

**SECTION 013100**

**PROJECT MANAGEMENT AND COORDINATION**

**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  - 1. General project coordination procedures
  - 2. Administrative and supervisory personnel
  - 3. Coordination drawings
  - 4. Requests for Information (RFIs)
  - 5. Project Web site
  - 6. Project meetings
- B. Each contractor shall participate in coordination requirements. Certain areas of responsibility are assigned to a specific contractor.

1.3 DEFINITIONS

- A. RFI: Request from Contractor seeking information from each other during construction.

1.4 COORDINATION

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included in different Sections that depend on each other for proper installation, connection, and operation.
  - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
  - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
  - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
  - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
  - 1. Preparation of Contractor's construction schedule, continually updated, and in a format acceptable to Owner
  - 2. Preparation of the schedule of values
  - 3. Installation and removal of temporary facilities and controls
  - 4. Delivery and processing of submittals
  - 5. Progress meetings
  - 6. Pre-Installation conferences
  - 7. Project closeout activities
  - 8. Startup and adjustment of systems
  - 9. Project closeout activities

1.5 COORDINATION DRAWINGS

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

- a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
  - b. Coordinate the addition of trade-specific information to the coordination drawings by multiple contractors in a sequence that best provides for coordination of the information and resolution of conflicts between installed components before submitting for review.
  - c. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
  - d. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
  - e. Show location and size of access doors required for access to concealed dampers, valves, and other controls.
  - f. Indicate required installation sequences.
  - g. Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Design Professional indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
- B. Coordination Drawing Organization: Organize coordination drawings as follows:
1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire protection, fire alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
  2. Plenum Space: Indicate sub-framing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within ceiling plenum to accommodate layout of light fixtures indicated on Drawings. Indicate areas of conflict between light fixtures and other components.
  3. Mechanical Rooms: Provide coordination drawings for mechanical rooms showing plans and elevations of mechanical, plumbing, fire protection, fire alarm, and electrical equipment.
  4. Structural Penetrations: Indicate penetrations and openings required for all disciplines, including fire protection requirements.
  5. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
  6. Mechanical and Plumbing Work: Show the following:
    - a. Sizes and bottom elevations of ductwork, piping, and conduit runs, including insulation, bracing, flanges, and support systems
    - b. Dimensions of major components, such as dampers, valves, diffusers, access doors, cleanouts and electrical distribution equipment
    - c. Fire-rated enclosures around ductwork
  7. Electrical Work: Show the following:
    - a. Runs of vertical and horizontal conduit 1¼ -inch diameter and larger
    - b. Light fixture, exit light, emergency battery pack, smoke detector, and other fire alarm locations
    - c. Panel board, switchboard, switchgear, transformer, busway, generator, and motor control center locations
    - d. Location of pull boxes and junction boxes, dimensioned from column center lines
  8. Fire Protection System: Show the following:
    - a. Locations of standpipes, mains piping, branch lines, pipe drops, and sprinkler heads.
  9. Review: Design Professional will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are the Contractor's responsibility. If the Design Professional determines that the coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, the Design Professional will so inform the Contractor (copy the Owner), who shall make changes as directed and resubmit.
  10. Coordination Drawing Prints: Prepare coordination drawing prints in accordance with requirements of Division 01 Section 013300, "Submittal Procedures".
- C. Coordination Digital Data Files: Prepare coordination digital data files in accordance with the following requirements:
1. File Preparation Format: Same digital data software program, version, and operating system as the original Drawings.
  2. File Preparation Format: DWG, Version, operating in Microsoft Windows operating system.
  3. File Submittal Format: Submit or post coordination drawing files using Portable Data File (PDF) format.

4. Design Professional will furnish Contractor one set of digital data files of the Drawings for use in preparing coordination digital data files. Refer to Division 01 Section 013300, "Submittal Procedures", for digital data file requirements.
    - a. Design Professional makes no representations as to the accuracy or completeness of digital data files as they relate to the Drawings.
    - b. Digital Data Software Program: The Drawings are available in [Program].
    - c. Contractor shall execute a data licensing agreement in a form agreeable to the Design Professional.
- 1.6 CHANGE KEY PERSONNEL
- A. Change Key Personnel Names: Changes to key personnel originally stated in the bid response must include a revised list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and email addresses. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.
    1. Post copies of list in project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.
    2. Key personnel must be same as those proposed in the bid response unless changes are authorized in writing from the Associate Vice Chancellor for System Facilities prior to their first day on the project.
- 1.7 REQUESTS FOR INFORMATION (RFIs)
- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI. All RFIs should be sent directly to the Design Professional via email or posted to project collaboration site (if one is being utilized). The Design Professional will redistribute to the appropriate reviewer.
    1. Design Professional will return RFIs submitted to Design Professional by other entities controlled by Contractor with no response.
    2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
  - B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
    1. Project name
    2. Project number
    3. Date
    4. Name of Contractor
    5. Name of Design Professional
    6. RFI number, numbered sequentially
    7. RFI subject
    8. RFI Question
    9. Specification Section number and title and related paragraphs, as appropriate
    10. Drawing number and detail references, as appropriate
    11. Field dimensions and conditions, as appropriate
    12. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
    13. Contractor's signature
    14. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
      - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
  - C. RFI Forms: Software-generated form with substantially the same content as indicated above, acceptable to Design Professional. RFIs should be emailed to Design Professional with the following format standards. 1) RFI should include RFI number in subject line of email along with brief description. 2) Body of email should include question or description of RFI and suggestion. Sketches or other necessary documents should be attached to email in PDF format.
  - D. Design Professional's Action: Design Professional will review each RFI, determine action required, and respond. Allow seven (7) business days for Design Professional's response for each RFI. RFIs received by Design Professional after 1:00 p.m. will be considered as received the following working day.
    1. The following RFIs will be returned without action:
      - a. Requests for approval of submittals
      - b. Requests for approval of substitutions
      - c. Requests for coordination information already indicated in the Contract Documents
      - d. Requests for adjustments in the Contract Time or the Contract Sum

- e. Requests for interpretation of Design Professional's actions on submittals
  - f. Incomplete RFIs or inaccurately prepared RFIs
  - 2. Design Professional's action may include a request for additional information, in which case Design Professional's time for response will date from time of receipt of additional information.
  - 3. Design Professional's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 01 Section 012600, "Contract Modification Procedures".
    - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Design Professional in writing within ten (10) days of receipt of the RFI response.
  - E. On receipt of Design Professional's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Design Professional within seven days if Contractor disagrees with response.
  - F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. log with not less than the following:
    - 1. RFI Log Date
    - 2. Project name
    - 3. Name and address of Contractor
    - 4. Name and address of Design Professional and Construction Manager
    - 5. RFI number including RFIs that were dropped and not submitted
    - 6. RFI description
    - 7. Date the RFI was submitted
    - 8. Request Date
    - 9. Date Design Professional's and Construction Manager's response was received
    - 10. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate
    - 11. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate
- 1.8 PROJECT MEETINGS
- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
    - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Design Professional of scheduled meeting dates and times.
    - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees in advance of meeting.
    - 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Design Professional, within three (3) days of the meeting.
  - B. Pre-construction Conference: Schedule and conduct a pre-construction conference before starting construction, at a time convenient to Owner and Design Professional, but no later than fifteen (15) days after notice to proceed.
    - 1. Conduct the conference to review responsibilities and personnel assignments.
    - 2. Attendees: Authorized representatives of Owner, Owner's Commissioning Authority, Construction Manager, Design Professional, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
    - 3. Agenda: Distribute the agenda to all invited attendees in advance of meeting. Discuss items of significance that could affect progress, including the following:
      - a. Tentative construction schedule
      - b. Phasing
      - c. Critical work sequencing and long-lead items
      - d. Designation of key personnel and their duties
      - e. Lines of communications
      - f. Procedures for processing field decisions and Change Orders
      - g. Procedures for RFIs
      - h. Procedures for testing and inspecting
      - i. Procedures for processing Applications for Payment
      - j. Distribution of the Contract Documents
      - k. Submittal procedures
      - l. Sustainable design requirements
      - m. Preparation of record documents
      - n. Use of the premises[and existing building]
      - o. Work restrictions
      - p. Working hours

- q. Owner's occupancy requirements
  - r. Responsibility for temporary facilities and controls
  - s. Procedures for moisture and mold control
  - t. Procedures for disruptions and shutdowns
  - u. Construction waste management and recycling
  - v. Parking availability
  - w. Office, work, and storage areas
  - x. Equipment deliveries and priorities
  - y. First aid
  - z. Security
  - aa. Progress cleaning
  - bb. Commissioning requirements/coordination
4. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes within three (3) days of meeting date.
- C. Pre-Installation Conferences: Conduct a pre-installation conference at Project site before each construction activity that requires coordination with other construction.
- 1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Design Professional of scheduled meeting dates.
  - 2. Agenda: Distribute the agenda to all invited attendees in advance of meeting. Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
    - a. Contract Documents
    - b. Options
    - c. Related RFIs
    - d. Related Change Orders
    - e. Purchases
    - f. Deliveries
    - g. Submittals
    - h. Review of mockups
    - i. Possible conflicts
    - j. Compatibility problems
    - k. Time schedules
    - l. Weather limitations
    - m. Manufacturer's written recommendations
    - n. Warranty requirements
    - o. Compatibility of materials
    - p. Acceptability of substrates
    - q. Temporary facilities and controls
    - r. Space and access limitations
    - s. Regulations of authorities having jurisdiction
    - t. Testing and inspecting requirements
    - u. Installation procedures
    - v. Coordination with other work
    - w. Required performance results
    - x. Protection of adjacent work
    - y. Protection of construction and personnel
  - 3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
  - 4. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes within three (3) days of meeting date.
  - 5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Project Closeout Conference: Schedule and conduct Project closeout conference, at a time convenient to Owner and Design Professional, but no later than [number] days prior to the scheduled date of Substantial Completion.
- 1. Conduct the conference to review requirements and responsibilities related to Project closeout.
  - 2. Attendees: Authorized representatives of Owner, Design Professional, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.

3. Agenda: Distribute the agenda to all invited attendees in advance of meeting. Discuss items of significance that could affect or delay Project closeout, including the following:
    - a. Preparation of record documents
    - b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance
    - c. Submittal of written warranties
    - d. Requirements for preparing sustainable design documentation
    - e. Requirements for preparing operations and maintenance data
    - f. Requirements for demonstration and training
    - g. Preparation of Contractor's punch list
    - h. Procedures for processing Applications for Payment at Substantial Completion and for final payment
    - i. Submittal procedures
    - j. Coordination of separate contracts
    - k. Owner's partial occupancy requirements
    - l. Installation of Owner's furniture, fixtures, and equipment
    - m. Responsibility for removing temporary facilities and controls
  4. Minutes: Entity conducting meeting will record and distribute meeting minutes within three (3) days of meeting date.
- E. Progress Meetings: Conduct progress meetings at agreed upon intervals.
1. Coordinate dates of meetings with preparation of payment requests.
  2. Attendees: In addition to representatives of Owner, Owner's Commissioning authority, Construction Manager, and Design Professional, each contractor, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
  3. Agenda: Distribute the agenda to all invited attendees in advance of meeting. Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.  
Review schedule for next period.
    - b. Review present and future needs of each entity present, including the following:
      - Interface requirements
      - Sequence of operations
      - Status of submittals
      - Deliveries
      - Off-site fabrication
      - Access
      - Site utilization
      - Temporary facilities and controls
      - Progress cleaning
      - Quality and work standards
      - Status of correction of deficient items
      - Field observations
      - Status of RFIs
      - Status of proposal requests
      - Pending changes
      - Status of Change Orders
      - Pending claims and disputes
      - Documentation of information for payment requests
      - Recommendations of construction feasibility
      - Safety precautions and programs
  4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information within three (3) days of meeting date.
    - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

- F. Coordination Meetings: Conduct project coordination meetings at regular intervals. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and pre-installation conferences.
1. Attendees: In addition to representatives of Owner and Design Professional, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meetings shall be familiar with Project and authorized to conclude matters relating to the Work.
  2. Agenda: Review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    - a. Combined Contractor's Construction Schedule: Review progress since the last coordination meeting. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to combined Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
    - b. Schedule Updating: Revise combined Contractor's construction schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.
    - c. Review present and future needs of each contractor present, including the following:
      - Interface requirements
      - Sequence of operations
      - Status of submittals
      - Deliveries
      - Off-site fabrication
      - Access
      - Site utilization
      - Temporary facilities and controls
      - Work hours
      - Hazards and risks
      - Progress cleaning
      - Quality and work standards
      - Change Orders
  3. Reporting: Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting, within three (3) days of meeting date.
  4. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes within three (3) days of meeting date.
- G. Meetings Requested by Owner: While not necessarily coinciding with dates of other meetings, Owner reserves the right to call and conduct meetings with project participants as the need arises.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

**END OF SECTION**