

RAILPOST SPACING (Max.)	REQUIRED PIPE SIZE (Min.)	REQUIRED SLEEVE SIZE (Max.)
4'-2"	3" STD. WT O.D.=3.5" I.D.=3.068"	3 1/2" SCH. 10S O.D.=4.00" I.D.=3.75"
5'-8"	3 1/2" STD. WT O.D.=4.0" I.D.=3.548"	4" SCH. 10S O.D.=4.50" I.D.=4.25"
7'-8"	4" STD. WT O.D.=4.5" I.D.=4.026"	5" SCH. 80 O.D.=5.563" I.D.=4.813"

GENERAL NOTES

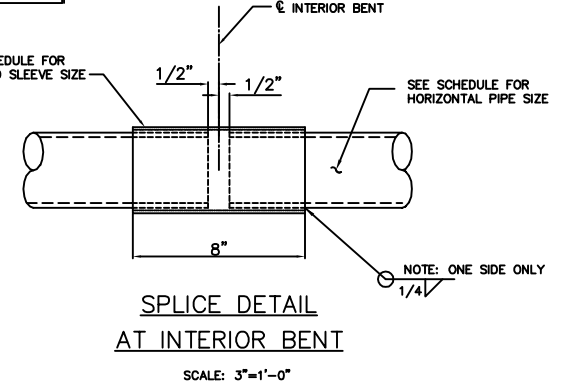
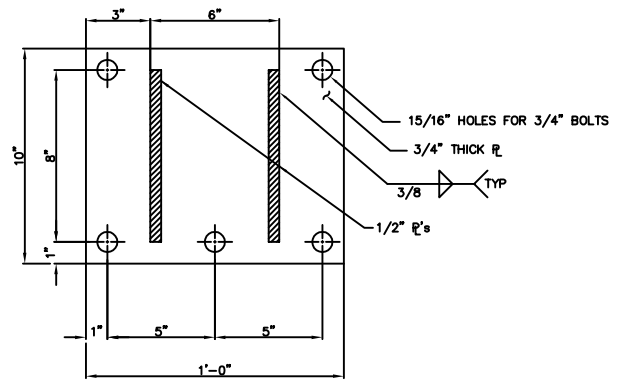
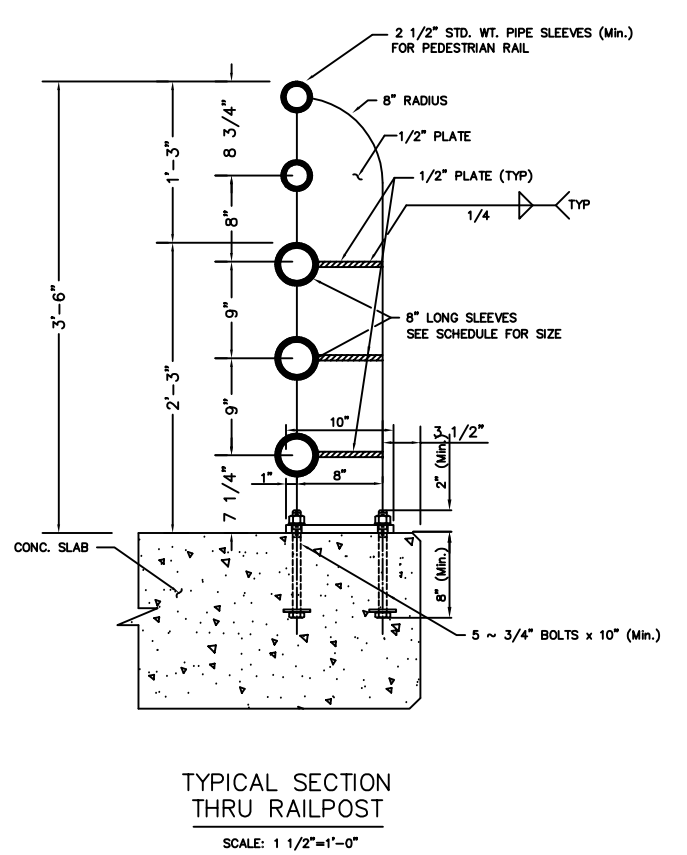
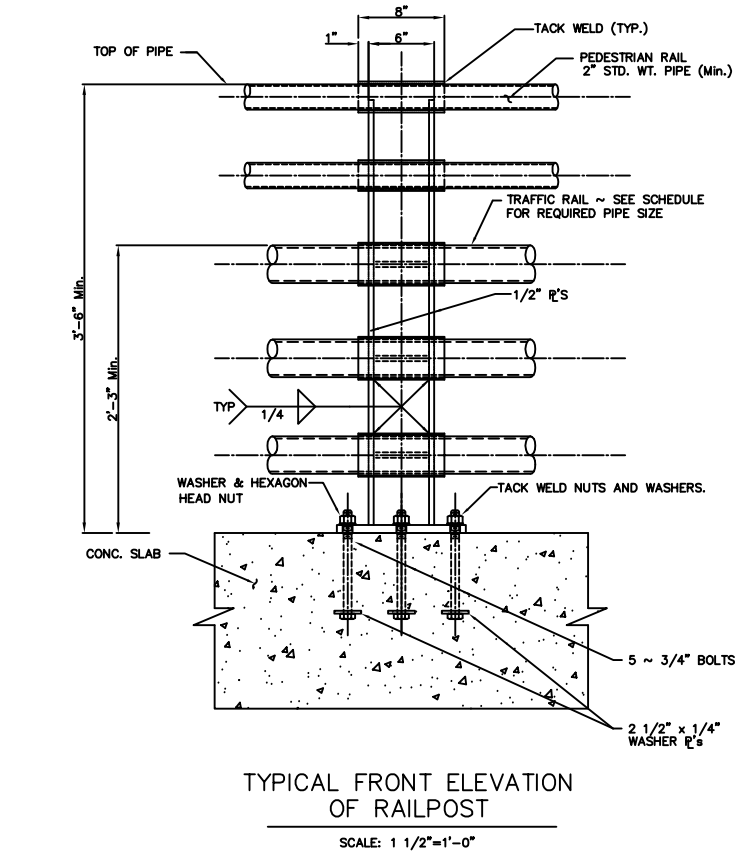
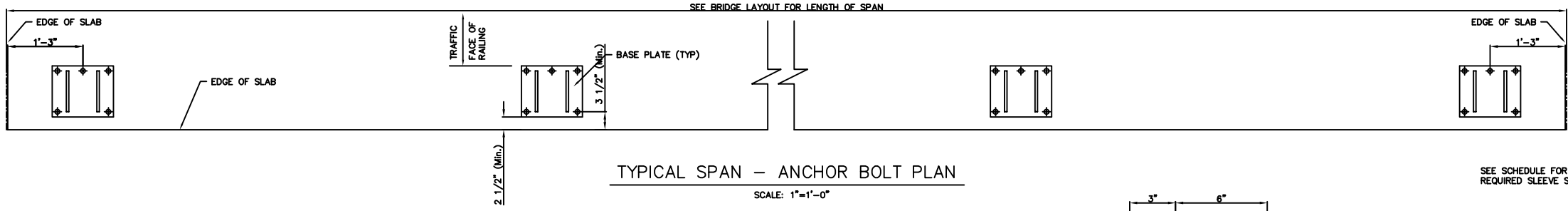
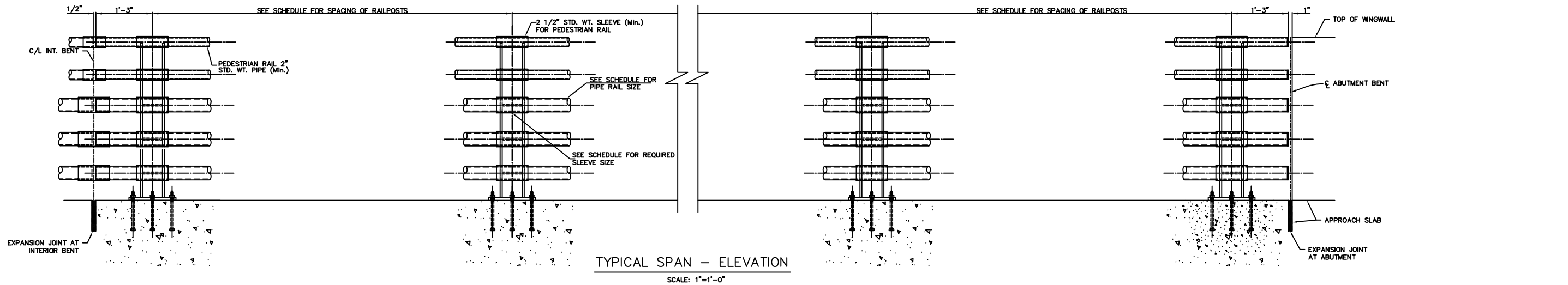
- PIPE SHALL CONFORM TO ASTM A53 GRADE B. STEEL PLATES SHALL CONFORM TO ASTM A36. BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A307.
- PIPES AND PLATES SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123. BOLTS NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153.
- DAMAGED GALVANIZED COATING SHALL BE REPAIRED WITH A ZINC-RICH PAINT.
- THE PIPE SHALL BE FABRICATED TO LENGTHS SUCH THAT THE PIPE ENDS WILL BE LOCATED INSIDE THE PIPE SLEEVES. ALL JOINTS SHALL BE BUTT WELDED. EXPOSED PIPE ENDS BETWEEN THE RAILPOSTS WILL NOT BE ACCEPTED.
- AFTER FINAL ADJUSTMENT, BURR THREADS AND TACK WELD NUTS AND WASHERS.
- DETAILS SHOWN APPLY TO PROJECTS WITH A CURB PROJECTING 9" OR MORE FROM THE TRAFFIC FACE OF RAILING. SEE AASHTO SECTION 2.7 FOR REQUIRED MODIFICATIONS FOR OTHER CONDITIONS.

NO.	REVISIONS	DATE	NAME

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ENGINEERING DIVISION

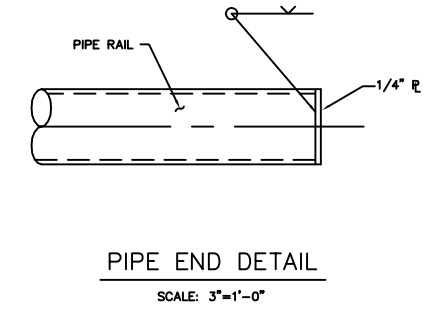


PROJECT TITLE:	BRIDGE RAILING STANDARDS		JOB NO.:
DESIGN BY:	FAD	DRAWING TITLE:	TRAFFIC RAILING DETAILS
CHECK BY:	D.W.	FILE NAME:	HC450-6-2000
SCALE:	AS SHOWN	FILE NO.:	
DATE:	8/9/2000	APPROVED BY:	Frank Ma
			1/4



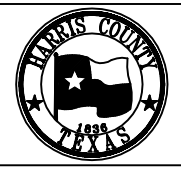
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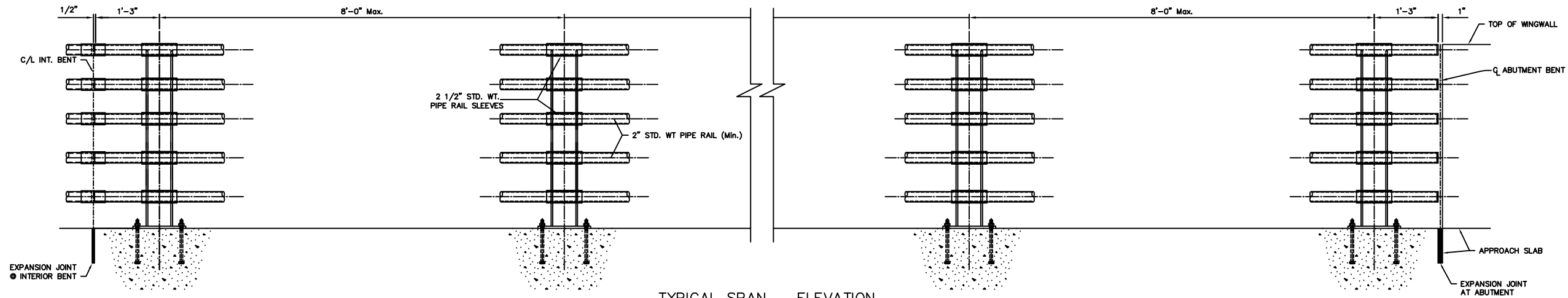


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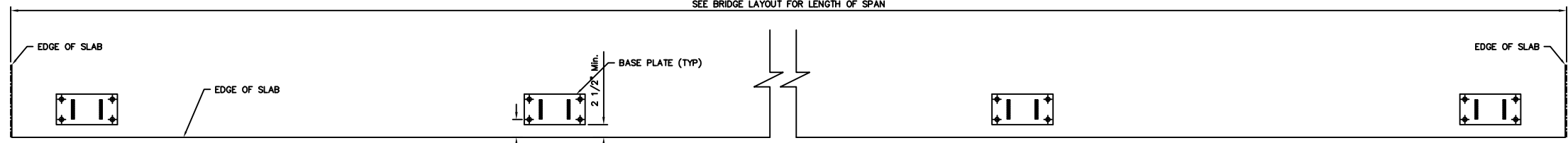
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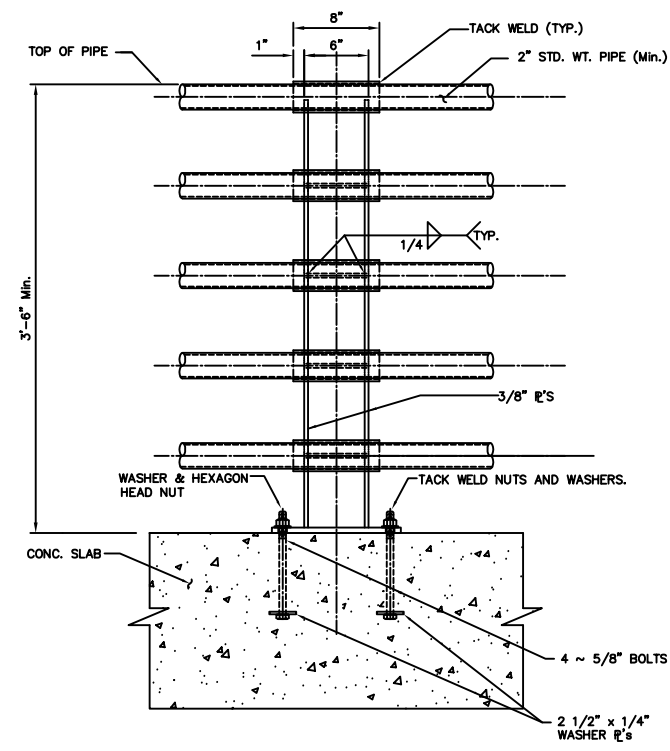
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DRAWING NO: FAD/MDA		FILE NAME:
SCALE: AS SHOWN		FILE NO: HC450-7-2000
DATE: 12/16/03	APPROVED BY: Frank Ma	SHEET NO: 2/4



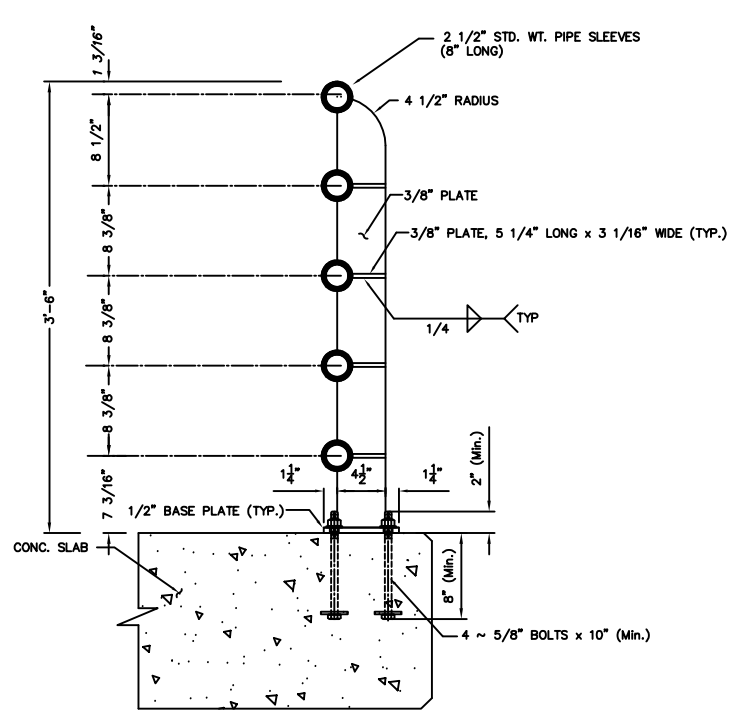
TYPICAL SPAN - ELEVATION
SCALE: 1"=1'-0"
SEE BRIDGE LAYOUT FOR LENGTH OF SPAN



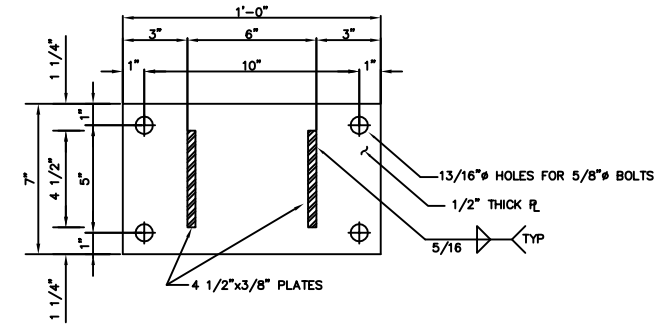
TYPICAL SPAN - ANCHOR BOLT PLAN
SCALE: 1"=1'-0"



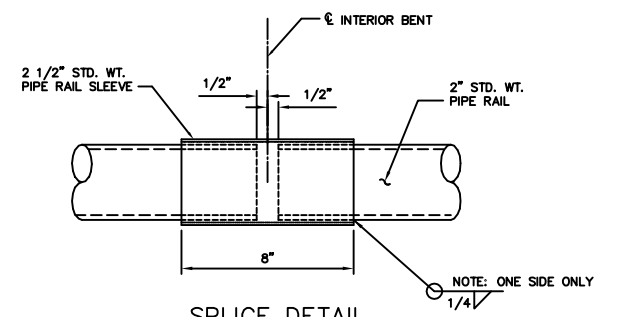
TYPICAL FRONT ELEVATION OF RAILPOST
SCALE: 1 1/2"=1'-0"



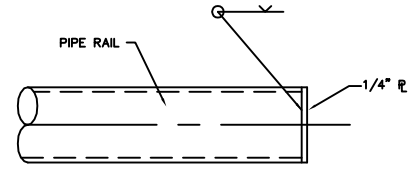
TYPICAL SECTION THRU RAILPOST
SCALE: 1 1/2"=1'-0"



BASE PLATE DETAIL
SCALE: 3"=1'-0"



SPLICE DETAIL AT INTERIOR BENT
SCALE: 3"=1'-0"



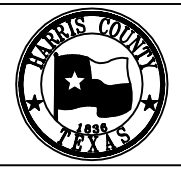
PIPE END DETAIL
SCALE: 3"=1'-0"

GENERAL NOTES

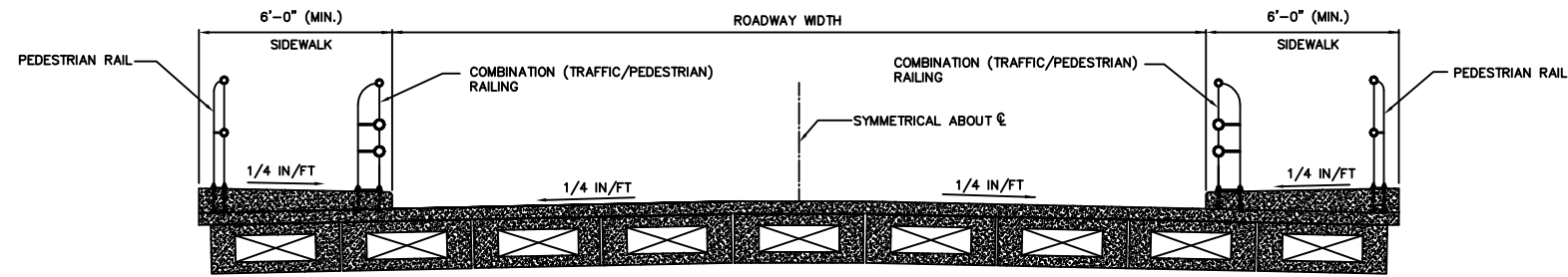
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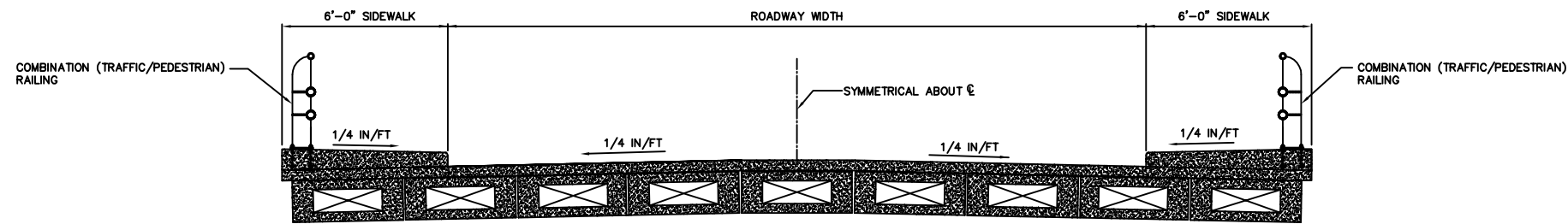
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DRAWN BY: FAD/MDA	PROJECT DESCRIPTION: PEDESTRIAN RAILING DETAILS	FILE NAME:
CITY BY: D.W.		HC450-5-2000
SCALE: AS SHOWN		FILE NO.
DATE: 12/16/03	APPROVED BY: <i>Frank Ma</i>	SHF NO: 3/4



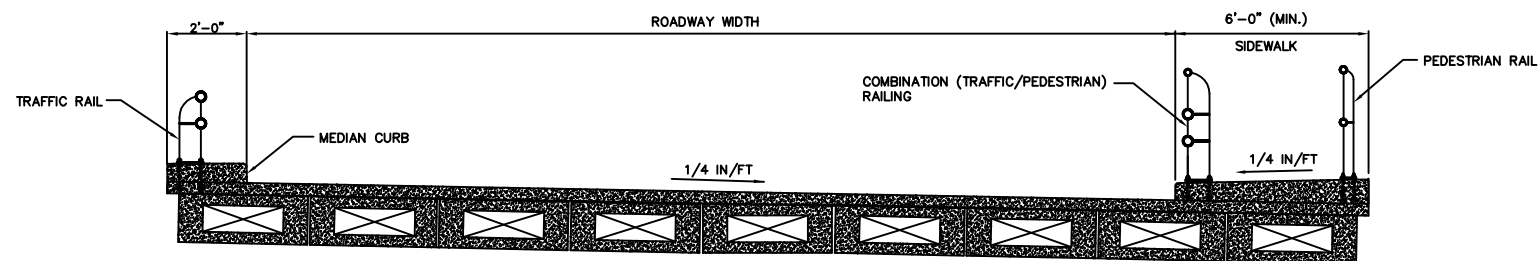
SECTION A
TYPICAL TWO-WAY ROAD WITH HIGH PEDESTRIAN VOLUME
 N.T.S.

GENERAL NOTES:

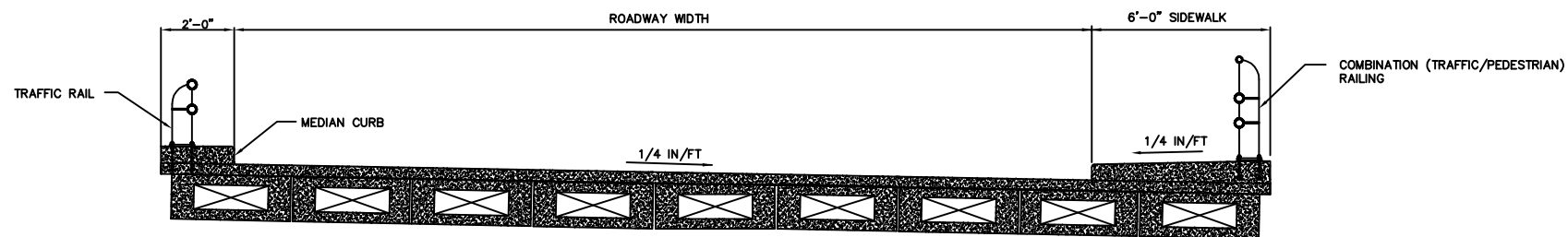
1. IN ABSENCE OF A STUDY THAT SPECIFICALLY ADDRESSES PEDESTRIAN VOLUMES, INDICATORS OF HIGH PEDESTRIAN VOLUMES INCLUDE EXISTING AND/OR PROPOSED SIDEWALKS OR EXISTING FOOT PATHS IN THE IMMEDIATE VICINITY OF THE PROPOSED BRIDGE.
2. IF THE USE OF THE COMBINATION (TRAFFIC/PEDESTRIAN) RAILING AT THE INSIDE FACE OF SIDEWALK (AS SHOWN IN SECTIONS "A" AND "C") WILL CREATE SIGHT DISTANCE PROBLEMS AT A NEARBY INTERSECTION, A TRAFFIC RAIL MAY BE USED IN LIEU OF THE COMBINATION (TRAFFIC/PEDESTRIAN) RAILING.



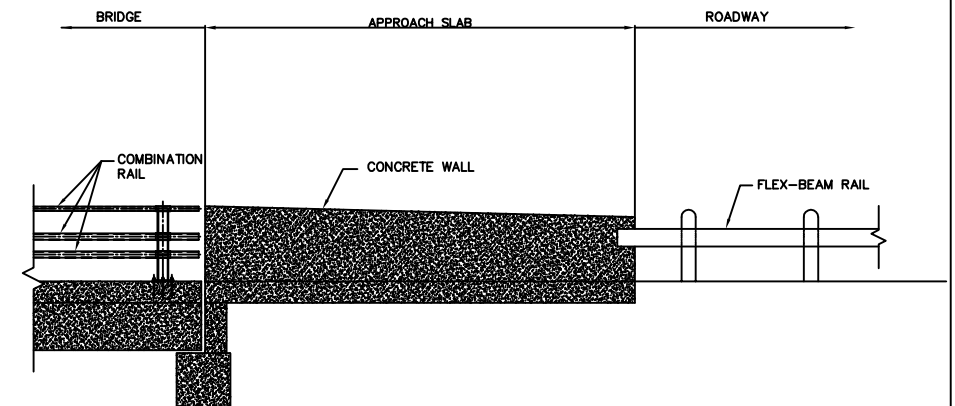
SECTION B
TYPICAL TWO-WAY ROAD WITH LOW PEDESTRIAN VOLUME
 N.T.S.



SECTION C
HALF BOULEVARD (ONE WAY) WITH HIGH PEDESTRIAN VOLUME
 N.T.S.



SECTION D
HALF BOULEVARD (ONE WAY) WITH LOW PEDESTRIAN VOLUME
 N.T.S.



SECTION AT APPROACH SLAB*
INDICATING REINFORCED CONCRETE WALL TRANSITION BETWEEN COMBINATION (TRAFFIC/PEDESTRIAN) RAILING AND FLEX-BEAM GUARD RAILING
 N.T.S.

* TO BE USED AT SECTION "A" AND SECTION "C".
 LOCATION OF CONCRETE WALL SHALL COINCIDE WITH
 LOCATION OF RAILING AT INSIDE FACE OF SIDEWALK

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PROJECT TITLE: BRIDGE RAILING STANDARD		JOB NO.:
DRAWN BY: R.A.	DIRECT SUPERVISOR: RAILING APPLICATIONS	FILE NAME: HC450-8-2000
CHKD BY: D.W.		FILE NO.:
SCALE: N.T.S.		SHF NO.:
DATE: 9/6/2000	APPROVED BY: Frank Ma	4/4