

302 VALVE CASINGS

302.01 DESCRIPTION

[Refer to DC WASA Section 2605]

Work consists of excavation, backfill and compaction beyond trench excavation limits, disposal of excess material, furnishing and placing valve casings complete with concrete base, piers as needed, precast concrete rings and casing frames and covers at locations indicated in the contract documents and/or as directed.

Reference Codes and Specifications:

- (1) AASHTO M 105: "Standard Specification for Gray Iron Castings".
- (2) AASHTO M91: "Standard Specification for Sewer and Manhole Brick (made from Clay or Shale)".
- (3) ASTM C361: "Standard Specification for Reinforced Concrete Low-Head Pressure Pipe".
- (4) AASHTO M199: "Standard Specification for Precast Reinforced Concrete Manhole Sections".

302.02 SUBMITTALS

Shop drawings per [105.02](#) shall be submitted for precast concrete items, cast-iron frames and covers.

302.03 MATERIALS

Reinforcing Steel, Grade 60 – [812.02](#)

PCC Base – Cast-in-place per [817, Class B](#), or precast per [822.04](#)

PCC Piers – Precast per [822.04](#)

Precast PCC Risers – [822.04](#)

Casing Brick – [806.01\(A\)](#)

Casing Frames and Covers – [815.04](#)

Mortar – [806.05\(B\)\(4\)](#)

302.04 CONSTRUCTION REQUIREMENTS

Casings shall be furnished and constructed over gate valves, suction and dead-end air/drain blow-offs, two-inch air valves, 6-inch drain blow-offs and 6-inch air blow-offs as per Standard Drawings W-20.01, W-50.10, W-50.11, W50.12 and W50.13. Excavation and backfill shall be included as part of work, and shall be per [207](#).

Casings shall be constructed of precast PCC rings. Casings, frames and covers shall be as detailed in the contract documents. The bottom flange of frame shall have two 3/4-inch diameter holes drilled or cast therein, directly opposite each other. Corresponding holes shall be drilled, a minimum of two (2) inches deep, into the precast concrete ring or brick masonry

upon which the frame sits. Steel dowels shall be inserted through and into these holes to prevent lateral movement of frame and cover during backfill operations. Dowels shall be #5 rebar, three (3) inches minimum length. Brick masonry, not exceeding four (4) inches vertical depth, may be used to adjust frame and cover to finished grade.

302.05 MEASURE AND PAYMENT

The unit of measure will be each.

Payment for Valve Casing will be made at the Contract unit price per each, which payment will include excavation and backfill beyond trench excavation pay limits, concrete base and piers, risers, frames and covers, and all labor, materials, tools, equipment and incidentals needed to complete work specified.