

SECTION 01 72 00

PROJECT RECORD DOCUMENTS

PART 1 GENERAL

1.01 DESCRIPTION

A. Work Included:

1. Throughout progress of the Work, maintain accurate record of changes in the Contract Documents.
2. Upon completion of the Work, transfer the recorded changes to a set of Record Documents.
3. Throughout progress of the work, maintain accurate copies of each submittal as approved by the Engineer.
4. Upon completion of the Work, deliver to the Engineer a complete set of submittals as approved for delivery to the Owner for their use.

B. Related Work:

1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Special Conditions, and Sections in Division 0 and 1 of these Specifications.
2. Other requirements affecting Project Record Documents may appear in pertinent other Sections of these Specifications.

1.02 QUALITY ASSURANCE

A. Delegate the responsibility for maintenance of Record Documents to one person on the Contractor's staff as approved by the Engineer.

B. Accuracy of Records:

1. Thoroughly coordinate changes within the Record Documents, making adequate and proper entries on each page of Specifications and each sheet of Drawings and other Documents where such entry is required to show the change properly.
2. Accuracy of records shall be such that a future search for items shown in the Contract Documents may rely reasonably on information obtained from the approved Project Record Documents.

- C. Make entries within 24 hours after receipt of information that the change has occurred.

1.03 MAINTENANCE OF RECORD DOCUMENTS

- A. At the Pre-Construction Conference the Contractor will be provided as part of the construction package one set of Contract Documents to maintain a record of construction progress for the duration of the project. These documents will be labeled "PROJECT RECORD- JOB SET" and will be kept on site throughout the construction process.
- B. The Contractor will maintain at the job site, one record copy of:
 - 1. Reviewed Shop Drawings.
 - 2. Change Orders.
 - 3. Other Modifications to Contract.
 - 4. Field Test Records.
 - 5. Inspection Certificates.
 - 6. Manufacturer's Certificates.
- C. Store record documents and samples in the Contractor's field office apart from documents used for construction. Provide files, racks, and secure storage for record documents and samples.
- D. Label and file record documents and samples in accordance with Specification Section number listing in Table of Contents of this Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
- E. Maintain record documents in clean, dry and legible condition. Do not use record documents for construction purposes.
- F. Record documents will be reviewed monthly by the Engineer as part of the monthly project progress review associated with review and recommendation of partial payment requests. Payment requests will be denied if the Contractor does not maintain adequate record document.

1.03 RECORDING

- A. Record and update daily "as-built" information from field notes, on Drawings and in Specifications provided at the Pre-Construction Conference in accordance with the requirements provided herein.
- B. Provide erasable colored pencil (not ink or indelible pencil), maintaining separate colors for each major system, for recording information.

- C. In the event of overlapping changes, use different colors for the overlapping changes.
- D. Date all entries
- E. Record information concurrently (daily) with construction progress. Do not conceal work until required information is recorded.
- F. Conversion of Schematic Layouts:
 - 1. In some cases on the Drawings, arrangements of piping, and similar items, is shown schematically and is not intended to portray precise physical layout.
 - a. Final physical arrangement is determined by the Contractor, subject to the Engineer's approval.
 - b. However, design of future modifications of the facility may require accurate information as to the final physical layout of items which are shown only schematically on the Drawings.
 - 2. Show on the job set of Record Drawings, by dimension accurate to within one inch, the centerline of each run of items such as are described in subparagraph 3.01-E-1 above that are in a permanently concealed position.
 - a. Clearly identify the item by accurate note such as "electrical", "storm sewer", "cast iron drain", galv. water", and the like.
 - b. Show, by symbol or note, the vertical location of the item ("under slab", "in ceiling plenum", "exposed", and the like).
 - c. Make all identification sufficiently descriptive that it may be related reliably to the Specifications.
- G. Annotate on job set actual material used on job. Annotation to include manufacturer, model no., color, accessories, etc.
- H. Transfer of Data of Other Documents:
 - 1. If the Documents other than Drawings have been kept clean during progress of the Work, and if entries thereon have been orderly to the approval of the Engineer, the job set of those Documents other than Drawings will be accepted as Final Record Drawings.
 - 2. If any such Documents is not so approved by the Engineer, secure a new copy of that Document from the Engineer at the Engineer's usual charge for reproduction and handling, and carefully transfer the change data to the new copy of the approval

of the Engineer.

1.04 INFORMATION TO BE DOCUMENTED

A. Contract Drawings and Shop Drawings: Legibly mark each item to record actual construction, including:

1. General Information

- a. Contractor's Name, Address, Telephone Number, Contact Person
- b. Measured horizontal and vertical locations of underground utilities and appurtenances (electric, cable, telephone, gas,), referenced to permanent surface improvements. Include vertical and horizontal separation distances, depth of cover and pipe materials.
- c. Field changes of dimension and detail.
- d. Changes made by Change Order or Field Order.
- e. Details not on original Drawings.
- f. References to related shop drawings and Modifications.

2. Sewer Utilities

- a. Manhole rim and invert elevations at mean sea level (MSL). Indicate distance of line segment from center of manhole to center of manhole, pipe size, material, and grade.
- b. Tie-down locations of manholes to permanent structures (fire hydrants, buildings, property corners,). A minimum of two (2) tie-down dimensions are required.
- c. Manhole stationing from the downstream manhole going upstream, with all manholes reverting to "0+00" for the next line tangent.
- d. Detail dimensions of services. Indicate distance from building, adjacent property corners, and main line. Delineate service location based on sewer station.
- e. Bearings and distances for all sewer lines installed. All manholes shall be tied to State Plane Coordinates (1983 Datum). The Contractor shall, as part of his contract employ the services of a Registered Land Surveyor to provide this documentation.

3. Wastewater Pump Stations

- a. Elevations (MSL) of influent line invert, bottom of wetwell, bottom of air bubbler line, bottom of all pump suction legs, pump suction intakes, pump room floor, top slab over wetwell, top slab over pump room, control room floor, horizontal storage invert, and existing grade around station.
- b. Elevation (MSL) on top of force main connection to

manhole or tie-in to force main manifold.

- c. Building corners tied to State Plane Coordinates (1983 Datum). The Contractor shall, as part of his contract employ the services of a Registered Land Surveyor to provide this documentation.

4. Water Utilities

- a. Tie-down locations of all water appurtenances (valves, fittings, fire hydrants,) to permanent structures (manholes, buildings, property corners,). Fire hydrants may be used as a tie-down structure for other water appurtenances. A minimum of two (2) tie-down dimensions are required. Where appurtenances (valves, fittings,) are clustered together, indicate distances between said appurtenances. Provide depth of cover for each appurtenance (valves, fittings,).
- b. Detail dimensions of fire hydrant assemblies. Indicate distance from hydrant to gate valve, distance from gate valve to hydrant tee. Include depth of burial for hydrant.
- c. Detail dimensions of water services/meters. Indicate distance from building and adjacent property corners. If sewer is installed as part of project, delineate service/meter location based on sewer stationing. If service/meter extends beyond the last manhole, extend the bearing of the final line segment to continue stationing.
- d. Waterline materials used and locations of changes in materials.
- e. Bearings and distances of total water system installed. All water appurtenances (valves, hydrants, fittings, meters,) shall be tied to State Plane Coordinates (1983 Datum). The Contractor shall, as part of his contract employ the services of a Registered Land Surveyor to provide this documentation.

5. Stormwater Utilities

- a. Catch basin and junction box rim and invert elevations at mean sea level (MSL). Indicate distance of line segment from center of basin/box to center of basin/box, pipe size, material, and grade.
- b. Tie-down locations of basins/boxes to permanent structures (fire hydrants, manholes, buildings, property corners,). A minimum of two (2) tie-down dimensions are required.
- c. Basin/box stationing from the downstream basin/box going upstream, with all basin/boxes reverting to "0+00" for the next line tangent.
- d. Bearings and distances for all storm sewer lines installed. All basins/boxes shall be tied to State Plane Coordinates (1983 Datum). The Contractor shall, as part of his contract employ the services of a Registered Land Surveyor to

provide this documentation.

B. Specifications and Addenda: Legibly mark up each Section to record:

1. Manufacturer, trade name, catalog number and supplier of each product.
2. Changes made by Change Order or Field Order.
3. Other matters not originally specified.

1.05 SUBMITTALS

A. The Engineer's approval of the current status of Project Record Documents may be a prerequisite to the Engineer's approval of requests for progress payment and request for final payment under the Contract.

B. Prior to submitting request for final payment, submit the final Project Record Documents and Samples with cover to the Engineer and secure his approval. Include the following:

1. Date.
2. Project title and number.
3. Contractor's name, address, and telephone number.
4. Number and title of each Record Document.
5. Certification that each document as submitted is complete and accurate.
 - a. The Contractor shall certify in writing on each sheet of drawings and the title sheet of the specifications that, to the best of his knowledge, the record documents are accurate and complete.
6. Signature of Contractor or authorized representative.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION