

NOTES:

DESIGN LIVE LOADS:

POST AND BASE PLATE: EQUIVALENT POINT LOAD=200 LB.LOAD+(50 LB/FTx POST SPACING (FT)) APPLIED TRANSVERSELY AT TOP RAIL CONNECTION.

TOP AND BOTTOM RAILS:50 LB/FT UNIFORM LOAD APPLIED SIMULTANEOUSLY VERTICALLY AND TRANSVERSELY+ 200 LB. CONCENTRATED POINT LOAD APPLIED AT MIDSPAN IN THE DIRECTIONS FOR BOTH MAXIMUM STRESS AND DEFLECTION.

PICKETS: CONCENTRATED 200 LB LOAD APPLIED TRANSVERSELY OVER AN AREA OF 1.0 SQUARE FOOT.

GEOMETRY:

CLEAR OPENING BETWEEN PICKETS: SHALL REJECT THE PASSAGE OF A 4" DIAMETER SPHERE BELOW 42" HEIGHT, AND A 8" DIAMETER SPHERE ABOVE 42" HEIGHT.

CLEAR OPENING UNDER BOTTOM RAIL: SHALL REJECT THE PASSAGE OF A 2" DIAMETER SPHERE.

PEDESTRIAN/BICYCLE RAILING, HEIGHT: 42" MINIMUM.

SPECIAL HEIGHT BICYCLE RAILING, HEIGHT: 54" MINIMUM.

DEFLECTION:

TOTAL COMBINED DEFLECTION OF THE RAILING SYSTEM INCLUDING THE NEOPRENE PADS, DUE TO THE TOP RAIL DESIGN LIVE LOADS, SHALL NOT EXCEED 1 1/2" WHEN MEASURED AT MIDSPAN OF THE TOP RAIL.

RAIL, PICKETS & POSTS:

STRUCTURAL TUBE AND PIPE SHALL BE IN ACCORDANCE WITH ASTM B221 OR ASTM B429, ALLOY 6061-T6. END RAIL 90° BENDS MAY BE ALLOY 6063-T6. POSTS AND ENDS RAILS SHALL BE FABRICATED AND INSTALLED PLUMB, ±1" TOLERANCE WHEN MEASURED AT 3'-6" ABOVE THE FOUNDATION.

PICKETS SHALL BE FABRICATED PARALLEL TO THE POSTS. CORNERS AND CHANGES IN TANGENTIAL LONGITUDINAL ALIGNMENT MAY BE MADE CONTINUOUS WITH A FULLY WELDED MITERED JOINT, OR MAY BE TERMINATED AND RESTARTED WITH HOOPS BOTH ENDS. THE DISTANCE BETWEEN HOOPS SHALL NOT EXCEED 2 INCHES.

FOR CHANGES IN TANGENTIAL LONGITUDINAL ALIGNMENT GREATER THAN 45°, POSTS SHALL BE LOCATED AT A MAXIMUM DISTANCE OF 2'-0" EACH SIDE OF THE CORNER AND SHALL NOT BE LOCATED AT THE CORNER APEX. FOR CURVED LONGITUDINAL ALIGNMENTS WITH RADIUS LESS THAN 200 FT, THE TOP AND BOTTOM RAILS SHALL BE SHOP BENT TO MATCH THE ALIGNMENT RADIUS.

IDENTIFICATION LABEL:

EACH FIELD SECTION OF RAILING MUST HAVE AN IDENTIFICATION LABEL AT THE BASE OF A POST WITH THE COMPANY NAME, MANUFACTURER AND FDOT QPL NUMBER.

BASE PLATES & POST CAPS:

BASE PLATES AND POST CAP PLATES SHALL BE IN ACCORDANCE WITH ASTM B209, ALLOY 6061-T6.

COATINGS:

THE ALUMINUM RAILING SHALL BE MILL FINISH UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS.

ALL ANCHORS BOLTS, NUTS, AND WASHERS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH SECTION 962-7 OF THE SPECIFICATIONS.

ANCHOR BOLTS:

ANCHOR BOLTS SHALL BE IN ACCORDANCE WITH ASTM F1554 GRADE 36. HEADLESS ANCHOR BOLTS SHALL BE THREADED FULL LENGTH. ALL ANCHOR BOLTS SHALL HAVE SINGLE SELF-LOCKING HEX NUTS. TACK WELDING OF THE NUT TO THE ANCHOR BOLT MAY BE USED IN LIEU OF SELF-LOCKING NUTS. ALL NUTS SHALL BE IN ACCORDANCE WITH ASTM A563 OR ASTM A194. FLAT WASHERS SHALL BE IN ACCORDANCE WITH ASTM F436. AFTER THE NUTS HAVE BEEN SNUG TIGHTENED, THE ANCHOR BOLT THREADS SHALL BE DISTORTED TO PREVENT REMOVAL OF THE NUTS.

DISTORTED THREADS SHALL BE COATED WITH A GALVANIZING COMPOUND IN ACCORDANCE WITH THE SPECIFICATIONS.

WELDING:

ALL WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE (ALUMINUM) ANSI/AWS D1.2 (CURRENT EDITION).

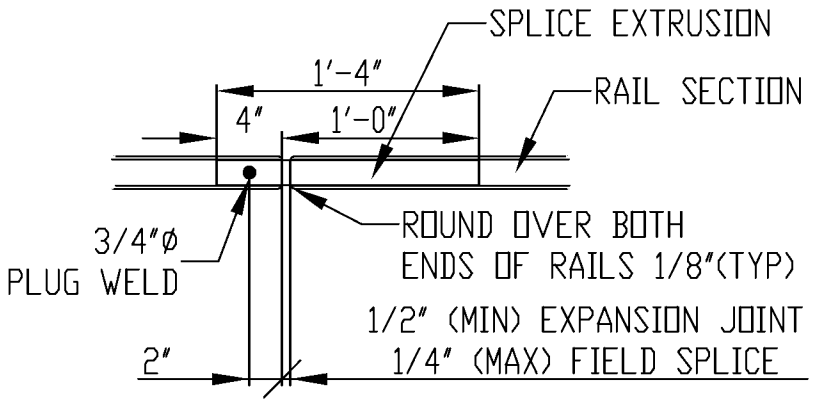
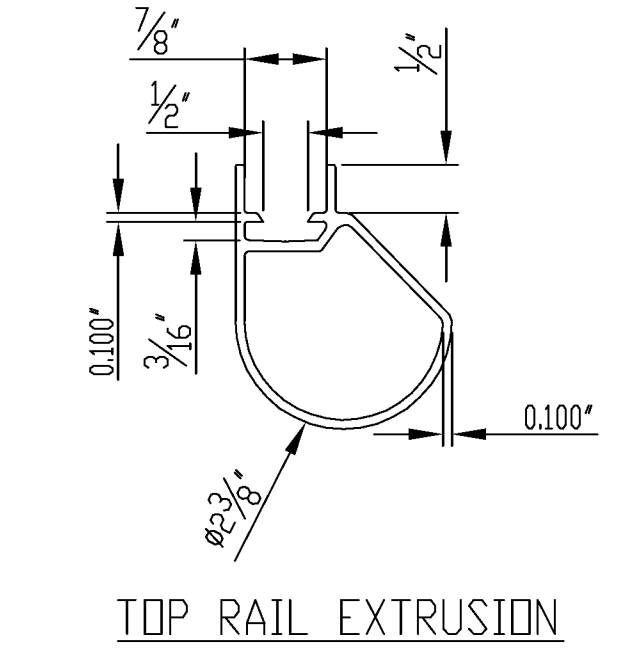
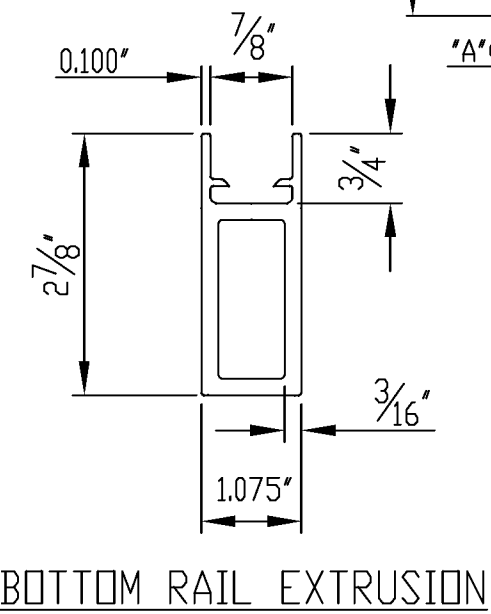
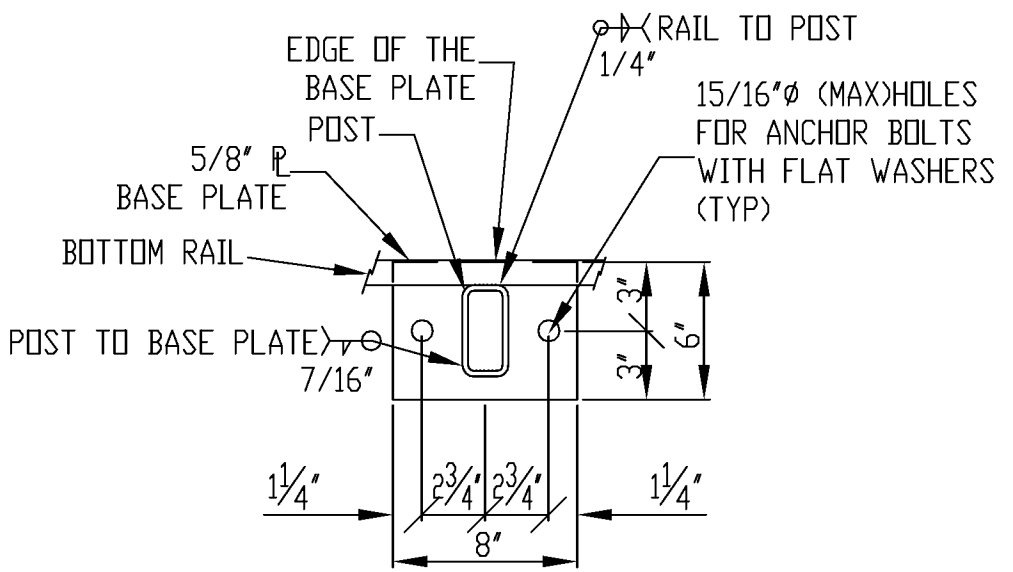
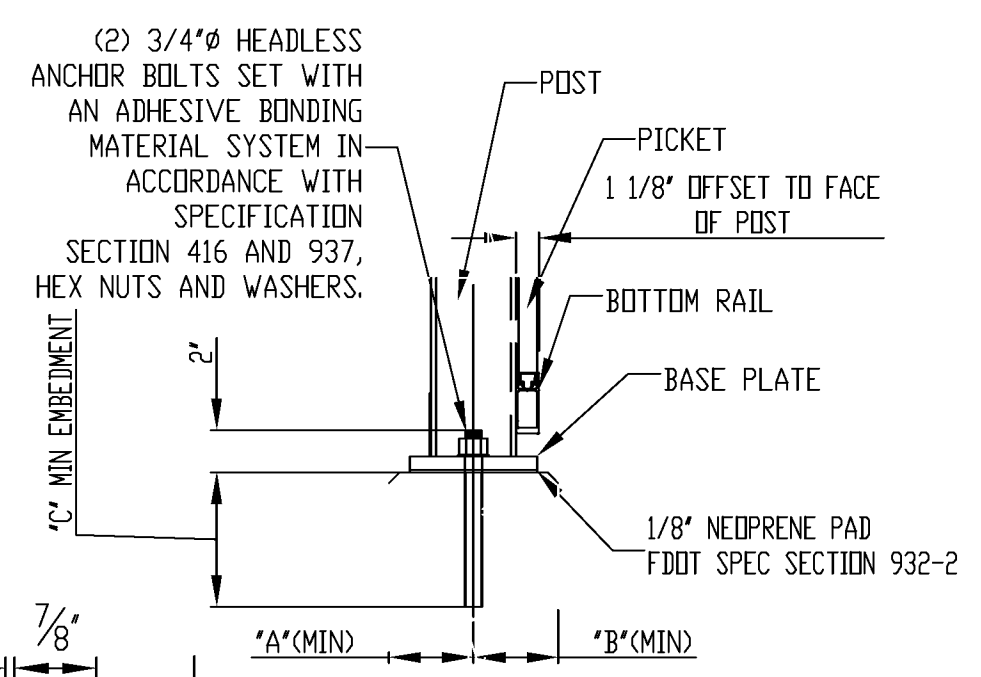
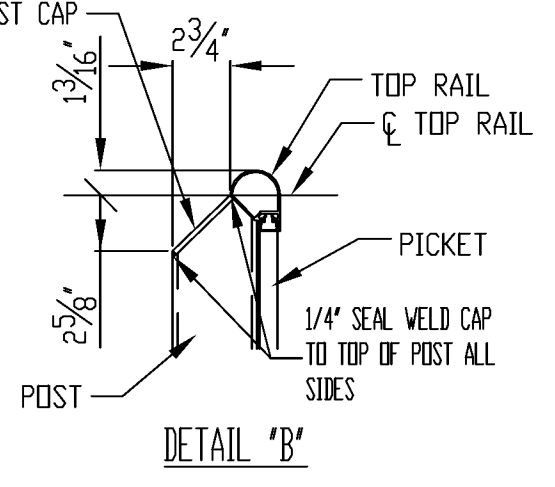
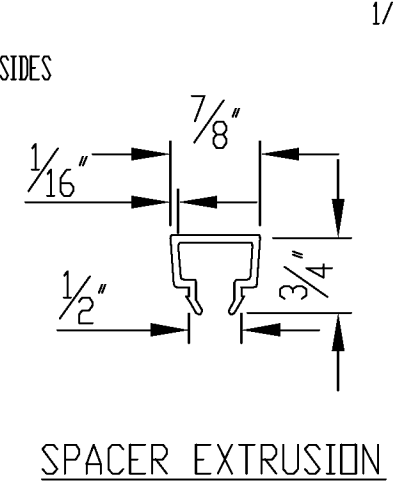
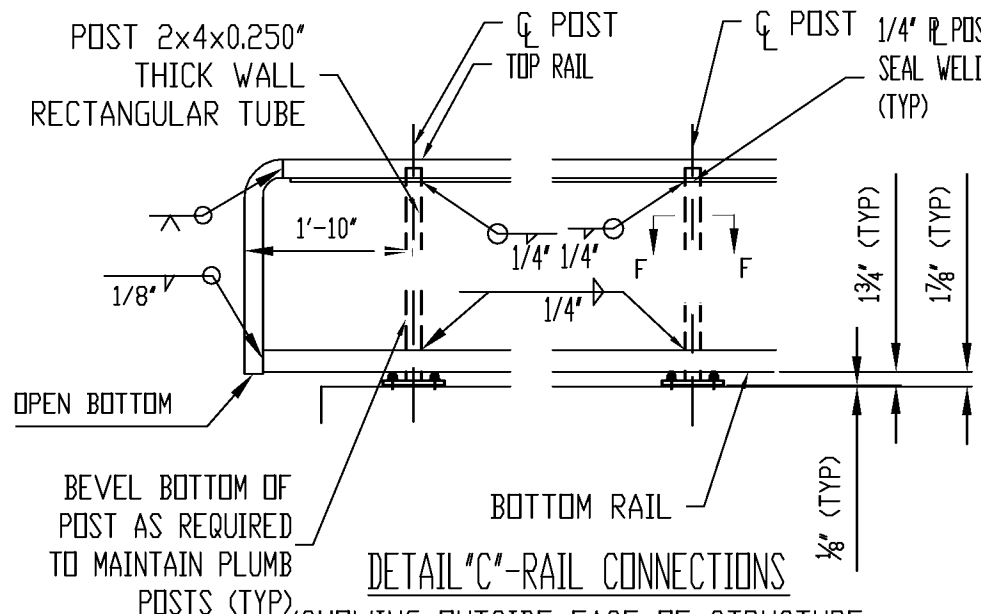
FILLER METAL SHALL BE EITHER ER5183, ER5356 OR ER5556. NONDESTRUCTIVE TESTING OF WELDS SHALL NOT BE REQUIRED.

U.S. PATENTS NO. 6,811,146 & 7,168,689

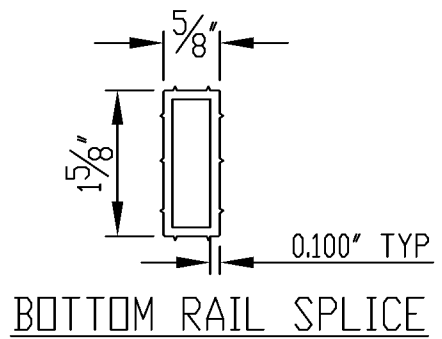
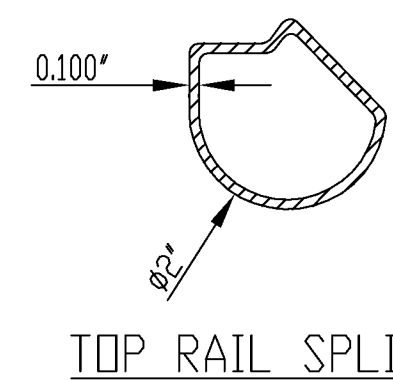
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REVISIONS			ALUMINUM PEDESTRIAN/BICYCLE PICKET RAILING	
NO.	DATE	BY	TYPE FDOT-2 QPL INDEX NO. DI 860-003	
1	3-11-10	PPG	DATE: 10-05-09	DRAWN BY: PPG
2	4-9-10	PPG	CHECKED BY: PPG	SCALE: NTS
3			APPROVED BY: PPG	SHEET 1 OF 2
4			FOR:	DRAWING NO: GEI09-17
5				
6				






SECTION F-F
BASE PLATE AND BOTTOM
RAIL CONNECTION



RAILING MEMBER DIMENSIONS			
MEMBER	DESIGNATION	OUTSIDE DIMENSION	WALL THICKNESS
POST	2"x4" RECTANGULAR TUBE (WITH OR WITHOUT RADIUS EDGES)	2.00"x4.00"	0.250"
TOP RAIL	TOP RAIL EXT.	2.375"	0.100"
BOTTOM RAIL	BOTTOM RAIL EXT.	2.875"x1.075"	0.100"/0.188"
JOINT/SPLICE SLEEVES	TOP RAIL SPLICE	2.000"	0.100"
JOINT/SPLICE SLEEVES	BOTTOM RAIL SPLICE	0.625"x1.625"	0.100"
PICKETS	7/8" SQUARE	0.875"	0.065"

ANCHOR BOLT TABLE							
CASE	STRUCTURE TYPE	DIMENSIONS			ANCHOR LENGTH		ANCHOR SIZE
		"A" EDGE DIST.	"B" EDGE DIST.	"C" EMBEDMENT	CLIP HEX HEAD BOLT	ADHESIVE ANCHOR	
I	UNREINFORCED CONCRETE	6"	1'-2"	9"	10 1/2"	11"	3/4" diameter
IIA	REINFORCED CONCRETE	4"	4"	9"	10 1/2"	11"	3/4" diameter
IIB	ROADWAY INDEX N° 520 GRAVITY WALL	4 1/2"	3 1/2" @ TOP	1'-0"	1'-1 1/2"	1'-2"	3/4" diameter

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2	4-9-10	PPG	CHECKED BY: PPG	SCALE: NTS
3			APPROVED BY: PPG	SHEET 2 OF 2
4			 12260 S.W. 94th Street, Miami, FL 33186 (305) 596-4454	
5				
6			FOR:	