

VT MILITARY BUILDING

BLACKSBURG, VIRGINIA
100% WORKING DRAWING SUBMITTAL

Project reference: VT WORK ORDER NUMBER - 25.754816
Project number: AECOM PROJECT NO. 60763454

October 15, 2025

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DOCUMENT 000100 - LIST OF DRAWING SHEETS

1.1 LIST OF DRAWINGS

- A. Drawings: Drawings consist of the Contract Drawings and other drawings listed on the Table of Contents page of the separately bound drawing set titled Virginia Tech Military Building Tailor Shop Project, dated 27 July 2023, as modified by subsequent Addenda and Contract modifications.
- B. List of Drawings: Drawings consist of the following Contract Drawings and other drawings of type indicated:
 - 1. See attached List of Drawings following this document.

END OF DOCUMENT 000100

NOTICE OF INVITATION FOR BIDS – IFB #443882606
VT Military Building
Blacksburg, VA

Sealed bids are invited for the construction of the Visitor Center Accessibility Pathway at Virginia Polytechnic Institute & State University (“Virginia Tech”) located in Blacksburg, VA.

The project is generally described as: Military Building Renovation Project.

Sealed bids will be received electronically through Virginia Tech’s electronic procurement submission website:

<p style="text-align: center;">PROPOSAL SUBMISSION:</p> <p style="text-align: center;">*Please note, proposal submission procedures have changed effective March 2023.</p> <p style="text-align: center;">Proposals may NOT be hand delivered to the Procurement Office.</p> <p>Proposals should be submitted electronically through Virginia Tech’s procurement portal. This portal allows you access to view business opportunities and submit bids and proposals to Virginia Tech digitally and securely.</p> <p style="text-align: center;">Proposals must be submitted electronically at: https://bids.sciquest.com/apps/Router/PublicEvent?CustomerOrg=VATech</p> <p>Vendors will need to register through this procurement portal, hosted by Jaggaer. It is encouraged for all vendors to register prior to the proposal submission deadline to avoid late submissions. Registration is easy and free. If you have any challenges with the registration process, please contact Jaggaer Support at 1-800-233-1121 or procurement@vt.edu.</p> <p>Click on the opportunity and log in to your vendor account to begin preparing your submission. Upon completion, you will receive a submission receipt email confirmation. Virginia Tech will not confirm receipt of proposals. It is the responsibility of the offeror to make sure their proposal is delivered on time.</p> <p>Hard copy or email proposals will not be accepted. Late proposals will not be accepted, nor will additional time be granted to any individual Vendor.</p> <p>Attachments must be smaller than 50MB in order to be received by the University.</p>
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The deadline for submitting bids is 2:00 PM on Wednesday, February 4, 2026, as determined by the electronic procurement site. Bids will be opened publicly and read aloud **beginning at 2:00 PM on Thursday, February 5, 2026,** via Zoom meeting link provided below:

Meeting Link: <https://virginiatech.zoom.us/j/88343237876?from=addon>
Meeting ID: 883 4323 7876
Call-In Number: 646-931-3860

A Bid Bond is required.

eVA Vendor Registration: The bidder or offeror shall be a registered vendor in eVA. See the attached **eVA Vendor Registration Requirements**.

Procedures for submitting a bid, claiming an error, withdrawal of bids and other pertinent information are contained in the Instructions to Bidders, which is part of the Invitation for Bids. Withdrawal due to error in bid shall be permitted in accord with Section 9 of the Instructions to Bidders and § 2.2-4330, Code of Virginia. The Owner reserves the right to reject any or all bids.

Subcontracting Plans and SWaM Spend Reporting: Each prime contractor who wins an award in which a provision of a small business subcontracting plan is a condition of the award (see *Instructions to Bidder, item 17*) AND is not individually certified as a Small Business vendor through the Commonwealth of Virginia SWaM certification program (<http://www.sbsd.virginia.gov/certification-division/>) shall deliver evidence of compliance with their small business

subcontracting plan each time a request for payment is submitted.

Upon completion of the contract, the contractor agrees to furnish with the final request for payment, at a minimum, the following information: name of firm with the DMBE certification number or FEIN number, phone number, total dollar amount subcontracted, category type (small), and type of product or service provided. Payment(s) may be withheld until compliance with the subcontracting spend reporting is received and confirmed. The Owner reserves the right to pursue other appropriate remedies to include, but not be limited to, termination for default.

A template for reporting subcontracting data can be found at:

<http://www.procurement.vt.edu/Vendor/vendorlink.html>

Reporting of the spend data is encouraged from both SWaM Certified and Non-SWaM Certified subcontractors to the university.

An optional pre-bid conference will be held in-person at 10:00 AM on Wednesday, January 14, 2026. The purpose of this conference is to allow potential Offerors an opportunity to present questions and obtain clarification relative to any facet of this solicitation. To attend the pre-proposal meeting, please meet at the location below at the stated day/time:

Address: Military Building
320 Stanger St.
Blacksburg, Virginia 24061

The Deadline for Request for Information (RFI) shall be **2:00 PM on Monday, January 19, 2026**. All RFI's need to be sent to the Contracting Officer, Deirdre Curry at currydr11@vt.edu.

The contract shall be awarded on a lump sum basis as follows: The TOTAL BASE BID AMOUNT (including any properly submitted bid modifications) on the Bid Form, and as further described. Notice of Intent to Award will be provided to the apparent low bidder and posted on eVA, Virginia Department of General Services' central electronic procurement website, at <https://eva.virginia.gov>.

Contractor registration is required in accordance with Section 54.1-1103 of the Code of Virginia. See the Invitation for Bids for additional qualification requirements.

All executive branch agencies are directed to advance Executive Order 35, dated July 3, 2019.

Attachment: eVA Vendor Registration Requirements

INSTRUCTIONS TO BIDDERS

The Invitation For Bids (“IFB”) consists of the Notice, these Instructions To Bidders, the Bid Form, the Pre-Bid Question Form, the General Conditions of the Construction Contract, the Supplemental General Conditions (if any), the Special Conditions (if any), the Forms to be used, and the Scope of Work as described by the Plans and Specifications, other documents listed in the Specifications, and any addenda which may be issued, all of which request qualified bidders to submit competitive prices or bids for providing the described work of the Contract.

As used herein, the terms “bidder” and “Contractor” both shall refer to the Person submitting a bid.

eVA Vendor Registration: The bidder shall be a registered vendor in eVA. See the attached **eVA Vendor Registration Requirements**.

1. **CONDITIONS AT SITE OR STRUCTURE:** Bidders shall visit the Site and shall be responsible for ascertaining pertinent local conditions such as location, accessibility, general character of the Site, structure or building, and the character and extent of existing conditions, improvements or work within or adjacent to the Site. No Claims shall be submitted as a result of Bidder’s failure to have done so, but shall be deemed waived and will not be considered by the Owner. See Section 7 of the General Conditions entitled "Conditions at Site."
2. **EXPLANATIONS TO BIDDERS:** No oral explanation in regard to the meaning of drawings and specifications will be made and no oral instructions will be given before the award of the Contract. The Owner shall not be responsible for any conclusions, assumptions or interpretations made by bidders during the preparation of bids that are contrary to the Drawings and Specifications and their clear intent. Discrepancies, conflicts, errors, omissions or doubts as to the meaning of the Contract Documents shall be communicated in writing to the A/E for interpretation. Bidders **must** use the "Prebid Question Form" provided in the bid documents. Bidders must so act to assure that questions reach the A/E at least six (6) days prior to the time set for the receipt of bids to allow a sufficient time for an addendum to reach **all bidders** before the submission of their bids. If, however, there are two (2) weeks or less between the first bid advertisement and the time set for receipt of bids, then bidders must submit questions so that they reach the A/E no later than three (3) days prior to the time set for receipt of bids. Any interpretation made will be in the form of an addendum to the Specifications which will be forwarded to all bidders, and its receipt shall be acknowledged by the bidder on Bid Forms. If such discrepancies, conflicts, errors, omissions or doubts are reasonably apparent or should have been reasonably apparent to the bidder, and the bidder failed to submit questions to the A/E in the time and manner required herein and the Contract is awarded to the bidder, then any claims shall be deemed waived and the bidder shall not be entitled to additional compensation or time, or entitled to sue the Owner based on such discrepancies, conflicts, errors, omissions, or doubts.
3. **TIME FOR COMPLETION:**
 - (a) "Time for Completion" shall be designated by the Owner on the Invitation for Bids or other prebid documents and shall mean the number of consecutive calendar days following the issuance of the Notice to Proceed which the Contractor has to substantially complete all Work required by the Contract. In some instances, the Time for Completion may be stated in the form of a Contract Completion Date based on a stipulated date of Notice to Proceed.

Unless otherwise specified, the Contractor shall achieve Final Completion within thirty (30) days after the date of Substantial Completion.
 - (b) When the Notice to Proceed is issued, it will state a Contract Completion Date, which has been set by the Owner based on date of the Notice to Proceed and the Time for Completion.

- (c) The Contractor, in preparing and submitting its bid, is required to take into consideration normal weather conditions. Normal weather does not mean statistically average weather, but rather means a range of weather patterns which might be anticipated based on weather conditions and events for the past ten (10) years. Normal weather conditions shall be determined from the public historical records available, including the U.S. Department of Commerce, Local Climatological Data Sheets, Oceanic and Atmospheric Administration/Environmental Data and Information Service, National Climatic Center and the National Weather Service. The data sheets to be used shall be for the locality or localities closest to the Site. No additional compensation, costs or damages will be paid to the Contractor because of normal weather conditions, including normal adverse weather to be anticipated during the Project. An extension of time for abnormal adverse weather conditions which directly impact the Work will be considered by the Owner as set forth in the General Conditions.
- (d) If the Owner designates the public historical climatological records to be used to establish normal weather patterns, the bidder shall use those records in estimating and preparing its bid. If the Owner requests each bidder to indicate the weather pattern records used in preparation of a bid, each bidder may select the public historical climatological records upon which it will rely in preparing its bid. In the latter situation, each bidder shall designate in the space provided which of such climatological data records were used in preparing the bid. A bidder's failure to designate climatological records when submitting a bid shall not disqualify a bid, but shall constitute a waiver of any claim or request for an extension of time as the result of abnormal adverse weather. In either case, the bid submitted and the Time for Completion shall be presumed to have been based upon normal weather patterns, including normal adverse weather, as derived from the climatological records used.

4. PREPARATION AND SUBMISSION OF BIDS:

- (a) Bids shall be submitted on the forms furnished, or copies thereof, and shall be signed in ink, or in the case of bids submitted electronically, signatures shall be in accordance with Code of Virginia § 59.1-479 *et seq.* The Owner's agreement to accept electronic bids, if made, will be indicated in the IFB. Erasures or other changes in a bid must be explained or noted over the signature of the bidder. Bids containing any conditions, omissions, unexplained erasures, alterations or items not called for in the proposal, or irregularities of any kind, may be rejected by the Owner as being incomplete or nonresponsive.
- (b) Each bid must give the complete legal name and full business address of the bidder and be signed by the bidder, or the bidder's authorized representative. Bids by partnerships must be signed in the partnership name by one of the general partners of the partnership or an authorized representative, followed by the designation/title of the person signing, and a list of the partners. Bids by joint ventures must be signed in the joint venture name by one of the joint venturers or an authorized representative of one of the joint venturers, followed by the designation/title of the person signing, and a list of the joint venturers. Bids by corporations must be signed with the legal name of the corporation followed by the name of the state in which it is incorporated and by the signature and title of the person authorized to bind it in this matter. The name of each person signing shall be typed or printed below the signature. A signature on a bid by a person who identifies their title as "President," "Secretary," "Agent" or other designation without disclosing the principal firm, shall be held to be the bid of the individual signing. When requested by the Owner, satisfactory evidence of the authority of the officer signing on behalf of the corporation shall be furnished. Trade or fictitious names may be referenced by using "t/a _ _ _," but bids shall be in the legal name of the person or entity submitting the bid.
- (c) Bids with the bid guarantee shall be enclosed in a sealed envelope which shall be marked and addressed as indicated by the advertisement. If a Contract is for one hundred twenty thousand

dollars (\$120,000) or more, or if the total value of all construction, removal, repair or improvements undertaken by the bidder within any twelve-month period is seven hundred fifty thousand dollars (\$750,000) or more, the bidder is required under Code of Virginia §§ 54.1-1100, *et seq.*, to be licensed in Virginia as a "Class A Contractor." If a Contract is for ten thousand dollars (\$10,000) or more, but less than one hundred twenty thousand dollars (\$120,000), or if the total value of all construction, removal, repair or improvements undertaken by the bidder within any twelve-month period is one hundred fifty thousand dollars (\$150,000) or more, but less than seven hundred fifty thousand dollars (\$750,000), the bidder is required to be licensed in Virginia as a "Class B Contractor." The bidder shall place on the outside of the envelope containing the bid and shall place in the bid over its signature whichever of the following notations is appropriate and insert its Contractor license/registration number:

Licensed Class A Virginia Contractor No. _____
or
Licensed Class B Virginia Contractor No. _____

If the bidder is not properly licensed in Virginia at the time the bid is submitted, or if the bidder fails to provide this information on its bid or on the envelope containing the bid and fails to promptly provide said Contractor license number to the Owner in writing when requested to do so before the opening of bids, the bidder shall be deemed to be in violation of Code of Virginia § 54.1-1115 and its bid will not be considered.

- (d) Following guidance from the Board for Contractors, the Owner may, as a part of determining whether the bidder is "responsible," require the apparent low bidder to submit a listing of its Subcontractors along with the license number and classification or specialty of each. *See* DEP'T OF PROF'L AND OCCUPATIONAL REGULATION, BD. FOR CONTRACTORS POLICIES & INTERPRETATIONS, No. 2959 (July 11, 2016) ("A licensed contractor may bid on work, or enter into a contract for work, which is outside the scope of [its] license classification(s) provided that [it] subcontracts that work, to properly licensed contractors, and the work of the subcontractors is incidental to the contract.").
- (e) The bidder must place its Employer Identification Number (SSN or FEIN) in the space provided on the Bid Form.
- (f) Every bidder organized as a stock or nonstock corporation, limited liability company, business trust, or limited partnership or registered as a registered limited liability partnership must 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 of the Code of Virginia, as amended, or as otherwise required by law. Any bidder organized or authorized to transact business in the Commonwealth pursuant to Title 13.1 or Title 50 must include in its bid the identification number issued to it by the State Corporation Commission. Any bidder that is not required to be authorized to transact business in the Commonwealth as a foreign business entity under Title 13.1 or Title 50 or as otherwise required by law shall include in its bid or proposal a statement describing why the bidder is not required to be so authorized. A bidder required to be authorized to transact business in Virginia that fails to provide the required information shall not receive an award unless a waiver of this requirement and of any administrative policies and procedures established to implement Code of Virginia § 2.2-4311.2 is granted by the chief executive of the Owner.

If awarded the Contract, the bidder 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 the Contract. Doing so shall be deemed to be a violation of Code of Virginia § 2.2-4311.2 and the bidder understands and agrees that the Owner may void the Contract if the bidder fails to comply with this provision.

- (g). *Code of Virginia, § 2.2-4376.2* shall be applicable to the Work of the Contract.

5. BID GUARANTEE:

- (a) Any bid (including the Total Base Bid plus all Additive Bid Items) which exceeds five hundred thousand dollars (\$500,000) shall be accompanied by a Commonwealth of Virginia Standard Bid Bond, Form CO-10.2, payable to the Owner as obligee in an amount equal to five percent (5%) of the amount of the bid (the "Bid Bond"). The Owner agrees to accept a Bid Bond on which the Surety has utilized electronic signatures and/or electronic notarization if the electronic notarization meets the requirements of *Virginia Code §§ 47.1-6.1, -7, and -12*, and the Commonwealth of Virginia State Corporation Commission Bureau of Insurance and the Bid Bond contains any SURETY BOND SEAL ADDENDUM established by the Commonwealth of Virginia State Corporation Commission Bureau of Insurance. For construction contracts up to \$500,000, where bid bond requirements have been waived by Owner as stated in the IFB, prospective Contractors may be prequalified in accordance with *Code of Virginia § 2.2-4317.A*. A Bid Bond may be required for Contracts having bids of up to five hundred thousand dollars (\$500,000) if such requirement is stated in the IFB. The Bid Bond must be issued by a surety company which is legally authorized by the Virginia State Corporation Commission to do surety business in the Commonwealth of Virginia. Such Bid Bond shall guarantee the following: that the bidder will not withdraw its bid during the thirty (30) day period following the date of the opening of bids; that if the bid is accepted, the bidder will enter into the Contract with the Owner described in the IFB; that the bidder can and will submit a properly executed and authorized Standard Performance Bond and Standard Labor and Material Payment Bond on the forms included in the IFB. If the bidder withdraws its bid within the thirty (day) period following bid opening, fails to enter into the Contract, or fails to provide the required Standard Performance Bond and Standard Labor and Material Payment Bond within ten (10) days after the bidder's receipt of notice of acceptance of its bid, the bidder and the bidder's surety shall be jointly and severally be liable to the Owner for the difference between the amount specified in the bidder's bid and such larger amount for which the Owner may contract with another party to perform the work covered by said bid, up to the amount of the bid guarantee of 5% of the bidder's total bid amount, as the damage to the Owner resulting from the bidder's default. See *Code of Virginia §2.2-4336*.
- (b) *Code of Virginia § 2.2-4338* contains provisions allowing for alternative forms of bid security in lieu of a Bid Bond. A bidder's use of an alternative form of Security as listed in *Code of Virginia § 2.2-4338.B* must be approved by the Owner prior to the bidder's submission of its bid on the Bid Receipt date and time to be accepted in lieu of a Bid Bond.
- (c) The Bid Bond or other alternative bid security will be returned to all but the three lowest bidders after the formal opening of bids. The remaining Bid Bonds or bid security will be returned to the bidders after the Owner and the accepted bidder have executed the Contract and the required Standard Performance Bond and the Standard Labor and Material Payment Bond for the Contract have been received and approved by the Owner.
- (d) If the Contract and required bonds have not been executed by the accepted bidder within thirty (30) days after the date of the opening of the bids, then the Bid Bond or other bid security of any bidder will be returned upon a bidder's request, provided the bidder has not been notified of the acceptance of its bid prior to the date of such request.

- 6. WITHDRAWAL OR MODIFICATION OF BIDS:** Bids may be withdrawn or modified by written or telefaxed notice received at the designated location from bidders prior to the deadline fixed for bid receipt. E-mail withdrawals and modifications are not acceptable. The withdrawal or modification may be made by the person who signed the bid or by an individual(s) who is authorized by the bidder on the face of the bid. Written modifications may be made on the bid form itself, on the envelope in which the bid is enclosed, or on a separate document. Written modifications, whether the original is delivered or telefaxed, must be

signed by the person making the modification or withdrawal. The modification must state specifically what is to be modified and by what amount or it must state the item to be modified and what the corrected amount should be.

7. RECEIPT OF BIDS:

- (a) **Bids will be received at or before the date and the hour and at the place stipulated in the IFB as may be modified by subsequent Addenda.**
- (b) **It is the responsibility of the bidder to assure that its bid and any bid modifications are delivered to the place designated for receipt of bids by the date and hour (deadline) set for receipt of bids. Therefore, it is the bidder's responsibility to take into account all factors which may impact on its bid deliverer / courier's ability to deliver the bid and to implement whatever actions are necessary to have the bid delivered to the proper bid receipt location prior to the bid receipt deadline.** No bids or bid modifications submitted or offered after the date and hour designated for receipt of bids will be accepted or considered.
- (c) The Bid Officer is the Owner's representative designated to receive bids at the time and place noted in the IFB and to open the bids received at the appointed time.
- (d) **The official time used for the receipt of responses is determined by reference to the clock designated by the Bid Officer.** The Bid Officer shall determine when the Bid Receipt Deadline has arrived and shall announce that the Deadline has arrived and that no further bids or bid modifications will be accepted. All bids and bid modifications in the possession of the Bid Officer and their assistants at the time the announcement is completed are deemed to be timely, whether or not the bid envelope has been physically date/time stamped or otherwise marked by the time the Bid Officer makes the deadline announcement.
- (e) In the event the bid receipt occurs during a period of suspended state business operations, the receipt and opening will be delayed one business day.

8. OPENING OF BIDS:

- (a) Bids will be opened at the time and place stated in the IFB or as modified by subsequent Addenda, and their contents publicly announced. The Bid Officer shall decide when the specified time for bid opening has arrived. No responsibility will be attached to any officer or agent for the premature opening of a bid not properly addressed and identified. Bid opening shall be no sooner than twenty-four (24) hours after the time set for receipt of bids.
- (b) The provisions of Code of Virginia § 2.2-4342, as amended, shall be applicable to the inspections of bids received.
- (c) In the event the bid opening occurs during a period of suspended state business operations, the opening will be delayed until the next business day.

9. ERRORS IN BIDS: A bidder may withdraw its bid from consideration 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 judgment 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 a bid, which unintentional arithmetic error or unintentional omission can 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.

In accordance with Code of Virginia § 2.2-4330(B)(2), the bidder must submit to the Owner its original work papers, documents and materials used in the preparation of the bid within one day after the date fixed for submission of bids. Such work papers must be submitted in an envelope or package separate and apart

from the envelope containing the bid and marked clearly as to the contents and shall be delivered to the Owner by the bidder in person or by registered mail prior to the time fixed for the opening of bids and may not be withdrawn until after the two-hour period (referred to later) has elapsed. The bids shall be opened at the time designated in the IFB, as amended by addendum. Bid opening is usually one day following the time fixed by the Owner for the submission of bids, but no sooner. Once the bids have been opened, the bidder shall have two (2) hours after the opening of bids within which to claim in writing any mistake as defined herein and withdraw its bid. The Contract shall not be awarded by the Owner until such two-hour period has elapsed. Such mistake shall be proved only from the original work papers, documents and materials delivered to the Owner prior to bid opening. This procedure in Code of Virginia § 2.2-4330(B)(2) shall not apply to when the entire bid is required to be submitted on a unit price basis.

Failure of a bidder to submit its original work papers, documents and materials used in the preparation of its bid on or before the time, date and place required shall constitute a waiver by that bidder of its right to withdraw its bid due to a mistake.

No bid may be withdrawn under this section when the result would be the awarding of the Contract on another bid of the same bidder or of another bidder in which the ownership of the withdrawing bidder is more than five (5%) percent.

No bidder who is permitted to withdraw a bid shall, for compensation, supply any material or labor to or perform any subcontract or other work agreement for the person or firm to whom the Contract is awarded or otherwise benefit, directly or indirectly, from the performance of the project for which the withdrawn bid was submitted. The person or firm to whom the Contract was awarded and the withdrawing bidder are jointly liable to the Owner in an amount equal to any compensation paid to or for the benefit of the withdrawing bidder without such approval.

If the apparent low bid is withdrawn under authority of this section, the lowest remaining bid shall be deemed to be the low bid on the project.

- 10. REJECTION OF BIDS:** The Owner reserves the right to cancel the IFB, to reject any and all bids at its sole discretion when such rejection is in the interest of the Owner, or to reject the bid of any bidder who is determined to be not responsive or not responsible. *See* Code of Virginia § 2.2-4319.

11. DETERMINATION OF RESPONSIBILITY

Each bidder shall be prepared, if so requested by the Owner, to present evidence of its experience, qualifications and financial ability to carry out the terms of the Contract.

Prior to award of the Contract, an evaluation will be made to determine if the low bidder has the capability, in all respects, to perform fully the contract requirements and the moral and business integrity and reliability which will assure good faith performance, and who has been prequalified, if required. Factors to be evaluated include, but are not limited to:

- (a) sufficient financial ability to perform the contract as evidenced by the bidder's ability to obtain payment and performance bonds from an acceptable surety;
- (b) appropriate experience to perform the Work described in the bid documents;
- (c) any judgments entered against the bidder, or any officers, directors, partners or owners for breach of a contract for construction;
- (d) any substantial noncompliance with the terms and conditions of prior construction contracts with a public body without good cause where the substantial noncompliance is documented; or
- (e) a conviction of the bidder or any officer, director, partner, project manager, procurement manager, chief financial officer, or owner in the last five years of a crime relating to governmental or nongovernmental construction or contracting; and/or

(f) any current debarment of the contractor, any officer, director or owner, from bidding or contracting by any public body of any state, any state agency, or any agency of the federal government.

The Owner reserves the right to disqualify or refuse to accept the bid of any bidder who has been convicted, or entered a plea of guilty or nolo contendere, in any federal or state court to any charge involving any unlawful, corrupt or collusive practice involving a public contract whether federal, state, or local, or who has been determined in any judicial proceeding to have violated any antitrust, bid-rigging or collusive practice statute in connection with any public contract, or against whom such formal criminal prosecution or other judicial proceeding has been initiated.

A bidder who, despite being the apparent low bidder, is determined not to be a responsible bidder shall be notified in writing in conformance with the procedures in Code of Virginia § 2.2-4359.

12. AWARD OF CONTRACT

(a) **Basis for Contract Award:** The Contract, if awarded, will be awarded to the lowest responsive and responsible bidder, if any, provided its bid is reasonable and it is in the best interest of the Owner to accept it and subject to the Owner's right to reject any and all bids and to waive informality in the bids and in the bidding. The Bid Form contains a multi-part Base Bid and may contain Additive Bid Items. Determination of the lowest responsible bidder, if any, will be based on the Total Base Bid Amount **entered on the Bid Form** including any properly submitted bid modifications plus as many Additive Bid Items taken in sequence as the Owner in its discretion chooses to Award. **Where the sum of the values entered in the multiple parts do not agree with the Total Base Bid amount, the Total Base Bid amount entered on the bid form, including any properly submitted bid modifications, shall take precedence.**

In the event that the Total Base Bid from the lowest responsible bidder exceeds available funds, the Owner may negotiate the Total Base Bid amount with the apparent low bidder to obtain a Contract Price within available funds, pursuant to Code § 2.2-4318 and Section 12(c) herein.

(b) **Informalities:** The Owner reserves the right to waive any informality in the bids when such waiver is in the interest of the Owner.

(c) **Negotiation With Lowest Responsible Bidder:** If award of the Contract to the lowest responsive and responsible bidder is precluded because of limitations on available funds, under the provisions of Code § 2.2-4318 the Owner reserves the right to negotiate the Total Base Bid amount with the lowest responsive, responsible bidder to obtain a Contract Price within the available funds. This may involve changes in either the features or scope of the work included in the Base Bid. Such negotiations with the apparent low bidder may include reducing the quantity, quality, or other cost saving mechanisms involving items in the Total Base Bid. Negotiations for Additive Bid Items are excluded. The Owner shall notify the lowest responsive and responsible bidder that such a situation exists and the Owner and bidder shall then conduct their negotiations in person, by mail, by telephone or by any means they find convenient. If an acceptable Contract can be negotiated, any changes to the IFB documents agreed upon in the negotiations shall be summarized in a "Post Bid Modification" and included in the Contract. If an acceptable Contract cannot be negotiated, the Owner shall terminate negotiations and reject all bids.

(d) **Notice of Intent to Award or Notice of Award:** The Notice of Award or the Notice of Intent to Award will be posted at the Agency's standard location for posting notices **as shown on the "Notice of Invitation to Bid"**. In addition, the Agency may also post such notice on the Agency's Website and/or the DGS central electronic procurement Website. Any bidder who desires to protest the award or decision to award a contract shall submit the protest in writing to the public body no later than ten days after the posting of the Notice of Award or Notice of Intent to Award, whichever comes first. *See* Code of Virginia § 2.2-4360.

13. **CONTRACT SECURITY:** For contracts which exceed five hundred thousand dollars (\$500,000), the Standard Performance Bond (CO-10) and the Standard Labor and Material Payment Bond (CO-10.1) shall be required, as specified in the IFB. For construction contracts up to \$500,000, where Bid Bond requirements are waived, prospective contractors may be prequalified in accordance with Code of Virginia § 2.2-4317. See General Conditions and Code of Virginia § 2.2-4337 and § 2.2-4338. The Owner reserves the right to require such bonds for contracts up to five hundred thousand dollars (\$500,000). If the Owner so elects, the requirement shall be set forth in the IFB.
14. **CERTIFICATION:** The bidder, by its signature on the Bid Form, certifies that neither its organization nor any of its officers, directors, partners or owners is currently barred from bidding on contracts by any Agency of the Commonwealth of Virginia, or any public body or agency of another state, or any agency of the federal government. See "Disqualification of Contractors" in the Bid Form.
15. **ETHICS IN PUBLIC CONTRACTING:** The provisions, requirements and prohibitions as contained in Code of Virginia §2.2-4367 *et seq.*, pertaining to bidders, offerors, contractors, and subcontractors are applicable to this project.
16. **BUILDING PERMITS:** Because this is a Project of the Commonwealth of Virginia, codes or zoning ordinances of local political subdivisions do not apply. However, the Virginia Uniform Statewide Building Code shall apply to the Work and shall be administered by the Building Official for State-owned Buildings. The Building Permit will be obtained and paid for by the Owner. All other permits, local license fees, business fees, taxes, or similar assessments imposed by the appropriate political subdivision shall be obtained and paid for by the Contractor. See Section 25 of the General Conditions for utility connection fees and services.
17. **UTILIZATION OF SMALL BUSINESSES:** It is the policy of the Commonwealth of Virginia to maximize the participation of small businesses in state contracting. The participation of these businesses directly and through partnerships, joint ventures, subcontracts and other contractual opportunities may be encouraged for this Project based on the Owner's requirements (if applicable) on the Bid Form. Bidders shall provide a Small Business Procurement Plan in conjunction with their sealed bid. The Small Business Procurement Plan shall identify the bidder's proposed percentage of participation by small businesses in the Total Base Bid amount, and is indicated on the Bid Form. An entry on the line for "Contractor's Proposed Small Business Participation" is required for the bid to be considered responsive. If the bidder is a DSBSD certified small business, the proposed percentage of small business participation shall be entered as 100%. A bidder may enter a proposed percentage of small business participation of 0% and be considered responsive unless the Bid Form states that the Owner requires a specific percentage of small business participation, in which case the bidder shall enter a percentage equal to or greater than the Owner's required small business participation percentage for the bid to be considered responsive.
18. **BID DOCUMENTS:** Bid Documents are the property of the Owner and a deposit in an amount as stated in the Invitation for Bids is required for each paper set or for each set provided on removable electronic media as a guarantee of the safe return of the documents within ten (10) days of bid opening. This deposit will be refunded in full on not more than two paper sets or sets provided on removable electronic media to each bidder who submits a Contract bid and who returns the documents in good condition. Refund will be made on paper sets and sets provided on removable electronic media to non-bidders and Subcontractors in the amount of half of the deposit when the sets are returned in good condition within 10 days. A deposit is not required for downloading of electronic construction documents through an FTP site. A non-refundable shipping charge may be required for paper sets or sets provided on removable electronic media if stated in the Notice or the IFB.
19. **GENERAL CONDITIONS:** The General Conditions are incorporated in the bid documents. If a copy of the General Conditions is not included in the bid documents, the bidder may obtain a copy of the current edition of the General Conditions at no cost by written request to the A/E and/or the Agency where the bid

documents are obtained. Copies may also be obtained from the DGS Forms Center (available online at <http://forms.dgs.virginia.gov>).

20. **PREBID CONFERENCE:** See the IFB for requirements for a prebid conference and whether such conference is mandatory or optional.
21. **INSPECTION OF BID DOCUMENTS:** Copies of the IFB documents including Plans and Specifications and the General Conditions will be available for inspection at the Agency, at the A/E's office, and at the locations listed in the Notice of the IFB.
22. **DRUG-FREE WORKPLACE REQUIRED:** Bidders are reminded that Code of Virginia § 2.2-4312 requires that the during the performance of the Contract resulting from this solicitation, the Contractor agrees to: (i) provide a drug-free workplace for the Contractor's employees; (ii) 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; (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 foregoing clauses 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 section, "drug-free workplace" means a site for the performance of work done in connection with a specific Contract awarded to a Contractor in accordance with this solicitation, 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.

NOTE: These CO-7A, Instructions to Bidders, have been created specifically for the use of agencies of the Commonwealth of Virginia, which may not alter their provisions without the express written approval of the Virginia Department of General Services, Division of Engineering and Buildings. These Instructions to Bidders have significant legal implications and shall not be altered or modified. Nothing in the CO-7A, Instructions to Bidders, shall be amended or deleted or its intent changed, except by an approved and properly issued 'Supplemental Instruction to Bidders'. The Commonwealth makes no representation as to their suitability for any other purpose. Paragraphs which have been added or revised since prior edition are identified with a line to the left of the paragraph.

DGS-30-384
(Rev. 01/21)

Vendor eVA Registration Requirements

eVA Business-to-Government Vendor Registration, Contracts, and Order: The eVA Internet electronic procurement solution, web site portal www.eVA.virginia.gov, streamlines and automates government purchasing activities in the Commonwealth. The eVA portal is the gateway for vendors to conduct business with state agencies and public bodies. All vendors desiring to provide construction and/or professional services to the Commonwealth shall participate in the eVA Internet e-procurement solution by completing the free eVA Vendor Registration. All bidders or offerors must register in eVA and pay the Vendor Transaction Fees specified below; failure to register will result in their bid/proposal being rejected.

Vendor transaction fees are determined by the date the original purchase order is issued and the current fees can be found on the eVA website at <https://eva.virginia.gov/eva-billing.html>.

eVA Orders and Contracts: The solicitation/contract will result in one (1) purchase order(s) with the eVA applicable transaction fee assessed for each order.

**COMMONWEALTH OF VIRGINIA
STANDARD BID BOND**

KNOW ALL MEN BY THESE PRESENTS: That _____, the Contractor (“Principal”) whose principal place of business is located at _____ and _____ (“Surety”) whose address for delivery of ‘Notices’ is located at _____ are held and firmly bound unto the Commonwealth of Virginia, _____, the Owner (“Obligee”) in the amount of five percent (5%) of the Amount (Total Base Bid plus all Additive Bid Items) Bid by Principal, for the payment whereof, Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for _____

NOW, THEREFORE, the conditions of this obligation are as follows. This Bid Bond shall guarantee that the Principal will not withdraw his bid during the period of thirty (30) days following the opening of bids; that if his bid is accepted, Principal will enter into a formal contract with the Owner in accordance with the Contract Between Owner and Contractor, Form CO-9, included as a part of the Invitation for Bids (IFB Documents); that Principal will submit a properly executed and authorized Standard Performance Bond and Standard Labor and Material Payment Bond on the forms included in the IFB documents; and that in the event of the withdrawal of said bid within said period, or failure to enter into said contract and give said bonds within ten (10) days after Principal has received notice of acceptance of his bid, Principal and Surety shall be jointly and severally liable to the Owner for the difference between the amount specified in said bid and such larger amount for which the Owner may contract with another party to perform the work covered by said bid, up to the amount of the bid guarantee. This amount represents the damage to the Owner of account of the default of the bidder in any particular thereof.

The Surety represents to the Principal and to the Obligee that it is legally authorized to do business in the Commonwealth of Virginia.

Signed and sealed this _____ day of _____

Contractor / Principal (SEAL)

Witness

By: _____
Typed Name: _____
Title: _____

Surety (SEAL)

By: _____
Attorney-in-Fact
Typed Name: _____

AFFIDAVIT AND ACKNOWLEDGEMENT OF ATTORNEY-IN-FACT

COMMONWEALTH / STATE OF _____)
CITY/COUNTY/TOWN of _____

I, the undersigned notary public, do certify that _____, whose name is signed to the foregoing bid bond in the amount of five percent (5%) of the Total Bid Amount and which names the Commonwealth of Virginia, _____, as Obligee, personally appeared before me today in the above jurisdiction and made oath that he/she is the attorney-in-fact of _____, a _____ corporation which is the Surety in the foregoing bond, that he/she is duly authorized to execute on the above Surety's behalf the foregoing bond pursuant to the Power of Attorney noted above and attached hereto, and on behalf of the surety, he/she acknowledged the foregoing bond before me as the above Surety's act and deed.

She/he has further certified that her/his Power of Attorney has not been revoked.

[Complete if Power is recorded: Clerk's Office: _____;
Deed Book/Page No. or Instrument No.: _____.]

Given under my hand this _____ day of _____.

Notary Public (SEAL)

My name (printed) is: _____
My registration number is: _____
My commission expires: _____

DGS-30-220
(DGS Rev. 07/22)
(VT Rev. 8/25)

DATE:

PROJECT: VT Military Renovation
Blacksburg, VA

Project Code: 25-754816

IFB Number: 443882606

To: Virginia Polytechnic Institute and State University
North End Center, Suite 2100
300 Turner Street, NW

In compliance with and subject to your Invitation for Bids and the documents therein specified, all of which are incorporated herein by reference, the undersigned bidder proposes to furnish all labor, equipment, and materials and perform all work necessary for construction of this project, in accordance with the Plans dated December 3, 2025 and Specifications dated October 15, 2025, and the Addenda noted below, as prepared by AECOM, Roanoke, Va. for the consideration of the following amount:

BASE BID :

Lump sum price for renovation of the building in two phases in accordance with the Plan and Specifications:

TOTAL BASE BID AMOUNT = _____ Dollars (\$).

Contract award will be based on the **TOTAL BASE BID AMOUNT shown above** (including any properly submitted bid modifications).

The bidder has relied upon the following public historical climatological records:
National Centers for Environmental Information for Blacksburg, VA

Code of Virginia, § 2.2-4376.2 shall be applicable to the Work of the Contract.

The undersigned understands that time is of the essence and agrees that the date for Substantial Completion of the entire project shall be on or before May 7, 2027 based on a Notice authorizing Work to proceed on or before March 5, 2026, and Final Completion shall be achieved within 30 consecutive calendar days after the date of Substantial Completion as determined by the A/E.

Acknowledgment is made of receipt of the following Addenda: _____

_____.

If notice of acceptance of this bid is given to the undersigned within 30 days after the date of opening of bids, or any time thereafter before this bid is withdrawn, the undersigned will execute and deliver a contract in the prescribed form (Commonwealth of Virginia Contract Between Owner and Contractor, Form CO-9) within 10 days after the contract has been presented to him for signature. The required payment and performance bonds, on the forms prescribed, shall be delivered to the Owner along with the signed Contract.

Immigration Reform and Control Act of 1986: The undersigned certifies that it does not and shall not during the performance of the Contract for this project violate the provisions of the Federal Immigration Reform and Control Act of 1986, which prohibits employment of illegal aliens, or knowingly employ an unauthorized alien as defined in the Federal Immigration Reform and Control Act of 1986.

DISQUALIFICATION OF CONTRACTORS: By signing this bid or proposal, the undersigned certifies that this Bidder or any officer, director, partner or owner is not currently barred from bidding on contracts by any Agency of the Commonwealth of Virginia, or any public body or agency of another state, or any agency of the federal government, nor is this Bidder a subsidiary or affiliate of any firm/corporation that is currently barred from bidding on contracts by any of the same. We have attached an explanation of any previous disbarment(s) and copies of notice(s) of reinstatement(s).

DISQUALIFICATION FOR WAGE THEFT: By signing this bid or proposal, the undersigned certifies that this Bidder or their proposed subcontractor(s), or any officer, director, partner or owner thereof is not currently in litigation, under investigation, or criminal indictment for wage theft on contracts by any Agency of the Commonwealth of Virginia, or any public body or agency of another state, or any agency of the federal government.

The apparent low bidder shall submit, within two (2) business days of the bid opening, a complete subcontracting plan listing all tiered subcontractors on the DGS-30-360 form, which can be downloaded from: <https://dgs.virginia.gov/search/documents-and-forms/>. In addition, Bidder shall identify all subcontractors that are Small Businesses.

Agency Small Business Participation Goal: % 50

Contractor's Proposed Small Business Participation: % _____
(required)

Either the undersigned or one of the following individuals, if any, is authorized to modify this bid prior to the deadline for receipt of bids by writing the modification and signing his name on the face of the bid, on the envelope in which it is enclosed, on a separate document, or on a document which is telefaxed to the Owner:

I certify that the firm name given below is the true and complete name of the bidder and that the bidder is legally qualified and licensed by the Virginia Department of Professional and Occupational Regulation, Board for Contractors, to perform all Work included in the scope of the Contract.

Virginia License No.: _____

Bidder: _____
(Name of Firm)

Contractor Class: _____

By: _____
(Signature)

By: _____
(Print Name)

Email: _____
(Print Email Address)

Specialty: _____

Valid until: _____

FEIN/SSN: _____

Title: _____

If General Partnership (List Partners' Names)

Business Address:

Telephone # _____

FAX # _____

If Corporation, affix Corporate Seal &
list State of Incorporation

State: _____

(Affix Seal)

DGS-30-220
(DGS Rev. 07/22)
(VT Rev. 8/25)

Virginia State Corporation Commission ID No.: _____; or

If Contractor is a foreign business entity not required to be authorized to transact business in the Commonwealth under Titles 13.1 or 50 of the Code of Virginia, or as otherwise required by law, please provide an explanation as to why such entity is not required to be so authorized: _____

_____.

**VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
(VIRGINIA TECH)
HECO-7**

**GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT
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1. DEFINITIONS

Whenever used in in the Contract Documents, the following terms have the meanings indicated, which are applicable to both the singular and plural variations thereof:

Agency: The Agency, institution or department which is a party to the Contract. For purposes of the Contract, the term Owner shall include such Agency, whether or not the Agency owns the site or the building.

A/E Services: The entirety of the services required of the A/E pursuant to the A/E’s contract with the Owner for the Project.

As-Built Drawings: The As-Built Drawings is a set of all Drawings, Specifications, addenda, approved Shop and setting Drawings, Change Orders and other modifications which are updated by the Contractor throughout the performance of the Work to contemporaneously record all changes and variations made during construction. The representation of such variations shall be neatly and clearly marked in color and shall include such supplementary notes, symbols, legends, and details as may be necessary to clearly show the as-built construction of the Work.

Architect/Engineer (“A/E”): The Virginia licensed Architect or Engineer that contracts with the Owner to provide the A/E Services for the Project. The A/E is a separate contractor and not an agent of the Owner. The term includes any subcontractors, associates or consultants employed by the A/E to assist in providing the A/E Services.

Beneficial Occupancy: The time, following Substantial Completion, at which the Project or portion thereof, is sufficiently complete and systems operational such that the Owner 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 Owner accepts and occupies the Project, or a portion thereof, unless otherwise specified in the Supplemental General Conditions or by separate agreement.

Change Order: A document (CO-11) issued on or after the effective date of the Contract which is agreed to by the Contractor and approved by the Owner, and which authorizes an addition, deletion or revision in the Work, including any adjustment in the Contract Price and/or the Contract Completion Date. The term Change Order shall also include initiating and confirming change orders issued pursuant to Section 38(a)(3). A Change Order, once signed by all parties, is incorporated into and becomes a part of the Contract.

Code of Virginia: *Code of Virginia* (1950), as amended. Sections of the Code referred to herein are noted by § xx-xx.

Commissioner of Labor and Industry: The Commonwealth of Virginia Commissioner of Labor and Industry.

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.

Contract: The Contract between Owner and Contractor, (CO-9 series) and the Contract Documents incorporated therein.

Contract Completion Date: The date by which the Work must achieve Substantial Completion. The Contract Completion Date is established in the Notice to Proceed, based on the Time for Completion, or set forth as a specific date in the Contract.

Contract Documents: The Contract and any documents expressly incorporated therein. Such incorporated documents customarily include the bid submitted by the Contractor, the General Conditions, any Supplemental General Conditions, any Special Conditions, the Plans and the Specifications, and all modifications, including addenda and subsequent Change Orders.

Contract Price: The total compensation payable to the Contractor for performing the Work in accordance with the Contract Documents, subject to modification by Change Order.

Contractor: The person or entity with whom the Owner has entered into the Contract for the Work.

Critical Path: The longest continuous sequential duration of dependent activities from the Date of Commencement to the Contract Completion Date that defines the minimum overall time necessary to complete the Project, such that a delay of any activity along the Critical Path will result in a delay of the Contract Completion Date unless the duration of a subsequent activity on the Critical Path is reduced to offset the delay and maintain the Contract Completion Date.

Date of Commencement: The date as indicated in the written Notice to Proceed, the receipt of the earliest Building Permit, or a date mutually agreed to between the Owner and Contractor in writing, whichever is the latest.

Day: Calendar day unless otherwise noted.

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 does not meet the requirements of inspections,

standards, tests or approvals required by the Contract Documents, or Work that has been damaged prior to the A/E's recommendation of Final Payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion or Beneficial Occupancy).

DGS: Virginia Department of General Services.

Drawing: A page or sheet of the 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.

DSBSD: Virginia Department of Small Business and Supplier Diversity.

Emergency: Any unforeseen situation, combination of circumstances, or a resulting state that poses imminent danger to health, life or property.

Field Order: A written order issued by the A/E which clarifies or explains the Plans or Specifications, or any portion or detail thereof, without changing the design, the Contract Price, the Time for Completion or the Contract Completion Date.

Final Completion: Completion and full performance of all Work in accordance with the terms and requirements of the Contract Documents, including the completion of all items identified on punch lists generated through the inspections set forth in Section 44(b) and submission of all information, manuals, warranties and documentation required by the Contract.

Final Completion Date: The date of the Owner's acceptance of the Work following Final Completion.

Final Compliance Report: A report where the Contractor shall certify and report on its compliance with the Small Business Procurement Plan, submitted by the Contractor in its Bid for the Contract, to the Owner through DGS' eVA system

Final Payment: The final payment that the Contractor receives pursuant to the applicable provisions of Section 36, except in the event no final payment is made due to termination of the Contract under either Sections 41 or 42. In the event of a termination for cause under Section 41, the Final Payment shall be when the termination became effective. In the event of a termination for convenience under Section 42, the Final Payment shall be either the payment of compensation for termination that the Contractor receives according to the provisions of Section 42(a), or the Owner's determination that no compensation for termination is due the Contractor under Section 42(a), as the case may be.

Float: The excess time included in a construction schedule to accommodate such items as inclement weather and associated delays, equipment failures, and other such unscheduled events. It is the contingency time associated with a path or chain of activities and represents the amount of time by which the early finish date of an activity may be delayed without impacting the Critical Path and delaying the Contract Completion Date. Any difference in time between the Contractor's approved early completion date and the Contract Completion Date shall be considered a part of the Float.

Float, Free: The time (in Days) by which an activity may be delayed or lengthened without impacting the start day of any successor activity.

Float, Total: The difference (in Days) between the maximum time available within which to perform an activity and the duration of an activity. It represents the time by which an activity may be delayed or lengthened without impacting the Contract Completion Date.

General Conditions: The General Conditions of the Construction Contract (CO-7 series).

Notice: Notice required by the Contract shall be given in writing to the email address or physical delivery location identified in the Contract Documents for receipt of Notice by the receiving party. A Notice is deemed to have been properly given and effective at the time such Notice is: (i) deposited with a nationally recognized overnight delivery service using no more than two (2) business day delivery service for delivery to the Notice address; (ii) hand delivered to the Notice address; (iii) enclosed in a postage prepaid envelope addressed to the Notice address and delivered to a United States Postal Service for delivery by prepaid certified or registered mail; or (iv) sent via email to the email address identified for Notice in the Contract Documents.

Notice to Proceed: A written Notice given by the Owner to the Contractor fixing the date on which the Time for Completion will commence for the Contractor to begin the execution of the Work. The Notice to Proceed will identify the Contract Completion Date if not otherwise established by the Contract.

Owner: The public body with whom the Contractor has entered into the Contract for the Work. The term Owner shall also mean the Agency.

Person: This term 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.

Project: The term used instead of the specific or proper assigned title of the entire undertaking which includes, but is not limited to, the Work and the A/E Services.

Project Inspector: One or more persons employed by the Owner to inspect the Work for the Owner and/or to document and maintain records of activities at the Site to the extent required by the Owner. The scope of the Project Inspector's authority with respect to the Contractor is limited to that indicated in Section 16 (e) and (f) of the General Conditions and as supplemented by the Owner in writing to the Project Inspector and to the Contractor.

Project Manager: The Project Manager shall be the Owner's designated representative on the Project. The Project Manager shall be the person through whom the Owner generally conveys written decisions and instructions. All Notices to the Owner and all information required to be conveyed to the Owner shall be conveyed to the Project Manager unless otherwise stated in the Contract. The scope of the Project Manager's authority is limited to that authorized by the Owner. The Owner may change the Project Manager from time to time and may, in the event that the Project Manager is absent, disabled or otherwise temporarily unable to fulfill their duties, appoint an interim Project Manager.

Provide: Shall mean furnish and install ready for its intended use.

Record Drawings: Record Drawings are a final compilation set of drawings showing the "as built" condition of the Work, including all conditions, locations and dimensions based on the Contractor's AsBuilt Drawings. The Record Drawings shall contain the Plans, Specification, Addenda, approved shop drawings, and any other information needed to show the final condition of the work, actual location of piping and utilities, the depths of pilings or caissons if pilings or caissons were in the construction, and the integration of all Change Orders to the Work.

Recycled: Equipment, materials, and accessories which have been previously used and that have been processed to form a new product deemed an equal per Section 26.b.

Service Disabled Veteran-Owned Business: A business that meets the definition of “Service disabled veteran business” as set forth in *Code of Virginia*, § 2.2-4310.

Schedule of Values: That portion of Form CO-12 prepared by the Contractor and acceptable to the Owner which indicates the portion of the Contract Price to be paid for each trade or major component of the Work.

Shop Drawings: The drawings, diagrams, illustrations, schedules, installation descriptions and other data prepared by or for the Contractor to provide detailed information for the fabrication, location, erection, installation, connection and methodology associated with the Work. Shop Drawings are intended to aid in the preparation and installation of materials and to ascertain that the materials proposed by the Contractor conform to the requirements of the Contract Documents.

Site: The location at which the Work is performed or is to be performed.

Small Business: A business certified as a small business by the DSBSD.

Small Business Procurement Plan: The proposed type and percentage of small business participation in the Total Base Bid Amount submitted by the Contractor as part of its Bid.

Special Conditions: That part of the Contract Documents which describes special or additional requirements or procedures applicable to the Project. The Special Conditions do not amend or supersede the General Conditions.

Specifications: That part of the Contract Documents containing the written administrative requirements and the technical descriptions of materials, equipment, construction systems, standards, and workmanship for the Work.

Subcontractor: A person or firm having a direct contract with Contractor or with any other Subcontractor for the performance of the Work. Subcontractor includes any person or firm who provides on-Site labor but does not include a Supplier.

Submittals: All Shop, fabrication, setting and installation drawings, diagrams, illustrations, schedules, samples, and other data required by the Contract Documents which are specifically prepared by or for the Contractor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a Supplier and submitted by the Contractor to illustrate material or equipment conformance of some portion of the Work with the requirements of the Contract Documents. Submittal as used herein includes Shop Drawings.

Substantial Completion: The stage in the progress of the Work at which the Owner agrees that the Work or a specific portion thereof, is sufficiently complete, in accordance with the Contract Documents, so that it can be utilized by the Owner for the purposes for which it was intended. The Owner at its sole discretion may, after obtaining the necessary approvals and certificates, take Beneficial Occupancy at this time or choose to wait to occupy until after Final Completion is achieved.

Supplemental General Conditions: An amendment or modification which amends or supplements the General Conditions.

Supplier: A manufacturer, fabricator, distributor, supplier or vendor who provides material or equipment for the Project but does not provide on-Site labor.

SWaM/SDV Business: All subcategories of Small Businesses certified by the DSBSD including Micro Business, Minority-Owned Business, Service-Disabled Veteran-Owned Business, Small Business, and/or Women-Owned Business together as a group.

Time for Completion: The number of consecutive Days following the Date of Commencement within which the Contractor must achieve Substantial Completion of the Work in accordance with the Contract Documents.

Total Contract Amount: The total compensation payable to the Contractor for performing the Contract, subject to modification by Change Order.

Underground Facilities: All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which are or have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

Work: The construction and services required by the Contract Documents, whether completed or partially completed, including, but not limited to, furnishing labor, furnishing and incorporating materials and equipment into the Construction. The Work includes the entire completed Construction, or the various separately identifiable parts thereof, required to be provided under the Contract Documents or which may reasonably be expected to be provided as part of a complete, code compliant and functioning system for those systems depicted in the Plans and Specifications.

2. CONTRACT DOCUMENTS

The Contract Documents consist of the Contract and all other documents identified therein as Contract Documents as more precisely defined above.

3. LAWS AND REGULATIONS

- a. The Contractor shall comply with the Virginia Uniform Statewide Building Code and all laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the performance of the Work and shall give all notices required thereby. The Contractor shall assure that all Subcontractors and tradespeople who perform Work on the Project are properly licensed by the Department of Professional and Occupational Regulation as required by Title 54.1, Chapter 11, and Article 1 of the *Code of Virginia* and by applicable regulations.
- b. This Contract and all other contracts and Subcontracts are subject to the provisions of Article 3, Chapter 4, Title 40.1, *Code of Virginia*, relating to labor unions and the “right to work.” The Contractor and its Subcontractors, whether residents or nonresidents of the Commonwealth, who perform any Work related to the Project shall comply with all of the said provisions.
- c. IMMIGRATION REFORM AND CONTROL ACT OF 1986: By signing this Contract, the Contractor certifies that it does not and shall not during the performance of this Contract knowingly employ an unauthorized alien as defined in the Federal Immigration Reform and Control Act of 1986, or otherwise violate its provisions.
- d. E-VERIFY PROGRAM: Pursuant to *Code of Virginia*, § 2.2-4308.2, any employer with more than an average of 50 employees for the previous 12 months entering into a contract in excess of \$50,000 with any agency of the Commonwealth to perform work or provide services pursuant to such contract shall register and participate in the E-Verify program to verify information and work authorization of its newly hired employees performing work pursuant to such public contract. Any such employer who fails to comply with these provisions may be debarred from contracting with any agency of the Commonwealth for a period up to one year. Such debarment may cease upon the employer’s registration and participation in the E-Verify program. If requested, the employer shall

present a copy of their Maintain Company page from E-Verify to prove that they are enrolled in E-Verify.

- e. In performing the Work under this Contract, the Contractor shall comply with the provisions of all rules and regulations governing safety as adopted by the Safety Codes Commission of the Commonwealth of Virginia and as issued by the Department of Labor and Industry under Title 40.1 of the *Code of Virginia*. 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.
- f. Building Permit: Because this Project is on Commonwealth of Virginia property, codes or zoning ordinances of local political subdivisions do not apply to Work at the Site. The Virginia Uniform Statewide Building Code applies to the Work and is administered by the Building Official for State-owned buildings and real property. The Building Permit will be obtained and paid for by the Owner. All other permits, local license fees, business fees, taxes, or similar assessments imposed by the appropriate political subdivision and the Department of Environmental Quality shall be obtained and paid for by the Contractor. See Section 25 of these General Conditions for utility connection fees and services.
- g. The 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 in Subsections (a), (b), and (c) of Section 37 of these General Conditions with respect to each lower-tier Subcontractor and Supplier.
- h. The Contractor, if not licensed as an asbestos abatement contractor in accordance with *Code of Virginia*, § 54.1-514, shall have all asbestos-related Work performed by Subcontractors who are duly licensed as asbestos contractors for the Work required.
- i. Lead-Based Paint Activities: If the Contract Documents indicate that lead-based paint is present on existing materials, components, or surfaces, the Contractor shall conform to the following:
 - 1. The requirements set forth in 40 CFR 745.233 – Lead-Based Paint Activities Requirements in selecting and performing the means, methods and procedures for performing the Work. This includes, but is not limited to, training of personnel, lead abatement, encapsulation of lead-containing materials, removal and handling of lead containing materials, and methods of disposal.
 - 2. The requirements for employee protection contained in 29 CFR Part 1926, Subpart D, and the requirements for record-keeping contained 29 CFR Part 1910.
 - 3. The Virginia Department of Labor and Industry’s (DLI) Regulation Concerning Certified Lead Contractors Notification, Lead Project Permits and Permit Fees published in the Virginia Administrative Code, 16 VAC25-35, requiring, among other things, that a permit be issued to the lead abatement contractor, or any subsequent regulation issued by DLI pertaining to lead-based paint abatement.
- j. If the Contractor violates laws or regulations that govern the Project, the Contractor shall take prompt action to correct or abate such violation and shall indemnify and hold the Owner harmless against any fines and/or penalties that result from such violation. The Contractor also shall indemnify and hold the Owner 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 arise or result from Contractor’s violation of laws or regulations.

- k. If the Work includes any land-disturbing activities, the Contractor shall have on-Site an individual certified by the Department of Environmental Quality as a Responsible Land Disturber in accordance with *Code of Virginia*, § 62.1-44.15:51.
- l. Unless otherwise specified in the Supplemental General Conditions, the Contractor is neither required nor prohibited from entering into or adhering to agreements with one or more labor organizations, or otherwise discriminating against Subcontractors for becoming or refusing to become, or remaining signatories to or otherwise adhering to, agreements with one or more labor organizations. This section does not prohibit Contractor or Subcontractors from voluntarily entering into agreements with one or more labor organizations. Both the Agency and Contractor are entitled to injunctive relief to prevent any violation of this section.

This section does not apply to any public-private agreement for any construction in which the private body, as a condition of its investment or partnership with the state agency, requires that the private body have the right to control its labor relations policy and perform all work associated with such investment or partnership in compliance with all collective bargaining agreements to which the private party is a signatory and is thus legally bound with its own employees and the employees of its contractors and subcontractors in any manner permitted by the National Labor Relations Act, 29 U.S.C. § 151 *et seq.*, or the Railway Labor Act, 45 U.S.C. § 151 *et seq.*

This section does not prohibit an employer or any other person covered by the National Labor Relations Act or the Railway Labor Act from entering into agreements or engaging in any other activity protected by law.

This section shall not be interpreted to interfere with the labor relations of persons covered by the National Labor Relations Act or the Railway Labor Act.

4. NONDISCRIMINATION

- a. Contractor shall comply with the Federal Civil Rights Act of 1964, as amended, the Virginia Fair Employment Contracting Act of 1975, as amended, the Virginia Human Rights Act, as amended, and the laws of the Commonwealth of Virginia and all Executive Orders in effect at the time of the Work which safeguard individuals from unlawful discrimination in employment.
- b. *Code of Virginia* § 2.2-4311 shall be applicable to the Work of the Contract. During the performance of this Contract, the Contractor agrees as follows:
 - 1. The Contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or other basis prohibited by state 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 Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
 - 2. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the contractor, will state that such Contractor is an equal opportunity employer.
 - 3. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

4. The Contractor shall include the provisions of the foregoing subparagraphs 1, 2 and 3 in every Subcontract or purchase order over \$10,000, so that the provisions will be binding upon each Subcontractor and Supplier.
- c. *Code of Virginia*, § 2.2-4201 shall be applicable to the Work of the Contract. During the performance of this Contract, the Contractor agrees as follows:
 1. The Contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin, except where religion, sex or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor shall post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause, including the names of all contracting agencies with which the Contractor has contracts over \$10,000.
 2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that Contractor is an equal opportunity employer. However, notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this chapter
 3. If the Contractor employs more than five (5) employees, the Contractor shall: (i) provide annual training on the Contractor's sexual harassment policy to all Contractor's supervisors and employees providing services in the Commonwealth of Virginia, except such supervisors or employees who are required to complete sexual harassment training provided by the Commonwealth of Virginia Department of Human Resource Management; and (ii) post the Contractor's sexual harassment policy in: (a) a conspicuous public place in each building located in the Commonwealth that the Contractor owns or leases for business purposes; and (b) the Contractor's employee handbook.
 4. The Contractor shall include the provisions of the foregoing subparagraph 1, 2 and 3 in every Subcontract and purchase order over \$10,000, so that the provisions will be binding upon each Subcontractor and Supplier.
- d. Where applicable, the Virginians with Disabilities Act and the federal Americans with Disabilities Act shall apply to the Contractor and all Subcontractors and Suppliers.
- e. The Owner does not discriminate against faith-based organizations as defined in *Code of Virginia* § 2.2-4343.1(B).

5. PROHIBITION OF ALCOHOL AND OTHER DRUGS

- a. The Contractor shall establish a written policy to maintain and enforce a drug-free workplace, to specify actions that will be taken against persons for violations of the policy, and to require that such policy be binding on each of its employees, Subcontractors, and Suppliers performing Work of the Contract.
- b. The Contractor's policy shall prohibit the following acts by all Contractor, Subcontractor, and Supplier personnel at the Site:

1. The manufacture, distribution, dispensation, possession, or use of a controlled substance or marijuana, except possession and medically prescribed use of prescription drugs; and
 2. The impairment of judgment or physical abilities due to the use of a controlled substance or marijuana, including impairment from prescription drugs.
- c. The Contractor shall post a copy of this policy in a conspicuous place at the Site and assure that all personnel, including potential hires, are advised of the policy. A violation of this policy will be recognized as a breach of Contract and may result in termination of the Contract.
 - d. The Contractor shall include in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free workplace.
 - e. The Contractor shall include the foregoing provisions as binding upon each Subcontractor and Supplier in every subcontract or purchase order over \$10,000.
 - f. For the purposes of this section, “drug-free workplace” means a site for the performance of work done in connection with a specific contract awarded to a contractor in accordance with this chapter, 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.

6. TIME FOR COMPLETION

- a. The Contractor shall achieve Substantial Completion on or before the Contract Completion Date. Unless otherwise specified, the Contractor shall achieve Final Completion within thirty (30) Days after the Contract Completion Date.
- b. The Contractor acknowledges and agrees that the Owner is relying upon the Time for Completion and Contract Completion Date for planning the use and Beneficial Occupancy of the Work and for all other purposes. If the Contractor fails to achieve Substantial Completion by the Contract Completion Date, the Contractor shall be subject to payment of actual damages incurred by the Owner or liquidated damages, if provided for in the Contract.
- c. The Contractor, in submitting its bid or proposal, acknowledges that the Time for Completion is a reasonable duration and period for performing the Work and that it has taken into consideration normal weather conditions for the period of performance. Normal weather does not mean statistically average weather, but rather means a range of weather patterns which might be anticipated based on weather conditions and events for the past ten (10) years. Normal weather conditions shall be determined from the public historical records available, including the U.S. Department of Commerce, Local Climatological Data Sheets, National Oceanic and Atmospheric Administration / Environmental Data and Information Service, National Climatic Center and National Weather Service. The data sheets to be used shall be those for the locality or localities closest to the Site. No additional compensation, costs or damages will be paid to the Contractor because of normal weather conditions, including normal adverse weather to be anticipated during the Project. An extension of time for abnormal adverse weather conditions which directly impact the Work will be considered by the Owner upon under the following conditions, all of which must be strictly complied with and demonstrated by the Contractor:
 1. A request for extension of time-based on abnormal adverse weather conditions must be made in writing within fourteen (14) Days of the completion of the calendar month during which the abnormal adverse weather conditions impacted the Work at the Site. The request for additional time shall be substantiated by weather data collected during the period of

delay at the Site. Said data must demonstrate an actual departure from weather conditions that could have been anticipated at the Site during the dates in question.

2. The abnormal adverse weather must have caused a delay to the Contract Completion Date as a result of a delay to the Critical Path as depicted on the accepted “critical path method” schedule or the approved bar graph schedule current at the time of the weather event. No extension will be considered for any portion of any delay which consumes only Float.
3. All of the evidence and data supporting the request (including both historical data and the recordings at the Site during the time of delay) must be furnished to the Owner before the end of the calendar month following the month for which the request is made.

Compliance with the requirements of this section is a condition precedent to the Contractor’s entitlement to any change or adjustment to the Contract Completion Date for impacts from abnormal weather conditions.

- d. The Contractor’s execution of the Contract is a representation and agreement that the Contractor has visited the Site and reviewed the requirements of the bid documents, the Contract Documents, local conditions, availability of materials, equipment, and labor, the reasonable time required for the Owner to respond to Submittals, and any other factors which may affect the performance of the Work, and has taken all these factors into consideration in submitting its bid and executing this Contract.

7. CONDITIONS AT SITE

- a. The Contractor shall have visited the Site prior to bidding or submitting its proposal and is totally responsible for having ascertained pertinent local conditions such as location, accessibility and general character of the Site, and the character and extent of existing conditions, improvements and work within or adjacent to the Site. The Contractor shall not submit any claims or any request for adjustments of the Contract Price or Contract Completion Date which result from its failure to consider such conditions.
- b. If in the performance of the Work the Contractor encounters (i) hidden physical conditions of a building being modified which are materially different from those ordinarily encountered or generally recognized as inherent in the activities being performed or (ii) subsurface or concealed latent conditions which are materially different from those frequently present in the locality or from those indicated in the Contract Documents, the Contractor shall promptly provide Notice to the Owner and A/E before the conditions are disturbed and not later than seven (7) Days after discovery. The A/E shall promptly review the conditions and propose such changes or adjustments, if any, in the Contract Documents that may be necessary to address the conditions. The Contractor must request any change in the Contract Price or Contract Completion Date for such conditions pursuant to the applicable requirements in Sections 38, 39, and 43 of these General Conditions. Compliance with the requirements of this section is a condition precedent to the Contractor’s entitlement to any change or adjustment in the Contract Price or Contract Completion Date as a result of such Site conditions.
- c. If the Contractor, during the course of the Work, observes the existence of any material which he knows, should know, or has reason to believe is hazardous to human health, the Contractor shall promptly notify the Owner in writing before the material is disturbed further or the affected work is performed. The Owner will provide the Contractor with instructions regarding the disposition of the material. The Contractor shall not perform any Work involving the material or any Work causing the material to be less accessible prior to receipt of special instructions from the Owner. The Contractor must request any change in the Contract Price or Contract Completion Date for such

conditions pursuant to the applicable requirements in Sections 38, 39 and 43 of these General Conditions. Compliance with the requirements of this section is a condition precedent to the Contractor's entitlement to any change or adjustment in the Contract Price or Contract Completion Date as a result of such Site conditions.

8. CONTRACT SECURITY

- a. For contracts with a value exceeding Five Hundred Thousand Dollars (\$500,000), the Contractor shall deliver to the Owner or its designated representative, a Commonwealth of Virginia Standard Performance Bond, DGS-30-084 (CO-10) and a Commonwealth of Virginia Standard Labor and Material Payment Bond, DGS-30-088 (CO-10.1), each fully executed by the Contractor and one or more surety companies legally licensed to do business in Virginia and each in an amount equal to one hundred percent (100%) of the Contract Price. If more than one Surety executes a bond, each shall be jointly and severally liable to the Owner for the entire amount of the bond. Sureties shall be selected by the Contractor, subject to approval by the Owner. No payment on the Contract shall be due and payable to the Contractor until the bonds have been approved by the Owner and the Office of the Attorney General of Virginia. To facilitate review of the bonds by the Office of the Attorney General, the power of attorney from the surety company to its agent who executes the bond shall be attached to the bond, or, if not so attached, prior to the execution of the bonds by the surety, recorded in the Office of the Clerk of Court for the City of Richmond, Virginia, at the John Marshall Court Building, 400 North Ninth Street, Richmond, VA 23219.
- b. For the purposes of all Standard Labor and Material Payment Bonds entered into, the term "subcontractors" as used in § 2.2-4337(A)(2) of the *Code of Virginia* is interpreted to mean any Subcontractors at any tier who participated in the prosecution of the Work undertaken by the Contractor (referred to in § 2.2-4337(A)(2) of the *Code of Virginia* as the "prime contractor"), whether such Subcontractor had a direct contract with the Contractor (prime contractor) or another Subcontractor, regardless of whether there were one or more other intervening Subcontractors contractually positioned between it and the Contractor (prime contractor).
- c. *Code of Virginia* § 2.2-4338 allows for alternative forms of security in lieu of payment and/or performance bonds. No alternative forms of security shall be allowed unless approved in writing by Owner prior to Contractor's submission of its Bid or proposal.
- d. Mechanic's liens may not be filed or recorded on Owner, Agency, or Commonwealth property. The Contractor shall keep the Owner's property free and clear from all mechanic's liens. The Contractor shall, upon Notice from the Owner, cause any liens filed or recorded to be released within ten (10) Days from Notice at its cost and expense; and if the Contractor fails to do so, the Owner shall have the right, but not the obligation, to cause such lien to be released by bonding or otherwise, and the Contractor shall indemnify and hold harmless the Owner from all costs and expenses incurred or to be incurred as a result, including bond premiums, court costs and attorneys' fees arising from or related to such liens. At the Owner's option, it may withhold payment of any sums due the Contractor until any such liens are released, and may deduct such costs or expenses from any payment then due or thereafter becoming due from the Owner to the Contractor.

9. SUBCONTRACTS

- a. The Contractor shall, as soon as practicable after the signing of the Contract, notify the Owner and A/E in writing of the names of all Subcontractors proposed for the principal parts of the Work and of such others as the A/E may direct. Where the Specifications establish qualifications or criteria for Subcontractors, manufacturers, or individuals performing Work on the Project, the Contractor

shall be responsible for ascertaining that those proposed meet the criteria or qualifications. The Contractor shall not employ any Subcontractor that the Owner may, within a reasonable time, object to as unsuitable. Neither the Owner nor the A/E shall direct the Contractor to contract with any particular Subcontractor unless provided in the Specifications or Invitation for Bids.

- b. The Owner may select a particular Subcontractor for a certain part of the Work and designate on the Invitation for Bids or Request for Proposal 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 or Proposal form. The Contractor shall include the stipulated amount plus its markups in the bid or Proposal. In such case, the Contractor shall be responsible for that Subcontractor and its work and the Subcontractor shall be responsible to the Contractor for its work just as if the Contractor had selected the Subcontractor. If the Contractor has a reasonable objection to the Subcontractor designated, then the Contractor shall note the exception in its bid or proposal and the reason for the exception and maintain appropriate provisions for coordinating the work of the Subcontractor. The Owner, at its sole discretion, may accept the Contractor's bid or proposal with the exception noted and contract separately with the Subcontractor under the provisions of Section 10 of the Contract or designate a different Subcontractor.
- c. The Owner shall, on request, furnish to any Subcontractor, if practicable, the amounts of payments made to the Contractor, the Schedule of Values and Requests for Payment submitted by the Contractor, and any other documentation submitted by the Contractor which would tend to show what amounts are due and payable by the Contractor to the Subcontractor.
- d. The Contractor shall be fully responsible to the Owner for all acts and omissions of its agents and employees and all tiers of Subcontractors and Suppliers performing or furnishing any of the Work. Nothing in the Contract Documents shall create any contractual relationship between Owner or A/E and any Subcontractor, Supplier or other Person, nor shall it create any obligation on the part of Owner or A/E to pay for or to see to the payment of any moneys due any Subcontractor, Supplier or other Person, except as may otherwise be required by law.
- e. The Contractor shall be fully responsible for its invitees at the Site and for those of its Subcontractors, Suppliers, and their employees, including any acts or omissions of such invitees.
- f. The Contractor agrees that it is responsible for all dealings and coordination with 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 the Contract or by statute.

10. SEPARATE CONTRACTS

- a. The Owner reserves the right to let other contracts in connection with the Project, the work under which may proceed simultaneously with the execution of this Contract. The Contractor shall afford separate contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work. The Contractor shall cooperate with them and shall take all reasonable action to coordinate its Work with that of separate contractors. If the Owner has listed other separate contracts in the Invitation for Bids or Requests for Proposal which it expects to proceed simultaneously with the Work of the Contractor, and has included the estimated timing of such other contracts in the Invitation for Bids or Requests for Proposal, the Contractor shall integrate the schedule of those separate contracts into its scheduling. The Contractor shall make every reasonable effort to assist the Owner in maintaining the schedules for all separate contracts. If the work performed by a separate contractor is Defective or performed so as to prevent or threaten to prevent the Contractor from carrying out its Work according to the Contract, the Contractor shall immediately notify the Owner and the A/E upon discovering such conditions.

- b. If a dispute arises between the Contractor and any separate contractor(s) as to their responsibility for cleaning up the Site, the Owner may clean up and charge the cost thereof to the respective contractors in proportion to their responsibility. If the Contractor disputes the Owner's apportionment of clean-up costs, it shall be the Contractor's burden to demonstrate and prove the correct apportionment.

11. CONTRACTOR'S AND SUBCONTRACTOR'S INSURANCE

- a. The Contractor shall not commence Work under this Contract until all insurance required hereunder has been obtained from an insurer authorized to do business in Virginia and such insurance has been approved by the Owner. The Contractor shall provide to the Owner Certificates of Insurance for all required coverage and, upon request, shall provide full copies of the Contractor's insurance policies. Approval of insurance by the Owner shall not relieve or decrease the liability of the Contractor hereunder.
- b. The Contractor shall procure and maintain, as required herein, the following insurance coverages:
 - 1. Workers' Compensation and Employer's Liability Insurance to cover all employees engaged in the Work of a type and in an amount to meet all Commonwealth of Virginia statutory requirements and regulations to provide all benefits to which employees may be entitled, with limits no less than \$1,000,000 bodily injury by accident or disease, each employee. Where applicable, coverage shall be extended to cover any claims under the United States Longshoreman's Act and Harbor Workers Act and Jones Act as may be appropriate for the work.
 - 2. Comprehensive General Liability insurance, including coverage for Broad Form Contractual, Premises/Operations, Product and Completed Operations, Independent Contractor's Liability, and Personal Injury Liability, with limits of at least \$1,000,000 per occurrence and \$2,000,000 aggregate, applicable on a per-project basis. The policy shall not exclude or limit the amount of coverage for the Work of the Project or for explosion, collapse, underground operations, mold, or exterior insulation and finish system ("EIFS").
 - 3. Automobile Liability Insurance with a limit of not less than \$1 million combined single limit for bodily injury and property damage per occurrence, covering all owned, nonowned, hired and borrowed vehicles, whether on-Site or off-Site.
 - 4. Contractor or the Asbestos Subcontractor shall provide occurrence-based liability insurance with asbestos coverages in an amount not less than \$1,000,000. The following shall be named as additional insureds on this policy: the Commonwealth of Virginia, its officers, employees and agents; the A/E (if not the Asbestos Project Designer); and the Contractor (where the asbestos work is being performed by the Asbestos Subcontractor).
- c. Unless otherwise specified, Contractor shall ensure that all insurance required by Subsection (b) above contains the following provisions:
 - 1. With the exception of Workers' Compensation insurance, the Commonwealth of Virginia, the Owner, and their officers, employees and agents shall be named as additional insureds on all policies. The additional insureds as stated for the asbestos coverage shall be as stated in Section 11(b)(4).
 - 2. All insurance coverage shall be considered primary and non-contributory with respect to other insurance that might be available to the Contractor, A/E, Owner, or Agency.

3. All insurers shall waive rights of subrogation against the Commonwealth of Virginia, Owner and Agency for any claims covered by the insurance required herein.
4. All deductibles or self-insured retentions shall be the sole responsibility of the Contractor.
- d. No insurance will be canceled, dropped, replaced, or materially changed without at least thirty (30) Days' prior written Notice to and consent of the Owner.
- e. Contractor shall require each Subcontractor to carry the same insurance, and in the same amounts, required by Section 11(b)(1)-(3) above. The Contractor shall not allow any Subcontractor to commence Work on the Project until all insurance required of the Subcontractor by this Contract has been obtained by the Subcontractor and approved by the Contractor.
- f. Prior to award of the Contract, the Contractor shall submit, on the form provided by the Owner, a Certificate of Coverage verifying Workers' Compensation insurance is in place. The Contractor shall likewise obtain a Certificate of Coverage for Workers' Compensation insurance from each Subcontractor and shall provide a copy to the Owner prior to the Subcontractor beginning Work at the Project.

12. "ALL RISK" BUILDER'S RISK INSURANCE

- a. The Contractor shall procure and maintain, at its cost, all-risk Builder's Risk insurance with minimum coverage and limits as follows:
 1. **Contractor Controlled During Construction:** If the Site is controlled by the Contractor during the Project, the Contractor shall maintain "all-risk" Builder's Risk insurance for the Work and the entire structure or structures, if any, on which the Work is to be done with a minimum limit of not less than the insurable value of the structure(s) plus one hundred percent (100%) of the Contract Price and the value of all Change Orders, to represent the total value of the structure(s) and the Work on a replacement cost basis.
 2. **Owner Controlled During Construction:** If the Site is controlled by the Owner during the Project, the Owner will maintain insurance coverage on its building(s). The Contractor shall maintain "all risk" Builder's Risk insurance in an amount equal to one hundred percent (100%) of the Contract Price and the value of all Change Orders, to represent the total value of the Work on a replacement cost basis.
- b. Builder's risk insurance shall be provided on an "all risk" or equivalent policy form and shall include, without limitation, insurance against all perils. The insurance shall cover the costs of debris removal, temporary buildings, legal requirements, and compensation for A/E services and Contractor services required following an insured loss. The insurance shall cover portions of the Work stored off-Site, Work in transit, and all materials, supplies, equipment, machinery, and fixtures that are or will be part of the Project.
- c. Such insurance may include a deductible provision if the Owner so provides in the Supplemental General Conditions, in which case the Contractor will be liable for such deductible whenever a claim arises. Any loss payable under the Builder's Risk insurance shall be payable to the Owner, in accordance with its interests, as they may appear, and then to any other persons insured thereunder.

Written evidence of this insurance and a copy of the policy shall be provided to the Owner no later than thirty (30) Days following the award of the Contract. The policy shall not be canceled, dropped,

replaced, or materially changed without at least thirty (30) Days' prior written Notice to and consent of the Owner.

- d. Builder's risk insurance shall include the interest of the Contractor, the Owner, the Commonwealth, and all Subcontractors and Sub-subcontractors. Contractor shall maintain the builder's risk insurance until Final Payment by the Owner or until no person other than the Owner has an insurable interest in the Work, whichever is later.
- e. Any insurance provided through the Department of Treasury, Division of Risk Management, on buildings, construction, additions or renovations will not extend to Contractor's nor Subcontractors' buildings, equipment, materials, tools or supplies unless these items are to become property of the Owner upon completion of the Project and the Owner has assumed responsibility for such items at the time of the loss.

13. TAXES, FEES AND ASSESSMENTS

The Contractor shall, without additional expense to the Owner, pay all applicable federal, state, and local taxes, fees, and assessments arising out of the Work, except the taxes, fees and assessments on the real property comprising the Site. If the State Building Official elects to have the local building official inspect the Work as provided by *Code of Virginia* § 36-98.1, the Owner shall pay the resulting fees to the local building official.

14. PATENTS

The 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. The Contractor shall indemnify and hold harmless the Owner, its officers, agents and employees, 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 the Contract, including its use by the Owner, unless such invention, process, technique, article or appliance is specifically named in the Specifications or Plans as 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 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 Contractor shall promptly advise the Owner and the A/E. The Owner may direct that some other invention, process, technique, article or appliance be used. Should the Contractor have reason to believe that the invention, process, technique, article or appliance so specified is an infringement of a patent, and fails to inform the Owner and the A/E, the Contractor shall be responsible for any loss or liability due to the infringement.

15. ARCHITECT/ENGINEER'S STATUS

- a. The A/E shall have authority to endeavor to secure the faithful performance of the Work by Contractor. The A/E shall review the Contractor's Submittals for conformance to the requirements of the Contract Documents and return copies to the Contractor with appropriate notations. The A/E shall interpret the requirements of the Plans and Specifications and issue Field Orders to the Contractor as may be required. The A/E shall recommend to the Owner suspension of the Work (in whole or in part) whenever such suspension may be necessary to ensure the proper execution of the Work or the requirements of the Contract. The A/E shall have authority to reject, in writing, Work, including material, installation or workmanship, which does not conform to the Contract Documents or is Defective. The A/E shall determine the progress and quality of the Work, subject to the right of the Owner to make an overriding decision to the contrary. Upon request by the Contractor, the

A/E shall confirm, in writing within fourteen (14) Days, any verbal order or determination made by the A/E.

- b. The A/E shall have no authority to approve or order changes in the Work which alter the design concept or which call for an extension of the Contract Completion Date or Final Completion or a change in the Contract Price.
- c. The Owner shall have the right, but not the duty, to countermand any decision of the A/E and to follow or reject the advice of the A/E, including but not limited to acceptance of the Work, as it deems best in its sole discretion. In those instances where the A/E has been given authority to act, the A/E shall promptly do so, but in the case of disagreement between the A/E and the Owner, the decision of the Owner shall be final. The Contractor shall not be bound by any determination, interpretation or decision of the A/E contrary to the A/E's authority or that is not consistent with the Contract Documents. The party taking issue with the determination, interpretation or decision of the A/E shall give the other party written notice of such fact within fourteen (14) days after the determination, interpretation or decision is communicated by the A/E. In the actual performance of the Work, the Contractor shall proceed in accordance with instructions given by the A/E unless the Owner and the Contractor mutually agree in writing or by Change Order that the Contractor shall proceed otherwise.
- d. All orders from the Owner to the Contractor shall either be transmitted through the A/E or communicated directly to the Contractor and the A/E by the Owner.
- e. Should the Owner choose to employ another or different A/E, the status of the A/E so employed shall be the same as that of the former A/E.
- f. The A/E shall provide a progress report to the Owner and the Contractor after each A/E visit to the Site. The report shall be in writing indicating the date, time of day, weather conditions and the names of the persons representing the A/E who participated in the visit. The report shall advise the Owner of any problems that were noted or observed and shall compare the A/E's observations of the actual progress of the Work with that reported by the Contractor. On the basis of its on-Site observations, the A/E will make every reasonable effort to guard the Owner against delays, defects, and deficiencies in the Work of the Contractor. The A/E shall have the authority to inspect the Work, to note and report Defective Work and deviations from the Contract Documents to the Owner, to reject Work, and to recommend to the Owner the suspension of the Work when necessary to prevent Defective Work from proceeding or being covered.
- g. The A/E shall not be responsible for construction means, methods, techniques, sequences or procedures (other than those expressly specified in the Contract Documents), or for safety precautions and programs in connection with the Work. The A/E shall not be responsible for the Contractor's failure to carry out the Contractor's own responsibilities.
- h. The A/E generally conveys written decisions and Notices to the Contractor through the Project Manager and shall generally receive information and Notices from the Contractor through the Project Manager unless otherwise agreed. The Owner may delegate from the A/E to the Project Manager certain inspection, verification, acceptance, rejection, and administrative duties and authority, but any such delegation shall be in writing and a copy thereof provided to the Contractor.
- i. The provisions of this Section are included as information only to describe the relationship between the Owner, A/E, and Contractor. No failure of the A/E to act in accordance with this Section shall relieve the Contractor from its obligations under the Contract or create any rights in favor of the Contractor against the Owner.

16. INSPECTION

- a. All material and workmanship shall be subject to inspection, examination and testing by the Owner, the A/E, the Project Inspector, authorized inspectors and authorized independent testing entities at any and all times during manufacture and/or construction. The A/E and the Owner shall have authority to reject Defective Work and non-conforming material and require its correction. Rejected workmanship shall be satisfactorily corrected and rejected material shall be satisfactorily replaced with proper material without charge therefore, and the Contractor shall promptly segregate and remove the rejected material from the Site. If the Contractor fails to proceed at once with replacement of rejected material and/or the correction of Defective Work, the Owner may replace such material and/or correct such Work and charge the cost to the Contractor, or may terminate the Contract as provided in Section 41 of these General Conditions, the Contractor and surety being liable for any damage to the same extent as provided in Section 41 for termination thereunder.
- b. Site inspections, tests conducted on Site and tests of materials gathered on Site which the Contract requires to be performed by independent testing entities shall be contracted and paid for by the Owner. Examples of such tests are the testing of cast-in-place concrete, foundation materials, soil compaction, pile installations, caisson bearings and steel framing connections. The Contractor shall promptly furnish, without additional charge, all reasonable facilities, labor and materials necessary and convenient for making such tests. Except as provided in (d) below, whenever such examination and testing finds Defective Work or non-conforming materials or equipment, the Contractor shall reimburse the Owner for the cost of reexamination and retesting. Although conducted by independent testing entities, the Owner will not contract and pay for tests or certifications of materials, manufactured products or assemblies which the Contract, codes, standards, etc., require to be tested and/or certified for compliance with industry standards such as Underwriters Laboratories, Factory Mutual or ASTM. If fees are charged for such tests and certifications, they shall be paid by the Contractor. The Contractor shall also pay for all inspections, tests, and certifications which the Contract specifically requires the Contractor to perform or to pay, together with any inspections and tests which it chooses to perform for its own purposes, but which are not required by the Contract.
- c. Where Work is related to or dependent on Defective Work, the Contractor shall stop such related or dependent Work until the Defective Work is corrected or an alternative solution is presented that is satisfactory to the Owner. Where Work is rejected as Defective, the Contractor shall stop like Work in other areas or locations on the Project until the Owner has approved corrective measures.
- d. Should it be considered necessary or advisable by the Owner or the A/E at any time before the Final Completion Date to make an examination of any part of the Work already completed, by removing or tearing out portions of the Work, the Contractor shall promptly furnish all necessary facilities, labor and material to expose the Work to be tested to the extent required. If such Work is found to be Defective in any respect, the Contractor shall bear all the expenses of uncovering the Work, of examination and testing, and of satisfactory reconstruction and correction of the Defective Work. If, however, such Work is found to meet the requirements of the Contract, the actual cost of the Contractor's labor and material necessarily involved in uncovering the Work, the cost of examination and testing, and Contractor's cost of material and labor necessary for replacement of the examined Work including a markup of fifteen (15%) percent for overhead and profit, shall be paid to the Contractor and, if the Contract Completion Date was delayed thereby, a time extension equivalent to the impact on the Critical Path shall be issued by Change Order. Notwithstanding the foregoing, the Contractor shall be responsible for all costs and expenses in removing and replacing the Work if the Contractor had covered the Work prior to any inspection or test required by the Contract Documents or contrary to the instructions of the A/E, Owner, Project Inspector, or Building Official.

The Project Inspector has the authority to recommend to the A/E and the Owner that the Work be suspended when in his or her judgment the Contract Documents are not being followed. Any such suspension shall be continued only until the matter in question is resolved to the satisfaction of the Owner. The cost of any such Work stoppage shall be borne by the Contractor unless it is later determined that the Work in question was in full compliance with the Contract Documents.

- e. The Project Inspector has the right and the authority to:
 - 1. Inspect all construction materials, equipment, and supplies for quality and for compliance with the Contract Documents and/or approved shop drawings and Submittals.
 - 2. Inspect workmanship for compliance with the standards described in the Contract Documents.
 - 3. Observe and report on all tests and inspections performed by the Contractor.
 - 4. Recommend rejection of Work which does not conform to requirements of the Contract Documents or is Defective.
 - 5. Keep a record of construction activities, tests, inspections, and reports.
 - 6. Attend all Site construction meetings and inspections held by the Owner and/or the A/E with the Contractor.
 - 7. Check materials and equipment, together with documentation related thereto, delivered for conformance with approved Submittals and the Contract.
 - 8. Check installations for proper workmanship and conformance with shop drawings and installation instructions.
 - 9. Assist in the review and verification of the Form CO-12, Schedule of Values and Certificate for Payment, submitted by the Contractor each month.
 - 10. Do all things for or on behalf of the Owner as the Owner may direct in writing.

- f. The Project Inspector has no authority to:
 - 1. Authorize deviations from the Contract Documents;
 - 2. Enter into the area of responsibility of the Contractor's superintendent;
 - 3. Issue directions relative to any aspect of construction means, methods, techniques, sequences or procedures unless specifically required by the Contract Documents or in regard to safety precautions and programs in connection with the Work;
 - 4. Authorize or suggest that the Owner occupy the Project, in whole or in part; or
 - 5. Issue a certificate for payment.

- g. The duties of the Project Inspector are for the benefit of the Owner only and not for the Contractor. The Contractor may not rely upon any act, statement, or failure to act on the part of the Project Inspector, nor shall the failure of the Project Inspector to properly perform his or her duties in any

way excuse Defective Work, improper performance of the Work, or noncompliance with the Contract Documents by the Contractor.

17. SUPERINTENDENCE BY CONTRACTOR

- a. The Contractor shall have a competent foreman or superintendent, satisfactory to the A/E and the Owner, on the Site at all times during the performance of the Work. The superintendent shall be familiar with and be able to read and understand the Contract Documents and be capable of communicating verbally and in writing with the Owner's representatives, the A/E, and the Contractor's workers. The Contractor shall be responsible for all construction means, methods, techniques, sequences and procedures, for coordinating all portions of the Work except where otherwise specified in the Contract Documents, and for all safety and worker health programs and practices. The Contractor shall notify the Owner, in writing, of any proposed change in foreman or superintendent, including the reason therefore, prior to making such change.
- b. The Contractor shall, at all times, enforce strict discipline and good order among the workers on the Project, and shall not employ on the Work, or contract with, any unfit person, anyone not skilled in the Work assigned to him or her, or anyone who will not work in harmony with those employed by the Contractor, the Subcontractors, the Owner or the Owner's separate contractors and their subcontractors or anyone who will not interact appropriately with the public.
- c. The Owner may, in writing, require the Contractor to remove from the Site any employee or Subcontractor's employee the Owner deems to be incompetent, careless, not working in harmony with others on the Site, not interacting appropriately with the public, or otherwise objectionable, but the Owner shall have no obligation to do so.

18. CONSTRUCTION SUPERVISION, METHODS AND PROCEDURES

- a. The Contractor shall be solely responsible for supervising and directing the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract. The Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of construction and for coordinating all portions of the Work, except where otherwise specified in the Contract Documents. The Contractor shall not be responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction expressly required by the Contract. The Contractor is solely responsible to the Owner that the finished Work complies with the Contract Documents.

The Contractor shall be solely responsible for health and safety precautions and programs for workers and others in connection with the Work. No inspection by, knowledge on the part of, or acquiescence by the A/E, the Project Inspector, the Owner, the Owner's employees and agents, or any other Person shall relieve the Contractor from its sole responsibility for compliance with the requirements of the Contract and its sole responsibility for health and safety programs and precautions for the Work.

- b. If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, the Contractor may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to the A/E, subject to the Owner's right to disapprove. The Contractor must submit its written request for the substitution to the A/E with sufficient information to allow the A/E to determine that the substitute proposed is equivalent to that indicated or required by the Contract.

- c. The Plans and Specifications are divided into several parts, or sections, for convenience only and because the entirety of the Plans and Specifications must be considered and construed as a whole. The divisions of the Plans and Specifications are not intended to control the Contractor in dividing the Work among Subcontractors or to limit the Work performed by any trade. The Contractor shall be solely responsible for the coordination of the trades, Subcontractors and vendors engaged in the Work and for the compensation of the trades, Subcontractors and vendors for the Work performed.

19. SCHEDULE OF THE WORK

- a. **General:** The Contractor is responsible for the scheduling and sequencing of the Work, for coordinating the Work, for monitoring the progress of the Work, and for taking appropriate action to keep the Work on schedule to finish on or before the Contract Completion Date. The Contractor may attempt to achieve Substantial Completion before the Contract Completion Date and receive payment in accordance with Section 36 for the Work completed each period. However, the Contract Completion Date shall be used in all schedules and schedule updates as the deadline for which Substantial Completion is to be achieved. The time (in Days) between the Contractor's planned early completion and the Contract Completion Date is part of the Float. Extensions of time allowed pursuant to Sections 38, 39, and 43, the determination of any compensation for compensable delay, and all other matters between the Owner and the Contractor will be determined using the Contract Completion Date, not an earlier Substantial Completion date planned by the Contractor.

Within two (2) weeks after the Contractor signs the Contract, unless otherwise extended by the Owner at the time of the signing, the Contractor shall prepare and submit to the Owner, with a copy to the A/E, a schedule for achieving Substantial Completion by the Contract Completion Date. The preliminary schedule shall be in sufficient detail to show the sequencing of the various trades for each floor level, wing or work area. The Owner will notify the Contractor of any comments on the preliminary schedule within fifteen (15) Days of receipt by the Owner.

A fully complete Project schedule meeting the requirements set forth below in subparagraph (1) or (2), as applicable, must be submitted no later than sixty (60) Days after the Contract is signed by the Owner.

1. For Contracts with a Contract Price less than \$1,500,000, a "critical path method" or bar graph schedule may be utilized. The schedule shall indicate the estimated starting and completion dates for each major element of the work and satisfy the requirements of Section 19 (b) below.
2. For Contracts with a Contract Price of \$1,500,000 or more, a "critical path method" schedule shall be utilized to control the planning and scheduling of the Work. The "critical path method" schedule shall be the responsibility of the Contractor and shall be paid for by the Contractor and shall satisfy the requirements of Section 19(c) below.

It is the Contractor's responsibility to submit a schedule that shows Substantial Completion of the Work by the Contract Completion Date and completion of any portions of the Work by any interim deadlines established by the Contract.

The Contractor shall allow sufficient time in the schedule for the A/E to conduct all reviews and inspections required under the A/E Contract with the Owner. If the A/E and the Contractor are unable to agree as to what constitutes sufficient time, the Owner shall determine the appropriate duration for such A/E activities.

The Owner and A/E review schedules and schedule-related submittals solely for compliance with the requirements of this Section. The Owner's failure to reject or its acceptance of any schedule,

graph, chart, recovery schedule, updated schedule, plan of action, monthly status report, or similar schedule-related submittals, shall not constitute a representation, admission, or warranty by the Owner, including but not limited to a representation, admission, or warranty that the schedule is feasible or practical or that contents therein are true or accurate, nor shall any such acceptance or failure to reject relieve the Contractor from sole responsibility for completing the Work by the Contract Completion Date.

No progress payments will be payable to the Contractor until after it has submitted a preliminary schedule which is acceptable to the Owner. Neither the second progress payment nor any subsequent payment shall be payable to the Contractor until it has submitted a fully complete Project schedule accepted by the Owner. No subsequent progress payments will be payable to the Contractor unless it submits each monthly Project report required by Section 19(d) in a form accepted by Owner and each recovery schedule required by Owner pursuant to Section 19(e).

Failure to provide a satisfactory preliminary schedule, fully complete Project schedule, or monthly Project report within the time limits stated above shall be a material breach for which the Owner may terminate the Contract in the manner provided in Section 41 of these General Conditions.

- b. **Bar Graph Schedule:** Where a bar graph schedule is allowed, it shall be time-scaled in weekly increments, shall indicate the estimated starting and completion dates for each major element of the Work by trade and by area, level, or zone, and shall schedule dates for all salient features and activities, including but not limited to the placing of orders for materials, submission of Shop Drawings and other Submittals for review, approval of Shop Drawings and Submittals by A/E, the manufacture and delivery of material, the testing and the installation of materials, supplies and equipment, and all Work activities to be performed by the Contractor. Each Work activity will be assigned a duration by the Contractor. One Day shall be the time unit used. The bar graph shall establish and show the Critical Path for the Work.
- c. **Critical Path Method Schedule:** Where a Critical Path method schedule is required, it shall be in the time-scaled precedence format using the Contractor's logic and time estimates. The Critical Path method schedule shall be drawn or plotted with activities grouped or zoned by Work area or Subcontract rather than random (or scattered) format.

The Critical Path method schedule shall be time-scaled on a weekly basis and shall be drawn or plotted at a level of detail and logic which will schedule all salient features and activities of the Work, including not only the actual construction Work for each trade, but also the submission of Shop Drawings and Submittals for review, approval of Shop Drawings and Submittals by the A/E, placing of orders for materials, the manufacture and delivery of materials, the testing and installation of materials and equipment, and all Work activities to be performed by the Contractor. The Critical Path method schedule shall have no line-item activities longer than thirty (30) Days in duration, and activities shall be included to provide sufficient detail for effectively managing the sequence of the Work. Failure to include any element of Work required for the performance of this Contract shall not excuse the Contractor from completing all Work required within the Time for Completion and by the Contract Completion Date and any interim deadlines established by the Contract. Each Work activity will be assigned a duration by the Contractor.

When completed, the Critical Path method schedule shall be submitted to the A/E and the Owner for review. The Critical Path method schedule will identify and describe each activity, state the duration of each activity, the calendar dates for the early and late start and the early and late finish of each activity, any constraints placed upon the activity, and clearly depict all activities on the Critical Path for the Work. Float and Free Float shall be indicated for all activities. Float, whether Free Float or Total Float, shall not be considered for the exclusive use or benefit of either the Owner or the Contractor, but must be allocated in the best interest of completing the Work by the Contract Completion Date.

On contracts with a price over \$5,000,000, each activity on the Critical Path method schedule shall also be attributable to, and correlate with, each activity on the Schedule of Values, the sum of which for all activities shall equal the Contract Price.

When accepted by the Owner and the A/E as compliant with the requirements of this Section, the schedule shall become the baseline Critical Path method schedule for the Project. Acceptance of the schedule by the Owner does not indicate agreement with, nor responsibility for, the proposed or actual duration of any activity or logic shown on the accepted schedule.

- d. **Monthly Project Reports:** The Contractor shall review progress of the Work not less than each month, but as often as necessary to properly manage the Project and stay on schedule to finish before the Contract Completion Date. The Contractor shall collect and preserve information on Change Orders, including extensions of time. The Contractor shall evaluate this information and update the latest accepted schedule as often as necessary to finish before the Contract Completion Date. The Contractor shall submit to the A/E along with each Certificate for Payment a copy of the bar graph schedule annotated to show the current progress or, for projects requiring a Critical Path method schedule, a monthly report of the status of all activities. The bar graph schedule or monthly status report submitted with each Certificate for Payment shall show the Work completed to date in comparison with the Work scheduled for completion, including but not limited to the dates for the beginning and completion of the placing of orders and the manufacture, testing and installation of materials, supplies and equipment. The form for these reports shall be approved by the A/E and the Owner prior to submission of the first Certificate for Payment. If any elements of the Work are behind schedule, regardless of whether they may prevent the Work from being completed on time, the Contractor must indicate in writing in the report what measures it is taking and plans to take to bring each such element back on schedule and to ensure that the Work is completed before the Contract Completion Date.
- e. **Progress Delay:** Should any of the following conditions exist, the Owner may require that the Contractor prepare, at no extra cost to the Owner, a plan of action and a recovery schedule for completing the Work by the Contract Completion Date:
1. The Contractor's monthly project report indicates delays that, in the judgment of the A/E or the Owner, call into question the Contractor's ability to complete the Work by the Contract Completion Date;
 2. The Critical Path method schedule sorted by early finish dates shows the Contractor to be thirty (30) or more Days behind on the Critical Path schedule at any time during the Work, up to thirty (30) Days prior to the Contract Completion Date;
 3. The Contractor desires to make changes in the logic or sequencing of Work activities or the planned duration of future activities of the Critical Path method schedule which, in the judgment of the A/E or the Owner, are of a significant departure from those of the baseline schedule or prior schedule updates.

The plan of action and recovery schedule, when required, shall contain a narrative explanation and display how the Contractor intends to regain compliance with the most current and Owner accepted Critical Path method schedule, as updated with approved Change Orders, if any.

The plan of action shall be submitted to the Owner for review within two (2) business days of the Contractor receiving the Owner's written request. The recovery schedule, when required, shall be submitted to the Owner within five (5) Days of the Contractor's receiving the Owner's written request.

- f. **Early Completion of Project:** The Contractor may attempt to achieve Substantial Completion before the Contract Completion Date. However, such planned early completion shall be for the Contractor's convenience only and shall not create any additional rights of the Contractor or obligations of the Owner under this Contract, nor shall it change the Time for Completion or the Contract Completion Date. The Contractor shall not be required to pay damages to the Owner because of the Contractor's failure to achieve Substantial Completion by any planned earlier date. Likewise, the Owner shall not pay the Contractor any additional compensation for achieving Substantial Completion prior to the Contract Completion Date nor will the Owner owe the Contractor any compensation should the Owner, its officers, employees, or agents cause the Contractor not to achieve Substantial Completion earlier than the Contract Completion Date.

Contractor may request or propose to change the Contract Completion Date to reflect an earlier Substantial Completion date. The Owner may, but is not required to, accept such proposal. However, a change in the Time for Completion or the Contract Completion Date shall be accomplished only by Change Order. If the Contractor's proposal to change the Time for Completion or the Contract Completion Date is accepted, a Change Order will be issued stating that all references in the Contract, including these General Conditions, to the Time for Completion or the Contract Completion Date shall thereafter refer to the date as modified, and all rights and obligations, including the Contractor's liability for actual damages, delay damages and/or liquidated damages, shall be determined in relation to the date, as modified.

20. SCHEDULE OF VALUES AND CERTIFICATE FOR PAYMENT

- a. Before submittal of the first Certificate for Payment, the Contractor shall prepare for review and approval of the A/E and the Owner the Schedule of Values listed by trades or by Specifications sections for the Work, the total for which equals the Contract Price. Where the Work has multiple parts or phases, the Contractor shall prepare appropriate Schedules of Values to facilitate reviews of Certificate for Payment submitted for each part or phase.

All Certificates for Payment shall be made in the ASTM Unifomat II structure on the Form CO12, Schedule of Values and Certificate for Payment.

- b. If the Contractor requests, or intends to request, payment for materials stored in an approved and secure manner, the Schedule of Values must indicate the amount for labor and the amount for materials, and in a supplement thereto must include an itemized list of materials for that trade or Work section. The material breakdown shall be in sufficient detail to allow verification of the quantities required for the Project, the quantities delivered, the Work completed, and the quantities stored on or off-Site.
- c. The Contractor shall complete the "Value of Work Completed" portion of the Form CO-12, complete and sign the Contractor's certification, and attach all substantiating material each Certificate for Payment. Such substantiating material includes, but is not limited to, invoices for materials, delivery tickets, timesheets, payroll records, daily job logs/records, and similar materials which, in the opinion of the Owner and the A/E, are necessary or sufficient to justify payment of the amount requested.
- d. The labor progress for any task or activity shall be calculated based upon the percentage of Work complete up to fifty percent (50%) of the completion of the task or activity. Thereafter, the evaluation of labor progress will be based upon the effort required to complete that task or activity. The material progress shall be calculated as the invoiced dollar cost of materials used in relation to the amount estimated as necessary to complete a particular element of Work. When calculating material progress, credit shall be given for installed material as well as that stored on the Site and

any material stored off-Site which has been certified by the A/E in accordance with Section 36 of these General Conditions.

- e. Should Work included in previous Certificates for Payment, and for which payment has been made, subsequently be identified by tests, inspection, or other means, as Defective or not acceptable or not conforming to the Contract Documents, the “Value of Work Completed” portion of the first Certificate for Payment submitted after such identification shall be modified to reduce the “completed” value of that Work to a percentage reflecting only that work which is not Defective or nonconforming.

21. ACCESS TO WORK

The A/E, the Owner, the Project Manager, the Owner’s inspectors and other testing personnel, the Building Official, inspectors from the Department of Labor and Industry, and others authorized by the Owner, shall have access to the Work at all times. The Contractor shall provide proper facilities for access and inspection.

22 SURVEYS AND LAYOUT

- a. The Owner shall furnish the Contractor documents showing property lines and the location of existing buildings and improvements at the Site. The Contractor shall provide competent surveying and engineering services to execute the Work and shall be responsible for the accuracy of those surveying and engineering services.
- b. The Owner shall provide the general reference points and benchmarks on the Site as required of it by the Plans and Specifications. If the Contractor finds that any previously established reference points have been lost or destroyed, it shall promptly notify the A/E.
- c. The Contractor shall protect and preserve the established benchmarks and monuments and shall make no changes in locations without prior written Notice to the A/E and prior written approval from the Owner. Benchmarks and monuments that are lost or destroyed or which require shifting because of necessary changes in grades or locations shall, subject to prior written approval of the Owner, be replaced and accurately located by the Contractor.

23. PLANS AND SPECIFICATIONS

- a. The general character and scope of the Work are illustrated and described by the Plans and the Specifications. If the Contractor deems additional detail or information to be needed, the Contractor shall request the same in writing from the A/E. The request shall precisely state the detail or information needed and shall explain why it is needed. The Contractor shall also indicate a date by which the requested information is required. The A/E shall provide by Field Order such further detail and information as is necessary by the date required so long as the date indicated is reasonable. Any additional drawings and instructions supplied to the Contractor shall be consistent with the Contract Documents, shall be true developments thereof, and shall be so prepared that they can be reasonably interpreted as a part thereof. The Contractor shall carry out the Work in accordance with the additional detail drawings and instructions at no additional cost to the Owner and with no time extension.
- b. If the Contractor finds a conflict, error, omission, or other discrepancy in the Plans or Specifications, he shall notify the A/E in writing as soon as possible, but before proceeding with any Work that is or may be impacted by the matter. The A/E shall issue a clarification by Field Order to the Contractor stating the correct requirements. If the Contractor deems the Field Order requires additional or extra Work, it shall provide Notice of its request for additional time and/or compensation to the Owner and A/E prior to proceeding with that Work. The Contractor also shall

submit a request for Change Order along with a detailed substantiating cost proposal through the A/E to the Owner within fourteen (14) Days of the receipt of the Field Order or before proceeding with the Work, whichever is earlier.

- c. If a conflict, error, omission or other discrepancy in Plans or Specifications was reasonably apparent or with reasonable diligence should have been apparent to the Contractor prior to submitting its bid or Proposal, and the Contractor failed to submit a question to the A/E in the time and manner required by the Instructions to Bidders, then the Contractor shall not be entitled to additional compensation or time or entitled to bring a claim against the Owner based on such conflict, error, omission or other discrepancy. If the Contractor performs any Work, or is delayed in performing any Work, where such Work involves a conflict, error, omission, or other discrepancy in the Plans or Specifications that the Contractor knew about, or with reasonable diligence should have known about, for which the Contractor failed to provide Notice to the A/E and Owner as required, the Contractor shall assume full responsibility for the Work or delay and shall bear all costs attributable to correcting any Work requiring correction or to any delay, and such conflict, error, omission, or other discrepancy shall not be the basis for a claim against or any recovery from the Owner.
- d. In case of differences between a small and large scale Drawing, the large scale Drawing shall govern. Where on a Drawing a portion of the Work is drawn out and the remainder is indicated in outline, the parts drawn out shall apply also to all other like portions of the Work.
- e. Where the word “similar” appears on a Drawing, it shall be interpreted in its general sense and not as meaning “identical,” and all details shall be worked out in relation to their location and their connection with other parts of the Work.
- f. Measurements or dimensions shown on the Drawing for Site features, utilities, buildings, structures, or improvements shall be verified at the Site by the Contractor before commencing the Work. The Contractor shall not scale measurements or dimensions from a Drawing. If there are discrepancies among Drawings or the Plans, the Contractor shall notify and request clarification from the A/E before proceeding with the impacted Work. If new Work is to connect to, match with or be provided in existing facilities, buildings, or improvements, the Contractor shall verify the actual existing conditions and necessary dimensions prior to ordering or fabrication of materials or construction.
- g. As-Built Drawings: The Contractor shall maintain at the Site for the Owner one copy of the AsBuilt Drawings in good order and marked to record all changes as they occur during construction. These shall be available to the A/E, the Owner, the Project Inspector, the Owner’s other inspectors and to the Owner’s testing personnel
- h. Preparation of Record Drawings: Upon completion of the Work and prior to the final inspection, the Contractor shall deliver to the A/E, for preparation of the Record Drawings, one complete set of “As Built” Drawings depicting the Work in its as-built condition at Final Completion.

24. SUBMITTALS AND PROJECT RECORDS

- a. The Contractor shall submit a listing of all Submittals required by the A/E or which the Contractor identifies as necessary, stating the dates for the submission of each Submittal. The listing shall be in a format acceptable to the A/E. The Contractor shall identify all Submittals with the Owner’s Project Code Number as required by Section 24(e).
- b. Submittals shall be forwarded to the A/E for approval if required by the Specifications or if requested by the A/E or the Owner. No part of the Work dealt with by a Submittal shall be ordered, fabricated or installed by the Contractor, except at its own risk, until the Submittal for that Work has been approved.

Working drawings, Shop Drawings and/or Submittals for fire protection, fire alarm, fire detection and security systems shall be submitted to, and approved by, first the A/E and then the Building Official prior to ordering, fabricating or installing such systems. The Contractor shall be solely responsible for obtaining such approvals. No part of the Work involving such systems shall be ordered, fabricated or installed by the Contractor until such approvals have been obtained.

- c. The Contractor shall furnish to the A/E for approval, the name of the manufacturer, the model number, and other identifying data and information respecting the performance, capacity, nature and rating of the machinery and mechanical and other equipment which the Contractor contemplates incorporating in the Work. When Submittals are required by this Contract for materials, the Contractor shall furnish full information concerning the material or articles which the Contractor intends to incorporate in the Work. When required, samples shall be submitted for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material and articles installed or used without required approval shall be at the risk of subsequent rejection.
- d. Unless otherwise indicated or required by the Specifications, Shop Drawings shall be submitted in the form of one reproducible tracing and three blue-line or black-line prints. Catalog cuts, product data and other non-reproducible literature, except certificates, shall be submitted in six (6) copies minimum, of which three (3) will be retained by the A/E and the remainder will be returned to the Contractor. The Contractor shall maintain one copy of all approved Shop Drawings and Submittals in the construction trailer for use by inspectors. If agreed by the Owner, A/E, and Contractor, Submittals may be provided in electronic format in lieu of hardcopy format.
- e. Submittals shall be accompanied by a letter of transmittal which shall list the Project Code Number, the Submittals included, and the date. Submittals shall be complete in every respect and bound in sets. Each Submittal shall be clearly marked to show each item, component and/or optional feature proposed to be incorporated into the Work. Each Submittal shall contain specific references to the sections of the Plans and Specifications to which the item or component that is the subject of the Submittal relates.
- f. The Contractor shall check Submittals for compliance with the requirements of the Contract Documents. The Contractor shall clearly note in writing any and all items which deviate from the requirements of the Contract Documents. Reasons for deviation shall be included with the Submittal. 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.
- g. After checking each Submittal, the Contractor shall stamp each sheet of the Submittal with the Contractor's review stamp. Data submitted in a bound volume or on one sheet printed on two sides, may be stamped on the front of the first sheet only. The Contractor's review stamp shall be worded as follows:

The equipment and material shown and marked in this Submittal is proposed to be incorporated into this Project, is in compliance with the Contract Plans and Specifications unless otherwise shown in bold-face type or lettering and listed on a page or pages captioned "**DEPARTURES FROM PLANS AND SPECIFICATIONS**", and can be installed in the allocated spaces.

Reviewed by _____ Date _____

The person signing the review stamp shall be the person designated in writing by the Contractor as having that authority. The identity of such individual shall be forwarded to the A/E prior to or with the first Submittal. The signature on the review stamp shall be handwritten in ink, or in the case of electronic submittals, electronically signed in accordance with *Code of Virginia* § 59.1-479 *et seq.* Stamped signatures are not acceptable.

- h. The Contractor shall forward all Submittals sufficiently in advance of construction activities and requirements to allow sufficient time for checking, correcting, resubmitting and rechecking each Submittal.
- i. If a Submittal indicates a departure from the Contract Documents, the A/E may reject the Submittal or recommend it to the Owner, who shall approve or reject it as the Owner, in its sole discretion, sees fit. Any departure from the Contract Documents must be authorized by a Change Order if it results in adjustment of the Contract Price or the Contract Completion Date.
- j. The A/E is responsible to the Owner, but not to the Contractor, to verify that the information, equipment and materials depicted in 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 Documents.
- k. The Work shall be in accordance with approved Submittals. Approval of the Contractor's Submittals by the A/E does not relieve the Contractor from responsibility for complying with the Contract Documents.
- l. The Plans and/or Specifications may indicate that the A/E designed or detailed a portion of the Work-around a particular product. Should a different product be proposed by the Contractor and accepted, all modifications, rerouting, relocations and variations required for proper installation and coordination to comply with the design concept and requirements of the Contract Documents shall be the responsibility of the Contractor and shall be made at no extra cost to the Owner. If the plans were noted as designed or detailed around a particular product and/or if a product is named when a "brand name or equal" requirement has been used, other products may be utilized following Section 26 of these General Conditions.
- m. Additional Submittal requirements are shown in the Specifications.
- n. Ownership of all materials and documentation including Shop Drawings, BIM models, copies of any calculations and analyses prepared and other Project-specific details of building components created during the Submittal process shall belong exclusively to the Owner. These materials and documentation, whether completed or not, shall be the property of the Commonwealth of Virginia, whether the Work for which they are made is executed or not. The Contractor shall not use these materials on any other work or release any information about these materials without the express written consent of the Owner.

Such material may be subject to public inspection in accordance with the Virginia Freedom of Information Act. Trade secrets or proprietary information submitted by a bidder, offeror, or contractor in connection with a procurement transaction shall not be subject to disclosure under the Virginia Freedom of Information Act, provided the bidder, offeror, or contractor timely invoked the protections of *Code of Virginia* § 2.2-4342(F).

- o. The Contractor shall maintain comprehensive records of all documentation produced in the performance of the Work and maintain a records management system to provide for document tracking, organization, storage and archiving of such documentation. The Contractor's records

management system shall provide for the electronic storage and transmission of Project documents and information through one or more of the following methods: (1) web accessible project management software; (2) electronic files shared utilizing removable electronic media; (3) paper copies of documentation; or (4) in such manner agreed to by the Owner and Contractor. Such records shall be retained by the Contractor for a period of five (5) years following the Final Completion Date. The Contractor shall make the project documentation available to the Owner within five (5) Days of request in an orderly, indexed manner to allow individual documents to be easily located and reviewed. The Contractor shall ensure all documentation is kept current and stored in the records management system in a timely manner.

- p. The Contractor's Project documentation shall include regular construction photographs to show progress of the Work and items that are or may be the subject of Contractor or Subcontractor claims. The photographer shall label each photograph with, at a minimum, the Project name, building name/number, City, State, name of Contractor/Subcontractor(s) whose work is depicted, date and time the photograph was taken, description of weather conditions, subject matter and viewpoint of the photograph, name of the photographer, and the names of any observers.

25. FEES, SERVICES AND FACILITIES

- a. The Contractor shall obtain all permits, except the Building Permit, and pay for all fees and charges necessary for temporary access, public right-of-way blockage or use, temporary connections to utilities, and the use of property (other than the Site) for storage of materials and other purposes, unless otherwise specifically stated in the Contract Documents.
- b. Certain projects such as renovations and interior modifications of existing buildings will usually have water and electric service to the building. In those instances, water and electric power, if required for the Work under the Contract, will be furnished by the Owner subject to reasonable use by the Contractor, but only to the extent and capacity of present services. The Contractor shall be responsible for providing required connections, temporary wiring, piping, etc. to these services in a safe manner and in accordance with applicable codes. All temporary wire, pipe, etc. shall be removed before the Substantial Completion inspection. Acceptance by the Contractor of the use of Owner's water and electricity constitutes a release to the Owner of all claims and of all liability to the Contractor for any damages which may result from the use of such utilities and power and water outages or voltage variations.
- c. The Owner shall pay any connection charges for permanent utility connections directly to the utility Supplier. The Contractor shall coordinate such connections with the utility Supplier.
- d. It is understood that, except as otherwise specifically stated in the Contract Documents, the Contractor, either directly or through its Subcontractors, shall provide and pay for all material, labor, tools, equipment, water, light, power, telephone and other services or facilities of every nature whatsoever necessary to execute completely and deliver the Work before the Contract Completion Date.
- e. The Contractor shall provide all required temporary facilities, including Contractor's office space, Owner's Project Inspector's office space (if required by the Specifications), sanitary facilities, and storage space, as required for the operations and the protection of the materials and the Work. Number, sizes and locations shall be subject to approval of the Owner. Sanitary facilities shall be plumbed into an approved waste treatment system or shall be an approved type of chemical toilet and shall be regularly serviced.

26. EQUALS

- a. **Brand names:** Unless otherwise stated in the Specifications, the identification of a certain brand, make or manufacturer denotes the characteristics, quality, workmanship, economy of operation and suitability for the intended purpose of the article to be supplied, but does not restrict the Contractor to the specific brand, make, or manufacturer indicated. Rather, the information conveys to the Contractor the general style, type, character and quality of the article to be supplied.
- b. **Equal materials, equipment or assemblies:** Whenever in these Contract Documents a particular brand, make of material, device or equipment is shown or specified, such brand, make of material, device or equipment shall be regarded merely as a standard. Any other brand, make or manufacturer of a product, assembly or equipment which in the opinion of the A/E is the equal of that specified, considering quality, capabilities, workmanship, configuration, economy of operation, useful life, compatibility with design of the Work, and suitability for the intended purpose, will be accepted unless rejected by the Owner as not being equal.
- c. **Substitute materials, equipment or assemblies:** The Contractor may propose to substitute a material, product, equipment, or assembly which deviates from the requirements of the Contract Documents but which the Contractor deems will perform the same function and have equal capabilities, service life, economy of operations, and suitability for the intended purpose. The proposal must include any cost differentials proposed. The Owner will have the A/E provide an initial evaluation of such proposed substitutes and provide a recommendation on acceptability and indicate the A/E's redesign fee to incorporate the substitution into the Contract Documents. The Owner shall have the right to limit or reject substitutions at its sole discretion.
- d. The Contractor shall be responsible for making all changes in the Work necessary to adapt and accommodate any equal or substitute product approved for use by Owner. The necessary changes shall be made at the Contractor's expense.

27. AVAILABILITY OF MATERIALS

If a brand name, material, product, or model number included in the Contract Documents is not available on the present market, alternate equal materials, products or model numbers may be proposed by the Contractor through the A/E for approval by the Owner through the process set forth in Section 26.

28. CONTRACTOR'S TITLE TO MATERIALS

No materials or supplies for the Work shall be purchased by the Contractor, or by any Subcontractor or Supplier, subject to any security interest, installment or sales contract or any other agreement or lien by which an interest in the materials or supplies is retained by the seller or is given to a secured party. The Contractor warrants that it has clear and good title to all materials and supplies used in the Work or for which the Contractor accepts payment in whole or in part.

29. STANDARDS FOR MATERIALS INSTALLATION & WORKMANSHIP

- a. Unless otherwise specifically provided in the Contract, all equipment, material, and accessories incorporated in the Work are to be new or Recycled and in first-class condition.
- b. Unless specifically approved by the Owner or required by the Contract, the Contractor shall not incorporate into the Work any materials containing asbestos or any material known by the industry to be hazardous to the health of building construction workers, maintenance workers, or occupants, or harmful to other building components, materials or products. If the Contractor becomes aware that a material required by the Contract contains asbestos or other hazardous or harmful materials,

it shall notify the Owner and the A/E immediately and shall take no further steps to acquire or install any such material without first obtaining Owner approval.

- c. All workmanship shall be of the highest quality found in the building industry in every respect. All items of Work shall be done by Persons skilled in the particular task or activity to which they are assigned. In the acceptance or rejection of Work, no allowance will be made for lack of skill on the part of Persons performing the Work. Poor or inferior workmanship (as determined by the A/E, the Owner or other inspecting authorities) shall be removed and replaced at Contractor's expense such that the Work conforms to the highest quality standards of the trades concerned, or otherwise corrected to the satisfaction of the A/E, the Owner, and other inspecting authority, as applicable.
- d. Where materials, supplies or equipment are supplied with the manufacturer's printed instructions, recommendations, or directions for installation, or where such instructions, recommendations, or directions are available, installation of the items shall be in strict accordance with the manufacturer's printed instructions unless those instructions contradict the Plans or Specifications, in which case the Contractor shall notify the A/E of the inconsistency and obtain written guidance from the A/E before proceeding with any Work involving the item.
- e. Where the Specifications or Plans refer to specific codes or standards governing the installation of specified items, installation shall in all cases be in strict accordance with the referenced codes and standards. Where no reference is made to specific codes or standards, installation shall conform to the generally recognized applicable standards for first-class installation of the specific item to be installed. Contractors are expected to be proficient and skilled in their respective trades and knowledgeable of the Codes and Standards of the National Fire Protection Association ("NFPA"), National Electric Code ("NEC"), Occupational Safety and Health Act ("OSHA") and other codes and standards applicable to installations and associated work by trade.
- f. Where the manufacturer's printed instructions are not available for installation of specific items, where specific codes or standards are not referenced to govern the installation of specific items, or where there is uncertainty on the part of the Contractor concerning the installation procedures to be followed or the quality of workmanship to be maintained in the installation of specific items, the Contractor shall consult, in advance, with the A/E for approval of the installation procedures or the specific standards governing the quality of workmanship the Contractor proposes to follow or maintain during the installation of the items in question.
- g. During and/or at the completion of installation of any items, the tests designated in the Plans or Specifications necessary to assure proper and satisfactory functioning for its intended purpose shall be performed by the Contractor or by its Subcontractor responsible for the completed installation. All costs for such testing are to be included in the Contract Price. If required by the Contract Documents, the Contractor shall furnish prior to final inspection the manufacturers' certificates evidencing that products meet or exceed applicable performance, warranty and other requirements, and certificates that products have been properly installed and tested.

30. WARRANTY OF MATERIALS AND WORKMANSHIP

- a. The Contractor warrants that, unless otherwise specified, all materials and equipment incorporated in the Work shall be new or Recycled, in first-class condition, and in accordance with the Contract Documents. The Contractor further warrants that the Work shall be of the highest quality and in accordance with the Contract Documents and shall be performed by Persons qualified at their respective trades.
- b. Work not conforming to these warranties shall be considered Defective.

- c. This warranty of materials and workmanship is separate and independent from and in addition to any of the Contractor's other guarantees and obligations in the Contract Documents and under Virginia law.

31. USE OF SITE AND REMOVAL OF DEBRIS

- a. The Contractor shall:
 - 1. Perform the Work in such a manner as not to interrupt or interfere with the operation of any existing activity on, or in proximity to, the Site or with the Work of any other separate contractor;
 - 2. Store its apparatus, materials, Supplies and equipment in such orderly fashion at the Site of the Work as will not unduly interfere with the progress of its Work or the work of any other separate contractor; and
 - 3. Place upon the Work or any part thereof only such loads as are consistent with the safety of that portion of the Work.
- b. The Contractor expressly undertakes, either directly or through its Subcontractor(s), to effect all cutting, filling or patching of the Work required to make the same conform to the Plans and Specifications, and, except with the consent of the A/E, not to cut or otherwise alter the work of any other separate contractor. The Contractor shall not damage or endanger any portion of the Work or Site, including existing improvements, unless called for by the Contract.
- c. The Contractor expressly undertakes, either directly or through its Subcontractor(s), to clean up frequently all refuse, rubbish, scrap materials and debris caused by its operations, to ensure that at all times the Site shall present a neat, orderly and workmanlike appearance. No refuse, rubbish, scrap material or debris shall be left within the completed Work nor buried on the Site, but shall be removed from the Site and properly disposed of in a licensed landfill or otherwise as required by law.
- d. The Contractor expressly undertakes, either directly or through its Subcontractor(s), before Final Payment or such prior time as the Owner may require: to remove all surplus material, false Work, temporary structures, including foundations thereof, plants of any description and debris of every nature resulting from its operations and to put the Site in a neat, orderly condition; to thoroughly clean and leave reasonably dust-free all finished surfaces, including all equipment, piping, etc., on the interior of all buildings; and to clean thoroughly all glass installed under the Contract, including the removal of all paint and mortar splatters and other defacements.

If the Contractor fails to clean up as required herein, the Owner may do so and charge the costs incurred thereby to the Contractor in accordance with Section 10 (b).
- e. The Contractor shall have, on-Site, an employee certified by the Department of Environmental Quality as a Responsible Land Disturber who shall be responsible for the installation, inspection and maintenance of erosion control and stormwater management measures and devices. The Contractor shall identify this employee to the Owner and the A/E in writing prior to any land disturbance on Site. The Contractor shall prevent Site soil erosion, the runoff of silt and/or debris carrying water from the Site, and the blowing of debris off the Site in accordance with the applicable requirements and standards of the Contract and the Virginia Department of Environmental Quality's Erosion and Sediment Control Regulations and the Virginia Stormwater Management Regulations.

32. TEMPORARY ROADS

Temporary roads, if required, shall be established and maintained until permanent roads are accepted, then removed and the area restored to the conditions required by the Contract Documents. Crushed rock, paving and other road materials from temporary roads shall not be left on the Site unless written permission is received from the Owner to bury the same at a location and depth approved by the Owner.

33. SIGNS

The Contractor may, at its option and without cost to the Owner, erect signs acceptable to the Owner on the Site for the purpose of identifying and giving directions to the Project. No signs shall be erected without prior approval of the Owner as to design, content and location.

34. PROTECTION OF PERSONS AND PROPERTY

- a. The Contractor expressly undertakes both directly and through its Subcontractors, to take every reasonable precaution at all times for the protection of all Persons and property at or near the Site or which may be affected by the Contractor's Work.
- b. The Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Any violation of safety requirements or duties or any potential safety hazard that is known to the Contractor or which is brought to the attention of the Contractor by the A/E, the Owner, or any other Persons shall be immediately abated.
- c. The provisions of all rules and regulations governing health and safety as adopted by the Safety Codes Commission of the Commonwealth of Virginia, 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.
- d. The Contractor shall continuously maintain adequate protection of all the Work and Site from damage and shall protect the Owner's property from injury or loss arising in connection with the Work. The Contractor shall make good any damage, injury or loss caused by its operations or the Work, except as may be directly and solely due to errors in the Contract Documents or caused by agents or employees of the Owner. The Contractor shall adequately protect adjacent property to prevent any damage to it or loss of use and enjoyment by its owners. The Contractor shall provide and maintain all passageways, guard fences, lights and other facilities for protection of Persons and the Site and the Work as required by public authority, local conditions, or the Contract.
- e. In an emergency affecting the health, safety, or life of Persons, or threatening loss or damage to the Work or adjoining property, the Contractor, without special instruction or authorization from the A/E or the Owner, shall act promptly, at its discretion, to prevent such threatened loss or injury. The Contractor shall carry out any instructions or directives issued by the A/E or Owner, to prevent threatened loss or injury, immediately, without appeal. Any additional compensation or extension of time claimed by the Contractor on account of any emergency actions or measures shall be submitted and determined as provided by Section 38.
- f. When necessary for the proper protection of the Work, temporary heating of a type compatible with the Work must be provided by the Contractor, at the Contractor's expense, unless otherwise specified.

35. CLIMATIC CONDITIONS

The Contractor shall suspend activity on and protect any portion of the Work that may be subject to damage by climatic conditions.

36. PAYMENTS TO CONTRACTOR

- a. Unless otherwise provided in the Contract, the Owner will make partial payments to the Contractor on the basis of a duly certified and approved Schedule of Values and Certificate for Payment (CO-12), showing the estimate of the Work performed during the preceding calendar month or work period, as recommended by the A/E. When evaluating the Contractor's Certificate for Payment, the A/E will consider the value of the Work in place, the value of approved and properly stored materials, the status of the Work in relation to the Contract Completion Date, and the estimated value of the Work remaining to achieve Final Completion. The A/E will schedule a monthly pay meeting to occur no earlier than the 25th day of the month represented by the Certificate for Payment and no later than the 5th day of the following month. The Contractor shall submit its Certificate for Payment so that it is received by the A/E and the Owner's Project Manager at least one work day prior to the date scheduled by the A/E for the monthly pay meeting. The Owner will review the estimate with the A/E and the Contractor at the monthly pay meeting, which shall be considered the receipt date, and may approve to pay any or all of the Certificate for Payment. In preparing estimates, the material delivered to the Site and preparatory Work done shall be taken into consideration, if properly documented as required by Section 20 of these General Conditions, or as may be required by the A/E, so that actual quantities supplied or performed may be verified. Materials or equipment purchased specifically for the Project, but stored off the Site within the Commonwealth of Virginia, may be considered for payment provided all of the following are accomplished prior to the submission of the Certificate for Payment in which payment for such item is requested:
 1. The Contractor must notify the Owner in writing, at least ten (10) Days prior to the submission of Certificate for Payment that specific items will be stored off-Site in a designated, secured place within the Commonwealth of Virginia. The Schedule of Values must be detailed to indicate separately both the value of the material and the labor/installation for trades requesting payment for stored materials. By giving such notification and by requesting payment for material stored off-Site, the Contractor warrants that the storage location is safe and suitable for the type of material stored and that the materials are identified as being the property of the Contractor, and agrees that loss of materials stored off the Site shall not relieve the Contractor of the obligation to timely furnish these materials for the Project and to achieve the Contract Completion Date. If the storage location is more than 20 miles from the Site, the Contractor may be required to reimburse the Owner for the cost incurred for travel to the storage location by Owner and/or the A/E to verify the Contractor's Certificate for Payment for materials stored off-Site. A supplementary agreement, acceptable to Owner, shall be required for payment for materials or equipment stored at a location that is not within the Commonwealth of Virginia.
 2. Contractor's notification and Certificate of Payment regarding stored materials shall:
 - a. Itemize the quantity of such materials and document with invoices showing the cost of said materials;
 - b. Indicate the identification markings used on the materials, which shall clearly reference the materials as for the Project;
 - c. Identify the specific location of the materials, which must be within reasonable proximity to the Site and within the Commonwealth of Virginia;
 - d. Include a letter from the Contractor's Surety which confirms that the Surety on the Performance Bond and the Labor and Material Payment Bond has been

notified of the request for payment of materials stored off the Site and agrees that the materials are covered by the bonds; and

- e. Include documentation establishing that the stored materials are covered by allrisk builder's risk insurance in an amount not less than the fair market value of the materials, which insurance shall include the Owner as an additional insured.
3. The A/E shall indicate, in writing, to the Owner that Submittals for materials stored offSite have been reviewed and meet the requirements of the Contract Documents, that the stored materials meet the requirements of the Plans and Specifications, and that such materials conform to the approved Submittals. Should the A/E deem it necessary to visit the storage site to make such review, the Contractor shall bear the costs incurred therewith
 4. The Owner, through the A/E, shall notify the Contractor in writing of its decision whether to pay for materials stored off-Site.
 5. The Contractor shall notify the Owner in writing, through the A/E, when the materials are to be transferred to the Site and when the materials are received at the Site.
- b. Payment will not be made for materials or equipment stored on or off the Site which are not scheduled for incorporation into the Work within the six months next following submission of the Certificate for Payment without the prior written consent of the Owner, which consent may be withheld by the Owner if, in the Owner's sole discretion, it is not necessary to procure the materials more than six months in advance of use to assure their availability when needed.
 - c. No payment shall be made to the Contractor until:
 1. The Contractor furnishes to the Owner its Social Security Number (SSN), if an individual, or its Federal Employer Identification Number (FEIN), if a proprietorship, partnership, corporation or other legal entity.
 2. Certificates of Insurance and required evidence of compliance by the Contractor with all the requirements of Section 11 and Section 12, if applicable, have been delivered to the Owner.
 3. Certificates of Insurance and required evidence of compliance by each Subcontractor with the requirements of Section 11 and Section 12, if applicable, have been delivered to the Owner for payments based on Work performed by a Subcontractor.
 4. The Contractor has: (i) submitted a preliminary schedule which is acceptable to the Owner in accordance with Section 19(a); (ii) submitted a fully complete Project schedule accepted by the Owner in accordance with Section 19(a); (iii) submitted all monthly Project reports required by Section 19(d); and (iv) timely provided a recovery schedule pursuant to Section 19(e), if requested by the Owner.
 - d. The Owner shall withhold five percent (5%) of each progress payment to the Contractor until the Final Payment, unless otherwise provided by any law, regulation or program of the federal government. Such retainage shall be held to assure faithful performance of the Contract and may also be used as a fund to deduct amounts due to or claimed by the Owner, including, but not limited to, payment to the Owner of all moneys due for deductive change orders, credits, uncorrected Defective Work, interest, damages, and the like. (*Code of Virginia* § 2.2-4333). The Owner may, at its sole discretion, agree on an item by item basis to release the retainage on items which are fully 100% complete and which have been accepted by the Owner as being tested and complete and on

which no further action or work will be required. Retainage which is released by the Owner shall be distributed by the Contractor in conformance with Section 37.

- e. All material and Work for which progress payments are made shall thereupon become the sole property of the Owner, but this provision shall not relieve the Contractor from the sole responsibility for all materials and Work, including those for which payment has been made, or for the restoration of any damaged materials or Defective Work. No payment shall waive any right of the Owner to require Contractor to fulfill all of the terms and conditions of the Contract Documents
- f. The Final Payment, which shall include the retainage, less any amounts due to or claimed by the Owner, shall not become due until the A/E and the Owner agree that Final Completion has been achieved and until the Contractor shall deliver to the Owner through the A/E a Certificate of Completion by the Contractor (CO-13.2) and an Affidavit of Payment of Claims (CO-13), stating that all Subcontractors and Suppliers of either labor or materials have been paid all sums claimed by them for Work performed and materials furnished in connection with this Project less retainage. Amounts due the Owner which may be withheld from the Final Payment may include, but are not limited to, amounts due pursuant to Section 3(i), Section 16(a)-(d), Section 31(d), costs incurred to repair or replace Defective Work, costs incurred as a result of the Contractor's negligent acts or omissions or omissions of those for whom the Contractor is responsible, delay damages under Section 43(h), and any liquidated or actual damages.

If all Subcontractors and Suppliers of labor and materials have not been paid the full amount claimed by them, the Contractor shall list each to which an agreed amount of money is due or which has a claim in dispute. With respect to all such Subcontractors and Suppliers, the Contractor shall provide to the Owner, along with the Affidavit of Payment of Claims (CO-13), an affidavit from each such Subcontractor and Supplier stating the amount of their Subcontract or supply contract, the percentage of completion, the amounts paid to them by the Contractor and the dates of payment, the amount of money still due if any, any interest due the Subcontractor or Supplier, and whether satisfactory arrangements have been made for the payment of said amounts. If no agreement can be reached between the Contractor and one or more Subcontractors or Suppliers as to the amounts owed to the Subcontractors or Suppliers, the Owner may, in its discretion, interplead such portion of the moneys due to the Contractor which is claimed by the Subcontractor or Supplier into a Virginia Court or Federal Court sitting in Virginia, in the manner provided by law. Said interpleader and payment into court shall be deemed a payment to the Contractor. Nothing in this Section shall be construed as creating any obligation or contractual relationship between the Owner and any Subcontractor or Supplier, and the Owner shall not be liable to any Subcontractor or Supplier on account of any failure or delay of the Owner in complying with the terms hereof.

- g. Upon successful completion of the final inspection and all Work required by the Contract, including but not limited to the delivery of Record Drawings, equipment manuals, written warranties, acceptance of the Work by the Owner and the delivery of the affidavits required in Section 36(f), the A/E shall deliver the written Certificate of Completion by the A/E (CO-13.1) to the Owner, with a copy to the Contractor, stating the entire amount of Work performed and compensation earned by the Contractor. The Owner may accept the Work for occupancy or use while asserting claims against the Contractor, disputing the amount of compensation due to the Contractor, disputing the quality of the Work, disputing Final Completion, disputing Contractor's compliance with the Contract Documents, or any other reason.
- h. Unless there is a dispute about the compensation due to the Contractor, Defective Work, quality of the Work, compliance with the Contract Documents, Final Completion, claims by the Owner, other matters in contention between the parties, or unless monies are withheld pursuant to the Comptroller's Debt Setoff Program, within thirty (30) Days after receipt and acceptance of the Certificate for Payment in proper form by the A/E at the monthly pay meeting, the Owner shall pay to the Contractor the amount approved by the A/E, less all prior payments and advances

whatsoever to or for the account of the Contractor. In the case of Final Payment, the completed Affidavit of Payment of Claims (CO-13), the Certificate of Completion by the Contractor (CO13.2) and the Certificate of Completion by the A/E (CO-13.1) shall accompany the final Certificate for Payment which is forwarded to the Owner for payment. The date on which payment is due shall be referred to as the Payment Date. Payment shall be mailed on or before the Payment Date for amounts and Work not in dispute, subject to any set offs claimed by the Owner; provided, however in instances where further appropriations are required by the General Assembly or where the issuance of further bonds is required, in which case, payment shall be made within thirty (30) Days after the effective date of such appropriation or within thirty (30) Days after the receipt of bond proceeds by the Owner. All prior estimates and payments, including those relating to extra Work, may be corrected and adjusted in any payment and shall be corrected and adjusted in the Final Payment. In the event that any Certificate for Payment contains a defect or impropriety, the Owner shall notify the Contractor of any defect or impropriety which would prevent payment by the Payment Date within five (5) Days after receipt of the Certificate for Payment by the Owner from the A/E.

- i. Interest shall accrue on all amounts owed by the Owner to the Contractor which remain unpaid seven (7) Days following the Payment Date. Said interest shall accrue at the discounted ninetyday U.S. Treasury bill rate as established by the Weekly Auction and as reported in the publication entitled *The Wall Street Journal* on the weekday following each such Weekly Auction. During the period of time when the amounts due to the Contractor remain unpaid following the seventh (7) Day after the Payment Date, the interest accruing shall fluctuate on a weekly basis and shall be that established by the immediately prior Weekly Auction. It shall be the responsibility of the Contractor to gather and substantiate the applicable weekly interest rates to the satisfaction of the Owner and to calculate to the satisfaction of the Owner the interest due. In no event shall the rate of interest charge exceed the rate of interest charged pursuant to *Code of Virginia* § 58.11812. No interest shall accrue on retainage or when payment is delayed because of a dispute or disagreement between the Owner and the Contractor regarding the quantity, quality or timeliness of the Work, including, but not limited to, compliance with Contract Documents or the accuracy of any Certificate for Payment. This exception to the accrual of interest stated in the preceding sentence shall apply only to that portion of a payment which is withheld and shall apply only for the duration of the dispute. Nothing contained herein shall be interpreted to prevent the withholding of retainage to assure faithful performance of the Contract. These same provisions relating to payment of interest to the Contractor shall apply also to the computation and accrual of interest on any amounts due from the Contractor to the Owner for deductive change orders and to amounts due on any claims by the Owner. The date of mailing of any payment by the U.S. Mail is deemed to be the date of payment to the addressee. No interest penalty shall be paid to any debtor on any payment, or portion thereof, withheld pursuant to the Comptroller's Debt Setoff Program, as authorized by the Virginia Debt Collection Act (§ [2.2-4800](#) *et seq.*), commencing with the date the payment is withheld. If, as a result of an error, a payment or portion thereof is withheld, and it is determined that at the time of setoff no debt was owed to the Commonwealth, then interest shall accrue at the rate specified above on amounts withheld that remain unpaid after seven Days following the Payment Date. Unless otherwise provided under the terms of this Contract, interest shall accrue at the rate of one percent per month.
- j. The acceptance by the Contractor of the Final Payment shall be and operate as a release to the Owner of all claims by the Contractor, its Subcontractors and Suppliers, and of all liability to the Contractor whatever, including liability for all things done or furnished in connection with the Work, except for things done or furnished which are the subject of unresolved claims for which the Contractor has filed a timely written Notice of intent and all other Notices and documentation required by the Contract Documents and provided a claim is submitted no later than sixty (60) Days after Final Payment. Acceptance of any interest paid by the Contractor shall be a release of the Owner from claims by the Contractor for late payment.

- k. No Certificate for Payment authorized by the A/E, and no payment, final or otherwise, no certificate of completion, nor partial or entire use or occupancy of the Work by the Owner, shall be an acceptance of any Work or materials not in accordance with the Contract, nor shall the same relieve the Contractor of responsibility for nonconforming materials or Defective Work, or operate to release the Contractor or its Surety from any obligation under the Contract, the Standard Performance Bond and the Standard Labor and Material Payment Bond.

37. PAYMENTS BY CONTRACTOR (*Code of Virginia, § 2.2-4354*)

Under *Code of Virginia* § 2.2-4354, the Contractor is obligated to:

- a. Within seven (7) Days after receipt of amounts paid to the Contractor by the Owner for Work performed by the Subcontractor or Supplier under this Contract, the Contractor shall:
 - 1. Pay the Subcontractor or Supplier for the proportionate share of the total payment received from the Owner attributable to the Work performed by the Subcontractor or the materials furnished by the Supplier under this Contract; or
 - 2. Notify the Owner and the Subcontractor or Supplier, in writing, of the Contractor's intention to withhold all or a part of the Subcontractor or Supplier's payment with the reason for nonpayment.
- b. The Contractor shall pay interest to its Subcontractor or Supplier on all amounts owed by the Contractor that remain unpaid after seven (7) Days following receipt by the Contractor of payment from the Owner for Work performed by the Subcontractor or materials furnished by the Supplier, except for amounts withheld as allowed under subsection (a) (2) of this Section.
- c. The Contractor shall include in each subcontract a provision requiring the Subcontractor to include in each of its subcontracts a provision requiring each of its subcontractors to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractor. Each Subcontractor shall include with its invoice to, or request for payment from, the Contractor, a certification that that Subcontractor has paid each of its suppliers and lower-tier subcontractors their proportionate share of previous payments received from the Contractor attributable to the Work performed or the materials furnished by it under this Contract.

The Contractor's obligation to pay interest to the Subcontractor or Supplier pursuant to subsection (b) of this Section is not an obligation of the Owner. A modification to this Contract shall not be made for the purpose of providing reimbursement for such interest charge. A Contractor's cost reimbursement claim shall not include any amount for reimbursement of any interest charge.

38. CHANGES IN THE WORK

- a. The Owner may at any time, by written order utilizing the Change Order (CO-11) and without Notice to the sureties, make changes in the Work which are within the general scope of the Contract, except that no change will be made which alone will increase the total Contract Price to an amount more than twenty percent (20%) in excess of the original Contract Price without Notice to sureties. At the time of the Preconstruction Meeting described in Section 50(b), the Contractor and the Owner shall advise each other in writing of their designees authorized to accept and/or approve Change Orders and of any limits to each designee's authority. Should any designee change or the limits of their authority change, the party initiating such change in designee or authority shall give written Notice to the other Party and the A/E within seven (7) Days. The Contractor agrees and understands that the authority of the Owner's designee is limited by *Code of Virginia, § 2.2-4309* and any other applicable statute.

Change Orders shall be effective when signed by both parties, unless Governor approval (or by his or her designee) is required, in which event the Change Order shall be effective when signed by the Governor or his or her designee.

In any Change Order adjusting the Contract Price, the increase or decrease in the Contract Price shall be determined by one of the following methods as selected by the Owner:

1. **Fixed Price:** By a mutually agreed fixed amount adjustment to the Contract Price. The Change Order shall be substantiated by documentation from the Contractor itemizing the estimated quantities and costs of all labor, materials, and equipment required as well as any mark-up used. Any increase in the Contract Price shall include the Contractor's reasonable overhead and profit, including overhead for any unreasonable delay arising from or related to the Change Order and/or the change in the Work. See Subsections (d), (e) and (f), below.
2. **Unit Price:** By using unit prices and calculating the number of net units of Work in each part of the Work which is changed, either as the Work progresses or before Work on the change commences, and by then multiplying the calculated number of units by the applicable unit price set forth in the Contract or multiplying by a mutually agreed unit price if none was provided in the Contract. No additional percentage markup for overhead or profit shall be added to the unit prices.
3. **Cost Reimbursement:** The Owner may require the Contractor to perform change in the Work on a cost-reimbursement basis by issuing two Change Orders citing this Subsection: (a) an initiating Change Order, authorizing the changed Work; and (b) a confirming Change Order approving any adjustment in the Contract Price or the Contract Completion Date as a result of the change in the Work. The initiating Change Order shall:
 - a. Describe the scope or parameters of the change in the Work;
 - b. Describe the cost items to be itemized and verified for payment and the method of measuring the quantity of work performed;
 - c. Address the impact on the Critical Path and any adjustment to the Contract Completion Date;
 - d. Order the Contractor to proceed with the change to the Work;
 - e. Order the Contractor to keep in a form acceptable to the Owner, an accurate, itemized account of the actual cost of the change in the Work, including, but not limited to, the actual costs of labor, materials, equipment, and supplies;
 - f. Order the Contractor to annotate a copy of the Project schedule to accurately show the status of the Work at the time the initiating Change Order is issued, to show the start and finish dates of the changed Work, and the status of the Work when the changed Work is completed; and
 - g. State that a confirming Change Order will be issued to reflect any increase or decrease to the Contract Price and any change in the Contract Completion Date directly resulting from the change in the Work.

The Contractor shall sign the initiating Change Order acknowledging it will proceed with the change in the Work. The Contractor's signature on an initiating Change Order citing

this Subsection 38(a)(3) shall not constitute the Contractor's agreement on the cost or time impact of the change in the Work.

Except as otherwise may be agreed to in writing by the Owner, costs incurred due to a change in the Work pursuant to this subsection 38(a)(3) shall not exceed those prevailing for the trades or crafts (based upon rates established by the U.S. Department of Labor, Bureau of Labor Statistics, or other generally recognized cost data publication), materials, and equipment in the locality of the Project, may include only those items listed as allowable in Subsection 38(e), and shall not include any of the costs listed as not allowable in Subsection 38(f). The Owner shall be permitted, on a daily basis, to verify the Contractor's cost records and may require such additional records as are necessary to determine the cost of the change to the Work.

Within fourteen (14) Days after the completion of the change in the Work, the Contractor and the Owner shall review and reconcile all cost records and schedule information regarding the change in the Work. The parties shall prepare a confirming Change Order addressing: (i) any change in the Contract Price resulting from the change in the Work, based on the records kept and the Contractor's allowance for overhead and profit determined in accordance with the provisions set forth in Subsections 38(d), (e), and (f) below; and (ii) any change in the Contract Completion Date as a result of the change in the Work's impact on the Critical Path. If agreement on the confirming Change Order is not reached within the fourteen (14) Day period following completion of the change in the Work, the Contractor may submit a claim for the disputed cost or time as provided for in Section 47.

4. The Owner may issue a unilateral Change Order for any change in the Work stating the change in the Contract Price and/or change in the Contract Completion Date deemed appropriate by the Owner for the Work. If the Contractor objects to adjustments reflected in the unilateral Change Order, the Contractor may submit a claim for the disputed costs or time as provided for in Section 47.
- b. The Contractor shall review any Owner proposed change in the Work and shall respond in writing within fourteen (14) calendar Days after receipt of the proposed change (or such other reasonable time as the Owner may direct), stating the effect of the proposed change upon its Work, including any increase or decrease in the Contract Price or Contract Completion Date that the Contractor requests as a result of the proposed change. The Contractor shall furnish to the Owner an itemized breakdown of the quantities and prices used in computing the proposed change in Contract Price. Any change in the Contract Completion Date shall be justified as set forth in Subsection 38(g).

The Owner shall review the Contractor's proposal and respond to the Contractor within thirty (30) days of receipt. If a change to the Contract Price and Contract Completion Date are agreed upon, both parties shall sign the Change Order. If a revised Contract Price and/or Contract Completion Date are not agreed upon, the Owner may direct the Contractor to proceed pursuant to Subsections 38(a)(3) or 38(a)(4).

- c. In figuring changes, any instructions for measurement of quantities set forth in the Contract shall be followed.
- d. Overhead and profit for both additive and deductive changes in the Work (other than changes covered by unit prices) shall be paid by applying the specified percentage markups only on the net cost of the changed Work (i.e. difference in cost between original and changed Work excluding overhead and profit). Said percentages for overhead and profit shall reasonably approximate the

Contractor's overhead and profit, but shall not exceed the percentages for each category listed below:

1. If a Subcontractor does all or part of the changed Work, the Subcontractor's mark-up for overhead and profit on the Work it performs shall be a maximum of fifteen percent (15%). The Contractor's mark-up for overhead and profit on the Subcontractor's price shall be a maximum of ten percent (10%).
 2. If the Contractor does all or part of the changed Work, its markup for overhead and profit on the changed Work it performs shall be a maximum of fifteen percent (15%).
 3. If a Sub-subcontractor at any tier does all or part of the changed Work, the Subsubcontractor's markup on that Work shall be a maximum of fifteen percent (15%). The markup for overhead and profit on a Sub-subcontractor's Work by the Contractor and all intervening tiers of Subcontractors shall not exceed a total of ten percent (10%).
 4. Where Work is deleted from the Contract prior to commencement of that Work without substitution of other similar Work, one hundred percent (100%) of the Contract Price attributable to that Work shall be deducted from the Contract Price. However, in the event that equipment, product or material Submittals have been approved and orders placed for said equipment, products or materials, a lesser amount, but in no case less than eighty percent (80%) of the Contract Price attributable to that Work, shall be deducted from the Contract Price. The credit to the Owner for reduced premiums on Standard Labor and Material Payment Bonds and Standard Performance Bonds shall in all cases be one hundred percent (100%).
- e. Allowable costs for changes in the Work may include but are not limited to the following:
1. 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 Owner.
 2. Materials incorporated into the change to the Work, including costs of transportation and storage, if applicable. If applicable, all cash discounts shall accrue to the Contractor, unless the Owner deposits funds with the Contractor to make such payments. All trade discounts, rebates, refunds, and returns from the sale of surplus materials shall accrue to the Owner.
 3. Equipment incorporated in the changed Work or equipment used directly in accomplishing the Work. If rented expressly for accomplishing the change in the Work, the cost shall be the rental rate according to the terms of the rental agreement, which the Owner shall have the right to approve. 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. If applicable, transportation costs may be included.
 4. 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 Owner'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. The cost of the increase in premium shall be an allowable cost but shall not be marked up.
 5. Contractor and Subcontractor overhead costs as set forth in Subsection (d) markups above.

6. **Agreed Compensation for Overhead for Changes to Time for Completion or Contract Completion Date for Changes to the Work:** If the change in the Work also changes the Contract Completion Date by adding Days to complete the Work, an itemized accounting of the following direct Site overhead and home office overhead and other indirect overhead expenses set forth in subparagraphs (a) and (b) below may be considered as allowable costs for compensation in addition to those shown above:

a. **Direct Site Overhead Expenses:** The Contractor's per diem expenses, as shown by the itemized accounting, for the following allowable direct Site overhead expenses: The Site superintendent's pro-rata salary, temporary Site office trailer, and temporary Site utilities including basic telephone service, electricity, heat, water, and sanitary / toilet facilities for each Day added. All other direct expenses are covered by and included in the Subsection 38(d) markups above.

b. **Home Office and Other Indirect Overhead Expenses:** A five percent (5%) markup on the above direct Site overhead expenses will be allowed as compensation for the Contractor's home office overhead and all other direct or indirect overhead expenses for Days added to the Time for Completion or the Contract Completion Date for a change in the Work. All other overhead and other direct or indirect overhead expenses are covered by and included in this markup and the Subsection (d) markups above.

No direct Site, home office, or other indirect overhead shall be paid if the changed Work is done on a unit price basis unless the Contractor can demonstrate that the unit price does not include direct and indirect overhead costs.

7. Any other costs directly attributable to the change in the Work with the exception of those set forth in Subsection 38(f) below.

f. Allowable costs for changes in the Work shall not include the following:

1. Costs due to the negligence of the Contractor, any Subcontractor, Supplier, their employees, or other persons for whom the Contractor is responsible, including, but not limited to, costs for the 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.

2. Home office expenses including payroll costs for the Contractor's officers, executives, administrators, accountants, counsel, timekeepers, 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 Subsections 38(d) above.

3. Home and field office expenses not itemized in Subsection 38(e) (6) above. Such items include, but are not limited to, expenses of Contractor's 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.

4. Other items reasonably determined by the Owner to not be allowed.

g. All Change Orders, except initiating Change Orders authorizing work pursuant to Subsection 38(a)(3) procedures, must state that the Contract Completion Date is not changed or is either

increased or decreased by a specific number of Days. The old Time for Completion and, if changed, the new Time for Completion also must be stated.

If the Contractor requests an extension to the Contract Completion Date, it must provide written justification for the extension to the A/E and to the Owner. No extension to the Contract Completion Date shall be allowed unless, and then only to the extent that, the additional or changed Work increases the length of the Critical Path beyond the Contract Completion Date. Extensions to the Contract Completion Date will be granted only when an excusable delay exceeds the Total Float in the activity or path of activities affected by the Change Order. If approved, the increase in time required to complete the Work shall be added to the Contract Completion Date.

The Owner may decrease, by Change Order, the Contract Completion Date when an Owner-requested deletion from the Work results in a decrease in the actual time required to achieve Substantial Completion of the Work. The Contractor may submit a request for an earlier Contract Completion Date under the procedures and subject to the considerations set forth in Section 19(f). No request for an earlier Contract Completion Date shall be considered for approval unless the proposed shorter schedule is otherwise acceptable under Sections 19(b) or (c), whichever is applicable.

With the exception of Change Orders under Subsection 38(a) (3), which shall arrive at a change to the Contract Price and Contract Completion Date using the procedures set forth therein, each Change Order shall include all time and monetary impacts of the change, whether the Change Order is considered alone or with all other changes during the course of the Project. Change Orders issued without a change to the Contract Completion Date and/or Contract Price conclusively establish that the change in the Work reflected by that Change Order had no impact on the Contract Price and/or Contract Completion Date. The parties may mutually agree in writing to postpone a determination of the time-related impacts of a change in the Work for a period of not more than forty-five (45) Days following completion of the change in the Work to give the Contractor an opportunity to submit documentation substantiating any requested change in the Contract Completion Date or Contract Price. During any such postponement, all Work shall proceed, unless the Owner agrees otherwise. The Contractor's failure to submit all required substantiating documentation during a forty-five (45) Day postponement shall conclusively establish that the change in the Work did not impact nor require an adjustment of the Contract Price and Contract Completion Date.

If at any time there is a delay in the Critical Path of the Work due to a postponement, the Contractor's efforts to justify an extension of the Contract Completion Date or an increase in the Contract Price, or the Contractor's refusal to proceed with any of the Work, such delay and any Contractor costs resulting from it shall not serve as the basis for the extension of the Contract Completion Date or for an increase in the Contract Price.

- h. The acceptance by the Contractor of any payment made by the Owner under a Change Order shall be and operate as a release to the Owner of all demands and claims by the Contractor to additional compensation or an adjustment of the Contract Price or Contract Completion Date for all things done or furnished in connection with the Work described in the Change Order. The execution of any Change Order by the Owner 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, Defective Work or poor workmanship or operate to release the Contractor or its surety from any obligation arising under the Contract, the Standard Performance Bond, or the Standard Labor and Material Payment Bond.
- i. Payments will not be made for any Work, labor, or materials performed on a unit price or a Subsection 38(a)(3) basis until the Contractor has furnished the Owner documents, certified as true and correct by an authorized officer or agent of the Contractor, evidencing the cost of such Work,

labor, and materials. The Owner may require any or all of the following documentation to be provided by the Contractor.

For Work performed on a Unit Price basis:

1. Certified measurements of authorized and approved excavations, over-excavations, fills and/or backfills, and similar work; and/or
2. Certified measurements of piling installed, caissons installed, and similar work; and/or
3. Daily records of waste materials removed from the Site and/or fill materials imported to the Site.
4. Other measurements as appropriate to establish the actual quantities of work being performed on a Unit Price basis.

For Work performed on a Subsection 38(a)(3) basis:

1. Certified payroll records showing the name, classification, date, daily hours, total hours, rate, and extension for each laborer, foreman, supervisor, or other worker;
2. Equipment type & model, dates, daily hours, total hours, rental rate, or other specified rate and extension for each unit of equipment;
3. Invoices for materials showing quantities, prices, and extensions;
4. Daily records of waste materials removed from the Site and/or fill materials imported to the Site;
5. Certified measurements of over-excavations, piling installed and similar work;
6. Transportation records for materials, including prices, loads, and extensions.

Requests for payment shall be accompanied and supported by invoices for all materials used and for all transportation charges claimed. If materials come from the Contractor's own stock, then an affidavit may be furnished, in lieu of invoices, certifying quantities, prices, etc. to support the actual cost.

39. EXTRAS

If the Contractor claims that any instructions given to him by the A/E or by the Owner, by drawings or otherwise, require extra work outside the scope of the Contract, then, except in emergencies endangering life or property, he shall give the A/E and the Owner written Notice thereof before proceeding to execute the extra work. Said Notice shall be given promptly enough to avoid delaying the Work and in no instance later than fourteen (14) Days after the receipt of such instructions. If it is not immediately clear to the Contractor that a request or instruction involves extra Work outside the scope of the Contract, then written Notice shall be sufficient if it's given as soon as possible after Contractor's realization that a request or instruction involves extra Work, but in no event later than fourteen (14) Days after the start of such extra Work. If the Owner agrees, a Change Order shall be issued as provided in Section 38 for the extra work and any additional compensation shall be determined by one of the methods provided in Subsection 38(a), as selected by the Owner. If the Owner does not agree, then the Contractor may submit a claim for the disputed cost or time as provided for in Section 47. No claim for additional compensation for extra work will be considered unless the Contractor timely has provided the required Notice.

40. CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE THE CONTRACT

If the Work should be stopped under an order of any court or other public authority for a period of ninety (90) Days through no fault of the Contractor or anyone employed by it, or if the Owner should fail to pay to the Contractor within thirty (30) Days any sum certified by the A/E when no dispute exists as to the sum due or any requirement of the Contract, then the Contractor may, upon ten (10) Days written Notice to the Owner and the A/E, stop Work or terminate the Contract and recover from the Owner payment for the cost of the Work actually performed, together with overhead and profit thereon, but profit on the Work performed shall be recovered only to the extent that the Contractor can demonstrate that it would have had profit on the entire Contract if it had completed the Work. The Contractor may not receive profit or any other type of compensation for parts of the Work not performed. The Contractor may recover the reasonable cost of physically closing down the Site, but no other costs of termination. The Owner may offset any claims it may have against the Contractor against the amounts due to the Contractor. In no event shall termination of the Contract by the Contractor terminate the obligations of the Contractor's surety on its payment and performance bonds.

41. OWNER'S RIGHT TO TERMINATE THE CONTRACT FOR CAUSE

- a. If the Contractor should be adjudged as bankrupt, or if it should make a general assignment for the benefit of its creditors, or if a receiver should be appointed on account of its insolvency, the Owner may terminate the Contract. If the Contractor should refuse or should repeatedly fail, except in cases for which extension of time is provided, to supply enough properly skilled tradespeople or laborers or proper materials and equipment, or if it should fail to perform the Work in a diligent, efficient, workmanlike, skillful, or careful manner, or if it should fail or refuse to perform the Work in accordance with the Contract Documents, or if it should fail to make prompt payment to Subcontractors or Suppliers of material or labor, or if it should disregard laws, ordinances, building codes or the written instructions of the A/E or the Owner, or otherwise be in substantial, willful or repeated violation of any provision of the Contract, then the Owner may terminate the Contract.
- b. Prior to termination of the Contract, the Owner shall give the Contractor and its surety ten (10) Days' Notice of such termination and allow ten (10) Days during which the Contractor and/or its surety may rectify the basis for the Notice. If rectified to the satisfaction of the Owner within said ten (10) Days, the Owner may rescind its notice of termination. If the basis for the termination is not rectified within said ten (10) Days, the termination for cause shall become effective at the end of the ten (10) Day period without further Notice to the Contractor. At any time, the Owner may, in writing, postpone the effective date of the termination for cause, at its sole discretion, if it should receive reassurances from the Contractor and/or its surety that the basis for the termination will be remedied in a time and manner which the Owner finds acceptable. If at any time after such a postponement, the Owner determines that Contractor and/or its surety has not or is not likely to rectify the causes of termination in an acceptable manner or to do so within the time allowed, then the Owner may immediately terminate the Contract for cause, without the necessity of further ten (10) Day Notice, by notifying the Contractor and its surety in writing of the termination. In no event shall termination for cause terminate the obligations of the Contractor's surety on its payment and performance bonds.
- c. Upon termination of the Contract becoming effective, the Owner shall take possession of the Site and of all materials, tools and equipment thereon and shall proceed as follows:
 1. **No Security or Bonds Provided:** If no security has been required pursuant to Section 8, the Owner shall finish the Work by whatever method the Owner deems reasonable or expedient. If the expense of finishing the Work, including compensation for additional managerial and administrative services, shall exceed the unpaid balance of the Contract

Price, the Contractor shall pay the difference to the Owner, together with any other expenses of terminating the Contract and having it completed by others.

2. **Security or Bonds Provided:** If security has been required and provided pursuant to Section 8 herein, the Owner shall provide Notice to the Surety that termination of the Contract became effective and proceed as set forth in the Standard Performance Bond (CO-10), and the Terms and Conditions therein. If the expense of finishing the Work, including compensation for additional managerial and administrative services, shall exceed the unpaid balance of the Contract Price and all amounts due under the Standard Performance Bond, the Contractor shall pay the difference to the Owner, together with any other expenses of terminating the Contract and having it completed by others.
- d. If it should be judicially determined that the Owner improperly terminated this Contract for cause, then the termination shall be deemed to be a termination for the convenience of the Owner and the Contractor's rights and remedies shall be solely limited to those provided by Section 42 of these General Conditions.
- e. Termination of the Contract for cause is in addition to and without prejudice to any other right or remedy of the Owner. Any actions by the Owner permitted herein shall not be deemed a waiver of any other right or remedy of the Owner under the Contract or under the law. The Owner may offset any claims it may have against the Contractor against the amounts due to the Contractor. The provisions of this Section shall survive termination of the Contract.
- f. The provisions of Sections 3(j), 9(e), 14, 30 and 45 also shall survive termination of the Contract for cause.

42. TERMINATION BY OWNER FOR CONVENIENCE

- a. The Owner may terminate this Contract, in whole or in part, at any time without cause upon giving the Contractor written Notice of such termination. Upon Notice of termination for convenience, the Contractor shall immediately cease Work and remove from the Site all of its labor forces, equipment and such of its materials as Owner elects not to purchase or to assume in the manner hereinafter provided. The Contractor also shall take such steps as Owner may require to assign to the Owner the Contractor's interest in all Subcontracts and purchase orders designated by Owner. After all such steps have been taken to Owner's satisfaction, the Contractor shall receive as full compensation the following:
 1. Amounts due for Work performed in accordance with the Contract subsequent to the latest approved Schedule of Values and Certificate for Payment (CO-12) through the date of termination; and
 2. All amounts due under Contract for Work completed prior to the date of termination; and
 3. Reasonable compensation for the actual cost of demobilization incurred by the Contractor as a direct result of termination for convenience, plus overhead not to exceed 15 percent (15%) of the direct costs of demobilization.

The Contractor agrees it shall not be entitled to any additional compensation, including but not limited to loss of revenue, income, profit, business, reputation, or bonding capacity, consequential damages or lost profits, but shall only receive payment upon termination for convenience as stated in this Subsection 42(a). The Owner may offset any claims it may have against the Contractor against the amounts due to the Contractor. Upon payment of the amounts stated in this Subsection 42(a), Owner shall have no further obligations to Contractor of any nature.

- b. In no event shall termination for the convenience of the Owner terminate the obligations of the Contractor's surety on the payment and performance bonds. The provisions of Sections 3(j), 9(e), 14, 30 and 45 also shall survive termination of the Contract for convenience.
- c. Any actions by the Owner permitted herein shall not be deemed a waiver of any other right or remedy of the Owner under the Contract or under the law. The provisions of this Section shall survive termination of the Contract.

43. DAMAGES FOR DELAYS; EXTENSION OF TIME

- a. **Excusable Non-Compensable Delays:** If the Critical Path is delayed by strikes, fires, unusual delays in transportation, unavoidable casualties, or other causes outside the control of the Owner and the Contractor, with the exception of delays caused by weather which are addressed in Section 6, and the Contractor seeks an extension of the Contract Completion Date, then the Contractor shall give the Owner and A/E written Notice of the delay not later than fourteen (14) Days following the inception of the delay. The Contractor shall give written Notice to the Owner and A/E of the termination of the delay event not later than fourteen (14) Days after the delay has ceased. Within twenty (20) Days after the delay event has ceased, Contractor shall submit to the Owner and the A/E, the Contractors' written request for an extension of the Contract Completion Date, specifically stating the cause of the delay, the number of days of extension requested, and an analysis of the delay event's impact on the Critical Path. If the Owner agrees that the Critical Path has been impacted by the delay event, the Owner shall extend the Contract Completion Date for the length of time that the Critical Path was delayed. The Contractor shall not be charged with liquidated or actual damages for such period of Critical Path delay nor shall the Contractor be due compensation or damages of any kind, under any theory of law, as a result of such Critical Path delay, the impact of such delay, or its acceleration of Work as a result of such delay.
- b. **Excusable Compensable Delays:** If the Critical Path unreasonably is delayed by acts or omissions of the Owner, or its agents, contractors, or employees due to causes within the Owner's control, and the Contractor seeks an extension of the Contract Completion Date and/or additional compensation due to the unreasonable delay, then the Contractor shall notify the Owner and the A/E immediately at the time of the occurrence giving rise to the delay by the fastest means available. The Contractors also shall give written Notice to the Owner and A/E no later than two (2) business days after inception of the delay. The Contractor's written Notice shall specify the nature of the delay claimed by the Contractor, the cause of the delay, and the impact of the delay on the Critical Path. The Owner shall have three (3) business days to respond to the Contractor's Notice with a resolution, remedy, direction to alleviate the delay, or rejection of the Contractor's requested relief. The Owner's failure to respond within the time required shall be deemed to be a denial of the Contractor's entitlement to an extension of the Contract Completion Date and additional compensation. The Contractor shall also give written Notice to the Owner and A/E of the termination of the delay event not later than fourteen (14) Days after the delay has ceased. Within twenty (20) Days after the delay event has ceased, Contractor shall submit to the Owner and the A/E, the Contractor's written request for an extension of the Contract Completion Date, specifically stating the cause of the delay, the number of days of extension requested, a calculation of the additional compensation sought, and an analysis of the delay event's impact on the Critical Path. Requests for additional compensation must be substantiated by itemized data and records demonstrating that the costs incurred by the Contractor are directly attributable to the delay and shall be calculated from the Contract Completion Date, not using any early completion planned or scheduled by the Contractor unless a Change Order has been executed pursuant to Section 19(f) changing the Contract Completion Date to reflect such early completion. If and to the extent that a delay is caused by or due to the Owner or A/E taking any actions permitted or required by the Contract, the Contractor shall be entitled to an extension of the Contract Completion Date or additional compensation only for the portion of the delay that is unreasonable, if any.

- c. **Non-Excusable Non-Compensable Delays:** The Contractor shall not be entitled to an extension of the Contract Completion Date or to any additional compensation if and to the extent a delay is: (1) caused by acts, omissions, fault, or negligence of the Contractor or its Subcontractors, agents or employees; (2) arises from foreseeable causes within the control of the Contractor or its Subcontractors, agents or employees, including, but not limited to, Defective Work, poor workmanship, improper or inferior materials, Defective Work which must be corrected before dependent work can proceed, Defective Work for which corrective action must be determined before like work can proceed, from incomplete, incorrect, or unacceptable Submittals or samples, or the failure to furnish enough or properly skilled workers, proper materials or necessary equipment to perform the work in a timely manner in accordance with the Project schedule; or (3) due to causes that would entitle the Owner to recover delay costs or other damages from Contractor.
- d. No extension of time or additional compensation will be allowed unless the Contractor demonstrates that the delay directly impacted the Critical Path of the most current approved Project schedule and that all Float has been consumed. No extension of time or additional compensation will be allowed if the Contractor failed to provide all Notice and information in the manner and within the time periods set forth in Subsections 43(a) or (b) above, whichever applies. Failure to timely provide all required information and Notices shall preclude an extension of the Contract Completion Date or payment of additional compensation based upon that cause.
- e. If the Contractor makes a claim against the Owner for costs or damages, the Contractor shall be liable to and shall pay to the Owner that percentage of all costs incurred by the Owner in investigating, analyzing, negotiating, and litigating or arbitrating that percentage of the claim which is determined through litigation or arbitration to be false or to have no basis in law or in fact. (*Code of Virginia*, § 2.2-4335).
- f. Any change in the Time for Completion or Contract Completion Date shall be accomplished only by issuance of a Change Order.
- g. **Agreed Compensation/Liquidated Damages for Contractor Delay:** If liquidated damages are not established in the Supplemental General Conditions, the Contractor shall be liable for any and all actual damages sustained by Owner as a result of a delay for which Contractor is responsible. In addition to damages for delay, whether liquidated or actual, the Contractor shall also be liable for any and all actual damages sustained by the Owner as a result of any other breach of the Contract, including, but not limited to, Defective Work or abandonment of the Contract.

44. INSPECTION FOR SUBSTANTIAL COMPLETION & FINAL COMPLETION

- a. The Contractor shall advise the Owner using the Certificate of Partial or Substantial Completion by the Contractor (CO-13.2a) of the date when the Work or designated portion thereof will be substantially complete and ready for inspection and testing by Owner to determine if Substantial Completion has been achieved. Contractor shall deliver Form CO-13.2a to the A/E at least ten (10) Days in advance of the date identified on the Form CO-13.2a. The A/E shall then attach his or her written endorsement as to whether the Work will be ready for inspection and testing on the date identified on the Form CO-13.2a. The A/E's endorsement is a convenience to the Owner only and shall not relieve the Contractor of its responsibility nor shall the A/E's endorsement be deemed to evidence or establish that the Work was substantially complete or ready for inspection and testing. Inspection and testing shall take place at a time(s) mutually agreeable to the Contractor, Owner, A/E, and Building Official.

The inspection shall include a demonstration by the Contractor that all equipment, systems and operable components of the Project function properly and in accordance with the Contract

Documents. The Contractor shall furnish access for the inspection and testing as provided in Section 21 of these General Conditions. The inspection and testing shall determine whether Substantial Completion has been accomplished and shall result in a written list of unfinished Work and Defective Work, commonly referred to as a “punch list”, which must be completed and corrected prior to Final Completion.

If, after successful completion of all testing, the Architect/ Engineer determines that the Work, either in whole or in part, has achieved Substantial Completion, the A/E shall notify the Owner of such, in writing, using the Certificate of Partial or Substantial Completion by the A/E (CO-13.1a).

The Owner shall notify the Contractor, in writing, of the date the Owner accepts the Work, or the specified portion thereof, as having achieved Substantial Completion or, if it is not, shall notify the Contractor of the deficiencies to be corrected or completed before such Work will be accepted as substantially complete.

- b. The Contractor shall advise the Owner, in writing using the Certificate of Completion by the Contractor (CO-13.2) of the date when the Work has reached or will reach Final Completion and will be ready for final inspection and testing. Contractor shall deliver Form CO-13.2 to the A/E at least five (5) Days in advance of the date identified on the Form CO-13.2. The A/E shall then attach his or her written endorsement as to whether the Work will be ready for inspection and testing on the date identified on Form CO-13.2. The A/E’s endorsement is a convenience to the Owner only and shall not relieve the Contractor of its responsibility nor shall the A/E’s endorsement be deemed to evidence or establish that the Work achieved Final Completion. Final Completion inspection and any necessary testing shall be conducted in the same manner as the inspection for Substantial Completion. The Owner shall not establish the Final Completion Date until the Work is finally and totally complete, including the completion of punch list items, submission of all required documentation, and elimination and correction of all Defective Work.
- c. Representatives of the Contractor, Owner, A/E, and Building Official will participate in the Substantial Completion and/or Final Completion inspections. The A/E shall conduct and document the inspections. The Owner may elect to have other persons of its choosing also participate in the inspections. If one or more Substantial or Final Completion re-inspections are required, the Contractor shall reimburse the Owner for all costs of re-inspection or, at the Owner’s option, the costs may be deducted from payments due to the Contractor.
- d. A representative of the State Fire Marshal’s Office will either be present at the Substantial and Final Completion inspections or otherwise inspect the completed Work and report any fire safety deficiencies to the Building Official. The State Fire Marshal will advise the Owner and Contractor of those deficiencies.
- e. Approval of Work at or as a result of any inspection required herein shall not release the Contractor or its surety from responsibility for complying with the Contract.

45. GUARANTEE OF WORK AND INDEMNIFICATION

- a. Except as otherwise specified or required, the Contractor guarantees all Work, materials, equipment, and workmanship conform to the requirements of the Contract Documents and are free from defects, imperfections, or non-conformities, normal wear and tear excepted, for a period of one (1) year from the Final Completion Date. Equipment and facilities which have seasonal limitations on their operation (e.g. heating or air conditioning units) shall be guaranteed for one (1) full year from the date of the equipment’s first seasonally appropriate test and acceptance, in writing, by the Owner. Where the Owner agrees to take Beneficial Occupancy of a portion or phase of the Work which has been determined to be substantially complete before the entire Work achieves Final Completion, the

guarantee for that portion or phase shall begin on the date that the Owner takes Beneficial Occupancy, unless otherwise specified in the Supplemental General Conditions, Special Conditions, or by separate agreement. This guarantee is separate and apart from any manufacturers' warranties and the warranty set forth in Section 30. At six (6) months and eleven (11) months after Substantial Completion, the Contractor shall meet with the Owner to review the status of and assign value to any unresolved warranty, guarantee, and punch list items.

- b. If, within any guarantee period, Work which is not in accordance with the Contract, Defective Work, or inferior material, equipment or workmanship is noted by the Owner or A/E which requires or renders necessary repairs or changes in connection with the guaranteed Work, the Contractor shall, promptly upon receipt of Notice from the Owner, such Notice being given not later than two weeks after the guarantee period expires, and without expense to the Owner:
 - 1. Correct, repair, replace or otherwise place in satisfactory condition all Defective Work, defects, nonconformity, inferior materials, equipment or workmanship;
 - 2. Make good all damage to the structure or Site or equipment or contents thereof, which, in the opinion of the Owner or the A/E, is the result of the use of materials, equipment or workmanship which are inferior, defective or not in accordance with the requirements of the Contract; and
 - 3. Make good any Work or materials or the equipment and contents of structures and/or Site disturbance that results from fulfilling the requirements of the guarantee.
- c. In any case when in fulfilling the requirements of the Contract and this guarantee or any other guarantee or warranty the Contractor disturbs any work performed by a separate contractor, the Contractor shall restore such work to a condition satisfactory to the A/E and Owner and guarantee such restored work to the same extent as if it was guaranteed under this Contract.
- d. If the Contractor, after Notice, fails to proceed promptly to comply with the obligations of this Section 45, and the surety, after Notice, fails to cure the Contractor's default as provided in Section 41, the Owner may undertake all needed corrections or repairs and the Contractor and its surety shall be liable for all expenses incurred.
- e. All special warranties and guarantees applicable to definite parts of the Work that may be stipulated in or required by the Contract Documents shall be subject to the terms of this Section during the first year of such special warranty or guarantee. The guarantee of this Section shall be in addition to and not in lieu of all other warranties, express or implied, applicable to or arising from this Contract or by law.
- f. Nothing contained in this Section shall be construed to establish a period of limitation with respect to any other obligation which the Contractor might have under the Contract Documents, including liability for Defective Work under Section 30, for indemnity or for breach of the Contract. This Section relates only to the specific obligation of the Contractor to correct the Work and does not limit the time within which its obligation to comply with the Contract Documents otherwise may be enforced, nor the time within which legal proceedings may be commenced to establish the Contractor's liability with respect to its obligations under the Contract Documents.
- g. In the event the Work of the Contractor is to be modified by another contractor, either before or after the Final Inspection, the Contractor shall remain responsible in all respects under this Section's Guarantee of Work and under any other warranties or guarantees, express or implied, applicable to or arising from this Contract or by law. However, the Contractor shall not be responsible for any defects in material or workmanship introduced by another Contractor modifying Contractor's Work.

The Contractor and any contractor making modifications shall each be solely responsible for its respective work. A contractor modifying the Contractor's Work shall be responsible for any damage to or defect introduced into the Work by its modification.

If Contractor claims that a subsequent contractor has introduced defects of materials and/or workmanship into its Work, Contractor shall demonstrate clearly the nature and extent of such introduced defects and the other contractor's responsibility for those defects. Any contractor modifying the work of another shall have the same burden if it asserts that defects in its work were caused by the contractor whose work is modified.

- h. The Contractor shall indemnify and hold harmless the Commonwealth of Virginia, the Owner and the Owner's consultants, representatives, agents and employees from and against any and all claims, causes of action, losses, costs, expenses or damages, including but not limited to attorney's fees, of any kind or nature whatsoever, arising from or relating to any bodily injury, including sickness, disease or death, any property damage, and any monetary loss, that results from or arises out of the Work performed by the Contractor, or by or in consequence of the Contractor's neglect in safeguarding the Work, its use of unacceptable materials in the Work, or resulting from any act, omission, negligence, or misconduct of the Contractor, any of its subcontractors, anyone directly or indirectly employed by them or anyone for whose acts the Contractor is or may be liable. The Owner may retain as much of the monies due the Contractor under the Contract as the Owner considers necessary to ensure that a fund will be available to pay a settlement or judgment of such suits, actions, or claims. If insufficient monies are or will become due, the Contractor's surety and/or insurers will not be released from liability until all such claims and actions have been settled and suitable evidence to that effect has been furnished the Owner.

46. ASSIGNMENTS

Neither party to the Contract shall assign the Contract in whole or any part without the written consent of the other, nor shall the Contractor assign any monies due or to become due to him hereunder, without the prior written consent of the Owner. Consent to assignment shall not be unreasonably withheld. No assignment shall relieve any party from its obligations under the Contract.

47. CONTRACTUAL DISPUTES (*Code of Virginia, § 2.2-4363*)

- a. Contractual claims, whether for money or for 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 such claim must be given to the Owner within fourteen (14) Days of the time of the occurrence or beginning of the Work upon which the claim is based. Such Notice shall state that it is a "notice of intent to file a claim" and include a written statement describing the act or omission of the Owner or its agents that allegedly caused or may cause damage to the Contractor and the nature of the claimed damage. Verbal notice, the Owner's actual knowledge, or a written notice given more than fourteen (14) Days after the occurrence or beginning of the Work upon which the claim is based, shall not be sufficient to satisfy the requirements of this Section. All claims shall state that they are "claims" pursuant to this Section, be submitted along with all practically available supporting evidence and documentation and the certification required by Subsection 47(f), and request a final decision. Certificates for payment, applications for payment, vouchers, invoices and similar requests for payment submitted for work done by the Contractor in accordance with the expected contract performance are routine submissions and are not claims under this Section. Proposed or requested Change Orders, demands for monetary compensation or other relief, and correspondence and e-mails to the Owner or its representatives, which do not strictly comply with the requirements of this Section, are not claims under this Section. Failure to timely provide notice of intent to submit

a claim shall preclude any relief to the Contractor, including but not limited to an extension of the Contract Completion Date or payment of additional compensation.

- b. Although the Contractor may be required to submit certain classes of claims prior to Final Payment, and the Contractor is not prevented from submitting claims during the pendency of the Work, the Owner shall not be obligated to render a final written decision on any claim until after Final Payment. No written decision denying a claim or addressing issues related to the claim shall be considered a denial pursuant to this Section unless the written decision makes express reference to this Section and is signed by the Agency head or his or her designee. The Contractor may not institute legal action prior to receipt of the Owner's final written decision on the claim unless the Owner fails to render such a decision within ninety (90) Days of submission of the claim or within ninety (90) Days of Final Payment, whichever is later.
- c. The decision of the Owner shall be final and conclusive unless the Contractor within six (6) months of the date of the final decision on a claim, initiates legal action as provided in *Code of Virginia* § 2.2-4364. Failure of the Owner to render a timely decision on a claim shall not result in the Contractor being awarded the relief claimed nor shall it result in any other relief or penalty. The sole result of the Owner's failure to render a timely decision shall be the Contractor's right to immediately institute legal action. No administrative appeals procedure pursuant to § 2.2-4365 of the *Code of Virginia* has been established for contractual claims under this Contract.
- d. Pursuant to *Code of Virginia*, § 2.2-4366, Alternative Dispute Resolution, the Owner may enter into an agreement with the Contractor to submit disputes arising from the performance of this Contract to arbitration and utilize mediation and other alternative dispute resolution procedures. However, such procedures entered into by the Owner, the Commonwealth, or any department, institution, division, commission, board or bureau thereof, shall be non-binding and subject to *Code of Virginia* § 2.2-514, as applicable. The details for the implementation of Alternative Dispute Resolution are provided in CPSM Section 3.2.7.
- e. In the event that a dispute, claim or controversy between the Owner and the Contractor arises regarding the requirements of the Contract, the performance of the Work, payment due the Contractor, the terms of any Change Order, or otherwise, the Contractor shall not stop, suspend or delay the Work or any part of the Work to be performed under the Contract, or under any Change Order, or as ordered by the Owner. The Contractor shall continue to diligently prosecute the Work to completion, including work required in any Change Order or as directed by the Owner.
- f. The Contractor shall submit a Contractor's Claim Certification (DGS-30-234) certifying that the claim is a true and accurate representation of the claim. Claims submitted without the Contractor's Claim Certification will be deemed incomplete and will not be considered.
- g. The compensation expressly provided for by this Contract shall be the Contractor's sole available compensation for the acts, omissions or breaches by the Owner. These remedies shall survive termination or breach of the Contract.

48. ASBESTOS

- a. This subsection applies to projects involving existing buildings where asbestos abatement is not a part of the Work, when the scope of the Project has been reviewed and a comprehensive survey conducted by an individual licensed by the Virginia Department of Professional and Occupational Regulation to conduct building inspections for asbestos-containing materials in buildings, and where the Owner has attempted to remove or encapsulate all asbestos-containing material that may become friable or damaged during this Project.

Prior to commencement of Work, the results of the comprehensive survey or any other asbestos survey shall be made available to the Contractor, who shall be responsible for performing his Work so as not to disturb any remaining asbestos, encapsulated or otherwise, identified in such survey or surveys.

If the Contractor discovers or inadvertently disturbs any material that he knows, should have known or has reason to believe, may contain asbestos that has not been previously identified, was overlooked during the removal, was deemed not to be friable or was encapsulated, the Contractor shall stop Work in the area containing or suspected to contain the asbestos, secure the area, and notify the Owner and the A/E immediately by telephone or in-person with written Notice as soon as possible. The Owner will have the suspect material sampled.

If the sample is positive and must be disturbed in the course of the Work, the Owner shall have the material repaired or removed and shall pay for the bulk sample analysis.

Except as provided in *Code of Virginia* § 11-4.1, if the material disturbed is not within the Contractor's authorized Work and/or Work area or under this Contract, the Contractor shall pay for all associated sampling and abatement costs.

- b. If asbestos abatement is included as a part of the Work, the Contractor shall assure that the asbestos abatement work is accomplished by those duly licensed as described in Section 3 of these General Conditions and in accordance with the specific requirements of the Contract and all applicable laws and regulations.
- c. If asbestos abatement is included as part of the Work, the licensed asbestos Subcontractor shall obtain the insurance required under Section 11(b)(4) of these General Conditions.

49. TRAINING, OPERATION AND MAINTENANCE OF EQUIPMENT

- a. As a part of the Work, the Contractor in conjunction with his Subcontractors and Suppliers shall provide the Owner's operations and maintenance personnel with adequate instruction and training in the proper operation and maintenance of any equipment, systems, and related controls provided or altered in the Work. The training requirements may be further defined in the Specifications.
- b. The Contractor shall provide the Owner with a minimum of two (2) copies of operating, maintenance and parts manuals for all equipment and systems provided in the Work. Further specific requirements may be indicated in the Specifications.

50. PROJECT MEETINGS

- a. The intention of this Section is that the Contractor, the Owner and the A/E have timely exchange of information and cooperate to accomplish the Work as required by the Contract Documents. The Contractor is responsible for managing the Work, obtaining approvals and requesting clarifications on a timely basis. The Owner and A/E are responsible for making a reasonable effort to provide timely responses to the Contractor.
- b. **Preconstruction Meeting:** Prior to the start of construction and no later than 15 Days after the Notice to Proceed, a "Preconstruction" meeting shall be held with attendees to include the Owner's Project Manager and Project Inspector, the A/E's project manager and representatives of each design discipline involved in the Project, the Regional Fire Marshal, the Contractor's project manager and superintendent (and scheduler, if Contractor desires), and representatives of the Contractor's major Subcontractors. The purpose of the meeting is to clarify and discuss the specifics related to, but not limited to, the following:

1. Persons involved from each entity and their chain of authority including the names of persons authorized to sign Change Orders and any limits to their authority. Name of Contractor's on-site certified Responsible Land Disturber.
 2. Names, addresses, email addresses, telephone numbers and FAX numbers to be used for Requests for Information (RFI), Requests for Clarification (RFC), Requests for Proposals (RFP), shop drawings, Submittals, and Notice.
 3. Contractor's proposed construction schedule, the requirements for schedule updates and recovery schedules, assessment and management of risks to on-time and on-budget completion, and Owner's sequencing requirements, if any.
 4. Schedule of Values and Certificate for Payment (CO-12) requirements and procedures.
 5. Procedures for shop drawings, product data and Submittals.
 6. Procedures for handling Field Orders and Change Order (CO-11).
 7. Procedures for Contractor's request for time extension, if any.
 8. Construction Site requirements, procedures and clarifications to include:
 - Manner of conducting the Work
 - Site specialties such as dust and erosion control, stormwater management, project signs, clean up and housekeeping, temporary facilities, utilities, security, and traffic
 - Safety
 - Layout of the Work
 - Quality control, testing, inspections, and notices required
 - Site visits by the A/E and others Owner's Project Inspector duties
 - Running Punch List
 - As-Built Drawings
 9. Procedures and documentation of differing or unforeseen Site conditions.
 10. Monthly Pay Meeting.
 11. Assignment of responsibility for generation of meeting minutes of all project meetings.
 12. Project Close-Out requirements and procedures.
 13. Project records.
 14. Requirements for the Contractor to furnish the Owner a list of hazardous materials that may be brought onto the job site, and 48- hour notification requirement.
- c. **Monthly Pay Meeting:** Section 36 establishes the requirement for a monthly pay meeting which will usually be held at or near the Site. In addition to Owner, A/E and Contractor representatives, the following representatives, at a minimum, should be available to attend portions of the meeting, as applicable or necessary:
- Owner's Project Inspector
 - Contractor's project superintendent

- A/E representative of each discipline where Work was performed for the current pay request or where Work is projected to be performed in the coming month.
- A representative of each subcontractor who performed work included in the current pay request.
- A representative of each subcontractor who is projected to perform work in the coming month.

The following topics should be included, as a minimum, in the monthly pay meeting:

1. Observations of status, quality and workmanship of Work in progress
 2. Validation of the Schedule of Values and Certificate for payment
 3. Status of progress of the Work and conformance with proposed construction schedule and recovery schedule, if any
 4. Outstanding Requests for Information, Requests for Clarification and Requests for Proposal
 5. Submittals with action pending
 6. Status of pending Change Orders
 7. Status of Running Punch List items
 8. Work proposed for coming pay period
 9. Discussions of any problems or potential problems which need attention
- d. **Other Meetings:** Requirements for other meetings, such as progress meetings, coordination meetings, pre-installation meetings and/or partnering meetings, may be included in the Contract Documents.

51. SMALL BUSINESS PROCUREMENT PLAN

If the Total Contract Amount of the Contract is greater than \$10,000 and the Contractor is a SWaM/SDV Business; then the Contractor shall include a Small Business Procurement Plan in its Bid (if subcontracting work is intended by the Contract as part of its performance of the Work).

If the Total Contract Amount of the Contract is greater than \$100,000, then the Contractor shall include in its Bid a Small Business Procurement Plan and report on the involvement of SWaM/SDV Businesses in the Contractor's performance of the Contract as follows:

1. **Periodic Progress Reports:** The Contractor shall report on involvement of SWaM/SDV Business with each periodic invoice submitted by the Contractor. The report shall identify each subcontract or agreement with a SWaM/SDV Business, including the total contract value, and state the total amounts paid to each SWaM/SDV Business in connection with the Contract as of the report date. The report shall provide this information separately for each type of SWaM/SDV Business and shall clearly indicate those SWaM/SDV Businesses which were identified in the Contractor's Small Business Procurement Plan submitted by the Contractor in the procurement phase for the Contract. The Contractor shall provide two (2) copies of each periodic report to the Owner. Failure to submit the report with each invoice will result in the invoice being rejected by the Owner without payment.

2. **Final Compliance Report:** Prior to or with its final invoice for payment, the Contractor shall certify and report on its compliance with the Small Business Procurement Plan, submitted by the Contractor in its Bid for the Contract, to the Owner through DGS' eVA system. In the Final Compliance Report, the Contractor shall:

- Provide a written explanation to the Owner of any variances between the Contractor's Small Business Procurement Plan and the actual participation of SWaM/SDV Businesses in the Contractor's performance of the Contract; and
- Report on the involvement of other SWaM/SDV Businesses in the Contractor's performance of the Contract, including the contract value, the type of SWaM/SDV Business, a comparison of the actual amount paid with the planned amounts, the total amount paid to each type of SWaM/SDV Business, and a calculation of the percentage of the Total Contract Amount paid to SWaM/SDV Business.

A format for the Final Compliance Report will be provided by the Owner.

The Owner may withhold final payment to the Contractor until the Contractor has complied with the requirements of its Small Business Procurement Plan submitted by the Contractor in the procurement phase for the Contract.

* * * E N D O F G E N E R A L C O N D I T I O N S * * *

Virginia Tech

Supplemental General Conditions to the General Conditions of the Construction Contract (Design-Bid-Build)

September 1, 2022

The Virginia Tech General Conditions of the Construction, Form HECO-7 (Version 1 dated 04/12/2021), are modified and supplemented as hereinafter described:

1. DEFINITIONS

Delete the definitions listed below and replace with the following:

Change Order: A document (Form CO-11) issued on or after the effective date of the Contract Between Owner and Contractor which is agreed to by the Contractor and approved by the Owner, and which authorizes an addition, deletion or revision in the Work, including any adjustment in the Contract Price and/or the Contract Completion Date. The term Change Order shall also include written orders to proceed issued pursuant to Section 38 (a) (3). A Change Order, once signed by all parties, is incorporated into and becomes a part of the Contract.

Contract: The Contract Between Owner and Contractor, hereinafter referred to as the Contract.

Contract Documents: The Contract between Owner and Contractor signed by the Owner and the Contractor and any documents expressly incorporated therein. Such incorporated documents customarily include the bid submitted by the Contractor, these General Conditions, any Supplemental General Conditions, any Special Conditions, the plans and the specifications, and all modifications, including addenda and subsequent Change Orders.

Insert the following definitions:

Limited Renovation: Renovations that do not involve structural work (including, but not limited to, foundations, supports, beams, exterior roof supports, load bearing walls, and roofing structures) and that do not involve Hot Work (as defined by the Virginia Statewide Fire Prevention Code) with the exception of brazing, soldering, and grinding.

Major Renovation: Renovations that do not meet the definition of Limited Renovation.

2. CONTRACT DOCUMENTS

- (a) The Contract Between Owner and Contractor, the Workers' Compensation Certificate of Coverage (CO-9a), the Standard Performance Bond (CO-10), the Standard Labor and Material Payment Bond (CO-10.1), the Schedule of Values and Certificate for Payment (CO-12), the Affidavit of Payments of Claims (CO-13), the Contractor's Certificate of Substantial Completion (*HECO-13.2a), and the Contractor's Certificate of Completion (*HECO-13.2) issued by the Commonwealth of Virginia (* HECO-13.2a and HECO-13.2 are issued by the University Building Official) in its Construction and Professional Services Manual are forms incorporated in these General Conditions by reference and are made a part hereof to the same extent as though fully set forth herein. They must be used by the Contractor for their respective purposes.

3. LAWS AND REGULATIONS

- (e) Building Permit: Because this Project is on university property, codes or zoning ordinances of local political subdivisions do not apply to Work on the property. The Virginia Uniform Statewide Building Code applies to the Work and is administered by the University Building Official for University owned Buildings. The Building Permit will be obtained and paid for by the Owner. All other permits, local license fees, business fees, taxes, or similar assessments imposed by the appropriate political subdivision shall be obtained and paid for by the Contractor. See Section 25 for utility connection fees and services.

11. CONSTRUCTION MANAGER'S AND SUBCONTRACTOR'S INSURANCE

Delete and replace Section 11.b and 11.c.1 with the following:

- (b) Unless otherwise provided, the Contractor shall procure and maintain, as required herein, the following insurance coverages:
1. Workers' Compensation and Employer's Liability Insurance to cover all employees engaged in the Work of a type and in an amount to meet all Commonwealth of Virginia statutory requirements and regulations to provide all benefits to which employees may be entitled, with limits no less than \$1,000,000 bodily injury by accident or disease, each employee. Where applicable, coverage shall be extended to cover any claims under the United States Longshoreman's Act and Harbor Workers Act and Jones Act as may be appropriate for the work.
 2. Comprehensive General Liability insurance, including coverage for Broad Form Contractual, Premises/Operations, Product and Completed Operations, Independent Contractor's Liability, and Personal Injury Liability, with limits of at least \$1,000,000 per occurrence and \$2,000,000 aggregate, applicable on a per-project basis. The policy shall not exclude or limit the amount of coverage for the Work of the Project or for explosion, collapse, underground operations, mold, or exterior insulation and finish system ("EIFS").

3. Automobile Liability Insurance with a limit of not less than \$1 million combined single limit for bodily injury and property damage per occurrence, covering all owned, non-owned, hired and borrowed vehicles, whether on-Site or off-Site.
 4. Contractor or the Asbestos Subcontractor shall provide occurrence-based liability insurance with asbestos coverages in an amount not less than \$1,000,000, and shall cover completed operations. The following shall be named as additional insureds on this policy: the Commonwealth of Virginia, its officers, employees and agents; the A/E (if not the Asbestos Project Designer); and the Contractor (where the asbestos work is being performed by the Asbestos Subcontractor).
 5. Professional Liability, including design build errors and omissions and completed operations, with limits not less than \$1,000,000 per occurrence or claim.
- (c) Unless otherwise specified, Contractor shall ensure that all insurance required by Subsection (b) above contains the following provisions:
1. With the exception of Workers' Compensation and professional liability insurance, the Commonwealth of Virginia, the Owner, and their officers, employees and agents shall be named as additional insureds on all policies. The additional insureds as stated for the asbestos coverage shall be as stated in Section 11(b)(4).

REMAINING PORTION OF HECO-7 SECTION 11 IS APPLICABLE AND REMAINS UNCHANGED

12. "ALL-RISK" BUILDER'S RISK INSURANCE

Delete and replace Section 12.a, 12.b and 12.c with the following:

- (a) Unless otherwise provided, the Contractor shall procure and maintain, at its cost, all-risk Builder's Risk insurance with minimum coverage and limits as follows:
1. **New Construction, Addition, or Major Renovation:** When the work is new construction, addition or major renovation, the Contractor shall maintain "all-risk" Builder's Risk insurance for the Work and the entire structure or structures, if any, on which the Work is to be done with a minimum limit of not less than the insurable value of the structure(s) plus one hundred percent (100%) of the Contract Price and the value of all Change Orders, to represent the total value of the structure(s) and the Work on a replacement cost basis.
 2. **Limited Renovation:** When the work is limited renovation to an existing structure, the Contractor shall maintain "all risk" Builder's Risk insurance in an amount equal to one hundred percent (100%) of the Contract Price and the value of all Change Orders, to represent the total value of the Work on a replacement cost basis. The insurance must contain a Beneficial Occupancy Endorsement which enables Owner to occupy the facility during construction.

When the project is an addition with Limited Renovation to an existing structure, then the insurable value of the existing structure shall not be included.

- (b)** Builder’s risk insurance shall be provided on an “all risk” or equivalent policy form and shall include, without limitation, insurance against all perils. The insurance shall cover the costs of debris removal, temporary buildings, legal requirements, and compensation for A/E services and Contractor services required following an insured loss. The insurance shall cover portions of the Work stored off-Site, Work in transit, and all materials, supplies, equipment, machinery, and fixtures that are or will be part of the Project. The policy shall include coverage for mold resulting from a covered peril, property in transit or temporary storage, equipment breakdown/course of construction, and soft costs within the aggregate or blanket limit of the of the policy. If not otherwise covered by the Builder’s Risk policy, Contractor also shall provide an installation floater to cover all equipment and materials intended for installation at the Project.

In the event the policy includes any coverages where the limit is less than the aggregate or blanket limit of the policy (sub limits), the coverage shall be no less than the stated minimum sub-limits for the following perils:

- Flood	\$2,000,000
- Earth Movement	\$2,000,000
- Debris Removal	\$1,000,000
- Extra or Expedited Expense	\$2,000,000
- Interior Water Damage	\$2,000,000
- Loss of Income/Extra Expenses	12 months
- Soft Costs	Blanket or Aggregate Limit/14-Day Waiting Period

The Certificate of Insurance provided to the Owner shall disclose all sub-limits, stating the peril and limit applying to each. In the event that the aggregate policy limit is less than the sub-limits identified above, coverage for all perils must be provided within the aggregate or blanket limit of the policy.

- (c)** Builder’s risk insurance may include a deductible provision if the Owner so provides in the Supplemental General Conditions, in which case the Contractor will be liable for such deductible whenever a claim arises. Any loss payable under the Builder’s Risk insurance shall be payable to the Owner, in accordance with its interests, as they may appear, and then to any other persons insured thereunder.

Written evidence of this insurance and a copy of the policy shall be provided to the Owner no later than thirty (30) Days following the award of the Contract. The policy shall not be canceled, dropped, replaced, or materially changed without at least thirty (30) Days’ prior written Notice to and consent of the Owner.

13. TAXES, FEES AND ASSESSMENTS

The Contractor shall, without additional expense to the Owner, pay all applicable federal, state, and local taxes, fees and assessments except the taxes, fees and assessments on the real property comprising the Site of the project. If the University Building Official elects to have the local building official inspect the Work as provided by §36-98.1 of the Code of Virginia, the Owner shall pay the resulting fees to the local building official.

17. SUPERINTENDENCE BY CONTRACTOR

(a) The Contractor shall have a competent Superintendent, satisfactory to the Architect/Engineer and the Owner, on the Site at all times during the progress of the Work. The Superintendent shall be familiar with and be able to read and understand the plans and specifications, and be capable of communicating orally and in writing with the Owner's inspectors and the Contractor's workers. The Contractor shall be responsible for all construction means, methods, techniques, sequences and procedures, for coordinating all portions of the Work under the Contract except where otherwise specified in the Contract Documents, and for all safety and worker health programs and practices. The Contractor shall notify the Owner, in writing, of any proposed change in Superintendent, including the reason therefore, prior to making such change. Said notice shall be provided within forty-eight (48) hours of Contractor's knowledge regarding such change in Superintendent.

(b) The Contractor shall, at all times, enforce strict discipline and good order among the workers on the Project, and shall not employ on the Work, or contract with, any unfit person, anyone not skilled in the Work assigned to him, or anyone who will not work in harmony with those employed by the Contractor, the Subcontractors, the Owner or the Owner's separate contractors and their subcontractors.

(c) The Owner may, in writing, require the Contractor to remove from the Site any employee or Subcontractor's employee the Owner deems to be incompetent, careless, not working in harmony with others on the Site, or otherwise objectionable, but the Owner shall have no obligation to do so.

19. SCHEDULE

(a) The CPM schedule shall be developed using Primavera P6 software or other software as approved by the Owner.

36. PAYMENTS TO CONTRACTOR

(a) Unless otherwise provided in the Contract, the Owner will make partial payments to the Contractor on the basis of a duly certified and approved Schedule of Values and Certificate for Payment, Form CO-12, showing the estimate of the Work performed during the preceding calendar month or work period, as recommended by the Architect/Engineer. When evaluating the Contractor's Form CO-12, the

Architect/Engineer will consider the value of the Work in place, the value of approved and properly stored materials, the status of the Work on the critical path with regard to the Time for Completion, and the estimated value of the Work necessary to achieve Final Completion. To expedite the payment process, the Contractor is encouraged to submit a draft copy of his monthly pay application to the A/E and Owner for preliminary review prior to formally submitting the pay application in GC Pay. Once the draft copy is reviewed and returned, the Contractor shall submit the pay application to GC Pay after making any modifications to the estimates of work as noted by the A/E and/or Owner during their preliminary review. The submission date to GC Pay shall become the official receipt date of the pay application. The A/E and Owner shall then conduct a final review of the pay application in GC Pay and, if further modifications are deemed to be necessary, the Contractor shall make such modifications to the document and resubmit the pay application in GC Pay. The official receipt date shall then be reestablished as the date on which an approved pay application was submitted by the Contractor to GC Pay. In preparing estimates, the material delivered to the Site and preparatory Work done shall be taken into consideration, if properly documented as required by Section 20 of these General Conditions, or as may be required by the Architect/Engineer so that quantities may be verified. In addition to material delivered to the Site, material such as large pieces of equipment and items purchased specifically for the Project, but stored off the Site within the Commonwealth of Virginia, may be considered for payment, provided all of the following are accomplished prior to the submission of the monthly payment request in which payment for such materials is requested:

REMAINING PORTION OF FORM DGS-30-054 (CO-7) SECTION 36(a) IS APPLICABLE AND REMAINS UNCHANGED

- (h)** Unless there is a dispute about the compensation due to the Contractor, Defective Work, quality of the Work, compliance with the Contract Documents, completion itself, claims by the Owner, other matters in contention between the parties, or unless monies are withheld pursuant to the Comptroller's Debt Setoff Program, within thirty (30) days after the official receipt date of the pay application as defined in Paragraph (a) above, the Owner shall pay to the Contractor the amount approved by the Architect/Engineer, less all prior payments and advances whatsoever to or for the account of the Contractor. In the case of Final Payment, the completed Affidavit of payment of Claims (Form CO-13), the Certificate of Completion by the Contractor (Form HECO-13.2) and the Certificate of Completion by the Architect/Engineer (Form HECO-13.1) shall accompany the final Schedule of Values and Certificate for Payment (CO-12) which is forwarded to the Owner for payment. The date on which payment is due shall be referred to as the Payment Date. In the event of disputes, payment shall be mailed on or before the Payment Date for amounts and Work not in dispute, subject to any set offs claimed by the Owner; provided, however in instances where further appropriations are required by the General Assembly or where the issuance of further bonds is required, in which case, payment shall be made within thirty (30) days after the effective date of such appropriation or within thirty (30) days after the receipt of bond proceeds by the Owner. All prior estimates and payments including those relating

to extra Work may be corrected and adjusted in any payment and shall be corrected and adjusted in the Final Payment. In the event that any formal pay application (CO-12) by the Contractor to GC Pay contains a defect or impropriety, the Owner shall reject the pay application in GC Pay and notify the Contractor of any defect or impropriety which would prevent payment by the Payment Date, within ten (10) days after the official receipt date.

38. CHANGES IN THE WORK

- (a) Overhead and profit shall be equally and consistently applied to both additive and deductive changes in the Work (other than changes covered by unit prices) and shall be paid by applying the specified percentage markups only on the net cost of the changed Work (i.e. difference in cost between original and changed Work excluding overhead and profit). Said percentages for overhead and profit shall reasonably approximate the Contractor's overhead and profit, but shall not exceed the percentages for each category listed below:
- (1) If a Subcontractor does all or part of the changed Work, the Subcontractor's markup for overhead and profit on the Work it performs shall be a maximum of fifteen percent (15%). The Contractor's mark-up for overhead and profit on the Subcontractor's price shall be a maximum of ten percent (10%).
 - (2) If the Contractor does all or part of the changed Work, its markup for overhead and profit on the changed Work it performs shall be a maximum of fifteen percent (15%).
 - (3) If a Sub-subcontractor at any tier does all or part of the changed Work, the Sub-subcontractor's markup on that Work shall be a maximum of fifteen percent (15%). The markup for overhead and profit on a sub-subcontractor's Work by the Contractor and all intervening tiers of Subcontractors shall not exceed a total of ten percent (10%).
 - (4) Where Work is deleted from the Contract prior to commencement of that Work without substitution of other similar Work, one hundred percent (100%) of the Contract Price attributable to that Work shall be deducted from the Contract Price. However, in the event that material Submittals have been approved and orders placed for said materials, a lesser amount, but in no case less than eighty percent (80%) of the Contract Price attributable to that Work, shall be deducted from the Contract Price. The credit to the Owner for reduced premiums on labor and material bonds and performance bonds shall in all cases be one hundred percent (100%).

52. AUDIT OF CONTRACTOR RECORDS

The Contractor, Subcontractors, and Suppliers agree to retain all financial and non-financial books, records, electronic files and other documents relative to this project for a minimum of five (5) years after final payment. Virginia Tech, the Commonwealth of Virginia, and their

authorized agents shall have full access and the right to examine any of said materials at any time during the performance of this contract and the 5 year period following final payment.

VIRGINIA TECH SPECIAL TERMS AND CONDITIONS:

9/8/2023

- 1) **PERFORMANCE STANDARDS:** All work is to be performed in compliance with the most current versions of the Virginia Tech Construction and Professional Services Manual (“CPSM”) and the Virginia Tech Design and Construction Standards Manual (“DCSM”).

- 2) **ELECTRONIC TRANSACTIONS AND EXECUTION IN COUNTERPARTS:** To the fullest extent permitted by Code of Virginia, Title 59.1, Chapter 42.1, the parties agree that electronic records, signatures, systems, formats, transmissions and communications (collectively, Electronic Transactions) may be utilized for this Project and this Agreement and all related documents, records, submissions, approvals, and communications (Ancillary Agreements). The parties agree that electronic signatures are the same as handwritten signatures for the purposes of validity, enforceability, and admissibility. The parties further agree that Electronic Transactions may be relied on for the purposes of binding information transfer for this Project. Unless otherwise agreed to in writing by the parties, the following shall be deemed an acceptable electronic signature for the purposes of this subsection: an electronic symbol or process attached to or logically associated with a record and executed or adopted by a person with the intent to sign the record. In the event the laws, rules, or regulations of a third party governmental agency or entity do not permit the use of Electronic Transactions or Electronic Signatures, then this section shall not apply but only to the extent necessary to comply with the laws, rules, or regulations of the third party governmental agency or entity.

This Agreement, and any Ancillary Agreements, may be executed in one or more counterparts, each of which shall be deemed an original and all of which, when taken together, shall be deemed to be one and the same agreement. A signed copy of this Agreement, or any Ancillary Agreement, transmitted by any means of electronic transmission shall be deemed to have the same legal effect as delivery of an original executed copy of this Agreement or such Ancillary Agreement.

RIGHTS AND REMEDIES: Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.

- 3) **SECTION 179D: ALLOCATION OF ENERGY EFFICIENT DESIGN TAX DEDUCTION - Applicable to all A/E Design RFPs/Contracts and all Design-Build RFPs/Contracts:** Virginia Tech prioritizes environmental responsibility and sustainability in planning, development and construction of our facilities on Virginia Tech’s campuses. These efforts, may be eligible for tax benefits under Section 179D of the Federal Tax Code, which allows a deduction based on the cost of certain qualifying, energy efficient property. Virginia Tech, in most cases, is unable to benefit directly from these deductions, however, Virginia Tech is permitted to allocate the deduction to parties responsible for the design of the qualifying property. Virginia Tech shall be reimbursed, by the applicant, for all costs incurred by Virginia Tech and its consultants to administer and support the application process.

An individual or entity who is contracted directly with Virginia Tech to design certain energy efficient buildings may apply to Virginia Tech for an allocation of Section 179D Deductions.

Refer to the link below for IRS guidelines and applicable updates regarding project eligibility, <https://www.gpo.gov/fdsys/pkg/USCODE-2010-title26/pdf/USCODE-2010-title26-subtitleA-chap1-subchapB-partVI-sec179D.pdf>

- 4) **UNIVERSAL DESIGN PRINCIPLES:** Universal Design principles, as identified in Virginia Tech's Design Team Assistance Checklist, shall be embraced in all aspects of the design. The A/E shall explore opportunities to apply Universal Design principles in the design and composition of project elements to allow for ease of access, use, and understanding, to the greatest extent possible, by all people regardless of their age, size, ability, or disability. Submittals should demonstrate a thorough understanding of Universal Design principles and strategies to incorporate these principles into the built environment. The A/E will be required to document related efforts at each stage of the design process by completing and submit the Universal Design A/E Guidance Checklist (attached hereto as **Exhibit 1**) to the Virginia Tech Project Manager.

- 5) **ALL-GENDER BATHROOMS:** All-gender restrooms shall be included in each new capital project and major renovations at Virginia Tech. Whenever possible, every floor shall have an All-gender restroom that complies with the 2010 ADA Standards for Accessible Design and is accessible to the general public. The All-gender restroom shall be located nearby the men's and women's multi-user restrooms whenever possible. Appropriate signage shall be displayed for the restroom as well as directional signage if it is not feasible for the restroom to be located near the main floor restrooms. Each All-gender restroom shall be designed as a single occupancy restroom with appropriate locking and closer mechanisms for the operation of the fully accessible door. The toilet, lavatory and all required accessories shall be compliant with the 2010 ADA Standards for Accessible Design.

- 6) **VEHICULAR ACCESS AND PARKING AREAS:** In addition to the Vehicular Access and Parking Area requirements listed in the most recent version of the Virginia Tech Design and Construction Standards, include the following:
 - a. **SIDEWALK PARKING:** Driving on sidewalks is allowed when there is no other way to get a needed vehicle to a designated place or building on campus. The vehicle operator shall be made aware that extreme caution shall be used to operate the vehicle in a way that will not be a hazard or hindrance to pedestrians using the walk. The Contractor shall be responsible for any damage to turf and anything that is located adjacent to the walk. Parking an unattended vehicle on a sidewalk is strictly prohibited by State Law. The Contractor is allowed to park a vehicle on a sidewalk if there is no other way to perform necessary work. The procedure to obtain a permit to operate a vehicle on sidewalks is the same as for the turf as outlined in Turf Policy. Any vehicle parked illegally on sidewalks shall be subject to ticketing, fines and towing if necessary.

 - b. **TURF PARKING:** Parking or driving on campus turf or sidewalk is strictly prohibited, except as specifically directed or otherwise allowed by the Physical Plant Grounds Department. In this case, a turf permit must be obtained from Virginia Tech Parking Services and displayed by the vehicle. Turf parking is not allowed under the canopy of any tree on campus. Any vehicle parked illegally on turf or sidewalks shall be subject to ticketing and fines.

- 7) **COMMONWEALTH OF VIRGINIA TRAVEL REGULATIONS:** The Commonwealth of Virginia Travel Regulations can be downloaded from the Commonwealth's Website at:

https://www.doa.virginia.gov/reference/CAPP/CAPP_Topics_Cardinal/20335-2015-Dec.pdf

- 8) **SCHEDULING SOFTWARE:** When required to develop a CPM schedule, the Contractor shall use Primavera P6 or a similar system as approved in writing by Virginia Tech. Electronic parent files (i.e. XER for Primavera) shall be provided to Virginia Tech upon request. Microsoft Project shall not be used for developing a CPM schedule.
- 9) **CONTRACTOR CHANGE ORDER EVALUATION BY PROJECT A/E:** During the construction administration phase of the project, the A/E shall evaluate all Contractor Change Order requests to confirm the entitlement of the change as well as assess the reasonableness of the costs and schedule impacts.
- 10) **A/E QUALITY ASSURANCE OF DELIVERABLES:** The A/E shall Conduct Quality Assurance of all documents delivered to Virginia Tech per the QA checklist (**Appendix Q**) of the CPSM.
- 11) **CMAR FEE – Applicable to all CM at Risk RFPs and Contracts:** The CMAR fee shall include all costs and expenses for registration and monthly fees associated with eVA, and GC Pay.
- 12) **CMAR COST OF WORK ADJUSTMENT - Applicable to all CM at Risk RFPs and Contracts:** Any “savings” in the actual Cost of the Work versus the Cost of the Work included in the approved GMP shall revert to Virginia Tech and the GMP shall be reduced accordingly by Change Order. If the actual cost exceeds the amount of the approved GMP, those costs shall be borne by the CM.
- 13) **COVID Guidance to Vendors and Contractors:** All contracted service providers (including contractors and their subcontractors) of Virginia Tech who provide services on site at one of Virginia Tech’s campuses or locations, university-owned or leased buildings, or active university construction sites must comply with the most recent COVID guidance and/or directives by Virginia Tech.
- 14) **WAGE THEFT and WORKER MISCLASSIFICATION –** Contractors and Subcontractors at any and all tiers shall ensure that wage theft and worker misclassification is prohibited.
- 15) **BUILDING INFORMATION MODEL ELECTRONIC FILES ACKNOWLEDGMENT:** At the request of Contractor, and approval of Virginia Tech, Contractor shall be provided, with electronic data/digital files (“Files”) for the project. The Files shall be provided to Contractor in their native format as a convenience to Contractor for coordination of the work and preparation of Contractor’s submittals such as shop drawings and coordination drawings. The Files referenced herein include any 3D models of the work. The Files will be shared by the AE with Contractor under the conditions of the Building Information Model Electronic Files Acknowledgement Agreement attached hereto as **Exhibit 2**.



EXHIBIT 1

Universal Design A/E Guidance Checklist

Principle 1: Equitable Use

The design is useful and marketable to people with diverse abilities.

- Provide the same means of use for all users: identical whenever possible; equivalent when not.
- Avoid segregating or stigmatizing any users.
- Provisions for privacy, security, and safety should be equally available to all users.
- Make the design appealing to all users

A/E Narrative Response

Principle 2: Flexibility in Use

The design accommodates a wide range of individual preferences and abilities.

- Accommodate right- or left-handed access and use.
- Facilitate the user's accuracy and precision.

A/E Narrative Response

Principle 3: Simple and Intuitive Use

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.

- Eliminate unnecessary complexity.
- Be consistent with user expectations and intuition.

A/E Narrative Response

Principle 4: Perceptible Information

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

- Maximize "legibility" of essential information.
- Differentiate elements in ways that can be described (i.e., make it easy to give instructions or directions).
- Provide compatibility with a variety of techniques or devices used by people with sensory limitations.

A/E Narrative Response

Principle 5: Tolerance for Error

The design minimizes hazards and the adverse consequences of accidental or unintended actions.

Arrange elements to minimize hazards and errors: most used elements, most accessible; hazardous elements eliminated, isolated, or shielded.

Provide fail safe features.

A/E Narrative Response

Principle 6: Low Physical Effort

The design can be used efficiently and comfortably and with a minimum of fatigue.

Specify furnishings which allow user to maintain a neutral body position.

Use reasonable operating forces.

Minimize sustained physical effort.

A/E Narrative Response

Principle 7: Size and Space for Approach and Use

Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

Provide a clear line of sight to important elements for any seated or standing user.

Make reach to all components comfortable for any seated or standing user.

Accommodate variations in hand and grip size.

Provide adequate space and infrastructure for the use of assistive devices or personal assistance.

A/E Narrative Response

**EXHIBIT 2
TO THE VIRGINIA TECH SPECIAL TERMS AND CONDITIONS**

Building Information Model Electronic Files Acknowledgement

**VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
BUILDING INFORMATION MODEL ELECTRONIC FILES ACKNOWLEDGEMENT**

Owner: Virginia Polytechnic Institute and State University (“Virginia Tech”)
Architect/Engineer: **[Insert A/E Name]** (“A/E”)
Contractor: **[Insert Contractor Name]** (“Contractor”)
Project Name: **[Insert Project Name]** (“Project”)
Project Number: **[Insert Project Number]**

This Building Information Model Electronic Files Acknowledgement (“Acknowledgement”), made effective this **[day]** day of **[month, year]**, is to acknowledge and agree to the conditions of release by Owner (or A/E on Owner’s behalf) of the building information model in electronic file format (“Model Files”), and the receipt and/or use of the Model Files, by Contractor, as a convenience and at its sole risk, for Contractor’s coordination of the work and preparation of Project submittals, such as shop drawings and coordinated drawings.

Upon execution of this Acknowledgement, Virginia Tech authorizes A/E to provide Contractor with the Model Files for the Project. A/E shall provide the Model Files to Contractor in their native format.

The parties acknowledge and agree that:

1. A Building Information Model is a digital representation of the Project, or a portion of the Project, and is referred to in this Acknowledgment as a Model File, which may describe a model element, a single model or multiple models used in the aggregate. A model element is a portion of the Model Files representing a component, system or assembly.
2. The Model Files are Instruments of Service and are the exclusive and sole property of Virginia Tech including any copyright. Transmission of the Model Files conveys no ownership right in the Model Files;
3. The Model Files are not intended to be used for construction and are not Contract Documents under the terms of the A/E Contract or Contract for Construction;
4. The provision of the Model Files does not modify the terms of the respective contracts between Virginia Tech and the A/E or Virginia Tech and Contractor. Any use of, or reliance on, the Model Files by Contractor is at its own risk and without liability to Virginia Tech or the A/E. Acceptance, use, or reliance of the Model Files does not reduce nor modify Contractor’s or A/E’s contractual responsibilities for providing complete and coordinated services to Virginia Tech. Contractor further agrees to report any defects, deficiencies, errors or omissions, in the Model Files, discovered by Contractor or its subcontractors to A/E within ten (10) days of such discovery. It is understood and agreed that A/E will correct such defects, deficiencies, errors or omissions promptly and re-transmit the Model Files to Contractor.
5. Contractor shall be responsible for any costs of reviewing, updating or auditing of the Model Files and shall not request reimbursement from Virginia Tech resulting from Contractor’s use of the Model Files;
6. Contractor shall ensure each subcontractor, supplier or vendor, which accesses or uses the Model Files for coordination and/or submittal preparation, acknowledges and agrees to all obligations and responsibilities which the Contractor, under this Acknowledgement, assumes toward Owner and A/E;
7. Such Model Files shall have all indices of A/E removed from the Model Files.
8. Contractor shall establish protocols for the usage and sharing of the Model Files with its subcontractors, suppliers and vendors and shall have the following ongoing responsibilities:
 - a. Collecting incoming Model Files;

- b. Coordinating submission and exchange of Model Files;
 - c. Reviewing Model Files for consistency in accordance with Section 4 of this Acknowledgement;
 - d. Maintaining a record copy of each Model File received from the A/E and any subsequent revisions by Contractor or its subcontractors, suppliers and/or vendors;
 - e. Properly maintaining Model Files archives and backups to ensure preservation of the Model Files;
 - f. Managing Model File access rights to ensure controlled and secure access; and
 - g. Submitting Model Files to Virginia Tech, as requested by Virginia Tech, or upon completion of the Work.
9. **Electronic Transactions:** If this paragraph is initialed by both parties, to the fullest extent permitted by Code of Virginia, Title 59.1, Chapter 42.1, the parties do hereby expressly authorize and consent to the use of electronic signatures as an additional method of signing and/or initialing this Acknowledgement and agree electronic signatures (for example, the delivery of a PDF copy of the signature of either party via facsimile or electronic mail or signing electronically by utilizing an electronic signature service) are the same as manual executed handwritten signatures for the purposes of validity, enforceability and admissibility.

_____/_____
 (Initials) (Initials)

ACKNOWLEDGED AND AGREED TO ON THE DATE INDICATED ABOVE BY:

A/E

Contractor

By: [***Type name here***]
 Title: [***Type job title here***]

By: [***Type name here***]
 Title: [***Type job title here***]

Date: _____

Date: _____

STATEMENT OF VUSBC SPECIAL INSPECTIONS & STRUCTURAL OBSERVATIONS
HECO-6a

DATE: _____

INSTITUTION/AGENCY: _____

PROJECT TITLE: _____

UBO NUMBER: _____

PROJECT MANAGER: _____

The following firms are designated to perform the Special Inspections required herein. The firm has the experience, qualifications, certifications and/or licenses required to perform the functions indicated.

OWNER'S TESTING AND INSPECTION SERVICE

OWNER'S TEST LAB

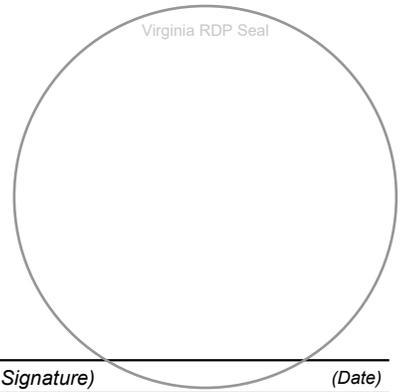
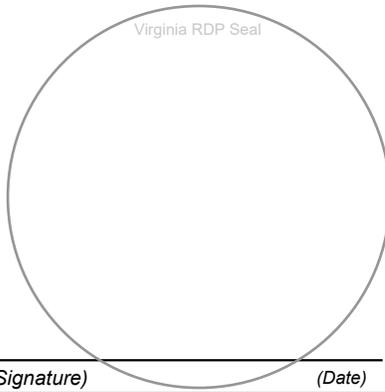
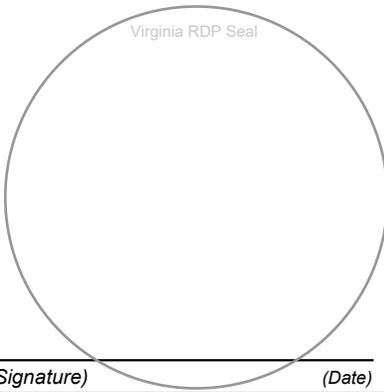
SPECIAL INSPECTION RDP

SMOKE CONTROL INSPECTION & TESTING RDP

Co. Name: _____
Phone: _____

Co. Name: _____
Phone: _____

Co. Name: _____
Phone: _____



(Seal & Signature) (Date) (Seal & Signature) (Date) (Seal & Signature) (Date)

Inspection and/or Testing responsibilities are indicated on the attached List of Special Inspections, Form HECO-6b. Copies of all test data and reports shall be provided to the Architect/Engineer of Record and to the Owner's Project Manager on a timely basis. The Contractor and UBO shall be notified of all deficiencies and discrepancies in a timely manner so that corrective action can be taken.

PROFESSIONAL OVERSIGHT AND CERTIFICATION

STRUCTURAL ENGINEER OF RECORD

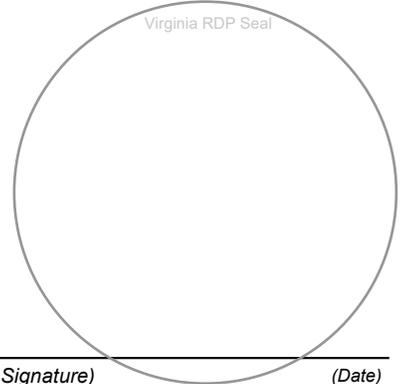
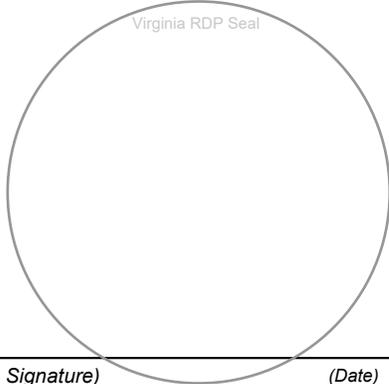
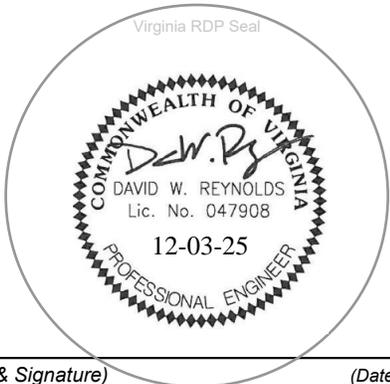
A/E of RECORD

SMOKE CONTROL RDP

Co. Name: _____
Phone: _____

Co. Name: _____
Phone: _____

Co. Name: _____
Phone: _____



(Seal & Signature) (Date) (Seal & Signature) (Date) (Seal & Signature) (Date)

CODE OFFICIAL'S ACCEPTANCE

- Acceptable as submitted
- Acceptable as marked

By: _____
University Building Official (Date)

2021 SPECIAL INSPECTIONS

Project Title: _____

Rev. 03/25

Project Code: _____

HECO 6b

MATERIAL / ACTIVITY	TYPE OF INSPECTION <i>(RDP add lines as needed to identify other required items)</i>	Required?	REFERENCE	INSPECTION / TEST BY:		
				SPECIAL INSPECTOR/ TEST LAB	RDP OF RECORD	OTHER
CONTRACTOR RESPONSIBILITY (see Note #7)						
Structure	Special Inspections for Wind Resistance and/or Seismic resistance.	<input type="checkbox"/>	VCC 1704.6	Continuous		
		<input type="checkbox"/>				
STRUCTURAL OBSERVATIONS (see Note #6)						
Structure	Structural observations for structures as identified by the structural observer in a written statement.	<input type="checkbox"/>	VCC 1704.6	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	
		<input type="checkbox"/>				
FOUNDATIONS						
Soil	Verify material below shallow foundations are adequate to achieve the design bearing capacity.	<input type="checkbox"/>	VCC T1705.6 #1	Periodic		
Soil	Verify excavation is extended to proper depth and has reached proper material.	<input type="checkbox"/>	VCC T1705.6 #2	Periodic		
Soil	Perform classification and testing of compacted fill materials.	<input type="checkbox"/>	VCC T1705.6 #3	Periodic		
Soil	During fill placement verify conformance to geotechnical report.	<input type="checkbox"/>	VCC T1705.6 #4	Continuous		
Soil	Prior to fill, inspect subgrade to verify prepared properly.	<input type="checkbox"/>	VCC T1705.6 #5	Periodic		
Helical Pile	Install equipment, pile dimensions, tip elevations, final depth, final installation torque and other pertinent installation data.	<input type="checkbox"/>	VCC 1705.9	Continuous		
Deep Foundations	Reasonable doubt as to the structural integrity.	<input type="checkbox"/>	VCC 1705.10	Continuous	Note #8	
Deep Foundations	Verify element materials, sizes and lengths.	<input type="checkbox"/>	VCC T1705.7 #1	Continuous		
Deep Foundaitons	Determine capacities of test elements and conduct additional load tests.	<input type="checkbox"/>	VCC T1705.7 #2	Continuous		
Deep Foundations	Inspect driving operations and maintain complete and accurate records.	<input type="checkbox"/>	VCC T1705.7 #3	Continuous		
Deep Foundations	Record placement and install criteria.	<input type="checkbox"/>	VCC T1705.7 #4	Continuous		
Deep Foundations	For steel elements, perform special inspections per 1705.2	<input type="checkbox"/>	VCC T1705.7 #5	Continuous		
Deep Foundations	For concrete elements, perform special inspections per 1705.3	<input type="checkbox"/>	VCC T1705.7 #6	Continuous		
Deep Foundations	For speciality elements, perform additional inspections per the RDP.	<input type="checkbox"/>	VCC T1705.7 #7	Continuous		
Cast Deep Fnds	Inspect drilling operations and maintain complete and accurate records.	<input type="checkbox"/>	VCC T1705.8 #1	Continuous		
Cast Deep Fnds	Record placement and install criteria.	<input type="checkbox"/>	VCC T1705.8 #2	Continuous		
Cast Deep Fnds	For concrete elements, perform special inspections per 1705.3	<input type="checkbox"/>	VCC T1705.8 #3	Continuous		
		<input type="checkbox"/>				
		<input type="checkbox"/>				

MATERIAL / ACTIVITY	TYPE OF INSPECTION <i>(RDP add lines as needed to identify other required items)</i>	Required?	REFERENCE	INSPECTION / TEST BY:		
				SPECIAL INSPECTOR/ TEST LAB	RDP OF RECORD	OTHER
CONCRETE CONSTRUCTION						
Concrete	Reinforcement, including prestressing tendons, verify placement.	<input type="checkbox"/>	VCC T1705.3 #1	Periodic		
Concrete	Reinforcing bar welding.	<input type="checkbox"/>	VCC T1705.3 #2	<input type="checkbox"/> Continuous <input type="checkbox"/> Periodic		
Concrete	Inspect anchors cast in concrete	<input type="checkbox"/>	VCC T1705.3 #3	Periodic		
Concrete	Inspect anchors post-installed.	<input type="checkbox"/>	VCC T1705.3 #4	<input type="checkbox"/> Continuous <input type="checkbox"/> Periodic		
Concrete	Verify use of required design mix	<input type="checkbox"/>	VCC T1705.3 #5	Periodic		
Concrete	Concrete test specimens	<input type="checkbox"/>	VCC T1705.3 #6	Continuous		
Concrete	Concrete and shotcrete placement for proper application.	<input type="checkbox"/>	VCC T1705.3 #7	Continuous		
Concrete	Verify maintenance of specified curing temperature and techniques.	<input type="checkbox"/>	VCC T1705.3 #8	Periodic		
Concrete	Prestressed concrete application of forces and grouting.	<input type="checkbox"/>	VCC T1705.3 #9	Continuous		
Concrete	Precast concrete member erection.	<input type="checkbox"/>	VCC T1705.3 #10	Periodic		
Concrete	Precast concrete diaphragm connections or reinforcement at joints classified MDE or HDE.	<input type="checkbox"/>	VCC T1705.3 #11	Continuous		
Concrete	Tolerances of precast concrete diaphragm connections.	<input type="checkbox"/>	VCC T1705.3 #12	Periodic		
Concrete	Verify in-situ concrete strength.	<input type="checkbox"/>	VCC T1705.3 #13	Periodic		
Concrete	Inspect formwork.	<input type="checkbox"/>	VCC T1705.3 #14	Periodic		
		<input type="checkbox"/>				
		<input type="checkbox"/>				
STEEL CONSTRUCTION						
Fabricator	Quality Control Inspection Of Shop	<input type="checkbox"/>	VCC 1704.2.5	Periodic	Note #2	
Steel	Welding	<input type="checkbox"/>	AISC 360-16 N5.1	Periodic		
Steel	High Strength Bolting	<input type="checkbox"/>	AISC 360-16 N5.1	Periodic		
Steel	Galvanized structural steel	<input type="checkbox"/>	AISC 360-16 N5.1	Periodic		
Decking	Cold Form Steel Decking	<input type="checkbox"/>	VCC 1705.2.2	Periodic		
Joist	1a open web joist and joist girders end connections.	<input type="checkbox"/>	VCC T1705.2.3	Periodic	Note #2	
Joist	1b1 open web joist and joist girder standard bridging.	<input type="checkbox"/>	VCC T1705.2.3	Periodic	Note #2	
Joist	1b2 open web joist and joist girder other bridging.	<input type="checkbox"/>	VCC T1705.2.3	Periodic	Note #2	
Trusses	Cold form steel trusses, span >60 feet	<input type="checkbox"/>	VCC 1705.2.4	Periodic	Note #2	
		<input type="checkbox"/>				
		<input type="checkbox"/>				

Project Title:

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MATERIAL / ACTIVITY	TYPE OF INSPECTION (RDP add lines as needed to identify other required items)		REFERENCE	INSPECTION / TEST BY: RDP OF RECORD		
				Level 1	Level 2	Level 3
MASONRY CONSTRUCTION				Level 1	Level 2	Level 3
<i>Indicate Quality Assurance Level (1, 2, 3)</i>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Masonry - Verify	Verification of compliance of submittals.	<input type="checkbox"/>	TMS 602 1.6 Table 3	Note #2	Note #2	Note #2
Masonry - Verify	Verify f'm and f' AAC.	<input type="checkbox"/>	TMS 602 1.6 Table 3		Note #2	Note #2
Masonry - Verify	Verify slump flow and Visual Stability Index for self consolidating grout.	<input type="checkbox"/>	TMS 602 1.6 Table 3		Note #2	Note #2
Masonry - Verify	Verify f'm and f' AAC, for every 5,000 sq.ft.	<input type="checkbox"/>	TMS 602 1.6 Table 3			Note #2
Masonry - Verify	Verify proportions as delivered to the project site.	<input type="checkbox"/>	TMS 602 1.6 Table 3			Note #2
Masonry - Inspect	1a Proportions of site-prepared mortar.	<input type="checkbox"/>	TMS 602 1.6 Table 4		Periodic	Periodic
Masonry - Inspect	1b Grade and size of prestressing tendons and anchorage.	<input type="checkbox"/>	TMS 602 1.6 Table 4		Periodic	Periodic
Masonry - Inspect	1c Grade, type and size of reinforcement, connectors, anchor bolts, and prestressing tendons and anchorage.	<input type="checkbox"/>	TMS 602 1.6 Table 4		Periodic	Periodic
Masonry - Inspect	1d Prestressing technique	<input type="checkbox"/>	TMS 602 1.6 Table 4		Periodic	Periodic
Masonry - Inspect	1e Properties of thin-bed mortar for AAC masonry	<input type="checkbox"/>	TMS 602 1.6 Table 4	<input type="checkbox"/>	<input type="checkbox"/>	Continuous
Masonry - Inspect	1f sample panel construction	<input type="checkbox"/>	TMS 602 1.6 Table 4	<input type="checkbox"/>	<input type="checkbox"/>	Continuous
Masonry - Inspect	2a Grout Space	<input type="checkbox"/>	TMS 602 1.6 Table 4		Periodic	Continuous
Masonry - Inspect	2b Placement of prestressing tendons and anchorages	<input type="checkbox"/>	TMS 602 1.6 Table 4		Periodic	Periodic
Masonry - Inspect	2c Placement of reinforcement, connectors, and anchor bolts	<input type="checkbox"/>	TMS 602 1.6 Table 4		Periodic	Continuous
Masonry - Inspect	2d Proportions of site-prepared grout and prestressing grout for bonded tendons.	<input type="checkbox"/>	TMS 602 1.6 Table 4		Periodic	Periodic
Masonry - Inspect	3a Materials and procedures with the approved submittals	<input type="checkbox"/>	TMS 602 1.6 Table 4		Periodic	Periodic
Masonry - Inspect	3b Placement of masonry units and mortar joint construction	<input type="checkbox"/>	TMS 602 1.6 Table 4		Periodic	Periodic
Masonry - Inspect	3c Size and location of structural members	<input type="checkbox"/>	TMS 602 1.6 Table 4		Periodic	Periodic
Masonry - Inspect	3d Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction.	<input type="checkbox"/>	TMS 602 1.6 Table 4		Periodic	Continuous
Masonry - Inspect	3e Welding of reinforcement	<input type="checkbox"/>	TMS 602 1.6 Table 4		Continuous	Continuous
Masonry - Inspect	3f Preparation, construction, and protection of masonry during cold or hot weather (<40F or >90F)	<input type="checkbox"/>	TMS 602 1.6 Table 4		Periodic	Periodic
Masonry - Inspect	3g Application and measurement of prestressing force.	<input type="checkbox"/>	TMS 602 1.6 Table 4		Continuous	Continuous
Masonry - Inspect	3h Placement of grout and prestressing grout for bonded tendons is in compliance.	<input type="checkbox"/>	TMS 602 1.6 Table 4		Continuous	Continuous
Masonry - Inspect	3i Placement of AAC masonry units and construction of thin-bed mortar joints.	<input type="checkbox"/>	TMS 602 1.6 Table 4	<input type="checkbox"/>	<input type="checkbox"/>	Continuous
Masonry - Inspect	4 Observe preparation of grout specimens, mortar specimens, and/or prisms.	<input type="checkbox"/>	TMS 602 1.6 Table 4		Periodic	Continuous
Glass Unit	Glass unit masonry and masonry veneer in Risk Category IV	<input type="checkbox"/>	VCC 1705.4.1			
Vertical Masonry	Vertical masonry foundation elements	<input type="checkbox"/>	VCC 1705.4.2			
		<input type="checkbox"/>				
		<input type="checkbox"/>				

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MATERIAL / ACTIVITY	TYPE OF INSPECTION <i>(RDP add lines as needed to identify other required items)</i>	Required?	REFERENCE	INSPECTION / TEST BY:		
				SPECIAL INSPECTOR/ TEST LAB	RDP OF RECORD	OTHER
WOOD CONSTRUCTION						
Wood	Wood material labeling	<input type="checkbox"/>	VCC 1703.5	Periodic	Note #2	
Wood	Quality Control Inspection Of Shop Fabrication	<input type="checkbox"/>	VCC 1704.2.5	Periodic	Note #2	
Wood	High-load Diaphragms	<input type="checkbox"/>	VCC 1705.5.1	Periodic		
Wood-Trusses	Metal-plate connected wood trusses, span >60 feet	<input type="checkbox"/>	VCC 1705.5.2	Periodic	Note #2	
Mass Timber	Anchorage and connections to timber deep foundation systems	<input type="checkbox"/>	VCC T1705.5.3	Periodic		
Mass Timber	Inspect erection of mass timber construction	<input type="checkbox"/>	VCC T1705.5.3	Periodic		
Mass Timber	Inspect connections where installation methods are required to meet design loads - Threaded connections	<input type="checkbox"/>	VCC T1705.5.3	Periodic		
Mass Timber	Inspect connections where installation methods are required to meet design loads - adhesive anchors - sustained tension loads	<input type="checkbox"/>	VCC T1705.5.3	Continuous		
Mass Timber	Inspect connections where installation methods are required to meet design loads - other adhesive anchors	<input type="checkbox"/>	VCC T1705.5.3	Periodic		
Mass Timber	Inspect connections where installation methods are required to meet design loads - bolted connections	<input type="checkbox"/>	VCC T1705.5.3	Periodic		
Mass Timber	Inspect connections where installation methods are required to meet design loads - concealed connections.	<input type="checkbox"/>	VCC T1705.5.3	Periodic		
Sealing	Sealants or adhesives where required by section 703.7	<input type="checkbox"/>	VCC 1705.20	Periodic		
		<input type="checkbox"/>				
		<input type="checkbox"/>				
WIND FORCE RESISTANCE						
<i>Wind exposure category B, where V >= 150 mph or Wind exposure category C or D, where V >= 140 mph</i>						
Wood	Field gluing, nailing, bolting, anchoring, and other fastening of MWFRS, including wood shear walls, wood diaphragms, drag struts, braces, and hold downs.	<input type="checkbox"/>	VCC 1705.12.1	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	
Cold Formed Steel	Welding, screw attachment of MWFRS, including shear walls, braces, diaphragms, collectors, and hold downs.	<input type="checkbox"/>	VCC 1705.12.2	Periodic		
Components	Fastening of the roof covering, roof deck, roof framing connections, exterior wall covering, and wall connections to roof and floor diaphragms and framing.	<input type="checkbox"/>	VCC 1705.12.3	Periodic		
		<input type="checkbox"/>				
		<input type="checkbox"/>				

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MATERIAL / ACTIVITY	TYPE OF INSPECTION (RDP add lines as needed to identify other required items)	Required?	REFERENCE	INSPECTION / TEST BY:		
				SPECIAL INSPECTOR/ TEST LAB	RDP OF RECORD	OTHER
SEISMIC RESISTANCE						
Steel	Steel in SFRS for SDC B,C,D,E, or F.	<input type="checkbox"/>	VCC 1705.13.1.1	Periodic		
Steel	Steel in SFRS for SDC B,C,D,E, or F other than above	<input type="checkbox"/>	VCC 1705.13.1.2	Periodic		
Wood	Wood in SFRS for SDC C, D, E, or F	<input type="checkbox"/>	VCC 1705.13.2	<input type="checkbox"/> Continuous <input type="checkbox"/> Periodic		
Cold Formed Steel	Cold Formed Steel for SDC C, D, E, or F	<input type="checkbox"/>	VCC 1705.13.3	Periodic		
Designated systems	For SDC C,D,E, or F designated seismic systems requiring qualification in accordance with 13.2.2 of ASCE 7 shall be inspected to verify label, anchorage and mounting conform to the certificate of compliance.	<input type="checkbox"/>	VCC 1705.13.4	Periodic		
Architectural	Inspection is required for erection and fastening of cladding, interior and exterior nonbearing walls and interior/ exterior veneer in SDC D, E, F.	<input type="checkbox"/>	VCC 1705.13.5	Periodic		
Access Floors	Anchorage of access floors in SDC D, E, or F.	<input type="checkbox"/>	VCC 1705.13.5.1	Periodic		
MEP components	Inspection of anchorage depending on application, SDC C, D, E, or F.	<input type="checkbox"/>	VCC 1705.13.6	Periodic		
Storage Racks	Materials used, to verify compliance with one or more of the material test reports in accordance with construction documents. SDC D, E, or F.	<input type="checkbox"/>	VCC T1705.13.7 #1	Periodic		
Storage Racks	Fabricated storage rack elements SDC D, E, or F.	<input type="checkbox"/>	VCC T1705.13.7 #2	Periodic		
Storage Racks	Storage rack anchorage installation.	<input type="checkbox"/>	VCC T1705.13.7 #3	Periodic		
Storage Racks	Completed system, to indicate compliance with construction docs.	<input type="checkbox"/>	VCC T1705.13.7 #4	Periodic		
Isolation Systems	Systems in seismically isolated structures in SDC B, C, D, E or F	<input type="checkbox"/>	VCC 1705.13.8	Periodic		
Cold Formed Steel	Cold Formed Steel special bolted moment frames SDC D, E, F	<input type="checkbox"/>	VCC 1705.13.9	Periodic		
Testing	Structural Steel SDC B, C, D, E, F	<input type="checkbox"/>	VCC 1705.14.1	Periodic		
Testing	Nonstructural Components SDC B, C, D, E, F	<input type="checkbox"/>	VCC 1705.14.2		Note #2	
Testing	Designated Seismic Systems SDC C, D, E, F	<input type="checkbox"/>	VCC 1705.14.3		Note #2	
Testing	Seismic Isolation Systems SDC B, C, D, E, F	<input type="checkbox"/>	VCC 1705.14.4	Periodic		
		<input type="checkbox"/>				
		<input type="checkbox"/>				

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MATERIAL / ACTIVITY	TYPE OF INSPECTION (RDP add lines as needed to identify other required items)	Required?	REFERENCE	INSPECTION / TEST BY:		
				SPECIAL INSPECTOR/ TEST LAB	RDP OF RECORD	OTHER
FIREPROOFING (See Note #9)						
Spray-on	Physical and Visual Tests	<input type="checkbox"/>	VCC 1705.15.1	Continuous		
Spray-on	Surface Conditions	<input type="checkbox"/>	VCC 1705.15.2	Continuous		
Spray-on	Application	<input type="checkbox"/>	VCC 1705.15.3	Continuous		
Spray-on	Thickness	<input type="checkbox"/>	VCC 1705.15.4	Continuous		
Spray-on	Density	<input type="checkbox"/>	VCC 1705.15.5	Continuous		
Spray-on	Bond Strength	<input type="checkbox"/>	VCC 1705.15.6	Continuous		
Mastic/Intumescent	Mastic and Intumescent Fire-Resistant Coatings	<input type="checkbox"/>	VCC 1705.16	Continuous		
		<input type="checkbox"/>				
		<input type="checkbox"/>				
EXTERIOR INSULATION & FINISH SYSTEMS (EIFS)						
Coating	Water-Resistive Barrier Coating	<input type="checkbox"/>	VCC 1705.17.1	Continuous		
Materials	Manufacturer's Data	<input type="checkbox"/>	Specifications	Continuous		
Preparation	Condition Of Substrate	<input type="checkbox"/>	Specifications	Continuous		
Application	Methods, Proportions & Thickness Of Installation	<input type="checkbox"/>	Specifications	Continuous		
		<input type="checkbox"/>				
		<input type="checkbox"/>				
SMOKE CONTROL (see note #5)				SMOKE CONTROL		
Testing	Testing for Smoke Control	<input type="checkbox"/>	VCC 1705.19	Continuous		
Ducts	Device Location And Air Duct Leakage	<input type="checkbox"/>	Specifications	Continuous		
System	Pressure Difference, Flow Measurements & Detection Testing	<input type="checkbox"/>	Specifications	Continuous		
Controls	Control Verification, Activation Sequence	<input type="checkbox"/>	Specifications	Continuous		
		<input type="checkbox"/>				
		<input type="checkbox"/>				

NOTES

1. Fabricator, supplier, ready-mixed plant or other production plant shall provide certificates from an approved independent inspection, testing or quality assurance agency attesting that the plant meets at least one of the following criteria:
 - a. The plant is a certified production plant meeting the quality assurance standards of a recognized national standards organization for that product.
 - b. The plant maintains an agreement with an independent inspection or quality assurance agency to conduct periodic in-plant quality assurance inspections. The frequency of these inspections shall not be less than one every six months.
 - c. The plant has an in-shop quality assurance inspection program by an independent testing or quality assurance agency for the work/product to be provided on this project.
2. RDP of Record shall review fabricator/supplier/producer certificates for conformance or compliance with appropriate standards of practice and quality assurance.
3. Contractor/supplier shall submit manufacturer's certificates of compliance for the materials/products as required by VCC 1704.5.
4. A/E shall review records and test results of all special inspections for conformance with requirements.
5. Special Inspection firm shall have expertise in fire protection engineering, mechanical engineering, and certification as an air balancer. The special inspector listed on the cover page and the Agency are responsible for verifying that the inspector(s) for smoke control is qualified as required by VCC 1705.19.2.
6. The Owner's structural observer shall submit a written statement to the UBO identifying the frequency and extent of structural observations as required by VCC 1704.6.
7. VCC 1704.3 requires special inspections for seismic or wind resistance. This statement of inspections shall identify systems or components that are subject to such special inspections or tests in accordance with VCC 1704.3.2 and 1704.3.3. The contractor shall complete, sign and submit the written statement of responsibility in HECO-6c prior to the commencement of work in acknowledgement of awareness of the special inspections as required by VCC 1704.4.
8. The RDP of Record shall determine the frequency of the special inspections (continuous or periodic) in accordance with the adopted codes and standards and shall be noted accordingly on this form.
9. Inspections for sprayed fire-resistant materials, mastic, and intumescent fire-resistant coatings shall be performed during construction. An additional visual inspection shall be performed after the rough installation and where applicable, prior to the concealment of electrical, automatic sprinkler, mechanical and plumbing systems.



STATEMENT OF CONTRACTOR'S RESPONSIBILITY

TO: University Building Official
230 Sterrett Drive, Suite 30A
Blacksburg, VA 24061

Date: _____

PROJECT TITLE: _____

PROJECT #: _____

CONTRACTOR NAME: _____

CONTRACTOR LICENSE #: _____

Seismic – Special Inspections required by Section 1704.3.2 of the 2021 VUSBC

- Special Inspections for Seismic Resistance are not required for this Project.
- Special Inspections for Seismic Resistance are required. In accordance with the VUSBC 1704.4, the Contractor is aware of the special requirements in the Statement of Special Inspections & Structural Observations.

Wind – Special Inspections required by Section 1704.3.3 of the 2021 VUSBC

- Special Inspections for Wind Resistance are not required for this Project.
- Special Inspections for the Wind Resistance are required. In accordance with the VUSBC 1704.4, the Contractor is aware of the special requirements contained in the Statement of Special Inspections & Structural Observations.

Submitted By:

Contractor Signature: _____ Date: _____

Printed Name/Title _____

Approved By:

A/E Signature: _____ Date: _____

Printed Name/Title _____

(Send copy of approved document to University Building Official)

**VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
CONTRACT BETWEEN OWNER AND CONTRACTOR**

This Contract, dated this ___ day of _____, 20__ between Virginia Polytechnic Institute and State University (“Owner,” “Virginia Tech,” “University”) and _____ (“Contractor”), is binding among and between these parties as of the date of the Owner’s signature.

RECITALS

1. The parties, their Project representatives, and contact information, including the places for delivery of Notice, are as follows:

Owner: Virginia Polytechnic Institute and State University

Attn: _____
Address: _____
City, State, Zip: _____
Telephone: _____
FAX: _____
Email Address: _____

Contractor:

Attn: _____
Address: _____
City, State, Zip: _____
Telephone: _____
FAX: _____
Email Address: _____
VA Contractor’s License #: _____
FEIN/SSN: _____
Virginia SCC ID #: _____

Each party shall notify the other party promptly of a new Notice address. Unless and until Notice of the new address is given in the manner required for Notice, a Notice to such party is sufficient if given to the address set forth in Section 1.

2. The Project is identified as: _____
Project Title: _____
Project Code – PC#: _____
General Project Description: _____

The Project Code (PC#) indicated above shall be included on all Project-related material and documents including, but not limited to, Notices, Change Orders, Submittals, Requests For Information, Requests For Quotes, Field Orders, minutes of meetings, correspondence, Schedule of Values and Certificate For Payment (CO-12), and test reports.

3. After competitive sealed bidding pursuant to the Rules Governing Procurement of Goods, Services, Insurance and Construction by a Public Institution of Higher Education of the Commonwealth of Virginia, Contractor is awarded this Contract to perform the Work described by the Contract Documents for the Project.

THEREFORE, in consideration of the Recitals set forth above and which are part of the Contract and good and valuable consideration as set forth below, the parties agree as follows:

1. STATEMENT OF THE WORK

The Contractor shall furnish and provide all labor, equipment, and materials and perform all Work for the Project in strict accordance with the Contract Documents.

2. CONTRACT DOCUMENTS

- a. The following documents are incorporated by reference into this Contract as if set forth fully herein:
 1. **Attachment A** - the General Conditions of the Construction Contract (Virginia Tech HECO-7) dated April 12, 2021;
 2. **Attachment B** - the Supplemental General Conditions dated September 1, 2022;
 3. **Attachment C** - the Contractor's Bid form dated _____ in response to the Owner's Invitation for Bids;
 4. **Attachment D** - the Virginia Tech Special Terms and Conditions dated September 8, 2023;
 5. **Attachment E** - eVA Vendor Registration Requirements;
 6. **Attachment F** - Post-Bid Modifications dated _____ (CO-9b);
 7. **Attachment G** - Invitation to Bid including the Project Plans and Specifications dated _____ and related Addenda No. _____ through _____.
- b. The Contract requires the Contractor to use the following standardized forms where applicable to the Work of this Project:
 1. Standard Performance Bond (CO-10);
 2. Standard Labor and Material Payment Bond (CO-10.1);
 3. Workers' Compensation Certificate of Coverage (CO-9a);
 4. Schedule of Values and Certificate for Payment (CO-12);
 5. The Affidavit of Payments of Claims (CO-13);
 6. The Contractor's Certificate of Substantial Completion (CO-13.2a);
 7. Contractor's Certificate of Completion (CO-13.2).
- c. All time limits stated in the Contract Documents, including but not limited to the Contract Completion Date and Time for Completion, are of the essence of the Contract.
- d. The Contract shall be signed by the Owner and the Contractor in as many original counterparts as may be mutually agreed upon, each of which shall be considered an original.
- e. Anything called for by one of the Contract Documents and not called for by the others, shall be of like effect as if required or called for by all, except that a provision clearly

designed to negate or alter a provision contained in one or more of the Contract Documents shall have the intended effect. Whenever possible, the Contract must be read as a whole with all parts being harmonized so as to avoid conflict. In the event that a dispute, claim or controversy between the Owner and the Contractor arises regarding the requirements of the Contract, the performance of the Work, terms and conditions, or otherwise, the precedence of the Contract Documents shall be in the following order: 1) the Contract; 2) the Supplemental General Conditions; 3) the General Conditions; 4) the Special Conditions; 5) the Specifications; and 6) the Plans as specified in Paragraph 2.a. above.

- f. If any provision of this Contract shall be held invalid by any court of competent jurisdiction, such holding shall not invalidate any other provision.

3. TIME FOR COMPLETION

The Work shall be commenced on a date to be specified in the Notice to Proceed from Owner. Contractor shall achieve Substantial Completion not later than the Contract Completion Date, which is _____. Contractor shall achieve Final Completion of the Work within _____ Days after the date of Substantial Completion of the Work.

4. STANDARD LABOR AND MATERIAL PAYMENT BOND AND STANDARD PERFORMANCE BOND

[Agency to select appropriate statement based upon the specific project.]

____ Contractor shall provide and maintain for the Project a Standard Labor and Material Payment Bond and a Standard Performance Bond meeting the requirements of the VPPA and Section 8 of the General Conditions.

____ Contractor does not need to provide a Standard Labor and Material Payment Bond or a Standard Performance Bond.

5. COMPENSATION TO BE PAID TO THE CONTRACTOR

The Owner agrees to pay and the Contractor agrees to accept as just and adequate compensation for the performance of the Work in accordance with the Contract Documents the sum of _____ and 00/100 Dollars (\$_____).

6. PAYMENTS

The procedures for establishing a Schedule of Values for the Work, for requesting monthly progress payments for Work in place, and for requesting payments for properly stored materials are stated in the General Conditions. Unless otherwise provided under the Contract Documents, interest on payments due the Contractor shall accrue at the rate of one percent per month. See Code of Virginia § 2.2-4354.

eVA Vendor Registration: The Contractor shall be a registered vendor in eVA. See attached eVA Vendor Registration Requirements.

GCPay: Contract payments and SWaM reporting **shall be** made through GCPay.

7. AUTHORIZATION TO TRANSACT BUSINESS

The Contractor certifies that, if it is organized as a stock or nonstock corporation, limited liability company, business trust, or limited partnership or registered as a registered limited liability partnership, it is authorized to transact business in the Commonwealth of Virginia as a domestic or foreign business entity if so required by Title 13.1 or Title 50 of the Code of Virginia, or as otherwise required by law, and shall not allow its existence to lapse or its certificate of authority or registration to transact business in the Commonwealth of Virginia, if so required under Title 13.1 or Title 50, to be revoked or cancelled at any time during the term of the Contract. The Contractor understands and agrees that the Owner may void this Contract if the Contractor fails to comply with these provisions.

9. DEBARMENT AND ENJOINMENT

By signing this Contract, the undersigned on behalf of the Contractor, and the Contractor, certify that the Contractor, including any officer, director, partner or owner of the Contractor, is not currently barred from bidding on contracts by any Agency of the Commonwealth of Virginia, or any public body or agency of another state, or any agency of the federal government, nor is this Contractor a subsidiary or affiliate of any entity that is currently barred from bidding on contracts by any of the same.

10. ALL RISK BUILDER'S RISK INSURANCE

___ This Project is **New Construction, Addition, or Major Renovation**. Contractor shall procure and maintain "all-risk" Builder's Risk insurance as set forth in Section 12 of the General Conditions for New Construction, Addition, or Major Renovation.

___ This Project is **Limited Renovation**. Contractor shall procure and maintain "all risk" Builder's Risk insurance as set forth in Section 12 of the General Conditions for Limited Renovation.

11. ELECTRONIC TRANSACTIONS: If this paragraph is initialed by both parties, to the fullest extent permitted by Code of Virginia, Title 59.1, Chapter 42.1, the parties do hereby expressly authorize and consent to the use of electronic signatures as an additional method of signing and/or initialing this contract and agree electronic signatures (for example, the delivery of a PDF copy of the signature of either party via facsimile or electronic mail or signing electronically by utilizing an electronic signature service) are the same as manual executed handwritten signatures for the purposes of validity, enforceability and admissibility.

_____/_____
(Initials) (Initials)

IN WITNESS WHEREOF, the parties have executed this Contract on the dates set forth beside their respective signatures.

For the CONTRACTOR:

For the OWNER:

By: _____
(signature in ink) *(date)*

By: _____
(signature in ink) *(date)*

(typed name)

(typed name)

(typed title)

(typed title)

Attest:

(signature in ink) *(date)*

Attest:

(signature in ink) *(date)*

Attachment A

General Conditions of the Construction Contract (Virginia Tech HECO-7) dated April 12, 2021

Attachment B
the Supplemental General Conditions dated September 1, 2022

Attachment C

the Contractor's Bid form dated _____ in response to the Owner's Invitation for Bids

Attachment D
the Virginia Tech Special Terms and Conditions dated September 8, 2023

Attachment E
eVA Vendor Registration Requirements

Attachment F
Post-Bid Modifications dated _____ (CO-9b)

Attachment G

Invitation to Bid including the Project Plans and Specifications dated _____ and related
Addenda No. _ through _

COMMONWEALTH OF VIRGINIA
WORKERS' COMPENSATION
Certificate of Coverage

Section 2.2-4332, Code of Virginia, requires construction contractors and subcontractors to obtain and maintain workers' compensation insurance while performing work on behalf of the Commonwealth of Virginia, its departments, institutions, or agencies. This same requirement applies on behalf of local governments.

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

This form must be completed and returned to the organization contracting the Work.

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: _____

**COMMONWEALTH OF VIRGINIA
STANDARD PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS: That _____, the Contractor (“Contractor” or “Principal”) whose principal place of business is located at _____ and _____ (“Surety”) whose address for delivery of ‘Notices’ is located at _____ are held and firmly bound unto the Commonwealth of Virginia, Virginia Polytechnic Institute and State University, the Owner (“Obligee”) in the amount of _____ Dollars (\$ _____) for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

Principal has by written agreement dated _____ entered into a contract with Obligee for _____ which contract (the "Contract") is by reference expressly made a part hereof;

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Principal shall promptly and faithfully perform said Contract in strict conformity with the plans, specifications and conditions of the Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Provided, that any alterations which may be made in the terms of the Contract, or in the Work to be done under it, or the giving by the Obligee of any extension of time for the performance of the Contract, or any other alterations, extensions or forbearance on the part of either or both of the Obligee or the Principal to the other shall not in any way release the Principal and the Surety, or either of them, their heirs, executors, administrators, successors or assigns from their liability hereunder, notice to the Surety of any such alterations, extension, or forbearance being hereby waived.

No action shall be brought on this bond unless brought within five years after completion of the Contract. Completion of the Contract is established when the final payment is made to the Contractor pursuant to the terms of the Contract. However, if a final certificate of occupancy or written final acceptance of the Project is issued prior to final payment, the five-year period to bring an action shall commence no later than 12 months from the date of the certificate of occupancy or written final acceptance of the Project. The Surety represents to the Principal and to the Obligee that it is legally authorized to do business in the Commonwealth of Virginia.

Electronic Transactions: If this paragraph is initialed by all parties, to the fullest extent permitted by Code of Virginia, Title 59.1, Chapter 42.1, the parties do hereby expressly authorize and consent to the use of electronic signatures as an additional method of signing and/or initialing this bond and agree electronic signatures (for example, the delivery of a PDF copy of the signature of either party via facsimile or electronic mail or signing electronically by utilizing an electronic signature service) are the same as manual executed handwritten signatures for the purposes of validity, enforceability and admissibility.

_____/_____/_____
(Contractor Initials) (VT Initials) (Surety Initials)

This space left intentionally blank

Signature page to follow

Signed and sealed this _____ day of _____, 2022.

Contractor / Principal (SEAL)

Witness

By: _____
Typed Name: _____
Title: _____

Surety (SEAL)

By: _____
Attorney-in-Fact
Typed Name: _____

AFFIDAVIT AND ACKNOWLEDGEMENT OF ATTORNEY-IN-FACT

COMMONWEALTH / STATE OF _____
CITY/COUNTY/TOWN of _____

I, the undersigned notary public, do certify that _____, whose name is signed to the foregoing performance bond in the sum of _____ and dated _____ and which names the Commonwealth of Virginia, Virginia Polytechnic Institute and State University, as Obligee, personally appeared before me today in the above jurisdiction and made oath that he/she is the attorney-in-fact of _____, a _____ corporation which is the Surety in the foregoing bond, that he/she is duly authorized to execute on the above Surety's behalf the foregoing bond pursuant to the Power of Attorney noted above and attached hereto, and on behalf of the surety, he/she acknowledged the foregoing bond before me as the above Surety's act and deed.

She/he has further certified that her/his Power of Attorney has not been revoked.
[Complete if Power is recorded: Clerk's Office: _____;
Deed Book/Page No. or Instrument No.: _____.]

Given under my hand this ___ day of _____, 2021.

Notary Public (SEAL)

My name (printed) is:
My registration number is:
My commission expires:
APPROVED:

[Deputy] [Senior] Assistant Attorney General
Designee of the Attorney General
pursuant to delegation dated _____

Dated

Terms and Conditions of the Performance Bond

- 1 The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the prompt and faithful performance of the Contract, which is incorporated herein by reference.
- 2 If the Contractor promptly and faithfully performs the Contract in strict conformity with the plans, specifications and conditions of the Contract, the Surety and the Contractor shall have no obligations under this Bond.
- 3 In the event of the Contractor's Default, and subsequent notification to the Surety pursuant to Section 41 of the General Conditions of the Contract, the Surety shall, within fourteen (14) days of receipt of such notice, contact the Owner in writing, and arrange a meeting with the Owner to discuss methods of completing the Contract. See paragraph 4, below, for the options to be discussed. If the Surety fails to arrange a meeting or fails to attend such meeting, the Surety shall be deemed to be in default on this Bond and the Owner may, at its sole discretion, take what measures it deems necessary to protect the Owner's interests, without further notice to the Surety, and the Owner shall be entitled to enforce any remedy available to the Owner under the Contract or under Virginia law.
- 4 Within thirty (30) days after such meeting, during which time the Surety may investigate and otherwise analyze the project, and which period shall not toll any Contract time periods nor operate as a waiver of any of the Owner's rights, the Surety shall, at its own expense, notify the Owner in writing that it is taking one of the following actions, which shall be acceptable to the Owner, at the Owner's sole discretion:
 - 4.1 By written takeover agreement with the Owner, the Surety itself shall undertake to perform and complete the Contract, which it may do through its licensed agents or through licensed independent contractors. If the Owner, at its sole discretion, consents, the Contractor may serve as the Surety's independent contractor (however, due to conflicts with the Virginia Public Procurement Act, the Owner may not directly contract with an otherwise qualified independent contractor produced by the Surety); or
 - 4.2 The Surety may, if acceptable to the Owner and at the Owner's sole discretion, waive its right to perform and complete the Contract, and with reasonable promptness under the circumstances:
 - 4.2.1 Pay to the Owner all amounts for which it may be liable to the Owner as surety on this Performance Bond, including the damages described in paragraph 6 below; or
 - 4.2.2 Deny liability, in whole or in part, and provide written notice thereof to the Owner, citing reasons therefor.

- 5 If, after the meeting described in paragraph 4, above, the Surety does not proceed with reasonable promptness with one of the options provided in subparagraphs 4.1 or 4.2 (including its subparts), above, the Owner may send additional written notice to the Surety demanding that the Surety perform its obligations under the Bond. If the Surety does not proceed to perform its obligations under the Bond within fifteen (15) days after receipt of said notice, the Surety shall be deemed to be in default on this Bond. Thereafter, the Owner shall be entitled to enforce any remedy available to the Owner under the Bond, the Contract or Virginia law. If the Surety proceeds as provided in Subparagraph 4.2, and the Surety and the Owner are unable to agree as to the amount for which the Surety may be liable to the Owner, or if the Surety has denied liability, in whole or in part, the Owner, without further notice, shall be entitled to enforce any remedy available to the Owner under the Bond, the Contract or Virginia law. In such event, the Owner may immediately proceed to complete the work in any manner authorized by law.
- 6 After the Owner has terminated the Contractor's right to complete the Contract, and if the Surety elects to act under Subparagraph 4.1 or 4.2.1, above, then the responsibilities of the Surety to the Owner shall not be greater or less than those of the Contractor under the Contract, and the responsibilities of the Owner to the Surety shall not be greater than or less than those of the Owner under the Contract. To the limit of the amount of this Bond, plus the increased cost of any change orders under the Contract, provided the Owner commits the balance of the Contract Price to the prompt and faithful completion of the Contract, the Surety is obligated without duplication for:
- 6.1 The responsibilities of the Contractor for correction of defective work and completion of the Contract;
- 6.2 Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 4; and
- 6.3 Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the Contractor.
- The Owner, at its sole discretion, may waive its claim to delay costs and/or liquidated damages.
- 7 The Surety shall not be liable to the Owner for obligations of the Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner, its officers, agencies, administrators, successors or assigns.
- 8 The Surety hereby waives notice of any changes, including changes of time, to the Contract or to related subcontracts, purchase orders and other obligations. The Surety understands and agrees that the penal amount of the bond shall be increased or decreased by any changes to time and amount incorporated into any Change Orders.

- 9 Any proceeding by the Owner, legal or equitable, under this Bond may be instituted in any Virginia state court of competent jurisdiction, as permitted under Section 8 of the General Conditions of the Contract and Virginia Code § 2.2-4337 and 2.2-4340, or by the Contractor or Surety, as permitted under the Contract or under Virginia law.
- 10 Notice to the Surety shall be mailed or delivered to the address shown on the Standard Performance Bond in the space for Surety address for delivery of Notices
- 11 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond when furnished to comply with statutory requirements.
- 12 **DEFINITIONS**
- 12.1 **Balance of the Contract Price:** The total amount payable by the Owner to the Contractor under the Contract after all proper adjustments have been made, reduced by all valid and proper payments made to or on behalf of the Contractor under the Contract.
- 12.2 **Contract:** The agreement between the Owner and the Contractor identified on first page of the Standard Performance Bond, DGS-30-084, CO-10, including all Contract Documents and duly executed modifications and change orders thereto.
- 12.3 **Contractor Default:** Failure of the Contractor, as defined under Section 41 of the General Conditions to the Contract, which has neither been remedied, as permitted under Section 41 at the Owner's sole discretion, nor expressly waived by the Owner, to perform or otherwise to comply with the terms of the Contract.
- 13 Nothing in these General Conditions shall prevent a surety from becoming involved in the Contract prior to termination, upon notice from the Owner of the Contractor's failure to promptly and faithfully perform the Contract in strict conformity with the plans, specifications and conditions of the Contract.

**COMMONWEALTH OF VIRGINIA
STANDARD LABOR AND MATERIAL PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS: That _____,
the Contractor ("Principal") whose principal place of business is located
and _____ ("Surety") whose address for delivery of
'Notices' is located at _____ are held and firmly bound
unto the Commonwealth of Virginia, Virginia Polytechnic Institute and State University, the
Owner ("Obligee") in the amount of _____ Dollars
(\$_____) for the payment whereof Principal and Surety bind themselves, their heirs,
executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

Principal has by written agreement dated _____ entered into a contract with
Obligee for _____
which contract (the "Contract") is by reference expressly made a part hereof;

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the
Principal shall promptly make payment to all claimants as hereinafter defined, for labor performed
and material furnished in the prosecution of the Work provided for in the Contract, then this
obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the
following conditions.

The Principal and Surety, jointly and severally, hereby agree with Obligee as follows:

1. A claimant is defined as one having a direct contract with the Principal or with a subcontractor of the Principal for labor, material, or both for use in the performance of the Contract. A "subcontractor" of the Principal, for the purposes of this bond only, includes not only those subcontractors having a direct contractual relationship with the Principal, but also any other contractor who undertakes to participate in the Work which the Principal is to perform under the aforesaid Contract, whether there are one or more intervening subcontractors contractually positioned between it and the Principal (for example, a subcontractor). "Labor" and "material" shall include, but not be limited to, public utility services and reasonable rentals of equipment, but only for periods when the equipment rented is actually used at the work site.
2. Any claimant who has a direct contractual relationship with the Principal and who has performed labor or furnished material in accordance with the Contract documents in furtherance of the Work provided in the Contract, who has not been paid in full therefor before the expiration of ninety (90) days after the day on which such claimant performed the last of such labor or furnished the last of such materials for which he claims payment, may bring an action on this bond to recover any amount due him for such labor or material, and may prosecute such action to final judgment and have execution on the judgment. The Obligee need not be a party to such action and shall not be liable for the payment of any costs, fees or expenses of any such suit.

3. Any claimant who has a direct contractual relationship with any subcontractor of the Principal but who has no contractual relationship, express or implied, with the Principal, may bring an action on this bond only if he has given written notice to the Principal within ninety (90) days from the day on which the claimant performed the last of the labor or furnished the last of the materials for which he claims payment, stating with substantial accuracy the amount claimed and the name of the person for whom the Work was performed or to whom the material was furnished. Notice to the Principal shall be served by registered or certified mail, postage prepaid, in an envelope addressed to the Principal at any place where his office is regularly maintained for the transaction of business. Claims for sums withheld as retainages with respect to labor performed or materials furnished shall not be subject to the time limitations stated in this paragraph 3.
4. No suit or action shall be commenced hereunder by any claimant.
 - a. Unless brought within one year after the day on which the person bringing such action last performed labor or last furnished or supplied materials, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof, the limitation embodied within this bond shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
 - b. Other than in a Virginia court of competent jurisdiction, with venue as provided by statute, or in the United States District Court for the district in which the project, or any part thereof is situated.
5. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder.
6. **Electronic Transactions:**
If this paragraph is initialed by all parties, to the fullest extent permitted by Code of Virginia, Title 59.1, Chapter 42.1, the parties do hereby expressly authorize and consent to the use of electronic signatures as an additional method of signing and/or initialing this bond and agree electronic signatures (for example, the delivery of a PDF copy of the signature of either party via facsimile or electronic mail or signing electronically by utilizing an electronic signature service) are the same as manual executed handwritten signatures for the purposes of validity, enforceability and admissibility.

_____/_____/_____
(Contractor Initials) (VT Initials) (Surety Initials)

Signed and sealed this _____ day of _____, 20____

Contractor / Principal

(SEAL)

Witness

By: _____
Typed Name:

Title:

Surety (SEAL)

By: _____
Attorney-in-Fact

Typed Name: _____

AFFIDAVIT AND ACKNOWLEDGEMENT OF ATTORNEY-IN-FACT

COMMONWEALTH / STATE OF _____
CITY/COUNTY/TOWN of _____

I, the undersigned notary public, do certify that _____, whose name is signed to the foregoing labor and material payment bond in the sum of _____ and dated _____ and which names the Commonwealth of Virginia, Virginia Polytechnic Institute and State University, as Obligee, personally appeared before me today in the above jurisdiction and made oath that he/she is the attorney-in-fact of _____, a _____ corporation which is the Surety in the foregoing bond, that he/she is duly authorized to execute on the above Surety's behalf the foregoing bond pursuant to the Power of Attorney noted above and attached hereto, and on behalf of the surety, he/she acknowledged the foregoing bond before me as the above Surety's act and deed

She/he has further certified that her/his Power of Attorney has not been revoked.

[Complete if Power is recorded: Clerk's Office: _____;
Deed Book/Page No. or Instrument No.: _____ .]

Given under my hand this ___ day of _____, 20____.

Notary Public (SEAL)

My name (printed) is:
My registration number is:
My commission expires:
APPROVED:

[Deputy] [Senior] Assistant Attorney General
Designee of the Attorney General
pursuant to delegation dated _____

Dated

**COMMONWEALTH OF VIRGINIA
STANDARD BID BOND**

KNOW ALL MEN BY THESE PRESENTS: That _____, the Contractor (“Principal”) whose principal place of business is located at _____ and _____ (“Surety”) whose address for delivery of ‘Notices’ is located at _____ are held and firmly bound unto the Commonwealth of Virginia, _____, the Owner (“Obligee”) in the amount of five percent (5%) of the Amount (Total Base Bid plus all Additive Bid Items) Bid by Principal, for the payment whereof, Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for _____

NOW, THEREFORE, the conditions of this obligation are as follows. This Bid Bond shall guarantee that the Principal will not withdraw his bid during the period of thirty (30) days following the opening of bids; that if his bid is accepted, Principal will enter into a formal contract with the Owner in accordance with the Contract Between Owner and Contractor, Form CO-9, included as a part of the Invitation for Bids (IFB Documents); that Principal will submit a properly executed and authorized Standard Performance Bond and Standard Labor and Material Payment Bond on the forms included in the IFB documents; and that in the event of the withdrawal of said bid within said period, or failure to enter into said contract and give said bonds within ten (10) days after Principal has received notice of acceptance of his bid, Principal and Surety shall be jointly and severally liable to the Owner for the difference between the amount specified in said bid and such larger amount for which the Owner may contract with another party to perform the work covered by said bid, up to the amount of the bid guarantee. This amount represents the damage to the Owner of account of the default of the bidder in any particular thereof.

The Surety represents to the Principal and to the Obligee that it is legally authorized to do business in the Commonwealth of Virginia.

Signed and sealed this _____ day of _____

Contractor / Principal (SEAL)

Witness

By: _____
Typed Name: _____
Title: _____

Surety (SEAL)

By: _____
Attorney-in-Fact
Typed Name: _____

AFFIDAVIT AND ACKNOWLEDGEMENT OF ATTORNEY-IN-FACT

COMMONWEALTH / STATE OF _____)
CITY/COUNTY/TOWN of _____

I, the undersigned notary public, do certify that _____, whose name is signed to the foregoing bid bond in the amount of five percent (5%) of the Total Bid Amount and which names the Commonwealth of Virginia, _____, as Obligee, personally appeared before me today in the above jurisdiction and made oath that he/she is the attorney-in-fact of _____, a _____ corporation which is the Surety in the foregoing bond, that he/she is duly authorized to execute on the above Surety's behalf the foregoing bond pursuant to the Power of Attorney noted above and attached hereto, and on behalf of the surety, he/she acknowledged the foregoing bond before me as the above Surety's act and deed.

She/he has further certified that her/his Power of Attorney has not been revoked.

[Complete if Power is recorded: Clerk's Office: _____;
Deed Book/Page No. or Instrument No.: _____.]

Given under my hand this _____ day of _____.

Notary Public (SEAL)

My name (printed) is: _____
My registration number is: _____
My commission expires: _____

Construction Contract Change Order Navigation Pane

Read instructions for completing each part of the change order.

[Instructions](#)

Start with this tab and enter project information and change order log info.

[CO Log](#)

List Construction Change Orders (Summary of Work)

[CO-11 Part 1](#)

List Construction Change Orders (Itemization of Work)

[CO-11 Part 2](#)

Enter Change Order Justification (A/E's Justification)

[CO-11a Part 1](#)

Enter Change Order Justification (Agency's Justification)

[CO-11a Part 2](#)

Refer to this tab for Change Order Justification Reason Codes.

[CO-11a Part 3](#)

Complete all sections including submittal requirements and description.

[Transmittal](#)

[Go to Navigation Sheet](#)

INSTRUCTIONS FOR COMPLETING THE CO-11 and CO-11a FORMS

I. GENERAL INSTRUCTIONS

Please read all instructions carefully before using this spreadsheet to create the CO-11 and CO-11a forms.

Macros must be "enabled" to use this template.

In order for macros to run in Excel, the Excel macro security setting must be set to "Medium". To adjust this setting, go to Tools / Macro / Security on the Excel menubar and adjust security setting to "Medium". You may need to exit Excel once and then re-open Excel for the new security setting to take effect.

Excel/Office 2007 users may need to save this as a "Macro-Enabled Worksheet".

This spreadsheet contains a number of built-in calculations to simplify the creation of CO-11 and CO-11a forms. To ensure the integrity of the data, please do not attempt to modify the spreadsheet. Areas where data can be entered are highlighted in yellow. 

It is recommended that the user print a copy of this instruction sheet to use as a reference when completing these forms.

The various Parts of the CO-11 and CO-11a are accessed by clicking on the blue tabs at the bottom of the screen.

Use the tab key to move forward to the next fillable field. |----->

Use the shift-tab to move backwards to the previous fillable field. <-----|

(You can also use the mouse and cursor keys to navigate, but the tab key is generally the most efficient means.)

Some fields have "drop-down" selection arrows on the right side of the field. For these types of fields, click on the arrow, then select an appropriate choice from the list.

Click on the tabs at the bottom of this file to go to the appropriate page.

THE TRANSMITTAL

The Change Order Transmittal for DEB Review Services is a required part of the submittal for review of a change order. See other submittal requirements on the Change Order Transmittal for change order review.

THE CHANGE ORDER LOG ("CO Log" tab)

The most important part of this spreadsheet is the "Contract Summary and Change Order Log".

The "Contract Summary" contains general project information, a running tally of all approved change orders, and the original and current contract costs and completion dates.

The "Change Order Log" lists the key cost and schedule data for each change order and also identifies if approval by the Governor's Designee is required.

The information entered in the Contract Summary and Change Order Log is used to automatically complete portions of the CO-11 and CO-11a forms for the Change Order number entered on the "CO-11 Part 1" sheet.

Specifically, the general information from the Contract Summary and Change Order Log is used to automatically complete:

- CO-11, Part 1 (Fully completes Part 1.)
- CO-11, Part 2 (Completes the header information. Remaining portions must be completed by user.)
- CO-11a, All Parts (Completes the header information. Remaining portions must be completed by user.)

This built-in automation was designed to save users from redundant keying of data and to eliminate math and transposition errors.

When entering data in the Change Order Log, always enter the change orders sequentially, starting with the lowest number change order. (Do not leave a blank line between change orders or erroneous totals may result !)

Always update the Contract Summary and Change Order Log first, before completing and generating the CO-11 and CO-11a.

IF YOU WISH TO RETAIN DETAILED INFORMATION FOR EACH CHANGE ORDER, DO THE FOLLOWING:

Before beginning each new CO-11, make a copy of the spreadsheet. (Do a "Save as" and name the new version of the spreadsheet: "Change Order Number XX", substituting for "XX" the number of the next Change Order to be created.) While the Change Order Log will list summary information for all Change Orders to date, only the detailed information (i.e., the CO-11 and CO-11a) for one change order number is saved in the spreadsheet. (The spreadsheet is not meant to be a repository of all CO-11 and CO-11a forms. It is intended to be used to create, save, and print information for the latest CO-11 and CO-11a.)

II. STEP-BY-STEP INSTRUCTIONS

Change Order Log

- 1 Save a copy of the previous Change Order spreadsheet file and name it as noted in the preceding paragraph.
- 2 Click on the "Contract Summary and Change Order Log" tab.
- 3 In the "Contract Summary" section, enter new (or verify existing) data for the cells highlighted in yellow.
- 4 In the "Change Order Log" section, enter the following information:

- **Change Order Number**
 - Change Order Numbers are sequential integer numbers. Start with "1".
 - Enter change orders sequentially in the log - starting with the lowest number change order. (See the note below for projects already in progress.)
 - Don't skip rows between change orders (i.e., don't leave any blank rows between change order entries) or else erroneous results will occur.
- **Change Order Date** (enter in mm/dd/yy format)
- **Change Order Amount** (enter the total value of latest Change Order)
- **Schedule Extension** (enter the additional number of days the contract will be extended due to latest Change Order)

(All other information shown on the log is computed automatically and is used elsewhere in the spreadsheet.)

NOTE: If this spreadsheet is being implemented for a project already in progress, there are two options for entering Change Orders which were issued prior to this new spreadsheet becoming available:

- a) Enter all Change Orders as individual line items in the Log (recommended method), or
- b) Group all Change Orders already executed under one line entry. After this one "catch up entry", enter all subsequent Change Orders as individual line items.

- 5 Print a copy of the Log, if desired, using the File/Print menu command. (To limit the number of pages printed, enter the appropriate page numbers in the "Pages" section of the "Print Range" dialog box.)

CO-11 Part 1, Construction Change Order (Summary of Work)

Part 1 of the CO-11 lists the summary cost and contract completion information related to the current change, the cumulative cost and completion data, and provides signature lines for all affected parties.

- 1 Enter the specific Change Order Number for which you wish to create a CO-11 and CO-11a. (NOTE: The Contract Summary and Change Order Log must be complete for all Change Orders up to and including this Change Order.)
- 2 Type in the name and title of the various signatories to this Change Order.
- 3 Print a copy of the CO-11 Part 1 using the File/Print menu command or the printer icon. (You can also use the Print or Print Preview buttons on the toolbar below.)

CO-11 Part 2, Construction Change Order (Itemization of Work)

Part 2 of the CO-11 provides an itemized breakdown of the scope of work to be performed.

- 1 Enter the required data for the each of the five columns highlighted in yellow. Additional data entry instructions are provided as each cell is selected.
- 2 Once all detail line items have been entered, verify that the sum of all detail line items match the total amount entered earlier in the Change Order Log for this Change Order. If the amount in the Change Order Log and the sum of the Part 2 detail entries do not match, an error message will appear in red at the top of the Part 2 sheet. Correct either the detail amounts in Part 2 or the total amount entered in the Change Order Log, as needed. Once the amounts match, the error message will clear.
- 3 An asterisk (*) appearing adjacent to the amount field on Part 2, denotes that either the "Initiated By" or the "Reason for Change" fields, or both, were not completed properly. (An entry must appear in both of these fields, if an associated dollar amount was entered.) Fill in these fields with the appropriate entries to clear these error flags.
- 4 Once the errors described in 2 and 3 above have been corrected, print a copy of this sheet using the File/Print menu command. To limit the number of pages printed, enter the appropriate page numbers in the "Pages" section of the "Print Range" dialog box.

CO-11a Part 1, Change Order Justification (A/E's Justification)

Part 1 of the CO-11a is completed by the A/E to:

- provide a brief narrative summary of work to be performed
- explain why the change is required
- identify the A/E's recommendation to the Agency

- 1 Describe the work.
- 2 Describe why change is required.
- 3 Use the drop-down arrow to select either "Recommend Approval" or "Recommend Disapproval".
- 4 Print out the CO-11a Part 1 and obtain signature of the authorized A/E representative.

CO-11a Part 2, Change Order Justification (Agency's Justification)

Part 2 of the CO-11a is completed by the Agency to:

- verify that adequate contingency is available
- identify cost sharing arrangements for design errors or omissions
- justify Change Orders which are a result of a change in agency requirements

- 1 Enter the latest APPROVED CO-8 Contingency amount.

If sufficient contingency is available to accommodate this Change Order, the balance remaining after approval of this Change Order will be displayed.

If the contingency balance is insufficient, the minimum amount of additional contingency required to accommodate this Change Order will be displayed. Submit a revised CO-8 concurrent with the Change Order to increase the construction change order contingency amount.

- 2 Complete the two items of information needed for Change Orders which involve "design errors and omissions".
- 3 Complete the four items of information needed for Change Orders which involve "changes in agency requirements".
- 4 Print out the CO-11a Part 1 and obtain signature of the authorized Agency representative.

CO-11a Part 3, Change Order Justification (Agency's Justification)

Part 3 of the CO-11a is a statistical summary compiled automatically from the entries on Part 2 of the CO-11.

- 1 Verify that the total on this sheet matches the total Change Order amount. If the total on this sheet is incorrect, return to Part 2 of the CO-11 sheet and ensure that all lines with an "Amount" have a corresponding "Reason Code".
- 2 Once correct, print out a copy of this sheet.

III. SUBMITTAL REQUIREMENTS

If approval by DGS is required:

Submit a "hard copy" of all items identified on the Submittal Requirements section of the Transmittal to DEB immediately after all other applicable signatures have been obtained.

Include copies of additional supporting backup (e.g., GC-1, SC-1, and SS-1 forms, if used, drawings/sketches, and other additional backup). This is necessary to provide the Director of the Department of General Services, functioning as the Governor's Designee, sufficient data to understand, evaluate, and approve the proposed Change Order.

If approval by DGS is not required:

CHANGE ORDER LOG:

Updated thru Change Order Number: 0

<u>Change Order Number</u>	<u>Change Order Date</u>	<u>Change Order Amount</u>	<u>Schedule Extension (days)</u>	<u>Governor's Designee's Approval Required?</u>	<u>Cumulative Change Orders</u>	<u>Revised Contract Value</u>	<u>Cumul. Schedule Extension (days)</u>	<u>Revised Contract Completion Date</u>
------------------------------------	----------------------------------	------------------------------------	--	---	---	---------------------------------------	---	---

<u>Project Code</u>	<u>Change Order Number</u>	<u>Change Order Date</u>
		#N/A

	<u>Code</u>	<u>Description</u>
Agency:	0	0
Project:	0	0
Sub-Project:	0	
To:	0	

Under your contract dated January 0, 1900 for work at

0

#

the Contract Price, in accordance with the Contract Documents, the sum of

#N/A

#VALUE!

#

#

Failure to include a specific change in the Contract Completion Date in this Change Order is a waiver to any future adjustment to the Contract Completion Date for the Work and impact of this Change Order unless the parties mutually agree in writing to postpone a determination on any change to the Contract Completion Date, which determination may not be postponed for more than 45 days from the Agency's approval of this Change Order. If no determination is reached within the 45-day period, the extension to the Contract Completion Date shall be 0 Days.

CONTRACT COST SUMMARY

(inclusive of this Change Order)

Original Contract Amount	\$0.00
Cumulative Change Orders	#N/A
Revised Contract Amount	#N/A

CONTRACT SCHEDULE SUMMARY

(inclusive of this Change Order)

Original Contract Completion Date:	January 0, 1900
Cumulative Schedule Extension:	#N/A
Revised Contract Completion Date:	#N/A

CHANGE AUTHORIZATION

Authorized A/E Representative

Date

Authorized Contractor Representative

Date

Authorized Agency Representative

Date

Authorized Agency Representative

Date

Prior approval by the Governor or his designee is required for each Change Order which causes an increase in the Contract Price if the resulting cumulative sum of all Change Orders exceeds **25% of the original Contract Amount** or **\$50,000, whichever is greater.**

#N/A

Recommended By:

Director, Division of Engineering and Buildings

Date

Approved By:

Director, Department of General Services

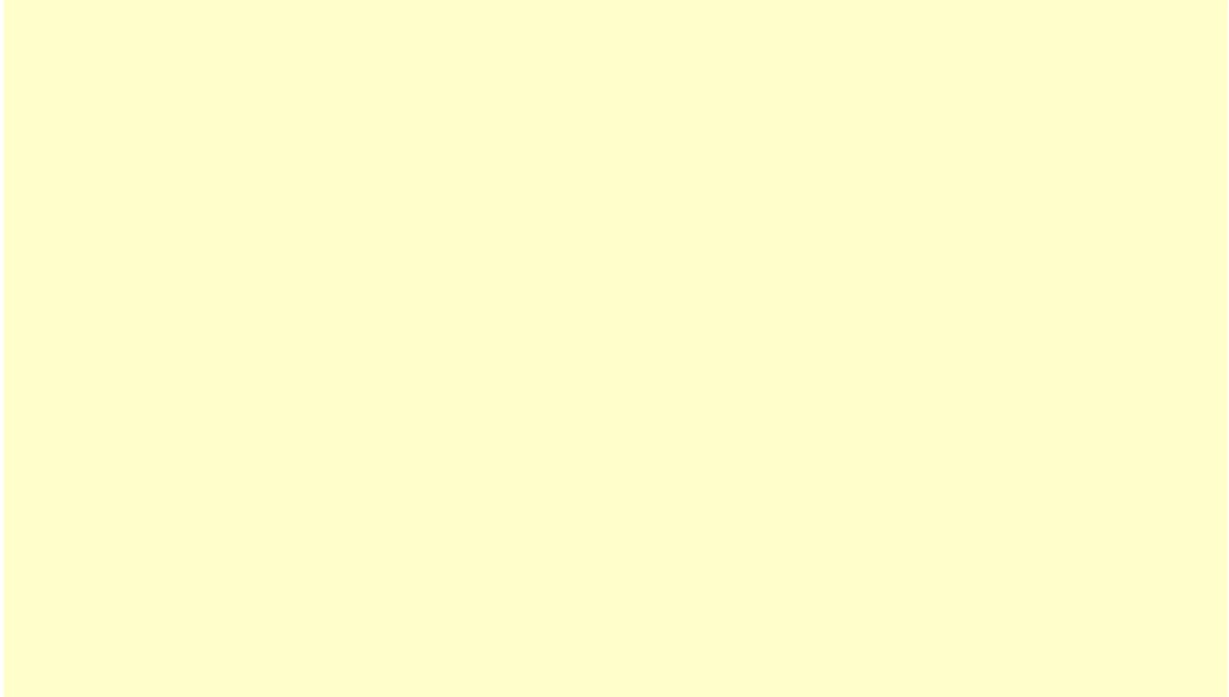
Date

<u>Reference Number</u>	<u>Description / Comments</u>	<u>Initiated By</u>	<u>Reason Code</u>	<u>Amount</u>

* - If an asterisk appears adjacent to an "Amount" entry, this indicates the "Initiated By" or "Reason for Change" field(s) have not been filled-in properly. Please enter the appropriate values in both of these fields.

<u>Project Code</u>	<u>Change Order Number</u>	<u>Change Order Date</u>
	0	#N/A

A/E's DESCRIPTION OF WORK INVOLVED



A/E's EXPLANATION OF WHY WORK IS REQUIRED



A/E's RECOMMENDATION

Select One

Architect / Engineer

Date

<u>Project Code</u>	<u>Change Order Number</u>	<u>Change Order Date</u>
	0	#N/A

ADDITIONAL CONTINGENCY REQUIRED ?

Construction Contingency Amount Shown on Last Approved CO-8:	
Cumulative Amount Of All Change Orders To-Date, Inclusive Of This Change Order:	#N/A
#N/A	#N/A

Remarks: _____

COST SHARING FOR DESIGN ERRORS AND OMISSIONS

Is this change order required in whole, or in part, because of a design error or omission? No

If "Yes", outline the proposed cost sharing, if any, by the responsible design professional:

ADDITIONAL SUPPORT FOR CHANGES IN AGENCY REQUIREMENTS

1) When was the change in requirements (function, mission) known?

2) If known before construction bidding, why were the needed changes excluded from the bid package?

3) What quantitative impact would the lack of this change have on the mission or service provided by the agency?

4) Why can the work not be packaged and bid separately?

By: _____
Agency Representative

_____ Date

CHANGE ORDER JUSTIFICATION
(Statistical Summary)

<u>Project Code</u>	<u>Change Order Number</u>	<u>Change Order Date</u>
	0	#N/A

<u>Reason Code</u>		<u>Amount</u>	<u>Reason Code Description</u>
1	\$	-	1 - Unforeseen site conditions
2	\$	-	2 - Existing building or utility conditions not as shown
3	\$	-	3 - Change in agency's requirements
4	\$	-	4 - Substitution or alternate method
5	\$	-	5 - Item not as shown or specified
6	\$	-	6 - Conflict or discrepancy in requirements
7	\$	-	7 - Other.
Total	\$	-	

Transmittal for DEB Review Services

PROJECT	Project Code:	0	-	0	-	0	Date Submitted:		
	Agency:	0							
	Project Title:	0							
	Subproject Title:	0							
	Remarks:								

CONTACTS		Agency Contact	Architect/Engineer Contact
	Agency/Firm Name:		
	Contact Name:		
	Contact Phone #:		
	Contact E-mail:		

SUBMITTAL REQUIREMENTS	Construction Change Order	Total Construction Change Orders exceed:		
		25% of the original Contract Price or \$50,000, whichever is greater	50% of the original Contract Price or \$500,000, whichever is greater	100% of the original Contract Price or \$1,000,000, whichever is greater
		(Identify the number of copies of each document submitted in the boxes below)		
	Cover letter with description of change and indication if work is already complete.			
	Use form DGS-30-092 (CO-11)			
	Use form DGS-30-096 (CO-11a)			
	Use form DGS-30-200 (GC-1)			
	Use form DGS-30-204 (SC-1) as needed			
	Use form DGS-30-208 (SS-1) as needed			
	Cover letter must be from agency head.	 	 	
DEB Recommends and emergency declaration in the manner provided in § 2.2-4303	 	 	 	

ADDITIONAL INFORMATION		Yes	No
	Are funds available within the project to cover the added costs that this change order will cause?		
	Does this change order add sq. ft. to the project?		
	If yes, specify total sq. ft. added		

ADDITIONAL INFORMATION	Provide a description of the key factors that caused the aggregate construction change orders to increase the contract by this magnitude.

GENERAL CONTRACTOR ESTIMATE FOR CHANGE ORDER

DGS-30-200
(Rev. 03/16)

GC-1

Project Code: _____	General Contractor: _____
Agency: _____	Change Description: _____
Project: _____	

GENERAL CONTRACTOR DIRECT COSTS													
Scope Description		Direct Labor				Direct Material				Direct Equipment			
Item No.	Description	Direct Labor Hours	Labor Units (Manhours, Crew Hours)	Hourly Wage Rate, Excl. Taxes & Ins.	Total Labor Cost	Quantity	Qty Units	Material Cost Per Unit	Total Material Cost	Quantity	Qty Units	Equipment Cost Per Unit	Total Equipment Cost
A	B	C	D	E	F=C x E	G	H	I	J = G x I	K	L	M	N = K x M
1.01					\$0.00	1.00		\$100.00	\$100.00				\$0.00
1.02					\$0.00				\$0.00				\$0.00
1.03					\$0.00				\$0.00				\$0.00
1.04					\$0.00				\$0.00				\$0.00
1.05					\$0.00				\$0.00				\$0.00
1.06					\$0.00				\$0.00				\$0.00
1.07					\$0.00				\$0.00				\$0.00
1.08					\$0.00				\$0.00				\$0.00
1.09	Subtotal from Estimate Continuation Sheets				\$0.00				\$0.00				\$0.00
1.97	Subtotal (S/T) Direct Costs:				Subtotal Labor	\$0.00		Subtotal Material	\$100.00		Subtotal Equipment	\$0.00	
1.98	Taxes/Insurance:				FICA, FUI, SUI, & Workmens' Comp. _____ % of Labor	\$0.00		Sales Tax _____ 0.0%			Sales Tax _____		
1.99	Total Direct Costs				Total Labor	\$0.00		Total Material	\$100.00		Total Equipment	\$0.00	\$0.00

SUBCONTRACT COSTS		
Item No.	Subcontractor Name (List totals from attached SC-1 forms)	Total Cost
A	B	C
2.01		
2.02		
2.03		
2.04		
2.05		
2.06		
2.07		
2.08		
2.09		
2.99	Total Subcontract Costs	\$0.00

SUMMARY			
Item No.	Description		Total Cost
3.01	Total Direct Labor Cost	Item 1.99H	\$0.00
3.02	Total Direct Material Cost	Item 1.99J	\$100.00
3.03	Total Equipment Cost	Item 1.99L	\$0.00
3.04	Subtotal	3.01+3.02+3.03	\$100.00
3.05	Overhead and Profit* (%)		\$0.00
3.06	Subtotal	3.04+3.05	\$100.00
3.07	Subcontractor Cost	Item 2.99	\$0.00
3.08	GC Markup on Subcontractors** (%)		\$0.00
3.09	Subtotal	3.06+3.07+3.08	\$100.00
3.10	Additional Bond Cost		
3.99	Total Change Order Cost	(3.09+3.10)	\$100.00

Name: _____

Signature: _____

Title: _____

Date: _____

I have reviewed the costs proposed and find them to be reasonable (as proposed) (as marked).

A/E Signature: _____

Note: Mark-up is capped in conformance with the provisions of the General Conditions (CO-7).

*Limited to 15% on self-performed work.

**Limited to a total of 10%, shared (cumulative total) if multiple tier subs, on subcontracted work. See Mark-up limitations for a more detailed description.

The general conditions limit mark-ups on as follows:

The percentage for overhead and profit to be used in calculating both additive and deductive changes in the Work (other than changes covered by unit prices) shall not exceed the percentages for each category listed below. Said percentages for overhead and profit shall be applied only on the net cost of the changed Work (i.e. difference in cost between original and revised Work):

(1) If a Subcontractor does all or part of the changed Work, the Subcontractor's markup for overhead and profit on the Work it performs shall be a maximum of fifteen percent (15%). The Contractor's mark-up on the subcontractor's price shall be a maximum of ten percent (10%).

(2) If the Contractor does all or part of the changed Work, its markup for overhead and profit on the changed Work it performs shall be a maximum of fifteen percent (15%).

(3) If a Sub-subcontractor at any tier does all or part of the changed Work, the Sub-subcontractor's markup on that Work shall be a maximum of fifteen percent (15%). The markup of a sub-subcontractor's Work by the Contractor and all intervening tiers of Subcontractors shall not exceed a total of ten percent (10%).

SUBCONTRACTOR ESTIMATE FOR CHANGE ORDER

SC-1

DGS-30-204
(Rev. 03/16)

Project Code: _____ General Contractor: _____
 Agency: _____ Subcontractor: _____
 Project: _____ Subcontractor Trade: _____

Change Description: _____

SUBCONTRACTOR DIRECT COSTS													
Scope Description		Direct Labor				Direct Material				Direct Equipment			
Item No.	Description	Direct Labor Hours	Labor Units (Manhours, Crew Hours)	Hourly Wage Rate, Excl. Taxes & Ins.	Total Labor Cost	Quantity	Qty Units	Material Cost Per Unit	Total Material Cost	Quantity	Qty Units	Equipment Cost Per Unit	Total Equipment Cost
A	B	C	D	E	F=C x E	G	H	I	J = G x I	K	L	M	N = K x M
1.01					\$0.00				\$0.00				\$0.00
1.02					\$0.00				\$0.00				\$0.00
1.03					\$0.00				\$0.00				\$0.00
1.04					\$0.00				\$0.00				\$0.00
1.05					\$0.00				\$0.00				\$0.00
1.06					\$0.00				\$0.00				\$0.00
1.07					\$0.00				\$0.00				\$0.00
1.08					\$0.00				\$0.00				\$0.00
1.09	Subtotal from Estimate Continuation Sheets				\$0.00				\$0.00				\$0.00
1.97	Subtotal (S/T) Direct Costs:				Subtotal Labor			Subtotal Material	\$0.00			Subtotal Equipment	\$0.00
1.98	Taxes/Insurance:				FICA, FUI, SUI, & Workmens' Comp. _____ % of Labor	\$0.00		Sales Tax _____				Sales Tax _____	
1.99	Total Direct Costs				Total Labor	\$0.00		Total Material	\$0.00			Total Equipment	\$0.00

SUB-SUBCONTRACT COSTS		
Item No.	Sub-Subcontractor Name (List totals from attached SS-1 forms)	Total Cost
A	B	C
2.01		
2.02		
2.03		
2.04		
2.05		
2.06		
2.99	Total Sub-Subcontract Costs	\$0.00

SUMMARY				
Item No.	Description			Total Cost
3.01	Total Direct Labor Cost	Item 1.99H		\$0.00
3.02	Total Direct Material Cost	Item 1.99J		\$0.00
3.03	Total Equipment Cost	Item 1.99L		\$0.00
3.04	Subtotal	3.01+3.02+3.03		\$0.00
3.05	Overhead and Profit* (%)			\$0.00
3.06	Total Subcontractor Cost	3.04+3.05		\$0.00
3.07	Sub-Subcontractor Cost**	Item 2.99		\$0.00
3.99	S/C Cost to GC-1 Form***	3.06+3.07		\$0.00

Submitted By

Name: _____

Signature: _____

Title: _____

Date: _____

Note: [Mark-up is capped in conformance with the provisions of the General Conditions \(CO-7\).](#)

*Limited to 15% on self-performed work.

**Limited to a total of 10%, shared (cumulative total) if multiple tier subs, on subcontracted work. Total mark-up on subcontracted work is calculated on the GC-1 form. See mark-up limitations for a more detailed description.

*** The subcontractor cost carried forward to GC-1 form does not include mark-up on sub-subcontractor costs. This mark-up is calculated on the GC-1 form. The GC and its subcontractors shall establish how the mark-up is to be distributed among the various subcontractors involved in the work.

The general conditions limit mark-ups on as follows:

The percentage for overhead and profit to be used in calculating both additive and deductive changes in the Work (other than changes covered by unit prices) shall not exceed the percentages for each category listed below. Said percentages for overhead and profit shall be applied only on the net cost of the changed Work (i.e. difference in cost between original and revised Work):

(1) If a Subcontractor does all or part of the changed Work, the Subcontractor's markup for overhead and profit on the Work it performs shall be a maximum of fifteen percent (15%). The Contractor's mark-up on the subcontractor's price shall be a maximum of ten percent (10%).

(2) If the Contractor does all or part of the changed Work, its markup for overhead and profit on the changed Work it performs shall be a maximum of fifteen percent (15%).

(3) If a Sub-subcontractor at any tier does all or part of the changed Work, the Sub-subcontractor's markup on that Work shall be a maximum of fifteen percent (15%). The markup of a sub-subcontractor's Work by the Contractor and all intervening tiers of Subcontractors shall not exceed a total of ten percent (10%).

SUB-SUBCONTRACTOR ESTIMATE FOR CHANGE ORDER

SS-1

DGS-30-208
(Rev. 03/16)

Project Code: _____ General Contractor: _____
 Agency: _____ Subcontractor: _____
 Project: _____ Sub-Subcontractor: _____
 Sub-Subcontractor Trade: _____

Change Description: _____

SUB-SUBCONTRACTOR DIRECT COSTS													
Scope Description		Direct Labor				Direct Material				Direct Equipment			
Item No.	Description	Direct Labor Hours	Labor Units (Manhours, Crew Hours)	Hourly Wage Rate, Excl. Taxes & Ins.	Total Labor Cost	Quantity	Qty Units	Material Cost Per Unit	Total Material Cost	Quantity	Qty Units	Equipment Cost Per Unit	Total Equipment Cost
A	B	C	D	E	F=C x E	G	H	I	J = G x I	K	L	M	N = K x M
1.01					\$0.00				\$0.00				\$0.00
1.02					\$0.00				\$0.00				\$0.00
1.03					\$0.00				\$0.00				\$0.00
1.04					\$0.00				\$0.00				\$0.00
1.05					\$0.00				\$0.00				\$0.00
1.06					\$0.00				\$0.00				\$0.00
1.07					\$0.00				\$0.00				\$0.00
1.08					\$0.00				\$0.00				\$0.00
1.09	Subtotal from Estimate Continuation Sheets				\$0.00				\$0.00				\$0.00
1.97	Subtotal (S/T) Direct Costs:			Subtotal Labor	\$0.00			Subtotal Material	\$0.00			Subtotal Equipment	\$0.00
1.98	Taxes/Insurance:	FICA, FUI, SUI, & Workmens' Comp. _____ % of Labor			\$0.00			Sales Tax _____				Sales Tax _____	
1.99	Total Direct Costs			Total Labor	\$0.00			Total Material	\$0.00			Total Equipment	\$0.00

SUMMARY			
Item No.	Description		Total Cost
3.01	Total Direct Labor Cost	Item 1.99H	\$0.00
3.02	Total Direct Material Cost	Item 1.99J	\$0.00
3.03	Total Equipment Cost	Item 1.99L	\$0.00
3.04	Subtotal	3.01+3.02+3.03	\$0.00
3.05	Overhead and Profit* (%)		\$0.00
3.99	Total Sub-Subcontractor		\$0.00

Submitted By

Name: _____
 Signature: _____
 Title: _____
 Date: _____

Note: Mark-up is capped in conformance with the provisions of the General Conditions (CO-7).
 *Limited to 15% on self-performed work. See Mark-up limitations for a more detailed description.

The general conditions limit mark-ups on as follows:

The percentage for overhead and profit to be used in calculating both additive and deductive changes in the Work (other than changes covered by unit prices) shall not exceed the percentages for each category listed below. Said percentages for overhead and profit shall be applied only on the net cost of the changed Work (i.e. difference in cost between original and revised Work):

(1) If a Subcontractor does all or part of the changed Work, the Subcontractor's markup for overhead and profit on the Work it performs shall be a maximum of fifteen percent (15%). The Contractor's mark-up on the subcontractor's price shall be a maximum of ten percent (10%).

(2) If the Contractor does all or part of the changed Work, its markup for overhead and profit on the changed Work it performs shall be a maximum of fifteen percent (15%).

(3) If a Sub-subcontractor at any tier does all or part of the changed Work, the Sub-subcontractor's markup on that Work shall be a maximum of fifteen percent (15%). The markup of a sub-subcontractor's Work by the Contractor and all intervening tiers of Subcontractors shall not exceed a total of ten percent (10%).

DGS-30-104 (FORM CO-12) (Rev. 01/16)	SCHEDULE OF VALUES and CERTIFICATE FOR PAYMENT	PAYMENT REQUEST NO. 1	
PART A SUMMARY AND CERTIFICATION		PERIOD BEGINNING DATE: 01/00/1900 PERIOD ENDING DATE: 01/00/1900	



PROJECT CODE: 0
AGENCY NAME: 0
PROJECT TITLE: 0

	TOTAL VALUE	VALUE OF WORK COMPLETED			PERCENT COMPLETE
		PREVIOUS VALUE TO DATE	VALUE THIS REPORT	CURRENT VALUE TO DATE	
	A	B	C	D = B + C	E = D / A
Original Contract Line Items (from CO-12, PART B)	\$ -	\$ -	\$ -	\$ -	0%
Approved Change Orders (from CO-12, PART C)	\$ -	\$ -	\$ -	\$ -	0%
ADJUSTED CONTRACT TOTAL	\$ -	\$ -	\$ -	\$ -	0%
Retainage <i>Retainage Percentage: #DIV/0!</i>		\$ -	\$ -	\$ -	
NET REQUISITION AMOUNT		\$ -	\$ -	\$ -	

CONTRACTOR CERTIFICATION

The undersigned Contractor requests payment of that portion of the contract price shown on the last line of the foregoing Schedule of Values, and represents and warrants to the Owner that: (1) the data shown on the Schedule of Values is accurate and correct; (2) the Work covered by this Certificate has been completed in accordance with the Contract Documents; (3) all previous progress payments received from Owner on account of Work done under this Contract have been applied to discharge in full (except for allowable retainage) all obligations of Contractor incurred in connection with Work covered by prior Certificates for Payment (not applicable for Pay Request 1) ; (4) title to all materials and equipment for which payment is requested in this Certificate, whether or not incorporated in said Work, will pass to Owner at time of payment free and clear of all liens, claims, security interests and encumbrances (except such materials and equipment which are covered by a Bond previously accepted by Owner).

FEIN #: *** enter FEIN in Step 2 *** **Contractor:** *** enter Contractor name in Step 2 ***
Date: January 0, 1900 **By:** _____
signature
Typed Name: *** enter Contractor Representative's Name in Step 3 ***

ARCHITECT/ENGINEER CERTIFICATION

This is to certify that, in accordance with the terms of a contract for Project Number _____ executed the day of _____, by and between _____, the contractor, and the Commonwealth of Virginia, _____, the Owner, for work at _____, there is due to the Contractor the amount of No Dollars and No Cents \$.00

Architect/Engineer:

By: _____
signature *printed name* *date*

AGENCY ACTION

Amount approved for payment this certificate is: _____ Dollars (_____)

By: _____
signature *title* *date*

By: _____
signature *title* *date*

COMMONWEALTH OF VIRGINIA
AFFIDAVIT OF PAYMENT OF CLAIMS

By:

This day _____ personally appeared before me,
_____, a Notary Public in and for
the City (County) of _____, _____ and, being by me
first duly sworn, states that all subcontractors and suppliers of labor and materials have been paid all sums due
them for work performed or materials furnished in the performance of the Contract between the Commonwealth
of Virginia, _____, Owner,
and _____, Contractor, dated
_____, 20____, for the construction of _____

or arrangements have been made by the Contractor satisfactory to such subcontractors and suppliers with respect
to payments of such sums as may be due them by the Contractor.

Typed Contractor Name

By:

Signature

Typed Name & Title of Person Signing

Subscribed and sworn to before me this _____ day of _____, 20____. My commission expires on
the _____ day of _____, 20____.

Notary Public



CERTIFICATE OF COMPLETION BY ARCHITECT/ENGINEER

TO: University Building Official
230 Sterrett Drive, Suite 30A
Blacksburg, VA 24061

Date: _____

PROJECT TITLE: _____

PROJECT #: _____

INSTITUTION/AGENCY: _____

ADDRESS: _____

In accordance with the requirements of the Contract Between Owner and Architect/Engineer for Professional Services (CO-3) or the Contract Between Owner and Project Manager and based upon the knowledge gained in the performance of the services required in said Agreement, the undersigned hereby states that the above-named project was fully completed in accordance with the requirements of the Contract Documents on _____.

All applicable tests, certificates and regulatory inspections required by the _____ Edition of the Virginia Uniform Statewide Building Code, which was the basis of the design of the project, have been performed and the Owner has been provided with a copy of each report. A copy of the Final Report of Structural & Special Inspections (HECO-13.1b) is attached to this certificate. All deficiencies noted during the inspection have been corrected or resolved.

The accessibility standards required by Chapter 4 of the applicable A/E manual, as revised, have been met.

The Owner has been provided with a copy of all warranties and guarantees, including the starting date(s) of all warranties and guarantees, written and unwritten, required by the Contract Documents.

ARCHITECT OF RECORD

CO. NAME: _____

PHONE: _____



(SEAL & SIGNATURE)

(DATE)

Attachments:
Final Report of Structural & Special Inspections (HECO-13.1b)



Rev. 02/25

CERTIFICATE OF SUBSTANTIAL COMPLETION BY ARCHITECT/ENGINEER

TO: University Building Official
230 Sterrett Drive, Suite 30A
Blacksburg, VA 24061

Date: _____

PROJECT TITLE: _____

PROJECT #: _____

INSTITUTION/AGENCY: _____

ADDRESS: _____

In accordance with the requirements of the Agreement between the Owner and the Architect / Engineer and based upon the knowledge gained in the performance of the architectural / engineering services provided in said Agreement and the reports of the Owner's Inspection and Testing entities, the undersigned Architect / Engineer states that the following portions of the project named above are substantially complete in accordance with the requirements of the Contract Documents and are recommended for occupancy: (Indicate portions which are recommended for occupancy)

All applicable tests, certificates and regulatory inspections required by the _____ edition of the Virginia Uniform Statewide Building Code, which was the basis of the design of the project, have been performed with respect to the substantially completed portions of the project and the Owner has been provided with a copy of each report, except for the following:

The handicapped standards required by Chapter 4 of the applicable A/E Manual, as revised, have been met. A copy of the Final Report of Structural & Special Inspections, Form HECO-13.1b, is attached to this certificate.

A tentative list of unfinished Work and defective Work, referred to as the "punch list", is attached hereto. This list may not be all-inclusive, and the failure to include an item in it does not alter the responsibility of CONTRACTOR to complete all the Work in accordance with the Contract Documents. The items in the tentative list shall be completed or corrected by CONTRACTOR within _____ days of the above date of Substantial Completion.

Submitted By:

Firm Name _____ Date: _____

Signature: _____ Printed Name/Title _____

Attachments:

- Final Report of Structural & Special Inspections (HECO-13.1B)
- Checklist for Beneficial Occupancy (HECO-13.3B)
- Punch list containing page 1 through _____.



Rev. 05/25

FINAL REPORT OF STRUCTURAL AND SPECIAL INSPECTIONS

PROJECT TITLE: _____

PROJECT #: _____

Institution/Agency: _____

A/E OF RECORD: _____

To the best of my information, knowledge, and belief, the Structural and Special Inspections required for this project, and itemized in the Form HECO-6b, Special Inspections listing attached to the Form HECO-6a, Statement of Structural and Special Inspections, submitted for permit have been completed.

The discrepancies that remain outstanding since the last interim report dated: _____, are corrected or have been resolved as follows:

Attach continuation sheet(s) if required to complete the description of corrections or resolution of deviations.

Respectfully Submitted,

STRUCTURAL ENGINEER OF RECORD

A/E OF RECORD

SMOKE CONTROL RDP

CO. NAME: _____ CO. NAME _____ CO. NAME _____

PHONE: _____ PHONE: _____ PHONE: _____



(SEAL & SIGNATURE)

(DATE) (SEAL & SIGNATURE)

(DATE) (SEAL & SIGNATURE)

(DATE)

Rev. 07/21

CERTIFICATE OF PARTIAL OR SUBSTANTIAL COMPLETION BY CONSTRUCTION INSPECTOR, MANAGER, or ADMINISTRATOR

TO: University Building Official
230 Sterrett Facilities Complex, 30A (0529)
Blacksburg, VA 24061

Date: _____

PROJECT TITLE: _____
PROJECT NO: _____
INSTITUTION/AGENCY: _____
ADDRESS: _____

In accordance with the requirements of the Agreement between the Owner and the Construction (Inspector) (Manager) (Administrator) and based upon the knowledge gained in the performance of the construction period services required in said Agreement, the undersigned hereby states that the following portions of this project appear to be substantially completed in accordance with the requirements of the Contract Documents, the approved shop drawings and submittals, and the approved Change Orders and are recommended for occupancy: *(list or describe areas)*

The Special Inspections required by Form HECO-6b have been performed and all deviations noted have been reported to the A/E for appropriate action or resolution. All other applicable tests, certificates and regulatory inspections required by the _____ edition of the Virginia Uniform Statewide Building Code, which was the basis of the design of the project, have been performed with respect to the substantially completed portions of the project and the Owner has been provided with a copy of each report, except for the following:

The handicapped accessibility features including clearances and fixture mounting heights required by Contract Documents have been inspected and the requirements have been met.

A tentative list of unfinished Work and defective Work as noted in the Substantial Completion Inspection, referred to as the "punch list", is attached hereto. This list may not be all-inclusive, and the failure to include an item in it does not alter the responsibility of CONTRACTOR to complete all the Work in accordance with the Contract Documents.

(Typed Firm Name)

By: _____
(Signature in ink)

(Typed Name & Title)

The following documents are attached to and made a part of this Certificate: (list)
- Checklist for Beneficial Occupancy (Form CO-13.3b)



Rev. 02/25

CERTIFICATE OF COMPLETION BY CONTRACTOR

TO: University Building Official
230 Sterrett Drive, Suite 30A
Blacksburg, VA 24061

Date: _____

PROJECT TITLE: _____

PROJECT #: _____

CONTRACTOR NAME: _____

CONTRACTOR LICENSE #: _____

In accordance with the requirements of the Contract between Owner and Contractor (Form CO-9), the undersigned Contractor hereby states that the above-named project has been fully completed in accordance with the requirements of the Contract Documents as modified by approved change orders.

All applicable tests, certificates and regulatory inspections required by the Virginia Uniform Statewide Building Code and the Contract Documents have been performed with respect to the completed project and the Owner has been provided with a copy of each report.

As-built marked up prints of the completed project have been provided to the Architect/Engineer as required by the Contract Documents.

The Owner has been provided with a copy of all warranties and guarantees, including the starting date(s) of all warranties and guarantees, written and unwritten, required by the Contract Documents.

All training, operating instructions and maintenance manuals required by the Contract Documents have been provided to the Owner.

Submitted By:

Contractor Signature: _____ Date: _____

Printed Name/Title _____

CC: Project Manager
A/E



Rev. 02/25

CERTIFICATE OF PARTIAL OR SUBSTANTIAL COMPLETION BY CONTRACTOR

TO: University Building Official
230 Sterrett Drive, Suite 30A
Blacksburg, VA 24061

Date: _____

PROJECT TITLE: _____

PROJECT #: _____

CONTRACTOR NAME: _____

CONTRACTOR LICENSE #: _____

In accordance with the requirements of the Agreement between the Owner and the Contractor, the undersigned Contractor hereby states that portions of the above-named project are substantially completed in accordance with the requirements of the Contract Documents as modified by approved change orders. Those portions of the project now substantially complete are: (list or describe)

All applicable tests, certificates and regulatory inspections required by the Virginia Uniform Statewide Building Code and the Contract Documents have been performed with respect to the substantially completed portions of the project and the Owner has been provided with a copy of each report. As-built marked up prints of the substantially completed portions of the project have been provided to the Architect/Engineer as required by the Contract Documents.

The Owner has been provided with a copy of all warranties and guarantees, including the starting date(s) of all warranties and guarantees, written and unwritten, required by the Contract Documents with respect to the completed portions of the project, except as follows:

All training, operating instructions and maintenance manuals required by the Contract Documents have been provided to the Owner, except as follows: (list or describe)

This certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of CONTRACTOR's obligation to complete the Work in accordance with the Contract Documents.

Submitted By:

Contractor Signature: _____ Date: _____

Printed Name/Title _____

Checklist for Occupancy (Beneficial) (Set up) (Partial)

Building Permit #: _____ Workorder #: _____ PC #: _____

Building: _____

Floor(s): _____ Area: _____ sq. ft.

Spaces (to be occupied, if not full building): _____

Date when completed. Comments/Explanations to right of question. Items not in project use N/A.

- _____ Floor covering/finish complete?
- _____ Convenience Lighting operable?
- _____ Emergency lighting operable?
- _____ Electrical circuits operable?
- _____ Electrical face plates/cover plates installed?
- _____ HVAC operable and properly functioning?
- _____ Exhaust systems operable and properly functioning (includes hoods, fire dampers and smoke detectors)?
- _____ Lab gases properly installed and operable?
- _____ Water system disinfected, portable and operable?
- _____ Cold water available at all fixtures?
- _____ Hot water available at all fixtures?
- _____ Bacteria Test Complete and document submitted?
- _____ Sprinkler system tested and properly functioning?
- _____ NFPA 13 document signed and submitted?
- _____ Fire alarm system tested and properly functioning?
- _____ NFPA 72 document signed and submitted?
- _____ Fire alarm system on network?
- _____ Proper hardware functioning on all fire separation and egress doors?
- _____ Interior EXITWAYS clear and unobstructed?
- _____ Stairs conform to VUSBC and ADAAG requirements?
- _____ Exterior EXITWAY clear and unobstructed?
- _____ Statement of Special Inspections Final Report complete and submitted?
- _____ Fire Marshal Inspection report recommending occupancy?
- _____ University Building Official Office Final Inspection complete with no objections?
- _____ Elevator inspected and approved by elevator inspector?
- _____ Elevator inspected and approved by State Fire Marshal's Office?

Project Manager Signature: _____ Date: _____

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Project information.
 - 2. Work covered by Contract Documents.
 - 3. Access to site.
 - 4. Coordination with occupants.
 - 5. Work restrictions.
 - 6. Proposed Schedule

1.3 PROJECT INFORMATION

- A. Project Identification: Virginia Tech Military Building Tailor Shop Project; Va Tech Project Code: 25-754816
 - 1. Project Location:
 - Va Tech
 - Military Building
 - 320 Stanger St.
 - Blacksburg, Virginia 24061
- B. Owner: Virginia Tech
- C. Architect-Engineer: AECOM; 10 South Jefferson Street; Suite 1600; Roanoke VA 24011.

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents.

1.5 ACCESS TO SITE

- A. General: Contractor to coordinate access to the site with owner's building operations during construction period. Contractor's use of Project site is limited only by Owner's right to perform work or to retain other contractors on portions of Project.

- B. Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Driveways, Walkways and Entrances: Keep driveways, parking areas, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or for storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- C. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.

1.6 COORDINATION WITH OCCUPANTS

- A. Full Owner Occupancy: Owner will occupy adjacent building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
 - 1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
 - 2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.

1.7 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - 1. Notify Owner not less than two days in advance of proposed utility interruptions.
 - 2. Obtain Owner's written permission before proceeding with utility interruptions.
- C. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
- D. Safety:

1. The Contractor shall comply with Virginia Tech’s Safety Requirements for Contractors and Subcontractors Program, which is incorporated by reference. Copies of this program are available from the Owner or may be downloaded at www.ehss.vt.edu.

1.8 PROPOSED SCHEDULE

- A. Contractor to work with VT Renovations PM to develop a construction schedule that is coordinated with VT operations. Proposed schedule is as follows:

	Task	Date	Time
	Issue IFB	Wednesday, December 17, 2025	
	Pre-Bid Meeting	Wednesday, January 14, 2026	10a
	Pre-Bid RFIs from Bidders	Monday, January 19, 2026	10a
	Pre-Bid RFIs Answers	Friday, January 23, 2026	
	Bids Due	Wednesday, February 4, 2026	10a
	Bid Opening	Thursday, February 5, 2026	10a
	NTP	Issuance of PO ~30 days from Bid Opening	
Single Phased Mobilization	Construction Starts (Both Phases)	Monday, August 3, 2026	
	Substantial Completion	Friday, April 9, 2027	
	Final Completion	Thursday, May 20, 2027	
Two Phased Mobilization	Construction Starts Phase 1	Monday, August 3, 2026	
	Phase 1 Substantial Completion	Friday, December 4, 2026	
	Construction Starts Phase 2	Monday, January 4, 2027	
	Phase 2 Substantial Completion	Friday, May 7, 2027	
	Final Completion	Thursday, June 17, 2027	

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.

1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.4 ACTION SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: Use a form provided by Architect.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.

- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.6 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.

1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

- a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
- b. Substitution request is fully documented and properly submitted.
- c. Requested substitution will not adversely affect Contractor's construction schedule.
- d. Requested substitution has received necessary approvals of authorities having jurisdiction.
- e. Requested substitution is compatible with other portions of the Work.
- f. Requested substitution has been coordinated with other portions of the Work.
- g. Requested substitution provides specified warranty.
- h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

B. Substitutions for Convenience:

1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

- a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
- b. Requested substitution does not require extensive revisions to the Contract Documents.
- c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
- d. Substitution request is fully documented and properly submitted.
- e. Requested substitution will not adversely affect Contractor's construction schedule.
- f. Requested substitution has received necessary approvals of authorities having jurisdiction.
- g. Requested substitution is compatible with other portions of the Work.
- h. Requested substitution has been coordinated with other portions of the Work.

- i. Requested substitution provides specified warranty.
- j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General coordination procedures.
 - 2. Coordination drawings.
 - 3. RFIs.
 - 4. Digital project management procedures.
 - 5. Project meetings.

1.3 DEFINITIONS

- A. RFI: Request for Information. Request from Owner Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

1.4 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
 - 1. Name, address, telephone number, and email address of entity performing subcontract or supplying products.
 - 2. Number and title of related Specification Section(s) covered by subcontract.
 - 3. Drawing number and detail references, as appropriate, covered by subcontract.
- B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.
 - 1. Post copies of list in project meeting room, in temporary field office. Keep list current at all times.

1.5 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included in different Sections that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.

- B. Coordination: Each subcontractor shall coordinate its construction operations with those of other subcontractors and entities to ensure efficient and orderly installation of each part of the Work.
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components with other subcontractors to ensure maximum performance and accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.

- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's construction schedule.
 - 2. Preparation of the schedule of values.
 - 3. Installation and removal of temporary facilities and controls.
 - 4. Delivery and processing of submittals.
 - 5. Progress meetings.
 - 6. Preinstallation conferences.
 - 7. Project closeout activities.
 - 8. Startup and adjustment of systems.

1.6 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely indicated on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
 - 1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:

- a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
- b. Coordinate the addition of trade-specific information to coordination drawings by multiple subcontractors in a sequence that best provides for coordination of the information and resolution of conflicts between installed components before submitting for review.
- c. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
- d. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
- e. Show location and size of access doors required for access to concealed dampers, valves, and other controls.
- f. Indicate required installation sequences.
- g. Indicate dimensions shown on Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternative sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.

B. Coordination Drawing Organization: Organize coordination drawings as follows:

1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
2. Plenum Space: Indicate subframing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within plenums to accommodate layout of light fixtures and other components indicated on Drawings. Indicate areas of conflict between light fixtures and other components.
3. Mechanical Rooms: Provide coordination drawings for mechanical rooms showing plans and elevations of mechanical, plumbing, fire-protection, fire-alarm, and electrical equipment.
4. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
5. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
6. Mechanical and Plumbing Work: Show the following:
 - a. Sizes and bottom elevations of ductwork, piping, and conduit runs, including insulation, bracing, flanges, and support systems.
 - b. Dimensions of major components, such as dampers, valves, diffusers, access doors, cleanouts and electrical distribution equipment.
 - c. Fire-rated enclosures around ductwork.
7. Electrical Work: Show the following:
 - a. Runs of vertical and horizontal conduit 1-1/4 inches in diameter and larger.
 - b. Light fixture, exit light, emergency battery pack, smoke detector, and other fire-alarm locations.

- c. Panel board, switch board, switchgear, transformer, busway, generator, and motor-control center locations.
 - d. Location of pull boxes and junction boxes, dimensioned from column center lines.
8. Fire-Protection System: Show the following:
 - a. Locations of standpipes, mains piping, branch lines, pipe drops, and sprinkler heads.
9. Review: Architect will review coordination drawings to confirm that in general the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility. If Architect determines that coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, Architect will so inform Contractor, who shall make suitable modifications and resubmit.
10. Coordination Drawing Prints: Prepare coordination drawing prints according to requirements in Section 013300 "Submittal Procedures."

1.7 REQUEST FOR INFORMATION (RFI)

- A. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
 1. Architect will return without response those RFIs submitted to Architect by other entities controlled by Contractor.
 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
 1. Project name.
 2. Project number.
 3. Date.
 4. Name of Contractor.
 5. Name of Architect
 6. RFI number, numbered sequentially.
 7. RFI subject.
 8. Specification Section number and title and related paragraphs, as appropriate.
 9. Drawing number and detail references, as appropriate.
 10. Field dimensions and conditions, as appropriate.
 11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 12. Contractor's signature.
 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.

- C. RFI Forms: Software-generated form with substantially the same content as indicated above, acceptable to Architect
 - 1. Attachments shall be electronic files in PDF format.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond.
 - 1. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt by Architect of additional information.
 - 2. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum.
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly
 - 1. Project name.
 - 2. Name and address of Contractor.
 - 3. Name and address of Architect
 - 4. RFI number including RFIs that were returned without action or withdrawn.
 - 5. RFI description.
 - 6. Date the RFI was submitted.
 - 7. Date Architect's response was received.
 - 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
 - 9. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.
- F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect if Contractor disagrees with response.

1.8 DIGITAL PROJECT MANAGEMENT PROCEDURES

- A. PDF Document Preparation: Where PDFs are required to be submitted to Architect, prepare as follows:
 - 1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
 - 2. Name file with submittal number or other unique identifier, including revision identifier.
 - 3. Certifications: Where digitally submitted certificates and certifications are required, provide a digital signature with digital certificate on where indicated.

1.9 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.
 - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times a minimum of 10 working days prior to meeting.
 - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 - 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.

1.10 PRECONSTRUCTION MEETING

- A. General Contractor will schedule a meeting after Notice of Award.
- B. Attendance Required:
 - 1. Owner.
 - 2. Owner's Representative.
 - 3. Developer
 - 4. Architect-Engineer.
 - 5. Job Superintendent.
 - 6. Major Subcontractors.
 - 7. Special Inspector.
- C. Agenda:
 - 1. Designation of personnel representing the parties to Contract, Developer, Architect-Engineer, and General Contractor.
 - 2. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 - 3. Scheduling.
 - 4. Scheduling activities of Special Inspector and Commissioning Agent.
 - 5. Record minutes and distribute copies within five days after meeting to participants, with two copies to Architect-Engineer, Developer, Owner, participants, and those affected by decisions made.
- D. PROGRESS MEETINGS
 - 1. Schedule and administer meetings throughout progress of the Work at maximum weekly intervals.
 - 2. General Contractor will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
 - 3. Attendance Required: Job superintendent, major Subcontractors and suppliers, Developer, Architect-Engineer, Special Inspector and Commissioning Agent as appropriate to agenda topics for each meeting.
 - 4. Agenda:
 - a. Review minutes of previous meetings.
 - b. Review of Work progress.
 - c. Field observations, problems, and decisions.
 - d. Identification of problems that impede, or will impede, planned progress.

- e. Review of submittals schedule and status of submittals.
 - f. Review of off-site fabrication and delivery schedules.
 - g. Maintenance of progress schedule.
 - h. Corrective measures to regain projected schedules.
 - i. Planned progress during succeeding work period.
 - j. Maintenance of quality and work standards.
 - k. Effect of proposed changes on progress schedule and coordination.
 - l. Other business relating to Work.
5. Record minutes and distribute copies within five days after meeting to participants, with two copies to Architect-Engineer, Developer, Owner, participants, and those affected by decisions made
- E. Project Closeout Conference: Schedule and conduct a project closeout conference, at a time convenient to Owner and Architect, but no later than 90 days prior to the scheduled date of Substantial Completion.
1. Conduct the conference to review requirements and responsibilities related to Project closeout.
 2. Attendees: Authorized representatives of Owner, Owner's Commissioning Authority, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
 - a. Preparation of Record Documents.
 - b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
 4. Minutes: Entity conducting meeting will record and distribute meeting minutes.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Submittal schedule requirements.
 - 2. Administrative and procedural requirements for submittals.
- B. Related Requirements:
 - 1. Section 013100 "Project Management and Coordination" for submitting coordination drawings and subcontract list and for requirements for web-based Project software.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

1.4 SUBMITTAL SCHEDULE

- A. Submittal Schedule: Submit, as an action submittal, a list of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.
 - 1. Coordinate submittal schedule with list of subcontracts, and Contractor's construction schedule.
 - 2. Initial Submittal: Submit concurrently with startup construction schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.

3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.
 - a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.
4. Format: Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal Category: Action; informational.
 - d. Name of subcontractor.
 - e. Description of the Work covered.
 - f. Scheduled date for Architect's final release or approval.

1.5 SUBMITTAL FORMATS

A. Submittal Information: Include the following information in each submittal:

1. Project name.
2. Date.
3. Name of Architect.
4. Name of Contractor.
5. Name of firm or entity that prepared submittal.
6. Names of subcontractor, manufacturer, and supplier.
7. Unique submittal number, including revision identifier. Include Specification Section number with sequential alphanumeric identifier, and alphanumeric suffix for resubmittals.
8. Category and type of submittal.
9. Submittal purpose and description.
10. Number and title of Specification Section, with paragraph number and generic name for each of multiple items.
11. Drawing number and detail references, as appropriate.
12. Indication of full or partial submittal.
13. Location(s) where product is to be installed, as appropriate.
14. Other necessary identification.
15. Remarks.
16. Signature of transmitter.

B. Options: Identify options requiring selection by Architect.

C. Deviations and Additional Information: On each submittal, clearly indicate deviations from requirements in the Contract Documents, including minor variations and limitations; include relevant additional information and revisions, other than those requested by Architect on previous submittals. Indicate by highlighting on each submittal or noting on attached separate sheet.

D. Paper Submittals:

1. Place a permanent label or title block on each submittal item for identification; include name of firm or entity that prepared submittal.
 2. Action Submittals: Submit five paper copies of each submittal unless otherwise indicated. Architect will return four copies.
 3. Informational Submittals: Submit two paper copies of each submittal unless otherwise indicated. Architect will not return copies.
 4. Additional Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
 5. Transmittal for Submittals: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using transmittal form.
- E. PDF Submittals: Prepare submittals as PDF package, incorporating complete information into each PDF file. Name PDF file with submittal number.
- F. Submittals for Web-Based Project Software: Prepare submittals as PDF files, or other format indicated by Project software website.

1.6 SUBMITTAL PROCEDURES

- A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
1. Email: Prepare submittals as PDF package and transmit to Architect by sending via email. Include PDF transmittal form. Include information in email subject line as requested by Architect.
 - a. Architect will return annotated file. Annotate and retain one copy of file as a digital Project Record Document file.
 2. Web-Based Project Software: Prepare submittals in PDF form, and upload to web-based Project software website. Enter required data in web-based software site to fully identify submittal.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 4. Coordinate transmittal of submittals for related parts of the Work specified in different Sections so processing will not be delayed because of need to review submittals concurrently for coordination.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the

Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
3. Resubmittal Review: Allow 15 days for review of each resubmittal.
4. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow 21 days for initial review of each submittal.

D. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.

1. Note date and content of previous submittal.
2. Note date and content of revision in label or title block and clearly indicate extent of revision.
3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.

E. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

F. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

1.7 SUBMITTAL REQUIREMENTS

A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard published data are unsuitable for use, submit as Shop Drawings, not as Product Data.
2. Mark each copy of each submittal to show which products and options are applicable.
3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams that show factory-installed wiring.
 - b. Printed performance curves.

- c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 5. Submit Product Data before Shop Drawings, and before or concurrent with Samples.
- B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data
 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
 2. Paper Sheet Size: Except for templates, patterns, and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches, but no larger than 30 by 42 inches
 - a. Submissions to be digital, via email.
- C. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other materials.
 1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Permanently attach label on unexposed side of Samples that includes the following:
 - a. Project name and submittal number.
 - b. Generic description of Sample.
 - c. Product name and name of manufacturer.
 - d. Sample source.
 - e. Number and title of applicable Specification Section.
 - f. Specification paragraph number and generic name of each item.
 3. Email Transmittal: Provide PDF transmittal. Include digital image file illustrating Sample characteristics, and identification information for record.
 4. Web-Based Project Software: Prepare submittals in PDF form, and upload to web-based Project software website. Enter required data in web-based software site to fully identify submittal.
 5. Paper Transmittal: Include paper transmittal including complete submittal information indicated.
 6. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.

- a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
7. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
- a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
8. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
- a. Number of Samples: Submit three sets of Samples. Architect will retain one Sample sets; remainder will be returned.
 - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- D. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
 2. Manufacturer and product name, and model number if applicable.
 3. Number and name of room or space.
 4. Location within room or space.
- E. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- F. Design Data: Prepare and submit written and graphic information indicating compliance with indicated performance and design criteria in individual Specification Sections. Include list of assumptions and summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Number each page of submittal.

G. Certificates:

1. Certificates and Certifications Submittals: Submit a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity. Provide a notarized signature where indicated.
2. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
3. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
4. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
5. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

H. Test and Research Reports:

1. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
2. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
3. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
4. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
5. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
6. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - a. Name of evaluation organization.
 - b. Date of evaluation.
 - c. Time period when report is in effect.
 - d. Product and manufacturers' names.
 - e. Description of product.
 - f. Test procedures and results.
 - g. Limitations of use.

1.8 CONTRACTOR'S REVIEW

- A. Action Submittals and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect
- B. Contractor's Approval: Indicate Contractor's approval for each submittal with a uniform approval stamp. Include name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.
 - 1. Architect will not review submittals received from Contractor that do not have Contractor's review and approval.

1.9 ARCHITECT'S REVIEW

- A. Action Submittals: Architect will review each submittal, indicate corrections or revisions required, and return it.
 - 1. PDF Submittals: Architect will indicate, via markup on each submittal, the appropriate action
 - 2. Paper Submittals: Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action
 - 3. Submittals by Web-Based Project Software: Architect will indicate, on Project software website, the appropriate action.
- B. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Architect will submittals received from sources other than Contractor.
- F. Submittals not required by the Contract Documents will be returned by Architect without action.

1.10 OWNER'S REVIEW

- A. Interior Finishes: Product Information and Samples Submittals: Owner will review each submittal, indicate corrections or revisions required, and coordinate with architect's review. Contractor to facilitate coordination of these reviews of interior finishes.

1. PDF Submittals: Owner will indicate, via markup on each submittal, the appropriate action
2. Paper Submittals: Owner will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action
3. Submittals by Web-Based Project Software: Owner will indicate, on Project software website, the appropriate action.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

A. SUBMITTAL SCHEDULE

1. Submittals for the following shall be provided to the Architect-Engineer for review:
 - a. Finishes- To be submitted to VT Office of University Planning (OUP) and Human Nutrition, Foods and Exercise (HNFE) Faculty concurrently.
 - b. Doors and Frames
 - c. Door hardware
 - d. Casework
 - e. VAV Boxes including electric reheat coils
 - f. Temperature Controls
 - g. Sprinkler Drawings
 - h. Light Fixtures
 - i. Makeup air unit and curb
 - j. Controls with diagram of make-up air handler and sequence

END OF SECTION 013300

SECTION 014100 - SPECIAL INSPECTIONS

PART 1 – GENERAL

1.1 GENERAL REQUIREMENTS

- A. Special Inspection is a Quality Assurance program intended to ensure that the work is performed in accordance with the Contract Documents. This specification section is intended to inform the Contractor of the Owner's quality assurance program and extent of the Contractor's responsibilities. These inspections do not take the place of the testing and inspection required by other sections of the specifications.
- B. Special Inspections shall be in accordance with Chapter 17 of the International Building Code 2018 and the Virginia Uniform Statewide Building Code 2018.
- C. Special Inspections shall be performed in accordance with the industry standard used as the reference for the specific material or procedure unless other criteria are specified.
- D. Inspection services are intended to assist in determining compliance of the work with requirements specified. These services do not relieve the Contractor of responsibility for compliance with the requirements of the contract documents.
- E. If inspection of fabricator's work is required, the Owner's representative may require inspection of the work at the plant, before shipment. Owner, Architect and Registered Design Professional reserve the right to reject material not complying with the contract documents.
- F. Work shall be checked as it progresses, but failure to detect any defective work or materials shall in no way prevent later rejection if defective work or materials are discovered, nor shall it obligate Owner to accept such work.

1.2 DEFINITIONS

- A. Inspection – Evaluation of systems, primarily requiring observation and engineering judgment.
- B. Special Inspection –Special Inspection Services herein include items required by the Building Code, and other items which in the professional judgment of the RDP are critical to the integrity of the building structure.
- C. Structural Engineer of Record (SER) – The licensed engineer in responsible charge of the structural design for the project.
- D. Registered Design Professional (RDP) – An individual who is registered or licensed to practice their respective design profession.
- E. Registered Design Professional In Responsible Charge – An RDP who is responsible for reviewing and coordinating submittal documents of multiple disciplines for compatibility with the design of the building.

- F. Special Inspector (SI) – A properly qualified individual or firm performing Special Inspections as approved by the Building Official.
- G. Building Official – The Officer or his duly authorized representative charged with the administration and enforcement of the Building Code.
- H. Continuous – The full-time observation of work requiring Special Inspection by an approved special inspector who is present in the area where the work is being performed.
- I. Periodic – The part-time or intermittent observation of work requiring Special Inspection by an approved special inspector who is present in the area where the work is being performed.

1.3 REFERENCES

- A. International Building Code (2018)
- B. Virginia Uniform Statewide Building Code (2018)
- C. Virginia Existing Building Code (2018)

1.4 STATEMENT OF SPECIAL INSPECTIONS

- A. Required inspections are described in the Statement of Special Inspections. The Statement of Special Inspection is attached to the end of this section.
- B. The Statement of Special Inspections shall be submitted with the application for Building Permit.

1.5 QUALIFICATIONS

- A. See attached Statement of Special Inspections.

1.6 SUBMITTALS

- A. The Special Inspector shall submit to the RDP and Building Official for review a copy of qualifications which shall include the names and qualifications of each of the individual inspectors who will be performing inspections.
- B. The Special Inspector shall disclose any past or present business relationship or potential conflict of interest with the Contractor or any of the Subcontractors whose work will be inspected.

1.7 PAYMENT

- A. Owner shall directly employ and pay for services of the special inspectors to perform required Special Inspection.
- B. Items requiring inspection services after placement shall not be enclosed or obscured until inspection services are performed. If exploratory work is required to verify compliance with the contract documents, the cost of such work shall be paid by the Contractor.

- C. The Contractor shall be responsible for the cost of any re-inspection of work which fails to comply with the requirements of the Contract Documents.

1.8 CONTRACTOR RESPONSIBILITIES

- A. The Contractor shall cooperate with the Special Inspector(s) so that the Special Inspections may be performed without hindrance.
- B. The Contractor shall review the Statement of Special Inspections and shall be responsible for coordinating and scheduling inspections. The Contractor shall notify the Special Inspector at least 48, weekday hours in advance of a required inspection. Items requiring inspection services prior to or during placement shall not be placed until inspection services are available. Items requiring inspection services after placement shall not be enclosed or obscured until inspection services are performed. Un-inspected work that required inspection may be rejected solely on this basis.
- C. The Contractor shall provide incidental labor and equipment to provide access to the work to be inspected.
- D. The Contractor shall keep at the project site the latest set of construction drawings, field sketches, approved shop drawings, and specifications for use by the special inspector.
- E. The Special Inspection program shall in no way relieve the Contractor of the obligation to perform work in accordance with the requirements of Contract Documents or from implementing an effective Quality Control program. All work that is to be subjected to Special Inspections shall first be reviewed by the Contractor.
- F. The Contractor shall be solely responsible for construction site safety.

1.9 LIMITS OF AUTHORITY

- A. The Special Inspector may not alter the requirements of the Contract Documents.
- B. The Special Inspector will not have control over the Contractor's means and methods of construction.
- C. The Special Inspector shall not be responsible for construction site safety.
- D. The Special Inspector has no authority to stop the work.

1.10 RECORDS AND REPORTS

- A. Special Inspector shall prepare detailed reports of each inspection. Reports shall include:
 - 1. Project title and number
 - 2. Date of inspection
 - 3. Name of inspector
 - 4. Location of specific areas inspected
 - 5. Description of inspection and results
 - 6. Weather conditions
 - 7. Discrepancies:

- a. types and locations of discrepancies found in work
 - b. work required and performed to correct discrepancies
- B. The Special Inspector shall maintain a special inspection log at the project site and submit periodic reports to the RDP/SER as described below. Forms for the Special Inspection Log and Periodic Report of Special Inspections are attached to the end of this section.
- C. Any discrepancies from the Contract Documents found during a Special Inspection shall be immediately reported to the Contractor. If the discrepancies are not corrected, the Special Inspector shall notify the RDP in Responsible Charge and the Building Official.

1.11 PERIODIC REPORT OF SPECIAL INSPECTIONS

- A. The Periodic Report of Special Inspections shall be completed by the Special Inspector and submitted on the last day of every month to the SER and RDP. The Periodic Report shall include a summary of the inspection activities taken place, noting any change made to approved drawings and list of discrepancies not resolved/corrected.
- B. A form for the Periodic Report of Special Inspections is attached to the end of this section.

1.12 FINAL REPORT OF SPECIAL INSPECTIONS

- A. The Final Report of Special Inspections shall be completed by the Special Inspector and submitted along with the completed statement of special inspections to the SER, RDP and Building Official as a requirement for the issuance of a Certificate of Use and Occupancy.
- B. A form for the Final Report of Special Inspections is attached to the end of this section.

END OF SECTION 014100

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Miscellaneous record submittals.

1.3 CLOSEOUT SUBMITTALS

- A. Record Drawings: Submit two CDs containing marked-up record drawings in PDF format.
- B. Record Specifications: Submit Project's Specifications, including contract modifications. Submit two CDs containing marked-up record specifications in PDF format.
- C. Miscellaneous Record Submittals: See other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Submit of each submittal.
- D. Reports: Submit written report indicating items incorporated into project record documents concurrent with progress of the Work, including revisions, concealed conditions, field changes, product selections, and other notations incorporated.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Drawings: Maintain one set of marked-up of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
 - 1. Preparation: Mark record drawings to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record drawings.

- a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an acceptable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - d. Record and check the markup before enclosing concealed installations.
2. Content: Types of items requiring marking include, but are not limited to, the following:
- a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations below first floor.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - j. Changes made by Change Order or Change Directive.
 - k. Changes made following Architect's written orders.
 - l. Details not on the original Contract Drawings.
 - m. Field records for variable and concealed conditions.
 - n. Record information on the Work that is shown only schematically.
3. Mark with red-colored text and symbols.
4. Mark important additional information that was either shown schematically or omitted from original Drawings.
5. Note RFI numbers, Change Order numbers, and similar identification, where applicable.
- B. Record Digital Data Files: Immediately before inspection for Certificate of Substantial Completion, review marked-up record drawings with Architect. When authorized, prepare a full set of corrected digital data files of the Contract Drawings, as follows:
1. Format: Annotated PDF electronic file.
 2. Delete, redraw, and add details and notations where applicable.
 3. Refer instances of uncertainty to Architect for resolution.
 4. Architect will furnish Contractor one set of digital data files of the Contract Drawings for use in recording information.
 - a. See Section 013300 "Submittal Procedures" for requirements related to use of Architect's digital data files.
 - b. Architect will provide data file layer information. Record markups in separate layers.
- C. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Format: Annotated PDF electronic file.
 2. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.
 3. Identification: As follows:
 - a. Project name.
 - b. Date.

- c. Designation "PROJECT RECORD DRAWINGS."
- d. Name of Architect.
- e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 - 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 - 4. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
 - 5. Note related Change Orders and record Drawings where applicable.
- B. Format: Submit record Specifications as PDF.

2.3 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals as PDF.
 - 1. Include miscellaneous record submittals directory organized by Specification Section number and title, electronically linked to each item of miscellaneous record submittals.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Maintenance of Record Documents: Provide access to project record documents for Architect's reference during normal working hours.

END OF SECTION 017839

SECTION 017900 - DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
 - 1. Demonstration of operation of systems, subsystems, and equipment.
 - 2. Training in operation and maintenance of systems, subsystems, and equipment.

1.3 INFORMATIONAL SUBMITTALS

- A. Instruction Program: Submit outline of instructional program for demonstration and training, including a list of training modules and a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
- B. Attendance Record: For each training module, submit list of participants and length of instruction time.
- C. Evaluations: For each participant and for each training module, submit results and documentation of performance-based test.

1.4 CLOSEOUT SUBMITTALS

- A. Demonstration and Training Manual: Submit CD containing manual within 15 days of end of each training module.

1.5 QUALITY ASSURANCE

- A. Facilitator Qualifications: A firm or individual experienced in training or educating maintenance personnel in a training program similar in content and extent to that indicated for this Project, and whose work has resulted in training or education with a record of successful learning performance.
- B. Instructor Qualifications: A factory-authorized service representative, experienced in operation and maintenance procedures and training.

- C. Pre-Construction Conference: Conduct conference at Project site to comply with requirements in Section 013100 "Project Management and Coordination." Review methods and procedures related to demonstration and training including, but not limited to, the following:
 - 1. Inspect and discuss locations and other facilities required for instruction.
 - 2. Review and finalize instruction schedule and verify availability of educational materials, instructors' personnel, audiovisual equipment, and facilities needed to avoid delays.
 - 3. Review required content of instruction.
 - 4. For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.

1.6 COORDINATION

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations and to ensure availability of Owner's personnel.
- B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.
- C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data has been reviewed and approved by Architect.

PART 2 - PRODUCTS

2.1 INSTRUCTION PROGRAM

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and for equipment not part of a system, as required by individual Specification Sections.
- B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following as applicable to the system, equipment, or component:
 - 1. Basis of System Design, Operational Requirements, and Criteria: Include the following:
 - a. System, subsystem, and equipment descriptions.
 - b. Performance and design criteria if Contractor is delegated design responsibility.
 - c. Operating standards.
 - d. Regulatory requirements.
 - e. Equipment function.
 - f. Operating characteristics.
 - g. Limiting conditions.
 - h. Performance curves.
 - 2. Documentation: Review the following items in detail:

- a. Emergency manuals.
 - b. Operations manuals.
 - c. Maintenance manuals.
 - d. Project record documents.
 - e. Identification systems.
 - f. Warranties and bonds.
 - g. Maintenance service agreements and similar continuing commitments.
3. Emergencies: Include the following, as applicable:
- a. Instructions on meaning of warnings, trouble indications, and error messages.
 - b. Instructions on stopping.
 - c. Shutdown instructions for each type of emergency.
 - d. Operating instructions for conditions outside of normal operating limits.
 - e. Sequences for electric or electronic systems.
 - f. Special operating instructions and procedures.
4. Operations: Include the following, as applicable:
- a. Startup procedures.
 - b. Equipment or system break-in procedures.
 - c. Routine and normal operating instructions.
 - d. Regulation and control procedures.
 - e. Control sequences.
 - f. Safety procedures.
 - g. Instructions on stopping.
 - h. Normal shutdown instructions.
 - i. Operating procedures for emergencies.
 - j. Operating procedures for system, subsystem, or equipment failure.
 - k. Seasonal and weekend operating instructions.
 - l. Required sequences for electric or electronic systems.
 - m. Special operating instructions and procedures.
5. Adjustments: Include the following:
- a. Alignments.
 - b. Checking adjustments.
 - c. Noise and vibration adjustments.
 - d. Economy and efficiency adjustments.
6. Troubleshooting: Include the following:
- a. Diagnostic instructions.
 - b. Test and inspection procedures.
7. Maintenance: Include the following:
- a. Inspection procedures.
 - b. Types of cleaning agents to be used and methods of cleaning.
 - c. List of cleaning agents and methods of cleaning detrimental to product.
 - d. Procedures for routine cleaning

- e. Procedures for preventive maintenance.
 - f. Procedures for routine maintenance.
 - g. Instruction on use of special tools.
8. Repairs: Include the following:
- a. Diagnosis instructions.
 - b. Repair instructions.
 - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - d. Instructions for identifying parts and components.
 - e. Review of spare parts needed for operation and maintenance.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a training manual organized in coordination with requirements in Section 017823 "Operation and Maintenance Data."
- B. Set up instructional equipment at instruction location.

3.2 INSTRUCTION

- A. Facilitator: Engage a qualified facilitator to prepare instruction program and training modules, to coordinate instructors, and to coordinate between Contractor and Owner for number of participants, instruction times, and location.
- B. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
 - 1. Architect will furnish an instructor to describe basis of system design, operational requirements, criteria, and regulatory requirements.
 - 2. Owner will furnish an instructor to describe Owner's operational philosophy.
 - 3. Owner will furnish Contractor with names and positions of participants.
- C. Scheduling: Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
 - 1. Schedule training with Owner with at least 15 days' advance notice.
- D. Training Location and Reference Material: Conduct training on-site in the completed and fully operational facility using the actual equipment in-place. Conduct training using final operation and maintenance data submittals.
- E. Evaluation: At conclusion of each training module, assess and document each participant's mastery of module by use of performance-based test.

- F. Cleanup: Collect used and leftover educational materials. Remove instructional equipment. Restore systems and equipment to condition existing before initial training use.

END OF SECTION 017900

SECTION 031000 - CONCRETE FORMING AND ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Form-facing material for cast-in-place concrete.
2. Shoring, bracing, and anchoring.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Concrete Formwork: Design, engineer, erect, shore, brace, and maintain formwork, shores, and reshores in accordance with ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads, so that resulting concrete conforms to the required shapes, lines, and dimensions.

1. Design wood panel forms in accordance with APA's "Concrete Forming Design/Construction Guide."
2. Design formwork to limit deflection of form-facing material to 1/240 of center-to-center spacing of supports.

2.2 FORM-FACING MATERIALS

A. As-Cast Surface Form-Facing Material:

1. Provide continuous, true, and smooth concrete surfaces.
2. Furnish in largest practicable sizes to minimize number of joints.
3. Acceptable Materials: As required to comply with Surface Finish designations specified in Section 033000 "Cast-In-Place Concrete, and as follows:
 - a. Plywood, metal, or other approved panel materials.
 - b. Exterior-grade plywood panels, suitable for concrete forms, complying with DOC PS 1.

- B. Concealed Surface Form-Facing Material: Lumber, plywood, metal, plastic, or another approved material.

1. Provide lumber dressed on at least two edges and one side for tight fit.

2.3 WATERSTOPS

- A. Self-Expanding Butyl Strip Waterstops: Manufactured rectangular or trapezoidal strip, butyl rubber with sodium bentonite or other hydrophilic polymers, for adhesive bonding to concrete, 3/4 by 1 inch.

2.4 RELATED MATERIALS

- A. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4 by 3/4 inch (19 by 19 mm), minimum.
- B. Form-Release Agent: Commercially formulated form-release agent that does not bond with, stain, or adversely affect concrete surfaces and does not impair subsequent treatments of concrete surfaces.
 - 1. Formulate form-release agent with rust inhibitor for steel form-facing materials.
- C. Form Ties: Factory-fabricated, removable or snap-off, glass-fiber-reinforced plastic or metal form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.

PART 3 - EXECUTION

3.1 INSTALLATION OF FORMWORK

- A. Comply with ACI 301.
- B. Construct formwork, so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117 and to comply with the Surface Finish designations specified in Section 033000 "Cast-In-Place Concrete" for as-cast finishes.
- C. Limit concrete surface irregularities as follows:
 - 1. Surface Finish-2.0: ACI 117 Class B, 1/4 inch.
- D. Construct forms tight enough to prevent loss of concrete mortar.
 - 1. Minimize joints.
 - 2. Exposed Concrete: Symmetrically align joints in forms.
- E. Construct removable forms for easy removal without hammering or prying against concrete surfaces.
 - 1. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical.
 - 2. Install keyways, reglets, recesses, and other accessories, for easy removal.
- F. Do not use rust-stained, steel, form-facing material.
- G. Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and slopes in finished concrete surfaces.

1. Provide and secure units to support screed strips.
 2. Use strike-off templates or compacting-type screeds.
- H. Chamfer exterior corners and edges of permanently exposed concrete.
- I. At construction joints, overlap forms onto previously placed concrete not less than 12 inches.
- J. Construction and Movement Joints:
1. Construct joints true to line with faces perpendicular to surface plane of concrete.
 2. Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.
- K. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.
- L. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.
- M. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

3.2 INSTALLATION OF EMBEDDED ITEMS

- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete.
1. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 2. Clean embedded items immediately prior to concrete placement.

3.3 INSTALLATION OF WATERSTOPS

- A. Self-Expanding Strip Waterstops: Install in construction joints and at other locations indicated on Drawings, according to manufacturer's written instructions, by adhesive bonding, mechanically fastening, and firmly pressing into place.
1. Install in longest lengths practicable.
 2. Locate waterstops in center of joint unless otherwise indicated on Drawings.
 3. Protect exposed waterstops during progress of the Work.

3.4 FIELD QUALITY CONTROL

- A. 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. Inspect formwork for shape, location, and dimensions of the concrete member being formed.

END OF SECTION 031000

SECTION 032000 - CONCRETE REINFORCING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Steel reinforcement bars.
2. Welded-wire reinforcement.

1.2 ACTION SUBMITTALS

A. Product Data: For the following:

1. Each type of steel reinforcement.
2. Bar supports.

B. Shop Drawings: Comply with ACI SP-066:

1. Include placing drawings that detail fabrication, bending, and placement.
2. Include bar sizes, lengths, materials, grades, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, location of splices, lengths of lap splices, details of mechanical splice couplers, details of welding splices, tie spacing, hoop spacing, and supports for concrete reinforcement.

1.3 INFORMATIONAL SUBMITTALS

A. Material Test Reports: For the following, from a qualified testing agency:

1. Steel Reinforcement

PART 2 - PRODUCTS

2.1 STEEL REINFORCEMENT

A. Reinforcing Bars: ASTM A615/A615M, Grade 60, deformed.

B. Plain-Steel Welded-Wire Reinforcement: ASTM A1064/A1064M, plain, fabricated from as-drawn steel wire into flat sheets.

2.2 REINFORCEMENT ACCESSORIES

- A. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded-wire reinforcement in place.
 - 1. Manufacture bar supports from steel wire, plastic, or precast concrete in accordance with CRSI's "Manual of Standard Practice," of greater compressive strength than concrete and as follows:
 - a. For concrete surfaces exposed to view, where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected steel wire, all-plastic bar supports, or CRSI Class 2 stainless steel bar supports.
- B. Steel Tie Wire: ASTM A1064/A1064M, annealed steel, not less than 0.0508 inch (1.2908 mm) in diameter.
 - 1. Finish: Plain.

2.3 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protection of In-Place Conditions:
 - 1. Do not cut or puncture vapor retarder.
 - 2. Repair damage and reseal vapor retarder before placing concrete.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials that reduce bond to concrete.

3.2 INSTALLATION OF STEEL REINFORCEMENT

- A. Comply with CRSI's "Manual of Standard Practice" for placing and supporting reinforcement.
- B. Accurately position, support, and secure reinforcement against displacement.
 - 1. Locate and support reinforcement with bar supports to maintain minimum concrete cover.
 - 2. Do not tack weld crossing reinforcing bars.
- C. Preserve clearance between bars of not less than 1 inch, not less than one bar diameter, or not less than 1-1/3 times size of large aggregate, whichever is greater.
- D. Provide concrete coverage in accordance with ACI 318.

- E. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.
- F. Splices: Lap splices as indicated on Drawings.
 - 1. Bars indicated to be continuous, and all vertical bars shall be lapped not less than 36 bar diameters at splices, or 24 inches, whichever is greater.
 - 2. Stagger splices in accordance with ACI 318.
- G. Install welded-wire reinforcement in longest practicable lengths.
 - 1. Support welded-wire reinforcement in accordance with CRSI "Manual of Standard Practice."
 - a. For reinforcement less than W4.0 or D4.0, continuous support spacing shall not exceed 12 inches.
 - 2. Lap edges and ends of adjoining sheets at least one wire spacing plus 2 inches for plain wire and 8 inches for deformed wire.
 - 3. Offset laps of adjoining sheet widths to prevent continuous laps in either direction.
 - 4. Lace overlaps with wire.

3.3 JOINTS

- A. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.
 - 1. Place joints perpendicular to main reinforcement.
 - 2. Continue reinforcement across construction joints unless otherwise indicated.
 - 3. Do not continue reinforcement through sides of strip placements of floors and slabs.

3.4 INSTALLATION TOLERANCES

- A. Comply with ACI 117.

3.5 FIELD QUALITY CONTROL

- A. 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.

END OF SECTION 032000

SECTION 051200 - STRUCTURAL STEEL FRAMING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Structural steel.
2. Shrinkage-resistant grout.

1.2 DEFINITIONS

- ##### A. Structural Steel: Elements of the structural frame indicated on Drawings and as described in ANSI/AISC 303.

1.3 ACTION SUBMITTALS

A. Product Data:

1. Structural-steel materials.
2. High-strength, bolt-nut-washer assemblies.
3. Anchor rods.
4. Threaded rods.
5. Shop primer.
6. Galvanized-steel primer.
7. Galvanized repair paint.
8. Shrinkage-resistant grout.

- ##### B. Shop Drawings: Show fabrication of structural-steel components.

1.4 INFORMATIONAL SUBMITTALS

- ##### A. Welding certificates.

1.5 QUALITY ASSURANCE

- ##### A. Welding Qualifications: Qualify procedures and personnel in accordance with AWS D1.1/D1.1M.

PART 2 - PRODUCTS

2.1 STRUCTURAL-STEEL MATERIALS

- A. W-Shapes: ASTM A992/A992M.
- B. Channels, Angles: ASTM A36/A36M.
- C. Plate and Bar: ASTM A36/A36M.
- D. Cold-Formed Hollow Structural Sections: ASTM A500/A500M, Grade B structural tubing.
- E. Welding Electrodes: Comply with AWS requirements.

2.2 BOLTS AND CONNECTORS

- A. High-Strength A325 Bolts, Nuts, and Washers: ASTM F3125/F3125M, Grade A325, Type 1, heavy-hex steel structural bolts; ASTM A563, Grade DH, heavy-hex carbon-steel nuts; and ASTM F436/F436M, Type 1, hardened carbon-steel washers; all with plain finish.

2.3 RODS

- A. Headed Anchor Rods: ASTM F1554, Grade 36, straight.
 - 1. Finish: Plain.
- B. Threaded Rods: ASTM A36/A36M.
 - 1. Finish: Plain.

2.4 PRIMER

- A. Steel Primer:
 - 1. Fabricator's standard lead- and chromate-free, nonasphaltic, rust-inhibiting primer complying with MPI#79 and compatible with topcoat.
- B. Galvanized-Steel Primer: MPI#134.
 - 1. Etching Cleaner: MPI#25, for galvanized steel.
 - 2. Galvanizing Repair Paint: ASTM A780/A780M.

2.5 SHRINKAGE-RESISTANT GROUT

- A. Metallic, Shrinkage-Resistant Grout: ASTM C1107/C1107M, factory-packaged, metallic aggregate grout, mixed with water to consistency suitable for application and a 30-minute working time.

2.6 FABRICATION

- A. Structural Steel: Fabricate and assemble in shop to greatest extent possible. Fabricate in accordance with ANSI/AISC 303 and to ANSI/AISC 360.

2.7 GALVANIZING

- A. Hot-Dip Galvanized Finish: Apply zinc coating by the hot-dip process to structural steel in accordance with ASTM A123/A123M.
 - 1. Fill vent and drain holes that are exposed in the finished Work unless they function as weep holes, by plugging with zinc solder and filing off smooth.

2.8 SHOP PRIMING

- A. Shop prime steel surfaces, except the following:
 - 1. Surfaces embedded in concrete or mortar. Extend priming of partially embedded members to a depth of 2 inches (50 mm).
 - 2. Surfaces to be field welded.
 - 3. Galvanized surfaces unless indicated to be painted.
- B. Surface Preparation of Steel: Clean surfaces to be painted. Remove loose rust and mill scale and spatter, slag, or flux deposits. Prepare surfaces in accordance with the following specifications and standards:
 - 1. SSPC-SP 2.
- C. Surface Preparation of Galvanized Steel: Prepare galvanized-steel surfaces for shop priming by thoroughly cleaning steel of grease, dirt, oil, flux, and other foreign matter, and treating with etching cleaner.
- D. Priming: Immediately after surface preparation, apply primer in accordance with manufacturer's written instructions and at rate recommended by SSPC to provide a minimum dry film thickness of 1.5 mils. Use priming methods that result in full coverage of joints, corners, edges, and exposed surfaces.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify, with certified steel erector present, elevations of concrete- and masonry-bearing surfaces and locations of anchor rods, bearing plates, and other embedments for compliance with requirements.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 ERECTION

- A. Set structural steel accurately in locations and to elevations indicated and in accordance with ANSI/AISC 303 and ANSI/AISC 360.
- B. Baseplates, Bearing Plates and Leveling Plates: Clean concrete- and masonry-bearing surfaces of bond-reducing materials, and roughen surfaces prior to setting plates. Clean bottom surface of plates.
 - 1. Set plates for structural members on wedges, shims, or setting nuts as required.
 - 2. Snug-tighten anchor rods after supported members have been positioned and plumbed. Do not remove wedges or shims but, if protruding, cut off flush with edge of plate before packing with grout.
 - 3. Promptly pack shrinkage-resistant grout solidly between bearing surfaces and plates, so no voids remain. Neatly finish exposed surfaces; protect grout and allow to cure. Comply with manufacturer's written installation instructions for grouting.
- C. Maintain erection tolerances of structural steel within ANSI/AISC 303.

3.3 FIELD CONNECTIONS

- A. High-Strength Bolts: Install high-strength bolts in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts" for bolt and joint type specified.
 - 1. Joint Type: Snug tightened.
- B. Weld Connections: Comply with AWS D1.1/D1.1M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.
 - 1. Comply with ANSI/AISC 303 and ANSI/AISC 360 for bearing, alignment, adequacy of temporary connections, and removal of paint on surfaces adjacent to field welds.

3.4 FIELD QUALITY CONTROL

- A. Special Inspections: Owner will engage a special inspector to perform the following special inspections:
 - 1. Verify structural-steel materials and inspect steel frame joint details.
 - 2. Verify weld materials and inspect welds.
 - 3. Verify connection materials and inspect high-strength bolted connections.
- B. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
 - 1. Bolted Connections: Inspect bolted connections in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts."
 - 2. Welded Connections: Visually inspect field welds in accordance with AWS D1.1/D1.1M.

3.5 REPAIR

- A. Repair of Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing to comply with ASTM A780/A780M.

END OF SECTION 051200

SECTION 079513 - INTERIOR EXPANSION JOINT COVER ASSEMBLIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes interior expansion joint cover assemblies.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for expansion joint cover assemblies.
- B. Shop Drawings: For each expansion joint cover assembly.
 - 1. Include plans, elevations, sections, details, splices, block-out requirement, attachments to other work, and line diagrams showing entire route of each expansion joint.
 - 2. Where expansion joint cover assemblies change planes, provide isometric or clearly detailed drawing depicting how components interconnect.
- C. Expansion Joint Cover Assembly Schedule: Prepared by or under the supervision of the supplier. Include the following information in tabular form:
 - 1. Manufacturer and model number for each expansion joint cover assembly.
 - 2. Expansion joint cover assembly location cross-referenced to Drawings.
 - 3. Nominal, minimum, and maximum joint width.
 - 4. Movement direction.
 - 5. Materials, colors, and finishes.
 - 6. Product options.
 - 7. Fire-resistance ratings.

1.4 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: For each fire-resistance-rated expansion joint cover assembly, for tests performed by manufacturer and witnessed by a qualified testing agency.

PART 2 - PRODUCTS

2.1 ASSEMBLY DESCRIPTION

- A. Furnish units in longest practicable lengths to minimize field splicing.
- B. Include factory-fabricated closure materials and transition pieces, T-joints, corners, curbs, cross-connections, and other accessories as required to provide continuous expansion joint cover assemblies.

2.2 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance Ratings: Provide expansion joint cover assemblies with fire barriers identical to those of systems tested for fire resistance according to UL 2079 or ASTM E 1966 by a qualified testing agency.
- B. Expansion Joint Design Criteria:
 - 1. Type of Movement: Thermal
 - a. Nominal Joint Width: As indicated on Drawings.
 - b. Minimum Joint Width: As indicated on Drawings.
 - c. Maximum Joint Width: As indicated on Drawings.
 - 2. Type of Movement: Seismic.
 - a. Joint Movement: As indicated on Drawings.

2.3 EXPANSION JOINT SYSTEMS FOR FLOOR SYSTEMS

- A. Floor to Floor Joint Systems:
 - 1. Basis of Design: Construction Specialties, Inc. model SSR or Approved Equal. Flush floor expansion joint cover.
 - 2. Fire Rating: Match fire rating of floor that cover is installed in.
 - 3. Type: Pan.
 - 4. Exposed Metal: Aluminum.
 - a. Finish: Mill.
 - b. Center pan that receives finish material must be extruded. Pans formed from sheet or plate products are not acceptable.
- B. Floor-to-Wall Joint Systems:
 - 1. Basis-of-Design Product: Construction Specialties, Inc. model SSRW or Approved Equal.
 - 2. Fire Rating: Match fire rating of floor that cover is installed in.
 - 3. Type: Pan.
 - a. Exposed Metal: Aluminum.
 - 1) Finish: Mill.

- 2) Center pan that receives finish material must be extruded. Pans formed from sheet or plate products are not acceptable.
4. Cover-Plate Design: Recessed to accept field-applied finish materials.
 - a. Recess Depth: 1" minimum.
5. Attachment Method: Mechanical anchors.
6. Load Capacity: Heavy duty.
7. Fire-Resistance Rating: Provide joint system and fire-barrier assembly with a rating not less than that of adjacent construction.
8. Moisture Barrier: Manufacturer's standard.

2.4 INTERIOR JOINT SYSTEMS FOR WALLS AND CEILINGS

- A. Wall-to-Wall Joint Systems and Ceiling-to-Ceiling Joint Systems:
 1. Basis-of-Design Product: Construction Specialties, Inc. model AFW or Approved Equal.
 2. Fire Rating: Match fire rating of wall that cover is installed in.
 3. Type: Snap-on cover.
 - a. Exposed Metal: Aluminum
 - 1) Finish: Painted to match PNT-1, Sherwin Williams Sherwin Williams High Reflective White #7757.
 4. Fire-Resistance Rating: Provide joint system and fire-barrier assembly with a rating not less than that of adjacent construction.
 5. Moisture Barrier: Manufacturer's standard.
- B. Ceiling-to-Wall Joint Systems
 1. Basis-of-Design Product: Construction Specialties, Inc. model AFWC or Approved Equal.
 2. Exposed Metal: Aluminum
 3. Finish: Painted to match PNT-1, Sherwin Williams High Reflective White #7757.
 4. Fire-Resistance Rating: Provide joint system and fire-barrier assembly with a rating not less than that of adjacent construction.

2.5 MATERIALS

- A. Aluminum: ASTM B 221, Alloy 6063-T5 for extrusions; ASTM B 209, Alloy 6061-T6 for sheet and plate.
 1. Apply manufacturer's standard protective coating on aluminum surfaces to be placed in contact with cementitious materials.
- B. Stainless Steel: ASTM A 240/A 240M or ASTM A 666, Type 304 for plates, sheet, and strips.
- C. Elastomeric Seals: Manufacturer's standard preformed elastomeric membranes or extrusions to be installed in metal frames.
- D. Fire Barriers: Any material or material combination, when fire tested after cycling, designated to resist the passage of flame and hot gases through a movement joint and to comply with performance criteria for required fire-resistance rating.

- E. Nonmetallic, Shrinkage-Resistant Grout: ASTM C 1107/C 1107M, factory-packaged, nonmetallic aggregate grout, noncorrosive, nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

2.6 ALUMINUM FINISHES

- A. Mill finish.
- B. Clear Anodic Finish: AAMA 611, AA-M12C22A41, Class I, 0.018 mm high traffic covers AA-M12C22A31, Class II, 0.010 mm for interior covers or thicker.

2.7 ACCESSORIES

- A. Manufacturer's standard attachment devices. Include anchors, clips, fasteners, set screws, spacers, and other accessories compatible with material in contact, as indicated or required for complete installations.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces where expansion joint cover assemblies will be installed for installation tolerances and other conditions affecting performance of the Work.
- B. Notify Architect where discrepancies occur that will affect proper expansion joint cover assembly installation and performance.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to expansion joint cover assembly manufacturer's written instructions.
- B. Coordinate and furnish anchorages, setting drawings, and instructions for installing expansion joint cover assemblies. Provide fasteners of metal, type, and size to suit type of construction indicated and to provide for secure attachment of expansion joint cover assemblies.

3.3 INSTALLATION

- A. Comply with manufacturer's written instructions for storing, handling, and installing expansion joint cover assemblies and materials unless more stringent requirements are indicated.
- B. Metal Frames: Perform cutting, drilling, and fitting required to install expansion joint cover assemblies.

1. Repair or grout block out as required for continuous frame support using nonmetallic, shrinkage-resistant grout.
 2. Install frames in continuous contact with adjacent surfaces.
 - a. Shimming is not permitted.
 3. Install in true alignment and proper relationship to joints and adjoining finished surfaces measured from established lines and levels.
 4. Adjust for differences between actual structural gap and nominal design gap due to ambient temperature at time of installation.
 5. Cut and fit ends to accommodate thermal expansion and contraction of metal without buckling of frames.
 6. Locate anchors at interval recommended by manufacturer, but not less than 3 inches from each end and not more than 24 inches o.c.
- C. Seals: Install elastomeric seals and membranes in frames to comply with manufacturer's written instructions. Install with minimum number of end joints.
1. Provide in continuous lengths for straight sections.
 2. Seal transitions. Vulcanize or heat-weld field-spliced joints as recommended by manufacturer.
 3. Installation: Mechanically lock seals into frames or adhere to frames with adhesive or pressure-sensitive tape as recommended by manufacturer.
- D. Install with hairline mitered corners where expansion joint cover assemblies change direction or abut other materials.
- E. Terminate exposed ends of expansion joint cover assemblies with field- or factory-fabricated termination devices.
- F. Fire-Resistance-Rated Assemblies: Coordinate installation of expansion joint cover assembly materials and associated work so complete assemblies comply with performance requirements.
1. Fire Barriers: Install fire barriers to provide continuous, uninterrupted fire resistance throughout length of joint, including transitions and field splices.

3.4 PROTECTION

- A. Do not remove protective covering until finish work in adjacent areas is complete. When protective covering is removed, clean exposed metal surfaces to comply with manufacturer's written instructions.
- B. Protect the installation from damage by work of other Sections. Where necessary due to heavy construction traffic, remove and properly store cover plates or seals and install temporary protection over expansion joint cover assemblies. Reinstall cover plates or seals prior to Substantial Completion.

END OF SECTION 079513

SECTION 087100 - DOOR HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes:

1. Mechanical and electrified door hardware
2. Electronic access control system components

B. Section excludes:

1. Windows
2. Cabinets (casework), including locks in cabinets
3. Signage
4. Toilet accessories
5. Overhead doors

C. Related Sections:

1. Division 01 Section "Alternates" for alternates affecting this section.
2. Division 06 Section "Rough Carpentry"
3. Division 06 Section "Finish Carpentry"
4. Division 07 Section "Joint Sealants" for sealant requirements applicable to threshold installation specified in this section.
5. Division 08 Sections:
 - a. "Metal Doors and Frames"
 - b. "Flush Wood Doors"
 - c. "Stile and Rail Wood Doors"
 - d. "Interior Aluminum Doors and Frames"
 - e. "Aluminum-Framed Entrances and Storefronts"
 - f. "Stainless Steel Doors and Frames"
 - g. "Special Function Doors"
 - h. "Entrances"
6. Division 26 "Electrical" sections for connections to electrical power system and for low-voltage wiring.
7. Division 28 "Electronic Safety and Security" sections for coordination with other components of electronic access control system and fire alarm system.

1.02 REFERENCES

A. UL LLC

1. UL 10B - Fire Test of Door Assemblies
2. UL 10C - Positive Pressure Test of Fire Door Assemblies
3. UL 1784 - Air Leakage Tests of Door Assemblies
4. UL 305 - Panic Hardware

B. DHI - Door and Hardware Institute

1. Sequence and Format for the Hardware Schedule

2. Recommended Locations for Builders Hardware
 3. Keying Systems and Nomenclature
 4. Installation Guide for Doors and Hardware
- C. NFPA – National Fire Protection Association
1. NFPA 70 – National Electric Code
 2. NFPA 80 – 2016 Edition – Standard for Fire Doors and Other Opening Protectives
 3. NFPA 101 – Life Safety Code
 4. NFPA 105 – Smoke and Draft Control Door Assemblies
 5. NFPA 252 – Fire Tests of Door Assemblies
- D. ANSI - American National Standards Institute
1. ANSI A117.1 – 2017 Edition – Accessible and Usable Buildings and Facilities
 2. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties
 3. ANSI/BHMA A156.28 - Recommended Practices for Keying Systems
 4. ANSI/WDMA I.S. 1A - Interior Architectural Wood Flush Doors
 5. ANSI/SDI A250.8 - Standard Steel Doors and Frames

1.03 SUBMITTALS

A. General:

1. Submit in accordance with Conditions of Contract and Division 01 Submittal Procedures.
2. Prior to forwarding submittal:
 - a. Review drawings and Sections from related trades to verify compatibility with specified hardware.
 - b. Highlight, encircle, or otherwise specifically identify on submittals: deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.

B. Action Submittals:

1. Product Data: Submit technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
 - a. **APPROVAL BY VT RENOVATIONS PM AND VT LOCKSMITH REQUIRED FOR COMPLIANCE WITH VT CAMPUS KEYING AND HARDWARE STANDARDS. SUBMIT PRODUCT DATA TO VT RENOVATIONS PM FOR APPROVAL.**
2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:
 - a. Wiring Diagrams: For power, signal, and control wiring and including:
 - 1) Details of interface of electrified door hardware and building safety and security systems.
 - 2) Schematic diagram of systems that interface with electrified door hardware.
 - 3) Point-to-point wiring.
 - 4) Risers.

3. Door Hardware Schedule:
 - a. Submit concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work critical in Project construction schedule.
 - b. **APPROVAL BY VT RENOVATIONS PM AND VT LOCKSMITH REQUIRED FOR COMPLIANCE WITH VT CAMPUS KEYING AND HARDWARE STANDARDS. SUBMIT DOOR HARDWARE SCHEDULE TO VT RENOVATIONS PM FOR APPROVAL.**
 - c. Submit under direct supervision of a Door Hardware Institute (DHI) certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule published by DHI.
 - d. Indicate complete designations of each item required for each opening, include:
 - 1) Door Index: door number, heading number, and Architect's hardware set number.
 - 2) Quantity, type, style, function, size, and finish of each hardware item.
 - 3) Name and manufacturer of each item.
 - 4) Fastenings and other pertinent information.
 - 5) Location of each hardware set cross-referenced to indications on Drawings.
 - 6) Explanation of all abbreviations, symbols, and codes contained in schedule.
 - 7) Mounting locations for hardware.
 - 8) Door and frame sizes and materials.
 - 9) Degree of door swing and handing.
 - 10) Operational Description of openings with electrified hardware covering egress, ingress (access), and fire/smoke alarm connections.
 4. Key Schedule:
 - a. After Keying Conference, provide keying schedule that includes levels of keying, explanations of key system's function, key symbols used, and door numbers controlled.
 - b. Use ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
 - c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
 - d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
 - e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion. Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
 - f. Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.
- C. Informational Submittals:
1. Provide Qualification Data for Supplier, Installer and Architectural Hardware Consultant.
 2. Provide Product Data:
 - a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
 - b. Include warranties for specified door hardware.
- D. Closeout Submittals:
1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:

- a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
- b. Catalog pages for each product.
- c. Final approved hardware schedule edited to reflect conditions as installed.
- d. Final keying schedule
- e. Copy of warranties including appropriate reference numbers for manufacturers to identify project.
- f. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.

E. Inspection and Testing:

1. Submit written reports to the Owner and Authority Having Jurisdiction (AHJ) of the results of functional testing and inspection for:
 - a. Fire door assemblies, in compliance with NFPA 80.
 - b. Required egress door assemblies, in compliance with NFPA 101.

1.04 QUALITY ASSURANCE

A. Qualifications and Responsibilities:

1. Supplier: Recognized architectural hardware supplier with a minimum of 5 years documented experience supplying both mechanical and electromechanical door hardware similar in quantity, type, and quality to that indicated for this Project. Supplier to be recognized as a factory direct distributor by the manufacturer of the primary materials with a warehousing facility in the Project's vicinity. Supplier to have on staff, a certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
2. Installer: Qualified tradesperson skilled in the application of commercial grade hardware with experience installing door hardware similar in quantity, type, and quality as indicated for this Project.
3. Architectural Hardware Consultant: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:
 - a. For door hardware: DHI certified AHC or DHC.
 - b. Can provide installation and technical data to Architect and other related subcontractors.
 - c. Can inspect and verify components are in working order upon completion of installation.
 - d. Capable of producing wiring diagram and coordinating installation of electrified hardware with Architect and electrical engineers.
4. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.

B. Certifications:

1. Fire-Rated Door Openings:
 - a. Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction.

- b. Provide only items of door hardware that are listed products tested by UL LLC, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
 2. Smoke and Draft Control Door Assemblies:
 - a. Provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105
 - b. Comply with the maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.
 3. Electrified Door Hardware
 - a. Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.
 4. Accessibility Requirements:
 - a. Comply with governing accessibility regulations cited in "REFERENCES" article 087100, 1.02.D3 herein for door hardware on doors in an accessible route. This project must comply with all Federal Americans with Disability Act regulations and all Local Accessibility Regulations.
- C. Pre-Installation Meetings
 1. Keying Conference
 - a. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:
 - 1) Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
 - 2) Preliminary key system schematic diagram.
 - 3) Requirements for key control system.
 - 4) Requirements for access control.
 - 5) Address for delivery of keys.
 2. Pre-installation Conference
 - a. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - b. Inspect and discuss preparatory work performed by other trades.
 - c. Inspect and discuss electrical roughing-in for electrified door hardware.
 - d. Review sequence of operation for each type of electrified door hardware.
 - e. Review required testing, inspecting, and certifying procedures.
 - f. Review questions or concerns related to proper installation and adjustment of door hardware.
 3. Electrified Hardware Coordination Conference:
 - a. Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site. Promptly replace products damaged during shipping.

- B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package. Deliver each article of hardware in manufacturer's original packaging.
- C. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.
- D. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.
- E. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.
- F. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

1.06 COORDINATION

- A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.
- B. Installation Templates: Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.
- D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

1.07 WARRANTY

- A. Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within published warranty period.
 - 1. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.
 - 2. Warranty Period: Beginning from date of Substantial Completion, for durations indicated in manufacturer's published listings.
 - a. Mechanical Warranty
 - 1) Locks
 - a) Schlage L Series: 3 years
 - b) Schlage ND Series: 10 years
 - c) Schlage ALX Series: 10 years
 - 2) Exit Devices
 - a) Von Duprin: 3 years
 - b) Falcon: 10 years
 - 3) Closers
 - a) LCN 4000 Series: 30 years
 - 4) Automatic Operators
 - a) LCN: 2 years

- b) Falcon: 1 year
- b. Electrical Warranty
 - 1) Locks
 - a) Schlage: 1 year
 - b) Falcon: 1 year
 - 2) Exit Devices
 - a) Von Duprin: 1 year
 - 3) Closers
 - a) LCN: 2 years

1.08 MAINTENANCE

- A. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.
- B. Turn over unused materials to Owner for maintenance purposes.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. The Owner requires use of certain products for their unique characteristics and project suitability to ensure continuity of existing and future performance and maintenance standards. After investigating available product offerings, the Awarding Authority has elected to prepare proprietary specifications. These products are specified with the notation: "No Substitute."
 - 1. Where "No Substitute" is noted, submittals and substitution requests for other products will not be considered.

2.02 MATERIALS

- A. Fabrication
 - 1. Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. provide screws according to manufacturer's recognized installation standards for application intended.
 - 2. Finish exposed screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
 - 3. Provide concealed fasteners wherever possible for hardware units exposed when door is closed. Coordinate with "Metal Doors and Frames", "Flush Wood Doors", "Stile and Rail Wood Doors" to ensure proper reinforcements. Advise the Architect where visible fasteners, such as thru bolts, are required.
- B. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.
 - 1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.
- C. Cable and Connectors:

1. Where scheduled in the hardware sets, provide each item of electrified hardware and wire harnesses with number and gage of wires enough to accommodate electric function of specified hardware.
2. Provide Molex connectors that plug directly into connectors from harnesses, electric locking and power transfer devices.
3. Provide through-door wire harness for each electrified locking device installed in a door and wire harness for each electrified hinge, electrified continuous hinge, electrified pivot, and electric power transfer for connection to power supplies.

2.03 HINGES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Ives 5BB series

B. Requirements:

1. Provide hinges conforming to ANSI/BHMA A156.1.
2. Provide five knuckle, ball bearing hinges.
3. 1-3/4 inch (44 mm) thick doors, up to and including 36 inches (914 mm) wide:
 - a. Exterior: Standard weight, bronze or stainless steel, 4-1/2 inches (114 mm) high
 - b. Interior: Standard weight, steel, 4-1/2 inches (114 mm) high
4. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide:
 - a. Exterior: Heavy weight, bronze/stainless steel, 5 inches (127 mm) high
 - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
5. 2 inches or thicker doors:
 - a. Exterior: Heavy weight, bronze or stainless steel, 5 inches (127 mm) high
 - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
6. Adjust hinge width for door, frame, and wall conditions to allow proper degree of opening.
7. Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.
8. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:
 - a. Steel Hinges: Steel pins
 - b. Non-Ferrous Hinges: Stainless steel pins
 - c. Out-Swinging Exterior Doors: Non-removable pins
 - d. Out-Swinging Interior Lockable Doors: Non-removable pins
 - e. Interior Non-lockable Doors: Non-rising pins
9. Provide hinges with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware. Locate electric hinge at second hinge from bottom or nearest to electrified locking component. Provide mortar guard for each electrified hinge specified.

2.04 CONTINUOUS HINGES

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives

B. Requirements:

1. Provide aluminum geared continuous hinges conforming to ANSI/BHMA A156.26, Grade 1.
2. Provide aluminum geared continuous hinges, where specified in the hardware sets, fabricated from 6063-T6 aluminum.
3. Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
4. Provide hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.
5. On fire-rated doors, provide aluminum geared continuous hinges classified for use on rated doors by testing agency acceptable to authority having jurisdiction.
6. Provide aluminum geared continuous hinges with electrified option scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.
7. Provide hinges 1 inch (25 mm) shorter in length than nominal height of door, unless otherwise noted or door details require shorter length and with symmetrical hole pattern.

2.05 ELECTRIC POWER TRANSFER

A. Manufacturers:

1. Scheduled Manufacturer and Product:
 - a. Von Duprin EPT-10

B. Requirements:

1. Provide power transfer with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.
2. Locate electric power transfer per manufacturer's template and UL requirements, unless interference with operation of door or other hardware items.

2.06 EXIT DEVICES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Von Duprin 99/33A series

B. Requirements:

1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
2. Cylinders: Refer to "KEYING" article, herein.
3. Provide grooved touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
4. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
5. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
6. Provide exit devices with weather resistant components that can withstand harsh conditions of various climates and corrosive cleaners used in outdoor pool environments.
7. Provide flush end caps for exit devices.

8. Provide exit devices with manufacturer's approved strikes.
9. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
10. Mount mechanism case flush on face of doors or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
11. Provide cylinder or hex-key dogging as specified at non fire-rated openings.
12. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
13. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
14. Provide electrified options as scheduled.
15. Top latch mounting: double- or single-tab mount for steel doors, face mount for aluminum doors eliminating requirement of tabs, and double tab mount for wood doors.
16. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.
17. Special Options:
 - a. SI
 - 1) Provide dogging indicators for visible indication of dogging status.
 - b. XP
 - 1) Rim Exit Devices: provide devices with non-tapered smart latchbolt with 90° latchbolt to strike engagement under stress and Static Load Resistance of 2000 pounds.
 - c. QM
 - 1) Rim Exit Devices: provide devices with damper-controlled re-latching to reduce operational noise. Where lever trim is specified, provide damper controlled lever return.
 - d. HH
 - 1) Provide wind and impact rated hurricane exit devices and mullions certified to comply with Florida Building Code (FBC) TAS 201, 202, 203.
 - e. HW
 - 1) Provide wind rated hurricane exit devices and mullions certified to comply with ANSI-ASTM E330.
 - f. CX
 - 1) Provide delayed egress devices, where scheduled, that are UL 294 listed, meet National Fire Protection Association (NFPA) and International Building Code (IBC) governing delayed egress, and/or other local and national fire codes acceptable to authority having jurisdiction as required.
 - a) Provide non-handed and field sizable device with 3/4 (19mm) throw deadlocking latch bolt. Device incorporates an internal RX switch that detects attempt to exit from applying less than 15lbs to the push pad, which causes this switch to start an irreversible alarm cycle. Key switch in device is capable of arming, disarming, or resetting the device; and indicator lamp determines status of the device
 - b) Provide devices capable of standard 15 second release delay and indefinite release delay as required by code, when tied into fire alarm system will release immediately when an alarm condition exists.
 - c) Provide devices with all control inputs – door position input, external inhibit input, fire alarm input; auxiliary locking; nuisance alarm and internal horn; and, remote signaling output self-contained in the device assembly.
 - g. CVC

- 1) Provide cable-actuated concealed vertical latch system in two-point for non-rated or fire rated wood doors up to a 90 minute rating and less bottom latch (LBL) configuration for non-rated or fire rated wood doors up to 20 minute rating. Vertical rods not permitted.
 - a) Cable: Stainless steel with abrasive resistant coating. Conduit and core wire ends snap into latch and center slides without use of tools.
 - b) Wood Door Prep: Maximum 1 inch x 1.1875 inch x 3.875 inches top latch pocket and 1 inch x 1.1875 inch x 5 inches bottom latch pocket which does not require the use of a metal wrap or edge for non-rated or fire rated wood doors up to a 45 minute rating.
 - c) Latchbolts and Blocking Cams: Manufactured from sintered metal low carbon copper- infiltrated steel, with molybdenum disulfide low friction coating.
 - d) Top Latchbolt: Minimum 0.38 inch (10 mm) and greater than 90-degree engagement with strike to prevent door and frame separation under high static load.
 - e) Bottom Latchbolt: Minimum of 0.44-inch (11 mm) engagement with strike.
 - f) Product Cycle Life: 1,000,000 cycles.
 - g) Latch Operation: Top and bottom latch operate independently of each other. Top latch fully engages top strike even when bottom latch is compromised. Separate trigger mechanisms not permitted.
 - h) Latch release does not require separate trigger mechanism.
 - i) Cable and latching system characteristics:
 - i. Installed independently of exit device installation, and capable of functioning on door prior to device and trim installation.
 - ii. Connected to exit device at single point in steel and aluminum doors, and two points for top and bottom latches in wood doors.
 - iii. Bottom latch height adjusted, from single point for steel and aluminum doors and two points for wood doors, after system is installed and connected to exit device, while door is hanging
 - iv. Bottom latch position altered up and down minimum of 2 inches (51 mm) in steel and aluminum doors without additional adjustment. Bottom latch deadlocks in every adjustment position in wood doors.
 - v. Top and bottom latches in steel and aluminum doors and top latch in wood doors may be removed while door is hanging.

2.07 POWER SUPPLIES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Schlage/Von Duprin PS900 Series

B. Requirements:

1. Provide power supplies approved by manufacturer of supplied electrified hardware.
2. Provide appropriate quantity of power supplies necessary for proper operation of electrified locking components as recommended by manufacturer of electrified locking components with consideration for each electrified component using power supply, location of power supply, and approved wiring diagrams. Locate power supplies as directed by Architect.
3. Provide regulated and filtered 24 VDC power supply, and UL class 2 listed.
4. Provide power supplies with the following features:
 - a. 12/24 VDC Output, field selectable.
 - b. Class 2 Rated power limited output.
 - c. Universal 120-240 VAC input.

- d. Low voltage DC, regulated and filtered.
- e. Polarized connector for distribution boards.
- f. Fused primary input.
- g. AC input and DC output monitoring circuit w/LED indicators.
- h. Cover mounted AC Input indication.
- i. Tested and certified to meet UL294.
- j. NEMA 1 enclosure.
- k. Hinged cover w/lock down screws.
- l. High voltage protective cover.

2.08 CYLINDERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. BEST SFIC
 - b. Or VT Approved equal.

B. Requirements:

1. Provide cylinders/cores, compliant with ANSI/BHMA A156.5; latest revision; cylinder face finished to match lockset, manufacturer's series as indicated. Refer to "KEYING" article, herein.
2. Provide cylinders in the below-listed configuration(s), distributed throughout the Project as indicated.
 - a. High Security: dual-locking cylinder with permanent core requiring restricted, patented keyway. Dual-locking mechanism with interlocking finger pin(s) to check for patented features on keys.
3. Patent Protection: Cylinders/cores requiring use of restricted, patented keys, patent protected.
4. Nickel silver bottom pins.

2.09 KEYING

A. Scheduled System:

1. New factory registered system:
 - a. Provide a factory registered keying system, complying with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.
2. Existing factory registered system:
 - a. Provide cylinders/cores keyed into Owner's existing factory registered keying system. Comply with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.

B. Requirements:

1. Construction Keying:
 - a. Replaceable Construction Cores.
 - 1) Provide temporary construction cores replaceable by permanent cores, furnished in accordance with the following requirements.
 - a) 3 construction control keys
 - b) 12 construction change (day) keys.

- 2) Owner or Owner's Representative will replace temporary construction cores with permanent cores.
2. Permanent Keying:
 - a. Provide permanent cylinders/cores keyed by the manufacturer according to the following key system.
 - 1) Master Keying system as directed by the Owner.
 - b. Forward biting list and keys separately from cylinders, by means as directed by Owner. Failure to comply with forwarding requirements will be cause for replacement of cylinders/cores involved at no additional cost to Owner.
 - c. Provide keys with the following features:
 - 1) Material: Nickel silver; minimum thickness of .107-inch (2.3mm)
 - 2) Patent Protection: Keys and blanks protected by one or more utility patent(s).
 - d. Identification:
 - 1) Mark permanent cylinders/cores and keys with applicable blind code for identification. Do not provide blind code marks with actual key cuts.
 - 2) Identification stamping provisions must be approved by the Architect and Owner.
 - 3) Stamp cylinders/cores and keys with Owner's unique key system facility code as established by the manufacturer; key symbol and embossed or stamped with "DO NOT DUPLICATE" along with the "PATENTED" or patent number to enforce the patent protection.
 - 4) Failure to comply with stamping requirements will be cause for replacement of keys involved at no additional cost to Owner.
 - 5) Forward permanent cylinders/cores to Owner, separately from keys, by means as directed by Owner.
 - e. Quantity: Furnish in the following quantities.
 - 1) Permanent Control Keys: 6.
 - 2) Master Keys: 6.
 - 3) Change (Day) Keys: 3 per cylinder/core that is keyed differently
 - 4) Key Blanks: Quantity as determined in the keying meeting.

2.10 KEY CONTROL SYSTEM

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Telkee

B. Requirements:

1. Provide key control system, including envelopes, labels, tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet, all as recommended by system manufacturer, with capacity for 150% of number of locks required for Project.
 - a. Provide complete cross index system set up by hardware supplier, and place keys on markers and hooks in cabinet as determined by final key schedule.
 - b. Provide hinged-panel type cabinet for wall mounting.

2.11 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. LCN 4040XP series

B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. ISO 9000 certify closers. Stamp units with date of manufacture code.
2. Provide door closers with fully hydraulic, full rack and pinion action with high strength cast iron cylinder, and full complement bearings at shaft.
3. Cylinder Body: 1-1/2-inch (38 mm) diameter piston with 5/8-inch (16 mm) diameter double heat-treated pinion journal. QR code with a direct link to maintenance instructions.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards. Provide snap-on cover clip, with plastic covers, that secures cover to spring tube.
6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck. Provide graphically labelled instructions on the closer body adjacent to each adjustment valve. Provide positive stop on reg valve that prevents reg screw from being backed out.
7. Provide closers with solid forged steel main arms and factory assembled heavy-duty forged forearms for parallel arm closers.
8. Pressure Relief Valve (PRV) Technology: Not permitted.
9. Finish for Closer Cylinders, Arms, Adapter Plates, and Metal Covers: Powder coating finish which has been certified to exceed 100 hours salt spray testing as described in ANSI Standard A156.4 and ASTM B117, or has special rust inhibitor (SRI).
10. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.12 ELECTRO-MECHANICAL AUTOMATIC OPERATORS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. LCN Senior Swing

B. Requirements:

1. Provide low energy automatic operator units that are electro-mechanical design complying with ANSI/BHMA A156.19.
 - a. Opening: Powered by DC motor working through reduction gears.
 - b. Closing: Spring force.
 - c. Manual, hydraulic, or chain drive closers: Not permitted.
 - d. Operation: Motor is off when door is in closing mode. Door can be manually operated with power on or off without damage to operator. Provide variable adjustments, including opening and closing speed adjustment.
 - e. Cover: Aluminum.
2. Provide units with manual off/auto/hold-open switch, push and go function to activate power operator, vestibule interface delay, electric lock delay, hold-open delay adjustable from 1 to 32 seconds, and logic terminal to interface with accessories, mats, and sensors.
3. Provide drop plates, brackets, and adapters for arms as required to suit details.
4. Provide motion sensors and/or actuator switches, and receivers for operation as specified. Provide weather-resistant actuators at exterior applications.

5. Provide key switches, with LED's, recommended and approved by manufacturer of automatic operator as required for function as described in operation description of hardware sets. Cylinders: Refer to "KEYING" article, herein.
6. Provide complete assemblies of controls, switches, power supplies, relays, and parts/material recommended and approved by manufacturer of automatic operator for each individual leaf. Actuators control both doors simultaneously at pairs. Sequence operation of exterior and vestibule doors with automatic operators to allow ingress or egress through both sets of openings as directed by Architect. Locate actuators, key switches, and other controls as directed by Architect.

2.13 DOOR TRIM

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives

B. Requirements:

1. Provide push plates, push bars, pull plates, pulls, and hands-free reversible door pulls with diameter and length as scheduled.

2.14 PROTECTION PLATES

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives

B. Requirements:

1. Provide protection plates with a minimum of 0.050 inch (1 mm) thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
2. Size plates 2 inches (51 mm) less width of door on single doors, pairs of doors with a mullion, and doors with edge guards. Size plates 1 inch (25 mm) less width of door on pairs without a mullion or edge guards.
3. At fire rated doors, provide protection plates over 16 inches high with UL label.

2.15 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

A. Manufacturers:

1. Scheduled Manufacturers:
 - a. Glynn-Johnson

B. Requirements:

1. Provide overhead stop at any door where conditions do not allow for a wall stop or floor stop presents tripping hazard.

2.16 DOOR STOPS AND HOLDERS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives

B. Provide door stops at each door leaf:

1. Provide wall stops wherever possible. Provide concave type where lockset has a push button or thumbturn.
2. Where a wall stop cannot be used, provide universal floor stops.
3. Where wall or floor stop cannot be used, provide overhead stop.
4. Provide roller bumper where doors open into each other and overhead stop cannot be used.

2.17 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Zero International

B. Requirements:

1. Provide thresholds, weather-stripping, and gasketing systems as specified and per architectural details. Match finish of other items.
2. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
3. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.
4. Size thresholds 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width unless otherwise specified in the hardware sets or detailed in the drawings.

2.18 SILENCERS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives

B. Requirements:

1. Provide "push-in" type silencers for hollow metal or wood frames.
2. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.
3. Omit where gasketing is specified.

2.19 DOOR POSITION SWITCHES

A. Manufacturers:

1. Scheduled Manufacturer:

a. Schlage

B. Requirements:

1. Provide recessed or surface mounted type door position switches as specified.
2. Coordinate door and frame preparations with door and frame suppliers. If switches are being used with magnetic locking device, provide minimum of 4 inches (102 mm) between switch and magnetic locking device.

2.20 COAT HOOKS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives

B. Provide coat hooks as specified.

2.21 FINISHES

A. FINISH: BHMA 626/652 (US26D); EXCEPT:

1. Hinges at Exterior Doors: BHMA 630 (US32D)
2. Aluminum Geared Continuous Hinges: BHMA 628 (US28)
3. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
4. Protection Plates: BHMA 630 (US32D)
5. Overhead Stops and Holders: BHMA 630 (US32D)
6. Door Closers: Powder Coat to Match
7. Wall Stops: BHMA 630 (US32D)
8. Latch Protectors: BHMA 630 (US32D)
9. Weatherstripping: Clear Anodized Aluminum
10. Thresholds: Mill Finish Aluminum

B. FINISH: BHMA 630 (US32D); EXCEPT:

1. Aluminum Geared Continuous Hinges: BHMA 628 (US28)
2. Door Closers: Powder Coat to Match
3. Weatherstripping: Clear Anodized Aluminum
4. Thresholds: Mill Finish Aluminum

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance. Verify doors, frames, and walls have been properly reinforced for hardware installation.
- B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.

- C. Submit a list of deficiencies in writing and proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.
 - 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
 - 2. Custom Steel Doors and Frames: HMMA 831.
 - 3. Interior Architectural Wood Flush Doors: ANSI/WDMA I.S. 1A
 - 4. Installation Guide for Doors and Hardware: DHI TDH-007-20
- B. Install door hardware in accordance with NFPA 80, NFPA 101 and provide post-install inspection, testing as specified in section 1.03.E unless otherwise required to comply with governing regulations.
- C. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.
- D. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.
- E. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.
- F. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- G. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.
- H. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated.
- I. Lock Cylinders:
 - 1. Install construction cores to secure building and areas during construction period.
 - 2. Replace construction cores with permanent cores as indicated in keying section.
 - 3. Furnish permanent cores to Owner for installation.
- J. Wiring: Coordinate with Division 26, ELECTRICAL and Division 28 ELECTRONIC SAFETY AND SECURITY sections for:
 - 1. Conduit, junction boxes and wire pulls.
 - 2. Connections to and from power supplies to electrified hardware.
 - 3. Connections to fire/smoke alarm system and smoke evacuation system.
 - 4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
 - 5. Connections to panel interface modules, controllers, and gateways.
 - 6. Testing and labeling wires with Architect's opening number.
- K. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.

- L. Door Closers & Auto Operators: Mount closers/operators on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers/operators so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.
- M. Overhead Stops/Holders: Mount overhead stops/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.
- N. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed by Architect.
- O. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."
- P. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.
- Q. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.
- R. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
- S. Door Bottoms and Sweeps: Apply to bottom of door, forming seal with threshold when door is closed.

3.03 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
 - 1. Spring Hinges: Adjust to achieve positive latching when door can close freely from an open position of 30 degrees.
 - 2. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.
 - 3. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.
- B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.04 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items per manufacturer's instructions to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.05 DOOR HARDWARE SCHEDULE

- A. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier's responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.
- B. Discrepancies, conflicting hardware, and missing items are to be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application.
- C. Hardware items are referenced in the following hardware schedule. Refer to the above specifications for special features, options, cylinders/keying, and other requirements.
- D. Hardware Sets:

Hardware Group No. 01

For use on Door #(s):

200

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112XY EPT		628	IVE
2	EA	POWER TRANSFER	EPT10		⚡ 689	VON
2	EA	MORTISE CYLINDER	1E74		626	BES
2	EA	DELAYED FIRE EXIT HARDWARE	CX9949-NL-OP-F-110MD-CON 24 VDC		⚡ 626	VON
2	EA	RIM CYLINDER	1E72		626	BES
2	EA	OFFSET DOOR PULL	9264F 36"		630	IVE
2	EA	SURFACE CLOSER	4040XP RW/PA		689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS		630	IVE
2	EA	MAGNET	SEM7850 12V/24V/120V EXTENSIONS AS REQ.		⚡ 689	LCN
1	EA	SET BRUSH MEETING STILES	8193AA		AA	ZER
1	SET	WEATHER STRIP	8303AA-S		AA	ZER
2	EA	DOOR SWEEP	39A		A	ZER
1	EA	WIRE HARNESS	CON-XXY (LOCK/EXIT TO HINGE JAMB)		⚡	SCH
1	EA	WIRE HARNESS	CON-XXP (FRAME TO POWER SUPPLY)			SCH
2		CREDENTIAL READER	CONFIRM SPEC WITH VT			
2	EA	DOOR CONTACT	679-05		⚡ BLK	SCE
1	EA	POWER SUPPLY	PS914 900-2RS-FA 120/240 VAC		⚡	VON
1		WIRING DIAGRAM	POINT TO POINT			

CARD READER X ALARM

DOORS ARE NORMALLY CLOSED AND LOCKED.
 ENTRY BY PRESENTING A VALID CREDENTIAL THAT WILL RETRACT THE LATCHES TO THE PANIC BARS AND SHUNTS THE DELAYED EGRESS ALARM ALLOWING ENTRY FROM THE EXTERIOR
 A CREDENTIAL MUST BE PRESENTED FOR EGRESS IN ORDER TO BYPASS AND SHUNT THE DELAYED EGRESS ALARM FROM THE INTERIOR.
 PRESSING THE PANIC DEVICE PUSHBAR WITHOUT PRESENTING A VALID CREDENTIAL WILL BEGIN AN IRREVERSIBLE 15-SECOND DELAY EGRESS AND ALARM CYCLE. AFTER 15 SECONDS THE DELAY WILL CEASE ALLOWING EMERGENCY EGRESS.
 THERE IS A DOOR HOLD OPEN OPTION BY USING THE ELECTRIFIED MAG HOLD OPENS.
 DURING FIRE ALARM ACTIVATION OR POWER FAILURE THE MAGLOCKS WILL AUTOMATICALLY RELEASE ALLOWING THE DOORS TO CLOSE AND LATCH PAER LIFE SAFETY.
 THE ALARM MUST BE RESET MANUALLY VIA A KEY IN THE CYLINDER.
 FREE EGRESS IS AVAILABLE AT ALL TIMES.

PROVIDE A SIGN ON THE DOOR AND LOCATE ABOVE AND WITHIN 12 INCHES OF THE DOOR EXIT HARDWARE:

1. THE SIGN SHALL READ: **PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 SECONDS.**

Hardware Group No. 02

For use on Door #(s):

C1 C5B

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 5 X 4.5 NRP		630	IVE
1	EA	POWER TRANSFER	EPT10		↗ 689	VON
1	EA	ELEC FIRE EXIT HARDWARE	RX-99-L-F-M996-06-FS-CON FAIL SAFE		↗ 626	VON
1	EA	SURFACE CLOSER	4040XP REG PULL SIDE MOUNT		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CVX		630	IVE
1	EA	GASKETING	488SBK PSA		BK	ZER
1	EA	GASKETING	8144SBK PSA		BK	ZER
1	EA	DOOR SWEEP	8192AA		AA	ZER
1	EA	WIRE HARNESS	CON-XXY (LOCK/EXIT TO HINGE JAMB)		↗	SCH
1	EA	WIRE HARNESS	CON-XXP (FRAME TO POWER SUPPLY)			SCH
1		CREDENTIAL READER	CONFIRM SPEC WITH VT			
1	EA	DOOR CONTACT	679-05		↗ BLK	SCE
1	EA	POWER SUPPLY	PS902 120/240 VAC		↗ LGR	SCE
1		WIRING DIAGRAM	POINT TO POINT			

DOOR IS NORMALLY CLOSED AND LOCKED.
 PRESENTING A VALID CREDENTIAL WILL MOMENTARILY UNLOCK THE LEVER ALLOWING ENTRY.
 DURING FIRE ALARM ACTIVATION OR POWER FAILURE THE LEVER WILL AUTOMATICALLY UNLOCK ALLOWING RE-ENTRY FROM THE STAIRWELL BACK INTO THE MAIN FLOOR.
 DOOR CAN BE MONITORED VIA THE DOOR CONTACT SWITCH.
 FREE AND IMMEDIATE EGRESS IS AVAILABLE AT ALL TIMES.

Hardware Group No. 03

For use on Door #(s):

220B 220C

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	ENTRANCE LOCK	93K7AB-15D -S3		626	BES
1	EA	WALL STOP	WS406		630	IVE
1	EA	GASKETING	8144SBK PSA		BK	ZER
1	EA	DOOR SWEEP	8192AA		AA	ZER
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	COAT AND HAT HOOK	571		626	IVE

Hardware Group No. 04

For use on Door #(s):
 C6

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	ENTRANCELOCK	93K7AB-15D -S3		626	BES
1	EA	OH STOP	100S		630	GLY
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 05

For use on Door #(s):
 T1 T2

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	ENTRANCELOCK	93K7AB-15D -S3		626	BES
1	EA	SURFACE CLOSER	4040XP RW/PA		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CVX		630	IVE
1	EA	GASKETING	8144SBK PSA		BK	ZER

Hardware Group No. 06

For use on Door #(s):
 220L 220M 220N 220P

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	PRIVACY LOCK	93K0L-15D-S3		626	BES
1	EA	WALL STOP	WS406/407CVX		630	IVE
1	EA	COAT AND HAT HOOK	571		626	IVE
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 07

For use on Door #(s):
 220R

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	PRIVACY LOCK	93K0L-15D-S3		626	BES
1	EA	SURFACE CLOSER	4040XP RW/PA PUSH SIDE MOUNT		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CVX		630	IVE
1	EA	COAT AND HAT HOOK	571		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 08

For use on Door #(s):
 220A

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	PASSAGE SET	93K0N-15D-S3		626	BES
1	EA	SURFACE CLOSER	4040XP REG PULL SIDE MOUNT		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CVX		630	IVE
1	EA	GASKETING	8144SBK PSA		BK	ZER

Hardware Group No. 09

For use on Door #(s):
 C3 C4

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		630	IVE
1	EA	PASSAGE SET	93K0N-15D-S3		626	BES
1	EA	HANDS FREE FOOT PULL	FP100		630	IVE
1	EA	SURFACE CLOSER	4040XP RW/PA PUSH SIDE MOUNT		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	MOP PLATE	8400 6" X 1" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CVX		630	IVE
1	EA	GASKETING	8144SBK PSA		BK	ZER

END OF SECTION

100215 OPT0344399
Version 1

Legend:
⚡ Electrified Opening

Door#	HwSet#
200 ⚡	01
220A	08
220B	03
220C	03
220G	Case Open
220H	Case Open
220L	06
220M	06
220N	06
220P	06
220R	07
C1 ⚡	02
C3	09
C4	09
C5B ⚡	02
C6	04
T1	05
T2	05



Solutions for all your Environmental and OSHA Concerns

June 6, 2023

Asbestos & Lead Inspection Report

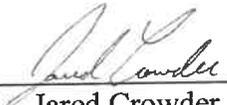
Project Location:

Virginia Polytechnic Institute & State University
Military Building
2nd Floor Renovation
WO# 22-516461

Prepared For:

Virginia Polytechnic Institute & State University
Blacksburg, Virginia

Prepared By:


Jared Crowder
Lead Inspector


Fred Danner
Asbestos Inspector

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Scope of Work

HDH Technical, Inc. was contracted by Virginia Polytechnic Institute and State University to provide an asbestos inspection and lead-based paint screening on portions of the Military Building that could potentially be disturbed in conjunction with WO# 22-516461. The inspection was conducted by personnel trained and licensed in accordance with the regulations of the Environmental Protection Agency (EPA) and the Commonwealth of Virginia. This inspection was performed using current EPA AHERA standards. This protocol was used for the determination, sampling and analysis of suspected Asbestos Containing Materials (ACM). Only those parts of the structure scheduled to undergo renovation, as directed by the client, were included in this inspection.

Also included in this report is a Lead-Based Paint Screening at this location. The term "screening" is used as opposed to "inspection" due to the fact that a complete HUD type paint inspection of each surface in every space was not performed. Generally speaking, each differing type of interior and exterior component and each differing type of paint was tested, although each component was not tested in each room. This "screening" will be referred to as an "inspection" throughout this report and was conducted in accordance with accepted industry standards and applicable regulations established by OSHA and the EPA. This inspection only identifies lead-based paint that is accessible through non-destructive methods. It does not identify lead-based paint materials located within walls, concrete decks, subfloors, or other generally inaccessible areas.

ASBESTOS INSPECTION

An inspection of the specified locations within the Military Building was performed on June 2, 2023 by representatives of HDHT. The objective of this inspection was to determine the location of asbestos-containing building materials (ACBM) currently located on the interior of this structure that may be disturbed in conjunction with upcoming renovation activities at specified locations in this structure.

The inspection was conducted by personnel trained and licensed in accordance with the regulations of the Environmental Protection Agency (EPA) and the Commonwealth of Virginia. This inspection meets the protocol outlined in current EPA AHERA regulations. This protocol was used for the determination, sampling and analysis of suspect asbestos containing materials.

As the sample summary indicates, the following suspect materials sampled were reported to be asbestos containing by the laboratory:

- **Floor Tile – 12”x12” – White with Tan Streaks AND Associated Mastic**
- **Floor Tile – 12”x12” – Brown with Gray Streaks AND Associated Mastic**

Labeled Aircell Pipe Insulation was observed during this inspection. This material appeared to be encapsulated, therefore it was not sampled. Any non-fiberglass pipe insulation is ASSUMED to be a FRIABLE asbestos containing material.

These Non-Friable (Floor Tile & Mastic) & Friable (Pipe Insulation) asbestos containing materials should be removed prior to renovation activities at this location, if they are to be disturbed. Removal should be performed by licensed, contract personnel using approved methods.

Friable Asbestos Material: Material when dry, may be crumbled, pulverized or reduced to powder by hand pressure and includes previously non-friable material after such previously non-friable material becomes damaged to the extent that when dry is may be crumbled, pulverized, or reduced to powder by hand pressure.

Non-friable Asbestos Material: Material that contains asbestos in which the fibers have been locked in by a bonding agent, coating, binder, or other material so that the asbestos is well bound and will not release fibers during any appropriate use, handling, demolition, storage, transportation, processing or disposal

This information should be provided to all contract personnel for their use in meeting current OSHA requirements. Every attempt was made to gain access to all areas or to assess representative materials entering or leaving the area. HDH Technical, Inc. accepts no liability nor makes any claims regarding ACBM which was not accessible during the inspection process if such material was located behind or within walls, concrete decks, subfloors, or was generally inaccessible without destructive sampling. If any additional suspect materials are identified during the course of the project, the contractor is to immediately stop work and contact the Owner for further direction.

Asbestos Sample Summary

Military Building

LAB #	SAMPLE ID	SAMPLE DESCRIPTION	RESULT	%
23030407 -001	PM 1.1	Pipe Mastic on Fiberglass	ND	-
23030407 -002	PM 1.2	Pipe Mastic on Fiberglass	ND	-
23030407 -003	ES 2.1	End Sealer on Fiberglass	ND	-
23030407 -004	ES 2.2	End Sealer on Fiberglass	ND	-
23030407 -005	VM 3.1	Valve Mud between fiberglass joints	ND	-
23030407 -006	VM 3.2	Valve Mud between fiberglass joints	ND	-
23030407 -007	PI 4.1	Pipe Insulation - Aircell	ND	-
23030407 -008	PI 4.2	Pipe Insulation - Aircell	ND	-
23030407 -009	EM 5.1	Elbow Mud - Steam line	ND	-
23030407 -010	EM 5.2	Elbow Mud - Steam line	ND	-
23030407 -011	DM 6.1	Duct Mastic - White	ND	-
23030407 -012	DM 6.2	Duct Mastic - White	ND	-
23030407 -013	CT 7.1	Ceiling Tile - Random Pattern	ND	-
23030407 -014	CT 7.2	Ceiling Tile - Random Pattern	ND	-
23030407 -015	CT 7.3	Ceiling Tile - Random Pattern	ND	-
23030407 -016	FT 8.1	Floor Tile - 12" X 12" - White w/ Brown	■	2%
23030407 -017	FT 8.2	Floor Tile - 12" X 12" - White w/ Brown	■	2%
23030407 -018	TM 9.1	Tile Mastic on FT 8	■	2%
23030407 -019	TM 9.2	Tile Mastic on FT 8	■	2%
23030407 -020	FT 10.1	Floor Tile - 12" X 12" - Cream w/ Tan	ND	-
23030407 -021	FT 10.21	Floor Tile - 12" X 12" - Cream w/ Tan	ND	-
23030407 -022	TM 11.1	Tile Mastic on FT 10	ND	-
23030407 -023	TM 11.2	Tile Mastic on FT 10	ND	-
23030407 -024	BM 12.1	Baseboard Mastic	ND	-
23030407 -024	BM 12.2	Baseboard Mastic	ND	-
23030407 -026	SR 13.1	Sheetrock	ND	-
23030407 -027	SR 13.2	Sheetrock	ND	-
23030407 -028	SR 13.3	Sheetrock	ND	-
23030407 -029	JC 14.1	Joint Compound	ND	-
23030407 -030	JC 14.2	Joint Compound	ND	-
23030407 -031	JC 14.3	Joint Compound	ND	-
23030407 -032	FT 15.1	Floor Tile - 12" X 12" - Brown w/ Gray	■	2%

ND = NONE DETECTED

**NA = NOT ANALYZED
POSITIVE STOP**

■ = CHRYSOTILE

▲ = AMOSITE

● = OTHER

Laboratory Report



1551 Oakbridge Drive Suite B
 Powhatan, VA 23139
 804-807-1177 / 888-895-1175
 Fax 804-897-0070
 www.sanair.com

Asbestos
 Chain of Custody

SanAir ID Number
 23030407

Company: HDH Technical, Inc	Project #: WO#22-516461	Collected by: Danner
Address: 1305 Radford Street	Project Name: Military Building Upstairs	Phone #: 540-381-7999
City, St, Zip: Christiansburg, VA 24073	Date Collected: 6/2/2023	Email: rriebal@hdhassociates.com
State of Collection: VA Account #: 1769	P.O. Number: VT - Bryan	Email: fdanner@hdhassociates.com

Bulk			Air			Soil/Vermiculite		
ABB	PLM EPA 600/R-93/116	<input checked="" type="checkbox"/>	ABA	PCM NIOSH 7400	<input type="checkbox"/>	ABSE	PLM EPA 600/R-93/116 (Qual.)	<input type="checkbox"/>
	Positive Stop	<input type="checkbox"/>	ABA-2	OSHA w/ TWA	<input type="checkbox"/>	ABSP	PLM CARB 435 (LOD <1%)	<input type="checkbox"/>
ABEPA	PLM EPA 400 Point Count	<input type="checkbox"/>	ABTEM	TEM AHERA	<input type="checkbox"/>	ABSP1	PLM CARB 435 (LOD 0.25%)	<input type="checkbox"/>
ABB1K	PLM EPA 1000 Point Count	<input type="checkbox"/>	ABATN	TEM NIOSH 7402	<input type="checkbox"/>	ABSP2	PLM CARB 435 (LOD 0.1%)	<input type="checkbox"/>
ABBen	PLM EPA NOB	<input type="checkbox"/>	ABT2	TEM Level II	<input type="checkbox"/>			
ABBCH	TEM Chatfield	<input type="checkbox"/>						
ABBTM	TEM EPA NOB	<input type="checkbox"/>						

Water			New York ELAP			Dust		
ABHE	EPA 100.2	<input type="checkbox"/>	PLM NY	PLM EPA 600/M4-82-020	<input type="checkbox"/>	ABWA	TEM Wipe ASTM D-6480	<input type="checkbox"/>
			ABEPA2	NY ELAP 198.1	<input type="checkbox"/>	ABDMV	TEM Microvac ASTM D-5755	<input type="checkbox"/>
			ABENY	NY ELAP 198.6 PLM NOB	<input type="checkbox"/>			
			ABBNY	NY ELAP 198.4 TEM NOB	<input type="checkbox"/>	Matrix	Other	<input type="checkbox"/>

Turn Around Times	3 HR (4 HR TEM)	<input type="checkbox"/>	6 HR (8HR TEM)	<input type="checkbox"/>	12 HR	<input type="checkbox"/>	24 HR	<input checked="" type="checkbox"/>
	2 Days	<input type="checkbox"/>	3 Days	<input type="checkbox"/>	4 Days	<input type="checkbox"/>	5 Days	<input type="checkbox"/>

Special Instructions:

SAMPLE ID	SAMPLE DESCRIPTION
PM 1.1	Pipe Mastic on Fiberglass
PM 1.2	Pipe Mastic on Fiberglass
ES 2.1	End Sealer on Fiberglass
ES 2.2	End Sealer on Fiberglass
VM 3.1	Valve Mud between fiberglass joints
VM 3.2	Valve Mud between fiberglass joints
PI 4.1	Pipe Insulation - Aircell
PI 4.2	Pipe Insulation - Aircell
EM 5.1	Elbow Mud - Steam line
EM 5.2	Elbow Mud - Steam line
DM 6.1	Duct Mastic - White

Special Instructions

Relinquished by	Date	Time	Received by	Date	Time
Danner	6/2/2023	3:28 PM	UPS <i>[Signature]</i>	6/2/2023	3:28 PM <i>[Signature]</i>

Unless scheduled, the turn around time for all samples received after 3 pm EST Friday will begin at 8 am Monday morning. Weekend or Holiday work must be scheduled ahead of time and is charged for rush turn around time. Work with standard turn around time sent Priority Overnight and Billed to Recipient will be charged a \$10 shipping fee.

23030407

SAMPLE ID	SAMPLE DESCRIPTION
DM 6.2	Duct Mastic - White
CT 7.1	Ceiling Tile - Random Pattern
CT 7.2	Ceiling Tile - Random Pattern
CT 7.3	Ceiling Tile - Random Pattern
FT 8.1	Floor Tile - 12" X 12" - White w/ Brown
FT 8.2	Floor Tile - 12" X 12" - White w/ Brown
TM 9.1	Tile Mastic on FT 8
TM 9.2	Tile Mastic on FT 8
FT 10.1	Floor Tile - 12" X 12" - Cream w/ Tan
FT 10.21	Floor Tile - 12" X 12" - Cream w/ Tan
TM 11.1	Tile Mastic on FT 10
TM 11.2	Tile Mastic on FT 10
BM 12.1	Baseboard Mastic
BM 12.2	Baseboard Mastic
SR 13.1	Sheetrock
SR 13.2	Sheetrock
SR 13.3	Sheetrock
JC 14.1	Joint Compound
JC 14.2	Joint Compound
JC 14.3	Joint Compound
FT 15.1	Floor Tile - 12" X 12" - Brown w/ Gray
FT 15.2	Floor Tile - 12" X 12" - Brown w/ Gray
TM 16.1	Tile Mastic on FT 15
TM 16.2	Tile Mastic on FT 15
CT 17.1	Ceiling Tile - Horizontal Lines - Dark
CT 17.2	Ceiling Tile - Horizontal Lines - Dark
CT 17.3	Ceiling Tile - Horizontal Lines - Dark

Special Instructions	
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Relinquished by	Date	Time	Received by	Date	Time
Danner	6/2/2023	3:28 PM	FedEx <i>[Signature]</i>	6/2/2023 <i>6/5/23</i>	3:28 PM <i>10:09</i>

Unless scheduled, the turn around time for all samples received after 3 pm EST Friday will begin at 8 am Monday morning. Weekend or Holiday work must be scheduled ahead of time and is charged for rush turn around time. Work with standard turn around time sent Priority Overnight and Billed to Recipient will be charged a \$10 shipping fee.



SanAir ID Number
23030407
 FINAL REPORT
 6/6/2023 9:53:53 AM

Name: HDH Technical, Inc.
Address: P.O. Box 6158
 Christiansburg, VA 24073
Phone: 540-381-7999

Project Number: WO#22-516461
P.O. Number: VT - Bryan
Project Name: Military Building Upstairs
Collected Date: 6/2/2023
Received Date: 6/5/2023 10:05:00 AM

Analyst: Hogrefe, Sarah

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
PM 1.1 / 23030407-001 Pipe Mastic On Fiberglass	Various Fibrous Heterogeneous	75% Cellulose 10% Glass	15% Other	None Detected
PM 1.2 / 23030407-002 Pipe Mastic On Fiberglass	Various Fibrous Heterogeneous	75% Cellulose 10% Glass	15% Other	None Detected
ES 2.1 / 23030407-003 End Sealer On Fiberglass	Off-White Non-Fibrous Homogeneous		100% Other	None Detected
ES 2.2 / 23030407-004 End Sealer On Fiberglass	Off-White Non-Fibrous Homogeneous		100% Other	None Detected
VM 3.1 / 23030407-005 Valve Mud Between Fiberglass Joints, Mud	Gray Non-Fibrous Homogeneous	10% Glass	90% Other	None Detected
VM 3.1 / 23030407-005 Valve Mud Between Fiberglass Joints, Wrap	White Fibrous Homogeneous	80% Cellulose	20% Other	None Detected
VM 3.2 / 23030407-006 Valve Mud Between Fiberglass Joints, Mud	Gray Non-Fibrous Homogeneous	10% Glass	90% Other	None Detected
VM 3.2 / 23030407-006 Valve Mud Between Fiberglass Joints, Wrap	White Fibrous Homogeneous	80% Cellulose	20% Other	None Detected
PI 4.1 / 23030407-007 Pipe Insulation - Aircell, Mud	Gray Non-Fibrous Homogeneous	20% Glass	80% Other	None Detected
PI 4.2 / 23030407-008 Pipe Insulation - Aircell, Mud	Gray Non-Fibrous Homogeneous	20% Glass	80% Other	None Detected

Analyst:

Approved Signatory:

Analysis Date:

6/6/2023

Date:

6/6/2023



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Analyst: Hogrefe, Sarah

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
PI 4.2 / 23030407-008 Pipe Insulation - Aircell, Insulation	Yellow Fibrous Homogeneous	99% Glass	1% Other	None Detected
EM 5.1 / 23030407-009 Elbow Mud - Steam Line	Gray Non-Fibrous Homogeneous	20% Glass	80% Other	None Detected
EM 5.2 / 23030407-010 Elbow Mud - Steam Line, Mud	Gray Non-Fibrous Homogeneous	20% Glass	80% Other	None Detected
EM 5.2 / 23030407-010 Elbow Mud - Steam Line, Wrap	Tan Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
DM 6.1 / 23030407-011 Duct Mastic	White Non-Fibrous Homogeneous		100% Other	None Detected
DM 6.2 / 23030407-012 Duct Mastic	White Non-Fibrous Homogeneous		100% Other	None Detected
CT 7.1 / 23030407-013 Ceiling Tile - Random Pattern	White Fibrous Homogeneous	60% Cellulose 10% Glass	30% Other	None Detected
CT 7.2 / 23030407-014 Ceiling Tile - Random Pattern	White Fibrous Homogeneous	60% Cellulose 10% Glass	30% Other	None Detected
CT 7.3 / 23030407-015 Ceiling Tile - Random Pattern	White Fibrous Homogeneous	60% Cellulose 10% Glass	30% Other	None Detected
FT 8.1 / 23030407-016 Floor Tile - 12x12	White Non-Fibrous Homogeneous		98% Other	2% Chrysotile

Analyst:

Approved Signatory:

Analysis Date: 6/6/2023

Date: 6/6/2023



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Analyst: Hogrefe, Sarah

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic		Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous		
FT 8.2 / 23030407-017 Floor Tile - 12x12	White Non-Fibrous Homogeneous		98% Other		2% Chrysotile
TM 9.1 / 23030407-018 Tile Mastic On FT 8	Black Non-Fibrous Homogeneous		98% Other		2% Chrysotile
TM 9.2 / 23030407-019 Tile Mastic On FT 8	Black Non-Fibrous Homogeneous		98% Other		2% Chrysotile
FT 10.1 / 23030407-020 Floor Tile - 12x12	Cream Non-Fibrous Homogeneous		100% Other		None Detected
FT 10.21 / 23030407-021 Floor Tile - 12x12	Cream Non-Fibrous Homogeneous		100% Other		None Detected
TM 11.1 / 23030407-022 Tile Mastic On FT 10	Yellow Non-Fibrous Homogeneous		100% Other		None Detected
TM 11.2 / 23030407-023 Tile Mastic On FT 10	Yellow Non-Fibrous Homogeneous		100% Other		None Detected
BM 12.1 / 23030407-024 Baseboard Mastic	Tan Non-Fibrous Homogeneous		100% Other		None Detected
BM 12.2 / 23030407-025 Baseboard Mastic	Tan Non-Fibrous Homogeneous		100% Other		None Detected
SR 13.1 / 23030407-026 Sheetrock	White Non-Fibrous Homogeneous	5% Cellulose	95% Other		None Detected

Analyst:

Approved Signatory:

Analysis Date: 6/6/2023

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Analyst: Hogrefe, Sarah

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
SR 13.2 / 23030407-027 Sheetrock	White Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected
SR 13.3 / 23030407-028 Sheetrock	White Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected
JC 14.1 / 23030407-029 Joint Compound	White Non-Fibrous Homogeneous		100% Other	None Detected
JC 14.2 / 23030407-030 Joint Compound	White Non-Fibrous Homogeneous		100% Other	None Detected
JC 14.3 / 23030407-031 Joint Compound	White Non-Fibrous Homogeneous		100% Other	None Detected
FT 15.1 / 23030407-032 Floor Tile - 12x12	Brown Non-Fibrous Homogeneous		98% Other	2% Chrysotile
FT 15.2 / 23030407-033 Floor Tile - 12x12	Brown Non-Fibrous Homogeneous		98% Other	2% Chrysotile
TM 16.1 / 23030407-034 Tile Mastic On FT 15	Black Non-Fibrous Homogeneous		95% Other	5% Chrysotile
TM 16.2 / 23030407-035 Tile Mastic On FT 15	Black Non-Fibrous Homogeneous		95% Other	5% Chrysotile
CT 17.1 / 23030407-036 Ceiling Tile - Horizontal Lines	White Fibrous Homogeneous	40% Cellulose 30% Glass	30% Other	None Detected

Analyst:

Approved Signatory:

Analysis Date: 6/6/2023

Date: 6/6/2023



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Analyst: Hogrefe, Sarah

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic Appearance	Components		Asbestos Fibers
		% Fibrous	% Non-fibrous	
CT 17.2 / 23030407-037 Ceiling Tile - Horizontal Lines	White Fibrous Homogeneous	40% Cellulose 30% Glass	30% Other	None Detected
CT 17.3 / 23030407-038 Ceiling Tile - Horizontal Lines	White Fibrous Homogeneous	40% Cellulose 30% Glass	30% Other	None Detected
CT 18.1 / 23030407-039 Ceiling Tile - Horizontal Lines	White Fibrous Homogeneous	40% Cellulose 30% Glass	30% Other	None Detected
CT 18.2 / 23030407-040 Ceiling Tile - Horizontal Lines	White Fibrous Homogeneous	40% Cellulose 30% Glass	30% Other	None Detected
CT 18.3 / 23030407-041 Ceiling Tile - Horizontal Lines	White Fibrous Homogeneous	40% Cellulose 30% Glass	30% Other	None Detected
FT 19.1 / 23030407-042 Floor Tile - 12x12	Brown Non-Fibrous Homogeneous		100% Other	None Detected
FT 19.2 / 23030407-043 Floor Tile - 12x12	Brown Non-Fibrous Homogeneous		100% Other	None Detected
TM 20.1 / 23030407-044 Tile Mastic On FT 19	Tan Non-Fibrous Homogeneous		100% Other	None Detected
TM 20.2 / 23030407-045 Tile Mastic On FT 19	Tan Non-Fibrous Homogeneous		100% Other	None Detected
FT 21.1 / 23030407-046 Floor Tile - 12x12 - Stairwell	Gray Non-Fibrous Homogeneous		100% Other	None Detected

Analyst:

Approved Signatory:

Analysis Date: 6/6/2023

Date: 6/6/2023



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Analyst: Hogrefe, Sarah

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
FT 21.2 / 23030407-047 Floor Tile - 12x12 - Stairwell	Gray Non-Fibrous Homogeneous		100% Other	None Detected
TM 22.1 / 23030407-048 Tile Mastic On FT 21				Not Submitted
TM 22.2 / 23030407-049 Tile Mastic On FT 21				Not Submitted

Analyst:

Approved Signatory:

Analysis Date:

6/6/2023

Date:

6/6/2023



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Project Number: WO#22-516461
P.O. Number: VT - Bryan
Project Name: Military Building Upstairs
Collected Date: 6/2/2023
Received Date: 6/5/2023 10:05:00 AM

Dear Danner,

We at SanAir would like to thank you for the work you recently submitted. The 49 sample(s) were received on Monday, June 05, 2023 via UPS. The final report(s) is enclosed for the following sample(s): PM 1.1, PM 1.2, ES 2.1, ES 2.2, VM 3.1, VM 3.2, PI 4.1, PI 4.2, EM 5.1, EM 5.2, DM 6.1, DM 6.2, CT 7.1, CT 7.2, CT 7.3, FT 8.1, FT 8.2, TM 9.1, TM 9.2, FT 10.1, FT 10.2, TM 11.1, TM 11.2, BM 12.1, BM 12.2, SR 13.1, SR 13.2, SR 13.3, JC 14.1, JC 14.2, JC 14.3, FT 15.1, FT 15.2, TM 16.1, TM 16.2, CT 17.1, CT 17.2, CT 17.3, CT 18.1, CT 18.2, CT 18.3, FT 19.1, FT 19.2, TM 20.1, TM 20.2, FT 21.1, FT 21.2, TM 22.1, TM 22.2.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

Sandra Sobrino
Asbestos & Materials Laboratory Manager
SanAir Technologies Laboratory

Final Report Includes:

- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

Sample conditions:

- 2 samples in Discrepancy w/ COC condition. (#7, #8)
- 45 samples in Good condition.
- 2 samples in Layer Missing condition. (#48, #49)

Disclaimer

This report is the sole property of the client named on the SanAir Technologies Laboratory chain-of-custody (COC). Results in the report are confidential information intended only for the use by the customer listed on the COC. Neither results nor reports will be discussed with or released to any third party without our client's written permission. The final report shall not be reproduced except in full without written approval of the laboratory to assure that parts of the report are not taken out of context. The information provided in this report applies only to the samples submitted and is relevant only for the date, time, and location of sampling. The accuracy of the results is dependent upon the client's sampling procedure and information provided to the laboratory by the client. SanAir assumes no responsibility for the sampling procedure and will provide evaluation reports based solely on the sample(s) in the condition in which they arrived at the laboratory and information provided by the client on the COC, such as: project number, project name, collection dates, po number, special instructions, samples collected by, sample numbers, sample identifications, sample type, selected analysis type, flow rate, total volume or area, and start stop times that may affect the validity of the results in this report. Samples were received in good condition unless otherwise noted on the report. SanAir assumes no responsibility or liability for the manner in which the results are used or interpreted. This report does not constitute and shall not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any other U.S. governmental agencies and may not be certified by every local, state, and federal regulatory agencies.

Samples are held for a period of 60 days. Fibers smaller than 5 microns cannot be seen with this method due to scope limitations.

For NY state samples, method EPA 600/M4-82-020 is performed.

NYELAP Disclaimer:

Polarized- light microscopy is not consistently reliable in detecting asbestos in floor covering and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

Asbestos Certifications

NVLAP lab code 200870-0

City of Philadelphia: ALL-460

PA Department of Environmental Protection Number: 68-05397

California License Number: 2915

Colorado License Number: AL-23143

Connecticut License Number: PH-0105

Massachusetts License Number: AA000222

Maine License Number: LB-0075, LA-0084

New York ELAP lab ID: 11983

Rhode Island License Number: PCM00126, PLM00126, TEM00126

Texas Department of State Health Services License Number: 300440

Commonwealth of Virginia 3333000323

Washington State License Number: C989

West Virginia License Number: LT000616

Vermont License: AL166318

Louisiana Department of Environmental Quality: 212253, Cert 05088

Revision Date: 8/14/2020

LEAD INSPECTION

On June 2, 2023 a Lead-Based Paint inspection was also conducted on the specified locations of the Military Building. The inspection was conducted to identify potential lead-based paint concerns involved in this renovation project. The areas were inspected by Jared Crowder.

The inspection determined that the following surfaces tested contain lead greater than or equal to 1.0 mg/cm, and are considered to be lead-based paint surfaces as defined by the Virginia Department of Professional and Occupational Regulation (DPOR) and the Environmental Protection Agency (EPA):

- **Painted Metal Windows**
- **Painted Metal Window Lintels**
- **Painted Gray Door and Components Between Sewing Room and Tailor Shop Warehouse?**

All persons involved in the disturbance of lead based or lead containing painted surfaces should be adequately trained to do so. All contractors should be provided with the results for their use in meeting current OSHA requirements for the protection of their workers and the environment.

This inspection was in compliance with the Virginia Lead-based Paint Activities Regulations, October 1, 1995. The Inspector is properly trained, licensed, and met the competency requirements spelled out in those regulations.

FIELD VERIFICATION

Jared Crowder, licensed lead-based paint inspector inspected the structure on June 2, 2023.

A total of thirty-six (36) X-Ray Florescence (XRF) readings, including calibrations, were taken in substantial conformance with industry standards and other applicable federal and state regulations.

Jared Crowder's Virginia Lead Inspector license number is 3355001118.

The XRF was calibrated prior to use and at the end of the testing, or every four hours, whichever came first.

For the purposes of this inspection lead-based paint is defined as greater than or equal to 1.0 mg/cm².

Qualifications

The inspection was conducted by Jared Crowder, Licensed Lead Inspector #3355001118. The inspection was conducted in accordance with applicable Local, State, and Federal regulations.

Methodologies

This inspection was conducted in accordance with accepted industry standards and applicable regulations established by OSHA and the EPA. This inspection only identifies lead-based paint that is accessible through non-destructive methods. It does not identify lead-based paint materials located within walls, concrete decks, subfloors, or other generally inaccessible areas.

Disclaimer

This inspection report is written for and intended for the use of the Owner and its representatives only. HDHT is not responsible nor will be held liable for any interpretation made, opinions formed, or conclusions drawn by any third party as a result of examining the lab results, inspection results or this report. Any interpretations, opinions, and conclusions will be those made, formed, and drawn solely by that third party.

A lead inspector/risk assessor properly trained by a training institution utilizing an approved HUD curriculum and subsequently licensed to perform inspections by the Commonwealth of Virginia performed the inspection of this structure. HDHT accepts no liability nor makes any claims regarding lead based painted surfaces which were not tested and lead -based painted surfaces which were not accessible during the inspection process if such material was located behind or within walls, concrete decks, sub-floors, chases, or was otherwise generally inaccessible without destructive sampling.

Photos

Military Building 2nd Floor



White and Gray Floor Tile was found to be asbestos containing by the laboratory.



Brown and White Floor Tile was found to be asbestos containing by the laboratory.

Military Building 2nd Floor



Labeled Aircell Pipe Insulation



Painted Metal Windows were found to utilize lead-based paint.

Military Building 2nd Floor



Painted Gray Door and Components were found to utilize lead-based paint.

Applicable Licenses

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
05-31-2023

NUMBER
3303004166

BOARD FOR ASBESTOS, LEAD, AND HOME INSPECTORS
ASBESTOS INSPECTOR LICENSE



FREDERICK REED DANNER
755 B WEST MAIN ST
CHRISTIANSBURG, VA 24073-0000



Jonathan J. Miller
Jonathan J. Miller, Director

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

DPOR-LIC (02/2017)

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON
02-29-2024

NUMBER
3355001118

BOARD FOR ASBESTOS, LEAD, AND HOME INSPECTORS
LEAD INSPECTOR LICENSE



JARED ALLEN CROWDER
5789 TABERNACLE PL
PULASKI, VA 24301



Dominic J. Noffs
Director

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

AECOM
10 South Jefferson Street
Roanoke, VA 24011