

GENERAL ELEVATION

GENERAL PLAN
Scale 3/32" = 1'-0"

DESIGN DATA:
Bridge designed for Class H-15 Loading and
in accordance with the A.A.S.H.O. Code of 1935.

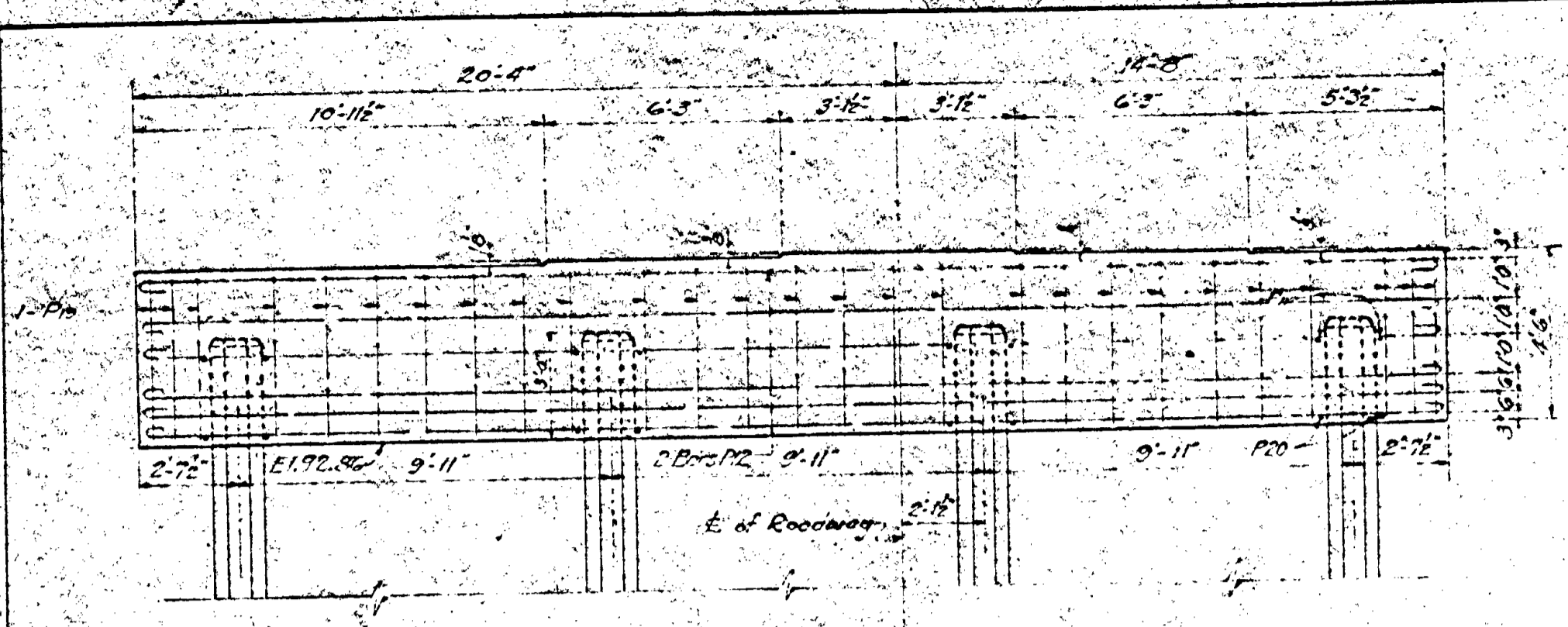
CONSTRUCTION NOTES:
The Minnesota Highway Department's "Specifications for Highway Construction" dated July 13, 1935 shall apply on this work unless otherwise specifically noted.
All concrete shall be Grade 2 except Rail Posts which shall be Grade 3.
All edges of concrete, except on Rail Posts, to be finished to a 3/4" bevel.
All vertical edges of Rail Posts to be finished to a 1/2" bevel.
No construction joints allowed except where shown on the Plans.
Top of Floor Slab and top of Sidewalk to be finished in accordance with M.H.D. Spec. Par. 240.305 and 240.306.
Fabricator to submit complete detail drawings in ink of Expansion Joints & Steel Railing to the Engineer for approval before any work is done in the shop. Engineer to be notified when shop work has been completed, so that inspection can be made.
All field connections of steel are to be bolted.
All bolts to have Hex. heads and Hex. Nuts with Lock Washers.
Shop Paint: One coat of Red Lead as per M.H.D. Spec. 3501.
Field Paint for stringers, expansion devices, and drains: One coat Black Paint as per M.H.D. Spec. 3504.
Field Paint for Railing: First coat Gray Paint as per M.H.D. Spec. 3503. Second " Aluminum " " " " " " 3505.
Bituminous Felt to be cut to fit and securely fastened to concrete with nails.

B.M. - Elev. 104.05 (City of Anoka Datum)
On concrete walk at Southwest Corner
of intersection of Pleasant St. & Maple Ave.

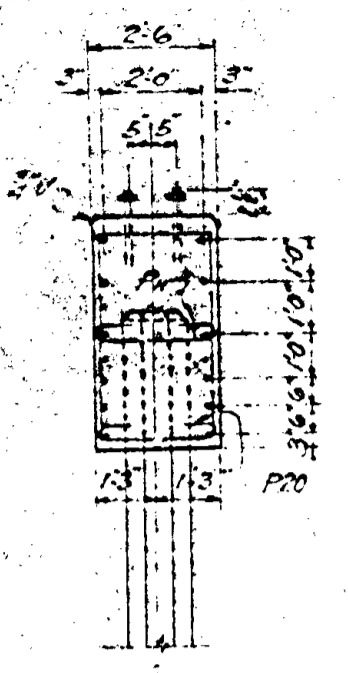
PLEASANT STREET BRIDGE
OVER THE RUM RIVER
AT
ANOKA, MINNESOTA
GENERAL PLAN & ELEVATION
January 16, 1939

R.A. Helseth - Consulting Engr. Minneapolis, Minn.

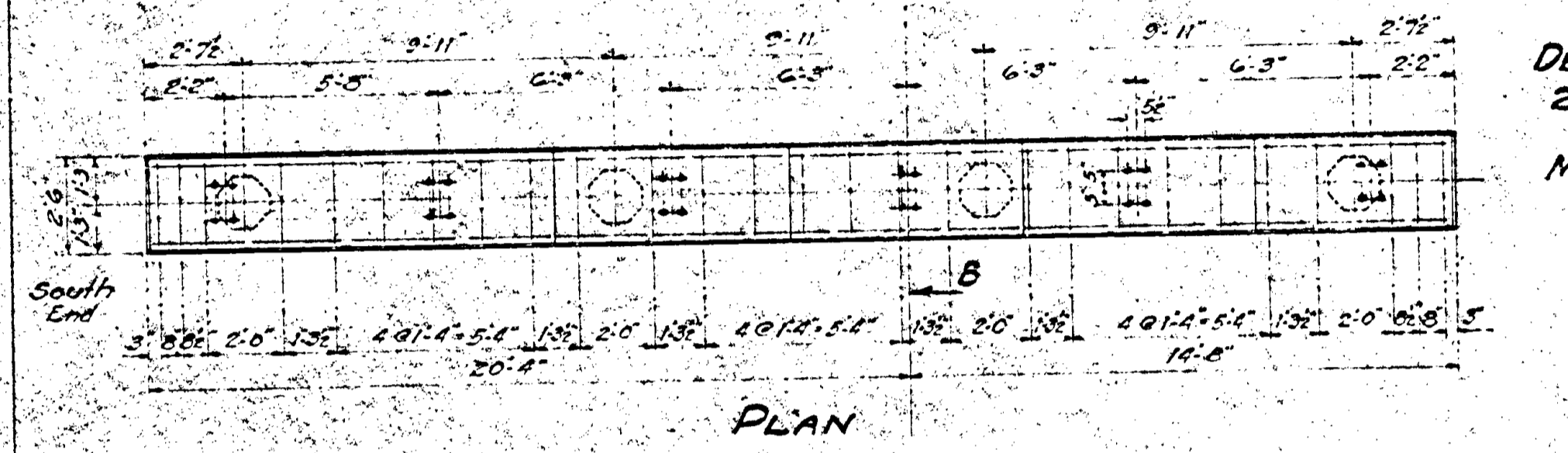
Dr. V.P.A.
T.C. B.C.
C.K. P.R.



ELEVATION B

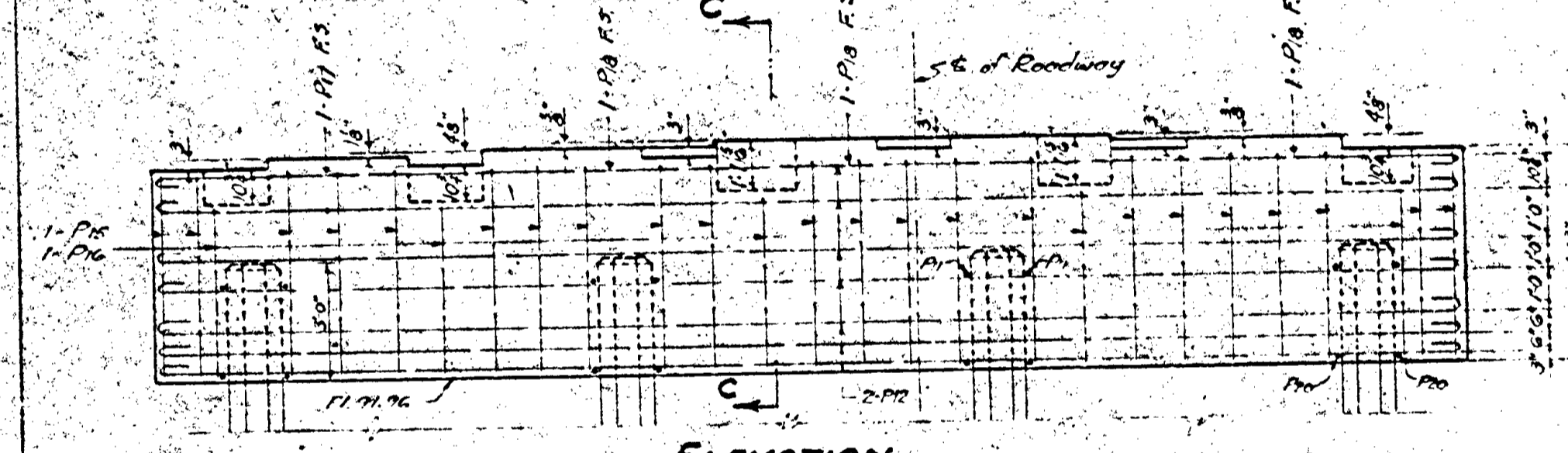


SECTION "B-B"

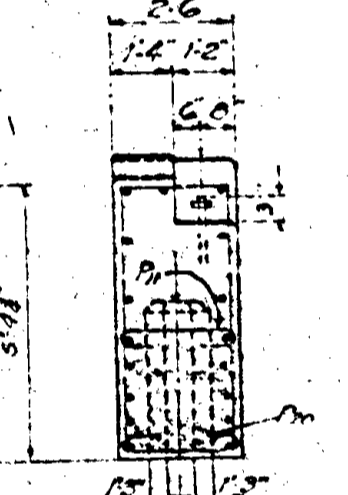


PLAN

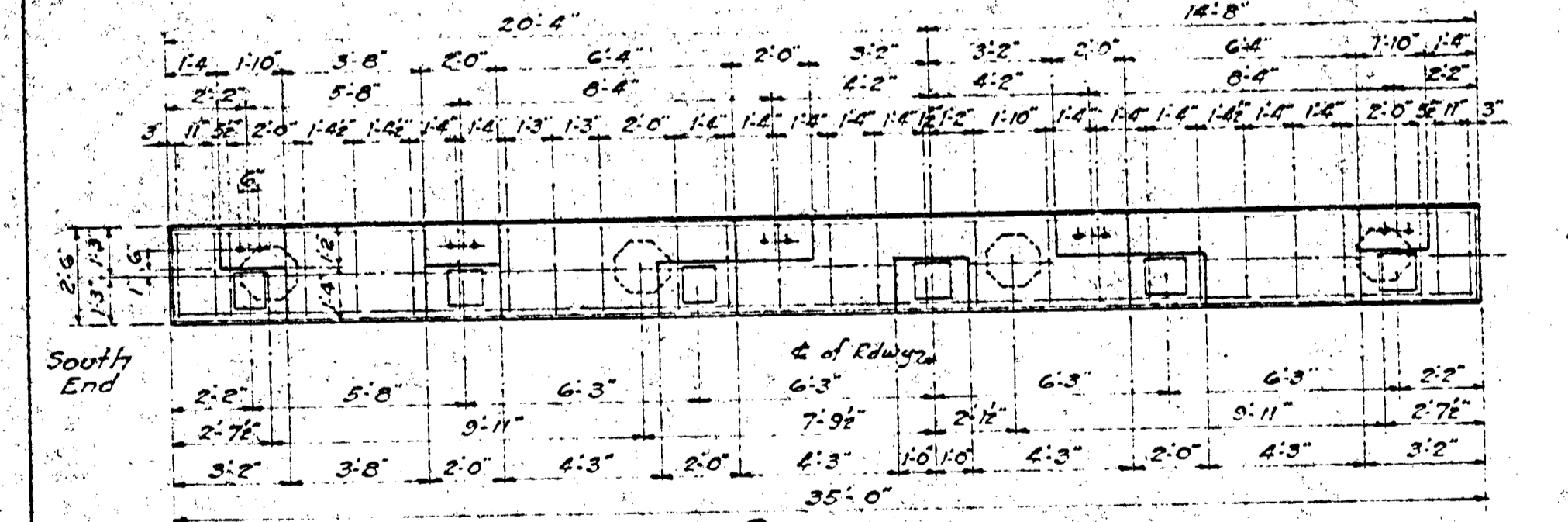
DETAILS OF BENTS 2 TO 8 INCLUSIVE
MAKE 7 THUS



ELEVATION C

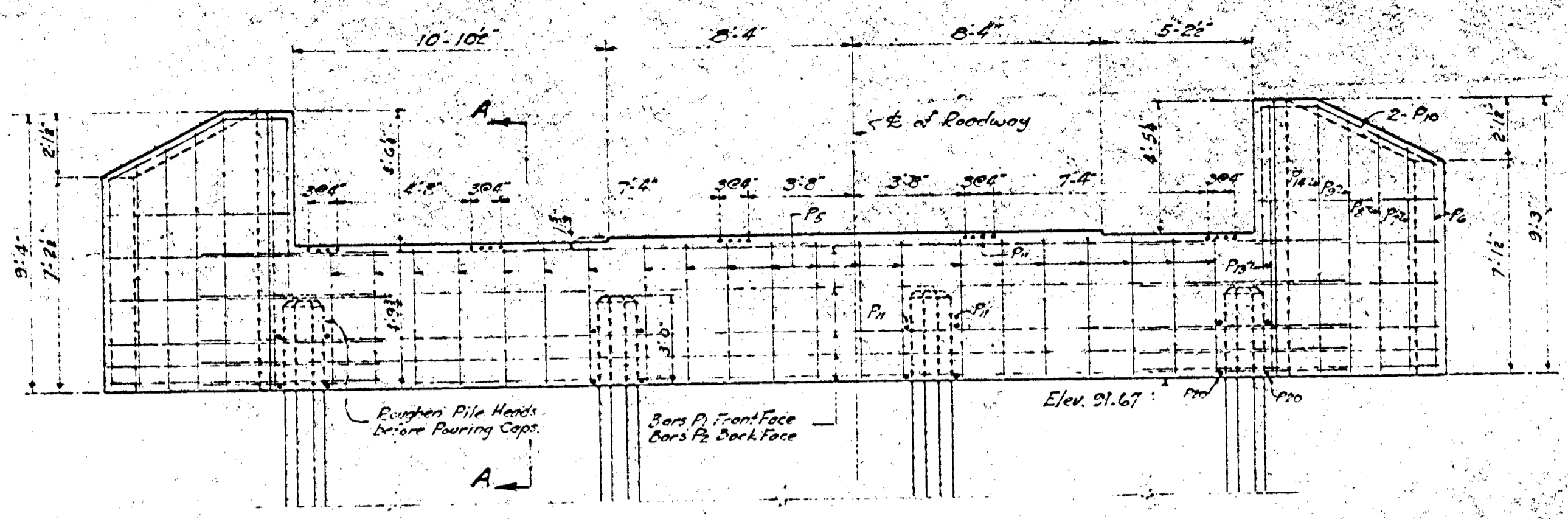


SECTION "C-C"

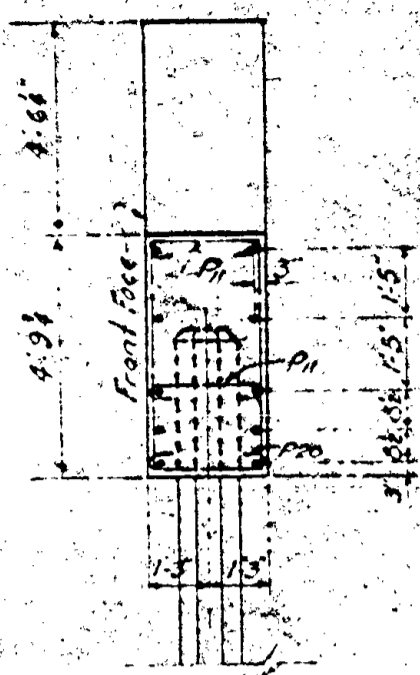


PLAN

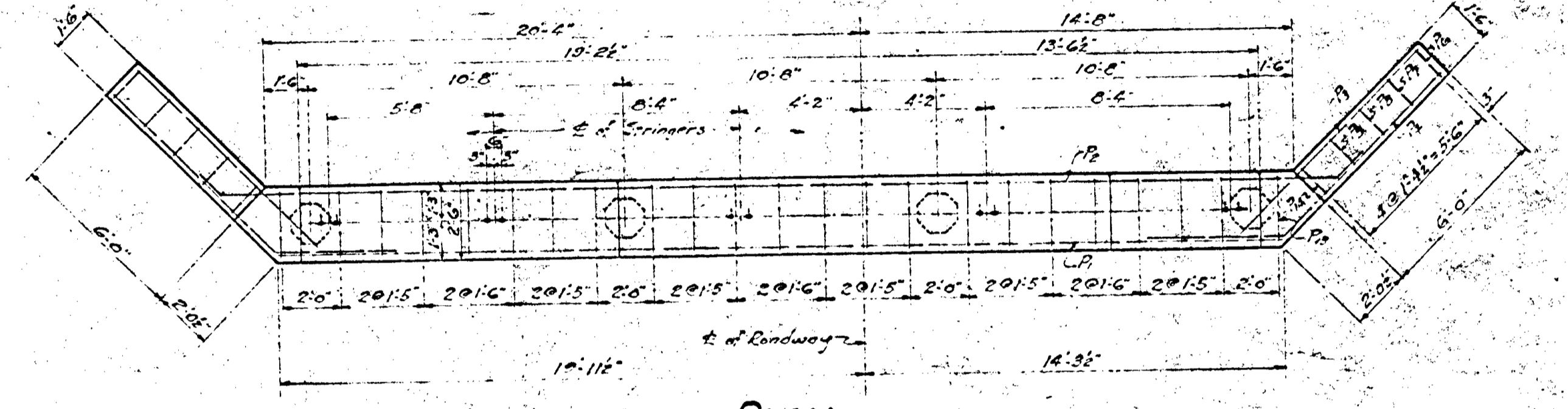
DETAILS OF BENTS 1 AND 9
MAKE 1-THUS
" 1-OPP. HAND



ELEVATION A



SECTION "A-A"

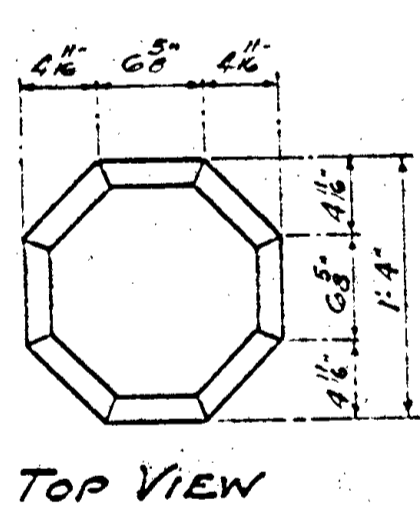


PLAN

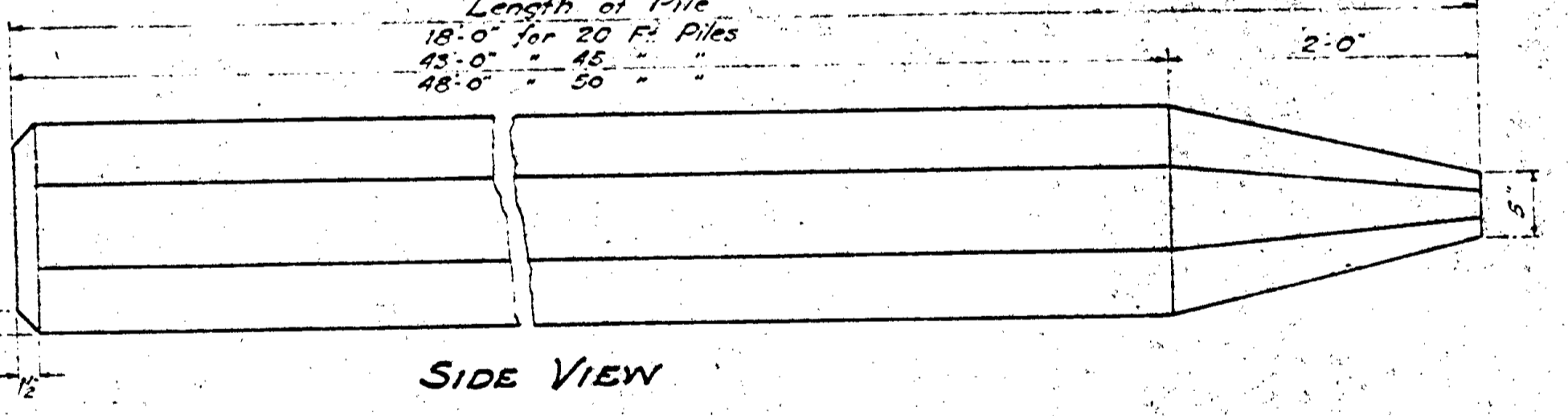
DETAILS OF ABUTMENTS
MAKE WEST ABUTMENT THUS
" EAST " OPP. HAND



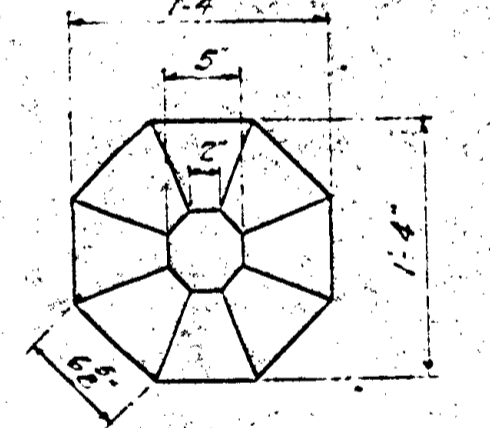
SECTION THRU WING



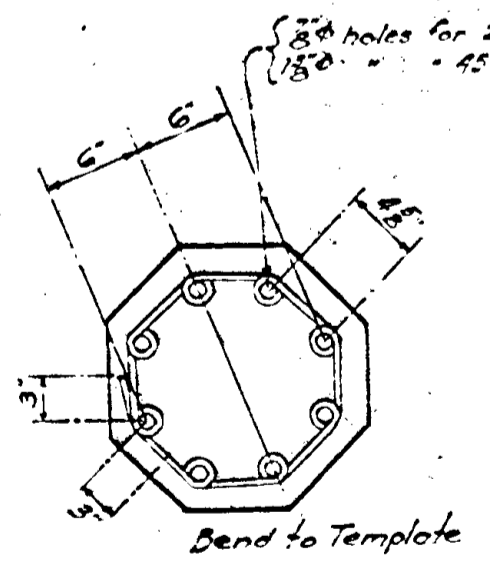
TOP VIEW



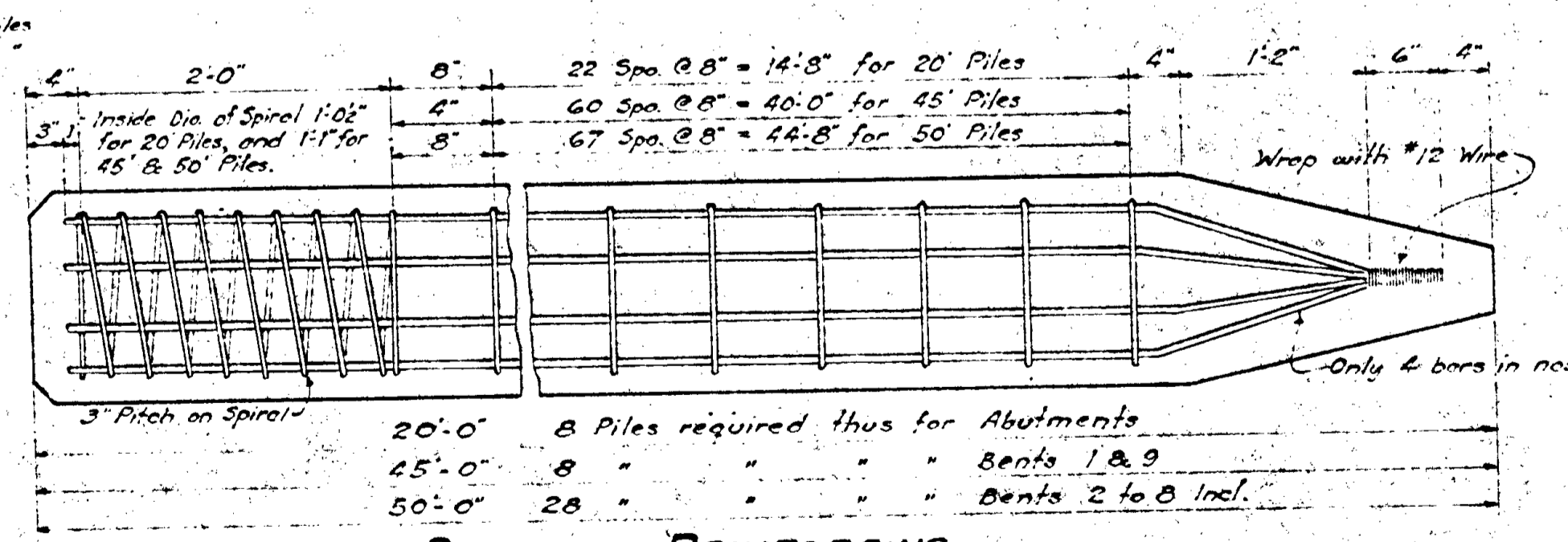
SIDE VIEW



BOTTOM VIEW



DETAIL OF 1/2" TIE RODS



DETAIL OF REINFORCING

BILL OF MATERIAL FOR 1-20' CONC. PILE

Reinf. Steel	132 Lbs.
Concrete	1.03 C.Y.

BILL OF MATERIAL FOR 1-45' CONC. PILE

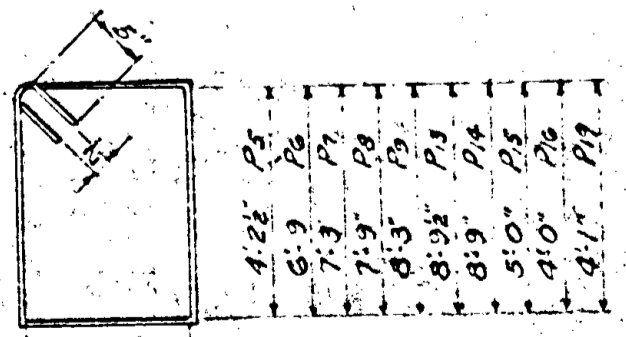
Reinf. Steel	1016 Lbs.
Concrete	2.39 C.Y.

BILL OF MATERIAL FOR 1-50' CONC. PILE

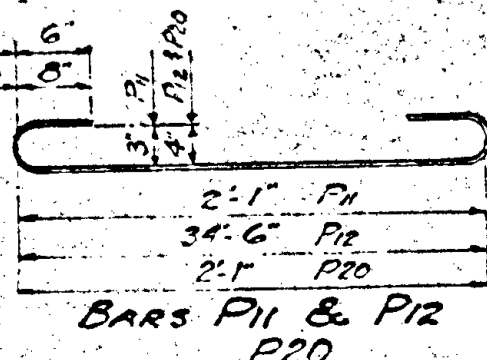
Reinf. Steel	1410 Lbs.
Concrete	2.66 C.Y.

BILL OF BARS FOR PILE BENTS & ABUTS.

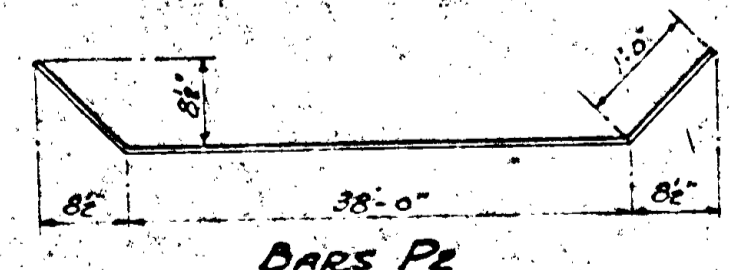
BAR No.	SIZE	LENGTH	SHAPE	LOCATION
P1	10	3'-6"	34'-0"	Abut. Longitudinal
P2	10	3'-6"	40'-6"	Abut. "
P3	24	3'-6"	11'-0"	Wing Horiz.
P4	24	3'-6"	10'-0"	Wing "
P5	42	2'-8"	13'-7"	Vertical Ties
P6	4	2'-0"	16'-8"	Wing "
P7	4	2'-0"	17'-8"	Wing "
P8	4	2'-0"	18'-8"	Wing "
P9	4	2'-0"	19'-8"	Wing "
P10	8	3'-6"	15'-0"	Top of Abut. Wings
P11	128	2'-8"	3'-6"	Ties at all pile heads
P12	112	3'-6"	36'-6"	Bents Longitudinal
P13	4	2'-8"	22'-8"	Abut. Vertical Ties
P14	2	2'-8"	20'-8"	Wing "
P15	44	2'-8"	15'-2"	Ties Bents 1 & 9
P16	10	2'-0"	73'-2"	Wing "
P17	2	2'-8"	3'-6"	Cents 1 & 9 Longit.
P18	6	2'-8"	6'-7"	Wing "
P19	180	2'-0"	13'-4"	Ties Bents 2 to 8
P20	88	2'-0"	2'-0"	at all piles.



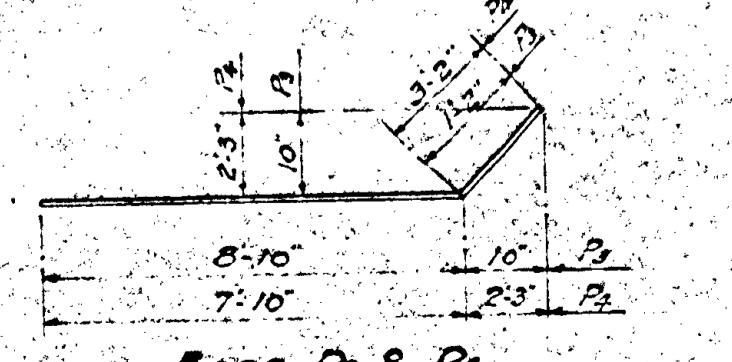
BARS P5, 6, 7, 8, 9, 13, 14, 15, 16, 17



BARS P11 & P12



BARS P2



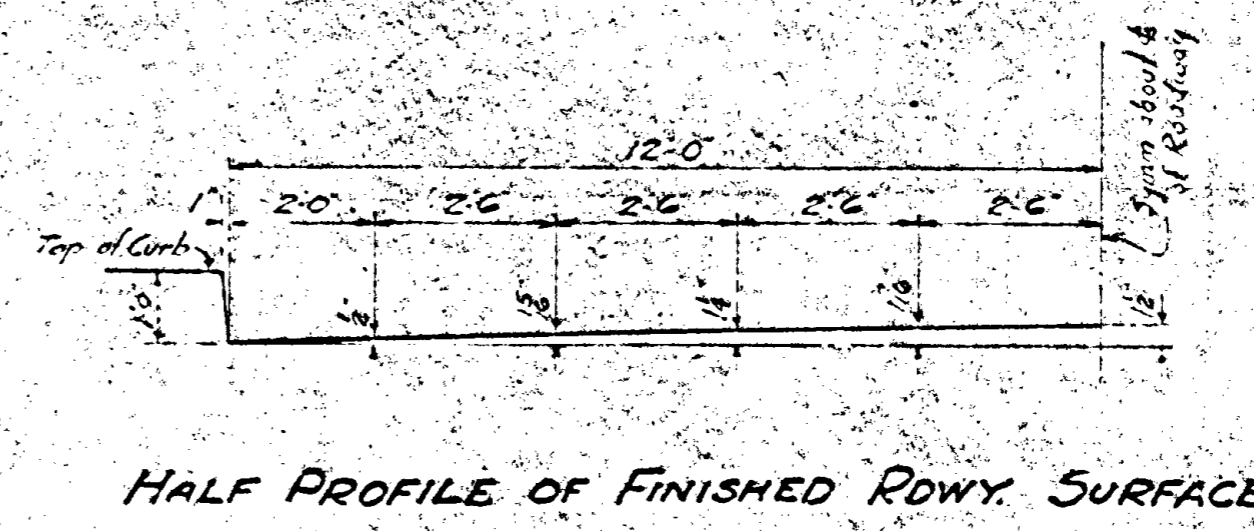
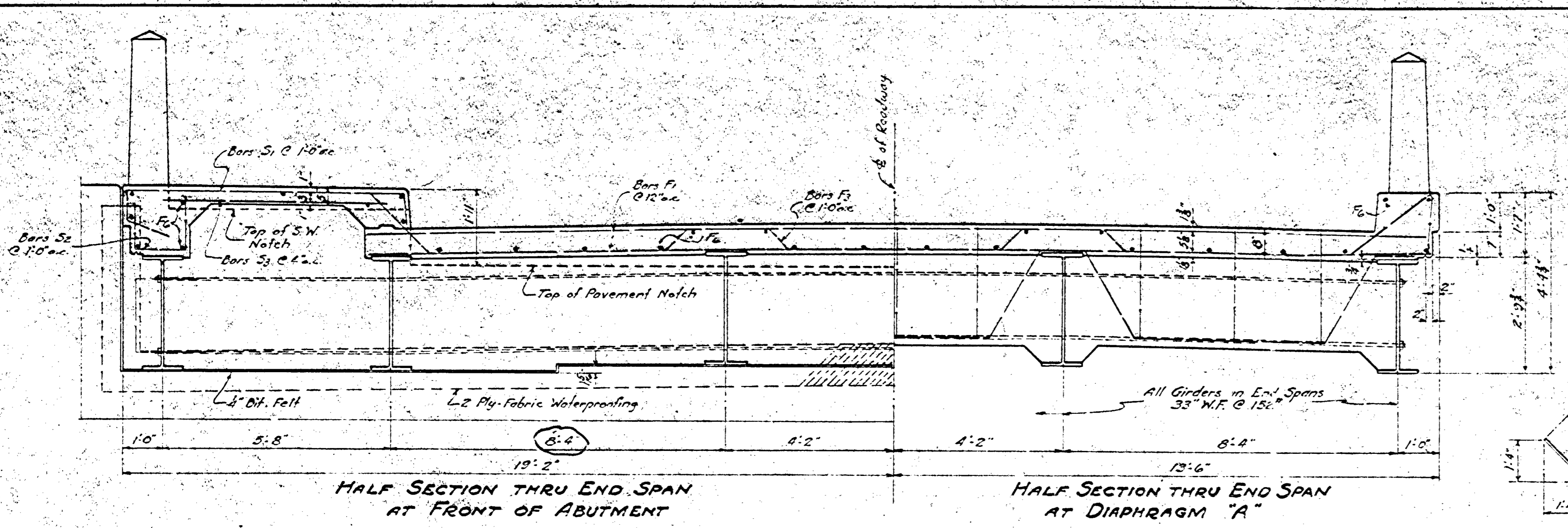
BARS P3 & P4

PILE CONSTRUCTION NOTES
Concrete for Piles to be Grade "A" using 7 sacks of Portland Cement per cubic yard. M.H.D. Specifications to govern.
Piles to be handled by means of slings attached to piles at the 3 points. Concrete Piles to be driven to a bearing of at least 30 tons each with the least possible cut-off.
All piles to be driven with a steam hammer to full penetration or to refusal as directed by the Engineer.

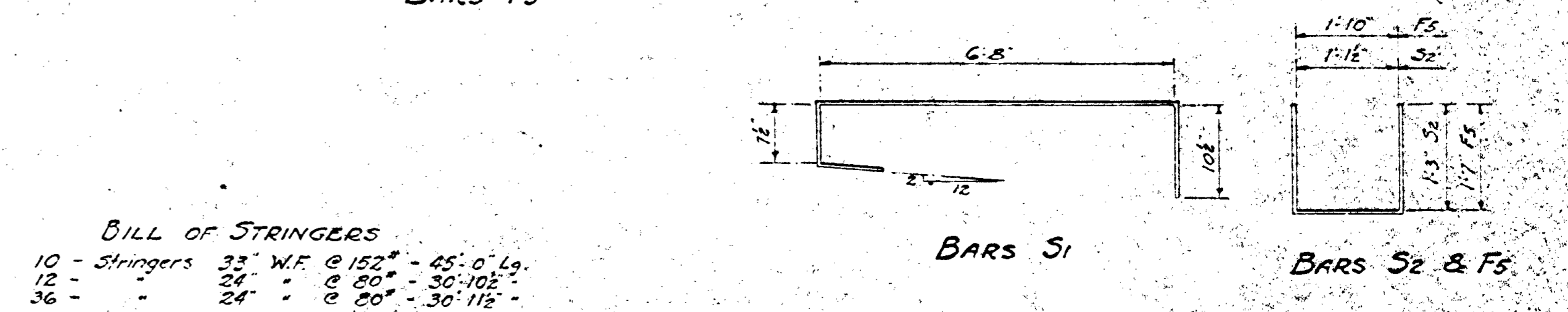
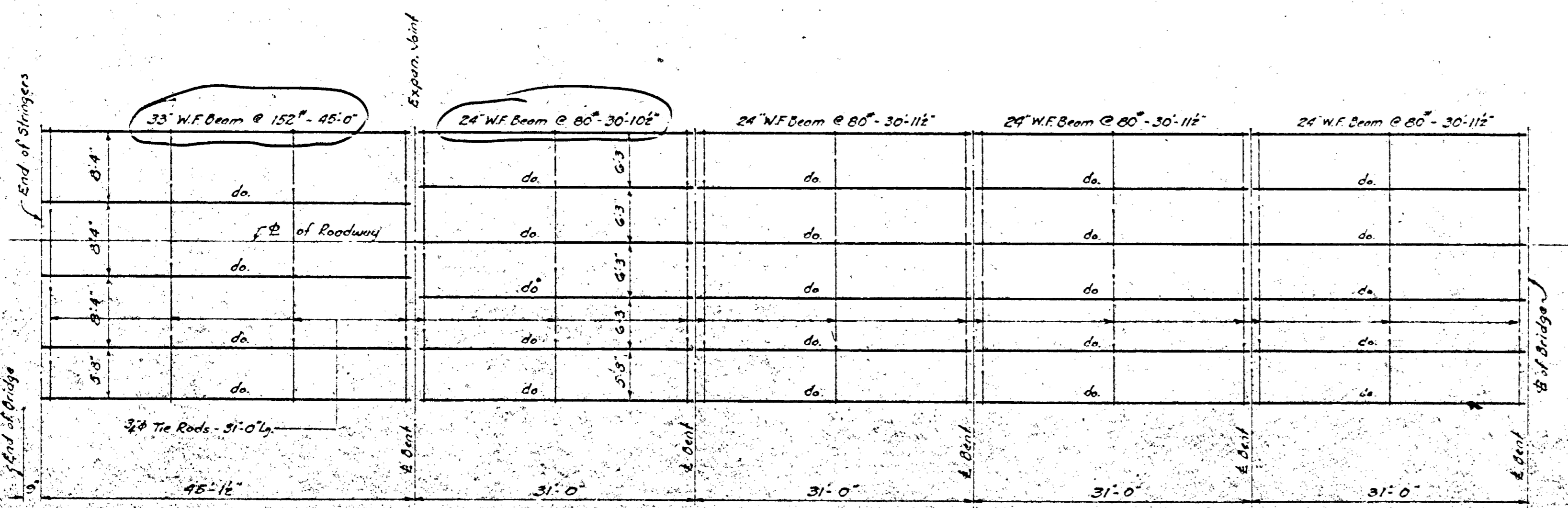
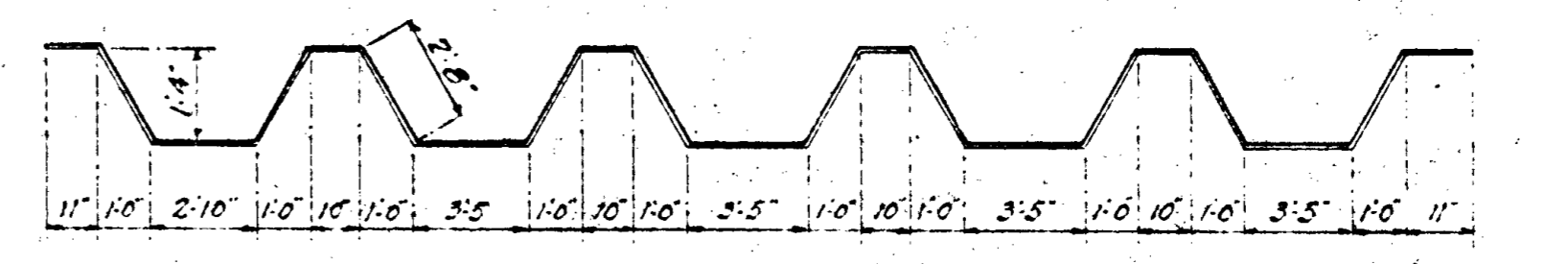
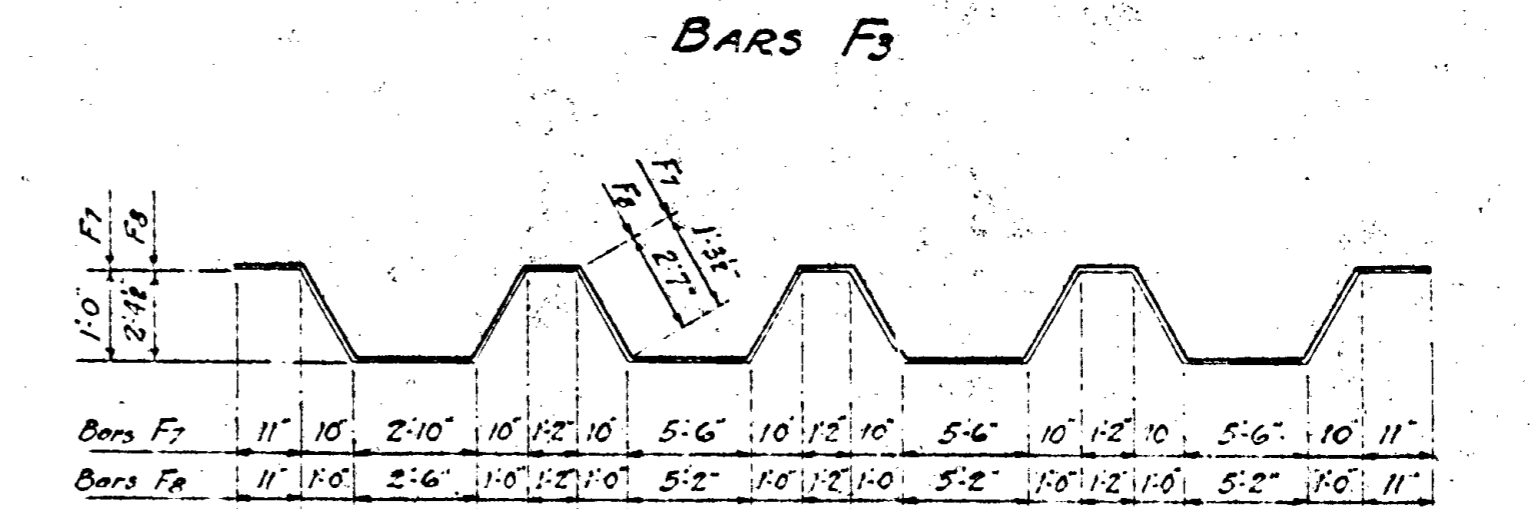
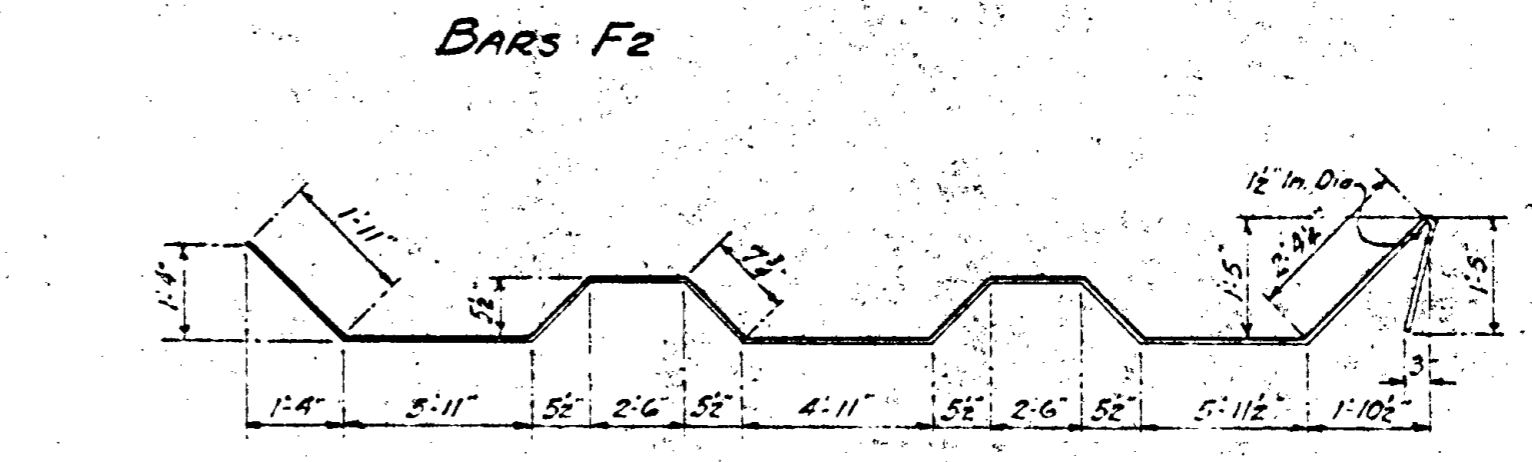
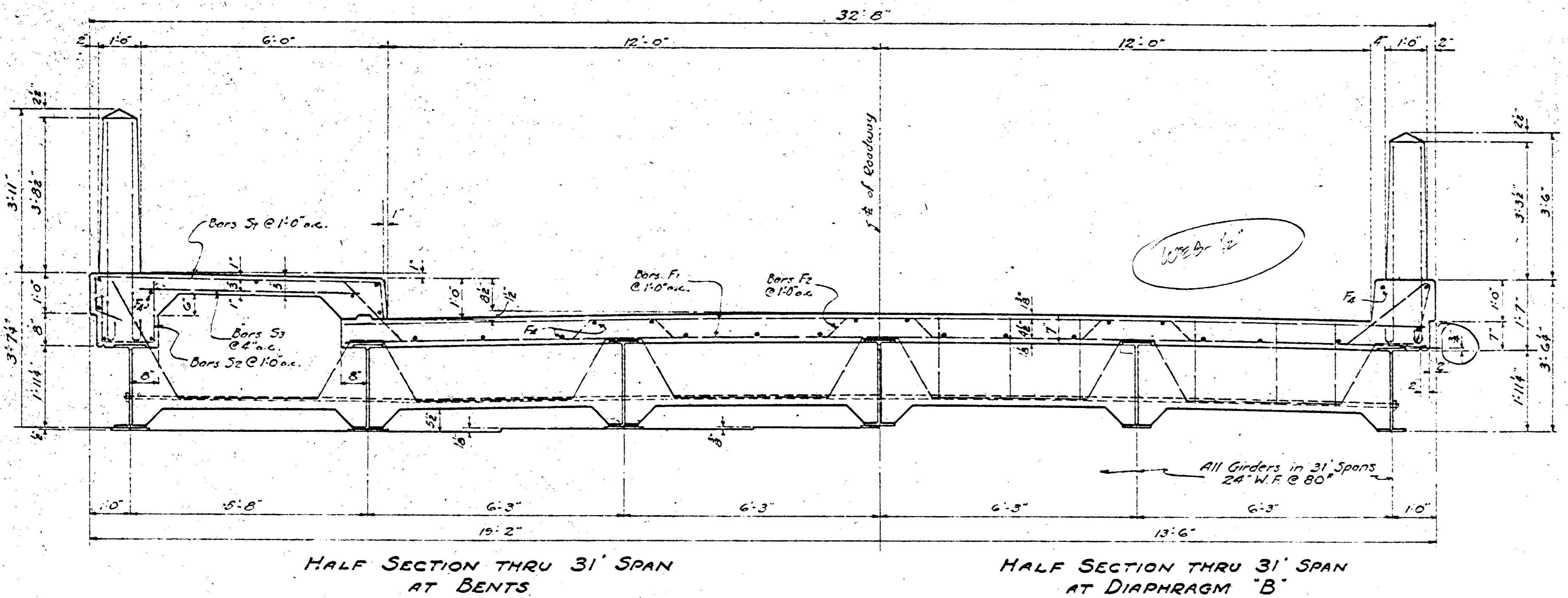
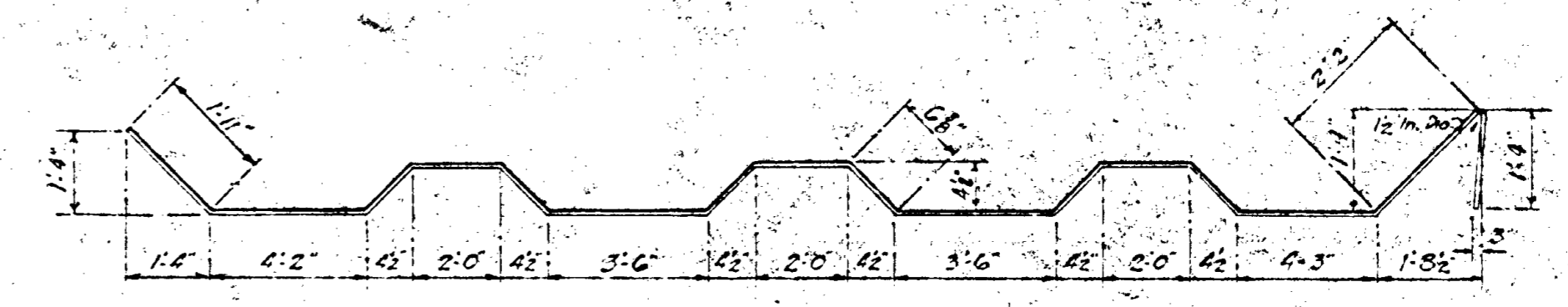
PLEASANT STREET BRIDGE
OVER THE RUM RIVER
ANOKA, MINNESOTA
DETAILS OF PILE BENTS & ABUTMENTS
January 16, 1932

R.A. Heiselt - Consulting Engr. Minneapolis, Minn.

7-1
166-11
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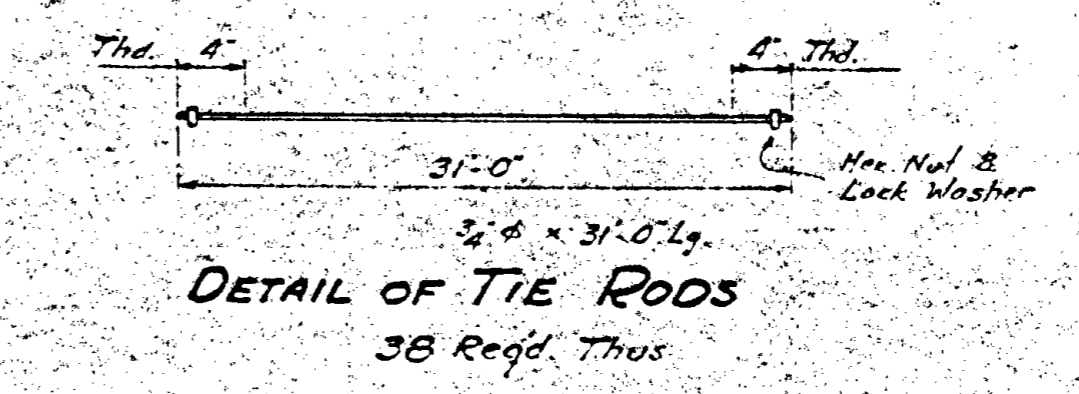


BILL OF BARS FOR SUPERSTRUCTURE					
BAR No.	SIZE	LENGTH	SHAPE	LOCATION	
F1	6/2	20'-3"	Str.	Floor Slab, Transv.	
F2	2/8	30'-3"	Bent	"	
F3	2/8	30'-2"	Bent	"	
F4	2/8	30'-8"	Str.	Longitud.	
F5	8	5'-0"	Bent	End Web Tie	
F6	5/8	45'-0"	Str.	Floor Slab, Longitud.	
F7	4	35'-0"	Bent	Web over Bents 1, 2, 3	
F8	8	24'-0"	Bent	Diaphragm A Longitud.	
F9	4/8	48'-4"	Bent	" B "	
S1	3/4	8'-2"	Bent	Sidewalk, Transv.	
S2	3/4	3'-7"	Bent	" Tie "	
S3	1000	8'-3"	Str.	" Transv "	
S4	4	6'-0"	Str.	" Bracket "	



BILL OF STRINGERS

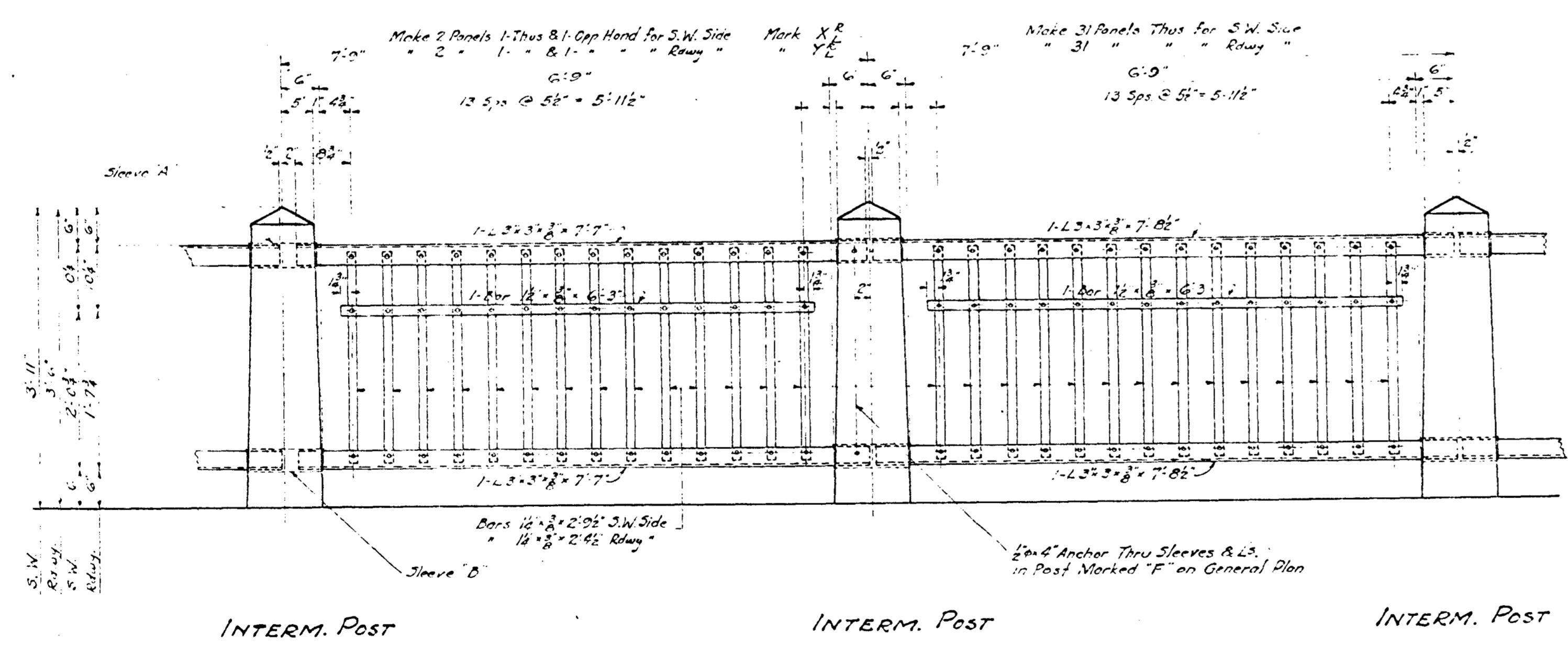
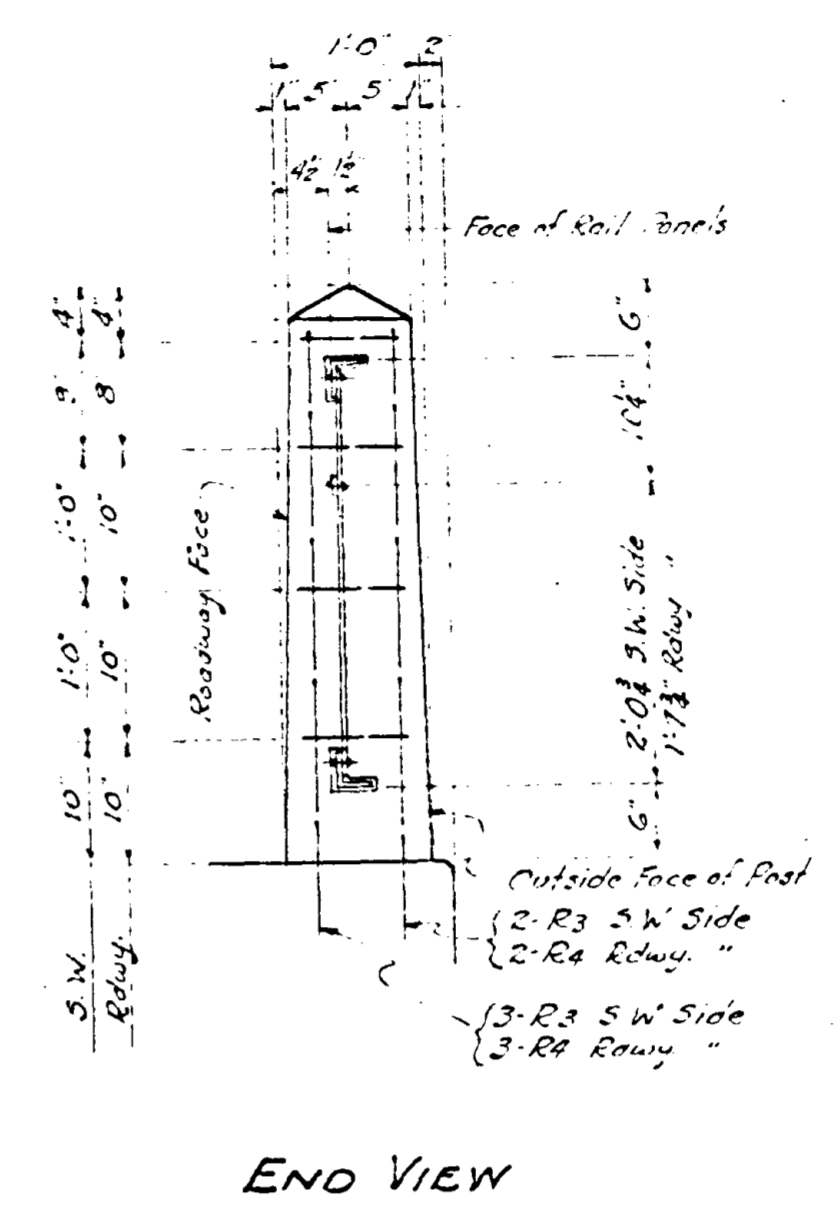
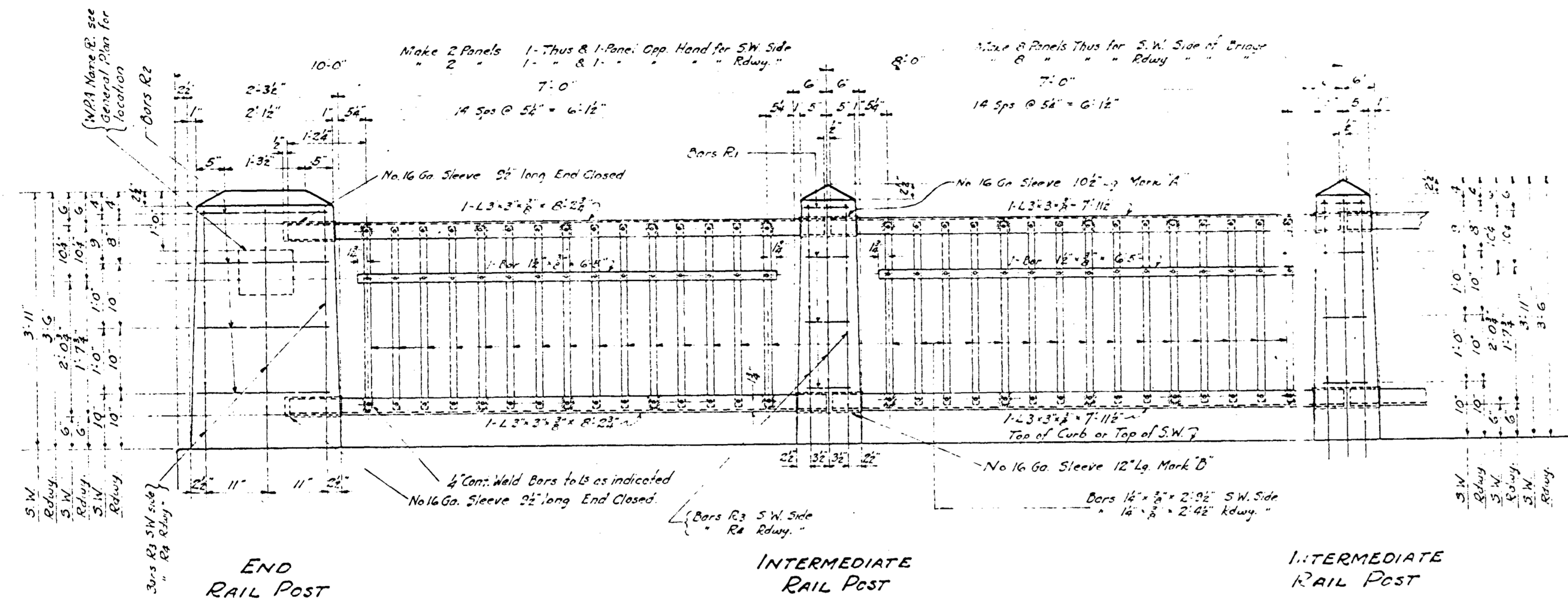
10 - Stringers	33" W.F. @ 152" - 45'-0" Lg.
12 - "	24" " @ 80" - 30'-10 1/2"
36 - "	24" " @ 80" - 30'-11 1/2"



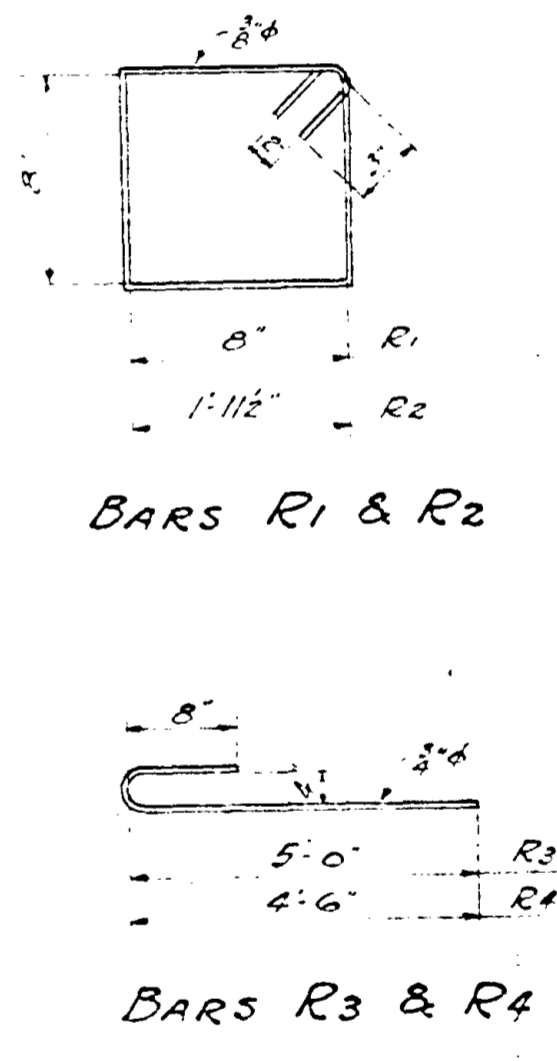
PLEASANT STREET BRIDGE
OVER THE RUM RIVER
AT
ANOKA, MINNESOTA
CROSS SECTIONS & BILL OF MATERIAL
January 16, 1939.

P.A. Hulselt - Consulting Engr. Minneapolis, Minn.

BILL OF REINF. BARS FOR RAIL POSTS					
Bar	No	Size	Length	Shape	Location
R1	256	$\frac{3}{4}$ "	3'-4"	Bent	Rail Post Ties
R2	16	$\frac{5}{8}$ "	5'-11"	"	" " "
R3	220	$\frac{3}{4}$ "	6'-0"	1-Hook	Rail Post Vertical
R4	220	$\frac{3}{4}$ "	5'-6"	"	" " "

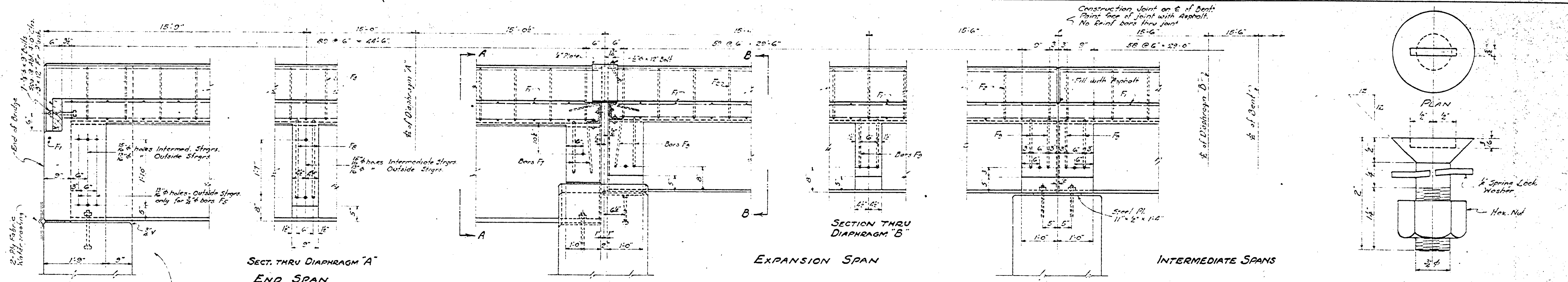


NOTE:
 Note Vertical Bars in Railing Panels are to be welded at points shown on details with $\frac{3}{8}$ " Fillet weld to L's. Rail Panels shall be exact heights shown & shall be free from twist or warping due to punching of holes or welding of bars. Rivets - 2" - one in each intersection as shown on details. L Sleeves to be No. 16 Ga. Galv. Iron bent to provide a free fit on L's. Fit shall be free but not loose. Joints in sleeves to be water tight. Sleeves for End Posts to have a watertight cap on end. Paint - Snap Paint - One coat of Red Lead in soap for Sleeves & Hang Railing Panels. Fabricator to provide detail of Bent Railing and provide erection plan. Details to be approved by the engineer.



PLEASANT STREET BRIDGE
 OVER THE RUM RIVER
 AT
 ANOKA, MINNESOTA
 DETAILS OF RAILING
 January 16, 1939

R.A. Heiser - Consulting Engr. Minneapolis, Minn.



TYPICAL DETAIL AT ABUTMENTS

SECT. THRU DIAPHRAGM "A" END SPAN

TYPICAL DETAIL AT BENTS 1 AND 9

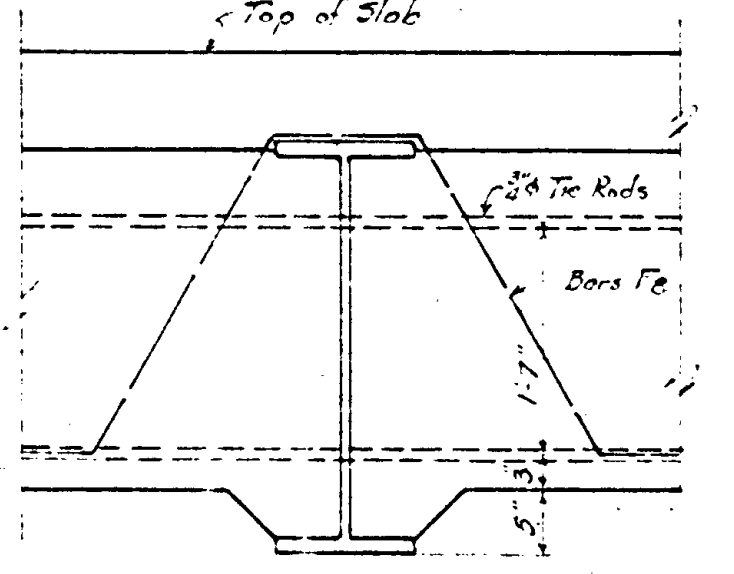
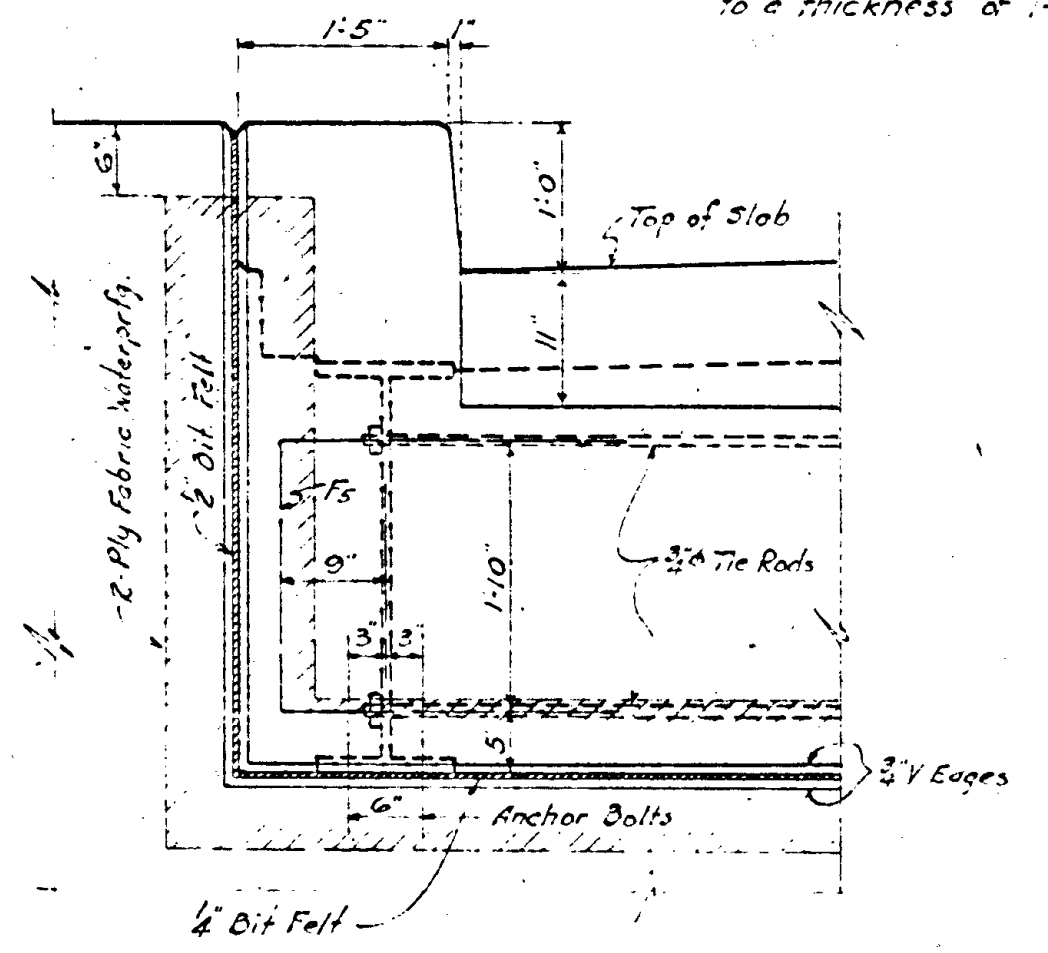
EXPANSION SPAN

INTERMEDIATE SPANS

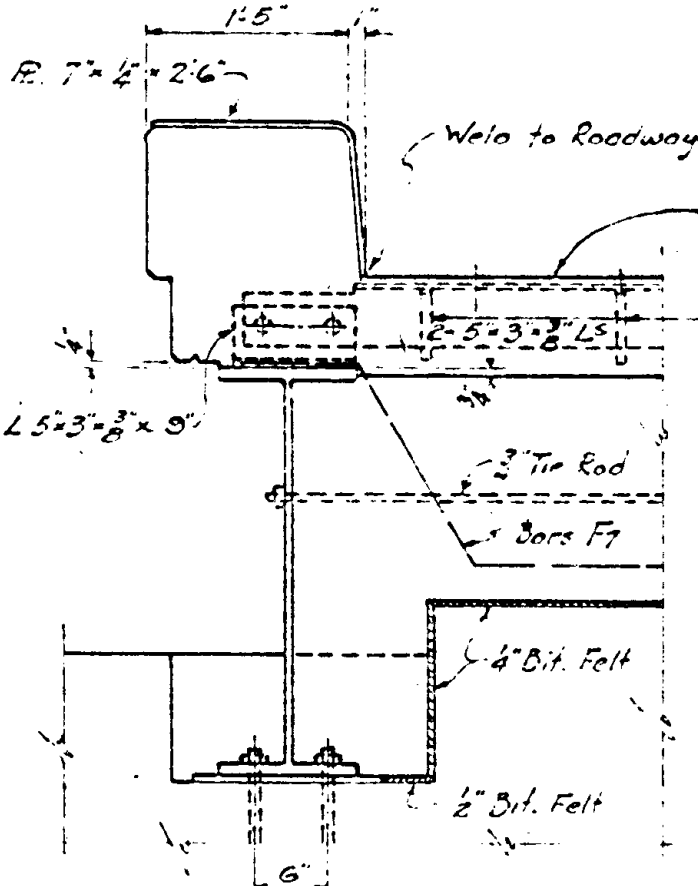
SPECIAL EXP. DEV. BOLT 64 Req'd.

Fill portion of web between outer stringer and face of bridge seat full width of Abutment Wall. Fill web between all stringers as shown above to a thickness of 12".

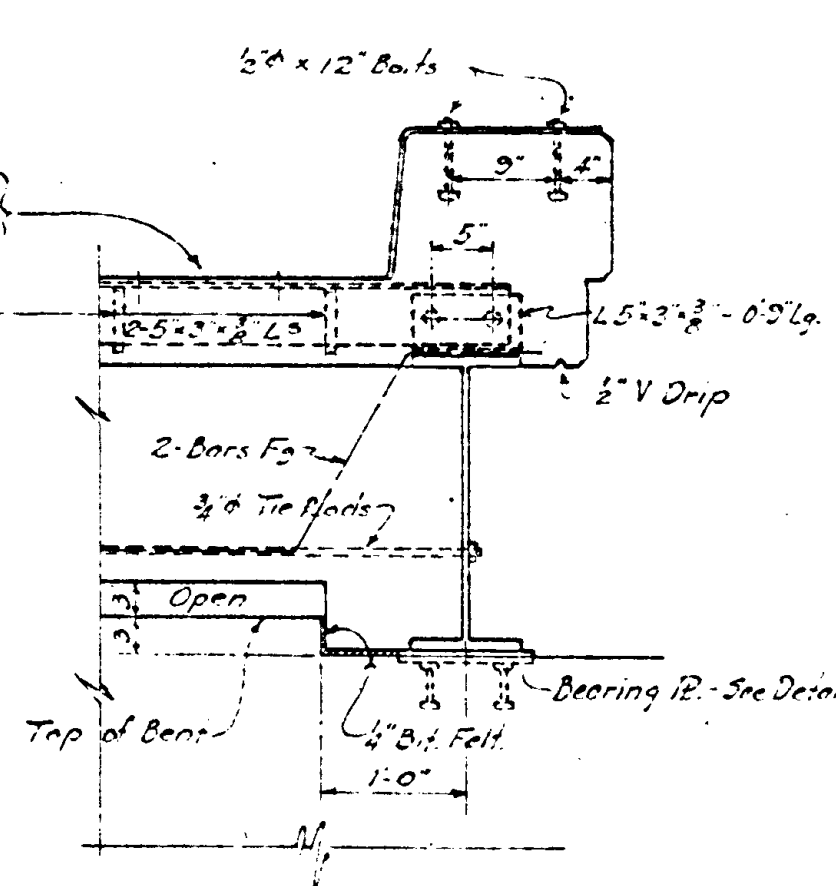
TYPICAL DETAIL AT BENTS 2 TO 8 INCL.



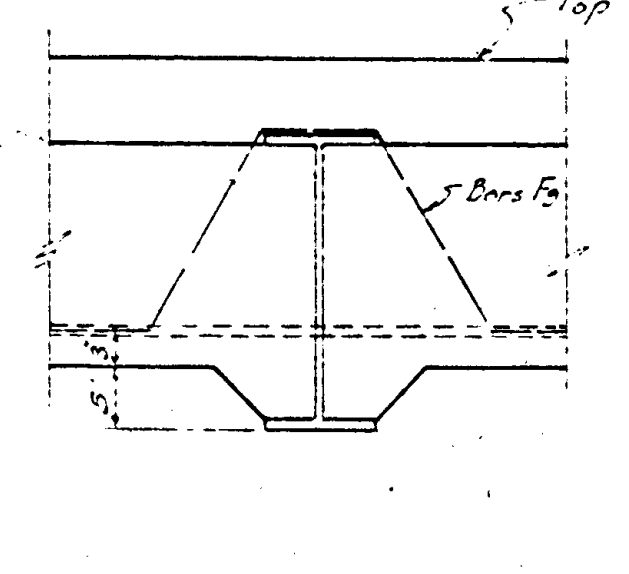
DIAPHRAGM "A"



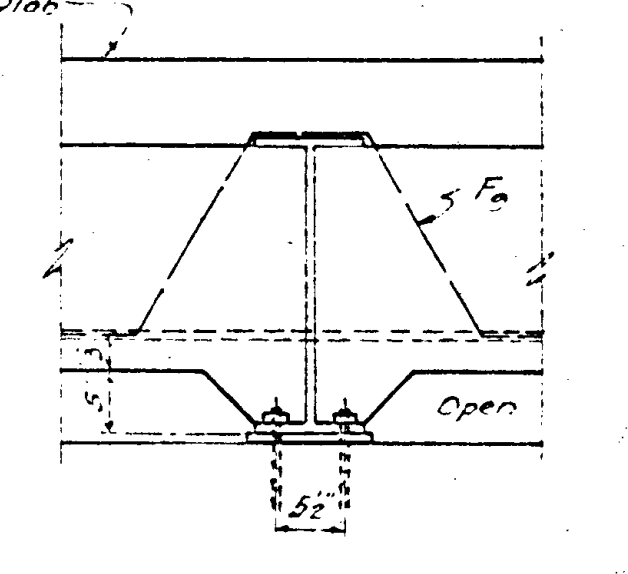
SECTION "A-A" ROWY. SIDE



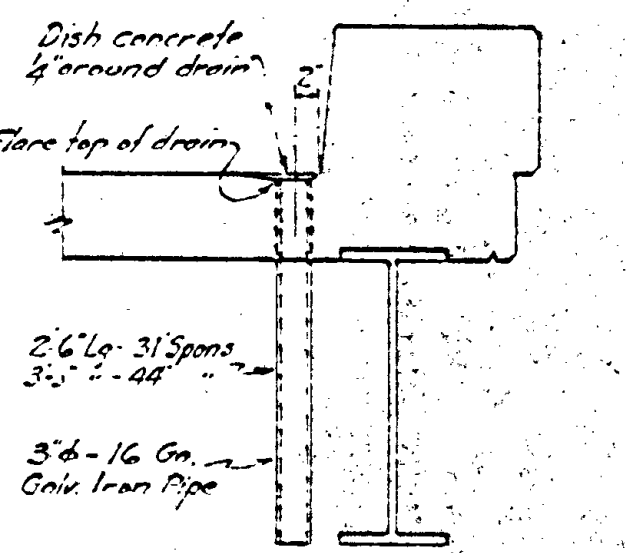
SECTION "B-B" ROWY. SIDE



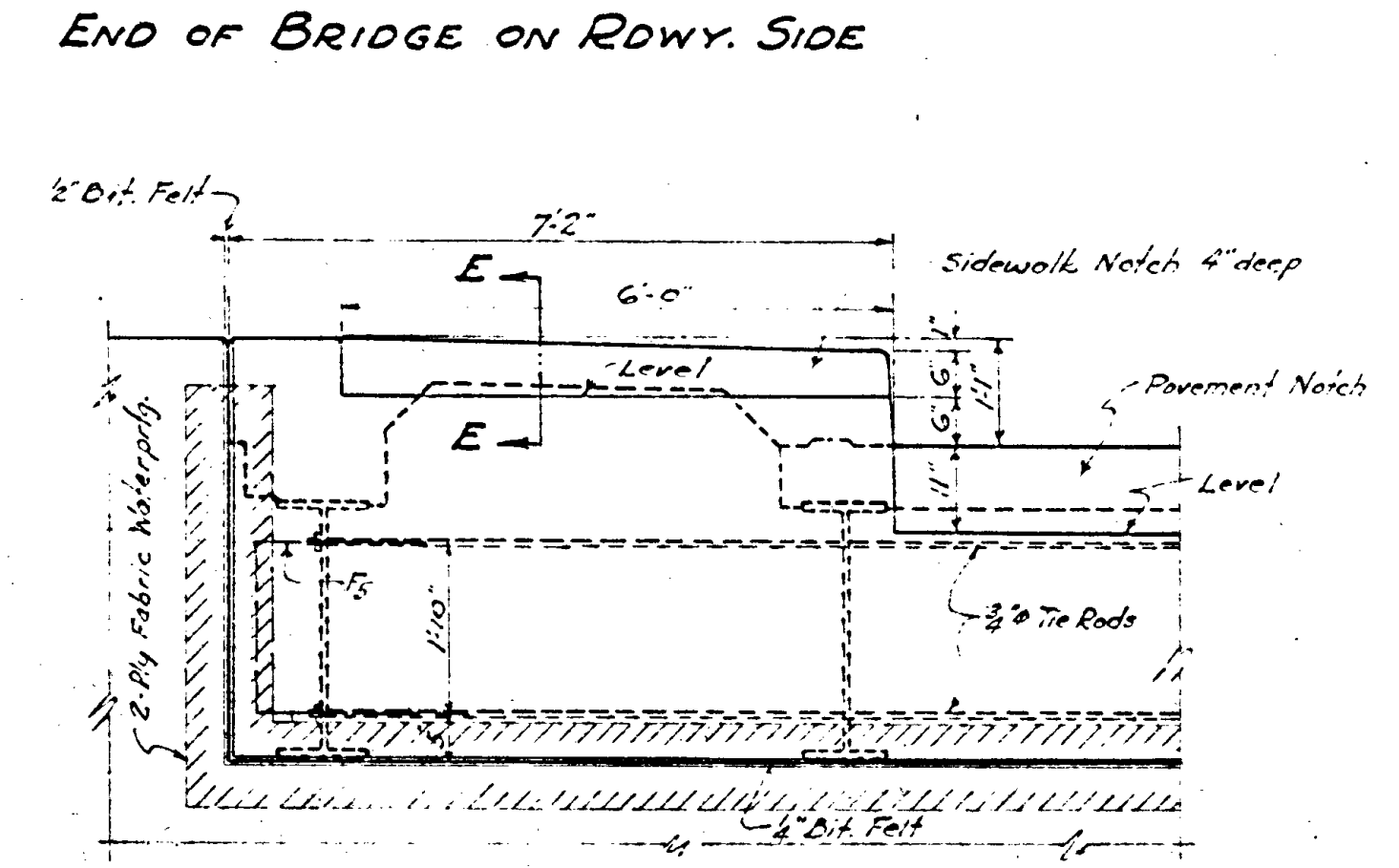
DIAPHRAGM "B"



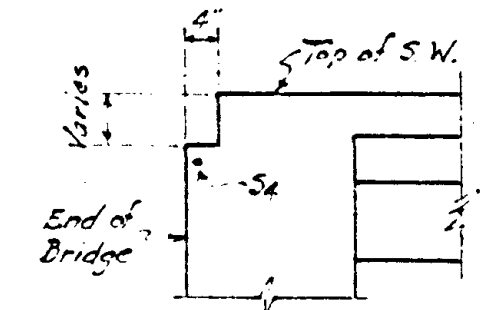
DETAIL OF WEB OVER BENTS 2 TO 8 INCL.



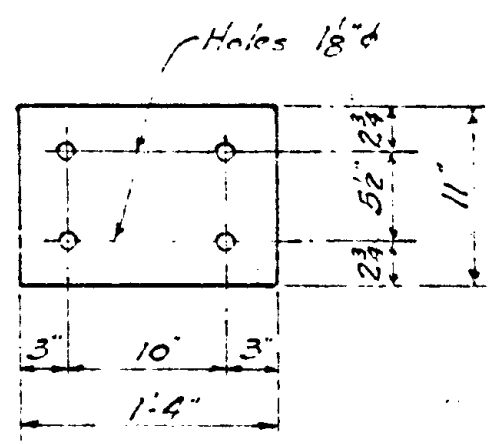
SECT. THRU ROWY. CURB SHOWING DRAIN



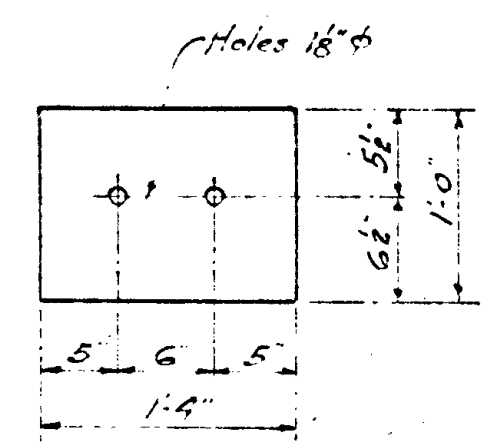
END OF BRIDGE ON SIDEWALK SIDE



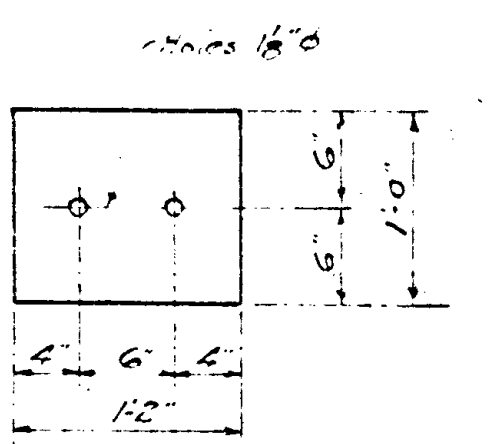
SECTION "E-E"



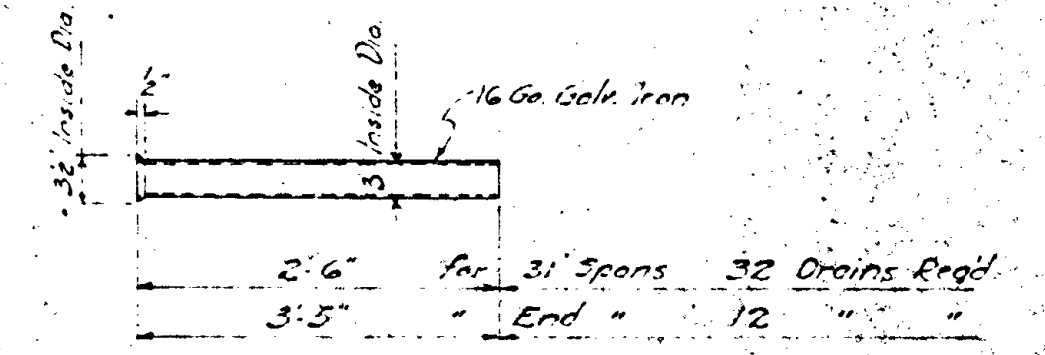
RE. 11'-2" x 1'-4" 42 - RS. REQ'D THUS BEARING PLATES AT BENTS 2 TO 8



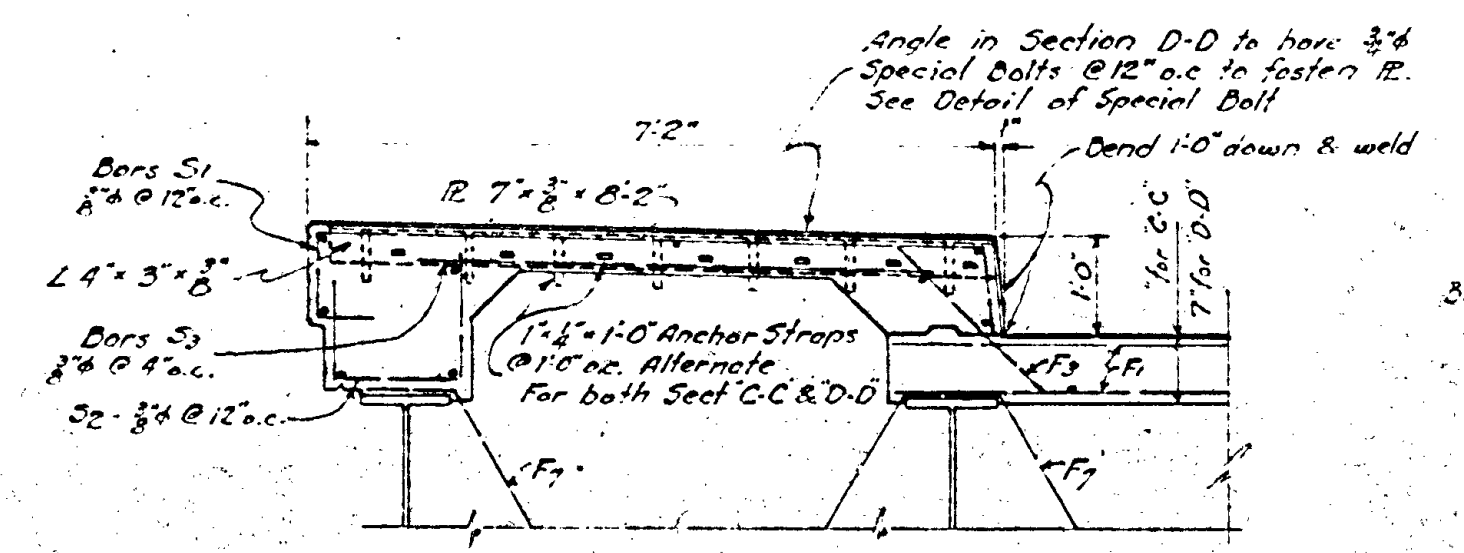
RE. 12'-2" x 1'-4" 10 - RS. REQ'D THUS BEARING PLATES AT BENTS 1 & 9



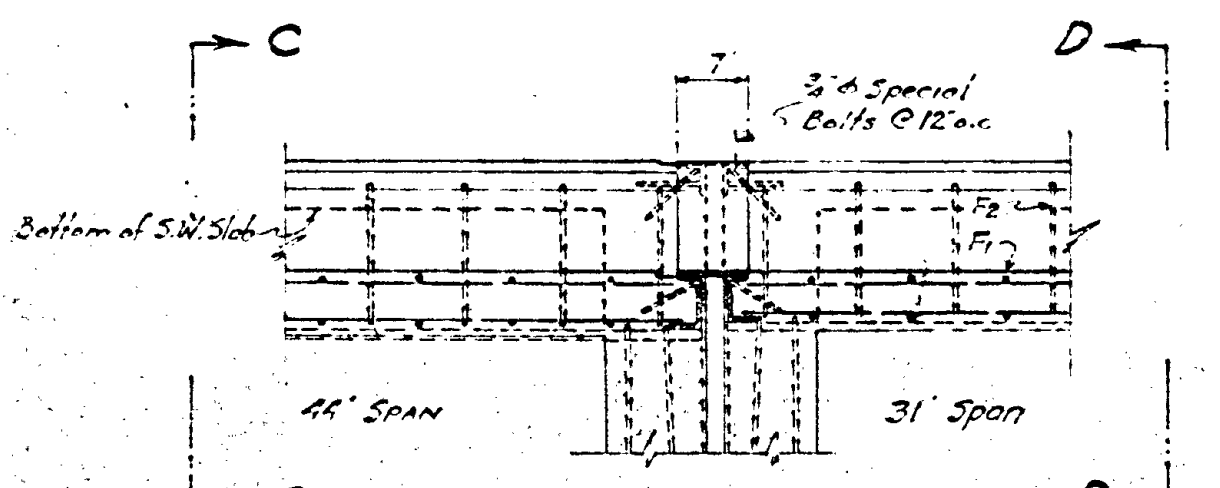
RE. 12'-2" x 1'-2" 10 - RS. REQ'D THUS BEARING PLATES AT ABUTMENTS



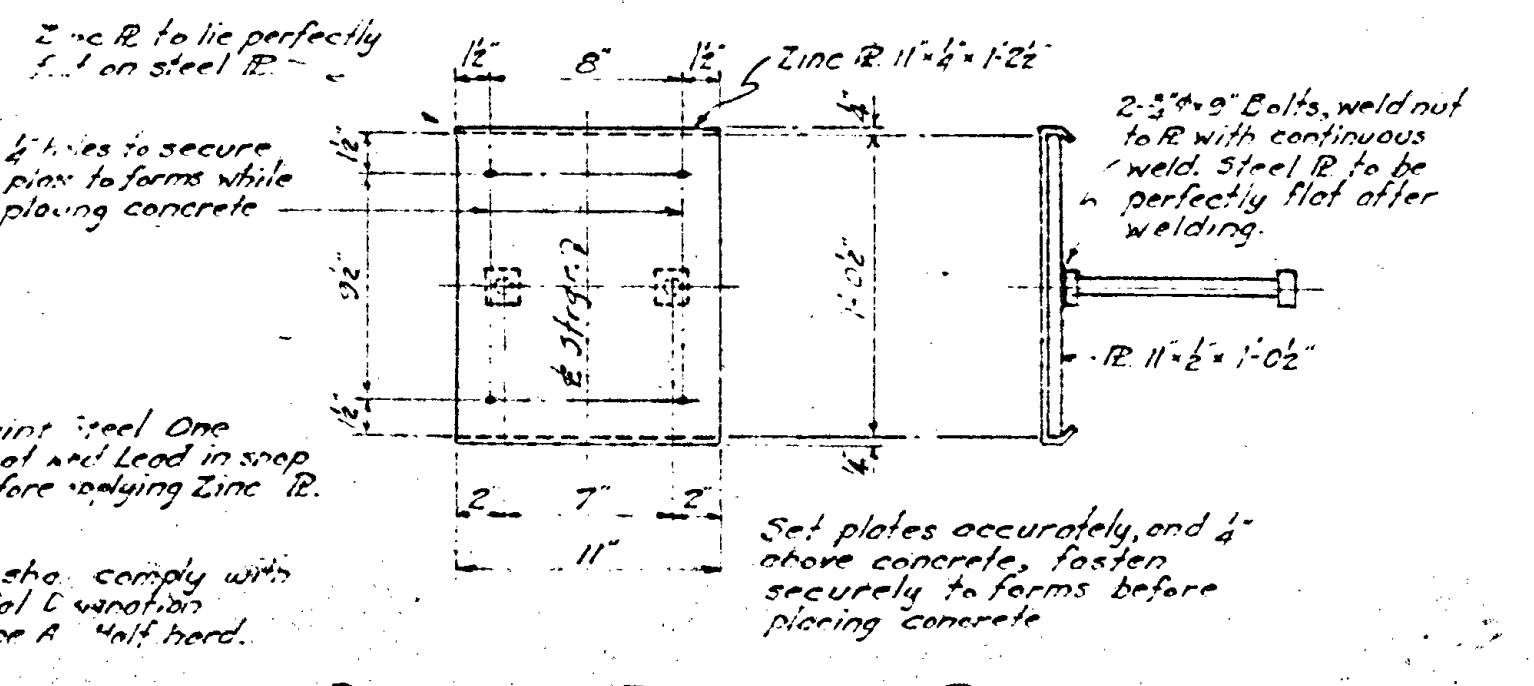
DETAIL OF ROADWAY DRAINS



SECTION "C-C" SECTION "D-D" SIMILAR



TYPICAL DETAIL AT BENTS 1 & 9 SIDEWALK SIDE



DETAIL OF EXPANSION PLATE 12 Required Thus

PLEASANT STREET BRIDGE OVER THE RUM RIVER AT ANOKA, MINNESOTA SUPERSTRUCTURE DETAILS January 16, 1939