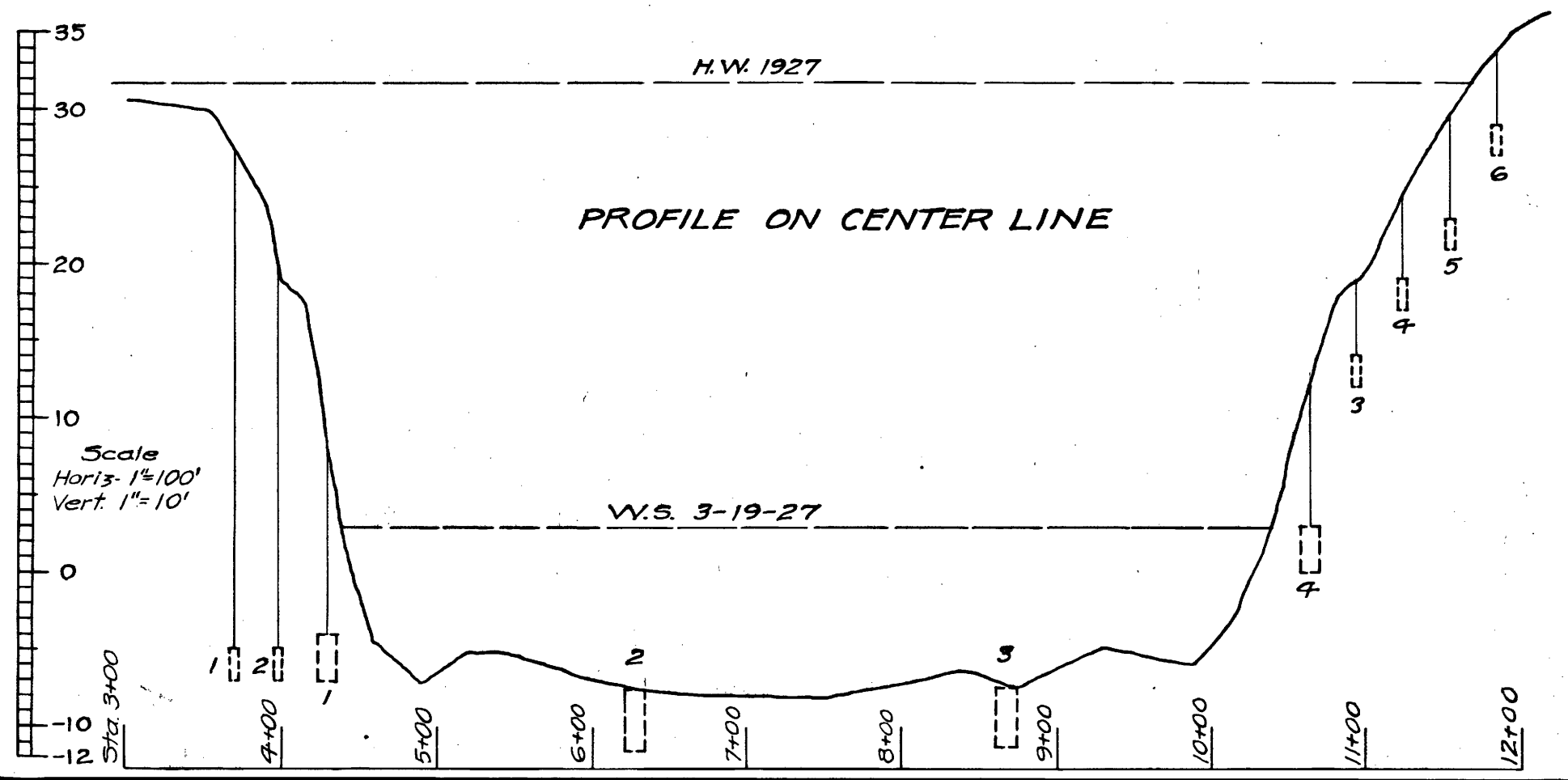
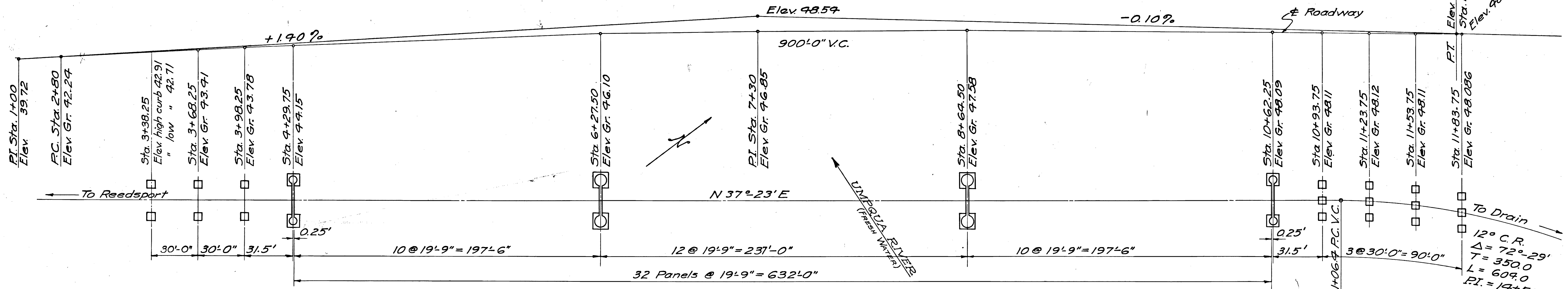
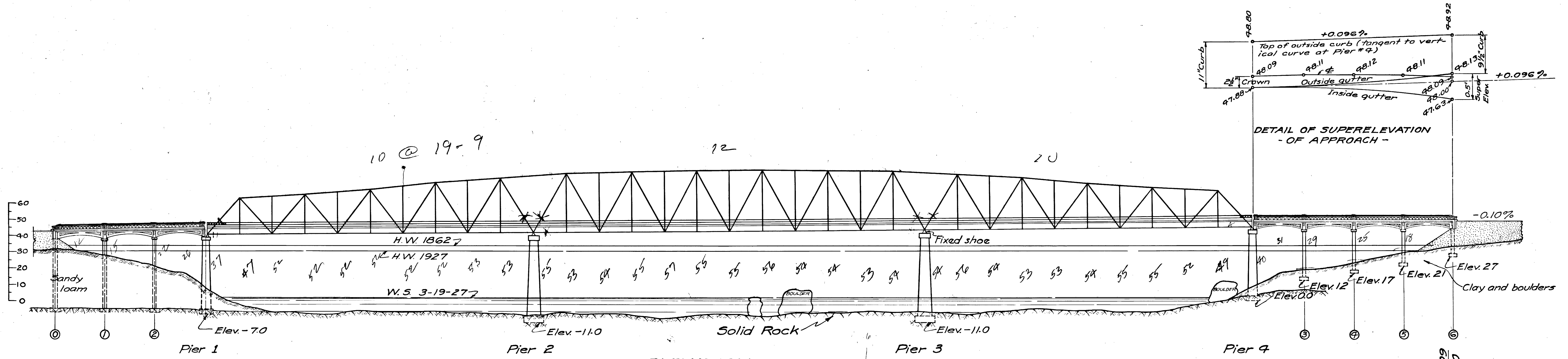




OREGON
STATE HIGHWAY COMMISSION

SCOTTSBURG BRIDGE

OVER

UMPQUA RIVER — DOUGLAS CO.

MARKET ROAD NO. 2
PLAN AND ELEVATION

SCALE AS NOTED
APRIL 18, 1928.
CALC'S. FILED
ACCOMPANIED BY DWGS. 3586-87-88-89-90-91-92 & 3411-3815

DRAWN BY L.S.S.
TRACED BY " " "
CHECKED BY
BRIDGE NO. 1318
DRAWING NO. 3585

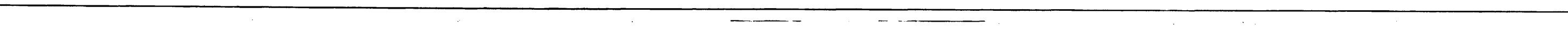
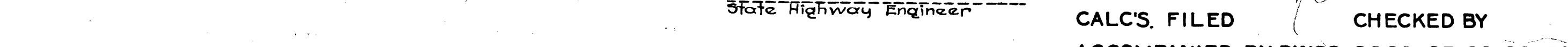
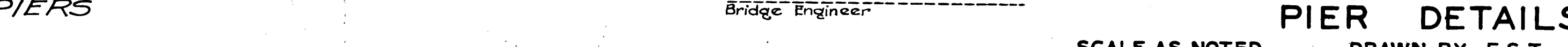
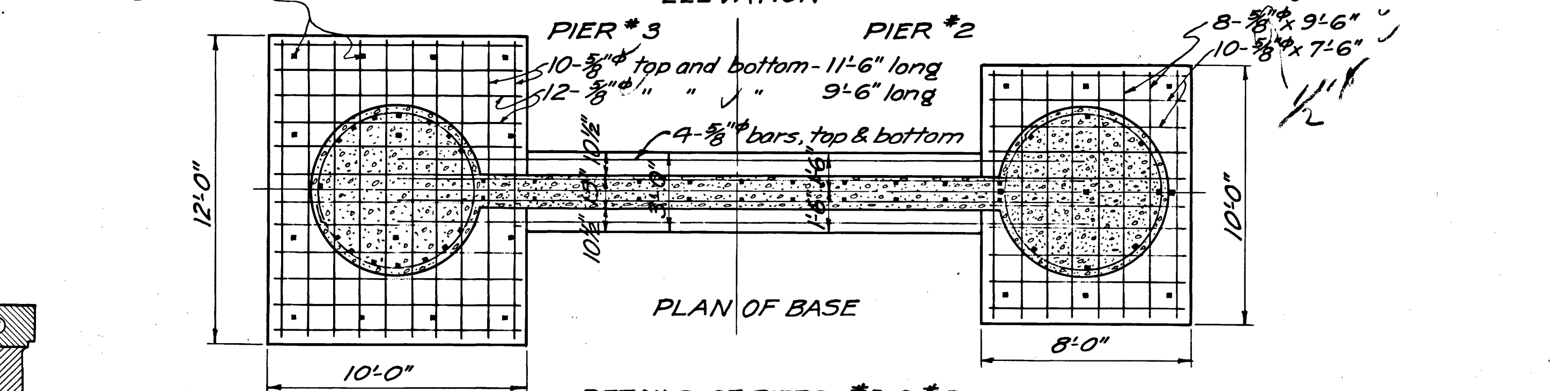
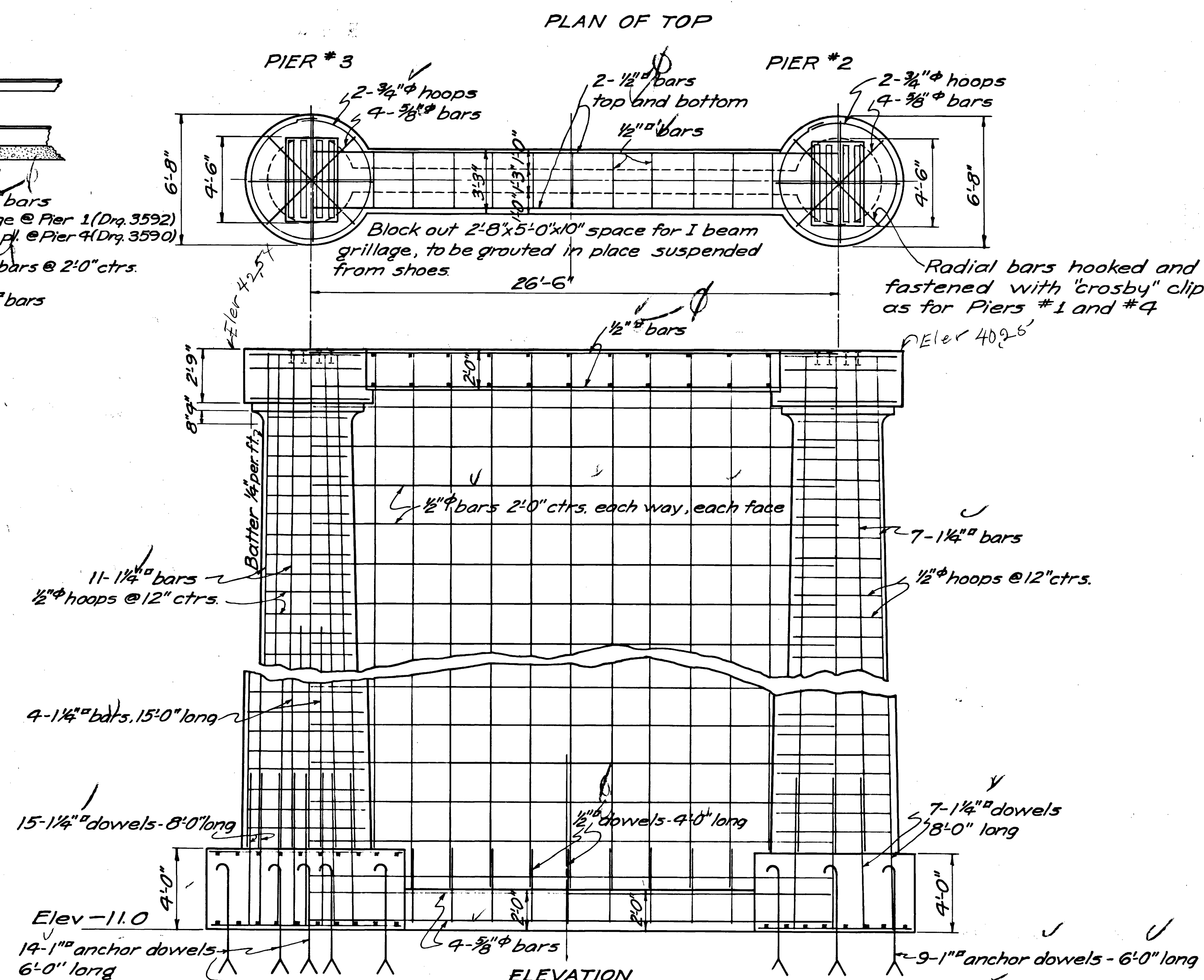
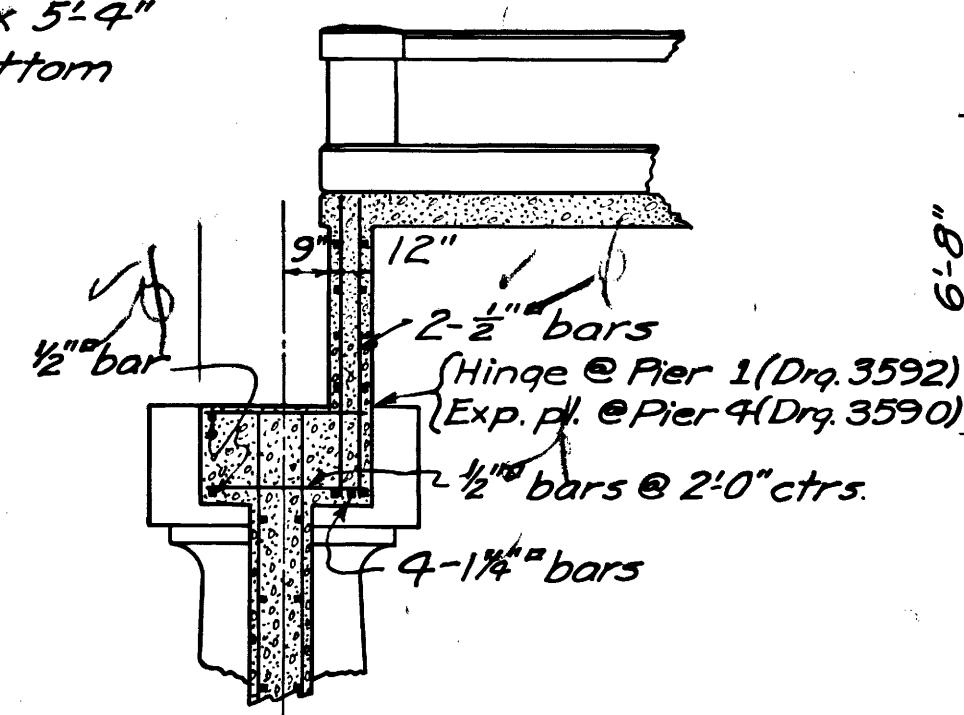
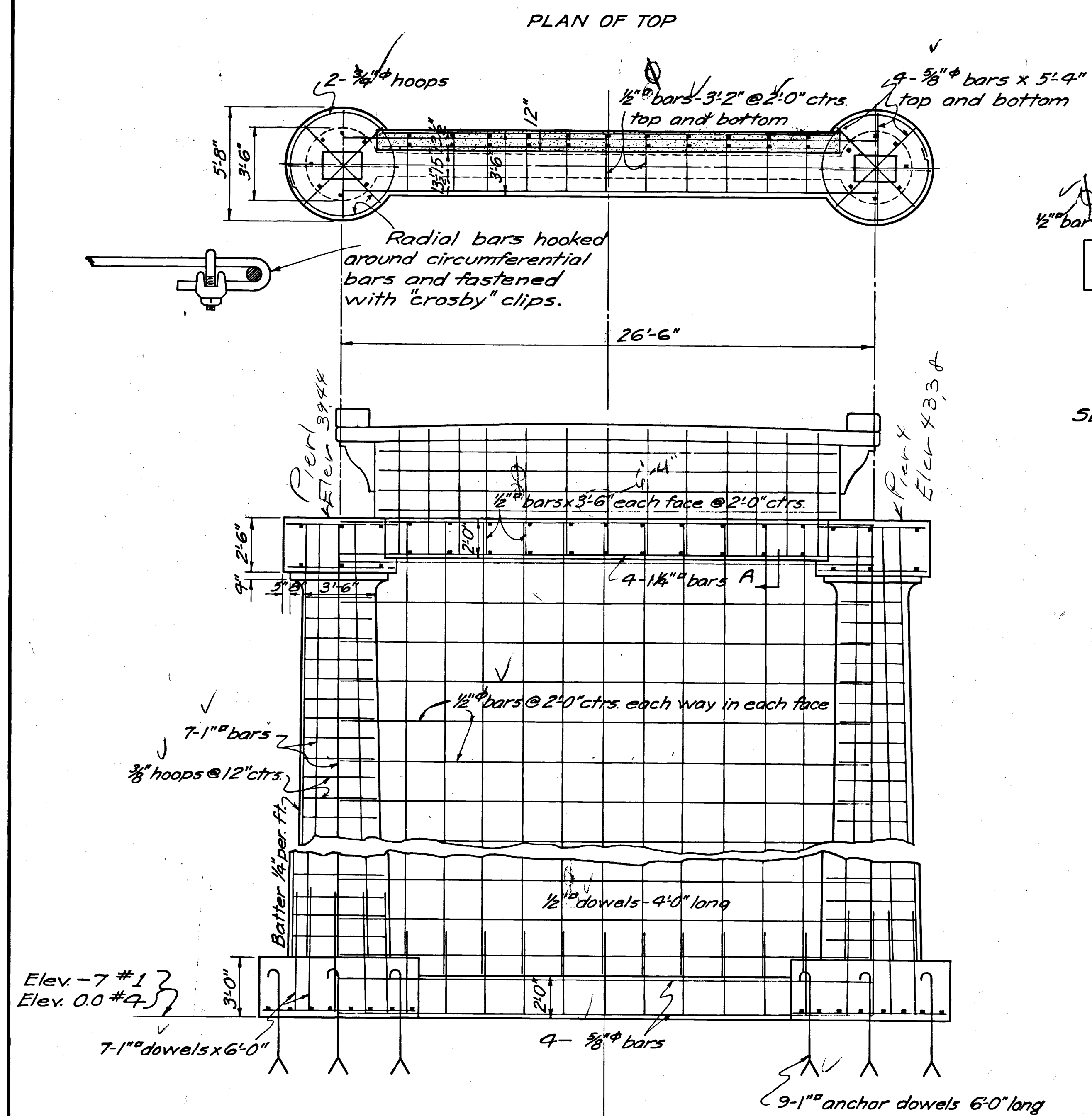
Approved: _____

Bridge Engineer _____

State Highway Engineer _____

Revised 6-13-28

" 6-27-29 30'-0" Span added



OREGON
STATE HIGHWAY COMMISSION
SCOTTSBURG BRIDGE
OVER
UMPQUA RIVER — DOUGLAS CO.

MARKET ROAD NO. 2

PIER DETAILS

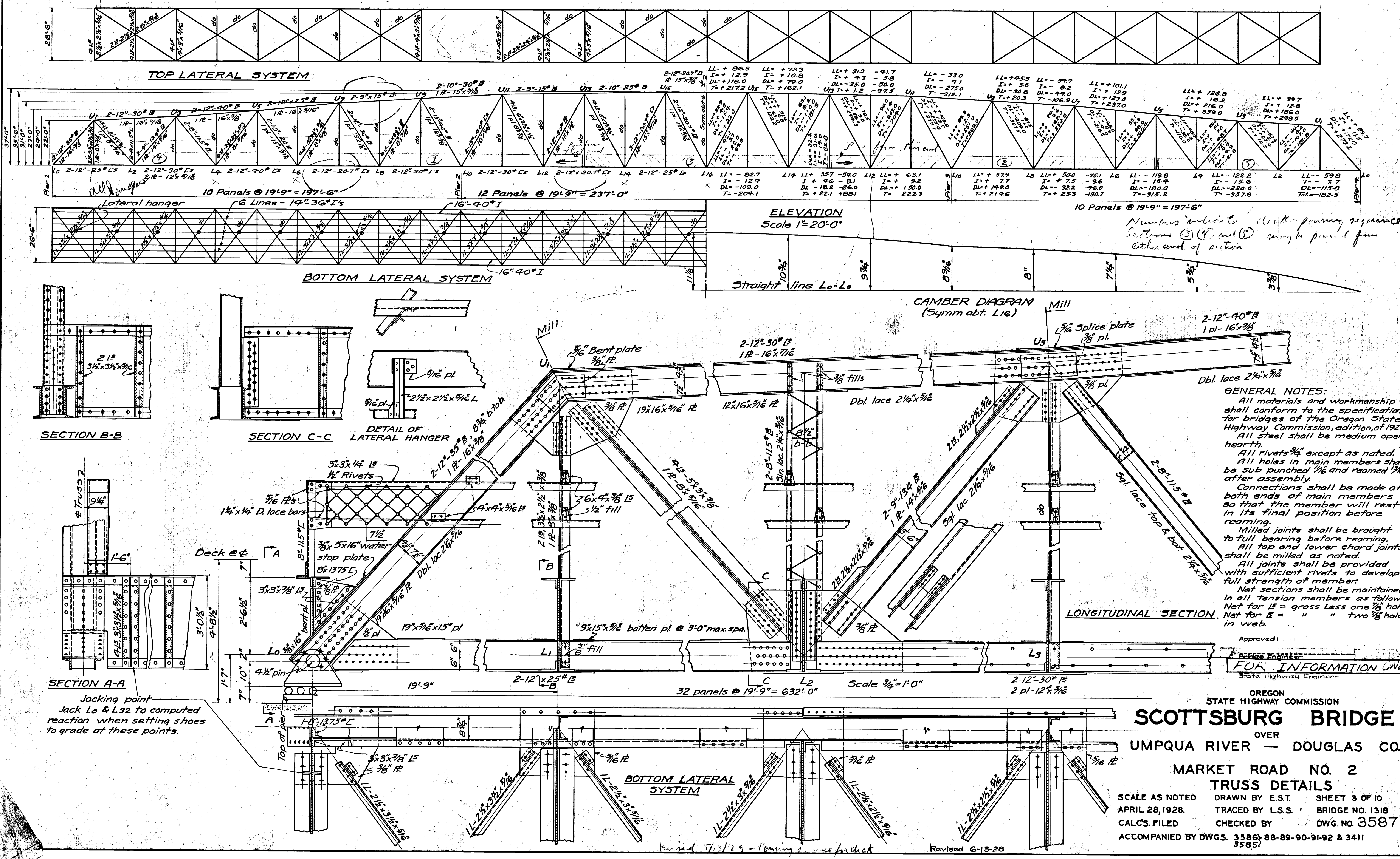
SCALE AS NOTED DRAWN BY E.S.T. SHEET 2 OF 10
APRIL 28, 1928. TRACED BY L.S.S. BRIDGE NO. 1318
CALC'S. FILED CHECKED BY DRAWING NO. 3586
ACCOMPANIED BY DWGS. 3585-87-88-89-90-91- 92 & 3411

Approved:

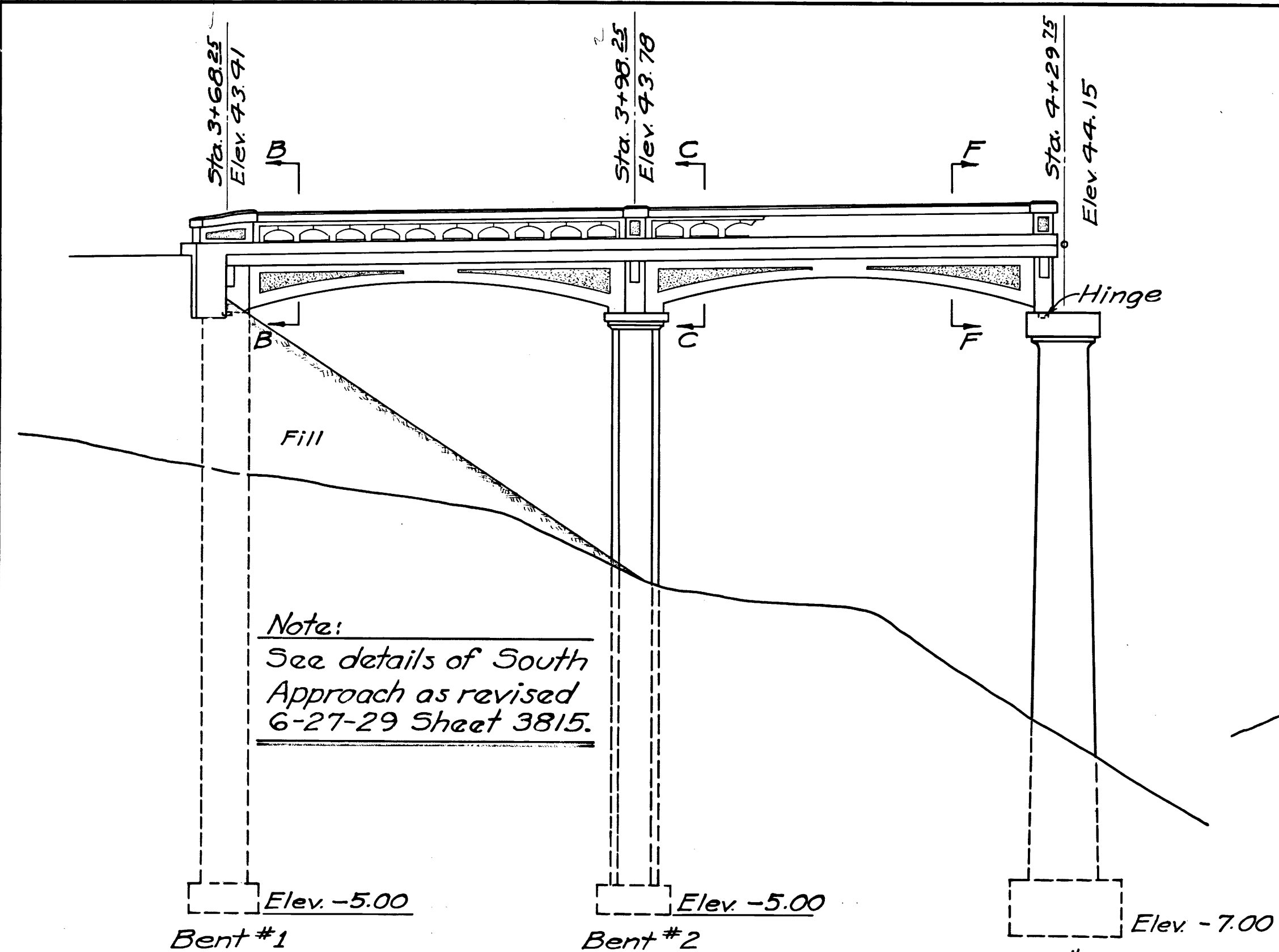
Bridge Engineer

State Highway Engineer

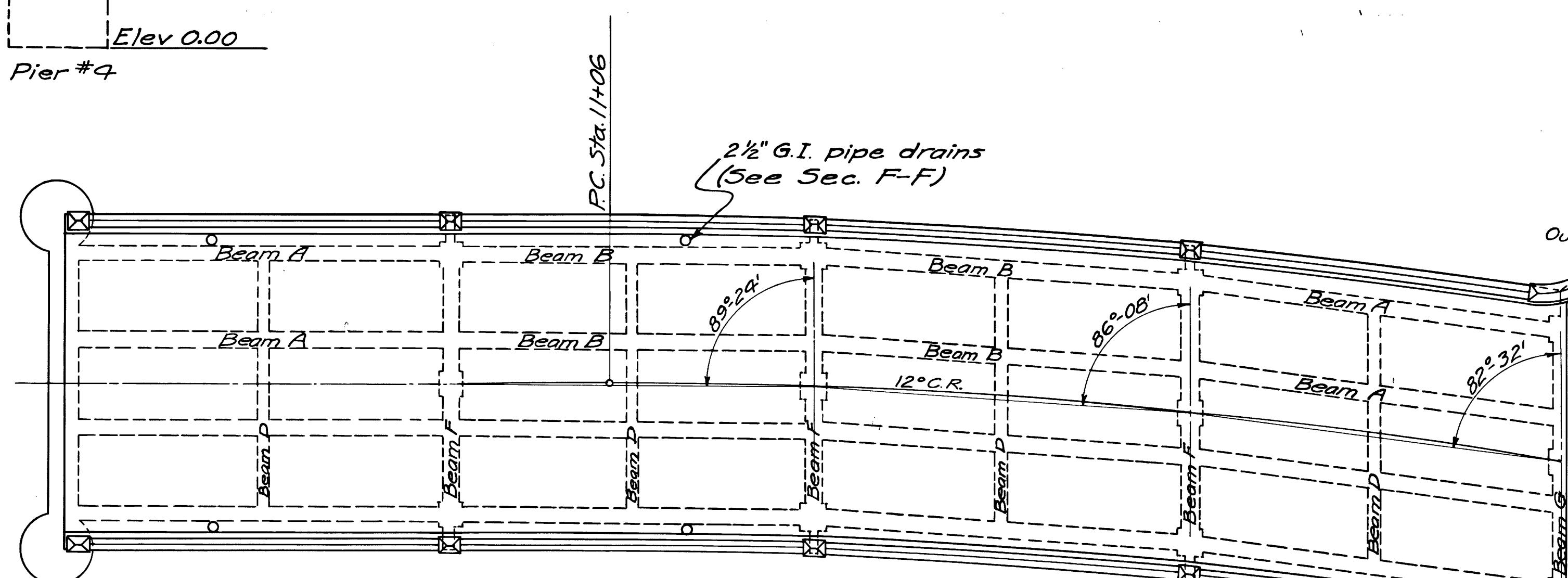
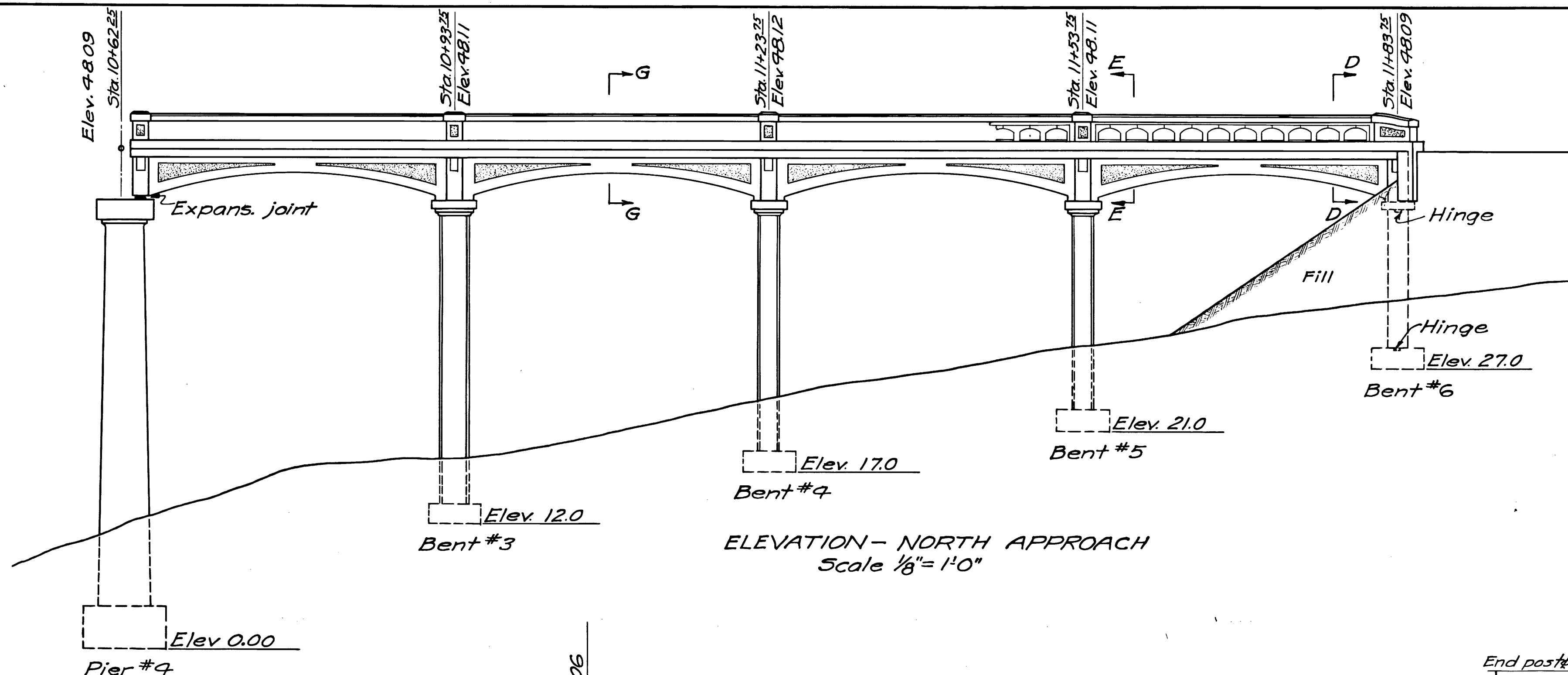
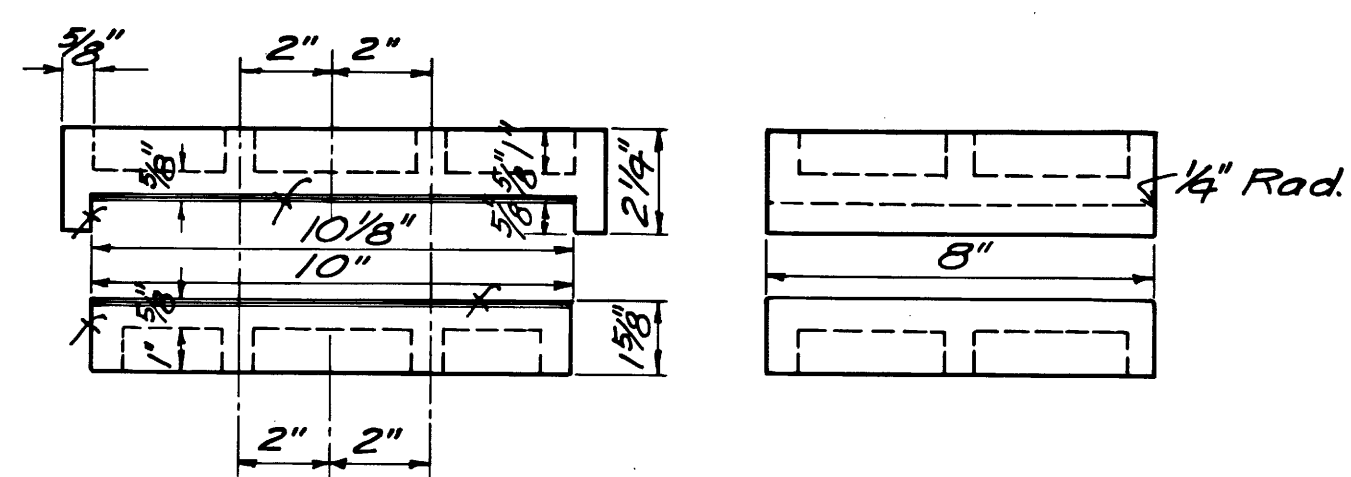
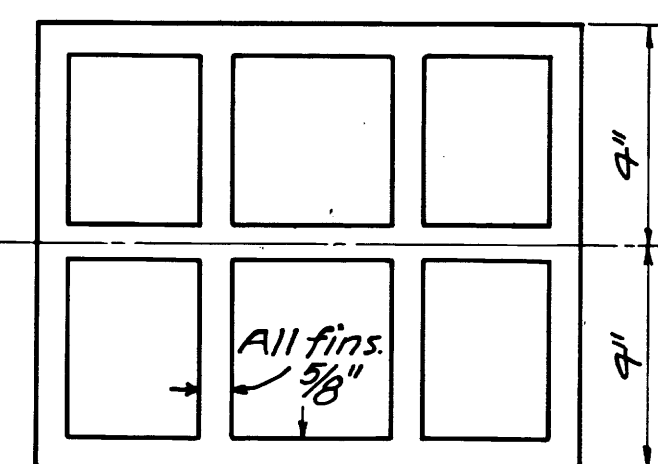
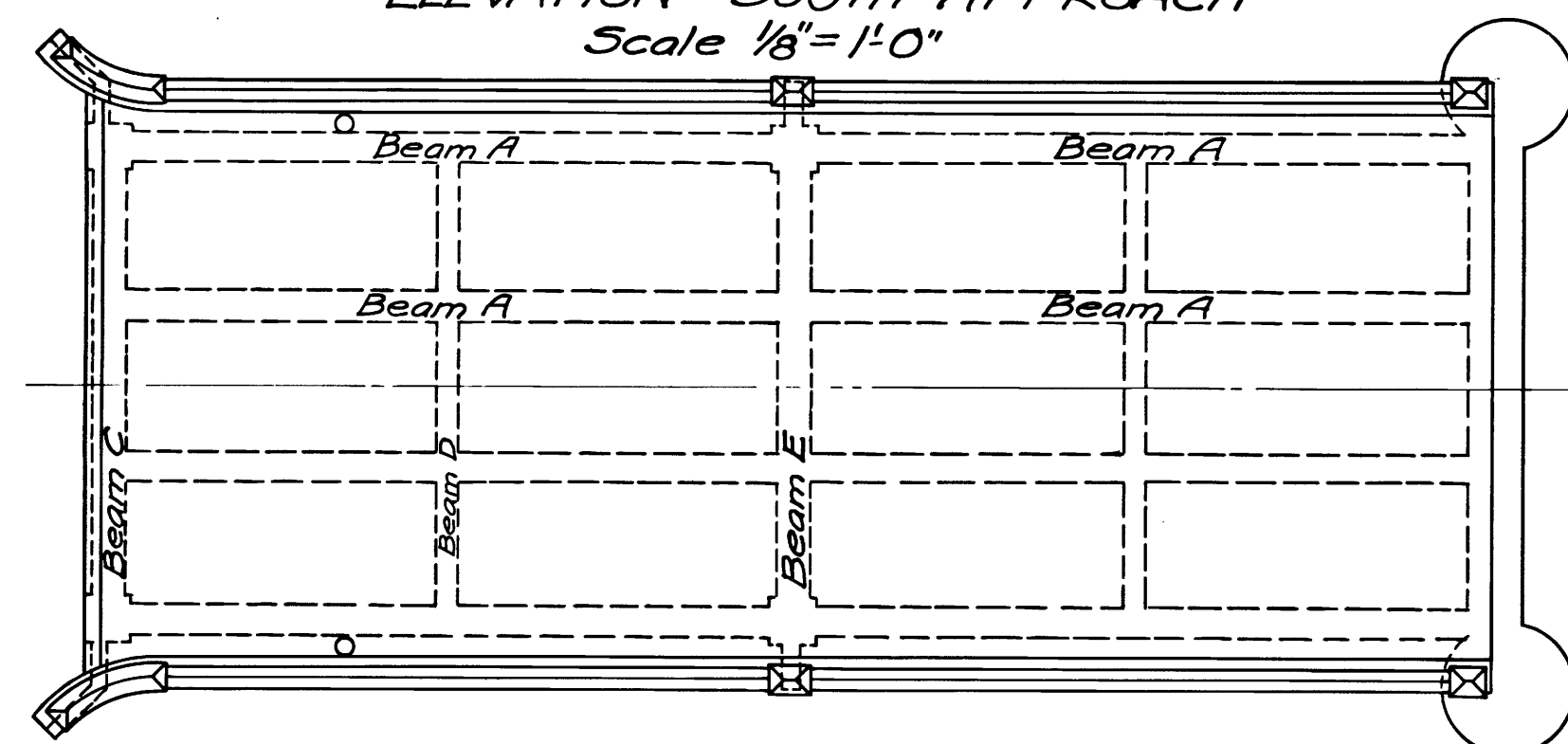
Revised 6-13-28



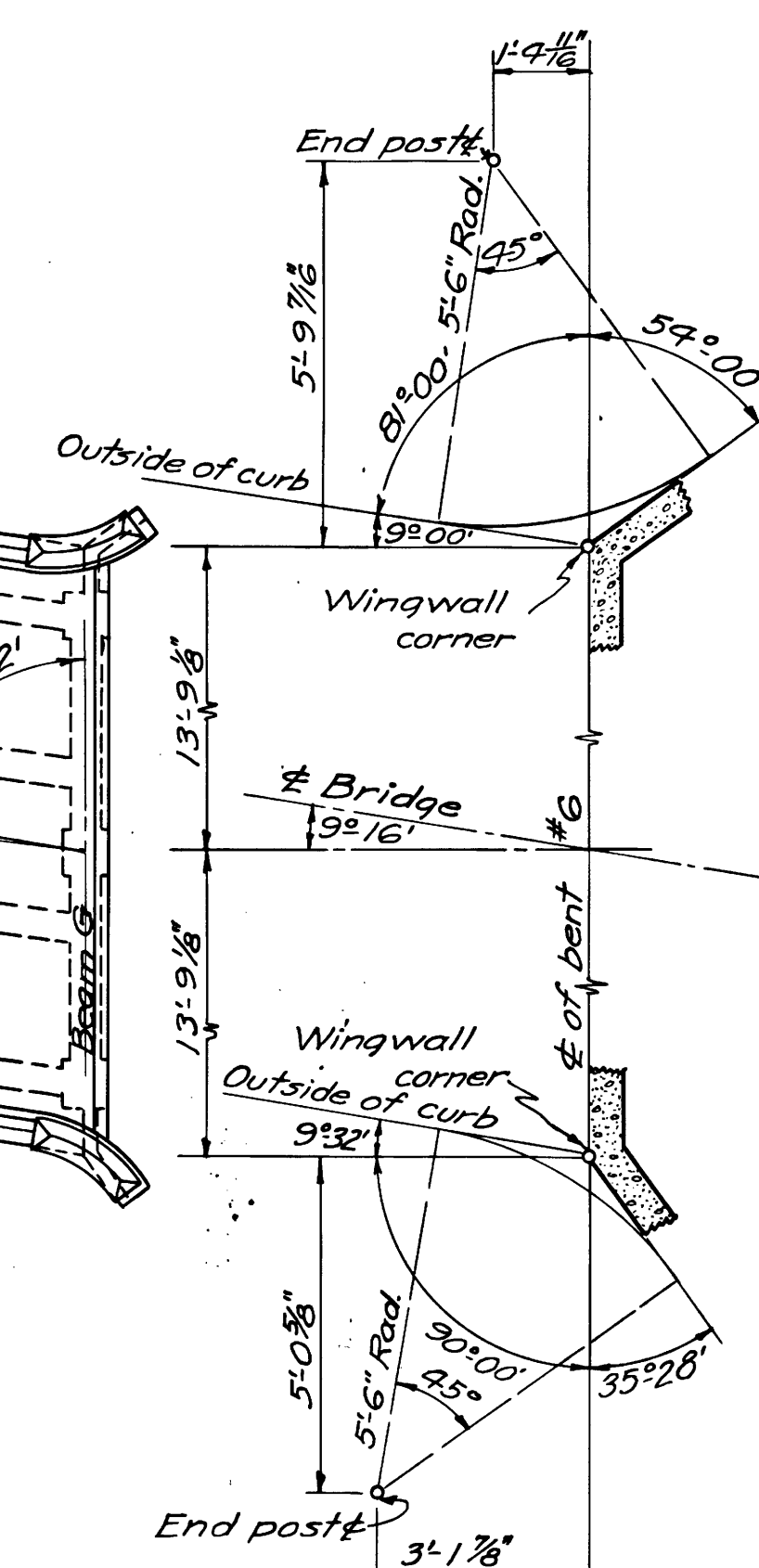
MARKET ROAD NO. 2
SHOE AND JOINT DETAILS
SCALE AS NOTED DRAWN BY E.S.T. SHEET 5 OF 10
APRIL 30, 1928 TRACED BY L.S.S. BRIDGE NO. 1318
CALC'S. FILED CHECKED BY DRAWING NO. 3589
ACCOMPANIED BY DWGS. 3585 - 86-87-88-90-91-92 & 3411



ELEVATION—SOUTH APPROACH
Scale 1/8"=1'-0"



Notes:
All bents parallel to transverse $\pm$ of pier &
Columns square with $\pm$ bents and spaced
10'-6" ctrs. on same.
Longitudinal beams 30'-0" long $\pm$ to $\pm$ of
supports and spaced 7'-0" ctrs. on $\pm$ bent.



OREGON
STATE HIGHWAY COMMISSION
SCOTTSBURG BRIDGE
OVER
UMPQUA RIVER - DOUGLAS CO.

MARKET ROAD NO. 2 APPROACH LAYOUT

SCALE AS NOTED DRAWN BY E.S.T. SHEET 6 OF 10
APRIL 18,1928 TRACED BY L.S.S. BRIDGE NO.1318
CALC'S. FILED CHECKED BY DRAWING NO. 3590
ACCOMPANIED BY DWGS. 3585-86-87-88-89-91-92 & 3411-3815

Approved:

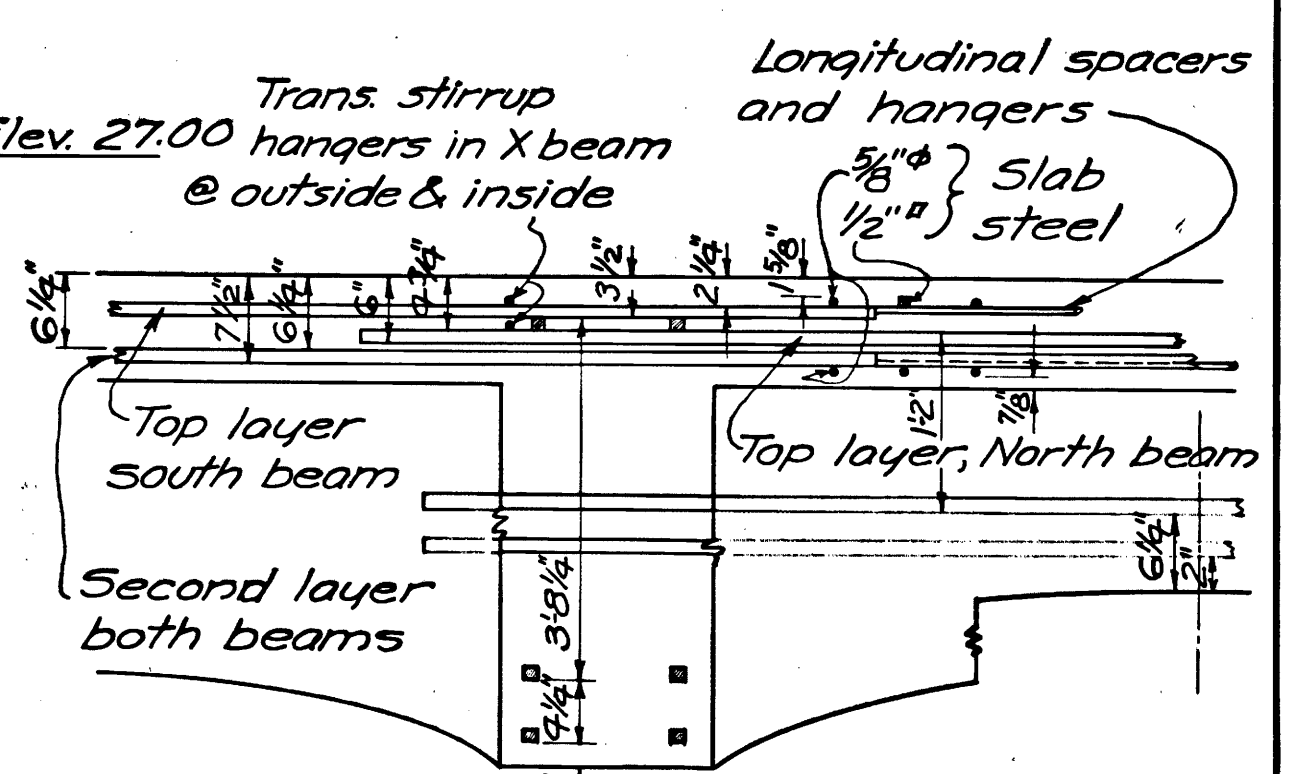
Bridge Engineer

State Highway Engineer

Revised 6-13-28
" 6-27-29



Figure 1 shows two types of U-shaped cross-sections. Type A is a channel section with a horizontal flange of thickness h and a vertical web of height v . Type B is a similar U-shaped section without the horizontal flange.



STANDARD ARRANGEMENT
OF STEEL AT BENT
Scale $\frac{3}{4}" = 1'-0"$

OREGON
STATE HIGHWAY COMMISSION

SCOTTSBURG BRIDGE

OVER

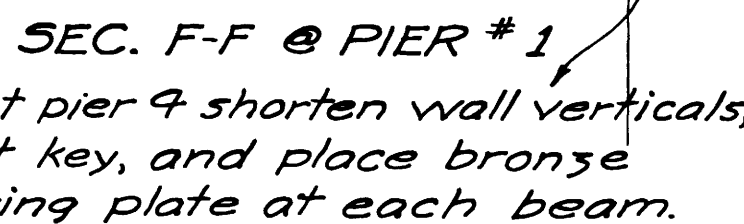
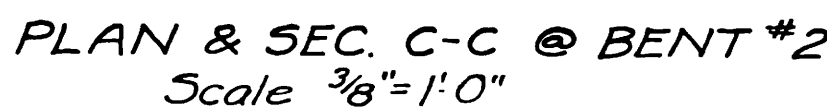
UMPQUA RIVER — DOUGLAS CO.

MARKET ROAD NO. 2

COLUMNS & BEAMS

SCALE AS NOTED DRAWN BY E.S.T. SHEET 7 OF 10
APRIL 28, 1928 TRACED BY L.S.S. BRIDGE NO. 1318
CALC'S. FILED CHECKED BY DRAWING NO. 3591
ACCOMPANIED BY DWGS. 3585-86-87-88-89-90-92 & 3A11

SLAB STEEL



Location	a	b	w
Bent #1	1'-9"	4'-2"	3'-6"
" 2	2'-3"	4'-0"	3'-6"
" 3	1'-9"	4'-2"	2'-6"
" 4&5	1'-6"	4'-3"	2'-0"
" 6	1'-0"	4'-5"	2'-0"
Beams C+G	0'-7"	4'-6 $\frac{1}{2}$ "	—
" E+F	0'-9"	4'-6"	—

[illegible]

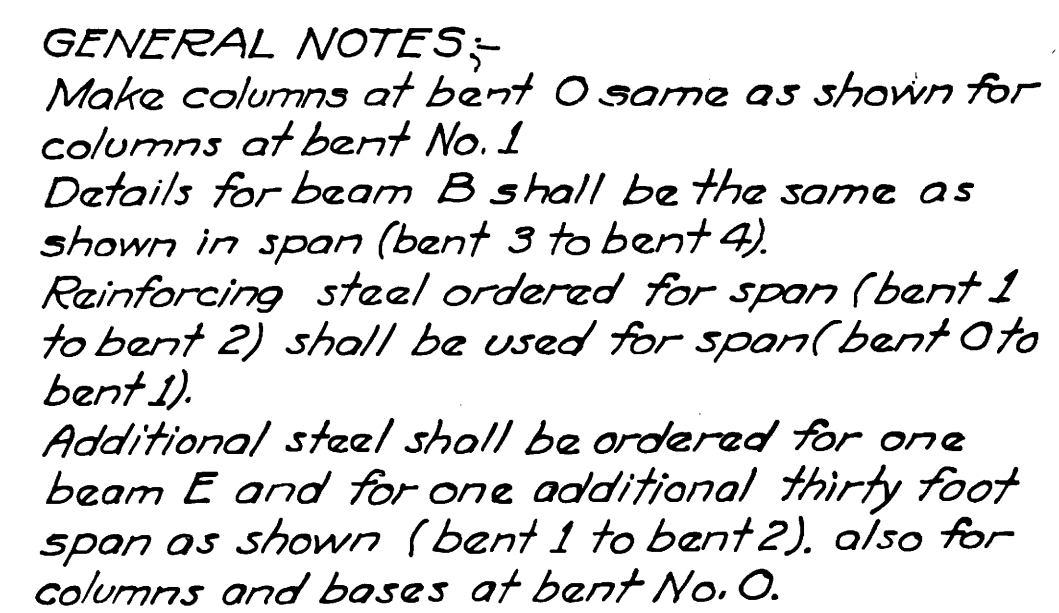
MARKET ROAD NO. 2
CROSS SECTIONS AND STEEL LISTS
SCALE AS NOTED DRAWN BY E.S.T. SHEET 8 OF 10
MAY 8, 1928. TRACED BY L.S.S. BRIDGE NO. 1318
CALCS FILED CHECKED BY DRAWING NO. 3592
ACCOMPANIED BY DWGS. 3585-86-87-88-89-90-91 & 34-11.

Approved:

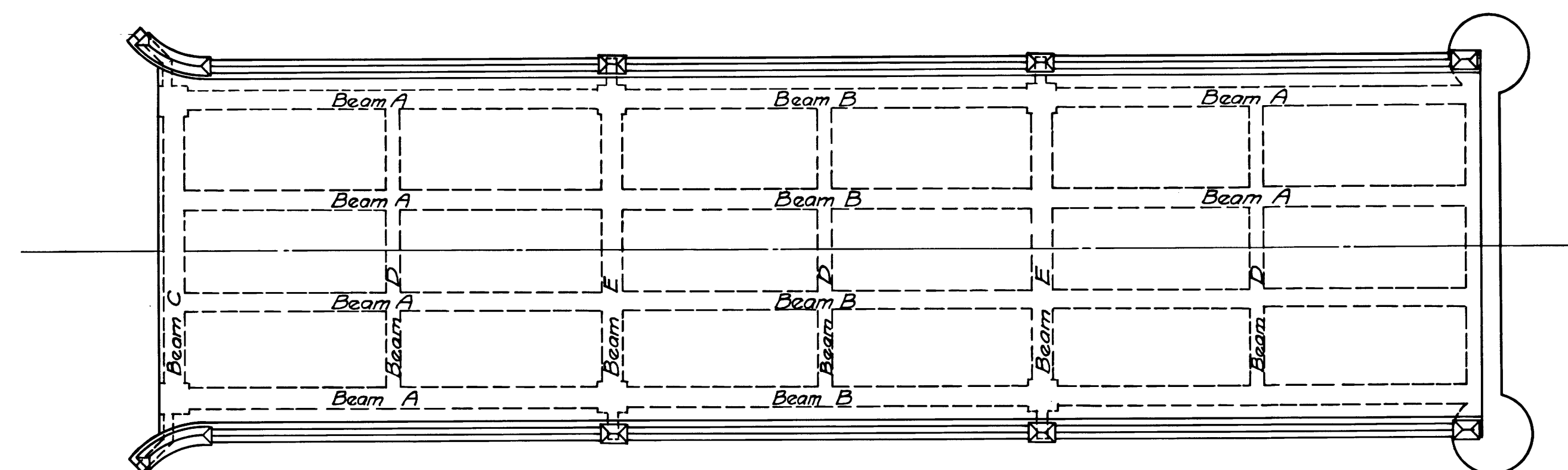
Bridge Engineer

State Highway Engineer

Revised 6-13-28



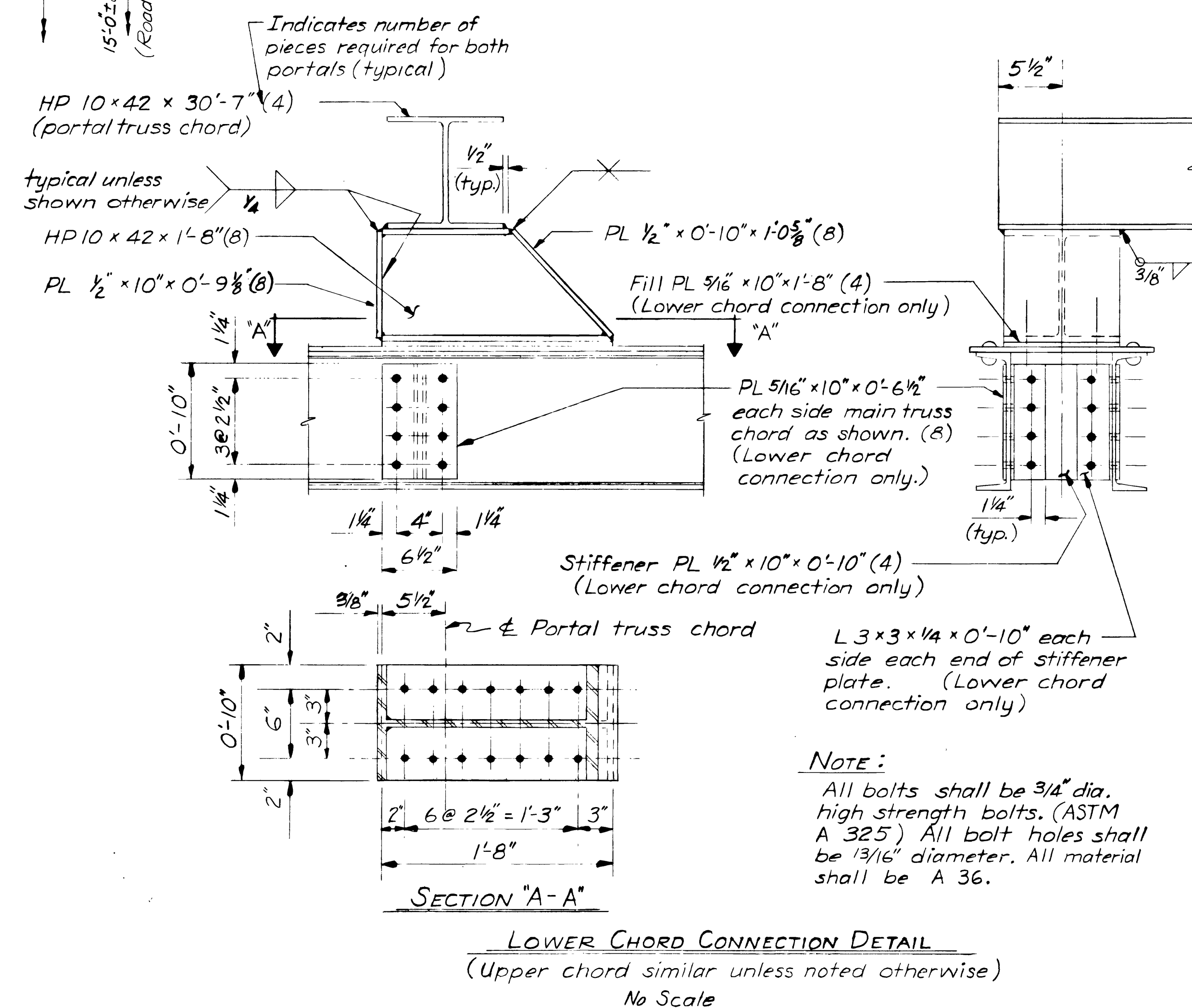
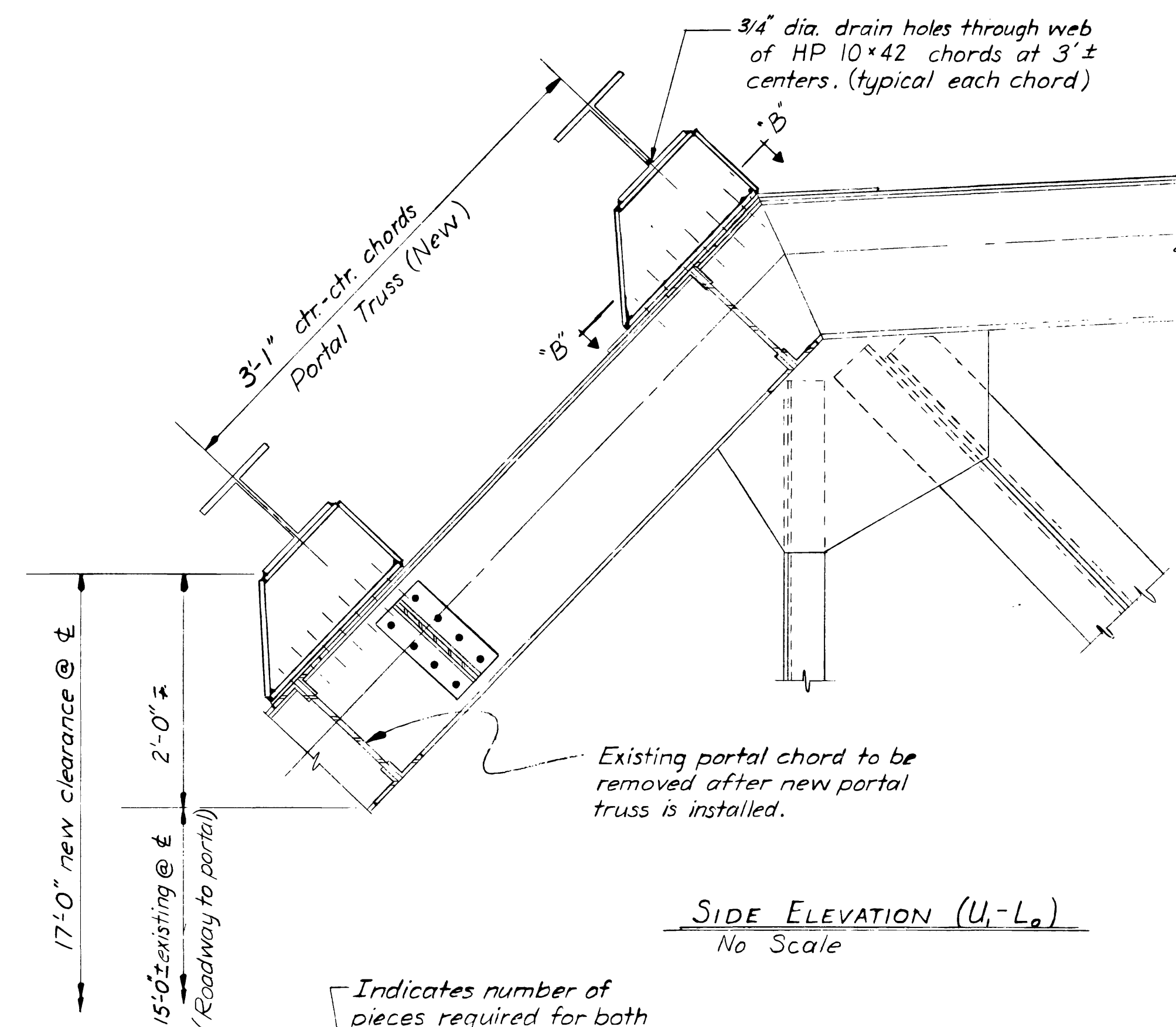
ELEVATION - SOUTH APPROACH
Scale $\frac{1}{8}" = 1'0"$



PLAN - SOUTH APPROACH
Scale $\frac{1}{8}'' = 1'-0''$

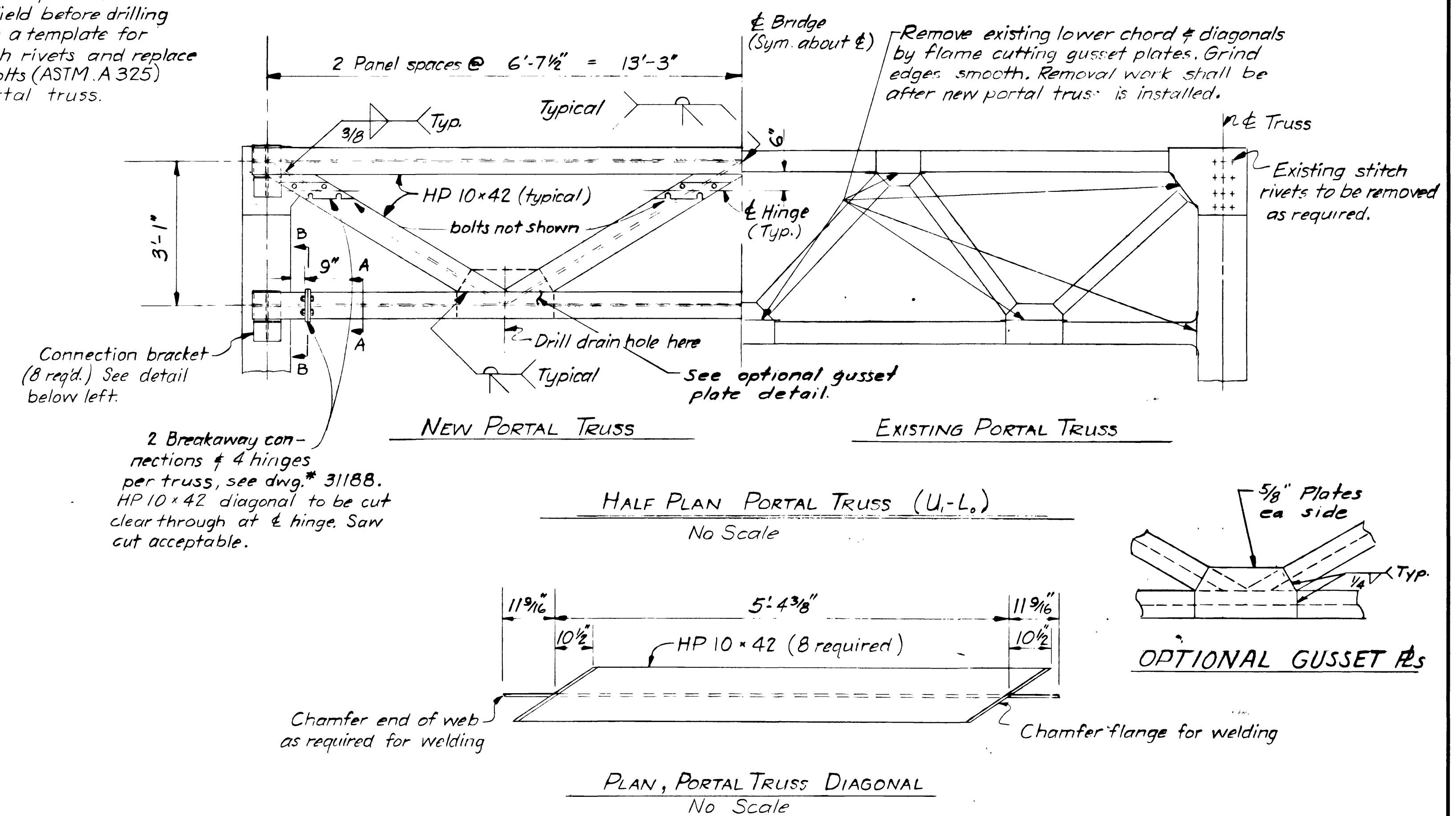
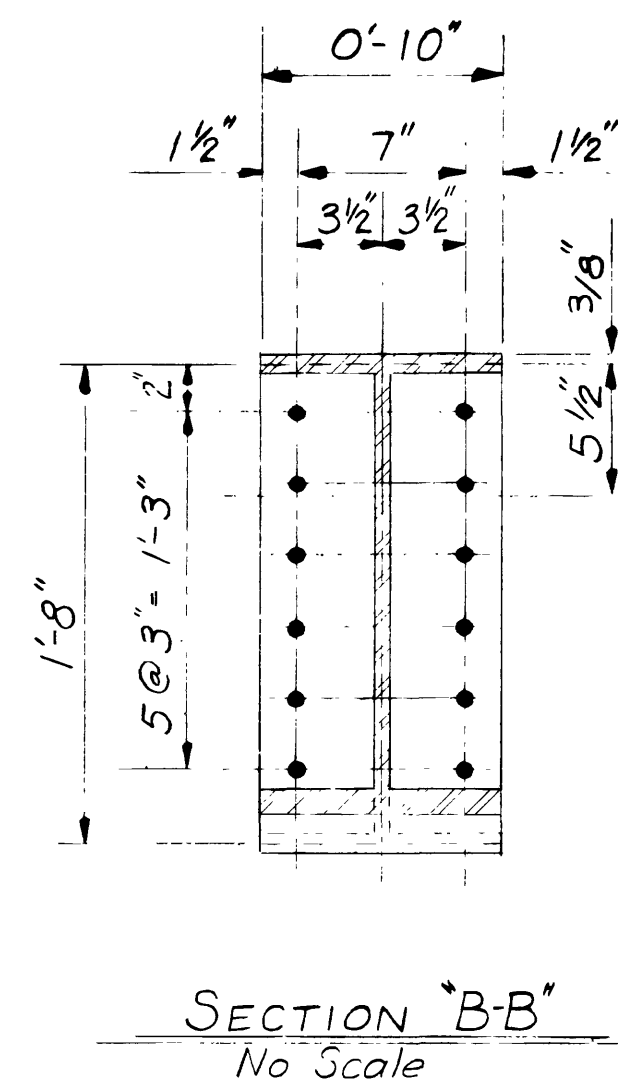
OREGON
STATE HIGHWAY COMMISSION
SCOTTSBURG BRIDGE
OVER
UMPQUA RIVER—DOUGLAS CO.
ON
MARKET ROAD NO. 2
SOUTH APPROACH LAYOUT

SCALE AS NOTED DRAWN BY E.S.T. SHEET 10 OF 10
JUNE 27, 1929. TRACED BY L.S.S. BRIDGE NO. 1318
CALC S. FILED CHECKED BY DRAWING NO. 3815
ACCOMPANIED BY DWGS. 3585 TO 3592 INCL. & 34-11.



NOTE:

Use existing rivet holes where possible. Verify rivet spacing in the field before drilling top chord brackets. Make a template for bolt spacing. Remove stitch rivets and replace with 3/4" high strength bolts (ASTM A 325) until ready to install portal truss.

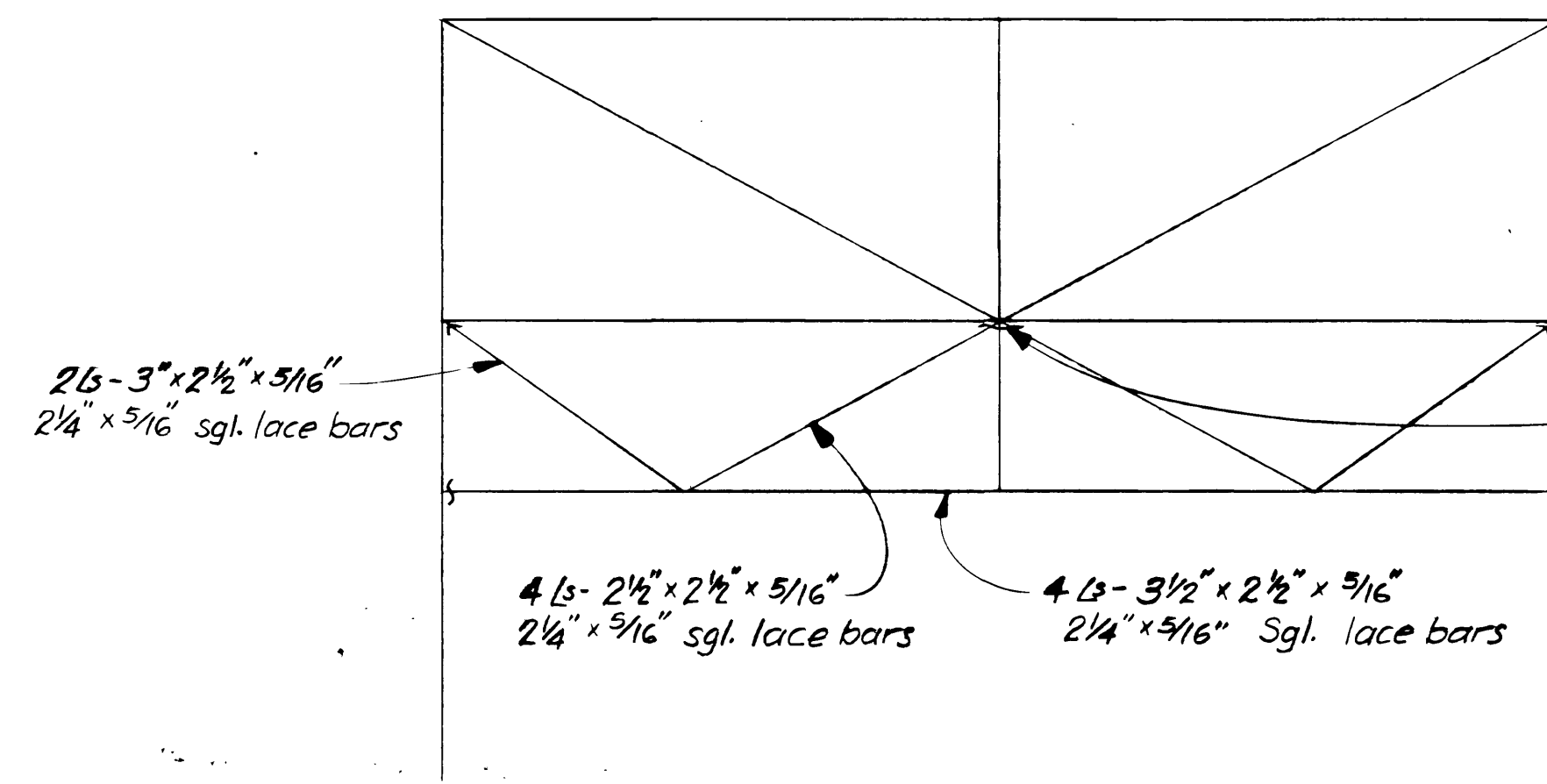


CONSTRUCTION SEQUENCE

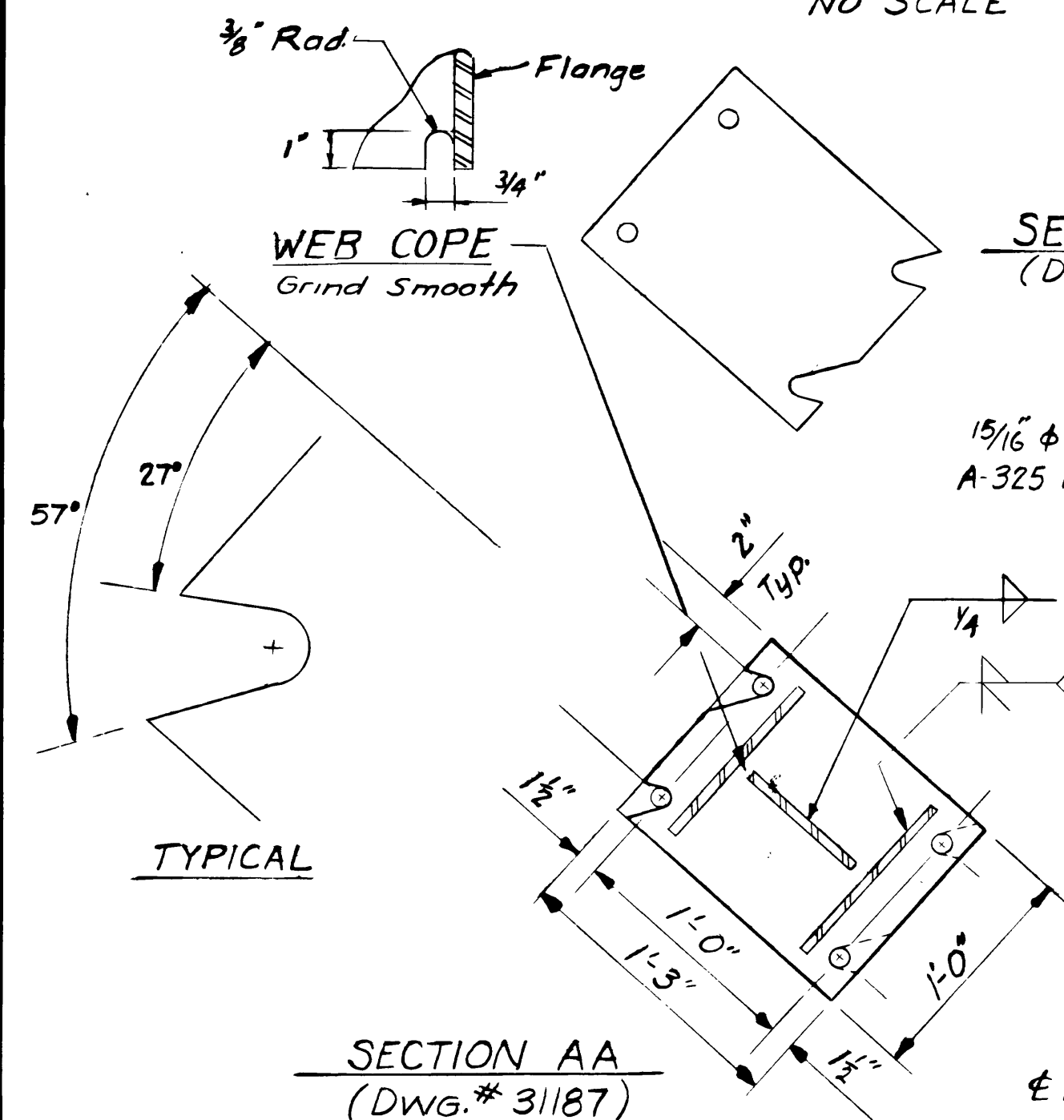
1. Field verify design dimensions and check for possible obstructions at connections
2. Fabricate and install new portal trusses.
3. Install stiffener plates at lower chord connections. (Location may be varied to clear conflicts)
4. Remove lower chord and diagonals in existing portal trusses.
5. Clean and paint new and existing steel as necessary.

Accompanied by drawing numbers 3587, 3588, 31188

APPROVED: <u>Walter Blank</u> BRIDGE ENGINEER DESIGNED <u>A. LYNCH</u> DRAWN <u>A. LYNCH</u> CHECKED <u>OMP</u> REVIEWED <u>JEB 6-8-76</u> REVIEWED _____ CALC. BOOK _____	OREGON STATE HIGHWAY DIVISION BRIDGE SECTION SCOTTSBURG BRIDGE DOUGLAS COUNTY END PORTAL REVISION																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">DATE</th> <th>REVISION</th> </tr> </thead> <tbody> <tr> <td>6-3-77</td> <td>As Constructed</td> </tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	DATE	REVISION	6-3-77	As Constructed																	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">DATE <u>Feb. 1976</u></td> <td style="width: 50%;">SHEET <u>1</u> OF <u>2</u></td> </tr> <tr> <td>BRIDGE NO. <u>1318</u></td> <td>DRAWING NO. <u>31187</u></td> </tr> </table>	DATE <u>Feb. 1976</u>	SHEET <u>1</u> OF <u>2</u>	BRIDGE NO. <u>1318</u>	DRAWING NO. <u>31187</u>
DATE	REVISION																								
6-3-77	As Constructed																								
DATE <u>Feb. 1976</u>	SHEET <u>1</u> OF <u>2</u>																								
BRIDGE NO. <u>1318</u>	DRAWING NO. <u>31187</u>																								

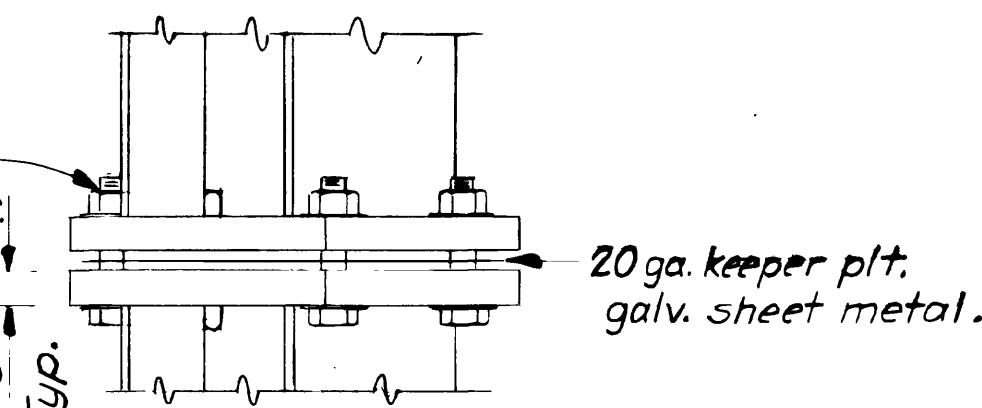


SCHEMATIC OF PORTALS U9-L10 & L10-U11
NO SCALE



Note: Bolt holes shall be sub-drilled and reamed to size. Slots shall be saw cut or machine guided flame cut.

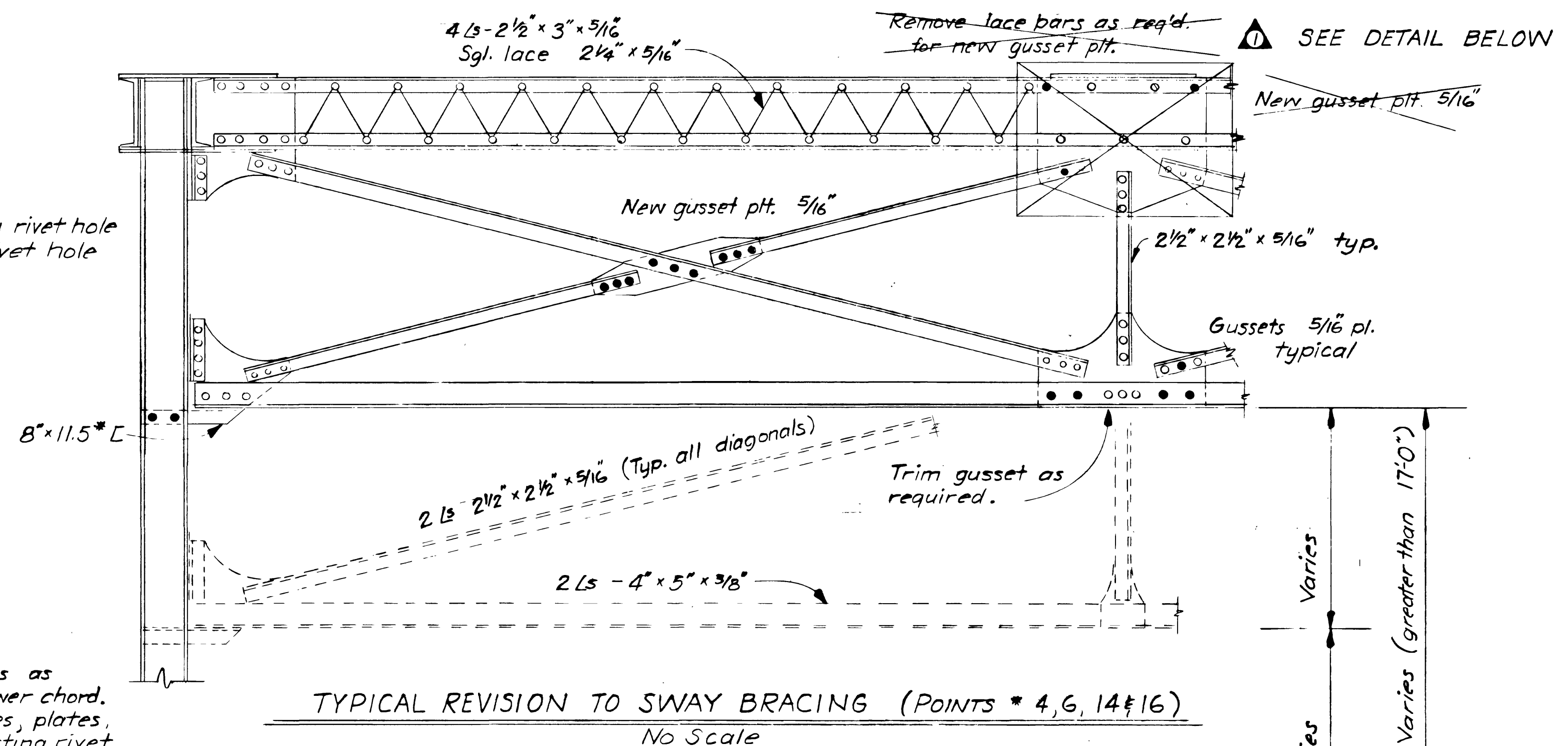
BREAKAWAY CONNECTION
No Scale



All gusset plates 5/16"

Remove lower truss members by flame cutting gusset plates to edge of truss posts and lower chord of upper truss. Grind smooth.

Cut truss members as required to raise lower chord. Use existing angles, plates, channels and existing rivet holes if possible. Replace rivets with same number of 3/4" A325 bolts, unless noted otherwise, at new connections. New steel required to be A 36.



TYPICAL REVISION TO SWAY BRACING (POINTS * 4, 6, 14 & 16)
No Scale

SWAY BRACING

1. Check for possible obstructions at connections
2. Use existing rivet holes where possible. In holes not used, fill with 3/4" A325 bolts.
3. Clean and paint new and existing steel as necessary.
4. All bolts shall be 3/4" A325 high strength. Bolt holes shall be 13/16" φ.

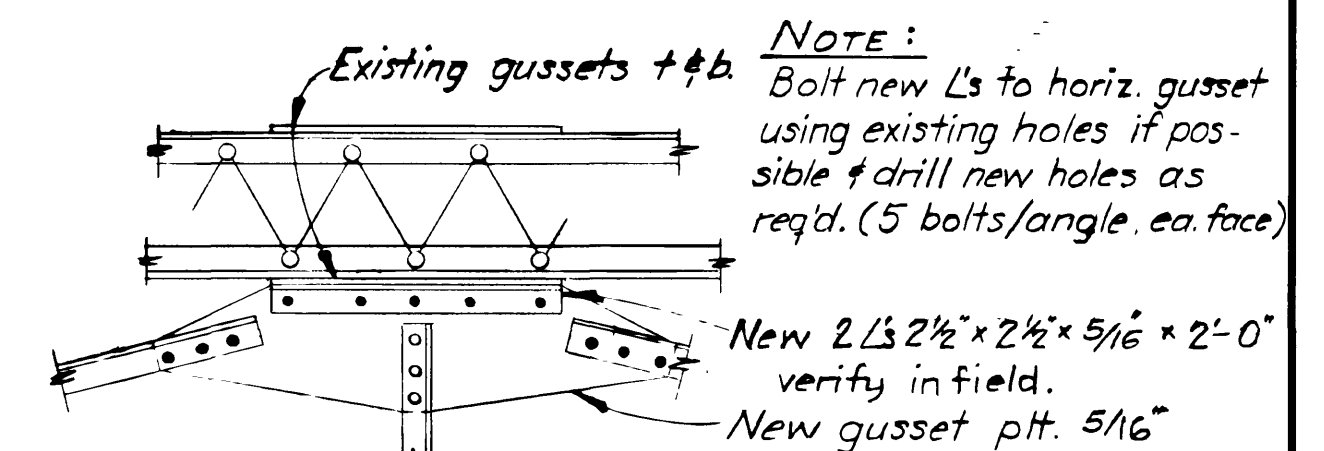
BOLTING PROCEDURE

Breakaway Connection

1. Shop assemble connection.
2. Tighten bolts in a systematic order to 80% of proof load for the bolt.
3. Loosen each bolt and retighten to 110* ft torque in the same order as the initial tightening. DO NOT OVERTIGHTEN!
4. Burr threads at junction with nut using center punch

Hinge

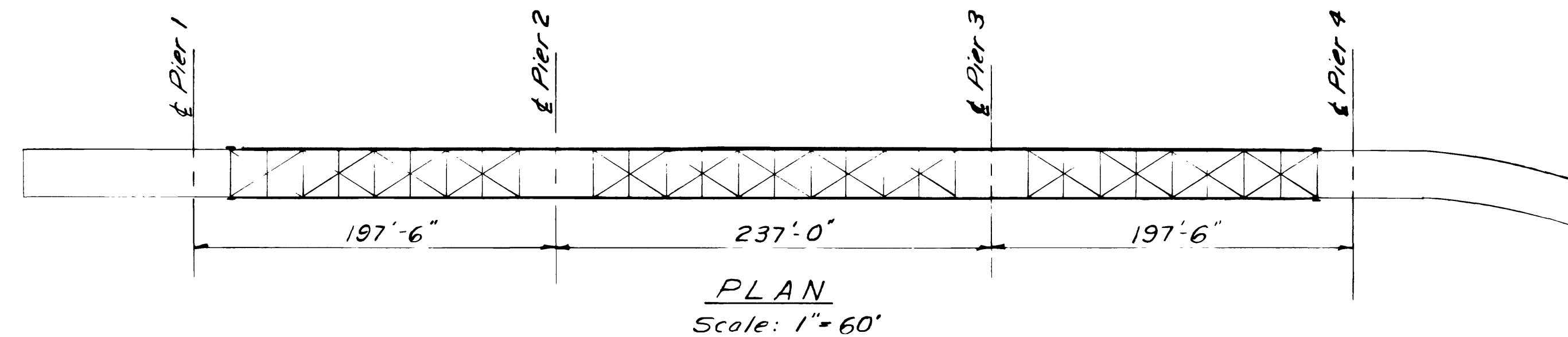
1. Shop assemble hinge connections.
2. Tighten bolts in a systematic order to 99,250* tension.
3. Loosen each bolt and retighten to prescribed tension in the same order as the initial tightening.



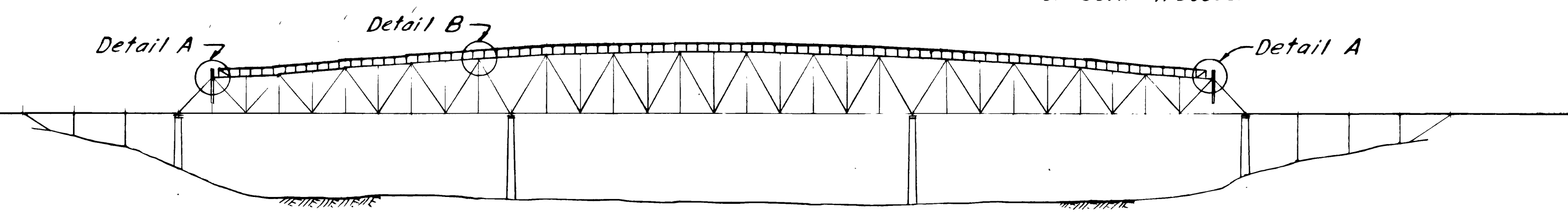
SWAY BRACING CONN.
No Scale

Accompanied by drawing numbers: 3587, 3588, 31187

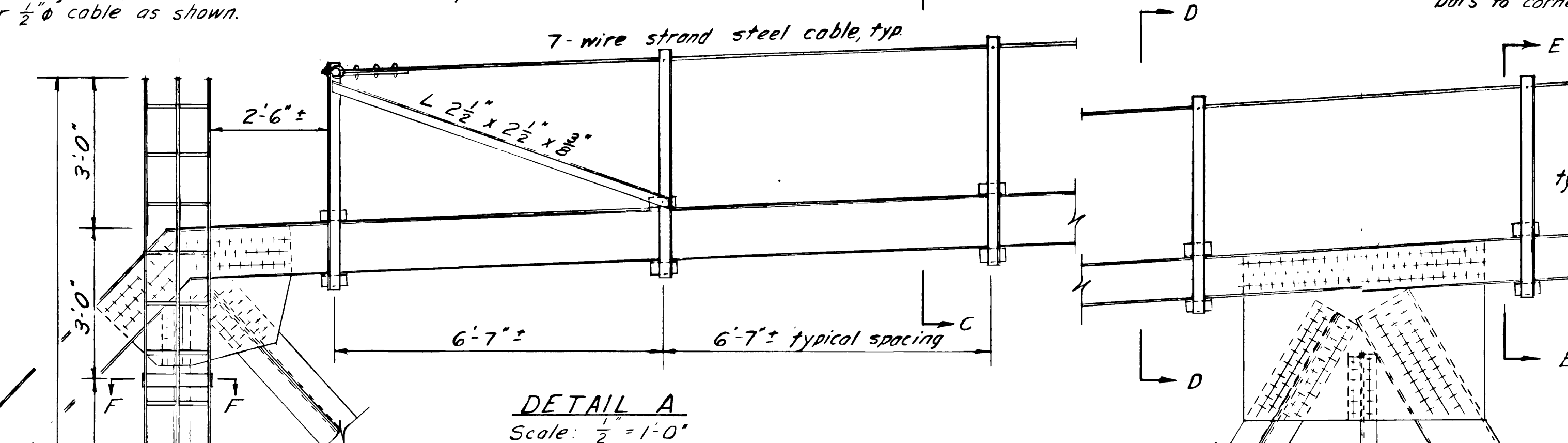
APPROVED: <i>Walter J. Bryant</i> BRIDGE ENGINEER		OREGON STATE HIGHWAY DIVISION BRIDGE SECTION	
DESIGNED: A. LYNCH	DRAWN: A. LYNCH	SCOTTSBURG BRIDGE	
CHECKED: OMP	REVIEWED: J.E.B. 6-8-76	BRACING REVISION	
REVIEWED: CALC. BOOK	DATE: 10-13-76	REVISION: Conn. Revision	DATE: Feb. 1976
	6-3-77	As Constructed	BRIDGE NO. 1318C
			SHEET 2 OF 2
			DRAWING NO. 3118B



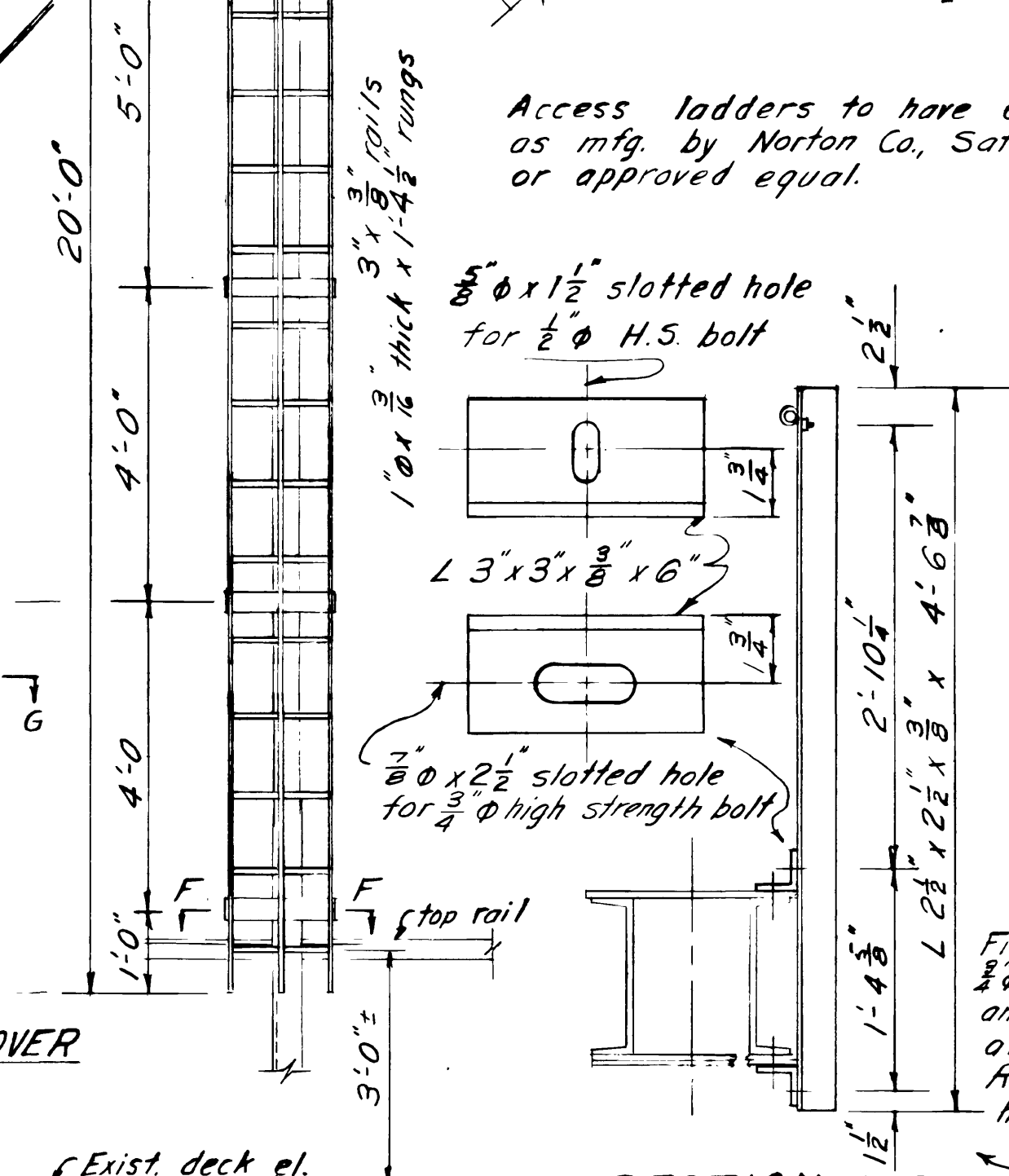
Note: Ladders and safety cables on both trusses.



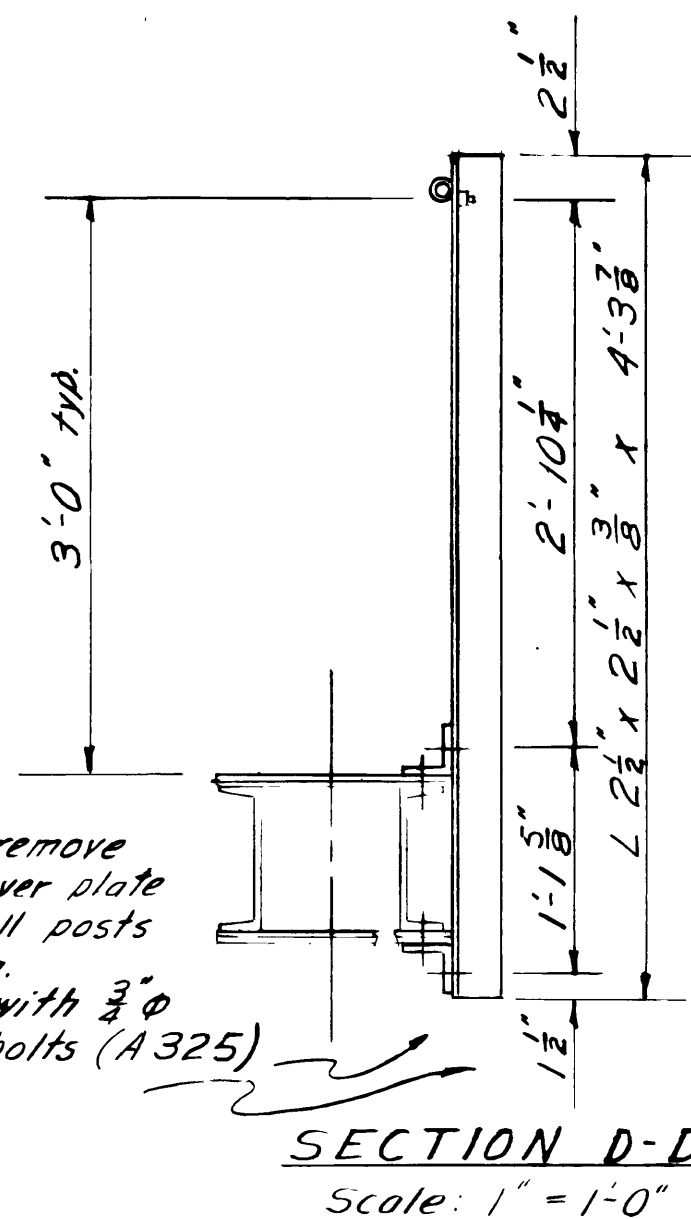
Anchor each end of wire rope safety cable with $\frac{3}{4}$ " x 6" eye bolt, thimble and 3 cable clamps for $\frac{1}{2}$ " cable as shown.



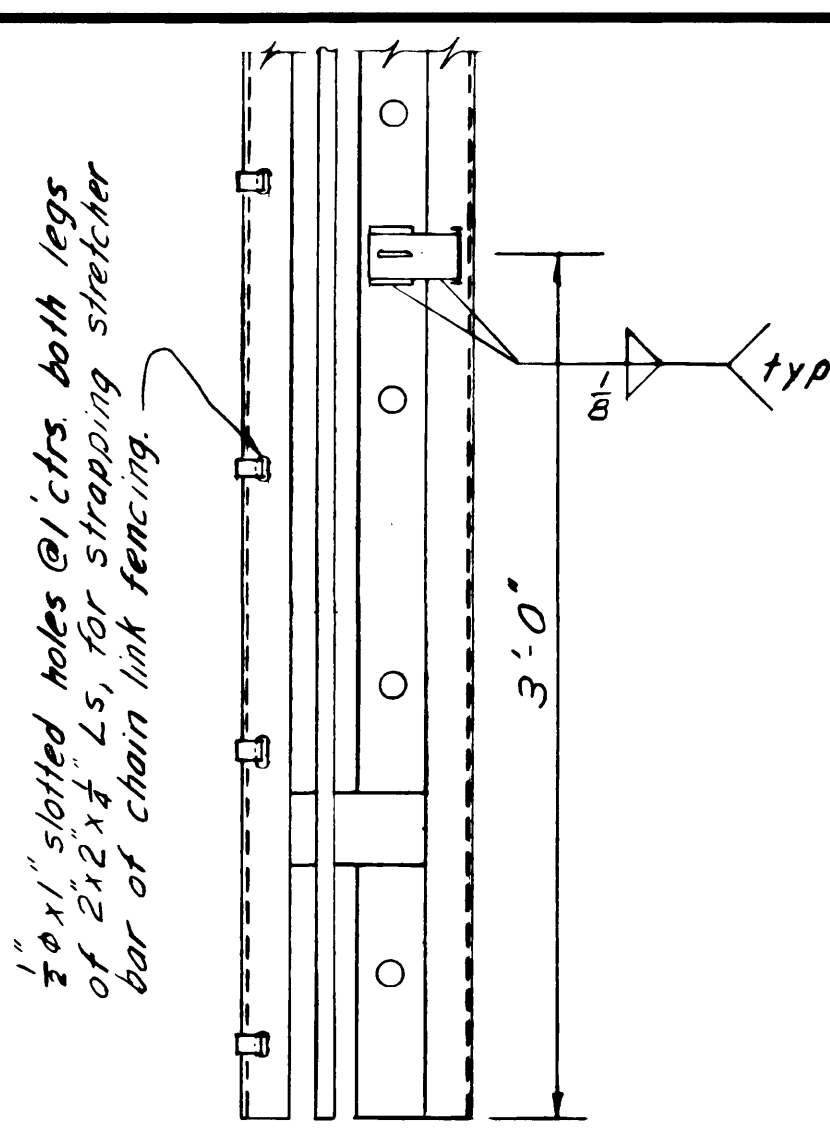
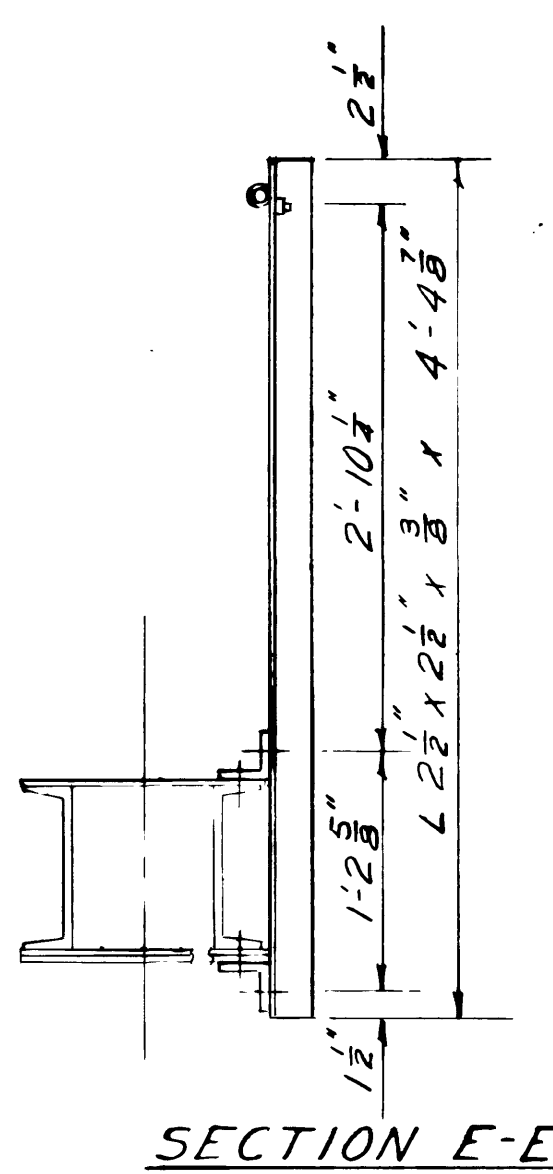
Access ladders to have center rail safety climbing device as mfg. by Norton Co., Safety Products Div.; Swager Tower Corp., or approved equal.



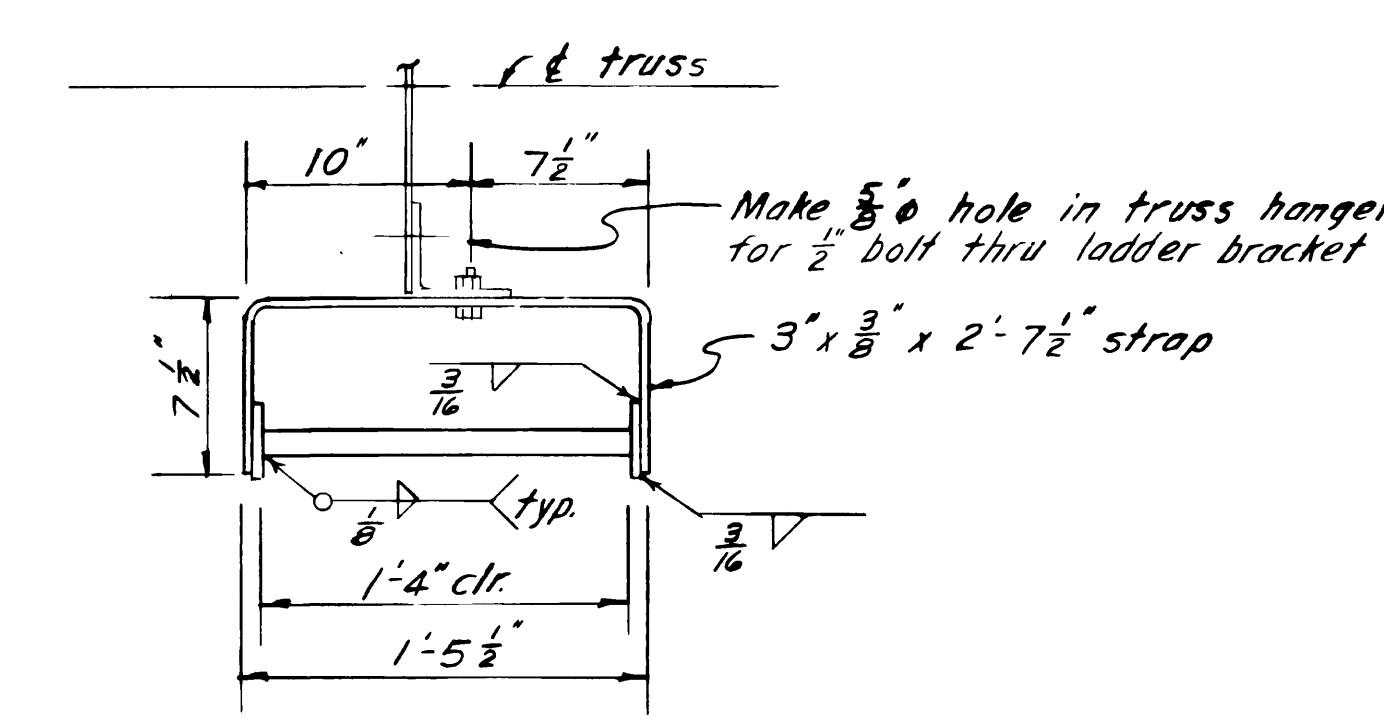
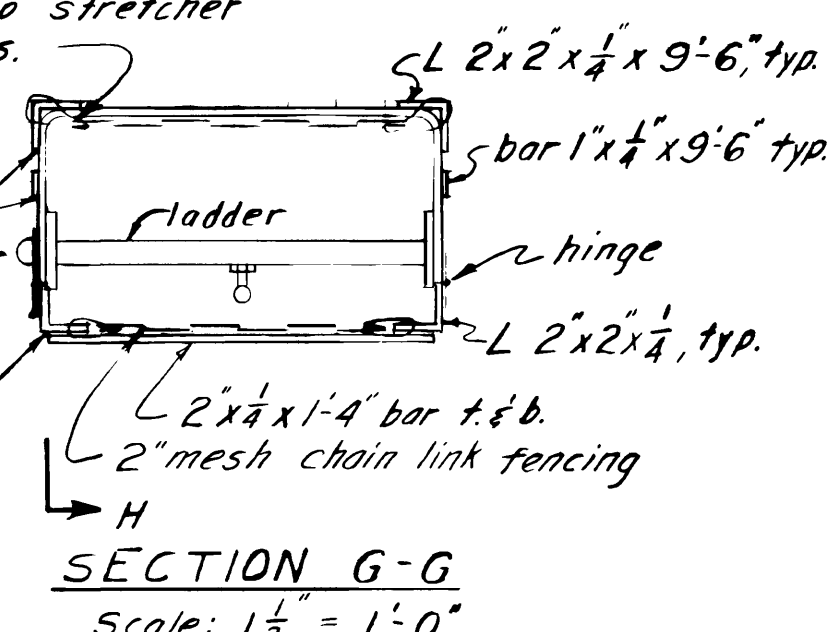
SECTION C-C



Field select and remove $\frac{3}{8}$ " rivets from cover plate and lacing to install posts at 6'-7" spacing. Replace rivets with $\frac{3}{8}$ " high strength bolts (A325).



2" mesh chain link fencing placed inside ladder frame. Strap stretcher bars to corner Ls @ 1' ctrs.



GENERAL NOTES

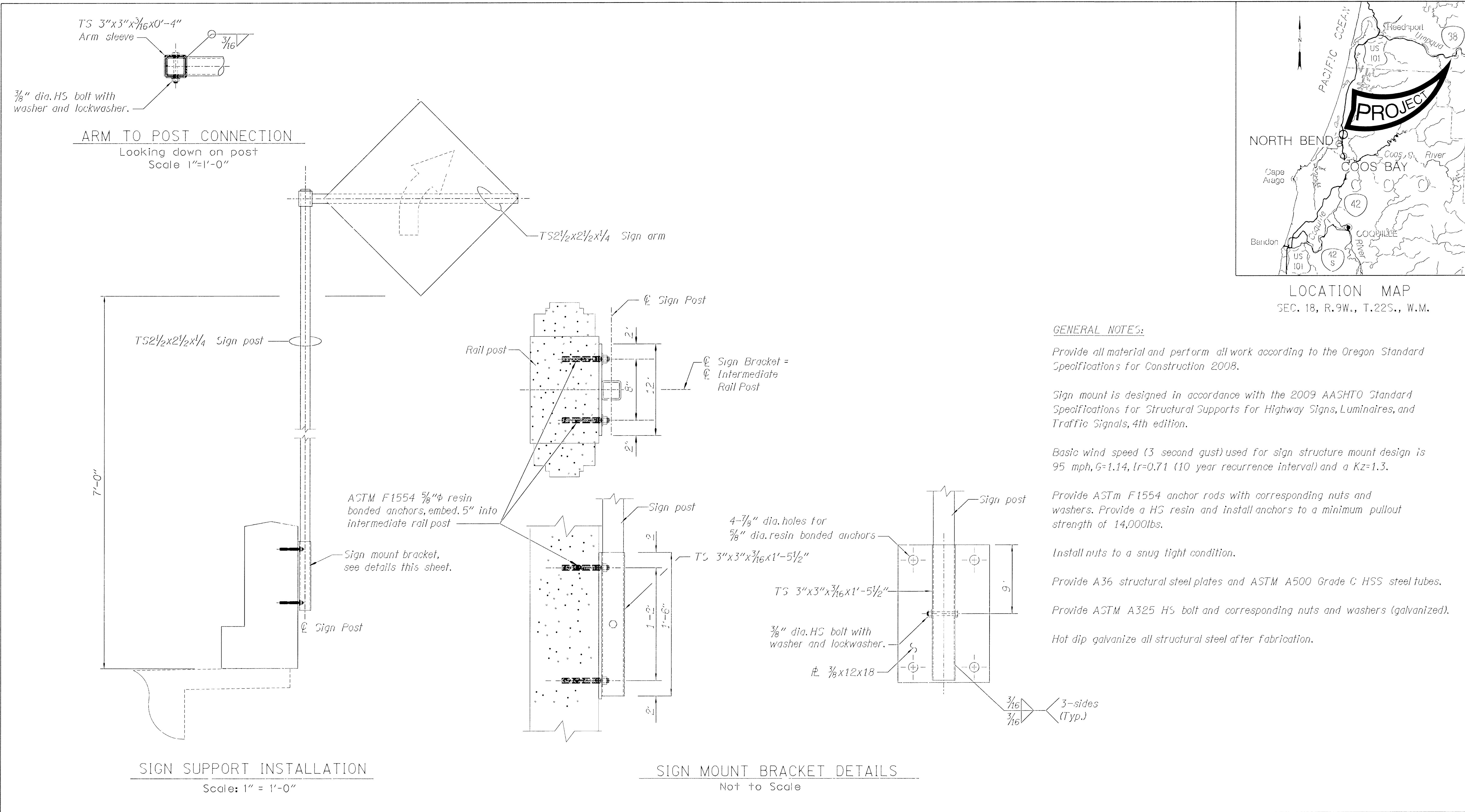
All material and workmanship shall conform to the Standard Specifications for Highway Construction of the Oregon State Highway Division.

Wire rope shall be $\frac{1}{2}$ " diameter hot-dipped galvanized 7-wire strand steel cable conforming to the requirements of ASTM Designation A 475, Common Grade. Galvanizing shall be Class A.

Lightweight wire rope thimbles weighing approximately 13.8 pounds per hundred shall be used with the $\frac{1}{2}$ " diameter cable. Wire rope clips may be drop forged steel or cast steel for use with $\frac{1}{2}$ " inch cable. All thimbles, wire rope clips and eye bolts shall be galvanized in accordance with ASTM Designation A 153, class C, except castings shall be class A, and forgings shall be class B.

All structural angles, plates and shapes shall be of A 36 steel and together with all hardware shall be hot-dipped galvanized after fabrication. Protect galvanized parts during sand blasting.

APPROVED: <i>Walter J. Hunt</i> BRIDGE ENGINEER		OREGON STATE HIGHWAY DIVISION BRIDGE SECTION	
DESIGNED: <i>HOW</i>		UMPQUA RIVER (SCOTTSBURG) BRIDGE	
DRAWN: <i>HOW</i>		INSPECTION SAFETY INSTALLATION	
CHECKED: <i>Abernathy</i>		UMPQUA HIGHWAY - DOUGLAS COUNTY	
REVIEWED: <i>TC</i>		SAFETY CABLE AND LADDER DETAILS	
CALC. BOOK: <i>1616</i>		ACCOMPANIED BY DWGS. 3585, 3587, 3588	
DATE: 6-3-77	REVISION: As Constructed	DATE: February 1, 1977	
		BRIDGE NO. 1318B	
		SHEET 1 OF 4	
		DRAWING NO. 31824	



GENERAL NOTES:

Provide all material and perform all work according to the Oregon Standard Specifications for Construction 2008.

Sign mount is designed in accordance with the 2009 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 4th edition.

Basic wind speed (3 second gust) used for sign structure mount design is 95 mph, $G=1.14$, $I_r=0.71$ (10 year recurrence interval) and a $K_z=1.3$.

Provide ASTM F1554 anchor rods with corresponding nuts and washers. Provide a HS resin and install anchors to a minimum pullout strength of 14,000lbs.

Install nuts to a snug tight condition.

Provide A36 structural steel plates and ASTM A500 Grade C HSS steel tubes.

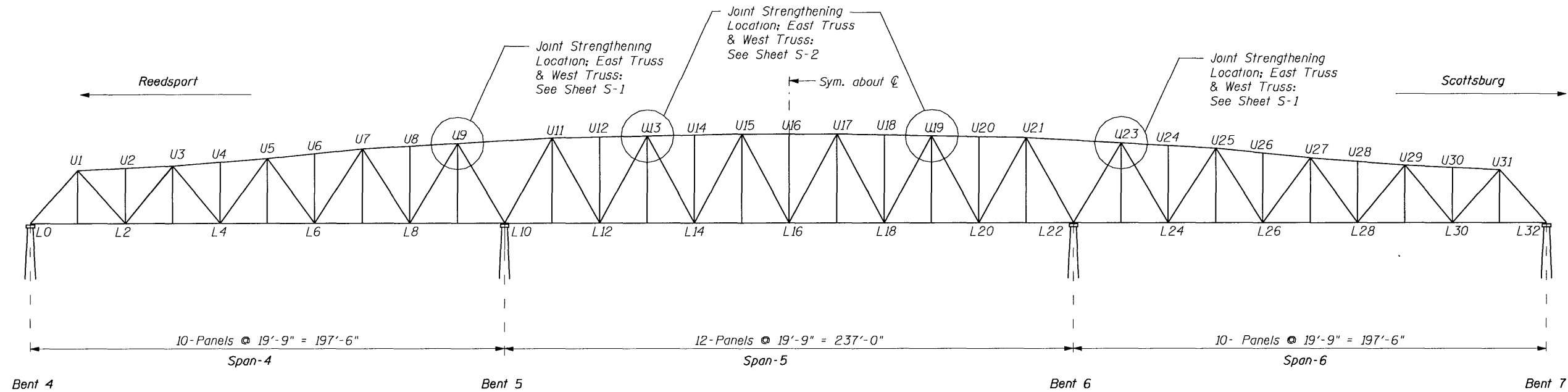
Provide ASTM A325 HS bolt and corresponding nuts and washers (galvanized).

Hot dip galvanize all structural steel after fabrication.

DATE	REVISION	BY	DRAWER	DESIGNER	CHECKER	REVIEWER	STRUCTURE NO.	DATE	CALC. BOOK	UMPQUA RIVER, HWY 45 (SCOTTSBURG) SCOTTSBURG BRIDGE SIGN MOUNT UMPQUA HIGHWAY, MP 16.43 DOUGLAS COUNTY	SHEET 1 OF 1
			Robert Grubbs	Robert Grubbs			01318	September 2014	--	ELEVATION AND DETAILS	94655
ACCOMPANIED BY DWGS.											

REGION 3
BRIDGE SECTION

DATE: 3/27/2014
FILENAME: P:\2012\0301-0400\2012.0304\WO 5 -Task 1 - Scottsburg Gusset Plates\Drawings\S-0-TrussElevation.DGN



ELEVATION
(Looking West)

Index of Drawings

- S-0 Truss Elevation & General Data
- S-1 Joints U9/U23
- S-2 Joints U13/U19
- S-3 Shop Drawing

Note:
See Sheet S-3 for Shop Drawing.

Strengthening Locations

Span No.	Panel Point	Truss	Sheet No.
4	U9	East & West Truss	S-1
5	U13	East & West Truss	S-2
5	U19	East & West Truss	S-2
6	U23	East & West Truss	S-1

General Notes:

- All steel plate material shall conform to AASHTO M270 Grade 50, and shall meet Zone 2 Charpy V-notch toughness requirements of 25 ft-lbs. @ 40° F.
- All fabricated steel shall be hot-dipped galvanized in conformance with ASTM A123, unless noted otherwise.
- Twist-Off-Type A325 Tension Control Bolt Assemblies shall conform to ASTM F1852 and shall be mechanically galvanized.
- Bolts holes in new and existing material to be drilled or reamed to $1\frac{3}{16}$ " diameter for $\frac{3}{4}$ " diameter bolts.
- All High Strength bolts shall be installed with threads excluded from shear planes.

Seal

Consultants

Project

Scottsburg Bridge
Highway 38 over
Umpqua River
Douglas County
Winchester, Oregon
Truss Joint Strengthening

WOC #5 Task 1

Owner

Oregon
Department of Transportation

Mark	Date	Description
Project No.	2012.0304.5 Task 1	
Date	3/27/2014	
Drawn	IMG	
Checked	MJK	
Scale	NTS	

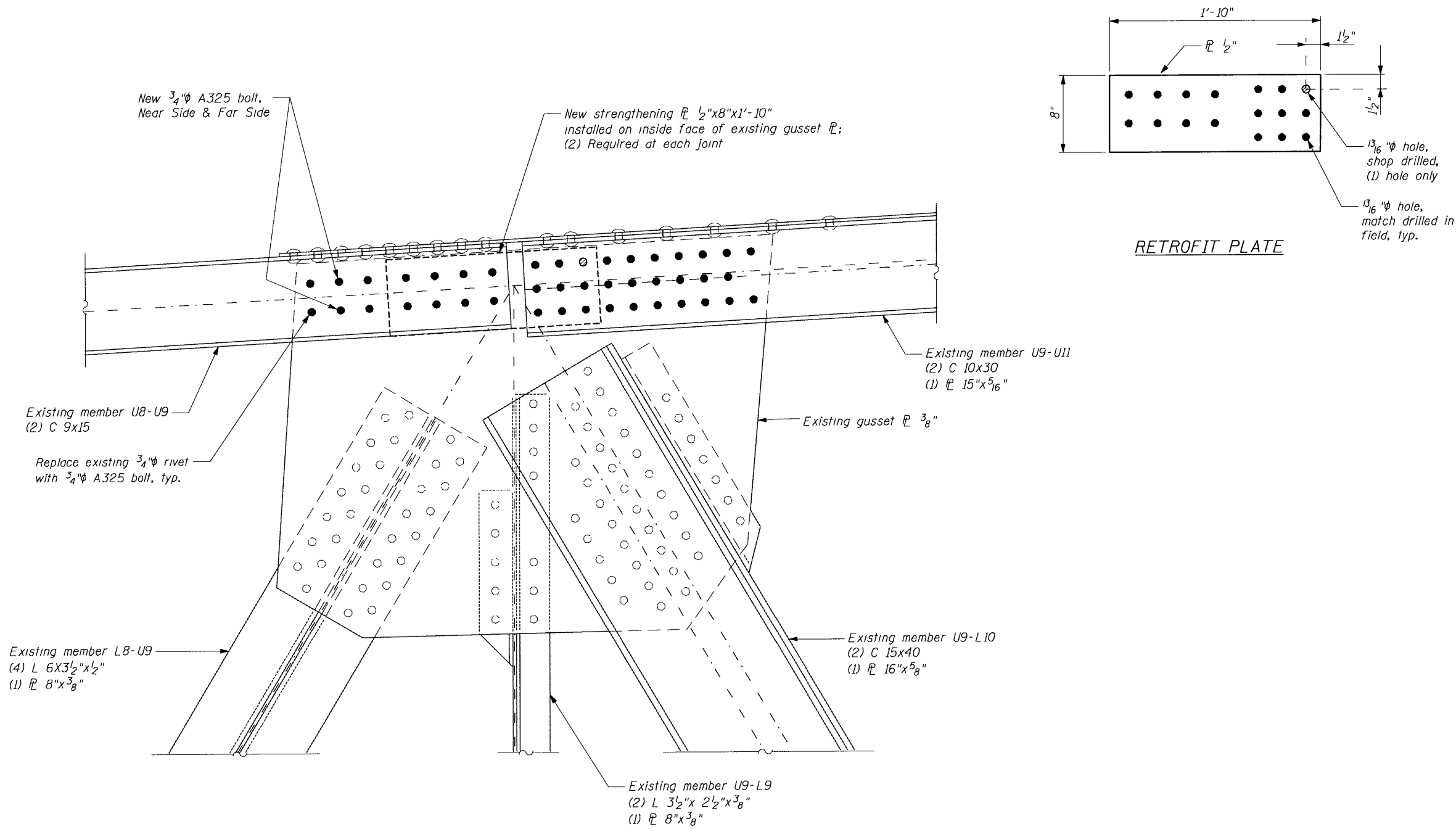
**TRUSS ELEVATION
& GENERAL DATA**

Sheet Title

Sheet No

S-0

DATE: 3/27/2014
FILENAME: P:\2012\0301-0400\2012.0304\WO 5 -Task 1 - Scotsburg Gusset Plates\Drawings\1-U9-U2 DGN



JOINTS U9/U23
Joint U9, East Truss Shown (Looking West)
Joint U23 Opposite Hand

PROCEDURE:

1. Splice plate installation work shall be performed at one gusset plate at a time.
2. Replace existing 3/4" diameter rivets with 3/4" diameter A325 bolts at locations shown (excluding those at future retrofit plate location), one at a time. Tension each bolt to a minimum pre-tension of 28 kips prior to removing the next rivet.
3. Field drill two holes for new 3/4" diameter A325 bolts at locations shown. Install and tension each bolt to a minimum pre-tension of 28 kips.
4. Remove existing 3/4" diameter rivets at future splice plate location. Position new 1/2" retrofit plate on interior face of existing gusset plate. Match mark and field drill holes.
5. Install new 1/2" retrofit plate using 3/4" diameter A325 bolts. Tension each bolt to a minimum pre-tension of 28 kips.

LEGEND:

- Existing 3/4" Rivet to Remain
- Replace Existing 3/4" Rivet with 3/4" A325 Bolt
- New 3/4" A325 Bolt in 13/16" Field Drilled Hole

WJE ENGINEERS
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Houston | Kansas City | Los Angeles | Minneapolis | New Haven | New York
Philadelphia | San Francisco | Seattle | Washington, D.C.

Seal

Consultants

Project

**Scottsburg Bridge
Highway 38 over
Umpqua River
Douglas County
Winchester, Oregon
Truss Joint Strengthening**

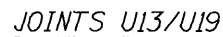
WOC #5 Task 1

Owner

**Oregon
Department of Transportation**

Mark	Date	Description
Project No.	2012.0304.5 Task 1	
Date	3/27/2014	
Drawn	IMG	
Checked	MJK	
Scale	NTS	
JOINTS U9/U23		
Sheet Title		
Sheet No		S-1

DATE: 3/27/2014



Joint U13, East Truss S
Joint U19 Opposite Hand

PROCEDURE:

1. Replace existing $\frac{3}{4}$ " diameter rivets with $\frac{3}{4}$ " diameter A325 bolts at locations shown, one at a time. Tension each bolt to a minimum pre-tension of 28 kips prior to removing the next rivet.
2. Field drill two holes for new $\frac{3}{4}$ " diameter A325 bolts at locations shown. Install and tension each bolt to a minimum pre-tension of 28 kips.

LEGEND:

○ Existing $\frac{3}{4}"\phi$ Rivet to Remain

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Honolulu | Houston | Memphis | Minneapolis | New Haven | New York
Princeton | San Francisco | Seattle | Washington, D C

Seal

Consultants	
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Project	
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Scottsburg Bridge
Highway 38 over
Umpqua River
Douglas County
Winchester, Oregon
Truss Joint Strengthening

WOC #5 Task 1

Owner

Oregon
Department of Transportation

Mark	Date	Description

Project No.	2012.0304.5 Task 1
Date	3/27/2014
Drawn	IMG
Checked	MJK
Scale	NTS

JOINT U13/U19

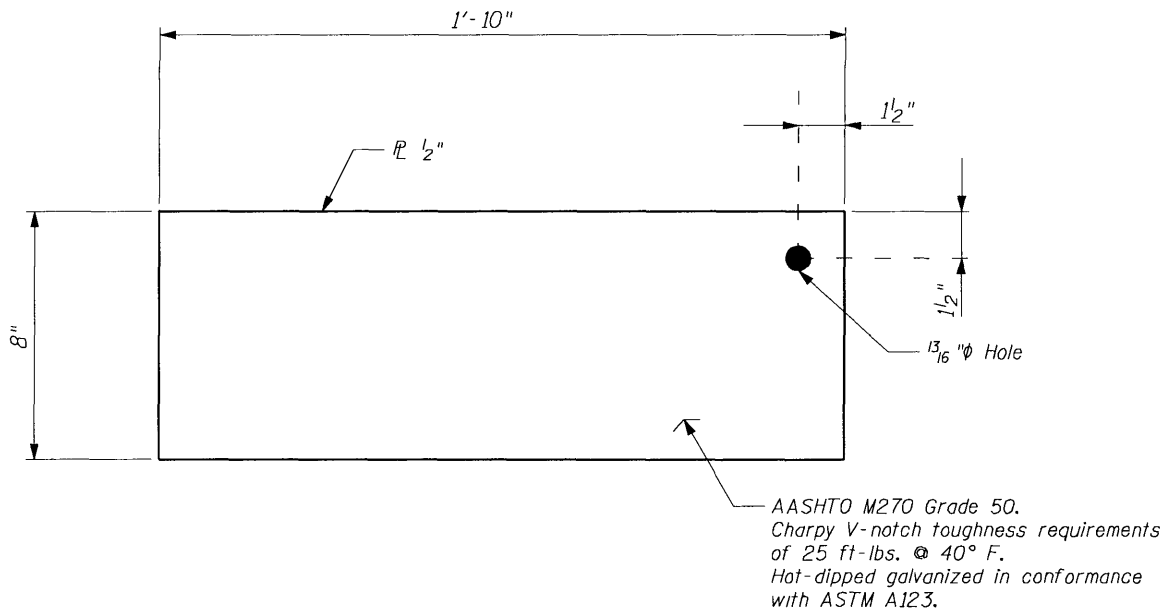
Sheet Title

Sheet No

S-2

DWG. # 96849

DATE: 3/27/2014
FILENAME: P:\2012\0301-0400\2012.0304\WO 5 -Task 1 - Scottsburg Gusset Plates\Drawings\S-3-ShopDrawing.dgn



U9/U23 RETROFIT PLATE
No. of 1/2" Plates Required = 10

WJE ENGINEERS
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Seal

Consultants

Project

Scottsburg Bridge
Highway 38 over
Umpqua River
Douglas County
Winchester, Oregon
Truss Joint Strengthening

WOC #5 Task 1

Owner

Oregon
Department of Transportation

Mark	Date	Description
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Project No.	2012 0304.5 Task 1
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Date	3/27/2014
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Drawn	IMG
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Checked	MJK
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Scale	NTS
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SHOP DRAWING

Sheet Title

Sheet No

S-3

DWG. # 96850