

San Antonio Water System Standard Specifications for Construction

ITEM NO. 818

PVC (C-900, C-905 and C-909) PIPE INSTALLATION

- 818.1 DESCRIPTION:** This item shall consist of PVC (C-900, C-905 and C-909) pipe installation in accordance with these specifications and as directed by the Engineer. Deflection of PVC (C-900, C-905 and C-909) pipe shall not be allowed.
- 818.2 SUBMITTALS:** Contractor shall submit manufacturer's product data instructions, recommendations, shop drawings, and certifications.
- 818.3 MATERIALS:** The materials for PVC pipe installation shall conform to the specifications contained within the latest revision of SAWS Material Specification Item Nos. 05-12, 819-01, and 05-13, "Polyvinyl Chloride (PVC) Pipe."
- 818.4 CONSTRUCTION METHOD:** PVC (C-900, C-905 and C-909) pipe shall be installed as specified within Item No. 812, "Water Main Installation" of these specifications. PVC (C-900, C-905 and C-909) mains shall be laid to the depth and grades shown in the contract documents. The pipe shall be laid by inserting the spigot end into the bell flush with the insertion line or as recommended by the manufacturer. At no time shall the bell end be allowed to go past the "insertion line." A gap between the end of the spigot, and the adjoining pipe is necessary to allow for expansion and contraction.

Joint Restraints: For all mains consisting of PVC (C-900, C-905 and C-909) joint restraints as specified in SAWS' Material Specification Item No. 95-10, "Pipe Joint Restraint Systems," and shall be installed in accordance with manufacturer's recommendations. Joint restraints shall be bi-directional and installed to fully restrain the system as shown in Standard Drawing Details DD-839-04 through DD-839-8, or indicated in the contract documents.

PVC (C-900, C-905 and C-909) pipe shall be field cut using a power saw with a steel blade or abrasive disc, depending on the size of pipe. If a bevel is needed after field cutting, it should be in accordance with the latest applicable recommendations of: Uni-Bell or ASTM/AWWA standards. Such work will be subject to approval by the Inspector.

Tracer Wire: Tracer wire shall be utilized for location purposes and taped directly to the pipe. Tracer wire shall be of solid core (14 gauge insulated), and shall be taped to the main in minimum of 10 inch increments. Wire shall also come up to

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the top of valve extensions and fire hydrant stems, as directed by the Inspector.

818.5 **MEASUREMENT:** PVC pipe will be measured by the linear foot for each size and type as follows:

Measurements will be from the center line intersection of runs and branches of tees to the end of the valve of a dead end run.

Measurements will also be between the center line intersection of runs and branches of tees. Where the branch is plugged for future connection, the measurement will include the entire laying length of the branch or branches of the fitting.

The measurement of each line of pipe of each size will be continuous and shall include the full laying lengths of all fittings and valves installed between the ends of such line except that the laying length of reducers will be divided equally between the connected pipe sizes. Lines leading to a tapping connection with an existing main will be measured to the center of the main tapped.

818.6 **PAYMENT:** Payment for PVC Pipe installed will be made at the unit price bid per linear foot of pipe of the various sizes installed by the open cut method. Such payment shall also include excavation, selected embedment material, backfill, compaction, polyethylene sleeve, hauling and disposition of surplus excavated material, including all existing pipe, fittings, appurtenances to be abandoned (where specified or shown in the contract documents).

- End of Specification -