

AUTOCAD REQUIREMENTS FOR CONSTRUCTION DRAWINGS

The following requirements for submittal of CAD data have been prepared for the purpose of incorporating the digital submittal information into the Town's Geographic Information System (GIS) base mapping, so that accurate data may become available to emergency responders, Town staff, engineers, and the larger development community.

- **CAD file must contain public utility infrastructure within a single drawing in DWG format.** Files in DXF, DWF, or DGN format are not acceptable. Drawing must be "stand-alone" without the necessity of attaching Reference or XREF files, or modifying and levels and layers. **CAD file must be saved as 2016 version or earlier.** Current GIS does not support newer versions at this time.
- The CAD data is not meant to be printed. As such, it should not be all inclusive of the information displayed on the plan sheets. Objects normally set up in the layout tab ("paper space") for the purposes of plotting plan sheets, such as title blocks, page borders, legends, vicinity maps, and north arrows, should NOT be included in the CAD file. Callout detail boxes also should not be included.
- CAD data must be drawn at full scale (1:1), and oriented to true north.
- The data must be tied to Town monumentation data, in real world coordinates, and spatially referenced to the Town's GIS projected coordinate system: North American Datum 1983 (NAD 83), NC State Plane, FIPS 3200; Units: US Feet.
- All polygons must be closed without overlaps. All lines must be snapped at their endpoints and free of gaps or dangles. Annotation text that breaks the continuity of lines should be shifted out of the way of the line.
- Public/private utility infrastructure must be organized into **separate layers** according to feature type, and drawn as polylines (except for annotation). All layers must be turned on and visible/unfrozen. **IMPORTANT: Layer names should be intuitive and descriptive of the objects on that layer.** Features must be clearly segregated into their appropriate layer, and not appear on other unrelated layers. Remnants of lines or points used in the development of the drawing but not representative of actual real-world features (trim lines, transit points, etc.) should be removed from the drawing. Existing infrastructure should be on separate layers from proposed infrastructure and should be differentiated as such in layer names (i.e. "EXIST_WATER_MAIN" versus "PROP_WATER_MAIN"). This information shall also be included in the CAD drawing. Features that should appear in the drawing on separate layers are listed below. Any additional features not listed are optional and must also be on separate layers with clear, understandable layers names. ELEVATION CONTOURS ARE NOT NEEDED.

Public/Private Infrastructure:

- Fire Hydrants
- Water Mains
- Water Valves
- Water Meters
- Water annotation: pipe sizes, material types

- Sewer mains
- Manholes
- Cleanouts
- Sewer annotation: pipe sizes, material types

- Buildings

- Paving: edge of pavement, parking area, striping

Plat Information:

- Subdivision/Phase boundary
- Parcel Lot Lines
- Street centerlines
- ROW lines
- Easement, fire lanes
- Plat annotation: street labels, easement types & sizes