

**SECTION 01170 – PRE-INSTALLATION MEETINGS, INSPECTIONS, DEMOS
CONSTRUCTION STANDARD**

PART 1: GENERAL

1. This Paragraph Includes Coordinating The Following UT Austin Special Events:

- A. Pre- Installation Construction Meetings
- B. Preparatory Meetings
- C. Notifications for Inspections
- D. UT Installation During Construction Contracts
- E. Systems & Equipment Start-Up
- F. Testing & Demonstrations
- G. Training

2. Responsibility And General Scope:

- A. Coordinating the proper UT personnel is an essential part of this project. The contractor is responsible for coordinating the required Meetings, Inspections, Testing, Demonstrations, Utilities and Equipment Start-up and Training processes required by the contract. All coordination activities shall be scheduled into the Master Construction Schedule.
- B. This section may not include all required Meetings, Inspections, Testing, Demonstrations and Close-out processes required by the contract. Refer to the applicable specifications for additional requirements which do apply. Meetings, Inspections, Testing, Demonstrations and other Close-out procedures described in other sections of the contract shall be coordinated through the Construction Manager. Advanced notice of all required NON-UT Meetings, Inspections, Testing, Demonstrations and Close out processes shall also be scheduled into the Master Construction Schedule.
- C. Consultant shall include list of required warranties, spare parts and attic stock in Division One requirements of Contract Documents.
- D. Contractor shall include at closeout digital copies of the following: warranties with product covered and duration, spare parts list, attic stock list, keying information and finishes list with manufacturers, products and formulas (for all paint types and colors).
- E. Contractor shall provide written statement certifying use of asbestos-free products.

3. Utilities Cost:

- A. The price charged to the contractor for steam is \$0 per thousand pounds. The contractor shall not waste steam.
- B. The Price charged to the contractor for water is \$0 per thousand gallons. The contractor shall not waste water.

PART 2: PROCEDURES

2.1 Pre-Installation Construction Meetings:

- A. The contractor shall be required to schedule and attend pre-installation construction meetings in order to coordinate his work with the work of other contractors and/or the owner.

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- B. The purpose of these meetings shall be to review the scope of work, identify participants and plan activities that involve the owner or other contractors. Proper pre-planning will help ensure coordination of work by the contractor. Pre-installation meetings will be required for all activities involving, but not limited to, the following construction:
1. Hazardous Materials Abatement.
 2. Communications and Data Installations
 3. Security Installations.
 4. Facility Control and Management System Wiring.
 5. Main Switch Board Gear (Primary Wiring)
 6. Owner Furnished Contractor Installed Items
 7. Lab Preparation
 8. Pre-Keying.
 9. Storm Water Management
- C. In order to ensure participation by all parties, these meetings shall be scheduled in advance of the planned activities. Pre-installation meetings shall occur after the approval of all required submittals and prior to the start of the work. In general, the contractor shall schedule these meetings a minimum of 30 days prior to the planned activities.

2.2 Preparatory Meetings:

- A. The contractor shall schedule a preparatory conference for the work of each major building system. The preparatory conference shall be scheduled, in writing, a minimum of ten days in advance, and shall be scheduled so that the owner and architect can attend. This conference shall be convened following approval of system submittals and prior to the commencement of system installation work.
1. The contractor shall arrange for all subcontractors, suppliers, and manufacturers involved in the system to be present or adequately represented.
 2. The contractor shall bring copies of all approved submittals to this conference. The purpose of this conference shall be 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. Special attention shall be directed to the scheduled order of work and any impact on or by any other building systems, including any required shutdowns or outages. Further, the contractor shall provide a list of all required inspections and tests so that a game plan for inspection and acceptance can be developed. The contractor shall maintain Meeting Minutes and distribute to all attendees within seven days of the meeting date.

2.3 Notifications For Inspections:

- A. In order for the owner to be able to plan attendance at scheduled inspections, the contractor shall notify the owner prior to the inspections. Notifications shall be in writing and shall be submitted a minimum of two weeks prior to the planned

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inspection. Refer to the technical specification sections for specific inspections and notification requirements. The contractor's CPM schedule shall indicate all required inspections.

1. The following is a list of inspections required in addition to the requirements listed in each section of the specifications:
 - a. Storm Water Management
 - b. Wall Cover-up
 - c. Above Ceiling Cover-up
 - d. Reinforcing Steel in Concrete
 - e. Elevators
 - f. Ductwork / Dampers
 - g. Sprinkler System
 - h. Hazardous Materials
 - i. Fire Alarm
 - j. Pre-final Punch List
 - k. Substantial Completion
 - l. Final

2.4 UT Installation During Construction Contracts

- A. During construction of various phases of the contract, the owner shall install work which will tie in or effect the contractors work. The contractor shall notify the owner 30 days prior to scheduled times of installation.
 1. The following is a list of UT Installed Construction Items (except as noted as contractor work items) which require notification in addition to the requirements listed in each section of the specifications:
 - a. Main Switch Gear (Run primary wire to switch board in the presence of a field service representative).
 - b. FCMS (Wiring and Devices)
 - c. Security
 - d. Telephone and Data (Wiring and Devices)
 - e. Hazardous Materials Disposal
 - f. owner Furnished/owner Installed Items

2.5 Systems Start-Up:

- A. The contractor shall not energize or activate any building system until the following conditions have been met:
 1. The contractor has verified that all wiring and support components for equipment are complete and have been tested in accordance with the technical specifications and/or manufacturer's written recommendations.
 2. The contractor has verified that each component device has been checked for proper lubrication, drive rotation, belt tension, control sequence, or other conditions which may cause damage.
 3. The contractor has verified that all tests, meter readings, and specified electrical characteristics agree with those required by the equipment or

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- system manufacturer and are in compliance with applicable specifications.
4. The contractor has provided the owner with written notice fourteen days in advance of planned start-up for operational check-out.
 5. The contractor has flushed and sterilized all utility systems requiring such action.
- B. The contractor shall execute start-up under supervision of responsible manufacturer's representative in accordance with manufacturer's instructions and specification requirements.
- C. The contractor shall coordinate and schedule system start-up in a timely manner so it can operate each system for a period of time sufficient to evaluate and adjust performance as necessary, prior to demonstrating the system to the owner and A/E. All building systems shall be operational and must have been successfully inspected by the owner's representatives prior to the contractor requesting *substantial completion inspections* for the project.
1. The following is a list of systems requiring owner participation during Start-up in addition to the requirements listed in each section of the specifications:
 - a. Initial Utilities
 - Water
 - Gas
 - Chilled Water
 - Steam
 - b. Initial Systems
 - HVAC
 - Emergency Generators
 - Variable Frequency Drives
 - Elevators
 - Main Switch Gear

2.6 Testing And Demonstrations:

- A. For all work and building systems that require testing and demonstrations to the owner, the contractor shall notify the owner prior to the scheduled test or demonstration. In order to ensure that the owner can coordinate attendance, the contractor shall notify the owner in writing a minimum of 14 days prior to the scheduled test or demonstration. Refer to the technical specifications for required tests and demonstrations. The contractor shall provide (5) copies of all required O&M Manuals a minimum of one week prior to testing and demonstrations. This requirement is in addition to the regular O&M Manuals required under each section.
1. The following is a list of items requiring Testing and Demonstrations in addition to the requirements listed in each section of the specifications:
 - a. Testing and Balancing
 - b. Controls

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- c. Elevators
- d. Emergency Generator System
- e. Switch Gear
- f. Electrical Power
- g. Fire Alarm - (Testing should take approximately 3 to 4 weeks)
- h. Fume Hoods/Biosafety Cabinets
- i. Smoke Dampers
- j. HVAC System
- k. Water Meters
- l. Condensate Meters
- m. Sanitary Sewer System
- n. Sprinkler System
- o. FCMS System
- p. HEPA Filter System
- q. Gas Cabinets
- r. Chilled-water Meters

2.7 Training

- A. The contractor shall be responsible for completing instructions of owner's operating and maintenance personnel for all systems and equipment serving areas claimed as substantially complete.
 - 1. Arrange for each installer of work requiring continued maintenance (by owner) or operation to meet with the owner's personnel, at the project site, to provide basic instructions needed for proper operation and maintenance of all work.
 - 2. The contractor shall also provide Engineers or Technicians representing the equipment/system manufacturer to instruct and train the owners Personnel in the use, operation, and maintenance of the equipment.
 - 3. Utilize Operating & Maintenance Manuals and the equipment matrix as a basis for instructing the owner's agents regarding systems operation. Review contents of O&M Manuals and review equipment data and performance verification. This instruction and data review shall be held in a classroom environment.
 - 4. Demonstrate in the field the start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance and shutdown of the system(s) and each component device.
 - 5. The following is a list of items requiring Training in addition to the requirements listed in each section of the specifications.
 - a. Fire Alarm
 - b. Fume Hoods
 - c. Biosafety Cabinets
 - d. Sprinkler System
 - e. Smoke Purge System
 - f. HEPA Filter System
 - g. BSL-3 Labs

END OF STANDARD 01170