



Andy Beshear
GOVERNOR

TRANSPORTATION CABINET

200 Mero Street
Frankfort, Kentucky 40601

Jim Gray
SECRETARY

December 8, 2023

CALL NO. 105
CONTRACT ID NO. 231043
ADDENDUM # 2

Subject: Hart County, STP 6000 (172)
Letting December 14, 2023

- (1) Revised - Plan Sheets - S1, S26
- (2) Added - Plan Sheets - S27, S28

Proposal revisions are available at <http://transportation.ky.gov/Construction-Procurement/>.

If you have any questions, please contact us at 502-564-3500.

Sincerely,

Rachel Mills,

A handwritten signature in black ink that reads "Rachel Mills".

Rachel Mills, P.E.
Director
Division of Construction Procurement

RM:mr
Enclosures

TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

HART COUNTY HORSE CAVE CONNECTOR NEW ROUTE OVER CSX RAILROAD STA. 213+35.00

ESTIMATE OF QUANTITIES																					
BID ITEM CODE	08100	08104	08151	08150	08636	03299	23378EC	08020	08003	08051	02231	08033	25028ED	08095	23813EC22417EN20637ED	02274	20746ED20745ED				
BID ITEM	Concrete Class "A"	Concrete Class "AA"	Steel Reinforcement, Epoxy Coated	Steel Reinforcement	PPC I-Beam Type 5	Armored Edge for Concrete	Concrete Sealing	Crushed Aggregate Slope Protection	Foundation Preparation	Piles - Steel HP 14 x 89	Structure Granular Backfill	Test Piles	Railing System Single Slope 40 IN	Pile Points 14 Inch	Deck Drains	Drilled Shaft Common 54 IN	Drilled Shaft Solid Rock 48 IN	Chain Link Fence - 6ft	Rock Coring	Rock Sounding	
Integral End Bent #1 Pier #1	51.7	37.0	6250	14316			672	542		215	348	28		10		21	40				
Integral End Bent #2	51.7	37.0	6250				672	551		320	348	42		10							
Superstructure		324.1	95532		1396.0	80	17559						471		4			304.5			
BRIDGE TOTALS	161.1	398.1	108153	14316	1396.0	80	20377	1093	1	535	696	70	471	20	4	21	40	304.5	88		22

INDEX OF SHEETS

Sheet No.	Description
S1	Title Sheet
S2-S3	General Notes
S4	Layout
S5-S6	Subsurface Data
S7	Foundation Layout
S8-S10	Integral End Bent #1
S11-S12	Pier #1
S13-S15	Integral End Bent #2
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S17	PPC I-Beam, Type 5, Details
S18-S22	Superstructure
S23	Deck Drains
S24-S25	Construction Elevations
S26-S28	Chain Link Fence

SPECIAL NOTES

Special Note for Concrete Sealing
11C Drilled Shafts

SPECIAL PROVISIONS

69 Embankment at Bridge End Bent Structures

STANDARD DRAWINGS

BBP-001-12 Elastomeric Bearing Pads for Prestressed Beams
 BGX-006-10 Stencils for Structures
 BBP-002-04 Bearing Details
 BPS-011-04 HP14x89 Steel Pile
 BJE-001-14 Armored Edges
 BGX-012-02 Geotechnical Legend
 BHS-010 Railing System 40 Inch Single Slope

SPECIFICATIONS

2019 Standard Specifications for Road and Bridge Construction.

2020 AASHTO LRFD Bridge Design Specifications

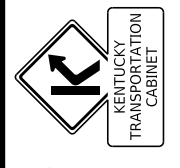
ROUTE	ITEM NO.	COUNTY OF
New Route	4-441.00	HART
	SHEET NO.	DRAWING NUMBER
	S1	28187

TITLE SHEET
CROSSING
CSX Railroad

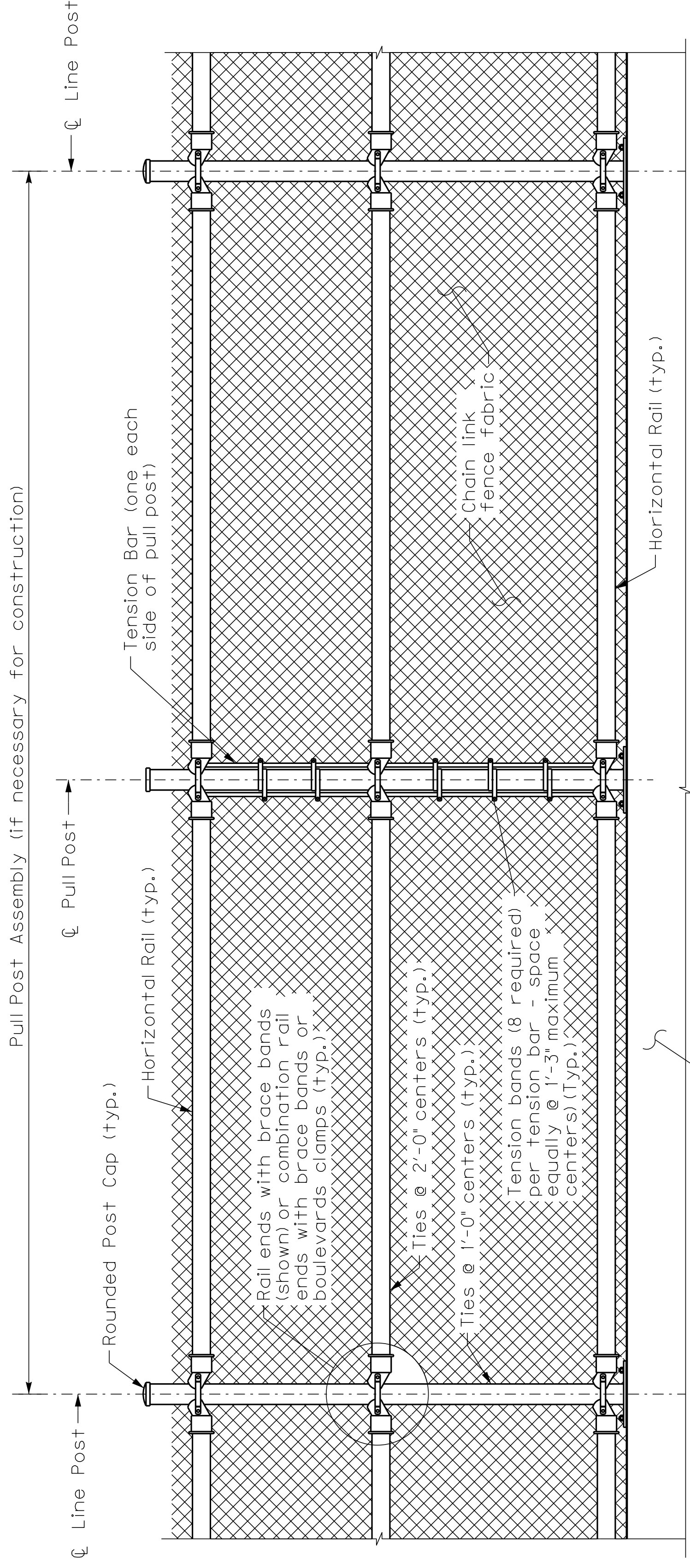
DATE: April 2021
 DESIGNED BY: K. Ee
 CHECKED BY: E. Kilgore

PREPARED BY
**Division of
 Structural Design**

REVISION



COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS



PULL POST ASSEMBLY DETAIL

(if necessary)

TABLE OF CHAIN LINK FENCE COMPONENTS (3) (4)		
COMPONENT	ASTM DESIGNATION	COMPONENT INFORMATION
Posts	F1083	Galvanized Steel Pipe - 2 1/2" NPS (5.79 lbs./ft.), Schedule 40 Regular Grade
Horizontal Rails	F1083	Galvanized Steel Pipe - 2" NPS (3.66 lbs./ft.), Schedule 40 Regular Grade
Chain Link Fabric (2" mesh with twisted top and knuckled bottom selvage)	A392	No. 9 gauge zinc coated wire (uncoated wire diameter), Class 2 Coating, Galvanized after weaving.
Tie Wires	F626	Zinc Coated Steel Wire - 9 gauge
Brace Bands	F626	12 Gage (Min. thickness) x 3/4" (Min. width) Steel Bands (Beveled or Heavy)
Tension Bars	F626	3/16" (Min. thickness) x 3/4" (Min. width) x Variable Height Steel Bars ~ Height = as necessary
Tension Bands	F626	14 Gage (Min. thickness) x 3/4" (width) Steel Bands
Miscellaneous Fence Components	F626	Zinc Coated Steel ~ (includes post or loop caps, horizontal and brace rail ends, combination rail ends, boulevard clamps and all other miscellaneous fittings and hardware)

NOTES:

- For treatment at the bridge ends, see previous sheet.
- Contractor may add additional pull posts as needed.
- For additional information see section 721 of the Standard Specifications for Road and Bridge Construction Current Edition.
- All components, including fence, are to be hot dip galvanized only. Vinyl coating is not required. Damaged galvanizing to be repaired. Submit repair plan to Engineer for approval.

LEGEND: NPS = Nominal Pipe Size

TABLE OF POST ATTACHMENT COMPONENTS (3) (4)		
COMPONENT	ASTM DESIGNATION	COMPONENT INFORMATION
Base Plates	A36 or A709 Grade 36	5/8" Steel PL
Shim Plates	A36 or A709 Grade 36	Plate thicknesses as required, Holes in shim plates will be 1" Ø
Adhesive Anchor Rods	F1554 Grade 36	Fully threaded Headless Anchor Rods ~ 7/8" Ø x 14 1/2"
C-I-P Anchor Rods	F1554 Grade 36	Hex Head Anchor Rods ~ 7/8" Ø x 14 1/2"
Nuts	A563	Hex Nuts for Base Plate Connections
Washers	F436	Flat Washers for Base Plate Connections
Bearing Pads (Plain Neoprene)	-	In Accordance with AASHTO Grade 50 Duramer Polychloroprene.

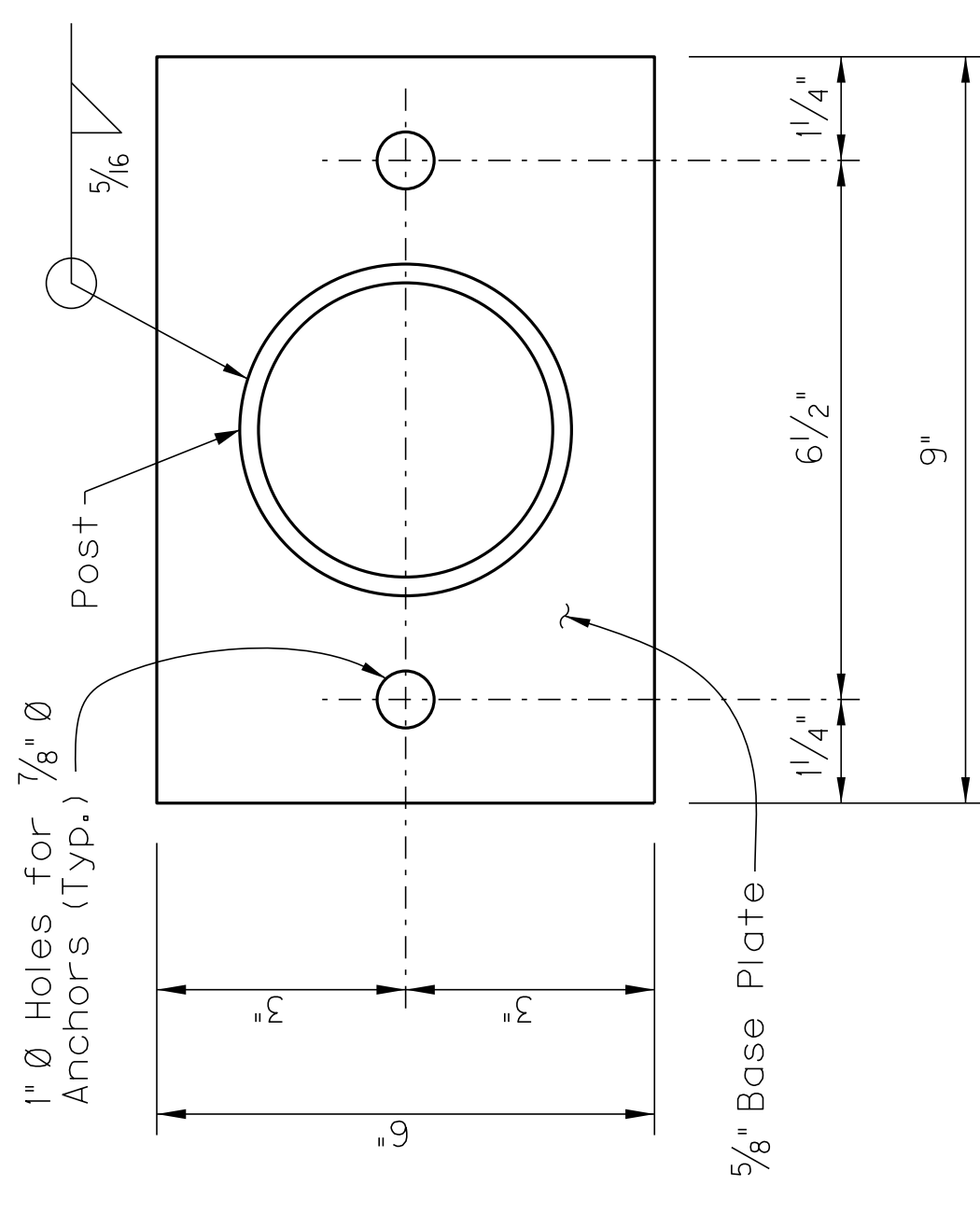
POST ATTACHMENT NOTES

ANCHOR RODS, NUTS AND WASHERS:
After the nuts have been tightened, distort the Anchor Rod threads to prevent removal of the nuts. Coat distorted threads and exposed trimmed ends of anchors with a galvanizing compound in accordance with Specification Section 821.

COATINGS:
Hot-dip galvanize all Nuts, Washers, Bolts, C-I-P Anchor Rods, Adhesive Anchors and Fence Framework (Posts, Internal Sleeves, Shim Plates and Base Plates) in accordance with Specification Section 816.04.01. Hot-dip galvanize Fence Framework after fabrication.

ADHESIVE-BONDED ANCHORS AND DOWELS:
Adhesive Bonding Material Systems for Anchors and Dowels will be selected from the Kentucky Division of Materials pre approved list. Adhesive bonding material system shall comply with Manufacturer Specifications. Adhesive bonded anchors shall be tested per the manufacturer's specifications to 11,0 kips pull out strength and be installed in accordance with manufacturer's specifications. Cutting of reinforcing steel is permitted for drilled hole installation.

WELDING:
All welding will be in accordance with the American Welding Society Structural Welding Code (Steel) ANSI/AWS D1.1 (current edition). Weld metal will be E60XX or E70XX. Nondestructive testing of welds is not required.



BASE PLATE DETAIL

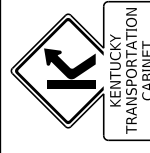
2 ~ 7/8" Ø C-I-P Anchor Rods or Adhesive-Bonded Anchors (shown) set in drilled holes with Heavy Hex Nuts and Washers

DETAIL "A"

CROSS REFERENCE:
For location of Detail "A" see previous sheet.



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



PREPARED BY

Division of
Structural Design

DATE

REVISION

DESIGNED BY: K. Ee

DATE: July 2021

DETAILD BY: K. Ee

CHECKED BY

E. Kilgore

E. Kilgore

CHAIN LINK FENCE

CROSSING

CSX RAILROAD

ROUTE

New Route

ITEM NO.

4-441.00

SHEET NO.

526

COUNTY OF

HART

DRAWING NUMBER

28187

TABLE OF POST ATTACHMENT COMPONENTS ③ ④

COMPONENT	ASTM DESIGNATION	COMPONENT INFORMATION
Base Plates	A36 or A709 Grade 36	5/8" Steel PL
Shim Plates	A36 or A709 Grade 36	Plate thicknesses as required, Holes in shim plates will be 1" Ø
Adhesive Anchor Rods	F1554 Grade 36	Fully threaded Headless Anchor Rods ~ 7/8" Ø x 14 1/2"
C-I-P Anchor Rods	F1554 Grade 36	Hex Head Anchor Rods ~ 7/8" Ø x 14 1/2"
Nuts	A563	Hex Nuts for Base Plate Connections
Washers	F436	Flat Washers for Base Plate Connections
Bearing Pads (Plain Neoprene)	-	In Accordance with AASHTO Grade 50 Diameter Polychloroprene.

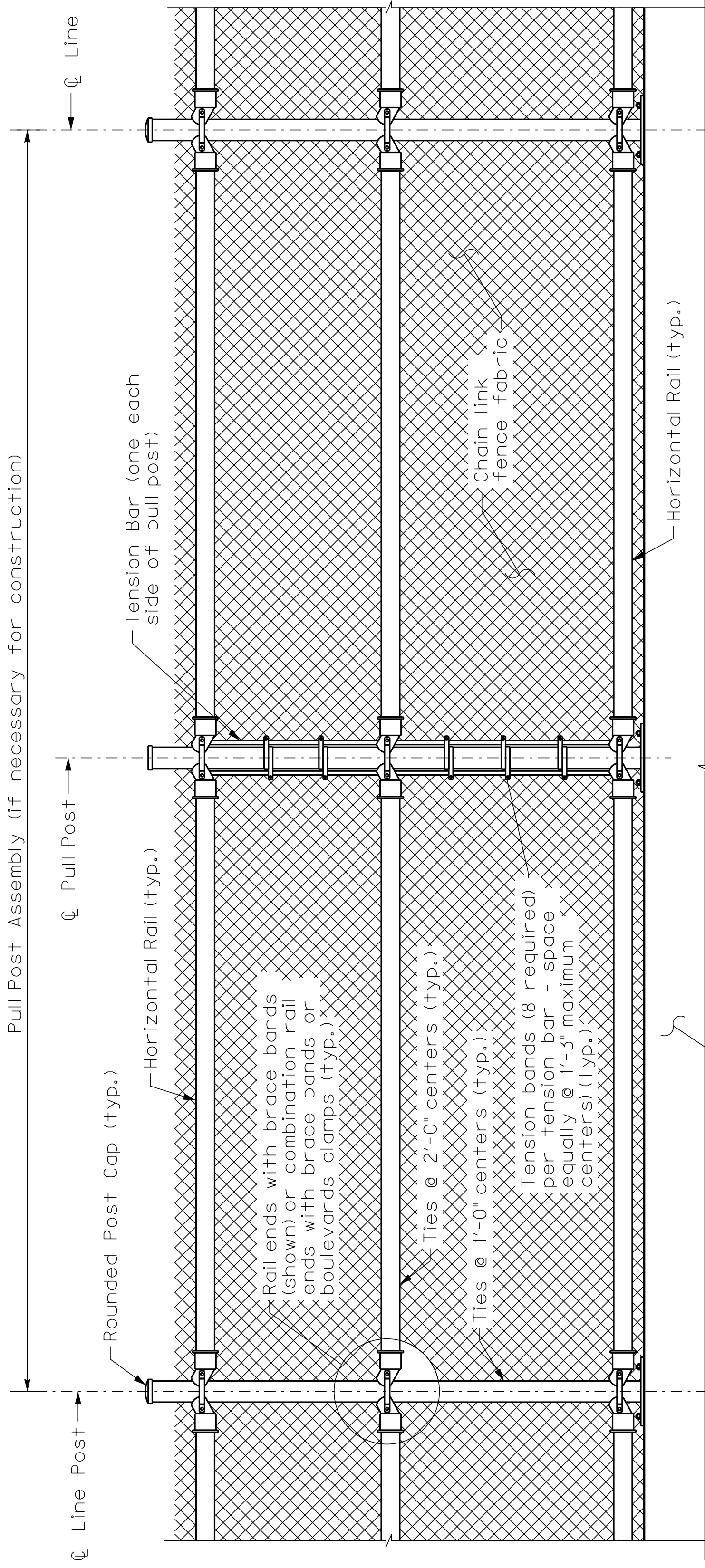
POST ATTACHMENT NOTES

ANCHOR RODS, NUTS AND WASHERS:
After the nuts have been tightened, distort the Anchor Rod threads to prevent removal of the nuts. Coat distorted threads and exposed trimmed ends of anchors with a galvanizing compound in accordance with Specification Section 821.

COATINGS:
Hot-dip galvanize all Nuts, Washers, Bolts, C-I-P Anchor Rods, Adhesive Anchors and Fence Framework (Posts, Internal Sleeves, Shim Plates and Base Plates) in accordance with Specification Section 816.04.01. Hot-dip galvanize Fence Framework after fabrication.

ADHESIVE-BONDED ANCHORS AND DOWELS:
Adhesive Bonding Material Systems for Anchors and Dowels will be selected from the Kentucky Division of Materials pre approved list. Adhesive bonding material system shall comply with Manufacturer Specifications. Adhesive bonded anchors shall be tested per the manufacturer's specifications to 11,0 kips pull out strength and be installed in accordance with manufacturer's specifications. Cutting of reinforcing steels is permitted for drilled hole installation.

WELDING:
All welding will be in accordance with the American Welding Society Structural Welding Code (Steel) ANSI/AWS D1.1 (current edition). Weld metal will be E60XX or E70XX. Nondestructive testing of welds is not required.



PULL POST ASSEMBLY DETAIL

(if necessary)

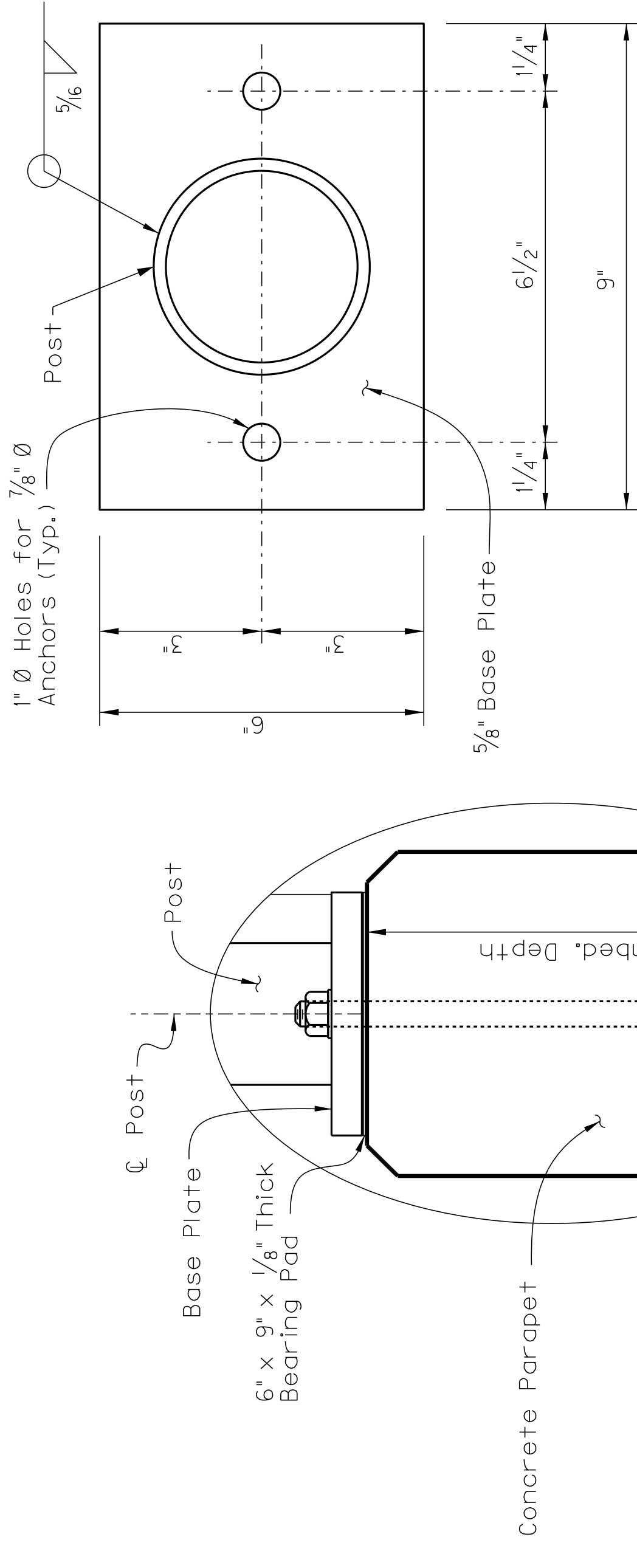
TABLE OF CHAIN LINK FENCE COMPONENTS ③ ④

COMPONENT	ASTM DESIGNATION	COMPONENT INFORMATION
Posts	F1083	Galvanized Steel Pipe - 2 1/2" NPS (5.79 lbs./ft.), Schedule 40 Regular Grade
Horizontal Rails	F1083	Galvanized Steel Pipe - 2" NPS (3.66 lbs./ft.), Schedule 40 Regular Grade
Chain Link Fabric (2" mesh with twisted top and knuckled bottom selvage)	A392	No. 9 gauge zinc coated wire (uncoated wire diameter), Class 2 Coating, Galvanized after weaving.
Tie Wires	F626	Zinc Coated Steel Wire - 9 gauge
Brace Bands	F626	12 Gage (Min. thickness) x 3/4" (Min. width) Steel Bands (Beveled or Heavy)
Tension Bars	F626	3/8" (Min. thickness) x 3/4" (Min. width) x Variable Height Steel Bars ~ Height = as necessary
Tension Bands	F626	14 Gage (Min. thickness) x 3/4" (width) Steel Bands
Miscellaneous Fence Components	F626	Zinc Coated Steel ~ (includes post or loop caps, horizontal and brace rail ends, combination rail ends, boulevard clamps and all other miscellaneous fittings and hardware)

NOTES:

1. For treatment at the bridge ends, see previous sheet.
2. Contractor may add additional pull posts as needed.
3. For additional information see section 721 of the Standard Specifications for Road and Bridge Construction Current Edition.
4. All components, including fence, are to be hot dip galvanized only. Vinyl coating is not required. Damaged galvanizing to be repaired. Submit repair plan to Engineer for approval.

LEGEND: NPS = Nominal Pipe Size

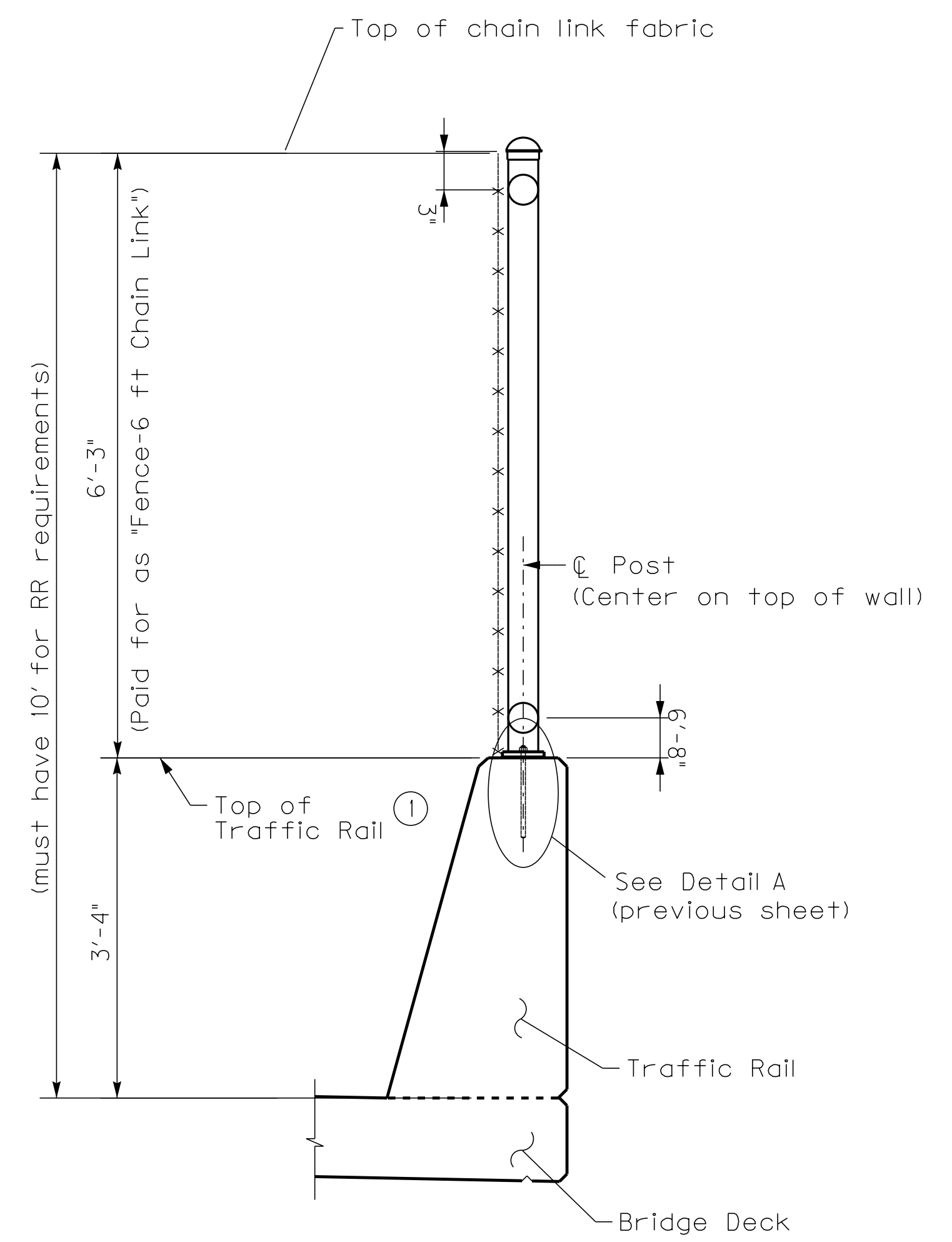
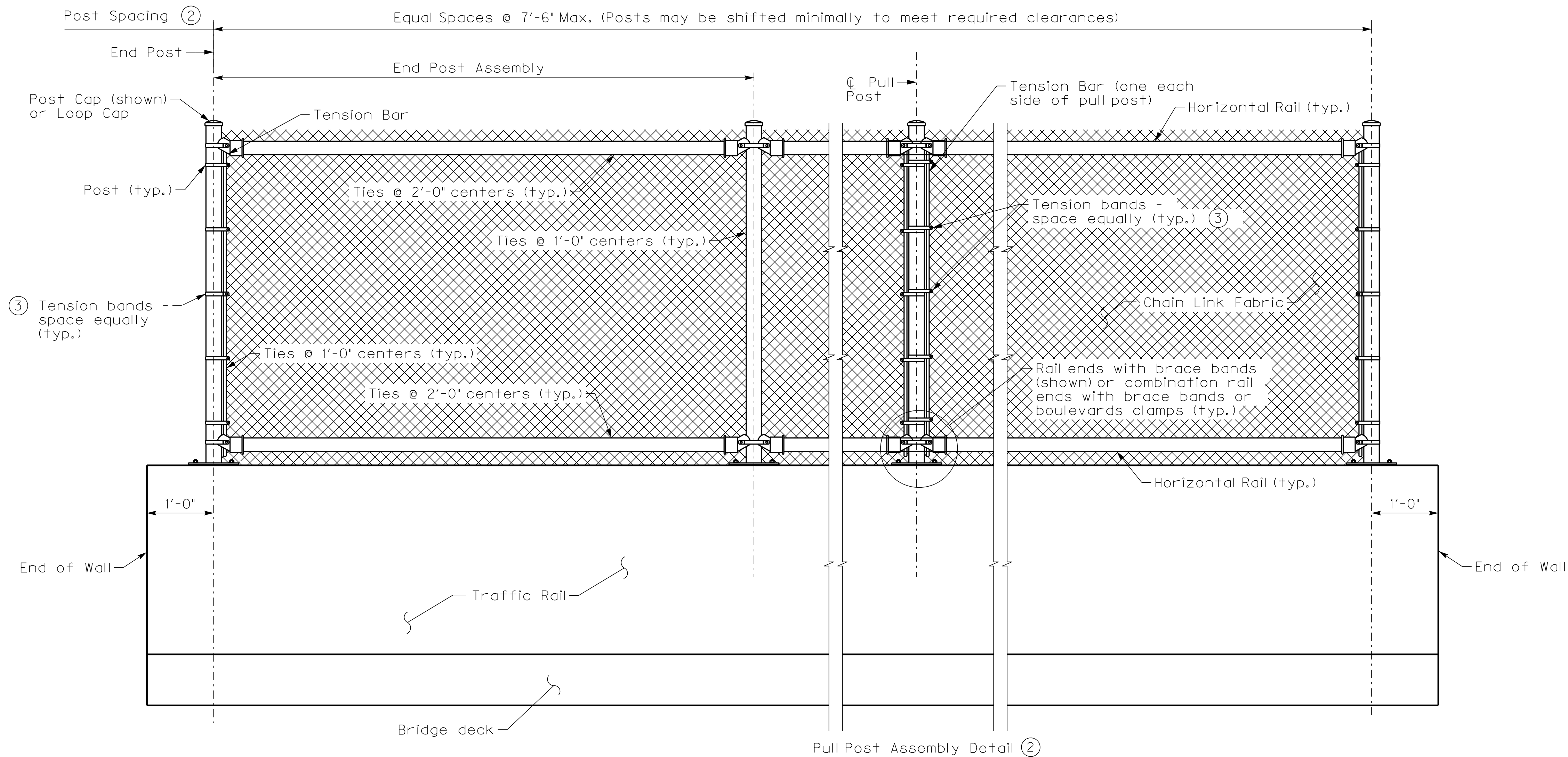


BASE PLATE DETAIL

2 ~ 7/8" Ø C-I-P Anchor Rods or Adhesive-Bonded Anchors (shown) set in drilled holes with Heavy Hex Nuts and Washers

DETAIL "A"

CROSS REFERENCE:
For location of Detail "A" see previous sheet.



ELEVATION OF OUTSIDE FACE OF PARAPET

- (2) Use pull post assembly as necessary.
- (3) 7 tension bands required per tension bar for 7'-3" fence.

TYPICAL SECTION

- (1) Do not anchor chain link fabric to top of traffic railing.

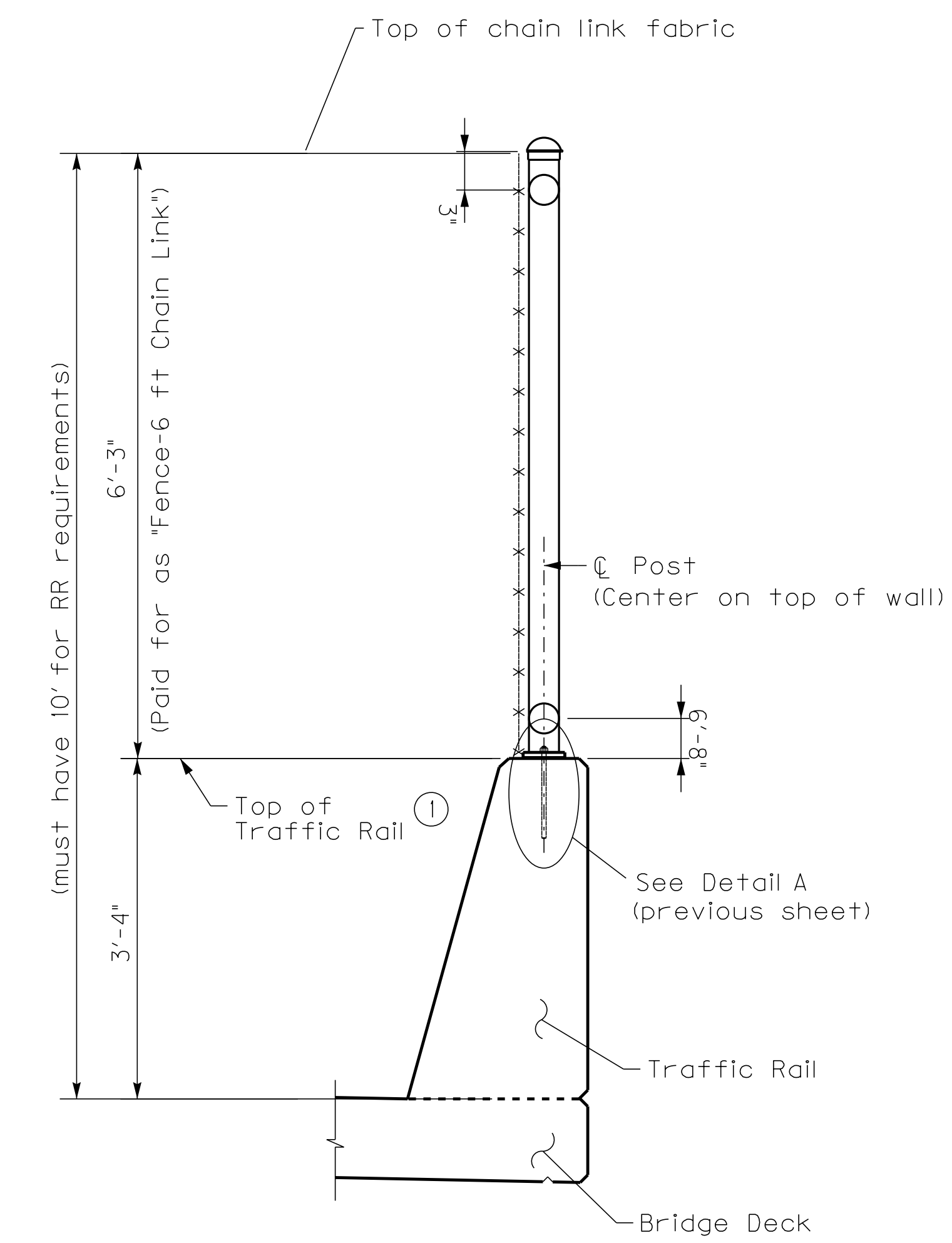
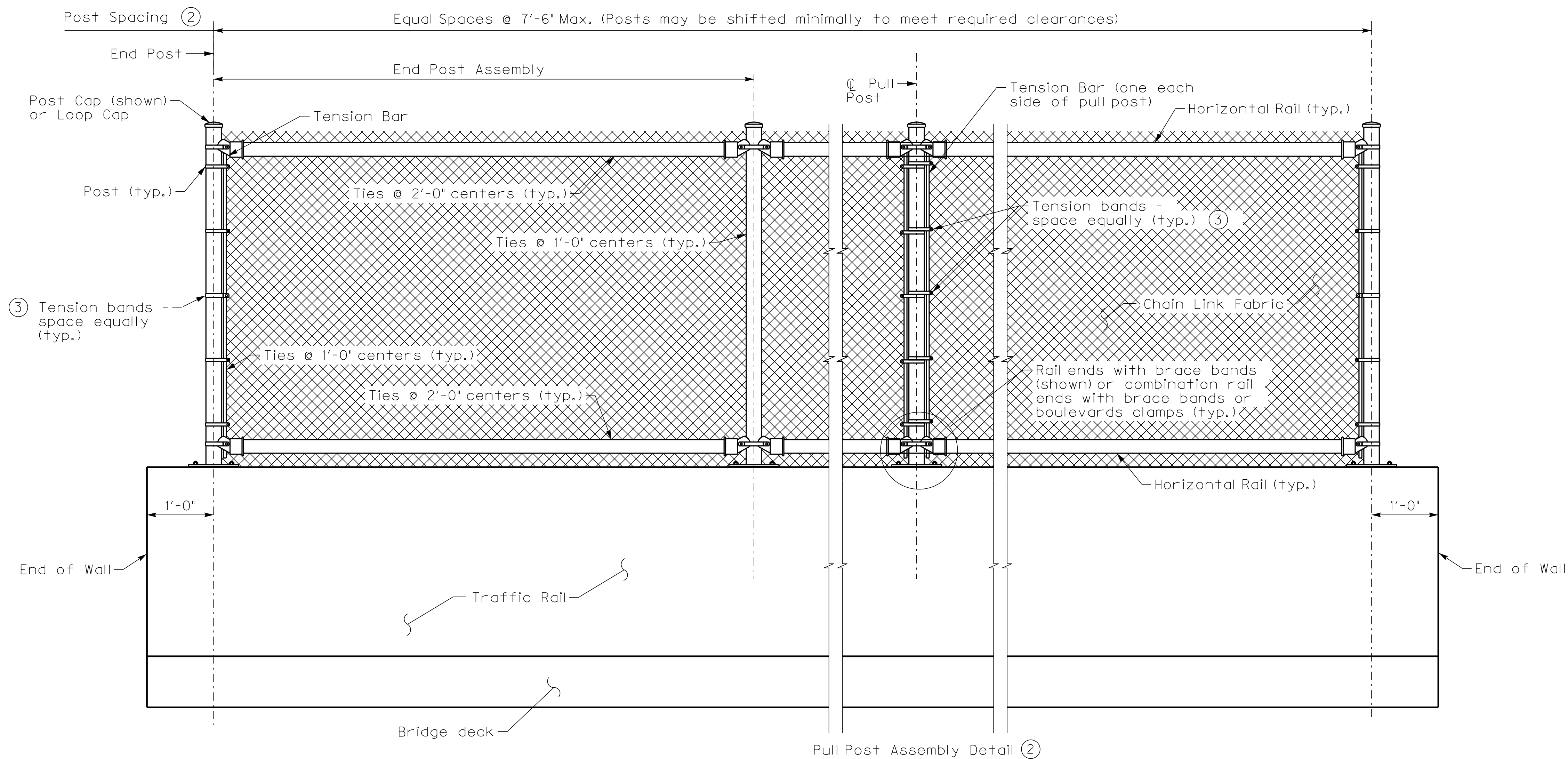
FENCING NOTES

FENCE INSTALLATION:
 Install posts plumb (within a tolerance of 1" ±). Use shim plates as required to achieve plumb. The required quantity and thickness of shim plates will be determined in the field. Install chain link fence in accordance with ASTM F567 as applicable.

LIMITS OF FENCING:
 Limits of fence are from 6ft after beginning of bridge to 6ft before end of bridge at left and right fascia of bridge.

PAYMENT:
 Payment at the contract unit price for "Chain Link Fence 6 Ft." includes full payment for posts, horizontal and expansion rails, brace bands, rail ends, combination rail ends, boulevard clamps, chain link fabric, ties, tension bars and bands, post and loop caps, base plates, anchor rods, bolts, nuts, washers, shim plates, neoprene pads, miscellaneous fence fittings and hardware and all incidental materials and labor required to complete installation of the fencing.

CROSS REFERENCE:
 For Table of Fence Components see next sheet
 For Table of Post Attachment Components and Detail "A" see previous sheet.



TYPICAL SECTION

① Do not anchor chain link fabric to top of traffic railing.

ELEVATION OF OUTSIDE FACE OF PARAPET

- ② Use pull post assembly as necessary.
- ③ 7 tension bands required per tension bar for 7'-3" fence.

FENCING NOTES

FENCE INSTALLATION:
 Install posts plumb (within a tolerance of 1" ±). Use shim plates as required to achieve plumb. The required quantity and thickness of shim plates will be determined in the field. Install chain link fence in accordance with ASTM F567 as applicable.

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 Limits of fence are from 6ft after beginning of bridge to 6ft before end of bridge at left and right fascia of bridge.

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CROSS REFERENCE:
 For Table of Fence Components see next sheet
 For Table of Post Attachment Components and Detail "A" see previous sheet.

TABLE OF CHAIN LINK FENCE COMPONENTS ① ②		
COMPONENT	ASTM DESIGNATION	COMPONENT INFORMATION
Posts	F1083	Galvanized Steel Pipe - 2½" NPS (5.79 lbs/ft.), Schedule 40 Regular Grade
Chain Link Fabric (2" mesh with twisted top and knuckled bottom selvage)	A392	No. 9 gauge zinc coated wire (uncoated wire diameter), Class 2 Coating, galvanized after weaving.
Tie Wires	F626	Zinc Coated Steel Wire - 9 gauge
Brace Bands	F626	12 Gage (Min. thickness) x ¾" (Min. width) Steel Bands (Beveled or Heavy)
Tension Bars	F626	¾" (Min. thickness) x ¾" (Min. width) x Height of fence
Tension Bands	F626	14 Gage (Min. thickness) x ¾" (Min. width) Steel Bands
Miscellaneous Fence Components	F626	Zinc Coated Steel ~ (includes post or loop caps, horizontal and brace rail ends, combination rail ends, boulevard clamps and all other miscellaneous fittings & hardware)
Horizontal Rails	F1083	Galvanized Steel Pipe - 2" NPS (3.66 lbs/ft.), Schedule 40 Regular Grade

TABLE OF POST ATTACHMENT COMPONENTS ① ②		
COMPONENT	ASTM DESIGNATION	COMPONENT INFORMATION
Base Plates	A36 or A709 Grade 36	5/8" Steel PL
Shim Plates	A36 or A709 Grade 36	Plate thicknesses as required; Holes in shim plates will be 1" Ø
Adhesive Anchor Rods	F1554 Grade 36	Fully threaded Headless Anchor Rods ~ 7/8" Ø x 14½"
C-I-P Anchor Rods	F1554 Grade 36	Hex Head Anchor Rods ~ 7/8" Ø x 14½"
Nuts	A563	Hex Nuts for Base Plate Connections
Washers	F436	Flat Washers for Base Plate Connections
Bearing Pads (Plain Neoprene)	-	In accordance with AASHTO Grade 50 Durameter Polychloroprene

POST ATTACHMENT NOTES

ANCHOR RODS, NUTS AND WASHERS:

After the nuts have been tightened, distort the Anchor Rod threads to prevent removal of the nuts. Coat distorted threads and exposed trimmed ends of anchors with a galvanizing compound in accordance with Specification Section 821.

COATINGS:

Hot-dip galvanize all Nuts, Washers, Bolts, C-I-P Anchor Rods, Adhesive Anchors and Fence Framework (Posts, Internal Sleeves, Shim Plates and Base Plates) in accordance with Specification Section 816.04.01. Hot-dip galvanize Fence Framework after fabrication.

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WELDING:

All welding will be in accordance with the American Welding Society Structural Welding Code (Steel) ANSI/AWS D1.1 (current edition). Weld metal will be E60XX or E70XX. Nondestructive testing of welds is not required.

- For additional information see section 721 of the Standard Specifications for Road and Bridge Construction Current Edition.
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Tension Bars	F626	3/16" (Min. thickness) x 3/4" (Min. width) x Height of fence
Tension Bands	F626	14 Gage (Min. thickness) x 3/4" (Min. width) Steel Bands
Miscellaneous Fence Components	F626	Zinc Coated Steel ~ (includes post or loop caps, horizontal and brace rail ends, combination rail ends, boulevard clamps and all other miscellaneous fittings & hardware)
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TABLE OF POST ATTACHMENT COMPONENTS ① ②		
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POST ATTACHMENT NOTES

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COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



REVISION	DATE

PREPARED BY
Division of Structural Design

DATE: July 2021	CHECKED BY:
DESIGNED BY: K. Ee	E. Kilgore
DETAILED BY: K. Ee	E. Kilgore

CHAIN LINK FENCE
CROSSING
CSX RAILROAD

ROUTE New Route	ITEM NO. 4-441.00	COUNTY OF HART
	SHEET NO. S28	DRAWING NUMBER 28187