

SECTION 01 78 39

PROJECT RECORD DOCUMENTS

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section sets forth requirements and procedures for the Contractor/Developer to maintain updated Project Record Documents required under the Contract and to submit up-dated record documents to the City Representative.
- B. Related Documents and Sections include:
 - 1. Standard Plan CDD-LP-501 - Typical Method of Measuring, Recording and Identifying Mains, Services, Gate Valves and All Appurtenances
 - 2. Standard Plan CDD-LP-502 - Minimum Information Required for Domestic and Recycled Water As-Built Drawings

1.02 GENERAL REQUIREMENTS

- A. The Contractor is responsible for maintaining up-to-date project record documentation. The Contractor shall make the up-to-date record documentation available for monthly inspection by the City Representative, and at any other time requested by the City Representative.
- B. The Contractor is responsible for maintaining two sets of Project Record Documents: one on-site working set and another one in a secure, off-site location, so that in the event of loss of the Project Record Documents at the jobsite, these can be accurately reconstructed and replaced.
- C. Following completion of the Contract work, the Contractor is responsible for submitting Project Record Documents meeting the requirements of the Specifications.
- D. The Contractor shall maintain an ordered, clean, completed, indexed and easily accessible filing system for all Project Record Documents.
- E. Definitions:
 - 1. **Drawings:** Design drawings approved by SFPUC-CDD for the construction of new water facilities or modification of existing water facilities. Approved drawings will include a water department stamp stating “Approved as to design” with the City of San Francisco Seal.

2. **Project Record Documents:** Interim Contractor Record Documents, Record Shop Drawings and Final Record Documents, which include, but are not limited to: Drawings, Specifications, Addenda, Change Orders, Requests For Information (“RFIs”), Equipment Data Sheets, clarifications, Field Orders, approved shop drawings, samples and other submittals, clearly marked to record accurately the Work as actually constructed (“record documents”), including changes, adjustments, and other information relative to the Work.
3. **Interim Contractor Record Documents:** Documents which the Contractor updates throughout construction to show all changes or variations between designed and as-constructed facilities.
4. **Record Shop Drawings:** Approved Contractor’s proposed installation and equipment details based on field conditions and requirements and considered and/or acknowledged as record documents, provided the Contractor has stamped them “record documents” and submitted them as such.
5. **Final Record Documents:** Final submittal by the Contractor of the Record Documents reflecting all the changes from the Drawings and specifications, shop drawings, etc. made and actually constructed. The Final Record Documents are certified by the Contractor and the City Representative as marked-up construction documents representing facilities as constructed.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 REQUIREMENTS

- A. The Contractor shall maintain at the Contractor’s jobsite office an accurately marked, up-to-date set of Project Record Documents to document work actually installed and conditions encountered. The Contractor shall accurately indicate on the Interim Contractor Record Documents all site conditions, measurements, dimensions, locations of utilities, all changes made by clarifications, RFIs, Change Orders, and other modifications to the Contract Documents and details as specified herein and as approved by the City Representative.
- B. The Contractor shall have a designated person to be responsible for updating and maintaining the Interim Contractor Record Documents.
- C. The on-site set of Interim Contractor Record Documents shall be kept in a safe place and protected from damage by weather and manhandling. The Contractor shall store Project Record Documents apart from other documents used for

performing the work and shall keep them in a dry and legible condition in good order.

- D. The Contractor shall keep Interim Contractor Record Documents up to date during the entire progress of the work, and make them available to the City Representative at any time. Updates are to occur no more than 5 working days after changes in the work are made.

3.02 PROCEDURES

- A. The Contractor shall maintain two dedicated sets of full-size, initially unmarked Drawings specifically for the incorporation of detailed record documents changes and subsequent approval of those changes by the City Representative. The Contractor is to use one set for maintaining the up-to-date Interim Contractor Record Documents at the field office. All information in the Interim Contractor Record Documents is to be transferred to the second, off-site set of drawings monthly.
- B. All lines and notations on the up-to-date Interim Contractor Record Documents shall be neat, accurate, legible, and capable of being scanned into PDF format (or other electronic media file format as specified) such that copies made from the scanned files are as legible as the original.
- C. The Contractor shall record all changes on the Interim Contractor Record Documents. The updated Interim Contractor Record Documents shall include but not be limited to the following:
 - 1. Field changes or adjustments in the final location or in the final dimensions or details of the Contract work relative to actual existing site conditions.
 - 2. Changes resulting from RFIs
 - 3. Changes made by Change Order work
 - 4. Changes made by Field Order work
 - 5. Records of horizontal locations of new water mains, fittings, services, gate valves and all appurtenances by reference to the closest property lines or curb lines (see CDD Standard Plans CDD-LP-501 and CDD-LP-502). In addition, GPS coordinates shall be accompanied to each gate valve, air valve and blow-off valve location and shall be provided to City Representative as part of the Contract Record Documents.
 - 6. Records of trench depths at each push-on joint along the new mains and laterals (see CDD Standard Plan CDD-LP-502)

7. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to visible and accessible features of the Work (such as property lines and finished grade of the street).
8. Details not included on the original Drawings but incorporated into the work by reference to approved shop drawings, product data, samples, calculations or other submittals
9. Location of items embedded in concrete such as conduits, cables, junction boxes, piping, reinforcing steel, etc.
10. Measured depths of foundations in relation to finish main floor datum.
11. Measured locations of internal utilities and appurtenances, referenced to visible and accessible locations or features of the Work
12. Location (to within 1-inch) of the centerline of each run of conduits, circuits, piping, ducts, and similar items which are shown schematically on the drawings, but where the final physical arrangement is determined by field conditions
13. Other applicable technical information.

D. The Interim Contractor Record Documents shall be prepared as follows:

1. Make mark-ups using a dark red pencil or pen so that the mark-ups can be clearly seen when photocopied or scanned. Mark-up corresponding details and sections in addition to the mark-ups in plan view.
2. Clearly mark changes on drawings adding notes as required. Changes made in narrative or reference to a Change Order or RFI without marking the actual drawing are not acceptable.
3. Date all entries, calling attention to the entry by a “cloud” drawn around the area or areas affected. If mark-ups are a result of an approved change such as a Change Order or RFI, write the reference to these documents in the clouded area.
4. For each piece of equipment incorporated into the Work, record the manufacturer, trade name, catalog number, model number, serial number, date of installation, supplier of each product and equipment item.
5. No paper shall be affixed to the back of the drawings. Do not include papers for explanations or comments since all mark-ups are to be complete and self-explanatory.
6. Permanent papers affixed to drawings, which modify the drawings, shall be securely stapled to the drawings and shall not obstruct information

unless intentional. Tape or glue is acceptable only where stapling is not possible.

7. Drawings which are revised and issued as a result of a Change Order or RFI shall be inserted into the Interim Contractor Record documents and all marks on the old sheet shall be transferred to the new sheet.
 8. If permanent additions to a drawing cannot fit on the drawing, the original drawing shall be labeled "Sheet 1 of 2," and the additions shall be placed on a new drawing sheet with an identical title block as the original drawing except that the title block shall be labeled "Sheet 2 of 2".
- E. Contractor shall arrange for the City Representative to examine the up to date marked Interim Contractor Record Documents on a monthly basis at a time mutually acceptable to the Contractor and the City Representative.
- F. Failure to maintain updated Interim Contractor Record Documents acceptable to the City Representative will result in retention of a portion of the monthly progress payment as specified in the General Conditions.

3.03 PROJECT COMPLETION

- A. Updated Interim Contractor Record Documents showing all required information up through substantial completion shall be submitted to and accepted by the City Representative as a condition precedent to the contract being deemed as substantially complete.
- B. Before Final Completion, the Contractor shall prepare and submit "Final Record Documents" to the City Representative as specified in Article 3.03.D of this Section. The Contractor shall submit "Final Record Documents" that are neat, clean, and accurately reflect work as constructed. Following review, if the Final Record Documents are acceptable to the City Representative, the Contractor shall certify each sheet of the Final Record Documents using the stamp provided by the City Representative stating "Certified that these Final Contractor Record Documents represent the facilities as constructed." The Contractor shall certify the stamp in the appropriate place and then the City Representative will certify the stamp.
- C. In the event that the Final Record documents do not meet the approval of the City, or the condition of the drawings is deteriorated so that they are no longer suitable for use as record documents documentation, the Contractor may request replacement Drawings upon which to post record documents documentation. Such drawings will be furnished to the Contractor by the City Representative. The Contractor shall reimburse the City for the actual cost of providing said replacement drawings.

- D. The Contractor shall furnish:
1. Full size original set of “Final Record Documents” including certification by the Contractor and the City Representative.
 2. Electronically scanned full size files of the certified “Final Record Documents” in color PDF format at 300 dpi minimum resolution with one PDF file per drawing.
 3. AutoCAD files. AutoCAD files will be provided by the City to the Contractor to provide revisions for the as-built conditions. An “AutoCAD File Use Agreement and Release” form shall be completed prior to release. AutoCAD Record Documents shall conform with the following format:
 - a. All changes made during construction shall be identified with a cloud and the letters ‘RD’ inscribed inside a triangle symbol.
 - b. Complete the revision title in the title block.
 - c. The final set of the drawings shall be marked “Final Record Documents” and shall become owner’s record of the work.
 - d. Submit all AutoCAD files through eTransmit.
 4. A full size set of drawings printed from the AutoCAD files with the stamp “Certified that the Final Contractor Record Documents have been correctly transcribed into AutoCAD” on each sheet. Contractor shall sign the stamp and have his name printed below his signature.
- E. The City will require 15 working days to perform certification of the Final Record Documents.
- F. Furnish certificates and documentation of test results required in Technical Specifications.

END OF SECTION