

Force Main Connections Field Specifications

(Not Intended to be Inclusive)

Permit for connection must be obtained through MWS Permits' prior to installation of service line. The service line must be approved by MWS inspector prior to covering. Plumber must also obtain a sewer connection permit through the Metropolitan Codes Department. MWS service line inspection does not replace the requirement for Codes inspection.

Grinder Pump

E-1 Extreme DH071 Series Pump required.

Pump must be mounted to a poured concrete slab with gravel under, around and 12" above the discharge line. Remainder of pump should be filled with clean, compactable backfill. Additional specifics and installation instructions are available. Pump installation must be inspected by MWS and pump tested.

Service Line Requirements

1.25 inch Schedule 40 PVC Pipe and purple primer (Glue) installed in a 2' deep trench (No substitution for pipe/glue).

3" of gravel or sand on bottom of line and 6" on top of line

16 gauge tracer wire mounted to PVC from grinder pump to the clean out box at the street.

90 degree elbows or sharp bends are not allowed.

45 degree elbows are permitted-must be 12" separation in between 45 degree elbows.

Water and Sewer Line Separation

Generally, water and sewer lines shall not be laid in the same trench.

Parallel Installation

- a. Normal conditions-Water lines shall be laid at least 10 feet horizontally from any sanitary sewer, storm sewer, or sewer manhole, whenever possible: the distance shall be measured edge-to-edge.
- b. Unusual conditions-When local conditions prevent a horizontal separation of 10 feet, a water line may be laid closer to a storm or sanitary sewer provided that:
 - a. The bottom of the water line is at least 18 inches above the top of the sewer.
 - b. Where veridical separation cannot be obtained, the sewer shall be constructed of material and with joints equivalent to water main standards of construction and shall be pressure tested to assure water-tightness prior to backfilling.

Crossings

- a. Normal conditions-Water lines crossing house sewers, storm sewer or sanitary sewers shall be laid to provide a separation of at least 18 inches between the bottom of the water and bottom of sewer line.
- b. Unusual conditions-When local conditions prevent a vertical separation water lines passing under sewer lines shall in addition be protected by:
 - a. A vertical separation of least 24 inches between the bottom of the sewer and the top of the water line.
 - b. Adequate structural support for sewer line to prevent excessive deflection of joints and settling on and breaking the water line. Sleeve must be installed around sewer line and placed where water line crosses.
 - c. That the length of the water pipe be centered at the point of the crossing so that the joints will be equidistant and far as possible from the sewer.
 - d. Both the water and sewer lines shall be constructed of water pipe and tested in accordance with water specifications.

Electrical Specifications

All wiring must be incased in Ridgid galvanized piping from control panel to pump with silicone protection to wire entering the control panel.

Wiring must be in one continuous line with no breaks or junction boxes.

Breaker box must be installed on outside of house 48" above grade level.

Electrical must be inspected by Metro Codes Department.