



CAD Drawing / ESRI File AS-BUILT STANDARDS AND SPECIFICATIONS

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GUIDELINES FOR APPROVAL AND ACCEPTANCE

For CAD Drawing / ESRI File As-Built

1. Any water utility and sewer utility assets shall be identified, including but not limited to:

1. Meters
2. Fire Hydrants
3. Valves
4. Casing
5. Service Lines
6. Mains
7. Water Vaults
8. Backflow Preventor
9. Gravity Mains
10. Manholes
11. Sewer Laterals
12. Grease Traps
13. Cleanout Structures

2. All assets shall be in horizontal coordinate system: NAD83 – State Plane Coordinate System Georgia West – US Survey Feet.

3. All assets shall identify elevation in vertical coordinate system: NAVD88 (GEOID18) – US Survey Feet.

4. All assets shall be in a separate layer.

5. Two file types shall be provided:

- 1) ESRI File Geodatabase OR ESRI Shapefile OR AutoCAD .dwg file
- 2) Adobe PDF document

6. A separate file for each utility shall be provided (Water and Wastewater)

7. If a .DWG file is submitted, all assets shall be assigned an ID number to reference required attributes shown below in a separate file (such as excel spreadsheet). If an Esri File Geodatabase is submitted, this information shall be included within the file.

1. Meter
 - a. Type: Domestic, Commercial
 - b. Location: [Road Name]
 - c. Year Install: [Year]
 - d. Size: [Size in inches]
 - e. Manufacturer: [Manufacturer]
 - f. Model: [Model]
2. Fire Hydrants
 - a. Location: [Road Name]
 - b. Year Manufactured: [Year]
 - c. Year Install: [Year]
 - d. Elevation: [NAVD88]
 - e. Manufacturer: [Manufacturer]
 - f. Model: [Model]
3. Valve
 - a. Type: [Gate, Butterfly, etc]
 - b. Location: [Road Name]
 - c. Elevation: [NAVD88]
 - d. Diameter: [Diameter in inches]
 - e. Turns: [Turns]
 - f. Year Install: [Year]
 - g. Year Manufactured: [Year]
 - h. Manufacturer: [Manufacturer]
4. Casing
 - a. Diameter: [Diameter in inches]
 - b. Location: [Road Name]
 - c. Year Install: [Year]
 - d. Material: [Material]
 - e. Wall Thickness: [Inches]
5. Service Line
 - a. Diameter: [Diameter in inches]
 - b. Location: [Road Name]
 - c. Year Install: [Year]
 - d. Material: [Material]
 - e. Type: [Potable, Blow Off, Irrigation, etc]
6. Mains
 - a. Year Install: [Year]
 - b. Location: [Road Name]
 - c. Type: [Distribution, Transmission]
 - d. Diameter: [Diameter in inches]

- e. Material: [Material]
 - f. Manufacturer: [Manufacturer]
 - g. Pressure Rating: [Class 350, etc]
7. Water Vaults
- a. Type: [Master Meter, Fire Line Vault, etc]
 - b. Elevation at top: [NAVD88]
 - c. Depth from top: [NAVD88]
 - d. Location: [Road Name]
8. Backflow Preventor
- a. Type: [RPZ, DDCV, etc]
 - b. Location: [Road name]
 - c. Elevation: [NAVD88]
 - d. Year Install: [Year]
 - e. Size: [Size in inches]
 - f. Manufacturer: [Manufacturer]
 - g. Model: [Model]
9. Gravity Mains
- a. Type: [Collector, Standard, Private]
 - b. Location: [Road Name]
 - c. Diameter: [Diameter in inches]
 - d. Material: [Material]
 - e. Basin: [Basin]
 - f. Upstream Manhole ID: [Determined by SCWA]
 - g. Downstream Manhole ID: [Determined by SCWA]
 - h. Upstream Manhole Elevation: [NAVD88]
 - i. Upstream Invert Elevation: [NAVD88]
 - j. Downstream Manhole Elevation: [NAVD88]
 - k. Downstream Invert Elevation: [NAVD88]
 - l. Slope %: [%]
10. Manholes
- a. Elevation: [NAVD88]
 - b. Diameter: [Feet]
 - c. Model: [Model]
 - d. Material: [Material]
 - e. Upstream Manhole Elevation: [NAVD88]
 - f. Upstream Invert Elevation: [NAVD88]
 - g. Downstream Manhole Elevation: [NAVD88]
 - h. Downstream Invert Elevation: [NAVD88]
11. Sewer Laterals
- a. Type: [Residential, Commercial, etc]
 - b. Location: [Road Name]
 - c. Diameter: [Diameter in inches]
 - d. Length: [Length in feet]
 - e. Drop: [Inside, Outside, etc]

12. Grease Traps
 - a. Location: [Road Name]
 - b. Elevation: [NAVD88]
 - c. Address #: [####]
13. Cleanout Structures

8. Geometry types shall be:

1. Meter – Point
2. Fire Hydrant – Point
3. Valve – Point
4. Casing – Line
5. Service Line – Line
6. Mains – Line
7. Water Vault – Polygon
8. Backflow Preventor - Point
9. Gravity Main – Line
10. Manhole – Point
11. Sewer Laterals – Line
12. Grease Traps – Point
13. Cleanout Structures – Point

9. Line segments shall start and stop at every fitting.

10. The following information shall be included on the plans:

GENERAL	
• Buildings • Easements • Impervious Areas • Parcel Lines • Tie-ins	• Footprint of all new buildings and structures drawn • Cover sheet is required to show the deed book and page number(s) for all recorded easements for: access, electric, stormwater, water, wastewater and/or subdivision plats • Drawn with total area measurements given in sq. ft. • Entire property line drawn as recorded • Show all tie-ins to existing water and wastewater

Other	
• Graphic Scale • Legend • Circle in Red	• In feet • Showing all symbology represented in the drawing • Any changes from the approved construction plans must be indicated by circling the change in red

Statements	
Statement	The following statement certifying compliance of the site to approved plans and conformance of any revisions, to all applicable standards. <i>“This physical survey has been reviewed, and in my professional opinion, based upon my knowledge, information, and belief, the design elements measured by the physical survey comply with the approved plans. This review does not imply in any way that (i) inspections were made during the construction, (ii) to the quality of the work, or (ii) to any element of structure not visible or depicted on the physical survey.”</i>

11. For all computer file format questions, please contact:
Chris Reagan at 470-218-2354 or by email at creagan@scwa.us