

San Antonio Water System Standard Specifications for Construction

ITEM NO. 846

Air Release Assemblies

846.1 DESCRIPTION: This item shall consist of air release assemblies installed in accordance with these specifications and as directed by the Engineer.

846.2 REFERENCED STANDARDS: Reference standards cited in this Specification Item No. 846 refer to the current reference standard published at the time of the latest revision date.

1. San Antonio Water System (SAWS):
 - a. Specifications for Water and Sanitary Sewer Construction
 - b. SAWS Materials Specifications
2. City Of San Antonio (COSA):
 - a. Standard Specifications for Construction
3. American Society for Testing and Materials International (ASTM)
 - a. ASTM A 48 - Standard Specification for Gray Iron Castings.
 - b. ASTM A 126 - Standard Specification for Gray Iron Castings for Valves, Flanges, and Pipe Fittings.
 - c. ASTM A 240 - Standard Specification for Heat-Resisting Chromium and Chromium-Nickel Stainless Steel Plate, Sheet and Strip for Pressure Vessels.
 - d. ASTM A 276 - Standard Specification for Stainless Steel Bars and Shapes.
 - e. ASTM A 313 - Standard Specification for Stainless Steel Spring Wire.
 - f. ASTM B 584 - Standard Specification for Copper Alloy Sand Castings for General Applications.

846.3 SUBMITTALS: Contractor shall submit manufacturer's product data, instructions, recommendations, shop drawings, and certifications. All submittals shall be in accordance with Engineer's requirements and submittals shall be approved prior to delivery.

846.4 MATERIALS: The materials for air release assemblies installation and adjustment shall conform to the specifications contained within the latest revision of SAWS' Material Specification 29-01, "Air Release, Vacuum and Combination Air Valves."

846.5 CONSTRUCTION: Air release assemblies shall be installed at the location shown in the contract documents or as directed by the Engineer.

1. Air release assemblies in an open trench water main installation shall be installed in accordance with DD 846 Drawing Series and shall include the valve, valve boxes, pipe, fittings, accessories and appurtenances.
2. It shall include the service line and tap to the main line.
3. Air release assemblies installed in parkways or easements and adjacent to street pavements shall be installed in accordance with DD 846 Drawing Series regardless of size.

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4. Air release, vacuum, and combination air valves shall incorporate an air collection trap in the form of an enlarged pipeline riser installed on the main pipe leading to the air valve connection as depicted in Standard Drawing DD-846 Series.
5. Air release assemblies installed on steel pipe attached to a bridge structure shall include the outlet on the steel pipe, valve, valve box, pipe, fittings, security enclosure, accessories, and appurtenances.

846.6 MEASUREMENT: Air release and combination air release valve assemblies will be measured by the unit of each such assembly of the various sizes of air release assemblies installed.

846.7 PAYMENT: Payment for air release valve and combination air release valve assemblies will be made at the unit price bid for each such assembly of the various sizes installed in accordance with the details shown in the DD 846 Drawing Series.

1. Payment shall also include: excavation, selected embedment material, backfill, compaction, compaction testing, anti-corrosion embedment when specified, freeze protection for mains on bridges, blocking, and various types and sizes of meter boxes, fittings, valve marker, valve, valve boxes, pipe, accessories and appurtenances, service line and tap to the main line, security enclosure adapters, couplings, anchors, hauling and disposition of surplus excavated material, including all existing pipe, fittings, appurtenances to be abandoned or removed, surface and pavement restoration, installation of all-weather surface, and other required testing.
2. Materials paid on site will be in accordance with Table 1 of Specification Item No. 100 Mobilization.

-End of Specification-

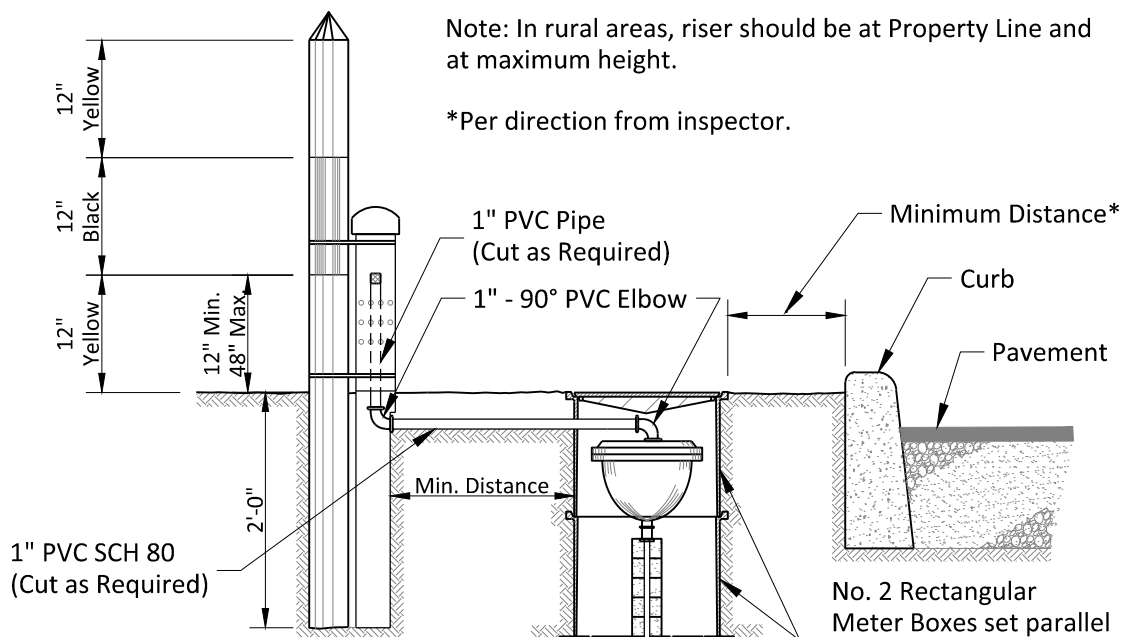
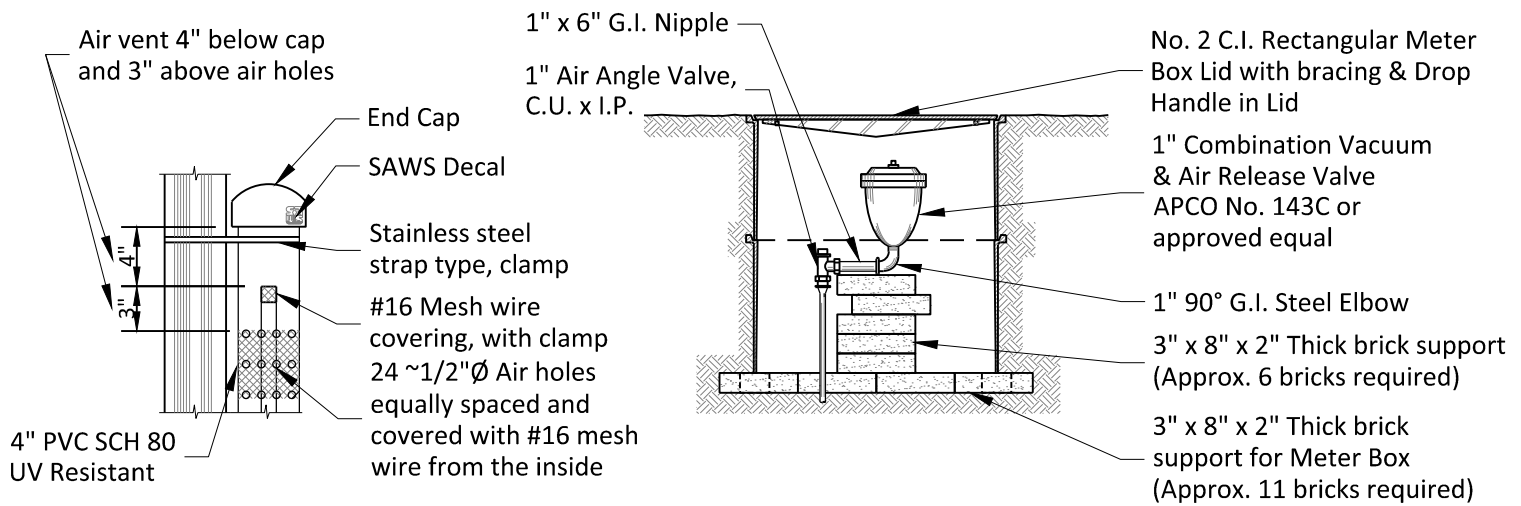
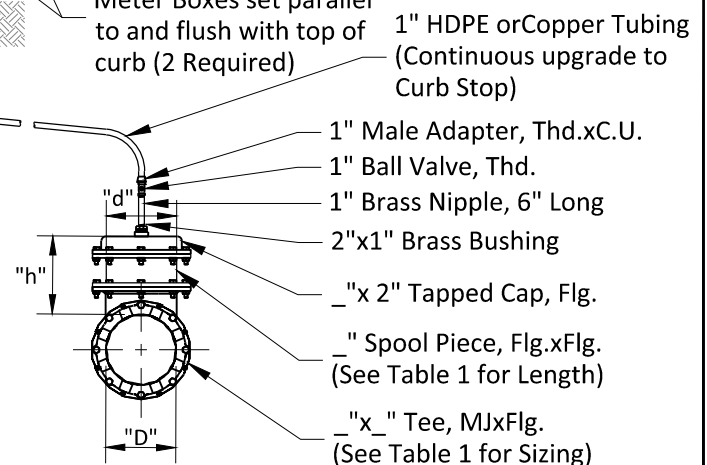


TABLE 1 - Enlarged Pipe Riser for Potable, Reclaimed, and Wastewater mains 6" and Larger

D, Nominal Diameter of Main, In.	Minimum d, in.	Minimum h, in.	Comments
6	6.0	6.0	6 MJ x 6 MJ x 6 FLG DI Tee
8	8.0	8.0	12 MJ x 12 MJ x 12 FLG DI Tee
12	12.0	12.0	16 MJ x 16 MJ x 12 FLG DI Tee
16	12.0	9.6	24 MJ x 24 MJ x 18 FLG DI Tee
24	18.0	14.4	30 MJ x 30 MJ x 18 FLG DI Tee
30	18.0	18.0	36 MJ x 36 MJ x 24 FLG DI Tee
36	24.0	21.6	42 MJ x 42 MJ x 24 FLG DI Tee
42	24.0	25.2	48 MJ x 48 MJ x 24 FLG DI Tee
48	24.0	28.8	Welded-on FLG Outlet
54	30.0	32.4	Welded-on FLG Outlet
60	36.0	36.0	Welded-on FLG Outlet
66	24.0	23.1	Welded-on FLG Outlet
72	24.0	25.2	Welded-on FLG Outlet



Air Collection Traps in Air Valve Piping Notes:

1. Dimensions derived from AWWA Manual 2nd Edition: Chapter 6 M51 Air Valves:

Air-Release, Air/Vacuum & Combination

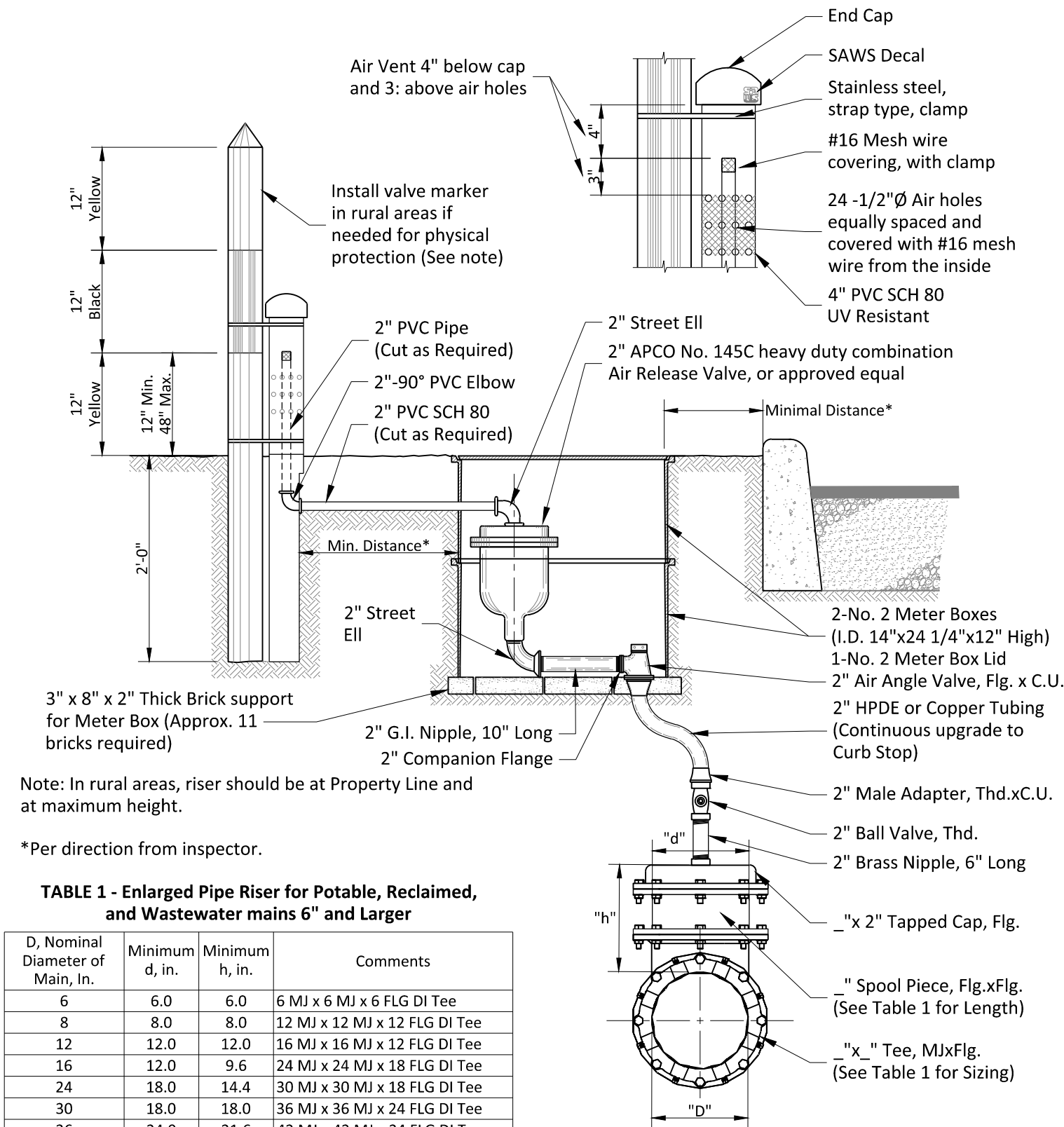


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