

San Antonio Water System Standard Specifications for Construction

ITEM NO. 833

Meter And Meter Box Installation

833.1 DESCRIPTION: This item shall consist of meter and meter box installation and adjustment installed in accordance with these specifications and as directed by the Engineer.

833.2 REFERENCED STANDARDS: Reference standards cited in this Specification Item No. 833 refer to the current reference standard published at the time of the latest revision date logged at the end of this Specification Item No. 833, unless a date is specifically cited.

1. San Antonio Water System (SAWS):
 - a. Specifications for Water and Sanitary Sewer Construction
 - b. SAWS Materials Specifications
2. City of San Antonio (COSA) Standard Specification for Construction
3. Texas Commission of Environmental Quality (TCEQ)
 - a. TCEQ 290 Rules and Regulations for Public Regulations for Public Water Systems
4. American Society for Testing and Materials International
 - a. ASTM A 48 - Standard Specification for Gray Iron Castings.
 - b. ASTM D 256 - Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics.
 - c. ASTM D 638 - Standard Test Method for Tensile Properties of Plastics.
 - d. ASTM D 648 - Standard Test Method for Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position.
 - e. ASTM D 790 - Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
 - f. ASTM D 2240 - Standard Test Method for Rubber Property-Durometer Hardness.

833.3 SUBMITTALS: Contractor shall submit manufacturer's product data, instructions, recommendations, shop drawings, and certifications.

833.4 MATERIALS: The materials for meter and meter box installation and adjustment shall conform to the specifications contained within the latest revision of SAWS' Material Specification Item No. 10-30, "Meter Boxes."

833.5 CONSTRUCTION:

1. Physical movement of existing meters and meter boxes to new locations may be required where service lines are transferred to new mains in conjunction with main replacement work.
2. Unless specified otherwise, the Contractor shall move existing meters, meter boxes, connect and adjust customer's yard piping as part of transferring service lines as per Specification Item 824.
3. A dielectric coupling (PVC schedule 80) shall be installed within the meter box between the meter and the customer's yard piping.

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4. The Contractor shall replace non-compliant meter boxes with the new, appropriately styled oval plastic meter box with oval cover, or rectangular meter box at no additional cost to SAWS.
5. Unless otherwise specified, the old service line shall be abandoned after the existing meter has been reset in the existing or new meter box.
6. Where meter boxes are installed in sidewalks or driveways, the Contractor shall install a number one meter box (2 pieces) as shown in the Material Specifications Item No. 10-30.
7. New meters will be set by the Owner where mains are extended and new services lines are installed for new or initial customer service.
8. In lieu of the new meter, the Contractor shall furnish and install a meter template (See details this specification). Contractor shall make a 1 inch diagonal cut thru the wall of the template.
9. Meter and meter box configuration, shall have the meter set horizontal, approximately 6 inches below the top of meter box, so that the meter is above the bottom of the meter box and in-line with the meter box lid opening.
10. The top of the meter box shall be flush with the existing ground surface.
11. All excess soil above the meter coupling, meter flange and meter nuts inside the meter box shall be removed so that the meter register is clearly visible.
12. The Contractor shall exercise special precautions during excavation at the existing meter location in order to minimize the disturbance of the customer's yard piping.
13. If the existing meter elevation is low, the Contractor shall raise the existing meter to conform to the correct configuration indicated herein.
14. Adjustment of meter to proper grade is incidental to the construction and will not be paid for separately.
15. Where required, pressure reducing valves shall be installed by the customer in accordance with the Uniform Plumbing Code and shall be placed beyond the outlet side of the meter, but not within the Owner's meter box.
16. The pressure reducing valve shall be the property of the water user who will be responsible for its installation, maintenance, and replacement, as required.
17. The meter box adjustment shall not exceed 10 linear feet from the existing box.

833.5 MEASUREMENT: Relocation of meters and boxes will be measured by the unit of the various types and sizes of meters and boxes relocated.

833.6 PAYMENT: Payment for "Existing Meter and Existing Meter Box Relocation ($\frac{5}{8}$ inch through 2 inch meter)" will be made at the unit price bid for each existing meter and existing meter box relocated.

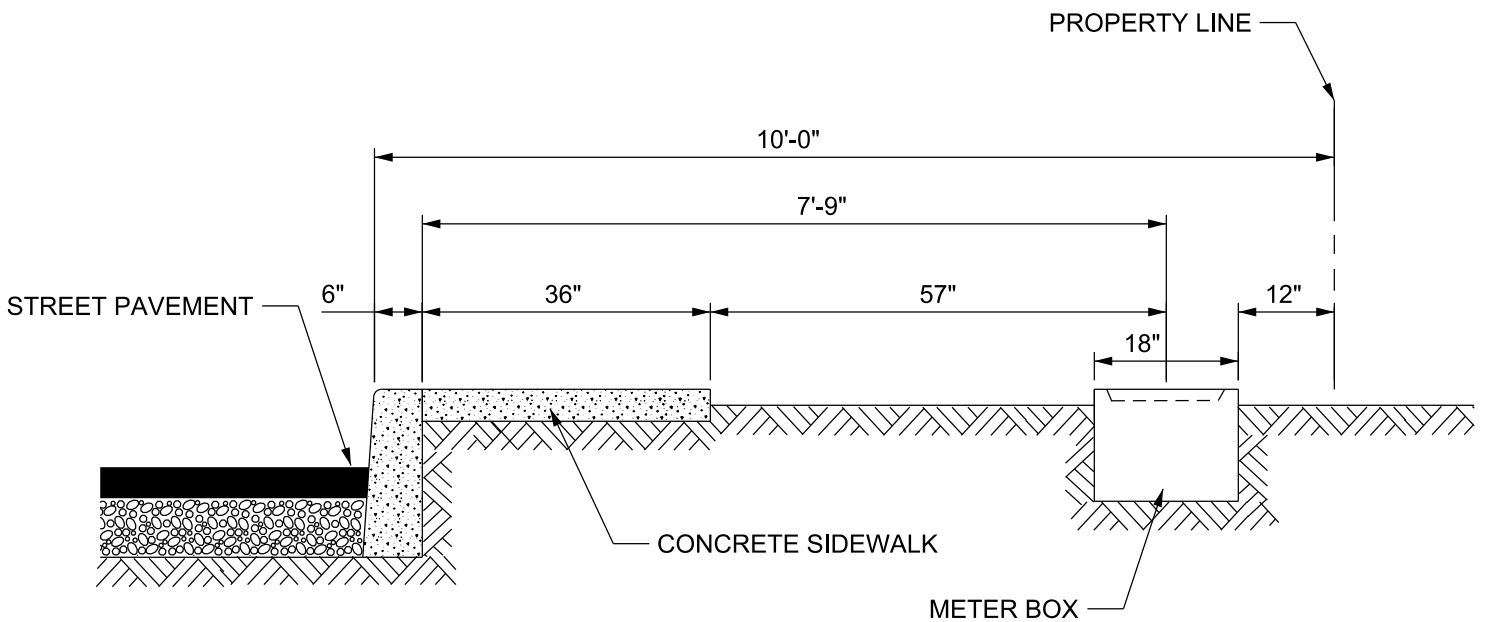
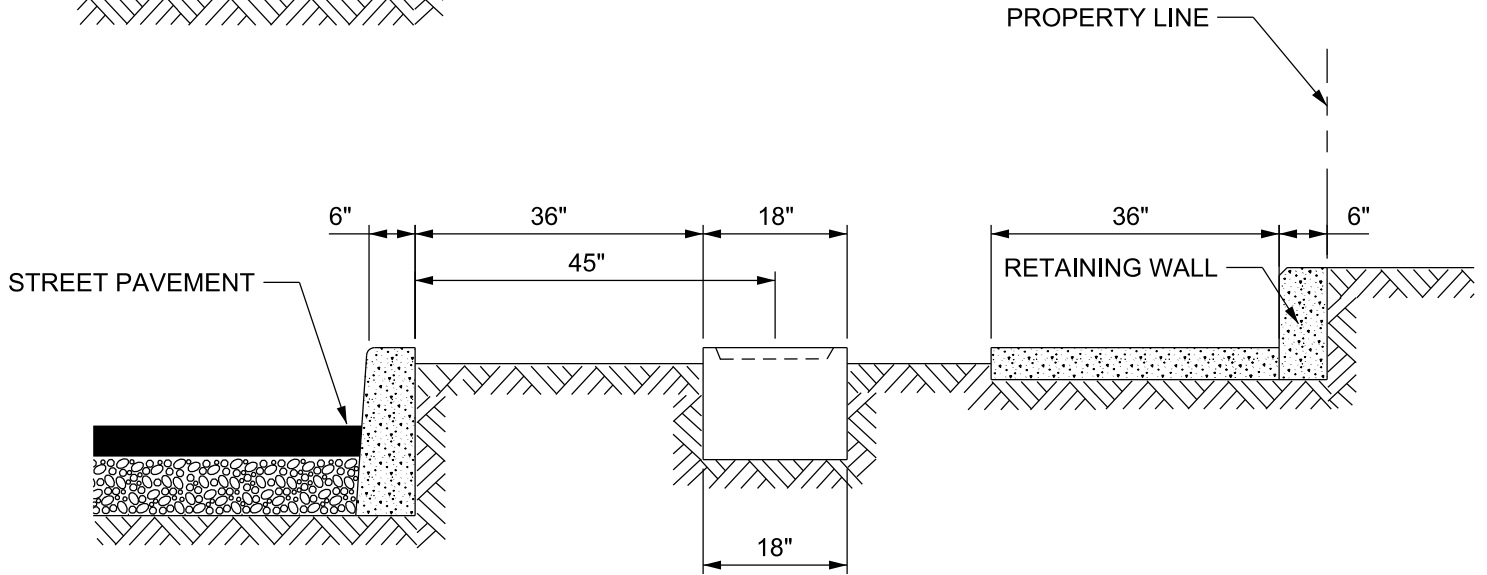
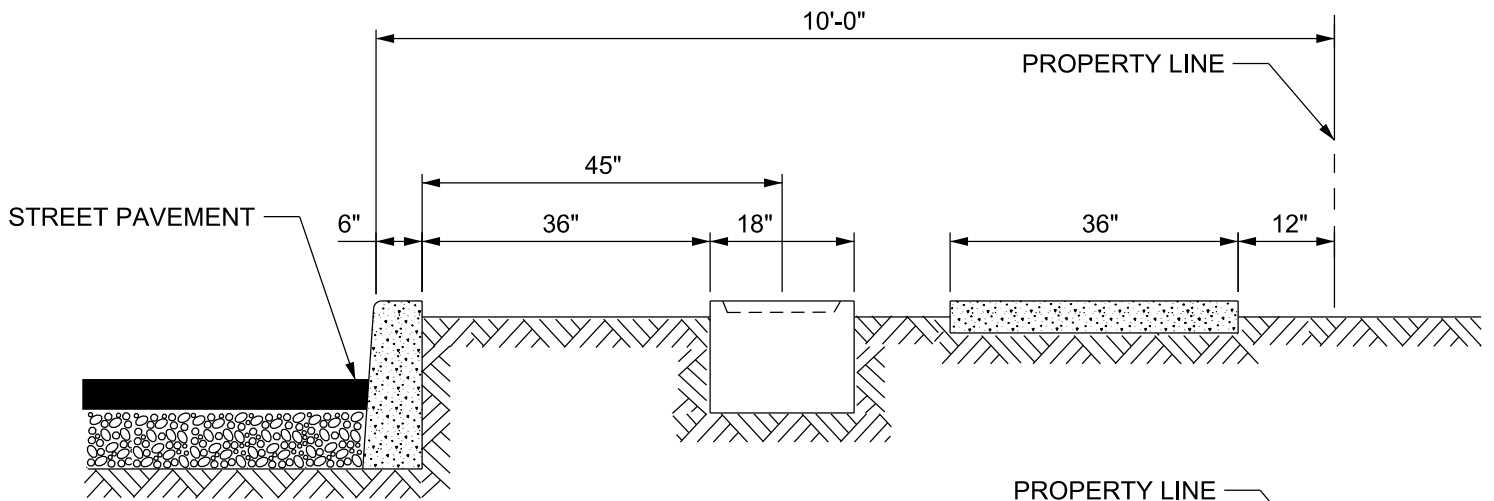
- a. Payment shall also include; excavation, hauling and disposition of surplus materials, sand backfill, removal and replacement of yard piping of correct type and size up to 2 feet to complete the connection and adjustment between the relocated existing meter and existing meter box, and the existing yard piping.
- b. Payment for "Existing Meter and New Meter Box Relocation ($\frac{5}{8}$ inch through 2 inch meter)" will be made at the unit price bid for each existing meter relocated to a new meter box. Such payment shall also include excavation, hauling and

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disposition of surplus materials, sand backfill, removal and replacement of whatever type surface structure encountered, salvaging the existing meter box, reconnection and adjustment of yard piping of correct type and size up to 2 feet to complete the connection between the relocated existing meter and new meter box, and the existing yard piping.

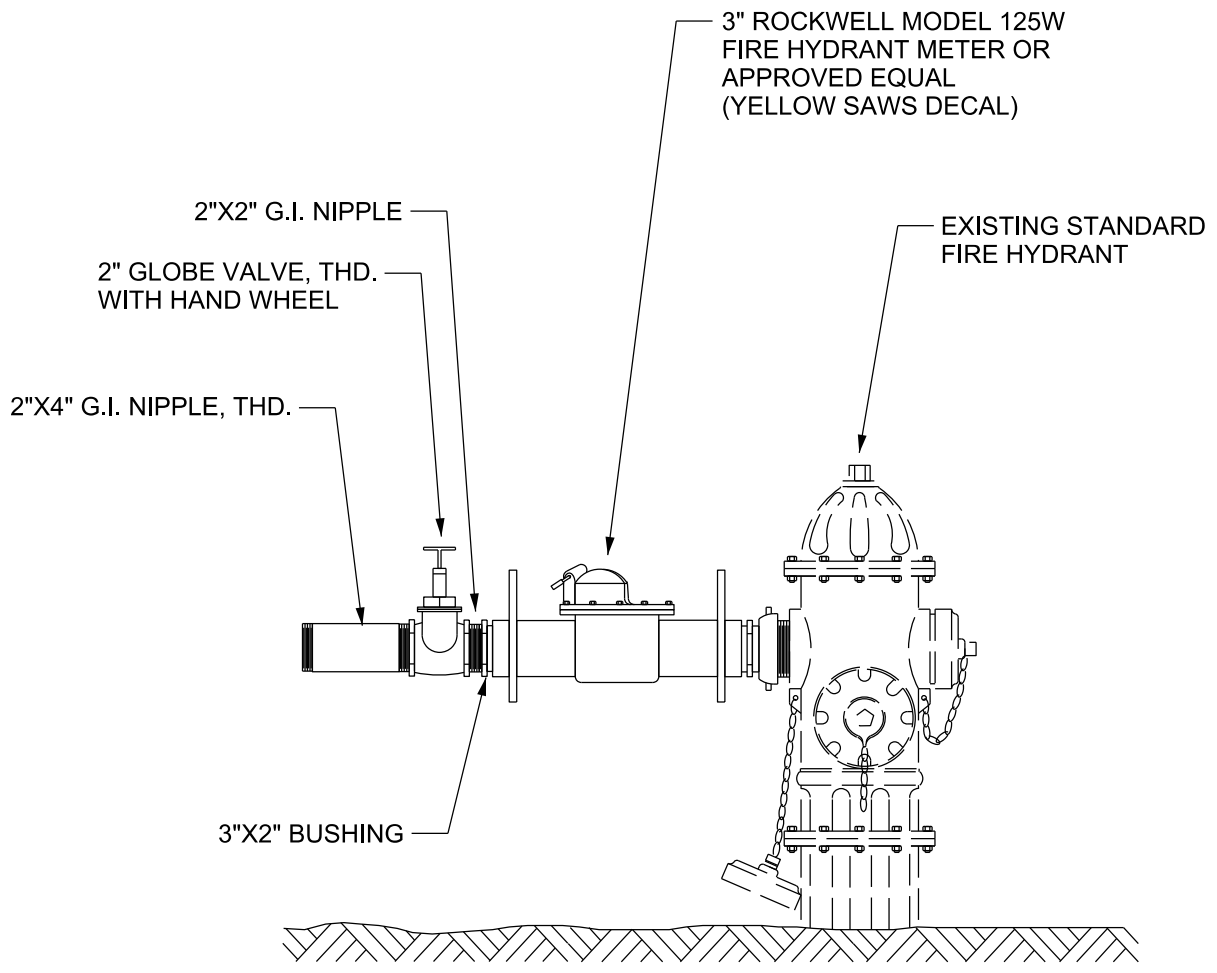
- c. Payment for number one or number two meter box installation in sidewalks and driveways shall be paid in the amount of difference between the standard meter box and the number one number two box.

End of Specification



NOTE: METER BOX LOCATION IN COMMERCIAL AND INDUSTRIAL AREAS WILL BE AS DIRECTED BY THE INSPECTOR.

PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	TYPICAL METER BOX LOCATION	APPROVED	REVISED
		MARCH 2008	MAY 2013
DD-833-01			SHEET 1 OF 1



PROPERTY OF
SAN ANTONIO WATER SYSTEM
SAN ANTONIO, TEXAS

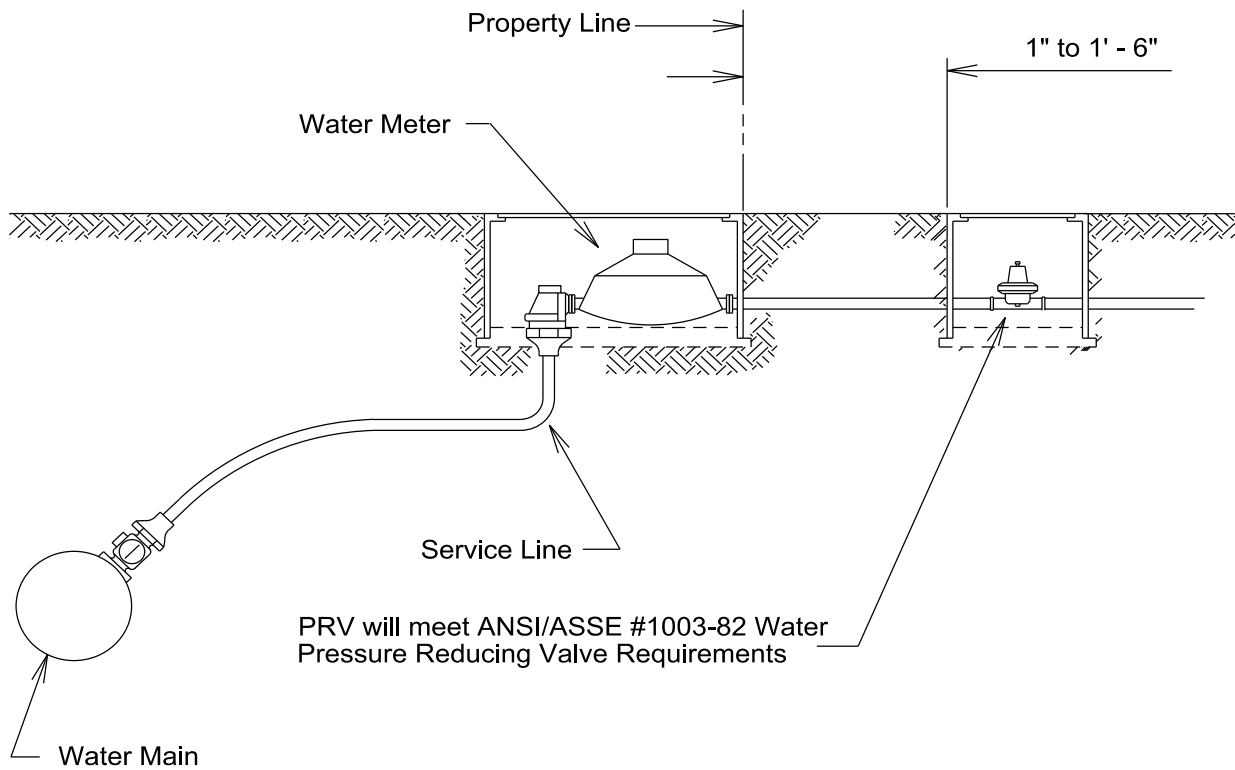
TEMPORARY 3"
FIRE HYDRANT
METER

APPROVED
MARCH 2008

REVISED
APRIL 2014

DD-833-02

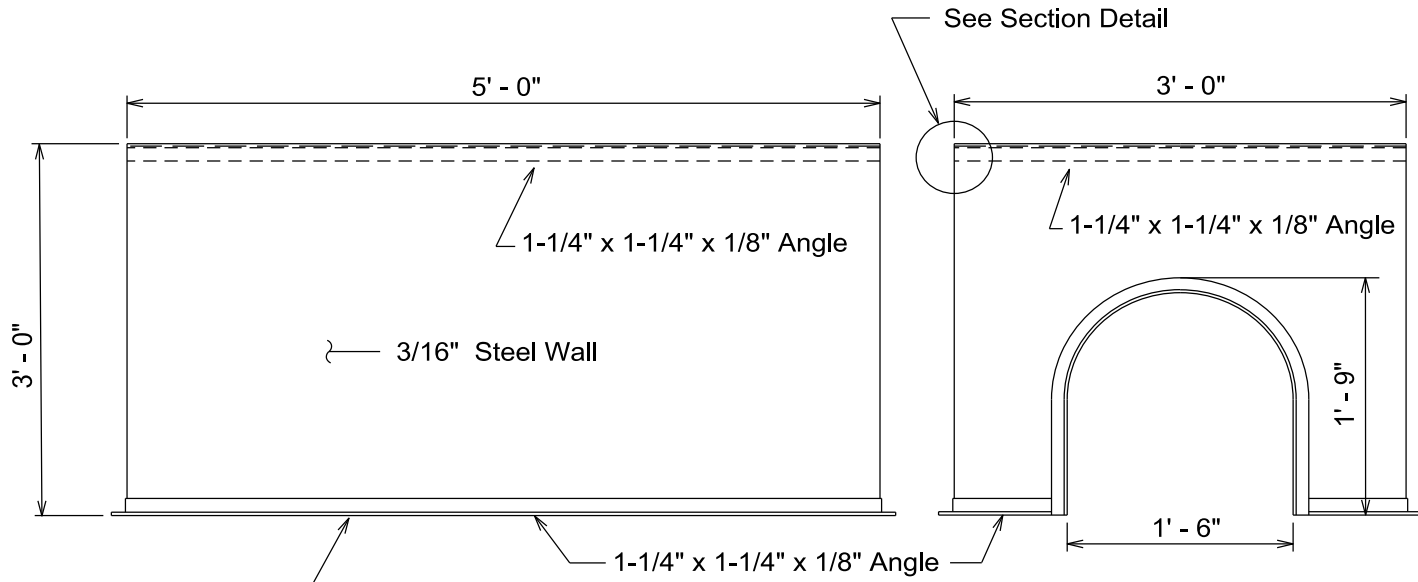
SHEET
1 OF 1



3/4" THRU 2" SERVICE
PRESSURE REDUCING VALVE

Note:
For Tapping Schedule, See DD-824-01 Sheet 3 of 3.

PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	SERVICE INSTALLATION WITH PRESSURE REDUCING VALVE	APPROVED	REVISED
		MARCH 2008	MAY 2013
		DD-833-03	

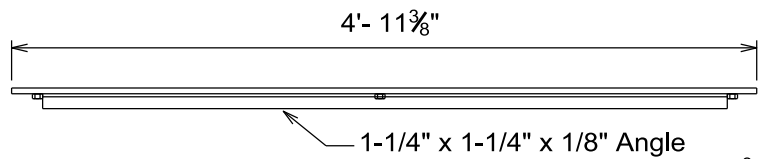


3' x 5' x 3' Steel Vault
Non-Traffic Bearing
(O & R Utilities, Inc.)
or approved equal

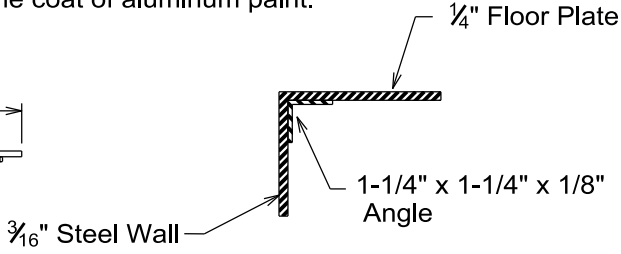
FRONT VIEW
Without Cover

SIDE VIEW
Without Cover

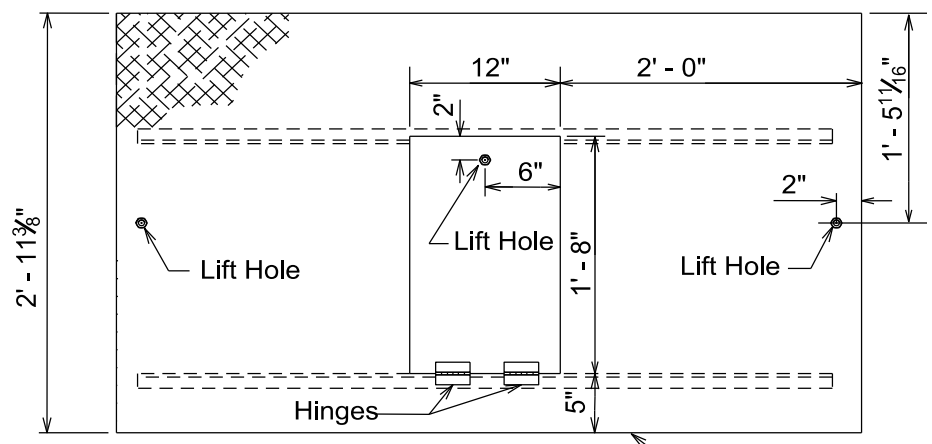
Note:
Paint inside of vault with one coat of rust-inhibitive
primer and outside with one coat of rust-inhibitive
primer plus one coat of aluminum paint.



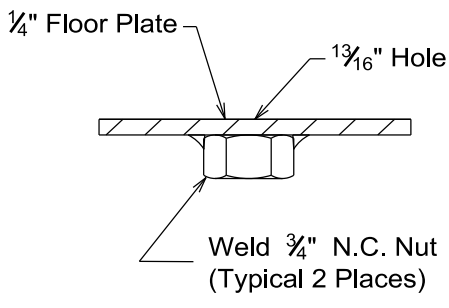
COVER
REFER TO SAWS MATERIAL SPECIFICATIONS
FOR ACCEPTABLE PRODUCTS



SECTION DETAIL



STEEL COVER



LIFT HOLE

**3' x 5' x 3' RECTANGULAR STEEL VAULT
(NON-TRAFFIC BEARING LOCATION)**

PROPERTY OF
SAN ANTONIO WATER SYSTEM
SAN ANTONIO, TEXAS

**VAULT FOR 3", 4", 6" & 8"
TURBINE METER AND 6" & 8"
DETECTOR CHECK
INSTALLATION**

APPROVED
MARCH 2008

REVISED
MAY 2013

DD-833-04

SHEET
1 OF 1