CHAPTER 13 – CONSTRUCTION SERVICES: CONTRACT ADMINISTRATION, FEES, AND PAYMENTS

SECTION 13.1 GENERAL

The General Conditions of the Construction Contract, HECO-7 (or HECO-7CM/HECO-7DB, as applicable), describe the contract administration procedures. Refer to DCM Appendix I.

SECTION 13.2 CONSTRUCTION CONTRACT ADMINISTRATION

13.2.1 A/E Construction Period Services

The A/E's Basic Services requires the A/E to assist in the solicitation of bids, assist in bid opening, review and approve submittals, visit the site periodically and inspect the work, complete Structural and Special inspections, review and certify Contractor payment requests, participate in on site preconstruction, progress and pre-installation meetings, issue clarifications of the Documents, issue Field Orders, process change orders, provide substantial and final completion inspections and certifications and other functions associated with contract administration. These services should also be referenced or described in the A/E contract or its Memorandum of Understanding. These services and/or other services may also be provided by special consultants.

13.2.2 Other A/E Services During the Construction Period

The following construction period services shall also be provided by the A/E as part of periodic site visit basic services unless specifically deleted by the A/E contract in its MOU:

- Conduct preconstruction meeting with University PM
- Confirm in writing, all verbal orders given by the A/E to the contractor and/or project inspector
- Transmit the University's orders to contractors
- Review contractor's HECO-12 Schedule of Values, continuation sheets, and approve for acceptable level of breakdown, acceptable allocation of costs, proper listing of 'unit price' work shown on the Bid Form, and separate listing of change order costs.
- Verify quantities of unit price work and prepare change orders as appropriate for quantities performed or incorporated in the Work.
- Review proposed work plan & schedule
- Review schedule for adequate time to review submittals
- Review/recommend approval of project CPM schedule per the HECO-7, General Conditions of the Construction Contract
- Report on Contractor adherence to schedule
- Review/approve progress graph
- Approve Contractor's proposed type of temporary heat as it may affect protection of construction
- Advise the University on construction matters related to the projects
- Make site visits and provide written reports
- Determine progress and quality of the Work
- Recommend suspension of Work, if necessary

- Inspect/spot check Work for conformance with the Contract Documents and the codes and installation/workmanship standards therein
- Note and report defects and deviations in the Work
- Identify to University CM-Inspector and other Project Inspectors any specific checks or inspections to be made as the Work progresses including what to look for
- Require defective Work to be removed and redone
- Reject inferior or poor workmanship
- Reject Work which does not conform to Contract Documents requirements
- Require Contractor to make repairs or changes deemed necessary
- With the University's approval, suspend Work which depends on non-conforming Work until an acceptable correction or replacement is provided by the Contractor
- Approve repair/restoration of damaged work
- Conduct and document interim Building Official inspections as requested by PM
- Inspect roof and advise when ready for roof survey
- Approve HECO-12 and Schedule of Values format, content and breakdown
- Schedule and conduct monthly pay meeting with University PM
- Review HECO-12 pay request vs. work done & materials stored & certify amount
- Certify monthly pay requests
- Receive Contractor's affidavit of payment of claim
- Review Contractor requests/claims for extension of time
- Review Contractor claims for extras
- Verify Project is ready for substantial completion inspection prior to actual inspection
- Conduct Substantial Completion Inspection and prepare punch list
- Complete and sign Certificate of Substantial Completion, HECO-13.1a
- Conduct Final Completion Inspection
- Complete and sign Certificate of Completion, HECO-13.1
- Coordinate Operation & Maintenance Manuals and other project closeout documents
- Prepare Record Drawings

13.2.3 Construction Administration Management

The University may assign a University Construction Manager to assist the University PM as the University's onsite representative for the construction phase; to manage any other construction phase consultants; to coordinate other consultant, A/E and Contractor communications; to expedite resolution of all conflicts; to perform additional quality assurance oversight (such as inspection, verification, acceptance, rejection) and to perform other administrative oversight. The University Construction Manager shall be included in all written decisions and notices to the Contractor and information and notices from the Contractor. All activities not specifically required to be performed by the A/E may be performed by the University Construction Manager or by the University's selected consultant.

13.2.4 Delegated Inspections

The University may also delegate from the A/E to any selected consultants certain inspection, verification, acceptance, rejection, and administrative duties and authority. The University shall provide the Contractor and the A/E information in writing defining the limits of the selected consultants' authority.

SECTION 13.3 CONSTRUCTION MEETINGS

13.3.1 Preconstruction Meeting

Prior to the start of construction, a Preconstruction meeting shall be held. Attendees should include the Director of Design & Construction, University PM, the University Construction Manager, the building user, the A/E's Representative including selected representatives of each design discipline involved in the project, special consultants, the Contractor's PM and Superintendent (and Scheduler, if Contractor desires), and representatives of the Contractor's major Subcontractors. See Preconstruction Conference Format in Appendix Q and the General Conditions of the Construction Contract (HECO-7) section 50.

13.3.2 Monthly Pay Meetings

The intention is that the Contractor, the University PM, the University Construction Manager, the A/E and other consultants have timely exchange of information and cooperate to accomplish the work as required by the contract documents. See the General Conditions of the Construction Contract (HECO-7) Section 50. The monthly pay meeting is normally the best opportunity to exchange information and should include the following topics:

- Observations of status, quality and workmanship of work in progress
- Validation of the Schedule of Values and Certificate for payment
- Conformance with proposed construction schedule
- Outstanding Requests for Information, Requests for Clarification, and Requests for Proposal
- Submittals with action pending
- Status of pending change orders
- Status of Running Punch List items
- Work proposed for coming pay period
- Discussions of any problems or potential problems which need attention

13.3.3 Other Meetings

Other meetings, such as progress meetings, coordination meetings, pre-installation meetings and/or partnering meetings may also be appropriate. See the General Conditions of the Construction Contract (HECO-7) section 50. Pre-installation meetings are required for all HVAC systems and components. Such meetings should include the A/E, the project engineer for the discipline, the University Construction Manager, any commissioning consultant, the Contractor's PM and superintendent, the mechanical Subcontractor's PM and superintendent, and a representative of a major supplier or manufacturer.

SECTION 13.4 SCHEDULE OF VALUES AND CERTIFICATE FOR PAYMENT

The General Conditions of the Construction Contract, HECO-7, describe in Sections 20 and 36 the requirements for completing the Schedule of Values and Certificate for Payment, HECO-12, and for providing documentation of work performed and for properly stored materials. The A/E is required to:

- Review and approve the format and breakdown of the initial Schedule of Values
- Based on a monthly "plan in hand" review of the construction progress, review, evaluate, verify, and approve the Contractor's monthly submittal of the HECO-12 documentation requesting payment.

SECTION 13.5 INSPECTION OF WORK

13.5.1 General

The General Conditions of the Construction Contract, HECO-7, describes in Section 16 the requirements, responsibilities and authorities for inspection of the construction work and for correction of deficiencies and/or defects found. Also, Section 21 describes access to the work site. Inspections requested when the work is obviously not ready for such testing and inspections may result in a back charge to the A/E or Contractor for the costs of inspection team visits and related costs.

13.5.2 Site Inspections

The A/E's inspection services generally require onsite inspections at least twice a month and availability to answer questions from the University.

13.5.2.1 - The University will designate a specific individual to serve as University Construction Manager (called Project Inspector in the HECO-7).

- The University CM-Inspector will report to the University PM for duties on his/her project.
- The duties and functions of the University Construction Manager include those listed in Section 16 of the General Conditions of the Construction Contract, HECO-7.
- A detailed list of duties along with sample formats for recording required information are included in Appendix O.

13.5.3 Project Coordination and Communication

It is essential that the A/E, the University PM, the University Construction Manager, and any project consultants work together to observe and inspect the work and to regularly communicate to assure that work being performed conforms to the contract documents.

13.5.4 Commissioning Inspection of HVAC Systems

See section 9.17 for design phase commissioning requirements.

13.5.4.1 - Prior to any submittals and/or installation a pre-installation meeting will be held. See section 13.3.3 above.

13.5.4.2 - The A/E field representative or Commissioning Agent will observe the Contractor's functional performance testing and report his observations to the A/E of record. Observations shall include, but not limited to:

- pressure tests
- Flushing/cleaning
- Testing, balancing, adjusting and start-up of equipment
- The testing of automatic controls

13.5.4.3 - The A/E shall schedule periodic inspections of the HVAC systems and be present for such testing.

13.5.5 Sophisticated HVAC Systems

Some sophisticated HVAC systems for facilities such as laboratories, medical science facilities, and archival storage facilities have minimal tolerances for deviations in temperature, humidity and/or air changes and, therefore, may require special commissioning or test/inspection services to assure the precise conditions required. The University may secure these services from the A/E as additional services or as extra services or the services may be procured from an independent testing / commissioning agent depending on the services required and the capabilities of the possible vendors / consultants.

13.5.6 Start-up/Acceptance of mechanical and electrical Systems

Notwithstanding any "commissioning" inspections it shall remain the A/E's responsibility to verify that the Contractor has all systems functioning properly per the sequence of operations and the design intent has been achieved; that equipment has been received is in accordance with the Submittal previously approved by the A/E; that all system components have been adjusted and a record made of final settings; and that manual and automatic operating modes have been established for full load ranges prior to notifying the University that the system is ready for final start-up and acceptance testing. It is the intent that when the startup inspection team is called together to conduct final inspections and acceptance test that the work be started as scheduled and completed without exceptional delay. Major or time-consuming adjustments or modifications during final inspection shall be avoided. Applicable portions of the above requirements shall be included in the project specifications.

13.5.7 Structural Inspections

See section 9.16 of this Manual and Appendix K for this requirement.

13.5.8 Other Inspections

The University may procure the services of independent laboratories or firms to provide other inspection and testing services for such areas as systems commissioning, foundations, steel frame connections, concrete testing, fireproofing, and standard compaction control. All other inspectors and testing personnel called for in the specifications as well as inspectors from the Department of Labor and Industry shall be provided access to the project as their duties require. The University shall procure the services of independent laboratories or firms to provide the University's inspection and testing services for all structural and special inspections.

13.5.9 Fire Marshal Inspections

The Tidewater Regional office of the State Fire Marshal will typically be responsible for Fire Marshal inspections.

SECTION 13.6 CONSTRUCTION CHANGE ORDERS

13.6.1 General Conditions

Generally change orders will be administered in accordance with section 38 of the General Conditions of the Construction Contract (HECO-7).

13.6.2 Written Change Orders

University may at any time, by written order utilizing the change order forms (HECO-11 series) and without notice to the sureties, make changes in the drawings and specifications of this contract which are within the general scope of this contract, except that no change will be made which 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.

13.6.3 Approval

All construction contract change order which increases the original contract amount by more than 25 percent or $50,000, whichever is greater, must have the prior approval of EVPFA or their designee.

13.6.4 Procedures

The total cumulative amount for all change orders for a single contract shall not exceed the construction contingency available in the current budget. A request to infuse additional funds or to transfer funds to the Total Project Budget shall be submitted to the EVPFA or designee through the BCR process with appropriate written justification for an increase in authority. See Appendix R for change order procedures.

SECTION 13.7 DOCUMENTATION OF "AS BUILT" CONDITIONS

13.7.1 Contractor Requirements

The Contractor shall be required at all times to maintain one record set of drawings and specifications in the Superintendent's office at the project site. This set of documents shall be designated the "As Built" documents and shall be used to record any changes or deviations from the original documents. The A/E shall review this set when he visits the site, and prior to approving the monthly pay request, to assure that the Contractor is making the notations as required. The "As Built" set of documents shall be furnished to the A/E at the completion of the project as a reference for preparing the final "Record" documents.

13.7.2 Photographic Documentation

The University may arrange for photographic documentation of specific aspects of a project during the construction process. This typically includes location-referenced photographs of building systems prior to closure of walls and ceilings and similar documentation.

SECTION 13.8 INSPECTION FOR SUBSTANTIAL COMPLETION

13.8.1 General Conditions

When the project is sufficiently complete in accordance with the contract documents and it can be used for the intended purpose, the A/E, University PM and/or the University Construction Manager will ensure the requirements, procedures, inspections and approvals below and in section 44 of the General Conditions of the Construction Contract (HECO-7) are completed.

13.8.2 Contractor HECO-13.2a

When the Contractor determines that the work, or a designated phase or portion thereof, will be substantially complete and ready for testing and inspection, he shall complete and send Form HECO-13.2a with a list of the work he knows to be unfinished or defective to the A/E at least ten (10) days prior to the date he has set for substantial completion. The A/E will forward the HECO-13.2a to the University and attach a written endorsement, based on his periodic inspections, as to whether or not he concurs that the project, or phase, should be substantially complete on the date set by the Contractor. The A/E will then coordinate and arrange a date on or shortly after the date set by the Contractor for the Substantial Completion inspection to be conducted. See definition of Substantial Completion.

13.8.3 Inspection

Participants in the substantial completion inspection shall include the University PM and/or the University Construction Manager, University user representatives, representatives of the General Contractor, including those of the mechanical, electrical, and major equipment Subcontractors, the A/E, DEB, and the responsible State Fire Marshal Office as appropriate. The A/E shall conduct and document the inspection and compile a written list of the work or deficiencies noted (punch list) which need to be completed or corrected.

13.8.4 A/E HECO-13.1a:

If the A/E and the Fire Marshal's representative, and Owner's representative agree that this project, or this portion of the project being inspected, is substantially complete in accordance with the contract documents and safe to occupy, the A/E shall execute the appropriate Certificate of Partial or Substantial Completion (HECO-13.1a), and submit them to the University. Attach copies of the punch list, the Contractor's HECO-13.2a, the Application for Certificate of Use and Occupancy HECO-13.3 and other documents as appropriate.

- For projects that do not require a Certificate of Use and Occupancy, an HECO form 13.3.C shall be submitted to request formal acknowledgement of substantial completion.

13.8.5 Certificate of Use and Occupancy (CUO)

The university may submit this material to DEB and request that a Certificate of Use and Occupancy be issued, or the university may wait to request the Certificate of Use and Occupancy when final completion is achieved. If one or more re-inspections of the work that the Contractor declared to be Substantially Complete are required because the work was not substantially complete as stated, the Contractor shall reimburse the University for the costs of the re- inspections. The university shall not accept a project as Substantially Complete unless it (the part or whole) is ready for occupancy.

SECTION 13.9 BENEFICIAL OCCUPANCY & FINAL COMPLETION

13.9.1 Required Submissions

Once the University, the A/E, the Contractor and the State Fire Marshal's representative agree in writing that the facility, or a usable portion thereof, is substantially complete and ready for occupancy, the University may submit a HECO-13.3, Application for Certificate of Occupancy, and a HECO- 13.3b, Checklist for Beneficial Occupancy, along with copies of the HECO-13.1a, HECO-13.1b (if applicable), HECO-13.2a, Fire Marshal's acceptance report and other required operations permits to the UBO.

- DEB, when satisfied that the project and/or portion of the project is in fact substantially complete in accordance with the contract documents, may issue written authorization (HECO-13.3), to occupy the project, or applicable portion thereof, subject to any conditions or stipulations stated.

13.9.2 Unlawful Occupancy

The University shall not occupy facilities requiring a Certificate of Use and Occupancy until the Certificate of Use and Occupancy (HECO-13.3) is received. Occupancy of the facility without approval is unlawful and is a misdemeanor under § 36-106, Code of Virginia, as amended.

13.9.3 Temporary or Partial Certificate of Use and Occupancy

The following material is required for consideration of a request for a Temporary or Partial Certificate of Use

and Occupancy:

- Floor plans (small scale) that show areas requested for occupancy and the exits/egress routes
- Type of Occupancy requested - e.g. move furniture in for staff, set up/prepare for students, etc.
- HECO-13.1a with punch-list from A/E
- HECO-13.2a with any attachment from Contractor
- HECO-13.3b Checklist for Beneficial Occupancy
- Fire Marshal's report and recommendation
- Document stating that the Asbestos Abatement, if any, is complete
- HECO-13.3 Application for Certificate of Occupancy with data on entire project and separate sheet showing data on area requested to be occupied

The University may take Beneficial Occupancy of a portion or unit of the project before completion of the entire project only with the prior written approval of DEB.

13.9.4 Final Completion Inspection

When the items listed in the "punch list" have been completed and all work is complete and ready for final testing and inspection, the University Construction Manager will ensure the requirements of section 44 of the General Conditions of the Construction Contract (HECO-7) are complete. Upon completion of all Certificates of Completion, HECO-13.1 and 13.2, and with the Certificate of Use and Occupancy issued, HECO-13.3, the University PM shall sign and close the HECO- 17 Building Permit on file with DEB.

SECTION 13.10 PROJECT CLOSE OUT DELIVERABLES

13.10.1 Close out documentation

See chapter 14 for required documentation.

13.10.2 Record Drawings and Specifications

The A/E shall prepare "Record Drawings" showing the "As Built" conditions, locations and dimensions based on the Contractor's As Built set of drawings and specifications, and other data furnished by the Contractor to the A/E. The Record Drawings shall include actual location of piping and utilities as well as all other changes specifically known to the A/E. These Record Drawings shall also include the depths of pilings or caissons if pilings or caissons were in the construction. Record drawings and specifications shall be prepared and provided to the University.

13.10.3 Maintenance and Operating Manuals

Two sets of operating and maintenance (O&M) instructions, and an electronic copy in an agreed upon digital format, written for the specific project shall be provided to the University at the final inspection. (The General Conditions of the Construction Contract (HECO-7) Section 49 apply. Note that two hard copies and one electronic copy of O&M manuals are generally required which should be listed in the specifications.) This shall consist of a compiled document prepared by the A/E team for the project and generally include the operation and control sequencing narrative, the control diagrams, an equipment chart indicating periodic maintenance requirements, and the operation and maintenance manuals for the equipment.

- All systems needing regular maintenance and/or requiring adjustments must be covered.

- The schedule for required minor and major maintenance must be included.
- Relevant design criteria and assumptions needed to understand the operation of the systems will be furnished in narrative form including the control systems settings and concept of operation manuals which provide the data by reference to drawings and specifications and manufacturers are not acceptable.
- The document, along with the Record drawings and specifications, shall be provided to the University at the time of final acceptance of the project.

13.10.4 Ownership of Documents

Ownership of all materials and documentation including the drawings and specifications and copies of the calculations and analyses originated and prepared pursuant to the contract between the University and the A/E, shall belong exclusively to the University. The drawings, specifications, analyses and calculations as prepared by the A/E for the project, whether completed or not, shall be the property of the University, whether the work for which they are made is executed or not. The A/E shall provide to the University at the completion of the job, the original drawings in PDF, CADD, and BIM formats that conform to university standards.

- The A/E shall not use these materials on any other work or release any information about these materials without the express written consent of the University.
- The A/E shall not use University branding or marks in conjunction with these materials without the consent of the University.
- Such material may be subject to public inspection in accordance with the Virginia Freedom of Information Act. Security-related documents and information are excluded from the Act unless a specific need to know can be shown.
- 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 invokes the protections of the University Procurement Rules prior to or upon submission of the data or other materials. Identify the data or materials to be protected and state the reason why protection is necessary. The bidder, offeror, or Contractor shall not designate as trade secrets or proprietary information (i) an entire bid, proposal, or prequalification application; (ii) any portion of a bid, proposal, or prequalification application that does not contain trade secrets or proprietary information; or (iii) line item prices or total bid, proposal, or prequalification application prices.
- The A/E shall provide the following documents to the University at the completion of the A/E's work:
    - Original sealed and signed drawings
    - Original specifications
    - Copy of analyses made for the project
    - Indexed copy of the calculations made by each discipline for the project
    - Copy of all shop drawings, submittals, cut sheets, and sequence of operation.
    - Copy of all material finish selections.
    - Copy of all RFI responses.
    - Maintenance instructions, parts lists and other material related to the project.
    - As built set of drawings and specifications
- Files containing as-built drawings in AutoCAD .dwg format (latest edition)
- Files containing as-built model in Revit .rvt format (latest edition)
- Georeferenced site plans compatible with ArcGIS software
- Project Manual including all technical specification in Microsoft Word format

SECTION 13.11 CONTRACTUAL DISPUTES

(University Procurement Rules)

13.11.1 Requirements of the General Conditions

See General Conditions of the Construction Contract, Section 47, for the procedures regarding contractual disputes.

13.11.2 Management Agreement Stipulations

Pursuant to the Management Agreement Exhibit G, attachment 1, paragraph 56 and Code of Virginia § 2.2-4366, Alternative Dispute Resolution, the University may enter into an agreement with the Contractor to submit disputes arising from the performance of a contract to arbitration and utilize mediation and other alternative dispute resolution procedures. However, such procedures entered into by the University shall be non-binding and subject to Code of Virginia § 2.2-514 as applicable. In the interest of successful completion of the project, disagreements and disputes should be resolved as soon as possible. The University and the Contractor may choose to resolve their claims against one another by "Informal Alternative Dispute Resolution" procedure in lieu of instituting legal action. If the University and the Contractor both choose to avail themselves of this option, the following stipulations shall apply:

13.11.2.1 - The University and the Contractor must both agree to pursue this process, and each submit their "Application for Informal Alternative Dispute Resolution."

13.11.2.2 - The CBO will review the applications and advise both parties of dates available for a hearing or deny the application for a hearing.

13.11.2.3 - The CBO will assemble a Dispute Hearing Panel comprised of people with expertise in the topics being disputed.

13.11.2.4 - Each party will be represented by its personnel with knowledge of the facts related to the dispute. Neither party will be allowed legal counsel at the hearing.

13.11.2.5 - The panel will review the application and facts presented by each party prior to the Hearing.

13.11.2.6 - Each party will be given the opportunity to present its position and factual data on each item in dispute. Information shall be concise.

13.11.2.7 - The hearing panel will ask questions as appropriate and facilitate discussions toward an agreeable solution.

13.11.2.8 - If the parties do not agree on a solution during the hearing, the hearing panel through the CBO will render an opinion on the proper resolution of the dispute.

13.11.2.9 - It is intended that the hearing be efficient and last no more than one day.

13.11.2.10 - The cost of this service will be based on the time charged to the dispute resolution multiplied by the hourly rates for the panel. The cost will be divided and charged equally to the University and to the Contractor, unless both parties agree to other arrangements prior to the hearing.

13.11.2.11 - The “Application for Informal Alternative Dispute Resolution Procedure” shall contain the following information:

- Contractor name
- University name
- Project name and Project Code Number
- List of items in dispute (The Contractor and the University shall each submit a list of the items in dispute with its summary of the pertinent facts in the dispute.)
- Value of the items or work disputed (in dollars): $
- Documents and narrative presenting facts as the applicant sees for each disputed item
- Proposed solution or relief sought
- Signature of the University Architect for the University or the contract signature authority for the Contractor

SECTION 13.12 CONSTRUCTION-RELATED FORMS AND FORMATS

Appendix S lists additional forms and formats applicable to construction contract administration.