

SECTION 01771 – CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Other general provisions of the Contract, including FAR clauses by reference or as amended in Contract Sections B through J, and other Division 1 sections of these Contract Specifications apply to requirements of this Section; this Section in turn applies to the Contract Drawings and to Specification Divisions 2 through 16 to be developed by the Contractor.
- B. Refer to individual technical specification sections of Divisions 2 through 16 which shall be developed by the Contractor during the design phase, for unique completion and closeout requirements for each unit of work, including unique closeout submittal requirements.

1.2 SUMMARY

- A. The requirements of this Section relate, primarily, to administration and procedures for the following:
 - 1. Achieving "Substantial Completion"
 - 2. Achieving "Final Acceptance"
 - 3. Record documents and final submittals
 - 4. Warranty management
 - 5. Other closeout and turnover activities

1.3 SUBMITTALS

- A. In accordance with the details described in this section, Contractor shall submit the following:
 - 1. Request for inspection and Certification of Substantial Completion
 - 2. Request for final inspection
 - 3. Final Record Documents

1.4 SUBSTANTIAL COMPLETION PROCEDURES

- A. General: Before or concurrently with request to the Project Director/COR for inspection and Certification of Substantial Completion, either on the entire work of the Contractor or each defined portion thereof, complete the following related to that part of the work:
 - 1. In the Progress Payment Request, which coincides with or follows the date claimed for Substantial Completion, either show "100 percent complete" or list non-substantial items of work that remain incomplete, along with percentage completion and explanation for being incomplete; include copies of supporting documentation.
 - 2. Obtain and submit releases, enabling the USG's full-and unrestricted use of the work and access to services and utilities, including occupancy permits, operating certificates, and similar documents.
 - 3. Submit record documents as described below to the Project Director/COR.

4. Remove temporary facilities, construction tools and equipment, mock-ups, rejected materials, and similar items of construction not incorporated into permanent work; including surplus materials.
 5. Make physical adjustments, correct minor defects, touch-up finishes, lubricate operating parts, and clean equipment and surfaces as required for use, occupancy, and operation.
- B. The Project Director/COR will respond to each request by Contractor for certification of Substantial Completion, either by promptly providing a statement of known deficiencies in the work, or by proceeding with requested initial inspection of that part of the work.
1. Substantial Items. Following inspections, the Project Director/COR will submit to the Contractor a list of all work items deemed *substantial* and not completed, not to the agreed upon standard of quality or performance, or patently deficient. These shall be completed, corrected, or otherwise brought up to standard prior to issuance of any requested certification.
 2. After effecting completion and corrective actions, the Contractor shall request re-inspection, in writing, of the Project Director/COR.
 3. When completion and corrective actions have been made, the Project Director/COR will prepare and issue a Certificate of Substantial Completion. This Certificate may or may not be accompanied by a listing of non-substantial items, as defined below.
 4. Non-Substantial Items. The Certificate of Substantial Completion may be issued with a list of all remaining omissions, deficiencies, and patent defects deemed by the Project Director/COR to be *non-substantial*. These items shall be completed and corrected prior to the issuance of the Certificate of Final Acceptance.
 5. All omissions, deficiencies, and patent defects will be included in initial and subsequent punch lists (Schedules of Defects) and shall be a matter of project record. Initial punch lists shall be prepared as described in Section 01401, *Contractor's Quality Control*. All punch list items shall be documented and resolved prior to the issuance of the Certificate of Final Acceptance.
 6. In addition to the above actions and remedies, the Contractor shall be responsible for all omissions, deficiencies, patent *and latent* deficiencies not uncovered in the course of the several inspections. The Project Director/COR shall determine applicability of these items to the agreed upon standards of contract performance.

1.5 PROCEDURES FOR FINAL ACCEPTANCE

- A. General. The Contractor shall notify the Project Director/COR at least fifteen (15) calendar days prior to the point in time at which the Contractor believes all Contract work shall be ready for final USG inspection, systems validation, and testing. The USG will proceed without delay to initiate preliminary inspections and testing. The USG shall then promptly notify the Contractor in writing should it determine that portions of work not be ready for final acceptance. Further, the USG shall notify the Contractor whether any such portion of work may separately delay final acceptance beyond the final acceptance of other portions of work.
- B. Prior to Final Inspection and Testing. The Contractor shall complete the following before requesting final inspection and testing of the work:

1. Complete and correct all Schedule of Defects (Punch List) work items determined to be "non-substantial." These are items identified by the Project Director/COR at the time of the issuance of the Certificate of Substantial Completion.
 2. Provide a copy of the Project Director's/COR's Schedule of Defects (Punch List), bearing the Contractor's certified statement of completion or correction, itemized for each work element identified thereon AND the Project Director's/COR's acceptance by endorsement.
 3. Provide final certificates of insurance for products installed, as required.
 4. Provide final certificates of insurance for completed operations, as required.
 5. Provide the final meter-readings and service-dates for utilities and services paid for by Contractor. Where applicable, provide the beginning meter-readings and service-dates for utilities and services to be paid for by the USG. Include similar cut-off points, measurements, and readings for stored fuels and other consumable products and services.
 6. If applicable, provide a project Statement of "Consent of Surety."
 7. Prepare an updated final statement, showing extended sequence and accounting of final changes to Contract Price being claimed.
 8. Prepare the Application for Payment – Final Request, for submittal to the Contracting Officer, including copies of supporting documentation not previously submitted and accepted.
 9. Provide a statement regarding the settlement of any liquidated damages, acceptable to the Project Director/COR.
- C. Re-inspection, Testing, and Final Acceptance.
1. The Contractor shall submit a request for final inspection and acceptance that shall include a statement that all foregoing requirements as identified, above, have been fulfilled. As applicable, the Contractor shall include a statement listing itemized work items known to be incomplete or deficient, an explanation of why each item is incomplete or deficient, and the Project Director's/COR's endorsement recognizing the circumstances of the specific non-performance.
 2. The Project Director/COR shall proceed with re-inspection and testing of the work.
 3. Following final re-inspection, the Project Director/COR shall advise the Contractor of all work items incomplete or deficient and of any unfulfilled obligations. These shall be required for final acceptance and shall include any requirements for testing or re-testing.
 4. As determined by the Project Director's/COR's re-inspection, the Contractor shall complete all requested work items, obligations, tests, and similar actions.
 5. Upon the Contractor's satisfactory completion and correction of all work items, the Project Director/COR shall prepare, sign, and issue a Certificate of Final Acceptance, forwarding same to the Contracting Officer.
 6. The Contracting Officer will notify Contractor of final acceptance, negotiate adjustments to the final payment, if necessary, and authorize the release of final payment funds.

1.6 RECORD DOCUMENT SUBMITTALS

- A. General. Comply with general requirements of Section 01331, *Construction Submittals*, for the preparation and processing of final record document submittals. Refer to individual technical specification sections of Divisions 2 through 16 for specific record document submittal requirements on individual units of work.
- B. Develop and maintain an original mark-up set of contract documents and submittals, as required for final record document submittals, at Project Site and available for the Project Director's/COR's reference. Protect from deterioration and loss, and retain in a secure and fire-resistant space. Do not use for construction purposes. Mark up changes and additional information developed during construction, as may be of future interest or value to the USG. These may be requested by the Project Director/COR regarding whatever document or submittal copy may be most capable of showing the change or other data most clearly. Where applicable, show each change as part of a related Contract Modification, by change order number.
- C. At time of Substantial Completion, submit the following final record documents, marked up to represent "As-Built" documentation, to the Project Director/COR, and in the form and manner specified below.
 - 1. Record As-Built Drawings. Maintain a full set of the latest revised issue of each drawing sheet, black-line print; marked up using different colors of pencils or pens, to differentiate between change order numbers. Clearly define hidden dimensions and similar data that would be difficult to obtain at a later date. Show conditions not clearly detailed by shop drawings or coordination drawings. Show cross-references to such other records of final data. Organize marked-up prints into set(s) as originally released. Mark each set for identification and date of release as record copy (Substantial Completion date), and transmit to the Project Director/COR. Marked-up set of as-builts shall be transferred and updated on the original design AutoCAD files. Indicate "As-Built" conditions as documented from actual installation. Contractor shall provide one set of 3.5" or CD disks, one (1) reproducible and three black line copies.
 - 2. Record Shop Drawings and Coordination Drawings. Maintain a full set of accepted shop drawing black-line prints; marked up using different colors of pencils or pens, to differentiate between change order numbers. Show cross-reference where change has been marked up on another document or submittal. Organize shop drawings into sub-sets, as received from each fabricator, and identify by related Contract Specification section number. Show date of release as record copy (Substantial Completion date), and transmit to the Project Director/COR.
 - a) Prepare and transmit marked-up copies of coordination drawings, similar to requirements for record shop drawings.
 - 3. Field Engineering Submittals.
 - a) Make final corrections to site survey, drawings showing buried utilities and similar underground elements, field survey-and-measurement drawings, and similar drawings.
 - Media shall be one black-line copies, and digital files on CD-ROM in the version of AutoCad currently specified by project contract documents.

4. Construction coordination documentation. Submit as a consolidated, organized collection, documents prepared to support construction coordination as described in Section 01101, *Construction Execution and Coordination*. Documentation shall include, but not be limited to, minutes of meetings, submittal register, and shipping logs.
5. Record Contract Specifications. Maintain a full set of the Contract Specifications, marked up to record minor changes in the printed text and to show cross references to other documentation recording changes. Where additional writing space is needed, either insert extra sheets with such notations, or write on the blank backsides of preceding pages. Give particular attention to accepted substitutions, selection between options, and similar record information; and give priority to the recording of such data that cannot be easily discerned by subsequent observation at the Project. Mark each volume of specification set for identification and date of release as record copy (Substantial Completion date), and transmit to the Project Director/COR.
6. Record Product Data. Maintain a full set of accepted product data submittals, marked up to show specific selections for products as actually supplied and installed. Where changes subsequent to acceptance have affected product selection, either obtain corrected product data sheets or mark up sheets to show changes. Show departures, if any, from manufacturers' instructions in accordance with Contract Section H. Mark each submittal with related section number of Construction Specifications, bind in that sequence in conveniently sized binders, identify and date binders (Substantial Completion date), entitle "Replacement Products Procurement Manual," and transmit to the Project Director/COR.
 - a) Include with each submittal of record product data reference copies of final warranties, maintenance agreements, workmanship bonds, performance certifications, and similar required documentation of required assurances.
 - b) Include with each submittal of record product data, final copies of related inspection and test reports, certificates of compliance (with requirements), and similar quality assurance documentation.
7. Record Samples and Mockups. Prior to the time of Substantial Completion, meet with the Project Director/COR at the Project Site and determine which of remaining submitted samples and prepared mockups are required for the USG's continued retention. Mark each such element with appropriate identification and date of Substantial Completion. Pack in appropriately identified cardboard containers and deliver to designated storage space at the Project Site, as requested by the Project Director/COR.
8. Operation and Maintenance Data. Submit Operation and Maintenance Data in accordance with Section 01781, *Operation and Maintenance Data*.
9. Training Records. Submit training records prepared in accordance with Section 01821, *Demonstration and Training*.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 TURNOVER OF FACILITIES TO THE USG

Comply with instructions of Contracting Officer and the Project Director/COR for procedures, sequence, timing, and similar considerations for the turning over of facilities to the USG's personnel for operating, maintenance, occupancy, protection, and general care and custody.

3.2 WARRANTY MANAGEMENT

- A. The purpose of the warranty management process shall be to provide the USG with a high level of assurance that the building systems as delivered by the Contractor are free of defect, both patent and latent, that all required warranties are valid, that warranty support systems and methodologies are in place, both locally and remote, and that USG support staff have a full understanding of the continued operation and maintenance of said systems.
- B. The period of warranty management coverage is logically greater than the individual system warranty periods. As a management process, it shall commence early in the start-up and commissioning phase and end at a period normally one year (12 months) from the issuance by the USG of final acceptance certification, unless otherwise agreed upon.
- C. As defined in Section 01811, *Start-Up and Commissioning*, the commencement date for each respective warranty period shall be the date of formal acceptance of each facility component and building system by the Project Director/COR following recommendation for acceptance by the Commissioning Authority.
- D. The Contractor shall make available to the Project Site a qualified representative, knowledgeable in the operation and maintenance of the various building systems as installed in the works, who shall be responsible for warranty management. This individual shall be qualified to address, record, and resolve all warranty issues during the warranty period. The main action agent during the warranty management period may be the Commissioning Authority or any other qualified agent certified by the Contractor to act on its behalf.
- E. The warranty management agent shall perform the following
 1. Communicate and coordinate all actions with the responsible, local USG representative, normally the Facility Maintenance Manager.
 2. Be responsive to all building systems deficiencies, patent and latent, including inspection, evaluation, and documentation of same.
 3. Arrange for all repairs or replacements of all warrantable deficiencies.
 4. Document all issues, actions, and solutions. These records shall be incorporated as a part of the project document set and shall be surrendered to the local USG representative upon termination of the program.
 5. Record and develop a report on expected times between failure of system components.
 6. As a follow up to warranty actions, review procedures with USG operating and maintenance staff to verify they are executing their responsibilities in accordance and compliance with building systems procedures so as to avoid conditions that might lead to warranty action or denial of action.
 7. Develop a summary of lessons learned during the warranty management process

to be incorporated into the Maintenance Plan as described in Section 01781, *Operation and Maintenance Data*.

3.3 FINAL CLEANUP

- A. Initial Cleaning. Except as otherwise indicated, provide initial cleaning of each non-embedded unit of work promptly upon nominal completion-and-curing of its installation. Maintain in protected and sufficiently clean condition, through remainder of construction duration, so as to prevent staining or other deleterious effect of soiling. Promptly remove significant soiling, including graffiti deposits, occurring during construction. Always comply with product manufacturer's instructions and recommendations, including limitations, for the cleaning of exposed surfaces and for the use of cleaning substances and devices.
- B. Final Cleaning. Immediately prior to the time(s) of the Project Director's/COR's inspection(s) of work for certification of Substantial Completion, repeat cleaning operations. Use experienced cleaning personnel and proven methods and materials so as to achieve the level of cleanliness normally expected for a U.S.-located, first-class, commercial or institutional building project. In addition to specific cleaning as may be required by related technical specification sections hereof, comply with the following as applicable:
1. Comply with governing regulations, including safety standards and environmental protection regulations. Do not burn waste materials at Project Site. Dispose of waste materials in a lawful manner, and do not bury at Project Site, except as may be authorized by the Project Director/COR. Dispose of surpluses as required by the Contract. Do not discharge volatile and other dangerous or deleterious fluids into drainage systems.
 2. Remove temporary facilities and construction tools, equipment, and devices including temporary buildings, enclosures, and protective coverings. Restore substrates as required. Where permanent facilities were used for temporary service, restore to nearly new and unused condition. For additional details, refer to Section 01501, *Temporary Facilities and Controls*.
 3. Clean the entire Project Site, including landscape development areas and site improvements. Remove rubbish, debris, litter, unauthorized or unwanted plant growths and weeds. Sweep the paved areas to a broom-clean condition and remove stains, including petrol-chemical spills and similar deposits. Rake grounds that are neither paved nor planted, to a smooth even-textured surface.
 4. Remove debris and dust from limited-access spaces of Project including roofs, plenums, crawl spaces, shafts, tunnels, trenches, equipment vaults, manholes, attics, and similar spaces.
 5. Clean exterior and interior exposed surfaces to a dirt-free condition, free of stains, graffiti, films, and other noticeable and deleterious substances. Restore reflective polishes, and applied treatments, including sealed and waxed finishes. Vacuum clean interior exposed non-treated concrete surfaces and vacuum clean carpeted areas and other soft surfaces after removal of spots and stains. Avoid disruption of natural weathering, which may be underway on certain exposed exterior surfaces.
 6. Wipe accessible surfaces clean on mechanical, electrical, and similar equipment and fixtures, including lighting fixtures. Remove excess lubrications and similar

substances.

7. Remove exposed-to-view labels not required as permanent labels.
8. Clean transparent materials, including glazed panels and mirrors, to a polished condition free of visible dirt and films with sealant trimmed away neatly. Replace broken and noticeably abraded glass and plastic units.
9. Clean and sanitize food service, sanitary, health care, and similar equipment and fixtures so as to be ready for the intended use in each case. Remove stains, including those resulting from water exposures.
10. Jointly inspect the entire Project Site with the Project Director/COR. Where required, engage specialized firm(s) to rid the Project Site of roaches, pests, and other vermin.

END OF SECTION 01771