

SOUTHWEST METRO WATER AND SANITATION RECORD DRAWING REQUIREMENTS

Record Drawings Requirements

1. The Record Drawings shall be new drawings that show infrastructure as they are constructed, with drawings of new mains, appurtenances, labels and notes as needed. **Design/construction plans with red text, clouding, mark-outs, and strike-throughs that attempt to simply illustrate changes between design plans and record drawings shall not be accepted.** Any information, notes, or measurements from the design/construction plans that are no longer relevant from a Final Record Drawing perspective shall be deleted. Only installed infrastructure information, notes, and measurements shall remain visible. Each sheet submitted with the drawings will clearly indicate that they are record drawings and must be signed/sealed by a licensed PE or PLS. Preparers are permitted to include a disclaimer to indicate that record drawings have been prepared based on information collected by others as indicated below.
2. All water lowerings must be shown in the record drawing set, including water lowerings added in the field which were not part of the original design. These lowerings must identify all fittings and the distances between fittings and must be presented using a scaled profile detail of the area.
3. Periodic out-distances from curbs (or other permanent landmarks), and at bends must be provided.
4. All language from the original design which reflects future installation (i.e. “proposed”, “to be installed”, “to be abandoned”, etc.) shall be revised to reflect the as-built condition.
5. Updates to water, sanitary, storm, gas, electric, or other infrastructure must be reflected in all submitted record drawings. This includes reflecting changes on the overall utility plan, water/sanitary only sheets, crossing details and all other applicable sheets. Record drawings which are not consistent across all submitted documents will not be accepted.
6. All piping (i.e. water/ sewer mains) shall be labeled with the appropriate size, material, pipe thickness/DR, diameter, etc. Gravity mains shall be labeled with the installed slope. Each fitting and valve shall be labeled with their applicable size/dimensions.
7. All quantity tables must be updated to reflect what was actually installed, including but not limited to LF of pipe, quantity of fittings, quantity of manholes, etc.
8. Coordinates shall be provided for all surveyed infrastructure as well as measured locations of underground infrastructure from Contractor’s As-Builts, and final elevations of underground infrastructure (in/out inverts, rim elevations, etc.). All profiles must be updated to reflect as-built conditions.
9. Each sheet submitted with the drawings will clearly indicate that they are record drawings and show all abandoned in-place infrastructure including the extent and method of abandonment

(i.e. capping ends of mains, grouting, etc.). Title sheet of Record Drawings shall include:

- Title “Record Drawings”.
- Name of the Project and Contract Number (as applicable)
- Record Drawing Block shall be provided and dated for each drawing sheet and shall have the following Record Drawings statement:

“THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED BY OTHERS. THEY ARE NOT INTENDED TO REPRESENT IN DETAIL THE EXACT LOCATION, TYPE OF COMPONENT OR MANNER OF CONSTRUCTION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THE DRAWING”.

- All signed approved stamps previously provided by the District, Denver Water, and the Fire Department.
- Dates of construction and acceptance.
- **Revision Block:**

| DATE | REVISION |
|-------------------|----------------|
| DATE ¹ | REVISION 1 |
| DATE ² | REVISION 2 |
| DATE ³ | RECORD DRAWING |
| | |

Note: Revision title shall read “RECORD DRAWING” and may include other changes.

Deliverable Package Requirements

Once the submitted record drawings have been approved, the following items must be included as deliverables:

- Two(2) sets of bonded signed and sealed copies of the approved record drawings (24”x36”).
- Flash drive or CD-ROM of the approved drawings in .DWG and PDF format. The submitted media shall be labeled with the Project Title, Design Firm, Contract Number (Project Number or Job Number), Contractor, and project contact information (i.e. name, affiliation, phone number).

File Specifications

SMWSD requires the ability to view submitted CAD files, and have all xrefs available for viewing in the master document. At a minimum, SMWSD should receive all the integral data created and utilized to develop all Design/Contract documents (i.e., drawings, figures and all forms thereof). Contractors are required to provide a digital file of the Design/Contract documents in DWG format. These formats provide the client with the ability to view the complete picture and to gather complete volumes of documents for reproduction if required. All drawing elements shall be submitted referencing Colorado North Zone State Plane Coordinates (NAD83).

Features in drawing files that are stored in drawing units must be translated to represented real world locations as referenced by NAD83 coordinates. Elements referencing NAD83 coordinates will utilize the North American Datum of 1983/91 (NAD83/91) for horizontal control and be measured in US Survey Foot. Vertical control will reference National Geodetic Vertical Datum of 1929 (NGVD29).

NOTES:

1. Binding an xref to a drawing makes the xref a permanent part of the drawing and no longer an externally referenced file. You can bind the entire database of the xref drawing, including all its xref-dependent named objects (blocks, dimension styles, layers, linetypes, and text styles), by using the XREF Bind function.
2. Note: You cannot bind xrefs that contain nested entities or proxy objects.