

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION



SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, 9th Edition 2020.

TRAFFIC DATA

Current (2022) AADT 8,385  
Design Speed (mph) 35 mph

MATERIALS

Fence Fabric AASHTO M-181 Type IV, Class B  
Steel Offset Brackets AASHTO M270 Grade 36, Galvanized  
Posts, Rails, and Fence Hardware AASHTO M-181, Grade 2

PROSPECT/VERONA  
WALDO/HANCOCK COUNTY  
PENOBSCOT NARROWS BRIDGE  
AND OBSERVATORY

OVER  
PENOBSCOT RIVER  
STATE ROUTE 3/US ROUTE 1  
FEDERAL AID PROJECT NO. 2777800  
BRIDGE NO. 6421

LIST OF DRAWINGS

Title Sheet	1
Estimated Quantities and General Notes	2
Transverse Section	3
Post and Rail Layout	4-5
Typical Fencing Section and Elevation	6
Fanguard Elevation and Details	7

MAINTENANCE OF TRAFFIC

Maintain alternating one-way traffic on a single bound of structure while contractor is working on opposite bound.

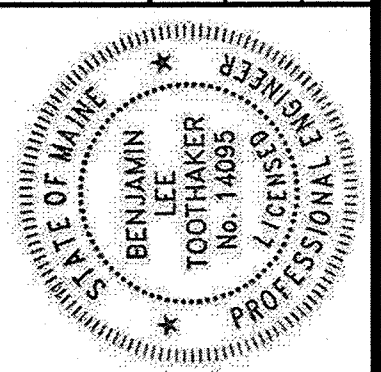
UTILITIES

Central Maine Power Company, Charter Communications, Consolidated Communications of Northern New England, Firstlight, and Lincolnville Telephone Company.

TYLin

PROJECT LOCATION:	US Route 1/State Route 3 - Penobscot Narrow Bridge (#6421) over Penobscot River. Located at Junction of US Route 1 and State Route 3 with State Route 174 between Prospect and Verona Island, Maine. Latitude 44°33' 36.11" N, Longitude 68° 48' 8.21" W
OUTLINE OF WORK:	Bridge Rail and Curb Improvement. Install safety fencing above the existing bridge rail.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		DATE
APPROVED		
COMMISSIONER:		1-16-25
CHIEF ENGINEER:		1-15-2025



	SIGNATURE	P.E. NUMBER	DATE
	14095	01/14/2025	

PROJECT INFORMATION	
PROGRAM	BRIDGE
PROJECT MANAGER	A. LATHE
DESIGNER	B. TOOTHAKER
CONSULTANT	T.Y. LIN INTERNATIONAL
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

PENOBSCOT NARROWS BRIDGE OVER PENOBSCOT RIVER PROSPECT/VERONA WALDO/HANCOCK CTY	TITLE SHEET
---	-------------

SHEET NUMBER
1
OF 7

Date:1/9/2025

Username:

Division: HIGHWAY

Filename:\00\BRIDGE\MSTA\001\_Title.dgn

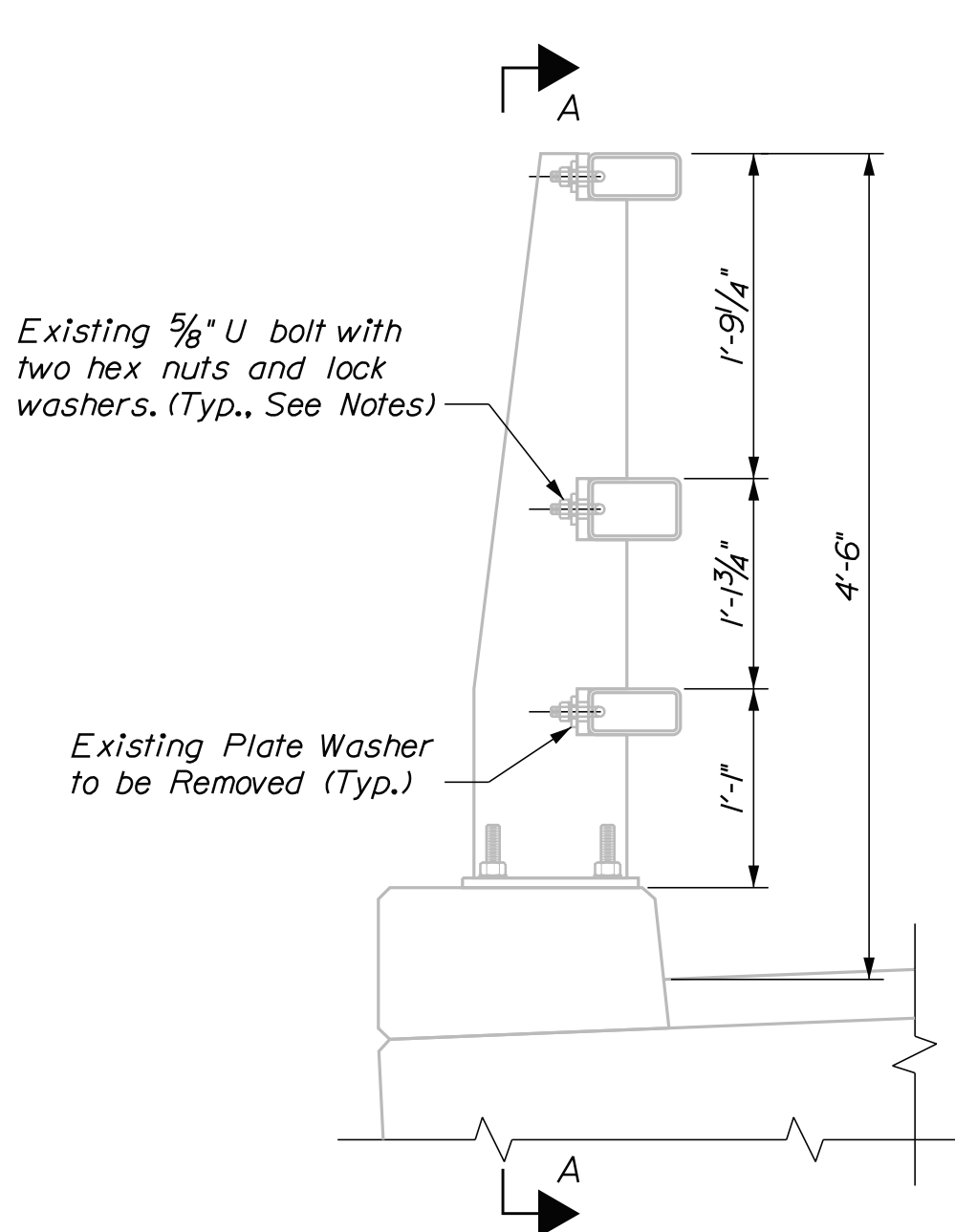
2777800 WIN 027778.00

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
607.44I	CHAIN LINK SAFETY FENCE (4,210 LF)	1	LS
629.05	HAND LABOR, STRAIGHT TIME	20	HR
631.10	AIR COMPRESSOR (INCLUDING OPERATOR)	20	HR
631.1I	AIR TOOL (INCLUDING OPERATOR)	20	HR
631.17I	TRUCK - SMALL (INCLUDING OPERATOR)	20	HR
639.2I	FIELD OFFICE TYPE D	1	EA
652.33	DRUM	20	EA
652.34	CONE	100	EA
652.35	CONSTRUCTION SIGNS	300	SF
652.36I	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1	LS
652.38	FLAGGER	2,100	HR
652.4I	PORTABLE CHANGEABLE MESSAGE SIGN	3	EA
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

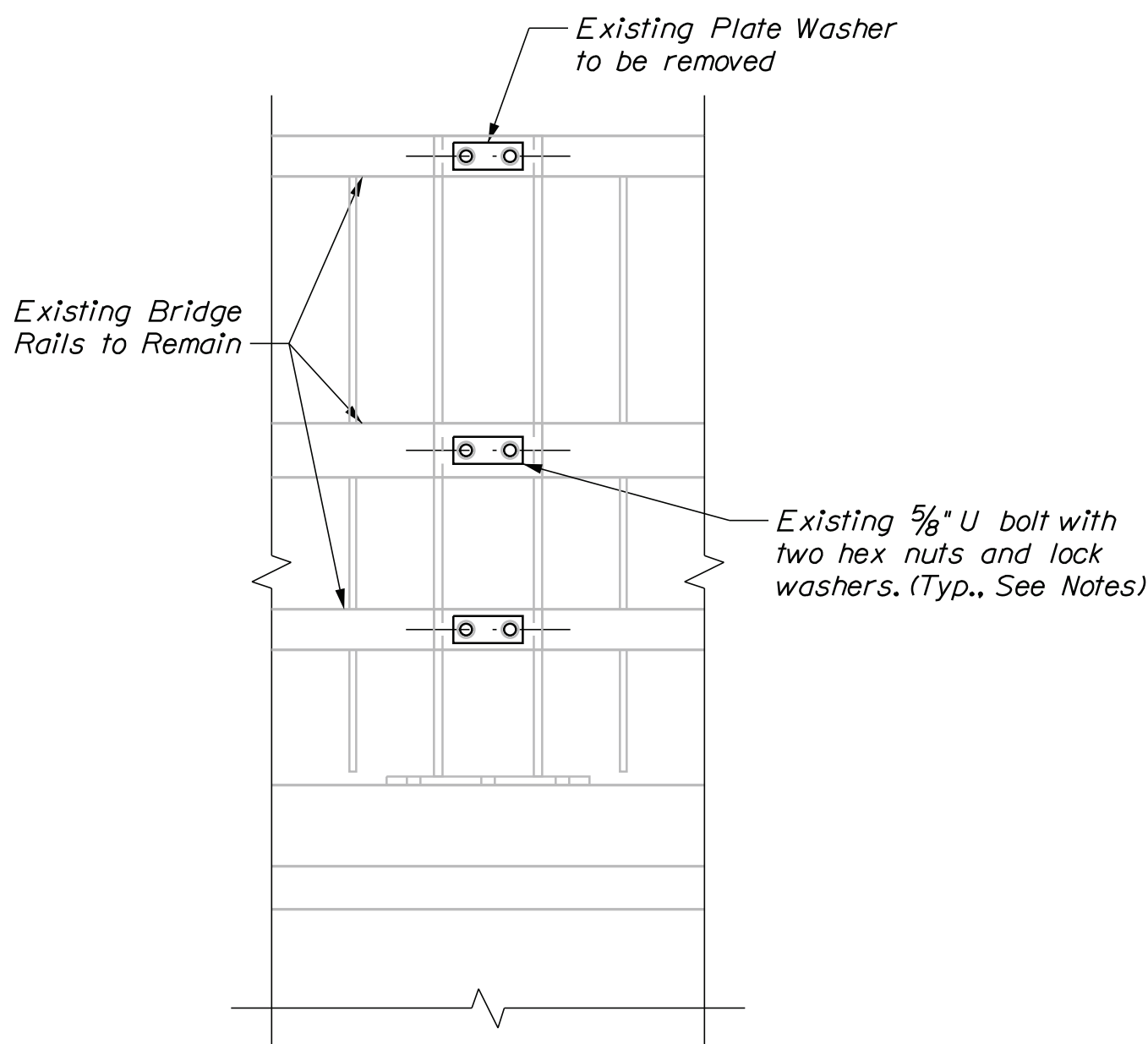
GENERAL CONSTRUCTION NOTES

- All work and temporary traffic control devices shall be within the existing right of way.
- Contractor will be responsible for submitting a traffic control plan to The Resident for review and approval by The Department prior to mobilizing any materials to the site.
- All existing hardware and sign posts which are necessary to be removed to complete the work, and are not designated for reuse on the project, will become property of the Contractor.
- Existing utilities and bridge lighting shall not be impacted unless prior approval has been provided by The Resident.
- Contractor shall take care during all work activities to ensure that the existing structure to remain and the existing protective coatings are not damaged. Contractor will be responsible for repairing any damage to the existing structure resulting from site activities. Any necessary repairs will be as directed by The Resident, and will be considered incidental to the Contract.
- The proposed work requires temporarily disconnecting portions of the existing steel bridge railing. Only one rail bar may be disconnected from each existing bridge rail post at a time. Each rail bar shall remain secured at the adjacent posts when necessary modifications are made at each rail post location. The existing rail bars shall be entirely secured to the existing bridge rail posts at any location where the contractor is not actively working.
- All materials and workmanship shall be in accordance with applicable standards, best practices, and manufacturer recommendations, where applicable, and as directed by The Resident.
- Project information referred to below may be accessed at the following MaineDOT web address: <http://www.maine.gov/mdot/contractors/>
- The existing bridge plans may be accessed at the MaineDOT web address. The plans are reproductions of the original drawings as prepared for the construction of the bridge. It is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.
- Quantities included for pay items measured and paid for by Lump Sum are estimated quantities and are provided by MaineDOT for informational purposes only. Lump Sum pay items will be paid for at the Contract Bid amount, with no addition or reduction in payment to the Contractor if the actual final quantities are different from the MaineDOT provided estimated quantities, except as follows:
  - If a Lump Sum pay item is eliminated, the requirements of Standard Specifications Section 109.2, Elimination of Items, will take precedence.
  - If other Contract Documents specifically allow a change in payment for a Lump Sum pay item, those requirements will be followed.
  - If a design change results in changes to estimated quantities for Lump Sum pay items, price adjustments will be made in accordance with Standard Specifications Section 109.7, Equitable Adjustments to Compensation and Time.
- All pipe diameters in the plans are the actual outside pipe diameters.

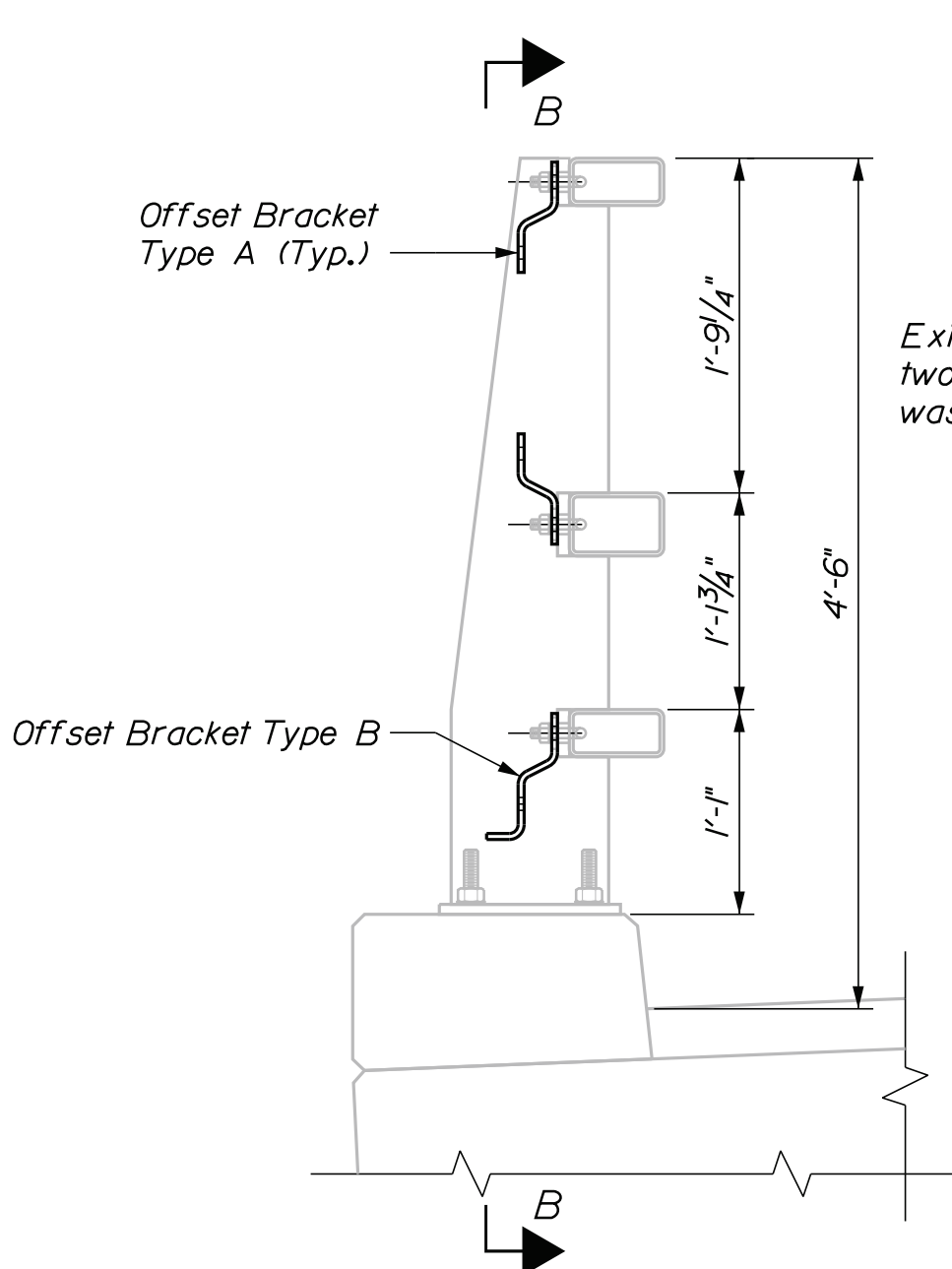




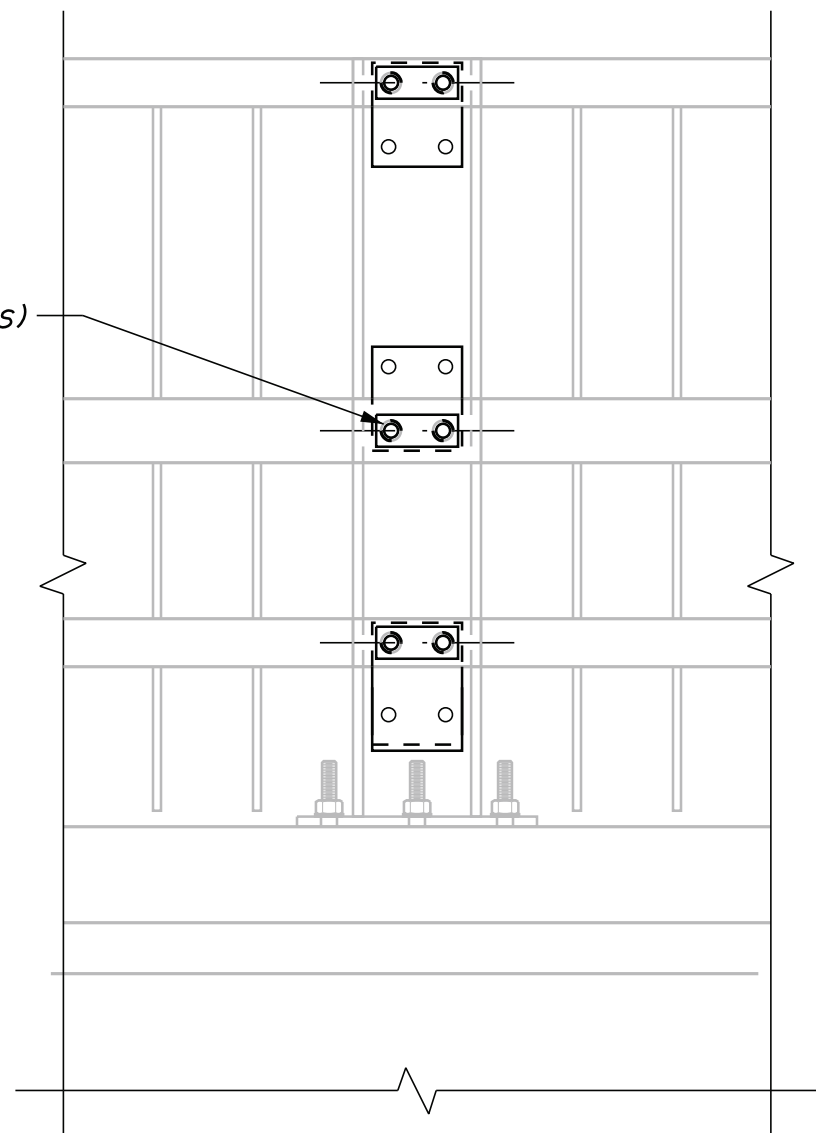
EXISTING RAIL SECTION



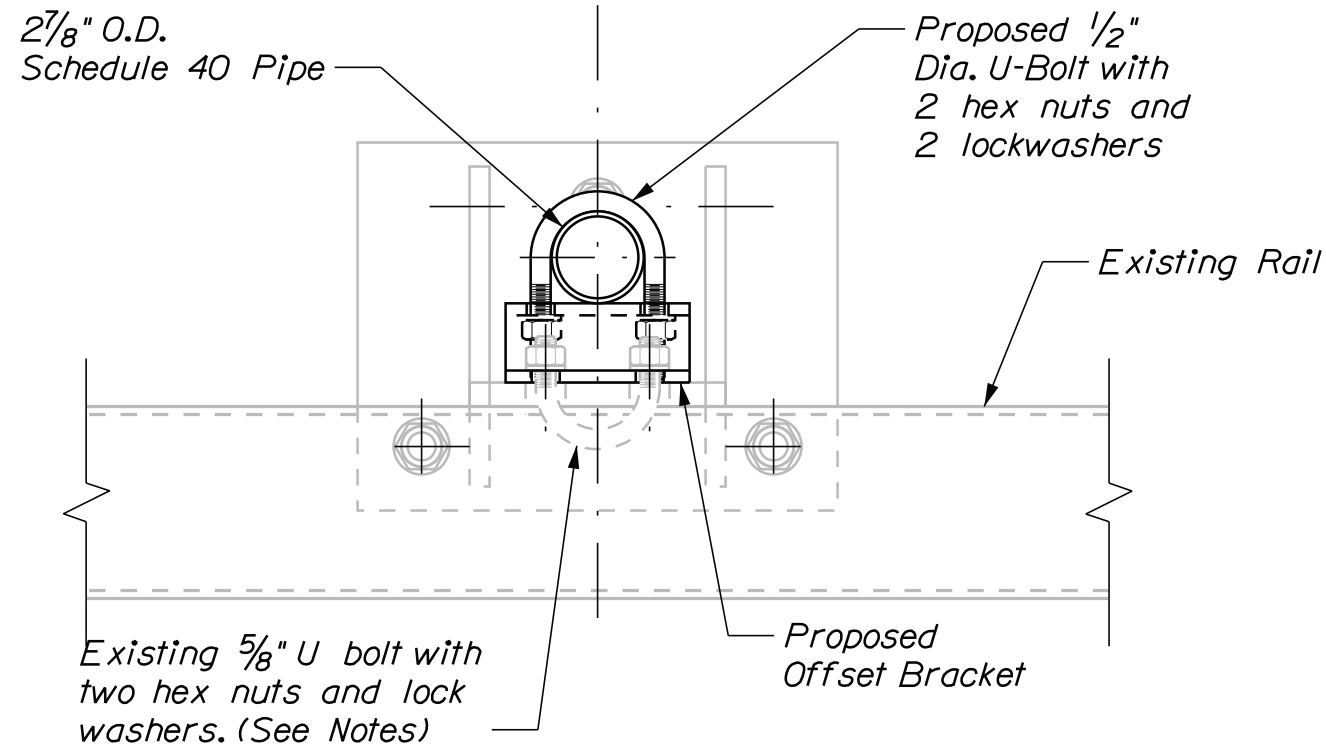
VIEW A-A



PROPOSED RAIL SECTION, TYP.



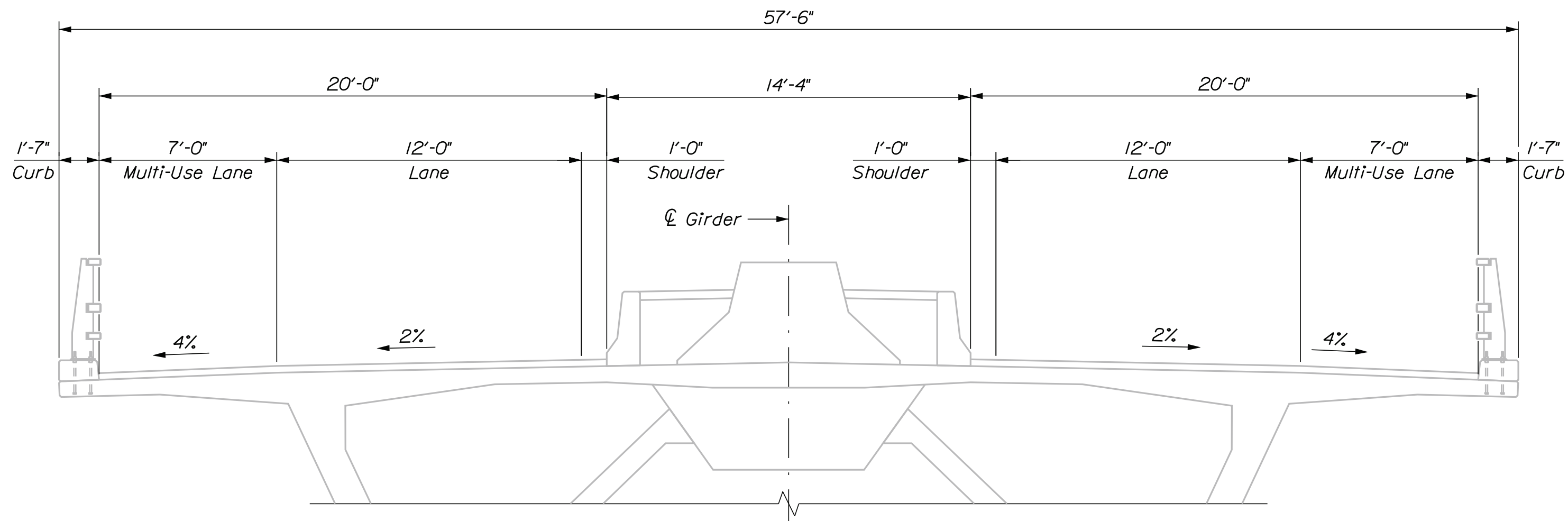
VIEW B-B



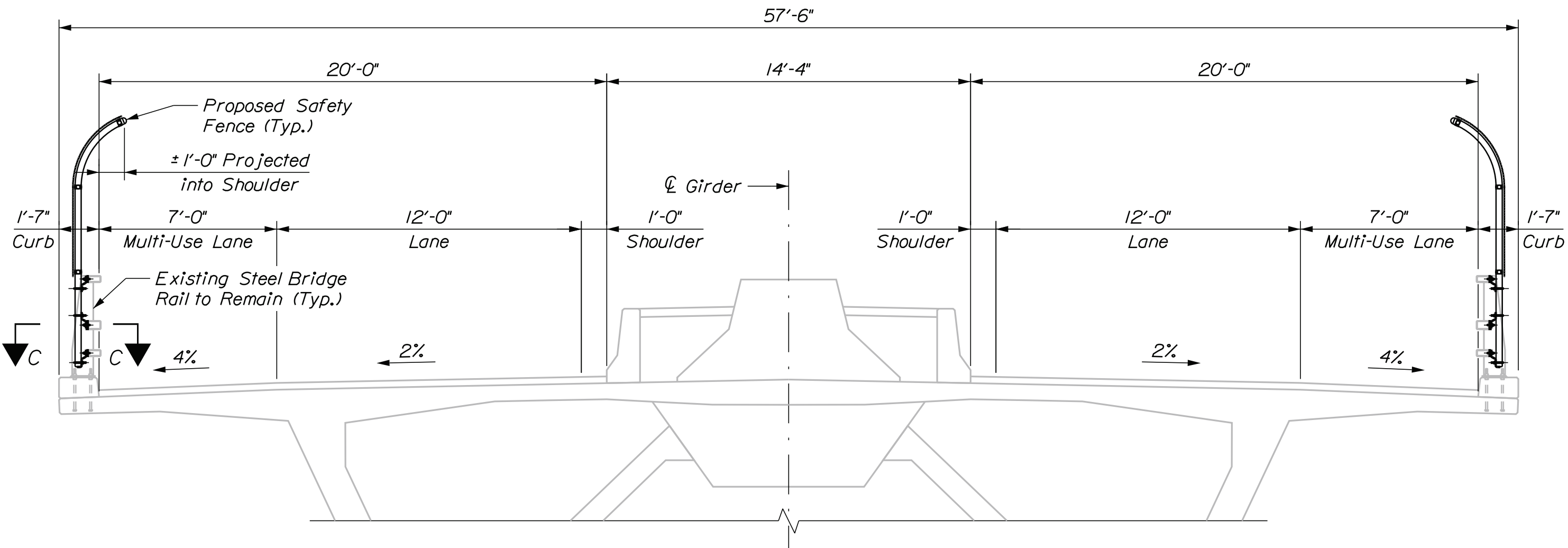
SECTION C-C  
(Existing Post with Nested Safety  
Fence Vertical Support)

**Note:**

The existing U bolts, hex nuts, and lock washers, securing the bridge rails to the post may be reused or removed and replaced in kind at the option of the Contractor. After replacing the existing plate washer with the offset brackets, the hardware shall be secured as required by Specification Section 507.



EXISTING TRANSVERSE SECTION



PROPOSED TRANSVERSE SECTION

PROSPECT - VERONA BRIDGE  
PENOBSCOT RIVER  
PROSPECT/VERONA WALDO/HANCOCK CTY

SHEET NUMBER  
3  
OF 7

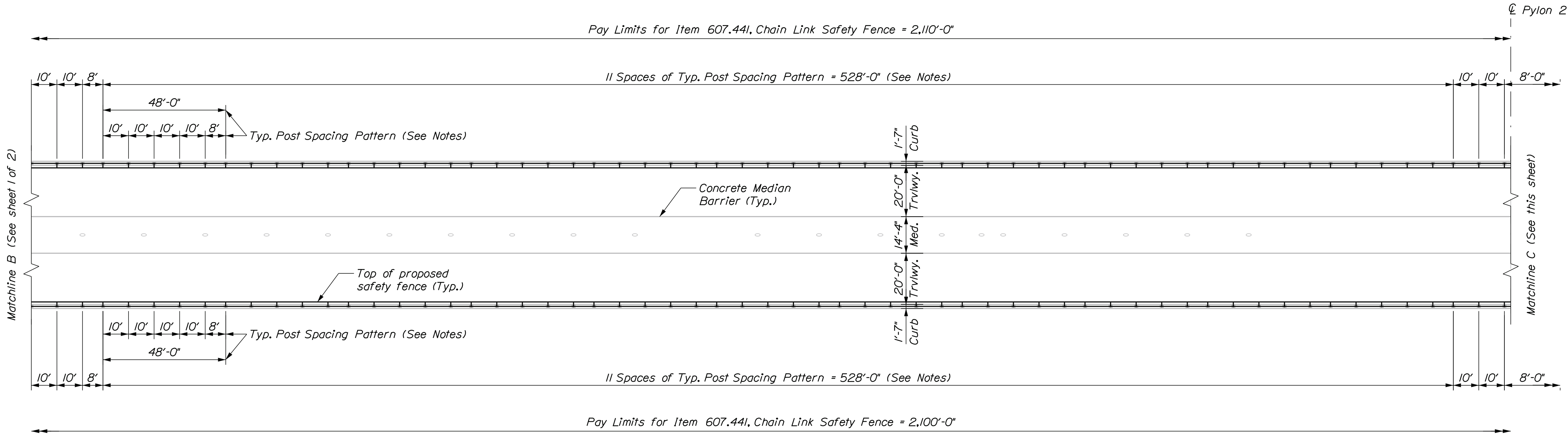
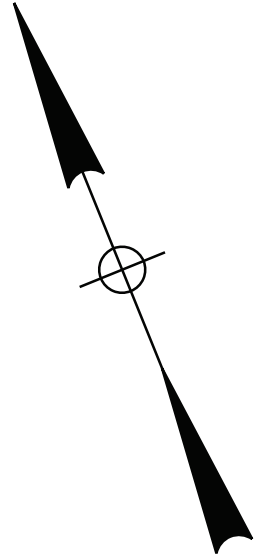
PROJ. MANAGER	ANDREW LATHE	BY	J. LePage	11/2024	SIGNATURE	
DESIGNED-DETAILED	J. LePage	CHECKED-REVIEWED	B. Toothaker	11/2024	P.E. NUMBER	14695
DESIGNS-DETAILED		DESIGNS-DETAILED			DATE	01/14/2025
REVISIONS 1		REVISIONS 2				
REVISIONS 3		REVISIONS 4				
FIELD CHANGES						



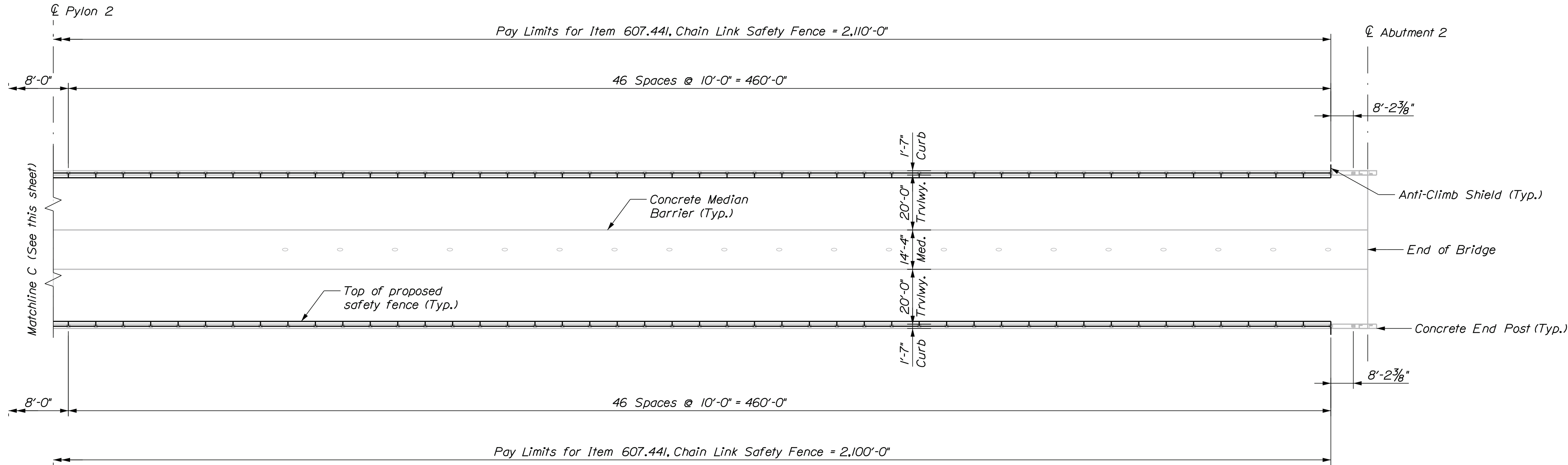
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
2777800  
WIN  
027778.00  
BRIDGE NO. 6421  
BRIDGE PLANS







MAIN SPAN PLAN VIEW - MIDSPAN TO PYLON 2

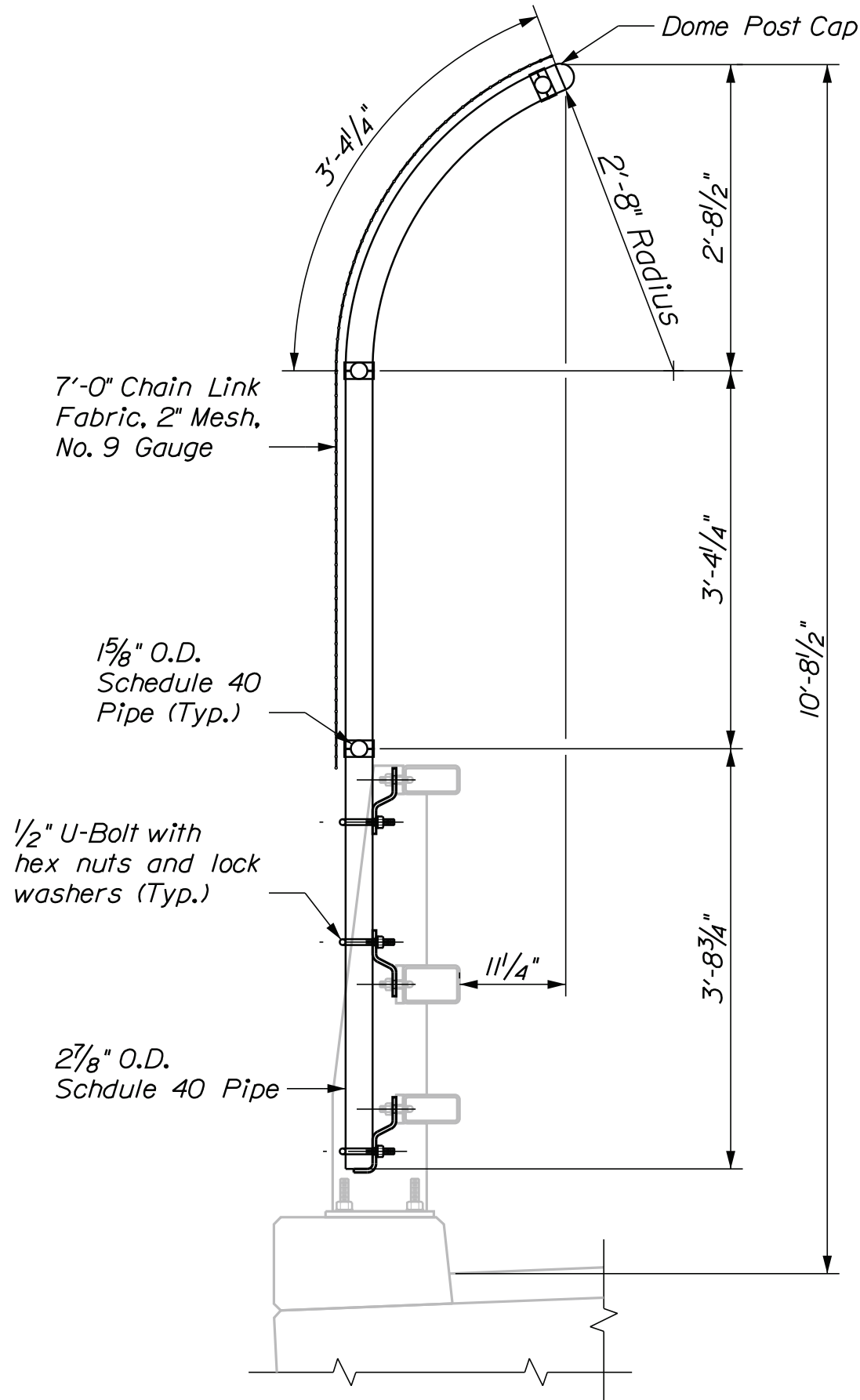


BACKSPAN PLAN VIEW - VERONA ISLAND

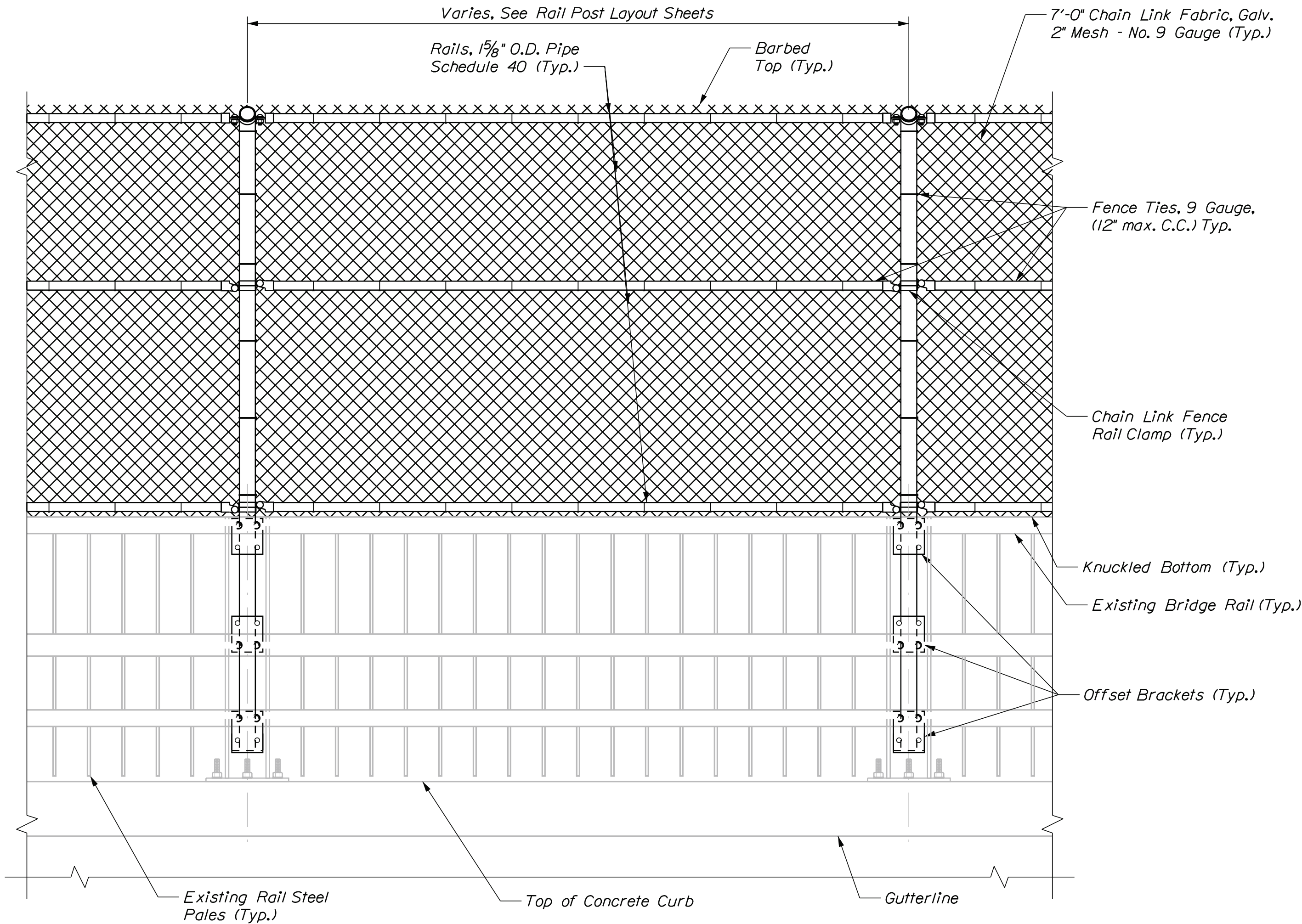
NOTE:  
 See Post and Rail Layout Sheet 1 of 2 for notes.

TYLin

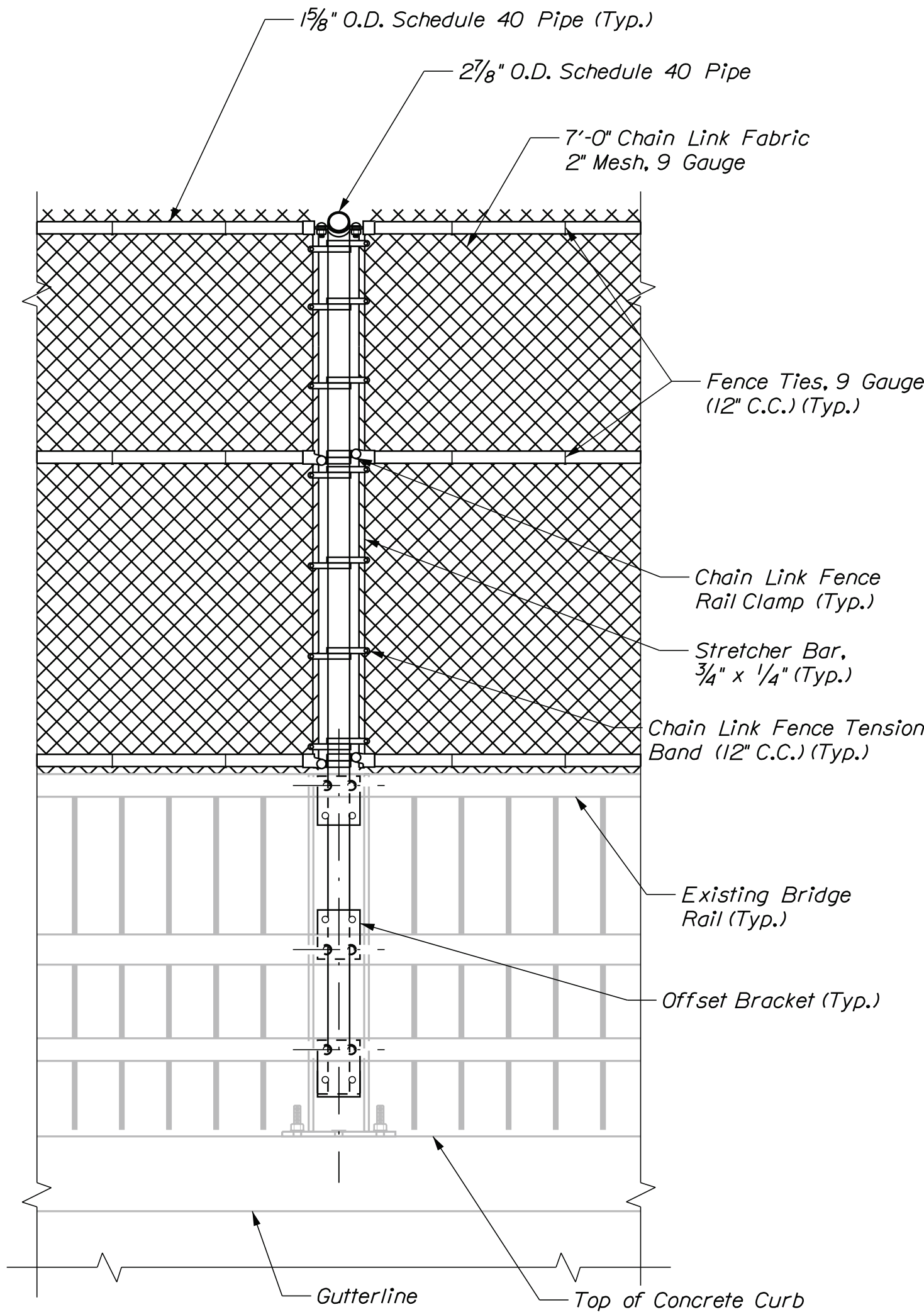
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2777800		BRIDGE NO. 6421		BRIDGE PLANS	
		SIGNATURE		P.E. NUMBER		DATE	
				14095		01/14/2025	
PROSPECT - VERONA BRIDGE PENOBSCOT RIVER PROSPECT/VERONA WALDO/HANCOCK CITY		BY J. LePage B. Toothaker		CHECKED/REVIEWED J. LePage B. Toothaker		DESIGNS/DETAILS J. LePage B. Toothaker	
POST AND RAIL LAYOUT SHEET 2 OF 2		REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES		REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES		REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	
SHEET NUMBER		5		OF 7			



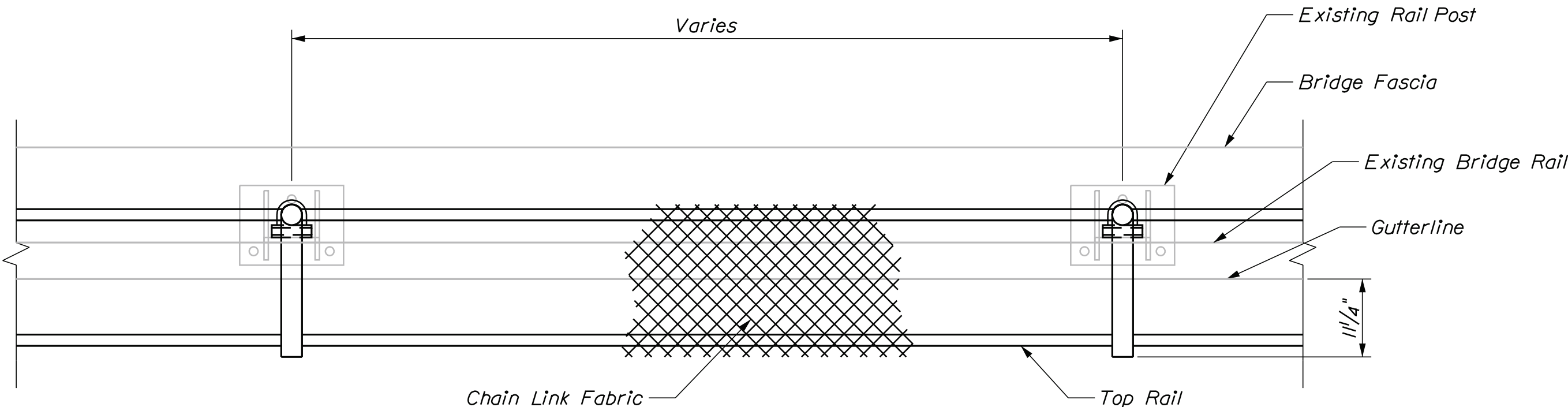
FENCING TYPICAL SECTION



TYPICAL RAILING PANEL INSIDE ELEVATION



FENCE FABRIC SPLICE DETAIL



TYPICAL RAILING PANEL PLAN



PROJ. MANAGER	ANDREW LATHE	BY	J. LePage	SIGNATURE	1/1/2024	P.E. NUMBER	14095	DATE	01/14/2025
CHECKED-DETAILED	J. LePage	DESIGNED	B. Toothaker	DESIGNED	11/2024	REVISIONS 1		REVISIONS 2	
DESIGNED-DETAILED	B. Toothaker	DESIGNED	J. LePage	DESIGNED	11/2024	REVISIONS 3		REVISIONS 4	
DESIGNED	J. LePage	DESIGNED	B. Toothaker	DESIGNED	11/2024	REVISIONS 4		FIELD CHANGES	

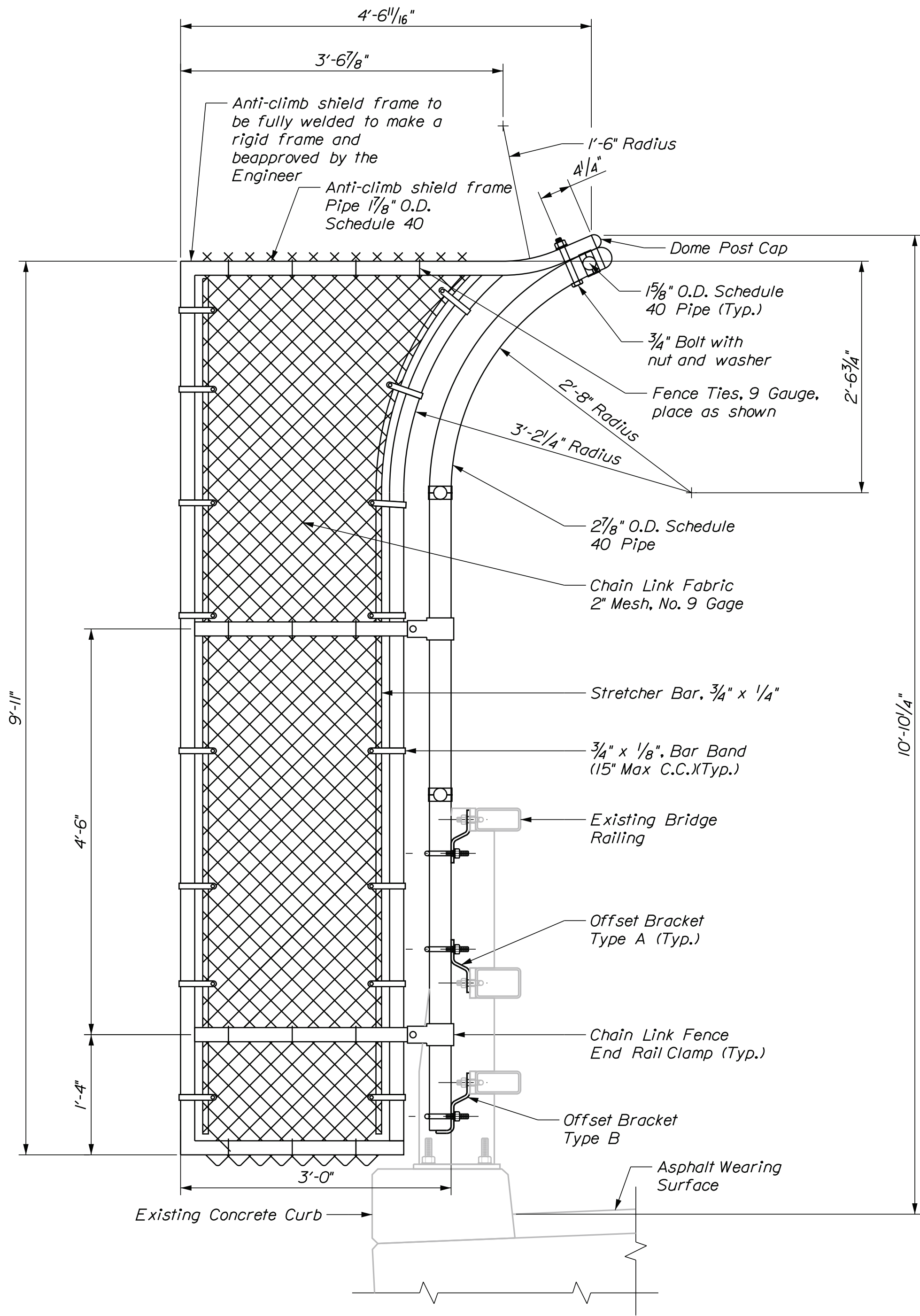
PROSPECT - VERONA BRIDGE  
PENOBSCOT RIVER  
PROSPECT/VERONA WALDO/HANCOCK CTY  
TYPICAL FENCING  
SECTION AND ELEVATION

SHEET NUMBER

6  
OF 7

TYLin





ANTI-CLIMB SHIELD ELEVATION  
 Anti-Climb Detail (4 Required)  
 All materials to be the same as  
 Safety Fence except as noted.

