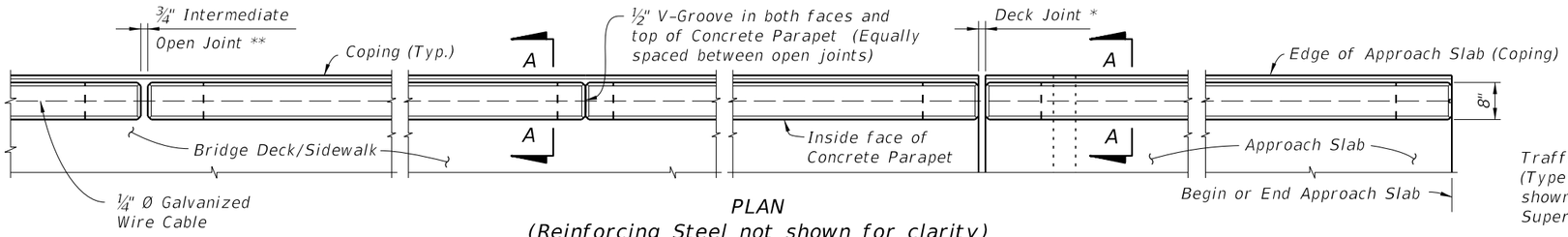
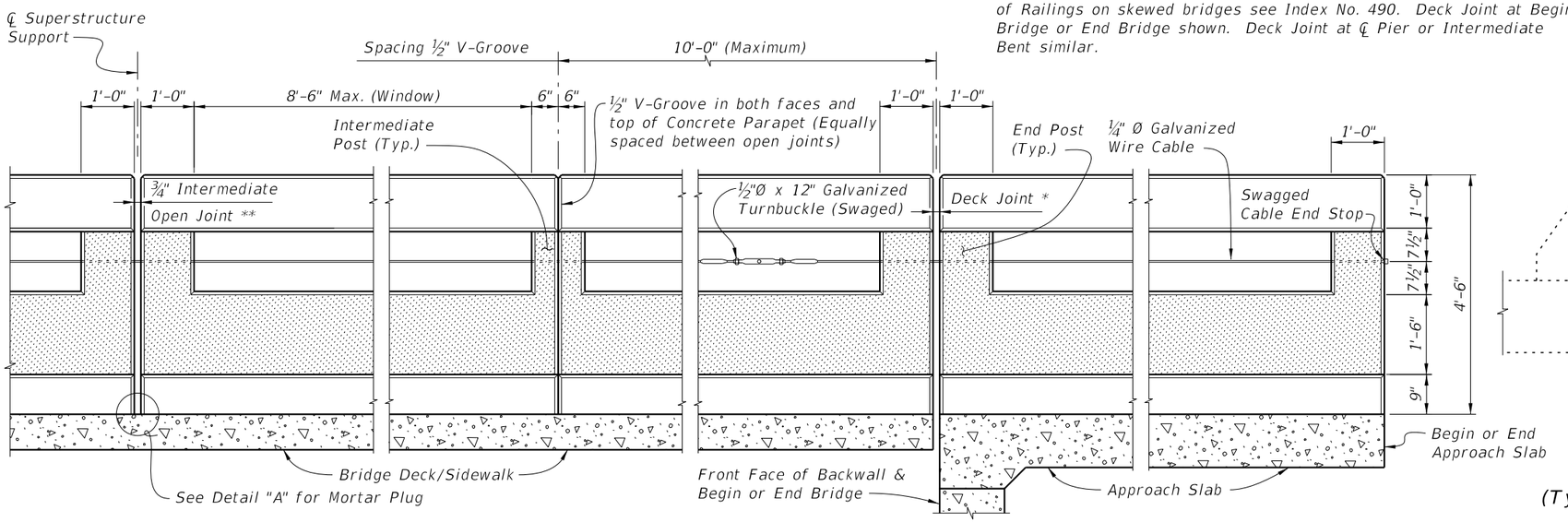
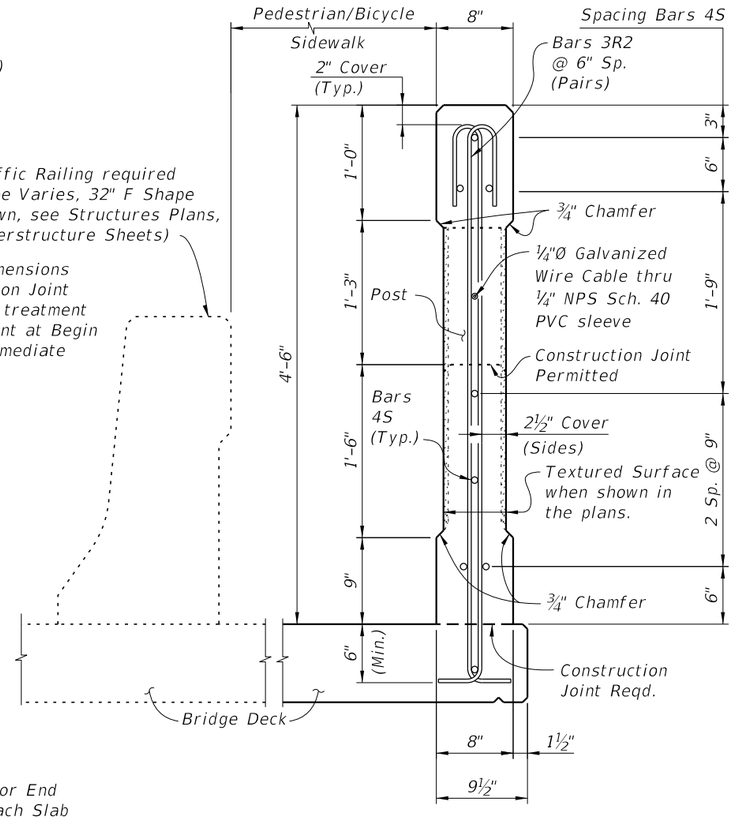


PLAN
(Reinforcing Steel not shown for clarity)

* See Structures Plans, Superstructure Sheets for actual dimensions and joint orientation. Open Parapet Joints at Deck Expansion Joint locations shall match the dimension of the Deck Joint. For treatment of Railings on skewed bridges see Index No. 490. Deck Joint at Begin Bridge or End Bridge shown. Deck Joint at ℄ Pier or Intermediate Bent similar.



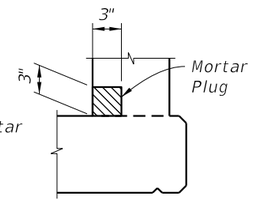
ELEVATION OF INSIDE FACE OF RAILING
(Reinforcing Steel not shown for clarity)



SECTION A-A
(Typical C.I.P. Section Thru Bridge Deck Shown, Section Thru Approach Slab Similar)

** ¾" Intermediate Open Joints shall be provided at locations coinciding with ¾" Joints for the Traffic Railing.

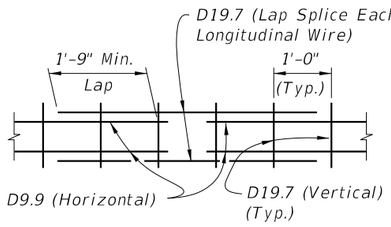
MORTAR PLUG NOTE:
At Intermediate Open Joints, the lower 3" portion of the open joint shall be plugged by filling it with mortar in accordance with Section 400 of the Specifications.



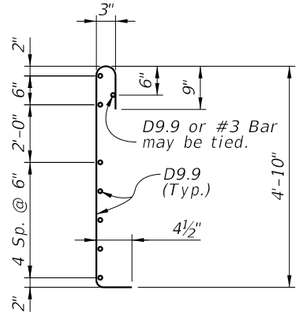
DETAIL "A" - SECTION
AT INTERMEDIATE OPEN JOINT

ALTERNATE REINFORCING (WELDED WIRE REINF.) DETAILS

NOTE: Place wire panels to ensure vertical wire is within 4" of open joints.



SPLICE DETAIL
(Between WWR Sections)

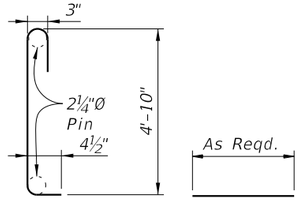


WELDED WIRE REINFORCEMENT
(WWR)
(2 Pieces Req'd.)

CONVENTIONAL REINFORCING STEEL BENDING DIAGRAMS

BILL OF REINFORCING STEEL

MARK	SIZE	LENGTH
R2	3	6'-2"
S	4	As Reqd.



BAR 3R2 BAR 4S

ESTIMATED CONCRETE PARAPET QUANTITIES

ITEM	UNIT	QUANTITY
Concrete	CY/LF	0.077
Reinforcing Steel	LB/LF	14.62

(The above quantities are based on a deck with a 2% cross slope)

CROSS REFERENCES:
See Sheet 2 for notes on Reinforcing Steel, Concrete Parapet, Galvanized Wire Cable and Precast Panel Option.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
07/01/10	SJN	New Design Standard			

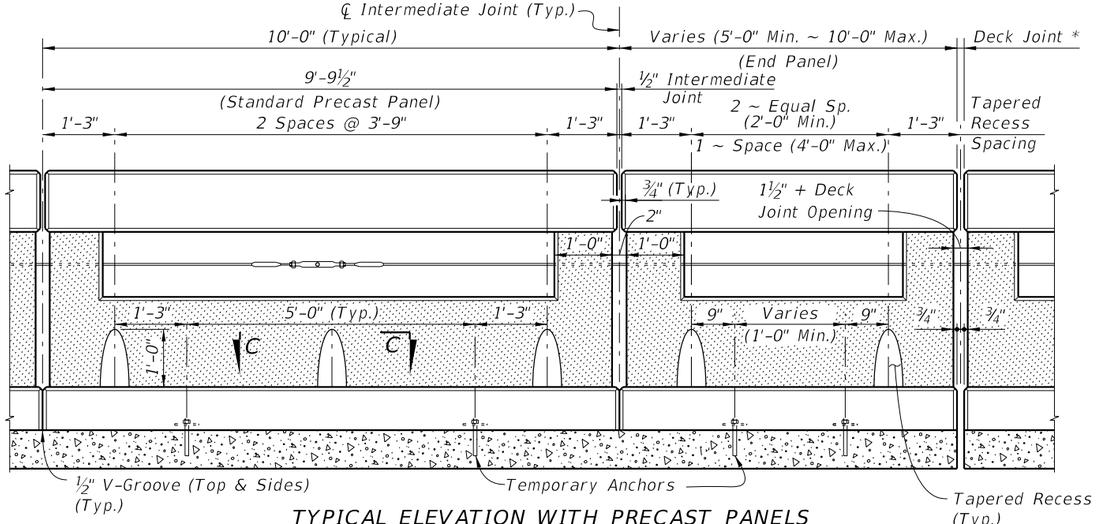
2010 Interim Design Standard

54" CONCRETE PEDESTRIAN/BICYCLE RAILING

Interim Date 07/01/10

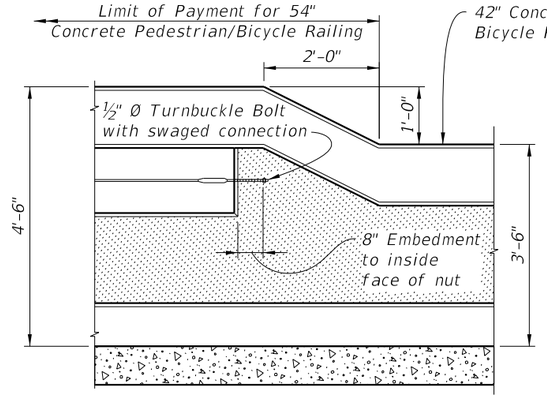
Sheet No. 1 of 2

Index No. 826

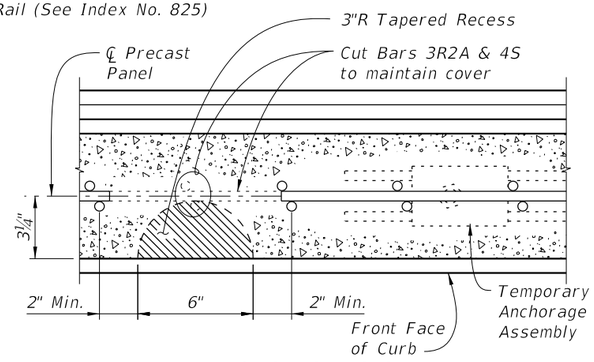


TYPICAL ELEVATION WITH PRECAST PANELS
(Reinforcing Steel not shown for clarity)

* See Note on Sheet 1



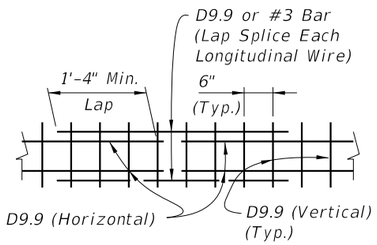
TYPICAL ELEVATION OF TRANSITION TO
42" CONCRETE PEDESTRIAN/BICYCLE RAILING



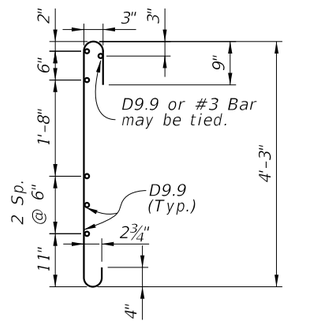
SECTION C-C
TAPERED RECESS DETAIL
(Curb Reinforcing not shown for clarity)

ALTERNATE REINFORCING (WELDED WIRE REINF.) DETAILS

NOTE: Place wire panels to ensure vertical wire is within 4" of each end of the precast panels.



SPLICE DETAIL
(Between WWR Sections)

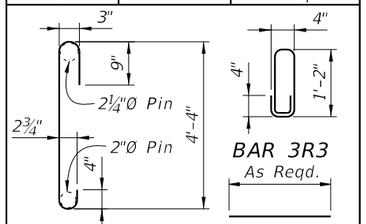


WELDED WIRE REINFORCEMENT
(WWR)
(2 Pieces Req'd.)

CONVENTIONAL REINFORCING STEEL BENDING DIAGRAMS

BILL OF REINFORCING STEEL

MARK	SIZE	LENGTH
R2A	3	6'-2"
R3	3	4'-0"
S	4	As Reqd.



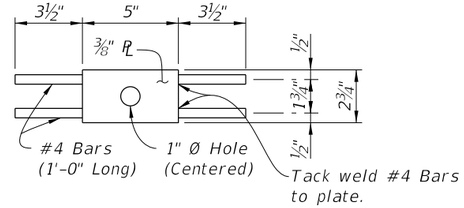
CONCRETE PARAPET NOTES:
1. Concrete parapet shall be placed vertical and top surface shall be level transversely.
2. Payment will be made under 54" Concrete Parapet (Pedestrian/Bicycle), LF (Item No. 521-6-13).

PRECAST PANEL NOTES:
1. Panel concrete shall be Class III for slightly or moderately aggressive or Class IV for extremely aggressive environments.
2. Precast Panel Tolerances:
   a. Overall Height & Width: ± ¼"
   b. Thickness: ± ¼"
   c. Plane of side mold: ± 1/16"
   d. Openings: ± ½"
   e. Out of Square: ⅛" per 5ft.
   f. Warping: 1/16" per foot distance to nearest corner.
   g. Bowing: 1/240 panel dimension.
   h. Surface Smoothness: ± 1/16" along 10ft. straight edge (Non-textured Surface)
   j. Adjacent panel alignment: ± ¼"

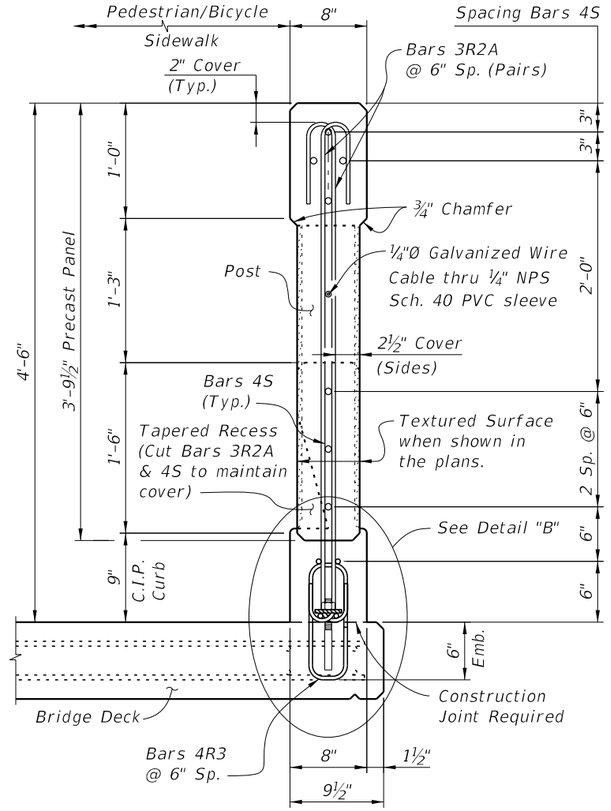
WIRE CABLE NOTES:
1. Turnbuckles shall be ASTM F1145, Type III (Rigging), Class D ½" Ø x 12" hot-dip galvanized.
2. Wire Cable shall be ¼" Ø 7x7 or 6x7 SC PRE drawn-galvanized IPS ASTM A1023.
3. Cable connections to Turnbuckles, Eye Bolts and End Stops shall be swagged aluminum or stainless steel.
4. Cable shall be stressed to 1000 lbs. minimum 1500 lbs. maximum at time of installation.
5. After cable stressing, jam nuts shall be tack welded to Turnbuckle body to prevent loosening. Tack weld and damaged galvanizing shall be coated with a galvanizing compound in accordance with the Specifications.

TEMPORARY ANCHORAGE ASSEMBLY NOTES:
1. Anchor plate shall be ASTM A36.
2. Anchor Bolts shall be zinc plated with pullout strength of 16,000 lbs. for 5" embedment in Class II concrete.

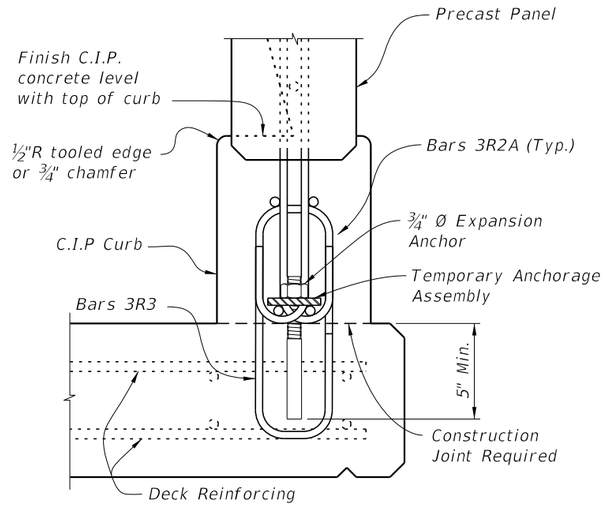
REINFORCING STEEL NOTES:
1. All bar dimensions in the bending diagrams are out to out.
2. The reinforcement for the parapet on a retaining wall shall be the same as detailed above for a 8" deck.
3. All reinforcing steel at the open joints shall have a 2" minimum cover.
4. Bars 4S in C.I.P curb may be continuous or spliced at the construction joints. Bar splices for Bars 4S shall be a minimum of 1'-4".
5. At the option of the Contractor Welded Wire Reinforcement (WWR) may be used in lieu of all Bars 3R2A and 4S. Welded Wire Reinforcement shall conform to Specification Section 931.



DETAIL B
TEMPORARY ANCHORAGE ASSEMBLY



SECTION A-A
(Typical Precast Section Thru Bridge Deck Shown, Section Thru Approach Slab Similar)



DETAIL B-B
PRECAST PANEL ANCHORAGE

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
07/01/10	SJN	New Design Standard			

2010 Interim Design Standard

54" CONCRETE PEDESTRIAN/BICYCLE RAILING

Interim Date 07/01/10

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