

2026 PRE-INSPECTION REPORT

BRIDGES NO. HAM-71-0000 L AND R

SFN: 3105946 AND 3105970

PID No.: 109780

City of Cincinnati

DRAFT



Submitted to ODOT District 8
May 2026

Prepared by
AECOM



Prepared for
**OHIO DEPARTMENT OF
TRANSPORTATION**

Table of Contents

1 INTRODUCTION 3

 1.1 Inspection Details 3

 1.2 Bridge Description..... 3

2 INSPECTION METHODS & PLAN 4

 2.1 Field Coordination Contacts 4

 2.2 Follow-up Procedures for Inspection Findings..... 5

 2.3 Quality Control and Quality Assurance 5

 2.4 Special Considerations..... 5

Appendices

Appendix A Plans for HAM-71-0000L

Appendix B Plans for HAM-71-0000R

Appendix C HAM-71/75 General Plan

1 INTRODUCTION

1.1 Inspection Details

Bridge no.:	HAM-71-0000L HAM-71-0000R
Features intersected:	I-71 Northbound, CSX Railroad, Local Parking Lots, Pete Rose Way, Augusta Street and Mehring Way
Locations to Inspect:	HAM-71-0000L: Routine HAM-71-0000R: Routine
No. of Inspection Days:	Anticipated 7 days for both structures
Inspection Dates:	Days: 8/24/2026 - 9/11/2026
Inspection Hours:	Day: 7:00 AM to 5:00 PM
Inspection Access Equipment:	125-foot manlift, UAV, and ladders

1.2 Bridge Description

HAM-71-0000L

The Brent Spence Bridge is a riveted and bolted double-deck cantilevered through truss with continuous steel stringers on the north (Ohio) and south (Kentucky) approach spans. The main span and anchor spans of the truss are 830'-6" and 453'-0" in length, respectively. The bridge carries eight lanes of vehicular traffic on Interstate Routes 71 and 75 over the Ohio River between Covington, Kentucky, and Cincinnati, Ohio. Four northbound lanes pass across the lower deck and four southbound lanes cross on the upper deck.

The upper level of the north approach spans on the Ohio side of the river has fourteen NSTM (Nonredundant Steel Tension Members) pier caps with seven rolled steel stringers that frame directly into them. They carry the southbound lanes of IR 71/75 over the lower level of the Ohio approach, as well as, local roads and parking lots on the ground. The caps on the river pier and Piers 1 through 7 are riveted, built-up steel box beams simply supported on reinforced concrete columns. The caps on Piers 8 through 11, 12A, and 13A are riveted, built-up steel box beams with cantilevered ends that extend beyond the concrete pier columns.

At Pier 19A the structure diverges and HAM-75-0022L begins while HAM-71-0000L continues to the lanes of Fort Washington Way extending over other interchange ramps and local roads. From Pier 19A to Fort Washington Way, the number of girders varies between five and ten and the deck width varies to accommodate two uniform lanes and a converging lane. In 1999, the structure between Pier 28B and Fort Washington Way was rebuilt to coordinate with rehabilitation of the Fort Washington Way interchange. Pier 29B supports a steel I-girder pier cap and Pier 2 supports a steel box pier cap. Both pier caps are cantilevered at each end. The forward end of HAM-71-0000L is supported on a reinforced concrete wall pier. All other substructure units are reinforced concrete cap-and-column bents or concrete columns that support steel pier caps.

HAM-71-0000R

The lower level of the north approach spans on the Ohio side of the river carries the northbound lanes of IR 71/75 over US 42, an interchange ramp, local roads, a railroad, and parking lots on the ground. The bridge consists of a reinforced concrete deck on a varying number of adjacent welded steel plate girders. At Pier 15C the structure diverges and HAM-75-0022R begins while HAM-71-0000R continues to the lanes of Fort Washington Way. From Pier 15C to Fort Washington Way, the number of girders varies between five and nine and the deck width varies to accommodate two uniform lanes and a diverging lane. In 1999 the structure between Pier 20D and Fort Washington Way was rebuilt to coordinate with rehabilitation of the Fort Washington Way interchange. The superstructure girders are supported on reinforced concrete cap-and-column pier bents or hammerhead piers.

2 INSPECTION METHODS & PLAN

The AECOM Team will perform routine inspections as defined by the Scope of Services. The inspection will adhere to the relevant AECOM safety procedures. A UAV and a boom lift will be utilized to support the inspection. Traffic control or confined space entry will not be required during this routine inspection.

2.1 Field Coordination Contacts

The following entities will be involved in coordinating and performing all field work associated with the inspection of these structures.

AECOM - Field Team Contacts:

Travis Baker, P.E.: Team Leader, Project Manager C: 513-266-9344

Kyle Compton-Troesch, P.E.: Team Leader C: 513-255-7862

ODOT - Project and Permitting Contacts:

(No lane closures are required; therefore, no right-of-way permit is required.)

Brandon Collett: Project Manager O: 513-933-6643
brandon.collett@dot.ohio.gov

Scott Kraus: District Work Zone Traffic Manager O: 513-933-6519
scott.kraus@dot.ohio.gov

Chris Bass: Right-of-Way Use Permits O: 513-933-6577
christopher.bass@dot.ohio.gov

Justin Kemp: Parking Lot Access O: 513-933-6120
justin.kemp@dot.ohio.gov

City of Cincinnati - Permitting Contacts:

(No work will be performed within the City right-of-way; therefore, no right-of way permit is required. Work performed on City owned property will be done so within ODOT easements therefore no right-of-entry permit is required.)

DOT Permit & License Center O: 513-352-3463
row.permits@cincinnati-oh.gov F: 513-352-5397

2.2 Follow-up Procedures for Inspection Findings

Critical inspection findings shall be reported to the District and documented in the final inspection report with other findings.

2.3 Quality Control and Quality Assurance

AECOM's Technical Quality Review Procedure - DCS (Procedure No. Q2[DCS]-351-PR1) will be followed. The team leaders for this inspection were chosen to ensure that inspector qualifications are met. The team leaders have completed the course FHWA-NHI-130078, "Bridge Inspection Techniques for Nonredundant Steel Tension Members (NSTM)."

2.4 Special Considerations

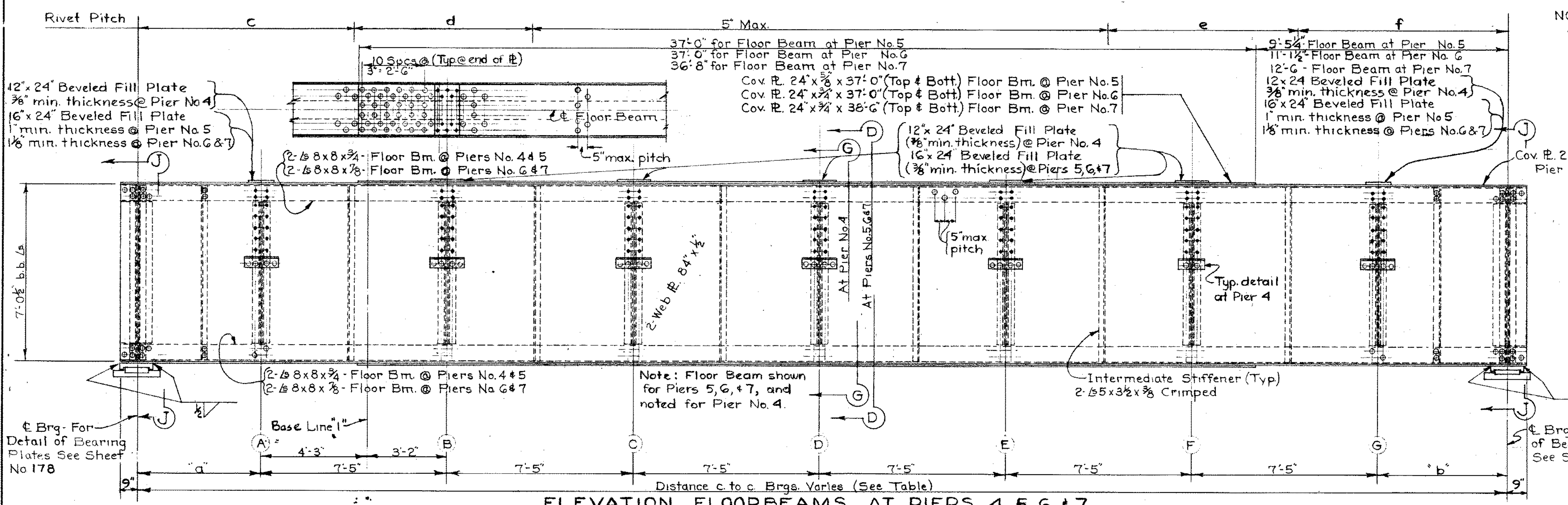
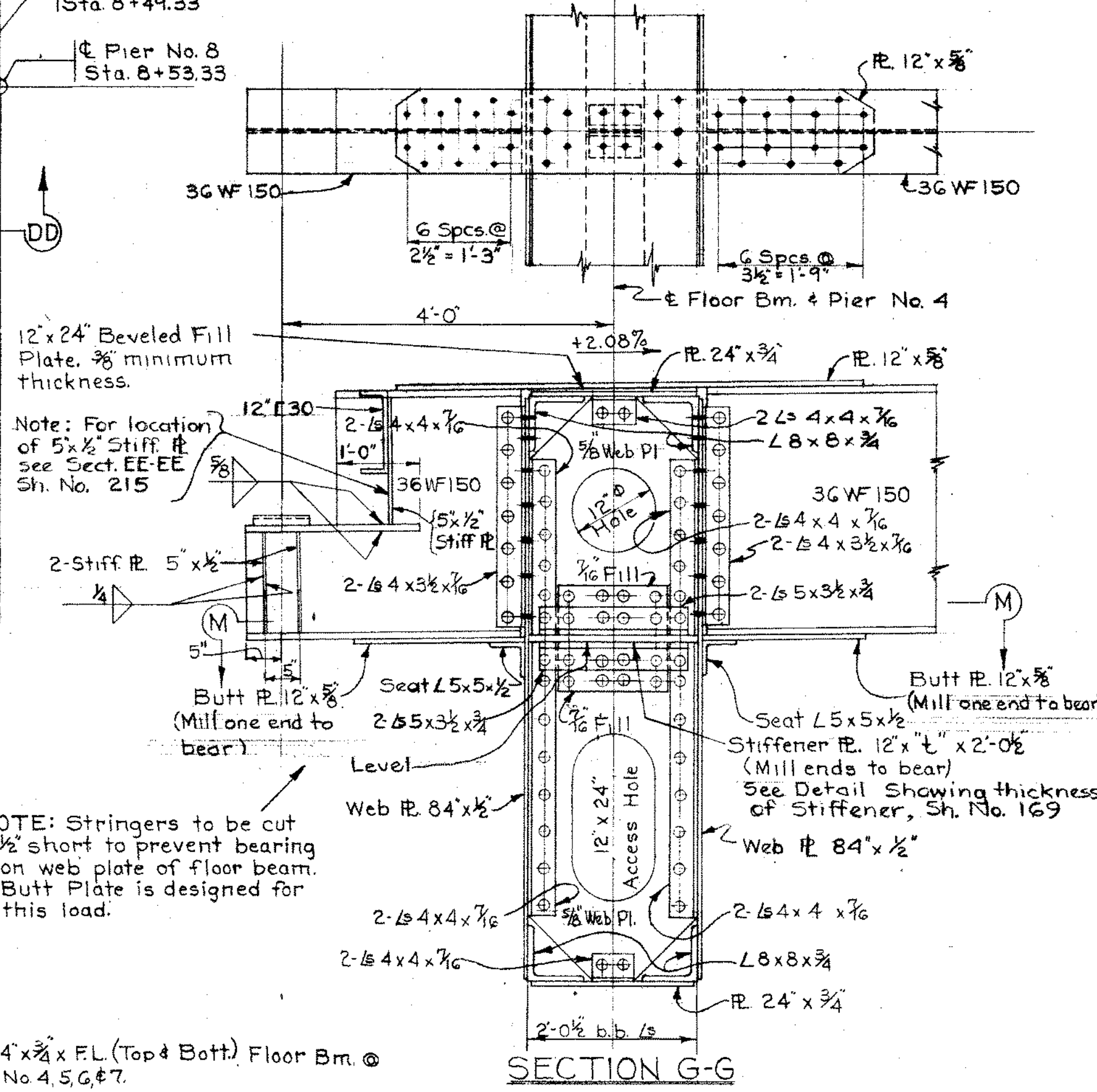
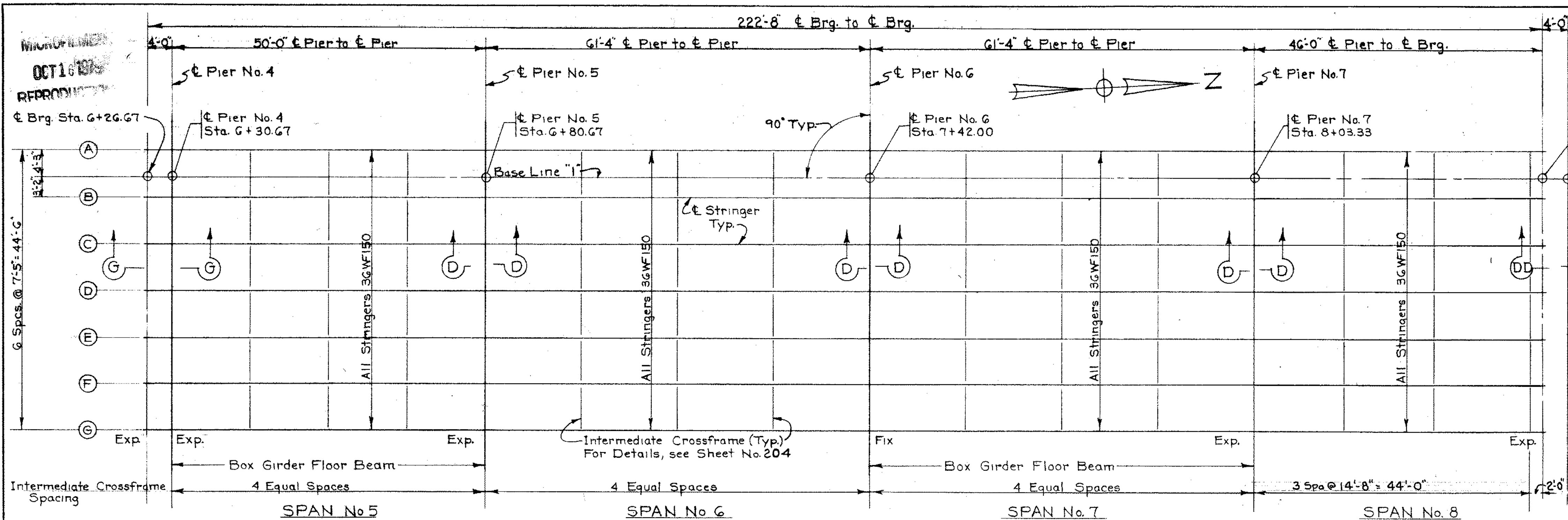
Based on the items discussed during the scoping meeting and in the previous inspection reports, the following will receive special consideration:

- Unauthorized/excessive material storage around substructure units.
- Unsanitary conditions around substructure units.
- Any small delaminations found over public areas during inspections shall be removed on-site with a hammer. ODOT shall be notified of larger spalls and may remove them during the inspection.

Appendix A:

Plans for HAM-71-0000L

HAM-25-0.04

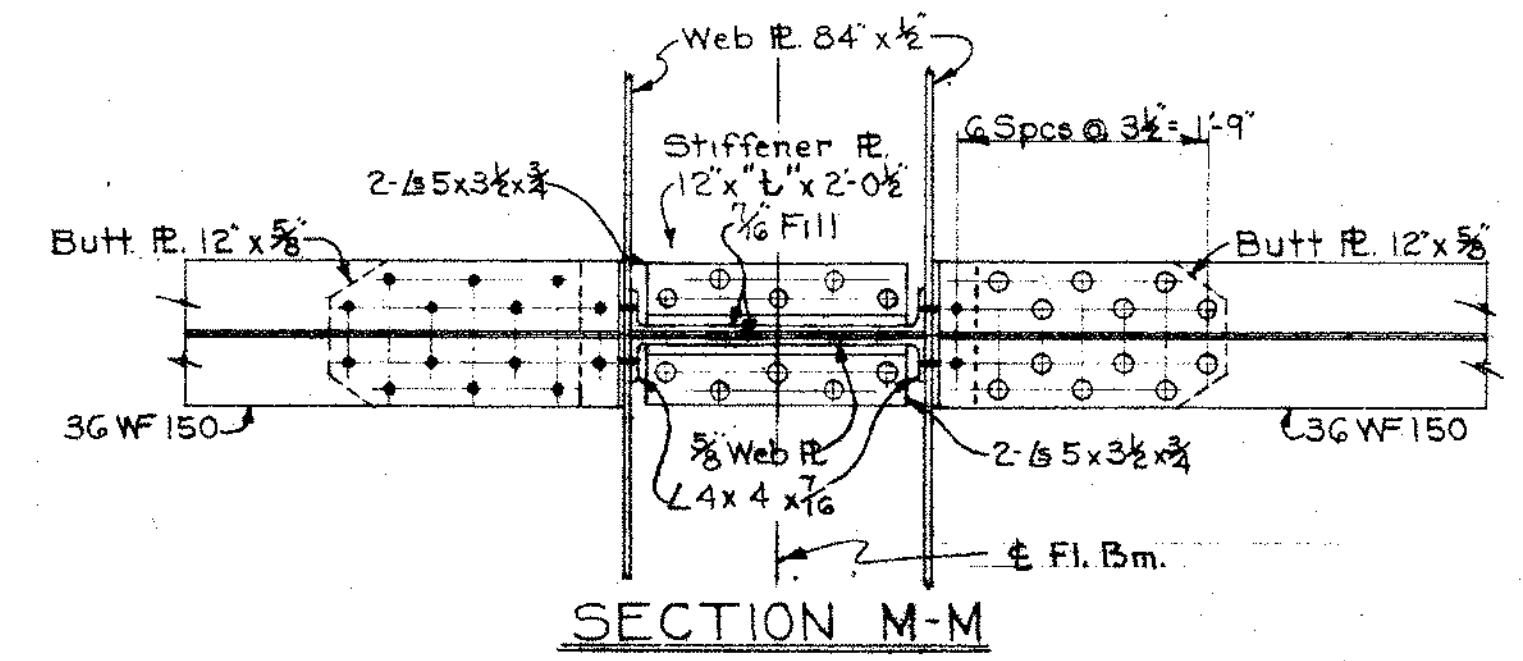


See enlarged detail on Sheet No. 169 showing access manhole and end bearing details.

FLANGE RIVET PITCH TABLE								
Floor Beam Location	Cover Plate to Flange Angles				Flange Angles to Web			
	c	d	e	f	c	d	e	f
At Pier No. 4	3 3/4" (8'-6")	4 1/4" (7'-6")	4 1/4" (7'-6")	3 3/4" (8'-6")	4" (8'-6")	5" (8'-6")	5" (8'-6")	4" (8'-6")
At Pier No. 5	2 3/4" (8'-6")	3 3/4" (7'-6")	3 3/4" (7'-6")	2 3/4" (8'-6")	3 3/4" (8'-6")	4" (7'-6")	4" (7'-6")	3" (8'-6")
At Pier No. 6	2 3/4" (8'-6")	3 3/4" (7'-6")	4" (7'-6")	3" (11'-0")	3" (8'-6")	3 3/4" (7'-6")	4 1/2" (7'-6")	3 3/4" (11'-0")
At Pier No. 7	2 3/4" (7'-6")	3 3/4" (7'-6")	4" (7'-6")	3 3/4" (11'-0")	3" (7'-6")	3 3/4" (7'-6")	4 1/2" (7'-6")	3 3/4" (11'-0")

Floor Beam Location	Distance c to c Brg.	Dimension a	Dimension b
At Pier No. 4	54'-7"	4'-11"	5'-2"
At Pier No. 5	55'-1"	4'-10 3/4"	5'-8 1/4"
At Pier No. 6	56'-7"	4'-8 1/2"	7'-4 1/2"
At Pier No. 7	58'-8"	3'-11 1/2"	10'-2 1/2"

ELEVATION FLOORBEAMS AT PIERS 4, 5, 6, & 7 (Looking North)



DEFLECTION OF STRINGERS				
	Span 5	Span 6	Span 7	Span 8
Defl. due to wt. of steel	1/16"	3/16"	3/16"	1/16"
Defl. due to remaining D.L.	3/16"	1/4"	1/4"	1/8"

DEFLECTION OF FLOOR BEAMS							
Point of Defl.	A	B	C	D	E	F	G
Bm. @ Pier 5	0"	1/16"	1/8"	3/16"	1/8"	1/16"	0"
Bm. @ Pier 6	1/16"	3/16"	3/16"	3/16"	3/16"	1/4"	1/8"
Bm. @ Pier 7	1/16"	3/16"	3/16"	3/8"	3/8"	3/16"	3/16"
Bm. @ Pier 8	1/16"	3/16"	3/16"	3/8"	3/8"	3/16"	1/4"

No camber required for beams in Unit 2 (Upper Deck). Where no camber is required, the beams shall be so fabricated that any curved beams will be placed with convex flange up.

For General Notes see Sheet No. 168
For Section J-J, see Sheet No. 169
For Section D-D, see Sheet No. 169

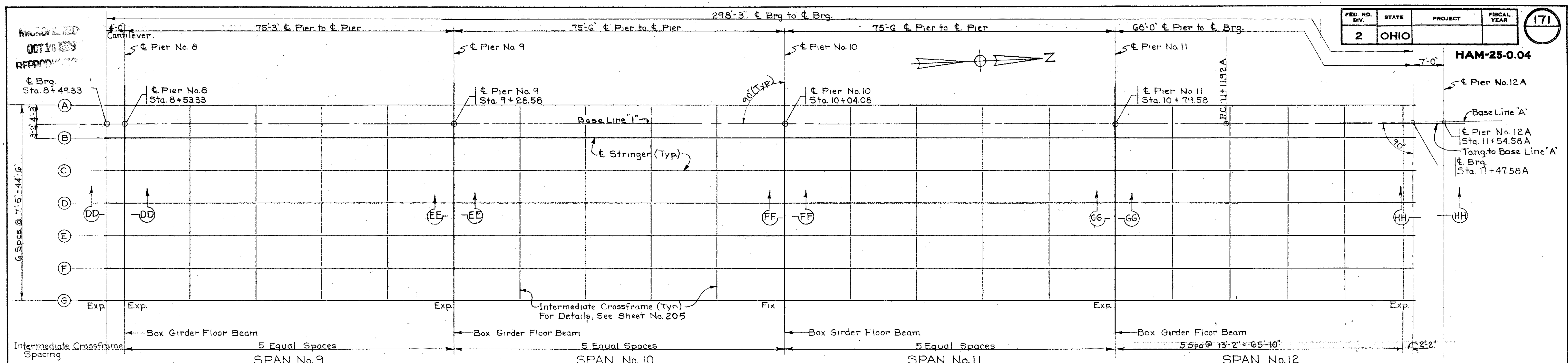
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CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS
UNIT NO. 2 (UPP. DECK).

DESIGNED CPW	DRAWN CAF	TRACED	CHECKED JHO 10/15/60	REVIEWED DATE 11-1-60	REVISED
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REVISION
OCT 16 1969

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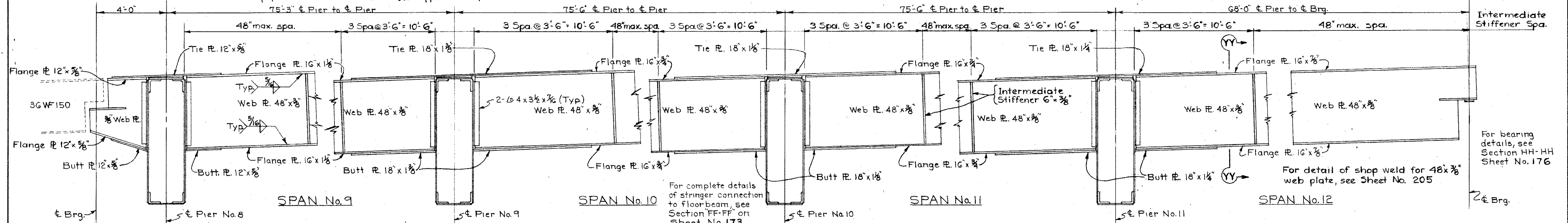


FRAMING PLAN - UNIT No. 3 - UPPER DECK

Note: Provide 2" bushed holes @ mid-depth of stringer. For location of bushed holes, see Sh. 253. For detail of bushed holes, see Sh. 265.

Note: For radiographic examination of welds, see Supplemental Specifications No. 5-307.

For inlet framing, see Sheet No. 268.

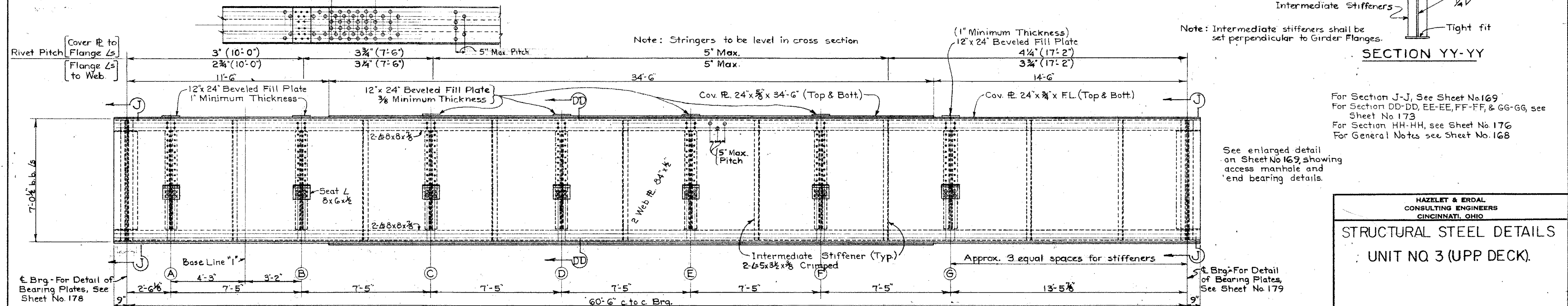


ELEVATION OF STRINGER (TYPICAL)

For complete details of stringer connection to floorbeam, see Section FF-FF on Sheet No. 173.

For detail of shop weld for 48x8x8 web plate, see Sheet No. 205.

For complete details of stringer connection to floorbeam, see Section GG-GG on Sheet No. 173.



ELEVATION OF FLOORBEAM AT PIER No. 8 (Looking North)

Note: Stringers to be level in cross section.

Note: Intermediate stiffeners shall be set perpendicular to girder flanges.

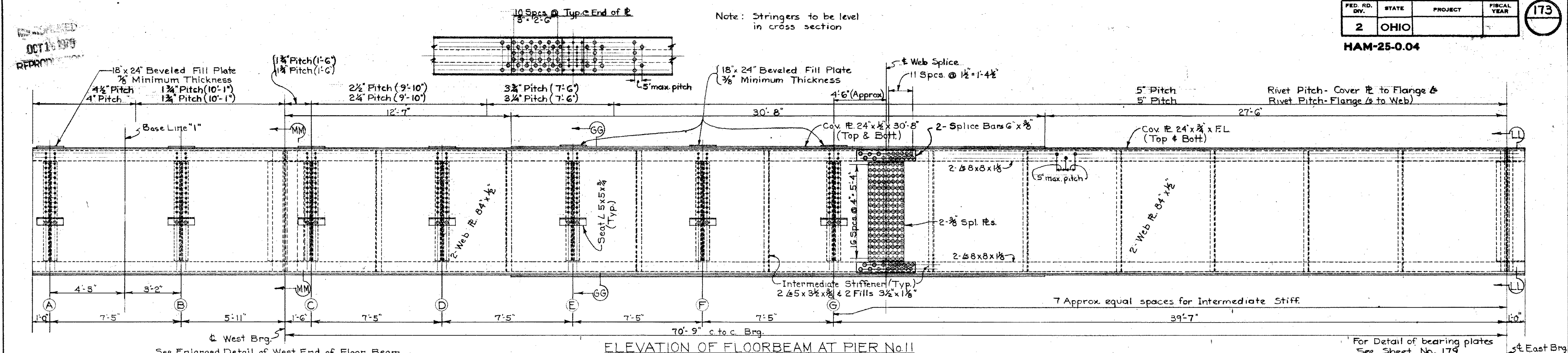
See enlarged detail on Sheet No. 169, showing access manhole and end bearing details.

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CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS
UNIT NO. 3 (UPP. DECK)

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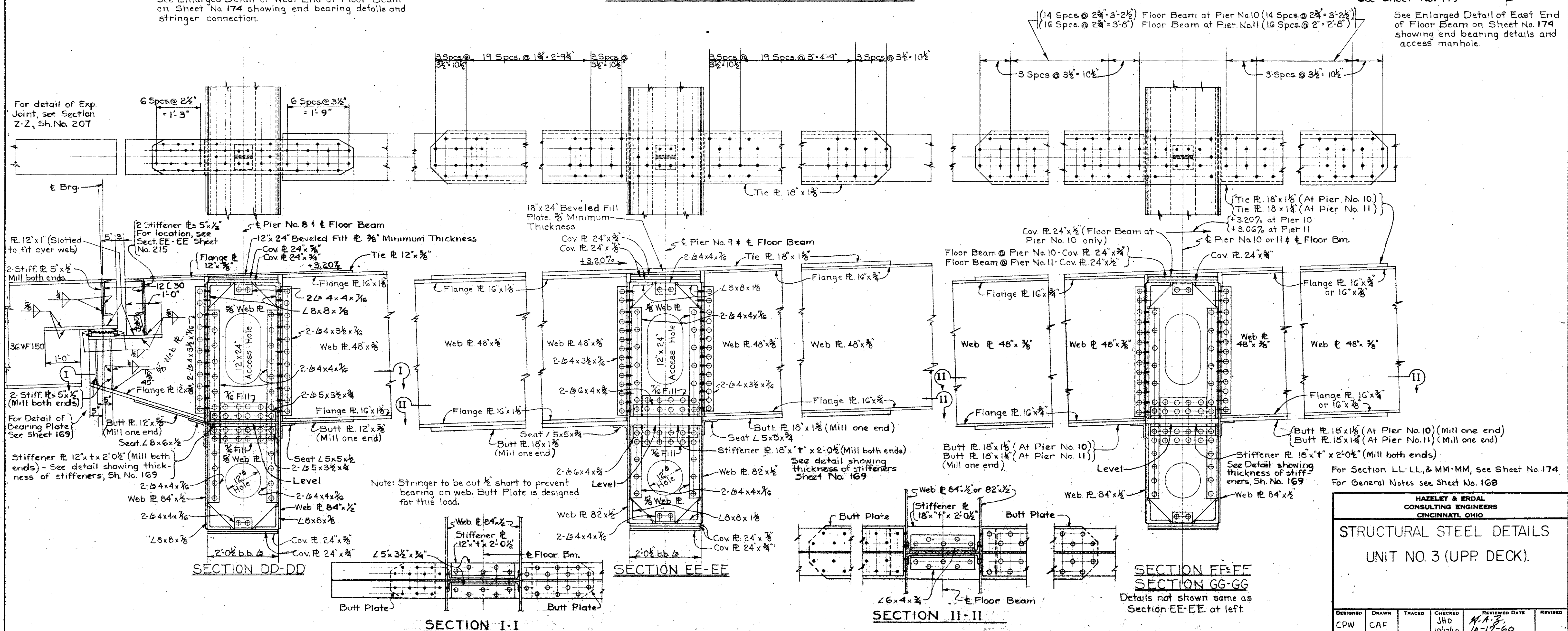
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See Enlarged Detail of West End of Floor Beam
on Sheet No. 174 showing end bearing details and
stringer connection.

' For Detail of bearing plates
See Sheet No. 179

See Enlarged Detail of East End
of Floor Beam on Sheet No. 174
showing end bearing details and
access manhole.



Note: Stringer to be cut $\frac{1}{2}$ short to prevent bearing on web. Butt Plate is designed for this load.

See detail showing
thickness of stiffeners
Sheet No. 169

Stiffener Pl. 18 x
See Detail showing
thickness of stiff-
eners 5b No. 169

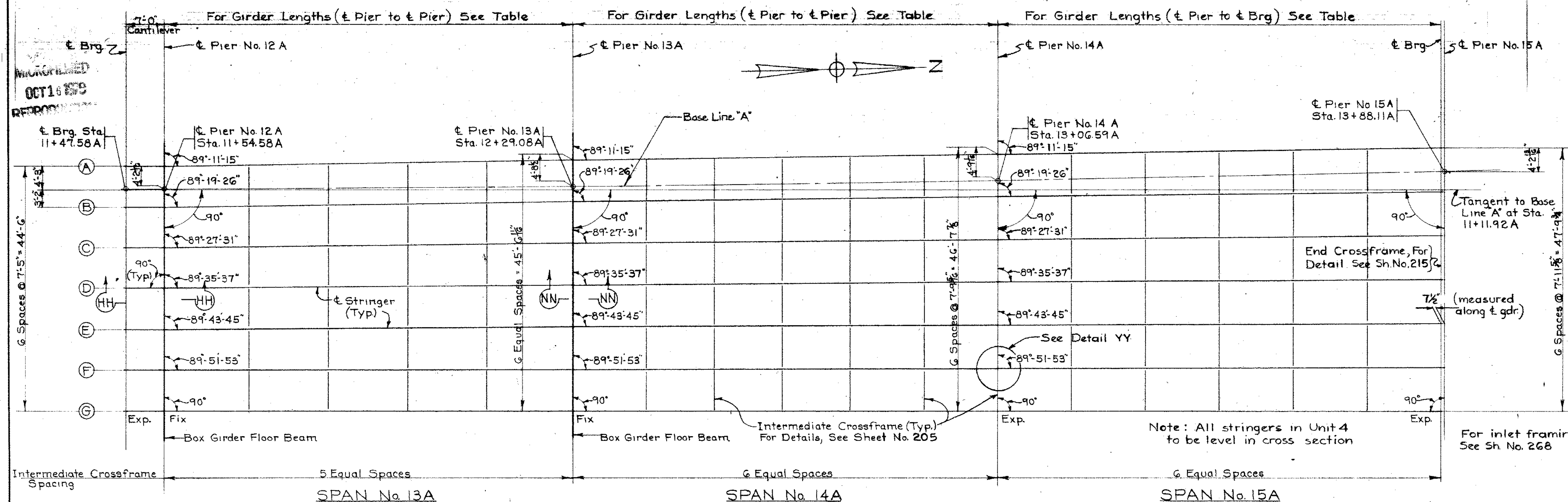
For Section LL-LL, & MM-MM, see Sheet No. 174
For General Notes see Sheet No. 168

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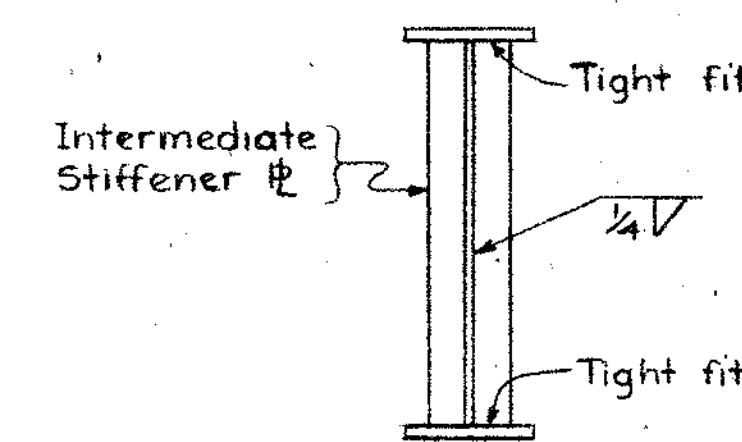
STRUCTURAL STEEL DETAILS

UNIT NO. 3 (UPPER DECK).

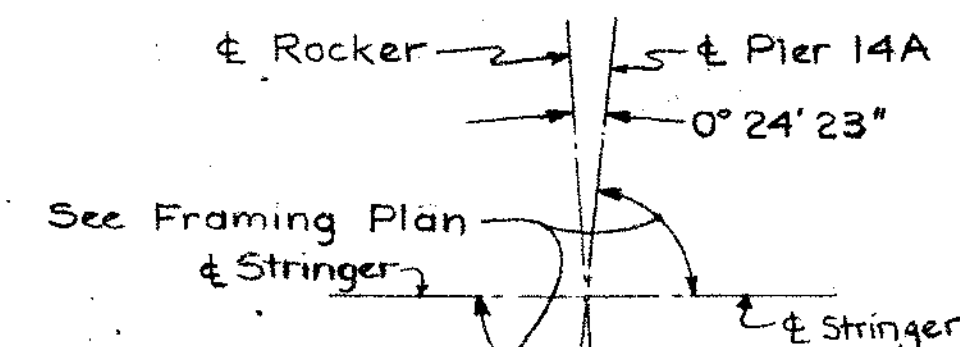
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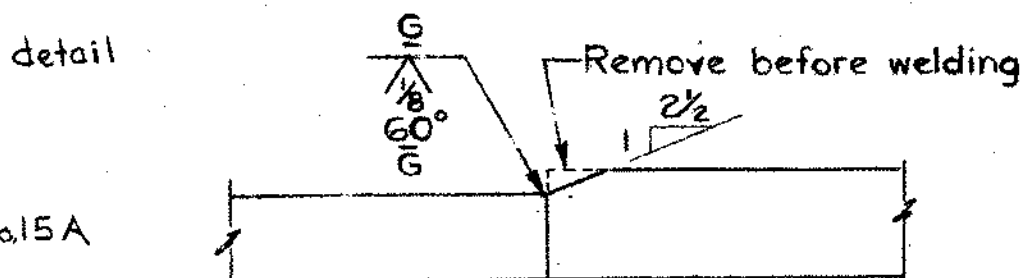
GIRDER LENGTHS			
GIRDER	SPAN 13A	SPAN 14A	SPAN 15A
A	74'-6"	77'-6"	80'-10 1/2"
B	74'-6"	77'-6"	80'-10 1/2"
C	74'-6"	77'-6"	80'-10 1/2"
D	74'-6"	77'-6"	80'-10 1/2"
E	74'-6"	77'-6"	80'-10 1/2"
F	74'-6"	77'-6"	80'-10 1/2"
G	74'-6"	77'-6"	80'-10 1/2"



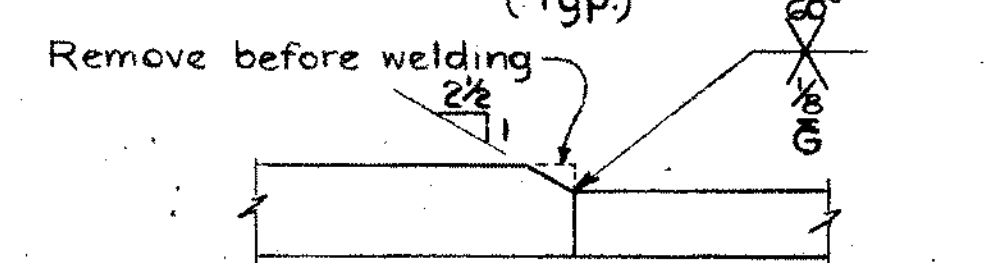
SECTION YY-YY



DETAIL YY



DETAIL ZZ



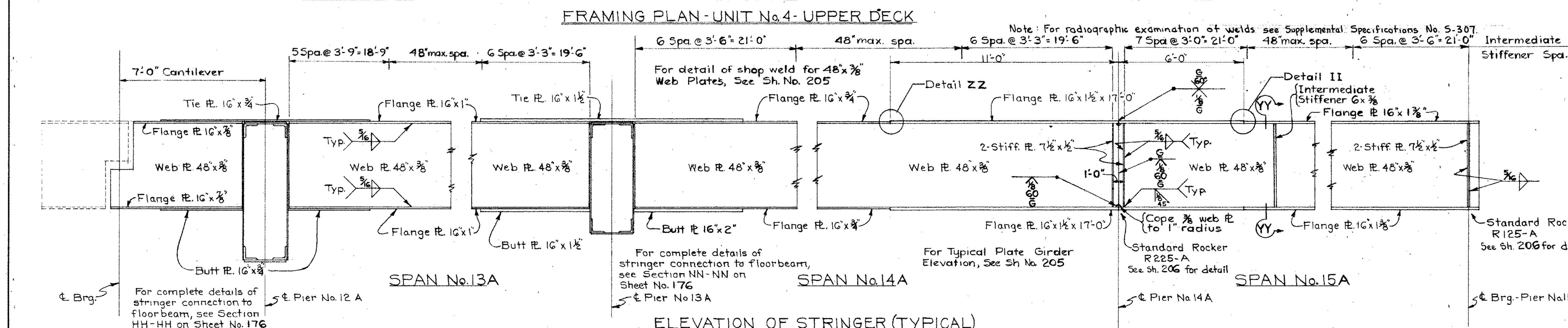
DETAIL II

For Section HH-HH & NN-NN, see Sheet No. 176
For Section RR-RR & SS-SS, see Sheet No. 177
For General Notes see Sheet No. 168

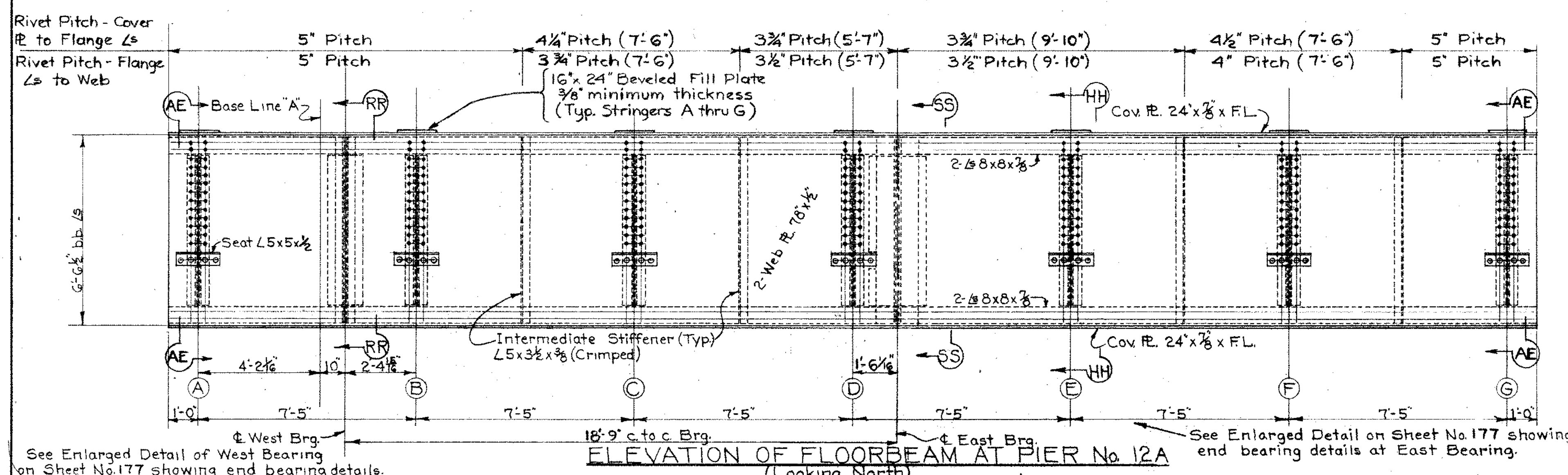
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STRUCTURAL STEEL DETAILS
UNIT NO. 4.

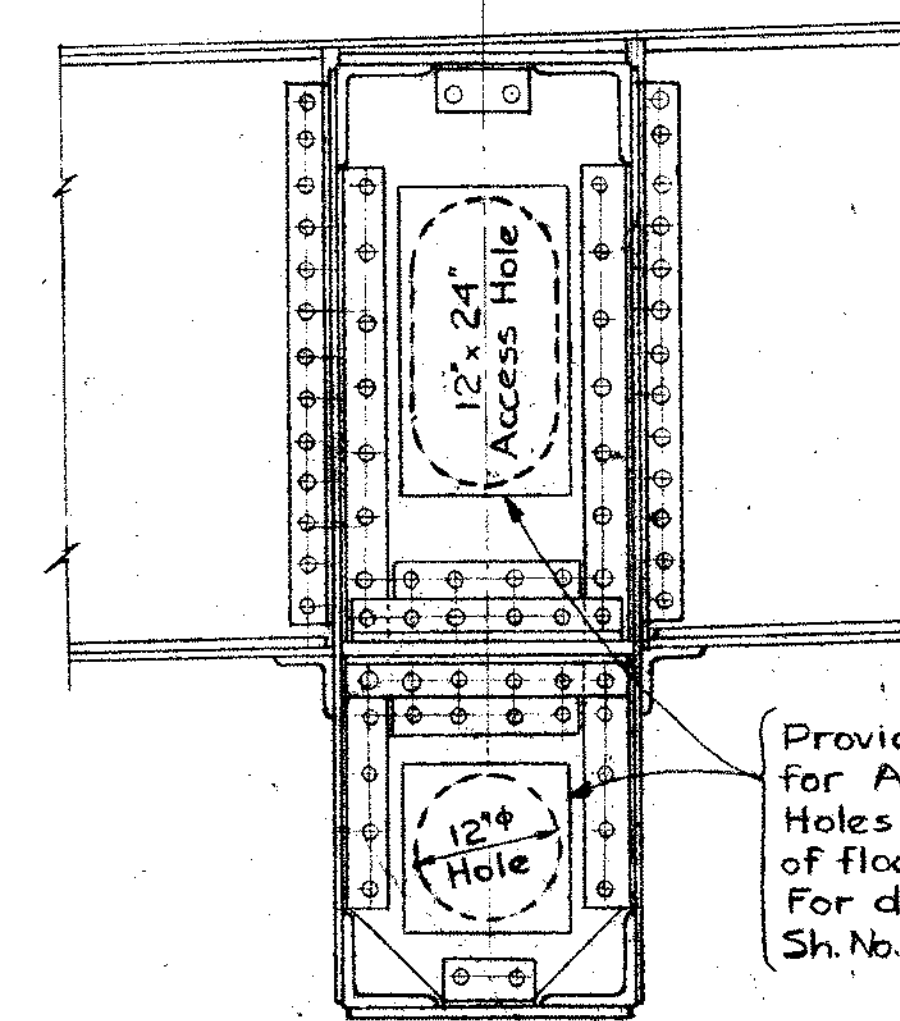
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CPW	CAF		JNO	10-17-60	



ELEVATION OF STRINGER (TYPICAL)

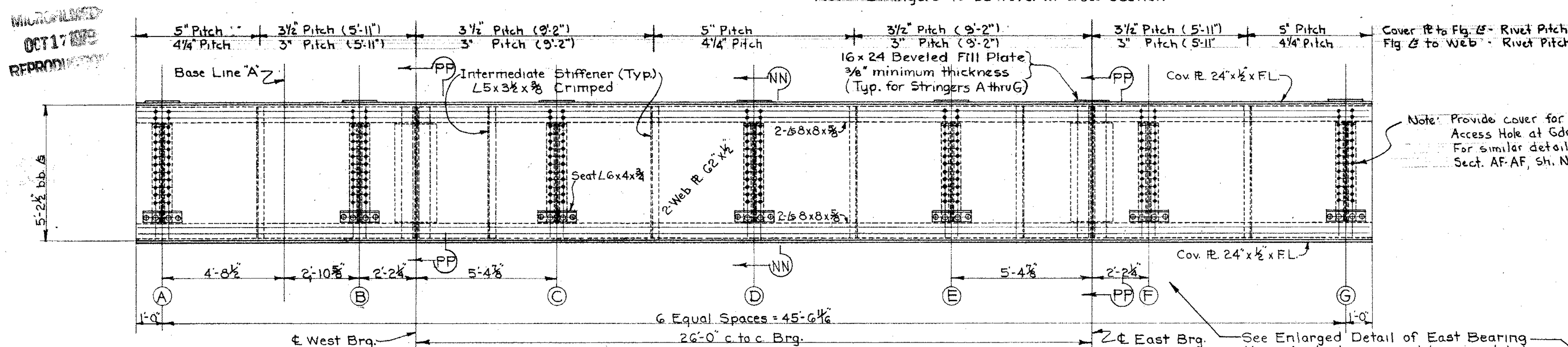


ELEVATION OF FLOORBEAM AT PIER No. 12A
(Looking North)



SECTION AE-AE

Note: Stringers to be level in cross section

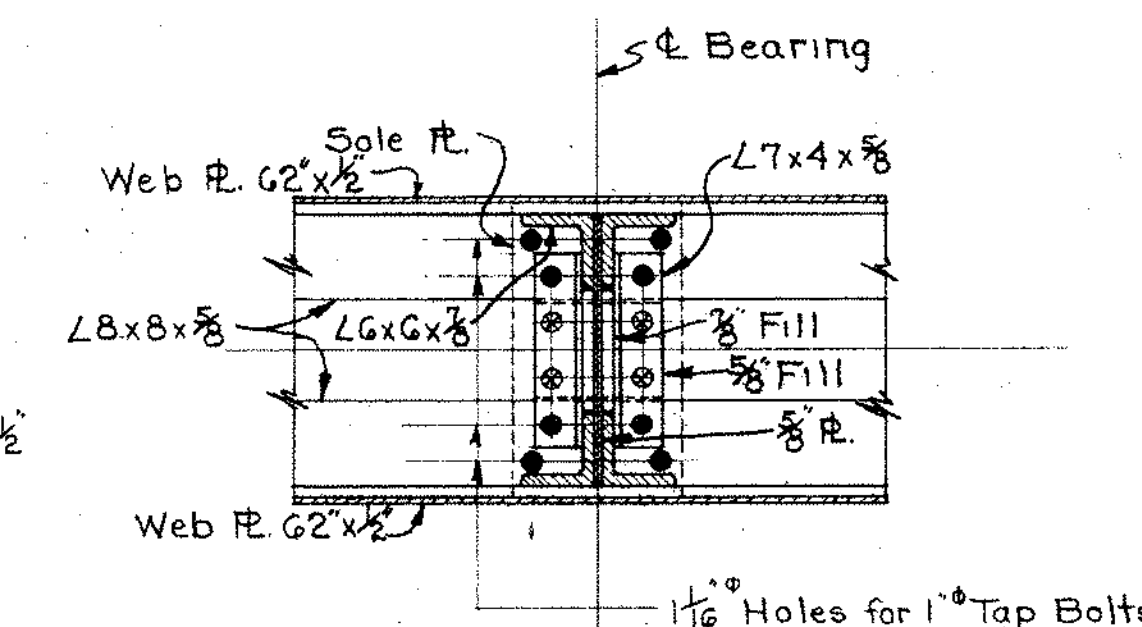


See Enlarged Detail of West Bearing this sheet showing end bearing details.

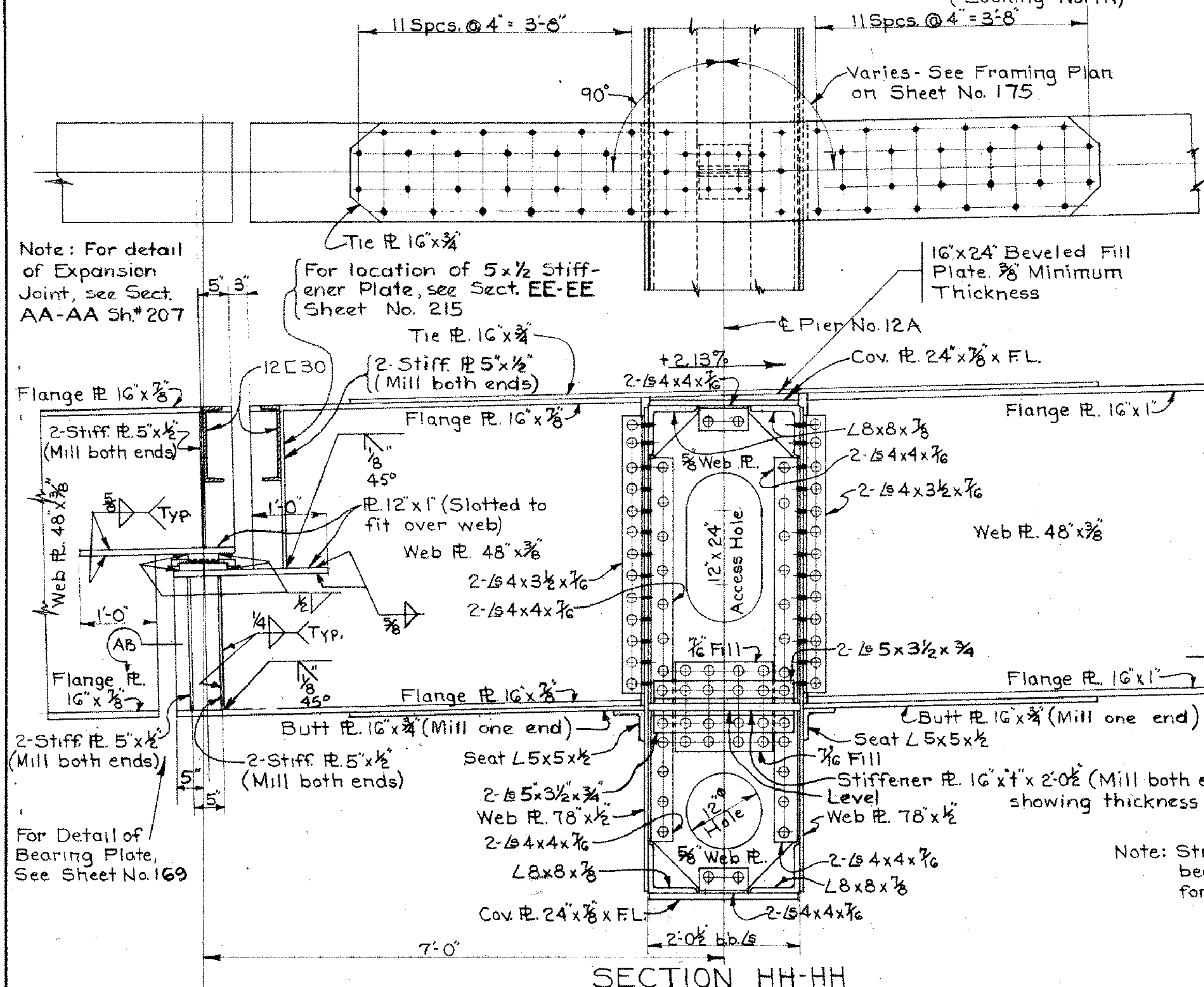
ELEVATION OF FLOORBEAM AT PIER No. 13A

(Looking North)

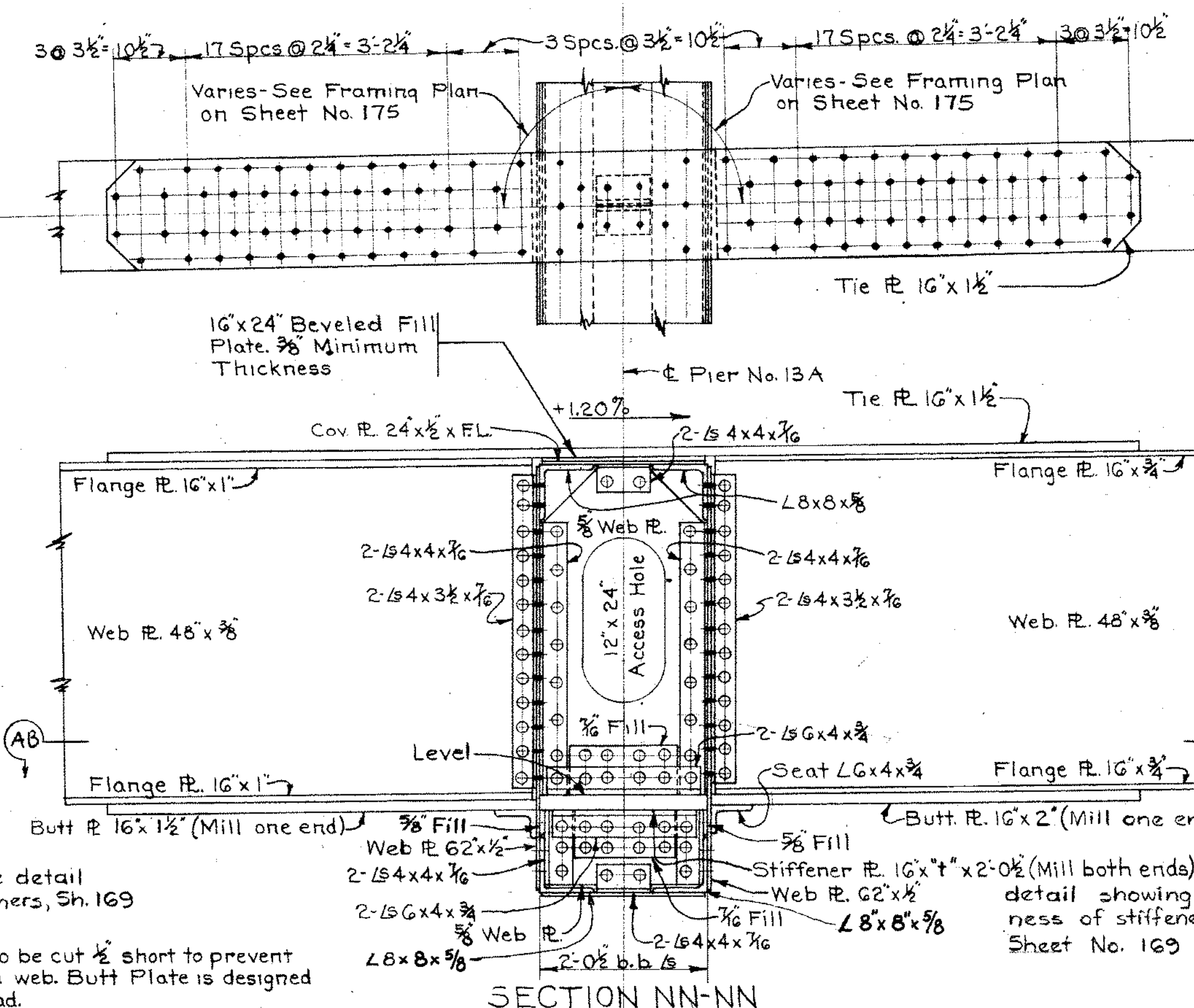
See Enlarged Detail of East Bearing this sheet showing end bearing details.



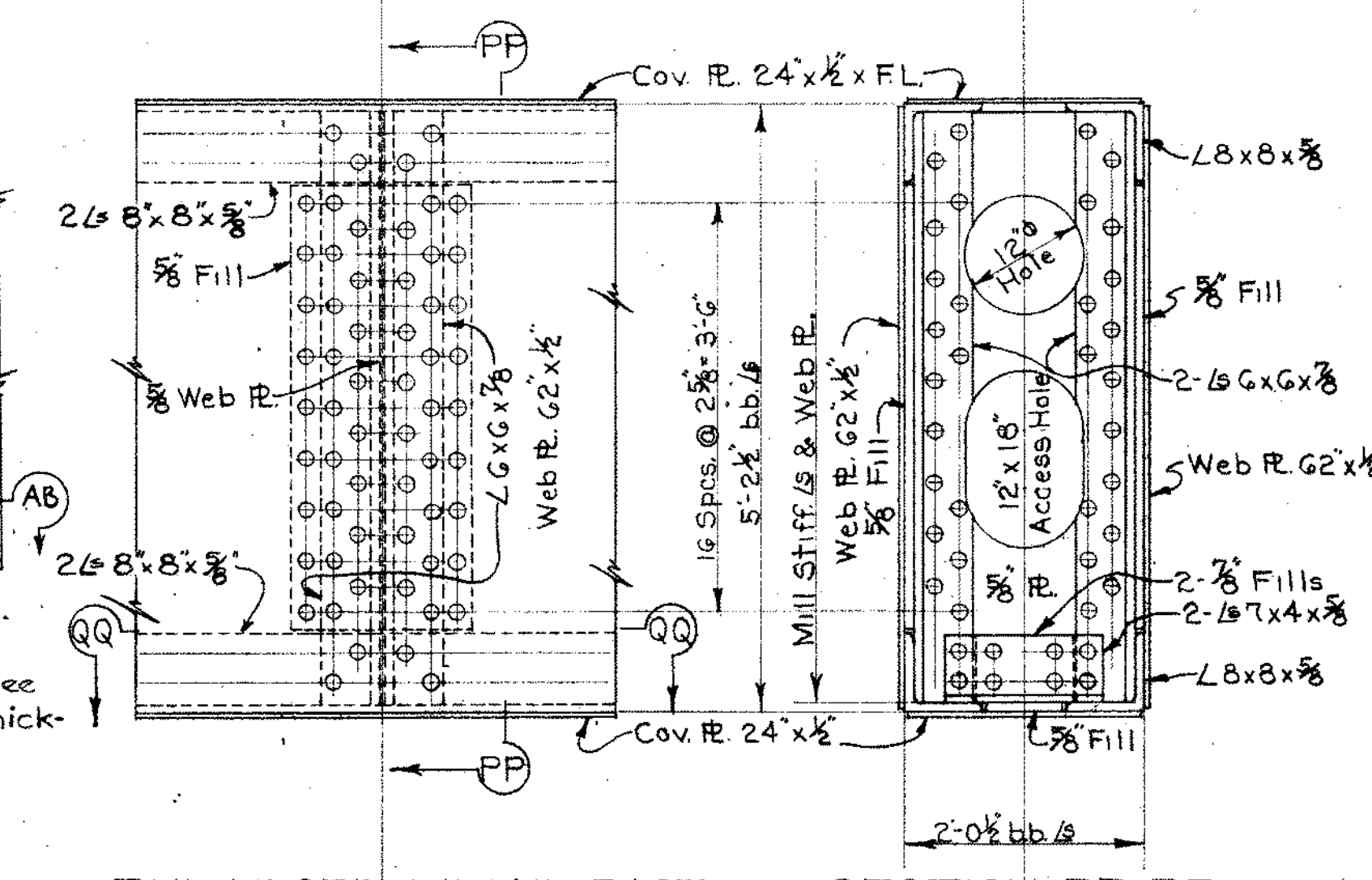
SECTION QQ-QQ



SECTION HH-HH

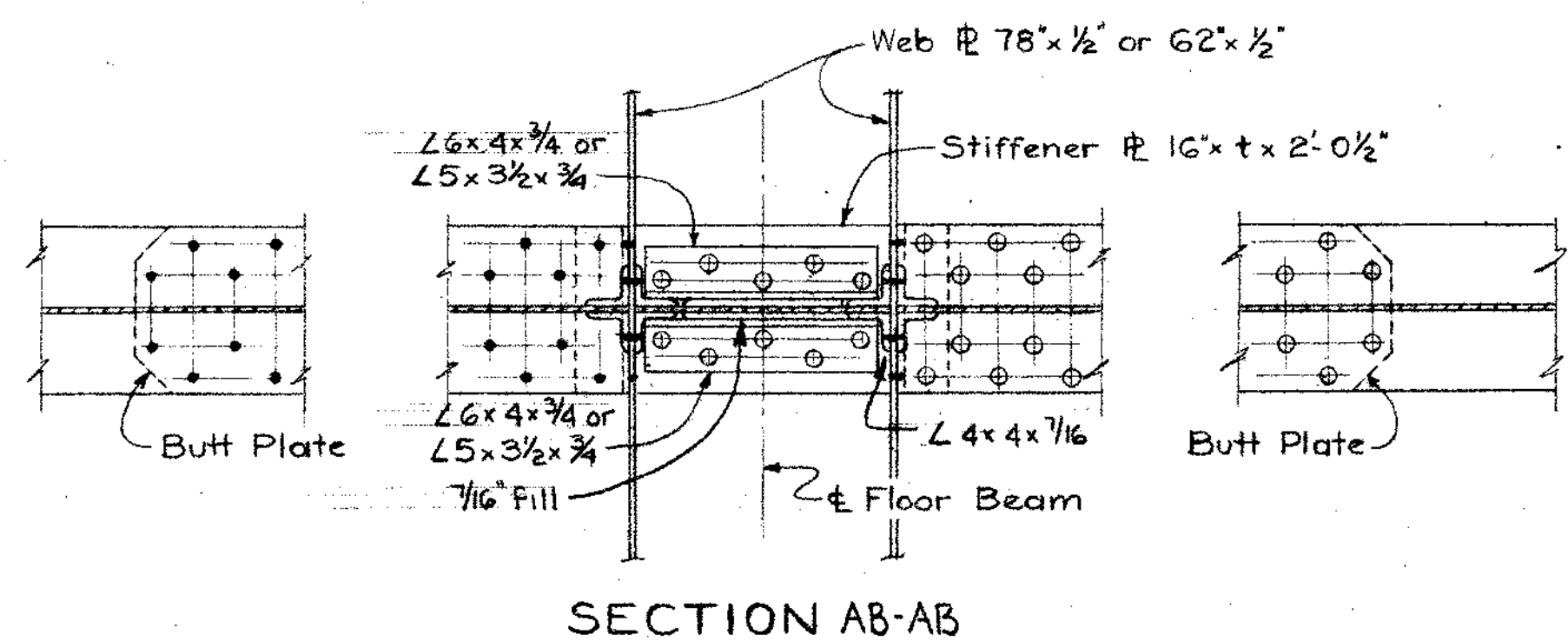


SECTION NN-NN



SECTION PP-PP

ENLARGED DETAIL - EAST BEARING OF FLOORBEAM AT PIER No. 13A
WEST BEARING SAME AS EAST



SECTION AB-AB

Order web plates shall be cut to a parabolic crown.

DEFLECTION & CAMBER - UNIT 4 UPPER DECK									
Location	Span No. 13A			Span No. 14A			Span No. 15A		
	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4
Deflection Due to Weight of Steel	1/8	3/16	1/8	1/16	1/16	0	1/16	1/8	1/8
Deflection Due to Remaining Dead Load	1/4	3/8	3/16	1/16	1/8	1/16	3/16	3/16	3/8
Convexity Required for Vertical Curve	3/4	1	3/4	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8
Sum of Deflection and Convexity	1 1/8	1 1/2	1 1/8	1 3/8	1 3/8	1 1/8	1 3/8	1 3/8	1 3/8
Required Camber	1 1/2			1 1/4			1 3/8		

DEFLECTION OF FLOOR BEAMS							
Point of Deflection	A	B	C	D	E	F	G
Bm. @ Pier No. 12A	0	0	0	0	1/16	3/16	3/8
Bm. @ Pier No. 13A	1/8	0	-1/16	-1/16	-1/16	0	1/8

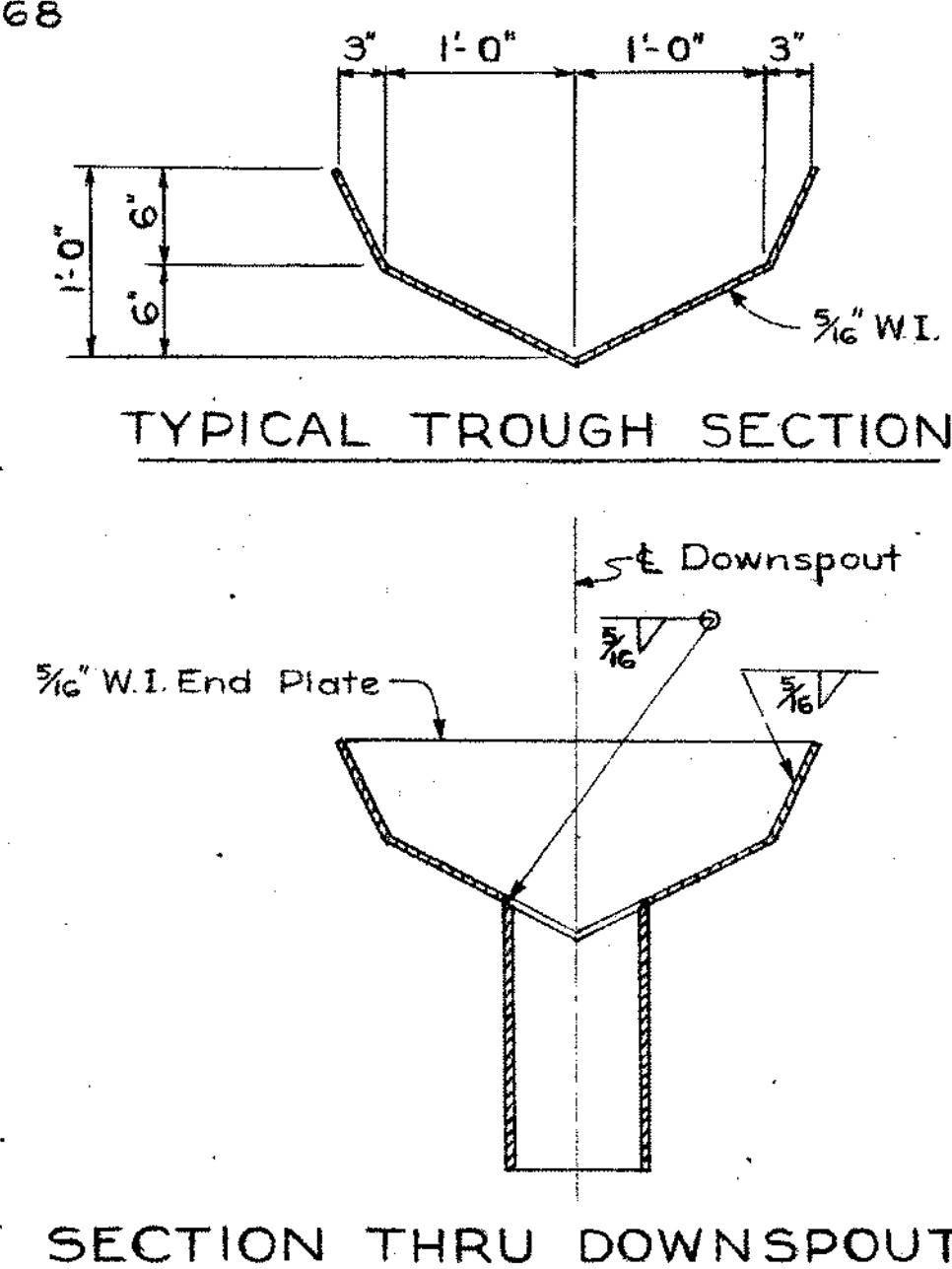
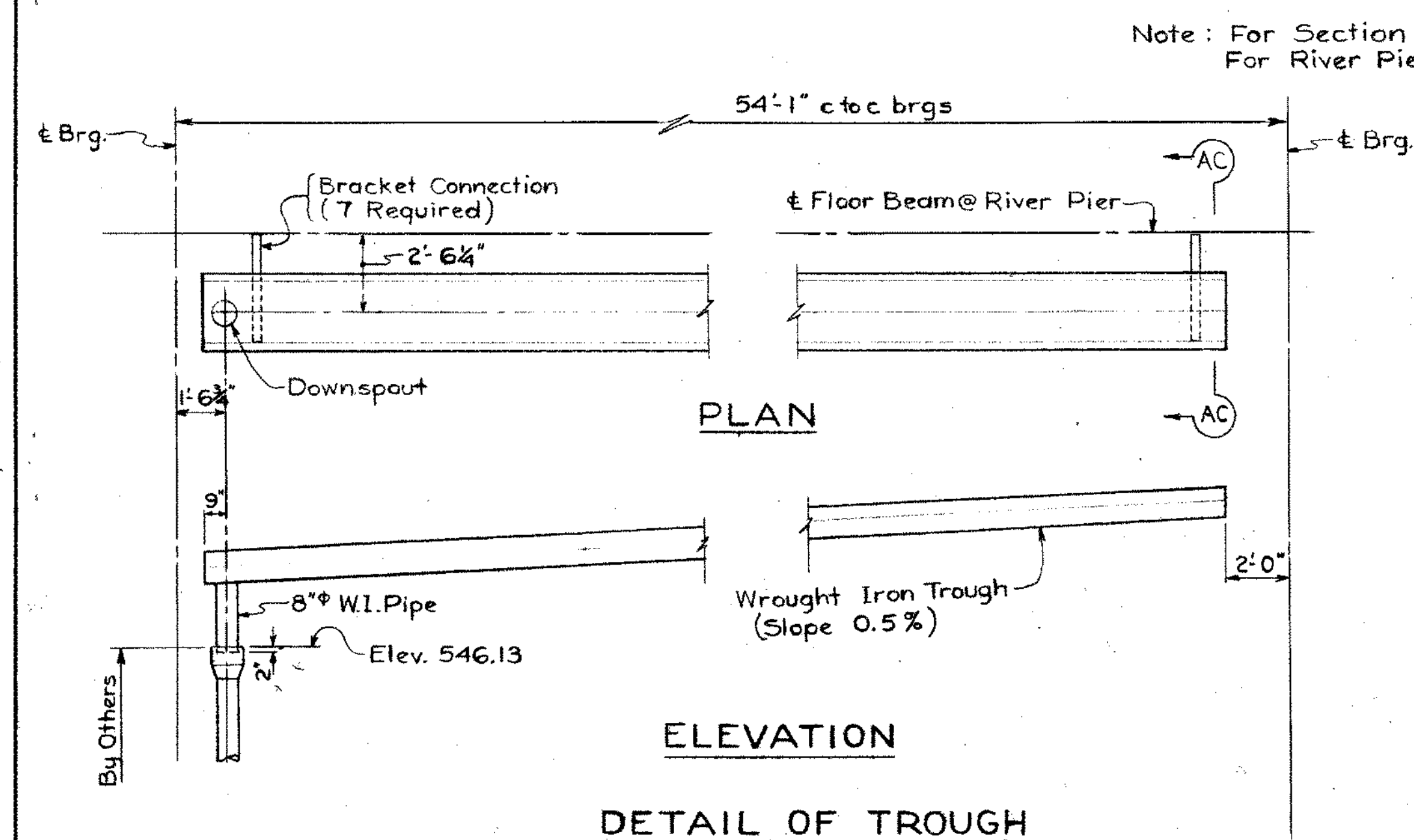
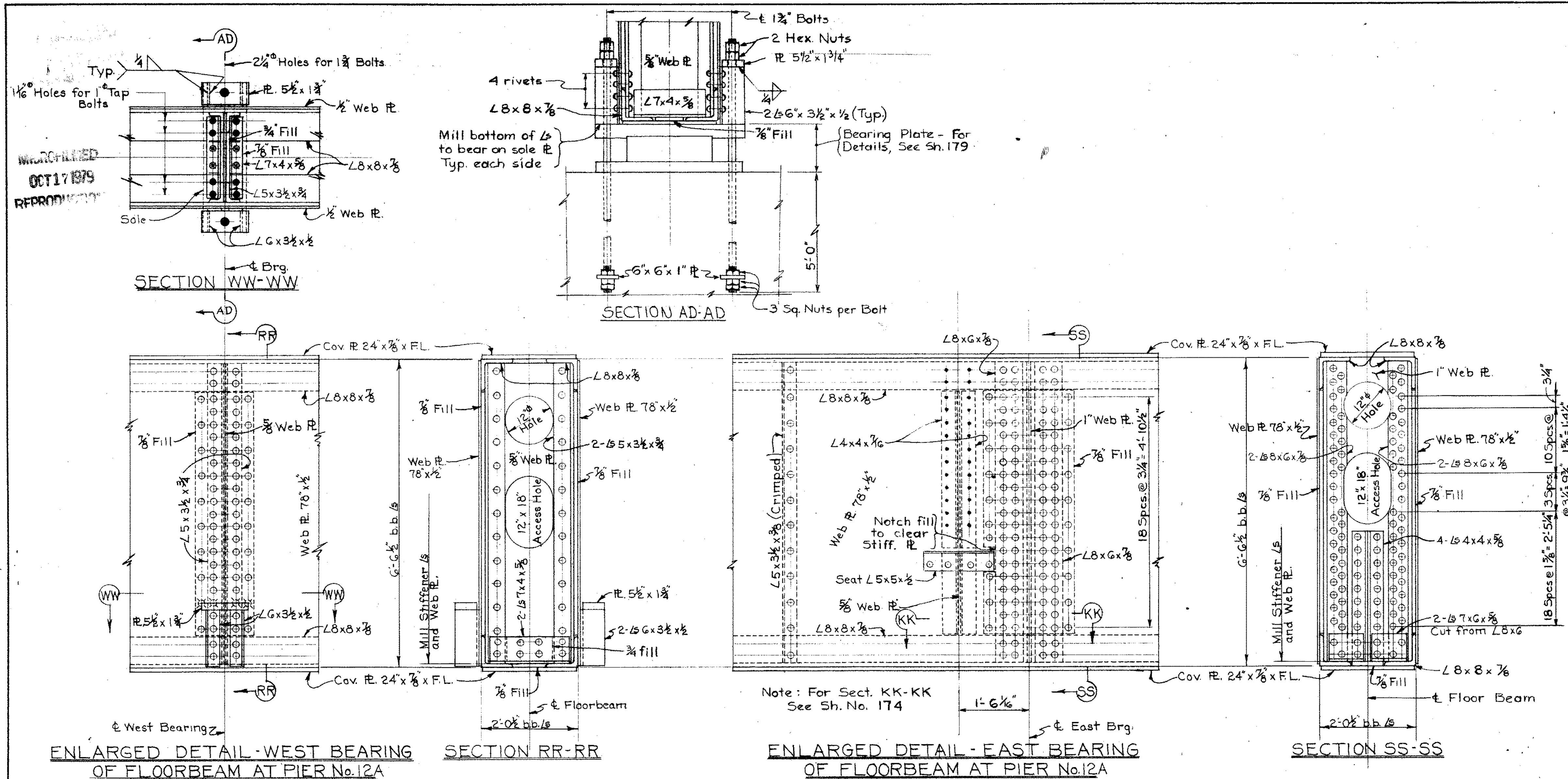
For General Notes See Sheet No. 168

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STRUCTURAL STEEL DETAILS

UNIT NO. 4

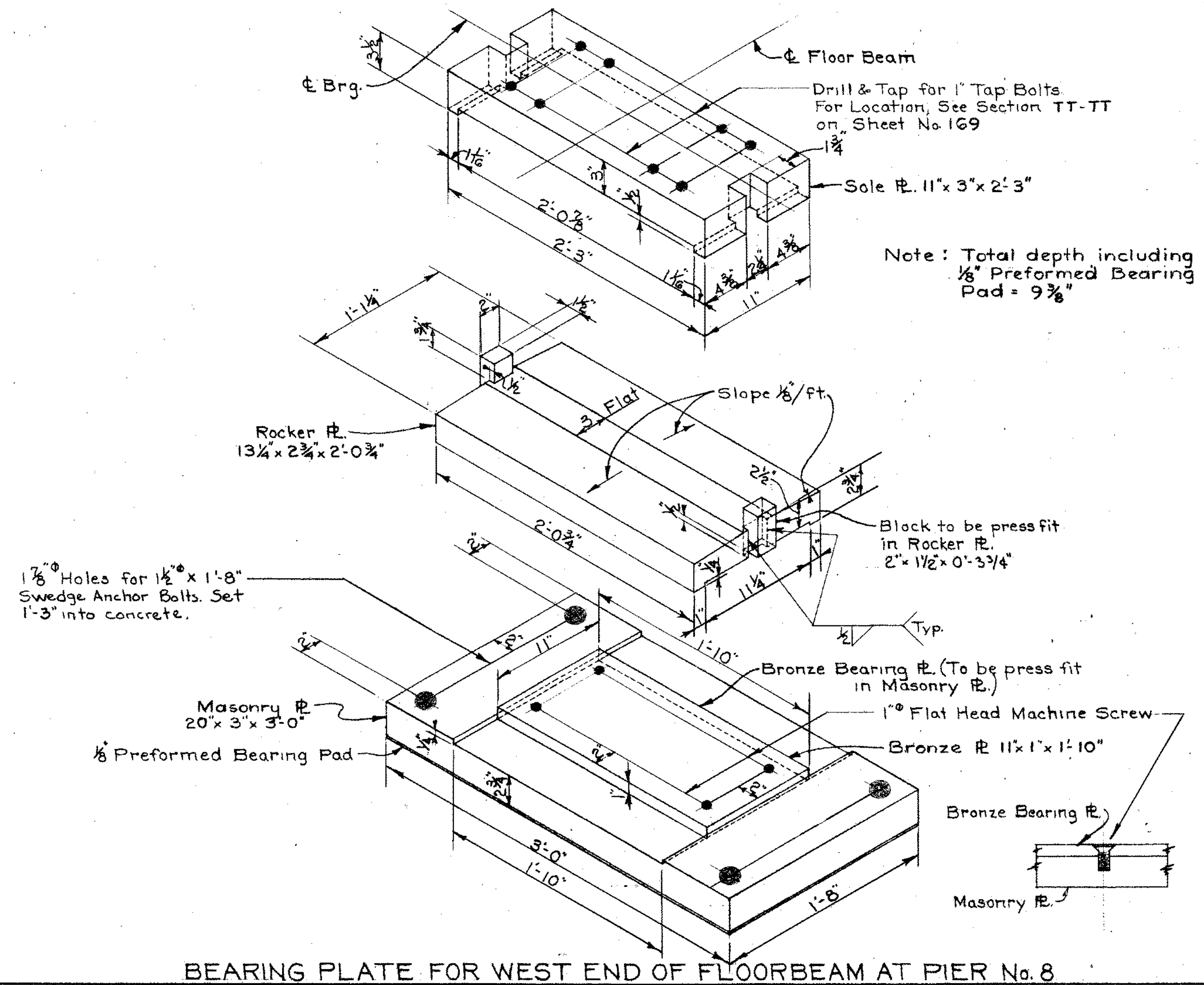
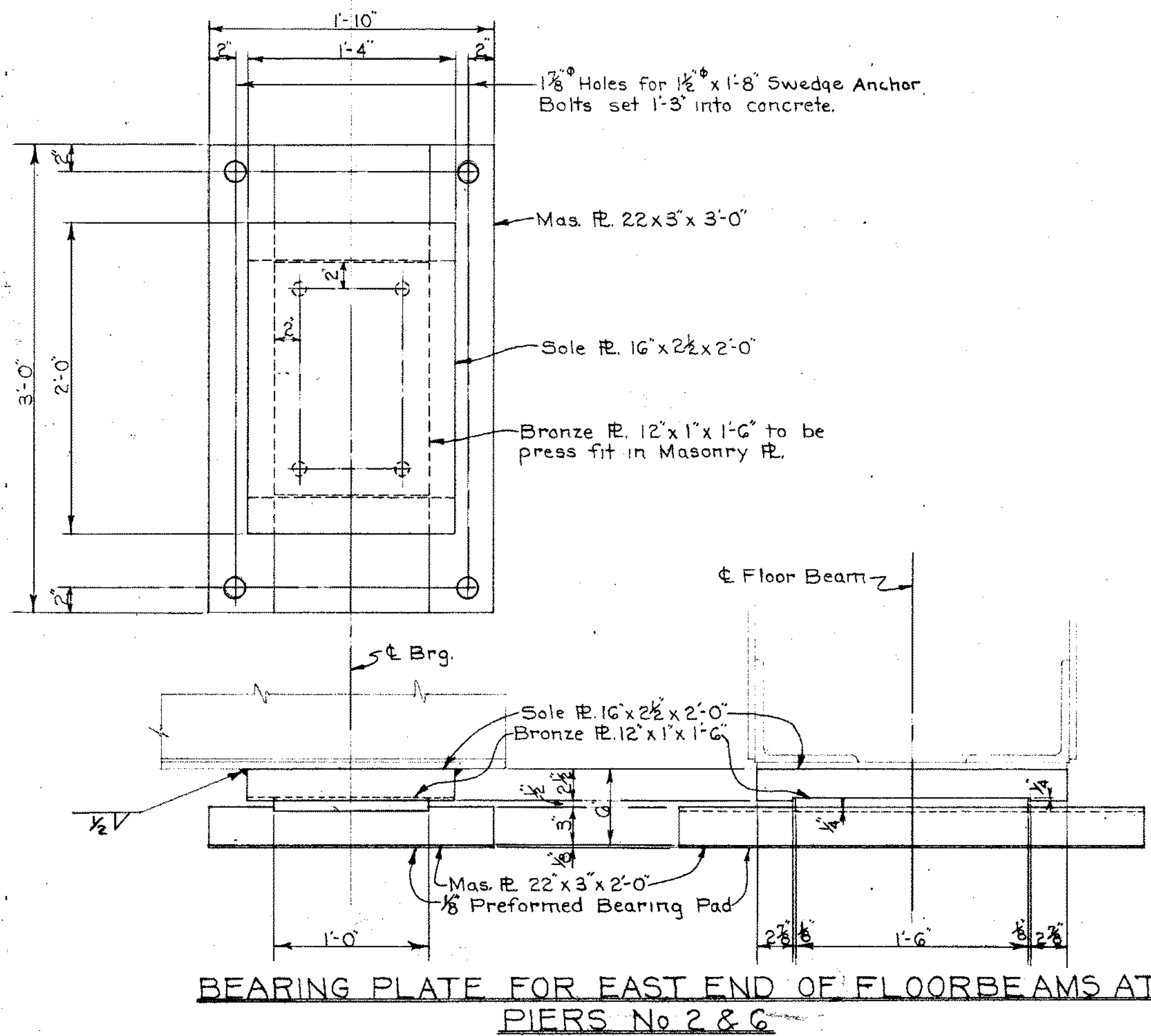
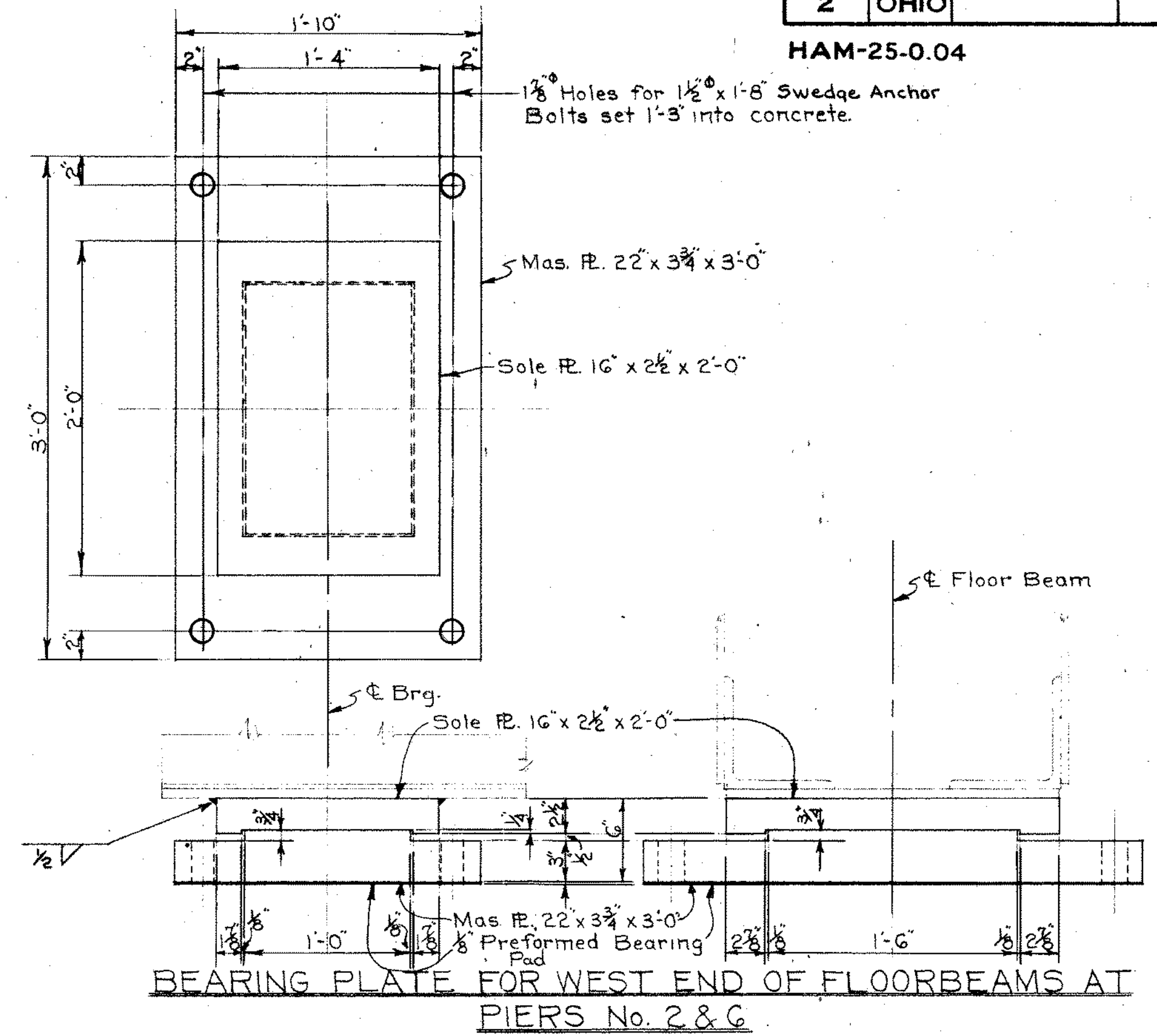
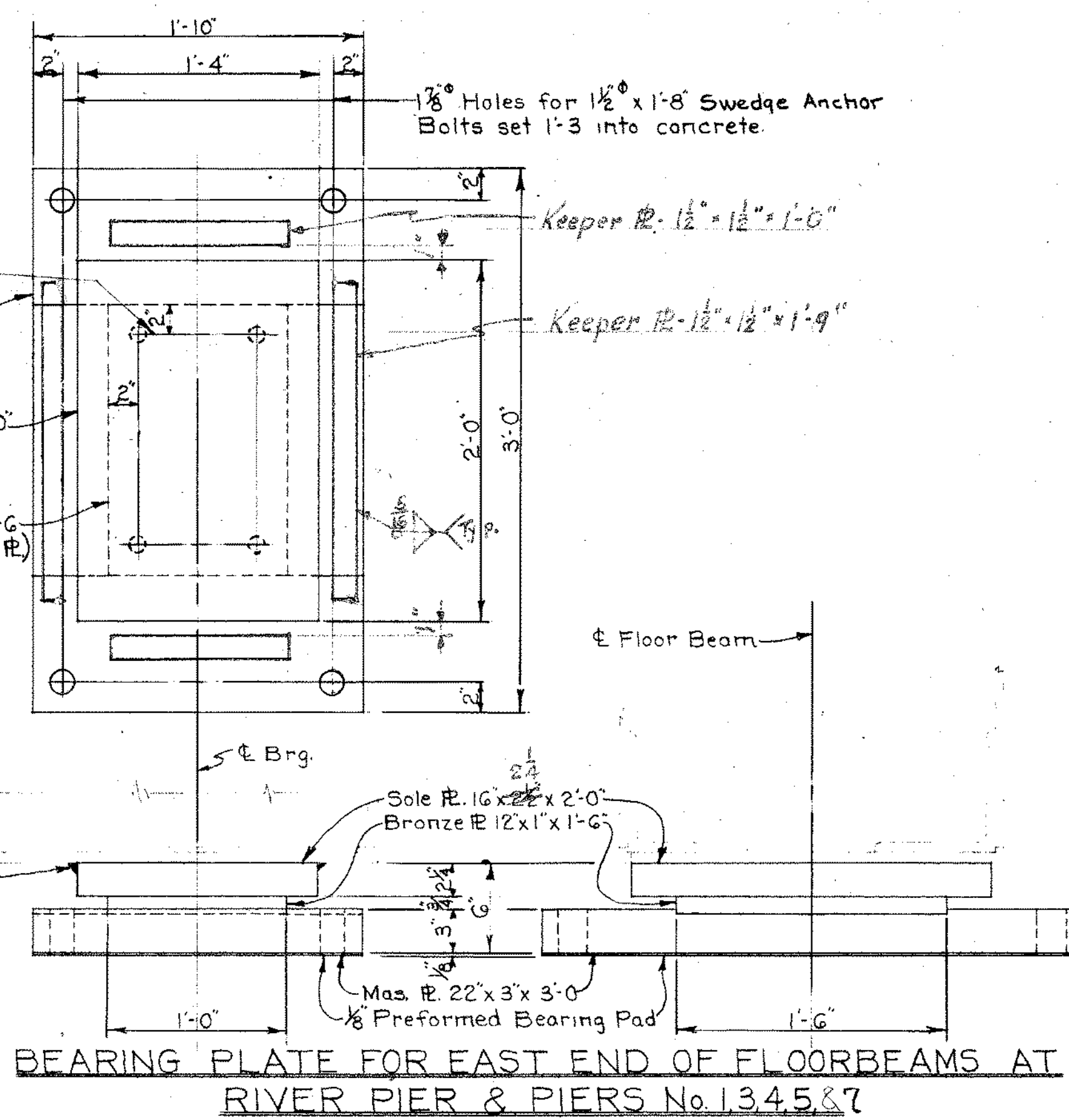
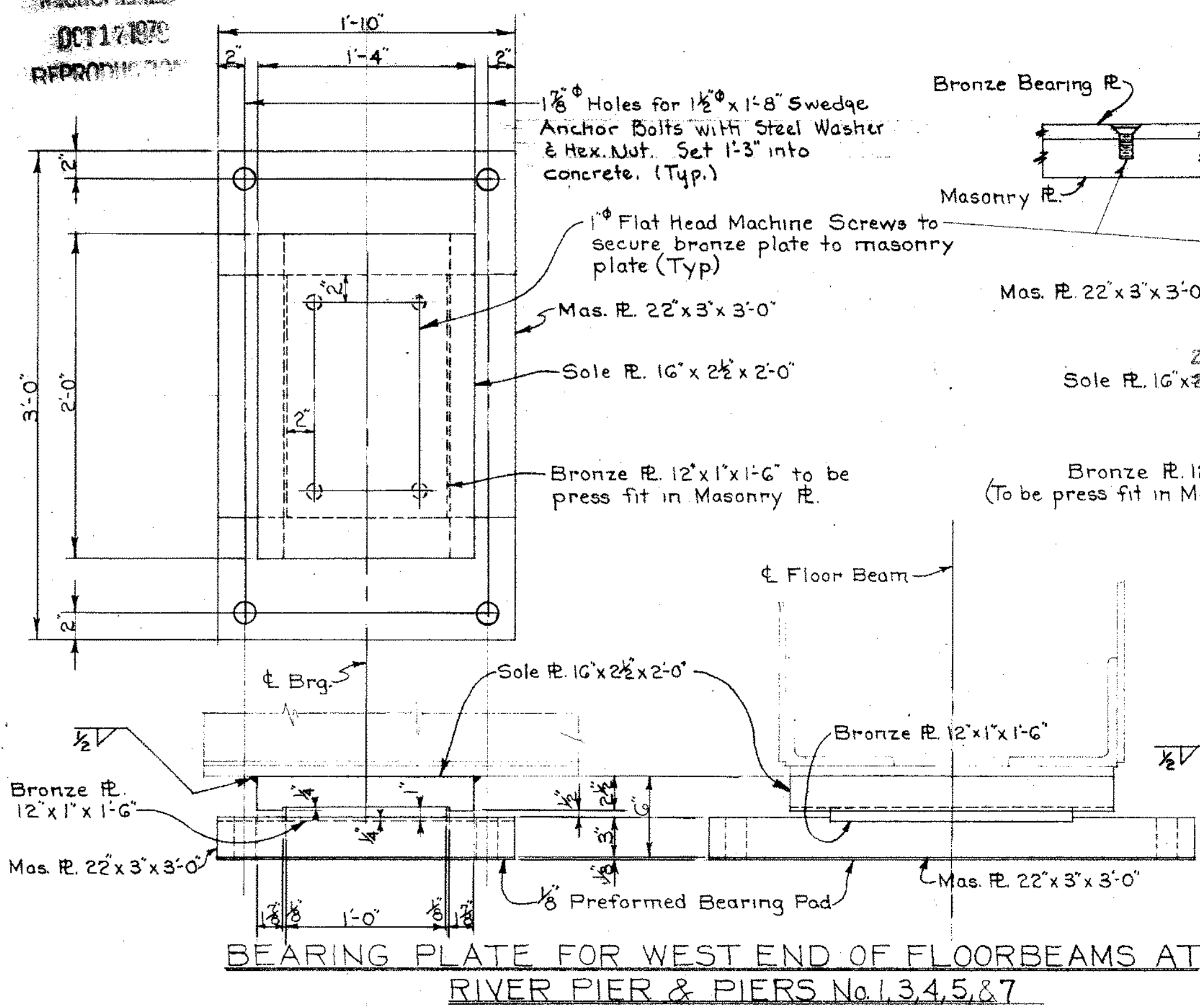
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For General Notes see Sheet No. 168

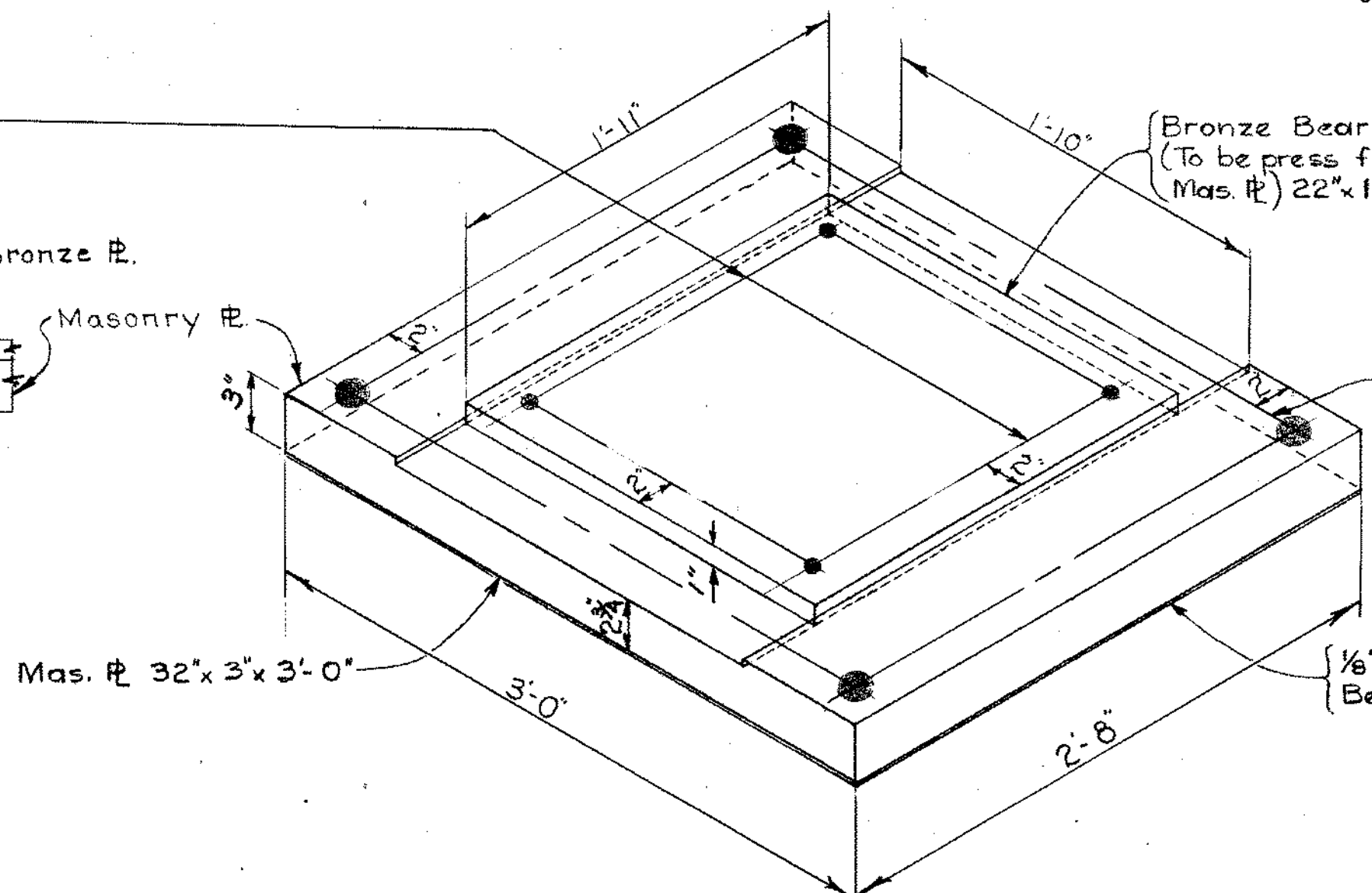
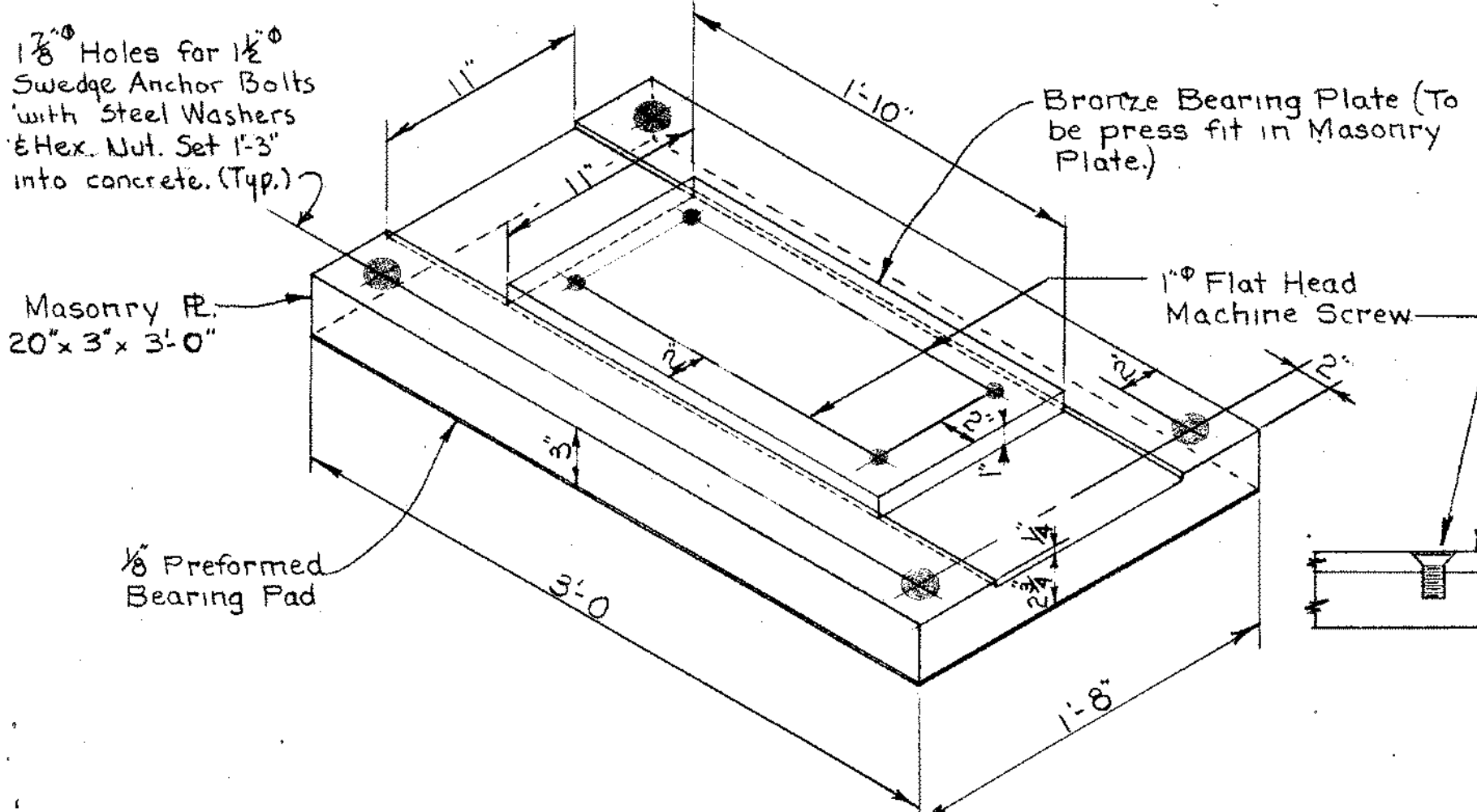
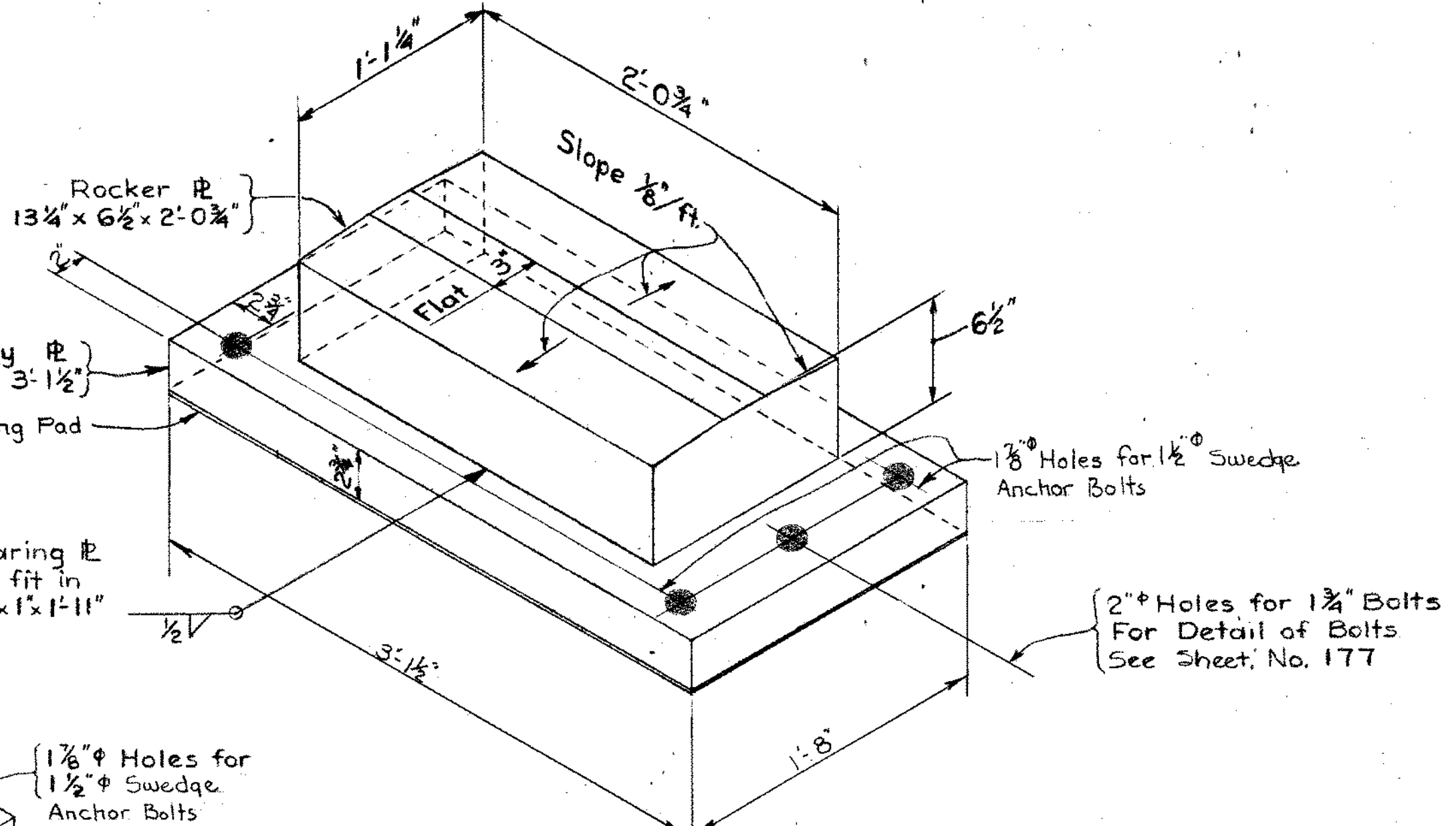
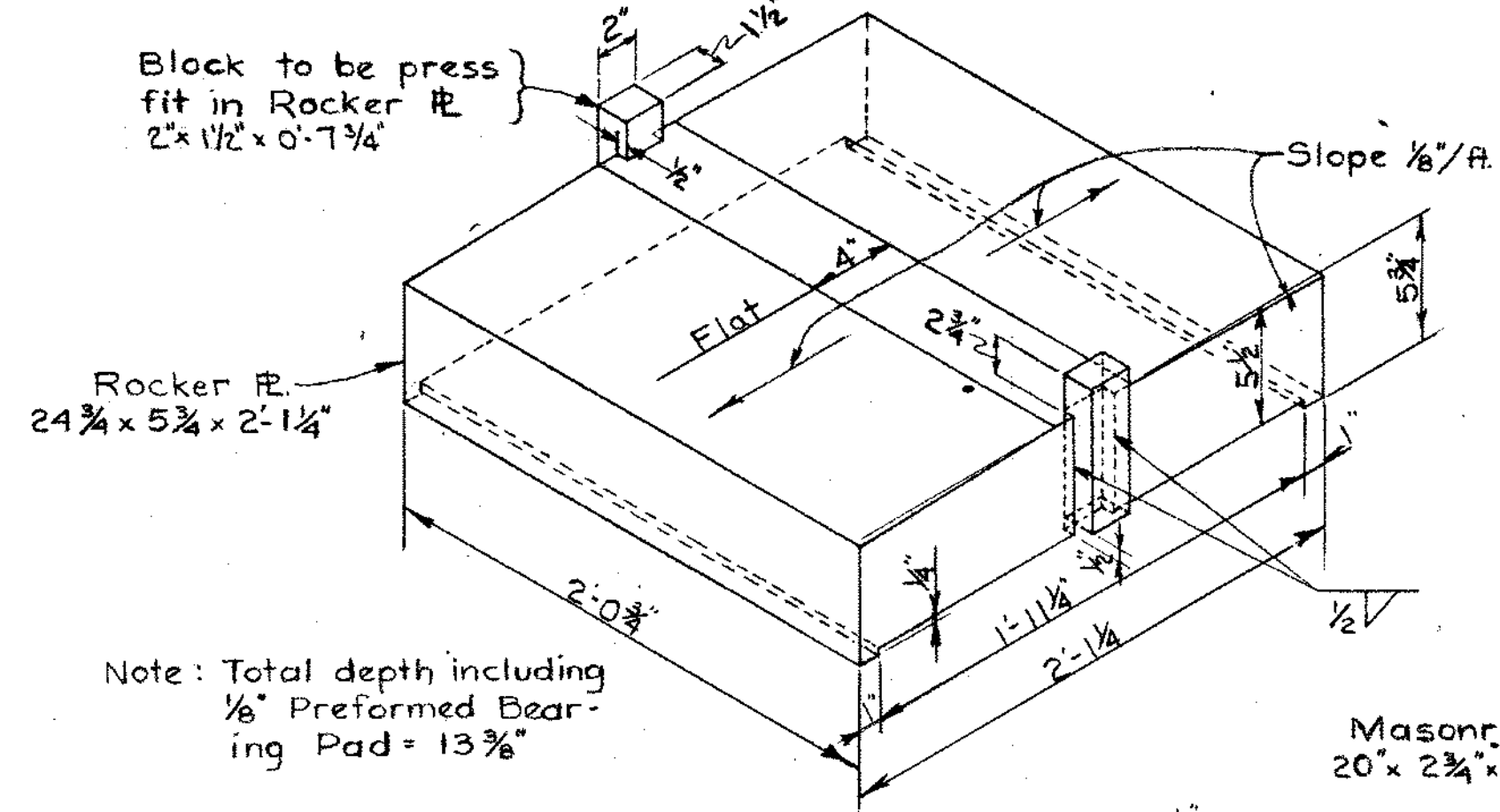
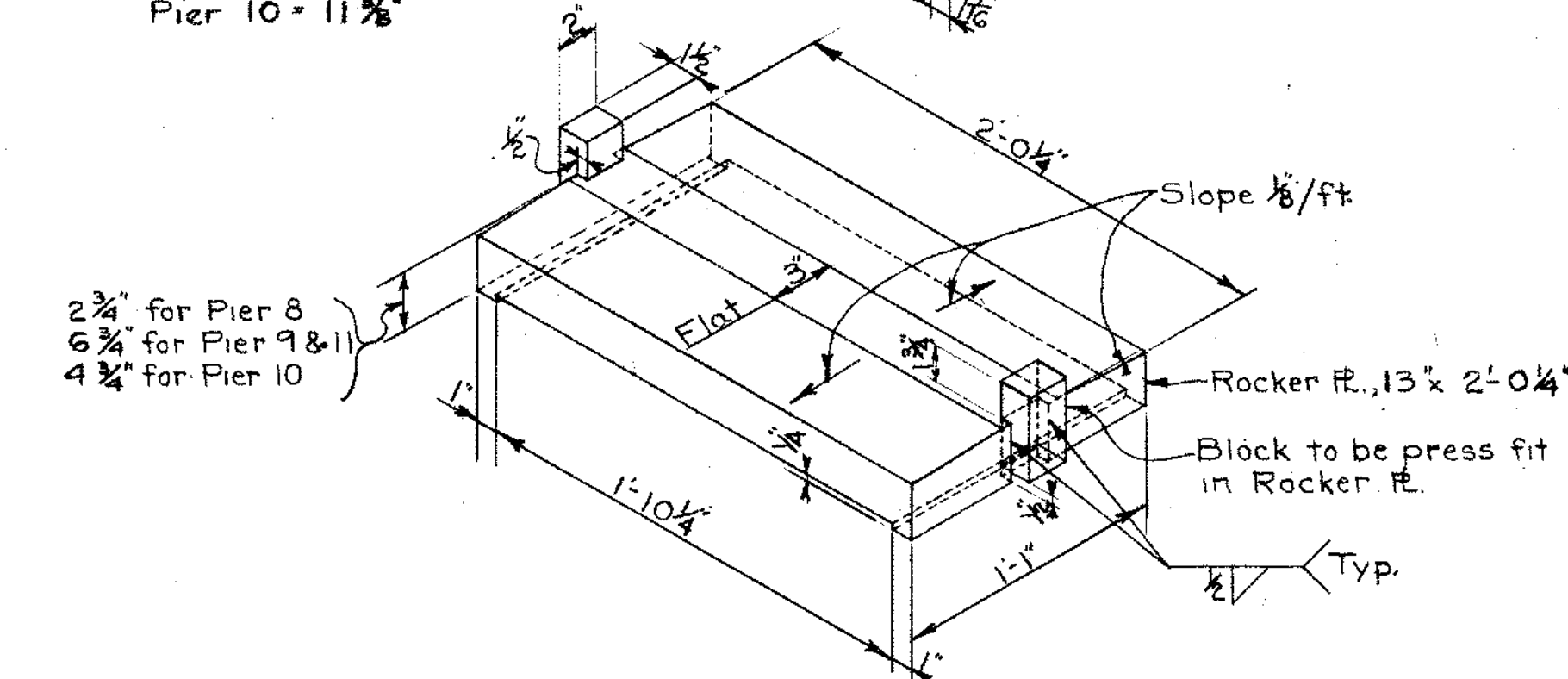
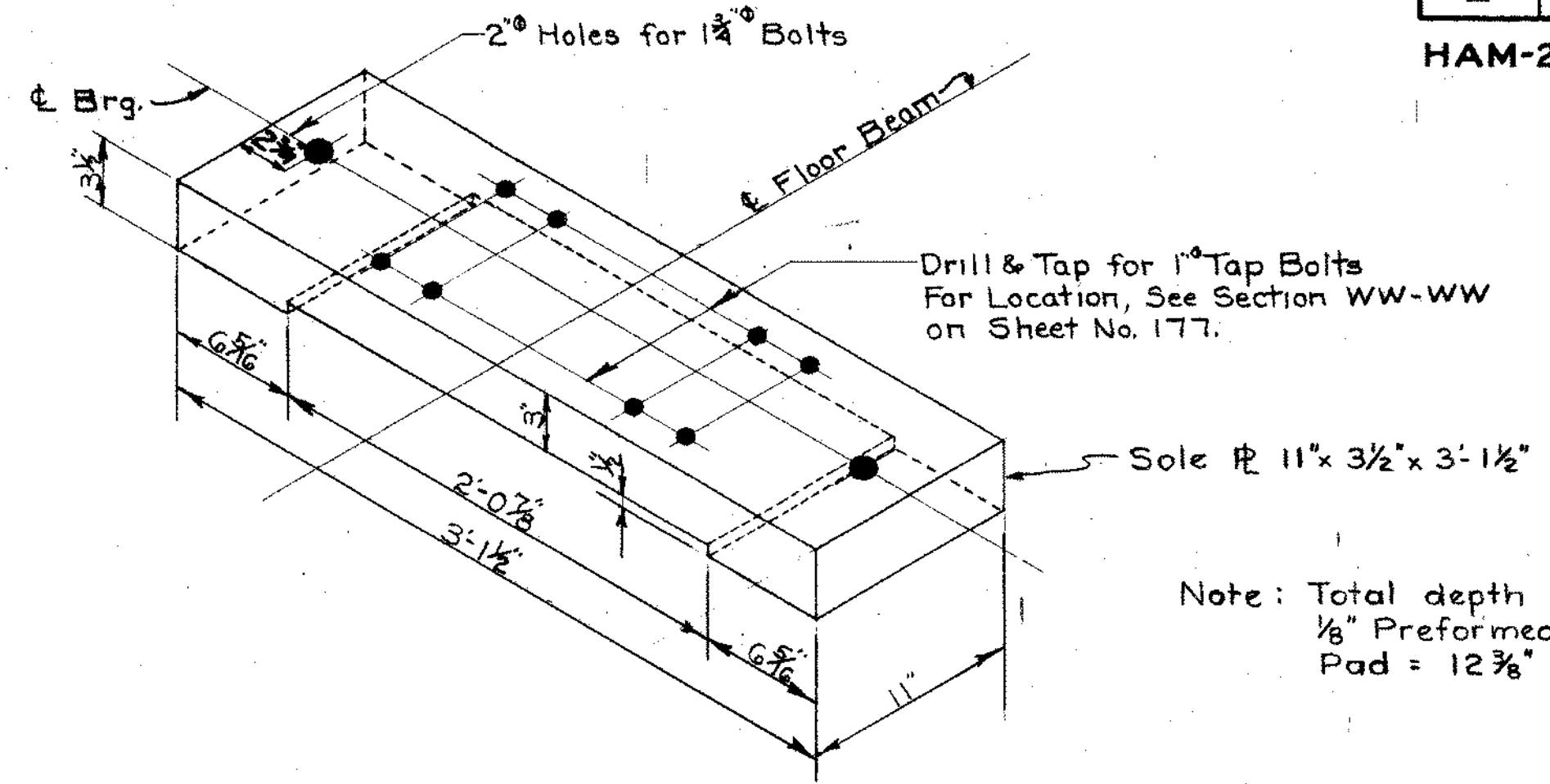
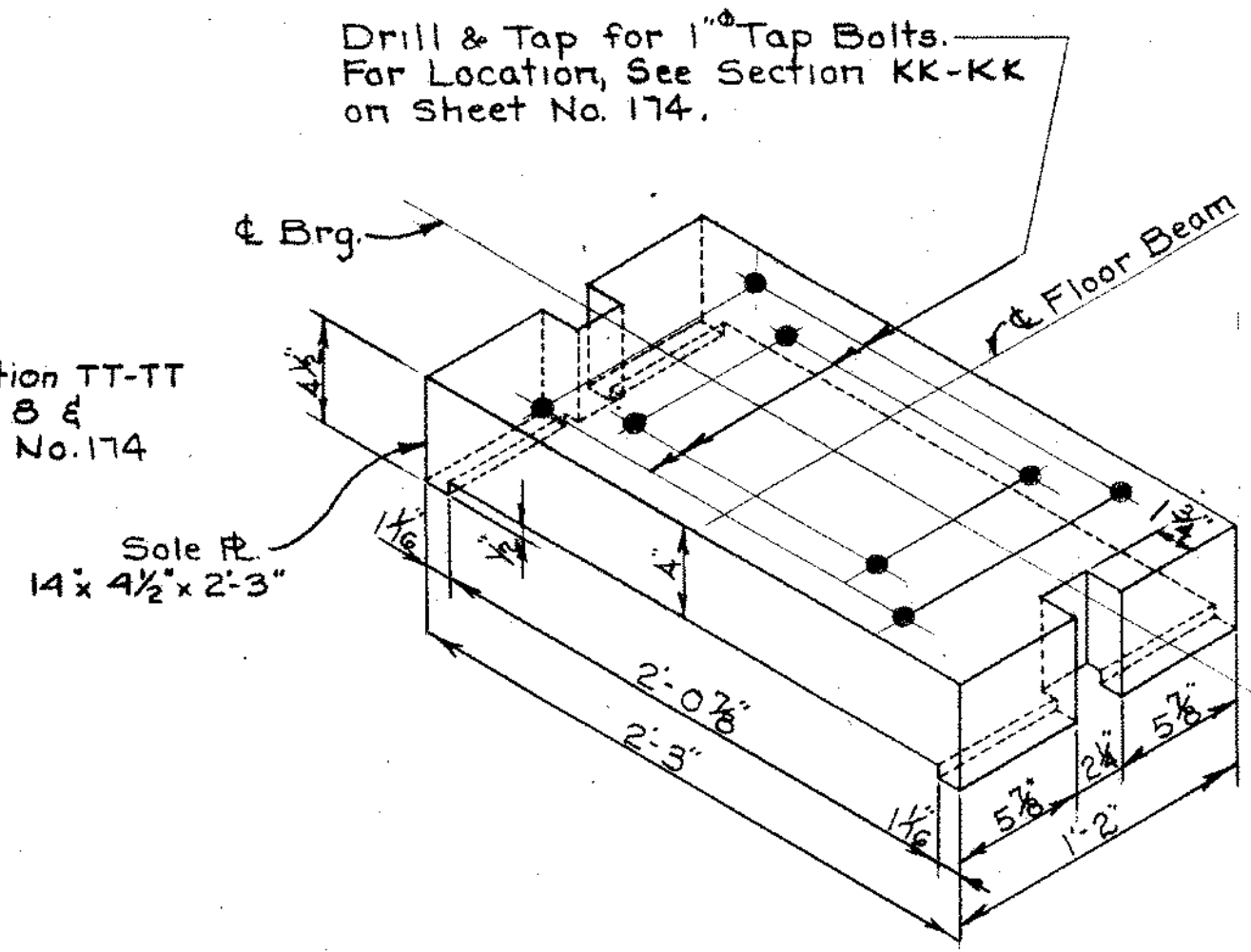
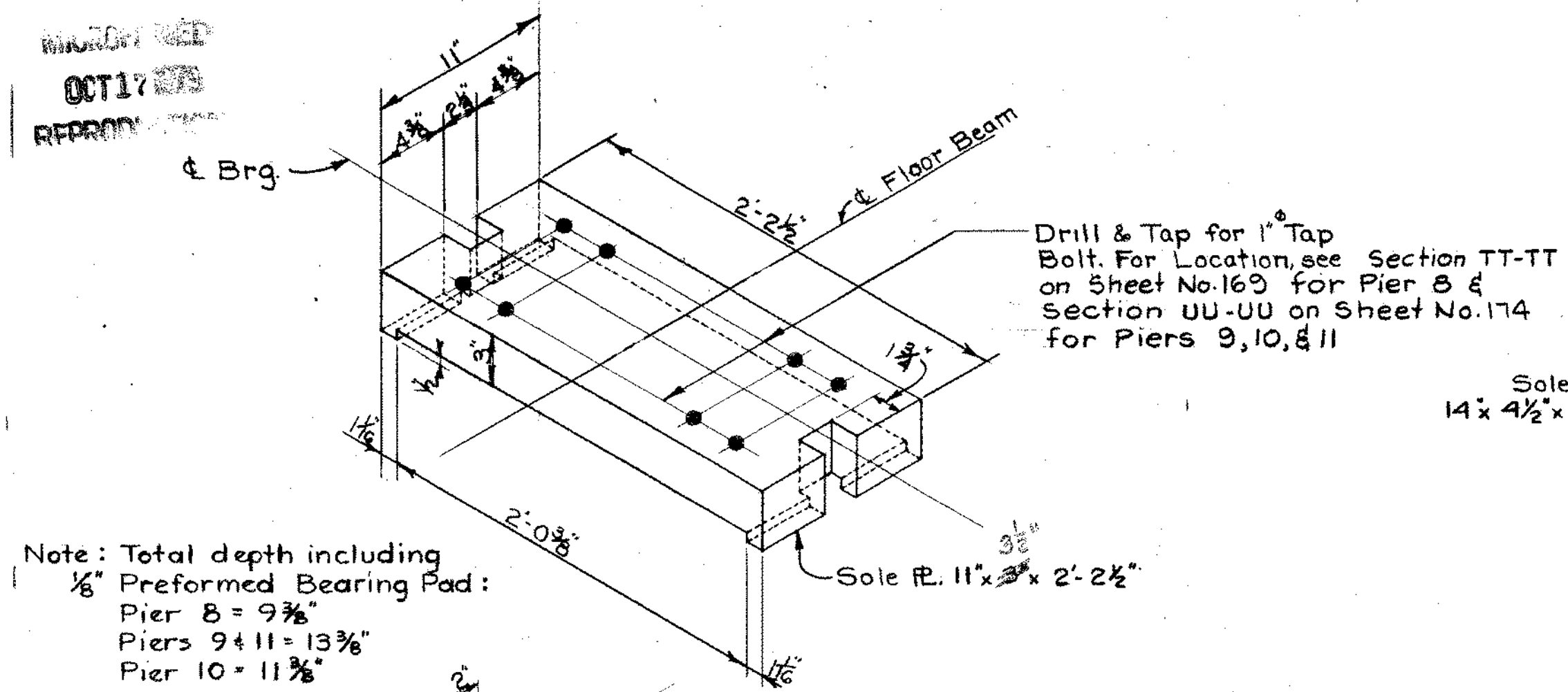
HAZELET & ERDAL CONSULTING ENGINEERS CINCINNATI, OHIO					
STRUCTURAL STEEL DETAILS UNIT NO. 4					
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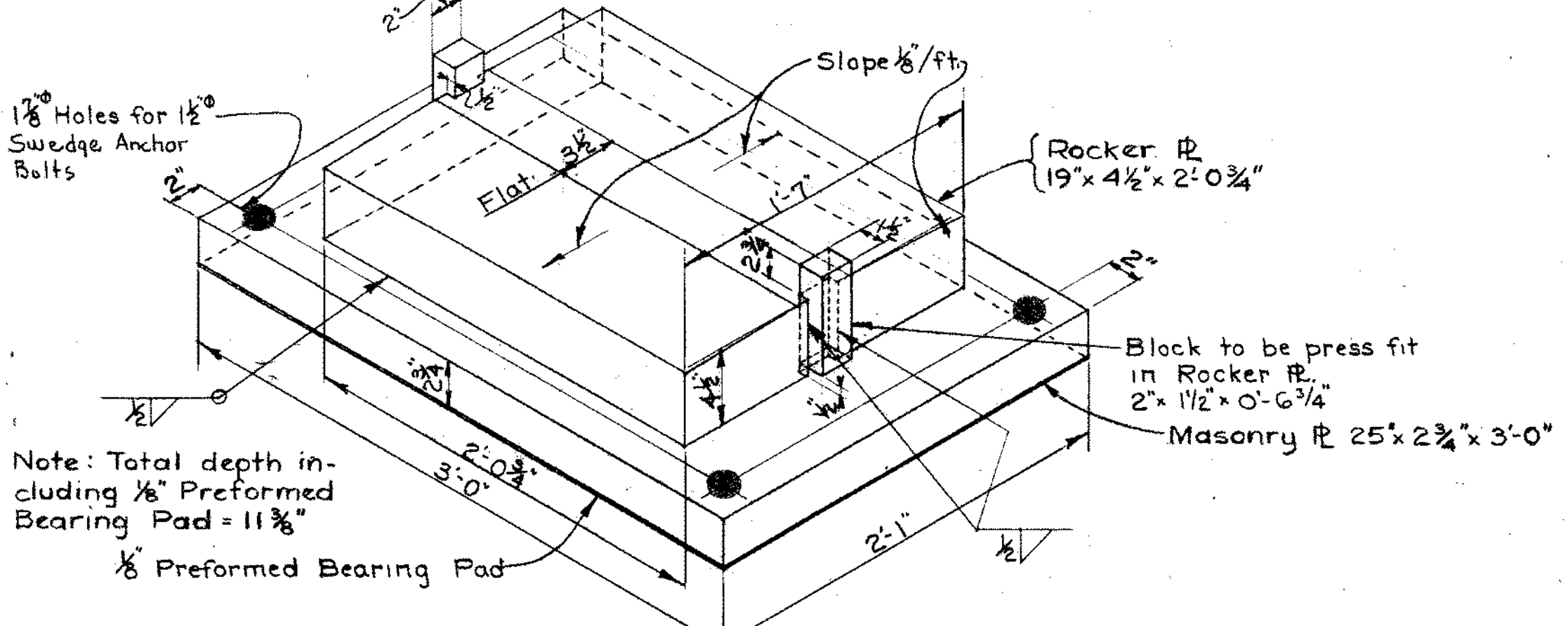
HAZELET & ERDAL CONSULTING ENGINEERS CINCINNATI, OHIO					
STRUCTURAL STEEL DETAILS					
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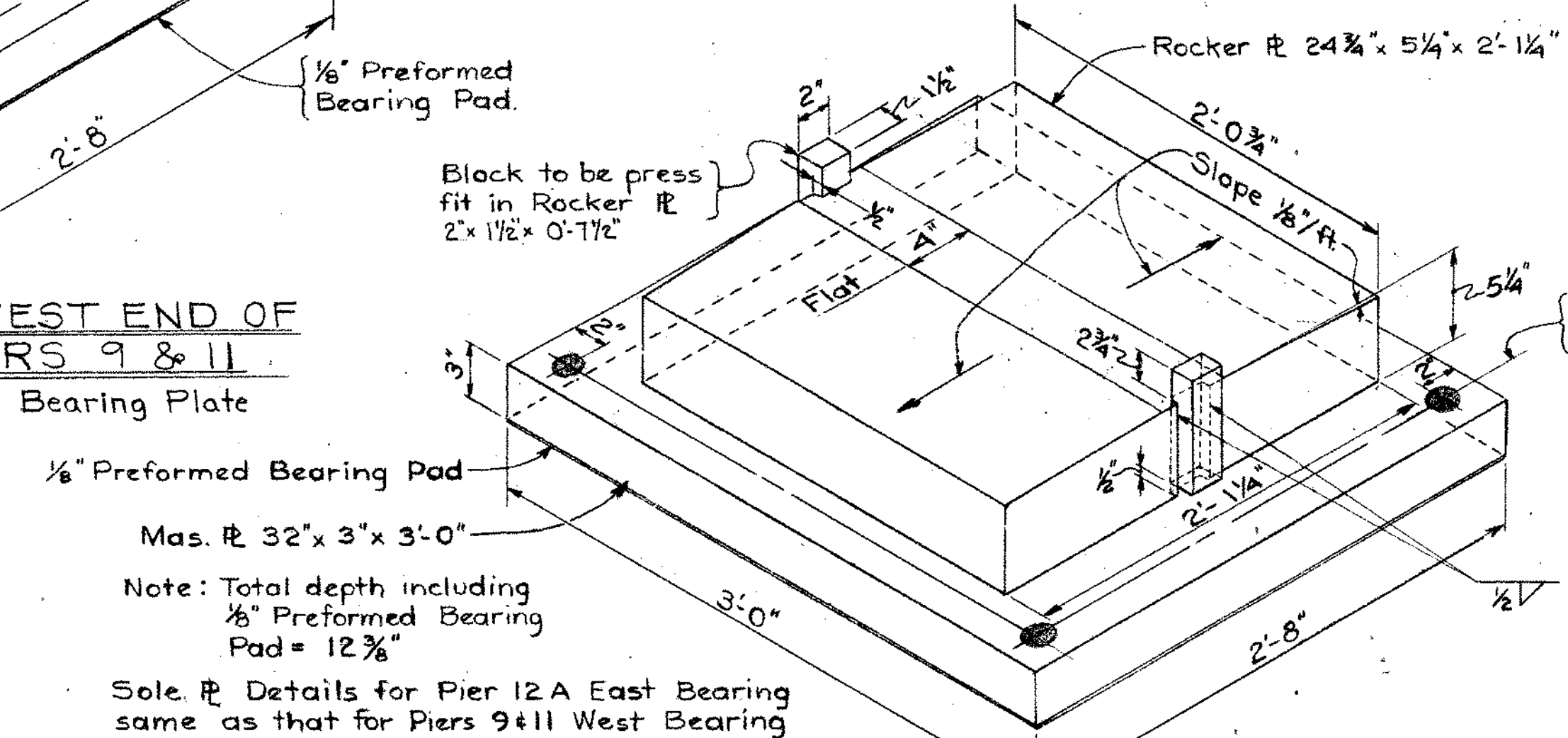
BEARING PLATE FOR WEST BEARING OF FLOORBEAM AT PIER 12A

BEARING PLATE FOR EAST END OF FLOORBEAMS AT PIERS No. 8, 9, 10 & 11



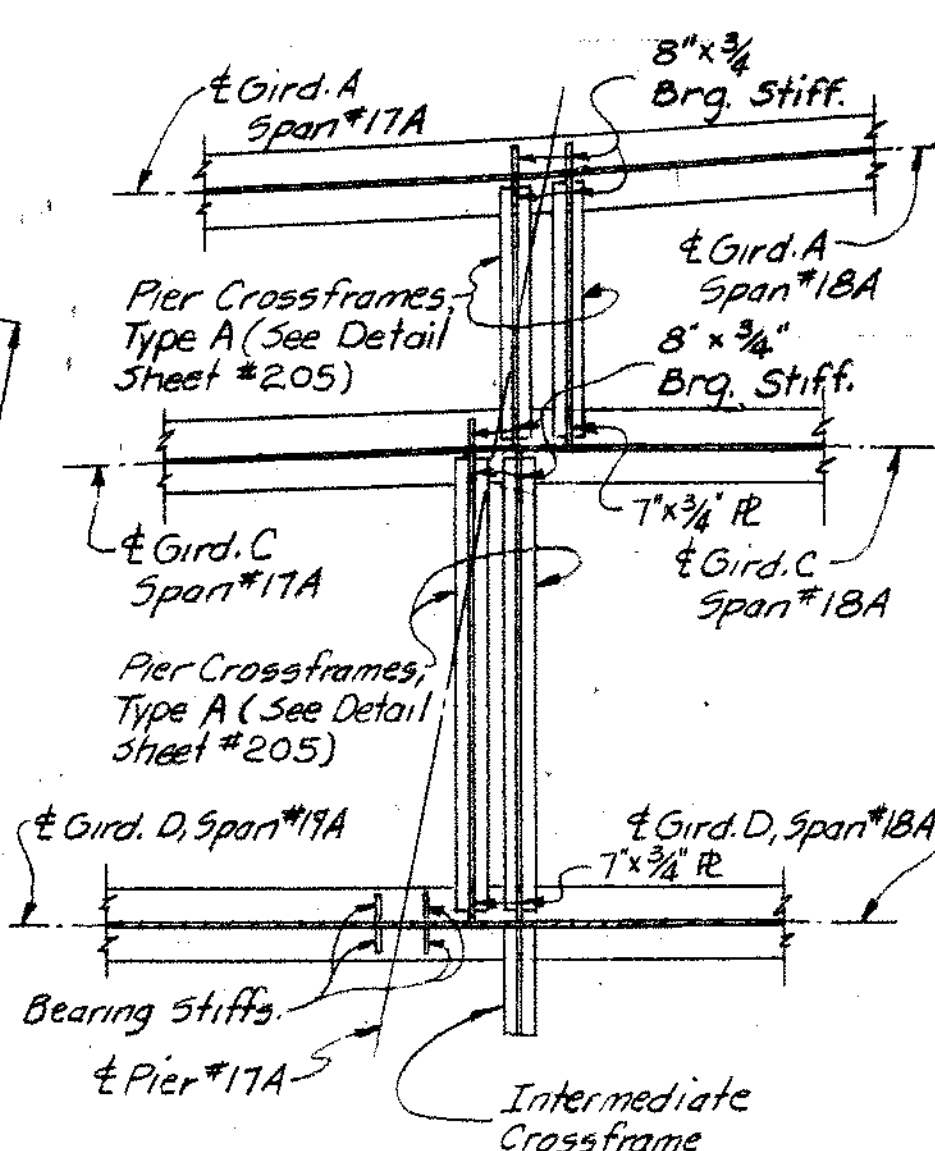
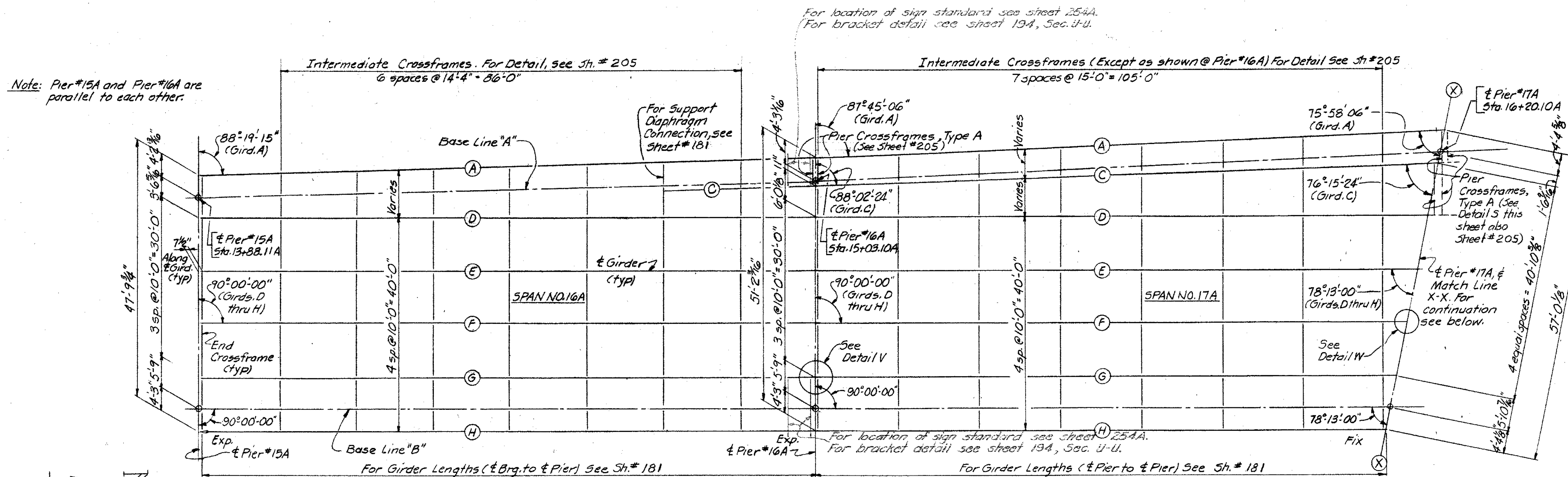
BEARING PLATE FOR WEST END OF FLOORBEAMS AT PIERS 9 & 11 (Details not shown same as Bearing Plate shown at left.)

BEARING PLATE FOR WEST END OF FLOORBEAM AT PIER 10
Sole Plate not shown, use same sole plate as west end of floorbeam at Pier 9.
BEARING PLATE FOR BOTH BEARINGS AT PIER 13 AS SAME AS ABOVE



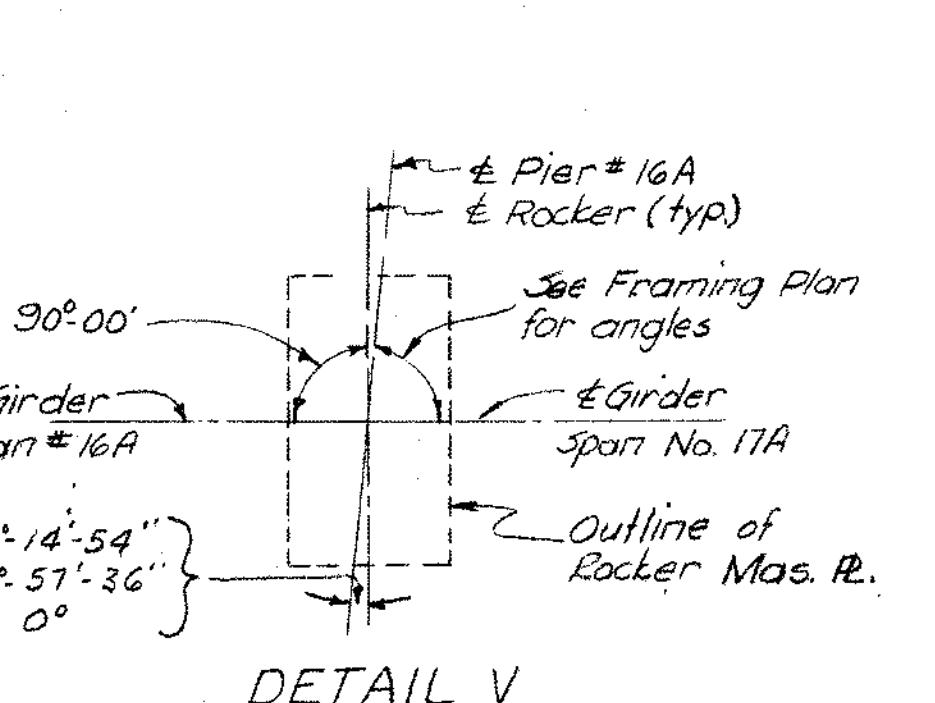
BEARING PLATE FOR EAST BEARING OF FLOORBEAM AT PIER 12A

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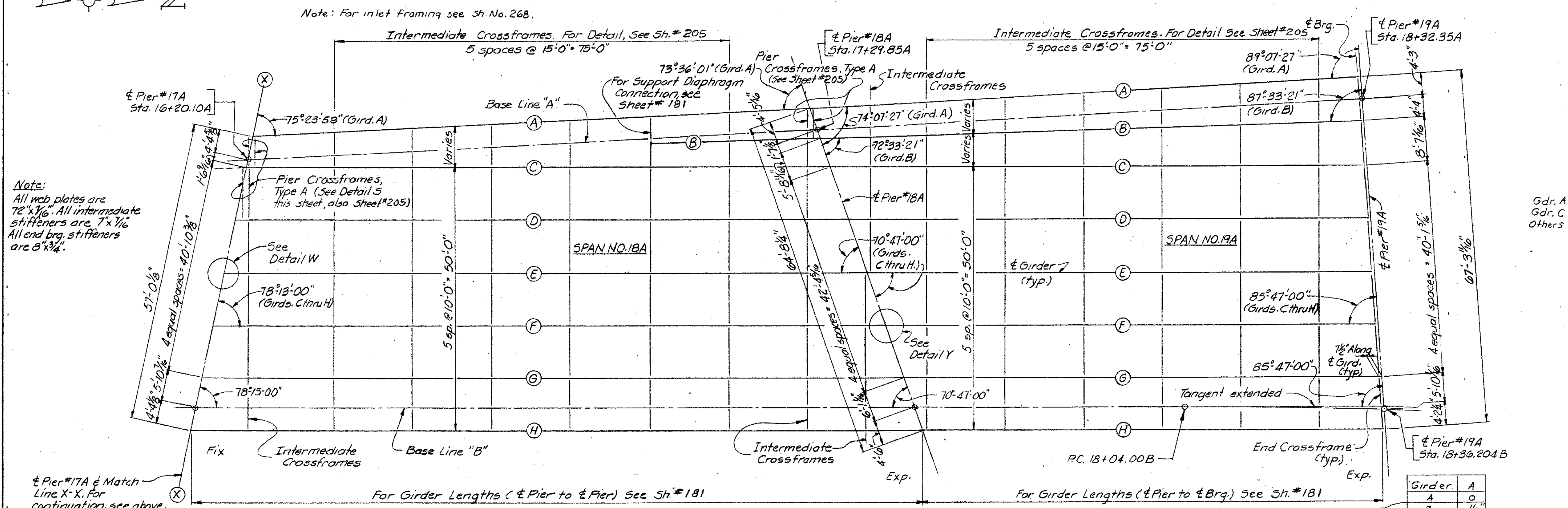


Note: Pier Crossframes are connected to girder bearing stiffeners at locations shown. For bearing stiffener details, see Sh. # 205

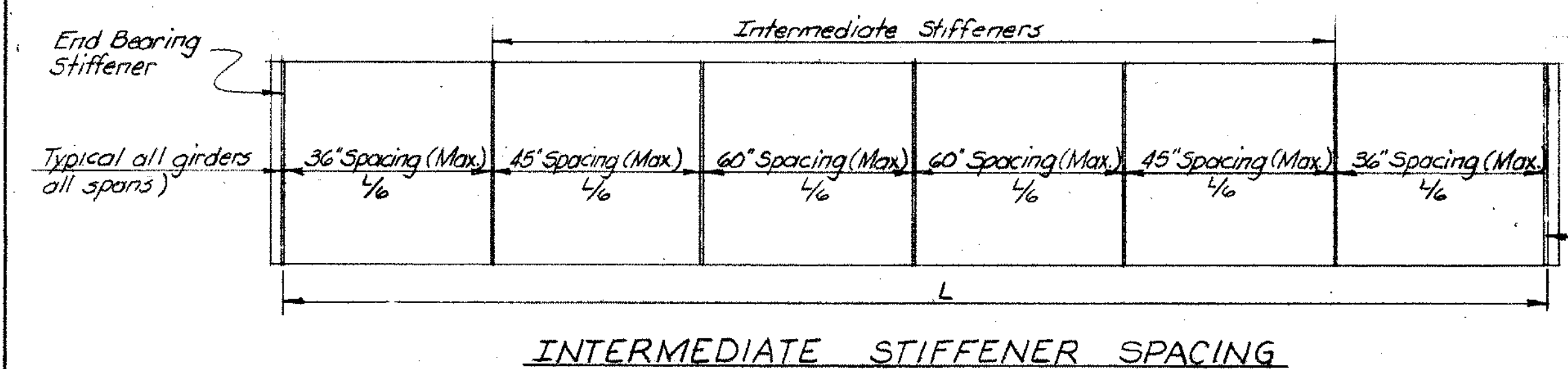
DETAIL S
(Pier crossframes at Pier #17A.)



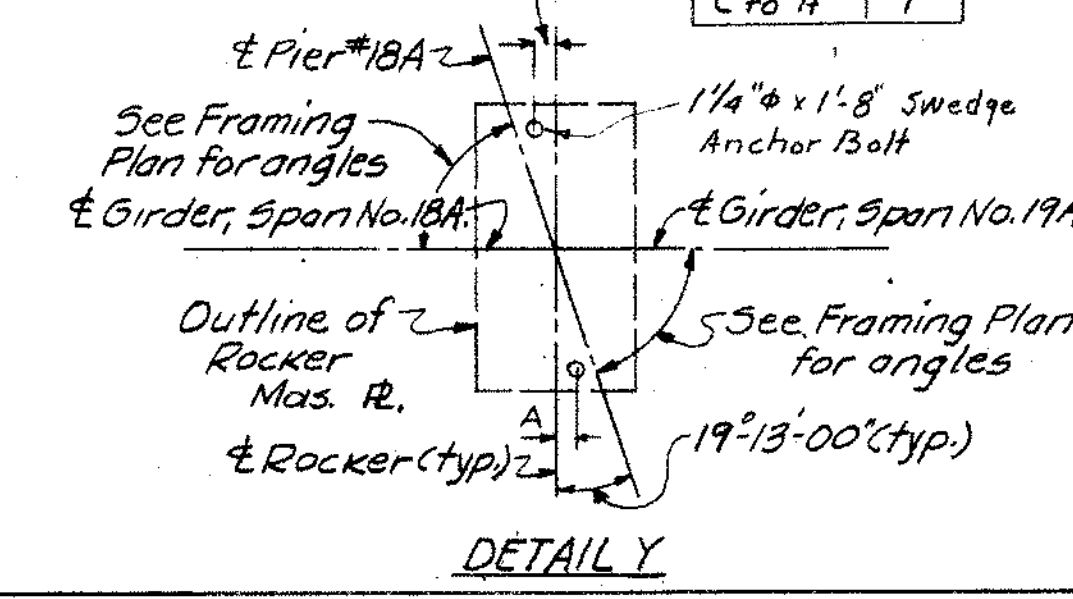
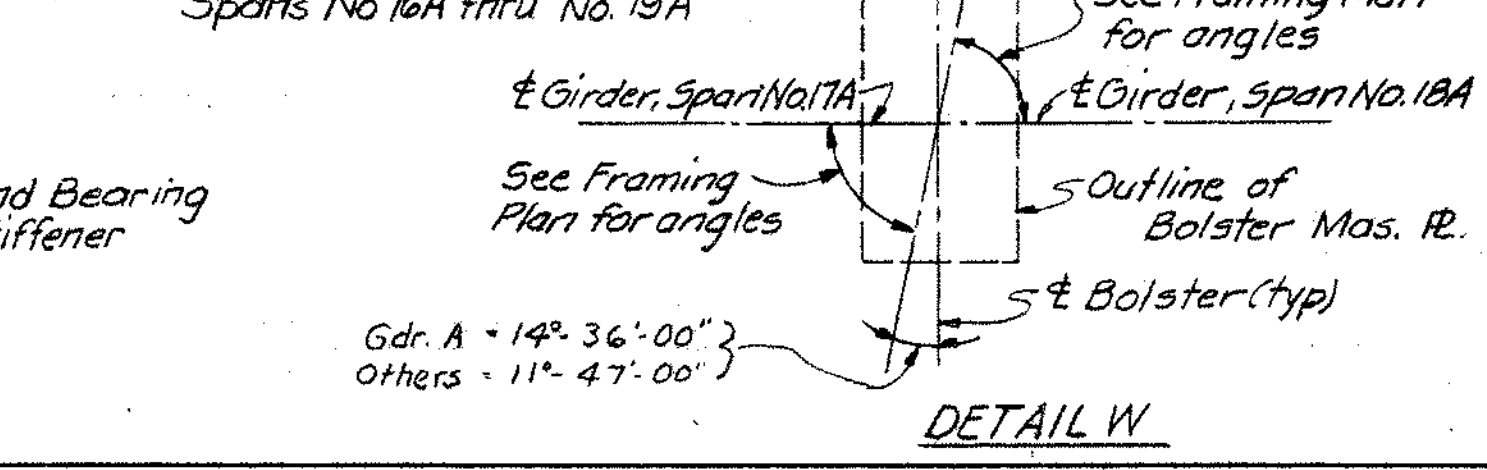
Notes: For Deflection & Camber Table, Girder Splice Welding Procedure, Detail of Flange Plates and Dimensions, and Details of End Crossframe Connections @ Piers #15A & #19A, see sheet # 181
For Details of Crossframes, see sheet # 205
For Details of Intermediate & Bearing Stiffeners, see sheet # 205
For Rocker & Bolster Details, see sheet # 206
For Typical Girder Elevation, see sheet # 205



Note: All web plates are 7/16"x1/2". All intermediate stiffeners are 7"x1/2". All end brq. stiffeners are 8"x3/4".



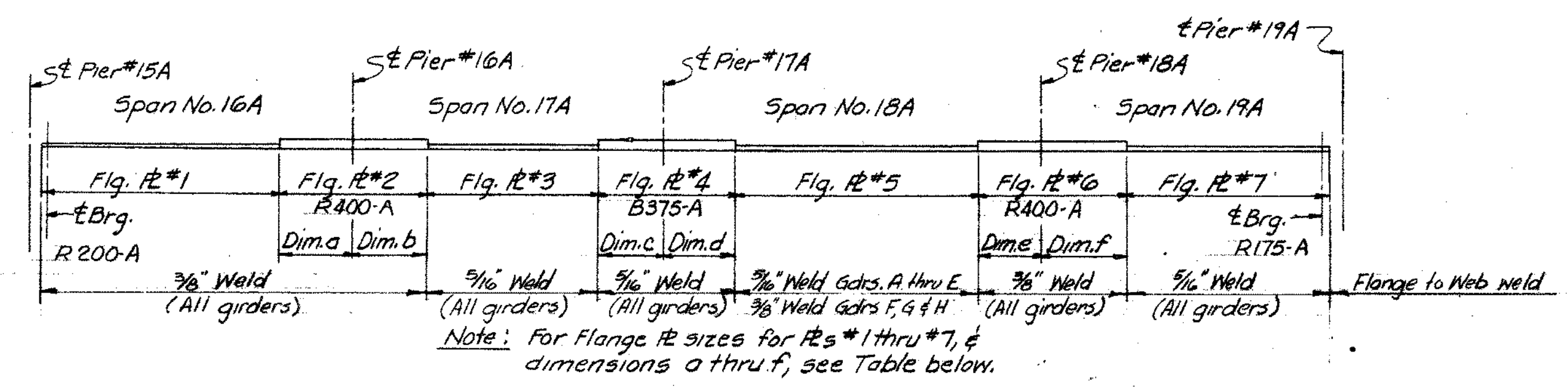
FRAMING PLAN UNIT NO 5
Spans No 16A thru No. 19A



Note: Convexity includes variations due to vertical curvature, superelevation and horizontal curvature

DEFLECTION AND CAMBER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
SPAN	SPAN 16A														SPAN 17A														SPAN 18A														SPAN 19A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
GIRDER	A	D			E			F			G			H			A	C			D			E			F			G			H			A	B			C			D			E			F			G			H																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
LOCATION	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4

Girder web plates shall be cut to a parabolic crown.



DETAIL OF FLANGE PLATES AND DIMENSIONS

TABLE OF FLANGE PLATE SIZES AND DIMENSIONS (See Detail above)												
Girder	Fig. R#1	Fig. R#2	Fig. R#3	Fig. R#4	Fig. R#5	Fig. R#6	Fig. R#7	Dim. a	Dim. b	Dim. c	Dim. d	Dim. e
A	18"x1 1/4"	18"x2 1/4"	18"x1 1/8"	18"x1 3/8"	18"x1"	18"x1 1/8"	18"x1 3/8"	13'-0"	20'-0"	16'-0"	15'-0"	16'-0"
B					18"x1 1/8"	do	18"x1 3/8"					
C	18"x1 3/4"	18"x2 1/4"	18"x1 1/8"	18"x1 3/4"	18"x1 1/8"	do	18"x1 3/4"	do	do	do	do	do
D	do	18"x2 1/8"	18"x1"	18"x1 3/4"	18"x1 1/4"	18"x1 1/8"	18"x1 1/8"	do	20'-0"	16'-0"	15'-0"	16'-0"
E	do	18"x2"	18"x1"	18"x1 1/8"	18"x1 1/2"	18"x2"	18"x1 1/8"	do	23'-0"	28'-9"	13'-0"	20'-0"
F	18"x1 3/4"	18"x2"	18"x1 1/8"	18"x1 1/8"	18"x2"	18"x1 1/8"	18"x1"	13'-0"	do	do	do	20'-0"
G	18"x1 1/8"	18"x1 1/8"	18"x3/4"	18"x2"	18"x1 3/4"	18"x2 1/8"	do	do	do	do	do	29'-0"
H	18"x1 1/8"	18"x1 1/8"	18"x3/4"	18"x2 1/8"	18"x1 1/8"	18"x2 1/4"	18"x1"	do	23'-0"	28'-9"	13'-0"	29'-0"

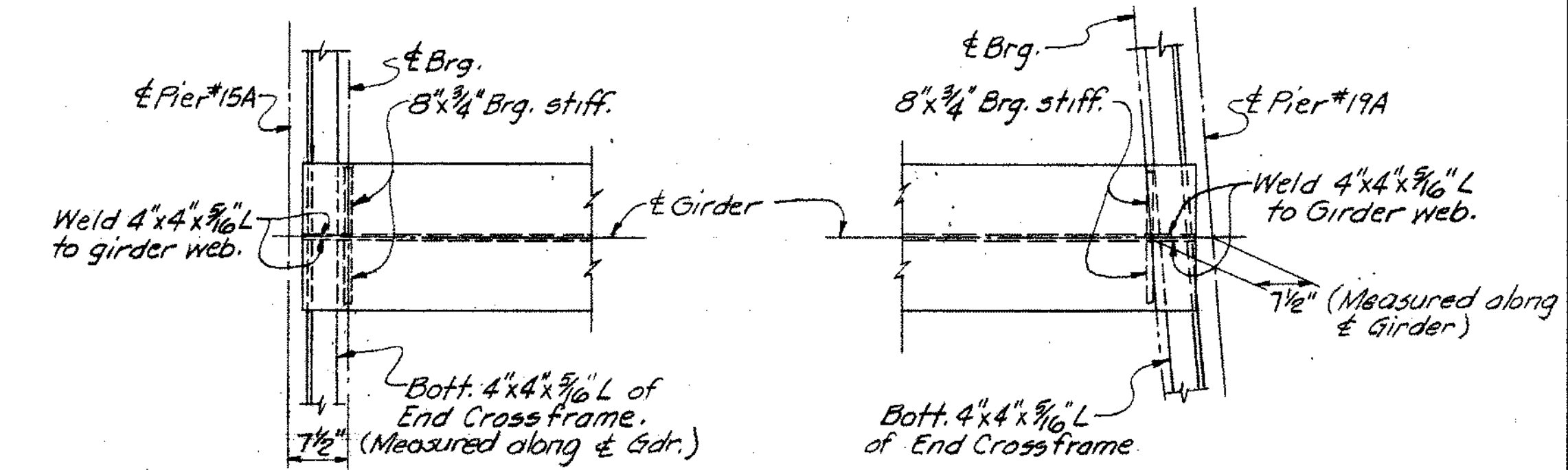
GIRDER SPLICE WELDING PROCEDURE

1. Raise the ends of girders of Span*19A at Pier*19A, and ends of girders of Span*17A at Pier*16A, the dimensions shown for each span in Table R.
2. Butt-weld girder flanges and webs at Piers*17A & 18A using the welding sequence shown in Note A.
3. Weld all pier crossframes shown at Piers*17A & 18A into place.
4. Lower the girders of Spans*17A & 19A into final positions.
5. Raise the ends of girders of Span*16A at Pier*15A, the dimension shown for Span*16A in Table R.
6. Butt-weld girder flanges and webs at Pier*16A, using the welding sequence shown in Note A.
7. Weld all pier crossframes shown at Pier*16A into place.
8. Lower the girders of Span*16A into final positions.

TABLE R			
Dimensions to raise Girds. for welding.			
Girder	Span*19A	Span*17A	Span*16A
A	2 3/8"	3 1/8"	2 3/8"
B	2 3/8"		
C	2 1/8"	3 1/2"	
D	2 1/8"	3 1/2"	2 1/8"
E	2 1/2"	3 3/4"	2 1/2"
F	2 1/2"	3 3/4"	2 1/2"
G	2 1/8"	3 1/8"	2"
H	2 3/8"	4"	1 1/8"

TABLE OF GIRDER LENGTHS				
Girder	Span No. 16A	Span No. 17A	Span No. 18A	Span No. 19A
A	114'-4 3/8"	117'-10 3/4"	107'-4 3/4"	103'-0 1/4"
B			*	101'-6 1/2"
C	*	116'-7 5/16"	112'-4 1/16"	100'-2 1/16"
D	114'-3 1/16"	114'-6 1/16"	117'-10 3/16"	97'-5 1/16"
E	do	112'-5 1/16"	123'-5 3/16"	94'-8 5/16"
F	do	110'-4"	129'-0 1/16"	91'-11 3/16"
G	do	108'-3"	134'-7 1/2"	89'-3"
H	114'-3 1/16"	106'-1 1/16"	140'-2 3/8"	86'-6"

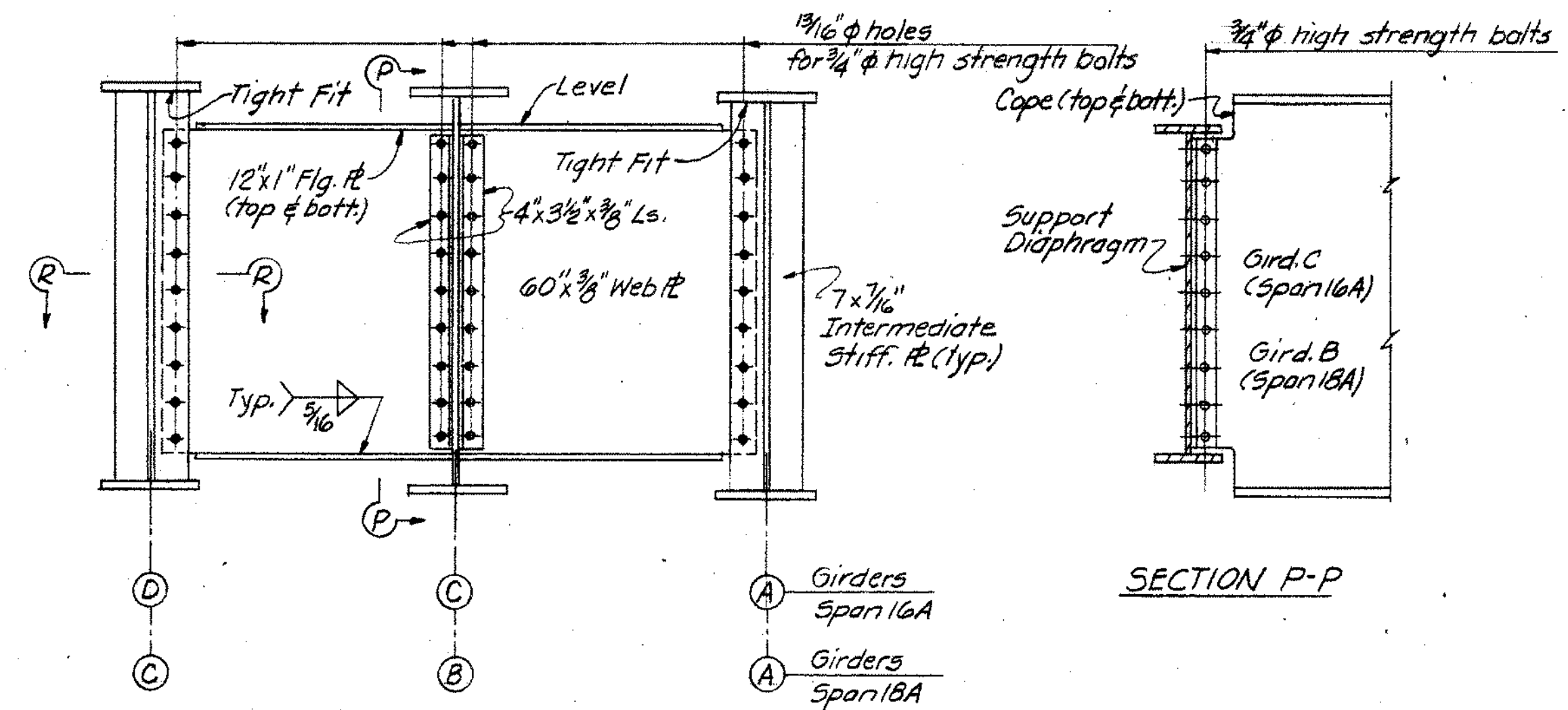
* Girder lengths for girders shown by asterisk are from E Pier to cross frame. For location, see Framing Plan.



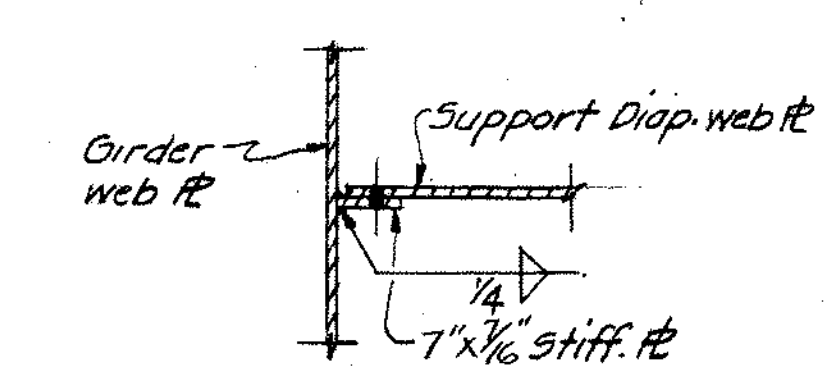
DETAIL OF END CROSSFRAME CONNECTION AT PIER*15A

DETAIL OF END CROSSFRAME CONNECTION AT PIER*19A.

Work this detail with "Part Plan of Expansion Joint" Sheet No. 215.



DETAIL OF SUPPORT DIAPHRAGM FOR SPANS NO. 16A & 18A



SECTION R-R

Note A: (Girder welding sequence) Make two passes on each flange, then two on the web; repeat using one pass at each location until welds are completed.

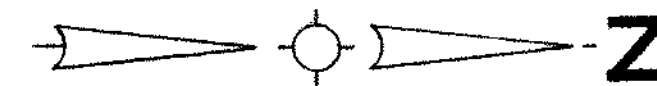
Work this sheet with sheet No. 180

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

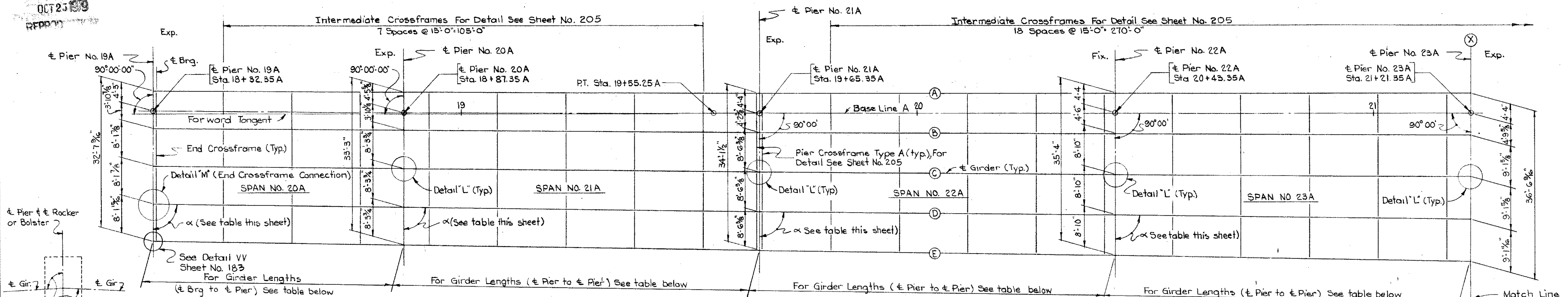
STRUCTURAL STEEL DETAILS
UNIT NO. 5.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVIEWED
REL	REL		JHO	11-14-60	

HAM-25-0.04



REPRODUCED
OCT 25 1960
RFPD



Note: Web $\frac{1}{2}$ 48" x $\frac{3}{8}$ " For Fig. R's see table below
Brg. Stiff $\frac{1}{2}$ 6" x $\frac{1}{2}$ R's Intermediate Stiff $\frac{1}{2}$ 5" x $\frac{3}{8}$ R's
For Bearing Details See Sheet No. 206
End Crossframe, for detail see Sheet No. 215
For typical girder elevation see Sheet No. 205

Note: For inlet framing see Sh. No. 208.

FRAMING PLAN UNIT NO. 6
(Spans No. 20A thru 23A)

TABLE OF GIRDER LENGTHS			
Girder	Span No. 20A	Spans No. 21A thru No. 24A	Span No. 25A
A, B & C	54'-4 1/2"	78'-0"	62'-0"
D	54'-4 1/2"	78'-0"	62'-0 1/2"
E	54'-4 1/2"	78'-0 1/8"	62'-0 1/8"

GIRDER SPLICE WELDING PROCEDURE

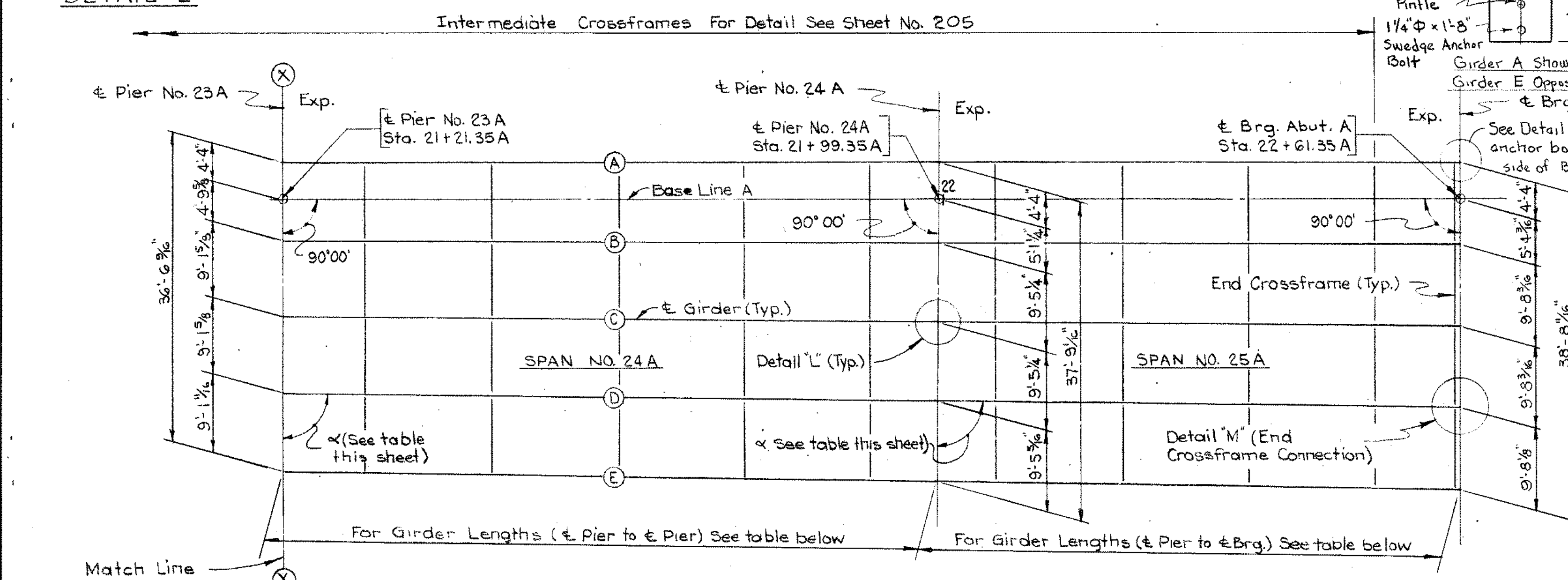
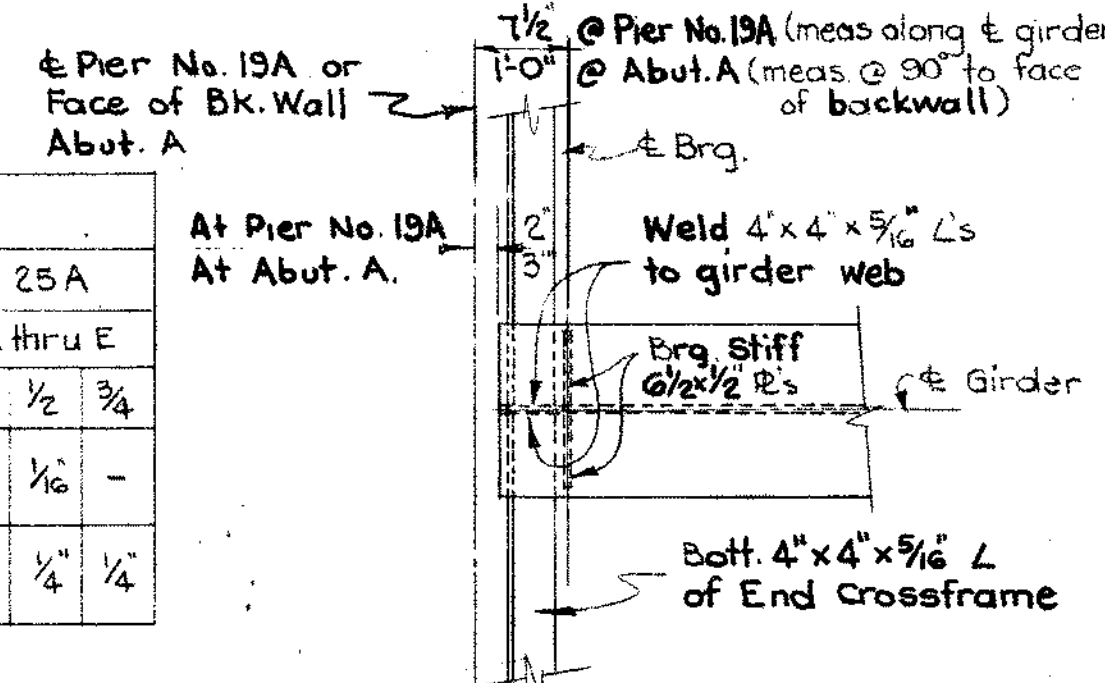
Raise the ends of girders in Span No. 21A, at Pier No. 20A, 1/2" and the ends of girders in Span No. 23A, at Pier No. 23A, 1/2".
Butt weld girder flanges and webs, at Piers No. 21A & 22A, using the sequence outlined in Note 'A' Sheet No. 181.
Weld all pier crossframes at Pier No. 21A into place.
Lower girders to their final positions.
Raise the ends of girders in Span No. 20A, at Pier No. 19A, 1/2" and the ends of girders in Span No. 24A, at Pier No. 24A, 1/2".
Butt weld girder flanges and webs, at Piers No. 20A & 23A, using the sequence outlined in Note 'A' Sheet No. 181.
Lower girders to their final positions.
Raise the ends of girders in Span No. 25A, at N. Abut., 1/2".
Butt weld girder flanges and webs, at Pier No. 24A, using the sequence outlined in Note 'A' Sheet No. 181.
Lower girders to their final positions.

Girder	Angle α	
	Piers No. 19A thru 20A	Piers No. 21A thru 24A
A	89° 45' 07"	90° 00' 00"
B	89° 35' 29"	89° 46' 39"
C	89° 25' 51"	89° 33' 18"
D	89° 16' 12"	89° 19' 57"
E	89° 06' 36"	89° 06' 36"

Note: ϵ 's of Piers No. 19A thru 24A and ϵ Brg. Abut. A are parallel

DEAD LOAD DEFLECTIONS						
Span No.	20A	21A	22A	23A	24A	25A
Girder	A thru E	A thru E	A thru E	A thru E	A thru E	A thru E
Location	1/4 1/2 3/4	1/4 1/2 3/4	1/4 1/2 3/4	1/4 1/2 3/4	1/4 1/2 3/4	1/4 1/2 3/4
Deflection due to weight of steel	- - -	1/16 - -	1/16 - -	1/16 - -	1/16 - -	1/16 -
Deflection due to remaining Dead Load	1/8 1/8 1/8	1/4 3/8 1/4	3/16 5/16 3/16	3/16 5/16 3/16	3/16 5/16 3/16	3/16 1/4 1/4

Girders for Unit No. 6 shall not be cambered



FRAMING PLAN UNIT NO. 6
(Spans No. 24A thru 25A)

	Pier No. 19A	Pier No. 20A	Pier No. 21A	Pier No. 22A	Pier No. 23A	Pier No. 24A	Pier No. 25A
Span No.	20A	21A	22A	23A	24A	25A	
Fig. R's Girders A thru E (Top & Bottom)	R100A 5" Brg.	R225-B 14" x 1 1/4"	R225-B 14" x 1"	B225A 14" x 1 3/8"	R225-B 14" x 1 1/8"	R225-B 14" x 1 3/8"	R125-B 14" x 1 1/8"
Flg. to Web Weld (Top & Bottom)	1/4" Weld	5/16" Weld	3/8" Weld	5/16" Weld	3/8" Weld	5/16" Weld	3/8" Weld

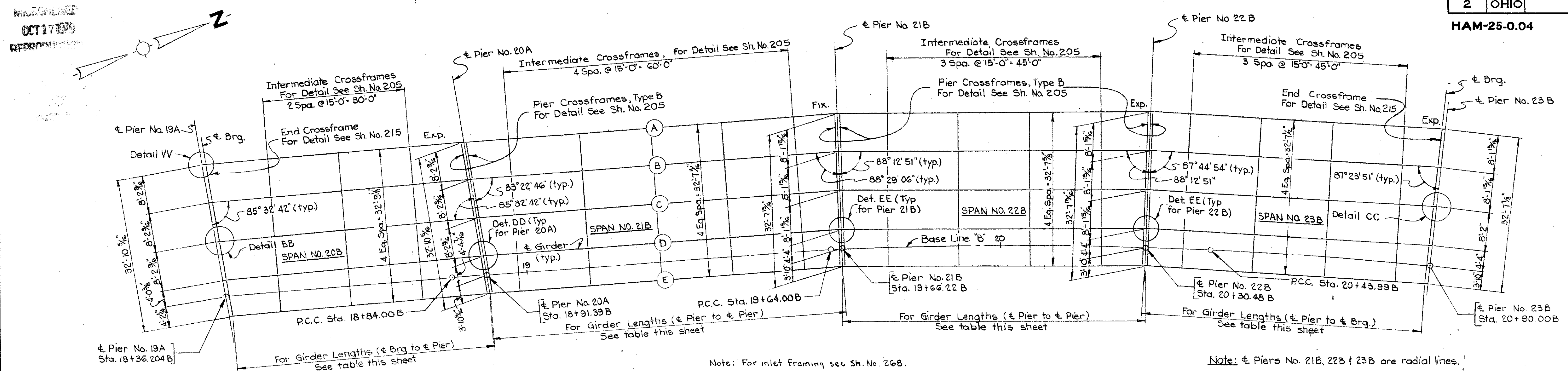
TABLE OF FLANGE PLATES AND WELD SIZES

	End Brg. Stiff.	Intermediate Stiffeners	End Brg. Stiff.
Span No. 20A	45" Spacing (Max.)	48" Spacing (Max.)	42" Spacing (Max.)
Spans No. 21A thru No. 24A	36" Spacing (Max.)	45" Spacing (Max.)	36" Spacing (Max.)
Span No. 25A	36" Spacing (Max.)	45" Spacing (Max.)	42" Spacing (Max.)
	1/4	1/4	1/4

Note: Adjust intermediate stiffener spacing to conform to intermediate crossframe spacing

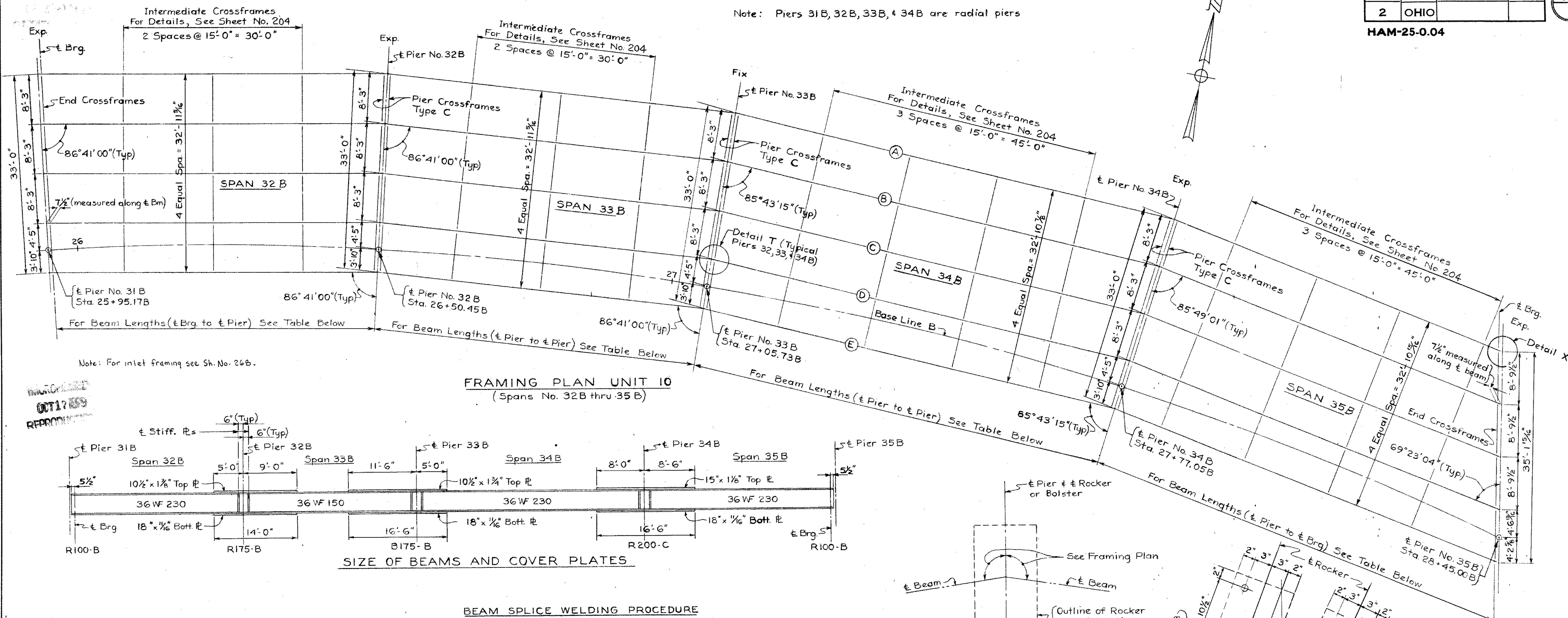
INTERMEDIATE STIFFENER SPACING

HAM-25-0.04



HAM-25-0.04

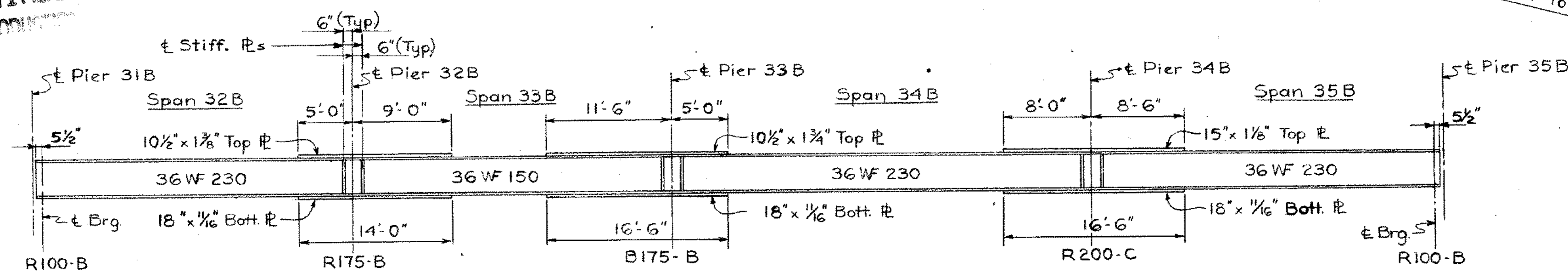
Note: Piers 31B, 32B, 33B, & 34B are radial piers



Note: For inlet framing see Sh. No. 26B.

FRAMING PLAN UNIT 10

(Spans No. 32B thru 35B)



SIZE OF BEAMS AND COVER PLATES

BEAM SPLICE WELDING PROCEDURE

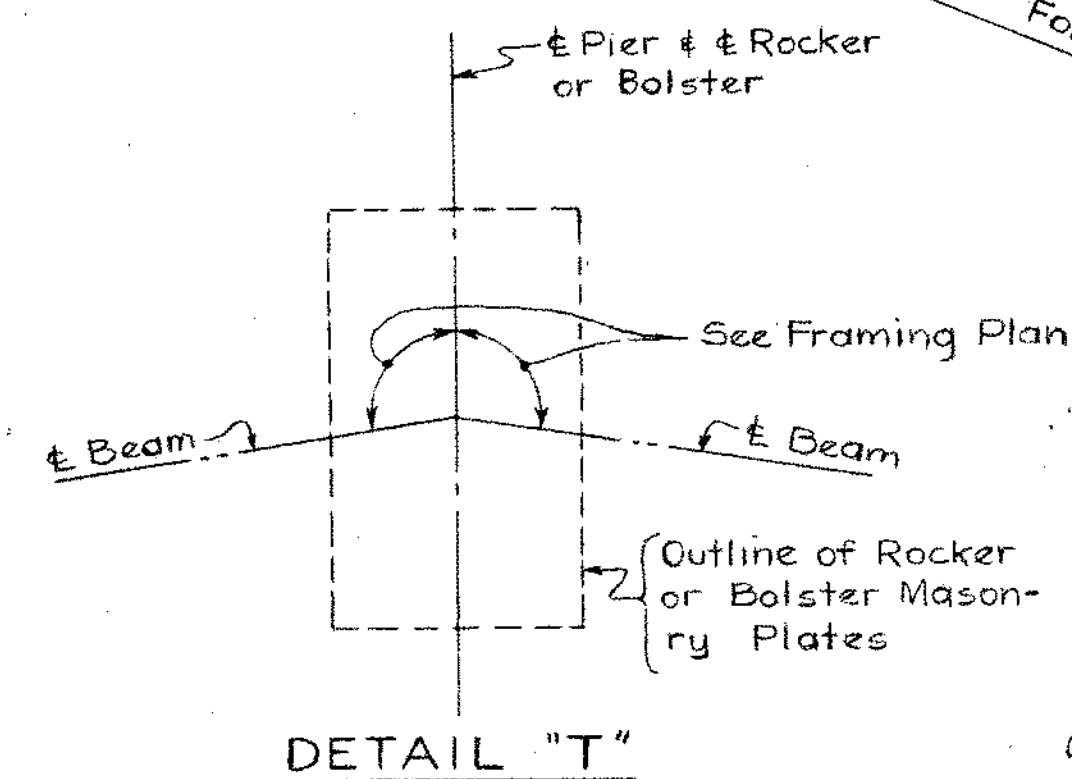
- (1) Raise the ends of beams in Span 33B at Pier 32B $1\frac{1}{2}$ " and the ends of beams in Span 35B at Pier 35B $1\frac{1}{2}$ ".
- (2) Butt-weld the beam flanges and web at Piers 33B and 34B using the following sequence: make two passes on each flange, then two on the web; repeat, using one pass at each location until welds are completed.
- (3) Weld the bottom and top moment plates at Piers 33B and 34B.
- (4) Weld all pier crossframes at Piers 33B and 34B into place.
- (5) Lower beams to their final positions.
- (6) Raise the ends of beams in Span 32B at Pier 31B $\frac{1}{2}$ ".
- (7) Repeat Step 2 at Pier 32B.
- (8) Weld the bottom and top moment plates at Pier 32B.
- (9) Weld all pier crossframes at Pier 32B into place.
- (10) Lower beams to their final positions.

TABLE OF BEAM LENGTHS				
BEAM	Span 32B	Span 33B	Span 34B	Span 35B
A	58'-0"	58'-7 $\frac{1}{2}$ "	75'-7 $\frac{1}{4}$ "	58'-6"
B	57'-0 $\frac{3}{4}$ "	57'-8 $\frac{1}{4}$ "	74'-4 $\frac{1}{2}$ "	60'-11 $\frac{3}{4}$ "
C	56'-1 $\frac{1}{4}$ "	56'-8 $\frac{3}{4}$ "	73'-1 $\frac{3}{4}$ "	63'-5 $\frac{3}{4}$ "
D	55'-1 $\frac{3}{4}$ "	55'-9 $\frac{1}{4}$ "	71'-10 $\frac{1}{4}$ "	65'-11 $\frac{3}{4}$ "
E	54'-2 $\frac{3}{4}$ "	54'-9 $\frac{1}{4}$ "	70'-8 $\frac{3}{4}$ "	68'-5 $\frac{1}{4}$ "

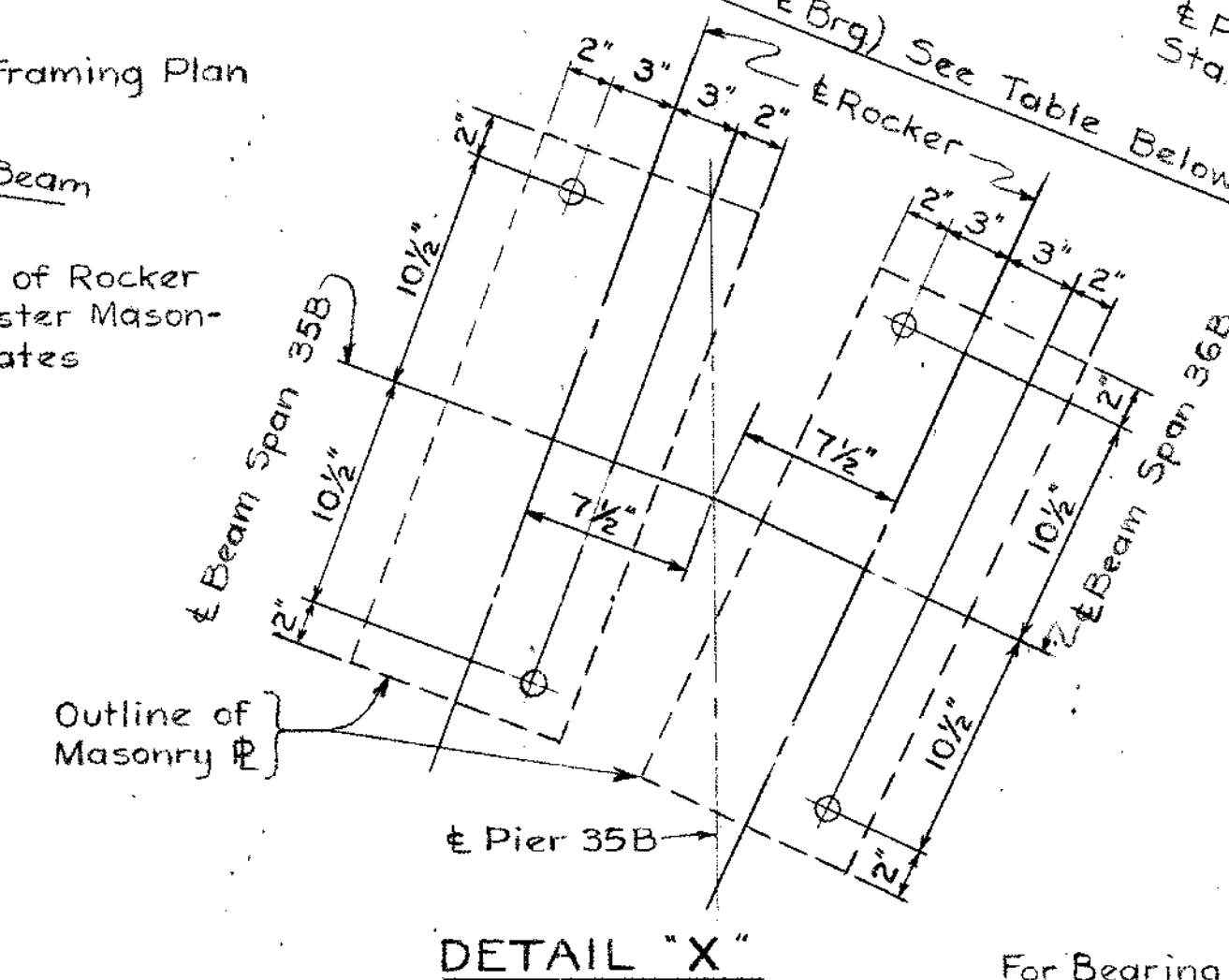
DEFLECTION AND CAMBER

Beam	Span No. 32B					Span No. 33B					Span No. 34B					Span No. 35B				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
Deflection Due to Weight of Steel	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	0	0	0	0	0	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$
Deflection Due to Remaining Dead Load	$\frac{3}{16}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{3}{8}$
Convexity (See Note)	$\frac{5}{8}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{5}{8}$	0	$-\frac{5}{8}$	$-\frac{5}{8}$	$-\frac{5}{8}$	0	$-\frac{1}{16}$	$-\frac{1}{16}$	$-\frac{1}{16}$	0	0	$-\frac{3}{4}$	$-\frac{3}{4}$	$-\frac{3}{4}$	0	0
Sum of Deflection and Convexity	1"	$\frac{7}{16}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{16}$	$\frac{1}{16}$	$-\frac{3}{8}$	$-\frac{3}{8}$	$-\frac{3}{8}$	$\frac{1}{16}$	$\frac{1}{2}$	$-\frac{3}{16}$	$-\frac{3}{16}$	$-\frac{1}{16}$	$\frac{3}{8}$	$\frac{1}{16}$	$-\frac{7}{16}$	$-\frac{3}{8}$	$-\frac{3}{8}$	$\frac{1}{2}$
Required Camber	1"	0	0	0	1"	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes: Convexity includes variations due to vertical curvature, superelevation, & horizontal curvature. Where no camber is required, the beams shall be so fabricated that any curved beams will be placed with convex flange up.



DETAIL "T"



DETAIL "X"

For Bearing Details, See Sh. No. 206
For Beam Splice Details, See Sh. No. 204
For End Crossframe Details, See Sh. No. 215
For Pier Crossframe Details, See Sh. No. 204

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CINCINNATI, OHIO

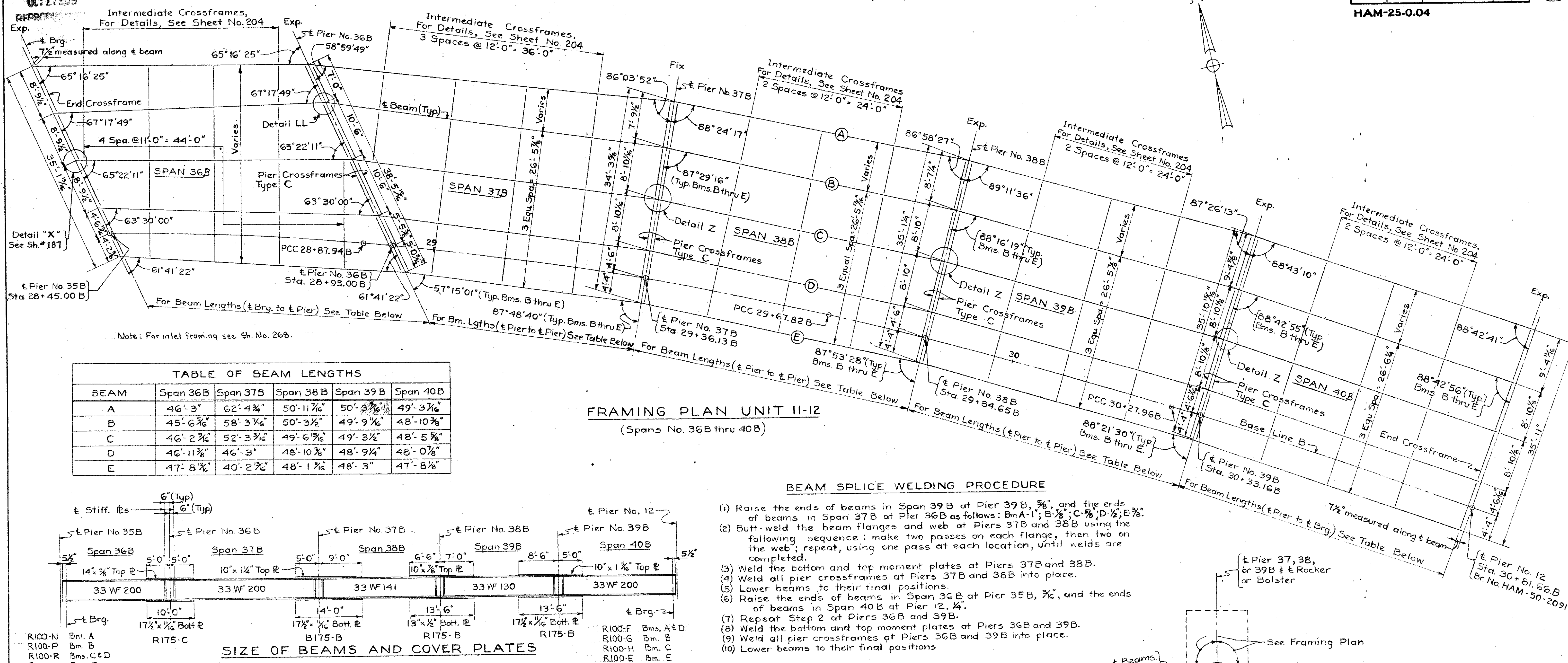
STRUCTURAL STEEL DETAILS

UNIT NO. 10.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
HLL	HLL		JHO	11-1-60	
5-16-60	6-8-60		7-27-60	10-14-60	

HAM-25-0.04

Note: $\pm$ Piers 35B & 36B are parallel
 $\pm$ Piers 37B, 38B, & 39B are radial



DETAIL 'Z'

DETAIL LL

For Bearing Details, See Sh. No. 204
For Beam Splice Details, See Sh. No. 204
For End Crossframe Details, See Sh. No. 215
For Pier Crossframe Details, See Sh. No. 204

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STRUCTURAL STEEL DETAILS
UNIT NO. II-12

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
JVK	HLL		JHO	10-14-60	4/7/61
5-25-60	6-10-60		7-27-60		

Note: Where no camber is required, the beams shall be so fabricated that any curved beams will be placed with convex flange up.
Beams shall not be cambered for Unit No. II-12

Appendix B:

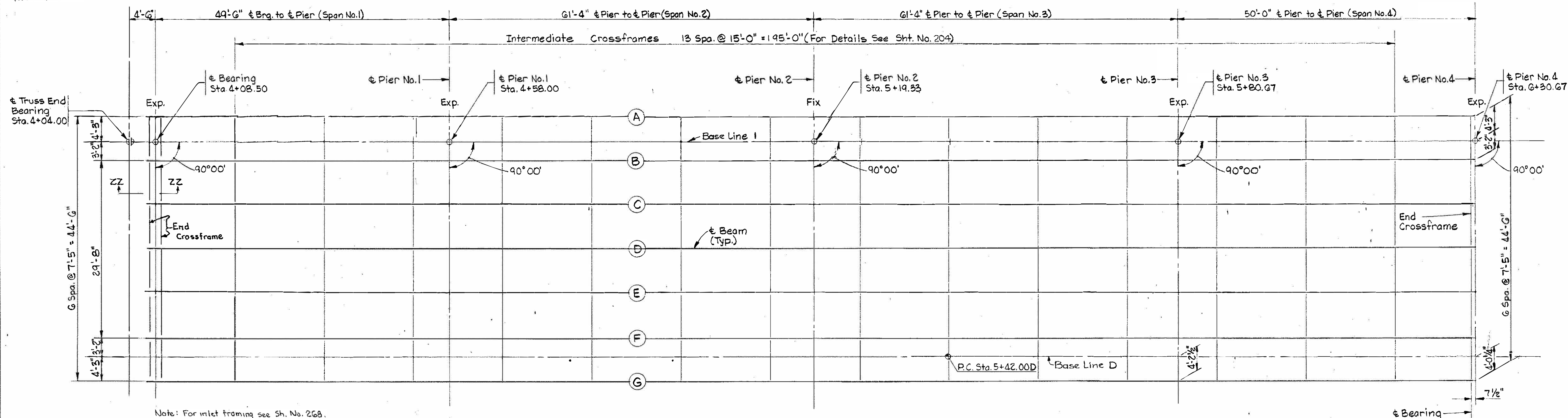
Plans for HAM-71-0000R

MAILED
OCT 23 1960
REPRODUCTION

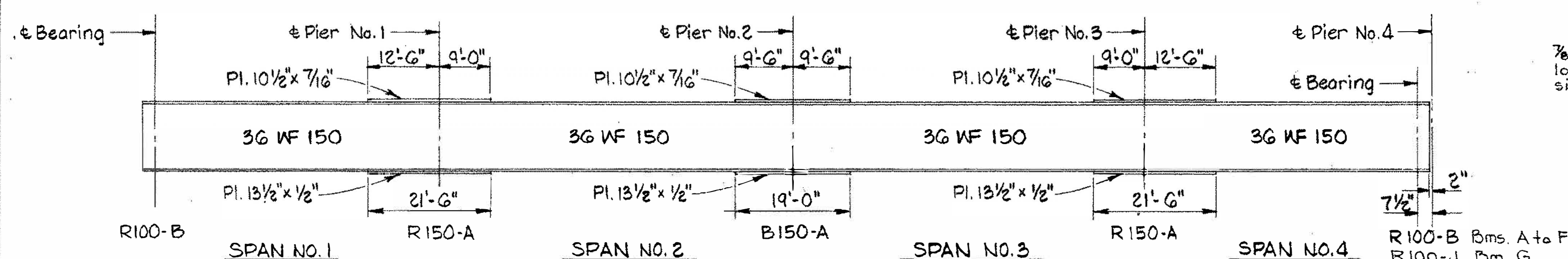
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-25-0.04

189



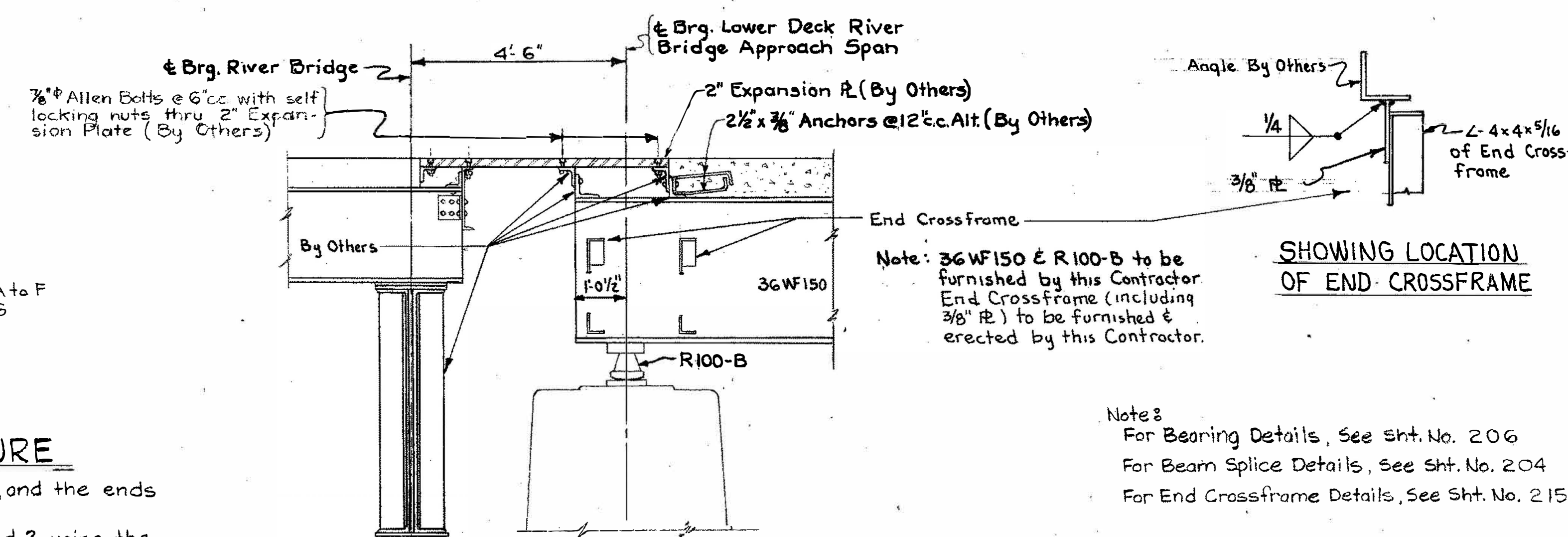
FRAMING PLAN - LOWER DECK UNIT I



SIZE OF BEAMS AND COVER PLATES

BEAM SPLICE WELDING PROCEDURE

- 1-Raise the ends of beams in Span No.1 at River Pier $\frac{3}{4}$ " and the ends of beams in Span No.3 at Pier No.3 $\frac{1}{2}$ ".
- 2-Butt-weld the beam flanges and web at Piers Nos.1 and 2 using the following sequence: make two passes on each flange, then two on the web; repeat, using one pass at each location, until welds are completed.
- 3-Weld the bottom and top moment plates at Piers Nos.1 and 2.
- 4-Lower beams to their final position.
- 5-Raise the ends of beams in Span No.4 at Pier No.4 $\frac{1}{2}$ ".
- 6-Repeat Step 2 at Pier No.3.
- 7-Weld the bottom and top moment plates at Pier No.3.
- 8-Lower beams to their final position.



SECTION ZZ-ZZ

DEAD LOAD DEFLECTIONS				
Location	Span No.1	Span No.2	Span No.3	Span No.4
Deflection Due To Weight Of Steel	0	$\frac{1}{16}$ "	$\frac{1}{16}$ "	0
Deflection Due To Remaining Dead Load	$\frac{3}{16}$ "	$\frac{3}{16}$ "	$\frac{3}{16}$ "	$\frac{3}{16}$ "

Note:

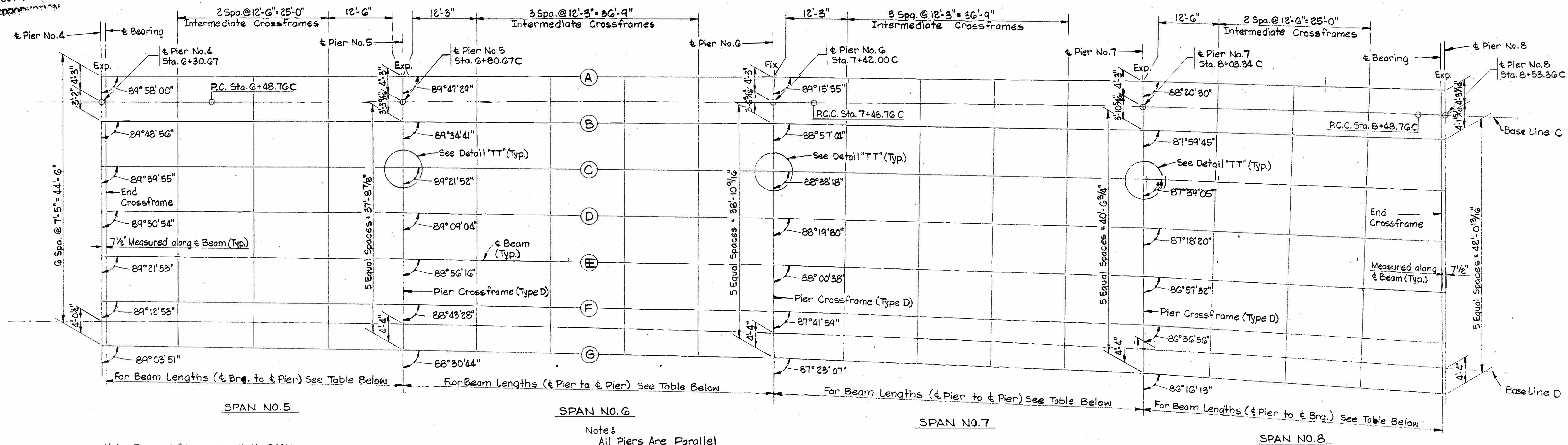
Where no camber is required, the beams shall be so fabricated that any curved beams will be placed with convex flange up.

No camber required for beams in Unit I (Lower Deck).

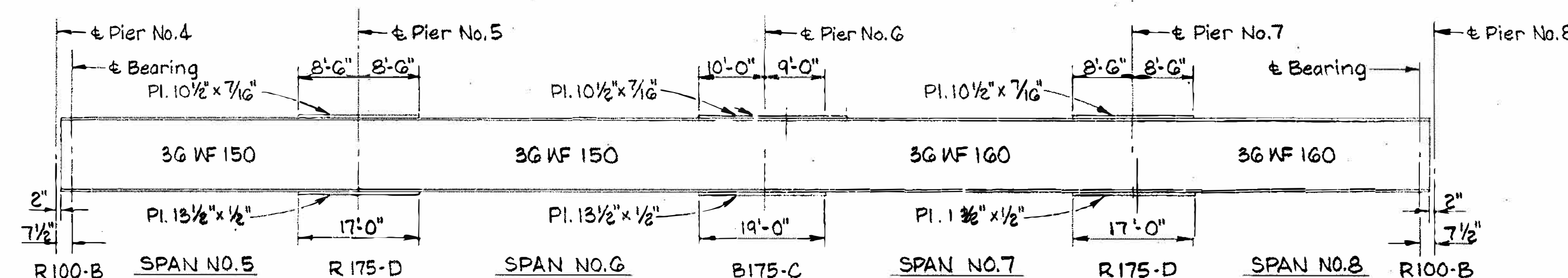
HAZELET & ERDAL CONSULTING ENGINEERS CINCINNATI, OHIO				
STRUCTURAL STEEL DETAILS UNIT I (LOWER DECK)				
DESIGNED CPW	DRAWN JVK 7-26-60	TRACED	CHECKED JVK 9/20/60	REVIEWED DATE 10-14-60

REPRODUCTION
OCT 25 1969

HAM-25-0.04



FRAMING PLAN - LOWER DECK UNIT 2

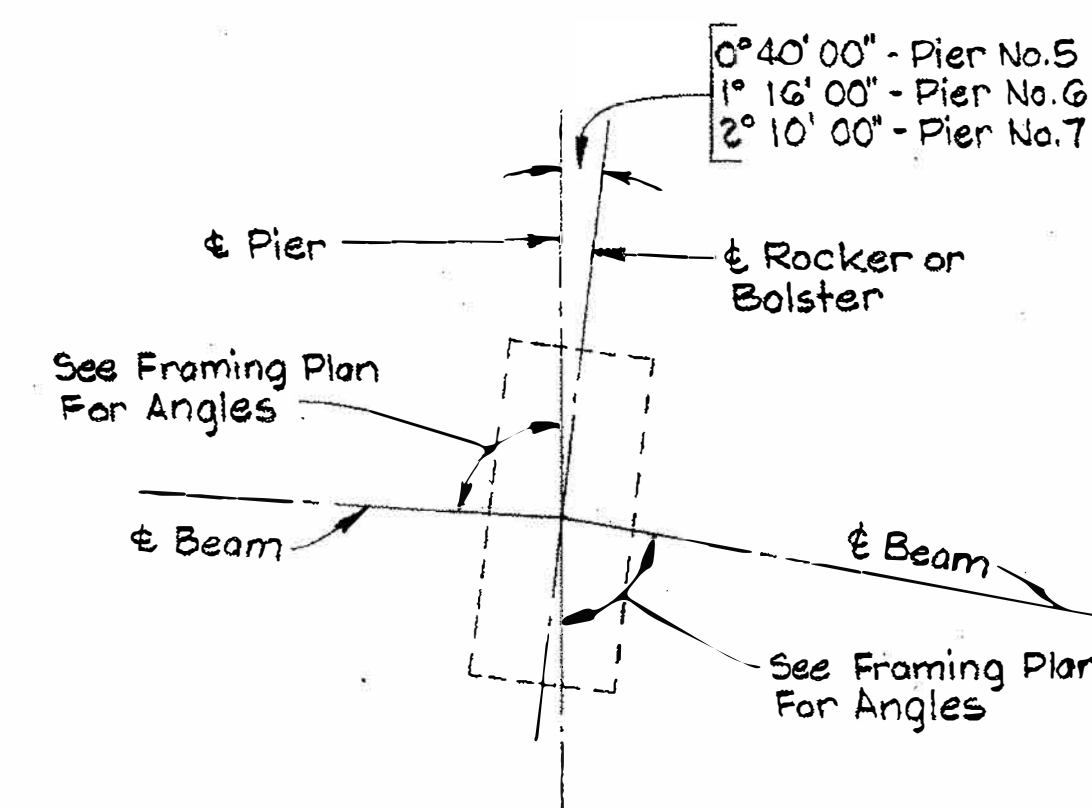


SIZE OF BEAMS AND COVER PLATES

TABLE OF BEAM LENGTHS				
Beam	Span No. 5	Span No. 6	Span No. 7	Span No. 8
A	49'-4 1/2"	61'-3 5/8"	61'-4 1/2"	49'-4 3/4"
B	do	61'-4"	61'-4 1/8"	49'-4 7/8"
C	do	do	61'-4 3/8"	49'-5"
D	do	61'-4 1/2"	61'-4 5/8"	49'-5 1/8"
E	49'-4 9/16"	do	61'-4 7/8"	49'-5 5/8"
F	do	61'-4 1/8"	61'-4 5/8"	49'-5 1/2"
G	do	61'-4 3/8"	61'-4 3/4"	49'-5 3/4"

DEAD LOAD DEFLECTIONS				
Location	Span No. 5	Span No. 6	Span No. 7	Span No. 8
Deflection Due To Weight Of Steel	0	1/16"	1/16"	0
Deflection Due To Remaining Dead Load	1/4"	1/4"	1/4"	1/4"

Note: Where no camber is required, the beams shall be so fabricated that any curved beams will be placed with convex flange up.
No camber required for beams in Unit 2 (Lower Deck).



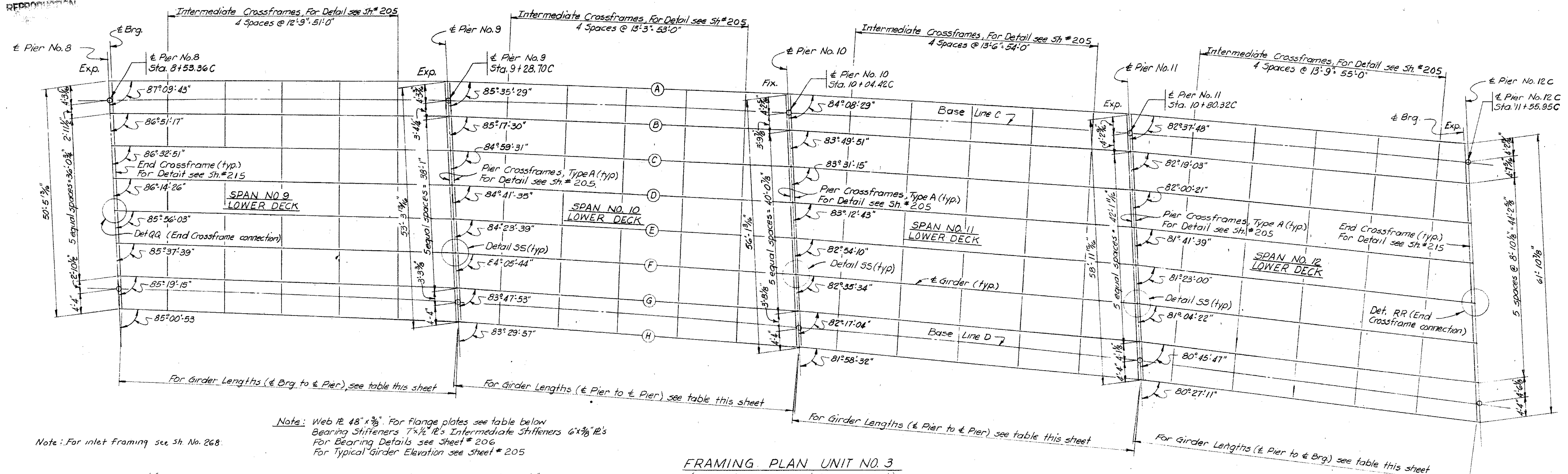
DETAIL TT

BEAM SPLICE WELDING PROCEDURE

- 1-Raise the ends of beams in Span No. 5 at Pier No. 4 1/16", and the ends of beams in Span No. 7 at Pier No. 7 1 1/16".
- 2-Butt-weld the beam flanges and web at Piers Nos. 5 and 6 using the following sequence: make two passes on each flange, then two on the web; repeat, using one pass at each location, until welds are completed.
- 3-Weld the bottom and top moment plates at Piers Nos. 5 and 6.
- 4-Weld all pier crossframes at Piers Nos. 5 and 6.
- 5-Lower beams to their final positions.
- 6-Raise the ends of beams in Span No. 8 at Pier No. 8 1/2".
- 7-Repeat Step 2 at Pier No. 7.
- 8-Weld the bottom and top moment plates at Pier No. 7.
- 9-Weld all pier crossframes at Pier No. 7.
- 10-Lower beams to their final positions.

Note: For Bearing Details, See Sht. No. 206
For Beam Splice Details, See Sht. No. 204
For End Crossframe Details, See Sht. No. 215
For Intermediate Crossframe and Pier Crossframe (Type D) Details, See Sht. No. 204

HAM-25-0.04

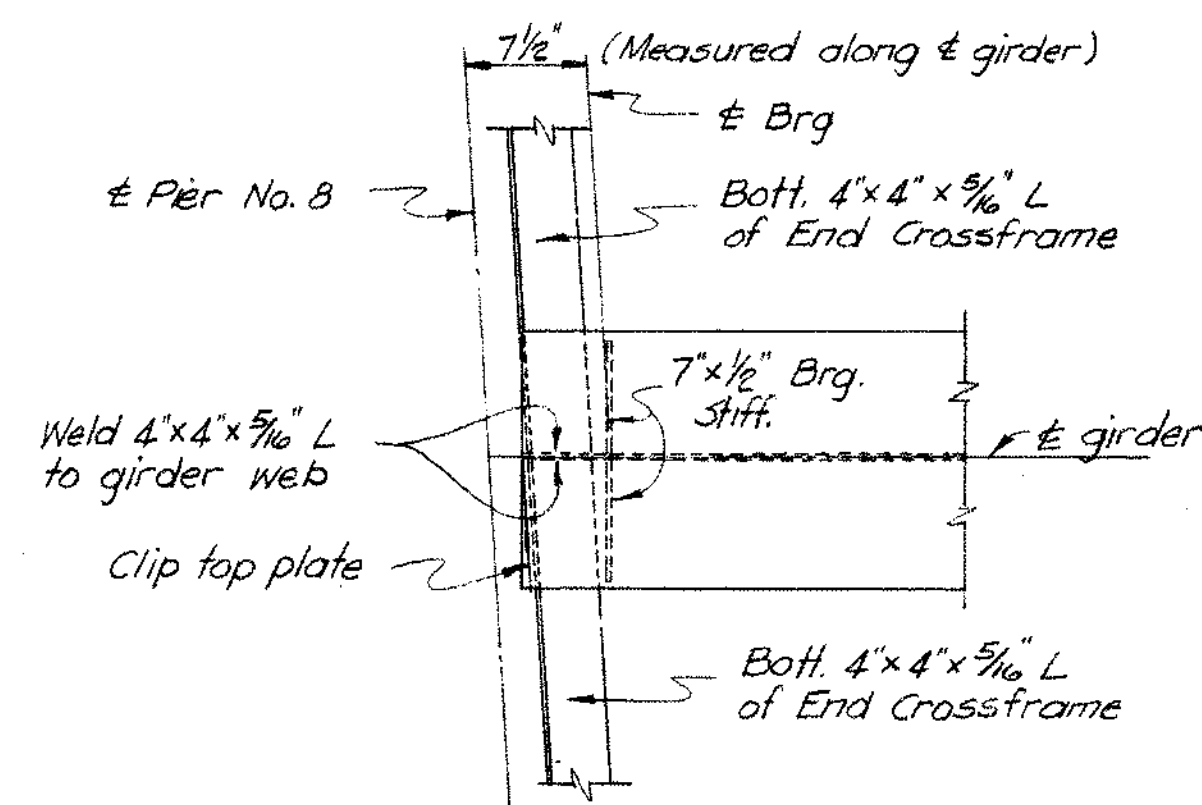


Note: For inlet Framing see Sh. No. 268

Note: Web $\geq 48" \times \frac{3}{8}"$. For flange plates see table below
 Bearing Stiffeners $7 \times \frac{1}{2}"$ R's Intermediate Stiffeners $6 \times \frac{3}{8}"$ R's
 For Bearing Details see Sheet # 206
 For Typical Girder Elevation see Sheet # 205

FRAMING PLAN UNIT NO. 3

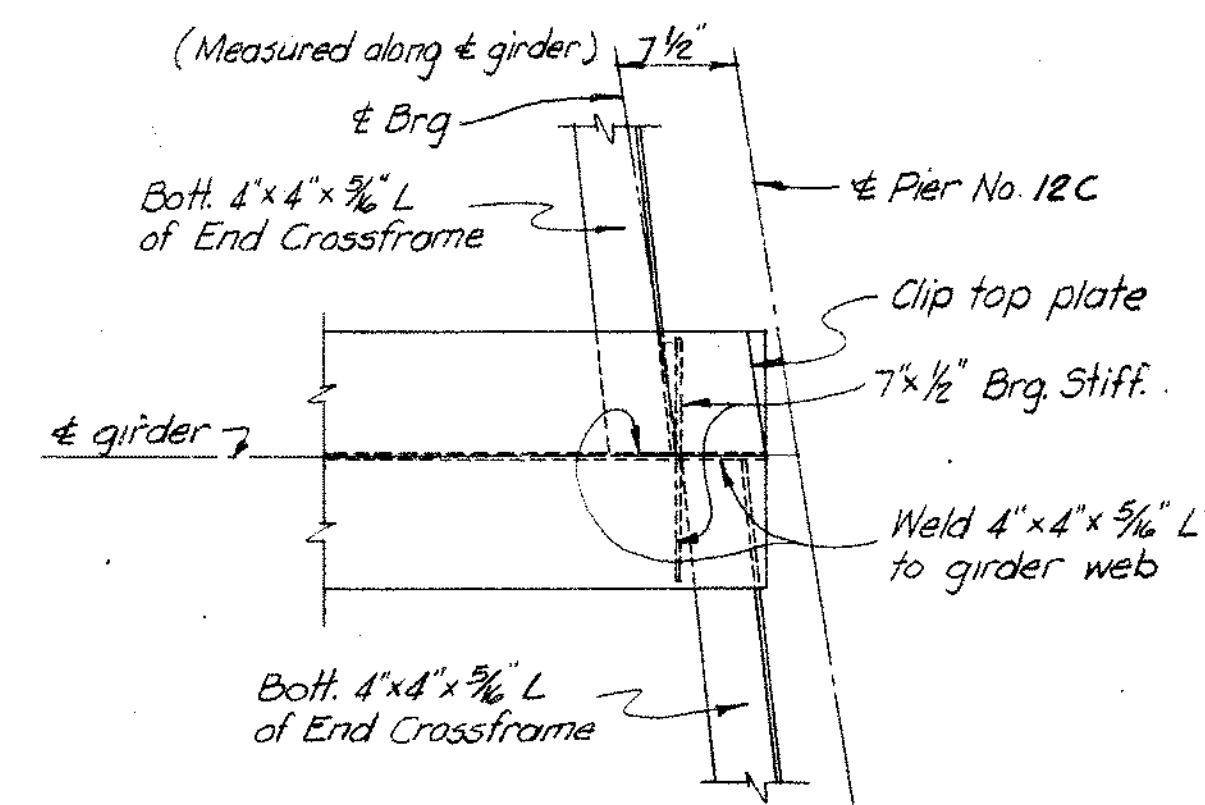
(Spans No. 9, No.10, No.11 & No.12 Lower Deck)



DETAIL QQ

(End Crossframe connection at)
(Pier No. 8, Span No. 9)

Note: Work this detail with
"Part Plan of Expansion Joint"
Sheet No. 215.



DETAIL RR

(End Crossframe connection at)
(Pier No. 12C, Span No. 12)

Note: Work this detail with
"Part Plan of Expansion Joint"
Sheet No. 215.

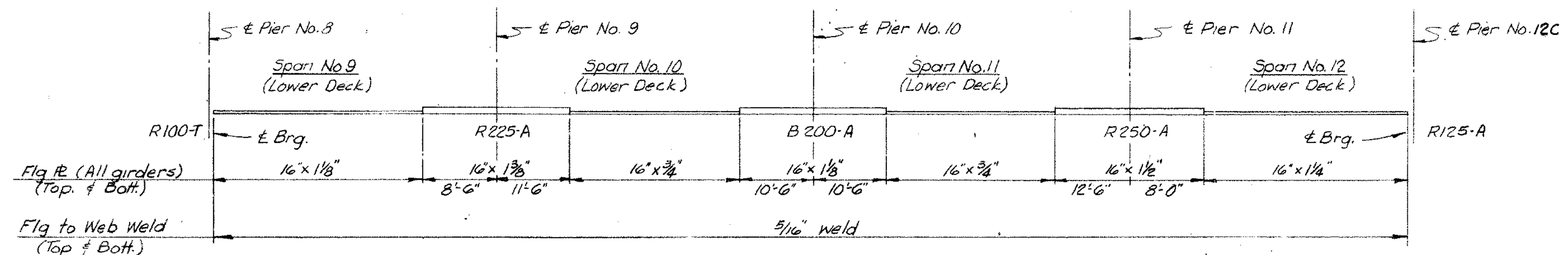


TABLE OF FLANGE PLATES AND WELD SIZE

Girder	A	B	C	D	E	F	G	H
Span No. 9	74'-8 $\frac{3}{4}$ "	74'-8 $\frac{3}{4}$ "	74'-9 $\frac{1}{16}$ "	74'-9 $\frac{3}{8}$ "	74'-9 $\frac{9}{16}$ "	74'-10 $\frac{1}{16}$ "	74'-10 $\frac{1}{8}$ "	74'-10 $\frac{1}{8}$ "
Span No. 10	75'-8 $\frac{1}{4}$ "	75'-9 $\frac{1}{16}$ "	75'-9 $\frac{1}{8}$ "	75'-9 $\frac{1}{4}$ "	75'-10 $\frac{1}{8}$ "	75'-10 $\frac{1}{4}$ "	75'-11 $\frac{1}{8}$ "	75'-11 $\frac{3}{8}$ "
Span No. 11	75'-10 $\frac{3}{4}$ "	75'-11 $\frac{1}{4}$ "	75'-11 $\frac{3}{8}$ "	76'-0 $\frac{3}{8}$ "	76'-1"	76'-1 $\frac{3}{8}$ "	76'-2 $\frac{1}{4}$ "	76'-2 $\frac{3}{4}$ "
Span No. 12	75'-0"	75'-0 $\frac{3}{8}$ "	75'-1 $\frac{1}{8}$ "	75'-2 $\frac{1}{16}$ "	75'-2 $\frac{1}{4}$ "	75'-3 $\frac{1}{8}$ "	75'-4 $\frac{5}{16}$ "	75'-5 $\frac{1}{8}$ "

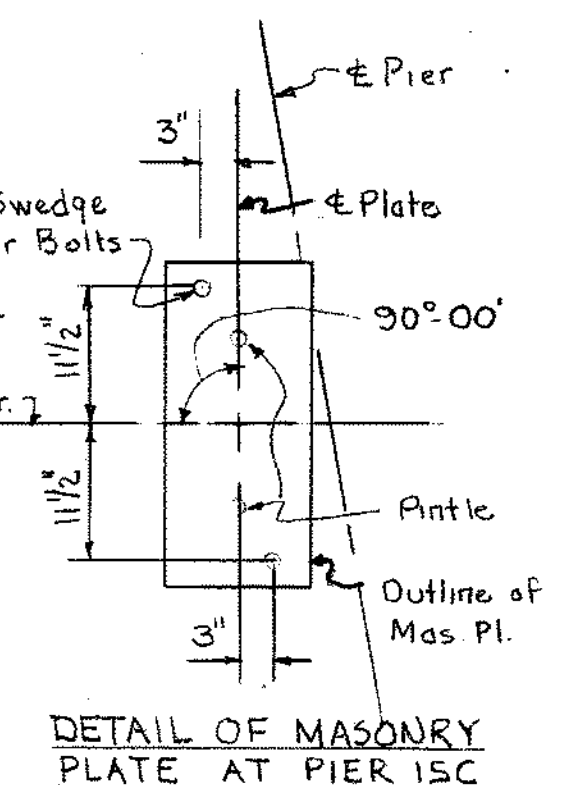
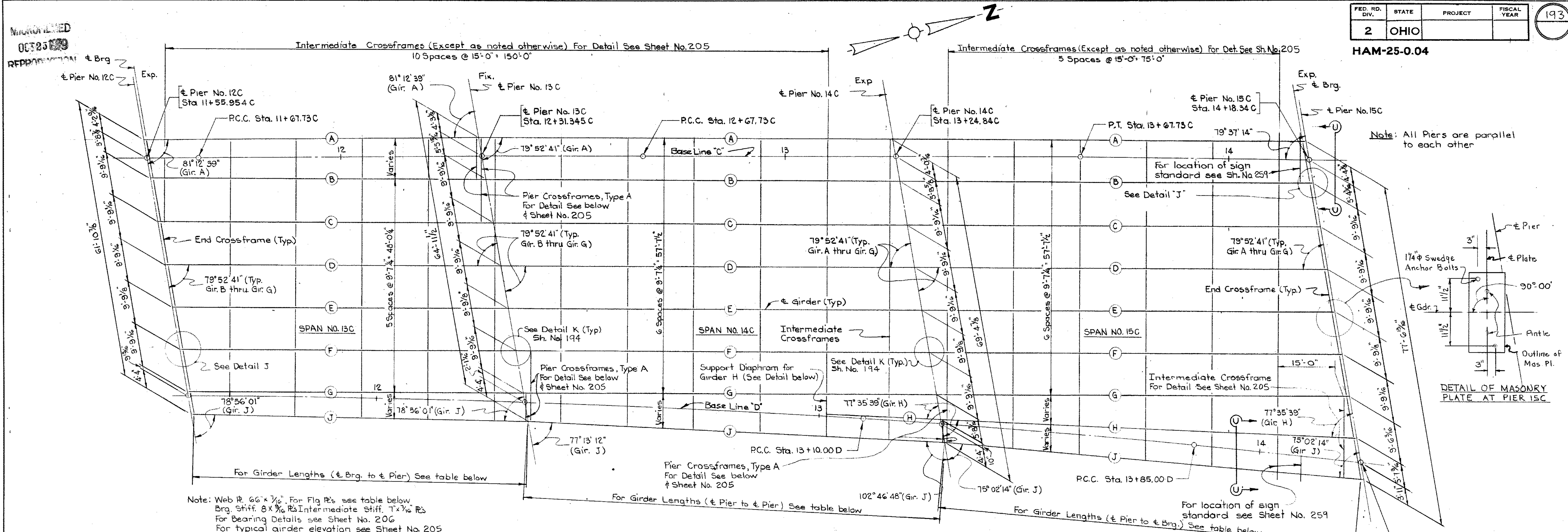
Work this sheet with Sheet No. 192

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CINCINNATI, OHIO**

STRUCTURAL STEEL DETAILS
UNIT 3 (LOWER DECK)

DESIGNED C.P.W.	DRAWN J.C. 7-21-60	TRACED	CHECKED JHO 7/27/60	REVIEWED DATE M.A.Z. 10-14-60	REVISED
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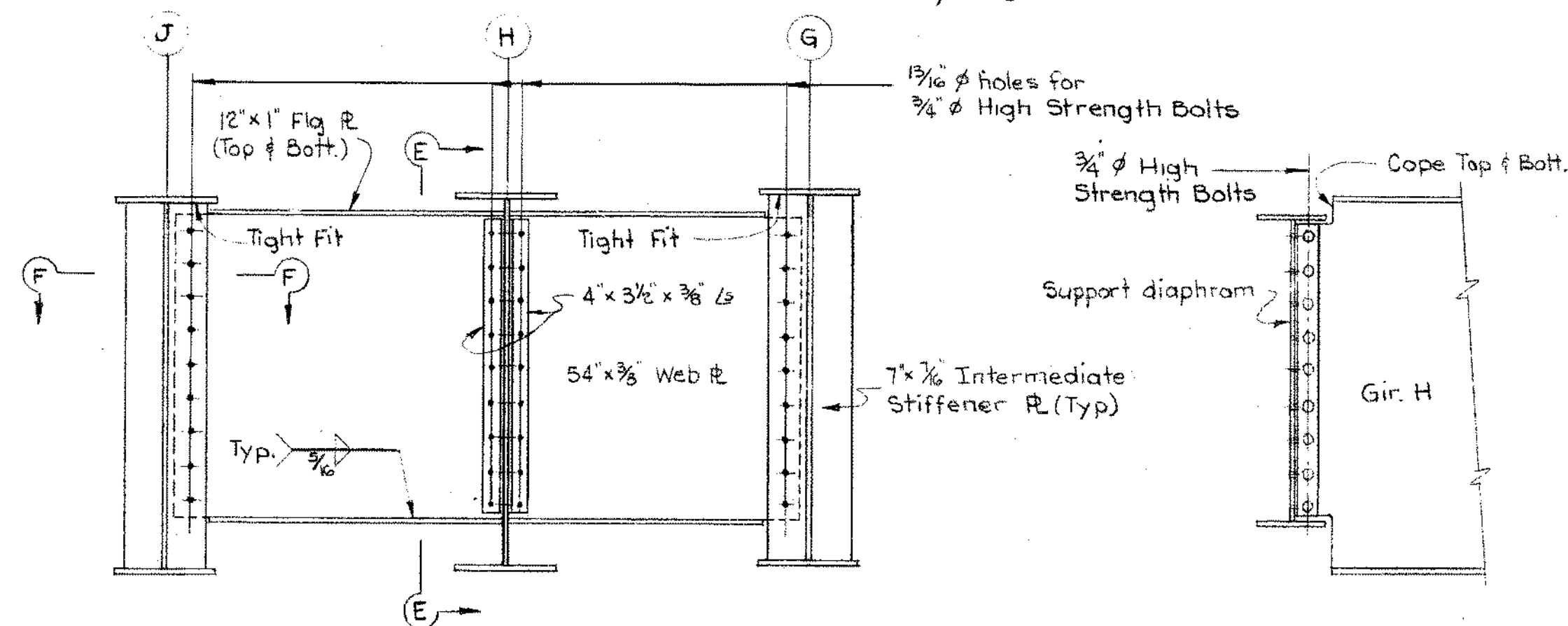
HAM-25-0.04



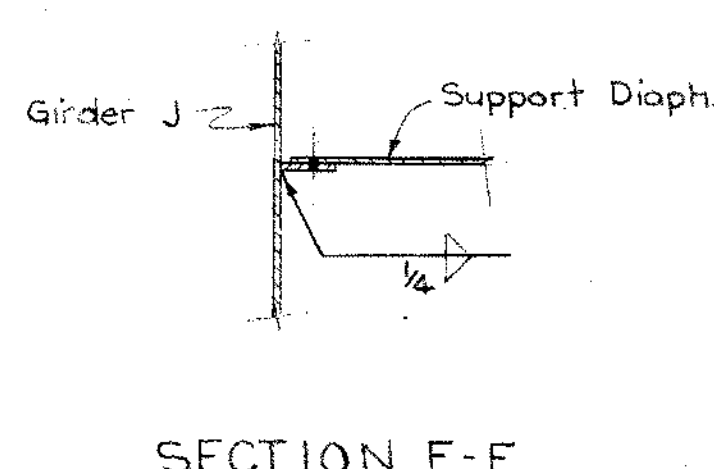
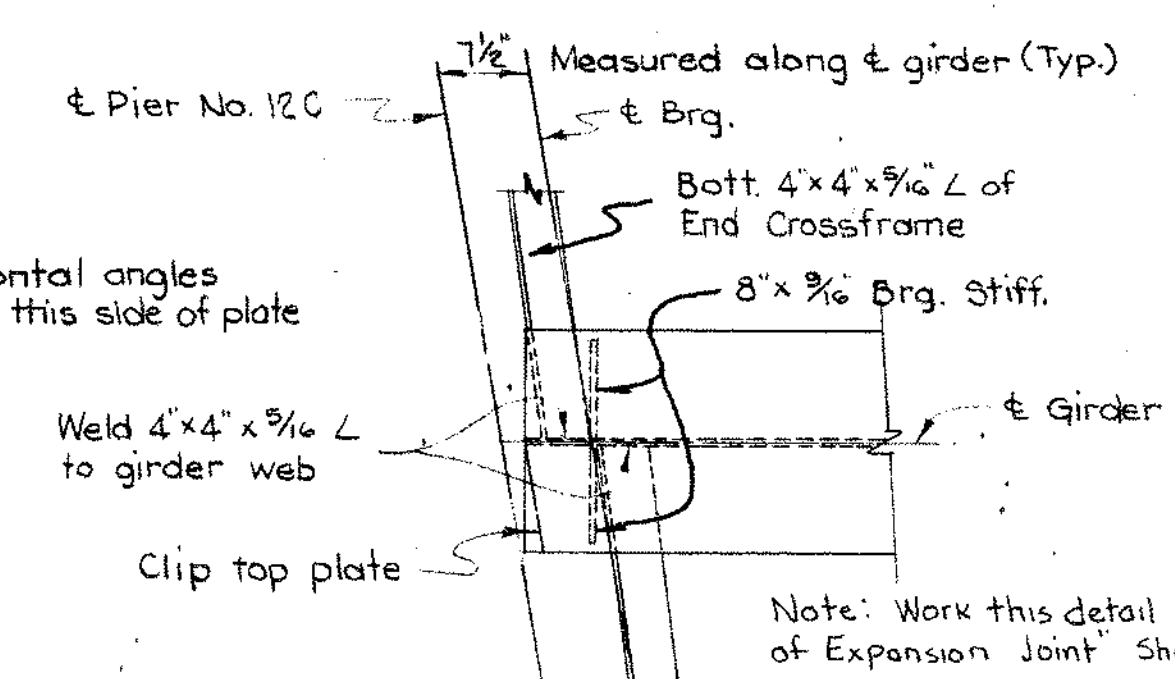
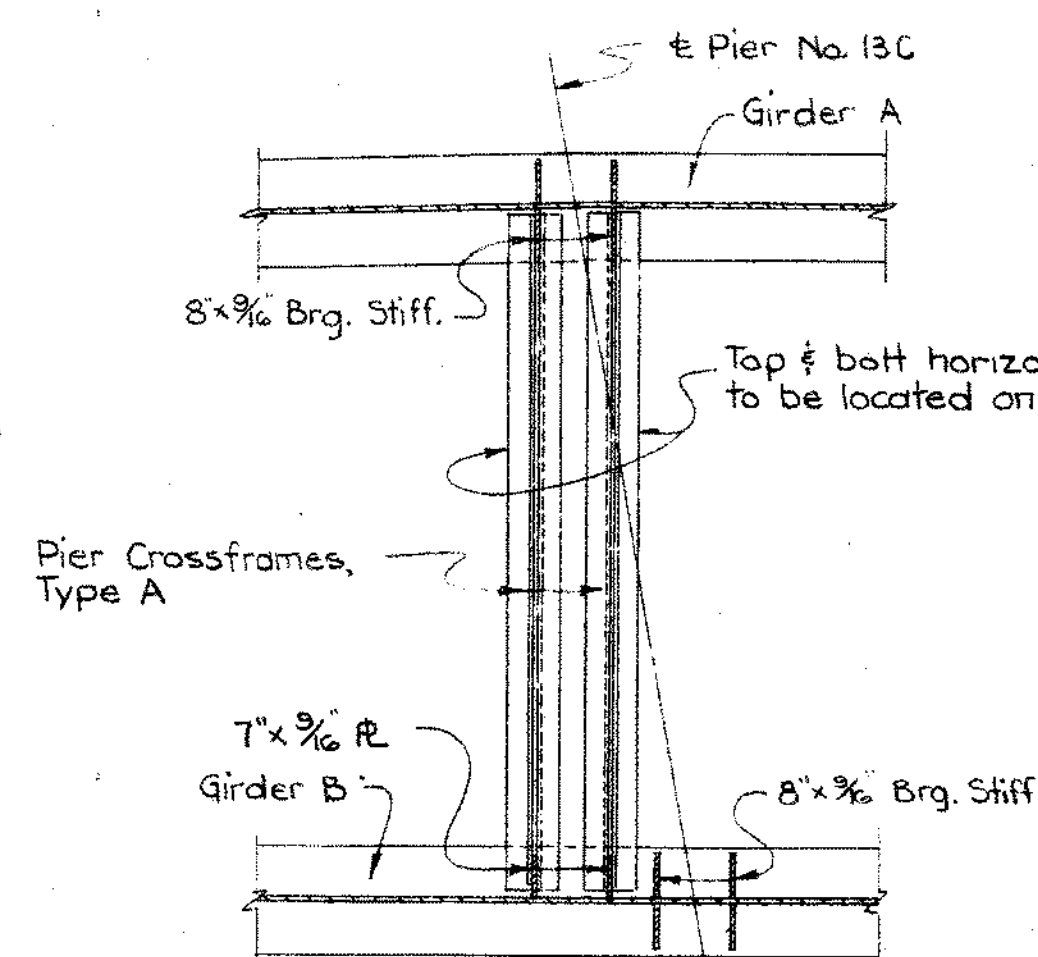
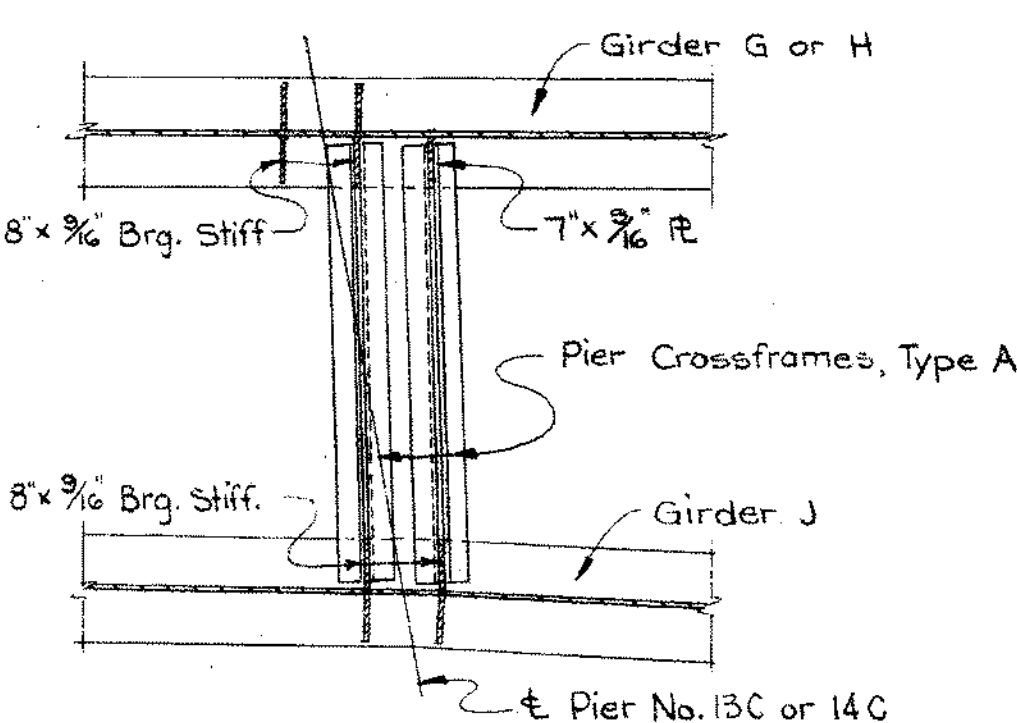
Note: Web R. 66" x 1/2". For Flg. R's see table below.
Brg. Stiff. 8" x 3/4" R's Intermediate Stiff. 7" x 1/2" R's
For Bearing Details see Sheet No. 206
For typical girder elevation see Sheet No. 205
For End Crossframe Details, see Sheet No. 215

FRAMING PLAN UNIT NO. 13
(Spans No. 13C, 14C & 15C)

Note: For inlet framing see Sh. No. 268



SECTION E-E



Span No. 13C	Span No. 14C	Span No. 15C
± Brg.	B275-A	R325-A
18" x 3/4"	18" x 1 1/2"	18" x 3/4"
12'-0"	12'-0"	17'-0"
1/4 Weld	5/16 Weld	1/4 Weld
18" x 3/4"	18" x 1 1/2"	18" x 1 1/2"
12'-0"	11'-0"	17'-0"
1/4 Weld	5/16 Weld	1/4 Weld
18" x 3/4"	18" x 1 1/2"	18" x 1 1/2"
12'-0"	11'-0"	17'-0"
1/4 Weld	5/16 Weld	1/4 Weld
18" x 3/4"	18" x 1 1/2"	18" x 1 1/2"
12'-0"	11'-0"	17'-0"
1/4 Weld	5/16 Weld	1/4 Weld

TABLE OF FLANGE PLATES AND WELD SIZES

Girders	Span No. 13C	Span No. 14C	Span No. 15C
A	74'-9 1/8"	93'-6 7/8"	92'-9 1/8"
B thru G	75'-0 5/8"	93'-6 7/8"	92'-9 1/8"
H	*	*	93'-6 5/8"
J	75'-3 1/8"	94'-5 1/8"	94'-7"

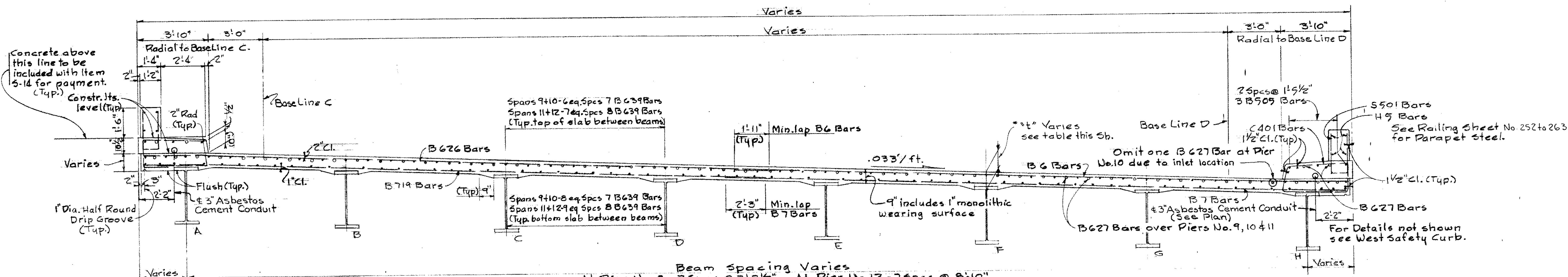
* Girder lengths for girder shown by asterisk is from ± Pier to crossframe.
For location, see Framing Plan.

Work this sheet with Sheet No. 194

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STRUCTURAL STEEL DETAILS
UNIT NO. 13.

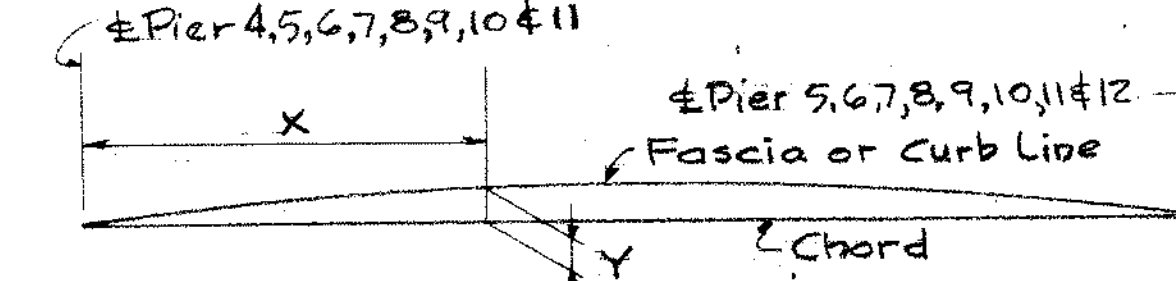
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
CAF	J.C.		JHO	11-13-10-14-60	



• Indicates bars in section.
○ Indicates bars over piers.
* See Sh. No 216 for note.

TRANSVERSE SECTION UNIT 3 LOWER DECK

CHORD OFFSETS



UNIT 3. (Low. Deck)				
SLAB THICKNESS "t"				
Location	Beam	A	B thru G	H
SPAN 9	1/4 Pt. - Pier 8	9 5/8"	9 7/8"	10 1/2"
	1/4 Pt.	10 1/8"	10 1/4"	11"
	1/4 Span	10 1/4"	10 1/4"	11"
	3/4 Pt.	10"	10 1/8"	10 3/4"
SPAN 10	1/4 Pt. - Pier 9	9 3/8"	9 1/8"	10 1/2"
	1/4 Pt.	9 3/8"	9 7/8"	10 1/2"
	1/4 Span	10"	10"	10 3/4"
	3/4 Pt.	9 3/4"	10"	10 3/8"
SPAN 11	1/4 Pt. - Pier 10	9 3/8"	9 7/8"	10 1/2"
	1/4 Pt.	9 3/8"	9 7/8"	10 3/8"
	1/4 Span	10"	10 1/8"	10 3/4"
	3/4 Pt.	9 3/4"	10"	10 3/8"
SPAN 12	1/4 Pt. - Pier 11	9 3/8"	9 7/8"	10 1/2"
	1/4 Pt.	10"	10 1/4"	10 3/4"
	1/4 Span	10 1/4"	10 3/8"	11"
	3/4 Pt. - Pier 12	9 3/8"	9 7/8"	10 1/2"

Note: "t" is measured from top of slab to bottom of flange plate @ Beam.
See Note 1 Sheet No. 216.

SPAN 5							
W. Fascia		W. Curb		E. Curb		E. Fascia	
Dist.	Offset	Dist.	Offset	Dist.	Offset	Dist.	Offset
X	Y	X	Y	X	Y	X	Y
26'-0 3/4"	1/8"	26'-0 3/4"	1/8"	5'-7 7/8"	3/8"	5'-7 3/4"	3/8"
				11'-3 3/4"	5/8"	11'-3 1/2"	5/8"
				20'-11 3/4"	1"	20'-11 1/2"	1"
				30'-7 3/4"	1"	30'-7 3/4"	1"
				40'-4"	5/8"	40'-3 3/4"	5/8"

SPAN 6							
W. Fascia		W. Curb		E. Curb		E. Fascia	
Dist.	Offset	Dist.	Offset	Dist.	Offset	Dist.	Offset
X	Y	X	Y	X	Y	X	Y
10'-2 5/8"	1/8"	10'-2 5/8"	1/8"	10'-2 1/2"	3/8"	10'-2 1/2"	3/8"
20'-5 3/8"	1/4"	20'-5 3/8"	1/4"	20'-4 7/8"	1 1/2"	20'-4 3/8"	1 1/2"
30'-8"	3/8"	30'-8"	3/8"	30'-7 3/8"	1 5/8"	30'-6 3/4"	1 5/8"
40'-10 3/8"	1/4"	40'-10 3/8"	1/4"	40'-9 3/4"	1 1/2"	40'-8 3/4"	1 1/2"
51'-1 1/4"	1/8"	51'-1 1/4"	1/8"	51'-0 1/4"	7/8"	50'-10 7/8"	7/8"

SPAN 7							
W. Fascia		W. Curb		E. Curb		E. Fascia	
Dist.	Offset	Dist.	Offset	Dist.	Offset	Dist.	Offset
X	Y	X	Y	X	Y	X	Y
6'-9 3/8"	3/8"	6'-9 3/8"	3/8"	7'-8 1/8"	1/8"	7'-8 1/8"	1/8"
15'-10 3/8"	1 1/4"	15'-10 1/2"	1 1/4"	15'-4 1/4"	1 1/2"	15'-4 1/4"	1 1/2"
24'-11 3/4"	1 1/2"	24'-11 3/4"	1 1/2"	23'-0 1/4"	1 7/8"	23'-0 1/4"	1 7/8"
34'-0 7/8"	1 3/8"	34'-0 7/8"	1 3/8"	30'-8 3/8"	2"	30'-8 3/8"	2"
43'-1 3/8"	1 3/8"	43'-1 7/8"	1 3/8"	38'-4 1/2"	1 3/8"	38'-4 1/2"	1 3/8"
52'-3"	7/8"	52'-3"	7/8"	46'-0 3/8"	1 1/2"	46'-0 3/8"	1 1/2"

SPAN 8							
W. Fascia		W. Curb		E. Curb		E. Fascia	
Dist.	Offset	Dist.	Offset	Dist.	Offset	Dist.	Offset
X	Y	X	Y	X	Y	X	Y
9'-1 3/8"	5/8"	9'-1 1/4"	5/8"	8'-4 1/4"	3/4"	8'-4 1/4"	3/4"
18'-3 1/8"	1"	18'-2 1/2"	1"	16'-8 1/2"	1 1/8"	16'-8 1/2"	1 1/8"
27'-4 3/4"	1 1/8"	27'-3 3/4"	1 1/8"	25'-0 3/8"	1 3/8"	25'-0 3/8"	1 3/8"
36'-6 3/8"	7/8"	36'-5 1/2"	7/8"	33'-4 7/8"	1 1/8"	33'-4 7/8"	1 1/8"
45'-7 1/8"	3/8"	45'-6 1/4"	3/8"	41'-9 1/8"	3/4"	41'-9 1/8"	3/4"

SPAN 9							
W. Fascia		W. Curb		E. Curb		E. Fascia	
Dist.	Offset	Dist.	Offset	Dist.	Offset	Dist.	Offset
X	Y	X	Y	X	Y	X	Y
9'-5"	1 1/4"	9'-5"	1 1/4"	9'-5 1/4"	1 1/4"	9'-5 1/4"	1 1/4"
18'-10"	2 1/4"	18'-10"	2 1/4"	18'-10 3/8"	2 1/4"	18'-10 3/8"	2 1/4"
28'-3"	2 3/4"	28'-3"	2 3/4"	28'-3 3/8"	2 3/4"	28'-3 3/8"	2 3/4"
37'-8"	3"	37'-8"	3"	37'-9 1/8"	3"	37'-9 1/8"	3"
47'-1"	2 3/4"	47'-1"	2 3/4"	47'-2 1/2"	2 3/4"	47'-2 1/2"	2 3/4"
56'-6"	2 1/4"	56'-6"	2 1/4"	56'-7 3/4"	2 1/4"	56'-7 3/4"	2 1/4"
65'-11"	1 1/4"	65'-11"	1 1/4"	66'-1"	1 1/4"	66'-1"	1 1/4"

SPAN 10							
W. Fascia		W. Curb		E. Curb		E. Fascia	
Dist.	Offset	Dist.	Offset	Dist.	Offset	Dist.	Offset
X	Y	X	Y	X	Y	X	Y
9'-5 5/8"	1 1/4"	9'-5 5/8"	1 1/4"	9'-6"	1 3/8"	9'-6"	1 3/8"
18'-11 1/8"	2 1/4"	18'-11 1/8"	2 1/4"	19'-0"	2 1/4"	19'-0"	2 1/4"
28'-4 3/4"	2 3/4"	28'-4 3/4"	2 3/4"	28'-6"	2 3/8"	28'-6"	2 3/8"
37'-10 1/4"	3"	37'-10 1/4"	3"	38'-0"	3"	38'-0"	3"
47'-3 3/8"	2 3/4"	47'-3 3/8"	2 3/4"	47'-6"	2 3/8"	47'-6"	2 3/8"
56'-9 1/2"	2 1/4"	56'-9 1/2"	2 1/4"	57'-0"	2 1/4"	57'-0"	2 1/4"
66'-3"	1 1/4"	66'-3"	1 1/4"	66'-6"	1 3/8"	66'-6"	1 3/8"

SPAN 11							
W. Fascia		W. Curb		E. Curb		E. Fascia	
Dist.	Offset	Dist.	Offset	Dist.	Offset	Dist.	Offset
X	Y	X	Y	X	Y	X	Y
9'-5 3/8"	1 3/8"	9'-5 3/8"	1 3/8"	9'-6 3/8"	1 3/8"	9'-6 3/8"	1 3/8"
18'-11 3/8"	2 1/4"	18'-11 3/4"	2 1/4"	19'-0 3/4"	2 1/4"	19'-0 3/4"	2 1/4"
28'-5 1/2"	2 3/8"	28'-5 1/2"	2 3/8"	28'-7 1/8"	2 3/8"	28'-7 1/8"	2 3/8"
37'-11 3/8"	3"	37'-11 3/8"	3"	38'-1 3/8"	3"	38'-1 1/2"	3"
47'-5 1/4"	2 3/8"	47'-5 1/4"	2 3/8"	47'-7 3/4"	2 3/8"	47'-7 3/4"	2 3/8"
56'-11"	2 1/4"	56'-11 1/8"	2 1/4"	57'-2 1/8"	2 1/4"	57'-2 1/8"	2 1/4"
66'-4 7/8"	1 3/8"	66'-4 7/8"	1 3/8"	66'-8 1/2"	1 3/8"	66'-8 1/2"	1 3/8"

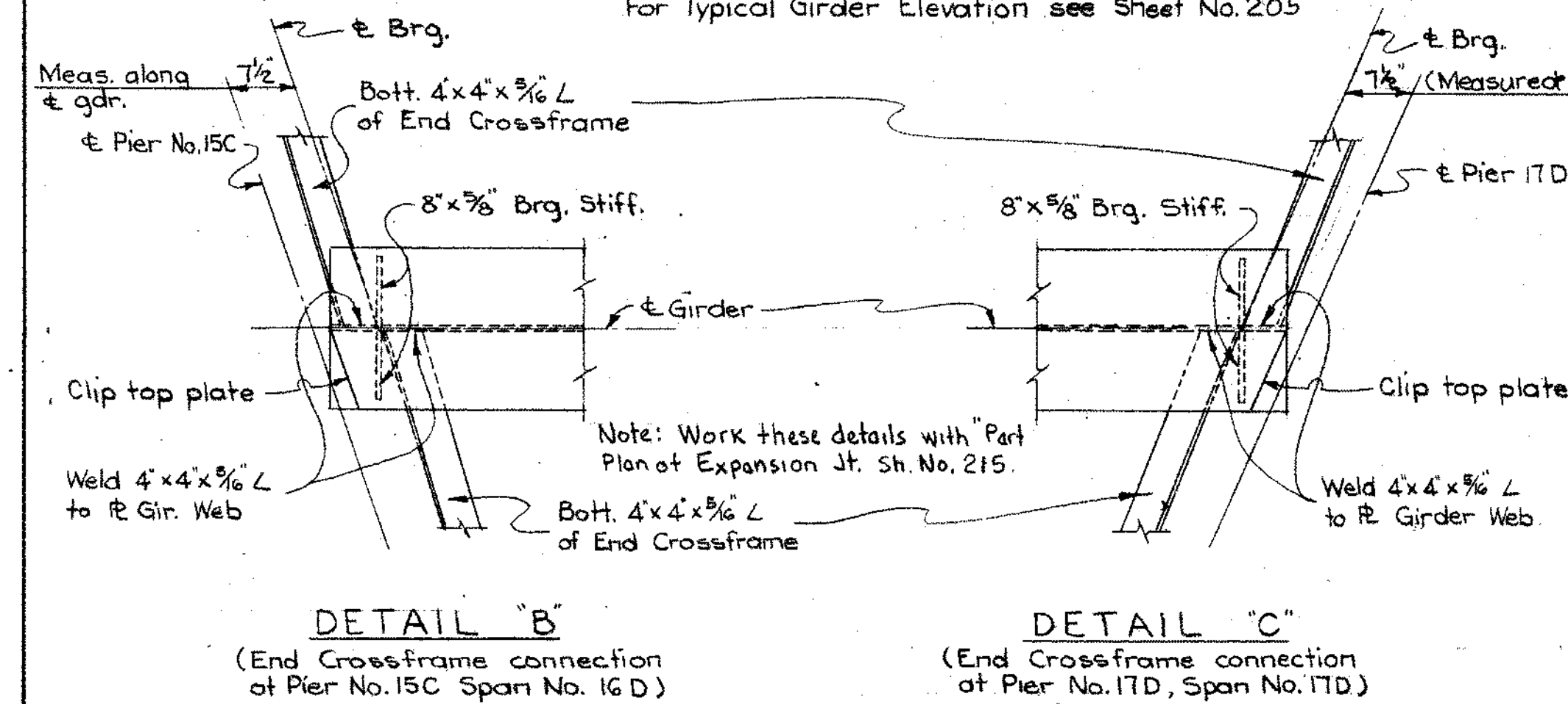
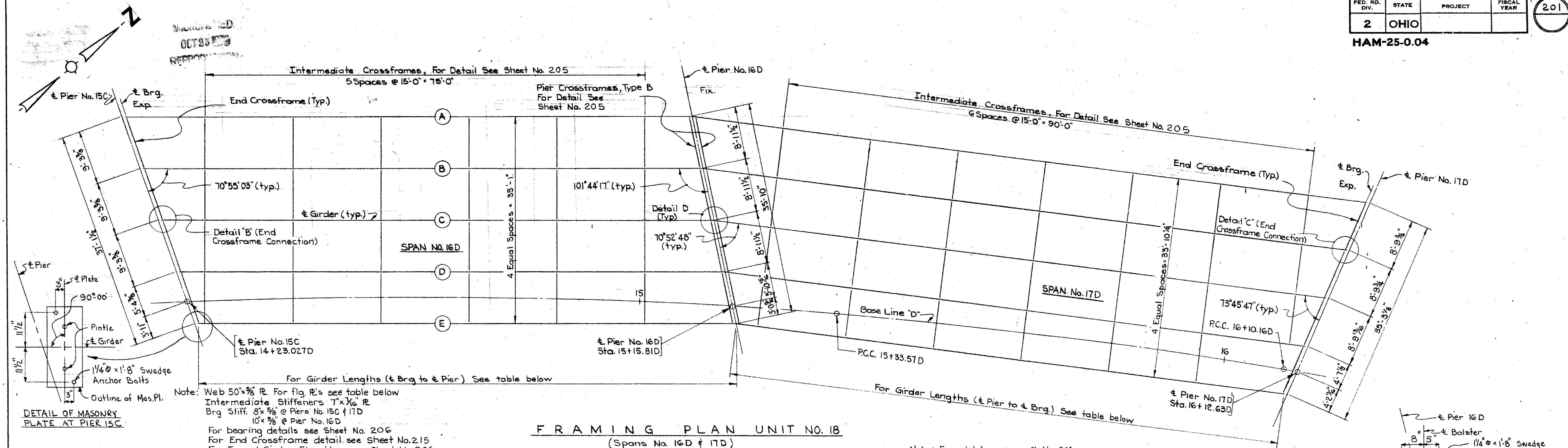
SPAN 12							
W. Fascia		W. Curb		E. Curb		E. Fascia	
Dist.	Offset	Dist.	Offset	Dist.	Offset	Dist.	Offset
X	Y	X	Y	X	Y	X	Y
9'-5 3/8"	1 1/4"	9'-5 1/2"	1 1/4"	9'-6 1/8"	1 3/8"	9'-6 1/8"	1 3/8"
18'-10 3/8"	2 1/4"	18'-10 3/8"	2 1/4"	19'-0 1/8"	2 1/4"	19'-0 1/4"	2 1/4"
28'-4 1/4"	2 3/4"	28'-4 3/8"	2 3/4"	28'-6 1/4"	2 3/8"	28'-6 1/4"	2 3/8"
37'-9 3/4"	3"	37'-9 3/4"	3"	38'-0 3/8"	3"	38'-0 3/8"	3"
47'-3 3/8"	2 3/4"	47'-3 1/4"	2 3/4"	47'-6 1/2"	2 3/8"	47'-6 1/2"	2 3/8"
56'-8 3/8"	2 1/4"	56'-8 3/8"	2 1/4"	57'-0 1/2"	2 1/4"	57'-0 1/2"	2 1/4"
66'-2"	1 1/4"	66'-2 1/8"	1 1/4"	66'-6 3/8"	1 3/8"	66'-6 3/8"	1 3/8"

CHORD LENGTHS LOWER DECK				
SPAN	W. Fascia	W. Curb	E. Curb	E. Fascia
5	50'-0"	50'-0"	50'-0"	50'-0"
6	61'-4"	61'-4"	61'-4 1/8"	61'-4 1/8"
7	61'-4 1/8"	61'-4 1/8"	61'-4 3/4"	61'-4 3/4"
8	50'-0 1/4"	50'-0 1/4"	50'-1 3/8"	50'-1 3/8"
9	75'-4"	75'-4"	75'-6 3/8"	75'-6 3/8"
10	75'-8 3/8"	75'-8 3/8"	76'-0"	76'-0"
11	75'-10 3/4"	75'-10 3/4"	76'-2 7/8"	76'-2 7/8"
12	75'-7 1/2"	75'-7 1/2"	76'-0 3/4"	76'-0 3/4"

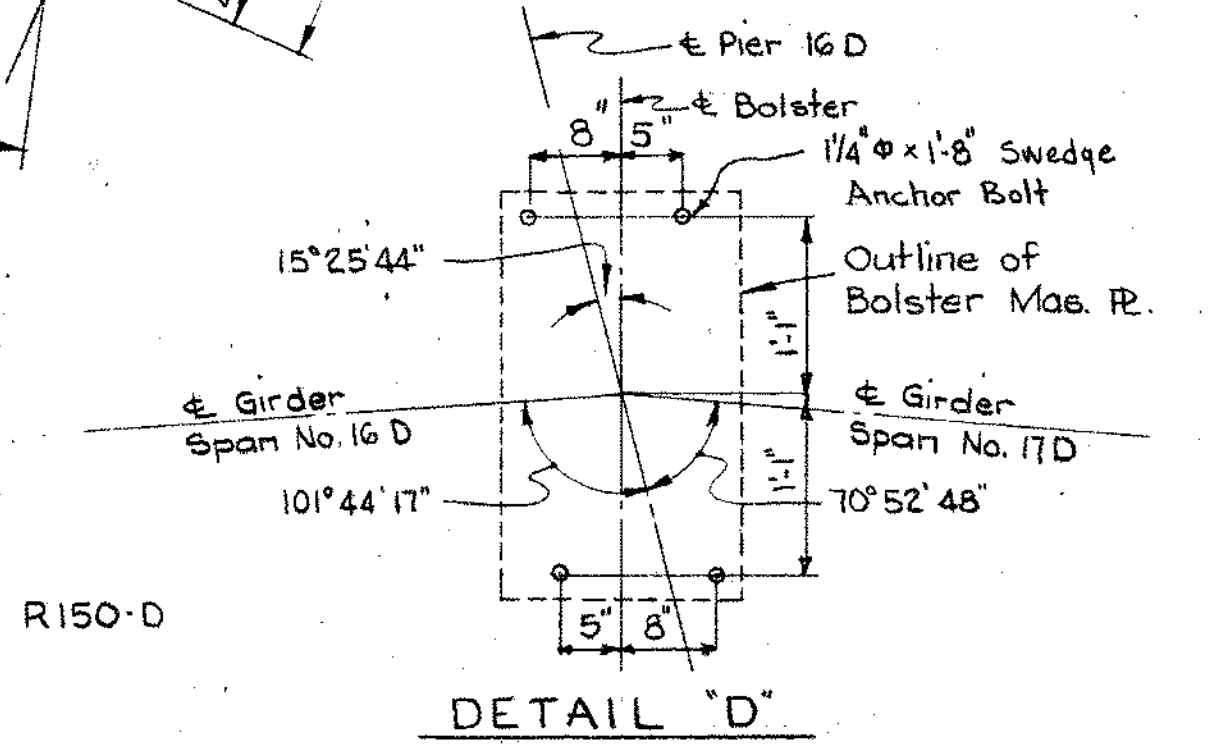
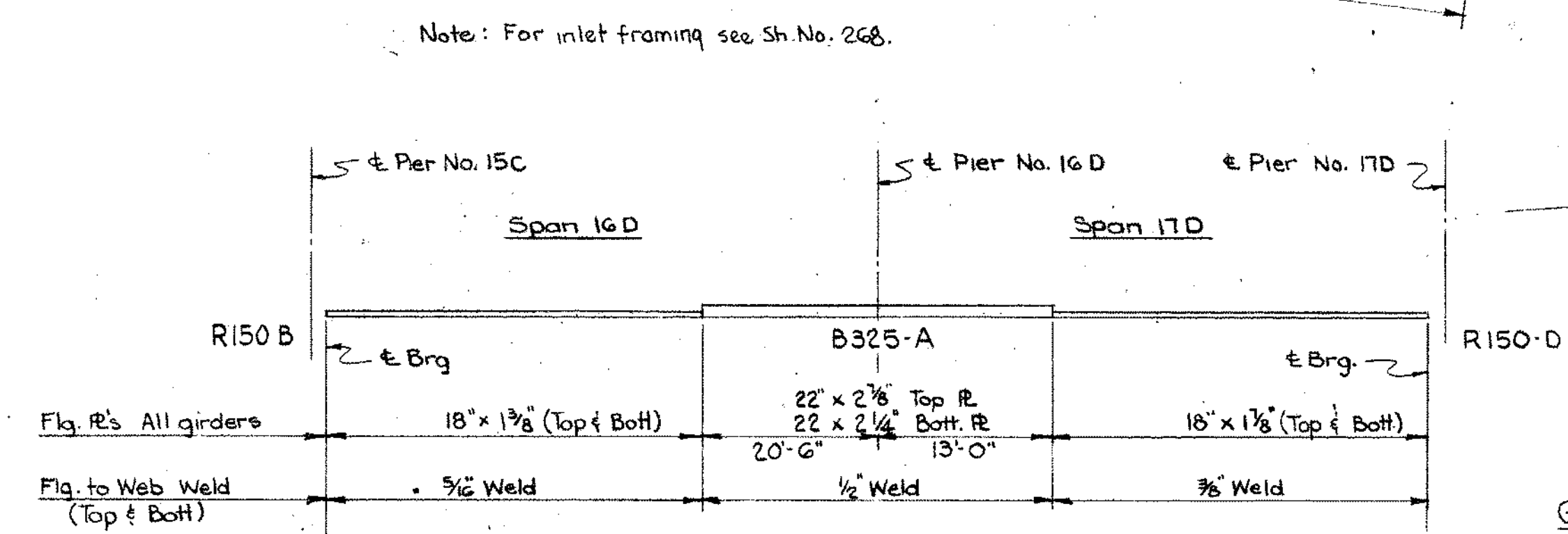
* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

"t" is measured from top of slab to bottom of flange plate @ $\frac{1}{2}$ Beam.
See Note 1 Sh. No. 216

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVIEWED BY
	J.C.D. 5-19-60		W.W.C. 9-16-60	M.A.G. 10-7-60	

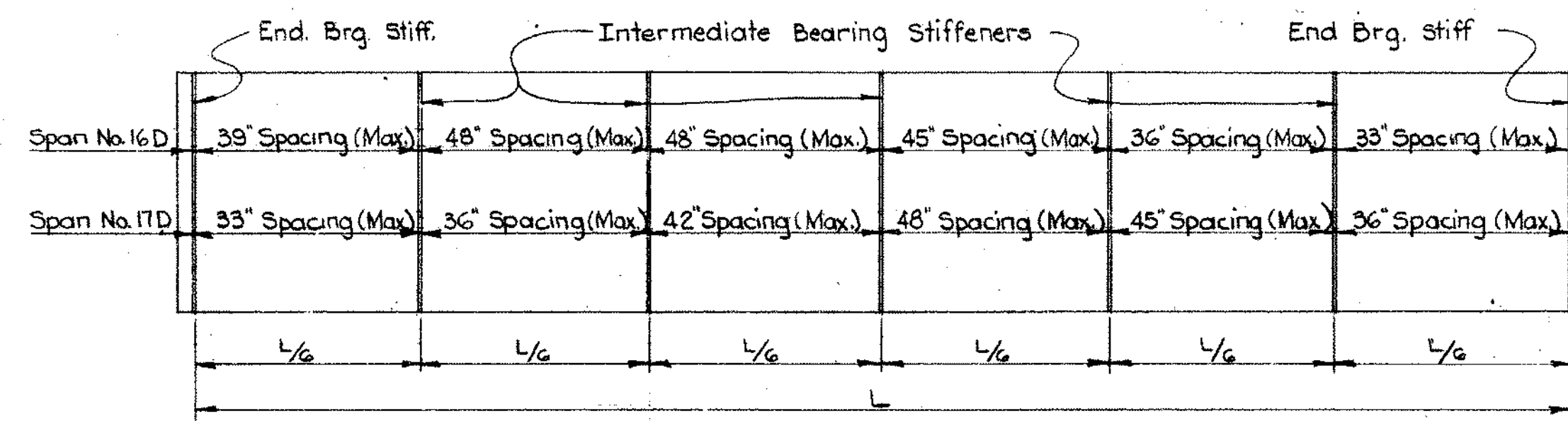


GIRDER LENGTHS		
Girder	Span 16D	Span 17D
A	96'-3 1/8"	115'-6 5/8"
B	95'-1 1/8"	110'-1 1/8"
C	93'-10 3/8"	104'-8 3/4"
D	92'-8 1/2"	99'-3 1/8"
E	91'-5 3/8"	93'-11 1/8"



Span	DEFLECTION AND CAMBER									
	16D					17D				
Girder	A	B	C	D	E	A	B	C	D	E
Location	1/4	1/2	3/4	1	1 1/4	1/4	1/2	3/4	1	1 1/4
Deflection due to weight of steel	1/8	1/16	1/8	1/8	1/8	1/8	1/16	1/8	1/8	1/8
Deflection due to remaining Dead Load	1/2	3/4	1 1/4	1 1/2	1 3/4	1/2	3/4	1 1/4	1 1/2	1 3/4
Convexity (See note below)	1/8	1/4	1/8	1/8	1/8	1/8	1/4	1/8	1/8	1/8
Sum of deflection and convexity	1 3/8	2 1/8	2 1/4	2 1/2	2 3/4	1 3/8	2 1/8	2 1/4	2 1/2	2 3/4
Required Camber	2 3/8	2 1/8	2 1/4	2 1/2	2 3/4	2 3/8	2 1/8	2 1/4	2 1/2	2 3/4

Notes: Convexity includes variations due to vertical curvature, superelevation and horizontal curvature.
Girder web plates shall be cut to a parabolic crown



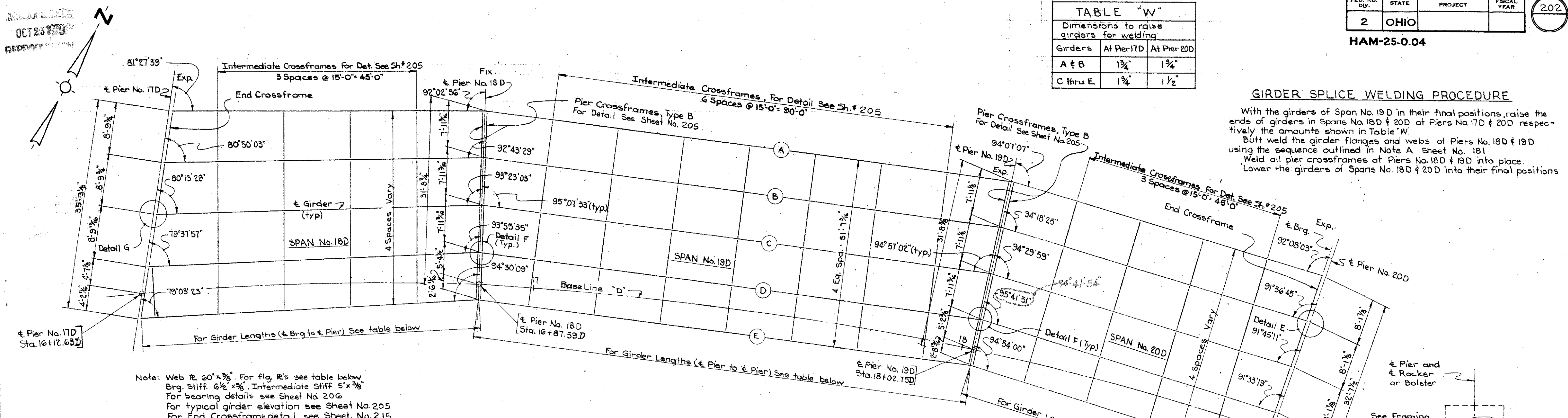
OCT 23 1960
RECEIVED

HAM-25-0.04

TABLE "W"		
Dimensions to raise girders for welding		
Girders	At Pier 17D	At Pier 20D
A & B	1 3/4"	1 3/4"
C thru E	1 3/4"	1 1/2"

GIRDER SPLICE WELDING PROCEDURE

With the girders of Span No. 19D in their final positions, raise the ends of girders in Spans No. 18D & 20D respectively the amounts shown in Table "W".
Butt weld the girder flanges and webs at Piers No. 18D & 19D using the sequence outlined in Note A Sheet No. 181.
Weld all pier crossframes at Piers No. 18D & 19D into place.
Lower the girders of Spans No. 18D & 20D into their final positions.

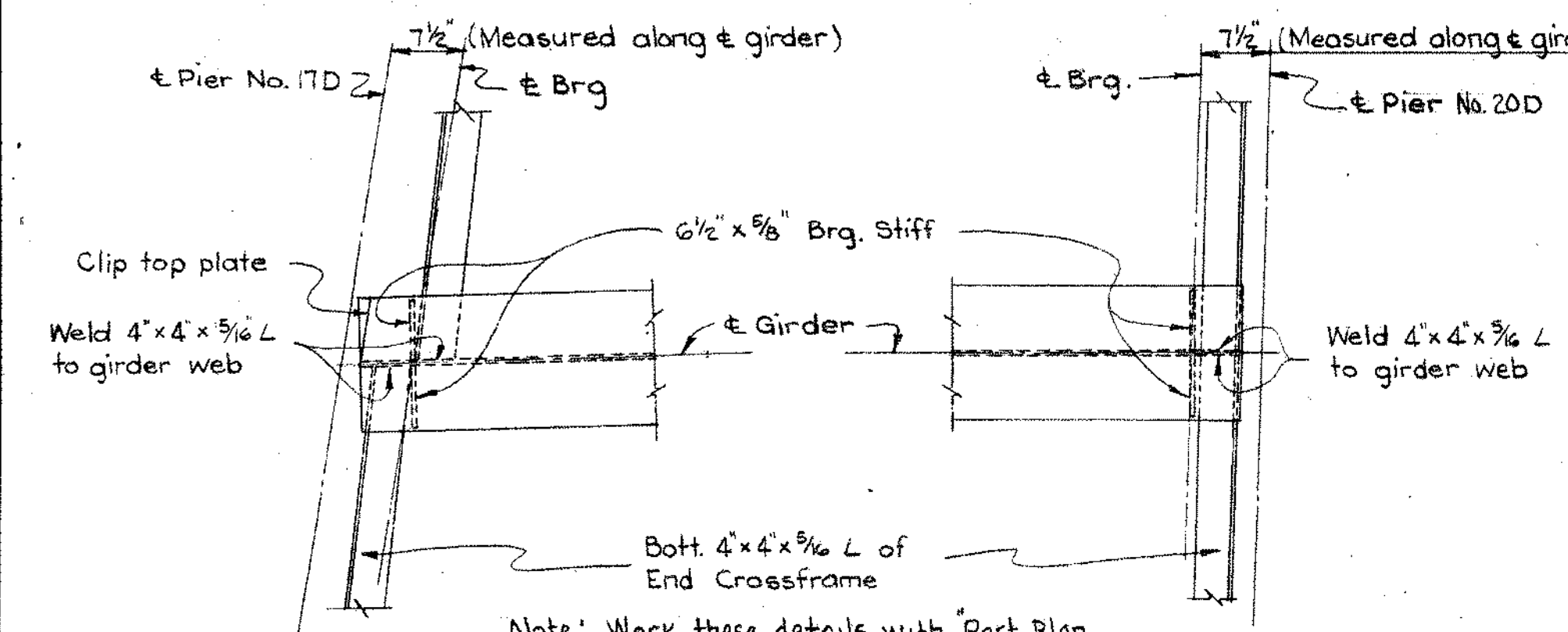


Note: Web 1/2" 60"x 3/8". For fig. R's see table below.
Brg. Stiff. 6 1/2" x 5/8". Intermediate Stiff. 5" x 3/8".
For bearing details see Sheet No. 20G.
For typical girder elevation see Sheet No. 205.
For End Crossframes detail see Sheet No. 215.

FRAMING PLAN UNIT NO. 19 (Spans No. 18D thru 20D)

GIRDER LENGTHS			
Girder	Span 18D	Span 19D	Span 20D
A	70'-8 1/8"	120'-1 1/8"	73'-10 3/8"
B	71'-9 1/8"	118'-8 1/8"	73'-0 3/8"
C	72'-9 1/2"	117'-4"	72'-1 1/8"
D	73'-10"	115'-11 1/4"	71'-3 1/8"
E	74'-10 3/8"	114'-6 3/8"	70'-5"

Note: For inlet framing see Sh. No. 268.



DETAIL "G"
(End Crossframe Connection)
(at Pier 17D, Span 18D)

DETAIL "E"
(End Crossframe Connection)
(at Pier 20D, Span 20D)

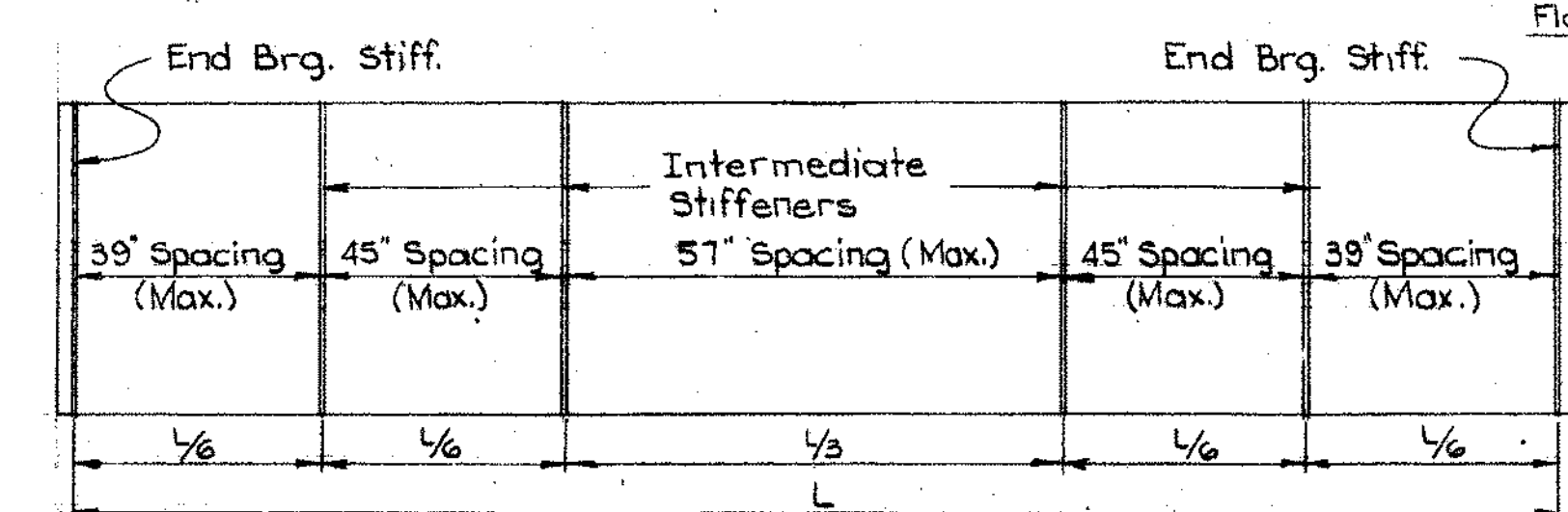
	Span No. 18D	Span No. 19D	Span No. 20D
R100-A	Span No. 18D	Span No. 19D	Span No. 20D
Fig. R's all girders	14" x 3/4"	14" x 2 1/2" Top 14" x 1 3/4" Bottom	14" x 2 1/2" Top 14" x 1 3/4" Bottom
Fig. to Web weld	1/4" Weld (Top & Bottom)	1/2" Weld Top 3/8" Weld Bottom	1/2" Weld Top 3/8" Weld Bottom

TABLE OF FLANGE PLATES AND WELD SIZES

	Span No. 18D	Span No. 19D	Span No. 20D
End Brg. Stiff.	48" Spacing (Max.)	60" Spacing (Max.)	51" Spacing (Max.)
	42" Spacing (Max.)	51" Spacing (Max.)	48" Spacing (Max.)
Intermediate Stiffeners	48" Spacing (Max.)	60" Spacing (Max.)	51" Spacing (Max.)

INTERMEDIATE STIFFENER SPACING (Spans No. 18D & 20D)

Notes: Girder web plates shall be cut to a parabolic crown.
Convexity includes variations due to vertical curvature, superelevation and horizontal curvature.



INTERMEDIATE STIFFENER SPACING (Span No. 19D)

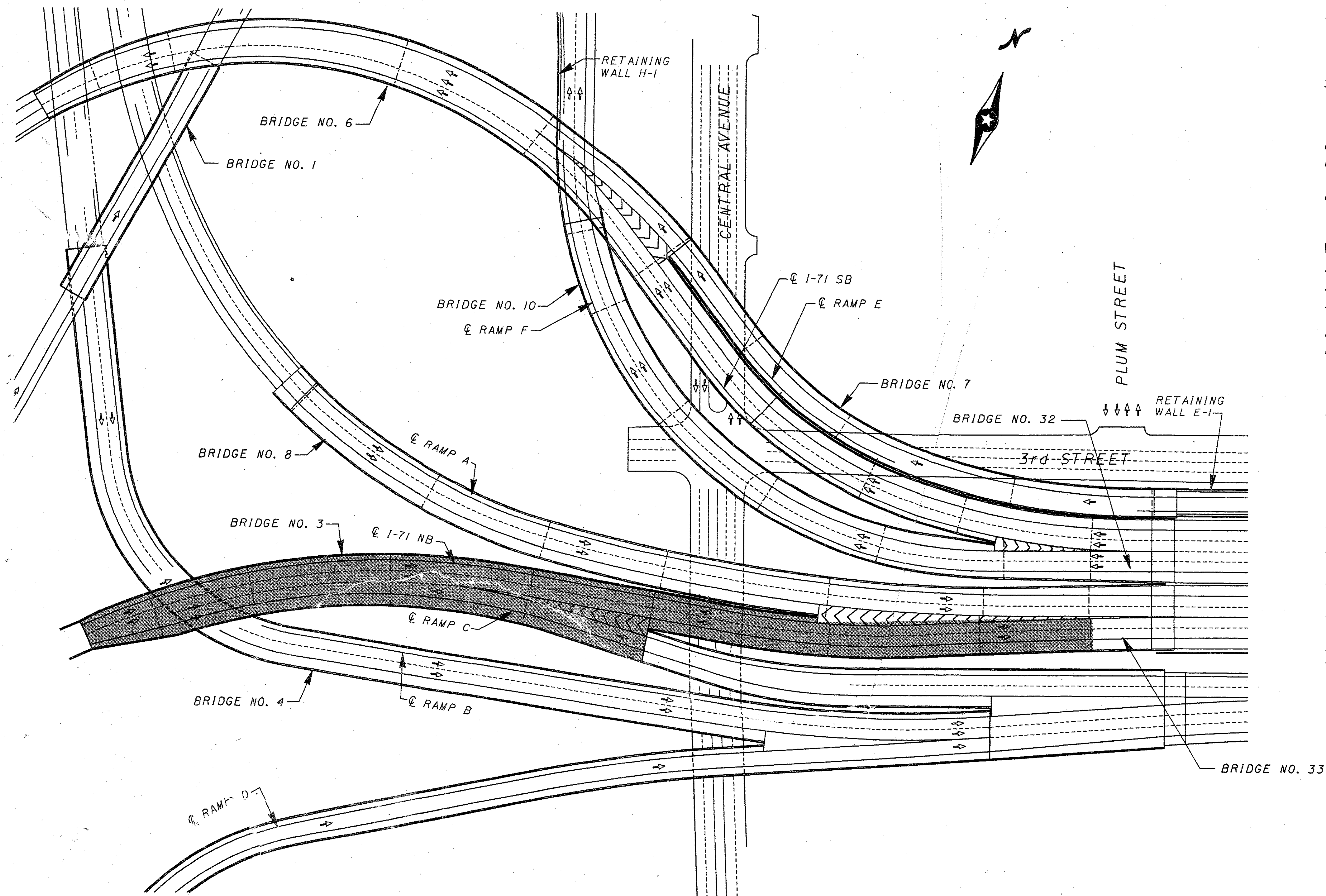
D E F L E C T I O N A N D C A M B E R																																																
Span	18D															19D					20D																											
Girder	A			B			C			D			E			A			B		C			D		E		A			B		C			D		E										
Location	¼	½	¾	¼	½	¾	¼	½	¾	¼	½	¾	¼	½	¾	¼	½	¾	¼	½	¾	¼	½	¾	¼	½	¾	¼	½	¾	¼	½	¾	¼	½	¾												
Deflection due to weight of steel	0	-⅛	-⅞	0	0	-⅛	0	0	-⅛	0	0	-⅛	0	0	-⅛	⅜	⅝	⅞	⅜	⅝	⅞	⅜	⅝	⅞	¼	⅜	⅝	¼	⅜	⅝	¼	½	¾	0	0	-⅛	0	0	-⅛	0	0							
Deflection due to remaining Dead Load	0	⅜	-⅝	⅞	⅞	-⅞	⅞	⅞	0	⅞	⅞	0	⅜	⅞	0	⅜	⅞	¾	⅝	⅞	⅞	⅞	⅞	⅞	⅞	⅞	⅞	⅞	⅞	⅞	⅞	⅞	⅞	⅞	⅞	⅞	⅞	⅞	⅞	⅞								
Convexity (See note above)	1½	1½	1½	⅜	¼	-⅞	⅞	⅜	0	¼	⅝	⅞	1"	⅜	⅜	2½	2½	2½	⅜	1½	⅜	⅜	1½	⅜	⅜	1½	⅜	⅜	1½	⅜	⅜	2½	3½	2½	0	¼	-⅞	-½	-¾	-⅝	-¾	-½	-¼	-½	0	¼	½	-⅞
Sum of deflection and convexity	1½	1½	⅞	¼	⅜	-⅜	⅞	⅞	¼	⅞	⅞	0	1½	⅜	⅜	3½	4½	3½	⅜	2½	⅜	⅜	1½	⅜	⅜	1½	⅜	⅜	1½	⅜	⅜	2½	4½	2½	-⅜	¼	0	-¾	-⅞	-½	-¾	-½	-¾	⅞	½	0		
Required Camber	1¾"			0			0			0			1¾"			4½			2½			2½			2½			4½			0			0			0			0			0					

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS
UNIT NO. 19

DESIGNED J.C.	DRAWN J.C. 4-1-60	TRACED	CHECKED JHO 8/11/60	REVIEWED DATE 11-17-60	REVIEWED 4/1/61
------------------	-------------------------	--------	---------------------------	---------------------------	--------------------

AS-BUILTS



PROPOSED STRUCTURE

TYPE: Continuous Steel Plate Girders (A572M GR345) with Reinforced Concrete Deck and Substructure

SPAN: 24.600, 34.100, 48.115, 48.119, 42.957, 56.812, 53.687 & 36.077 measured along ϕ 1-71 NB, ϕ to ϕ Bearings

ROADWAY: Varies

LIVE LOADING: MS 18 Case 1 and Alternate Military

DEAD LOAD: Includes 2.88 KN/sq m allowance for future wearing course

WEARING COURSE: Monolithic Concrete

APPROACH SLABS: None

ALIGNMENT: Curved

SUPERELEVATION: See Superelevation Plan

LATITUDE: $39^{\circ} 05' 50''$

LONGITUDE: $84^{\circ} 31' 13''$

EXISTING STRUCTURE

STRUCTURE FILE NO.: HAM-25-0.04
HAM-50-20.81

TYPE: Continuous Plate Girders with a Reinforced Concrete Deck and Substructure Supported on C.I.P. Reinforced Concrete Piles.

SPAN: Varies

ROADWAY: Varies

LIVE LOADING: MS 18 Case 1 and Alternate Military

LOADING: CF 2000 (57) Adequate for AASHTO Alternate Loading

SKEW: Varies

WEARING COURSE: 114 SPD Concrete

APPROACH SLABS: None

DATE OF CONSTRUCTION: 1961

FINAL FOR
CONSTRUCTION

DCM
BRW HAZELET & ERDAL
A BRW COMPANY

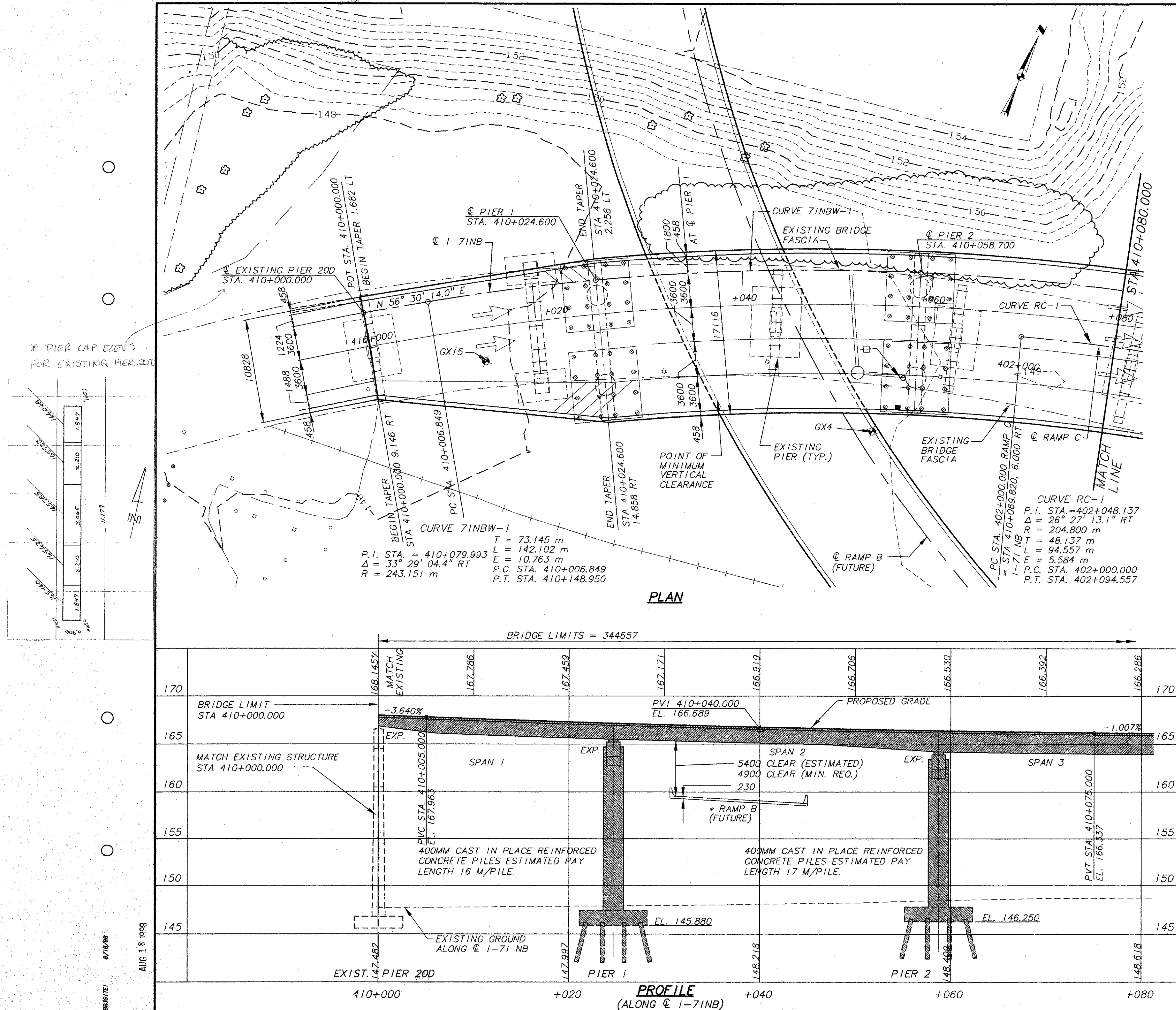
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BRIDGE NO. 3

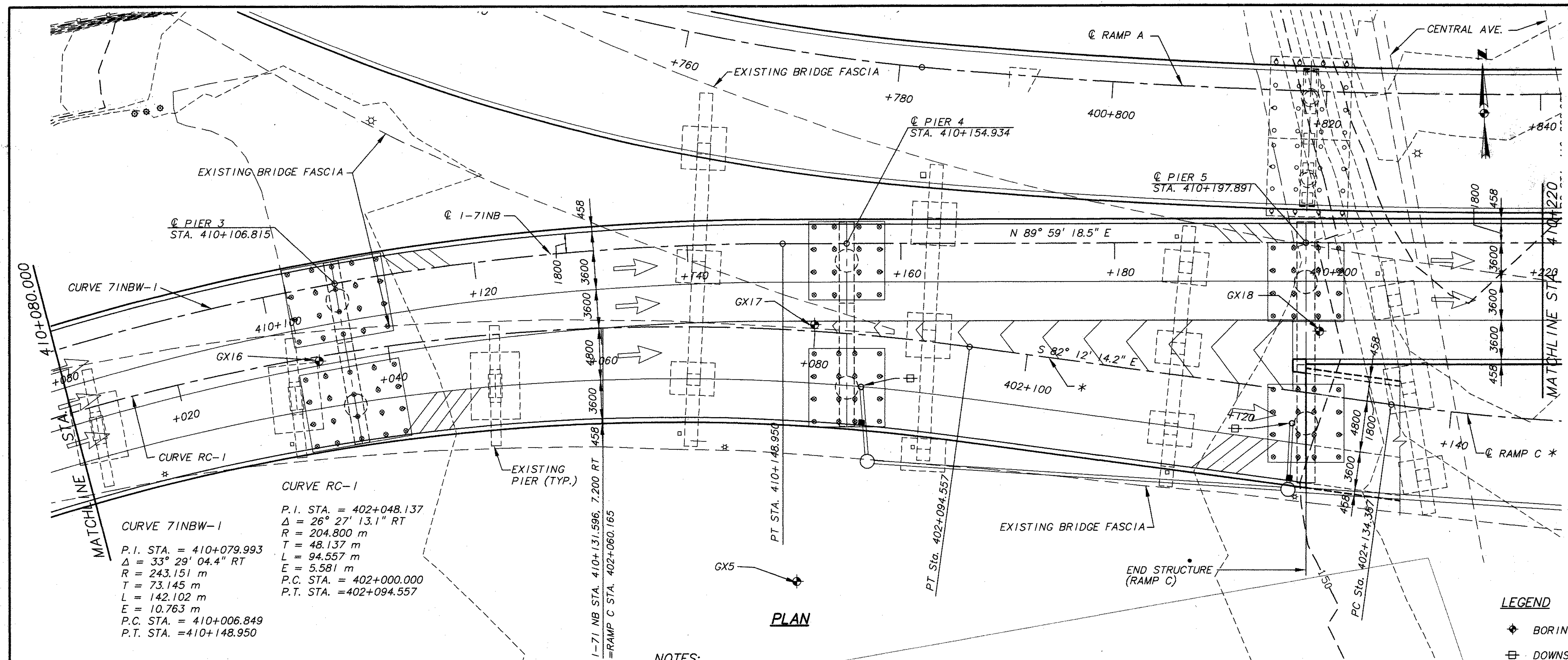
DRAWN	CHECKED	REVIEWED	DATED	CHECKED
LHC	MKM		07-07-98	MK

BENCH MARK 4301
E: 426411.439, N: 123827.864, ELEV. 161.536.
LOCATED ON THE PLAZA LEVEL AT CINERGY FIELD
IN THE NORTHEAST CORNER, A BRASS DISC 0.81m
SOUTH OF THE NORTH PARAPET WALL AND 3.1m
WEST OF THE EAST PARAPET WALL.

ADT (2020)
CARS: 25857
TRUCKS: 2248

**FINAL FOR
CONSTRUCTION**





* FOR RAMP C PROFILE SEE
SITE PLAN SHEET 7 OF 64

NOTES:

1. SEE NOTES 1 THRU 9 ON SHEET 4 OF 64.

2. ALL PIERS ON THIS SHEET
ARE PERPENDICULAR OR
RADIAL TO C 1-71 NB.

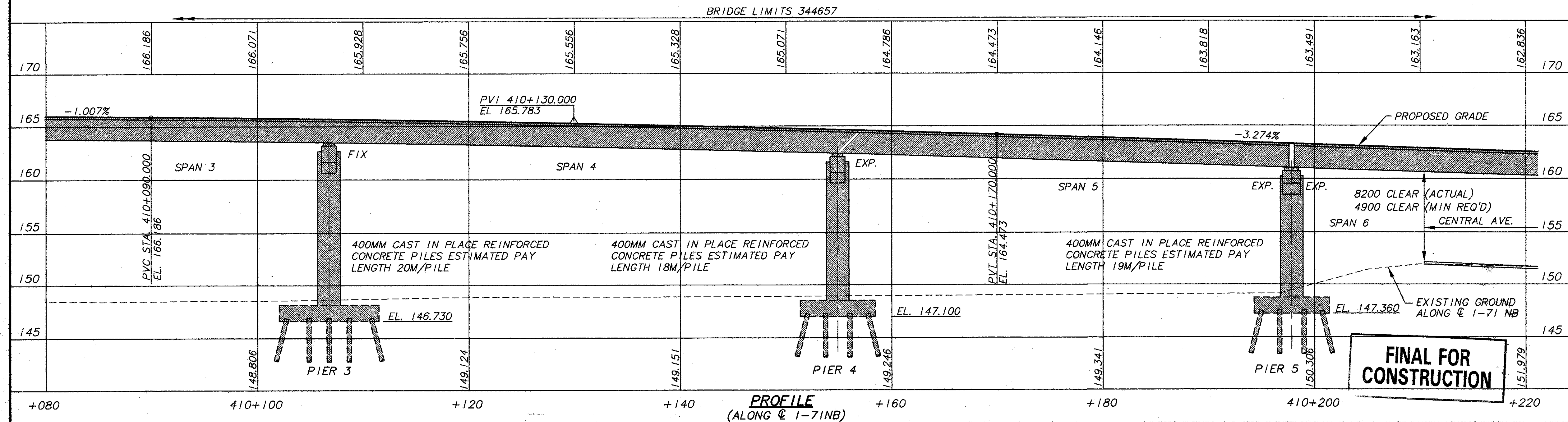
3. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS EXCEPT AS NOTED OTHERWISE. ALL ELEVATIONS, OFFSETS AND STATIONS ARE IN METERS.

LEGEND

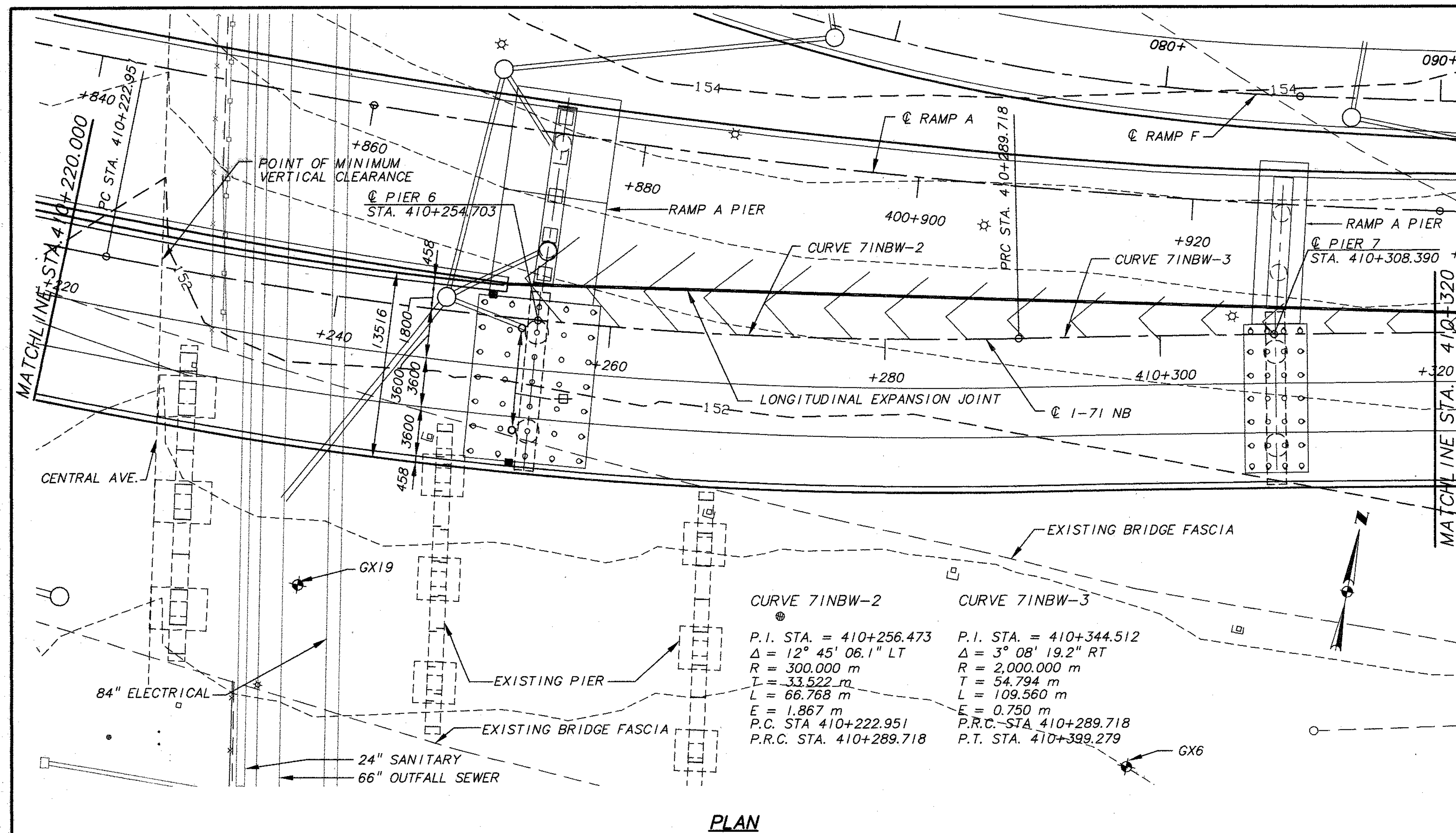
 BORING LOCATION

⊞ · DOWNSPOUT

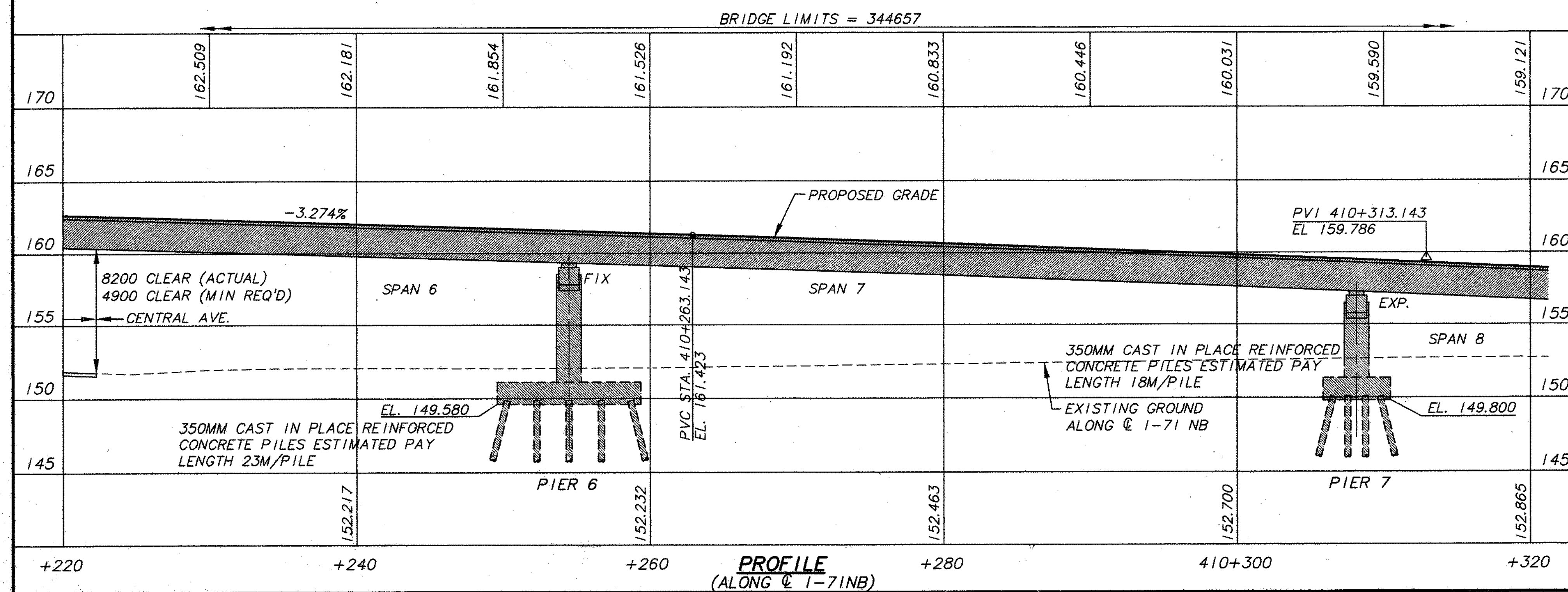
■ SCUPPER



**FINAL FOR
CONSTRUCTION**



PLAN



PROFILE
(ALONG C 1-71NB)

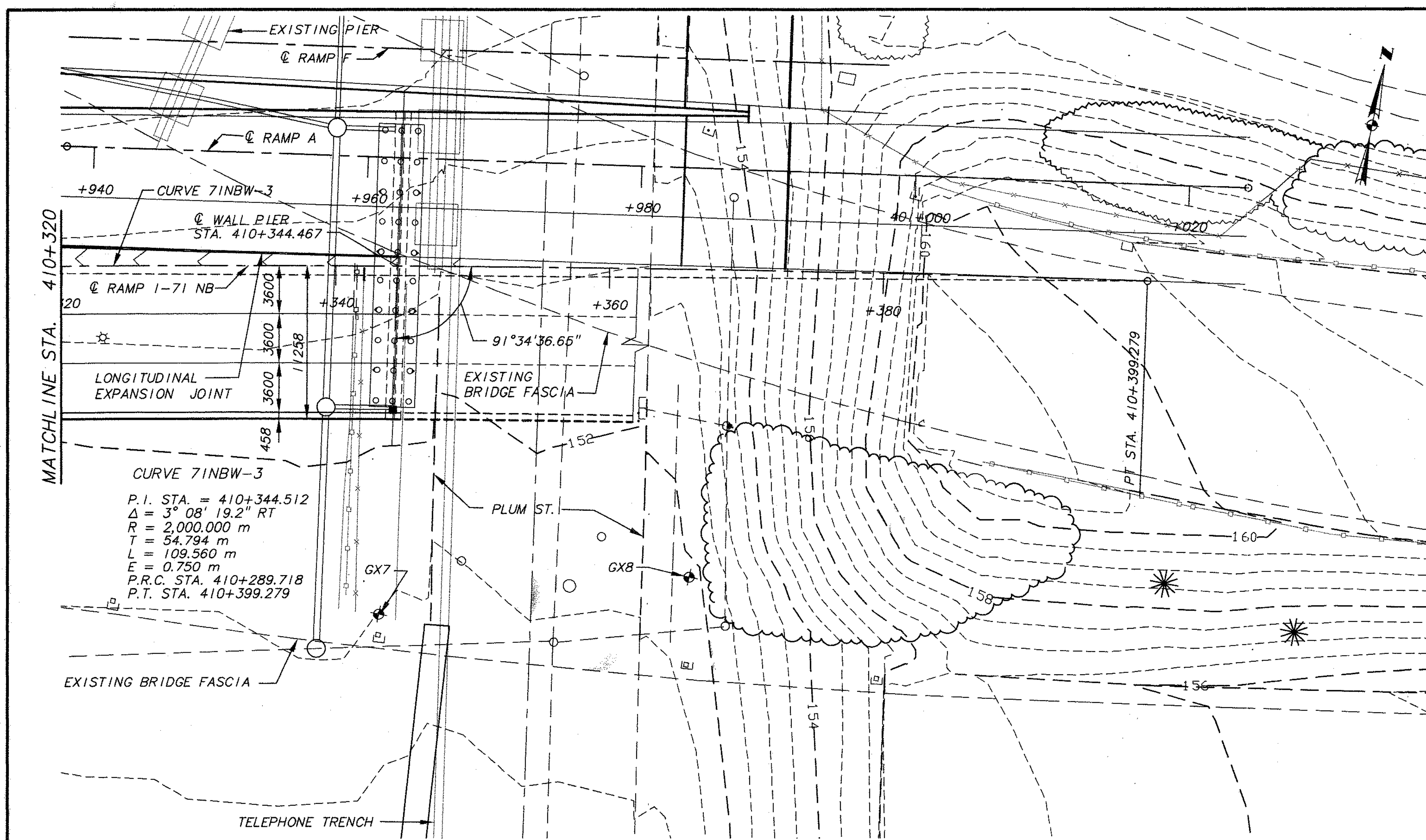
LEGEND

-  BORING LOCATION
 DOWNSPOUT
 SCUPPER

NOTES:

1. SEE NOTES 1 THRU 9 ON SHEET 4 OF 64.
2. ALL PIERS ON THIS SHEET ARE PERPENDICULAR OR RADIAL TO C 1-71 NB.
3. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS EXCEPT AS NOTED OTHERWISE. ALL ELEVATIONS, OFFSETS, AND STATIONS ARE IN METERS.

**FINAL FOR
CONSTRUCTION**



PLAN

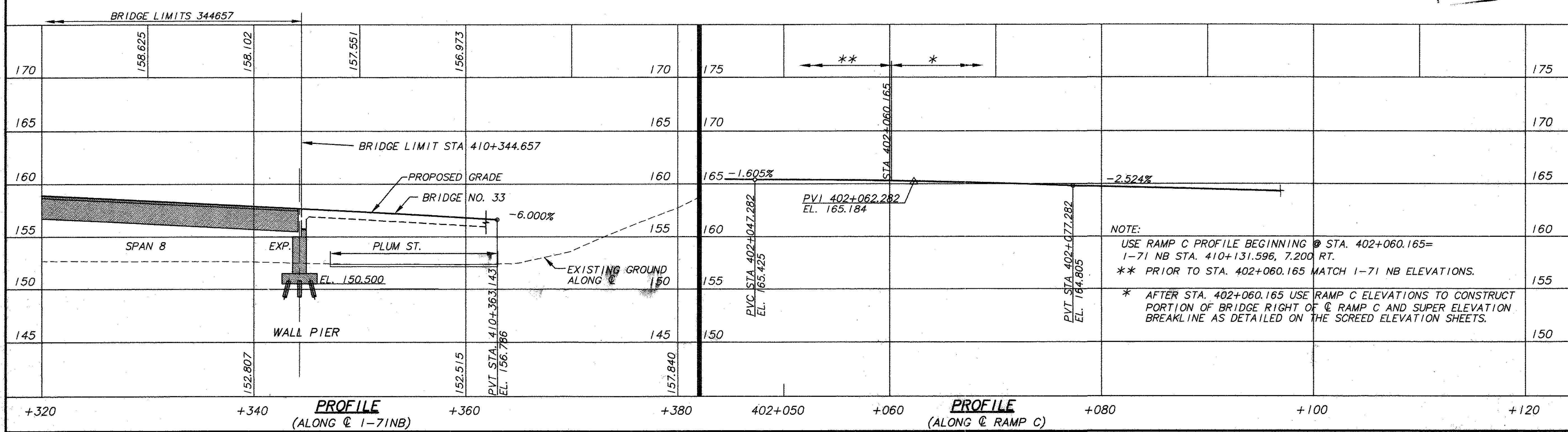
LEGEND

- ◆ BORING LOCATION
- SCUPPER

NOTES:

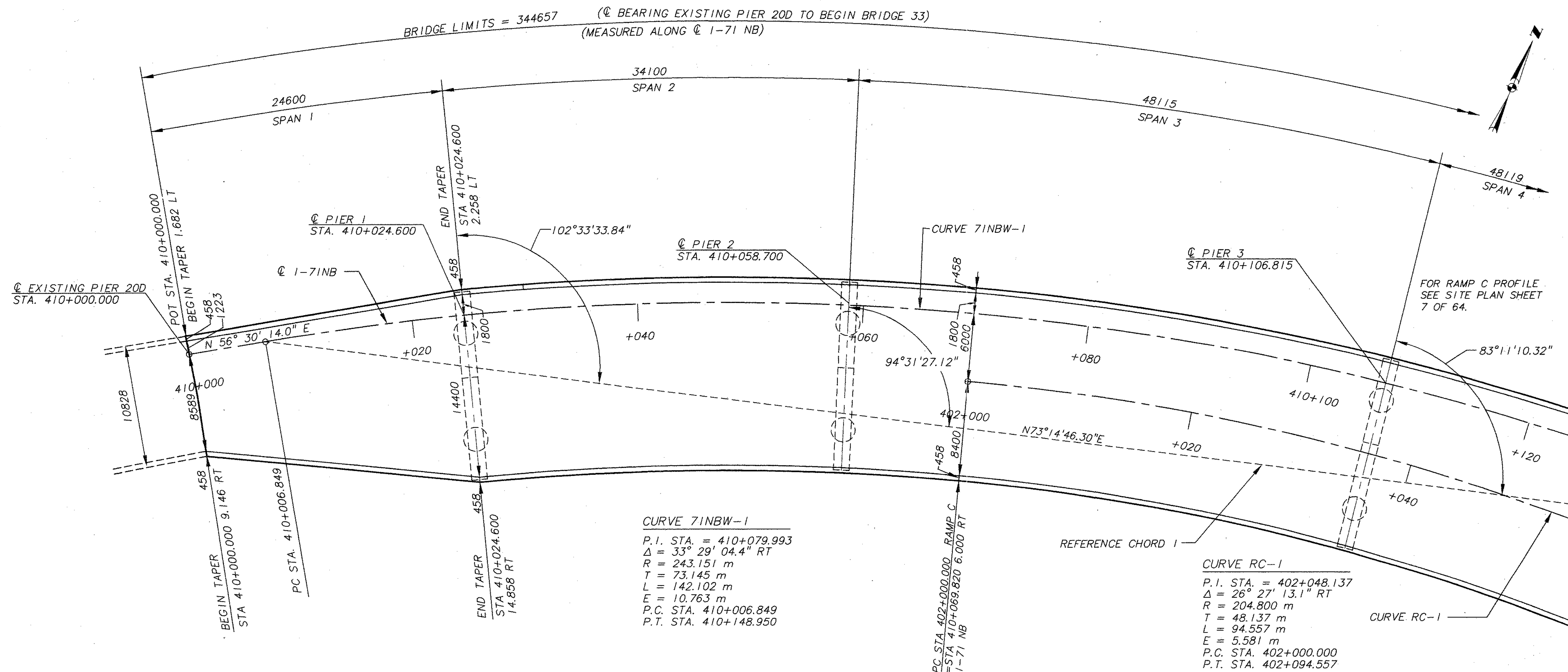
1. SEE NOTES 1 THRU 9 ON SHEET 4 OF 64.
2. WALL PIER IS SKEWED AS SHOWN. SEE BRIDGE 8 SHEET 15 & 29 FOR WALL PIER DETAILS.
3. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS EXCEPT AS NOTED OTHERWISE. ALL ELEVATIONS, OFFSETS AND STATIONS ARE IN METERS.

FINAL FOR CONSTRUCTION



PROFILE
(ALONG CL 1-71NB)

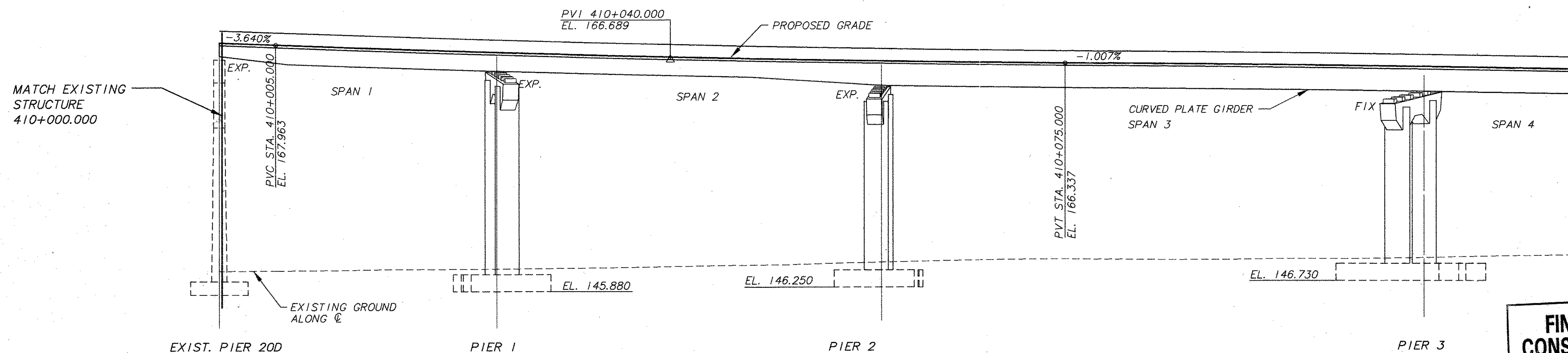
PROFILE
(ALONG CL RAMP C)



GENERAL PLAN

NOTE:

WORK GENERAL PLAN SHEETS 8 THROUGH 10 WITH
GEOMETRIC LAYOUT SHEETS 11 THROUGH 13.

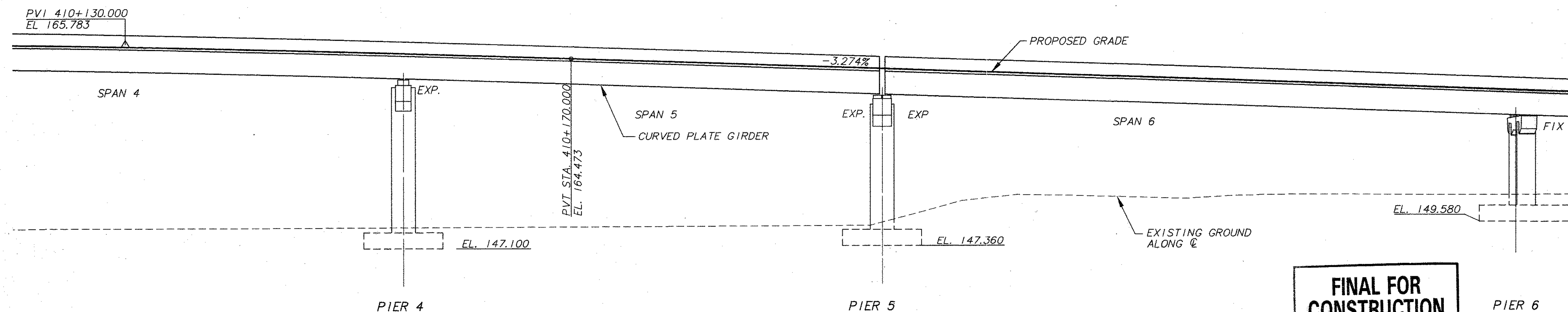
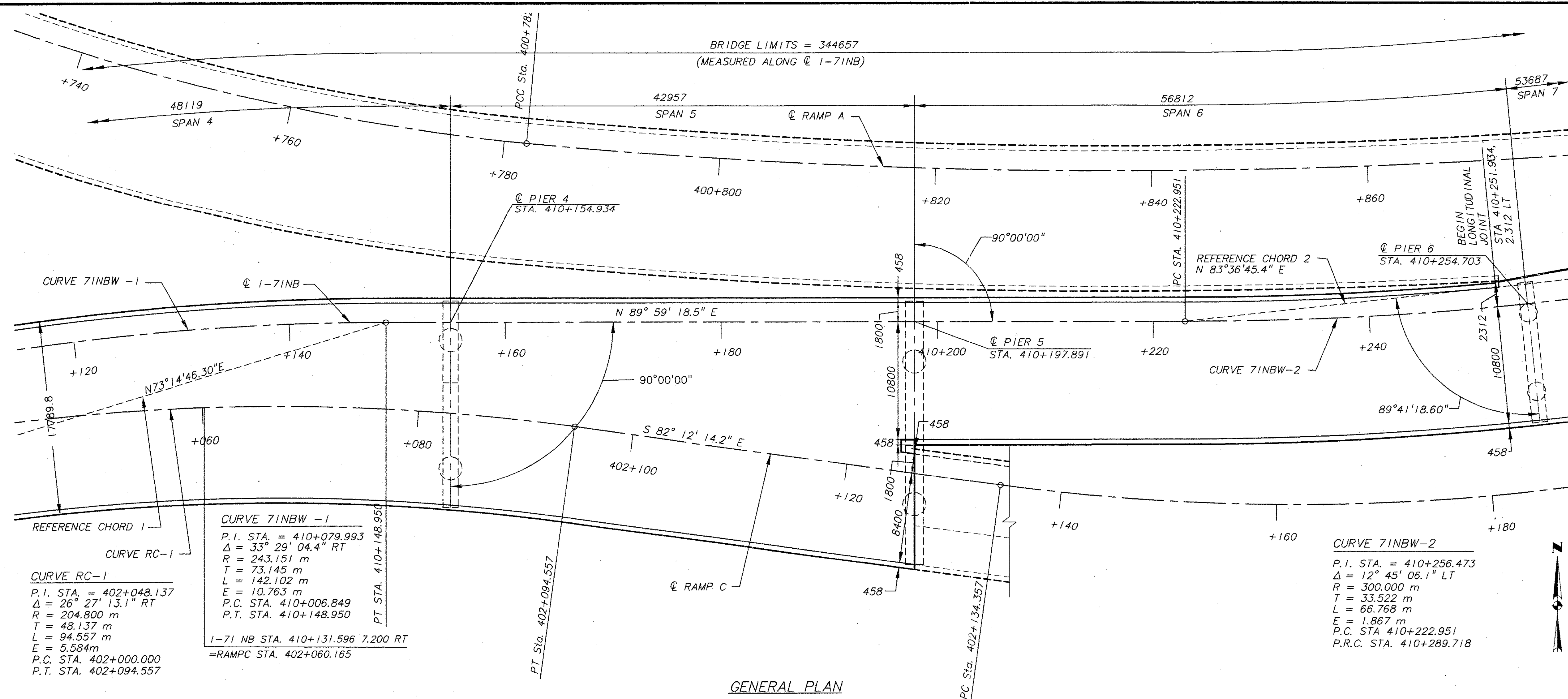


ELEVATION

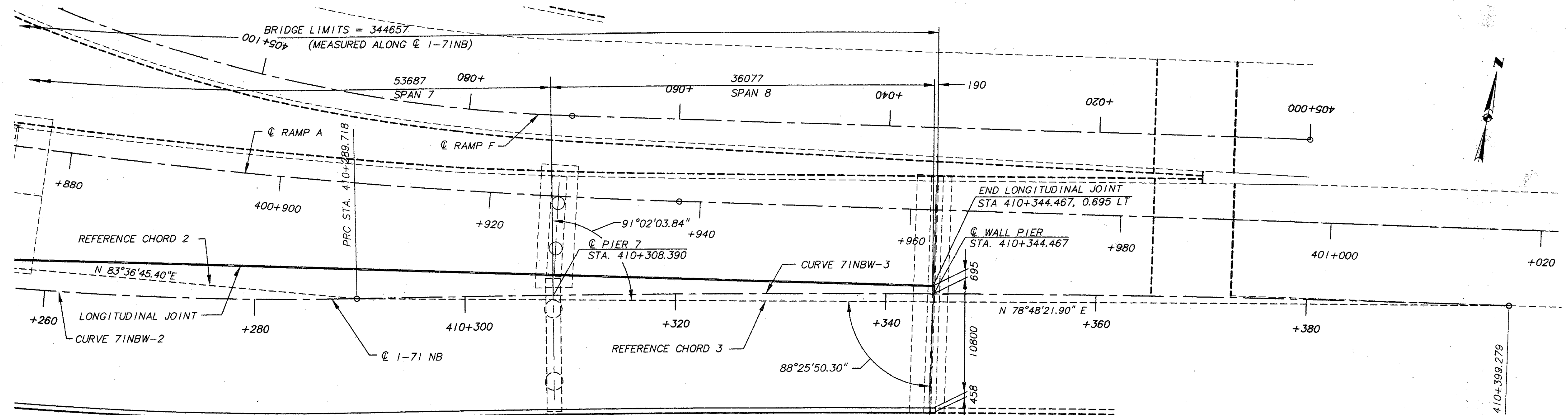
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BR3-GP1 8/18/98



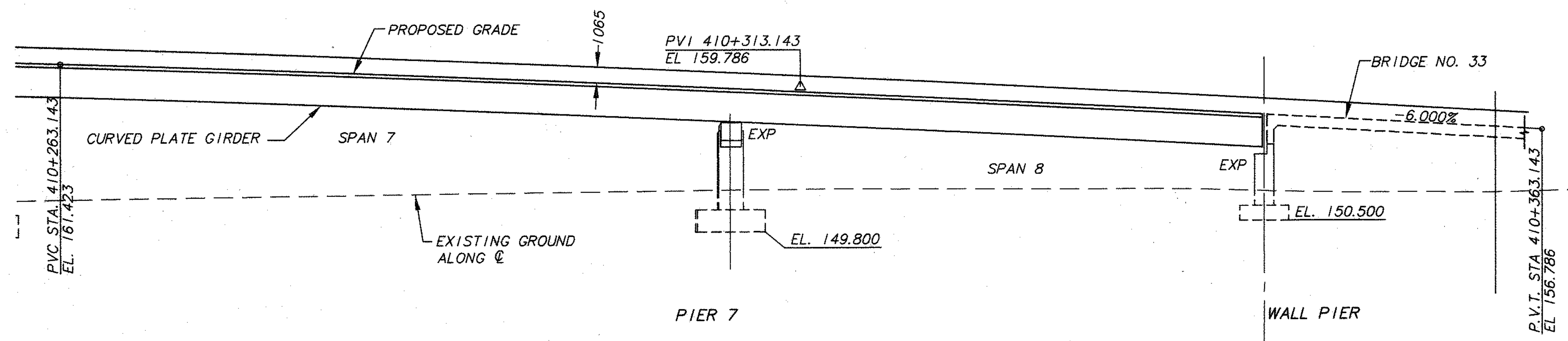
FINAL FOR CONSTRUCTION



CURVE 71NBW-2
 P.I. STA. = 410+256.473
 Δ = 12° 45' 06.1" LT
 R = 300.000 m
 T = 33.522 m
 L = 66.768 m
 E = 1.867 m
 P.C. STA 410+222.951
 P.R.C. STA. 410+289.718

CURVE 71NBW-3
 P.I. STA. = 410+344.512
 Δ = 3° 08' 19.2" RT
 R = 2,000.000 m
 T = 54.794 m
 L = 109.560 m
 E = 0.750 m
 P.R.C. STA 410+289.718
 P.T. STA. 410+399.279

GENERAL PLAN



ELEVATION

FINAL FOR CONSTRUCTION

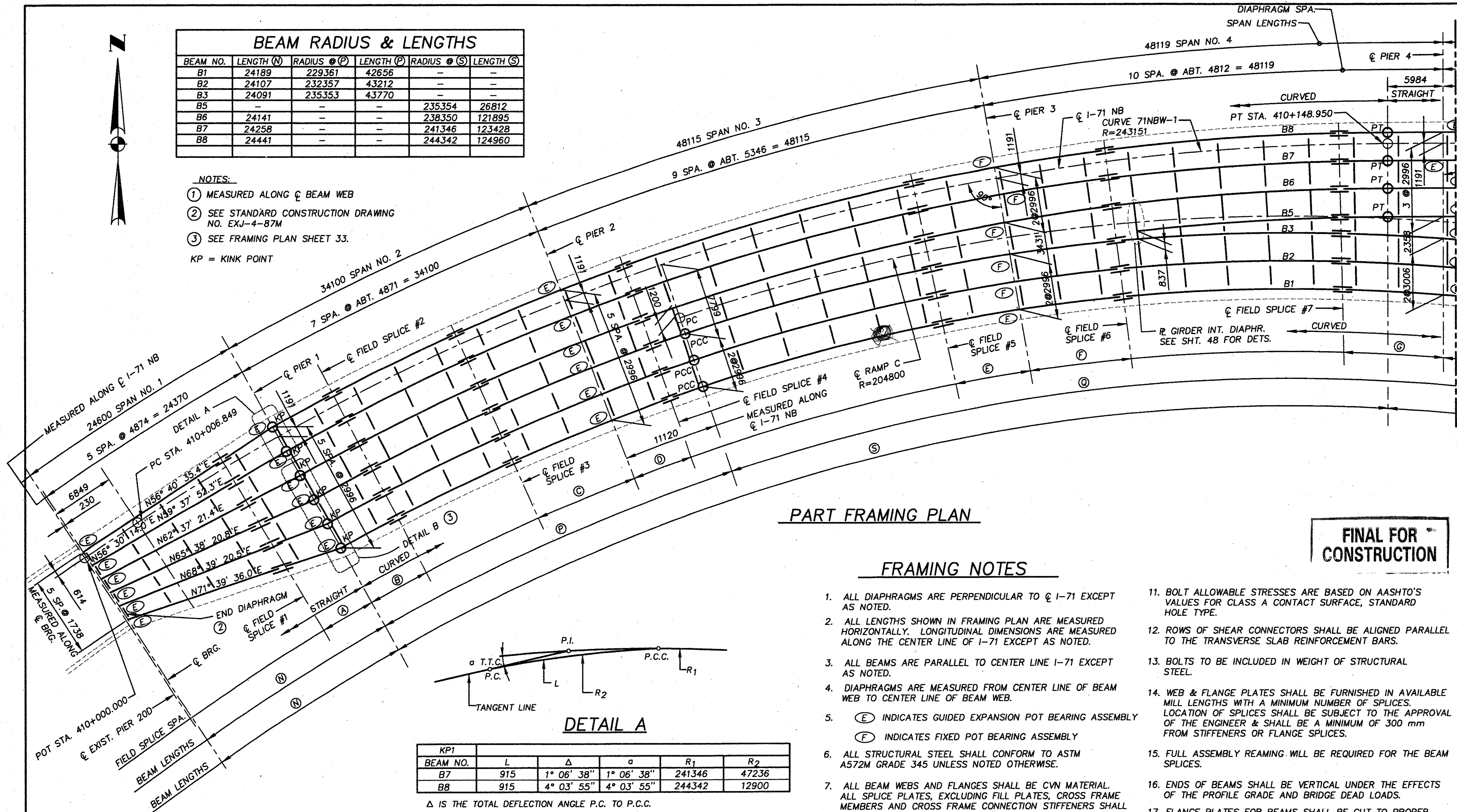
DESIGN AGENCY BRW HAZLET & ERDAL A BRW COMPANY	
DATE	STRUCTURE FILE NUMBER BR3-GP3
REVIEWED	DESIGNED
DRAWN	CHECKED
BKH	JAP/RAU
GENERAL PLAN 1-71 NB	
BRIDGE 3	
10/64	420 588

BEAM RADIUS & LENGTHS					
BEAM NO.	LENGTH (N)	RADIUS @ P	LENGTH (P)	RADIUS @ S	LENGTH (S)
B1	24189	229361	42656	-	-
B2	24107	232357	43212	-	-
B3	24091	235353	43770	-	-
B5	-	-	-	235354	26812
B6	24141	-	-	238350	121895
B7	24258	-	-	241346	123428
B8	24441	-	-	244342	124960

NOTES:

- MEASURED ALONG ϕ BEAM WEB
- SEE STANDARD CONSTRUCTION DRAWING NO. EXJ-4-87M
- SEE FRAMING PLAN SHEET 33.

KP = KINK POINT



PART FRAMING PLAN

FRAMING NOTES

- ALL DIAPHRAGMS ARE PERPENDICULAR TO ϕ I-71 EXCEPT AS NOTED.
- ALL LENGTHS SHOWN IN FRAMING PLAN ARE MEASURED HORIZONTALLY. LONGITUDINAL DIMENSIONS ARE MEASURED ALONG THE CENTER LINE OF I-71 EXCEPT AS NOTED.
- ALL BEAMS ARE PARALLEL TO CENTER LINE I-71 EXCEPT AS NOTED.
- DIAPHRAGMS ARE MEASURED FROM CENTER LINE OF BEAM WEB TO CENTER LINE OF BEAM WEB.
- (E) INDICATES GUIDED EXPANSION POT BEARING ASSEMBLY
(F) INDICATES FIXED POT BEARING ASSEMBLY
- ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A572M GRADE 345 UNLESS NOTED OTHERWISE.
- ALL BEAM WEBS AND FLANGES SHALL BE CVN MATERIAL. ALL SPLICE PLATES, EXCLUDING FILL PLATES, CROSS FRAME MEMBERS AND CROSS FRAME CONNECTION STIFFENERS SHALL BE CVN MATERIAL. CVN MATERIAL SHALL MEET THE SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
- BEARING STIFFENERS SHALL BE VERTICAL.
- FIELD CONNECTIONS SHALL BE MADE WITH 22 mm ASTM A-325M HIGH STRENGTH BOLTS.
- ERECTION BOLTS: THE HOLE DIAMETER IN CROSS FRAMES AND BEAM STIFFENERS SHALL BE 4 mm LARGER THAN THE DIAMETER OF THE ERECTION BOLTS. UNLESS REPLACED BY PERMANENT HIGH STRENGTH BOLTS, ERECTION BOLTS SHALL REMAIN IN PLACE. LOCK WASHERS SHALL BE FURNISHED FOR OTHER THAN FULLY TORQUED HIGH STRENGTH ERECTION BOLTS. BOLTS SHALL BE FURNISHED AS PART OF ITEM 513.
- BOLT ALLOWABLE STRESSES ARE BASED ON AASHTO'S VALUES FOR CLASS A CONTACT SURFACE, STANDARD HOLE TYPE.
- ROWS OF SHEAR CONNECTORS SHALL BE ALIGNED PARALLEL TO THE TRANSVERSE SLAB REINFORCEMENT BARS.
- BOLTS TO BE INCLUDED IN WEIGHT OF STRUCTURAL STEEL.
- WEB & FLANGE PLATES SHALL BE FURNISHED IN AVAILABLE MILL LENGTHS WITH A MINIMUM NUMBER OF SPLICES. LOCATION OF SPLICES SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER & SHALL BE A MINIMUM OF 300 mm FROM STIFFENERS OR FLANGE SPLICES.
- FULL ASSEMBLY REAMING WILL BE REQUIRED FOR THE BEAM SPLICES.
- ENDS OF BEAMS SHALL BE VERTICAL UNDER THE EFFECTS OF THE PROFILE GRADE AND BRIDGE DEAD LOADS.
- FLANGE PLATES FOR BEAMS SHALL BE CUT TO PROPER CURVATURE.
- ALL STRUCTURAL STEEL SHALL BE PAINTED USING THE IZEU PAINT SYSTEM. PRIME COAT SHALL BE APPLIED IN THE FABRICATION SHOP. SPECIAL 3 COAT SYSTEM, REFER TO SUPPLEMENTAL SPECIFICATIONS.
- ALL BOLTS SHALL BE GALVANIZED WHEN USED IN CONJUNCTION WITH THE IZEU PAINT SYSTEM.
- KINK POINT TRANSITION CURVES (DETAILS A THRU C) ARE AT CONTRACTOR'S OPTION AND BEAM LENGTHS GIVEN IN "BEAM RADIUS & LENGTHS" TABLES ARE GIVEN TO THE UNTRANSITIONED KINK POINTS SHOWN ON THE PLAN VIEWS.

FIELD SPLICE DISTANCES ①

BEAM NO.	LENGTH (A)	LENGTH (B)	LENGTH (C)	LENGTH (D)	LENGTH (E)	LENGTH (F)	LENGTH (G)
B1	6287	6892	11487	6724	8394	11323	10911
B2	6305	6982	11637	6811	8504	11471	10975
B3	6339	7072	11787	6899	8614	11620	11039
B5	-	-	-	-	-	-	11060
B6	6390	7162	11937	6987	8734	11792	11125
B7	6459	7252	12087	7075	8844	11941	11189
B8	6545	7342	12237	7163	8954	12089	11254

KP1	BEAM NO.	L	Δ	α	R_1	R_2
	B7	915	1° 06' 38"	1° 06' 38"	241346	47236
	B8	915	4° 03' 55"	4° 03' 55"	244342	12900

Δ IS THE TOTAL DEFLECTION ANGLE P.C. TO P.C.C.

FINAL FOR CONSTRUCTION

FRAMING PLAN
171 N.B.

BRIDGE 3

31 / 64

441
588

BRW
A DAVES & MOORE GROUP COMPANY

DESIGNED
SA
CHECKED
MM

DRAWN
M.F.
REVISED

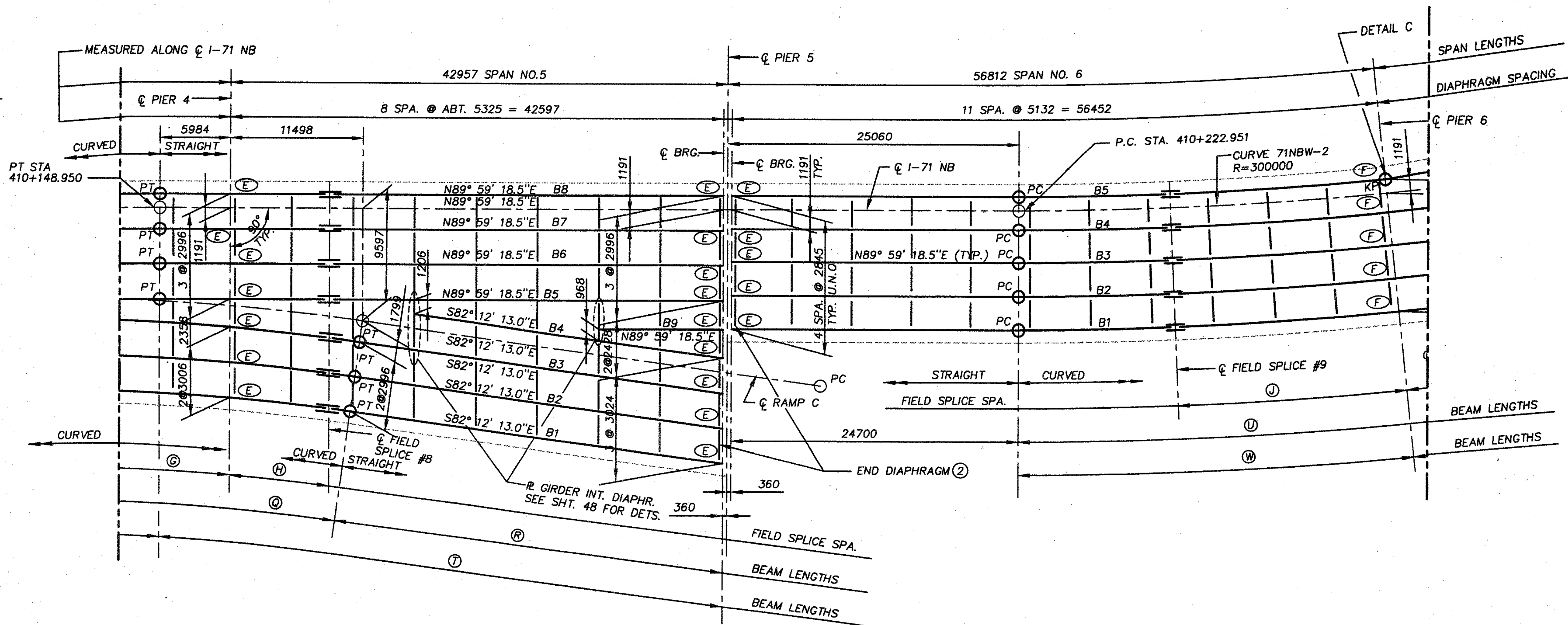
DATE

REVIEWED

STRUCTURE FILE NUMBER

AUG 18 1998

2-FRAME JWG 8-18-98



PART FRAMING PLAN

FIELD SPLICE DISTANCES ①

BEAM NO.	LENGTH (H)	LENGTH (J)
B1	8648	19287
B2	8647	19110
B3	8645	18933
B4	-	18756
B5	8600	18579
B6	8600	-
B7	8600	-
B8	8600	-

BEAM RADIUS & LENGTHS

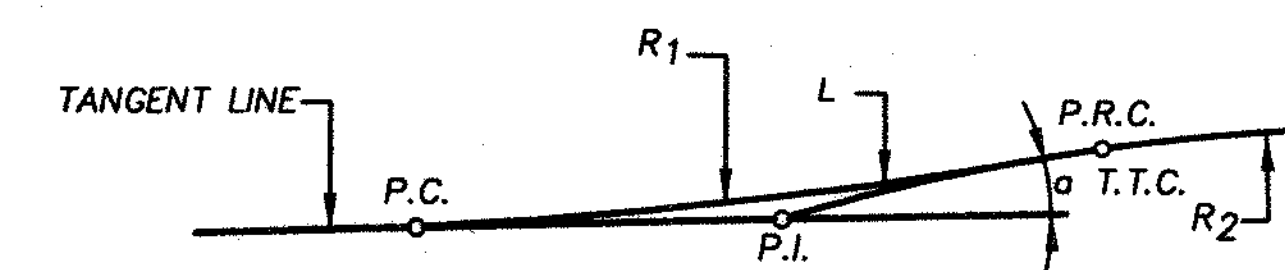
BEAM NO.	RADIUS @ (Q)	LENGTH (Q)	LENGTH (T)	LENGTH (R)
B1	197009	90960	-	32462
B2	200005	92344	-	32051
B3	203001	93727	-	31640
B4	-	-	-	26871
B5	-	-	48581	-
B6	-	-	48581	-
B7	-	-	48581	-
B8	-	-	48581	-
B9	-	-	-	10649

NOTES:

- ① MEASURED ALONG ϕ BEAM WEB
 - ② SEE STANDARD CONSTRUCTION DRAWING NO. EXJ-4-87M
- KP = KINK POINT

WELD CHART

MAT. THICKNESS OF THICKER PART JOINED	MIN. SIZE OF FILLET WELD
TO 19 mm THICK INCLUSIVE	6 mm
OVER 19 mm THICK TO 38 mm INCL.	8 mm
OVER 38 mm THICK TO 57 mm INCL.	10 mm
OVER 57 mm THICK TO 152 mm INCL.	13 mm



DETAIL B

BEAM NO.	L	Δ	α	R1	R2
B1	915	10° 54' 57"	10° 54' 57"	4803	229361
B2	915	7° 54' 45"	7° 54' 45"	6626	232357
B3	915	4° 53' 46"	4° 53' 46"	10706	235353
B6	915	1° 52' 46"	1° 52' 46"	27873	238350

Δ IS THE TOTAL DEFLECTION ANGLE P.C. TO P.R.C.

FINAL FOR CONSTRUCTION

FRAMING PLAN
171 N.B.

BRIDGE 3

32 / 64

442
588

BRW
A DAVIS & MOORE GROUP COMPANY

DESIGNED
SA
CHECKED
MMH

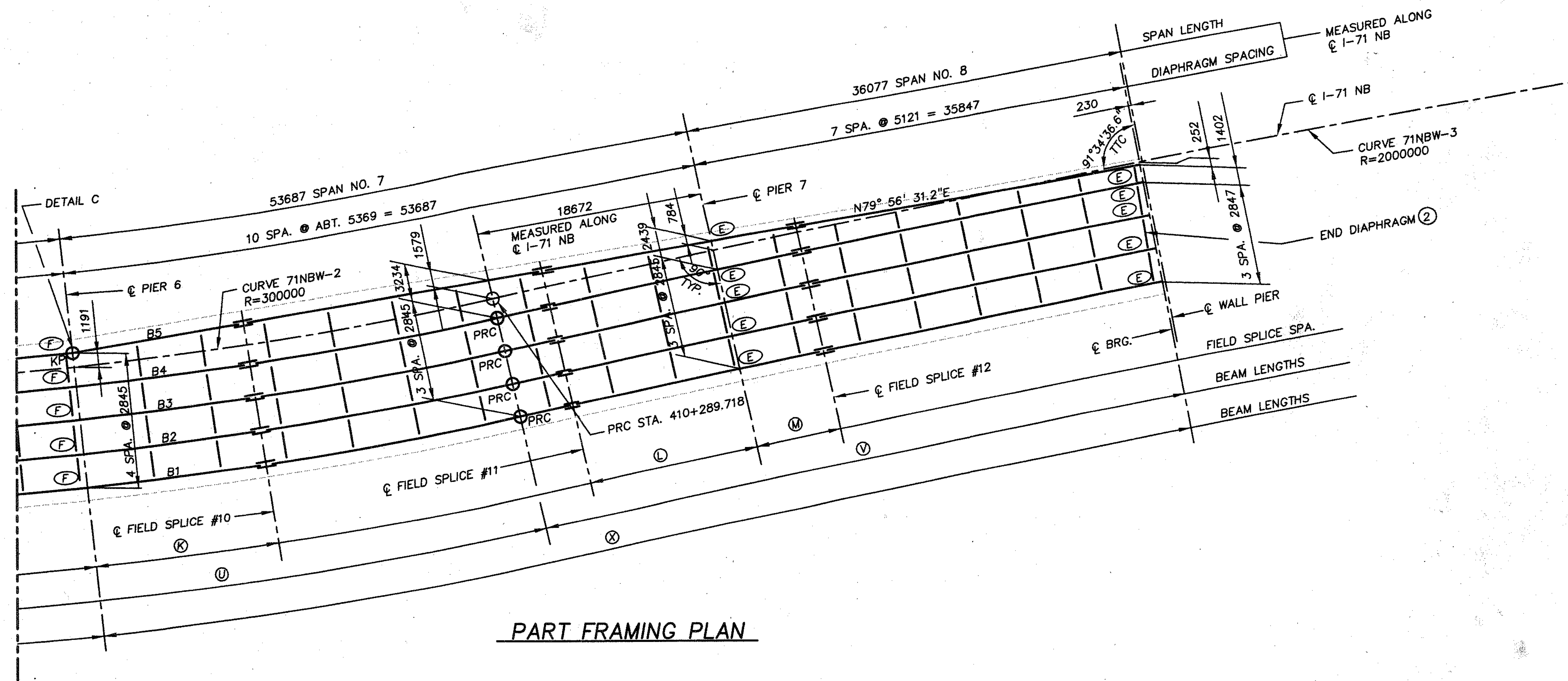
DRAWN
M.F.

REVIEWED

DATE

STRUCTURE FILE NUMBER

AUG 18 1998

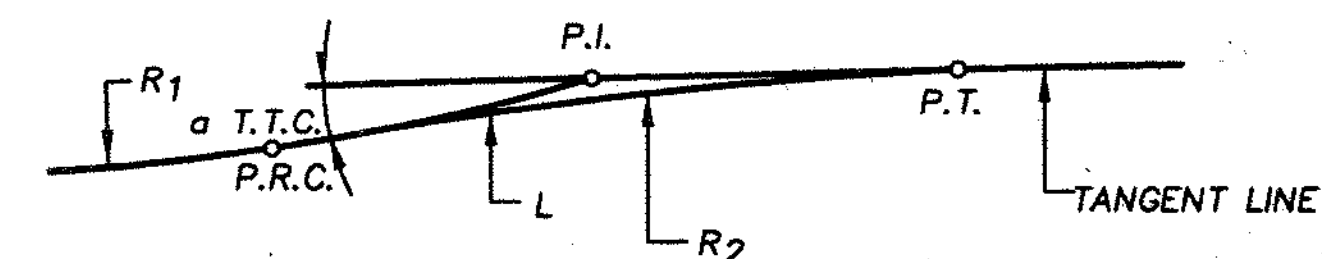


PART FRAMING PLAN

FIELD SPLICE DISTANCES ①			
BEAM NO.	LENGTH (K)	LENGTH (L)	LENGTH (M)
B1	14892	14129	7024
B2	14755	14149	7034
B3	14619	14169	7044
B4	14482	14190	7054
B5	14344	14220	7067

BEAM RADIUS & LENGTHS						
BEAM NO.	RADIUS • (U)	LENGTH (U)	RADIUS • (V)	LENGTH (V)	RADIUS • (W)	LENGTH (W)
B1	310191	69035	1989809	53965	—	—
B2	307345	68402	1992655	54120	—	—
B3	304500	67770	1995500	54274	—	—
B4	301654	67136	1998346	54428	—	—
B5	—	—	—	—	298809	31626

- NOTES:
- ① MEASURED ALONG ϕ BEAM WEB
 - ② SEE STANDARD CONSTRUCTION DRAWING NO. EXJ-4-87M
- KP = KINK POINT



DETAIL C

BEAM NO.	L	Δ	a	R ₁	R ₂
B5	915	4° 04' 12"	4° 04' 12"	298809	13021

Δ IS THE TOTAL DEFLECTION ANGLE P.R.C. TO P.T.

FINAL FOR CONSTRUCTION

FRAMING PLAN
171 N.B.

BRIDGE 3

33 / 64

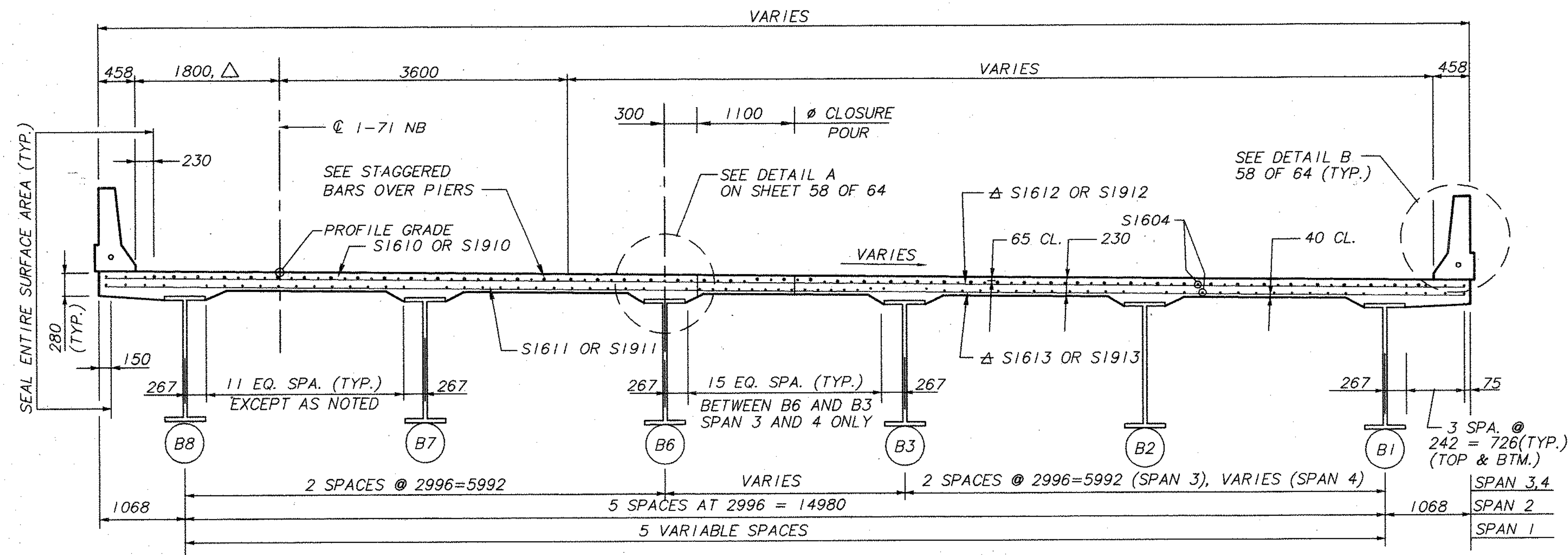
443
588

BRW
A. JAMES & MOORE GROUP COMPANY

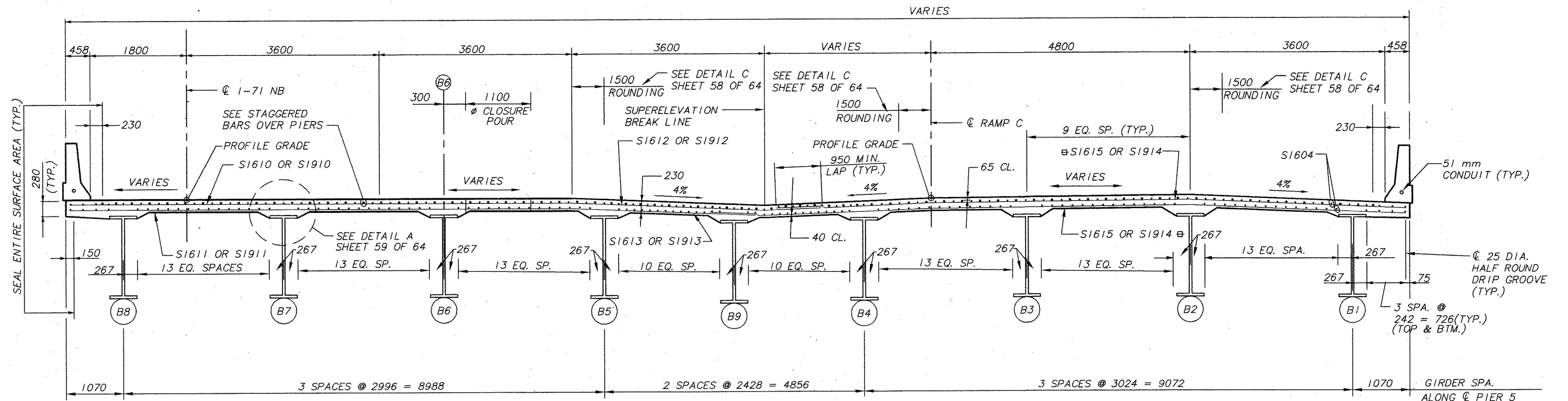
DATE
REVIEWED
DRAWN
SA
CHECKED
MCM

STRUCTURE FILE NUMBER
REVISED

△ VARIES 1223 - 1800 IN SPAN 1



TYPICAL SECTION
(STA. 410+000.000 TO STA. 410+121.500)
(SPANS 1,2,3, PORTION OF 4)



TYPICAL SECTION
(STA. 410+121.5 TO STA. 410+197.891)
(PORTION SPAN 4, 5)

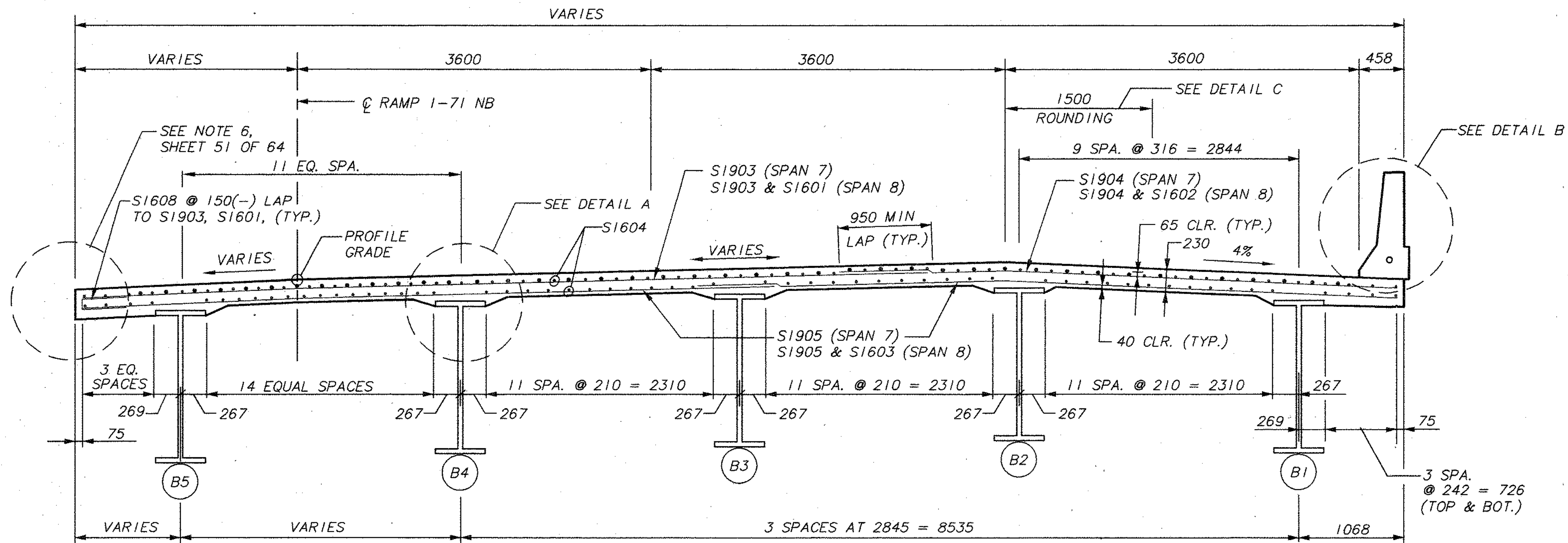
- △ CUT SI1612, SI1613, SI1912, SI1913 TO FIT.
- ∅ SEE SECTION B-B SHEET 52 OF 64
- ⊞ CUT SI1615 OR SI1914 TO FIT. MULTIPLE LAPS ARE ALLOWED PER BAR LINE. LAP TOP BARS MIDWAY BETWEEN GIRDERS AND BTM. BARS OVER GIRDERS.

NOTES:

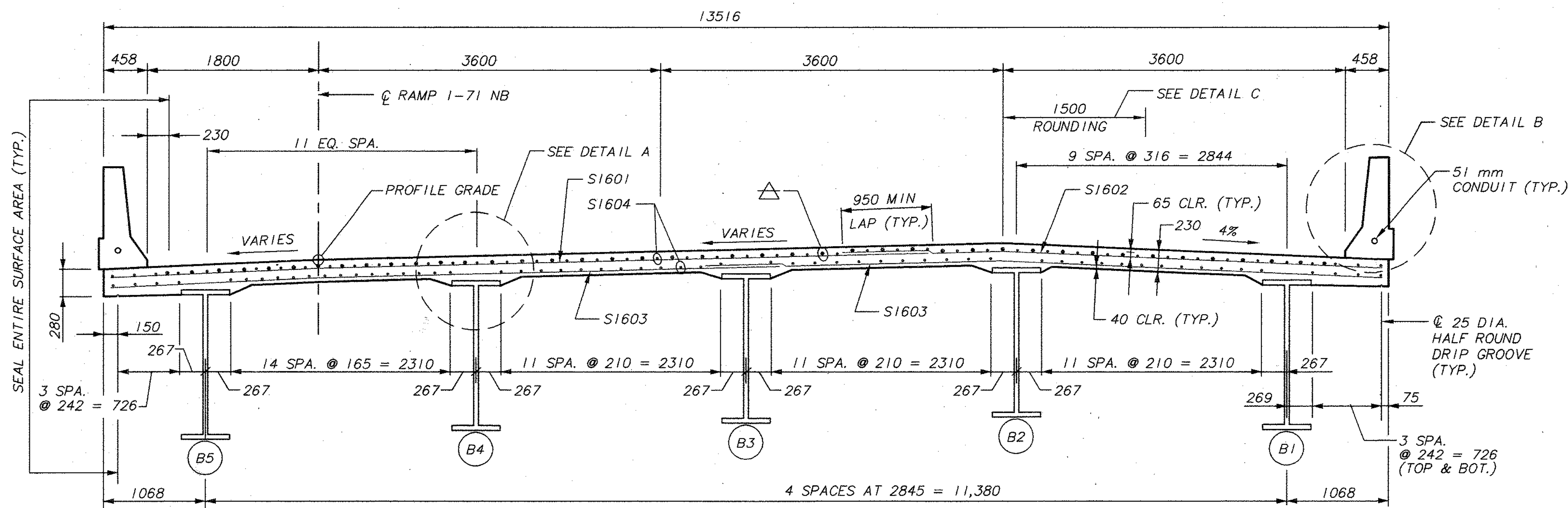
1. TRANSVERSE BARS TO BE PLACED RADIAL TO 1-71 NB ALIGNMENT.
2. FOR SUPERELEVATION RATES, REFERENCE SUPERELEVATION PLANS.

FINAL FOR CONSTRUCTION

SUPERSTRUCTURE (SPANS 1,2,3,4,5) REINFORCING STEEL LIST			
MARK	TOTAL NO.	LENGTH	TYPE
SI1604	3030	12000	STR
SI1606	868	2130	I
SI1610	666	7310	STR
SI1611	666	7310	STR
SI1612	666	12000	STR
SI1613	666	12000	STR
SI1614	203	8200	STR
SI1615	288	3800	STR
SI1901	868	765	3
SI1902	868	855	2
SI1910	661	7310	STR
SI1911	661	7310	STR
SI1912	661	12000	STR
SI1913	661	12000	STR
SI1914	286	3800	STR

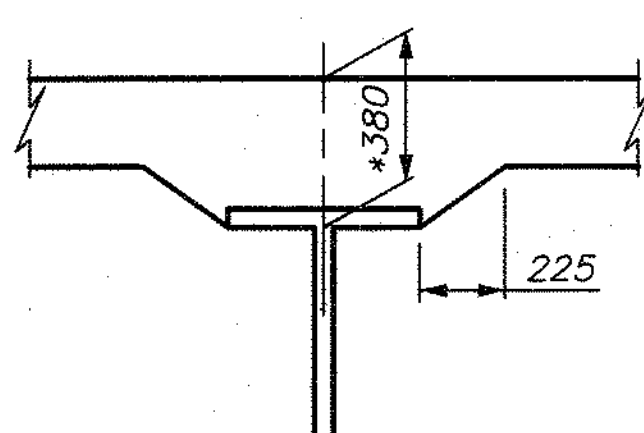


TYPICAL SECTION
(SPAN 6 STA. 410+252.220 TO STA. 410+254.703)
(SPAN 7 AND SPAN 8)



TYPICAL SECTION
(SPAN 6 STA. 410+197.891 TO STA. 410+252.220)

SEE STAGGERED BARS OVER PIERS
SHOWN ON SLAB PLANS



DETAIL A

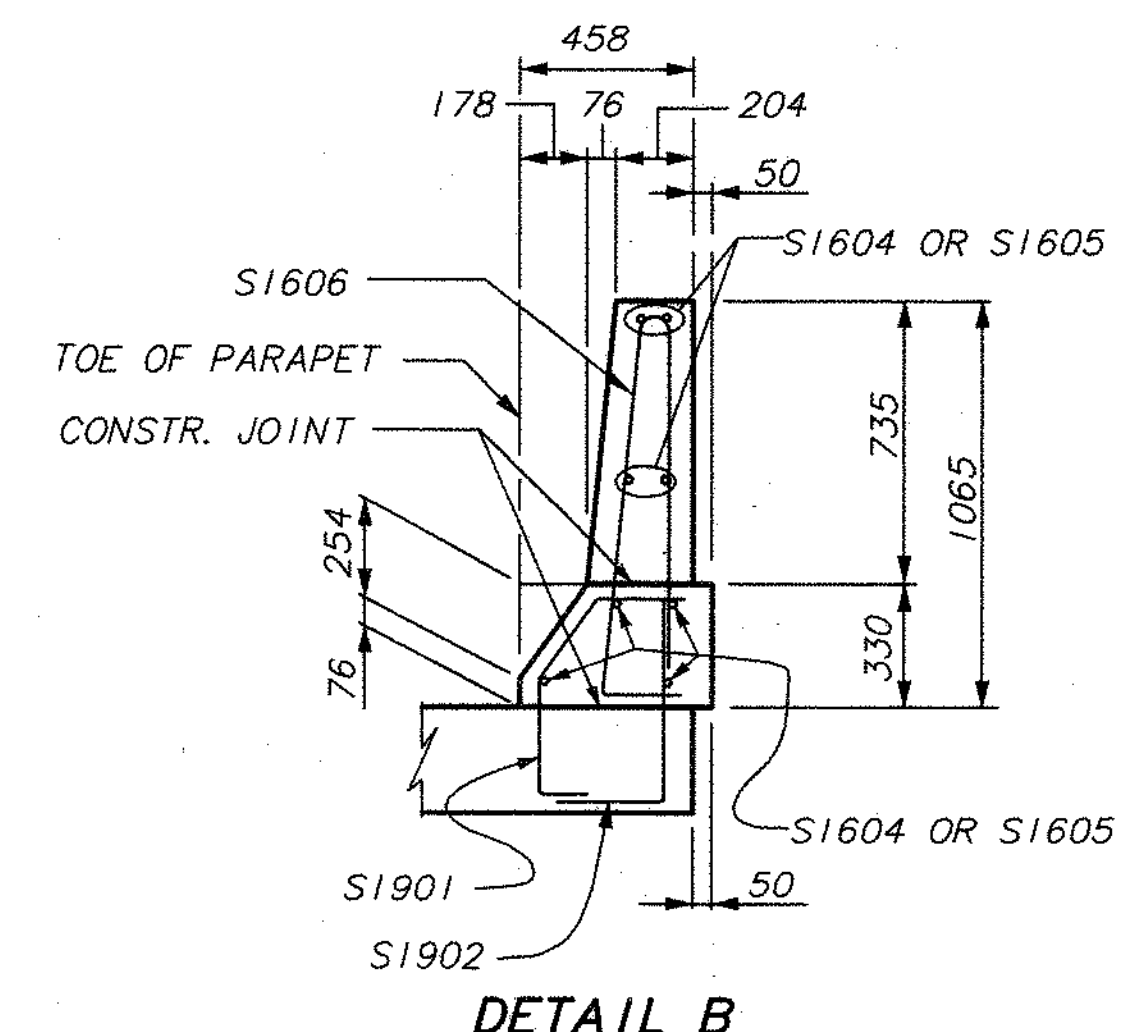
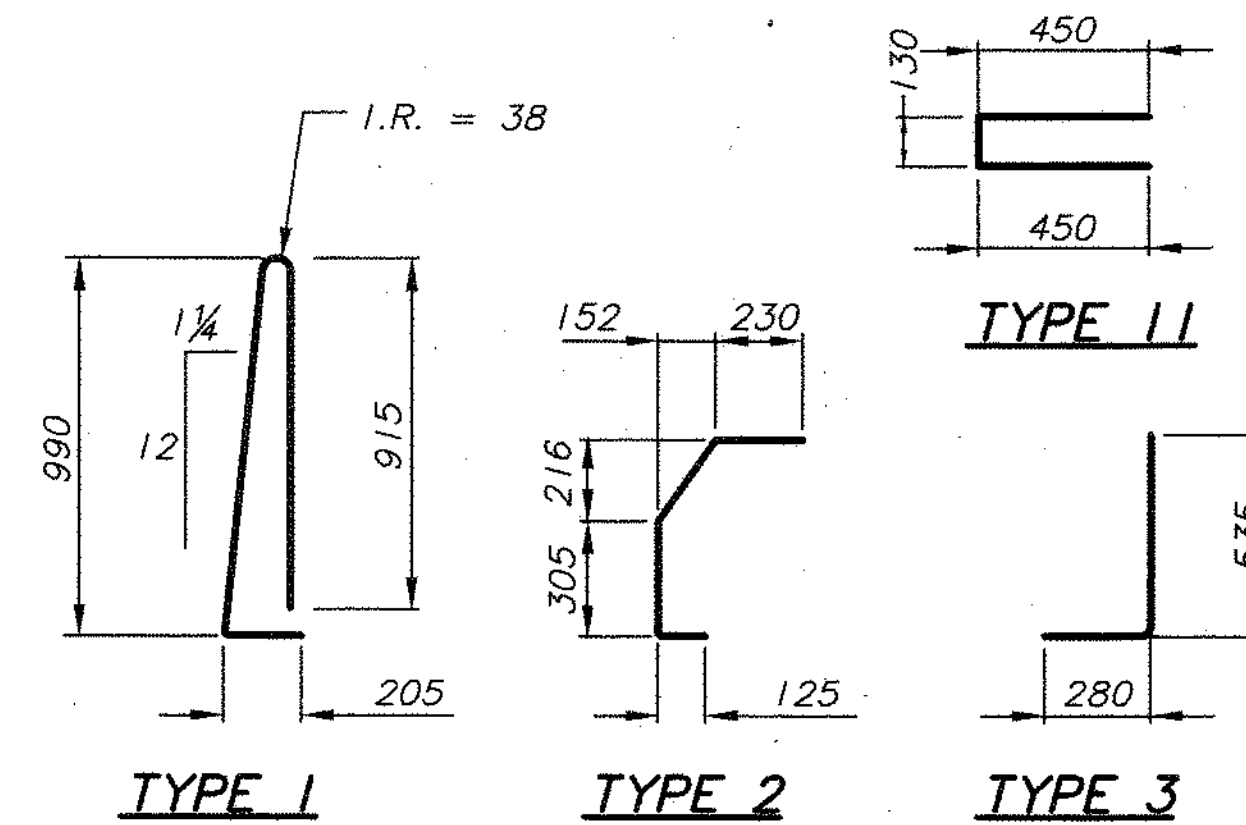
* DECK SLAB DEPTH: THE DISTANCE SHOWN FROM TOP OF DECK SLAB TO TOP OF STEEL GIRDER WEB IS THE DESIGN DIMENSION. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED ON THIS DIMENSION, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE BEAM MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE.

NOTES:

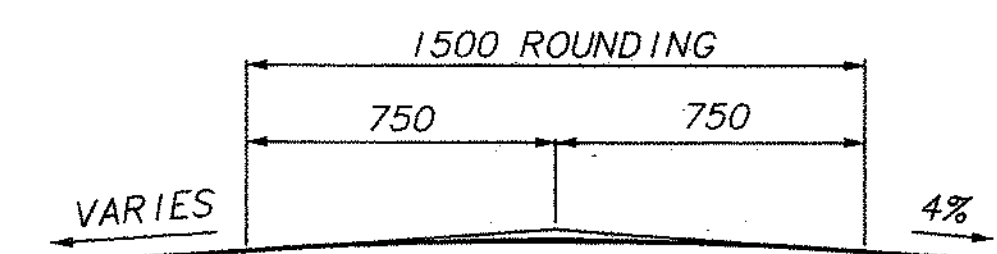
1. TRANSVERSE BARS TO BE PLACED RADIAL TO 1-71 NB ALIGNMENT.
2. FOR SUPERELEVATION RATES, REFERENCE SUPERELEVATION PLANS.

FINAL FOR CONSTRUCTION

SUPERSTRUCTURE (SPANS 6,7,8) REINFORCING STEEL LIST			
MARK	TOTAL NO.	LENGTH	TYPE
S1601	507	8700	STR.
S1602	507	5800	STR.
S1603	1014	7300	STR.
S1604	1608	12000	STR.
S1605	112	11400	STR.
S1606	444	2130	I
S1607	84	12000	STR.
S1608	615	1030	I
S1901	444	785	3
S1902	444	855	2
S1903	487	9400	STR.
S1904	487	5700	STR.
S1905	974	7600	STR.



DETAIL B



DETAIL C

Appendix C:

HAM-71/75 General Plan

