



NOTES

1. Shop Drawings are required, see Specification Section 515.
2. For bridge mounted railings, work this Index with Index 515-061 Bridge Bicycle/Pedestrian Railing (Aluminum)
3. Materials:

A. Structural Extrusions, Tube, Pipe and Bars: Table 1 and ASTM B221 or ASTM B429

a. Top, bottom and intermediate rail corner bends with maximum 4'-0" post spacing may be Alloy 6063-T6

B. Base Plates and Rail Caps: ASTM B209 Alloy 6061-T6

C. Perforated panels (Type 5) Alloy 3003-H14

D. Stainless steel (SS) screws: Type 316 or 18-8 Alloy

E. Aluminum screws: Alloy 2024-T4 or 7075-T73

F. Galvanized Steel Fasteners: coated in accordance with Specification Section 962.

a. Hex Head Bolts: ASTM A 307

1. 7/8" diameter single bolt option, Grade 36

2. 7/16" diameter four bolt option, Grade 55

b. Adhesive Anchors: ASTM F1554 fully threaded rods, Grade 55

c. Hex Nuts: ASTM A563

d. Flat Washers: ASTM F436

e. Plate Washers: ASTM A36 or ASTM A706 Grade 36.

G. Shims: ASTM B209 Alloy 6061 or 6063

H. Bearing Pads: Provide 1/8" thick Plain, Fabric Reinforced or Fabric Laminated Bearing Pads meeting the requirements of Specification Section 932 for Ancillary Structures.

4. Fabricate pickets and vertical panel elements parallel to the posts; except Type 2, 3 and 5 panel infills may be fabricated parallel to the longitudinal grade. Maintain a maximum clear opening of 5 7/8" for standard installations and 3 7/8" when a 4" sphere requirement is indicated in the Data Tables.

5. Locate railing expansion Joints between the posts on either side of the deck expansion joint. Maximum spacing between expansion joints is 35'-0".

6. Field splices are similar to the Expansion Joint Detail and may be approved by the Engineer to facilitate handling; but the top rail must be continuous across a minimum of two posts.

7. For intermediate and bottom horizontal rails, the screwed joints shown may be substituted with alternate joints shown in detail "K" for Post Type "A" & "B".

8. Make corners and changes in tangential longitudinal alignment with a 9" bend radius or terminate adjoining sections with mitered end sections when handrails are not required.

9. For changes in tangential longitudinal alignment greater than 45°, position posts a maximum of 2'-0" each side of the corner but not at the corner apex.

10. For curved longitudinal alignments, shop bend the top and bottom rails and handrails to match the alignment radius.

11. Handrails are required and must be continuous at landings for:

A. Grades Steeper than 5%,

B. Three or more steps

12. Installation: Cutting of reinforcing steel is permitted for post installed anchors.
- TABLE 1 - RAILING MEMBERS
- | MEMBER | ALLOY ⁽¹⁾ | DESIGNATION | OUTSIDE DIMENSION | WALL THICKNESS |
|---|----------------------|-------------------------------------|-------------------|-----------------------|
| Posts (Type "A" & "B") | 6061-T6 | RT 2x2x0.250 | 2.00" x 2.00" | 0.250" |
| Posts (Type "C") | 6061-T6 | Extrusion 1½"x2½"x0.125 | 1.50" x 2.50" | 0.125" |
| Top Plate (Type "C") | 6061-T6 | Extrusion (See Details) | 2¾" x 7" | Varies |
| Top Rail | 6061-T6 | 2½" NPS (Sch. 10) | 2.875" | 0.120" |
| | | 3" Round Top Cap Rail | 3.000" | 0.125" |
| End Hoops | 6063-T5 | 2½" NPS (Sch. 10) | 2.875" | 0.120" |
| | | 3.00 OD x 0.125 Wall | 3.000" | 0.125" |
| Top Rail Joint/Splice Sleeves | 6063-T5 | 2.50 OD x 0.125 Wall | 2.500" | 0.125" |
| | | Top Cap Rail Inner Sleeve | 2.800" | 0.090" |
| Intermediate & Bottom Rail | 6061-T6 | RT 2x2x0.250 | 2.00" x 2.00" | 0.250" ⁽²⁾ |
| Int. & Bottom Rail Post Connection Sleeve | 6063-T5 | 1.50 OD x 0.125 Wall ⁽³⁾ | 1.500" | 0.125" |
| Handrail Joint/Splice Sleeves | 6063-T5 | 1" NPS (Sch. 40) | 1.315" | 0.133" |
| | 6063-T5 | 1.50 OD x 0.125 Wall | 1.500" | 0.125" |
| Handrails | 6061-T6 | 1½" NPS (Sch. 40) | 1.900" | 0.145" |
| Handrail Support Bar | 6061-T6 | ¾" Ø Round Bar | 0.750" | N/A |
| Pickets (Type 1 Infill Panel) | 6061-T6 | ¾" Ø Round Bar | 0.750" | N/A |
| Infill Panel Members (Types 2 - 5) | 6063-T5 | Varies (See Details) | Varies | Varies |
- TABLE 1 NOTES:
(1) Alloy 6061-T6 or 6063-T52 & T6 may be substituted for Alloy 6063-T5.
(2) 0.188" wall thickness permitted for rails with post spacings less than 5'-9".
(3) 1" NPS (Sch. 40) non-slit rail sleeves may be substituted when welded connection Detail "K" is utilized.
- CROSS REFERENCES:
Detail "A", Sheet 4
Detail "B", Sheet 4
Detail "K", Sheet 3
- 0.125" (Typ.)

1½" R

¾" ±

2" ±

1/8"

1/2"

0.090"

1" ±

2 5/8" ±

3" ROUND TOP CAP RAIL

TOP CAP RAIL INNER SPLICE SLEEVE

ALTERNATE TOP RAIL SECTION

5/8"

1/2"

5/8"

1/8"

3/16"

3/8" R ± (Typ.)

2"

2"

3/4"

2"

ALTERNATIVE BOTTOM & INTERMEDIATE RAIL SECTION FOR TYPE 3, 4 & 5 RAILINGS

See Screw Slot Detail

1/8" (Typ.)

2 1/2"

1 1/2"

POST TYPE "C" SCREW SLOT SECTION

1/4" Max. Radius or Square Corner

9/64" R

1/32" R (Typ.)

9/64" R (Typ.)

SCREW SLOT DETAIL

17/16" R

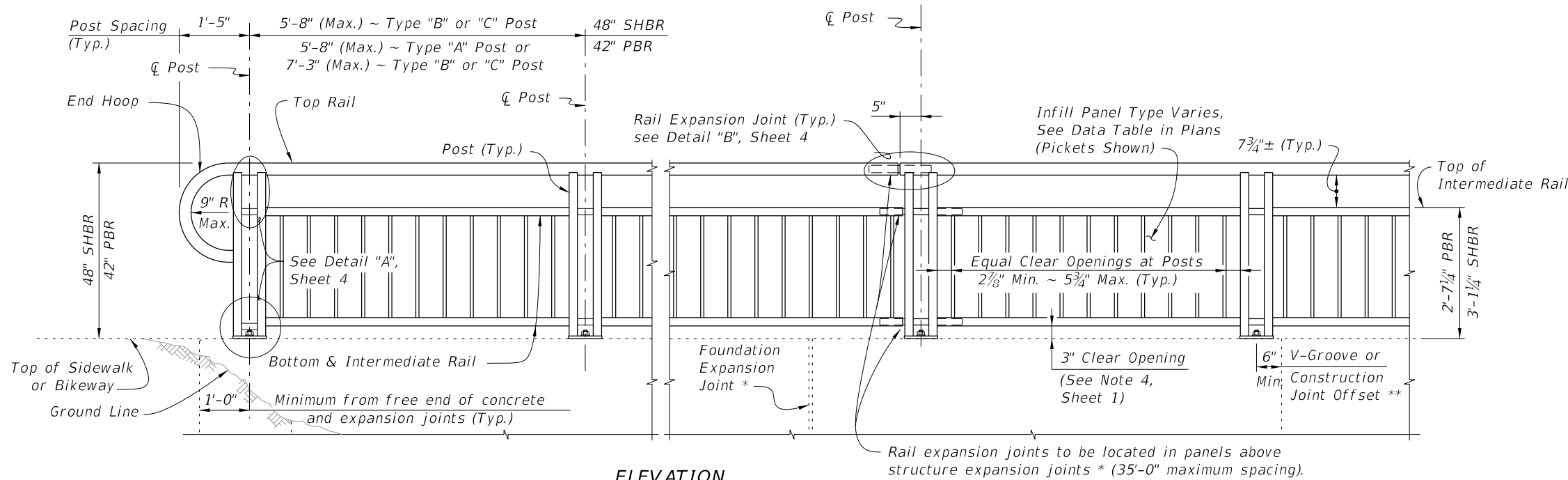
1/16" R (Typ.)

2 3/4"

1"

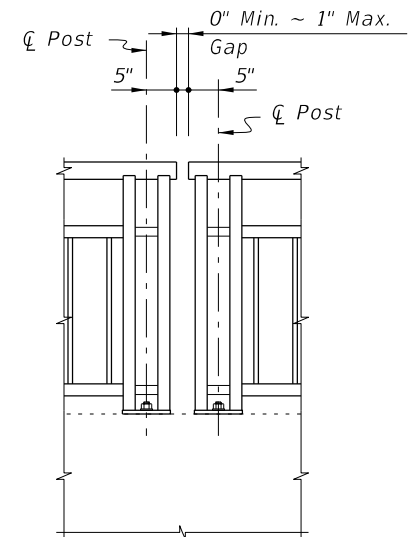
OPTIONAL TOP PLATE EXTRUSION SECTION (POST TYPE "C")

LAST REVISION 11/01/18	REVISION	DESCRIPTION:	FDOT FY 2027-28 STANDARD PLANS	PEDESTRIAN/BICYCLE RAILING (ALUMINUM)	INDEX 515-062	SHEET 1 of 9
---------------------------	----------	--------------	--	---------------------------------------	------------------	-----------------



ELEVATION
(Showing Outside Face of Railing with Type "A" Posts)

TYPICAL RAILING DETAILS & RAILINGS ON GRADES 0% TO 5%
(Type 1 - Picket Railing Shown, Other Types Similar)



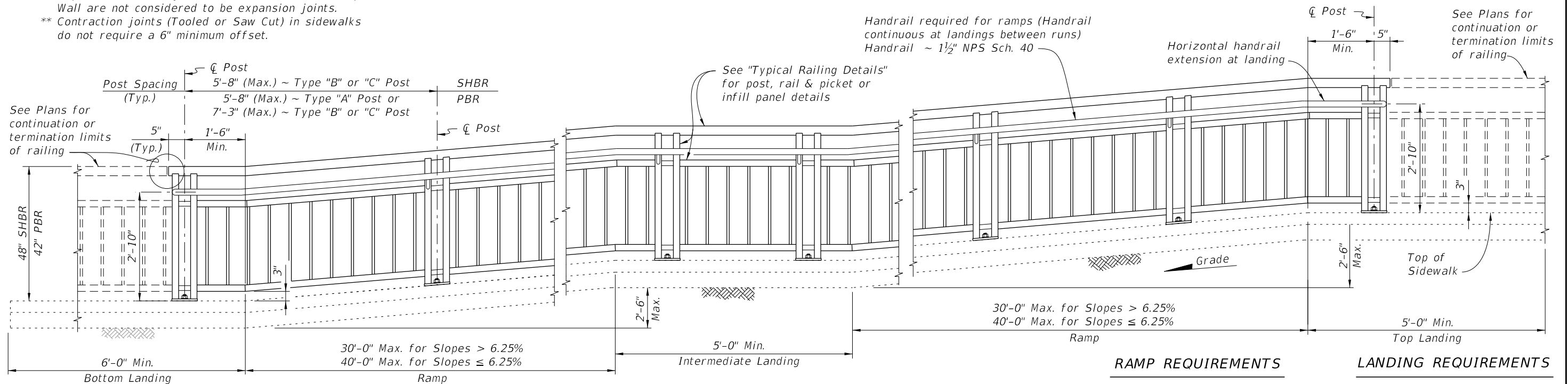
Note: Non-continuous corners are permitted when handrails are not required.

EXPANDED ELEVATION AT CORNERS

DETAIL FOR NON-CONTINUOUS RAILING AT CORNERS

NOTES:

- * Keyed construction joints in Index 400-011 Gravity Wall are not considered to be expansion joints.
- ** Contraction joints (Tooled or Saw Cut) in sidewalks do not require a 6" minimum offset.



ELEVATION
(Showing Inside Face of Railing with Type "A" Posts)

RAILINGS ON GRADES STEEPER THAN 5%
(Type 1 - Picket Railing Shown, Other Types Similar)

RAMP REQUIREMENTS

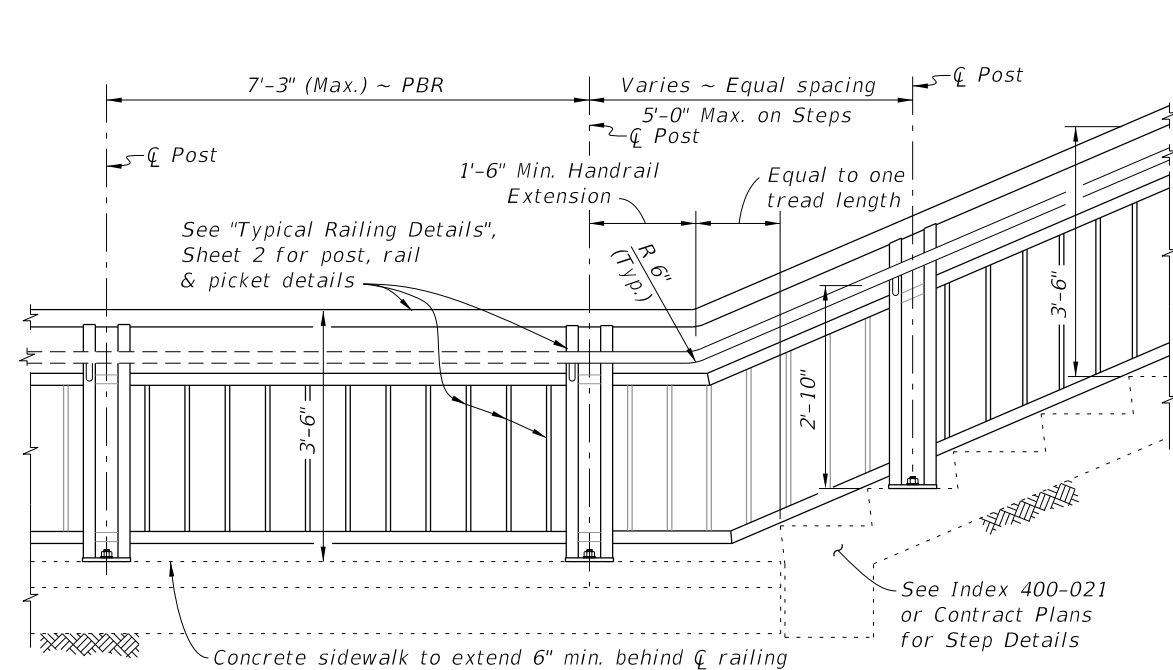
For slopes greater than 5%:
Max. ramp slope = 8.33%
Max. ramp cross-slope = 2.0%

LANDING REQUIREMENTS

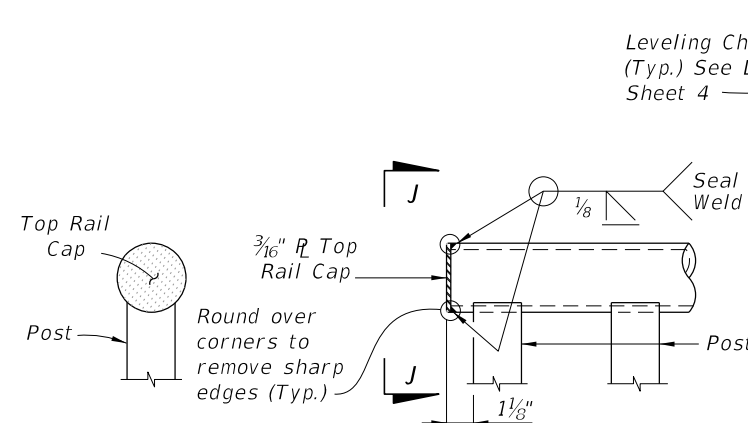
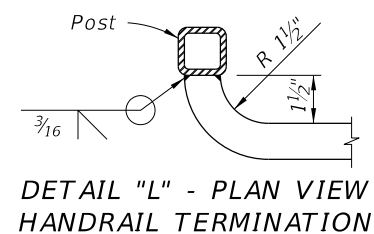
Max. landing slope = 2%
Max. landing cross-slope = 2%

9/28/2026 11:56:23 AM

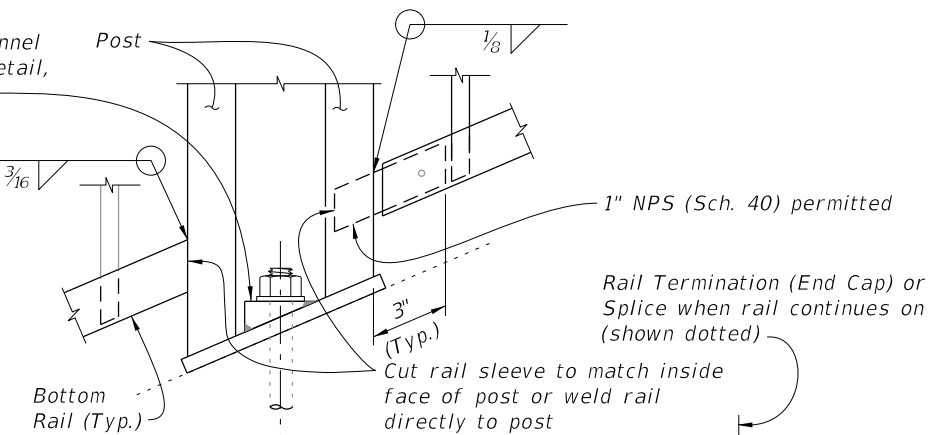
LAST REVISION 11/01/15	REVISION DESCRIPTION:	 FY 2027-28 STANDARD PLANS	PEDESTRIAN/BICYCLE RAILING (ALUMINUM)	INDEX 515-062	SHEET 2 of 9
------------------------------	--------------------------	--	--	--------------------------	-------------------------



RAILING CONTINUATION BEYOND STEPS OR STAIRS
(Bottom shown, Top similar)

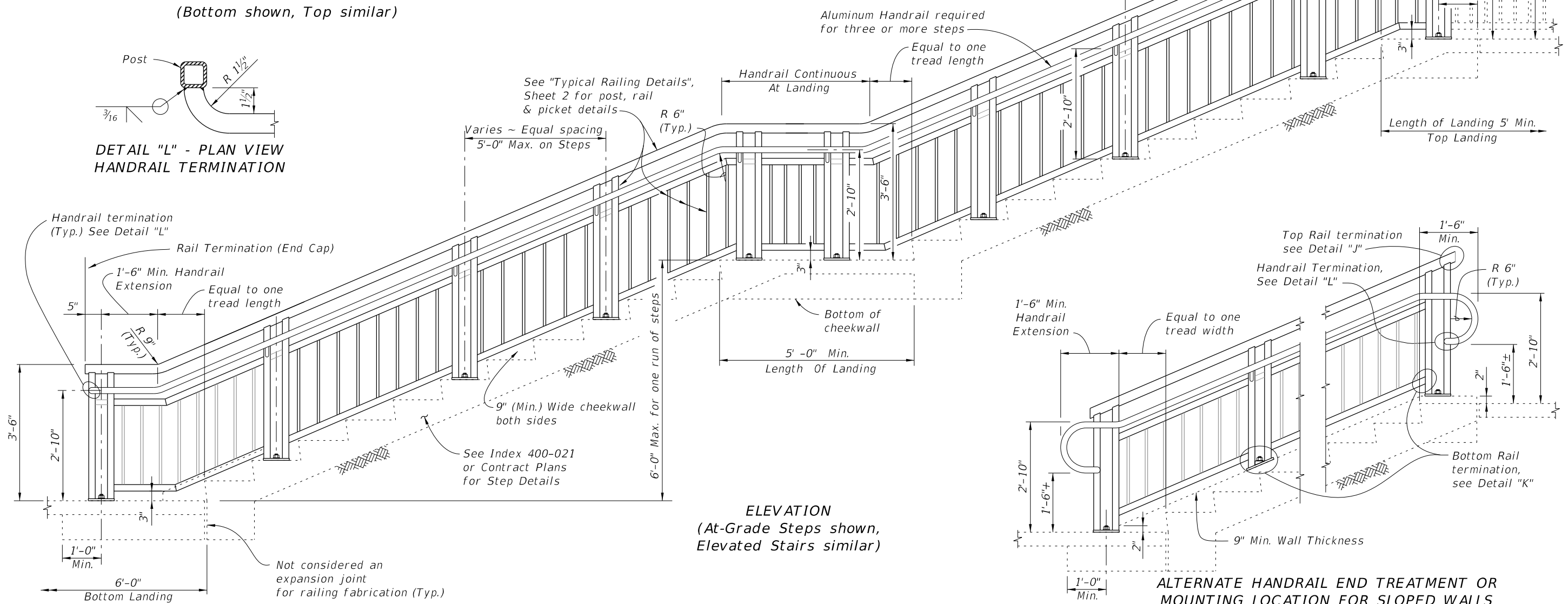


DETAIL "J" - ELEVATION VIEW TOP RAIL TERMINATION



DETAIL "K" - ELEVATION VIEW BOTTOM RAIL CONNECTION (Intermediate Rail Similar)

RAIL TERMINATION DETAILS

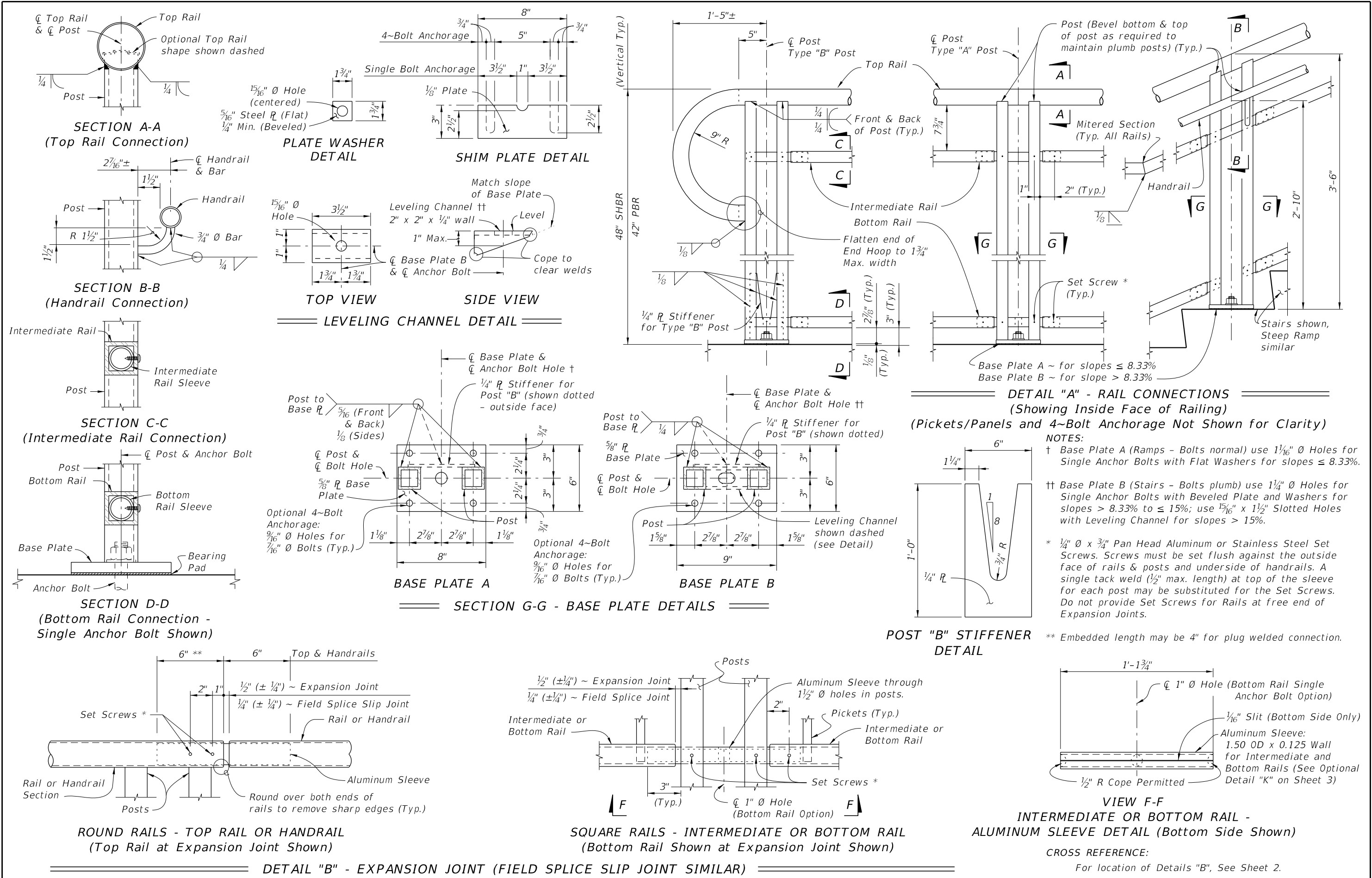


RAILINGS ON STEPS & STAIRS

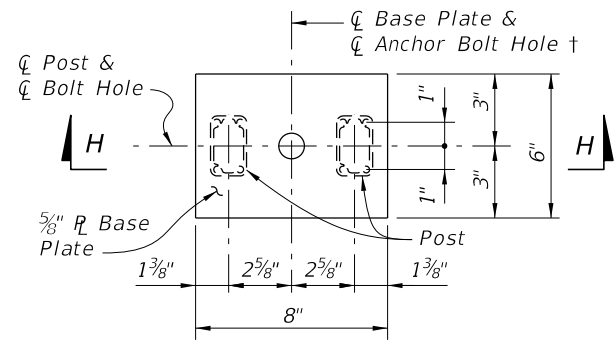
9/28/2026 11:56:26 AM

LAST REVISION	DESCRIPTION:	FY 2027-28 STANDARD PLANS	PEDESTRIAN/BICYCLE RAILING (ALUMINUM)	INDEX	SHEET
11/01/16				515-062	3 of 9

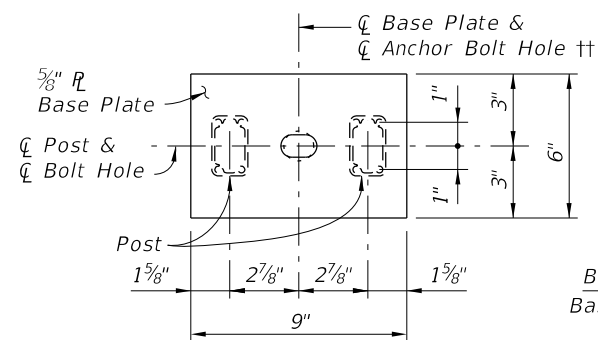
9/28/2026 11:56:29 AM



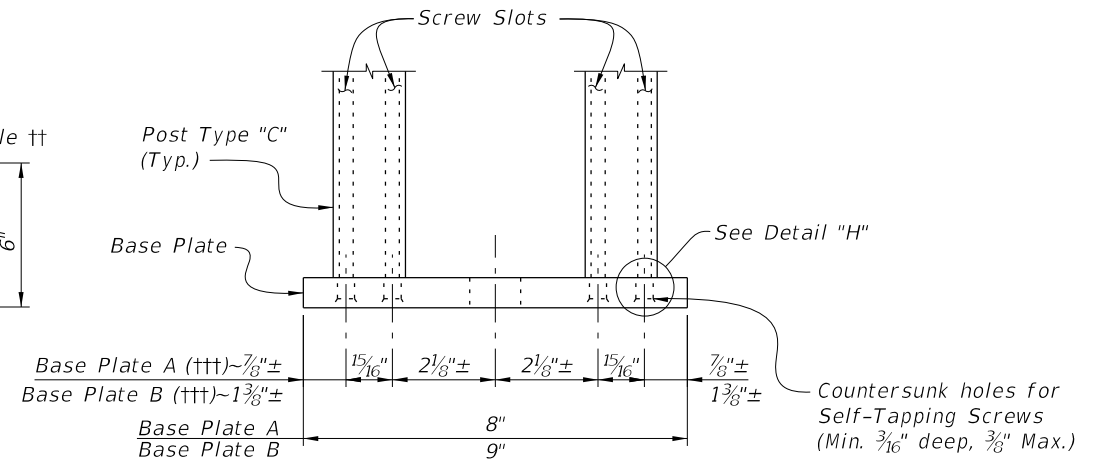
LAST REVISION 11/01/16	DESCRIPTION:	 FY 2027-28 STANDARD PLANS	PEDESTRIAN/BICYCLE RAILING (ALUMINUM)	INDEX 515-062	SHEET 4 of 9
---------------------------	--------------	--	---------------------------------------	------------------	-----------------



BASE PLATE A

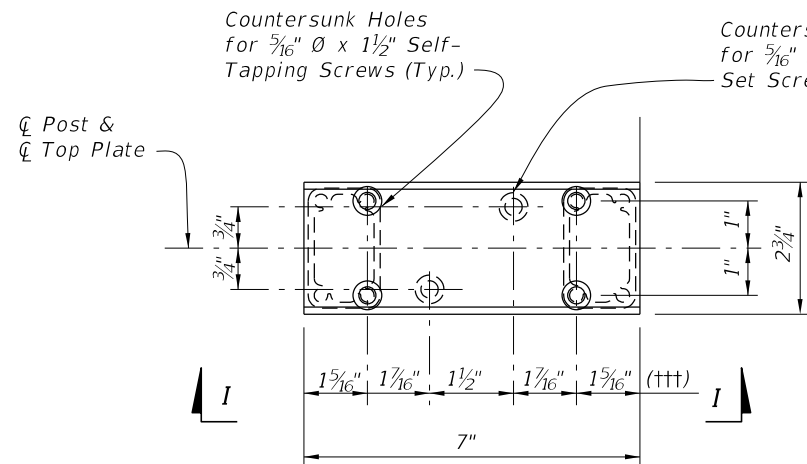


BASE PLATE B

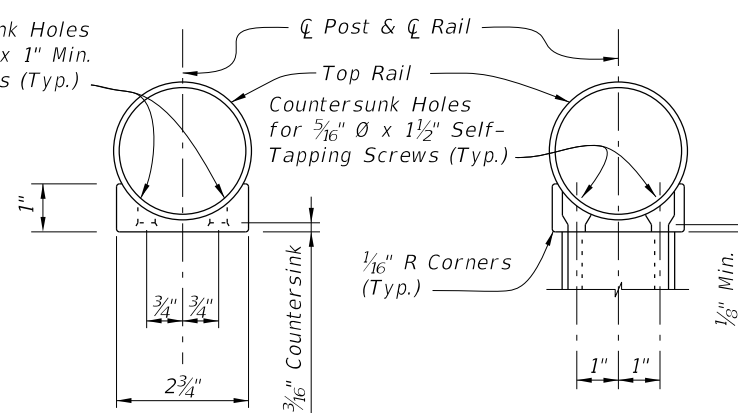


SECTION H-H
(Screws Not Shown for Clarity)

BASE PLATE DETAILS FOR TYPE "C" POST

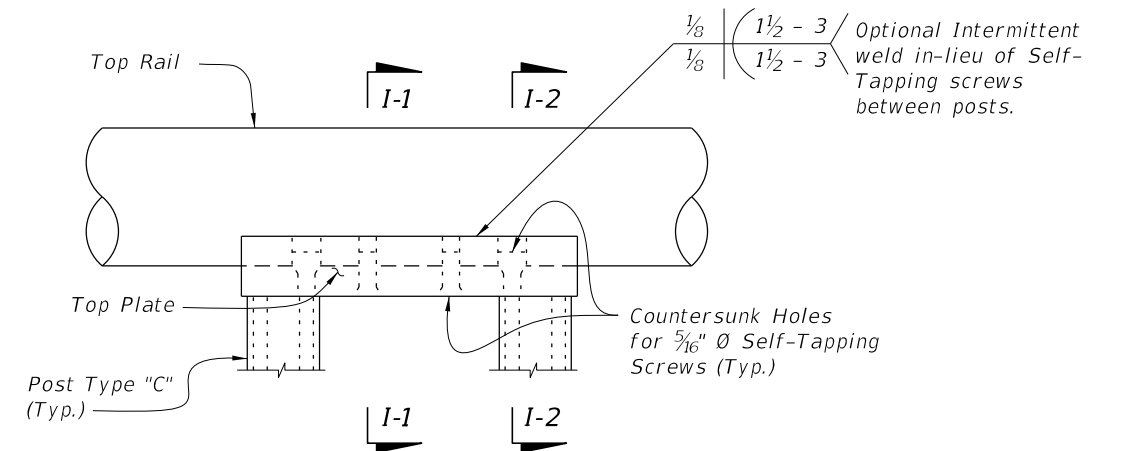


PLAN



SECTION "I-1"

SECTION "I-2"



VIEW "I"

TOP PLATE DETAILS FOR TYPE "C" POST
(Screws Not Shown For Clarity)

Notes:

† See Sheet 4 for Notes.

†† See Sheet 4 for Notes.

††† Length varies for beveled posts on grades. Holes must be drilled plumb to align with screw slot.

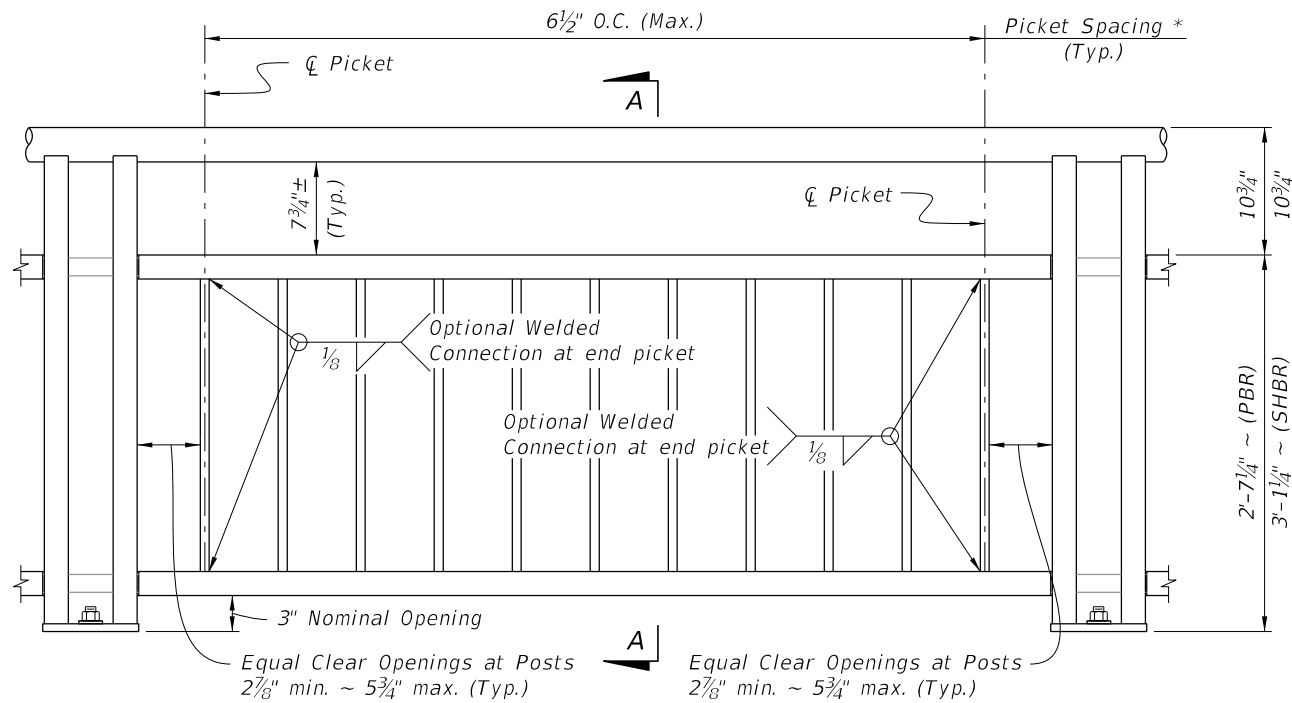


FY 2027-28
STANDARD PLANS

PEDESTRIAN/BICYCLE RAILING (ALUMINUM)

INDEX
515-062

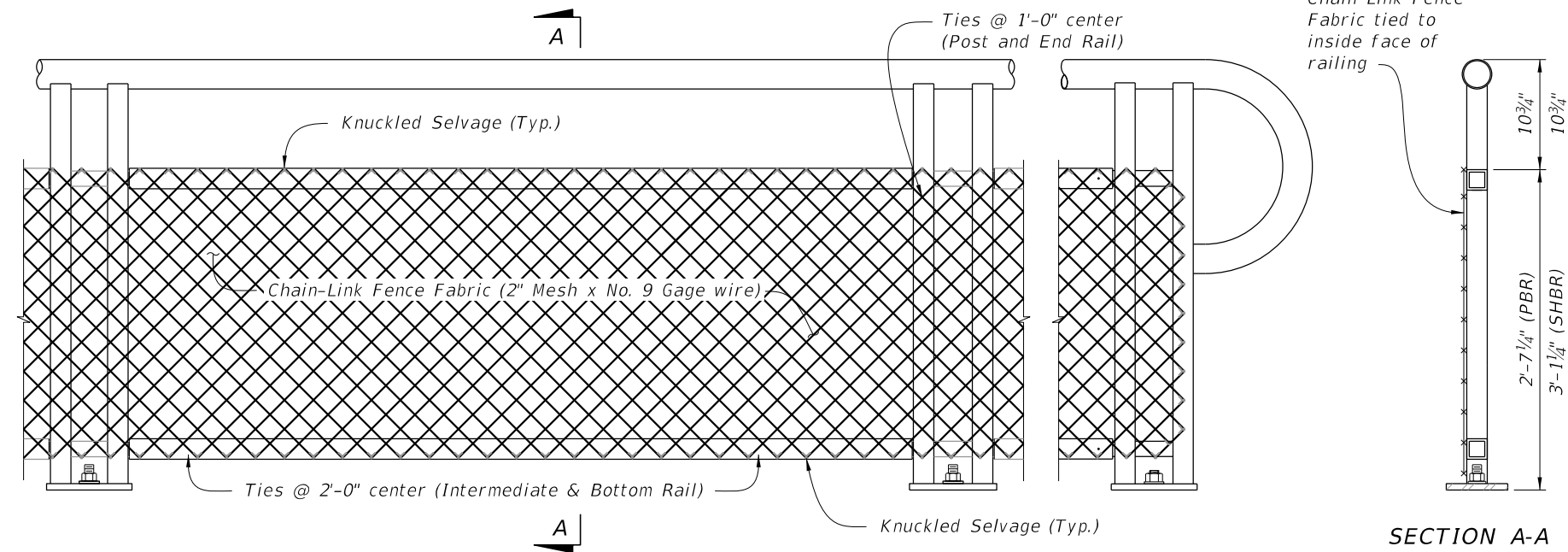
SHEET
5 of 9



TYPE 1 - PICKET INFILL PANEL

PICKET NOTES:

- * Picket Spacing of 6 1/2" centers is based on a 3/4" Ø Bar for standard applications. When shown in the Contract Plans a 4 1/2" picket spacing may be required. See Note 4 (Sheet 1).

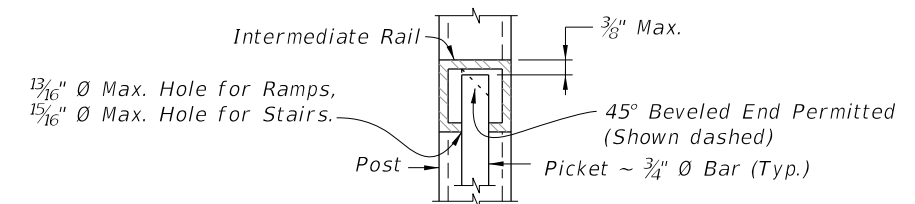


TYPE 2 - CHAIN-LINK (Continuous Infill Panel)

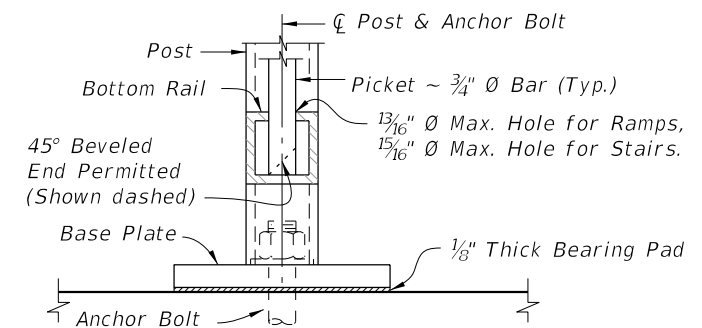
NOTE:

See Plans for Infill Panel option required.

SECTION A-A



DETAIL "1A"
(Top of Picket Connection)



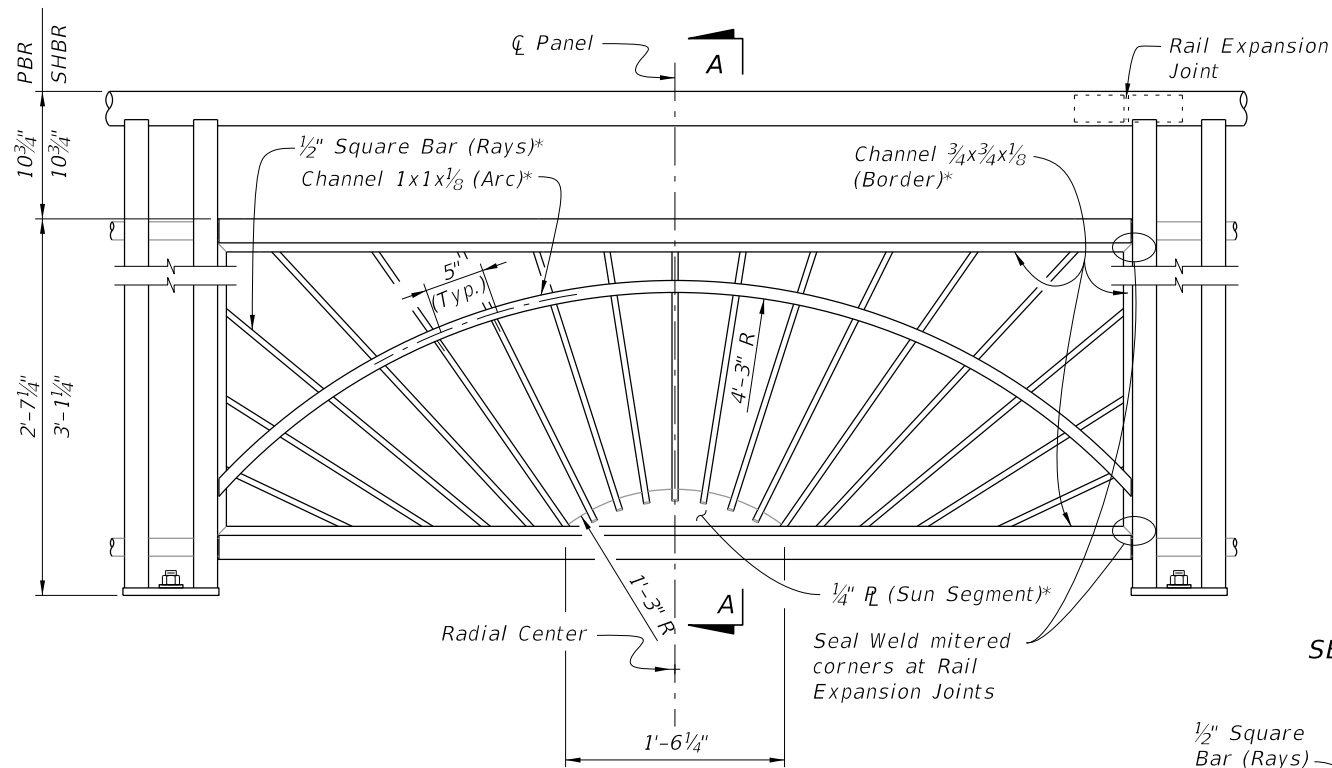
DETAIL "1B"
(Bottom of Picket Connection)

SECTION A-A

TABLE 2 - CHAIN-LINK PANEL COMPONENT MATERIALS		
COMPONENT	ASTM	COMPONENT INFORMATION
Chain-Link Fence Fabric (2" mesh with knuckled top and bottom selvage)	A392	Zinc-Coated Steel - No. 9 gage (coated wire diameter), Class 2 Coating
	A491	Aluminum-Coated Steel - No. 9 gage (coated wire diameter)
	F668	Polyvinyl Chloride (PVC) Coated Steel - No. 9 gage Zinc-Coated Wire (metallic-coated core wire diameter) ~ See Plans for specified color of PVC.
Tie Wires	F626	Zinc-Coated Steel Wire - No. 9 gage with coating to match Chain-Link Fence Fabric.
Tension Bars	F626	3/16" (min. thickness) x 3/4" (min. width) x 2'-3' (min. height) Steel Bars
Miscellaneous Fence Components	F626	Zinc-Coated Steel

CHAIN-LINK PANEL NOTE:

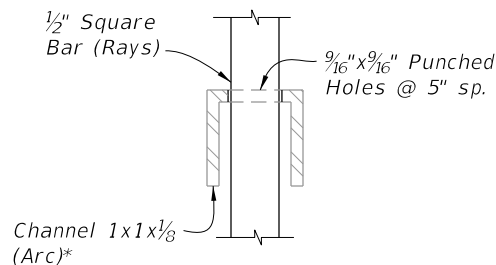
Chain-Link Fence Fabric shall be continuous along limits of railing. Splicing of Chain-Link panels using Tension Bars at 20'-0" minimum increments is permitted.



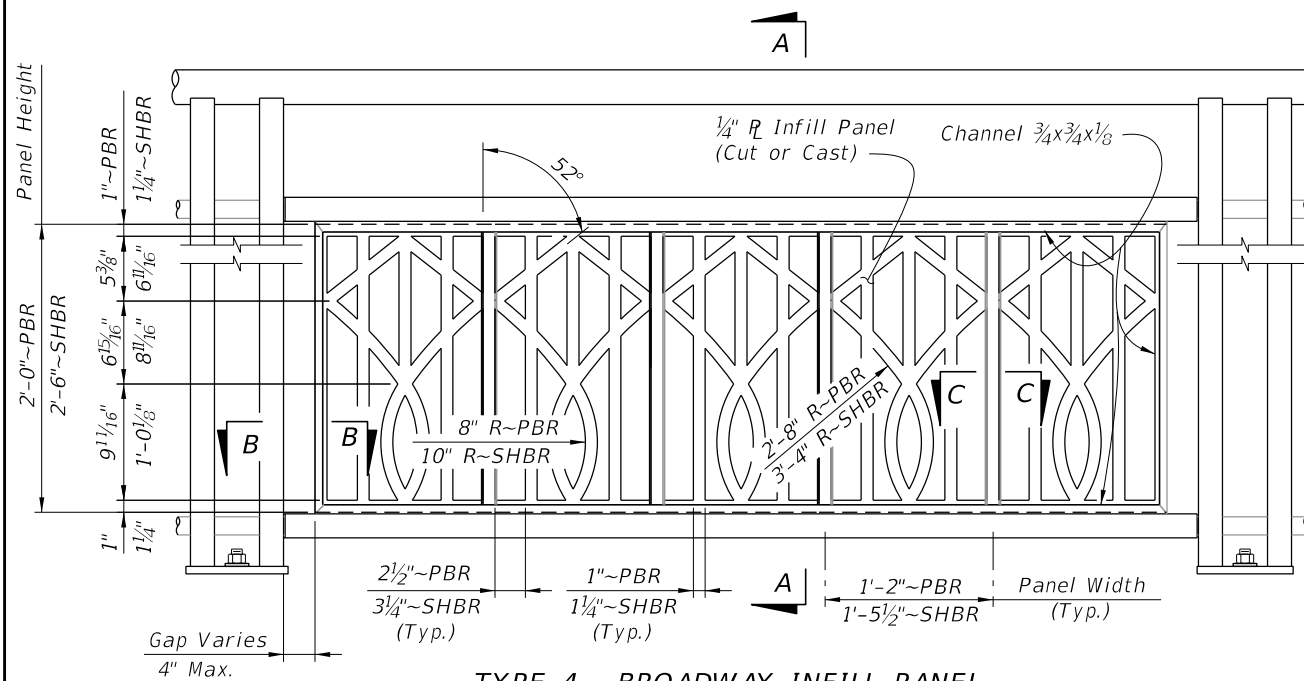
TYPE 3 - SUNSHINE INFILL PANEL

* Arc, Rays and Sun Segment may be formed in a single panel from 1/2" plate (ASTM B209 Alloy 6061-T6 or T651) pattern cut with laser or plasma CNC, welded to a 1x1 1/8 Angle Border or the 3/4x3/4x1/8 Channel Border shown.

SECTION A-A



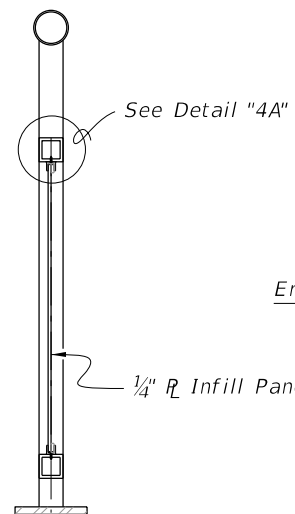
DETAIL "3C"
RAY/ARC CONNECTION



TYPE 4 - BROADWAY INFILL PANEL

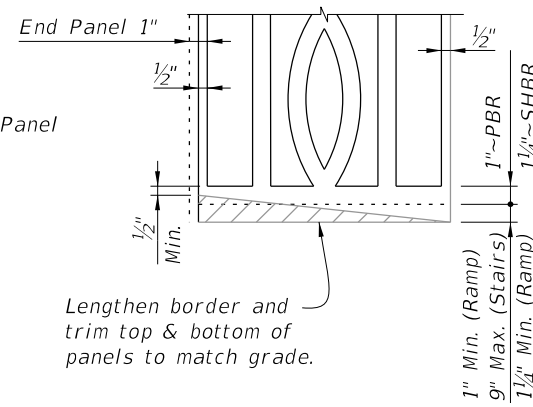
NOTE:
See Plans for Infill Panel Option required.

SECTION A-A



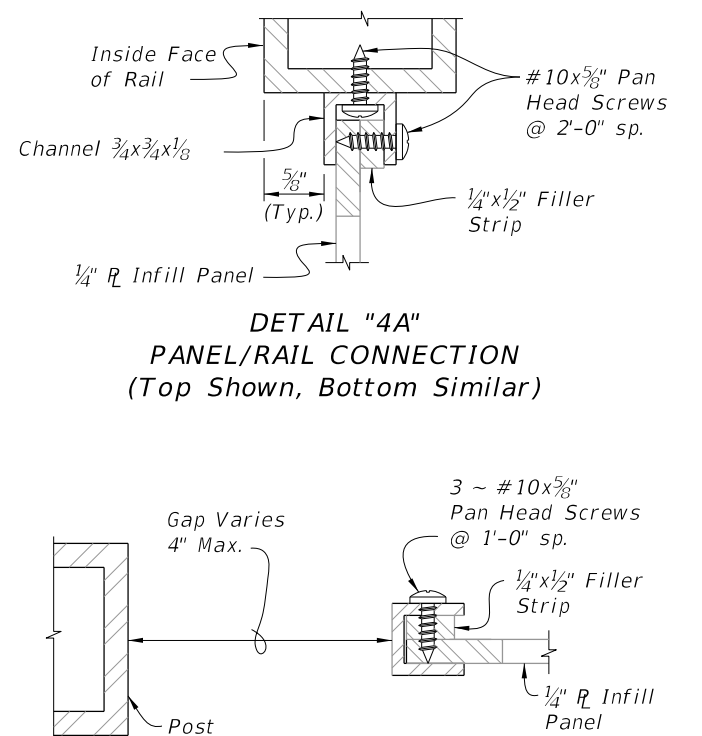
DETAIL "4A"
PANEL/RAIL CONNECTION
(Top Shown, Bottom Similar)

SECTION C-C
PANEL/SPLICE CONNECTION



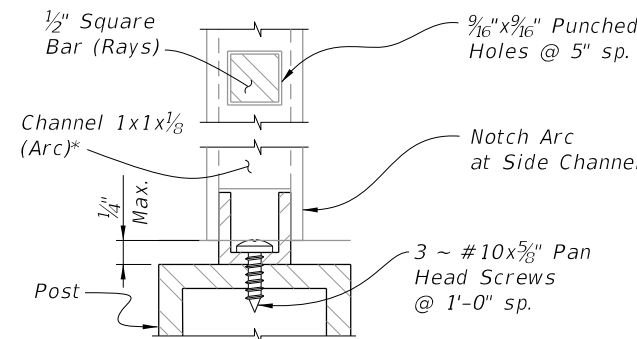
PANEL ADJUSTMENT FOR RAILINGS
ON GRADES

SECTION B-B
PANEL END CAP



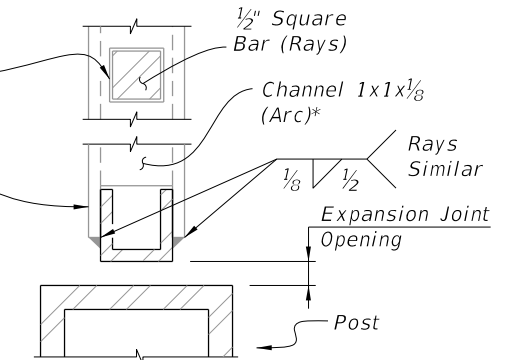
DETAIL "3B"
BOTTOM RAIL/RAY CONNECTION

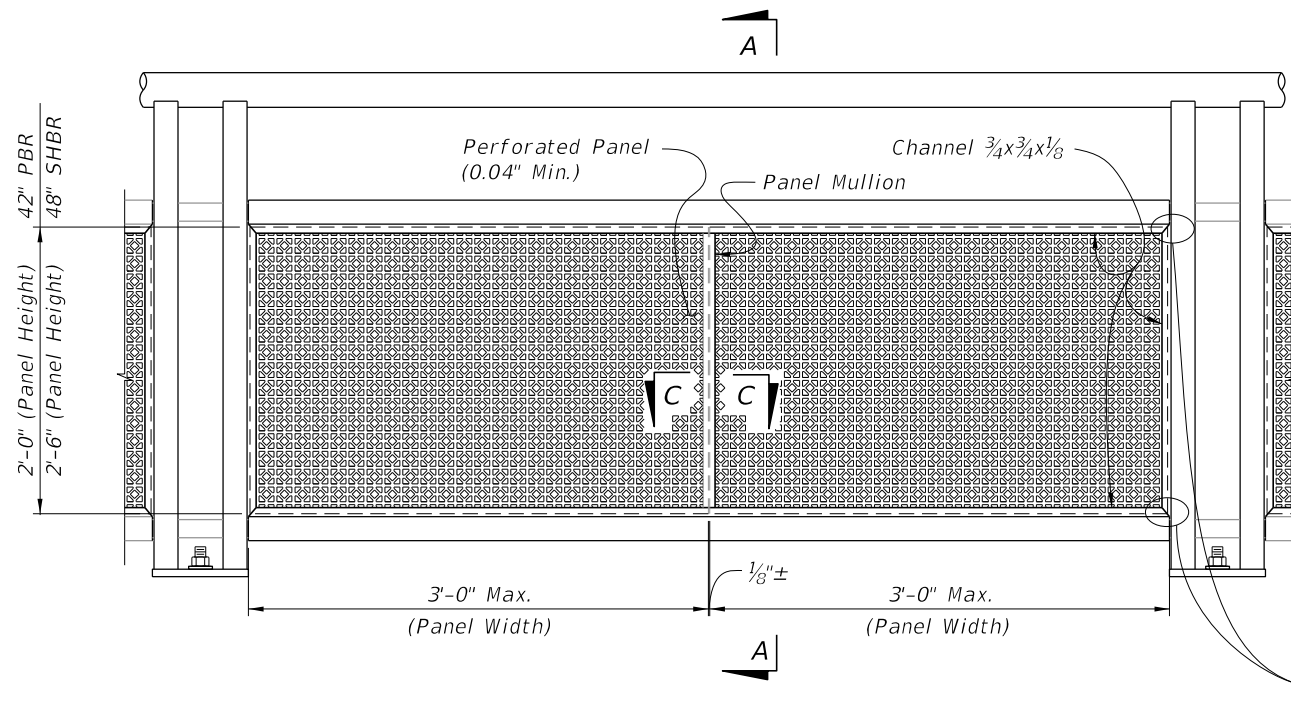
DETAIL "3A"
INTERMEDIATE RAIL/RAY
CONNECTION



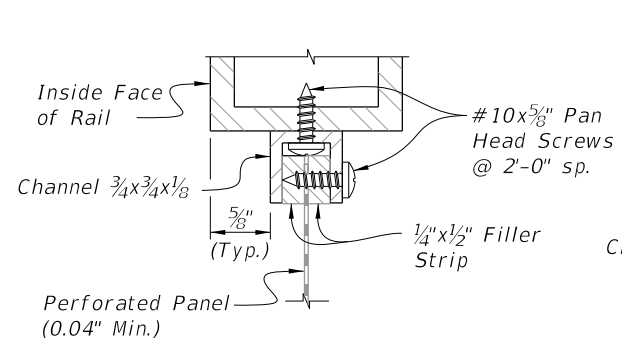
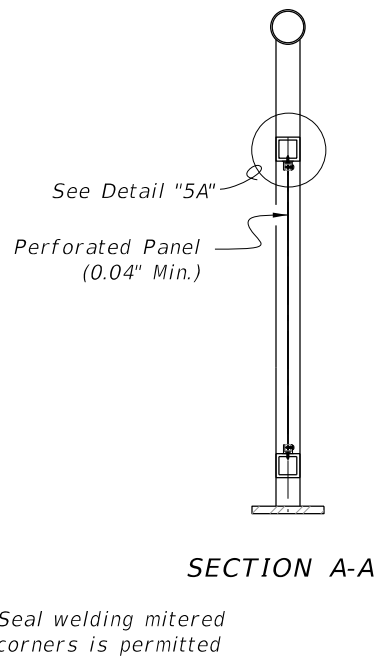
DETAIL "3D"
ARC/POST CONNECTION
(Continuous Top Rail)

DETAIL "3E"
PANEL END CONNECTION
AT POST WITH EXPANSION JOINT

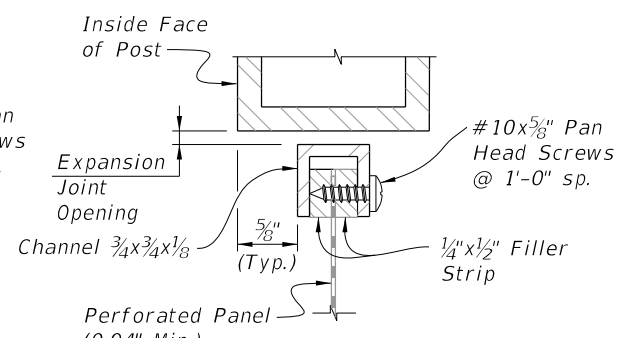




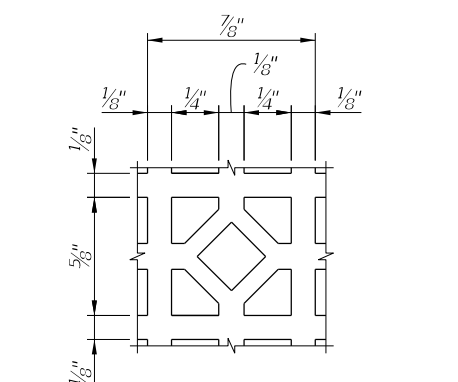
TYPE 5 - PERFORATED INFILL PANEL



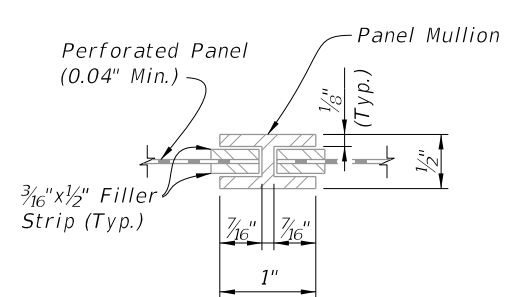
DETAIL "5A"
PANEL/RAIL CONNECTION
(Top Shown, Bottom Similar)



DETAIL "5B"
PANEL END CONNECTION
(Expansion Joint Shown, Sides Similar)



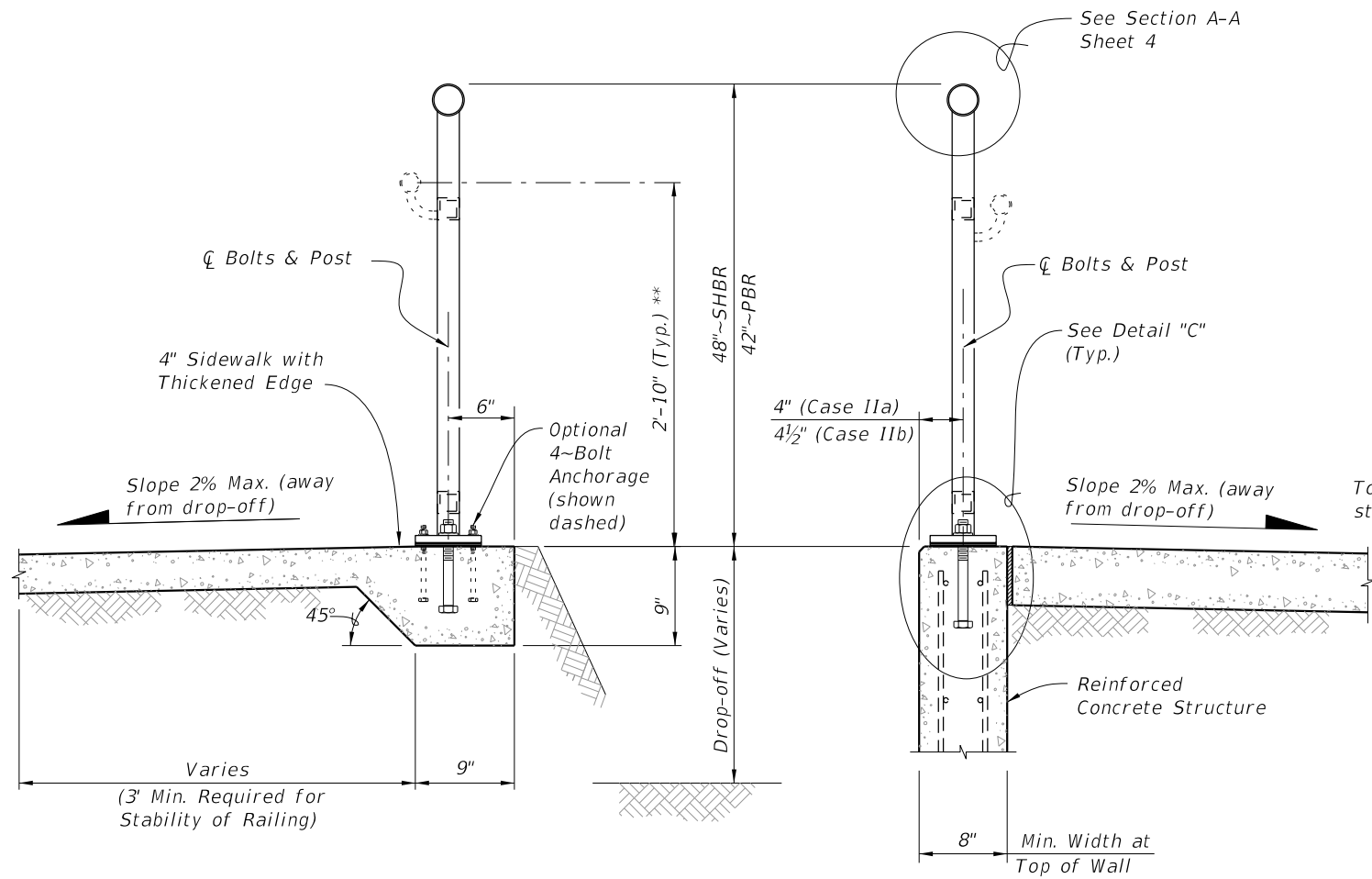
REPEATING PATTERN DETAIL
FOR PERFORATED PANEL



SECTION C-C
PANEL/SPLICE CONNECTION

9/28/2026 11:56:39 AM

LAST REVISION 11/01/16	REVISION DESCRIPTION:	 FY 2027-28 STANDARD PLANS	PEDESTRIAN/BICYCLE RAILING (ALUMINUM)	INDEX 515-062	SHEET 8 of 9
---------------------------------------	-------------------------------------	--	--	--------------------------	-------------------------

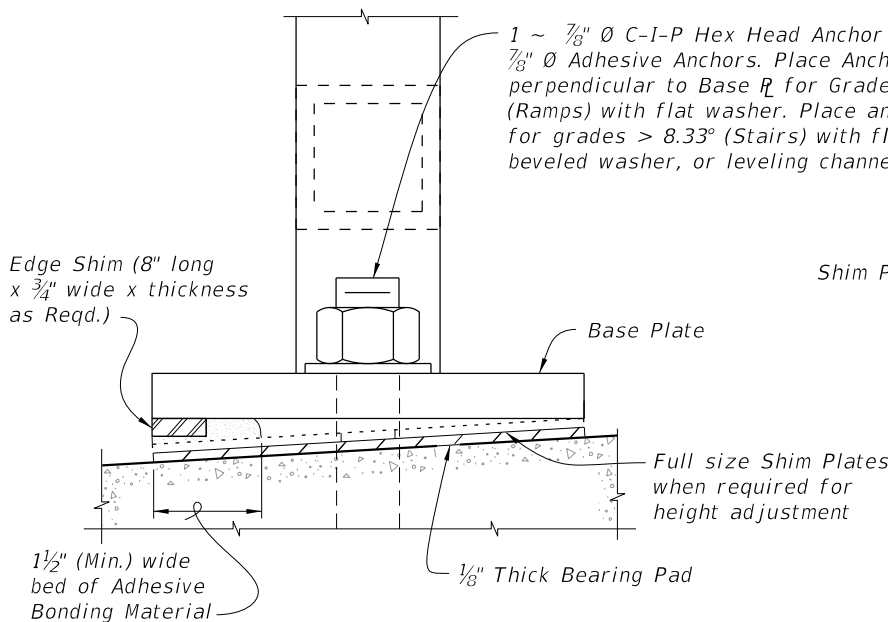


TYPICAL SECTION ON CONCRETE SIDEWALK (Case I)

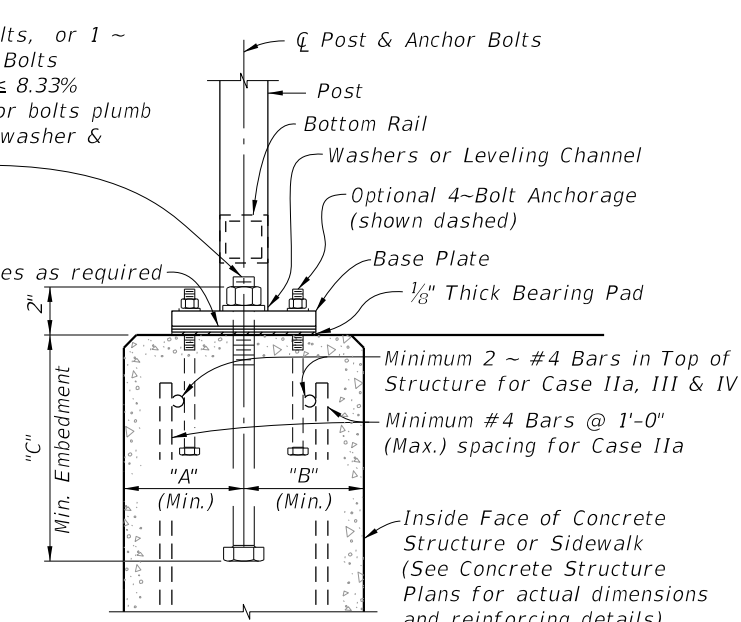
TYPICAL SECTION ON RETAINING WALL (Case II)

TYPICAL SECTION ON STEPS & STAIRS (Case III)

TYPICAL SECTION FOR 4-BOLT ANCHORAGE (Case IV)



DETAIL "D" (OPTIONAL SHIMMING DETAIL FOR CROSS SLOPE CORRECTION) (Used in lieu of Beveled Shim Plates)



DETAIL "C" (Cast-In-Place Anchor Bolts shown, Adhesive Anchors similar)

ANCHOR BOLT TABLE							
CASE	STRUCTURE TYPE	DIMENSIONS			ANCHOR LENGTH		ANCHOR SIZE
		"A" Edge Dist.	"B" Edge Dist.	"C" Embedment	C.I.P. Hex Head Bolt	Adhesive Anchor	
I	Unreinforced Concrete	6"	1'-2"	6"	7 1/2"	8"	7/8" Ø
IIa	Reinforced Concrete	4"	4"	9"	10 1/2"	11"	7/8" Ø
IIb	Gravity Wall Index 400-011	4 1/2"	3 1/2" @ top	9"	10 1/2"	11"	7/8" Ø
III	Step Cheekwall	4 1/2"	4 1/2"	9"	10 1/2"	11"	7/8" Ø
IV	Varies	5"	5"	5"	6 1/2"	7"	7/16" Ø

** When required; measured from top of sidewalk (Typ.)

9/28/2026 11:56:42 AM