



⊙  $\varnothing$   $\frac{3}{4}$ " H.S. THREADED BOLTS ASTM A449.

**NOTES**

FOR ADDITIONAL INFORMATION ON GUARD RAIL, SEE STD. PLAN GR-200 & GR-202.

ALL WORK AND MATERIALS REQ'D. TO INSTALL GUARD RAIL ON BOX CULVERTS SHALL BE PAID FOR UNDER ITEM 704-01-01000 GUARD RAIL (SINGLE THRIE BEAM) (3'-1 1/2" POST SPACING).

GUARD RAIL SPLICES SHALL BE MADE AT POST LOCATIONS ONLY.

DRILL 1"  $\varnothing$  HOLES, 6" DEEP AT THE TOP AND BOTTOM (MIN.) FOR  $\frac{3}{4}$ "  $\varnothing$  GALVANIZED BOLT USE  $\frac{3}{4}$ " GALVANIZED NUT WITH GALVANIZED CUT WASHER.

ALL HOLES DRILLED INTO AN EXISTING CONCRETE STRUCTURE SHALL BE CLEANED WITH COMPRESSED AIR AND MADE FREE OF ANY OIL OR RESIDUE.

⊙ HOLES SHALL BE FILLED WITH EPOXY INJECTION SYSTEM AS LISTED ON QPL 40. PLACE BOLT IN HOLES IMMEDIATELY AND WAIT FOR MANUFACTURERS CURE TIME.

ALL STRUCTURAL STEEL SHALL BE ASTM A-36 AND GALVANIZED. ALL  $\frac{5}{8}$ "  $\varnothing$  BOLTS SHALL BE ASTM A307.



*Paul B. Fossier, Jr.*  
4-9-09

SHEET NUMBER		PARISH		FEDERAL PROJECT		STATE PROJECT	
DESIGNED	CHECKED	DATE	BY	DESIGNED	CHECKED	DATE	BY
				J. BENTON	P. FOSSIER	12-2008	
REVISION DESCRIPTION							
NO.							
DATE							
SIDE MOUNT GUARD RAIL (FOR BOX CULVERTS)							
BRIDGE AND STRUCTURAL DESIGN							