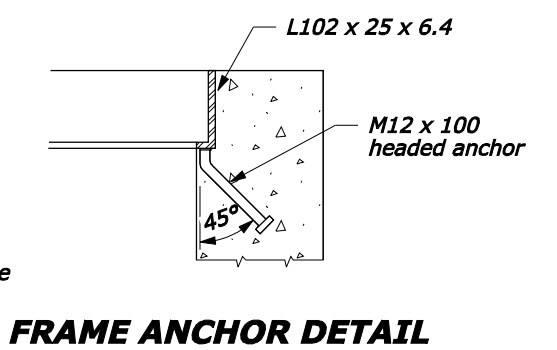
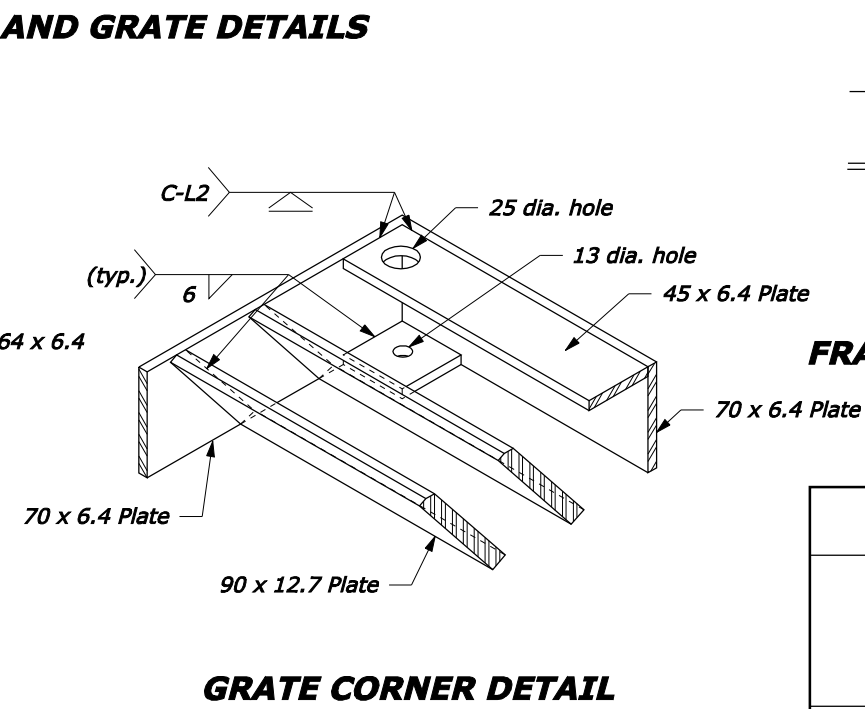
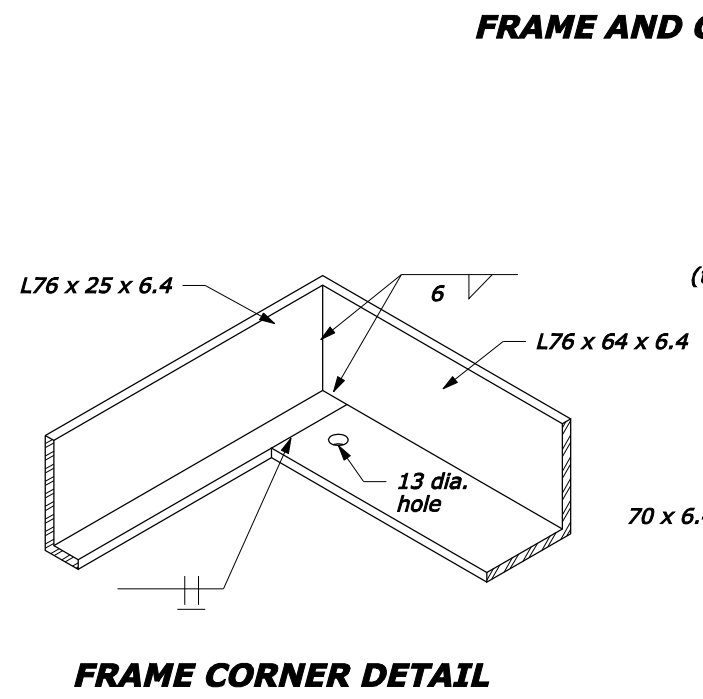
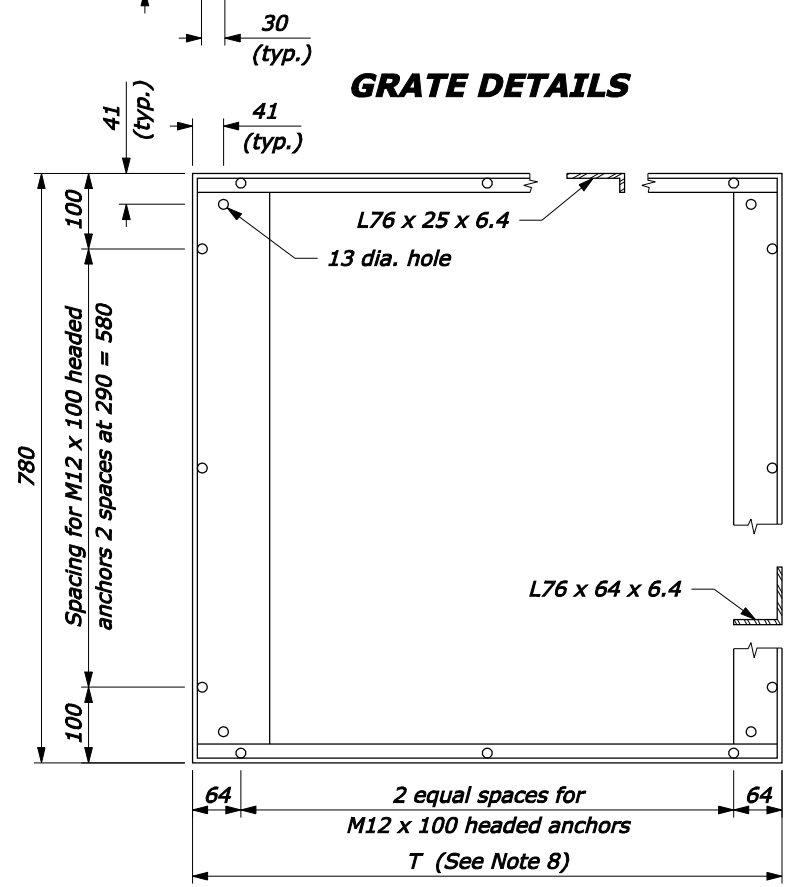
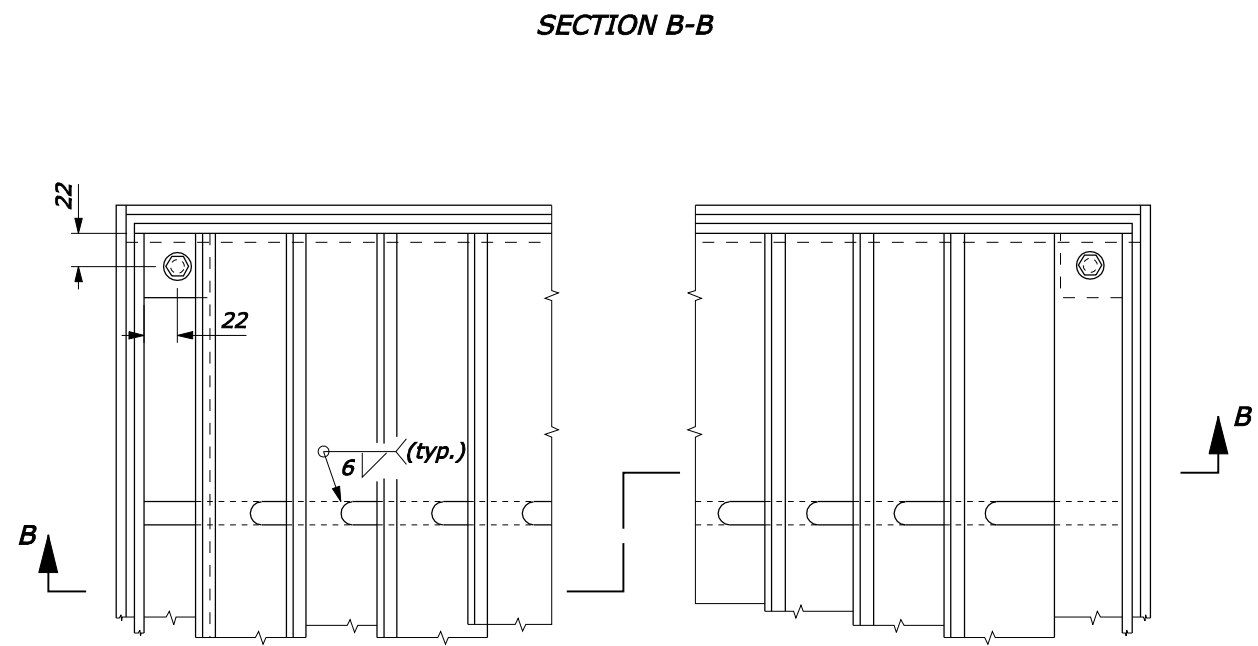
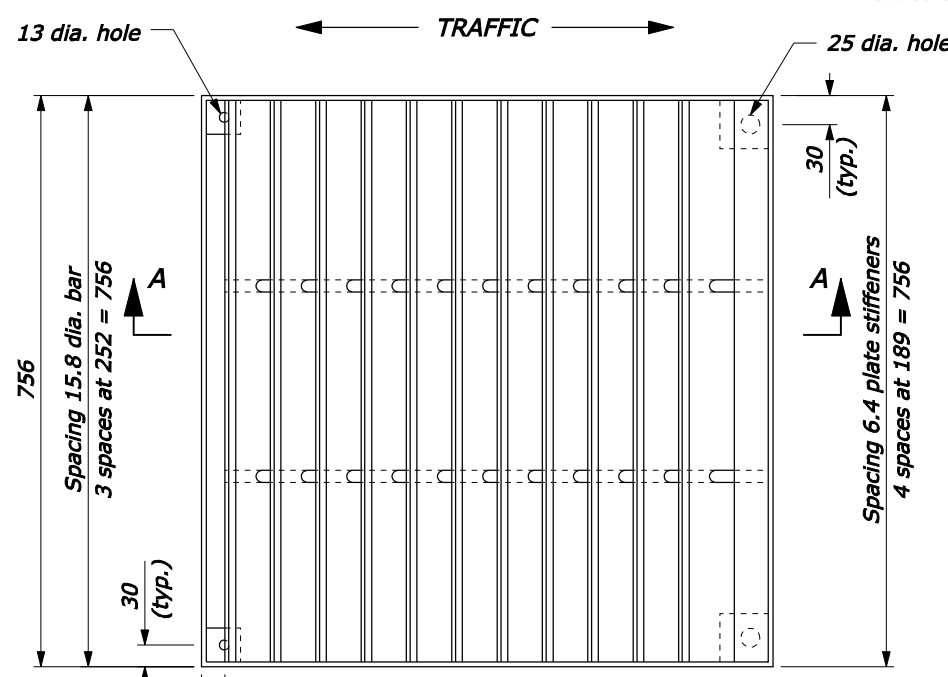


- NOTE:**
1. **STRUCTURAL STEEL:** AASHTO M 183 (ASTM A 36M).
 2. **BOLTS & WASHERS:** ASTM A 307, Galvanized.
 3. **THREADED CONCRETE ANCHORS:** Ferrule loop inserts for M10 bolt or approved equal.
 4. **HEADED CONCRETE ANCHORS:** Weld to frame with a full penetration butt weld.
 5. **WELDING:** Weld in conformance with the Standard Specifications. Unless otherwise indicated seal weld all joints with a minimum size fillet weld, based on material thickness. Grind smooth all contact surfaces. **FINISH:** Galvanized after fabrication.
 6. **Estimated weight, frame and grate (756 x 756 mm) 108 kg. Increase or decrease weight by 8.6 kg for each 60 mm increment.**
 7. **Number of plates varies according to pipe diameter. See Standard M604-1.**
 8. **See Standard M604-1 for dimensions of T.**
 9. **Furnish hardware in the metric sizes shown. Equivalent US Customary sizes may be used when metric sizes are unavailable.**
 10. **Dimensions without units are millimeters.**



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL LANDS HIGHWAY
METRIC STANDARD

**METAL FRAME AND GRATE
TYPE B**

STANDARD APPROVED FOR USE 3/1996
REVISED: 8/1997 6/2005

STANDARD
M604-3

01-Nov-2007 11:03 AM
fp://196.145.188.2/scl_plan/s60403.dgn [Metric]