

VDOT

Virginia Department of Transportation

REQUEST FOR PROPOSALS

A DESIGN-BUILD PROJECT

VIRGINIA CAPITAL TRAIL – PARK PHASE

From: 0.10 Miles E. Woodmill Drive

To: 0.22 Miles W. Rocky Hill Drive

Henrico County, Virginia

State Project No.: 0005-043-714, P101, R201, C501, B601-B608

Federal Project No.: STP-OC-5A27(189)

Contract ID Number: C00103665DB73

DATE: ~~December 13, 2013~~ Addendum No. 1 – January 24, 2014

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PART 1

INSTRUCTIONS FOR OFFERORS

1.0 INTRODUCTION

The Virginia Department of Transportation (VDOT) submits this Request for Proposals (RFP) to solicit design-build Proposals (Proposals) from those entities (Offerors) interested in contracting to serve as the Design-Builder for the Park Phase of the Virginia Capital Trail in Henrico County, Virginia (Project). The purpose of this RFP is to determine which Offeror (the “Successful Offeror”) will be awarded the Design-Build contract (Design-Build Contract) for the Project.

The Project priorities are:

- Cost - provide the best price for the scope of work identified in this RFP

1.1 Procurement Overview

VDOT will use a single-phase selection process on the Project. In accordance with the requirements of this RFP, interested Offerors will submit a Proposal consisting of a Letter of Submittal, Attachments to the Letter of Submittal, and Price Proposal consistent with Part 1, Section 4.0. Additionally, the Offeror with the lowest bid will submit the Post Notice of Intent to Award Submittals consistent with Part 1, Section 4.4. Upon completion of the responsiveness review of the Letters of Submittals, Attachments to the Letter of Submittals, Price Proposals, and Post Notice of Intent to Award Submittals, the Offeror who submitted the lowest bid will be recommended to the Chief Engineer for an award of a fixed price Design-Build Contract by the Commonwealth Transportation Board (CTB).

An Offeror’s Proposal must meet all requirements established by this RFP. Requirements of this RFP generally will use the words “shall”, “will”, or “must” (or equivalent terms) to identify a required item that must be submitted with an Offeror’s Proposal. Failure to meet an RFP requirement may render an Offeror’s Proposal non-responsive.

The award of a contract to the Offeror who submitted the lowest price, whose Proposal is responsive and whose Price Proposal is within VDOT’s budget for design and construction services will be made in accordance with Part 1, Section 8.0 of this RFP.

2.0 BACKGROUND INFORMATION

2.1 Project Description

The Project is located in Henrico County, Virginia and includes the design and construction of the Virginia Capital Trail from approximately 0.10 miles east of Wood Mill

Drive to 0.22 miles west of Rocky Hill Drive. The proposed Trail alignment proceeds north from Route 5 until it reaches Kinvan Road, where for approximately 0.10 miles the road shoulder will be widened for trail use. The Trail will proceed north and east through Dorey and Four Mile Run Parks, crossing under I-295 at Four Mile Creek, and then proceeds southward passing through the existing Four Mile Creek Park parking lot and tying back into the Varina Phase of the trail parallel to Route 5. The Trail will be a 10 foot wide strip of asphalt pavement throughout the Project limits unless otherwise noted in the RFP Conceptual Plans (such as the location of bridges) included in the RFP Information Package. The total length for the Park Phase of the Virginia Capital Trail is approximately 3.5 miles.

The Project includes, among other things, but not limited to: (a) Design plans for right of way acquisition and construction that are compliant with current VDOT standards; (b) verification of the other documents supplied as part of the RFP Information Package, such as the Geotechnical Engineering Data Report; (c) acquiring all environmental permits and approvals as required and fulfilling permit conditions; (d) compliance with the state and federal laws and regulations governing Threatened and Endangered Species; (e) right of way acquisition; (f) bridge substructure and superstructure construction; (g) drainage; (h) signing and pavement marking; (i) stormwater management; (j) erosion and sediment control; (k) utility relocation; (l) construction of the Project; (m) quality assurance and quality control for design, right of way acquisition and construction; and (n) overall Project Management. Refer to Part 2 of the RFP (Technical Requirements) for the scope of work, technical information and requirements.

2.2 Legislative Authority

§33.1-12(2)(b) of the Code of Virginia authorizes VDOT and the Commonwealth Transportation Board (CTB) to develop and award contracts using the Design-Build contracting method. In accordance with the law, VDOT completed the Finding of Public Interest (FOPI) approved December 9, 2013. The FOPI is available for inspection upon request.

2.3 Estimate Contract Value

VDOT's current estimated contract value for this Project is approximately \$5,500,000.

2.4 Procurement Schedule and Project Milestones

2.4.1 VDOT currently anticipates conducting the procurement of the Project in accordance with the following list of milestones leading to award of the Design-Build Contract. This schedule is subject to revision and VDOT reserves the right to modify this schedule as it finds necessary, in its sole discretion.

.1	Advertise RFP	12/13/13
.2	Pre-Proposal Meeting w/ Offerors	12/19/13 (1:00PM prevailing local time)
.3	Utility Meeting w/ Offerors	12/19/13 (2:30PM prevailing local time)

.4	RFP Questions Due to VDOT	01/06/14 01/14/14 (4:00PM prevailing local time)
.5	VDOT responses to Questions or Clarifications	01/16/14
.6	Letter of Submittal & Price Proposal Due	02/06/14 02/14/14 (4:00PM prevailing local time)
.7	Open Letters of Submittal & Price Proposals	02/11/14 02/18/14 (9:00AM prevailing local time)
.8	Notice of Intent to Award	02/17/14 02/24/14
.9	CTB Approval/ Notice to Award	03/19/14
.10	Design-Build Contract Execution	04/16/14
.11	Notice to Proceed	04/16/14
.12	Interim Milestone	08/15/15
.13	Final Completion	10/30/15

2.4.2 VDOT has established the following milestones for contract completion dates for the Project, and Offerors shall base their proposals on such milestones.

- .1 Interim Milestone and Final Completion shall be no later than the dates set forth in Part 1, Section 2.4.1.
- .2 If an Offeror proposes Interim Milestone and Final Completion dates earlier than those shown in Section 2.4.1 above, then such proposed dates will be deemed by VDOT as the contractual completion date(s) for the Design-Build Contract for all purposes, including liquidated damages.

2.5 VDOT's Point of Contact and Project Reference

VDOT's sole point of contact (POC) for matters related to the RFP shall be Stephen D. Kindy. VDOT's POC is the only individual authorized to discuss this RFP with any interested parties, including Offerors. All communications with VDOT's POC about the Project or this RFP shall be in writing, as required by applicable provisions of this RFP.

Name: Stephen D. Kindy, P.E.
Address: Virginia Department of Transportation
1401 East Broad Street
Annex Building, 8th Floor
Richmond, VA 23219

Mailing Address: 1401 East Broad Street
Richmond, VA 23219

Phone: (804) 786-6016
Fax: (804) 786-7221

E-Mail: stephen.kindy@vdot.virginia.gov

VDOT disclaims the accuracy of information derived from any source other than VDOT's POC, and the use of any such information is at the sole risk of the Offeror.

All written communications to VDOT from Offerors shall specifically reference the correspondence as being associated with "Park Phase of the Virginia Capital Trail, Project No. 0005-043-714, P101, R201, C501, B601-B608".

2.6 The RFP Information Package

An RFP Information Package is available for interested Offerors on CD or DVD ROM for \$50.00. Interested Offerors should complete the RFP Information Package Order Form included as Attachment 2.6. The instructions for submittal and payment are included on the form.

The contents of the RFP Information Package are listed in Part 2 of the RFP.

2.7 RFP Documents

2.7.1 The documents included in this RFP (collectively the RFP Documents) consist of the following parts and any addenda, as well as any attachments and exhibits contained or identified in such sections:

PART 1 – REQUEST FOR PROPOSALS, INSTRUCTIONS FOR OFFERORS
PART 2 – PROJECT TECHNICAL INFORMATION AND REQUIREMENTS
INCLUDING RFP INFORMATION PACKAGE (CD-ROM)
PART 3 – LUMP SUM DESIGN-BUILD AGREEMENT
EXHIBIT 1 TO PART 3 – PROJECT SPECIFIC TERMS
PART 4 – GENERAL CONDITIONS
PART 5 – DIVISION I AMENDMENTS TO STANDARD SPECIFICATIONS

VDOT has developed standard template Part 3, 4 and 5 (July 2013) documents. These documents have been compiled into a standard package available for download at the following location:

<http://www.virginiadot.org/business/design-build.asp>

2.7.2 Each Offeror shall review the proposed RFP Documents and provide questions or requests for clarification, including but not limited to terms that it considers to be ambiguous or to which it takes exception. Such questions or requests for clarification will be submitted to VDOT's POC within the time specified in Part 1, Section 2.4.1 of this RFP. VDOT will review all questions and/ or requests for clarification received and, if it deems appropriate, in its sole discretion, may modify the RFP Documents through an Addendum. Offerors shall base their

Proposals on the terms and conditions of the RFP Documents included in the latest issued Addendum.

2.7.3 Addenda to the RFP Documents, if any, will be posted on the VDOT Project website. Hard copies of the RFP Documents and Addenda on file will be available upon request. If there is any conflict between the electronic format and hard copy of any RFP Documents or Addenda, the hard copy on file shall control.

2.8 Deviations from the RFP Documents

No deviations from the requirements of the RFP Documents will be valid unless they are set forth in an Addendum prior to receipt of the Offeror's Letter of Submittal.

2.9 Obligation to Meet All of the Requirements of the RFP Documents

If awarded the Design-Build Contract, the Design-Builder will be obligated to meet all of the requirements of the RFP Documents for the Contract Price and within the Contract Time(s). Offerors are on notice that VDOT's review of Attachments to the Letter of Submittal, as well as its issuance of any Addendum, shall not be construed as relieving the Design-Builder of this obligation. Offerors are on further notice that VDOT will review, comment and/or approve the Design-Builder's final design after the award of the Design-Build Contract, in accordance with Part 4, Article 2.

3.0 GENERAL PROCEDURES AND REQUIREMENTS

Part 1, Section 3.0 provides general information, procedures and requirements related to the pre-submittal period to be followed by all Offerors.

3.1 Offeror's Pre-Submittal Responsibilities and Representations

3.1.1 Each Offeror shall be solely responsible for examining the RFP Documents, including any Addenda issued to such documents, and any and all conditions which may in any way affect its Proposal or the performance of the work on the Project, including but not limited to:

- .1 Examining and carefully studying the RFP Documents, including any Addenda and other information or data identified in the RFP Documents;
- .2 Visiting the Project Site and becoming familiar with and satisfying itself as to the general, local, and Site conditions that may affect the cost, progress, or performance of its work on the Project;
- .3 Addressing all potential impacts with affected utility owners and third parties and ensuring all such impacts have been included in the Offeror's Proposal;

- .4 Becoming familiar with and satisfying itself as to all federal, state, and local laws and regulations that may affect the cost, progress, or performance of its work on the Project;
- .5 Determining that the RFP Documents are sufficient to indicate and convey understanding of all terms and conditions for the performance of Offeror's work on the Project; and
- .6 Notifying VDOT in writing, in accordance with the process set forth in Part 1, Section 7.0, of all conflicts, errors, ambiguities, or discrepancies that the Offeror discovers in the RFP Documents.

Any failure to fulfill these responsibilities is at the Offeror's sole risk, and no relief will be provided by VDOT.

3.2 Pre-Proposal Meeting

VDOT will hold a Pre-Proposal meeting of potential Offerors on the date and time set forth in Section 2.4.1 at the VDOT Richmond District Office, 2430 Pine Forest Drive, Colonial Heights, in the District Auditorium.

3.3 Utility Meeting

VDOT will hold a Utility Meeting of potential Offerors on the date and time set for in Section 2.4.1 at the VDOT Richmond District Office, 2430 Pine Forest Drive, Colonial Heights, in the District Auditorium.

3.4 Acknowledgment of Receipt of RFP, Revisions and Addenda

Offeror shall provide VDOT the Acknowledgement of Receipt of RFP, Revisions, and/or Addenda (Form C-78-RFP), set forth as Attachment 3.4, signed by the Offeror's Point of Contact or Principal Officer, with submission of the Proposal, which will serve as acknowledgement that Offeror has received this RFP.

4.0 CONTENTS OF PROPOSALS

Part 1, Section 4.0 describes specific information that must be included in the Letter of Submittal, Attachments to the Letter of Submittal, Price Proposal, and Post Notice of Intent to Award Submittal. The format for the presentation of such information is described in Part 1, Section 6.0.

4.0.1 Offerors will submit a two part Proposal:

- .1 The Letter of Submittal will consist of all information required under Part 1, Section 4.1 and Section 4.2 and will be submitted in a sealed package by the date and time set forth in Part 1, Section 2.4.1, and separate from that submitted for the Price Proposal. Offerors shall complete the Letter of Submittal Checklist, Attachment 4.0.1.1, and include it with their Letter of Submittal. The purpose of the Letter of Submittal checklist is to aid the Offeror in ensuring all submittal requirements have been included in the Offeror's Letter of Submittal and to provide a page reference indicating the location in the Letter of Submittal of each submittal requirement. It shall also include an original signed copy of Acknowledgement of Receipt of RFP, Revisions and/ or Addenda (Form C-78-RFP), Attachment 3.4.
- .2 The Price Proposal will consist of the information required by Part 1, Section 4.3, and will be submitted in a sealed package by the date and time set forth in Part 1, Section 2.4.1, and separate from that submitted for the Letter of Submittal. Offerors shall complete the Price Proposal Checklist, Attachment 4.0.1.2, and include it with their Price Proposal. The purpose of the Price Proposal Checklist is to aid the Offeror in ensuring all submittal requirements have been included in the submittal.

4.0.2 Offerors shall be aware that VDOT reserves the right to conduct an independent investigation of any information, including prior experience, identified in a Proposal by contacting project references, accessing public information, contacting independent parties, or any other means. VDOT also reserves the right to request additional information from an Offeror during the evaluation of that Offeror's Proposal.

4.0.3 If an Offeror has concerns about information included in its Proposal that may be deemed confidential or proprietary, the Offeror shall adhere to the requirements set forth by Part 1, Section 11.1.2.

4.1 Letter of Submittal

4.1.1 The Letter of Submittal shall be on the Offeror's letterhead and identify the full legal name and address of the Offeror. The Offeror is defined as the legal entity who will execute the Contract with VDOT. The Letter of Submittal shall be signed by an authorized representative of Offeror's organization. All signatures shall be original and signed in ink.

4.1.2 Declare Offeror's intent, if selected, to enter into a contract with VDOT for the Project in accordance with the terms of this RFP.

4.1.3 Pursuant to Part 1, Section 8.2, declare that the offer represented by the Price Proposal will remain in full force and effect for one hundred twenty (120) days after the date the Proposal is submitted to VDOT ("Letter of Submittal & Price Proposal Due Date").

4.1.4 Identify the name, title, address, phone and fax numbers, and e-mail address of an individual who will serve as the Point Of Contact for the Offeror.

4.1.5 Identify the name, address and telephone number of the individual who will serve as the Principal Officer for the Offeror. (e.g., President, Treasurer, Chairperson of the Board of Directors, etc.).

4.1.6 Identify whether the Offeror will be structured as a corporation, limited liability company, general partnership, joint venture, limited partnership or other form of organization. Identify the team members who will undertake financial responsibility for the Project and describe any liability limitations. If the Offeror is a limited liability company, partnership or joint venture, describe the bonding approach that will be used and the members of such organizations who will have joint and several liability for the performance of the work required for the Project. A single 100% performance bond and a single 100% payment bond shall be provided regardless of any co-surety relationship.

4.1.7 Identify the full legal name of both the Lead Contractor and the Lead Designer for this Project. The Lead Contractor is defined as the Offeror that will serve as the prime/ general contractor responsible for overall construction of the Project and will serve as the legal entity who will execute the Contract with VDOT. The Lead Designer is defined as the prime design consulting firm responsible for the overall design of this Project.

4.1.8 State the Offeror's VDOT prequalification number and current VDOT prequalification status (active, inactive, etc.) in the Letter of Submittal. An 8.5" x 11" copy of the Offeror's VDOT prequalification certificate or evidence indicating Offeror is currently prequalified will be provided in the Attachments to the Letter of Submittal. The Offeror must be in good standing and prequalified to bid on the Project as outlined in VDOT's Rules Governing Prequalification Privileges at the time of the Letter of Submittal & Price Proposal Due Date.

4.1.9 Provide a written statement within the Letter of Submittal that the Offeror is committed to achieving a six percent (6%) DBE participation goal for the entire value of the contract.

4.1.10 Provide a Final Completion Date. The proposed date herein shall be no later than the date set forth in Section 2.4.1. An earlier Final Completion date will be deemed by VDOT as the contractual completion date for the Design-Build Contract for all purposes, including liquidated damages in accordance with Section 2.4.2.

4.2 Attachments to the Letter of Submittal

4.2.1 Provide the full legal name and address of all affiliated and/or subsidiary companies of the Offeror on Attachment 4.2.1. Indicate which companies are affiliates and which companies are subsidiaries. An affiliate shall be considered as any business entity which is closely associated to another business entity so that one entity controls or has power to control the other entity either directly or indirectly; or, when a third party has the power to control or controls

both; or where one business entity has been so closely allied with another business entity through an established course of dealings, including but not limited to the lending of financial wherewithal, engaging in joint ventures, etc. as to cause a public perception that the two firms are one entity. Firms which are owned by a holding company or a third party, but otherwise meet the above conditions and do not have interlocking directorships or joint officers serving, are not considered to be affiliates.

If the Offeror does not have any affiliated and/or subsidiary companies, other than the Offeror's legal business entity, indicate this on Attachment 4.2.1.

The Offeror shall not submit more than one Proposal for this Project. If more than one Proposal is submitted by an individual, partnership, Corporation, or any party of a Joint Venture, then all Proposals submitted by that individual, partnership, Corporation or Joint Venture shall be disqualified. If more than one Proposal is submitted by an affiliate or subsidiary company of an individual, partnership, Corporation or any party of a Joint Venture, then all Proposals submitted by that individual, partnership, Corporation or Joint Venture shall be disqualified.

4.2.2 Execute and return the attached Certification Regarding Debarment Form(s) Primary Covered Transactions, set forth as Attachment 4.2.2(a) and Certification Regarding Debarment Form(s) Lower Tier Covered Transactions, set forth as Attachment 4.2.2(b) for the Offeror and any subconsultant, subcontractor, or any other person or entity on the Offeror's proposed team.

If the Offeror and any subconsultant, subcontractor, or any other person or entity are unable to execute the certification, then prospective participant shall attach an explanation to its Certification Regarding Debarment Form. Failure to execute the certification will not necessarily result in denial of award, but will be considered in determining the Offeror's responsibility. Providing false information may result in federal criminal prosecution or administrative sanctions.

4.2.3 Provide an 8.5" x 11" copy of the Offeror's VDOT prequalification certificate or evidence indicating Offeror is currently prequalified as outlined in Section III H in VDOT's Rules Governing Prequalification Privileges shall be satisfied.

4.2.4 Include a letter from a surety or insurance company (with a Best's Financial Strength Rating of A minus and Financial Size Category VIII or better by A.M. Best Co.) stating that the Offeror is capable of obtaining a performance and payment bond based on the current estimated contract value referenced in Section 2.3, which bonds will cover the Project and any warranty periods. The letter of surety shall clearly state the rating categorization noted above and reference the estimated contract value as identified in Section 2.3, in a manner similar to the notation provided below:

"As surety for [the above named Contractor], [XYZ Company] with A.M. Best Financial Strength Rating [rating] and Financial Size Category [Size Category] 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 this Project.”

4.2.5 All business entities on the Offeror’s proposed team must comply with the law with regard to their organizational structure, any required registration with governmental agencies and/or entities, and any required governmental licensure, whether business, commercial, individual, or professional in nature, and nothing herein is intended to contradict, nor to supersede, State and Federal laws and regulations regarding the same. All business entities on the Offeror’s proposed team shall be eligible at the time of their Proposal, under the law and relevant regulations, to offer and to provide any services proposed or related to the Project. All business entities on the Offeror’s proposed team shall satisfy all commercial and professional registration requirements, including, but not limited to those requirements of the Virginia State Corporation Commission (SCC) and the Virginia Department of Professional and Occupational Regulations (DPOR). Full size copies of DPOR licenses and SCC registrations, or evidence indicating the same, should be included in the appendix of the Letter of Submittal. Additionally, the following information should be provided on Attachment 4.2.5:

- .1 The SCC registration information for each business entity on the Offeror’s proposed team. Provide the name, registration number, type of corporation and status.
- .2 For this Project, the DPOR registration information for each office practicing or offering to practice any professional services in Virginia. Provide the business name, address, registration type, registration number and expiration date.

Failure to comply with the law with regard to those legal requirements in Virginia (whether federal or state) regarding your organizational structure, any required registration with governmental agencies and/or entities, and any required governmental licensure, whether business, individual, or professional in nature may render your Proposal, in the sole and reasonable discretion of the Department, non-responsive and in that event your Proposal may be returned without any consideration or evaluation.

4.2.6 Complete the Work History Forms for both the Lead Contractor and Lead Designer.

Identify on the Lead Contractor Work History Form (Attachment 4.2.6(a)) three (3) relevant projects that have completed construction in the last fifteen (15) years, focusing on what the Offeror considers most relevant in demonstrating the Lead Contractor’s qualifications and were constructed by the Lead Contractor for this Project as identified in Section 4.1.6.

If work identified on the Lead Contractor Work History Form was performed by an affiliated or subsidiary company of the Lead Contractor, explain the justification for utilizing an affiliated or subsidiary company to satisfy the relevant project experience on this Project and the control the Lead Contractor will exercise over the affiliated or subsidiary company on this Project.

Additionally, identify the full legal name of the affiliated or subsidiary company, describe their role and responsibilities on this Project and discuss how the Lead Contractor will be responsible for the work performed by the affiliated or subsidiary company on this Project. For all projects on the Lead Contractor Work History Form, identify the prime design consultant responsible for the overall project design of the projects listed on the Lead Contractor Work History Form.

Identify on the Lead Designer Work History Form (Attachment 4.2.6(b)) three (3) relevant projects that have completed construction within the last fifteen (15) years, focusing on what the Offeror considers most relevant in demonstrating the Lead Designer's qualifications and were designed by the Lead Designer for this Project identified in Section 4.1.6.

For all projects on the Lead Designer Work History Form, identify the prime/ general contractor responsible for overall construction of the projects listed on the Lead Designer Work History Form.

4.3 Price Proposal

The information and attachments provided in Part 1, Section 4.3 shall be submitted on the due date and time set forth in Part 1, Section 2.4.1. If the sealed Price Proposal is not submitted on the above specified date and time, then the Offeror shall be deemed non-responsive and will be disqualified from participating in the design-build procurement for this Project. Offerors shall complete the Price Proposal Checklist, Attachment 4.0.1.2, and include it with their Price Proposal. The purpose of the Price Proposal Checklist is to aid the Offeror in ensuring all submittal requirements have been included in the submittal. Additionally, the Offeror shall:

4.3.1 Specify, on the form set forth in Attachment 4.3.1, a Cost Breakdown Summary in whole numbers and the Proposal Price, in both numbers and words. Offerors are advised that the prices set forth above shall be considered full compensation to Offeror for all design and construction of this Project, to include: labor, material, equipment, permits, taxes, overhead, profit and any other expenses of any kind applicable to the work to be undertaken by Offeror associated with such work, including but not limited to any escalation, extended site overhead, acceleration of schedule, and/or shift of construction sequencing.

4.3.2 Provide the required information set forth in Part 3, Section 6.3, Adjustments to Asphalt, Fuel and Steel Prices.

4.3.3 Provide the Proposal Guaranty required by Section 102.07 of Division I Amendments of the VDOT Road and Bridge Specifications. A copy of the Proposal Guaranty Form C-24 may be found at <http://vdotforms.vdot.virginia.gov/> . **If the Price Proposal Guaranty is not submitted with the Price Proposal, then the Offeror shall be deemed non-responsive and will be disqualified from participating in the Design-Build procurement for this Project.**

4.3.4 Provide the Sworn Statement Forms (C-104, C-105), as set forth in Attachments 4.3.4(a) and 4.3.4(b) respectively.

4.3.5 For those DBE’s whom Offeror intends to use as a subcontractor, provide the Minimum DBE Requirements Form (C-111; Attachment 4.3.5(a)), and/or DBE Good Faith Effort Documentation Form (C-49; Attachment 4.3.5(b)), if applicable (including Good Faith Effort supporting documentation), and Certification of Binding Agreement Form (C-112; Attachment 4.3.5(c)). The documentation provided on the DBE forms listed above will be subject to review and approval by VDOT’s Civil Rights Division. Price Proposals that contain DBE documentation that is not approved by VDOT’s Civil Rights Division may be deemed non-responsive.

4.4 Post Notice of Intent to Award Submittals

Within three (3) calendar days of Notice of Intent to Award the Successful Offeror shall deliver to VDOT documents required by this Section for its review and approval. VDOT may seek clarifications on any such documents. If VDOT disapproves any such submittal, VDOT may, in its sole discretion, disqualify the Successful Offeror.

4.4.1 Furnish an organizational chart showing the “chain of command” of all companies, including individuals responsible for pertinent disciplines, proposed on the Offeror’s team. Identify major functions to be performed and their reporting relationships in managing, designing and constructing the Project. The organizational chart should show a clear separation and independence of a contractual relationship of any kind with the Quality Control (QC) and Quality Assurance (QA) programs for construction activities. This includes separation between QA and QC inspection and field/ laboratory testing in accordance with the Minimum Requirements for Quality Assurance and Quality Control on Design Build and P3 Projects, January 2012.

4.4.2 Provide the identity of and information about the following Key Personnel listed below. This information is to be provided on the Key Personnel Resume Form attached hereto as Attachment 4.4.2.

- .1 **Design-Build Project Manager** – This individual should be responsible for the overall Project design, right-of-way acquisition, construction, quality management and contract administration for the Project.
- .2 **Quality Assurance Manager (QAM)** – This individual shall be from an independent firm that has no contractual relationship of any kind with the Quality Control (QC) firm unless the Design-Builder’s firm is to self perform the QC and no involvement in construction operations (to include QC inspection and testing) for the Project. The QAM shall be responsible for the quality assurance (QA) inspection and testing of all materials used and work performed on the Project, to include monitoring of the contractor's quality control (QC) program. The QAM will ensure that all work and materials, testing, and sampling are performed in conformance with the contract requirements and the "approved for construction"

plans and specifications. This individual shall be a registered, licensed, Professional Engineer in the Commonwealth of Virginia.

- .3 **Design Manager** – This individual shall be responsible for coordinating the individual design disciplines and ensuring the overall Project design is in conformance with the Contract Documents. The Design Manager shall be responsible for establishing and overseeing a QA/QC program for all pertinent disciplines involved in the design of the Project, including, review of design, working plans, shop drawings, specifications, and constructability of the Project. This individual shall be a registered, licensed, Professional Engineer in the Commonwealth of Virginia.
- .4 **Construction Manager** – This individual, who will be required to be on the Project site for the duration of construction operations, shall be responsible for managing the construction process to include all Quality Control (QC) activities to ensure the materials used and work performed meet contract requirements and the “approved for construction” plans and specifications. This individual shall hold a Virginia Department of Environmental Quality (DEQ) Responsible Land Disturber (RLD) Certification and a VDOT Erosion and Sediment Control Contractor Certification (ESCCC) or a statement shall be included indicating this individual will hold these certifications prior to the commencement of construction. Note that effective July 1, 2013 the administration of the Virginia Erosion and Sediment Control and Stormwater Management regulatory programs was transferred from the Virginia Department of Conservation and Recreation to the Virginia Department of Environmental Quality. Current active RLD Certifications issued by DCR are still valid.

4.4.3 In accordance with the requirements set forth in Section 4.2.5, the following information should be provided on Attachment 4.4.3:

- .1 For this Project, the DPOR license information for each Key Personnel practicing or offering to practice professional services in Virginia. Provide the name, the address, type, the registration number, expiration date and the office location where each Key Personnel member is offering to practice professional services in Virginia.
- .2 For this Project, the DPOR license information for those services not regulated by the Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers, and Landscape Architects (i.e. real estate appraisal). Provide the name, address, type, the registration number, and the expiration date of the individual offering services in Virginia.

4.4.4 Identify and submit a DBE subcontracting narrative indicating how the DBE participation goal of six percent (6%) will be met for the entire value of the contract.

4.4.5 Provide a Proposal Schedule for the entire Project outlining the Offeror’s proposed plan to accomplish the Work. The Proposal Schedule submission should include:

- .1 **Proposal Schedule:** The Proposal Schedule should depict the Offeror’s proposed overall sequence of work, and times during each work task and deliverable required to complete the Project will be accomplished. The Proposal Schedule should be organized using a hierarchical Work Breakdown Structure (WBS), broken down into major phases of the Project (i.e. project milestones, project management, Scope Validation Period, design, public involvement, environmental, right-of-way, utility, and construction, etc.) The Proposal Schedule should depict the anticipated project critical path (based on the longest path), reviews by Department, FHWA, other regulatory agencies; and work by suppliers, subcontractors, and other involved parties, as applicable.
- .2 **Proposal Schedule Narrative:** A Proposal Schedule Narrative describing the Offeror’s proposed overall plan to accomplish the Work including, but not limited to the overall sequencing, a description and explanation of the Critical Path, proposed means and methods, and other key assumptions on which the Proposal Schedule is based.

In addition to hard copy, the Offeror shall provide “PDF” copies of the Proposal Schedule and narrative; as well as a back-up copy of the Proposal Schedule’s source document in any of the following electronic file formats: “XER”, “PRX”, “MPP”, or “MPX”, on a CD-ROM. Offerors are to note that in addition to the Proposal Schedule, the Design-Builder will develop and submit a Preliminary Schedule and a Baseline Schedule in accordance with Part 3, Section 11.1.

4.4.6 Provide a Schedule of Items for the Price Proposal utilizing the Schedule of Items Form attached hereto as Attachment 4.4.6. This Schedule of Items shall identify the material quantities and costs of each proposed pay item that make up the total Contract Price. The material quantities and costs listed for each proposed pay item shall, to the extent possible, correspond to VDOT’s list of standard and non-standard pay items. Any items considered for price adjustments shall be identified. The value associated with each pay item shall be inclusive of all direct and indirect costs, overhead, profit and any other expenses of any kind. The values and quantities shall be clearly supported by the escrowed pricing documents.

4.4.7 Submit, for the Price Proposal, a proposed monthly payment schedule showing the anticipated monthly earnings schedule on which funds will be required.

4.4.8 Provide the Escrow Proposal Documents in accordance with Section 11.7

5.0 PROPOSAL EVALUATION AND RESPONSIVENESS REVIEW

5.0.1 VDOT will open and read the Price Proposals publicly on the date and time set forth in Part 1, Section 2.4.1.

5.0.2 After opening the Price Proposals, VDOT will determine if the Proposal of the Offeror with the lowest Proposal Price for the Project is responsive.

5.0.3 If VDOT considers the Proposal of the Offeror with the lowest Proposal Price to be non-responsive, then VDOT will determine if the Proposal of the Offeror with the next lowest Proposal Price is responsive.

6.0 PROPOSAL SUBMITTAL REQUIREMENTS

Part 1, Section 6.0 describes the requirements that all Offerors must satisfy in submitting Proposals. Failure of any Offeror to submit its Proposal in accordance with this RFP may result in rejection of its Proposal.

6.1 Due Date, Time and Location

6.1.1 All Proposals must be received by the Due Date and time set forth in Part 1, Section 2.4.1. All submissions, including hand-delivered packages, US Postal Service regular mail, US Postal Service express mail, or private delivery service (FEDEX, UPS, courier etc.) must be delivered to the following individual at the following address:

Commonwealth of Virginia
Department of Transportation (VDOT)
Central Office Mail Center
Loading Dock Entrance
1401 E. Broad Street
Richmond, Virginia 23219
Attention: Brenda L. Williams

Neither fax nor email submissions will be accepted. Offerors are responsible for effecting delivery by the deadline above, and late submissions will be rejected without opening, consideration, or evaluation, and will be returned unopened to the sender. VDOT accepts no responsibility for misdirected or lost Proposals.

6.2 Format

The Proposal format is prescribed below. If VDOT determines that a Proposal does not comply with or satisfy requirements of this Section, VDOT may find such Proposal to be non-responsive and may be disqualified from participating in the design-build procurement for this Project.

6.2.1 Two (2) separate sealed parcels, one (1) containing the Letter of Submittal and Attachments to the Letter of Submittal and one (1) containing the Price Proposal shall be submitted by the due date and time set forth in Part 1, Section 2.4.1. Parcels shall be clearly marked to identify the Project and the Offeror, and to identify the contents as the “Letter of Submittal and Attachments” or “Price Proposal” as applicable.

6.2.2 Each Offeror shall deliver one (1) copy of the Letter of Submittal and Attachments to the Letter of Submittal, which must bear original signatures, and one (1) CD-ROM or DVD-ROM containing the entire Letter of Submittal and Attachments to the Letter of Submittal in a single cohesive Adobe PDF file.

The Letter of Submittal and Attachments to the Letter of Submittal shall be securely bound and contained in a single volume with an identity on its front cover. **Three ring binders are not permissible.**

The Letter of Submittal and Attachments to the Letter of Submittal shall be:

- Typed on one (1) side only.
- Separated by numbered tabs with sections corresponding to the order set forth in Part 1, Section 4.0, except for that required by Part 1, Section 4.3 and 4.4.
- The Letter of Submittal Checklist and Form C-78 shall be provided in the front of the Letter of Submittal

Except for charts, schedules, Work History Forms, exhibits, and other illustrative and graphical information, all information shall be prepared on 8.5” x 11” white paper. Charts, schedules, exhibits, and other illustrative and graphical information may be on 11” x 17” paper, but must be folded to 8.5” x 11”.

All printing, except for the front cover of the Letter of Submittal and any appendices, should be Times New Roman, with a font of 12-point. (Times New Roman 10 point font may be used for filling out information on charts, tables and/ or exhibits).

The format and appearance of the Key Personnel Resume Form and the Work History Forms should not be modified. The Key Personnel Resume Forms shall not exceed two (2) pages for each Key Personnel. The Work History Forms shall not exceed one (1) page per project for each the Lead Contractor and the Lead Designer.

6.2.3 Each Offeror shall deliver one (1) paper copy of the Price Proposal, which must bear original signatures on the Price Proposal Form, and one (1) CD-ROM containing the entire Price Proposal in a single cohesive Adobe PDF file.

The Price Proposal shall be securely bound and contained in a single volume. **Three ring binders are not permissible.** Additionally, the Price Proposal shall be typed on one (1) side

only and separated by numbered tabs with sections corresponding to the order set forth in Part 1, Section 4.3. The Price Proposal Checklist shall be provided in the front of the Price Proposal

6.2.4 A sealed parcel containing the Post Notice of Intent to Award Submittals shall be submitted by the due date and time set forth in Part 1, Section 2.3.1. The Successful Offeror shall deliver one (1) paper copy of the Post Notice of Intent to Award Submittals, excluding the Escrow Proposal Documents, and one (1) CD-ROM containing the entire Post Notice of Intent to Award Submittals, excluding the Escrow Proposal Documents in a single cohesive Adobe PDF file.

The Post Notice of Intent to Award Submittals shall be securely bound and contained in a single volume. **Three ring binders are not permissible.** Additionally, the Post Notice of Intent to Award Submittals shall be typed on one (1) side only and separated by numbered tabs with sections corresponding to the order set forth in Part 1, Section 4.4.

Except for charts, schedules, exhibits, and other illustrative and graphical information, all information shall be prepared on 8.5” x 11” white paper. Charts, schedules, exhibits, and other illustrative and graphical information may be on 11” x 17” paper, but must be folded to 8.5” x 11”.

All printing, except for the front cover of the Post Notice of Intent to Award Submittals and any appendices, should be Times New Roman, with a font of 12-point. (Times New Roman 10 point font may be used for filling out information on charts, tables and/ or exhibits).

7.0 QUESTIONS AND CLARIFICATIONS

7.0.1 All questions and requests for clarification regarding this RFP shall be submitted to VDOT’s POC in writing in electronic format (submission by email is acceptable). All questions and requests for clarification shall be submitted in Microsoft Office Word format. No requests for additional information, clarification or any other communication should be directed to any other individual. **NO ORAL REQUESTS FOR INFORMATION WILL BE ACCEPTED.**

7.0.2 All questions or requests for clarification must be submitted by the due date and time set forth in Section 2.4.1. Questions or clarifications requested after such time will not be answered, unless VDOT elects, in its sole discretion, to do so.

7.0.3 VDOT’s responses to questions or requests for clarification shall be in writing and may be accomplished by an Addendum to this RFP. VDOT will not be bound by any oral communications, or written interpretations or clarifications that are not set forth in an Addendum.

7.0.4 VDOT, in its sole discretion, shall have the right to seek clarifications from any Offeror to fully understand information contained in the Proposal.

8.0 AWARD OF CONTRACT, PROPOSAL VALIDITY AND CONTRACT EXECUTION

VDOT has determined that the Negotiation and Award of Contract will be made in the following manner:

8.1 Negotiations and Award of Contract

8.1.1 VDOT will review the Proposal submitted by the Offeror with the lowest Proposal Price. If the Proposal is responsive and the Proposal Price is within VDOT's budget for design and construction services, then VDOT will issue a Notice of Intent to Award to the Successful Offeror.

8.1.2 Pursuant to 23 CFR 636.513, VDOT may conduct limited negotiations with the Successful Offeror to clarify any remaining issues regarding scope, schedule, financing or any other information provided by the Successful Offeror.

8.1.3 Pursuant to 23 CFR 636.404, if the Proposal Price submitted by the Offeror with the lowest Proposal Price is not within VDOT's budget for design and construction services, VDOT may establish a competitive range among the Offerors who have submitted a responsive Proposal.

8.1.4 Pursuant to 23 CFR 636.402, 636.404, and 636.406, prior to VDOT establishing a competitive range, VDOT may hold communications with only those Offerors whose exclusion from or inclusion in, the competitive range is uncertain. Communications will (a) enhance VDOT's understanding of Proposals; or (b) allow reasonable interpretation of the Proposal.

8.1.5 Pursuant to 23 CFR 636.404, after VDOT establishes the competitive range, VDOT will notify any Offeror whose Proposal is no longer considered to be included in the competitive range.

8.1.6 Pursuant to 23 CFR 636.506, 636.507, and 636.508, VDOT will hold discussions with all Offerors in the competitive range. Offerors are advised that VDOT may, in its reasonable discretion, determine that only one Offeror is in the competitive range.

8.1.7 Pursuant to 23 CFR 636.510, VDOT may determine to further narrow the competitive range once discussions have begun. At which point, VDOT will notify any Offeror whose Proposal is no longer considered in the competitive range.

8.1.8 Pursuant to 23 CFR 636.509, at the conclusion of discussions, VDOT, will request all Offeror(s) in the competitive range to submit a final Proposal revision, also called Best and Final Offer ("BAFO"). Thus, regardless of the length or number of discussions, there will be only one request for a revised Proposal (*i.e.*, only one BAFO).

8.1.9 Pursuant to 23 CFR 636.512, VDOT will review the final Proposals in accordance with the review and selection criteria and complete a final ranking of the Offerors in the competitive range, and then VDOT will issue a Notice of Intent to Award to the Successful Offeror.

8.1.10 Pursuant to 23 CFR 636.513, VDOT may conduct limited negotiations with the Successful Offeror to clarify any remaining issues regarding scope, schedule, financing or any other information provided by the Successful Offeror.

8.2 Proposal Validity

8.2.1 The offer represented by the Proposal will remain in full force and effect for one hundred twenty (120) days after the Letter of Submittal/Price Proposal Due Date set forth in Section 2.4.1. If Award of Contract has not been made by the CTB within one hundred twenty (120) days after the Letter of Submittal & Price Proposal Due Date, each Offeror that has not previously agreed to an extension of such deadline shall have the right to withdraw its Proposal.

8.3 Submittals after Notice of Intent to Award

8.3.1 Within three (3) calendar days of Notice of Intent to Award, or the date specified in Section 2.6.1, whichever is later, the Successful Offeror shall deliver to VDOT all of the information required by Section 4.4 above.

8.3.2 Within fifteen (15) days of Notice of Intent to Award, the Successful Offeror shall deliver to VDOT all pertinent documents in accordance with Section 103 of the Division I Amendments to the Standard Specifications.

8.3.3 Failure to comply with submittal requirements provided in Sections 8.3.1 and 8.3.2 above may result in disqualification of the Offeror by VDOT in its sole and reasonable discretion.

8.4 Contract Execution and Notice to Proceed

8.4.1 Upon Award of Contract, VDOT will deliver an executed copy of the Design-Build Contract to the Successful Offeror, who shall execute and deliver such copy to VDOT within seven (7) days of receipt.

8.4.2 VDOT reserves the right to issue Notice to Proceed within fifteen (15) days after execution of the Design-Build Contract.

9.0 RIGHTS AND OBLIGATIONS OF VDOT

9.1 Reservation of Rights

9.1.1 In connection with this procurement, VDOT reserves to itself all rights (which rights shall be exercisable by VDOT in its sole discretion) available to it under applicable law, including without limitation, the following, with or without cause and with or without notice:

- .1 The right to cancel, withdraw, postpone or extend this RFP in whole or in part at any time prior to the execution by VDOT of the Design-Build Contract, without incurring any obligations or liabilities.
- .2 The right to issue a new RFP.
- .3 The right to reject any and all submittals, responses and Proposals received at any time.
- .4 The right to modify all dates set or projected in this RFP.
- .5 The right to suspend and terminate the procurement process for the Project, at any time.
- .6 The right to waive or permit corrections to data submitted with any response to this RFP until such time as VDOT declares in writing that a particular stage or phase of its review of the responses to this RFP has been completed and closed.
- .7 The right to issue addenda, supplements, and modifications to this RFP.
- .8 The right to permit submittal of Addenda and supplements to data previously provided with any response to this RFP until such time as VDOT declares in writing that a particular stage or phase of its review of the responses to this RFP has been completed and closed.
- .9 The right to hold meetings and conduct discussions and correspondence with one or more of the Offerors responding to this RFP to seek an improved understanding of the responses to this RFP.
- .10 The right to seek or obtain data from any source that has the potential to improve the understanding and evaluation of the responses to the RFP, including the right to seek clarifications from Offerors.
- .11 The right to permit Offerors to add or delete firms and/or key personnel until such time as VDOT declares in writing that a particular stage or phase of its review has been completed and closed.
- .12 The right to add or delete Offeror responsibilities from the information contained in this RFP.

- .13 The right to waive deficiencies, informalities and irregularities in a Proposal, accept and review a non-conforming Proposal or seek clarifications or supplements to a Proposal.
- .14 The right to disqualify any Offeror that changes its submittal without VDOT approval.
- .15 The right to change the method of award at any time prior to submission of the Proposals.
- .16 The right to respond to all, some, or none of the inquiries, questions and/or request for clarifications received relative to the RFP.
- .17 The right to negotiate the allocation of prices identified for specific portions of the work depicted within a Price Proposal.
- .18 The right to disqualify and/or cease negotiations with an Offeror if VDOT, in its sole discretion, determines that the Offeror's Post Notice of Intent to Award Submittals are not acceptable or its Price Proposal contains unbalanced pricing among the specific portions of work identified therein.

9.2 No Assumption of Liability

9.2.1 VDOT assumes no obligations, responsibilities, and liabilities, fiscal or otherwise, to reimburse all or part of the costs incurred or alleged to have been incurred by parties considering a response to and/or responding to this RFP. All of such costs shall be borne solely by each Offeror and its team members.

9.2.2 In no event shall VDOT be bound by, or liable for, any obligations with respect to the Project until such time (if at all) a contract, in form and substance satisfactory to VDOT, has been executed and authorized by VDOT and, then, only to the extent set forth therein.

10.0 PROTESTS

This Section simply summarizes protest remedies available with respect to the provisions of the Code of Virginia that are relevant to protests of awards or decisions to award Design-Build Contracts by VDOT. This section does not purport to be a complete statement of those provisions and is qualified in its entirety by reference to the actual provisions themselves.

In accordance with §2.2-4360, of the *Code of Virginia*, if an unsuccessful Offeror wishes to protest the award or decision to award a contract, such Offeror must submit a protest in writing to VDOT's POC no later than ten (10) calendar days after the award or the announcement posting the decision to award, whichever occurs first. The written protest shall

include the basis for the protest and the relief sought. No protest shall lie for a claim that the selected Offeror is not a responsible bidder.

Public notice of the award or the announcement of the decision to award shall be given by the public body in the manner prescribed in the terms or conditions of the Invitation to Bid or Request for Proposal. However, if the protest of any Offeror depends in whole or in part upon information contained in public records pertaining to the procurement transaction that are subject to inspection under § 2.2-4342, of the *Code of Virginia*, then the time within which the protest must be submitted shall expire ten (10) calendar days after those records are available for inspection by such Offeror under § 2.2-4342, of the *Code of Virginia*.

VDOT shall issue a decision in writing within ten (10) calendar days of the receipt of any protest stating the reasons for the action taken. This decision shall be final unless the Offeror appeals within ten (10) calendar days of receipt of the written decision, by instituting legal action in accordance with § 2.2-4364, of the *Code of Virginia*.

Pursuant to § 2.2-4362, of the *Code of Virginia*, an award need not be delayed for the period allowed a bidder or Offeror to protest, but in the event of a timely protest, no further action to award the Contract will be taken unless there is a written determination by the Commissioner, or his designee, that proceeding without delay is necessary to protect the public interest or unless the Design-Build Proposal would expire. Further, pursuant to § 2.2-4361, of the *Code of Virginia*, pending a final determination of a protest or appeal, the validity of the contract awarded and accepted in good faith shall not be affected by the fact that a protest or appeal has been filed.

11.0 MISCELLANEOUS

11.1 Virginia Freedom of Information Act

11.1.1 All Proposals submitted to VDOT become the property of VDOT and are subject to the disclosure requirements of Section 2.2-4342 of the Virginia Public Procurement Act and the Virginia Freedom of Information Act (“FOIA”) (Section 2.2—3700 et seq.). Offerors are advised to familiarize themselves with the provisions of each Act referenced herein to ensure that documents identified as confidential will not be subject to disclosure under FOIA. In no event shall the Commonwealth, the Commissioner of Highways, or VDOT be liable to an Offeror for the disclosure of all or a portion of a Proposal submitted pursuant to this request.

11.1.2 If a responding Offeror has special concerns about information which it desires to make available to VDOT but which it believes constitutes a trade secret, proprietary information, or other confidential information exempted from disclosure, such responding Offeror should specifically and conspicuously designate that information as such in its Proposal and state in writing why protection of that information is needed. The Offeror should make a written request to the Alternate Project Delivery Office. The written request shall:

- .1 Invoke such exemption upon the submission of the materials for which protection is sought.
- .2 Identify the specific data or other materials for which the protection is sought.
- .3 State the reasons why the protection is necessary.
- .4 Indicate that a similar process with the appropriate officials of the affected local jurisdictions is or will be conducted. Failure to take such precautions prior to submission of a Proposal may subject confidential information to disclosure under the Virginia FOIA.

11.1.3 Blanket designations that do not identify the specific information shall not be acceptable and may be cause for VDOT to treat the entire Proposal as public information. Nothing contained in this provision shall modify or amend requirements and obligations imposed on VDOT by applicable law, and the applicable law(s) shall control in the event of a conflict between the procedures described above and any applicable law(s).

11.1.4 In the event VDOT receives a request for public disclosure of all or any portion of a Proposal identified as confidential, VDOT will attempt to notify the Offeror of the request, providing an opportunity for such Offeror to assert, in writing, claimed exemptions under the FOIA or other Commonwealth law. VDOT will come to its own determination whether or not the requested materials are exempt from disclosure. In the event VDOT elects to disclose the requested materials, it will provide the Offeror advance notice of its intent to disclose.

11.1.5 Because of the confidential nature of the negotiation process associated with this Project, and to preserve the propriety of each Offeror's Proposal, it is VDOT's intention, subject to applicable law, not to consider a request for disclosure until after VDOT's issuance of a Notice of Intent to Award. Offerors are on notice that once a Design-Build Contract is executed, some or all of the information submitted in the Proposal may lose its protection under the applicable laws of the Commonwealth.

11.2 Conflict of Interest

11.2.1 Each Offeror shall require its proposed team members to identify potential conflicts of interest of a real or perceived competitive advantage relative to this procurement. Offerors are notified that prior or existing contractual obligations between a company and a federal or state agency relative to the Project or VDOT's design build program may present a conflict of interest or a competitive advantage. If a potential conflict of interest or competitive advantage is identified, the Offeror shall submit in writing the pertinent information to VDOT's POC.

VDOT, in its sole discretion, will make a determination relative to potential organizational conflicts of interest or a real or perceived competitive advantage, and its ability to mitigate such a conflict. An organization determined to have a conflict of interest or competitive

advantage relative to this procurement that cannot be mitigated, shall not be allowed to participate as a Design-Build team member for the Project. Failure to abide by VDOT's determination in this matter may result in a Proposal being declared non-responsive.

11.2.2 Conflicts of interest and a real or perceived competitive advantage are described in state and federal law, and, for example, may include, but are not limited to the following situations:

1. An organization or individual hired by VDOT to provide assistance in development of instructions to Offerors or evaluation criteria for the Project.
2. An organization or individual hired by VDOT to provide assistance in development of instructions to Offerors or evaluation criteria as part of the programmatic guidance or procurement documents for VDOT's Design-Build program, and as a result has a unique competitive advantage relative to the Project.
3. An organization or individual with a present or former contract with VDOT to prepare planning, environmental, engineering, or technical work product for the Project, and has a potential competitive advantage because such work product is not available to all potential Offerors in a timely manner prior to the procurement process.
4. An organization or individual with a present contract with VDOT to provide assistance in Design-Build contract administration for the Project.

11.2.3 VDOT reserves the right, in its sole discretion, to make determinations relative to potential conflicts of interest on a Project specific basis.

11.2.4 VDOT may, in its sole discretion, determine that a conflict of interest or a real or perceived competitive advantage may be mitigated by disclosing all or a portion of the work product produced by the organization or individual subject to review under this section. If documents have been designated as proprietary by Virginia law, the Offeror will be given the opportunity to waive this protection from disclosure. If Offeror elects not to disclose, Offeror may be declared non-responsive.

11.2.5 The firms listed below will not be allowed to participate as a Design-Build team member due to a conflict of interest:

- Woolpert, Inc.
- Cultural Resources, Inc.
- Williamsburg Environmental Group

11.3 Ethics in Public Contracting Act

VDOT may, in its sole discretion, disqualify the Offeror from further consideration for the award of the Design-Build Contract if it is found after due notice and examination by VDOT that there is a violation of the Ethics in Public Contracting Act, § 2.2-4367 of the *Code of Virginia*, or any similar statute involving the Offeror in the procurement of the contract.

11.4 Requirement to Keep Team Intact

The team proposed by Offeror, including but not limited to the Offeror's organizational structure, the lead contractor, the lead designer, Key Personnel, and other individuals identified pursuant to Part 1, Section 4.4.2, shall remain on Offeror's team for the duration of the procurement process and, if the Offeror is awarded the Design-Build Contract, the duration of the Design-Build Contract. If extraordinary circumstances require a proposed change, it must be submitted in writing to VDOT's POC, who, at his sole discretion, will determine whether to authorize a change. Unauthorized changes to the Offeror's team at any time during the procurement process may result in the elimination of the Offeror from further consideration.

11.5 Disadvantaged Business Enterprises

11.5.1 It is the policy of VDOT that Disadvantaged Business Enterprises ("DBEs"), as defined in 49 CFR Part 26, shall have every opportunity to participate in the performance of construction/consultant contracts. The DBE contract goal for this procurement is identified in Part 1, Section 4.1.8. Offerors are encouraged to take all necessary and reasonable steps to ensure that DBEs have every opportunity to compete for and perform services on contracts, including participation in any subsequent supplemental contracts. If a portion of the work on the Project is to be subcontracted out, Offerors must seek out and consider DBEs as potential subcontractors. DBEs must be contacted to solicit their interest, capability and qualifications. Any agreement between an Offeror and a DBE whereby the DBE promises not to provide services to any other Offeror or other contractors/consultants is prohibited.

11.5.2 If a DBE is not certified, the DBE must become certified with the Virginia Department of Minority Business Enterprises (VDMBE) prior to the Proposal Due Date. If the DBE is a prime, the firm will receive full credit for the planned involvement of their own workforce, as well as the work they commit to be performed by DBE subcontractors. DBE primes are encouraged to make the same outreach. DBE credit will be awarded only for work actually performed by DBEs themselves. When a DBE prime or subcontractor subcontracts work to another firm, the work counts toward the DBE goals only if the other firm itself is a DBE. A DBE must perform or exercise responsibility for at least 30% of the total cost of its contract with its own workforce.

11.5.3 DBE certification entitles a firm to participate in VDOT's DBE Program. However, it does not guarantee that the firm will obtain VDOT work nor does it attest to the firm's abilities to perform any particular type of work.

11.5.4 This Project has federal funding. In accordance with the Governor's Executive Order No. 33, VDOT requires utilization of Small, Women and Minority (SWaM) Businesses to

participate in the performance of state funded projects. VDOT also encourages the utilization of SWaM Firms to participate in the performance of federally funded projects. A list of the DMBE certified SWaM firms is maintained on the DMBE web site (<http://www.dmb.state.va.us/>) under the SWaM Vendor Directory link. Offerors are encouraged to take all necessary and reasonable steps to ensure that SWaM firms have the maximum opportunity to compete for and perform services in the Design-Build contract. If the Offeror intends to subcontract a portion of the services on the Project, the Offeror is encouraged to seek out and consider SWaM firms as potential subconsultants. The Offeror is encouraged to contact SWaM firms to solicit their interest, capability and qualifications. Any agreement between an Offeror and a SWaM firm whereby the SWaM firm promises not to provide services to other Offerors is prohibited.

11.5.5 When preparing bids for projects with DBE goals, VDOT encourages prospective bidders to seek the assistance of the following offices:

Virginia Department of Minority Business Enterprises
1111 East Main Street, Suite 300
Richmond, VA 23219
Phone: (804) 786-6585
<http://www.dmb.state.va.us/>

Metropolitan Washington Airports Authority
Equal Opportunity Programs Department
1 Aviation Circle
Washington, DC 20001
Phone: (703) 417-8625
www.metwashairports.com

Contractors are also encouraged to seek help from the VDOT Districts Equal Employment Opportunity (EEO) Offices, Central Office Civil Rights Office and the VDOT Business Opportunity and Workforce Development (BOWD) Center as listed below:

VDOT Central Office
1221 East Broad Street
Richmond, VA 23219
(804) 786-2085

Lynchburg District
4219 Campbell Avenue
Lynchburg, VA 24506
(434) 856-8168

Bristol District
870 Bonham Drive
Bristol, VA 24203
(276) 669-9907

Northern Virginia District
4975 Alliance Drive
Fairfax, VA 22030
(703) 259-1775

Culpeper District
1601 Orange Road

Richmond District
2430 Pineforest Drive

Culpeper, VA 22701
(540) 829-7523

Colonial Heights, VA 23834
(804) 524-6091

Fredericksburg District
87 Deacon Road
Fredericksburg, VA 22405
(540) 899-4562

Salem District
731 Harrison Avenue
Salem, VA 24153
(540) 387-5453

Hampton Roads District
1700 N. Main Street
Suffolk, VA 23434
(757) 925-2519

Staunton District
811 Commerce Road
Staunton, VA 24401
(540) 332-7888

BOWD
1602 Rolling Hills Drive
Suite 110
Richmond, VA 23229
Phone: (804) 662-9555

The following informational websites may also be of assistance:

www.virginiadot.org/business/bu_bizDev.asp

www.virginiadot.org/business/bu-civil-rights-home.asp

11.6 Trainee and Apprenticeship Participation

11.6.1 VDOT will require trainee and apprenticeship participation for this Project. The on-the-job trainee goal for this Project is four (4) individuals.

11.7 Escrow Proposal Documents

11.7.1 Scope

Pursuant to Part 1, Section 11.7.5.1 below, the Successful Offeror shall submit to the individual set forth in Part 1, Section 6.1.1 above, on the Post Notice of Intent Submittal Due Date, one copy of all documentary information generated in preparation of its Proposal. This material is hereinafter referred to as Escrow Proposal Documents (EPDs). The EPDs will be held in a secure location at the VDOT Central Office until immediately prior to award of the Project. The EPDs of the Successful Offeror will be transferred to and then held in escrow at the banking institution specified in this Section 11.7.6.

An Escrow Proposal Documents Submission Checklist has been provided for reference in Attachment 11.7.1

11.7.2 Ownership

- .1 The EPDs are, and shall always remain, the property of the Successful Offeror, subject to joint review by VDOT and the Successful Offeror, as provided herein.
- .2 VDOT stipulates and expressly acknowledges that the EPDs constitute trade secrets. This acknowledgement is based on VDOT's express understanding that the information contained in the EPDs is not known outside Successful Offeror's business, is known only to a limited extent and only by a limited number of employees of the Successful Offeror, is safeguarded while in Successful Offeror's possession, is extremely valuable to Successful Offeror and could be extremely valuable to Successful Offeror's competitors by virtue of its reflecting Successful Offeror's contemplated techniques of design and construction. VDOT further acknowledges that Successful Offeror expended substantial sums of money in developing the information included in the EPDs and further acknowledges that it would be difficult for a competitor to replicate the information contained therein. VDOT further acknowledges that the EPDs and the information contained therein are made available to VDOT only because such action is an express prerequisite to Award of Contract. VDOT further acknowledges that the EPDs include a compilation of the information used in Successful Offeror's business, intended to give Successful Offeror an opportunity to obtain an advantage over competitors who do not know of or use the contents of the documentation.

11.7.3 Purpose

EPDs may be used to assist in the negotiation of price adjustments and change orders and in the settlement of disputes and claims.

11.7.4 Format and Contents

- .1 Successful Offerors may submit EPDs in their usual cost estimating format provided that all information is clearly presented and ascertainable. It is not the intention of this Section 11.7 to cause the Successful Offeror extra work during the preparation of the Proposal, but to ensure that the EPDs will be adequate to enable complete understanding and proper interpretation for their intended use. The EPDs shall be submitted in the language (i.e., English) of the Specifications.
- .2 It is required that the EPDs clearly itemize the estimated costs of performing the work of each item contained in Successful Offeror's schedule of values. Cost items shall be separated into sub-items as required to present a detailed cost estimate and allow a detailed cost review. The EPDs shall include: estimates for costs of the design professionals and consultants itemized by discipline both for development of the design, all quantity take-offs, crew size and shifts, equipment, calculations of rates of

- production and progress, copies of quotes from subcontractors and suppliers, and memoranda, narratives, drawings and sketches showing site or work area layouts and equipment, add/deduct sheets, geotechnical reviews and consultant reports, and all other information used by the Successful Offeror to arrive at the prices contained in the Proposal. Estimated costs shall be broken down into estimate categories for each bid items such as direct labor, repair labor, equipment ownership and operation, expendable materials, permanent materials and subcontract costs as appropriate. Plant and equipment, indirect costs, bond rates and calculations, insurance costs and financing should be detailed. The Successful Offeror's allocation of indirect costs, contingencies, and mark-up shall be identified.
- .3 All costs shall be identified. For bid items amounting to less than \$10,000, estimated unit costs are acceptable without a detailed cost estimate, provided that labor, equipment, materials and subcontracts, as applicable, are included, and provided that indirect costs, contingencies, and mark-up, as applicable, are allocated.
 - .4 RFP Documents provided by VDOT should not be included in the EPDs unless needed to comply with these requirements.

11.7.5 Submittal

- .1 The EPDs shall be submitted in a sealed container to the individual set forth in Section 6.1.1 above, which container shall be clearly marked on the outside with the Offeror's name, date of submittal, Project name, and the words "Escrow Proposal Documents."
- .2 Prior to Award of Contract, EPDs of the Successful Offeror will be transferred to the banking institution referenced in Section 11.7.6 and will be examined, organized, and inventoried by representatives of VDOT, together with members of the Successful Offeror's staff who are knowledgeable in how the Proposal was prepared. This examination is to ensure that the EPDs are legible and complete. It will not include review of, and will not constitute approval of proposed construction methods, estimating assumptions, or interpretations of any RFP Documents or the Design-Build Contract. Examination will not alter any condition or term of the Design-Build Contract.
- .3 If all the documents required by this section, Part 1, Section 11.7, have not been included in the original submittal, additional documentation may be submitted, at VDOT's discretion, prior to Award of Contract.
- .4 If the Design-Build Contract is not awarded to the Successful Offeror, the EPDs of the next Offeror to be considered for award shall be processed as described above.

- .5 Timely submission of complete EPDs is an essential element of the Successful Offeror's responsibility and a prerequisite to Award of Contract.
- .6 If Successful Offeror's Proposal is based upon subcontracting any part of the work, each subcontractor whose total subcontract price exceeds ten percent (10%) of the Total Proposal Price proposed by the Successful Offeror, shall provide separate Escrow Documents to be included with those of the Successful Offeror. Such documents shall be opened and examined in the same manner and at the same time as the examination described above for the Successful Offeror.
- .7 If the Design-Builder wishes to subcontract any portion of the work after Award of Contract, VDOT retains the right to require the Design-Builder to submit Escrow Documents from the subcontractor before the subcontract is approved.

11.7.6 Storage

The Successful Offeror's EPDs shall be stored at SunTrust Bank at the following address:

SunTrust Bank
ATTN: Charles Henderson
919 East Main Street, 7th Floor
Richmond, Virginia 23219
(804) 782-7087

The cost for storing the EPDs will be paid by the Successful Offeror.

11.7.7 Examination

- .1 The EPDs shall be examined by VDOT and the Design-Builder, at any time deemed necessary by VDOT.
- .2 VDOT may delegate review of EPDs to members of VDOT's staff or consultants. The foregoing notwithstanding, the EPDs and information contained therein may be used in the resolution of any claim or dispute before any entity selected to resolve disputes and in any litigation or arbitration commenced hereunder. No other person shall have access to the EPDs.
- .3 Access to the documents will take place in the presence of duly designated representatives of both VDOT and the Design-Builder, except that, if the Design-Builder refuses to be present or to cooperate in any other way in the review of the documents, VDOT may upon notice to the Design-Builder, review such documents without the Design-Builder being present.

11.7.8 Final Disposition and Return of EPDs

The EPDs of the Successful Offeror will be returned to the Design-Builder at such time as the Design-Build Contract has been completed, final payment has been made, and all claims or disputes arising under or related to the Design-Build Contract have been fully and finally resolved and/or adjudicated.

11.7.9 Execution of Escrow Agreement

The Successful Offeror, as a condition of Award of Contract, agrees to execute the Escrow Agreement in the form set forth in Attachment 11.7.9.

11.8 Administrative Requirements

In addition to the specific submittal requirements set forth in Sections 3.0 and 4.0 above, all Offerors shall comply with the following:

11.8.1 All business entities, except for sole proprietorships, are required to be registered with the Virginia State Corporation Commission (a Business Registration Guide is available on the Internet at <http://www.state.va.us/scc/division/clk/brg.htm>). Foreign Professional Corporations and Foreign Professional Limited Liability Companies must possess a Commonwealth of Virginia Certificate of Authority from the State Corporation Commission to render professional services. Any business entity other than a professional corporation, professional limited liability company or sole proprietorship must be registered in the Commonwealth of Virginia with the Department of Professional & Occupational Regulation, Virginia Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Decorators and Landscape Architects (http://www.dpor.virginia.gov/dporweb/ape_reg.pdf). Board regulations require that all professional corporations and business entities that have branch offices located in Virginia which offer or render any professional services relating to the professions regulated by the Board be registered with the Board. Registration involves completing the required application and submitting the required registration fee for each and every branch office location in the Commonwealth. All branch offices that offer or render any professional service must have at least one full-time resident professional in responsible charge that is licensed in the profession offered or rendered at each branch. All firms involved that are to provide professional services must meet this criteria prior to a contract being executed by VDOT.

11.8.2 VDOT will not consider for award any Proposals submitted by any Offerors and will not consent to subcontracting any portions of the proposed Design-Build Contract to any subconsultants in violation of the provisions of the Federal Immigration Reform and Control Act of 1986, which prohibits employment of illegal aliens.

11.8.3 All Offerors must have internal control systems in place that meet federal requirements for accounting. These systems must comply with requirements of 48 CFR 31, “Federal Acquisition Regulations, Contract Cost Principles and Procedures,” and 23 CFR 172, “Administration of Engineering and Design Related Service Contracts.”

11.8.4 VDOT assures compliance with Title VI of the Civil Rights Act of 1964, as amended. The consultant and all subconsultants selected for this Project will be required to submit a Title VI Evaluation Report (EEO-D2) when requested by VDOT to respond to the RFP. This requirement applies to all consulting firms with fifteen (15) or more employees.

11.8.5 VDOT does not discriminate against an Offeror because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment.

11.8.6 Offerors shall note and comply with the requirements relative to the eVA Business-to-Government Vendor system. The eVA Internet electronic procurement solution, web site portal (<http://www.eva.state.va.us>), streamlines and automates government purchasing activities in the Commonwealth. The portal is the gateway for vendors to conduct business with state agencies and public bodies. All vendors desiring to provide goods and/or services to the Commonwealth shall participate in the eVA Internet e-procurement solution through either eVA Basic Vendor Registration Service or eVA Premium Vendor Registration Service. For more detailed information regarding eVA, registrations, fee schedule, and transaction fee, use the website link: <http://www.eva.state.va.us>. All Offerors must register in eVA; failure to register will result in a Proposal being rejected.

11.8.7 The required services may involve the handling of Critical Infrastructure Information/ Sensitive Security Information (“CII/SSI”) material. Personnel handling CII/SSI material, visiting Critical Infrastructure (“CI”) facilities or performing bridge/tunnel inspections are required to sign CII/SSI Non-Disclosure Agreements and pass a fingerprint-based Criminal History Background Check (“CHBC”). An individual employee’s failure to successfully pass the fingerprint-based CHBC will not negate the selection and Offerors will be allowed to replace those individuals. VDOT reserves the right to conduct fingerprint-based CHBC on all employees of the Design-Builder’s team members, or on any proposed replacements during the term of the contract who will be involved in this Project. All costs associated with the fingerprint-based CHBC are the responsibility of the Offeror or Design-Builder. A VDOT issued photo-identification badge is required for each employee of the Offeror’s or Design-Builder’s team who will need access to VDOT CI facilities or who will be performing bridge/tunnel inspections. Based upon the results of the fingerprint-based CHBC, VDOT reserves the right to deny access to CII/SSI material and issuance of a VDOT security clearance or a VDOT issued photo-identification badge.

CII/SSI material includes bridge inspection reports. Bridge inspection reports are not included in the Information Package and CII/SSI Non-Disclosure Agreements are not required to respond to the RFP. Firms desiring to obtain a copy of the bridge inspection report must complete a CII/SSI Non-Disclosure Agreement Form (Attachment 11.8.7).

11.9 Compliance with the Law in Virginia

Failure to comply with the law with regard to those legal requirements in Virginia (whether federal or state) regarding your ability to lawfully offer and perform any services proposed or related to the Project may render your RFP submittal, in the sole and reasonable discretion of VDOT, non-responsive and/or non-responsible, and in that event your RFP submittal may be returned without any consideration for selection of contract award.

11.10 Attachments

The following attachments are specifically made a part of, and incorporated by reference into, these Instructions for Offerors:

- EXHIBIT 1 TO PART 3 -- PROJECT SPECIFIC TERMS
- ATTACHMENT 2.6 -- RFP INFORMATION PACKAGE ORDER FORM
- ATTACHMENT 3.4 -- FORM C-78-RFP (ACKNOWLEDGEMENT OF RECEIPT OF RFP, REVISIONS, AND/OR ADDENDA)
- ATTACHMENT 4.0.1.1 -- LETTER OF SUBMITTAL CHECKLIST
- ATTACHMENT 4.0.1.2 -- PRICE PROPOSAL SUBMITTAL CHECKLIST
- ATTACHMENT 4.2.1 -- AFFILIATED/ SUBSIDIARY COMPANIES LIST
- ATTACHMENT 4.2.2(a) -- CERTIFICATION REGARDING DEBARMENT (PRIMARY COVERED TRANSACTIONS)
- ATTACHMENT 4.2.2(b) -- CERTIFICATION REGARDING DEBARMENT (LOWER TIER COVERED TRANSACTIONS)
- ATTACHMENT 4.2.5 -- LICENSE AND REGISTRATION INFORMATION - BUSINESSES
- ATTACHMENT 4.2.6(a) -- LEAD CONTRACTOR WORK HISTORY FORM
- ATTACHMENT 4.2.6(b) -- LEAD DESIGNER WORK HISTORY FORM
- ATTACHMENT 4.3.1 -- PRICE PROPOSAL FORM
- ATTACHMENT 4.3.4(a) -- FORM C-104 (BIDDER'S STATEMENT)
- ATTACHMENT 4.3.4(b) -- FORM C-105 (BIDDER'S CERTIFICATION)
- ATTACHMENT 4.3.5(a) -- FORM C-111 (MINIMUM DBE REQUIREMENTS)
- ATTACHMENT 4.3.5(b) -- FORM C-49 (DBE GOOD FAITH EFFORTS DOCUMENTATION)
- ATTACHMENT 4.3.5(c) -- FORM C-112 (CERTIFICATION OF BINDING AGREEMENT FORM)
- ATTACHMENT 4.4.2 -- KEY PERSONNEL RESUME FORM
- ATTACHMENT 4.4.3 -- LICENSE AND REGISTRATION INFORMATION - INDIVIDUALS
- ATTACHMENT 4.4.6 -- SCHEDULE OF ITEMS FORM
- ATTACHMENT 11.7.1 -- ESCROW PROPOSAL DOCUMENTS CHECKLIST
- ATTACHMENT 11.7.9 -- ESCROW AGREEMENT FORM
- ATTACHMENT 11.8.7 -- CII/SSI NON-DISCLOSURE AGREEMENT FORM

END OF PART 1
INSTRUCTIONS FOR OFFERORS

ATTACHMENT 3.4

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

RFP NO. C00103665DB73
PROJECT NO.: 0005-043-714, P101, R201, C501, B601-B608

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 3.4, 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:

1. Cover letter of December 13, 2013 – RFP
(Date)
2. Cover letter of January 24, 2014 – Addendum No. 1
(Date)
3. Cover letter of _____
(Date)

SIGNATURE

DATE

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PART 2

TECHNICAL INFORMATION & REQUIREMENTS

1.0 DESIGN-BUILDER'S SCOPE OF WORK

1.1 Project Description

The Project is located in Henrico County, Virginia and includes the design and construction of the Virginia Capital Trail from approximately 0.10 miles east of Wood Mill Drive to 0.22 miles west of Rocky Hill Drive. The proposed trail alignment proceeds north from Route 5 until it reaches Kinvan Road where for approximately 0.10 miles the road shoulder will be widened for trail use. The Trail will proceed north and east through Dorey and Four Mile Run Parks, crossing under I-295 at Four Mile Creek, and then proceeds southward passing through the existing Four Mile Creek Park parking lot and tying back into the Varina Phase of the Trail parallel to Route 5. The total length for the Park Phase of the Virginia Capital Trail is approximately 3.5 miles. It is noted that the description and length are approximate only and are based on the conceptual plans shown in the RFP Information Package. The final Project length may vary depending on the Design-Builder's final design; however, any change in the project limits requires approval by VDOT.

A conceptual design has been developed and made available for public review via a Design Public Hearing held on October 10, 2013. The major design features of the Project were approved by the Chief Engineer on December 5, 2013. The conceptual design contained in the RFP Information Package reflects a basic line, grade, typical sections, major cross drainage pipes, and conceptual bridge plans. These elements are considered to be the basic Project configuration. The Design- Builder is responsible for final design in accordance with the Contract Documents.

1.2 Anticipated Scope of Work

The anticipated scope of work to be undertaken by the Design-Builder under the Design-Build contract for this Project will include, but is not limited to:

- Survey
- Developing and completing the design of all aspects of the Project
- Acquiring the necessary environmental permits
- Acquiring rights of way
- Coordinating and performing, or causing to be performed, required utility relocations, additions, and adjustments
- Roadway construction
- Milling and overlaying and/or building up of existing pavement
- Bridge construction
- Guardrail/barrier

- Signs and sign structures
- Traffic maintenance and management during all phases of construction
- Pavement markers and markings
- Storm drainage
- Erosion and Sediment Control
- Stormwater management
- Quality Assurance and Quality Control for design and construction
- Stakeholder coordination and public outreach
- Overall Project management and coordination with other active construction projects in the vicinity.

Descriptions and technical requirements of the anticipated work are set forth in Part 2, Section 2.

1.3 Anticipated Design Services

Design services shall address all items necessary for construction and operation of the completed facility. Design services are anticipated to include, but are not limited, those services necessary to produce Multi-use Trail, roadway and bridge construction plans relative to the technical disciplines listed in Part 2, Section 1.2 above. Other data collection and technical studies anticipated include, but are not necessarily limited to: geotechnical investigation, borings and analysis, materials analysis, pavement design, additional environmental studies, and hydraulic and hydrologic analysis. Offerors should note that all work performed on this Project shall be completed using English Units.

1.4 Anticipated Environmental Services

The Design-Builder shall carry out environmental commitments during design and construction, as applicable, as identified in the Categorical Exclusion (CE) dated September 12, 2013; the Preliminary Plans, the Specifications, and Estimates (PS&E) Re-evaluation Authorization (EQ-200); and the Preliminary Environmental Certification/Commitments Checklist (EQ-103). All commitment compliance shall be supported by the appropriate documentation, to be provided by the Design-Builder to the VDOT Project Manager. Further details are provided in Section 2.4.

The Design Builder shall acquire all water quality permits for the Project in the Design-Builder's name (i.e. the Design-Builder will be the "Permittee") and shall provide for any necessary stream and/or wetland compensation required by permits to accomplish the work.

The Design-Builder will be responsible for compliance with pre-construction and construction-related environmental commitments and permits conditions. The Design-Builder will assume all obligations and costs incurred by complying with the terms and conditions of the permits and certifications. Any fines associated with the environmental permit or regulatory violations will be the responsibility of the Design-Builder.

Any changes in scope or project footprint from that contained in the Contract Documents proposed by the Design-Builder, which are acceptable to VDOT, may require additional environmental technical studies and analysis to be performed by the Design Builder at their cost. VDOT will be responsible for the coordination of any NEPA document re-evaluations with FHWA. The Design-Builder shall then carry out any additional environmental commitments that result from such coordination at its sole expense and at no additional cost and/or time delays to the Project.

1.5 Anticipated Right of Way and Utilities

The Offeror's conceptual design included in its Proposal shall be wholly contained within the right of way limits shown on the RFP Conceptual Plans, with the exception of temporary construction, permanent drainage, and utility easements (other than permanent drainage easements for stormwater management facilities). Utility easements have not yet been identified or shown on the RFP Conceptual Plans. Deviations from the proposed right of way limits shown on the RFP Conceptual Plans will be subject to VDOT approval in accordance with Part 1 (Instruction to Offerors), Sections 2.7 and 2.8. For rights of way owned by Henrico County a Memorandum of Agreement with Henrico County for the conveyance of rights of way to VDOT for the construction of the Trail has been prepared and will be executed before Notice to Proceed is issued to the Successful Offeror.

The Design-Builder's final design shall also be contained within the right of way limits shown on the RFP Conceptual Plans, with the exception of temporary construction, permanent drainage, and utility easements (other than permanent drainage easements for stormwater management facilities) and where minor adjustments are required during the final design process, and only after approval by VDOT. If the Design-Builder proposes significant change to the right of way limits shown on the RFP Conceptual Plans, then this shall be considered a deviation of the Contract Documents and shall be addressed as described in Part 2, Section 2.0.

The Design-Builder's services shall include all work necessary for right of way acquisitions and to perform utility coordination, relocations, and/or adjustments as required by the Project. All right of way acquisition costs (compensation paid to landowners for right of way or permanent easement) will be paid by VDOT, and shall not be included in the Offeror's Price Proposal. All costs for utility relocations, excluding betterments, shall be included in the Offeror's Price Proposal. Utility betterments shall not be included in the Offeror's Price Proposal but shall be reimbursed to the Design-Builder through agreement with the requesting utility owner. Betterments must be requested by and/or approved by the affected utility owner and must meet Buy America requirements as described in Part 5, Exhibit 102.05(g.1) Use of Domestic Material.

1.6 Anticipated Construction Services

The construction services to be undertaken by the Design-Builder for this Project are anticipated to include, but are not limited to: earthwork, Multi-use Trail, roadway, bridge and structures (including all necessary excavation, foundation work, substructure work, and superstructure work), the demolition and removal of portions of the existing pavements, milling

and overlaying or building up of existing pavement, drainage, utility coordination, transportation management plan, traffic control devices, erosion and sediment control, and compliance with all environmental requirements, commitments and permit conditions, as described in Part 2, Section 2 of this RFP. The Design-Builder shall provide construction engineering inspection and management, quality assurance and quality control, including plant quality assurance inspection and testing, but excluding items listed under Part 2, Section 2.14.2.

1.7 Coordination with Active Construction Projects

The Design-Builder shall be responsible for coordinating with contractors of other active construction projects in the vicinity of the Park Phase of the Virginia Capital Trail Project in accordance with Section 3.6 of Part 4. The Design-Builder shall organize and conduct joint meetings (to which VDOT shall be invited) on a quarterly basis at a minimum, or as requested by VDOT. The ultimate purpose of these meetings is to facilitate achievement of the Virginia Capital Trail Project construction program milestones. It is expected that progress milestones will be jointly developed and mutually agreed to by the Design-Builder and Contractor for the project listed below.

Varina Phase of the Virginia Capital Trail

Location: From the Almond Creek Bridge to approximately 0.10 miles east of Wood Mill Drive and approximately from 0.16 miles west of Four Mile Creek to approximately 0.14 miles west of Long Bridge Road

Project No.: 0005-043-714, P101, R201, C501 (UPC # 86280)

Status: Design-Build contract was awarded in January 2013

VDOT Contact: David A. Steele, P.E. (804) 441-3490

David.Steele@VDOT.Virginia.gov

2.0 PROJECT TECHNICAL INFORMATION & REQUIREMENTS

The Offeror's proposed conceptual design shall meet all requirements of the RFP. Any proposed deviations from the requirements of the RFP Documents by the Offerors shall be in accordance with Part 1 (Instruction to Offerors), Sections 2.7 and 2.8.

The Design-Builder's final design shall meet or exceed all requirements included in the Contract Documents, except under the following conditions. If the Design-Builder proposes any deviation that results in a modification to the Contract Documents then the Design-Builder shall follow the Value Engineering Proposals (VEP) process as described in Section 104.02 of Division I Amendments to the Standard Specifications (Part 5) (even though the proposed deviations may not qualify as a VEP), unless otherwise directed by VDOT. Ultimately, any modification to the Contract Documents requires VDOT approval.

2.1 References and Information

The design and construction work for the Project shall be performed in accordance with the applicable federal and state laws and VDOT Standards, Specifications and Reference Documents to include, but not limited to the documents listed herein. The Design-Builder must

verify and use the latest version of the documents listed herein as of the date of the RFP or latest Addenda. The Design-Builder must meet or exceed the minimum roadway design standards and criteria.

2.1.1 Standards and Reference Documents

If during the course of the design, the Design-Builder determines that a specific Standard, Specification or Reference Document is required but is not listed herein, it is the responsibility of the Design-Builder to identify the pertinent Standard, Specification, or Reference Document and submit to VDOT for review and approval prior to inclusion in the Contract Documents.

The VDOT 2007 Road and Bridge Specifications, and its associated Special Provision Copied Notes, contain pricing language under sections entitled “Measurement and Payment” that is not applicable in the Design-Build context of this RFP. Thus, in accordance with the hierarchy of documents, the Design-Builder will refer to Part 3, Articles 6 and 7, Part 4, Article 6, and applicable portions of the Division I Amendments (Part 5) to the Standard Specifications for more information regarding the pricing and payment to the Design-Builder. Similarly, other references below which contain pricing methodologies for the “Contractor” shall likewise not be used. The requirements as described in the text of Part 2 herein take precedence over the referenced documents listed below, unless otherwise indicated.

The standards and references for the Project are listed below in the following order: (a) Standards and Specifications; (b) Reference Manuals; (c) Special Provisions List including Special Provisions, Special Provision Copied Notes and Supplemental Specifications. Items (a) and (b) are published references that are available publicly, for which copies are not provided to the Offerors in the RFP Information Package, but these items are to be used as manuals for design and construction. Items listed in (c) are included in the RFP Information Package.

(a) Standards and Specifications

- AASHTO Design Standards
- VDOT Road Design Manual
- VDOT Road and Bridge Standards
- VDOT Road and Bridge Specifications
- VDOT Instructional and Informational Memorandum (IIM)
- VDOT Minimum Standards of Entrances to State Highways
- TRB Highway Capacity Manual

(b) Reference Manuals

- VDOT Drainage Manual (including current Errata Sheet)
- VDOT Hydraulic Design Advisories (all current)
- VDOT Stormwater Program Advisories (all current)
- VDOT CADD Manual (Version 2009)

- VDOT Minimum Requirements for QA/QC on Design Build and PPTA Projects, January 2012
- VDOT Guardrail Installation Training Manual (GRIT) May 2011
- VDOT Instructional & Information Memorandums (I&IM) All Divisions
 - Location and Design Division
 - Structure and Bridge Division
 - Traffic Division
 - Materials Division
- VDOT Policy Manual for Public Participation in Transportation Projects
- VDOT Road and Bridge Standards, Vol. 1 and Vol. 2 (2008) including all revisions
- VDOT Road Design Manual, Vol. I
- Commonwealth of Virginia Survey Manual
- VDOT Traffic Engineering Design Manual
- Field Guide for Partnering for VDOT Projects
- Guidelines for the Installation of In-Roadway Warning Lights
- Guidelines for the Installation of Marked Crosswalks
- VDOT Materials' Approved Lists
- VDOT Manual of Instructions for the Materials Division
- VDOT Materials' Virginia Test Methods
- VDOT Post Construction Manual
- VDOT 2007 Road and Bridge Specifications, including all revisions
- VDOT 2007 Road and Bridge Specification, Project Spec Guide
- VDOT Construction Manual
- Manual of Uniform Traffic Control Devices (MUTCD) (2009)
- Virginia Supplement to MUTCD (2011)
- VDOT Virginia Work Area Protection Manual (2011)
- VDOT Structure and Bridge Manuals; Volume V – series
- VDOT Modifications to AASHTO LRFD Bridge Design Specifications
- Procedures for Inventory and Inspection of Traffic Control Device Structures, 2006
- VDOT Right of Way Manual of Instruction (January 2011)
- VDOT Utilities Manual of Instruction (January 2011)
- VDOT Current Land Use Permit Manual
- VDOT Guidelines for 1993 AASHTO Pavement Design, Revised – May 2003
- VDOT Construction Inspection Manual (April 2008)
- VDOT Design-Build Template Part 3, 4 and 5 Documents (May 2010)
- Access Board Revised Draft Guidelines for Accessible Public Rights-of-Way (November 2005)
- AASHTO Guide for the Development of Bicycle Facilities, 2012
- AASHTO A Policy on Geometric Design of Highways and Streets, 2011
- AASHTO A Policy on Design Standards Interstate System, January 2005
- AASHTO Roadside Design Guide, Fourth Edition, 2011 (updated Chapter 6)
- AASHTO LRFD Bridge Design Specifications, 6th Edition, 2012

- AASHTO LRFD Guide Specifications for Design of Pedestrian Bridges, 2nd Edition, 2009
- AASHTO Minimum Requirements for Design level Geotechnical Investigations, 2004
- AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries, and Traffic Signals, 3rd 1994
- AASHTO Guide for Design of Pavement Structures (Rigid Pavement and Flexible Pavement) (1993 Edition)
- AASHTO Guide for Protective Screening of Overpass Structures (1990)
- USDOT FHWA Standard Highway Signs
- National Electric Code (NEC) latest adopted edition
- National Electric Safety Code (NEC) latest edition
- DCR Virginia Stormwater Management Handbook, Volume I and II (First Edition – 1999)
- DCR Virginia Erosion and Sediment Control Handbook (Third Edition – 1992)
- American Water Works Associations Standards
- Americans with Disabilities Act Accessibility Guidelines for State and Local Government Facilities
- Transportation Research Board Highway Capacity Manual (2000)
- Duncan, J.M. (April 2000) Factors Of Safety And Reliability In Geotechnical Engineering, Journal of Geotechnical and Geoenvironmental Engineering, ASCE, Discussions and Closure August 2001
- Special Provision for Minimum Requirements for QA & QC for Design-Build and PPTA Projects, dated January 25, 2010
- Guideline for Planting Along Virginia’s Roadways dated March 2007
- Chief Engineer’s Memo for Guidance for Planting in the Clear Zone and Landscaping for VDOT Projects dated November 2, 2000
- Guidelines for Context Sensitive Solutions/Design dated February 25, 2004
- FHWA 23 CFR 752 Landscaping and Roadside Development
- Special Provision Copied Note for Personnel Requirements for Work Zone Traffic Control (12/2/09)

(c) Special Provisions List, Special Provision Copied Notes and Supplemental Specifications

Division 1: General Provisions

- SPCN c100ai03 General Project Requirements, Supplemental Specifications (SSs), Special Provisions (SPs) and Special Provision Copied Notes (SPCNs), 12-1-2011 (SPCN)
- Special Provision for Project Communication and Decision Making for Design-Build Projects, January 3, 2005c, Reissued August 2009
- Special Provision for Section 105.02 – Plans and Working Drawings, June 13, 2007
- Special Provision for Volatile Organic Compounds (VOC) Emissions Control Areas (S107E02-0910), August 12, 2010

- S107G01-0309 Storm Water Pollution Prevention Plan (SWPPP) General Permit for the Discharge of Stormwater from Construction Activities Contractor and Subcontractor Certification Statement, February 19, 2009
- SPCN c105hf1-0309 Subcontracting, December 19, 2008

Division 2: Materials

- SPCN c211fg0-0708 Surface and Intermediate Mixes Using RAP, September 24, 2007, reissued July 2008
- Special Provision for Density Control of Embankments and Backfill, September 6, 2002, Revised November 26, 2006
- Special Provision for Elastic Inclusion for Design-Build Projects, November 24, 2009
- SS21107-0211 Supplemental Section 211 – Asphalt Concrete, October 2010
- SS21201-0908 Supplemental Section 212 – Joint Materials, January 17, 2008
- SS21402-0908 Supplemental Section 214 – Hydraulic Cement, January 28, 2008
- SS21501-0908 Supplemental Section 215 – Hydraulic Cement Concrete Admixtures, January 28, 2008
- SS21704-0610 Supplemental Section 217 – Hydraulic Cement Concrete, April 12, 2010
- SS22401-0908 Supplemental Section 224 – Castings, November 15, 2007
- SS23802-0609 Supplemental Section 238 – Electrical and Signal Components, March 4, 2008
- Special Provision for Design-Build Tracking (DBT) Numbers for Design Build Projects, December 8, 2009
- SS31507-1211 Supplemental Section 315 – Asphalt Concrete Placement, July 19, 2011
- Special Provision for Lime Modification of Soils for Design-Build Projects, November 23, 2009
- SS30601-0609 Supplemental Section 306 – Lime Stabilization, October 2, 2008
- Special Provision for Nontracking Tack Coat Design-Build Projects, December 7, 2009
- Special Provision for Sidewalks, Steps, and Handrails, March 30, 2011

Division 3: Roadway Construction

- SPCN c302h00-0708 Precast Drainage Structures, January 14, 2008
- Special Provision for Section 301 – Clearing and Grubbing, November 15, 2006
- Special Provision for Section 302.03(a)1 – Jack and Bore for Design-Build Projects, October 13, 2009
- Special Provision for Section 302.03(a)3 – Micro Tunneling for Design-Build Projects, September 14, 2009
- Special Provision for Flowable Backfill (S302G02-0610), March 11, 2010
- Special Provision for Restoring Existing Pavement (S302B00-0708), January 14, 2008c

- Special Provision for Section 315 – Asphalt Concrete Pavement Design Build Projects, November 25, 2009
- Special Provision for Rideability of Stone Matrix Asphalt Concrete Pavement (Section 317), Revised June 28, 2012
- Special Provision for Pipe Culvert Replacement or Rehabilitation, March 26, 2008
- Special Provision for Right of Way Monumentation and Final Boundary Stakeout, December 2, 2009a
- Special Provisions for Powder Coating, August 14, 2009
- SS30203-0412 Supplemental Section 302 – Drainage Structures, January 24, 2012
- SS30505-0911, Supplemental Section 303 – Earthwork, May 20, 2011c
- SS31704-1210 Supplemental Section 317 – Stone Matrix Asphalt (SMA), October 13, 2010
- SS23202-1210 Supplemental Section 232 – Pipe and Pipe Arches, July 29, 2010

Division 4: Bridges and Structures

- Special Provision for Dynamic Pile Testing for Friction Piles for LRFD for Design-Build and PPTA Contracts, December 10, 2009

Division 5: Incidental Construction

- Special Provision for Section 514- Field Office, Design-Build Projects, November 24, 2009
- Special Provision for Work Zone Traffic Control Management Design-Build Projects, January 14, 2008. revised November, 2009
- Special Provision for Cold Planing (Milling) Asphalt Concrete Operations (S515B02-12) , October 1, 2012
- SS51202 Supplemental Section 512 – Maintaining Traffic Design-Build Projects, December 2, 2009
- SS51505 Supplemental Section 515, Planing or Milling Pavement, September 27, 2011
- SS52200 Supplemental Section 522 – Partnering Design Build Projects, December 2, 2009, revised June 1, 2012

Division 6: Not Used

Division 7: Traffic Control Devices

- SS51202-0909 Supplemental Section 512 – Maintaining Traffic for Design-Build Projects, December 2, 2009
- SS70101-0609 Supplemental Section 701 – Traffic Signs, January 22, 2009
- Special Provision for Section 700 – General for Design-Build Projects, December 4, 2009
- Special Provision for Section 701 – Traffic Signs for Design-Build Projects, December 4, 2009

- Special Provision for Section 701 – Delineators for Design-Build Projects, December 4, 2009
- Special Provision for Section 704 – Pavement Markings and Markers for Design-Build Projects, December 4, 2009
- SS70003-0609 Supplemental Section – 700 General for Design-Build Projects, December 4, 2009
- ~~Special Provision for Section 703 – Traffic Signals, August 2, 2012~~
- ~~SS70301-0609 Supplemental Section 703 – Traffic Signals, January 6, 2009~~
- ~~Special Provision for Modify Existing Controller Cabinet, August 1, 2012~~
- ~~SS70301-0609 Supplemental Section 703 – Traffic Signals, April 1, 2013~~

Other – Environmental

- Special Provision for Bridge Construction and Controlled Burial Within Environmentally Sensitive Area - November 5, 2013

Other – Landscaping

- Special Provision for Bicycle Rack – November 15, 2013
- Special Provision for Concrete Picnic Table – November 15, 2013
- Special Provision for Trash Receptacle – November 15, 2013
- Special Provision for Section 504 Sidewalks, Steps and Handrails – November 15, 2013
- Special Provision for Steel BBQ Grill – November 15, 2013
- Special Provision for Granite Site Work – November 15, 2013
- Special Provision for Section 418 Timber Structures – November 15, 2013

The above list of Special Provisions is not intended to be an all-inclusive list. The Design-Builder is responsible for achieving the Work in accordance with all current VDOT standards as of the date of the RFP issuance, including any revisions and/or addenda thereof. If a construction element is not adequately addressed within VDOT Standard Specifications or the Special Provisions listed for the purpose of the Design-Builders design, it is the responsibility of the Design-Builder to develop an alternative specification that is acceptable to VDOT for that element of work.

In the event of a discrepancy between VDOT and non-VDOT Standards and References listed herein, the VDOT 2007 Road and Bridge Specifications, design standards, and manuals shall take precedence, with the following exception. If AASHTO or the MUTCD require that a higher or better standard be applied, then AASHTO and/or the MUTCD shall take precedence. In accordance with Section 2.1.3 below, all deviations from AASHTO minimum specified design values shall be documented, justified, and approved by VDOT and FHWA.

Special Provisions included in this contract document or other Special Provisions approved by VDOT shall govern over the VDOT specifications, design standards and manuals. Special Provision Copied Notes approved by VDOT and requirements specified within the text

of this RFP shall govern over both the Special Provisions and VDOT specifications, design standards and manuals.

2.1.2 RFP Information Package

An RFP Information Package is available for interested Offerors on CD for \$50. Interested Offerors should complete the RFP Information Package Order Form included as Attachment 2.6 of Part 1. The RFP Information Package includes the following:

- RFP Conceptual Plans including electronic reference files
- Survey Files
- Geotechnical Engineering Data Report
- Design Approval
- Design Waivers
- Environmental
 - Categorical Exclusion completed September 12, 2013
 - Preliminary Document Reevaluation for PSE Authorization (EQ-200) dated November 14, 2013
 - Preliminary Environmental Certification /Commitments Checklist (EQ-103) dated November 8, 2013
 - VDOT/VDHR Correspondence
 - VDOT/FHWA Correspondence
 - Map of County Parks
 - Maps Showing Battlefield Boundaries
 - Map of Historic Properties
 - Center for Conservation Biology Virginia Eagles Nest Locator dated 9/11/13
 - VDGIF Comments dated 9/17/12
 - VDCR-Division of Natural Heritage Comments dated 9/18/12
 - Preliminary Stream Crossings Map
 - Preliminary Stream Impacts Table
 - Preliminary Wetland Locations Map
 - Preliminary Wetland Impacts Table
 - VDOT Fish Plant and Wildlife Resources 2 Mile Buffer Report dated 9/11/13
 - VDOT Fish Plant and Wildlife Resources 2 Mile Buffer List dated 9/11/13
 - Habitat Assessment for Small Whorled Pogonia and Swamp Pink dated 1/16/13
 - Species Survey for Small Whorled Pogonia and Swamp Pink dated 9/9/13
 - James River Bald Eagle Summer Concentration Area Map dated 9/11/13
 - James River Bald Eagle Winter Concentration Area Map dated 9/11/13
 - USFWS Bald Eagle Concentration Areas Map dated 9/11/13
 - USFWS Official Species List dated 8/3/12
 - USFWS Species Conclusion Table dated 10/31/13
 - VDGIF VaFWIS Fish Impediment Map dated 10/31/13
 - VDGIF Initial Project Assessment Report List dated 10/31/13
 - VDGIF Initial Project Assessment Report Map dated 10/31/13

- VDOT FPWR Clearance Report date 10/31/13
 - Hazardous Materials Report dated 9/26/13
 - Air Report dated 10/29/13
 - Noise Form dated 8/30/12
-
- Special Provisions, Special Provision Copied Notes and Supplemental Specifications
 - Public Hearing Transcript
 - Value Engineering Summary
 - Preliminary Drainage Design and H&HA Report
 - Bridge Transverse Section, Including Handrail Detail

Requirements described in the Technical Information and Requirements (Part 2 of the RFP) shall supersede the information contained in the RFP Information Package, including the information depicted in the RFP Conceptual Plans. In the event that there is a discrepancy between the RFP Conceptual Plans (or other information contained in the RFP Information Package) and the Technical Information and Requirements (Part 2 of the RFP) herein, the Technical Information and Requirements (Part 2) shall take precedence.

2.1.3 Design Exceptions and Design Waivers

VDOT has not identified any design exceptions, with respect to the RFP Conceptual Plans.

VDOT has identified the following design waivers, with respect to the RFP Conceptual Plans, for which VDOT shall be responsible for obtaining approval:

- Design Waiver No. 1 details: The use of three foot graded shoulder width on each side of the trail pavement with downward side slopes of 3:1 or greater. Mitigation to be applied through use of safety fence/rail or additional shoulder widening at hazardous embankment height locations.
- Design Waiver No. 2 details: The use of profile grades in excess of 5%. Mitigation to be applied through use of straight horizontal alignment where possible and advisory/warning signs. Note that specific locations are identified in the Design Waiver and this is not intended to allow grades in excess of 5% in locations not explicitly shown in the current Design Waiver and RFP plans.

The Design-Builder shall be responsible for documenting and submitting any design exceptions and/or waivers with respect to its final design above and beyond those listed above. Where the Design/Builder alters the design elements that are subject of previously approved exceptions and/or waivers, then the Design/Builder shall update/revise and resubmit the applicable exception(s)/waiver(s) for review and approval. Additionally, in certain instances, the approved design waiver reports contain mitigation measures that must be implemented by the Design-Builder; however the Design-Builder is not required to improve the design element that is subject of the design waivers to eliminate the need for such waivers.

2.2 Trail and Other Roadway Improvements

The information contained in this section shall serve as the design criteria the Design-Builder is to apply for the design of the Project. Offerors are on notice that the entirety of the information contained in this section including but not limited to the design criteria, and other notes and data, contain the minimum roadway geometric design requirements that the Design-Builder shall meet in its performance of the Work. By submitting its Proposal, Offeror certifies that the Project Concept presented in its proposal is fully compliant with such minimum requirements. Unless otherwise approved by VDOT, no changes to or deviation from the listed criteria shall be allowed. Any schedule delays as a result of changes or deviations are the responsibility of the Design-Builder.

In addition to the Virginia Capital Trail improvements depicted on the RFP Conceptual Plans (contained in the RFP Information Package), the Design-Builder is also responsible for making necessary improvements to any existing roadways intersected by the proposed trail, including Kinvan Road.

2.2.1 Functional Classification

The Virginia Capital Trail is functionally classified as a Multi-use Trail. The VDOT geometric design standard that will be utilized for the Virginia Capital Trail will be the Shared Use Path standard in rolling terrain with a minimum design speed of 20 mph. The design shall adhere to the design standards for Shared Use Paths established in Section A-5 of the VDOT Road Design Manual and 2012 AASHTO Guide for the Development of Bicycle Facilities.

Kinvan Road is functionally classified as a Local Road. The VDOT geometric design standard that will be utilized for improvements to Kinvan Road will be the GS-4 standard with a minimum design speed of 30 mph, as established in Section A-1 of the VDOT Road Design Manual.

2.2.2 Proposed Improvements

The Project includes design, right of way acquisition and construction of the Park Phase of the Virginia Capital Trail as illustrated on the RFP Conceptual Plans included in the RFP Information Package. The Design-Builder shall design and construct the Trail within the proposed right of way and easements, as depicted in the RFP Conceptual Plans. The existing tree canopy shall be maintained to the greatest extent possible. Impacts to the tree canopy shall not exceed those associated with the alignment shown on the RFP Conceptual Plans unless otherwise approved in writing by the VDOT Project Manager. Adjusting the alignment of the Trail to avoid utilities, cultural resources, hydraulic features, environmental concerns, etc. is encouraged, however, the Design-Builder is solely responsible for any schedule delays and associated costs adjusting the alignment may cause.

The Park Phase of the Virginia Capital Trail will be ten (10) feet wide with three (3) feet wide graded shoulders on both sides. A two (2) percent cross slope shall be maintained in all locations, however, varying the direction of the cross slope is acceptable to facilitate drainage, as

necessary. All entrances shall be paved from the intersecting roadway edge of pavement to a minimum of five (5) feet beyond the outside edge of trail pavement to reduce the risk of raveling. It is noted that entrances may need to be extended past these limits to appropriately tie back into the existing entrance. The minimum horizontal curve radius of the trail alignment shall meet the standard for Shared Use Paths, as described in the VDOT Road Design Manual; however, the radii for curves at approaches to stop conditions may be reduced where necessary to reduce impacts.

All other requirements, including adherence to the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities as adopted by FHWA, and as set out in the VDOT Road Design Manual for Shared Use Paths and the AASHTO Guide for the Development of Bicycle Facilities, dated 2012, shall be met. The design of the Project will require coordination with representatives from FHWA and VDOT, as applicable.

The final design plans shall comply with the environmental and property owner constraints identified in the RFP Documents and RFP Conceptual Plans. The alignment of the Trail from the beginning of the Project to approximate Station 118+00 was set based on minimizing impacts to the environmentally sensitive areas and Civil War Earthworks. Any alignment deviations proposed by the Design-Builder in these locations shall require the approval of the VDOT Project Manager. The trail alignment on the Moseley property was set in coordination with the property owner, from approximate Station 200+00 to 208+00 the Trail was located as close as possible to the property line between the Embrose and Lee properties to minimize right of way impacts. The alignment on the Moseley property shall be maintained, as much as feasible. The Design-Builder shall minimize impacts to the Disk Frisbee Golf Course located in Dorey Park. The precise course location has not been identified by survey and, therefore, is not shown on the RFP Conceptual Plans. The Design-Builder shall adjust the alignment shown on the RFP Conceptual Plans in the vicinity of the Disk Frisbee Golf Course as necessary to minimize impacts to the course by avoiding the direct pathway between tees and their associated target. Adjustments to the alignment in the vicinity of the Disk Frisbee Golf Course shall be coordinated with the VDOT Project Manager and Henrico County for their approval.

The proposed construction on Kinvan Road shall include widening on both sides of the roadway to construct five (5) foot wide paved shoulders for trail users to connect the Trail sections on independent rights of way. The existing Kinvan Road pavement shall be milled and/or overlaid in compliance with the requirements in Part 2, Section 2.6.

The RFP Conceptual Plans include the trail alignment crossing Interstate 295 under the two existing bridge-bridges at Four Mile Creek. The limited survey for the RFP Conceptual Plans did not capture both of the bridges on plan view and as such depicts the Trail passing beneath a single bridge. The Trail is to be constructed under both bridges. The Trail design shall maintain all minimum offsets and clearances, as specified in AASHTO and VDOT standards for Shared Use Paths. The minimum vertical clearance between the Trail and existing bridge shall be eight (8) feet. If possible, the desirable ten (10) foot vertical clearance should be met.

Sight distance requirements for the Trail shall meet the minimum 20 mph design speed, except in curved bridge locations. The following list provides the minimum sight distance design speeds for each bridge in the RFP Conceptual Plans. The final design plans shall meet these speeds, at a minimum.

Structure B601 (Station 115+00 to 118+00)	12 mph
Structure B602 (Station 126+00 to 130+00)	12 mph
Structure B603 (Station 206+00 to 209+25)	14 mph
Structure B604 (Station 229+25 to 234+25)	20 mph
Structure B605 (Station 245+25 to 251+25)	14 mph
Structure B606 (Station 257+25 to 264+25)	18 mph
Structure B607 (Station 555+80 to 561+70)	14 mph
Structure B608 (Station 567+30 to 570+70)	16 mph

Safety fence shall be provided along the Trail, as required, adhering to the design standards for Shared Use Paths established in Section A-5 of the VDOT Road Design Manual and the 2012 AASHTO Guide for the Development of Bicycle Facilities.

Chain link fence in accordance with VDOT Road and Bridge Standard FE-CL shall be provided along both sides of the Trail as it crosses under Interstate 295, between the proposed breaks of existing Limited Access.

A six (6) foot high chain link fence, in accordance with the VDOT 2008 Road and Bridge Standards shall be installed on the east side of the Trail along Property 012 (belonging to a Mr. D. Gareth Embrose, Jr.) from the right of way line at Kinvan Road to the rear property line.

When the Trail intersects with the Four Mile Creek Park parking lot or any roadway, the Trail shall be divided (bifurcated) in accordance with the design ~~indicated~~ detail included in the RFP Conceptual Plans ~~included~~ provided in the RFP Information Package. To accomplish this, the median areas created by the division shall be paved with concrete pavers as indicated on Plan Sheet 2E of the RFP Conceptual Plans and in accordance with the Special Provisions for Unit Pavers.

Doran Road is not depicted on Plan Sheet 10 of the RFP Conceptual Plans. The preliminary survey did not capture the edges of pavement of Doran Road on plan view; however, the crossing is shown as “match existing” on the profile on Plan Sheet 10. Where the Trail intersects Doran Road, the Trail is to be bifurcated.

2.3 Bridges

2.3.1 General

The Project includes design and construction of eight (8) timber bridges. The travel-way configuration (width between rails) of the bridges, as a minimum shall be in accordance with the Transverse Section, including Handrail Detail, provided in the RFP Information Package. Any changes to the locations of the bridges proposed by the Design-Builder and acceptable to VDOT

may require adjustments to the bridge widths to satisfy the sight distance requirements as noted in Part 2, Section 2.2.2.

The RFP Conceptual Plans depict the approximate size, location and materials of each proposed structure. The final span lengths span arrangements, size of superstructure members and substructure elements shall be determined by the Design-Builder.

The bridges for this Project shall be designed using AASHTO LRFD Bridge Design Specifications, 6th Edition, 2012; LRFD Guide Specifications for Design of Pedestrian Bridges, 2nd edition, 2009; and VDOT Modifications (IIM-S&B-80) and the standards and references in Part 2, Section 2.1.1.

The proposed bridges shall also be designed to meet all applicable hydraulic and environmental requirements outlined in the Part 2, Section 2.4.2 and Section 2.7.1. The bridges identified in the RFP Conceptual Plans represent the number and length of bridges that VDOT anticipates will be needed to meet these requirements. The Design-Builder may alter the location and lengths of proposed bridges as long as all applicable hydraulic, environmental, and cultural resource requirements are satisfied. A preliminary assessment of the hydraulic impacts of the bridge crossings entitled Preliminary Drainage Design and Hydrologic and Hydraulic Analysis Report (dated November 8, 2013) is included in the RFP Information Package for reference.

Materials used for constructing the timber pedestrian bridges shall conform to the requirements of sections 403.02 and 418.02 of the VDOT 2007 Road and Bridge Specifications. All timber used will be treated with an approved treatment in accordance with the requirements of Section 236.02 (c) of the Specifications, except that glulam members shall be treated with pentachlorophenol (PCP) after they are glued together in the shop.

The deck of timber structures shall be two (2) inch by six (6) inch planks secured perpendicular to stringers with galvanized screws. Stringers shall be spaced no greater than twenty-four (24) inches center-to-center. At time of installation, planks shall be placed tight together with no gaps.

2.3.2 Working Drawings

The Design-Builder shall review and approve working/shop drawings and submit three approved sets to VDOT for each bridge structure. Reference should be made to Article 105.10 of Part 5 of the RFP. The working/shop drawings shall be approved by a registered, licensed, Professional Engineer in the Commonwealth of Virginia.

2.3.3 Safety and Acceptance Inspection for the Proposed Structures

Acceptance of the bridge structure will require the following two independent inspections by VDOT:

1. A satisfactory safety/inventory inspection by VDOT as described below is required prior to Final Completion and opening the structure to the public. This safety/inventory inspection by VDOT will serve as the initial inspection of the structure. Data gathered will include location, date completed, alignment, description, horizontal/vertical clearances, structure element description and condition data. The Design-Builder shall rectify any instance of non-compliance for VDOT approval prior to opening the new structure to the public.
2. A satisfactory final construction inspection by VDOT is required prior to Final Acceptance of the structure. To facilitate inspection of the structure by VDOT, the Design-Builder shall ensure that all structural elements are accessible and shall provide adequate resources including:
 - Man-lifts, bucket trucks, under bridge inspection vehicles, or other equipment necessary to inspect the structure as well as properly trained staff of sufficient composition to support the inspections.
 - Plans, procedures, personnel, and equipment to implement traffic control measures.

The Design-Builder shall provide a minimum of thirty (30) days notice to VDOT whenever it requires VDOT to undertake an inspection. The Design-Builder's notice to VDOT shall include as-built drawings, traffic control procedures, a description of the items to be inspected and an anticipated schedule for the inspections, all in accordance with the requirements noted above.

Unless otherwise approved by VDOT, structures shall be substantially complete (i.e. roadway, and slopes on the approaches and underneath the structure are already in place) before the final construction inspection will be performed.

2.4 Environmental

2.4.1 Environmental Document

FHWA has issued a NEPA decision for the Project. A copy of the Categorical Exclusion (CE) dated September 13, 2013 is included in the RFP Information Package. VDOT has also completed a preliminary document re-evaluation for the Plans, Specifications and Estimates (PS&E) Authorization (EQ-200) dated November 14, 2013, and a preliminary Environmental Certification/Commitments Checklist (EQ-103) dated November 8, 2013, which are included in the RFP Information Package.

The Design-Builder shall carry out environmental commitments during design, right-of-way acquisition, and construction, as applicable, as identified in the CE, the document reevaluations for RW and PS&E Authorization, and the Environmental Certification forms. All commitment compliance shall be supported by appropriate documentation, to be provided by the Design-Builder to the VDOT Project Manager. VDOT will complete a final document re-evaluation for RW Authorization (EQ-201) prior to RW authorization and a final document re-

evaluation for PS&E Authorization (EQ-200) and final Environmental Certification/Commitments Checklist (EQ-103) prior to the VDOT Project Manager releasing any portion of the Project for construction.

Any changes in the scope or footprint of the established basic Project concept, proposed by the Design-Builder and acceptable to VDOT, may require additional environmental technical studies and analysis to be performed by the Design-Builder at their cost. The Design-Builder will be responsible for notifying VDOT of plan revisions, scope changes, and providing any necessary studies and other necessary information to support VDOT's completion and re-evaluation of the NEPA document. VDOT will be responsible for the coordination of any revised environmental documentation with FHWA. The Design-Builder shall then carry out any additional environmental commitments that result from such coordination at its sole expense and no additional cost and/or time delays to the Project.

The Design-Builder is solely responsible for any costs or schedule delays related to the permit acquisition, permit modifications, and NEPA document re-evaluations associated with Design-Builder's design changes and no time extensions will be granted.

2.4.2 Cultural Resources

On August 21, 2013, the Virginia State Historic Preservation Office (VA SHPO) determined the Project would have No Adverse Effect on historic properties in the Area of Potential Effects (APE). The APE for architecture was defined as the area where alterations to feeling and setting may occur as a result of the construction of the Multi-use Trail and thus included all buildings constructed before 1963 and that fell within the 50-foot to 100-foot APE as well as those in view of the proposed project corridor. The APE for the archaeological survey encompassed the construction footprint, proposed right of way, and all easements and included 50 feet on either side of the center line for the majority of the project corridor. For a small portion of the proposed corridor, the APE was limited to 25 feet on either side of the center line.

The no adverse effect determination is contingent upon the application of a special provision pertaining to archaeological site 44HE1163. The VA SHPO reviewed and approved the special provision on October 30, 2013, a copy of Virginia Department of Transportation Special Provision for Bridge Construction and Controlled Burial Within Environmentally Sensitive Area, is included in the RFP Information Package. The provision includes the construction of a bridge to preserve the above-ground remains of Civil War Earthworks and the controlled burial in place of that portion of the environmentally sensitive area that extends south from the southern terminus of the bridge to the southern limits of the environmentally sensitive area. The special provision also prohibits construction activities, such as clearing and grubbing, vehicle traffic, stockpiling, staging, etc. on the existing ground surface of the environmentally sensitive area at any time.

Once the Design-Builder finalizes plans for site 44HE1163, per the requirements of the special provision, those plans will be presented to VDOT Richmond District Cultural Resource staff for review. VDOT Cultural Resources staff will then forward the plans to the VA SHPO for review and comment.

Copies of relevant VDOT/VA SHPO correspondence and mapping showing the location of historic properties are included in the RFP Information Package. There are seven historic properties in the Project’s APE:

<u>VDHR No.</u>	<u>Resource Description</u>
043-5071	Darbytown and New Market Roads Battlefield
043-5074	First Deep Bottom Battlefield
043-5080	Second Deep Bottom Battlefield
043-0307	Chaffin’s Farm/New Market Heights Battlefield
043-5073	Fair Oaks and Darbytown Road Battlefield
043-5072	Darbytown Road Battlefield
44HE1163	Earthworks, Encampment

The Design-Builder should consider historic properties to be design constraints and avoid impacting them beyond what is shown on the RFP Conceptual Plans. In addition, the Design-Builder shall avoid any other project-related activities on or within the viewshed of these historic properties, including but not limited to staging, borrow/disposal, and any temporary or permanent easements. Please note that any changes to the design, alignment, right-of-way limits, or easements shown on the RFP Conceptual Plans may require review by VDOT and could require additional cultural resources studies and/or coordination with the VA SHPO. The Design-Builder is responsible for conducting all cultural resources studies necessitated by the proposed changes, while the VDOT is responsible for coordinating both the studies and the proposed changes with the VA SHPO. The Design-Builder shall then carry out any additional cultural resources commitments that result from such coordination at its sole expense and at no additional cost to the Project.

2.4.3 Section 4(f) Resources

During the process of evaluating Section 4(f) Resources for this Project, VDOT identified seven (7) historic properties and two (2) public parks in the project area. Maps of the Historic Properties, Four Mile Creek County Park and Dorey County Park are included in the RFP Information Package.

<u>Section 4(f) Resource</u>	<u>Acres of Use</u>
Darbytown & New Market Battlefield (VDHR No. 043-5071)	5.2 – de minimis
First Deep Bottom Battlefield (VDHR No. 043-5074)	2.3 – de minimis
Second Deep Bottom Battlefield (VDHR No. 043-5080)	3.3 – de minimis
Darbytown Road Battlefield (VDHR No. 043-5072)	5.2 – de minimis
Chaffin’s Farm & New Market Battlefield (VDHR No. 043-0307)	3.3 – de minimis
Fair Oaks and Darbytown Road Battlefields (VDHR No. 043-5073)	0.7 – de minimis
Earthworks Encampment (VDHR No. 44HE1163)	1.7 – de minimis

VDHR No. 44HE1164	Exception
VDHR No. 44HE1165	Exception
Four Mile Creek County Park	Exception
Dorey County Park	Exception

Section 4(f) de minimis impact findings were made for the seven (7) historic properties. FHWA agreed with a Section 4(f) de minimis impact finding on August 28, 2013 and a subsequent confirmation of validity on October 3, 2013. FHWA determined that two additional archaeological resources (VDHR No. 44HE1164 and VDHR No. 44HE1165) were qualified for an exception pursuant to 23 CFR 774.13(b) on August 29, 2013.

The proposed Trail is located within Four Mile Creek County Park and Dorey County Park. However, FHWA determined on August 17, 2012 that the Trail's involvement with this park qualifies as a Section 4(f) exception pursuant to 23 CFR 774.13(g). A subsequent confirmation of validity was made by FHWA on May 28, 2013. The Design-Builder shall need to coordinate the trail alignment through the Disc Frisbee Golf Course in Dorey Park with VDOT and Henrico County. The Trail shall be aligned to minimize impacts to the Disc Frisbee Golf Course by avoiding the direct pathway between tees and their associated target.

The Design-Builder should consider 4(f) resources to be design constraints and avoid any impacts to them beyond the acres of use identified in this section. In addition, the Design-Builder shall avoid any other project-related activities on these resources, including but not limited to staging, borrow/disposal, and temporary or permanent easements.

Any changes to the right of way or easements as shown on the RFP Conceptual Plans, proposed by the Design-Builder and acceptable to VDOT, may require additional technical studies and analysis to be performed by the Design-Builder. The Design-Builder will be responsible for notifying VDOT of plan revisions, right-of-way/easement changes, and providing any necessary studies and other necessary information to support VDOT's completion and re-evaluation of the 4(f) resources. VDOT will be responsible for the coordination of any 4(f) documentation with FHWA. The Design-Builder shall then carry out any additional commitments that result from such coordination at its sole expense and no additional cost and/or time delays to the Project.

2.4.4 Water Quality Permits and Compensatory Mitigation

The Design-Builder will obtain all necessary environmental clearances, permits, and approvals required to accomplish the work as noted in Part 4 (General Conditions of Contract), Article 2.6. The Design-Builder will be responsible for performing necessary design and fieldwork to support the acquisition of necessary water quality permits independently and directly from the regulatory agencies. The Design-Builder will be the Permittee.

VDOT conducted a preliminary review of wetlands and streams based on the Conceptual Plans. This preliminary review indicated that approximately 0.14 acre of wetlands and ninety three (93) linear feet of streams may be impacted by the Project. Preliminary locations of streams and wetlands in the project area and tables quantifying approximate wetland and stream

impacts are included in the RFP Information Package. The Offeror should note that this information is provided for informational purposes only. The Design-Builder will be responsible for verifying permit requirements prior to construction. Regulatory agencies will make the final determination as to which state/federal water quality permits will be required during coordination with the Design-Builder.

The Design-Builder shall determine the applicability of water quality permits for the Project (to include utilities to be relocated by the Design-Builder for the Project). Should it be determined that Water Quality Permits are required, the Design-Builder shall conduct the preliminary field assessment including, but not limited to, wetland delineation, stream assessment, and permit impact sketches. The Design-Builder shall also determine the required sequencing methodology to limit Project impacts to wetland systems. The Design-Builder shall utilize this information to obtain required permits.

If the Design-Builder determines water quality permits are not required based on information generated, the Design-Builder shall notify the VDOT Project Manager in writing, so that VDOT can authorize the Design-Builder to execute the work. Any deviations that the Design-Builder makes to the Project footprint and/or scope may render the permit determination invalid and will require additional consideration.

If the Design-Builder determines that wetlands and/or stream mitigation is required to secure the permit authorization, the Design-Builder will provide the required compensatory mitigation. The Offeror shall account for all costs associated with water quality permit acquisition, as well as compensatory mitigation, in its Price Proposal.

The Design-Builder shall note that avoidance, minimization, and mitigation measures associated with permit acquisition will require close coordination between the Design-Builder and VDOT. If permit issuance is delayed or permits are denied, the Design-Builder will be responsible for any schedule delays and/or associated costs.

Should the Design-Builder propose design changes acceptable to VDOT, permitting requirements may also change; the Design-Builder remains responsible for obtaining all necessary water quality permits and permit modifications required by the regulatory agencies to accommodate the design changes.

The Design-Builder shall ensure that Project schedules accommodate any Special Provisions, Time of Year Restrictions (TOYR), and the duration of permit acquisition from the regulatory agencies. The Design-Builder shall be responsible for adhering to permit conditions and Special Provisions, as identified in the permit authorizations including but not limited to TOYR, avoidance and minimization recommendations, restoration of temporary impact areas, and countersinking culverts.

The Design-Builder shall be responsible for compliance with pre-construction, construction-related permit conditions, as well as post-construction monitoring if required by regulatory agencies. This shall include costs associated with acquiring water quality permits and additional compensatory mitigation for the Project if needed.

The Design-Builder shall provide to the VDOT Project Manager copies of all permits, documentation, and correspondence with regulatory agencies. Construction activities shall not impact regulated areas within the Project limits until all applicable water quality permits have been issued to the Design-Builder. The Design-Builder shall not proceed with work covered by the water quality permits until the VDOT Project Manager releases the work in writing. The VDOT Project Manager may release a portion or all of such work not in jurisdictional areas, but may order a suspension of the same work after its release. The Design-Builder shall not be allowed to begin work that pre-determines the work required in the jurisdictional areas until the permits are secured.

After receiving the VDOT Project Manager's release of the work, the Design-Builder shall notify the VDOT Project Manager and the regulatory permitting agencies in writing 14 days prior to beginning work in the jurisdictional areas covered by the water quality permits.

The Design-Builder shall allow environmental compliance inspections by VDOT, and/or regulatory agencies as required by permits and/or to facilitate any interim compliance reviews/assessments.

At the conclusion of the Project, the Design-Builder shall notify the VDOT Project Manager and the regulatory permitting agencies in writing of the completion of the work in the jurisdictional areas covered by the water quality permits. At the completion of the Project, the Design-Builder is required to transfer any Virginia Marine Resources Commission (VMRC) permit back to VDOT.

The Design-Builder shall carry out any additional permit conditions/commitments that result from change in footprint and/or scope (assuming it is approved by VDOT) at its sole expense and no additional cost to the Project; additionally the Design-Builder will be responsible for any schedule delays and associated costs.

All permitted construction activities shall be identified as hold points in the Design-Builder's CPM Schedule.

2.4.5 Threatened and Endangered Species

VDOT has performed database reviews and surveys to determine the Project's potential effects on threatened and endangered (T&E) species, indicating that the Project will have no adverse effect on T&E species. The results of these reviews and related documentation are included in the RFP Information Package.

The Offeror shall be advised that new and updated T&E information is continually added to agency databases. The Design-Builder will be responsible for any subsequent coordination to obtain updated information, requirements, and clearances from environmental regulatory agencies that provide threatened and endangered species oversight. This additional T&E species coordination is also a standard component of the water quality permit acquisition process and may result in permit conditions for which the Design-Builder will be responsible. The Design-

Builder is responsible for ensuring that all T&E species are correctly identified and impacts assessed, noting that more or less resources may be present than initially identified. Avoidance and minimization shall be implemented to the greatest extent possible. The Design-Builder shall provide to the VDOT Project Manager copies of all documentation and correspondence with regulatory agencies.

2.4.6 Hazardous Materials

VDOT has performed a review to determine the potential for hazardous materials and/or contamination within the Project Area shown in the RFP Conceptual Plans in the RFP Information Package. No hazardous materials or contamination were identified, and no further work is anticipated. A Hazardous Materials Summary Report dated November 15, 2013 documenting the assessment is included in the RFP Information Package and constitutes Known Pre-existing Hazardous Materials as defined in Part 4, Article 1.

The Design-Builder shall manage solid waste, hazardous waste, and hazardous materials in accordance with all applicable federal, state, and local environmental regulations and shall implement good housekeeping, waste minimization and pollution prevention practices.

The Design-Builder shall be responsible for the development of a Spill Prevention, Control, and Countermeasure Plan as required by regulation and for submission of any required plan to the VDOT Project Manager prior to start of construction. In the event of spills or releases of petroleum products and other hazardous liquids or solid materials, the Design-Builder shall take immediate action to contain and eliminate the spill release, including the deployment of environmental protection measures to prevent the migration of the spill into the waters of the United States and of worker exposure protection measures. The Design-Builder shall notify the VDOT Project Manager immediately of all instances involving the spill, discharge, dumping or any other releases or discovery of hazardous materials into the environment and shall provide all required notifications and response actions.

2.4.7 Air Quality

The Project has been assessed for potential air quality impacts and conformity with all applicable Federal and state air quality regulations and requirements. The Air Report, dated October 29, 2013, is provided in the RFP Information Package. The Report identifies federal and state regulatory requirements that must be adhered to during construction of the Project.

This Project is located within an 8-Hour Ozone Maintenance area, and a volatile organic compounds (VOC) and oxides of nitrogen (NO_x) Emissions Control Area. As such, all reasonable precautions should be taken to limit the emissions of VOC and NO_x during construction of the Project. In addition, the following Virginia Department of Environmental Quality (VDEQ) air pollution regulations must be adhered to during the construction of this Project: 9 VAC 5-130-10 et seq., Open Burning restrictions; 9 VAC 5-45-760 et seq., Cutback Asphalt restrictions; and 9 VAC 5-50-60 et seq., Fugitive Dust precautions. The Design-Builder

will be required to adhere to the limitations outlined in the Special Provision for Volatile Organic Compound Emissions Control Areas.

Construction activities will be performed in accordance with VDOT 2007 Road and Bridge Specifications. The specifications conform to the State Implementation Plan and require compliance with all applicable local, state, and federal regulations.

2.4.8 Noise Mitigation

The Noise Scoping Decision for this Project concluded this is a Type III project and that a Noise study is not required. A copy of the Noise Form dated August 30, 2012 is included in the RFP Information Package.

2.4.9 Environmental Compliance

The Design-Builder is responsible for compliance with all applicable state and federal environmental laws, regulations, and permits. If, at any time, the Design-Builder is not in compliance with all applicable environmental laws, regulations, Executive Orders, commitments, etc., the VDOT Project Manager has the authority to suspend work, in whole or in part, until such time as the deficiencies or non-compliant items have been corrected. Should any non-compliant item(s) be identified during construction, immediate and continuous corrective action shall be taken by the Design-Builder to bring the item(s) back into compliance.

The Design-Builder shall be responsible for any schedule delays and associated costs as a result of any delays and/or shut downs associated with non-compliance. Any monetary fines associated with violations and/or any environmental restoration activities required to resolve violations shall be the responsibility of the Design-Builder.

The Design-Builder shall carry out environmental commitments during design and construction, as applicable, as identified in the CE, the Document Re-evaluations for RW Authorization (EQ-201) and PS&E Authorization (EQ-200), and the Environmental Certification/Commitments Checklist (EQ-103). All commitment compliance shall be supported by appropriate documentation, to be provided by the Design-Builder to the VDOT Project Manager.

The Design-Builder shall be responsible for compliance with pre-construction and construction-related environmental commitments and permit conditions. The Design-Builder shall assume all obligations and costs incurred by complying with the terms and conditions of the permits and certifications. Any fines associated with environmental permit or regulatory violations shall be the responsibility of the Design-Builder.

2.5 Survey

VDOT has obtained a preliminary field survey. The preliminary field survey and utility data obtained, includes, but is not limited to the following:

- Horizontal control
- Vertical control
- Notification of property owners*
- Field data
- Topography
- Property data
- Utilities
- Digital Terrain Model

*The Virginia Code 33.1-94 requires that Notice of Intent letter (RUMS Forms I1, I2, I3, and I4) “shall be sent to the owner by mail, at the address recorded in the tax records, **not less than 15 days prior to** the first date of the proposed entry. Notice of intent to enter shall be deemed made on the date of mailing”. The notice shall include the anticipated date/dates such entry is proposed to be made and the purpose of such entry. Said notice shall be mailed by the Department on Department letterhead. The Design-Builder is to provide the VDOT Project Manager with the mailing list not less than 30 days prior to proposed entry. Advance notification of property owners is required for all data collection efforts related to the development of highway plans.

The Design-Builder is advised that such survey is not represented to be complete for purposes of designing the Project, and that Design-Builder’s scope of work shall include performing all additional surveying and utility designation that is necessary to supplement the above-referenced survey as required for design purposes.

The Design-Builder shall be responsible for obtaining any additional survey data, including all land use permits, locating and/or designating underground utilities, digital terrain model (DTM), utility test holes and obtaining other related data necessary for the design, right of way acquisition, limited access revisions, and construction of the Project. Additionally, the Design-Builder will be responsible for any update (property owner changes, subdivisions, etc.) that may occur; updates need to be reflected on the plans in order to acquire right of way and complete the final design. Any additional survey changes will be verified and certified, and submitted in final documentation.

The Design-Builder will be responsible to reset or relocate and survey control damaged, destroyed or located within the footprint of the final design construction limits. The control will be established by a land surveyor licensed in the Commonwealth of Virginia with LD-200 information and supporting computations submitted to the Project Manager.

Prior to Project completion, the Design-Builder shall provide and set final VDOT RW-2 right of way monuments within the Project Limits. The Design-Builder shall depict the monuments on the Right of Way Plans in accordance with the Department’s Survey Manual.

All survey work is to be in compliance with the current VDOT Survey Manual.

2.6 Geotechnical Work

A preliminary geotechnical study (see Geotechnical Engineering Data Report, dated November 8, 2013) was developed to capture the geological conditions within the project limits and is included in the RFP Information Package. This preliminary geotechnical study is provided for Offerors' information in accordance with Section 102.04 of Division I Amendments to the Standard Specifications and should be verified by the Design-Builder.

The Design-Builder is required to perform supplemental design level geotechnical investigations to validate the preliminary design information included in this RFP and any future addendums. The geotechnical engineering investigation performed by the Offeror shall meet or exceed both Chapter 3 of the VDOT Manual of Instructions (MOI) for Materials Division and Section 700.04(c) of the VDOT 2007 Road and Bridge Specifications; however, the Design-Builder may reduce the boring frequency to one (1) every four hundred (400) feet along the centerline of the proposed trail alignment provided one (1) test hole is dug at the midpoint between each set of bores to gauge topsoil stripping depth and the strength of the subgrade below the topsoil.

The Design-Builder shall collect appropriate data for geotechnical evaluation of embankments, soil cuts, culverts, minor structures (including drainage pipes), and any other earth-supported structures or elements of highway design and construction required. The Design-Builder will be responsible for obtaining water quality permit(s) required for any additional borings needed in performance of the Design-Builder's geotechnical investigation for this Project. The Design-Builder shall complete laboratory tests in accordance with pertinent ASTM or AASHTO standards and analyze the data to provide design and construction requirements. Soils, aggregate, asphalt, concrete and other materials tests shall be performed by a laboratory accredited through the AASHTO Accreditation Program (AMRL and CCRL) for each test it conducts for the Project, unless otherwise approved by VDOT. Nuclear density gauges used for compaction monitoring and testing shall be capable of printing the input/output data and readings. Printouts shall be done daily and placed in the project file.

The Design-Builder shall provide all records of subsurface explorations and describe the soils encountered along with their depth limits in accordance with the requirements outlined in Chapter 3 of the VDOT MOI for Materials Division. The Design-Builder shall provide electronic copies of all subsurface explorations in accordance with the boring log template available on the website address included in Chapter 3 of the VDOT MOI for Materials Division. The electronic files shall be provided by a certified professional geologist or a registered professional engineer in the Commonwealth of Virginia, in gINT© software. Upon request, VDOT will provide its gINT and ACCESS file structures for the Geotechnical Database Management System (GDBMS).

Where applicable, the Design-Builder shall incorporate reliability assessments in conjunction with standard analysis methods. An acceptable method for evaluation of reliability is given by Duncan, J.M. (April 2000) *Factors Of Safety And Reliability In Geotechnical Engineering*, Journal of Geotechnical and Geo-environmental Engineering, ASCE, Discussions and Closure August 2001. A suitable design will provide a probability of success equal to or

greater than ninety-nine (99) percent. The aspects of this Project for which reliability assessments shall be made include: (1) the selection of soil parameters used in the design of all foundations and retaining walls, if applicable, (2) the factors of safety for slope stability, and (3) the settlement and bearing capacity of embankments. Except as mentioned in (1) above, reliability assessments need not be performed for structural foundations and retaining walls, which will be evaluated based on the required limit states in LRFD. The Design-Builder may propose to identify specific, non-critical features and alternative methods for evaluating variability of subsurface conditions, reliability, and minimum factors of safety prior to submission of its design calculations and drawings. The Department may, in its sole discretion, accept or reject such proposed methods.

The Design-Builder shall submit to the VDOT for its review all geotechnical design and construction memoranda and/or reports that summarize pertinent subsurface investigations, tests, and geotechnical engineering evaluations and recommendations utilized in support of their design/construction documents. This submittal shall be made at least 90 days in advance of the submittal of any final design/construction documents that are dependent upon the geotechnical evaluations and recommendations. Technical specifications for construction methods that are not adequately addressed in the Standard Specifications shall be provided by the Design-Builder as part of the final design/construction documentation. Prior to submittal of any final design/construction documentation, the Design-Builder shall review the final design/construction documents to assure that it appropriately incorporated the geotechnical components and shall submit evidence of this review to accompany the final design/construction documentation. The Design-Builder shall reference the drawings that incorporate the pertinent results. The Design-Builder's Quality Assurance and Quality Control (QA/QC) Plan shall document how each specific geotechnical recommendation or requirement will be addressed in the final design/construction documentation. The results of the geotechnical investigation and laboratory results shall support design and construction efforts to meet the requirements outlined in this Section.

2.6.1 Minimum Pavement Sections

Minimum pavement sections are being provided for proposal preparation purposes only. If the Design-Builder confirms that the minimum pavement sections are inadequate for actual design/construction conditions, it shall notify VDOT during the Scope Validation Period of the necessary changes and proposed price adjustments, if any. Acceptable changes are limited to increasing the thickness of the base or subbase layers specified below. Any changes to the minimum pavement sections noted below must be approved by VDOT prior to implementation. The Design-Builder shall be responsible for the final design and construction of the pavements for this Project as approved by VDOT and in accordance with the Contract Documents.

The Design-Builder shall prepare and incorporate the validated pavement sections into the plans, typical sections, profiles and cross-sections in accordance with the applicable manuals noted in Part 2, Section 2.1.1 of this document. This includes drainage and subdrainage requirements to ensure positive drainage both within the pavement structure and on the pavement surface.

The minimum pavement sections for the Project are as follows:

Virginia Capital Trail

2.0 inches of Asphalt Concrete SM-12.5A (estimated 220 lb/sy)
8.0 inches of Coarse Aggregate, Size No. 8, Aggregate Base Material, Type I, Size No. 21B

Entrances - PE-1 TYPE III

2.0 inches of Asphalt Concrete SM-12.5A (estimated 220 lb/sy)
6.0 inches of Aggregate Base Material, Type I, Size No. 21B

Kinvan Rd. Widening

2.0 inches of Asphalt Concrete SM-12.5A (estimated 220 lb/sy)
8.0 inches of Aggregate Base Material, Type I, Size No. 21B

Kinvan Rd. Mill and Overlay

(Mill to a depth of 2 inches)

2.0 inches of Asphalt Concrete SM-12.5 (estimated 220 lb/sy)

Geosynthetics and free-draining material shall be used for stabilization and drainage. Approximate locations requiring geosynthetics due to the presence of unsuitable subgrade material may be interpolated from the data included in the preliminary Geotechnical Data Report that is provided in the RFP Information Package. These locations shall be verified in the final geotechnical report provided by the Design-Builder.

2.6.2 Alternative Performance Specifications

The performance specifications listed in the VDOT 2007 Road and Bridge Specifications may not be desirable for the construction of a shared-use path due to its relatively thin pavement design. The Design-Builder may recommend alternative performance specifications, similar to those for an asphalt concrete sidewalk listed in Section 504 of the VDOT 2007 Road and Bridge Specifications, to the VDOT Project Manager for approval. Minimally, the performance specifications shall consist of documentation addressing the following:

- 1) Determination of foundation characterized as shape and compacted to a firm, even surface
- 2) Bedding material acceptance
- 3) Asphalt concrete placement providing a smooth, dense, and uniform thickness

VDOT reserves the right to reject the alternative performance specifications.

2.6.3 Geotechnical Requirements

2.6.3.1 Settlement

All pavements, subgrades, and embankments, including tie-ins to the proposed bridge structures, shall be designed and constructed to meet the following post-construction settlement tolerances:

- Total vertical settlement less than two (2) inches over the initial twenty (20) years, and less than one (1) inch over the initial twenty (20) years within one hundred (100) feet of bridge abutments.
- Settlement that does not result in damage to adjacent or underlying structures, including utilities and that does not impede positive drainage of the pavement surface.
- For pavement surfaces to include areas of tie-ins to the Project, grade tolerances shall be measured with a ten (10) foot straightedge. The variation of the surface from the testing edge of the straightedge between any two contacts with the surface shall not be more than plus or minus (+/-) 0.25 inch.

Humps and depressions exceeding the specified tolerances will be subject to correction by the Design-Builder. The Design-Builder shall notify the Quality Assurance Manager (QAM) and VDOT for any non-conformance items.

Settlement monitoring plates shall be installed in areas where the predicted settlement under the weight of the new embankment fill exceeds five (5) inches and/or in areas where surcharging or wick drains are to be used to accelerate the time rate of settlement of the subgrade material beneath the embankment. The location, number and frequency of settlement monitoring plates to be installed and monitored shall be determined by the Design-Builder's Geotechnical Engineer of Record (GER) subject to approval by the Department. In no case shall the monitoring frequency exceed two (2) weeks unless approved by the Department. The settlement plates shall be constructed and installed in accordance with Section 303.04(i) of the VDOT 2007 Road and Bridge Specifications. The GER shall verify in writing to the QAM that all monitoring plates were installed correctly. The settlement monitoring will be continued at the specified frequency until the required waiting period has been completed and the GER evaluates the data and confirms the rate of settlement has stabilized, the primary consolidation or elastic settlement is complete, and that the remaining long-term settlement will not exceed the tolerances included herein. All costs associated with the construction, installation, monitoring and analysis of the data shall be the responsibility of the Design-Builder, and the total cost shall be included in their bid estimate to include any costs associated with any surcharging and/or ground improvement techniques they plan to employ.

2.6.3.2 Slope Stability

Design stable cut slopes as well as embankment slopes and evaluate stability for interim construction stages, for the end of construction condition, and for design-life conditions. Design shall satisfy the following criteria:

- The maximum slope ratio to be used for cut and/or roadway embankment fill slopes should not be steeper than 2H:1V.

The following factors of safety are to be used with limit equilibrium methods of analysis for representative sections of all soil cut and soil embankment fill slope areas ten (10) feet or more in height and/or where slopes are supporting, or are supported by, retaining structures. The factors of safety listed in the table below are valid for subsurface investigations performed in accordance with Chapter 3 of the VDOT MOI for Materials Division or for site specific investigation plans approved by the VDOT District Materials Engineer. Approval of site specific investigation plans with reduced boring frequency may require higher factors of safety.

Minimum Factors of Safety for Soil Cut/Fill Slopes:

Slope analysis parameters based on:	Factor of Safety	
	Involves Structure or Critical Slope ¹	Non-Critical Slope
In-situ or lab. tests and measurements ^{2,3}	1.5	1.3
No site specific tests	N/A ³	1.5

Notes:

1. A critical slope is defined as any slope that is greater than twenty-five (25) feet in height, affects or supports a structure, impounds water, or whose failure would result in significant cost for repair or damage to private property.
 2. Site specific in-situ tests include both groundwater measurements and SPT testing but may also include CPT or DMT.
 3. Parameters for critical slopes involving structures must be based on specific laboratory testing.
 4. Problem soils (very soft soils, very loose soils, fissured or heavily over-consolidated soils) must be analyzed using shear strength parameters determined from appropriate laboratory strength tests in accordance with accepted local engineering practice.
 5. Construction plans shall specify use of soil types consistent with the parameters used in slope analyses.
- Incorporate reliability assessments as previously referenced.

2.6.4 Unsuitable Materials

Unsuitable Material is defined as material used as embankment fill, and in cut areas to a depth of at least three (3) feet below subgrade directly beneath pavements and at least two (2) feet beneath the bedding of minor structures and laterally at least two (2) feet beyond the outside edge of the pavement shoulders and bedding limits of the minor structures that classifies as CH,

MH, OH and OL in accordance with the Unified Soil Classification System (USCS); contains more than five (5) percent by weight organic matter; exhibits a swell greater than five (5) percent as determined from the California Bearing Ratio (CBR) test using VTM-8; and exhibits strength, consolidation, durability of rock or any other characteristics that are deemed unsuitable by the Design-Builder's geotechnical engineer or as denoted in the Contract Documents for use in the Work. All materials within the uppermost three (3) feet of a pavement subgrade that exhibit a CBR value less than that stipulated in the pavement design shall also be considered unsuitable. The anticipated locations and methods of treatment for unsuitable materials identified by the Design-Builder's qualified geotechnical engineer shall be shown on the design plans and cross sections. Saturated or very dry and/or loose or very soft coarse and fine-grained soils that exhibit excessive pumping, weaving or rutting under the weight of construction equipment are also considered unsuitable unless they can be moisture conditioned through either mechanical or chemical means to an acceptable moisture content that allows adequate compaction to meet project specifications, and classification testing indicates they are not otherwise unsuitable. Topsoil, peat, coal and carbonaceous shale shall also be considered unsuitable material. All unsuitable material shall be disposed of and/or treated as discussed in Section 106.04 of VDOT's 2007 Road and Bridge Specifications at no additional cost to the Department. Topsoil or other organic soils are also considered unsuitable for use in embankment fill other than as a cover for slopes for the purpose of establishing vegetative cover. When used as cover for slopes, the thickness of topsoil shall not exceed twelve (12) inches.

2.6.5 Pipe Installation Methods

Culverts or utility pipes shall be installed by either conventional methods in accordance with Section 302.03 of the VDOT 2007 Road and Bridge Specifications, or Jack and Bore and/or by Micro-tunneling in accordance with the applicable Special Provisions contained in the RFP Information Package. Trenchless technology other than these methods of installation is not permitted unless otherwise approved by VDOT. The Design-Builder's Design Engineer shall choose which of the methods of installation is best suited for the ground and site conditions where the work is to be performed and that will meet the design requirements of the proposed culverts or utility pipes. The Design Engineer shall be responsible to establish both the vertical and horizontal tolerances in support of the design. Such tolerances shall be noted on the construction plans. The design tolerance may be more stringent than what is called for in the both the Jack and Bore and Micro-Tunneling Special Provisions; however, under no circumstances shall the design tolerances used in design of either culverts or utility pipes exceed those specified in the VDOT Road and Bridge Specifications and the applicable Special Provisions. Performance requirements and tolerances stipulated in the Special Provisions shall also apply to conventional tunneling methods. If trenchless technology is used to complete roadway crossings, surface settlement monitoring must be performed to verify that there is no adverse impact on the stability and performance of the embankment and pavement structure above the pipe alignments in accordance with Section 302.03 of the VDOT 2007 Road and Bridge Specifications and the Special Provisions for Jack and Bore and/or Micro-Tunneling, as applicable.

2.7 Hydraulics

The Design-Builder shall provide and/or perform all investigations, evaluations, analysis, coordination, documentation, and design required to meet all Hydrologic and Hydraulic, Drainage, Stormwater Management, Erosion and Sedimentation Control, Stormwater Pollution Prevention, and Virginia Storm Water Management Program permitting requirements of the standards and reference documents listed in Part 2, Section 2.1.

2.7.1 Hydrologic and Hydraulic Analysis (H&HA)

An H&HA, including scour analysis shall be completed for bridges over waterways and major culvert crossings that have a total 100 year design discharge greater than 500 cfs. The Design-Builder shall deliver to VDOT a final H&HA, including scour analysis for proposed major drainage structures. These analyses shall be submitted to VDOT for review and approval prior to the commencement of construction. The H&HA shall include an established level of construction tolerance to allow for the hydraulic performance established in the H&HA to be maintained. The approval of the H&HA represents a hold point in the Design-Builder's CPM Schedule. The ultimate proposed conveyance system (inclusive but not limited to culverts, stream realignment, and outfall conveyance channels through the project area) shall be designed by the Design-Builder to meet all applicable hydraulic requirements, including current Federal Emergency Management Administration (FEMA), Federal Highway Administration (FHWA), and VDOT guidelines as described in the VDOT Drainage Manual, (including current Errata Sheet), Hydraulic Design Advisories and applicable I&IMs.

Natural stream design, bank hardening, and revetments will be considered as part of the hydraulic design to minimize downstream impacts in accordance with State and Federal requirements applicable to this project. Natural stream design, bank hardening and revetments shall be designed in accordance with acceptable FHWA Publications. Acceptable FHWA publications include, but are not limited to, HDS-6, HEC-11, HEC-14, HEC-20, and HEC-23.

The hydrologic and hydraulic analysis shall be documented by the completed VDOT LD-293 forms. The Design-Builder shall provide VDOT two (2) paper and two (2) electronic copies (Adobe PDF format) of the final H&HA, HEC-RAS (or other VDOT approved analysis software for this project) Files and LD-293. The final H&HA submittal is to include the completed VDOT form LD-450.

Upon completion of the installation of any major drainage structure, the Design-Builder shall prepare a final as-built survey of the major drainage structure and related upstream and downstream appurtenances and provide such survey to the Design-Builder's hydraulic designer/engineer. The as-built survey shall include the horizontal location and vertical elevations of the constructed major drainage structure in sufficient detail to confirm pre-construction hydraulic performance. A post construction as-built Hydrologic and Hydraulic Analysis and report shall be developed based on the as-built survey and submitted to VDOT for review and acceptance. The post construction H&HA shall demonstrate that the anticipated post construction hydraulic performance of the major drainage structure matches or betters that of the pre-construction H&HA. If the post construction analysis shows an impact greater than the pre-construction H&HA and/or exceeds the construction tolerances established with the pre-

construction H&HA, then the Design-Builder shall be responsible for mitigating the adverse impacts of the post construction condition at no additional cost to VDOT.

2.7.2 Drainage

The final drainage design shall maintain the existing drainage patterns to the maximum extent practicable. Overtopping of the Trail will be acceptable such that the construction of the Trail does not adversely affect the existing hydraulic characteristics of impacted private property, Route 5 and/or any of its major structures, and Kinvan Road and/or any of its major structures.

The drainage work shall include the design and construction of culverts, open channels, storm sewer systems, underdrains, adequate outfall analysis, stormwater management facilities, and erosion and sediment control measures in compliance with the standards and reference documents listed in Part 2, Section 2.1 and the VDOT Erosion and Sediment Control & Stormwater Management Programs. The Design-Builder shall provide VDOT two (2) paper and two (2) electronic copies on compact disc (CD) of a final drainage report incorporating all drainage calculations including pre and post development discharges, capacities, and supporting data such as drainage areas (with maps), ground cover calculations, etc. in accordance with the documentation requirements as outlined in the VDOT Drainage Manual, for review and approval prior to submitting detail design plans.

For the purposes of developing the Price Proposal, the Offeror shall assume that the existing drainage pipes and culverts within the project limits and which are a functional element of the proposed drainage design, are unserviceable and are to be plugged and abandoned in accordance with VDOT Road and Bridge Standard PP-1, removed, or replaced with adequate structures designed and constructed in support of the Design-Builder's final drainage design. The Offerors should note that none of the existing pipes and culverts within the project limits have been surveyed for structural and functional deficiencies. If after award the Design-Builder investigates the serviceability, functionality, and hydraulic capacity of the affected existing pipes and culverts, and as a result proposes use (or repair) of some or all, then it shall be done only with VDOT's approval. The Design-Builder shall assess the serviceability of the structure by performing a visual/video inspection of the existing pipes and culverts utilizing the assessment criteria for Post Installation Inspections presented in VDOT Supplemental Specification 30204. The Design-Builder will provide VDOT with an inspection report documenting the assessment as prescribed in the supplemental specification. Drainage pipes and box culverts deemed repairable shall be rehabilitated in accordance with VDOT's guidelines including, but not limited to those methods outlined in the latest version of IIM-LD-244 and Special Provisions SU3020001A Pipe Rehabilitation and SU3020002A Pipe Replacement.

2.7.2 Post-Construction SWM, SWPPP and ESC Plans

An Erosion and Sediment Control (ESC) Plan and Narrative, Stormwater Pollution Prevention Plan (SWPPP), and a post construction Stormwater Management (SWM) Plan shall be prepared and implemented by the Design-Builder in compliance with applicable requirements of the standards and reference documents listed in Part 2, Section 2.1 including the Virginia

Erosion and Sediment Control Law and Regulations and the Virginia Stormwater Management Program (VSMP) Law and Regulations.

It shall be the responsibility of the Design-Builder to have a qualified person within their team structure, other than the ESC and post construction SWM Plan designer, who is authorized by the Department of Environmental Quality (DEQ) (previously the Department of Conservation and Recreation) to perform plan reviews, independently review and certify that the ESC Plans and Narrative and post construction SWM Plan for the Project are in accordance with VDOT's Approved ESC and SWM Standards and Specifications. Before implementing any ESC or post construction SWM measures not included in VDOT's approved ESC and SWM Standards and Specifications, a variance or exception respectively must be requested through the District Drainage Engineer in accordance with the latest versions of IIM-LD-11 and IIM-LD-195.

The Design-Builder shall complete and submit the ESC and SWM Plan Certification form (LD-445C) to the VDOT Project Manager. The Design-Builder shall provide VDOT two (2) paper and two (2) electronic copies each on CD of the final ESC Plan and Narrative, SWPPP and post construction SWM Plan incorporating all calculations, analysis, documentation and evaluations required. The ESC Narrative shall specifically include calculations (with supporting data) documenting that the design meets the adequate outfall requirements of the VSMP Regulations for each location where stormwater is discharged from the Project.

The land-disturbing activity for the Project is equal to or greater than 2,500 square feet and coverage under the VSMP General Construction Permit For The Discharges From Construction Activities (VSMP Construction Permit) is required. The Design-Builder shall coordinate and submit the required permit coverage application information to the VDOT Project Manager. The Design-Builder shall complete the applicable sections of the VSMP Construction Permit Registration form (LD-445), VSMP Construction Permit Contact Information (LD-445A), VSMP Construction Permit Fee Registration form (LD-445B). These forms along with the completed ESC and SWM Plan Certification form (LD-445C) shall be submitted to the VDOT Project Manager. The VDOT Project Manager will review the submitted information and, if complete and acceptable, process a request for coverage under the VSMP Construction Permit in accordance with VDOT's guidelines as outlined in the latest version of IIM-LD-242.3. If any information submitted by the Design-Builder is found to be incomplete and/or unacceptable, the assembly will be returned to the Design-Builder for corrective action and resubmission. The Design-Builder will be the Permittee and shall be responsible for all permitting fees.

A working conceptual ESC and post construction SWM Plan and SWPPP for the entire Project must be submitted for review and approval with the initial application for permit coverage. This initial conceptual Plan submittal shall include the proposed total expected Land Disturbance Area and Land Development Area, including any off-site facilities, for the entire Project. Where the Project will be constructed in segments, the Design-Builder shall submit a finalized ESC Plan, a post construction SWM Plan and a SWPPP, including the expected Land Disturbance Area, for the proposed initial work segment in addition to the conceptual plan for the entire project. It is expected that the individual work segment submittals will be self-sustaining and not incur a deficit in post construction SWM design requirements requiring

mitigation on future work segments. Subsequent work segment submittals shall include required modifications to the Land Disturbance Area value. However, these modifications, in total, shall not exceed the initially submitted Land Development Area value. The Design-Builder shall not proceed with work to be covered by the permit until permit coverage is secured and the VDOT Project Manager releases the work in writing. It is noted that permit coverage, and subsequent release of work, can take up to 90 days from the time that the Design-Builder submits a request for coverage that includes all required information. This represents a hold point in the Design-Builder's CPM Schedule. Design-Builder shall provide a completed SWPPP Certification form (LD-455E) before commencement of any land disturbing activity and shall complete and include the SWPPP General Information Sheets in the plan assembly per the latest version of IIM-LD-246. The SWPPP Certification form (LD-455E) and SWPPP General Information Sheets shall be updated with each work segment submittal as necessary. The Design-Builder shall be responsible for compliance with construction-related permit conditions and shall assume all obligations and costs incurred by complying with the terms and conditions of the permit. Any fines associated with permit or regulatory violations shall be the responsibility of the Design-Builder. Upon completion of the entire regulated land disturbing activity (including final stabilization of all disturbed areas), the Design-Builder shall provide as built Permanent Best Management Practice (BMP) information in Section VI of the SWPPP General Information Sheets for each post construction BMP placed into service on the project, complete and sign the VSMP Construction Permit Termination Notice form (LD-445D) and submit both documents to the VDOT Project Manager for processing. The Design-Builder shall also have on-site during any land disturbing operations an individual or individuals holding a DEQ Inspector Certification, a DEQ Responsible Land Disturber (RLD) Certification and a VDOT Erosion and Sediment Control Contractor Certification (ESCCC) to ensure compliance with all DEQ and VDOT erosion and sediment control plan implementation requirements.

Effective July 1, 2013 the administration of the Virginia Erosion and Sediment Control and Stormwater Management regulatory programs was transferred from the Virginia Department of Conservation and Recreation (DCR) to the Virginia Department of Environmental Quality (DEQ). References and links to DCR manuals and documents contained herein may no longer be correct as these programs are being transferred between the State agencies. The erosion and sediment control certification requirements shall still apply, but with the DEQ having oversight over the certification program beginning July 1, 2013.

2.7.3 Post-Construction Stormwater Management Facilities

The Design-Builder shall be responsible for the design and construction of stormwater management facilities as required for the Project in accordance with the latest version of IIM-LD-195, and the other standards and reference documents listed in Part 2, Section 2.1 including the Virginia Stormwater Management Program Law and Regulations, and shall comply with the minimum geotechnical requirements contained therein. Provided in the RFP Information Package are preliminary stormwater management calculations based upon the alignment depicted in the RFP Conceptual Plans. VDOT has determined that water quality treatment is required for the Project. A minimum phosphorus removal rate of 3.53 pounds per year within the proposed right of way limits is required. VDOT has identified the purchase of offsite nutrient credits as the preferable option for meeting the water quality requirements. However, this assessment is

preliminary and has not been fully evaluated to determine if other stormwater management options are feasible to address all of the stormwater management requirements of the Project. The Design-Builder is responsible for developing the final post-construction stormwater management plan for the Project. If the Design-Builder proposes an alternative post-construction stormwater management plan to the purchasing of nutrient credits, a detailed construction and maintenance plan for the post-construction stormwater management facilities proposed by the Design-Builder must be developed and submitted for review and approval to VDOT as specified in the Preliminary Drainage Design and Hydrological & Hydraulic Analysis Report dated November 8, 2013.

Whereas an alternative stormwater management option is approved by VDOT, the Design-Builder is to insure proper ingress and egress to any stormwater management facility that is to be located within VDOT right of way and that any specific proprietary facilities have proper maintenance details for the facilities included in the Project plans.

The following stormwater management facilities are not permissible options for this Project:

- Retention basins
- Bioretention facilities
- Infiltration facilities
- Sand Filters
- Permeable pavement
- Extended detention-enhanced basins
- Constructed wetlands

2.7.4 Other Drainage Requirements

All drainage facilities (existing and newly constructed) within the Project area that are disturbed or extended as a part of the Project and are functional elements of the final design shall be rendered in a serviceable condition. Accumulated debris resulting from construction activities shall be removed by the Design-Builder, as such maintaining the original line and grade, hydraulic capacity or construction of the facility prior to the final acceptance of the Project.

2.8 Landscape Architecture (Trailhead)

A final Trailhead Plan for the Four Mile Creek Park facility, including proposed brickwork, granite seat walls, granite historical marker, site furniture, pergola, planting plan, and all necessary clearing and grubbing, grading and drainage, as well as selective clearing and other incidentals, shall be prepared by the Design-Builder. The final Trailhead Plan shall be either prepared by or the preparation thereof supervised by a professional landscape architect. Site features, such as the pergola, granite and brickwork, shall be similar to the design completed for the Herring Creek Trailhead located adjacent to Route 644 in Charles City County, Virginia. Curb cuts shall be installed in accordance with the standards and reference documents in Part 2, Section 2.1.1 and the American with Disabilities Act Accessible Guidelines (ADAAG).

With the exception of the snake rail fencing, the project details for construction of the site amenities shown in the RFP Conceptual Plans are similar to the plans prepared for the Herring Creek Trailhead. Final design plans shall be submitted to the VDOT Project Manager for coordination with the VDOT Landscape Architect for review and approval. All plant materials shall conform to American Standard for Nursery Stock ANSI Z60.1, latest edition and with the following requirements:

- All plant materials shall be native or indigenous to the area and that can adapt and survive in roadside environments, being both salt and drought tolerant.
- The plants shall be warranted for a period of one (1) year (beginning with the final acceptance of the planting operation) and maintenance for that warrantee period shall conform to Section 605 of the VDOT 2007 Road and Bridge Specifications.
- Plants shall conform to the species and sizes indicated in the planting summary sheet.
- Center spacing and density of plantings shall minimally conform to the RFP Conceptual Plans.
- Brick pavers, granite work and other site furniture shall conform to the Special Provisions.

2.9 Traffic Control Devices

The Project shall include all Traffic Control Devices (TCD), including temporary and permanent installation of the following: signage, guardrail, pavement markings/markers. All TCD designed and installed under the Project shall be in accordance with standards and references in Part 2, Section 2.1. The Signing and Pavement Marking Plans, Transportation Management Plan (TMP), including Temporary Traffic Control/ Public Information and Traffic Operations Plans are required from the Design-Builder for final approval by VDOT and shall be included as a planned work package. The Design-Builder shall comply with the Special Provision for Personnel Requirements for Work Zone Traffic Control and the Special Provision for Work Zone Traffic Control Management, Design-Build Projects.

All existing TCD impacted by the Project shall be modified, upgraded, or replaced by the Design-Builder to meet current VDOT standards.

2.9.1 Signs

The Design-Builder shall be responsible for modifications to existing highway signs and highway sign structures, and furnishing and installing all required new temporary and permanent signs and structures within the Project Limits. All signs shall conform to the requirements of the MUTCD, the 2011 Virginia Supplement to the 2009 MUTCD, and applicable special provisions (included in the RFP Information Package). All signing plans shall be in accordance with the VDOT Traffic Engineering Design Manual, dated 2011. The final lines of sight and sight distances must be considered in the placement of all Project signage. Signing shall be provided to warn trail users at locations where the sight distance does not meet a design speed of 20 mph.

An existing sign inventory shall be completed prior to site demolition in accordance with the VDOT Traffic Engineering Design Manual. This existing information shall be submitted at the same time as the first plan submittal for proposed signing.

All non-salvageable signs and sign structures to be removed during the construction of the Project shall be disposed of by the Design-Builder. Salvageable signs removed during construction shall be delivered to a VDOT facility identified by the VDOT Project Manager for temporary storage. Temporary relocation of signs may be necessary as part of this Project and it is the responsibility of the Design-Builder to perform all the required sign relocations.

Pedestrian and bicycle crossing warning signage shall be provided at all trail roadway crossings. Flashers are not required at ~~the~~ Route 5 crossings.

Signage, in accordance with Section 9B.18 of the 2011 Virginia Supplement to the 2009 MUTCD, shall be provided along Kinvan Road to alert motorists of the Trail crossings. Pedestrian and bicycle crossing warning signs, including but not limited to, W11-15/W11-15P assembly, W11-1, and W11-2 shall be installed along Kinvan Road.

2.9.1.1 Design of Sign Panels and Location

All guide signs shall be designed using the Clearview font in accordance with Traffic Engineering Memorandum TE-337. For existing structures, when replacing signs that display Series E Modified font, the Clearview 5WR font is an option. The Design-Builder shall accomplish the sign panel design using GUIDSIGN software.

2.9.2 Guardrail/Barrier

The Design-Builder shall ensure that the clear zone within the Project limits is free from hazards and fixed objects. In the event that removal or relocation of hazard and fixed objects from the clear zone is not feasible, the Design-Builder shall design and install an approved guardrail barrier system and end treatments, where appropriate, for protection in accordance with NCHRP 350 or AASHTO Manual for Assessing Safety Hardware, First Edition. The same clear zone requirement applies to existing conditions affected by this Project where guardrail upgrade will be required. Existing sub-standard guardrail within the Project Limits must be upgraded by the Design-Builder to meet current standards per I&IM 220. This may require the upgrade of guardrail to the nearest logical termination point beyond the current Project limits.

Fourteen (14) days prior to installation of guardrail the Design-Builder shall request VDOT field verification of the proposed layout. Accompanied by the Design-Builder, VDOT representative will inspect the locations and advise on any necessary adjustments. Additionally, the Design-Builder shall provide a copy of the manufacturer's recommendations for installation of all guardrail terminals to the VDOT Project Manager before the installation of any guardrail end treatment of terminating device.

2.9.3 Pavement Markings/Markers

The Design-Builder shall include all required pavement markings, markers, and delineators. Pavement markings, markers, and delineators shall conform to the requirements of the MUTCD, the 2011 Virginia Supplement to the 2009 MUTCD, and applicable special provisions (included in the RFP Information Package). All pavement marking plans shall be in accordance with the VDOT Traffic Engineering Design Manual, dated 2011. All final markings shall be Thermoplastic. All temporary marking are to be Class II and the Type shall be in accordance with Section 512.03 (i) of the VDOT 2007 Road and Bridge Specifications. An approved pavement marking plan for the Project is required.

All new lane markings, edge lines, and center lines on Kinvan Road and Route 5 shall be supplemented with snow-plowable raised pavement markers. All permanent snow-plowable raised pavement markers shall be installed in accordance with VDOT Standard PM-8 and/or PM-9. Damaged existing snow-plowable raised pavement markers within the Project limits shall be replaced in accordance with VDOT Standard PM-8 and/or PM-9. Pavement Markings shall be provided at all trail roadway crossings.

Shared lane markings, as described in Section 9C.07 of the 2009 MUTCD, shall be installed along the Kinvan Road widened shoulders.

2.10 Transportation Management Plan

The Design-Builder shall prepare a Transportation Management Plan (TMP) in accordance with I&IM-241/TE-351 for all proposed work associated with the Project. The TMP shall document how traffic shall be managed during the construction of the Project. This Project is classified as a Type A in terms of the TMP. The Design-Builder shall coordinate all work in accordance with the TMP. The phases in the Design-Builder's sequence of construction shall be followed unless the Design-Builder submits and secures VDOT approval for a sequence which will both expedite construction while lessening the effect of such construction upon the traveling public. The TMP shall incorporate and address the elements provided in this Section.

2.10.1 Maintenance of Traffic

The Design-Builder's TMP shall include a Maintenance of Traffic (MOT) Plan detailing all phases of work, proposed lane closures, maintenance of traffic through the work area, and all construction accesses for approval by VDOT's Project Manager. This plan shall also address safe and efficient operation of adjacent public transportation facilities and State Highways. The plan shall also include coordination with local agencies and other contractors performing work in the vicinity of Route 5 or Kinvan Road. This plan shall reflect the noted Scope of Work and all applicable VDOT Standards and Specifications regarding time of work. All users must be addressed and accommodated in the TMP, including pedestrians, bicyclists, transit vehicles, and other motorists. The TMP shall also accommodate safe and efficient snow removal operations and ensure proper drainage during all phases of construction. Access must be maintained to all businesses, residential communities, and private entrances at all times. The phases in the Design-Builder's suggested sequence of construction that accompany an approved work package shall be followed unless the Design-Builder submits and secures VDOT approval for a sequence which

will both expedite construction while lessening the effect of such construction upon the traveling public.

The MOT Plan shall extend an appropriate distance beyond the construction tie-in locations to allow for the required length of any traffic shifts.

If additional traffic counts are required, it will be the responsibility of the Design-Builder to collect such data. The Design-Builder shall note that any proposed detour utilizing local neighborhood streets that are maintained by Henrico County will require the coordination with the applicable locality, as appropriate and are subject to the terms and conditions of VDOT's approval.

A minimum width of one (1) foot shall be maintained between the edge of the traffic lane and any Traffic Barrier Service, Concrete.

Minimum traffic lane widths: maintain a minimum of eleven (11) foot lanes on Route 5 and Kinvan Road unless approved by VDOT.

Reductions in the speed limits within the work zones on any roadway shall be reviewed and approved by the VDOT Central Region Operations Engineer in accordance with TE-350.1. The Design-Builder must complete a "Work Zone Speed Analysis" and provide it to the VDOT Project Manager for any reductions in the speed limits to be considered.

All work zone traffic control including preparatory or exploratory work to any existing facilities including, but not limited to, geotechnical investigations shall follow the 2011 Virginia Work Area Protection Manual.

Construction signs and pavement markings (temporary) shall be installed, maintained, adjusted, and removed by the Design-Builder throughout the duration of the Project.

All entrances, intersections or pedestrian access points/routes that will be affected by the work zone or by the traffic control devices will be maintained or an acceptable alternate must be provided by the Design-Builder.

2.10.2 Lane and Road Closure Restrictions

The following time restrictions shall be used:

- No lanes can be closed and no flagging operations can be conducted between 6:00 am to 9:00 am and 3:00 pm to 6:00 pm on Route 5 and Kinvan Road.

Total closures of Route 5 or Kinvan Road with substantiation of need by the Design-Builder will require coordination with appropriate stakeholders and public notice.

The Design-Builder shall submit all lane and/or shoulder closure requests to the VDOT Richmond District Traffic Operations Center (TOC) and the VDOT Project Manager for

coordination purposes (for determination of conflicts with other projects, for instance) at least seven (7) days in advance of the proposed lane and/or shoulder closure and no later than close of business Wednesday the week prior to closure, stating the location, purpose, date, time, and duration of the closure. The Design-Builder shall ensure that the VDOT Richmond District TOC is notified when lane closures or flagging operations are in place and again when they are removed. The Design-Builder shall confirm at least twenty-four (24) hours before any scheduled lane and/or shoulder closure and shall include a written reiteration of the proposed tasks and a listing of materials, labor, and equipment to be utilized, in order for TOC to post the information on the VDOT website and VA511 system.

The Design-Builder is responsible for providing advance notification via variable message and required static signing for lane and/or shoulder and complete road closures in accordance with the 2011 *Virginia Work Area Protection Manual*. Once a closing is in place, work shall commence immediately and shall progress on a continuous basis to completion or to a designated time.

If the Design-Builder is unable to remove the lane and/or shoulder closure by the stipulated time the Design-Builder will not be allowed further lane closures until the reasons for the failure are evaluated and the Design-Builder can provide assurance that the causes have been corrected. A formal submission as to the reasons for the failure to restore traffic lanes within the contract lane closure restrictions and the proposed corrective measures is to be provided to the VDOT Project Manager within two (2) days of the occurrence. VDOT will respond to the adequacy of the submission within two (2) working days of receipt. No consideration for extension of time and no additional compensation will be granted for these days.

VDOT reserves the right to monitor traffic conditions impacted by the work and to make additional restrictions as may be necessary or as emergency situations dictate. Additional restrictions for other holidays or special local events may be necessary, however, in these situations VDOT will endeavor to inform the Design-Builder at the earliest and in no case less than 48 hours prior to the event.

The Design-Builder is advised that due to the 2015 UCI World Road Cycling Championships and significant cycling interest that will be present in the area at that time, the Design-Builder shall not be permitted to work on the Project from September 12, 2015 through October 4, 2015 unless otherwise approved by the VDOT Project Manager.

2.10.3 Portable Changeable Message Signs

Portable Changeable Message Signs (PCMS's) shall be used in advance of the work zone when closing or shifting lanes. The Design-Builder shall provide at least two (2) PCMS's along Route 5 or Kinvan Road, which are to be placed in advance of the Project in each direction. PCMS's shall also be used to provide en-route travel information about planned construction, delays or other sudden changes in travel conditions throughout the Project's duration. The PCMS shall be placed in a semi-permanent location, protected from traffic but highly visible to the public. The Design-Builder shall coordinate the implementation of PCMS's with VDOT. The use of PCMS's shall not replace any traffic control device otherwise required per the MUTCD or the Virginia Work Area Protection Manual.

2.11 Public Involvement / Public Relations

The Design-Builder shall be responsible for providing a point of contact and phone number for the public to use in calling to request information or express concerns during the Project development and delivery. All information to be released to the public shall be approved by VDOT.

During the design and construction phases, the Design-Builder shall:

- Hold informal meetings with affected stakeholders as necessary and as directed by VDOT. A list of affected stakeholders (including, but not limited to, community associations, churches, business owners, police, fire & rescue, school bus transportation, transit operators) shall be developed by the Design-Builder and submitted to VDOT for acceptance prior to holding any meetings. All stakeholders shall be informed of meetings.

Concurrent with the first plan submittal and at intervals deemed necessary by the VDOT, provide to VDOT's Project Manager written information about the Project suitable for posting by VDOT on its Website, including any significant changes that affect the public. Such information will include a Project overview, plan of work, overall Project schedule and progress, potential impacts to traffic on all roadways within the project limits (i.e., temporary lane closures, shoulder closures, ramp reconstruction, milling operations, etc.), up-to-date Project photos, and contact information.

During the Construction Phase, the Design-Builder shall:

- Operate as a liaison between VDOT, Henrico County, and the Design-Builder's Construction Manager to ensure compliance with applicable local ordinances and provide appropriate notification to affected property owners.
- Provide to the VDOT Project Manager information for Traffic Alerts whenever there are new impacts to motorists. All information for Traffic Alerts must be submitted at least one week in advance of the traffic impact. If the impact is major (changes or additional lane closures that are anticipated to cause traffic delays that exceed existing conditions), VDOT must be notified one month in advance.
- Provide to VDOT's Project Manager an emergency contact list of Project personnel and response plan to respond to any onsite emergency, including any work zone incidents in accordance with I&IM-241.
- Maintain a log or database of questions, complaints, and/or comments received from stakeholders and the public either via public outreach efforts or direct contact, along with dates received, responses generated, and how the issues or concerns are

addressed. If appropriate, this list of questions and responses will be posted on VDOT's website.

A public hearing was held for this Project on October 10, 2013. Applicable Public Hearing comments have been compiled and have been incorporated into the plans as deemed necessary by VDOT. Any meetings held will be conducted in accordance with the VDOT Policy Manual for Public Participation in Transportation Projects, revised August 2011.

2.12 Right of Way

The Offeror's conceptual design used to develop its Proposal shall be wholly contained within the right of way limits shown on the RFP Conceptual Plans, with the exception of temporary construction, permanent drainage, and utility easements (other than permanent drainage easements for stormwater management facilities). Stormwater management facilities shall be wholly contained within the right of way limits shown on the RFP conceptual plans. Utility easements have not yet been identified or shown on the RFP Conceptual Plans. Deviations from the proposed right of way limits shown on the RFP Conceptual Plans will be subject to VDOT approval in accordance with Part 1 (Instruction to Offerors), Section 2.8 and 2.9. For right of way owned by Henrico County a Memorandum of Agreement with Henrico County for the conveyance of rights of way to VDOT for the construction of the Trail has been prepared and will be executed before Notice to Proceed is issued to the Successful Offeror.

The Design-Builder's final design shall also be contained with the right of way limits shown on the RFP Conceptual Plans, with the exception of temporary construction, permanent drainage, and utility easements (other than permanent drainage easements for stormwater management facilities) and where minor adjustments are required during final design process, and only after approval from VDOT. If the Design-Builder proposes significant changes to the right of way limits shown on the RFP Conceptual Plans, then this shall be consider a deviation of the Contract Documents and shall be addressed as described in Part 2, Section 2.0. As discussed herein, the Design-Builder shall be responsible for any time and/or cost impacts and any NEPA document re-evaluation associated with Design-Builder's design changes that extends beyond the right of way limits reflected in the RFP Conceptual Plans and approved by VDOT.

The Design-Builder, acting as an agent on behalf of the Commonwealth of Virginia ("Commonwealth"), shall provide all right of way acquisition services for the Project's acquisition of fee right of way and permanent, temporary and utility easements. Right of way acquisition services shall include certified title reports, appraisal, appraisal review, negotiations, relocation assistance services and parcel closings, to include an attorney's final certification of title. The Design-Builder's lead right of way acquisition consultant shall be a member of VDOT's prequalified right of way contracting consultants (listed on VDOT's website) and the Design-Builder's right of way team shall include VDOT prequalified appraisers and review appraisers (also listed on VDOT's website). VDOT will retain authority for approving the scope of the appraisal and the appraiser, just compensation, relocation benefits, and settlements. VDOT must issue a Notice to Commence Right of Way Acquisition to the Design-Builder prior to any offers being made to acquire the property. This represents a hold point in the Design-Builder's Baseline Schedule. VDOT must also issue a Notice to Commence Construction to the

Design-Builder once the property has been acquired and prior to commencing construction on the property. This also represents a hold point in the Design-Builder's Baseline Schedule. The Design-Builder will **NOT** be responsible for the right of way acquisition costs. As used in this RFP, the term "right of way acquisition costs" means the actual purchase price paid to a landowner for right of way, including fee, any and all easements, and miscellaneous fees associated with closings as part of the Project. All right of way acquisition costs will be paid by VDOT, and shall not be included in the Offeror's Price Proposal. Notwithstanding the foregoing provision, should additional right of way (whether fee or easements) be required to accommodate Design-Builder's unique solution and/or Contractor's means, methods and resources used during construction above and beyond the right of way limits depicted on the conceptual plans included in the RFP Information Package, then all right of way acquisition costs for such additional fee or easements shall be paid by the Design-Builder. These costs would include (but not be limited to) the costs of any public hearings that may be required, actual payments to property owners and all expenses related to the additional acquisitions and associated legal costs as well as any additional monies paid the landowners to reach a settlement or to pay for a court award. In the event additional right of way is needed as a result of an approved scope change request by the Design-Builder, the Design-Builder shall follow the procedures indicated in the "Right of Way Acquisition Guidelines" (Chapter 5 of VDOT's Right of Way Manual of Instructions; <http://www.virginiadot.org/business/row-default.asp>). Additionally, the Design-Builder is solely responsible for any schedule delays due to additional right of way acquisition associated with the Design-Builder's design changes and no time extensions shall be granted.

The following responsibilities shall be carried out by either the Design-Builder or VDOT as specified in each bulleted item below:

- The Design-Builder shall acquire property in accordance with all Federal and State laws and regulations, including but not limited to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (the "Uniform Act") and Titles 25.1 and 33.1 of the 1950 Code of Virginia, as amended. The acquisition of property shall follow the guidelines as established by VDOT and other State and Federal guidelines that are required and the VDOT Right of Way Manual of Instructions and the VDOT Utility Manual of Instructions, as well as I&IM-LD-243 and Chapter 12 of the VDOT Survey Manual. All conveyance documents for the acquisition of any property interest shall be accompanied by properly marked plan sheets and profile sheets.
- The Design Builder may not employ the use of Rights of Entries until the property owner has been made a bona fide offer to acquire the property.
- If the Design Builder and/or the Right of Way sub-consultant does not follow 49 CFR Part 24 Uniform Relocation and Real Property Acquisition Act of 1970 (The Uniform Act) in the performance of the acquisition and/or relocation processes, or fails to obtain or create any mandatory written documentation in their right of way parcel file, the Design Builder shall be responsible for any and all expenses determined to be ineligible for reimbursement of federal funding.

- VDOT shall designate a hearing officer to hear any Relocation Assistance appeals. VDOT agrees to assist with any out of state relocation by persons displaced within the rights of way by arranging with such other state(s) for verification of the relocation assistance claim.
- VDOT will entertain the use of relocation incentive plans on projects with significant numbers or critical relocations. Such incentive plans shall be presented to VDOT for approval. If VDOT approves the incentive plan, it will seek Federal Highway Administration approval. Any relocation incentive plan shall be uniformly administered so that all landowners and displaces of a similar occupancy receive fair and equitable treatment. Under no circumstances is a relocation incentive to be used without VDOT's prior approvals.
- VDOT will entertain the use of protective leasing to ensure the availability of housing or apartments for relocation purposes. Such protective leasing plans must be presented to VDOT for approval prior to their implementation.
- Section 33.1-134 of the Code of Virginia, 1950, as amended, provides that the Commissioner of Highways may acquire lands on which graves are located through either voluntary conveyance or condemnation. In the course of relocating such graves, the Commissioner of Highways, through the Office of the Attorney General, will appoint an attorney to prepare the Order and Petition for the exhumation and re-interment of the graves. The Design Builder shall be responsible for verifying the number of graves, locating next of kin if possible, acquiring new grave sites and managing the grave relocations as outlined in Chapter 3.4.7 of the Right of Way Manual of Instructions dated January 1, 2011.
- The Design-Builder shall submit a Project specific Acquisition and Relocation Plan to VDOT for VDOT Right of Way approval prior to commencing right of way activities. No offers to acquire property shall be made prior to the Acquisition and Relocation Plan approval and a Notice to Commence Acquisition. This represents a hold point in the Offeror's CPM Schedule. The Acquisition and Relocation Plan shall describe the Offeror's methods, including the appropriate steps and workflow required for title examinations, appraisals, review of appraisals, negotiations, acquisition, and relocation, and shall contain the proposed schedule of right of way activities including the specific parcels to be acquired and all relocations. The schedule shall include activities and time associated with VDOT's review and approval of just compensation, relocation benefits and administrative settlements. The plan shall allow for the orderly relocation of displaced persons based on time frames not less than those provided by the "Uniform Act." This plan shall be updated as necessary during the life of the Project and all updates must be submitted to VDOT for approval. The plan approval is based on the Plan providing a reasonable and orderly workflow and the plan being provided to the VDOT Representative as completed.

- A VDOT Representative will be available to make timely decisions concerning the review and approval of just compensation, approval of relocation benefits, approval of administrative settlements and approval of closing or condemnation packages on behalf of VDOT. The VDOT Representative is committed to issuing decisions on approval requests within twenty-one (21) days. This commitment is based on the plan providing a reasonable and orderly workflow and the work being provided to the VDOT representative as complete. Submission of documents requiring VDOT approval shall contain the necessary language and certifications as shown on the examples provided in the Appendix to Chapter 10, “Special Projects”, of the Right of Way Manual.
- The Design-Builder shall obtain access to and use VDOT’s Right of Way and Utilities Management System (RUMS) to manage and track the acquisition process. RUMS will be used for Project status reporting; therefore, entries in RUMS shall be made at least weekly to accurately reflect current Project status. VDOT standard forms and documents, as found in RUMS, will be used to the extent possible. Training in the use of RUMS and technical assistance will be provided by VDOT.
- The Design-Builder shall provide a current title examination (no older than sixty (60) days) for each parcel at the time of the initial offer to the landowner. Each title examination report shall be prepared by a VDOT approved attorney or Title Company. If any title examination report has an effective date that is older than sixty (60) days, an update is required prior to making an initial offer to the landowner. A Title Insurance Policy in favor of the Commonwealth of Virginia in form and substance satisfactory to the VDOT shall be provided by the Design-Builder, for every parcel acquired by voluntary conveyance.
- The Design-Builder shall submit a scope of work detailing the type of appraisal to be prepared for each parcel and the name of the proposed appraiser for VDOT review and approval in writing prior to commencing the individual parcel appraisal. The proposed appraiser shall be of an appropriate qualification level to match the complexity of the appraisal scope. The Design-Builder shall prepare appraisals in accordance with VDOT’s Appraisal Guidelines. The reviewer shall be approved by VDOT and shall be on VDOT’s approved fee appraiser list. VDOT shall issue a final approval of all appraisals.
- Payment documentation is to be prepared and submitted to VDOT with the Acquisition Report (RW-24). VDOT will process vouchers and issue State Warrants\checks for all payments and send to the Design-Builder, who will be responsible for disbursement and providing indefeasible title to VDOT. The Design-Builder shall make payments of benefits to property owners for negotiated settlements, relocation benefits, and payments to be deposited with the court.
- The Design-Builder shall prepare, obtain execution of, and record documents conveying title to such properties to the Commonwealth of Virginia and deliver all executed and recorded general warranty deeds to VDOT. Prior to the recordation of any instrument, VDOT shall review and approve the document. For all property purchased in

conjunction with the Project, title will be acquired in fee simple (except that VDOT may, in its sole discretion, direct the acquisition of a right of way easement with respect to any portion of the right of way) and shall be conveyed to the “Commonwealth of Virginia, Grantee” by a VDOT-approved general warranty deed, free and clear of all liens and encumbrances, except encumbrances expressly permitted by VDOT in writing in advance of deed recordation. All easements, except for private utility company easements shall be acquired in the name of “Commonwealth of Virginia, Grantee”. Private utility company easements will be acquired in the name of each utility company when the private utility company has prior recorded easements.

- Because these acquisitions are being made on behalf of the Commonwealth, VDOT shall make the ultimate determination in each case as to whether settlement is appropriate or whether the filing of an eminent domain action is necessary, taking into consideration the recommendations of the Design-Builder. When VDOT authorizes the filing of a certificate, the Design-Builder shall prepare a Notice of Filing of Certificate and the certificate assembly. All required documents necessary to file a certificate shall be forwarded along with a prepared certificate to the VDOT Project Manager. Once reviewed, the certificate will be forwarded to Central Office for review and approval. VDOT will execute the certificate, provide the money as appropriate and will return the assembly to the Design-Builder. The Design-Builder shall update the title examination and shall file the certificate.
- When VDOT determines that it is appropriate, the Design-Builder shall be responsible for continuing further negotiations for a maximum of sixty (60) days, in order to reach settlement after the filing of certificate. After that time the case will be assigned an outside attorney appointed by VDOT and the Office of the Attorney General. When requested, the Design-Builder shall provide the necessary staff and resources to work with VDOT and its attorney throughout the entire condemnation process until the property is acquired by entry of a final non-appealable order, by deed, or by an Agreement After Certificate executed and approved by VDOT and the appropriate court. The Design-Builder will provide updated appraisals (*i.e.*, appraisal reports effective as of the date of taking) and expert testimony supporting condemnation proceedings upon request by VDOT. Services performed by the Design-Builder or its consultants after an eminent domain action is assigned to an outside attorney will be paid, if and when necessary, under a Work Order in accordance with Article 9 of Part 4 (General Conditions of Contract).
- The Design-Builder will be responsible for all contacts with landowners for rights of way or construction items.
- The Design-Builder shall maintain access at all times to properties during construction.
- The Design-Builder shall use reasonable care in determining whether there is reason to believe that property to be acquired for rights of way may contain concealed or hidden wastes or other materials or hazards requiring remedial action or treatment. When there

is reason to believe that such materials may be present, the Design-Builder shall notify VDOT within three (3) calendar days. The Design-Builder shall not proceed with acquiring such property until they receive written notification from VDOT.

- During the acquisition process and for a period of three years from either (1) the date each owner of a property and each person displaced from the property receives the final payment or (2) from the date the State receives Federal reimbursement of the final payment made to each owner of a property and to each person displaced from a property, whichever is later, and until the Commonwealth of Virginia has indefeasible title to the property, all Project documents and records not previously delivered to VDOT, including but not limited to design and engineering costs, construction costs, costs of acquisition of rights of way, and all documents and records necessary to determine compliance with the laws relating to the acquisition of rights of way and the costs of relocation of utilities, shall be maintained and made available to VDOT for inspection and/or audit. This also would apply to the Federal Highway Administration on projects with federal funding. Throughout the design, acquisition and construction phases of the Project, copies of all documents/correspondence shall be submitted to both the Central Office and respective Regional Right of Way Office.
- Prior to Project completion the Design-Builder shall provide and set VDOT RW-2 right of way monuments with the Project limits.
- Any existing VDOT fencing impacted by the Design Builder's design and construction activities shall be restored or replaced in the same configuration relative to the improvements as the existing fencing. Any new VDOT fencing shall be Std. FE-CL.
- The Design-Builder must notify VDOT of any and all encroachments (temporary or permanent) within the right of way prior to final acceptance.

2.13 Utilities

The Design-Builder shall be responsible for coordination of the Project construction with all utilities that may be affected. The Design-Builder shall be responsible for coordinating the work of the Design-Builder, its subcontractors and the various utilities. The resolution of any conflicts between utilities and the construction of the Project shall be the responsibility of the Design-Builder. No additional compensation or time will be granted for any delays, inconveniences, or damage sustained by the Design-Builder or its subcontractors due to interference from utility owners or the operation of relocating utilities or betterments. All cost for utility relocations shall be included in the Offeror's Price Proposal. Any utility betterments shall not be included in the Offeror's Price Proposal but shall be reimbursed to the Design-Builder through agreement with the requesting utility owner. The Offeror shall contact each utility owner prior to submitting bids to determine the scope of each utility owner's relocation.

The Design-Builder shall be responsible for all utility designations, utility locates (test holes), conflict evaluations, cost responsibility determinations, utility relocation designs, utility

relocations and adjustments, utility reimbursement, replacement land rights acquisition, utility coordination, and coordination of utility betterments required for the Project. The Design-Builder is responsible for all necessary utility relocations, adjustments, and betterments to occur in accordance with the accepted Baseline Schedule. All efforts and cost necessary for all utility designations, utility locates (test holes), conflict evaluations, cost responsibility determination, utility relocation designs, utility relocations and adjustments, utility reimbursements, replacement land rights acquisition and utility coordination shall be included in the Offeror's Price Proposal; provided, however, that the compensation paid to landowners for replacement land rights will be paid by VDOT as a part of the right of way acquisition costs and shall **NOT** be included in the Offeror's Price Proposal.

The Design-Builder shall make all reasonable efforts to design the Project to avoid conflicts with utilities, and minimize impacts where conflicts cannot be avoided.

The Design-Builder shall initiate early coordination with all utilities located within the Project limits. The Design-Builder shall identify and acquire any replacement utility easements or required right of way needs of all utilities necessary for relocation due to conflicts with the Project.

Prior to accessing Virginia Power rights of way, the Design-Builder must complete Attachment 2.2, VA Power Encroachment Request Form and submit the completed form to Virginia Power attention: Ms. Martha Ragland. Permission for right of access to Virginia Power rights of way will be granted at Virginia Power's discretion.

It is the Design-Builder's responsibility to verify whether other utility owners exist within the Project limits and coordinate with them. Known utility owners and their respective contact numbers are identified below for reference only and may not be limited to the following:

Comcast

Mr. Gordon Mower (804-640-4322)
5401 Staples Mill Road
Richmond, VA 23228

Dominion Virginia Power

Mr. Rick McDonald (804-775-5236)
OJRP 9th Floor
701 East Cary Street
Richmond, VA 23219

Verizon Virginia LLC Telephone

Mr. Mike Ziegler (804-772-7306)
2600 Brittons Hill Road 1st Floor
Richmond, VA 23230

Henrico County, Public Utilities Water

Mr. Dennis Farmer, P.E. (804-501-4977)

P.O. Box 90775
Henrico, VA 23272

City of Richmond Gas
Mr. Nick Georges (804-646-8321)
Department of Public Works
900 E. Broad St., Suite 704
Richmond, VA 23219

Woodlawn Communications LLC Fiber Optic
Mr. Robert Payne (804-798-3214)
11006 Cobbs Road
Glen Allen, VA 23059

Windstream Telecommunications
Mr. Jerry Richardson (804-422-4258)
2134 W. Laburnum Avenue
Richmond, VA 23227

AT&T Telecommunications
Mr. Gary Wigfield (301-874-1180)
4800 Winchester Blvd.
Frederick, MD. 21703

Level 3 Communications
Mr. Rich Eldreth (757-777-7719)
2600 Eltham Ave.
Norfolk, VA 23513

Colonial Pipeline Company
Mr. Timothy Gross (804-672-3077)
2607 Willard Road
Richmond, VA 23294

The Design-Builder shall provide all utility companies with design plans as soon as the plans have reached a level of completeness adequate to allow them to fully understand the Project impacts. The utility companies will use the Design-Builder's design plan for preparing relocation plans and estimates. If a party other than the utility prepares relocation plans, there shall be a concurrence box on the plans where the utility signs and accepts the relocation plans as shown.

The Design-Builder shall coordinate and conduct a preliminary utility review meeting with all affected utility companies to assess and explain the impact of the Project. VDOT's Project Manager and Regional Utilities Manager (or designee) shall be included in this meeting.

The Design-Builder shall verify the prior rights of each utility's facilities if claimed by a Utility owner. If there is a dispute over prior rights with a utility, the Design-Builder shall be responsible for resolving the dispute. The Design-Builder shall prepare and submit to VDOT a Preliminary Utility Status Report within one hundred and twenty (120) days of the Date of Commencement that includes a listing of all utilities located within the Project limits and a conflict evaluation and cost responsibility determination for each Utility. This report shall include copies of existing easements, as-built plans or other supporting documentation that substantiates any compensable rights of the utilities.

The Design-Builder shall obtain the following from each utility that is located within the Project limits: relocation plans including letter of "no cost" where the utility does not have a compensable right; utility agreements including cost estimate and relocation plans where the utility has a compensable right; or letters of "no conflict" where the utility's facilities will not be impacted by the Project.

The Design-Builder shall review all relocation plans to ensure that relocations comply with the VDOT Utilities Manual of Instruction, Utility Relocation Policies and Procedures and VDOT's Land Use Permit Manual. The Design-Builder shall also ensure that there are no conflicts with the proposed roadway improvements, and ensure that there are no conflicts between each of the utility's relocation plans. The Design-Builder shall prepare and submit to VDOT all relocation plans. The Design-Builder is expected to assemble the information included in the relocation plans in a final and complete form and in such a manner that VDOT may approve the submittals with minimal review. The Design-Builder is expected to meet with VDOT's Regional Utilities Office within forty-five (45) days of the Date of Commencement to gain a full understanding of what is required with each submittal. The Design-Builder shall receive written approvals from VDOT prior to authorizing utilities to commence relocation construction. The utilities shall not begin their relocation work until authorized by the Design-Builder. Each relocation plan submitted must be accompanied by a certification from the Design-Builder stating that the proposed relocation will not conflict with the proposed roadway improvement and will not conflict with another utility's relocation plan.

At the time that the Design-Builder notifies VDOT that the Design-Builder deems the Project to have reached Final Completion, the Design-Builder shall certify to VDOT that all utilities have been identified and conflicts have been resolved and that those utilities with compensable rights or other claims related to relocation or coordination with the Project have been relocated and their claims and compensable rights satisfied or will be satisfied by the Design-Builder.

The Design-Builder shall accurately show the final location of all utilities on the as-built drawings for the Project. The Design-Builder will ensure the utility companies submit as-built drawings upon completion of their relocation and/or adjustments. VDOT shall issue an as-built permit to the utility companies after receipt of permit application and as-built drawings.

2.14 Quality Assurance / Quality Control (QA/QC)

The Design-Builder shall submit its Quality Assurance/Quality Control (QA/QC) for both design and construction to VDOT at the meeting held after the Date of Commencement as set forth in Part 4 General Conditions under Section 2.1.2. Along with the QA/QC Plan submittal, the Design Manager and Quality Assurance Manager (QAM) shall provide a presentation of the QA/QC Plan for both design and construction utilizing Project related scenarios. Project scenarios shall include, but not be limited to:

- Preparatory Inspection Meeting requirements, including incorporation of at least one each, Witness and Hold Point, as set forth in Sections 5.3 and 5.14 of the Department’s guidance document for Minimum Requirements for Quality Assurance and Quality Control on Design Build and Public-Private Transportation Act Projects, January 2012 (January 2012 QA/QC Guide);
- At least one (1) material which VDOT retains responsibility for testing as identified in Table 5-2, January 2012 QA/QC Guide;
- Situation arising requiring the issuance of a Non-Conformance Report and subsequent review of the report, including completion of corrective measures and the issuance of a Notice of Correction of non-conformance work with proper log entries and proper interface with auditing and recovery requirements as set forth in Sections 5.10 and 5.11 of the January 2012 QA/QC Guide for non-conforming work resulting from:
 - a. defective equipment
 - b. construction activities/materials which fail to conform as specified;
- Inspection documentation capturing requirements as set forth in Section 5.20 and 5.21 of the January 2012 QA/QC Guide; as well as inspection of foundation and pavement subgrades that are to be performed and certified by the Design-Builder’s licensed geotechnical engineer in accordance with the Contract requirements;
- Application for payment for Work Package which includes work element, including review and approval by Quality Assurance Manager; and
- Measures that will be implemented to ensure compliance with Buy America requirements on the Project.
- Detail two (2) sample entries in Materials Notebook showing completion of Form C-25, including subsequent submission and review by Department Project Manager as set forth in Section 5.21. Refer to Section 803.73 of VDOT’s Manual of Instruction for Materials Division, Form TL-142S, for an example of a completed Materials Notebook and VDOT Materials Division Memorandum Number MD299-07 for Materials Acceptance – October 4, 2007.

2.14.1 Design Management

The Design-Builder is responsible for design quality in accordance with VDOT’s Minimum Requirements for Quality Assurance and Quality Control on Design Build and Public-Private Transportation Act Projects, January 2012 (January 2012 QA/QC Guide). The Design-Builder’s Design Manager shall be responsible for establishing and overseeing a QA/QC program for all pertinent disciplines involved in the design of the Project, including review of design, working plans, shop drawings, specifications, and constructability of the Project. This individual shall report directly to the Design-Builder’s Project Manager, and is responsible for all

of the design, inclusive of QA and QC activities. Members of the Design QA and QC team are responsible for review of all design elements to ensure the development of the plans and specifications are in accordance with the requirements of the Contract Documents. Design QA should be performed by one or more member(s) of the lead design team that are independent of the Design QC. The Project design control plan will provide VDOT assurance that the design plans and submittals will meet all contract requirements.

Appendix 2 of the January 2012 QA/QC Guide provides minimum requirements that shall be met for development of the Design QA/QC Plan.

2.14.2 Construction Management

The Design-Builder shall develop, operate, and maintain a Construction QA/QC Plan in accordance with VDOT's January 2012 QA/QC Guide. The Design-Builder shall have the overall responsibility for both the QA and QC activities and shall be responsible for all QA activities and QA sampling and testing for all materials used and work performed on the Project. These QA functions shall be performed by an independent firm that has no involvement in the construction QC program/activities. There shall be a clear separation between QA and construction, including separation between QA inspection and testing operations and construction QC inspection and testing operations, including testing laboratories. Two independent, AMRL certified testing laboratories will be required, one for QA testing and one for QC testing.

The Quality Assurance Manager (QAM) shall have the authority to enforce the Contract requirements when deficient materials or unsatisfactory finished products fail to conform to Contract requirements. The QAM, in accordance with his/her assignment, shall be responsible to observe the construction in progress and to ensure the QA and QC testing and inspection is being performed in accordance with the Contract requirements. The Design-Builder shall establish and maintain a Quality Assurance Auditing and Nonconformance Recovery Plan (AR Plan) for uniform reporting, controlling, correction and disposition and resolution of nonconformance (including disputed nonconforming items) issues that may arise on the Project. The Design-Builder's AR Plan shall establish a process for review and disposition of nonconforming workmanship, material, equipment or other construction and design elements of the Work including the submittal of the design review process for field changes. All deficiencies (hereinafter referred to as a Non-Conformance), including those pertaining to rules, regulations, and permit requirements, shall be documented by the QAM. A Non-Conformance Report (NCR) referenced by a unique number, shall be forwarded to the Contractor and VDOT within 24 hours of discovery of the Non-Conformance. Non-conformance procedures are provided in Section 5.10.5 of the January 2012 QA/QC Guide.

The Design-Builder also shall be responsible for providing QA and QC testing for all materials manufactured off-site, excluding the items listed below:

- Prestressed Concrete Structural Elements (beams, girders (VDOT adopted Bulb-T sections), and piles)
- Structural Steel Elements (beams, girders, and sign structures)

- Pipe (concrete, steel, aluminum, and high density polyethylene) for culverts, storm drains, and underdrains
- Precast Concrete Structures
- Asphalt Concrete Mixtures
- Aggregate (dense and open graded mixes)
- Metal Traffic Signal and Light Poles and Arms

VDOT will provide plant QA and plant QC inspection and/or testing of these items. In the event that VDOT determines that materials fail to meet the tolerances in the Road and Bridge specifications, a NCR will be issued by the VDOT Project Manager and addressed to the Design-Builder's QAM for resolution. The Design-Builder is required to submit documentation of the source of materials, including the source of each material to be incorporated into the Project and the acceptance method that will be used for the material. A VDOT Form C-25 may be used to meet this requirement; however, the Design-Builder is required to submit a VDOT Form C-25, for all materials that VDOT retains responsibility for testing. The source of materials, C-25 is for informational purposes only and will not be approved or rejected by VDOT since it is the Design-Builder's responsibility to obtain materials that meet the contractual requirements. The Design-Builder will be responsible for providing QA and QC testing of all off-site materials that are not identified above, including materials obtained from off-site soil borrow pits.

The Design-Builder's QAM shall report directly to the Design-Builder's Project Manager and be independent of the Design-Builder's physical construction operations. The QAM shall establish quantities prior to commencing construction, and provide VDOT a total number of QC, QA (Independent Assurance (IA) and Independent Verification Sampling and Testing (IVST)), Owner's (the Department) Independent Assurance (OIA), and Owner's Independent Verification Sampling and Testing (OVST) required as a result of the quantities and the sampling and testing requirements as set forth in Table A-3 and A-4 of the January 2012 QA/QC Guide. VDOT will provide all OIA and OVST tests and, therefore, final determination of the actual number of OIA and OVST tests to be performed will be made by VDOT based on these quantities.

The QAM shall be responsible for the QA inspection and testing of all materials used and work performed on the Project to include observing the Contractor's QC activities, maintaining the Materials Notebook (including adherence to the Special Provision for Design-Build Tracking (DBT) numbers included in the RFP Information Package), documentation of all materials, sources of materials and method of verification used to demonstrate compliance with the Contract requirements. This includes all materials where QA testing is to be performed by VDOT. The QAM shall be vested with the authority and responsibility to stop any work not being performed according to the Contract requirements. The construction QA and QC inspection personnel shall perform all of the construction inspection and sampling and testing work in accordance with the Contract requirements. This includes the documentation of construction activities and acceptance of manufactured materials. The QAM shall assign a Lead QA Inspector to the Project prior to the start of construction. This individual, who must be on the site full-time for the duration of construction of the Project, shall be responsible to observe construction as it is being performed, to include all QC activities to ensure inspection and testing, and correction of any non-conformities of the Work are being performed in accordance with the Contract requirements. If needed, the Lead QA Inspector shall be supported by other QA

inspectors under his/her direction to ensure all construction work and QC activities are being observed. The Lead QA Inspector shall report directly to the QAM.

All sampling and testing shall be performed by a laboratory that is accredited in the applicable AASHTO procedures by the AASHTO Accreditation Program (AAP). For test methods not accredited by AAP, the laboratory must comply with AASHTO R18 (most current Edition) and must be approved by the Department at its sole discretion. Two independent testing laboratories will be required, one for QA testing and one for QC testing. The entity(ies) performing QA operations, inspections, sampling, and laboratory testing and the entity(ies) performing QC operations, inspections, sampling, and laboratory testing shall be unique and independent from one another.

All construction QA and QC personnel shall hold current VDOT materials certifications for the types of materials testing that they are assigned to perform in accordance with Section 3.6 of the January 2012 QA/QC Guide, and for the safety and use of nuclear testing equipment as required by the Road and Bridge Specifications. The QA programs shall be performed under the direction of the QAM. The QC programs shall be performed under the direction of the Construction Manager. Substitution of Construction Manager and the QAM shall require VDOT approval. In addition, VDOT shall have the right to order the removal of any construction QA and QC personnel, including the QAM and the Construction Manager for poor performance at the sole discretion of the VDOT Project Manager. The QA/QC plan shall include rapid reporting of non-compliance to the VDOT Project Manager, and shall include the remedial actions to be taken as discussed in Sections 5.10 and 5.11 of the January 2012 QA/QC Guide.

The Design-Builder shall provide, prior to Final Application for Payment, a complete set of Project records that include, but are not limited to the following:

- Project correspondence
- Project diaries
- Test reports
- Invoices
- Materials books
- Certified survey records
- DBE/EEO records
- Warranties
- As-Built drawings
- Special tools

2.15 Plan Preparation

2.15.1 GEOPAK and MicroStation

When the Design-Builder is given the Date of Commencement, they will be furnished with the following software and files which run in WindowsXP or Windows7 only: GEOPAK (current version used by VDOT), MicroStation (current version used by VDOT) and VDOT

Standard Resources Files, and all the design files used to develop the RFP Conceptual Roadway and Bridge Plans including aerial images, if available, and survey files.

2.15.2 Software License Requirements

VDOT shall furnish a License Access Key for all the software products VDOT makes available to the Design-Builder. The License Access Key will be supplied upon request by the Design-Builder, based on the data provided on a completed Software License Form, LD-893, and subsequently reviewed and approved by the VDOT Project Manager.

The License Access Key are provided for use on the Project detailed on the request only for the duration specified for that Project. Any adjustment made to the Project schedule will be taken into consideration in adjusting the time the License Access Key is available. Justification for the number of license(s) requested **MUST** include the estimated number of total computer hours for the task of design, detailing, relating Project management and other computer based engineering functions requiring the software requested.

The appropriate use of the License Access Key provided to the Design-Builder will become the responsibility of the Design-Builder regardless of who on the team uses the License Access Key. The Design-Builder will be responsible for keeping track of the License Access Key provided to them or a team member and, upon completion of the Project, the prompt notification to the VDOT CADD Support Section of Project Completion and removal of the software from any system used solely for the Project for which it was obtained.

2.15.3 Drafting Standards

All plans shall be prepared in U.S. customary units and in accordance with the most recent version of the VDOT's Road Design Manual, Vol. I, VDOT's CADD Manual and VDOT's I&IMs and VDOT's Manual of Structure and Bridge Division, Vol. V, Part 2, Design Aids and Typical Details.

2.15.4 Electronic Files

The Design-Builder shall submit all plans in accordance with the Department's policies and procedures (Right of Way and/or Construction submittals, Released for Construction, and As-Builts) in electronic format using the provided CADD software. Files shall be submitted in both Microstation DGN and Adobe PDF formats, by way of VDOT's Falcon Consultant environment or FTP Server. The Design-Builder will complete form LD-443, the Falcon System Access and Security Agreement and form LD-894, the Falcon Access Request Form, for access to the Falcon Consultant environment. VDOT will furnish electronic files of all applicable standard detail sheets upon request by Design-Builder. The files will use standard VDOT cell libraries, level structures, line types, text fonts, and naming conventions as described in the most recent version of the VDOT CADD Manual and VDOT's Manual of the Structure and Bridge Division, Vol. V - Part 2, Design Aids and Typical Details. Files furnished to Design-Builder in electronic format shall be returned to VDOT and removed from Design-Builder and its designer's computer equipment upon completion of this Project.

2.15.5 Plan Submittals

In addition to electronic files as described in Part 2, Section 2.16.4 above, the Design-Builder shall prepare and distribute hard copy paper plans in the quantities as specified below, for each of the following deliverables (at a minimum, as other submittals and/or work packages may be necessary or desired):

- Right of Way Plans (if applicable)
- Released for Construction Plans
- Right of Way and/or Construction Revisions
- Record Plans (As-Built)
- Approved Shop Drawings
- Design Calculations

The Right of Way and/or Construction plans may be submitted for approval in logical subsections (such as from bridge to bridge) or consisting of work packages such as: 1) clearing and grubbing along with erosion and siltation control, 2) grading and drainage, 3) final roadway, and 4) traffic control. Individual bridge plans may be submitted in logical components such as: 1) foundation, 2) remaining substructure, and 3) superstructure. A submittal schedule and planned breakdown of work packages shall be submitted to VDOT for review and approval as part of the planned Project Baseline schedule.

Right of Way and/or Construction Plans shall be accompanied by 1) a VDOT LD-436 checklist filled out as appropriate for the specific submittal, and 2) a written notice signed by the Design-Build Design Manager that includes the following:

- The logical subsections or work packages for which review and approval is being requested
- Confirmation that the submittal has been checked and reviewed in accordance with the Design-Builder's approved QA/QC plan.
- Confirmation that the submittal either meets all requirements of the Contract Documents and Reference Documents or that any deviations from the Contract Documents and Reference Documents have been identified and previously approved by VDOT.

The Design-Builder shall submit all Right of Way and/or Construction plans to VDOT, FHWA, and Henrico County simultaneously, for review and approval. VDOT shall receive two (2) full-size sets and ten (10) half-size sets of each submission, with the exception of the Released for Construction Plans (see Part 2, Section 2.16.8 below). FHWA shall receive two (2) half-size sets of each submission. Henrico County shall receive two (2) full-size sets and two (2) half-size sets of each submission. The plan submissions shall be delivered to the following addresses:

Virginia Department of Transportation

Attention – David A. Steele, P.E.
2430 Pine Forest Drive
Colonial Heights, VA 23834

Federal Highway Administration
Attention – Vanna P. Lewis, P.E.
400 N. 8th Street, Suite 750
Richmond, VA 23219-4825

Henrico County
Attention – E. Todd Eure
Transportation Development Division Director
Department of Public Works/ County of Henrico
P.O. Box 90775
Henrico, Virginia 23273

VDOT, FHWA, and Henrico County shall have the right to review all Right of Way and Construction Plans and provide comments regarding compliance with the requirements of the Contract Documents and Reference Documents. The Design-Builder shall be responsible for satisfying all such comments. Formal responses to VDOT, FHWA, and Henrico County comments shall be provided in subsequent submittals. All comment coordination will go through the VDOT Project Manager.

VDOT, FHWA, and Henrico County have the right to disapprove any design approach that is not in compliance with the requirements of the Contract Documents and Referenced Documents.

VDOT's written approval of any deviations from requirements of the Contract Documents and Reference Documents shall be attached to the plans submitted for review.

2.15.6 Right of Way Plans

Right of Way Plans and any associated Design Calculations shall be submitted to VDOT, FHWA, and Henrico County simultaneously for review. The time frame for plan review and approval shall be in accordance with the requirements of the Contract Documents. All VDOT, FHWA, and Henrico County comments must be adequately addressed before the Right of Way Plans will be approved. The VDOT Project Manager will coordinate Notice to Commence Right of Way Acquisition will be granted in accordance with Part 2, Section 2.12 above. The Design-Builder shall be responsible for the design details and ensuring that the design and right of way acquisition work are properly coordinated.

2.15.7 Construction Plans

Construction Plans, and any associated Design Calculations, shall be submitted to VDOT, FHWA, and Henrico County simultaneously for review. The time frame for plan review and approval shall be in accordance the requirements of the Contract Documents. All VDOT,

FHWA, and Henrico County comments must be addressed to the satisfaction of the commentator before Construction Plans are recommended for approval to the Chief Engineer. This plan milestone includes plans that may be submitted as soon as sufficient information is available to develop Construction Plans for certain portions or elements of the Project (or work packages). The Design-Builder shall meet commitments for review and approval by other entities/agencies as specified in other portions of the RFP and its attachments. The Design-Builder shall be responsible for the design details and ensuring that the design and construction work are properly coordinated.

2.15.8 Released for Construction Plans

Released for Construction Plans are those that are issued for construction after approval by VDOT's Chief Engineer. Notice to Commence Construction will only be issued by the VDOT Project Manager upon approval of the Construction Plans (or Work Packages) by the Chief Engineer.

The Released for Construction Plans shall be distributed simultaneously to VDOT, FHWA, and Henrico County. VDOT shall receive one (1) full-size set and five (5) half-size sets of Released for Construction Plans, along with all electronic files. Henrico County shall receive two (2) full-size sets and two (2) half-size sets Released for Construction Plans. FHWA shall receive two (2) half-size hard copy sets, along with all electronic files, of the Released for Construction Plans. The plans shall be delivered to the following addresses:

Virginia Department of Transportation
Attention - David A. Steele, P.E.
2430 Pine Forest Drive
Colonial Heights, VA 23834

Federal Highway Administration
Attention – Vanna P. Lewis, P.E.
400 N. 8th Street, Suite 750
Richmond, VA 23219-4825

County of Henrico
Attention – E. Todd Eure
Transportation Development Division Director
Department of Public Works/ County of Henrico
P. O. Box 90775
Henrico, Virginia 23273

2.15.9 Record (As-Built) Plans

The final plan milestone is Record (As-Built) Plans. As-Built Plans shall be prepared, signed and sealed by a Professional Engineer licensed in Virginia, and submitted to VDOT with the final application for payment. These plans will show all adjustments and revisions to the

Construction Plans made during construction and serve as a permanent record of the actual location of all constructed elements.

2.16 Virginia Occupational Safety and Health Standards

The Project shall comply with Virginia Occupational Safety and Health Standards in accordance with Section 107.17 of the Division I Amendments to the Standard Specifications.

At a minimum, all Contractor personnel shall comply with the following, unless otherwise determined unsafe or inappropriate in accordance with OSHA regulations:

- Hard hats shall be worn while participating in or observing all types of field work when outside of a building or outside of the cab of a vehicle, and exposed to, participating in or supervising construction.
- Respiratory protective equipment shall be worn whenever an individual is exposed to any item listed in the OSHA Standards as needing such protection unless it is shown the employee is protected by engineering controls.
- Adequate eye protection shall be worn in the proximity of grinding, breaking of rock and/or concrete, while using brush chippers, striking metal against metal or when working in situations where the eyesight may be in jeopardy.
- Approved high visibility Safety apparel shall be worn by all exposed to vehicular traffic and construction equipment.
- Standards and guidelines of the current Virginia Work Area Protection Manual shall be used when setting, reviewing, maintaining, and removing traffic controls.
- Flaggers shall be certified in accordance with the Virginia Flagger Certification Program.
- No person shall be permitted to position themselves under any raised load or between hinge points of equipment without first taking steps to support the load by the placing of a safety bar or blocking.
- Explosives shall be purchased, transported, stored, used and disposed of by a Virginia State Certified Blaster in possession of a current criminal history record check and a commercial driver's license with hazardous materials endorsement and a valid medical examiner's certificate. All Federal, State and local regulations pertaining to explosives shall be strictly followed.
- All electrical tools shall be adequately grounded or double insulated. Ground Fault Circuit Interrupter (GFCI) protection must be installed in accordance with the National Electrical Code (NEC) and current Virginia Occupational Safety and Health

agency (VOSH). If extension cords are used, they shall be free of defects and designed for their environment and intended use.

- No person shall enter a confined space without training, permits and authorization.
- Fall protection is required whenever an employee is exposed to a fall six (6) feet or greater.

3.0 ATTACHMENTS

The following attachments are specifically made a part of, and incorporated by reference into, these Technical Information and Requirements:

ATTACHMENT 2.2 -- VA Power Encroachment Request Form

All additional information is included in the RFP Information Package – referred to in Part 1 (Instructions for Offerors), Section 2.6 of this RFP.

END OF PART 2 - TECHNICAL INFORMATION & REQUIREMENTS

ATTACHMENT 2.2

ENCROACHMENT REQUEST

Requirements for use of an Electric Transmission Right-of-Way

The use of a transmission line right-of-way for any purpose other than company transmission is considered an “encroachment” and must be evaluated on a case-by-case basis to ensure public safety as well as the protection of company facilities.

Transmission encroachment requests must contain the following information:

1. A brief description of the encroachment.
2. A location description, vicinity map and/or directions to the site.
3. Any plans or drawings (site plans, profiles, landscape plans, drainage plans, etc.) that apply to the transmission right-of-way. Please note:
 - Site plans must show correct transmission right-of-way boundary lines (with the width labeled), centerlines, and structure locations to scale.
 - Structure numbers must be labeled on the plans (line and structure numbers can be found on metal tags on the structures).
 - If possible, reference the Deed Book and Page number(s) for the transmission easement.
4. The property owner's name, address, telephone number and e-mail address.
5. The *requestor's* name, title, business name, address, telephone number and e-mail address, if different from the property owner.
6. Name, address and title of person who has authority to sign and return the encroachment consent document, if different from the property owner.

All encroachments must be approved by Dominion prior to installation. If an encroachment is not approved, it will be considered an illegal encroachment that can be removed by Dominion at the owner's sole expense.

Fees may be required for encroachments authorized by the company. Fee amounts are based on the assessed property value, the encroachments' impact on the right-of-way and processing.

Submit encroachment request packages to your regional representative:

Northern Virginia: Gary Dorman, Sr. Rights-of-Way Management Representative, 3072 Centreville Road, Herndon, VA 20171

Central/Western Virginia: Martha Ragland, Sr. Rights-of-Way Management Representative, 14500 Midlothian Turnpike, Midlothian, VA 23113

Eastern Virginia or North Carolina: Joe Ragland, Sr. Rights-of-Way Management Representative, 902 G Street, Hampton, VA 23661

Dominion Virginia Power • Dominion North Carolina Power
Electric Transmission Right-of-Way Management, 701 East Cary Street, 12th Floor, Richmond, Virginia 23219.
If you have questions, please call 1-800-215-8032, Option 1, or e-mail us at ETROW@dom.com.

