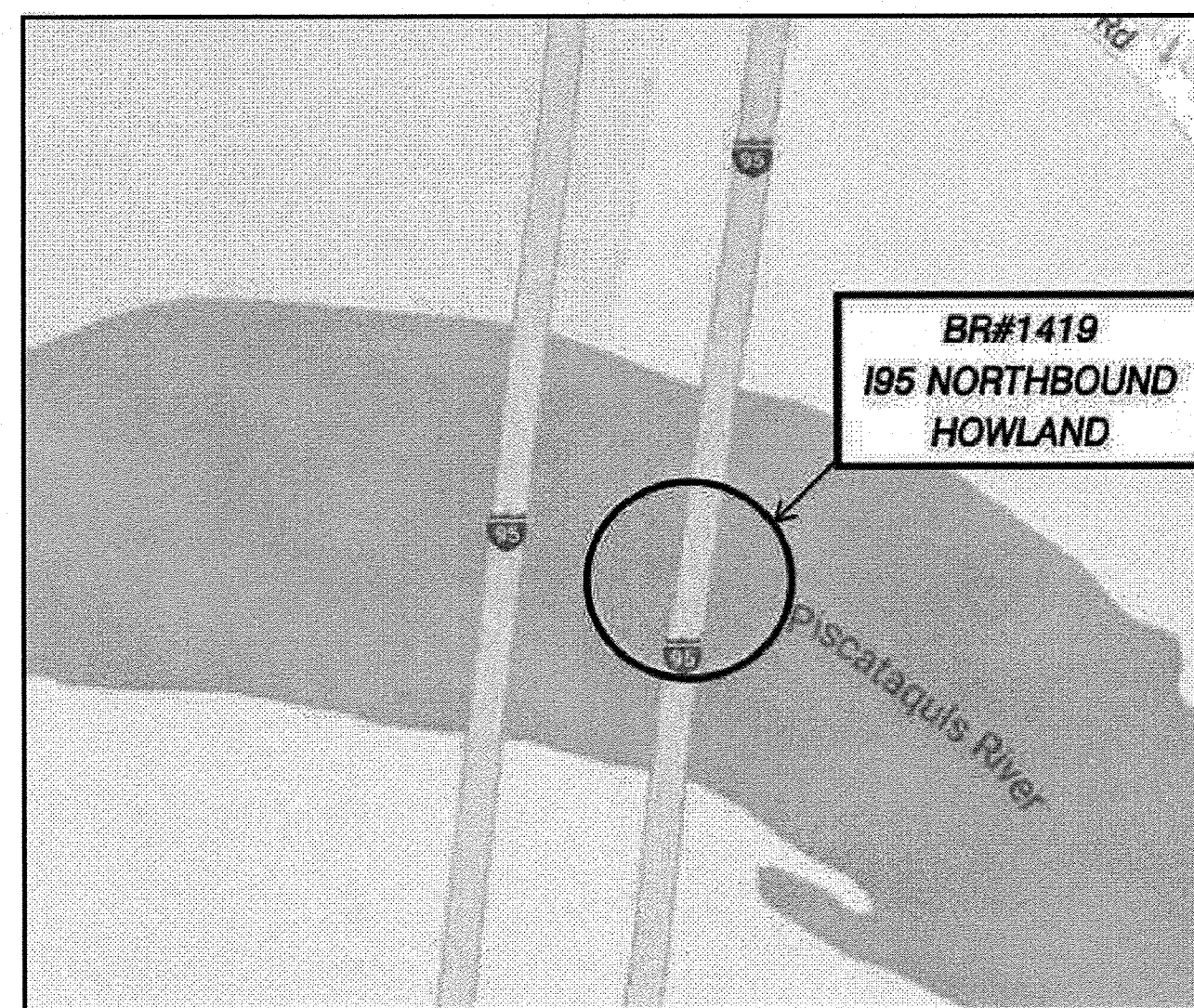


# STATE OF MAINE DEPARTMENT OF TRANSPORTATION



## HOWLAND PENOBSCOT COUNTY INTERSTATE 95 NORTH BOUND OVER THE PISCATAQUIS RIVER BRIDGE NO. 1419 ARMORED JOINT REPLACEMENT WIN 24712.00



<u>PROJECT LOCATION</u>	Interstate 95 Bridge over the Piscataquis River in Howland Lat./Long. 45°6'15.9" N 68°40'46.2" W
<u>PROGRAM AREA</u>	Bridge and Structure Maintenance
<u>OUTLINE OF WORK</u>	Fabricate Bridge Finger Joint and Beam End Curtain Wall Hardware

**SPECIFICATIONS**

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Seventh Edition 2014 with 2015 Interim Revisions.

**DESIGN LOADING**

Live Load ..... HL - 93 Modified

**TRAFFIC DATA**

Current (2014) AADT ..... 6,848  
Future (2034) AADT ..... 9,587

**MATERIALS**

Concrete:  
Structural Wearing Surface ..... Class "LP"  
Barriers, Curbs, Sidewalks & Transition Barriers ..... Class "LP"  
Seals ..... Class "S"  
Reinforcing Steel ..... Class "A"  
ASTM A 615/A 615M, Grade 60

Structural Steel:  
All Material (except as noted) ..... AASHTO M 270M/M 270 Grade 36  
High Strength Bolts ..... ASTM A 325, Type 3

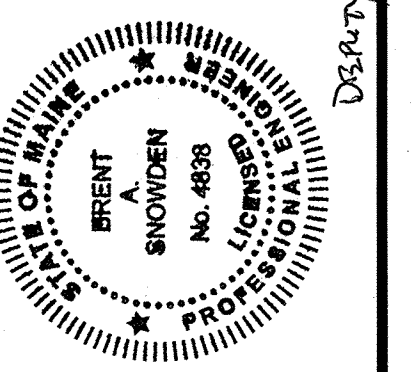
**BASIC DESIGN STRESSES**

Concrete ..... f'c = 4000 psi  
Precast Concrete ..... f'c = XX psi  
Reinforcing Steel ..... f'y = 60,000 psi  
Prestressing Strand ..... F<sub>μ</sub> = 270,000 psi  
Structural Steel:  
ASTM A 709, Grade 50W ..... F<sub>y</sub> = 50,000 psi  
ASTM A 709, Grade 36 ..... F<sub>y</sub> = 36,000 psi  
ASTM A 325 ..... F<sub>μ</sub> = 120,000 psi

**LIST OF DRAWINGS**

Title Sheet .....	1
Armored Joint Plans .....	2
Armored Joint and Curtain Wall Sections .....	3
Armored Joint Steel Details .....	4
Curtain Wall Steel Details .....	5

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER:	CHIEF ENGINEER: <i>John B. ...</i>	



*Brent A. Snowden*  
SIGNATURE  
4838  
P.E. NUMBER  
1-25-2018  
DATE

PROJECT INFORMATION	
PROGRAM Bridge & Structure Maintenance	B. Snowden
PROJECT MANAGER	C. Libby
DESIGNER	
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

HOWLAND  
INTERSTATE 95 NORTHBOUND BRIDGE  
TITLE SHEET

SHEET NUMBER  
**1**  
OF 5

WIN 24712.00

23275.00

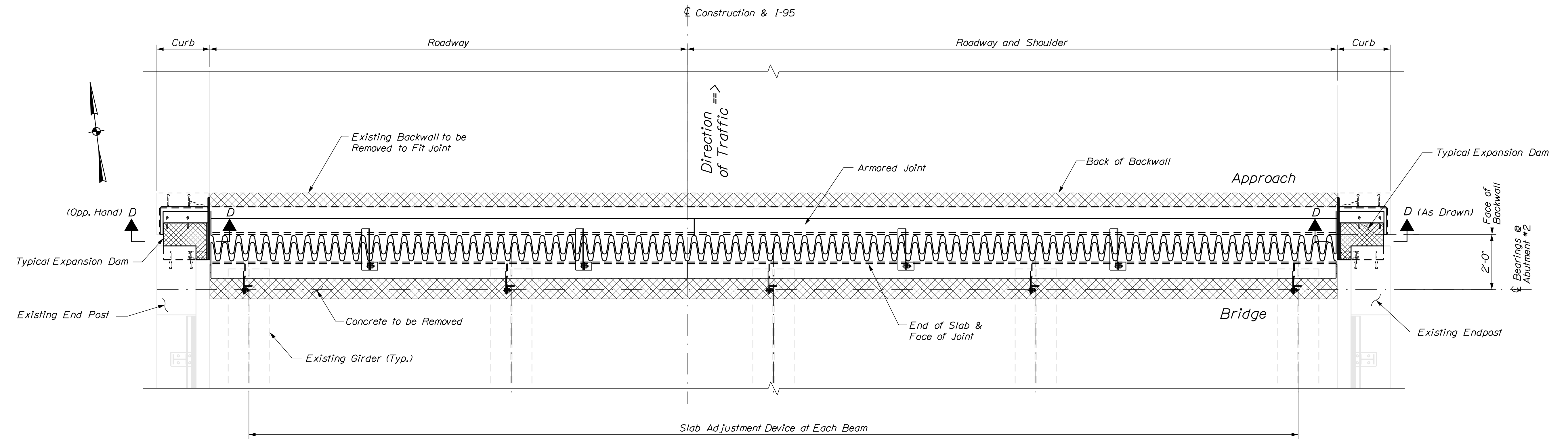


Date: 1/25/2018

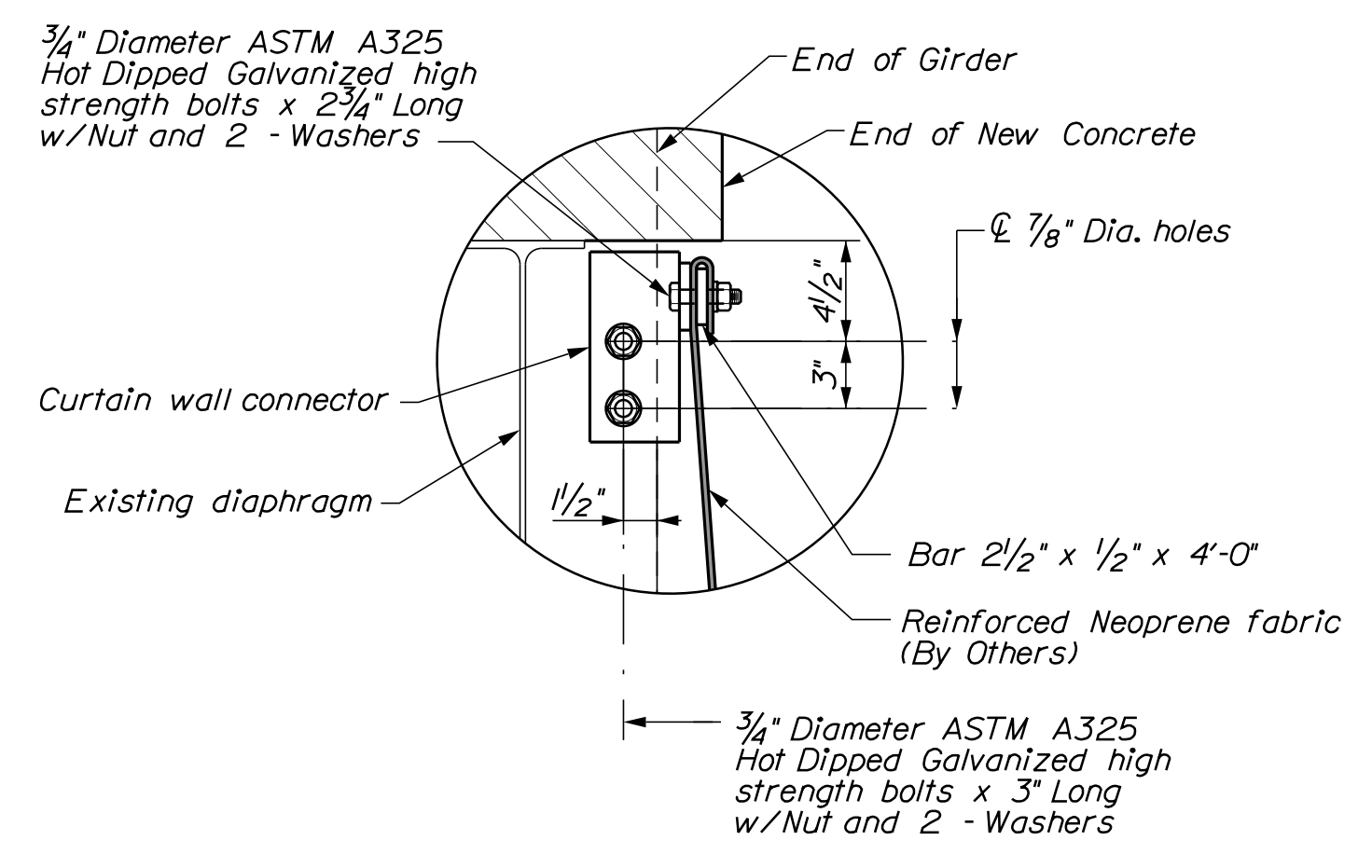
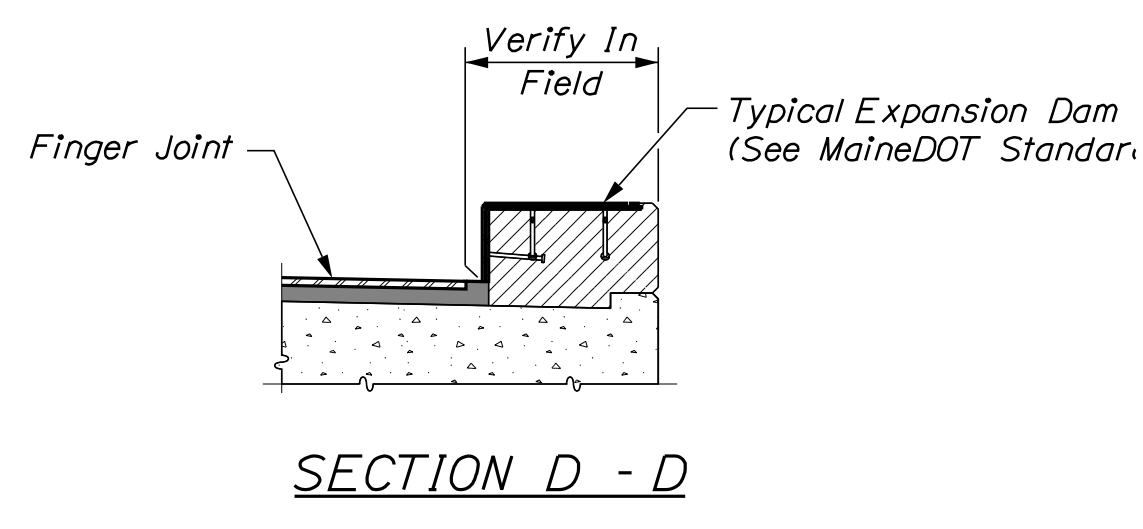
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Division: BRIDGE

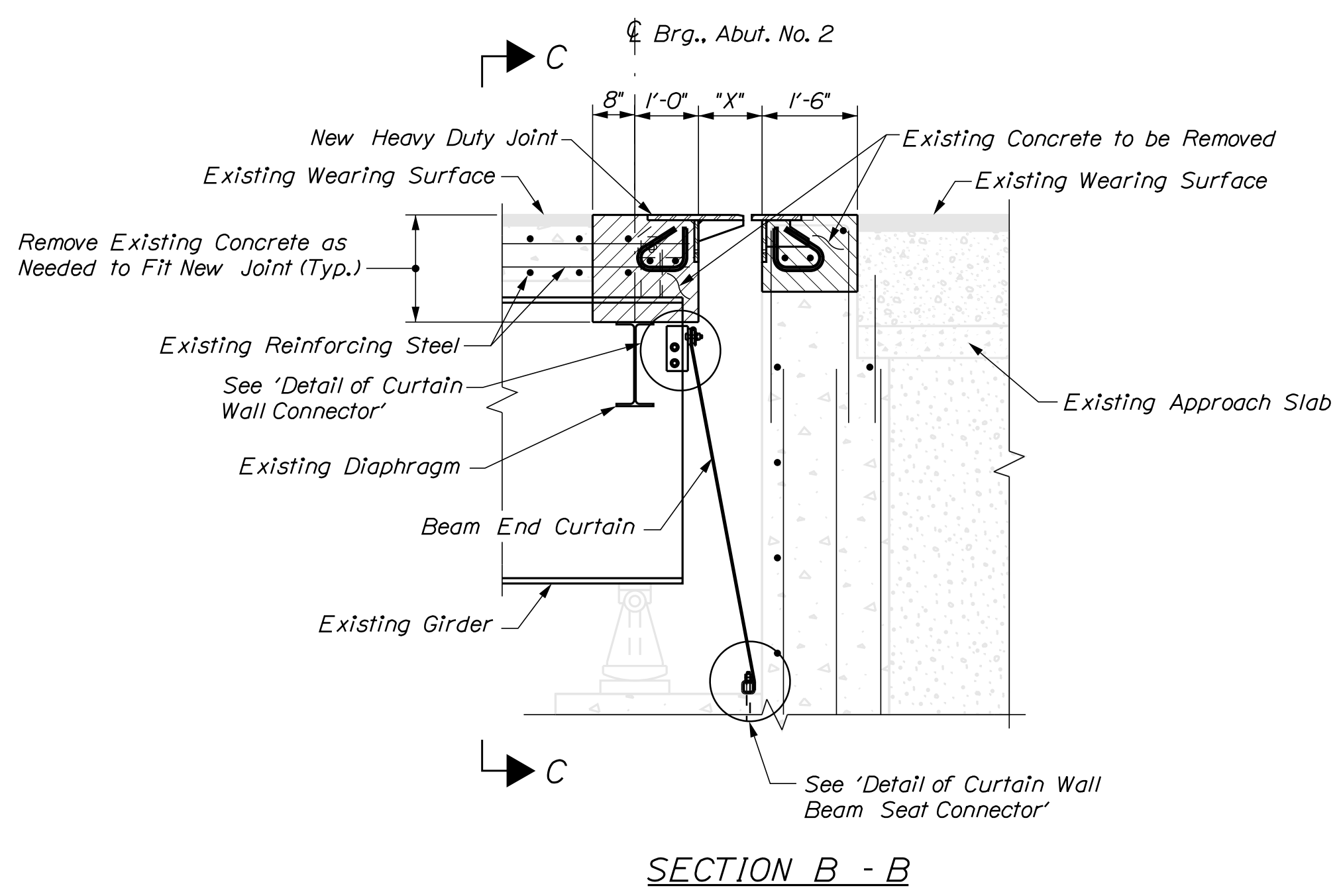
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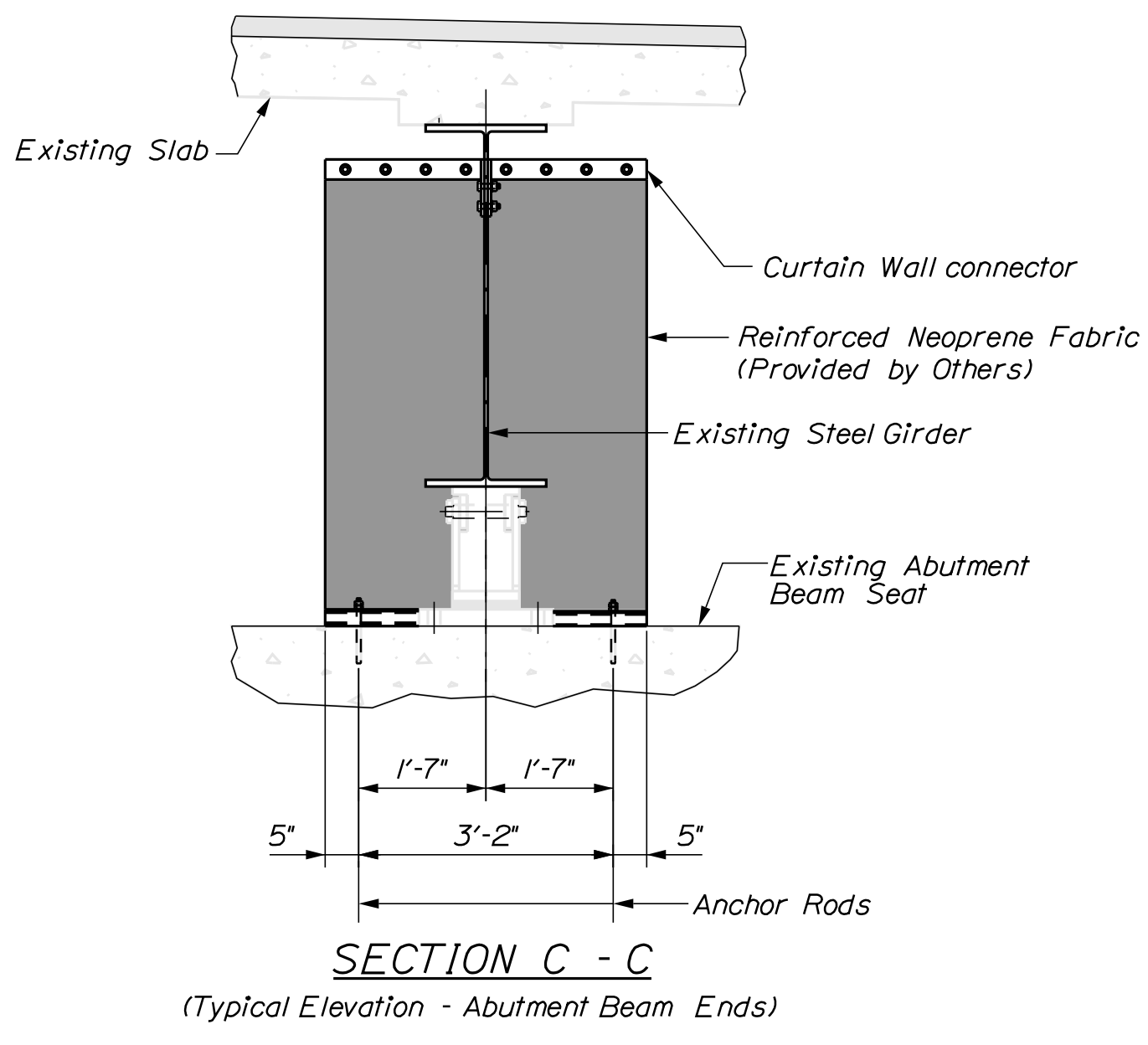
ARMORED JOINT PLAN (FINGER JOINT)



DETAIL OF CURTAIN WALL CONNECTOR

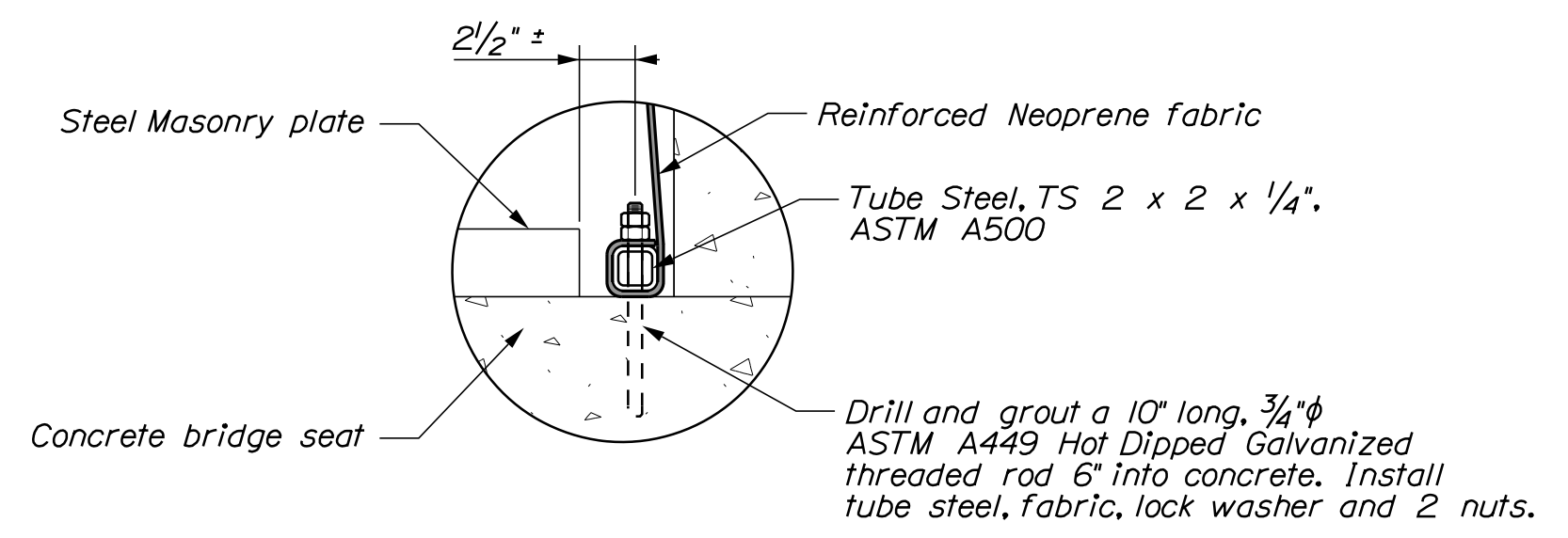


SECTION B - B



SECTION C - C

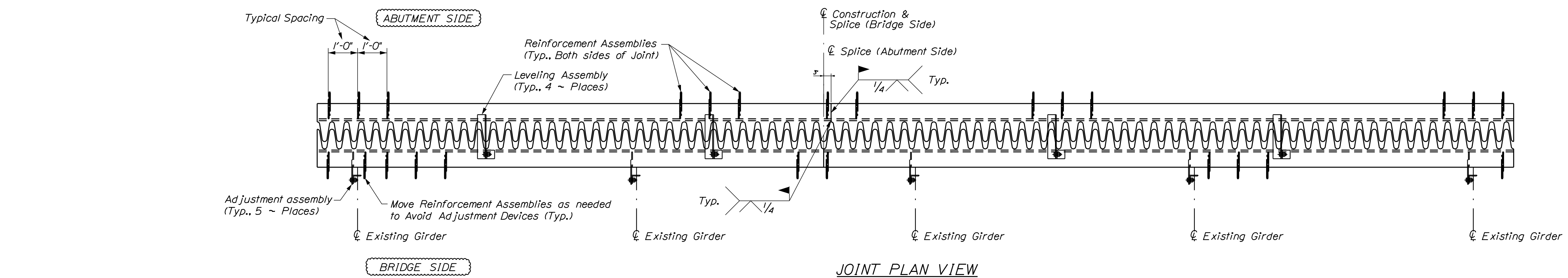
(Typical Elevation - Abutment Beam Ends)



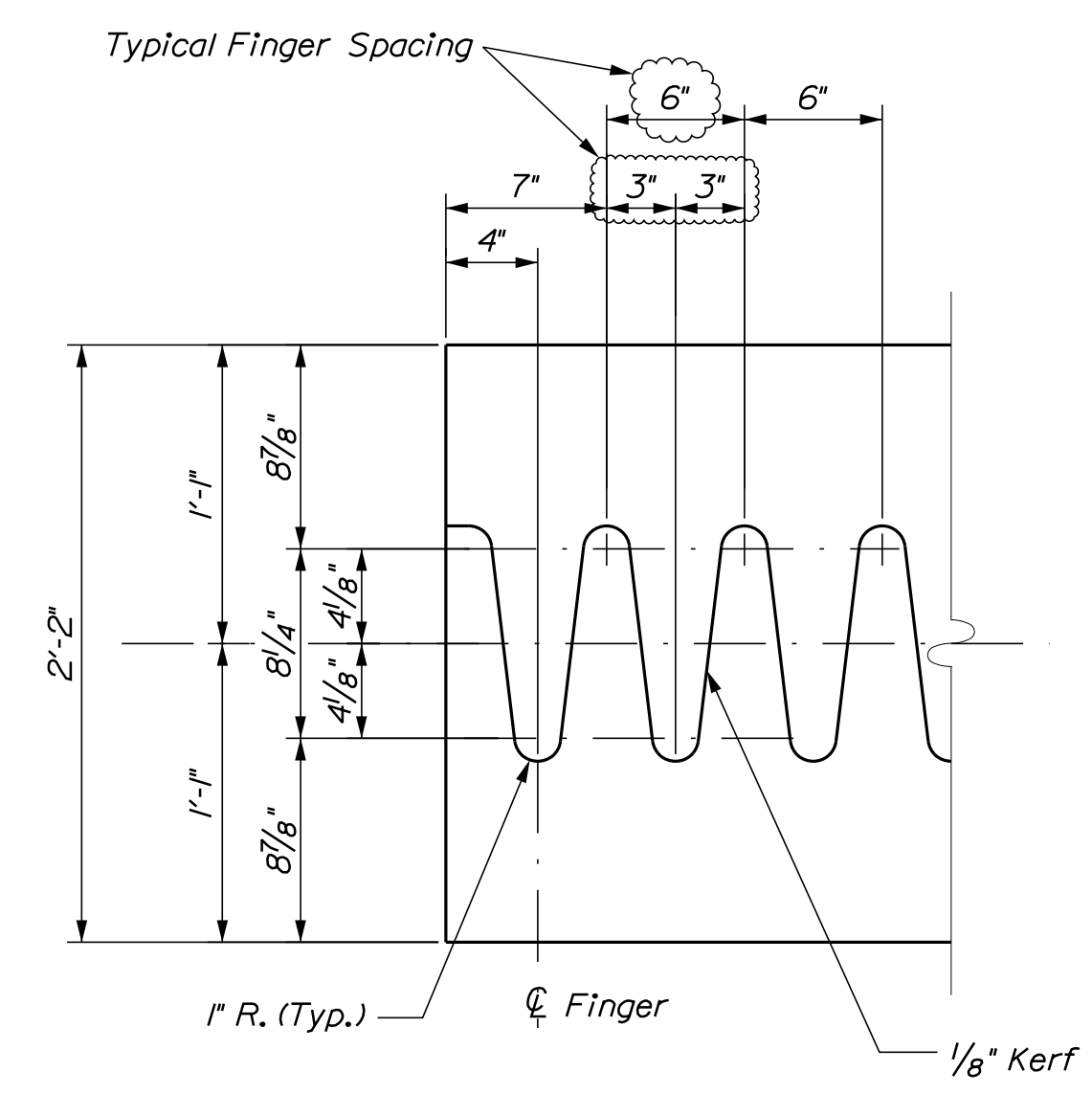
DETAIL OF CURTAIN WALL BEAM SEAT CONNECTOR

**NOTE:**  
 Installation Details for MaineDOT Crew Personnel

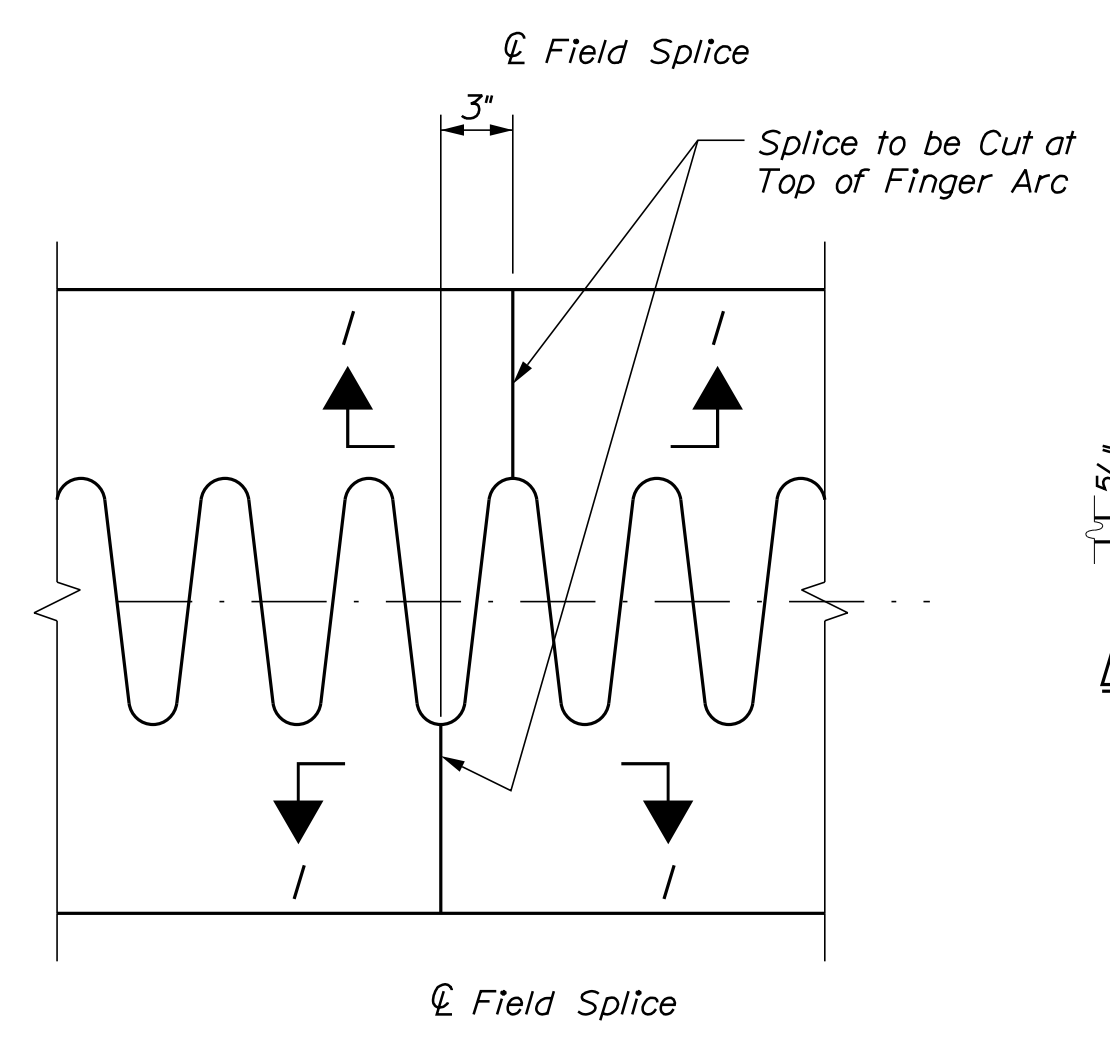
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		24712.00	
BRIDGE NO. 1419		WIN 24712.00	
BRIDGE PLANS			
PROJ. MANAGER	BY	DATE	SIGNATURE
B. SNOWDEN	G. LIBBY	JAN. 2018	
DESIGN-DETAILED	CHECKED-REVIEWED		P.E. NUMBER
G. LIBBY			
DESIGNS-DETAILED	DESIGNS-DETAILED		DATE
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
1-95 NORTHBOND BRIDGE PISCATAQUIS RIVER		PENOBSCOT	
HOWLAND		ARMORED JOINT and CURTAIN WALL SECTIONS	
SHEET NUMBER		3	
		OF 5	



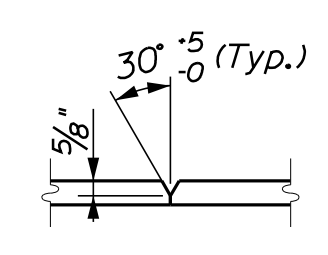
JOINT PLAN VIEW



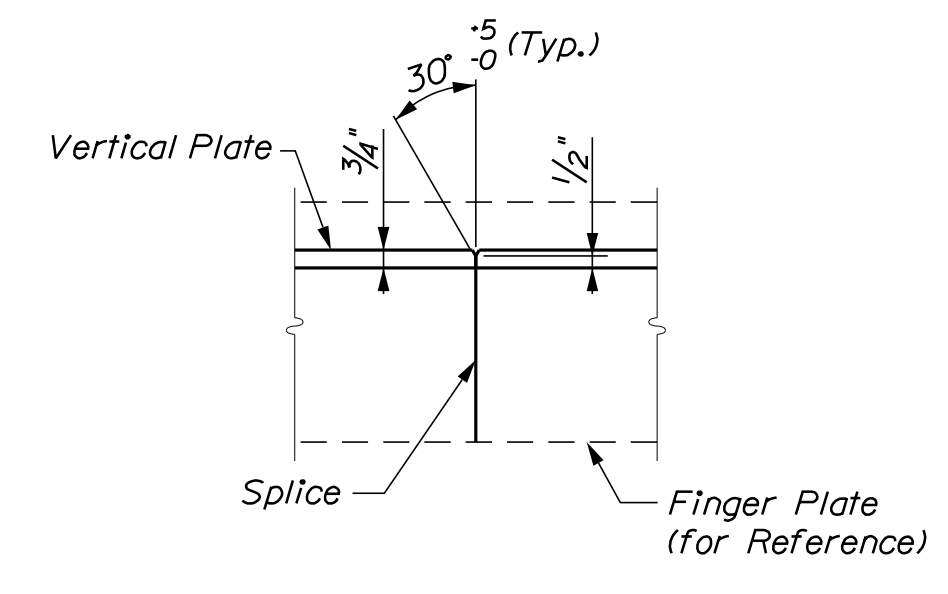
FINGER CUTTING DETAIL



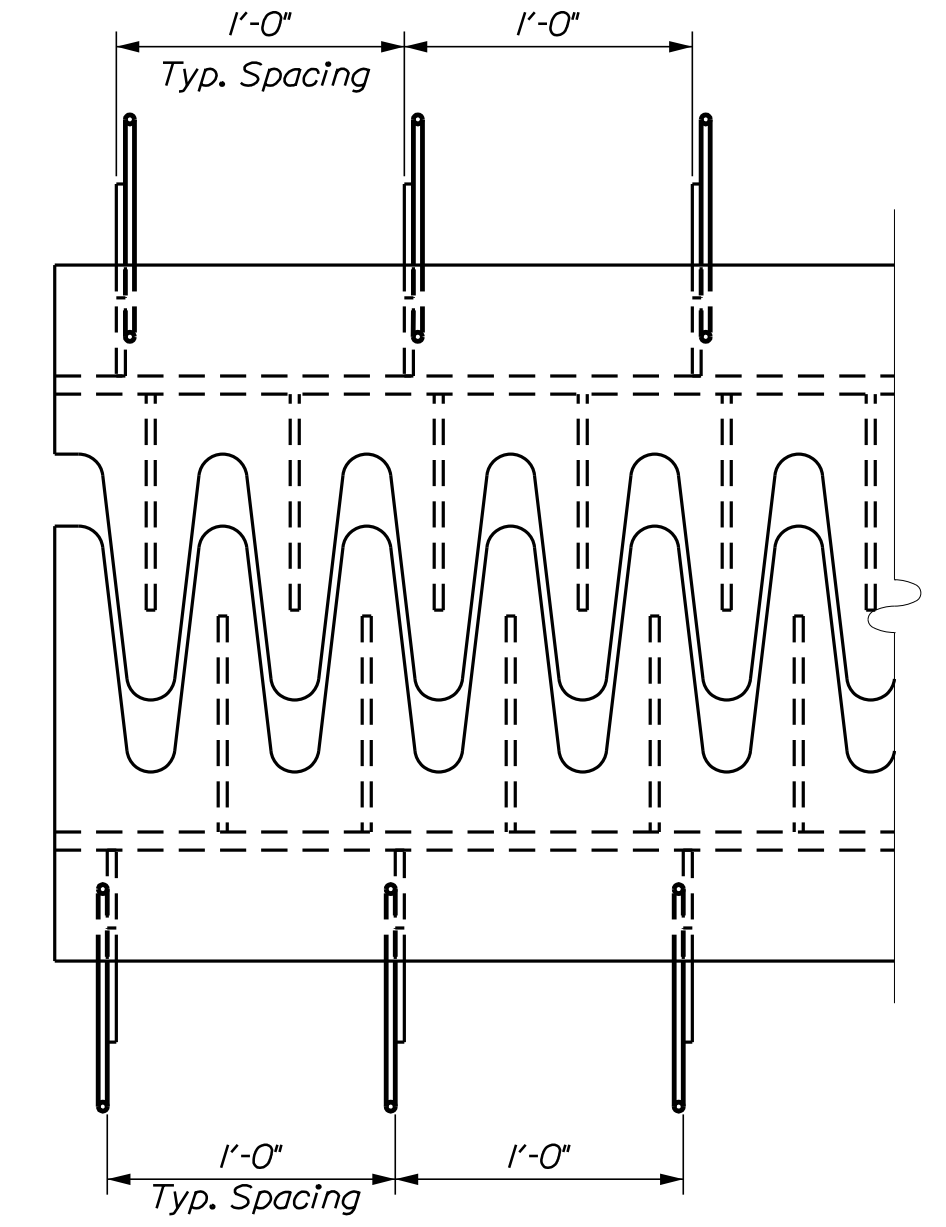
FIELD SPICE DETAIL



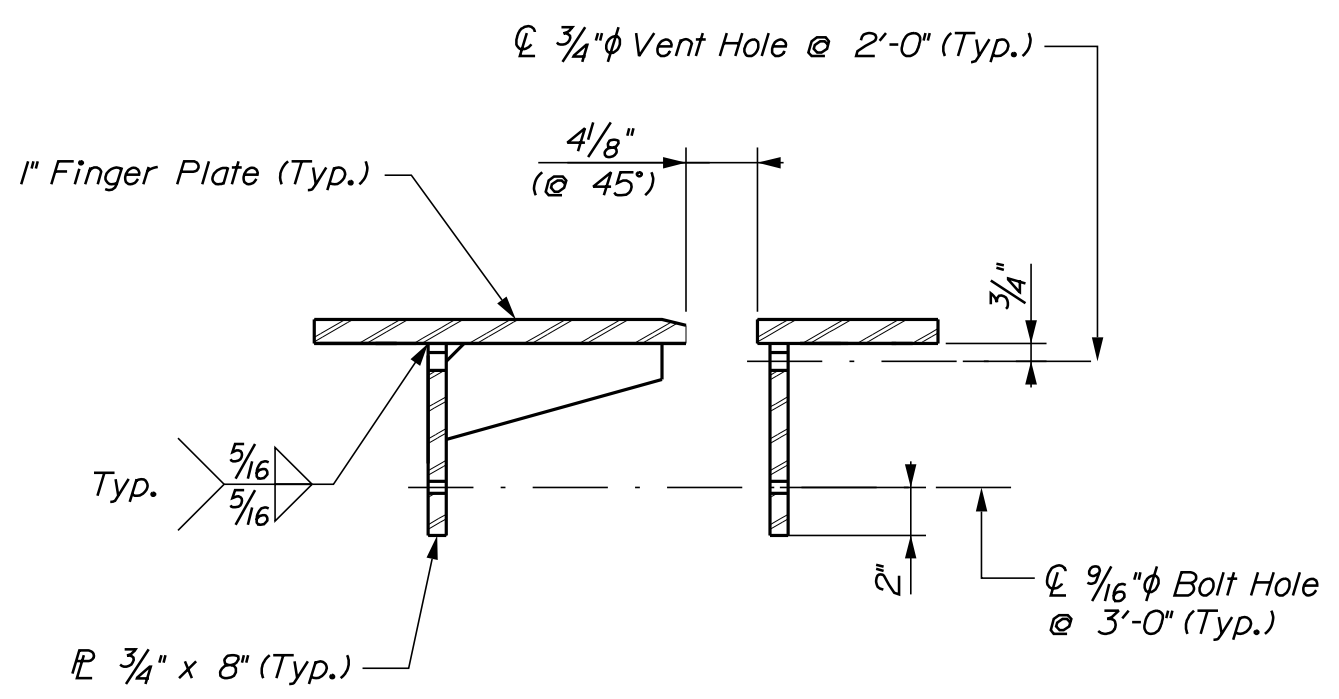
DETAIL 1



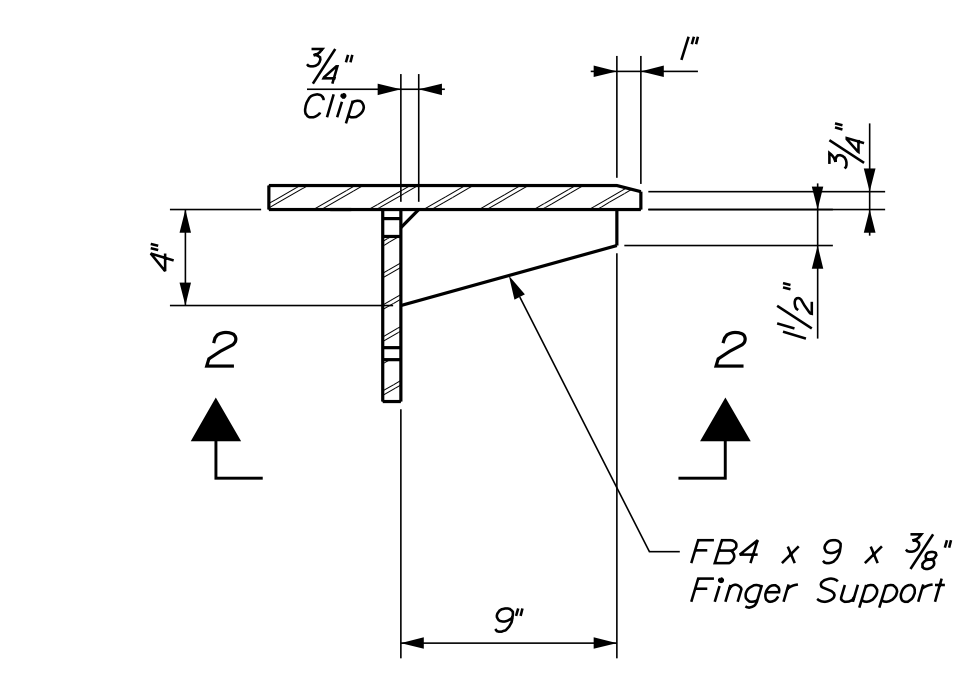
PREP. DETAIL at VERTICAL PLATE



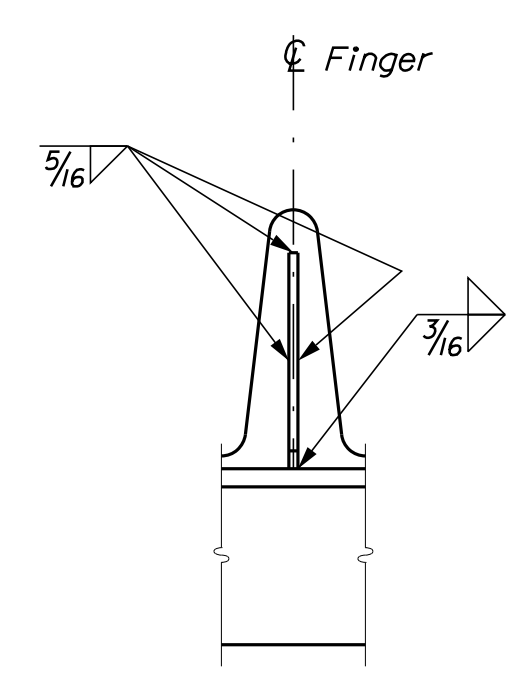
REINFORCEMENT PLATE LOCATION DETAIL



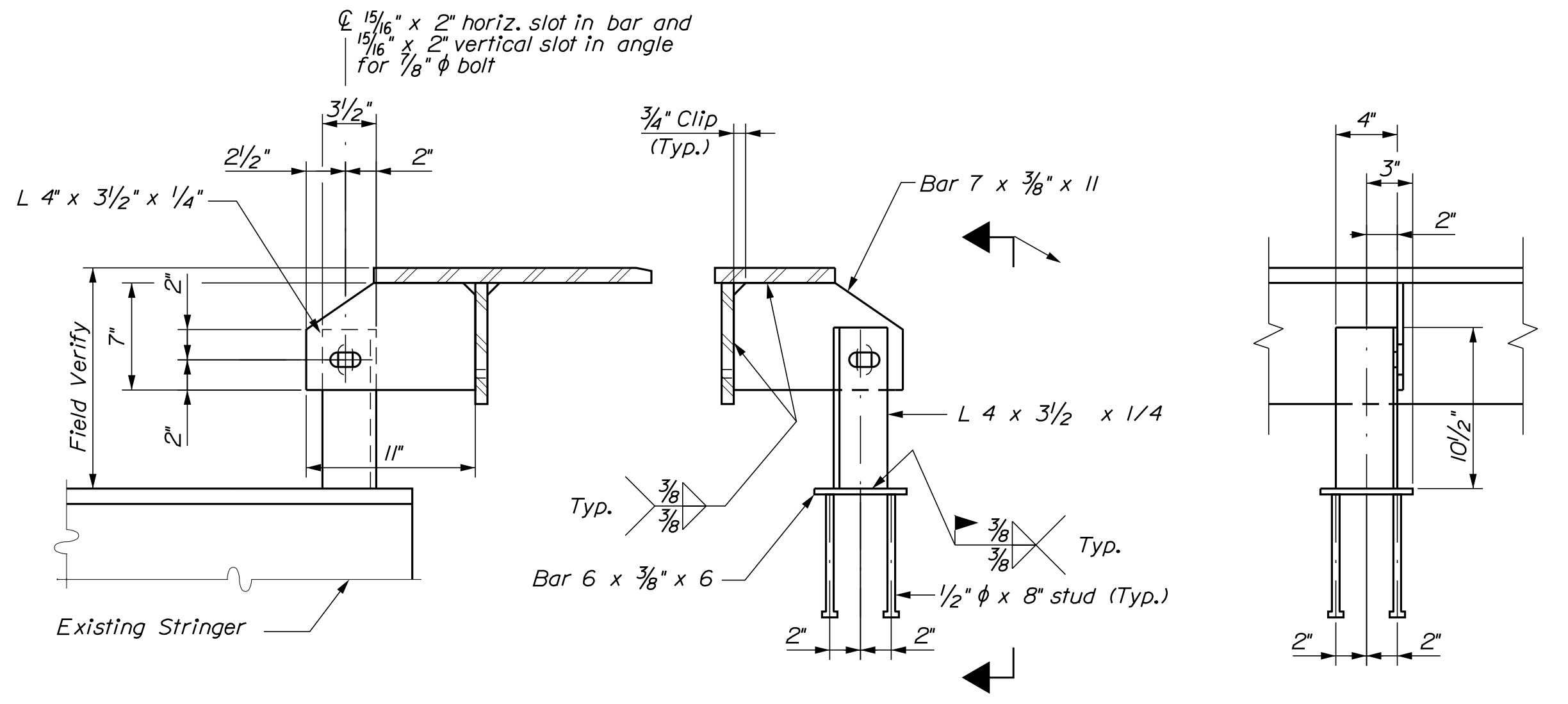
TYPICAL FINGER JOINT SECTION  
(Reinforcement Plates not shown for Clarity)



TYPICAL FINGER SUPPORT DETAIL



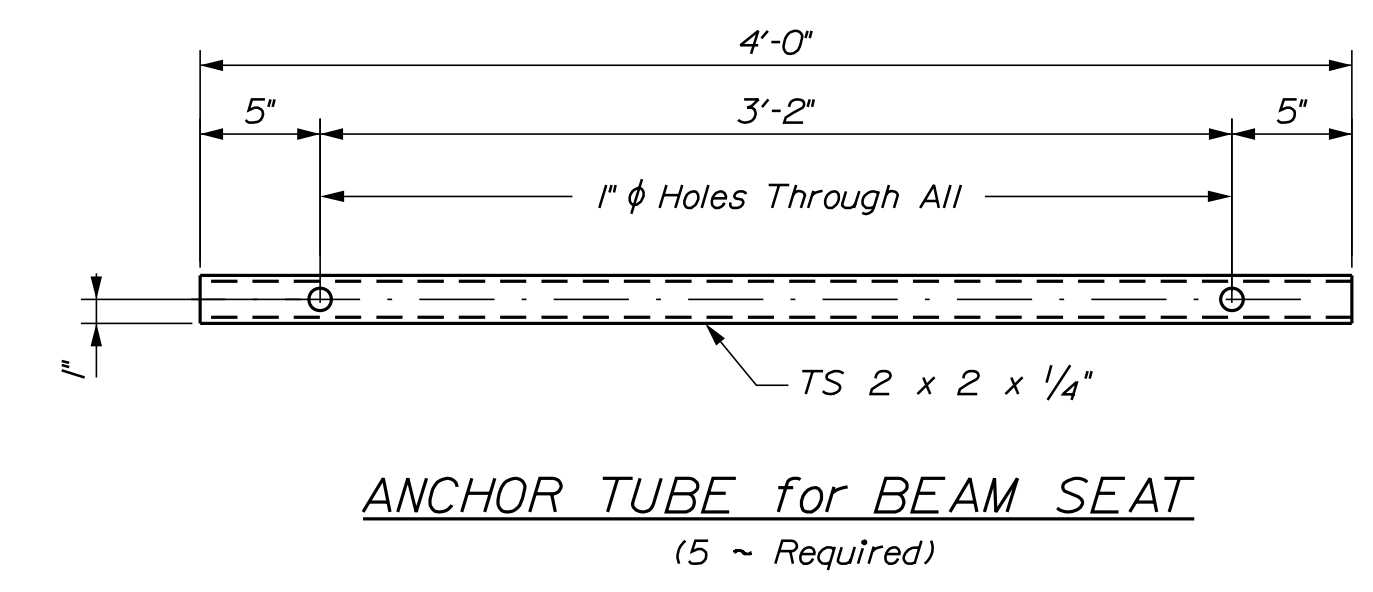
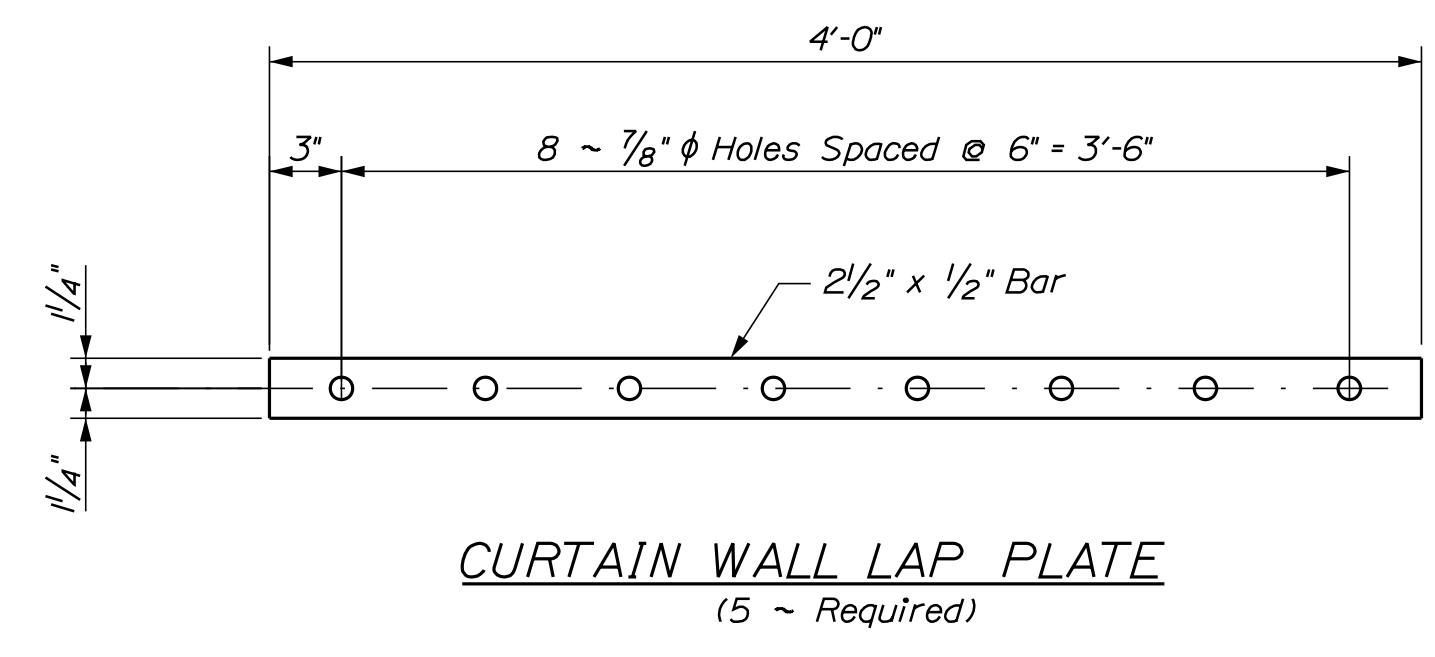
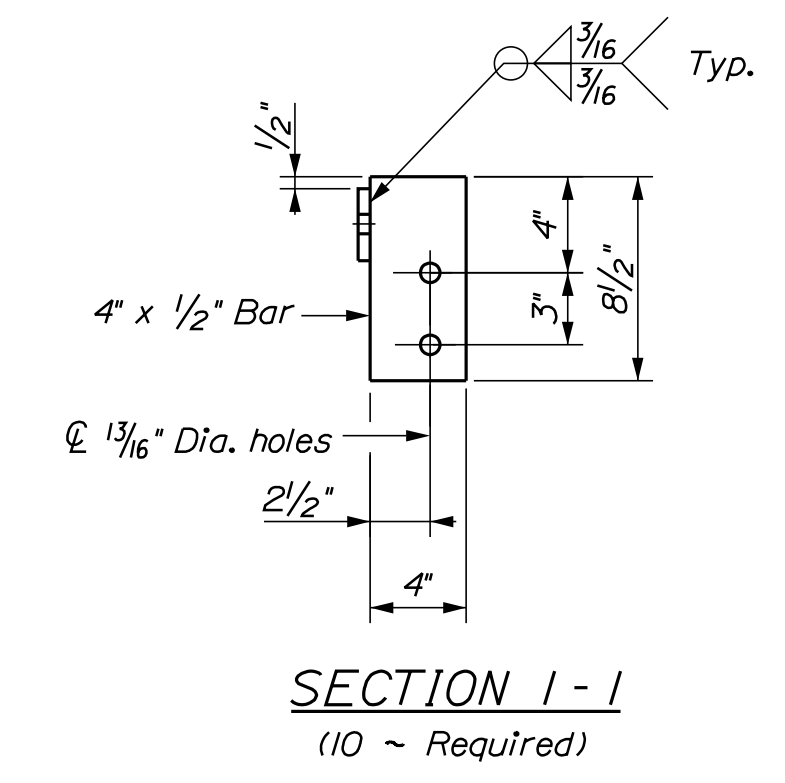
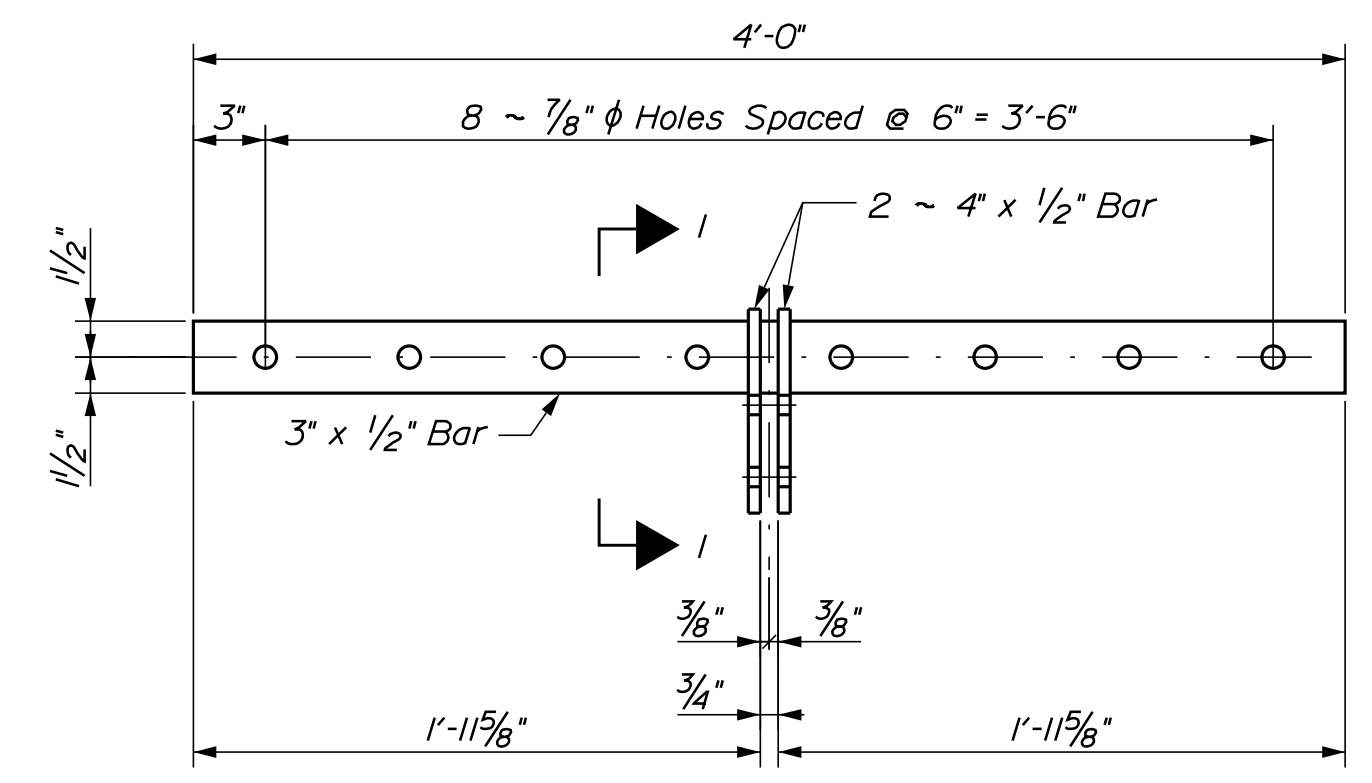
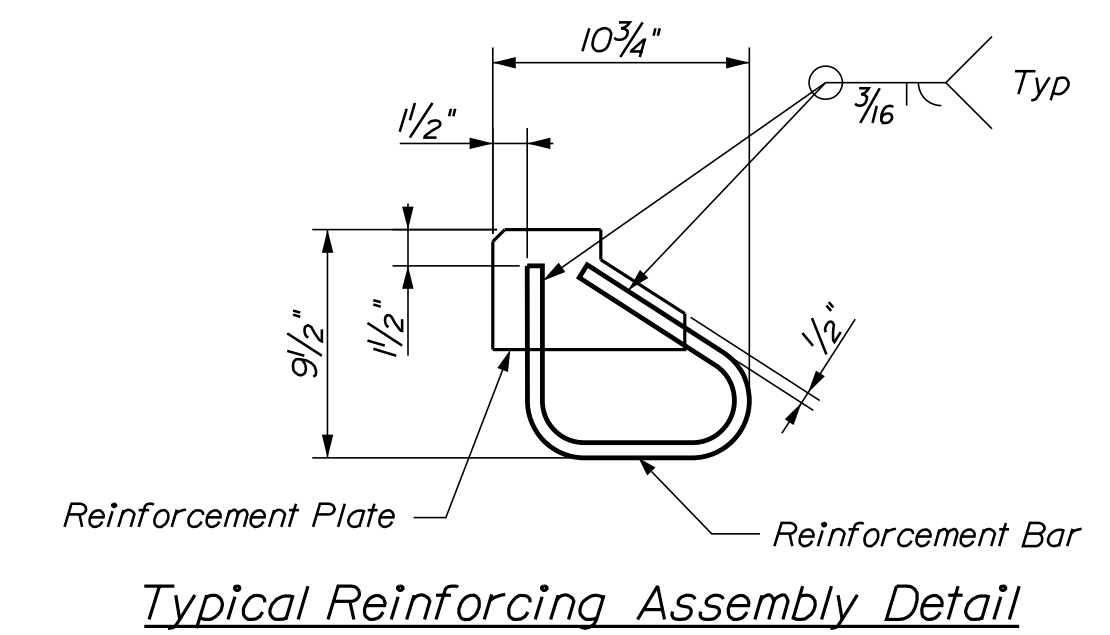
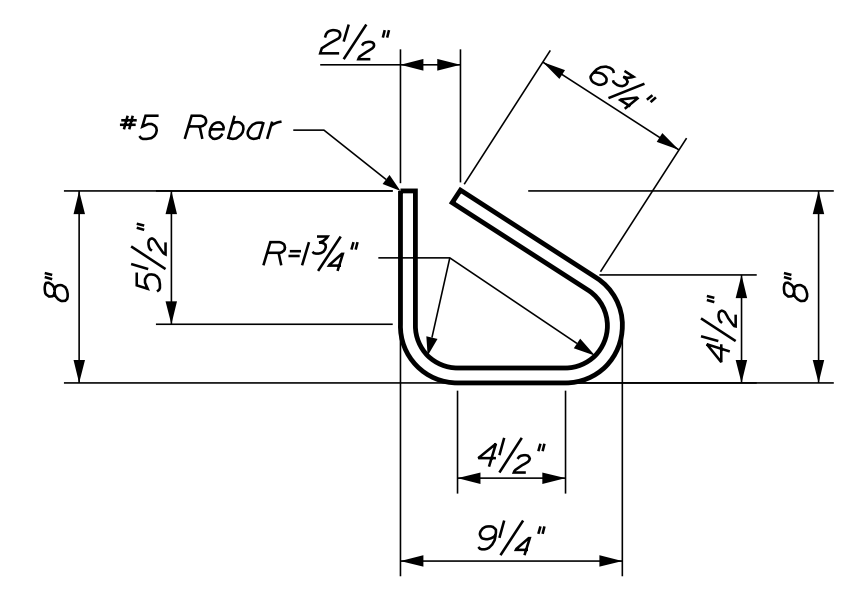
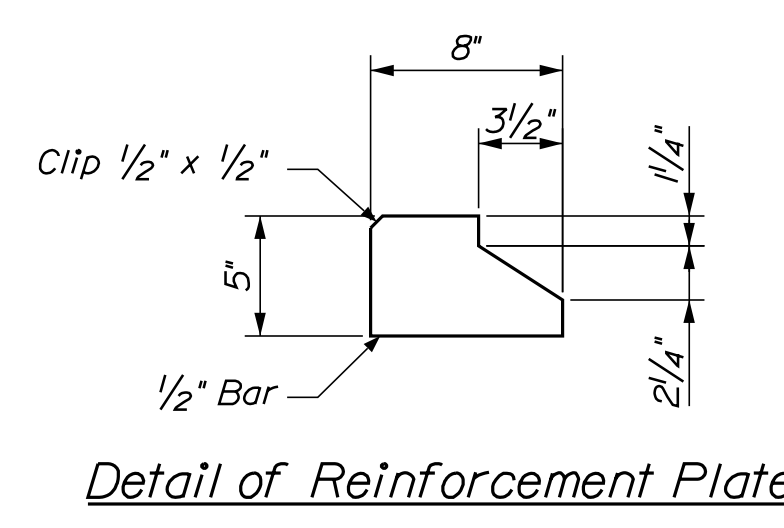
Detail 2 - 2



ADJUSTMENT DEVICE  
Symmetrical both sides of joint except as shown

**NOTE:**  
All Steel shall be Finished SSPC-SP6, Blast Clean and Galvanized according to ASTM A123.

PROJ. MANAGER	B. SNOWDEN	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
DESIGN DETAILED	G. LIBBY	G. LIBBY	JAN 2018			
CHECKED/REVIEWED						
DESIGN DETAILED						
REVISIONS 1						
REVISIONS 2						
REVISIONS 3						
REVISIONS 4						
FIELD CHANGES						



**NOTE:**  
All Steel shall be Finished SSPC-SP6, Blast Clean and Galvanized according to ASTM A123.

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 1419		WIN		24712.00		BRIDGE PLANS	
1-95 NORTHBOUND BRIDGE		PISCATAQUIS RIVER		PENOBSCOT		HOWLAND		CURTAIN WALL STEEL DETAILS		SHEET NUMBER	
PROJ. MANAGER	B. SNOWDEN	BY	G. LIBBY	DATE	JAN. 2018	CHECKED	G. LIBBY	SIGNATURE		P.E. NUMBER	
DESIGN DETAILED	G. LIBBY	DESIGNED	G. LIBBY	DESIGNED		DESIGN REVIEWED		DESIGN REVIEWED		DATE	
REVISIONS 1		REVISIONS 1		REVISIONS 1		REVISIONS 2		REVISIONS 2		FIELD CHANGES	
REVISIONS 3		REVISIONS 3		REVISIONS 3		REVISIONS 4		REVISIONS 4			
REVISIONS 4		REVISIONS 4		REVISIONS 4							
5											
OF 5											