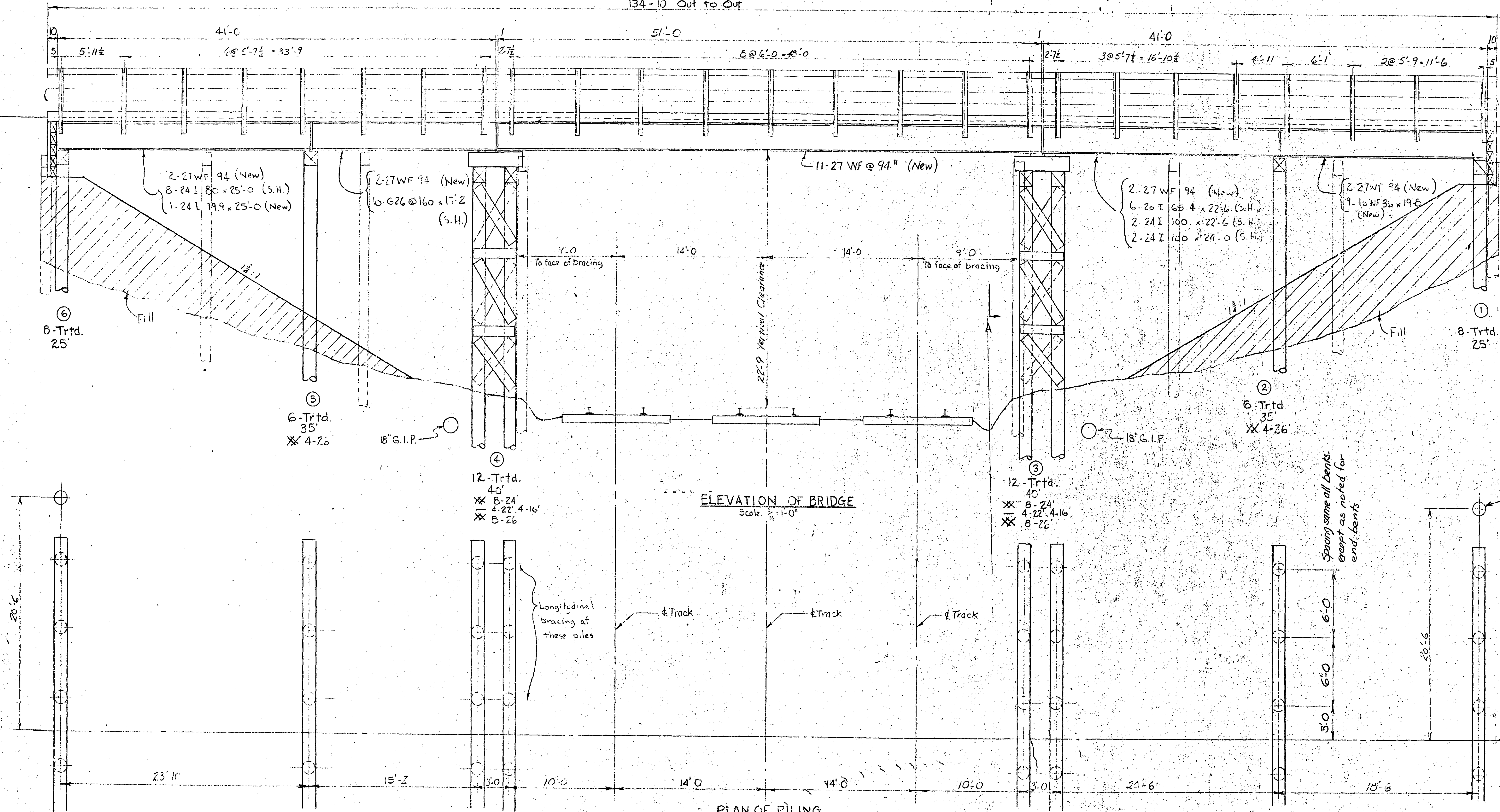


To New Brighton ← Span No. 5 Span No. 4 Span No. 3 Span No. 2 Span No. 1 → To St. Paul



0.0% Grade across bridge

Light lines show existing bents
Heavy lines show new bridge

PLE. CUT OFF ELEVATIONS

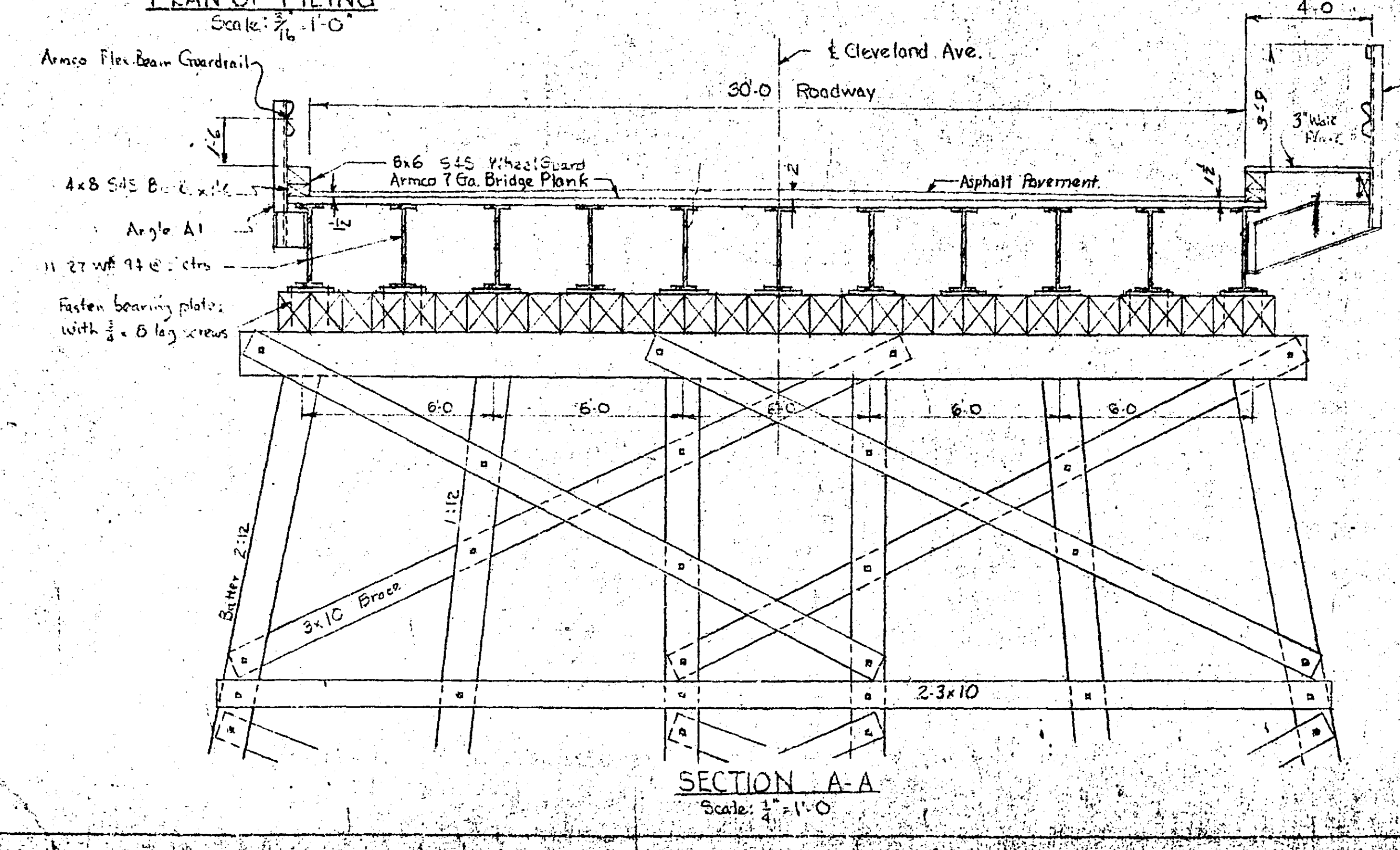
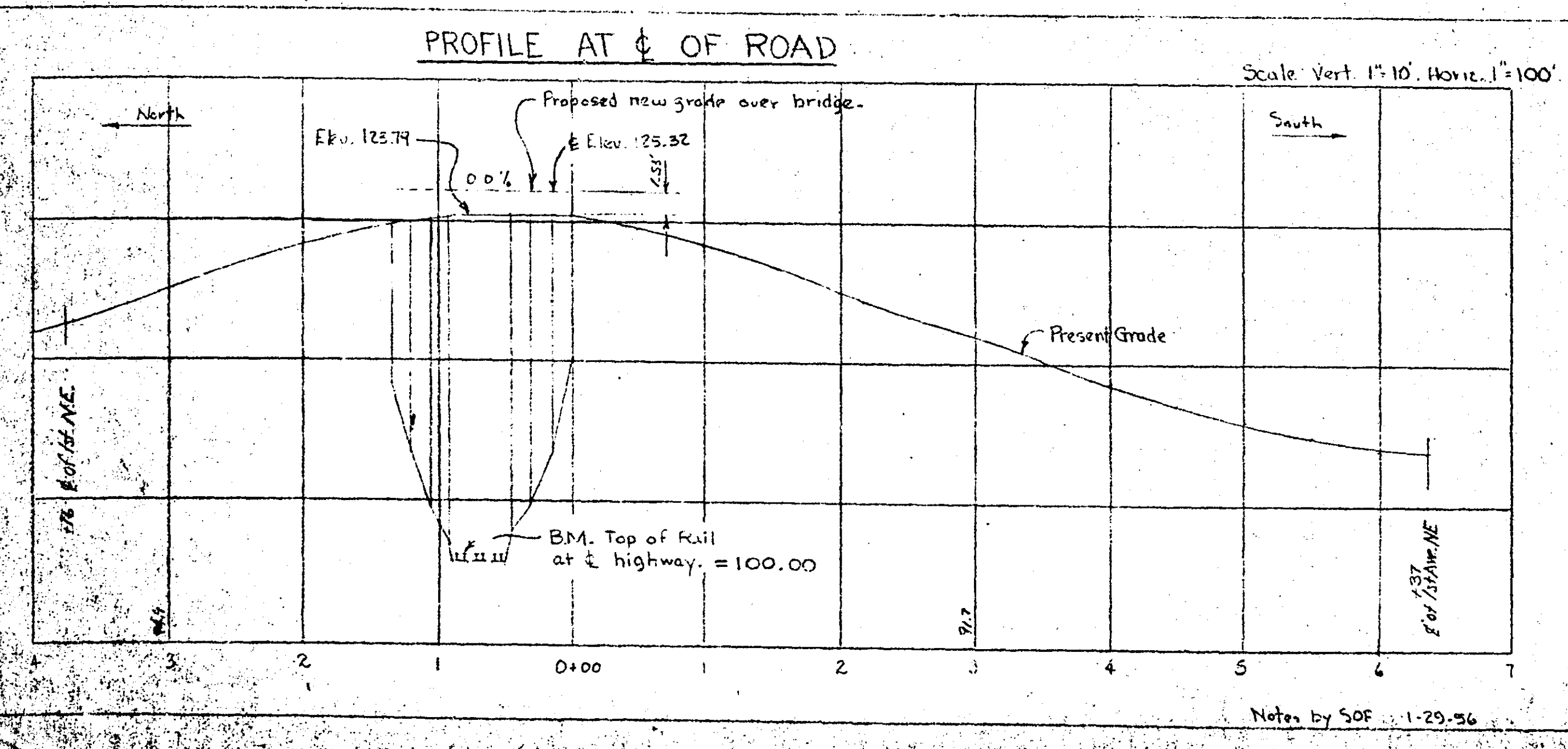
BENT 1	121.48
BENT 2	121.72
BENT 3	120.50
BENT 4	120.50
BENT 5	121.64
BENT 6	121.72
4 ABUTMENT PILES	124.70

Notes:

All timber to be fir, cut to size, drilled and incised before being treated with creosote.

All timber used in new bridge to be given the following treatment:
50-50 Creosote-Petroleum solution with retention of 14 p.c.f.

Bridge designed for H-20, 9-16-44 Loading



4 Rev. timber bent bracing
3 Rev. to add sidewalk
2 Rev. slope of fill, added 18 G.I.P.'s.
1 Rev. to add railing dimensions

DATE	DRAWING	REVISION
Del.	WDS 4-25-42	WDS 5-3-43
Tr.		WDS 11-21-42
CE	DIK	WDS 5-21-44
Quant.		WDS 5-16-44
Gen. Ck.		
ACE	M-152-G-6	

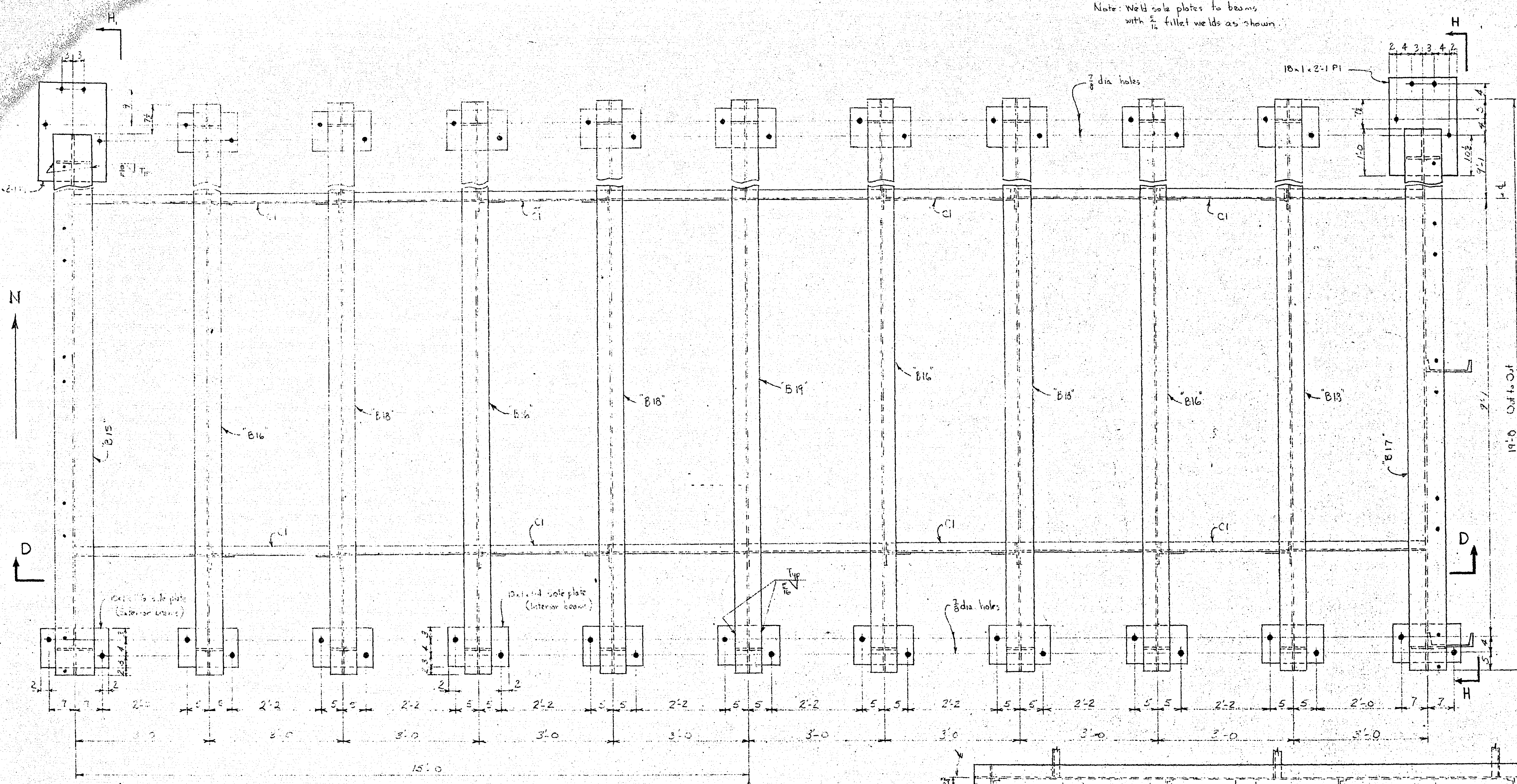
BR. 780
CLEVELAND AVE. OVERHEAD
BR. 82-A
NEW BRIGHTON, MINN.
GENERAL PLAN FOR RENEWAL
SOO LINE R. R. CO.

OFFICE OF CHIEF ENGINEER MINNEAPOLIS, MINN.
SCALE: AS NOTED APR. 23, 1965

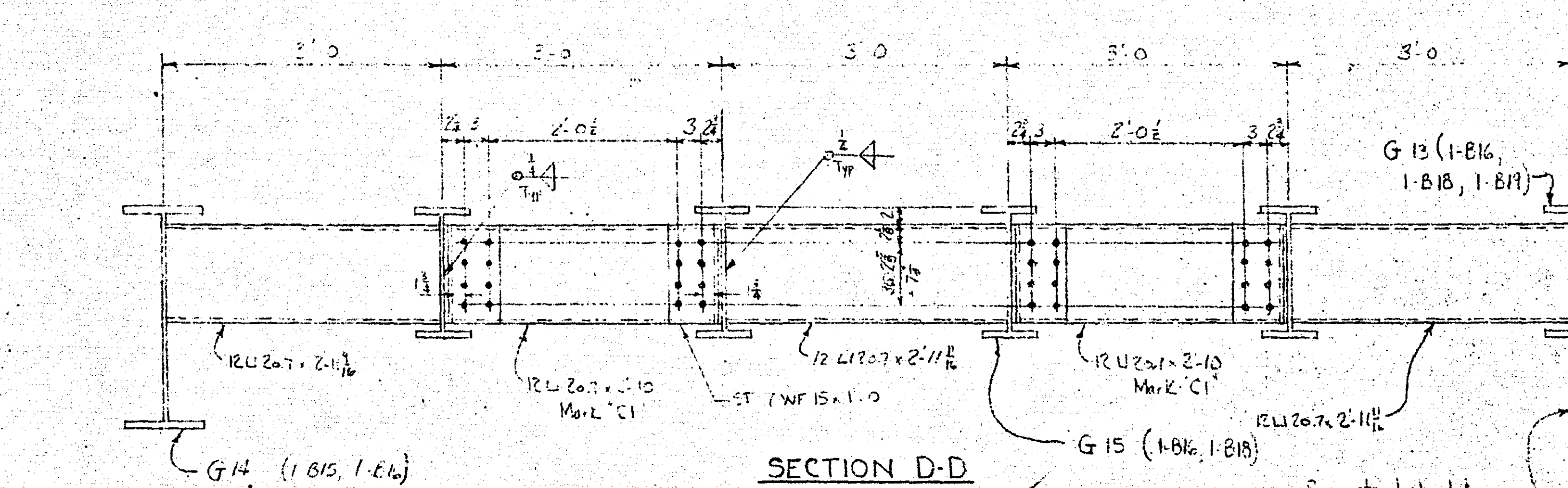
MICROFILMED
RAMSEY CO. ENGR.

PLAN 30
Sheet 1 of 13
6853

Note: Weld sole plates to beams with $\frac{5}{16}$ fillet welds as shown.

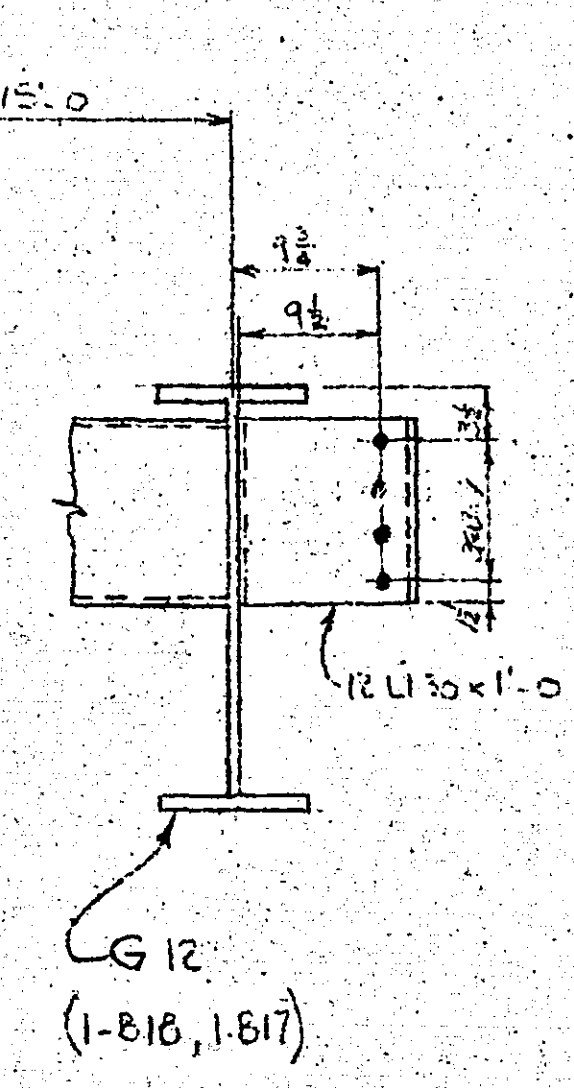


PLAN
Scale: $\frac{1}{8}'' = 1'-0''$

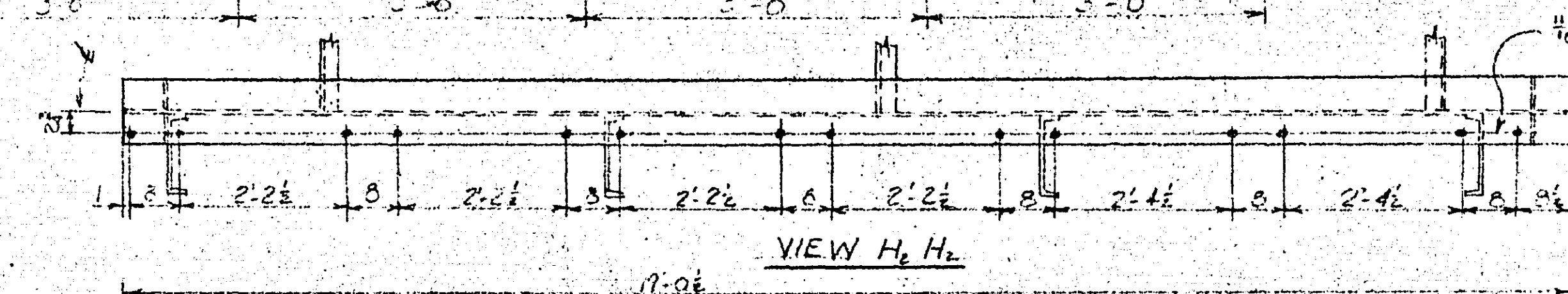


SECTION D-D
Scale: $\frac{1}{2}'' = 1'-0''$

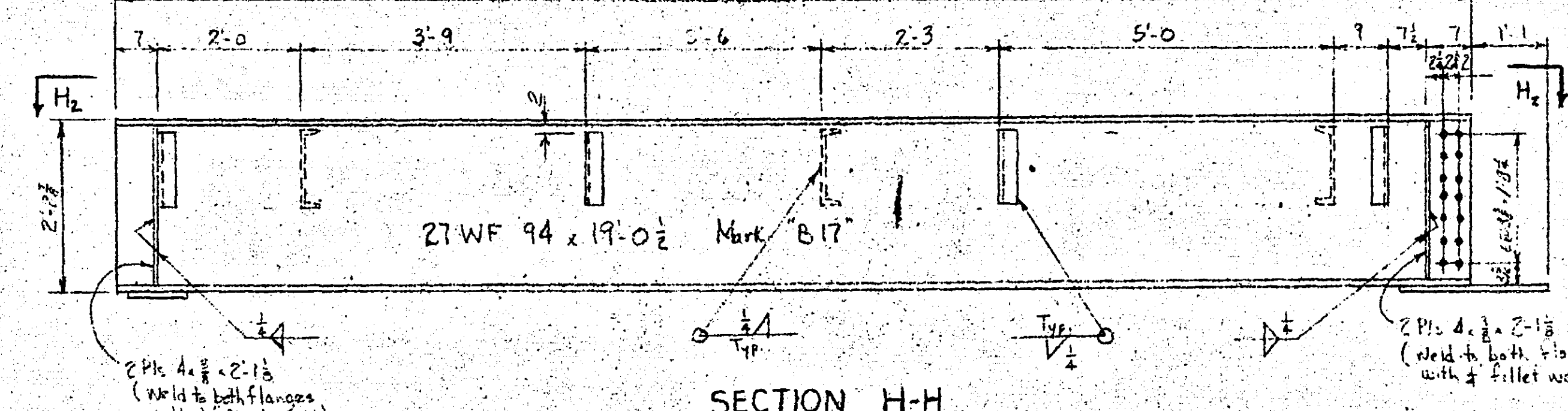
Symmetrical about $\frac{1}{2}$ except for fascia beams and as noted.



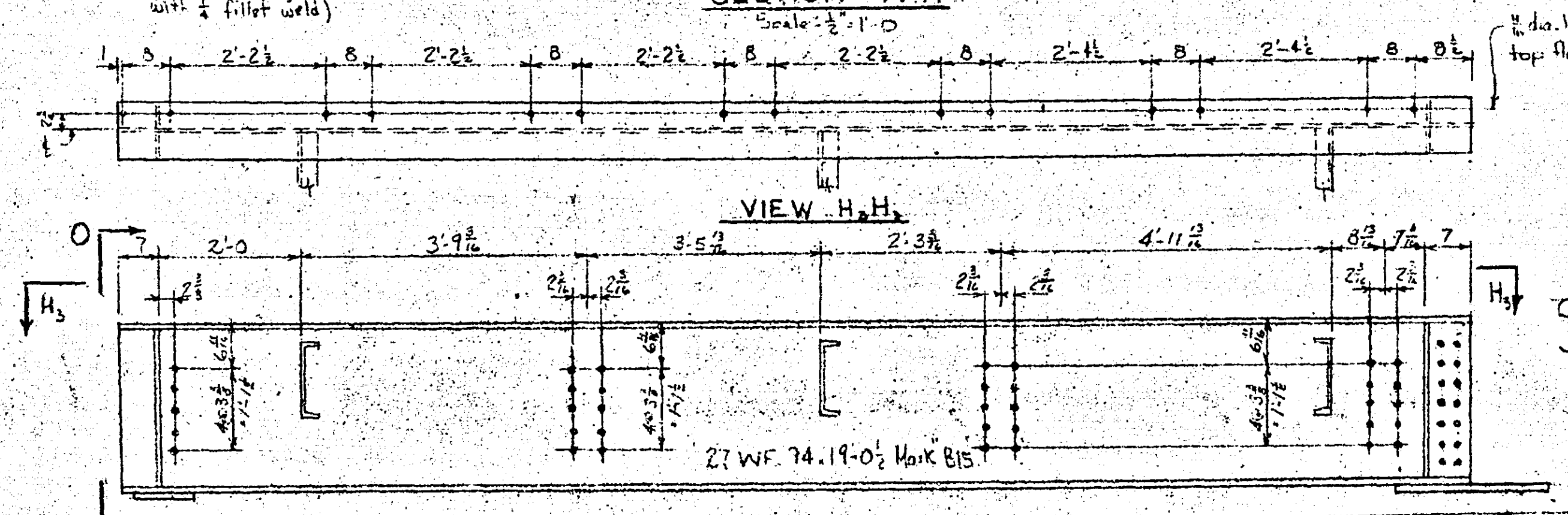
SEC. O-O
Scale: $\frac{1}{2}'' = 1'-0''$



VIEW H₁-H₁

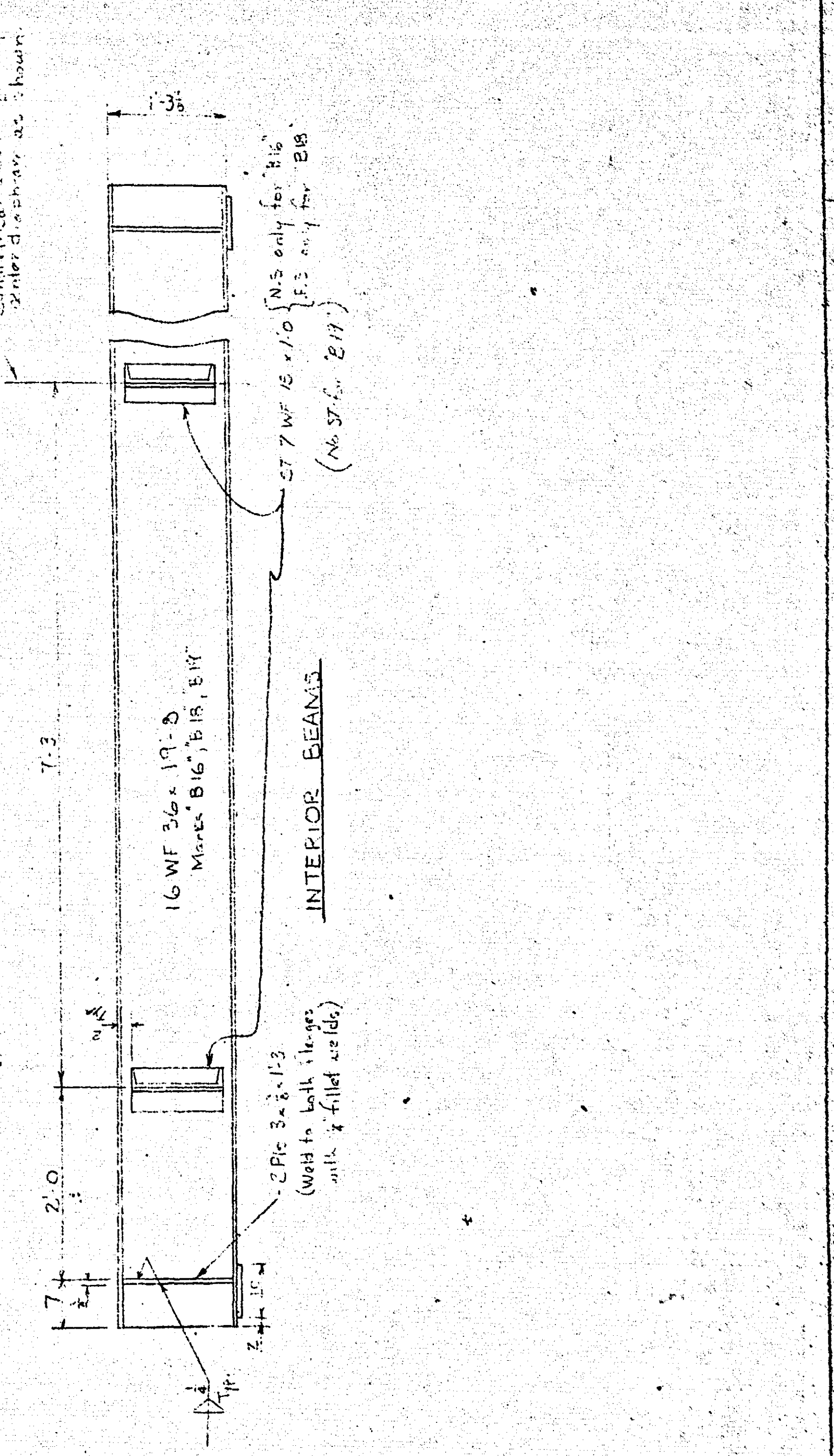


SECTION H-H
Scale: $\frac{1}{2}'' = 1'-0''$



VIEW H₂-H₂

SECTION H₁-H₁
Scale: $\frac{1}{2}'' = 1'-0''$
(See Sec. H-H for details not shown)



INTERIOR BEAMS

Notes:
All holes to be $\frac{15}{16}$ dia. except as noted.
Field connections to be with $\frac{5}{8}$ dia. high-strength bolts.
All steel to be painted one shop coat of red lead and linseed oil mixed in the proportion of 20 lbs of 94% pure red lead (Pb₃O₄) to one gallon of linseed oil. Surfaces in contact shall be clean when assembled.
Field coat all steel two complete coats of graphite or carbon paint - the equivalent of Detroit Graphite "30" or P.P.G. Ironhide paint. No paint on top flanges of beams.

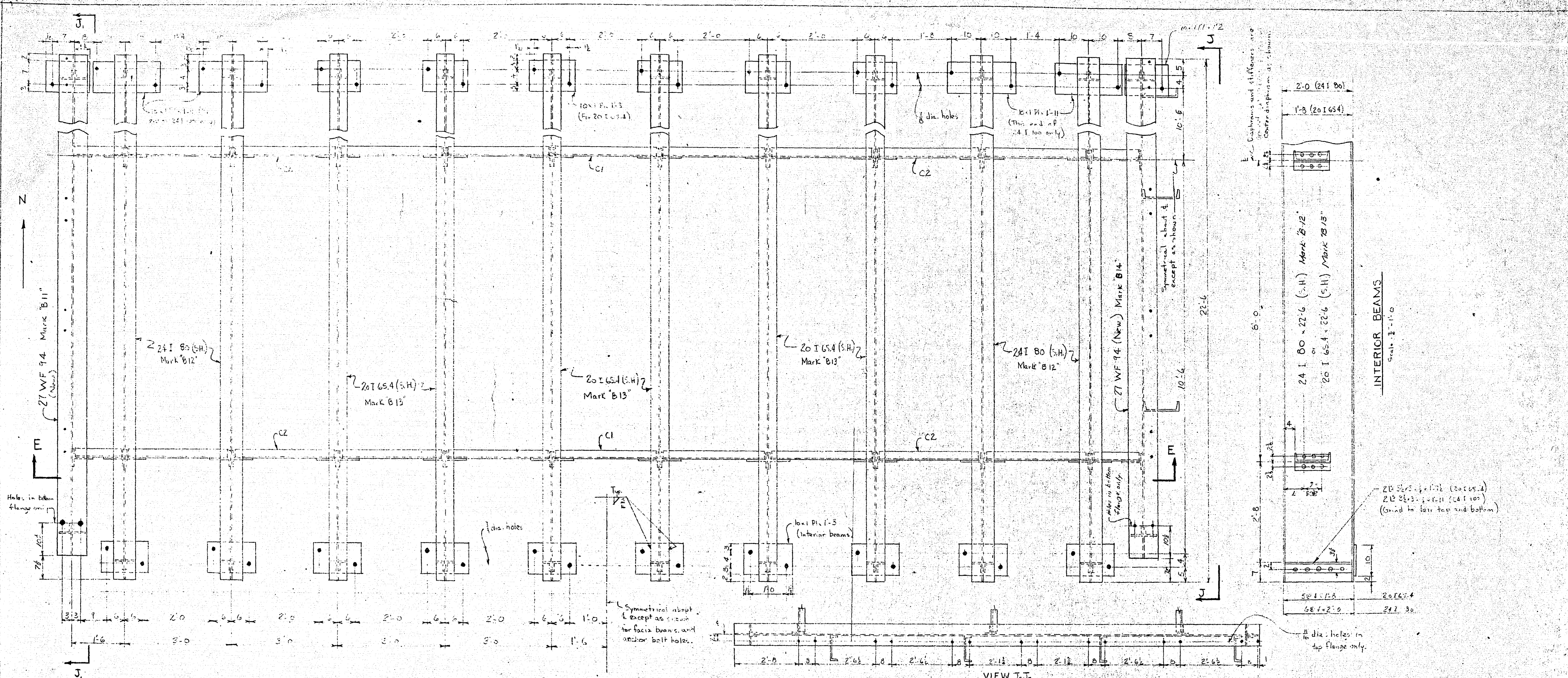
BR. 780
CLEVELAND AVE. O.H.

NEW BRIGHTON, MINN.
STEEL DETAILS - SPAN 1 (19'-8")
300 LINE R.R. CO.

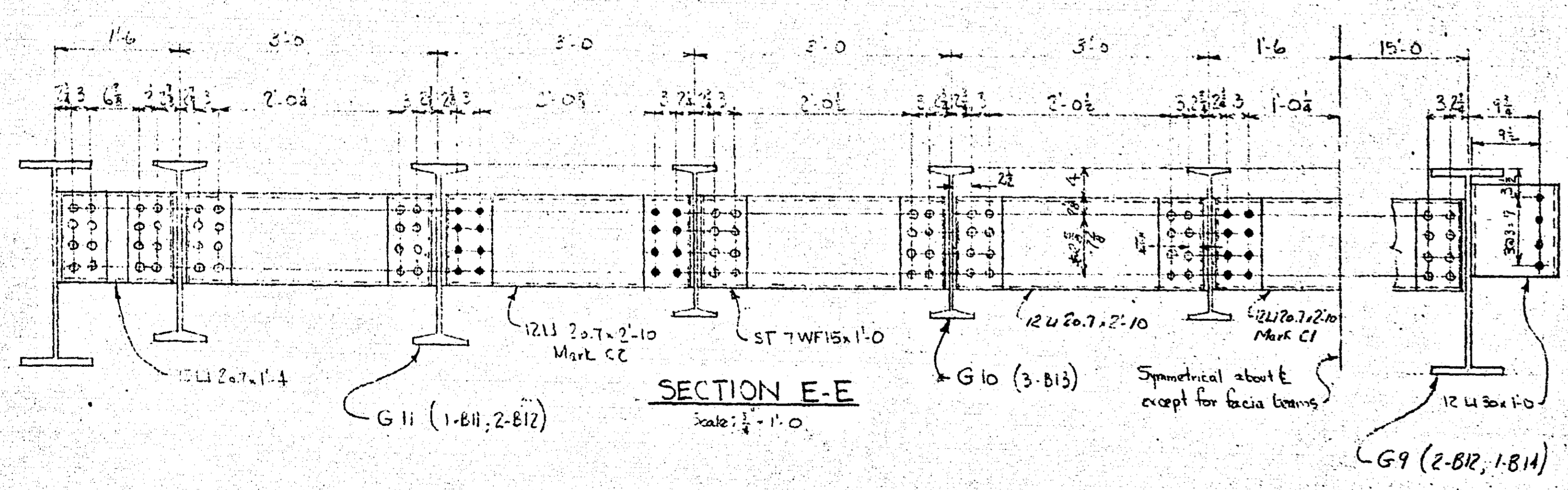
OFFICE OF CHIEF ENGINEER MINNEAPOLIS, MINN.
SCALE AS NOTED MAY 7, 1963.

Est. total weight of structural steel in span = 13,660 lbs.

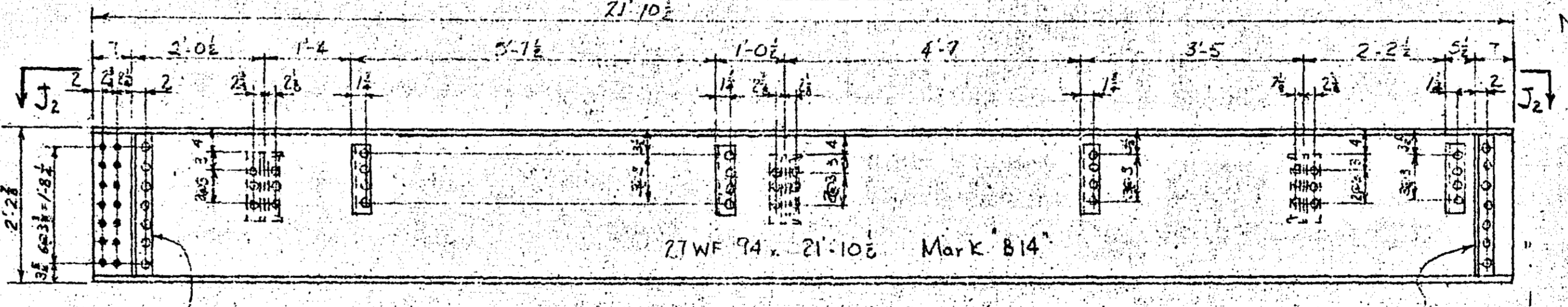
Drawn	WCS	Revision
JAH	2-20-60	
WCS		
JAH	3-14-62	
WCS	4-15-63	



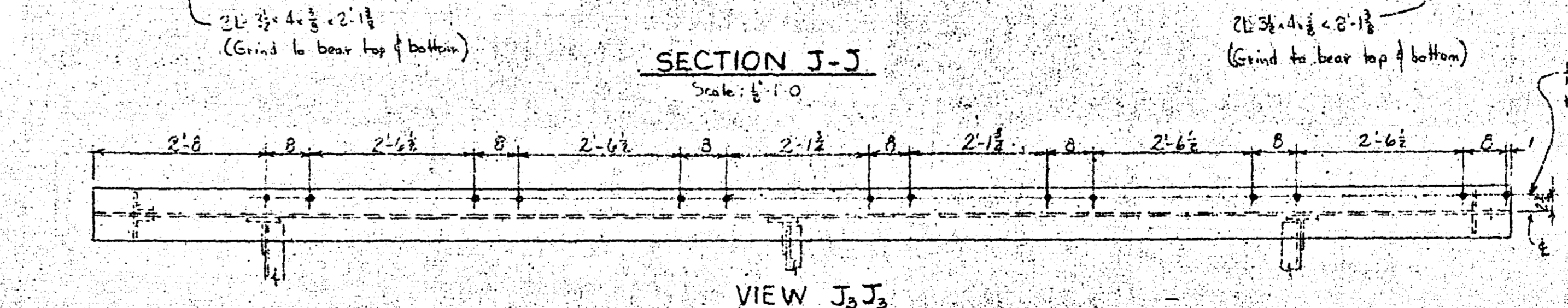
PLAN
Scale: 1/4" = 1'-0"



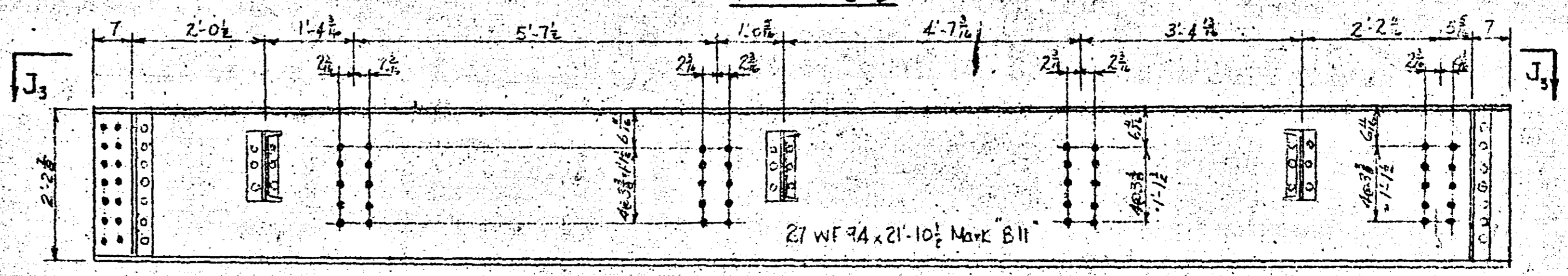
SECTION E-E
Scale: 1/4" = 1'-0"



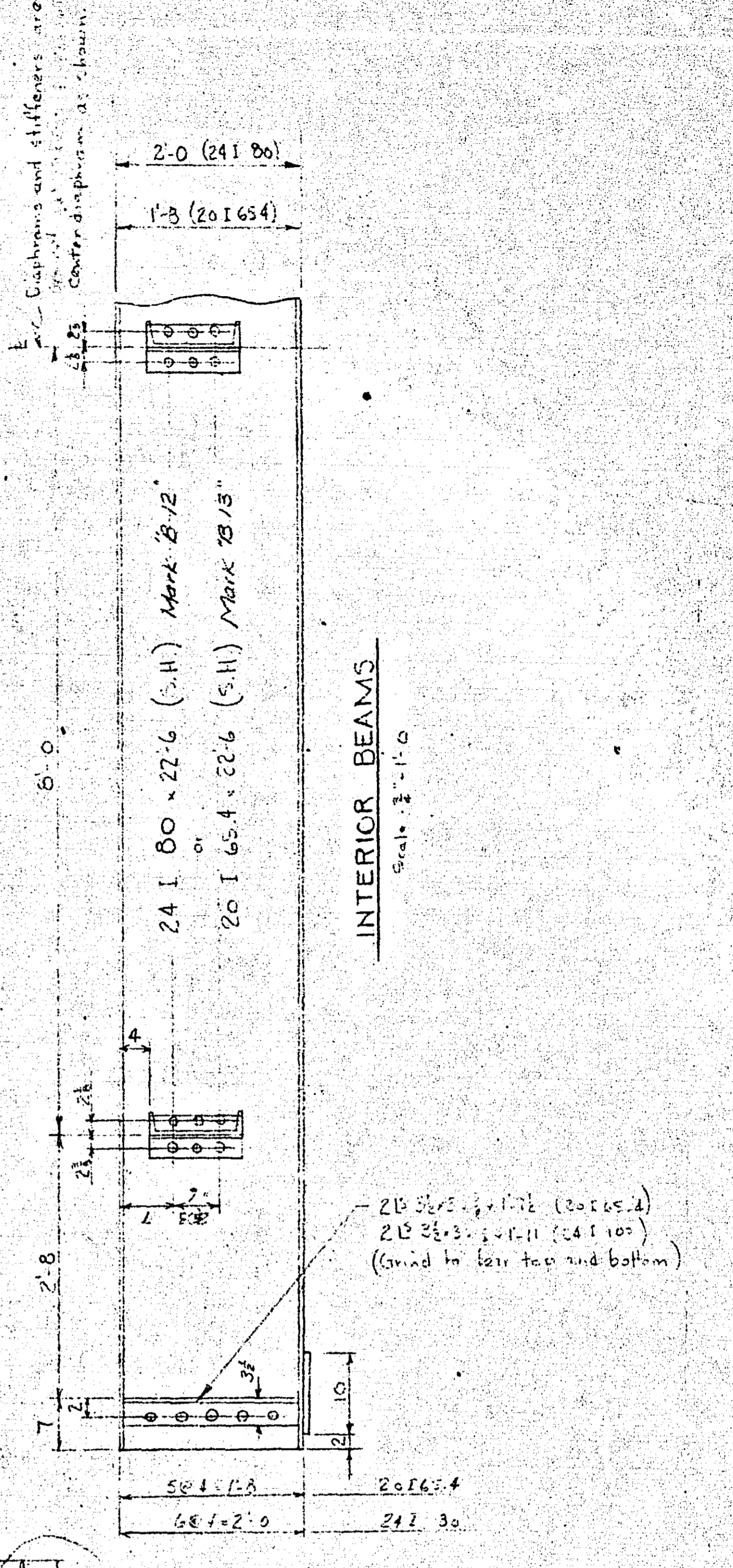
SECTION J-J
Scale: 1/4" = 1'-0"



VIEW J2J2



VIEW J3J3



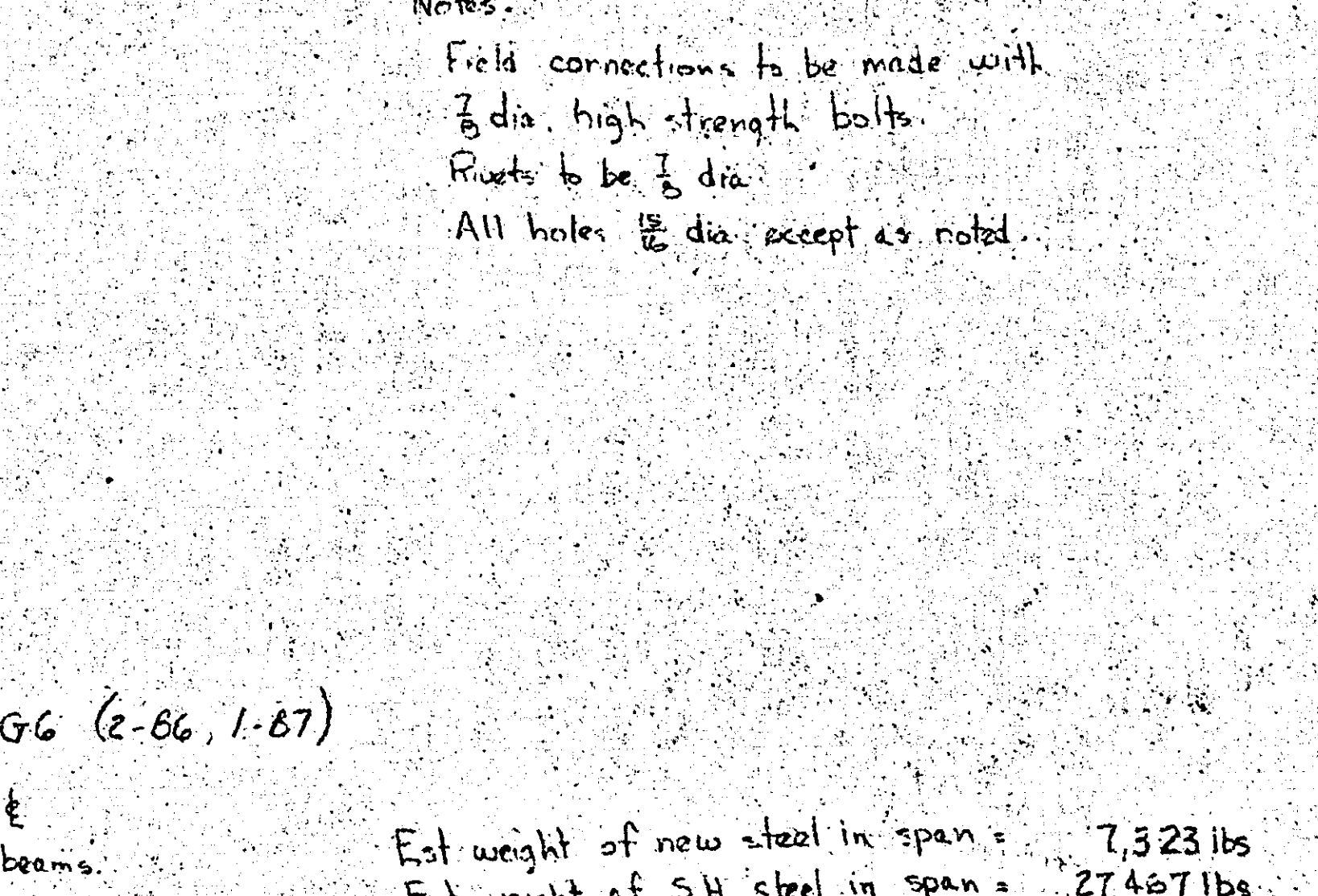
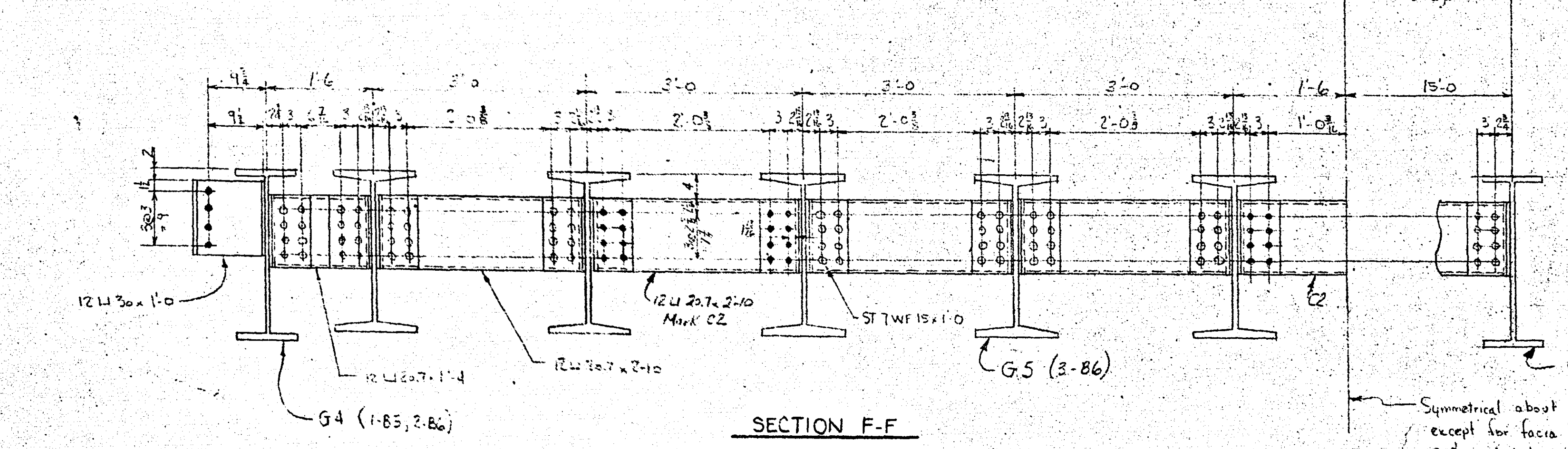
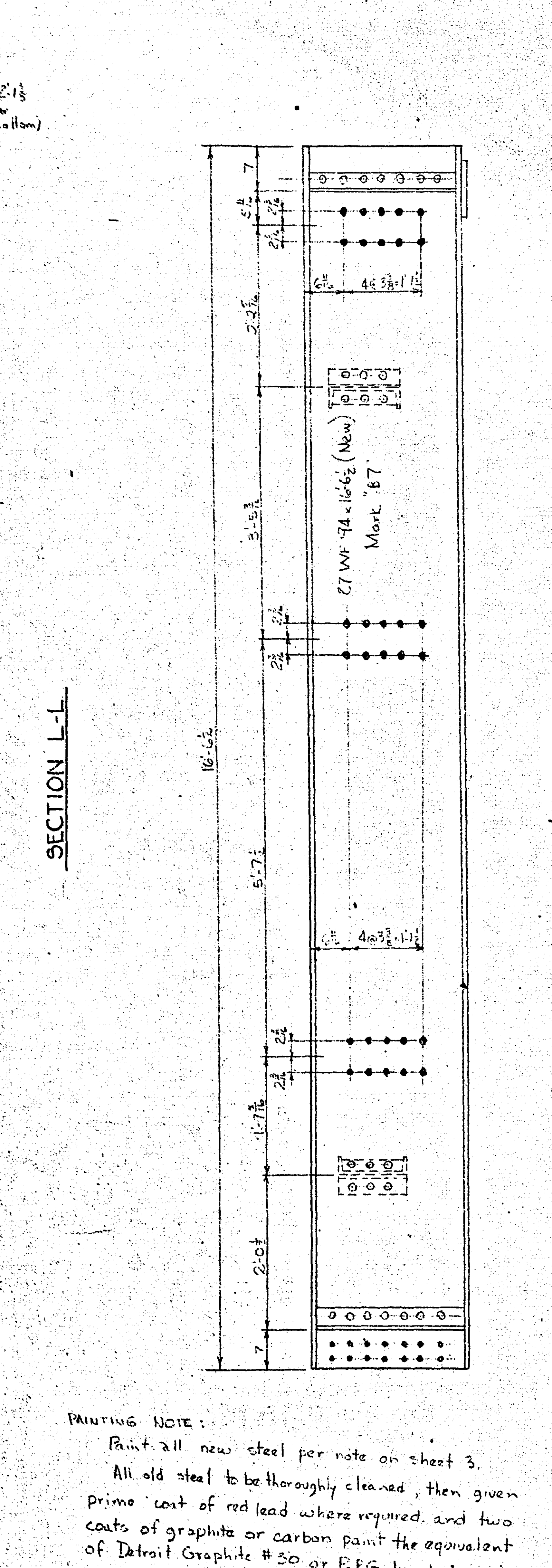
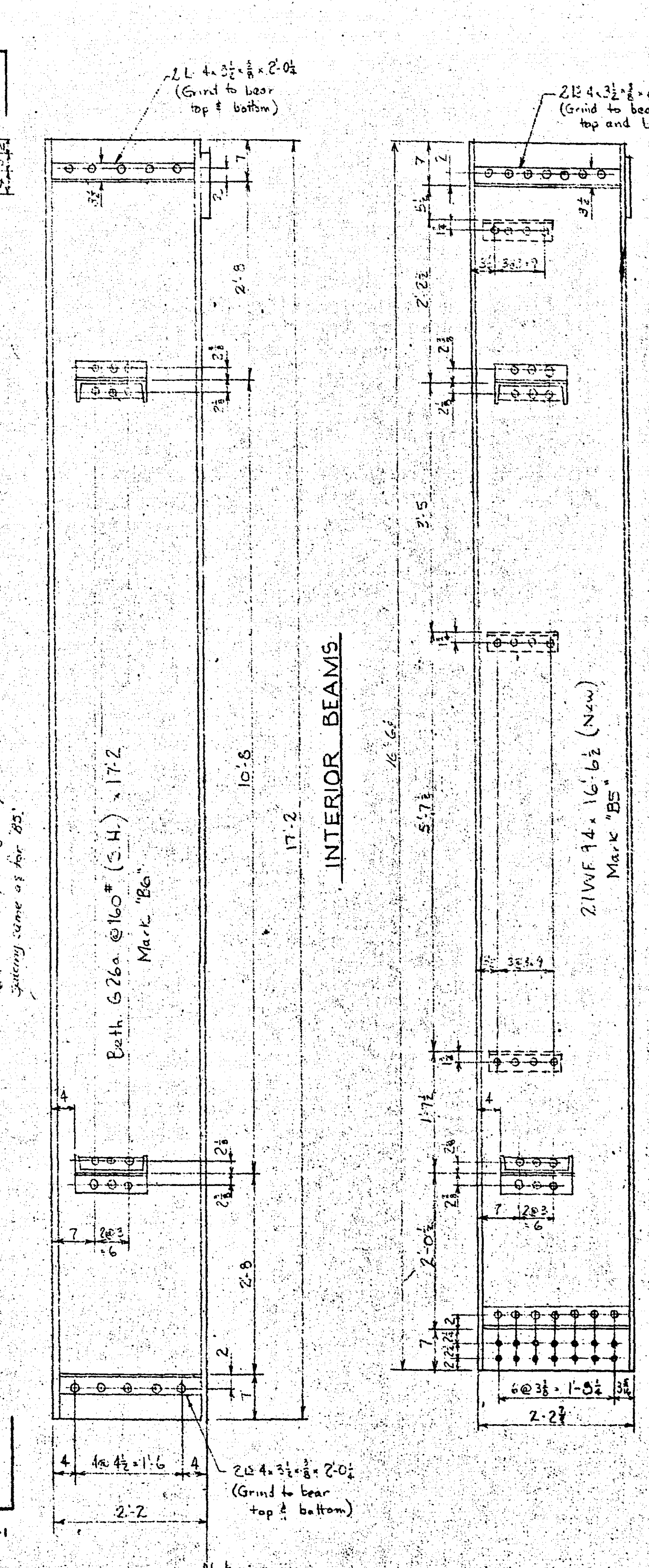
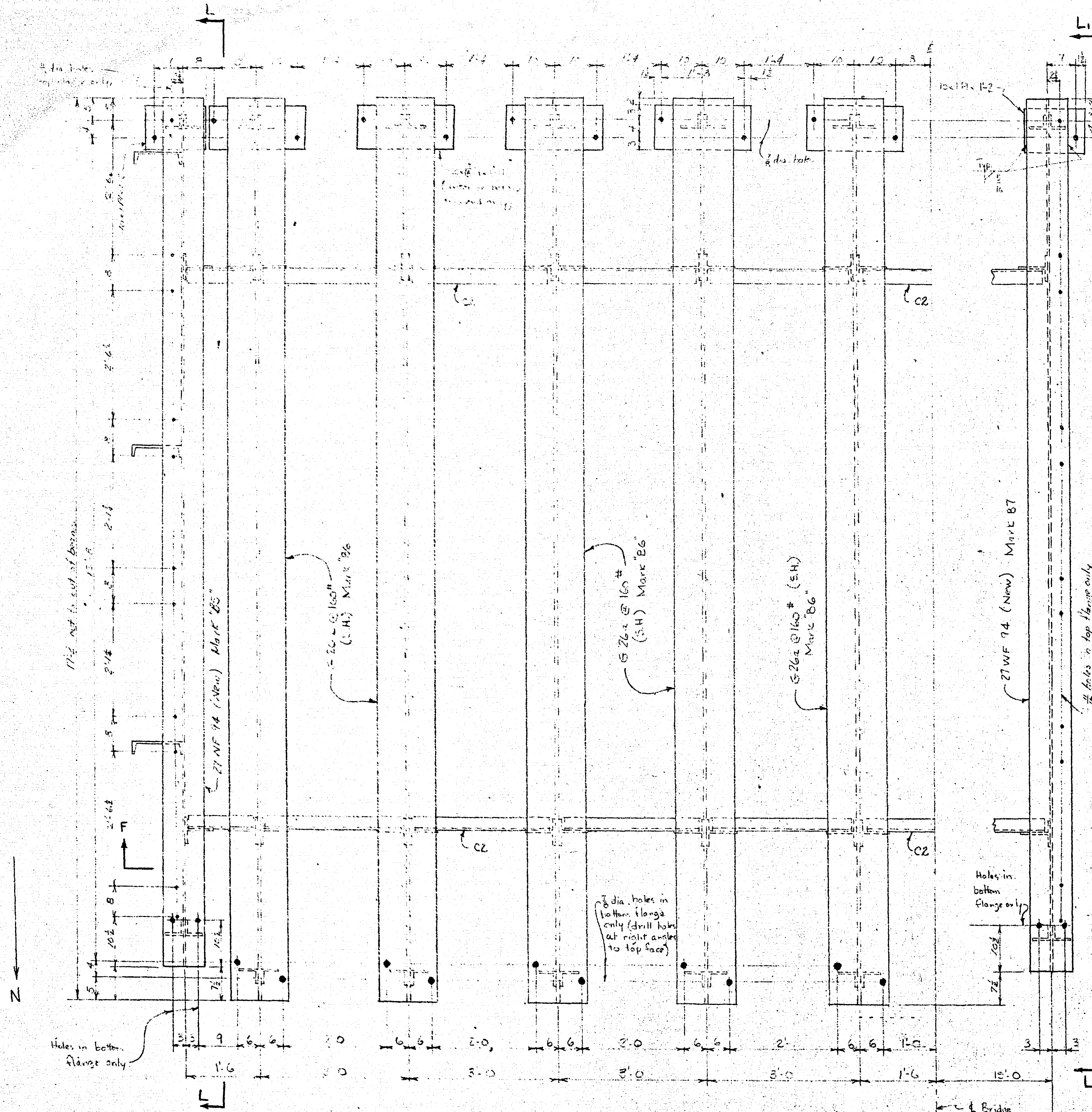
INTERIOR BEAMS
Scale: 1/4" = 1'-0"

Notes:
 All holes 5/8" dia. except as noted.
 Rivets to be 3/4" dia.
 Field connections to be made with 3/8" dia. high strength bolts.
 Weld sole plates to beams with 3/16" fillet welds as shown above.
 See sheet 5 for painting note.

Est. weight of new steel in span = 8,718 lbs.
 Est. weight of S-I steel in span = 16,029 lbs.
 Est. total weight of span = 24,747 lbs.

BR. 780
 CLEVELAND AVE. OH.
 B1-A
 NEW BRIGHTON, MINN.
 STEEL DETAILS - SPAN 2 (22'-6")
 500 LINE R.R. CO.
 OFFICE OF CHIEF ENGINEER MINNEAPOLIS, MINN.
 SCALE: AS NOTED MAY 8, 1913.

Drawn	Revised
WDS	
WDS	
JAH	
M. 150-63	



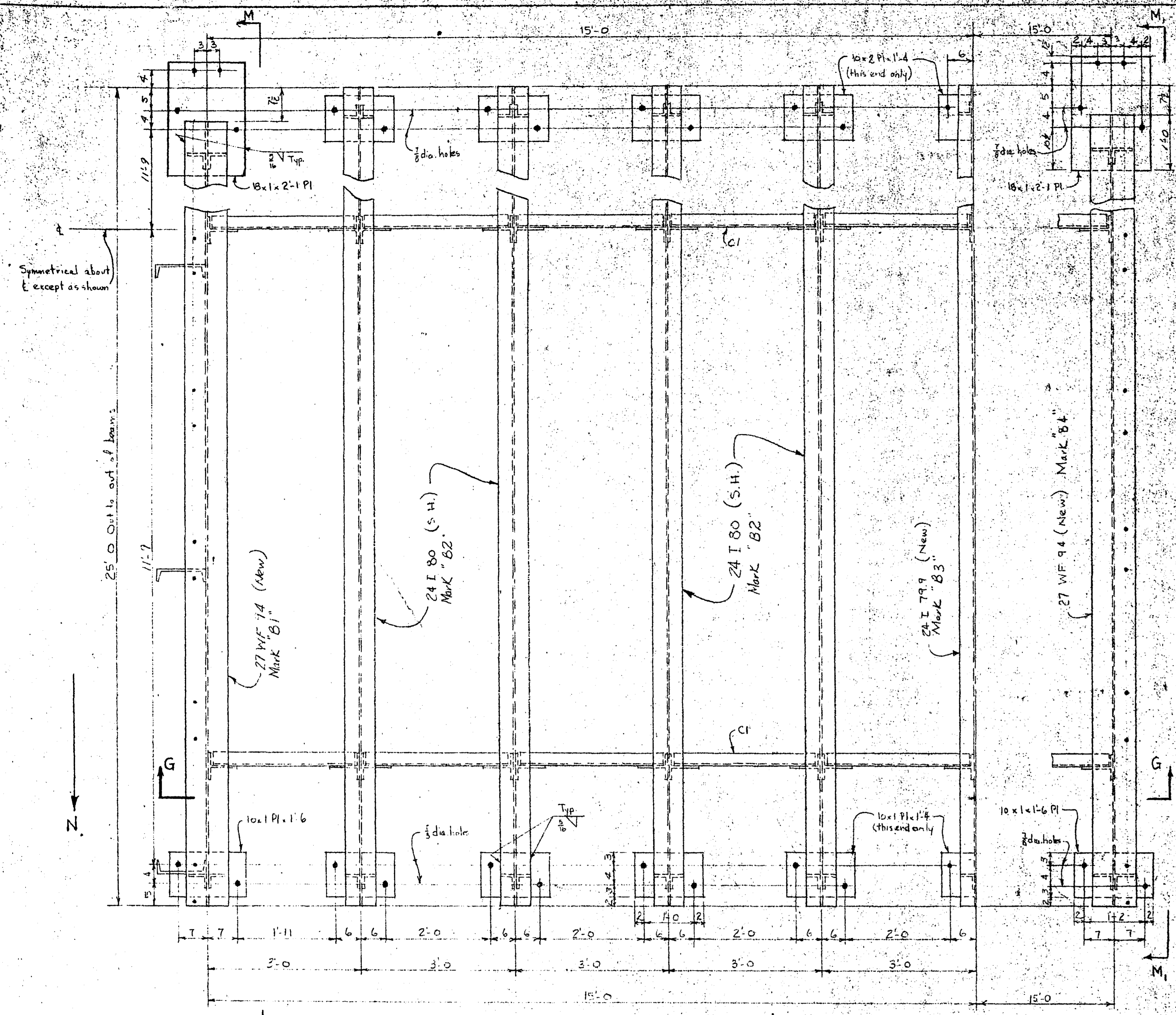
Est. weight of new steel in span = 7,323 lbs
 Est. weight of S.H. steel in span = 27,467 lbs
 Est. total weight of span = 34,790 lbs

By	Checked	Revisions
CL	JAH 5-19-62	
AWC	JAH 3-27-62	
AFE	M-150-63	

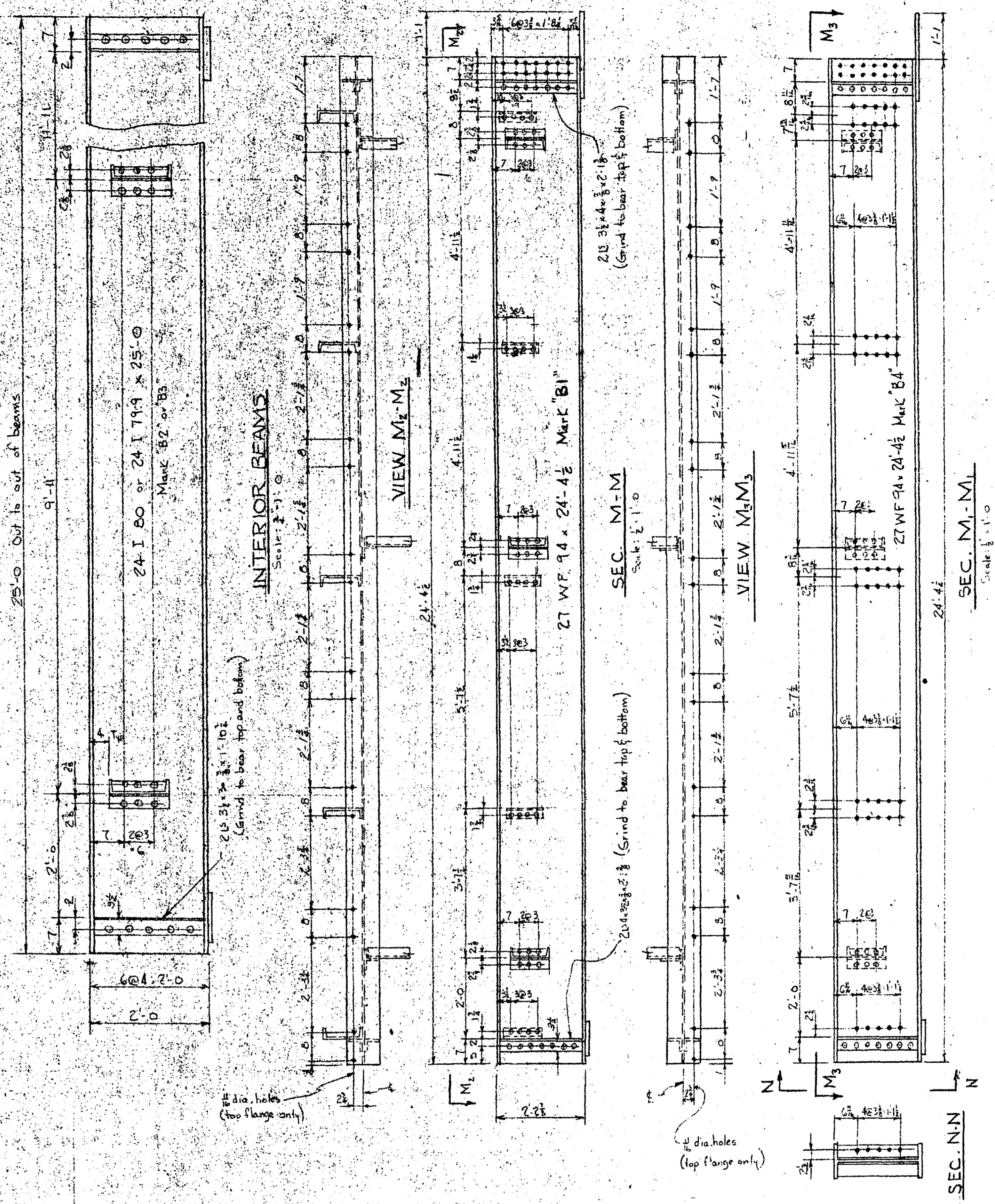
BR. 780
 CLEVELAND AVE. O.H.
 8 1/2'-A
 NEW BRIGHTON, MINN.
 STEEL DETAILS - SPAN 4 (17'-2")
 500' LINE R.R. CO.

OFFICE OF CHIEF ENGINEER MINNEAPOLIS, MINN.
 SCALE 3/8" = 1'-0" MAY 9, 1963

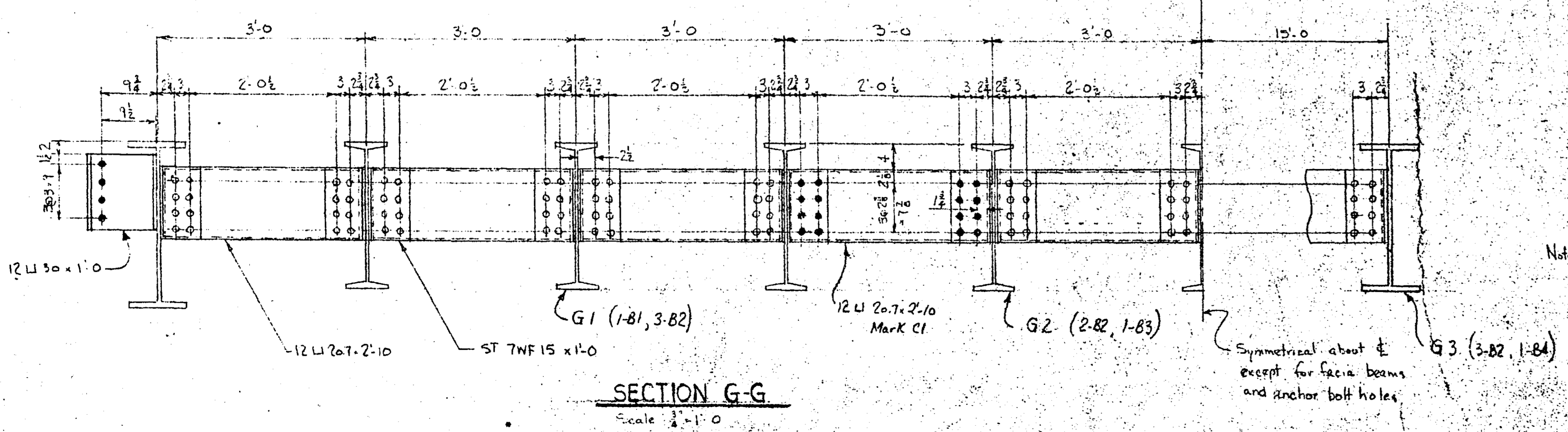
Sheet 5 of 13
 PLAN 32249
 FILE 6853



PLAN
Scale: 3/8" = 1'-0"



INTERIOR BEAMS
Scale: 1/2" = 1'-0"



SECTION G-G
Scale: 1/2" = 1'-0"

Notes: All holes to be 1/8" dia. except as noted.
Rivets to be 3/8" dia.
Field connections to be made with 3/8" dia. high strength bolts.
Weld sole plates to beams with 3/8" fillet welds.
Painting notes see sheet 5.

Est. weight of new steel in span = 11,662 lbs.
Est. weight of S.H. steel in span = 16,000 lbs.
Est. total weight of span = 27,662 lbs.

Dr.	Revisions	Date
CL	ADD	3-19-64
Grant	ADD	
AFB	ADD	3-19-64
	M-150-62	

BR. 780
CLEVELAND AVE. O.H.
8 1/2" A
NEW BRIGHTON, MINN.
STEEL DETAILS - SPAN 5 (25'-0")
SOO-LINE R.R. CO.

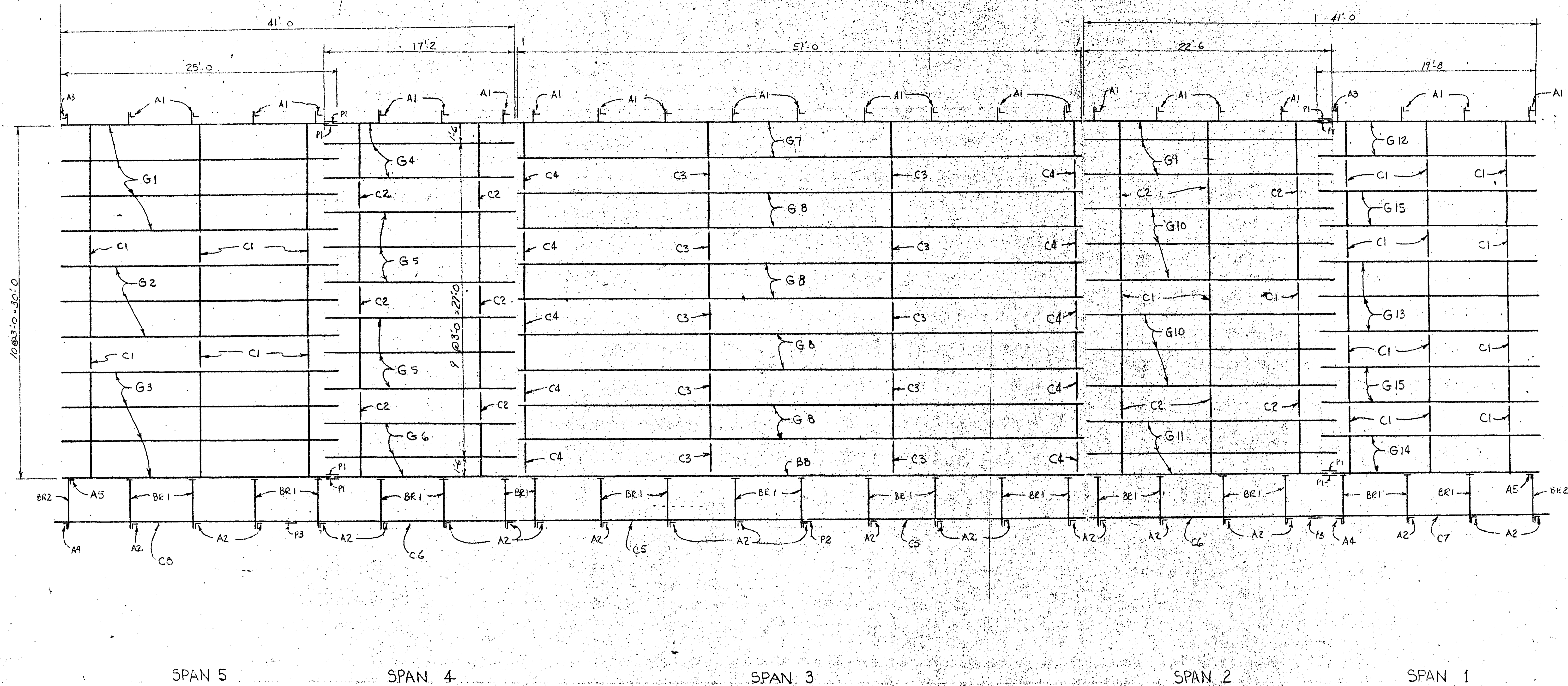
OFFICE OF CHIEF ENGINEER MINNEAPOLIS, MINN.
SCALE: AS NOTED MAY 10, 1963

Sheet 6 of 13

MICROFILMED
RAMSEY CO. ENGRS.
PLAN: 32270
FILE

North To New Brighton

Note: Bolt Groups G4, G6, G9, G11 to common
Sole plates before bolting plates P1.



High Strength Bolt Schedule		
Size	No. Required	No. Ordered
7/8" x 2"	768	810
7/8" x 2 1/2"	100	105
7/8" x 2 3/4"	340	360
7/8" x 3"	122	130
7/8" x 3 1/4"	8	10

BR. 780
CLEVELAND AVE. O.H.
8 1/2" A
NEW BRIGHTON, MINN.
STRUCTURAL STEEL LAYOUT PLAN
500 LINE R.R. CO.

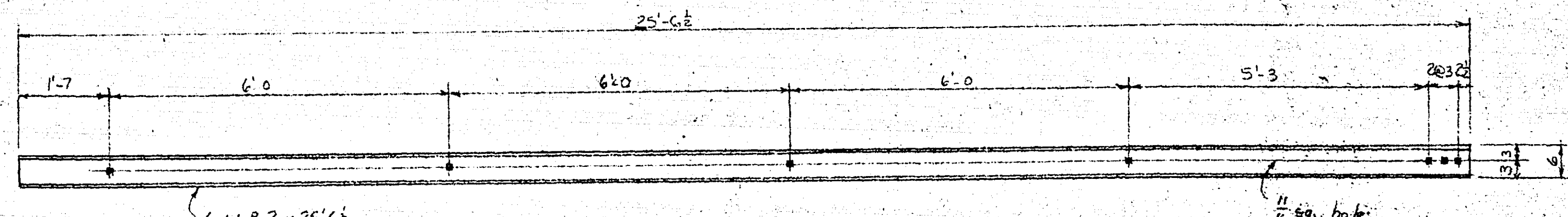
OFFICE OF CHIEF ENGINEER
NO SCALE

MINNEAPOLIS, MINN.
MAR. 6, 1964

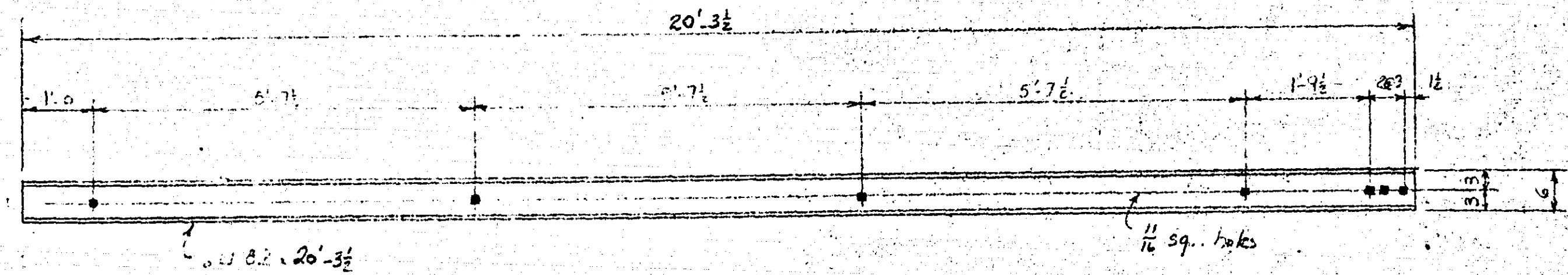
Dr.	WFS	12/21/63
CC	SAH	3-26-64
Check		
Appr.		
File	M-150-63	

Sheet 7 of 13

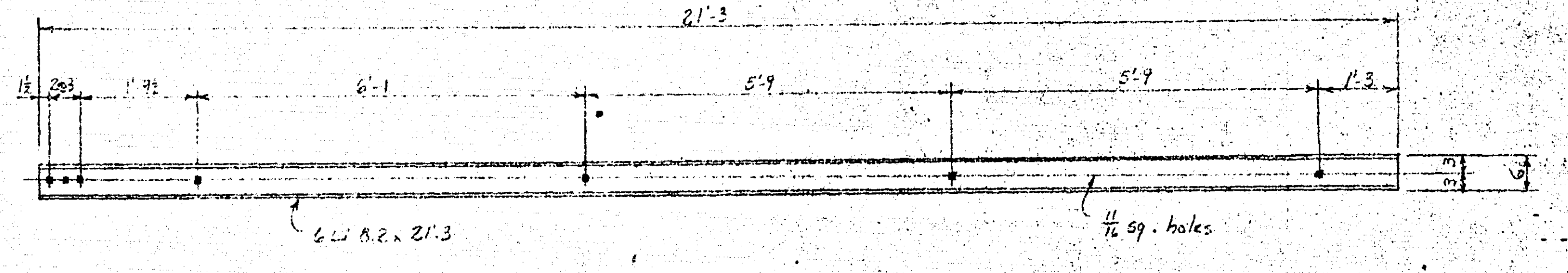
MICROFILMED
RAMSEY CO. ENGR.
PLAN: 32333
FILE:



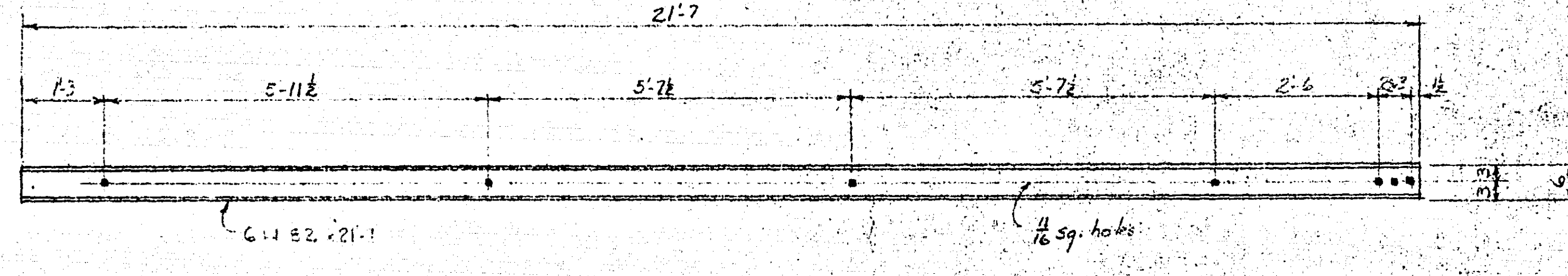
CHANNEL "C5"
Scale: 1/2" = 1'-0" 2 Req'd



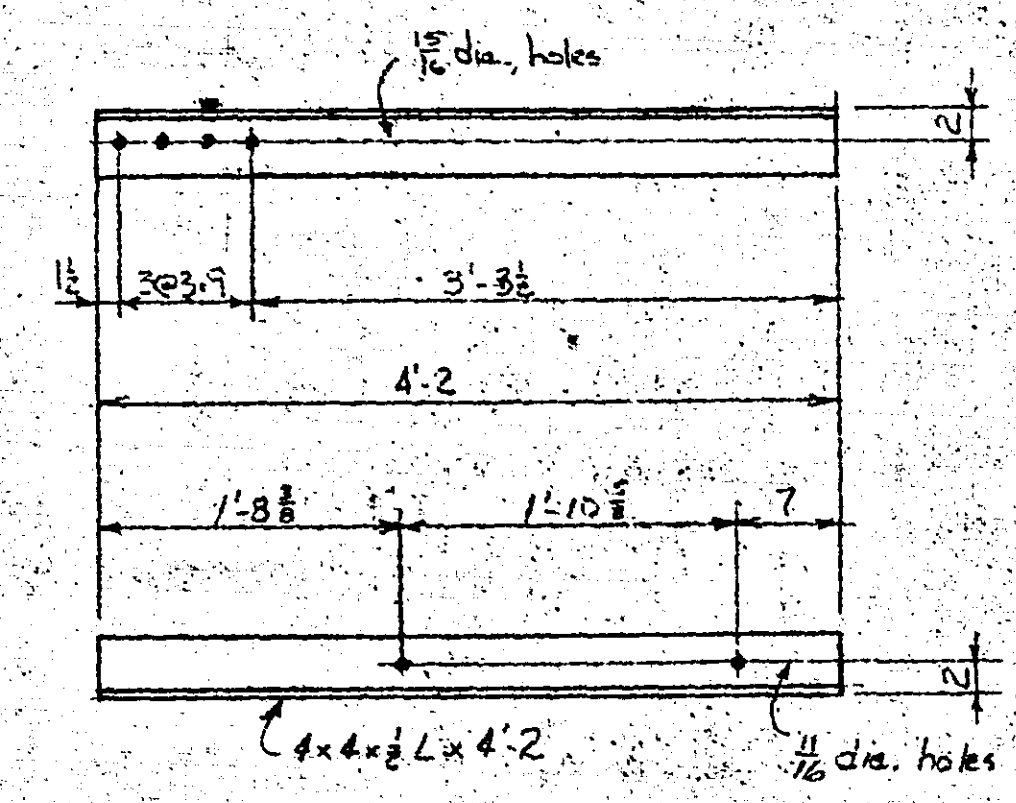
CHANNEL "C6"
Scale: 1/2" = 1'-0" 2 Req'd



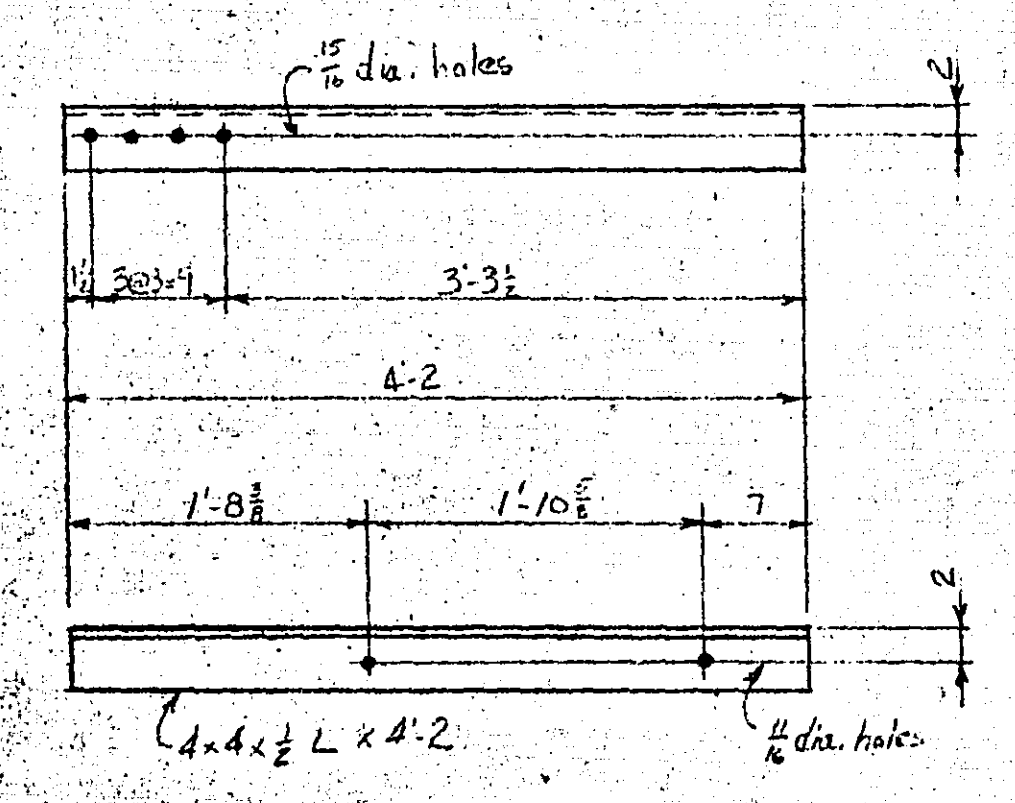
CHANNEL "C7"
Scale: 1/2" = 1'-0" 1 Req'd



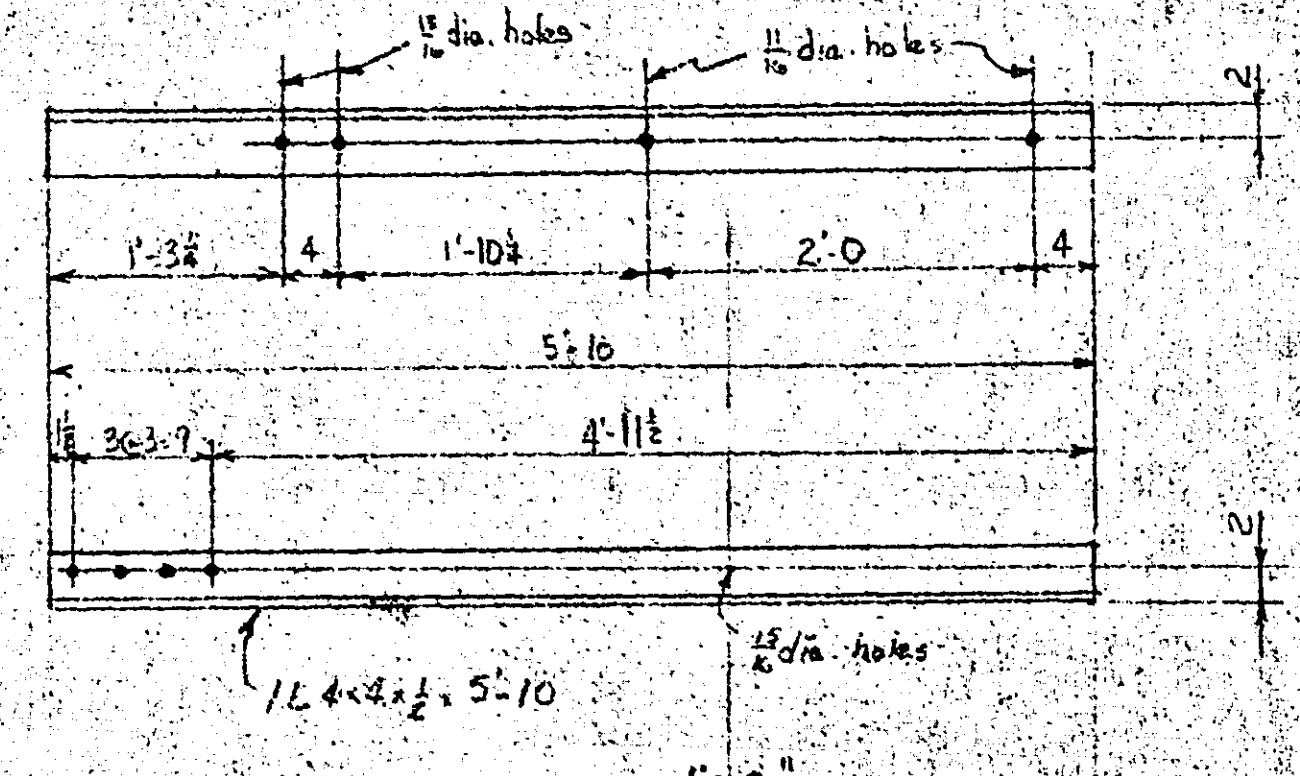
CHANNEL "C8"
Scale: 1/2" = 1'-0" 1 Req'd



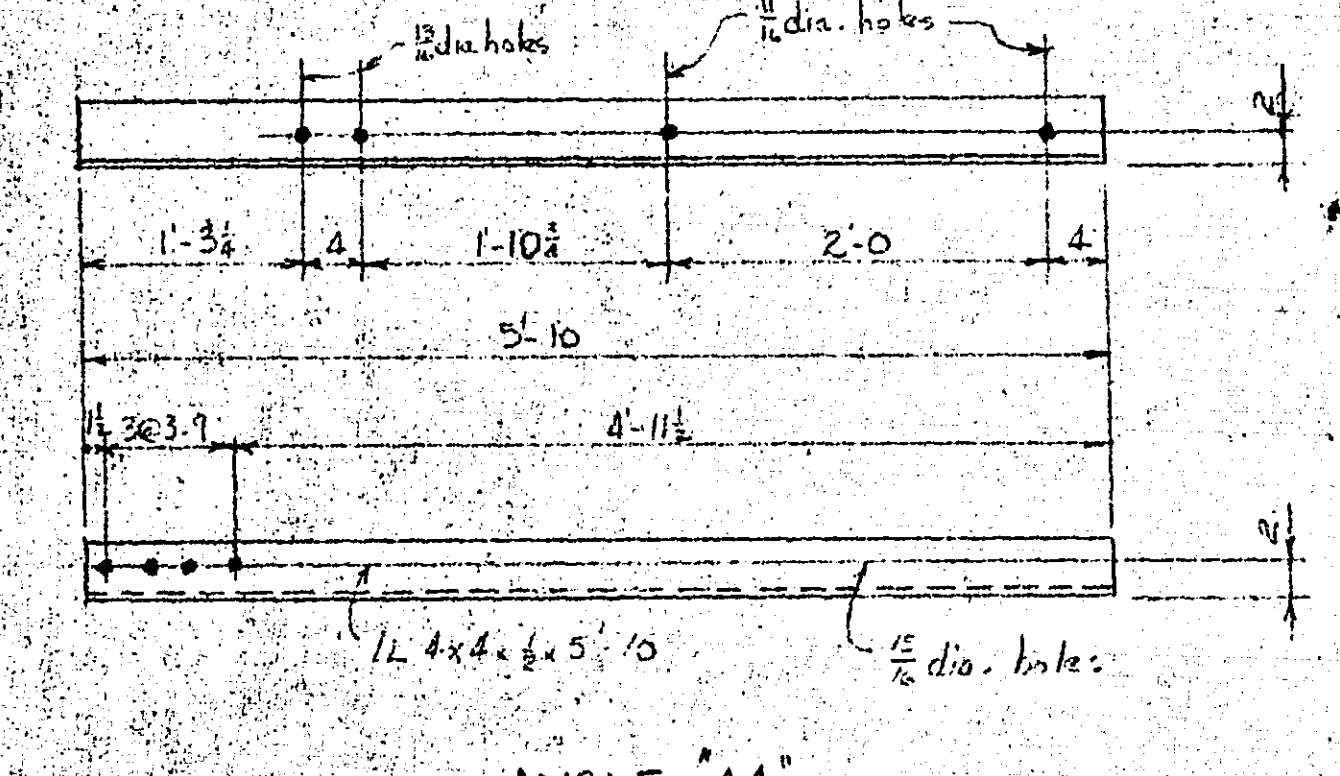
ANGLE "A1"
Scale: 1/2" = 1'-0" 23 Req'd



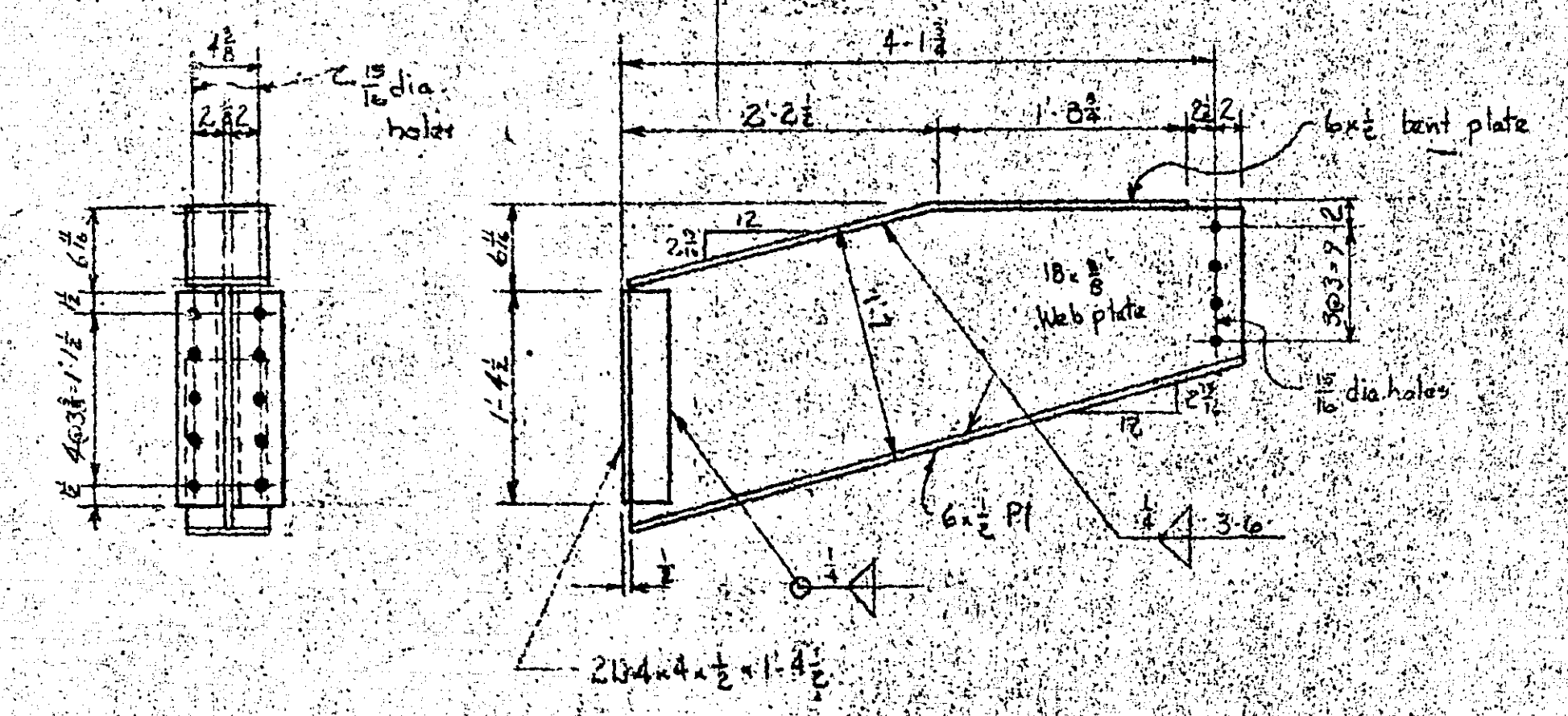
ANGLE "A3"
Scale: 1/2" = 1'-0" 2 Req'd



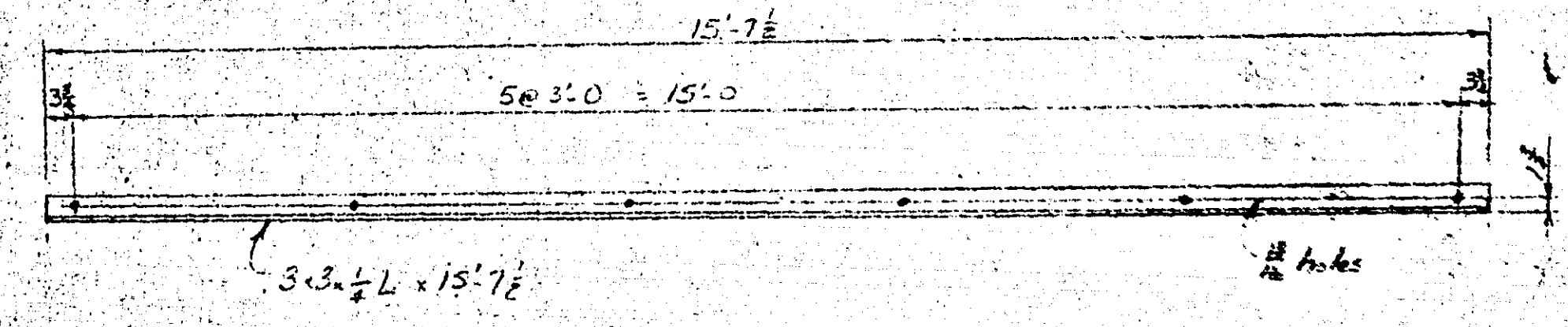
ANGLE "A2"
Scale: 1/2" = 1'-0" 23 Req'd



ANGLE "A4"
Scale: 1/2" = 1'-0" 2 Req'd

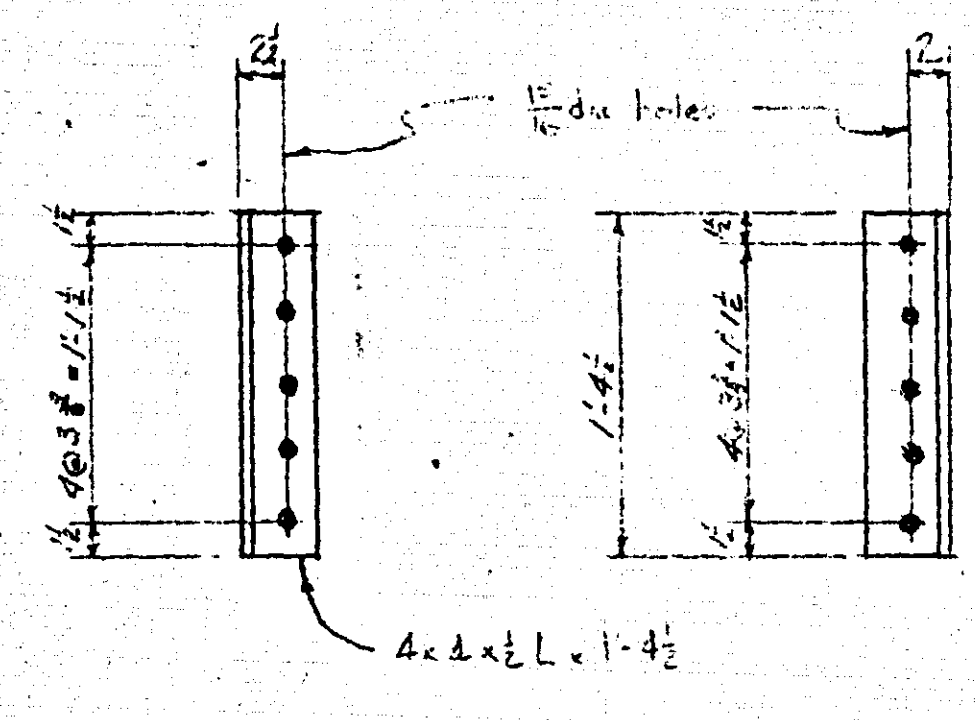


BRACKET "BR1"
Scale: 1/2" = 1'-0" 23 Req'd

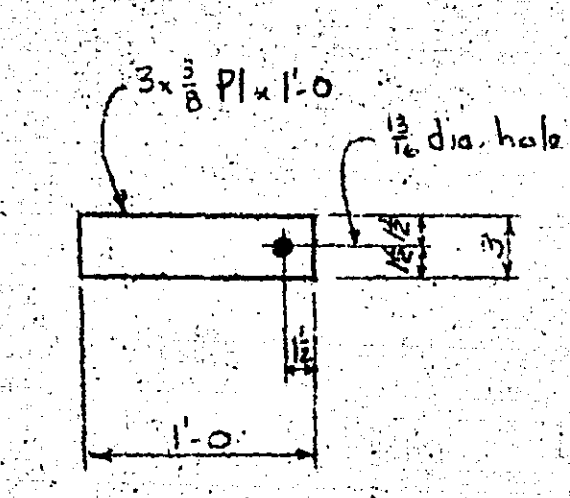


ANGLE "A6"
Scale: 1/2" = 1'-0" 4 Req'd
See Sh. 12 for location

Painting note:
Paint all steel one coat red lead. Paint angles A1, A2, A3, A4 and channels C5, C6, C7, C8 two coats of aluminum paint. Other members to be painted two coats black paint as shown on Sheet 3.



ANGLE "A5"
Scale: 1/2" = 1'-0" 2 Req'd



STRAP "S1"
Scale: 1" = 1'-0" 8 Req'd
See Sh. 9 for location

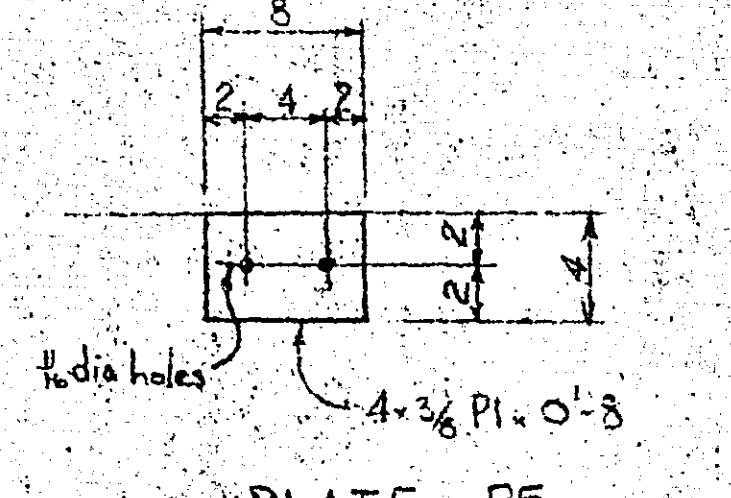


PLATE "P5"
(Wheel Guard Splice)
Scale: 1" = 1'-0" 12 Req'd
See Sh. 12 for location

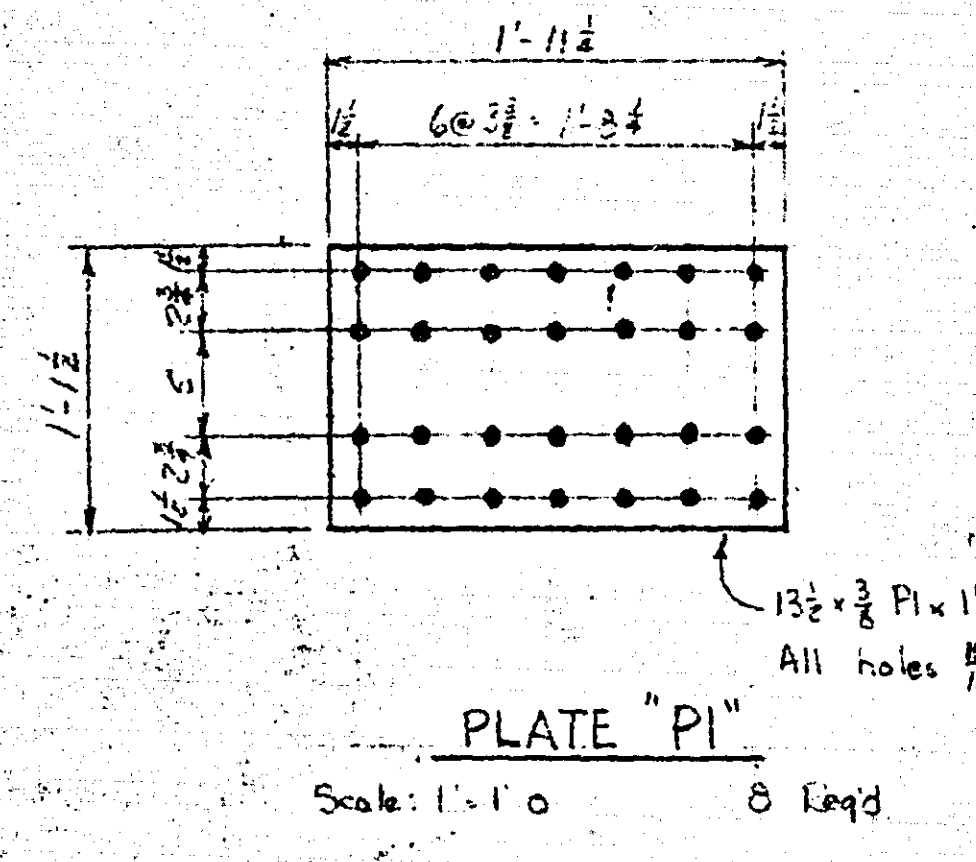


PLATE "P1"
Scale: 1" = 1'-0" 8 Req'd

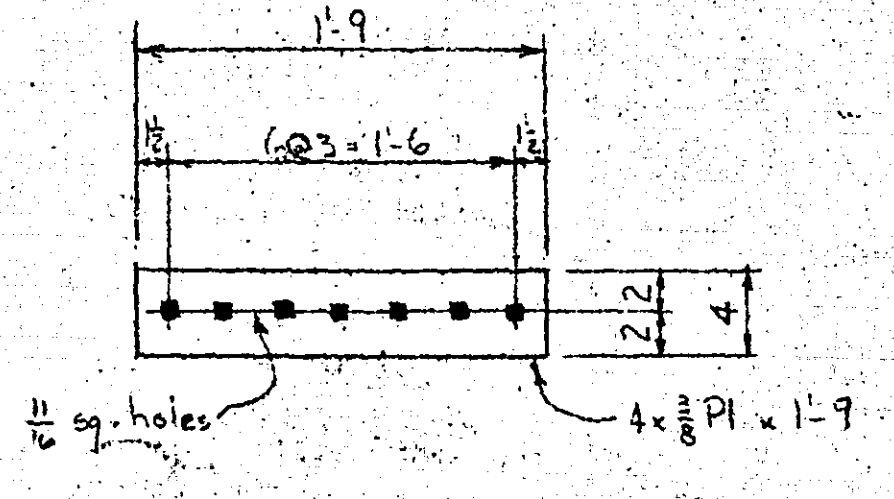


PLATE "P2"
Scale: 1" = 1'-0" 1 Req'd

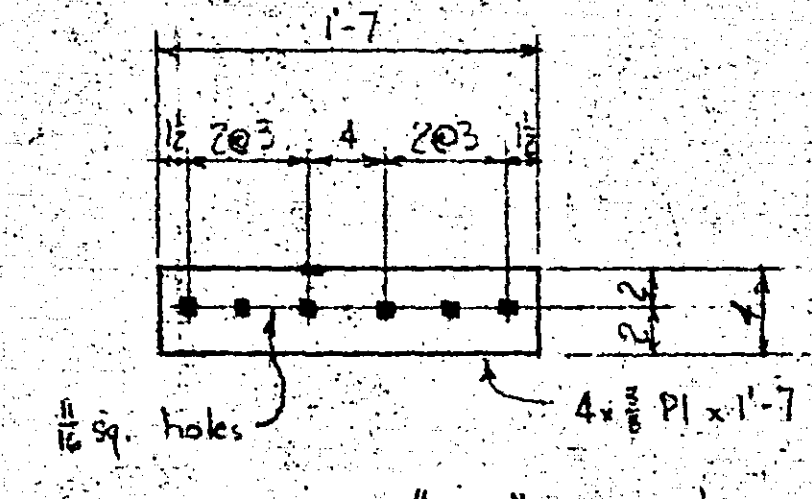
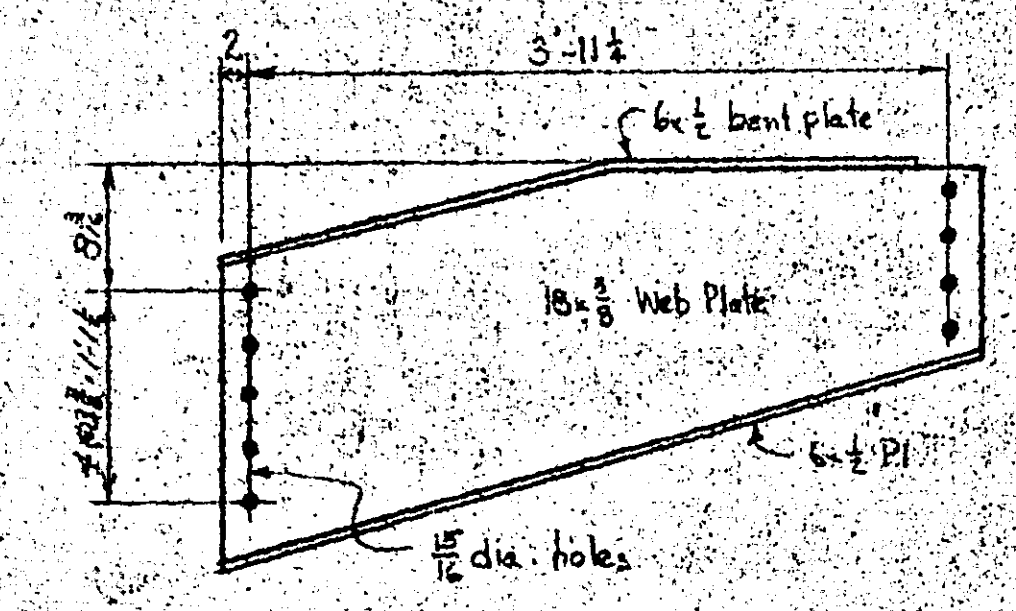


PLATE "P3"
Scale: 1" = 1'-0" 2 Req'd



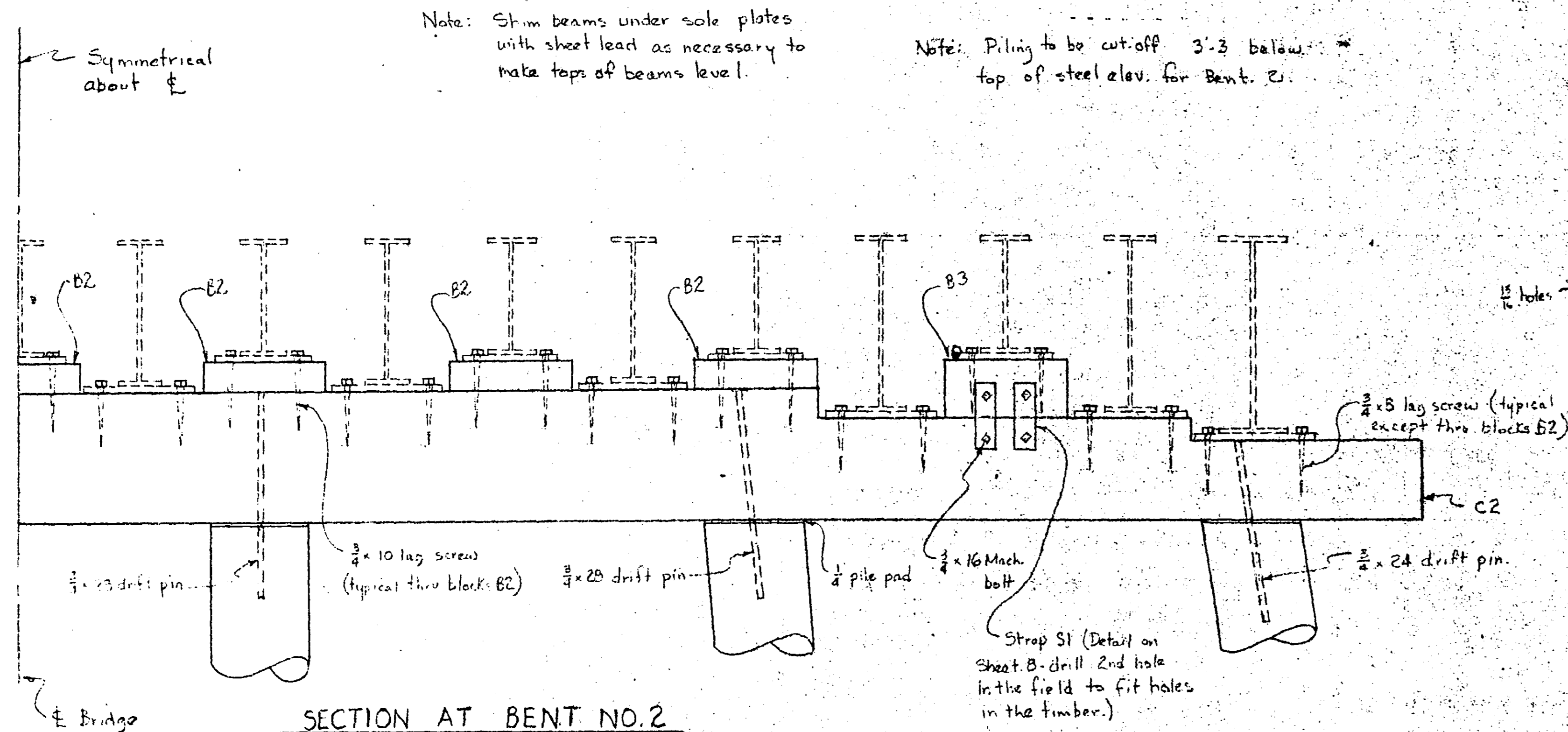
BRACKET "BR2"
Scale: 1/2" = 1'-0" 2 Req'd
(Dimensions and details not shown are same as for "BR1")

BR. 780
CLEVELAND AVE. O.H.
8 1/2" A.
NEW BRIGHTON, MINN.
STEEL DETAILS
500 LINE R.R. CO.

OFFICE OF CHIEF ENGINEER MINNEAPOLIS, MINN.
SCALE: AS NOTED MAR. 13, 1964

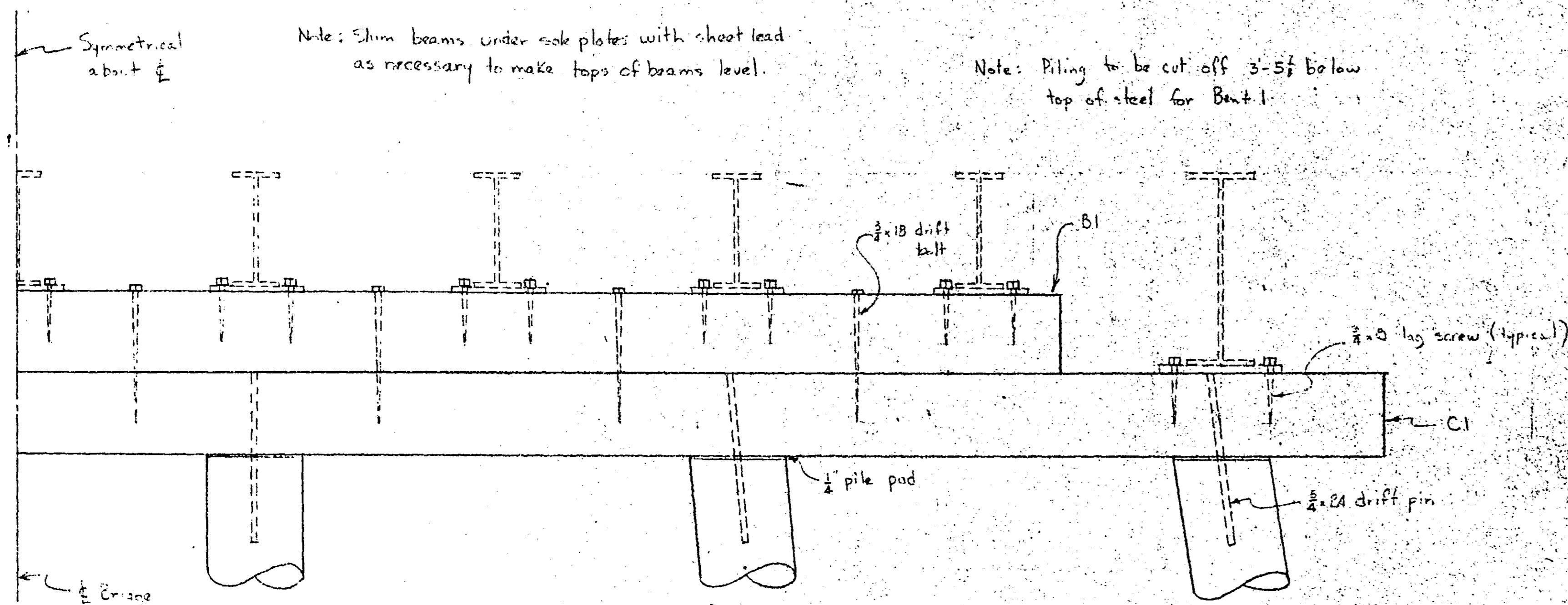
No.	By	Checked	Revised
1	JAH	JAH	
2	WD	WD	
3	WD	WD	
4	WD	WD	
5	WD	WD	

Estimated weight of steel this sheet = 10,392 lbs.



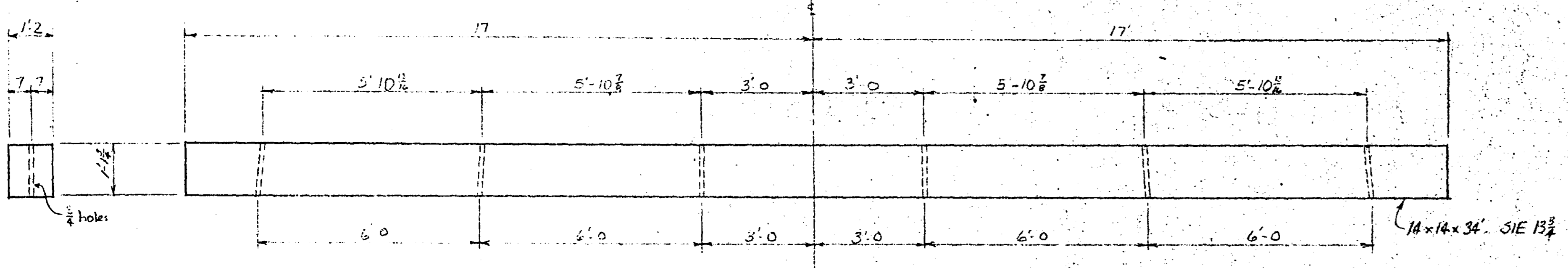
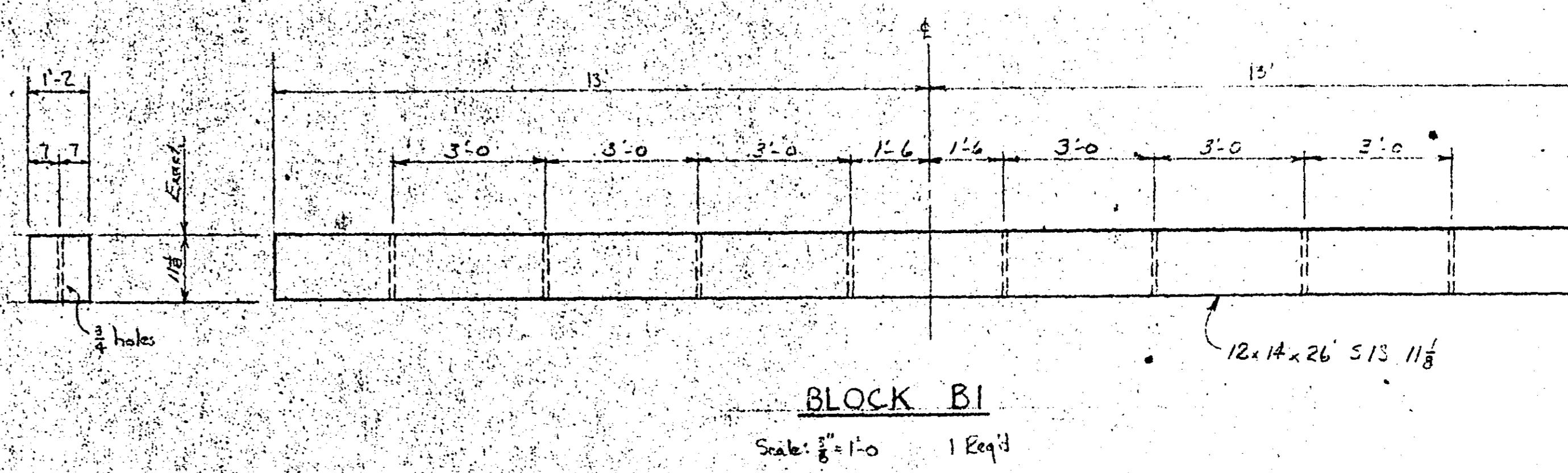
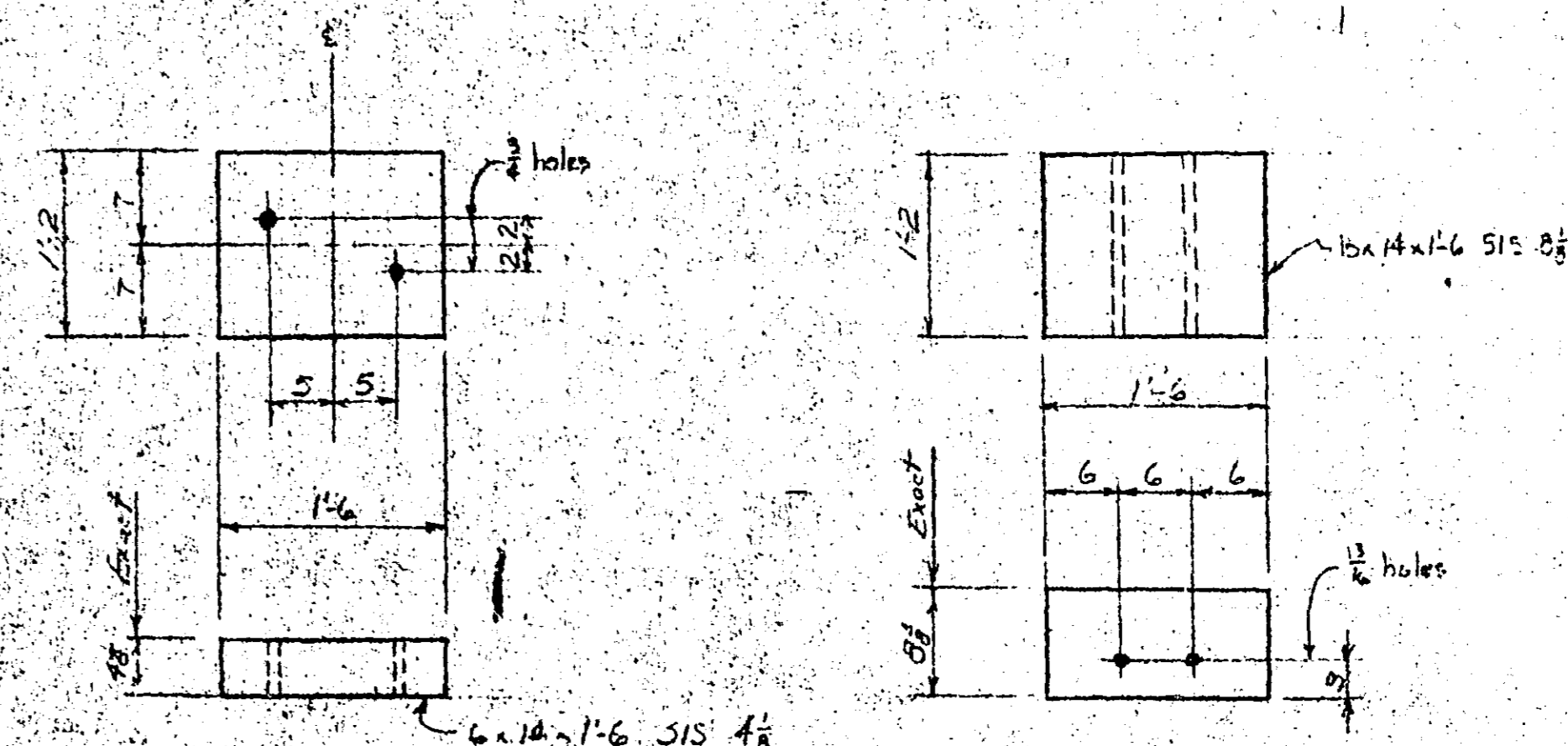
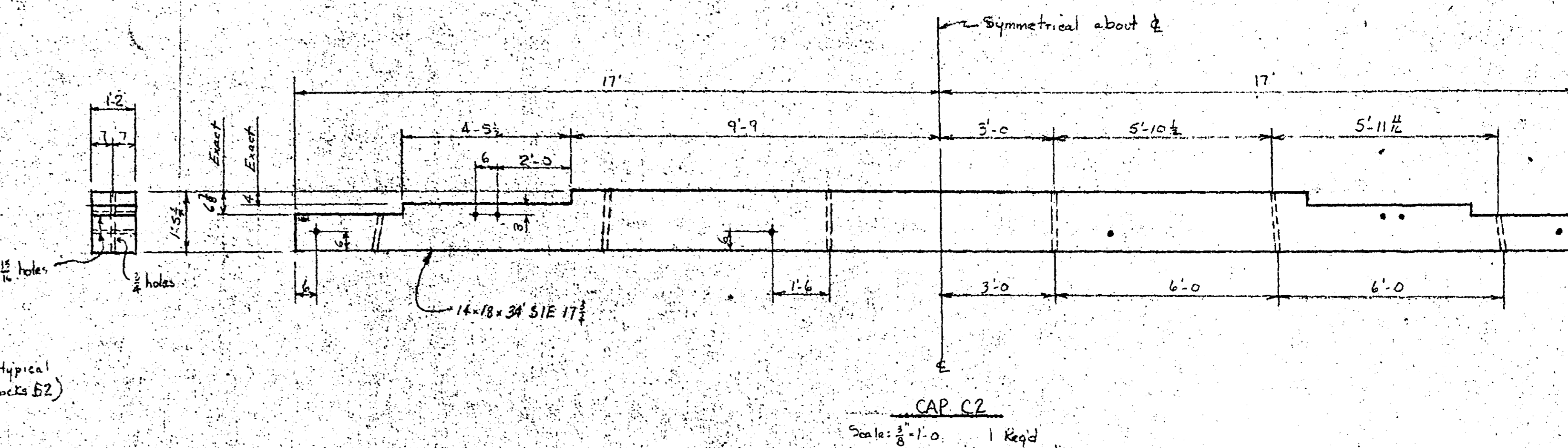
SECTION AT BENT NO. 2

Scale: 3/8" = 1'-0"
(Bracing not shown)



SECTION AT BENT NO. 1

Scale: 3/8" = 1'-0"



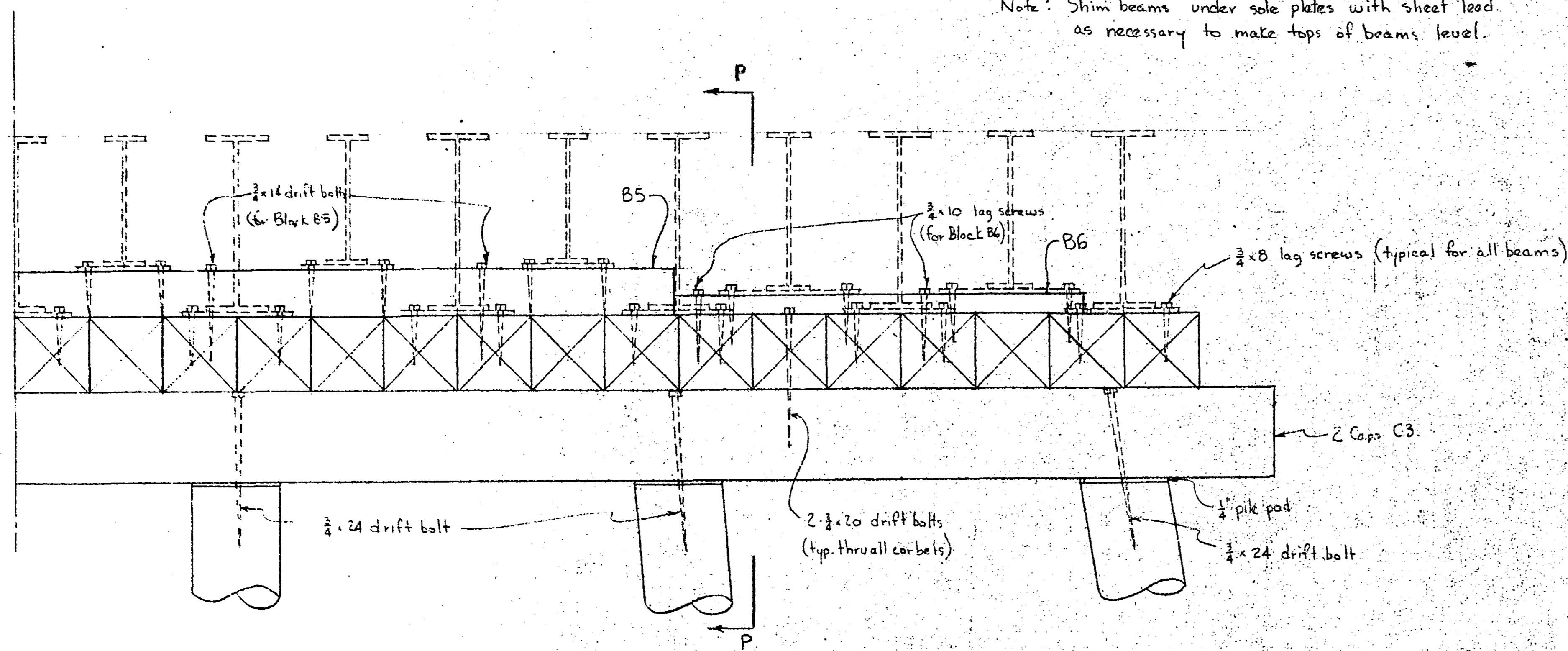
GENERAL NOTES:
All timber to be fir, cut to size, drilled and incised before being given treatment of creosote.

BR. 780
CLEVELAND AVE. OVERHEAD
8 1/2" A
NEW BRIGHTON, MINN.
TIMBER BENT DETAILS - BENTS 1 & 2
500 LINE, R.R. CO.

OFFICE OF CHIEF ENGINEER, MINNEAPOLIS, MINN.
SCALE: AS NOTED MAR. 15, 1964

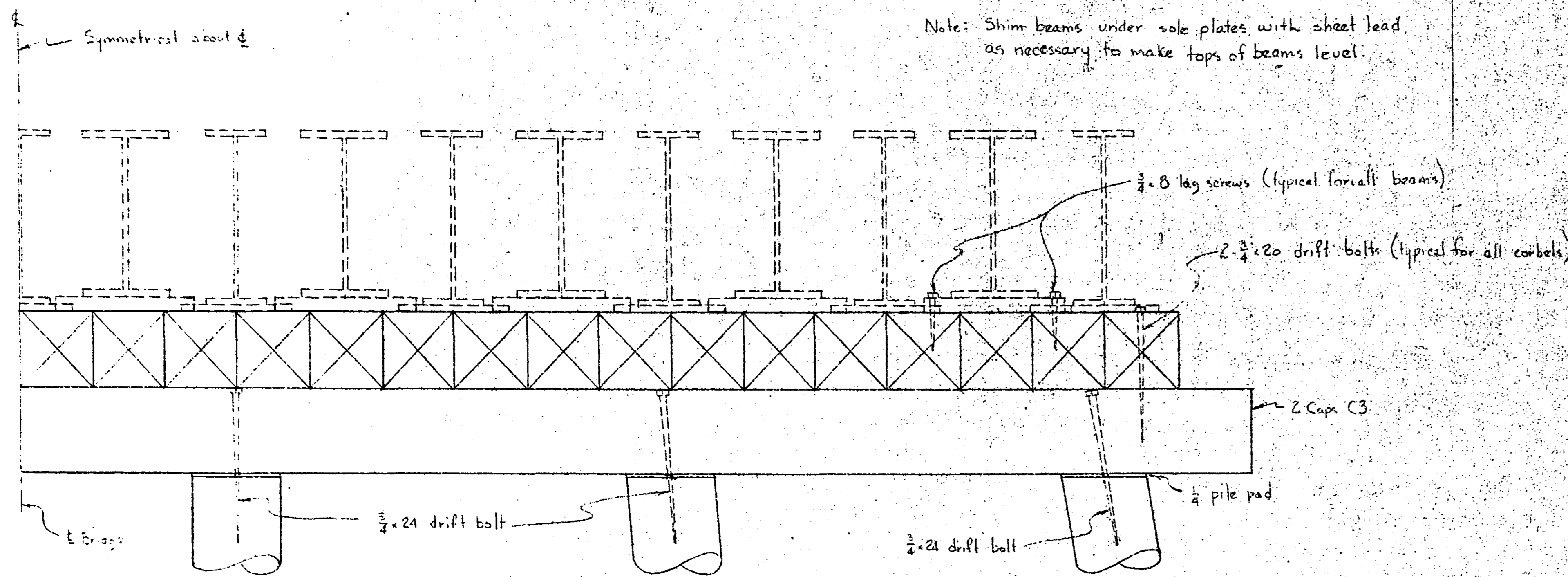
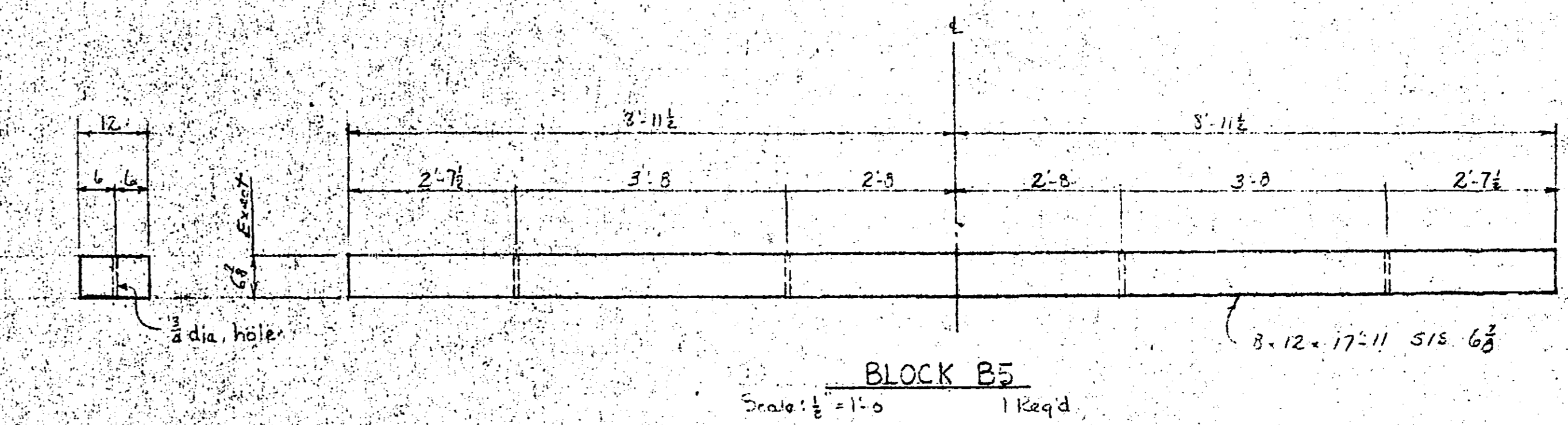
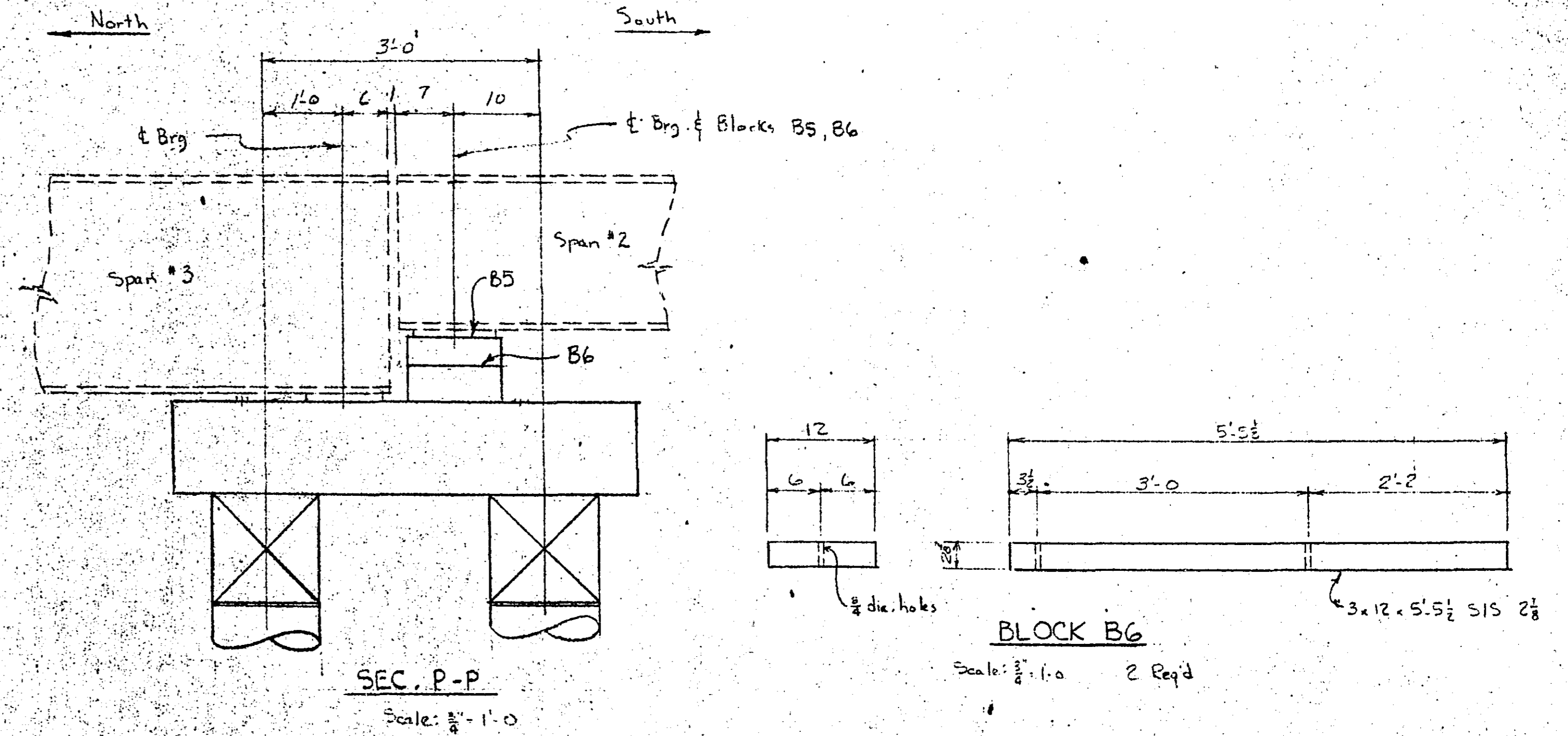
Drawings	Revisions
Dr. J.B.	
CL. J.B.H. 3-27-64	
Check: W.B.	
App: J.B.H. 3-27-64	
APC: J.B.H. 3-27-64	

Note: Shim beams under sole plates with sheet lead as necessary to make tops of beams level.



SECTION AT BENT NO. 3
Scale: $\frac{3}{8}$ " = 1'-0"
(Bracing not shown)

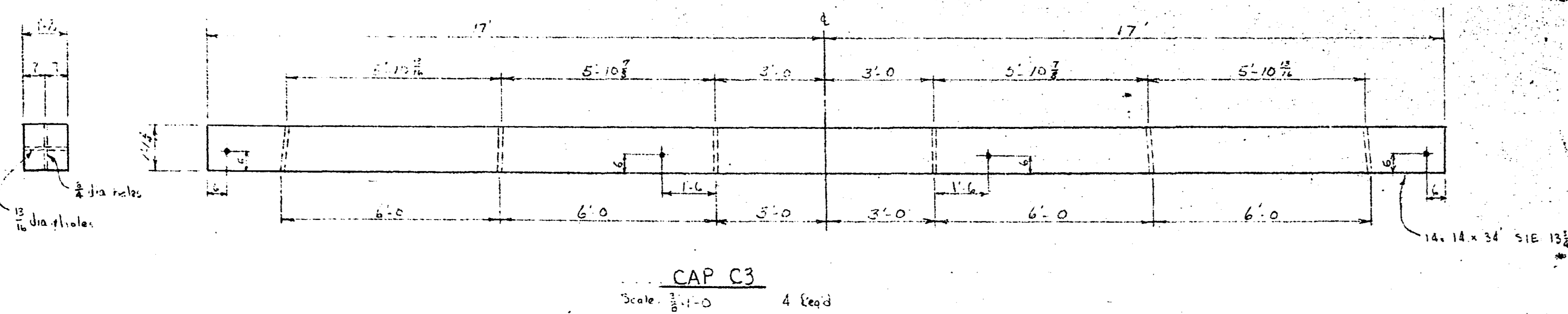
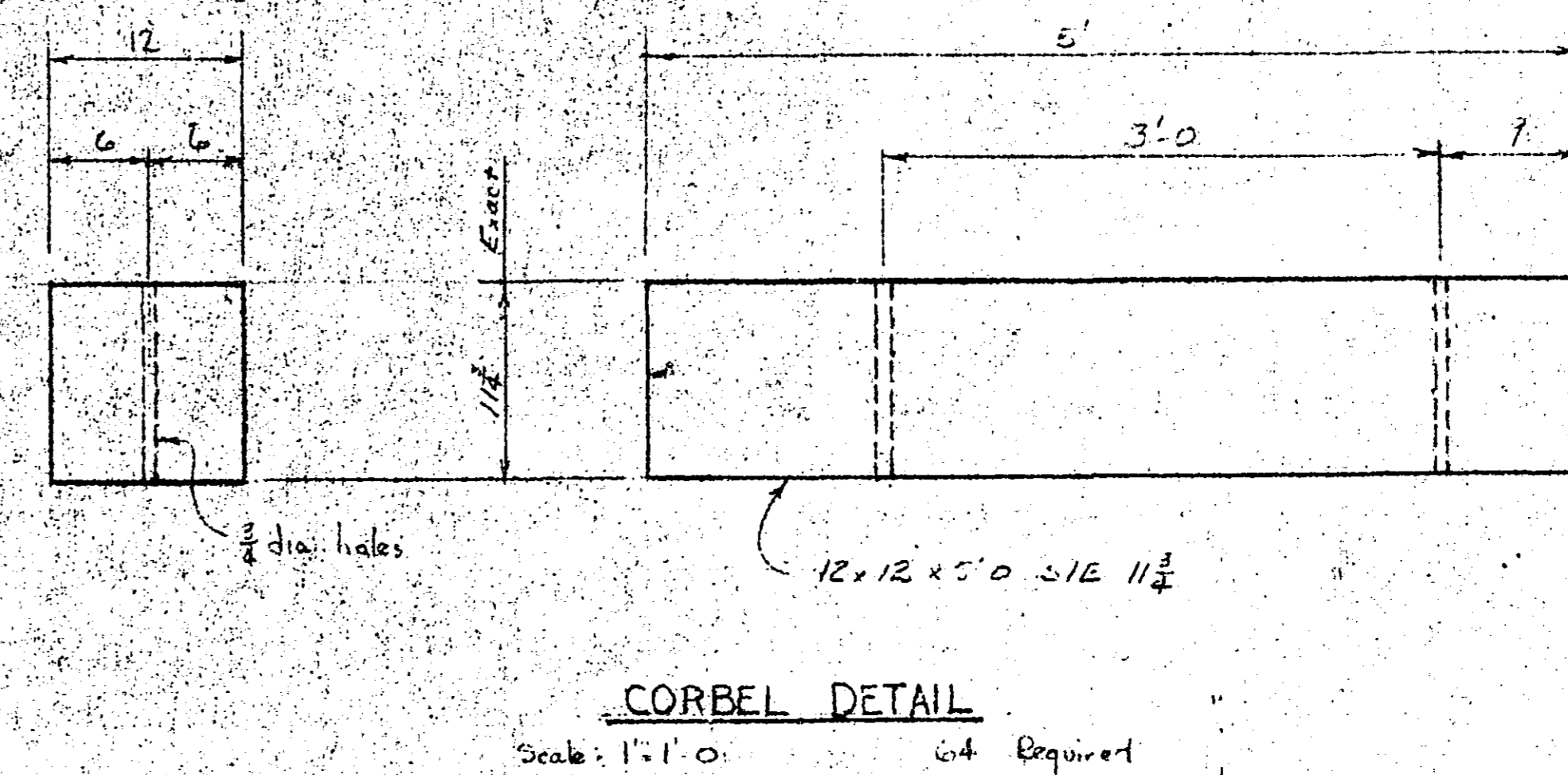
Note: Piling to be cut off 4'-5 7/8" below top of steel for bent 3.



SECTION AT BENT NO. 4
Scale: $\frac{3}{8}$ " = 1'-0"
(Bracing not shown)

Note: Piling to be cut off 4'-5 7/8" below top of steel for bent 4.

GENERAL NOTES:
Turn corbels and fan end to obtain staggered drift bolt holes.
All timber to be fir, cut to size, drilled and incised before being given treatment of creosote.



CAP C3
Scale: $\frac{3}{8}$ " = 1'-0"
4 Req'd.

BR. 780
CLEVELAND AVE. O.H.
8 1/2" A
NEW BRIGHTON, MINN.
TIMBER BENT DETAILS - BENTS 3 & 4
500 LINE R.R. CO.

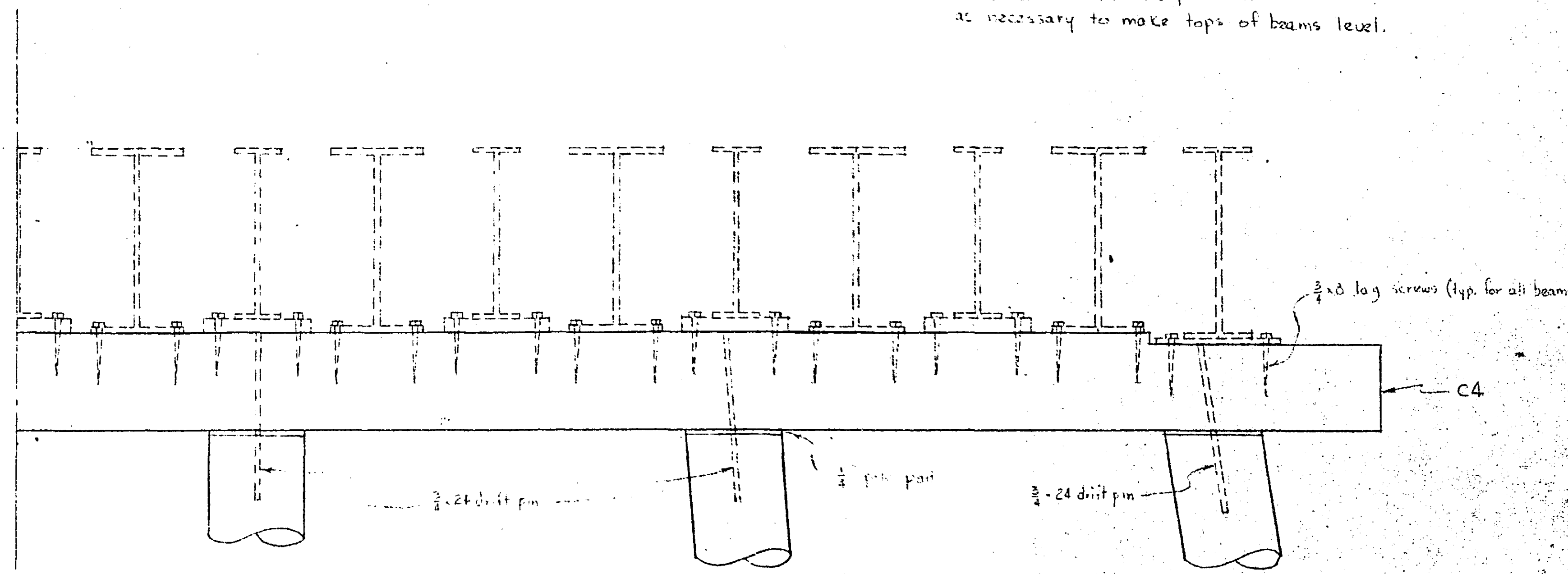
OFFICE OF CHIEF ENGINEER - MINNEAPOLIS, MINN.
SCALE: AS NOTED
MAR. 24, 1964
MICROFILMED

Dr.	Drawings	REVISIONS
CS	SAH 3-27-64	
WPS		
WPS		
WPS		
WPS		

Sheet 10 of 13

PLAN: 32844
FILE

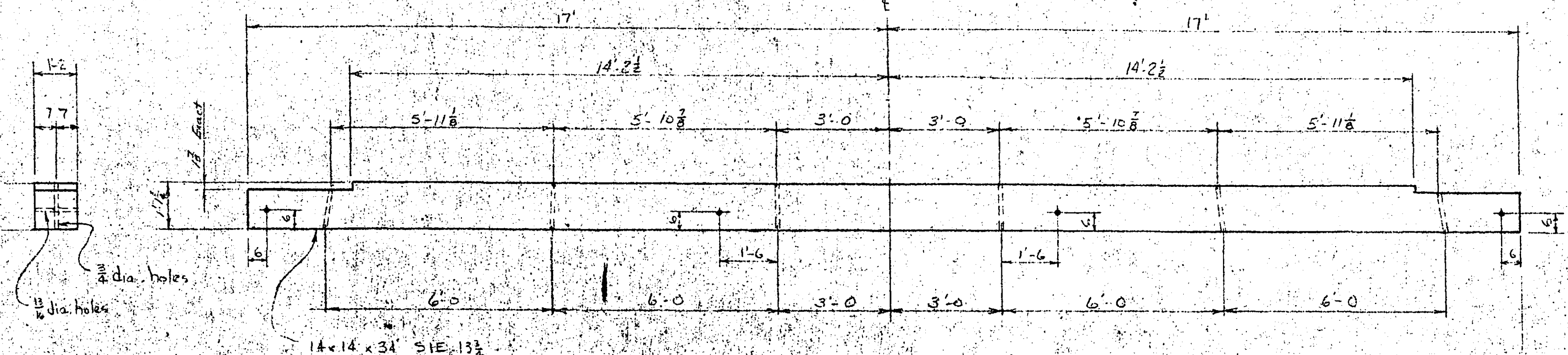
Note: Shim beams under sole plates with sheet lead as necessary to make tops of beams level.



SECTION AT BENT NO. 5

Scale: 3/8" = 1'-0"
(Dimensions not shown)

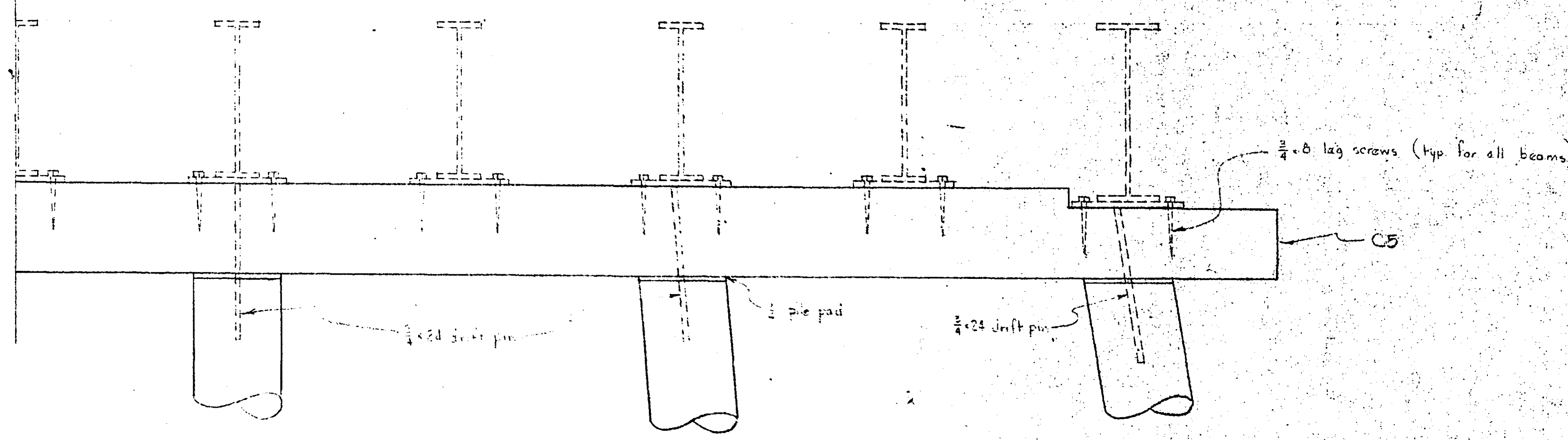
Note: Piling to be cut off 3'-4" below top of steel for bent 5.



CAP C4

Scale: 3/8" = 1'-0" 1 Reqd.

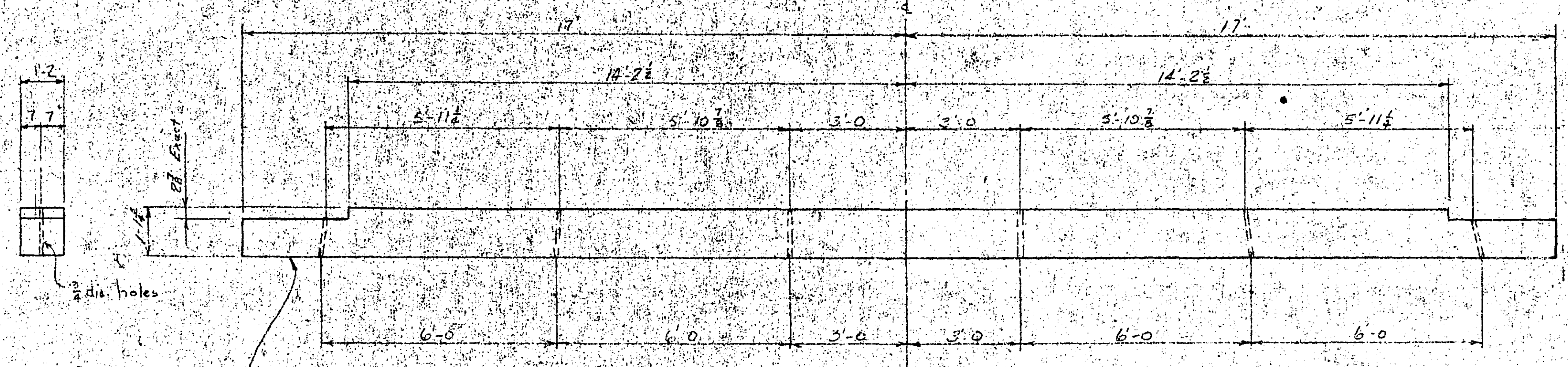
Note: Shim beams under sole plates with sheet lead as necessary to make tops of beams level.



SECTION AT BENT NO. 6

Scale: 3/8" = 1'-0"

Note: Piling to be cut off 3'-3" below top of steel for bent 6.



CAP C5

Scale: 3/8" = 1'-0" 1 Reqd.

GENERAL NOTES:
All timber to be fir, cut to size, drilled and incised before being given treatment of creosote.

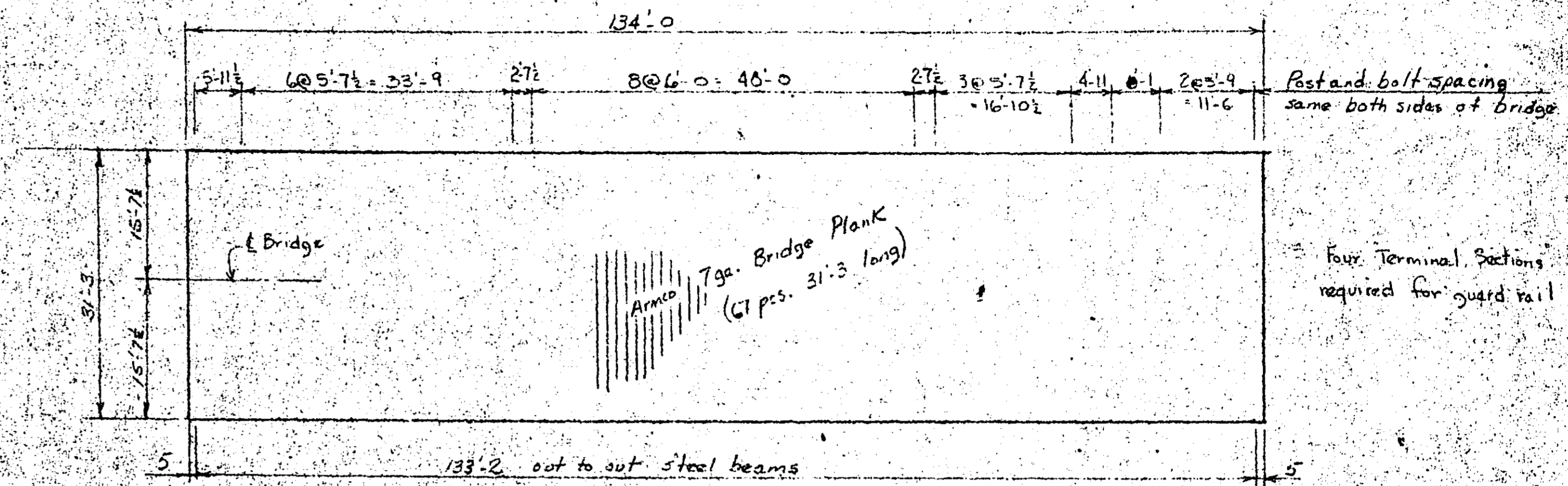
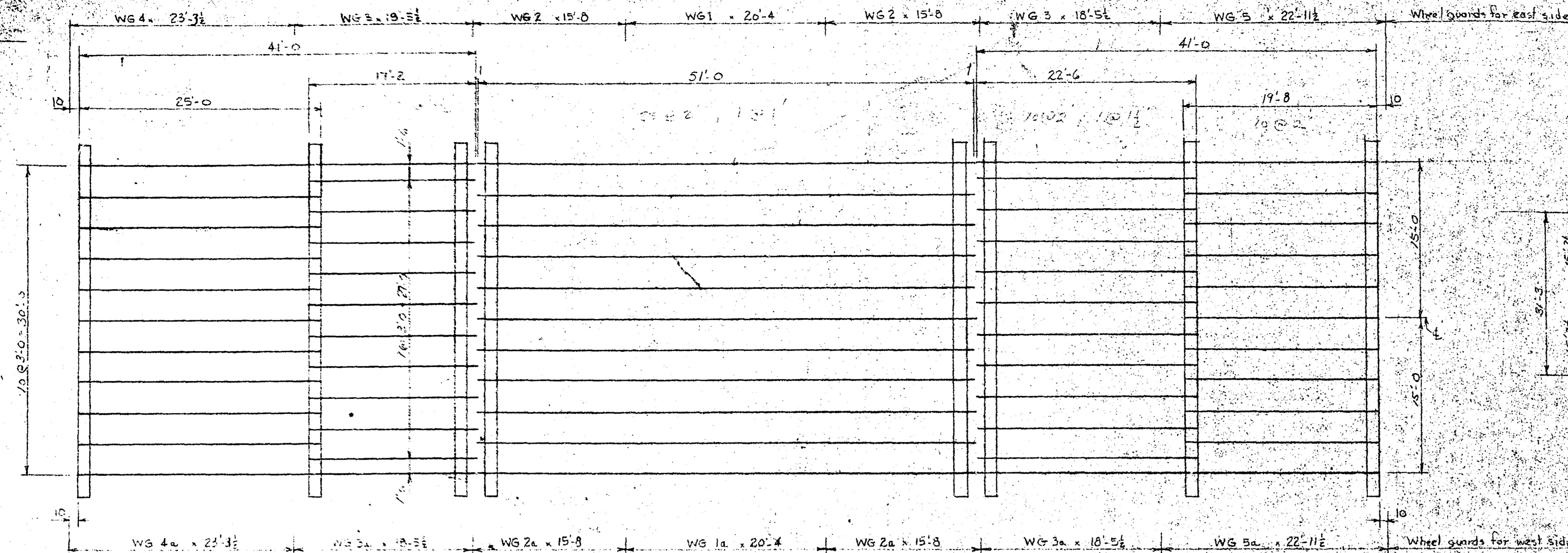
BR. 7.80
CLEVELAND AVE. OVERHEAD
8 1/2 - A
NEW BRIGHTON, MINN.
TIMBER BENT DETAILS - BENTS 5 & 6
SOO LINE R.R. CO.

OFFICE OF CHIEF ENGINEER, MINNEAPOLIS, MINN.
SCALE: AS NOTED MAR. 25, 1964

By	Drawing	Revisions
DC	WDS	
CC	JAH 3-27-64	
CC	WDS	
CC	JAH 3-27-64	
CC	WDS	

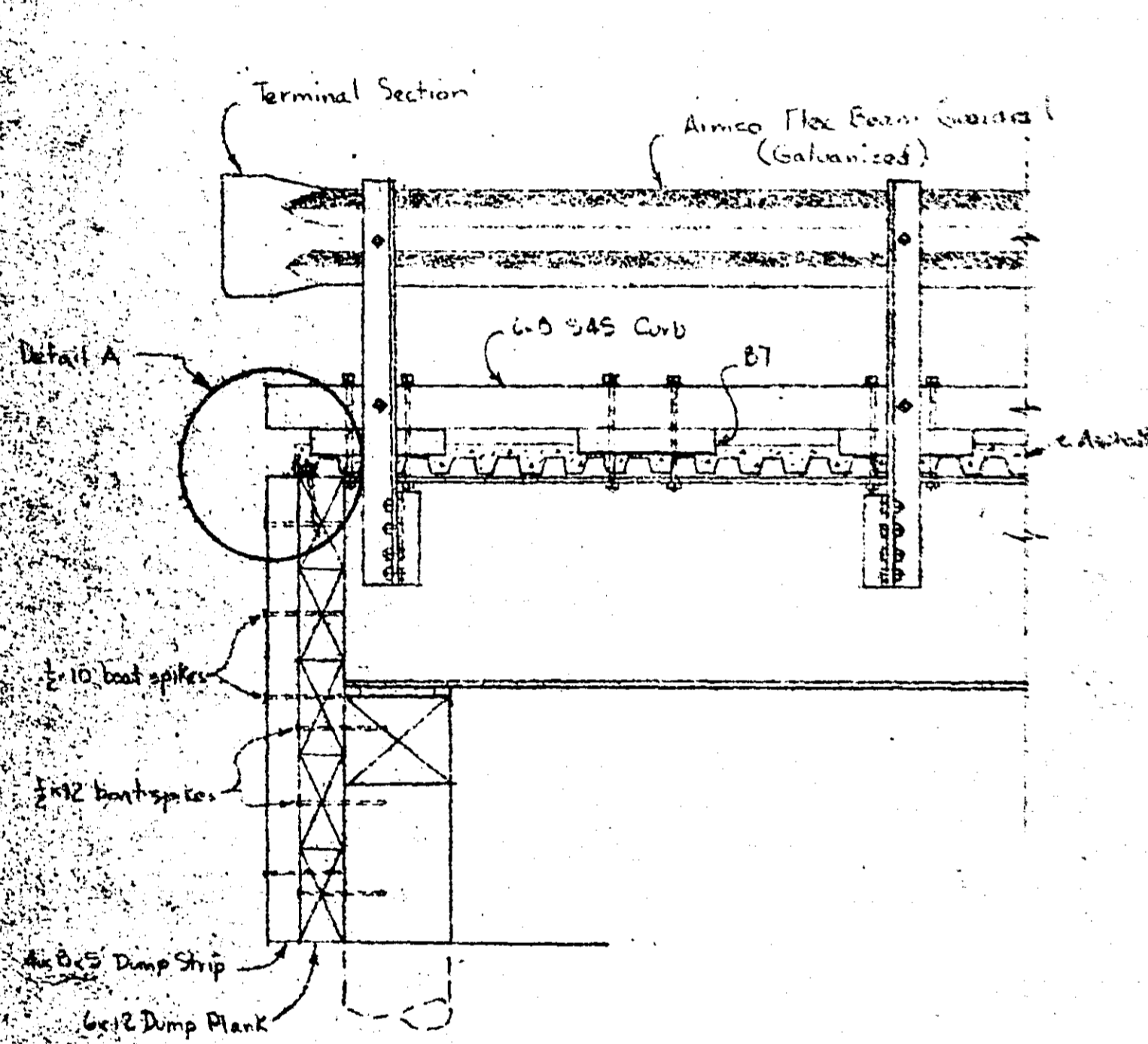
Sheet 11 of 13

MICROFILMED
RAMSEY CO. ENGR.
PLAN 32345
FILE

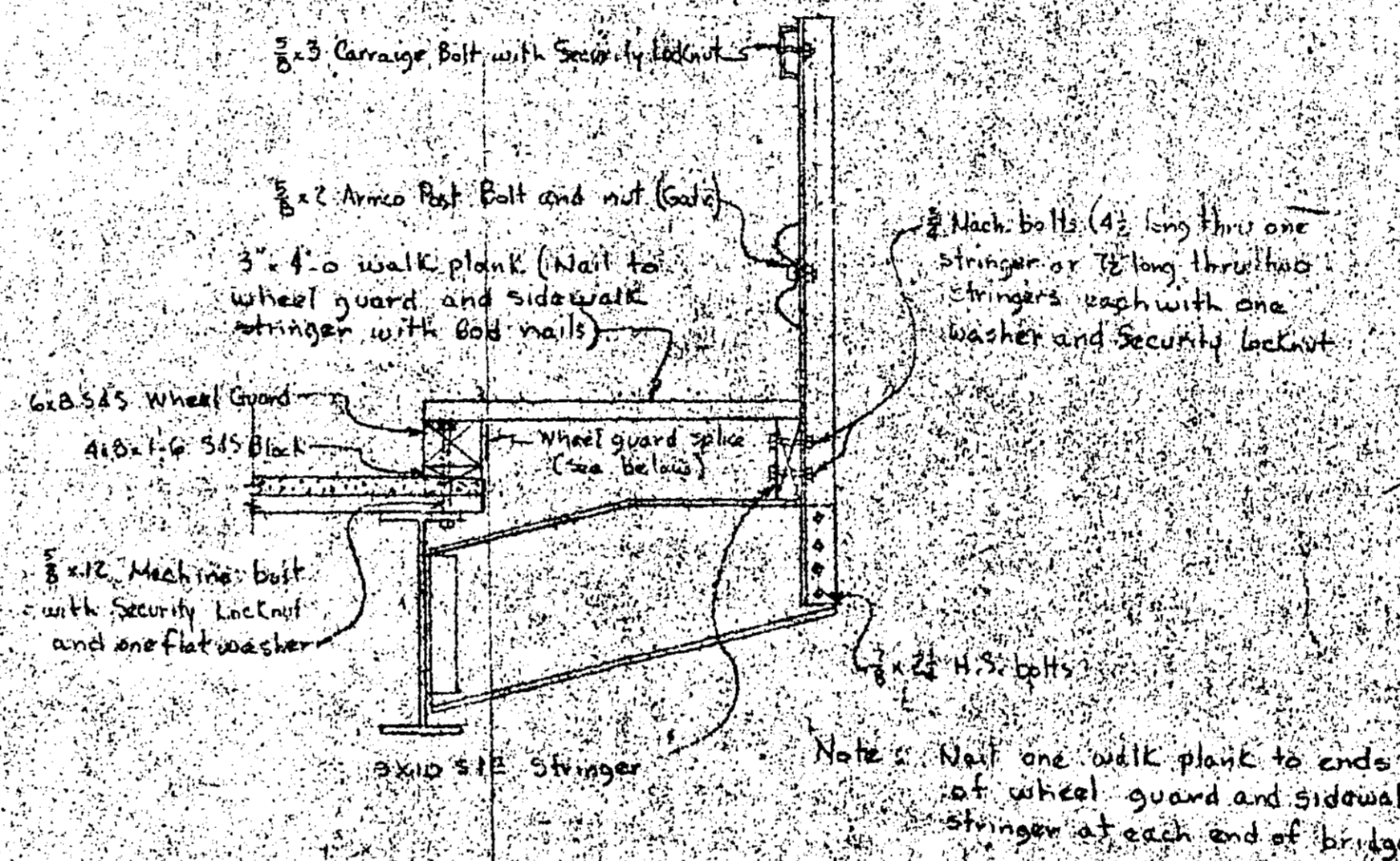
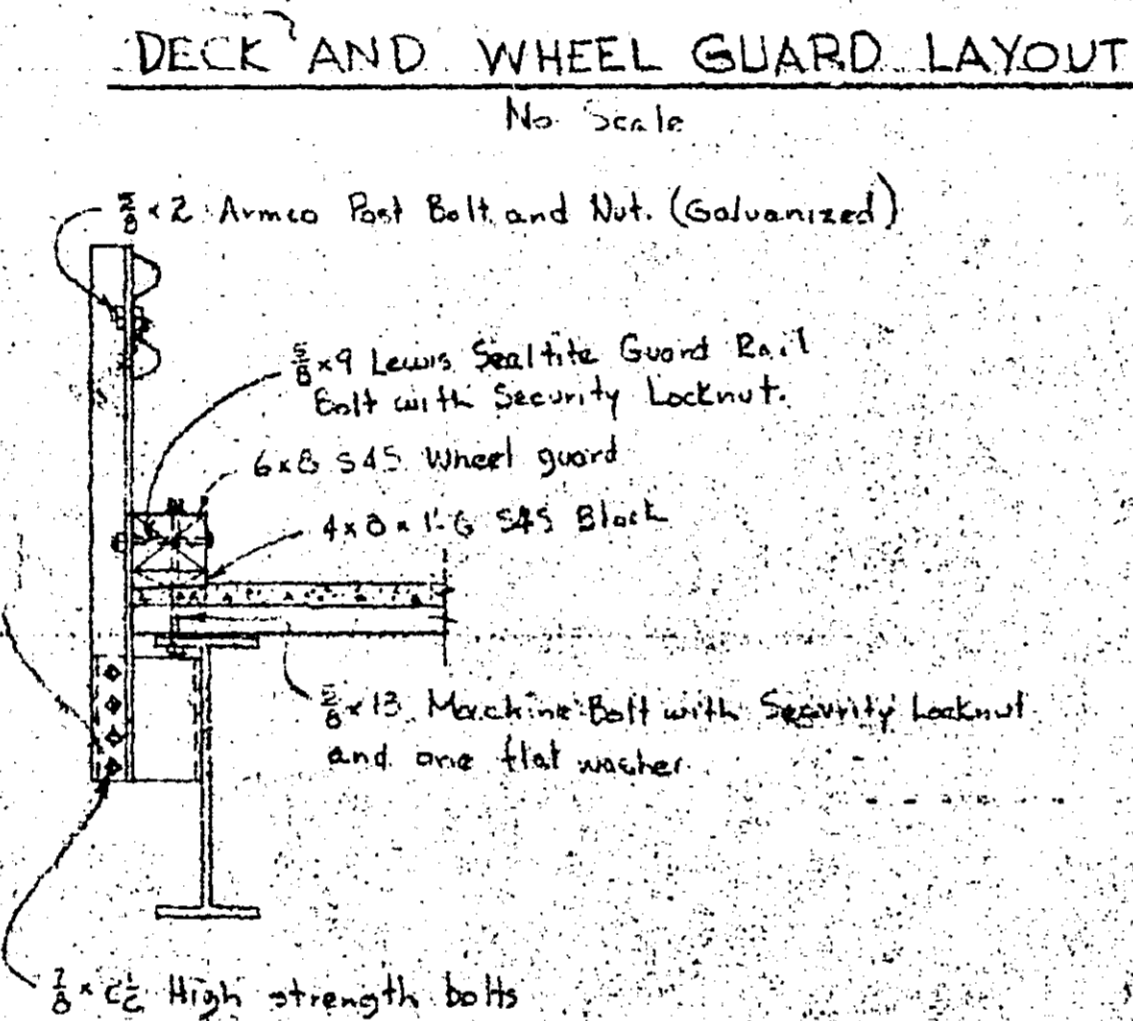


Note: End dams at edges of bridge to be field attached to planks. See detail below.

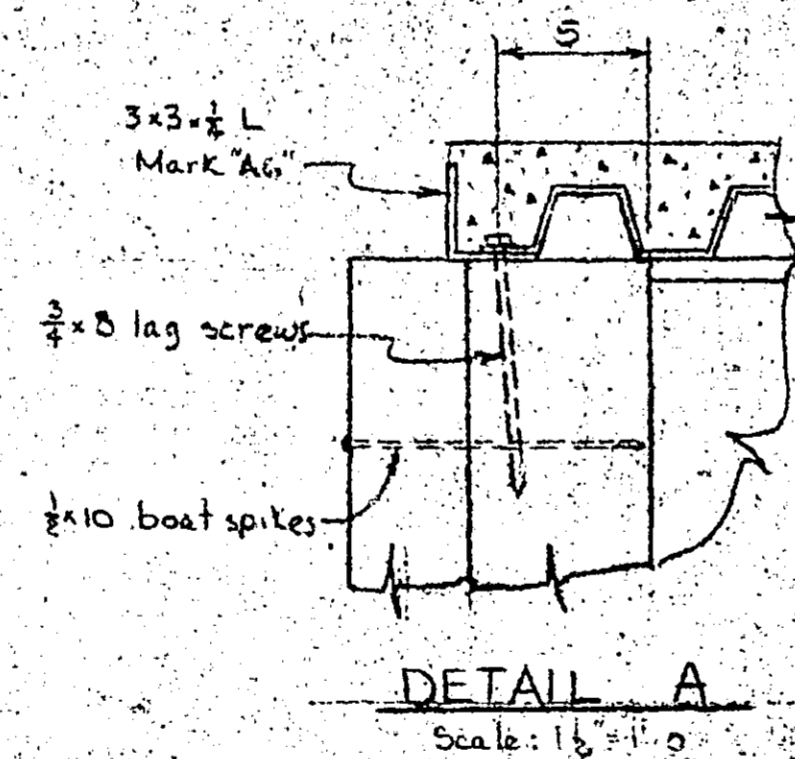
BRIDGE PLANK & GUARD RAIL LAYOUT
Scale: 1/4" = 1'-0"



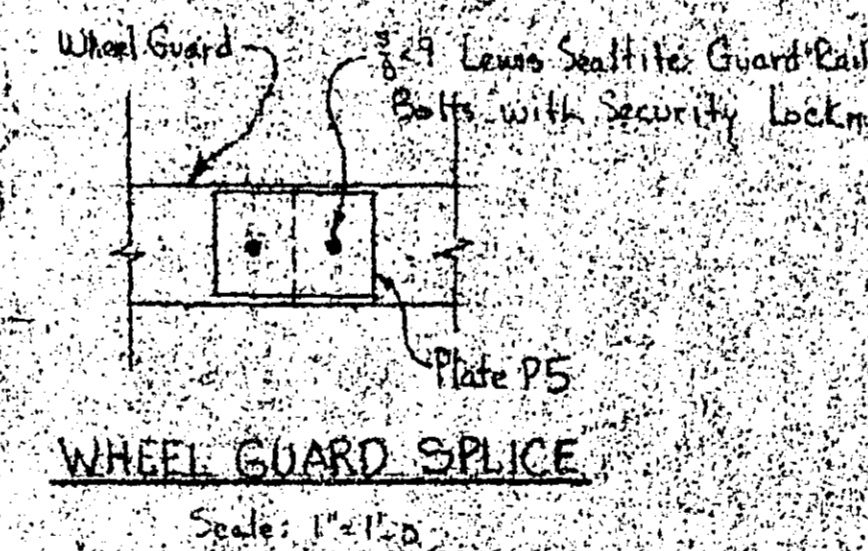
FASTENINGS DETAIL FOR EAST SIDE
Scale: 1/2" = 1'-0"



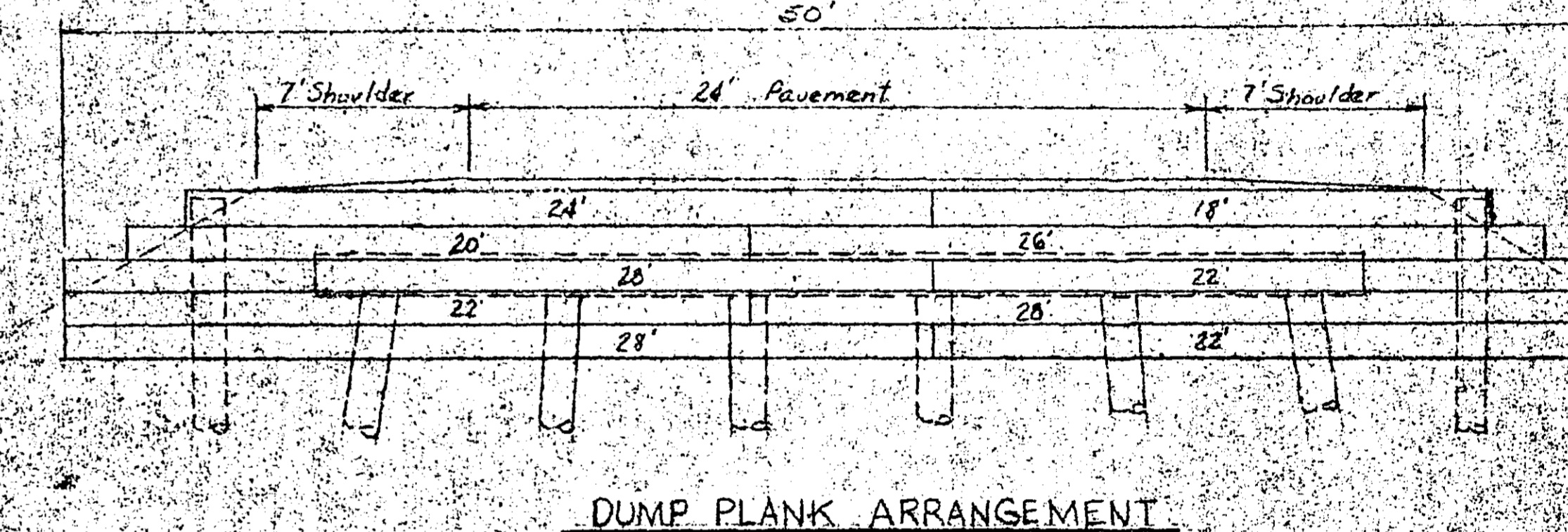
FASTENINGS DETAIL FOR WEST SIDE
Scale: 1/2" = 1'-0"



DETAIL A
Scale: 1/2" = 1'-0"

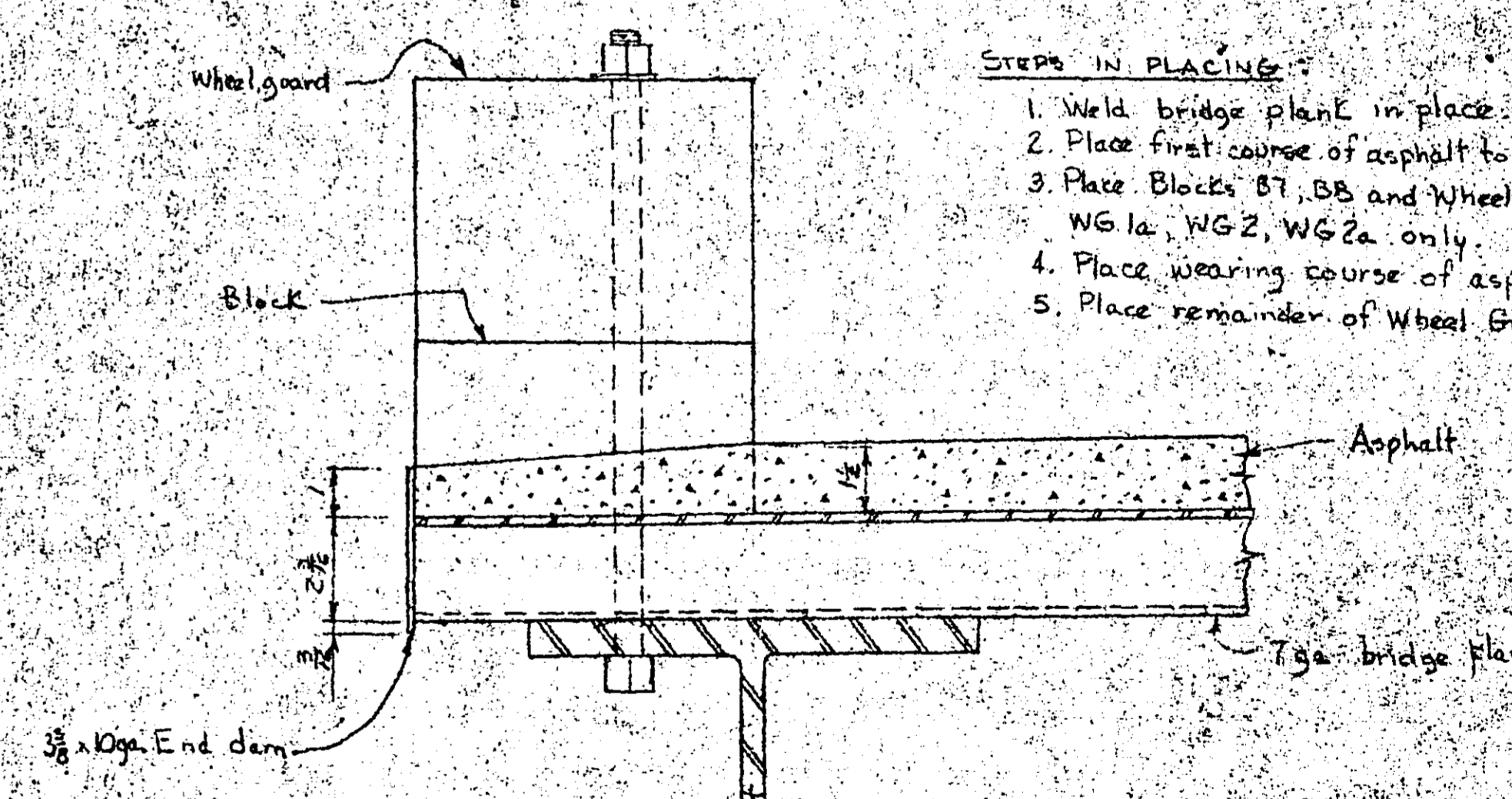


WHEEL GUARD SPICE
Scale: 1/2" = 1'-0"

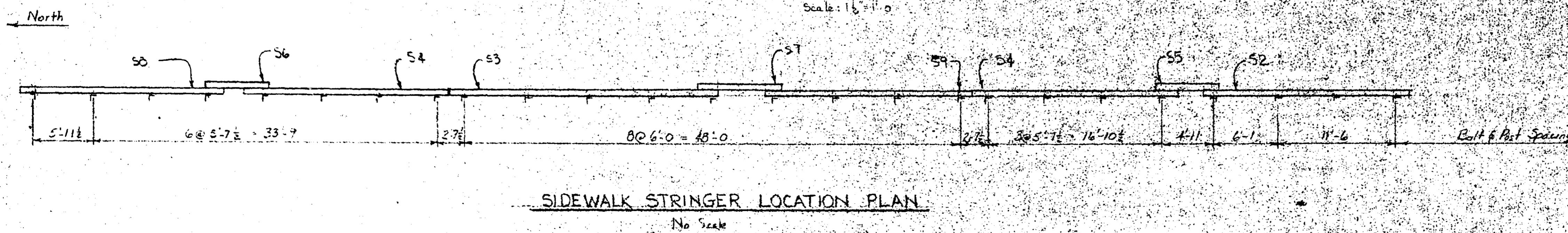


DUMP PLANK ARRANGEMENT
Scale: 1/2" = 1'-0"

- STEPS IN PLACING:
1. Weld bridge plank in place.
 2. Place first course of asphalt to fill corrugations.
 3. Place Blocks B7, B8 and Wheel Guards, WG 1, WG 1a, WG 2, WG 2a only.
 4. Place wearing course of asphalt.
 5. Place remainder of Wheel Guards.



SECTION SHOWING DECK AT EDGES
Scale: 3/4" = 1'-0"



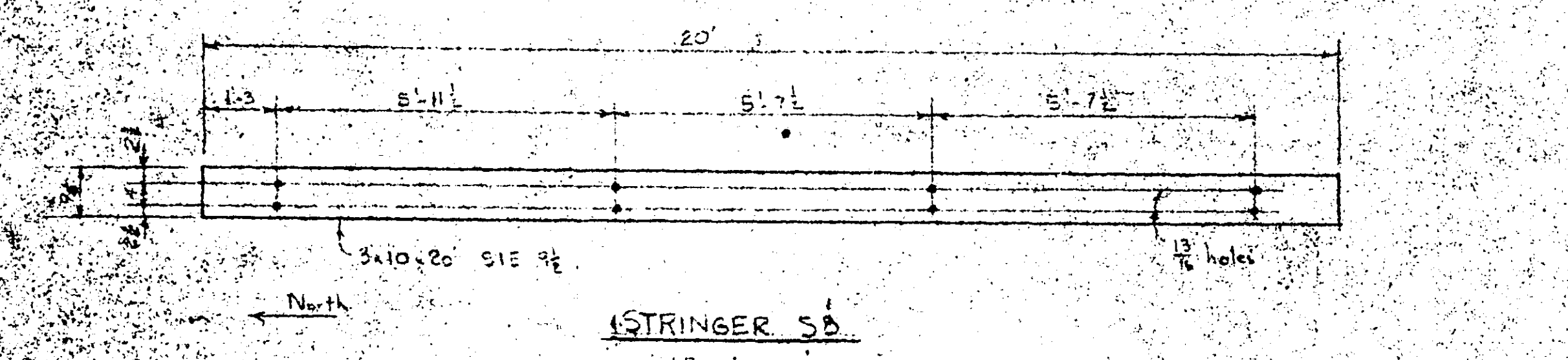
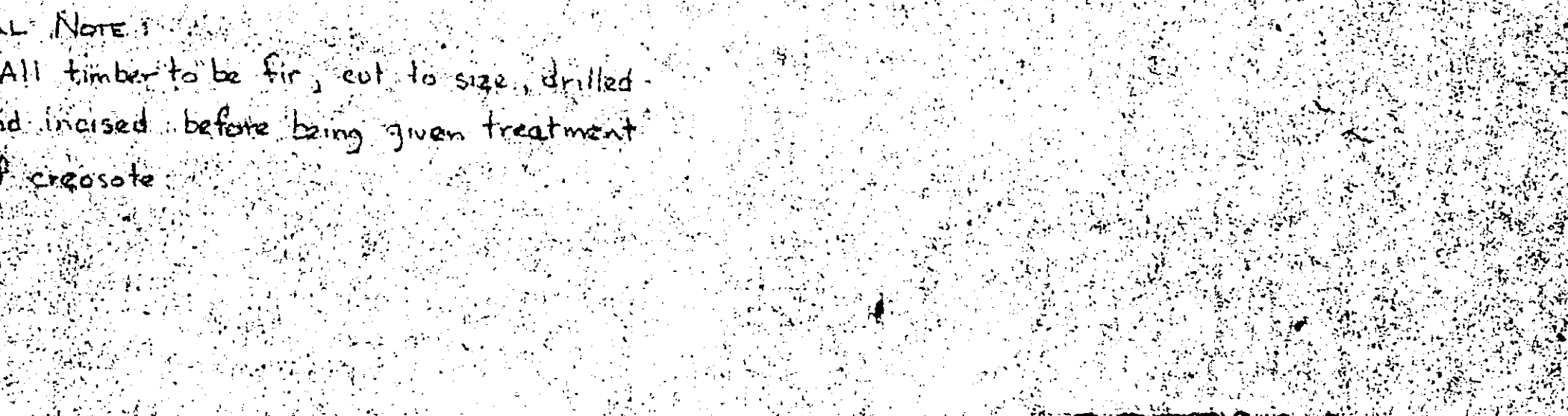
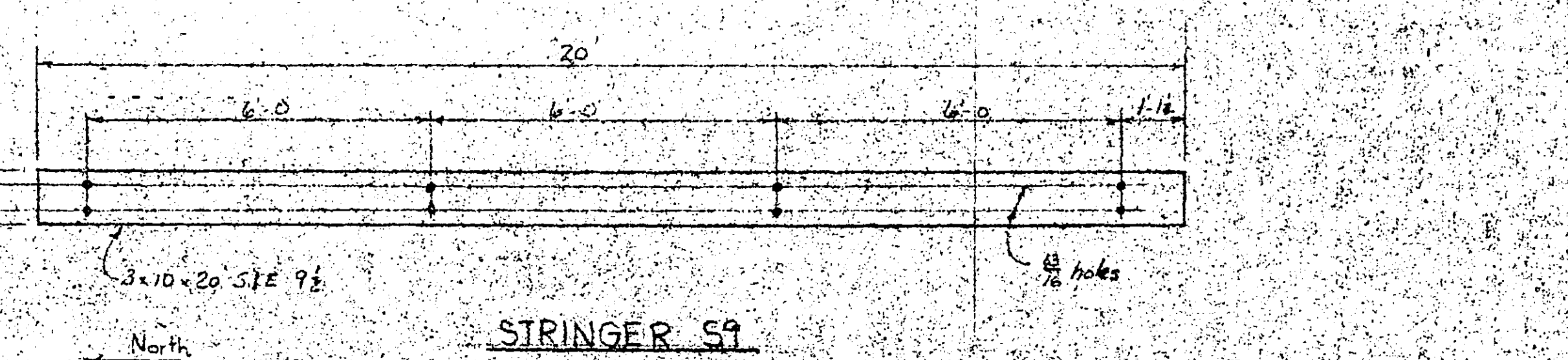
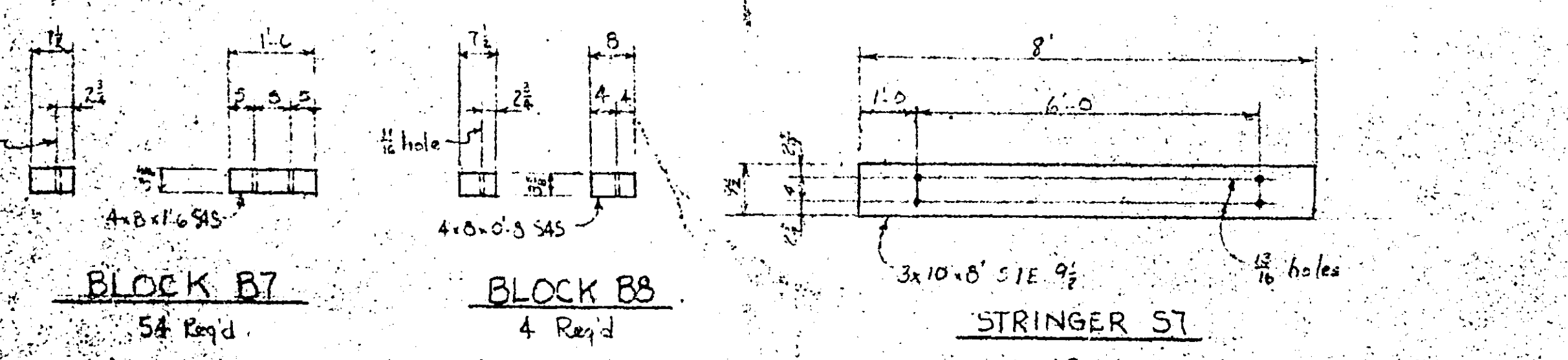
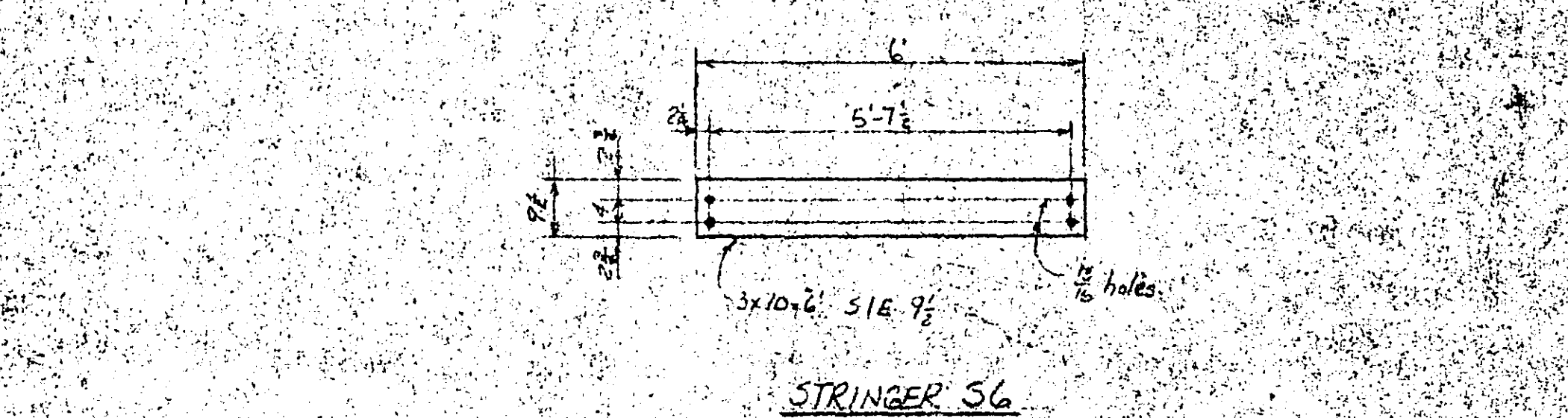
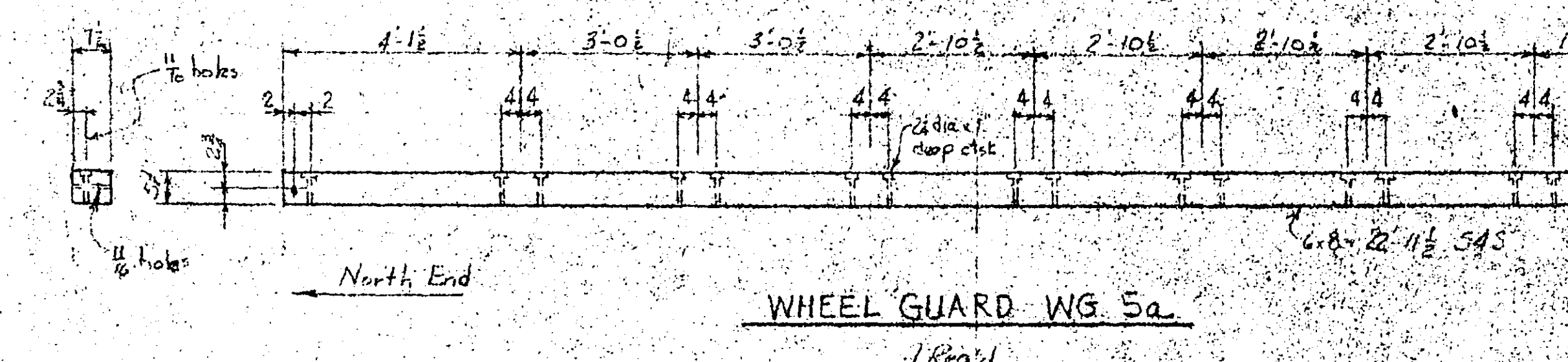
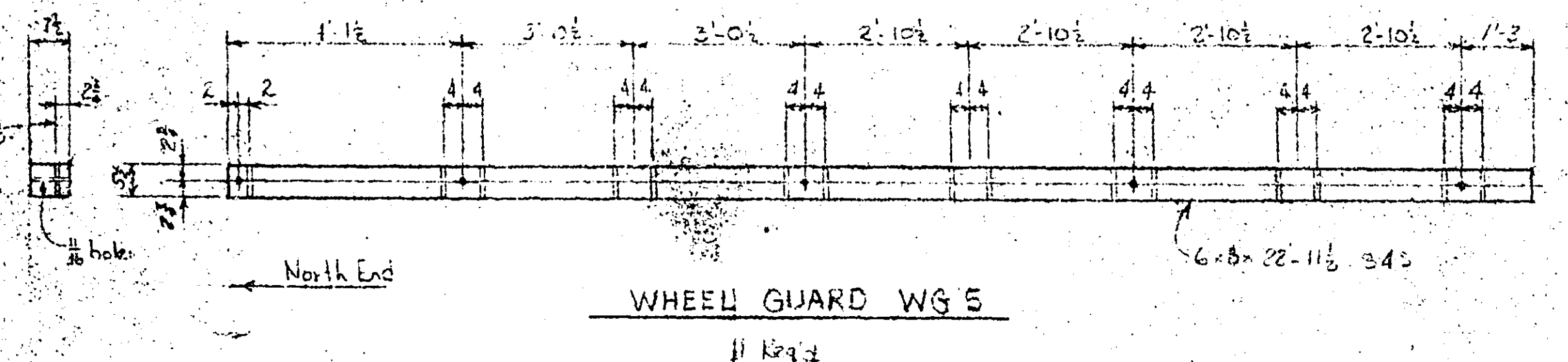
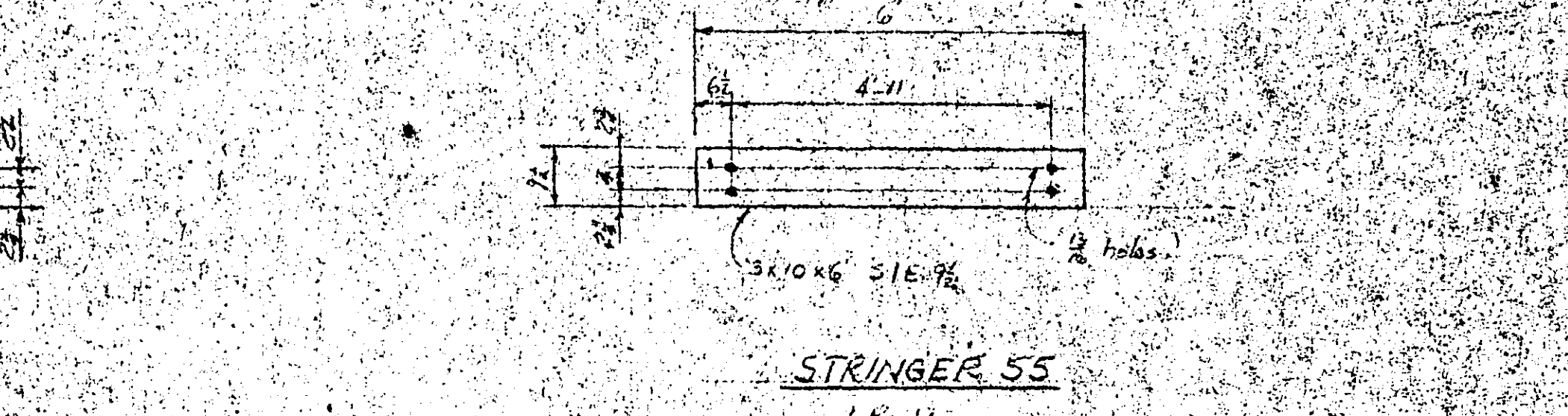
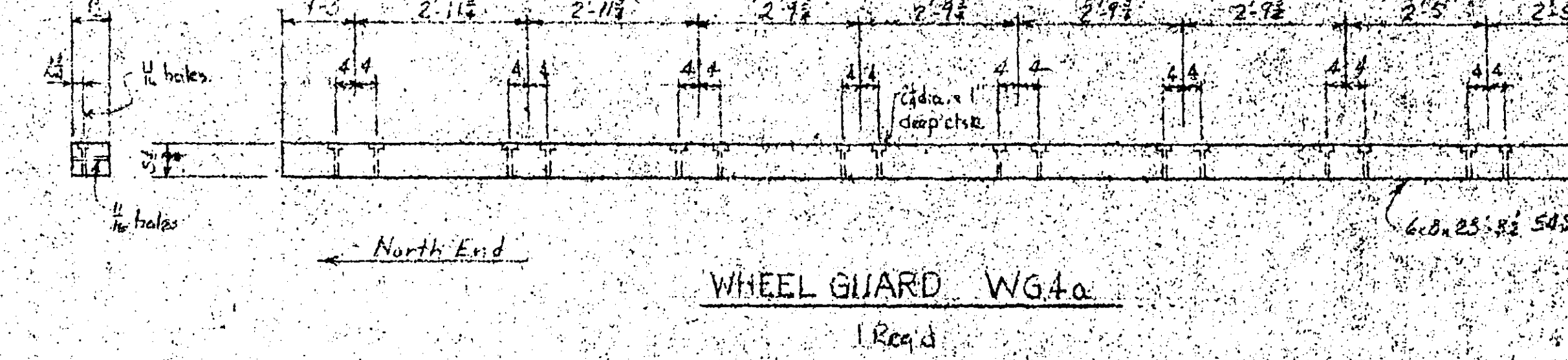
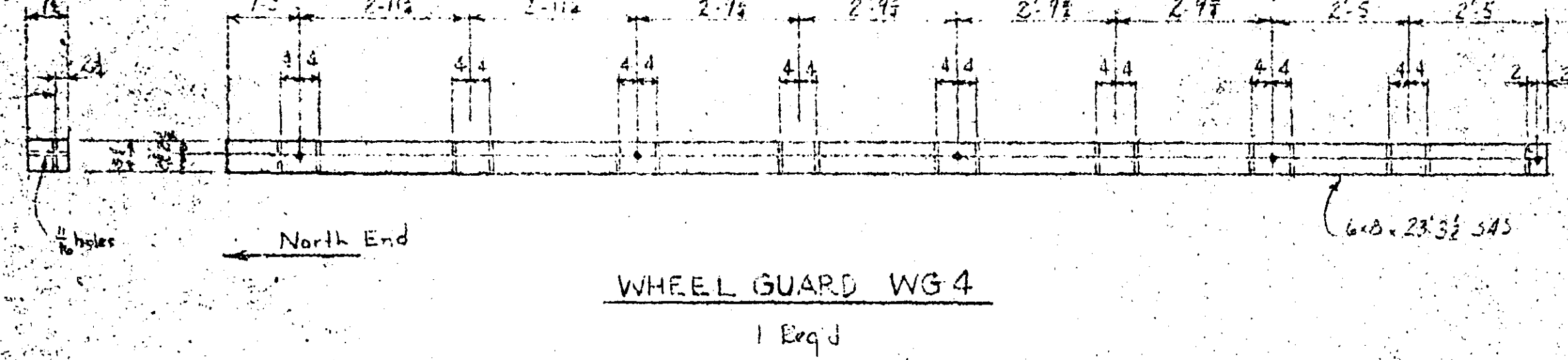
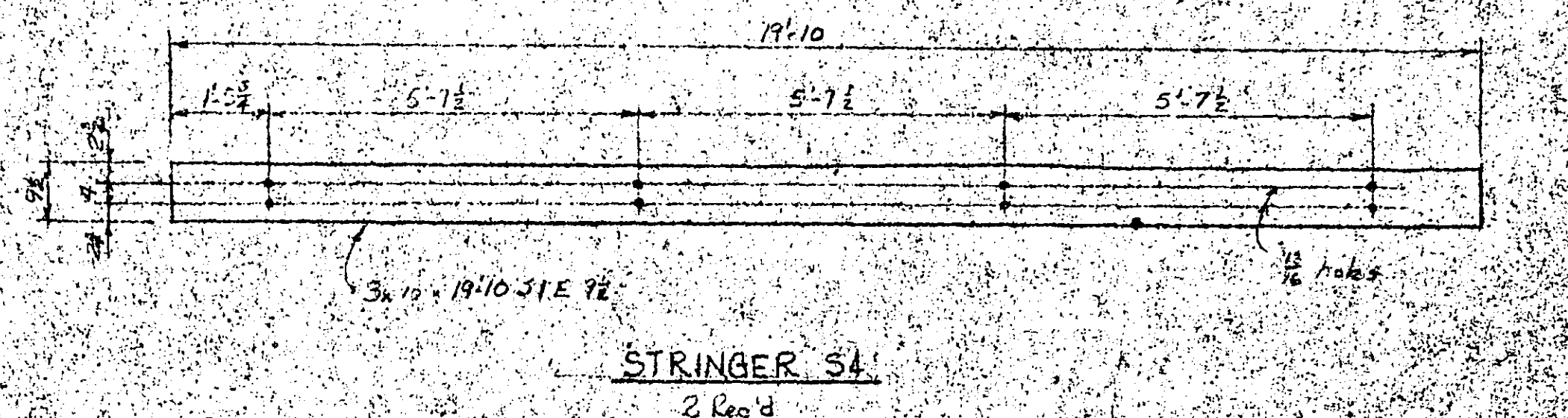
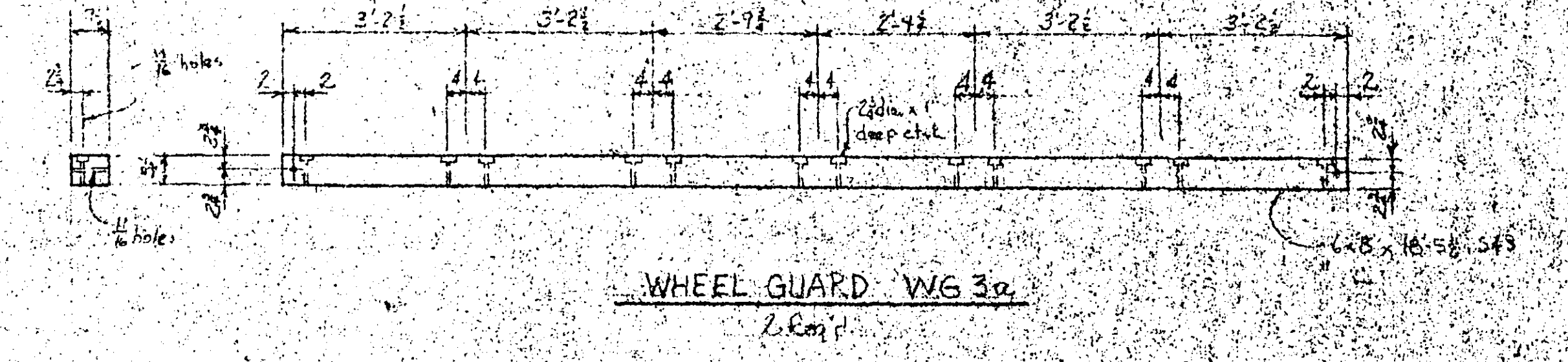
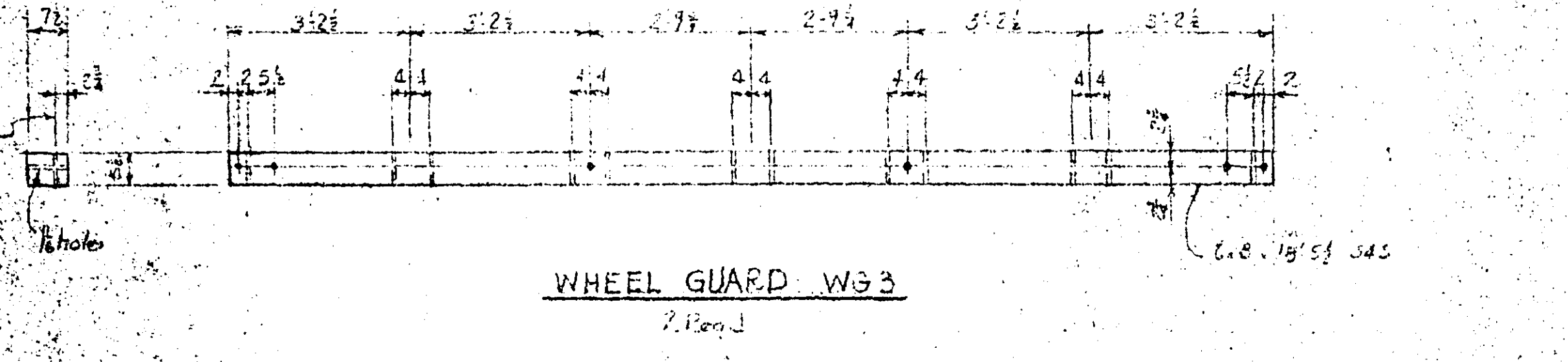
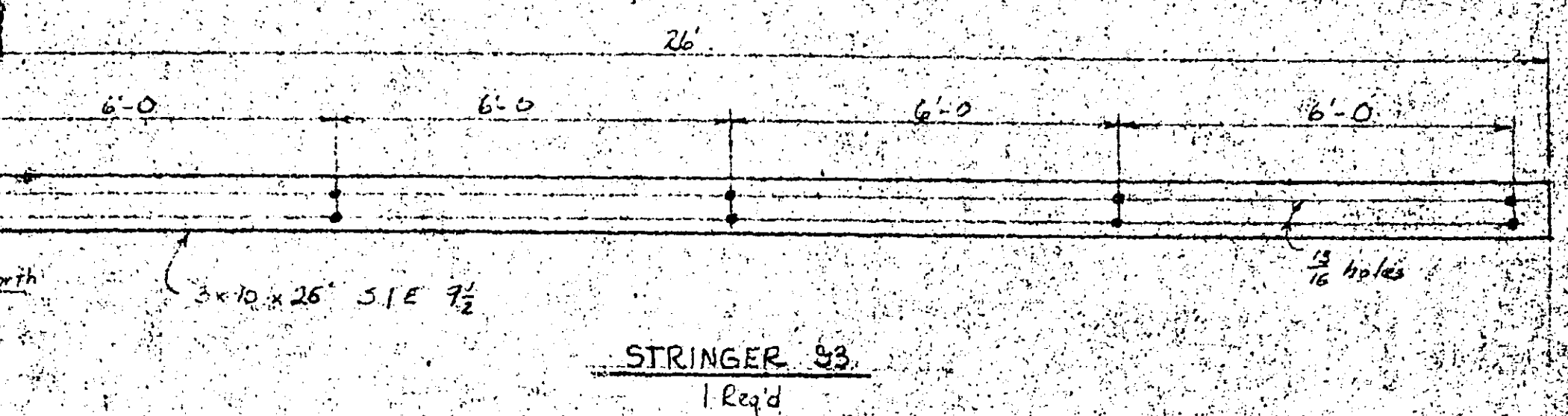
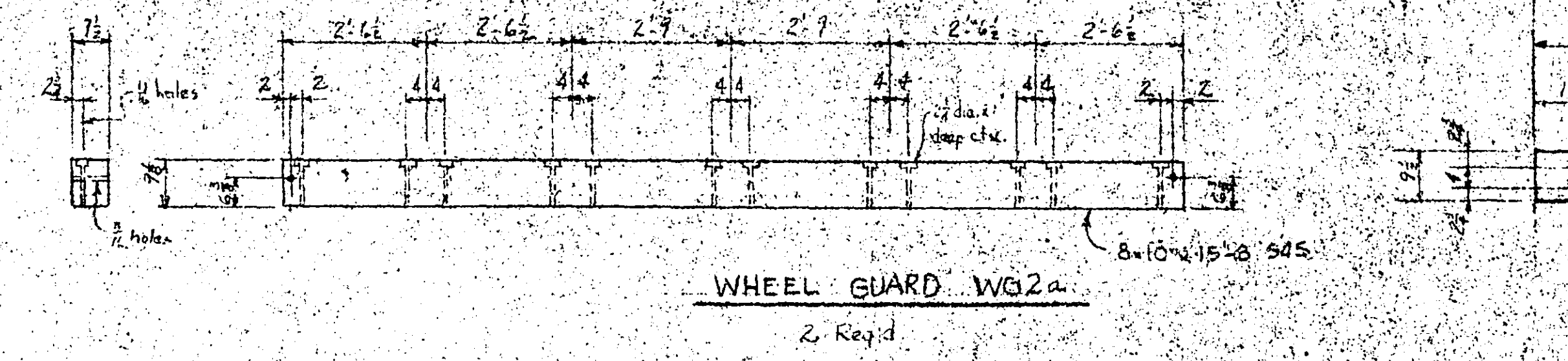
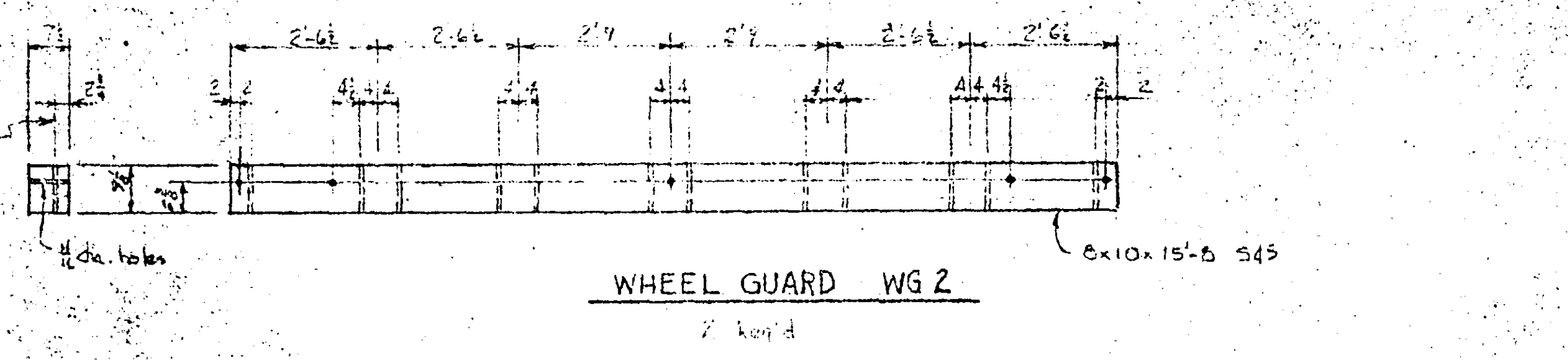
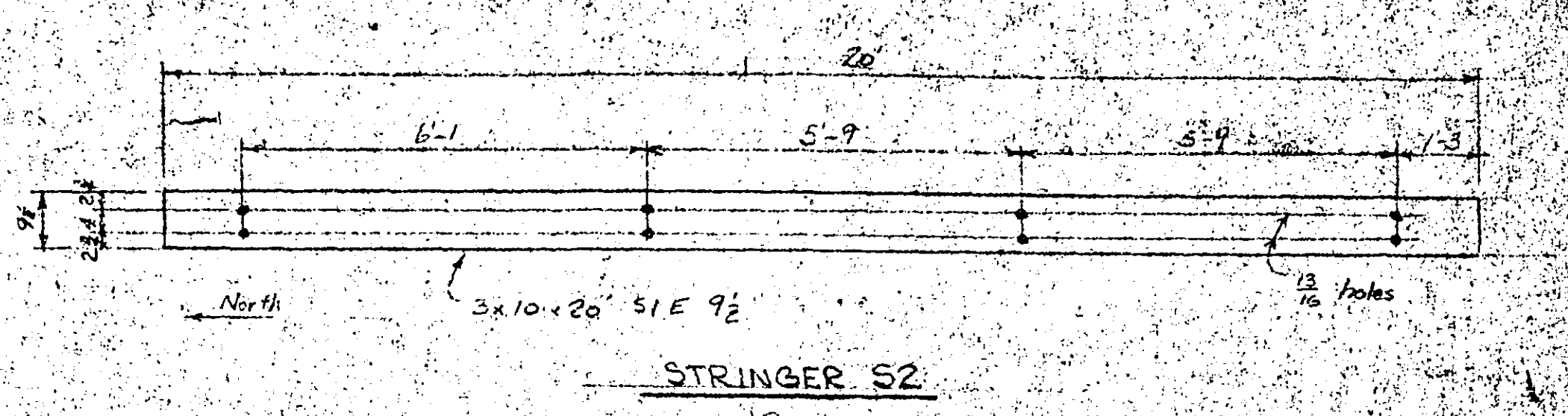
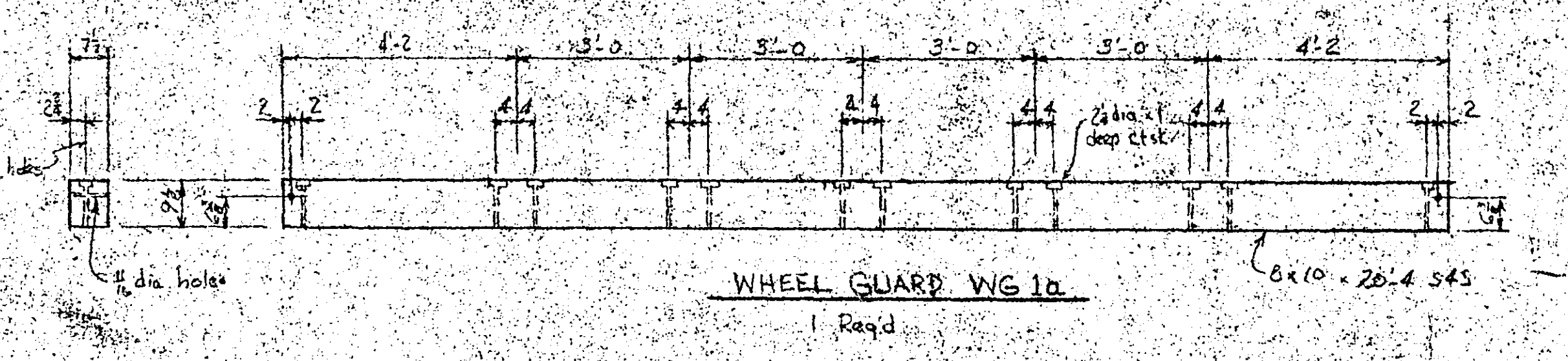
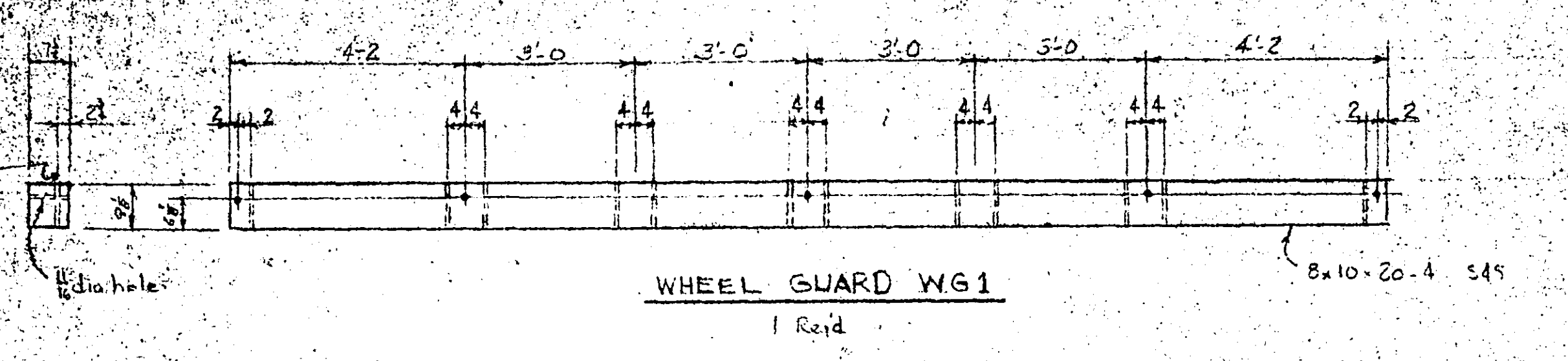
SIDEWALK STRINGER LOCATION PLAN
No Scale

BR 780
CLEVELAND AVE OVERHEAD
8 1/2" A
NEW BRIGHTON MINN.
DECK DETAILS
500 LINE R.R. CO.

OFFICE OF CHIEF ENGINEER, MINNEAPOLIS, MINN.
SCALE: AS NOTED APRIL 3, 1964

Issued	Revisions
3/24/64	

MICROFILMED
RAMSEY CO. ENGR.
DAN CO.



GENERAL NOTE:
All timber to be fir, cut to size, drilled and incised before being given treatment of creosote.

BR. 780
CLEVELAND AVE OVERHEAD
8 1/2" - A
NEW BRIGHTON, MINN.
TIMBER DETAILS
500 LINE R.R. CO.

OFFICE OF CHIEF ENGINEER - MINNEAPOLIS, MINN.
SCALE: 3/4" = 1'-0"
APR. 2, 1964
MICROFILMED
RAMSEY CO. ENGR.
FILE
32243

DA	Drawings	Revisions
DA	WES	
DA	DAH 4-15-64	
DA	WDS	
AFE	M-150-63	