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The County Of *Powhatan*

INVITATION FOR BIDS

Issue Date: March 29, 2019

Title: Company 5 Concrete Apron and Driveway Improvements

Issuing Entity: County of Powhatan, Virginia
Department of Public Works

Period of Contract 120 days Substantial Completion

SEALED BIDS SUBJECT TO THE TERMS, CONDITIONS, AND SPECIFICATIONS HEREIN WILL BE RECEIVED UNTIL 2:00PM ON FRIDAY MAY 3, 2019 LOCAL PREVAILING TIME AT WHICH TIME THEY WILL BE PUBLICLY OPENED AND MADE A PART OF THE PUBLIC RECORD FOR FURNISHING THE GOODS/SERVICES DESCRIBED HEREIN. BIDS SHALL BE SUBMITTED IN A SEALED CONTAINER. THE FACE OF THE CONTAINER SHALL BE CLEARLY MARKED IN THE LOWER LEFT CORNER AS FOLLOWS:

IFB#: 2019-01

For: Company 5 Concrete Apron and Driveway Improvements

All inquiries for information should be directed to:

County of Powhatan Finance Office
Attention: Charla Schubert
3834 Old Buckingham Road, Suite B
Powhatan, VA 23139

Sealed bids shall be mailed, delivered by courier, or hand delivered to:

County of Powhatan Finance Office
Attention: Charla Schubert
3834 Old Buckingham Road, Suite B
Powhatan, VA 23139

Bids must be submitted by the date and time stated above or they will remain unopened. No allowance will be made for postmark or error in delivery to incorrect address. It is the sole responsibility of the Contractor to ensure timely and correct delivery of bid to the address above.

Company 5 Concrete Apron and Driveway Improvements

PRE-BID CONFERENCE: A pre-bid conference will be held on April 18th, 2019 at 10AM at the Company 5 Fire Station located at 5631 Anderson Highway Powhatan, VA 23139 and a tour of the project site will follow.

This public body does not discriminate against faith-based organizations in accordance with the Code of Virginia, § 2.2-4343.1 or against a bidder or offeror because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment.

Bid Documents:

Bid documents which include drawings, specifications and forms may be obtained from: Powhatan County Homepage Website or eVA.

Obligation of Contractor: By submitting a bid, the Contractor covenants and agrees that he has satisfied himself, from his own investigation of conditions to be met, that he fully understands his obligation and that he will not make any claim for, or have right to cancellation or relief from the resulting contract because of any misunderstanding or lack of information.

Contractor further agrees that conditions herein have been carefully read and this bid is submitted subject to all requirements stated herein. The undersigned hereby acknowledges and agrees, if this bid is accepted, to furnish all services agreed upon in strict accordance with contract.

Name and Address of Firm: _____

Date:

By: _____
(Signature in Ink)

Name: _____
(Please Print)

Title: _____
(Please Print)

FEI/FIN NO. _____

Phone: _____

Fax: _____

Company 5 Concrete Apron and Driveway Improvements

Email:

State Corporation Commission (SCC) ID number

Powhatan County Business License No. (if applicable)

ESCROW ACCOUNT ELECTION:

ELECTION OF ESCROW ACCOUNT PROCEDURE FOR RETAINAGE

If determined to be the successful low bidder(s), the above signed elects to use the Escrow Account Procedure for retainage.

Write "Yes" or "No" on above line

If the successful bidder elects to use the Escrow Account Procedure for Retainage, the "Escrow Agreement" form shall be executed and submitted to the County of Powhatan within fifteen (15) calendar days after notification. If the "Escrow Agreement" form is not submitted within the fifteen (15) day period, the Contractor shall forfeit his rights to the use of the Escrow Account Procedure.

Company _____

Authorized Signature _____

Company 5 Concrete Apron and Driveway Improvements

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SECTION I – INVITATION FOR BID DETAIL

A. PURPOSE

The purpose of this project is to improve access into the fire station through installation of a concrete apron and asphalt driveway.

B. PROJECT DESCRIPTION

The project consists of installation of a concrete apron which will tie into the existing concrete slab of the fire station and asphalt paving of the driveway and access from Route 60. The project also involves repairs to the existing concrete slab in the fire station bays.

C. SUBMISSION AND ADDITIONAL INFORMATION

SUBMISSION AND ADDITIONAL INFORMATION

Submit bid, using forms furnished in this IFB and filling in all blank spaces, addressed as indicated on the front page of this solicitation.

Contractors shall include the following with their submission:

- Completed Signature Page (Page 3)
- Certificate of Non-Collusion (Page 11)
- Completed Bid Form (Pages 8)
- Bid Security (See Instructions Page 20 section 2.21)
- Reference List (Page 12)
- Addenda

CONTRACTORS REQUEST FOR INFORMATION & CLARIFICATION

Questions pertaining to any information or requests relative to interpretation or clarification of contract documents, terms or conditions, specifications, plans or drawings of this IFB will be accepted from any and all bidders but must be in writing and directed to the Director of Finance identified on the cover page. Unauthorized contact with other Powhatan County staff may result in disqualification of the bidder. Deadline for **Request for information (RFI) must be received by 5:00pm, April 22th, 2019**. RFIs are to be emailed to cshubert@powhatanva.gov. Any material change will be submitted to all bidders through issuance of an addendum. Questions submitted beyond the time specified above may be left unanswered if sufficient time does not allow a response to all prospective bidders without causing an unacceptable delay in the process. It is the responsibility of the Contractors to ensure they have received all addenda. Addenda can be found on the eVA solicitation page or on the Powhatan County webpage under “Bids Opportunities.”

CONTRACT PERIOD

The contract period shall be from Notice to Proceed and be substantially complete within 120 calendar days.

PAYMENT TERMS

See General Terms and Conditions (Article 15 General Contractors Compensation)

AWARD

The award will be made to the lowest responsive and responsible Bidder meeting the requirements of the solicitation.

D. SPECIFICATIONS

- 01 0200 GENERAL SITEWORK
 - 02 4113 SELECTIVE SITE DEMOLITION
 - 31 2000 EARTHWORK (UNCLASSIFIED)
 - 32 1216 ASPHALT PAVING
 - 32 1313 SITE CONCRETE
- Geotechnical Report dates October 21, 2016

E. SUBMITTALS

Submit shop drawings for the following:

1. Concrete mix design
3. Asphalt mix design
4. Sub-base mix design
5. Architectural Precast Concrete
6. Schedule of Values
7. Construction Schedule- showing critical path items as described in the General Conditions

F. BID FORM

BID FORM

IFB # 2019-01

Company 5 Concrete Apron and Driveway Improvements

THIS BID IS SUBMITTED TO:

County Administrator's Office
Attention: Charla Shubert
3834 Old Buckingham Road
Powhatan, VA 23139

1. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Bid Price and within the Bid times indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

2. BIDDER accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including, without limitation, those dealing with the disposition of Bid Security. This Bid will remain subject to acceptance for sixty (60) business days after the day of Bid opening. BIDDER will sign and submit the Agreement with the Performance and Bonds and other documents required by the Bidding Requirements within fifteen business days after the date of OWNER's Notice of Award.

3. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that the BIDDER:

a) has examined and carefully studied the Bidding Documents and the following addenda, receipt of all which is hereby acknowledged:

b) has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance and furnishing of the Work;

c) is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work;

d) has correlated the information known to BIDDER, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.

e) has given the County written notice of all conflicts, errors, ambiguities or discrepancies that BIDDER has discovered in the Contract Documents and the written resolution thereof by the

Company 5 Concrete Apron and Driveway Improvements

County is acceptable to BIDDER, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.

4. BIDDER understands that work is to start no later than thirty (30) days after contract is executed and Notice to Proceed is issued. Substantial Completion of the entire project shall be one hundred and twenty (120) consecutive **calendar** days from the Notice to Proceed.

BID FORM

THE FOLLOWING PRICING IS SUBMITTED FOR COMPANY 5 CONCRETE APRON AND DRIVEWAY IMPROVEMENTS FOR THE COUNTY OF POWHATAN, VIRGINIA

Total Base Bid shall be to provide all supervision, equipment, labor, mobilization and materials necessary to complete the work as described per all terms, conditions and specifications herein. Contract award will be based on the **TOTAL BASE BID AMOUNT** (including any properly submitted bid modifications) that the Owner, in its discretion, decides to award.

Part A – Virginia Contractor’s Registration Number

<i>Name</i>	<i>License Number</i>	<i>Class</i>

PRINT legibly or provide a copy of current license.

Part B – **Pricing:**

Items: Project will be awarded the lowest responsive and responsible bidder meeting all the requirement of this IFB.

For a **TOTAL LUMP SUM BASE BID** of: \$ _____

ACKNOWLEDGE RECEIPT OF:

Addendum #1 _____

Addendum #2 _____

COUNTY OF POWHATAN
WORKERS' COMPENSATION
Certificate of Coverage

Section 2.2-4332, Code of Virginia, requires construction contractors and subcontractors to obtain and maintain workers' compensation insurance coverage required pursuant to the provisions of Chapter 8 (§ [65.2-800](#) et seq.) of Title 65.2, while performing work on behalf of the County of Powhatan.

Evidence of coverage must be provided prior to commencement of Work.

This form must be completed and returned to the County.

The undersigned organization stipulates that it:

- A. has workers' compensation insurance and is in compliance with the Workers' Compensation statutes of the Commonwealth of Virginia. Yes No
Insurance Company _____
Policy expiration date _____
- B. is self insured for workers' compensation. Yes

Title of Construction Contract: _____

Contract Number: _____

Signed by: _____

Title: _____

Firm Name: _____

Address: _____

CERTIFICATION OF NON-COLLUSION

The undersigned, acting on behalf of _____,
does hereby certify in connection with the procurement and bid to which this certification

Company 5 Concrete Apron and Driveway Improvements

of Non-Collusion is attached that:

This bid is not the result of, or affected by, any act of collusion with another person engaged in the same line of business or commerce: nor is this bid the result of, or affected by, any act of fraud punishable under Article 1.1 of Chapter 12 of Title 18.2 Code of Virginia, 1950 as amended (§ 18.2-498.4 et seq.)

Signature of Company Representative

Print Name

Title

Name of Company

Date

ACKNOWLEDGEMENT
STATE OF VIRGINIA
County of Powhatan, to wit:

The foregoing Certification of Non-Collusion bearing the signature of _____
and dated _____ was subscribed and sworn to before the
undersigned notary public by _____ on _____.

Notary Public

My commission expires: _____

CODE OF VIRGINIA
§18.2-498.4. Duty to provide certified statement.

Company 5 Concrete Apron and Driveway Improvements

A. The Commonwealth, or any department or agency thereof, and any local government or any department or agency thereof, may require that any person seeking, offering or agreeing to transact business or commerce with it, or seeking, offering or agreeing to receive any portion of the public funds or moneys, submit a certification that the offer or agreement or any claim resulting thereon is not the result of, or affected by, any act of collusion with another person engaged in the same line of business or commerce, or any act of fraud punishable under this article.

B. Any person required to submit a certified statement as provided in paragraph A above who knowingly makes a false statement shall be guilty of a Class 6 felony. (1980, c.472)

EXPERIENCE

Bidders shall furnish satisfactory evidence with their bids of their ability to perform the work as specified. This evidence should include experience as a general contractor and a list of at least three (3) references for similar projects.

QUALIFICATIONS OF CONTRACTORS

The County reserves the right to conduct any tests it may deem advisable and to make all evaluations. The County may make such reasonable investigations as deemed proper and necessary to determine the ability of the Contractor to perform the services/furnish the goods and the Contractor shall furnish to the County all such information and data for this purpose as may be requested. The County reserves the right to inspect offer's physical facilities prior to award to satisfy questions regarding the Contractors capabilities. The County further reserves the right to reject any bids if the evidence submitted by, or investigations of such Contractor fails to satisfy the County that such Contractor is properly qualified at carry out the obligations of the contract and to provide the services and/or furnish the goods of this IFB.

REFERENCES

1	Contract Date	Client Name & Address	Contract Amount
	Contact Name, Phone and Email		
	Project Title, Location and Description		

2	Contract Date	Client Name & Address	Contract Amount
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Contact Name, Phone and Email		
Project Title, Location and Description		

3	Contract Date	Client Name & Address	Contract Amount
Contact Name, Phone and Email			
Project Title, Location and Description			

SECTION II –INSTRUCTIONS

**COUNTY OF POWHATAN, VIRGINIA INSTRUCTIONS TO BIDDERS
For
PROCUREMENT OF CONSTRUCTION AND RELATED SERVICES**

The general instructions, rules and conditions which follow apply to procurement of construction and construction related services conducted by the County of Powhatan, unless otherwise specified. Bidders are expected to inform themselves fully as to all applicable terms, conditions, instructions, requirements and specifications, before submitting bids. Failure to do so will be at the bidder’s own risk, and relief cannot be secured on the plea of error.

Subject to all laws, policies, resolutions and regulations of the Commonwealth of Virginia and the County of Powhatan, and all applicable rules, regulations and limitations, if any, imposed by legislation of the Federal government, bids submitted in response to a solicitation issued by the County of Powhatan will bind bidders to the conditions and requirements herein set forth, unless otherwise expressly specified in the solicitation.

SECTION 1: DEFINITIONS

- 1.1** “Agency” means any department, agency, authority, commission, board or other unit in the administrative service of the County.
- 1.2** “Bid” means the offer of a bidder to provide specific goods or services at specified prices and/or other conditions specified in the solicitation.
- 1.3** “County” means the County of Powhatan, Virginia and its agencies, officials, officers, employees, agents and designated representatives.
- 1.4** “Contractor” shall have the same meaning as “successful bidder,” as set forth below.
- 1.5** “Construction Documents” shall mean the plans, specifications, approved change orders, revisions, addenda and other information approved by the County, which set forth in detail the Work to be performed for a construction Project.
- 1.6** “Goods” means all material, equipment, supplies, printing and automated data processing hardware and software.
- 1.7** “Informality” means a minor defect or variation of a bid from the exact requirements of a solicitation, which does not affect the price, quality, quantity or delivery schedule for the goods or services being procured.
- 1.8** “Invitation for Bids,” “Invitation to Bid,” and “IFB” shall each mean a competitive sealed bidding procurement process by which a request is made to prospective suppliers (bidders) for their quotation on goods or services desired by the County. The issuance of an IFB will contain or incorporate by reference the specifications and contractual terms and conditions applicable to the procurement.
- 1.9** “Purchasing Agent” means the head of the County’s Purchasing Department, or a designated contact person acting for him or at his direction.
- 1.10** “Responsible Bidder” means a bidder having the capability in all respects to perform fully the contract requirements, and who has the moral and business integrity and reliability which will assure good faith performance of the contract sought to be procured, and who has been pre-qualified, if required.
- 1.11** “Responsive Bidder” means a bidder who has submitted a bid or proposal which conforms in all material respects to the IFB.
- 1.12** “Services” means any work performed by an independent contractor wherein the service rendered does not consist primarily of acquisition of equipment or materials, or the rental of equipment, materials and supplies.
- 1.13** “Solicitation” means the process of notifying prospective bidders that the County wishes to receive bids on a set of requirements to provide goods or services. The notification of County requirements may consist of public advertising, the mailing of an IFB or the public posting of notices.
- 1.14** “State” means the Commonwealth of Virginia.
- 1.15** “Successful bidder” means the lowest responsive and responsible bidder to whom a contract is awarded as a result of a competitive sealed bidding procedure conducted by the County. The term “contractor” and “general contractor,” as used herein, shall mean “successful bidder.”
- 1.16** “Regulations: The term “regulations” includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the work.

1.17 “Install”: The term “install” describes operations at the project site including the actual unloading, temporary storage, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations.

1.18 “Installer”: The term “installer” is the CONTRACTOR or another entity engaged by the CONTRACTOR, either as an employee, SUBCONTRACTOR, or CONTRACTOR of lower tier, who performs a particular construction activity including installation, erection, application, or similar operations. Installers are required to be experienced in the operations they are engaged to perform.

a) The term “EXPERIENCED”, when used with the term “installer”, means having successfully completed a minimum of 3 previous projects similar in size and scope to this project; being familiar with the special requirements indicated; and having complied with requirements of authorities having jurisdiction.

b) Trades: Using terms such as ‘carpentry’ does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as “carpenter”. It also does not imply that requirements specified apply exclusively to trades people of the corresponding generic name.

c) Assigning Specialists: Certain sections of the specifications require that specific construction activities shall be performed by specialists who are recognized experts in those operations. The specialists must be engaged for those activities, and their assignments are requirements over which the CONTRACTOR has no option. However, the ultimate responsibility for fulfilling contract requirements remains with the CONTRACTOR.

d) This requirement shall not be interpreted to conflict with enforcing building codes and similar regulations governing the work. It is also not intended to interfere with local trade-union jurisdictional settlements and similar conventions.

1.19 “Consultant” refers to the County’s designated consultant, who may represents the OWNER to perform observation on the construction of the contract contained herein.

SECTION 2: TERMS, CONDITIONS, INSTRUCTIONS APPLICABLE TO PROCUREMENT

2.01 Bids must be submitted in a sealed envelope with the outside marked in the lower left hand corner as follows:

IFB# 2019-01

FOR: Company #5 Concrete Apron and Driveway Improvements

Each bidder is solely responsible for delivering his bid to the correct location on or before the date and time on which bids are scheduled to be received by the County. Any bid/modification received at the office designated in the solicitation after the exact time specified for receipt of the bid/modification is considered a late bid/modification. A late bid/modification cannot be considered for award.

2.02 The time of receipt of a bid at the specified location is the time/date stamp of such location on the bid wrapper or other documentary evidence of receipt maintained by the specified location. No consideration will be given to date of postmark.

2.03 The County reserves the right to accept or reject any or all bids in whole or in part and to waive any informality in the bid. Informality shall be defined as a minor defect or variation from the exact requirements which does not affect the price, quality, quantity or delivery schedule.

2.04 The specification herein is intended to indicate the character, quality and/or performance of the goods or services desired. Unless qualified by provision "No Substitute" the name of a brand, manufacturer or catalog designation does not restrict the bidder to that brand or manufacturer. Alternates to the specified goods or service will be considered to the extent that such action is deemed in the best interest of the County.

2.05 The County will assume no responsibility for oral instruction or interpretation.

2.06 Modification of or corrections to bids are not acceptable after bids have opened. Erroneous bids may be reclaimed or superseded any time prior to bid opening time. Any new bid must be marked as in 1.01 with the additional notation "Supersedes all previous submissions."

a) Any bidder may withdraw or modify its bid, by a writing containing the original signature of the bidder, which writing must be received by the County prior to the date and time set for submission of bids. Withdrawal or modification shall be delivered by one of the following means: (i) hand delivery by the bidder itself, a courier, or other delivery service; (ii) by mail (no consideration shall be given to any postmark); or (iii) by email or facsimile received prior to the date and time set for submission of bids, followed by written confirmation containing the original signature of the bidder, where the County is able to determine that the written confirmation was or has been sent out by the bidder prior to the date and time set for submission of the bids, or (iv) by marking(s) on the exterior of the bid submission envelope, but only if the marking is dated and includes the original signature of the bidder. If written confirmation of an email or facsimile communication is not, in fact, received by the County within five days following the date and time set for submission of bids, no consideration will be given to the requested withdrawal or modification.

b) Written withdrawals or modifications of bids should not reveal the bid price contained in the previously submitted sealed bid, but should simply provide the desired addition, subtraction or modification, so that the final price or terms of the bid will not be known to the County until the sealed bids are opened.

2.07 Identity of bidders, except in the case of construction contracts, will not be disclosed prior to bid opening.

2.08 Each bidder is and shall be subject to the provisions of the Virginia Governmental Frauds Act, Virginia Code, Title 18.2, Chapter 12, Article 1.1. In compliance with this law, each bidder is required to submit a certification that its bid, or any claim resulting therefrom, is not the result of, or affected by, any act of collusion with another person engaged in the same line of business or commerce, or any act of fraud punishable under the Act. Any bidder who knowingly makes a false statement on the Certificate of No Collusion shall be guilty of a felony, as provided in Virginia Code §18.2-498.5. As part of this bid a notarized Certificate of No Collusion must be submitted with the bid.

2.09 The County is exempt from the payment of Federal and State taxes. Include only taxes applicable to the project in this bid. Prices bid must be net, exclusive of taxes. Include only taxes applicable to the project in this bid.

2.10 Public notice of the award of this contract, or the announcement of the decision to award this contract, shall be given in the following manner: posting of a notice on the County web page. Tabulations of bids are a matter of public record and are available upon request.

2.11 Awards shall be based on determination of the lowest responsive and responsible bidder. No contract may be awarded to a bidder who is determined by the Purchasing Agent to be non-responsible. No contract may be awarded to a bidder who is determined by the Purchasing Agent

to be non-responsible. In determining the responsibility of a bidder, the following criteria will be considered:

- a). The ability, capacity or skill of the bidder to perform the contract or provide the services required;
- b). Whether the bidder can perform the contract or provide the service promptly, or within the time specified, without delay or interference;
- c). The character, integrity, reliability, reputation, judgment, experience and efficiency of the bidder;
- d). The quality of performance on previous contracts or services, for the County or others;
- e). The previous and existing compliance by a bidder with laws and ordinances relating to the contract or service;
- f). The sufficiency of the financial resources and ability of the bidder to perform the contract or provide the service;
- g). The quality, availability, and adaptability of the goods or services to the particular use required;
- h.. The number and scope of any conditions attached to the bid;
- i). Whether the bidder is in arrears to the County on a debt or contract or is in default on a surety to the County, and whether the bidder's County taxes or assessments are delinquent;
- j). Such other information as may be secured by the Purchasing Agent, having a bearing on the decision to award the contract.

Upon request by the County, it shall be the responsibility of each bidder to ensure that the bid submitted contains information sufficient to enable the County to evaluate each of the above-referenced criteria.

2.12 All prices submitted must be FOB Destination - Freight Prepaid and Allowed.

2.13 Unless otherwise noted any equipment bid shall be new, unused, of current production and standard to the manufacturer. Where any part or nominal appurtenances of equipment are not described it shall be understood that all equipment and appurtenances standard to or recommended by the manufacturer for complete and safe use shall be included as part of this bid.

2.14 A Material Safety Data Sheet is required for all chemicals proposed to be furnished as a result of this bid. The MSDS must; list all ingredients which constitute more than 1% of the product (.1% for known or suspected carcinogens); identify the product by common or chemical name; provide physical and chemical characteristics of any hazardous components; list any known acute or chronic health effects; specify exposure limits, precautionary measures, and emergency and first aid procedures.

2.15 Every contract over \$10,000 shall include the following provisions:

Non-discrimination Clause:

During the performance of this contract, the General Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability or any other basis prohibited by law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the contractor. The General Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. Also, the General Contractor, in all solicitations or advertisements for employees placed by or on behalf of the contractor, will state that it is an equal opportunity employer.

Drug-Free Workplace Clause

During the performance of this contract the contractor agrees as follows: (i) to provide a drug-free workplace for the contractor's employees; (ii) to post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; and (iii) state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace. For the purposes of this paragraph, "drug-free workplace" means a site for the performance of work done in connection with the contract awarded to a contractor in accordance with this procurement transaction, where the contractor's employees are prohibited from engaging in the unlawful manufacture, sale distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

2.16 The County of Powhatan does not discriminate against faith based organizations.

2.17 If the bid determined to be the lowest responsive and responsible bid exceeds available funds, the County may, at its discretion, negotiate with that bidder to obtain a contract price within available funds. The process for negotiating with an apparent low bidder, should the lowest bid exceed available funds, shall be as follows: the County and/or its designated representative, and the Apparent Low Bidder, together, will review the Project and attempt to find mutually agreeable proposed changes that will effectively reduce the cost of the Project. The apparent low bidder will present documented and substantiated proposed deductions in the Project cost, for each potential project change, which will allow the County to re-evaluate each proposed deduction. The parties will endeavor to negotiate a reasonable price for the entire Project which does not exceed available funds. In the event that such negotiations fail, the County may terminate negotiations with the apparent low bidder and repeat the foregoing process with the next lowest responsive and responsible bidder, until a successful contract can be negotiated within available funds or until negotiations appear useless, at which time all negotiations will be terminated

2.18 It is the policy of the County of Powhatan to facilitate the establishment, preservation and strengthening of small businesses and businesses owned by women and minorities (SWAM) and to encourage their participation in the County's procurement activities. Toward that end, the County of Powhatan encourages SWAM businesses to compete for County projects. In addition, the County strategy encourages all bidders to provide for the participation of SWAM businesses through partnerships, joint ventures, subcontracts or other contractual opportunities on projects. Bidders are asked, as part of their submission, to describe any planned use of such businesses in fulfilling this contract.

2.19 The Bidder shall, *within 10 days after Notice of Award*, at its own expense, provide and maintain during the entire performance period of this contract at least the following types and minimum amounts of insurance, in addition to unemployment compensation and workers compensation insurance:

- i. Comprehensive General Liability, including Premises and Operations; Contractor's Protective Liability; Products Liability including Completed Operations Coverage; and Contractual Liability for this contract. Limits \$1,000,000 per incident / \$3,000,000 Total Bodily Injury (including death); \$1,000,000 per incident / \$3,000,000 Total Property Damage
- ii. Comprehensive Automobile Liability, including all Owned Automobiles, Non-Owned Automobiles and Hired Car Coverage: Limits: \$1,000,000 per incident / \$3,000,000 Total Bodily Injury (including death)

Company 5 Concrete Apron and Driveway Improvements

\$1,000,000 per incident / \$3,000,000 Total Property Damage

iii. Employer's Liability for Participants not covered by Workers Compensation Insurance in an amount not less than \$100,000.

Bidder shall not perform any work on this project unless bidder has obtained, and continues to maintain for the duration of such work, such workers' compensation coverage as may be required pursuant to the provisions of Chapter 8 (Code Section 65.2-800 et seq.) of Title 65.2 of the Code of Virginia, 1950, as amended. Bidder shall not allow any subcontractor to perform any work on a County construction project unless the subcontractor has obtained, and continues to maintain for the duration of such work, such worker's compensation coverage as may be required pursuant to the provisions of Chapter 8 (Code Section 65.2-800 et seq.) of Title 65.2 of the Code of Virginia, 1950, as amended. Bidder shall include the provisions of this paragraph within each of its subcontracts, so as to bind each subcontractor.

A Certificate of Insurance shall be submitted within 10 days after Notice of Award and included as a part of the resulting contract by reference.

The Contractor shall furnish to the County a binder adding the County as an additional insured on all policies except those pertaining to Workers Compensation and including the following language: "The above described policies shall not be canceled, modified, or amended or coverage reduced without the issuing company providing 30 days advance written notice to the County of Powhatan."

Should insurance coverage be changed or cancelled, regardless of the reason, the Contractor shall furnish evidence of new coverage and submit a new and valid binder evidencing the required insurance. Failure to deliver a new and valid binder will result in suspension of all payments until the new binder is furnished.

All insurance required by this agreement shall be and remain in full force and effect for the life of the contract.

No contract shall be binding upon the County until the all insurance requirements and policies, required herein have been filed with the County (if requested) and all have been approved as to form and sufficiency by the County Attorney.

2.20 The Contractor agrees to save, defend, hold harmless, and indemnify the County, and all of its officers, departments, agencies, agents, and employees (collectively the "County") from and against any and all claims, losses, damages, injuries, actions, fines, penalties, costs (including court costs and attorney's fees), charges, liability, or exposure, however caused, resulting from, arising out of, or in any way connected with the Contractor's negligent or wrongful acts, errors or omissions in the performance or nonperformance of its work called for by the Contract Documents, including such acts, errors or omissions of Contractor's employees, servants or agents.

2.21 BID BOND

Each bid submitted in response to this IFB shall be accompanied by a bid bond in an amount equal to five percent (5%) of the total monetary amount of the bid.

- i. The bid guarantee may be either (i) a certified or cashier's check made payable to "The County of Powhatan, Virginia," or (ii) a bid bond made payable to "The County of Powhatan, Virginia." The bid guarantee shall be for the purpose of promising and guaranteeing that the bidder will not withdraw its bid for a period of 30 days following bid opening. The proceeds of the bid guarantee shall be and remain the sole property of the County, as liquidated damages, should the successful bidder fail to execute a contract, proof of all required insurance and endorsements and all required payment and performance bonds within five days of the County's issuance of notice of award of the contract.
- ii. The bid guarantees of all except the three lowest bidders will be returned within three (3) days after bid opening. The remaining bid guarantees will be returned as soon as the County has received a fully-executed contract, or within 75 days after bid opening, whichever occurs first.
- iii. An attorney-in-fact who executes a bid guarantee must file with the guarantee a certified and dated copy of the written power of attorney which authorizes them to act. Such power of attorney shall be submitted and attached to the Bid Bond.
- iv. In lieu of a bid bond, a bidder may furnish a cashier's check or cash escrow in the face amount required for the bid bond. If approved by the County attorney, a bidder may furnish a personal bond, property bond or bank or savings and loan association's letter of credit on certain designated funds in the face amount required for the bid bond. Approval shall be granted only upon a determination by the County attorney that the alternative form of security proffered affords protection to the County equivalent to a corporate surety's bond.

2.22 PERFORMANCE AND PAYMENT BOND

The successful bidder shall execute a performance and payment bond for not less than 100% of the amount of the contract award and shall furnish same to the Purchasing Agent within 10 days of notice of award contract. Such bond shall guarantee faithful performance by the contractor and indemnify the County from all claims from subcontractors for any amount due on account of labor, materials or services furnished. No contract shall be binding upon the County until such bond has been filed with the County and approved by the County Attorney.

2.23 The Virginia Uniform Statewide Building Code applies to the Work and is administered by the local Building Official. The Building Permit will be obtained by the General Contractor and paid for by the Contractor. All other permits, local license fees, business fees, taxes or similar assessments shall be obtained and paid for by the Contractor.

2.24 The bidder shall include with bid a proposed schedule for completion or work to be performed.

2.25 The successful bidder is prohibited from assigning, transferring, conveying, subletting or otherwise disposing of resulting contract or its right, title or interest therein or its power to execute such contract to any other persons, company or corporation without the previous consent and approval in writing by the County.

2.26 Each bidder must carefully examine all documents and plans (including, without limitation, specifications and drawings, and the form contract) made available by the County for inspection by potential bidders, prior to submission of a bid. In addition, each bidder, prior to submission of a bid, must use whatever means necessary to satisfy itself of the extent and requirements of the Project and of the actual conditions under which the Project is to be performed. Comprehensive or detailed information of existing Site conditions may not be included in the Contract Documents; therefore, prior to bid submission, the Contractor must visit and examine the Site. Submission of a bid shall be deemed evidence that the bidder has visited the Site of the Project, that the bidder has familiarized itself with existing conditions at the Site (including without limitation, areas for

storage of materials and equipment), and that the bidder is satisfied that it can construct the Project, in accordance with the Construction Documents, for the price(s) specified within its bid. Contractors will not be allowed or provided additional compensation as relief from the consequences of an error in their bids, including, without limitation errors which are attributable to conditions or factors which could have been identified by thorough examination of the Site and the Contract documents (including, without limitation, boring reports and subsurface condition reports, if available) prior to submission of a bid.

2.27 A pre-construction conference will be held during the period after the award of the Contract and before the mobilization phase of the project. The Project Manager will discuss requirements of such matters as project coordination and review, construction schedules, progress schedules, and reports, Contract Change Orders, Insurance, Safety, Accommodation to Traffic, and other items pertinent to the Project. All parties to this conference should be prepared to discuss any problems anticipated with the execution of the work under this Contract. A summary of the conference shall be prepared by the Engineer and distributed to the County and the Contractor. The Contractor shall acknowledge receipt of the Engineer's summary in writing to the County. The Contractor shall submit for approval plans for a field office, if applicable, storage yard including any fencing or protective barriers, and staging area including any gravel surfaced area.

2.28 More than one bid from an individual, firm, partnership, corporation, affiliate, or association under the same or different names, received in response to a single solicitation, will be rejected. Reasonable grounds for believing that a bidder is interested in more than one bid or proposal for a solicitation both as a bidder and as a subcontractor for another bidder will result in rejection of all bids or proposals in which the bidder is interested. However, a firm acting only as a subcontractor may be included as a subcontractor for two or more bidders submitting a bid or proposal for the work.

2.29 A bidder for a construction contract, other than a contract for construction or maintenance of public highways, may withdraw a bid from consideration after bid opening if the price bid was substantially lower than the other bids due solely to a mistake therein, provided the bid was submitted in good faith and the mistake was a clerical mistake as opposed to a judgmental mistake, and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of the bid, if the unintentional arithmetic error or unintentional omission clearly can be shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn.

a) If a bid contains both clerical and judgment mistakes, a bidder may withdraw his bid from consideration if the price bid would have been substantially lower than the other bids due solely to the clerical mistake that was an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of a bid which shall be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn.

b) The bidder shall give notice in writing to the purchasing agent of a claim of right to withdraw a bid, within two (2) business days after the conclusion of the opening of the bids and shall submit original work papers with such notice.

c) If the purchasing agent denies the withdrawal of the bid, he shall notify the bidder in writing, stating the reasons for the decision; in that event, the purchasing agent, or his designee, shall award the contract to the bidder at the bid price, provided such bidder is responsible and responsive.

2.30 The agreement to be entered into by the parties shall consist of the contract agreement, which may be a purchase order, the bid submitted by the successful bidder, all supplemental, general and/or special conditions, all specifications and any attachments to the original request for bids submitted to be prospective bidders, and drawings including all modifications thereof, all of which shall be referred to collectively as the Contract Documents.

2.31 This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia and of the United States of America. All litigation arising out of this Agreement shall be commenced and prosecuted in the Circuit Court of the County of Powhatan, Virginia. The contractor shall comply with applicable federal, state and local laws and regulations.

2.32 When the owner is required by the Contract Documents to give written notice, demand or other communication to the Contractor, the Owner's notice, demand or communication shall be deemed to be given when it is deposited in the United States mail, postage pre-paid, and addressed to the address of the Contractor stated in the Agreement or at such other address as the Contractor designates in writing to the Owner.

2.33 The Contractor certifies that it does not, and will not during the performance of the Contract, employ illegal alien workers or otherwise violate the provisions of the federal Immigration Reform and Control Act of 1986.

2.34 The Contract is governed by the applicable provisions of the Powhatan County Purchasing Procedures, as amended.

2.35 Except as provided herein, or by applicable law, all proceedings, records, contracts and other public records relating to procurement transactions shall be open to the inspection of any citizen, or any interested person in accordance with the Virginia Freedom of Information Act and the Virginia Public Procurement Act.

a) Cost estimates relating to a proposed procurement transaction, prepared by or for the County, shall not be open to public inspection.

b) Any competitive sealed bidding bidder, upon request, shall be afforded the opportunity to inspect bid records within a reasonable time after the opening of all bids but prior to award, except in the event that the County decides not to accept any of the bids and to reopen the contract, postpone the contract or not contract at all. Otherwise, competitive sealed bid records shall be open to public inspection only after award of the contract.

c) Any inspection of procurement transaction records shall be subject to reasonable restrictions to ensure the security and integrity of the records.

d) Trade secrets and proprietary information submitted by a bidder in connection with a procurement transaction shall not be subject to public disclosure; however, the bidder must invoke the protections of Section 2.2-4342 of the Virginia Code IMMEDIATELY UPON SUBMISSION of the data or other materials, and must specifically designate the data or other materials to be protected and state the reasons why protection is necessary. The County will not be liable for any damages sustained by a bidder who fails to follow the procedures designated by Virginia Freedom of Information Act, the Virginia Public Procurement Act, and the Powhatan County Code as being prerequisite to protection of trade secrets or proprietary information.

2.36 It is expressly agreed that nothing under the Contract shall be subject to arbitration, and any references to arbitration are expressly deleted from the Contract Documents.

2.37 Any bidder organized or authorized to transact business in the Commonwealth pursuant to Title 13.1 or Title 50 of the Code of Virginia MUST include in its bid or proposal the identification number issued to it by the State Corporation Commission. Any bidder not required to be authorized to transact business in the Commonwealth as a foreign business entity under Title 13.1 or Title 50

of the Code of Virginia or as otherwise required by law MUST include in its bid or proposal a statement describing why the bidder is not required to be so authorized. No bidder failing to provide the required information shall receive an award unless a waiver of this requirement and the administrative policies and procedures established to implement Section 2.2-4311.2 of the Code of Virginia is granted by the County Administrator. The County may void any contract with a business entity if the business entity fails to remain in compliance with the provisions of Section 2.2-4311.2 of the Code of Virginia

2.38 Bidders are required under the Virginia Contractors' licensing laws (Section 54.1-1112, Virginia Code) to show evidence of contractor's license.

Bids without such notation shall remain unopened.

Bidder shall place on the outside of the envelope containing the bid the following:

License No. _____ Class _____ Expires _____

SECTION III GENERAL TERMS AND CONDITIONS

GENERAL TERMS AND CONDITIONS FOR CONSTRUCTION CONTRACTS

DEFINITIONS AND INSTRUCTIONS FOR INTERPRETATION

When one of the following words, terms or phrases is used in this contract, it shall be interpreted or construed first, as defined below; second, according to its generally-accepted meaning in the construction industry; and third, according to its common and customary usage.

As-built drawings: Drawings submitted by the Contractor or subcontractor at any tier and at close out showing the construction of a particular structure or work as actually completed under the contract. "As-built drawings" shall be synonymous with "Record drawings."

Builder: The General Contractor to whom a Contract [NOT DEFINED] for Construction has been awarded by the County

Change Order: A document issued on or after the effective date of the Contract for Construction, which is agreed to by the Contractor and approved by the County, and which authorizes an addition, deletion or revision in the Work, including any adjustment in the Contract Price and/or the Contract Completion Date. A change order, once signed by all parties required to sign it, is incorporated into and becomes a part of the Contract.

Change Directive: A construction change directive is a written order signed by the County, directing a change in the work prior to agreement on adjustment (if any) in the contract price or contract time, or both.

County: The County of Powhatan, Virginia, including all its officers, officials, agencies, departments, divisions, and all of the employees and agents thereof.

Claim: A demand or assertion by one party seeking, as a matter of right, an adjustment or interpretation of Contract terms, payment of money, extension of time or other relief with respect to the terms of the Contract for Construction. The term "claim" also includes other disputes and matters in question between the County and the General Contractor arising out of or relating to the Contract. Claims must be initiated by written notice. The responsibility to substantiate claims rests with the party making the claim.

Construction: The term used to include new construction, reconstruction, renovation, restoration, major repair, demolition and all similar work upon buildings and ancillary facilities, including any draining, dredging, excavation, grading or similar work upon real property.

Construction Documents: Plans, specifications, approved change orders, revisions, and addenda, and other information approved by the County, which set forth in detail the Work to be performed for this Construction Project.

Contract Documents: The Contract entered into by the parties shall consist of this Contract, the original Invitation for Bids (IFB) and all specifications, drawings and addenda thereto, the bid submitted by the General Contractor, other documents identified in the Contract, modifications issued subsequent to execution of the Contract and the Project manual, which shall be referred to collectively as the Contract Documents.

Contract Price: The dollar amount for which the Builder agrees to perform the Work which is the subject of the Contract For Construction.

Contract Specifications: The written requirements for materials, equipment, systems, standards and workmanship for the Work and for performance of related services.

Contractor. An alternative way of referring to the General Contractor, the person with whom the County has entered into the Contract for Construction.

Defective: An adjective which, when modifying the word “work” refers to work that is unsatisfactory, faulty, deficient, does not conform to the Contract Documents, or which does not meet the requirements of inspections, standards, tests or approvals required by the Contract Documents.

Drawing: A page or sheet of the Construction Plans which presents a graphic representation, usually drawn to scale, showing the technical information, design, location and dimensions of various elements of the Work. The graphic representations include, but are not limited to: plan views, elevations, transverse and longitudinal sections, large and small scale sections and details, isometrics, diagrams, schedules, tables and/or pictures.

Field Order: A written order issued by the County’s inspector/Representative which clarifies or explains the plans or specifications, or any portion or detail thereof, without changing the design, the Contract Price, the time for Substantial Completion or the date of Final Completion.

Final Completion: The stage of construction when the Work has been completed in accordance with the Contract for Construction and the County has received all documents and items necessary for closeout of the Work.

General Contractor: Also referred to within the Contract for Construction as the “Contractor,” this is the person with whom the County has entered into the Contract for Construction.

Hazardous Substances: The term "Hazardous Substance" shall have the same meaning and definition as set forth in the Comprehensive Environmental Response Compensation and Liability Act as amended, 42 USC § 6901 et seq., and regulations promulgated thereunder (collectively "CERCLA") and any corresponding state or local law or regulation, and shall also include: (a) any Pollutant or Contaminant as those terms are defined in CERCLA; (b) any Solid Waste or Hazardous Constituent as those terms are defined by, or are otherwise identified by, the Resource Conservation and Recovery Act as amended, 42 USC § 6901 et seq., and regulations promulgated thereunder (collectively "RCRA") and any corresponding state or local law or regulation; (c) crude oil, petroleum and fractions of distillates thereof; (d) any other material, substance or chemical defined, characterized or regulated as toxic or hazardous under any applicable law, regulation, ordinance, directive or ruling; and (e) any infectious or medical waste as defined by any applicable federal or state laws or regulations.

Occupancy, beneficial: The condition after Substantial Completion but prior to Final Completion, at which time the Project is sufficiently complete and systems operational such that the County could, after obtaining necessary approvals and certificates, occupy and utilize the space for its intended use. Guarantees and warranties applicable to that portion of the Work begin on the date the County accepts the Project for such Beneficial Occupancy, unless otherwise specified in the Supplemental General Conditions or by separate agreement.

Occupancy, partial: Partial occupancy or use occurs when the County occupies or uses any completed or partially completed portion of the work, at a stage when such portion is designated by a separate agreement between the County and the General Contractor, in accordance with Section 12.2 of these General Terms and Conditions.

Person: The term “person” includes any individual, corporation, partnership, association, company, business, trust, joint venture or other legal entity.

Plans: The term used to describe the group or set of project-specific drawings which are included in the Contract Documents.

Product Data: Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the General Contractor, or a subcontractor, manufacturer, supplier or distributor, to illustrate materials or equipment for some portion of the Work.

Professional: An individual or entity, including but not limited to an architect, engineer, geotechnical engineer or consultant, land surveyor, landscape architect, or other professional engaged directly by the County to provide design, engineering, testing or other services in relation to the Project.

Project: The planned construction undertaking which is the subject of this Contract for Construction.

Project Manual: A volume assembled for the Work, which may include the bidding requirements, specifications, sample forms, documents, etc.

Related Party: Any affiliated entities of the County of Powhatan (including, without limitation, agencies, departments, divisions or commissions of the County of Powhatan) and their respective officers, officials, office holders, and employees.

Samples: Samples are physical examples, which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

Shop Drawings: Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the General Contractor or a subcontractor, manufacturer, supplier or distributor, to illustrate some portion of the Work.

Site: The geographical location where the Project is to be constructed, and where the Work by the General Contractor is to be performed.

Specifications: That part of the Project Manual/Contract Documents containing the written administrative requirements and the technical descriptions of materials, equipment, construction systems, standards, and workmanship which describe the proposed Work in detail and provide information for a Building Official to determine code compliance and for the Contractor to perform the Work.

Subcontractor: A person having a direct contract with the General Contractor, or with any other subcontractor, for the performance of the Work. The term “subcontractor” includes any person who provides on-site labor but does not include any person who only furnishes or supplies materials for the Project.

Submittals: Documents prepared by the General Contractor or a subcontractor, manufacturer, supplier or distributor, consisting of: Shop, fabrication, setting or installation drawings, diagrams, illustrations, schedules, samples, brochures, performance charts, instructions, diagrams, or other, similar data or items. The purpose of submittals is to demonstrate conformance of some portion of the Work with the requirements of the Contract Documents.

Substantial Completion: The stage in the progress of the Work when the Work, or designated portion thereof, is sufficiently complete in accordance with the Contract Documents so that the County can occupy or use the Work for its intended purpose(s).

Supplier: A manufacturer, fabricator, distributor or vendor who provides material(s) for the Project but who does not provide on-site labor.

Total Project Construction Cost: The total cost to the County to complete construction of the Project, including, without limitation, the Work, the cost of utilities, the cost of fees for permits and licenses required to be obtained by the General Contractor, and modifications necessitated by local conditions.

Work: The term “Work” means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services provided or to be provided by the General Contractor to fulfill the General Contractor’s obligations.

In construing this Construction Contract, the parties hereto agree that the following standards and directives shall apply:

Computation of Time: When the Contract requires any notice to be given, or an act to be done, a certain time before a specified event or deadline, then there must be that time, exclusive of the day for such specified event or deadline, but the day on which the notice is given or an act done shall be counted as part of the time. When the Contract requires any notice to be given, or an act to be done, within a certain time after a specified event or deadline, then that time shall be allowed in addition to the day on which the specified event or deadline occurred. When the last day fixed by this Contract for the commencement of any action, or the giving of any notice, falls on a Saturday, Sunday, legal holiday, or any day on which the Powhatan County Administrative Offices are closed, then the notice or act may be given on the next day that is not a Saturday, Sunday, legal holiday, or other day on which the Powhatan County Administrative Offices are closed.

Day: Unless otherwise specified, the word “*day*” shall be construed to mean a calendar day.

Headlines.: The headlines of the several articles, sections and paragraphs of this Contract are intended as mere catchwords to indicate the contents of the articles, sections or paragraphs, and such headlines shall not be deemed or construed as titles of such articles, sections or paragraphs, or as any part thereof, nor, unless otherwise expressly provided by the Contract, shall any headlines be so deemed or construed following any amendment or modification of a particular article, section or paragraph.

Month: Unless otherwise expressed, the word “*month*” shall be construed to mean a calendar month.

Severability: In the event that any provisions of this Contract, or the application of any requirements stated herein to any person or circumstances, are determined invalid by a court of competent jurisdiction, such judicial determination shall not affect the validity of other provisions or requirements of this Contract which can be given effect without the invalid provisions or applications.

ARTICLE 1

THE CONTRACT DOCUMENTS

1.1 Minimum Requirements: Requirements established by the Construction Documents shall be considered as the minimum which will be accepted.

1.2 County Disclaimer of Warranty: The County has requested that the Professional(s) prepare documents for the Project, including the plans and specifications for the Project, which are to be complete, accurate, coordinated, and adequate for bidding, negotiating and constructing the Work. However, the County makes no representation or warranty, of any nature whatsoever, to the General Contractor concerning such documents. The General Contractor hereby acknowledges and represents that it has not, does not, and will not rely upon any representations or warranties by the County concerning such documents, as no such representations or warranties have been or are hereby made.

1.3 Conflicts in Documents: In the event of any conflict, discrepancy, or inconsistency among any of the documents which make up this Contract for Construction, the following shall control:

- (i) As between figures given on plans and scaled measurements, the figures shall govern;
- (ii) As between large-scale plans and small-scale plans, the large-scale plans shall govern;
- (iii) As between plans and specifications, the requirements of the specifications shall govern;
- (iv) As between the General Conditions of the Construction Contract and the plans or specifications, the General Conditions shall govern;
- (v) As between the Construction Contract Form and the General Conditions of the Construction Contract, the Contract Form shall govern.
- (vi) As between the Supplemental Conditions and any General Conditions or the Contract Form, the Supplemental Conditions shall govern.

1.4 Shop Drawings and Submittals: Shop drawings and other submittals from the General Contractor or its subcontractors and suppliers do not constitute a part of this Contract. The General Contractor shall not perform any Work requiring shop drawings or other submittals unless such shall have been approved in writing by the County representative. All Work requiring approved shop drawings or other submittals shall be done in strict compliance with such approved documents; however, approval by the County shall not be evidence that Work installed or performed pursuant thereto conforms with the requirements of this Contract. The County shall not have any duty to review partial submittals or incomplete submittals. The General Contractor shall maintain a submittal log which shall include, at a minimum, the date of each submittal, the date of any resubmittal, the date of any approval or rejection, and the reason for any approval or rejection. The General Contractor shall have the duty to carefully review, inspect and examine any and all submittals before submission of same to the County. By approving and submitting Shop Drawings, Product Data, Samples and similar submittals, the General Contractor represents that it has determined and verified materials, field measurements and field construction criteria related thereto, or that it will do so, and has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

1.5 Contract Changes: The General Contractor understands and agrees that the Contract for Construction cannot be changed except as expressly provided by the Contract Documents. No act, omission or course of dealing by the parties shall alter the requirement that modifications of this Contract for Construction can be accomplished only by written documents signed by the parties.

1.6 On-Site Documents. The General Contractor shall keep an updated copy of this Contract for Construction at the Site. Additionally, the Contractor shall keep copies of all approved shop drawings and other submittals at the Site.

ARTICLE 2

GENERAL CONTRACTOR'S REVIEWS AND EVALUATIONS

2.1 Sufficiency of Construction Documents: Prior to submission of its Bid, but in all events prior to signing this Contract for Construction, the General Contractor has received and carefully reviewed and evaluated the Construction Documents and agrees that the Construction Documents are complete, accurate, adequate, consistent, coordinated and sufficient for bidding, negotiating, costing, pricing and construction of the Project.

2.1.1 The General Contractor acknowledges its continuing duty to review and evaluate the Construction Documents during the performance of its services and shall immediately notify the County about any

- (i) problems, conflicts, defects, deficiencies, inconsistencies or omissions it discovers in or among the Construction Documents; and,
- (ii) variances it discovers between the Construction Documents and any applicable laws, statutes, building codes, rules and regulations.

2.1.2 If the General Contractor performs any Work which it knows or should have known involves:

- (i) a recognized problem, conflict, defect, deficiency, inconsistency or omission in the Construction Documents; or
- (ii) a variance between the Construction Documents and requirements of applicable laws, statutes, building codes, rules and regulations, without notifying the County and prior to receiving written authorization from the appropriate County Representative to proceed, the General Contractor shall be responsible for the consequences of such performance.

2.2 Sufficiency of Site Conditions: Prior to submission of its Bid, but in all events prior to signing this Contract For Construction, the General Contractor certifies that it has:

- (i) visited the Site and become familiar with local conditions under which the Project is to be constructed and operated; and,
- (ii) reviewed and familiarized itself with the Site survey and any existing structures on the Site, and gathered all other information necessary for a full understanding of its obligations under this Contract.

2.3 In addition, if the Scope of the Work involves modifications to or remodeling of an existing structure(s) or other man-made feature(s) on the Site, the General Contractor certifies that it has:

- (i) reviewed all available as-built and record drawings, plans and specifications; and,
- (ii) thoroughly inspected the structure(s) and man-made feature(s) to be modified or remodeled prior to submission of its Bid, but in all events prior to signing this Contract For Construction.

2.4 Claims against the County or Related Parties resulting from the General Contractor's failure to familiarize itself with the Site or pertinent documents shall be deemed waived by the General Contractor.

2.5 The General Contractor shall commence performance of its obligations under this Contract for Construction, upon receipt of a written notice to proceed issued by the County.

ARTICLE 3

GENERAL CONTRACTOR'S DUTIES, OBLIGATIONS AND RESPONSIBILITIES

3.1 Performance of Work: The General Contractor shall supervise and complete its obligations under this Contract For Construction, using its best skill and attention. The General Contractor shall furnish management, supervision, coordination, labor and services which

- (i) expeditiously, economically and properly complete its scope of the Work;
- (ii) comply with the requirements of this Contract For Construction; and,

(iii) are performed in a workmanlike manner and in accordance with the standards currently practiced by persons and entities performing or providing comparable management, supervision, labor and services on projects of similar size, complexity and cost.

3.1.1 The General Contractor shall not damage, endanger, compromise or destroy any part of the Work or the Site, including by way of example, and without limitation: work being performed by others on the Site, monuments, stakes, bench marks and other survey points, utility services, and existing features, improvements or structures on the Site. Should the General Contractor damage, compromise or destroy any part of the Project or the Site, the General Contractor shall be fully and exclusively responsible for and bear all costs associated therewith.

3.1.2 All services rendered by the General Contractor shall be performed by or under the immediate supervision of persons possessing expertise in the discipline of the service being rendered.

3.1.3 The General Contractor shall, in the performance of its obligations under this Contract for Construction, cooperate and communicate with the County and all other persons or entities working for or with the County, as necessary for satisfactory and timely completion of the Project.

3.1.4 The General Contractor understands and acknowledges that the Scope of Work referred to in this Contract for Construction may be only part of the Project and that the Project may include the construction of other structures or other construction activities on the same Site. The General Contractor shall conduct all its activities so as not to interfere with the construction of, or other construction activities on the Site.

3.1.5 The General Contractor shall conduct all its activities so as not to interfere with ongoing business and other activities at the site. The General Contractor shall perform construction services and conduct all activities only in such locations and in such manner as specifically contemplated by the Construction Documents.

3.1.6 The General Contractor shall obtain all licenses necessary to use any invention, article, appliance, process or technique, of whatever kind, and shall pay all royalties and license fees associated therewith. The General Contractor shall hold the County, its officers, agents and employees, harmless from and against any loss or liability for or on account of the infringement of any patent rights in connection with any invention, process, technique, article or appliance manufactured or used in the performance of this Contract for Construction, including its use by the County; unless such invention, process, technique, article or appliance is specifically named by the County in the specifications or plans as being acceptable for use in carrying out the Work. If, before using any invention, process, technique, article or appliance specifically named in the specifications or plans as acceptable for use in carrying out the Work, the General Contractor has or acquires information that the same is covered by letters of patent, making it necessary to secure the permission of the patentee, or other, for the use of the same, the General Contractor shall promptly advise the County. The County may direct that some other invention, process, technique, article or appliance be used. Should the General Contractor have reason to believe that the invention, process, technique, article or appliance so specified is an infringement of a patent, and fail to inform the County, the General Contractor shall be responsible for any loss or liability due to the infringement.

3.2 Compliance with Governmental Requirements:

3.2.1 The General Contractor shall comply with all applicable laws, statutes, codes, building codes, rules, regulations and lawful orders of all governmental, public and quasi-public authorities and agencies having jurisdiction over the Work, the Project and the Site;

3.2.2 The General Contractor shall prepare and file documents required to obtain and shall obtain all necessary governmental approvals and permits for construction of the Project, including building permit(s); and,

3.2.3 The General Contractor shall give all notices required of it by governmental authorities relating to the Work, the Project, or the Site.

3.2.4 This Construction Contract and all other contracts and subcontracts are subject to the provisions of Articles 3 and 5, Chapter 4, Title 40.1 of the Code of Virginia, relating to labor unions and the “right to work.” The General Contractor and its subcontractors, whether residents or nonresidents of the Commonwealth of Virginia, who perform any Work related to the Project, shall comply with all of said provisions.

3.2.5 By signing this Construction Contract, the General Contractor certifies that it does not and will not during the performance of the Contract violate the provisions of the Federal Immigration Reform and Control Act of 1986, which prohibits employment of illegal aliens.

3.2.6 The provisions of all rules and regulations governing safety as adopted by the Safety Codes Commission of the Commonwealth of Virginia, as issued by the Department of Labor and Industry under Title 40.1 of the Code of Virginia, shall apply to all Work under this Contract. Inspectors from the Department of Labor and Industry shall be granted access to the Work for inspection without first obtaining a search or administrative warrant.

3.2.7 The Virginia Uniform Statewide Building Code applies to the Work and is administered by the local Building Official. The Building Permit will be obtained by the General Contractor and paid for by the Contractor. All other permits, local license fees, business fees, taxes or similar assessments shall be obtained and paid for by the Contractor.

3.2.8 The General Contractor, if not licensed as an asbestos abatement contractor or a roofing/flooring/siding (RFS) contractor in accordance with §54.1-514 of the Code of Virginia, shall have all asbestos-related Work performed by subcontractors who are duly licensed as asbestos contractors or RFS contractors, as appropriate for the Work.

3.2.9 If the Contract Documents indicate that lead-based paint is present on existing materials, components or surfaces, the General Contractor shall conform to the following: (1) The requirements set forth in 59 Federal Register 45,672 (September 2, 1994) Proposed Rule - *Lead; Requirements for Lead-based Paint Activities (Proposed Rules)* in selecting and performing the means, methods and procedures for performing the Work. When the Final Rule, to be codified at 40 CFR 745, supersedes the Proposed Rule, the General Contractor shall be responsible for conforming to the Final Rule, as of the effective date set forth therein; (2) The requirements for employee protection contained in 29 CFR Part 1926, Subpart D, and the requirements for record-keeping contained in 29 CFR Part 1910; and (3) The Virginia Department of Labor and Industry’s Emergency Regulation published in the May 27, 1996 Virginia Register, requiring, among other things, that a permit be issued to the lead abatement contractor, or any subsequent regulation issued by DLI.

3.2.10 If the General Contractor violates laws or regulations that govern the Project, the General Contractor shall indemnify and hold the County harmless from and against any fines and/or penalties that result from such violation. To the extent that such violation is the result of negligence or other actionable conduct of the General Contractor, the General Contractor shall indemnify and hold the County harmless against any third party claims, suits, awards, actions, causes of action or judgments, including but not limited to attorney’s fees and costs incurred thereunder, that result from such violation.

3.3 Safety: Safety shall be a prime concern of the General Contractor at all times. The General Contractor shall be solely responsible for and have control over the means, methods, techniques, sequences and procedures for coordinating and performing construction, including Site safety and safety precautions and programs.

3.4 Concurrent Records: For any period in which it is engaged in activities on the Site, the General Contractor shall, concurrently with its performance, maintain detailed daily records of activities on the Site. Upon request, the County shall be provided copies of such records.

3.5 As-Built Drawings: The General Contractor shall maintain at the Site at least one copy of all drawings, specifications, addenda, approved shop drawings, change orders, submittals, and other modifications, in good order and accurately marked, depicting all changes as they occur during construction. The as-built drawings shall be available at all times to the County, and the County's consultants, including quality control and testing agency personnel. The drawings shall be neatly and clearly marked in color during construction to record all variations made during construction, and the General Contractor shall include such supplementary notes and details necessary to clearly and accurately represent as-built construction.

3.5.1 This clause shall be included in all subcontracts. It shall be the responsibility of the Contractor to ensure that all as-built drawings prepared by subcontractors are complete, accurate and submitted.

3.6 Quality Control And Testing: Unless otherwise provided in this Contract For Construction, the County shall select the quality control and testing agencies and pay for the cost of specified measures and tests required by the Construction Documents. The General Contractor shall be responsible for the coordination of all tests and inspections and shall arrange for tests and inspections to be conducted as necessary to avoid any interference with the progress of Work. No claims for extension of time or extra costs will be allowed on account of any testing, retesting, inspection, re-inspection, or rejection of Work when defective or deficient Work is found.

3.7 Incident Reporting: The General Contractor shall immediately notify the County both orally and in writing, of the nature and details of all incidents which may adversely affect the quality or progress of the Work including, but not limited to, union jurisdictional disputes, accidents, delays, damages to Work and other significant occurrences.

3.8 Hazardous Substances Notice: The General Contractor shall immediately notify the County, both orally and in writing, of the presence and location of any physical evidence of, or information regarding, environmental contamination on the Site (including but not limited to Hazardous Substances and petroleum releases) of which it becomes, or reasonably should have become, aware. If the General Contractor encounters environmental contamination (including but not limited to Hazardous Substances and petroleum releases), the General Contractor shall:

- (i) immediately stop performance of Work or that portion of the Work affected by or affecting such contamination;
- (ii) secure the contaminated area against intrusion;
- (iii) not disturb or remove the contamination;
- (iv) not proceed, or allow any subcontractor or supplier to proceed, with any Work or other activities in the area affected by such contamination until directed to do so by the County; and,
- (v) take any other steps necessary to protect life and health.

3.9 County's Use of and Access to the Site: The General Contractor shall perform the Work so as not to interrupt any ongoing business operations or other construction activities on the Site.

3.9.1 The General Contractor shall provide the County, Related Parties, and other consultants, trade contractors, subcontractors and suppliers, access to the Site for performance of their

activities, and shall connect and coordinate its construction activities and operations with those of others. The General Contractor understands and acknowledges that the County or its Related Parties may need access to or use of certain areas of the Site on which Work is being or has been performed, prior to the General Contractor's achievement of Substantial Completion. The General Contractor agrees that no such occupancy, access or use shall constitute the County's acceptance of any Work.

3.9.2 Except as specifically contemplated by the Construction Documents, the General Contractor shall not enter any occupied area of the Site or Structure unless first approved and scheduled by the County.

3.10 Site Control and Cleanup: During construction, the General Contractor shall maintain good order on the Site. The General Contractor shall maintain the Site in a reasonably clean condition during performance of the Work and shall periodically remove from the Site all construction debris. Upon completion of the Work, the General Contractor shall remove from the Site all construction materials and waste, rubbish, other debris, equipment, sheds and similar items related to, produced by or required for its scope of the Work and shall thoroughly clean the Site of all debris, trash, excess materials and equipment. No final payment will be made to the General Contractor until satisfactory final clean-up is accomplished and inspection is made by the County accompanied by the General Contractor. If the County must engage in clean-up activities at any time during the construction period, the full cost of the clean-up shall be deducted from moneys due the General Contractor, and the General Contractor shall pay any deficiency amount to County.

ARTICLE 4

GENERAL CONTRACTOR'S PERSONNEL, SUBCONTRACTORS, AND SUPPLIERS

4.1 Project Staffing: The General Contractor shall staff the Project with qualified individuals and entities responsible for its obligations and performance hereunder.

4.1.1 The General Contractor shall, in writing, on or before the Commencement Date specified in the Notice to Proceed issued by the County, name a Superintendent (the "Builder's Representative") to serve as its primary communication contact with the County and the County's Representative and who shall:

- (i) shall be in attendance at the Project site during the performance of the Work
- (ii) shall represent the General Contractor

4.1.2 The Contractor shall employ a competent Superintendent and any necessary assistants to ensure supervisory attendance at the Project site during the progress of the Work. The Superintendent shall have full authority to represent the Contractor and all communications given to the Superintendent shall be as binding as if given to the Contractor.

4.1.3 It is understood that such Superintendent shall be acceptable to the Owner and shall be one who will be continued in that capacity for duration of this project, unless he ceases to be on the Contractor's payroll. The Superintendent shall not be employed on any other project during the performance of this Contract.

4.1.4 The General Contractor shall employ persons skilled in the tasks assigned to them and shall contract with subcontractors and suppliers skilled in the tasks assigned to them and capable of working harmoniously with all trades, crafts and other individuals on the Project. The General Contractor shall use its best efforts to minimize the likelihood of any strike, work stoppage or other labor disturbance.

4.1.5 The General Contractor shall immediately remove from the Site, for the duration of the Project, any personnel, including personnel of any subcontractor, making an inappropriate racial, sexual or ethnic comment, statement or gesture toward any other individual.

4.1.6 The General Contractor shall immediately remove from the Site, for the duration of the Project, any personnel, including personnel of any subcontractor, who is incompetent or careless.

4.1.7 During the performance of this Construction Contract, the General Contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability or any other basis prohibited by law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the contractor. The General Contractor shall be required to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. Also, the General Contractor, in all solicitations or advertisements for employees placed by or on behalf of the contractor, shall be required to state that it is an equal opportunity employer. The General Contractor shall be required to include the provisions of this paragraph in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

4.1.8 During the performance of this contract the contractor shall be required:

(i) to provide a drug-free workplace for the contractor's employees;

(ii) to post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; and

(iii) to state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace. For the purposes of this paragraph, "drug-free workplace" means the Site for the performance of services or the provision of goods in connection with the specific contract resulting from this solicitation at which site the contractor's employees are prohibited from engaging in the unlawful manufacture, sale distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the Contract. The General Contractor shall include the provisions of this paragraph in every subcontract, so that the provisions will be binding upon each subcontractor.

4.1.9 The General Contractor shall not perform any construction work unless he has obtained, and continues to maintain for the duration of such work, such workers' compensation coverage as may be required pursuant to the provisions of Chapter 8 (§65.2-800 et seq.) of Title 65.2 of the Code of Virginia, 1950, as amended. Contractor shall not allow any subcontractor to perform any work on a County construction project unless the subcontractor has obtained, and continues to maintain for the duration of such work, such worker's compensation coverage as may be required pursuant to the provisions of Chapter 8 (§65.2-800 et seq.) of Title 65.2 of the Code of Virginia, 1950, as amended. Contractor shall include the provisions of this paragraph within each of its subcontracts, so as to bind each subcontractor.

4.2 Subcontractor / Supplier Contracts: The General Contractor shall enter into written contracts with its subcontractors and suppliers, if any, and those written contracts shall be consistent with this Contract for Construction. It is the intent of the County and the General Contractor that the obligations of the General Contractor's subcontractors and suppliers, if any, inure to the benefit of the County and the General Contractor, and that the County be a third-party beneficiary of the General Contractor's agreements with its subcontractors and suppliers.

4.2.1 The General Contractor shall, within 15 days after signing the Contract for Construction, notify the County in writing of the names of all subcontractors proposed for the principal parts of the Work, and of such others as the County may direct. Where the specifications establish qualifications or criteria for subcontractors, manufacturers or persons performing Work on the Project, the General Contractor shall be responsible for ascertaining that those proposed meet the criteria or qualifications. The General Contractor shall not employ or utilize any subcontractor that the County may, within a reasonable time, object to as unsuitable. Neither the County nor the County Representative shall direct the General Contractor to contract with any particular subcontractor unless provided in the specifications or Invitation for Bids.

(i) The General Contractor shall not change any subcontractor previously approved unless approved by the County prior to the change becoming effective.

4.2.2 The General Contractor shall make available to each subcontractor and supplier, if any, prior to the execution of written contracts with any of them, a copy of the pertinent portions of this Contract For Construction, including those portions of the Construction Documents to which the subcontractor or supplier will be bound, and shall require that each subcontractor and supplier shall similarly make copies of applicable parts of such documents available to its respective subcontractors and suppliers.

4.2.3 The General Contractor shall engage each of its subcontractors and suppliers with written contracts which preserve and protect the rights of the County and include the acknowledgment and agreement of each subcontractor or supplier that the County is a third-party beneficiary of the contract. The General Contractor's agreements with its subcontractors and suppliers shall require that in the event of default under, or termination of, this Contract for Construction, and upon request of the County, the General Contractor's subcontractors and suppliers will perform services for the County.

4.2.4 The General Contractor shall include in its agreements with its subcontractors and supplier(s) a provision which contains the acknowledgment and agreement of the subcontractor or supplier that it has received and reviewed the applicable terms, conditions and requirements of this Contract For Construction that are included by reference in its written contract with the General Contractor, and that it will abide by those terms, conditions and requirements.

4.2.5 The County may select a particular subcontractor for a certain part of the Work and designate on the Invitation for Bids that the subcontractor shall be used for the part of the Work indicated and that the subcontractor has agreed to perform the Work for the subcontract amount stipulated on the bid form. The General Contractor shall include the stipulated amount, plus his Contractor markups, in the bid. In such case, the General Contractor shall be responsible for that subcontractor and its work, and the subcontractor shall be responsible to the General Contractor for its work, just as if the General Contractor had selected the subcontractor.

4.3 The General Contractor shall be fully responsible to the County for all acts and omissions of his agents and employees and all succeeding tiers of subcontractors and suppliers performing or furnishing any of the Work. Nothing in the Contract Documents shall create any contractual relationship between the County and any subcontractor, supplier or other person, nor shall it create any obligation on the part of the County to pay for or to see to the payment of any money or monies due to any subcontractor, supplier or other person except as may otherwise be required by law.

4.4 The General Contractor shall be fully responsible for its invitees to and at the Site, and for those of its subcontractors, suppliers and their employees, including any acts or omissions of any such invitee.

4.5 The General Contractor agrees that it alone is responsible for all dealings with its subcontractors and suppliers, and their subcontractors, employees and invitees, including, but not limited to: the subcontractors' or suppliers' claims, demands, actions, disputes and similar matters, unless specifically provided otherwise by this Contract or by statute.

4.6 Resolution Of Trade Disputes: The General Contractor shall promptly resolve claims, complaints, labor disputes and disputes over assignment of work tasks by and among its subcontractors and suppliers.

ARTICLE 5

GOODS, PRODUCTS AND MATERIALS

5.1 Quality of Materials: The General Contractor shall furnish goods, products, materials, equipment and systems which:

- (i) comply with the requirements of this Contract For Construction;
- (ii) conform to applicable specifications, descriptions, instructions, drawings, data and samples;
- (iii) are new and standard to the manufacturer (unless otherwise specified or permitted) and without damage;
- (iv) are of quality, strength, durability, capacity or appearance equal to or higher than that required by the Construction Documents;
- (v) are merchantable;
- (vi) are free from defects; and,
- (vii) beyond and in addition to those required by manufacturers' or suppliers' specifications where such additional items are required by the Construction Documents.

5.2 Installation And Use Of Materials: All goods, products, materials, equipment and systems named or described in the Construction Documents, and all others furnished as equal thereto shall, unless specifically stated otherwise, be furnished, used, installed, employed and protected in strict compliance with the specifications, recommendations and instructions of the manufacturer or supplier, unless such specifications, recommendations or instructions deviate from accepted construction practices, or the Construction Documents, in which case the General Contractor shall so inform the County and the County shall proceed as directed by that Professional, unless otherwise directed by the County. The General Contractor shall coordinate and interrelate all trade contracts and subcontracts, to ensure compatibility of goods, products, materials, equipment and systems required by the Construction, and to ensure the validity of all warranties and guarantees.

5.3 Unsuitable Materials: With respect to goods, products, materials, equipment or systems which the General Contractor knows or should have known are unsuitable or unavailable at the time of Bid submission, no claim with respect to the unsuitability or unavailability of such goods, products, materials, equipment or systems will be entertained unless such a claim, stating proposed alternatives, was made in writing and submitted with the original Bid. Approval by the County of substitute goods, products, materials, equipment or systems does not mean or imply final acceptance by the County and that Professional, should such items be defective or not as previously represented. Should the General Contractor furnish any approved goods, products, materials, equipment or systems different from or in addition to those required by the Construction Documents, which require supplemental materials or installation procedures different from or in addition to those required for specified items, the General Contractor shall provide such goods, products, materials, equipment or systems at no increase in the Construction Contract Price.

5.4 Security For Work In Progress: The General Contractor shall provide its own security for its Work in progress and for the goods, products, materials, equipment, systems, construction machinery, tools, devices and other items required, used or to be used for its scope of the Work.

ARTICLE 6

DOCUMENTS AND INFORMATION

6.1 Information from County: The County shall provide the General Contractor with information reasonably necessary to assist the General Contractor in performing its services including, if applicable:

- (i) the Site legal description and any required survey;
- (ii) all written and tangible material in its possession concerning conditions below ground at the Site;
- (iii) if the Project involves an existing structure, all available drawings, plans, specifications and structure system information with respect to such structure; and,
- (iv) the County's pertinent Project dates and key milestone dates.

6.2 Resolution of Questions: The General Contractor shall resolve all questions concerning the Construction Documents with the Professional who has prepared the documents.

6.3 Processing of Documents: When requested to do so by the County, the General Contractor shall process documents, and provide other reasonably required drawings, services and certifications, necessary to enable the County to:

- (i) obtain financing or insurance for the Project;
- (ii) obtain approvals, permits and Certificates of Occupancy for the Project, which approvals are not otherwise required to be obtained by General Contractor; and,
- (iii) represent that the Work complies with requirements of governmental agencies having jurisdiction over the Project.

6.4 Sufficiency of County Information: The furnishing of information by the County to the General Contractor shall not relieve the General Contractor of its responsibility to evaluate information and documents provided by the County. The General Contractor shall timely notify the County in writing of any additional information needed or services required from the County in order for the General Contractor to perform the Work.

ARTICLE 7

SUBMITTALS

7.1 Submittal Schedule: Within a reasonable time, but no later than fifteen (15) days after execution of the Contract for Construction, the General Contractor shall timely prepare and transmit to the designated County Representative a schedule for provision of all anticipated shop drawings and other submittals. The schedule shall:

- (i) include submittals required by the specifications;
- (ii) be in a format acceptable to the Representative; and,
- (iii) set forth specific dates for submission of the listed submittals. The General Contractor shall review and approve all submittals prior to submission to the County.

7.2 Processing Of Submittals: The General Contractor shall in timely fashion review, approve if appropriate, and forward shop drawings and other submittals to the County for review and approval along with such detail and information as the County requires. No part of the Work dealt with by a submittal shall be fabricated or performed by the General Contractor, except at his own risk, until such approval has been given.

7.2.1 The County Representative is responsible to the County, but not to the General Contractor, to verify that the submittals conform to the design concept and functional requirements of the plans and specifications, that the detailed design portrayed in shop drawings and proposed equipment and materials shown in submittals are of the quality specified and will function properly, and that the submittals comply with the Contract For Construction.

7.2.2 The General Contractor shall perform all Work in accordance with approved submittals. Approval of the General Contractor's submittals by the County shall not relieve the General Contractor from responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals.

7.2.3 The General Contractor shall furnish to the County Representative for approval the name of the manufacturer, the model number, and other identifying data and information respecting the performance, capacity, nature and rating of any machinery and mechanical or other equipment which the Contractor contemplates incorporating in the Work. When Submittals are required for materials, the General Contractor shall furnish full information concerning the material or articles which it contemplates incorporating in the Work. When required, samples shall be submitted for approval by the County, at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material and articles installed or used without required approval(s) shall be at the risk of subsequent rejection.

7.2.4 Submittals shall be forwarded to the County Representative sufficiently in advance of construction requirements to allow reasonable time for the County's review. Submittals shall be accompanied by a letter of transmittal which shall list the Project Title, the Submittals included, the specification section number applicable to each, and the date shown on each Submittal. Submittals shall be complete in every respect and shall be bound in sets. Each Submittal shall be clearly marked to show each item, component, and/or optional feature proposed to be incorporated into the Project. Cross reference to the plans or specifications shall be made as needed to identify the use for which the item or component is intended.

7.2.5 The General Contractor shall check all Submittals for compliance with the requirements of the Contract Documents. The Contractor shall be solely responsible for checking all dimensions and coordinating all materials and trades to ensure that the components or products proposed, individually or in combination, will fit in the space available and that they will be compatible with other components or products provided. The Contractor shall clearly note, in writing, any and all items which deviate from the requirements of the Contract Documents, and the reason(s) for deviation shall be included with the Submittal. Deviations shall be marked in bold face type or lettering and listed on a separate page or pages containing the heading "DEPARTURES FROM DRAWINGS AND SPECIFICATIONS." Submission of any Submittal to the Representative shall constitute the Contractor's certification that the equipment and material shown in the Submittal is that proposed to be incorporated into the Project, is in compliance with the Contract drawings, specifications and other requirements of the Contract Documents (unless otherwise indicated), and can be installed in the allocated spaces.

7.2.6 If a Submittal indicates a departure from the requirements of the Contract Drawings, Specifications or other requirements of the Contract Documents, the County Representative may reject the Submittal, or, if he deems it to have merit, may recommend it to the County, who shall approve or reject it as the County, in its sole discretion, sees fit. Any departure from the Contract Documents must be further authorized by a Change Order.

ARTICLE 8

**GENERAL CONTRACTOR'S INSPECTION OF
AND CORRECTION OF DEFECTIVE OR INCOMPLETE WORK**

8.1 Rejection And Correction Of Work In Progress: During the course of Project, the General Contractor shall inspect and promptly reject any Work

- (i) which does **not** conform to the Construction Documents; or
- (ii) which does not comply with any applicable law, statute, code, building code, rule or regulation of any governmental, public and quasi-public authorities and agencies having jurisdiction over the Site, the Work or the Project.

8.1.1 The General Contractor shall promptly correct or require the correction of all rejected Work, whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The General Contractor shall bear all costs of correcting such Work, including additional testing and inspections and compensation for all services and expenses necessitated by such correction.

8.1.2 The General Contractor shall bear the cost of correcting destroyed or damaged Work, whether completed or partially completed, of the County or other trade contractors or subcontractors caused by the General Contractor's correction or removal of rejected Work.

8.2 Covered Or Concealed Work: If a portion of its scope of the Work has been covered, the General Contractor shall, if notified to do so by the County, uncover the designated portion for observation and then replace it.

8.2.1 If the designated portion of the Work was covered contrary to the request of the County, or to requirements specifically expressed in the Construction Documents, the General Contractor shall receive no additional compensation for the costs of uncovering and replacement or modification of the Construction Schedule.

8.2.2 If the designated portion of the Work was covered prior to a specific request by the County that it remain uncovered, the General Contractor shall receive additional compensation for the costs of uncovering and replacement or modification of the Construction Schedule(s) only if the designated portion of the Work was in conformance with the Construction Documents.

ARTICLE 9

CHANGE ORDERS AND CHANGES TO THE WORK

9.1 Change Order Requests: Any party to the construction process may request changes to the Work, compensation or applicable schedules.

9.1.1 With respect to such requests for changes by the General Contractor, the General Contractor shall prepare and submit a change order request to the designated County Representative.

9.1.2 With respect to requests for changes by parties other than the General Contractor, the General Contractor shall promptly review and respond to any such change order requests submitted by the County or Professional.

9.1.3 When requested to do so, the General Contractor shall prepare and submit to the County or Professional, drawings, specifications or other data in support of a change order request.

9.1.4 Each change order shall detail time and monetary impacts of the change, whether the change order is considered alone or with all other changes the course of the project.

9.2 County-Directed Changes: The County, by Construction Change Directive, and without invalidating or breaching the Contract, may direct the General Contractor to implement changes in the Work so long as the Work the County is requiring is not outside of the general scope of this Contract For Construction, and the General Contractor, upon written direction from the County, shall proceed with such change.

9.2.1 The County Representative, without the County's prior approval, may authorize or direct the General Contractor to make minor changes in the Work which are consistent with the intent of the Construction Documents and which do not involve a change in Project cost, time for construction, Project scope, or approved design elements, and the General Contractor shall promptly carry out such changes. Any such minor changes shall be implemented by a written field order and executed by the General Contractor.

9.2.2 Construction Change Directives may be utilized to order changes in the Work within the general scope of the Contract, consisting of additions, deletions or other revisions, the Contract Price and Contract Time to be adjusted accordingly. A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order. Upon receipt of a Construction Change Directive, the General Contractor shall promptly proceed with the change in the Work involved and shall advise the Representative of the General Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining any proposed adjustment in the Contract Price or Contract Time. A Construction Change Directive signed by the General Contractor indicates the agreement of the General Contractor therewith. Such agreement shall become effective immediately and shall be recorded as a Change Order.

9.3 Administration Of Changes: The County Representative will administer and manage all change order requests and change orders and will prepare required drawings, specifications and other supporting data as necessary in connection with minor changes, change order requests and change orders.

9.4 Compensation For Changes: With respect to all change order requests involving credit to the County or additional compensation to the General Contractor, the General Contractor shall:

- (i) obtain from subcontractors and suppliers the best possible price quotations;
- (ii) review such quotations to ascertain whether they are reasonable;
- (iii) prepare an itemized accounting together with appropriate supporting data, including reasonable expenditures by, and savings to, those performing the scope of the Work involved in the proposed change; and,
- (iv) provide a reasonable price quotation to the designated County Representative.

9.4.1 If price quotations for change order requests are determined by the County to be unreasonable, the General Contractor shall, in writing, justify said quotations or provide additional back-up materials. If after review of the additional information the County determines the quotation is unreasonable, the County may require the General Contractor to perform the subject Work on a time and material basis.

9.4.2 The General Contractor shall be allowed no additional compensation for any costs, fees or expenses incurred in performing services already required by this Contract for Construction, and shall not be entitled to additional reimbursement for its home office, other non-job site or indirect overhead expenses, or tools necessary for construction.

9.4.3 It is the responsibility of the General Contractor to review and approve all pricing of additional work required of its subcontractors and suppliers.

9.4.4 Under no circumstances may any change order(s) be used to increase the amount of this fixed price contract, without adequate consideration to the County, for any purpose, including, but not limited to, relief of the General Contractor from the consequences of an error in its bid.

9.4.5 The following may constitute allowable costs for changes in the Work, subject to 9.4.2, above:

- (i) Labor costs for employees directly employed in the change in the Work, including salaries and wages plus the cost of payroll charges and fringe benefits and overtime premiums, if such premiums are explicitly authorized by the County;
- (ii) Materials incorporated into the change to the Work, including costs of transportation and storage, if applicable;
- (iii) Equipment incorporated in the changed Work or equipment used directly in accomplishing the Work. If rented expressly for accomplishing the change, the cost shall be the rental rate according to the terms of the rental agreement, which the County shall have the right to approve in advance. If owned by the Contractor, the costs shall be a reasonable price based upon the life expectancy of the equipment and the purchase price of the equipment;
- (iv) costs of increases in premiums for the Standard Labor and Material Payment Bond and the Standard Performance Bond, provided coverage for the cost of the change in the Work results in such increased costs. At the County's request, the Contractor shall provide proof of his notification to the Surety of the change in the Work and of the Surety's agreement to include such change in its coverage. There shall be no Contractor mark-up to the cost of the increase in the premium;
- (v) Contractor and Subcontractor overhead costs as follows: if a Subcontractor, at any tier, does all or part of the changed Work, the Subcontractor's markup on that Work for overhead and profit shall not exceed ten percent (10%) and the Contractor's markup of a Subcontractor's Work, and all intervening tiers of Subcontractors, shall not exceed a total of ten percent (10%); if the General Contractor does all or part of the changed Work, then its markup for overhead and profit on the changed Work it performs shall not exceed ten percent (10%)
- (vi) other costs, expressly agreed to by the County in writing that are directly attributable to the change in Work, with the exception of those set forth below.

9.4.6 Allowable costs for changes in the Work shall **exclude** the following:

- (i) Costs due to the negligence of the Contractor, any Subcontractor, Supplier, their employees or other persons for whom the Contractor is responsible, including, without limitation, costs for correction of defective Work, for improper disposal of material, for equipment wrongly supplied, for delay in performing the Work, or for delay in obtaining materials or equipment;
- (ii) Home office expenses including payroll costs for the Contractor's officers, executives, administrators, project managers, accountants, counsel, engineers, timekeepers, estimators, clerks, and other similar administrative personnel employed by the Contractor, whether at the Site or in the Contractor's principal or branch office for general administration of the Work; these costs are deemed overhead included in the percentage markups allowable in 9.4.4, above.
- (iii) Home and field office expenses, including, without limitation: expenses of home and branch offices, Contractor's capital expenses, interest on Contractor's capital used for the Work, charges for delinquent payments, small tools, incidental job costs, rent, utilities, telephone and office equipment and other general overhead expenses..

9.4.7 All Change Orders must state that the Contract Time for Completion or Completion Date is not changed, or that the Time for Completion/Completion Date is either increased or decreased by a specific number of days. The old Time for Completion/Completion Date, and if changed, the new Time for Completion/Completion Date must be stated on the face of each Change Order.

9.4.8 The acceptance by the General Contractor of any payment made by the County under a Change Order shall be and operate as a release to the County of all claims by the Contractor and of all liability owing to the Contractor for all things done or furnished in connection with the Work described in the Change order. The execution of any Change order by the County shall not be an acceptance of any Work or materials not in accordance with the Contract Documents, nor shall it

relieve the Contractor of responsibility for faulty materials or workmanship, or operate to release the Contractor or his surety from any obligation arising under the Contract or any Performance or Payment Bond.

9.5 Performance Of Changes: Upon receipt of an field order or change order the General Contractor shall proceed to promptly perform the change in the Work. All changes in the Work shall be performed under applicable conditions of the Construction Documents.

9.6 Disputes Regarding Changes: If the General Contractor disputes a decision regarding:

- (i) whether a change has occurred;
- (ii) whether a change in the Work will result in adjustment of its compensation or applicable schedules; or
- (iii) the amount of any adjustment of compensation or applicable schedules, the General Contractor shall notify the County in writing of the dispute, as provided below. Once placed in dispute the General Contractor shall nevertheless carry out the change, if directed so to do by County. The General Contractor will not prejudice any claim that it may have with respect to that change so long as the General Contractor notifies the County in writing; however, failure to timely notify the County in writing shall constitute the General Contractor's waiver of any claim resulting from the change.

9.6.1 In the event a change order request is approved by the County in the absence of an agreement with the General Contractor as to cost, time, or both, the appropriate Representative will:

- (i) receive and maintain all documentation pertaining thereto required of the General Contractor;
- (ii) examine such documentation on the County's behalf;
- (iii) take such other action as may be reasonably necessary or as the County may request; and,
- (iv) make a written recommendation to the County concerning any appropriate adjustment in the construction cost or time.

9.7 Necessity for Signed Writing: No act, omission or course of dealing shall alter the requirement that change orders must be in writing and signed by the County, and that change orders are the exclusive method for effecting any adjustment to the General Contractor's compensation or applicable schedules. The General Contractor understands and agrees that neither its compensation nor applicable schedules can be changed by implication, oral agreement, or unwritten change order. The execution of a change order by the General Contractor shall constitute conclusive evidence of the General Contractor's agreement to the ordered changes in the Work, to the Construction Contract as thus amended, to the Contract Price as amended, and to the time for performance by the General Contractor. The General Contractor, by executing the change order, waives and forever releases any claim against the County for additional time or compensation, with respect to the changes specified therein.

9.8 Consent of Surety. The General Contractor shall notify and obtain the consent and approval of the General Contractor's surety with reference to all change orders, if such notice, consent or approval is required by the County, the surety or by applicable law. The General Contractor's execution of the change order shall constitute the General Contractor's warranty to the County that the surety has been notified of, and consents to such change order, and the surety shall be conclusively deemed to have been notified of such change order and to have expressly consented thereto.

9.9 Work Subject to Change Order. Neither the General Contractor nor any subcontractor(s) shall commence any work which is, or by provisions of this Contract is required to be, the subject of a change order, unless and until the required Change Order has been fully executed by both the County and the General Contractor.

ARTICLE 10

FINANCIAL CLAIMS AND LIENS

10.1 Notification Regarding Liens: The General Contractor shall immediately notify the County, both orally and in writing, of the nature and details of any mechanics' liens, construction liens, builder's trust fund claims, or claims of any type made by anyone against the County, the General Contractor or any subcontractor or supplier of any of them or against the Project whether or not such claims arise from the Work.

10.2 Discharge of Liens: The General Contractor shall take all action necessary to obtain the prompt discharge of any liens or claims filed against the Project. If any lien or claim filed against the Project is not discharged and released by the claimant, the General Contractor shall, within a reasonable period of time, but in no event more than fourteen (14) calendar days after request and at its own cost, promptly obtain discharge and release of such lien or claim by filing the appropriate bond. If the General Contractor fails to have any such lien or claim discharged and released, or fails to file the appropriate bond, the County shall have the right to pay all sums necessary to obtain such a discharge and release, and the General Contractor shall bear and be liable to the County for all expenses incurred by the County in so doing, including, without limitation, reasonable attorney's fees.

ARTICLE 11

COUNTY'S CONSULTANT(S), PROFESSIONAL(S) AND CONSTRUCTION ADMINISTRATION

11.1 County's Designated Representative: Unless otherwise directed by the County, the Representative designated on Page 1 of this Contract for Construction shall act as the County's representative from the effective date of this Contract until one (1) year from the date the General Contractor achieves Substantial Completion.

11.2 The Representative will:

- (i) be the County's design representative during performance of the Work;
- (ii) consult with and advise the County on all design and technical matters;
- (iii) be the County's representative in dealing with the General Contractor on all such matters; and,
- (iv) administer this Contract For Construction.

11.2.1 Unless otherwise directed by the County, the County and the General Contractor shall communicate with each other in the first instance through the designated Representative. The County's instructions, directions and other relevant communications or directives to the General Contractor will be issued through the designated Representative.

11.2.2 The designated Representative will act as initial interpreter of the requirements of this Contract For Construction and as the County's advisor on claims.

11.3 Site Visits: The County Representative will visit the Site with sufficient frequency for familiarization with the progress and quality of the Work and to inspect the Work for substantial compliance with:

- (i) this Contract For Construction, including approved shop drawings and other submittals;
- (ii) the Construction Schedule; and,
- (iii) applicable laws, statutes, codes, building codes, rules or regulations of all governmental, public and quasi-public authorities and agencies having or asserting jurisdiction over the Project.

11.4 Rejection Of Work: The County Representative may disapprove or reject Work which does not comply with:

- (i) this Contract For Construction including approved shop drawings and other submittals; or
- (ii) applicable laws, statutes, codes, building codes, rules or regulations of any governmental, public and quasi-public authorities and agencies having or asserting jurisdiction over the Project.

11.5 Evaluations: The County Representative will review and evaluate the results of all inspections, tests and written reports required by this Contract and by any governmental entity having or asserting jurisdiction over the Project. The Representative will take appropriate action on test results, including acceptance, rejection, requiring additional testing or corrective work, or such other action deemed appropriate by the Representative. The Representative will promptly reject Work which does not conform to and comply with testing requirements.

11.5.1 The Representative may require inspection or testing of any Work in addition to that required by this Contract For Construction or governmental entities having or asserting jurisdiction over the Project when such additional inspections and testing is necessary or advisable, whether or not such Work is then fabricated, installed or completed. The Representative will take appropriate action on all such special testing and inspection reports, including acceptance, rejection, requiring additional testing or corrective work, or such other action deemed appropriate by the Professional(s).

11.6 Submittal Activities: The Representative will review and approve, reject or take other appropriate action on submittals (e.g., shop drawings, product data, samples, proposed equal materials or equipment and requested substitutions) within not more than fourteen (14) calendar days, and will not approve any submittals unless such submittals conform with

- (i) the Project design concept;
- (ii) this Contract For Construction; and
- (iii) the County's budgeted Total Project Construction Cost. The Representative's review of submittals shall not constitute final acceptance of materials or equipment furnished or installed if such materials or equipment should be defective or not as represented by approved submittals or as otherwise required by the Construction Documents. The General Contractor remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes, for techniques of assembly, and for performing its scope of the Work.

11.7 Professional Interpretations: The Professional shall, when requested to do so in writing by the General Contractor, promptly and so as to cause no unnecessary delay, render written or graphic interpretations and decisions necessary for the proper execution of the Work. The Professional's interpretations and decisions relating to artistic effect shall be final, if not inconsistent with this Contract and the Plans.

11.8 Change Order Activities: The Representative will consult with and advise the County concerning, and will administer and manage, all change order requests and change orders on behalf of the County.

11.9 Pay Application Activities: The County Representative will review applications for payment, including such accompanying data, information and schedules as the Representative requires to determine the amounts due to the General Contractor and shall authorize payment by the County to the General Contractor in writing. After the General Contractor's scope of the Work is determined to be finally complete and the Representative determines that the General Contractor has completed the Scope of the Work, the Representative will determine whether the General Contractor is entitled to final payment, and if so, the Representative will certify that determination to the County in writing.

11.10 Representative Relationship to General Contractor: The duties, obligations and responsibilities of the General Contractor under this Contract For Construction shall not be changed, abridged, altered, discharged, released, or satisfied by any duty, obligation or responsibility of the Representative. The General Contractor shall not be a third-party beneficiary of any agreement by and between the County and the Representative. The duties of the General Contractor to the County shall be independent of, and shall not be diminished by, any duties or obligations of any Professional to the County.

ARTICLE 12

INSPECTION, CORRECTION OF WORK, AND PROJECT CLOSE OUT

12.1 Substantial Completion: Substantial Completion of the General Contractor's Work shall be deemed to have occurred on the first day on which both of the following circumstances exist:

- (i) the General Contractor's Work passes, or has passed, a Substantial Completion inspection, and
- (ii) the General Contractor has produced all required Substantial Completion documentation and items.

12.1.1 The General Contractor shall accomplish Substantial Completion of its scope of the Work on or before the required date of Substantial Completion specified in this Construction Contract.

12.1.2 When the General Contractor believes that its Work, or a portion thereof which the County agrees to accept separately, is substantially complete, it shall notify the County that its Work is ready for a Substantial Completion inspection.

12.1.3 At or prior to the substantial completion inspection, the General Contractor will prepare and furnish to the Representative a Declaration of Substantial Completion, which at a minimum must:

- (i) contain a blank for entry of the date of Substantial Completion, which date will fix the commencement date of warranties and guaranties and allocate between the County and the General Contractor responsibility for security, utilities, damage to the Work and insurance;
- (ii) include a list of items to be completed or corrected prior to final payment and state the time within which the General Contractor will complete or correct listed items; and,
- (iii) contain signature lines for the County, the General Contractor and the Representative.

12.1.4 Upon receipt of notification from the General Contractor the Representative will coordinate with the County and the General Contractor a date for inspection of the Work to determine whether the Work is substantially complete.

12.1.5 At inspection(s) to determine whether the General Contractor's Work is substantially complete, the Representative will:

- (i) inspect the General Contractor's Work;
- (ii) list additional items to be completed or corrected; and,
- (iii) determine, in consultation with the County, whether Substantial Completion of the General Contractor's Work has occurred.

12.1.6 If the General Contractor's Work is determined not to be substantially complete, the General Contractor shall continue to prosecute the Work until the Work is substantially complete and the inspection process shall be repeated at no additional cost to the County until the Work is determined to be substantially complete.

12.1.7 On or prior to the date of Substantial Completion, the General Contractor shall deliver to the appropriate Representative keys, permits, the certificate of occupancy, and other necessary and customary documents and items pre-requisite for the County's occupancy and use of the Work for its intended purpose. The Representative will obtain and review Substantial Completion documentation and items, and will inform the General Contractor of any deficiencies.

12.1.8 When the County, the General Contractor and the representative agree that the General Contractor's Work has passed the Substantial Completion inspection and the General Contractor has produced the required Substantial Completion documentation and items, they shall each sign the Declaration of Substantial Completion declaring the Work substantially complete and establishing the actual date of Substantial Completion. The Declaration of Substantial Completion shall also include a list of and time line for the completion of Work needing completion and correction.

12.2 Partial Occupancy or Use. The County may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate written agreement with the General Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Work. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the County and General Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage (if any), security, maintenance, heat, utilities, damage to the Work, and Insurance, and if the County and the General Contractor have also agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. Consent of the General Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work at the time of partial occupancy or use shall be determined by written agreement between the County and the Contractor, or if no agreement is reached, by decision of the Architect. When the General Contractor considers a portion of the Work partially occupied or used by the County to be substantially complete, the General Contractor shall prepare a list and submit it to the County as provided by Section 12.1

12.3 Final Completion: Final Completion of the General Contractor's Work shall be deemed to have occurred on the first day on which both of the following circumstances exist:

- (i) the General Contractor's Work passes, or has passed a Final Completion inspection, and
- (ii) the General Contractor has produced all required Final Completion close-out documentation and items.

12.3.1 The General Contractor shall accomplish Final Completion of its scope of the Work on or before the required date of Final Completion specified in this Construction Contract.

12.3.2 When the General Contractor believes its scope of the Work is finally complete, the General Contractor shall notify the County and the Representative that the Work is ready for a Final Completion inspection.

12.3.3 Upon receipt of such notification from the General Contractor, the Representative will coordinate with the County and the General Contractor a date for inspection of the Work to determine whether the Work is finally complete.

12.3.4 At the Final Completion inspection to determine whether the General Contractor's Work is finally complete, the Representative will:

- (i) inspect the General Contractor's Work;
- (ii) determine whether the General Contractor has satisfactorily completed or corrected all items on the list included with the Declaration of Substantial Completion;
- (iii) determine whether the General Contractor's Work complies with
 - (a) this Contract For Construction;
 - (b) applicable laws, statutes, codes, building codes, rules or regulations of all governmental, public and quasi-public authorities and agencies having jurisdiction over the Project; and,
 - (c) applicable installation and workmanship standards;

(iv) determine whether required inspections and approvals by the official(s) having or asserting jurisdiction over the Project have been satisfactorily completed; and,

(iv) determine, in consultation with the County, whether the General Contractor's Work is finally complete.

12.3.5 If the General Contractor's Work is not finally complete, the General Contractor shall continue to prosecute the Work until the Work is finally complete and the inspection process shall be repeated at no additional cost to the County until the Work is finally complete.

12.3.6 On or prior to the date of Final Completion, the General contractor shall deliver to the County Representative the following Final Completion close-out documentation and items:

(i) all operating and instruction manuals not previously produced during commissioning and required maintenance stocks;

(ii) one paper set, and one electronic file of complete as-built drawings and markups;

(iii) certification and affidavit that all insurance required of the General Contractor beyond final payment, if any, is in effect and will not be canceled or allowed to expire without notice to the County;

(iv) written consent of the surety(ies), if any, to final payment;

(v) full, final and unconditional waivers of mechanics or construction liens, releases of builder's trust fund or similar claims, and release of security interests or encumbrances on the Project property from each contractor, subcontractor, supplier or other person or entity who has, or might have a claim against the County or the real property which is the subject of this Construction Contract;

(vi) full, final and unconditional certification and affidavit that all of the General Contractor's obligations to contractors, subcontractors, suppliers and other third parties for payment for labor, materials or equipment related to the Project have been paid or otherwise satisfied;

(vii) all written warranties and guarantees relating to the labor, goods, products, materials, equipment and systems incorporated into the General Contractor's scope of the Work, endorsed, countersigned, and assigned as necessary;

(viii) affidavits, releases, bonds, waivers, permits and other documents necessary for final close-out of Work;

(ix) a list of any item(s) due but unable to be delivered and the reason for non-delivery; and,

(x) any other documents reasonably and customarily required or expressly required herein for full and final close-out of the General Contractor's Work.

12.3.6 The County Representative will review and determine the sufficiency of all Final Completion close-out documentation and items required for Final Completion which are submitted by the General Contractor, and will immediately inform the General Contractor of any deficiencies and omissions.

ARTICLE 13

GENERAL CONTRACTOR'S WARRANTIES AND GUARANTEES

13.1 One-Year Warranty: In addition to the warranties and guarantees set forth elsewhere in this Contract For Construction, for a period of one (1) year after the date of Substantial Completion, or the date of acceptance by the County, whichever is later, the General Contractor shall, upon request by the County, promptly correct all failures or defects in the Work.

13.1.1 The General Contractor shall schedule, coordinate and participate in a walk-through inspection of the Work one (1) month prior to the expiration of the one-year correction period, and shall notify the County, and any necessary subcontractors and suppliers of the date of the walk-

through inspection, and request their participation therein. The purpose of the walk-through inspection will be to determine if there are defects or failures which require correction

13.1.2 Should the General Contractor fail to promptly correct any failure or defect, the County, a Related Party, or any successor in interest or assignee of either, may take whatever action(s) it deems necessary to remedy the failure or defect and the General Contractor shall promptly reimburse the County or Related Party for any expenses or damages incurred as a result of the General Contractor's failure to correct the failure or defect.

13.1.3 Nothing contained in this Section 13.1 shall be construed to establish a period of limitation with respect to the General Contractor's obligations under this Contract For Construction. This Section 13.1 relates only to the General Contractor's specific obligations with respect to the Work, and has no relationship to the time within which the General Contractor's contractual obligations under this Contract For Construction may be enforced, nor to the time within which proceedings may be commenced to establish the General Contractor's liability with respect to any contractual obligations set forth within this Section 13.1 or contained elsewhere within this Construction Contract.

13.2 Express Warranties and Guarantees - General Contractor: In addition to the warranties and guarantees set forth elsewhere herein, the General Contractor expressly warrants and guarantees to the County:

13.2.1 that the Work complies with the Construction Documents as well as all applicable laws, statutes, codes, building codes, rules and regulations of all governmental, public and quasi-public authorities and agencies having jurisdiction over the Project;

13.2.2 that all goods, products, materials, equipment and systems incorporated into the Work conform to applicable specifications, descriptions, instructions, drawings, data and samples and shall be and are:

- (i) new (unless otherwise specified or permitted) and without apparent damage or defect;
- (ii) of quality equal to or higher than that required by the Construction Documents; and,
- (ii) merchantable; and
- (iv) that all management, supervision, labor and services required for the Work is and shall be in compliance with the requirements of this Contract For Construction, and that the Work is and shall be performed in a workmanlike manner.

13.3 Express Warranties and Guarantees - Subcontractors And Suppliers: The General Contractor shall require that each of its subcontractors and suppliers provide written warranties, guarantees and other undertakings to the County and the General Contractor in a form identical to the warranties, guarantees and other undertakings set forth in this Contract For Construction which warranties, guarantees and undertakings shall run to the benefit of the County, Related Parties, and the successors in interest and assigns of each, as well as the General Contractor.

13.4 Non-Exclusivity and Survival: The warranties and guarantees set forth in this Article, shall be in addition to all other warranties, whether express, implied or statutory, and they shall survive the County's payment, acceptance, inspection of or failure to inspect the Work, and review of the Construction Documents.

13.5 Commencement of Obligations: Unless otherwise specified, all of the General Contractor's warranty and guaranty obligations, including the time period(s) for all written warranties and guarantees of specifically-designated equipment required by the Construction Documents, shall begin on the actual date of Substantial Completion or the date of acceptance by the County, whichever is later.

ARTICLE 14

COUNTY'S DUTIES, OBLIGATIONS AND RESPONSIBILITIES

14.1 County's Representative: The County shall designate a Representative to serve as the County's primary communication contact with the General Contractor. The name and address of the County's Designated Representative shall be as set forth on Page 1 of the Contract for Construction.

14.2 County's General Duties

14.2.1 The County shall timely compensate the General Contractor in accordance with this Contract For Construction.

14.2.2 Unless otherwise specifically required to be provided by the General Contractor within the scope of Work, the County shall secure and pay for all Project testing.

14.2.3 The County shall review documents prepared by the General Contractor in a timely manner and in accordance with schedule requirements. Review by the County shall be solely for the purpose of determining whether such documents are generally consistent with the County's intent. No review of such documents shall relieve the General Contractor of any of its responsibilities with respect thereto.

14.2.4 The County shall not have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, nor shall the General Contractor, for any of the foregoing purposes, be deemed the agent of the County.

ARTICLE 15

GENERAL CONTRACTOR'S COMPENSATION

15.1 Unit Prices: If any portion of the Contract Price is determined by the application of unit prices, the number of units contained in the General Contractor's Compensation Schedule is an estimate only, and the compensation to the General Contractor shall be determined by the actual number of units incorporated in, or required by, the Work.

15.2 Schedule of Values: Within the time designated within this Contract for Construction, the General Contractor shall prepare and present to the County the General Contractor's schedule of values, apportioning the Construction Contract Price among the different elements of the scope of the Work, for purposes of periodic and final payment. The General Contractor's Schedule of Values shall be presented in the format, and with such detail and supporting information, requested of the General Contractor by the County. The General Contractor shall not imbalance or artificially inflate any element of its Schedule of Values. If the Schedule of Values is determined to be inappropriate, or if any supporting documentation or data is deemed to be inadequate, the Schedule of Values shall be returned to the General Contractor for revision or for additional supporting documentation or data. Upon the County's acceptance of the Schedule of Values, as evidenced by the Representative's signature, the Schedule of Values shall be used to process and pay the General Contractor's payment requests and shall be deemed to constitute a reasonable, balanced basis for payment of the Contract Price to the General Contractor. The Schedule of Values shall not be changed without written change order authorized by the County.

15.3 Invoicing Procedures: In accordance with the procedures and requirements set forth in this Article, the General Contractor shall invoice the County and the County shall pay the General Contractor the Construction Contract Price.

15.3.1 Not less than once every thirty (30) calendar days following the Commencement Date, but no more frequently than once per calendar month, the General Contractor shall submit invoices to the County requesting payment in accordance with the Schedule of Values for labor and services

rendered during the preceding thirty (30) calendar days. Each invoice shall contain such detail and be backed up with whatever supporting information the County requests. At a minimum the invoice shall:

- (i) state the total Construction Contract Price;
- (ii) state the amount due for labor, materials and equipment provided during the preceding 30 days; and with respect to amounts invoiced for materials or equipment necessary for the Project and properly stored at the Site (or elsewhere if offsite storage is approved in writing by the County), be accompanied by written proof that the County has title to such materials or equipment and that such material and equipment is fully insured against loss or damage;
- (iii) provide an itemized statement or other general breakdown of the various phases or parts of the General Contractor's Scope of Work, as related to the Construction Contract Price;
- (iv) state the value of the various phases or parts actually performed during the period covered by the invoice;
- (v) state any previously invoiced amounts and credit payments made; state the total amount due, less any retainage; and,
- (vii) have attached such lien waivers, or other documentation verifying the General Contractor's payment to subcontractors and suppliers as the County may request, in their sole discretion.

15.4 Payment Procedures: The General Contractor's invoices, and any other requests for payments authorized by this Contract, must be approved by the County Representative and must meet the minimum requirements set forth in section 15.3, above, as condition(s) precedent to the County's obligation to pay. Payments issued by the County shall be deemed timely if postmarked at least two (2) business days before the Payment Date identified within the Contract for Construction, or any alternative payment due date stated in this Article.

15.4.1 The required payment date shall be either:

- (i) the date on which payment is due under the terms of this Construction Contract; or (ii) if such date is not established by the Contract, not more than forty-five days after goods or services are received or not more than forty-five days after an invoice in a form acceptable to the County is rendered, whichever is later. Separate payment dates may be specified for contracts under which goods or services are provided in a series of partial deliveries or executions, to the extent any such contract specifically provides for separate payment for such partial delivery or execution. In the event that any invoice contains a defect or impropriety which would prevent payment by the Payment Date, the County shall notify the General Contractor in writing of such defect or impropriety. Any disputed amounts determined by the County to be payable to the General Contractor shall be due thirty (30) days from the date the dispute is resolved.

15.4.2 The County's signature to this Construction Contract constitutes its certification that, as of the date of signature, public funds are available and have been appropriated in the amount specified in the original Contract documents as and for the Contract Price. Payment and performance obligations of the County are expressly conditioned upon the availability of and appropriation by the County of public funds therefore in each subsequent fiscal year. When public funds are not appropriated or are otherwise unavailable to support continuation of performance by the County in a subsequent fiscal period, this contract and the County's obligations hereunder shall automatically expire, without liability or penalty to the County, and the General Contractor shall be reimbursed for the reasonable value of any non-recurring costs incurred but not amortized in the price of the products, supplies or services delivered under this Construction Contract. Within a reasonable time following County Council's adoption of a budget, the County shall provide the

Contractor with written notice of any non-appropriation or unavailability of funds affecting this Contract.

15.4.3 If Contractor is an individual, then he or she shall provide the County with his Social Security Number on or before commencement of performance of construction services under this Contract. If Contractor is a proprietorship, partnership, or corporation, then Contractor shall provide its federal employer identification number(s) to the County on or before its commencement of performance of construction services under this Contract.

15.4.4 Unless otherwise specified within the Contract Documents, the County will make progress payments to the contractor, in installments based upon an estimated percentage of completion. With each installment, the contractor shall be paid at least ninety-five percent (95%) of the total amount earned, as determined and approved by the Representative, withholding the balance as retainage, to assure faithful performance of the contract. Amounts withheld may be included in the final payment to the contractor. Where the General Contractor utilizes a subcontractor in connection with a County construction contract, and the subcontract provides for progress payments, then the General Contractor shall be subject to the same percentage limitations with respect to progress payments made to subcontractors.

15.4.5 The General Contractor shall have the option to use an escrow account procedure for utilization of the County's retainage funds, when contracting directly with the County for contracts involving \$200,000 or more of public funds, where portions of the contract price are to be retained, where such contracts are for: construction of highways, roads, streets, bridges, parking lots, demolition, clearing, grading, excavating, paving, pile driving, drainage structures and the installation of water, gas, sewer lines and pumping stations. In the event a Contractor elects to utilize the escrow account procedure, then any sub such public project which provides for progress payments shall be subject to the same escrow account procedures.

(i) the Contractor shall indicate its election to use the escrow account procedure, by completing the escrow agreement form and contract included in the Bid Documents for this Project. The form and contract shall be submitted to the County within fifteen (15) calendar days after the Contractor is notified of the award of the contract. If the escrow agreement form and contract are not submitted within the 15 day period, then the Contractor shall forfeit its right to the use of the escrow account procedure.

(ii) In order to have retained funds paid to an escrow agent, the Contractor, the escrow agent, and the surety shall execute an escrow agreement form. The Contractor's escrow account shall be a trust company, bank or savings institution with its principal office located in the Commonwealth of Virginia.

(iii) This escrow account procedure shall not apply to public contracts for construction of railroads, public transit systems, runways, dams, foundations, installation or maintenance of power systems for the generation and primary and secondary distribution of electric current ahead of the customer's meter, the installation or maintenance of telephone, telegraph or signal systems for public utilities or the construction or maintenance of solid waste or recycling facilities and treatment plants.

15.5 County's Right to Refuse Payment: The Representative's approval of the General Contractor's invoice shall not preclude the County from exercising any of its remedies under this Contract. In the event of a dispute, payment shall be made on or before the Payment Date for amounts not in dispute, subject to any set-offs claimed by the County. The County shall have the right to refuse to make payment of any invoice, and, if necessary, may demand the return of a portion or all of the amount previously paid to the General Contractor due to:

- (i) the General Contractor's failure to perform its scope of the Work in compliance with the requirements of this Contract For Construction or any other agreement between the parties;
- (ii) the General Contractor's failure to correctly and accurately represent the work performed in a payment request, or otherwise;
- (iii) the General Contractor's performance of its scope of the Work at a rate or in a manner that, in the County's opinion, is likely to result in the Project or any portion of the Project being inexcusably delayed;
- (iv) the General Contractor's failure to use funds previously paid the General Contractor by the County, to pay General Contractor's Project-related obligations including, but not limited to, the General Contractor's subcontractors, materialmen, and suppliers;
- (v) claims made, or claims likely to be made, against: (a) the County, (b) the property which is the subject of this Construction Contract, or (c) the Professional. The General Contractor's failure to attach to any invoice the lien waivers or other documentation required by section 15.3
- (vi) of this Construction Contract shall constitute *prima facie* evidence of such claims likely to be made;
- (vii) loss caused by the General Contractor or the General Contractor's subcontractors, or suppliers; and,
- (viii) the General Contractor's failure or refusal to perform any of its obligations to the County.

15.6 Correction of Past Payments: All prior payments, whether based on estimates or otherwise, may be corrected and adjusted in any subsequent payment and shall be corrected and adjusted in the final payment. In the event that any invoice contains a defect or impropriety which would prevent payment by the Payment Date, the County shall notify the General Contractor in writing of such defect or impropriety. Any disputed amounts determined by the County to be payable to the General Contractor shall be due thirty (30) calendar days from the date the dispute is resolved.

15.7 Interest on Outstanding Amounts Due: No interest shall accrue when payment is delayed due to a dispute between the County and the Contractor, or a dispute as to the accuracy or completeness of any request for payment received. This exception to the accrual of interest shall apply only to that portion of a delayed payment which is actually the subject of the dispute and shall apply only for the duration of such disagreement. No interest shall accrue on any retainage which is withheld by the County to assure performance of this Contract.

15.8 Invoice Warranties and Guarantees: The General Contractor expressly warrants and guarantees to the County that:

- (i) title to all goods, products, materials, equipment and systems covered by an invoice will pass to the County in accordance with Virginia law, either by incorporation into the Work, or upon receipt of payment by the General Contractor, whichever occurs first;
- (ii) all goods, products, materials, equipment and systems covered by an invoice are free and clear of liens, claims, security interests or encumbrances; and,
- (iii) no goods, products, materials, equipment or systems covered by an invoice have been acquired by the General Contractor, or its subcontractors or suppliers, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the General Contractor, or its subcontractors or suppliers.

15.9 General Contractor's Signature: The signature of the General Contractor on any invoice constitutes the General Contractor's certification to the County that:

- (i) the General Contractor's services listed in the invoice have progressed to the level indicated and have been performed as required by the Contract;

- (ii) the General Contractor has paid its subcontractors and suppliers, if any, their proportional share of all previous payments received from the County; and,
- (iii) the amount requested is currently due and owing.

15.10 Taxes: The General Contractor shall incorporate into the Contract Price, and shall pay, all sales, consumer, use and similar taxes for goods, products, materials, equipment and systems incorporated into its scope of the Work which were legally required at the time of execution of this Contract for Construction, whether or not yet effective or merely scheduled to go into effect. The General Contractor shall secure, defend, protect, hold harmless, and indemnify the County and Related Parties from and against any and all liability, loss, claims, demands, suits, costs, fees and expenses (including actual fees and expenses of attorneys, expert witnesses, and other consultants) relating to any taxes assessed or imposed upon, incurred by or asserted against the County and Related Parties by any taxing authority with respect to such taxes. The General Contractor shall cooperate with and assist the County in securing qualified refunds of any sales or use tax paid by the County or General Contractor on goods, products, materials, equipment or systems. Any refund secured shall be paid to the County.

15.11 Compensation of General Contractor's Subcontractors and Suppliers. Within seven days after receipt of amounts paid to the General Contractor by the County, for work performed by a subcontractor, the General Contractor shall take one of the following two actions:

- (i) pay the subcontractor for the proportionate share of the total payment received from the agency attributable to the work performed by the subcontractor; or
- (ii) notify the County and the subcontractor, in writing, of the contractor's intention to withhold all or a part of the subcontractor's payment, specifying the factual basis and reason for the nonpayment. The General Contractor shall include in each of its subcontracts a provision requiring each subcontractor to include or otherwise be subject to the same payment requirements with respect to each lower-tier subcontractor.

15.11.1 The County shall have no obligation to pay, and shall not be responsible for payments to the General Contractor's subcontractors or suppliers. However, the County reserves the right, but shall have no duty, to make payment jointly to the General Contractor and to any of its subcontractors or suppliers in the event that the County becomes aware that the General Contractor fails to pay or unreasonably withholds payment from one or more of those entities. Such joint check procedure, if utilized by the County, shall create no rights in favor of any person or entity beyond the right of the named payees to payment of the check and shall not be deemed to commit the County to repeat the procedure in the future.

15.12 Final Payment: Prior to becoming entitled to receive final payment, and as a condition precedent thereto, the General Contractor must achieve Final Completion. The County shall, subject to its rights set forth in this Contract for Construction, make final payment of all sums due the General Contractor within fourteen (14) calendar days of the Representative's execution of a final approval for payment.

ARTICLE 16

SCHEDULE REQUIREMENTS

16.1 Construction Schedule: The General Contractor shall submit to the County and to the Representative a Construction Schedule, which shall include all pertinent dates and periods for timely completion of the Work.

16.1.1 Unless otherwise directed and approved by the County, the General Contractor shall prepare the Construction Schedule as a critical path schedule with separate divisions for each major portion

of the Work or operations. The Construction Schedule shall include and properly coordinate dates for performance of all divisions of the Work, including completion of off-Site requirements and tasks, so that the Work can be completed in a timely and orderly fashion consistent with the required dates of Substantial Completion and Final Completion.

16.1.2 The Construction Schedule shall include

- (i) the required Commencement Date, and the required dates of Substantial Completion and Final Completion;
- (ii) any guideline and milestone dates required by the County;
- (iii) any applicable subcontractor and supplier sub-schedules;
- (iv) a submittal schedule which allows sufficient time for review of documents and submittals;
- (v) the complete sequence of construction by activity, with dates for beginning and completion of each element of construction; and,
- (vi) required decision dates;

16.1.3 By reviewing the Construction Schedule, the County and the Representative do not assume any of the General Contractor's responsibility that the Construction Schedule be coordinated or complete, or for timely and orderly completion by the required dates of Substantial Completion and Final Completion, and any milestone dates required by the County, and review and acceptance of the Construction Schedule by the County and a Representative shall not relieve the General Contractor of any of its responsibilities established under this Contract.

16.1.4 The General Contractor shall review and compare, on a weekly basis, the actual status of the Work against the Construction Schedule. The General Contractor shall discuss, on a weekly basis, the status of the Work with the Representative.

16.1.5 The General Contractor shall periodically, but no less frequently than once per month prepare a revised Construction Schedule, showing actual progress of the Work through the revision date, projected completion of each remaining activity, activities modified since previous submittal, major changes in scope, and other identifiable changes. In addition, a revised Construction Schedule shall be prepared by the General Contractor whenever the General Contractor anticipates that performance of the Work will be delayed or in fact has been delayed.

16.1.6 The General Contractor, in submitting its bid, acknowledges that it has taken into consideration normal weather conditions. To be counted as an adverse weather delay day, adverse weather must prevent work on critical activities for fifty percent (50%) or more of a scheduled work day. The General Contractor shall submit to the Representative a written adverse weather report for each calendar month, to be submitted to the Representative within five (5) calendar days following the last day of the reporting month being reported. Failure to submit the required written report within the time specified shall constitute a waiver by the General Contractor of any and all claims for delay due to adverse weather conditions occurring during the month for which the report was required to be submitted.

16.1.7 The time established by the Contract Documents for Substantial Completion must be used in all schedules as the date on which Substantial Completion will be achieved. Extensions of time, damages for delay, and all other matters between the County and the Contractor will be determined using the contractually required Substantial Completion date.

16.2 Delay In Performance: If at any time the General Contractor anticipates that performance of the Work will be delayed or in fact has been delayed, the General Contractor shall:

- (i) immediately notify the designated Representative of the probable cause of and effect from the delay, and possible alternatives to minimize the delay; and

ii) take all corrective actions reasonably necessary to deliver the Work by the required dates of Substantial Completion and Final Completion, and other milestone dates established by this Contract.

16.3 Modifications to Time For Performance: The General Contractor shall determine and promptly notify the County in writing when it believes adjustments to the required dates of Substantial Completion or Final Completion, or other milestone dates established by this Contract, are necessary. No such adjustments shall be effective unless approved in writing by the County.

(i) If the General Contractor wishes to make a claim for an increase in the time for performance, written notice shall be given to the County. The General Contractor's claim shall include an estimate of cost and of probable effect of delay on progress of the Work.

(ii) If adverse weather conditions are the basis for a claim for additional time, such claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, and that the weather conditions could not have been reasonably anticipated and had an adverse effect on the scheduled construction (e.g., that adverse weather conditions persisted for a time period exceeding the Contract Allowance for adverse weather days, etc.). All of the evidence and data supporting the request (including both historical data and the recordings at the Site during the time of the delay) must be furnished to the County before any consideration will be given to the request. Any requested extension must be supported by a delay in completion of the entire Project shown on the critical path of the accepted Schedule required by the Project. A request for extension of time based on abnormal weather, including all required supporting data, must be submitted to the County in writing **within five (5) calendar days** of the completion of the calendar month during which abnormal weather is claimed at the Site.

16.4 Early Completion: General Contractor may attempt to achieve Substantial Completion on or before the required date of Substantial Completion. However, such planned early completion shall be for the General Contractor's sole convenience and shall not create any additional General Contractor rights or County obligations under this Contract For Construction, nor shall such early completion unilaterally change the required dates of Substantial Completion or Final Completion. The County shall not pay the General Contractor any additional compensation for achieving Substantial Completion or Final Completion prior to the required dates nor will the County owe the General Contractor any compensation, should the County cause the General Contractor not to achieve, or should the County decline to accept, Substantial Completion or Final Completion earlier than the dates established by this Contract.

16.5 Modification Dates of Substantial Completion or Final Completion: The General Contractor may propose modifications to the required dates of Substantial Completion or Final Completion. The County may (in its sole discretion), but is not required to accept General Contractor's proposal. Modification(s) of the required dates of Substantial Completion or Final Completion shall be accomplished only by duly authorized and accepted written change order(s) stating the new date(s) and reciting that all references in this Contract For Construction to the required dates of Substantial Completion or Final Completion shall thereafter refer to the date(s) as modified, and all rights and obligations, including the General Contractor's liability for actual damages, delay damages and liquidated damages, shall be determined in relation to the dates, as modified.

16.6 Document Review: The General Contractor shall provide documents to the County for review in accordance with schedule requirements and with sufficient lead time to allow the County reasonable time for review.

ARTICLE 17

LIQUIDATED DAMAGES

17.1 Time Is of The Essence: The parties hereto mutually understand and agree that time is of the essence in the performance of this Contract For Construction and that the County will incur damages if the General Contractor's scope of the Work is not completed in accordance with the required dates of Substantial Completion and Final Completion. The General Contractor shall at all times carry out its duties and responsibilities as expeditiously as possible and shall begin, perform and complete its services so that:

- (i) the Work progresses in accordance with the Construction Schedule;
- (ii) the Work is substantially completed by the required date of Substantial Completion; and
- (iii) the Work is finally complete by the date of Final Completion.

17.2 Failure to Timely Achieve Completion: The parties hereto mutually understand and agree that the County will sustain substantial monetary and other damages in the event of a failure or delay by the General Contractor in the completion of its scope of the Work. If the General Contractor inexcusably fails to achieve Substantial Completion by the date established by this Contract, then the General Contractor shall pay to the County, as liquidated damages for delay and not as a penalty, the daily amount of \$300.00, for each and every day after the required date of Substantial Completion until actual Substantial Completion. This liquidated damages provision shall apply and remain in full force and effect in the event that General Contractor is terminated by County for default and shall apply until Substantial Completion has been achieved by any other contractor(s) hired to complete the Work. If the General Contractor fails to achieve Final Completion by the required date of Final Completion established in this Contract, the General Contractor shall pay to the County, as liquidated damages for delay and not as a penalty, the daily amount specified in this Contract for Construction, for each and every day after the required date of Final Completion until actual Final Completion.

17.3 Compensable or Excusable Delays:

(i) If the General Contractor is delayed at any time in the progress or performance of its scope of the Work by:

- (a) acts or omissions of the County ;
- (b) major changes ordered by the County in the Scope of Work; or
- (c) any other cause which the County determines may justify the compensation of the General Contractor for the delay (individually and together referred to as "Compensable Delays"), then the General Contractor's compensation shall be equitably adjusted to cover the General Contractor's actual and direct increased costs attributable to such Compensable Delay.

(ii) If the General Contractor is delayed at any time in the progress or performance of its scope of the Work by:

- (a) acts or omissions of the County;
- (b) major changes ordered by the County in the Scope of Work;
- (c) fire;
- (d) unusual delays in transportation;
- (e) adverse unusual weather conditions not reasonably anticipated by the General Contractor;
- (f) unavoidable casualties;
- (g) causes beyond the General Contractor's control which the County agrees in writing are justifiable; or

(h) any other cause which the County determines may justify the delay (individually and together referred to as “Excusable Delay”), then the Construction Schedule shall be extended for a period equal to the length of such Excusable Delay, but only if:

(1) immediately, but not later than seven (7) calendar days after the beginning of any such Excusable Delay, the General Contractor gives notice of its delay claim to the County;

(2) the delay is not in any way caused by default or collusion on the part of the General Contractor, or by any cause which the General Contractor could reasonably control or circumvent; and

(3) the General Contractor would have otherwise been able to timely perform all of its obligation under this Contract, but for such delay.

(iii) Any delay which does not qualify as a Compensable Delay or Excusable Delay under this Contract shall be deemed and designated an “Unexcused Delay.”

(iii) Delay caused by labor disputes, picketing, employee boycotts, or the like, which directly or indirectly involves employees of the General Contractor, or its subcontractors and suppliers, is not the responsibility of the County and will result in time extensions only if agreed to in writing by the County, at its sole discretion, at the time such events arise. The General Contractor shall notify the County in writing of any delay it attributes to labor disputes, picketing, employee boycotts, or the like, which directly or indirectly involves employees of the General Contractor, or its subcontractors and suppliers, immediately upon becoming aware thereof.

17.4 County's Right to Withhold Payment: When it reasonably believes:

(i) that Substantial Completion will be inexcusably delayed; or

(ii) that the General Contractor will inexcusably fail to achieve Final Completion by the date of Final Completion, the County shall be entitled, but not required, to withhold from any amounts otherwise due the General Contractor the daily amount specified as and for liquidated damages for each calendar day of the unexcused delay. If and when the General Contractor overcomes the delay in timely achieving Substantial Completion or Final Completion, or any part thereof, for which the County has withheld payment, the County shall promptly release to the General Contractor those funds withheld, but no longer applicable, as liquidated damages;

ARTICLE 18

CONCEALED AND UNFORESEEN CONDITIONS

18.1 Notification Regarding Unusual Conditions: If

(i) the General Contractor encounters concealed and unforeseen conditions, of an unusual nature, which affect the performance of the Scope of Work; or

(ii) the site conditions vary from those indicated by the Construction Documents; and,

(iii) such conditions are not ordinarily found to exist or differ materially from those generally recognized as inherent in work of the character provided by the General Contractor, the General Contractor shall promptly, but in no event later than three (3) calendar days after first observance of such conditions, notify the Representative and the County before conditions are disturbed, to give the County an opportunity to observe the condition in its undisturbed state.

18.1.1 The conditions will be promptly investigated and, if they differ substantially and cause a material increase or decrease in the General Contractor's cost of, or time required for, performance of its scope of the Work, the General Contractor's compensation or time for performance or both will be equitably adjusted.

18.1.2 All adjustments in compensation or extensions of time attributable to unforeseen site conditions shall be by change order. Change order requests must be made within fourteen (14) calendar days from the date of observation of the changed conditions.

18.1.3 The General Contractor's failure to notify the County as required by this Article shall constitute a waiver of any claims, of any nature whatsoever, arising out of or relating to such concealed or unknown condition.

ARTICLE 19

GENERAL CONTRACTOR'S RECORDS

19.1 Preparation of Records: The General Contractor shall, concurrently with performance of its services, prepare written records substantiating and documenting all services rendered, construction performed and all goods furnished.

19.2 Retention of Records: Except as otherwise specifically provided in this Construction Contract, the General Contractor shall keep and retain records performing to this Project, including, without limitation, copies of all specifications, submittals, correspondence, minutes, memoranda, tape recordings, videos, accounting records, documents reflecting the unit price of construction and other writings, electronic messages, transmissions or recordings, and other items which document the Project, its design, and its construction. The General Contractor shall maintain all such records for a period of three (3) years after the date of Final Completion, or for any longer period of time as may be required by law or good construction practice. If the General Contractor receives notification of a dispute or the commencement of litigation regarding the Project within this five (5) year period, the General Contractor shall continue to maintain all Project records until final resolution of the dispute or litigation.

19.3 Access to Records: Upon the request of the County, the General Contractor shall make its records available to the County (including, without limitation, the County's authorized or designated representatives), and to the representatives or agents of any state, federal or other regulatory authority requesting such records, during normal business hours. The County, as well as any state, federal or other regulatory authority, shall have the right to inspect, examine, review and copy the General Contractor's records at the copying party's reasonable expense. Failure by the General Contractor to keep or provide access to records required by this Contract shall be reason to exclude the related costs from amounts which might otherwise be payable by the County to the General Contractor under this Contract.

ARTICLE 20

PROPRIETARY DOCUMENTS AND CONFIDENTIALITY

20.1 Nature and Use of Information: All information, documents, and electronic media furnished by the County to the General Contractor

- (i) belong to the County;
- (ii) are proprietary records of the County;
- (iii) are furnished solely for use on the Project;
- (iv) shall be kept confidential by the General Contractor; and
- (v) shall not be used by the General Contractor on any other project or in connection with any other person or entity, unless disclosure or use thereof in connection with any matter other than services rendered to the County hereunder is specifically authorized in writing by the County in advance.

20.1.1 The County hereby grants to the General Contractor a limited license to use and reproduce applicable portions of the Construction Documents necessary for execution of the Scope of Work. All copies made under this license shall bear the statutory copyright notice, if any, shown on the documents.

20.2 County Ownership of Information: All information, documents, and electronic media prepared by or on behalf of the General Contractor for the Project shall be and remain the sole property of the County free of any retention rights of the General Contractor. The General Contractor hereby grants to the County an unconditional right to use, for any purpose whatsoever, any information, documents or electronic media prepared by or on behalf of the General Contractor for the Project, free of any copyright claims, trade secret rights or other proprietary rights with respect to such documents.

20.3 Disclosure of Information: The General Contractor shall not disclose any information it receives from the County to any other person or entity except to the extent necessary to allow it to perform its duties under this Contract For Construction.

20.4 Instructions to Employees: Because it is difficult to separate proprietary and confidential information from that which is not, the General Contractor shall instruct its employees and agents to regard all information which is not in the public domain as proprietary and confidential.

20.5 Non-Publication: Submission or distribution of documents to meet official regulatory requirements or for other required purposes in connection with the Project is not to be construed as publication in derogation of the County's common law copyrights or other reserved rights.

ARTICLE 21

GENERAL INSURANCE REQUIREMENTS

21.1 General Insurance Requirements: Unless otherwise required, each Required Insurance policy:

- (i) shall be issued by an insurance carrier authorized to do business within the Commonwealth of Virginia, and otherwise acceptable to the County;
- (ii) shall be kept in force throughout performance of the General Contractor's services and for three (3) years after the end of such performance;
- (iii) shall be an occurrence policy;
- (iv) shall be evidenced by a certificate of insurance acceptable to the County which provides that the coverage evidenced thereby shall not be substantially modified or canceled without prior written notice to the County; and
- (v) shall be endorsed to name the County and its officials, officers, and employees and agents as "additional insured."

21.2 Certificates Of Insurance: Prior to performance of any services on the Project, the General Contractor shall:

- (i) have all required insurance coverage in effect; and
- (ii) deliver to the County certificates of insurance, or other documentation satisfactory to the County in its sole discretion, evidencing the required insurance coverage. Upon the request of the County, the General Contractor shall promptly deliver to the County certificates of insurance and/or copies of policies and endorsements for all Required Insurance coverage. The General Contractor shall require each of its subcontractors and suppliers to have similar coverage in effect, prior to the performance of any services by such subcontractors and suppliers.

21.2.1 Further, the General Contractor shall ensure that all required Insurance coverages of its subcontractors and suppliers is and remains in effect during performance of their services on the Project. The County shall have no responsibility to verify compliance by the General Contractor or its subcontractors and suppliers.

21.3 Effect of Insurance: Compliance with insurance requirements shall not relieve the General Contractor of any responsibility to indemnify the County for any liability to the County, as

specified in any other provision of this Contract For Construction, and the County shall be entitled to pursue any remedy in law or equity if the General Contractor fails to comply with the contractual provisions of this Contract For Construction. Indemnity obligations specified elsewhere in this Contract shall not be negated or reduced by virtue of any insurance carrier's denial of insurance coverage for the occurrence or event which is the subject matter of the claim, or by any insurance carrier's refusal to defend any named insured.

21.4 Waiver of Subrogation: The General Contractor hereby releases and discharges the County of and from all liability to the General Contractor, and to anyone claiming by, through or under the General Contractor, by subrogation or otherwise, on account of any loss or damage to tools, machinery, equipment or other property, however caused.

ARTICLE 22

GENERAL BOND REQUIREMENTS

22.1 General Bond Requirements: The General Contractor shall be required to provide performance and payment bonds, and the penal sum of each bond shall be in an amount not less than the Contract Price, as adjusted by any change order(s). Each bond shall:

- (i) be in a form approved by the County Attorney, be made payable to the County, and be filed with the County;
- (ii) incorporate by reference the terms of this Contract For Construction;
- (iii) be executed by a company certified by the Secretary of the United States Department of Treasury pursuant to the Act of July 30, 1947 (61 Stat. 646, as amended; 6 U.S.C. 6-13);
- (iv) be executed by a company licensed and authorized to do business in the Commonwealth of Virginia;
- (v) be accompanied by a power of attorney certifying that the person(s) executing the bond have the authority to do so;
- (vi) be, in the case of a performance bond, conditioned upon the faithful performance of the contract in strict conformity with the plans, specifications and conditions of the contract;
- (vii) be, in the case of a payment bond, for the protection of claimants who have and fulfill contracts to supply labor or materials to the General Contractor, or to any subcontractors, in the prosecution of the Work which is the subject of this Contract for Construction;
- (viii) be, in the case of a payment bond, conditioned upon the prompt payment for all labor or;
- (ix) materials supplied to the General Contractor, or to any subcontractors, in the prosecution of the Work which is the subject of this Contract for Construction.

22.2 Delivery of Bonds: The General Contractor shall deliver any required bond(s) and power(s) of attorney to the County prior to commencement of the Work.

22.3 Subcontractor Bonds. Nothing in this Article shall preclude the General Contractor from requiring each subcontractor to furnish a payment bond with surety thereon in the sum of the full amount of the subcontract conditioned upon the payment to all persons who have and fulfill contracts which are directly with the subcontractor for performing labor or furnishing materials as required by the subcontract.

ARTICLE 23

COUNTY'S RIGHT TO STOP WORK

23.1 Cease and Desist Order: If the General Contractor fails to perform, refuses to perform, or fails to correct defective Work as required, or if the General Contractor persistently fails to carry out the Work in accordance with the Contract, the County may, by written notice, order the General

Contractor to cease and desist performing the Work until the cause for the order has been eliminated to the satisfaction of the County. Upon receipt of such instruction, the General Contractor shall immediately cease and desist as instructed by the County and shall not proceed further until the cause for the County's order has been corrected, until the cause no longer exists, or until the County instructs the General Contractor in writing to resume performance of the Work.

23.1.1 The General Contractor shall not be entitled to an adjustment in the time for performance, or the Contract Price, as a result of any order to cease and desist, because any such stoppage is considered to be the fault of the General Contractor.

23.1.2 The right of the County to stop the Work shall not give rise to a duty on the part of the County to exercise this right for the benefit of the General Contractor or any other individual or entity.

23.1.3 In the event the County issues instructions to cease and desist, and in the further event that the General Contractor fails and refuses within seven (7) calendar days to provide adequate assurance to the County that the cause of such instructions will be eliminated or corrected, then the County shall have the right, but not the obligation, to carry out the Work or any portion of the Work with its own forces, or with the forces of another contractor, and the General Contractor shall be responsible for the cost incurred by the County to carry out the Work.

23.1.4 The rights set forth herein are in addition to, and without prejudice to, any other rights or remedies the County may have against the General Contractor.

ARTICLE 24

TERMINATION OR SUSPENSION OF CONTRACT FOR CONSTRUCTION

24.1 Termination for Cause By County: The County may terminate this Contract For Construction for cause if the General Contractor breaches this Contract For Construction, through any act or omission, by:

- (i) refusing, failing, or being unable to properly manage or perform the Work required for the Project;
- (ii) refusing, failing or being unable to maintain applicable schedules, or to supply the Project with sufficient numbers of workers, properly skilled workers, or proper materials;
- (iii) refusing, failing or being unable to make prompt payment to subcontractors or suppliers;
- (iv) disregarding laws, ordinances, rules, regulations or orders of any public authority or quasi-public authority having jurisdiction over the Site, the Work or the Project;
- (v) refusing, failing or being unable to substantially perform in accordance with the terms of this Contract For Construction (including, without limitation, failure to comply with any required insurance provisions), or as otherwise defined elsewhere herein.
- (vi) Each of the foregoing items shall be deemed a material breach and default of this Contract.

24.1.1 Upon the occurrence of any of the events described in Paragraph 24.1.1, the County may give notice to the General Contractor setting forth the nature of the default, requesting cure within seven (7) calendar days from the date of notice, and notifying the General Contractor that failure to cure within the 7 day period shall entitle the County to immediately terminate the Contract. At any time thereafter, if the General Contractor fails to initiate the cure and continue to cure the default, the County, without prejudice to any other rights or remedies, may take any or all of the following actions:

- (i) complete all or any part of the General Contractor's scope of the Work, including supplying workers, material and equipment which the County deems expedient to complete the General Contractor's scope of the Work;

- (ii) contract with other builder(s) to complete all or any part of the General Contractor's scope of the Work, including supplying workers, material and equipment which the County deems expedient to complete the General Contractor's work;
- (iii) take such other action as is necessary to correct such failure; and,
- (iv) give notice to the General Contractor of immediate termination.

24.1.2 If the County terminates this Contract for cause, the County may also, without prejudice to any other rights and remedies:

- (i) take possession of all materials, tools, construction equipment and machinery on the Site owned or leased by the General Contractor;
- (ii) directly pay the General Contractor's subcontractors and suppliers any compensation due to them from the General Contractor;
- (iii) finish the General Contractor's Work by whatever means the County may deem expedient; and,
- (iv) require the General Contractor to assign the General Contractor's right, title and interest in General Contractor's subcontracts or orders to the County.

24.1.3 If the County terminates this Contract for cause and takes possession of materials, tools, construction equipment and machinery on the Site owned or leased by the General Contractor, then the General Contractor's compensation shall be increased by fair payment, either by purchase or rental at the election of the County, for any materials, tools, construction equipment and machinery items retained, subject to the County's right to recover from the General Contractor its damages resulting from the termination of the Contract.

24.1.4 If the County terminates this Contract for cause and a court of competent jurisdiction subsequently determines the termination was without cause, then said termination shall be deemed a termination for convenience as set forth in Paragraph 24.3.

24.2 Termination for Cause By General Contractor:

24.2.1 The General Contractor may terminate this Contract For Construction for cause if the County materially breaches this Contract For Construction by:

- (i) refusing, failing or being unable to make payment to the General Contractor in accordance with the requirements of this Construction Contract, without just cause;
- (ii) disregarding laws, ordinances, rules, regulations or orders of any Public authority or quasi-public authority having jurisdiction over any Project;
- (iii) refusing, failing or being unable to substantially perform in accordance with the terms of this Contract For Construction.

24.2.2 Upon the occurrence of any of the events described in Paragraph 24.2.1, the General Contractor may give notice to the County setting forth the nature of the default and requesting cure within seven (7) calendar days from the date of notice. If the County fails to cure the default the default within seven (7) calendar days, the General Contractor, without prejudice to any rights or remedies, may give notice to the County of immediate termination.

24.3 Termination for Convenience: The County may terminate this Contract for Construction, at any time, for its convenience, upon thirty days' advance written notice to the General Contractor. In the event of such termination the Contractor shall be compensated for services and work performed prior to the effective date of termination.

24.3.1 Upon receipt of written notice from the County of a termination for the County's convenience, the General Contractor shall cease operations as directed by the County in the notice; take any actions necessary, or any actions that the County may direct, for the protection and preservation of the Work; and, except for Work directed to be performed prior to the effective date

of termination, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders. In case of a termination for the County's convenience, the General Contractor shall be entitled to receive payment for Work executed in accordance with the Contract Documents prior to the effective termination date, in accordance with the approved Schedule of Values and Certificate(s) of Payment, and the General Contractor shall also be entitled to receive reasonable compensation for the actual cost of demobilization incurred by the Contractor as a direct result of such termination. The General Contractor shall not be entitled to compensation or damages for lost profits, or for any other type of contractual compensation or damages other than those provided by the preceding sentence. Upon payment of the amounts specified in this paragraph, the County shall have no further obligations to the General Contractor, of any nature whatsoever. In no event shall a termination for the convenience of the County terminate the obligations of the Contractor's surety on its payment or performance bond(s).

24.4 General Contractor's Compensation When General Contractor Terminates For Cause:

If this Contract For Construction is (i) terminated by the General Contractor pursuant to Paragraph 24.2 then the County shall pay the General Contractor specified amounts due for Work actually performed prior to the effective termination date. In addition, unless otherwise expressly agreed by the County and the General Contractor in writing, then the County shall pay the following additional amounts to the General Contractor:

- (i) reasonable direct costs incurred by the General Contractor in preparation for performance of the terminated portion of its scope of Work, plus a fair and reasonable allowance for costs incurred by the General Contractor in the process of effectuating the termination, and a fair and reasonable allowance for costs of overhead incurred by the General Contractor specifically in contemplation of its performance of the terminated portion of its scope of Work.
- (ii) reasonable costs of settling and paying claims arising out of the termination of subcontracts or supplier orders. These costs shall not include amounts paid in accordance with other provisions hereof.

24.5 General Contractor's Compensation When County Terminates For Cause: If this Contract For Construction is terminated by the County for cause, no further payment shall be made to the General Contractor until Final Completion of the Project. Upon Final Completion the General Contractor shall be paid the remainder of the Contract Price less all costs and damages incurred by the County as a result of the default of the General Contractor, including liquidated damages applicable thereto.

24.6 Limitation On Termination Compensation: Regardless of the reason for termination or the party terminating, the total sum paid to the General Contractor shall not exceed the Contract Price, as properly adjusted and reduced by the amount of payments previously made and any penalties or deductions incurred pursuant to any other provision of this Contract, and shall in no event include any duplication of payment(s).

24.7 General Contractor's Responsibility Upon Termination: Regardless of the reason for termination or the party terminating, if this Contract For Construction is terminated, the General Contractor shall, unless notified otherwise by the County,

- (i) immediately stop work;
- (ii) reduce its staff, services and outstanding Commitments in order to minimize the cost of termination;
- (iii) terminate outstanding orders and subcontracts;
- (iv) settle the liabilities and claims arising out of the termination of subcontracts and orders; and,

(v) transfer title and deliver to the County such completed or partially completed Work, and, if paid for by the County, materials, equipment, parts, fixtures, information and such contract rights as the General Contractor has.

24.8 Lack of Duty to Terminate: The right to terminate or suspend the Work shall not give rise to a duty on the part of either the County or the General Contractor to exercise that right for the benefit of the County, General Contractor or any other persons or entities.

24.9 Limitation on Termination Claim: If the General Contractor fails to file a claim within sixty (60) days from the effective date of termination, the County shall not be obligated to pay the General Contractor any amount other than that owed to the General Contractor for services actually performed and expenses actually incurred prior to the effective termination date.

24.10 Availability and Appropriation of Funds. Payment and performance obligations of the County, beyond those appropriated in the initial fiscal year of this Contract, are expressly conditioned upon the availability of and appropriation by the County of public funds therefore in each subsequent fiscal year. When public funds are not appropriated or are otherwise unavailable to support continuation of performance by the County in a subsequent fiscal period, this contract and the County's obligations hereunder shall automatically expire, without liability or penalty to the County.

ARTICLE 25

APPLICABLE LAW AND DISPUTE RESOLUTION

25.1 The procedure shall govern all Contractual disputes and claims. All claims whether for money or other relief, shall be submitted in writing no later than sixty (60) days after final payment, however, written notice of the contractor's intention to file a claim must have been given at the time of the occurrence or beginning of the work upon which the claim is based. Nothing herein shall preclude a contract from requiring submission of an invoice for final payment within a certain time after the completion and acceptance of the work or acceptance of the goods. Pendency of claims shall not delay payment of amounts agreed due in the final payment.

(i) Contractual claims shall first be presented to the project officer, or if none, to the purchasing agent.

(ii) Any such claims shall be set forth in writing with the amount and nature of each item separately stated. When no specific liquidated damages fees are allowed by law, the time actually and necessarily devoted to performance under the contract shall be verified by affidavit filed with the claim. The purchasing agent shall render a decision on any such claims within ten (10) business days. Appeals of such decision may be made by the contractor within ten (10) business days to the county administrator by serving a written notice of appeal upon the project officer or purchasing agent, as applicable, and the county administrator.

(iii) The decision of the County Administrator shall be rendered within fifteen (15) business days, and shall be final and conclusive unless the contractor appeals such decision to the Powhatan County Board of Supervisors within thirty (30) days of the date of the decision of the County Administrator in accordance with the requirements of Sections 15.2-1245 through 15.2-1248 of the Virginia Code.

25.2 Remedies: The remedies available to a vendor on appeal to the County Administrator shall be as provided in Chapter 43 of the Title 2.2 of the Virginia Code (Virginia Public Procurement Act).

25.3 Mutual Discussion: In case of any dispute, claim, question or disagreement arising from or relating to the Project or arising out of this Contract For Construction or the breach thereof, the parties shall first attempt resolution through mutual discussion.

25.4 Arbitration Preclusion: In case of a dispute relating to the Project, or arising out of this Contract For Construction, no party to this Contract For Construction shall be required to participate in or be bound by any arbitration proceedings.

25.5 Legal Actions -- If a vendor seeks judicial review of a final decision of the Appeal or initiates a legal action such appeal or legal action shall be governed by Article 5, Chapter 43 of Title 2.2, Section 2.2-4364 of the Virginia Code (Virginia Public Procurement Act).

ARTICLE 26

DAMAGES AND REMEDIES

26.1 General Contractor's Repair: The General Contractor shall, at its expense, promptly correct, repair, or replace all goods, products, materials, systems, labor and services which do not comply with the warranties and guarantees set forth in this Contract For Construction, or any other applicable warranty or guarantee.

26.2 General Contractor's Reimbursement: The General Contractor shall promptly reimburse the County for any expenses or damages incurred by the County as a result of:

- (i) the General Contractor's failure to substantially perform in accordance with the terms of this Contract For Construction;
- (ii) deficiencies or conflicts in the Construction Documents attributable to the General Contractor or of which the General Contractor was or should have been aware;
- (iii) breach of the warranties and guarantees Set forth in this Contract For Construction or any other applicable warranty or guarantee; or
- (iv) other acts or omissions of the General Contractor.

26.3 General Indemnity: To the fullest extent permitted by law the General Contractor shall secure, defend, protect, hold harmless, and indemnify the County from and against any and all liability, loss, claims, demands, suits, costs, fees and expenses (including actual fees and expenses of attorneys, expert witnesses, and other consultants), by whomsoever brought or alleged, and regardless of the legal theories upon which premised, including, but not limited to, those actually or allegedly arising out of bodily injury to, or sickness or death of, any person, or property damage or destruction (including loss of use), which may be imposed upon, incurred by or asserted against the County allegedly or actually arising out of or resulting from the General Contractor's services, including without limitation, any breach of contract or negligent act or omission

- (i) of the General Contractor; or
- (ii) of the General Contractor's subcontractors or suppliers, or
- (iii) of the agents, employees or servants of the General Contractor or its subcontractors or suppliers.

26.3.1 To the fullest extent permitted by the law of the Commonwealth of Virginia, the General Contractor, for itself and for its subcontractors and suppliers, and the respective agents, employees and servants of each, expressly waives any and all immunity or damage limitation provisions available to any agent, employee or servant under any workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts, to the extent such statutory or case law would otherwise limit the amount recoverable by the County or the County's Related Parties pursuant to the indemnification provision contained in the paragraph above.

26.4 Royalties, Patents and Copyrights: The General Contractor shall pay all royalties and license fees. To the fullest extent permitted by law, the General Contractor shall defend, protect, hold harmless, and indemnify the County from and against any and all liability, loss, claims, demands, suits, costs, fees and expenses (including actual fees and expenses of attorneys, expert witnesses, and other consultants), by whomsoever brought or alleged, for infringement of patent rights, copyrights, or other intellectual property rights. The General Contractor shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer is expressly required by the Contract Documents or where the copyright or patent violation(s) are contained in drawings, specifications or other documents prepared by the owner or Professional. However, if the General Contractor has reason to believe that a required design, process or product is an infringement of a copyright or patent, the General Contractor shall be responsible for such loss unless such information is promptly given to the County. **26.5 Non-Exclusivity Of County's Remedies:** The County's selection of any one or more remedies allowed by this Contract for breach hereof shall not limit the County's right to invoke any other remedy available to the County at law or by virtue of any other provision of this Contract.

26.6 Waiver Of Damages: The General Contractor shall not be entitled to, and hereby waives, any monetary claims and damages of any nature whatsoever arising from, or related to, any of the following: lost income, lost profits, lost financing, loss of reputation, lost business opportunities, loss of management or employee productivity or of the services of such persons; unabsorbed overhead, and principal office expenses (including, without limitation, the compensation of personnel stationed there, for losses of financing, business and reputation and for loss of profit). Nothing contained in this paragraph shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

26.7 Interest: The County is entitled to interest on all amounts due from the General Contractor that remain unpaid thirty (30) days after the amount is deemed due, whether as a result of a resolution of a dispute or otherwise. Such interest shall be calculated and shall accrue at a rate of one percent (1%) per month.

SECTION IV CONTRACT AGREEMENT

**COUNTY OF POWHATAN, VIRGINIA
CONTRACT FOR CONSTRUCTION AND RELATED SERVICES
GENERAL CONTRACTOR'S FIXED PRICE FORM**

This Contract for Construction ("Contract") is entered into by and between:

OWNER: The County of Powhatan, Virginia, 3834 Old Buckingham Road, Powhatan, Virginia, 23139,

and

GENERAL CONTRACTOR: _____.

This Construction Contract is executed under seal and shall be effective as of the ___ day of ____, 2019.

PROJECT IDENTIFICATION INFORMATION:

Project Title: IFB# **2019-01**

Project Description: Company 5 Concrete Apron and Driveway Improvements

ADDRESSES and AUTHORIZED REPRESENTATIVES: The addresses and authorized representatives of the Owner, the General Contractor and any Professional (e.g., Architect or Engineer) working with the Owner in connection with this Contract are as follows:

OWNER:

Representative: Theodore L. Voorhees

Mailing Address: 3834 Old Buckingham Road, Powhatan, Virginia, 23139

Telephone: 804-598- 5612

E-mail: tvoorhees@powhatanva.gov

Representative: Ramona Carter

Mailing Address: 3834 Old Buckingham Road, Powhatan, Virginia 23139

Telephone: 804- 598-5764

E-mail: rcarter@powhatanva.gov

Representative: Mark Piper

Mailing Address: 3834 Old Buckingham Road, Powhatan, Virginia, 23139

Telephone: 804-598-5697

E-mail mpiper@powhatanva.gov

GENERAL CONTRACTOR:

Representative:
Mailing Address:
Telephone:
Facsimile:
E-mail:

General Contractor's License No:
SCC #:

RECITALS

WHEREAS, the Owner intends to construct the Project and is engaging the General Contractor to perform certain labor, supervision and services and to provide certain equipment, goods and materials for the Project; and

WHEREAS, the Owner and General Contractor each acknowledges that it will act in good faith in carrying out its duties and obligations; and

WHEREAS, the Owner's engagement of the General Contractor is based upon the General Contractor's representations to the Owner that it: (i) is experienced in the type of labor and services the Owner is engaging the General Contractor to perform; (ii) is authorized and licensed to perform the type of labor and services for which it is being engaged within the County to perform; (iii) is qualified, willing and able to perform labor and services for the Project; and (iv) has the expertise and ability to provide labor and services which will meet the Owner's objectives and requirements, and which will comply with the requirements of all governmental, public and quasi-public authorities and agencies having or asserting jurisdiction over the Project; and

WHEREAS, the Owner and General Contractor each acknowledges that it has reviewed and familiarized itself with this Contract, including the documents enumerated in Section 1, and agrees to be bound by the terms and conditions contained therein.

NOW, THEREFORE, for good and valuable consideration, the parties agree as follows:

SECTION ONE: GENERAL CONTRACTOR'S SCOPE OF WORK

A. The General Contractor shall furnish or cause to be furnished, and shall pay for out of the Contract Price: all management, supervision, financing, goods, products, materials, equipment, systems, labor, services, permits, licenses, construction machinery, transportation and other facilities necessary for proper execution and completion of the Work, in accordance with all of the terms and conditions of this Contract.

B. The general nature of the Work the General Contractor is to complete may briefly be described as follows: furnish all labor, materials, tools, equipment and services for the complete the roads and ditches of Monastery Subdivisions.

SECTION TWO: THE CONTRACT DOCUMENTS

A. This Contract between the parties is comprised of the following documents:

1. The original Invitation for Bid #**2019-01**, dated March 29, 2019 and all addenda thereto;
 2. This Contract and all attached documents and appendices;
 3. The General Terms and Conditions for Construction Contracts for the County of Powhatan, Virginia, incorporated herein by reference;
 4. Drawings stamped APPROVED dated November 16th, 2016 by Dunbar R Milby Williams and post-contract modifications thereto, if any, included within the Owner's Invitation for Bids;
 5. The bid and all required documents in response to the Invitation to Bid submitted by the General Contractor and the lawful and valid modifications thereto, if any; and
 6. Any amendments or modifications executed by the Owner and General Contractor hereafter.
 7. Specification Sections # 01-0200, 02-4113, 31-2000, 32-1216, 32-1313
 8. Geotechnical Report-October 21, 2016 by Atlantic Geotechnical Services, Inc.
- B. Documents not included or expressly contemplated or incorporated by reference in this Section Two do not, and shall not, form any part of this Contract.

SECTION THREE: TIME FOR PERFORMANCE

- A. Commencement of Construction. The General Contractor shall commence work upon receipt of Notice to Proceed and substantially complete the project within 120 days.
- B. The General Contractor shall, not less than ten (10) business days after execution of this Contract, prepare and submit a Construction Schedule, to the Owner, in accordance with the requirements of the General Terms and Conditions (and any applicable Special Conditions) for this Contract.

SECTION FOUR: PERSONNEL AND CONSULTANTS

- A. The General Contractor shall prepare and attach to this Contract a Personnel Chart which lists by name, job category and responsibility the General Contractor's primary employees who will work on the Project. The General Contractor shall promptly inform the Owner in writing of any proposed replacements, the reasons therefore, and the name(s) and qualification(s) of proposed replacement(s). The Owner shall have the right to reject any proposed replacement. Under no circumstances shall the Owner be required to consent to a proposed replacement under circumstances where such replacement would result in an increase in the Contract Price.
- B. The General Contractor shall prepare and attach to this Contract a list of the General Contractor's Subcontractors and Suppliers, listing by name and general Project responsibility each subcontractor and supplier who will be utilized by the General Contractor to provide goods or services with respect to the Project. The General Contractor shall not enter into any agreement(s) with any Subcontractor(s) or Supplier(s) to which the Owner raises a reasonable, timely objection. The General Contractor shall promptly inform the Owner in writing of any proposed replacements, the reasons therefore, and the name(s) and qualification(s) of proposed replacement(s). The Owner shall have the right to reject any proposed replacement. Under no circumstances shall the Owner be required to consent to a

proposed replacement under circumstances where such replacement would result in an increase in the Contract Price.

C. The Owner shall prepare and attach to this Contract a list, by name and general Project duties, of each consultant retained by the Owner to provide services with respect to the Project. The Owner reserves the right to engage any other consultants which it may deem necessary or desirable.

SECTION FIVE: RELATION TO OWNER

The General Contractor will be legally considered as an independent contractor and neither the General Contractor nor its employees will, under any circumstances, be considered servants or agents of the Owner. The Owner will not be legally responsible for any negligence or other wrongdoing by the General Contractor, its servants or agents. The Owner will not withhold payments to the General Contractor for any federal or state unemployment taxes, federal or state income taxes, Social Security tax, or any other amounts for benefits to the General Contractor. Further, the Owner will not provide to the General Contractor any insurance coverage or other benefits, including workers' compensation, normally provided by the Owner for its employees.

SECTION SIX: COMPENSATION OF GENERAL CONTRACTOR

A. The Owner shall pay and the General Contractor shall accept, as full and complete payment for the General Contractor's timely and complete performance of its obligations under this Contract the Contact Price of _____ and __ cents (\$_____) Dollars subject to additions and deductions as approved by the owner, provided in the specifications or bids. This Contract Price includes the aggregate amount of all allowances and any unit price items to be furnished or installed.

B. Within ten (10) business days after execution of this Contract, the General Contractor shall prepare and present to the Owner the General Contractor's Compensation Schedule, to include a Schedule of Values for payment of the Contract Price.

C. Upon receipt by the Owner of the General Contractor's invoice, properly prepared in accordance with the General Terms and Conditions for this Contract, the Owner shall pay to the General Contractor ninety-five percent (95%) of the total amount approved by the Representative, withholding the balance as retainage, unless there is a dispute about the amount of compensation due the General Contractor.

D. If the General Contractor disputes a change order decision, then the General Contractor must give the Owner its written notice of dispute, including the reasons therefore, following the procedures set forth within the General Terms and Conditions for this Contract.

SECTION SEVEN: SPECIFIC INSURANCE REQUIREMENTS

A. The General Contractor shall purchase and maintain, at its expense, and from a company or companies authorized to do business within the Commonwealth of Virginia, insurance policies containing the following selected types of coverages and minimum limits of liability, protecting from claims which may arise out of or result from the General Contractor's

Company 5 Concrete Apron and Driveway Improvements

performance or non-performance of services under this Contract, or the performance or non-performance of services under this Contract by anyone directly or indirectly employed by the General Contractor or for whose acts it may be liable:

i. Comprehensive General Liability, including Premises and Operations; Contractor's Protective Liability; Products Liability including Completed Operations Coverage; and Contractual Liability for this contract:

a. Limits: \$1,000,000 per incident / \$3,000,000 Total Bodily Injury (including death) \$1,000,000 per incident / \$3,000,000 Total Property Damage

ii. Comprehensive Automobile Liability, including all Owned Automobiles, Non-Owned Automobiles and Hired Car Coverage:

a. Limits: \$1,000,000 per incident / \$3,000,000 Total Bodily Injury (including death) \$1,000,000 per incident / \$3,000,000 Total Property Damage

iii. Employer's Liability for Participants not covered by Workers Compensation Insurance in an amount not less than \$100,000.

iv. Builder's Risk Insurance which includes, without duplication, but is not limited to: fire (with extended coverage), theft, vandalism, malicious mischief, collapse, windstorm, false work, testing and startup, temporary buildings and debris removal, and which provides coverage for one hundred percent (100%) of the General Contractor's the Work.

vi. General Contractor shall not perform any Work on this Project unless General Contractor has obtained, and continues to maintain for the duration of Work, such Workers' Compensation coverage as may be required pursuant to the provisions of Chapter 8 (Code Section 65.2-800 et seq.) of Title 65.2 of the Code of Virginia, 1950, as amended. General Contractor shall not allow any subcontractor to perform any work on Project unless the subcontractor has obtained, and continues to maintain for the duration of such work, such Worker's Compensation coverage as may be required pursuant to the provisions of Chapter 8 (Code Section 65.2-800 et seq.) of Title 65.2 of the Code of Virginia, 1950, as amended. General Contractor shall include the provisions of this subsection within each of its subcontracts, so as to bind each subcontractor.

A Certificate of Insurance shall be submitted within ten (10) business days after Notice of Award and included as a part of this Contract.

The General Contractor shall furnish to the Owner a binder adding the Owner as an additional insured on all policies except those pertaining to Workers Compensation and including the following language: "The above described policies shall not be canceled, modified, or amended or coverage reduced without the issuing company providing thirty (30) business days advance written notice to the County of Powhatan."

Should insurance coverage be changed or cancelled, regardless of the reason, the General Contractor shall furnish evidence of new coverage and submit a new and valid binder evidencing the required insurance. Failure to deliver a new and valid binder will result in suspension of all payments until the new binder is furnished.

All insurance required by this Contract shall be and remain in full force and effect for the life of the Contract.

This Contract shall be binding upon the Owner until the all insurance requirements and policies, required herein have been filed with the Owner (if requested) and all have been approved as to form and sufficiency by the County Attorney.

SECTION EIGHT: SPECIFIC BOND REQUIREMENTS

The General Contractor shall be required to provide payment and performance bonds. The amount of the premiums shall be included in the Contract Price.

SECTION NINE: MISCELLANEOUS

A. NO DISCRIMINATION BY GENERAL CONTRACTOR

During the performance of this Contract, the General Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability or any other basis prohibited by law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the contractor. The General Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. Also, the General Contractor, in all solicitations or advertisements for employees placed by or on behalf of the contractor, will state that it is an equal opportunity employer.

B. MODIFICATION OF CONTRACT

1. This Contract may be supplemented, modified, or amended by the mutual agreement of the parties hereto, set forth in writing. No supplement, modification or amendment shall be enforceable unless set forth within a writing signed by both the Owner and the General Contractor.

2. Notwithstanding the foregoing, this Contract may not be increased by more than twenty-five percent (25%) of the amount of the contract or \$50,000, whichever is greater, without the advance approval of the County Board of Supervisors. In no event may the amount of any County contract, without adequate consideration, be increased for any purpose, including, but not limited to, relief of a bidder from the consequences of an error in its bid.

C. DRUG-FREE WORKPLACE

During the performance of this Contract the General Contractor agrees as follows: (i) to provide a drug-free workplace for its employees; (ii) to post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the General Contractor's workplace and specifying

the actions that will be taken against employees for violations of such prohibition; and (iii) state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace; and (iv) include the provisions of the subsection in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor. For the purposes of this subsection, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a contractor, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

D. PAYMENT OF SUBCONTRACTORS

The General Contractor is obligated to take one (1) of the two (2) following actions within seven (7) business days after receipt of amounts paid to the General Contractor by the Owner for work performed by any subcontractor under this Contract:

- (1) Pay the subcontractor for the proportionate share of the total payment received from the Owner attributable to the work performed by the subcontractor under the Contract; or
- (2) Notify the Owner and the subcontractor, in writing, of the General Contractor's intention to withhold all or a part of the subcontractor's payment with the reason for nonpayment.

The General Contractor is obligated to provide (i) its social security number if it is an individual or (ii) its federal identification number if it is a proprietorship, partnership, or corporation, in accordance with Section 2.2-4354 of the Code of Virginia. The General Contractor is obligated to pay interest to the subcontractor on all amounts owed by the General Contractor that remain unpaid after seven (7) business days following receipt by the General Contractor of payment from the Owner for work performed by the subcontractor under the Contract, except for amounts withheld as allowed in Subsection (2) above. Unless otherwise provided under the terms of this Contract, interest shall accrue at the rate of one percent (1%) per month. The General Contractor shall include in each of its subcontracts a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractor. The General Contractor's obligation to pay an interest charge to a subcontractor pursuant to the above provisions may not be construed to be an obligation of the Owner. A Contract modification shall not be made for the purpose of providing reimbursement for such interest charge. A cost reimbursement claim shall not include any amount for reimbursement for such interest charge.

E. GOVERNING LAW

This Contract and the Work performed hereunder shall be governed in all respects by the laws of the Commonwealth of Virginia and the venue for any litigation with respect thereto shall be in the Circuit Court for Powhatan County, Virginia. The provisions of this subsection shall control over any contrary provisions in the Contract Documents. The General Contractor shall comply with applicable federal, state and local laws and regulations.

F. FORCE MAJEURE

Neither party shall hold the other responsible for damages or delay in performance caused by acts of God, strikes, lockouts, or similar events beyond the control of the other.

G. NO WAIVER OF RIGHTS

No failure on the part of the Owner to enforce any of the terms or conditions set forth in this Contract shall be construed as or deemed to be a waiver of the right to enforce such terms or conditions. No waiver by the Owner of any default or failure to perform by the General Contractor shall be construed as or deemed to be a waiver of any other and/or subsequent default or failure to perform. The acceptance or payment of any rentals, fees and/or charges by the Owner, and/or the performance of all or any part of this Contract by the Owner, for or during any period(s) following a default or failure to perform by the General Contractor, shall not be construed as or deemed to be a waiver by the Owner of any rights hereunder.

H. SEVERABILITY

In the event that any term, provision or condition of this Contract, or the application thereof to any person or circumstances, shall be held by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this Contract, and the application of any term, provision or condition contained herein to any person or circumstances other than those to which it has been held invalid or unenforceable, shall not be affected thereby.

I. NO PERSONAL LIABILITY

Nothing herein shall be construed to create any personal liability on the part of any elected or appointed official, officer, agent or employee of the Owner.

J. ETHICS IN PUBLIC CONTRACTING

This Contract incorporates by reference any state or federal law related to ethics, conflict of interests, or bribery, including by way of illustration and not limitation, the Virginia Conflict of Interests Act, the Virginia Governmental Frauds Act, and Articles 2 and 3 of Chapter 10 of Title 18.2 of the Code of Virginia, as amended. The General Contractor certifies that its offer is made without collusion or fraud and that it has not offered or received any kickbacks or inducements from any other offeror, supplier, manufacturer, or subcontractor in connection with this solicitation, and that it has not conferred on any public employee having official responsibility for this solicitation any payment, loan, subscription, advance, deposit of money, services, or anything of more than nominal value, present or promised unless consideration of substantially equal or greater value was exchanged.

K. IMMIGRATION REFORM AND CONTROL ACT OF 1986

The General Contractor certifies that it does not and will not during the performance of the Contract employ illegal alien workers or otherwise violate the provisions of the federal Immigration Reform and Control Act of 1986.

L. AUTHORIZATION TO TRANSACT BUSINESS IN THE COMMONWEALTH

General Contractor shall be authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Title 13.1 or Title 50 or as otherwise required by law. General Contractor shall not allow its existence to lapse or its certificate of authority or registration to transact business in the Commonwealth, if so required under Title 13.1 or Title 50, to be revoked or cancelled at any time during the term of this Contract. The Owner may void this Contract if General Contractor fails to remain in compliance with the provisions of this section.

M. HEADINGS

Section, article, and paragraph headings contained within this Contract have been inserted only as a matter of convenience and for reference, and they in no way define, limit, or describe the scope or intent of any term, condition or provision of this Contract.

N. BINDING EFFECT

The terms, provisions and conditions of this Contract shall bind and inure to the benefit of the respective parties hereto and to their representatives, successors, and (where permitted by this Contract) their assigns.

O. ENTIRE AGREEMENT

This Contract represents the entire agreement between the parties, and there are no other agreements or understandings between the parties, either verbal or written, which have not been incorporated herein.

IN WITNESS WHEREOF, the parties do hereby set forth their signatures, representing that the individuals who affix their signatures hereto have been duly authorized to bind each party to the terms and conditions of the foregoing Contract:

OWNER:

By: _____

Print Name: Theodor L. Voorhees

Title: County Administrator

Date: _____

GENERAL CONTRACTOR:

By: _____

Print Name: _____

Title: _____

Date: _____

SECTION 01 0200 – GENERAL SITEWORK REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The provisions of the Contract Documents apply to the work of this Section.

1.2 SITEWORK LAYOUT

A. Monuments and Benchmarks

1. Maintain all monuments, property corners, bench marks and other reference points.
2. If these are disturbed or destroyed during construction operations, have them replaced by a surveyor licensed in the Commonwealth of Virginia. This replacement shall be at no additional expense to the Contract.

B. Laying out the Work.

1. Locate all existing bench marks and other reference points.
2. Protect these points throughout construction.
3. Layout work utilizing these reference points.

C. Record Drawings

1. Maintain a record of the horizontal and vertical locations of all underground utilities and piping, both newly installed and existing encountered.
2. Maintain a record of any variations of the work.
3. Maintain record drawings throughout construction, recording information as work is performed. Record Drawings shall be available for periodic inspection during the course of the project.
4. Submit final, complete record drawings at Substantial Completion.

1.3 CORRELATION OF CONSTRUCTION DOCUMENTS

- A. Review construction documents thoroughly prior to the start of construction.
- B. Report any conflict or discrepancy discovered in the Construction Documents to the Owner prior to the start of construction.
- C. Report any conflict or discrepancy discovered between the Construction Documents and state and local governmental regulations to the Owner prior to the start of construction.

1.4 PROJECT CONDITIONS

- A. The conditions existing at the time of inspection for bidding purposes will be maintained by the Owner to the extent practical. However, minor variations may occur due to natural occurrences prior to the start of clearing work.
- B. The location of existing underground utilities indicated is approximate only. Field locate all existing underground utilities in the area of work, regardless of whether or not they are indicated. Call “Miss Utility” prior to the start of demolition work for assistance in the location of existing underground utilities.
- C. Should charted, uncharted or incorrectly charted utilities be encountered during demolition, contact the Owner immediately for instructions. Cooperate with Owner and utility companies to keep services and facilities in operation.

SECTION 01 0200 – GENERAL SITEWORK REQUIREMENTS

PART 2 - PRODUCTS

Not Applicable

PART 3 – EXECUTION

3.1 PROJECT CLEAN UP

- A. Clean site as construction progresses. Do not allow trash or other waste materials to accumulate.
- B. Prior to requesting the punch-list inspection, clean the site to the following requirements:
 - 1. Power wash all walks and pavements.
 - 2. The remainder of the site shall be broom clean.
 - 3. Remove all trash and debris.

3.2 EXISTING FACILITIES

- A. Preserve existing signs, markers, guardrails, fences and other amenities in their original condition unless written permission is obtained for their removal and replacement.
- B. Replace damaged items at no additional cost to the Contract.

END OF SECTION 01 0200

SECTION 02 4113 - SELECTIVE SITE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The provisions of the Contract Documents apply to the work of this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Demolition and removal of existing asphalt and/or concrete pavement, concrete and/or asphalt walks, curbs and gutters, and other exterior site items indicated or not indicated which interfere with the Work.
 - 2. Removal and disposal of material from dump areas.

1.3 DEFINITIONS

- A. Remove: Remove and legally dispose of items except those indicated to be reinstalled, salvaged, or to remain the Owner's property.
- B. Remove and Salvage: Items indicated to be removed and salvaged remain the Owner's property. Remove, clean, and pack or crate items to protect against damage. Identify contents of containers and deliver to Owner's designated storage area.
- C. Remove and Reinstall: Remove items indicated; clean, service, and otherwise prepare them for reuse; store and protect against damage. Reinstall items in the same locations or in locations indicated.
- D. Existing to Remain: Protect items indicated to remain against damage and soiling. When permitted by the Architect, items may be removed to a suitable, protected storage location and then cleaned and reinstalled in their original locations.

1.4 MATERIALS OWNERSHIP

- A. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain the Owner's property, remove demolished materials from the site with further disposition at the Contractor's option.
- B. Storage or sale of removed items or materials on-site will not be permitted.
- C. Historical items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to the Owner, which may be encountered, remain the Owner's property. Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to the Owner.

1.5 SUBMITTALS

- A. Proposed dust-control measures.
- B. Schedule of selective demolition activities indicating the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity.
 - 2. Detailed sequence of selective demolition and removal work to ensure uninterrupted progress of Owner's on-site operations.

SECTION 02 4113 - SELECTIVE SITE DEMOLITION

3. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
 4. Locations of temporary partitions and means of egress.
- C. Inventory of items to be removed and salvaged or turned over to Owner.

1.6 QUALITY ASSURANCE

- A. Regulatory Requirements: All work shall comply with Federal, State and Local laws and regulations concerning hauling and disposal of demolition debris.
- B. Notify the proper agencies prior to the start of work and obtain all necessary permits for this work.

1.7 PROJECT CONDITIONS

- A. Owner assumes no responsibility for actual condition of items or structures to be demolished. Conditions existing at the time of inspection for bidding purposes will be maintained by the Owner to the extent practical. However, minor variations may occur due to Owner's removal and salvage operations prior to the start of demolition work.
- B. The location of existing underground utilities indicated is approximate only. Field locate all existing underground utilities in the area of work, regardless of whether or not they are indicated. Call "Miss Utility" prior to the start of demolition work for assistance in the location of existing underground utilities.
- C. Should charted, uncharted or incorrectly charted utilities be encountered during demolition, contact the Owner immediately for instructions. Cooperate with Owner and utility companies to keep services and facilities in operation.
- D. Do not interrupt existing utilities serving facilities occupied and used by the Owner and others, except when permitted in writing by the Owner. Provide acceptable temporary utility service as required to maintain Owner's operations.

1.8 SCHEDULING

- A. Owner will occupy portions of the building immediately adjacent to the Work. Conduct selective demolition so that the Owner's operations will not be disrupted. Provide not less than 72 hours notice to Owner of activities that will affect Owner's operations.
- B. Arrange selective demolition schedule so as not to interfere with Owner's on-site operations.

PART 2 - PRODUCTS

(Not Applicable)

SECTION 02 4113 - SELECTIVE SITE DEMOLITION

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Call "Miss Utility" prior to the start of demolition work for assistance in the location of existing underground utilities. Field locate all existing underground utilities in the area of work, regardless of whether or not they are indicated.
- B. Should uncharted or incorrectly charted existing utilities be identified, contact the Engineer immediately for instructions. Provide a scale drawing with the location of the uncharted or incorrectly charted utilities for use by the Engineer in preparing additional direction.
- C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- D. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged and turned over to the Owner.

3.2 PROTECTION OF PERSONS AND PROPERTY

- A. Drain, purge, or otherwise remove, collect, and dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with selective demolition operations.
- B. Conduct demolition operations and remove debris to ensure minimum interference with roads, streets, walks and other adjacent occupied and used facilities.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.
- C. Conduct demolition operations to prevent injury to people and damage to adjacent buildings and facilities to remain. Ensure safe passage of people around selective demolition area.
 - 1. Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction.
 - 2. Protect existing site improvements, appurtenances, and landscaping to remain.
- D. Barricade areas of demolition occurring as part of this work, and post with warning lights as required by authorities having jurisdiction.
- E. Protect structures, buildings, utilities, walks, pavements, existing vegetation and other facilities to remain from damage caused by settlement, lateral movement, undermining, washout and other hazards created by demolition operations.

3.3 POLLUTION CONTROLS

- A. Perform all work in accordance with the requirements of the latest edition of the Virginia Erosion and Sediment Control Handbook and those of the local Erosion Control official.
- B. Clean adjacent structures and improvements of dust, dirt, and debris caused by the Work. Return adjacent areas to condition existing before start of selective demolition.

3.4 DEMOLITION OF EXISTING FACILITIES

- A. Asphalt Pavement
 - 1. Remove asphalt concrete pavement by sawcutting to the full depth of the pavement. Provide neat sawcuts at the limits of pavement removal indicated.

SECTION 02 4113 - SELECTIVE SITE DEMOLITION

B. Concrete Pavement, Walks and Curbs

1. Remove concrete pavement and walks to the nearest joint. Sawcut concrete if joints are not present adjacent to the area of demolition.
2. Sawcut concrete along straight lines to a depth of not less than 2 inches. Break out remainder of concrete, provided that the broken area is concealed in the finished work, and the remaining concrete is sound. At locations where the broken face cannot be concealed, grind smooth or sawcut entirely through concrete.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
- B. Do not burn demolished materials or debris.
- C. Transport and legally dispose of demolished materials off of Owner's property.

3.6 CLEANUP AND REPAIR

- A. Upon completion of demolition work remove all tools, equipment and demolition materials from site. Remove demolition work area protection and leave areas clean.
- B. Repair any demolition performed in excess of that required. Return elements of construction and surfaces to remain to the condition existing prior to the start of construction. Repair adjacent construction or surfaces soiled or damaged by demolition work.

END OF SECTION 02 4113

SECTION 31 2000 - EARTHWORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The provisions of the Contract Documents apply to the work of this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Excavation, filling, backfilling, and grading indicated and necessary for proper completion of the work.

1.3 SUBMITTALS

- A. VDOT approved Job Mix for stone.

1.4 DEFINITIONS

- A. Excavation: Removal of all material encountered to design subgrade elevations indicated for cut areas and to subsoil elevations in fill areas. Excavation also includes subsequent respreading, moisture conditioning, compaction, and grading of satisfactory materials removed.
- B. Unauthorized Excavation: Removal of materials beyond the limits indicated in the definition of "Excavation" without specific direction of Engineer.
- C. Additional Excavation: Removal, disposal and replacement of materials beyond the limits indicated in the definition of "Excavation" at the direction of the Engineer. Refer to Part 3 of this Section for requirements of Additional Excavation.
- D. Subgrade: The undisturbed earth (in cut) or the compacted soil layer (in fill) immediately below granular subbase, drainage fill, or topsoil materials.
- E. Subsoil: The undisturbed earth immediately below the existing topsoil layer.
- F. Pavements: The area extending 10 feet beyond the exterior limits of paved areas and down to undisturbed soils at a one horizontal to one vertical slope. The area extending 3 feet beyond the exterior limits of walks and down to undisturbed soils at a one horizontal to one vertical slope.
- G. Subbase Material: Artificially graded mixture of crushed gravel or crushed stone meeting VDOT specifications. Material type is indicated on the drawings.
- H. Drainage/Porous Fill: Washed, evenly graded mixture of crushed stone, or crushed or uncrushed gravel meeting the requirements of VDOT No. 57 Stone.
- I. This Project is Unclassified.
- J. The risks of concealed, unknown, or unanticipated subsurface conditions from existing ground surface to the design subgrade elevations in cut areas and to subsoil elevations in fill areas shall be included in the Contract Amount and shall not be considered as grounds for additional costs to the Contract.
- K. The risks of concealed, unknown, or unanticipated subsurface conditions below the elevations stated above identified as additional excavation shall also be included in the Base Bid Contract amount and shall not be considered as grounds for additional cost to the Contract. The work includes the establishment of acceptable bearing conditions in both cut and fill situations.
- L. Rock Excavation: Any required rock excavation shall be included in the Base Bid Contract amount and shall not be considered as grounds for additional costs to the Contract.
- M. Time extensions will not be granted for Additional Excavation or Rock Excavation.

SECTION 31 2000 - EARTHWORK

1.5 QUALITY ASSURANCE

- A. Codes and Standards: Perform excavation work in compliance with applicable requirements of authorities having jurisdiction.
- B. Environmental Compliance:
 - 1. Comply with the requirements of the latest edition of the Virginia Erosion and Sediment Control Handbook for erosion control during earthwork operations.
 - 2. Comply with the permit conditions for all work performed within wetlands.
- C. Testing and Inspection Service: Owner will employ and pay for an independent Geotechnical testing and inspection laboratory to perform soil testing and inspection service during earthwork operations. Cooperate with Owner's Geotechnical Engineer as required for testing and inspection of work. These services do not relieve the responsibility for compliance with Contract Document requirements.

1.6 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt existing utilities serving facilities occupied by the Owner or others except when permitted under the following conditions and then only after arranging to provide acceptable temporary utility services.
 - 1. Notify Owner not less than 48 hours in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without receiving Owner written permission.
 - 3. Existing utilities across or along the line of work are indicated only in an approximate location. Locate all underground lines and structures. Call "Miss Utility" at 1-800-552-7001 prior to construction. If utilities are marked that are not shown on the plans, locate utility vertically and horizontally and provide information to architect. Repair and correct any damage to underground lines and structures.

1.7 SAFETY

- A. Protection of Persons and Property: Barricade open excavations occurring as part of this work and post with warning lights.
 - 1. Operate warning lights as recommended by authorities having jurisdiction and governing regulations and standards.
 - 2. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- B. Work within the road right-of-way shall meet all requirements of the latest edition of the Virginia Department of Transportation Work Area Protection Manual.

PART 2 - PRODUCTS

PART 3 – EXECUTION

3.1 PREPARATION

- A. Protect and maintain erosion and sedimentation controls during earthwork operations.

SECTION 31 2000 - EARTHWORK

3.2 DEWATERING

- A. Prevent surface water and subsurface or groundwater from flowing into excavations and from flooding project site and surrounding area.
 - 1. Do not allow water to accumulate in excavations. Remove water to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to stability of subgrade and foundations. Provide and maintain pumps, well points, sumps, suction and discharge lines, and other dewatering system components necessary to convey water away from excavations.
 - 2. Establish and maintain temporary drainage ditches and other diversions outside excavation limits to convey rain water and water removed from excavations to collecting or runoff areas. Do not use utility trench excavations as temporary drainage ditches.
- B. Should any springs or running water be encountered in the excavation, notify the Owner and provide discharge by trenches (or other acceptable means) and drain to an appropriate point of disposal. Provide temporary drainage facilities to minimize the flow of rainwater onto adjacent property. Repair any damage to property or to subgrade as a result of construction and/or dewatering (or lack thereof) operations at no additional cost to the Contract. If permanent provision must be made for disposal of water other than as indicated, the Contract price shall be adjusted.
- C. Soils encountered may require disking, scarifying, moisture conditioning, harrowing, pulverizing or other special or careful handling when utilized as fill. No additional payment will be made for these operations.

3.3 EXCAVATION

- A. Excavation consists of removal, placement and disposal of material encountered when establishing required subgrade or finish grade elevations.
 - 1. Excavation includes removal and disposal of pavements and other obstructions visible on ground surface; underground structures, utilities and other items indicated to be demolished and removed; together with earth and other materials encountered that are not classified as rock or unauthorized excavation.
- B. Rock Excavation: If Rock is encountered the Owner's Geotechnical Engineer will verify that the material qualifies for classification as rock excavation.
 - 1. If rock is encountered in grading, remove to depths as follows:
 - a) Under surfaced areas, to 6" under the respective subgrade for such areas.
 - b) Under grass and planted areas - 12" minimum.
 - c) Under footings – Two feet below bottom of footing, One foot outside of perimeter of footing.
 - d) Under trenches – 6" below bottom of trench.

3.4 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Cut surface under pavements to comply with cross-sections, elevations and grades as indicated.

3.5 COMPACTION OF SOIL BACKFILL AND FILLS

- A. Place backfill and fill materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
- B. Before compaction, moisten or aerate each layer as necessary to provide optimum moisture content. Compact each layer to required percentage of maximum dry density or relative dry density for each area classification. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.

SECTION 31 2000 - EARTHWORK

- C. Control soil and fill compaction, providing minimum percentage of density indicated for each area classification indicated below. Correct improperly compacted areas or lifts as directed by Architect if soil density tests indicate inadequate compaction.
- D. Percentage of Maximum Density Requirements: Compact soil to not less than the following percentages of maximum density at a moisture content within 2 percentage points of optimum in accordance with ASTM D698:
 - 1. Under structures, building pad and pavements, compact each layer of backfill or fill material at 95 percent maximum density. This includes ground under future expansion areas.
 - 2. Under grass or unpaved areas, compact each layer of backfill or fill material at 90 percent maximum density.
- E. Seal all fill areas at the end of each working day, utilizing a smooth drum roller.

3.6 GRADING

- A. General: Rough grading of areas within the Project, including cut and fill sections and adjacent transition areas, shall be reasonably smooth, compacted and free from irregular surface changes. The degree of finish shall be that ordinarily obtainable from either blade-grader or motor patrol except as otherwise indicated. The finished subgrade surface from the grassed areas generally shall be not more than 0.2 feet above or below the final grade or approved cross section, with due allowance for topsoil.
- B. The tolerance for areas within 10 feet of building perimeter, walks and all areas to be paved shall not exceed 0.10 feet above or below the established subgrade. Finish all ditches, swales and gutters to drain readily. Unless otherwise indicated, evenly slope the subgrade to provide drainage away from building walls in all directions at a grade not less than $\frac{1}{4}$ inch per foot. Provide rounding at top and bottom of cut and fill slopes and at other breaks in grade.
- C. Protection of Graded Areas: Protect newly graded areas and areas of cut, fill and design/subgrade elevations from the actions of the elements and from deterioration as a result of construction operations and weather conditions (frost, rains, snow, sleet, hail, etc.). Repair any settlement or washing that occurs prior to or after acceptance of the work. Fill to required subgrade levels any areas where settlement occurs. Protect trees to remain, and, at all areas of the Site where construction operations are in progress, provide protection for the safety of occupants of the existing facilities.
- D. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 - 1. Provide a smooth transition between adjacent existing grades and new grades.
 - 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.

3.7 PAVEMENT SUBBASE COURSE:

- A. General: Place subbase material, in layers of indicated thickness, over subgrade surface to support a pavement base course.
- B. Grade Control: During construction, maintain lines and grades including crown and cross-slope of subbase course.
- C. Shoulders: Place shoulders along edges of subbase course to prevent lateral movement. Construct shoulders of acceptable soil materials, placed in such quantity to compact to thickness of each subbase course layer. Compact and roll at least at 12" width of shoulder simultaneously with compacting and rolling each layer of subbase course.
- D. Placing: Place subbase course material on prepared subgrade in layers of uniform thickness, conforming to indicated cross-section and thickness. Maintain optimum moisture content for compacting subbase material during placement operations.

SECTION 31 2000 - EARTHWORK

- E. When a compacted subbase course is 6" thick or less, place material in a single layer. When more than 6" thick, place material in equal layers, except no single layer more than 6" or less than 3" in thickness when compacted.
- F. Place subbase course on subgrades free of mud, frost, snow, or ice.
- G. On prepared subgrade, place subbase course under pavements and walks as follows:
 - 1. Place base course material over subbase course under hot-mix asphalt pavement.
 - 2. Shape subbase course to required crown elevations and cross-slope grades.
 - 3. Place subbase course 6 inches (150 mm) or less in compacted thickness in a single layer.
 - 4. Place subbase course that exceeds 6 inches (150 mm) in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches (150 mm) thick or less than 3 inches (75 mm) thick.
 - 5. Compact subbase course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to **ASTM D 698**.
- H. Pavement Shoulders: Place shoulders along edges of subbase and base course to prevent lateral movement. Construct shoulders, at least 12 inches (300 mm) wide, of satisfactory soil materials and compact simultaneously with each subbase and base layer to not less than 95 percent of maximum dry unit weight according to **ASTM D 698**.

3.8 FIELD QUALITY CONTROL

- A. The Owner's Geotechnical Engineer will submit two (2) copies each of his reports, recommendations and/or opinions to the Architect/Engineer and the Owner. Pertinent information will be provided to the Contractor as required.

3.9 EROSION CONTROL:

- A. Provide erosion control methods in accordance with requirements of authorities having jurisdiction, the Virginia Erosion and Sediment Control Handbook, and as indicated in the Contract Documents.

3.10 PROTECTION

- A. Repair and reestablish grades in settled, eroded, and rutted areas to indicated tolerances.
- B. Reconditioning Compacted Areas: Where subsequent construction operations or adverse weather disturbs completed compacted areas, scarify surface, reshape, and compact to required density prior to further construction.

3.11 DISPOSAL OF WASTE MATERIALS

- A. Removal from Owner's Property: Remove excess and/or waste materials, including trash and debris, and dispose of it off Owner's property in a legal manner.
- B. Dispose of excess material and materials not acceptable for use as backfill or fill legally offsite.
- C. Do not remove topsoil from site until it has been demonstrated to the Owner's satisfaction that it is excess.

END OF SECTION 31 2000

SECTION 32 1216 - ASPHALT PAVEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The provisions of the Contract Documents apply to the work of this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Hot-mix asphalt paving over prepared subbase.
 - 2. Hot –mix asphalt patching.
 - 3. Hot-mix asphalt overlays.
 - 4. Asphalt surface treatments
 - a) Coal tar sealant

1.3 SUBMITTALS

- A. Job-Mix Designs: Certification, by authorities having jurisdiction, of approval of each job mix proposed for the Work.
- B. Material Certification: Certification signed by Contractor certifying that each material complies with requirements.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer who has completed hot-mix asphalt paving similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.
- B. Asphalt paving materials and installation shall conform to the requirements of the latest edition of the Virginia Department of Transportation (VDOT) Road and Bridge Specifications and Road and Bridge Standards.

1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Do not apply asphalt materials if substrate is wet or excessively damp or if the following conditions are not met:
 - 1. Prime and Tack Coats: Minimum ambient temperature of 50 deg F (10 deg C), and when temperature has not been below 35 deg F (1 deg C) for 12 hours immediately prior to application.
 - 2. Asphalt Base Course: Minimum surface temperature of 40 deg F (4 deg C) and rising at time of placement.
 - 3. Asphalt Surface Course: Minimum surface temperature of 40 deg F (4 deg C) and rising at time of placement.

1.6 TESTING AND INSPECTION

- A. The Owner's testing agency will observe the asphalt placement in the parking lots and on-site areas not in Right-of-Way.

SECTION 32 1216 - ASPHALT PAVEMENT

PART 2 - PRODUCTS

2.1 ASPHALT-AGGREGATE MIXTURE

- A. General: Provide plant-mixed, hot-laid asphalt-aggregate mixture complying with the requirements of the VDOT Road and Bridge Specifications and as recommended by local paving authorities to suit project conditions.

2.2 ASPHALT MATERIALS

- A. Tack Coat: ASTM D 977, emulsified asphalt or ASTM D 2397, cationic emulsified asphalt, slow setting, factory diluted in water, of suitable grade and consistency for application.
- B. Prime Coat: Asphalt emulsion prime conforming to VDOT requirements.

2.3 AUXILIARY MATERIALS

- A. Paving Geotextile: Nonwoven polypropylene, specifically designed for paving applications, resistant to chemical attack, rot, and mildew.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that subgrade is dry and in suitable condition to support paving and imposed loads.
- B. Proof-roll subbase using heavy, pneumatic-tired rollers to locate areas that are unstable or that require further compaction.
- C. Notify Engineer in writing of any unsatisfactory conditions. Do not begin paving installation until these conditions have been satisfactorily corrected.

3.2 PATCHING AND REPAIRS

- A. Patching: Saw cut perimeter of patch and excavate existing pavement section to sound base. Recompact new subgrade. Excavate rectangular or trapezoidal patches, extending 12 inches (300 mm) into adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically.
 - 1. Tack coat faces of excavation and allow to cure before paving.
 - 2. Fill excavation with dense-graded, hot-mix asphalt base mix and, while still hot, compact flush with adjacent surface.
- B. Leveling Course: Install and compact leveling course consisting of dense-graded, hot-mix asphalt surface course to level sags and fill depressions deeper than 1 inch (25 mm) in existing pavements.
 - 1. Install leveling wedges in compacted lifts not exceeding 3 inches (75 mm) thick.
- C. Crack and Joint Filling: Remove existing filler material from cracks or joints to a depth of 1/4 inch (6 mm). Refill with asphalt joint-filling material to restore watertight condition. Remove excess filler that has accumulated near cracks or joints.

SECTION 32 1216 - ASPHALT PAVEMENT

- D. Tack Coat: Apply uniformly to existing surfaces of previously constructed asphalt or Portland cement concrete paving and to surfaces abutting or projecting into new, hot-mix asphalt pavement. Apply at a uniform rate of 0.05 to 0.15 gal./sq. yd. (0.2 to 0.7 L/sq. m) of surface.
1. Allow tack coat to cure undisturbed before paving.
 2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillage and clean affected surfaces.

3.3 SURFACE PREPARATION

- A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.
- B. Sweep loose granular particles from surface of unbound-aggregate base course. Do not dislodge or disturb aggregate embedded in compacted surface of base course.
- C. Prime Coat: For asphalt sections less than 4" thick, apply uniformly over surface of compacted-aggregate base at a rate of 0.15 to 0.50 gal./sq. yd. (0.7 to 2.3 L/sq. m). Apply enough material to penetrate and seal, but not flood, surface. Allow prime coat to cure for 24 hours minimum.
1. If prime coat is not entirely absorbed within 24 hours after application, spread sand over surface to blot excess asphalt. Use just enough sand to prevent pickup under traffic. Remove loose sand by sweeping before pavement is placed and after volatiles have evaporated.
 2. Protect primed substrate from damage until ready to receive paving.

3.4 HOT-MIX ASPHALT PLACING

- A. Machine place hot-mix asphalt mix on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand to areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness, when compacted.
1. Place hot-mix asphalt base course in number of lifts and thickness indicated.
 2. Spread mix at minimum temperature of 225 deg F (107 deg C).
- B. Place paving in consecutive strips not less than 10 feet (3 m) wide, except where infill edge strips of a lesser width are required.
1. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Complete asphalt base course for a section before placing intermediate or surface courses.
- C. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

3.5 JOINTS

- A. Construct joints between old and new pavement, or between successive days work, to ensure continuous bond between adjoining paving sections. Construct joints free of depressions with same texture and smoothness as other sections of hot-mix asphalt course.
1. Clean contact surfaces and apply tack coat.
 2. Offset longitudinal joints in successive courses a minimum of 6 inches (150 mm).
 3. Offset transverse joints in successive courses a minimum of 24 inches (600 mm).
 4. Construct transverse joints as required by the VDOT Road and Bridge Specifications.

SECTION 32 1216 - ASPHALT PAVEMENT

5. Compact joints as soon as hot-mix asphalt will bear roller weight without excessive displacement.

3.6 COMPACTION

- A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or vibratory-plate compactors in areas inaccessible to rollers.
 1. Complete compaction before mix temperature cools to 185 deg F (85 deg C).
- B. Breakdown Rolling: Accomplish breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Repair surfaces by loosening displaced material, filling with hot-mix asphalt, and rerolling to required elevations.
- C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling, while hot-mix asphalt is still hot enough to achieve indicated density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:
 1. Average Density: 95 percent of reference laboratory density according to ASTM D 1559.
- D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm. Surface course average density shall be 95 percent of reference laboratory density.
- E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while still hot, with back of rake or smooth iron. Compact thoroughly using tamper or other satisfactory method. Edges adjacent to curbs and curb and gutter sections shall be flush with the edge of concrete.
- F. Repairs: Remove paved areas that are defective or contaminated with foreign materials. Remove paving course over area affected and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.
- G. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- H. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.7 INSTALLATION TOLERANCES

- A. Thickness: Compact each course to produce the thickness indicated within the following tolerances:
 1. Base Course: Plus or minus 1/2 inch (13 mm).
 2. Surface Course: Plus 1/4 inch (6 mm), no minus.
- B. Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot (3-m) straightedge applied transversely or longitudinally to paved areas:
 1. Base Course: 1/4 inch (6 mm).
 2. Surface Course: 3/16 inch (3 mm).
 3. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template is 1/4 inch (6 mm).
- C. Check surface areas at intervals as directed by Architect.

SECTION 32 1216 - ASPHALT PAVEMENT

3.8 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent testing agency to perform field inspections and tests and to prepare test reports.
 - 1. Testing agency will conduct and interpret tests and state in each report whether tested Work complies with or deviates from requirements.
- B. Additional testing, at Contractor's expense, will be performed to determine compliance of corrected Work with requirements.
- C. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with requirements.

END OF SECTION 32 1216

SECTION 32 1313 - SITE CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The provisions of the Contract Documents apply to the work of this Section.

1.2 DESCRIPTION OF WORK:

- A. Extent of Portland cement concrete paving is shown on drawings, including:
 - 1. Curbs and gutters
 - 2. Walkways

1.3 SUBMITTALS

- A. Job-Mix Designs: Certification, by authorities having jurisdiction, of approval of each job mix proposed for the Work.
- B. Material Certification: Certification signed by Contractor certifying that each material complies with requirements.

1.4 JOB CONDITIONS

- A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Forms: Steel, wood, or other suitable material of size and strength to resist movement during concrete placement and to retain horizontal and vertical alignment until removal. Use straight forms, free of distortion and defects.
 - 1. Use flexible spring steel forms or laminated boards to form radius bends as required.
 - 2. Coat forms with a nonstaining form release agent that will not discolor or deface surface of concrete.
- B. Welded Wire Mesh: Welded plain welded wire fabric, ASTM A1064 use flat sheets only per drawing S.0.1.
- C. Reinforcing Steel: ASTM A 615, Grade 60, deformed
- D. Concrete Materials: Comply with requirements of applicable Division 3 sections for concrete materials, admixtures, bonding materials, curing materials, and others as required.
- E. Expansion Joint Materials: Comply with requirements of applicable Division 7 sections for preformed expansion joint fillers and sealers.
- F. Antispalling Compound: Combination of boiled linseed oil and mineral spirits, complying with AASHTO M-233.
- G. Liquid-Membrane Forming and Sealing Curing Compound: Comply with VDOT Road and Bridge Specifications.

SECTION 32 1313 - SITE CONCRETE

2.2 CONCRETE MIX, DESIGN, AND TESTING

- A. Comply with requirements of applicable Division 3 sections for concrete mix design, sampling and testing, and quality control or VDOT Road and Bridge Specifications whichever is more stringent.
- B. Design mix to produce normal-weight concrete consisting of Portland cement, aggregate, water-reducing or high-range water-reducing admixture (superplasticizer), air-entraining admixture, and water to produce the following properties:
 - 1. 4000 psi as noted on the project drawing S-0.1. All concrete must conform to ACI 301-10 "SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI 318-11 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".

PART 3 - EXECUTION

3.1 SURFACE PREPARATION

- A. Remove loose material from compacted subbase surface immediately before placing concrete.
- B. Proof-roll prepared subbase surface to check for unstable areas and need for additional compaction. Do not begin paving work until such conditions have been corrected and are ready to receive paving,

3.2 FORM CONSTRUCTION

- A. Set forms to required grades and lines, braced and secured. Install forms to allow continuous progress of work and so that forms can remain in place at least 24 hours after concrete placement.
- B. Check completed formwork for grade and alignment to following tolerances:
 - 1. Top of forms not more than 1/8 inch in 10 feet.
 - 2. Vertical face on longitudinal axis, not more than 1/4 inches in 10 feet.
- C. Clean forms after each use and coat with form release agent as required to ensure separation from concrete without damage.

3.3 REINFORCEMENT

- A. Locate, place and support reinforcement as specified on plans.

3.4 CONCRETE PLACEMENT

- A. General: Comply with requirements of applicable Division 3 sections for mixing and placing concrete or VDOT Road and Bridge Specifications whichever is more stringent.
- B. Do not place concrete until subbase and forms have been checked for line and grade. Moisten subbase if required to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment.
- C. Place concrete by methods that prevent segregation of mix. Consolidate concrete along face of forms and adjacent to transverse joints with internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square-faced shovels for hand spreading and consolidation. Consolidate with care to prevent dislocation of reinforcing, dowels, and joint devices.
- D. Deposit and spread concrete in a continuous operation between transverse joints as far as possible. If interrupted for more than 1/2 hour, place a construction joint.

SECTION 32 1313 - SITE CONCRETE

- E. Fabricated Bar Mats: Keep mats clean and free from excessive rust, and handle units to keep them flat and free of distortions. Straighten bends, kinks, and other irregularities or replace units as required before placement. Set mats for a minimum 2-inch overlap to adjacent mats.
- F. Place concrete in 2 operations; strike off initial pour for entire width of placement and to the required depth below finish surface. Lay fabricated bar mats immediately in final position. Place top layer of concrete, strike off, and screed.
- G. Remove and replace portions of bottom layer of concrete that have been placed more than 15 minutes without being covered by top layer or use bonding agent if acceptable to Architect.
- H. Curbs and Gutters: Automatic machine may be used for curb and gutter placement. If machine placement is to be used, submit revised mix design and laboratory test results that meet or exceed minimums indicated. Machine placement must produce curbs and gutters to required cross-section, lines, grades, finish, and jointing as indicated for formed concrete. If results are not acceptable, remove and replace with formed concrete meeting requirements.

3.5 JOINTS

- A. General: Construct expansion, weakened-plane (contraction), and construction joints true to line with face perpendicular to surface of concrete. Construct transverse joints at right angles to the centerline, unless otherwise indicated.
- B. Weakened-Plane (Contraction) Joints: Provide weakened-plane (contraction) joints, sectioning concrete into areas as shown on drawings. Construct weakened-plane joints for a depth equal to at least 1/4 concrete thickness, as follows:
 - 1. Tooled Joints: Form weakened-plane joints in fresh concrete by grooving top portion with a recommended cutting tool and finishing edges with a jointer.
 - 2. Sawed Joints: Form weakened-plane joints with powered saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut joints into hardened concrete as soon as surface will not be torn, abraded, or otherwise damaged by cutting action.
 - 3. Inserts: Use embedded strips of metal or sealed wood to form weakened-plane joints. Set strips into plastic concrete and carefully remove strips after concrete has hardened.
- C. Construction Joints: Place construction joints at end of placements and at locations where placement operations are stopped for more than 1/2 hour, except where such placements terminate at expansion joints.
 - 1. Construct joints as indicated on drawings S.0.5 2x2 key.
- D. Expansion Joints: Provide premolded joint filler for expansion joints abutting concrete curbs, catch basins, manholes, inlets, structures, walks, and other fixed objects, unless otherwise indicated.
- E. Locate expansion joints at max 24' both ways as per drawing S.0.6.
- F. Extend joint fillers full width and depth of joint, not less than 1/2 inch or more than 1 inch below finished surface where joint sealer is indicated. If no joint sealer, place top of joint filler flush with finished concrete surface.
- G. Provide joint fillers in one-piece lengths for full width being placed wherever possible. Where more than one length is required, lace or clip joint filler sections together.
- H. Protect top edge of joint filler during concrete placement with a metal cap or other temporary material. Remove protection after concrete has been placed on both sides of joint.
- I. Fillers and Sealants: Comply with requirements of applicable Division 7 sections for preparation of joints, materials, installation, and performance.
- J. Refer to Drawings for scoring patterns for:
 - 1. Selected sidewalk areas

SECTION 32 1313 - SITE CONCRETE

3.6 CONCRETE FINISHING

- A. After striking-off and consolidating concrete, smooth surface by screeding and floating. Use hand methods only where mechanical floating is not possible. Adjust floating to compact surface and produce uniform texture.
- B. After floating, test surface for trueness with a 10-ft. straightedge. Distribute concrete as required to remove surface irregularities, and refloat repaired areas to provide a continuous smooth finish.
- C. Work edges of slabs, gutters, back top edge of curb, and formed joints with an edging tool, and round to 1/2-inch radius, unless otherwise indicated. Eliminate tool marks on concrete surface.
- D. After completion of floating and when excess moisture or surface sheen has disappeared, complete troweling and finish surface as follows:
 - 1. Broom finish by drawing a fine-hair broom across concrete surface perpendicular to line of traffic. Repeat operation if required to provide a fine line texture acceptable to Architect.
 - 2. Exposed-Aggregate Finish: At handicap ramps and where indicated on drawings, by applying an approved retardant curing compound to the surface. Allow minimum 12 hours of setting time before washing surface to expose a maximum of (1/3) one-third of stone surface. Aggregate shall be brown Riverstone having a uniform size and color for each subsequent concrete pour. Aggregate size shall range between 1/2" and 3/4".
- E. Do not remove forms for 24 hours after concrete has been placed. After form removal, clean ends of joints and point-up any minor honeycombed areas. Remove and replace areas or sections with major defects, as directed by Architect.

3.7 CURING

- A. Protect and cure finished concrete paving in compliance with applicable requirements of Division 3 sections. Use membrane-forming curing and sealing compound or approved moist-curing methods.

3.8 REPAIRS AND PROTECTIONS

- A. Repair or replace cracked, broken or defective concrete curbs and curb and gutter, as directed by Architect.
- B. Replace cracked, broken or defective concrete sidewalks.
- C. Repair or replace cracked, broken or defective concrete pavement, as directed by Architect.
- D. Drill test cores where directed by Architect when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory pavement areas with Portland cement concrete bonded to pavement with epoxy adhesive.
- E. Protect concrete from damage until acceptance of work. Exclude traffic from pavement for at least 14 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.
- F. Sweep concrete pavement and wash free of stains, discolorations, dirt, and other foreign material just before final inspection.

END OF SECTION 32 1313

Co 5 Concrete Apron & Asphalt Project

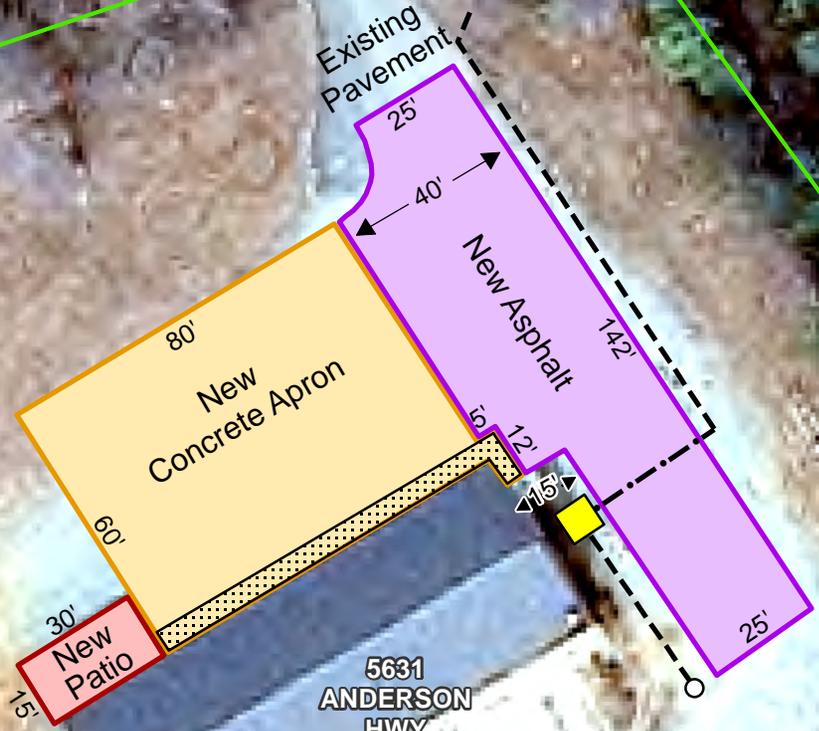
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DONALD P & TERESAN

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DONALD P & TERESAN

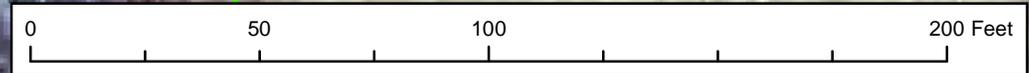
SANDERS
DONALD P & TERESAN

DEEP CREEK
VOLUNTEER FIRE DEPT

5631
ANDERSON
HWY



-  Existing 5' Sidewalk To Be Removed
-  16" Yard Inlet
-  4" French Drain
-  4" Solid PVC Under Pavement
-  End Cap
-  Outlet



1 in = 42 ft

GEOTECHNICAL ENGINEERING STUDY

Fire Station No. 5
5631 Anderson Highway
Powhatan County, Virginia

REPORT

PROJECT

Geotechnical Engineering Study
Fire Station No. 5
5631 Anderson Highway
Powhatan County, Virginia

CLIENT

Powhatan County Public Works
3849 Old Buckingham Road - 1st Floor
Powhatan, Virginia 23139

SUBMITTED BY

Atlantic Geotechnical Services, Inc.
10971 Richardson Road
Ashland, Virginia 23005

DATE

October 21, 2016

GEOTECHNICAL ENGINEERING STUDY

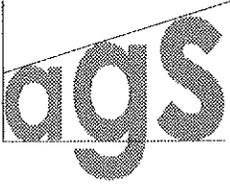
**Fire Station No. 5
5631 Anderson Highway
Powhatan County, Virginia**

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APPENDIX

Figure 1:	Plan of Borings
Figures 2 - 5:	Logs of Borings
Figure 6:	Reference Notes for Boring Logs
Figure 7:	Compaction Test Report
Figure 8:	Bearing Ratio Test Report
Table 1:	Laboratory Test Results



October 21, 2016
AGS Report No. RG16-385

Ms. Ramona Carter, P.E. MPA
Director of Public Works
Powhatan County Public Works
3849 Old Buckingham Road - 1st Floor
Powhatan, Virginia 23139

Reference: Geotechnical Engineering Study
Fire Station No. 5
5631 Anderson Highway
Powhatan County, Virginia

Dear Ms. Carter:

Presented herein are the results of Atlantic Geotechnical Services, Inc. (AGS) geotechnical engineering study for the pavement improvements to the above referenced fire station. Authorization for this study was verbally provided on September 27, 2016.

Purposes and Scope of Work

The purposes of our geotechnical engineering study were to assess subsurface conditions at the site and develop geotechnical recommendations for design and construction of new concrete and flexible pavements to service the fire station. Our work was performed in the following phases:

- Field Exploration Program
- Laboratory Soil Testing
- Engineering Evaluation/Analyses

The results of our study, as well as our recommendations for pavement design and construction, are included in subsequent sections of this report.

Limitations

The analyses and recommendations presented in this report are based on our site observations and the data obtained from four (4) sample borings drilled at this site. This report may not reflect the exact variations of soil conditions across this site, particularly where original grades have been altered by past fill placement for the existing facilities and utilities servicing the facility traverse the new pavements. The nature and extent of variations across the site may not become evident until construction commences. If variations then appear evident, it may be necessary to reevaluate our recommendations after performing on-site observations and tests to establish the engineering significance of the variations.

The scope of our geotechnical engineering study does not include an environmental assessment of the air, soil or water conditions either on or adjacent to this site. No environmental opinions were prepared for or presented in this report.

Project Description

Improvements proposed include concrete apron/pavements fronting the four bays of the existing building, and flexible pavements extending from the southern end of the entrance drive along the eastern side of the building. Traffic loadings and frequencies expected to traverse the pavement sections during their design life are provided in a subsequent section of this report.

Existing Site Conditions

The new pavement areas are currently covered by a variety of gravels appearing to range in size/composition between VDOT No. 3, No. 21A, No. 57, and No. 10 aggregates. Based on the findings of the test borings, the gravel pavements vary between about 1 and 7 inches in thickness. Visually, the existing topography is relatively flat (the surrounding natural topography appears to slope gently downward in an east-northeast direction). Although the region had experienced significant precipitation the weeks

leading up to our field exploration, the ground surface was firm and present no problems to drill rig access about the parcel.

Field Exploration Program

The geotechnical exploration consisted of drilling four soil test borings at the approximate locations shown on the Plan of Borings (Figure 1) in the Appendix of this report. The number of borings and their locations were selected at the start of the field exploration activities by AGS personnel based on the site layout and the configuration of the new pavements. Drilling and sampling activities were performed by Ayers & Ayers, Inc. of Powhatan, Virginia under the supervision of AGS personnel.

The borings were drilled to depths of 7½ feet below existing grades. Soil samples were obtained in the borings using Standard Penetration Test (SPT) procedures (ASTM D 1587) at approximate 2-ft intervals. In addition, bulk samples of the subgrade soils were collected for laboratory testing to develop pavement design parameters. All soil samples obtained were sealed in protective containers and returned to our laboratory for further classification and testing. Logs of stratigraphic conditions encountered in the individual borings are presented on Figures 2 through 5 in the Appendix. Terms and symbols used on the boring logs are defined on Figure 6 in the Appendix.

Water levels in the hollow stem augers and open boreholes were measured upon completion of drilling, at which time the boreholes were backfilled with the soil auger cuttings for safety purposes. Water levels recorded in the hollow-stem augers and open boreholes at the time of our field exploration are reported on the respective boring logs.

Laboratory Soil Testing Program

All soil samples were visually classified by a staff geotechnical engineer. Soil tests performed in our laboratory on recovered SPT soil samples consist of moisture content tests. A bulk sample of the representative subgrade soils was subjected to classification (moisture content, sieve analyses (percent passing No. 200 sieve) and

Atterberg limits), moisture-density relationship (standard Proctor), and California Bearing Ratio (CBR) testing. Summaries of the soil moisture content test results are tabulated on Table 1 in the Appendix, with the results of the classification, Proctor and CBR tests provided both descriptively and graphically on Figures 7 and 8 in the Appendix.

All soil samples will be retained in our laboratory for thirty days following issuance of this report, at which time they will be discarded unless further testing is requested by the client.

Subsurface Conditions

A brief description of stratigraphic and groundwater conditions is presented in the following paragraphs. The boring logs provided in the Appendix of this report should be consulted for specific information concerning soil and groundwater conditions beneath this site.

Stratigraphy. Soils penetrated below the gravel pavement sections in the test borings may be grouped into four generalized strata with similar physical and engineering properties. As mentioned previously, the surficial gravel pavement sections penetrated in the test borings varied from about 1 to 7 inches in thickness.

Stratum I consists of apparent fill materials comprised of highly plastic, dark red, micaceous, clayey silts overlying dark gray, very sandy clays with trace roots extending to a depth of about 2 feet below existing grade in Boring B-3. The very sandy clays, while not considered organic, had a topsoil odor. The fill soils, visually assessed as MH-CH and CL soils under the Unified Soil Classification System (USCS), exhibited a moisture content of 21 percent at the time of our field exploration. A resistance value of 29 blows was recorded in the fills, indicating very stiff consistencies; this is not unexpected, given the repeated traffic loading applied to the fill soils since placement (Boring B-3 was located within the entrance drive to the fire station).

Stratum II consists of reddish-brown, sandy to very sandy, silty to very silty clays, and extends to depths of about 4 feet below existing grades in Borings B-2 and B-3. These clays were visually assessed to be highly plastic and likely classified as CH soils under the USCS. Natural moisture contents of 17 and 22 percent were measured in the clays at the time of our field exploration. Standard penetration resistance values of 22 blows were recorded in the clays, indicating very stiff consistencies.

Stratum III consists of red and brown, micaceous to slightly micaceous, slightly to very sandy silts, and extends to depths varying from about 6 feet to at least the 7½ feet termination depth of the test borings. These silts have a weathered, mottled dark gray, orange and white, granite-look below a depth of 6 feet in Boring B-1. The silts were visually assessed to be highly plastic and likely classified as MH soils under the USCS; the results of the classification tests conducted on the composite subgrade soils of the bulk samples collected from Borings B-1 and B-4 confirm this observation, with the silts exhibiting a liquid limit of 66, a plasticity index of 24, and a sand content of about 44 percent. Natural moisture contents measured in the silts at the time of our field exploration varied between 23 and 53 percent. Standard penetration resistance values recorded in the silts varied from 9 to 20 blows per foot of sampler penetration, indicating stiff to very stiff consistencies.

Stratum IV consists of pale brown and pale red, micaceous, very silty, fine sands and extends to at least the 7½ feet termination depths of Borings B-3 and B-4. Natural moisture contents of 19 percent were measured in these SM soils at the time of our field exploration. Standard penetration resistance values of 13 blows were recorded in these very silty sands, indicating medium dense relative densities.

Ground Water. With the exception of rainwater ponded in the surficial gravels, "dry" conditions were found within the test borings both during and immediately upon completion of drilling.

Pavement Recommendations

Design analyses were performed for the new pavements in accordance with the 1986 AASHTO Design Criteria using the laboratory CBR value measured for the dominant subgrade soils and traffic parameters (vehicle frequency and loading) provided by the client.

Design Input Data. A California Bearing Ratio (CBR) value of 3 percent was measured in the laboratory on a soaked specimen of the dominant subgrade soils remolded at approximately 97 percent of standard Proctor maximum dry density. Any imported fill materials used to adjust grades in the new pavement areas must possess a soaked laboratory CBR value of 3 or greater.

Based on the nature of the facility and information provided by the client, we understand the pavements will be subjected to the following **minimum** traffic loadings and frequencies:

Vehicle	Axle Load, pounds	Frequency
Tanker	Front: 19,500 Rear (dual tandem): 24,000	Once Per Day
Engine	Front: 19,500 Rear (dual tandem): 24,000	Once Per Day
Brush	Front: 4,800 Rear: 9,700	Once Per Day
EMS	Front: 3,600 Rear: 4,200	Once Per Day
Automobiles	Front/Rear: 2,000	Three Per Day

Recommended Pavement Sections. The proposed pavement section load-carrying capacity was compared to the furnished traffic loading and frequencies to help select the recommended pavement sections for the client-selected 25-year design life. Based on our analyses, we recommend the following **minimum** pavement sections:

<u>Heavy-Duty Flexible Pavements</u>	<u>Thickness</u>
SM-12.5mm Asphaltic Concrete	2 inches
BM-25.0mm Bituminous Base	3 inches
21A/21B Aggregate	5 inches

<u>Heavy-Duty Concrete Pavements</u>	<u>Thickness</u>
Portland Cement Concrete	6 inches
21A/21B Aggregate	4 inches

We recommend rigid pavements consist of normal weight concrete with a minimum 28-day compressive strength of 4,000 psi. We also recommend the concrete be reinforced with heavy-gauge wire mesh (6x6 2.9 WWF).

Dowel bars will be required where the new concrete apron abuts the existing concrete slabs in the firehouse. The dowel bar design depends on a number of factors, including dowel bar diameter (typically range between ¾ and 1¼ inches), total length of dowel bar embedment in the concrete, joint width, permissible shear stress in the smooth dowel bars, load transfer capacity of a single dowel bar, concrete slab thickness, compressive strength of the concrete, modulus of subgrade reaction, etc. The Project Civil Engineer should review construction documentation for the existing fire station slabs to calculate the size, spacing and embedment of dowel bars tying the new concrete apron with the existing slabs.

All pavement materials (or their equivalents) and installation procedures should conform to Virginia Department of Transportation (VDOT) criteria presented in the 2007 VDOT Bridge and Roadway Specifications.

Earthwork Considerations

Subgrade Preparation. Due to the variability of the aggregate sizes and the "contaminated" nature of sections of the stone (subgrade soils appeared to have worked their way up through the void spaces in the aggregate), we recommend the existing gravel be stripped from the footprints of the new pavements if current grades are expected to remain unchanged following construction of the new pavements. The subgrade stripping activities should also include any vegetation/topsoils that encroach within the footprints of the new pavements.

Based on the findings of the test borings, we anticipate excavations varying from 3 to 8 inches will be required to strip the new pavement areas; we recommend slightly deeper stripping be specified in the bid documents to account for possible isolated weak conditions in the underlying subgrade soils. The stripped gravels should not be used in new pavement construction. As a side note, the apparent, organic-free fill deposits encountered in the near surface profile of Boring B-3 may remain in place if the very stiff silts/clays pass subgrade proofrolling.

Conversely, if fill grading activities are required to achieve finished grades for the new pavements, and the differential between existing and finished grades is greater than the design pavement section thicknesses (i.e., the pavement will be constructed at or above existing grades), the existing gravel pavements may remain in place if the gravels exhibit satisfactory support during subgrade proofrolling.

Following completion of site stripping activities, the subgrade soils exposed within the new pavement areas should be proofrolled with a fully-loaded, tandem-axle dump truck in the presence of the Geotechnical Engineer to help identify possible weak areas not detected in the test borings. Any weak areas identified during subgrade proofrolling should be undercut to stable soils at the discretion of the Geotechnical Engineer or his representative. Excavations resulting from undercutting activities should be backfilled with structural fill materials selected and placed in accordance with the recommendations presented in a subsequent section of this report.

As an alternative to undercutting, it may be possible to improve the support characteristics of any weak subgrade soils identified during proofrolling by in-place scarification/aeration and recompacting to a minimum of 97 percent of the ASTM D 698 maximum dry density. The success of this site improvement procedure is heavily dependent upon favorable weather conditions prevailing at the time of construction (i.e., success is more likely if earthwork activities take place during the drier summer months).

Structural Fill. If fill grading activities are required to backfill excavations resulting from removal the existing pavement gravels or raise current grades, additional base course aggregate (VDOT No. 21A/21B aggregate) may be used to achieve finished subgrades. Imported soils classified as GC and SC under the USCS may also be used as structural fill materials to achieve finished subgrades on this project. Some CL and ML materials (such as sandy clays and sandy silts) may also be suitable for use as structural fill materials on this site, provided the clays or silts possess a liquid limit less than 45, a plasticity index less than 20, a sand content greater than 25 percent, and a CBR value of 3 or greater. Imported materials proposed for use as structural fill materials on this project should be submitted to AGS for visual assessment and final approval.

All structural fill materials should be placed in maximum 8-inch loose lifts and compacted to a minimum of 97 percent of the maximum dry density as determined by ASTM D 698 (standard Proctor compaction) procedures. The moisture content of the structural fill materials should be established and maintained within plus or minus 2 percent of optimum moisture content until permanently covered. AGS representatives should be present at the site during structural fill placement activities to ensure the fill materials satisfy the selection and compaction criteria presented in this report.

Pavement Drainage. The above pavement design assumes the pavement is well drained. Water allowed to infiltrate the base course stone and saturate the underlying subgrade soils can result in a decreased pavement life. The pavements should be sloped

properly to promote precipitation and vehicle wash-down runoff from the pavement surfaces. Ground surfaces surrounding the pavements should also be sloped to ensure runoff does not pond immediately adjacent to the pavements; subsurface drains should be considered just beyond the downgradient edges of the pavements if site constraints prevent proper sloping of the natural ground. Consideration should also be given to installing strip drains just beyond the pavement edge to intercept and divert rainfall infiltration on landscape areas situated on higher ground elevations adjacent to the pavements.

* * * * *

Atlantic Geotechnical Services appreciates the opportunity to be of service to you on this project. We hope this provides you with the information needed. Please call if you have any questions concerning the findings or recommendations presented in this report, or if we may be of additional assistance during the materials testing-quality control phase of the project.

Respectfully,

ATLANTIC GEOTECHNICAL
SERVICES, INC.



A. Scot Harrell, P.E.
Manager, Geotechnical Engineering

ASH/gn

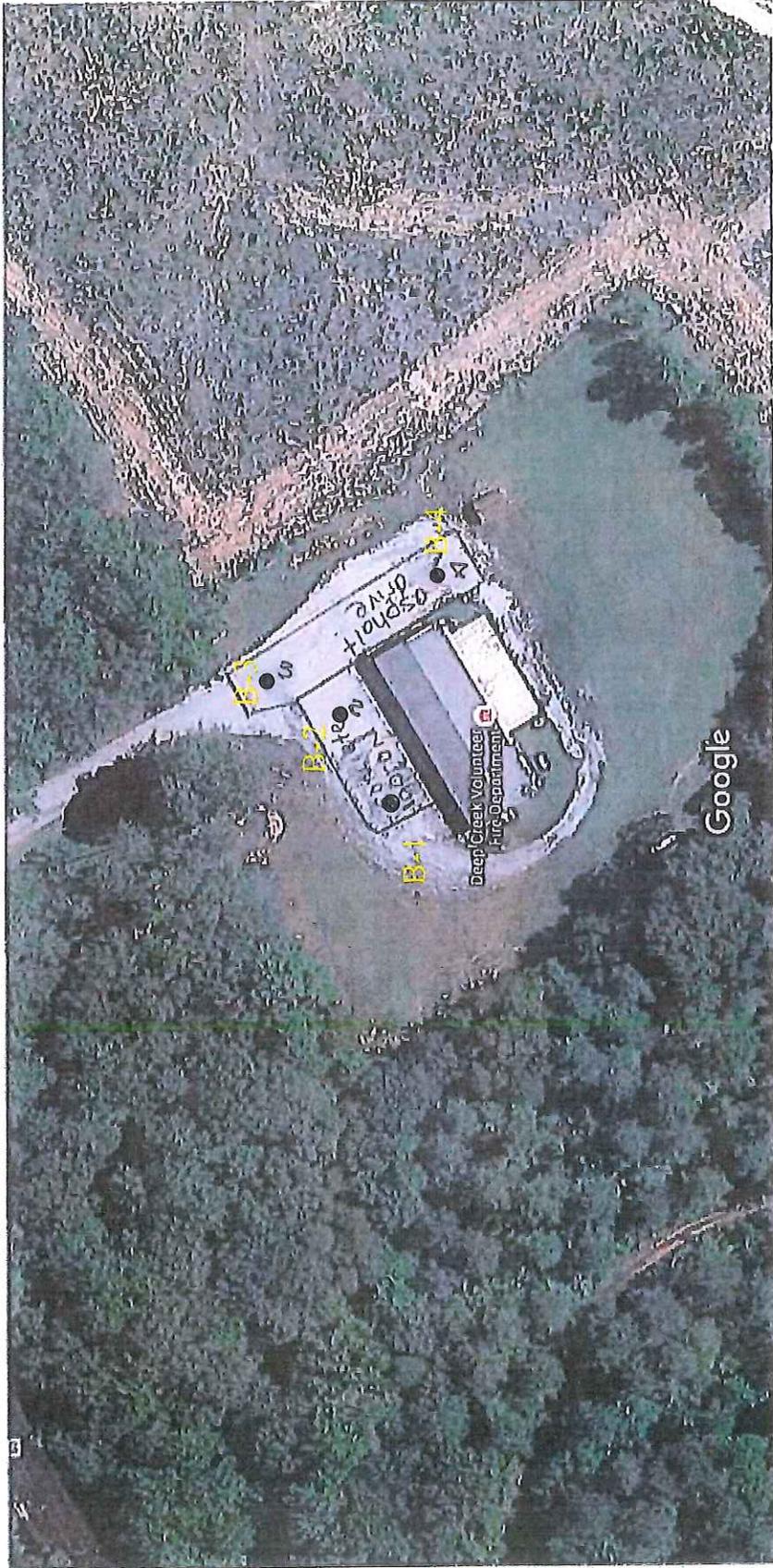
Enclosures

Copies Submitted: Above (4 via mail, 1 via email)

APPENDIX

Figure 1:	Plan of Borings
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Figure 8:	Bearing Ratio Test Report
Table 1:	Laboratory Test Results

Google Maps



Imagery ©2016 Google, Map data ©2016 Google 50 ft



ATLANTIC GEOTECHNICAL SERVICES, INC.
Geotechnical – Material Testing – Environmental

PROJECT:

Fire Station No. 5
5631 Anderson Highway
Powhatan County, Virginia

Project Number:
RG16-385

Scale:
Google Imagery

PLAN OF BORINGS

FIGURE 1

SITE LOCATION 5631 ANDERSON HIGHWAY, POWHATAN COUNTY, VIRGINIA					ELEVATION (FEET)	CALIBRATED PENETROMETER ○ TONS/FT ²				
DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE (IN)	FINES (%)		SURFACE ELEVATION:	1	2	3	4
					WATER CONTENT ● (%)					
					PLASTIC LIMIT + - - - - + LIQUID LIMIT					
					STANDARD PENETRATION ⊗ (BLOWS/FT.)					
					10	20	30	40	50	
0					PROCESSED STONE					
1	1	SS	18		Stiff Red/Brown Micaceous Sandy to Very Sandy SILTS (MH)		⊗	●		
2	2	SS	18		- sandy, red/pale brown/black below 2 ft		⊗	●		
4	3	SS	18		- very sandy below 6 ft		⊗	●		
4	4	SS	18		- weathered, micaceous, dark gray/orange/white below 7 ft		⊗	●		
8										
12										
16										
20										
24										
28										

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES: IN-SITU THE TRANSITION MAY BE GRADUAL

WATER DEPTH IN BOREHOLE	BORING STARTED September 29, 2016	CAVE-IN DEPTH AT
AFTER DRILLING Dry FT.	BORING COMPLETED September 29, 2016	DRILLING METHOD Hollow Stem Auger
AFTER 0.1 HRS: Dry FT.	DRILLER Ayers & Ayers, Inc.	

Figure 2

OWNER POWHATAN COUNTY PUBLIC WORKS	JOB # RG16-385	BORING # B-2	SHEET 1 OF 1	
PROJECT NAME FIRE STATION NO. 5	ARCHITECT-ENGINEER			

SITE LOCATION
5631 ANDERSON HIGHWAY, POWHATAN COUNTY, VIRGINIA

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE (IN)	DESCRIPTION OF MATERIAL	FINES (%)	ELEVATION (FEET)	CALIBRATED PENETROMETER ○ TONS/FT ²							
							1	2	3	4	5			
SURFACE ELEVATION:							WATER CONTENT ● (%)							
							PLASTIC LIMIT + - - - - + LIQUID LIMIT							
							STANDARD PENETRATION ⊗ (BLOWS/FT.)							
							10	20	30	40	50			
0	1	SS	18	PROCESSED STONE Very Stiff Reddish-Brown Sandy Very Silty CLAYS (CH)				●						
	2	SS	18	- slightly micaceous below 2 ft				●						
4	3	SS	18	Very Stiff Red/Pale Brown Slightly Micaceous Sandy SILTS (MH)				⊗		●				
	4	SS	18	- stiff, slightly sandy, dark red below 6 ft				⊗					●	
8														
12														
16														
20														
24														
28														

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES: IN-SITU THE TRANSITION MAY BE GRADUAL

WATER DEPTH IN BOREHOLE	BORING STARTED September 29, 2016	CAVE-IN DEPTH AT
AFTER DRILLING Dry FT.	BORING COMPLETED September 29, 2016	DRILLING METHOD Hollow Stem Auger
AFTER 0.1 HRS: Dry FT.	DRILLER Ayers & Ayers, Inc.	

Figure 3

OWNER POWHATAN COUNTY PUBLIC WORKS	JOB # RG16-385	BORING # B-3	SHEET 1 OF 1	
PROJECT NAME FIRE STATION NO. 5	ARCHITECT-ENGINEER			

SITE LOCATION 5631 ANDERSON HIGHWAY, POWHATAN COUNTY, VIRGINIA					ELEVATION (FEET)	CALIBRATED PENETROMETER ○ TONS/FT ²				
DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE (IN)	DESCRIPTION OF MATERIAL		FINES (%)	1	2	3	4
SURFACE ELEVATION:						WATER CONTENT ● (%)				
						PLASTIC LIMIT + - - - - + LIQUID LIMIT				
						STANDARD PENETRATION ⊗ (BLOWS/FT.)				
						10	20	30	40	50
0	1	SS	18	FILL: 0-0.1 ft: "Dirty" PROCESSED STONE 0.1-2 ft: Very Stiff Dark Red Micaceous Clayey SILTS (MH-CH) over Dark Gray Very Sandy CLAYS (CL) with trace roots (topsoil smell)			●	⊗		
2	2	SS	18	Very Stiff Reddish-Brown Very Sandy Very Silty CLAYS (CH)			●	⊗		
4	3	SS	18		Very Stiff Brownish-Red Micaceous Sandy SILTS (MH)			⊗	●	
4	4	SS	18	Medium Dense Pale Brown/Pale Red Micaceous Very Silty Fine SANDS (SM)		⊗	●			
8										
12										
16										
20										
24										
28										

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES: IN-SITU THE TRANSITION MAY BE GRADUAL		
WATER DEPTH IN BOREHOLE	BORING STARTED September 29, 2016	CAVE-IN DEPTH AT
AFTER DRILLING Dry FT.	BORING COMPLETED September 29, 2016	DRILLING METHOD Hollow Stem Auger
AFTER 0.1 HRS: Dry FT.	DRILLER Ayers & Ayers, Inc.	

Figure 4

OWNER POWHATAN COUNTY PUBLIC WORKS	JOB # RG16-385	BORING # B-4	SHEET 1 OF 1	
PROJECT NAME FIRE STATION NO. 5		ARCHITECT-ENGINEER		

SITE LOCATION
5631 ANDERSON HIGHWAY, POWHATAN COUNTY, VIRGINIA

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE (IN)	DESCRIPTION OF MATERIAL	FINES (%)	ELEVATION (FEET)	CALIBRATED PENETROMETER ○ TONS/FT ²							
							1	2	3	4	5			
							WATER CONTENT ● (%)							
							PLASTIC LIMIT + - - - - + LIQUID LIMIT							
							STANDARD PENETRATION ⊗ (BLOWS/FT.)							
							10	20	30	40	50			
0	1	SS	18	PROCESSED STONE Stiff Red Micaceous Sandy SILTS (MH)				⊗		●				
	2	SS	18	- red/pale brown below 2 ft - very sandy, red/brown below 4 ft				⊗		●				
4	3	SS	18					⊗		●				
	4	SS	18	Medium Dense Pale Brown/Red Micaceous Very Silty Fine SANDS (SM)				⊗		●				
8														
12														
16														
20														
24														
28														

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES: IN-SITU THE TRANSITION MAY BE GRADUAL

WATER DEPTH IN BOREHOLE	BORING STARTED September 29, 2016	CAVE-IN DEPTH AT
AFTER DRILLING Dry FT.	BORING COMPLETED September 29, 2016	DRILLING METHOD Hollow Stem Auger
AFTER 0.1 HRS: Dry FT.	DRILLER Ayers & Ayers, Inc.	

Figure 5

REFERENCE NOTES FOR BORING LOGS

Drilling and Sampling Symbols		
SS - Split Spoon Sampler	DC - Dutch Cone Penetrometer	DCP - Dynamic Cone Penetrometer
ST - Shelby Tube Sampler	RB - Rock Bit Drilling	HS - Hollow Stem Auger
RC - Rock Core; NX, BX, AX	BS - Bulk Sample of Cuttings	WS - Wash Sample
PM - Pressuremeter	PA - Power Auger (no sample)	

Correlation of Typical Sampler Penetration Resistances to Soil Properties				
Relative Density – Sands, Silts		Consistency of Cohesive Soils		
SPT-N	Relative Density	Unconfined Compressive Strength, tsf	Consistency	SPT-N
0 – 4	Very Loose	Under 0.25	Very Soft	0 - 2
5 – 9	Loose	0.25 - 0.49	Soft	3 - 4
10 – 29	Medium Dense	0.50 - 0.99	Firm	5 - 8
30 – 49	Dense	1.00 - 1.99	Stiff	9 - 16
50 – 80	Very Dense	2.00 - 3.99	Very Stiff	17 - 32
		4.00 - 8.00	Hard	33+

SPT (in Blows/Ft) refers to the blows required of a 140-lb hammer, falling 30 inches on a 2-inch O.D. split-spoon sampler (as specified in ASTM D 1586) to drive the required sampler the last 12 inches. The blow count is commonly referred to as the N value; denoted by ⊗ on the boring logs.

Unified Soil Classification Abbreviations		
GP - Poorly Graded Gravels	SW - Well Graded Sands	CL - Low Plasticity Clays
GW - Well Graded Gravels	SM - Silty Sands	CH - High Plasticity Clays
GM - Silty Gravels	SC - Clayey Sands	OL - Low Plasticity Organic Soils
GC - Clayey Gravels	ML - Low Plasticity Silts	OH - High Plasticity Organic Soils
SP - Poorly Graded Sands	MH - High Plasticity Silts	CL/ML - Dual Classification (Typical)

The recorded water levels are those water levels actually measured in the borehole at the times indicated. The measurements are relatively reliable when augering, without adding fluids, in a coarser granular soil. In clays and silts the accurate determination of water levels may require several days for the water level to stabilize. In such cases additional methods of measurement are generally needed.

Figure 6

COMPACTION TEST REPORT

Project No.: RG16-385

Date: 10-15-2016

Project: Fire Station No.5

Client: Powhatan County Public Works

Source of Sample: B-1/B-4 Depth: 0'-6'

Sample Number: Bulk Composite

Remarks:

MATERIAL DESCRIPTION

Description: Reddish-Brown Micaceous Sandy Elastic SILT

Classifications -

USCS: MH

AASHTO: A-7-5(13)

Nat. Moist. = 22.2 %

Sp.G. =

Liquid Limit = 66

Plasticity Index = 24

% < No.200 = 56.2 %

TEST RESULTS

Maximum dry density = 100.1 pcf

Optimum moisture = 20.1 %

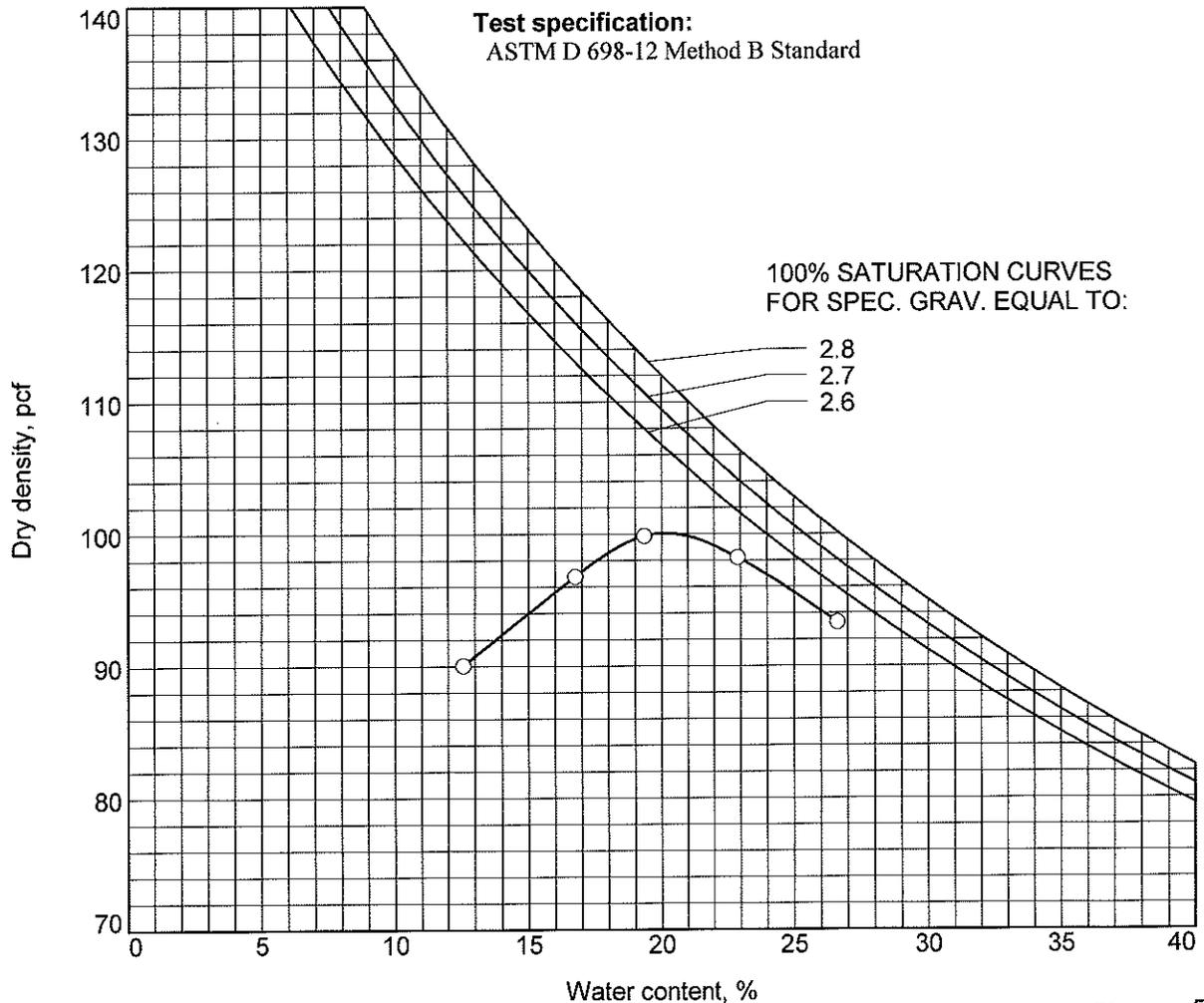


Figure 7

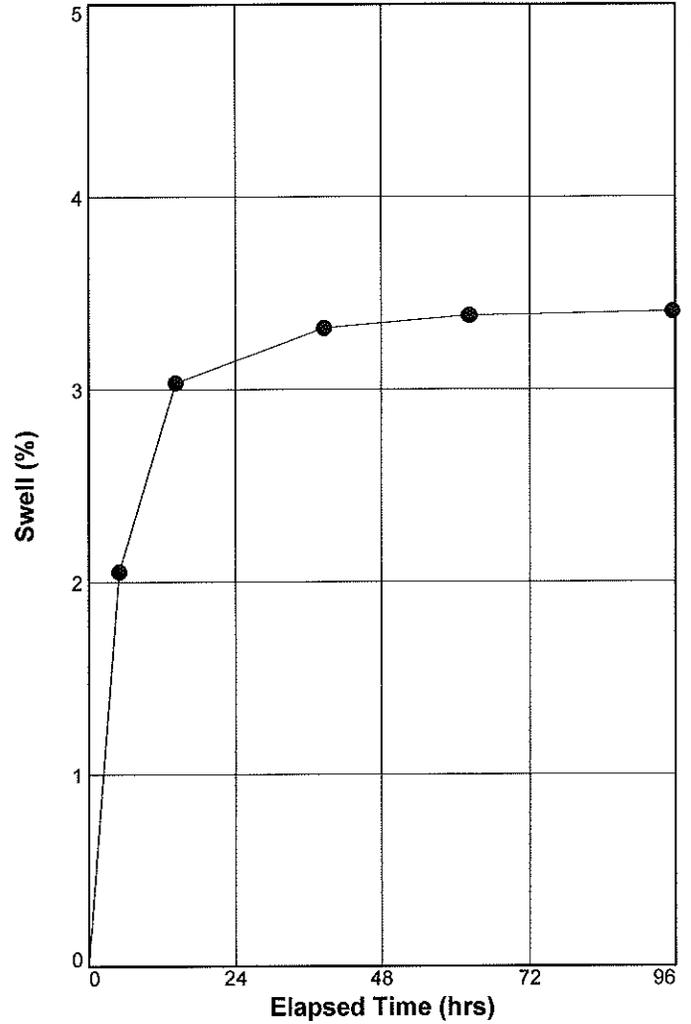
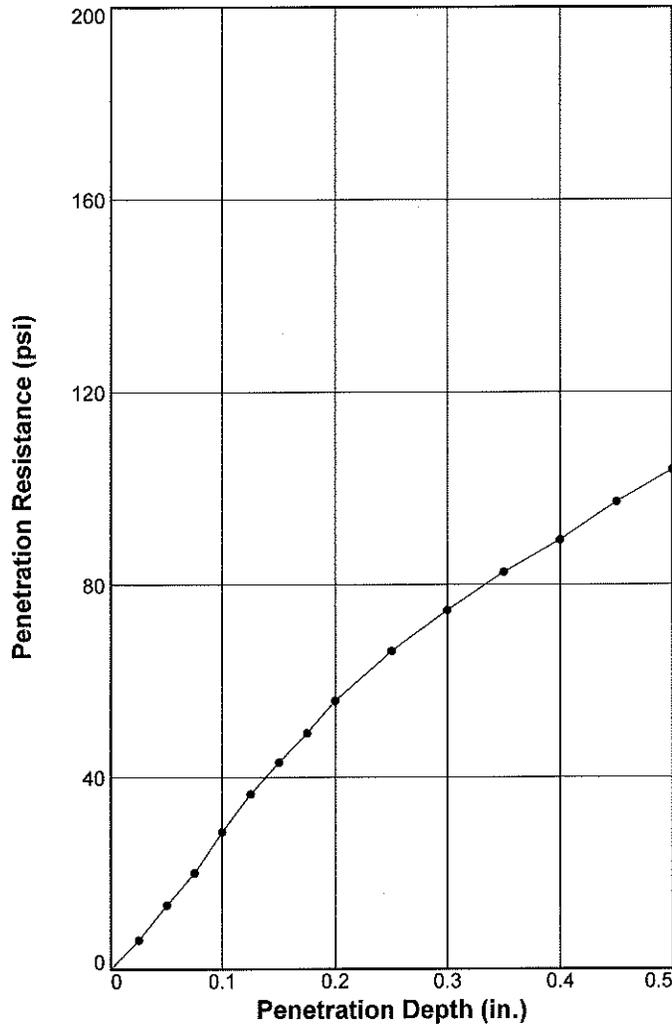
Atlantic Geotechnical Services, Inc.

Tested By: FRB

Checked By: ASH

BEARING RATIO TEST REPORT

VTM-008 (2005)



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ●	100.4	100.3	19.8	97.1	97	25.5	3.0	3.8	0.004	10	3.4
2 ▲											
3 ■											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
	Reddish-Brown Micaceous Sandy Elastic SILT	MH	100.1	20.1	66

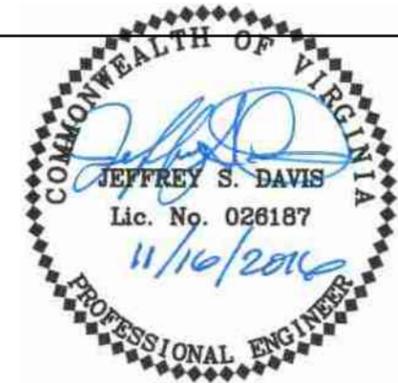
Project No: RG16-385
Project: Fire Station No.5
Source of Sample: B-1/B-4 **Depth:** 0'-6"
Sample Number: Bulk Composite
Date: 10-20-2016

Test Description/Remarks:
 ASTM D1883-14

TABLE 1 - LABORATORY TEST RESULTS
Fire Station No. 5
5631 Anderson Highway
Powhatan County, Virginia
(AGS Report No. RG16-385)

<i>Boring No.</i>	<i>Depth, ft</i>	<i>Moisture Content, %</i>	<i>%Passing No. 200 Sieve</i>	<i>Atterberg Limits</i>		
				<i>Liquid</i>	<i>Plastic</i>	<i>Plasticity Index</i>
B-1	1.0	25				
	3.0	23				
	5.0	26				
	7.0	31				
B-2	1.0	18				
	3.0	22				
	5.0	33				
	7.0	53				
B-3	1.0	21				
	3.0	17				
	5.0	26				
	7.0	19				
B-4	1.0	29				
	3.0	27				
	5.0	23				
	7.0	19				

GENERAL STRUCTURAL NOTES



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1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2012 VIRGINIA CONSTRUCTION CODE, PART 1 OF THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE (VUSBC), EFFECTIVE JULY 14, 2014.

INFORMATION REGARDING STRUCTURAL MEMBERS INDICATED TO BE EXISTING WAS OBTAINED DURING LIMITED FIELD OBSERVATIONS AND FROM LIMITED AVAILABLE EXISTING DRAWINGS. ACTUAL CONDITIONS MAY DIFFER FROM THAT WHICH IS INDICATED. IF THE CONTRACTOR UNCOVERS EXISTING CONDITIONS THAT DIFFER FROM THAT WHICH IS INDICATED ON PLAN, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD OF THE DISCREPANCY IN ORDER THAT THE CONDITION MAY BE RESOLVED.

2. SPECIAL INSPECTIONS ARE REQUIRED BY THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE (CHAPTER 17). REFER TO SECTION 014000 OF THE SPECIFICATIONS FOR THE GENERAL INSPECTION REQUIREMENTS. THE FOLLOWING IS A LIST OF ITEMS THAT REQUIRE SPECIAL INSPECTION. REFER TO THE REFERENCED SPECIFICATION SECTION FOR THE SPECIFIC REQUIREMENTS FOR EACH ITEM. THE INDEPENDENT INSPECTION AGENCY, ENGAGED BY THE OWNER, SHALL REVIEW THE TEST PROCEDURES AND INSPECTIONS WITH THE STRUCTURAL ENGINEER OF RECORD, THE GENERAL CONTRACTOR, AND THE OWNER PRIOR TO CONDUCTING TESTS AND INSPECTIONS.

- | | |
|---------------------------|--------------------|
| A. EARTHWORK | COORD WITH GEOTECH |
| B. CAST-IN-PLACE CONCRETE | SECTION 033000 |
| C. POST-INSTALLED ANCHORS | (SEE GENERAL NOTE) |

3. DESIGN LOADS AND PARAMETERS

A. BUILDING RISK CATEGORY (TABLE 1604.5)

CATEGORY IV

B. LIVE LOADS

FLOOR (UNIFORM)	250 PSF
FLOOR (MAX VEHICLE)	67,500 LBS

4. ALL CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301-10 "SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI 318-11 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".

$f'_c=4000$ PSI
ASTM A615 GRADE 60 (TYPICAL REINFORCING STEEL)
ASTM A1064 (PLAIN WELDED WIRE FABRIC - USE FLAT SHEETS ONLY)

ALL EXTERIOR EXPOSED CONCRETE SHALL BE FURNISHED WITH AN AIR-ENTRAINING ADMIXTURE PROVIDING AN AIR-CONTENT OF 6% (+/- 1 1/2%) AT POINT OF PLACEMENT. PROVIDE 3 DAYS MIN MOIST CURING OF ALL SLABS.

5. ALL POST-INSTALLED ANCHORS (IN CONCRETE OR CMU) ARE TO BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS (INCLUDING BUT NOT LIMITED TO DRILL BIT SIZE, PROPER CLEANING OF HOLES, INSTALLATION TORQUE, AND TEMPERATURE CONSTRAINTS).

WHEN A SPECIFIC PRODUCT AND MANUFACTURER IS REFERENCED IN THE CONTRACT DOCUMENTS, THAT SPECIFIC PRODUCT SHALL BE USED UNLESS AN ALTERNATE PRODUCT IS APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR SHALL PROVIDE LRFD OR CODE COMPLIANT CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THIER HAVING AN ICC - ES REPORT SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE.

THE ANCHOR MANUFACTURER'S REPRESENTATIVE SHALL BE PRESENT DURING THE INITIAL INSTALLATION OF EACH TYPE OF ANCHOR TO REVIEW AND APPROVE OF THE CONTRACTOR'S INSTALLATION PROCEDURES. THE OWNER'S TESTING AGENCY SHALL ALSO OBSERVE THE INITIAL INSTALLATION OF EACH ANCHOR TYPE, AND PROVIDE THE INSPECTION OF ANCHORS DURING INSTALLATION TO VERIFY CONFORMANCE WITH THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS. SUBMIT REPORT FROM MANUFACTURER'S REPRESENTATIVE FOR DMWPV REVIEW. INSTALLATION OF ALL HORIZONTAL OR UPWARDLY INCLINED ADHESIVE ANCHORS SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY ACI/CRSI ADHESIVE ANCHOR INSTALLER CERIFICATION PROGRAM OR APPROVED EQUIVALENT. SUBMIT CREDENTIALS OF CERTIFIED INSTALLERS. CONTINUOUS INSPECTION IS REQUIRED FOR ALL HORIZONTAL OR UPWARDLY INCLINED ADHESIVE ANCHORS. REMOVE AND REPLACE MISPLACED OR MALFUNCTIONING ANCHORS. FILL EMPTY ANCHOR HOLES AND PATCH FAILED ANCHOR LOCATIONS WITH HIGH-STRENGTH, NONMETALLIC GROUT.

CHEMICAL ADHESIVE ANCHORING SYSTEMS USED IN CONCRETE GENERICALLY REFERRED TO AS "ADHESIVE ANCHORS" SHALL BE:

HIT-RE 500-V3 BY HILTI (WITH STD ROD AND HOLE CLEANING)

THREADED ROD ANCHORS USED WITH THESE SYSTEMS SHALL BE PROVIDED BY THE ADHESIVE MANUFACTURER AND HAVE A MINIMUM STEEL STRENGTH OF $F_y = 36$ KSI UNLESS NOTED OTHERWISE. REINFORCING STEEL USED WITH THESE SYSTEMS SHALL COMPLY WITH ASTM A615 GRADE 60. ANCHORS SHALL BE INSTALLED IN DRY CONCRETE A MINIMUM OF 21 DAYS OLD. USE ONLY A CARBIDE DRILL BIT (NO CORE DRILLING). HOLE CLEANING SHALL BE ACCOMPLISHED FOLLOWING MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION USING AIR COMPRESSOR WITH NOZZLE AND WIRE BRUSH PROVIDED BY ADHESIVE MANUFACTURER.

ANY PRODUCTS SUBMITTED AS A REQUEST FOR SUBSTITUTION SHALL BE COMPLIANT WITH ACI 318-11 APPENDIX D AND APPROVED FOR USE IN CRACKED CONCRETE.

GENERAL STRUCTURAL NOTES

SHEET TITLE:

POWHATAN CO COMPANY #5 PAVING AND CONCRETE REPAIR

5631 ANDERSON HIGHWAY
POWHATAN, VIRGINIA 23139

DESIGNED JSD

DATE: 11/16/16

DMWPV JOB 1609-77

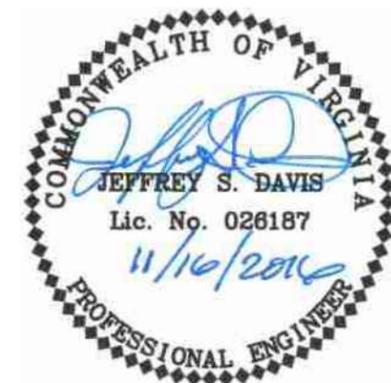
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SECTION 033000 – CAST-IN-PLACE CONCRETE

QUALITY ASSURANCE

- A. **MANUFACTURER QUALIFICATIONS:** A FIRM EXPERIENCED IN MANUFACTURING READY-MIXED CONCRETE PRODUCTS AND THAT COMPLIES WITH ASTM C 94/C 94M REQUIREMENTS FOR PRODUCTION FACILITIES AND EQUIPMENT.
 - 1. MANUFACTURER CERTIFIED ACCORDING TO NRMCA'S "CERTIFICATION OF READY MIXED CONCRETE PRODUCTION FACILITIES."
- B. **TESTING AGENCY QUALIFICATIONS:** AN INDEPENDENT AGENCY, ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, QUALIFIED ACCORDING TO ASTM C 1077 AND ASTM E 329 FOR TESTING INDICATED.
 - 1. PERSONNEL CONDUCTING FIELD TESTS SHALL BE QUALIFIED AS ACI CONCRETE FIELD TESTING TECHNICIAN, GRADE 1, ACCORDING TO ACI CP-1 OR AN EQUIVALENT CERTIFICATION PROGRAM.
 - 2. PERSONNEL PERFORMING LABORATORY TESTS SHALL BE ACI-CERTIFIED CONCRETE STRENGTH TESTING TECHNICIAN AND CONCRETE LABORATORY TESTING TECHNICIAN, GRADE I. TESTING AGENCY LABORATORY SUPERVISOR SHALL BE AN ACI-CERTIFIED CONCRETE LABORATORY TESTING TECHNICIAN, GRADE II.
- C. **SOURCE LIMITATIONS:** OBTAIN EACH TYPE OR CLASS OF CEMENTITIOUS MATERIAL OF THE SAME BRAND FROM THE SAME MANUFACTURER'S PLANT, OBTAIN AGGREGATE FROM SINGLE SOURCE, AND OBTAIN ADMIXTURES THROUGH SINGLE SOURCE FROM A SINGLE MANUFACTURER.
- D. **WELDING QUALIFICATIONS:** QUALIFY PROCEDURES AND PERSONNEL ACCORDING TO AWS D1.4/D 1.4M.
- E. **ACI PUBLICATIONS:** COMPLY WITH THE FOLLOWING UNLESS MODIFIED BY REQUIREMENTS IN THE CONTRACT DOCUMENTS.
 - 1. ACI 301
 - 2. ACI 117
- F. **CONCRETE TESTING SERVICES:** ENGAGE A QUALIFIED INDEPENDENT TESTING AGENCY TO PERFORM MATERIAL EVALUATION TESTS AND TO DESIGN CONCRETE MIXTURES.
- G. **PREINSTALLATION CONFERENCE:** CONDUCT CONFERENCE AT PROJECT SITE.
 - 1. BEFORE SUBMITTING DESIGN MIXTURES, REVIEW CONCRETE DESIGN MIXTURES AND EXAMINE QUALITY OF CONCRETE MATERIALS. REQUIRE REPRESENTATIVES OF EACH ENTITY DIRECTLY CONCRETE WITH CAST-IN-PLACE CONCRETE TO ATTEND, INCLUDING THE FOLLOWING:
 - a. CONTRACTOR'S SUPERINTENDENT
 - b. INDEPENDENT TESTING AGENCY RESPONSIBLE FOR CONCRETE DESIGN MIXTURES.
 - c. READY-MIX CONCRETE MANUFACTURER.
 - d. CONCRETE SUBCONTRACTOR.
 - 2. REVIEW SPECIAL INSPECTION AND TESTING AND INSPECTING AGENCY PROCEDURES FOR FIELD QUALITY CONTROL, CONCRETE FINISHES AND FINISHING, COLD- AND HOT-WEATHER CONCRETING PROCEDURES, CURING PROCEDURES, CONSTRUCTION CONTRACTION AND ISOLATION JOINTS, BOND-BREAK MATERIALS, FORMS AND FORM REMOVAL LIMITATIONS, SHORING AND RESHORING PROCEDURES, VAPOR-RETARDER INSTALLATION, ANCHOR RODS AND ANCHORAGE DEVICE INSTALLATION TOLERANCES, STEEL REINFORCEMENT INSTALLATION, FLOOR AND SLAB FLATNESS AND LEVELNESS MEASUREMENT, CONCRETE REPAIR PROCEDURES, AND CONCRETE PROTECTION.



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SHEET TITLE:
CONCRETE QUALITY ASSURANCE NOTES

POWHATAN CO COMPANY #5 PAVING AND CONCRETE REPAIR

5631 ANDERSON HIGHWAY
POWHATAN, VIRGINIA 23139

DESIGNED JSD

DATE: 11/16/16

DMWPV JOB 1609-77

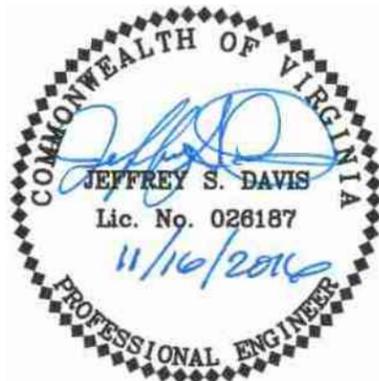
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SECTION 033000 – CAST-IN-PLACE CONCRETE

FIELD QUALITY CONTROL

- A. TESTING AND SPECIAL INSPECTIONS: OWNER WILL ENGAGE A SPECIAL INSPECTOR AND QUALIFIED TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS AND PREPARE TEST REPORTS.
- B. INSPECTIONS:
1. STEEL REINFORCEMENT PLACEMENT.
 2. STEEL REINFORCEMENT WELDING.
 3. HEADED BOLTS AND STUDS.
 4. VERIFICATION OF USE OF REQUIRED DESIGN MIXTURE.
 5. CONCRETE PLACEMENT, INCLUDING CONVEYING AND DEPOSITING.
 6. CURING PROCEDURES AND MAINTENANCE OF CURING TEMPERATURE.
 7. POST-INSTALLED ANCHOR INSTALLATION.
- C. CONCRETE TESTS: TESTING OF COMPOSITE SAMPLES OF FRESH CONCRETE OBTAINED ACCORDING TO ASTM C 172/C 172M, AS MODIFIED IN THESE SPECIFICATIONS, SHALL BE PERFORMED ACCORDING TO THE FOLLOWING REQUIREMENTS:
1. TESTING FREQUENCY: OBTAIN ONE COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE EXCEEDING 5 CU. YD., BUT LESS THAN 25 CU. YD., PLUS ONE SET FOR EACH ADDITIONAL 50 CU. YD. OR FRACTION THEREOF.
 2. SLUMP: ASTM C 143/C 143M; ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
 3. AIR CONTENT: ASTM C 231/C 231M, PRESSURE METHOD, FOR NORMAL-WEIGHT CONCRETE; ASTM C 173/C 173M, VOLUMETRIC METHOD, FOR STRUCTURAL LIGHTWEIGHT CONCRETE; ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE.
 4. CONCRETE TEMPERATURE: ASTM C 1064/C 1064M; ONE TEST HOURLY WHEN AIR TEMPERATURE IS 40 DEG F AND BELOW OR 80 DEG F AND ABOVE, AND ONE TEST FOR EACH COMPOSITE SAMPLE.
 5. UNIT WEIGHT: ASTM C 567/C 567M, FRESH UNIT WEIGHT OF STRUCTURAL LIGHTWEIGHT CONCRETE; ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE.
 6. COMPRESSION TEST SPECIMENS: ASTM C 31/C 31M. SAMPLES SHALL BE TAKEN FROM CONCRETE PUMP DISCHARGE HOSE WHEN CONCRETE IS TRANSPORTED BY CONCRETE TRUCK.
 - a. CAST AND LABORATORY CURE ONE SET OF SIX 4 X 8 CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE.
 7. COMPRESSIVE-STRENGTH TESTS: ASTM C 39/C 39M
 - a. 4 X 8 SPECIMENS: TEST TWO LABORATORY-CURED SPECIMENS AT 7 DAYS AND ONE SET OF THREE SPECIMENS AT 28 DAYS. TEST ONE SPECIMEN AT 56 DAYS IF REQUIRED.
 - b. A COMPRESSIVE STRENGTH TEST SHALL BE THE AVERAGE COMPRESSIVE STRENGTH FROM A SET OF SPECIMENS OBTAINED FROM SAME COMPOSITE SAMPLE AND TESTED AT AGE INDICATED
 8. WHEN STRENGTH OF FIELD-CURED CYLINDERS IS LESS THAN 85 PERCENT OF COMPANION LABORATORY-CURED CYLINDERS, CONTRACTOR SHALL EVALUATE OPERATIONS AND PROVIDE CORRECTIVE PROCEDURES FOR PROTECTING AND CURING IN-PLACE CONCRETE.
 9. STRENGTH OF EACH CONCRETE MIXTURE WILL BE SATISFACTORY IF EVERY AVERAGE OF ANY THREE CONSECUTIVE COMPRESSIVE-STRENGTH TESTS EQUALS OR EXCEEDS SPECIFIED COMPRESSIVE STRENGTH AND NO COMPRESSIVE-STRENGTH TEST VALUE FALLS BELOW SPECIFIED COMPRESSIVE STRENGTH BY MORE THAN 500 PSI.
 10. TEST RESULTS SHALL BE REPORTED IN WRITING TO ARCHITECT, CONCRETE MANUFACTURER, AND CONTRACTOR WITHIN 48 HOURS OF TESTING. REPORTS OF COMPRESSIVE-STRENGTH TESTS SHALL CONTAIN PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING AND INSPECTING AGENCY, LOCATION OF CONCRETE BATCH IN WORK, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIXTURE PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7- AND 28-DAY TESTS.
 11. NONDESTRUCTIVE TESTING: IMPACT HAMMER, SONOSCOPE, OR OTHER NONDESTRUCTIVE DEVICE MAY BE PERMITTED BY ARCHITECT BUT WILL NOT BE USED AS SOLE BASIS FOR APPROVAL OR REJECTION OF CONCRETE.
 12. ADDITIONAL TESTS: TESTING AND INSPECTING AGENCY SHALL MAKE ADDITIONAL TESTS OF CONCRETE WHEN TEST RESULTS INDICATE THAT SLUMP, AIR ENTRAINMENT, COMPRESSIVE STRENGTHS, OR OTHER REQUIREMENTS HAVE NOT BEEN MET, AS DIRECTED BY ARCHITECT. TESTING AND INSPECTING AGENCY MAY CONDUCT TESTS TO DETERMINE ADEQUACY OF CONCRETE BY CORED CYLINDERS COMPLYING WITH ASTM C 42/C 42M OR BY OTHER METHODS AS DIRECTED BY ARCHITECT.
 13. ADDITIONAL TESTING AND INSPECTING, AT CONTRACTOR'S EXPENSE, WILL BE PERFORMED TO DETERMINE COMPLIANCE OF REPLACED OR ADDITIONAL WORK WITH SPECIFIED REQUIREMENTS.
 14. CORRECT DEFICIENCIES IN THE WORK THAT TEST REPORTS AND INSPECTIONS INDICATE DO NOT COMPLY WITH THE CONTRACT DOCUMENTS.



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SHEET TITLE:
CONCRETE FIELD QUALITY CONTROL NOTES

POWHATAN CO COMPANY #5 PAVING AND CONCRETE REPAIR

5631 ANDERSON HIGHWAY
POWHATAN, VIRGINIA 23139

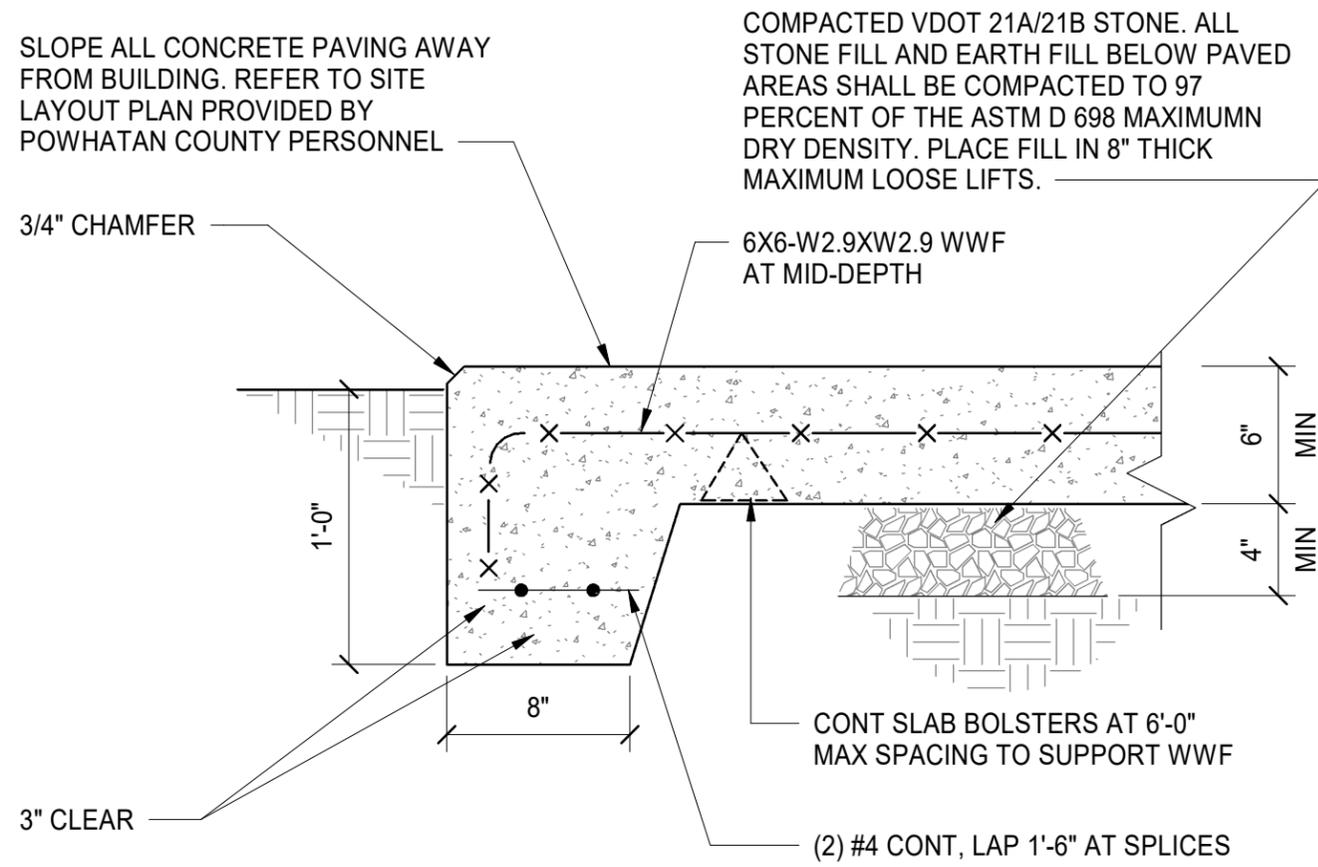
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DMWPV JOB 1609-77

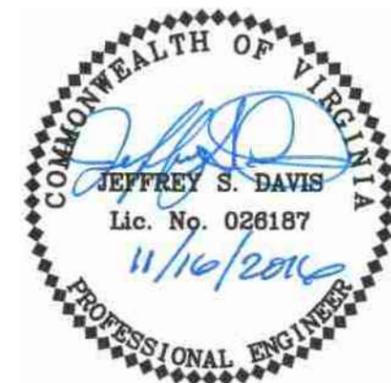
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TYPICAL SLAB-ON-GRADE CONSTRUCTION AND EDGE DETAIL

1 1/2" = 1'-0"



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SHEET TITLE:
**TYPICAL SLAB-ON-GRADE CONSTRUCTION AND
EDGE DETAIL**

POWHATAN CO COMPANY #5 PAVING AND CONCRETE REPAIR
5631 ANDERSON HIGHWAY
POWHATAN, VIRGINIA 23139

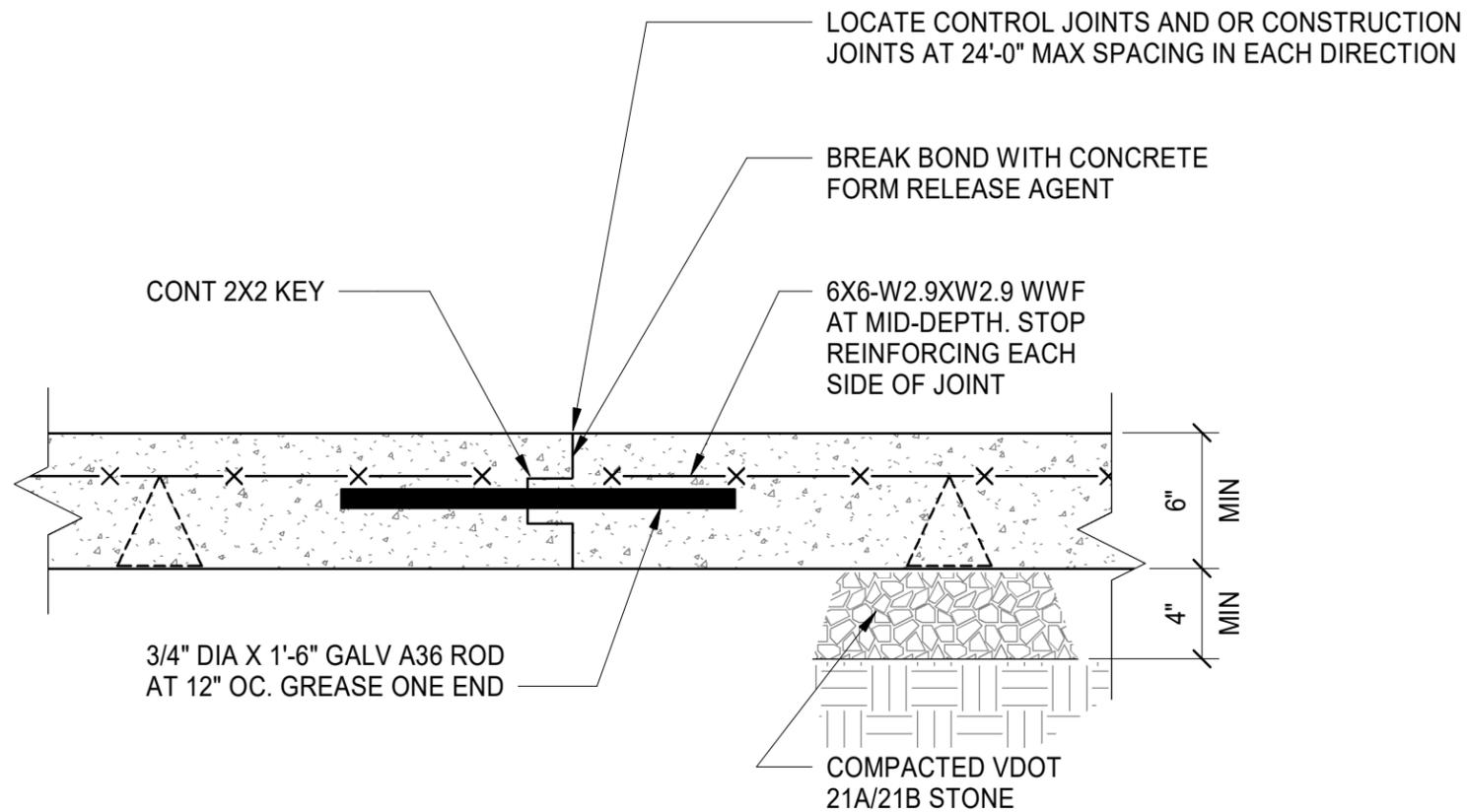
DESIGNED Designer

DATE: 11/16/16

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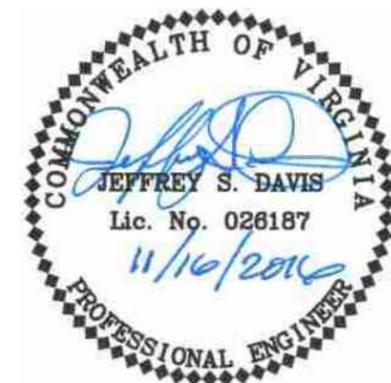
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TYPICAL SLAB-ON-GRADE CONSTRUCTION JOINT DETAIL

1 1/2" = 1'-0"



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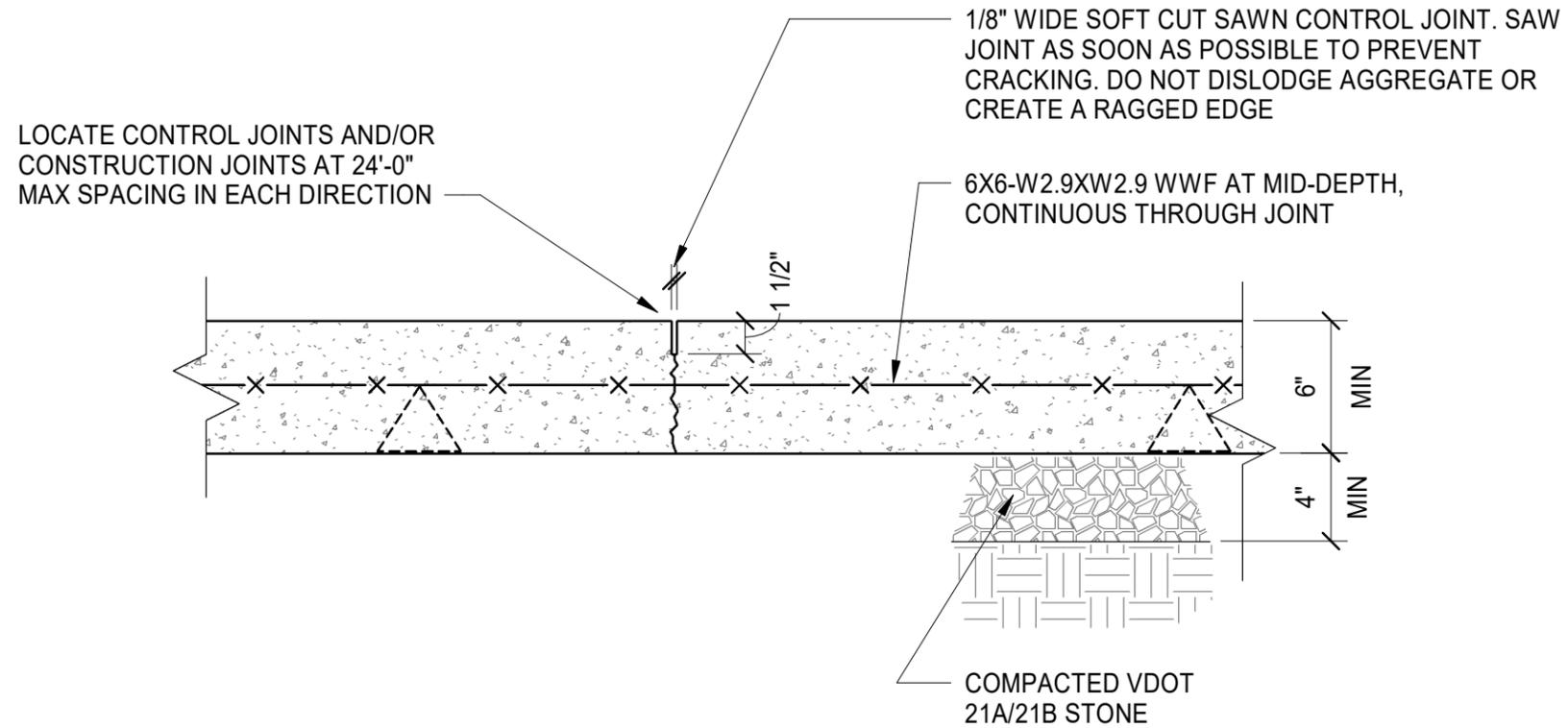
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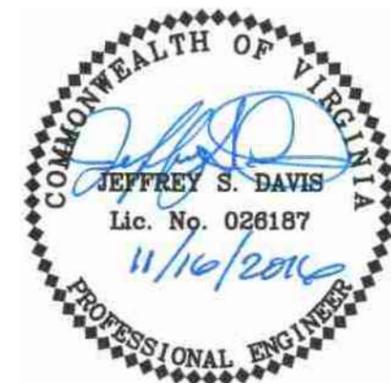
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TYPICAL SAWN SLAB-ON-GRADE CONTROL JOINT

1 1/2" = 1'-0"



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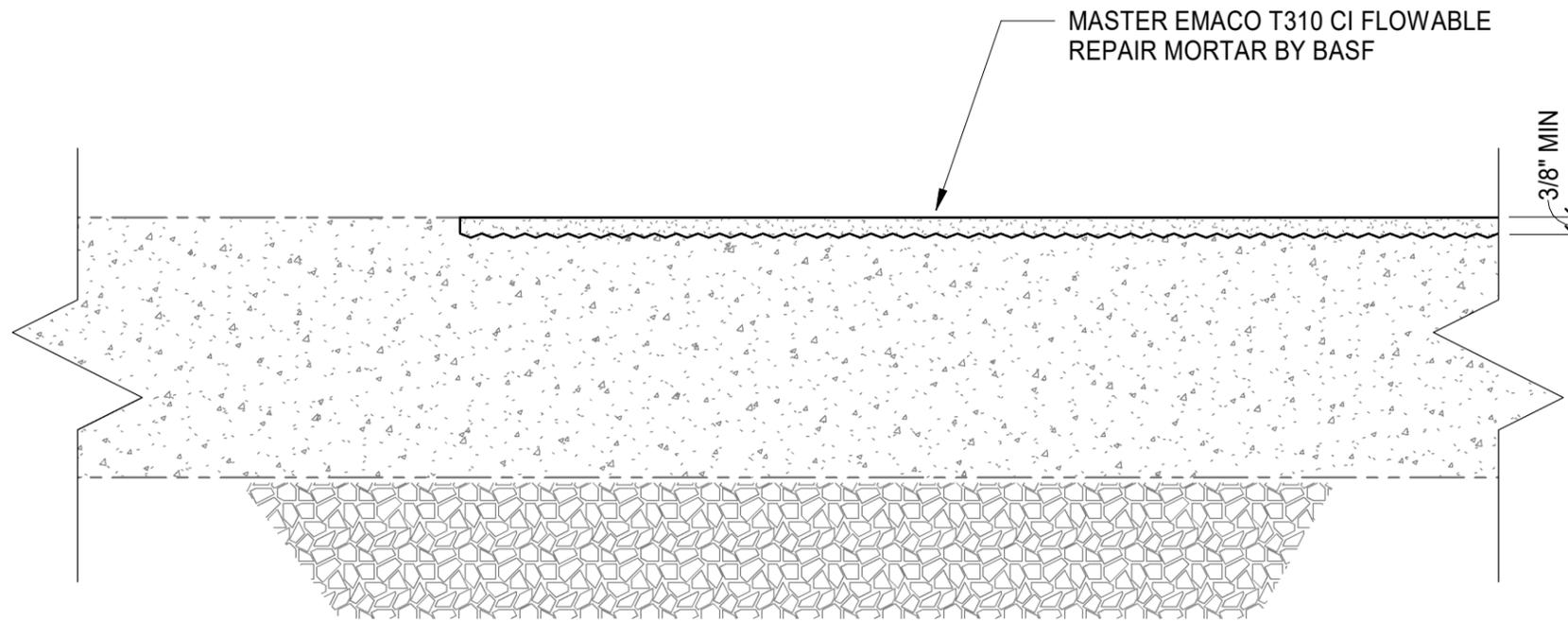
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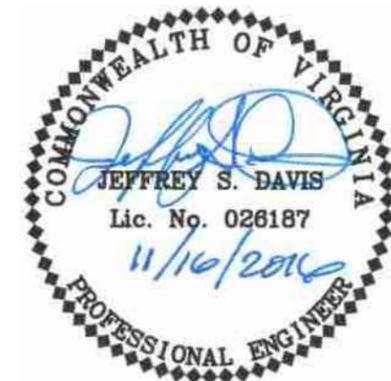


PROCEDURE

1. DETERMINE EXTENT OF DAMAGED CONCRETE AROUND DELAMINATIONS BY SOUNDING METHODS
2. SAWCUT 1/2" DEEP BEYOND EXTENT OF UNSOUND CONCRETE BY 6". CREATE RECTANGULAR REPAIR AREA
3. REMOVE CONCRETE TO MINIMUM DEPTH OF 3/8" AND CREATE SURFACE ROUGHENED TO 1/4" AMPLITUDE
4. CLEAN SURFACE TO BE FREE OF LAITANCE
5. WET SURFACE TO SATURATED SURFACE DRY CONDITION
6. APPLY REPAIR MORTAR
7. CURE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS
8. WAIT (3) DAYS BEFORE VEHICULAR TRAFFIC

TYPICAL REPAIR DETAIL AT DELAMINATED EXISTING SLAB

3" = 1'-0"



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TYPICAL SLAB REPAIR DETAIL AT DELAMINATION

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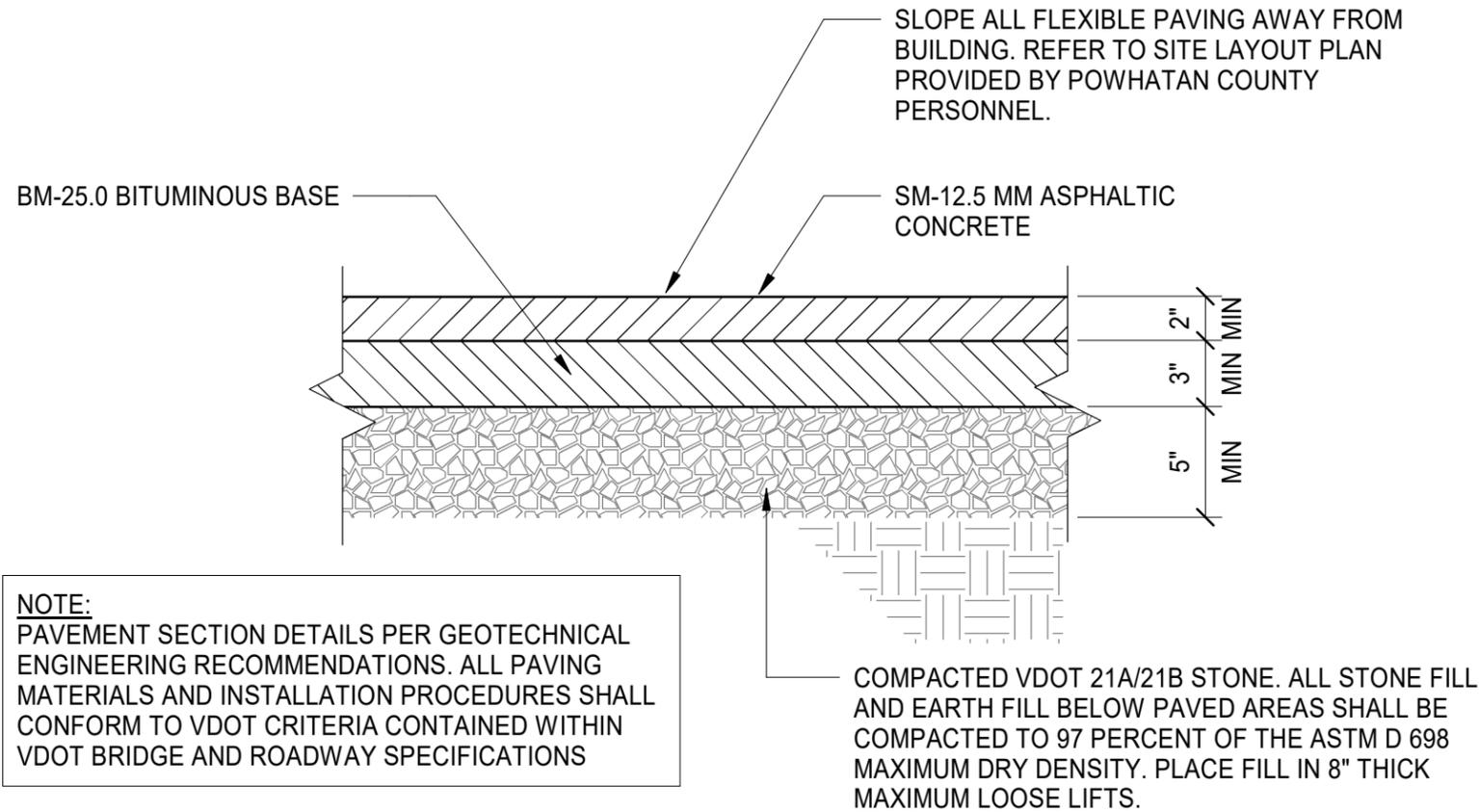
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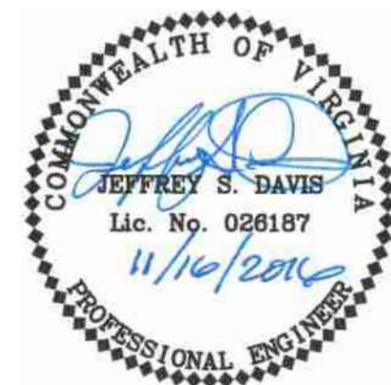
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TYPICAL HEAVY DUTY FLEXIBLE PAVEMENT SECTION

1 1/2" = 1'-0"



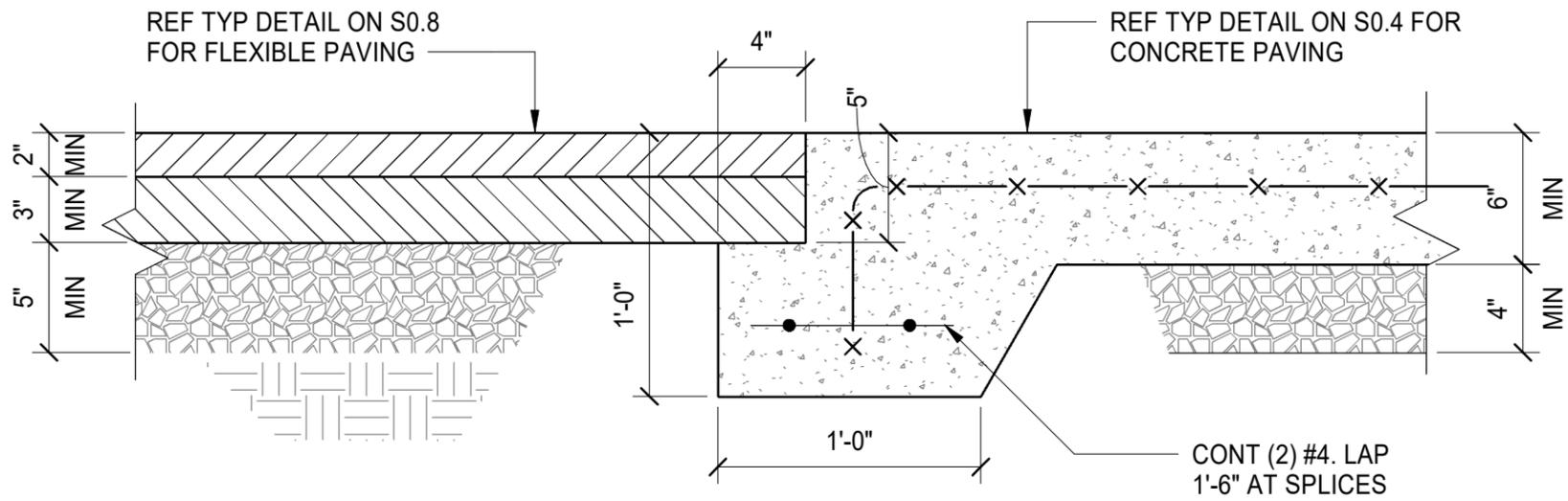
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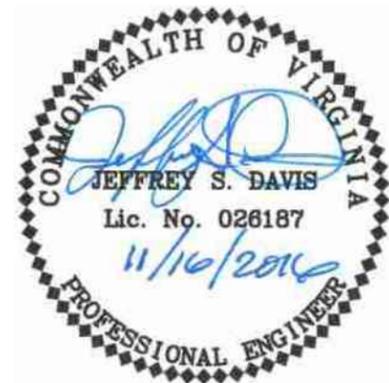
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TYPICAL INTERSECTION OF CONCRETE AND FLEXIBLE PAVING

1 1/2" = 1'-0"



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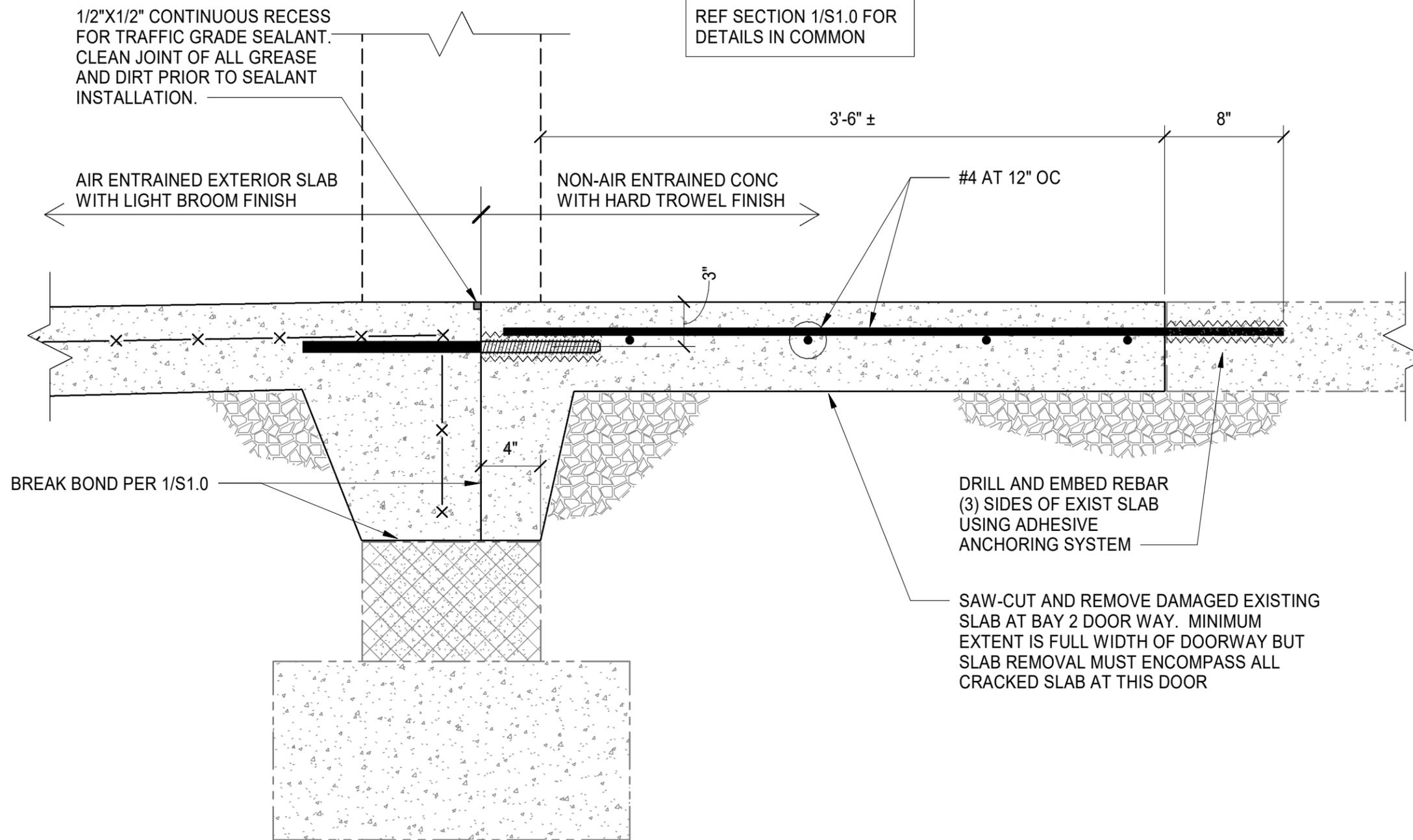
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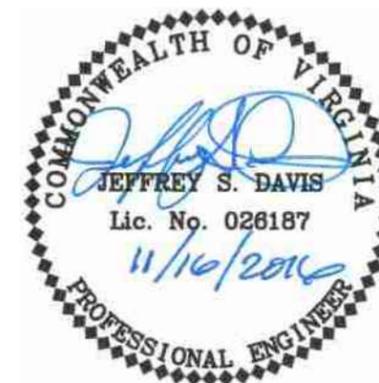
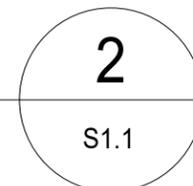
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BAY 2 FRONT DOOR SLAB REPAIR DETAIL

SECTION

1 1/2" = 1'-0"



DMW

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S1.1