

*San Antonio Water System Standard Specifications for Construction*

**ITEM NO. 822  
CUSTOMER'S YARD PIPE (WATER)**

**822.1 DESCRIPTION:** This item shall consist of Customer yard piping adjustments and installation in accordance with these specifications and as directed by the Engineer.

**822.2 MATERIALS:** The materials for Customer yard piping adjustments and installation shall conform to the specifications contained within the latest revision of SAWS' Material Specification "Copper Tubing", Item No. 15-01 and "Brass Goods", Item No. 15-40.

**822.3 CONSTRUCTION:**

1. Designation of Yard Piping: New copper yard piping shall be installed within the limits of the Customer's property in conjunction with all small service lines relocated from existing mains in the alleyways behind Customer residences to street rights-of-ways fronting Customer residences.

See Standard Drawing DD-822.

Customer yard piping begins from the outlet meter connection to the point of connection within the limits of the Customer's lot or property.

"Short yard piping," shall be described as consisting of Customer's yard piping that does not exceed one-half the depth of the lot.

"Long yard piping," shall be described as consisting of Customer's yard piping that when installed exceeds one-half depth of the lot.

2. Materials: All  $\frac{3}{4}$  through 2 inch yard piping shall be furnished by the Contractor and shall be Type "K", soft annealed copper water tubing. Plastic round Customer's cut-off valve boxes furnished by the Contractor shall consist of a box and cover, shall accommodate cut-off valves up to 2 inches, and shall be by a SAWS approved manufacturer.

The Contractor shall also furnish all materials to include pipes, nipples, unions, couplings, tees, elbows, street ells, hose bibs, insulation for riser pipe, caps, plugs and appurtenances required to complete the tie of

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Customer's new yard piping at the new point of connection and the abandonment of the Customer's old yard piping at the old point of connection, as no separate pay item. Where dissimilar materials are tied together, the Contractor shall install a PVC Schedule 80 insulator coupling.

3. Installation: Work involved with replacing existing yard piping shall consist of several key components as listed:

- Excavation of miscellaneous material encountered
- Installation of the new copper yard piping with 12 inches of cover minimum and in the most direct and practicable alignment
- Brass fittings
- Customer's cut-off valve and the Customer's cut-off valve meter box
- Reconnection of the Customer's service at the relocated meter and the new point of connection within the limits of the Customer's property
- Abandoning the Customer's old yard piping by cutting and plugging the old yard piping at the old point of connection within the limits of the Customer's property
- Backfilling the trench with approved selected material and disposal of surplus excavated material
- Replacement of surfaces of all types over the completed yard piping trench with approved selected material and disposal of surplus excavation material
- Restoration of the site. Existing trees and shrubbery within the Customer's property shall not be disturbed.

When the presences of manifold systems are encountered, the Contractor shall install and tie-in Customer yard piping at the existing point of connection. Lawn sprinklers are a possible indication of existing manifold systems. All exposed risers shall be protected from freezing temperatures by means of keeping them no less than 6 inches below ground surface to the tie-in. Trench excavation may be accomplished either manually, mechanical "Ditch Witch" or by similar mechanical trenching equipment. If mechanical trenching equipment is utilized, depressions or damage to lawn areas caused by crawler track pads or pneumatic tires shall be repaired and restored to their original condition.

Lawn turf over the trench shall be removed squarely to a depth of 2 inches and in lengths not to exceed 36 inches. Lawn turf removed and material excavated from the trench area shall not be placed directly upon existing

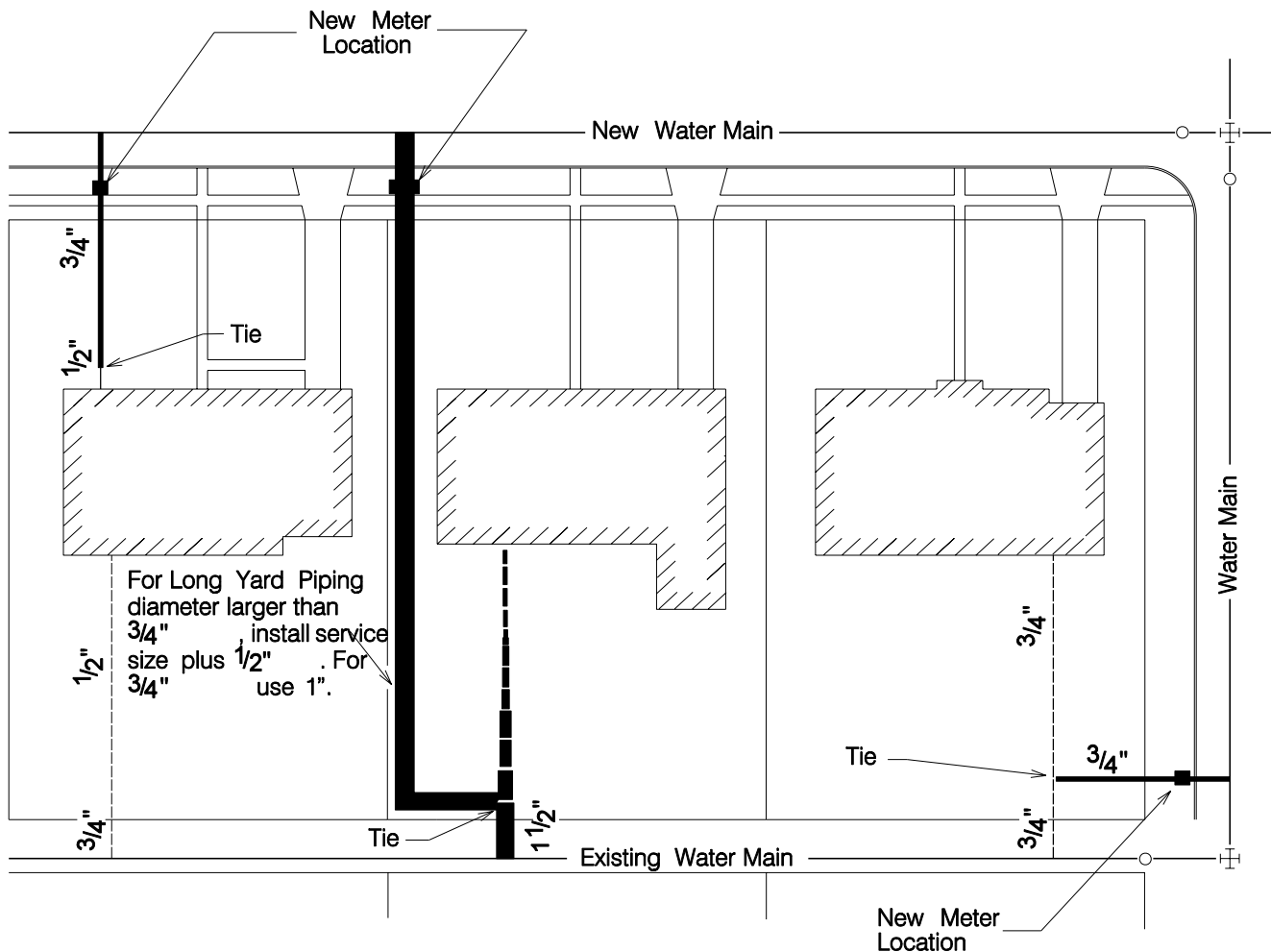
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lawn turf areas, but rather, they shall be separated and placed on building paper, plastic membrane, or approved equal. Placed building paper, plastic membrane, or approved equal shall cover the existing lawn turf adjacent and parallel to the alignment followed by the trench. After the installation of the yard piping, the trench shall be backfilled and adequately tamped in two compacted lifts of 5 inches and watered. The lawn turf shall be replaced, adequately tamped, and thoroughly watered after surplus soil is removed. Customer's yard piping shall be flushed prior to final tie-in at the existing point of connection.

**822.4**      **MEASUREMENT:** "Customer's Yard Piping" will be measured by the linear foot of the various types and sizes of Customer's yard piping installed.

**822.5**      **PAYMENT:** Payment for "Customer's Yard Piping" will be made at the unit price bid per each linear foot of Customer's new yard piping installed. Payment shall be made under item "Short yard piping" or "Long yard piping."

Such payment shall also include excavation, hauling and disposition of surplus material, approved backfill material, removal and replacement of Customer's lawn turf and whatever other surface vegetation and surface structure encountered, copper tubing, and brass fittings of whatever size necessary to complete the tie at the Customer's point of connection.



**Notes:**

1. Customer's yard piping consists of water supply piping and appurtenances between the customer's side of the Cut-Off Valve and the nearest point of the largest existing connection within the customer's property.
2. Yard piping alignment shall be established in the field by Inspector.
3. Existing customer's yard piping to the abandoned main shall be cut and capped inside the customer's property.
4. Yard piping pay item:
  - A. Short Yard Piping: When yard piping is less than 1/2 the depth of the lot.
  - B. Long Yard Piping: When yard piping is more than 1/2 the depth of the lot.
5. Install SCH 80 PVC Coupling at the location where dissimilar pipe material is encountered.

PROPERTY OF <b>SAN ANTONIO WATER SYSTEM</b> SAN ANTONIO, TEXAS	<b>RELOCATE SERVICE          AND RECONNECTION OF          CUSTOMER'S YARD PIPING          (RESIDENTIAL)</b>	APPROVED	REVISED
		March 2008	
		<b>DD-822-01</b>	