

ADDENDUM 7

DATE: 08/17/2018
PROJECT: Simulation Lab Renovation
RFP NO: RFP 744-1825
OWNER: The University of Texas Health Science Center at Houston
TO: Prospective Proposers

This Addendum forms part of and modifies Proposal Documents dated, July 5, 2018, with amendments and additions noted below.

- 1. UT System Division 1 documents**

SECTION 01 91 00 – GENERAL COMMISSIONING REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

- 1.1.1 Commissioning is a process used to ensure a facility performs as intended by the contract documents. The process provides assurance that all building systems have been installed and operated throughout their full range of intended operation, and that anticipated failures have been initiated or simulated to verify correct operation in all operational modes. All commissioning activities are to be properly documented.
- 1.1.2 Commissioning requires cooperation and direct involvement by all parties throughout the construction process. Successful commissioning requires not only that all building systems and assemblies comply with contract requirements but also that installation is achieved early enough in the construction phase to allow full operational check-out, testing, and adjusting of equipment and systems prior to Substantial Completion. Planning adequate time for testing, adjusting and balancing, functional testing, and integrated system testing will require the development and maintenance of a detailed commissioning schedule with input from, and the active participation of, all members of the commissioning team.
- 1.1.3 In addition to fulfilling scheduling and planning requirements, the Contractor is responsible for verifying and documenting equipment and system installation as well as demonstrating and documenting operational performance of all systems and assemblies. This includes successful demonstration verification to the Owner's Designated Representative of all systems integration in the facility. The cost of commissioning administration as outlined in this specification shall be shown as a separate line on the Contractor's schedule of values.
- 1.1.4 The Contractor is solely responsible for all commissioning responsibilities contained in the Specifications. The Contractor shall submit to the Owner the resume of the proposed qualified individual to act as the Contractor's Commissioning Coordinator (CxC). Qualifications shall include substantial MEP, HVAC and/or building automation experience, a fundamental understanding of the total building commissioning process, and supervisory or management experience. The Owner must approve the individual proposed for the CxC position. Fulfilling the responsibilities of the CxC shall be the individual's primary duty. The CxC may have additional duties such as MEP Coordinator, or Project Engineer, but not Project Manager or Superintendent. The Contractor may elect to outsource the CxC position to a third party firm with the approval of the Owner, which will be contingent upon review of proposed individual's qualifications to fill the position.

1.2 DEFINITIONS

- 1.2.1 The term “Contractor”, as used herein, shall refer to the party having a contract Agreement with the Owner to provide construction services for the project. This term is to apply whether such contracting firm is engaged as a Prime Contractor, General Contractor, Construction Manager at Risk or Design/Build Contractor as appropriate to the particular contract agreement.
- 1.2.2 The term “Architect” or “A/E” as used herein, shall refer to the Prime Design Architect/Engineer Firm responsible for providing design services for the project and for affixing professional seal and signature to the construction documents, whether their contract is with the Owner or with a Design/Build Contractor as appropriate to the particular contract agreement.
- 1.2.3 The term “Subcontractor,” as used herein, shall refer to any subcontractor, vendor, supplier, etc., that has a contractual agreement with the Contractor or Owner to provide goods or services to the project.
- 1.2.4 The term “Commissioning Authority” (CxA), as used herein, shall refer to the party having a contract Agreement with the Owner to provide Third Party Commissioning services as a consultant to the Owner. In some cases, the CxA will be contracted by the A/E firm.
- 1.2.5 The Term “Cx Team Members” as used herein, shall refer to all parties which represent the Owner, A/E, Contractor, Subcontractors, Manufacturers, Vendors, and Suppliers and Consultants associated with the project.

1.3 RELATED DOCUMENTS

- 1.3.1 The Uniform General and Supplemental Conditions, applicable requirements of all Divisions of the Contract Specifications and all Contract Drawings apply to work of this Section. In the event of conflict between specific requirements of the various documents, the more restrictive, the more extensive (i.e., more expensive) requirement shall govern.
- 1.3.2 Technical Specifications throughout all Divisions of the Project Manual, which pertain to operable and non-operable equipment and/or building systems, are directly applicable to this Section, and this Section is directly applicable to them.
 - 1.3.2.1 Particular attention is directed to:
 - 1.3.2.1.1 Division 1 General Requirements, specifically
 - Section 01 32 16 – Construction Progress Schedule
 - Section 01 77 00 – Project Closeout Procedures
 - Section 01 45 00 – Project Quality Control.
 - 1.3.2.1.2 Divisions 7 - 14

1.3.2.1.3 Divisions 21 – 33 and any other Divisions as appropriate

1.4 WORK INCLUDED

- 1.4.1 Summary Scope
- 1.4.2 Commissioning Plan
- 1.4.3 Commissioning Documentation Requirements
- 1.4.4 Commissioning and Closeout Manual
- 1.4.5 Test Equipment
- 1.4.6 Commissioning Schedule
- 1.4.7 Commissioning Kickoff Meeting
- 1.4.8 Pre-Installation Conferences
- 1.4.9 Contractor's Verification of Installation
- 1.4.10 Initial Startup
- 1.4.11 Functional Testing
- 1.4.12 Integrated System Testing
- 1.4.13 Entire Facility Integration Testing
- 1.4.14 Owner Training

1.5 SCOPE OF THIS SECTION

1.5.1 It is of primary concern that all systems installed in the project perform in accordance with the design intent and the Owner's specified operational needs. This is particularly critical for systems affecting life safety, building controls, plumbing, HVAC, building envelope, lighting, power delivery systems, security system, article protection system, and the any access control system. The process of assuring that such performance is achieved and appropriately documented is commonly referred to as "Commissioning."

1.5.2 This Section establishes minimum general and administrative requirements pertaining to documentation of installation, startup and performance testing of equipment,

devices, assemblies and building systems. Additional technical and operational requirements for particular systems and components are established in the various technical Sections of the specifications. The Contractor is solely responsible for the Commissioning process. This responsibility shall not be delegated to subcontractors, but by necessity will require the participation of subcontractors.

1.5.3 OFPC will provide the Contractor with an electronic copy of its standard *Commissioning & Close-out Manual* (C&C Manual) to be used and completed by the Contractor for all activities associated with the commissioning effort regardless of construction contract value, or project type.

1.5.3.1 The C&C Manual contains the necessary documentation for the commissioning process including: Equipment and Closeout matrices, Pre-installation meeting agendas, Pre-Functional Testing, Functional Testing, Equipment Start-up, Systems Integration forms, Entire Facility Integration Test, required forms from the State Fire Marshal and other inspection and test report forms. Although the C&C Manual may illustrate the extent of the commissioning effort, it does not limit it. The Owner is providing this manual to standardize the commissioning process and aid the Contractor. The Contractor shall enforce use of these forms for commissioning documentation.

1.5.4 The Owner's Quality Assurance (QA) testing and inspection program is independent of the Commissioning program. The Contractor is required to perform all testing as specified in the contract documents in addition to the Commissioning requirements outlined herein. Coordination of these processes by the Contractor will help minimize any duplication of effort. Unless stipulated elsewhere in the contract documents, QA testing and inspection documentation shall be included in the Commissioning and Closeout Manual.

1.6 COMMISSIONING PLAN

1.6.1 The Commissioning (Cx) Plan identifies processes and procedures necessary for a successful commissioning effort. The Contractor is responsible for development, implementation and maintenance of the commissioning plan, and associated tools for scheduling and tracking Cx activities. The Owner may choose to engage a Commissioning Authority (CxA) to develop a draft construction phase commissioning plan. When a draft Cx plan is provided by The Owner's CxA, the Contractor is required to review, submit recommended changes, and update the draft (template) Cx plan with approved changes. The Contractor shall incorporate the final approved CxA plan into the final Contractor's Cx plan. The final approved Cx plan will include, as a minimum, the following:

1.6.1.1 Project Commissioning Team Members

1.6.1.1.1 As a minimum, these will include:

1.6.1.1.1.1 Contractor's Commissioning Coordinator (CxC)

1.6.1.1.1.2 UT System Office of Facilities Planning and Construction (OFPC)

1.6.1.1.1.3 A/E and relevant consultants

1.6.1.1.1.4 Institution representatives

1.6.1.1.1.5 Subcontractors

1.6.1.1.1.6 Manufacturer, Vendors and Suppliers as appropriate

1.6.1.1.1.7 Owner's TAB contractor

1.6.1.1.1.8 Independent testing labs

1.6.1.1.1.9 Commissioning Authority, if appropriate

1.6.1.2 Commissioning Activities

1.6.1.2.1 These activities shall be identified and tracked by the Contractor and coordinated with the Owner and Owner designated consultants and shall include, but not be limited to:

1.6.1.2.1.1 Inspections/Tests (As required by plans and specifications)

1.6.1.2.1.2 Pre-Functional Checklists

1.6.1.2.1.3 Equipment Startup

1.6.1.2.1.4 Functional Tests

1.6.1.2.1.5 Integrated System Testing

1.6.1.2.1.6 Entire Facility Integration Testing

1.6.1.3 Commissioning Responsibility Matrix

1.6.1.3.1 The Contractor shall itemize commissioning activities using the Owner-provided responsibility matrix template. The responsibility matrix shall be modified to include all necessary entities with an interest or role in each commissioning activity. The Cx activities shall be updated to reflect all Cx activities included in the project. Each activity shall designate the team member's participation level. (It is understood that the Contractor or CxC will have primary administrative responsibilities for all or most activities.) Participation levels to be assigned are as follows:

- 1.6.1.3.1.1 Primary Responsibility (one designee, normally the provider/installer of equipment/system/assembly)
- 1.6.1.3.1.2 Coordination (each subcontractor/consultant/campus group that will perform work relating to equipment/system/assembly)
- 1.6.1.3.1.3 Witness/Monitor

1.6.1.4 Equipment Matrix

- 1.6.1.4.1 This Contractor shall prepare an equipment matrix using the Owner furnished template form. This matrix shall contain a complete listing of operating equipment, devices, and systems, with certain information as herein noted; it shall be submitted to the project team at the Commissioning Kickoff Meeting. The Owner will review the equipment matrix and assist in identifying and prioritizing components, equipment, and systems to be commissioned.
- 1.6.1.4.2 The equipment matrix shall be formatted as an electronic spreadsheet with capability for the printing of selected data columns (ranges) to meet documentation requirements at various stages of construction, and for various purposes as required by other technical specification Sections. An electronic database program may be used in lieu of a spreadsheet, if approved by the Owner.
- 1.6.1.4.3 The matrix shall (at a minimum) identify all operable devices and equipment to be provided; they are to be grouped by the system they primarily support.
- 1.6.1.4.4 The matrix shall be populated with all available information for the Commissioning Kickoff Meeting. The equipment matrix may include additional columns for progress tracking but shall, as a minimum, include the following data for each device:
 - 1.6.1.4.4.1 Brief equipment identification text
 - 1.6.1.4.4.2 Equipment or device ID number (device tag)
 - 1.6.1.4.4.3 Startup inspection required (Yes/No)
 - 1.6.1.4.4.4 Associated building system, if any
 - 1.6.1.4.4.5 Governing specification section
 - 1.6.1.4.4.6 Appropriate submittal reference number(s)

- 1.6.1.4.4.7 Installation location, by room number or column coordinates, as indicated in contract documents.
 - 1.6.1.4.4.8 Actual date of Submittal Approval
 - 1.6.1.4.4.9 Manufacturer and model number
 - 1.6.1.4.4.10 Actual date of Pre-Functional Test completion by the Contractor (recommend the use of multiple date columns for Delivery, Installation, Terminations, and Completion)
 - 1.6.1.4.4.11 Actual date of the Equipment Startup by the Contractor
 - 1.6.1.4.4.12 Actual completion date of Functional Test demonstration by the Contractor
 - 1.6.1.4.4.13 Actual completion date of Integrated System Test demonstration by the Contractor (multiple equipment items may be included in a single Integrated System Test)
 - 1.6.1.4.4.14 Trending Data required (Yes/No)
 - 1.6.1.4.4.15 Date of Trending Data Delivery (graphical data and tabular logs to be filed in the Commissioning and Closeout Manual)
 - 1.6.1.4.4.16 Date of completion of Training (training documentation to be filed in the Commissioning and Closeout Manual)
- 1.6.1.4.5 During construction, the matrix data shall be continuously updated at regular intervals. The matrix is to be stored in the Commissioning and Closeout Manual under a separate tab and updated as commissioning activities/documentation are completed. Updates should occur at least weekly, and more often as deemed necessary by the Owner.

1.6.1.5 Commissioning Activity Documentation Forms

- 1.6.1.5.1 The Contractor shall review and submit proposed modifications and/or additions to, or substitution forms for Owner provided templates used for testing and verification (commissioning) documentation. Each test and verification document shall be specific to the system, subsystem, assembly, equipment or device, as applicable. In the event project specific template documents are not provided, it is the responsibility of the Contractor to develop and submit such for review and approval. All Contractor installed systems (static and dynamic), subsystems, assemblies, equipment, components and devices shall be tested, operationally verified

and documented. As a minimum, the test and verification forms and checklists shall include:

- 1.6.1.5.1.1 Pipe/Duct Pressure Test
 - 1.6.1.5.1.2 Pre-Functional Checklists
 - 1.6.1.5.1.3 Equipment or System Startup Request
 - 1.6.1.5.1.4 Functional Test Checklist
 - 1.6.1.5.1.5 Integrated System Tests
 - 1.6.1.5.1.6 Entire Facility Integration Test
 - 1.6.1.5.1.7 Other specialized test reports
- 1.6.1.5.2 Where applicable and with the Owner's approval, documentation forms and checklists may be combined into one form/checklist to document the installation, operation, and demonstration for a particular system or subsystem.
- 1.6.1.5.3 The Contractor shall be responsible for coordination and execution of all commissioning activities. The Contractor shall provide a minimum of 72 hours notice to the Owner, the CxA and Testing Consultants, when applicable, prior to each commissioning activity unless stipulated otherwise in the technical specifications.

1.7 COMMISSIONING DOCUMENTATION REQUIREMENTS

- 1.7.1 To verify the commissioning efforts, a logical sequence of documentation shall be completed by the contractor and reviewed by The Owner (or an Owner-designated consultant). In most cases, template checklists and forms will be provided to the Contractor. Template forms will require review and modification by the Contractor to provide appropriate rigor to meet the specific needs of the project. Sequence of operations testing procedures shall be contained in appropriate Functional Tests and/or Integrated System Tests. It is the Contractor's responsibility to gather all data required for completion of the commissioning documentation requirements.

1.7.1.1 Pre-Functional Checklist (PFC)

- 1.7.1.1.1 Checklists shall be used to document the condition of equipment upon delivery to the site and appropriate installation for submitted and approved components of a system, i.e., motor installation, waterproofing membrane application, roof application, etc. The manufacturer installation checklist should be completed and attached to the completed PFC.

1.7.1.2 Equipment or System Startup Request (ESR)

1.7.1.2.1 This form shall be used to request the start-up of any operable equipment/device. All completed PFT checklists and manufacturer's start-up instructions associated with the equipment shall accompany this request form upon submittal to the Owner. Equipment shall not be energized or started for operation prior to successful completion of Equipment Startup. Authorization for temporary or continuous operation of equipment must be obtained from the Owner.

1.7.1.3 Functional Test Checklist (FTC)

1.7.1.3.1 This form shall be used to document an individual system's performance. All associated PFCs and Equipment Startups shall be completed prior to requesting the Functional Test demonstration. The FTC will exercise the equipment/system function throughout the full range of operation and verify operational performance in accordance with the contract documents. Operational performance includes the exhaustive testing of the sequence of operation for all modes of operation. Sequence of operation testing shall be scripted for each and every control action and all associated controlled and monitored responses for the equipment, controller inputs and outputs, soft points (software derived variables), graphics workstation responses, and facility monitoring alarms.

1.7.1.4 Integrated System Test (IST)

1.7.1.4.1 The IST Form shall be used to document demonstration of operational performance of multi-system sequence of operation to include integration with other systems, interlocks and alarm conditions. Test procedures are to include all modes of operation. All associated PFC, Equipment Startup, and FT documents shall be completed and accepted prior to requesting the IST demonstration.

1.7.1.4.2 In research and medical facilities, additional testing will be required to demonstrate performance of fan failure modes, differential air pressures, BAS alarm signals, security, waste disposal, etc.

1.7.1.5 Entire Facility Integration Test (EFIT)

1.7.1.5.1 The EFIT Form shall be used to document demonstration of operational performance and integrated operation of the entire facility as a multi-functioning operational system. The demonstration/test procedures shall itemize each operational mode, anticipated failure mode and subsequent recovery that could affect the entire facility or significant portion or section of the facility. Examples of some of the potential systems requiring itemized responses to failures are: electrical distribution system, emergency power, HVAC system, building automation control system,

fire alarm and fire suppression systems, access control, security system, CCTV system, elevators, mass notification system, and emergency lighting. All ISTs shall be completed and accepted prior to requesting the EFIT demonstration.

1.8 COMMISSIONING AND CLOSEOUT MANUAL

- 1.8.1 The Contractor shall incorporate all commissioning and closeout documentation and/or verification into a Manual for transmittal to the Owner at the conclusion of the project. This Manual is intended to be a consolidation of documentation/verification for the project Commissioning and the Closeout process. By implementing the commissioning requirements as a process, and using and maintaining the Manual throughout the project, the commissioning activity documentation process can be tracked, managed and thoroughly monitored.
- 1.8.3 The Owner will furnish templates with sample tests/checklists and matrices for use by the Contractor in development of the Commissioning and Closeout Manual.
- 1.8.4 Within 90 days after the effective date of the Notice to Proceed for construction, the Contractor shall produce and print two (2) copies of the Manual. One copy shall be transmitted to the Owner's Construction Inspector for storage and use during the project. At an interval not to exceed weekly, the CxC shall synchronize the two manuals by producing copies of original documentation stored in the Contractor's manual and updating the Owner's manual.
 - 1.8.4.1 The Commissioning and Closeout Manual shall be tabbed and include a Table of Contents.
 - 1.8.4.2 The Commissioning and Closeout Manual shall be bound in heavy-duty 3-ring vinyl-covered binders including pocket folders. Mark binder identification on both front and spine of each.
 - 1.8.4.3 If the Contractor proposes the use of an adequately robust, web-based document storage system at no additional cost, the Contractor may request that Owner waive the requirement for two (2) hard-copy Commissioning and Closeout Manuals and require only one (1) hard copy of the Commissioning and Closeout Manual to be maintained in the Contractor's trailer. The Owner must approve the use of a web-based document storage system. Documents are to be uploaded to the web-based document storage system within 48 hours of documented event occurrence. The web-based document storage system shall be accessible to the Owner's staff at all times, seven (7) days a week, throughout the duration of the project. The web-based document storage system file structure shall closely mimic the structure of the Commissioning and Closeout Manual. At the conclusion of the project, all documents from the web-based document storage system shall be delivered to the Owner in the format (electronic or paper) as required by the Owner.

1.8.2 Included in the Commissioning and Closeout (C&C) Manual shall be (but not be limited to) the following:

1.8.2.1 Copy of the Contractor's Commissioning Plan

1.8.2.1.1 Responsibility Matrix

1.8.2.1.2 Equipment Matrix

1.8.2.1.3 Closeout Documentation Matrix

1.8.2.1.3.1 Matrix shall include all project deliverables to be transmitted to the Owner prior to substantial completion. Deliverables listed shall reference the prescribing specification section, description of item(s), type of item to be transmitted (warranty, O&M, keys, training, etc.), quantities transmitted and transmittal date. The Closeout Matrix should include, but not be limited to: spare parts, attic stock, training, warranties beyond one year, O&M manuals, as-builts, keys checklist, service contracts, etc.

1.8.2.1.3.2 OFPC will initial the Closeout Documentation Matrix to acknowledge receipt of the various deliverables. Transmittal documents shall be stored with the Matrix.

1.8.2.2 Paint/Finish Schedule

1.8.2.2.1 Schedule shall include all paints, wall coverings, flooring, finishes, etc. used on the project.

1.8.2.2.2 Provide manufacturer, model #, color formula, location on project, purchase source and any other information helpful to the Institution's maintenance personnel.

1.8.2.3 Field Observation Reports

1.8.2.4 Cx Meeting Minutes

1.8.2.5 Exterior Envelope Inspections and Tests

1.8.2.6 Pipe Pressure Tests

1.8.2.7 Duct Pressure Tests

1.8.2.8 Fire Alarm and Suppression System Tests and Reports

1.8.2.9 Completed NFPA Forms

1.8.2.10 Commissioned Component/equipment/system Documentation. The following commissioning documentation may be organized and tabbed in the C&C Manual in a manner appropriate to specifics of the project.

1.8.2.11.1 Pre-Functional Checklists (w/attachments)

1.8.2.11.2 Equipment Startup Plans & Equipment Startup Requests

1.8.2.11.3 Functional Tests (w/attachments)

1.8.2.11 Integrated System Tests (w/attachments)

1.8.2.12 Entire Facility Integration Test

1.8.2.13 Owner Training Plans (with sign-in sheets)

1.8.3 Equipment and System submittals shall be submitted separately as required elsewhere in the Contract Documents.

1.8.4 Operating and Maintenance Manuals for each system, equipment, and device shall be submitted separately as required elsewhere in the Contract Documents.

PART 2 PRODUCTS

2.1 TEST EQUIPMENT

2.1.1 Subcontractors shall provide all specialized tools, test equipment and instruments required to execute startup, checkout, functional performance and integrated systems testing of equipment under their contract.

2.1.2 Test equipment shall be of sufficient quality and accuracy to test and/or measure system performance within tolerances specified. A testing laboratory shall use test equipment that has been calibrated within the previous 12 months. Calibration shall be NIST traceable. Equipment shall be calibrated according to manufacturer's recommended intervals and whenever it is dropped or damaged. Calibration tags shall be affixed or certificates readily available.

PART 3 EXECUTION

3.1 COMMISSIONING SCHEDULE

3.1.1 The objective of scheduling commissioning process activities is to integrate and coordinate commissioning activities with other construction phase activities. Detailed scheduling will allow Cx Team members to coordinate work with other team

members in order to complete all Cx activities prior to Substantial Completion. The Commissioning Schedule shall include major Cx activities, essential prerequisites for major equipment and system activities, and operable equipment/system/assembly functional and integrated systems performance demonstrations. The Cx Schedule shall account for Testing, Adjusting and Balancing (TAB) consultant activities properly scheduled and coordinated into the project work flow to allow for the completion of all TAB work prior to Substantial Completion. As applicable, the following milestones and activities shall be incorporated into the project master construction schedule:

- 3.1.1.1 Commissioning Kickoff Meeting
- 3.1.1.2 Building Automation System submittal approval
- 3.1.1.3 Control Sequence of Operation Coordination meeting (reference specification section 23 05 93A).
- 3.1.1.4 Ethernet Connectivity
- 3.1.1.5 Building Envelope Testing and Verification Documentation
- 3.1.1.6 Major HVAC systems startup
- 3.1.1.7 System Specific Testing Adjusting and Balancing activities
- 3.1.1.8 Integrated System Tests
- 3.1.1.9 Entire Facility Integration Test

3.2 COMMISSIONING KICKOFF MEETING

3.2.1 Within 120 days after the effective date of the Notice to Proceed for the construction phase that includes building operational systems, the Contractor's Commissioning Coordinator (CxC) will schedule, plan and conduct a Commissioning Kickoff Meeting with all parties involved in the Commissioning process. At a minimum the meeting should include the major sub-contractors, specialty manufacturers/suppliers, the A/E, mechanical and electrical consultants, the Owner's testing, adjusting and balancing (TAB) firm, the Commissioning Authority, the Owner and representatives from the Institution.

3.2.1.1 The Contractor shall prepare for the meeting by creating drafts of the following documents to be reviewed at the meeting:

3.2.1.1.1 The Commissioning Plan (including the Equipment Matrix, Responsibility Matrix and Closeout Documentation Matrices

3.2.1.1.2 The Commissioning and Closeout Manual

- 3.2.1.1.3 Preliminary Commissioning Schedule incorporating commissioning activities to coincide with the work flow contained in the master construction schedule
- 3.2.1.2 The Contractor shall conduct the meeting and review all aspects of the Commissioning specification. Documentation requirements will be discussed and available test procedures and commissioning forms reviewed.
- 3.2.1.3 The Commissioning Plan shall be reviewed to ensure understanding of roles and responsibilities of each commissioning team entity and the potential schedule impact as related to commissioning requirements.
- 3.2.1.4 The Commissioning and Closeout Manual shall be reviewed and the scope of work discussed. The Contractor shall be prepared to distribute copies of the pertinent sections to the various subcontractors involved in the Commissioning process.
- 3.2.1.5 The Commissioning Schedule shall be presented and reviewed. The dates and durations for major systems start up and functional testing that are included in the master construction schedule shall be identified
- 3.2.1.6 Commissioning shall be an agenda item for all project progress meetings until separate commissioning meetings are deemed necessary.

3.3 PRE-INSTALLATION MEETINGS

- 3.3.1 As a minimum, the Contractor shall schedule a separate meeting for the work involving each major building system or systems and assemblies. The pre-installation meeting shall be scheduled, in writing, a minimum of five (5) days in advance, and shall be scheduled so that the Owner, Owner-designated consultants, and Architect/Engineer can attend. The meeting shall be convened following approval of system submittals and prior to commencement of system installation work.
 - 3.3.1.1 The Contractor shall arrange for all subcontractors, suppliers, and manufacturers involved in the system to be present or adequately represented.
 - 3.3.1.2 The Contractor shall bring the following to this conference, as a minimum, for review and discussion:
 - 3.3.1.2.1 The portion of the Equipment Matrix applicable to the system under discussion.
 - 3.3.1.2.2 Current Work Schedule data pertaining to the equipment delivery, pre-functional testing, installation, required testing, equipment startup, and functional testing anticipated for the particular system.

3.3.1.2.3 Copy of all approved submittals for the system.

3.3.1.2.4 Draft of a proposed plan for inspection, startup, and functional testing of the system(s)/assembly under review to include all necessary testing and commissioning checklists and forms to be completed.

3.3.1.3 The purpose of this meeting is for the Contractor and all applicable subcontractors and/or suppliers and/or factory representatives to discuss all aspects of the installation of the particular system, documentation to be completed and procedures to be followed. Special attention is to be directed to the scheduled order of work and any impact on or by any other building systems.

3.4. CONTRACTOR'S VERIFICATION OF INSTALLATION

3.4.1 The Contractor shall perform a review of all test/checklist forms to ensure correct completion. This verification shall include, but not be limited to first-hand knowledge of the following items:

3.4.1.1 Each component device has been installed in accordance with the governing specifications and codes as well as the manufacturer's written recommendations.

3.4.1.2 All shop drawings and product data submittals have been approved for each component device.

3.4.1.3 All valve schedules, wiring diagrams, control schematics, electrical panel directories, etc. have been submitted, approved, and installed in accordance with specifications.

3.4.1.4 All tabulated data has been submitted for each system and/or device as required by other specification sections.

3.4.1.5 All test reports and/or certifications required have been submitted and accepted. If required, provide certification of acceptance from manufacturer representative and/or engineering technician. Provide copies of all checklist/inspection documentation completed by the manufacturer or certified technician.

3.4.1.6 The Contractor shall be responsible for correction of all noted deficiencies. Any request for inspection/re-inspection or test/retest of a device or system shall first be confirmed as being compliant by the Contractor before requesting inspection/re-inspection, and testing/retesting.

3.5 INITIAL STARTUP

3.5.1 Startup of Independent Systems, Assemblies, and Devices

3.5.1.1 The Contractor shall not energize or activate, or allow to be activated, any operable device prior to submission of an Equipment Startup Request (ESR) for that device to the Owner, so that the Owner and/or Owner-designated consultant may witness the startup. It is permissible to “bump” motors prior to submission of the ESR to verify rotation/electrical phasing and other applicable measurements needed as appropriate to verify readiness for startup.

3.5.1.2 The Contractor and manufacturer’s representative and/or engineering technician (if required by the contract documents) shall inspect and accept the installation and preparedness for startup. The installation shall not vary from provisions of the applicable specifications and the manufacturer's written recommendations for startup.

3.5.1.2.1 This process shall be documented using the PFC which shall be attached to the ESR.

3.5.2 Startup of Building Systems

3.5.2.1 The Contractor shall not energize or activate any building system until the following conditions have been met:

3.5.2.1.1 The Contractor shall submit an ESR, with the Startup Plan attached (including all relevant inspection/testing/commissioning documentation), to the Owner’s Construction Inspector five (5) days prior to requested startup of the system.

3.5.2.1.2 As a minimum, the Contractor shall verify:

3.5.2.1.2.1 That all wiring and support components for equipment are complete and have been tested in accordance with the technical specifications and/or the manufacturer's written recommendations.

3.5.2.1.2.2 That each component device has been checked for proper lubrication, vibration isolation, drive rotation, belt tension, control sequence, or other conditions that may cause damage.

3.5.2.1.2.3 That all tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer and are in compliance with applicable specifications.

3.5.2.2 The Contractor shall execute startup under supervision of responsible manufacturer's representative in accordance with manufacturer's instructions as specified in the contract documents, and in accordance with the startup plan.

3.5.2.3 Successful completion of the above for the system is required before any system can be placed into operation, even on a temporary basis.

3.5.2.4 The Contractor shall coordinate and schedule equipment/system(s) startup in a timely manner allowing the equipment/system(s) to be operated for a minimum period of time only sufficient to evaluate and adjust performance as necessary, prior to demonstrating the system to the Owner, the Owner designated consultants and A/E team.

3.6 FUNCTIONAL TESTING

3.6.1 After all relevant PFCs are completed and signed by the Owner and successful startup has been accomplished, the Contractor shall submit a completed and signed Functional Test (FTC) to the Owner's CI ten (10) days prior to requested demonstration of functional testing of the system.

3.6.2 The Contractor shall operate, or cause to be operated, each system, device, assembly or equipment item, both intermittently and continuously, for the duration indicated in the specification section(s) for such item and/or in accordance with the manufacturer's written recommendations, and in accordance with the documented FTC procedures. This operation shall be documented using the Functional Test Checklist. The Owner and/or an Owner designated consultant shall witness and verify documentation of the results of the functional testing demonstration.

3.6.3 For operable equipment/systems, each component device and each building system shall be exercised to the full extent of its capability, from minimum to maximum, and under automatic and manual control, and in bypass when applicable. The equipment/assembly/system shall be exercised using the campus graphical user operator's workstation, if applicable. All inputs, outputs, and calculated values, as displayed on the operator's workstation graphics, shall be verified and documented.

3.6.4 The Contractor and, when applicable, manufacturer's representative, shall supervise and coordinate adjustments, alignments, calibrations, and balancing of all devices, equipment, and systems for proper operation prior to requesting system/assembly/equipment functional test demonstrations.

3.6.4.1 Where final Testing, Adjusting and Balancing (TAB) of a system is to be performed by Owner or Owner's consultants (such as final air balancing), the Contractor is to provide all services indicated in the applicable technical sections and, under this section, shall provide the following before the TAB work can start:

3.6.4.1.1 All test documentation associated with the system has been completed and presented to the Owner CI. Include operational verification of all component devices and of the total system, and automatic controls where applicable. This would include, as a minimum, verification that all motors, fans, dampers, and other operable devices are performing in accordance with specifications throughout their operable range and that all such devices are controlled as described in specified sequence of operation.

- 3.6.4.1.2 All tabulated data, motor amperage readings, valve tag verifications, loop tuning documentation, calibration data, and other data as required by technical specifications.
- 3.6.4.2 For Static systems, periodic observations shall be documented in accordance with manufacturer installation guidelines and recommendations. Performance testing as recommended by the manufacturer and in accordance with applicable technical specifications requirements shall be documented.
- 3.6.4.3 Where final TAB of a system or particular components thereof are not specifically indicated to be performed by Owner or Owner's consultants, the Contractor is to provide final balancing and adjustments for operation within specified tolerances and provide documentation of such prior to demonstration of each system.

3.7 INTEGRATED SYSTEM TESTING

- 3.7.1 After successful completion and documentation of all system/assembly/equipment operation by Functional Tests, the Contractor shall schedule a meeting with the Project Commissioning Team to review the Integrated System Tests (IST) and demonstration procedures for each designated system. An integrated system contains two or more assemblies/equipment that require functional testing and have physical, hardwired, hardware, or software interfaces that require one system to respond as the result of the operation of one or more other systems/assemblies/equipment. Examples of systems that would require an IST are: chilled water, domestic hot water, primary electrical distribution, fire alarm, access control and security system.
- 3.7.2 Development of Integrated System Test (IST) and demonstration procedures may vary with each project. The Contractor is responsible for providing Integrated System Tests that include all modes of operation for the facility that could act upon or react to operation of a system. An IST shall be submitted to the Owner for review and comment and final approval by the A/E team. Collaboration with the A/E design team during IST development will ensure that a thorough performance demonstration is achieved. ISTs shall include a comprehensive, action-response checklist for all modes of operation and failure conditions included in the sequence of operation and shall itemize for each action, the anticipated response from each integrated system and/or associated component.
- 3.7.3 Following compliance with the provisions noted above and following submission of Operating & Maintenance Manuals for the all systems to be demonstrated, the Contractor shall provide the Owner a ten (10)-day notice of their intent to perform an IST demonstration. The Contractor is responsible for documenting the results of the Integrated System Tests.

3.8 ENTIRE FACILITY INTEGRATION TESTING

- 3.8.1 After successful completion and documentation of all Integrated System Tests, the Contractor shall schedule a meeting with the Project Commissioning Team to review the Entire Facility Integration Test (EFIT). The EFIT is a facility wide test to verify that all building systems interact and predictably perform in accordance with the design documents.
- 3.8.2 Development of the Entire Facility Integration Test and demonstration procedures shall be a collaborative effort of the Cx Team facilitated by the Contractor. The Contractor is responsible for ensuring that all building systems are included in the EFIT, that each system responds to designed modes of operation, and that anticipated failure conditions are itemized for monitoring and verification. The format of the EFIT testing procedures shall be an action-response matrix that identifies for each action (mode of operation), the itemized list of responses that are to be verified and documented. The Contractor shall submit the EFIT to the Owner and A/E team for review and comment.
- 3.8.3 Following compliance with the provisions noted above, the Contractor shall provide the Owner a ten (10)-working-day notice of their intent to perform an EFIT. The Contractor is responsible for documenting the results of the EFIT.

3.9 OWNER TRAINING

- 3.9.1 Training shall consist of classroom type sessions and on-site demonstrations of system operation. See specification technical sections for requirements. If a system/equipment requires both demonstration and training, they may be combined if the Contractor is prepared and the Owner approves.
- 3.9.2 The Contractor shall provide a minimum of 8 hours of video recording of training, with audio, in accordance with the technical specifications. The Owner will select those portions of the training to be recorded. The production of the video shall provide a professional-grade product.
- 3.9.3 The Contractor shall be responsible for submitting individual training plans, and coordination, scheduling and completion of the training for all equipment as specified in the contract documents. The training will be conducted by the installing subcontractor and/or manufacturer's representative for that specific piece of equipment in accordance with the applicable technical specification sections. Each training plan shall be submitted to the Owner no later than 14 days in advance of proposed training. Training plans shall include the specifications section reference, proposed trainer and relevant qualifications (resume), training agenda with learning objectives, copies of training materials/handouts/visual aids, training date, time, location and duration.
- 3.9.4 Training shall use the Operating & Maintenance (O&M) Manuals as a basis for instructing the Owner's personnel regarding system operation. Review contents of O&M Manuals and review equipment data and performance verification from the FT checklists.

- 3.9.5 Demonstrate in the field: startup, operation, control, adjustment, trouble-shooting, servicing, maintenance, each component device, and shutdown of the system(s).
- 3.9.6 Demonstrate point-by-point check-out at each stage of sequence of operation. Promptly correct and document any deficiencies noted during the demonstration/inspection. Items that cannot be corrected in a few minutes shall be documented and scheduled for retesting at the earliest possible time to be coordinated with the Owner.
- 3.9.7 Contractor shall participate in demonstration of Owner Furnished/Contractor Installed equipment to the extent of verification of contract requirement compliance.
- 3.9.8 As a minimum, the Contractor shall perform training on all Life Safety systems including, but not limited to the following (if system is part of the project):
 - 3.9.8.1 HVAC and Controls
 - 3.9.8.2 Fire Alarm
 - 3.9.8.3 Fire Sprinkler Systems (including pumps)
 - 3.9.8.4 Elevator/Escalator
 - 3.9.8.5 Smoke Purge
 - 3.9.8.6 Stairwell Pressurization
 - 3.9.8.7 Communications Systems
 - 3.9.8.8 Emergency Power/Generator/UPS
 - 3.9.8.9 Alternative Energy/Energy Recovery Systems
 - 3.9.8.10 Facility Security System
 - 3.9.8.11 Medical Gas Systems
 - 3.9.8.12 Security/CCTV/Access Control/Article Protection Systems

End of Section 01 91 00

REVISION LOG

The following is provided for convenience to the Owner, Architect/Engineer and Contractor to track changes between annual document issuances and is not to be considered by any party to be contractual or 100% complete.

Date	Items Revised
9/1/2007	Original Document
3/11/11	Provided additional language for CxC qualification and duties. Provided Owner approval for proposed candidate for this position
	Further defined role of 3 rd party commissioning authority (CxA)
	Further defined Cx activities within project schedule and increase notice for testing/demonstration
	Renamed Prefunctional Test - Prefunctional Test <i>Checklist</i> and revised C&C documents accordingly
	Further defined Functional Testing and Integrated Testing
	Added Entire Facility Integration Test (EFIT) form to clarify test procedure to demonstrate operational performance of entire facility

SECTION 01 31 00 - PROJECT ADMINISTRATION

PART 1 - GENERAL

1.1. DEFINITIONS

1.1.1. The term "Architect" or ARCHITECT as used throughout the contract documents, is defined in the UGC.

1.1.1.1. On Design/Build contracts, the construction management staff may provide general administration, including management of meeting records and preparation of change orders, only with prior written approval of the Owner.

1.2. RELATED DOCUMENTS

1.2.1. In addition to specific references indicated herein, the Contractor's attention is specifically directed, but not limited, to the following Sections and Documents, which include additional administrative requirements.

1.2.1.1. Exhibit H - Policy on Utilization Historically Underutilized Businesses

1.2.1.2. Owner's Special Conditions

1.2.1.3. Section 00 73 16 - Project Insurance (ROCIP) – If applicable

1.2.1.4. Section 01 32 00 - Project Planning and Scheduling

1.2.1.5. Section 01 35 23 - Project Safety

1.2.1.6. Section 01 45 00 - Project Quality Control

1.2.1.7. Section 01 57 23 - Temporary Storm Water Pollution Control

1.2.1.8. Section 01 77 00 - Project Closeout Procedures

1.2.1.9. Section 01 91 00 - Project Commissioning

1.2.1.10. Section 23 00 00 - General Mechanical Requirements

1.2.1.11. Section 26 00 00 - General Electrical Requirements

1.3. CONTRACT SUBSTANTIAL COMPLETION

1.3.1. The terms "Substantial Completion" and "Pre-Final" shall be considered the same, and are used interchangeably throughout the Contract Documents.

1.3.2. In order to obtain a Substantial Completion inspection, the contractor shall fulfill all requirements as specified in the UGC and Specification Section 01 77 00 - Project Closeout.

1.4. PROCUREMENT OF SUBCONTRACTS (CONSTRUCTION MANAGER AT RISK AND DESIGN-BUILD AGREEMENTS ONLY)

1.4.1. The Construction Manager at Risk (CM) or Design/Build Contractor (DB) shall provide a written Bid/Proposal Package Strategy (B/PPS) for procuring subcontracts including self-performance work (other than General Conditions), prior to the approval of the Guaranteed Maximum Price, but no later than twenty (20) calendar days prior to the first advertisement for proposals. The B/PPS shall be a written plan submitted to, and reviewed by the ODR and the Architect.

1.4.1.1. The plan shall identify bid packages that are most advantageous to the project and align with the CM/DB's HUB Good Faith Effort (Exhibit H) by providing at least three (3) qualified respondents, including the CM/DB. Each bid package shall include the UGC, the Owner's Division 1 Specifications, Drawings and Specifications and any other OFPC requirements included in the CM/DB Agreement pertaining to the scope of work covered in the packages.

1.4.1.2. The B/PPS shall conspicuously identify any and all work that the CM/DB will submit a bid/proposal for, but will not perform with its own forces (i.e. subcontract to someone else if determined to be "best value").

1.4.1.3. The B/PPS shall include the following for each bid package contemplated:

1.4.1.3.1. Anticipated scope of work to be procured;

1.4.1.3.2. A current Work Progress Schedule;

1.4.1.3.3. Anticipated selection criteria and questions;

1.4.1.3.4. Self-perform work proposals to be submitted by the CM/DB;

1.4.1.3.5. Proposed advertising dates;

1.4.1.3.6. Proposed Pre-proposal meeting(s);

1.4.1.3.7. Exhibit H and Information on the Owner's Controlled Insurance Program (if applicable);

1.4.1.3.8. Proposed Receipt, review and award dates;

1.4.1.3.9. Anticipated notice to proceed dates.

1.4.1.4. The CM/DB shall update the B/PPS monthly as a minimum, as conditions change, or as proposed dates are revised.

1.4.2. Per Texas Higher Education Code 51.782: "A construction manager-at-risk shall publicly advertise, in the manner prescribed by the institution, and receive bids or

proposals from trade contractors or subcontractors for the performance of all major elements of the work other than the minor work that may be included in the general conditions”. This requirement applies to DB as well.

1.4.3. The goal of the project team shall be to have all work procured through advertised competitive proposals, however, if a “minor procurement” condition arises during the process, the following procurement guidelines may be used by the CM/DB, with Owner approval, for procurement of work:

- 1.4.3.1. Less than \$5,000.00: No requirements
- 1.4.3.2. Between \$5,000.01 and \$25,000.00: Obtain three (3) solicitations
- 1.4.3.3. Greater than \$25,000.00: Obtain three (3) advertised competitive proposals

1.4.3.3.1. If the CM/DB does not receive at least three (3) competitive proposals, the CM/DB shall re-package the scope and re-issue without additional cost to the Owner or delay to the project “Substantial Completion” date (unless approved by the Owner).

1.4.3.3.2. If the CM/DB receives less than three (3) competitive proposals and the ODR determines that specific factors related to the project’s schedule or quality do not require re-issuance, the CM/DB shall provide the ODR with a letter stating the CM/DB does not have any ownership interest in, or a controlling relationship with, the recommended “best value” vendor.

1.4.3.3.2.1. If the CM/DB cannot provide a letter, the package shall be re-issued without additional cost to the Owner or delay to the project “Substantial Completion” date, unless otherwise approved by the Owner.

1.4.4. This specification does not pertain to Change Orders to existing subcontracts.

1.4.5. Work shall be divided into reasonable lots; however, material or labor acquired through purchase order/vendor type agreements are subject to the entire project (i.e. Concrete material shall be procured as a unit price times an estimated total project quantity provided by the CM/DB to equal a total construction cost). Work shall not be incrementally divided for the purpose of circumventing the procurement guidelines.

1.4.6. The CM/DB may establish selection criteria for each phase of work for review by the project team. Criteria shall be qualifications based and consistent with the information needed by the CM/DB to make a proper evaluation and selection. The CM/DB shall establish a selection matrix including cost, criteria, weighting and ranking procedures for evaluation. The CM/DB shall work with the project team to tailor the selection criteria to be project and scope specific, and ensure that the

questions are proper and relevant to the goals of the project. The CM/DB shall follow the Good Faith Effort requirements identified in Exhibit H of the Agreement, including attachments to be completed by 1st tier subcontractors. However, HUB participation/status cannot be used as criteria for determining “best value”, only for determining if the respondent is responsive.

- 1.4.6.1. The CM/DB shall establish clear criteria and questions so that those reading the Request For Proposals will understand how they will be evaluated.
- 1.4.6.2. If criteria are not included in the advertisement for proposals, the proposal shall be considered a lump sum bid, and the CM/DB shall award the work to the lowest qualified, responsive bidder.
- 1.4.6.3. After selection criteria have been established, the CM/DB shall publicly advertise the work in general circulations and trade associations in accordance with TEC 51.782 for CM, Article 7 of the current Agreement for DB and Texas Administrative Code 111.14 – “HUB” for both CM and DB. This advertisement shall include, at a minimum, the following:
 - 1.4.6.3.1. OFPC Project Number and Project Name;
 - 1.4.6.3.2. Institution/Campus name;
 - 1.4.6.3.3. CM/DB name and address;
 - 1.4.6.3.4. CM/DB contact name and phone number;
 - 1.4.6.3.5. Location for viewing plans and specifications;
 - 1.4.6.3.6. Date, time and location of Pre-proposal meeting;
 - 1.4.6.3.7. Date, time deadline(s), and location for receiving proposals;
 - 1.4.6.3.8. Instructions to respondents for submitting proposals;
 - 1.4.6.3.9. Selection criteria, questions and submittal requirements.
- 1.4.7. At the time and location identified in the advertisement, the CM/DB shall hold a Pre-proposal meeting for all potential subcontractors with the project team and Owner’s HUB Coordinator. The CM/DB shall review as a minimum:
 - 1.4.7.1. The general scope of the project and the specific scope of work included in this package;
 - 1.4.7.2. Instructions to respondents for submitting proposals;
 - 1.4.7.3. Selection criteria and questions;
 - 1.4.7.4. HUB Good Faith Effort requirements (Exhibit H);

- 1.4.7.5. Project Safety requirements;
 - 1.4.7.6. ROCIP requirements (if applicable);
 - 1.4.7.7. Project Schedule requirements;
 - 1.4.7.8. Payment procedures and requirements, including retainage;
 - 1.4.7.9. Commissioning and Close-out requirements.
- 1.4.8. If the CM/DB identifies any self-performance in the B/PPS (work to be performed by its own employees), the CM/DB shall submit a proposal to the Owner at the advertised time and location in a manner so as not to compromise the competitive process.
- 1.4.8.1. Regardless of the work or method of accepting proposals, all CM/DB self-performance proposals shall be:
 - 1.4.8.1.1. Estimated and submitted by a separate estimating team that is not associated with the CM/DB's pre-construction and/or construction team;
 - 1.4.8.1.2. Submitted in a sealed envelope;
 - 1.4.8.1.3. The final proposal price and not subject to change for any reason prior to recommendation of subcontract award.
- 1.4.9. The CM/DB shall accept all proposals at the advertised location until the advertised deadline. Upon receipt, the ODR shall be allowed to review the proposal and confirm the time and date received. Any proposals received after the deadline shall not be considered by the CM/DB, and shall be returned to the respondent unopened.
- 1.4.9.1. Fax proposals shall not be accepted unless the Owner, prior to the initial advertisement for proposals, approves a detailed plan by the CM/DB of care and custody.
- 1.4.10. After compiling, reviewing and verifying the costs and scope associated with all proposals, the CM/DB shall provide a "bid tabulation" matrix and a proposed Schedule of Values (refer to Attachment C (CSP format) or D (CM and DB format)) for review by the project team.
- 1.4.10.1. The "bid tabulation" matrix shall compare all equivalent scope proposals to the CM/DB's estimate.
 - 1.4.10.2. Each matrix shall indicate the CM/DB estimate(s) for each scope of work and identify the respective cost savings/over-runs.

- 1.4.10.3. The CM/DB may use values/quantities from its own estimate to provide full scope comparisons between each respondent, however, these “plug” numbers shall be clearly identified in the matrix to the project team and be used only to compare the various proposals.
- 1.4.10.4. The proposed updated Schedule of Values shall summarize all executed and recommended “best value” subcontracts to provide a current status of the Guaranteed Maximum Price Proposal.
- 1.4.10.5. Once the proposals are compiled into a “bid tabulation” matrix and the proposed Schedule of Values has been updated, the CM/DB shall request a meeting with the project team to review the proposals.
- 1.4.11. The CM/DB shall lead the proposal review meeting by reviewing the scope of work, the proposals received, any exclusions or conditions, identify any non-qualified respondents and any other problems that may have occurred during the process.
 - 1.4.11.1. The CM/DB shall confirm that the respondents are qualified, meet the established selection criteria (if applicable), and identify the amount of the proposals.
 - 1.4.11.2. The CM/DB shall identify the “best value” and the current status of the buy-out savings to the project team. If the “best value” causes the CM/DB to exceed the Cost of Work line item, including contingencies in the GMP the CM/DB shall acknowledge that the overage will be deducted from the CM/DB’s Construction Phase Fee.
- 1.4.12. Once the “best value” respondent has been identified by the CM/DB, without exception (or as noted) by the Owner, the CM/DB shall finalize negotiations with the selected “best value” respondent.
 - 1.4.12.1. The CM/DB shall identify and confirm with the ODR which competitive proposal “plug” numbers it intends to use in its negotiations. “Plug” numbers may be established through the CM/DB’s own estimate (if turned into the ODR before the advertised deadline) or values included in other non-selected respondent competitive sealed proposals.
 - 1.4.12.2. If the CM/DB cannot reach an agreement with the selected respondent, the CM/DB shall notify the ODR that it intends to begin negotiations with the second “best value” respondent.
 - 1.4.12.3. The CM/DB shall issue a letter to the Owner indicating that it intends to write a subcontract to the selected “best value” respondent (including self-perform work), identifying the following:
 - 1.4.12.3.1. The bid package number;

- 1.4.12.3.2. The base bid from the selected respondent and any alternates included in the proposal;
- 1.4.12.3.3. The total value of the proposed subcontract with a description of any changes from bid day values;
- 1.4.12.3.4. Drawings and/or specifications related to the subcontract;
- 1.4.12.3.5. Additional scope items added to the subcontract (as previously agreed to by the Owner), and their value;
- 1.4.12.3.6. Current status of the GMP identifying current savings/overages;
- 1.4.12.3.7. A copy of the bid tabulation matrix;
- 1.4.12.3.8. A copy of the executed subcontract or purchase order, etc. is required prior to any request for payment by the CM/DB for applicable work;
- 1.4.12.3.9. A copy of the completed Subcontractor Change Order Pricing Proposal Summary Sheet. The CM/DB shall confirm to ODR that subcontractor's burden on associated wages has been reviewed and is reasonable. Once approved by the Owner, no revisions will be allowed without the Owner's approval. A sample form is attached at the end of this specification section as "Attachment E".
- 1.4.12.4. If the Owner objects to the "best value" identified by the CM/DB, the Owner may conduct an evaluation of the selection process and/or results.
 - 1.4.12.4.1. If, after evaluation, the ODR disagrees with the CM/DB "best value" recommendation, the ODR may instruct the CM/DB to either re-bid the scope of work or use the Owners' "best value" selection.
 - 1.4.12.4.2. If the value of the Owners' selection causes an increase in the Total Contract Price, the increase will be the responsibility of the Owner.
- 1.4.12.5. The CM/DB shall provide one (1) complete copy of all recommendation letters and proposals to the ODR for record, as they occur until final payment.
- 1.4.13. For additional bid packages, the CM/DB shall repeat the steps identified in this section as many times as identified in the current B/PPS for the entire project.

1.5. SUBCONTRACTS

- 1.5.1. **Contractor agrees to bind every subcontractor, and every subcontractor agrees to be bound by all the terms and conditions of the Owner's Contract.**

- 1.5.2. The Contractor is required to submit a list of all first tier subcontractors to the Owner as subcontracts are executed.
- 1.5.3. **All subcontractor procurement strategies, procedures and documents issued by the Contractor shall comply with, and enforce the Project Safety, Project Insurance and UT System Historically Underutilized Business requirements referenced above.**

1.6. FLOW OF COMMUNICATIONS

- 1.6.1. The Architect is responsible for document control and general project administration. The Owner's written instructions to the Contractor will generally be issued through the Architect. The Architect is the key contact for written communications.
 - 1.6.1.1. On Design-Build projects, the construction management staff may provide this service if approved by the Owner prior to the Notice To Proceed for Construction Services.
- 1.6.2. All subcontractor correspondence shall be routed through the Contractor. All written Contractor correspondence is to be directed to the Architect, with simultaneous copies to the Owner's Designated Representative (ODR) and Construction Inspector(s) (CI). The actual parties for this project will be confirmed at the Pre-Construction Conference.
- 1.6.3. The ODR and the CI are the Owner's primary representatives for the Project. The CI is the key contact for verbal communications and site issue coordination.
- 1.6.4. The ODR and the CI are the only parties authorized to direct changes in the work, and issue written and/or oral instructions directly to the Contractor.
 - 1.6.4.1. All ORAL instructions must be issued by the ODR and/or the CI, or in their presence, and shall be promptly confirmed in writing by the Contractor. Any oral instructions or discussions with subcontractors in the absence of the Contractor are not contractual and are not binding on either party.
- 1.6.5. The Architect may issue clarification and other information not affecting the contract cost or time by means of an Architect's Supplemental Instruction form, (ASI), or similar clarification form and will be sequentially numbered. Both the Architect and the Contractor shall maintain a separate ASI register.
 - 1.6.5.1. If the Contractor considers such clarification to be a change in the contract scope, written notification of such must be provided before performing the work considered to be a change within thirty (30) calendar days of Contractor's receipt, or with the Change Order Proposal.
- 1.6.6. All subcontractor Requests for Information, (RFI), are to be submitted by and under cover of the Contractor, who is to carefully review and ensure the

completeness and appropriateness of the question, sequentially number each, and submit to the Architect with copies to the ODR and CI. The Contractor and Architect shall maintain separate RFI logs.

- 1.6.7. All project correspondence shall include OFPC Project Number and Project Name in the title or reference.
- 1.6.8. Pay Estimates, Requests for Information, Changes, Submittals, etc... are to be processed as shown in the Pre-Construction Conference Brochure.

1.7. PROJECT CHANGES

- 1.7.1. All changes shall be administered per the UGC.
- 1.7.2. All changes to the contract affecting cost, scope and/or time will be issued as a formal Change Order to the Contract on the standard University of Texas System Change Order form. The Change Order may include separate change issues, identified as Change Order Proposals and Field Orders.
- 1.7.3. Upon authorization by the Owner, Change Order Proposals may be issued to the Architect for pricing by the Contractor. All contractor pricing shall be submitted on the standard OFPC "Change in Work Cost Analysis" ("Cost Analysis") form provided in the Pre-Construction Conference Brochure. Prior to its inclusion in a Change Order, the Owner must accept a Change Order Proposal. When the Owner has approved a Change Order Proposal it will be included in a Change Order for execution.

- 1.7.3.1. The Contractor shall summarize all costs for each change at each level of subcontractor and supplier by preparing the "Cost Analysis" form, and shall provide each subcontractor's cost summary on separate "Cost Analysis" forms as backup. Additional support documentation from both the Contractor and its subcontractors is encouraged, but such will not replace use of the standard U.T. System form.

- 1.7.3.2. A copy of the completed Subcontractor Change Order Pricing Proposal Summary Sheet will be required to be attached to the first change order. A sample form is attached at the end of this specification section as "Attachment E".

- 1.7.3.3. Where the Contractor believes it is entitled to a time extension, it shall so state as part of its response to the Change Proposal, including a justification for such request. Time extensions will be granted only if a Change Order Proposal affects the activities on the Critical Path of the Owner approved Project Schedule (i.e., when the work impacts the "Contract Substantial Completion Date").

- 1.7.3.4. If the Owner and Contractor cannot mutually agreed upon a fair and reasonable cost and time settlement, the Owner may: 1) Reject the quotation and

void the Change Order Proposal, 2) Issue instructions to the Contractor to proceed on a time and material basis for a price to be determined later not to exceed a fixed maximum dollar and time, or 3) Issue a Unilateral Change Order.

- 1.7.3.5. The Owner may issue Field Orders directly to the Contractor for minor changes to the contract, which can be negotiated in the field. Pricing backup shall be the same as a Change Order Proposal and is to be outlined on the "Cost Analysis" form noted above. Once the Owner and the Contractor have signed the Field Order, the work is authorized and the Field Order will be included in the next Change Order.

1.8. LIQUIDATED DAMAGES

- 1.8.1. If assessed, liquidated damages will be withheld from progress payments beginning with the first payment after the adjusted Contract completion date and until all work of the contract is complete. The amount assessed shall be deducted from the contract price through a written Change Order.

1.9. SITE USE ISSUES

- 1.9.1. Harassment of any kind toward any person will not be tolerated; offending workers will be removed from the project immediately and permanently.
- 1.9.2. The Contractor shall provide and submit a program plan for worker orientation, identification and control of access to the site. All workers on the project shall participate in this program before beginning work on the project. This plan shall include, as a minimum:
 - 1.9.2.1. Employee identification badges with a photograph of the employee, the employer and employees' name. Badges shall be provided for all employees and produced by a system on site. This identification shall be worn at all times while on the project site. Lack of an id badge shall be grounds for removal from the project until badge is produced.

PART 2 - PRODUCTS

2.1 SHOP DRAWINGS AND SUBMITTALS

- 2.1.1 Refer to the UGC for requirements not identified in this section.
- 2.1.2 The Contractor shall assign an identifying number to each submittal following a format to be established at the Pre-Construction Conference. The same number with a numerical or alphabetical suffix will be used to identify re-submittals.

- 2.1.3 The burden of timeliness to complete the submittal process is on the Contractor. The Contractor shall allow sufficient time within the construction schedule to the Architect and Owner to review and approve all submittals, including time for all re-submittals on any unaccepted/rejected submittal.
- 2.1.4 Any deviation from the Contract Documents shall be conspicuously noted on the submittal and the transmittal cover sheet. Failure to so note deviation will void any action taken on the submittal.
- 2.1.5 All manufacturer's data contained within the submittal shall have all inapplicable features crossed out or deleted in a manner that will clearly indicate exactly what is to be furnished.
- 2.1.6 Equipment of larger sizes than shown, even though of a specified manufacturer, will not be acceptable unless it can be demonstrated that ample space exists for proper installation, operation, and maintenance.
- 2.1.7 The Owner will not be responsible for payment of any item that has not been submitted and approved through the established submittal process.
- 2.1.8 The exact number of submittal copies required for distribution will be determined at the Pre-construction Conference. The Contractor shall anticipate providing a minimum of twelve (12) copies of each submittal in addition to those needed by the Contractor and its subcontractors. Two (2) of the approved copies returned to the Contractor shall be set aside for subsequent turn over to Owner at Project Closeout.

2.2 SUBSTITUTION OF MATERIALS, LABOR AND EQUIPMENT

- 2.2.1 Refer to the UGC for requirements not identified in this section.
- 2.2.2 The specified products referenced in the Contract Documents establish minimum qualities for which substitutions shall at least equal to be considered acceptable. The burden of proof of equality rests with the Contractor. The Owner retains sole authority for acceptance of substitutions.
- 2.2.3 All substitutions shall be submitted within ninety (90) days of the Notice to Proceed for Construction and clearly marked as such on the transmittal cover sheet for the submittal.
- 2.2.4 The Contractor shall allow a minimum of six (6) weeks for review of each substitution by the Architect and/or Owner in addition to the requirements identified in Section 2.2.3 above.
- 2.2.5 When requested by the Architect, the Contractor shall provide a sample of the proposed substitution item. In some cases, samples of both the specified item and the proposed item shall be required for comparison purposes.

2.2.6 Acceptance of materials and equipment will be based on the supplier / manufacturer's published data and will be tentative subject to the submission of complete shop drawings and/or specifications indicating compliance with the Contract Documents. Acceptance of materials and/or equipment under this provision shall not be construed as authorizing any deviation from the Contract Documents, unless specifically directed in writing from the Architect.

2.2.6.1 Any and all additional costs or time resulting from the acceptance or rejection of any substitution shall be the sole responsibility of the Contractor. These include costs that are not presented at the time of the substitution request and those costs that become known after the approval of the substitution. This includes direct as well as indirect costs.

2.2.7 If a substitution is accepted, and the substitute proves defective, or otherwise unsatisfactory as determined by the Owner for the service intended within the guarantee period, the substitute shall be replaced with the material or equipment specified in the Contract Documents, or as approved by the Owner, at no additional cost to the Owner.

2.3 INITIAL APPLICATION FOR PROGRESS PAYMENT

2.3.1 The Contractor shall submit an initial request for a progress payment per the UGC.

2.3.2 Such requests shall be presented on the University of Texas System Application for Payment and Schedule of Values (refer to Attachment No. 1 and No. 2) forms supplemented by columnar continuation sheets, which represent updates to the original Contract Price or GMP Schedule of Values.

2.3.3 The Contractor's Project accounting records shall be kept on the basis of generally accepted accounting principles in accordance with cost accounting standards issued by the Federal Office of Management and Budget Cost Accounting Standards Board and organized by each Application for Payment period.

2.3.4 Prior to the submission of the initial Application for Payment the Contractor shall submit the following documents to the Architect, Owner for review:

2.3.4.1 Contract Price or GMP Schedule of Values: A single document itemizing the breakdown of the Contract Price/GMP, including general conditions, contingencies and allowances shall be submitted using the OFPC Standard Schedule of Values format. The Contractor shall submit a draft breakdown and such submittal shall be a condition precedent to the processing of the first payment application. The Contractor shall submit subsequent draft copies of the Schedule of Values no later than five (5) working days prior to formal submission of each monthly payment.

2.3.4.1.1 The breakdown shall follow the trade divisions of the specifications and shall be itemized by submittal, floor, area, elevation or other building systems, as a minimum. The breakdown shall include a

labor and material breakdown for each activity and be of such detail as may be required by the Owner and/or Architect, but in general shall limit each line item to less than \$100,000, or as approved by the Owner.

2.3.4.1.2 No adjustment to the original detailed breakdown of a contract line item shall be made once accepted by the Owner and Architect. Once accepted, the breakdown will form the basis for all periodic payments.

2.3.4.1.2.1 Contracts with Construction Manager at Risk or Design/Build Agreements may adjust the detailed breakdown of a General Conditions line item if the total invoices for a General Conditions line item exceeds one hundred percent (100%). A corresponding amount shall be deducted from another General Condition line item(s) or the Construction Phase Fee to pay for the overage.

2.3.4.1.3 The Contractor shall not use subcontractor invoices/pay applications in lieu of a single Schedule of Values from the Contractor.

2.3.4.1.4 The breakdown shall anticipate future Change Orders and make provisions for incorporating all changes into the breakdown listing. If issued, Change Orders shall be identified separately and shall itemize the GMP Change Orders, Change Proposals and/or Field Orders, which are incorporated into each Change Order for payment on a line-item basis as required by this section.

2.3.4.1.5 Contracts with Guaranteed Maximum Price proposals shall repeat the process outlined in this section every time a subcontract is added to the monthly Schedule of Values for payment.

2.3.4.2 Work Progress Schedule: Refer to specification section 01 32 00 for all project schedule requirements.

2.3.4.3 Shop Drawing/Submittal Schedule: The Contractor is to provide the Owner and Architect with a Submittal Schedule of all items requiring submittal review showing their anticipated submission date and late finish date for completion of the review process. This Schedule shall be incorporated with the Work Progress Schedule, and each will be updated monthly and submitted to the Architect and Owner with each draft payment request.

2.3.4.4 Equipment List/Matrix: Specification Sections 01 91 00 and 23 00 00 require a matrix of all operable devices, building system components and mechanical equipment be submitted at least one week prior to the first application for progress payment. These lists may be combined and, further, may be incorporated into equipment documentation required in Operating and Maintenance Manuals as indicated in Specification Section.

2.3.4.5 The Contractor is encouraged to integrate these documents to the extent practical to avoid duplication, both in initial setup and ongoing updates to each.

2.3.5 Once the line item amounts are agreed to by the Owner and the Contractor, the Contractor is to submit at least ten (10) copies of the formal application to the Architect, utilizing the University of Texas System form, with original signatures of an officer of the contracting firm and original notarization. The Contractor shall furnish a certificate designating a person(s) who has authority to sign pay applications on behalf of the firm if such is not an officer of the firm.

2.3.5.1 At a minimum, the Contractor shall provide attachments to each month's payment request as follows:

2.3.5.1.1 Ten (10) copies of the monthly HUB Progress Assessment reports (Attachment H to Exhibit H)

2.3.5.1.2 Four (4) copies of the updated Submittal Schedule

2.3.5.1.3 Four (4) copies of all invoices required by the contract.

2.3.5.1.4 Three (3) of the wage rate notification form for each member of the workforce not previously submitted.

2.3.5.1.5 Two (2) copies (paper and electronic) of the updated Work Progress Schedule as specified in Specification Section 01 32 00.

2.3.5.2 The formal payment requests with attachments shall be organized and distributed according to the flow chart included in the Pre-Construction Brochure.

2.4 MONTHLY APPLICATION FOR PROGRESS PAYMENTS

2.4.1 For regular monthly applications for payment, the Contractor shall submit for review and approval a draft payment request to the ODR, CI, and the Architect no less than five (5) working days prior to formal submission. The Contractor shall be prepared to review the draft copy at the project site with the Owner and the Architect. Failure to comply with the requirements outlined in Section 2.3 above shall relieve the Owner from its obligation to make payments on any/all line items until the Contractor meets all requirements.

2.4.1.1 Payments cannot exceed the contract, work in-place, or subcontract amounts as depicted on Schedule of Values line items.

2.4.1.2 All as-built drawings shall be reviewed to ensure updates are current.

2.4.1.3 Retainage shall not be used to cover "punch-list" work items.

2.4.1.4 All off-site stored materials shall be specifically identified, including the required documentation, photographs, insurance and arrangements for the Contractor to escort the CI to visit and personally verify the stored material is physically separated and secure from other material.

2.4.2 Requests for payments in association with release of, or reduction in retainage or completion of work have additional requirements as outlined in the UGC and Specification Section 01 77 00.

2.4.3 The Owner may withhold Progress Payments in accordance with the UGC.

2.5 CONTRACTOR'S DAILY REPORT

2.5.1 The Contractor shall provide the Architect, ODR and CI with a report detailing its daily activities on the Project in a format acceptable to the Owner. All tests performed by the Contractor are to be attached. All work reports required of subcontractors shall be attached to the Contractor's daily report.

2.5.1.1 The report shall include, as a minimum, the following information as it relates to the days activities on site: subcontractors on site (including number of employees for each sub), equipment, areas of work and type of work performed, material received, tests performed, any injuries and/or accidents, total number of employees on site (including Contractor) any oral instructions received, any material damage, any change in personnel and anything else that might impact quality or schedule.

2.5.2 These reports shall be submitted to the CI on a daily basis, and are ground for withholding payment.

2.6 AS-BUILT DRAWINGS AND RECORD DOCUMENTS

2.6.1 "As-Built" drawings, specifications, detail manuals, and submittals shall be continuously annotated by the Contractor to reflect actual record conditions, addenda, issuance of all Change Orders and clarifications, and actual dimensional records for underground and all other services.

2.6.2 Maintenance of current documentation by the Contractor is required in order to process pay applications. The CI and the Architect will review the status of such documentation monthly, at a minimum.

2.6.3 Refer to Specification Section 01 91 00 – Project Commissioning for requirements regarding the Commissioning and Closeout Manual tracking of these documents.

2.6.4 Refer to Specification Section 01 77 00 – Project Closeout Procedures for detailed instructions on As-Built Drawings, Specifications, O&M manuals and other records.

PART 3 – EXECUTION

3.1 PRE-CONSTRUCTION (WITH OR WITHOUT A PARTNERING WORKSHOP) CONFERENCE

- 3.1.1 A Pre-Construction Brochure will be prepared by the Architect using the standard OFPC Pre-Construction Brochure, as an overview of administrative procedures for the project. A review of the Brochure, including this Section, identification of key project personnel, diagrams illustrating documentation routing, Owner's sample administrative forms, and other information will be conducted at the conference.
- 3.1.2 Upon mutual agreement, a Partnering Workshop may be held with or near the time of the Pre-Construction Conference. The Preconstruction Conference and/or Partnering Workshop will be paid for in total by the Contractor, and reimbursed by the Owner for fifty percent (50%) of the mutually agreed upon costs (100% of the costs shall be reimbursed to the Contractor as part of the General Conditions in the GMP for CM and DB contracts).
 - 3.1.2.1 The conference and/or workshop is intended to provide further understanding among the parties, to establish mutual goals for the project and to develop strategies for achieving those goals.
- 3.1.3 The Owner will schedule a Pre-Construction Conference to generally coincide with issuance of Notice to Proceed for Construction. The conference agenda will cover broad project issues followed by detail review of administrative procedures.
 - 3.1.3.1 The UGC requires the Contractor to comply with the Owner's administrative requirements as outlined herein and as reviewed at the Pre-Construction Conference.
 - 3.1.3.1.1 For projects with Guaranteed Maximum Price contracts the Owner may require a Pre-Construction meeting prior to Notice to Proceed Construction.
 - 3.1.3.1.2 For projects with Guaranteed Maximum Price contracts and multiple bid packages, the Owner may schedule additional Pre-Construction Conferences to include any subcontractors added to the project after the initial Pre-Construction Conference.
- 3.1.4 Attendance may be required as determined by the Owner at the conference by all appropriate representatives of the Contractor, mechanical, electrical, plumbing subcontractors, and any additional subcontractors (proposed or engaged), whose scope of work represents five percent (5%) or more of the total construction cost. The Contractor shall request all HUB subcontractors also be represented. Each firm is to be represented by personnel directly involved in the Project, including Project Managers and Project Superintendents or labor foremen, as a minimum.

3.1.4.1 Project representatives of the Contractor and all other parties directly involved with the processing or executing of project submittals, changes and/or payments should attend the conference.

3.1.5 Prior to the scheduled time of the Pre-Construction Conference, the Contractor is to provide the Architect a written outline of all involved firms, their key personnel, including mailing address and phone numbers to be incorporated into a Project Directory and included in the Pre-Construction Brochure.

3.1.6 The Architect will provide to the Contractor, a minimum of eight (8) copies of the Pre-Construction Conference Brochure prior to the scheduled date of the Conference. The Contractor shall review the contents of the manual with its key project personnel and those of its' subcontractors in preparation for the conference.

3.2 OWNER'S MONTHLY PROJECT PROGRESS MEETINGS

3.2.1 In addition to specific coordination meetings, pre-installation contractor meetings for each element of work, and other project meetings for other purposes; the Owner will schedule and conduct a Project Progress Meeting at least once each month.

3.2.2 The Contractor shall have all preparations of payment request, and submission of the updated Project Schedule submitted to the Owner at least (5) days prior to this meeting date.

3.2.3 Prior to the Owner Monthly Project Progress Meetings, the Contractor shall convene a similar progress meeting with their subcontractors to review each of their present and future needs including interface requirements, utility outages required, sequences, deliveries, access, site utilization, temporary facilities and services, hours of work, hazards and risks, housekeeping, change orders, and documentation of information for payment requests in order to be fully prepared to discuss all pertinent issues with the Owner. The Contractor is to notify the Owner and Architect in advance of such meetings with subcontractors.

3.2.4 Owner Monthly Project Progress Meetings are to include review of Contractor's updated project schedule and forecast of operations for coming period, as well as issues of coordination, anticipated utility outages, status of requested change proposals and other cost impact issues, status of the Commissioning process, status of the HUB Plan, and other project issues

3.2.5 The Contractor and Architect shall provide separate tracking logs for submittals, RFIs, ASIs, and changes in a package for each primary meeting participant. On Design/Build contracts, a single set of tracking logs may be utilized if accepted in advance by the Owner.

3.2.6 This meeting will be chaired by the ODR. The Contractor shall be specifically prepared to discuss the following at each Progress Meeting:

- 3.2.6.1 Status of all activities appearing on the current Longest Path Bar Chart and the Three Month Rolling Schedule as required in Specification Section 01 32 00 – Project Planning and Scheduling;
 - 3.2.6.2 Status of Project Safety;
 - 3.2.6.3 Status of "action" items from the previous meeting;
 - 3.2.6.4 Status of Buyout on Guaranteed Maximum Price projects;
 - 3.2.6.5 Current status of product submittals and shop drawings, requests for information (RFI), and Architect's clarifications (ASI);
 - 3.2.6.6 Status of project changes and other items of significance, which could affect progress;
 - 3.2.6.7 Status of the Commissioning process for the project;
- 3.2.7 In addition to the monthly progress meeting, the Owner may also schedule bi-monthly, weekly, or other project meetings at various stages of the project as conditions may dictate. However, the complete report requirements noted above will apply only to the monthly project progress meetings.

3.3 UTILITY OUTAGES

3.3.1 The Contractor shall notify the CI and the ODR, in writing, of any planned utility outages ten (10) calendar days in advance for academic and office campuses and not less than three weeks for all medical or research campuses.

3.3.2 A standard form for processing a request for utility shutdown or any other campus disruption is included in the Pre-Construction Conference Brochure. The Contractor shall utilize this form, with attachments as necessary, in requesting an outage.

3.4 The Contractor shall not turn service on or off, without prior written authorization. Unless directed otherwise, the campus Physical Plant will turn services on and off.

3.5 TESTING

3.5.1 Refer to the UGC and Specification Section 01 45 00 for additional requirements.

3.5.2 The Contractor shall not employ the same testing entity engaged by the Owner.

3.6 INSPECTIONS

3.6.1 Refer to the UGC and Specification Section 01 45 00 for inspection requirements.

3.7 FINAL ACCEPTANCE AND PAYMENT

3.7.1 The Contractor must notify the Architect, Owner, in writing that the Work will be ready for final acceptance verification on a definite date, a minimum of ten (10) calendar days prior to such proposed date.

3.7.2 In addition to requirements noted for Substantial Completion, final payment and/or release of remaining retainage requires submission of the following:

3.7.2.1 Consent of Surety;

3.7.2.2 Release of Liens and Claims;

3.7.2.3 Affidavit of payment of Debts and Claims;

3.7.2.4 Final Historically Underutilized Business Plan;

3.7.2.5 Completed and signed SWPPP Notice Of Termination;

3.7.2.6 Closeout of the Owner's Construction Contingency and/or Owner's Special Cash Allowance to a zero (\$0) balance.

3.7.3 Refer to UGC and Section 01 77 00.

3.8 ONE YEAR WARRANTY

- 3.8.1 If informed of a defect, the Contractor shall remedy the defect at its own cost and respond in writing to the ODR and the notifying party within ten (10) calendar days indicating the action taken to resolve the defect. Refer to the UGC.
- 3.8.2 The Contractor shall attend any and all meetings to resolve warranty issues. The Contractor will provide a tracking log of all warranty issues, and their resolution.
- 3.8.3 The Contractor shall participate in an end of warranty project review with the Owner, as scheduled by the ODR, at a time prior to termination of the warranty period.
- 3.8.4 Per the UGC and unless directed in writing by the Owner, all warranties shall use the date of Substantial Completion as the start date for that particular warranty.
 - 3.8.4.1 If any equipment and/or system is completed prior to the date of Substantial Completion, the Contractor shall provide, at their own cost, for the necessary warranty extension as required to meet the requirements of the UGC.
 - 3.8.4.2 All equipment shall be delivered to the Owner in an “as-new” condition. If equipment is put into service for the convenience of the contractor, the contractor shall, at their own expense, maintain, service and refurbish the equipment to “as-new” condition prior to delivery to the Owner.

END OF SECTION 01 31 00

ATTACHMENT A – OFPC APPLICATION FOR PAYMENT (CSP FORMAT)

THE UNIVERSITY OF TEXAS SYSTEM - OFFICE OF FACILITIES PLANNING & CONSTRUCTION
APPLICATION FOR PAYMENT - GENERAL CONTRACTOR

APPLICATION FOR PARTIAL PAYMENT No. (ENTER No.) OFPC PROJECT No. (ENTER No.)

FOR THE PERIOD: (ENTER BEGINNING DATE) TO: (ENTER ENDING DATE) INCLUSIVE.

NAME OF PROJECT: (ENTER PROJECT NAME)

CONTRACTOR NAME & ADDRESS: (ENTER CONTRACTOR NAME & ADDRESS)

TO BE COMPLETED BY THE GENERAL CONTRACTOR

1 Original Contract Amount:	\$	0
2 Approved Change Order Extras:	\$	0
3 Accepted Change Order Deductions:	\$	0
4 Current Contract Amount:	\$	0
5 Total Completed/Designed To Date:	\$	0
6 Less Total Retainage (5%):	\$	0
7 Total Net Earned Amount:	\$	0
8 Less Previous Payments:	\$	0
9 Current Payment Due:	\$	0
10 Balance To Finish, Including Retainage: <i>(line 4 less line 7)</i>	\$	0

AFFIDAVIT

Insurance: I, agent for the General Contractor, do hereby certify that all insurances as required by law, and by the specifications, are in full force and effect as of this date.

Claims & Liability: I, agent for the General Contractor, do furthermore certify that all current invoices and obligations have been paid in full, and there are no claims or liabilities against this contract.

(CONTRACTOR SIGNATURE)
Signature of CONTRACTOR

STATE OF TEXAS Personally Before me, the undersigned authority, this day appeared (PRINTED NAME OF CONTRACTOR AGENT) who being by me duly sworn,
COUNTY OF _____ on his oath says that the account hereto attached, in the amount of (ENTER AMOUNT) in favor of
(PRINTED NAME OF CONTRACTOR FIRM) and against THE BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM
(STAMP SEAL BELOW) is, within the knowledge of affiant, just true, and correct; that it is due and that all just and lawful offsets, payments, and credits have been allowed.

Sworn to and subscribed before me, _____ this _____ day of _____, 20____.
Signature of CONTRACTOR

Notary Public (NOTARY SIGNATURE) _____ County, Texas
Signature of Notary

CONSTRUCTION SERVICES: TO BE COMPLETED BY THE OFPC CONSTRUCTION INSPECTOR (OR RCM)

CONTRACTOR has submitted an updated Project Schedule: Yes No CONTRACTOR has updated the Record Drawings: Yes No

This Pay Application includes a current Release of Retainage: Yes No if "Yes", CONTRACTOR has included a "Consent of Surety": Yes No

Current Payment For Construction Services \$ (ENTER CONSTRUCTION AMOUNT)

Inspected and Approved on (DATE) By: (OFPC RCM/CI SIGNATURE)
Date *Signature of OFPC RCM/CI*

CONSTRUCTION SERVICES CERTIFICATE: TO BE COMPLETED BY THE PROJECT ARCHITECT/ENGINEER
TO THE BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM, AUSTIN, TEXAS

This is to certify that (ENTER CONTRACTOR FIRM NAME), General Contractor
for the Project (ENTER PROJECT NAME) is entitled to payment
for Construction Services of this Certificate in the amount of \$ (ENTER CONSTRUCTION SERVICES AMOUNT)

Architect/Engineer (ENTER PROJECT A/E FIRM NAME)

Reviewed and Approved on (DATE) By: (A/E SIGNATURE)
Date *Signature of A/E*

OFPC CONTRACTS MANAGER: Reviewed and Approved on (DATE) By: (OFPC CONTRACT MANAGER INITIALS)
Date *Contracts Manager Initials*

ATTACHMENT B – OFPC APPLICATION FOR PAYMENT (CM/DB FORMAT)

THE UNIVERSITY OF TEXAS SYSTEM - OFFICE OF FACILITIES PLANNING & CONSTRUCTION APPLICATION FOR PAYMENT - CONSTRUCTION MANAGER AT RISK			
APPLICATION FOR PARTIAL PAYMENT No.	(ENTER No.) _____	OFPC PROJECT No.	(ENTER No.) _____
FOR THE PERIOD:	(ENTER BEGINNING DATE) _____	TO:	(ENTER ENDING DATE) _____
INCLUSIVE			
NAME OF PROJECT:	(ENTER PROJECT NAME) _____		
CM-R NAME & ADDRESS:	(ENTER CM-R NAME & ADDRESS) _____		
TO BE COMPLETED BY THE CONSTRUCTION MANAGER AT RISK			
	PRE-CONSTRUCTION SERVICES	+	CONSTRUCTION SERVICES (GMP)
	=		TOTAL CONTRACT AMOUNT
1 Original Contract Amount:	\$ _____ 0		\$ _____ 0
2 Approved Change Order Extras:	\$ _____ 0		\$ _____ 0
3 Accepted Change Order Deductions:	\$ _____ 0		\$ _____ 0
4 Current Contract Amount:	\$ _____ 0		\$ _____ 0
5 Total Completed To Date:	\$ _____ 0		\$ _____ 0
6 Less Total Retainage Held To Date:	_____ <i>M/A</i>		\$ _____ 0
7 Total Net Earned Amount:	\$ _____ 0		\$ _____ 0
8 Less Previous Payments:	\$ _____ 0		\$ _____ 0
9 Current Payment Due For Each Part:	\$ _____ 0		\$ _____ 0
10 Balance To Finish, Including Retainage: <small>(line 4 less line 7)</small>	\$ _____ 0		\$ _____ 0
AFFIDAVIT			
Insurance: I, agent for the Construction Manager-at-Risk, do hereby certify that all insurances as required by law, and by the specifications, are in full force and effect as of this date.			
Claims & Liability: I, agent for the Construction Manager-at-Risk, do further certify that all current invoices and obligations have been paid in full, and there are no claims or liabilities against this contract.			
_____ <i>Signature of CM-R</i>			
STATE OF TEXAS COUNTY OF _____	Personally before me, the undersigned authority, this day appeared _____ who being by me duly sworn, on his oath says that the account hereto attached, in the amount of _____ in favor of _____ and against THE BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM (STAMP SEAL BELOW) is, within the knowledge of affiant, just true, and correct; that it is due and that all just and lawful offsets, payments, and credits have been allowed.		
Sworn to and subscribed before me _____ this _____ day of _____, 20____.	_____ <i>Signature of CM-R</i>		
Notary Public _____ <i>Signature of Notary</i>	_____ County, Texas		
PRE-CONSTRUCTION SERVICES : TO BE COMPLETED BY THE OFPC PROJECT MANAGER			
Current Payment For Pre-Construction Services _____ \$ _____			
Reviewed and Approved on _____ Date By: _____ <i>Signature of OFPC PM</i>			
CONSTRUCTION SERVICES : TO BE COMPLETED BY THE OFPC CONSTRUCTION INSPECTOR (OR RCM)			
CM-at-Risk has submitted an updated Project Schedule: <input type="checkbox"/> Yes <input type="checkbox"/> No CM-at-Risk has updated the Record Drawings: <input type="checkbox"/> Yes <input type="checkbox"/> No			
This Pay Application includes a current Release of Retainage: <input type="checkbox"/> Yes <input type="checkbox"/> No if "Yes", CM-at-Risk has included a "Consent of Surety": <input type="checkbox"/> Yes <input type="checkbox"/> No			
Current Payment For Construction Services _____ \$ _____			
Inspected and Approved on _____ Date By: _____ <i>Signature of OFPC CURCM</i>			
CONSTRUCTION SERVICES CERTIFICATE: TO BE COMPLETED BY THE PROJECT ARCHITECT/ENGINEER TO THE BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM, AUSTIN, TEXAS			
This is to certify that _____, Construction Manager-at-Risk for the Project _____ is entitled to payment for Construction Services of this Certificate in the amount of _____ \$ _____			
Architect/Engineer _____ Reviewed and Approved on _____ Date By: _____ <i>Signature of AE</i>			
OFPC CONTRACTS MANAGER: _____ Reviewed and Approved on _____ Date By: _____ <i>Contracts Manager Initials</i>			

ATTACHMENT C - OFPC STANDARD SCHEDULE OF VALUES (CSP FORMAT)

The U.T. System Schedule of Values - Contractor's Estimate Continuation Sheet (CSP)									
University of Texas System Project Number					OFPC Contract Number:				
University of Texas System Project Name					Project Address:				
General Contractor					Application For Payment Number:				
Date Prepared					Application Period: To				
A	B	C*	D	E	F	G	H	I	J
CSI Section	CSI Description of Work / Subcontractor Name / Specification Section	Detailed Breakdown of Contract Line Items	Total Amount Previously Requested & Percent	Current Application				Retainage (5%)	
				This Period Amount & Percent	Total Amount Completed To Date & Percent				
Column Equations			H'	I'	F / C	D + F	H / C	H X 5%	
	Division 1 - General Conditions & Requirements	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Contractor Provided Owner Equipment / Furniture								
	Temporary Field Office(s)	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Weekly Janitorial Services	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Furnishings	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Digital Copier	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Multifunctional Printer/Scanner/Fax	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Telephone System & Monthly Service	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	DSL Internet Connection & Monthly Service	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Division 2 - Sitework	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Division 3 - Concrete	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Division 4 - Masonry	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Division 5 - Metals	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Division 6 - Woods & Plastics	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Division 7 - Thermal & Moisture Protection	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Division 8 - Doors & Windows	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Division 9 - Finishes	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Division 10 - Specialties	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Division 11 - Equipment	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Division 12 - Furnishings	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Division 13 - Special Construction	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Division 14 - Conveying Systems	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Division 15 - Mechanical	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Division 16 - Electrical	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Cost of Work Subtotal	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Owner Construction Contingency	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Owner's Cash Allowance (If Applicable)	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Contract Total	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -

ATTACHMENT D – OFPC STANDARD SCHEDULE OF VALUES (CM/DB FORMAT)

The U.T. System Schedule of Values - Contractor's Estimate Continuation Sheet (8 1/2" x 11" Sheet ONLY)														
OFPC Project No.:							Project Address:							
OFPC Project Name:							Application For Payment Number:							
Construction Manager Name:							Application Period: From _____ To _____							
A	B	C		D	E	F	G	H	I	J	K	L	M	N
Spec. Section / Bid Package	Description of Work / Subcontractor / Supplier / Vendor / Specification Section	Initial Proposed Line Item Values	Additional Services / GMP Change Order Values	Actual Subcontract Amount at Buyout	Delta (Proposed to Actual)	Subcontract, Purchase Order or Vendor No.	Detailed Breakdown of Contract Line Items	Total Amount Previously Requested & Percent	Current Application				Retainage (5%)	
									Total Amount This Period & Percent	Total Amount Completed To Date & Percent				
Column Equations				C'	C - D		D'	L'	H / G	L - H	J / G	H + J	L / G	L x 5%
Pre-Construction Services														
	Programming (20% If Applicable)	\$ -	\$ -	\$ -	\$ -	N/A	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	N/A
	Schematic Design (20%)	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	
	Design Development (20%)	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	
	GMP Development (10%)	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	
	Construction Documents (20%)	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	
	Bidding/Proposals (10%)	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	
	Additional Services	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	
	Pre-Construction Services Subtotal	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	
Construction Services														
General Conditions														
	On-Site Project Management Staff	\$ -	\$ -	\$ -	\$ -	N/A	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Bonds and Insurance	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Temporary Project Utilities	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Field Offices & Office Supplies	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	General Conditions Subtotal	\$ -	\$ -	\$ -	\$ -			\$ -	\$ -	0%	\$ -	0%	\$ -	0%
Cost of the Work														
	02 Sitework	\$ -	\$ -	\$ -	\$ -	N/A	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	03 Concrete	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	04 Masonry	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	05 Metals	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	06 Woods & Plastics	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	07 Thermal & Moisture Protection	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	08 Doors & Windows	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	09 Finishes	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	10 Specialties	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	11 Equipment	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	12 Furnishings	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	13 Special Construction	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	14 Conveying Systems	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	15 Mechanical	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	16 Electrical	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Cost of Work Subtotal	\$ -	\$ -	\$ -	\$ -			\$ -	\$ -	0%	\$ -	0%	\$ -	0%
	Construction Manager's Contingency	\$ -	\$ -	\$ -	\$ -	N/A	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Construction Phase Fee	\$ -	\$ -	\$ -	\$ -	N/A	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Owner's Special Cash Allowance	\$ -	\$ -	\$ -	\$ -	N/A	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Owner's Construction Contingency	\$ -	\$ -	\$ -	\$ -	N/A	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	\$ -
	Construction Services (GMP) Subtotal	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	0%	\$ -	0%	\$ -	0%	
	Contract Total	\$ -	\$ -	\$ -	\$ -	N/A	\$ -	\$ -	0%	\$ -	0%	\$ -	0%	

ATTACHMENT E

SUBCONTRACTOR CHANGE ORDER PRICING PROPOSAL

FOLLOWING 4 PAGES

	<h2 style="margin: 0;">Subcontractor Change Order Pricing Proposal Summary Sheet</h2>
--	---

Subcontractor and Subcontract Scope of Work:	
--	--

Change Proposal Description/Scope of Work:	Change Order Proposal Number:	

Change Order Pricing Summary:	
-------------------------------	--

	Cost before markup	Markup Percentage Fee: Maximum = 15%	Subtotals
Subcontractor Self-Performed Work:			
Materials (including applicable sales/use tax)	\$ 1,050.00	\$ 157.50	\$ 1,207.50
Labor and Labor Burden	\$ 1,007.83	\$ 151.17	\$ 1,159.01
Equipment (with purchase cost greater than \$750)	\$ -	\$ -	\$ -
Subtotals	\$ 2,057.83	\$ 308.67	\$ 2,366.51

	Cost before markup	Markup Percentage Fee: Maximum = 5%	Total
Change Order Proposal Work performed by Sub-Subcontractors (Enter names of sub-subcontractors and the sub-subcontractor scope of work)			
1	\$ -	\$ -	\$ -
2	\$ -	\$ -	\$ -
3	\$ -	\$ -	\$ -
4	\$ -	\$ -	\$ -
5	\$ -	\$ -	\$ -
Subtotals	\$ -	\$ -	\$ -

	Total Change Order Proposal Cost before Markup	Total Subcontractor Fees Included in Change Order	Total Proposed Change Order Costs
Totals	\$ 2,057.83	\$ 308.67	\$ 2,366.51

Subcontractor Change Order Pricing Certification:
 I certify to the best of my knowledge and belief that this change order has been priced in accordance with the contract provisions found in Exhibit "A" - entitled "Pricing of Construction Contract Change Orders by Subcontractors" and that the pricing information included in the change order is subject to further review in accordance with 4.1, 4.2 and 4.3 of Exhibit "A".

Subcontractor Signature:	Date:	
---------------------------------	--------------	--

**Subcontractor Change Order Pricing Proposal -
Equipment Rental Cost Detail**

Subcontractor and Subcontract Scope of Work:

Equipment Number	Equipment Description/ Model Number, Size, etc.	Numbers of Hours	Equipment Bare Monthly Rate per Current AED Green Book	Allowable Hourly Rate at 75% of Monthly Rate divided by 173	Extended Equipment Rental Costs
		-	\$ -	\$ -	-
		-	\$ -	\$ -	-
		-	\$ -	\$ -	-
		-	\$ -	\$ -	-
		-	\$ -	\$ -	-
		-	\$ -	\$ -	-
		-	\$ -	\$ -	-
		-	\$ -	\$ -	-
		-	\$ -	\$ -	-
		-	\$ -	\$ -	-
			Total Equipment Rental Cost		-
			Applicable Sales/Use Tax Amount		-
			Total Equipment and Applicable Tax		-

Equipment Number	Equipment Description/ Model # and size, etc	Numbers of Hours	Fuel Consumption (Gallons Per Hour, etc)	Fuel Cost per Hour	Extended Equipment Fuel Costs	
		-	-	\$ -	-	
		-	-	\$ -	-	
		-	-	\$ -	-	
		-	-	\$ -	-	
		-	-	\$ -	-	
		-	-	\$ -	-	
		-	-	\$ -	-	
		-	-	\$ -	-	
		-	-	\$ -	-	
				Total Equipment Fuel Cost		-
				Total Equipment Cost Including Fuel Cost		-

Note: For contractor owned equipment, the aggregate equipment rent charges for any single piece of equipment used in all change order work is limited to 50% of the fair market value of the piece of equipment when the first change order is priced involving usage of the piece of equipment.

**Subcontractor Change Order Pricing Proposal
Labor Rate #2 - Journeyman**

Subcontractor and Subcontract Scope of Work:		If applicable, list Employee Names here:						
	Description of Labor Cost Component	% of Wages if Applicable	Straight Time Cost Per Hour		% of Wages if Applicable	Time and 1/2 Cost per Hour	Premium Time Cost Only	
	Base Wages paid Per Hour		\$ 17.50			\$ 26.25	\$ 8.75	
Payroll taxes	FICA Payroll taxes	6.20%	\$ 1.09		6.20%	\$ 1.63	\$ 0.54	
Payroll taxes	Medicare Payroll Taxes	1.45%	\$ 0.25		1.45%	\$ 0.38	\$ 0.13	
Payroll taxes	State Unemployment taxes (see note 1)	3.00%	\$ 0.53		3.00%	\$ 0.79	\$ 0.26	
Payroll taxes	Federal Unemployment Taxes (see note 2)	0.20%	\$ 0.04		0.20%	\$ 0.05	\$ 0.02	
Insurance	Worker's Compensation Insurance (see note 3)	4.00%	\$ 0.70		2.67%	\$ 0.70	\$ -	
Benefits	401K Match	2.00%	\$ 0.35		2.00%	\$ 0.53	\$ 0.18	
Benefits	Health insurance	0.00%	\$ -		0.00%	\$ -	\$ -	
Benefits	Annual paid vacation	0.00%	\$ -		0.00%	\$ -	\$ -	
Benefits	Annual Paid holiday	0.00%	\$ -		0.00%	\$ -	\$ -	
Benefits	Other benefit cost (if applicable)							
Benefits	Other benefit cost (if applicable)							
Benefits	Other benefit cost (if applicable)							
Benefits	Other benefit cost (if applicable)							
	Totals	16.85%	\$ 20.45		15.52%	\$ 30.32	\$ 9.87	
Note (1)	The percentage used in this wage rate analysis should be discounted to reflect the impact of the annual maximum. (Est. approx 50% to 75% discount)							
Note (2)	Federal unemployment taxes are only paid on the 1st \$7,000 in employee wages The percentage used in this wage rate analysis should be discounted to reflect the impact of this annual maximum. (Est. approx 75% discount)							
Note (3)	Worker's Compensation Insurance percentage should be adjusted to reflect cost reductions due to experience modifiers, premium discounts, dividends, rebates, expense constants, assigned risk pool costs, net cost of reductions due to policies with deductibles for self-insured losses, assigned risk rebates, etc.							

SECTION 01 32 00 - PROJECT PLANNING AND SCHEDULING

PART 1 - GENERAL

1.1. DEFINITIONS

- 1.1.1 The term “Baseline Schedule “, as used throughout the contract documents, shall refer to a fixed projection of the project schedule. It is the standard by which project performance is measured.
- 1.1.2 The term “Critical Path Method” (CPM), as used throughout the contract documents, is a technique used to predict project duration by analyzing which sequence of activities has the least amount of scheduling flexibility. Early dates are figured by a forward pass using a specific start date and late dates are figured by using a backward pass starting from a completion date. Most scheduling programs (e.g., Microsoft Project, Primavera) automatically calculate the Longest Path using the CPM to identify critical activities.
- 1.1.3 The term “Construction Schedule” (a.k.a. Work Progress Schedule as defined by the UGC), as used throughout the contract documents, shall refer to the schedule for the construction phase of the Project as developed, monitored and maintained, by the Contractor’s Scheduler, and as used by the Project Team during Pre-Construction and/or Construction Services.
- 1.1.4 The term “Data Date”, as used throughout the contract documents, shall refer to the day after the date through which a schedule is current. Everything occurring earlier than the data date is "as-built" and everything on or after the data date is "planned."
- 1.1.5 The term “Detailed Schedule”, ”, as used throughout the contract documents, shall refer to a schedule with small-scale, well-defined activities that are typically less than 30 calendar days in length.
- 1.1.6 The term “Fragnet”, as used throughout the contract documents, shall refer to a copy of the Construction Schedule (or portion thereof) used to conduct an analysis of proposed changes or revisions to the Construction Schedule.
- 1.1.7 The term “Free Float”, as used throughout the contract documents, is the time by which an activity may be delayed or extended without affecting the start of any succeeding activity. Note: Free float can never be negative.
- 1.1.8 The term “Milestone Schedule”, as used throughout the contract documents, shall refer to a schedule with specific non-duration related activities, work packages, stages, or phase, typically marked by a high level event such as an approval, execution of a contract, notice to proceed, issuance of a set of documents, completion of work, etc.
- 1.1.9 The term “Longest Path”, as used throughout the contract documents, shall refer to the sequence of interdependent activities that aggregate to determine the minimum duration of a project.

1.1.9.1 The term “Critical Path”, as used throughout the contract documents, shall refer to the sequence of activities that determines the longest duration for the Project when the Longest Path has zero or less Total Float, the Longest Path becomes the Critical Path.

1.1.10 The term “Precedence Diagramming Method” (PDM), as used throughout the contract documents, shall refer to the relationship between activities by linking sequences with precedence relationships in the development of the Construction Schedule.

1.1.11 The term “Project Team”, as used throughout the contract documents, shall refer to the Owner, Architect, Design Consultants, User, Contractor and Subcontractors (as applicable) that are contracted and/or specifically assigned to the Project.

1.1.12 The term “Total Float”, as used throughout the contract documents, shall refer to the time by which an activity may be delayed or extended without affecting the total project duration or violating a target finish date (i.e. Substantial Completion Date).

1.1.12.1 Negative Total Float indicates that the Project is late, while Positive Total Float is the property of the Project and does not belong to any one party (Refer to the UGC).

1.1.13 The term “Work Day”, as used throughout the contract documents, shall refer to a day in which work is planned, excluding weekends and holidays.

1.2. PURPOSE

1.2.1 **Time is an essential part of this contract. Therefore, the timely and successful completion of the Work requires careful planning and scheduling of all activities inherent in the completion of the Project.**

1.2.2 **Acceptance of the Construction Schedule; or any subsequent update thereof, by the Owner is for format and extent of detail of the Construction Schedule only. Such “acceptance” does not indicate approval of the Contractor’s means or methods, or of any change to the contract terms including without limitation any required contract Milestones.**

1.2.3 The Construction Schedule shall be developed to allow for a minimum amount of Total Float for the Project during Pre-Construction and/or Construction Services, and shall be formatted in a manner that facilitates reporting of progress and trends, identification of risks and opportunities, projecting upcoming activities, and forecasting of project milestones.

1.2.4 The Owner must be able to reasonably rely on the Contractor’s Construction Schedule for projected activity dates in order to make accurate commitments to design professionals, contractors, vendors, user group(s), campus administration and other parties as necessary.

1.2.5 This specification applies to all project delivery methods, regardless of delivery method or contract type, whether the contracting firm is a General Contractor, Construction Manager-at-Risk (CM), or Design/Build Contractor (DB). For Projects with multi phase delivery, the requirements within shall pertain to each.

1.2.5.1 All references to Pre-Construction Services in this specification shall apply requirements for CM and DB contract types only.

1.3. RELATED DOCUMENTS

1.3.1. In addition to specific references indicated herein, the Contractor's attention is specifically directed, but not limited, to the following Sections and Documents, which include additional administrative requirements.

1.3.1.1. Uniform General and Supplementary General Conditions for University of Texas System Building Construction Contracts (UGC)

1.3.1.2. Owner's Special Conditions;

1.3.1.3. Section 01 31 00 - Project Administration

1.3.1.4. Section 01 19 00 - Project Commissioning

1.3.1.5. Section 01 45 00 - Project Quality Control

1.3.1.6. Section 01 77 00 - Project Closeout Procedures

1.4. CONTRACTOR RESPONSIBILITY

1.4.1. The Contractor is responsible for planning, management, coordination, and scheduling of all activities from a Notice to Proceed for Construction to Final Completion of the Project within the time allotted by the Agreement.

1.4.2. The Contractor is responsible for keeping the Owner and the Project Team fully informed of schedule status and upcoming activities throughout the Project via the Construction Schedule.

1.4.3. The Contractor is solely responsible for scheduling and statusing of all activities related to Pre-Construction, procurement of materials and subcontractors, construction, testing, inspection, commissioning, and Project turn-over to the Owner.

1.4.4. The Contractor shall provide adequate and reasonable project planning in adequate detail throughout all Project phases as applicable and aspects of its work to ensure completion of all activities within the Contract Time.

1.4.5. The Contractor's Pre-Construction and Construction project management personnel shall actively participate in the planning and development of the Construction

Schedule's CPA diagram and shall be prepared to review such development and progress with the Owner, Architect, and any other members of the Project Team so that the planned sequences and procedures are clearly understood by all parties.

- 1.4.6. The Contractor is to plan for appropriate activity durations to allow for thorough review, procurement, submittal, installation, inspection, testing, and commissioning, of all work and/or systems in order to confirm contract compliance, including work relying on Owner participation or coordination.

PART 2 – PRODUCTS

2.1 QUALIFICATIONS OF THE CONTRACTOR'S SCHEDULER

- 2.1.1 The Contractor shall assign a Scheduler who shall be responsible for the Construction Schedule throughout Pre-Construction and Construction Services.
- 2.1.2 The Contractor's Scheduler shall have at least an undergraduate degree in a construction related field, and continuous experience on similar size and type of project(s) within the past five (5) years including at least two (2) years with the current specified scheduling software.
 - 2.1.2.1 In lieu of a degree, the Contractor's Scheduler may have at least five (5) years continuous experience on similar size and type of project(s) with the current specified scheduling software.
- 2.1.3 The Contractor's Scheduler shall be an integral part of the Project Team during Pre-Construction Services and on-site full-time for Construction Services until at least Substantial Completion of the work.
 - 2.1.3.1 The Contractor's Scheduler may have additional responsibilities such as Senior Project Manager, Project Manager, Superintendent, Assistant Project Manager, Assistant Superintendent, Project Engineer, etc...
 - 2.1.3.2 If the Contractor's Scheduler is outsourced, the Contractor shall assign an on-site contact for all Construction Schedule related issues.
- 2.1.4 All Contractor personnel involved in the preparation, updating and reporting of the Construction Schedule shall possess adequate construction scheduling knowledge related to the Project, PDM and CPA, as well as a general understanding of the specified software.

2.2 REQUIRED SCHEDULING SOFTWARE

- 2.2.1 The Construction Schedule shall be developed and maintained by the Contractor's Scheduler using Primavera P3, P3e/c, P4, P5 or P6 Project Planner as released by Oracle.

Oracle Corporation
500 Oracle Parkway
Redwood Shores, CA 94065
Phone: (800) 423-0245
Website: www.oracle.com

2.3 NAMING THE CONSTRUCTION SCHEDULE

- 2.3.1 For P3, which is confined to a naming convention of four (4) characters, the Contractor's Scheduler shall title the Project Baseline Schedule "BPS1" once accepted by the Owner's Designated Representative.
- 2.3.1.1 Subsequent updates to the Construction Schedule shall be name by the last two (2) digits of the year and the month. (i.e. a March 2006 Construction Schedule title would be "0603")
- 2.3.1.2 If at any time the Baseline Schedule is "reset" (with approval by the Owner), the title shall be titled sequentially. (i.e. BPS1, BPS2, BPS3, etc...)
- 2.3.2 For P3e/c, P4, P5 and P6, which are confined to a naming convention of twenty (20) characters, the Contractor's Scheduler shall title the Project Baseline Schedule "*Project No. BL yymdd*" (i.e. "102-081 BL 070901") once accepted by the Owner's Designated Representative.
- 2.3.2.1 Subsequent updates to the Construction Schedule shall titled "*Project No. UD yymdd*". (i.e. "102-081 UD 071125")
- 2.3.2.2 If at any time the Baseline Schedule is "reset" (with approval by the Owner), the title shall be titled "*Project No. BLR# yymdd*" (i.e. the first revised baseline would be "102-081 BLR1 080215") once accepted by the Owner's Designated Representative.

2.4 CONSTRUCTION SCHEDULE DEVELOPMENT REQUIREMENTS

- 2.4.1 The Construction Schedule calendar shall be based on a five (5) day work week.
- 2.4.1.1 The term "Holidays", as used throughout the contract documents, shall refer to New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving (including the Friday after), Christmas Eve, Christmas and New Year's Eve.
- 2.4.1.2 The Contractor may plan to work weekends and holidays, but the Construction Schedule shall be based on completing all work during normal work days (and hours).
- 2.4.2 The Construction Schedule shall include a Work Breakdown Structure by assigning "Activity Codes" to every activity organized by project phase, stage, location, building, floor, area, elevation, system, etc..:

<u>Activity Code & Description</u>	
FP	Facilities Programming
SD	Schematic Design
DD	Design Development
CD	Construction Documents
TH	THECB Approval
GM	Guaranteed Maximum Price

<u>Activity Code & Description</u>	
SP	Subcontractor Bidding / Procurement
SU	Submittals
FD	Fabricate and Delivery
C	Construction
PC	Project Close-Out
CX	Commissioning Activities

2.4.3 The Construction Schedule shall assign “Responsibility Codes” (i.e. create a responsibilities directory) for every contractor, subcontractor, supplier, fabricator, installer, design consultant, owner, and any other party responsible for the accomplishment of an activity using the following Responsibility Codes (as applicable):

<u>Responsibility Code & Description</u>	
Arch	Architect / Engineer
Carp	Carpet
Casf	Casework Fabricator
Casi	Casework Installer
Cocw	Concrete Formwork
Conf	Concrete Finishing
Ctil	Ceiling / Acoustical Tile
Door	Doors & Frames
Dryw	Drywall / Light Gauge Stud Installer
Elec	Electrical
Elev	Elevator
Falm	Fire Alarm Systems
Fire	Fire Protection Systems
Ftil	Floor Tile
Furn	Furnishings
Glas	Glass / Glazing
Hard	Hardware
Hvac	HVAC
Insu	Insulator
Irri	Irrigation
Labc	Laboratory Casework Fabricator
Labi	Laboratory Casework Installer
Land	Landscaping
Lbeq	Laboratory Equipment
Masn	Masonry
Offe	Owner’s Furnishings
Omat	Owner’s Material Testing Firm

<u>Responsibility Code & Description</u>	
OPCI	Owner Provided – Contractor Installed Equipment
OPOI	Owner Provided – Owner Installed Equipment
Otab	Owner’s Test & Balance Firm
Ownr	Owner
Pntr	Paint & Wall Coverings
Pier	Piers / Piles / Caissons
Plas	Plaster / EIFS
Plum	Plumber
Rebf	Reinforcing Steel Fabricator
Rebi	Reinforcing Steel Installer
Roof	Roofing
Sign	Signs
Site	Sitework
Stee	Steel Erector
Stef	Steel Fabricator
Mstf	Miscellaneous Steel Fabricator
Msti	Miscellaneous Steel Installer
Site	Site Utilities
Tele	Telephone / Communication Systems
Terz	Terrazzo
Toia	Toilet Accessories
Toip	Toilet Partitions
Watp	Waterproofing / Dampproofing
Wodf	Wood Flooring
Wods	Wood Framing & Supplier

- 2.4.3.1 The Contractor’s Scheduler shall use additional Responsibility Codes as applicable.
- 2.4.3.2 If a subcontractor(s) has been procured, the Contractor may substitute the associated Responsibility Code above with a different code identifying the name of the subcontractor.
- 2.4.3.3 The Contractor’s Scheduler may use additional Secondary Activity and Responsibility Codes as necessary for monitoring, statusing, and reporting the Construction Schedule.

2.4.4 The Contractor’s Scheduler shall assign a unique “Activity Identification” (Activity ID) and “Activity Description” to every activity, and they shall be meaningful, easily understood by the Project Team, similar to like activities at differing locations, and as shown on the Contractor’s Schedule of Values.

2.4.4.1 Activity Descriptions shall start with a verb to indicate what is to be done and end with a location (Example: Install metal studs - 3rd floor Bldg B).

2.4.4.2 A “Milestone” Activity shall refer to any major event or phase, or any other important point in the Project, including the following Activities:

<u>Milestone Activity ID & Description</u>		<u>Milestone Activity ID & Description</u>	
PC1	NTP for Pre-Construction Services	CD1	Start Construction Documents
SD1	Start Schematic Design	CD2	Submit for Owner Review
SD2	Submit for Owner Review	CD3	Joint Review for Owner Comments
SD3	Joint Review for Owner Comments	CD4	Approve Construction Documents
SD4	Approve Schematic Design	C1	NTP for Construction Services
DD1	Start Design Development	C2	Partnering/Pre-construction Conference
DD2	Submit for Owner Review	C3	Establish Site Controls /Mobilize
DD3	Joint Review for Owner Comments	C4	Complete Primary Foundations
DD4	Approve Design Development	C5	Structural Top-Out
BR1	FPCC & BOR Submission	C6	Building Dry-In
BR2	FPCC & BOR Approval	CX1	Commissioning Kickoff Meeting
TH1	Construction Application Submittal	CX2	Building Automation System Submittal Approval
TH2	Construction Application Approval	CX3	Control Sequence of Operation Coordination Meeting
GM1	Submit GMP	CX4	Ethernet Connectivity
GM2	Approve GMP	CX5	Building Envelope Testing and Verification Documents
		CX6	Major HVAC System Startup
		CX7	System Specific Testing Adjusting and Balancing Activities
		CX8	Integrated System Tests
		CX9	Entire Facility Integration Tests
		C8	Start Pre-Final Inspections
		C9	Start Final Inspections
		C10	Substantial Completion

2.4.4.3 A “Detailed” Activity shall refer to a singular work event in the Project.

2.4.4.4 A “Summary” Activity (i.e. Hammock) shall refer to a grouping (or a summary) of Milestone and/or Detailed activities in the Construction Schedule.

2.4.5 The Construction Schedule shall include all construction procurement “Administration” activities associated with the submittal, fabrication and delivery of work (as applicable).

- 2.4.6 The Construction Schedule shall include all detailed commissioning related activities as listed in Part 3 of Specification Section 01 91 00, General Commissioning Requirements (as applicable).

2.5 PROJECT SCHEDULING REQUIREMENTS

- 2.5.1 The Contractor's Scheduler shall use the "Precedence Diagramming Method" as the scheduling technique in the development of the Construction Schedule.

- 2.5.1.1 "Retained Logic" is the required mode of Construction Schedule processing.

- 2.5.1.2 Appropriate logic relationships must be in place and complete, while the Construction Schedule shall be free of any mandatory constraints.

- 2.5.1.2.1 The use of a late finish constraint on the schedule's last activity is allowed, typically the Substantial Completion milestone.

- 2.5.1.3 Except for the Notice to Proceed for Construction (Preconstruction for CM and DB) and the final Substantial Completion Date Milestone, activities shall not have "open ends".

- 2.5.1.4 The Contractor's Scheduler shall not use a "progress override" mode option in developing or updating the Construction Schedule.

- 2.5.2 Estimated construction Activity Durations shall be stated in work days (i.e. Monday through Friday).

- 2.5.2.1 Maximum duration for any Detailed Activity shall be thirty (30) work days.

- 2.5.2.2 Minimum durations for any submittal shall be twenty (20) work days, unless approved by the Owner.

- 2.5.2.3 Minimum durations for any Owner Inspection activity (i.e. concealed space, above ceiling, substantial and final completion) shall be at least three (3) work days per inspection and re-inspection, per work area.

- 2.5.3 Estimated remaining Activity Durations shall be stated in work days, as of the Data Date of every Construction Schedule update.

- 2.5.4 All construction material and equipment related activities shall be preceded by an associated administrative activity, including procurement, submittal, fabrication and delivery.

- 2.5.4.1 Administrative activities may have durations longer than thirty (30) work days to reflect realistic procurement, review or lead times.

2.6 CONSTRUCTION SCHEDULE ANALYSIS REQUIREMENTS

- 2.6.1 The Contractor's Scheduler shall use the Critical Path Analysis (CPA) technique to determine the overall Project duration through the analysis of the durations of each of the activities, their schedule dependencies, and their resultant float.
- 2.6.2 In accordance with the UGC, the Construction Schedule shall include at least **10%** Total Float from the effective date of Notice to Proceed for Construction Services to the Substantial Completion Date.
 - 2.6.2.1 If the project warrants the planning of work to occur on Saturday and/or Sunday, the respective days shall be used in the calculation of the Total Float requirements. (i.e. Normal 5 day work week x 10% = 0.5 days of Total Float required, while an Accelerated 6 day work week x 10% = 0.6 days of Total Float required)
- 2.6.3 Total Float shall not be shown as a single activity, but rather the resultant of the relationship between the early and late finish dates or early and late start dates of each Activity. The allocation of project float shall be determined by the project team as conditions warrant.
- 2.6.4 Refer to the Owner's Special Conditions for amendments to the Total Float requirement, including inclusion of Weather Days in the Construction Schedule.

2.7 COORDINATION WITH OTHER DOCUMENTS AND WORK

- 2.7.1 The Construction Schedule shall be coordinated with the Contractor's Submittal Schedule and Schedule of Values, as required by the UGC and Specification Section 01 31 00. (i.e. the work breakdown structure shall be arranged, numbered, and described consistently across the various documents)
 - 2.7.1.1 Cost and/or resource loading of the Construction Schedule is allowed.
 - 2.7.1.1.1 If the Contractor elects to cost-load the Construction Schedule, the Contractor shall provide a separate Schedule of Values in the format required by Specification Section 01 31 00 - Project Administration.

PART 3 – EXECUTION

3.1 PLANNING AND SCHEDULING WORKSHOP

- 3.1.1 Within fifteen (15) calendar days after a Notice To Proceed, the Contractor shall conduct a Planning and Scheduling Workshop with at least the Contractor's Scheduler, Project Manager, Superintendent, the Owner, the Architect, User representatives, and any available Subcontractors prior to submitting the Construction Schedule to the Owner.

- 3.1.1.1 The Contractor's Scheduler shall schedule and coordinate the workshop with the Owner's Designated Representative at least ten (10) calendar days prior to the Planning and Scheduling Workshop.
 - 3.1.1.2 The Contractor's Scheduler shall submit a complete draft Construction Schedule to the Owner's Designated Representative at least five (5) days prior to the Planning and Scheduling Workshop.
 - 3.1.1.3 The Contractor's Scheduler shall review the draft Construction Schedule with the Project Team, including a verbal description of the logic and sequencing of activities, method for determining estimated activity durations and corresponding resources required, and any activities involving Owner participation and/or approval.
- 3.1.2 For CM and DB projects, at least two (2) Planning and Scheduling Workshops shall be scheduled; the first shall be within fifteen (15) calendar days after a Notice To Proceed Pre-Construction Services and the second at within fifteen (15) calendar days after a Notice To Proceed Construction Services for each "major" GMP executed.
- 3.1.2.1 The purpose of the pre-construction conference shall result in approval of the baseline for pre-construction
- 3.1.3 Attendance at the Planning and Scheduling Workshop and acceptance of the Baseline Construction Schedule is a condition precedent to the Contractor submitting initial and any subsequent progress payments.

3.2 CONSTRUCTION PHASE BASELINE SCHEDULE SUBMITTAL

- 3.2.1 The Baseline Construction Schedule shall be submitted to the Owner with the required Total Float and a current Data Date (less than or equal to five (5) work days) as prescribed by the UGC (or as accepted by the Owner in the Project Planning and Scheduling Workshop).
- 3.2.1.1 The Contractor is responsible for submitting the Baseline Construction Schedule within the prescribed time regardless of when Subcontractors are procured and brought on to the project.
 - 3.2.1.2 For CM and DB projects, the Construction Schedule may include Milestone and/or Summary Activities for the remaining work that has not been approved in an executed GMP Proposal for Construction Services.
 - 3.2.1.2.1 Once the "full" scope of the Project has been approved (i.e. the last Stage GMP Change Order has been executed), the Contractor's Scheduler shall coordinate with the Owner's Designated Representative to "reset" the Baseline Construction Schedule.
 - 3.2.1.3 The minimum 10% Total Float (or as amended by the Owner's Special Conditions) shall remain in the Construction Schedule from the Notice to

Proceed for Construction Services until the Baseline Schedule is accepted by the Owner, regardless of any delays incurred by the Project without affecting the Substantial Completion Date.

- 3.2.1.4 No activity shall have a Total Float amount greater the minimum Total Float identified by the Longest Path plus forty-five (45) days.
- 3.2.1.5 The Owner reserves the right to withhold any and all payments related to the Construction Schedule and/or General Conditions if a Baseline Construction Schedule is not submitted, or is not acceptable to the Owner. If the parties cannot agree on a Baseline Schedule, the Owner may deduct any monies related to Project Scheduling, and or costs associated with schedule recovery.
 - 3.2.1.5.1 If the Baseline Construction Schedule has not been accepted by the Owner, each successive baseline submittal shall be updated to status the current progress of the work it is accepted by the Owner.
- 3.2.1.6 A Baseline Construction Schedule that does not have at least the minimum amount of Total Float at submission shall result in the Contractor forfeiting all claims to Construction Schedule extensions and/or delays as a result of contract changes and/or excusable delays as described in the UGC.
- 3.2.2 The Contractor's Scheduler shall submit two (2) electronic (*.prx for P3 or *.xer for P3e/c, P4, P5 and P6 format) and two (2) paper copies of the following Baseline Construction Schedule reports the Owner's Designated Representative:
 - 3.2.2.1 Graphic Time-Scaled Report: A graphic time-scaled view including all activities, early start and finish dates, estimated durations and Total Float sorted by Early Start;
 - 3.2.2.2 Longest Path Bar Chart: A graphic time-scaled view of Detailed Activities on the Longest Path from the Data Date to the contract Operational Occupancy Date.
 - 3.2.2.3 Owner Activity Bar Chart: A graphic time-scaled view of Detailed Owner Activities from the Data Date to the Owner established Operational Occupancy Date.
 - 3.2.2.4 Milestone Activity Report: A listing of every Milestone Activity sorted by early start date;
 - 3.2.2.5 Detailed Activity Report: A listing of every Detailed Activity sorted by early start date;
 - 3.2.2.6 PDM Logic Report: A listing identifying every predecessor and successor activity in sorted by Activity Code.

3.2.3 Once the initial Construction Schedule has been accepted, it shall be referred to as the Baseline Construction Schedule, and shall be used for all future Construction Schedule updates and reports as “Target 1”.

3.2.3.1 For CM and DB projects, the Construction Schedule may include Milestone and Summary activities until thirty (30) days prior to the submittal of a Guaranteed Maximum Price (GMP) Proposal for Construction Services, but shall include Detailed Activities for at least the first ninety (90) days of Construction Services when submitted with the GMP Proposal.

3.3 UPDATING THE CONSTRUCTION SCHEDULE

3.3.1 Once the Baseline Construction Schedule (or the GMP summary schedule) has been accepted, the Contractor’s Scheduler shall update the Construction Schedule for Pre-Construction and Construction Services at least once a month and submit reports at least five (5) work days prior to any application for payment.

3.3.1.1 Construction Schedule updates shall be based on actual work progress, current logic and remaining durations.

2.7.1.2 The Total Float is intended to be used proportionally with the duration of the project; therefore, the Construction Schedule is not required to have any remaining Total Float at the actual Substantial Completion date. (i.e. 10% of 0 days remaining = 0 days of Total Float required)

3.4 MONTHLY CONSTRUCTION SCHEDULE REPORTS

3.4.1 The Data Date for all Construction Schedule Update Reports shall be current within five (5) work days of submission to the Owner’s Designated Representative.

3.4.2 The Contractor’s Scheduler shall submit two (2) electronic (*.prx for P3, P3e/c and P4 or *.xer for P5 and P6 format) and two (2) paper copies of the following Baseline Construction Schedule reports the Owner’s Designated Representative:

3.4.2.1 Executive Summary Report: A narrative report developed, monitored and updated by the Contractor’s Scheduler **for each schedule submission** that includes:

3.4.2.1.1 A Total Float usage log that identifies the number of days lost / gained each month;

3.4.2.1.2 A description of the progress of the Detailed Activities on the Longest Path Bar Chart;

3.4.2.1.3 A description of current and anticipated problems and/or delaying factors and their possible impact;

- 3.4.2.1.4 An explanation of any and all changes to the PDM logic, including constraints and relationships;
- 3.4.2.1.5 Refer to Attachment A to this specification for an example.
- 3.4.2.2 Longest Path Bar Chart: A graphic time-scaled view of on-going and future Detailed Activities on the Longest Path from the Data Date to the contract Substantial Completion Date including all future milestones, and a comparison to the accepted Baseline Construction Schedule (Refer to Attachment B to this specification for an example).
 - 3.4.2.2.1 Level 1 Filter is “Longest Path = Yes”
Level 2 Filter is “% Complete < 100”
- 3.4.2.3 Owner Activity Bar Chart: A graphic time-scaled view of Detailed Owner Activities from the Data Date to the Owner’s established Operational Occupancy Date.
- 3.4.2.4 Three-Month Rolling Bar Chart: A graphic time-scaled view of all Detailed Activities completed, on-going or starting one (1) month earlier and two (2) months after the Data Date (Refer to Attachment C to this specification for an example).
 - 3.4.2.4.1 Level 1 Filter is “Actual Finish WR DD – 20”
Level 1 Filter is “Actual Finish WR DD + 0”
Level 1 Filter is “Early Start WR DD + 0”
Level 1 Filter is “Early Start WR DD + 40”
Level 2 Filter is “Activity % Complete < 100”
- 3.4.2.5 The Owner, at any time, may request additional Construction Schedule reports.

3.5 SUBMITTING MONTHLY CONSTRUCTION SCHEDULE REPORTS

- 3.5.1 The Contractor’s Scheduler shall transmit two (2) electronic and two (2) paper copies of the Construction Schedule to the Owner’s Designated Representative.

3.6 FORMATTING CONSTRUCTION SCHEDULE REPORTS

- 3.6.1 Baseline Graphic Time-scaled Reports shall be printed on at least standard 24” x 36” paper, while other Construction Schedule Reports shall be printed on standard 8 ½” x 11” paper.
- 3.6.2 Electronic copies of the Construction Schedule and the associated reports shall be submitted on compact disc. (i.e. CD)
 - 3.6.2.1 All electronic Construction Schedule submittals shall be in *.xer (P6) or concentric format (P3 to P5).

3.6.3 Each report shall include a footer with the following information:

3.6.3.1 A “Date Block” indicating the start date, finish date, Data Date, run date, and the must finish date;

3.6.3.2 A “Title Block” indicating the OFPC Project Number and Title, and the Name of the Report (i.e. Layout);

3.6.4 When developing graphic time-scaled reports, all reports shall show at least two (2) early finish Variance columns.

3.6.4.1 The “Variance 1” column shall be expressed in Total Float and shall compare the current Construction Schedule update to the Baseline Construction Schedule (designated as Target 1);

3.6.4.2 The “Variance 2” column shall be expressed in Total Float and shall compare the Construction Schedule update to the previous month’s Construction Schedule update (designated as Target 2).

3.6.5 Refer to “Attachment B” to this specification for an example.

3.7 CONSTRUCTION SCHEDULE SLIPPAGE

3.7.1 If the Total Float used by the project exceeds the rate of construction duration spent, or the Total Float is negative, the Contractor’s schedule update shall include a Recovery Schedule to make immediate revisions to the work force, work-hours, shifts, material deliveries or any other aspects of the work. for review and acceptance by the Owner’s Designated Representative as part of the following month’s update. (i.e. if the project has 50% of the original construction duration remaining, but only has 25% of the original Total Float remaining, the Contractor shall submit a Recovery Schedule)

3.7.2 The Contractor’s Scheduler shall submit the “Recovery Plan” to the Owner’s Designated Representative as required in the UGC, clearly describing all the changes in schedule or work enacted and/or planned in order to ensure completion by the contract Substantial Completion Date.

3.7.2.1 The Owner shall have the right to review and comment on any “Recovery Plan” activities that include Owner participation, or affect any Owner consultants or outside contractors.

3.7.3 Once the Owner’s Designated Representative accepts the “Recovery Plan”, the proposed revision shall be incorporated into the Construction Schedule.

3.8 CONSTRUCTION SCHEDULE CHANGES

3.8.1 If the Owner or Architect issues a Change Order Proposal, the Contractor shall submit a proposed fragnet revision for all proposed contract changes that affect the Substantial Completion Date or remaining Total Float with the Change in Work Cost Analysis Form.

3.8.1.1 Proposed fragnet revisions shall be accompanied by a narrative listing of the affected activities including a statement of the expected overall impact of the change proposed.

3.9 EXCUSABLE DELAYS AND TIME EXTENSIONS

3.9.1 Excusable delays shall be administered per the UGC.

3.9.2 If an excusable delay extends the Contract Substantial Completion Date, the Owner's Designated Representative may extend the contract time by the number of excusable calendar days lost on the Construction Schedule, or take other actions as appropriate under terms of the Agreement.

3.9.2.1 Change Order Proposal pricing that does not impact the Substantial Completion Date or does not include a proposed fragnet revision prior to approval by the Owner's Designated Representative, shall not be due a time extension.

3.9.3 Once the Owner's Designated Representative accepts a time extension, and authorizes the Contractor to proceed with the contract change, the proposed revision shall be incorporated into the Construction Schedule.

END OF SECTION 01 32 00

ATTACHMENT A – EXAMPLE EXECUTIVE SUMMARY REPORT

The University of Texas at Austin
Example Project
OFPC Job No. XXX-XXX

Executive Summary Report for MAR 2006
Contractor Name
As of March 25, 2006

Schedule Overview

The NTP of Construction : 10 May 2005
Substantial Completion Date : 15 Nov 2006
GMP Project Total Float : 39 Days
Expected Project Total Float Reduction : 2 Days/Month
Expected Project Total Float To date : 18 Days
Actual Project Total Float : 18 Days
Calendar : Based on 5 Working Day per Week

Project Duration and Total Float

The project Total Float increased to 21 days for this Monthly Update (0603). The substantial completion date remains November 15, 2006. Following issues caused changes in project Total Float.

1. AUG 2005 (Revised Baseline Schedule)
 - a. Site Permit Delay to Start Work - 11 days
 - b. Bigg's Heavy Duty Plumbing - 6 days
 - c. Relocation for Overhead Utilities - 10 days
2. AUG 2005 (Monthly Update)
 - a. Relocation for Overhead Utilities - 8 days
3. Recovery Schedule (9/15/2005)
 - a. Recovery Plan + 24 days
4. OCT 2005 (Monthly Update)
 - a. Weather Day (11 Oct 05) - 1 day
 - b. Approval for the Windows - 11 days
5. NOV 2005 (Monthly Update)
 - a. Windows Fab & Delivery Expedition + 4 days
6. DEC 2005 (Monthly Update)
 - a. No changes this month 0 days

Work in Progress

1. Main Building (Phase 1)
 - ◆ Erect SS roof structure and deck.
 - ◆ M/S frame & exterior gypsum sheathing and Windows.
 - ◆ Install stair #1,2,3
 - ◆ R/I duct work, sprinkler piping, plumbing piping and electrical conduit.

ATTACHMENT A – EXAMPLE EXECUTIVE SUMMARY REPORT (CONTINUED)

2. Main Building (Phase 2)
 - ◆ M/S frame & exterior gypsum
 - ◆ Set FCU's and carriers
3. Utility/Tunnel Work
 - ◆ Tunnel Work at Kinsolving Bld. Completed.
 - ◆ SS Line MH #6 to ML #8 Completed.

Current and Anticipated Problem, Delays and Impact

1. The slab deflections are greater than the engineer's model. If a load test is required, this could have an impact on our schedule. After the meeting on February 1, 2006, Contractor was unofficially informed that a load test was not going to be performed. However, Contractor has not received the official report indicating this issue is resolved.
2. The issuance of construction documents for interior finishes dated 2/22/06 were received on February 24, 2006. Contractor is currently reviewing these drawings and will forward on any schedule impacts created by these drawings.
3. The brick veneer was delivered and it did not match the mockup. Our subcontractor is currently working with there suppliers to have the brick remade. Contractor continues to track this issue and will forward any schedule impacts created by this issue.

Added, Deleted and Revised activities and Logic

1. New activities named "1st, 2nd and 3rd Owner-EXT. Finish Inspection" were added on schedule instead of the Owner-EXT. Finish Inspections of each side to reflect actual construction sequence.
2. Added new activity for "Insulate Duct Work" and tied to "Frame hard ceiling" as a predecessor with FS relationship.
3. Revised the activity description "Install/Insulate process pipe" to "Install process pipe".
4. Set Plumbing Fixtures is tied to 2nd Side Drywall with FS relationship as a successor to reflect actual sequence.
5. Deleted the FS relationship between Install Brick Veneer, Cast Stone (P1LE04****) and Install Deck & Felt @ Roof (P1LR05****) to reflect actual sequence.
6. Deleted the FS relationship between Install Brick Veneer, Cast Stone (P1LE04****) and Install Wood Soffits, Gutter System (P1LE07****) to reflect actual sequence.
7. Deleted the FS relationship between Owner-Roof Inspection (P1LR077500) and Install Wood Soffits, Gutter System (P1LE07****) to reflect actual sequence.
8. Install Process Pipe @Lvl 6 Wall is tied to Insulate Process Pipe @Lvl 1 with FS as a predecessor to reflect actual construction sequence.

ATTACHMENT B – EXAMPLE REPORT LAYOUT

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float	Late Start	Late Finish	Var 1 BPS1 EF	Var 1 0207 EF	2006			2007			2008												
										J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J
MAJOR MILESTONES																												
PAPCNA0130	PROJECT SUBSTANTIAL COMPLETION	0		15AUG08	50		27OCT08*	-9	-10																			
PAEANA0160	PROJECT FINAL COMPLETION	1	16SEP08	16SEP08	51	27NOV08	27NOV08	-9	-10																			
CONSTRUCTION (DETAIL)																												
SITE WORK																												
CCSI020040	SITE WORK CONSTRUCTION	87	11MAR08	11JUL08	50	20MAY08	22SEP08	-10	-10																			
CCSI150050	SITE WORK UNDERGROUND UTILITIES	20	11MAR08	07APR08	50	20MAY08	17JUN08	-9	-10																			
CCSI030060	SITE WORK CONCRETE FOUNDATIONS	28	01APR08	08MAY08	50	11JUN08	21JUL08	-9	-10																			
CCSI030100	SITE WORK CONCRETE RETAINING WALLS	30	14APR08	23MAY08	50	24JUN08	05AUG08	-9	-10																			
CCSI020110	SITE WORK BACKFILL & GRADE	20	01MAY08	29MAY08	50	14JUL08	08AUG08	-9	-10																			
CCSI030140	SITE WORK SOG PLAZA & WALKS	20	30MAY08	26JUN08	50	11AUG08	08SEP08	-9	-10																			
BASEMENT LEVEL																												
CCBA020080	DRILLED PIERS SUB BASEMENT (CONC)	8	16FEB07A	27MAR07A		16FEB07A	23MAR07A	-29	-24																			
CCBA030160	FRP SUB BASEMENT WALLS (CONC)	25	06MAR07A	19APR07	20	06MAR07A	17MAY07	-1	-6																			
CCBA030250	FRP SUB BASEMENT COLUMNS (CONC)	7	06MAR07A	12APR07	24	06MAR07A	16MAY07	-4	-12																			
CCBA150120	UNDERSLAB PLUMBING SUB BASEMENT	12	26MAR07	10APR07	20	23APR07	08MAY07	-21	-18																			
CCBA030180	FRP SUB BASEMENT PITS (CONC)	7	03APR07	11APR07	24	07MAY07	15MAY07	-13	-18																			
CCBA030290	FRP SUB BASEMENT SOG (CONC)	8	13APR07	24APR07	24	17MAY07	29MAY07	-4	-12																			
LEVEL 1 ON-GRADE CONCOURSE																												
CC01030110	FRP DECK OVER SUB BASEMENT LVL 1 (CONC)	10	23APR07	08MAY07	24	30MAY07	12JUN07	-2	-12																			
CC01030120	LVL 1 DECK OVER SUB BASEMENT CURE (CONC)	7	09MAY07	15MAY07	39	18JUN07	24JUN07	-4	-18																			
CC01030160	STRIP DECK OVER SUB BASEMENT LVL 1 (CONC)	8	16MAY07	25MAY07	27	25JUN07	05JUL07	-2	-12																			
CC01030190	RESHORE LVL 1 EAST PAN DECK (CONC)	5	29MAY07	04JUN07	27	06JUL07	12JUL07	-2	-12																			
LEVEL 5																												
CC05030030	FRP PAN DECK LVL 5 EAST (CONC)	15	17MAY07	04JUN07	32	25JUN07	12JUL07	1	-15																			
CC05030150	PAN DECK LVL 5 EAST CURE (CONC)	3	05JUN07	07JUN07	37	13JUL07	15JUL07	1	-18																			
CC05030070	STRIP PAN DECK LVL 5 EAST (CONC)	10	08JUN07	21JUN07	25	16JUL07	27JUL07	1	-13																			
LEVEL 6																												
CC06030010	FRP PAN DECK LVL 6 EAST (CONC)	20	21JUL07	13AUG07	31	27AUG07	19SEP07	-5	-15																			

SITE WORK CONSTRUCTION

SITE WORK UNDERGROUND UTILITIES

SITE WORK CONCRETE FOUNDATIONS

SITE WORK CONCRETE RETAINING WALLS

SITE WORK BACKFILL & GRADE

DRILLED PIERS SUB BASEMENT

FRP SUB BASEMENT WALLS

FRP SUB BASEMENT COLUMNS

UNDERSLAB PLUMBING SUB BASEMENT

FRP SUB BASEMENT PITS

FRP SUB BASEMENT SOG

FRP DECK OVER SUB BASEMENT

LVL 1 DECK OVER SUB BASEMENT CURE

STRIP DECK OVER SUB BASEMENT

RESHORE LVL 1 EAST PAN DECK

FRP PAN DECK LVL 5 EAST

PAN DECK LVL 5 EAST CURE

STRIP PAN DECK LVL 5 EAST

FRP PAN DECK LVL 6 EAST

Start Date: 30JUN06

Finish Date: 16SEP08

Must Finish Date: 27NOV08

Data Date: 26MAR07

Run Date: 06APR07 07:48

Early Bar

Progress Bar

Critical Activity

0307

Hensel Phelps Construction Co.

DKR Texas Memorial Stadium Expansion: Stage 2 NEZ

Longest Path

March 07 Update

Sheet 1 of 3

Date	Revision	Checked	Approved

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REVISION LOG

The following is provided for convenience to the Owner, Architect/Engineer and Contractor to track changes between annual document issuances and is not to be considered by any party to be contractual or 100% complete.

Date	Paragraph Revised
09/01/08	Revised section 3.6.2.1 - All electronic Construction Schedule submittals shall be in *.xer (P6) or concentric format (P3 to P5).
	Revised "Project Schedule" to "Construction Schedule" throughout the document in recognition that the specification only controls the contractor's schedule, and not the entire Capital Improvement Program project schedule as previously implied.
	Updated entire section 2.5
03/02/09	Added scheduling terms to section 1.1
	Revised list of required milestones in section 2.4.4.2 – Due to the transition from P3 to P6 the requirement to include Final Completion and Operational Occupancy milestones was deleted.
	Revised section 2.5.1.3 to allow the final Substantial Completion Date Milestone to have an open end, in lieu of Final Completion.
3/1/11	Updated section 2.2.1 Oracle contact information; added Commissioning Activities to sections 2.4.2 and 2.4.4.2; revised "Owner Provided – Owner Installed Equipment" Responsibility Code & Description in section 2.4.3

SECTION 01 35 23 – PROJECT SAFETY REQUIREMENTS

PART 1 – GENERAL

1.1 OVERVIEW

The Owner’s objective is an injury and incident-free Project, with a focus on safety that shall not be compromised to achieve any other business objective. The Contractor shall structure an effective and systematic safety management approach that emphasizes continuous improvement.

1.2 GENERAL REQUIREMENTS

The Owner recognizes that the Contractor and Subcontractors may have existing safety management programs with established safety policies, processes, procedures, and work practices. The Owner will support these where they prove to be effective and meet the intent and purpose of this Section. Upon request by the Owner, the Contractor and/or Subcontractors (of any tier) shall promptly produce and provide copies of any required documents related to Project safety. Where opportunities for improvement are identified, Contractor and Subcontractors shall work collaboratively with OFPC toward making appropriate revisions to progress toward an injury and incident free workplace.

1.3 DEFINITIONS

- 1.3.1 The term “Owner’s Safety Representative” (OSR) as used throughout the Contract documents shall refer to any construction safety professional who is acting on behalf of the Owner. This will include, but may not be limited to the OFPC Safety Analyst, and all Risk Control Consultants associated with Owner Controlled Insurance for the Project.
- 1.3.2 The term “Project Safety Coordinator” (PSC) as used throughout the Contract documents shall refer to the Contractor’s construction safety professional who is acting on behalf of the Contractor and who shall be responsible for safety training, inspections, incident investigations, record keeping, reporting, incident response, and claims management, and shall serve as the technical advisor to the Contractor’s project staff for all safety issues.
- 1.3.3 The term “Project Safety Assistant(s)” (PSA) as used throughout the Contract documents shall refer to any Contractor’s construction safety professional who is acting on behalf of the Contractor and who shall perform safety related tasks as delegated by the PSC.
- 1.3.4 The term “Subcontractor’s Safety Representative” (SSR) as used throughout the Contract documents shall refer to a person employed by the Subcontractor of any tier who is designated to be the “competent” safety representative and possesses the proper credentials for the position. All Tiered subcontractors shall provide at least one SSR per shift.
- 1.3.5 The term “qualified” as used throughout this Section shall match the definition within the OSHA construction safety standards (Title 29 CFR, Part 1926). *Qualified means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his*

ability to solve or resolve problems relating to the subject matter, the work, or the Project.

- 1.3.6 The term “competent” as used throughout this Section shall match the definition within the OSHA construction safety standards (Title 29 CFR, Part 1926). *Competent person means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them. In addition to the OSHA standard, this person must be trained and knowledgeable in the construction and/or operation of specific equipment or a specific work method and show proper documentation to support such training. Basic awareness training will not be acceptable for this position.*
- 1.3.7 The term “Construction Area” as used throughout this Section shall refer to the portion of the Owner’s property that is released to the Contractor’s control and is designated by the Contractor as the space where actual construction efforts will be undertaken to execute the Work.
- 1.3.8 The term “Administration Area” as used throughout this Section shall refer to the portion of the Owner’s property that is released to the Contractor’s control and is designated by the Contractor as the space where support efforts will be undertaken to provide administrative needs for the Work. If the Project has Project office trailers within the confines of the Owner’s property, that space and the parking area around it may be designated as an Administration Area.
- 1.3.9 The term “worker” as used throughout this Section shall refer to any person who has successfully completed the Project safety orientation.
- 1.3.10 The term “visitor” as used throughout this Section shall refer to any person who has not successfully completed the Project safety orientation. Visitors shall not be allowed access to the “construction areas” unless they are escorted by a member of the Contractor’s Project management staff or OFPC.
- 1.3.11 The term “Owner’s Designated Representative” (ODR) as used throughout the Contract documents shall refer to the individual assigned by the Owner to act on behalf, and to undertake certain activities as specifically outlined in the Contract. The ODR is the only party authorized to direct changes to the scope, cost, or time to the contract.
- 1.4 PURPOSE
- 1.4.1 The Contractor shall bear overall responsibility for all aspects of safety at the Project.
- 1.4.2 The Contractor shall, at all times, provide adequate resources, equipment, training, and documentation to:
- 1.4.2.1 Assure compliance with the requirements of this Section and all Federal, State, and local statutes, standards, and regulations.

1.4.2.2 Assure a safe work environment at the Project.

1.4.2.3 Instill a culture for safe behavior in all supervisors and workers.

1.4.2.4 Ensure a universal understanding that safety and health issues take precedence over all other considerations at the Project.

1.4.3 In any circumstance where this Section differs from, or conflicts with any statutory requirement, the more stringent shall apply.

1.4.4 The Owner reserves the right to have any manager, supervisor or worker removed from the Project for disregarding Project safety requirements. Removal of Project Superintendent, PSC, PSA or SSR may result in work stoppage that will remain in effect pending approval of a suitable replacement. Contractor shall not be allowed any consideration for time nor monetary compensation for said stoppage.

1.4.5 The Owner reserves the right to deduct from the Contract any safety related expenses that the Owner incurs as a result of the Contractor's, or any Subcontractor's, failure to comply with the requirements of this Section.

1.4.6 The Owner will deny requests for time extensions and/or monetary considerations whenever the Owner intercedes on behalf of safety compliance as a result of Contractor failure to act as required by Contract.

1.5 RELATED DOCUMENTS

In addition to specific references indicated herein, the Contractor's attention is also directed, but not limited, to the following Publications and documents:

1.5.1 Current edition of Uniform General and Supplementary Conditions for The University of Texas System Building Construction Contracts (UGSGC);

1.5.2 Owner's Special Conditions;

1.5.3 Current edition of OSHA Safety Standards for the Construction Industry, CFR Title 29, Part 1926.

PART 2 – PRODUCT

2.1 PROJECT SAFETY COORDINATOR (PSC)

2.1.1 One (1) PSC shall be provided by the Contractor and shall be assigned full time and dedicated to the Project from the commencement of construction until at least Substantial Completion.

2.1.2 Overall career experience must include at least seven (7) years in building construction safety.

2.1.3 Primary experience of the proposed PSC during six (6) of the recent seven (7) years of work history must have been solely dedicated to building construction safety with at least five (5) years of construction safety management experience. The PSC must have practical knowledge, working experience, and documented continuing education in areas such as fall protection, scaffolds, excavation, confined space, crane/equipment operations, electrical, incident investigation, and other such safety/health related training. OSHA 10/30 hour Construction Outreach or OSHA 510 certificates will not be acceptable for this training requirement. The PSC shall possess a certificate of completion for the OSHA 500 or 502 (Train the Trainer in Occupational Safety and Health for Construction Industry). The certificate must be dated within four (4) years of the executed Contract. The PSC must show evidence of specialized training for Emergency First Aid, Cardio Pulmonary Resuscitation (CPR), and Automatic External Defibrillator (AED) current to within two (2) years. Formal submittal of proof must be provided prior to acceptance and before any portion of the Work will be allowed to commence. Any candidate proposed that does not meet these minimum qualifications will not be accepted.

2.2 PROJECT SAFETY ASSISTANT (PSA)

2.2.1 Each PSA shall be assigned full time and dedicated to the Project and shall have no additional duties other than safety.

2.2.2 The initial one (1) PSA shall be provided by the Contractor and shall be assigned full time and dedicated to the Project until at least Substantial Completion. ODR concurrence required prior to release. The initial PSA must be assigned full time and present on the project at the time that the average daily population reaches twenty-five (25) persons.

2.2.3 A second PSA shall be provided by the Contractor when the average daily population at the Project rises to one hundred and fifty (150) persons. Additional PSAs shall be provided by the Contractor when the average daily population increases by another increment of one hundred and fifty (150) persons. The additional PSAs shall remain on the Project until the average daily population falls below the number that required them to be added.

2.2.4 Primary experience of any proposed PSA, during the recent six (6) years of work history must include at least five (5) years that have been dedicated solely to building construction safety. The PSA must have practical knowledge, working experience, and documented continuing education in areas such as fall protection, scaffolding, excavations, confined spaces, crane/equipment operations, electrical, incident investigation, and other such safety/health related training. An OSHA 10/30 Construction Outreach or OSHA 510 certification will not be acceptable for this training requirement. The PSA shall possess a certificate of completion for the OSHA 510 (Occupational Safety and Health Standards for the Construction Industry) in addition to the continuing education requirements previously noted. The certificate must be dated within four (4) years of the executed Contract. The PSA must show evidence of specialized training for Emergency First Aid, Cardio Pulmonary Resuscitation (CPR) and

Automatic External Defibrillator (AED) current to within two (2) years. Formal submittal of proof must be provided prior to acceptance. Any candidate proposed that does not meet these minimum qualifications will not be accepted.

2.2.5 The ultimate number of PSA(s) at the Project shall be dictated by the value for construction services (Construction Cost Limit) as follows:

2.2.5.1 For up to and including Ten Million Dollars (\$10,000,000), only the PSC shall be required.

2.2.5.2 For projects of Ten Million Dollars (\$10,000,000) up to and including Thirty Million Dollars (\$30,000,000), the PSC and the initial PSA will be required. For projects over Thirty Million Dollars (\$30,000,000) up to and including One Hundred Eighty Million Dollars (\$180,000,000), the PSC, initial PSA and an additional PSA will be required. For projects over One Hundred Eighty Million Dollars (\$180,000,000), the PSC, initial PSA, and two (2) additional PSAs will be required. Based on scope of work and/or anticipated hazard(s), additional PSA(s) may be required. Any additional PSA(s) beyond those noted above shall be determined and negotiated by the ODR prior to GMP.

2.2.5.3 For Contracts that involve multiple Phases, Stages, and Change Orders, the value for construction services shall accumulate as additional packages of Work are added to the overall Contract. If there are significant population gaps between the head count at the start of a new GMP and the declining count of the previous one, the ODR will decide if the new GMP shall relax only the demand for additional PSAs.

2.3 PSC AND PSA (PSC/A)

2.3.1 The qualifications and previous work experience of the initial PSC/A shall be submitted with the RFP. Based on final Contractor selection for the project, additional information for the PSC/A may be required prior to written acceptance for the position. Any PSC/A additions or changes after the acceptance date must be formally submitted for consideration to the ODR. In the case of the PSC, work shall not be allowed to commence prior to written acceptance by the ODR. In the case of the PSAs, each must be assigned to the project on or before the worker count reaches the numbers indicated in section 2.2.3. Any cost related to the Contractor's failure to meet this requirement will not be reimbursed by the Owner and additional time extension of the Project schedule will not be allowed.

2.3.2 For two (2) years of military service that cites safety training or an Associate's Degree in a field of study that contains significant safety training, two (2) years of required experience will be credited for the requirements listed above. For four (4) years of military service that cites safety training or a Bachelor's (Undergraduate) Degree in a safety related field, four (4) years of required experience will be credited for the requirements listed above. Military experience and/or degree will only receive credit once. A professional certification in a safety related field (CSP, OHST, CHST, etc.) may receive credit for up to four (4) years of experience in addition to the years noted above. The Owner reserves the right to determine year(s) of credit based on recognition of

certification, requirements to receive certification, and continuing education requirements to maintain certification.

- 2.3.3 The PSC and/or at least one PSA must be on the project at any time that workers are present.

2.4 SUBCONTRACTOR'S SAFETY REPRESENTATIVE (SSR)

- 2.4.1 Each tiered Subcontractor shall declare one (1) or more employees to be its designated SSR. The SSR shall be dedicated to the Project for on-site safety services.
- 2.4.2 The SSR may have collateral duties, but must be on the Project site when any part of the applicable Subcontractor's Work is being performed. The Contractor shall formally approve each SSR.
- 2.4.3 Each first-tier Subcontractor SSR shall possess a certificate of completion for the OSHA 30 hour Outreach Training in the Construction Industry. Remaining tiered Subcontractor SSRs shall possess at least a certificate for the OSHA 10 hour Outreach Training in the Construction Industry. The certificate must be dated within four (4) years of the executed Subcontract. Only a sub-tiered contractor that will have no more than three (3) workers on the project during their scope of work may petition to be excluded from this requirement. Any exception shall be by written approval of the ODR.

2.5 CONTRACTOR PROJECT SAFETY MANAGEMENT PLAN (PSMP)

- 2.5.1 The Contractor shall develop, implement, and furnish adequate resources for the PSMP.
- 2.5.2 The objectives and intent of the PSMP shall include, but not be limited to:
 - 2.5.2.1 Anticipating, plan, control and coordinate Work to eliminate hazards, minimize risks, and aggressively manage losses involving injuries or property damages;
 - 2.5.2.2 Ensuring education and training for best safety practices by all workers and holding supervisors accountable for safety performance;
 - 2.5.2.3 Documenting and recording preventative measures, establishing inspection, notification, and investigation requirements, and measuring results of performance;
 - 2.5.2.4 Providing protection for adjacent property and safety for the public.
- 2.5.3 The Contractor shall submit a complete draft of the PSMP to the Owner for review and written acceptance prior to the issuance of NTP for construction services. The Contractor shall incorporate Owner comments into a final draft and shall resubmit the amended version to the ODR within thirty (30) calendar days following the return date of Owner comments to the initial draft.
- 2.5.4 Beginning with the Notice to Proceed for Construction Services, the Contractor shall formally evaluate and update the PSMP and its supporting documentation at least semi-annually to assure effectiveness and continuous improvement. The Contractor shall

submit an evaluation report to the ODR no later than fifteen (15) calendar days after completion of the evaluation.

2.5.5 The PSMP shall address the inclusion of the OFPC SafetyNet Program for electronic collection of safety observations. The terms of this Owner directed Program shall not be replaced by any existing process including any existing version of the SafetyNet Program used by the Contractor. Within fifteen (15) calendar days of the issue of the NTP, the Contractor shall make available a means to record field observations. This can be done by computer or a minimum of two (2) hand held PDA devices and a PC docking station.

2.6 PERSONAL PROTECTIVE EQUIPMENT (PPE)

2.6.1 PPE shall be required for all workers in construction areas. The following items shall be furnished, inspected, and maintained by the employer.

2.6.2 Hard Hats shall be ANSI stamped (Z89.1-1997, Type I, Class E, G and C).

2.6.3 Eye Protection (Safety Glasses) shall be ANSI stamped Z87. If a worker wears prescription glasses (plastic lens only) that are not marked Z87, the employer shall furnish goggles or safety glasses that are designed to fit over another pair of glasses.

2.6.4 Vests shall be reflective traffic vests and shall be worn outside of all upper body clothing.

2.6.5 Contractor shall purchase and maintain an appropriate inventory of types and sizes to be able to furnish a hard hat, pair of safety glasses and vest for up to ten (10) Owner representatives who may visit the Project.

2.6.6 Hand Protection, Hearing Protection, Respiratory Protection, Fall Arrest Equipment, and other PPE shall all be furnished as required to comply with this Section and OSHA Standards.

2.7 MEDICAL EQUIPMENT

2.7.1 The Contractor shall purchase and maintain at least one (1) First Aid Kit on the Project site as per ANSI Z308.1 and it must be accessible whenever work is ongoing.

2.7.2 The Contractor shall purchase and maintain at least one Automatic External Defibrillator (AED) unit on the project site. The unit shall be located in Contractor project site office with appropriate signage and must be accessible whenever work is ongoing.

2.7.3 A minimum of two (2) Contractor employees, with current certifications for CPR/Emergency First Aid and for use of the AED, shall be at the Project whenever Work is being performed.

2.8 WORKER TRAINING

Prior to commencement of the Work, employers shall submit lists to the PSC that identify Supervisors, Competent Persons, Equipment Operators, Crane Operators, Riggers and Emergency Responders. In addition to lists, employers shall include copies of all training

certificates or formal documentation to support the declared positions and qualifications. Operations that require one of the abovementioned classifications may not commence until said documentation is at the project site.

- 2.8.1 For the overall authority at the Project and for all operations that require a Competent Person, the PSC shall maintain in a Project file from each employer, a transmittal that names each person declared to be competent for each operation. For operations that require independent certification, copies of the certificates shall be attached.
- 2.8.2 For every brand and model of crane and motor driven equipment (earth moving, lift platforms, suspended stages, material handling, etc.) brought onto the Project, the using company shall transmit to the PSC a list of employees who are trained and authorized to operate the equipment. Copies of all available training and/or certification documents shall be attached. Industrial Trucks (forklifts) and Cranes shall only be operated by persons who possess documentation of certification from a training program that carries nationally recognized accreditation. Individuals who possess required credentials shall demonstrate capability for witness by the PSC/A. The PSC/A shall issue cards and insignia as detailed herein to authorize on-site operations of all specified equipment.
- 2.8.3 For every position that is required to assist crane and motor driven equipment operations (flaggers, signal persons, riggers, spotters, etc.), the using company shall transmit to the PSC a list of employees who are trained and authorized to perform these functions. Rigging shall only be performed by persons who possess documentation of completion from a training program that carries recognized accreditation.
- 2.8.4 All workers shall be trained to perform their specific task(s). Employers shall provide formal documentation to support training provided.
- 2.8.5 Acceptable documentation for all training claimed shall contain organization, name, and title of the trainer(s), date of training, material covered with time spent on each topic, and evaluation process used to determine worker understanding of training. Owner reserves the right to determine acceptability of training being claimed.

2.9 PROJECT SAFETY SIGNS AND POSTERS

- 2.9.1 The Contractor shall post a pair of safety regulation signs at every point of entry to the Project: one in English and one in Spanish. Font shall be black in color and sized in each language to completely fill the surface of a white-coated four foot (4') vertical by eight foot (8') horizontal sheet of 3/4 inch plywood and shall contain only the following text:

ALL VISITORS, DELIVERY PERSONS, AND NEW WORKERS MUST REPORT TO THE PROJECT OFFICE BEFORE ENTERING ANY CONSTRUCTION AREA.

**ALL PERSONS ENTERING ANY CONSTRUCTION AREA MUST WEAR STURDY WORK SHOES, PROPER CLOTHING, A HARD HAT AND SAFETY GLASSES AT ALL TIMES
– NO EXCEPTIONS ARE ALLOWED DURING WORK HOURS.**

POSSESSION OF WEAPONS, ALCOHOLIC BEVERAGES, CONTROLLED SUBSTANCES, OR DRUG PARAPHERNALIA WILL RESULT IN IMMEDIATE REMOVAL FROM THIS PROPERTY.

EXCEPT WHERE DESIGNATED (BY POSTED SIGNS AND AVAILABLE RECEPTACLES),

USE OF ANY TOBACCO PRODUCT IS PROHIBITED ON THIS PROJECT

**THE MAXIMUM SPEED LIMIT FOR ALL VEHICLES ON THE PROJECT SITE IS NINE (9) MPH
– LOWER SPEED MAY BE REQUIRED BY POSTED SIGNS IN SOME AREAS.
ONLY AUTHORIZED VEHICLES ARE ALLOWED ENTRY INTO CONSTRUCTION AREAS.**

2.9.2 The Contractor shall post a notice sign at the Project office in English and Spanish. Font shall be black in color on a white coated board and size of letters shall be at least three inches (3”) in height, and shall contain at least the following text:

VISITORS, DELIVERY PERSONS AND NEW WORKERS MUST CHECK-IN HERE FIRST.

COPIES OF MATERIAL SAFETY DATA SHEETS (MSDS) FOR MATERIALS THAT WILL BE USED OR STORED ON SITE MUST BE DELIVERED BY ALL SUBCONTRACTORS TO THIS LOCATION AND SHALL BE AVAILABLE TO ANY REQUESTOR.

2.9.3 The Contractor shall also post the following in locations that may easily be viewed by workers:

2.9.3.1 Color Codes for Quarterly Equipment Safety Inspections:

- 2.9.3.1.1 1st Quarter = White (January 01– March 31)
- 2.9.3.1.2 2nd Quarter = Green (April 01 – June 30)
- 2.9.3.1.3 3rd Quarter = Red (July 01– September 30)
- 2.9.3.1.4 4th Quarter = Orange (October 01 – December 31)

2.9.3.2 Emergency contacts list, including phone numbers

2.9.3.3 Hazard Rating Guide (HMIS and/or NFPA)

2.9.3.4 Project Insurance Provider for Worker’s Compensation Coverage

2.9.3.5 Others as required by Federal and/or State regulation

2.10 PROJECT SAFETY FILE DOCUMENTS

Contractor shall create and maintain files for Owner review. The following files shall be established in one location on the Project and shall be made accessible to Owner agents during working hours. Additional files shall be created as directed by ODR.

- 2.10.1 Project Safety Management Plan (PSMP)
- 2.10.2 Project Safety Management Plan Semi-Annual Evaluations
- 2.10.3 Project Safety Orientation Checklists
- 2.10.4 Project Access Log
- 2.10.5 Project First Aid Log
- 2.10.6 Project Incident Notification, Investigation, and Evaluation reports
- 2.10.7 All Qualified Person Certifications and/or Training Documentation
- 2.10.8 Project Competent Persons lists

- 2.10.9 Project Equipment and Crane Operators lists
- 2.10.10 Job Hazard/Safety Analysis (from each Subcontractor per operation)
- 2.10.11 Project Weekly Safety (“Tool Box”) Meeting
- 2.10.12 Project Weekly Subcontractor Safety Representative Meeting Minutes
- 2.10.13 Contractor Monthly Safety Report
- 2.10.14 Project Quarterly (Portable) Equipment Inspection reports
- 2.10.15 Project Annual (Large) Equipment Inspection reports
- 2.10.16 Project Permits (for specialty operations)
- 2.10.17 Project Safety Infraction records

PART 3 – EXECUTION

3.1 POSITIONS, ROLES AND REQUIREMENTS FOR PROJECT SAFETY

3.1.1 Contractor’s Project Superintendent

Project Superintendent shall have overall responsibility for all aspects of Project safety and shall support the PSC/A when actions are required to maintain a safe work environment at the Project.

3.1.2 Project Safety Coordinator (PSC)

3.1.2.1 PSC shall report directly to an executive officer of the Contractor and shall not report through the Contractor’s Project management team.

3.1.2.2 If removal of the PSC is initiated by the Contractor, the existing PSC shall remain in position until a replacement candidate has been proposed to and accepted by the ODR in writing and is assigned to the Project. If the PSC leaves before the proposal and acceptance procedure is concluded, the Contractor shall temporarily install either a Safety Director (Regional or Corporate) or a professional construction safety consultant as the PSC until a suitable replacement is accepted in writing by the ODR. Any temporary replacement must meet the qualification levels, perform the duties, and be present full time on the Project as required of the PSC in order for Work to proceed. A permanent replacement shall be accomplished within thirty (30) calendar days.

3.1.3 Project Safety Assistant (PSA)

3.1.3.1 PSA shall report to PSC.

3.1.3.2 If PSA leaves the Project, acceptable (in writing by the ODR) replacement shall be accomplished within thirty (30) calendar days.

3.1.4 Both PSC and PSA (PSC/A)

3.1.4.1 The PSC/A shall have the authority to direct Contractor and Subcontractor personnel to correct any safety violations.

- 3.1.4.2 The PSC/A shall have the authority to stop operations that involve any level of risk.
- 3.1.4.3 The PSC/A shall be fluent in English and shall have immediate access to the necessary resources to communicate verbally with all workers at the Project.

3.1.5 Subcontractor Safety Representative (SSR)

- 3.1.5.1 SSR name, emergency contact information, and documentation of qualifications shall be submitted to and accepted by the Contractor prior to the commencement of any work activities by the Subcontractor. The SSR shall have the authority to direct actions, stop work and enforce discipline for safety issues.
- 3.1.5.2 The SSR shall submit a written Job Hazard/Safety Analysis (JH/SA) daily and as work conditions change for each of the risk exposures associated with the employer's portion of the Work. Each submittal shall be reviewed and accepted by the Contractor prior to commencement of the work operation that will create the exposure. Documentation of attendees and subject material covered must be provided by the SSR.
- 3.1.5.3 The SSR shall attend the Project Weekly Subcontractor Safety Representatives Meeting when the company is actively performing work at the Project.
- 3.1.5.4 The SSR should accompany any injured worker that requires medical attention at a facility outside the Project. The SSR shall be responsible for notification to the PSC of any incident including near-misses, and shall complete all the documents required to manage any insurance claims. The SSR shall participate in incident investigations that involve the employer's portion of the Work.
- 3.1.5.5 Each SSR may be required to accompany the PSC/A during portions of each safety inspection that involves the Subcontractor's part of the Work.
- 3.1.5.6 The SSR shall either conduct and/or make arrangements for all training, equipment and materials that workers need to perform their duties safely.

3.1.6 Work Crew Supervisor, Equipment Operator, Competent Person, Qualified Person Medical Responder

- 3.1.6.1 Supervisors, Operators, Competent Persons, and Medical Responders for each of the positions held, shall be recognized by the employer through formal submittal to the Contractor. Documentation shall be maintained in the Project safety file.
- 3.1.6.2 Designations of certifications and qualifications for special roles shall be clearly displayed on hard hats and/or photo identification badges.

3.1.7 Tradesman, Worker, and Laborer

- 3.1.7.1 All persons assigned to perform any portion of the Work at the Project shall attend a Project safety orientation to become acquainted with potential hazards, and the general safety rules that must be observed. No person shall be allowed to perform any Work at the Project until the PSC/A declares a successful completion of the Project safety orientation and issues a photo identification badge.
- 3.1.7.2 A signed copy of the Project safety orientation checklist shall indicate attendance. The PSC must be able to demonstrate effectiveness of the orientation and worker understanding of the material presented.

3.2 PROJECT SAFETY MANAGEMENT PLAN (PSMP)

- 3.2.1 Safety Mission and Policy Statement. Contractor's Safety Mission Statement shall include a commitment to create and maintain a work environment that will eliminate or minimize all risk exposures for all workers at the Project. The Safety Policy Statement shall include acknowledgement that the Contractor is accountable for providing and controlling a safe environment for all workers and members of the public. An original signature and date to endorse and assure commitment by a Corporate Executive or Business Owner shall be affixed to this element of the PSMP. The PLAN shall include the following as a minimum:
 - 3.2.2 Safety Roles and Responsibilities. This element shall outline and describe roles, responsibilities, and authority of each member of the Project staff for involvement in site safety, security, incident command, and incident claims management. The Contractor's Project organization chart shall indicate the reporting line for the PSC. The PSC role shall include authority to direct actions of Subcontractors and to stop work operation whenever any worker is exposed to a risk that cannot be reduced or eliminated.
 - 3.2.3 Safety Enforcement. This element shall include Contractor's disciplinary procedure for its own employees and for those of all Subcontractors. It shall include a description of the levels of severity and frequency (repetition) that will result in Contractor intervention and provide details of the retraining and/or disciplinary steps that will ensue from the possible combinations of unsafe behaviors. It shall also include discipline for supervisors who tolerate risk.
 - 3.2.4 Safety Recognition and Incentive. This element shall include a description of how those workers who demonstrate exemplary safety behavior and those supervisors who manage, enforce, educate and promote safety will be recognized and commended. Any celebration that will occur as part of this element shall not be minimized with achievement of Project milestones that are associated with production, schedule, quality or budget.
 - 3.2.5 Safety Hazards. This element shall include a narrative that recognizes existing site conditions, foreseeable changes to existing conditions, local climate, Owner and public interface, environmental impact and remediation issues, skill and experience levels of available work force, utility interruptions, water supply sources, power supply sources, Owner facility provisions, sanitation requirements, parking, material storage areas, and

proximity to students and public walkways and roadways. It shall contain a completed copy of the Anticipated Project Hazards Checklist (EXHIBIT A). It shall also be expanded throughout the duration of Work to include Subcontractor plans for elimination or minimization of risk. These plans shall be described by use of Job Hazard/Safety Analysis. Each JH/SA shall identify the work steps required to complete an activity, assess the hazards associated with each step, and offer a plan to eliminate or minimize the identified risks for each step. A copy of each accepted JH/SA shall be posted into this element as an explanatory amendment. JH/SA forms shall be reviewed by supervisors with the work crew at least daily and immediately prior to performance of the work that the form addresses. All portions of this element shall be in accord and cooperation with existing procedures for the campus Environmental Safety and Health department, the campus Security department, and local municipal Fire and Rescue.

- 3.2.5.1 Hazard Communication (“HazCom”). Insert the elements required by OSHA. The PSC/A shall maintain a Hazardous Materials Inventory List with individual MSDS for each and every hazardous substance brought onto the Project site. In addition to the product label of contents, all containers with at least five (5) gallons of fluid capacity or twenty (20) pounds of chemical content shall include either HMIS or NFPA hazards warning labels (except drinking water and fire extinguishers). All products with HMIS/NFPA number ratings greater than zero or one in any of the three categories (health, flammability, or reactivity) shall be considered as hazardous.
- 3.2.5.2 Environmental (Sensory) Hazards. Insert actions to measure worker exposures and to control hazards that exist beyond OSHA permissible exposure limits (i.e. dust, fumes, noise, chemicals, and extreme temperatures). Also, include control and remediation plans for incidents that result in a spill or discharge of a potentially hazardous or toxic substance (fluid or gas).
- 3.2.5.3 Roadway and Traffic Hazards. Insert actions to be taken at times when public roadways or sidewalks are affected by construction activities. Signs, devices, and procedures shall be identified where public passage is to be closed or altered. Procedures and training for flaggers shall be required and shall be in compliance with all applicable Texas Department of Transportation regulations for road safety; specifically the Texas Manual on Uniform Traffic Control Devices (TMUTCD) shall be referenced.

3.2.6 Fire Prevention and Control

- 3.2.6.1 Insert arrangements and equipment necessary to provide adequate protection during all phases of construction. All portions of this element shall be developed to be in accord and cooperation with existing procedures for the campus Environmental Safety and Health department, the campus Security department, and local municipal Fire and Rescue.
- 3.2.6.2 Burning, Welding, Flame Operations. Insert the process for issuance of a “Hot-Work” permit (EXHIBIT B). Permits forms shall be issued by PSC, unless campus

Environmental Health and Safety department desires to be involved. Permit form shall be completed by SSR and returned to PSC/A for acceptance prior to start of operation. s. All permits shall expire at the end of the shift. Permits shall identify fire watcher(s) and require pre-operation and post-operation inspections.

- 3.2.7 Emergency Response. Describe each type and level of emergency that may reasonably be expected to occur on the Project. Insert response or rescue plan for each kind of potential emergency.). This element shall address first aid, off-site medical care, property damage, rescue, project alarm signals, wind, flood, lightning strikes, and evacuation, threat of violence, protests or deliberately disruptive events. NOTE: Campus Spokesperson shall be the only person authorized to communicate with the media. This element shall include a drawing or sketch of the site (maintained for “as built” conditions) to indicate gates, emergency vehicle roadways, lay down areas, crane set up positions, exterior hoists, etc. All portions of this element shall be developed to be in accord and cooperation with existing procedures for the campus Environmental Safety and Health department, the campus Security department, and local municipal Fire and Rescue.
- 3.2.7.1 Incident Notification. Insert the list of personnel with phone, email, position and company information who may be contacted. The ODR and others as directed shall be included in the incident notification process. Depending on potential severity of the incident, notification may be in written and/or verbal form as directed. Incident notification flow shall be as indicated in EXHIBIT K. Indicate specific positions within the campus staff that may be contacted and/or involved in the notification and control process; i.e. site control and utility management. Campus Public Relations officer shall be the only person authorized to release live or pre-recorded video or written statements to the media. Contractor shall cooperate with campus PR officer and coordinate media arrangements as directed.
- 3.2.7.2 Site Security. Insert actions and control measures to prevent intrusion during work and non-work hours. Describe intended controls for perimeter security, gate security, pedestrian crosswalks, protection at public paths through and alongside construction areas, warning signage, etc. Identify special work that may not be performed during regular hours, and will require special precautions. Include descriptive detail for some method of gathering names and probable locations of workers who have not been cleared for safe departure during any type of emergency. Identify the position(s) of all who will possess this information and be prepared to convey critical details quickly to any outside emergency response command that might arrive at the Project.
- 3.2.8 Project Trenching, Tunneling and Excavation. Insert soil boring reports, soil classification analysis, site sketch and any other information that may support, explain or clarify the intent of this element. In addition to UGSGC, this element must be stamped and sealed by a Registered Professional Engineer recognized in the State of Texas in the field of Civil or Soils Engineering.
- 3.2.9 Drug and Alcohol Impairment. The Contractor, for itself and all Subcontractors, shall have a robust drug and alcohol screening and intervention plan. Insert details of Contractor policy for screening both direct employees and Subcontractor employees for

the presence of controlled substances, prescription pharmaceuticals, and alcohol. Describe all of the types of testing and confirmation that the Contractor requires and the tolerance thresholds for each substance. This element shall include, as a minimum, a detailed explanation of the following situations and mandatory testing events:

- 3.2.9.1 Pre-employment – Test results conducted within two weeks preceding issuance of badge for Project access.
 - 3.2.9.2 Post-incident
 - 3.2.9.3 Random selection
 - 3.2.10 Concrete (for slip-form, crane bucket, pump truck, cast-in-place)
 - 3.2.11 Confined Space Entry (Permit Required and Restricted Entry)
 - 3.2.12 Crane Operations (for set-up/use requirements and limitations)
 - 3.2.13 Demolition (Mechanical and/or Explosive Blasting)
 - 3.2.14 Electrical Power Service (address power supply and use during construction)
 - 3.2.15 Fall Prevention and Protection (from elevations and at same level)
 - 3.2.16 Hand and Power Tools
 - 3.2.17 High Voltage (“Proximity Work”)
 - 3.2.18 Ladders and Stairs
 - 3.2.19 Lock-out, Tag-out (Energy Isolation for sudden release of any kind of energy)
 - 3.2.20 Respiratory Protection
 - 3.2.21 Safety Inspection
- 3.3 PERSONAL PROTECTIVE EQUIPMENT (PPE)

The following PPE requirements shall apply to all workers in construction areas. Contractor may declare specific lunch break areas within construction areas to be exempt from PPE requirements. Markings for these spaces shall be clearly defined and signage shall be legible and prominently posted in language that all workers can read.

- 3.3.1 Hard Hats shall be worn 100% of the time in construction areas, with the brim forward (or as allowed by the manufacturer). “Cowboy” style hard hats shall not be allowed (even if ANSI stamped). Hard hats with noticeable wear or damage shall be replaced. Each hard hat shall be examined by the PSC/A during the Project Safety Orientation to confirm acceptable condition. The PSC shall identify all equipment operators. The PSC

shall place a colored sticker on the hard hat that represents the type of equipment that can be operated. Green will represent Personnel Handling. Blue will represent Material Handling. Brown will represent Earth Work.

- 3.3.2 Eye Protection (Safety Glasses) shall be worn 100% of the time in construction areas. Additional eye and face protection shall be provided by employers for any employee when work operations create an exposure to airborne particles, chips, sparks, radiation, etc.
- 3.3.3 High visibility vests or high visibility upper body clothing shall be worn when the worker's primary work activities are subject to vehicle traffic and/or heavy equipment movement in the construction area. Primary work activities such as traffic control, excavations, rigging from ground level, exterior work at ground level or sub-ground level, earth moving operations will adhere to this requirement. All other activities can be considered by the Contractor with concurrence by the ODR on a case by case basis.
- 3.3.4 Hearing Conservation and Protection shall meet or exceed OSHA requirements. Except for suppression of sound energy level, no devices or equipment shall be placed in or over the ears. Portable radios, cell phones or any other electronic devices used for any reason except work related communications and emergency assistance are prohibited in construction areas.
- 3.3.5 Hand Protection that is designed to counter the exposure shall be furnished to all workers who must handle materials or equipment with sharp edges, slick surfaces, chemically reactive components or extreme temperatures.
- 3.3.6 Respiratory Protection shall meet or exceed OSHA requirements.
- 3.3.7 Foot Protection (Work Shoes) must have soles with a resistance to punctures, uppers that cover the entire foot and ankle and offer resistance to scrapes and cuts. Sandals, open-toed shoes, dress loafers, high-heels, and all athletic style shoes (including those with ANSI markings) are prohibited. Additional protection shall be provided when work operations create impact exposures.
- 3.3.8 Other OSHA required PPE shall be furnished as appropriate for specific tasks.
- 3.3.9 Other clothing:
 - 3.3.9.1 Shirts shall not have noticeable holes and shall be free of profane, inflammatory, sexually explicit or discriminatory messages. Sleeve length shall cover the ball of the shoulder and shirt length shall reach waist of pants.
 - 3.3.9.2 Pants shall be full length. Holes must not be large enough to catch on snag points or offer measurable amounts of exposed skin.

3.4 PROJECT SAFETY MEETINGS AND TRAINING

3.4.1 Project Initial (Safety Kick-Off) Meeting

3.4.1.1 At any time within, but no later than fifteen (15) calendar days after the issue of the Notice to Proceed with Construction Services, the Contractor shall arrange suitable accommodations for the meeting. The OFPC PM or RCM will schedule and chair the meeting. Minimum attendance shall include the OFPC PM/RCM, Construction Inspector(s), OSR, Contractor's PM, Superintendent, and PSC/A. The Contractor's safety director, additional representatives for the Owner, the Institution, the A/E, the Contractor and local regulatory entities may also attend.

3.4.1.2 The Contractor shall confirm the schedule availability for all required attendees at least fourteen (14) calendar days prior to the meeting date.

3.4.2 Initial Meeting with Subcontractors for acknowledgment of Safety Requirements

3.4.2.1 At any time after the date of intent to award each first tier Subcontract, but prior to commencement of any Work, the Contractor shall arrange and chair a meeting with Subcontractor to explain safety requirements. Minimum attendance shall include the OFPC Construction Inspector(s), Contractor's PM, Superintendent, PSC/A, and SSR. Other interested parties for OFPC, campus and Contractor may also attend. Any lower-tier Subcontractors that have been awarded part of the Work are encouraged to attend.

3.4.2.2 In addition to all of the pertinent safety regulations that apply to the portion of the Work that the Subcontractor will perform, the Contractor shall clearly state the expectation that safety management of its workers and Sub-tier workers shall be the Subcontractor's responsibility and that failure to adequately manage safety could result in a demand for the removal and replacement of supervisors. The roster of attendees shall indicate distribution to the ODR and the Subcontractor.

3.4.3 Project Safety Orientation Training

3.4.3.1 The PSC/A shall present training to every person who is to be allowed into the construction area(s) without an escort. This duty shall not be delegated. Unless the PSC/A is bi-lingual, a translator shall be present when there are workers in attendance who do not speak English. Workers and their immediate supervisors shall be required to attend a repetition of the orientation whenever observed behavior indicates a lack of understanding or repeated non-compliance.

3.4.3.2 The PSC shall review the Safety Orientation Checklist (EXHIBIT D) and incorporate each applicable topic within the training presentation. The PSC shall develop and administer a process to ensure and demonstrate worker understanding.

3.4.3.3 The PSC shall furnish a photo-identification badge to each person who satisfactorily completes the Project Safety Orientation. The badge will indicate the worker's name, company, job title, project name, and OFPC project number. The badge must be visible at all times that the worker is on the Project and be located above the waist using clip or arm band. Lanyards are prohibited. Failure to maintain the badge will be grounds for removal from the Project. The PSC shall place on the hard hat, a

colored decal that indicates that the worker is an equipment operator. Worker qualifications for the specific equipment that can be operated will be identified on the back of the worker's photo identification badge.

- 3.4.3.4 The PSC shall confirm employer insurance requirements prior to start of orientation. PSC shall confirm document credentials for operators and SSR prior to start of orientation. The PSC shall maintain a site access log to document each successful orientation and any reorientations. The log shall include the person's identity and Project critical information (name, employer, badge number, equipment operator, medical responder and/or supervisor status).

3.4.4 Daily Job Hazard / Safety Analysis Training

- 3.4.4.1 Prior to start of Work for each shift, the immediate supervisor shall conduct a brief meeting with all members of the work crew to explain how the work steps for the shift are to be accomplished. Explanation shall include a discussion of all the work activities that will be performed in the vicinity as well as the work that the crew is expected to accomplish. Explanation shall address all of the recognized risks associated with the task and the measures to be installed or actions to be taken to eliminate or minimize the exposures. Actions to be taken in the event of an emergency shall also be included and documented.
- 3.4.4.2 A sign in sheet shall be produced to document the training. It shall contain names and initials of all attendees, name of supervisor, statement of task(s), and any special safety measures or actions that are required to assure elimination or minimization of risk. A copy of the JH/SA shall be reviewed and endorsed by the PSC/A prior to work activities and copies of any completed permits shall be clipped to the document. The supervisor's/workers' signatures on the JH/SA shall be understood to also mean a thorough communication of all anticipated hazards and controls has been provided to all workers. A copy of the JH/SA will be posted in the immediate work area until the daily activities are complete. JH/SA shall be modified as work activities change and warrant additional review and training throughout the shift.
- 3.4.4.3 All Project Management team members (OFPC, Contractor and Subcontractor) are encouraged to attend these JH/SA meetings as frequently as possible to reinforce the Project safety culture.

3.4.5 Project Weekly Subcontractor Safety Representatives Meeting

- 3.4.5.1 The PSC shall chair a weekly meeting with all SSR(s) to ensure that all are aware of the existing hazards and exposures that should be addressed with each crew. A written agenda (EXHIBIT E), attendance roster, and meeting minutes shall be prepared and maintained at the Project site by the PSC. A copy of these documents shall be submitted to the ODR.
- 3.4.5.2 This meeting shall be exclusively reserved for safety and loss control issues. Attendance shall be required of all SSR(s) when the employer is actively conducting work operations at the Project. All Project Management team members (OFPC,

Contractor and Subcontractor) are encouraged to attend these weekly meetings as frequently as possible to reinforce the Project safety culture.

3.4.6 Project Weekly Site Safety (“Tool Box Talk”) Meeting

- 3.4.6.1 All workers on the project site, including site Project Management team members, shall attend a weekly safety Tool Box Talk, which shall be presented in English and all other languages that are natively spoken at the Project. The PSC/A may deliver each talk to the entire Project population or each SSR may deliver individual meetings to a specific trade and/or group. The PSC/A shall periodically participate and review individual meetings to ensure effectiveness. The PSC/A shall collect and maintain copies of all sign-in sheets for every meeting.
- 3.4.6.2 Meetings shall address appropriate topics for the near-future work operations and current site conditions. In addition, the PSC/A shall select at least one (1) of the elements within the PSMP to be a mandatory topic each week, and shall select every element at least once during the course of the Project.

3.4.7 Safety Lessons Learned and Best Practices

Contractor shall work with OFPC to use Lessons Learned to capture significant safety experiences and best practices over the course of the work. Contractor will work with OFPC to facilitate Lessons Learned at Substantial Completion and will work with Subcontractors to actively participate in Lessons Learned. Contractor shall develop and distribute any reports that detail findings to OFPC as requested.

3.5 SAFETY INSPECTIONS

3.5.1 Daily SafetyNet(formerly DBO2) Inspections

- 3.5.1.1 Site safety inspections shall be entered into SafetyNet. OSR(s), OFPC RCM, CI, Contractor Superintendent and PSC/A shall all be recognized users of the Owner’s SafetyNet Program. Other persons may also be added to the user list.
- 3.5.1.2 User participation shall include recording of all observations and conditions at the Project (via the Program’s menu-driven checklist). Additionally, the Contractor shall review on-line reports and respond prudently.
- 3.5.1.3 Each deficient safety observation shall be corrected or controlled immediately. The PSC shall be responsible for reviewing and ensuring proper closure of all unresolved (“open issues”) observations. ODR (including the OFPC CI) shall concur prior to closure.
- 3.5.1.4 OFPC will conduct initial training for Contractor understanding and use of the SafetyNet Program. All subsequent training for follow-on Subcontractors shall be accomplished by the Contractor.
- 3.5.1.5 At a minimum, a daily SafetyNet inspection shall be conducted by each PSC/A on site during the shift. The daily inspection may only record a group of observations within a single work operation, but the accumulated inspections conducted by the

Contractor throughout each work week shall reflect a comprehensive report of all operations at the Project.

3.5.1.6 When the OSR conducts an inspection, the PSC/A shall be available to join in during the walk around. The other OFPC users may also require the PSC/A to join in during inspections.

3.5.1.7 When the PSC/A conducts an inspection, at least one SSR shall join in for the portion of the inspection that addresses the Subcontractor's portion of the Work.

3.5.2 Quarterly (documented) Inspection of all tools, rigging, and portable equipment

3.5.2.1 The PSC shall facilitate a documented safety inspection each quarter. Each employer shall produce and submit a document (EXHIBIT F) that addresses all tools, rigging, and portable equipment within the company's inventory on the Project site. Documents shall be maintained by the PSC.

3.5.2.2 This inspection shall include, but not be limited to, the following: Fall Arrest Equipment, Rigging, Manufactured Ladders, Power Tools, Cords, Welding Leads, Hoses, First Aid Kit, AED, Air and Sound Meters, and Ground Fault Circuit Interrupter devices. Personally owned hand tools are exempt from this inspection procedure, but daily examinations of all portable items prior to start of work shift as prescribed by OSHA standards are not relaxed.

3.5.2.3 For every item that "passes" the quarterly inspection, remove the previous quarter's color coding and affix the current quarter's color coding. Every item removed from service shall be repaired, replaced, destroyed or immediately removed from the Project. The inspection report shall reflect such actions. Inspection reports shall be completed and submitted to the PSC prior to use of any new equipment on the Project site and re-inspections before the first calendar day of the beginning of each quarter of the year. Quarterly re-inspections may begin and color coding may be changed anytime during the final one-week period of the previous quarter.

3.5.3 Initial and Annual Inspection of all Cranes and Motor Driven Equipment

3.5.3.1 The Contractor shall facilitate safety inspections and written certifications for all hoists, cranes, mobile equipment, motorized scissors and aerial lift platforms, motorized stage platforms, generators, and compressors on the Project.

3.5.3.2 The Contractor shall ensure that all equipment inspections are consistent with the manufacturer's requirements. An initial inspection and certification of proper condition shall be transmitted to PSC before a piece of equipment is allowed to commence operations at the Project.

3.5.3.3 The Contractor shall select the month that occurs approximately six (6) months after the commencement of construction, and announce this as the month for annual re-inspections and re-certifications of all motor driven units of equipment and cranes

that remain in use at the Project. Any equipment that leaves the Project will require re-certification before it shall be allowed to resume operation at the Project.

3.5.4 Inspections by Regulatory Agencies

The PSC/A shall notify the ODR immediately of the arrival at the Project site by an representative of a Regulatory Agency (OSHA Compliance Officer, TCEQ representative, Law Enforcement Officer, etc.), and provide the Owner with a copy of any published findings or citations (OSHA Safety Orders, EPA Site Deficiencies, etc.) issued to any employer and shall ensure that statutory posting requirements are met.

3.6 CONTRACTOR RECORDS, INVESTIGATIONS AND REPORTS

3.6.1 Mobile Equipment and Crane Operator Records

Each employer shall submit to the PSC/A, for each operator, a record of training that identifies the trainer and the details that were addressed and successfully demonstrated during training. The minimum amount of detail shall include the following assurances:

- 3.6.1.1 Pre-start up inspection, travel path issues, and location/set up procedure;
- 3.6.1.2 Start up, operation, intended use, and shut down (normal and emergency);
- 3.6.1.3 Equipment Operations Manual, Limit Chart(s), Motor Plate information, equipment capacities and limitations, alarm features, safety stops, seat belts, roll over protection and preventive maintenance;
- 3.6.1.4 PPE, fall protection, environmental, and any other related risks or exposures.

3.6.2 Contractor Monthly Safety Report

- 3.6.2.1 The PSC/A shall enter the following project information directly into SafetyNet; total man hours by month, all OSHA recordable and days away from work incidents including descriptions and relevant fields, near misses and first aid rendered. Data shall be entered into SafetyNet s by the 10th of the month following the reporting period.
- 3.6.2.2 This information is vital to the Owner's safety benchmarking efforts. Failure to submit the information in a timely manner may result in ODR withholding a portion of the Contractor application for payment, and shall disqualify the Contractor from consideration for safety recognition for the month of failure to submit.

3.6.3 Incident Notification, Investigation and Reporting Procedure

- 3.6.3.1 During the orientation, the PSC shall instruct all workers to immediately report to their supervisor every incident, even if there is no obvious injury or property damage. Supervisors shall immediately notify the PSC/A. PSC shall immediately notify the ODR of any incident. All Near Miss incidents, First Aid injuries, High Severity

Safety Inspection Observations, and other such incidents as directed by the Owner shall be entered into SafetyNet/DBO2 by the PSC. All incidents shall be investigated. Contractor and involved Subcontractors shall discover all obtainable and measurable information and reach conclusions that cite both the contributing factors and the root cause(s). Contractor shall lead the efforts and follow a structured incident investigation program (Root Cause Analyst or equivalent). Contractor and involved Subcontractors shall tailor the magnitude and depth of the investigation effort to correspond to the potential, rather than the actual, outcome of the incident and shall include qualified senior management, line management, and safety consultants as the circumstances warrant. The ODR reserves the right to participate in incident investigations. Contractor shall prepare and submit reports that will allow OFPC and Subcontractors to understand findings and planned changes to the PSMP. At the time of any injury incident, workers and supervisors shall be provided a copy of (EXHIBITS G & H) that explain the rights, duties, and expectations for those who are involved in the incident.

3.6.3.2 Incident Responsibilities for Workers and Supervisors

3.6.3.2.1 Contractor shall cover the information in the Worker Responsibilities (EXHIBIT G) document during the orientation and keep copies to hand out to any worker who appears to have sustained an occupational injury.

3.6.3.2.2 Contractor shall cover the information in the Supervisor Responsibilities (EXHIBIT H) document during the orientation and keep copies to hand out to any supervisor who informs PSC/A that an worker injury has occurred.

3.6.3.3 Incident Investigation Report

3.6.3.3.1 Contractor shall prepare a written investigation report for each incident that involves injury, damage, near miss, high severity safety deficiency or other occurrences as directed by the Owner.

3.6.3.3.2 Contractor shall develop a Root Cause Analysis report (EXHIBIT J) that summarizes the incident, identifies the underlying contributing factor(s) determines which process element failed to control the incident, determine which process element(s) will be improved or implemented, and the time needed to take corrective action(s).

Contractor shall conduct and submit incident investigation report that supports the Root Cause Analysis in the manner and time as directed by the ODR.

3.6.4 Contractor Final Safety Report

3.6.4.1 Contractor shall work with Subcontractors to prepare a Final Safety Report and shall forward to OFPC no later than thirty (30) calendar days after Substantial Completion.

3.6.4.2 Report shall include at least the following items:

- 3.6.4.2.1 Summary of the PSMP with description of improvement initiatives undertaken during the course of the Project
 - 3.6.4.2.2 Evaluation of the effectiveness of the PSMP, including summary results of assessments performed
 - 3.6.4.2.3 Project safety performance results (leading and trailing indicator measures)
 - 3.6.4.2.4 Project safety lessons learned and best practices
 - 3.6.4.2.5 Summary of Project incidents
 - 3.6.4.2.6 Evaluation of Contractor and all Subcontractor overall safety performance
- 3.6.5 Contractor shall provide Ad Hoc reports as requested by the ODR. This may include work force histograms, training documents, safety trending reports, etc.

3.7 CONSTRUCTION OPERATIONS

The following requirements are either in addition to or in the absence of Federal and State regulations. Where conflicts exist, the most stringent directives shall apply.

3.7.1 CRANES

- 3.7.1.1 Tower cranes (including affiliated transformers and power supply equipment) shall be surrounded by at least a sixteen-foot (16') high, 5/8-inch plywood enclosure with a lock-controlled entrance.
- 3.7.1.2 Operators of cranes shall possess certification from a nationally accredited training organization.
- 3.7.1.3 Every crane and piece of hoisting equipment shall be equipped with an anti-two blocking sensor above each lifting block.
- 3.7.1.4 Unless the crane is equipped with sensors that inform the operator of the weight of the load on the hook and the current wind speed, these measurements shall be determined by other means before commencement of each lift.
- 3.7.1.5 When outriggers are used on cranes, they shall be fully extended. Float pads shall be landed onto leveled and properly designed and sized slabs or cribbing. Where steel plate is used for cribbing, welded or bolted cleats shall be attached to upper surface to prevent float pads from moving horizontally.

For cranes of up to and including 35-ton capacities, wooden cribbing shall be a minimum of four inches (4") in thickness. For cranes over 35-ton capacities and up to 150-ton capacities, cribbing shall be a minimum of eight inches (8") in thickness. For all cranes up to 150-ton capacity, the minimum size of the surface ("footprint") of the cribbing assembly shall be determined by the following formula: the capacity of

the crane (in tons) divided by 5 equals the minimum square footage required. Properly sized circular crib pads are acceptable. Side dimensions for rectangular crib pads shall be equal to each other or differ by no more than one foot. For cranes larger than 150-ton capacities, a qualified person shall design the cribbing. "Sandwich" units of cribbing are allowed as long as the plywood on bottom and on top is at least one inch in thickness.

- 3.7.1.6 For "Pick and Move" operations, the pick shall be made directly in front of the crane with the boom as near vertical as possible. Move at walking speed with a "spotter" in front of the load and another behind the crane. Guy wire cables that secure the load to the body (to prevent lateral force loading of the boom) of the crane shall be required if the grade slope is more than three (3) degrees or the terrain is uneven. Only rubber-tired cranes shall be allowed to perform this operation without a "critical lift" plan and the load must be under fifty percent (50%) of the "on rubber" chart limit.
- 3.7.1.7 Critical Lifts shall include, but not be limited to: (1) Tandem Lifts, (2) Lifts greater than seventy-five (75%) percent of Load Chart, (3) Crane Suspended Personnel Hoists, (4) Non-Conventional Outrigger placements and (5) "Blind" picks and/or placements. All of these events shall require submittal of custom designed plans by qualified persons.
- 3.7.1.8 Multiple lift operations ("Christmas Treeing") shall not be permitted.
- 3.7.1.9 All crane operators on rigs rated for more than five (5) tons of capacity shall submit to a physical examination prior to conducting any work on the Project and, if still on the Project, at least every twenty-four (24) months thereafter. The physician's written declaration of fitness shall be submitted to and maintained by the PSC/A in Project files.
- 3.7.1.10 Only the designated rigger and/or signal persons shall issue lift instructions to the operator. The only exception shall be an emergency stop signal, which may be delivered by anyone on the Project who knows how to alert the operator.
- 3.7.1.11 All loads lifted more than six feet (6') above ground elevation shall have a tag line attached that is long enough to allow control of load spin without placing any part of the body directly below the load. When "shake out" hooks are used, the load must never be elevated above five feet (5') over the surrounding surface and workers must stay at least five feet (5') horizontally away from the suspended load.
- 3.7.1.12 For any load that may be elevated and moved directly above workers, a means for worker notification must be in place. The crane operator may perform this notification by horn if the load can be seen at all times. If the crane operator will lose sight of the load at any time, notification must be made by a designated individual who can maintain sight of the load. Notification must be accomplished by some means that attracts the attention of all workers.

3.7.2 DEMOLITION

- 3.7.2.1 Maintain clearly marked and well-illuminated egress paths at all times.
- 3.7.2.2 Maintain barricades and signage that isolates impacted areas to prevent entry by other trades and members of the public.
- 3.7.2.3 Removal of materials and trash from elevated locations must be controlled. Materials, scraps or waste shall never be allowed to free-fall from a height greater than ten feet (10'). Items that may be caught by wind and carried horizontally shall never be allowed to drop freely for any distance. When items are allowed to be dropped freely, a person shall be stationed at the landing elevation at a safe distance to warn others away from the operation, and the landing area shall be surrounded by warning tape placed at least six feet (6') outside of the expected landing area. Wall openings that may be located vertically between the material drop point and the expected landing area shall be securely covered and marked from inside. Anything that is to move downward at a distance greater than ten feet (10') or is capable of sailing horizontally shall be contained within a chute or controlled by hoist.
- 3.7.2.4 Unless the Contract documents clearly call for it, the use of explosives for demolition is prohibited.

3.7.3 ELECTRICAL POWER

- 3.7.3.1 Ground Fault Circuit Interruption (GFCI) shall be the primary protection from exposure to electrical current for all workers on the Project. Only exit lighting and medium-high (greater than 240) voltage service will not be GFCI protected.
- 3.7.3.2 All strings of temporary lights shall be fully lamped and guarded regardless of height, and shall be continuously maintained. Adequate and consistent levels of illumination for the work operations in each area must be maintained at all times
- 3.7.3.3 All receptacles and switches shall have trim plates installed before they are energized.
- 3.7.3.4 All power distribution panels shall have full covers installed before primary power is brought into the panel. When energized panels are located in open areas, covers shall be locked except when an electrician is present. When panels are located inside separate rooms or closets, automatic closers and automatically locking hardware shall be installed on doors as soon as equipment is energized, and only authorized persons shall be provided a key. Doors shall not be wedged to stay open. Warning signs shall be placed in conspicuous locations.
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- 3.7.3.5 The employer shall implement and document an overall safety program that directs activities appropriate for the electrical hazards, voltage, energy level, and circuit conditions anticipated.

3.7.4 EXCAVATIONS

- 3.7.4.1 In addition to UGSGC requirements, every excavation shall require a preliminary meeting with the ODR to determine historical knowledge of existing utilities. Where applicable, a phone call for utility "locates" shall be completed seventy-two (72) hours in advance. "Potholing" and/or hand digging shall be required within three (3) horizontal feet of "located" centerlines, and in areas where knowledge is lacking.
- 3.7.4.2 The "toe" of spoil piles that are less than four feet (4') in height shall be at least two feet (2') from the edge of any excavation. Spoil piles greater than four feet (4') in height shall add one foot (1') of distance from the excavation for every additional foot in height. Spoils shall be managed to prevent airborne dust.
- 3.7.4.3 Trench excavations should be backfilled at the end of each shift.
 - 3.7.4.3.1 When an excavation cannot be backfilled in the same day as it is created, a highly visible barricade shall be erected at a minimum distance of six feet (6') from all approachable edges. All portable means of access shall be removed at the end of each workday.
 - 3.7.4.3.2 Earth ramps that are to be used for walking access shall not exceed twenty percent (20%) in grade slope. Steeper slopes shall be gate controlled for equipment only, and alternate access shall be added for pedestrian traffic.

3.7.5 FALL PROTECTION AND PREVENTION

- 3.7.5.1 Any walking/working surface that is equal to or greater than six feet (6') above surrounding areas shall present an unacceptable fall exposure unless it has all edges (side and ends) protected by an attached guardrail system, fall arrest netting, or is blocked off by an adjacent wall. An adjacent wall shall be continuous, structurally sound, and at least thirty-nine (39) vertical inches above the walking/working surface, and within eight (8) horizontal inches from the open edge.
- 3.7.5.2 Any employer that will create a fall exposure equal to or greater than six feet (6') shall submit a detailed plan and/or set of drawings in advance of the operation to indicate how the exposure shall be addressed. The Contractor shall require the plan to contain either "engineered" or conventional fall protection measures for each and every exposure that involves vertical distances equal to or greater than six feet (6'). Any precautionary measure that would allow greater risk than that afforded by a guardrail system, fall restraint equipment, fall arrest equipment, or fall capture netting shall be prohibited. The use of a "Monitor" is expressly prohibited. The recognized exemptions/exceptions are as follows:
 - 3.7.5.2.1 Allow work from portable step ladders as long as a "three point" contact is maintained, the ladder is secured from movement, the worker's center of gravity remains between the rails and in front of the feet, and the worker's waist does not extend above the top of the ladder. The height of the worker's feet is limited to twelve feet (12') for this exemption/exception.

- 3.7.5.2.2 Allow work from an extension or straight ladder if the ladder is secured from movement, “three point” contact is maintained, the worker’s center of gravity remains between the rails and in front of the feet, and the worker’s waist does not extend above the top of the ladder.
- 3.7.5.2.3 Work may be performed without fall arrest measures while standing on an elevated walking/working surface only if maintaining a distance of at least six (6) horizontal feet from the edge. The unprotected edge shall be clearly identified by posted signage and a warning line erected continuously at a six-foot (6’) setback distance. When work is to be performed from a ladder placed near the warning line and the ladder can fall toward the leading edge, the safe distance from an unprotected edge shall increase one foot (1’) horizontally for each vertical foot that a worker climbs above the surrounding surface. This requirement shall also apply to a ladder that is being placed beside a protected edge. Any leading edge (“controlled access”) zone work shall require fall capture arrangements prior to entry.
- 3.7.5.3 Covers placed over pier holes, and roof or floor openings shall be physically secured and clearly marked with warning message "HOLE COVER - DO NOT REMOVE." Any cover that is too small for legible wording shall be bright orange or red.
- 3.7.5.4 Job built ramps and bridges shall be surfaced with an abrasive (non-skid) material. Ramps shall comply with ADA slope requirements.
- 3.7.5.5 Equipment and work operations of any description shall not be permitted to be performed directly above a worker unless adequate overhead protection is provided prior to commencement of the operation.

3.7.6 FIRE PROTECTION

- 3.7.6.1 All floors that have combustible materials present shall be accessible from ground level by a usable stair system (temporary or permanent). For structures greater than three (3) stories in height, fire sprinkler standpipes shall be completed and charged to within two (2) stories, or thirty (30) vertical feet of all floors containing combustible materials. Siamese connection shall be installed at every level to provide access for fire hoses. All fire extinguishers that are not task-specific shall be adequate in number and description to comply with OSHA declared limits for egress points, floor area and travel distances. They shall be situated in highly visible locations mounted at a height to facilitate ease of inspection and retrieval for use.
- 3.7.6.2 All fire extinguishers that are task specific shall be inspected and furnished in advance by the employer that will be conducting the work that requires such fire fighting provisions. The fire extinguisher shall be situated within sight of and less than twenty-five feet (25’) from the perimeter of the task operation. All work that includes burning or welding of any type shall be defined as “hot work” and shall require the presence of a fire extinguisher, at least one fire watcher, and a Hot Work Permit. Refer to WELDING AND BURNING for additional details.

3.7.7 HOUSEKEEPING

The PSC/A shall ensure that the Contractor and all Subcontractors “effectively” clean the Project site continuously throughout each workday. "Effective clean-up" shall adequately address all of the following housekeeping issues:

- 3.7.7.1 All construction waste, trash, and debris shall be placed in designated receptacles. Glass bottles shall not be permitted on the Project site.
- 3.7.7.2 Stack (or restack) all whole and scrap materials in locations that shall not obstruct a clear pathway nor create a risk for toppling onto a person passing through the area.
- 3.7.7.3 Place all hoses, cords, cables and wires in locations that prevent them from being damaged by equipment, sharp edges or pinch points and from creating tripping hazards.
- 3.7.7.4 Secure and effectively cover all materials on roofs or elevated levels that may be displaced by wind.
- 3.7.7.5 Restore all signs, barricades, fire extinguishers, guardrails, gates, etc. to proper locations and sound condition.
- 3.7.7.6 Properly store and secure all flammable and combustible liquids and gases.
- 3.7.7.7 Collect and place all cut-off or waste pieces of rolling stock, as they are created, into waste or scrap containers.
- 3.7.7.8 Live rounds that have been ejected from powder-actuated tools shall be immediately placed in designated containers and properly disposed of as recommended by the manufacturer.
- 3.7.7.9 All puncture and impalement exposures shall be covered or eliminated as soon as they are created. As per ANSI specification, effective covers shall be designed to prevent impalement of a 250-pound body being dropped from a fall of four feet (4’).

3.7.8 LADDERS

- 3.7.8.1 Every elevated platform (slab, deck or work surface) shall have at least two (2) remote means of access/egress when the platform is populated by more than three (3) persons. As the population rises above twenty-five (25), additional means of independent access/egress shall be required. A double-cleated ladder may only serve as one (1) independent means of access/egress.
- 3.7.8.2 At the end of each workday, ground access to elevated levels shall be eliminated. This shall be accomplished by removal and storage of all portable and job-built ladders, or installation of a lockable shield that prevents use of the lower rungs.
- 3.7.8.3 Portable aluminum ladders shall be prohibited.

- 3.7.8.4 Extension ladders, straight ladders and job-built ladders shall be secured from movement at the top and the bottom.
- 3.7.8.5 Physical barricade offsets that force at least one change in walking path direction shall be constructed within a six-foot (6') radius around the upper access points for any ladder's step off landing area.
- 3.7.8.6 All elevated landings shall include a rope hoist (manual or motorized) near the ladder's upper-most access point.
- 3.7.8.7 Manufactured portable (step and extension) ladders shall display ANSI heavy-duty rating (Class I-A) and be inspected daily for condition and set up. Legible labels must be maintained on all ladders.

3.7.9 MEDICAL ASSISTANCE AND SCREENING

- 3.7.9.1 The PSC/A shall maintain a First Aid Log for all treatment administered on the Project (including any that might later escalate). Each SSR shall report and record details daily.
- 3.7.9.2 PSC/A and SSR shall transport or accompany any injured worker for initial off-site medical treatment.
- 3.7.9.3 Drug and Alcohol Screening shall be mandatory for every supervisor and/or worker who sustains or contributes to any incident that involves injury beyond first aid or property damage. If impairment or poor judgment appears to be involved in a first aid event, PSC shall direct injured employee to be screened for probable cause.
- 3.7.9.4 Minimum requirements for chemical screening shall at least match the threshold limits for a NIDA 5-panel protocol and for alcohol screening shall at least match the Texas DOT vehicle operator's limit for blood alcohol content. Only negative results are acceptable for employment on the Project.
- 3.7.9.5 Screening shall be initiated as soon as possible, but not later than two (2) hours after the incident occurrence. Any worker's refusal to submit to screening shall be treated in the same manner as a "positive" finding. Any worker who withholds notification of an incident for longer than one (1) hour after the alleged event shall be evaluated by the PSC/A and if declared to be negligent shall be permanently removed from the Project.

3.7.10 PETROLEUM-BASED FUEL OPERATED EQUIPMENT

- 3.7.10.1 Where possible, equipment operator cabs shall be locked during non-working hours. Only equipment operators and direct supervisors shall have access to keys.
- 3.7.10.2 No combustion engine equipment shall be operated in enclosed spaces unless the exhaust is piped to outside air, and "fresh" air is brought into the space to replace the

amount being consumed. The PSC shall be responsible for monitoring air quality at the Project. This includes generators and compressors as well as mobile equipment.

- 3.7.10.3 For hose and termination fittings on air compressors, "whip checks" shall be used at all connection points. Emergency automatic shut off valves shall be installed on every discharge fitting of all air compressors that are capable of producing air pressure greater than thirty (30) pounds per square inch.

3.7.11 PUBLIC PROTECTION

- 3.7.11.1 The project boundary perimeter shall be secured from public intrusion by fencing and locked gates.
- 3.7.11.2 "Attractive nuisance" items such as tower cranes, tall ladders, fire escapes, large excavations, etc. shall require additional and separate security measures.
- 3.7.11.3 Contractor shall challenge any visitor or member of the public who attempts to enter a construction area without an authorized escort.
- 3.7.11.4 All visitors to the project must abide by all project safety requirements. Visitors must read and sign the Visitor's General Waiver and Release prior to entry to the construction area(s). (Exhibit C)
- 3.7.11.5 Contractor shall be authorized to contact campus police to remove anyone who refuses to abide by Contractor directive to leave the construction area. The ODR shall be notified immediately should this occur.

3.7.12 SANITARY FACILITIES

- 3.7.12.1 The Contractor shall provide at least one (1) toilet facility per twelve (12) workers (separate count per gender) at the Project site; and shall pump, clean and re-supply at least once per week to maintain sanitary conditions. When average temperatures during daylight hours exceed 85 degrees, pump outs shall occur at least twice per week. When female workers are present at the site, toilets designed and designated for their exclusive use shall be clearly marked. Toilets located in project management office trailers and used by office support staff shall not be considered to meet this requirement unless by written consent of the ODR.
- 3.7.12.2 On all projects that are four (4) stories in height or greater, sanitary facilities shall be furnished on ground level and every third level (maximum 45 vertical feet).
- 3.7.12.3 The use of any Owner facility is strictly prohibited unless by written consent of the ODR.

3.7.13 SCAFFOLDING

- 3.7.13.1 Each ground-supported scaffold shall bear a shift inspection tag (initialed by the competent person for each company that requires use of the scaffold) to indicate the

status of the scaffold (green tag means completely safe and red tag means specific precautions required, or not safe/do not use). For suspended scaffold, inspection tags shall also be placed on the outrigger as well as the work platform. The PSC/A shall purchase and control a universal system to be used by all employers at the Project site. Training and documentation shall be required for all workers on the Project who will climb onto any kind of scaffolding. Contractor shall furnish tags, and ensure that all applicable workers understand the procedure. This requirement shall apply to all scaffolds.

3.7.13.2 Mudsills and surrounding areas at the base of ground-supported scaffolds shall be maintained in a well-dressed and level condition. Scaffold foot plates (or casters) shall be installed on the legs of all ground level frame sections and shall be visible for inspection at all times. Diagonal braces shall be included in every scaffold section as is practically possible. Every work level shall be fully planked and kick-off protection shall be included along open sides and ends. Overhead protection shall be constructed where walk-through passages are allowed. Mudsills shall be at least 2"x12" in one-foot lengths with foot place centered and nailed in two corners.

3.7.13.3 Brakes on rolling scaffolds shall be secure at all times, except when the scaffold is being moved. Workers shall not be allowed on the platform when a scaffold is being moved.

2.

3.7.13.4 Workers in any type of arial lift including manlift or scissor lift shall be provided with a means to be secured to the lift so that movement is limited to the floor of the lift. No worker shall be allowed to stand on the toe board or rail of the lift.

3.7.14 STAIRS

3.7.14.1 Properly designed and built stair and landing units shall be placed at access doors for every Project office and storage trailer prior to use. Per ANSI requirements, the landing outside each door of any office trailer shall be no greater than one quarter inch (1/4") below the threshold and the unobstructed (standing) area outside the swing radius shall be no less than twenty-two inches (22"). Fire & Life safety code (NFPA) and ADA requirements shall also be satisfied as they apply. Ramps or connecting decks may be installed to satisfy this requirement.

3.7.14.2 For incomplete permanent stair sections, at least the bottom four (4) risers and upper entry points for each floor shall be physically blocked and marked "INCOMPLETE – DO NOT USE." Until a complete section is made acceptable for general use, the barricades and signs for that section shall be maintained.

3.7.15 PROJECT SERVICE WATER

3.7.15.1 Potable Water: Potable water shall comply with city and community health requirements.

3.7.15.2 Non-potable Water: Water storage containers, hose bibs and faucets shall be posted in English and Spanish "DANGER – DO NOT DRINK."

3.7.16 WELDING AND BURNING

- 3.7.16.1 Splices, taps, welds and/or burning operations that may produce sparks, slag or hot scraps shall require “Hot-Work” or “Burn” Permits (daily or per shift). “Burn Permit” forms shall be furnished by the Contractor and issued by the PSC. The SSR shall submit completed permit form in advance of the Work to the PSC for acceptance. One copy of the accepted permit form shall be posted by the SSR in the vicinity of the operation. At the conclusion of the work and successful completion of the smolder/re-kindle watch, a copy of the expended permit shall be signed off and returned to and filed by the PSC. If the campus Environmental Health and Safety group wishes to be involved in the process (provision of permit and/or pre-inspection of the permit space), Contractor shall accommodate these wishes, however, if campus permit exceeds more than one day, Contractor will also issue work specific permit daily. No matter who furnishes the permit form, Contractor shall ensure that all Hot Work will be provided with at least a fire watcher(s), fire extinguisher(s), and smolder watch. If the work produces intense light, permit shall also contain requirement for screens to protect others from flash burns. For open space operations that will not be moved, (on-site fabrication shops), a permit may be issued for a week.
- 3.7.16.2 Oxygen and fuel gas cylinders shall not be stored together, including on bottle carts. At the end of any cutting operation and/or any shift, bottles must be removed from carts and taken to OSHA prescribed storage arrangements. Hoses and gauges shall be removed and caps restored onto cylinders.
- 3.7.16.3 Anti-flashback arrestors shall be installed at the pressure regulator gauges of all Oxy-Acetylene cutting rigs, even if the torch is equipped with a built-in arrestor.
- 3.7.16.4 Fire watchers shall be posted at every operation that produces sparks, flames or sufficient heat to create an ignition or to fall onto another person. Watchers shall be trained in the use of extinguishers, shall keep other people from entering exposure areas, and shall not be assigned other duties until the rekindling possibility ("smolder watch") is over. When sparks, slag, or fire may fall to a different level, a separate watcher shall monitor each level directly below the work (including exterior locations).
- 3.7.16.5 Heater boxes for welding electrodes shall have a manufacturer's label that certifies the purpose of the unit. Job-built heaters shall be prohibited.
- 3.7.16.6 The unused stubs of welding electrodes (“rod butts”) shall be collected and placed in proper disposal containers (i.e. metal bucket with sand or water) as soon as each one is expended. Whenever operation is idle, electrode shall be removed from stinger.
- 3.7.16.7 Welding operations shall not be allowed to present an opportunity for flash burn exposures to the eyes of any workers in the vicinity. All welding operations shall provide appropriate screening measures, erected in advance to contain the high energy light.

3.8 REQUEST FOR SAFETY VARIANCE

If the Project conditions present a situation that will not allow compliance with any portion of this Section, the Contractor shall submit a Request for Safety Variance (EXHIBIT I) to the ODR. The Request for Safety Variance must provide sufficient detail(s) regarding the action(s) to be taken that will provide a measure of safety that is equal to or exceeds the stated requirement. Until the variance is approved and signed by the ODR, compliance with this Section is required.

EXHIBIT Attachments:

- EXHIBIT A Anticipated Construction Project Hazards – Checklist submittal
- EXHIBIT B Hot Work Burning/Welding Permit – Project file document
- EXHIBIT C Visitor’s General Waiver and Release – Contractor submittal
- EXHIBIT D Project Safety Orientation Checklist – Project file document
- EXHIBIT E Subcontractor Safety Representatives Weekly Meeting Agenda - Template
- EXHIBIT F Quarterly Equipment Inspection Report – Project file document
- EXHIBIT G Worker Guide for Reporting Injury - Handout
- EXHIBIT H Supervisor Guide for Management of Worker Injury - Handout
- EXHIBIT I Request for Safety Variance – Contractor submittal
- EXHIBIT J Root Cause Analysis
- EXHIBIT K Incident Notification Flow Chart

END OF SECTION 01 35 23

EXHIBIT A**CONTRACTOR SUBMITTAL TO OWNER – CHECKLIST****The University of Texas System – Construction Project Safety****ANTICIPATED CONSTRUCTION PROJECT HAZARDS**

CIP (Owner's Project) #		Project Name	Date
No	Yes	Issue	Timing for appearances & ID for Subcontractor JH/SA's
General Health Exposures			
		Noise, Illumination, Lasers and X-ray	
		Dusts, Mists, Vapors, Gases	
		Chemical exposures	
		Proximity to public and/or traffic	
		Existing geography/ extreme weather	
Electrical Exposures			
		Overhead power lines in area	
		High Voltage (≥ 600 volts)	
		Hot taps and/or Double fed circuits	
Excavations			
		Tunnels and/or Jack and Bore	
		Maximum estimated trench depth	
		Maximum estimated pier sizes	
		Existing underground services	
		Proximity to streets or buildings	
Elevated Fall Exposures			
		Excavations and piers	
		Structural erection (steel/precast)	
		Building exterior	
		Stairwell/ Chase/Elevator Shaft	
		Roof (note steep or low slope)	

Cranes/ Hoists/ Derricks		
		Pier Drilling/ Pile Driving
		Exterior Hoists (Elevators)
		Mobile Cranes (track and rubber tire)
		Tower Cranes
		Critical lifts
Tools and Equipment		
		Powder Actuated
		Pneumatics or High Torque power tools
		Generators and Compressors
Motor-Driven Equipment		
		Earth moving equipment
		Lift Platforms (articulating and/or scissor)
		Industrial trucks (fork lifts)
		Bulk fuel storage area
Demolition		
		Structural, Explosive or Mechanical
		Jackhammers and power cutting
Scaffolding		
		Ground supported (static and/or motorized)
		Suspended
Welding and Burning		
		Types and Locations
Confined Space		
		Permit required and/or not required

The University of Texas System – Construction Project Safety

**HOT WORK (BURNING/WELDING) PERMIT
(ONE COPY MUST BE POSTED IN THE VICINITY OF THE WORK)**

CIP Number		Request Date:	
UT Campus / Institution			
Project Name			
Requesting Company			
Responsible Supervisor			
Work Location			
General Description of Work Tasks			
Date(s) Required		to	

Permit Duration (check one): **One Week (Static Operation)** **One Shift (Transitory Operation)**

ISSUES AND/OR PREVENTION MEASURES	DESCRIPTION
Dedicated Fire Extinguisher(s)	
Special Suppression Equipment	
Fire Blankets/Equipment Shielding	
Flash Burn (Eye Safety) Screening	
Fire Watch Position(s)	
Existing Sprinklers Disabled	
OTHER CONSIDERATIONS:	

NOTES:

1. STATIC OPERATIONS (i.e. fabrication shop areas) may use a weekly permit. **All others must be daily.**
2. Unless a specific task requires a **LONGER** time period, fire watch positions must also conduct a smolder-rekindle watch for at least THIRTY (30) MINUTES after the burning/welding operation is completed.
3. If the work moves from one area to another during a single shift, the permit must accompany the move and all task areas must be identified on the permit.
4. After the work is completed, the permit must be initialed by the RESPONSIBLE SUPERVISOR (below) and a copy must then be forwarded to the Prime (Controlling) Contractor within one (1) work day.

If unexpected events during the work led to modified plan, place initials in appropriate box: NO YES
If **YES**, describe the unexpected events and the subsequent actions.



**Visitor’s General Waiver and Release
The University of Texas System (Owner)**

Project Name: _____

Project Number: _____ Location: _____

General Contractor: _____

OFPC Resident Construction Manager: _____

Project Safety Coordinator _____

On behalf of The University of Texas (Owner) and the General Contractor, we welcome you to the project. Construction projects can be dangerous and hazardous to employees and visitors alike. Upon entering the site, you must exercise extra care to adhere to safety protocols and instructions from knowledgeable construction professionals.

Initials _____ I acknowledge that I will observe and follow all safety procedures, including any warning signs or safety instructions posted on or about the premises. In addition, I acknowledge that proper safety vests, hard hats and safety glasses have been provided to me for my visit. I am wearing closed toed shoes that the Project Safety Coordinator has acknowledged will be appropriate for my visitation.

Initials _____ I hereby waive, release and hold harmless, as well as forever discharge, The University of Texas System, the General Contractor and all subcontractors, their agents and employees from all claims which I, or my heirs, executors or administrators shall or may have, because of bodily injury or death to me or damage to my property resulting from any act or omission of the Released Parties. I AM NOT AGREEING, HOWEVER, TO RELEASE THE RELEASED PARTIES FROM GROSS NEGLIGENCE.

Initials: _____ I hereby agree to indemnify, defend and hold harmless the Released Parties for any bodily injury, death or damage to other persons or property caused by my acts or omissions while visiting the project.

Initials: _____ I, the undersigned, acknowledge that I (1) have requested permission from the Owner and General Contractor to visit the Project Site; 2) have executed this Waiver and Release as a condition of and in consideration for being permitted by Owner and General Contractor to visit the project Site; and 3) agree to exercise extreme care while on the Project Site and to comply with all safety rules and requirements of the Owner and General Contractor.


Date: _____ Visitor Signature: _____

Number in Visiting Party: _____ Group Affiliation: _____

Project Safety Coordinator Signature: _____

EXHIBIT D**CONTRACTOR CHECKLIST – TRAINING DOCUMENT****The University of Texas System – Construction Project Safety****PROJECT SAFETY ORIENTATION**

Owner's Project #	Date of Safety Orientation Training:
Project Name	
Trainer's Name:	
Contractor/Employer's Company Name:	

INSTRUCTIONS: Place a  mark in the box to the right of each topic as it is discussed.

1-	Review General Purpose of Rules		7-	Daily Issues	
	a.	Do NOT work alone – stay in contact		a	Housekeeping
2-	Personal Protective Equipment (PPE)		ITEM	Slippery surfaces and Trip hazards	
	Purpose, use, storage and care of:		ITEM	Visual obstructions to emergency equipment	
	a	Safety Helmets (Hard Hats)	ITEM	Blocked Exit paths	
	b	Basic Eye Protection	ITEM	Emergency Roadways	
	c	Additional Eye/Face Protection	ITEM	Trash = Vermin/Fire hazards	
	d	Feet/Hands/Clothing Protection	ITEM	Puncture/Impalement hazards	
	e	Respiratory Protection	ITEM	Unstable Stacks of materials	
	f	Hearing Protection		b	Manual Lifting
	g	Fall Protection		c	Ladders and Stairs
	h	Special Protection issues		d	Scaffolding (frame and suspended)
3-	Hazard Communication (aka Right to Know)			e	Tools and Portable equipment
	a	General Plan		f	GFCI/Electrical power
	b	Major Chemical hazards on-site:		g	Surface and ground conditions
	NAME			h	Overhead exposures
	NAME		8-	Motorized Equipment Operations	
	NAME			a	Mobile equipment (uses and alarms)
	NAME			b	Crane and Rigging Operations
	c	Hazard Labels		c	Lift platform equipment
	d	Material Safety Data Sheet (MSDS)		d	Hoists/ Exterior Elevators
	e	Location of MSDS		e	Company/ Personal Vehicles
	f	Safe Task Training requirements	9-	Special Operations (with and w/out permit)	
4-	Emergency Equipment (location and use)			a	Excavations
	a	First Aid Station and AED		b	Concrete pour and place
	b	Fire Extinguisher		c	Steel and Precast erection
	c	Eye Wash/Shower Stations		d	Decking and roofing
5-	Emergency Procedures			e	Lock/Tag out of Energized Systems
	a	Medical/ Injury incident		f	Hot work and Burn Permits
	b	Fire incident		g	Scaffold erection/dismantle and use
	c	Weather/ Evacuate		h	Critical shutdown
	d	Violence, Protest, Spill, Explosion	10-	Miscellaneous Issues	
6-	Incident Notification/Reporting			a	Parking, Smoking, Harassment
	a	Tell Supervisor Immediately		b	Signs, Barricades, Handrails
	b	Help –OR- stay out of the way		c	Traffic, Pedestrians, Neighbors
	c	Give a statement of facts		d	Drugs and Alcohol
	d	Assist investigation		e	Meetings, Badges, Incentives
	e	Report Unsafe acts and conditions		f	Enforcement

I understand that this training is designed to help me make safe decisions and act to reduce risks.

Employee Name (print)

Employee Signature

The University of Texas System – Construction Project Safety**SAFETY REPRESENTATIVES WEEKLY MEETING AGENDA**

- Sign in and introduction of any new Subcontractor Safety Representatives
- Read minutes from last meeting and vote final adjustments before filing into record

Past (Old Business):

1. Discuss investigations (findings and conclusions) from recent past incidents.
 2. If the Project has a safety committee, have someone from the committee report the safety conditions and behaviors noted in the past week.
 3. Review safety issues/conditions identified during Project Safety Coordinator's weekly safety inspection or third party inspection.
 4. Discuss any pending claims (worker injury or general liability). Review claims handling procedures.
 5. Discuss trends identified regarding claims or safety performance.
-

Present (Current and New Business):

6. Review the activities for the week ahead. Identify particular safety concerns and issues. Develop actions to control identified hazards.
7. Review any MSDS for potential exposure warnings that pertain to upcoming operations.
8. Review specific PSMP elements and/or requirements.
9. Safety suggestions
10. Open forum for general Q and A
11. Announcements
 - Subcontracts that are concluding – need final look at their areas
 - Upcoming safety recognition events
 - Upcoming training opportunities
 - Upcoming professional safety seminars or workshops
 - Names of workers who are not permitted to return to Project
 - Time and date of next meeting
 - Next week's mandatory topic for the Weekly Tool Box talk

EXHIBIT F SUBCONTRACTOR SUBMITTAL – FILE DOCUMENT

The University of Texas System – Construction Project Safety

QUARTERLY EQUIPMENT INSPECTION REPORT

Quarterly Color Codes:		(1 st) White	(2 nd) Green	(3 rd) Red	(4 th) Orange
Project Number			Date of Report		
Project Name					
Contractor					
Employer Name					
Inspector's Name					

- INSTRUCTIONS:**
1. Use one line to identify each type of portable equipment on Project.
 2. Use a “check” mark to indicate pertinent categories for each line item.
 3. Use an “N/A” mark to indicate non-applicable categories for each line item.
 4. Use “Qty” column to indicate total number for each item inspected.
 5. Use “Comments” area to describe items removed for repair and/or discarded.
 6. Complete this process within final fourteen (14) days of each quarter.
 7. Items that enter or return to Project during quarter must first be re-inspected.

Portable Equipment Items	Qty	Inspection Categories							
		Insulation intact and cords undamaged	Clean, no electrical shorts, good polarity	Labels in place and legible	All parts present and undamaged	No excessive wear or corrosion	No deformity or sign of excessive strain	Safety feature(s) intact and working	Warning alarms operating properly

Comments:

I certify that all of the portable items on this Project at the beginning of this quarter have been inspected and certified or removed from service.

Signature of Inspector _____ Date of Report _____

Distribution: Employer's Project file

Contractor's Project file

The University of Texas System – Construction Project Safety**WORKER GUIDE FOR REPORTING INJURY**

- ❖ **WORKERS MUST IMMEDIATELY REPORT** all injuries (no matter how minor) to a supervisor.
- ❖ The supervisor will report the incident to the Contractor and take care of all paperwork.
- ❖ The Contractor will drive the injured employee to the clinic to guarantee safe transport and to secure swift and complete medical attention.
- ❖ The doctor may prescribe written “orders” for medical restrictions. The supervisor must then assign temporary duties that fit the restrictions (“Light Duty”). This guarantees the worker a full paycheck while the injury heals.
- ❖ The Contractor will drive the injured worker back to the Project and make arrangements with the employer to get the worker and personal vehicle home by a safe method.
- ❖ Injured employees must follow the doctor’s “orders” and comply with work restrictions – **at home and at work**. Employers must allow reasonable times for visits to the doctor and to therapy sessions. Normally, sessions can be scheduled during non-work hours.
- ❖ The insurance company may contact the injured employee to discover how the doctor and the employer are planning to treat the injury and the recovery. Injured workers should share any personal details that might help the agent understand the situation. If anything needs to be changed in order to help the recovery process, the agent will contact the proper people to make it happen.
- ❖ The insurance company will pay the medical bills for injuries on this Project. Workers should never pay any medical bills for an injury that is related to work. If there are any questions, talk to a supervisor and/or the Project Safety Coordinator for the Contractor.

SPECIAL WARNING TO USERS AND ABUSERS (of alcohol and other controlled substances):

No matter where a worker receives medical care, the treatment will include a drug and alcohol test. Workers who are injured as a result of impairment from alcohol or non-prescribed drugs will lose the guarantee that all medical treatment will be covered by insurance. Also, they will not be allowed to return to work on any UT System Project.

The University of Texas System – Construction Project Safety**SUPERVISOR GUIDE FOR MANAGEMENT OF WORKER INJURY**

1. Workers must **IMMEDIATELY REPORT** all injuries (no matter how minor they appear at the time of the incident) to a supervisor (foreman, general foreman, superintendent, etc.).
2. The supervisor must **IMMEDIATELY REPORT** any injury to the Contractor’s Project Superintendent or Safety Coordinator. Improper and/or late reporting of injuries will result in Owner directed recovery charges as described in the Contract.
3. The supervisor must then escort the injured employee to the Contractor’s Project office (**except when the injury requires an ambulance or emergency response**).
4. The Contractor’s Safety Coordinator shall retrieve 5 documents from the Project Safety Files as follows:
 - a. The form (Authorization for Medical Treatment) that guarantees quickest medical response at the clinic
 - b. A map that shows the best route to the clinic
 - c. A copy of the Return to Work Policy from the employer of the injured worker
 - d. A “First Report of Injury” form to furnish the insurance company with the necessary information to start a claim and pay medical bills
 - e. A “Bona Fide Offer of Employment” form to guarantee suitable employment for medically restricted workers
5. The Contractor will drive the injured employee to the clinic to guarantee safe transport and present the “Authorization to Treat” form to obtain swift response. This form will also notify the clinic that a test for drugs and alcohol is required. If the injured worker is transported elsewhere, the Contractor shall also notify the insurer. The supervisor shall also be at the clinic to respond to questions from the physician.
6. After the doctor has completed the examination and all required medical care, the Contractor and the worker shall meet with the doctor to accomplish three objectives:
 - a. Review the injury and discover the need for any additional medical assistance.
 - b. Discuss suitable Return to Work positions to accommodate any medical restrictions.
 - c. Present the worker with a “Bona Fide Offer of Employment” form to guarantee continuing employment and to guarantee work tasks that will not exceed prescribed medical restrictions.
7. The Contractor shall then drive the worker back to the Project and the supervisor shall make suitable arrangements to get the worker and personal vehicle home at the end of the day. If the doctor has written a prescription that contains orders for medical restrictions, the worker must be assigned to (“Light Duty”) tasks that meet the restrictions. This presents a “win-win” for all involved as follows:
 - a. The injured worker will continue to draw his/her full paycheck.
 - b. The employer will be able to keep its insurance rating as competitive as possible.
 - c. The insurance provider will be able to keep the costs of medical claims as low as possible.
8. The supervisor must promote three issues to quickly and completely restore health:
 - a. Maintain awareness of medical restrictions, and assign work tasks that do not violate the restrictions.
 - b. When contacted by the insurance agent, be candid and share any information that may expedite the physical recovery of the injured worker.
 - c. Allow reasonable times for physical therapy (or other medical treatment) and maintain contact with worker.
9. **Zurich** is the insurance company that will pay the medical bills. The Contractor’s Project Safety Coordinator will have the contact information to file the required insurance claim.

SPECIAL NOTE: No matter where the worker receives medical treatment, a drug and alcohol test **MUST** occur at the Project assigned clinic. Employers must not allow workers with confirmed drug or alcohol impairment to return to employment on any UT System Project unless the drug is prescribed by a physician and the work assignment can be safely performed.

The University of Texas System – Construction Project Safety

REQUEST FOR VARIANCE

Date of Request:

From: *(insert name of Contractor and name of person signing on behalf of company)*

To: Office of Facilities Planning and Construction – *(insert name of OFPC RCM)*

Project Name: _____

Project Number: _____

We respectfully request a variance from the Contract, Section # 01 35 23 (Project Safety Requirements). We understand that no alteration of safety procedures is to be allowed until formal acceptance is executed by OFPC.

We believe that the following regulation(s) is/are either not practicable or not the best practice for the Project at this time.

(Insert verbiage that describes the specified regulation.)

(Insert description of how and why the existing conditions make the existing regulation less than the safest method for accomplishing the work – convenience is not an acceptable reason.)

(Insert the proposed method in sufficient detail to allow a reader to visualize the better plan.)

Very truly yours,

Signature

Position

On behalf of the Board of Regents of The University of Texas System, Contractor’s request is:

ACCEPTED

DENIED

Print name

Signature

Request reviewed by OFPC Regional Program Manager and no objections to the request are made at this time.

Printed Name
OFPC Resident Construction Manager

Signature

Cc: OFPC Safety Analyst - Austin

**ROOT CAUSE
ANALYSIS**

Project Name: _____

Project Number: _____

Date of Incident: _____ Name of Incident: _____
(Employee injured if applicable)

Use in case of: 1) Injury, 2) Level “A” Safety Deficiency, 3) Property Damage, or 4)
Other Incidents as directed by the Owner

The objective is to identify all underlying contributing factors in order to reduce potential for recurrence of the same type of incident. To accomplish this remember:

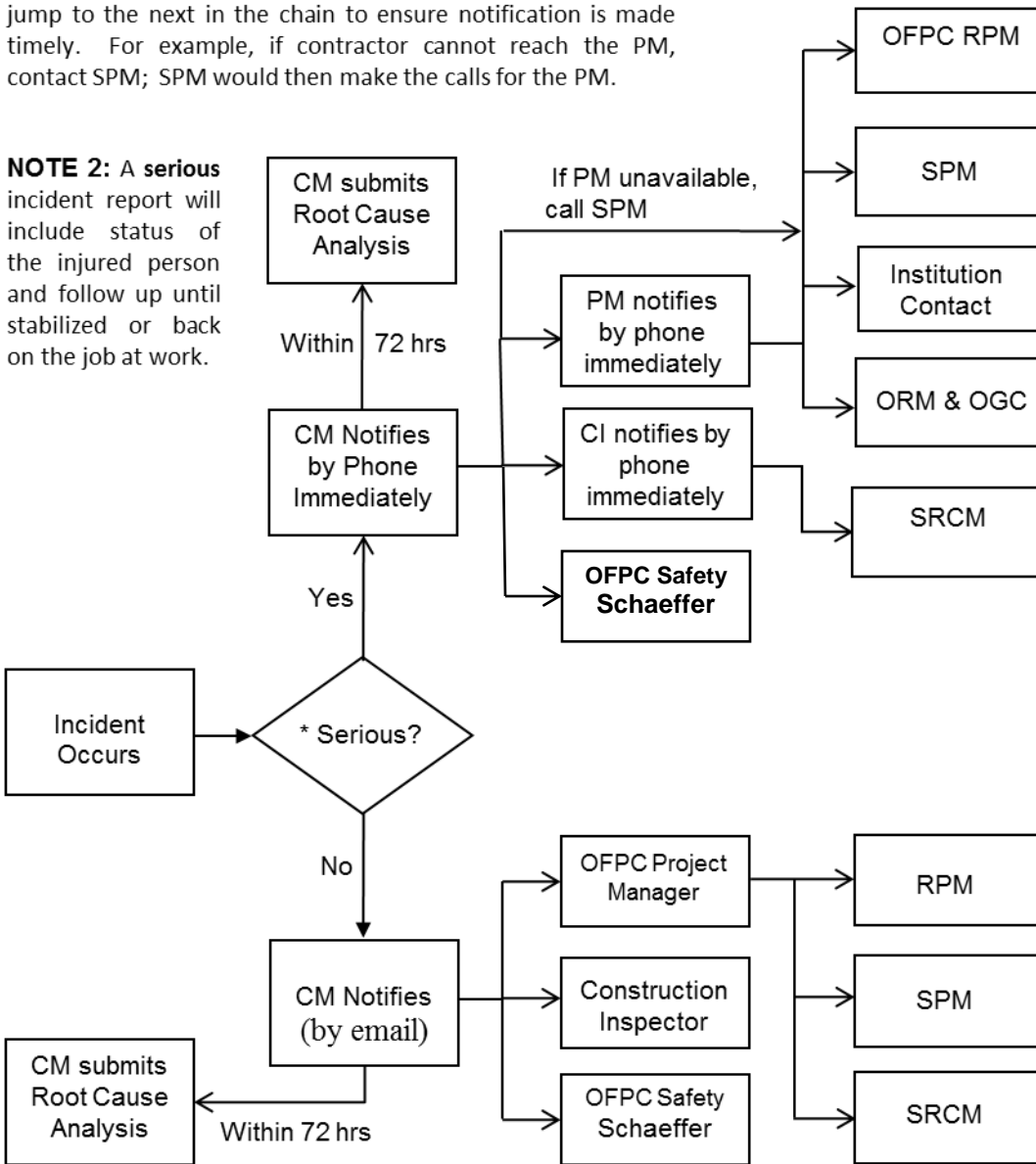
Worker’s actions made sense to that person at the time (circumstances & perceptions)
Understand the thought process behind the decisions that were made at the time
Look beyond the individuals involved to uncover systemic contributing risk factors
Break the blame cycle (culture must value honest reporting - learning organization)
Find error precursors & flawed or missing defenses or processes that led to incident

The Root Cause Analysis investigation should thoroughly address these questions:

1. Was the incident controlled and limited so that all workers and the project was made safe post - incident? What was done?
2. Explain what happened (facts and circumstances) that resulted in the incident.
3. Are there other work areas or tasks where this type of incident could occur again?
4. If worker’s actions contributed to the incident, why did the worker feel this was the best course of action at the time?
5. What processes were in place to prevent the incident? Identify processes that failed.
6. Is there any other information that should be known that is relevant to this incident?
7. What processes could have been implemented or improved that might have prevented this incident?
8. What processes will be improved or implemented to reduce risk of recurrence? When will these new processes be in place?

NOTE: if calling to report a **serious** incident and someone in the calling chain is unavailable, leave a message, but then jump to the next in the chain to ensure notification is made timely. For example, if contractor cannot reach the PM, contact SPM; SPM would then make the calls for the PM.

NOTE 2: A **serious** incident report will include status of the injured person and follow up until stabilized or back on the job at work.



*** An incident is considered serious if any of the following occur:**

- EMS/Ambulance responds
- hospitalization is involved
- Life threatening or potentially life threatening
- Involves more than one employee injured

REVISION LOG

The following is provided for convenience to the Owner, Architect/Engineer and Contractor to track changes between annual document issuances and is not to be considered by any party to be contractual or 100% complete.

Date	Paragraph Revised
02/01/08	Correct numbering in section 3.8
06/01/08	Include SafetyNet Program in section 2.4
04/01/09	Reissue date of substantially revised document. (not posted to eManual)
04/26/10	Reissue date of substantially revised document. Notable changes include: <ul style="list-style-type: none"> • increased experience level and qualifications of the Project Safety Coordinator (PSC) and Project Safety Assistant(s) (PSA) • modified the number of PSAs required on a Project and their start and conclusion of service days • increased credit for formal education, continuing education, and certification for PSCs and PSAs • modified OSHA 10/30 hour training requirements • modified hard hat sticker process for equipment operators • modified safety vest requirement • modified height requirement for ladder use without fall protection • removed other exemptions for fall protection • added visitor waiver and release requirement and document • other cosmetic changes with no impact to content or intent of specifications.
3/24/11	Inclusion of criminal background check requirement and associated forms
5/17/11	Removal of criminal background check requirement and associated forms
9/1/12	Clarifications to align with SafetyNet data gathering and Exhibit title revisions

SECTION 01 45 00 - PROJECT QUALITY CONTROL

PART 1 - GENERAL

1.1. RELATED DOCUMENTS

- 1.1.1. Drawings and general provisions of the Contract, including Uniform General and Supplementary General Conditions for University of Texas System Building Construction Contracts (UGC) and other Division 1 – Division 33 Specification Sections, apply to this Section. In the event of conflict between specific requirements of the various documents, the more restrictive, more extensive (i.e., more expensive) requirement shall govern.

1.2. DEFINITIONS

1.2.1. QUALITY CONTROL

- 1.2.1.1. Quality Control shall be the sole responsibility of the Contractor, unless specifically noted otherwise. The Contractor shall be responsible for all testing, coordination, start-up, operational checkout and commissioning of all items of work included in the project, unless specifically noted otherwise. All costs for these services shall be included in the Contractor's cost of work and general conditions.
- 1.2.1.2. The Contractor shall assign one employee, not the project superintendent, to be responsible for Quality Control. This individual can have other responsibilities, but shall not be the project superintendent or the project manager.

1.2.2. QUALITY ASSURANCE

- 1.2.2.1. Quality Assurance is performed by the Owner or their delegated representatives. These procedures may include observations, inspections, testing, verification, monitoring and any other procedures deemed necessary to ensure compliance with the contract documents.
- 1.2.2.2. The Contractor shall cooperate with and provide assistance to the Owner for all aspects of this endeavor. This shall include providing ladders, lifts, scaffolds, lighting, protection, safety equipment and any other devices and/or equipment (including operators if required) deemed necessary by the Owner to access the work for observation/inspection.

1.3. SUMMARY

- 1.3.1. This section provides administrative and procedural requirements for Contractor quality control on the project.
- 1.3.2. Specific quality-control requirements for individual construction activities are specified in the Sections that govern those activities. Requirements in those Sections may also cover production of manufactured products.

- 1.3.3. Specified tests, inspections, and related actions do not limit Contractor's quality control obligations to comply fully with the Contract Document requirements in all regards.
- 1.3.4. Provisions of this Section do not limit the requirements for the Contractor to provide quality control services required by the contract documents or the Authority Having Jurisdiction.
- 1.3.5. The following quality issues are addressed in detail in this Section:
 - 1.3.5.1. Quality Control
 - 1.3.5.2. Quality Assurance
 - 1.3.5.3. Testing Agency
 - 1.3.5.4. Testing
 - 1.3.5.5. Inspections
 - 1.3.5.6. Pre-installation Meetings
 - 1.3.5.7. Mock-ups

1.4. TESTING AGENCY

- 1.4.1. Testing Agency Qualifications: An agency with the experience and capability to conduct testing and inspecting indicated, as documented by ASTM E 548, and that specializes in types of tests and inspections to be performed.
- 1.4.2. Owner will employ services of independent testing agencies to perform certain specified testing, as it deems necessary.
- 1.4.3. The Contractor shall employ and pay for services of an independent testing agency to perform all specified testing requiring an independent agency, unless noted otherwise.
- 1.4.4. Employment of agency in no way relieves the Contractor of the obligation to perform Work in accordance with requirements of Contract Documents.
- 1.4.5. The Contractor Employed Agency:
 - 1.4.5.1. Testing agency shall comply with requirements of ASTM E 329, ASTM E 548, ASTM E 543, ASTM C 1021, ASTM C 1077, and ASTM C 1093.
 - 1.4.5.2. Laboratory shall maintain a full time Engineer on staff to review services. Engineer shall be licensed in the state of Texas.
 - 1.4.5.3. Testing Equipment: Calibrate devices at reasonable intervals (minimum yearly) with accuracy traceable to either National Bureau of Standards or accepted values of natural physical constants.

- 1.4.6. The Contractor shall not employ the same testing entity engaged by the Owner for the project, unless agreed to in writing by the Owner.

1.5. TESTING

- 1.5.1. Where specific testing is specified in a technical section of the Specifications or indicated in the Contract Documents, the Contractor shall bear all costs of such tests unless they are specifically stated to be paid by the Owner.
- 1.5.2. Testing specifically identified to be conducted by Owner will be performed by an independent entity and will be arranged and paid for by the Owner unless otherwise indicated in the Contract Documents. Should the test return unacceptable results, the Contractor shall bear all costs of retesting and reinspection as well as the cost of all material consumed by testing, and replacement of unsatisfactory material and/or workmanship.
- 1.5.3. The Owner's Construction Inspector (CI) will schedule the Owner's testing services unless otherwise directed in writing by the Owner. The Contractor is required to coordinate with the CI to facilitate timeliness of such testing services.
- 1.5.4. The Owner may engage additional consultants for testing, air balancing, or other special services. The activities of any such Owner consultants are in addition to Contractor testing of materials or systems necessary to prove that performance is in compliance with requirements. The Contractor must cooperate with persons and firms engaged in these activities in accordance with the Contract.
 - 1.5.4.1. The Contractor is required to self-perform various tests to verify performance and/or operation of various systems. These test reports shall be consecutively numbered and defined by scope and extent of test. Copies of the test report forms can be obtained from the RCM. The following OFPC test report forms shall be used for this purpose and shall not be altered in any manner:
 - 1.5.4.1.1. Pipe Test Report
 - 1.5.4.1.2. Duct Test Report
 - 1.5.4.1.3. Equipment Start-up Request Form
 - 1.5.4.1.4. Contractor's Request for Utility Shutdown
 - 1.5.4.1.5. Domestic Water Sterilization and Flushing Report

1.6. INSPECTIONS

- 1.6.1. It is the intent of the Contract Documents that all work be subjected to inspection and verification of correct operation prior to 100% payment of the line item(s) pertaining to that aspect of the Work.
- 1.6.2. The Contractor shall incorporate adequate time for performance of all inspections and correction of noted deficiencies into the Work Progress Schedule for the project.

1.6.3. During the course of construction, the Owner, Architect and/or other Owner representatives may visit the site for observation of the work in place. The Contractor shall provide all necessary equipment for safe access to the work to be inspected or observed. This requirement shall extend to all Owner personnel and their representatives. Some of these inspections will be informal and some will require formal notification by the Contractor. The following are typical project inspections:

1.6.3.1. Informal Daily Reviews of project conditions by the Construction Inspector and/or members of the Owner's and/or Design Consultant's team(s). When considered appropriate, results of these reviews will be documented via Observation Report or Memorandum. In addition to cooperating with, and providing safe access for the Owner's agents, the Contractor shall provide a system of tracking all field reports, describing items noted and resolution of each item. This printed report shall be reviewed as necessary, at least on a monthly basis.

1.6.3.2. Concealed Space Inspections are to be formally scheduled in advance through the Construction Inspector by submitting written notification at least five (5) workdays in advance. Subject areas include partitions, structural walls, chases, crawl spaces, ceiling spaces, and any other work which will be difficult or impossible to examine once concealed in the final construction.

1.6.3.3. Progress Inspections for piping, ductwork, and other systems are to be scheduled with the Construction Inspector as appropriate portions, or sections, of the work are completed. This is in addition to "system-wide" performance verification and tests. These tests are to be scheduled and documented using the standard OFPC Pipe Test and Duct Test report forms. The forms shall be filled out and signed as meeting contract requirements prior to submission for verification by the OFPC CI. The Contractor shall conduct the tests and the OFPC CI will witness and approve the results.

1.6.3.3.1. The Contractor shall coordinate their intended "apportioning" of systems tests with the Construction Inspector immediately following formal submission of their Work Project Schedule so that all parties are aware of the intended work and inspection sequence.

1.6.3.4. Overhead and Above Ceiling Inspections are similar in nature and requirements to the Concealed Space Inspections. Where ceilings are to be fixed in place, such as gypsum board or plaster, it would constitute a Concealed Space. Where ceilings are of "lay-in" type, or where no finish ceiling is scheduled, it would be considered an "overhead" inspection. Such inspections are to be included in the Contractor's Detailed Construction Schedule. Contractor shall provide written inspection request notice to the CI and Architect at least five (5) workdays in advance.

1.6.3.4.1. No finish ceiling material shall be installed until all overhead punchlist items have been resolved to the satisfaction of the Owner.

1.6.3.4.2. Work in place necessary for an overhead inspection shall include:

- 1.6.3.4.2.1. Ceiling grid or framework installed
 - 1.6.3.4.2.2. All above ceiling electrical work, including light fixtures, installed and operational
 - 1.6.3.4.2.3. All HVAC and plumbing work above ceiling complete with diffusers installed and connected
 - 1.6.3.4.2.4. Fire sprinkler heads installed
 - 1.6.3.4.2.5. All required tests for above ceiling work completed and approved
 - 1.6.3.4.2.6. Contractor generated punchlist of all areas being requested for inspection
- 1.6.3.5. Inspections of Building Systems and Equipment are required to confirm acceptable operation and are to be formally scheduled through the Construction Inspector with the Architect. Refer to Section 01 91 00 for additional requirements pertaining to system start-up, operation, demonstration and acceptance.
- 1.6.4. On systems/equipment requiring a manufacturer's representative to verify installation/operation, the Contractor is required to perform a thorough check-out of operations with the manufacturer's representatives prior to requesting formal inspection by the Owner be scheduled. Notify the CI, in advance, as to when the manufacturer's representative is scheduled to arrive.
- 1.6.5. Inspection of individual equipment and/or system(s) must be accomplished prior to requesting Substantial Completion Inspection for any area affected by that equipment and/or system.
- 1.6.6. For "building-wide" and/or life safety systems, such as fire alarm, fire sprinkler systems, smoke evacuation systems, toxic gas monitoring, captured exhaust systems, etc., completion and acceptance of Functional Testing is required prior to requesting Substantial Completion Inspection for any area of the Project.
- 1.6.6.1. The manufacturer's representatives and the installing contractor will be expected to demonstrate both operation and compliance to the Owner's agents and consultants. If coordinated and scheduled appropriately by the Contractor, these equipment and/or systems inspections may also serve to provide the required Owner Training, if approved in advance by the Owner.
 - 1.6.6.2. The Contractor is responsible for requesting that the Construction Inspector and Architect arrange for the inspection of materials, equipment and work prior to assembly or enclosure that would make the materials, equipment or work inaccessible for inspection, and at such other times as may be required.
- 1.6.7. For any requested inspection, the Contractor shall make prior inspection to ensure that items are ready for inspection and acceptance by the Owner and/or Architect.

The Contractor will be responsible for any and all costs incurred by Owner and/or Owner representatives, including consultants, resulting from a review or inspection that was scheduled prematurely.

1.6.8. The Contractor shall coordinate the work and schedule the inspections in advance so as not to delay the work. All major inspections should be indicated on the Work Progress Schedule for advance planning and the Contractor should allow a minimum of five (5) working days to confirm schedule of requested inspections with Owner and its consultants.

1.6.9. The contractor shall list and track all punchlist items on the OFPC Project Inspection Matrix (refer to Attachment A). The matrix shall be kept up-to-date reflecting status of work in place and inspections on the project. Copies of this populated and updated matrix shall be supplied to the A/E and the OFPC CI for use during the course of the project.

1.7. PRE-INSTALLATION MEETINGS

1.7.1. The Contractor shall coordinate and conduct meetings to review the installation of major systems/equipment on the project.

1.7.2. The Contractor shall ensure attendance of the installing subcontractor, manufacturer and/or supplier (if appropriate), supporting subcontractors involved in the installation and any other parties involved in the phase of work to be reviewed. The Owner and Architect shall be notified in writing at least five (5) days in advance of the meeting.

1.7.3. Each party shall be prepared to discuss in detail the staging, installation procedure, quality control, testing/inspection, safety and any other pertinent items relating to the work being reviewed. Submittal approval shall be a prerequisite of the meeting.

1.7.4. The Contractor shall chair and take minutes of this meeting and distribute to all attending parties.

1.7.5. Whether required in the technical section or not, a pre-installation meeting shall be conducted for the following work, if included in the project:

1.7.5.1. Concrete

1.7.5.2. Masonry

1.7.5.3. Large Steel Fabrications/Erection

1.7.5.4. Waterproofing

1.7.5.5. Roofing

1.7.5.6. Exterior Glazing (including storefront and curtain wall)

1.7.5.7. Door Hardware

- 1.7.5.8. Security
- 1.7.5.9. Audio/Visual Equipment
- 1.7.5.10. Air Handling Units
- 1.7.5.11. Medical Gas Systems

1.8. MOCK-UPS

- 1.8.1. Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required, using materials indicated for the completed Work.
- 1.8.2. Build mockups in location and of size indicated or, if not indicated, as directed by Architect. The mock-up may be work in place that is intended to remain, unless otherwise directed by the Owner.
- 1.8.3. Notify Architect and Owner five (5) working days in advance of dates and times when mockups will be constructed.
- 1.8.4. Demonstrate the proposed range of aesthetic effects and workmanship. Include anticipated repairs in mockup, such as stone veneer.
- 1.8.5. Obtain Architect's and Owner's approval of mockups before starting work, fabrication, or construction.
- 1.8.6. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
- 1.8.7. Demolish and remove mockups when directed, unless otherwise indicated.
- 1.8.8. For any of the following work items included in the project, a mockup shall be prepared whether required by the technical section or not:
 - 1.8.8.1. Exterior wall system to include: substructure, masonry/stone veneer, plaster, architectural concrete and windows.
 - 1.8.8.2. Roof system
 - 1.8.8.3. Interior lab room
 - 1.8.8.4. Interior patient care room
 - 1.8.8.5. Interior wall finishes
 - 1.8.8.6. Ceramic tile
 - 1.8.8.7. Finished flooring

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 45 00

ATTACHMENT A – OFPC PROJECT INSPECTION MATRIX



OFPC PROJECT INSPECTION MATRIX

Office of Facilities Planning & Construction

Project Number:

Project Name:

OFPC Construction Inspector:

Contractor Inspector:

PROJECT AREA & SYSTEM INSPECTION LIST							
Item #	Inspection Type	Location	Date Initiated	Date of Follow Up Inspection	Date of Final Sign-Off	OFPC Final Sign-Off	Comments
1	Above Ceiling	Corridors East of Interaction 6/3005	06/28/05	07/13/05	07/28/05	Jane Smith	
2	Hydronic Hot Water	Mech. Space	06/28/05	07/13/05	07/28/05	Jane Smith	
3	Pre-Final all AHU	Mech. Space	06/29/05	07/14/05	07/29/05	Jane Smith	
4	Chilled water	Mech. Space	06/30/05	07/15/05	07/30/05	Jane Smith	
5	Exhaust Fans	Mech. Roof	07/07/05	07/22/05	08/06/05	Jane Smith	
6	Pre-Final Electric System	Various	07/09/05	07/24/05	08/08/05	Jane Smith	
7	R.O. Water System	Mech. Room	07/12/05	07/27/05	08/11/05	Jane Smith	
8	Roof	Roof/system	07/21/05	08/05/05	08/20/05	Jane Smith	
9	Exterior Bldg	All	07/25/05	08/09/05	08/24/05	Jane Smith	
10	Hardscape	All	07/29/05	08/13/05	08/28/05	Jane Smith	
11	Substantial Completion	All	08/04/05	08/19/05	09/03/05	Jane Smith	
12	Point to Point	All	08/16/05	08/31/05	09/15/05	Jane Smith	

INDIVIDUAL INSPECTION ITEM LIST									
Item #	Level	Room	Item Description	Date Inspected	Responsible Sub	Contractor Sign-Off	OFPC Final Sign-Off	Comments	
1	1	1.304B.5	Cut drops on fire sprinkler.	05/11/05	Simplex	John Doe	Jane Smith		
2	1	1.304B.5	Adjust hangers on fire sprinkler pipe to meet spec.	05/11/05	Simplex	John Doe	Jane Smith		
3	1	1.304B.4	Support wires for ceiling need to be moved where touching other work.	05/11/05	MBS	John Doe	Jane Smith		
5	1	1.304B.4	Complete installation of conduit and boxes for electrical.	05/11/05	Design	John Doe	Jane Smith		
6	1	1.304B.4	Complete installation of conduit and boxes for controls.	05/11/05	Siemens	John Doe	Jane Smith		
7	1	1.304B.4	Cut drops on fire sprinkler.	05/11/05	Simplex	John Doe	Jane Smith		
8	1	1.304B.4	Adjust hangers on fire sprinkler pipe to meet spec.	05/11/05	Simplex	John Doe	Jane Smith		
9	1	1.304B.4	Support cables for remote damper adjustment.	05/11/05	Todd-Ford	John Doe	Jane Smith		
10	1	1.304B.5	Plug ball valve above ceiling.	05/11/05	Simplex	John Doe	Jane Smith		
11	1	1.304B	Support wires for ceiling need to be moved where touching other work.	05/11/05	MBS	John Doe	Jane Smith		
12	1	1.304B	Seal all holes in mazz. Floor.	05/11/05	Todd-Ford	John Doe	Jane Smith		
13	1	1.304B	Complete installation of conduit and boxes for electrical.	05/11/05	Design	John Doe	Jane Smith		
14	1	1.304B	Complete installation of conduit and boxes for controls.	05/11/05	Siemens	John Doe	Jane Smith		
15	1	1.304B	Cut off all-thread on hangers to one inch.	05/11/05	Various	John Doe	Jane Smith		
16	1	1.304B	Cut drops on fire sprinkler.	05/11/05	Simplex	John Doe	Jane Smith		
17	1	1.304B	Adjust all-thread on hangers to prevent touching other work or isolate	05/11/05	Various	John Doe	Jane Smith		
18	1	1.304B.2	Remove unused all-thread above East wall.	05/11/05	Todd-Ford	John Doe	Jane Smith		
19	1	1.304B.2	Remove or re-attach metal stud corner brace.	05/11/05	MBS	John Doe	Jane Smith		
20	1	1.304B.2	Cut drops on fire sprinkler.	05/11/05	Simplex	John Doe	Jane Smith		
21	1	1.304B.1	Cut drops on fire sprinkler.	05/11/05	Simplex	John Doe	Jane Smith		
22	1	1.304B.1	Adjust all-thread on hangers to prevent touching other work or isolate	05/11/05	Todd-Ford	John Doe	Jane Smith		
23	1	1.304A	Complete shower chase and ceiling framing.	05/11/05	MBS	John Doe	Jane Smith		
24	1	1.304A	Complete installation of conduit and boxes for electrical.	05/11/05	Design	John Doe	Jane Smith		
25	1	1.304A	Complete installation of conduit and boxes for controls.	05/11/05	Siemens	John Doe	Jane Smith		
26	1	1.304A	Cut drops on fire sprinkler.	05/11/05	Simplex	John Doe	Jane Smith		
27	1	1.304A	Cut off all-thread on hangers to one inch.	05/11/05	Various	John Doe	Jane Smith		
28	1	1.304A	Remove or re-connect loose all thread.	05/11/05	Simplex	John Doe	Jane Smith		
29	1	1.304A	Label copper lines.	05/11/05	Todd-Ford	John Doe	Jane Smith		
30	1	1.304A	Cut off all-thread on hangers to one inch.	05/11/05	Various	John Doe	Jane Smith		

REVISION LOG

The following is provided for convenience to the Owner, Architect/Engineer and Contractor to track changes between annual document issuances and is not to be considered by any party to be contractual or 100% complete.

Date	Paragraph Revised
02/01/08	Added section 1.6.9 - The contractor shall list and track all punchlist items on the OFPC Project Inspection Matrix...
02/01/08	Added Attachment A

[EDITOR'S NOTE: THE FOLLOWING SPECIAL CONDITIONS ARE STANDARD FOR TYPICAL OFPC PROJECTS. THE OFPC PROJECT MANAGER MUST EDIT ITEMS IN BOLD ITALICS (PREFERABLY PRIOR TO ISSUANCE OF AN RFQ FOR CM / DB) IN THIS SECTION WITH THE PROJECT A/E TO MEET THE SPECIAL NEEDS OF THE PROJECT. DO NOT ADD ANYTHING THAT IS ALREADY IN THE UGC OR ANY OTHER OWNER FRONT END SPECIFICATION]

OWNER'S SPECIAL CONDITIONS

PART 1 - GENERAL

1.1 PURPOSE

- 1.1.1 These Special Conditions are in addition to the requirements of the Uniform General and Supplementary General Conditions for University of Texas System Building Construction Contracts (UGC), and are a part of the Contract Documents.
- 1.1.2 Terms and conditions set forth in this document are for the Contractor only, and are valid regardless of the project delivery method. For Construction Manager at Risk or Design-Build, the final version of the document shall be confirmed by the Owner, and included by the Construction Manager or Design-Build Contractor in the Guaranteed Maximum Price Proposal.

1.2 SEPARATE CONTRACT

- 1.2.1 As provided in the UGC, the Owner may award other contracts for other portions of the Project. Additional separate contracts may include, but are not limited to, commissioning, geotechnical, surveying services and ***[INSERT WORK DESCRIPTION]***.

1.3 PREVAILING WAGE RATE DETERMINATION

- 1.3.1 In accordance with the UGC, the attached schedule identifies the Prevailing Minimum Wage Rate determination for ***[INSERT COUNTY]***. Refer to "Attachment A."
- 1.3.2 The Owner may verify wage rate compliance in the field by interviewing workers. The Contractor shall assist the Construction Inspector (CI) with this task, including providing translation for non-English speaking workers.

1.4 RELATED DOCUMENTS

In addition to specific references indicated herein, the Contractor's attention is specifically directed, but not limited, to the following Sections and Documents, which include additional administrative requirements.

- 1.4.1 Provisions established within the Uniform General and Supplementary General Conditions for University of Texas System Building Construction Contracts (UGC), all Sections of Division 1 - General Requirements, other applicable Sections of all Divisions of Specifications, and the Drawings are collectively applicable to this Section. In the event of conflict between specific requirements of the various documents, the more restrictive, the more extensive (i.e., the more expensive) requirement shall govern.
 - 1.4.1.1 Effective February 1, 2008, all references within the UGC to the Texas Workers Compensation Commission shall be revised to the Texas Department of Insurance, including all subsequent acronyms.
- 1.4.2 "Attachment A" (to Owner's Special Conditions): Prevailing Minimum Wage Rate Determination.
- 1.4.3 "Attachment B" (to Owner's Special Conditions): Project Sign.

1.4.4 "Attachment C" (to Owner's Special Conditions): Weather Data.

PART 2 – PRODUCTS

2.1 OWNER'S SPECIAL CASH ALLOWANCES *[EDITOR'S NOTE: CSP ONLY - EDIT AS NECESSARY. INSERT OTHER SPECIAL CASH ALLOWANCES AS DETERMINED BY THE OFPC PROJECT MANAGER AND PROJECT A/E]*

2.1.1 A total Owner's Special Cash Allowance of \$*[INSERT AMOUNT]* shall be included in the Contractor's base proposal amount, to cover expenses identified below. The Contractor shall confirm the costs and inform the Owner at least 30 calendar days prior to purchase or payment. The Contractor shall be reimbursed through a reduction in the scheduled Owner's Special Cash Allowance amount below in accordance with the UGC.

2.1.1.1 The Owner is exempt from paying for permits and fees to local government entities related to work on the Owner's property. There shall be no building permit required, no platting fees, and no local government inspection fees for permanent work on the Owner's property. The Owner is not exempt from permits and fee requirements for work in public rights-of-way or outside the boundaries of the Owner's property.

2.1.1.1.1 For permanent improvements or utility service when permits, governmental or utility company inspections or related fees are required, it is anticipated that such a fee shall be necessary for *[INSERT WORK DESCRIPTION]* and \$*[INSERT AMOUNT]*.

[EDITOR'S NOTE: THE PROJECT MANAGER SHALL EDIT THE FOLLOWING ARTICLES AS NECESSARY]

[FOR ALL REPAIR & RENOVATION PROJECTS, SIGNIFICANT ADDITIONS, OR PROJECTS THAT INVOLVE PORTIONS OF WORK CONTAINED WITHIN, TYING INTO, OR TUNNELING UNDER AN EXISTING STRUCTURE, OR CONNECT TO AN ADJACENT, EXISTING STRUCTURE, THE FIRST SECTION SHALL BE INCLUDED TO REPLACE THE STRUCTURE(S) TO COVER COSTS ASSOCIATED WITH A CATASTROPHIC LOSS. REFER TO THE INSURANCE SECTION OF THE UGC FOR ADDITIONAL INFORMATION. THE ESTIMATED REPLACEMENT VALUE AMOUNT MAY BE OBTAINED BY CONTACTING UT SYSTEM OFFICE OF RISK MANAGEMENT AT (512) 499-4401.

[FOR PROJECTS WHERE THE USERS / OCCUPANTS ARE EXPOSED TO SIGNIFICANT RISK IF THE PROJECT COMPLETION DATE IS DELAYED, THE SECOND SECTION SHOULD BE INCLUDED AS DETERMINED BY THE INSTITUTION TO COVER COSTS ABOVE AND BEYOND THE STANDARD BUILDERS RISK POLICY.

[FOR PROJECTS WHERE THE INSTITUTION MAY BE PROVIDING EQUIPMENT OR MATERIALS FOR INCORPORATION INTO THE PROJECT, THE SECTION ON BUILDER'S RISK LIMITS SHOULD BE COMPLETED BELOW IN SECTION 2.2.4.

[ALL SECTIONS SHALL BE FINALIZED PRIOR TO ISSUANCE TO THE CONTRACTOR OR EXECUTION OF A GMP.]

Deleted: BOTH

2.2 BUILDERS RISK ENDORSEMENTS

2.2.1 FOR COVERAGE OF EXISTING BUILDING STRUCTURES: Contractor shall include an endorsement on the Builders Risk Insurance policy to provide coverage for the existing building structure(s), including its/their contents, as described below. Coverage shall be in the amount equal to either \$5 million or the estimated replacement value of the existing building structure and its contents, whichever is less. The purpose of this coverage is to fund the \$5 million deductible under the Owner's existing property insurance policy which addresses the risk and possible cost of claims to repair damage to existing structure(s) (this purpose should be explained to the Builders Risk Insurance carrier when

Deleted: 7/18/113/1/10

requesting the quote). The existing building structure(s) to be covered is the [INSERT BUILDING NAME] building, and its estimated building replacement value is \$X,XXX,XXX. Its estimated contents value is \$X,XXX,XXX.

2.2.2 SOFT COSTS, LOSS OF RENTS, GROSS EARNINGS: Contractor shall provide an alternate price to include an endorsement on the Builders Risk Insurance policy to provide the following additional coverage:

[ENTER THE FIGURES AND COVERAGE DESCRIPTIONS FROM THE "BUILDERS RISK ADDITIONAL COVERAGE WORKSHEET" COMPLETED BY THE INSTITUTION'S BUSINESS OFFICE.]

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CONSULT WITH THE OFFICE OF RISK MANAGEMENT FOR ANY UNUSUAL CONDITIONS.

THE WORKSHEET IS INCLUDED AT THE END OF THIS SECTION AS "ATTACHMENT D"

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2.2.2.1 Period of Indemnity [ENTER 365 DAYS OR TIME PERIOD ON THE WORKSHEET]

[EDITOR'S NOTE: APPLIES TO PROJECTS LESS THAN \$20 MILLION. DELETE IF PROJECT IS GREATER THAN OR EQUAL TO \$20 MILLION]

2.2.2.2 Maximum Deductible: 14 Calendar Days

[EDITOR'S NOTE: APPLIES TO PROJECTS GREATER THAN \$20 MILLION. DELETE IF PROJECT IS LESS THAN \$20 MILLION]

2.2.2.3 Maximum Deductible: 30 Calendar Days

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2.2.3 UMBRELLA LIABILITY LIMITS:

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For Non-ROCIP Projects, Limits as follows:

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No Umbrella Required

If Contract Sum is greater than \$1,000,000 up to \$3,000,000:

\$1,000,000 each occurrence and \$2,000,000 annual aggregate

If Contract Sum is greater than \$3,000,000 up to \$5,000,000:

\$5,000,000 each occurrence and \$5,000,000 annual aggregate

If Contract Sum is greater than \$5,000,000:

\$10,000,000 each occurrence and \$10,000,000 annual aggregate

2.2.4 BUILDERS RISK LIMITS

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For purpose of purchasing builders risk insurance on the entire Work, the cost of materials supplied or installed by others is currently estimated to be \$XXXXXX. [INSERT THE ESTIMATED VALUE OF THE INSTITUTION MANAGED WORK.]

2.3 ANIMALS AND LIVESTOCK

2.3.1 Animals including, but not limited to, personal pets and livestock, are prohibited from the Project site, except assistance animals as defined by the Americans with Disabilities Act 28 CFR § 36.104 and Texas Human Resources Code, Title 8, Chapter 121.

2.3.2 Modifications and adjustments to the work environment will be considered by the Owner for contracted work force that require or utilize animal assistance to address limitations associated with a recognized disability. The Contractor shall submit the written request to the Owner's Designated Representative (ODR) and shall demonstrate appropriate monitoring measures for control in the Project Safety Plan.

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2.4 TEMPORARY FIELD OFFICE STRUCTURES, FURNISHINGS, AND EQUIPMENT

2.4.1 Unless otherwise agreed to by the Owner, temporary field office(s) shall be provided and maintained for the duration of the construction phase (from Notice to Proceed until at least Substantial Completion) and removed only after concurrence from the Owner's Designated Representative.

2.4.2 Temporary field office(s) shall have adequate and safe entry, including steps with railings and landings or stoops as appropriate, and shall provide hard, non-slip surface walkways to connect the field office structures to one another and to site entry or exit.

2.4.3 The Contractor shall provide field office(s) and storage sheds/trailers/accommodations as necessary for the major subcontractors to adequately perform their respective work.

2.4.3.1 All storage sheds/trailers shall be secure and weather tight for the storage of tools and all materials, which may be damaged by the weather. All storage sheds floors shall be raised at least 6 inches above grade.

2.4.4 Contractor's Temporary Field Office:

2.4.4.1 The Contractor shall coordinate and direct the work of the Project from the Project site.

2.4.4.2 The Contractor shall provide and maintain at least one temporary field office that is adequately staffed, furnished, and equipped.

2.4.4.3 Conference areas shall include at least one primary area suitable for up to 15 persons to participate in Project progress and coordination meetings. The walls of this conference area are to serve as display surfaces for maintaining current project photos, color boards, prints of project schedules, work placement plans, etc.

2.4.5 Owner's Temporary Field Office(s)

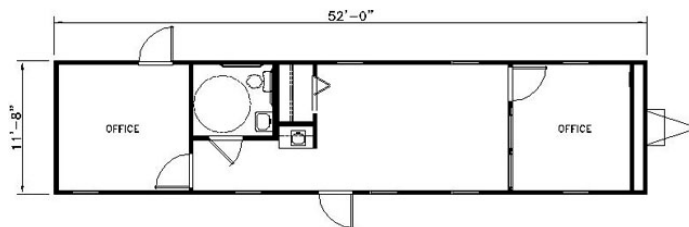
[EDITOR'S NOTE: DEPENDING UPON PROJECT SIZE, THE PROJECT MANAGER SHALL CUSTOMIZE THE FOLLOWING SECTION TO MATCH THE EXACT PROJECT REQUIREMENTS, INCLUDING NUMBER AND SIZE OF TRAILERS, SIZE OF ROOMS, AND OTHER REQUIRED AMENITIES.]

2.4.5.1 The Contractor shall provide and maintain **[INSERT #]** new, secure, weather tight, well-lit, air-conditioned, and heated Owner's temporary field office(s) as approved by the

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Owner's Designated Representative (ODR) for the duration of the project from the Notice to Proceed for Construction to at least Substantial Completion. The temporary field office shall be removed only after concurrence from the ODR.

- 2.4.5.1.1 The office(s) shall include provisions for telephones, facsimile machines, Internet connection services, conference area(s), functioning toilet facilities, and maintenance of all Project files.
- 2.4.5.2 The Owner's temporary field office shall measure a minimum of 11 feet 8 inches wide and 52 feet long, partitioned to provide for three separate work areas including two entry doors with keyed locks, a storage closet, a TAS accessible restroom and a "kitchen counter" (at least a 3'-0" in length with sink).



- 2.4.5.3 The Contractor shall furnish the Owner's temporary field office with the following new furniture and equipment on behalf of the Owner:
 - 2.4.5.3.1 One 42 inches x 72 inches layout table
 - 2.4.5.3.2 One conference table, including at least 15 chairs
 - 2.4.5.3.3 One plan storage area capable of holding 30 sets of full size drawings
 - 2.4.5.3.4 Three five-high vertical or lateral legal size filing cabinets
 - 2.4.5.3.5 One 36 inches x 72 inches double pedestal desk with an ergonomic chair with casters for each office
 - 2.4.5.3.6 One 36 inches wide x 28 inches high bookcase with adjustable shelf for each office
 - 2.4.5.3.7 One two-drawer file cabinet for each office
- 2.4.5.4 The Contractor shall provide Internet connectivity at a minimum of 1.5 megabits per second (Mbps) for offices of 1-9 OFPC employees (3.0 Mbps for offices of 10-19 OFPC employees, and so forth). The prescribed minimum connection speed applies to both upstream and downstream directions, and must not be shared with other entities (e.g., contractor computers) or devices such as telephones (including OFPC telephones). Where such sharing is necessary, additional bandwidth must be provided so that the prescribed minimums for OFPC employee computers are met. Connectivity must be provided in the form of a 10/100-base-T Ethernet handoff. For offices of at least 5 OFPC employees a single static IP from the ISP is required, which will be used with a UT System-provided router and switch to provide seamless connectivity to the UT System network via an IPSEC tunnel. For offices of 1-4 OFPC employees it is acceptable to have the ISP provide DHCP IP's directly to OFPC computers, in which case an Ethernet switch with at least 4 user ports shall be provided by the contractor, and OFPC employees will use UT System-provided tools (e.g. software VPN, terminal server, Outlook Web Access, etc.) to provide connectivity to the UT System network. In

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addition, the Contractor shall provide wireless connection services for the Owner anywhere within the project construction fence using wireless router(s) and other equipment conforming to the 802.11n standard as set by IEEE or the most currently available wireless standard. Contractor shall also provide Internet service in the form of one routable statically-assigned IP address with no restrictions placed on types of traffic passed and a secure location for a network device with access to power and the network.

- 2.4.5.5 The Contractor shall provide the following additional office and technology equipment as approved by the Owner:
 - 2.4.5.5.1 The Contractor will provide one new digital copier/networked printer (115 volt / 15 amp) with a minimum copy speed of 30 pages per minute, automatic document feeder, auto duplex, collator, two standard paper trays (one of which supports 11 inches x 17 inches paper), scanner (including pdf, tiff, jpg file formats), and fax with monthly service agreement, including supplies, paid by the Contractor.
 - 2.4.5.5.2 One new digital camera equipped with at least 8 megapixel resolution, 4x optical zoom, viewfinder for daylight photos, and 4 gigabytes of storage space
 - 2.4.5.5.3 Three office telephones, each equipped with voicemail
 - 2.4.5.5.4 Three jobsite cell phones capable of Push to Talk (PTT) direct communication with contractor's field staff emulating walkie-talkie communications. These cell phones shall be ruggedized to conform to Mil Std 810 F for rain, dust, and shock and shall be made available on the same timeframe as the Owner's construction trailer.
- 2.4.5.6 The Contractor shall provide weekly janitorial services for Owner's temporary field office(s), including supplying and servicing of toilet facilities.
- 2.4.5.7 The Contractor shall provide and maintain a coffee station in the Owner's temporary field office, including supplying all consumables.
- 2.4.5.8 The Contractor shall supply all transitory supplies for the Owner's temporary field office, including all office supplies.

[EDITOR'S NOTE: DELETE THE NEXT SECTION IF THE CONTRACTOR PROVIDES COMPUTERS FOR THE OWNER'S TEMPORARY FIELD OFFICE]

- 2.4.5.9 The Owner will provide its own computer(s).

[EDITOR'S NOTE: DELETE THE NEXT FOUR SECTIONS IF THE OWNER PROVIDES COMPUTERS FOR THE OWNER'S TEMPORARY FIELD OFFICE]

- 2.4.5.10 The Contractor shall lease a desktop computer for each of the Owner's onsite staff. Each desktop computer shall be new and shall be pre-loaded with, and capable of, efficiently operating current versions of the following software:

- Microsoft Windows XP

- Microsoft Office Suite, including Excel, Word, PowerPoint, and Outlook

- Microsoft Project

- 2.4.5.10.1 For Information Only: After the connection is made, UT System Administration – Office of Technology and Information Systems (OTIS) will purchase, connect, and operate a Cisco router (model 2811) network device. This router network device will be responsible for building an encrypted IPSec tunnel back to the UT System Administration campus in Austin which will carry all traffic leaving the remote LAN.

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This router is also responsible for assigning IP addresses to OTIS employee workstations via DHCP. This device will have 16 internal switch ports. End-user workstations will be directly connected to these switch ports. If additional ports are needed, a second device will be purchased by OTIS and connected to existing equipment. OTIS will support standard configuration desktop or laptop devices as required by the Owner's personnel officing on site. These machines must comply with UT System UTS165 Information Resources Use and Security Policy (<http://www.utsystem.edu/policy/ov/uts165.html>) and the Information Resources Security Operations Manual of UT System Administration (<http://www.utsystem.edu/systempolicies/infosecurityoperationsmanual.pdf>).

- 2.4.5.10.2 The computer(s) shall be equipped to connect to an Ethernet network and have capability to read/write to CD and DVD. At least one computer must have the capability, either built-in or via external card reader, to read all currently available memory cards.
- 2.4.5.10.3 The lease period for the computer(s) shall not be less than the Owner's construction trailer lease period. The lease shall be the responsibility of the Contractor throughout this period and is only to be removed with concurrence of the Owner.
- 2.4.5.10.4 **[EDITOR'S NOTE: INSERT ANY ADDITIONAL MINIMUM COMPUTER REQUIREMENTS (E.G., PROCESSOR, MEMORY (RAM), STORAGE (HARD DRIVE CAPACITY), CD/DVD READ/WRITE DRIVE, MONITOR TYPE AND SIZE, OTHER SOFTWARE REQUIREMENTS, ETC.). CONTACT OTIS FOR ASSISTANCE.]**

2.5 PROJECT FENCING

- 2.5.1 The Contractor and Subcontractors shall confine their activities to the Project Site and in no way obstruct any other part of the campus or utilize any campus facilities for any purpose.
 - 2.5.1.1 Upon mobilization, the Contractor shall build a substantial wire mesh fence at least 6 feet high as shown on the Site Plan, completely surrounding the site. Posts shall be placed not more than 8 feet apart, and securely set in the ground. Wire mesh shall be tightly stretched over the supports.
 - 2.5.1.2 The Project site fencing shall include Emergency Service and trucking gates in locations shown on the Site Plan. The gates shall be hung with heavy strap hinges and hasps for locking. Fences and gates shall be properly maintained until Substantial Completion, and only removed with concurrence from the Owner.

2.6 PROJECT SIGNAGE

- 2.6.1 The Contractor shall construct and erect one Project sign on the Project site in a location designated by the Owner. The sign shall be constructed as instructed by the Owner. Refer to Attachment "B."
- 2.6.2 The Contractor shall submit a ¼" = 1'-0" scale shop drawing of the sign, including all lettering, to the Owner for approval prior to installation. The sign shall remain the property of the Owner. Upon project completion, the Contractor shall remove the sign and deliver it to a location designated by the Owner.
- 2.6.3 Additional Contractor or Subcontractor signs or advertisements shall not be permitted without the Owner's written approval.

2.7 TEMPORARY PROJECT WATER

- 2.7.1 The Contractor shall provide temporary lines for all water required during the Project and shall make arrangements with the Owner's Utility Department for water service. This shall include all means of conveying. In lieu of temporary connections, the Contractor may make permanent connections and such may serve for the construction period.
- 2.7.2 In the event water is not available at the Project site from the Owner's existing distribution system, the Contractor shall negotiate with the local distributor for water and pay all fees and rates required by the local Water Department.
- 2.7.3 The Contractor shall pay all costs related to providing and installing temporary construction water, except water utility charges (if Owner-provided).

2.8 TEMPORARY PROJECT POWER AND LIGHTING

- 2.8.1 The Contractor shall make arrangements with the local Utility Company for temporary construction power. If power is available only through the Owner's system, the Contractor shall extend temporary power to the site, even if the monthly consumption is paid by the Owner. The Contractor may energize the permanent power system in the building only with prior written approval from the Owner. The Contractor shall provide adequate ground fault interruption (GFI) protection and a main disconnect panel at the point of connection to the Owner's system.
- 2.8.2 The Contractor shall provide adequate lighting about the site for security, inspections of excavations, and if night shift work occurs. The Contractor shall also provide adequate temporary interior lighting throughout the building enclosure to facilitate quality workmanship and appropriate inspection conditions.
- 2.8.3 The Contractor shall pay all costs related to providing and installing temporary construction power and lighting, except electric utility charges (if Owner-provided).

2.9 TEMPORARY PROJECT MECHANICAL SERVICES

- 2.9.1 If temporary heat is required for the installation or protection of the work, the Contractor shall provide heating and proper ventilation in such a manner that no work shall be damaged.
- 2.9.2 After the mechanical equipment has been connected to the local chilled water and steam distribution systems, the equipment may be operated by the Contractor to heat and cool the building if automatic controls have been activated to limit thermal usage as deemed acceptable to the Owner.
- 2.9.3 During operation of the mechanical equipment, prior to achieving Substantial Completion, the Contractor shall keep the mechanical equipment in good operating condition, properly maintained, including cleaning and changing of all filters. New, non-construction filters shall be installed prior to the Owner's acceptance of the mechanical equipment. The warranty period for the equipment shall start on the Substantial Completion date.
- 2.9.4 The Contractor shall pay for all costs related to temporary project mechanical services.

2.10 TEMPORARY PROJECT PARKING

- 2.10.1 If available, parking within the Project site shall be at the Contractor's discretion, however, at least two (2) marked dedicated parking spaces shall be provided for the Owner's Designated Representative and Construction Inspector at the Project site.

[EDITOR'S NOTE - OPTION 1: SELECT THIS OPTION IF CAMPUS PARKING IS NOT PROVIDED. DELETE OPTION 2 BELOW]

- 2.10.2 The Owner will not provide Project parking.

[EDITOR'S NOTE - OPTION 2a: SELECT ONE OF THE TWO SECTIONS BELOW IF CAMPUS PARKING IS PROVIDED. DELETE OPTION 1 ABOVE AND EDIT APPLICABLE OPTION 2b SUBSECTIONS BELOW]

2.10.3 The Owner will provide **[INSERT #]** parking spaces located at **[INSERT LOCATION]** at no cost to the Contractor.

2.10.4 The Owner will provide **[INSERT #]** parking spaces located at **[INSERT LOCATION]** at a cost to the Contractor of **[\$[INSERT AMOUNT]]** per month during construction.

[EDITOR'S NOTE - OPTION 2b: SELECT THE APPLICABLE SUBSECTIONS BELOW IF PARKING IS PROVIDED. DELETE IF CAMPUS PARKING IS NOT PROVIDED]

2.10.4.1 The Contractor shall acquire any necessary parking permits from the campus for all vehicles.

2.10.4.2 Owner-provided parking is for the convenience of the Contractor with the understanding that the Contractor is responsible for all workers and vehicles while they are on campus.

2.10.4.3 The Owner may remove or revoke such convenience at any time, for any reason.

PART 3 – EXECUTION

3.1 PROJECT PARTNERING

3.1.1 The Owner desires to create a cohesive team for this project, to include all primary parties. The Contractor and its primary Subcontractors shall join the Owner and the rest of the Project Team in project "Partnering" as a means of achieving success. The Partnering process is voluntary and the Owner and Contractor shall equally share all costs with no impact to the Construction Contract price. The results of the workshop are not legally binding, but do represent a commitment by the parties to work together cooperatively toward common goals.

3.2 CONTRACTOR SITE ACCESS AND LIMITS OF CONSTRUCTION

3.2.1 Prior to **any** site activity, the Contractor shall submit a draft Site Utilization Plan (1" = 30'-0" scale, or larger) showing proposed location of temporary fencing, lay down area, temporary trailers, stabilized construction entrance(s), cranes, signage, parking, temporary utilities, field offices, size and arrangement of spaces, site control points, and utility tie-in locations, dumpster, sidewalk and/or parking space closures, and truck routes in/out of site for Owner review and approval. The Plan must clearly show location and dimension of gates indicating proposed entry circulation and egress sufficient for fire and other emergency vehicles. Give adequate consideration for safe and accessible pathway at perimeter of fencing, and provide signage indicating "Detour," "Dead End," or other messages as appropriate.

3.2.2 All project personnel shall confine and limit their work and use of the Project site to those areas within the defined limits of construction. All public and university rules, laws, and requirements shall be obeyed and enforced by the Contractor. No tools, construction vehicles, or construction material shall be permitted beyond the Project site limits of construction.

3.2.3 All campus roads, drives, and fire lanes as well as all sidewalks and pedestrian routes, other than those specifically indicated to be in the Contractor's area of control, must be kept open at all times. The Contractor shall make advance preparations for, and obtain security clearance for, all significant material deliveries and truck traffic, cranes, concrete trucks, etc., through the campus to the project site.

3.3 ON-GOING CAMPUS OPERATIONS

- 3.3.1 The Project is surrounded by and/or adjacent to continuously functioning campus facilities, including academic and research efforts. The Contractor shall make every effort to avoid disruptions to ongoing campus activities and to maintain a safe environment for students, faculty, and staff in the areas adjacent to the project.
- 3.3.2 Campus utilities must not be interrupted except when scheduled and approved in advance by the Owner with appropriate campus technical staff.
- 3.3.3 Any necessary disruption of campus utilities must be scheduled at least five work days in advance through established procedures with campus technical staff. The Contractor shall not activate or de-activate any campus system, or component of any such system, without written direction from the Owner.
- 3.3.4 Equipment locations and timing or sequence of work operations shall be coordinated so as to not conflict with the Owner's continuing use of adjacent buildings and/or create any interference with scheduled meetings or events.
- 3.3.5 The use of the campus' sanitary facilities by the Contractor, or any of the construction workers, is prohibited.

3.4 CONTRACTOR'S RESPONSIBILITY OF THE PROJECT WORKFORCE

- 3.4.1 The Contractor is responsible for the actions of the entire Project workforce, including subcontractor and supplier employees, whenever they are on the campus. Responsibilities may include identification badges for workers, busing of workers from remote parking lots, written and verbal reminders to workforce of appropriate behavior and avoidance of campus facilities. Established access and egress routes for vehicular and pedestrian traffic are required, as a minimum, in order to maintain control of the work force.
 - 3.4.1.1 Failure to obtain parking permits, or traffic violations while on campus may lead to cancellation of Owner-provided parking, if any.
 - 3.4.1.2 The Contractor shall demonstrate the plan for controlling the workforce at all times, while on campus. The Contractor shall be responsible for Contractor's and subcontractors' behavior on campus, including parking lots, the Project site, and the accessing route(s) through the campus.
 - 3.4.1.2.1 Harassment of any person, whether student, faculty, staff, or visitor to the campus, is strictly forbidden. Harassment includes any action such as jeering, whistling, calling-out, staring, snickering, making rude or questionable comments, or similar behavior. Identifiable offending worker(s) shall be permanently removed from the Project.

3.5 PROJECT SECURITY

- 3.5.1 The Contractor is responsible for security of the Project, including site access and exiting. Campus police will not provide security for the Contractor's (or subcontractor's) areas or personnel.
 - 3.5.1.1 The Contractor may employ unarmed security personnel for the Project.
 - 3.5.1.2 The Contractor shall provide a full-time site access monitoring system for the duration of the project

- 3.5.1.3 Canine and other forms of animal security and enforcement are prohibited on the Project site.
- 3.5.1.4 The Owner may reduce or withhold payment to the Contractor, if deemed necessary, until adequate Project security is in place.

3.6 PROTECTION OF WORK

- 3.6.1 The Contractor and every Subcontractor shall properly and effectively protect all materials and equipment furnished during and after installation. Building materials, contractor's equipment, etc., may be stored on the premises, but the placing of it shall be within the construction fence. When any room in the building is used as a shop, storeroom, etc., the Contractor shall be held responsible for any repairs, patching, and cleaning arising from such use. The Contractor shall protect and be responsible for any damage to its work or material, from the date of the agreement until the final payment is made, and shall make good without cost to the Owner, any damage or loss that may occur during this period. All material affected by weather shall be covered and protected to keep free from damage while being transported to the site and while stored on the site.
 - 3.6.1.1 During the execution of the Work, open ends of all piping, conduit, ductwork, and all openings in equipment shall be capped and sealed prior to completion of final connections, so as to prevent the entrance of foreign matter.
 - 3.6.1.2 All heating, ventilating, plumbing, and electrical equipment shall be protected during the execution of the Work.
 - 3.6.1.3 All plumbing fixtures shall be protected and covered so that no one can use them. All drains shall be covered until placed in service to prevent the entrance of foreign matter.
 - 3.6.1.4 Trees and shrubs, within the Project site assigned to be saved and maintained, shall be protected by the Contractor with orange plastic construction fencing completely surrounding the perimeter of the drip line, maintained in sound condition until permission is given for removal. The Contractor shall not remove, cut, or trim any trees or shrubs without the Owner's written approval, unless specifically identified to be removed on the Construction Documents.

3.7 PROJECT SURVEYING

- 3.7.1 The Contractor shall employ an experienced and competent licensed Professional Surveyor to establish at least three separate permanent benchmarks and shall maintain easy access during the progress of the Work, in order to determine and verify the lines and grades. As the Work progresses establish additional and easily accessible benchmarks at each level referenced to first floor finish floor line.
 - 3.7.1.1 Level or Transit: The Contractor shall maintain an accurate level or transit at the site at all times. This instrument shall be used to verify lines, grades, etc., and shall be available at all times for use by the Architect/Engineer and the Owner. A level shall be used to layout all work and shall be used by operators skilled in its use.
 - 3.7.1.2 The Contractor shall erect and maintain substantial and braced batter boards at all corners of structures, set their location to provide proper working clearance and verify that they are level and at the proper grade.
 - 3.7.1.3 As the Work progresses, the Contractor shall lay out partitions on the floor in exact locations as a guide to all contractors and trades.

3.7.1.4 Before ordering any materials or doing any work, the Contractor shall verify and be responsible for the correctness of all measurements. No extra charge or compensation shall be allowed on account of difference between actual dimensions and the measurements indicated on the Drawings. Any differences, which may be found, shall be submitted to the Architect/Engineer for consideration before proceeding with the Work.

3.8 TEMPORARY SHORING

3.8.1 All temporary shoring required for the installation of work shall be included in this Contract and the Contractor shall assume all responsibility for this work and make good any damage caused by improper supports or failure of shoring in any respect. Any provisions that are installed to assure the stability of adjacent structures, trees, roadways, or infrastructure, shall be in accordance with engineered plans (provided by the Contractor).

3.9 CUTTING AND PATCHING OF SLEEVES

3.9.1 The Contractor shall consult with the Project Architect/Engineer prior to the commencement of any cutting and/or patching of sleeves, holes, or openings in the execution of the work.

3.9.1.1 Excessive cutting of the structure that is not shown in the contract documents shall not be permitted, nor shall any piers or other structural members be cut without the written approval of the Project Architect/Engineer. After such work has been installed, the Contractor shall carefully fit around, close up, repair, patch, and point-up as directed by the Project Architect/Engineer.

3.9.1.2 All cutting and patching of sleeves shall be done carefully, with proper tools by qualified workers, at no additional cost to the Owner. The Contractor or Subcontractor shall build into the work, as indicated on the plans and/or specifications, any and all items furnished by others. Cutting and repairing of work in place, as a result of negligence by the Contractor, shall be completed at no cost to the Owner.

3.9.1.3 The work performed within each section of the Specifications, unless otherwise indicated in the plans and/or specifications, includes all cutting, patching, and digging for work in that trade section required for proper accommodations of work of other trades. Execute such work with competent workers skilled in trade required for restoration.

3.9.1.4 The Contractor shall provide sleeves for all service lines, including piping, ductwork, and conduit covered in their scope of work, which may pass through walls, roof, or floors.

3.10 HAZARDOUS MATERIAL ABATEMENT

3.10.1 The Contractor shall abate hazardous materials located within the limits of construction as identified in the Drawings and Specifications.

3.10.2 Should the Contractor discover unforeseen hazardous materials (e.g., asbestos, lead, mold), the Contractor shall stop work, properly seal off the affected area, and immediately inform the ODR and the campus' Environmental Health & Safety office. The Contractor shall make provisions to abate the hazardous materials (i.e., the Owner will not abate the hazardous materials). The Contractor shall ensure that the mandatory Texas DSHS notification is promptly initiated or amended as appropriate. If lab tests confirm the presence of hazardous materials, the Contractor shall not resume the non-hazardous material-related work in the affected area until the hazardous material has been removed by a licensed abatement subcontractor, and the licensed hazardous materials consultant confirms that the abatement is complete.

3.10.3 The Contractor shall ensure that Texas Department of State Health Services licensed individuals, consultants, or companies are used for any required hazardous materials work including inspection, abatement plans/specifications, abatement, project management, and third-party monitoring.

3.11 CERTIFICATION OF NO ASBESTOS CONTAINING MATERIALS OR WORK

3.11.1 The Contractor shall provide a certification statement, included with each materials submittal, stating that no asbestos containing materials or work is included within the scope of the proposed submittal.

3.11.2 The Contractor shall provide at Substantial Completion, a notarized affidavit to the Owner and the Architect stating that no asbestos containing materials or work was provided, installed, furnished, or added to the Project.

3.11.3 The Contractor shall take whatever measures necessary to ensure that all employees, suppliers, fabricators, material handlers, subcontractors, or their assigns, comply with this requirement.

3.11.4 All materials used on this Project shall be certified as non-Asbestos Containing Building Materials (ACBM). The Contractor shall ensure compliance with the following acts from all Subcontractors:

3.11.4.1 Asbestos Hazard Emergency Response Act (AHERA—40 CFR 763-99 (7))

3.11.4.2 National Emission Standards for Hazardous Air Pollutants (NESHAP—EPA 40 CFR 61, National Emission Standard for Asbestos)

3.11.4.3 Texas Asbestos Health Protection Rules (TAHRP—Tex. Admin. Code Title 25, Part 1, Ch. 295C, Asbestos Health Protection)

3.11.5 The Contractor shall provide a notarized statement from all subcontractors that no ACBM has been used, provided, installed, furnished, added to, or left on the Project.

3.11.6 The Contractor shall provide, in hard copy and electronic form, all necessary material safety data sheets (MSDS) of all products used in the construction of the Project to the Texas Department of State Health Services licensed inspector or Project Architect or Engineer who will compile the information from the MSDS and, finding no asbestos in any of the product, make a certification statement.

3.11.7 At Final Completion the Contractor shall provide a notarized certification statement per TAC Title 25 Part 1, Ch. 295.34, par. c.1 that no ACBM was used during construction of the Project.

----- END OF OWNER'S SPECIAL CONDITIONS -----

ATTACHMENT "A"
(to Owner's Special Conditions)
MINIMUM WAGE RATE DETERMINATION

The University of Texas System is the contracting agency for this construction project. The following statute requires the contracting agency to specify the generally minimum rates of wages in contracts that are bid.

Government Code 2258
"Construction of Public Works in State and
Municipal or Political Subdivisions; Prevailing
Wage Rates to be maintained"
and
The Uniform General and Supplementary General Conditions
for University of Texas System Building Construction Contracts

Pursuant to the requirements of this statute, we have determined that the following rates of wages are paid to various classifications of workers in the locality of this project.

Total hourly compensations to each worker must equal or exceed the minimum wage rates stated in the following attachment. Contributions by a worker toward health, pension, vacation, and the like are part of the worker's pay; contributions by the employer are not. Any dollar amounts shown in columns for health, pension, and vacation may be paid either in cash or in kind. Workers in classifications where rates are not identified shall be paid not less than the general minimum rate of "laborer" for the various classifications of work therein listed.

All hours of work over 40 hours per week are overtime and will be compensated at the rate of 1 and ½ times the regular wage.

Trainees/helpers, where not otherwise specified above, may be compensated at a rate determined mutually by the worker and employer, commensurate with the experience and skill of the worker but a rate not less than 60% of the journeyman's wage or less than the Laborers (General) rate. At no time shall a journeyman supervise more than two of apprentices, trainees or helpers. All apprentices/trainees/helpers shall be under the direct supervision of a journeyman working as a crew.

[EDITOR'S NOTE: INSERT THE APPROPRIATE COUNTY MINIMUM WAGE RATE DETERMINATION.]

**ATTACHMENT "B"
(to Owner's Special Conditions)
PROJECT SIGN**

SEAL (EITHER UT SYSTEM OR INSTITUTIONAL SEAL)

THE UNIVERSITY OF TEXAS SYSTEM

OFFICE OF FACILITIES PLANNING AND CONSTRUCTION

NAME OF PROJECT

NAME OF INSTITUTION

ARCHITECT ENGINEER - (FIRM'S NAME)

GENERAL CONTRACTOR - (FIRM'S NAME)

PICTURE OF PROJECT

* ADJUST LETTER SIZE AS REQUIRED FOR LENGTH OF NAME. STYLE OF LETTERING TO BE HELVETICA MEDIUM.

SUBMIT A ONE-QUARTER SCALE SHOP DRAWING OF THE SIGN COMPLETE WITH ALL LETTERING TO THE OWNER FOR APPROVAL BEFORE CONSTRUCTION. THE SIGN SHALL BE CONSTRUCTED OF 3/4 INCH THICK A-C GRADE EXTERIOR PLYWOOD. THE SIGN SHALL RECEIVE TWO COATS OF AN APPROVED WHITE SEMIGLOSS EXTERIOR ENAMEL ON ALL SURFACES BEFORE LETTERING. THE OWNER WILL DESIGNATE THE COLORS FOR THE LETTERING ON THE SHOP DRAWING.

SCHEDULE

LINE	DESCRIPTION	LETTER HEIGHT *	STROKE *
1	NAME OF PROJECT	2-1/4"	1/2"
2	NAME OF INSTITUTION	2-3/4"	1/2"
3	THE UNIVERSITY OF TEXAS SYSTEM	1-1/4"	1/4"
4	OFFICE OF	2" & 1-1/2"	3/8" & 1/4"
5	FACILITIES	2" & 1-1/2"	3/8" & 1/4"
6	PLANNING AND	2" & 1-1/2"	3/8" & 1/4"
7	CONSTRUCTION	2" & 1-1/2"	3/8" & 1/4"
8	SEAL (APPROX. 8" DIAMETER)		
9	ARCHITECT ENGINEER - (FIRM'S NAME)	1-1/2"	1/4"
10	GENERAL CONTRACTOR - (FIRM'S NAME)	1-1/2"	1/4"

12-16-2002

FRONT ELEVATION SIDE ELEVATION
PROJECT SIGN DETAILS - NOT TO SCALE

ATTACHMENT "C"
(to Owner's Special Conditions)
WEATHER DAYS

C1.1 In addition to the project scheduling requirements outlined in the Uniform General and Supplementary General Conditions for UT System Construction Contract (UGC), the minimum Total Float required per specification section 01 32 00 - PROJECT PLANNING AND SCHEDULING, and those stipulated in the Owner-Contractor Agreement, the Contractor shall plan at least the following number of Weather Days for the corresponding institution in the construction schedule.

Weather Days (Calendar Days)												
Institution	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
UT Arlington, UT at Dallas, and UT Southwestern Medical Center at Dallas	17	10	5	5	6	5	3	3	3	4	4	13
UT Austin	7	4	4	4	5	4	3	3	4	4	4	5
UT at San Antonio and UT Health Science Center at San Antonio	8	5	3	3	4	4	3	3	3	4	3	7
UT at Tyler and UT Health Science Center at Tyler	13	8	5	4	5	4	3	3	4	4	5	10
UT at Brownsville and UT - Pan American	3	3	3	3	3	3	3	4	5	4	3	3
UT Medical Branch at Galveston	5	3	3	3	4	4	4	4	5	4	4	4
UT Health Science Center at Houston and UT M.D. Anderson Cancer Center	5	4	4	3	4	5	5	5	5	4	4	4
UT at El Paso	18	11	5	3	3	3	3	3	3	2	9	18
UT of the Permian Basin	16	9	4	3	3	3	3	3	3	3	5	14

C1.2 A *Weather Day* is defined as a day with 0.10 inches of rainfall or more, and/or has a temperature at or below 32 degrees, and/or has a maximum sustained wind speed above 25 miles per hour (21.7 knots) as recorded at the project jobsite.

C1.2.1 A Weather Day also includes any days with resulting effects from a weather day if the Contractor is prevented from continuing or resuming normal construction operations at the jobsite.

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- C1.3 A Calendar Day is defined per specification section 01 32 00 - PROJECT PLANNING AND SCHEDULING.
- C1.4 Weather Days shall be planned for by the Contractor in the preparation, development, and monitoring of the construction baseline schedule and status of subsequent updates.
 - C1.4.1 Weather Days shall be recorded as full calendar days.
 - C1.4.2 Weather Days shall not be included as a construction schedule activity nor as additional float (i.e., days are included as part of the activity's original duration).
- C1.5 Unused Weather Days shall not be accumulated from month to month, or reserved for future use.
- C1.6 The Contractor shall submit written notification to the Owner's Designated Representative (ODR) of an actual Weather Day within 48 hours of the event.
- C1.7 The Contractor shall submit a written reconciliation to the ODR each month and compare actual Weather Days against the number of Weather Days listed in the table above.
- C1.8 The Contractor may be granted a contract time extension due to weather only when 1) actual weather days exceed the number of weather days shown on the table above, 2) the available project Total Float is zero or less, and 3) the Weather Day causes an actual delay to the Substantial Completion date of the project by impacting one or more planned activities on the longest path of the approved updated Contractor's construction schedule.
 - C1.8.1 Time extensions for Weather Days are non-compensatory per Articles 9 and 11 of the UGC for delay of, and extension of time requirements.

ATTACHMENT "D"
(to Owner's Special Conditions)

Builders Risk Additional Coverage Worksheet
(Owners Special Conditions, Section 2.2.2)

(Rev. August 2012)

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Additional coverage for soft costs and/or other losses caused by a delay in completion resulting from a covered physical loss is available for additional premium. Please note that the amounts reported on this form will be the applicable policy limit for each coverage.

Project Name: _____

Soft Costs:

Additional Interest

\$ _____

The additional interest on money borrowed to finance the construction or repair due to a delay in the completion of the project. (ex. have to extend the term of loan)

Architectural and Engineering Fees

\$ _____

The additional architectural and engineering fees which become necessary as a result of a delay in the completion of the project.

Advertising & Promotional Expenses

\$ _____

The additional advertising and promotional expenses which become necessary as a result of a delay in the completion of the project. (ex. advertise that you're coming back, mitigate loss of market)

License and Permit Fees

\$ _____

The additional license and permit fees which become necessary as a result of a delay in the completion of the project. (ex. have to extend permits with City)

Insurance Premiums

\$ _____

Additional premiums charged under insurance policies for renewing or extending policies to continue coverage during the period of delay.

Legal and Professional Fees

\$ _____

The additional legal and professional fees which become necessary as a result of a delay in the completion of the project. (ex. accounting work incurred in renewing or restructuring the financing, additional legal work incurred in renegotiating and preparing revised contracts and other documents.)

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Real Estate Taxes or Other Assessments

The additional real estate taxes or other assessments incurred for the period of time that construction is extended beyond the completion date.

\$ -

Leasing Expenses

Additional costs of renegotiating and pre-leasing of the project as a result of a delay in the scheduled opening date.

\$ -

Founders Fee Refunds

Necessary refunds of deposits made by prospective occupants if the project is delayed. If payment by the insurers is necessary for founders fee refunds, any new founders fees later collected by the insured on the same property will be applied to reduce the loss payment made under the policy.

\$ -

Debt Service Payments

Interest payments and/or principal payments that become due and must be paid whether the project is operational or not.

\$ -

Bond Interest

Bond interest payments that become due and must be paid whether the project is habitable or not. (Same as Debt Service Payments, not additional)

\$ -

Construction Loan Fees

Additional commissions or loan fees incurred in rearranging financing necessary for completion of the project.

\$ -

Refinancing Charges

The additional costs expended by the insured solely to obtain new financing for the project should the financing expire or fail to be renewed.

\$ -

Fees for Letters of Credit, Trustee, Remarketing of Bonds

Additional costs incurred in the event it becomes necessary to refinance the project as a result of the delay in completion.

\$ -

Soft Costs Subtotal \$ _____

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Other Coverage:

Loss of Rents/Rental Value

\$ -

The actual "loss" of net rental income resulting from delay beyond the projected completion date. Not more than the reduction in rental income less charges and expenses which do not necessarily continue or arise because of the delay (ex. utilities). (Typically, an annual figure is reported. However, if a project term is long (>18-24 months), you can report net rental income for a longer period.)

Indicate time period used if NOT using and annual figure: _____ months

Delay in Start-Up/Loss of Other Income

\$ -

The actual "loss" of net income resulting from delay beyond the projected completion date. Not more than the reduction in income less charges and expenses which do not necessarily continue or arise because of the delay (ex. utilities). (Typically, an annual figure is reported. However, if a project term is long (>18-24 months), you can report loss of income for a longer period. However, you must indicate the time period used.)

Indicate time period used if NOT using and annual figure: _____ months

Other Coverage Subtotal \$ _____ -

Authorized Campus Review Signature

OFPC Project Manager

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REVISION LOG

The following is provided for convenience to the Owner, Architect/Engineer and Contractor to track changes between annual document issuances and is not to be considered by any party to be contractual or 100% complete.

Date	Paragraph Revised	Initials
9/30/09	Updated section 2.2 and subsequent subsections - Builders Risk Endorsements. Deleted Article 2.4.5.5.5 in its entirety.	
3/1/10	Updated section 2.4.5.4. Section 2.4.5.9.1 moved to 2.4.5.10.1 and revised subsequent subsection paragraph numbers.	
<u>7/18/11</u>	<u>Articles 2.2.3 and 2.2.4 regarding insurance provisions have been added.</u>	mgm
<u>9-11-12</u>	<u>Added Builder's Risk Coverage Worksheet as Attachment D</u>	mgm

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SECTION 00 73 16 - PROJECT INSURANCE (OCIP)

PART 1 - GENERAL

1.1. DEFINITIONS

- 1.1.1. The term "OCIP", as used throughout the Contract documents, shall refer to the Owner Controlled Insurance Program.
- 1.1.2. The term "OCIP Administrator", as used throughout the Contract documents, shall refer to those employees of the firm that acts as the Owner's Insurance broker who confirm Contractor and Subcontractor enrollments, track monthly payroll reports, order final payroll audits, and report program costs to the Owner.
- 1.1.3. The term "OCIP Loss Control Representative", as used throughout the Contract documents, shall refer to those employees of the firm that acts as the Owner's Insurance broker who conduct Project site safety services, track insurance claims, and issue reports concerning Contractor management of safety and insurance claims.

1.2. PURPOSE

- 1.2.1. The purpose is to have one (1) major insurance program in place to address those risks associated with Workers' Compensation and Employer's Liability, and General Liability which will exist on the Owner's property during construction. The Owner expects the majority of employers performing construction work under this Contract to enroll in the OCIP.
- 1.2.2. The Owner shall provide, at its own expense, specific insurance policies and coverage for the Contractor and for all enrolled Subcontractors on the Project, as described in Article 2.1 of this Section.
- 1.2.3. The Contractor and all enrolled Subcontractors shall provide all other insurance coverages, including those described in Articles 2.2 and 2.3 in this Section and as necessary or required to address all other risks for the Project.
- 1.2.4. **The Contractor and all enrolled Subcontractors shall delete those Articles of the Uniform General and Supplementary Conditions for University of Texas Building Construction Contracts (UGSGC) which are in conflict with this Section and shall recognize and agree to the requirements described in this Section.**
- 1.2.5. **The Subcontractors and all other parties to the Contract that are not enrolled shall furnish proof of insurance in accord with the UGSGC.**

1.3. RELATED DOCUMENTS

- 1.3.1. In addition to specific references indicated herein, the Contractor's attention is directed, but not limited, to the following Sections and Documents, which include additional administrative requirements.

1.3.1.1. Current Edition of the Uniform General and Supplementary Conditions for University of Texas Building Construction Contracts (UGSGC).

1.3.1.2. Owner's Special Conditions;

PART 2 – PRODUCTS

2.1 INSURANCE COVERAGE FURNISHED BY OWNER (OCIP): The following insurance shall be furnished to the Contractor and all enrolled Subcontractors in separately issued coverage.

2.1.1 Workers' Compensation and Employer's Liability

2.1.1.1 Coverage A - Statutory Benefits: Liability imposed by the Workers' Compensation and/ or Occupational Disease statute of the State of Texas and any other State or governmental authority having jurisdiction over or related to the work performed on the Project.

2.1.1.2 Coverage B - Employer's Liability Limits:

2.1.1.2.1 \$1,000,000.00 bodily injury per accident/employee;

2.1.1.2.2 \$1,000,000.00 bodily injury per disease/employee;

2.1.1.2.3 \$1,000,000.00 policy limit by disease.

2.1.1.3 Extensions of Coverage

2.1.1.3.1 Other States Endorsement(s)

2.1.1.3.2 Voluntary Compensation, if exposure exists

2.1.1.3.3 United States Longshoreman's & Harborworker's Act, may be added if needed

2.1.1.3.4 Sixty (60) day Notice of Cancellation from the Insurance Provider, except 10 days for non-payment of premium

2.1.1.3.5 Amendment of Notice of Occurrence

2.1.2 Commercial General Liability (Primary and Excess)

2.1.2.1 Limits:

2.1.2.1.1 \$2,000,000.00 Each Occurrence/all insured

2.1.2.1.2 \$2,000,000.00 Personal Injury and Advertising Injury limit

- 2.1.2.1.3 \$5,000,000.00 Completed Operations aggregate/all insured
- 2.1.2.1.4 \$5,000,000.00 General Aggregate/all insured (Annual Aggregate Per Project)
- 2.1.2.1.5 \$10,000.00 Medical Payments
- 2.1.2.1.6 \$100,000.00 Fire Legal Liability
- 2.1.2.2 Policy Form:
 - 2.1.2.2.1 2001 Insurance Service Office "Occurrence" form – CG00 01 (12 04)
- 2.1.2.3 Extensions of Coverage:
 - 2.1.2.3.1 Incidental Medical Malpractice Liability
 - 2.1.2.3.2 Completed Operations Liability coverage for a period of ten (10) years after final acceptance by the Owner or ten (10) years after each project is placed in operation, whichever occurs first.
 - 2.1.2.3.3 Waiver of Subrogation Endorsement, if required by written contract
 - 2.1.2.3.4 Sixty (60) day Notice of Cancellation from the Insurance Provider, except 10 days for non-payment of premium
 - 2.1.2.3.5 Engineers, Architects or Surveyors Professional Liability Exclusions
- 2.1.2.4 Excess Liability Coverage:
 - 2.1.2.4.1 As following form over Employer's Liability and Commercial General Liability, \$50,000,000.00 of excess insurance has been obtained by the Owner for the benefit of the Owner, Contractor and all enrolled Subcontractors of every tier. This limit is written on an occurrence/annual aggregate basis.
- 2.1.2.5 Issue of Policies and Certificates:
 - 2.1.2.5.1 The OCIP Administrator and/or Insurance Carriers will issue separate Certificates of Insurance for Workers' Compensation, Comprehensive General Liability and Excess Liability to the Contractor and each enrolled Subcontractor. Copies of holder policies will be issued following receipt of written request from the OCIP Certificate holders to the OCIP Administrator and copied to the ODR.

- 2.2 INSURANCE POLICIES AND AMOUNTS OF COVERAGE FURNISHED BY CONTRACTOR AND ENROLLED SUBCONTRACTORS: All Project insurance not identified in Article 2.1 above shall be provided by the Contractor and all enrolled Subcontractors to meet or exceed terms and amounts of coverage as per requirements of the UGSGC. Liability coverages shall include the following (as applicable to the Work):
- 2.2.1 "All Risk" Builder's Risk Insurance (provided by the Contractor only)
 - 2.2.2 Business Automobile Liability Owned/Leased
 - 2.2.3 Equipment (covering total value of owned/rented equipment)
 - 2.2.4 Workers' Compensation/Employers' Liability (**Off Site Only**)
 - 2.2.5 General Liability (**Off Site Only**)
 - 2.2.6 Professional Liability Insurance (Errors and Omissions)
 - 2.2.6.1 In the event any Contract specifications require a contractor to provide professional services, such as, but not limited to, architectural, engineering, construction management, surveying, design, etc., a Certificate of Insurance must be provided prior to commencing work evidencing such coverage with a limit of not less than \$1,000,000.00. Any material change in limits, coverage or loss of aggregate limit due to outstanding claims must be reported to the Owner within thirty (30) days of any such event.
 - 2.2.7 Aviation Insurance - \$10,000,000.00 (as applicable)
 - 2.2.7.1 In the event any fixed-wing or rotary aircraft are used in connection with this Agreement and/or in the execution of the work, a minimum of \$10,000,000 of Aviation Liability Insurance must be maintained with the following requirements: The Owner must be named as an "additional insured" and a waiver of hull damage must be provided in favor of the Owner.
 - 2.2.7.2 If any aircraft is to be used to perform lifts at the Project site, a "slung cargo" endorsement must be included to cover the full replacement value of any equipment or material being lifted. All such lifts must be coordinated with the Owner for approval prior to lift execution.
 - 2.2.8 Environmental and Asbestos Abatement Insurance - \$5,000,000.00 per claim (as applicable)
 - 2.2.8.1 If this Agreement involves environmentally sensitive operations (such as the removal of asbestos, the removal/replacement of underground tanks or operations involving toxic chemicals, heavy metals and/or carcinogenic substances), the Contractor and/or involved Subcontractors shall submit proof of full coverage for such exposures subject requirements and obtain approval of the Owner prior to commencement of such operations. Subcontractors that

are directly and actively involved in the performance of work associated with environmentally sensitive operations will be excluded from the OCIP. If Environmental Coverage is written on a Claims Made basis, five years Completed Operations shall be included.

2.2.9 Maritime Insurance - Hull, Protection and Indemnity (including crew) - \$10,000,000.00 (as applicable)

2.2.9.1 In the event any watercraft is used in connection with the Project, the Contractor and/or involved Subcontractor shall submit proof of a "Hull and Protection and Indemnity Policy". The amount of insurance on the Hull shall be sufficient to cover the watercraft, its equipment and all additional equipment aboard during the time it is in use on the Project. Protection and Indemnity shall have limits of liability of no less than \$10,000,000.00 including coverage of the construction activity for which the watercraft is used. Master and Crew coverage shall include General Maritime Liability, Jones Act and Wages, Transportation, Maintenance and Care.

2.2.10 Waiver of Subrogation

2.2.10.1 To meet the requirements of Article 2.2, all policies shall contain a Waiver of Subrogation in favor of the Board of Regents of The University of Texas System, their respective agents, consultants, servants and employees of each and all other indemnities.

2.2.11 Names of Additional Insured

2.2.11.1 To meet the requirements of Article 2.2, for each of the preceding coverages, excepting Workers Compensation, all policies shall endorse the Board of Regents of The University of Texas System, its respective agents, consultants, servants and employees of each and all other indemnities as "Additional Insured".

2.2.12 Waiver of Property Damage and Right of Recovery

2.2.12.1 To meet the requirements of the UGSGC, all policies shall contain written agreement to waive the Contractor's and each enrolled Subcontractor's right for recovery of physical damage or loss to their respective properties against each other for damages, losses or claims arising out of or in connection with this Project and this Contract. This written waiver shall also extend to the benefit of the Board of Regents of The University of Texas System, its respective agents, consultants, servants and employees. This waiver of the right of recovery for property damage shall be binding upon any property (real or personal), builders risk, automobile, aircraft, watercraft, tools or equipment insurer as respects any subrogation rights that such insurer may possess by virtue of any payments of damage or loss.

2.3 CONTRACTOR ASSURANCE OF SAVINGS

2.3.1 The Contractor and all enrolled Subcontractors shall agree, warrant, and represent that any proposal(s) for Construction services exclude all costs associated with Owner furnished insurance coverage as specified in Article 2.1 of this Section.

2.3.2 The Contractor and all enrolled Subcontractors shall agree to be subject to audits for payroll, work hours and insurance costs by the respective insurance companies providing coverage under the OCIP. The purpose of such audits is to validate insurance premiums and compare wages and other OCIP costs. The Contractor and all Subcontractors shall agree to furnish payroll and insurance cost information in the forms and formats as requested by the OCIP Administrator. Further, the Contractor and all Subcontractors agree to cooperate fully with any and all audits by supplying the required information in the manner required and as expeditiously as possible. No resources may be denied. If proprietary information is involved, the Contractor and all enrolled Subcontractors will be allowed to guard the material while it is being reviewed by the Owner or any of its agents.

2.3.3 The Contractor and enrolled Subcontractors agree, warrant, and represent that all Changes to the Contract as described in the UGSGC, shall exclude any cost for the insurance provided by the OCIP.

2.4 EXCLUSION FROM OCIP ENROLLMENT: Prior to commencement of any work at the Project site and until completion and final acceptance of Work, Subcontractors that are allowed by the Owner to be excluded from enrollment in the OCIP shall maintain, at their sole expense, insurance coverage as per the UGSGC and Article 2.2 of this Section.

2.4.1 Automatic Exclusion

2.4.1.1 Temporary workforce agencies, consultants, vendors, suppliers, material dealers, and delivery service companies shall not be considered as a Contractor or Subcontractor and therefore shall be automatically excluded from enrollment in the OCIP. The Contractor shall confirm that the companies in these categories produce copies of proof of proper insurance for the risk exposures that each one will create or experience while on the Project.

2.4.1.2 Subcontractors performing environmentally sensitive or highly hazardous work will be required to furnish proof of special coverage in adequate amounts for Aviation Insurance, Environmental and Asbestos Abatement Insurance, Maritime Insurance and any other policies of such nature.

2.4.1.2.1 Before performing any work the Subcontractor shall provide to the Contractor and the OCIP Administrator, a Certificate of Insurance that matches the requirements described in the UGSGC and 2.2 above.

2.4.1.3 Excluded Subcontractor(s) shall adhere to all project safety requirements and take all necessary precautions to protect all other persons in the vicinity from

the risk exposures that the excluded Subcontractor may create while performing work on the Project.

2.4.2 Discretionary Exclusion

2.4.2.1 The Contractor may issue a written request on behalf of a Subcontractor of any tier for a discretionary exclusion from enrollment in the OCIP. To be considered, the Subcontractor must be bound to a scope of Work that anticipates a total labor value of less than \$5,000.00. A Certificate of Insurance with coverage amounts and language as required by the UGSGC and 2.2 above shall be furnished to the OCIP Administrator. The OCIP Administrator, in concurrence with the ODR, will review issues such as prior enrollment, scope of work and associated risk. Based on this evaluation, exclusion may or may not be granted.

2.4.3 Excluded Subcontractors

2.4.3.1 Excluded Subcontractors shall submit Certificates of Insurance for Owner acceptance for adequacy of protection and for the satisfactory character of the Insurer prior to performing any work on the Project. Each Certificate must have a thirty (30) day prior written notice of cancellation showing the Board of Regents of The University of Texas System as the Certificate Holder.

2.4.3.2 In the event of failure of the excluded Subcontractor to furnish and maintain said insurance and to furnish satisfactory evidence thereof, the Owner and/or Contractor shall have the right to take out and maintain coverage for all parties on behalf of the excluded Subcontractor who agrees to furnish all necessary information to bind such coverage and to allow deduction for the cost thereof immediately upon presentation of an invoice.

2.5 GOVERNING CONDITIONS

2.5.1 The Owner's payment of premiums for the insurance described in this section shall in no way be interpreted as relieving the Contractor and/or any enrolled Subcontractor of any responsibility of liability under this agreement.

2.5.2 The amount and types of insurance coverage required herein shall not be construed to be a limitation of liability on the part of the Contractor or any of its Subcontractors.

2.6 ELECTIVE INSURANCE FURNISHED BY A CONTRACTOR

2.6.1 The Contractor and any enrolled Subcontractor may elect to maintain a supplementary insurance policy(s) to extend the coverage terms and/ or conditions that are described in this Section. The cost of any policy(s) shall be at the sole expense of the contractor, and shall not be reimbursed by the Owner.

PART 3 – EXECUTION

3.1 OCIP ENROLLMENT PROCESS

- 3.1.1 The Contractor and all enrolled Subcontractors shall submit completed forms including all insurance, underwriting, payroll, rating or loss history information as required by the Owner to the OCIP Administrator for enrollment and issuance of OCIP “Certificates of Insurance”. Forms shall be provided within five (5) working days of the request. No contractor shall perform any work on the Project until it is recognized as having been enrolled in or excluded from the OCIP by the OCIP Administrator.
- 3.1.2 The Contractor and enrolling Subcontractors shall provide all information necessary to bind coverage under the OCIP. The OCIP Administrator will notify the Contractor and respective Subcontractor when an application has been approved and coverage afforded.
- 3.1.3 OCIP enrollment will not be complete and work shall not commence until the OCIP Administrator has issued the OCIP “Certificates of Insurance” to the applicant.

3.2 PROJECT ADMINISTRATION AND FORMS

- 3.2.1 The Contractor shall manage and transmit all administrative and safety documentation, including subcontractor insurance and payroll information, as required and directed by the Owner.
- 3.2.2 The Contractor and all enrolled Subcontractors shall include those administrative costs in the Construction Contract Limit (CCL) or Guaranteed Maximum Price (GMP) proposal which are necessary to properly comply with the Contract.

3.3 OCIP DOCUMENTATION COMPLIANCE

- 3.3.1 Failure by the Contractor and/or any Subcontractor to submit documentation and forms as directed by the Owner, or the OCIP Administrator, as described in the Owner’s OCIP guidelines may result in an Owner-issued deductive Change Order to the Contractor for each delinquent document. The Contractor will be held accountable for all costs and schedule impacts associated with this action.
- 3.3.2 Persistent failures by the Contractor and/or any enrolled Subcontractors may result in a "stop work" order by the Owner. The Contractor will be held accountable for all costs and schedule impacts associated with this action.
- 3.3.3 Incident Notification and Claims Management:
 - 3.3.3.1 Workers Compensation claims are to be initiated immediately by the employer, and shall always be within twenty-four (24) hours or one (1) work day of the occurrence, **or immediately upon acknowledgement of an injury from an employee**, whichever is later. The mechanism for initiating such a

claim shall be the completion and transmittal of a “First Report of Injury” form (DWC Form 1) to the OCIP insurance carrier. Late reporting has been proven to substantially escalate the cost of claims and may therefore result in action on the part of the Owner to recover these avoidable costs from the Contractor by applying the following charges:

- 3.3.3.1.1 \$1,500.00 for reports that are 2 – 3 workdays beyond the date of occurrence
 - 3.3.3.1.2 \$5,000.00 for reports that are 4 – 30 workdays beyond the date of occurrence
 - 3.3.3.1.3 \$7,500.00 for reports that are 31 – 60 workdays beyond the date of occurrence
 - 3.3.3.1.4 \$10,000.00 for reports that are more than 60 days beyond the date of occurrence
- 3.3.3.2 General Liability claims are to be initiated immediately and shall be within twenty-four (24) hours or one (1) workday of the occurrence, whichever is later. The mechanism for initiating such a claim shall be the completion and transmittal of a Notice of Occurrence / Claim form to the designated OCIP administrative representative or as directed by the Owner. Late reporting has been proven to substantially escalate the cost of claims and may therefore result in action on the part of the Owner to recover these avoidable costs from the Contractor by applying the following charges:
- 3.3.3.2.1 \$1,500.00 for reports that are 2 – 3 workdays beyond the date of occurrence
 - 3.3.3.2.2 \$5,000.00 for reports that are more than 3 workdays beyond the date of occurrence
- 3.3.3.3 General Liability – Property Damage:
- 3.3.3.3.1 If the Owner determines that the Contractor failed to take proper precautions prior to an incident that results in a property damage claim against the General Liability coverage, the Owner may recover from the Contractor the first \$5,000.00 of incurred cost against the claim.

3.4 WORKERS COMPENSATION PROCEEDINGS

- 3.4.1 The ODR may require the Contractor and/or the enrolled employer of an injured worker to provide knowledgeable representation at legally binding proceedings scheduled by the Texas Department of Insurance. The proceedings that affect the amount of compensation are “Benefit Review Conferences” and “Contested Case

Hearings”. Failure to provide such representation may result in Owner issuance of a recovery charge to the Contractor of \$5,000.00 per proceeding.

3.5 EMPLOYEE RETURN TO WORK PLAN

3.5.1 The Contractor and every Subcontractor shall develop an Employee Return to Work (“Light Duty”) Plan that allows and encourages medically restricted workers to resume employment as soon as a physician assigns limits. The Plan shall include the following elements:

3.5.1.1 A written policy with signed acknowledgement from a Company Executive that declares intent to provide proactive safety prevention measures, immediate and appropriate medical care, aggressive claims management, and rapid return to work as critical elements of a successful safety and loss control program.

3.5.1.2 Job descriptions that clearly identify and explain essential job functions and tasks required for each position. Minimum physical limits, motor skills, and endurance times shall be included.

3.5.1.3 Procedures and responsibilities shall help physicians understand the Plan, the employee’s typical work assignments and activities, and available alternate assignments.

3.5.1.4 A commitment to the continuous employee education about the Plan, shall include monitoring of assignments, record keeping, and communications with physician(s) and injured worker(s), and tracking of compensation reports.

3.5.1.5 Full compliance with the Americans with Disabilities Act, Family Medical Leave Act, the Texas Worker’s Compensation Act, and any other State or federal law.

3.5.2 Employment for Workers with Medical Restrictions (“Return to Work” or “Light Duty” policy):

3.5.2.1.1 Either the absence of a written policy or the presence of a written policy that lacks a responsible commitment to restoring medically restricted workers to gainful employment (considered to be at a similar work schedule and wage that was in effect at the time of the injury) may result in an assessment of a recovery charge by the Owner to the Contractor of \$5,000.00 per finding.

3.5.2.1.2 If the Owner determines that the Contractor or any enrolled Subcontractor deliberately obstructs a reasonable request that is intended to restore an injured worker to gainful employment, the Owner will assess a recovery charge against the Contractor of \$5,000.00 per claim per month until the worker is returned to employment. If the Contractor or enrolled Subcontractor believes that the medical restrictions prohibit gainful employment, the Contractor will be required to prove this to the Owner’s satisfaction.

3.5.2.1.3 Failure to pass or refusal to take any substance impairment screening will result in Owner requirement that the involved worker be removed from the Project.

3.5.2.1.4 The cost of all post-accident screening is the responsibility of the injured worker's employer.

3.6 EXPIRATION AND AVAILABILITY OF COVERAGE

3.6.1 Termination of OCIP Coverage

3.6.1.1 Except for Extended Completed Operations coverage or Extended Ongoing Operations coverage for Repair Work, the General Liability and Excess Liability insurance furnished by the Owner under this agreement will cease for the Contractor and each enrolled Subcontractor at the earlier of OCIP program expiration or when all work called for in the Contract has been completed. . Workers Compensation coverage will continue until the earlier of OCIP program expiration or when all work called for in the Contract has been completed.

3.6.2 Availability and Cancellation

3.6.2.1 Subject to market availability, all insurance specified herein shall be maintained continuously until the scheduled completion/termination date. All insurance shall provide for Owner to take occupancy of the Work or any part thereof during the term of said insurance. If coverage is diminished or cannot be renewed due to market constraints and limitations, all insured Contractors will be notified within the sixty (60) day cancellation or non-renewal period as provided in the policies. Upon termination of the Owner-provided insurance, the Contractor and all enrolled Subcontractors shall be responsible for furnishing all insurance as described in the UGSGC and Article 2.2 above.

3.6.2.2 Owner-furnished insurance may also be discontinued in the event the Project is substantially delayed for an extended period of time, or the Project is permanently terminated for any cause.

END OF SECTION 00 73 16

REVISION LOG

The following is provided for convenience to the Owner, Architect/Engineer and Contractor to track changes between annual document issuances and is not to be considered by any party to be contractual or 100% complete.

Date	Paragraph Revised
02/01/08	3.4 - Revised Texas Worker's Compensation Commission to Texas Department of Insurance.
5/1/08	3.5.2 – Relocate Employment for Workers with Medical Restrictions (“Return to Work” or “Light Duty” policy)
10/1/08	Title changed to “OCIP”, 2.1.2.3.2 – Change “3 years” to “10 years”, 2.1.2.4.1 change “\$25 M” extended coverage to “\$50 M”
9/1/09	Corrected spelling of “SUBCONTRACTOR” in Article 2.2 and revised all Article 3.6 subsections.
9/1/12	Clarifications of UGS abbreviation, exemption and drug testing clarifications and misc. clarifications.

2010 Uniform General and Supplementary General Conditions
for
University of Texas System Building Construction Contracts

*For use on all UT System and Institutional Construction Projects with a value \geq \$100,000 that are
executed on or after July 1, 2011*

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Article 1. Definitions

Unless the context clearly requires another meaning, the following terms have the meaning assigned herein.

- 1.1 *Application for Payment* means Contractor's monthly partial invoice for payment that includes any portion of the Work that has been completed for which an invoice has not been submitted and performed in accordance with the requirements of the Contract Documents. The Application for Payment accurately reflects the progress of the Work, is itemized based on the Schedule of Values, bears the notarized signature of Contractor, and shall not include subcontracted items for which Contractor does not intend to pay.
- 1.2 *Application for Final Payment* means Contractor's final invoice for payment that includes any portion of the Work that has been completed for which an invoice has not been submitted, amounts owing to adjustments to the final Contract Sum resulting from approved change orders, and release of remaining Contractor's retainage.
- 1.3 *Architect/Engineer (A/E)* means a person registered as an architect pursuant to Tex. Occ. Code Ann., Chapter 1051, as a landscape architect pursuant to Tex. Occ. Code Ann., Chapter 1052, a person licensed as a professional engineer pursuant Tex. Occ. Code Ann., Chapter 1001, and/or a firm employed by Owner or Design-Build Contractor to provide professional architectural or engineering services and to exercise overall responsibility for the design of a Project or a significant portion thereof, and to perform the contract administration responsibilities set forth in the Contract.
- 1.4 *Baseline Schedule* means the initial time schedule prepared by Contractor for Owner's information and acceptance that conveys Contractor's and Subcontractors' activities (including coordination and review activities required in the Contract Documents to be performed by A/E and ODR), durations, and sequence of work related to the entire Project to the extent required by the Contract Documents. The schedule clearly demonstrates the critical path of activities, durations and necessary predecessor conditions that drive the end date of the schedule. The Baseline Schedule shall not exceed the time limit current under the Contract Documents.
- 1.5 *Certificate of Final Completion* means the certificate issued by A/E that documents, to the best of A/E's knowledge and understanding, Contractor's completion of all Contractor's Punchlist items and pre-final Punchlist items, final cleanup and Contractor's provision of Record Documents, operations and maintenance manuals, and all other ~~close-out~~ Close-Out documents required by the Contract Documents.
- 1.6 *Change Order* means a written modification of the Contract between Owner and Contractor, signed by Owner, Contractor and A/E.
- 1.7 *Close-out Documents* mean the product brochures, submittals, product/equipment maintenance and operations instructions, manuals, and other documents/warranties, record documents, affidavit of payment, release of lien and claim, and as may be further defined, identified, and required by the Contract Documents.
- 1.8 *Contract* means the entire agreement between Owner and Contractor, including all of the Contract Documents.
- 1.9 *Contract Date* is the date when the agreement between Owner and Contractor becomes effective.
- 1.10 *Contract Documents* mean those documents identified as a component of the agreement (Contract) between Owner and Contractor. These may include, but are not limited to, Drawings; Specifications; General, Supplementary General, and Special Conditions; and all pre-bid and/or pre-proposal addenda.
- 1.11 *Contract Sum* means the total compensation payable to Contractor for completion of the Work in

- accordance with the terms of the Contract.
- 1.12 *Contract Time* means the period between the start date identified in the Notice to Proceed with construction and the Substantial Completion date identified in the Notice to Proceed or as subsequently amended by a Change Order.
- 1.13 *Contractor* means the individual, corporation, limited liability company, partnership, firm, or other entity contracted to perform the Work, regardless of the type of construction contract used, so that the term as used herein includes a Construction Manager-at-Risk or a Design-Build firm as well as a general or prime Contractor. The Contract Documents refer to Contractor as if singular in number.
- 1.14 *Construction Documents* mean the Drawings, Specifications, and other documents issued to build the Project. Construction Documents become part of the Contract Documents when listed in the Contract or any Change Order.
- 1.15 *Construction Manager-at-Risk*, in accordance with ~~Tex. Gov't Code, Chapter 2166~~ **Tex. Educ. Code § 51.782**, means a sole proprietorship, partnership, corporation, or other legal entity that assumes the risk for construction, rehabilitation, alteration, or repair of a facility at the contracted price as a general contractor and provides consultation to Owner regarding construction during and after the design of the facility.
- 1.16 *Date of Commencement* means the date designated in the Notice to Proceed for Contractor to commence the Work.
- 1.17 *Day* means a calendar day unless otherwise specifically stipulated.
- 1.18 *Design-Build* means a project delivery method in which the detailed design and subsequent construction is provided through a single contract with a Design-Build firm; a team, partnership, or legal entity that includes design professionals and a builder. The Design-Build Project delivery shall be implemented in accordance with ~~Tex. Gov't Code § 2166.2531~~ **Tex. Educ. Code § 51.780**.
- 1.19 *Drawings* mean that product of A/E which graphically depicts the Work.
- 1.20 *Final Completion* means the date determined and certified by A/E and Owner on which the Work is fully and satisfactorily complete in accordance with the Contract.
- 1.21 *Final Payment* means the last and final monetary compensation made to Contractor for any portion of the Work that has been completed and accepted for which payment has not been made, amounts owing to adjustments to the final Contract Sum resulting from approved change orders, and release of Contractor's retainage.
- 1.22 *Historically Underutilized Business (HUB)* pursuant to Tex. Gov't Code, Chapter 2161, means a business that is at least 51% owned by an Asian Pacific American, a Black American, a Hispanic American, a Native American and/or an American Woman; is an entity with its principal place of business in Texas; and has an owner residing in Texas with proportionate interest that actively participates in the control, operations, and management of the entity's affairs.
- 1.23 *Notice to Proceed* means written document informing Contractor of the dates beginning Work and the dates anticipated for Substantial Completion.
- 1.24 *Open Item List* means a list of work activities, Punchlist items, changes or other issues that are not expected by Owner and Contractor to be complete prior to Substantial Completion.
- 1.25 *Owner* means the State of Texas, and any agency of the State of Texas, acting through the responsible entity of the State of Texas identified in the Contract as Owner.

- 1.26 *Owner's Designated Representative (ODR)* means the individual assigned by Owner to act on its behalf and to undertake certain activities as specifically outlined in the Contract. ODR is the only party authorized to direct changes to the scope, cost, or time of the Contract.
- 1.27 *Project* means all activities necessary for realization ~~of the Work~~ **Owner's desired building or other structure including all ancillary and related work**. This includes design, contract award(s), execution of the Work itself, **work by Owner's forces and/or other contractors** and fulfillment of all Contract and warranty obligations.
- 1.28 *Progress Assessment Report (PAR)* means the monthly compliance report to Owner verifying compliance with the HUB subcontracting plan (HSP).
- 1.29 *Proposed Change Order (PCO)* means a document that informs Contractor of a proposed change in the Work and appropriately describes or otherwise documents such change including Contractor's response of pricing for the proposed change.
- 1.30 *Punchlist* means a list of items of Work to be completed or corrected by Contractor ~~after Substantial Completion~~ **before Final Completion**. Punchlists indicate items to be finished, remaining Work to be performed, or Work that does not meet quality or quantity requirements as required in the Contract Documents.
- 1.31 *Record Documents* mean the drawing set, Specifications, and other materials maintained by Contractor that documents all addenda, Architect's Supplemental Instructions, Change Orders and postings and markings that record the as-constructed conditions of the Work and all changes made during construction.
- 1.32 *Request for Information (RFI)* means a written request by Contractor directed to A/E or ODR for a clarification of the information provided in the Contract Documents or for direction concerning information necessary to perform the Work that may be omitted from the Contract Documents.
- 1.33 *Samples* mean representative physical examples of materials, equipment, or workmanship used to confirm compliance with requirements and/or to establish standards for use in execution of the Work.
- 1.34 *Schedule of Values* means the detailed breakdown of the cost of the materials, labor, and equipment necessary to accomplish the Work as described in the Contract Documents, submitted by Contractor for approval by Owner and A/E.
- 1.35 *Shop Drawings* mean the drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data prepared by Contractor or its agents which detail a portion of the Work.
- 1.36 *Site* means the geographical area of the location of the Work.
- 1.37 *Special Conditions* mean the documents containing terms and conditions which may be unique to the Project. Special Conditions are a part of the Contract Documents and have precedence over the Uniform General Conditions and Supplementary General Conditions.
- 1.38 *Specifications* mean the written product of A/E that establishes the quality and/or performance of products utilized in the Work and processes to be used, including testing and verification for producing the Work.
- 1.39 *Subcontractor* means a business entity that enters into an agreement with Contractor to perform part of the Work or to provide services, materials, or equipment for use in the Work.
- 1.40 *Submittal Register* means a list provided by Contractor of all items to be furnished for review and approval by A/E and Owner and as identified in the Contract Documents including anticipated sequence and submittal dates.

- 1.41 *Substantial Completion* means the date determined and certified by Contractor, A/E, and Owner when the Work, or a designated portion thereof, is sufficiently complete, in accordance with the Contract, so as to be operational and fit for the use intended.
- 1.42 *Supplementary General Conditions* mean procedures and requirements that modify the Uniform General Conditions. Supplementary General Conditions, when used, have precedence over the Uniform General Conditions.
- Note: The University of Texas System has adopted Uniform Supplementary General Conditions (USGCs) that apply to all U.T. System and component institution construction projects. The USGCs are identified in this document as ~~strike-throughs~~ to the original text and/or as inserted text in the bold and italicized typeface shown here.***
- 1.43 *Unit Price Work* means the Work, or a portion of the Work, paid for based on incremental units of measurement.
- 1.44 *Unilateral Change Order (ULCO)* means a Change Order issued by Owner without the complete agreement of Contractor, as to cost and/or time.
- 1.45 *Work* means the administration, procurement, materials, equipment, construction and all services necessary for Contractor, and/or its agents, to fulfill Contractor's obligations under the Contract.
- 1.46 *Work Progress Schedule* means the continually updated time schedule prepared and monitored by Contractor that accurately indicates all necessary appropriate revisions as required by the conditions of the Work and the Project while maintaining a concise comparison to the Baseline Schedule.

Article 2. Wage Rates and Other Laws Governing Construction

- 2.1 Environmental Regulations. Contractor shall conduct activities in compliance with applicable laws and regulations and other requirements of the Contract relating to the environment and its protection at all times. Unless otherwise specifically determined, Owner is responsible for obtaining and maintaining permits related to stormwater run-off. Contractor shall conduct operations consistent with stormwater run-off permit conditions. Contractor is responsible for all items it brings to the Site, including hazardous materials, and all such items brought to the Site by its Subcontractors and suppliers, or by other entities subject to direction of Contractor. Contractor shall not incorporate hazardous materials into the Work without prior approval of Owner, and shall provide an affidavit attesting to such in association with request for Substantial Completion inspection.
- 2.2 Wage Rates. Contractor shall not pay less than the wage scale of the various classes of labor as shown on the prevailing wage schedule provided by Owner in the bid or proposal specifications. The specified wage rates are minimum rates only. Owner is not bound to pay any claims for additional compensation made by any Contractor because the Contractor pays wages in excess of the applicable minimum rate contained in the Contract. The prevailing wage schedule is not a representation that qualified labor adequate to perform the Work is available locally at the prevailing wage rates.
- 2.2.1 Notification to Workers. Contractor shall post the prevailing wage schedule in a place conspicuous to all workers on the Project Site and shall notify each worker, in writing, of the following as they commence work on the Contract: the worker's job classification, the established minimum wage rate requirement for that classification, as well as the worker's actual wage. The notice must be delivered to and signed in acknowledgement of receipt by the worker and must list both the wages and fringe benefits to be paid or furnished for each classification in which the worker is assigned duties. When requested by Owner, Contractor shall furnish evidence of compliance with the Texas Prevailing Wage Law and the addresses of all workers.

- 2.2.1.1 Contractor shall submit a copy of each worker's wage-rate notification to ODR with the application for progress payment for the period during which the worker was engaged in activities on behalf of the Project.
- 2.2.1.2 The prevailing wage schedule is determined by Owner in compliance with Tex. Gov't Code, Chapter 2258. Should Contractor at any time become aware that a particular skill or trade not reflected on Owner's prevailing wage schedule will be or is being employed in the Work, whether by Contractor or by Subcontractor, Contractor shall promptly inform ODR of the proposed wage to be paid for the skill along with a justification for same and ODR shall promptly concur with or reject the proposed wage and classification. Contractor is responsible for determining the most appropriate wage for a particular skill in relation to similar skills or trades identified on the prevailing wage schedule. In no case, shall any worker be paid less than the wage indicated for laborers.
- 2.2.2 Penalty for Violation. Contractor, and any Subcontractor, will pay to the State a penalty of sixty dollars (\$60) for each worker employed for each day, or portion thereof, that the worker is paid less than the wage rates stipulated in the prevailing wage schedule.
- 2.2.3 Complaints of Violations.
 - 2.2.3.1 Owner's Determination of Good Cause. Upon receipt of information concerning a violation, Owner will conduct an investigation in accordance with Tex. Gov't Code, Chapter 2258 and make an initial determination as to whether good cause exists that a violation occurred. Upon making a good cause finding, Owner will retain the full amounts claimed by the claimant or claimants as the difference between wages paid and wages due under the prevailing wage schedule and any supplements thereto, together with the applicable penalties, such amounts being subtracted from successive progress payments pending a final decision on the violation.
 - 2.2.3.2 No Extension of Time. If Owner's determination proves valid that good cause existed to believe a violation had occurred, Contractor is not entitled to an extension of time for any delay arising directly or indirectly from the arbitration procedures.
- 2.3 Venue for Suits. The venue for any suit arising from the Contract will be in a court of competent jurisdiction in Travis County, Texas, or as may otherwise be designated in the Supplementary General Conditions.
- 2.4 Licensing of Trades. Contractor shall comply with all applicable provisions of State law related to license requirements for skilled tradesmen, contractors, suppliers and or laborers, as necessary to accomplish the Work. In the event Contractor, or one of its Subcontractors, loses its license during the term of performance of the Contract, Contractor shall promptly hire or contract with a licensed provider of the service at no additional cost to Owner.
- 2.5 Royalties, Patents, and Copyrights. Contractor shall pay all royalties and license fees, defend suits or claims for infringement of copyrights and patent rights, and shall hold Owner harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications or other documents prepared by Owner or A/E. However, if Contractor has reason to believe that the required design, process, or product is an infringement of a copyright or a patent, Contractor shall be responsible for such loss unless such information is promptly furnished to A/E.

- 2.6 State Sales and Use Taxes. Owner qualifies for exemption from certain State and local sales and use taxes pursuant to the provisions of Tex. Tax Code, Chapter 151. Upon request from Contractor, Owner shall furnish evidence of tax exempt status. Contractor may claim exemption from payment of certain applicable State taxes by complying with such procedures as prescribed by the State Comptroller of Public Accounts. Owner acknowledges not all items qualify for exemption. Owner is not obligated to reimburse Contractor for taxes paid on items that qualify for tax exemption.

Article 3. General Responsibilities of Owner and Contractor

- 3.1 Owner's General Responsibilities. Owner is the entity identified as such in the Contract and referred to throughout the Contract Documents as if singular in number.
- 3.1.1 Preconstruction Conference. Prior to, or concurrent with, the issuance of Notice to Proceed with construction, a conference will be convened for attendance by Owner, Contractor, A/E and appropriate Subcontractors. The purpose of the conference is to establish a working understanding among the parties as to the Work, the operational conditions at the Project Site, and general administration of the Project. Topics include communications, schedules, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, maintaining required records and all other matters of importance to the administration of the Project and effective communications between the Project team members.
- 3.1.2 Owner's Designated Representative. Prior to the start of construction, Owner will identify Owner's Designated Representative (ODR), who has the express authority to act and bind Owner to the extent and for the purposes described in the various Articles of the Contract, including responsibilities for general administration of the Contract.
- 3.1.2.1 Unless otherwise specifically defined elsewhere in the Contract Documents, ODR is the single point of contact between Owner and Contractor. Notice to ODR, unless otherwise noted, constitutes notice to Owner under the Contract.
- 3.1.2.2 All directives on behalf of Owner will be conveyed to Contractor and A/E by ODR in writing.
- 3.1.2.3 Owner will furnish or cause to be furnished, free of charge, the number of complete sets of the Drawings, Specifications, and addenda as provided in the Supplementary General Conditions or Special Conditions.
- 3.1.3 Owner Supplied Materials and Information.
- 3.1.3.1 Owner will furnish to Contractor those surveys describing the physical characteristics, legal description, limitations of the Site, Site utility locations, and other information used in the preparation of the Contract Documents.
- 3.1.3.2 Owner will provide information, equipment, or services under Owner's control to Contractor with reasonable promptness.
- 3.1.4 Availability of Lands. Owner will furnish, as indicated in the Contract, all required rights to use the lands upon which the Work occurs. This includes rights-of-way and easements for access and such other lands that are designated for use by Contractor. Contractor shall comply with all Owner identified encumbrances or restrictions specifically related to use of lands so furnished. Owner will obtain and pay for easements for permanent structures or permanent changes in existing facilities, unless otherwise required in the Contract Documents.
- 3.1.5 Limitation on Owner's Duties.

- 3.1.5.1 Owner will not supervise, direct, control or have authority over or be responsible for Contractor's means, methods, technologies, sequences or procedures of construction or the safety precautions and programs incident thereto. Owner is not responsible for any failure of Contractor to comply with laws and regulations applicable to the Work. Owner is not responsible for the failure of Contractor to perform or furnish the Work in accordance with the Contract Documents. Except as provided in Section 2.5, Owner is not responsible for the acts or omissions of Contractor, or any of its Subcontractors, suppliers or of any other person or organization performing or furnishing any of the Work on behalf of Contractor.
 - 3.1.5.2 Owner will not take any action in contravention of a design decision made by A/E in preparation of the Contract Documents, when such actions are in conflict with statutes under which A/E is licensed for the protection of the public health and safety.
- 3.2 Role of Architect/Engineer. Unless specified otherwise in the Contract between Owner and Contractor, A/E shall provide general administration services for Owner during the construction phase of the project. Written correspondence, requests for information, and Shop Drawings/submittals shall be directed to A/E for action. A/E has the authority to act on behalf of Owner to the extent provided in the Contract Documents, unless otherwise modified by written instrument, which will be furnished to Contractor by ODR, upon request.
- 3.2.1 Site Visits.
 - 3.2.1.1 A/E will make visits to the Site at intervals as provided in the A/E's Contract with Owner, to observe the progress and the quality of the various aspects of Contractor's executed Work and report findings to Owner.
 - 3.2.1.2 A/E has the authority to interpret Contract Documents and inspect the Work for compliance and conformance with the Contract. Except as referenced in Paragraph 3.1.5.2, Owner retains the sole authority to accept or reject Work and issue direction for correction, removal, or replacement of Work.
 - 3.2.2 Clarifications and Interpretations. It may be determined that clarifications or interpretations of the Contract Documents are necessary. Upon direction by ODR, such clarifications or interpretations will be provided by A/E consistent with the intent of the Contract Documents. A/E will issue these clarifications with reasonable promptness to Contractor as A/E's supplemental instruction ("ASI") or similar instrument. If Contractor believes that such clarification or interpretation justifies an adjustment in the Contract Sum or the Contract Time, Contractor shall so notify Owner in accordance with the provisions of Article 11.
 - 3.2.3 Limitations on Architect/Engineer Authority. A/E is not responsible for:
 - 3.2.3.1 Contractor's means, methods, techniques, sequences, procedures, safety, or programs incident to the Project, nor will A/E supervise, direct, control or have authority over the same;
 - 3.2.3.2 The failure of Contractor to comply with laws and regulations applicable to the furnishing or performing the Work;
 - 3.2.3.3 Contractor's failure to perform or furnish the Work in accordance with the Contract Documents; or
 - 3.2.3.4 Acts or omissions of Contractor, or of any other person or organization performing or furnishing any of the Work.

- 3.3 Contractor's General Responsibilities. Contractor is solely responsible for implementing the Work in full compliance with all applicable laws and the Contract Documents and shall supervise and direct the Work using the best skill and attention to assure that each element of the Work conforms to the Contract requirements. Contractor is solely responsible for all construction means, methods, techniques, safety, sequences, coordination and procedures.

Contractor shall visit the Site before commencing the Work and become familiar with local conditions such as the location, accessibility and general character of the Site and/or building.

- 3.3.1 Project Administration. Contractor shall provide Project administration for all Subcontractors, vendors, suppliers, and others involved in implementing the Work and shall coordinate administration efforts with those of A/E and ODR in accordance with these general conditions, ***Division 1 of the Specifications*** and other provisions of the Contract, and as outlined in the pre-construction conference.

3.3.1.1 At the request of Owner and at no additional cost, Contractor shall furnish to the ODR one copy of the current edition of the RSM Means Facilities Construction Cost Data Book in hard copy format or digital medium as directed by the ODR.

- 3.3.2 Contractor's Management Personnel. Contractor shall employ a competent person or persons who will be present at the Project Site during the progress of the Work to supervise or oversee the work. The competent persons are subject to the approval of ODR. Contractor shall not change approved staff during the course of the project without the written approval of ODR unless the staff member leaves the employment of Contractor. Contractor shall provide additional quality control, safety and other staff as stated in the ~~Supplementary General Conditions~~ ***Contract Documents***.

- 3.3.3 Labor. Contractor shall provide competent, suitably qualified personnel to survey, lay-out, and construct the Work as required by the Contract Documents and maintain good discipline and order at the Site at all times.

- 3.3.4 Services, Materials, and Equipment. Unless otherwise specified, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities, incidentals, and services necessary for the construction, performance, testing, start-up, inspection and completion of the Work.

- 3.3.5 Contractor General Responsibility. For Owner furnished equipment or material that will be in the care, custody, and control of Contractor, Contractor is responsible for damage or loss.

- 3.3.6 Non-Compliant Work. Should A/E and/or ODR identify Work as non-compliant with the Contract Documents, A/E and/or ODR shall communicate the finding to Contractor, and Contractor shall correct such Work at no additional cost to the Owner. The approval of Work ***or the failure to find non-compliant Work*** by either A/E or ODR does not relieve Contractor from the obligation to comply with all requirements of the Contract Documents.

- 3.3.7 Subcontractors. Contractor shall not employ any Subcontractor, supplier or other person or organization, whether initially or as a substitute, against whom Owner shall have reasonable objection. Owner will communicate such objections in writing within ten (10) days of receipt of Contractor's intent to use such Subcontractor, supplier, or other person or organization. Contractor is not required to employ any Subcontractor, supplier or other person or organization to furnish any of the work to whom Contractor has reasonable objection. Contractor shall not substitute Subcontractors without the acceptance of Owner.

- 3.3.7.1 All Subcontracts and supply contracts shall be consistent with and bind the Subcontractors and suppliers to the terms and conditions of the Contract Documents including provisions of the Contract between Contractor and Owner.
- 3.3.7.2 Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with Contractor. Require all Subcontractors, suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with Owner only through Contractor. Contractor shall furnish to Owner a copy, at Owner's request, of each first-tier subcontract promptly after its execution. Contractor agrees that Owner has no obligation to review or approve the content of such contracts and that providing Owner such copies in no way relieves Contractor of any of the terms and conditions of the Contract, including, without limitation, any provisions of the Contract which require the Subcontractor to be bound to Contractor in the same manner in which Contractor is bound to Owner.
- 3.3.8 Continuing the Work. Contractor shall carry on the Work and adhere to the progress schedule during all disputes, disagreements, or alternative resolution processes with Owner. Contractor shall not delay or postpone any Work because of pending unresolved disputes, disagreements or alternative resolution processes, except as Owner and Contractor may agree in writing.
- 3.3.9 Cleaning. Contractor shall at all times, keep the Site and the Work clean and free from accumulation of waste materials or rubbish caused by the construction activities under the Contract. Contractor shall ensure that the entire Project is thoroughly cleaned prior to requesting Substantial Completion inspection and, again, upon completion of the Project prior to the final inspection.
- 3.3.10 Acts and Omissions of Contractor, its Subcontractors and Employees. Contractor shall be responsible for acts and omissions of his employees and all its Subcontractors, their agents and employees. Owner may, in writing, require Contractor to remove from the Project any of Contractor's or its Subcontractor's employees whom ODR finds to be careless, incompetent, unsafe, uncooperative, disruptive, or otherwise objectionable.
- 3.3.11 Indemnification of Owner. **Contractor covenants and agrees to FULLY INDEMNIFY and HOLD HARMLESS, Owner and the elected and appointed officials, employees, officers, directors, volunteers, and representatives of Owner, individually or collectively, from and against any and all costs, claims, liens, damages, losses, expenses, fees, fines, penalties, proceedings, actions, demands, causes of action, liability and suits of any kind and nature, including but not limited to, personal or bodily injury, death or property damage, made upon Owner directly or indirectly arising out of, resulting from or related to Contractor's activities under this Contract, including any acts or omissions of Contractor, or any agent, officer, director, representative, employee, consultant or the Subcontractor of Contractor, and their respective officers, agents, employees, directors and representatives while in the exercise of performance of the rights or duties under this Contract. The indemnity provided for in this paragraph does not apply to any liability resulting from the negligence of the Owner, its officers or employees, separate contractors or assigned contractors, in instances where such negligence causes personal injury, death or property damage. IN THE EVENT CONTRACTOR AND OWNER ARE FOUND JOINTLY LIABLE BY A COURT OF COMPETENT JURISDICTION, LIABILITY WILL BE APPORTIONED COMPARATIVELY IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS, WITHOUT WAIVING ANY GOVERNMENTAL IMMUNITY AVAILABLE TO THE STATE UNDER TEXAS LAW AND WITHOUT WAIVING ANY DEFENSES OF THE PARTIES UNDER TEXAS LAW.**

- 3.3.11.1 The provisions of this indemnification are solely for the benefit of the parties hereto and not intended to create or grant any rights, contractual or otherwise, to any other person or entity.
- 3.3.11.2 Contractor shall promptly advise Owner in writing of any claim or demand against Owner or against Contractor which involves Owner and known to Contractor and related to or arising out of Contractor's activities under this Contract.
- 3.3.12 Ancillary Areas. **Contractor shall** operate and maintain operations and associated storage areas at the site of the Work in accordance with the following:
 - 3.3.12.1 ~~Confine~~ All Contractor operations, including storage of materials and employee parking upon the Site of Work, **shall be confined** to areas designated by Owner.
 - 3.3.12.2 Contractor may erect, at its own expense, temporary buildings that will remain its property. **Contractor shall** remove such buildings and associated utility service lines upon completion of the Work, unless Contractor requests and Owner provides written consent that it may abandon such buildings and utilities in place.
 - 3.3.12.3 **Contractor shall** use only established roadways or construct and use such temporary roadways as may be authorized by Owner. **Contractor shall** not allow load limits of vehicles to exceed the limits prescribed by appropriate regulations or law. **Contractor shall** provide protection to road surfaces, curbs, sidewalks, trees, shrubbery, sprinkler systems, drainage structures and other like existing improvements to prevent damage and repair any damage thereto at the expense of Contractor.
 - 3.3.12.4 Owner may restrict Contractor's entry to the Site to specifically assigned entrances and routes.
- 3.3.13 Separate Contracts. Owner reserves the right to award other contracts in connection with ~~other portions of the Project under these the~~ same or substantially similar contract ~~conditions~~ **terms**, including those portions related to insurance and waiver of subrogation. Owner reserves the right to perform operations related to the Project with Owner's own forces.
- 3.3.14 Under a system of separate contracts, the conditions described herein continue to apply except as may be amended by change order.
- 3.3.15 Contractor shall cooperate with other contractors or forces employed on the Project by Owner, including providing access to Site, **integration of activities within Contractor's Work Progress Schedule** and Project information as requested.
- 3.3.16 Owner shall be reimbursed by Contractor for costs incurred by Owner which are payable to a separate contractor because of delays, improperly timed activities, or defective construction by Contractor. Owner will equitably adjust the Contract by Change Order for costs incurred by Contractor because of delays, improperly timed activities, damage to the Work or defective construction by a separate contractor.

Article 4. Historically Underutilized Business (HUB) Subcontracting Plan

- 4.1 General Description. The purpose of the Historically Underutilized Business (HUB) program is to promote equal business opportunities for economically disadvantaged persons (as defined by Tex. Gov't Code, Chapter 2161) to contract with the State of Texas in accordance with the goals specified in the State of Texas Disparity Study. The HUB program annual procurement utilization goals are

defined in 34 T.A.C. § 20.13(b).

- 4.1.1 State agencies are required by statute to make a good faith effort to assist HUBs in participating in contract awards issued by the State. 34 T.A.C. § 20.13(b) outlines the State's policy to encourage the utilization of HUBs in State contracting opportunities through race, ethnic and gender neutral means.
- 4.1.2 A Contractor who contracts with the State in an amount of \$100,000 or greater is required to make a good faith effort to award subcontracts to HUBs in accordance with 34 T.A.C. § 20.14(a)(2)(A) by submitting a HUB subcontracting plan within twenty-four (24) hours after the bid or response is due and complying with the HUB subcontracting plan after it is accepted by Owner and during the term of the Contract.
- 4.2 Compliance with Approved HUB Subcontracting Plan. Contractor, having been awarded this Contract in part by complying with the HUB program statute and rules, hereby covenants to continue to comply with the HUB program as follows:
 - 4.2.1 Prior to adding or substituting a Subcontractor, promptly notify Owner in the event a change is required for any reason to the accepted HUB subcontracting plan.
 - 4.2.2 Conduct the good-faith effort activities required and provide Owner with necessary documentation to justify approval of a change to the approved HUB subcontracting plan.
 - 4.2.3 Cooperate in the execution of a Change Order or such other approval of the change in the HUB subcontracting plans as Contractor and Owner may agree to.
 - 4.2.4 Maintain and make available to Owner upon request business records documenting compliance with the accepted HUB subcontracting plan.
 - 4.2.5 Upon receipt of payment for performance of Work, submit to Owner a compliance report, in the format required by Owner that demonstrates Contractor's performance of the HUB subcontracting plan.
 - ~~4.2.5.1 Progress Assessment Report (PAR): monthly compliance reports to Owner (contracting agency), verifying their compliance with the HUB subcontracting plan, including the use/expenditures they have made to Subcontractors. (The PAR is available at <http://www.window.state.tx.us/procurement/prog/hub/hub-forms/progressassessmentrpt.xls>).~~
 - 4.2.6 Promptly and accurately explain and provide supplemental information to Owner to assist in Owner's investigation of Contractor's good-faith effort to fulfill the HUB subcontracting plan and the requirements under 34 T.A.C. § 20.14(a)(1).
- 4.3 Failure to Demonstrate Good-Faith Effort. Upon a determination by Owner that Contractor has failed to demonstrate a good-faith effort to fulfill the HUB subcontracting plan or any Contract covenant detailed above, Owner may, in addition to all other remedies available to it, report the failure to perform to the Comptroller of Public Accounts, Texas Procurement and Support Services Division, Historically Underutilized Business Program and may bar Contractor from future contracting opportunities with Owner.

Article 5. Bonds and Insurance

- 5.1 Construction Bonds. Contractor is required to tender to Owner, prior to commencing the Work, performance and payment bonds, as required by Tex. Gov't Code, Chapter 2253. On Construction

Manager-at-Risk and Design-Build Projects the Owner shall require a security bond, as described in Subsection 5.1.2 below.

- 5.1.1 **Bond Requirements.** Each bond shall be executed by a corporate surety or sureties authorized to do business in the State of Texas and acceptable to Owner, on Owner's form, and in compliance with the relevant provisions of the Texas Insurance Code. If any bond is for more than ten (10) percent of the surety's capital and surplus, Owner may require certification that the company has reinsured the excess portion with one or more reinsurers authorized to do business in the State. A reinsurer may not reinsure for more than ten (10) percent of its capital and surplus. If a surety upon a bond loses its authority to do business in the State, Contractor shall, within thirty (30) days after such loss, furnish a replacement bond at no added cost to Owner.
- 5.1.1.1 A Performance bond is required if the Contract Sum is in excess of \$100,000. The performance bond is solely for the protection of Owner. The performance bond is to be for the Contract Sum to guarantee the faithful performance of the Work in accordance with the Contract Documents. The form of the bond shall be approved by the Office of the Attorney General of Texas. The performance bond shall be effective through Contractor's warranty period.
- 5.1.1.2 A Payment bond is required if the Contract price is in excess of \$25,000. The payment bond is to be for the Contract Sum and is payable to Owner solely for the protection and use of payment bond beneficiaries. The form of the bond shall be approved by the Office of the Attorney General of Texas.
- 5.1.2 **Security Bond.** The security bond provides protection to Owner if Contractor presents an acceptable guaranteed maximum price ("GMP") to Owner ~~and 1) fails to execute the GMP; or 2) fails~~ **but is unable** to deliver the required payment and performance bonds within the time period stated below.
- 5.1.3 **When Bonds Are Due**
- 5.1.3.1 Security bonds are due ~~within ten (10) days of signing~~ **before execution of** a Construction Manager-at-Risk or Design-Build Contract.
- 5.1.3.2 Payment and performance bonds are due **before execution of a contract on competitively bid or competitively sealed proposal projects or before execution of a GMP proposal on Construction Manager-at-Risk projects or Design-Build projects** ~~within ten (10) days of Contractor's receipt of a fully executed GMP on a Construction Manager at Risk project or the Contract Sum for a Design-Build project, or within ten (10) days of Contractor's receipt of a fully executed Contract on competitively bid or competitive sealed proposal projects.~~
- 5.1.4 **Power of Attorney.** Each bond shall be accompanied by a valid power of attorney (issued by the surety company and attached, signed and sealed with the corporate embossed seal, to the bond) authorizing the attorney-in-fact who signs the bond to commit the company to the terms of the bond, and stating any limit in the amount for which the attorney can issue a single bond.
- 5.1.5 **Bond Indemnification.** The process of requiring and accepting bonds and making claims thereunder shall be conducted in compliance with Tex. Gov't Code, Chapter 2253. **IF FOR ANY REASON A STATUTORY PAYMENT OR PERFORMANCE BOND IS NOT HONORED BY THE SURETY, CONTRACTOR SHALL FULLY INDEMNIFY AND HOLD OWNER HARMLESS OF AND FROM ANY COSTS, LOSSES, OBLIGATIONS OR LIABILITIES IT INCURS AS A RESULT.**

- 5.1.6 Furnishing Bond Information. Owner shall furnish certified copies of the payment bond and the related Contract to any qualified person seeking copies who complies with Tex. Gov't Code § 2253.026.
- 5.1.7 Claims on Payment Bonds. Claims on payment bonds must be sent directly to Contractor and his surety in accordance with Tex. Gov't Code § 2253.041. All payment bond claimants are cautioned that no lien exists on the funds unpaid to Contractor on such Contract, and that reliance on notices sent to Owner may result in loss of their rights against Contractor and/or his surety. Owner is not responsible in any manner to a claimant for collection of unpaid bills, and accepts no such responsibility because of any representation by any agent or employee.
- 5.1.8 Payment Claims when Payment Bond not Required. The rights of Subcontractors regarding payment are governed by Tex. Prop. Code §§ 53.231 – 53.239 when the value of the Contract between Owner and Contractor is less than \$25,000.00. These provisions set out the requirements for filing a valid lien on funds unpaid to Contractor as of the time of filing the claim, actions necessary to release the lien and satisfaction of such claim.
- 5.1.9 Sureties. A surety shall be listed on the US Department of the Treasury's Listing of Approved Sureties maintained by the Bureau of Financial Management Service (FMS), www.fms.treas.gov/c570, stating companies holding Certificates of Authority as acceptable sureties on Federal bonds and acceptable reinsuring companies (FMS Circular 570).
- 5.2 Insurance Requirements. Contractor shall carry insurance in the types and amounts indicated in this Article for the duration of the Contract. ***The required insurance shall include coverage for Owner's property prior to construction, during construction and during the warranty period.*** The insurance shall be evidenced by delivery to Owner of certificates of insurance executed by the insurer or its authorized agent stating coverages, limits, expiration dates and compliance with all applicable required provisions. Upon request, Owner, and/or its agents, shall be entitled to receive without expense, copies of the policies and all endorsements. Contractor shall update all expired policies prior to submission for monthly payment. Failure to update policies shall be reason for withholding of payment until renewal is provided to Owner.
 - 5.2.1 Contractor, ***consistent with its status as an independent contractor,*** shall provide and maintain all insurance coverage with the minimum amounts described below until the end of the warranty period unless otherwise stated in ***Owner's*** Supplementary General Conditions or Special Conditions. Failure to maintain insurance coverage, as required, is grounds for suspension of Work for cause pursuant to Article 14. ***The Contractor will be notified of the date on which the Builder's Risk insurance policy may be terminated by any means deemed appropriate by Owner.***
 - 5.2.2 Coverage shall be written on an occurrence basis by companies authorized and admitted to do business in the State of Texas and rated A-, ***VII*** or better by A.M. Best Company or similar rating company or otherwise acceptable to Owner.
 - 5.2.2.1 Insurance Coverage Required.
 - 5.2.2.1.1 Workers' Compensation. Insurance with limits as required by the Texas Workers' Compensation Act, ~~with the policy endorsed to provide a waiver of subrogation as to Owner, employer's liability~~ ***and Employer's Liability Insurance with limits*** of not less than:
 - \$100,000-***\$1,000,000*** each accident;
 - \$100,000-***\$1,000,000*** disease each employee ; and

~~\$500,000~~ **\$1,000,000** disease policy limit.

Policies must include (a) Other States Endorsement to include TEXAS if business is domiciled outside the State of Texas, and (b) a waiver of all rights of subrogation in favor of Owner.

5.2.2.1.2 Commercial General Liability Insurance, including premises, operations, independent contractor's liability, products and completed operations and contractual liability, covering, but not limited to, the liability assumed under the indemnification provisions of this Contract, fully insuring Contractor's **(or Subcontractor's)** liability for bodily injury (including death) and property damage with a minimum limit of:

\$1,000,000 per occurrence;

\$2,000,000 general aggregate;

\$2,000,000 products and completed operations aggregate; and

Coverage shall be on an "occurrence" basis.

The policy shall include coverage extended to apply to completed operations and explosion, collapse, and underground hazards. The policy shall include endorsement CG2503 Amendment of Aggregate Limits of Insurance (per Project) or its equivalent.

If the Work involves any activities within fifty (50) feet of any railroad, railroad protective insurance as may be required by the affected railroad, written for not less than the limits required by such railroad.

5.2.2.1.3 Asbestos Abatement Liability Insurance, including coverage for liability arising from the encapsulation, removal, handling, storage, transportation, and disposal of asbestos containing materials. *This requirement applies if the Work or the Project includes asbestos containing materials.

The combined single limit for bodily injury and property damage will be a minimum of \$1,000,000 per occurrence.

*Specific requirement for claims-made form: Required period of coverage will be determined by the following formula: continuous coverage for life of the Contract, plus one (1) year (to provide coverage for the warranty period), and an extended discovery period for a minimum of five (5) years which shall begin at the end of the warranty period.

Employer's liability limits for asbestos abatement will be:

~~\$500,000~~ **\$1,000,000** each accident;

~~\$500,000~~ **\$1,000,000** disease each employee; and

~~\$500,000~~ **\$1,000,000** disease policy limit.

If this Contract is for asbestos abatement only, the All-Risk Builder's Risk or all-risk installation floater (5.2.2.1.5.e) is not required.

- 5.2.2.1.4 ~~Comprehensive~~ **Business Automobile Liability Insurance**, covering **all** owned, hired, and non-owned vehicles, with a minimum combined single limit for bodily injury (including death) and property damage of \$1,000,000 per occurrence. No aggregate shall be permitted for this type of coverage.

Such insurance is to include coverage for loading and unloading hazards.

- 5.2.2.1.5 **All-Risk Builder's Risk Insurance**, if applicable (or all-risk installation floater for instances in which the project involves solely the installation of material and/or equipment). **Coverage is determined by the Contract Sum, as detailed, below.**

~~Coverage shall be all risk, including, but not limited to, fire, extended coverage, vandalism and malicious mischief, theft and, if applicable, flood, earth movement and named storm. Builder's risk and installation floater limits shall be equal to 100 percent of the Contract Sum plus, if any, existing property and Owner furnished equipment specified by Owner. The policy shall be written jointly in the names of Owner and Contractor. Subcontractors shall be named as additional insureds. The policy shall have endorsements as follows:~~

~~5.2.2.1.5.1 This insurance shall be specific as to coverage and not contributing insurance with any permanent insurance maintained on the property.~~

~~5.2.2.1.5.2 This insurance shall not contain an occupancy clause suspending or reducing coverage should Owner partially occupy the Site and before the parties have determined Substantial Completion.~~

~~5.2.2.1.5.3 Loss, if any, shall be adjusted with and made payable to Owner as trustee for the insureds as their interests may appear. Owner shall be named as loss payee.~~

~~5.2.2.1.5.4 For renovation projects or projects that involve portions of Work contained within an existing structure, refer to Supplementary General and Special Conditions for possible additional builder's risk insurance requirements.~~

~~5.2.2.1.5.5 For Owner furnished equipment or materials that will be in care, custody or control of Contractor, Contractor will be responsible for damage and loss.~~

~~5.2.2.1.5.6 For those properties located within a Tier 1 or 2 windstorm area, named storm coverage must be provided with limits specified by Owner.~~

~~5.2.2.1.5.7 For those properties located in flood prone areas, flood insurance coverage must be provided with limits specified by Owner.~~

~~5.2.2.1.5.8 Builder's risk insurance policy shall remain in effect until Substantial Completion.~~

BUILDERS RISK REQUIREMENT FOR PROJECTS WITH A CONTRACT SUM <\$20 MILLION

- 5.2.2.1.5.1 Contractor shall purchase and maintain in force builders risk insurance on the entire Work. Such insurance shall be written in the amount of the original contract, plus any subsequent change orders and plus the cost of materials supplied or installed by others, comprising Total Value for the entire Project at the site. The insurance shall apply on a replacement cost basis with no coinsurance provision. A sublimit may be applicable to flood coverage, but sublimit**

must be at least 20% of the Total Value of the Project. The limit for all other perils, including Named Windstorm, Wind, and Hail, must be equal to the Total Value for the entire Project at the site. (If Installation Floater, limit shall be equal to 100 percent of the contract cost.)

5.2.2.1.5.2 *This insurance shall name as insureds the Owner, the Contractor, and all subcontractors and sub-subcontractors in the Work.*

5.2.2.1.5.3 *Builders risk insurance shall be on an "all risk" or equivalent policy form and shall include, without limitation, insurance against fire and extended coverage perils, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, boiler and machinery/mechanical breakdown, testing and startup, and terrorism.*

5.2.2.1.5.4 *This insurance shall cover the entire work at the site as required in 5.2.2.1.5.1, including, but not limited to, the following:*

- *Temporary works including but not limited to scaffolding, form work, fences, shoring, hoarding, falsework and temporary buildings*
- *Offsite Storage*
- *Portions of the work in transit*
- *Debris removal*
- *Extra Expense*
- *Expediting Expenses*
- *Demolition and Increased Cost of Construction*
- *Pollutant Clean-Up and Removal*
- *Trees, Shrubs, Plants, Lawns and Landscaping (if applicable)*
- *Errors & Omissions (applicable to purchase of Builders Risk policy only)*

5.2.2.1.5.5 *This insurance shall not contain an occupancy clause suspending or reducing coverage should the Owner occupy, or begin beneficial occupancy before the Owner has accepted final completion.*

5.2.2.1.5.6 *This insurance shall be specific as to coverage and shall be primary to any permanent insurance or self-insurance that may be maintained on the property by Owner.*

5.2.2.1.5.7 *This insurance shall include a waiver of subrogation in favor of Owner, the Contractor, and all subcontractors and sub-subcontractors in the work.*

5.2.2.1.5.8 *As applicable, Flood deductible shall not exceed \$250,000 for Zone A, \$100,000 for Zone B and \$50,000 for all other Zones. For Tier 1 and Tier 2, Named Windstorm deductible shall not exceed 2% of the project values in place at the time of the loss.*

5.2.2.1.5.9 *Before the commencement of the work, Contractor shall provide to Owner an accurate certificate of insurance that provides specific evidence of all requirements outlined in Section 5.2.2.1.5. A copy of the policy itself shall be provided to Owner within 30 days after Notice to Proceed.*

5.2.2.1.5.10 *Refer to Owner's Special Conditions for possible additional Builders Risk insurance requirements.*

BUILDERS RISK REQUIREMENT FOR PROJECTS WITH A CONTRACT SUM \geq \$20 MILLION

5.2.2.1.5.1 *Contractor shall purchase and maintain in force builders risk insurance on the entire Work.*

Such insurance shall be written in the amount of the original contract, plus any subsequent change orders and plus the cost of materials supplied or installed by others, comprising Total Value for the entire Project at the site. The insurance shall apply on a replacement cost basis with no coinsurance provision and shall include a margin clause of plus/minus 10% on project value. A sublimit may be applicable to flood coverage, but sublimit must be at least 20% of the Total Value of the Project. A sublimit of \$50 million or the Total Value of the Project, whichever is less, is acceptable for Earthquake. The limit for all other perils, including Named Windstorm, Wind, and Hail, must be equal to the Total Value for the entire Project at the site. (If Installation Floater, limit shall be equal to 100 percent of the contract cost.)

5.2.2.1.5.2 *This insurance shall name as insureds the Owner, the Contractor, and all subcontractors and sub-subcontractors in the Work.*

5.2.2.1.5.3 *Builders risk insurance shall be on an “all risk” or equivalent policy form and shall include, without limitation, insurance against fire and extended coverage perils, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, boiler and machinery/mechanical breakdown, testing and startup, and terrorism.*

5.2.2.1.5.4 *This insurance shall cover the entire work at the site as required in 5.2.2.1.5.1, including, but not limited to, the following:*

Coverage	Minimum Limit Required
<i>Temporary works including but not limited to scaffolding, form work, fences, shoring, hoarding, falsework and temporary buildings</i>	<i>\$1 million</i>
<i>Offsite Storage</i>	<i>Sufficient to cover the anticipated maximum values stored offsite</i>
<i>Portions of the work in Transit</i>	<i>Sufficient to cover the anticipated maximum values in transit</i>
<i>Debris Removal</i>	<i>25% of Physical damage amount subject to maximum of \$5 million or 25% of Total Value of Project whichever is higher</i>
<i>Expediting Expenses</i>	<i>\$1 million</i>
<i>Extra Expense</i>	<i>\$5 million</i>
<i>Demolition and Increased Cost of Construction</i>	<i>\$2 million or 10% of Total Value of Project whichever is higher</i>
<i>Pollutant Clean-Up and Removal</i>	<i>\$250,000</i>
<i>Trees, Shrubs, Plants, Lawns and Landscaping (if applicable)</i>	<i>\$2,500 per item subject to a maximum of \$1 million</i>
<i>Errors & Omissions (applicable to purchase of Builders Risk policy only)</i>	<i>\$2.5 million</i>

5.2.2.1.5.5 *This insurance shall not contain an occupancy clause suspending or reducing coverage should the Owner occupy, or begin beneficial occupancy before the Owner has accepted final completion.*

5.2.2.1.5.6 *This insurance shall be specific as to coverage and shall be primary to any permanent insurance or self-insurance that may be maintained on the property by Owner.*

5.2.2.1.5.7 *This insurance shall include a waiver of subrogation in favor of Owner, the Contractor, and all subcontractors and sub-subcontractors in the work.*

5.2.2.1.5.8 *As applicable, Flood deductible shall not exceed \$250,000 for Zone A, \$100,000 for Zone B and*

\$50,000 for all other Zones. For Tier 1 and Tier 2, Named Windstorm deductible shall not exceed 2% of the project values in place at the time of the loss.

5.2.2.1.5.9 ***Before the commencement of the work, Contractor shall provide to Owner an accurate certificate of insurance that provides specific evidence of all requirements outlined in Section 5.2.2.1.5. A copy of the policy itself shall be provided to Owner within 30 days after Notice to Proceed.***

5.2.2.1.5.10 ***Refer to Owner's Special Conditions for possible additional Builders Risk insurance requirements.***

5.2.2.1.6 ***"Umbrella" Liability Insurance.*** Contractor shall obtain, pay for and maintain umbrella liability insurance during the Contract term, insuring Contractor ***(or Subcontractor)*** for an amount of not less than amount specified in the ***Owner's*** Supplementary General Conditions or Special Conditions that provides coverage at least as broad as and applies in excess and follows form of the primary liability coverages required hereinabove. The policy shall provide "drop down" coverage where underlying primary insurance coverage limits are insufficient or exhausted.

5.2.3 ***All Policies must include the following clauses, as applicable:***

5.2.3.1 ***Contractor must provide to Owner immediate notice of cancellation, material change, or non-renewal to any insurance coverages required herein above. This requirement may be satisfied by the Contractor providing a copy of the notice received by the insurer to Owner within two business days of date of receipt or by Endorsement of the policies that require Insurer to provide notice to Owner. This insurance shall not be canceled, materially changed, or non-renewed except after thirty (30) days written notice has been given to Owner.***

5.2.3.2 It is agreed that Contractor's insurance shall be deemed primary with respect to any insurance or self insurance carried by Owner for liability arising out of operations under the Contract with Owner.

5.2.3.3 Owner, its officials, directors, employees, representatives, and volunteers are added as additional insureds as respects operations and activities of, or on behalf of the named insured performed under Contract with Owner. The additional insured status must cover completed operations as well. This is not applicable to workers' compensation policies.

5.2.3.4 A waiver of subrogation in favor of Owner shall be provided in all policies.

5.2.3.5 ***If Owner is damaged by the failure of Contractor (or Subcontractor) to maintain insurance as required herein and/or as further described in Owner's Special Conditions, then Contractor shall bear all reasonable costs properly attributable to that failure.***

5.2.4 Without limiting any of the other obligations or liabilities of Contractor, Contractor shall require each Subcontractor performing work under the Contract, at Subcontractor's own expense, to maintain during the term of the Contract, the same stipulated minimum insurance including the required provisions and additional policy conditions as shown above. As an alternative, Contractor may include its Subcontractors as additional insureds on its own coverage as prescribed under these requirements. Contractor's certificate of insurance shall note in such event that Subcontractors are included as additional insureds and that Contractor agrees to provide workers' compensation for Subcontractors and their employees. Contractor

shall obtain and monitor the certificates of insurance from each Subcontractor in order to assure compliance with the insurance requirements. Contractor must retain the certificates of insurance for the duration of the Contract plus five (5) years and shall have the responsibility of enforcing these insurance requirements among its Subcontractors. Owner shall be entitled, upon request and without expense, to receive copies of these certificates.

- 5.2.5 Workers' compensation insurance coverage must meet the statutory requirements of Tex. Lab. Code § 401.011(44) and specific to construction projects for public entities as required by Tex. Lab. Code § 406.096.

5.2.5.1 Definitions:

5.2.5.1.1 Certificate of coverage ("certificate")- *A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement (DWC-81, DWC-82, DWC-83, or DWC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.*

5.2.5.1.2 Duration of the project - *includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.*

5.2.5.1.3 Persons providing services on the project ("subcontractor" in §406.096) – *includes all persons or entities performing all or part of the services the contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.*

5.2.5.2 *The contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.*

5.2.5.3 *The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract.*

5.2.5.4 *If the coverage period shown on the contractor's current certificate of coverage ends during the duration of the project, the contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.*

5.2.5.5 *The contractor shall obtain from each person providing services on a project, and provide to the governmental entity:*
(1) *a certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and*

- (2) no later than seven days after receipt by the contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.**

5.2.5.6 The contractor shall retain all required certificates of coverage for the duration of the project and for one year thereafter.

5.2.5.7 The contractor shall notify the governmental entity in writing by certified mail or personal delivery, within 10 days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

5.2.5.8 The contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Department of Insurance Division of Workers' Compensation, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

5.2.5.9 The contractor shall contractually require each person with whom it contracts to provide services on a project, to:

- (1) provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all of its employees providing services on the project, for the duration of the project;**
- (2) provide to the contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;**
- (3) provide the contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;**
- (4) obtain from each other person with whom it contracts, and provide to the contractor:
 - (a) a certificate of coverage, prior to the other person beginning work on the project; and**
 - (b) a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;****
- (5) retain all required certificates of coverage on file for the duration of the project and for one year thereafter;**
- (6) notify the governmental entity in writing by certified mail or personal delivery, within 10 days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and**

(7) contractually require each person with whom it contracts, to perform as required by paragraphs (1) - (7), with the certificates of coverage to be provided to the person for whom they are providing services.

5.2.5.10 *By signing this contract or providing or causing to be provided a certificate of coverage, the contractor is representing to the governmental entity that all employees of the contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.*

5.2.5.11 *The contractor's failure to comply with any of these provisions is a breach of contract by the contractor which entitles the governmental entity to declare the contract void if the contractor does not remedy the breach within ten days after receipt of notice of breach from the governmental entity.*

Article 6. Construction Documents, Coordination Documents, and Record Documents

6.1 Drawings and Specifications.

- 6.1.1 Copies Furnished. Contractor will be furnished, free of charge, the number of complete sets of the Drawings, Specifications, and ~~Addenda~~ **addenda** as provided in the Supplementary General Conditions or Special Conditions. Additional complete sets of Drawings and Specifications, if requested, will be furnished at reproduction cost to the ~~one~~ **entity** requesting such additional sets. Electronic copies of such documents will be provided to Contractor without charge.
- 6.1.2 Ownership of Drawings and Specifications. All Drawings, Specifications and copies thereof furnished by A/E are to remain A/E's property. These documents are not to be used on any other project, and with the exception of the Contract record set and electronic versions needed for warranty operations, are to be returned to the A/E, upon request, following completion of the Work.
- 6.1.3 Interrelation of Documents. The Contract Documents as referenced in the Contract between Owner and Contractor are complementary, and what is required by one shall be as binding as if required by all.
- 6.1.4 Resolution of Conflicts in Documents. Where conflicts may exist within the Contract Documents, the documents shall govern in the following order: (a) Change Orders, addenda, and written amendments to the Contract; (b) the Contract; (c) Drawings; (d) Specifications (but Specifications shall control over Drawings as to quality of materials **and installation**); and (e) other Contract Documents. Among other categories of documents having the same order of precedence, the term or provision that includes the latest date shall control. Contractor shall notify A/E and ODR for resolution of the issue prior to executing the Work in question.
- 6.1.5 Contractor's Duty to Review Contract Documents. In order to facilitate its responsibilities for completion of the Work in accordance with and as reasonably inferable from the Contract Documents, prior to commencing the Work, Contractor shall examine and compare the Contract Documents, information furnished by Owner, relevant field measurements made by Contractor and any visible or reasonably anticipated conditions at the Site affecting the Work.

This duty extends throughout the construction phase prior to commencing each particular work activity and/or system installation.

6.1.6 Discrepancies and Omissions in Drawings and Specifications.

6.1.6.1 Promptly report to ODR and to A/E the discovery of any apparent error, omission or inconsistency in the Contract Documents prior to execution of the Work.

6.1.6.2 It is recognized that Contractor is not acting in the capacity of a licensed design professional, unless it is performing as a Design-Build firm.

6.1.6.3 It is further recognized that Contractor's examination of Contract Documents is to facilitate construction and does not create an affirmative responsibility to detect errors, omissions or inconsistencies or to ascertain compliance with applicable laws, building codes or regulations, unless it is performing as a Design-Build firm or a Construction Manager-at-Risk.

6.1.6.4 When performing as a Design-Build firm, Contractor has sole responsibility for discrepancies, errors, and omissions in the Drawings and Specifications.

6.1.6.5 When performing as a Construction Manager-at-Risk, Contractor has a shared responsibility with A/E for discovery and resolution of discrepancies, errors, and omissions in the Contract Documents. In such case, Contractor's responsibility pertains to review, coordination, and recommendation of resolution strategies within budget constraints.

6.1.6.6 Contractor has no liability for errors, omissions, or inconsistencies unless Contractor knowingly failed to report a recognized problem to Owner or the Work is executed under a Design-Build or Construction Manager-at-Risk Contract as outlined above. Should Contractor fail to perform the examination and reporting obligations of these provisions, Contractor is responsible for avoidable costs and direct and/or consequential damages.

6.1.6.7 Owner does not warrant or make any representations as to the accuracy, suitability or completeness of any information furnished to Contractor by Owner or its representatives.

6.2 Requirements for Record Documents. Contractor shall:

6.2.1 ~~Maintain this record set of Drawings and Specifications~~ at the Site one copy of all Drawings, Specifications, addenda, approved submittals, Contract modifications, and all Project correspondence. Keep current and maintain Drawings and Specifications in good order with postings and markings to record actual conditions of Work and show and reference all changes made during construction. Provide Owner and A/E access to these documents.

6.2.2 Maintain **the Record Documents** which reflect the actual field conditions and representations of the Work performed, whether it be directed by addendum, Change Order or otherwise. Make available **the Record Documents and** all records prescribed herein for reference and examination by Owner and its representatives and agents.

6.2.3 Update the Record Documents at least monthly prior to submission of periodic partial pay estimates. Failure to maintain current Record Documents constitutes cause for denial of a progress payment otherwise due.

6.2.4 Prior to requesting Substantial Completion inspection Contractor shall furnish a copy of its marked-up Record Documents and a preliminary copy of each instructional manual,

maintenance and operating manual, parts catalog, wiring diagrams, spare parts, specified written warranties and like publications, or parts for all installed equipment, systems, and like items and as described in the Contract Documents.

- 6.2.5 Once determined acceptable by ODR with input from A/E, provide one (1) reproducible copy and one (1) electronic media copy *in a format acceptable to the ODR* of all Record Documents, unless otherwise required by the Supplementary General Conditions or Special Conditions.
- 6.2.6 Contractor shall be responsible for updating the Record Documents for all Contractor initiated documents and changes to the Contract Documents due to coordination and actual field conditions, including RFIs.
- 6.2.7 A/E shall be responsible for updating the Record Documents for any addenda, Change Orders, A/E supplemental instructions and any other alterations to the Contract Documents generated by A/E or Owner.

Article 7. Construction Safety

- 7.1 General. It is the duty and responsibility of Contractor and all of its Subcontractors to be familiar with, enforce and comply with all requirements of Public Law No. 91-596, 29 U.S.C. § 651 et. seq., the Occupational Safety and Health Act of 1970, (OSHA) and all amendments thereto. Contractor shall prepare a safety plan specific to the Project and submit it to ODR and A/E prior to commencing Work. In addition, Contractor and all of its Subcontractors shall comply with all applicable laws and regulations of any public body having jurisdiction for safety of persons or property to protect them from damage, injury or loss and erect and maintain all necessary safeguards for such safety and protection.
- 7.2 Notices. Contractor shall provide notices as follows:
 - 7.2.1 Notify owners of adjacent property including those that own or operate utility services and/or underground facilities, and utility owners, when prosecution of the Work may affect them or their facilities, and cooperate with them in the protection, removal, relocation and replacement, and access to their facilities and/or utilities.
 - 7.2.2 Coordinate the exchange of material safety data sheets (MSDSs) or other hazard communication information required to be made available to or exchanged between or among employers at the site in connection with laws and regulations. Maintain a complete file of MSDSs for all materials in use on site throughout the construction phase and make such file available to Owner and its agents as requested.
- 7.3 Emergencies. In any emergency affecting the safety of persons or property, Contractor shall act to minimize, mitigate, and prevent threatened damage, injury or loss.
 - 7.3.1 Have authorized agents of Contractor respond immediately upon call at any time of day or night when circumstances warrant the presence of Contractor to protect the Work or adjacent property from damage or to take such action pertaining to the Work as may be necessary to provide for the safety of the public.
 - 7.3.2 Give ODR and A/E prompt notice of all such events.
 - 7.3.3 If Contractor believes that any changes in the Work or variations from Contract Documents have been caused by its emergency response, promptly notify Owner within seventy-two (72) hours of the emergency response event.

- 7.3.4 Should Contractor fail to respond, Owner is authorized to direct other forces to take action as necessary and Owner may deduct any cost of remedial action from funds otherwise due Contractor.
- 7.4 Injuries. In the event of an incident or accident involving outside medical care for an individual on or near the Work, Contractor shall notify ODR and other parties as may be directed promptly, but no later than twenty-four (24) hours after Contractor learns that an event required medical care.
- 7.4.1 Record the location of the event and the circumstances surrounding it, by using photography or other means, and gather witness statements and other documentation which describes the event.
- 7.4.2 Supply ODR and A/E with an incident report no later than thirty-six (36) hours after the occurrence of the event. In the event of a catastrophic incident (one (1) fatality or three (3) workers hospitalized), barricade and leave intact the scene of the incident until all investigations are complete. A full set of incident investigation documents, including facts, finding of cause, and remedial plans shall be provided within one (1) week after occurrence, unless otherwise directed by legal counsel. Contractor shall provide ODR with written notification within one week of such catastrophic event if legal counsel delays submission of full report.
- 7.5 Environmental Safety. Upon encountering any previously unknown potentially hazardous material, or other materials potentially contaminated by hazardous material, Contractor shall immediately stop work activities impacted by the discovery, secure the affected area, and notify ODR immediately.
- 7.5.1 Bind all Subcontractors to the same duty.
- 7.5.2 Upon receiving such notice, ODR will promptly engage qualified experts to make such investigations and conduct such tests as may be reasonably necessary to determine the existence or extent of any environmental hazard. Upon completion of this investigation, ODR will issue a written report to Contractor identifying the material(s) found and indicate any necessary steps to be taken to treat, handle, transport or dispose of the material.
- 7.5.3 Owner may hire third-party contractors to perform any or all such steps.
- 7.5.4 Should compliance with ODR's instructions result in an increase in Contractor's cost of performance, or delay the Work, Owner will make an equitable adjustment to the Contract Sum and/or the time of completion, and modify the Contract in writing accordingly.
- 7.6 Trenching Plan. When the project requires excavation which either exceeds a depth of four (4) feet, or results in any worker's upper body being positioned below grade level, Contractor is required to submit a trenching plan to ODR prior to commencing trenching operations unless an engineered plan is part of the Contract Documents. The plan is required to be prepared and sealed by a professional engineer registered in the State of Texas, and hired or employed by Contractor or Subcontractor to perform the work. Said engineer cannot be anyone who is otherwise either directly or indirectly engaged on this project.

Article 8. Quality Control

- 8.1 Materials & Workmanship. Contractor shall execute Work in a good and workmanlike matter in accordance with the Contract Documents. Contractor shall develop and provide a quality control plan specific to this Project and acceptable to Owner. Where Contract Documents do not specify quality standards, complete and construct all Work in compliance with generally accepted construction industry standards. Unless otherwise specified, incorporate all new materials and equipment into the Work under the Contract.

8.2 Testing.

- 8.2.1 Owner is responsible for coordinating and paying for routine and special tests required to confirm compliance with quality and performance requirements, except as stated below or otherwise required by the Contract Documents.
- 8.2.2 Contractor shall provide the following testing *as well as any other testing required of Contractor by the Specifications*:**
- 8.2.2.1 Any test of basic material or fabricated equipment included as part of a submittal for a required item in order to establish compliance with the Contract Documents.
- 8.2.2.2 Any test of basic material or fabricated equipment offered as a substitute for a specified item on which a test may be required in order to establish compliance with the Contract Documents.
- 8.2.2.3 Preliminary, start-up, pre-functional and operational testing of building equipment and systems as necessary to confirm operational compliance with requirements of the Contract Documents.
- 8.2.2.4 All subsequent tests on original or replaced materials conducted as a result of prior testing failure.
- 8.2.3 All testing shall be performed in accordance with standard test procedures by an accredited laboratory, or special consultant as appropriate, acceptable to Owner. Results of all tests shall be provided promptly to ODR, A/E, and Contractor.
- 8.2.4 Non-Compliance (Test Results). Should any of the tests indicate that a material and/or system does not comply with the Contract requirements, the burden of proof remains with Contractor, subject to:
- 8.2.4.1 Contractor selection and submission of the laboratory for Owner acceptance.
- 8.2.4.2 Acceptance by Owner of the quality and nature of tests.
- 8.2.4.3 All tests taken in the presence of A/E and/or ODR, or their representatives.
- 8.2.4.4 If tests confirm that the material/systems comply with Contract Documents, Owner will pay the cost of the test.
- 8.2.4.5 If tests reveal noncompliance, Contractor will pay those laboratory fees and costs of that particular test and all future tests, of that failing Work, necessary to eventually confirm compliance with Contract Documents.
- 8.2.4.6 Proof of noncompliance with the Contract Documents will make Contractor liable for any corrective action which ODR determines appropriate, including complete removal and replacement of non-compliant work or material.
- 8.2.5 Notice of Testing. Contractor shall give ODR and A/E timely notice of its readiness and the date arranged so ODR and A/E may observe such inspection, testing, or approval.
- 8.2.6 Test Samples. Contractor is responsible for providing Samples of sufficient size for test purposes and for coordinating such tests with their Work Progress Schedule to avoid delay.

8.2.7 Covering Up Work. If Contractor covers up any Work without providing Owner an opportunity to inspect, Contractor shall, if requested by ODR, uncover and recover the work at Contractor's expense.

8.3 Submittals.

8.3.1 Contractor's Submittals. Contractor shall submit with reasonable promptness consistent with the Project schedule and in orderly sequence all Shop Drawings, Samples, or other information required by the Contract Documents, or subsequently required by Change Order. Prior to submitting, Contractor shall review each submittal for general compliance with Contract Documents and approve submittals for review by A/E and Owner by an approval stamp affixed to each copy. Submittal data presented without Contractor's stamp **of approval** will be returned without review or comment. **Any** delay resulting from **Contractor's** failure to **certify approval of the Submittal** is Contractor's responsibility.

8.3.1.1 Contractor shall within twenty-one (21) days of the effective date of the Notice To Proceed with construction, submit to ODR and A/E, a submittal schedule/register, organized by specification section, listing all items to be furnished for review and approval by A/E and Owner. The list shall include Shop Drawings, manufacturer's literature, certificates of compliance, materials Samples, materials colors, guarantees, and all other items identified throughout the Specifications.

8.3.1.2 Contractor shall indicate the type of item, Contract requirements reference, and Contractor's scheduled dates for submitting the item along with the requested dates for approval answers from A/E and Owner. The submittal register shall indicate the projected dates for procurement of all included items and shall be updated at least monthly with actual approval and procurement dates. Contractor's Submittal Register must be reasonable in terms of the review time for complex submittals. Contractor's submittal schedule must be consistent with the Work Progress Schedule and identify critical submittals. Show and allow a minimum of fifteen (15) days duration after receipt by A/E and ODR for review and approval. If re-submittal required, allow a minimum of an additional fifteen (15) days for review. Submit the updated Submittal Register with each request for progress payment. Owner may establish routine review procedures and schedules for submittals at the preconstruction conference and/or elsewhere in the Contract Documents. If Contractor fails to update and provide the Submittal Register as required, Owner may, after seven (7) days notice to Contractor withhold a reasonable sum of money that would otherwise be due Contractor.

8.3.1.3 Contractor shall coordinate the Submittal Register with the Work Progress Schedule. Do not schedule Work requiring a submittal to begin prior to scheduling review and approval of the related submittal. Revise and/or update both schedules monthly to ensure consistency and current project data. Provide to ODR the updated Submittal Register and schedule with each application for progress payment. Refer to requirements for the Work Progress Schedule for inclusion of procurement activities therein. Regardless, the Submittal Register shall identify dates submitted and returned and shall be used to confirm status and disposition of particular items submitted, including approval or other action taken and other information not conveniently tracked through the Work Progress Schedule.

8.3.1.4 By submitting Shop Drawings, Samples or other required information, Contractor represents that it has determined and verified all applicable field measurements, field construction criteria, materials, catalog numbers and similar data; and has checked and coordinated each Shop Drawing and Sample with the requirements of the Work and the Contract Documents.

- 8.3.2 Review of Submittals. A/E and ODR review is only for conformance with the design concept and the information provided in the Contract Documents. Responses to submittals will be in writing. The approval of a separate item does not indicate approval of an assembly in which the item functions. The approval of a submittal does not relieve Contractor of responsibility for any deviation from the requirements of the Contract unless Contractor informs A/E and ODR of such deviation in a clear, conspicuous, and written manner on the submittal transmittal and at the time of submission, and obtains Owner’s written specific approval of the particular deviation.
- 8.3.3 Correction and Resubmission. Contractor shall make any corrections required to a submittal and resubmit the required number of corrected copies promptly so as to avoid delay, until submittal approval. Direct attention in writing to A/E and ODR, when applicable, to any new revisions other than the corrections requested on previous submissions.
- 8.3.4 Limits on Shop Drawing Review. Contractor shall not commence any Work requiring a submittal until review of the submittal under Subsection 8.3.2. Construct all such work in accordance with reviewed submittals. Comments incorporated as part of the review in Subsection 8.3.2 of Shop Drawings and Samples is not authorization to Contractor to perform extra work or changed work unless authorized through a Change Order. A/E’s and ODR’s review, if any, does not relieve Contractor from responsibility for defects in the Work resulting from errors or omissions of any kind on the submittal, regardless of any approval action.
- 8.3.5 No Substitutions Without Approval. ODR and A/E may receive and consider Contractor’s request for substitution when Contractor agrees to reimburse Owner for review costs and satisfies the requirements of this section. If Contractor does not satisfy these conditions, ODR and A/E will return the request without action except to record noncompliance with these requirements. Owner will not consider the request if Contractor cannot provide the product or method because of failure to pursue the Work promptly or coordinate activities properly. Contractor’s request for a substitution may be considered by ODR and A/E when:
- 8.3.5.1 The Contract Documents do not require extensive revisions; and
 - 8.3.5.2 Proposed changes are in keeping with the general intent of the Contract Documents and the design intent of A/E and do not result in an increase in cost to Owner; and
 - 8.3.5.3 The request is timely, fully documented, properly submitted and one or more of the following apply:
 - 8.3.5.3.1 Contractor cannot provide the specified product, assembly or method of construction within the Contract Time;
 - 8.3.5.3.2 The request directly relates to an “or-equal” clause or similar language in the Contract Documents;
 - 8.3.5.3.3 The request directly relates to a “product design standard” or “performance standard” clause in the Contract Documents;
 - 8.3.5.3.4 The requested substitution offers Owner a substantial advantage in cost, time, energy conservation or other considerations, after deducting additional responsibilities Owner must assume;
 - 8.3.5.3.5 The specified product or method of construction cannot receive necessary approval by an authority having jurisdiction, and ODR can approve the requested substitution;

- 8.3.5.3.6 Contractor cannot provide the specified product, assembly or method of construction in a manner that is compatible with other materials and where Contractor certifies that the substitution will overcome the incompatibility;
- 8.3.5.3.7 Contractor cannot coordinate the specified product, assembly or method of construction with other materials and where Contractor certifies they can coordinate the proposed substitution; or
- 8.3.5.3.8 The specified product, assembly or method of construction cannot provide a warranty required by the Contract Documents and where Contractor certifies that the proposed substitution provides the required warranty.

8.3.6 Unauthorized Substitutions at Contractor's Risk. Contractor is financially responsible for any additional costs or delays resulting from unauthorized substitution of materials, equipment or fixtures other than those specified. Contractor shall reimburse Owner for any increased design or contract administration costs resulting from such unauthorized substitutions.

8.4 Field Mock-up.

- 8.4.1 Mock-ups shall be constructed prior to commencement of a specified scope of work to confirm acceptable workmanship.
 - 8.4.1.1 As a minimum, field mock-ups shall be constructed for roofing systems, exterior veneer / finish systems, glazing systems, and any other Work requiring a mock-up as identified throughout the Contract Documents. Mock-ups for systems not part of the Project scope shall not be required.
 - 8.4.1.2 Mock-ups may be incorporated into the Work if allowed by the Contract Documents and if acceptable to ODR. If mock-ups are freestanding, they shall remain in place until otherwise directed by Owner.
 - 8.4.1.3 Contractor shall include field mock-ups in their Work Progress Schedule and shall notify ODR and A/E of readiness for review sufficiently in advance to coordinate review without delay.

8.5 Inspection During Construction.

- 8.5.1 Contractor shall provide sufficient, safe, and proper facilities, including equipment as necessary for safe access, at all reasonable times for observation and/or inspection of the Work by Owner and its agents.
- 8.5.2 Contractor shall not cover up any Work with finishing materials or other building components prior to providing Owner and its agents an opportunity to perform an inspection of the Work.
 - 8.5.2.1 Should corrections of the Work be required for approval, Contractor shall not over up corrected Work until Owner indicates approval.
 - 8.5.2.2 Contractor shall provide notification of at least five (5) working days or otherwise as mutually agreed, to ODR of the anticipated need for a cover-up inspection. Should ODR fail to make the necessary inspection within the agreed period, Contractor may proceed with cover-up Work, but is not relieved of responsibility for Work to comply with requirements of the Contract Documents.

Article 9. Construction Schedules

- 9.1 Contract Time. **TIME IS AN ESSENTIAL ELEMENT OF THE CONTRACT.** The Contract Time is the time between the dates indicated in the Notice to Proceed for commencement of the Work and for achieving Substantial Completion. The Contract Time can be modified only by Change Order. Failure to achieve Substantial Completion within the Contract Time **or** as otherwise agreed to in writing will cause damage to Owner and may subject Contractor to liquidated damages as provided in the Contract Documents. If Contractor fails to achieve Final Completion in a reasonable time after Substantial Completion, Contractor shall be responsible for Owner's **damages including, but not limited to**, additional inspection, project management, and maintenance cost to the extent caused by Contractor's failure to achieve Final Completion.
- 9.2 Notice to Proceed. Owner will issue a Notice to Proceed which shall state the dates for beginning Work and for achieving Substantial Completion of the Work.
- 9.3 Work Progress Schedule. Refer to Supplementary General Conditions, Special Conditions **and Division 1 of the Specifications** for additional schedule requirements. Unless indicated otherwise in those documents, Contractor shall submit their initial Work Progress Schedule for the Work in relation to the entire Project not later than twenty-one (21) days after the effective date of the Notice to Proceed to ODR and A/E. Unless otherwise indicated in the Contract Documents, the Work Progress Schedule shall be computerized Critical Path Method (CPM) with fully editable logic. This initial schedule shall indicate the dates for starting and completing the various aspects required to complete the Work, including mobilization, procurement, installation, testing, inspection, delivery of Close-out Documents and acceptance of all the Work of the Contract. When acceptable to Owner, the initially accepted schedule shall be the Baseline Schedule for comparison to actual conditions throughout the Contract duration.
Note: This article pertains to construction phase schedules. Additional requirements for design phase scheduling for Construction Manager-at-Risk and Design-Build contracts are outlined in Division 1 Project Planning and Scheduling Specifications.
- 9.3.1 Schedule Requirements. Contractor shall submit electronic and paper copy of the initial Work Progress Schedule reflecting accurate and reliable representations of the planned progress of the Work, the Work to date if any, and of Contractor's actual plans for its completion. Contractor shall organize and provide adequate detail so the schedule is capable of measuring and forecasting the effect of delaying events on completed and uncompleted activities.
- 9.3.1.1 Contractor shall re-submit initial schedule as required to address review comments from A/E and ODR until such schedule is accepted as the Baseline Schedule.
- 9.3.1.2 Submittal of a schedule, schedule revision or schedule update constitutes Contractor's representation to Owner of the accurate depiction of all progress to date and that Contractor will follow the schedule as submitted in performing the Work.
- 9.3.2 Schedule Updates. Contractor shall update the Work Progress Schedule and the Submittal Register monthly, as a minimum, to reflect progress to date and current plans for completing the Work, while maintaining original schedule as Baseline Schedule and submit paper and electronic copies of the update to A/E and ODR as directed, but as a minimum with each request for payment. Owner has no duty to make progress payments unless accompanied by the updated Work Progress Schedule. Show the anticipated date of completion reflecting all extensions of time granted through Change Order as of the date of the update. Contractor may revise the Work Progress Schedule when in Contractor's judgment it becomes necessary for the management of the Work. Contractor shall identify all proposed changes to schedule logic to Owner and to A/E via an executive summary accompanying the updated schedule for

review prior to final implementation of revisions into a revised Baseline Schedule. Schedule changes that materially impact Owner's operations shall be communicated promptly to ODR and shall not be incorporated into the revised Baseline Schedule without ODR's consent.

- 9.3.3 The Work Progress Schedule is for Contractor's use in managing the Work and submittal of the schedule, and successive updates or revisions, is for the information of Owner and to demonstrate that Contractor has complied with requirements for planning the Work. Owner's acceptance of a schedule, schedule update or revision constitutes Owner's agreement to coordinate its own activities with Contractor's activities as shown on the schedule.
- 9.3.3.1 Acceptance of the Work Progress Schedule, or update and/or revision thereto does not indicate any approval of Contractor's proposed sequences and duration.
- 9.3.3.2 Acceptance of a Work Progress Schedule update or revision indicating early or late completion does not constitute Owner's consent, alter the terms of the Contract, or waive either Contractor's responsibility for timely completion or Owner's right to damages for Contractor's failure to do so.
- 9.3.3.3 Contractor's scheduled dates for completion of any activity or the entire Work do not constitute a change in terms of the Contract. Change Orders are the only method of modifying the Substantial Completion Date(s) and Contract Time.
- 9.4 Ownership of Float. Unless indicated otherwise in the Contract Documents, Contractor shall develop its schedule, pricing, and execution plan to provide a minimum of ten (10) percent total float at acceptance of the Baseline Schedule. Float time contained in the Work Progress Schedule is not for the exclusive benefit of Contractor or Owner, but belongs to the Project and may be consumed by either party ~~as needed on a first used basis.~~ **Before Contractor uses any portion of the float Contractor must submit a written request to do so to the Owner and receive Owner's written authorization to use the float. Owner's approval shall not be unreasonably withheld.**
- 9.5 Completion of Work. Contractor is accountable for completing the Work within the Contract Time stated in the Contract, or as otherwise amended by Change Order.
- 9.5.1 If, in the judgment of Owner, the work is behind schedule and the rate of placement of work is inadequate to regain scheduled progress to insure timely completion of the entire work or a separable portion thereof, Contractor, when so informed by Owner, shall immediately take action to increase the rate of work placement by:
- 9.5.1.1 An increase in working forces.
- 9.5.1.2 An increase in equipment or tools.
- 9.5.1.3 An increase in hours of work or number of shifts.
- 9.5.1.4 Expedite delivery of materials.
- 9.5.1.5 Other action proposed if acceptable to Owner.
- 9.5.2 Within ten (10) days after such notice from ODR, Contractor shall notify ODR in writing of the specific measures taken and/or planned to increase the rate of progress. Contractor shall include an estimate as to the date of scheduled progress recovery and an updated Work Progress Schedule illustrating Contractor's plan for achieving timely completion of the Project. Should ODR deem the plan of action inadequate, Contractor shall take additional steps or make adjustments as necessary to its plan of action until it meets with ODR's approval.

9.6 Modification of the Contract Time.

9.6.1 Delays and extension of time as hereinafter described are valid only if executed in accordance with provisions set forth in Article 11.

9.6.2 When a delay defined herein as excusable prevents Contractor from completing the Work within the Contract Time, Contractor is entitled to an extension of time. Owner will make an equitable adjustment and extend the number of days lost because of excusable delay or Weather Days, as measured by Contractor's progress schedule. All extensions of time will be granted in calendar days. In no event, however, will an extension of time be granted for delays that merely extend the duration of non-critical activities, or which only consume float without delaying the project Substantial Completion date(s).

9.6.2.1 A "Weather Day" is a day on which Contractor's current schedule indicates Work is to be done, and on which inclement weather and related site conditions prevent Contractor from performing seven (7) ~~continuous~~ hours of Work between the hours of 7:00 a.m. and 6:00 p.m. Weather days are excusable delays. When weather conditions at the site prevent work from proceeding, Contractor shall immediately notify ODR for confirmation of the conditions. At the end of each calendar month, **Contractor shall** submit to ODR and A/E a list of Weather Days occurring in that month along with documentation of the impact on critical activities. Based on confirmation by ODR, any time extension granted will be issued by Change Order. If Contractor and Owner cannot agree on the time extension, Owner may issue a ULCO for fair and reasonable time extension.

9.6.2.2 Excusable Delay. Contractor is entitled to an equitable adjustment of the Contract Time, issued via change order, for delays caused by the following:

9.6.2.2.1 Errors, omissions and imperfections in design, which A/E corrects by means of changes in the Drawings and Specifications.

9.6.2.2.2 Unanticipated physical conditions at the Site, which A/E corrects by means of changes to the Drawings and Specifications or for which ODR directs changes in the Work identified in the Contract Documents.

9.6.2.2.3 Changes in the Work that effect activities identified in Contractor's schedule as "critical" to completion of the entire Work, if such changes are ordered by ODR or recommended by A/E and ordered by ODR.

9.6.2.2.4 Suspension of Work for unexpected natural events (sometimes called "acts of God"), civil unrest, strikes or other events which are not within the reasonable control of Contractor.

9.6.2.2.5 Suspension of Work for convenience of ODR, which prevents Contractor from completing the Work within the Contract Time.

9.6.3 Contractor's relief in the event of such delays is the time impact to the critical path as determined by analysis of Contractor's schedule. In the event that Contractor incurs additional direct costs because of the excusable delays other than described in Subparagraph 9.6.2.2.4 and within the reasonable control of Owner, the Contract price and Contract Time are to be equitably adjusted by Owner pursuant to the provisions of Article 11.

9.7 No Damages for Delay. ~~Contractor has no claim for monetary damages for delay or hindrances to the work from any cause, including without limitation any act or omission of Owner.~~ **An extension of the**

Contract Time shall be the sole remedy of Contractor for delays in performance of the Work, whether or not such delays are foreseeable, except for delays caused solely by acts of Owner that constitute intentional interference with Contractor's performance of the Work and then only to the extent such acts continue after Contractor notifies Owner in writing of such interference. For delays caused by any act(s) other than the sole intentional interference of Owner, Contractor shall not be entitled to any compensation or recovery of any damages including, without limitation, consequential damages, lost opportunity costs, impact damages, loss of productivity, or other similar damages. Owner's exercise of any of its rights or remedies under the Contract including, without limitation, ordering changes in the Work or directing suspension, rescheduling, or correction of the Work shall not be construed as intentional interference with Contractor's performance of the Work regardless of the extent or frequency of Owner's exercise of such rights or remedies.

- 9.8 Concurrent Delay. When the completion of the Work is simultaneously delayed by an excusable delay and a delay arising from a cause not designated as excusable, Contractor may not be entitled to a time extension for the period of concurrent delay.
- 9.9 Other Time Extension Requests. Time extensions requested in association with changes to the Work directed or requested by Owner shall be included with Contractor's proposed costs for such change. Time extensions requested for inclement weather are covered by Paragraph 9.6.2.1 above. If Contractor believes that the completion of the Work is delayed by a circumstance other than for changes directed to the Work or weather, they shall give ODR written notice, stating the nature of the delay and the activities potentially affected, within five (5) days after the onset of the event or circumstance giving rise to the excusable delay. Contractor shall provide sufficient written evidence to document the delay. In the case of a continuing cause of delay, only one **notice of** claim is necessary. State claims for extensions of time in numbers of whole or half days.
- 9.9.1 Within ten (10) days after the cessation of the delay, Contractor shall formalize its request for extension of time in writing to include a full analysis of the schedule impact of the delay and substantiation of the excusable nature of the delay. All changes to the Contract Time or made as a result of such claims is by Change Order, as set forth in Article 11.
- 9.9.2 No extension of time releases Contractor or the Surety furnishing a performance or payment bond from any obligations under the Contract or such a bond. Those obligations remain in full force until the discharge of the Contract.
- 9.9.3 Contents of Time Extension Requests. Contractor shall provide with each Time Extension Request a quantitative demonstration of the impact of the delay on project completion time, based on the Work Progress Schedule. Contractor shall include with Time Extension Requests a reasonably detailed narrative setting forth:
- 9.9.3.1 The nature of the delay and its cause; the basis of Contractor's claim of entitlement to a time extension.
- 9.9.3.2 Documentation of the actual impacts of the claimed delay on the critical path indicated in Contractor's Work Progress Schedule, and any concurrent delays.
- 9.9.3.3 Description and documentation of steps taken by Contractor to mitigate the effect of the claimed delay, including, when appropriate, the modification of the Work Progress Schedule.
- 9.9.4 Owner's Response. Owner will respond to the Time Extension Request by providing to Contractor written notice of the number of days granted, if any, and giving its reason if this number differs from the number of days requested by Contractor.
- 9.9.4.1 Owner will not grant time extensions for delays that do not affect the Contract

Substantial Completion date.

- 9.9.4.2 Owner will respond to each properly submitted Time Extension Request within fifteen (15) days following receipt. If Owner cannot reasonably make a determination about Contractor's entitlement to a time extension within that time, Owner will notify Contractor in writing. Unless otherwise agreed by Contractor, Owner has no more than fifteen (15) additional days to prepare a final response. If Owner fails to respond within forty-five (45) days from the date the Time Extension Request is received, ~~Contractor is entitled to a time extension in the amount requested~~ **Contractor's request for a time extension shall be deemed rejected by Owner.**

9.10 Failure to Complete Work Within the Contract Time. **TIME IS AN ESSENTIAL ELEMENT OF THE CONTRACT.** Contractor's failure to substantially complete the Work within the Contract Time or to achieve Substantial Completion as required will cause damage to Owner. These damages ~~shall~~ **may** be liquidated by agreement of Contractor and Owner, in the amount per day as set forth in the Contract Documents.

9.11 Liquidated Damages. Owner may collect liquidated damages due from Contractor directly or indirectly by reducing the Contract Sum in the amount of liquidated damages stated in the Supplementary General Conditions or Special Conditions.

Article 10. Payments

10.1 Schedule of Values. Contractor shall submit to ODR and A/E for acceptance a Schedule of Values accurately itemizing material and labor for the various classifications of the Work based on the organization of the specification sections and of sufficient detail acceptable to ODR. The accepted Schedule of Values will be the basis for the progress payments under the Contract.

10.1.1 No progress payments will be made prior to receipt and acceptance of the Schedule of Values, provided in such detail as required by ODR, and submitted not less than twenty-one (21) days prior to the first request for payment. The Schedule of Values shall follow the order of trade divisions of the Specifications and include itemized costs for general conditions, costs for preparing ~~close-out~~ Close-Out documents, fees, contingencies, and Owner cash allowances, if applicable, so that the sum of the items will equal the Contract price. As appropriate, assign each item labor and/or material values, the subtotal thereof equaling the value of the work in place when complete.

10.1.1.1 Owner requires that the Work items be inclusive of the cost of the Work items only. Any contract markups for overhead and profit, general conditions, etc., shall be contained within separate line items for those specific purposes which shall be divided into at least two (2) lines, one (1) for labor and one (1) for materials.

10.1.2 Contractor shall retain a copy of all worksheets used in preparation of its bid or proposal, supported by a notarized statement that the worksheets are true and complete copies of the documents used to prepare the bid or proposal. Make the worksheets available to ODR at the time of Contract execution. Thereafter Contractor shall grant Owner during normal business hours access to said copy of worksheets at any time during the period commencing upon execution of the Contract and ending one year after final payment.

10.2. Progress Payments. Contractor will receive periodic progress payments for Work performed, materials in place, suitably stored on Site, or as otherwise agreed to by Owner and Contractor. Payment is not due until receipt by ODR or his designee of a correct and complete Pay Application in electronic and/or hard copy format as set forth in Supplementary General Conditions, Special Conditions, and certified by A/E. Progress payments are made provisionally and do not constitute acceptance of work

not in accordance with the Contract Documents. Owner will not process progress payment applications for Change Order Work until all parties execute the Change Order.

- 10.2.1 Preliminary Pay Worksheet. Once each month that a progress payment is to be requested, the Contractor shall submit to A/E and ODR a complete, clean copy of a preliminary pay worksheet or preliminary pay application, to include the following:
- 10.2.1.1 Contractor's estimate of the amount of Work performed, labor furnished and materials incorporated into the Work, using the established Schedule of Values;
 - 10.2.1.2 An updated Work Progress Schedule including the executive summary and all required schedule reports;
 - 10.2.1.3 HUB subcontracting plan Progress Assessment Report as required in Paragraph 4.2.5.1;
 - 10.2.1.4 Such additional documentation as Owner may require as set forth in the Supplementary General Conditions or elsewhere in the Contract Documents; and
 - 10.2.1.5 Construction payment affidavit.
- 10.2.2 Contractor's Application for Payment. As soon as practicable, but in no event later than seven (7) days after receipt of the preliminary pay worksheet, A/E and ODR will meet with Contractor to review the preliminary pay worksheet and to observe the condition of the Work. Based on this review, ODR and A/E may require modifications to the preliminary pay worksheet prior to the submittal of an Application for Payment, and will promptly notify Contractor of revisions necessary for approval. As soon as practicable, Contractor shall submit its Application for Payment on the appropriate and completed form, reflecting the required modifications to the Schedule of Values required by A/E and/or ODR. Attach all additional documentation required by ODR and/or A/E, as well as an affidavit affirming that all payrolls, bills for labor, materials, equipment, subcontracted work and other indebtedness connected with Contractor's Application for Payment are paid or will be paid within the time specified in Tex. Gov't Code, Chapter 2251. No Application for Payment is complete unless it fully reflects all required modifications, and attaches all required documentation including Contractor's affidavit.
- 10.2.3 Certification by Architect/Engineer. Within five (5) days or earlier following A/E's receipt of Contractor's formal Application for Payment, A/E will review the Application for Payment for completeness, and forward it to ODR. A/E will certify that the application is complete and payable, or that it is incomplete, stating in particular what is missing. If the Application for Payment is incomplete, Contractor shall make the required corrections and resubmit the Application for Payment for processing.
- 10.3 Owner's Duty to Pay. Owner has no duty to pay the Contractor except on receipt by ODR of: 1) a complete Application for Payment certified by A/E; 2) Contractor's updated Work Progress Schedule; and 3) confirmation that ~~Contractor's record documentation at the Site is kept current~~ **Contractor has maintained and updated the Record Documents kept at the Site.**
- 10.3.1 Payment for stored materials and/or equipment confirmed by Owner and A/E to be on-site or otherwise properly stored is limited to eighty-five (85) percent of the invoice price or eighty-five (85) percent of the scheduled value for the materials or equipment, whichever is less.
 - 10.3.2 Retainage. Owner will withhold from each progress payment, as retainage, five (5) percent of the total earned amount, the amount authorized by law, or as otherwise set forth in the Supplementary General Conditions or Special Conditions. Retainage is managed in conformance with Tex. Gov't Code, Chapter 2252, Subchapter B.

- 10.3.2.1 Contractor shall provide written consent of its surety for any request for reduction or release of retainage.
- 10.3.2.2 At least sixty-five (65) percent of the Contract, or such other discrete Work phase as set forth in Subsection 12.1.6 or Work package delineated in the Contract Documents, must be completed before Owner can consider a retainage reduction or release.
- 10.3.2.3 Contractor shall not withhold retainage from their Subcontractors and suppliers in amounts that are any percentage greater than that withheld in its Contract with Owner under this subsection, unless otherwise acceptable to Owner.
- 10.3.3 Price Reduction to Cover Loss. Owner may reduce any Application for Payment, prior to payment to the extent necessary to protect Owner from loss on account of actions of Contractor including, but not limited to, the following:
 - 10.3.3.1 Defective or incomplete Work not remedied;
 - 10.3.3.2 Damage to Work of a separate Contractor;
 - 10.3.3.3 Failure to maintain scheduled progress or reasonable evidence that the Work will not be completed within the Contract Time;
 - 10.3.3.4 Persistent failure to carry out the Work in accordance with the Contract Documents;
 - 10.3.3.5 Reasonable evidence that the Work cannot be completed for the unpaid portion of the Contract Sum;
 - 10.3.3.6 Assessment of fines for violations of prevailing wage rate law; or
 - 10.3.3.7 Failure to include the appropriate amount of retainage for that periodic progress payment.
- 10.3.4 Title to all material and Work covered by progress payments transfers to Owner upon payment.
 - 10.3.4.1 Transfer of title to Owner does not relieve Contractor and its Subcontractors of the sole responsibility for the care and protection of materials and Work upon which payments have been made until final acceptance, or the restoration of any damaged Work, or waive the right of Owner to require the fulfillment of all the terms of the Contract.
- 10.4 Progress Payments. Progress payments to Contractor do not release Contractor or its surety from any obligations under the Contract.
 - 10.4.1 Upon Owner's request, Contractor shall furnish manifest proof of the status of Subcontractor's accounts in a form acceptable to Owner.
 - 10.4.2 Pay estimate certificates must be signed by a corporate officer or a representative duly authorized by Contractor.
 - 10.4.3 Provide copies of bills of lading, invoices, delivery receipts or other evidence of the location and value of such materials in requesting payment for materials.
 - 10.4.4 For purposes of Tex. Gov't Code § 2251.021(a)(2), the date the performance of service is

complete is the date when ODR approves the Application for Payment.

10.5 Off-Site Storage. With prior approval by Owner and in the event Contractor elects to store materials at an off-site location, abide by the following conditions, unless otherwise agreed to in writing by Owner.

10.5.1 Store materials in a commercial warehouse meeting the criteria stated below.

10.5.2 Provide insurance coverage adequate not only to cover materials while in storage, but also in transit from the off-site storage areas to the Project Site. Copies of duly authenticated certificates of insurance, made out to insure the State agency which is signatory to the Contract, must be filed with Owner's representative.

10.5.3 Inspection by Owner's representative is allowed at any time. Owner's inspectors must be satisfied with the security, control, maintenance, and preservation measures.

10.5.4 Materials for this Project are physically separated and marked for the Project in a sectioned-off area. Only materials which have been approved through the submittal process are to be considered for payment.

10.5.5 Owner reserves the right to reject materials at any time prior to final acceptance of the complete Contract if they do not meet Contract requirements regardless of any previous progress payment made.

10.5.6 With each monthly payment estimate, submit a report to ODR and A/E listing the quantities of materials already paid for and still stored in the off-site location.

10.5.7 Make warehouse records, receipts and invoices available to Owner's representatives, upon request, to verify the quantities and their disposition.

10.5.8 In the event of Contract termination or default by Contractor, the items in storage off-site, upon which payment has been made, will be promptly turned over to Owner or Owner's agents at a location near the jobsite as directed by ODR. The full provisions of performance and payment bonds on this Project cover the materials off-site in every respect as though they were stored on the Project Site.

10.6 Time for Payment by Contractor Pursuant to Tex. Gov't Code § 2255.022.

10.6.1 Contractor who receives a payment from a governmental entity shall pay Subcontractor the appropriate share of the payment not later than the tenth (10th) day after the date ~~the vendor~~ **Contractor** receives the payment.

10.6.2 The appropriate share is overdue on the eleventh (11th) day after the date Contractor receives the payment.

Article 11. Changes

11.1 Change Orders. A Change Order issued after execution of the Contract is a written order to Contractor, signed by ODR, Contractor, and A/E, authorizing a change in the Work or an adjustment in the Contract Sum or the Contract Time. The Contract Sum and the Contract Time can only be changed by Change Order. A Change Order signed by Contractor indicates his agreement therewith, including the adjustment in the Contract Sum and/or the Contract Time. ODR may issue a written authorization for Contractor to proceed with Work of a Change Order in advance of final execution by all parties in accordance with Section 11.9.

11.1.1 Owner, without invalidating the Contract **and without approval of Contractor's Surety**, may order changes in the Work within the general scope of the Contract consisting of additions,

deletions or other revisions, and the Contract Sum and the Contract Time will be adjusted accordingly. All such changes in the Work shall be authorized by Change Order or ULCO, and shall be performed under the applicable conditions of the Contract Documents. If such changes cause an increase or decrease in Contractor's cost of, or time required for, performance of the Contract, an equitable adjustment shall be made and confirmed in writing in a Change Order or a ULCO.

- 11.1.2 ~~It is recognized by the parties hereto and agreed by them~~ **Owner and Contractor acknowledge and agree** that the Specifications and Drawings may not be complete or free from errors, omissions and imperfections ~~or~~ **and** that they may require changes or additions in order for the Work to be completed to the satisfaction of Owner. ~~and that, accordingly, it is the express intention of the parties, notwithstanding any other provisions in this Contract, that~~ **Therefore,** any **minor** errors, omissions or imperfections in ~~such-the~~ Specifications ~~and-or~~ Drawings, or any changes in or additions to ~~such-the~~ **Specifications or Drawings to correct minor errors or omissions** or to the Work ordered by Owner ~~and any resulting delays in the Work or increases in Contractor's costs and expenses arising out of such errors,~~ shall not constitute or give rise to any claim, demand or cause of action of any nature whatsoever in favor of Contractor, whether for breach of Contract, or otherwise. **However, should the nature of the errors or omissions necessitate substantial changes in the Work such that a Change Order is appropriate,** Owner shall be liable to Contractor for the sum stated to be due Contractor in any Change Order approved and signed by both parties. **The sum established in any Change Order,** together with any extension of time contained in said Change Order, shall constitute full compensation to Contractor for all costs, expenses and damages to Contractor **for the changes in the Work described in the Change Order,** as permitted under Tex. Gov't Code, Chapter 2260.
- 11.1.3 Procedures for administration of Change Orders shall be established by Owner and stated in Supplementary General Conditions, Special Conditions, or elsewhere in the Contract Documents.
- 11.1.4 No verbal order, verbal statement, or verbal direction of Owner or his duly appointed representative shall be treated as a change under this article or entitle Contractor to an adjustment.
- 11.1.5 Contractor agrees that Owner or any of its duly authorized representatives shall have access and the right to examine any directly pertinent books, documents, papers, and records of Contractor. Further, Contractor agrees to include in all its subcontracts a provision to the effect that Subcontractor agrees that Owner or any of its duly authorized representatives shall have access to and the right to examine any directly pertinent books, documents, papers and records of such Subcontractor relating to any claim arising from the Contract, whether or not the Subcontractor is a party to the claim. The period of access and examination described herein which relates to appeals under the Disputes article of the Contract, litigation, or the settlement of claims arising out of the performance of the Contract shall continue until final disposition of such claims, appeals or litigation.
- 11.2 Unit Prices. If unit prices are stated in the Contract Documents or subsequently agreed upon and if the quantities originally contemplated **in setting the unit prices** are so changed in a Proposed Change Order that application of the agreed unit prices to the quantities of work proposed will cause substantial inequity to Owner or Contractor, the applicable unit prices shall be equitably adjusted as provided in the Supplementary General Conditions or Special Conditions or as agreed to by the parties and incorporated into a Change Order.
- 11.3 Claims for Additional Costs.
- 11.3.1 If Contractor wishes to make a claim for an increase in the Contract Sum not related to a requested change, ~~they-it~~ shall give Owner and A/E written notice thereof within twenty-one

(21) days after the occurrence of the event **or discovery of any conditions** giving rise to such claim. **Contractor must notify Owner and A/E** before proceeding to execute ~~the any~~ Work considered to ~~be add~~ additional cost or time, except in an emergency endangering life or property in which case Contractor shall act in accordance with Subsection 7.2.1., **and failure to provide the required notice will invalidate any subsequent notice or claim for additional cost or time for the Work.** ~~No such claim shall be valid unless so made.~~ If Owner and Contractor cannot agree on the amount of the adjustment in the Contract Sum, it shall be determined as set forth under Article 15. Any change in the Contract Sum resulting from such claim shall be authorized by a Change Order or a ULCO.

- 11.3.2 If Contractor claims that additional cost is involved because of, but not limited to, 1) any written interpretation of the Contract Documents, 2) any order by Owner to stop the Work pursuant to Article 14 where Contractor was not at fault, or 3) any written order for a minor change in the Work issued pursuant to Section 11.4, Contractor shall make such claim as provided in Subsection 11.3.1.
- 11.3.3 Should Contractor or his Subcontractors fail to call attention of A/E to discrepancies or omissions in the Contract Documents, but claim additional costs for corrective Work after Contract award, Owner may assume intent to circumvent competitive bidding for necessary corrective Work. In such case, Owner may choose to let a separate Contract for the corrective Work, or issue a ULCO to require performance by Contractor. Claims for time extensions or for extra cost resulting from delayed notice of patent Contract Document discrepancies or omissions will not be considered by Owner.
- 11.4 Minor Changes. A/E, with concurrence of ODR, will have authority to order minor changes in the Work not involving an adjustment in the Contract Sum or an extension of the Contract Time. Such changes shall be effected by written order which Contractor shall carry out promptly and record on ~~as-built record documents~~ **the Record Documents.**
- 11.5 Concealed Site Conditions. Contractor is responsible for visiting the Site and being familiar with local conditions such as the location, accessibility, and general character of the Site and/or building. If, in the performance of the Contract, subsurface, latent, or concealed conditions at the Site are found to be materially different from the information included in the Contract Documents, or if unknown conditions of an unusual nature are disclosed differing materially from the conditions usually inherent in Work of the character shown and specified, ODR and A/E shall be notified in writing of such conditions before they are disturbed. Upon such notice, or upon its own observation of such conditions, A/E, with the approval of ODR, will promptly make such changes in the Drawings and Specifications as they deem necessary to conform to the different conditions, and any increase or decrease in the cost of the Work, or in the time within which the Work is to be completed, resulting from such changes will be adjusted by Change Order, subject to the prior approval of ODR.
- 11.6 Extension of Time. All changes to the Contract Time shall be made as a consequence of requests as required under Section 9.6, and as documented by Change Order as provided under Section 11.1.
- 11.7 Administration of Change Order Requests. All changes in the Contract shall be administered in accordance with procedures approved by Owner, and when required, make use of such electronic information management system(s) as Owner may employ.
- 11.7.1 Routine changes in the construction Contract shall be formally initiated by A/E by means of a PCO form detailing requirements of the proposed change for pricing by Contractor. This action may be preceded by communications between Contractor, A/E and ODR concerning the need and nature of the change, but such communications shall not constitute a basis for beginning the proposed Work by Contractor. Except for emergency conditions described below, approval of Contractor's cost proposal by A/E and ODR will be required for authorization to proceed with the Work being changed. Owner will not be responsible for the

cost of Work changed without prior approval and Contractor may be required to remove Work so installed.

- 11.7.2 All proposed costs for change order Work must be supported by itemized accounting of material, equipment and associated itemized installation costs in sufficient detail, following the outline and organization of the established Schedule of Values, to permit analysis by A/E and ODR using current estimating guides and/or practices. Photocopies of Subcontractor and vendor proposals shall be furnished unless specifically waived by ODR. Contractor shall provide written response to a change request within twenty-one (21) days of receipt.
- 11.7.3 Any unexpected circumstance which necessitates an immediate change in order to avoid a delay in progress of the Work may be expedited by verbal communication and authorization between Contractor and Owner, with written confirmation following within twenty-four (24) hours. A limited scope not-to-exceed estimate of cost and time will be requested prior to authorizing Work to proceed. Should the estimate be impractical for any reason, ODR may authorize the use of detailed cost records of such work to establish and confirm the actual costs and time for documentation in a formal Change Order.
- 11.7.4 Emergency changes to save life or property may be initiated by Contractor alone (see Section 7.3) with the claimed cost and/or time of such work to be fully documented as to necessity and detail of the reported costs and/or time.
- 11.7.5 The method of incorporating approved Change Orders into the parameters of the accepted Schedule of Values must be coordinated and administered in a manner acceptable to ODR.
- 11.8 Pricing Change Order Work. The amounts that Contractor and/or its Subcontractor adds to a Change Order for profit and overhead will also be considered by Owner before approval is given. The amounts established hereinafter are the maximums that are acceptable to Owner.
- 11.8.1 For Work performed by its forces, Contractor will be allowed ~~their~~**its** actual costs **paid** for materials, the total amount of **its actual** wages paid for labor, plus ~~the total~~**its actual** cost **paid for** ~~of~~ State and Federal payroll taxes and **for** ~~of~~ worker's compensation and comprehensive general liability insurance, plus **its actual** additional bond and builders risk insurance cost if the change results in an increase in the premium paid by Contractor. To the total of the above costs, Contractor will be allowed to add a percentage as noted below to cover overhead and profit combined. **Overhead shall be considered to include insurance other than mentioned above, field and office supervisors and assistants, including safety and scheduling personnel, use of small tools, incidental job burdens and general Home Office expenses, and no separate allowance will be made therefore.**
- Allowable percentages for overhead and profit on changes will not exceed 15 percent if the total of self-performed work is less than or equal to \$10,000, 10 percent if the total of self-performed work is between \$10,000 and \$20,000 and 7.5 percent if the total of self-performed work is over \$20,000, for any specific change priced.** Allowable percentages for overhead and profit on any specific change shall not exceed fifteen (15) percent for the first \$10,000 of value for self-performed work or portion thereof, ten (10) percent for the second \$10,000 of value for self-performed work or portion thereof and seven and a half (7.5) percent for any value of the self-performed work that exceeds \$20,000.
- 11.8.2 For subcontracted Work each affected Subcontractor shall figure its costs, overhead and profit as described above for Contractor's Work, all Subcontractor costs shall be combined, and to that total Subcontractor cost Contractor will be allowed to add a maximum mark-up of **ten (10) percent if the total of all subcontracted work is less than or equal to \$10,000, seven and half (7.5) percent if the total of all subcontracted work is between \$10,000 and**

\$20,000 and five (5) percent if the total of all subcontractor work is over \$20,000. ~~ten (10) percent for the first \$10,000 of subcontracted Work value or portion thereof, seven and half (7.5) percent for the second \$10,000 of subcontracted Work value or portion thereof, and five (5) percent for any value of the subcontracted Work exceeding \$20,000.~~

- 11.8.3 On changes involving both additions and deletions, percentages for overhead and profit will be allowed only on the net addition. Owner does not accept and will not pay for additional Contract cost identified as indirect or consequential damages ***or as damages caused by delay.***
- 11.8.4 For Contracts based on a Guaranteed Maximum Price (GMP), the Construction Manager-at-Risk or Design Builder shall NOT be entitled to a percentage mark-up on any Change Order Work unless the Change Order increases the Guaranteed Maximum Price.
- 11.9 Unilateral Change Order (ULCO). Owner may issue a written ULCO directing a change in the Work prior to reaching agreement with Contractor on the adjustment, if any, in the Contract price and/or the Contract Time.
- 11.9.1 Owner and Contractor shall negotiate for appropriate adjustments, as applicable, to the Contract Sum or the Contract Time arising out of a ULCO. As the changed Work is performed, Contractor shall submit its costs for such Work with its Application for Payment beginning with the next Application for Payment within thirty (30) days of the issuance of the ULCO. The Parties reserve their rights ~~as to the disputed amount~~ ***to dispute the ULCO amount,*** subject to Article 15.
- 11.10 ~~Final Resolution~~ ***Finality of Changes—Contractor.*** Upon execution of a Change Order and /or a ULCO by Owner, Contractor and A/E, all costs and time issues ***claimed by Contractor*** regarding that change are final and not subject to adjustment ***increase.***
- 11.11 Audit of Changes—Owner. All Changes Orders are subject to audit by Owner or its representative at any time in accordance with Article 16.4 and Change Order amounts may be adjusted lower as a result of such audit.***

Article 12. Project Completion and Acceptance

- 12.1 Closing Inspections.
- 12.1.1 Substantial Completion Inspection. When Contractor considers the entire Work or part thereof Substantially Complete, it shall notify ODR in writing that the Work will be ready for Substantial Completion inspection on a specific date. Contractor shall include with this notice Contractor's Punchlist to indicate that it has previously inspected all the Work associated with the request for inspection, noting items it has corrected and included all remaining work items with date scheduled for completion or correction prior to final inspection. The failure to include any items on this list does not alter the responsibility of Contractor to complete all Work in accordance with the Contract Documents. If any of the items on this list prevents the Project from being used as intended, Contractor shall not request a Substantial Completion Inspection. Owner and its representatives will review the list of items and schedule the requested inspection, or inform Contractor in writing that such an inspection is premature because the Work is not sufficiently advanced or conditions are not as represented on Contractor's list.
- 12.1.1.1 Prior to the Substantial Completion inspection, Contractor shall furnish a copy of its marked-up Record Documents and a preliminary copy of each instructional manual, maintenance and operating manual, parts catalog, wiring diagrams, spare parts, specified written warranties, and like publications or parts for all installed

equipment, systems, and like items as described in the Contract Documents. Delivery of these items is a prerequisite for requesting the Substantial Completion inspection.

- 12.1.1.2 On the date requested by Contractor, or as mutually agreed upon pending the status of the Open Items List, A/E, ODR, Contractor, and other Owner representatives as determined by Owner will jointly attend the Substantial Completion inspection, which shall be conducted by ODR or their delegate. If ODR ~~determines~~ **concurs with the determination of Contractor and A/E** that the Work is Substantially Complete, ODR will issue a Certificate of Substantial Completion to be signed by A/E, Owner, and Contractor establishing the date of Substantial Completion and identifying responsibilities for security, **insurance** and maintenance. A/E will provide with this certificate a list of Punchlist items (the pre-final Punchlist) for completion prior to final inspection. This list may include items in addition to those on Contractor's Punchlist, which the inspection team deems necessary to correct or complete prior to final inspection. If Owner occupies the Project upon determination of Substantial Completion, Contractor shall complete all corrective Work at the convenience of Owner, without disruption to Owner's use of the Project for its intended purposes.
- 12.1.2 Final Inspection. Contractor shall complete the list of items identified on the pre-final Punchlist prior to requesting a final inspection. Unless otherwise specified, or otherwise agreed in writing by the parties as documented on the Certificate of Substantial Completion, Contractor shall complete and/or correct all Work within thirty (30) days of the Substantial Completion date. Upon completion of the pre-final Punchlist work, Contractor shall give written notice to ODR and A/E that the Work will be ready for final inspection on a specific date. Contractor shall accompany this notice with a copy of the updated pre-final Punchlist indicating resolution of all items. On the date specified or as soon thereafter as is practicable, ODR, A/E and Contractor will inspect the Work. A/E will submit to Contractor a final Punchlist of open items that the inspection team requires corrected or completed before final acceptance of the Work.
- 12.1.2.1 Correct or complete all items on the final Punchlist before requesting Final Payment. Unless otherwise agreed to in writing by the parties, complete this work within seven (7) days of receiving the final Punchlist. Upon completion of the final Punchlist, notify A/E and ODR in writing stating the disposition of each final Punchlist item. A/E, Owner, and Contractor shall promptly inspect the completed items. When the final Punchlist is complete, and the Contract is fully satisfied according to the Contract Documents ODR will issue a certificate establishing the date of Final Completion. Completion of all Work is a condition precedent to Contractor's right to receive Final Payment.
- 12.1.3 Annotation. Any Certificate issued under this Article may be annotated to indicate that it is not applicable to specified portions of the Work, or that it is subject to any limitation as determined by Owner.
- 12.1.4 Purpose of Inspection. Inspection is for determining the completion of the Work, and does not relieve Contractor of its overall responsibility for completing the Work in a good and competent fashion, in compliance with the Contract. Work accepted with incomplete Punchlist items or failure of Owner or other parties to identify Work that does not comply with the Contract Documents or is defective in operation or workmanship does not constitute a waiver of Owner's rights under the Contract or relieve Contractor of its responsibility for performance or warranties.
- 12.1.5 Additional Inspections.

- 12.1.5.1 If Owner's inspection team determines that the Work is not substantially complete at the Substantial Completion inspection, ODR or A/E will give Contractor written notice listing cause(s) of the rejection. Contractor will set a time for completion of incomplete or defective work acceptable to ODR. Contractor shall complete or correct all work so designated prior to requesting a second Substantial Completion inspection.
- 12.1.5.2 If Owner's inspection team determines that the Work is not complete at the final inspection, ODR or A/E will give Contractor written notice listing the cause(s) of the rejection. Contractor will set a time for completion of incomplete or defective work acceptable to ODR. Contractor shall complete or correct all Work so designated prior to again requesting a final inspection.
- 12.1.5.3 The Contract contemplates three (3) comprehensive inspections: the Substantial Completion inspection, the Final Completion inspection, and the inspection of completed final Punchlist items. The cost to Owner of additional inspections resulting from the Work not being ready for one or more of these inspections is the responsibility of Contractor. Owner may issue a ULCO deducting these costs from Final Payment. Upon Contractor's written request, Owner will furnish documentation of any costs so deducted. Work added to the Contract by Change Order after Substantial Completion inspection is not corrective Work for purposes of determining timely completion, or assessing the cost of additional inspections.
- 12.1.6 Phased Completion. The Contract may provide, or Project conditions may warrant, as determined by ODR, that designated elements or parts of the Work be completed in phases. Where phased completion is required or specifically agreed to by the parties, the provisions of the Contract related to closing inspections, occupancy, and acceptance apply independently to each designated element or part of the Work. For all other purposes, unless otherwise agreed by the parties in writing, Substantial Completion of the Work as a whole is the date on which the last element or part of the Work completed receives a Substantial Completion certificate. Final Completion of the Work as a whole is the date on which the last element or part of the Work completed receives a Final Completion certificate **or notice**.
- 12.2 Owner's Right of Occupancy. Owner may occupy or use all or any portion of the Work following Substantial Completion, or at any earlier stage of completion. Should Owner wish to use or occupy the Work, or part thereof, prior to Substantial Completion, ODR will notify Contractor in writing and identify responsibilities for security, **insurance** and maintenance Work performed on the premises by third parties on Owner's behalf does not constitute occupation or use of the Work by Owner for purposes of this Article. All Work performed by Contractor after occupancy, whether in part or in whole, shall be at the convenience of Owner so as to not disrupt Owner's use of, or access to occupied areas of the Project.
- 12.3 Acceptance and Payment
- 12.3.1 Request for Final Payment. Following the certified completion of all work, including all final Punchlist items, cleanup, and the delivery of record documents, Contractor shall submit a certified Application for Final Payment and include all sums held as retainage and forward to A/E and ODR for review and approval.
- 12.3.2 Final Payment Documentation. Contractor shall submit, prior to or with the Application for Final Payment, final copies of all ~~close-out~~ Close-Out documents, maintenance and operating instructions, guarantees and warranties, certificates, Record Documents and all other items required by the Contract. Contractor shall submit evidence of return of access keys and cards, evidence of delivery to Owner of attic stock, spare parts, and other specified materials. Contractor shall submit consent of surety to Final Payment form and an affidavit that all payrolls, bills for materials and equipment, subcontracted work and other indebtedness

connected with the Work, except as specifically noted, are paid, will be paid, after payment from Owner or otherwise satisfied within the period of time required by Tex. Gov't Code, Chapter 2251. Contractor shall furnish documentation establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of claims and liens arising out of the Contract. Contractor may not subsequently submit a claim on behalf of Subcontractor or vendor unless Contractor's affidavit notes that claim as an exception.

- 12.3.3 Architect/Engineer Approval. A/E will review a submitted Application for Final Payment promptly but in no event later than ten (10) days after its receipt. Prior to the expiration of this deadline, A/E will either: 1) return the Application for Final Payment to Contractor with corrections for action and resubmission; or 2) accept it, note their approval, and send to Owner.
- 12.3.4 Offsets and Deductions. Owner may deduct from the Final Payment all sums due from Contractor. If the Certificate of Final Completion notes any Work remaining, incomplete, or defects not remedied, Owner may deduct the cost of remedying such deficiencies from the Final Payment. On such deductions, Owner will identify each deduction, the amount, and the explanation of the deduction on or by the twenty-first (21st) day after Owner's receipt of an approved Application for Final Payment. Such offsets and deductions shall be incorporated via a final Change Order, including a ULCO as may be applicable.
- 12.3.5 Final Payment Due. Final Payment is due and payable by Owner, subject to all allowable offsets and deductions, on the thirtieth (30th) day following Owner's approval of the Application for Payment. If Contractor disputes any amount deducted by Owner, Contractor shall give notice of the dispute on or before the thirtieth (30th) day following receipt of Final Payment. Failure to do so will bar any subsequent claim for payment of amounts deducted.
- 12.3.6 Effect of Final Payment. Final Payment constitutes a waiver of all claims by Owner, relating to the condition of the Work except those arising from:
- 12.3.6.1 Faulty or defective Work appearing after Substantial Completion (latent defects);
 - 12.3.6.2 Failure of the Work to comply with the requirements of the Contract Documents;
 - 12.3.6.3 Terms of any warranties required by the Contract, or implied by law; or
 - 12.3.6.4 Claims arising from personal injury or property damage to third parties.
- 12.3.7 Waiver of Claims. Final payment constitutes a waiver of all claims and liens by Contractor except those specifically identified in writing and submitted to ODR prior to the application for Final Payment.
- 12.3.8 Effect on Warranty. Regardless of approval and issuance of Final Payment, the Contract is not deemed fully performed by Contractor and closed until the expiration of all warranty periods.

Article 13. Warranty and Guarantee

- 13.1 Contractor's General Warranty and Guarantee. Contractor warrants to Owner that all Work is executed in accordance with the Contract, complete in all parts and in accordance with approved practices and customs, and of the required finish and workmanship. Contractor further warrants that unless otherwise specified, all materials and equipment incorporated in the Work under the Contract are new. Owner may, at its option, agree in writing to waive any failure of the Work to conform to the Contract, and to accept a reduction in the Contract price for the cost of repair or diminution in value of the Work by reason of such defect. Absent such a written agreement, Contractor's obligation to

- perform and complete the Work in accordance with the Contract Documents is absolute and is not waived by any inspection or observation by Owner, A/E or others, by making any progress payment or final payment, by the use or occupancy of the Work or any portion thereof by Owner, at any time, or by any repair or correction of such defect made by Owner.
- 13.2 Warranty Period. Except as may be otherwise specified or agreed, Contractor shall repair all defects in materials, equipment, or workmanship appearing within one year from the date of Substantial Completion of the Work. If Substantial Completion occurs by phase, then the warranty period for ~~that particular~~ **the Work performed for each phase** begins on the date of ~~such occurrence~~ **of Substantial Completion of that phase**, or as otherwise stipulated on the Certificate of Substantial Completion for the particular ~~Work~~ **phase**.
- 13.3 Limits on Warranty. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
- 13.3.1 Modification or improper maintenance or operation by persons other than Contractor, Subcontractors, or any other individual or entity for whom Contractor is not responsible, unless Owner is compelled to undertake maintenance or operation due to the neglect of Contractor.
- 13.3.2 Normal wear and tear under normal usage after acceptance of the Work by Owner.
- 13.4 Events Not Affecting Warranty. Contractor's obligation to perform and complete the Work in a good and workmanlike manner in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of ~~defective~~ Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
- 13.4.1 Observations by Owner and/or A/E;
- 13.4.2 Recommendation to pay any progress or final payment by A/E;
- 13.4.3 The issuance of a certificate of Substantial Completion or any payment by Owner to Contractor under the Contract Documents;
- 13.4.4 Use or occupancy of the Work or any part thereof by Owner;
- 13.4.5 Any acceptance by Owner or any failure to do so;
- 13.4.6 Any review of a Shop Drawing or sample submittal; or
- 13.4.7 Any inspection, test or approval by others.
- 13.5 Separate Warranties. If a particular piece of equipment or component of the Work for which the Contract requires a separate warranty is placed in continuous service before Substantial Completion, the warranty period for that equipment or component will not begin until Substantial Completion, regardless of any warranty agreements in place between suppliers and/or Subcontractors and Contractor. ODR will certify the date of service commencement in the Substantial Completion certificate.
- 13.5.1 In addition to Contractor's warranty and duty to repair, Contractor expressly assumes all warranty obligations required under the Contract for specific building components, systems and equipment.
- 13.5.2 Contractor may satisfy any such obligation by obtaining and assigning to Owner a complying warranty from a manufacturer, supplier, or Subcontractor. Where an assigned warranty is

tendered and accepted by Owner which does not fully comply with the requirements of the Contract, Contractor remains liable to Owner on all elements of the required warranty not provided by the assigned warranty.

- 13.6 Correction of Defects. Upon receipt of written notice from Owner, or any agent of Owner designated as responsible for management of the warranty period, of the discovery of a defect, Contractor shall promptly remedy the defect(s), and provide written notice to Owner and designated agent indicating action taken. In case of emergency where delay would cause serious risk of loss or damage to Owner, or if Contractor fails to remedy within thirty (30) days, or within another period agreed to in writing, Owner may correct the defect and be reimbursed the cost of remedying the defect from Contractor or its surety.
- 13.7 Certification of No Asbestos Containing Materials or Work. Contractor shall ensure compliance with the Asbestos Hazard Emergency Response Act (AHERA– 40 C.F.R § 763-99(7)) from all Subcontractors and materials suppliers, and shall provide a notarized certification to Owner that all equipment and materials used in fulfillment of their Contract responsibilities are non Asbestos Containing Building Materials (ACBM). This certification must be provided no later than Contractor's application for Final Payment.

Article 14. Suspension and Termination

- 14.1 Suspension of Work for Cause. Owner may, at any time without prior notice, suspend all or any part of the Work if, after reasonable observation and/or investigation, Owner determines it is necessary to do so to prevent or correct any condition of the Work which constitutes an immediate safety hazard or which may reasonably be expected to impair the integrity, usefulness or longevity of the Work when completed.
- 14.1.1 Owner will give Contractor a written notice of suspension for cause, setting forth the reason for the suspension and identifying the Work suspended. Upon receipt of such notice, Contractor shall immediately stop the Work so identified. As soon as practicable following the issuance of such a notice, Owner will initiate and complete a further investigation of the circumstances giving rise to the suspension, and issue a written determination of the findings.
- 14.1.2 If it is confirmed that the cause was within the control of Contractor, Contractor will not be entitled to an extension of time ~~or any compensation~~ for delay resulting from the suspension. If the cause is determined not to have been within the control of Contractor, and the suspension has prevented Contractor from completing the Work within the Contract Time, the suspension is an excusable delay and a time extension will be granted through a Change Order.
- 14.1.3 Suspension of Work under this provision will be no longer than is reasonably necessary to remedy the conditions giving rise to the suspension.
- 14.2 Suspension of Work for Owner's Convenience. Upon seven (7) days written notice to Contractor, Owner may at any time without breach of the Contract suspend all or any portion of the Work for a period of up to ~~thirty (30)~~ **sixty (60)** days for its own convenience. Owner will give Contractor a written notice of suspension for convenience, which sets forth the number of suspension days for which the Work, or any portion of it, and the date on which the suspension of Work will cease. When such a suspension prevents Contractor from completing the Work within the Contract Time, it is an excusable delay. A notice of suspension for convenience may be modified by Owner at any time on seven (7) days written notice to Contractor. If Owner suspends the Work for its convenience for more than sixty (60) consecutive days, Contractor may elect to terminate the Contract pursuant to the provisions of the Contract.
- 14.3 Termination by Owner for Cause.

- 14.3.1 Upon **thirty (30) days** written notice to Contractor and its surety, Owner may, without prejudice to any right or remedy, terminate the Contract and take possession of the Site and of all materials, equipment, tools, construction equipment, and machinery thereon owned by Contractor under any of the following circumstances:
- 14.3.1.1 Persistent or repeated failure or refusal, except during complete or partial suspensions of work authorized under the Contract, to supply enough properly skilled workmen or proper materials;
 - 14.3.1.2 Persistent disregard of laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, including ODR;
 - 14.3.1.3 Persistent failure to prosecute the Work in accordance with the Contract, and to ensure its completion within the time, or any approved extension thereof, specified in the Contract;
 - 14.3.1.4 Failure to remedy defective work condemned by ODR;
 - 14.3.1.5 Failure to pay Subcontractors, laborers, and material suppliers pursuant to Tex. Gov't Code, Chapter 2251;
 - 14.3.1.6 Persistent endangerment to the safety of labor or of the Work;
 - 14.3.1.7 Failure to supply or maintain statutory bonds or to maintain required insurance, pursuant to the Contract;
 - 14.3.1.8 Any material breach of the Contract; or
 - 14.3.1.9 Contractor's insolvency, bankruptcy, or demonstrated financial inability to perform the Work.
- 14.3.2 Failure by Owner to exercise the right to terminate in any instance is not a waiver of the right to do so in any other instance.
- 14.3.3 ~~Should Owner decide to terminate the Contract under the provisions of Section 14.3, it will provide to Contractor and its surety thirty (30) days prior written notice.~~
- 14.3.4 ***Upon receipt of a termination notice, the Contractor or its Surety has thirty (30) days to cure the reasons for the termination or demonstrate to the satisfaction of the Owner that it is prepared to remedy to the condition(s) upon which the notice of termination was based with diligence and promptness. If the Owner is satisfied that the Contractor or its Surety can remedy the reasons for the termination and complete the Work as required, the notice of termination shall be rescinded in writing by the Owner and the Work shall continue without an extension of time.*** ~~Should Contractor or its surety, after having received notice of termination, demonstrate to the satisfaction of Owner that Contractor or its surety are proceeding to correct such default with diligence and promptness, upon which the notice of termination was based, the notice of termination may be rescinded in writing by Owner. If so rescinded, the Work may continue without an extension of time.~~
- 14.3.5 ***If at the conclusion of the thirty (30) day cure period the Contractor or its Surety is unable to demonstrate to the satisfaction of the Owner its ability to remedy the reasons for termination, the Owner may immediately terminate the employment of the Contractor, make alternative arrangements for completion of the Work and deduct the cost of completion from the unpaid Contract Sum.*** ~~If Contractor or its surety fails, after written notice from Owner to commence and continue correction of such default with diligence and~~

~~promptness to the satisfaction of Owner within thirty (30) days following receipt of notice, Owner may arrange for completion of the Work and deduct the cost of completion from the unpaid Contract Sum.~~

14.3.5.1 **Owners cost to complete the Work includes, but is not limited to, fees for additional services by A/E and other consultants, and additional contract administration costs.** ~~This amount includes the cost of additional Owner costs such as A/E services, other consultants, and contract administration.~~

14.3.5.2 Owner will make no further payment to Contractor or its surety unless the costs to complete the Work are less than the Contract balance, then the difference shall be paid to Contractor or its surety. If such costs exceed the unpaid balance, Contractor or its surety will pay the difference to Owner.

14.3.5.3 This obligation for payment survives the termination of the Contract.

14.3.5.4 Owner reserves the right in termination for cause to take assignment of all the Contracts between Contractor and its Subcontractors, vendors, and suppliers. ODR will promptly notify Contractor of the contracts Owner elects to assume. Upon receipt of such notice, Contractor shall promptly take all steps necessary to effect such assignment.

14.4 Conversion to Termination for Convenience. In the event that any termination of Contractor for cause under Section 14.3 is later determined to have been improper, the termination shall automatically convert to a termination for convenience under Section 14.5 and Contractor's recovery for termination shall be strictly limited to the payments allowable under Section 14.5.

14.5 Termination for Convenience of Owner. Owner reserves the right, without breach, to terminate the Contract prior to, or during the performance of the Work, for any reason. Upon such an occurrence, the following shall apply:

14.5.1 Owner will ~~immediately~~ notify Contractor and A/E in writing specifying the reason for and the effective date of the Contract termination. ~~Such~~**The** notice may also contain instructions necessary for the protection, storage or decommissioning of incomplete work or systems, and for safety.

14.5.2 Upon receipt of the notice of termination, Contractor shall immediately proceed with the following obligations, regardless of any ~~delay~~**dispute** in determining or adjusting any amounts due at that point in the Contract:

14.5.2.1 Stop all work.

14.5.2.2 Place no further subcontracts or orders for materials or services.

14.5.2.3 Terminate all subcontracts for convenience.

14.5.2.4 Cancel all materials and equipment orders as applicable.

14.5.2.5 Take **appropriate** action that is necessary to protect and preserve all property related to the Contract which is in the possession of Contractor.

14.5.3 When the Contract is terminated for Owner's convenience, Contractor may recover from Owner payment for all Work executed. Contractor may not claim lost profits ~~on other work~~ or lost business opportunities.

14.6 Termination By Contractor. If the Work is stopped for a period of ninety (90) days under an order of

any court or other public authority having jurisdiction, or as a result of an act of government, such as a declaration of a national emergency making materials unavailable, through no act or fault of Contractor or Subcontractor or their agents or employees or any other persons performing any of the Work under a contract with Contractor, then Contractor may, upon thirty (30) additional days written notice to ODR, terminate the Contract and recover from Owner payment for all Work executed, but not lost profits ~~on other work~~ or lost business opportunities. If the cause of the Work stoppage is removed prior to the end of the thirty (30) day notice period, Contractor may not terminate the Contract.

- 14.7 Settlement on Termination. When the Contract is terminated for any reason, at any time prior to one hundred eighty (180) days after the effective date of termination, Contractor shall submit a final termination settlement proposal to Owner based upon recoverable costs as provided under the Contract. If Contractor fails to submit the proposal within the time allowed, Owner may **unilaterally** determine the amount due to Contractor because of the termination and pay the determined amount to Contractor.

Article 15. Dispute Resolution

- 15.1 Unresolved Contractor Disputes. The dispute resolution process provided for in Tex. Gov't Code, Chapter 2260, shall be used by Contractor to attempt to resolve any claim for breach of Contract made by Contractor that is not resolved under procedures described throughout the Uniform General Conditions, Supplementary Conditions, or Special Conditions of the Contract.
- 15.2 Alternative Dispute Resolution Process. Owner may establish a dispute resolution process to be utilized in advance of that outlined in Tex. Gov't Code, Chapter 2260.
- 15.3 Nothing herein shall hinder, prevent, or be construed as a waiver of Owner's right to seek redress on any disputed matter in a court of competent jurisdiction.
- 15.4 Nothing herein shall waive or be construed as a waiver of the State's sovereign immunity.

Article 16. Miscellaneous

- 16.1 Supplementary General and Special Conditions. When the Work contemplated by Owner is of such a character that the foregoing Uniform General Conditions of the Contract cannot adequately cover necessary and additional contractual relationships, the Contract may include Supplementary General and Special Conditions as described below:
- 16.1.1 Supplementary General Conditions may describe the standard procedures and requirements of contract administration followed by a contracting agency of the State. Supplementary General Conditions may expand upon matters covered by the Uniform General Conditions, where necessary, provided the expansion does not weaken the character or intent of the Uniform General Conditions. Supplementary General Conditions are of such a character that it is to be anticipated that a contracting agency of the State will normally use the same, or similar, conditions to supplement each of its several projects.
- 16.1.2 Special Conditions shall relate to a particular Project and be unique to that Project but shall not weaken the character or intent of the Uniform General Conditions.
- 16.2 Federally Funded Projects. On Federally funded projects, Owner may waive, suspend or modify any Article in these Uniform General Conditions which conflicts with any Federal statute, rule, regulation or procedure, where such waiver, suspension or modification is essential to receipt by Owner of such Federal funds for the Project. In the case of any Project wholly financed by Federal funds, any standards required by the enabling Federal statute, or any Federal rules, regulations or procedures adopted pursuant thereto, shall be controlling.

16.3 Internet-based Project Management Systems. At its option, Owner may administer its design and construction management through an Internet-based management system. In such cases, Contractor shall conduct communication through this media and perform all Project related functions utilizing this database system. This includes correspondence, submittals, Requests for Information, vouchers or payment requests and processing, amendment, Change Orders and other administrative activities.

16.3.1 Accessibility and Administration.

16.3.1.1 When used, Owner will make the software accessible via the Internet to all Project team members.

16.3.1.2 Owner shall administer the software.

16.3.2 Training. When used, Owner shall provide training to the Project team members.

16.4 Right to Audit.

16.4.1 Contractor understands that acceptance of funds under this Contract acts as acceptance of the authority of the State Auditor's Office, Owner, any successor agency and their representatives, including independent auditors, to conduct an audit or investigation in connection with those funds. Contractor further agrees to cooperate fully with any party conducting the audit or investigation, including providing all records requested.

16.4.2 Contractor shall maintain and retain supporting fiscal and any other documents relevant to showing that any payments under this Contract funds were expended in accordance with the terms of this Contract, the requirements of Owner, and with the laws and regulations of the State of Texas including, but not limited to, requirements of the Comptroller of the State of Texas and the State Auditor. Contractor shall maintain all such documents and other records relating to this Contract and Owner's property for a period of four (4) years after the date of submission of a request for Final Payment or until a resolution of all billing questions, whichever is later. Contractor shall make available at reasonable times and upon reasonable notice and for reasonable periods all documents and other information related to the Work of this Contract.

16.4.3 Contractor shall ensure that this clause concerning the authority to audit funds received indirectly by subcontractors through the Contractor and the requirement to cooperate is included in any subcontract it awards.

End of Uniform General Conditions

SECTION 01 57 23 - TEMPORARY STORM WATER POLLUTION CONTROL

PART 1 - GENERAL

1.1 DEFINITIONS

- 1.1.1 BMP – Best Management Practices
- 1.1.2 CSN –Construction Site Notice- (NOI- CSN for Large sites; CSN for Small sites).
- 1.1.3 NOI & NOT – Notice of Intent and Notice of Termination for TPDES permits.
- 1.1.4 SWPPP – Storm Water Pollution Prevention Plan
- 1.1.5 TCEQ – Texas Commission on Environmental Quality
- 1.1.6 TPDES – Texas Pollutant Discharge Elimination System
- 1.1.7 Large Construction Activities – Construction activities including clearing, grading and excavating that result in land disturbance of equal to or greater than five (5) acres.
- 1.1.8 Small Construction Activities - Construction activities including clearing, grading and excavating that result in land disturbance of equal to or greater than one (1) acre and less than five (5) acres of land.

1.2 RELATED DOCUMENTS AND APPLICABLE WORK

- 1.2.1 The TCEQ TPDES General Permit No. TXR150000, March 5, 2008 and the project SWPPP. This specification requires compliance with all provisions of the TCEQ with regards to the TPDES permit. The TCEQ requirements currently pertain to large construction activities of five (5) acres or more and small construction activities which disturb one (1) to less than five (5) acres.
- 1.2.2 Information to Respondents, Agreement, Uniform General and Supplementary General Conditions for University of Texas System Building Construction Contracts (UGC) and Special Conditions shall be carefully read for provisions pertaining to this work. In the event of conflict, the better quality or greater quantity shall prevail.
- 1.2.3 The work described in this section is applicable to any and all sections of the Contract Documents. Any and all work that would disturb the existing site conditions or present the potential for site run-off shall adhere fully to this specification section.
- 1.2.4 Unless specifically notified to the contrary by the Owner, in writing, all aspects of this specification shall apply to this project.

1.3 CONTRACTOR RESPONSIBILITIES

- 1.3.1 This project requires implementation of storm water “Best Management Practices” (BMP) for control devices and monitoring by the Contractor to comply with all provisions of the Storm Water Pollution Prevention Plan (SWPPP) developed for the project by the licensed civil engineer. The Contractor must fulfill all Texas Pollutant Discharge Elimination System (TPDES) regulatory requirements, including the filing of a NOI and NOT or signing and posting of the Construction Site Notice (CSN).
- 1.3.2 The Contractor shall provide signatures of a corporate Officer for the NOI, NOI-CSN, CSN and NOT and any other forms or applications as required by the TPDES General Permit TXR150000. The Contractor shall also provide delegated authorization to sign reports per 30 TAC 305.128. Individuals conducting site inspections shall be qualified to the satisfaction of the Owner.
- 1.3.3 When the Contractor receives the approved SWPPP from the Owner, the Contractor signs the NOI and/or CSN (see Sample form in Part 4 of this section) and forwards it to the Owner. Two separate \$325 application fees (one for the Owner and one for the Contractor) must accompany the NOI. The Owner signs his NOI and sends both NOI’s and application fees to TCEQ. The Contractor shall insert a copy of the signed NOI or CSN into the SWPPP booklet to be kept at the jobsite. The \$325 application fees are not required for Small Construction Sites or CSN sites.
- 1.3.4 The SWPPP booklet kept at the jobsite shall also contain the following:
 - 1.3.4.1 A letter delegating signature authority to the field personnel for both the Contractor and the Owner.
 - 1.3.4.2 A copy of TPDES permit when received.
 - 1.3.4.3 A copy of the Construction Site Notice (Large or Small).
 - 1.3.4.4 A copy of the Shared SWPPP Acceptance Certification form.
- 1.3.5 The Contractor shall review SWPPP and verify existing conditions at the site before determining scope of implementation of site controls. Site survey and site plan drawings shall be used for additional reference. The Contractor shall notify the Owner, in advance, of this site review to allow for Owner participation.
- 1.3.6 The Contractor shall construct a Project SWPPP sign and place it at the main entrance to the project site. This sign shall include the NOI and TPDES permit along with the TCEQ TPDES Large Construction Site Notice (NOI-CSN); or the Construction Site Notice (CSN) for small construction projects. The sign shall be constructed as detailed in the sample SWPPP sign drawing included in Part 4 of this Section.
- 1.3.7 Contractor shall contact OFPC Construction Inspector (CI) for review of initial site controls in place prior to commencing site-disturbing activities, to ensure that any unusual circumstances or unforeseen site conditions with regard to erosion and

sedimentation have been addressed. The Contractor shall complete the SWPPP Project Start-up form (see Sample in Part 4 of this Section)) and review it with the Owner before commencing soil disturbing activities. Both parties shall sign this form when the requirements listed in the SWPPP Project Start-up form have been met.

- 1.3.8 The Contractor shall provide all material, labor, equipment and services required to implement, maintain and monitor all erosion and sedimentation controls in compliance with the Storm Water Pollution Prevention Plan (SWPPP). All controls implemented by the Contractor shall comply with the Texas Pollutant Discharge Elimination System (TPDES) regulations as issued by the Texas Commission on Environmental Quality (TCEQ) on March 5, 2008. These controls shall remain in operation until project completion and reestablishment of the site or longer as directed by the RCM. The work shall include, but not be limited to the following:
 - 1.3.8.1 All earthwork as required to implement swales, dikes, basins and other excavations for temporary routing of utilities, to protect against erosion or sediment-laden (“polluted”) storm water runoff.
 - 1.3.8.2 All structural controls as shown or specified, including silt fences, sediment traps, stabilized construction entrance, subsurface drains, pipe slope drains, inlet/outlet protection, reinforced soil retention, gabions, rock berms, etc
 - 1.3.8.3 All non-structural controls as shown or specified, including temporary or permanent vegetation, mulching, geotextiles, sod stabilization, preservation of vegetative buffer strips, preservation/protection of existing trees and other mature vegetation.
 - 1.3.8.4 All modifications and revisions to SWPPP necessary to meet changing site conditions and to address new sources of storm water discharges, as the work progresses.
 - 1.3.8.5 All maintenance and repair of structural and non-structural controls in place shall continue until final stabilization is achieved or as directed by the RCM.
 - 1.3.8.6 Weekly site inspections, as required by the SWPPP, of pollutant sources, including hazardous sources, structural and non-structural controls, and all monitoring of SWPPP revisions and maintenance of inspection records.
 - 1.3.8.7 Removal of all structural and non-structural controls as necessary upon completion, and only after final stabilization is achieved.
 - 1.3.8.8 Filing of Notice of Termination (NOT) with the RCM within 30 days of final stabilization being achieved and is approved by the Owner, or of another Operator assuming control of the unstabilized portions of the site.
 - 1.3.8.9 Refer to the SWPPP for additional requirements to ensure compliance with TPDES regulations.

1.4 QUALITY ASSURANCE

- 1.4.1 In order to minimize the discharge of pollutants to storm water, the Contractor shall implement all permanent and temporary site controls according to Texas Pollutant Discharge Elimination System (TPDES) Guidelines, as set forth by the Texas Commission on Environmental Quality.
- 1.4.2 Implementation of site controls shall be performed by a qualified contractor experienced in the proper installation of such devices in accordance with manufacturers' specifications, and in keeping with recognized Best Management Practices (BMP's), and in keeping with TPDES regulations. Qualification of installing Contractor shall be reviewed with the Owner prior to entering into a contract with them for services.
- 1.4.3 The Contractor shall inspect all BMP's at regular intervals as specified in the Storm Water Pollution Prevention Plan for this project. Use standard Owner Inspection forms (see form at the end of this Section) for each inspection. Record all deficiencies of site controls, and take immediate action to correct any deficiencies recorded. Keep records of inspections current and on file, available for review by EPA, TCEQ, MS4 operator and Owner.

1.5 SUBMITTALS

- 1.5.1 Submittals of products used in structural and non-structural controls shall be made through established procedures for review and approved by the Owner prior to installation on the site. The Contractor shall make available physical samples and product literature on any material used in structural or non-structural controls during the course of the project prior to its implementation in the field.

PART 2 - PRODUCTS

2.1 MATERIALS

Specific site control devices are identified in the SWPPP. Where such devices are indicated, their material composition shall comply with this section.

- 2.1.1 Materials to be used in structural and non-structural site controls shall include, but not be limited to the following:

- 2.1.1.1 **Silt Fences:** implemented to filter, and remove sediment from storm water shall be composed of the following materials:

- a. Geotextile fabric – a non-woven, polypropylene, polyethylene, or polyamide fabric with non-raveling edges. It shall be non-biodegradable, inert to most soil chemicals, ultraviolet resistant, unaffected by moisture and other weather conditions, and permeable to

water while retaining sediment. Fabric shall be 36 inches wide, with a minimum weight of 4.5 oz/yd.

- b. Posts – steel fence posts shall be made of hot rolled steel, galvanized or painted, a minimum of 4 feet long, with a Y-bar or TEE cross-section of sufficient strength to withstand forces implied.
- c. Wire Backing – a galvanized, 2"x4", welded wire fencing, 12 gauge minimum. Width shall be sufficient to support geotextile fabric 24 inches above adjacent grades. Chain link fences located along the same lines as silt fences, may be use to support geotextile fabric. In this circumstance, the geotextile fabric shall be firmly attached to fence.

2.1.1.2 **Triangular filter dikes:** for use on surfaces or in locations where standard silt fence cannot be implemented, shall be composed of the following:

- a. Geotextile fabric – a non-woven, polypropylene, polyethylene, or polyamide fabric with non raveling edges, in a minimum width of 60 inches.
- b. Dike Structure - 6 gauge, 6x6 welded wire mesh, 60 inches wide, folded into a triangular form. Each side shall be 18 inches with an overlap of 6 inches.
- c. Ties – metal shoat rings or standard wire/cable ties for attachment of wire mesh to itself, and for attachment of geotextile fabric to wire mesh.

2.1.1.3 **Stabilized construction exit:** A steel grid that allows the safe passage of vehicles while agitating the tires to loosen and remove the soil build up. The grid or structures shall conform to the following:

- a. It shall consist of pipes or tubes spaced such that there is a minimum clear distance between the pipes or tubes of 4 ½". It shall be elevated above the ground surface a minimum of 8" to allow water, debris and soil to drain.
- b. Minimum diameter of pipe or tube shall be 3".
- c. It shall be designed to support any and all vehicles entering and leaving the construction site.
- d. It shall be firmly placed in the ground at the exit.
- e. It shall be of sufficient length so that the agitation will remove the soil from the tires or a minimum of 8'-0".
- f. At the "street side" approach of the grid there shall be an impervious surface or it shall consist of 3" to 5" diameter angular crushed stone/rock approximately 5'-0" in length, minimum, and 8" deep, minimum. On the "job site" side of the grid, there shall be 3" to 5" diameter angular crushed stone/rock 15"-0" in length, minimum, 8" deep, minimum. The steel grid will be between the "street side" approach and the job site crushed stone/rock. All crushed stone/rock shall have filter fabric beneath the stone/rock. See diagram on Exhibit F.

- g. Steel grid area shall be used as the tire wash area. When tire wash is in use (rainy or muddy days) the area shall be manned and the tires shall be washed using a high pressure hose/nozzle.
- h. The area beneath the grid shall be sloped such that debris, soil and water shall be diverted back on to the construction site or to a sediment basin. No water, soil or debris shall leave the construction site. The resulting discharge shall be disposed of properly.

2.1.1.4 **Rock Berms:** shall be composed of the following materials:

- a. Rock – clean open graded rock, with a maximum diameter of 3 inches.
- b. Wire Mesh Support – a galvanized, woven wire sheathing having a maximum opening size of 1 (one) inch, and a minimum wire diameter of 20 gauge.
- c. Ties – metal shoat rings or standard wire/cable ties.

2.1.1.5 **Concrete Truck Washout (self installed):** shall be used for containment of fluids from concrete truck washout wastes.

- a. Gravel bags, concrete blocks or open graded rock
- b. 10 mil plastic sheeting

2.1.1.6 **Temporary Storage Tanks:** shall be used for temporary storage of fuels on the construction project site

- a. 2 inches of sand on the bottom of the containment area
- b. 6 mil plastic sheeting
- c. 2 inches of sand on top of the plastic sheeting

2.1.1.7 **Erosion Control Matting:** shall be used on steep slopes, in drainage swales, and in high traffic pedestrian areas of barren soil. It shall include one or more of the following:

- a. Jute Mat – a plain fabric made of jute yarn, woven in a loose and simple manner, with a minimum unit weight of 2.7 pounds per square yard. Width shall be as required for the dimensions of the area to be covered.
- b. Wood Fiber Mat – a mat composed of wood fibers, which are encased in nylon, cotton or other type of netting.
- c. Synthetic Webbing Mat – a mat manufactured from polyvinyl chloride or polypropylene monofilaments, which are bonded together into a three-dimensional web to facilitate erosion control and/or re-vegetation.

2.1.1.8 **Organic mulches:** shall be used for covering bare soil, retaining moisture under existing vegetation being preserved, and for absorbing the energy of compaction caused by foot or vehicular traffic. Mulch shall be one or more of the following:

- a. Straw – from broken straw bales that are free of weed and grass seed where the grass from the seed is not desired vegetation for the area to be protected.
- b. Wood Chips – from chipped limbs of cleared trees on site, or delivered in chipped form, in bulk quantities of pine, cedar or cypress. Wood chips of all species shall be partially decomposed to alleviate nitrogen depletion of the soil in areas where existing vegetation is to be preserved and protected.
- c. Shredded Mulches – from pine, cypress or cedar, mechanically shredded, and capable of forming an interlocking mat following placement, and after sufficient wetting and drying has taken place naturally.

2.1.1.9 Any other materials indicated in SWPPP.

PART 3 - EXECUTION

3.1 GENERAL

- 3.1.1 The Contractor shall provide a complete installation of all site control devices and measures (BMPs). Indicated in the SWPPP booklet, including the Site Erosion and Sedimentation Control Drawing and as specified herein. These BMPs must be confirmed as fully operational with the Owner before any work that disturbs the site can begin.
- 3.1.2 The Contractor shall provide inspection and monitoring of controls in place and shall perform all revisions and updating of SWPPP booklet. An accurate, chronological record of all Contractor inspections revisions and additional controls shall be kept on file at the project site, for review, with a copy of the SWPPP booklet.
- 3.1.3 The Contractor shall submit their Notice of Termination (NOT) to the Owner after all disturbed areas are re-established (stabilized) with vegetative cover following completion of construction. Following acceptance of stabilized areas, all site controls that are no longer necessary shall be removed.

3.2 CONTROL DEVICES

Execution of specific site control devices is described in the following paragraphs. Refer to the SWPPP for applicable devices, extent and location.

3.2.1 SILT FENCE

- 3.2.1.1 Silt fences shall consist of non-woven geotextile fabric, attached to wire fabric backing to support the geotextile. The wire fabric should be galvanized 2” x 4” welded wire, 12-gauge minimum. Attach non-woven geotextile fabric to fence with shoat or standard cable/wire ties, leaving a “toe” of fabric at the

bottom of the fence of not less than 6 (six) inches. Steel posts as specified shall be driven to a depth of 1 (one) foot minimum, and spaced not more than 6 (six) feet on center. Tilt posts slightly, in an “uphill” direction for additional strength. Attach fencing to posts with standard cable/wire ties. Dig a 6 (six) inch deep by 6 (six) inch wide trench on the disturbed side of the fence, bury geotextile fabric in trench, backfill and tamp. Abutting ends of geotextile fabric shall be overlapped a minimum of 12 (twelve) inches.

3.2.1.2 Maintain silt fence daily as necessary to repair breaches in geotextile fabric. Maintain steel posts as specified in tilted condition. When siltation has occurred, it shall be removed when it has reached a depth of 6 (six) inches. Silt that has been removed shall be disposed of off site.

3.2.1.3 Remove silt fence when the disturbed areas protected by silt fence have been completely stabilized as specified. Minimize site disturbance while removing silt fence and posts.

3.2.2 CURB INLET PROTECTION

3.2.2.1 Cover curb storm inlet with non-woven geotextile fabric covered wire fabric. Wire fabric to be 2”X4” – W1.4XW1.4. Extend fabric 2(two) feet beyond inlet opening at each end and 12” (twelve) in front of opening in the gutter. Remove strip of filter fabric apx. 2 1/2” (two and one half) high for the length of the protection to act as overflow. Extend fabric over the top of opening to allow placement of gravel bags. Anchor fabric with 20 lb. gravel bags placed 3 (three) feet on center.

3.2.2.2 Maintain inlet protection daily as necessary to repair breaches in geotextile fabric. When siltation has occurred, it shall be removed when it has reached a depth of 2 (two) inches. Silt that has been removed shall be disposed of off site.

3.2.3 STABILIZED CONSTRUCTION EXIT

3.2.3.1 A steel grid that allows the safe passage of vehicles while agitating the tires to loosen and remove the soil build up. The grid or structures shall conform to the following:

- a. It shall consist of pipes or tubes spaced such that there is a minimum clear distance between the pipes or tubes of 4 ½”. It shall be elevated above the ground surface a minimum of 8” to allow water, debris and soil to drain.
- b. Minimum diameter of pipe or tube shall be 3”.
- c. It shall be designed to support any and all vehicles entering and leaving the construction site.
- d. It shall be firmly placed in the ground at the exit.
- e. It shall be of sufficient length so that the agitation will remove the soil from the tires or a minimum of 8’-0”.

- f. At the “street side” approach of the grid there shall be an impervious surface or it shall consist of 3” to 5” diameter angular crushed stone/rock approximately 5’-0” in length, minimum, and 8” deep, minimum. On the “job site” side of the grid, there shall be 3” to 5” diameter angular crushed stone/rock 15”-0” in length, minimum, 8” deep, minimum. The steel grid will be between the “street side” approach and the job site crushed stone/rock. All crushed stone/rock shall have filter fabric beneath the stone/rock. See diagram on Exhibit F.
- g. Steel grid area shall be used as the tire wash area. When tire wash is in use (rainy or muddy days) the area shall be manned and the tires shall be washed using a high pressure hose/nozzle.
- h. The area beneath the grid shall be sloped such that debris, soil and water shall be diverted back on to the construction site or to a sediment basin. No water, soil or debris shall leave the construction site. The resulting discharge shall be disposed of properly.

3.2.4 ROCK BERM

- 3.2.4.1 Rock berm shall consist of rip-rap type rock, secured within a wire sheathing as specified, and installed at the toe of slopes, or at the perimeter of developing or disturbed areas. Height of berm shall be a minimum of 18 (eighteen) inches from top of berm to uphill toe of berm. Top width shall be a minimum of 24 (twenty four) inches, with side slopes of 2:1 or flatter. Uphill toe of berm shall be buried a minimum of 4 (four) inches into existing grade. Rock berm shall have a minimum flow-through rate of 60 (sixty) gallons per minute, per square foot of berm face.
- 3.2.4.2 Maintain rock berm in a condition that allows the sediment to be removed, when the depth of sediment has reached 1/3 (one third) the height of the berm. Berm shall be reshaped as needed, and silt buildup removed, to maintain specified flow through berm.
- 3.2.4.3 Rock berm shall be removed when the disturbed areas served have been stabilized as specified.

3.2.5 CONCRETE TRUCK WASHOUT (SELF INSTALLED)

- 3.2.5.1 Concrete Truck Washout (self installed) shall be constructed so that it will be able to accommodate the maximum number of anticipated concrete trucks that will be cleaned on any given day at any given time using 7 gallons of water being used for washout per truck or 50 gallons of water being used to wash out pump trucks. The area utilized to contain the wash water and concrete solids cleaned from the trucks will be a minimum of 10 feet in width. The containment area will be covered with 10 mil plastic sheeting without any holes or tears and the seams shall be sealed according to manufacturer’s recommendations. The gravel bags, concrete blocks or open graded rocks shall line the outside perimeter and shall be double wrapped

with the 10 mil plastic sheeting to prevent any potential for runoff from the containment area.

3.2.5.2 The concrete truck washout containment area shall be maintained in a condition that will not allow concrete build up within the containment area to exceed 50% of the storage capacity.

3.2.5.3 The concrete truck washout area will be removed when it is no longer necessary to wash out concrete trucks on the site.

3.2.6 TEMPORARY STORAGE TANKS

3.2.6.1 Must be located in a bermed containment area. The berm must be a minimum 3 feet in all directions, and the height of the berm must contain the maximum contents of the largest tank plus 8 inches (approximately 110% of the tank capacity). The containment area is constructed by beginning with a 2 inch sand pad, and then covered with 6 mil plastic or rubber sheeting. The sheeting is then covered with another 2 inch layer of sand. The plastic sheeting is secured to the outer berm.

3.2.6.2 Storage tanks are to be placed no closer than 50 feet from a building or property line.

3.2.6.3 If using tanks with a gravity feed type set up, the containment must be of sufficient size to be able to contain the tank if it should fall over

3.2.6.4 There must be a fusible link at the valve that will shut off the flow to the hose in the event of a fire

3.2.6.5 There must be sufficient cover for the tank and the containment area to prevent potential stormwater runoff

3.2.6.6 The area within the containment area is to be kept free and clear of spills, if a spill occurs then the sand is to be removed and replace with a fresh layer of sand.

3.2.6.7 The storage tank containment area is to be removed from the site once it has been determined that it will no longer be used on the construction site.

3.2.7 DIVERSION DIKE

3.2.7.1 Diversion dikes shall be formed and shaped using compacted fill, and shall not intercept runoff from more than 10 (ten) acres. Dike shall have a minimum top width of 24 (twenty four) inches, and a minimum height of 18 (eighteen) inches. Soil shall have side slopes of 3:1 or flatter, and shall be placed in 8 (eight) inch lifts. Compact soil to 95% standard proctor density. Where protected slopes exceed 2 (two) percent, the uphill side of diversion dike shall be stabilized with crushed stone or erosion control matting – to a

distance of not less than 7 (seven) feet from toe of dike. The channel, which is formed by the diversion dike, must have positive drainage for its entire length to a stabilized outlet, such as a rock berm, sandbag berm, or stone outlet structure. Storm water shall not be allowed to overflow the top of diversion dike at any point other than the stabilized outlet.

3.2.7.2 Maintain diversion dike in a condition that allows the storm water runoff to be diverted away from exposed slopes. Repair any failures at top of dike and remove sediment as necessary behind dike to allow positive drainage to a stabilized outlet.

3.2.7.3 Remove diversion dike when the expose slopes being protected are stabilized with vegetation or other permanent cover.

3.2.8 INTERCEPTOR SWALE

3.2.8.1 Interceptor swale shall be implemented to prevent on or off-site storm water from entering a disturbed area, or prevent sediment-laden runoff from leaving the site or disturbed area. Interceptor swale shall be excavated as required by the SWPPP drawing/s, with side slopes of 3:1 or flatter. This shall include all labor and equipment associated with the installation and maintenance of the swale as shown on the construction documents. Constructed swale may be v-shaped or trapezoidal with a flat bottom, depending on the volume of water being channeled. Sediment laden runoff from swale shall be directed to a stabilized outlet or sediment-trapping device. Flow line of swale shall have a continuous fall for its entire length and shall not be allowed to overflow at any other point/s along its length.

3.2.8.2 Maintain interceptor swale in a condition that allows the storm water runoff to be channeled away from disturbed areas. Remove sediment in swale as necessary to maintain positive drainage to a stabilized outlet.

3.2.8.3 Fill in or remove swale after the disturbed area/s being protected is completely stabilized as specified.

3.2.9 EROSION CONTROL MATTING

3.2.9.1 Remove all rocks, debris, dirt clods, roots, and any other obstructions, which would prevent the matting from lying in direct contact with the soil. 6 inch by 6 inch anchor trenches shall be dug along the entire perimeter of the installation. Bury matting in trenches, backfill and compact. Fasten matting to the soil using 10 gauge wire staples, 6 inches in length and 1 inch wide. Use a minimum of one staple per 4 square feet of matting, and at 12 inches on center along all edges. Install parallel to flow of water and overlap joining strips a minimum of 12 inches.

3.2.9.2 Maintain erosion control matting by repairing any bare spots. Missing or loosened matting shall be promptly replaced or re-anchored.

3.2.9.3 Remove matting where protection is no longer required. In areas where permanent vegetation is established along with matting, matting can be left in place permanently.

3.2.10 MULCHES

3.2.10.1 Apply specified mulches in areas identified on the SWPPP, to a depth of 3 inches or as otherwise specified on the SWPPP drawing/s.

3.2.11 BPM Details

3.2.11.1 Refer to Exhibit's for the following BMP details:

- 3.2.11.1.1 Exhibit "A" Area Inlet Detail
- 3.2.11.1.2 Exhibit "B" Curb Inlet Detail
- 3.2.11.1.3 Exhibit "C" Rock Berm Detail
- 3.2.11.1.4 Exhibit "D" Silt Fence Detail
- 3.2.11.1.5 Exhibit "E" Triangular Dike Detail
- 3.2.11.1.6 Exhibit "F" Stabilized Construction Exit
- 3.2.11.1.7 Exhibit "G" Concrete Truck Washout

3.3 INSPECTIONS AND RECORD KEEPING

3.3.1 Contractor shall inspect all BMP's on 7-day intervals. Coordinate inspections with OFPC CI, who is also required by TPDES to regularly inspect the site. Use standard Owner Inspection forms (see form in Part 4 of this Section) for each inspection. Record all deficiencies of site controls, and take appropriate action to correct any deficiencies recorded. Exception is rock berms located in a streambed. Any rock berm located in a streambed shall be inspected on a daily basis. Keep records of inspections current and on file, available for review by EPA, TCEQ, MS4 operator Representative and/or Owner's Representative/s.

3.3.2 Contractor shall keep records of all Contractor inspections on file with SWPPP booklet at project site, and make available for review by Owner's Representative/s or EPA, TCEQ or MS4 operator officials requesting review of SWPPP inspection records. One copy of each inspection report shall be delivered to the CI and the RCM's office.

3.3.3 Contractor shall keep records of all major grading and stabilization activities on file with the SWPPP booklet at the project site and make available for review by owner's representative(s), EPA, TCEQ, or MS4 operator officials requesting review of the SWPPP.

3.3.4 Contractor shall submit copies of all inspection records and the Major Grading and Stabilization Log and the Major Grading and Stabilization Log along with SWPPP booklet to the RCM at project completion.

3.4 MAINTENANCE

- 3.4.1 All erosion and sediment control measures and other protective measures identified in the SWPPP must be maintained in effective operating condition. If through inspections the permittee determines that BMP's are not operating effectively, maintenance must be performed before the next anticipated storm event or as necessary to maintain the continued effectiveness of storm water controls. If maintenance prior to the next anticipated storm event is impracticable, maintenance must be scheduled and accomplished as soon as practicable. Erosion and sediment controls that have been intentionally disabled, run-over, removed or otherwise rendered ineffective must be replaced or corrected immediately upon discovery.

PART 4 - SAMPLE FORMS

The following forms or sketches are to be used by the Contractor in the execution of the work in this Section, in compliance with TPDES requirements and the SWPPP.

- UT System OFPC SWPPP Project Start-up
- Major Grading and Stabilization Log
- SWPPP Posting Sign for Main Construction Entrance for large construction site 5 acres or greater
- SWPPP Posting Sign for Main Construction Entrance for small construction site 1 to less than 5 acres

Contact the Owner's representative for useable copies of these forms to be used in the execution of work in this section.

- TCEQ TPDES Notice of Intent (TCEQ NOI)
- TCEQ TPDES Construction Site Notice (CSN)
- TCEQ TPDES Notice of Termination (TCEQ NOT)
- UT System OFPC Notice of Termination (OFPC NOT)
- TCEQ TPDES Large Construction Site Notice (NOI-CSN)
- Shared SWPPP Acceptance Certification form
- UT System OFPC SWPPP Inspection form

END OF SECTION 01 57 23

The University of Texas System

Office of Facilities Planning and Construction

220 West Seventh Street Austin, Texas 78701

(512) 499-4600 FAX (512) 499-4604

SWPPP Project Start-up

Contractors must meet four (4) TPDES requirements before soil-disturbing activities can commence on OFPC construction projects. This form provides the Contractor and Owner an acceptance of compliance with initial BMP's and required paperwork for commencement of work on the project site.

The Contractor is to initial items that are certified as complete and then review for concurrence with the Owner's Designated Representative.

- 1 **Best Management Practices (BMP's) applicable to this project have been inspected to ensure correct placement in accordance with the SWPPP and for proper installation according to specifications.**

Initial by Contractor

Initial by OFPC CI

- 2 **The approved Storm Water Pollution Prevention Plan (SWPPP) is approved and on site.**

Initial by Contractor

Initial by OFPC CI

- 3 **The TCEQ NOI and OFPC Posting Notice forms (and permits if received) or the TCEQ CSN's are complete and posted for all permittees at the main entrance to the project site.**

Initial by Contractor

Initial by OFPC CI

- 4 **Inspector qualifications and letter of delegation of authority are inserted in the SWPPP.**

Initial by Contractor

Initial by OFPC CI

Having met the above requirements and in recognition of prior receipt of Notice to Proceed, the Contractor is authorized to commence work on site.

Contractor

OFPC Project # _____

OFPC Resident Construction Manager

Date: _____

The University of Texas System
Office of Facilities Planning and Construction
220 West Seventh St. Austin, TX 78701
(512) 499-4600 FAX (512) 499-4747

Storm Water Pollution Prevention Plan
Major Grading and Stabilization Activities Log

Start Date	End Date*	Type and Location of Activity

***End Date does not pertain to stabilization activities**

SWPPP

CONTRACTOR

OWNER

NOI

PERMIT

PERMIT

NOI

NOI-CSN

NOI-CSN

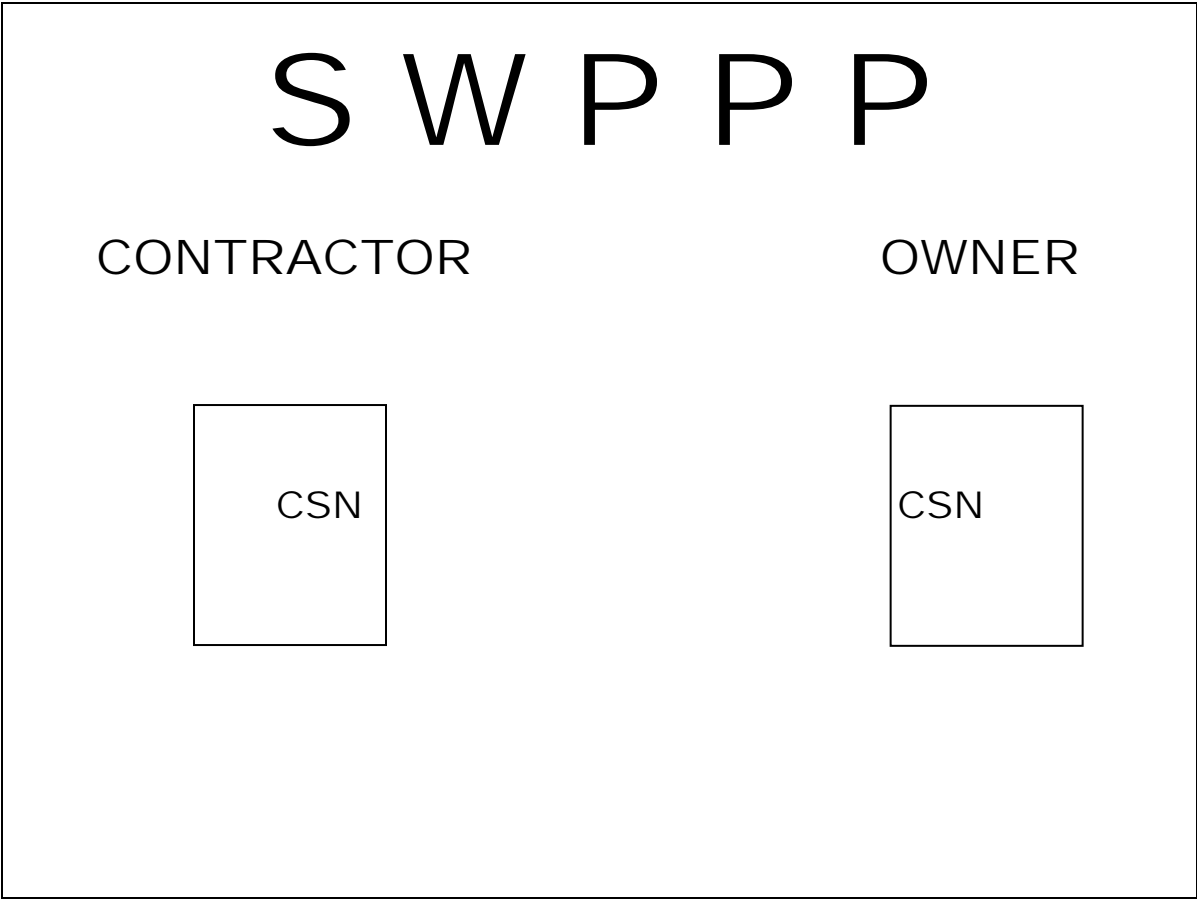
MINIMUM SIGN SPECIFICATIONS: 5 Acre or Greater Sites

SIGN - Exterior grade $\frac{3}{4}$ " plywood, cut 4' x 4', with red painted letters, background painted white - **DISPLAY ON CONSTRUCTION FENCE AT MAIN ENTRANCE TO PROJECT SITE.**

SWPPP - 10 inch painted letters, 3 inches from top of sign, centered

CONTRACTOR OWNER - 3 inch painted letters, 4 inches below SWPPP letters, centered on each half of sign

NOI, PERMIT, CONTACT - 8-1/2 X 11 TCEQ forms, laminated beyond edges of documents, stapled to plywood.



MINIMUM SIGN SPECIFICATIONS: 1 to Less Than 5 Acre Sites

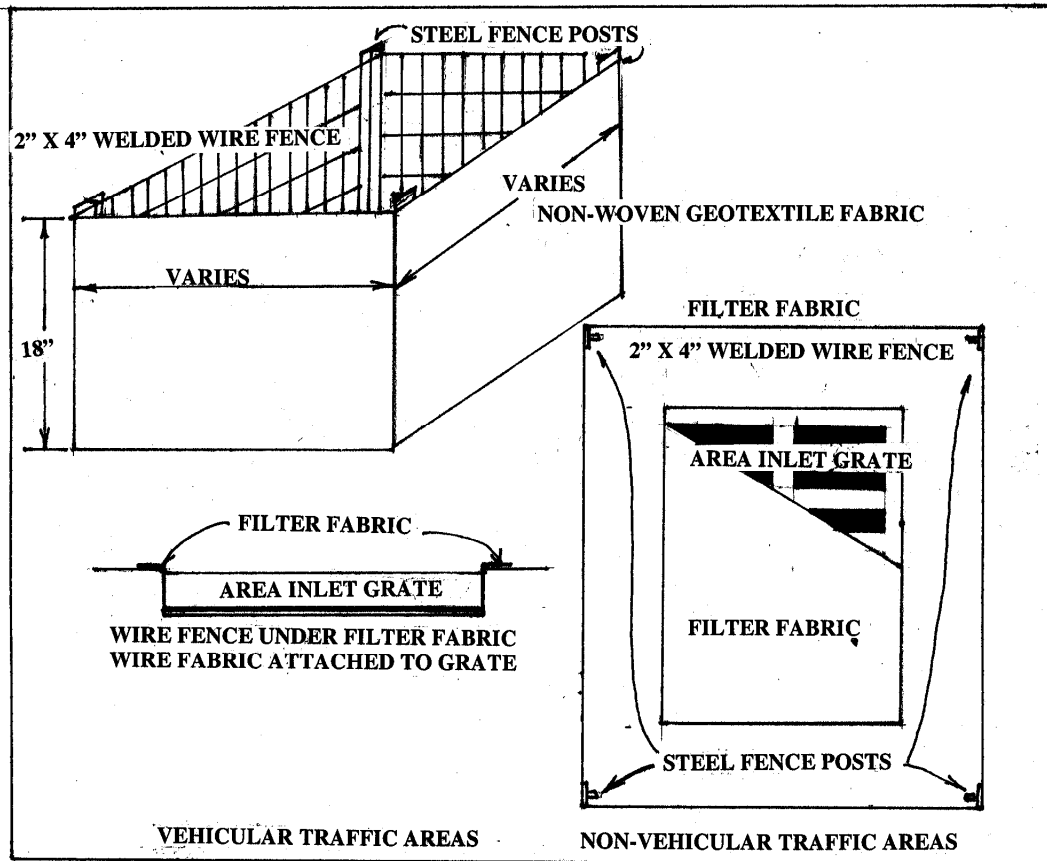
SIGN - Exterior grade $\frac{3}{4}$ " plywood, cut 4' x 4', with red painted letters, background painted white - **DISPLAY ON CONSTRUCTION FENCE AT MAIN ENTRANCE TO PROJECT SITE.**

S W P P P - 10 inch painted letters, 3 inches from top of sign, centered

CONTRACTOR OWNER - 3 inch painted letters, 4 inches below SWPPP letters, centered on each half of sign

CONSTRUCTION SITE NOTICE - 8-1/2 X 11 TCEQ forms, laminated beyond edges of documents, stapled to plywood.

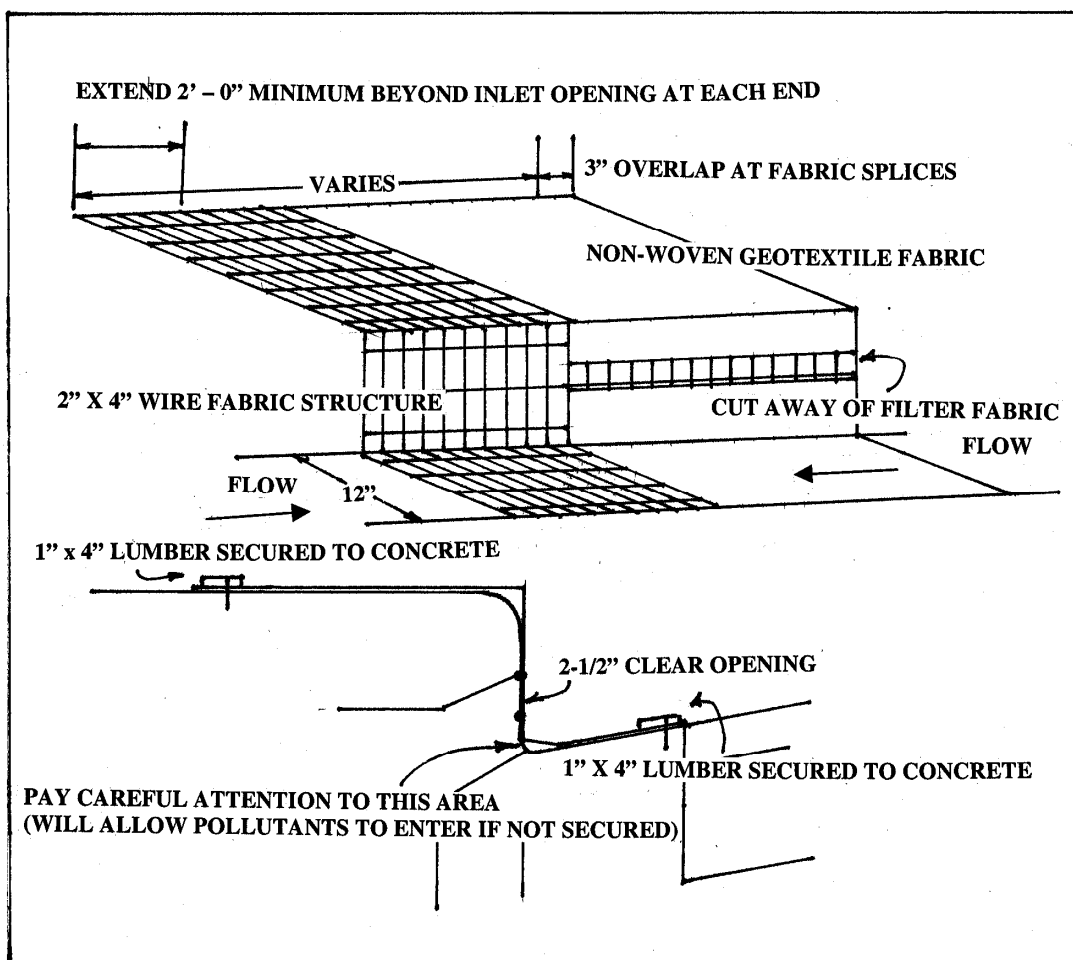
EXHIBIT "A" Area Inlet Detail



AREA INLET PROTECTION

1. STEEL POSTS THAT SUPPORT THE SILT FENCE SHALL BE INSTALLED AT EACH CORNER AND IN BETWEEN CORNERS IF THE DISTANCE IS GREATER THAN 6' BETWEEN CORNER POSTS.
2. USE SILT FENCE DETAIL FOR INSTALLATION OF THE SILT FENCE AROUND THE AREA INLET.
3. THE METAL AREA INLET GRATE SHALL BE LIFTED AND FILTER FABRIC WRAPPED AROUND THE GRATE AND THE GRATE SHALL BE REPLACED.
4. IN VEHICULAR TRAFFIC AREAS THE METAL GRATE SHALL BE LIFTED OUT AND WIRE FENCE MATERIAL SHALL BE PLACED UNDER IT WITH FILTER FABRIC PLACED BETWEEN THE GRATE AND THE WIRE FENCE. THE WIRE FENCE SHALL THEN BE ATTACHED TO THE GRATE .
5. ACCUMULATED SILT SHALL BE REMOVED WHEN THE FILTER FABRIC OVER THE GRATE COMPLETELY COVERS THE GRATE AREA, AND THE SILT AROUND THE SILT FENCE REACHES A HEIGHT OF 6"
6. AREA INLET PROTECTION SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED.

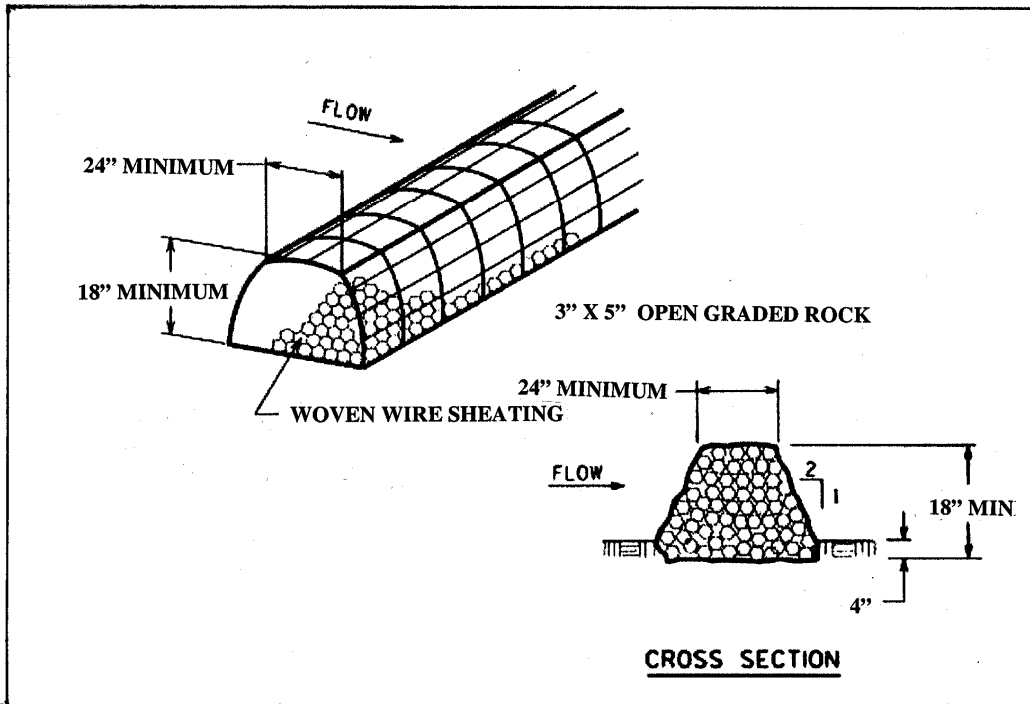
EXHIBIT "B" Curb Inlet Detail



CURB INLET PROTECTION

1. WHERE MINIMUM CLEARANCES CAUSE TRAFFIC TO DRIVE IN THE GUTTER, USE 1" X 4" LUMBER SECURED WITH CONCRETE NAILS 3' O.C. NAILED INTO THE CONCRETE. IF PEDESTRIAN TRAFFIC ONLY THE USE OF 20# GRAVEL BAGS TO SECURE MATERIAL IS PERMITTED.
2. AS SECTION OF FILTER FABRIC SHALL BE REMOVED AS SHOWN IN THIS DETAIL. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR HOG RINGS AT THIS LOCATION.
3. DAILY INSPECTION SHALL BE MADE AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2".
4. THE PERFORMANCE OF THE INLET PROTECTION SHALL BE MONITORED DURING EACH RAINFALL EVENT AND PROTECTION SHALL BE IMMEDIATELY REMOVED IF THE STORMWATER BEGINS TO OVERTOP THE CURB.
5. INLET PROTECTION SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

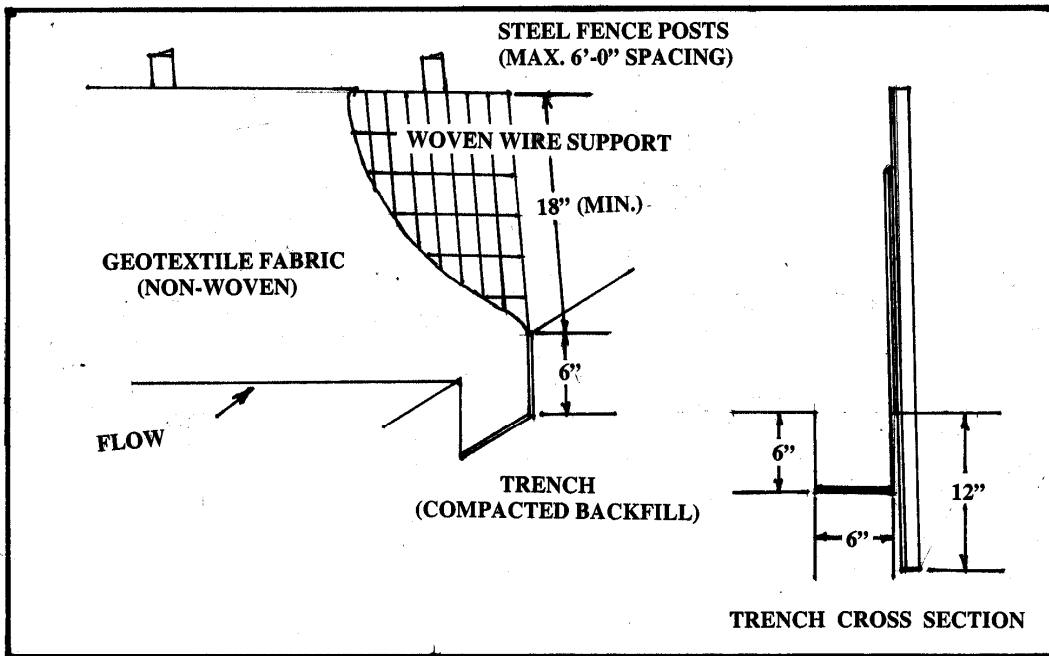
EXHIBIT "C" Rock Berm Detail



ROCK BERM

1. USE ONLY OPEN GRADED ROCK (4" X 8") FOR STREAM FLOW CONDITIONS. USE OPEN GRADED ROCK (3" X 5") FOR OTHER CONDITIONS
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING A MAXIMUM 1" OPENING AND A MINIMUM WIRE DIAMETER OF 20 GA. ROCK BERMS IN CHANNEL APPLICATIONS SHALL BE ANCHORED FIRMLY INTO THE SUBSTRATE A MINIMUM OF 6" WITH TEE POSTS OR WITH #5 OR #6 REBAR, WITH A MAXIMUM SPACING OF 48" ON CENTER.
3. THE ROCK BERM SHALL BE INSPECTED WEEKLY AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED; DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC, ETC.
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 6" WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SILTRATION PROBLEM.
5. DAILY INSPECTION SHALL BE MADE ON SEVERE-SERVICE ROCK BERMS; SILT SHALL BE REMOVED WHEN ACCUMLUATION REACHES 6"
6. WHEN THE SITE IS COMPLETELY STABILIZED, THE ROCK BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

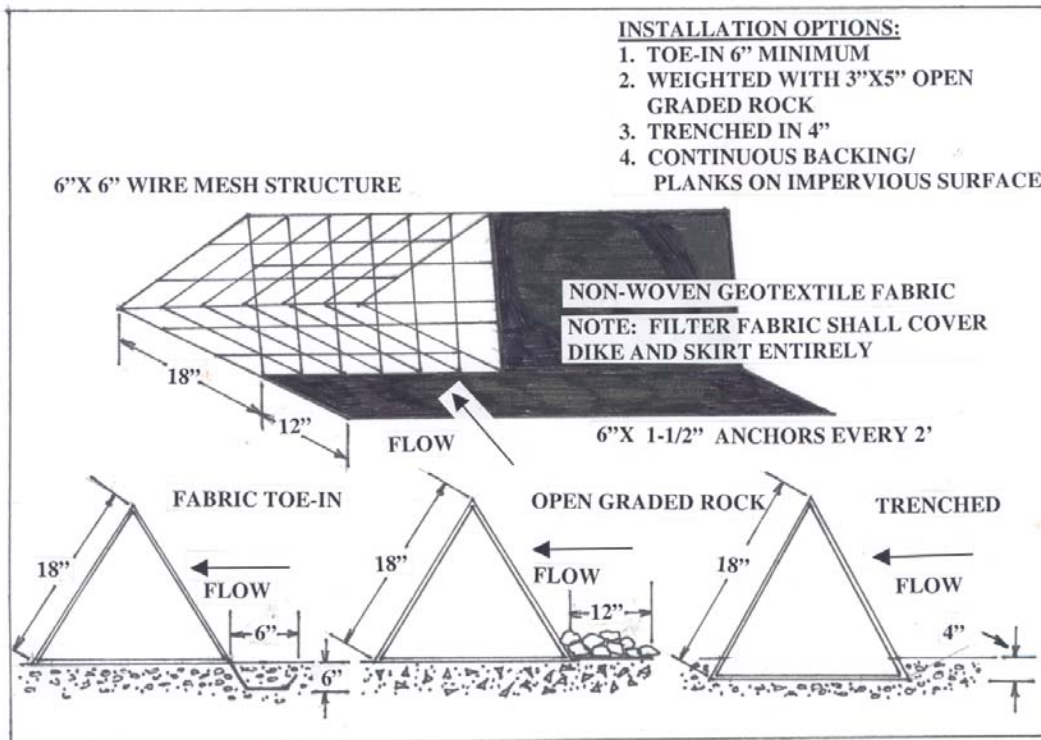
EXHIBIT "D" Silt Fence Detail



SILT FENCE DETAIL

1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST BE EMBEDDED A MINIMUM OF 12"
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF THE FLOW. WHERE FENCE CAN NOT BE TRENCHED INTO THE SURFACE (e. g. PAVEMENT) THE FABRIC SHALL BE WEIGHTED DOWN WITH ROCK OR 1" X 4" LUMBER SECURELY FASTENED TO THE SURFACE, ON THE UPSTREAM SIDE TO PREVENT FLOW UNDER THE FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 6" DEEP AND 6" WIDE TO ALLOW FOR THE FILTER FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. THE FILTER FABRIC SHALL BE SECURELY FASTENED TO THE WOVEN WIRE BACKING, WHICH IN TURN IS SECURELY FASTENED TO THE STEEL FENCE POST.
5. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6". THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTRATION.
6. INSPECTION SHALL BE MADE WEEKLY AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY, IF NEEDED.
7. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED.

EXHIBIT "E" Triangular Dike Detail

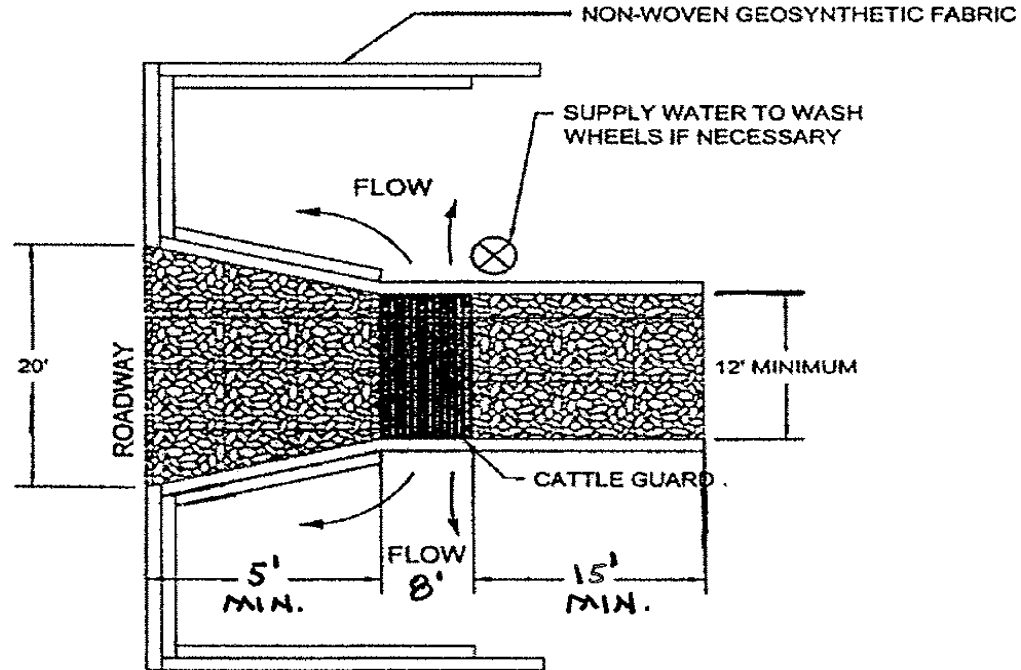


TRI DIKE FILTER DAM

1. DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.
2. THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF NON-WOVEN GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE.
3. THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF 3" X 5" OPEN GRADED ROCK, 1" X 4" LUMBER (SECURELY FASTENED), OR TOED IN 6" WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, SHALL BE TRENCHED IN 4" IN DEPTH.
4. DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 6" WIRE STAPLES ON 2' CENTERS ON BOTH EDGES OF SKIRT, OR STAKE USING 3/8" REBAR WITH TEE ENDS.
5. FILTER MATERIAL SHALL BE LAPPED OVER ENDS 6" TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTEN WITH GALVANIZED SHOAT RINGS.
6. THE DIKE STRUCTURE SHALL BE 6 GA. 6"X 6" WIRE MESH, 18" ON A SIDE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6" AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTRATION.
8. INSPECTION SHALL BE MADE WEEKLY AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
9. AFTER THE SITE IS COMPLETELY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED.

EXHIBIT "F"

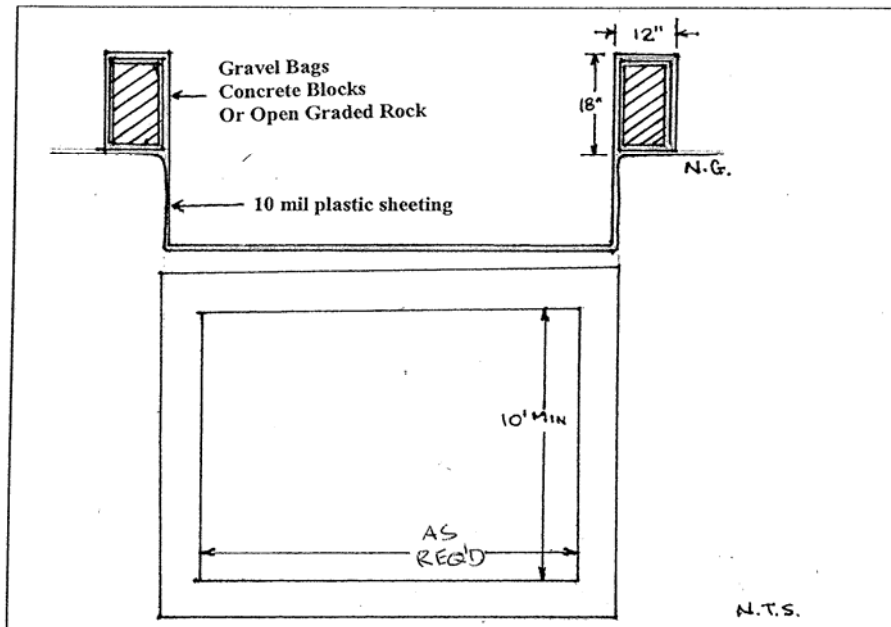
Stabilized Construction Exit



A STEEL GRID THAT ALLOWS THE SAFE PASSAGE OF VEHICLES WHILE AGITATING THE TIRES TO LOOSEN AND REMOVE THE SOIL BUILD UP. THE GRID OR STRUCTURES SHALL CONFORM TO THE FOLLOWING:

- A. IT SHALL CONSIST OF PIPES OR TUBES SPACED SUCH THAT THERE IS A MINIMUM CLEAR DISTANCE BETWEEN THE PIPES OR TUBES OF 4½". IT SHALL BE ELEVATED ABOVE THE GROUND SURFACE A MINIMUM OF 8" TO ALLOW WATER, DEBRIS AND SOIL TO DRAIN.
- B. MINIMUM DIAMETER OF PIPE OR TUBE SHALL BE 3".
- C. IT SHALL BE DESIGNED TO SUPPORT ANY AND ALL VEHICLES ENTERING AND LEAVING THE CONSTRUCTION SITE.
- D. IT SHALL BE FIRMLY PLACED IN THE GROUND AT THE EXIT.
- E. IT SHALL BE OF SUFFICIENT LENGTH SO THAT THE AGITATION WILL REMOVE THE SOIL FROM THE TIRES OR A MINIMUM OF 8'-0".
- F. AT THE "STREET SIDE" APPROACH OF THE GRID THERE SHALL BE AN IMPERVIOUS SURFACE OR IT SHALL CONSIST OF 3" TO 5" DIAMETER ANGULAR CRUSHED STONE/ROCK APPROXIMATELY 5'-0" IN LENGTH, MINIMUM, AND 8" DEEP, MINIMUM. ON THE "JOB SITE" SIDE OF THE GRID, THERE SHALL BE 3" TO 5" DIAMETER ANGULAR CRUSHED STONE/ROCK 15'-0" IN LENGTH, MINIMUM, 8" DEEP, MINIMUM. THE STEEL GRID WILL BE BETWEEN THE "STREET SIDE" APPROACH AND THE JOB SITE CRUSHED STONE/ROCK. ALL CRUSHED STONE/ROCK SHALL HAVE FILTER FABRIC BENEATH THE STONE/ROCK.
- G. STEEL GRID AREA SHALL BE USED AS THE TIRE WASH AREA. WHEN TIRE WASH IS IN USE (RAINY OR MUDDY DAYS) THE AREA SHALL BE MANNED AND THE TIRES SHALL BE WASHED USING A HIGH PRESSURE HOSE/NOZZLE.
- H. THE AREA BENEATH THE GRID SHALL BE SLOPED SUCH THAT DEBRIS, SOIL AND WATER SHALL BE DIVERTED BACK ON TO THE CONSTRUCTION SITE OR TO A SEDIMENT BASIN. NO WATER, SOIL OR DEBRIS SHALL LEAVE THE CONSTRUCTION SITE. THE RESULTING DISCHARGE SHALL BE DISPOSED OF PROPERLY.

EXHIBIT "G"
Concrete truck washout



Alternative Self-installed Construction Site Concrete Truck Washout

1. The excavation for the concrete truck washout shall be a minimum of 10' wide and of sufficient length and depth to accommodate 7 gallons of washout water and concrete per truck per day and/or 50 gallons of washout water and concrete per pump truck per day.
2. In the event that the self-installed concrete truck washout is constructed above ground, it shall be 10' wide and 10' long with the same requirements for containment as described in item 1.
3. The containment area shall be lined with 10 mil plastic sheeting, without holes or tears. Where there are seams, these shall be secured according to manufacturers directions.
4. The plastic sheeting shall be of sufficient size so that it will overlap the top of the containment area and be wrapped around the gravel bags, concrete blocks or open graded rock at least 2 times.
5. The gravel bags or concrete blocks shall be placed abutting each other to form a continuous berm around the outer perimeter of the containment area.
6. The berm consisting of gravel bags, concrete blocks or open graded rock shall be no less than 18" high and no less than 12" wide.
7. The containment area shall not exceed 50% of capacity at any one time.
8. Solids shall be removed from containment area and disposed of properly and any damage to the plastic sheeting shall be repaired or sheeting replaced before next use.

REVISION LOG

The following is provided for convenience to the Owner, Architect/Engineer and Contractor to track changes between annual document issuances and is not to be considered by any party to be contractual or 100% complete.

Date	Paragraph Revised
02/01/08	Updated the SWPPP Inspection Form
05/27/08	Revisions to formatting/New 08 Permit info/ Certification form.

SECTION 01 77 00 - PROJECT CLOSE-OUT PROCEDURES

PART 1 - GENERAL

1.1. RELATED DOCUMENTS

- 1.1.1. Provisions established within the Uniform General and Supplementary General Conditions for University of Texas System Building Construction Contracts (UGC), all Sections of Division 1 - General Requirements, other applicable Sections of all Divisions of Specifications, and the Drawings are collectively applicable to this Section. In the event of conflict between specific requirements of the various documents, the more restrictive, the more extensive (i.e.. more expensive) requirement shall govern.

1.2. SECTION OVERVIEW

- 1.2.1. General Description of Closeout Requirements
- 1.2.2. Requirements for Substantial Completion
- 1.2.3. Provisions for Release of Retainage
- 1.2.4. Requirements for Final Acceptance
- 1.2.5. Required Project Record Documents
- 1.2.6. Project Cleaning

1.3. GENERAL DESCRIPTION OF CLOSEOUT REQUIREMENTS

- 1.3.1. **DEFINITION:** Project Closeout is hereby defined to include requirements near the end of the Contract Time, in preparation for substantial completion acceptance, occupancy by Owner, release of retainage, final acceptance, final payment, and similar actions evidencing completion of the work. Specific additional requirements for individual units of work are specified in Sections of Divisions 2 - 33.
- 1.3.2. **TIME** of closeout is directly related to completion and acceptance, and therefore may be either a single time period for the entire project, or a series of time periods for individual portions or phases of the project that have been certified as substantially complete at different dates.
- 1.3.3. This Section is based on completion and acceptance of the entire project during a single time period.
 - 1.3.3.1. If the project is to be accepted in phases, whether by originally specified project scope or by subsequent agreement between the parties, then Project Closeout requirements shall pertain to each separately accepted portion or phase of the project; unless by written notice the Owner allows for these requirements to be done singularly upon anticipated acceptance of the final phase.

1.3.4. RECORD DOCUMENTS for Project Closeout include, but are not necessarily limited to the following drafts, which are required at substantial completion:

- 1.3.4.1. As-Built Record Drawings
- 1.3.4.2. As-Built Record Specifications
- 1.3.4.3. Operating & Maintenance Manuals
- 1.3.4.4. Record Approved Submittals and Samples
- 1.3.4.5. Certification of No Asbestos Products Incorporated in Project
- 1.3.4.6. Completed Punch Lists

1.3.5. REQUIRED DOCUMENTS for final payment to be released include final versions of all of the above and the following:

- 1.3.5.1. Final Release of Claims & Liens
- 1.3.5.2. Affidavit of payment of Debt and Claims
- 1.3.5.3. Consent(s) of Surety
- 1.3.5.4. Completed SWPPP documents and Notice Of Termination
- 1.3.5.5. Final Historically Underutilized Business Plan
- 1.3.5.6. Completed Commissioning and Closeout Manual

1.4. REQUIREMENTS FOR SUBSTANTIAL COMPLETION

1.4.1. Prior to requesting Architect and Owner to schedule a Substantial Completion, or Pre-Final, inspection (for either the entire work or portions thereof as agreed to by the parties to the contract); complete the following and list known exceptions in request.

- 1.4.1.1. In progress payment request coincident with period of time anticipated for substantial completion, Contractor's payment request should reflect a minimum of 95% completion for all applicable work.
- 1.4.1.2. Submit to Architect and Owner a complete copy of the Contractor's most current punch list covering the portion(s) of the Project claimed as substantially complete.
 - 1.4.1.2.1. Such punch list shall indicate dates of Contractor re-checks and schedule for completion of work items remaining.
 - 1.4.1.2.2. All items remaining outstanding on the Contractor's punch list shall include a projected date of completion and/or correction with an explanation of why such is not presently completed.

- 1.4.1.3. Submit to Architect for review the full set of as-built marked-up record drawings and marked-up record specifications as described later in this Section.
 - 1.4.1.4. Submit to Architect for review the preliminary copies of Owner's Operating and Maintenance (O&M) Manuals as described later in this Section.
 - 1.4.1.5. Provide access to Contractor's copy of the Commissioning and Closeout Manual for review by Owner and Architect. The Manual shall be up to date before the Substantial Completion inspection can be requested.
 - 1.4.1.6. Submit certification statement that no asbestos containing materials have been used or incorporated into the project.
 - 1.4.1.7. Obtain and submit releases enabling Owner's full and unrestricted use of the work and access to services and utilities, including (where applicable) operating certificates, and similar releases.
 - 1.4.1.8. Deliver tools, spare parts, extra stocks of materials, and similar physical items to Owner.
- 1.4.2. If Owner intends to occupy Project upon Substantial Completion Acceptance, Contractor shall make provisions for final changeover of locks with the Owner's personnel. Upon written directive from Owner, this task may be waived until final acceptance for the convenience of the Contractor in completing punch list activity.
 - 1.4.3. Complete instructions of Owner's personnel for all systems and equipment serving the areas claimed as substantially complete, for which Owner Training was not completed in association with system demonstrations and inspections. Refer also to Section 01 91 00 - Project Commissioning.
 - 1.4.4. Complete initial clean up requirements as described later in this Section for the entire portion of the Project claimed as substantially complete. Touch up and otherwise repair and restore marred exposed finishes.
 - 1.4.5. SUBSTANTIAL COMPLETION INSPECTION PROCEDURE
 - 1.4.5.1. Refer to UGC and Section 01 45 00 - Project Quality Control
 - 1.4.5.1.1. The Contractor shall ensure the work is ready for inspection and/or reinspection. If the work is found not to be as stated in the Contractor's punchlist or the items have not been substantially corrected/completed; the inspection will be terminated all costs for the Owner and A/E team for scheduling and attendance at the terminated inspection(s) shall be the responsibility of the Contractor.

1.5. PROVISIONS FOR RELEASE OF RETAINAGE

- 1.5.1. Refer to UGC

1.5.2. Release of any retainage, or reduction in amount of retainage withheld, is strictly at the discretion of the Owner, regardless of Contractor compliance with requirements. All of the requirements noted for Substantial Completion Acceptance must be completed prior to application for final release of contract retainage. In addition, meet the following requirements:

1.5.2.1. Submit affidavits of final release of claim and lien from each subcontractor and supplier who provided materials and/or labor to the Project.

1.5.2.2. Submit affidavit that all bills for the Project have been paid, or will be paid within thirty (30) days of Contractor receipt of payment.

1.5.2.3. Submit Consent of Surety to Release of Retainage.

1.6. REQUIREMENTS FOR FINAL ACCEPTANCE

1.6.1. Prior to requesting Architect and Owner to schedule Final Inspection for the Project, complete the following:

1.6.1.1. Prepare draft payment request showing 100% completion for each line item on the Schedule of Values. Submit with this draft all final releases and supporting documentation not previously submitted and accepted. Include Certificates of Insurance where applicable. Note that Final Payment, including final release of retainage, will not be issued until all work (including punch list items) has been completed, all requirements met, a project closeout audit performed (if deemed necessary) and a Final Change Order has been processed if required to resolve final cost or closeout audit issues, including deletion of any remaining contract allowances.

1.6.1.2. Submit copy of Architect/Engineer's pre-final, or substantial completion, punch list, which includes evidence that each item has been completed or otherwise resolved.

1.6.1.3. Submit final meter readings for utilities, and similar data as of time of substantial completion or when Owner took possession of and responsibility for corresponding elements of the work.

1.6.1.4. Submit final record as-built drawings and specifications, copies of all approved submittals, and operating & maintenance manuals as described later in this Section. This includes specific warranties, maintenance agreements, product certifications and similar documents. Record closeout documentation must be acceptable to Architect and Owner prior to issuance of final payment.

1.6.1.5. Transmit completed Commissioning and Closeout Manual to the Owner. This manual shall be complete, acknowledging receipt of all attic stock, spare parts, training/demonstration, test reports and any other requirements of the contract documents.

1.6.1.6. Complete final cleaning requirements, including touch-up of marred surfaces.

1.6.1.7. Submit final payment request, including the following documentation:

1.6.1.7.1. Consent of Surety

1.6.1.7.2. Release of Liens and Claims

1.6.1.7.3. Affidavit of payment of Debts and Claims

1.6.1.7.4. Final Historically Underutilized Business Plan

1.6.1.7.5. Completed and signed Notice Of Termination

1.6.1.8. Revise and submit evidence of final and continuing insurance coverage complying with applicable insurance requirements.

1.6.2. FINAL ACCEPTANCE INSPECTION PROCEDURE

1.6.2.1. Upon compliance with all above noted requirements, and following completion of the work required in the substantial completion punch list, provide written notice to the Architect and Owner that the project is ready for Final Inspection. Refer to UGC for additional requirements.

1.6.2.2. All Owner and Architect costs for travel and man-hours for additional inspections at either Substantial Completion or Final Acceptance which are required either by failure of the Contractor to complete the noted punch list items, or by erroneous notices that the work is ready for such inspections, will be the responsibility of the Contractor. Such costs will be deleted from the contract amount in Change Order.

1.7. REQUIRED PROJECT RECORD DOCUMENTS

[U. T. Austin projects require three (3) copies of project record documents where two (2) are indicated under this section.]

1.7.1. AS-BUILT RECORD DRAWINGS

1.7.1.1. Do not use record documents for construction purposes; protect from deterioration and loss in a secure location; provide access to record documents for Owner and/or Architect's reference or review during normal working hours.

1.7.1.2. In general terms; the Contractor is to furnish one set of 4 mil Mylar prints made from the Architect's contract drawings, or subsequent updates thereof, annotated as noted below with actual as-built conditions, two sets of prints made from the mylars, and the original marked-up prints.

1.7.1.2.1. As-built information is to be professionally drafted on first-generation contract prints from which the mylars are to be made.

1.7.1.2.2. As-builts are required to show all changes in the work relative to the original contract documents; and show additional information of

value to Owner's records, but not indicated in original contract documents.

- 1.7.1.3. Record as-builts are to include marked-up copies of contract drawings and specifications, including newly-prepared drawings if any such are applicable or necessary to achieve the intended result, and shop drawings to include all changed conditions issued through addenda and/or change orders.
 - 1.7.1.3.1. Include marked up product data submittals, field records for variable and concealed conditions such as excavations and foundations, and further; miscellaneous record information on work, which is otherwise recorded only schematically or not at all.
- 1.7.1.4. Certain individual sections of Divisions 2 through 33 indicate specific requirements, which may clarify requirements of this section. Where a conflict may be perceived to exist, the more restrictive (i.e., more expensive) requirement will prevail. There is no intent, however, to require more sets of as-builts than is indicated herein.
- 1.7.1.5. The Contractor shall bear all costs associated with obtaining the Architect's original contract documents, or subsequent updated plots thereof, drafting of as-built information, reproduction, including mylar drawings, or other related work.
 - 1.7.1.5.1. All "as built" changes shall be of good drafting quality, performed by a person skilled in drafting and knowledgeable of the conventions of the trades involved.
 - 1.7.1.5.2. The Contractor may utilize his staff or seek outside assistance, including the Project Architect, for this drafting work so long as the requirements pertaining to quality, format, and content are met.
- 1.7.1.6. MAINTENANCE OF AS-BUILT DRAWINGS DURING CONSTRUCTION
 - 1.7.1.6.1. During progress of the work, maintain a printed set of contract drawings along with specifications and shop drawings in the construction office. Update these drawings weekly, at a minimum, with markup of actual installations, which vary from the work as originally shown.
 - 1.7.1.6.1.1. Mark whatever drawing is most capable of showing actual physical condition, fully and accurately, and reference all other appearances of this work to the sheet, which was updated. Include cross-reference to the official change number on the updated sheet and all additional sheets where the work is shown.

- 1.7.1.6.1.2. Mark with erasable colored pencil, using separate colors where feasible to distinguish between changes for different categories of work at same general location.
- 1.7.1.6.1.3. Mark up important additional information, which was either shown schematically or omitted from original drawings. Give particular attention to information on work concealed, which would be difficult to identify or measure and record at a later date.
- 1.7.1.6.1.4. Note alternative numbers, change order numbers and similar identification for any change.
- 1.7.1.6.1.5. Require each person preparing markup to initial and date markup and indicate name of firm.
- 1.7.1.6.2. The Contractor shall maintain and have available for review in conjunction with the regular project meetings, a current set of the as-built drawings and specifications marked with "as constructed" information. Availability for review, and acceptability, of both the format and the content is a prerequisite condition for certification of monthly pay requests by the Owner and Architect.

1.7.2. SUPPLEMENTAL DRAWINGS

- 1.7.2.1. Where marked-up shop drawings are intended for inclusion in the record set, mark cross-reference on contract drawings at corresponding location. Use of shop drawings as supplements to the record as-builts is encouraged for all items which require the larger scale employed on the shop drawings in order to show the work in sufficient detail to be of future use to the Owner.
 - 1.7.2.1.1. Use of such shop drawings is particularly applicable to ductwork and electrical shop drawing layouts. Use of shop drawing supplements is acceptable so long as the following conditions are met:
 - 1.7.2.1.1.1. Regardless of overall size of the original shop drawings, such will be reproduced photographically onto mylar sheets of the same size with equivalent borders and titles as the contract drawings and other record as-built drawings. Include project name and number as well as the applicable submittal number.
 - 1.7.2.1.1.2. The applicable supplemental sheet shall be placed in the set directly behind the contract drawing, which it supplements, with appropriate reference notes on both the applicable contract drawing and all other affected drawings.

- 1.7.2.1.1.3. The supplemental document shall be identified as a "Supplementary Record As-Built Drawing" and shall be numbered with an extension to the contract drawing it supplements in a manner acceptable to the Owner.

1.7.3. PREPARATION OF FINAL AS BUILT DRAWINGS

- 1.7.3.1. This Section requires that a copy of the marked-up as-builts be submitted to the Architect for review prior to requesting substantial completion inspections.

- 1.7.3.1.1. Following the Architect's review of the marked-up prints, and upon authorization by the Architect based on their belief that the marked-up information is accurate and complete, the Contractor shall proceed with preparation of a full set of professionally drafted record drawings.

- 1.7.3.2. All record as-built drawings and supplemental shop drawing sheets must be reproduced on 4-mil thick mylar film. This includes the entire set of contract drawings, whether or not individual sheets are affected by as-built data. Mylars shall be made from the first-generation prints of the contract drawings; mylars or sepias made from marked up prints will not be accepted under any circumstances.

- 1.7.3.3. All drawings shall bear the official project name and number. Further, each drawing, including supplemental drawings, shall also bear a stamp to the effect of "Record As-Built" along with the Contractor's certification that such is an accurate reflection of actual as-built conditions. Each certification shall be signed and dated and shall be acceptable to the Owner.

- 1.7.3.3.1. All drawings shall be the same size as original contract documents.

- 1.7.3.3.2. All "as built" notes and drafting on mylars should be made with ink for use on mylars (no pencil lead or colored pencil).

- 1.7.3.3.3. The marked-up prints shall be turned over to the Architect along with the final mylar documents for review and acceptance. Once such final mylar documents are acceptable to the Architect as complying with this section and other contract requirements. They will transmit final mylars to the Owner along with the marked-up prints and all other close-out documentation

- 1.7.3.3.4. All drawings issued as addenda, clarifications and/or change orders shall be incorporated into the record as-built drawing set. Such shall be fully shown on the applicable contract drawing. If supplemental sheets are used, follow the requirements outlined above for supplemental shop drawing sheets.

1.7.4. AS-BUILT RECORD SPECIFICATIONS

- 1.7.4.1. During progress of the work, maintain and update one record copy of specifications at the jobsite, including addenda, change orders and similar modifications issued in printed form during construction, to indicate all significant variations in actual work in comparison with text of specifications as originally issued.
 - 1.7.4.1.1. Give particular attention to substitutions, selection of options, and similar information on work where the exact products used are not clearly identified or readily discernable in the original specifications. Note related record drawing information and product data, where applicable.
 - 1.7.4.1.2. It is not necessary to re-type an entire section if modified, but it is mandatory that all changes to specified materials, installation, warranty, etc. be clearly and fully marked within the applicable specifications section in a manner acceptable to the Architect and the Owner. Such should be reviewed and a documentation procedure established early in the construction period.
- 1.7.4.2. In association with request for substantial completion inspection, submit the marked-up copy of the Project Specifications to the Architect for review.
- 1.7.4.3. Once the marked-up Project Specifications are found acceptable by the Architect, and upon his authorization, based on his belief that the marked-up information is accurate and complete; proceed with preparation of a Record Set Project Specifications.
 - 1.7.4.3.1. Neatly transcribe and post all as-built mark-up information to a "clean" copy of the Project Specifications, insuring that similar types of information is annotated in like fashion throughout the Specifications.
- 1.7.4.4. Once completed, submit both the mark-up site copy of the Project Specifications and the newly prepared Record Project Specifications to the Architect for review and, if acceptable, for subsequent transmittal to the Owner.

1.7.5. OPERATING AND MAINTENANCE MANUALS

- 1.7.5.1. In general terms, the Contractor is to organize maintenance-and-operating manual information into suitable sets of manageable size, and bind into individual binders properly tabbed and indexed.
 - 1.7.5.1.1. Such shall include emergency instructions, spare parts listings, warranties, wiring diagrams, inspection procedures, shop drawings, product data, and similar applicable information.

- 1.7.5.1.2. Such shall be bound in heavy-duty, 3-ring vinyl-covered binders including pocket folders for folded sheet information. Mark binder identification on both front and spine of each binder.
- 1.7.5.1.3. Two complete copies of each bound O&M Manual are required.
- 1.7.5.2. The requirements of this Section are separate, distinct and in addition to product submittal requirements that may be established by other Sections of the Specifications. Owner's manuals, manufacturer's printed instructions, parts lists, and other submittals required by other Sections of the Specifications may be included in the O&M Manuals provided that they are approved and are formatted in a manner consistent with the requirements of this Section.
 - 1.7.5.2.1. Test data and Commissioning data included in the O&M Manuals need not be duplicated in the Commissioning and Closeout Manual. Test data not pertaining to a particular device or piece of equipment (such as domestic water pipe pressure test reports) shall be inserted in the C&C Manual.
- 1.7.5.3. Equipment is defined as any mechanism, mechanical, electrical or electronic device, or any combination thereof, which is made up of two or more working parts to perform a particular function.
- 1.7.5.4. When an item of equipment is a packaged unit furnished by one manufacturer and the package as furnished contains proprietary items of equipment obtained from other sources; copies of equipment data as required herein shall be furnished for each item of such equipment as if it had been separately furnished.
- 1.7.5.5. For general guidance only, the following are examples of equipment, material, and systems for which operating and maintenance data is required:

Pipe & Fittings	Air Handling Units
Gate Valve	Temperature Controls
Elevators	Pumps and Controllers
Electrical Switchgear	Irrigation System
Light Fixtures	Fire Sprinkler
Transformers	Security Systems
Electric Panel	Wall Light Switches
Circuit Breakers	Motors & Devices
Metal Fabrications	Telephone Systems
Pressure Gauges	Fume Hoods
A/C Diffusers	Fire Alarm System
Sterilizers	Compressors
Laboratory Casework	Overhead Coiling Doors
Finish Hardware	Access Flooring
Automatic Door Operators	Finish Materials

- 1.7.5.6. All the applicable data for any one item of equipment or material or system shall be bound together as a package, within a Manual containing like equipment, materials, or systems, as indicated by the appropriate specification division. Each package of data shall be numbered according to the Specification Section governing the particular system.
- 1.7.5.7. All data furnished in accordance with this Section shall be submitted on bindable 8-1/2" x 11" sheets or on sheets that are bindable and foldable multiples of 8-1/2" x 11". The bindable edge shall be the left 11" edge.
- 1.7.5.8. Waivers to the size requirement may be requested in specific instances upon application in writing to the Architect and Owner with justification for substitution in size.
- 1.7.5.9. Material and equipment data required by this Section is intended to include all data necessary for the proper installation, removal, normal operation, emergency operation, startup, shutdown, maintenance, cleaning, adjustment, calibration, lubrication, assembly, disassembly, repair, inspection, trouble shooting and service of the equipment or materials.
- 1.7.5.10. The UGC requires that a preliminary copy of all operating and maintenance manuals, in addition to as-built documents, be furnished prior to the Substantial Completion inspection. The Contractor is to accumulate and package the documentation, and submit it to the Architect for review.
- 1.7.5.11. The Contractor's submission of a preliminary copy of all O&M Manuals to the Architect for review is a precondition for scheduling of a Substantial Completion Inspection. The Contractor's final submission of these Manuals in an acceptable format (based on review of preliminary copies by the Architect) is a precondition for scheduling of a Final Acceptance Inspection, release of remaining contract retainage, or application for Final Payment.
- 1.7.5.12. Equipment Data to be Included in O&M Manuals
 - 1.7.5.12.1. Description of Equipment shall be prepared upon 8-1/2" x 11" forms. Include one such form for each item of equipment. Refer also to the equipment list requirements of Sections 01 91 00 - Project Commissioning, 23 00 00 - General Mechanical and 26 00 00 - General Electrical. The equipment information to be included in the O&M Manuals is as follows:
 - 1.7.5.12.1.1. Complete description of item: Such should list basic descriptive terminology first, followed by modifying words to include model, size and weight, flow rate, amperage, voltage, material, etc., as applicable, plan designation, if any, and package serial number
 - 1.7.5.12.1.2. Part Number: Manufacturer's and supplier's part number.

- 1.7.5.12.1.3. Quantity: Total quantity of this equipment item installed under this Contract.
- 1.7.5.12.1.4. Specification Paragraph Reference: State the specification section and paragraph under which the item of equipment was procured, and page number.
- 1.7.5.12.1.5. Source: Manufacturer's name and address and supplier's name and address.
- 1.7.5.12.1.6. Serial Number: Complete manufacturer's serial number(s) or other identity symbol(s) as applicable.
- 1.7.5.12.1.7. Location: State the name of the system and/or sub-system in which each like item of equipment is installed and state the physical location of each like item of equipment by identifying the columnar grid intersections, as shown on the plans, near which the item is located and also state the room or space title as applicable.
- 1.7.5.12.2. Parts Lists which clearly identifies every part in the item of equipment with the proper manufacturer's name, part nomenclature and number, local source, and list price.
- 1.7.5.12.3. Recommended Spare Parts. Furnish a list of recommended spare parts for each equipment item that will be needed to support that item of equipment for a 12-month period. The quantities of spare parts recommended shall be based upon the quantity of like equipment items installed under the Contract. The recommended spare parts list for each equipment item shall be prepared upon 8-1/2" x 11" forms which contain the following information for each part in columns:
 - 1.7.5.12.3.1. Part Description: Complete descriptive nomenclature plus manufacturer's complete model and part number, and list price cost for each part.
 - 1.7.5.12.3.2. Quantity Per Assembly: Quantity of listed part that occurs in the item of equipment.
 - 1.7.5.12.3.3. Quantity of Equipment Items: Quantity of like equipment items installed under this Contract.
 - 1.7.5.12.3.4. Shelf Life: Storage life of part, in months, if the part has limited life.
 - 1.7.5.12.3.5. Recommended Quantity: Quantity of part recommended to support the installed quantity of equipment in which the part appears for a period of 12 months.

- 1.7.5.12.3.6. Source for part: Name, address, and phone number of the nearest supplier for the part.
- 1.7.5.12.4. Contractor's Purchase Order: Copy of Contractor's purchase order for equipment. The copy furnished need only show quantity ordered, part number, equipment description and name and address of vendor who supplied the item
- 1.7.5.12.5. Normal Operating Instructions: Normal operating instructions shall provide sufficient detailed information to permit a journeyman mechanic to adjust, startup, operate and shut down the equipment. Special startup precautions must be noted as well as other action items required before the equipment is put into service.
- 1.7.5.12.6. Emergency Operating Procedures: A detailed description of the sequence of action to be taken in the event of a malfunction of the unit, either to permit a short period of continued operation or emergency shutdown to prevent further damage to the unit and to the system in which it is installed.
- 1.7.5.12.7. Preventive Maintenance: Detailed information to cover routine and special inspection requirements, including field adjustments, inspections for wear, adjustment changes, packing wear, lubrication points, frequency and specific lubrication type required, cleaning of the unit and type solvent to use, and such other measures as are applicable to preventive maintenance program.
- 1.7.5.12.8. Calibration: Detailed data on what to calibrate, how to calibrate, when to calibrate and procedures to enable checking the equipment for reliability or indications as well as data for test equipment, special tools and the location of test points.
- 1.7.5.12.9. Scale and Corrosion Control: Detailed information covering the prevention of and removal of scale and corrosion.
- 1.7.5.12.10. Troubleshooting Procedures: Detailed information and procedures for detecting and isolating malfunctions and detailed information concerning probable causes and applicable remedies.
- 1.7.5.12.11. Removal and Installation Instructions: Detailed information concerning the logical sequence of steps required to remove and install the item including instructions for the use of special tools and equipment.
- 1.7.5.12.12. Disassembly and Assembly Instructions: Detailed illustrations and text to show the logical procedure and provide the

instructions necessary to disassemble and assemble the unit properly. The text shall include all checks and special precautions as well as the use of special tools and equipment required to perform the assembly or disassembly.

- 1.7.5.12.13. Repair Instructions: Detailed repair procedures to bring the equipment up to the required operating standard including instruction for examining equipment and parts for needed repairs and adjustments, and tests or inspections required to determine whether old parts may be reused or must be replaced.
- 1.7.5.12.14. System Drawings: Detailed drawings, where applicable, that clearly show wiring diagrams, control diagrams, system schematics, pneumatic and fluid flow diagrams, etc., which pertain to the unit function. Drawings are required to show modifications to another manufacturer's standard unit which is incorporated into the assembly or package unit
 - 1.7.5.12.14.1. System diagrams shall be provided on multiples of 8-1/2" x 11" format, folded to fit within the Manual. The outer (exposed) face of the folded drawing shall include identification of the system and the specification section that governs its installation and operation.
 - 1.7.5.12.14.2. The requirements of this paragraph are separate, distinct, and in addition to similar requirements that may be established by other Sections. Where such system diagrams are required for submittal by other specification sections, the same diagrams will be acceptable for inclusion herein, so long as the diagrams used were approved during the submittal phase and they are reproduced for clarity and to fit the size format of the O&M Manual.
 - 1.7.5.12.14.3. The Contractor shall provide diagrammatic drawings for each installed system, which shall show the placement of the system in relation to the building, and the physical location of each item or equipment installed within the system. Each installed item of equipment shown on the drawing will be identified by the equipment item model and/or serial/part number.
 - 1.7.5.12.14.4. System drawings may, for purpose of clarity, be prepared upon a major subsystem basis.
 - 1.7.5.12.14.5. The drawings may be prepared upon several drawings having referenced match lines.

- 1.7.5.12.15. Special Tools and Test Equipment: Furnish a detailed list of the special tools and test equipment needed to perform repair and maintenance for each equipment item. The list shall contain the special tool and test equipment part number, size, quantity, price, manufacturer's name and address, and local supplier's name and address.
- 1.7.5.12.16. Warranties & Guarantees: Bind within the tabbed section for each system, equipment item, or material, an executed copy of the specified warranty/guarantee covering that particular system, equipment item, or material.
- 1.7.5.12.16.1. This is to include both the manufacturer's warranty as specified and the installing contractor's guarantee for workmanship and system operation.
- 1.7.5.12.16.2. This copy of the particular warranty/guarantee is in addition to original signature copies of all project warranties/guarantees bound together separately. This binder shall be transmitted to the Owner when complete.
- 1.7.5.12.16.3. Provide in a separate tabbed section of the O&M Manual a grouping of all project warranties and guarantees as required by various specification sections and other conditions of the Contract. This is to include all specific warranties on manufactured items and installed systems as noted above, in addition to General Contractor's project warranty and applicable guarantees from all subcontractors and suppliers covering defects in workmanship or manufacture.
- 1.7.5.12.16.4. As clarification, it is intended that the Owner be provided with a separate binder containing all original project warranties and guarantees. Also provide a copy of the appropriate warranty in the same section as the equipment (or system) data furnished in individual tabbed sections of the O&M Manuals for convenient reference.
- 1.7.5.12.17. Training of Owner Personnel: Documentation of training of Owner's Personnel regarding operation of particular systems shall be included within the tabbed section for that particular system. Such documentation shall include identification of parties receiving training and date(s) of such training.

1.7.6. MISCELLANEOUS RECORD INFORMATION

- 1.7.6.1. The following shall be bound in like manner to above noted equipment data and system drawings. It is suggested that a separate tabbed section be included in the Commissioning and Closeout Manual for these

Miscellaneous Items. Categories of requirements resulting in miscellaneous work records are recognized to include, but not limited, the following:

- 1.7.6.1.1. Required field records on excavations, foundations, underground construction, wells and similar work.
- 1.7.6.1.2. Accurate survey showing locations and elevations of underground lines, including invert elevations of drainage piping.
- 1.7.6.1.3. Surveys establishing lines and levels of building.
- 1.7.6.1.4. Plant treatment records (wood, soil, etc)
- 1.7.6.1.5. Certifications received in lieu of labels on products and similar record documentation.
- 1.7.6.1.6. Batch mixing and bulk delivery records.
- 1.7.6.1.7. Testing and qualification of tradesmen.
- 1.7.6.1.8. Documented qualification of installation firms.
- 1.7.6.1.9. Load/performance testing.
- 1.7.6.1.10. Final inspection and deficiency corrections.

1.7.7. RECORD PRODUCT SUBMITTALS

- 1.7.7.1. During progress of the work, maintain approved copies of each product data submittal and shop drawing, and mark up significant variations in the actual work in comparison with submitted information. Include both variations in product as delivered to site, and variations from manufacturer's instructions and recommendations for installation.
 - 1.7.7.1.1. A separate binder with one copy off all MSDS sheets for any and all products incorporated into the project shall be maintained during the course of the project. This binder shall be included in the record submittal documents.
- 1.7.7.2. Give particular attention to concealed products and portions of the work that are not clearly identified in the original submittal or cannot otherwise be readily discerned at a later date by direct observation. Cross reference to change orders and markup of record drawings and specifications.
- 1.7.7.3. Upon completion of as-built revisions, submit two complete sets of all approved submittals to Architect for review and subsequent transmittal to Owner. Organize and group files in sturdy file boxes with tabbed dividers for each separate specification division. Include a complete table of contents.

- 1.7.7.4. These record submittal requirements are in addition to inclusion of similar material as supplementary as-built drawings or technical data for the O&M Manuals.

1.7.8. RECORD SAMPLE SUBMITTAL

- 1.7.8.1. Immediately prior to date(s) of substantial completion, arrange for Architect and Owner's representative to meet with Contractor at site to determine which (if any) of the submitted samples or mock-ups maintained by Contractor during progress of the work are to be transmitted to Owner for record purposes.
- 1.7.8.2. Comply with Architect's instructions for packaging, identification marking, and delivery to Owner's designated location at the Project Site or the Physical Plant.
- 1.7.8.3. Dispose of other samples in manner specified for disposal of surplus and waste materials, unless otherwise indicated or directed by Architect.

1.7.9. COMMISSIONING AND CLOSEOUT MANUAL (C&C Manual)

- 1.7.9.1. The Contractor shall incorporate all commissioning and closeout documentation and/or verification not included in the O&M manuals, into a Manual for transmittal to the Owner at the conclusion of the project. This Manual is intended to be a consolidation of documentation/verification for the project Commissioning and Closeout process.

- 1.7.10. Requirements for production of this manual are found in Section 01 91 00 Project Commissioning.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1. PROJECT CLEANING AT SUBSTANTIAL COMPLETION

- 3.1.1. The Contractor is required to maintain the project and site in a clean and orderly condition throughout the course of construction. In addition to continuous project cleaning, the following requirements are related to project closeout.
- 3.1.2. Special cleaning for specific units of work may also be specified in other sections of Project Specifications.
- 3.1.3. Provide an initial cleaning of the work consisting of cleaning each surface or unit of work to normal "clean" condition expected for a first-class building cleaning and maintenance program.
- 3.1.4. Comply with manufacturer's instructions for cleaning of all system components, equipment, and materials incorporated into the Project.

3.1.5. The following "initial" final cleaning is to be accomplished immediately prior to the time the Contractor requests Substantial Completion Inspection:

- 3.1.5.1. Remove labels that are not required as permanent labels.
- 3.1.5.2. Clean exposed hard-surfaced finishes, including glass, metals, stone, concrete, painted surfaces, plastics, tile, wood, special coatings, and similar surfaces, to a dirt-free condition, free of dust, stains, films and similar noticeable distracting substances. Restore reflective surfaces to original condition.
- 3.1.5.3. Remove debris and surface dust from limited-access spaces including plenums, shafts, and similar spaces.
- 3.1.5.4. Clean concrete floors in non-occupied spaces, wet-mop and broom clean.
- 3.1.5.5. Clean fixtures and lamps of all dust and debris.
- 3.1.5.6. Remove crates, cartons and other flammable waste materials or trash from work areas. Building(s) shall be turned over to the Owner free of concealed garbage, trash and rodent infestation. If any of the preceding are revealed, or odors from them occur, they shall be removed by the Contractor at his expense. Restore property to its original condition where no improvements are shown.
- 3.1.5.7. Elevator shafts, electrical closets, pipe and duct shafts, chases, furred spaces, and similar spaces which are generally unfurnished, shall be cleaned and left free from rubbish, loose plaster, mortar drippings, extraneous construction materials, dirt and dust.
- 3.1.5.8. Rubbish shall be lowered by way of chutes, taken down on hoists, or lowered in receptacles. Under no circumstances shall any rubbish or waste be dropped or thrown from one level to another within or outside the building(s).
- 3.1.5.9. Care shall be taken by workmen not to mark, soil or otherwise deface finished surfaces. In the event that finished surfaces become defaced, all costs for cleaning and restoring such surfaces to their originally intended condition shall be the responsibility of the Contractor.

3.2. PROJECT CLEANING AT FINAL ACCEPTANCE

3.2.1. The following "final" cleaning is to be accomplished immediately prior to the time the Contractor requests Final Acceptance Inspection:

- 3.2.1.1. Clean transparent materials, including mirrors and window/door glass, to a polished condition, removing substances that are noticeable as vision-obscuring materials.
- 3.2.1.2. Turn the work over in immaculate condition inside and outside including the premises.

- 3.2.1.3. Clean all work on the premises including walks, drives, curbs, paving, fences, grounds and walls. Slick surfaces shall be left with a clear shine. Cleanup shall include removal of smudges, marks, stains, fingerprints, soil, dirt, paint, dust, lint, labels, discolorations and other foreign materials.
- 3.2.1.4. Clean all finished surfaces on interior and exterior of project (again) including floors, walls, ceilings, windows, glass, doors, fixtures, hardware and equipment. Final wax and polish all natural finish metal on interior or exterior surfaces. Clean and apply finish (including wax) to all floors as recommended by the manufacturer.
- 3.2.1.5. In addition to the cleaning specified above and the more specific cleaning required in various Sections of the Specifications, the building(s) shall be prepared for occupancy by a thorough cleaning throughout, including washing (or cleaning by approved methods) surfaces on which dirt or dust has collected, and by washing glass on both sides. Wash exterior glass using a window-cleaning contractor specializing in such work.
- 3.2.1.6. Remove temporary buildings and structures, fences, scaffolding, surplus materials and rubbish of every kind from the site of the work. Repair these areas to be compatible with the surrounding construction finished condition.

END OF SECTION 01 77 00

REVISION LOG

The following is provided for convenience to the Owner, Architect/Engineer and Contractor to track changes between annual document issuances and is not to be considered by any party to be contractual or 100% complete.

Date	Paragraph Revised
3/1/11	General revisions

SECTION 10 14 16.11 - CAST BRONZE DEDICATORY BUILDING PLAQUE

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- 1.01.1 Bidding and Contract Requirements, and Division 1, General Requirements, are hereby made a part of this section.

1.02 DESCRIPTION

- 1.02.1 Work Included: Furnish and install one (1) cast bronze plaque complete.

1.03 SUBMITTALS

- 1.03.1 OFPC will provide a half-scale detailed layout of the plaque.
- 1.03.2 Submit four copies of a full size rubbing directly to OFPC for approval prior to casting.
- 1.03.3 OFPC will return two copies of the approved rubbing to the contractor.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- 1.04.1 Deliver plaque crated to provide protection during transit and job storage.
- 1.04.2 Inspect plaque upon delivery for damage and correctness.
- 1.04.3 Store plaque inside building.

1.05 JOB CONDITIONS

- 1.05.1 Building shall be enclosed and in the dry. Coordinate installation with work of other trades.

PART 2 - PRODUCTS

2.01 CAST BRONZE PLAQUES

- 2.01.1 Plaques shall be as manufactured by The Southwell Company, P.O. Box 299, San Antonio, Texas 78291 or approved equal. Tablet shall be cast of virgin ingots (85-5-5-5 Standard U. S. bronze alloy). Casting shall be free of pits and gas holes and all letters shall be sharp and hand tooled. Border and faces of raised letters shall be satin/brushed finish and background shall be leatherette finish. Plaque shall be chemically cleaned and etched and treated with Alodine and sprayed with two coats of Clear Acrylic Lacquer.

- 2.01.2 Size: 36" W x 24" H.
- 2.01.3 Border Design: Raised, satin/brushed finish.
- 2.01.4 Letter style: "Seneca," satin/brushed finish.
- 2.01.5 Background: Leatherette finish, Oxidized-Dark Bronze.
- 2.01.6 Text: Include Project Name, Year Contract Awarded, Names of Board of Regents at time of award of General Contract, and Names of Architect and General Contractor, etc. For Bidding Purposes, assume 60 large characters and 350 small characters. Owner shall provide exact wording at a later date.
- 2.01.7 Refer to the attached drawing.

PART 3 - EXECUTION

3.01 INSPECTION

- 3.01.1 Installer must examine the area and conditions under which plaque is to be installed and notify A/E in writing of conditions detrimental to proper and timely completion of work. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Installer.

3.02 INSTALLATION

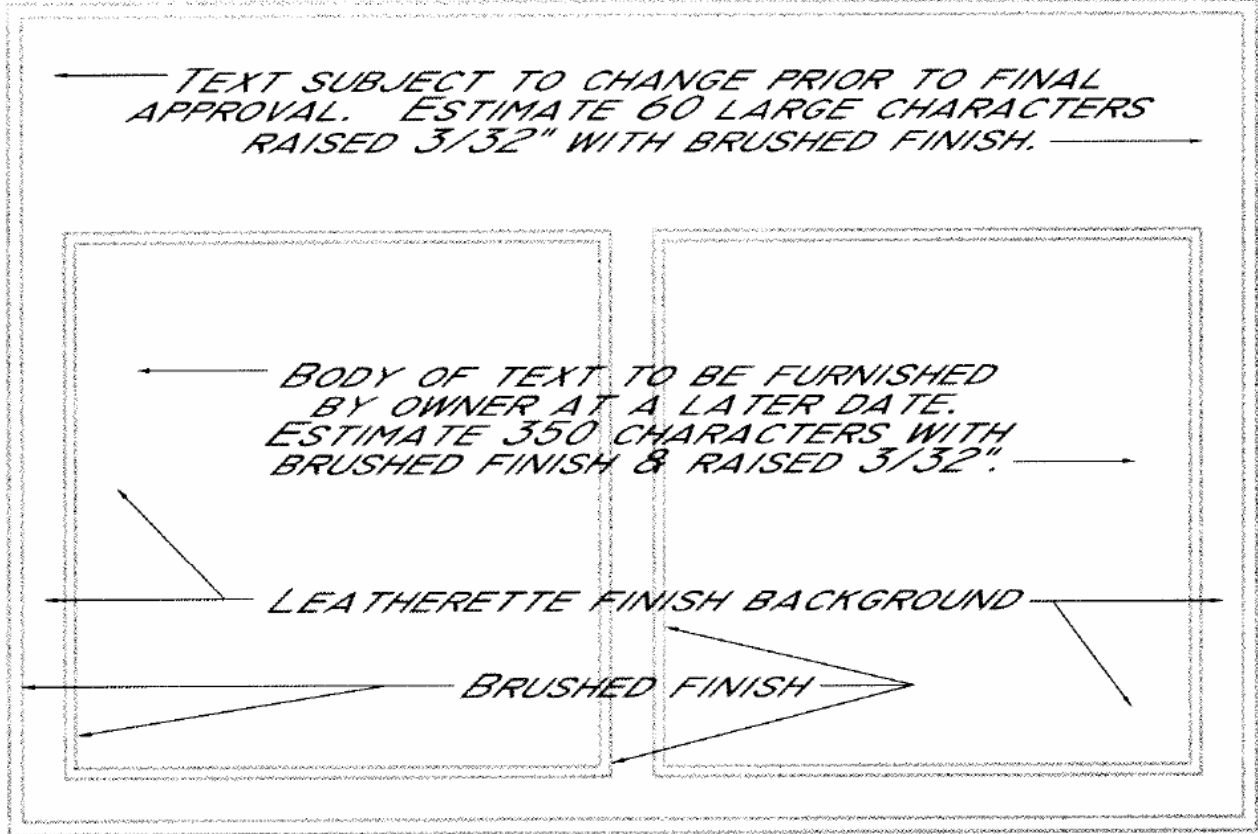
- 3.02.1 Install plaque plumb level and square, in proper planes with related surfaces, with concealed type fastening devices.

3.03 CLEAN UP

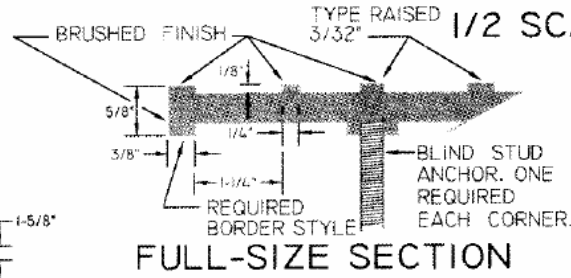
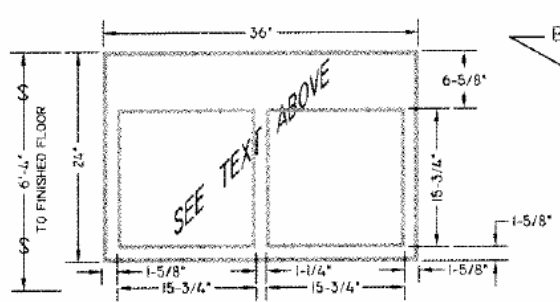
- 3.03.1 Clean up all debris caused by the work of this Section, keeping the premises clean and neat at all times.

END OF SECTION 10 14 16.11

DATE:	
SHEET:	
REVISION:	



ofpc
 THE UNIVERSITY OF TEXAS SYSTEM
 OFFICE OF FACILITIES PLANNING & CONSTRUCTION
 TELEPHONE: (512) 499-4600 FAX: (512) 499-4604
 702 COLSON RD ST., SUITE 400, AUSTIN, TEXAS 78701
 SHEET
 OF 1



1/2 SCALE ELEVATION
 MATERIAL: CAST BRONZE
 BORDERS: SATIN/BRUSHED FINISH
 LETTERING: SENECA STYLE;
 SATIN/BRUSHED FINISH
 BACKGROUND: LEATHERETTE FINISH
 (OXIDIZED DARK BRONZE)
 ADDITIONAL REQUIREMENTS IN SPECS.
 PLAQUE MANUFACTURER TO RECEIVE DIVISION
 10 PLAQUE SPECIFICATIONS FROM CONTRACTOR
 & THEN TELEPHONE DEWAIN DOBB WITH D.F.P.C.
 AT (512) 499-4636 PRIOR TO STARTING WORK.

REVISION LOG

The following is provided for convenience to the Owner, Architect/Engineer and Contractor to track changes between annual document issuances and is not to be considered by any party to be contractual or 100% complete.

Date	Paragraph Revised

OFPC Front-End Specifications Revision Log

Spec Section	Description	Issuance Date	Revision Date
-	Uniform General & Supplementary General Conditions	7/1/2011	7/1/2011
-	Owner's Special Conditions	9/1/2007	7/18/2011
00 73 16	Project Insurance	9/1/2007	9/1/2012
01 31 00	Project Administration	9/1/2007	9/13/2012
01 32 00	Project Planning & Scheduling	9/1/2007	3/1/2011
01 35 23	Project Safety Requirements	4/26/2010	9/1/2012
01 45 00	Project Quality Control	9/1/2007	2/1/2008
01 57 23	Temporary Storm Water Pollution Control	9/1/2007	5/27/2008
01 77 00	Project Close-Out Procedures	9/1/2007	3/1/2011
01 91 00	General Commissioning Requirements	9/1/2007	3/11/2011
10 14 16.11	Cast Bronze Dedicatory Building Plaque	9/1/2007	9/1/2007

END OF ADDENDUM 7