-95 SOUTH BOUND

I-95 NORTH BOUND

I-95 SOUTH BOUND

I-95 NORTH BOUND

I-95 SOUTH BOUND

I-95 NORTH BOUND

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I-95 NORTH BOUND

I-95 SOUTH BOUND

I-95 NORTH BOUND

I-95 SOUTH BOUND

I-95 NORTH BOUND

I-95 SOUTH BOUND

I-95 NORTH BOUND
NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN. NOT ALL PROPOSED SIGNS OR ELEVATION DATA RELATED TO THE CONSTRUCTION AND OPERATION OF THE EXPRESS LANE EXTENSION ARE SHOWN. OTHER SIGNS, SIGNSHIELD AND SHADE BOARDS FOR THE I-95 GENERAL PURPOSE LANE WILL NOT BE SHOWN.

PLAN NOTES:

NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

WARNING SIGNS FOR THE I-95 GENERAL PURPOSE LANE MAY NOT BE SHOWN. OTHER GUIDE, REGULATORY AND ONLY PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION 1. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.

NO SIGN LIGHTING PROPOSED 50' CANTILEVER (17.5'x16')

PLAN NOTES:

WARNING SIGNS FOR THE I-95 GENERAL PURPOSE LANE MAY NOT BE SHOWN. OTHER GUIDE, REGULATORY AND ONLY PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION 1. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.

NO SIGN LIGHTING PROPOSED 90' SPAN STRUCTURE (17.5'x9'), (11'x2.5') (21.5'x3'), (21.5'x8')(DMS), (21.5'x4'), (6'x2.5')
WARNING SIGNS FOR THE I-95 GENERAL PURPOSE LANES MAY NOT BE SHOWN. OTHER GUIDE, REGULATORY AND ONLY PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION OF THE EXPRESS LANES EXTENSION ARE SHOWN. OTHER GOOD REGULATION AND WARNING SIGNS FOR THE I-95 GENERAL PURPOSE LANES ARE NOT SHOWN.

1. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.

SIGN STRUCTURE
REMOVE EXISTING (8'x9'), (10'x2.5')
PLAN NOTES:

1. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.
2. NEW PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION OF THE EXPRESS Lanes Extension are shown. Signs are regulatory and warning signs for the express lanes. Lines may not be shown.

WARNING SIGNS FOR THE I-95 GENERAL PURPOSE LANES MAY NOT BE SHOWN. OTHER GUIDE, REGULATORY AND ONLY PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION OF THE EXPRESS LANES EXTENSION ARE SHOWN. OTHER GUIDE, REGULATORY AND ONLY PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION OF THE EXPRESS LANES EXTENSION ARE SHOWN.

NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.

NO SIGN LIGHTING PROPOSED

90' SPAN STRUCTURE

(8'x8')

(21.5'x3'), (21.5'x8')(DMS), (21.5'x4'), (6'x2.5')

- STA. 2196+00
  - SKIP WITH W/R SRPM'S
  - BEGIN 6" WHITE 3'-9' YELLOW, BEGIN REMOVE EXISTING 6"

- STA. 3200+00
  - SKIP WITH W/R SRPM'S
  - BEGIN 6" WHITE 3'-9' YELLOW, BEGIN REMOVE EXISTING 6"

- STA. 2193+00
  - YELLOW, BEGIN 6" REMOVE EXISTING 6"

- STA. 3203+00
  - REMOVE EXISTING 6"
WARNING SIGNS FOR THE I-95 GENERAL PURPOSE LANES MAY NOT BE SHOWN. OTHER GUIDE, REGULATORY AND MARKING SIGNS FOR THE I-95 GENERAL PURPOSE LANES MAY NOT BE SHOWN.

NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLANS. PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION OF THE EXPRESS LANES EXTENSION ARE SHOWN. OTHER SIGNS RELATED TO THE CONSTRUCTION AND OPERATION ON THE EXPRESS LANES EXTENSION ARE SHOWN. OTHER SIGNS RELATED TO THE CONSTRUCTION AND OPERATION OF THE EXPRESS LANES EXTENSION ARE SHOWN.

PLAN NOTES:

END WHITE 3'-9' SINGLE LINE 3'-9' WHITE MARKINGS OR CENTERLINE (ST. 2202 +00)

BEGIN DOUBLE 8' WHITE SKIP WITH W/R SRPM'S, END 6' WHITE 3'-9' (ST. 2207 +50)

BEGIN QUAD 8' WHITE END DOUBLE 8' WHITE CENTERLINE (ST. 2210 +00)

POST @ 8' CENTER TO CENTER BEGIN 36' WHITE CHANNELIZING

MATCH LINE STAAD3300 - SEE SHEET NO. 15(10)

MATCH LINE STAAD3300 - SEE SHEET NO. 15(10)
PLAN NOTES:
1. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.  
2. SIGNS PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION 
   OF THE EXPRESS LANE EXTENSION ARE SHOWN. OTHER SIGNS, REGULATIONS AND 
   WARNING SIGNS FOR THE 95 SOUTH, SOUTH, EXPRESS LANE ARE NOT TO BE SHOWN.

SIGN STRUCTURE
1. REMOVE EXISTING (18'x10'), (5'x2.5')

PLAN NOTES:
WARNING SIGNS FOR THE I-95 GENERAL PURPOSE LANES MAY NOT BE SHOWN.
OF THE EXPRESS LANES EXTENSION ARE SHOWN.  OTHER GUIDE, REGULATORY AND 
ONLY PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION 
1. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.
PLAN NOTES:
LIST ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.
ONLY PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION
OF THE EXPRESS LANES EXTENSION ARE SHOWN OTHER SIGNS, REGULATORY AND
WARNING SIGNS FOR THE MILE MARKER POSTAGE LINES MAY NOT BE SHOWN.

WARNING SIGNS FOR THE I-95 GENERAL PURPOSE LANES MAY NOT BE SHOWN.
OTHER GUIDE, REGULATORY AND
SIGN LIGHTING PROPOSED
NO SIGN LIGHTING PROPOSED
52' CANTILEVER
(18'x10'), (6'x2.5')
PLAN NOTES:

- Not all existing signs within the project limits are shown on the plan. Only proposed and existing signs related to the construction and operation of the express lanes expansion are shown. Other signs, regulatory, and warning signs for the pre-existing purpose lanes are not shown.

- Warning signs for the non-general purpose lanes may not be shown.

- All existing signs within the project limits are shown on the plan. Only proposed and existing signs related to the construction and operation of the express lanes expansion are shown. Other signs, regulatory, and warning signs for the pre-existing purpose lanes are not shown.

- Not all existing signs within the project limits are shown on the plan. Only proposed and existing signs related to the construction and operation of the express lanes expansion are shown. Other signs, regulatory, and warning signs for the non-general purpose lanes are not shown.

- Warning signs for the non-general purpose lanes may not be shown.

- These plans are unfinished and unapproved and are not to be used for any type of construction or the acquisition of right of way.
PLAN NOTES:

1. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.
2. SIGNS PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION OF THE EXISTING LANES EXPANSION ARE SHOWN. OTHER SIGNS RELATED TO THE 95 SOUTH PURPOSE LAKES ARE NOT BE SHOWN.
3. SIGNS RELATED TO CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT.

PLAN DRAWN BY: Plotted By: jcheng
11:56:44 AM 4/1/2016

PROJECT MANAGER:

NOTE:

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.
PLAN NOTES:

1. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.
   THE PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION
   OF THE EXPRESS LANES EXTENSION ARE SHOWN. OTHER SIGNS RELATED TO THE MOON
   AND WARRIOR SIGNS ARE NOT SHOWN.

2. THE GENERAL PURPOSE LANE SIGNS MAY NOT BE SHOWN.

3. WARNING SIGNS FOR THE VA. 95 SOUTH BOUND 95 EXPRESS LANES EXTENSION ARE NOT
   SHOWN. OTHER SIGNS RELATED TO THE CONSTRUCTION AND OPERATION ARE NOT
   SHOWN.

4. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.

5. OTHER GUIDE, REGULATORY AND WARNING SIGNS ARE NOT SHOWN.

PLAN NOTES:

1. WARNING SIGNS FOR THE VA. 95 SOUTH BOUND 95 EXPRESS LANES EXTENSION ARE NOT
   SHOWN. OTHER SIGNS RELATED TO THE CONSTRUCTION AND OPERATION ARE NOT
   SHOWN.

2. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.

3. OTHER GUIDE, REGULATORY AND WARNING SIGNS ARE NOT SHOWN.

4. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.

5. OTHER GUIDE, REGULATORY AND WARNING SIGNS ARE NOT SHOWN.

6. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.

7. OTHER GUIDE, REGULATORY AND WARNING SIGNS ARE NOT SHOWN.
PLAN NOTES:

1. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THIS PLAN.
   NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

WARNING SIGNS FOR THE I-95 GENERAL PURPOSE LANES MAY NOT BE SHOWN.

SHEET NO. 4 / 1 / 2016

PLotted By: jcheng 11:56:46 AM 4 / 1 / 2016

PROJECT MANAGER

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT.
PLAN NOTES:

1. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN. PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATIONS OF THE EXPRESS LANES EXTENSION ARE SHOWN. OTHER GUIDE, REGULATORY AND WARNING SIGNS FOR THE I-95 GENERAL PURPOSE LANES ARE NOT SHOWN.

2. PLAN NOTES:

   - WARNING SIGNS FOR THE I-95 GENERAL PURPOSE LANES MAY NOT BE SHOWN.
   - SIGNS OF THE EXPRESS LANES EXTENSION ARE SHOWN. OTHER GUIDE, REGULATORY AND ONLY PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION OF THE EXPRESS LANES EXTENSION ARE SHOWN.

3. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.

4. NO SIGN LIGHTING PROPOSED.
PLAN NOTES:

1. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN. NO PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION OF THE EXPRESS LANES EXTENSION ARE SHOWN. OTHER GUIDE, REGULATORY AND WARNING SIGNS FOR THE I-95 GENERAL PURPOSE LANES ARE NOT BE SHOWN.

WARNING SIGNS FOR THE I-95 GENERAL PURPOSE LANES MAY NOT BE SHOWN. OF THE EXPRESS LANES EXTENSION ARE SHOWN. OTHER GUIDE, REGULATORY AND ONLY PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION

1. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.
PLAN NOTES:
1. NOT ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.
2. ONLY PROPOSED AND EXISTING SIGNS RELATED TO THE CONSTRUCTION AND OPERATION OF THE EXPRESS LANES EXTENSION ARE SHOWN. OTHER GUIDE, REGULATORY AND WARNING SIGNS FOR THE 95 GENERAL PURPOSE LANES MAY NOT BE SHOWN.

SIGN STRUCTURE
- REMOVE EXISTING SIGN STRUCTURE

PEDESTRIAN CROSSING
- PEDESTRIAN CROSSING

PLAN NOTES:
- WARNING SIGNS FOR THE I-95 GENERAL PURPOSE LANES MAY NOT BE SHOWN. SIGNS RELATED TO THE CONSTRUCTION AND OPERATION OF THE EXPRESS LANES EXTENSION ARE SHOWN. OTHER GUIDE, REGULATORY AND WARNING SIGNS FOR THE 95 GENERAL PURPOSE LANES MAY NOT BE SHOWN.

PROJECT MANAGER
- SURVEYED BY, DATE
- DESIGN BY, DATE
- SUBSURFACE UTILITY BY, DATE
- PROJECT MANAGER

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.
### I-95 Express Lanes - Southern Terminus Extension Milestones

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Start Date</th>
<th>Finish Date</th>
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<tbody>
<tr>
<td>1</td>
<td>Contract NTP</td>
<td>01-Jun-16</td>
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<tr>
<td>58</td>
<td>Scope Validation Period Complete</td>
<td>15-Oct-16</td>
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<tr>
<td>95</td>
<td>Environmental Permits issued</td>
<td>03-Jan-17</td>
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<tr>
<td>185</td>
<td>VDOT Approve AFC Roadway Plans</td>
<td>30-Nov-17</td>
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<tr>
<td>247</td>
<td>Substantial Completion (Interim Milestone)</td>
<td>30-Nov-17</td>
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### Supplemental Field Surveys

<table>
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<tr>
<th>Activity</th>
<th>Start Date</th>
<th>Finish Date</th>
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<tbody>
<tr>
<td>5</td>
<td>Prepare Quality Assurance and Quality Control (QA/QC) Plan</td>
<td>30-Jul-16</td>
</tr>
<tr>
<td>6</td>
<td>Submit QA/QC Plan to VDOT</td>
<td>03-Aug-16</td>
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<tr>
<td>138</td>
<td>Revise and Resubmit QA/QC Plan</td>
<td>03-Sep-16</td>
</tr>
<tr>
<td>15</td>
<td>VDOT Review QA/QC Plan</td>
<td>29-Jul-16</td>
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<tr>
<td>22</td>
<td>VDOT Review AFC Roadway Plans</td>
<td>29-Jul-16</td>
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<td>8</td>
<td>Scope Validation Period Complete</td>
<td>30-Nov-16</td>
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### Geotechnical Engineering Analysis and Reports

<table>
<thead>
<tr>
<th>Activity</th>
<th>Start Date</th>
<th>Finish Date</th>
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<tbody>
<tr>
<td>146</td>
<td>Perform Boring Logs and Lab Work</td>
<td>03-Aug-16</td>
</tr>
<tr>
<td>41</td>
<td>Preparing Geotechnical Report and Recommendations</td>
<td>30-Jul-16</td>
</tr>
<tr>
<td>178</td>
<td>QA/QC and Submit Geotechnical Report</td>
<td>29-Jul-16</td>
</tr>
<tr>
<td>56</td>
<td>VDOT Review Geotechnical Report</td>
<td>09-Aug-16</td>
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<tr>
<td>136</td>
<td>Revise/Resubmit Geotechnical Report</td>
<td>09-Aug-16</td>
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<tr>
<td>216</td>
<td>VDOT Review and Approval of Geotechnical Report</td>
<td>09-Aug-16</td>
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### Environmental Permits

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<tr>
<th>Activity</th>
<th>Start Date</th>
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<tbody>
<tr>
<td>70</td>
<td>Water Quality Permit (DEQ) - VDOT to Provide</td>
<td>30-Sep-16</td>
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<tr>
<td>102</td>
<td>VDOT Review SWPPP, SWM, &amp; LD-445 for VDOT SWPPP Permit</td>
<td>26-Jul-16</td>
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<tr>
<td>74</td>
<td>VDOT Review SWPPP, SWM, &amp; LD-445</td>
<td>26-Jul-16</td>
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<tr>
<td>105</td>
<td>VDOT Issues Revised VPDES</td>
<td>15-Aug-16</td>
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<tr>
<td>80</td>
<td>VDOT Provide Special Programmatic General Permit (SPGP)</td>
<td>30-Sep-16</td>
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<tr>
<td>60</td>
<td>Transfer SPGP D-8</td>
<td>15-Oct-16</td>
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### Roadway

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<th>Activity</th>
<th>Start Date</th>
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<tbody>
<tr>
<td>346</td>
<td>Prepare 90% Roadway Plans</td>
<td>03-Sep-16</td>
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<tr>
<td>221</td>
<td>Design QA/QC Review of 90% Roadway Plans</td>
<td>13-Sep-16</td>
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<td>82</td>
<td>VDOT Review 90% Roadway Plans</td>
<td>22-Oct-16</td>
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<tr>
<td>103</td>
<td>Revise/Resubmit 90% Roadway Plans</td>
<td>22-Oct-16</td>
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<tr>
<td>175</td>
<td>VDOT Review Revised 90% Roadway Plans</td>
<td>22-Oct-16</td>
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<tr>
<td>195</td>
<td>Roadway Final Revisions</td>
<td>12-Dec-16</td>
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<tr>
<td>205</td>
<td>Prepare RFC Roadway Plans for Submission</td>
<td>12-Dec-16</td>
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<tr>
<td>215</td>
<td>VDOT Review AFC Plans</td>
<td>03-Jan-17</td>
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<td><strong>Hydraulics</strong></td>
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<td>C1920</td>
<td>Prepare Revised Drainage/SWM/E&amp;S Ph. 2 Plans</td>
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<td>C1930</td>
<td>VDOT Review Revised Drainage/SWM/E&amp;S Ph. 2 Plans</td>
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<td>C1980</td>
<td>Address VDOT Comments Revised Drainage/SWM/E&amp;S Ph. 2 Plans</td>
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<tr>
<td>C1990</td>
<td>VDOT Review and Approve Revised Drainage/SWM/E&amp;S Ph. 2 Plans</td>
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<td><strong>IT/Comm/Lighting</strong></td>
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<td>C1940</td>
<td>Prepare ITS/Lighting/Signage</td>
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<td>C1950</td>
<td>VDOT Review ITS/Lighting/Signage</td>
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<td>C1960</td>
<td>Address VDOT Comments ITS/Lighting/Signage</td>
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<td>C1970</td>
<td>VDOT Review and Approve ITS/Lighting/Signage</td>
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<td><strong>CONSTRUCTION</strong></td>
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<tr>
<td>259</td>
<td>Project Management &amp; QA/QC</td>
<td>790</td>
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<td>134</td>
<td>Mobilization</td>
<td>12</td>
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<td>C1230</td>
<td>TMS Testing &amp; Integration Level A &amp; B (Areas 1 &amp; 2)</td>
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<td>TMS Testing &amp; Integration Level C (Areas 1 &amp; 2)</td>
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<td>TMS Testing &amp; Integration Level A &amp; B (Area 4)</td>
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<td>258</td>
<td>TMS Testing &amp; Integration Level C (Area 4)</td>
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<td>248</td>
<td>Punch List</td>
<td>25</td>
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<td><strong>Submittal, Shop Drawing, Fabrication Lead Time</strong></td>
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<td>C2040</td>
<td>Generator Submittal Prep</td>
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<td>C2050</td>
<td>ITS Hardware / Structures / CCTV Submittal Prep</td>
<td>14</td>
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<td>Lighting Submittal Prep</td>
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<td>C2070</td>
<td>DMS Submittal Prep</td>
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<td>Bore Samples for ITS Poles</td>
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<td>C2090</td>
<td>Generator Submittal Approval</td>
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<td>Lighting Submittal Approval</td>
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<td>DMS Submittal Approval</td>
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<td>ITS Hardware / Structures / CCTV Submittal Approval</td>
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<td>C2090</td>
<td>Generator Fabrication</td>
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<td>DMS Fabrication</td>
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<td>C2110</td>
<td>Lighting Poles &amp; Fixtures Fabricization</td>
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<td>C2140</td>
<td>Lighting Control Cabinet Fabrication</td>
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<td>C1910</td>
<td>VDOT Approve ITS Pole Foundation Design</td>
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<td>C1340</td>
<td>Soundwall Shop Drawing Design</td>
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<td>C2110</td>
<td>VDOT Hardware / Structures / CCTV Submittal Approval</td>
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<td>C2120</td>
<td>Gate Fabrication</td>
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<td>C2130</td>
<td>ITS Cabinet/UPS/Structures/Cameras Fabrication</td>
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<td>C1350</td>
<td>VDOT Soundwall Shop Drawing Review and Approval</td>
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<td>C1330</td>
<td>Soundwall Fabrication</td>
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<td><strong>Area 1, Sta. 2193+00 to 2244+40</strong></td>
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<td>C1060</td>
<td>VDOT Construction Entrances</td>
<td>6</td>
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<td>C1010</td>
<td>E&amp;S Phase 1</td>
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<td>C1020</td>
<td>Clearing</td>
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<td>C1150</td>
<td>Grade Generator Sites</td>
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(c) Primavera Systems, Inc.
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**Branch: Highways - I-95 Express Lanes - Southern Terminus Extension - Proposal Schedule**

**Classic Schedule Layout**

**Summary Page 4 of 4**

**TASK filter: All Activities**

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### I-95 Express Lanes - Southern Terminus Extension

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**Project Milestones**

- **Contract NTP**: 21-Jun-16 - 21-Jun-16
- **Final Completion**: 22-Aug-18 - 22-Aug-18

**Design, Right-of-Way & Permitting**

- **Prepare SWPPP, SWM, & LD-445 for VPDES Permit Revision**: 21-Jun-16 - 21-Jul-16
- **VDOT Review SWPPP, SWM, & LD-445**: 21-Jun-16 - 26-Jul-16
- **VDOT Issues Revised VPDES**: 21-Jun-16 - 22-Aug-18

**Roadway**

- **Hydraulics**: 21-Jun-16 - 15-Aug-16
- **ITS/Lighting/Signage**: 21-Jun-16 - 15-Aug-16

**CONSTRUCTION**

- **Mobilization**: 21-Jun-16 - 31-Aug-16
- **Pretransmit Testing & Integration Level C (Area 4)**: 21-Jun-16 - 24-May-18

**Area 1, Sta. 2193+00 to 2244+00**

- **Area 1, Sta. 2193+00 to 2244+00**
  - **MOT/Construction Entrances**: 21-Jun-16 - 15-Aug-16

**Area 2, Sta. 2244+00 to 2304+00**

- **Area 2, Sta. 2244+00 to 2304+00**
  - **C1370**: 21-Jun-16 - 28-Aug-16
  - **C1390**: 21-Jun-16 - 28-Aug-16
  - **C1430**: 21-Jun-16 - 31-Aug-16
  - **C1490**: 21-Jun-16 - 28-Aug-16
  - **C1495**: 21-Jun-16 - 28-Aug-16

**Area 3, Sta. 2304+00 to 2354+00**

- **Area 3, Sta. 2304+00 to 2354+00**
  - **C1500**: 21-Jun-16 - 28-Aug-16
  - **C1510**: 21-Jun-16 - 28-Aug-16
  - **C1550**: 21-Jun-16 - 28-Aug-16

**Area 4, Sta. 2354+00 to 2424+00**

- **Area 4, Sta. 2354+00 to 2424+00**
  - **C1700**: 21-Jun-16 - 28-Aug-16
  - **C1710**: 21-Jun-16 - 28-Aug-16
  - **C1730**: 21-Jun-16 - 28-Aug-16

**Area 5, Soundwalls**

- **Area 5, Soundwalls**: 21-Jun-16 - 28-Aug-16

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### Task Filter: Total Float = 1.
VOLUME 2: Conceptual Plans
and Proposal Schedule

A Design-Build Project

I-95 Express Lanes -
Southern Terminus Extension

Stafford County, Virginia

State Project No.: 0095-969-720, P101, R201, C 501
Federal Project No.: STP-000S (321)
Contract ID Number: C00108315DB90

Submitted By:

In Conjunction With:

Chesapeake Electrical Systems, Inc.
H&B Surveying & Mapping, LLC (DBE)
Froehling & Robertson, Inc. (SWaM)
Engineering & Materials Technology, Inc. (DBE)