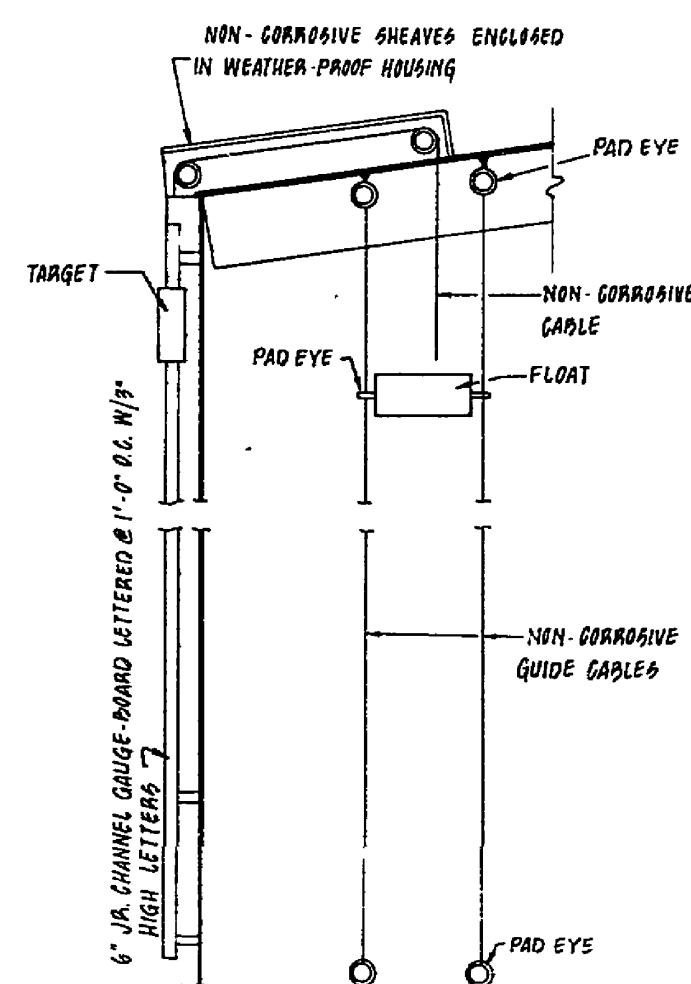
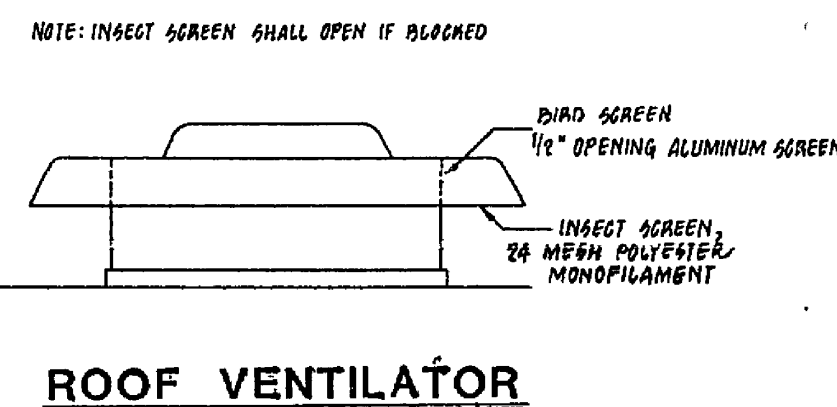


ROOF MANWAY



- CONSTRUCTION:**
- The materials, design, fabrication, and erection of welded steel tanks shall conform to AWWA Standard D100, latest edition.
 - The design shall include a 5% fixed-percentage method for the calculation of horizontal loads for earthquake loads.
 - All excavations under the tank for piping shall be backfilled with clean material in 6-inch layers and compacted to 95% density, Standard Proctor.
 - All concrete work shall comply with requirements of ACI 301.
 - A corrosion allowance of 1/16 inch shall be made for parts in contact with water.
 - The Contractor shall submit a written report certifying the work was inspected as set forth in AWWA D100, Section 11.2.1. Mill and shop inspection by a commercial inspection agency shall be required.
 - Details of all welded joints referenced on the design drawings shall be submitted in accordance with AWWA D100, Section 1.4.
 - Mill scale shall be completely removed by blast cleaning or pickling (SSPC-SP10 or SSPC-SP8).
 - Butt joint welds subject to secondary stress where thickness is greater than 3/8 inch shall have complete joint penetration welds.
 - Radiographic tests shall be required and the film shall become property of Roanoke County.
 - Protective Coatings:
 - Surface preparation for both inside and outside shall be in accordance with SSPC-SP10 (Steel Structures Painting Council - Surface Preparation 10).
 - First anniversary inspection in compliance with AWWA D102 will be required.
 - Outside Paint System: Aliphatic Polyurethane 5.5 to 8.0 total dry mils. The outside paint shall be either Thermco 7071-3, Pennsbury Coatings, Water Tank System No. 10 or equal as approved by the Utility Director.
 - Inside Paint System: Two Coat Epoxy Polyamide, 7.0 to 11.0 total dry mils. The inside paint shall be either Thermco 20-1 (Polo-Pod), Pennsbury Coatings, 2 coat high build Epoxy System or equal as approved by the Director.
 - Paint Color shall be selected by the Utility Director from the manufacturers available colors.

CONSTRUCTION

- The materials, design, fabrication and erection of the bolt together tank shall conform to AWWA standard for "Factory Coated Bolted Steel Tanks for Water Storage," ANSI/AWWA D103, latest edition.
- The design shall include a 5% fixed-percentage method for the calculation of horizontal loads for earthquake loads.
- All excavations under the tank for piping shall be backfilled with clean material in 6-inch layers and compacted to 95% density, standard proctor.
- The tank shall be coated on the interior and exterior with glass fused to steel. The exterior color shall be cobalt blue.
- A full 5-year manufacturers warranty on factory coating is required.

DISINFECTION

- The storage tank shall be cleaned and flushed with potable water from a supply approved by the Department of Health prior to disinfection.
- Disinfection shall not take place until tank sealant is fully cured (10 to 12 days at 73° F/50% RH).
- The water storage tank shall be disinfected in accordance with Chlorination Method 2 of AWWA Standard for the "Disinfection of Water Storage Facilities," ANSI/AWWA C652, latest edition.
- A solution of 200 mg/l available chlorine shall be applied to all interior surfaces using spray equipment. The equipment shall be new or previously used with potable water only. The solution shall be applied to inlet, outlet and drain piping such that it will have available chlorine of not less than 10 mg/l when filled with water.
- Allow a minimum of 30 minutes contact time for the solution after which the solution shall be drained from the tank. The disinfected tank shall be filled with potable water and sampled. At least two bacteriological samples with no coliform contamination shall be collected at least 24 hours apart, prior to placing the tank in service.

