

SECTION 01700**CONTRACT CLOSEOUT****PART 1 GENERAL**

1.1 SECTION INCLUDES

- A. Closeout Procedures
- B. Final Cleaning
- C. Adjusting
- D. Project Record Documents
- E. Operation and Maintenance Data
- F. Guarantee
- G. Spare Parts and Maintenance Materials

1.2 RELATED SECTIONS

- A. Section 01500 - Construction Facilities

1.3 CLOSEOUT PROCEDURES

- A. Submit written certification that contract has been reviewed, Work has been inspected, and Work is complete in accordance with Contract and is ready for CITY inspection.
- B. Provide submittals to CITY that are required by governing or other authorities.
- C. Submit Final Application for Payment identifying total adjusted Contract price, previous payments, and sum remaining due.

1.4 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean equipment and fixtures to a sanitary condition.
- C. Clean site, sweep paved areas, rake clean landscaped surfaces.

- D. Remove waste and surplus materials, rubbish, and construction facilities from the work site.
- 1.5 ADJUSTING
- A. Adjusting operating products and equipment to ensure smooth and unhindered operation.
- 1.6 PROJECT RECORD DOCUMENTS
- A. Maintain onsite, one set of the following record documents; record actual revisions to the work:
 - 1. Contract Drawings
 - 2. Specifications
 - 3. Addenda
 - 4. Change Orders
 - 5. Reviewed shop drawings, Product data, and samples.
 - B. Store Record Documents separate from documents used for construction.
 - C. Record information concurrent with construction progress. Electrical boxes and conduit location determined in the field and not specifically shown on the drawings shall be recorded and documented.
 - D. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:
 - 1. Manufacturer's name and product model and number
 - 2. Product substitutions or alternate utilized.
 - 3. Changes made by Addenda or Change Orders.
 - E. Record Documents and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - 2. Field changes of dimensions and details.
 - 3. Details not on original Contract Drawings.
 - F. Delete Consultant, City of Milwaukee title block and Engineer's seal from all documents.

G. Submit six (6) sets of documents with one electronic copy of As Built Drawings in .pdf and .dgn file format to CITY prior to final Application for Payment.

1. Accompany submittal with transmittal letter containing the following:
 - a. Date
 - b. Project title and number
 - c. Contractor's name and address
 - d. Title and number of each record document
 - e. Certification that each document as submitted is complete and accurate.
 - f. Signature of Contractor, or his authorized representative.

1.7 OPERATION AND MAINTENANCE DATA

- A. Submit six (6) sets prior to final inspection, bound in 8 ½ x 11 - inch text pages, three ring D side binder capacity expansion binders with durable plastic covers.
- B. Prepare binder covers with printed title "OPERATION MAINTENANCE INSTRUCTIONS", title of project, and subject of binder when multiple binders are required.
- C. Internally subdivide the binder contents with permanent dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- D. Contents: Prepare a Table of Contents for each volume, with each Product or system description identified, type on 30-pound white paper.
- E. Special Requirements for Operation and Maintenance Data and Manuals. Adequate operation and maintenance information shall be supplied for all equipment requiring maintenance or other attention. The Contractor shall provide operation and maintenance manuals for each type of equipment supplied.
 1. Operation and Maintenance Manuals shall include the following:
 - a. All sets of manuals shall be originals. Copies will not be acceptable.
 - b. Equipment function, normal operating characteristics, and limiting conditions.
 - c. Assembly, installation, alignment, adjustment, and checking instructions.

- d. Operation instructions for start up, routine and normal operation, regulation and control, shutdown, and emergency conditions.
 - e. Lubrication and maintenance instructions, including lubrication cross references to a minimum of three locally available suppliers.
 - f. Guide to "troubleshooting".
 - g. Parts list and predicted life of parts subject to wear.
 - h. Outline, cross-section, and detailed assembly drawings; engineering data; wiring diagrams.
 - i. Test data and performance curves, where applicable.
2. The operation and maintenance manuals shall be in addition to any instructions or parts packed with or attached to the equipment when delivered, or instructions that may be required by the Contractor.
 3. Manuals and other data shall be printed on heavy, first quality paper, in an 8 ½ x 11-inch size with standard 3-hole punching. Drawings and diagrams shall be reduced to 8 ½ x 11-inches, or 11 x 17 inches. Where reduction is not practicable, larger drawings shall be folded separately and placed in an envelope that is bound into the manuals. Each envelope shall bear suitable identification on the outside.
 4. Material shall be assembled and bound in the same order as it appears in the Specifications, and each volume shall have a table of contents and suitable index tabs.
 5. All submittals shall be marked with Contract identification, and inapplicable information shall be erased or deleted.
 6. Shipment of equipment will not be considered complete until required data and manuals have been received.
- F. Part 1: Directory, listing names, addresses, and telephone numbers of CITY, Contractor, Subcontractors, and major equipment suppliers.
- G. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify name, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
1. Significant design criteria.
 2. List of equipment.
 3. Parts list for each component.
 4. Operating instructions.
 5. Maintenance instructions for equipment and systems.
 6. Maintenance instructions for special finishes, including recommended cleaning methods and materials and special precautions identifying detrimental agents.

- H. Part 3: Project documents and certificates, including the following:
 - 1. Shop drawings and product data.
 - 2. Air and water balance reports.
 - 3. Certificates.
 - 4. Photocopies of warranties.
 - I. Copies will be returned after final inspection, with CITY'S comments. Revise content of documents as required prior to final submittal.
 - J. Submit final volumes within ten (10) days after receipt of CITY'S comments.
- 1.8 GUARANTEE
- A. Provide duplicate notarized copies.
 - B. Execute and assemble documents and Subcontractors, suppliers, and manufacturers.
 - C. Provide Table of Contents and assemble in three D side ring binder with durable plastic cover.
 - D. Submit prior to final Application for Payment.
- 1.9 SPARE PARTS AND MAINTENANCE MATERIALS
- A. Provide products, spare parts and equipment, maintenance and extra materials in quantities as noted in applicable Specification Sections.
 - B. Deliver to Project site and place in location as directed prior to final Application for Payment.

END OF SECTION