SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:

1. General coordination procedures.
2. Coordination drawings.
3. Requests for Information (RFIs).
4. Project meetings.

1.3 DEFINITIONS

A. RFI: Request from Owner, Consultant, or Contractor seeking information required by or clarifications of the Contract Documents.

1.4 INFORMATIONAL SUBMITTALS

A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:

1. Name, address, and telephone number of entity performing subcontract or supplying products.
2. Number and title of related Specification Section(s) covered by subcontract.
3. Drawing number and detail references, as appropriate, covered by subcontract.

B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including 24 hour / 7 day a week, office, and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.

1. Post copies of list in project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

1.5 GENERAL COORDINATION PROCEDURES

A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
3. Make adequate provisions to accommodate items scheduled for later installation.
4. Coordinate utility shutdown schedule with University’s Project Manager to minimize disruption time.

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 to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of Contractor's construction schedule.
2. Preparation of the schedule of values.
3. Installation and removal of temporary facilities and controls.
4. Delivery and processing of submittals.
5. Progress meetings.
6. Preinstallation conferences.
7. Project closeout activities.
8. Startup and adjustment of systems.

D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

1.6 COORDINATION DRAWINGS

A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally 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. Provide as a minimum, coordination drawings for above ceiling mechanical, electrical and plumbing. Require sign-off before starting installation of any utility.
2. 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. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
   c. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
   d. Show location and size of access doors required for access to concealed dampers, valves, and other controls.
   e. Indicate required installation sequences.
   f. 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 Consultant indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
   g. Complete sufficient demolition to confirm dimensions and clearances before submitting drawings.

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

1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.

2. Plenum Space: Indicate subframing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within 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.

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. Show plumbing lines. Notate code required slope elevations.
c. Dimensions of major components, such as dampers, valves, diffusers, access doors, cleanouts and electrical distribution equipment.
d. Fire-rated enclosures around ductwork.

7. Electrical Work: Show the following:
   a. Runs of vertical and horizontal conduit 1-1/4 inches (32 mm) in diameter and larger and racks of smaller conduit are required.
   b. Light fixture, exit light, emergency battery pack, smoke detector, and other fire-alarm locations.
   c. Panel board, switch board, switchgear, transformer, busway, generator, and motor control center locations.
   d. Location of pull boxes and junction boxes, dimensioned from column center lines.

8. Fire-Protection System: Show the following:
   a. Locations of standpipes, mains piping, branch lines, pipe drops, sprinkler heads and inspected test valve drains.

9. Review: Consultant will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility. If Consultant determines that coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, Consultant will so inform Contractor, who shall make changes as directed and resubmit.

C. Coordination Digital Data Files: Prepare coordination digital data files according to the following requirements:

1. File Submittal Format: Submit drawing files using Portable Data File (PDF) format.

2. Consultant will furnish Contractor one set of digital data files of Drawings for use in preparing coordination digital data files.
   a. Consultant makes no representations as to the accuracy or completeness of digital data files as they relate to Drawings.
   b. Contractor shall execute a data licensing agreement in the form of Agreement form acceptable to Owner and Consultant.

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 in the form specified.

1. Consultant will return RFIs submitted to Consultant 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 Consultant.
6. RFI number, numbered sequentially.
7. RFI subject.
8. Specification Section number and title and related paragraphs, as appropriate.
9. Drawing number and detail references, as appropriate.
10. Field dimensions and conditions, as appropriate.
11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
12. Date by which Consultant’s response is needed to allow work to progress without delay.
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:
1. Form 0acceptable to Owner and Consultant.
2. Software-generated form with substantially the same content as indicated above, acceptable to Owner.
3. Attachments shall be electronic files in Adobe Acrobat PDF format.

D. Consultant's Action: Consultant will review each RFI, determine action required, and respond. Allow seven working days for Consultant's response for each RFI. RFIs received by Consultant after 4:00 p.m. will be considered as received the following working day. Contractor to identify schedule delaying RFI(s). Consultant and University Project Manager to review and expedite responses as appropriate to minimize schedule impact.

1. The following Contractor-generated RFIs will be returned without action:
    a. Requests for approval of submittals.
    b. Requests for approval of substitutions.
    c. Requests for approval of Contractor's means and methods.
    d. Requests for coordination information already indicated in the Contract Documents.
    e. Requests for adjustments in the Contract Time or the Contract Sum.
    f. Requests for interpretation of Consultant's actions on submittals.
    g. Incomplete RFIs or inaccurately prepared RFIs.

2. Consultant's action may include a request for additional information, in which case Consultant's time for response will date from time of receipt of additional information.

3. Consultant'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 General Conditions, Article 7 – Changes in the Work.

a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Consultant in writing within 5 days of receipt of the RFI response.

E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Software log with not less than the following:

1. Project name.
2. Name and address of Contractor.
3. Name and address of Consultant.
4. RFI number including RFIs that were returned without action or withdrawn.
5. RFI description.
6. Date the RFI was submitted.
7. Date Consultant's response was received.

F. On receipt of Consultant's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Consultant within five days if Contractor disagrees with response.

1. Contractor shall notify University's Project Manager and Consultant of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.

1.8 PROJECT MEETINGS

A. General: The University's Project Manager shall schedule and conduct meetings and conferences at Project site unless otherwise indicated.

1. Attendees: Participants and others involved, and individuals whose presence is required, of date and time of each meeting. University's Project Manager shall notify attendees of scheduled meeting dates and times.
2. Agenda: University's Project Manager shall prepare the meeting agenda and distribute to all invited attendees.
3. Minutes: The Consultant will record significant discussions and agreements achieved. Consultant shall distribute minutes to everyone concerned within 5 working days of the meeting.

B. Preconstruction Conference: The University's Project Manager will schedule, issue agenda and conduct a preconstruction conference before starting construction no later than 10 days after execution of the Agreement.
1. Meeting will review responsibilities and personnel assignments.
2. Attendees: Authorized representatives of Owner, University's Construction Quality Monitor, Owner's Commissioning Authority, Consultant, and their sub-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: Discuss items of significance that could affect progress as listed in the "Kick-off Meeting Agenda Guidelines".
4. Minutes: Consultant will record and distribute meeting minutes.

C. Preinstallation Conferences: The Contractor shall conduct a preinstallation conference for all specification sections and systems 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, University's Project Manager, University's Construction Quality Monitor, Consultant, and Owner's Commissioning Authority (where applicable).
2. Agenda: 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 requirements.
    k. Time schedules.
    l. Weather limitations.
    m. Manufacturer's written instructions.
    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. The Contractor shall record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.

4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.

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. Owner's Progress Meetings: The University's Project Manager shall conduct progress meetings not exceeding weekly intervals unless otherwise directed by University Project Manager.

1. Attendees: Representatives of Owner, University's Construction Quality Monitor, Owner's Commissioning Authority, Consultant, each Contractor, EH&S representative, Facilities Operation representative, and other entities 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.
2. Agenda: 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.

        1) Review schedule for next six week period.

    b. Review present and future needs of each entity present, including the following:

        1) Interface requirements.
        2) Coordination drawings.
        3) Construction status.
        4) Status of submittals/shop drawings.
        5) Deliveries.
        6) Off-site fabrication.
        7) Access.
        8) Site utilization.
        9) Interruption requests.
        10) Disruptive events or conditions.
        11) Temporary facilities and controls.
        12) Progress cleaning.
        13) Quality and work standards.
        14) Status of correction of deficient items.
        15) Field observations.
        16) Status of RFIs.
        17) Status of proposal requests.
        18) Pending changes.
        19) Status of Change Orders.
        20) Pending claims and disputes.
        21) Documentation of information for payment requests.

3. Minutes: The Consultant will record and distribute the meeting minutes to each party present and to parties requiring information. The consultant shall use the University meeting minute format.

    a. Schedule Updating: Contractor to 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.

E. Construction Coordination Meetings: The Contractor shall conduct construction coordination meetings at weekly minimum intervals. Construction coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and preinstallation conferences.

1. Attendees: University Project Manager, Owner's Commissioning Authority (as appropriate), 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:

        1) Interface requirements.
        2) Sequence of operations.
        3) Status of submittals.
        4) Deliveries.
        5) Off-site fabrication.
        6) Access.
        7) Site utilization.
        8) Temporary facilities and controls.
        9) Work hours.
        10) Hazards and risks.
        11) Progress cleaning.
        12) Quality and work standards.
        13) Status of proposal requests.
        14) Status of Change Orders.
        15) Pending claims and disputes.
        16) Hot work permits updates.

3. Reporting: The Contractor shall record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

F. Owner’s Core Team Meetings: The University’s Project Manager shall conduct core team meetings not exceeding monthly intervals unless otherwise directed by University Project Manager. University’s Project Manager shall issue agenda to attendees.

1. Attendees: Representatives of Owner, Consultant, Contractor, and other entities required to be informed at an executive summary level.
2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include the following topics for discussion:
    a. Contractor's construction schedule: Review progress to date timeline and any possible effect on the project completion.
    b. Construction budget.
    c. Project budget.
    d. Owner’s equipment status.
    e. Scope related issues.
    f. Major impacts of adjacent space and other University departments

3. Minutes: The University Project Manager will record and distribute the meeting minutes to each party present and to parties requiring information.

G. Building Ownership Turnover /Closeout Conference: The University’s Project Manager will schedule and conduct a project closeout conference no later than 45 days prior to the scheduled date of Substantial Completion. University’s Project Manager shall issue agenda to attendees.

1. Conduct the conference to review requirements and responsibilities related to project ownership transfer from Planning and Project Management to Facilities Operations and to review project closeout.
2. Attendees: Authorized representatives of Owner, University’s Construction Quality Monitor, Owner's Commissioning Authority, University Fire Marshal, Facilities Operations Personal, University Grounds Manager, Consultant, and their sub-consultants; Contractor and its superintendent; major subcontractors; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Discuss items of significance that could affect or delay project turnover or closeout, including the following:

    a. Preparation of record documents.
    b. Submittal of written warranties.
    c. Requirements for preparing operations and maintenance data.
    d. Submittal procedures.
    e. Requirements for delivery of material samples, attic stock, and spare parts.
    f. Requirements for demonstration and training.
    g. Contractor's punch list (Preparation and completion sign off).
    h. Preparation of Consultant's punch list.
    i. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
    j. Establishment of Substantial Completion date.
    k. Procedures for processing Applications for Payment at Substantial Completion and for final payment.
    l. Coordination of separate contracts.
    m. Owner's partial occupancy requirements.
    n. Installation of Owner's furniture, fixtures, and equipment.
    o. Responsibility for removing temporary facilities and controls.
    p. Establishment of a date to provide the delivery or completion of the following:
        1) Certificate of Substantial Completion.

2) As-build sprinkler / fire alarm shop drawings.
3) Emergency, Operation & Maintenance manuals.
4) Operation & Maintenance personal walk-through and training.
5) Authority having Jurisdiction Certificate of Completion or Occupancy.

q. Establishment of date for space/building turnover to University Facilities. Items to be discuss include but not limited to;
1) Snow removal & grounds maintenance.
2) Space cleaning & waste management responsibilities.
3) Equipment service & maintenance responsibilities.
4) Operation alarms response & notification
5) Building security.
6) University's Customer Service Center notification.

4. Minutes: The Consultant will record and distribute meeting minutes.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100