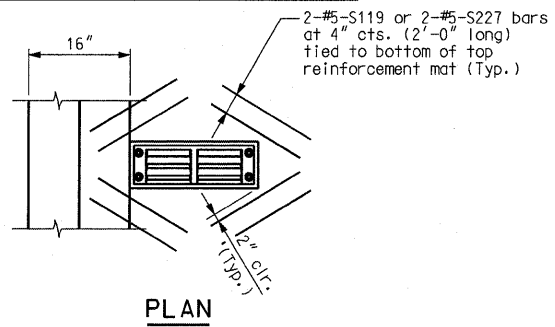
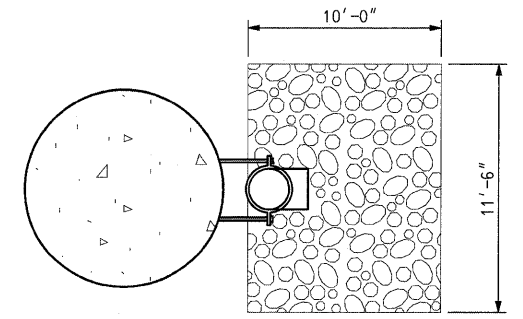


SCUPPER TYPICAL SECTION

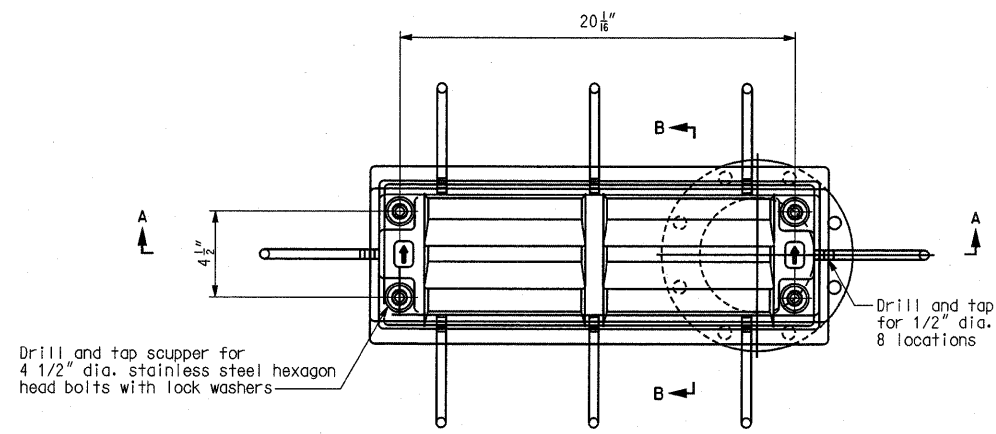


PLAN

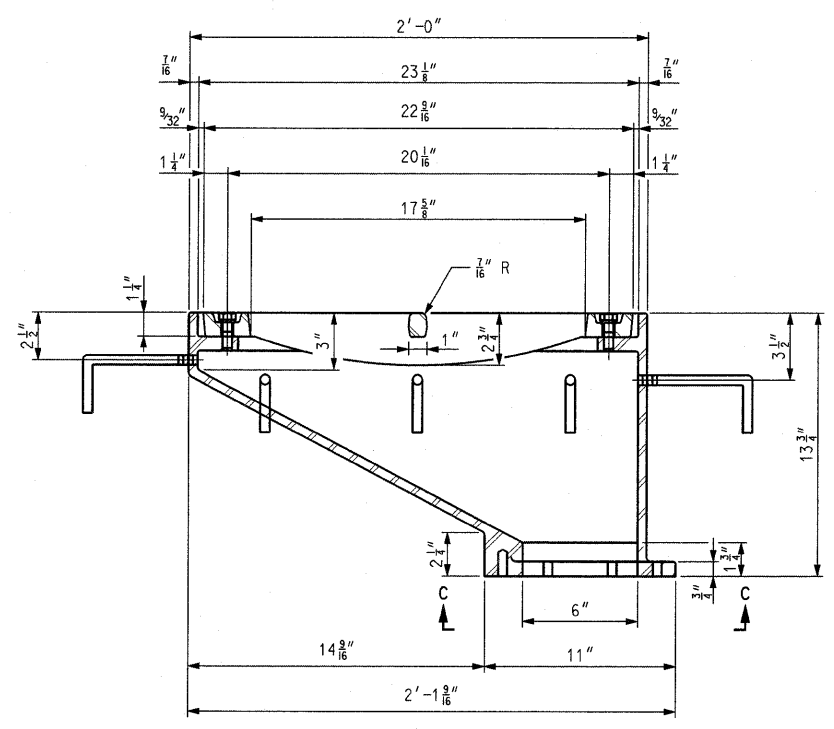
Note: Shift transverse reinforcement and cut longitudinal reinforcement to clear drainage scuppers. Coat exposed ends with epoxy paint. Cost shall be incidental to drainage system.



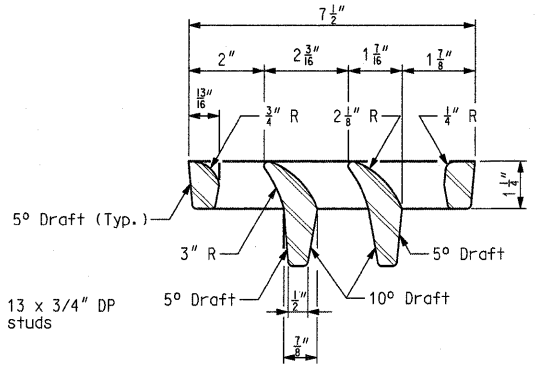
STONE RIPRAP CHECK BASIN DETAIL



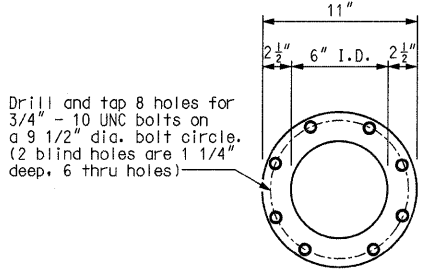
PLAN



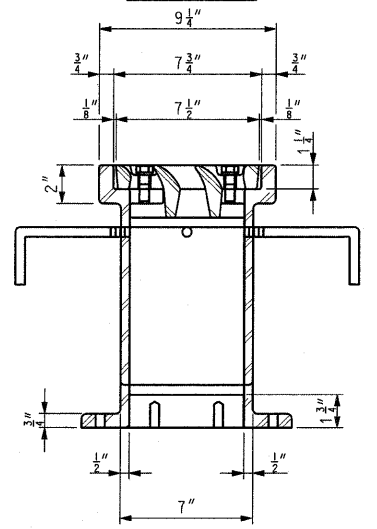
SECTION A-A



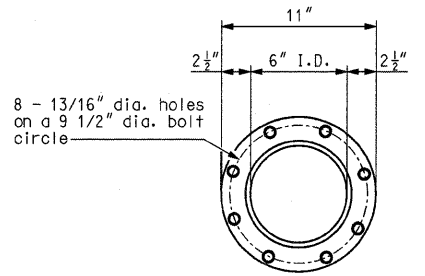
VANE GRATE DETAIL



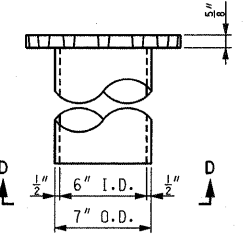
VIEW C-C



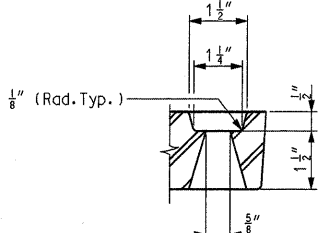
SECTION B-B



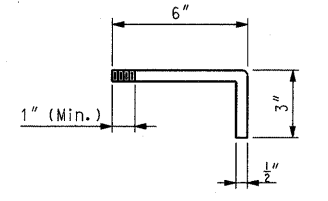
VIEW D-D



DOWNSPOUT



GRATE BOLT HOLE DETAIL



ANCHOR STUD DETAIL

SCUPPER AND GRATE TYPE DS-12

Notes:
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to Sec 1080.
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel in accordance with Sec 1080.
 All castings shall conform to the requirements of AASHTO M 306.
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.
 Payment for scupper, grate, downspout, and all hardware shall be considered completely covered by the contract price for Drainage System (On Structure).
 Payment for stone riprap check basin shall be made under pay item Stone Riprap, Class A6 (Special), per square yard (Roadway Item).