

City of Granbury Specifications for the Installation of Fire Line Underground Piping and Back Flow Preventers

Installation of Fire Line underground piping shall be done by Certified Fire Sprinkler Installation Contractor or licensed utility contractor through the State of Texas. Contractor must be registered with the City of Granbury, show proof of insurance with the City of Granbury as certificate holder, along with copy of the license of the installer.

Permits

The company awarded contract shall pull permit with the City of Granbury, be registered with the City of Granbury and be licensed through the State of Texas to install Fire Line underground piping.

Inspections

Call at least 24 hours in advance for inspections. Have permit number available when calling in for an inspection for proper documentation on inspection form (817-573-9692 or 817-573-2648 for the Fire Inspector). All Fire Line underground will be inspected by the Fire Inspector including FDC lines. All piping shall be inspected prior to any cover being placed. All lines shall be covered with approximately 24" of sand along with tracer wire and tape showing water line.

Drawings

There shall be three (3) sets of drawings submitted to the Fire Inspector for review along with hydraulic calculations and specifications of system or systems.

Flow Calculations

Flow calculations of mains shall be obtained by the company awarded contract. Neither the City of Granbury nor the Granbury Volunteer Fire Department supplies flow calculations. When coming into the City of Granbury to do flow test the company shall contact the Fire Inspector to advise that they are going to be flowing fire hydrants for the purpose of gathering flow calculations.

Vaults with Backflow Prevention

The back flow assembly may be installed in the riser if there is an exterior door to the riser room and depending on the length of pipe from the main to the building is not longer than 100'. Systems having pipe in the excess of 100' shall have back flow prevention located in a vault exterior of the building. The vault shall have 1" gravel approximately 12" to 16" in depth under the vault for proper drainage of the vault. All valves shall have proper clearance from the lid and sides. NO CONCRETE BLOCK TYPE VAULTS. If vaults are placed in parking area or drive area they shall have traffic impact type lids.

A ladder shall be mounted on the wall of the vault for ingress / egress purposes; ladder shall have clearance from walls to rungs at no less than 4".

Main line shall be tapped with using a stainless steel swivel T and mega lugs. There shall be a valve at the swivel T with a square type nut shut-off. There shall be a 2'x2' concrete pad around the valve box. The cover of the valve box shall be painted RED in color designating a Fire Line.

Hydrostatic Test

Hydrostatic test of both the main Fire Line and FDC line will be require. The test will be conducted at 200 PSI for two (2) hours. Coordinate with General Contractor for any water runoff due to flushing.

Piping

All piping shall be installed to specifications of NFPA 13. All taps on existing lines shall be done with a stainless steel tapping saddle. All lines that turn or have cast iron connections shall be connected with mega lugs. They shall be covered with plastic or asphalt type sealer. The plastic shall be sealed with tape. All piping shall have a blue number 12 tracer wire taped on top of the pipe and extend to the flanges and up in the valve casing. Locator tape can be used 12 inches above the pipe. Pipe shall be bedded in sand and covered with sand prior to using clean fill.

Valves

There shall be valves placed at the main. The top of the valve casing shall be painted RED in color. There shall be dust / dirt protection in the top of the valves. Foam type is preferred.

FDC Connections

FDC connections shall be free-standing in an island unless otherwise approved by the Fire Inspector. FDC connection shall be no more than 32" above finish grade.

- The FDC caps shall be brass, tightened in place. No plastic or thin metal caps.
- The FDC shall be no further than 25' away from the building. Unless approved by the Fire Inspector.
- There shall be a ball drip with 18" of gravel cover. The ball drip can be either used on a tapping saddle or in a special design 90. All must be drawn and approved by the Fire Inspector.
- There shall be a 24"x24" concrete pad poured at the base of the FDC.
- Paint the pipe RED from ground level to FDC brass or Storz connection.
- Some applications may require a large diameter inlet connection FDC. The connection must accommodate 5 inch Storz connection.

Hydro Testing – When hydro testing is done and there are both the remote FDC line and the main there shall be two gauges for testing. Both test will be done at the same time or they can be hooked together.

FIRE HYDRANTS- There shall be a fire hydrant located within 100 feet of the Fire Department Connection. The Fire Inspector may make exceptions when an existing hydrant is reasonably close.