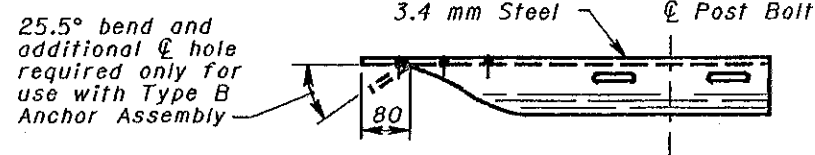
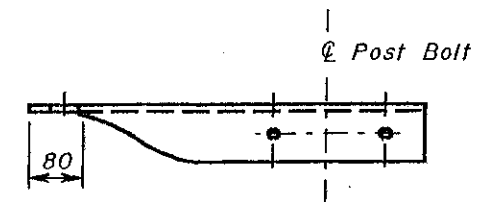


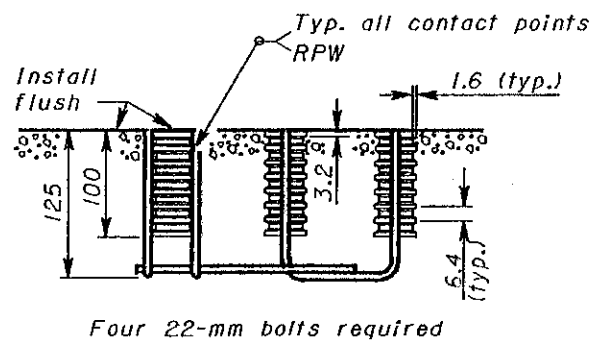
PLAN



PLAN

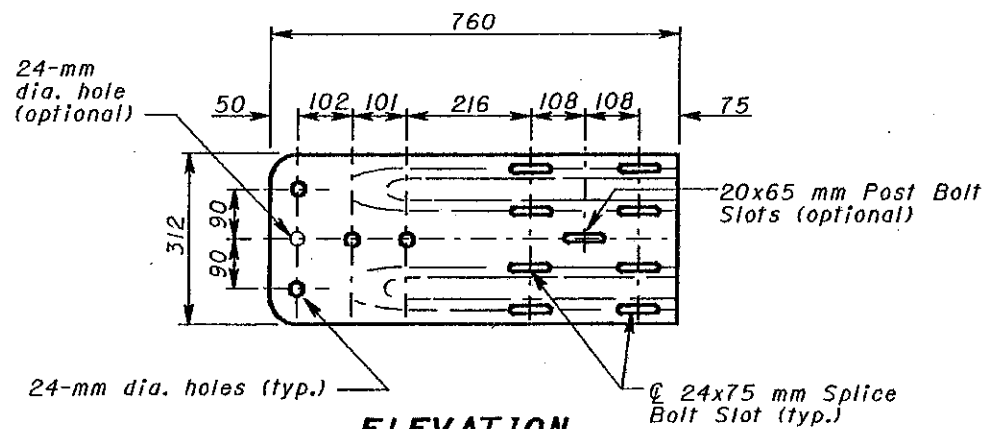


PLAN



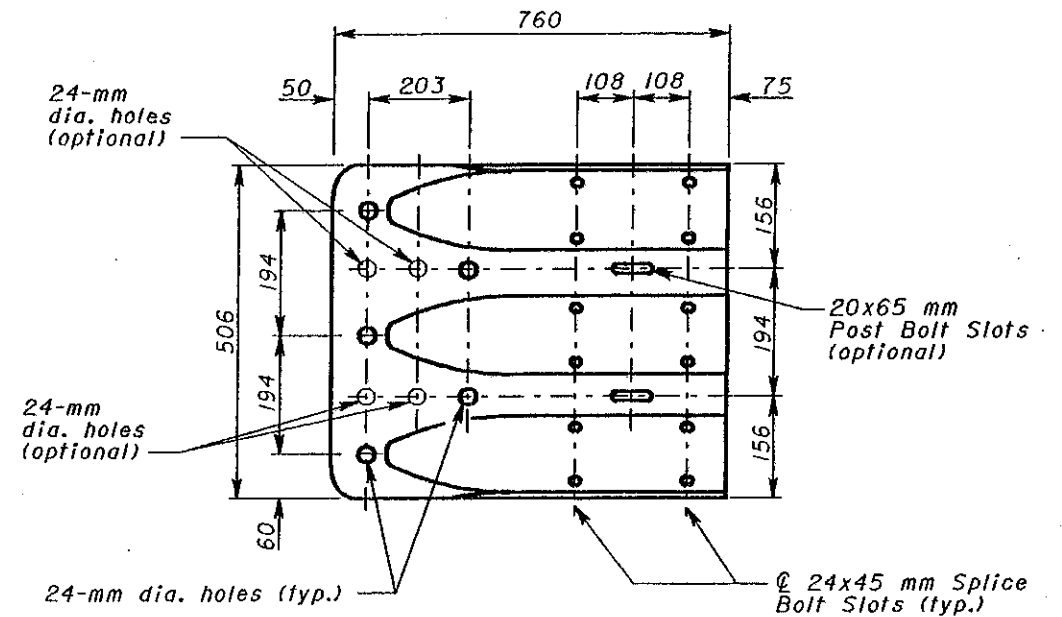
ELEVATION

CONCRETE INSERT ANCHOR ASSEMBLY (W-BEAM ONLY)



ELEVATION

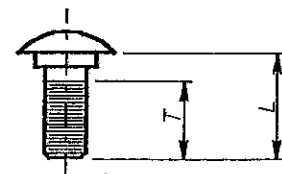
W-BEAM TERMINAL CONNECTOR



ELEVATION

THRIE-BEAM TERMINAL CONNECTOR

All dimensions are in millimeters unless otherwise noted.



L (mm)	T min. (mm)	Bolt Use
455 (Standard Rail)	85	Type 5: WP/WB, PB
660 (Barrier Rail)		Type 5: SP/WB, PB
255	60	Type 4: WP Type 5: SP/WB, PB
50	35	Type 4: SP
32	Full	Splice Bolt

WP- wood post WB- wood blackout
 SP- steel post PB- plastic blackout
 Longer bolt may be needed for round WP larger than 200 mm dia.

BUTTON HEAD BOLT
 (For post and splice bolts)

NOTE

Refer to AASHTO M 180 for dimensional details of W-Beam and Thrie-Beam rail elements, related buffer and end sections, beam splices, post and splice bolts and nuts, and Type I W-Beam to Thrie-Beam Transition section.



OHIO DEPARTMENT OF TRANSPORTATION

GUARDRAIL DETAILS

DATE
 11-30-94
 10-21-97

STANDARD CONSTRUCTION DRAWING **GR-1.1M**

APPROVED *Randy T. Sutherland*