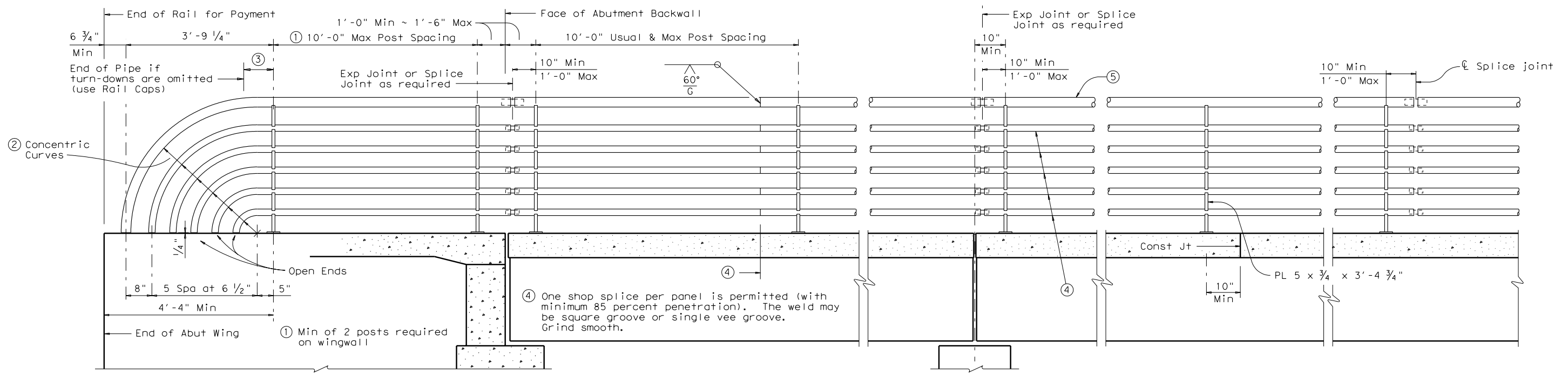
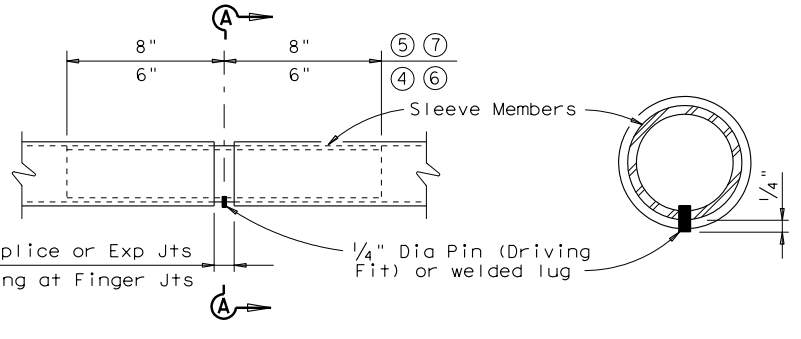
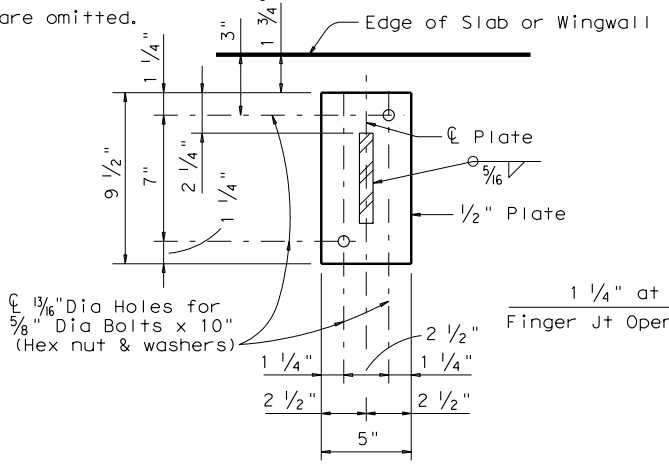
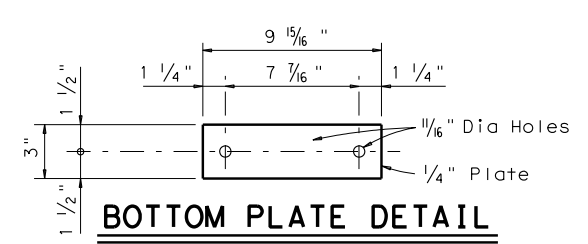


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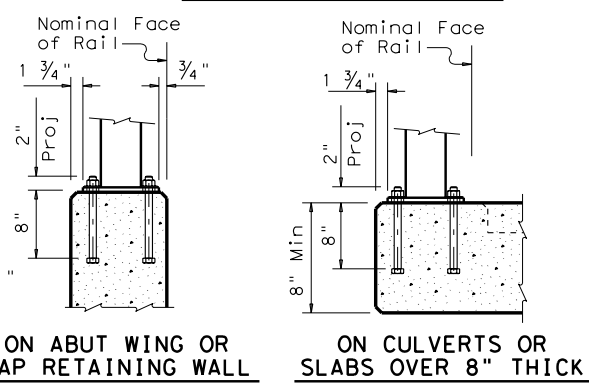
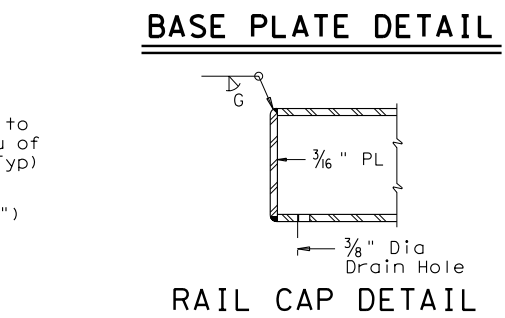
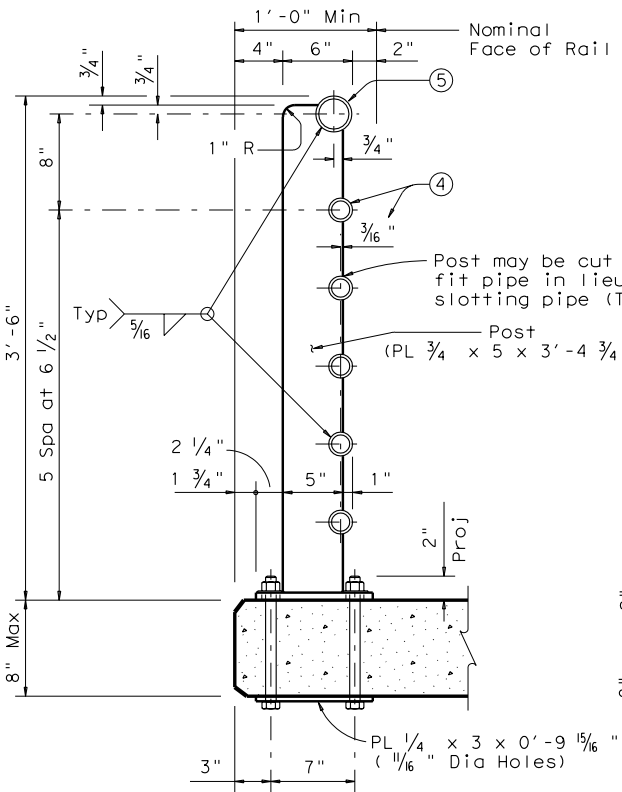
LEVELS DISPLAYED	ACC:
1	



- ② Portion of railing with turn-downs to be used or omitted as indicated on Bridge Layout.
 - ③ 10" Min ~ 1'-6" Max if turn-downs are omitted.
- ROADWAY ELEVATION OF RAIL**



GENERAL NOTES:
 Designed according to current AASHTO Standard Specifications for Highway Bridges.
 Pipe for pipe rail shall conform to ASTM A53 Grade B or A501. Posts and Plates shall be ASTM A36.
 All anchor bolts, nuts, washers and bottom plates to be included in unit price bid for railing.
 Panel lengths of railing shall be attached to a minimum of three posts except at abutment wingwalls.
 All steel components to be galvanized unless otherwise shown in plans.
 Anchor bolts shall be 3/8" Dia ASTM A307 Grade A bolts (or A36 threaded rods with one tack welded hex nut each) with one hex nut and one 1 3/4" O.D. hardened steel washer at each bolt. Threaded rods may be 0.557" minimum diameter with rolled threads. Nuts shall conform to A563 requirements. The untapped blanks shall be galvanized prior to cutting the threads. Threads for bolts and nuts shall have Class 2A and 2B fit tolerances in accordance with ANSI B1.1.
 Face of rail and posts shall be vertical transversely unless otherwise approved by the Engineer. Posts shall be perpendicular to adjacent roadway grade. Grout may be used under base plates if necessary.
 Shop drawings to be submitted to the Bridge Engineer for approval will be required only for rails on horizontal curves in which case the rail members shall be fabricated to the required radius for radii of 600' or less. For rails not requiring shop drawings, erection drawings showing panel lengths, splice locations, rail post spacing and anchor bolt setting shall be submitted to the Area Engineer for approval.
 Shop drawings may be submitted as 11" x 17" prints provided they are clearly legible.
 Exposed edges of pipe rail and pipe rail posts shall be rounded or chamfered to approximately 1/16" by grinding.
 Average weight of railing is 30 plf.



- ④ 2" Std Pipe (2.375" O.D., 0.154" wall thickness)
- ⑤ 3" Std Pipe (3.500" O.D., 0.216" wall thickness)
- ⑥ 1 1/2" Std Pipe Sleeve (1.900" O.D., 0.145" wall thickness)
- ⑦ 2 1/2" Std Pipe Sleeve (2.875" O.D., 0.203" wall thickness)

Texas Department of Transportation
 Bridge Division

PEDESTRIAN RAIL

TYPE PR1

FILE: r1std34.dgn	DN: TxDOT	CK: TxDOT	DW: DRG/JTR	CK: DWM
© TxDOT February 2003	DISTRICT	FEDERAL AID PROJECT	SHEET	
REVISIONS				
COUNTY	CONTROL	SECT	JOB	HIGHWAY