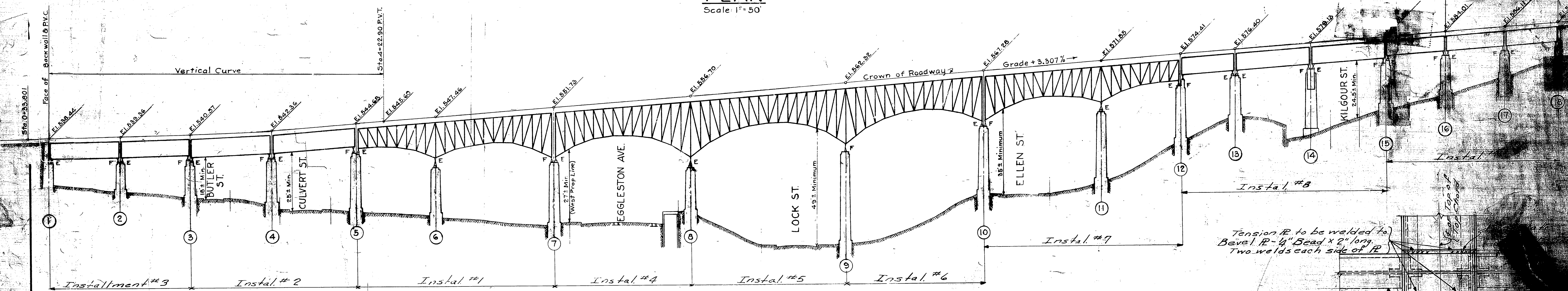


PLAN
Scale: 1" = 50'



PROFILE
Horizontal Scale: 1" = 50' Vertical Scale: 1" = 20'

GENERAL NOTES

1. LIST OF DRAWINGS

- DIAGRAMS & BEARINGS**
 E1 - Profile & General Notes
 E2 to E4 - Anchor Bolts
 E5 - Girders; Piers 2, 2 & 3
 E6 - Girders; Piers 3 to 4, 4 & 5
 E7 - Trusses; Piers 5 to 7, 10 to 12
 E8 - Trusses; Piers 7 to 10
 E9 - Girders; Piers 12 to 13, 13 to 14
 E10 - Girders; Piers 14 to 15, 15 to 16
 E11 - Girders; Piers 16 to 17, 17 to 18
 101 & 102 - Bearings
PLATE GIRDERS
 201 to 226 - Girder Details
 401 to 484 - Floor Beams
 501 to 506 - Bracing & Miscel.
TRUSSES (PIERS 5 to 7 & 10 to 12)
 301 to 316 - Upper Chord Members
 317 to 326 - Bottom Chord Members
 327 to 339 - Posts & Diagonals
 451 to 452 - Floor Beams
 453 to 455 - Bracing & Miscel.
TRUSSES (PIERS 7 to 10)
 351 to 362 - Upper Chord Members
 363 to 374 - Bottom Chord Members
 375 to 387 - Posts & Diagonals
 401 to 402 - Floor Beams
 403 to 404 - Bracing & Miscel.

2. ANCHOR BOLTS

Furnished, set & grouted by Bethlehem Steel Company. Bearing areas on masonry to be dressed down to elevations called for on Anchor Bolt Plans. Divgs. E2 to E4 before steel is in place.

3. ERECTION

Bethlehem Steel Co., Pittsburgh District

4. FIELD PAINT

Furnished & applied by Bethlehem Steel Co.
 1st Field Coat - 1 Coat Red Lead & Lamp Black
 2nd " " - 1 Coat Graphitic Paint
 Surfaces of steel in contact with concrete not to be painted

5. MISCELLANEOUS MATERIAL BY OTHERS

- (a) Concrete floor slab
- (b) Railing
- (c) Reinforcing Steel

6. MISCELLANEOUS WORK BY OTHERS

(a) Removal of all concrete splash, etc., in preparation for Field Painting

7. FIELD CONNECTIONS

- (Note: Threads to be checked on all field connections)
- (a) All field connections riveted except:
 - (1) Connection of Floor Beams to Vertical Posts of trusses at Piers on acute angle side-Turned Bolts & Flat Washers.
 - (2) Connection of Diagonal to Vertical Posts, at Piers where web of floor beam prevents driving of rivets.-Turned Bolts and Flat Washers.
 - (3) Side-walk Bracketed Tension Plate to Top of Top Chord of Truss - Field Welded to Truss with 4" Flat welds - 2" long, 2 welds on each side of Plate - See sketch on E1.
 - (4) Skewed end Floor beams to Girders on acute angle side - Span #5, 12 & 13 - Post end of Span #2 - Turned Bolts & Flat Washers.
 - (5) Floor beam connections to Top Chord of trusses at Piers #1 & 10 - Side spans Piers 5 to 7 & 10 to 12 - two holes in Vertical Post, one side where rivet connects, turned Bolts & Flat Washers.

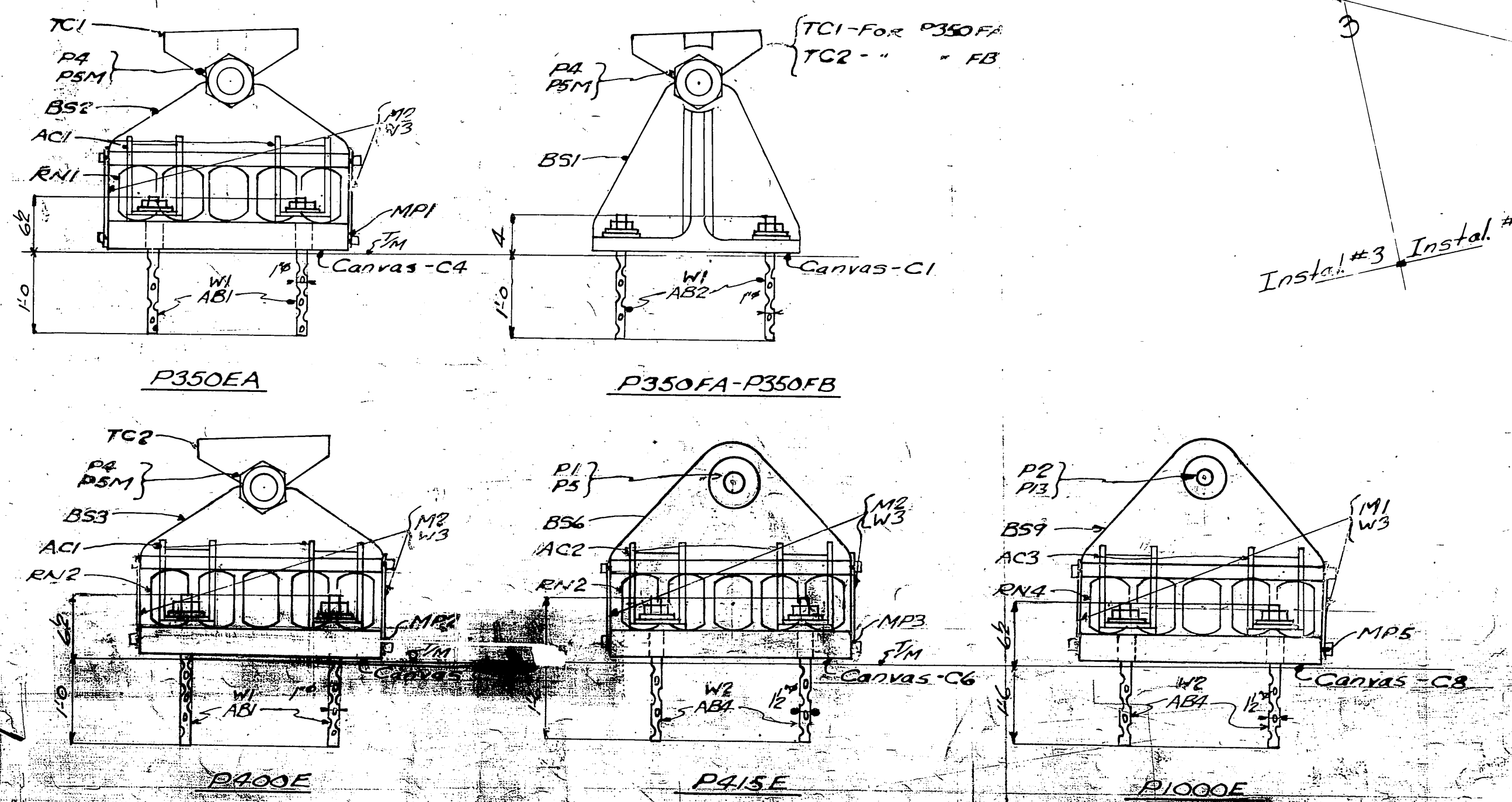
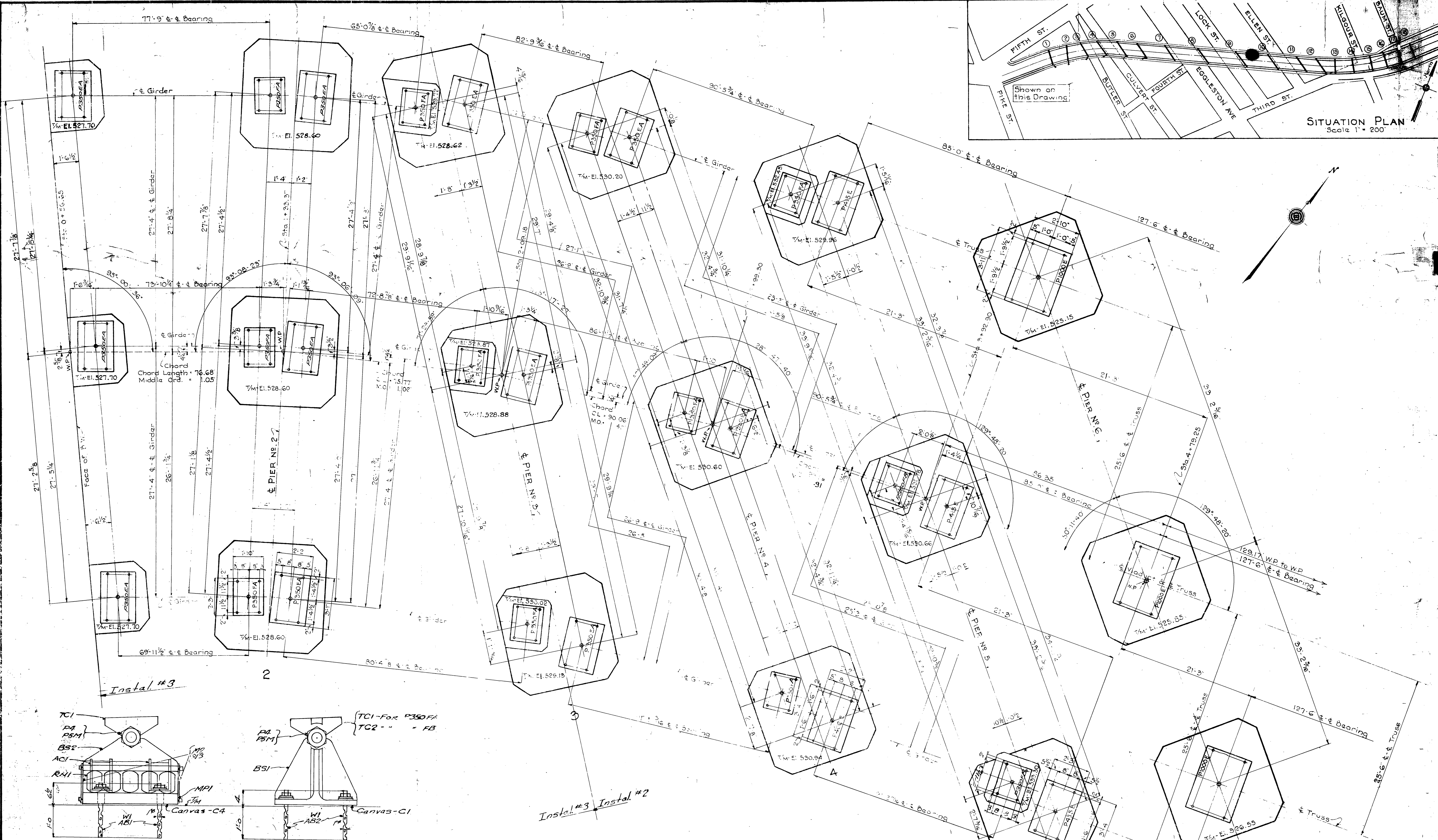
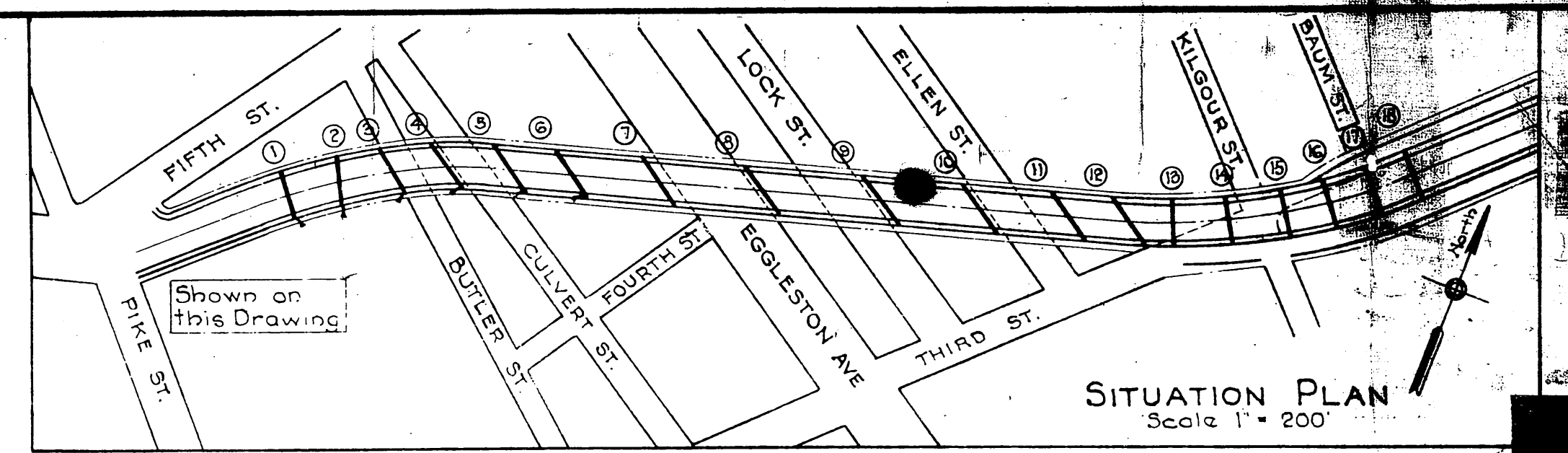
8. SPECIAL ERECTION FEATURES

- (a) Erect members with marks upright and in same relative position as shown on Diag.
- (b) All Bearings are to be placed on 3 layers of canvas thoroughly snubbed with red lead.
- (c) One Pilot and one Driving Nut is furnished for each size Pin for Truss Span only. Due to type of detail none are required for Girder Spans.
- (d) Connection angles for intermediate Floor Beams are shop riveted to trusses & girders. Floor Beams will have to be swung in below conn. angles & raised into position with web between conn. angles and before erection of cross-frame diagonals.
- (e) In order to drive field rivets in bottom chord splices certain bottom chord laterals will have to be erected out of position until after rivets are driven.
- (f) Trusses have been detailed counting on erection starting at Pier #7 & erecting trusses to Pier #5. Balance of Truss from Pier #7 to Pier #6.
- (g) All Truss Diagonals are marked (X) on upper end of web at lower end.
- (h) All Truss Diagonals are marked (O) at low end on face of web toward 1/2" str. truss between Piers 7 to 10 (Pier 8 bridge).

SKETCH SHOWING FIELD WELD OF TENSION PLATE TO TRUSS

- INST. FOR RIVETS**
 Ship Rivets for Inst. #1 with Inst. #1
 Do do do do #2 with Inst. #2
 Do do do do #3 with Inst. #3
 Do do do do #4 with Inst. #4
 Do do do do #5 with Inst. #5
 Do do do do #6 with Inst. #6
 Do do do do #7 with Inst. #7
 Do do do do #8 with Inst. #8
 Do do do do #9 with Inst. #9
 Do do do do #10 with Inst. #10
 Do do do do #11 with Inst. #11
 Do do do do #12 with Inst. #12
 Do do do do #13 with Inst. #13
 Do do do do #14 with Inst. #14
 Do do do do #15 with Inst. #15
 Do do do do #16 with Inst. #16
 Do do do do #17 with Inst. #17
 Do do do do #18 with Inst. #18

PROFILE & GENERAL NOTES
 COLUMBIA AVENUE BRIDGE
 CINCINNATI, OHIO
 CITY OF CANTON, OHIO
 ENGINEER
 ARCHITECT
 CONTRACTOR

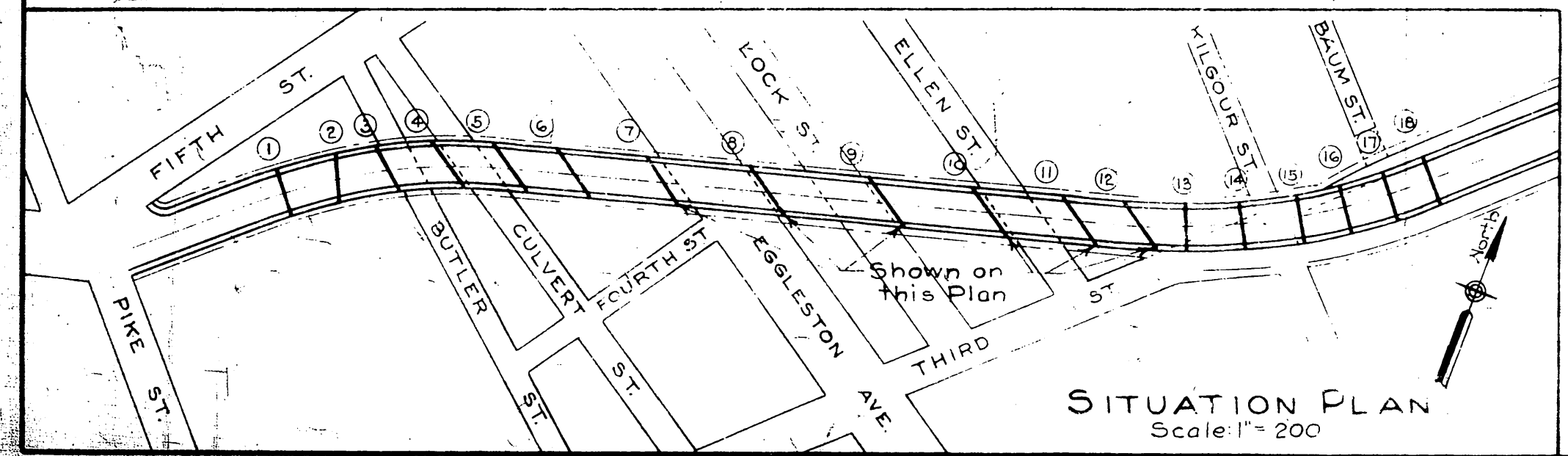
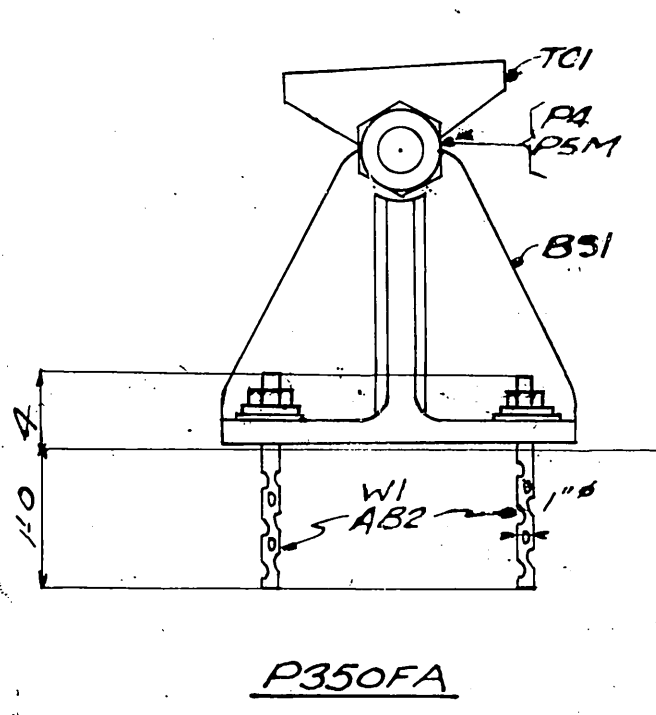
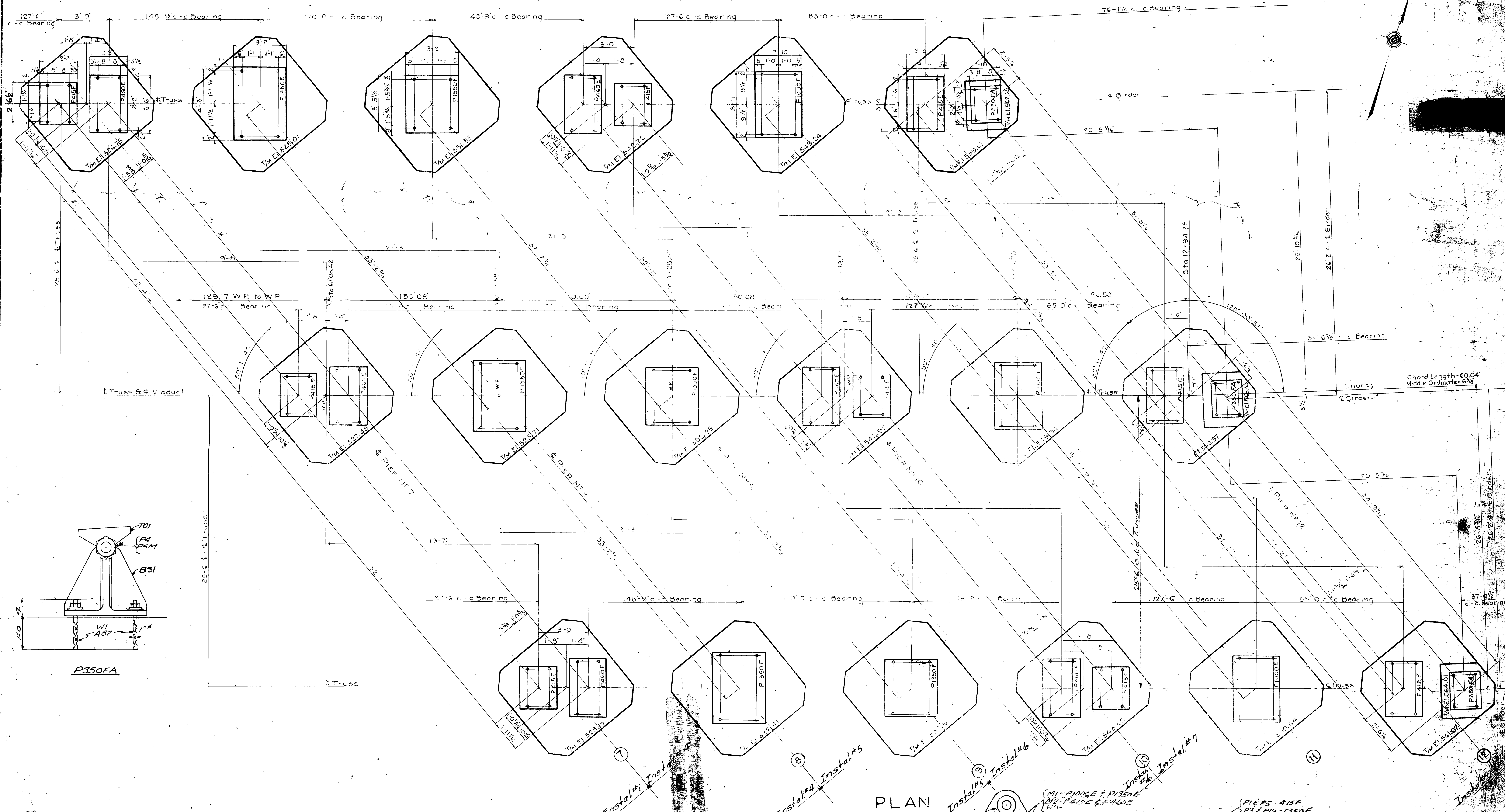


Bearings shipped as follows:
 Inst #1, 2, & 3 to be shipped with Inst #4
 Inst #4 & 7 " " " " #4
 Inst #8 & 9 " " " " #3

NOTE -
 Steel Erector shall dress down the bridge seat bearing areas to the elevations called for.
 Holes for Anchor Bolts shall be drilled by the steel erector in the locations shown, and the anchor bolts grouted in with cement grout. All bearings to be set on 3 layers of canvas swabbed with red lead paste.

NOTE
 For General Notes see Diagram E1

ANCHOR BOLT PLAN - PIER BEARING
 COLUMBIA AVENUE VIADUCT
 CINCINNATI - OHIO
 CITY OF CINTI DEPT. PUBLIC WORKS
 BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings of Rucka fabrication at Rucka
 IN CHARGE: BOEN MADE BY: G.W.
 CHECKED BY: J.S. LAST ASSEMBLED BY:
 CONTRACT 662587 (1-5)



Install #1
Install #2
Install #3
Install #4
Install #5
Install #6
Install #7

PLAN

PIERS - 415E & 410E
P2 & P3 - 1000E
P3 & P13 - 1350E
AC2 - 415E & 410E
AC3 - 1000E & 1350E

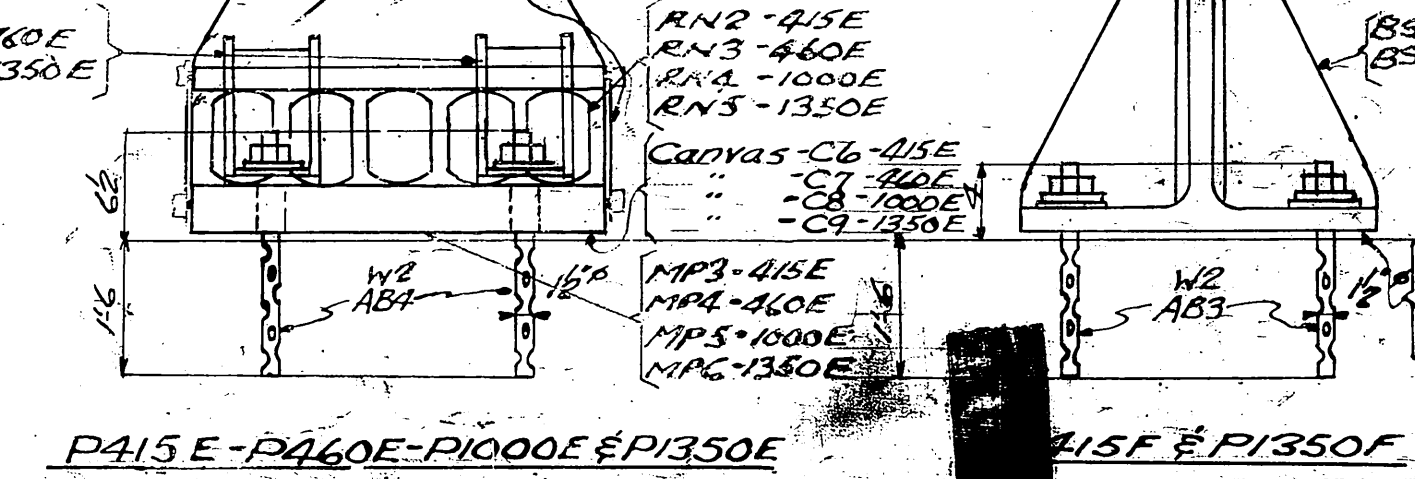
ML-P1000E & P1350E
NR-P415E & P410E
W3
BS6-415E
BS7-410E
BS9-1000E
BS4-1350E

RN2-415E
RN3-460E
RN4-1000E
RN5-1350E
CANVAS-C6-415E
C7-410E
C8-1000E
C9-1350E

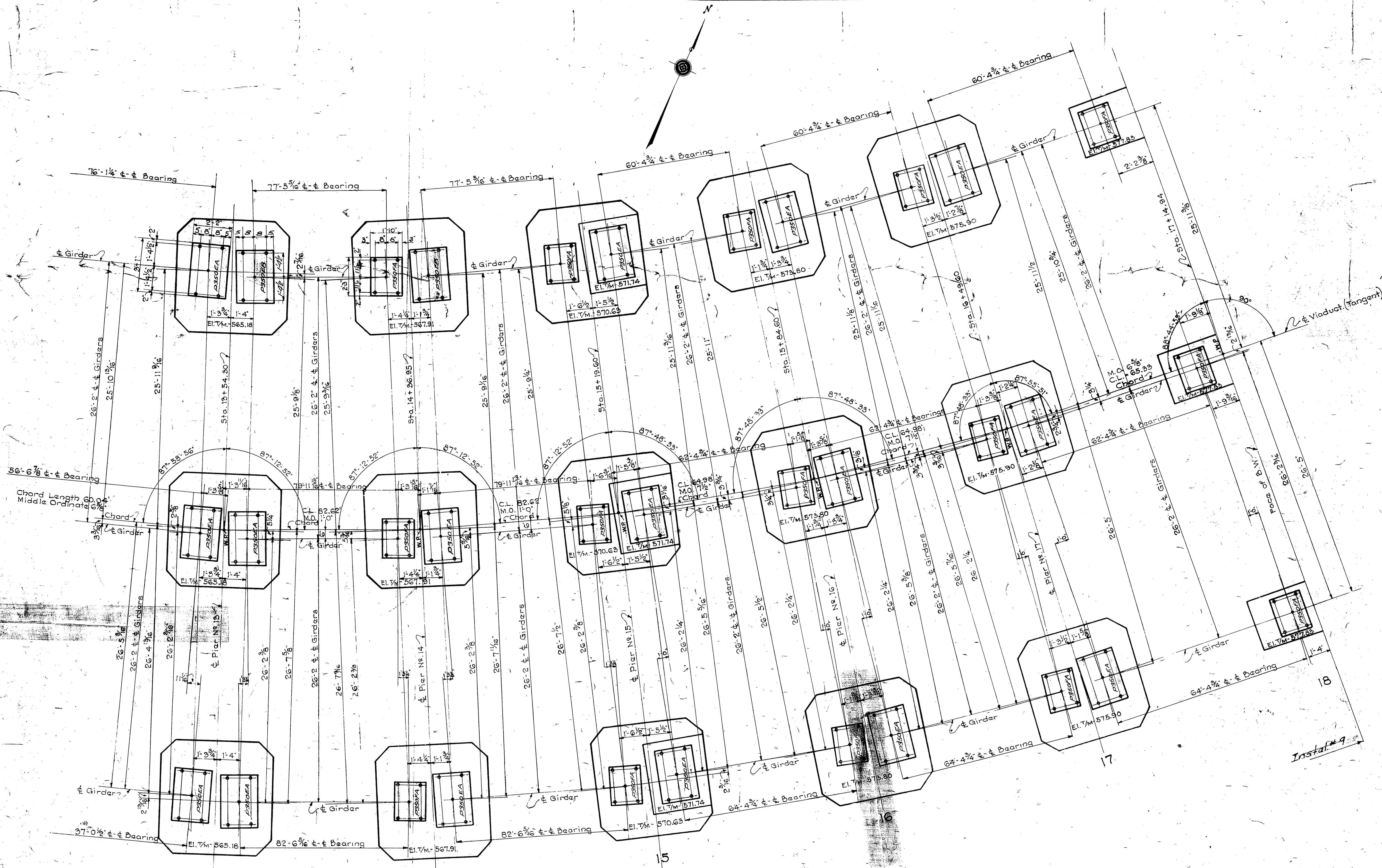
PIERS - 415F
P3 & P13 - 1350F

BS8-415F
BS5-1350F

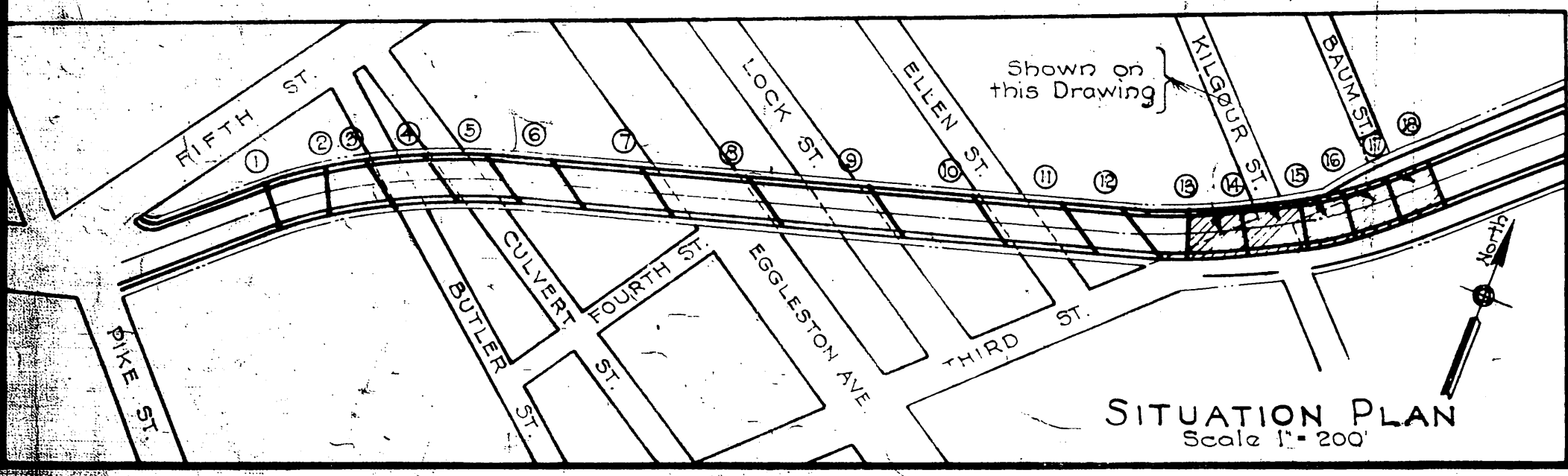
NOTE
Steel Erector shall dress down the bridge seat bearing areas to the elevations called for.
Holes for anchor bolts shall be drilled by the steel erector at the locations shown and the anchor bolts grouted in with cement grout. All bearings to rest on 3 layers of canvas swabbed with Red Lead Paste.
For general Notes see Diagram #1



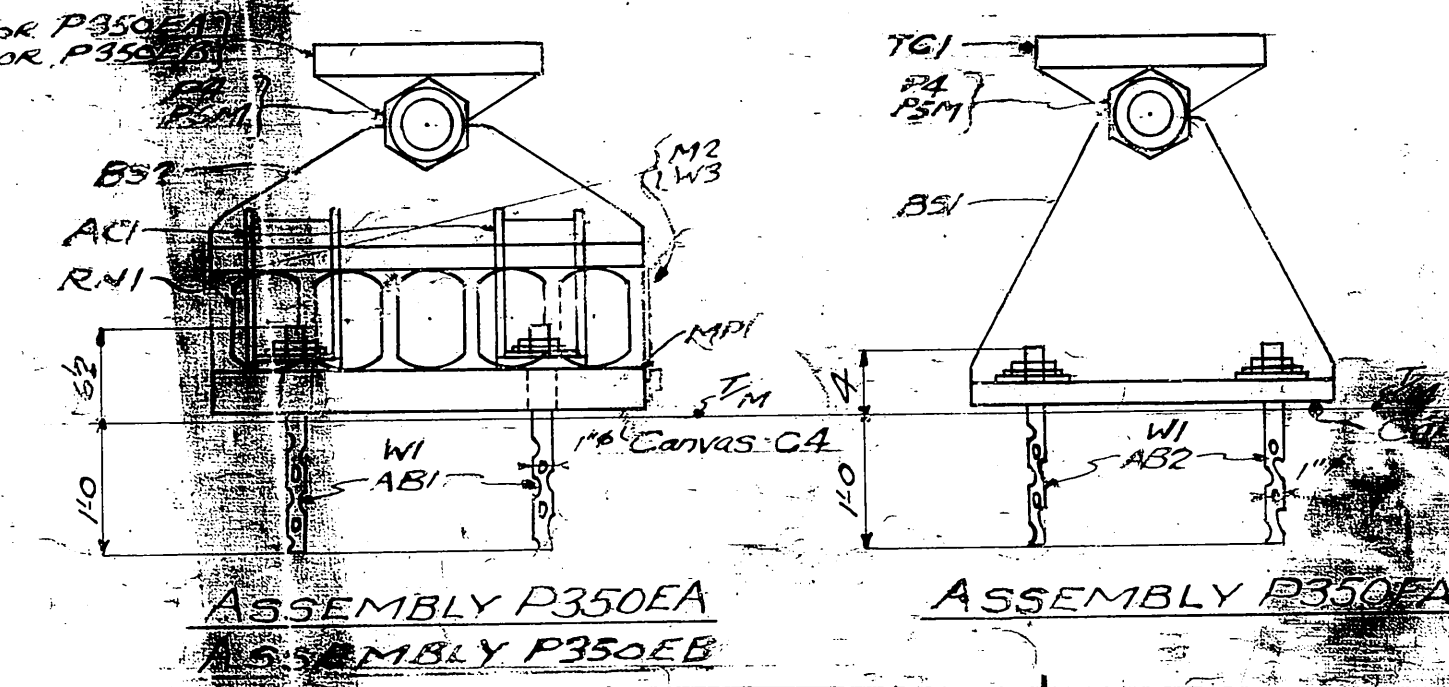
ANCHOR BOLT PLAN - PIERS #1 TO #12
COLUMBIA AVENUE VIADUCT
CINCINNATI, OHIO
CITY OF CINTY. DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
Drawings at Rankin-Fabrication at Rankin
IN CHARGE BOEN MADE BY G.H. 12-22-34
CHECKED BY J.S. 1-18-37 TRAGED BY
REVISED LAST ASSEMBLED
CONTRACT CC 258 (1-5)



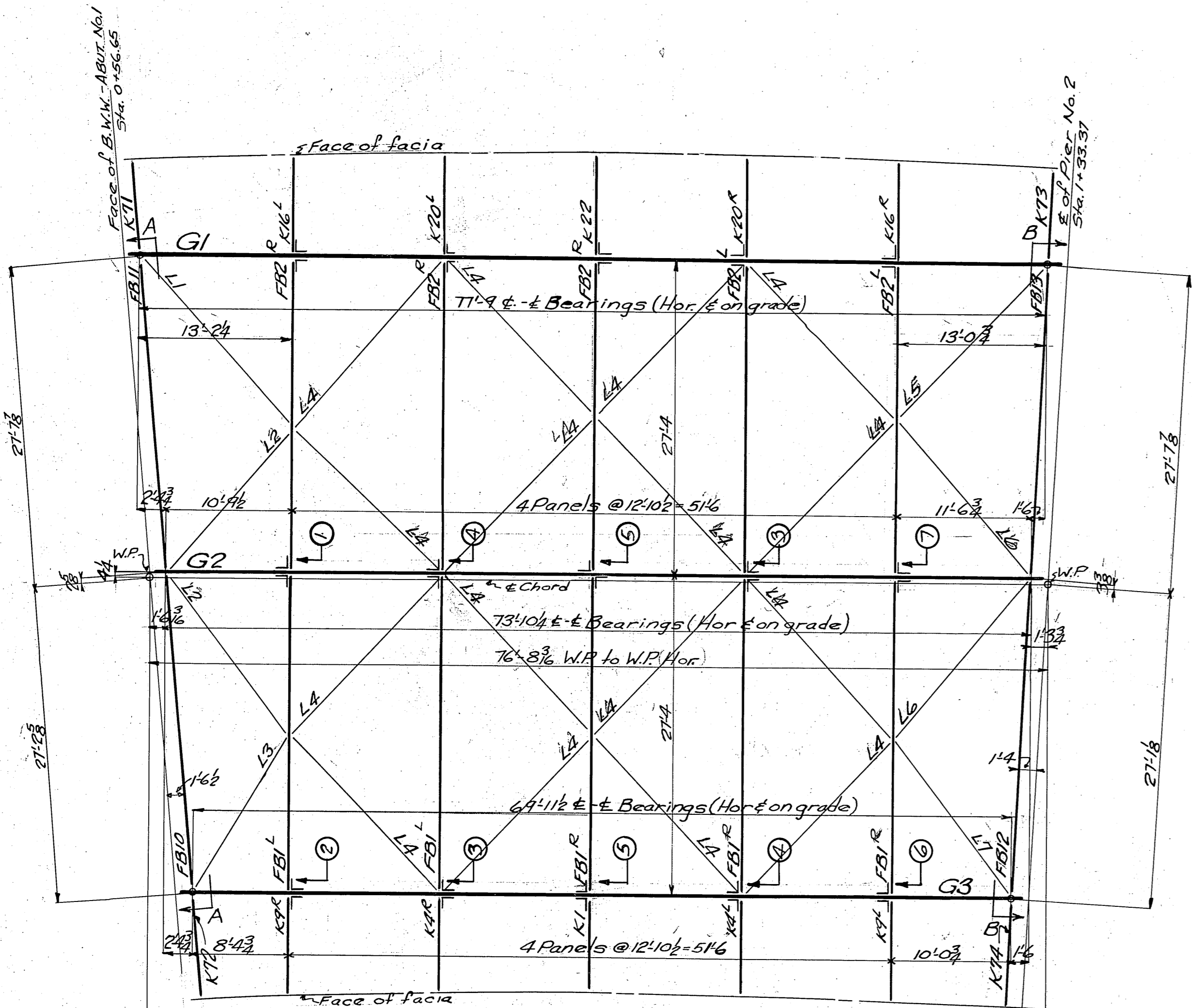
PLAN



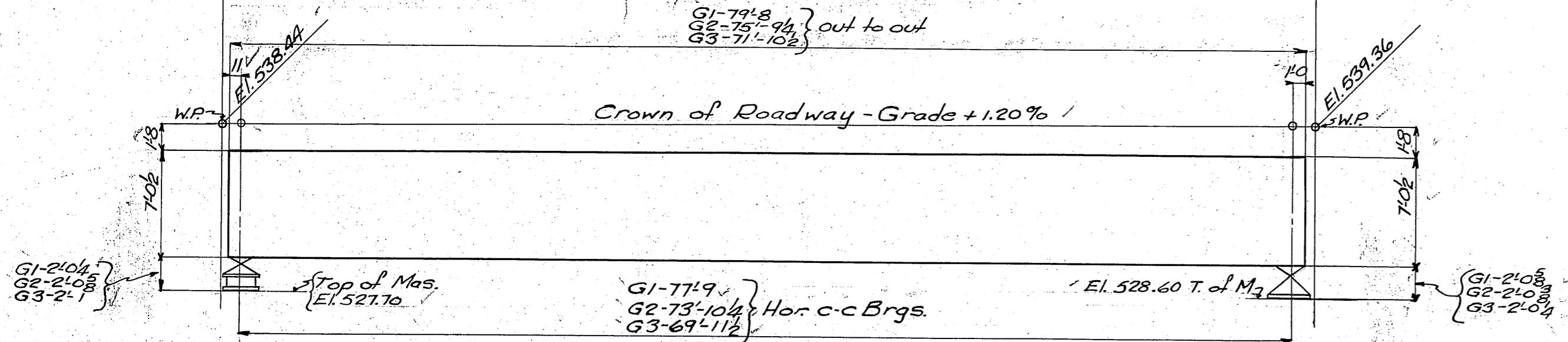
NOTES
 Steel Erector shall dress down the bridge seat bearing areas to the elevations called for.
 Holes for anchor bolts shall be drilled by the steel erector in the locations shown, and the anchor bolts grouted in with cement grout. All bearings to be set on 3 layers of canvas swabbed with Red Lead Paste.
 For general notes see Diagram E1



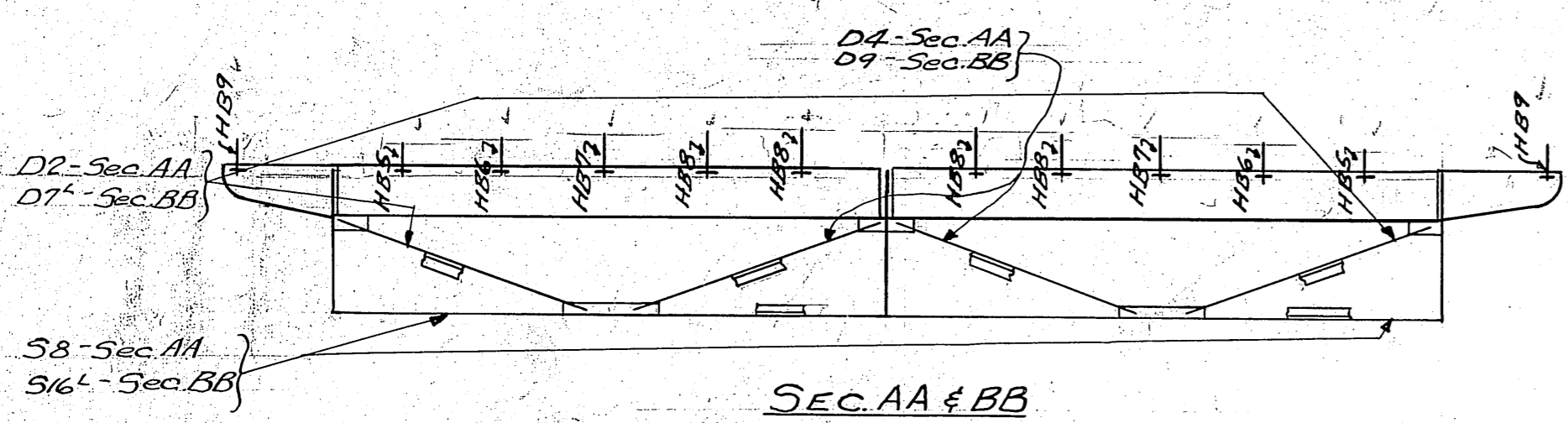
ANCHOR BOLT PLAN - PIERS 13, 14, 15, 16, 17, 18
 COLUMBIA AVENUE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTI DEPT. OF PUBLIC WORKS
 BETHCHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings of Rankin-Fabrication Co.
 IN CHARGE: [Signature] MADE BY: [Signature]
 CHECKED BY: [Signature] TRACED BY: [Signature]
 REVISED: [Signature] LAST ASSEMBLED: [Signature]
 CONTRACT: C-66-377(2) SHEET: [Number]



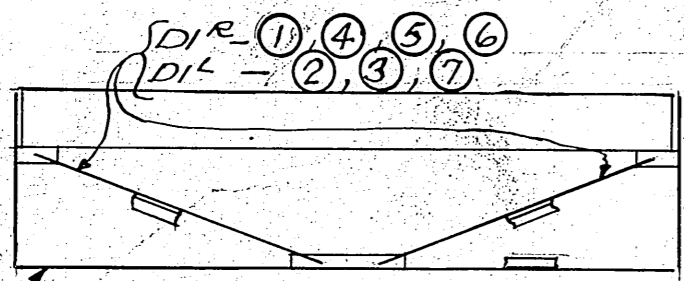
PLAN



ELEVATION
SPAN 1-2

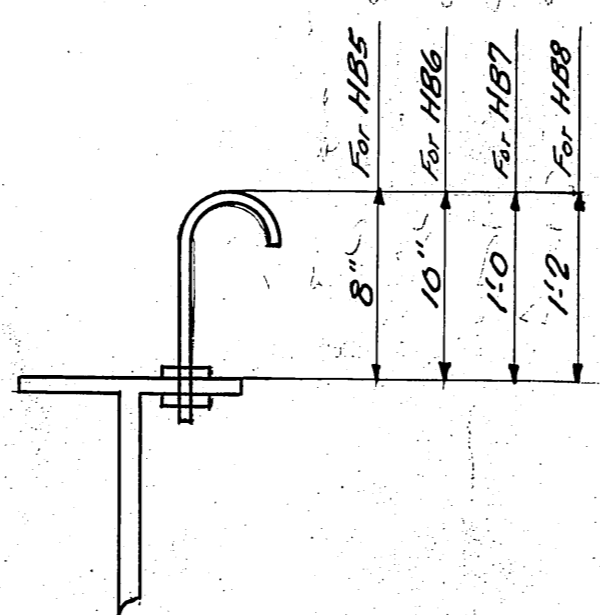


SEC AA & BB

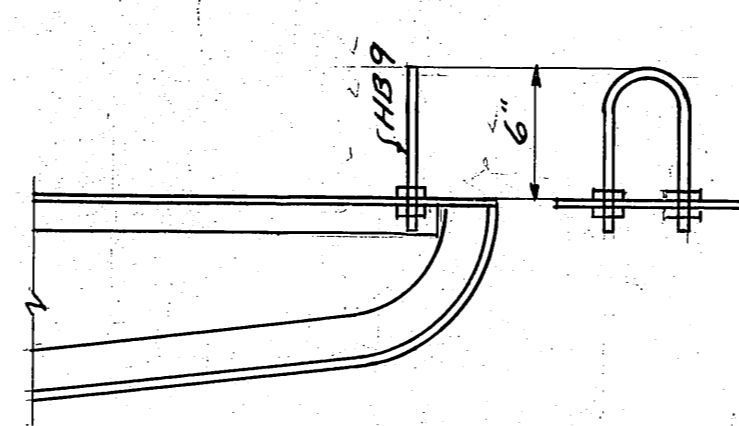


SEC (1) & (7) INCL.

- S1 - (1)
- S2 - (2)
- S3 - (3) (4)
- S5 - (5)
- S6 - (6)
- S7 - (7)

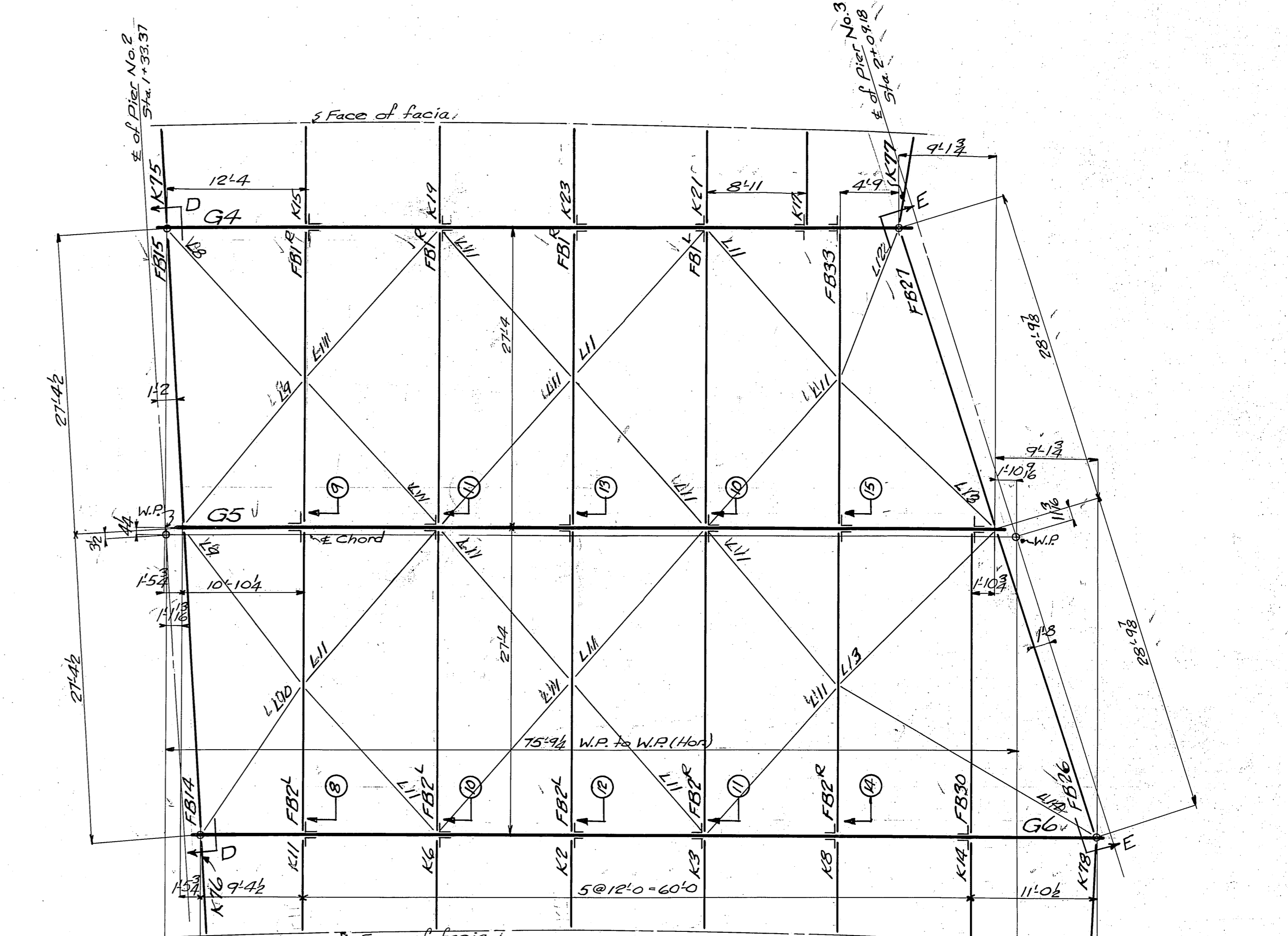
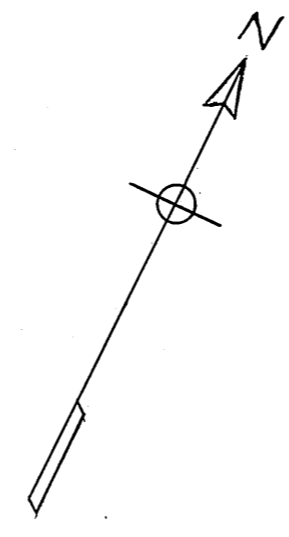


TYP. SECTION SHOWING ELEVATION OF HOOK BOLTS ABOVE END FB'S.

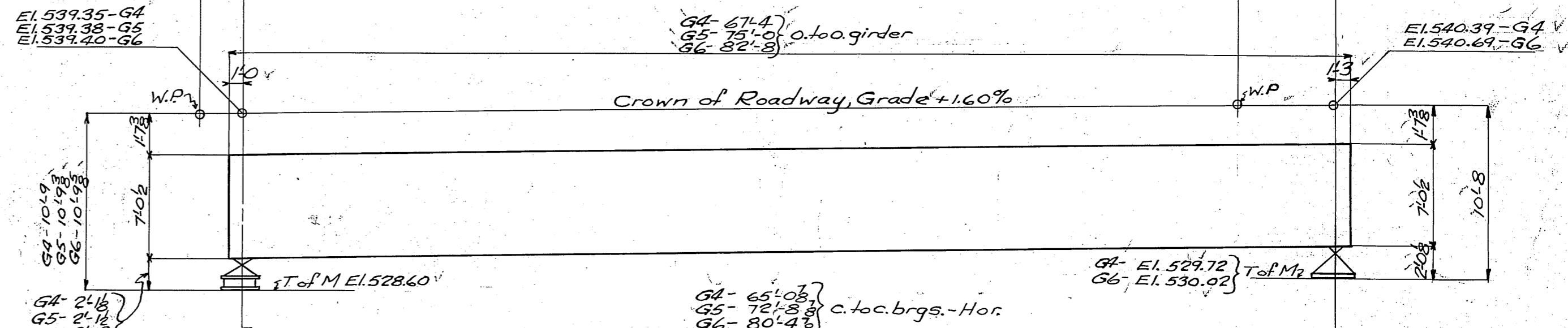


TYP. SECTION THROUGH ALL SONW. BRG'S SHOWING U-BOLTS

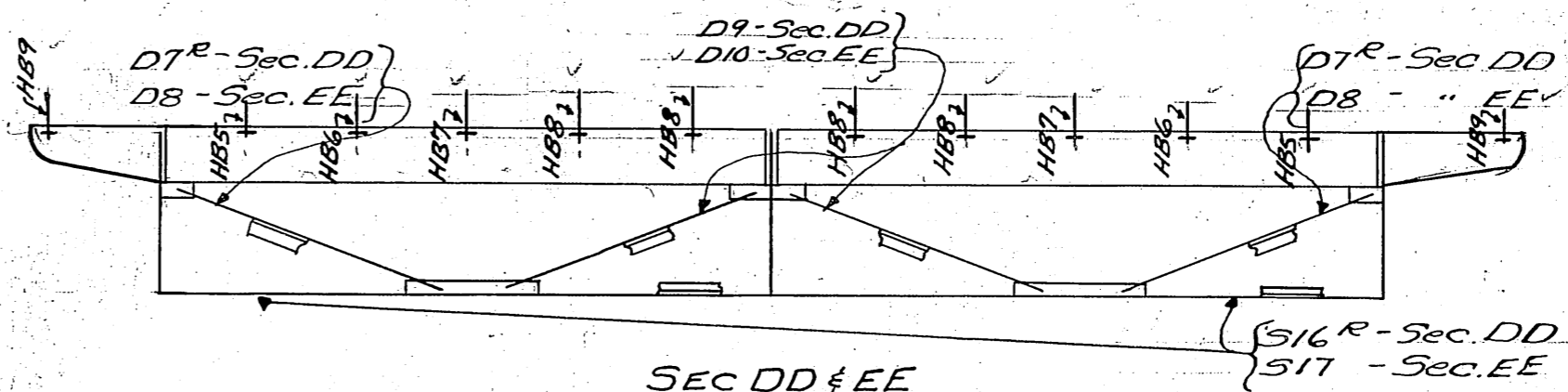
- S10 - (8)
- S11 - (9)
- S12 - (10)
- S13 - (11)
- S14 - (12)
- S15 - (13)



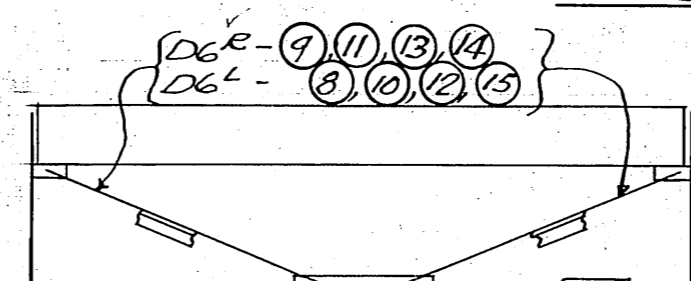
PLAN



ELEVATION
SPAN 2-3



SEC DD & EE

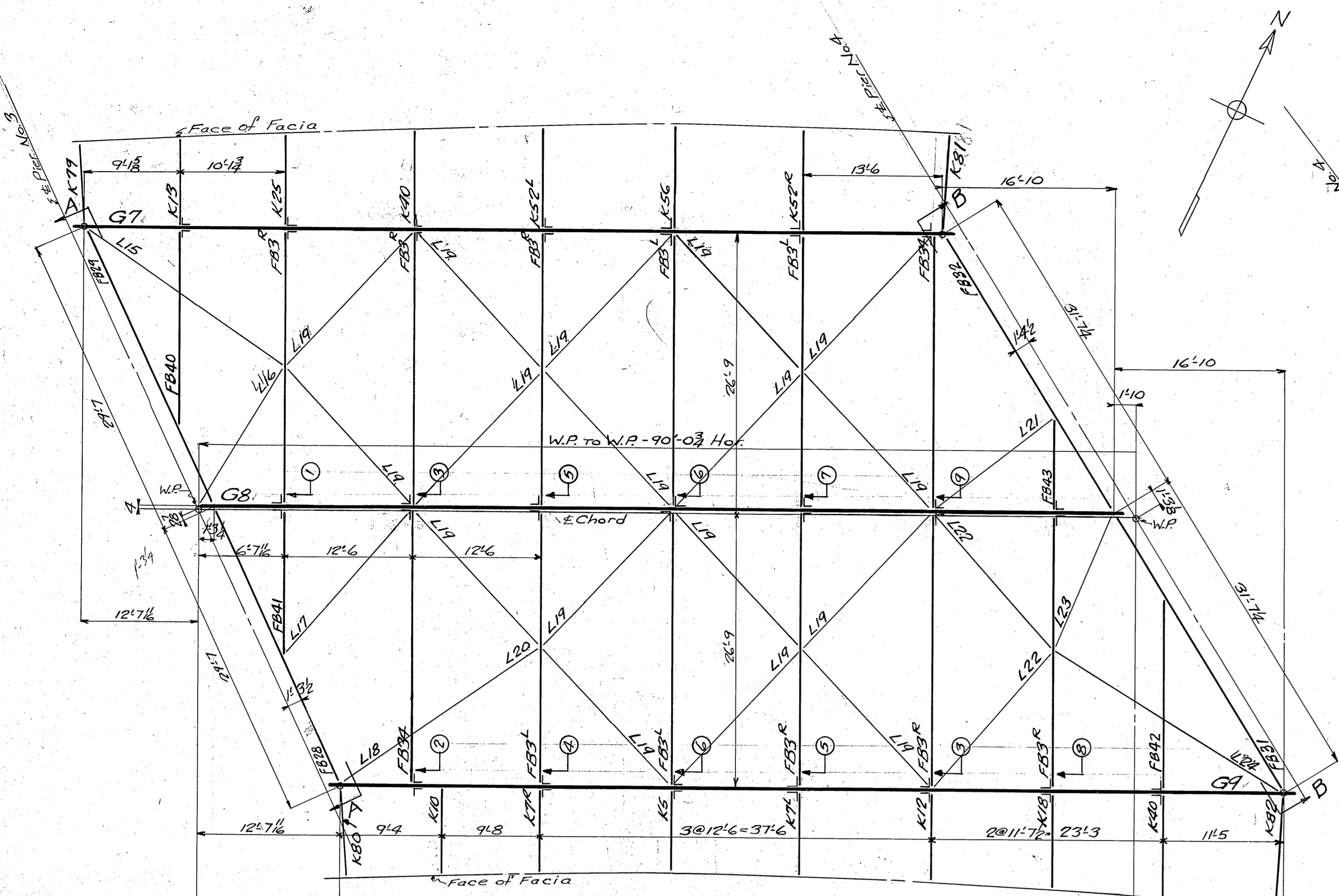


SEC (10) & (6) INCL.

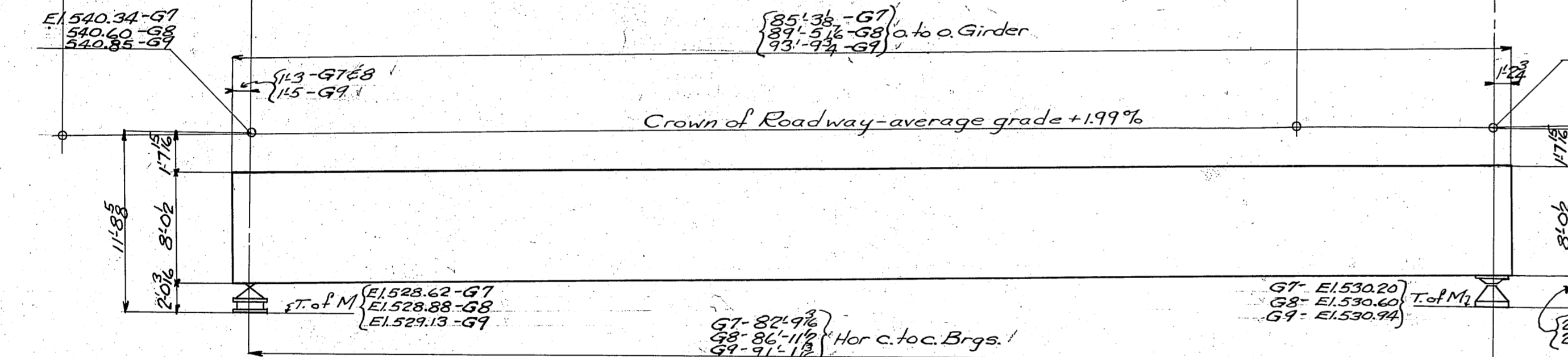
NOTE:
For general notes see Diagram E1
Installation No. 3

ERECTION DIAGRAM - SPANS 1-2, 2-3

TEMP.	COLUMBIA AVENUE VIADUCT
SUPT.	GINCINNATI, OHIO
INSPE.	CITY OF CINTI - DEPT. PUBLIC WORKS
DES. WKS.	DETHELEW STEEL COMPANY
DES. BY	FABRICATED STEEL CONSTRUCTION
CHIEF ENGR.	Drawing of Detail; Fabrication of
IN CHARGE	BORN DATE BY G.W. 12-3-36
CHECKED BY	8/8/37 TRACED BY G.W. 6
REVISED	LAST ASSEM. INC.

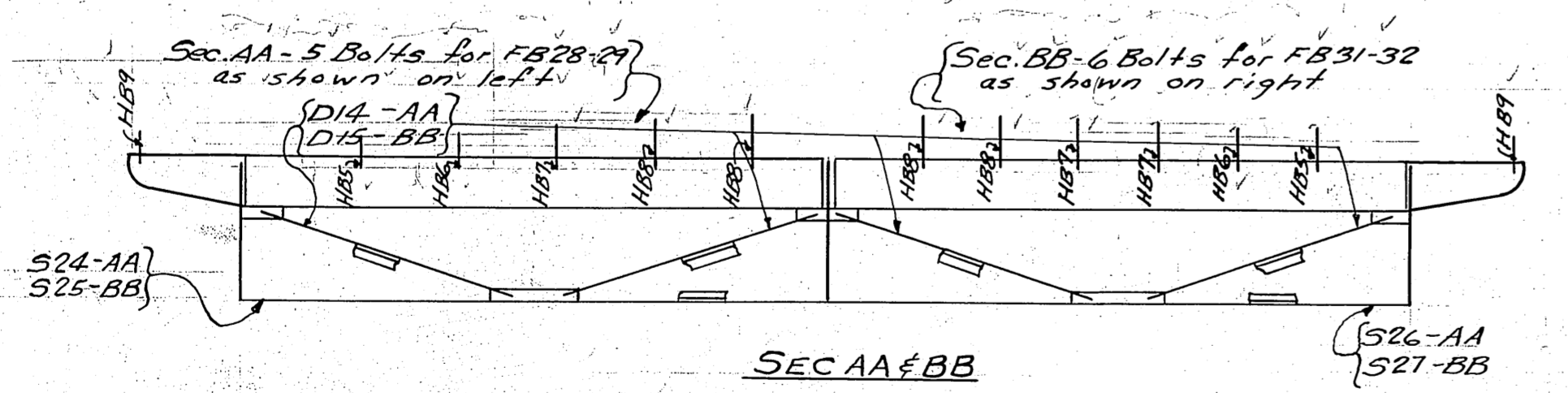


PLAN

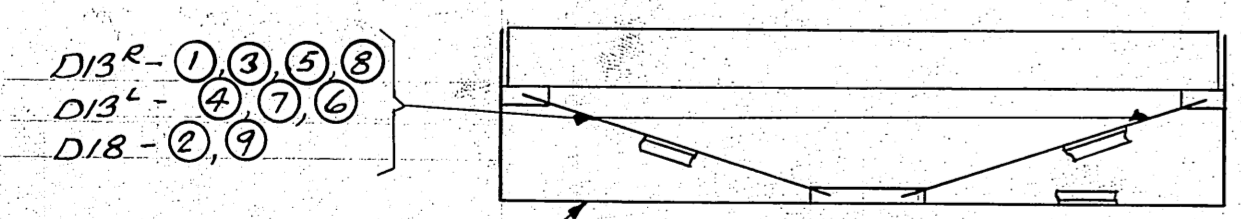


ELEVATION

SPAN 3-4

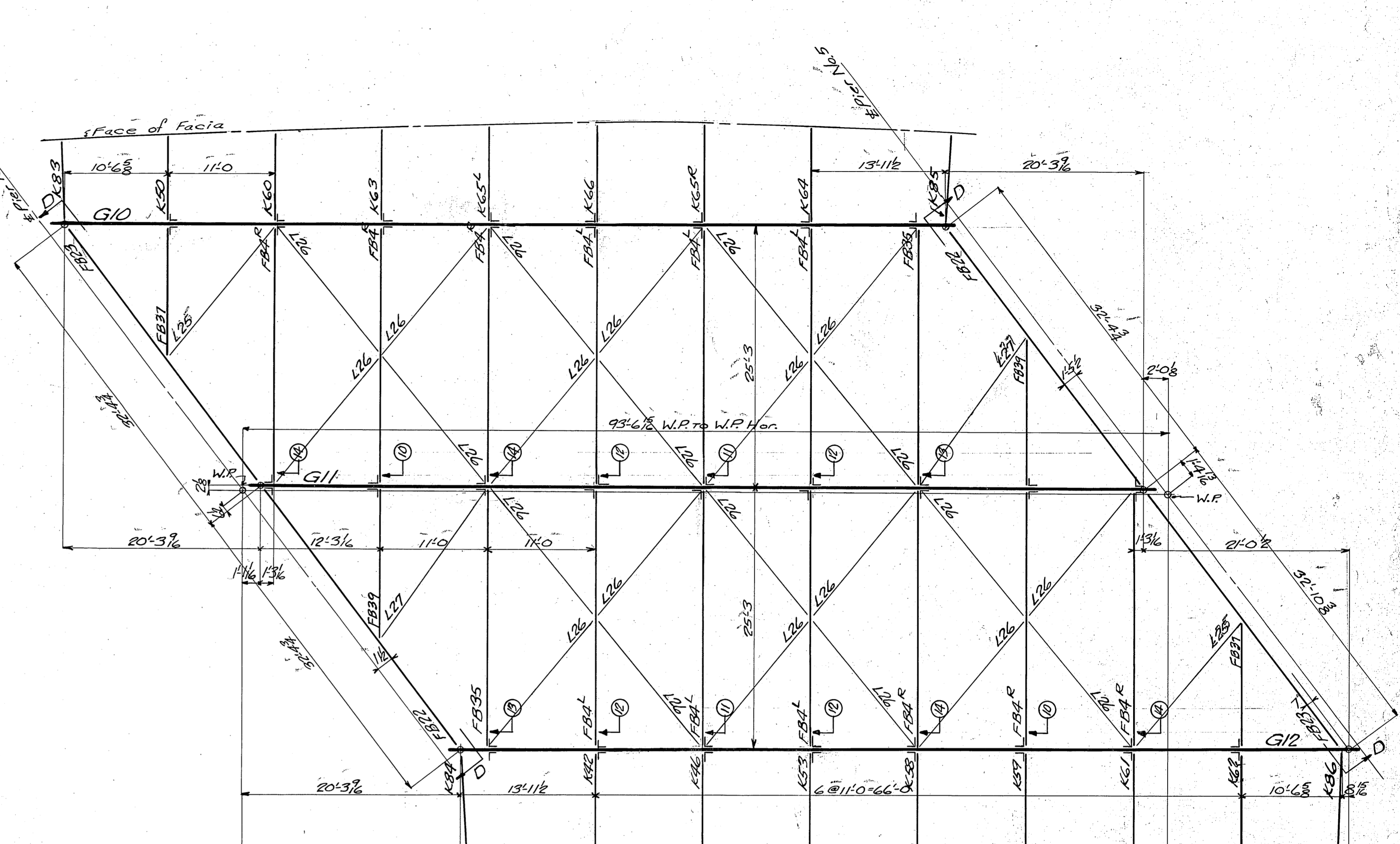


SEC AA & BB

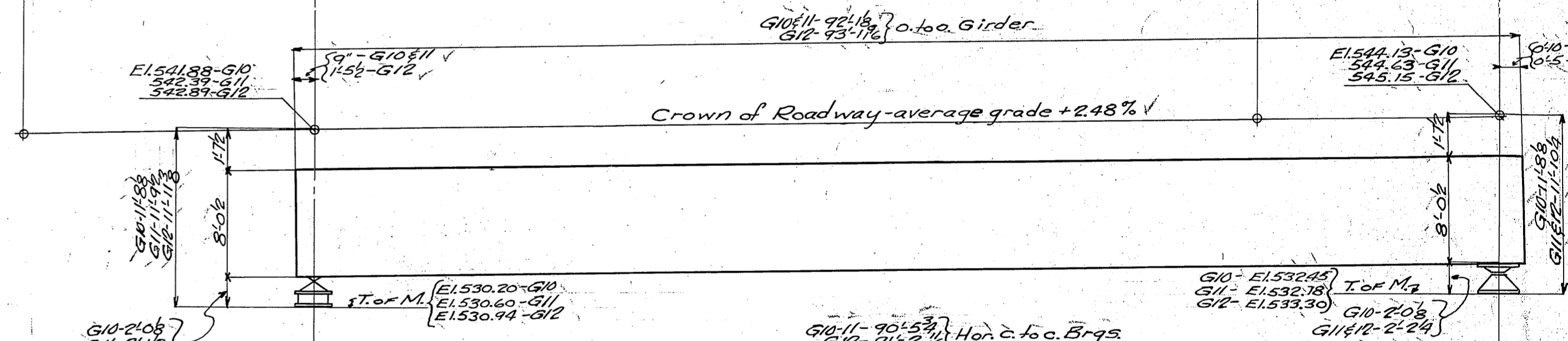


SEC 1 TO 9 INCL

- D13 - ① ③ ⑤ ⑧
- D13 - ② ④ ⑦ ⑩
- D18 - ② ④
- S18 - ①
- S19 - ②
- S20 - ③ ⑤ ⑦
- S21 - ④
- S22 - ⑥ ⑧
- S23 - ⑩

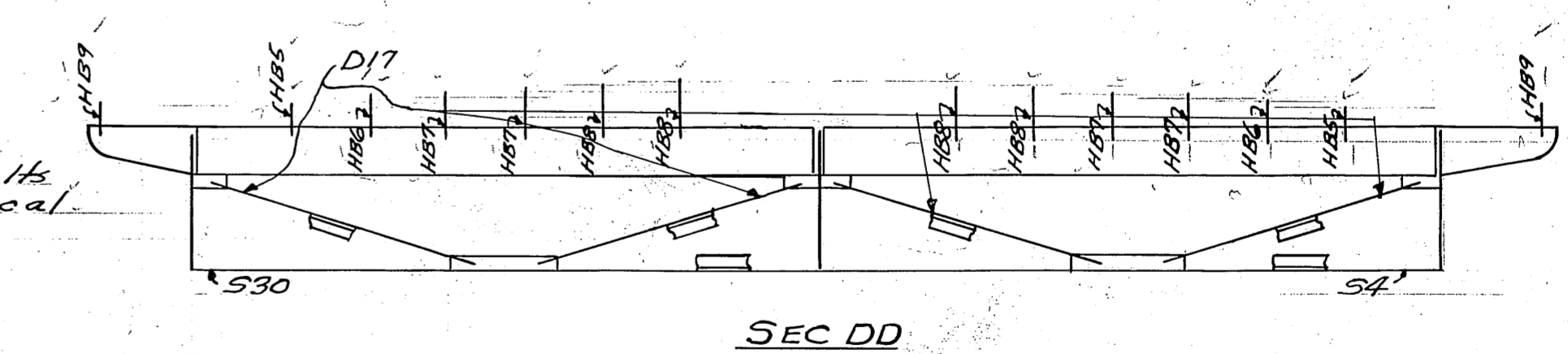


PLAN

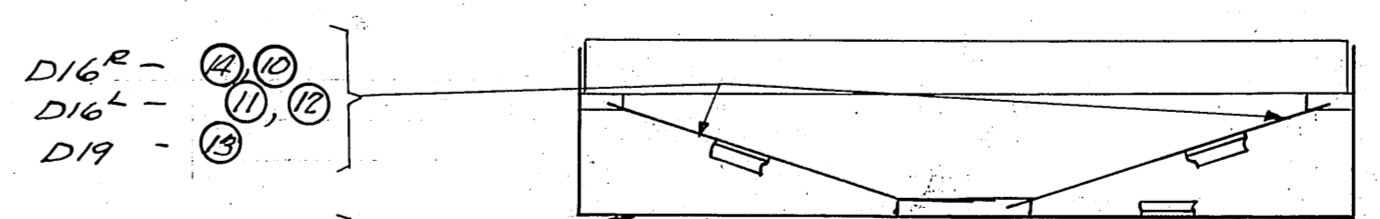


ELEVATION

SPAN 4-5



SEC DD



SEC 10 TO 19 INCL

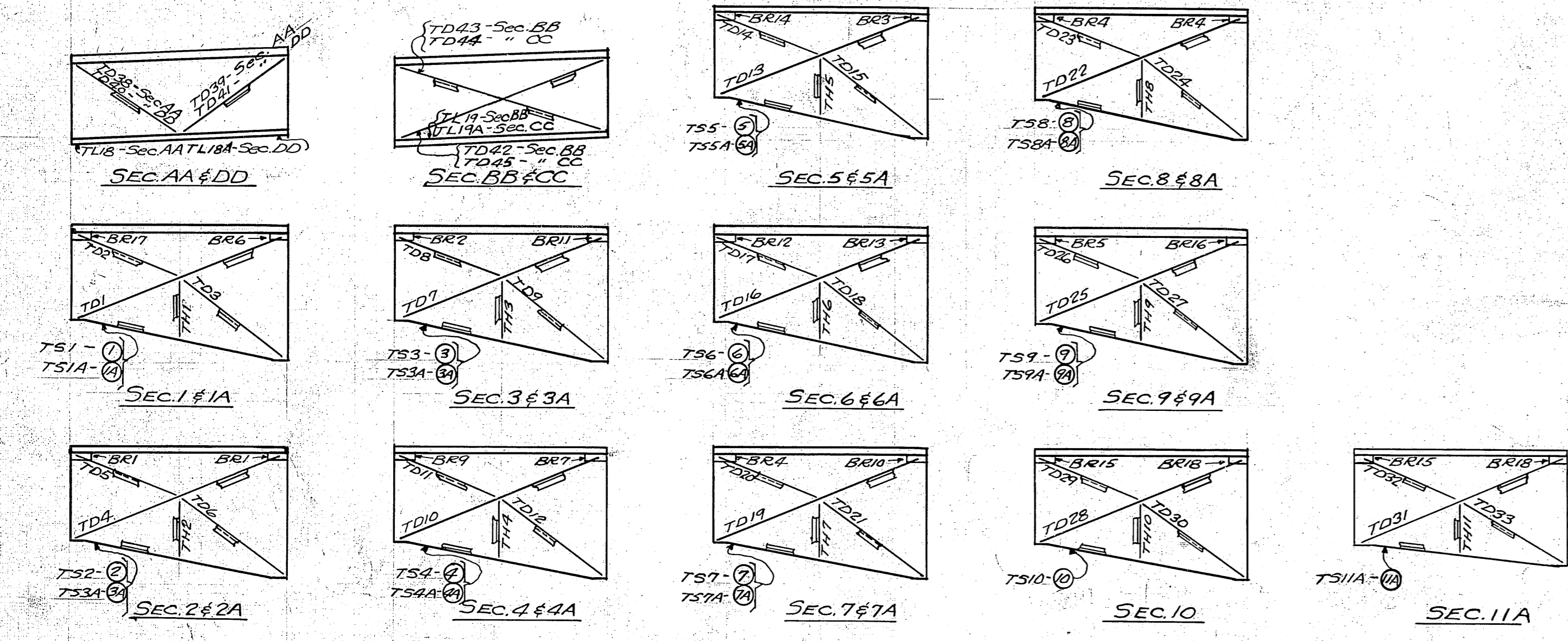
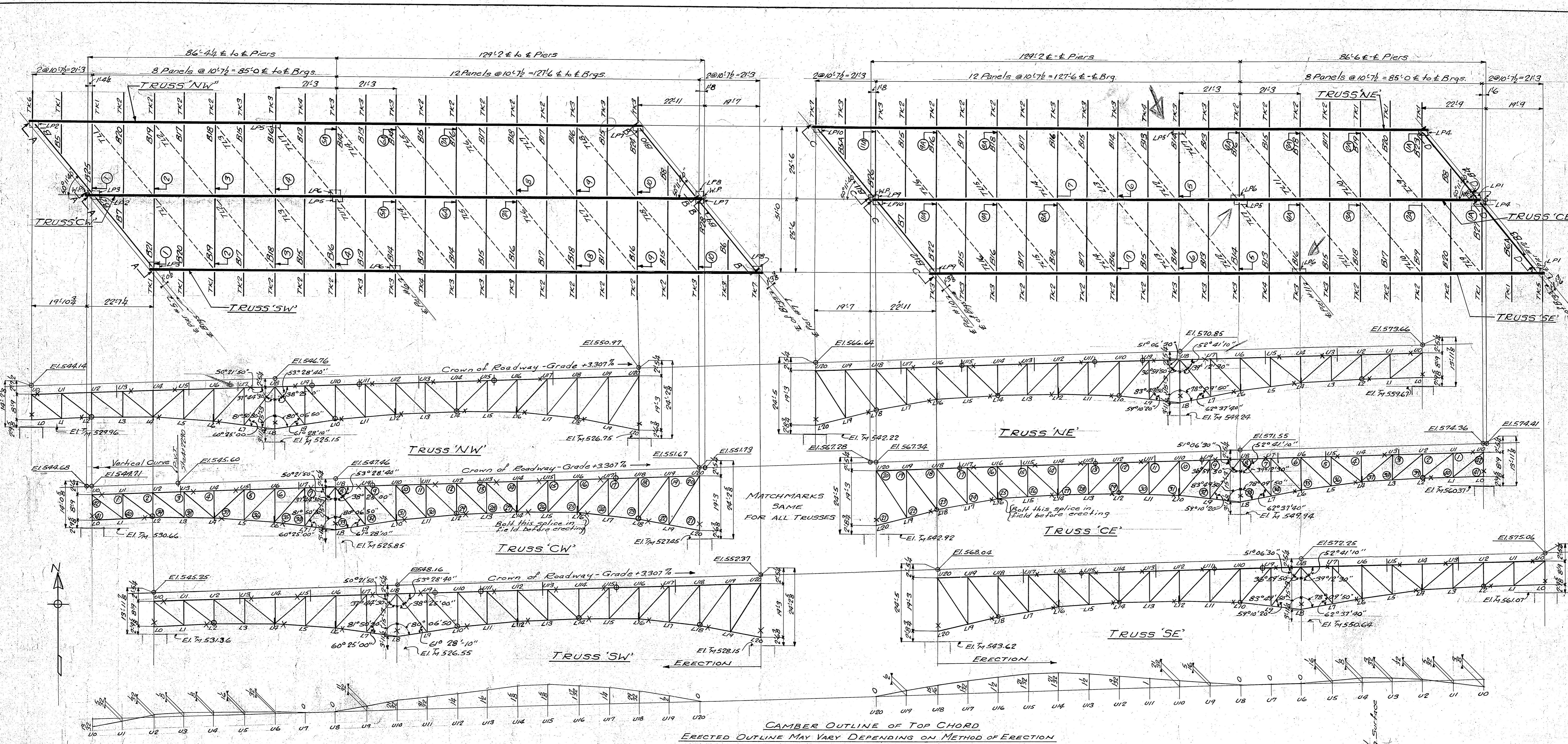
- D16 - ① ③ ⑤ ⑧
- D16 - ② ④ ⑦ ⑩
- D19 - ② ④
- S28 - ① ③ ⑤ ⑧
- S29 - ② ④ ⑦ ⑩

Note: For lengths of Hook Bolts above beams see typical section on E5

NOTE: For general notes see Diagram E1 Installation No 2

ERECTION DIAGRAM-SPANS 3-4 & 5
 COLUMBIA AVENUE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTI-DEPT. PUBLIC WORKS
 DETLEFSEN STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawing of W. J. R. - Pattern No. 1
 IN CHARGE: BORN MADE IN G.W. 12-9-36
 CHECKED BY G.S. 3/26/37 TRACED BY G.W. do
 REVISION: LAST APPROV. E.K.

CONTRACT CC2587



SHOP ASSEMBLY NOTES

X - Denotes position of Gusset
+ - Denotes field splice (Top chord splices noted thus to be Shop Riveted)
- - Denotes shop splice (Note Bolt " " " " " Shop Bolted)

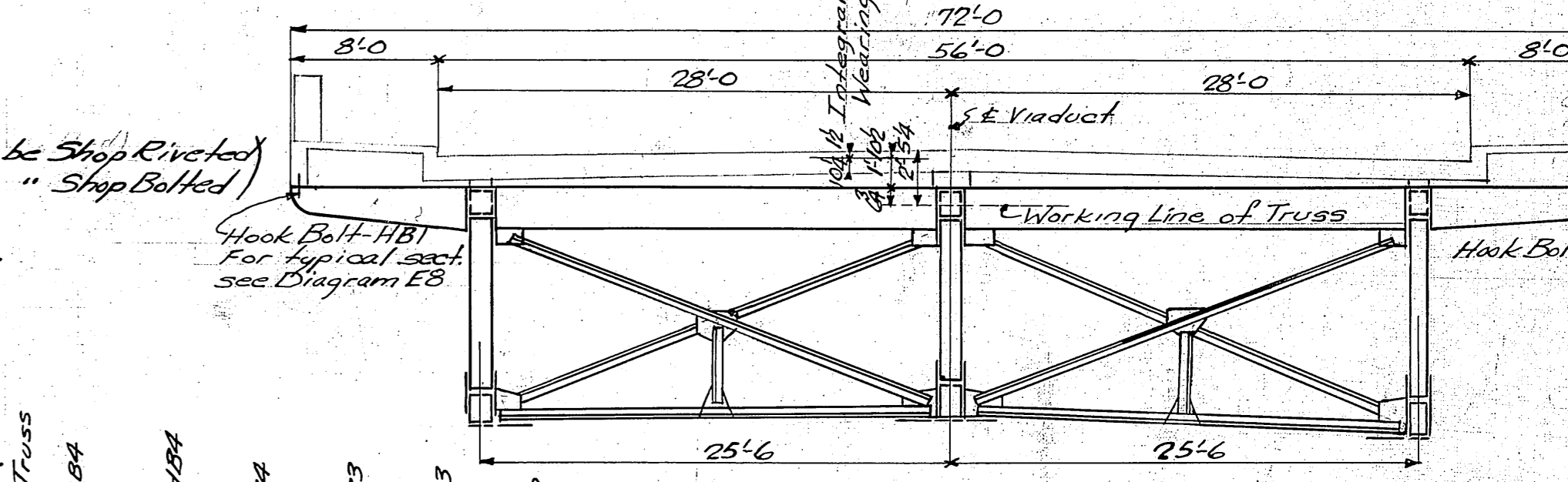
Trusses are to be assembled at shop and all joints are to be reamed when so assembled except connections of Diagonals U7-U8 & U8-U9 to gussets and connections of Both Chd. Sections to Gusset at U8. The conn. of Both Chd. members to Gusset at U8 will be reamed to templet, set to uncambered angle, shown on Diagram. Diagonals U7-U8 & U8-U9 will be reamed assembled but shall be shifted and reamed to uncambered angles shown above.

All joints to be match marked after reaming with the panel number as shown on Diagram, using the prefix "NW", "CW", etc. for the different trusses. Thus all members at joint 3 for Truss "NW" shall be marked "NW3".

Certain top chord splices are to be shop riveted complete in the uncambered position which in this case is a straight line. These cases are so noted on Diagram. Note that, for the same panel point of companion trusses, all three joints may not be shop riveted. In certain cases only one or two out of three splices may be riveted.

Certain bottom chord splices are to be shop bolted. These cases are also noted on Diagrams.

For General Notes see Diagram E1



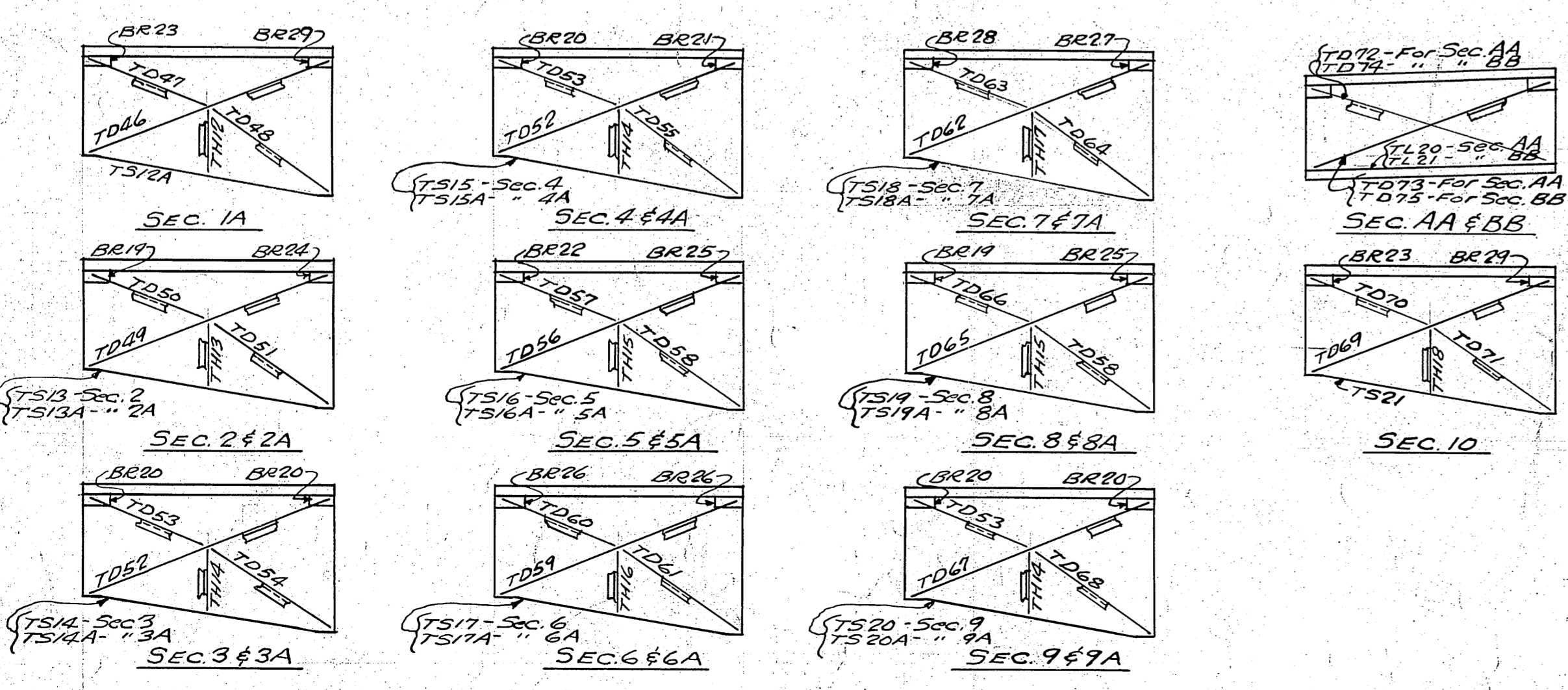
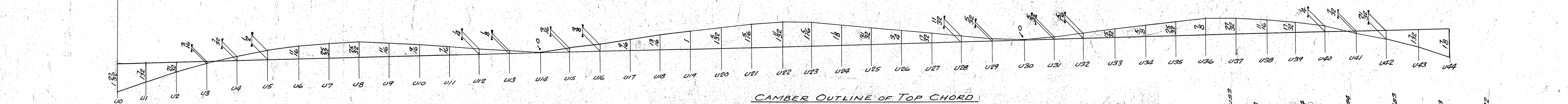
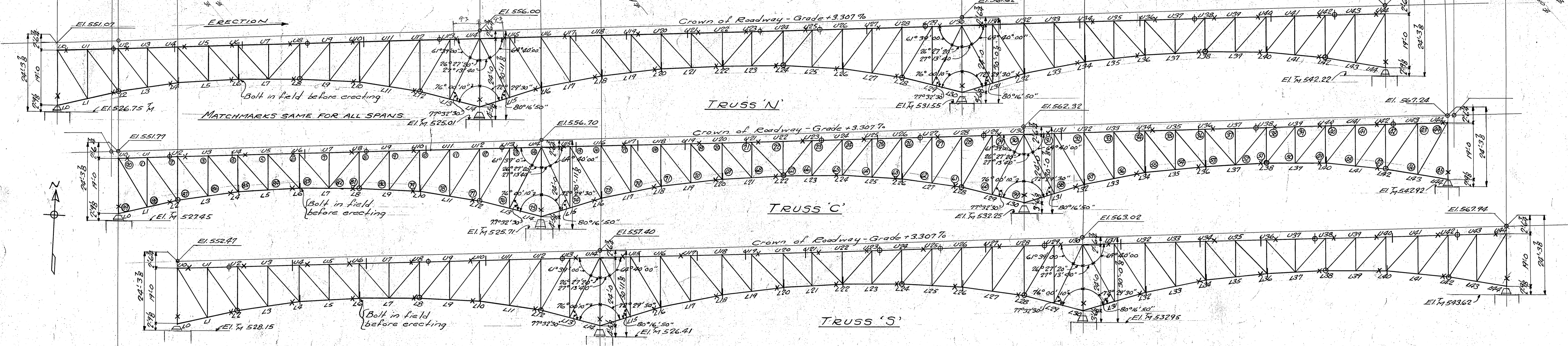
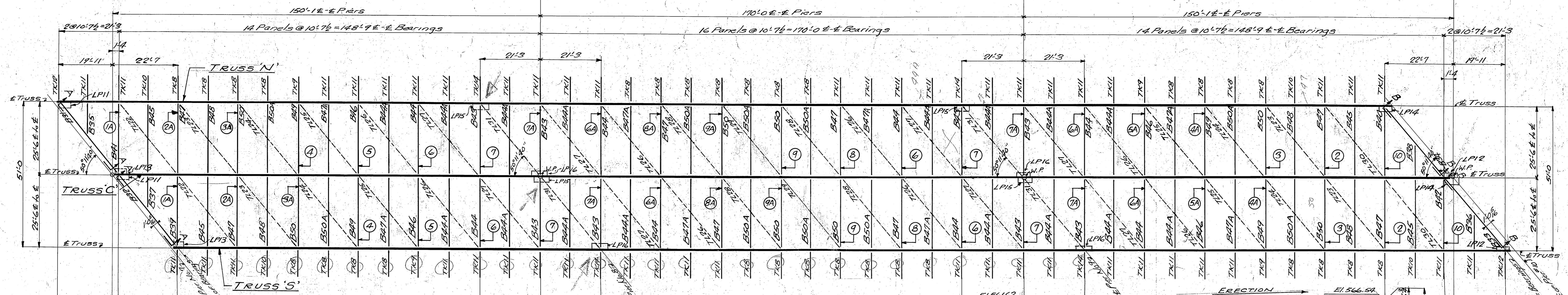
TYPICAL CROSS SECTION

ERUCTION DIAGRAM-TRUSS SPANS

Temp.	COLUMBIA AVENUE VIADUCT	
Suplt.	CINCINNATI, OHIO	
Shops	CITY OF CINTI-DEPT. PUBLIC WORKS	
Insp.	BETHEHEM STEEL COMPANY	
Pc. Wlk.	fabricated Steel Construction	
B. Smith	In Charge BORN	
Mch.	Made by G.W.	Date 3-3-37
Erect.	Traced by D.C.	Date 5-11-37
O. Insp.	Scale: Inch=1 Foot	Revised TOC 5-11-37
		Date
		Last Assembling Mark

Shop No. Cont. No. CC 2587 F.C. TBC 5-14-37

Piers 5 to #7-Installation #1
Piers 10 to #12-Installation #7



SHOP ASSEMBLY NOTES

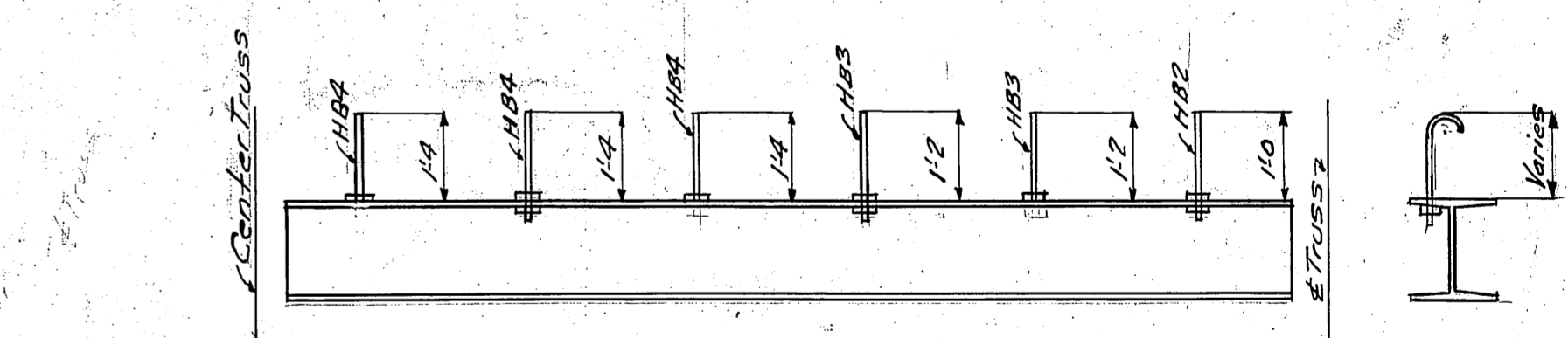
- X - Denotes position of gusset
- ⊕ - Denotes Field Splice
- ⊙ - Denotes Shop Splice

Trusses are to be assembled at shop and all joints are to be reamed when so assembled except connections of Diagonals L13-U4 & U14-L15 to gussets and conn. of Both Chd. Sections to gussets at L14 for Pier 8; and conn. of Diagonals L29-U30 & U30-L31 to gussets and conn. of Both Chd. Sec. to gussets at L30 for Pier 9. The conn. of Both Chd. members to gussets at L14 & L30 will be reamed to Template, set to uncambered angle, shown on Diagram. Diagonals L13-U4 & U14-L15, and L29-U30 & U30-L31 will be reamed ass. but shall be shifted and reamed to uncambered angle shown on Diagram.

All joints are to be matchmarked after reaming with the panel number as shown on Diagram, using the prefix "N", "C", etc. for the different trusses. Thus all members at Joint 8 for Truss N, shall be matchmarked "N3".

Certain top chord splices are to be shop riveted complete, in the uncambered position which in this case is a straight line. These cases are so noted on Diagram. Note that, for the same panel point of companion trusses, all three joints may not be shop riveted. In certain cases only one or two out of three splices may be riveted.

Certain bottom chord splices are to be shop bolted. These cases are also noted on Diagram. For general notes see Diagram E1.



ERECTOR DIAGRAM - TRUSS SPANS 710

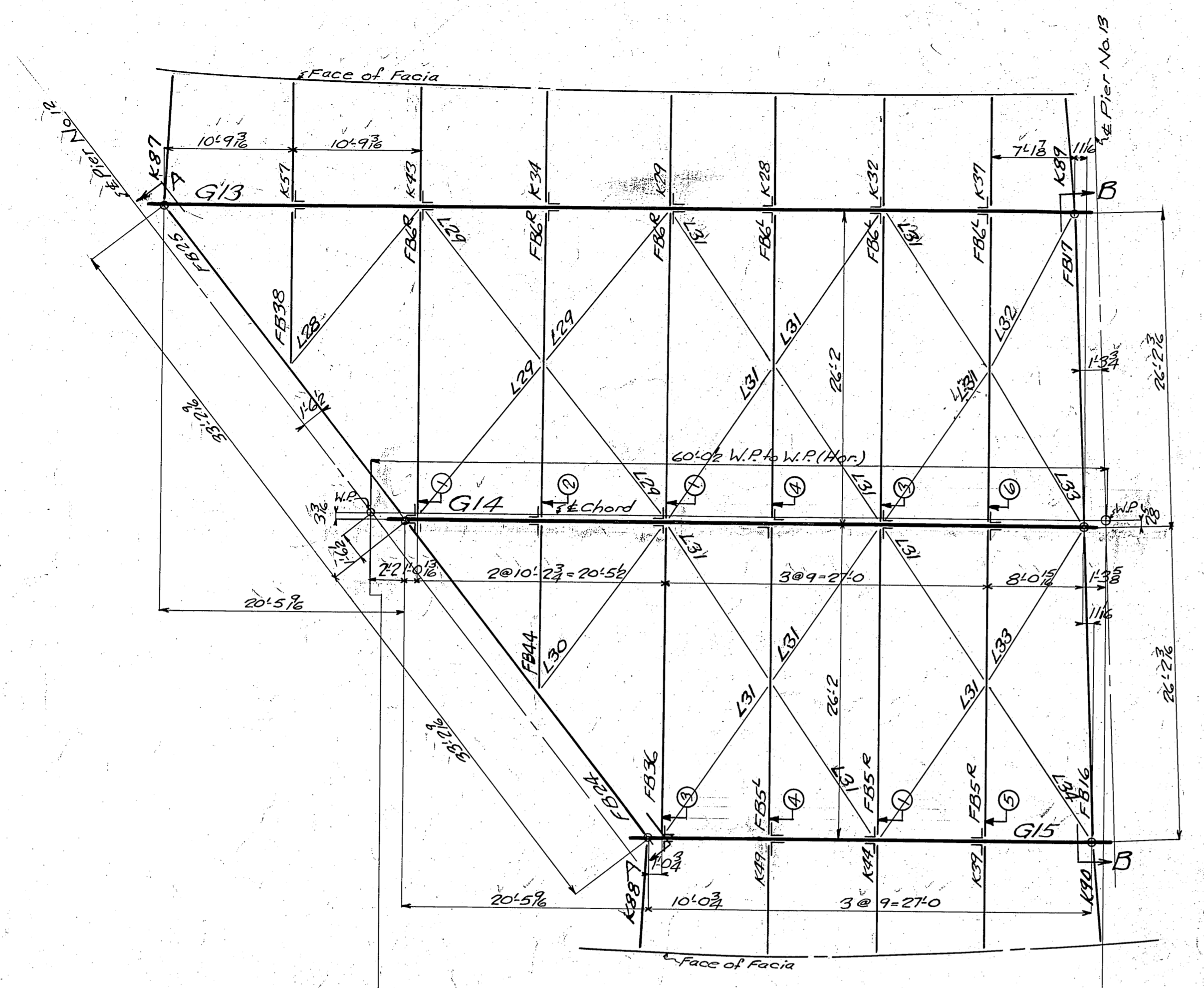
COLUMBIA AVENUE VIADUCT
CINCINNATI, OHIO
CITY OF CINTI. - DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
Fabricated Steel Construction

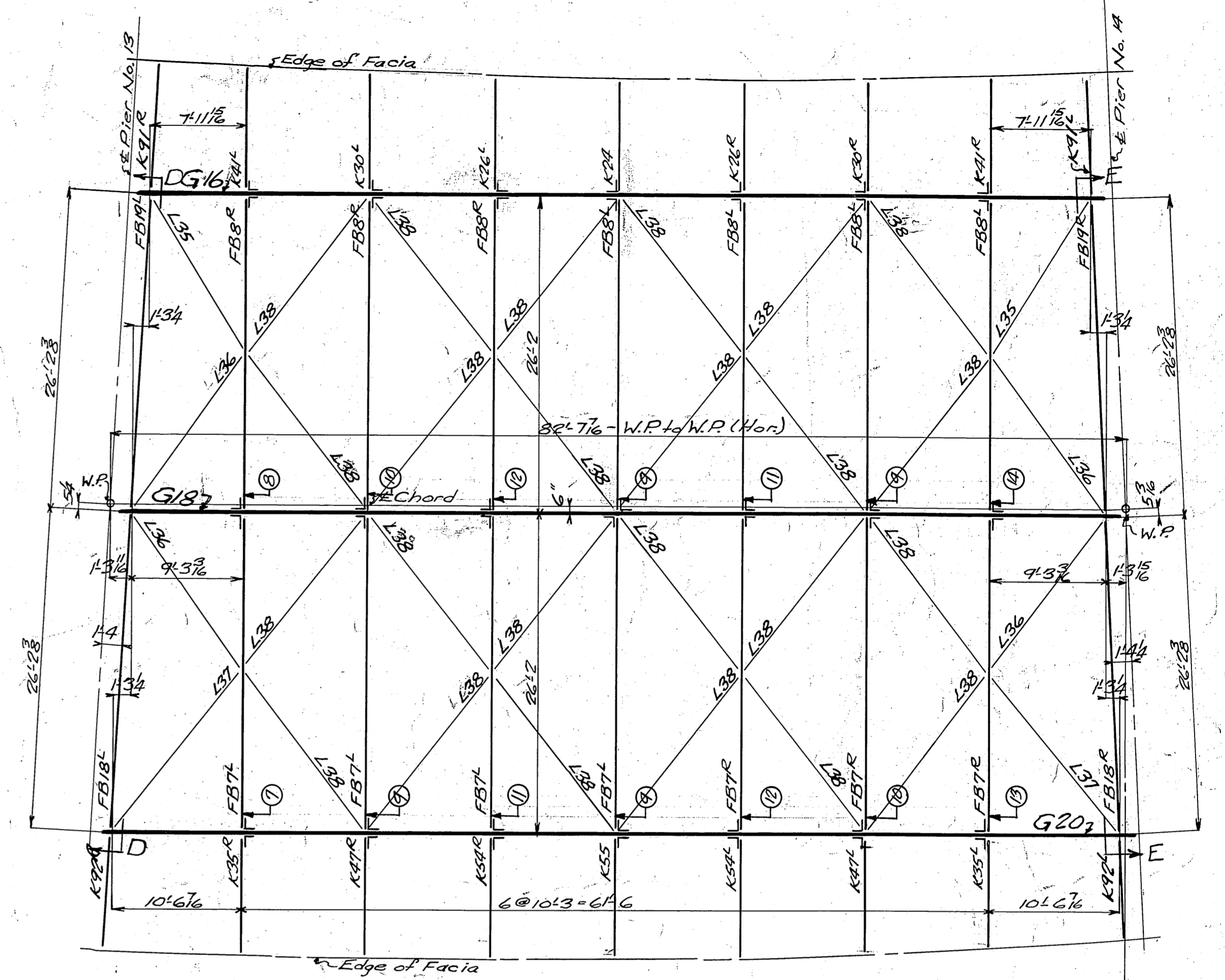
In Charge BORN
Made by G.A.W. Date 3-6-37 Checked by A.T. 3-9-37 Date
Traced by do Date do Revised G.W. 5-14-37 Date
Scale: 1/4"=1' Foot Last Assembling Mark

Shop No. Cont. No. CC2587 Sheet E8

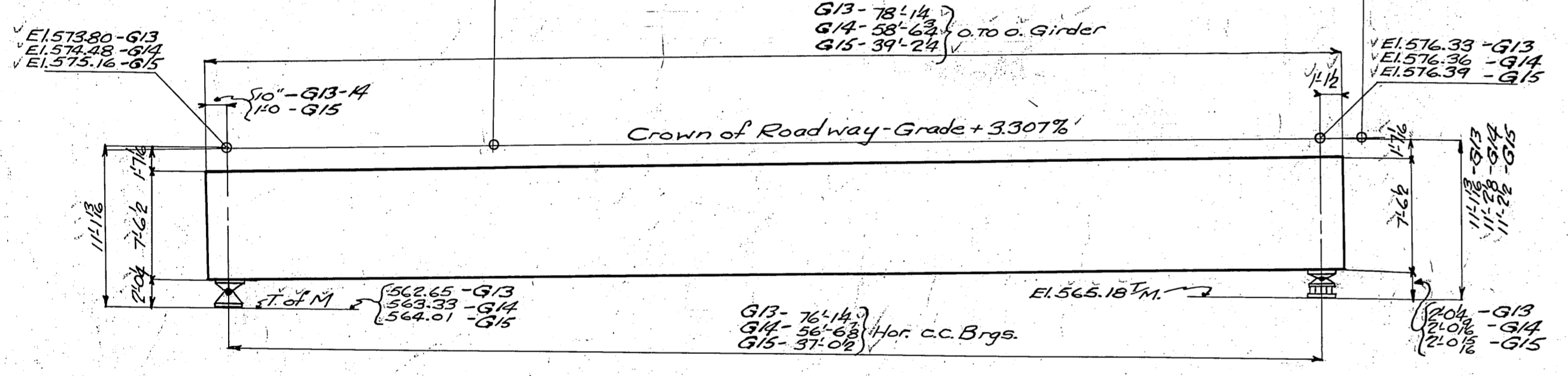
FC TBC 5/14/37 Form R-360



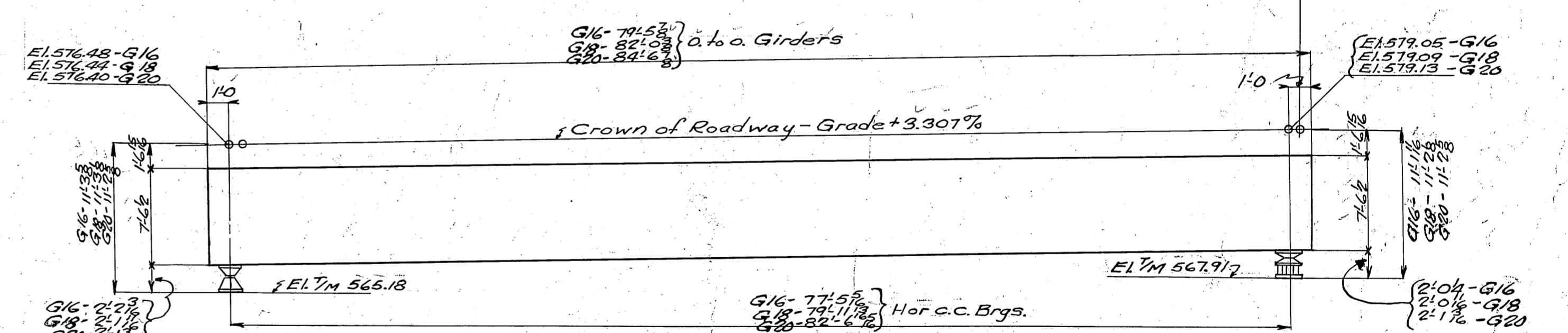
PLAN



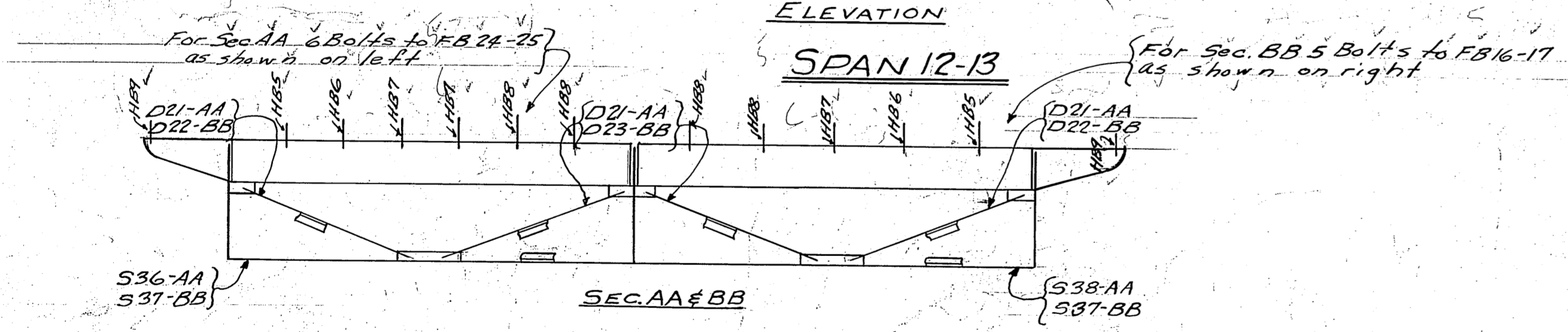
PLAN



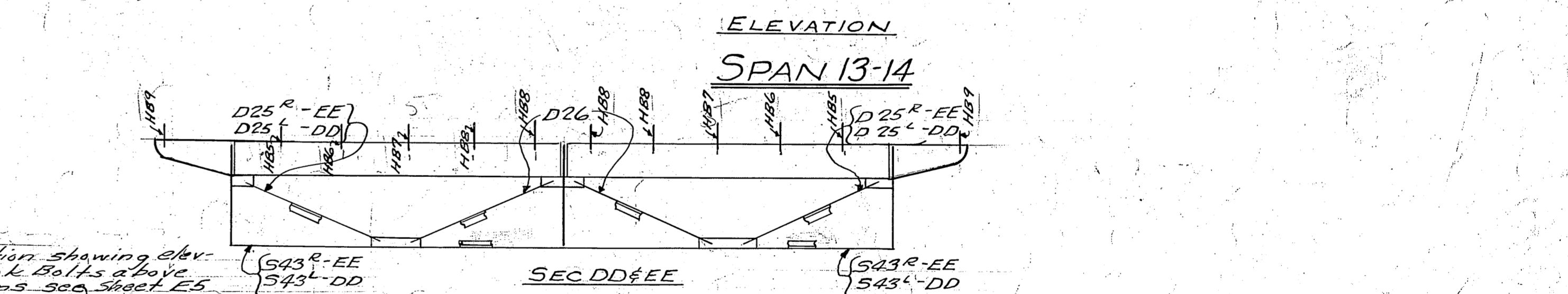
ELEVATION



ELEVATION

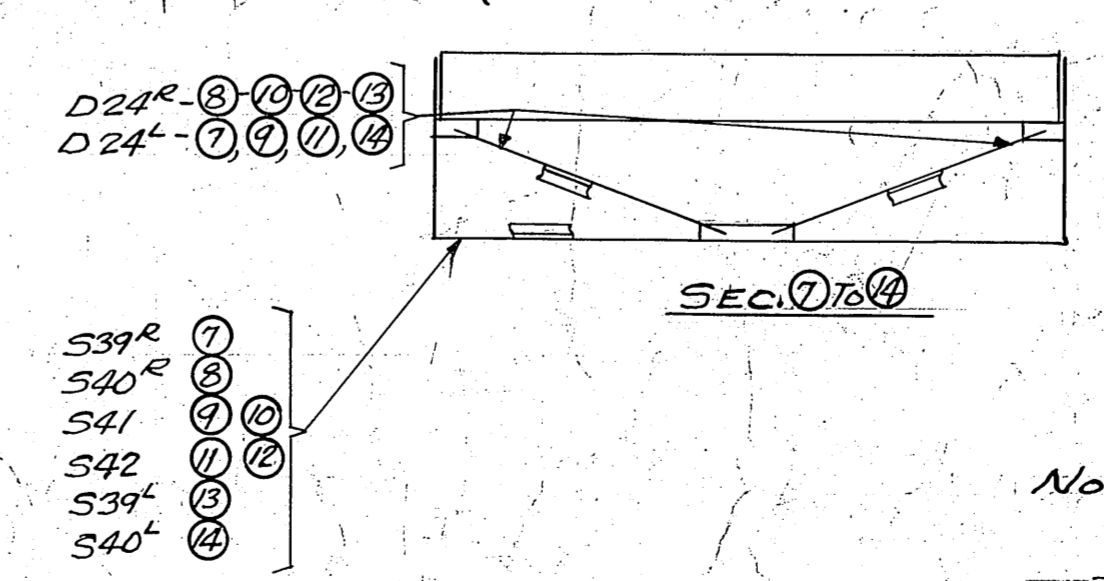
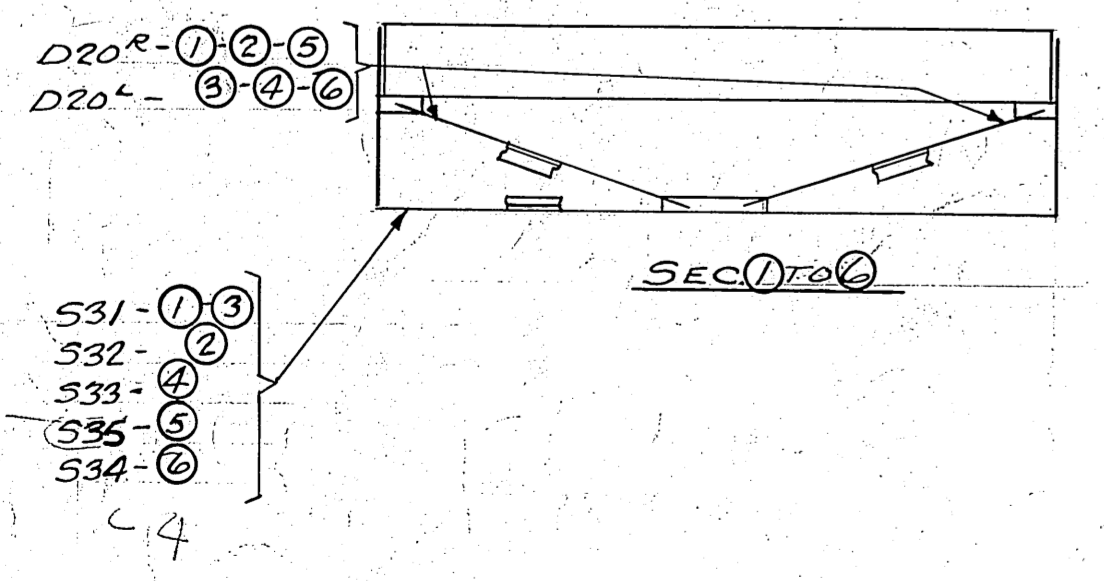


SPAN 12-13



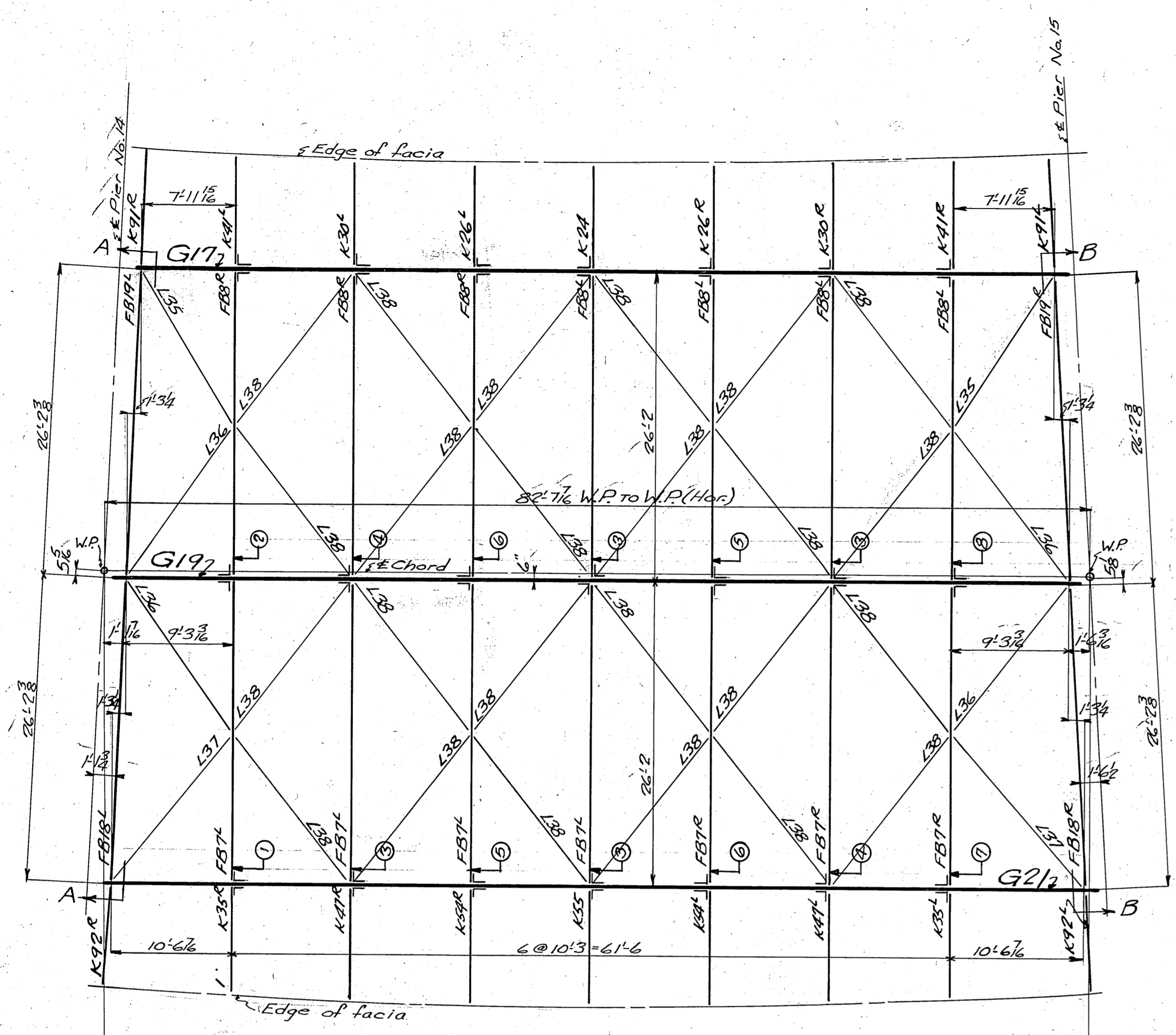
SPAN 13-14

Note: For top section showing elevation of Hook Bolts above and floor beams see Sheet E5

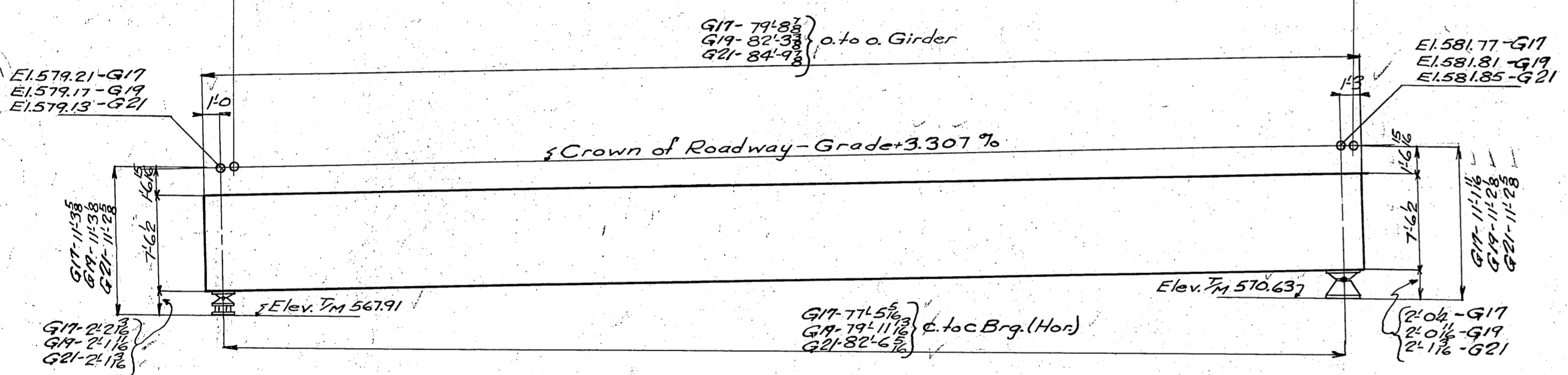


NOTE: For general notes see Diagram E1 Installation No. 5

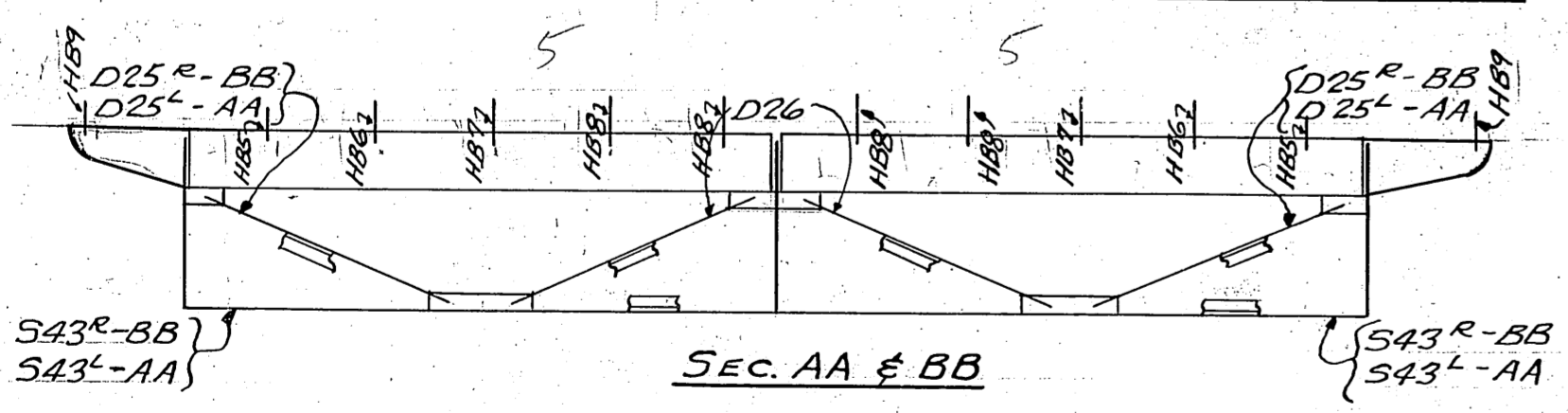
ERECTOR DIAGRAM - SPANS 12-13, 13-14	
TEMP. _____	COLUMBIA AVE VIADUCT
DATE _____	CINCINNATI, OHIO
BY _____	CITY OF CINCINNATI - DEPT. PUBLIC WORKS
CHECKED _____	BEULLEHIM STEEL COMPANY
APPROVED _____	FABRICATED STEEL CONSTRUCTION
DESIGNED _____	Drawings of Rankin - Fabrication Co.
IN CHARGE BORN _____	MADE BY G.W. 12-10-36
CHECKED BY G.S. 3/6/37	TRACED BY G.W. 1/6/38
REVISED _____	LARRY JOSEPH, INC.



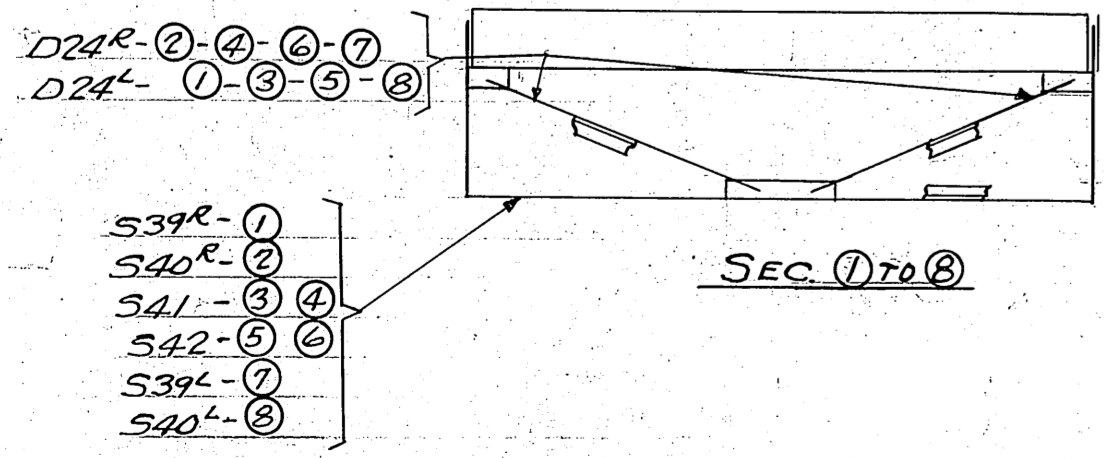
PLAN



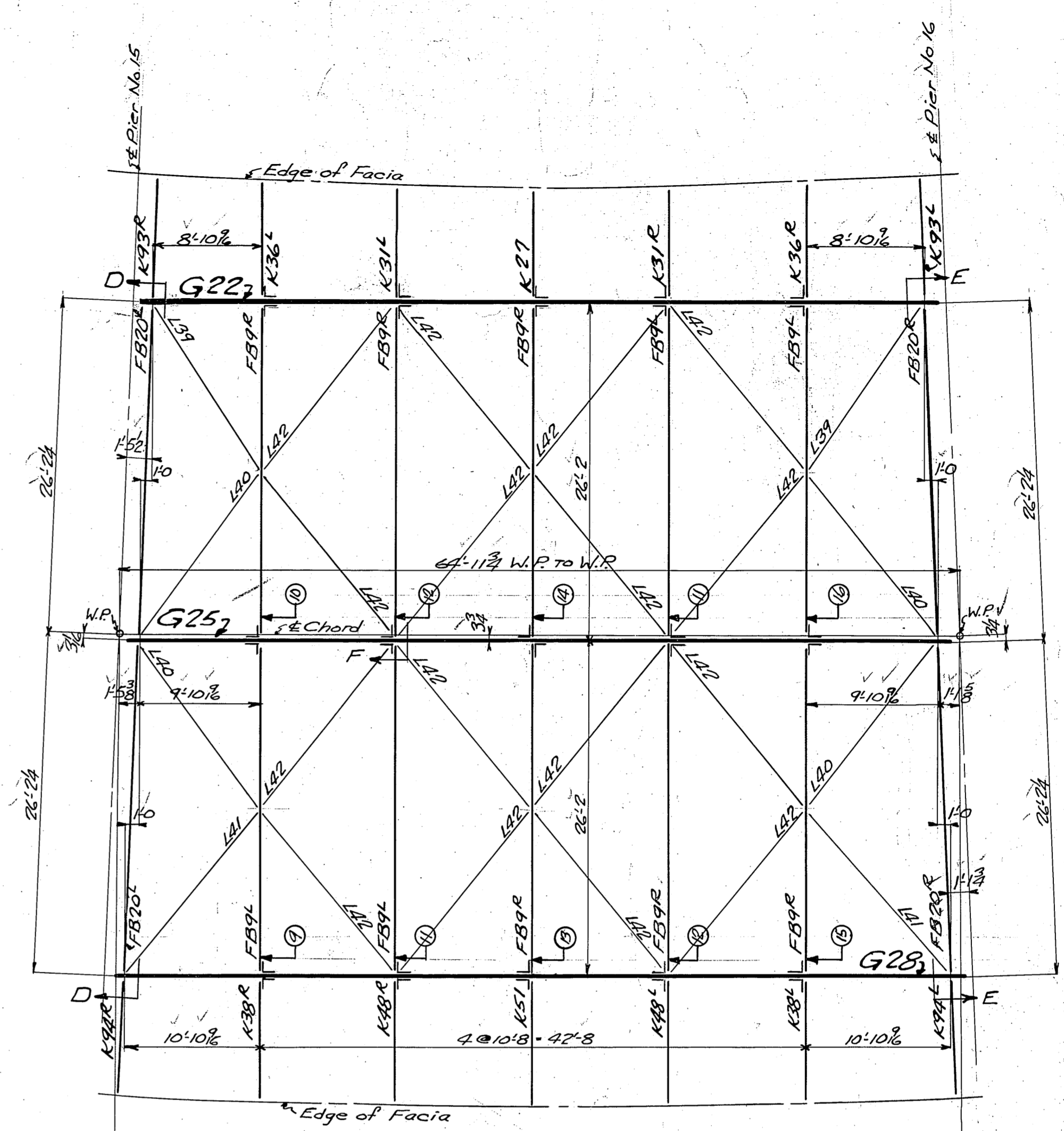
ELEVATION
SPAN 14-15



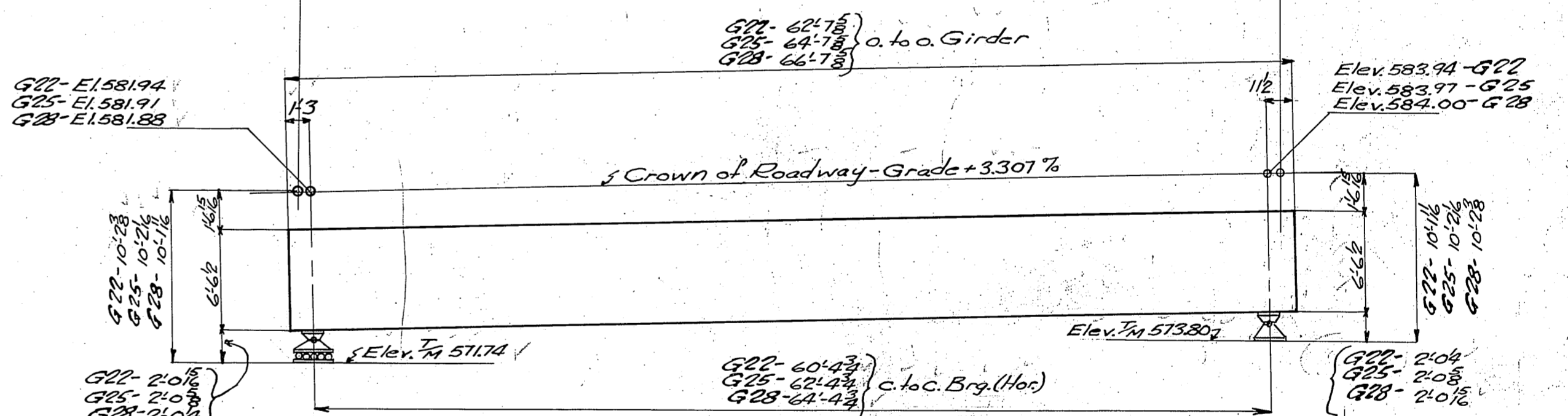
SEC. AA & BB



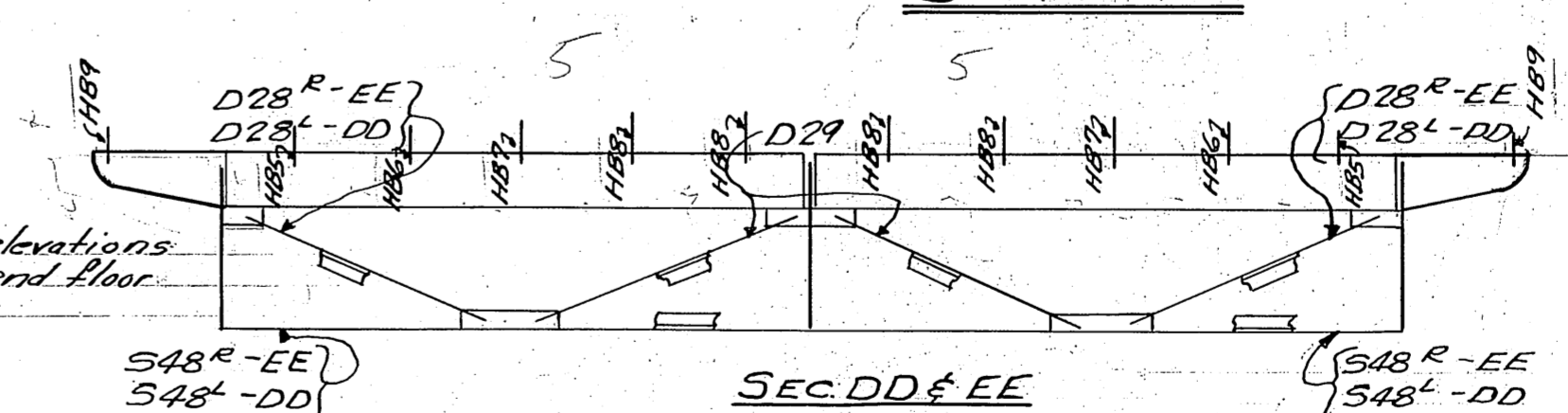
SEC. DD & EE



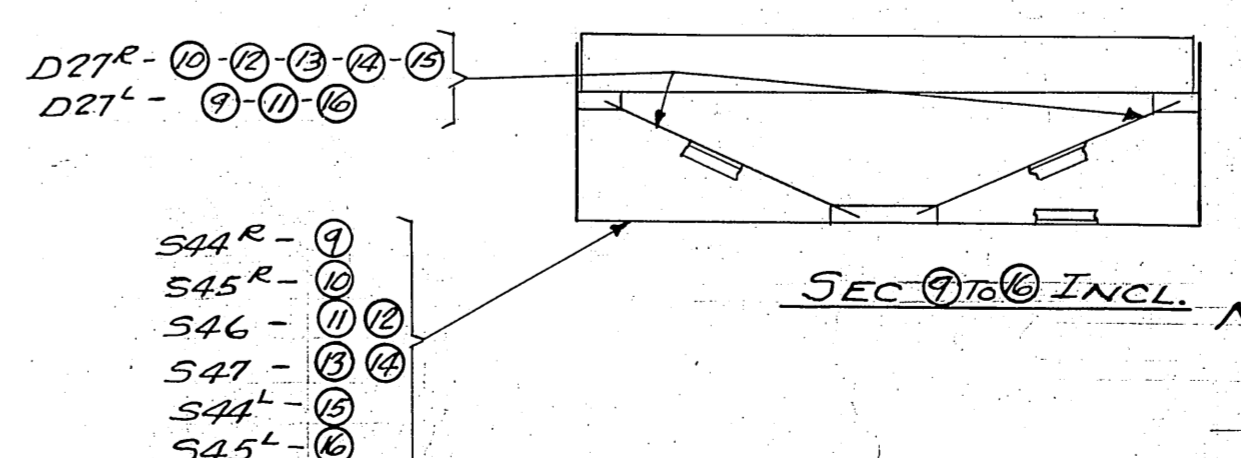
PLAN



ELEVATION
SPAN 15-16



SEC. DD & EE

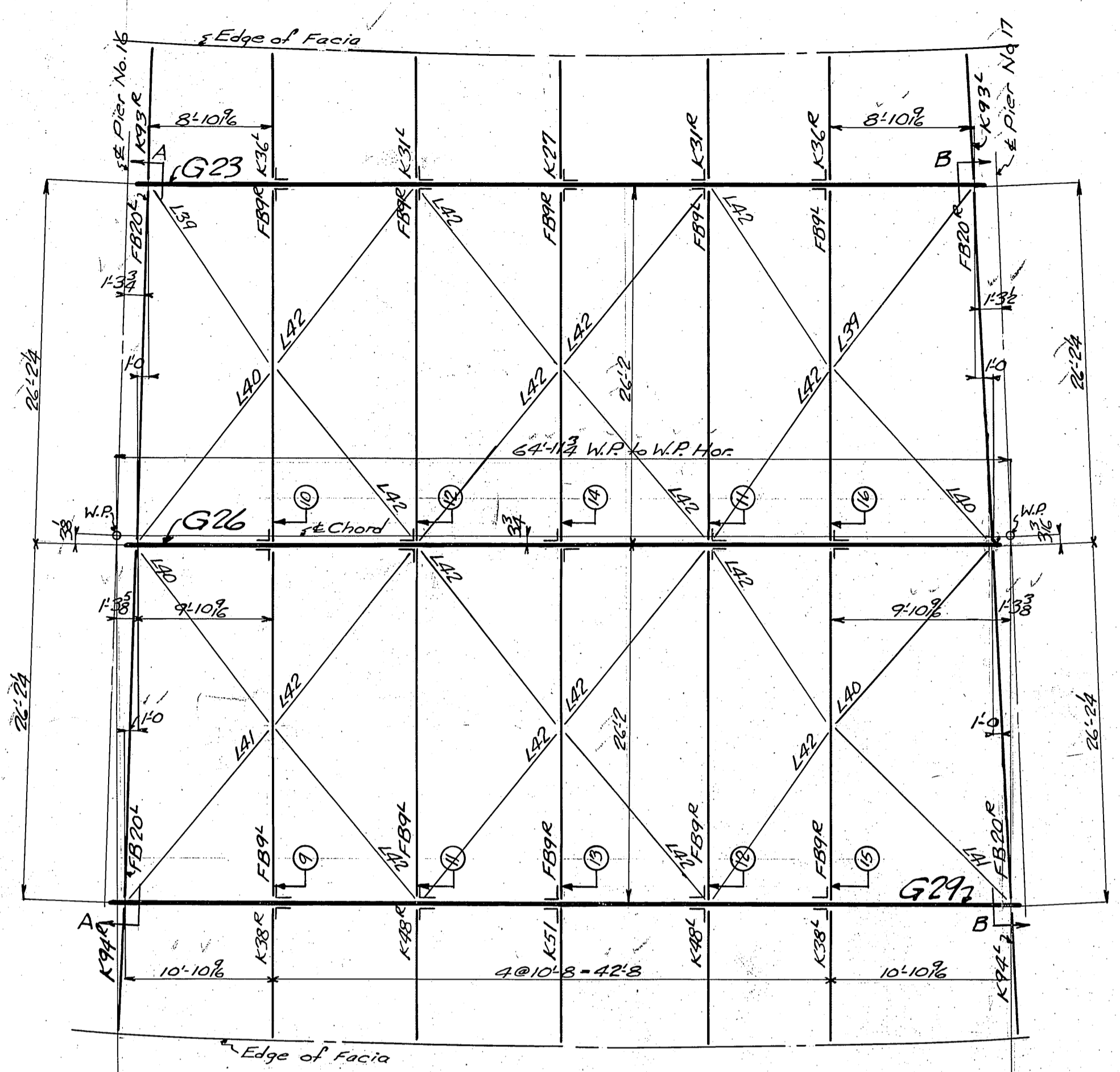
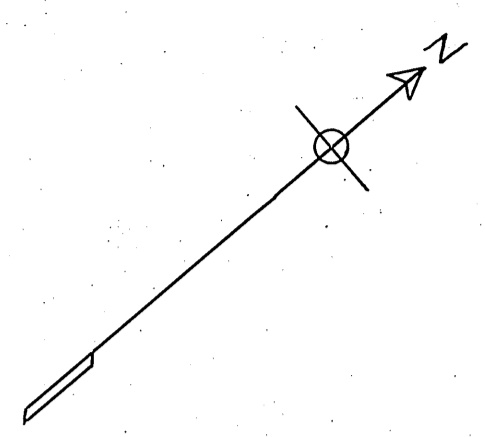


SEC. DD & EE INCL.

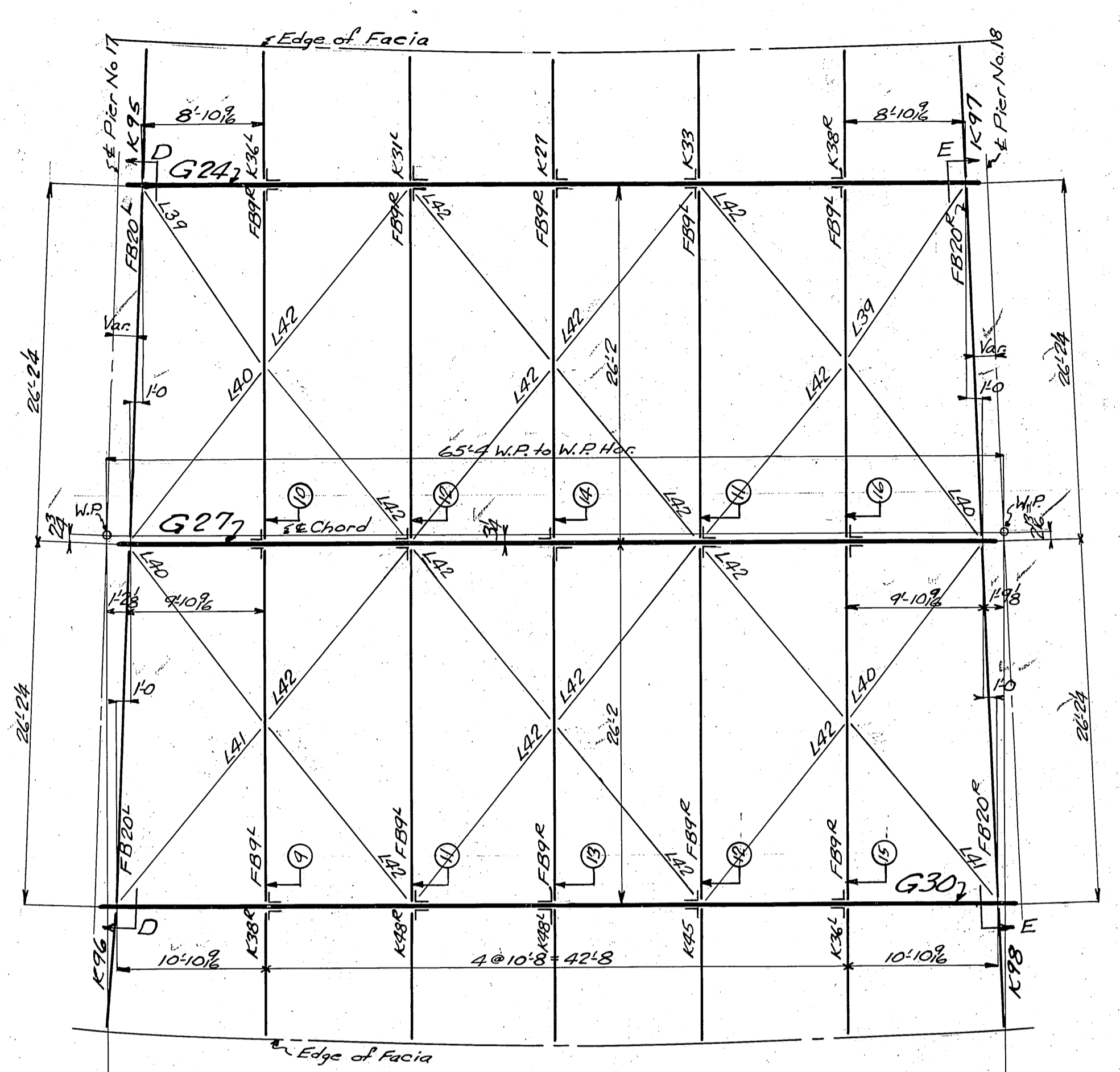
Note:
For typ. sec. showing elevations
of book bolts above and floor
beams see sheet E5

NOTE
For general notes see Diagram E1
Piers 14 to 15 - Instal. # 8
Piers 15 to 16 - " # 9

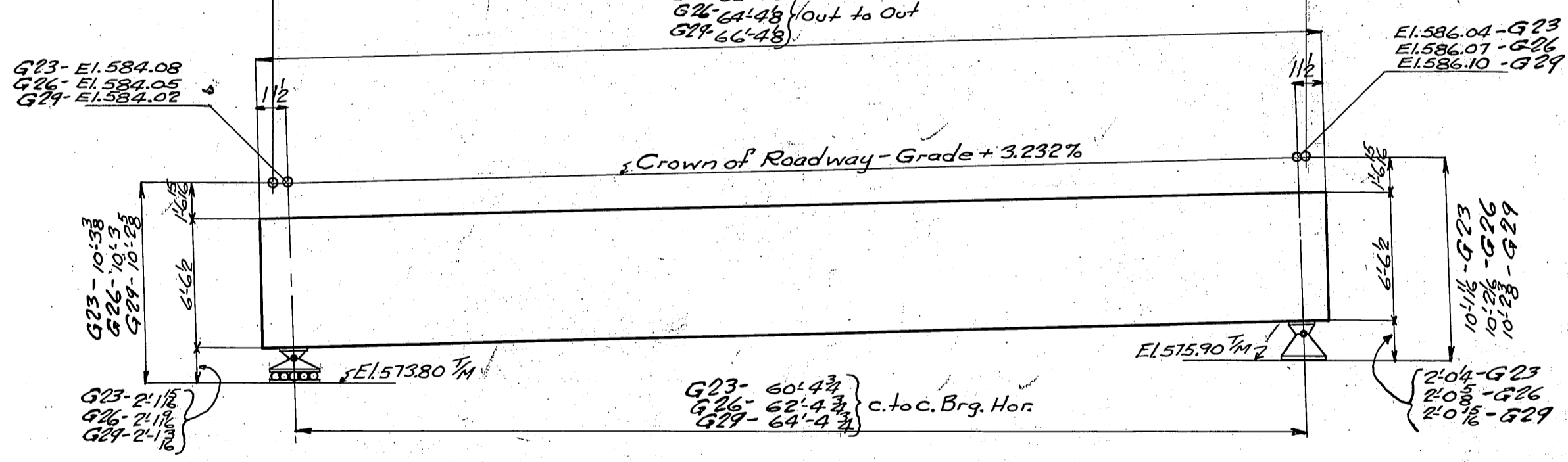
ERECTION DIAGRAM - SPANS 14-15; 15-16	
TEMP.	COLUMBIA AVENUE VIADUCT
SURT.	CINCINNATI, OHIO
SHOWS	CITY OF CINTL. - DEPT. PUBLIC WORKS
DES. BY	BETHLEHEM STEEL COMPANY
CHKD. BY	FABRICATED STEEL CONSTRUCTION
INSP.	Plant of Bethlehem - Fabrication at
ERECT.	IN CHARGE BORN
D. INSP.	CHECKED BY G.S. 12/14/36
	REVISOR G.S. 12/14/36
	FACT ASSEMBLY



PLAN

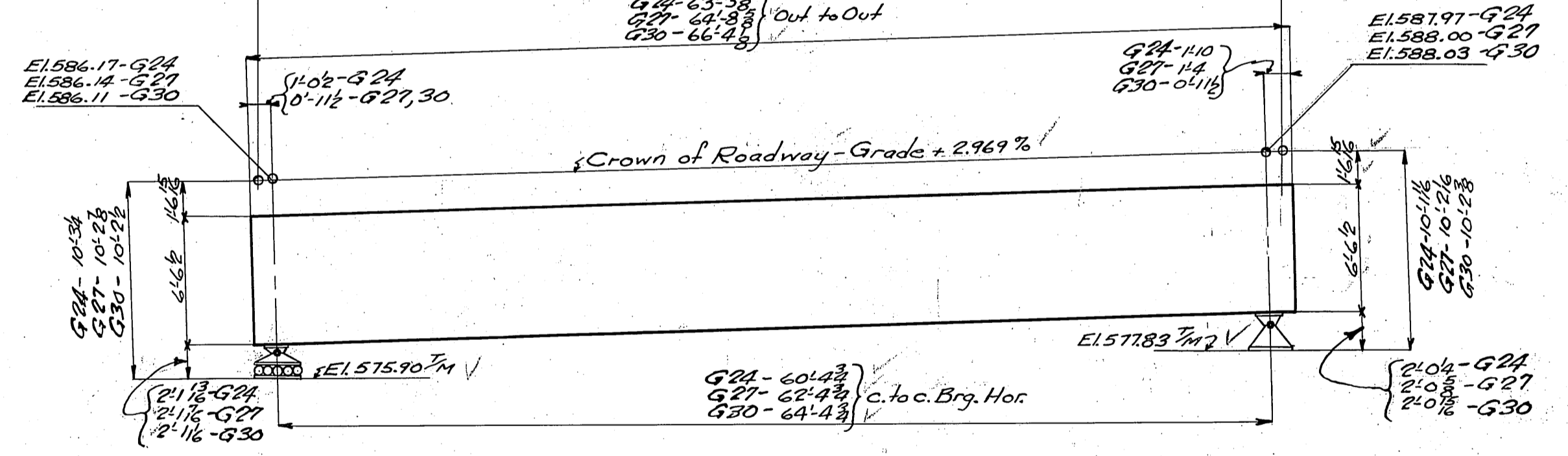


PLAN



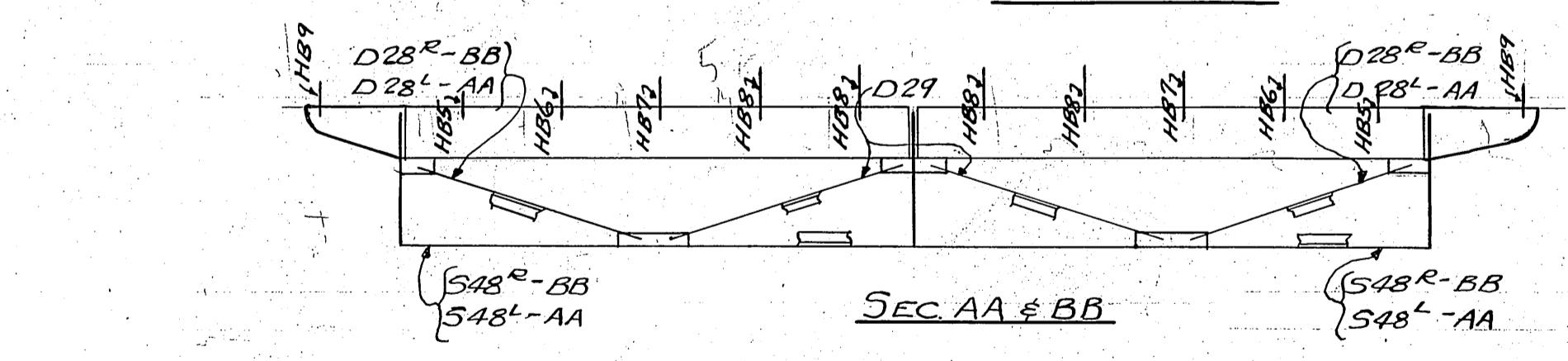
ELEVATION

SPAN 16-17

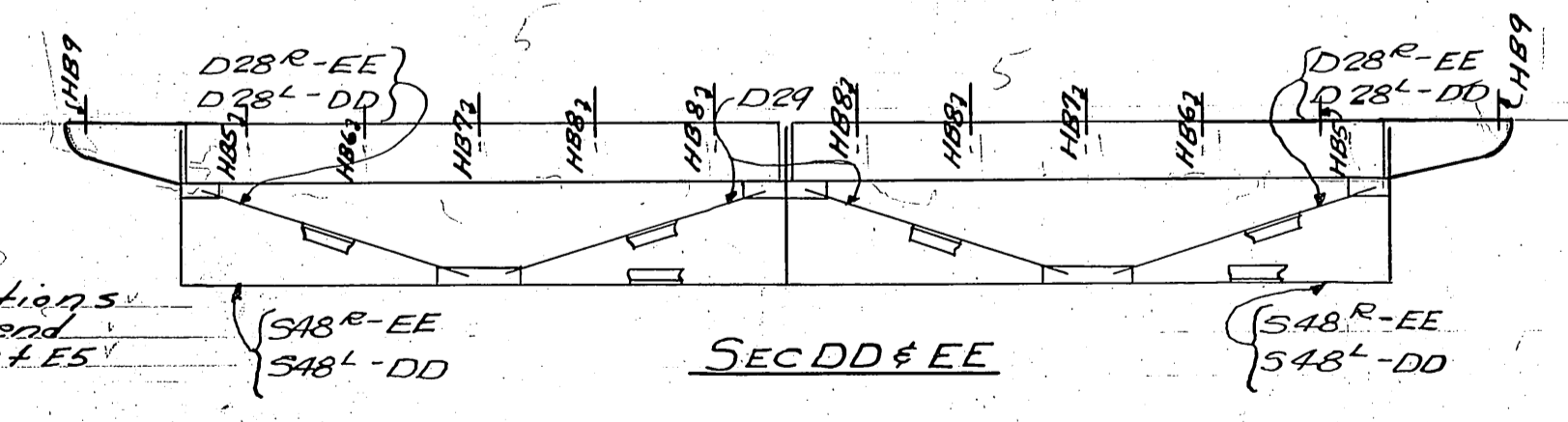


ELEVATION

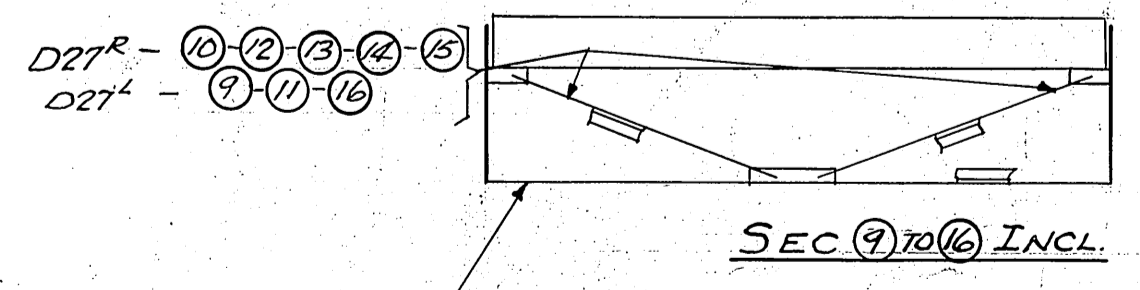
SPAN 17-18



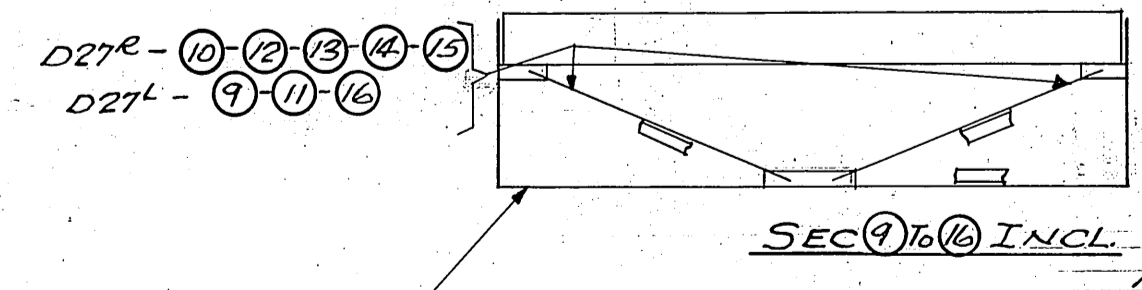
SEC AA & BB



SEC DD & EE



SEC (9) TO (10) INCL



SEC (9) TO (10) INCL

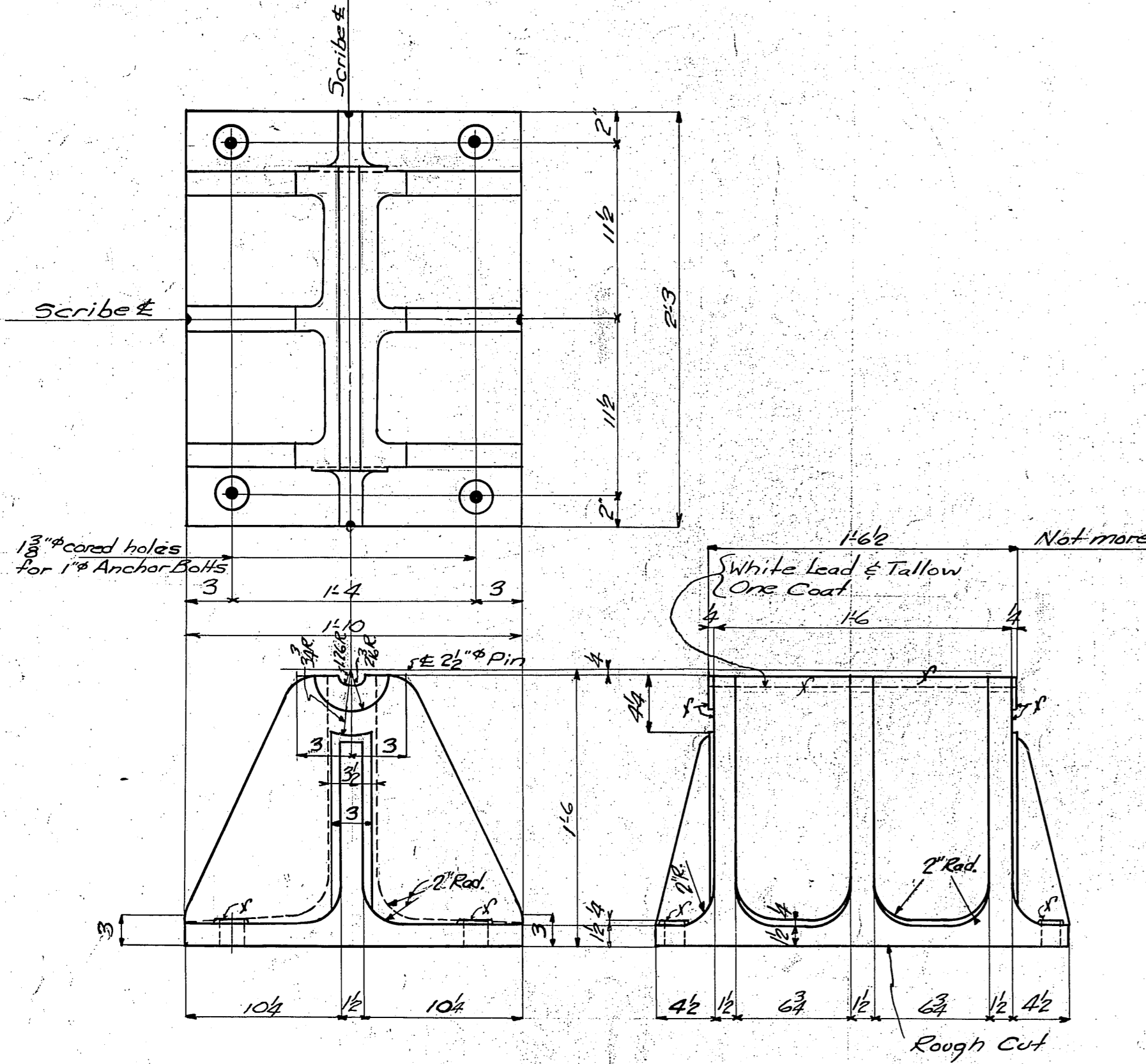
Note: For the sec. of elevations of Hook Bolts above and of floor beams see Sheet E5.

NOTE For general notes see Diagram E1 Installation No. 9

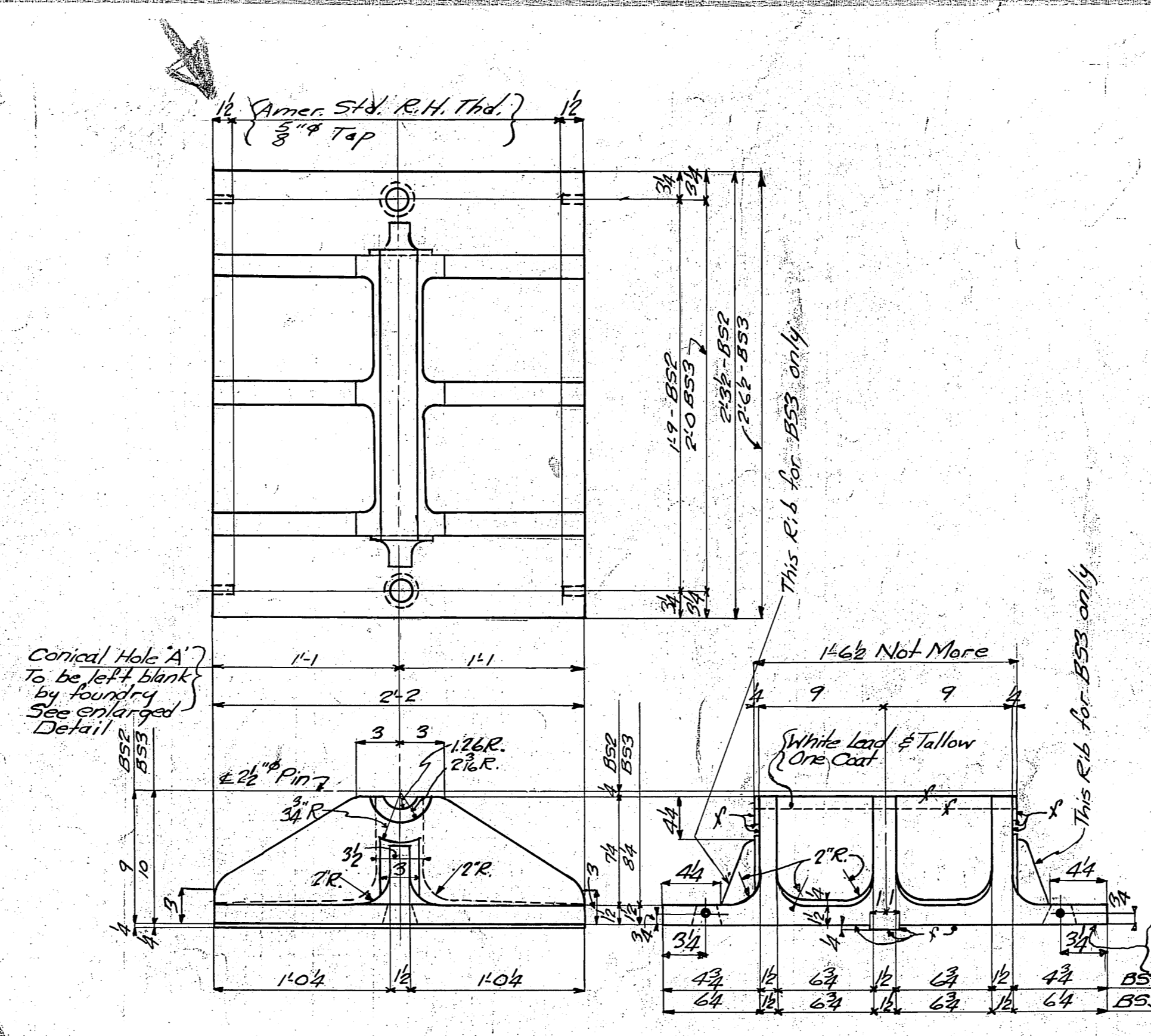
- 544^R- (9)
- 545^R- (10)
- 546^R- (11)
- 547^R- (12)
- 544^L- (13)
- 545^L- (14)

- 544^R- (9)
- 545^R- (10)
- 546^R- (11)
- 547^R- (12)
- 544^L- (13)
- 545^L- (14)

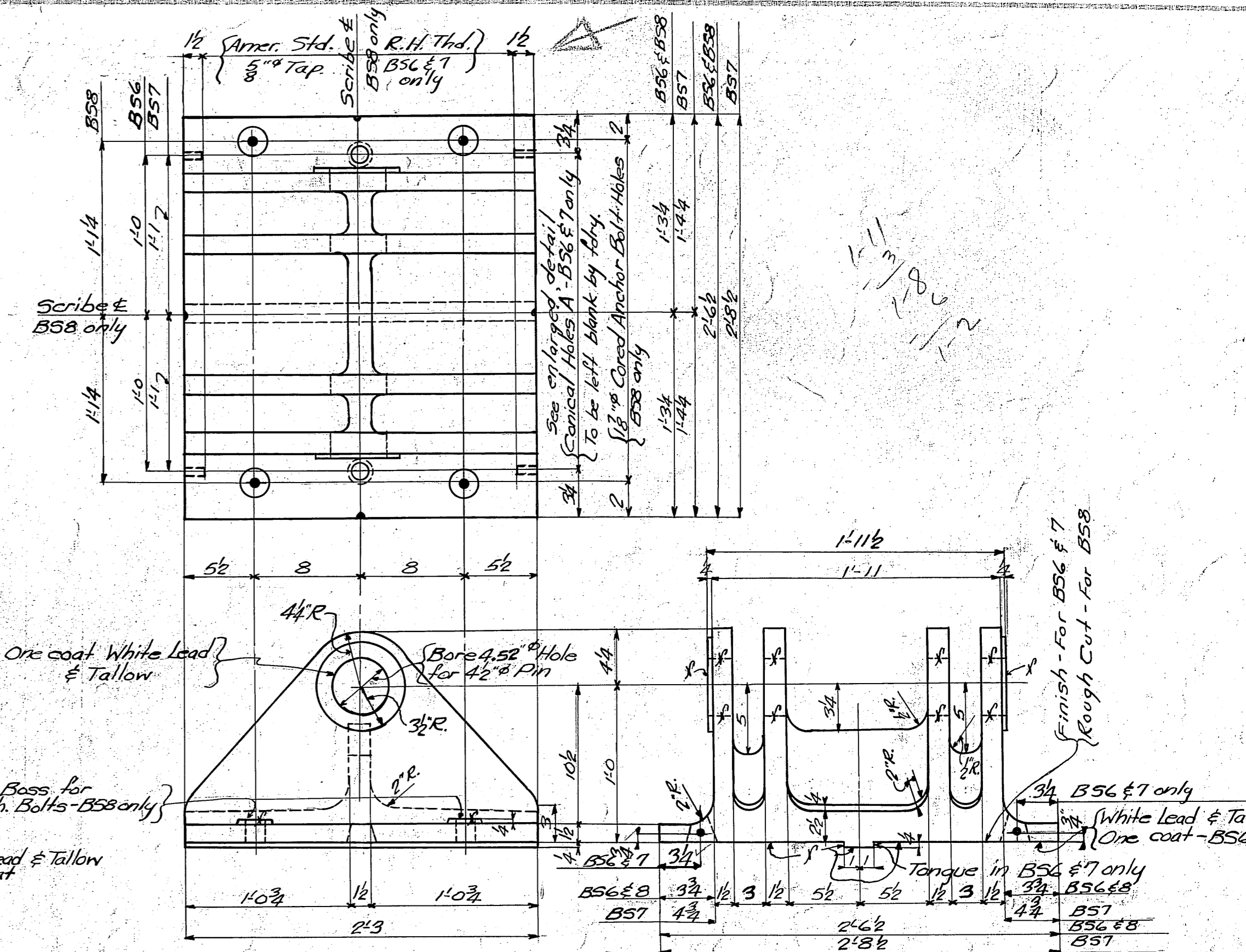
ERECTION DIAGRAM-SPANS 16-17; 17-18	
DATE	COLUMBIA AVENUE VIADUCT
PROJECT	CINCINNATI, OHIO
BY	CITY OF CINTI-DEPT. PUBLIC WORKS
SCALE	BY THE STEEL COMPANY
APPROVED	FABRICATED STEEL COMPANY
DRAWN	Drawings of Panels - Fabricated at
IN CHARGE	BORN
CHECKED	BY G.S. 7/4/37
DESIGNED	BY G.W. 12-16-36
	TRUSTED BY G.W. 12-16-36
	LAST ASSIGNED
	CC 2587



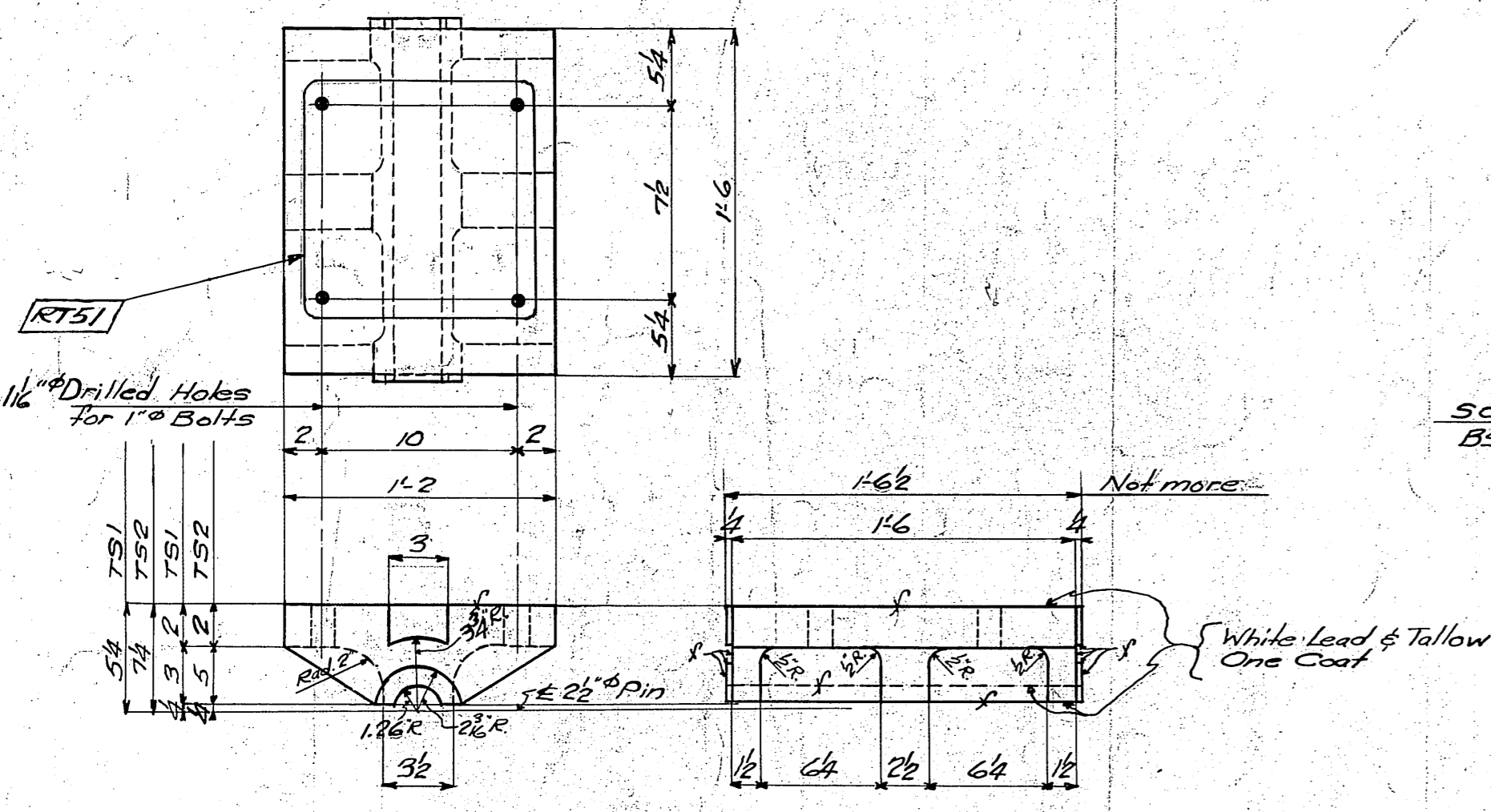
BOTTOM SHOE - B51 - FIXED GIRDER SPANS



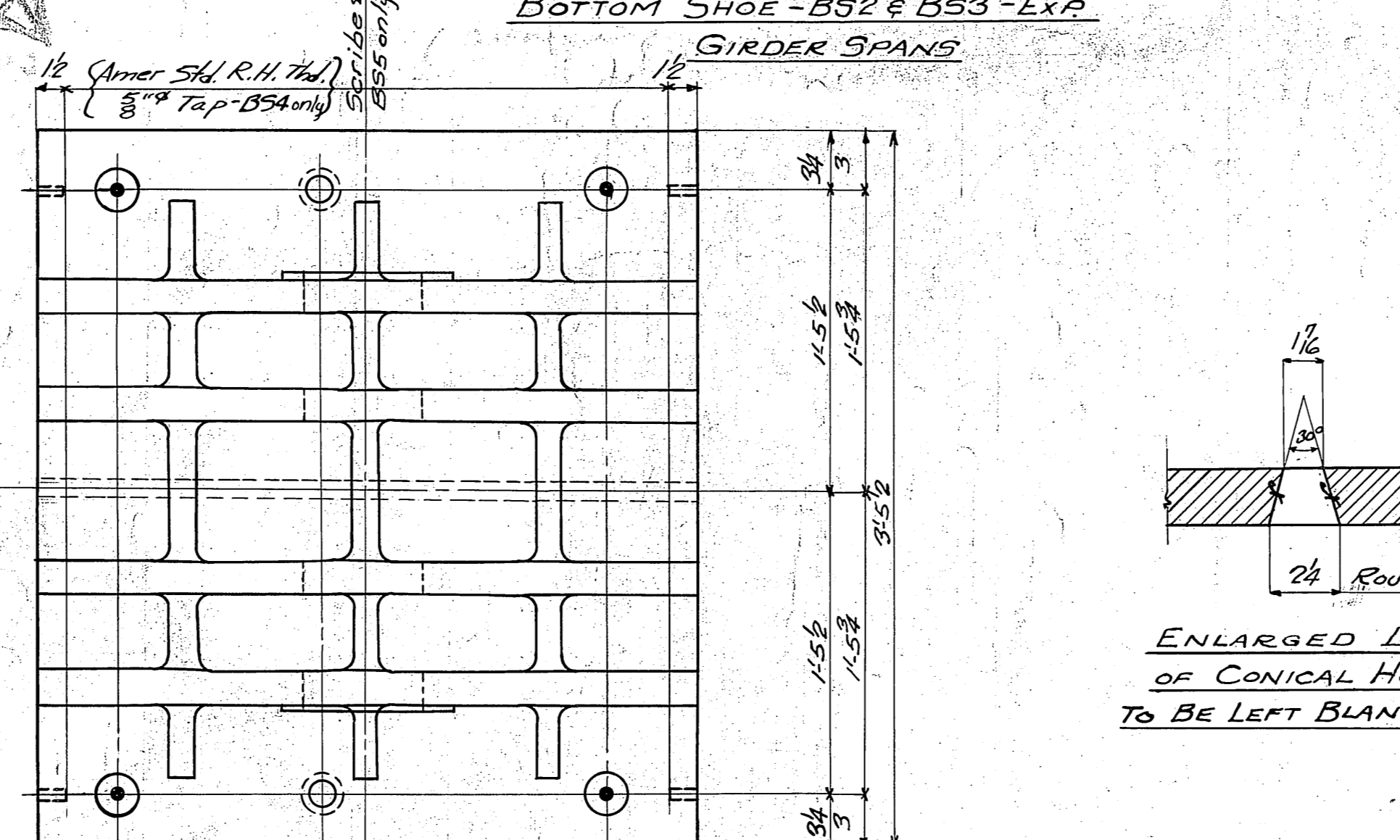
BOTTOM SHOE - B52 & B53 - EXP GIRDER SPANS



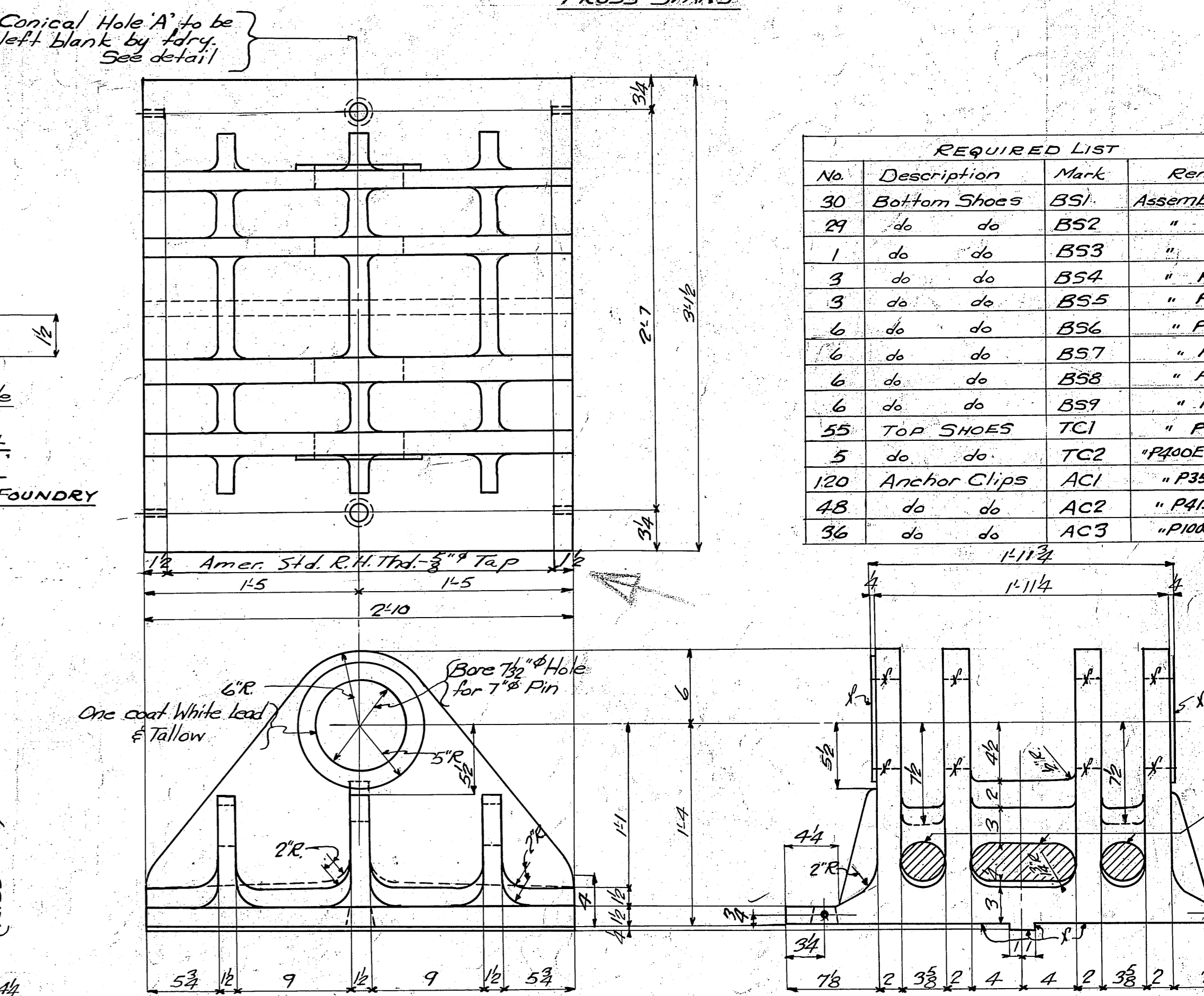
BOTTOM SHOES B56 & B57 (EXP) - B58 (FIXED) TRUSS SPANS



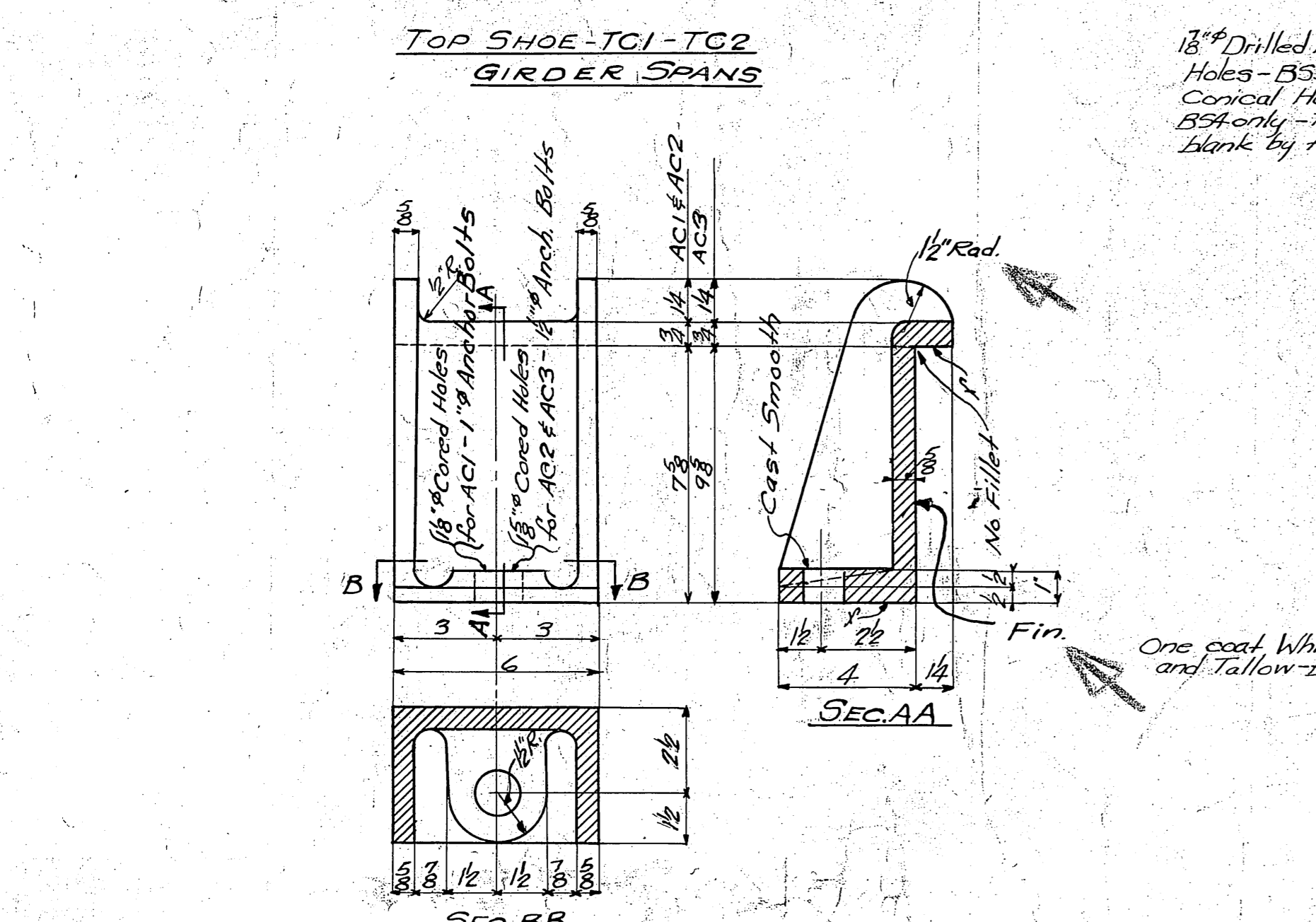
TOP SHOE - TC1 - TC2 GIRDER SPANS



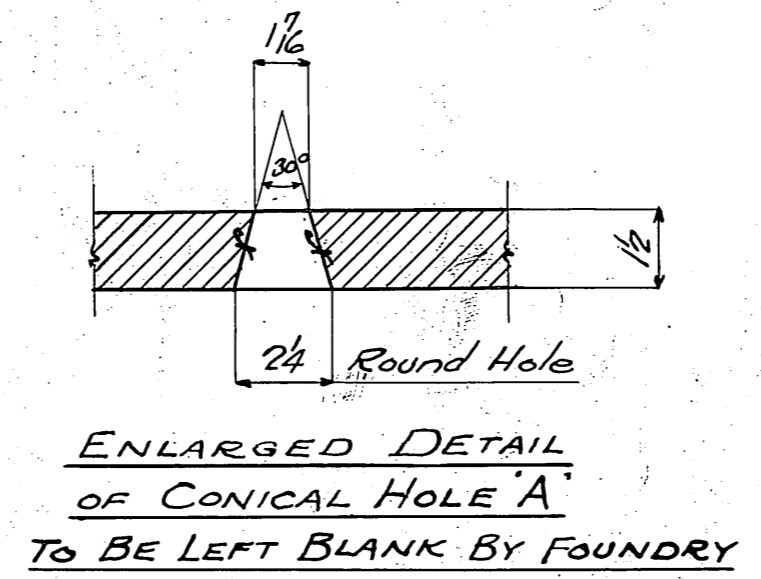
BOTTOM SHOES B54 (EXP) & B55 (FIXED) TRUSS SPANS



BOTTOM SHOE B59 (EXP) TRUSS SPANS



ANCHOR CLIPS AC1-2-3

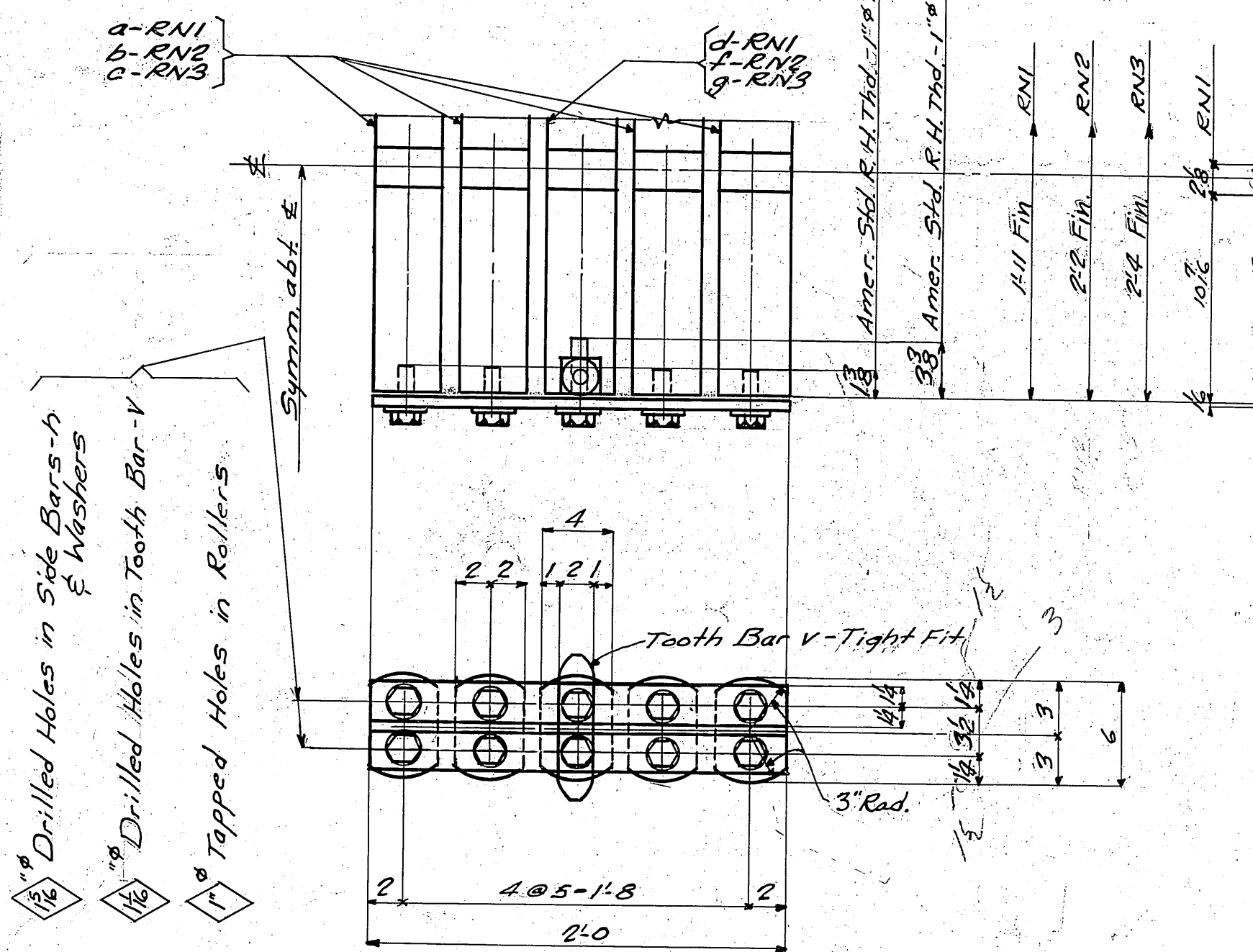


ENLARGED DETAIL OF CONICAL HOLE A TO BE LEFT BLANK BY FOUNDRY

REQUIRED LIST			
No.	Description	Mark	Remarks
30	Bottom Shoes	B51	Assembly P350F
24	do	B52	" P350EA
1	do	B53	" P400E
3	do	B54	" P4350E
3	do	B55	" P4350F
6	do	B56	" P415E
6	do	B57	" P415E
6	do	B58	" P415F
6	do	B59	" P400E
55	TOP SHOES	TC1	" P350EA
5	do	TC2	" P400E-350EB
120	Anchor Clips	AC1	" P350EA
48	do	AC2	" P415E & 410
36	do	AC3	" P400E & P350F

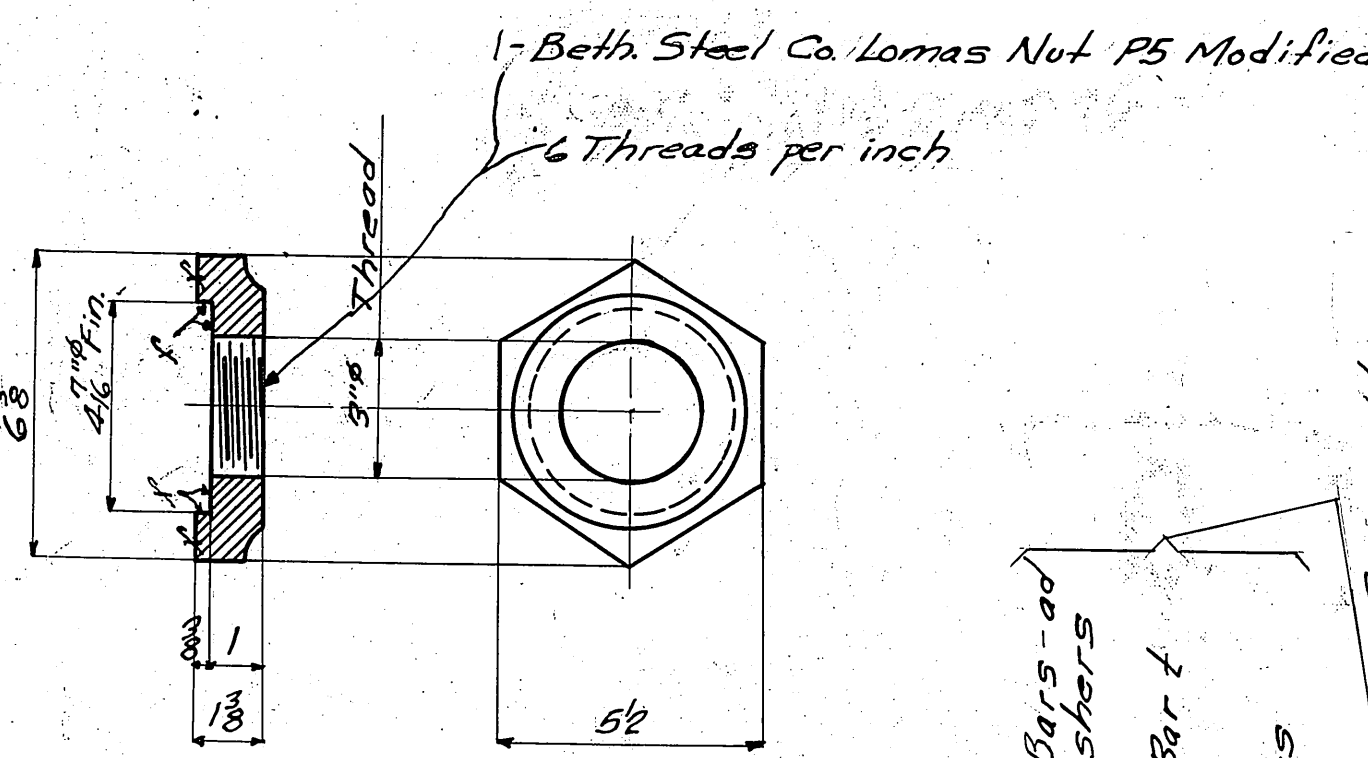
GENERAL NOTES
 Open Holes - As noted
 Material - Cast Steel Annealed
 A.S.T.M. - A27-24 Class B
 Medium grade
 Paint - One coat Red Lead except where noted
 Foundry Note: Tap holes, conical holes and drilled holes by Rankin

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CIVIL - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at
 H. J. BARNER, BORN 1887, MADE BY G.W. 1-6-37
 CHECKED BY T.J.S. 1/18/37, TRACED BY G.W. do
 REVISIONS: 2/8/37, LAST ASSEM. MK.

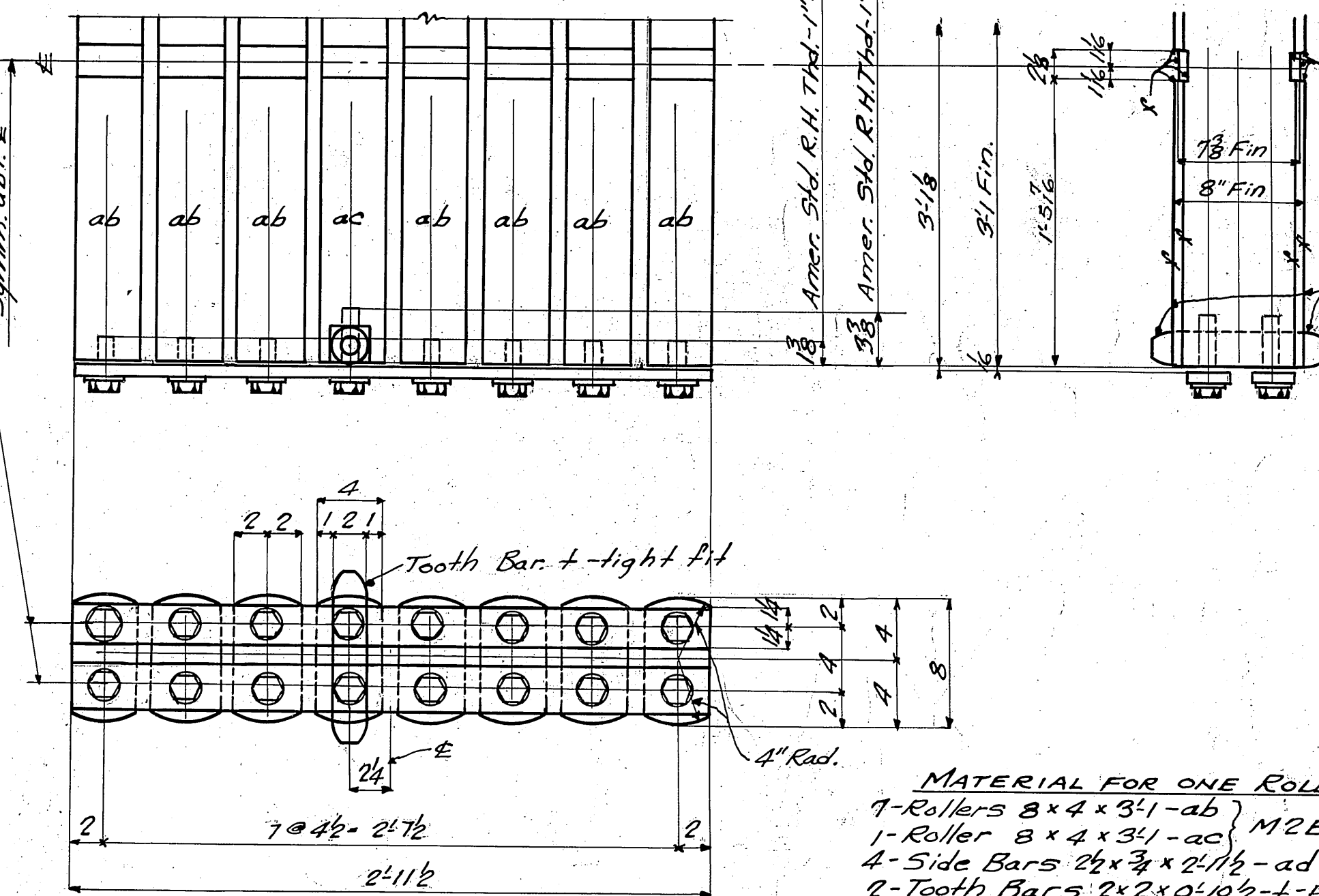


ROLLER NESTS RNI-2-3

MATERIAL FOR ONE ROLLER NEST - RNI-2, OR 3
 4-Rollers 6x4x141-a
 1-Roller 6x4x141-d MZE & M2Edges - For RN1 only
 4-Rollers 6x4x212-b
 1-Roller 6x4x212-f MZE & M2Edges - For RN2 only
 4-Roller 6x4x214-c
 1-Roller 6x4x214-g MZE & M2Edges - For RN3 only
 4-Side Bars 2 1/2 x 3/4 x 210-h
 2-Tooth Bars 2x2x8 1/2 - V-Finish all over
 16-3/4 Tap Bolts 1/2 x 0.25 U.H. Hex. Hd. -k
 4-5/8 Tap Bolts 1 1/2 x 0.50 U.H. Hex. Hd. -m
 10-Washers 2 1/8 x 5/8 Hk.



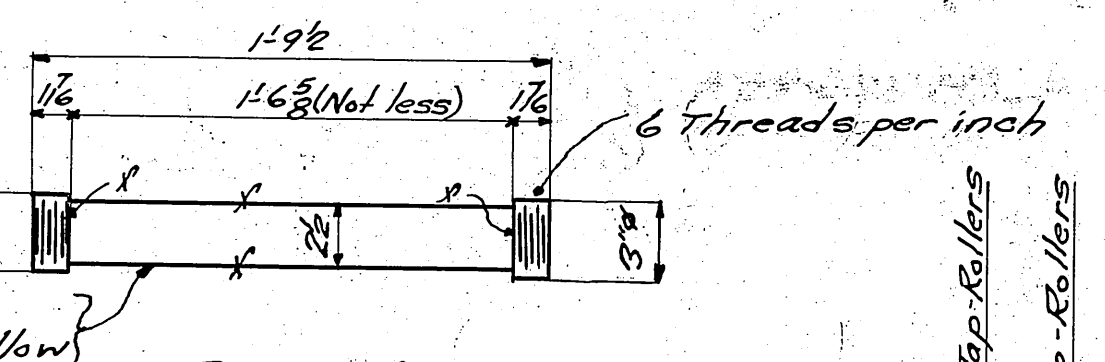
LOMAS NUT P5M
 MATERIAL - CAST STEEL ANNEALED



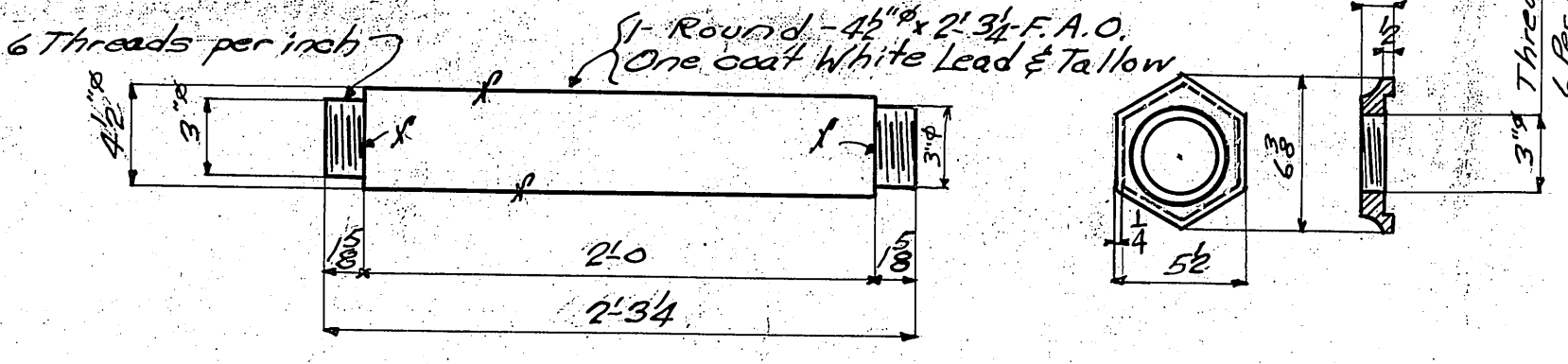
ROLLER NEST - RN5

MATERIAL FOR ONE ROLLER NEST - RN5
 1-Rollers 8x4x34-ab MZE & M2Edges
 1-Roller 8x4x34-ac
 4-Side Bars 2 1/2 x 3/4 x 211 1/2 - ad
 2-Tooth Bars 2x2x10 1/2 - t-Finish all over
 28-3/4 Tap Bolts -m
 4-5/8 Tap Bolts -n
 32-Washers -2 1/8 x 5/8 Hk.

PIN P4

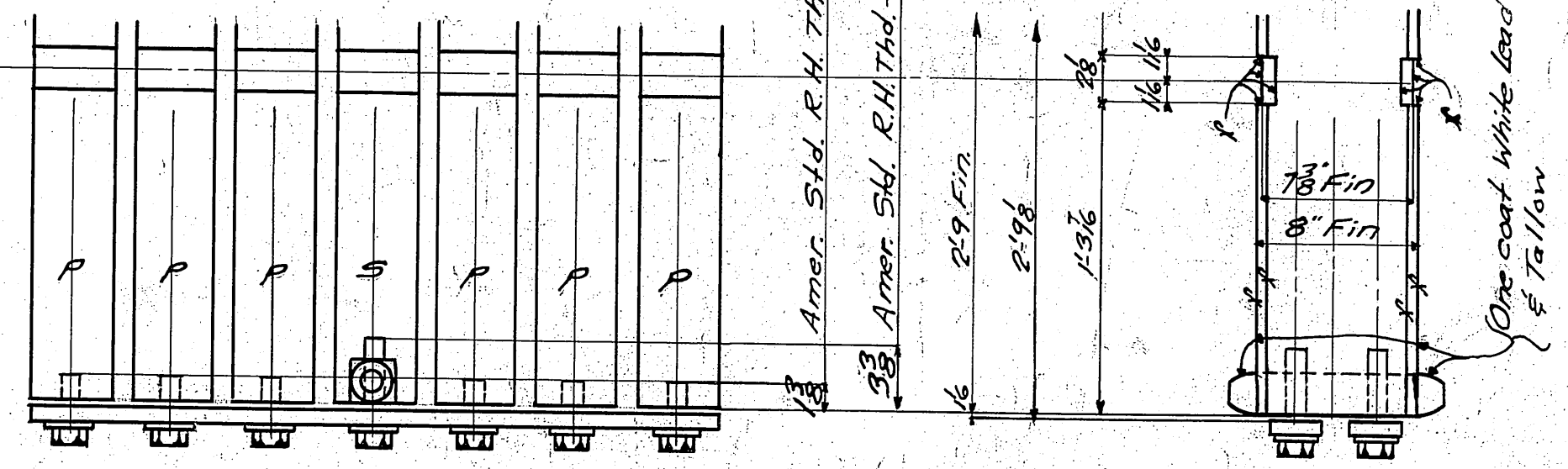


PIN - P1



LOMAS NUT P5
 CAST STEEL ANNEALED
 BETH. STEEL CO. STD.

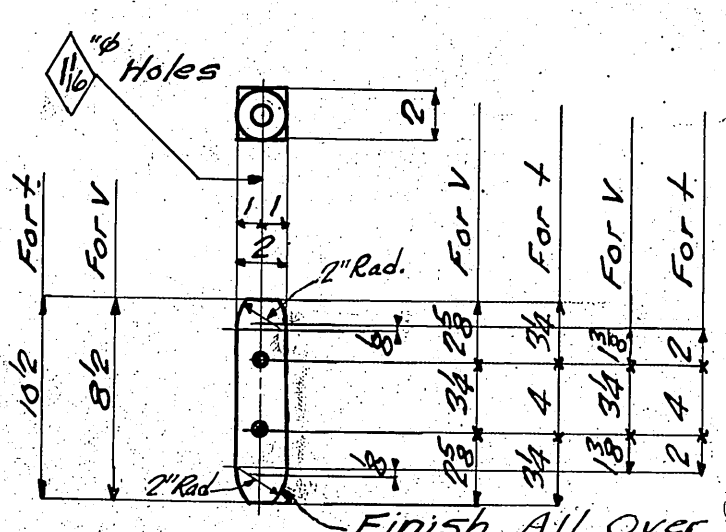
10 1/2 Drilled Holes in Side Bars - h & Washers
 10 1/2 Drilled Holes in Tooth Bar - t
 1 Tapped Holes in Rollers



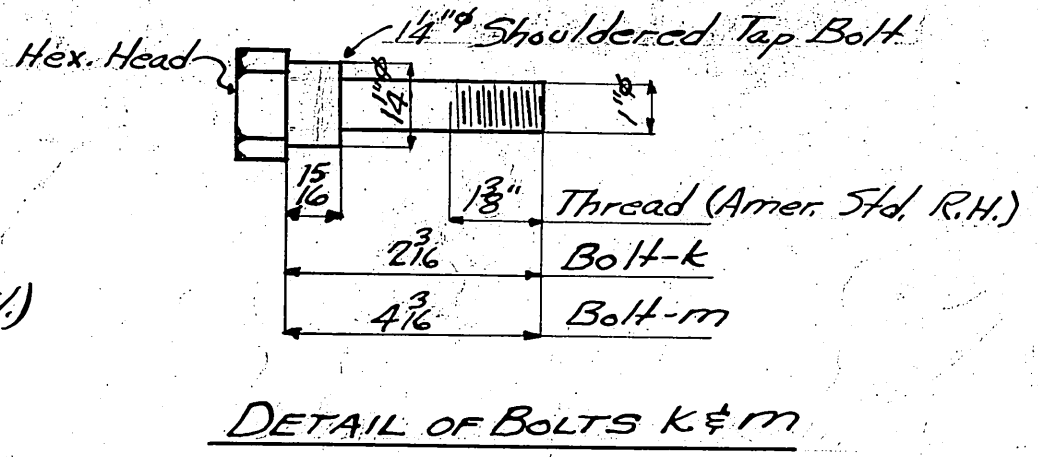
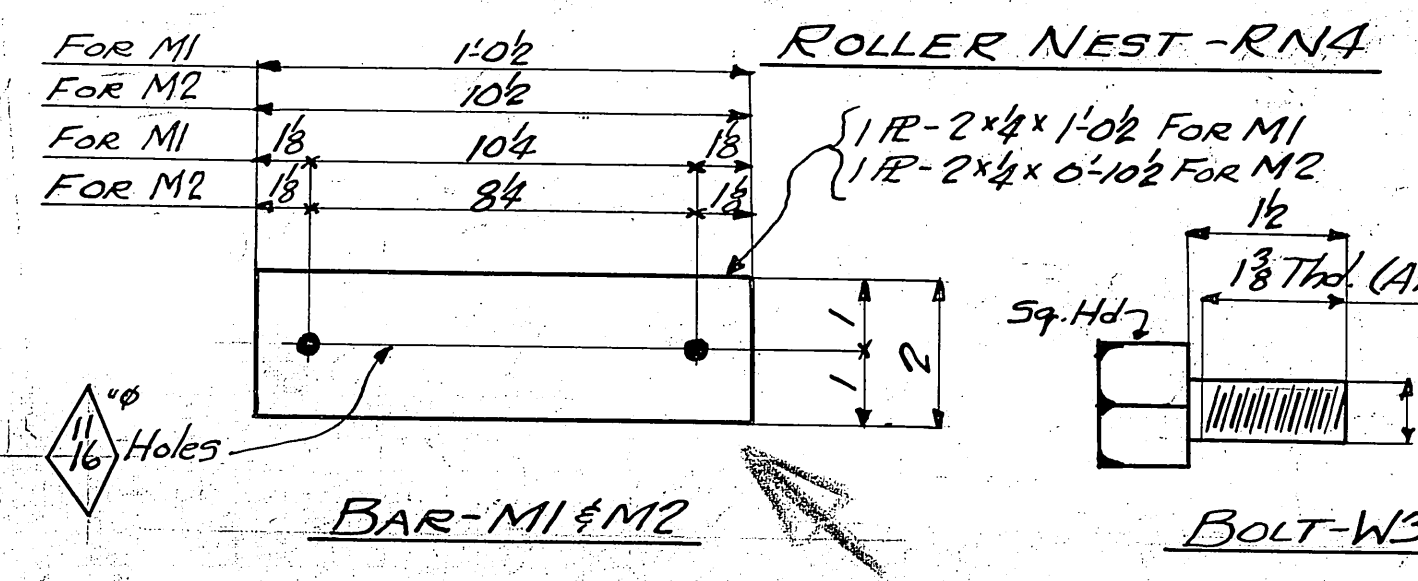
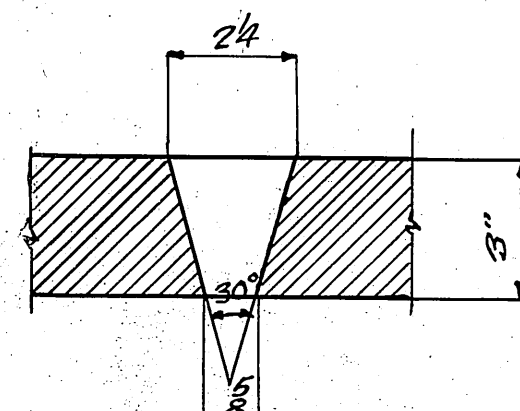
ROLLER NEST - RN4

MATERIAL FOR ONE ROLLER NEST - RN4
 6-Rollers 8x4x214-p
 1-Roller 8x4x214-q MZE & M2Edges
 4-Side Bars 2 1/2 x 3/4 x 217-w
 2-Tooth Bars 2x2x10 1/2 - t-Finish all over
 24-3/4 Tap Bolts -k
 4-5/8 Tap Bolts -m
 28-Washers 2 1/8 x 5/8 Hk.

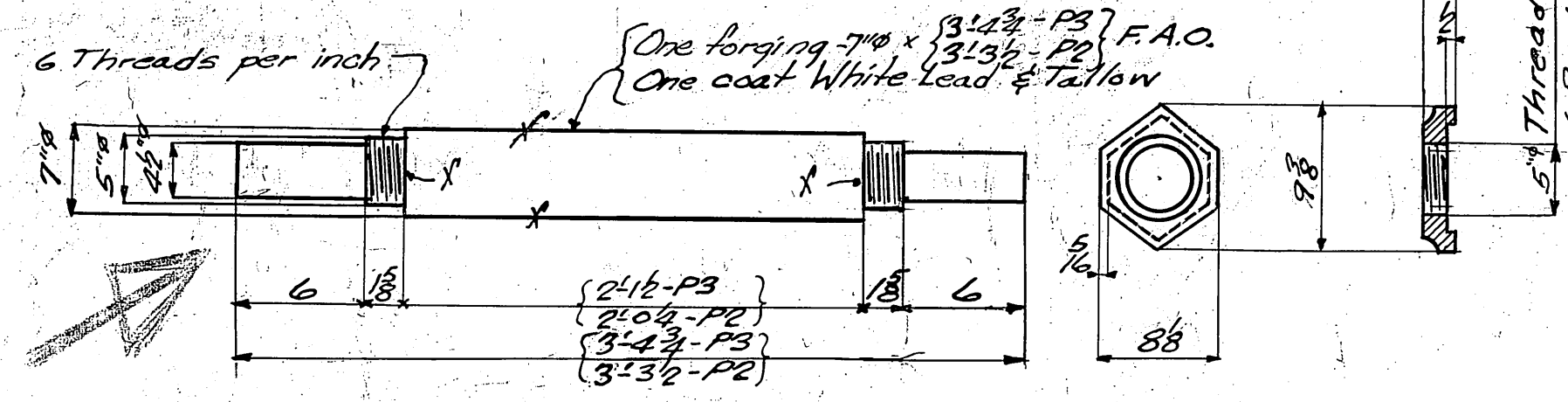
ENLARGED DETAIL OF TOOTH BARS V & t



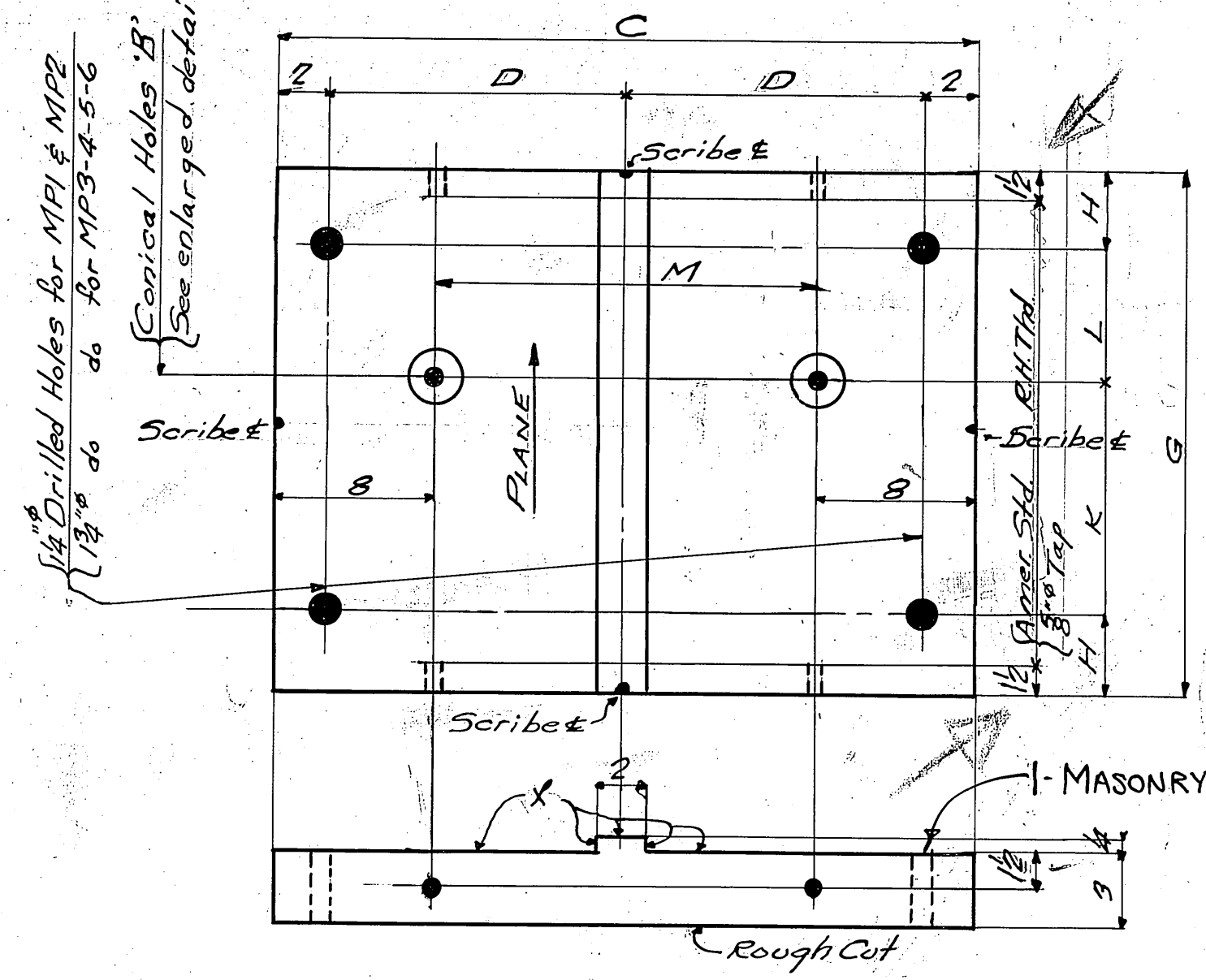
ENLARGED DETAIL CONICAL HOLE 'B'



DETAIL OF BOLTS K & M



PINS P2-P3 FORGED STEEL BETH. STEEL CO. STD.
 LOMAS NUT P13 CAST STEEL ANNEALED



MASONRY PLATES MPI-2-3-4-5-6
 SEE TABLE AT RIGHT FOR DIMENSIONS

Dimensions of Masonry R's	C	D	G	H	K	L	M
MPI	3/4	1 1/4	2/4	5	8	8	1 1/4
MP2	3/4	1 1/2	2/2	5	8	8	2/4
MP3	3/4	1 1/2	2/3	5 1/2	8	8	2/4
MP4	3/4	1 1/2	2/3	5 1/2	8	8	2/2
MP5	3/4	1 1/2	2/2	5	10	10	2/2
MP6	3/4	1 1/2	3/2	6	1 3/4	1 3/4	2/1

REQUIRED LIST

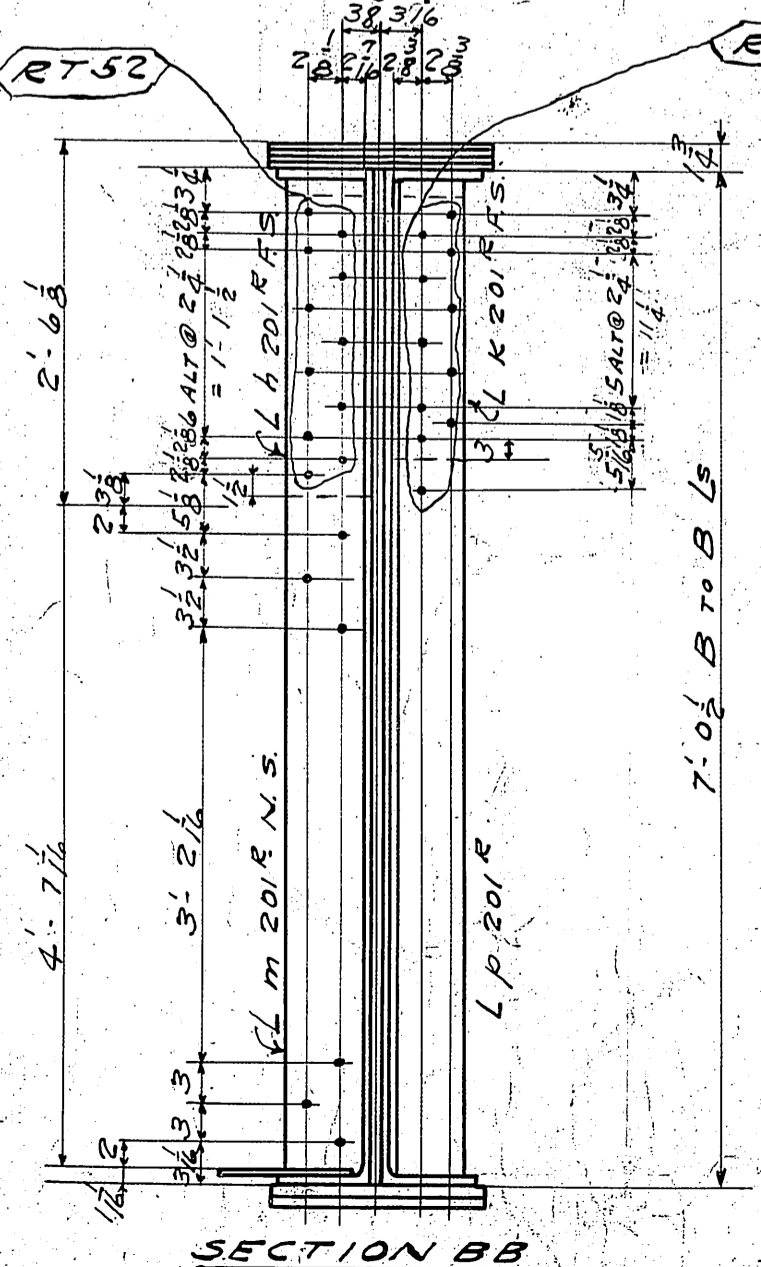
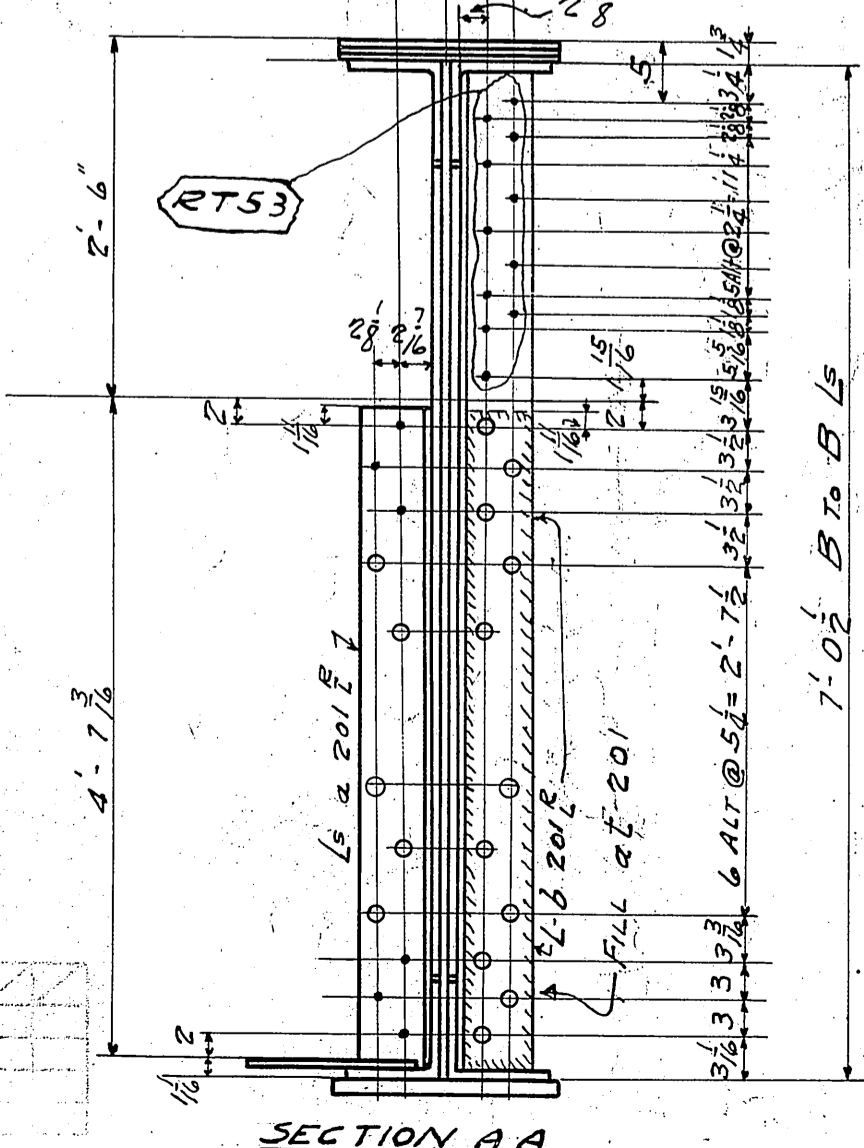
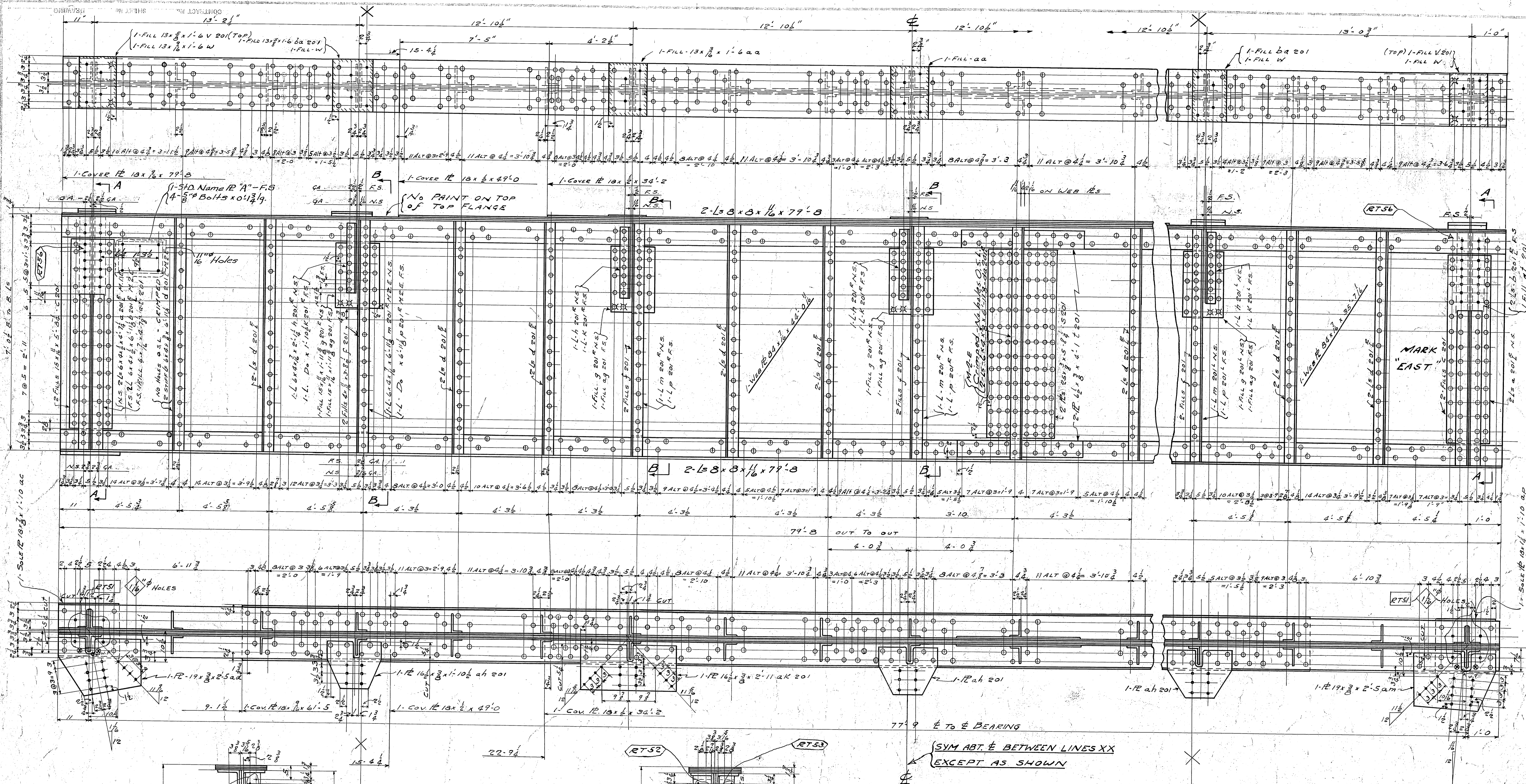
No	DESCRIPTION	MARK	REMARKS
408	Bolts	W3	To fasten Bars M1 & M2
29	Roller Nests	RNI	P350EA & EB
7	"	RN2	P400E
6	"	RN3	P460E
6	"	RN4	P1000E
3	"	RN5	P1350E
29	Masonry Plates	MPI	P350E
1	"	MP2	P400E
6	"	MP3	P415E
6	"	MP4	P460E
6	"	MP5	P1000E
18	Pins	P1	PA5E-F & PA60E
6	"	P2	P1000E
6	"	P3	P1350E-F
60	"	P4	P350 & P400
36	Beth Lomas Nuts	P5	PA5E-F & PA60E
120	Beth Lomas N Mod	P5M	PA5E-F & PA60E
24	Beth Lomas Nuts	P13	P1000E-P1350E-F
3	Masonry Plates	MP6	P1350E
36	Bars	M1	
168		M2	

NOTES
 Open Holes - As noted
 Material Carbon steel A.S.T.M.
 A7-34 with 3% Copper
 Paint - One coat Red lead except where noted. Shop contact surfaces not painted.
 Shop Note - Assemble Roller Nests, Masonry R's, Pins & Nuts with casing on Shop in shop as shown on E2-3 and 4.

ROLLER NESTS - MAS. RS - PINS & NUTS

COLUMBIA AVE. VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTI. DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 DRAWINGS BY G.W. 1-11-37
 CHECKED BY G.W. 1-12-37
 REVISED BY G.W. 1-12-37

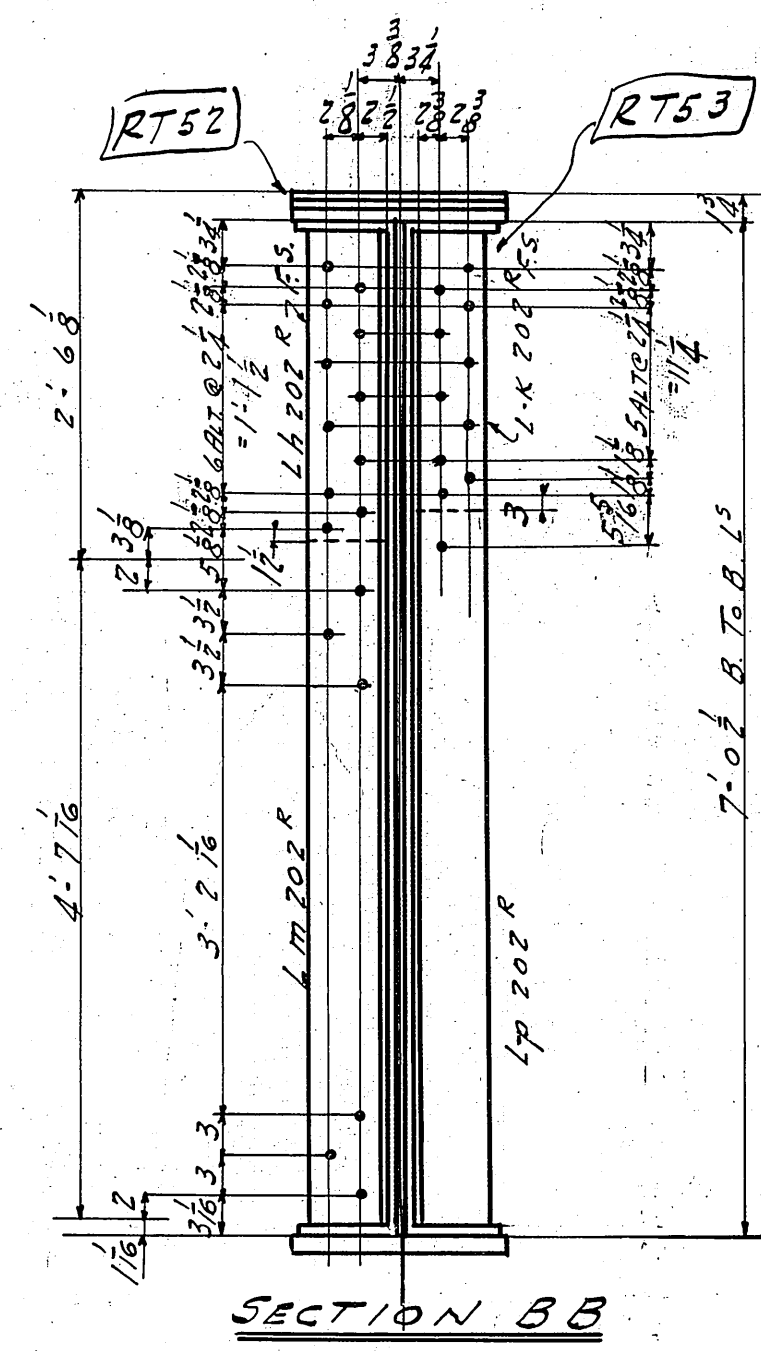
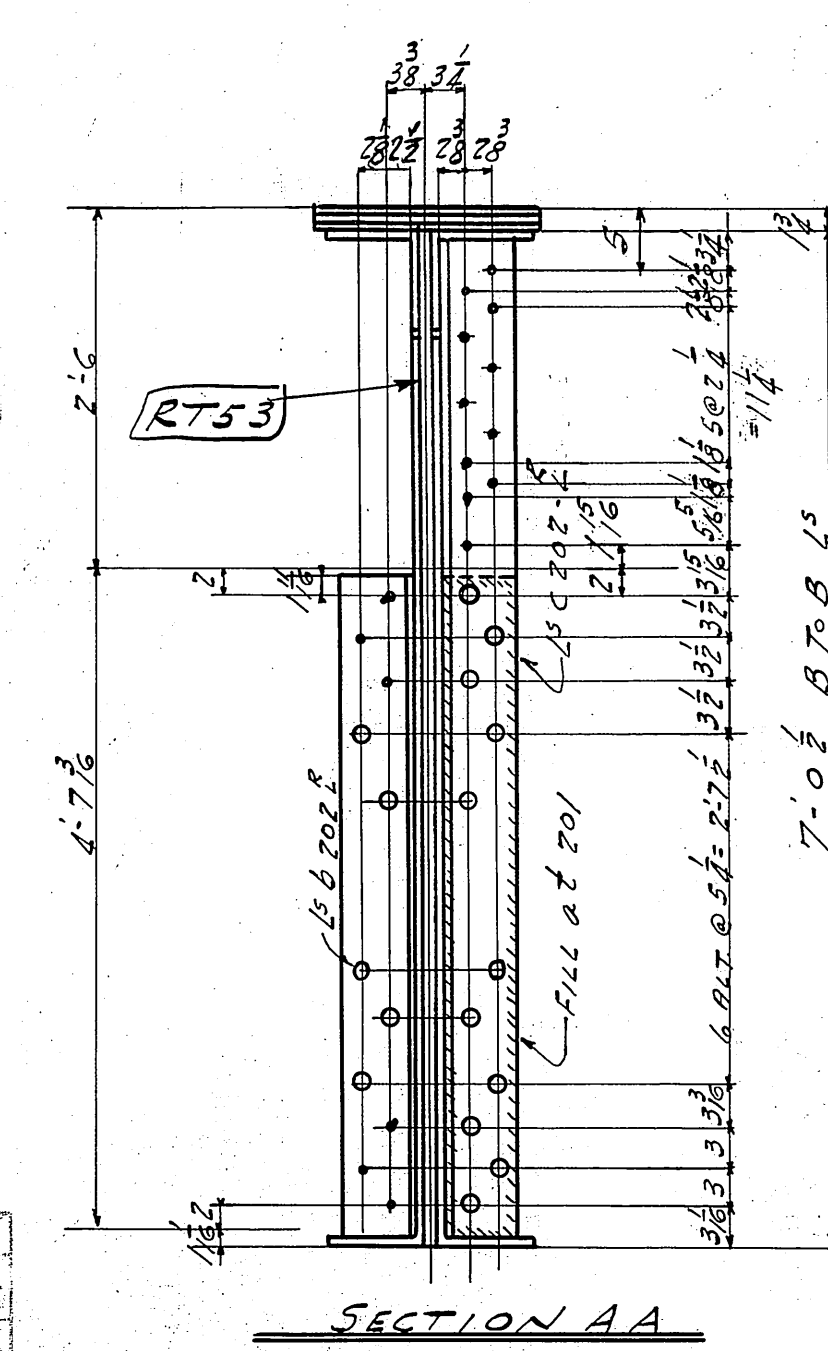
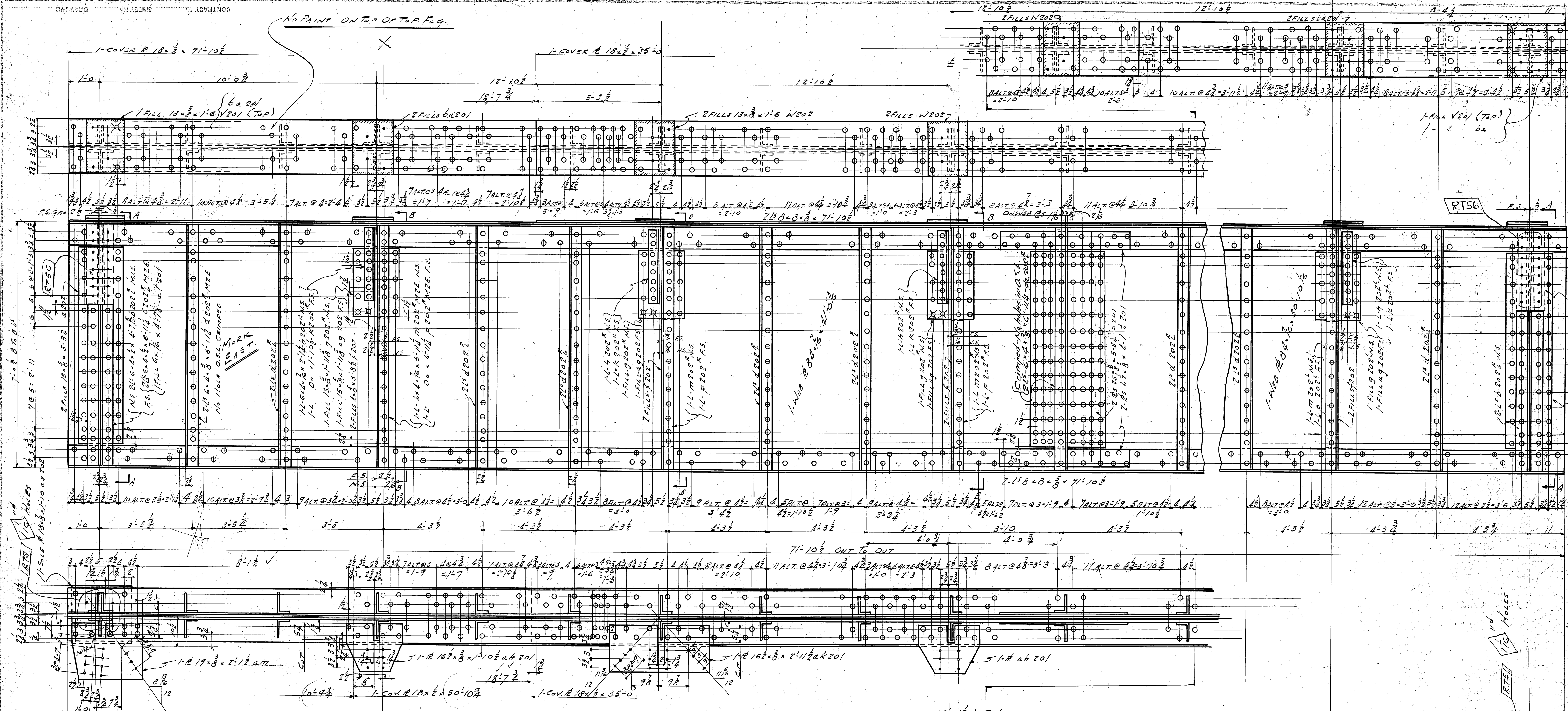


GIRDER G1

NOTE: SEPARATION BETWEEN CONNECTION ANGLES MUST BE MAINTAINED.

- GENERAL NOTES:**
- RIVETS: - 3/8"
 - OPEN HOLES: - 1/8" UNLESS NOTED
 - MATERIAL: Carbon steel A.S.T.M. A7-34 with 2% copper content, except where noted. All holes may be punched full size.
 - REAMING: (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template. (b) Field connections of trusses shall be subpunched and reamed after truss is assembled. (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size. (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 - SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 - FLAME CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance. One coat of RED LEAD except where noted. Shop contact surfaces not painted. Denotes break in stagger.

REQUIRED LIST			
No. REQD.	DESCRIPTION	MARK	REMARKS
1	GIRDER	G1	
OUTSIDE GIRDER SPAN 1-2			
COLUMBIA AVE VIADUCT			
CINCINNATI, OHIO			
CITY OF CINTL - DEPT. PUBLIC WORKS			
DETILMANN STEEL COMPANY			
ENGINEERS & ARCHITECTS			
BORN			
T.J.S. 3/13/37			
I.K.L. 1-6-36			
T.R.S. 1-13-37			
CC 25872			
EC. W.P.C. 4-21-37			

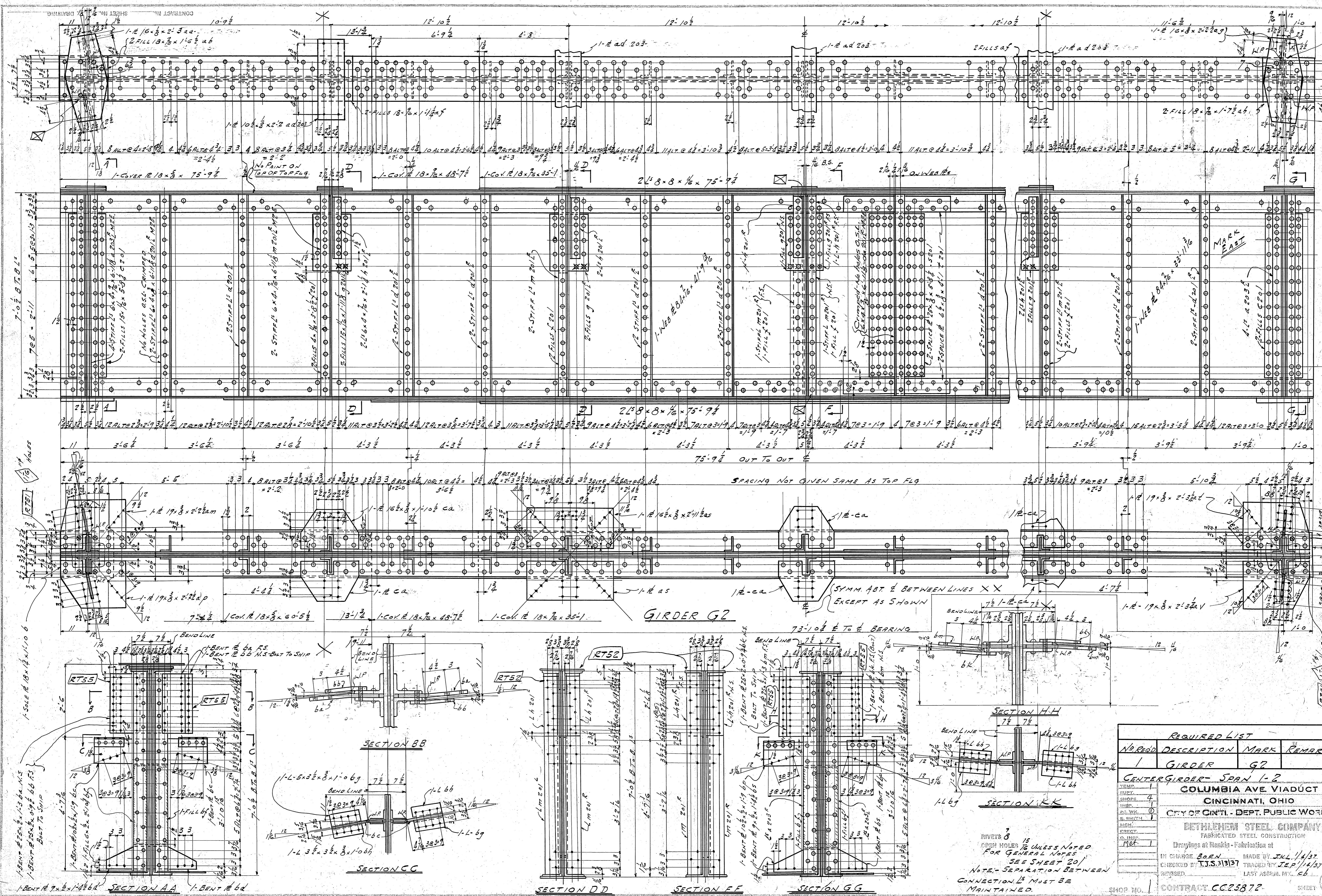


GIRDER G3

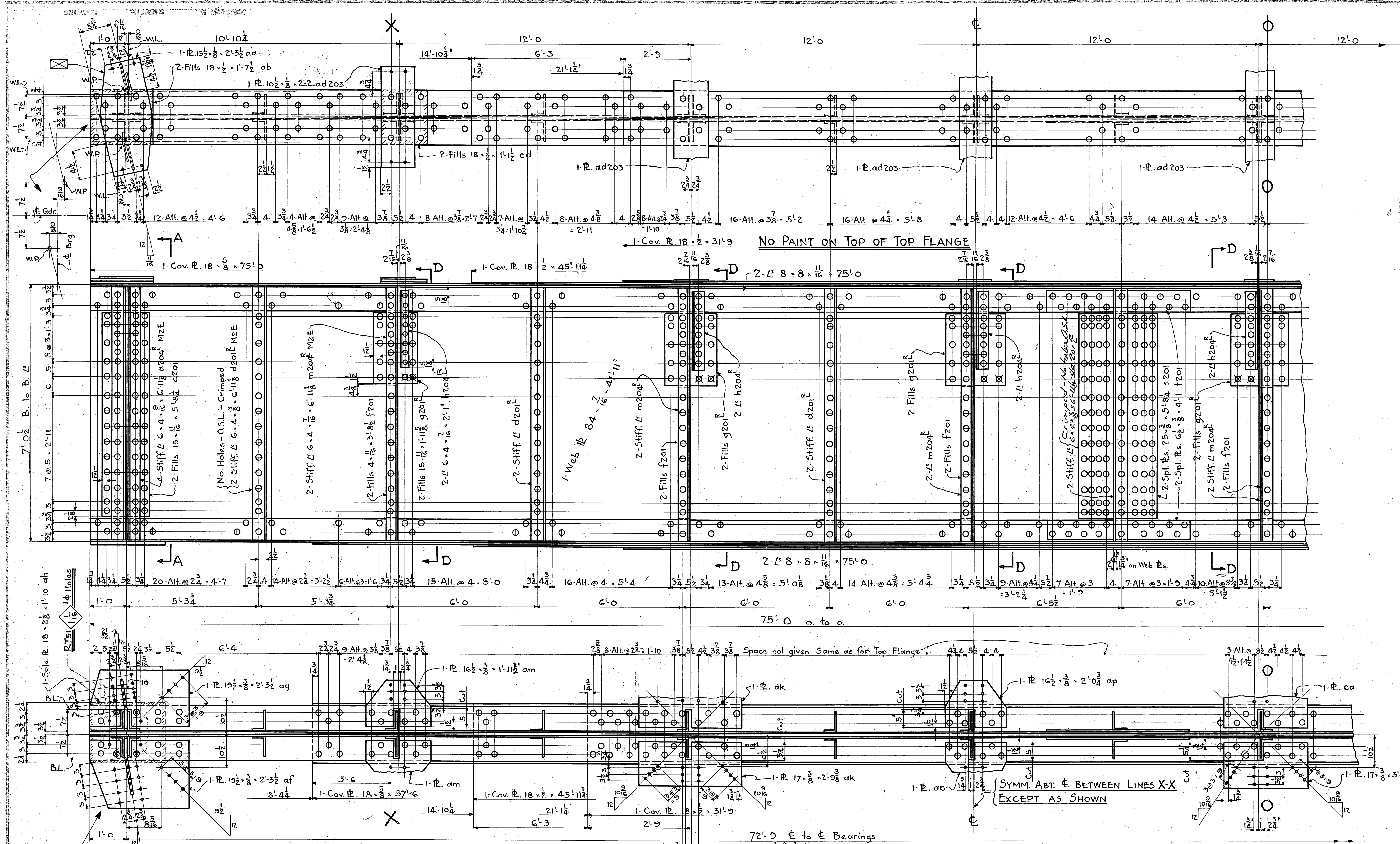
NOTE:-
SEPARATION BETWEEN CONNECTION IS
MUST BE MAINTAINED.

- GENERAL NOTES:-**
- HIVETS:-** 8"
 - OPEN HOLMS:-** 1/2" UNLESS NOTED
 - MATERIAL:-** Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted.
 - FINISH:-** All holes may be punched full size except:
- (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 - (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 - (c) Holes in main material over 1/8" thick shall be subpunched 1/8" small and reamed to size.
 - (d) Holes in main material over 3/4" thick shall be drilled from the solid.
- SEAM EDGES OF MAIN MATERIAL OVER 5/8" THICK** shall be planed to a depth of 1/4" where noted on details.
- FLAME CUT EDGES OF MAIN MATERIAL** shall be planed, chipped or ground and present a smooth workmanlike appearance.
- PAINT:-** One coat of RED LEAD EXCEPT WHERE NOTED. Shop contact surfaces NOT PAINTED.
- SYMBOLS:-** Denotes break in stagger.

REQUIRED LIST			
NO.	REQ'D DESCRIPTION	MARK	REMARKS
1	GIRDER	G3	
OUTSIDE GIRDER SPAN 1-2			
COLUMBIA AVE VIADUCT -			
CINCINNATI, OHIO			
CITY OF CINT. - DEPT. PUBLIC WORKS			
BETHELWEN STEEL COMPANY			
FABRICATED STEEL CONSTRUCTION			
DRAWING BY: [Signature]			
IN CHARGE: BORN		MADE BY: J.K.L. 1/1/37	
CHECKED BY: J.S. 3/3/37		TRACED BY: J.E.P. 1/1/37	
REVISED:		DATE: MARCH 66	
CONTRACT CC 25872			



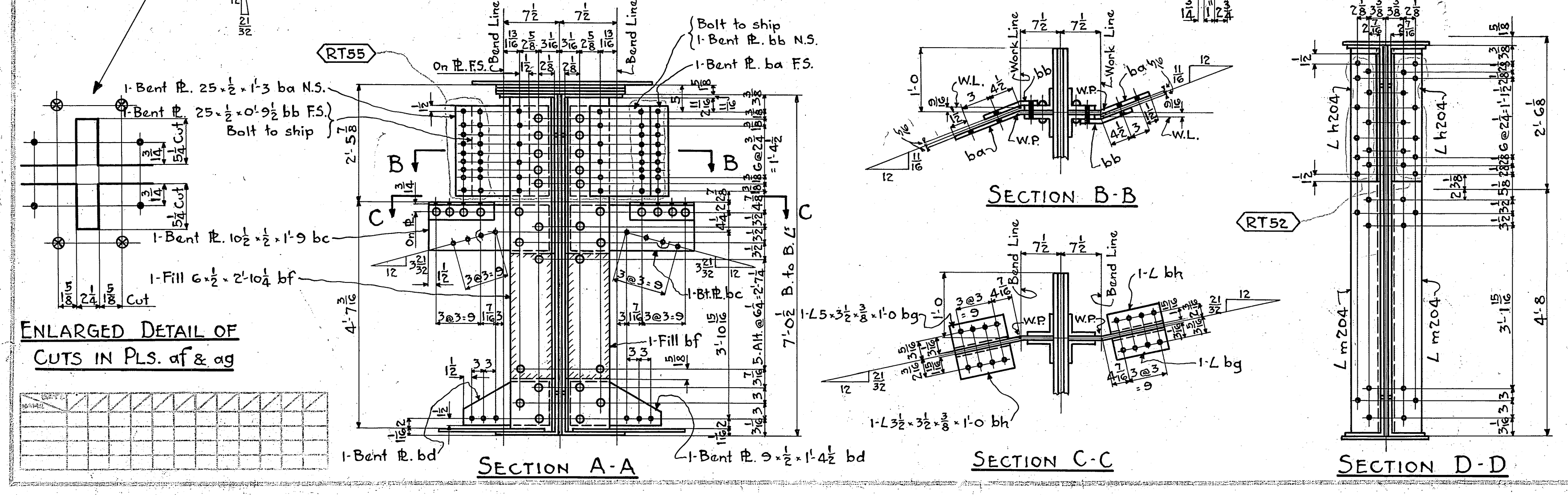
REQUIRED LIST			
No.	DESCRIPTION	MARK	REMARKS
1	GIRDER	G2	
CENTER GIRDER - SPAN 1-2			
COLUMBIA AVE VIADUCT			
CINCINNATI, OHIO			
CITY OF CINTL. DEPT. PUBLIC WORKS			
BETHLEHEM STEEL COMPANY			
FABRICATED STEEL CONSTRUCTION			
Drawings at Rankin - Fabrication at			
IN CHARGE BORN		MADE BY J.K.L. 1/4/37	
CHECKED BY T.J.S. 3/13/37		TRACED BY J.E.P. 1/4/37	
REVISED		LAST ASSEM. BY C.B.	
SHOP NO.		CONTRACT CC25872	
		SHEET 203	
		P.C. N.E.C. 4-21-37	



- GENERAL NOTES**
- RIVETS - 3/8"
 - OPEN HOLES - 1/8" - unless noted
 - MATERIAL - Carbon steel A.S.F.M. A7-36 with .25% copper content, except where noted. All holes may be punched full size except:
 - (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 - (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 - (c) Holes in main material over 5/8" thick shall be subpunched 1/8" and reamed to size.
 - (d) Holes in main material over 3/4" thick shall be drilled from the solid.
- SHEARED EDGES** - of main material shall be planed or chipped or ground and present a smooth workmanlike appearance.
- PAINT** - One coat of RED LEAD except where noted. Shop contact surfaces not painted.
- RT** - Denotes break in stagger.

REQUIRED LIST			
Nº REQ'D	DESCRIPTION	MARK	REMARKS
1	Girder	G5	

SHOP NOTE:
 For Portion to Right of 0-0 see Sheet #205.
 Work Sheets # 204 & #205 together.
 Separation between floor beam conn: L must be maintained.



CENTRE GIRDER - SPAN 2-3

COLUMBIA AVE VIADUCT

CINCINNATI, OHIO

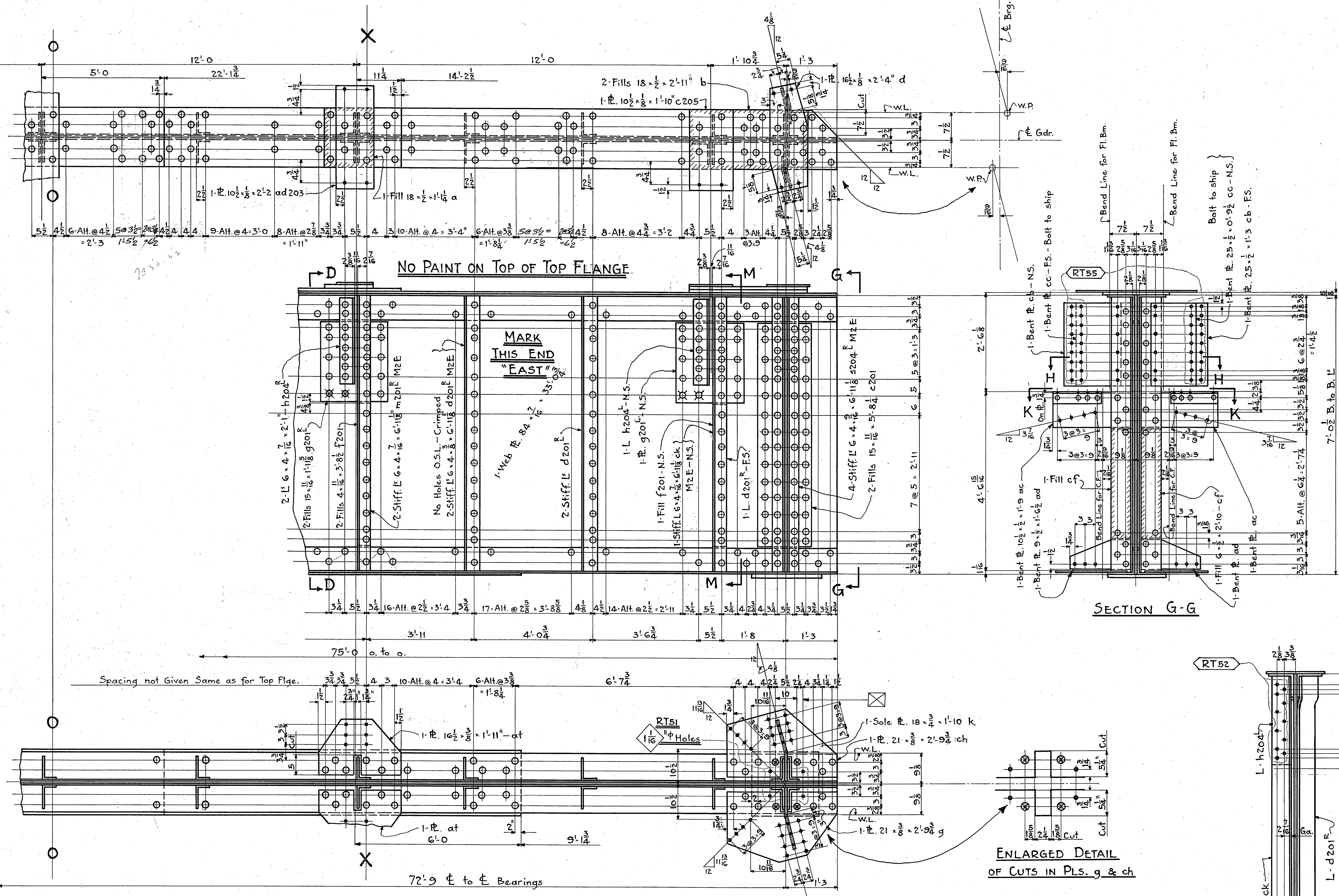
CITY OF CINTI. - DEPT. PUBLIC WORKS

DETHLEFSEN STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION

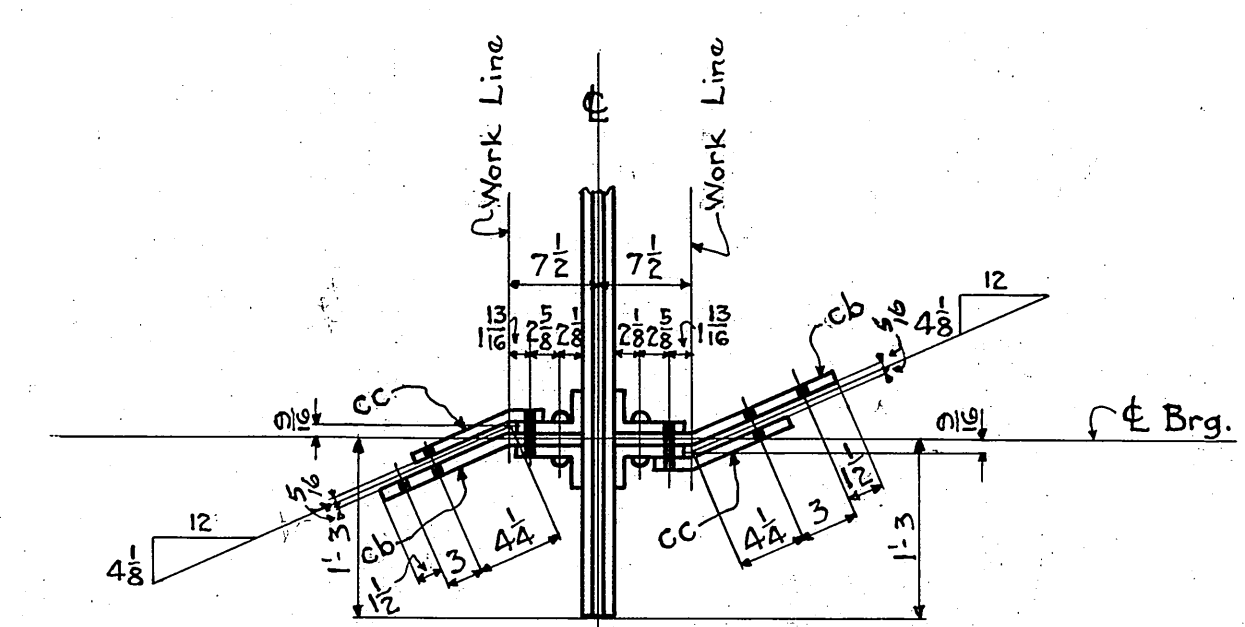
Drawings at Rankin - Fabrication at

BY CHANGE BORN MADE BY I.C. 1-10-37
 CHECKED BY G.S. 3/17 TRD BY W.E.B. 2-19-37
 REVISED LAST ASSEM. MK.

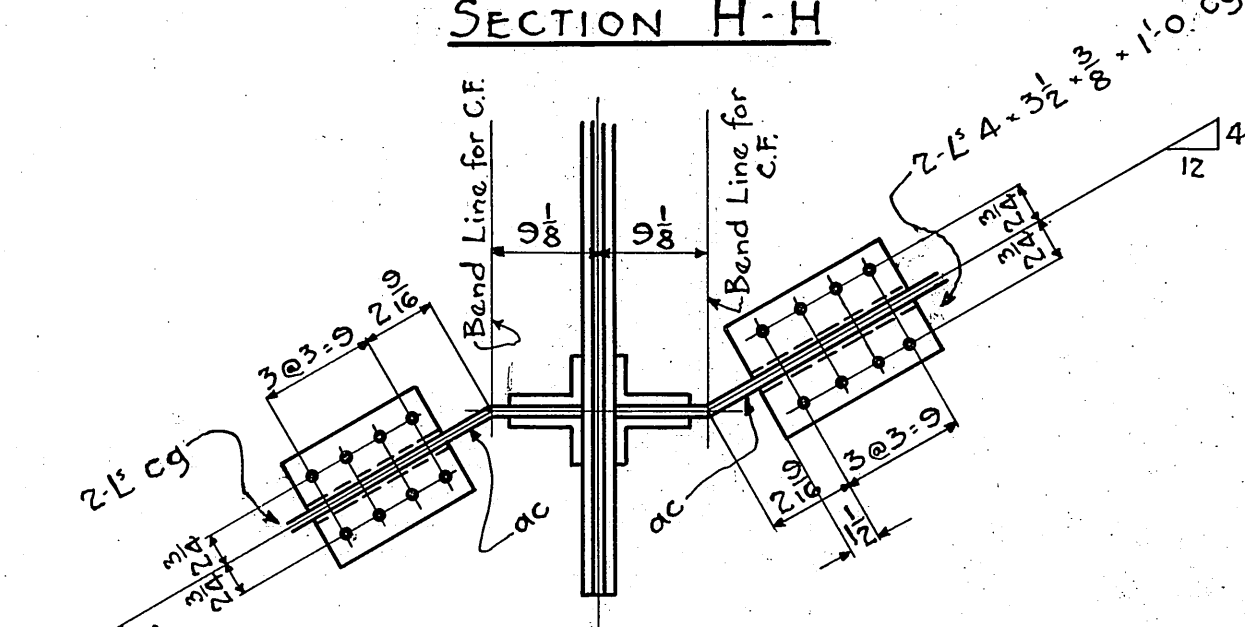
SHOP NO. 1 CONTRACT CC25872 204
 R.C. W.F.C. 4-21-37 15-8-17



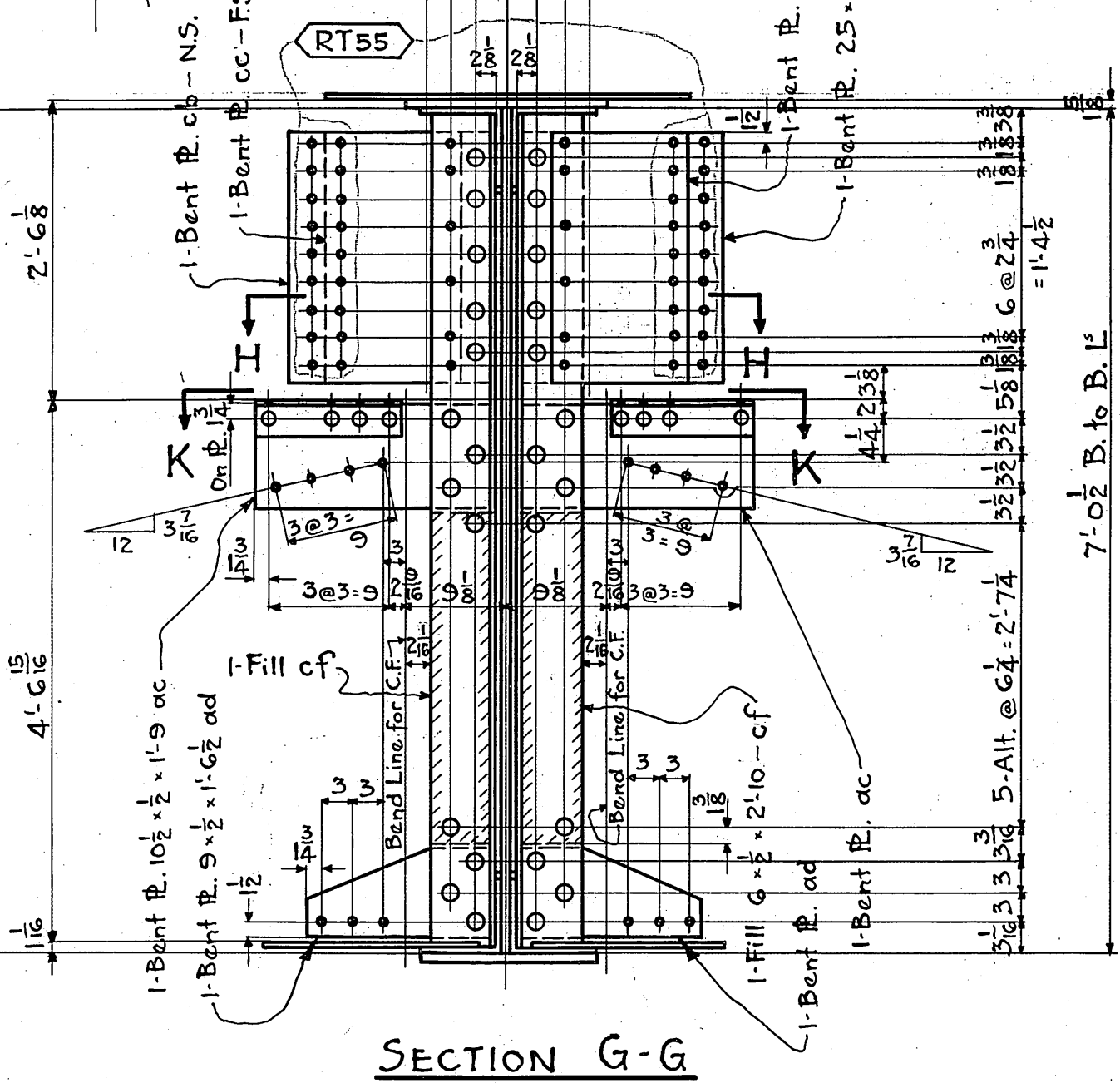
CENTER GIRDER "G5"



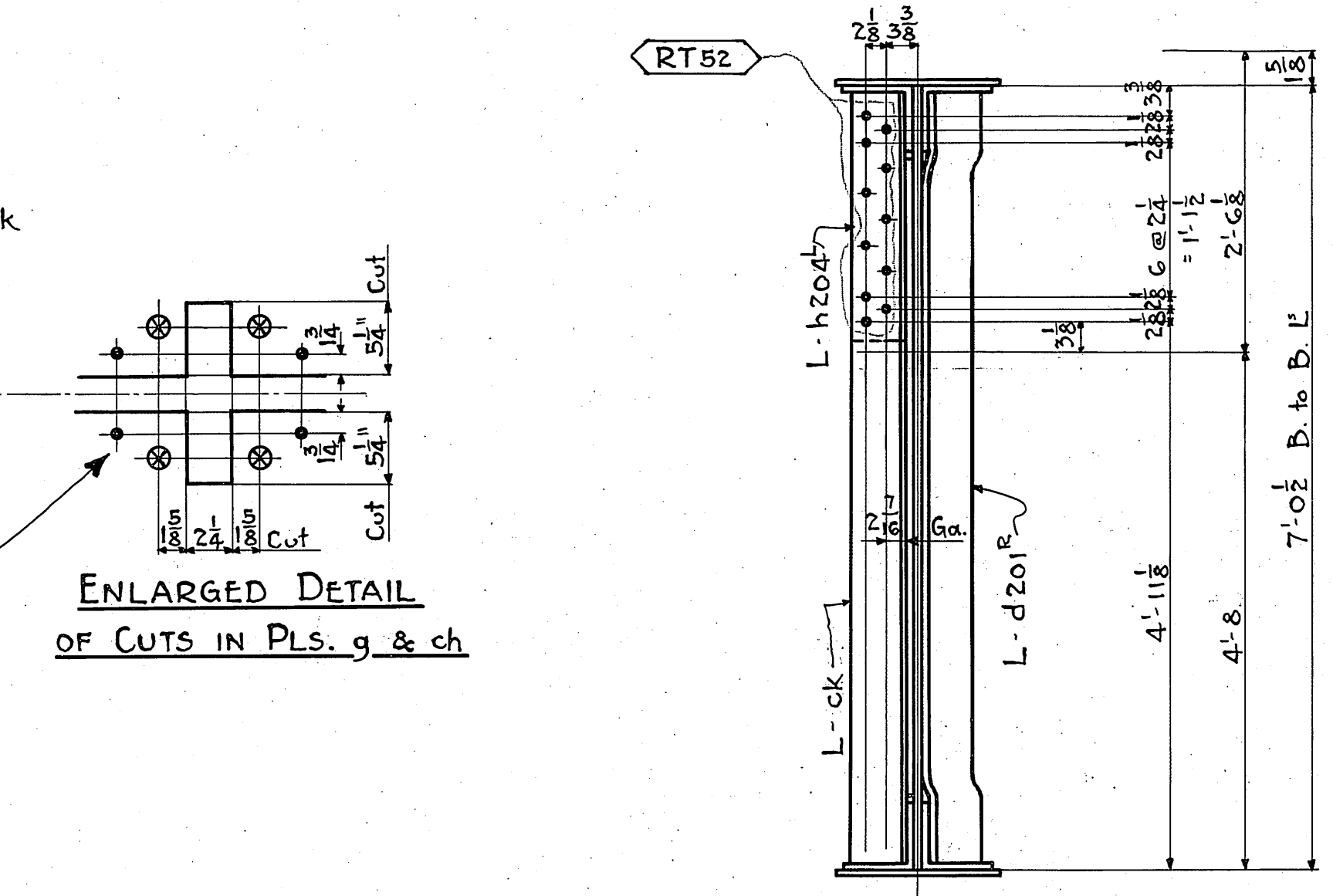
SECTION H-H



SECTION K-K



SECTION G-G



SECTION M-M

ENLARGED DETAIL OF CUTS IN PLS. g & ch

- GENERAL NOTES:**
- RIVETS: - 3/8"
 - OPEN HOLES: - 1/8" unless noted
 - MATERIAL: - Carbon steel A.S.F.S. 70-80 with 0.05% copper content, except where noted. All holes may be punched full size except:
 - (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 - (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 - (c) Holes in main material over 1/2" thick shall be subpunched 1/8" small and reamed to size.
 - (d) Holes in main material over 1/2" thick shall be drilled from the solid. Holes of main material over 5/8" thick shall be planed to a depth of 1/8" where noted on details.
 - PAINT: - Surfaces of main material shall be shop-blasted or ground and present a smooth workmanlike appearance.
 - PAINT: - One coat of RED LEAD except where noted. Shop contact surfaces: Not painted.
 - Denotes break in stagger.

SHOP NOTE:

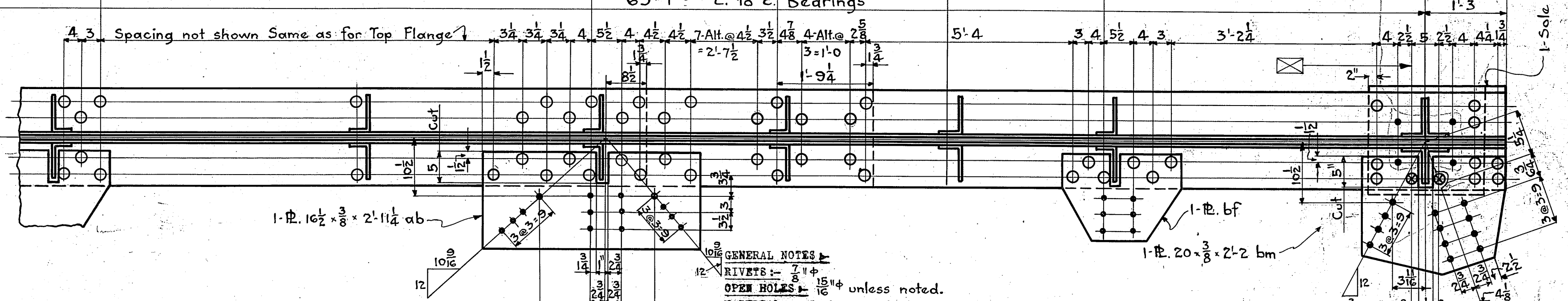
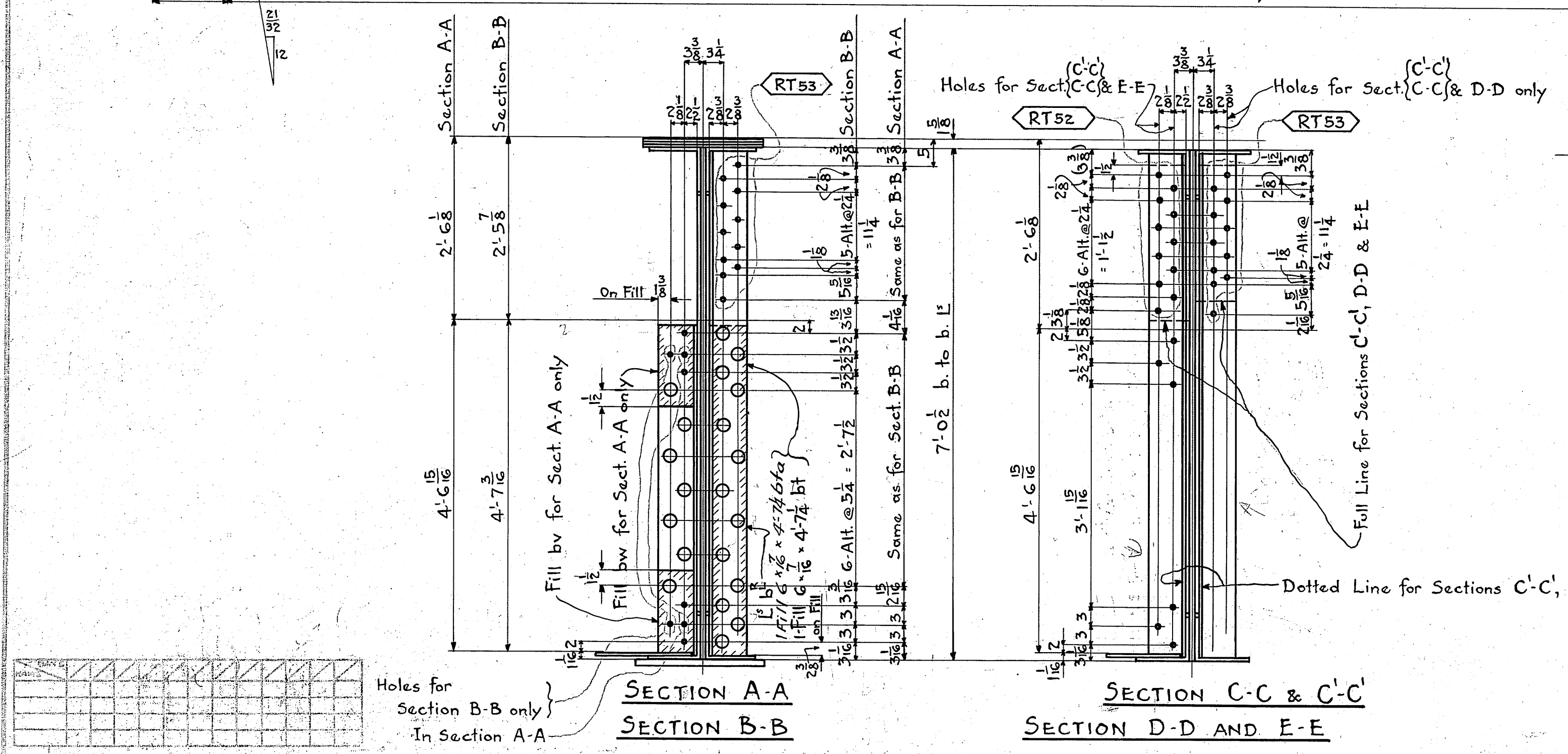
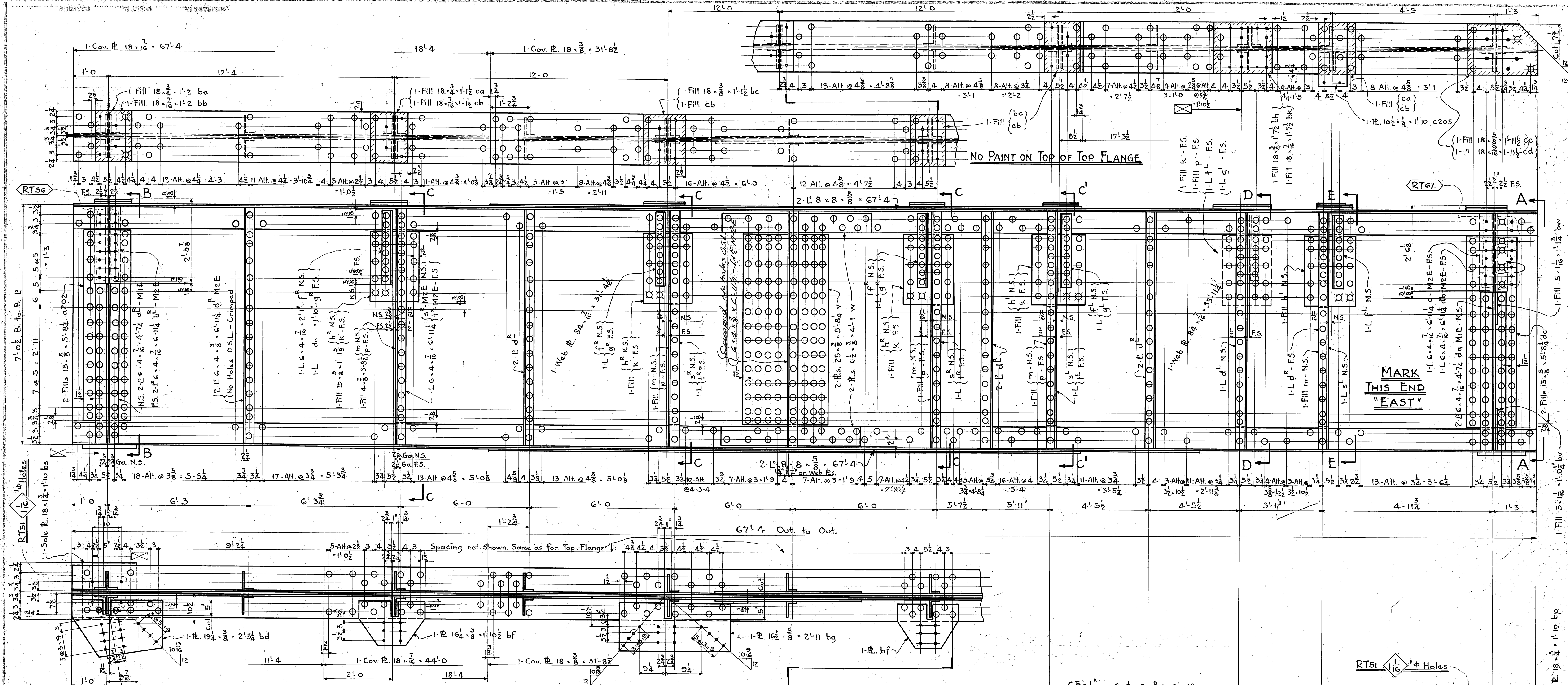
For Required List see Sheet #204.
 For Section D-D see Sheet #204.
 To left of O-O see Sheet #204.
 Work Sheets #204 and #205 together.
 Separation between floor beam conn. E must be maintained.

CENTRE GIRDER - SPAN 2-3

TEMP	1
SUPT	4
SCALE	1/4"
INCH	1/4"
PL. WK	1
B. SMITH	1
RECT	1
O. INSP	1
DATE	11/12

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CANT. DEPT. PUBLIC WORKS
 BETHLEHEM STEEL COMPANY
 FABRICATED - STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at
 IN CHARGE: BORN... MADE BY: J.C. L. 11-13-37
 CHECKED BY: G.S. 11/12 TRACED BY: W.E.B. 2-22-37
 REVISED: LAST ASSEM. N.Y.

SHOP NO. 1 CONTRACT CC25872 SHEET 205
 F.C. W.F.C. 4-21-37



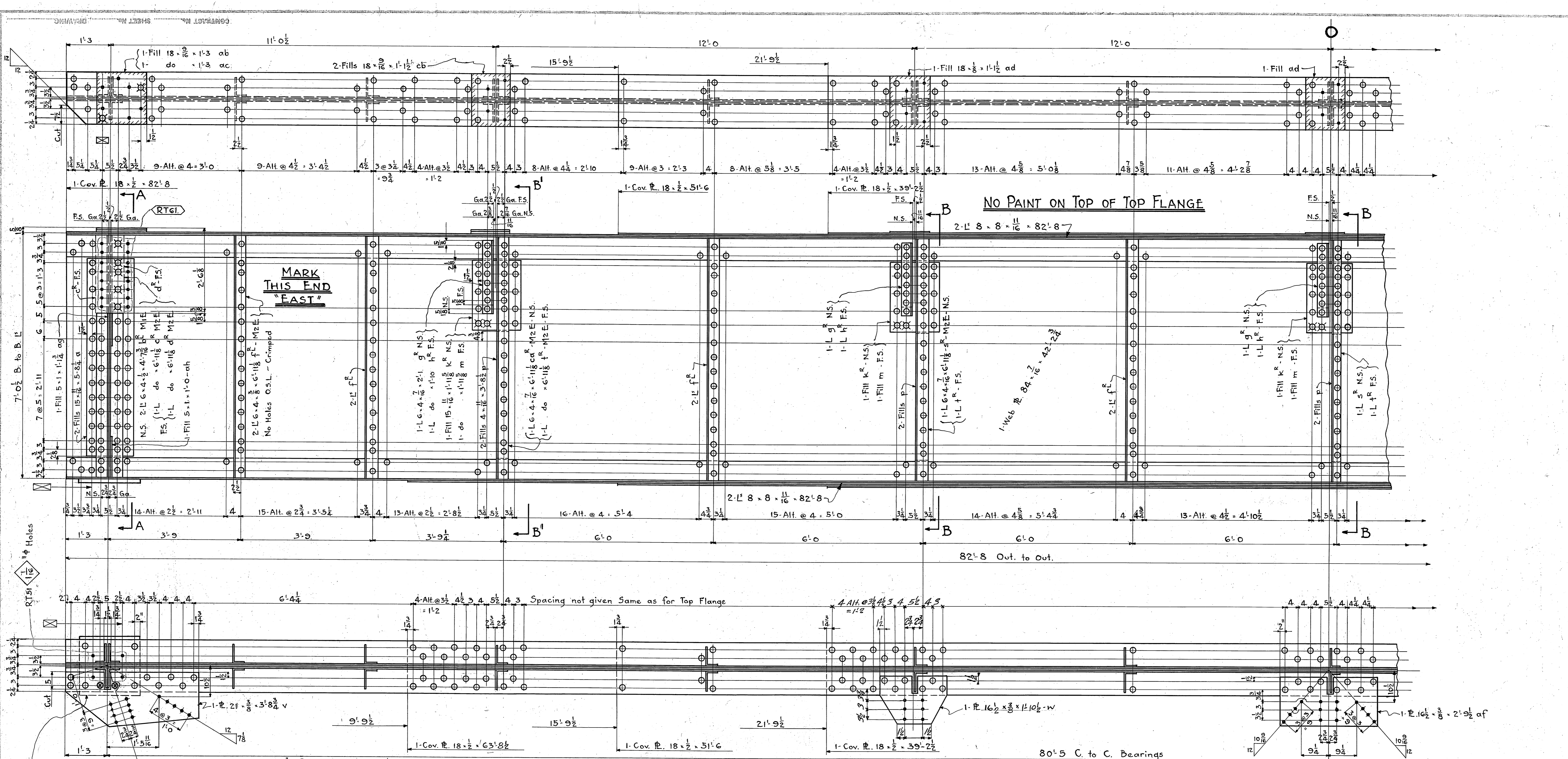
GIRDER "G4"

SHOP NOTE:
Separation between floor beam conn. L must be maintained.

- GENERAL NOTES:**
- RIVETS - $\frac{7}{16}$ " unless noted.
 - OPEN HOLES - $\frac{1}{8}$ " unless noted.
 - MATERIAL - Carbon steel A.S.T.M. A7-32 with 3% copper content, except where noted. All holes may be punched full size except:
 - (a) All holes marked RT are to be subpunched $\frac{1}{8}$ " small and reamed to size to a metal template.
 - (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 - (c) Holes in main material over $\frac{5}{16}$ " thick shall be subpunched $\frac{1}{16}$ " small and reamed to size.
 - (d) Holes in main material over $\frac{3}{8}$ " thick shall be drilled from the solid.
 - SHEARED EDGES of main material over $\frac{5}{8}$ " thick shall be planed to a depth of $\frac{1}{8}$ " where noted on details.
 - FLAKE CUT EDGES of main material shall be filed, chipped or ground and protected with smooth workmanlike appearance.
 - PAINT - One coat of RED LEAD and one coat of zinc.
 - Shop contact surface to be protected.
 - Denotes break in slotted.

REQUIRED LIST			
Nº REQ'D.	DESCRIPTION	MARK	REMARKS
1	Girder	G4	

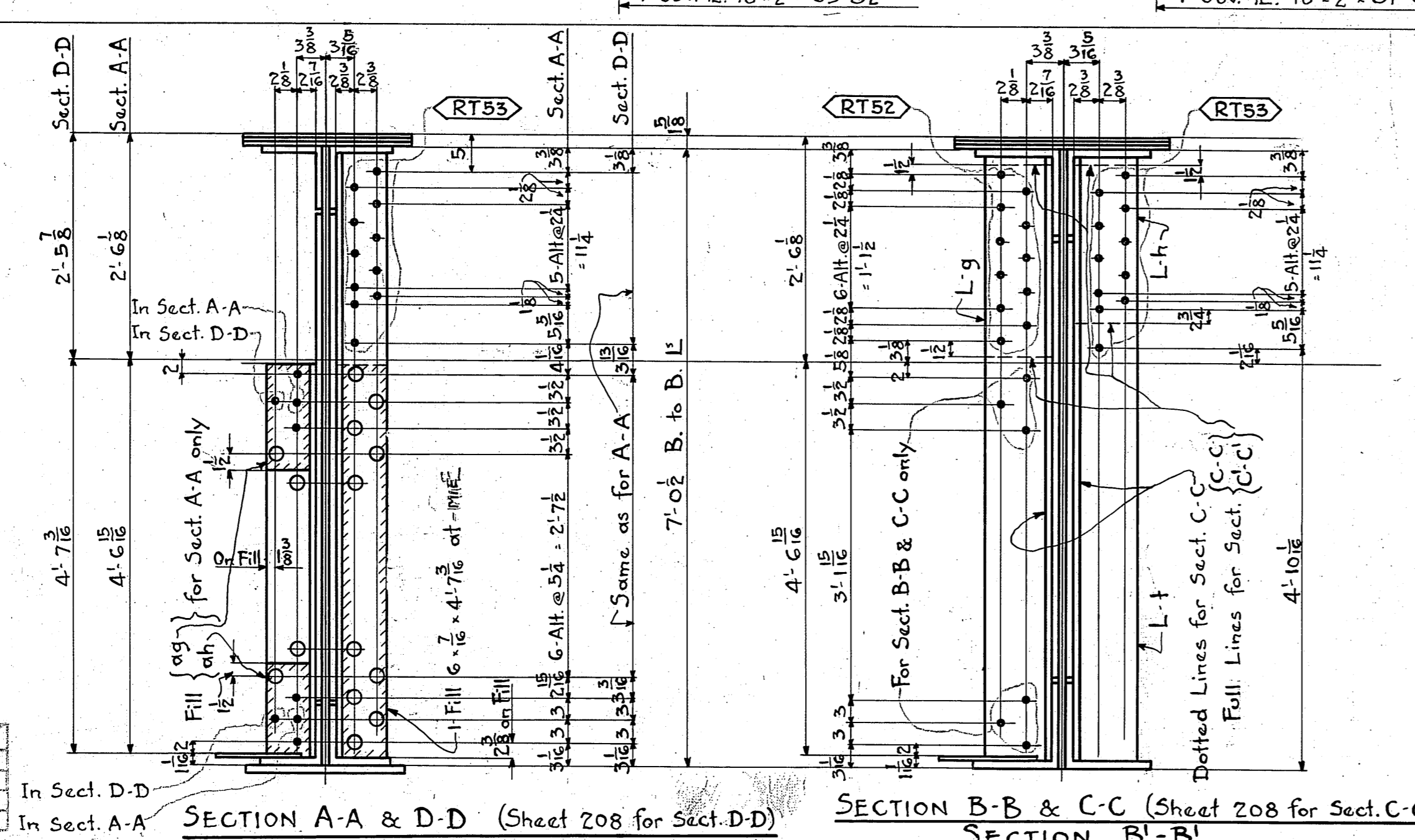
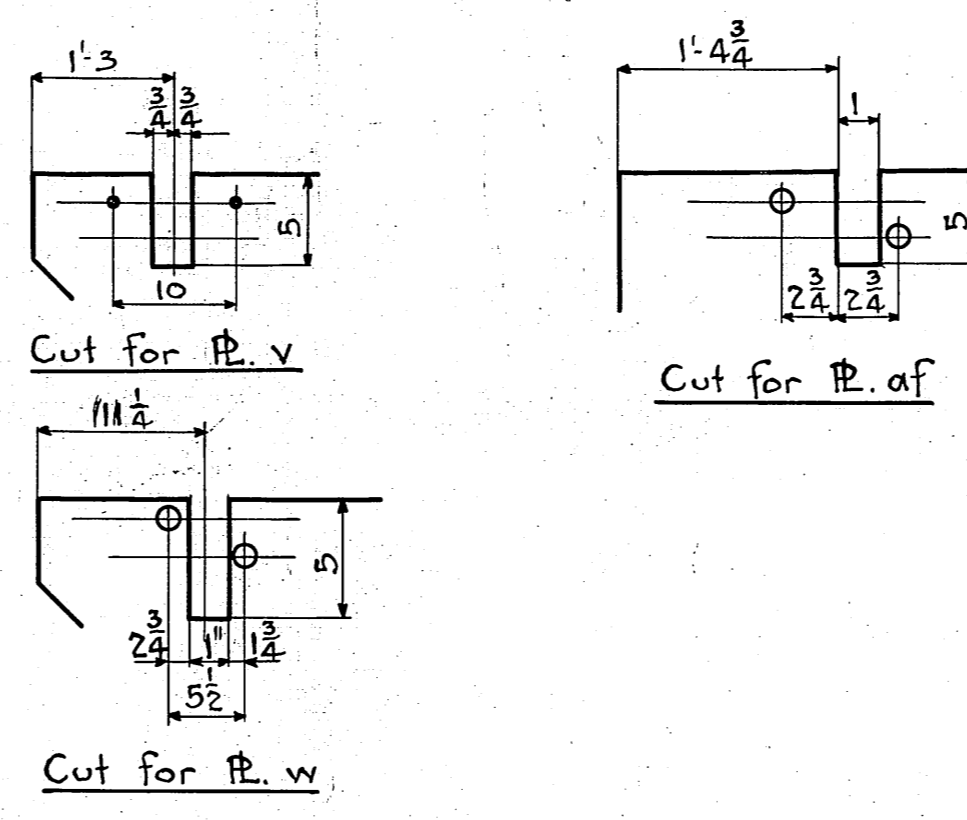
OUTSIDE GIRDER - SPAN 2-3
COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CMTI - DEPT. PUBLIC WORKS
REPUBLICAN STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin-Fabration at
 IN CHARGE: BORN
 CHECKED BY: S.S. 3/2/17
 REVISIONS: LAST REVISION
 MADE BY: J.C. 2-2-37
 TRACED BY: W.E.B. 2-24-37
 LAST REVISION
 SHOP NO. 1 CONTRACT CC25872 SHEET 206
 P.C. W.C.C. 4-21-37



GIRDER "G6"

REQUIRED LIST			
Nº Req'd	DESCRIPTION	MARK	REMARKS
1	Girder	G6	

SHOP NOTE:
 For Portion to Right of O-O see Sheet #208.
 Work Sheets #207 and #208 together.
 Separation between floor beam conn. L must be maintained.
 For General Notes see sheet #208



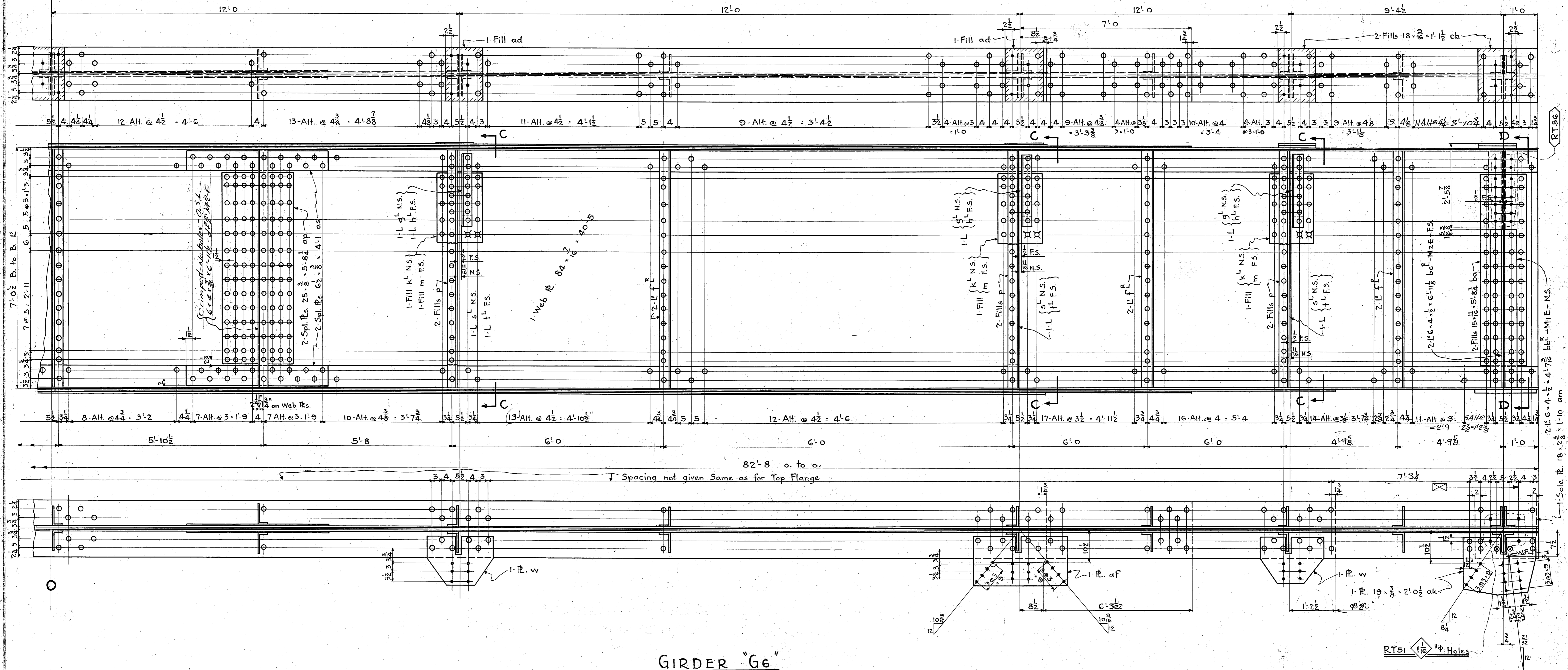
OUTSIDE GIRDER - SPAN 2-3
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTL. DEPT. PUBLIC WORKS

RETIEMER STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication of

IN CHARGE: BORN, MADE BY: J.C. 2-5-37
 CHECKED BY: G.S. 3/12/37, TRACED BY: W.E.B. 2-25-37
 REVISED: G.W. 4/13/37, LAST ASSEM. W.K.

SHOP NO. 1 CONTRACT CC25872 SHEET 207
 F.C. N.F.C. 4-21-37

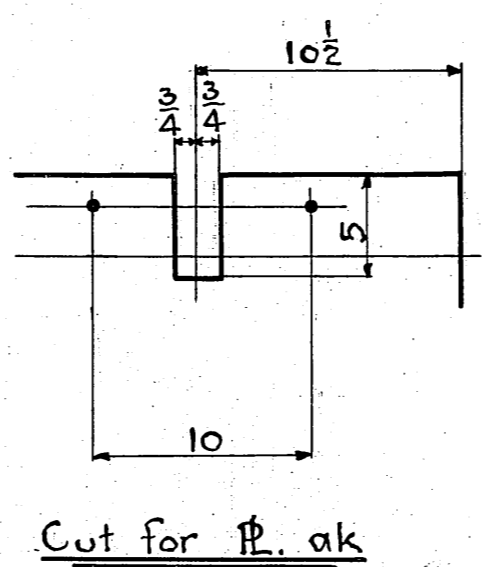
NO PAINT ON TOP OF TOP FLANGE



GIRDER "G6"

SHOP NOTE:
Separation between floor beam conn. L must be maintained.

SHOP NOTE:
Work Sheets #207 and #208 together.
For Portion to left of 0-0 see Sheet #207.
For Required List see Sheet #207.
For Sections C-C & D-D see Sheet #207.

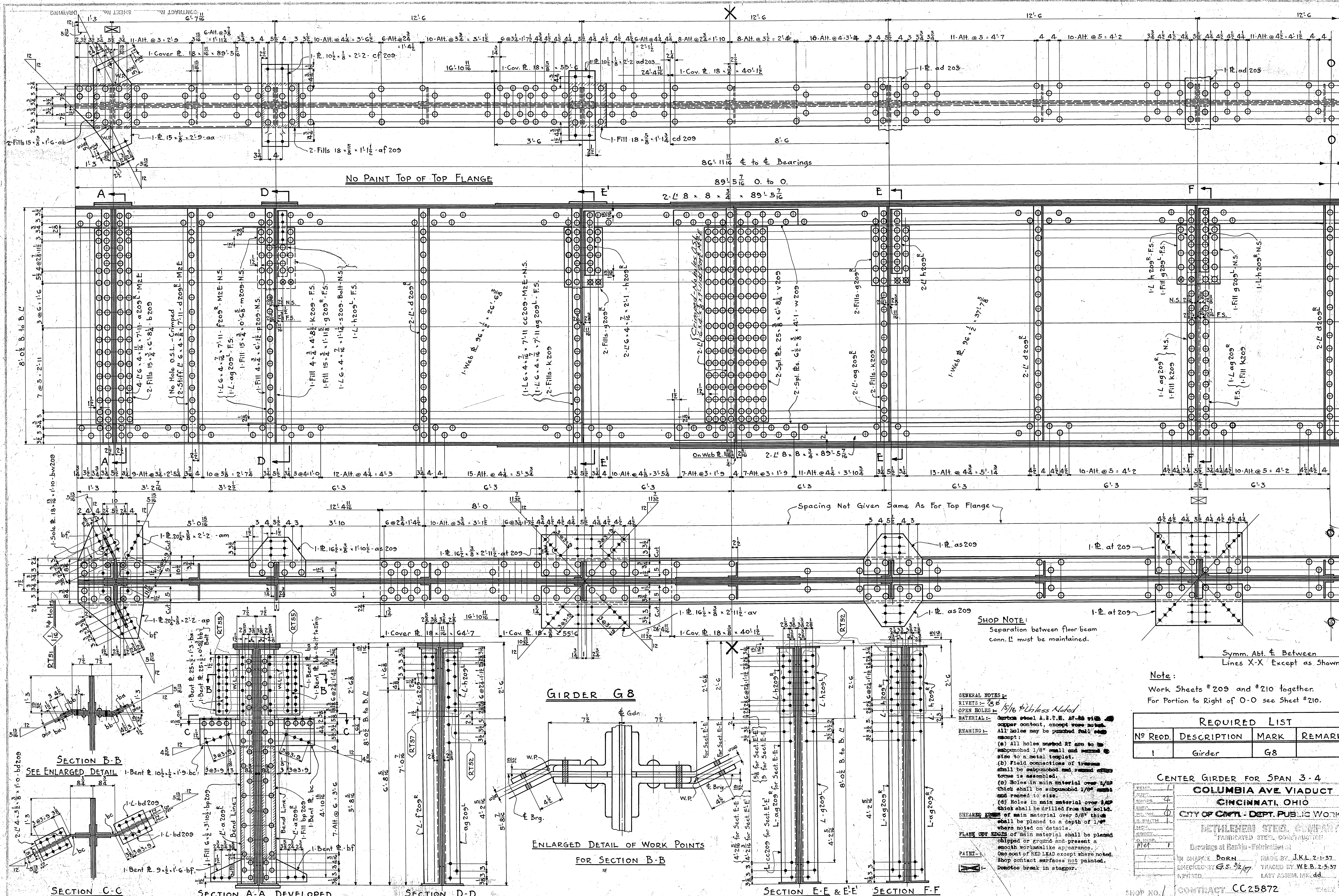


- GENERAL NOTES:
- RIVETS - 7/8" x 1 1/4"
 - OPEN HOLES - 1/8" unless noted.
 - MATERIAL - Carbon steel A.S.T.M. A7-34 with .25 copper content, except where noted.
 - FINISHING - All holes may be punched full size except:
- (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 - (b) Field connections of trusses shall be subpunched and reamed after stress is ascertained.
 - (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 - (d) Holes in main material over 3/4" thick shall be drilled from the solid.
- SHARP EDGES of main material over 5/8" thick shall be chamfered to a depth of 1/4" where noted on details.
- FLANGE CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
- PAINT: One coat of RED LEAD except where noted. Shop contact surface not painted.
- NOTES: Penotes break in stagger.

OUTSIDE GIRDER - SPAN 2-3
COLUMBIA AVE. VIADUCT
CINCINNATI, OHIO
CITY OF CINT. - DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
Drawings at Rankin - Fabrication at

IN CHARGE: BORN MADE BY: J.C. 2-9-37
CHECKED BY: G.S. 3/1/37 TRACED BY: M.E.B. 2-26-37
REVISED: LAST ASSEM. R.K.



No PAINT TOP OF TOP FLANGE

89' 5 7/16" O. to O.

86' 11 1/16" c to c Bearings

Spacing Not Given Same As For Top Flange

SHOP NOTE:
Separation between floor beam conn. I must be maintained.

Note:
Work Sheets #209 and #210 together
For Portion to Right of O-O see Sheet #210.

GIRDER G8

ENLARGED DETAIL OF WORK POINTS FOR SECTION B-B

- GENERAL NOTES:**
- RIVERS - 209
 - OPEN HOLES - 1 1/2" Unless Noted
 - MATERIAL - Carbon steel A.S.T.M. A7-60 with copper contact, except where noted. All holes may be punched full size except:
 - (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a final taper.
 - (b) Field connections of tension shall be subpunched and reamed where same is assembled.
 - (c) Holes in main material over 1/2" thick shall be subpunched 1/8" small and reamed to size.
 - (d) Holes in main material over 1/2" thick shall be drilled from the solid.
 - (e) Holes of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 - FLANGE CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance. One coat of RED LEAD except where noted. Shop contact surfaces not painted. Don't see break in stagger.
- REMARKING:**
- PAINT:**

REQUIRED LIST			
Nº REQD.	DESCRIPTION	MARK	REMARKS
1	Girder	G8	

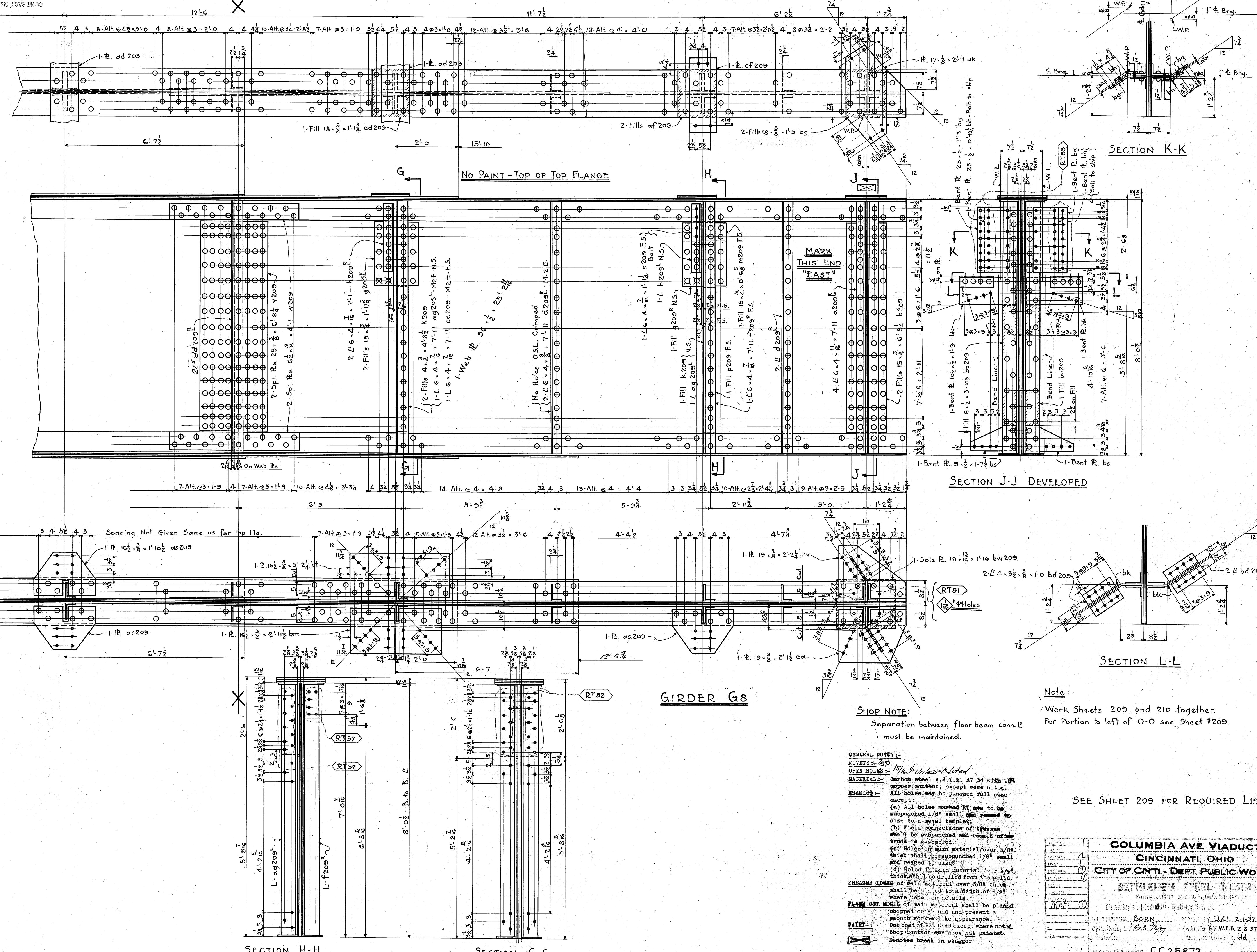
CENTER GIRDER FOR SPAN 3-4
COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CANT. - DEPT. PUBLIC WORKS

LEITCHER STEEL COMPANY
FABRICATED STEEL CONSTRUCTION

DRAWINGS AT BARKIN - FABRICATED AT

IN CHARGE: BORN MADE BY: J.K.L. 2-1-37
CHECKED BY: G.S. 3/2/37 TRACED BY: W.E.B. 2-2-37
REVISED: LAST ASSEMBLED: dd

SHOP NO. / CONTRACT CC25872



GIRDER G8

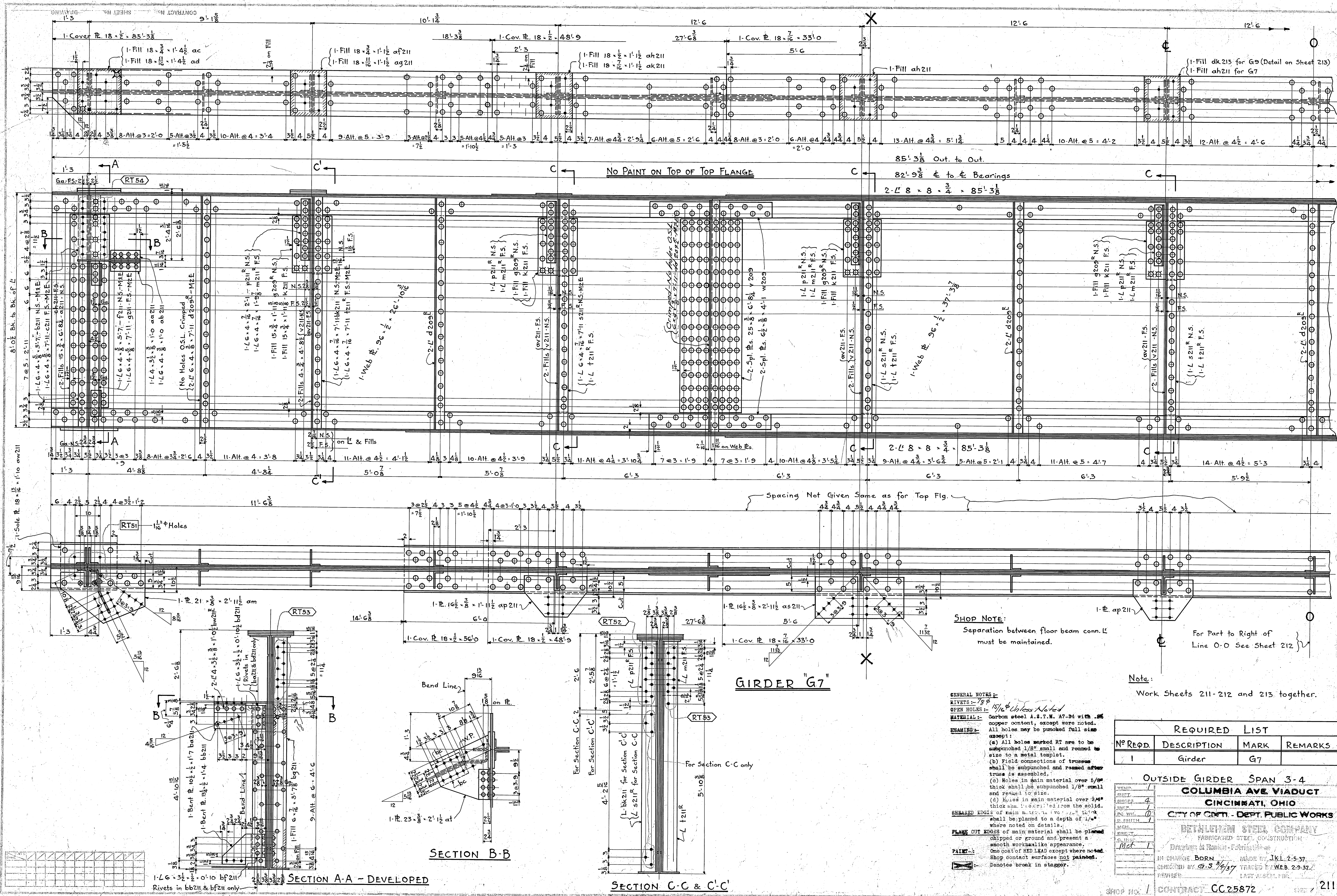
SHOP NOTE:
Separation between floor beam conn. L must be maintained.

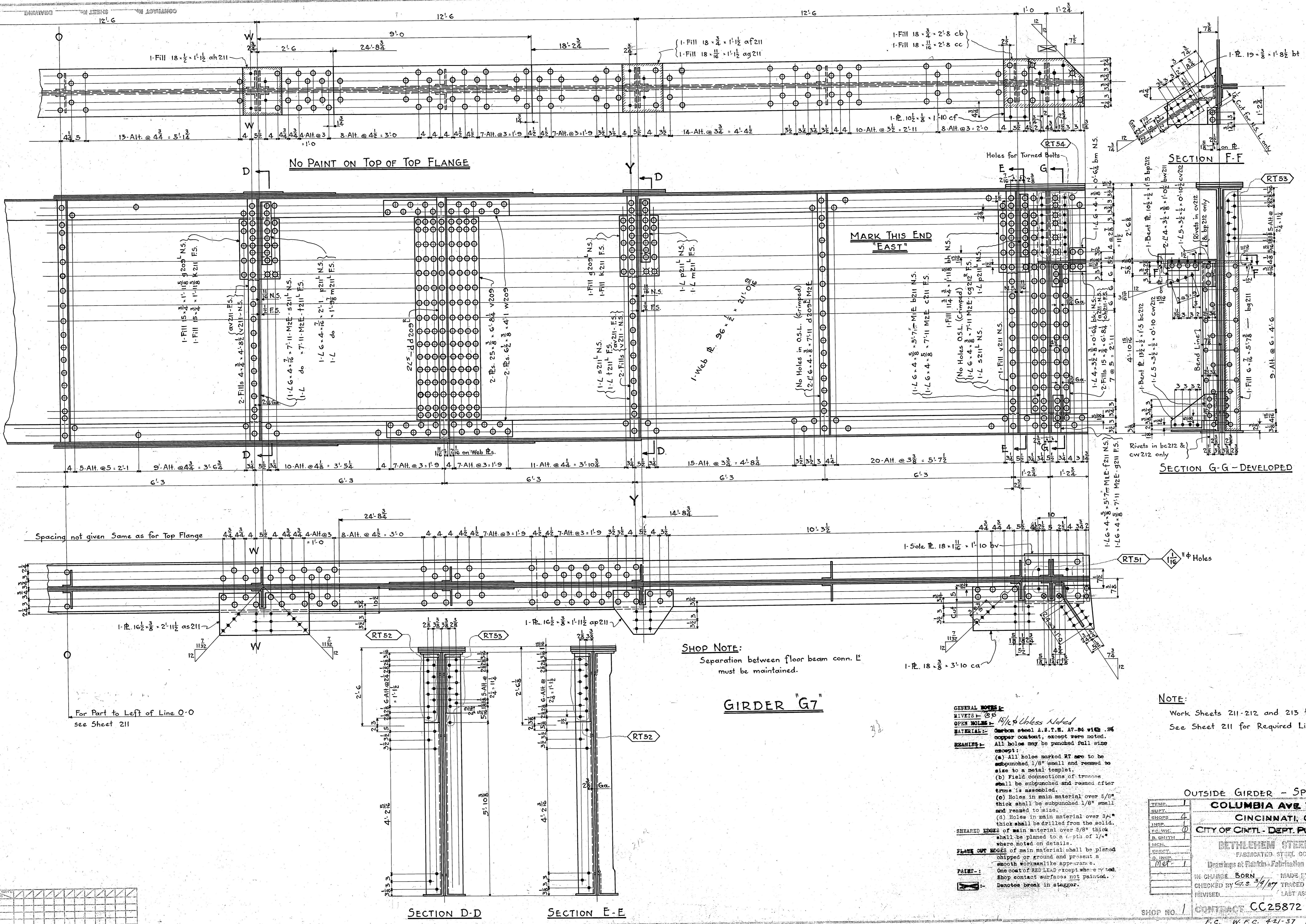
- GENERAL NOTES:-**
 RIVETS:- 5/8"
 OPEN HOLES:- 1 1/8" & Unless Noted
MATERIAL:- Carbon steel A.S.T.M. A7-34 with .02% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
SHEARED EDGES: of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLANGE CUT EDGES: of main material shall be planed chipped or ground and present a smooth workmanlike appearance.
PAINT:- One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 Denote break in stagger.

Note:
Work Sheets 209 and 210 together. For Portion to left of O-O see Sheet #209.

SEE SHEET 209 FOR REQUIRED LIST.

TEMP.		COLUMBIA AVE VIADUCT
DATE	4	
ENGINEER		
ARCHT.		
CONTR. ENGR.		CINCINNATI, OHIO
INSPECTION		CITY OF CINT. DEPT. PUBLIC WORKS
DESIGNED BY		DETROIT STEEL COMPANY
DRAWN BY		
CHECKED BY		FABRICATED STEEL CONSTRUCTION
REVISION		Drawings at Routine - Fabrication of
		IN CHARGE: BORN
		MADE BY: J.K.L. 2-1-37
		CHECKED BY: G.S. 2/2/37
		TRACED BY: W.E.B. 2-3-37
		REVISION
		LAST APPROVED: dd





OUTSIDE GIRDER - SPAN 3-4

COLUMBIA AVE VIADUCT

CINCINNATI, OHIO

CITY OF CINTL. DEPT. PUBLIC WORKS

DETLEFSEN STEEL COMPANY

FABRICATED STEEL CONSTRUCTION

Drawings at Planter's Fabrication at

IN CHARGE: BORN MADE BY J.K.L. 2-8-37

CHECKED BY G.S. 3/1/37 TRACED BY W.E.B.

REVISED: LAST ASSEMB. BK.

PART OF TOP & BOTT. FLANGES BETWEEN
LINES X-X & W-W SAME AS FOR GIRDER G7
ON SHEETS 211 & 212 EXCEPT AT E OF
TOP FLANGE USE 1-FILL dk213 INSTEAD OF
1-FILL dh211

No PAINT ON TOP OF TOP FLANGE

PART OF WEB BETWEEN LINES X-X & Y-Y
SAME AS FOR GIRDER G7 ON SHEETS #211 & #212

GIRDER "G9"

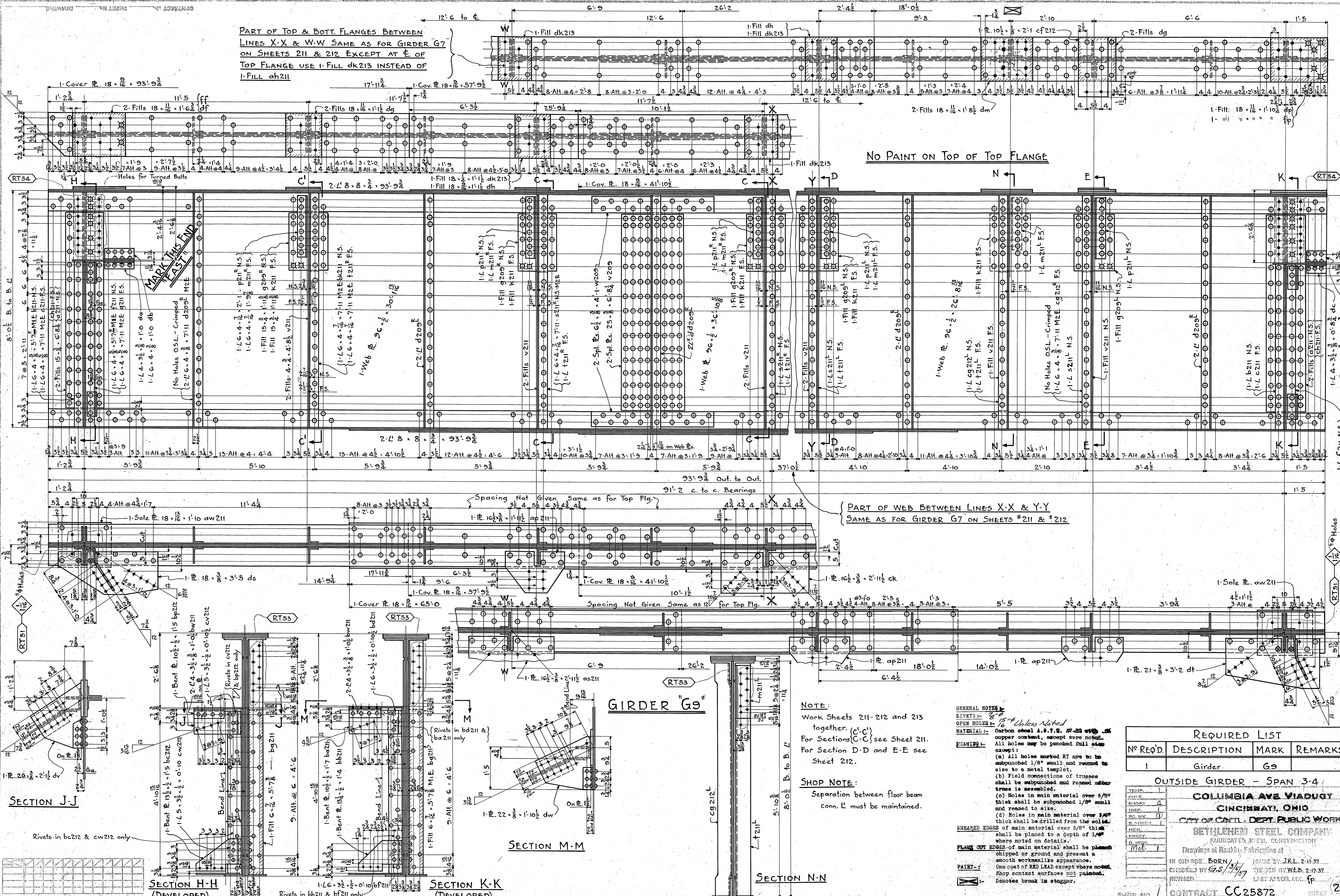
NOTE:
Work Sheets 211-212 and 213
together. (C-C)
For Sections (C-C) see Sheet 211.
For Section D-D and E-E see
Sheet 212.

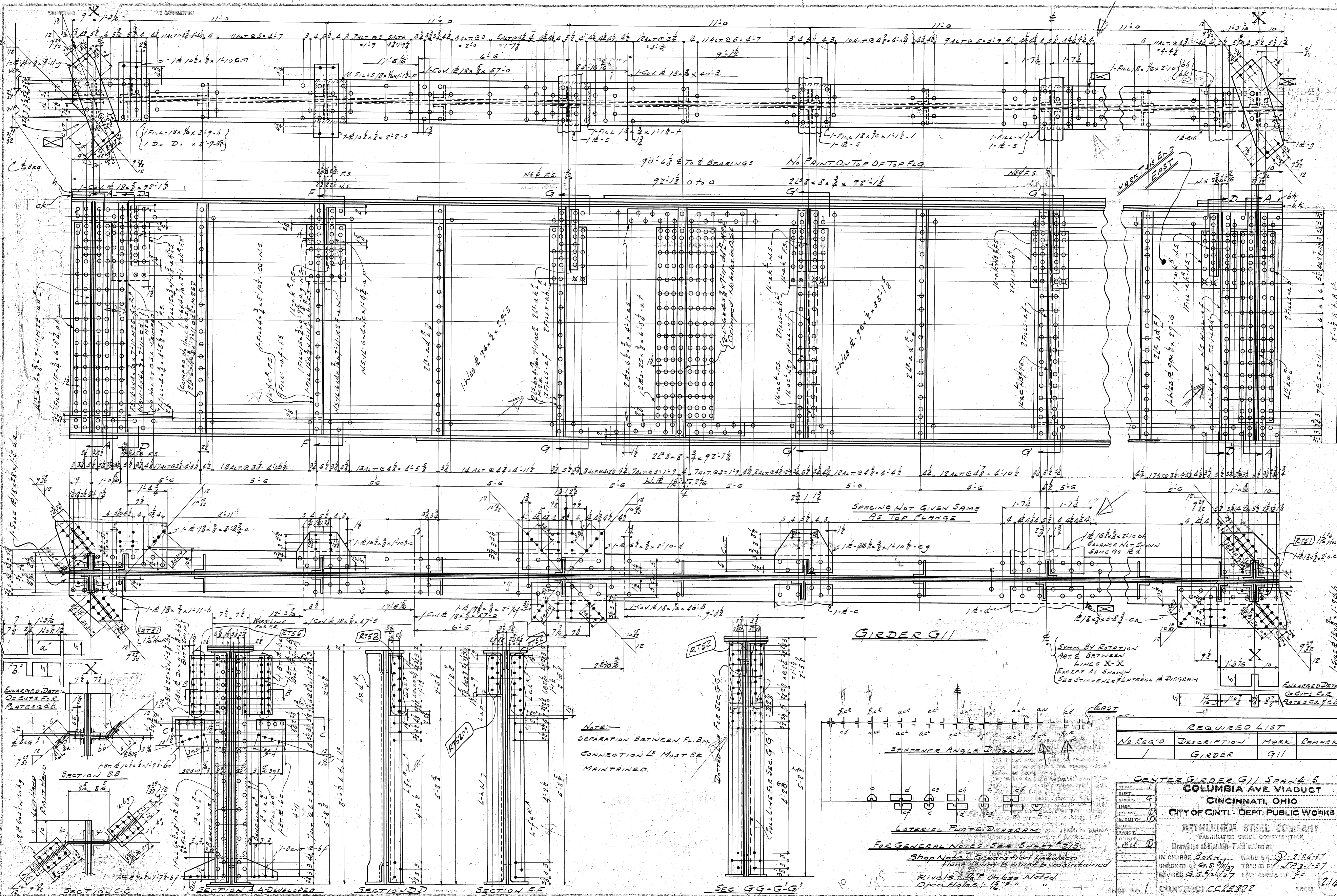
SHOP NOTE:
Separation between floor beam
conn. L must be maintained.

- GENERAL NOTES:
RIVETS: $\frac{3}{4}$ "
OPEN HOLES: $\frac{1}{8}$ "
MATERIAL: Carbon steel A.S.T.M. A36
EXAMINATION: Unless noted
except:
(a) All holes marked RT are to be subpunched $1/8$ " and reamed to size to a metal template.
(b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
(c) Holes in main material over $5/8$ " thick shall be subpunched $1/8$ " and reamed to size.
(d) Holes in main material over $3/4$ " thick shall be drilled from the outside shall be planed to a depth of $1/8$ " where noted on details.
FLANGE CUT EDGES: of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.
--- Denotes break in stagger.

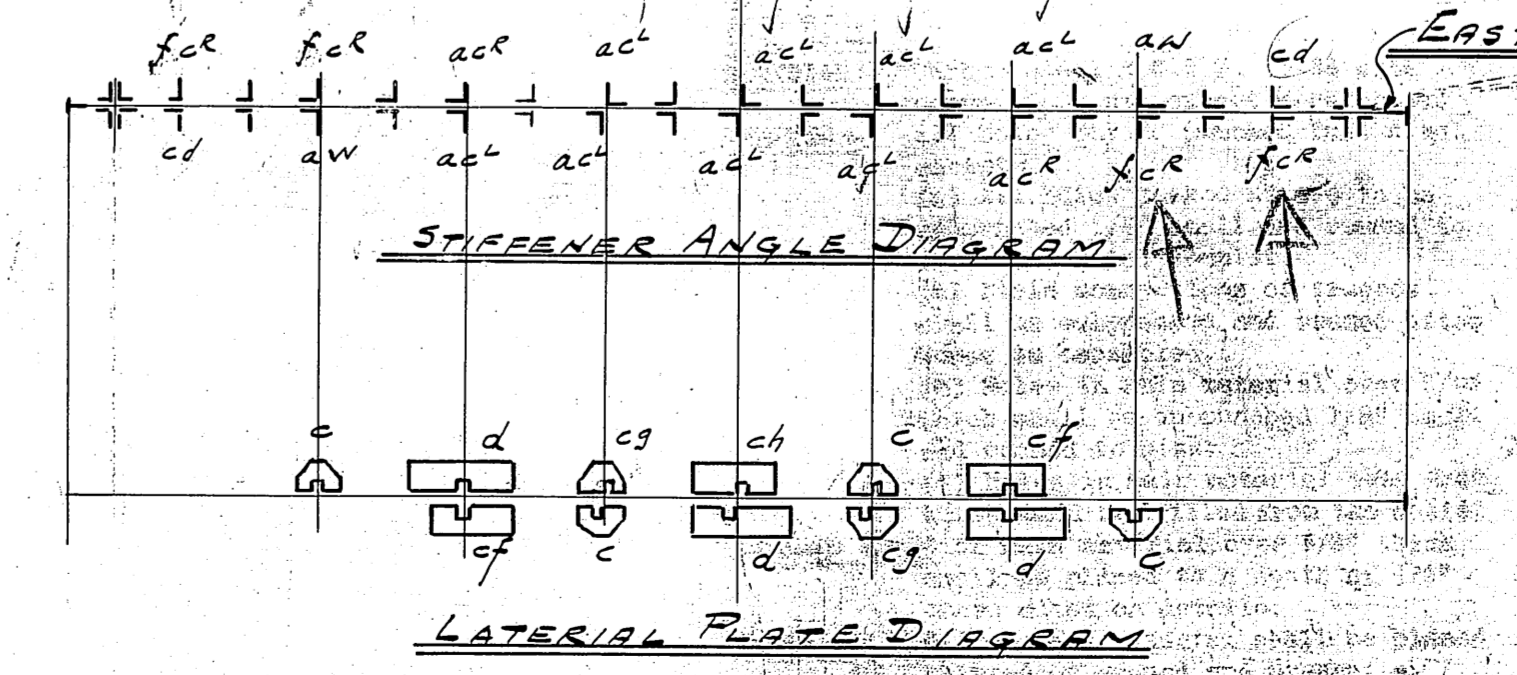
REQUIRED LIST			
Nº REQ'D.	DESCRIPTION	MARK	REMARKS
1	Girder	G9	

OUTSIDE GIRDER - SPAN 3-4
COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CANT. DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
FABRICATED, STEEL CONSTRUCTION
Drawings at Reading, Fabrication at
IN CHARGE: BORN / 3/6/37
CHECKED BY: G.S. / 3/6/37
REVISED BY: LAST ASSEY, INC. / P
CONTRACT CC25872
SHOP NO. 1





NOTE:
SEPARATION BETWEEN FL. B.M. CONNECTION L'S MUST BE MAINTAINED.



REQUIRED LIST			
NO. REQ'D	DESCRIPTION	MARK	REMARK
1	GIRDER	G11	

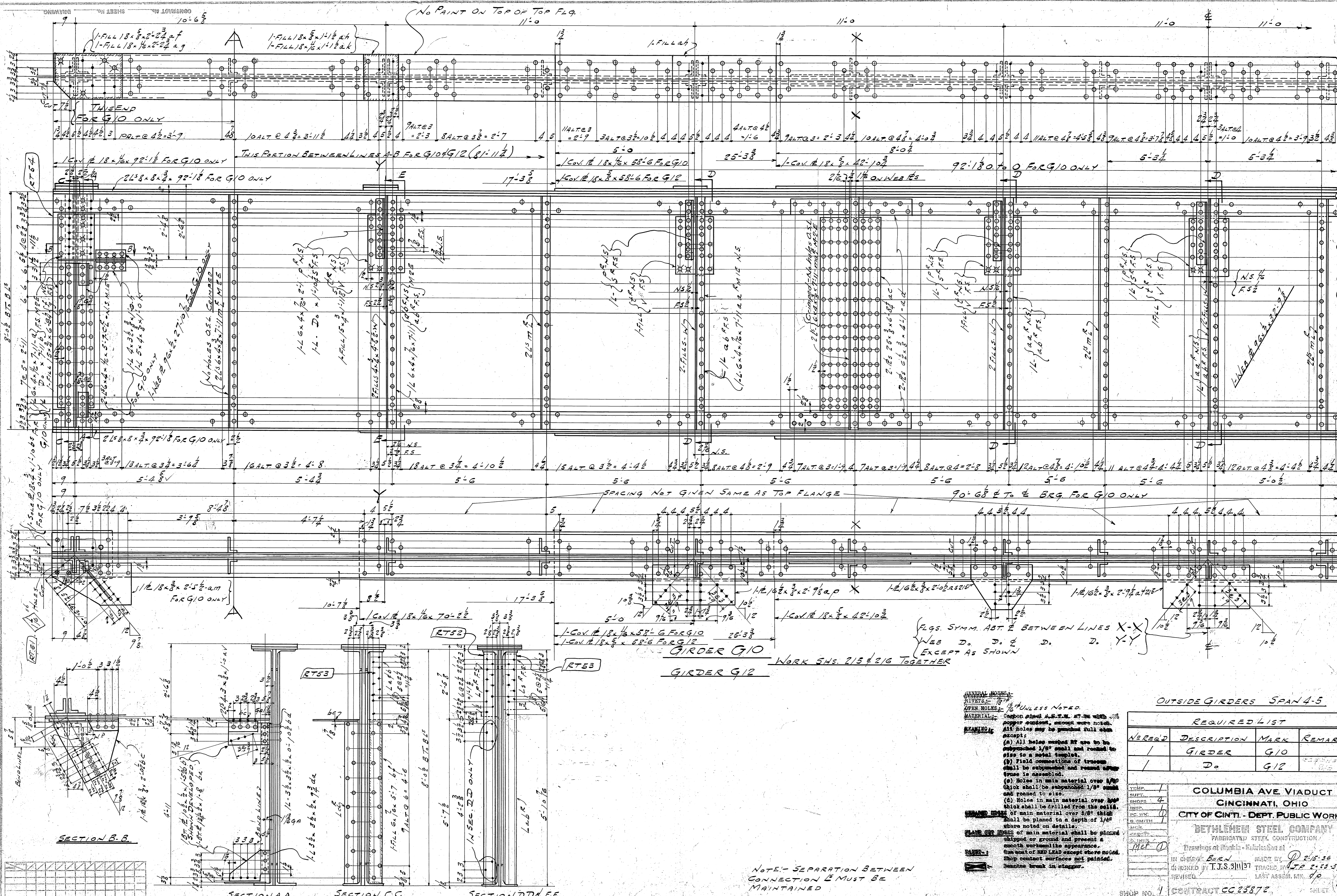
CENTER GIRDER G11 SPAN 4-5
COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTI. - DEPT. PUBLIC WORKS

BEULHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
Drawings at Rankin-Fabrickation at

IN CHARGE: BOB... MADE BY: P. 2-24-37
CHECKED BY: G.S. 3/1/37 TRADED BY: J.P. 1-1-37
REVISED: G.S. 5/26/37 LAST APPROVAL: J.E.

SHOP NO. 1 CONTRACT CC25872 SHEET 214
P.C. W. CO. 4-21-37

FOR GENERAL NOTES SEE SHEET #215
Shop Note: Separation between floor beams must be maintained
Rivets: 1/2" unless noted
Open Holes: 1 1/2" "



GENERAL NOTES:
 RIVETS: 1/2"
 OPEN HOLES: 1/8" UNLESS NOTED.
 MATERIAL: Carbon steel A.S.T.M. A7-36 with proper equipment, except where noted. All holes may be punched full size except:
 (a) All holes punched at site to be oversized 1/8" and rounded to size to a metal template.
 (b) Field connections of trusses shall be subspliced and rounded at top truss to develop.
 (c) Holes in main material over 1/4" shall be subspliced 1/8" and rounded to size.
 (d) Holes in main material over 1/4" shall be drilled from the solid.
 (e) Holes in main material over 1/4" shall be planned to a depth of 1/8".
 PAINT: ALL SURFACES OF main material shall be painted shipped or ground and present a smooth workmanlike appearance. One coat of RED LEAD except where noted. Shop contact surfaces not painted. Denture break in stagger.

OUTSIDE GIRDERS SPAN 4-5

REQUIRED LIST			
NO REQ'D	DESCRIPTION	MARK	REMARKS
1	GIRDER	G10	
1	D.	G12	

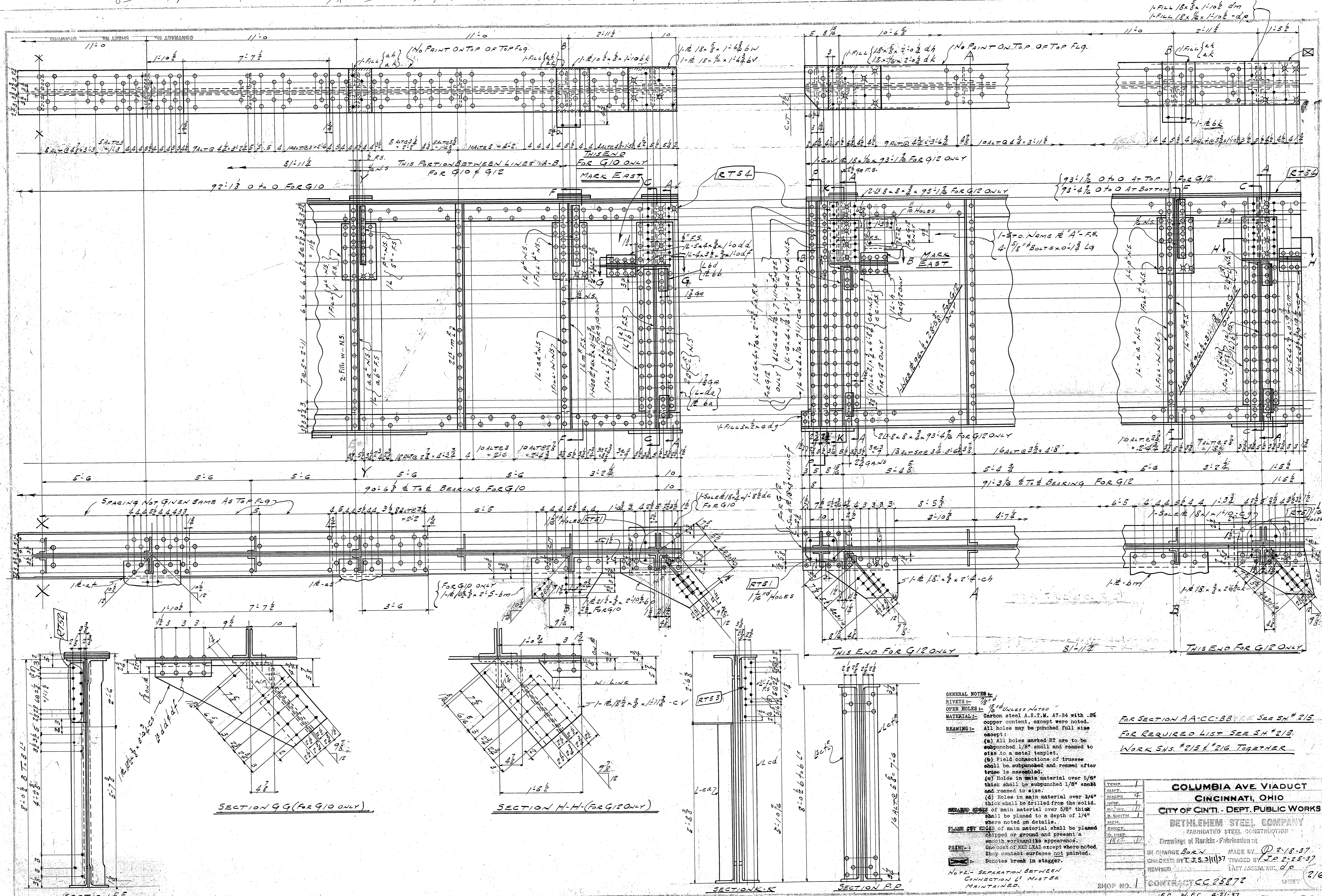
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS

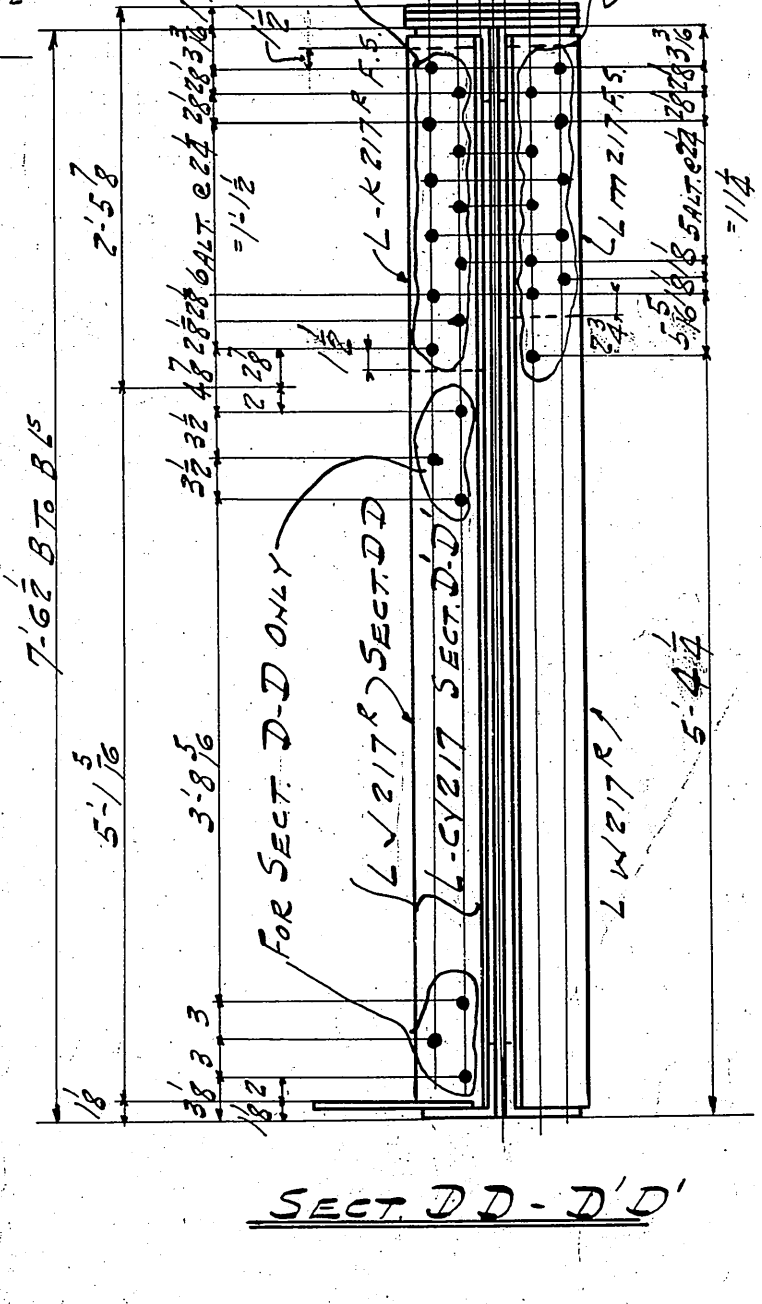
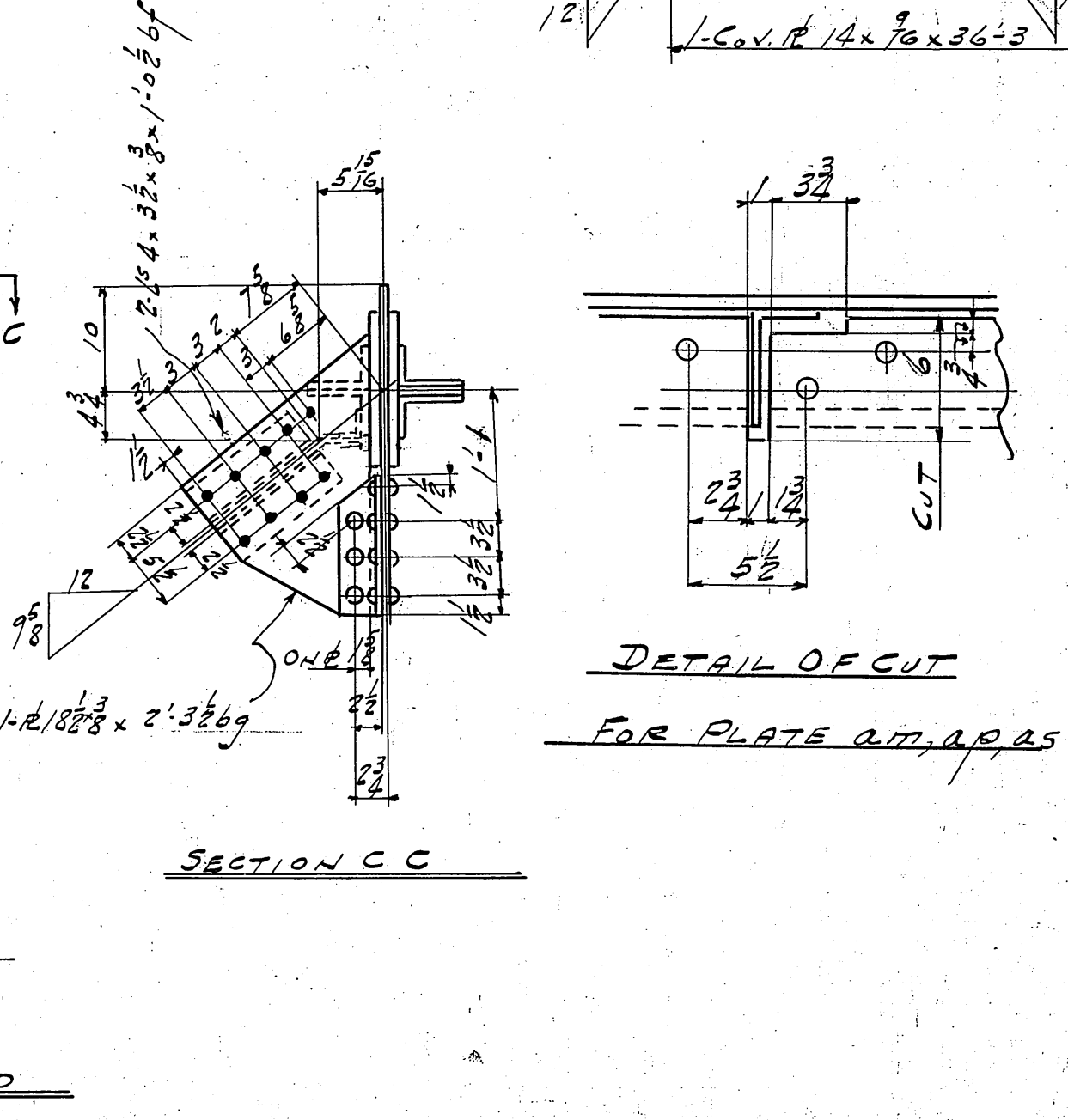
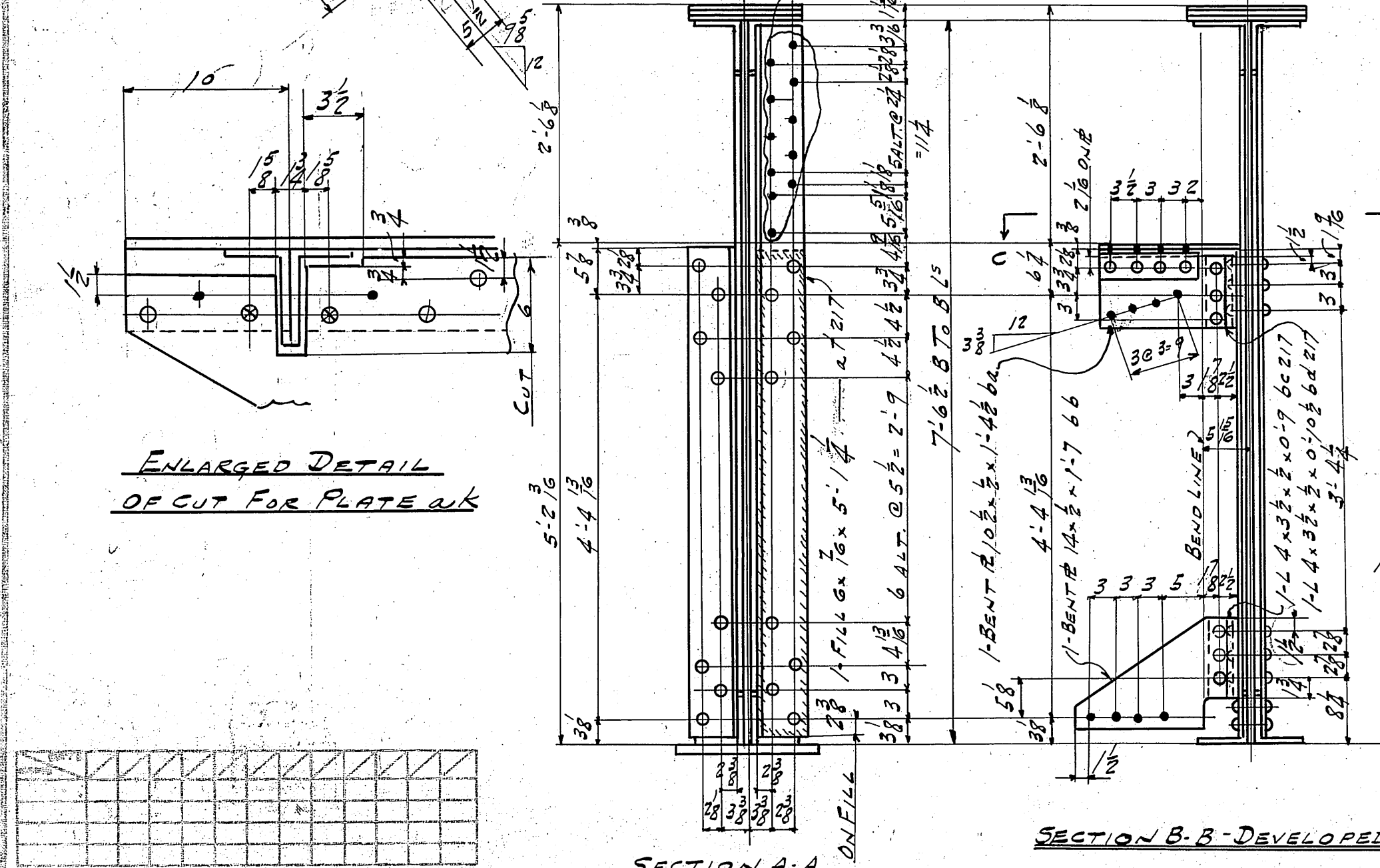
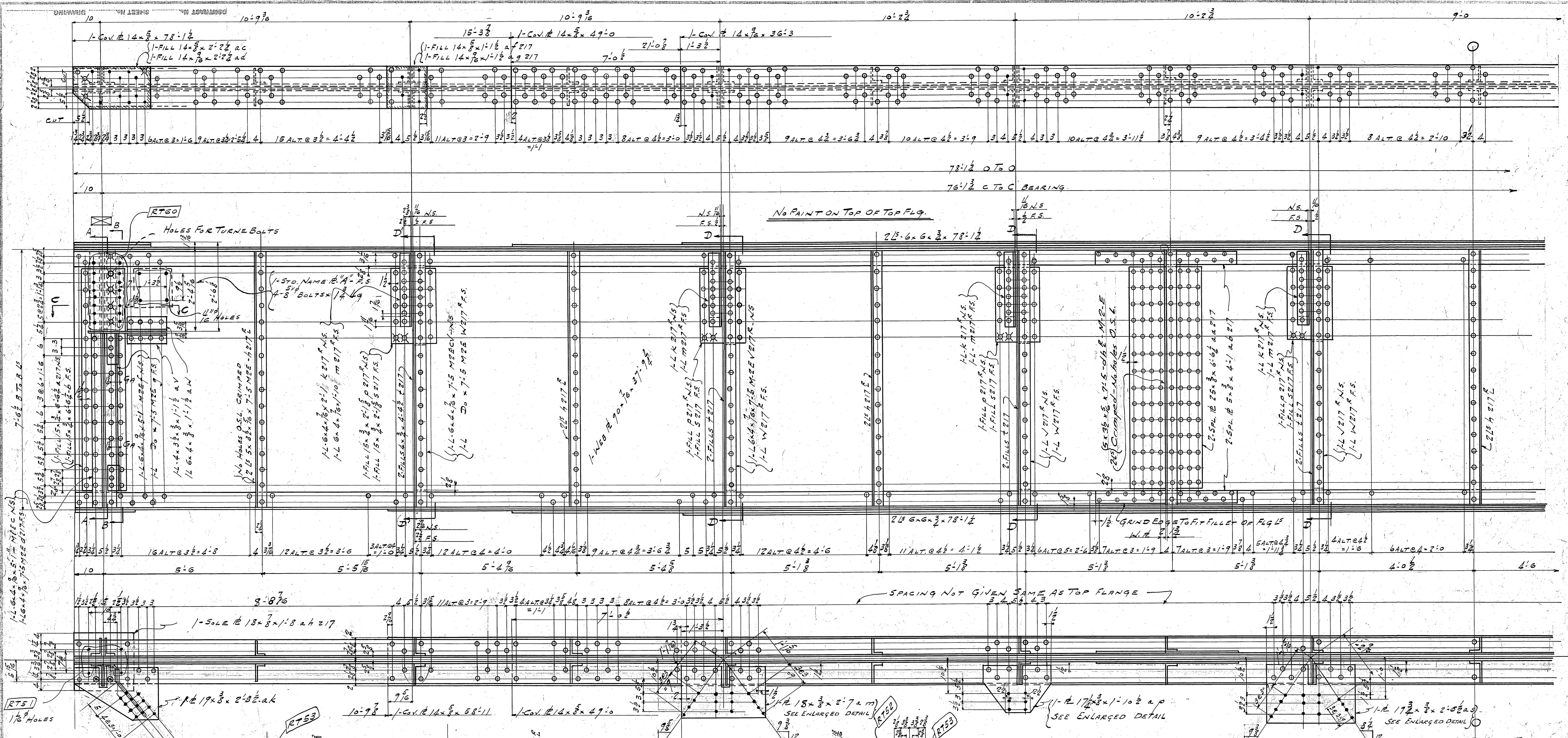
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Shop - Fabrication at

IN CHARGE: BORN MADE BY: P. 215-36
 CHECKED BY: T.J.S. 3/11/37 TRACED BY: J.P. 2-13-37
 REVISED: LAST ASSEMB. MK. 9p

SHIP NO. 1 CONTRACT CC 25872 SHEET 215
 F.C. W.F.C. 4-21-37 15-8-28

NOTE - SEPARATION BETWEEN CONNECTION E MUST BE MAINTAINED



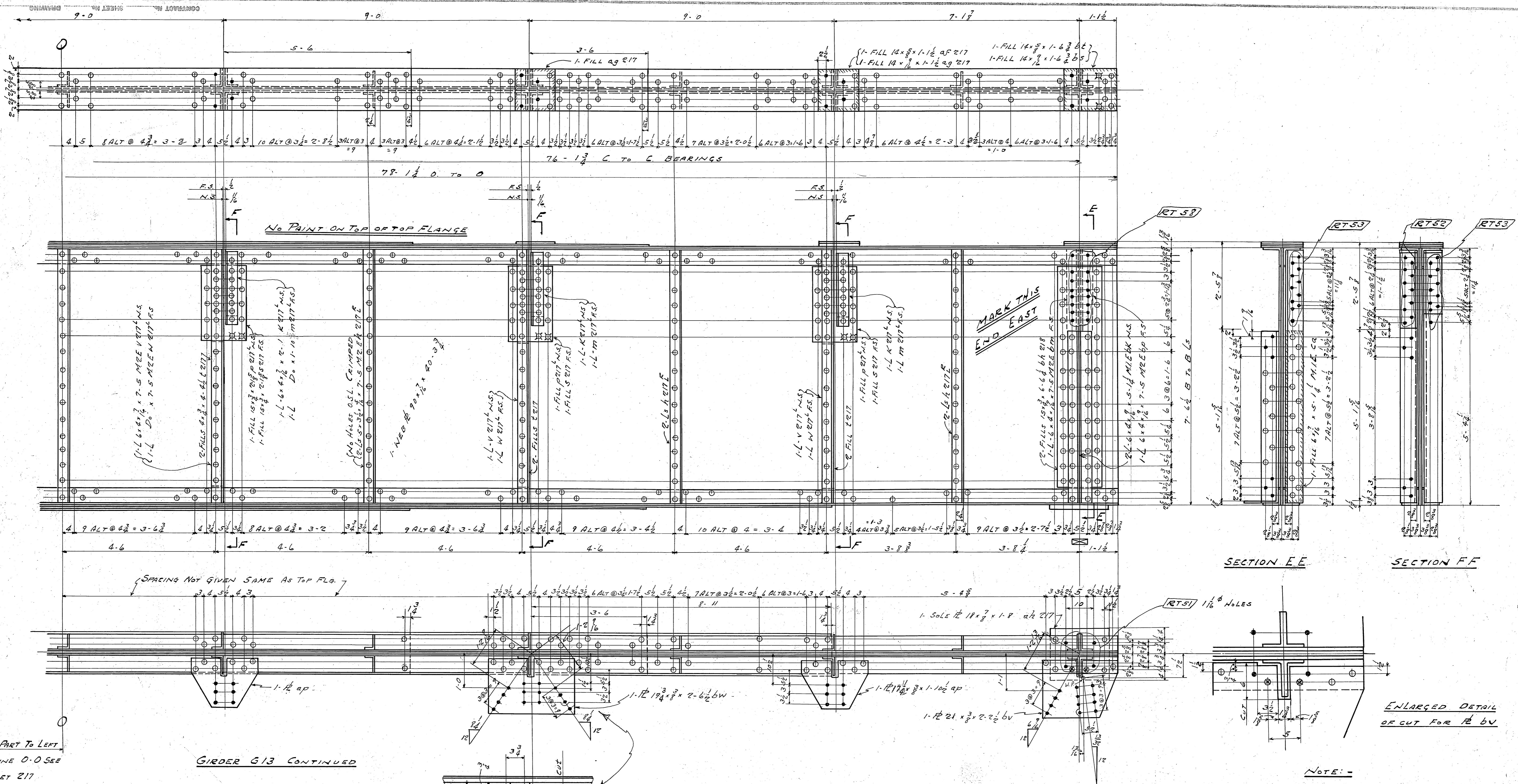


SHOP NOTE: - SEPARATION BETWEEN CONNECTIONS MUST BE MAINTAINED

GENERAL NOTES:
 RIVETS: 7/8"
 OPEN HOLES: 1 1/8" UNLESS NOTED
 MATERIAL: Carbon steel A.S.T.M. A7-34 with .5% copper content, except where noted.
 FINISH: All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the side.
 SHEAR EDGES: Edges of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 FLAME CUT EDGES: Edges of main material shall be planed, clipped or ground and present a smooth workmanlike appearance. One coat of zinc LEAD except where noted.
 PAINT: Shop contact surfaces hot painted.
 Denotes break in stagger.

NOTE: MARK SHEET 217 & 218 TOGETHER

REQUIRED LIST			
No. REQ'D	DESCRIPTION	MARK	REMARKS
1	GIRDER	G13	
OUTSIDE GIRDER SPAN 12-13			
COLUMBIA AVE VIADUCT			
CINCINNATI, OHIO			
CITY OF CINT. DEPT. PUBLIC WORKS			
WELLS FARGO STEEL COMPANY			
FABRICATED STEEL CONSTRUCTION			
Drawings of Rankin, Fabrication at			
DESIGNED BY	MADE BY	J.K.L. 2/6/37	
CHECKED BY	TRACED BY	J.P. 3-9-37	
REVISED	LAST ASSEM. MK.		
SHOP NO. 1		CONTRACT CC25872	
		F.C. W.F.C. 4-21-37	



FOR PART TO LEFT
OF LINE 0-0 SEE
SHEET 217

GIRDER G13 CONTINUED

ENLARGED DETAIL
OF CUT FOR 1 1/2\"/>

SHOP NOTE:-
SEPARATION BETWEEN CONNECTION
ANGLES MUST BE MAINTAINED.

- GENERAL NOTES:-**
- RIVETS:-**
 - OPEN HOLES:-**
 - MATERIAL:-** Carbon steel A. S. F. S. A7-54 with 2% copper content, except where noted. All holes may be punched full size except:
 - DRILLING:-**
 - (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 - (b) Field connections of trusses shall be subpunched and reamed after stress is assembled.
 - (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 - (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 - SEPARATED EDGES** of main material over 5/8" thick shall be planed to a depth of 1/8" where noted on detail.
 - FLAME CUT EDGES** of main material shall be planed, clipped or ground and present a smooth workmanlike appearance.
 - PAINT:-** One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 - Denotes break in stagger.**

NOTE:-
WORK SHEETS 217 & 218 TOGETHER
FOR REQUIRED LIST SEE SHEET 217.

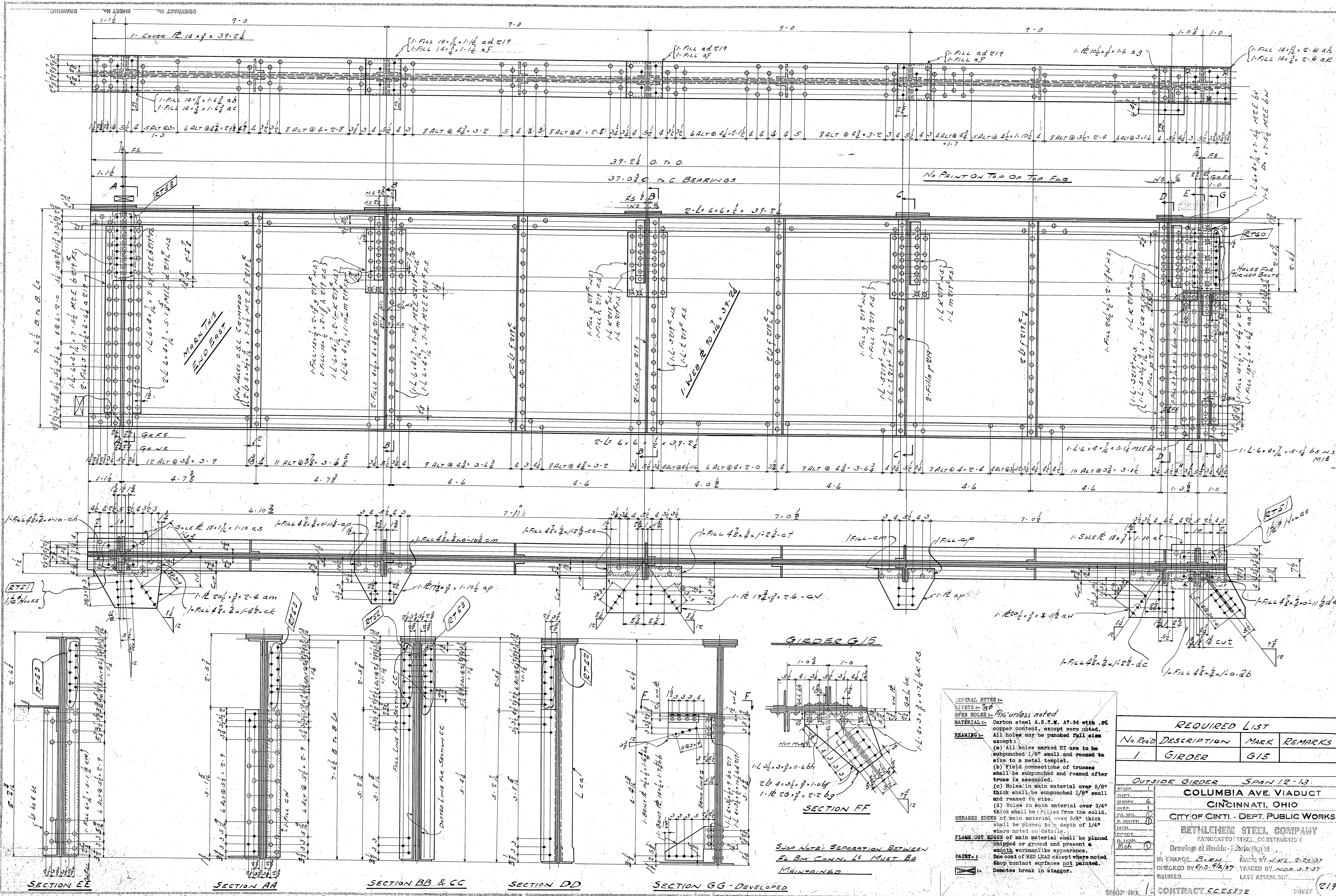
OUTSIDE GIRDER - SPAN 12-13

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINT. - DEPT. PUBLIC WORKS

NETHELEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
Drawings of Nethelem - Fabrication of

IN CHARGE: G. S. 3/2/37
CHECKED BY: G. S. 3/2/37
REVISIONS: 1

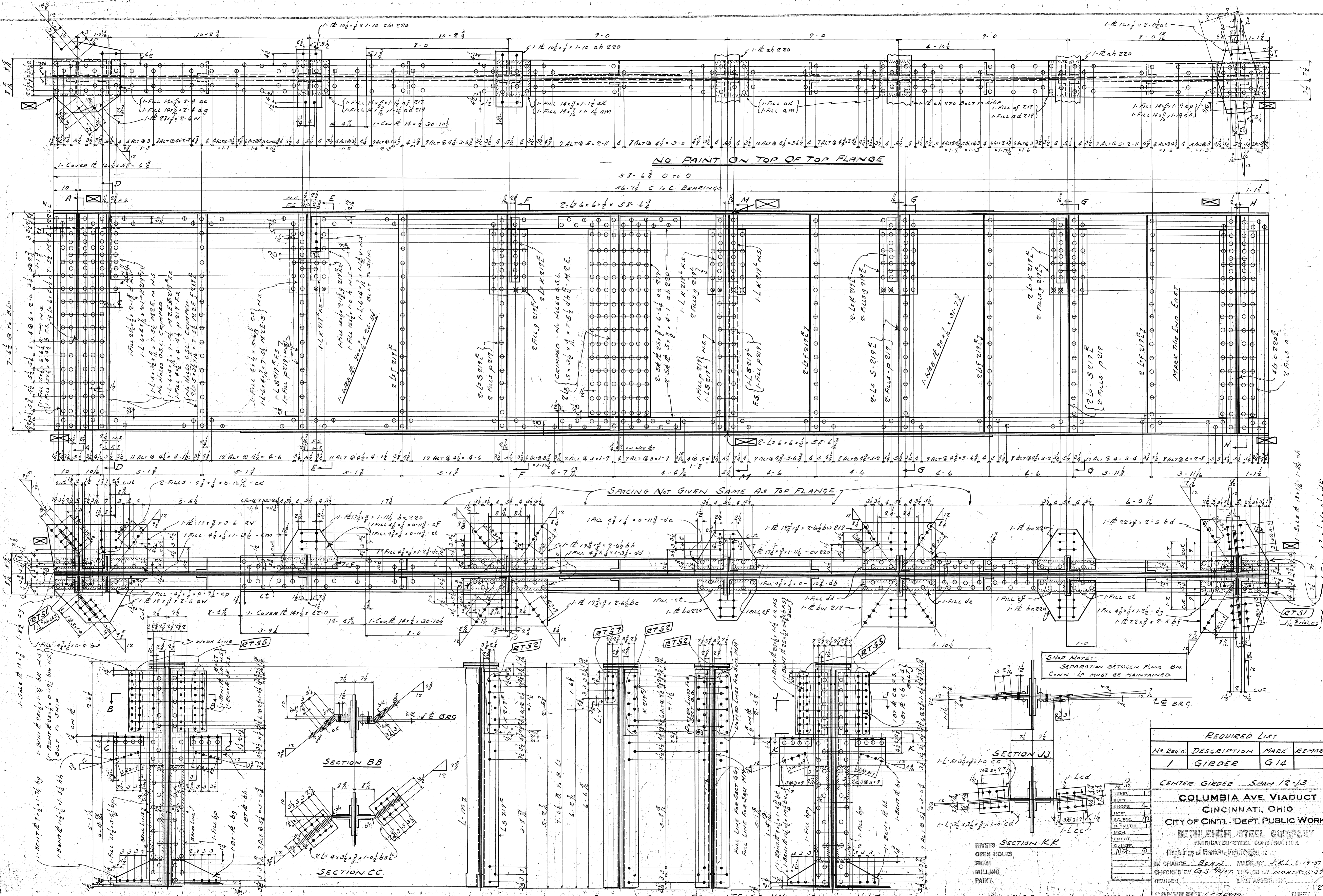
MADE BY: J. K. L.
TRACED BY: N. D. P. 3-5-37
LAST ASSEM. MK.



GENERAL NOTES:-
 NUTS: 7/8"
 OPEN HOLES: 1/8" unless noted
MATERIAL:- Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted.
REMARKS:- All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES of main material shall be planed, shipped or ground and present a smooth workmanlike appearance.
PAINT:- One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 - Denotes break in stagger.

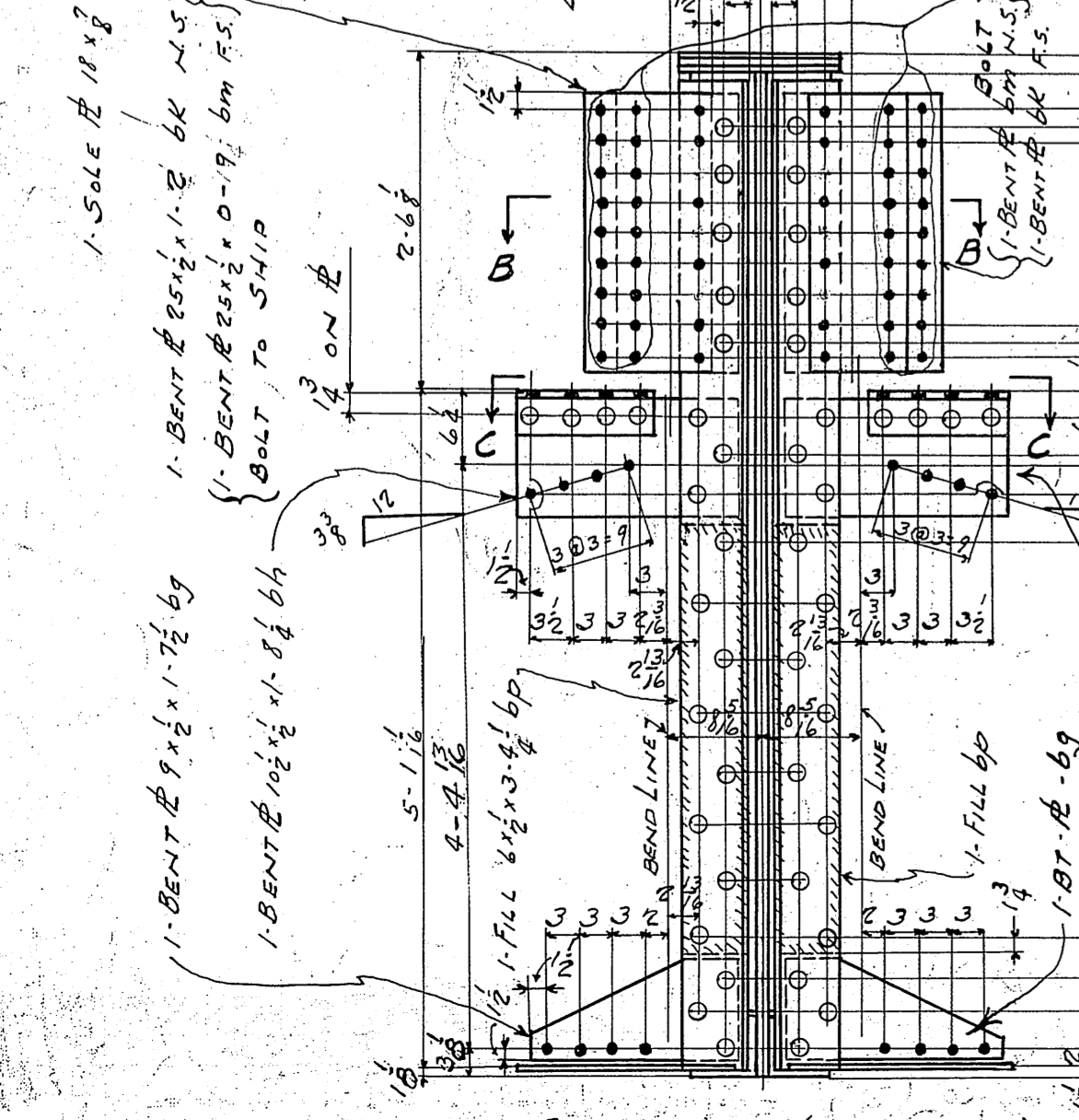
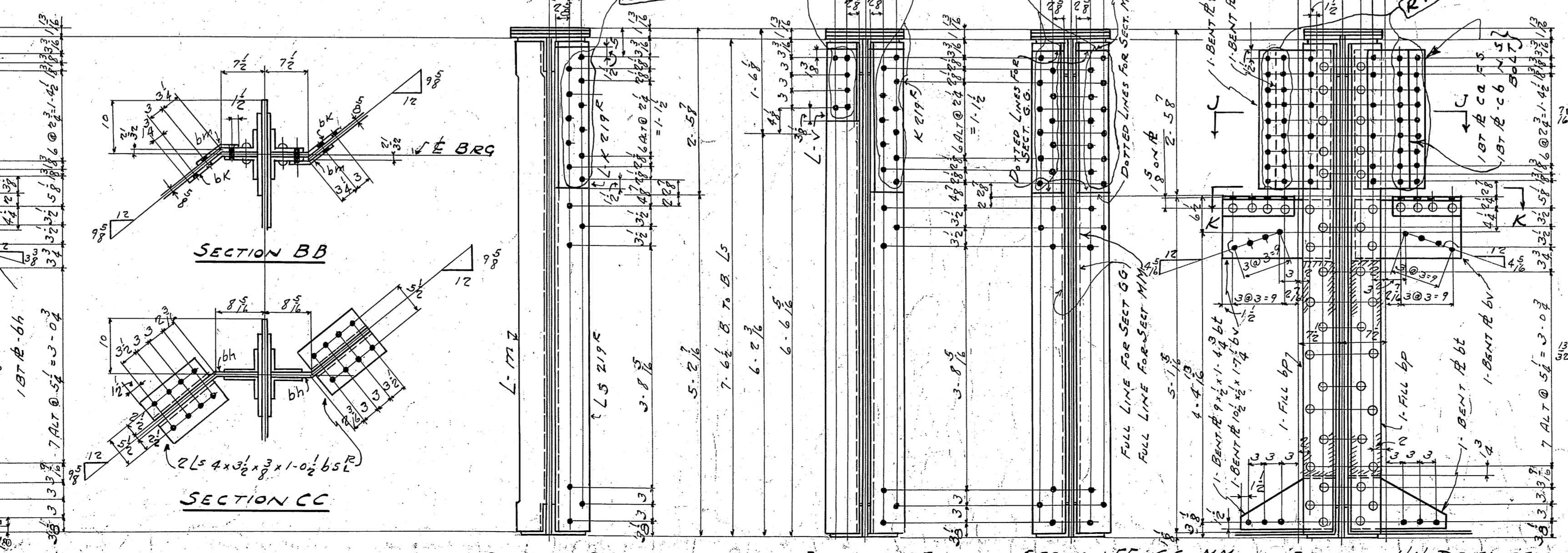
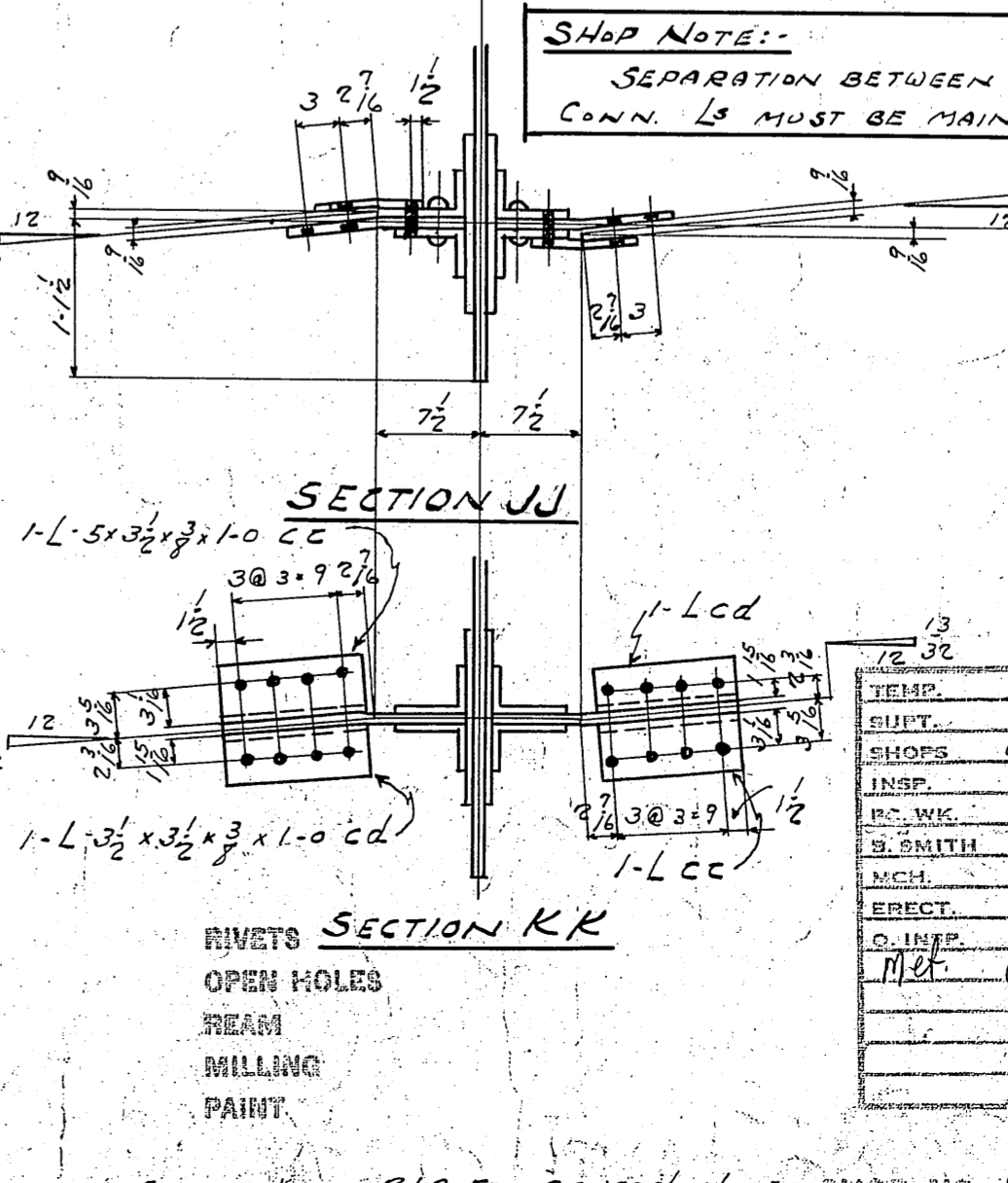
REQUIRED LIST			
No. Req'd	DESCRIPTION	MARK	REMARKS
1	GIRDER	G15	

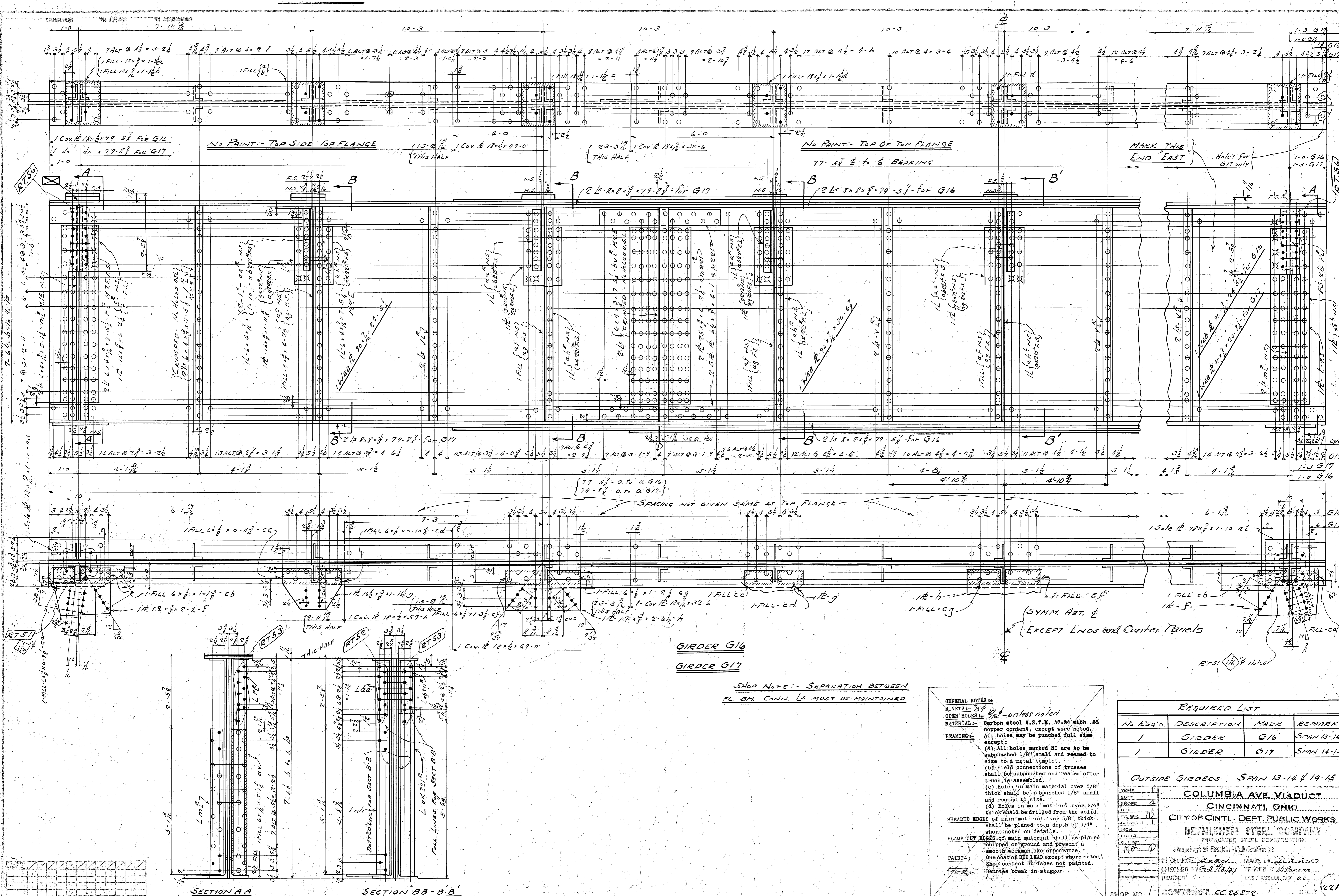
OUTSIDE GIRDER SPAN 12-13
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTI. - DEPT. PUBLIC WORKS.
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings of Reinfr. Fabrication Co.
 IN CHARGE: BREN MADE BY J.K.L. 2-28-37
 CHECKED BY G.S. 3-9-37 TRACED BY N.D.A. 3-9-37
 REVISED: LAST ASSEM. N.Y.
 SHOP NO. 1 CONTRACT C.C. 25872 SHEET 219
 P.C. W.C. 4-21-37



REQUIRED LIST			
No Req'd	DESCRIPTION	MARK	REMARKS
1	GIRDER	G14	
CENTER GIRDER SPAN 12-13			
COLUMBIA AVE VIADUCT			
CINCINNATI, OHIO			
CITY OF CINTL - DEPT. PUBLIC WORKS			
BETHLEHEM STEEL COMPANY			
FABRICATED STEEL CONSTRUCTION			
Drawings of Rankin, Ferguson & Co.			
IN CHARGE BORN		MADE BY J.M.L. 2-19-37	
CHECKED BY G.S. 4/17		TRACED BY N.R. 3-11-37	
REVISED		LAST ASSEMBLY	

CONTRACT 66-25812
 R.C. W.F.C. 4-21-37
 15-8-33





GIRDER G16
GIRDER G17

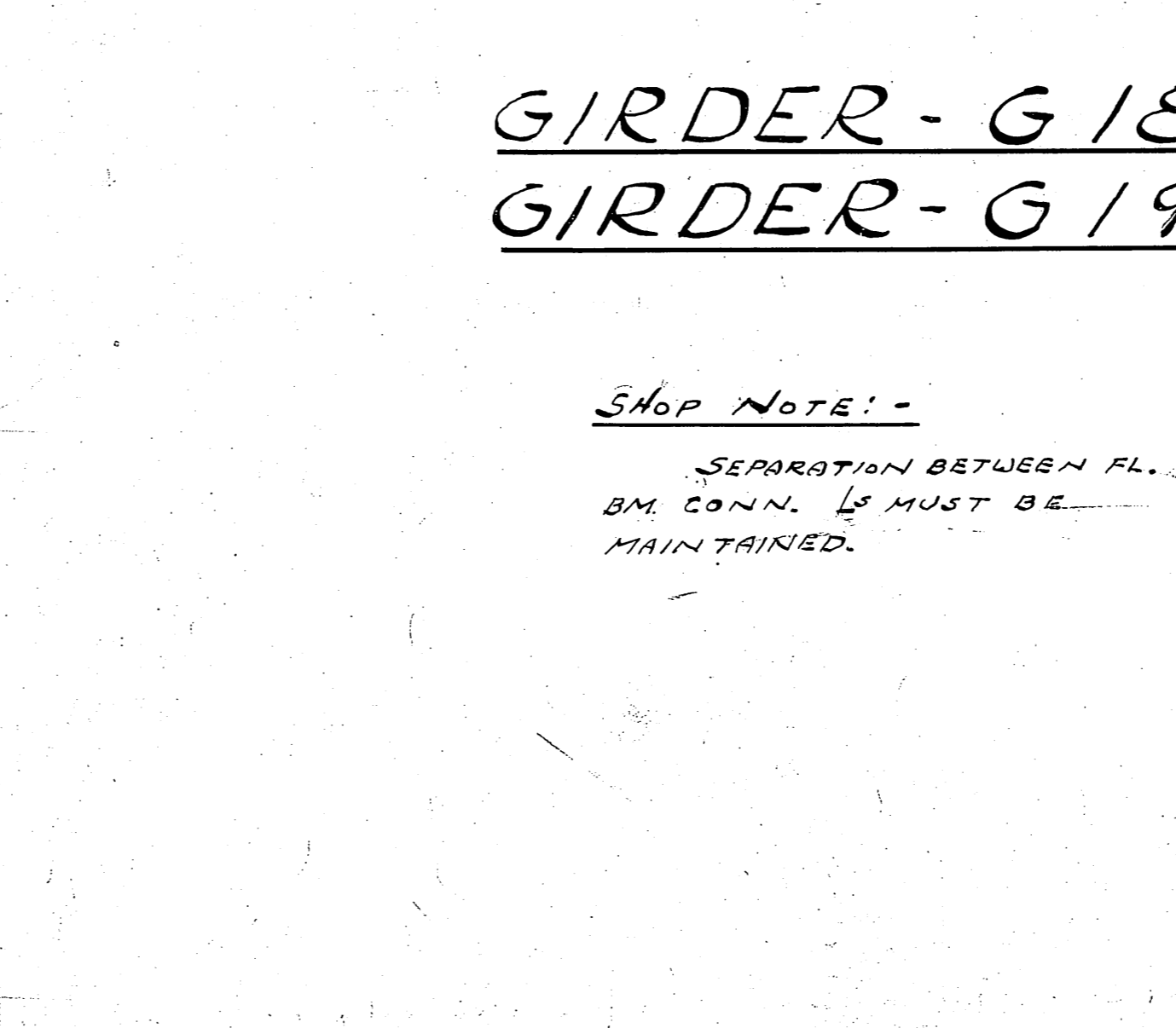
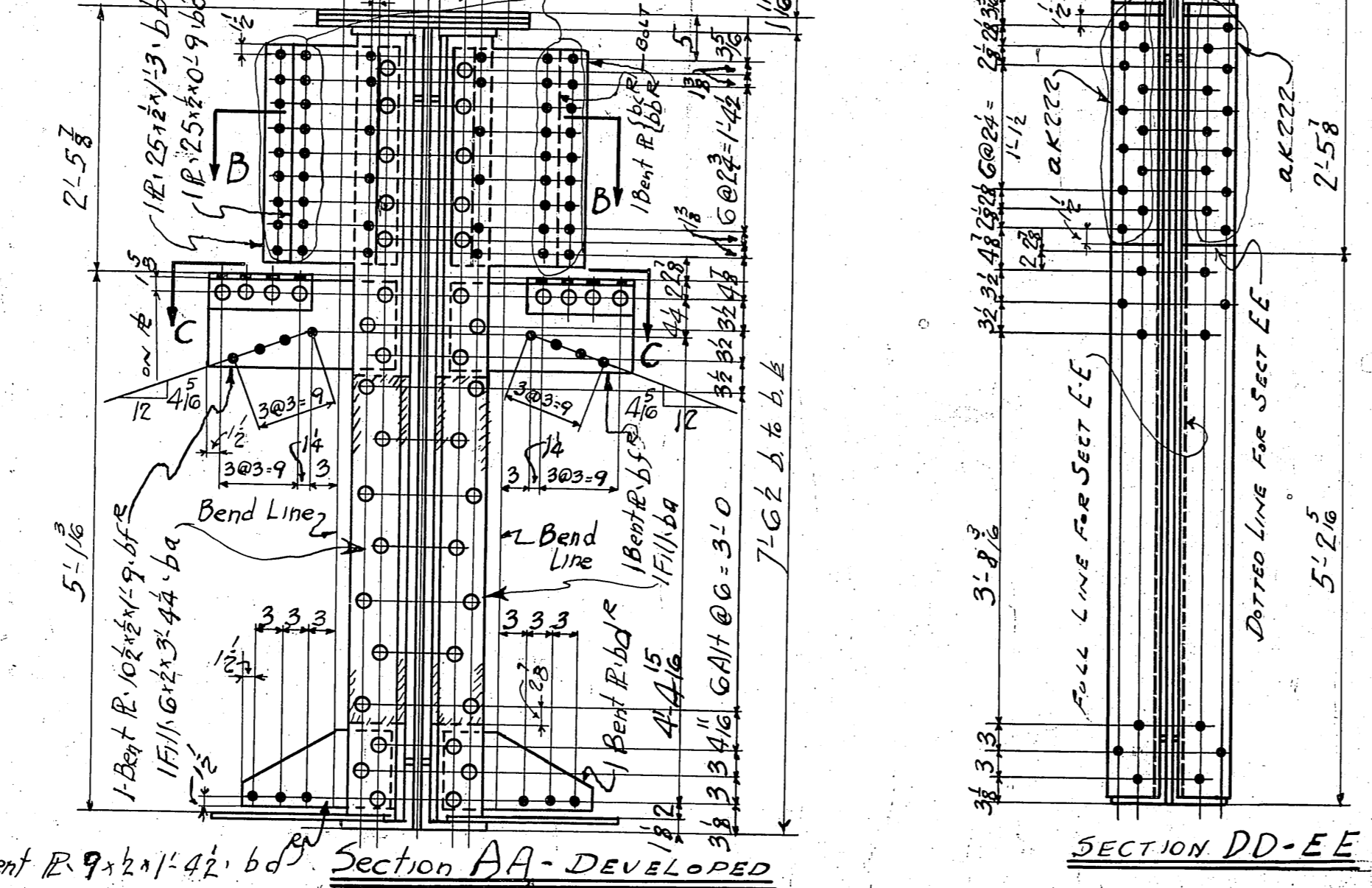
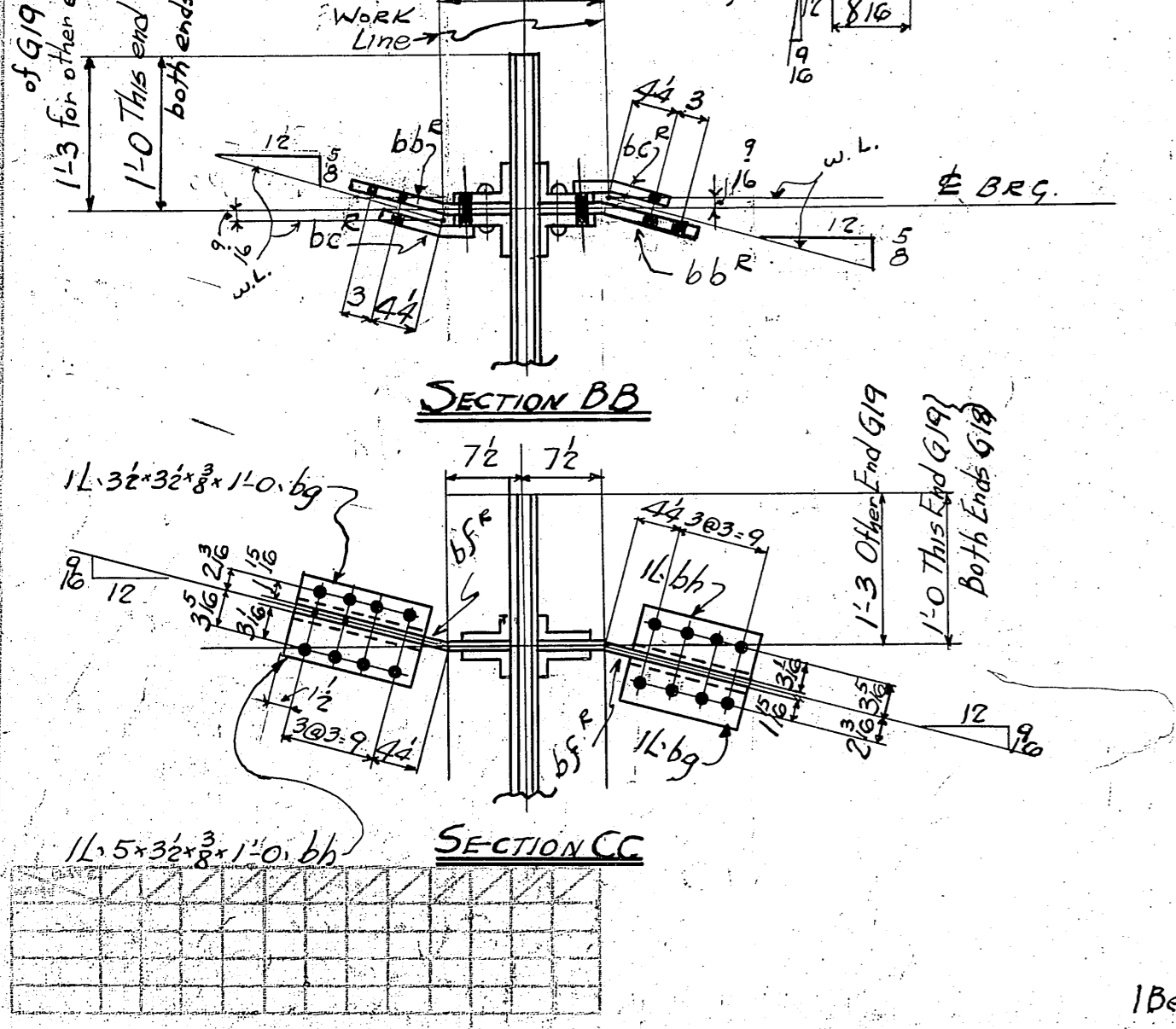
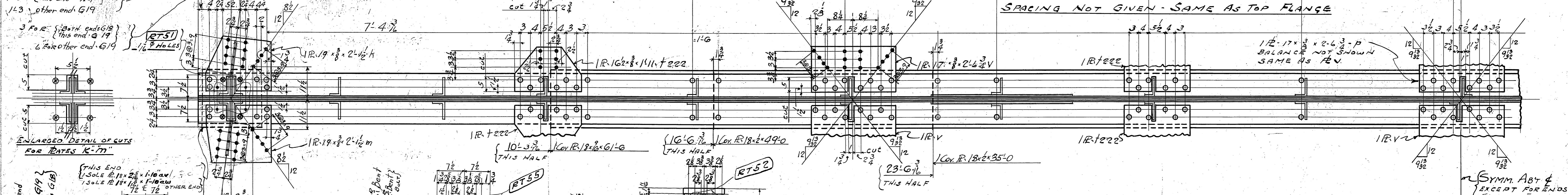
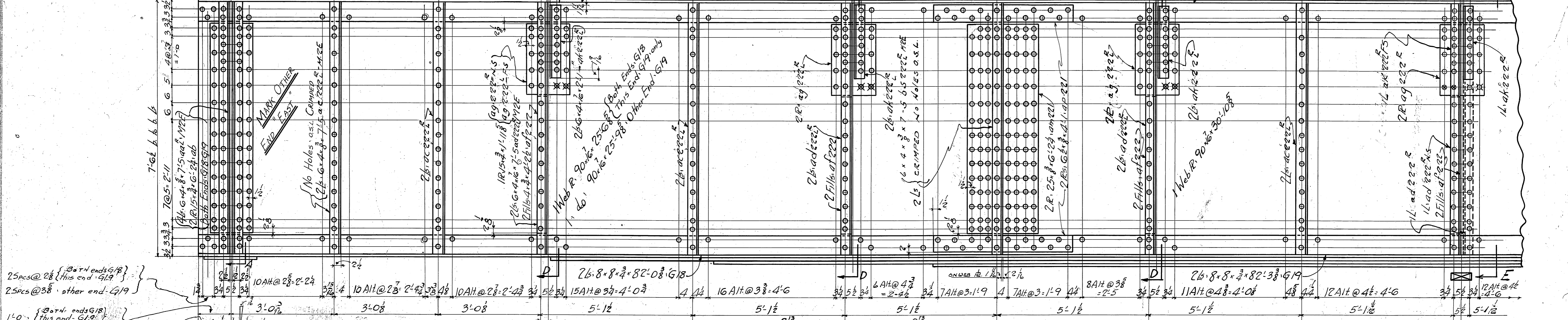
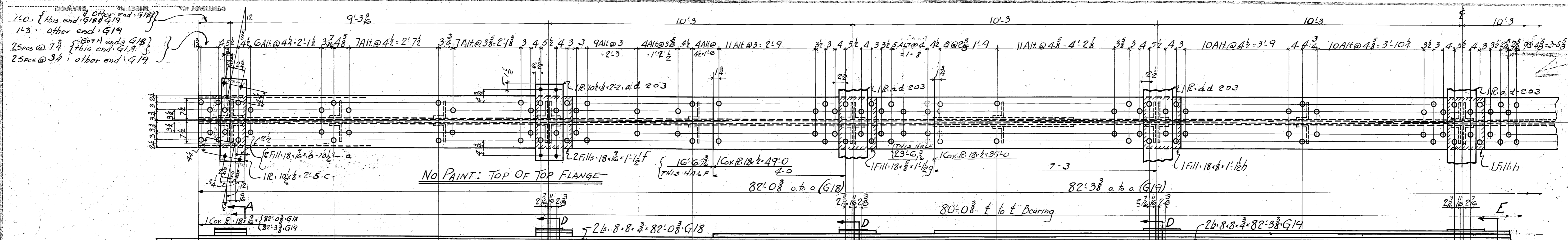
SHOP NOTE: - SEPARATION BETWEEN
FL. BM. CONN. LS MUST BE MAINTAINED

GENERAL NOTES:
 RIVETS: B8
 OPEN HOLES: 1/16" - unless noted
 MATERIAL: Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 FLAME CUT EDGES of main material shall be planed chipped or ground and present a smooth workmanlike appearance.
 PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 Denotes break in stagger.

REQUIRED LIST			
No. REQ'D.	DESCRIPTION	MARK	REMARK
1	GIRDER	G16	SPAN 13-14
1	GIRDER	G17	SPAN 14-15

OUTSIDE GIRDERS SPAN 13-14 & 14-15
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS
DETLEFSEN STEEL COMPANY
 FABRICATED, STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at
 IN CHARGE: BARN MADE BY: J. J. 3-2-37
 CHECKED BY: G.S. 12/1/37 TIERED BY: Al. Beaco
 REVISED: LAST ASSEMB. TAK. at

SHOP NO. 1 CONTRACT: C.C. 258792 SHEET 221
 P.C. N.F.C. 4-21-37



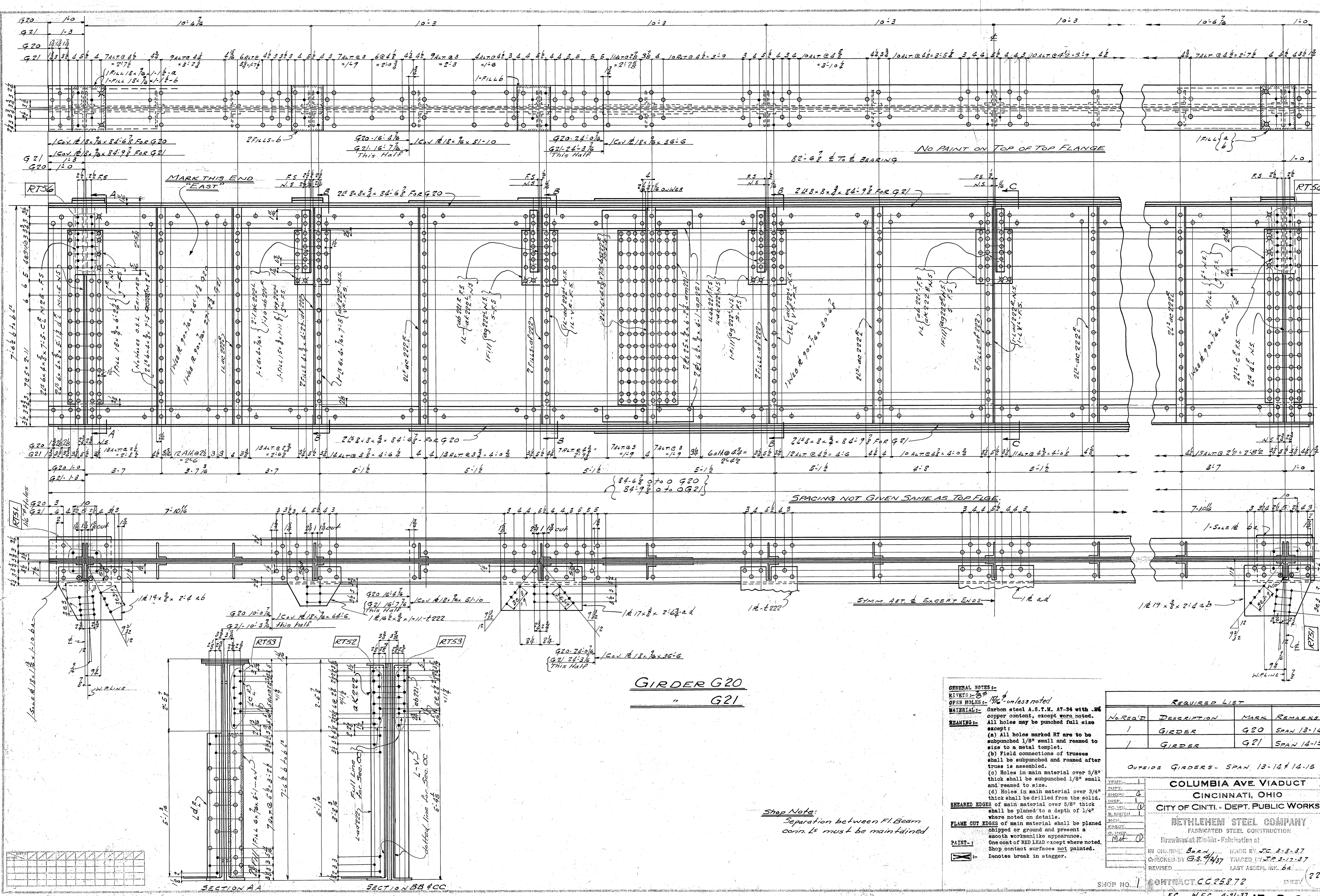
GIRDER - G 18
GIRDER - G 19

SHOP NOTE: -
SEPARATION BETWEEN FL. & BM. CONN. IS MUST BE MAINTAINED.

- GENERAL NOTES:**
- SILVER - 70/80 unless noted.
 - OPEN HOLES -
 - MATERIAL - Carbon steel A.S.T.M. A7-54 with .5% copper content, except where noted.
 - REAMING - All holes may be punched full size except:
 - (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 - (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 - (c) Holes in main material over 5/8" thick shall be drilled from the solid.
 - (d) Holes in main material over 3/4" thick shall be subpunched 1/8" small and reamed to size.
 - SHEARED EDGES of main material over 5/8" thick shall be planned to a depth of 1/4" where noted on details.
 - FLAME CUT EDGES of main material shall be planned, chipped or ground and present a smooth workmanlike appearance.
 - PAINT - One coat of RED LEAD except where noted.
 - Shop contact surfaces not painted.
 - Denotes break in stagger.

REQUIRED LIST			
No Req'd	DESCRIPTION	MARK	REMARKS
1	GIRDER	G18	SPAN 13-14
1	GIRDER	G19	SPAN 14-15

CENTER GIRDERS - SPAN 13-14 & 14-15
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTI. - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Hankin-Fabrication at
 IN CHARGE: BARN MADE BY: J. 3/16/36
 CHECKED BY: G.S. 7/6/37 TRACED BY: 3/16/36
 REVISED: 7/15/35 2/7 LAST ASSEM. INK.
 SHOP NO. 1 CONTRACT CC-25872 SHEET 222



GIRDER G20
" G21

Shop Note:
Separation between Fl Beam
corin. is must be maintained

- GENERAL NOTES:**
 RIVETS - 1/2" unless noted
 OPEN HOLES - 1/4" unless noted
 MATERIAL - Carbon steel A.S.T.M. A7-34 with 28% copper content, except where noted.
 All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 FLAME CUT EDGES of main material shall be planed chipped or ground and present a smooth workmanlike appearance.
 One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 PAINT -
 X - Denotes break in stagger.

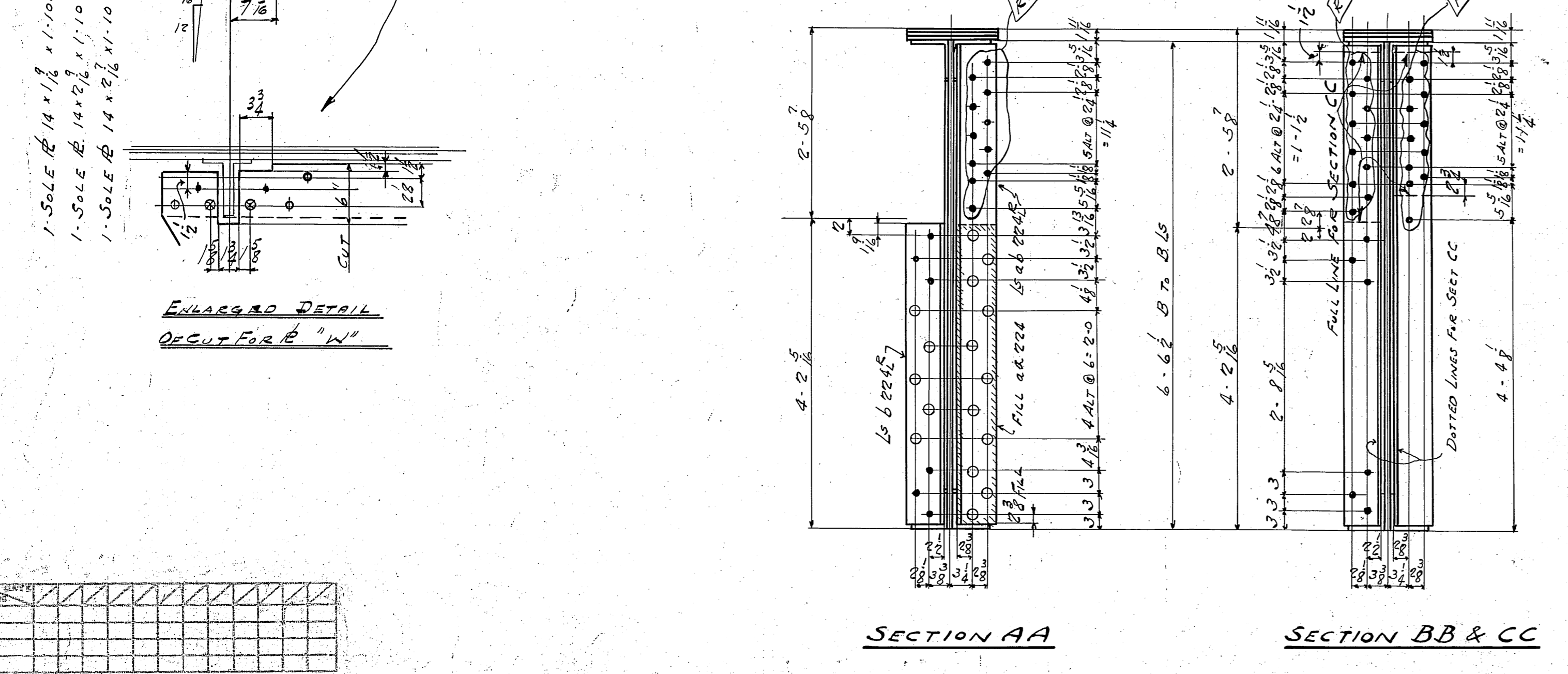
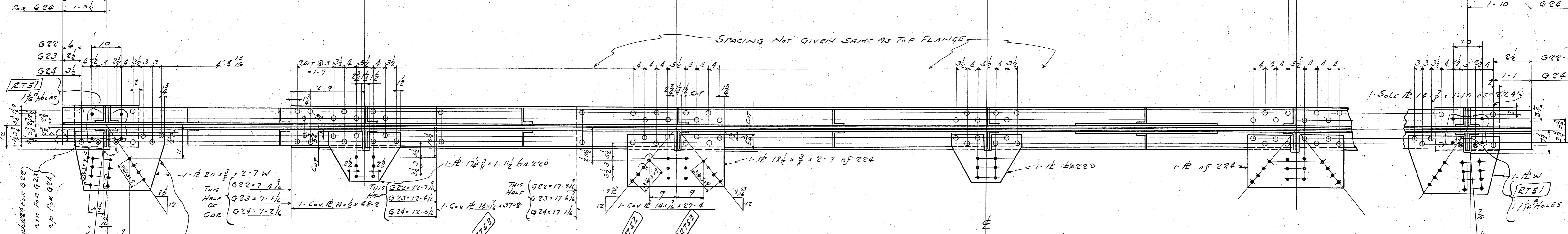
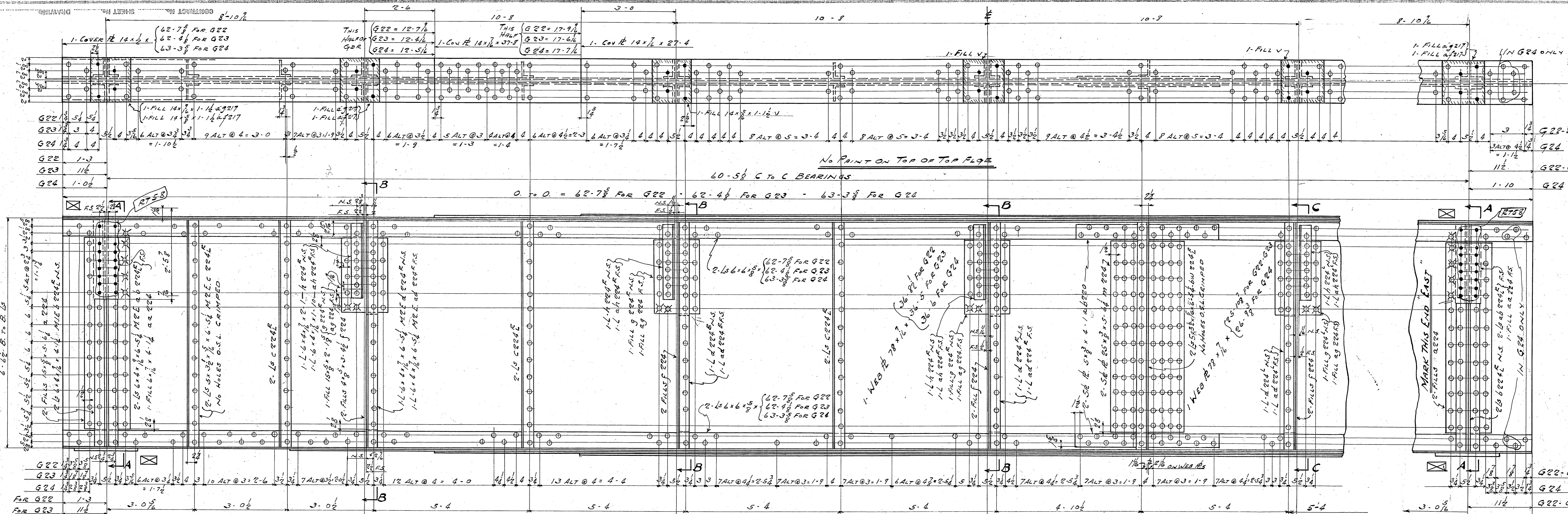
REQUIRED LIST			
NO. REQ'D	DESCRIPTION	MARK	REMARKS
1	GIRDER	G20	SPAN 13-14
1	GIRDER	G21	SPAN 14-15

OUTSIDE GIRDERS - SPAN 13-14 & 14-15

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTI - DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
Purchased at Franklin - Fabrication at

IN CHARGE: *Bern* MADE BY: *J.C. 3-8-37*
 CHECKED BY: *G.S. 4/15/37* TRACED BY: *J.P. 3-17-37*
 REVISED: LAST ASSEM. BY: *ba.*

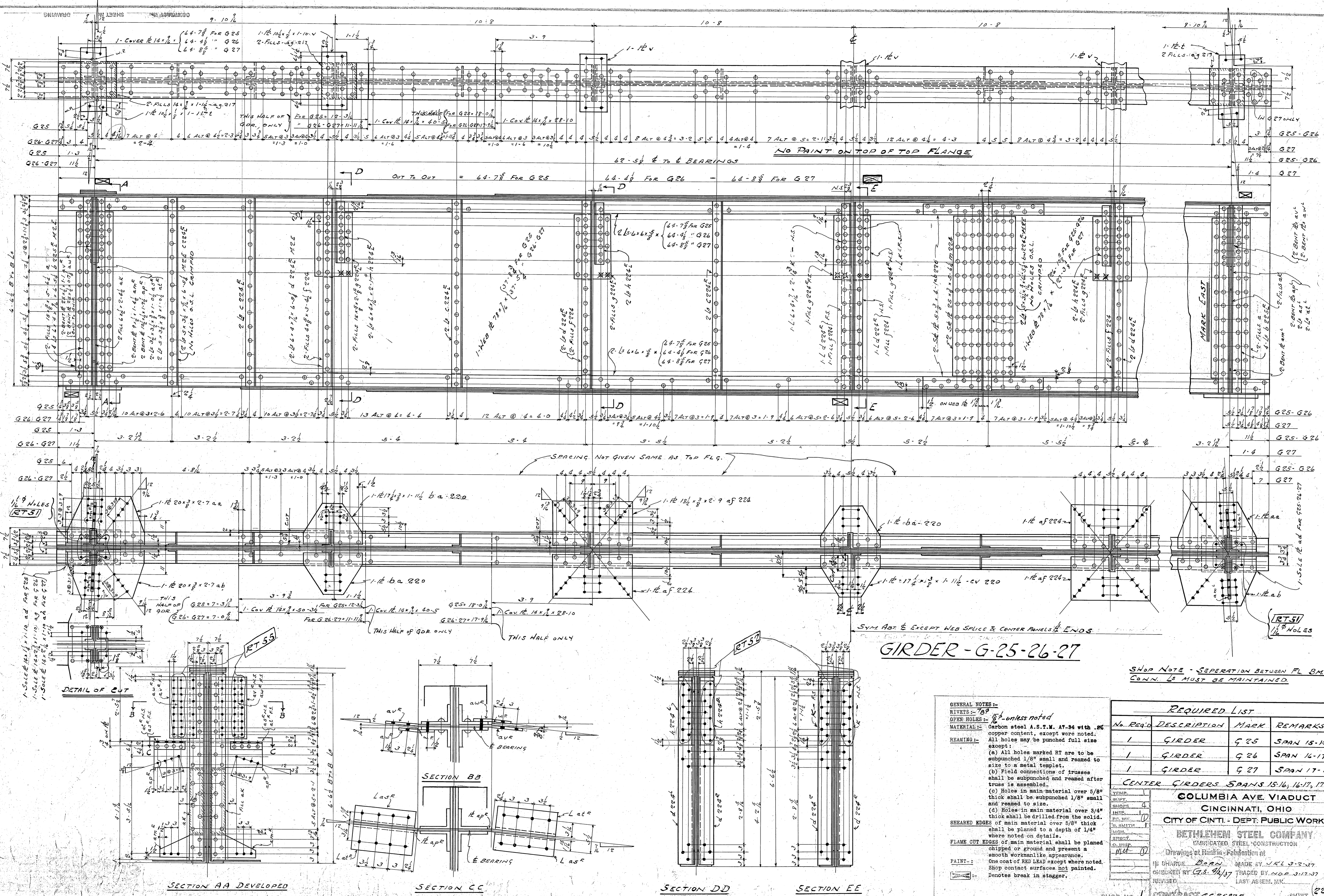


GIRDER G22
 " G23
 " G24

SHOP NOTE
 SEPARATION BETWEEN P.L. BM.
 CONN'L'S MUST BE MAINTAINED

GENERAL NOTES -
 RIVETS - 7/8"
 OPEN HOLES - 1/8" unless noted
 MATERIAL - Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted. All holes may be punched full size except:
 REAMING - (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 SHEARED EDGES - of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 FLAME CUT EDGES - of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
 PAINT - One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 Denotes break in stagger.

REQUIRED LIST			
No. Req'd	DESCRIPTION	MARK	REMARKS
1	GIRDER	G22	SPAN 15-16
1	D.	G23	" 16-17
1	D.	G24	" 17-18
OUTSIDE GIRDER SPANS 15-16; 16-17, 17-18			
COLUMBIA AVE VIADUCT			
CINCINNATI, OHIO			
CITY OF CINT. - DEPT. PUBLIC WORKS			
BETHLEHEM STEEL COMPANY			
FABRICATED STEEL CONSTRUCTION			
Drawings at Rankin - Fabrication at			
IN CHARGE	Boerz	MADE BY	J.R.L. 3-4-37
CHECKED BY	G.S. Aylar	TRACED BY	N.D.R. 3-16-37
REVISED		LAST ASSEM. M.K.	
SHOP NO.	CONTRACT C.C. 25272		SHEET 224
	P.C. W.P.C. 4-21-37		15-8-37



GIRDER - G-25-26-27

SHOP NOTE - SEPERATION BETWEEN FL. BM. CONN. IS MUST BE MAINTAINED.

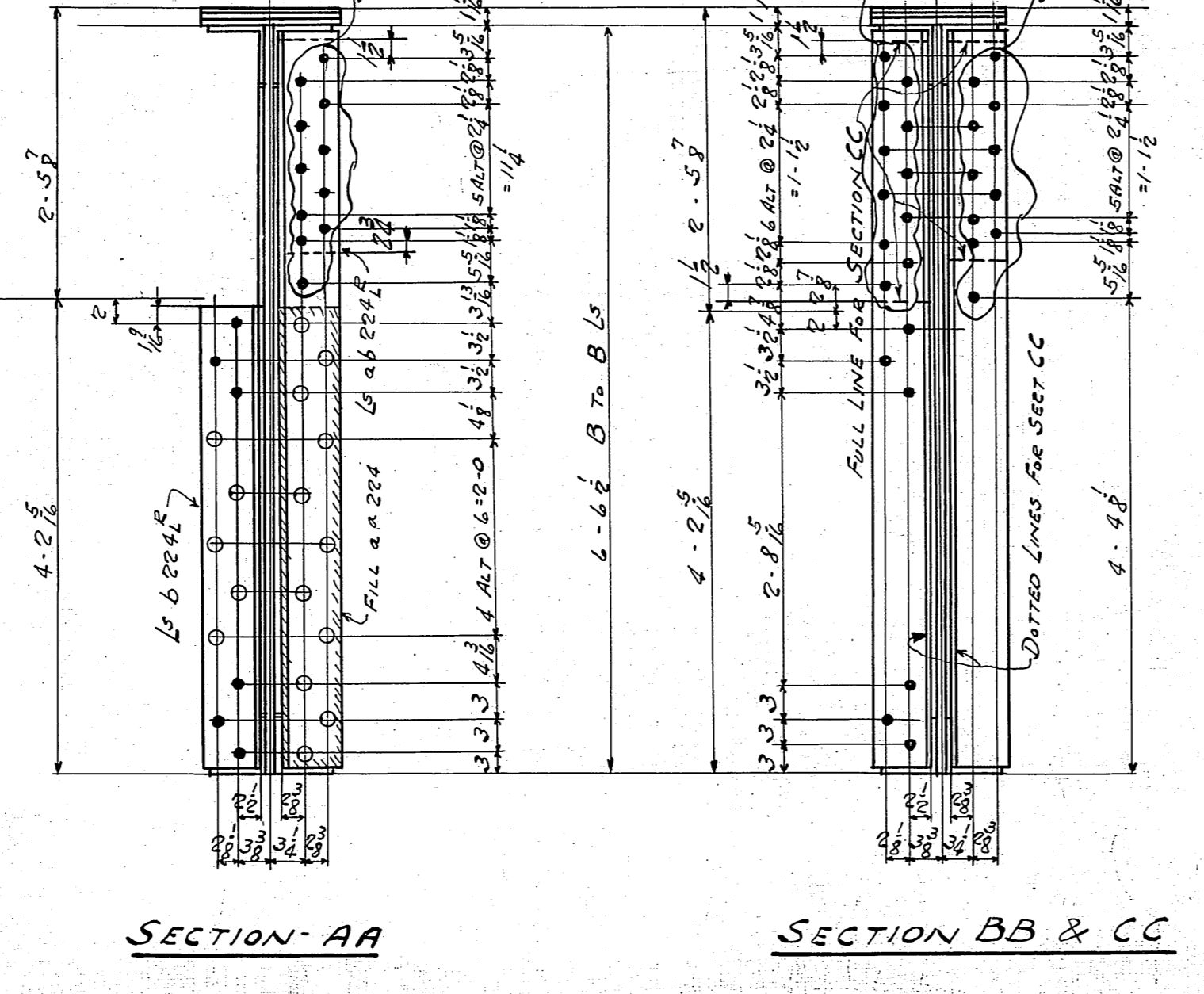
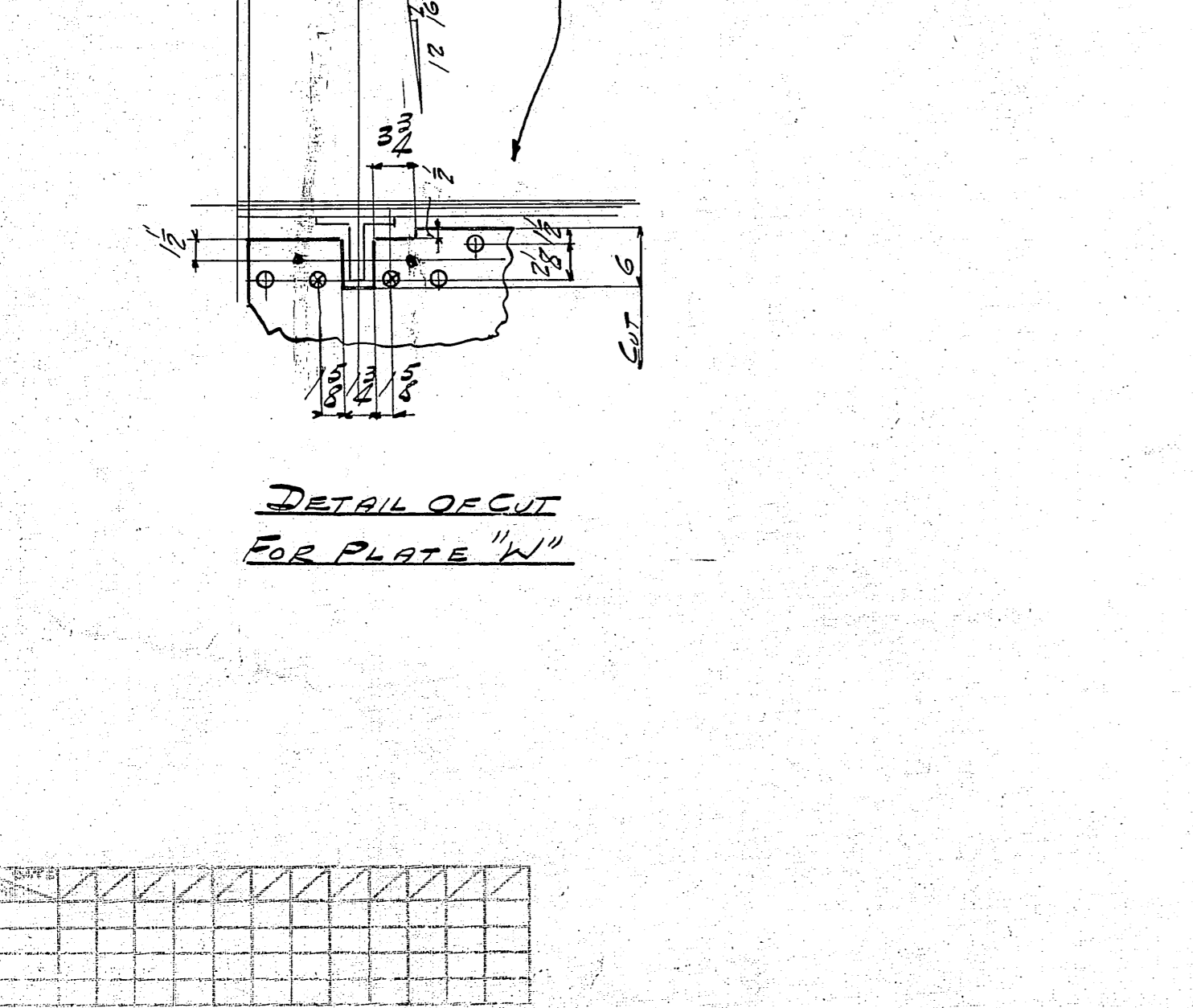
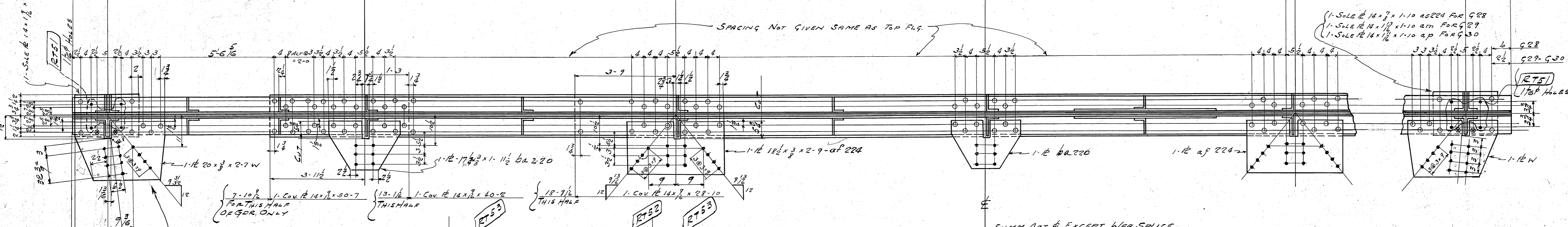
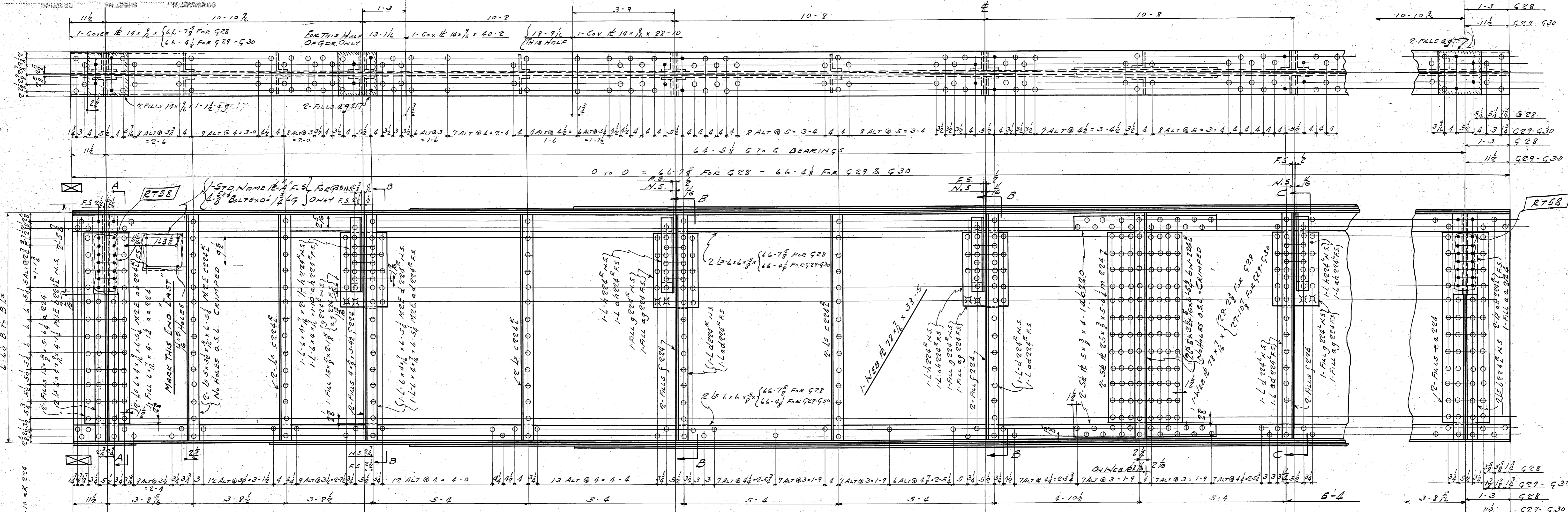
GENERAL NOTES -
 RIVETS: 7/8"
 OPEN HOLES: 1/8" unless noted
 MATERIAL: Carbon steel A.S.T.M. A7-34 with 8% copper content, except where noted.
 REAMING: All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 FLAME CUT EDGES of main material shall be planed chipped or ground and present a smooth workmanlike appearance.
 PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 Denotes break in stagger.

REQUIRED LIST			
No. REQ'D	DESCRIPTION	MARK	REMARKS
1	GIRDER	G 25	SPAN 15-16
1	GIRDER	G 26	SPAN 16-17
1	GIRDER	G 27	SPAN 17-18

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTI. - DEPT. PUBLIC WORKS

BETLEHEM STEEL COMPANY
 LAMINATED STEEL CONSTRUCTION
 Drawings of Rankin-Parsons Co.

IN CHARGE: BORN... MADE BY: J.K.L.S. 2-27
 CHECKED BY: G.S. 4/17 TRAGED BY: M.O.S. 3-17-37
 REVISED: LAST ASSEM. W.K.



GIRDER-G28
 " - G29
 " - G30

SHOP NOTE: SEPARATION BETWEEN
 FL. BTM. CONN. L'S MUST BE MAINTAINED

GENERAL NOTES:-
 RIVETS: 7/8" unless noted
 OPEN HOLES: 1/2" unless noted
 MATERIAL: Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted.
 REAMING: All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal templet.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4".
 FLAME CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
 PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 Denotes break in stagger.

REQUIRED LIST			
No. Req'd	DESCRIPTION	MARK	REMARKS
1	GIRDER	G28	
1	D.	G29	ALIKE EXCEPT FOR SOLE #
1	D.	G30	ALIKE EXCEPT FOR SOLE #

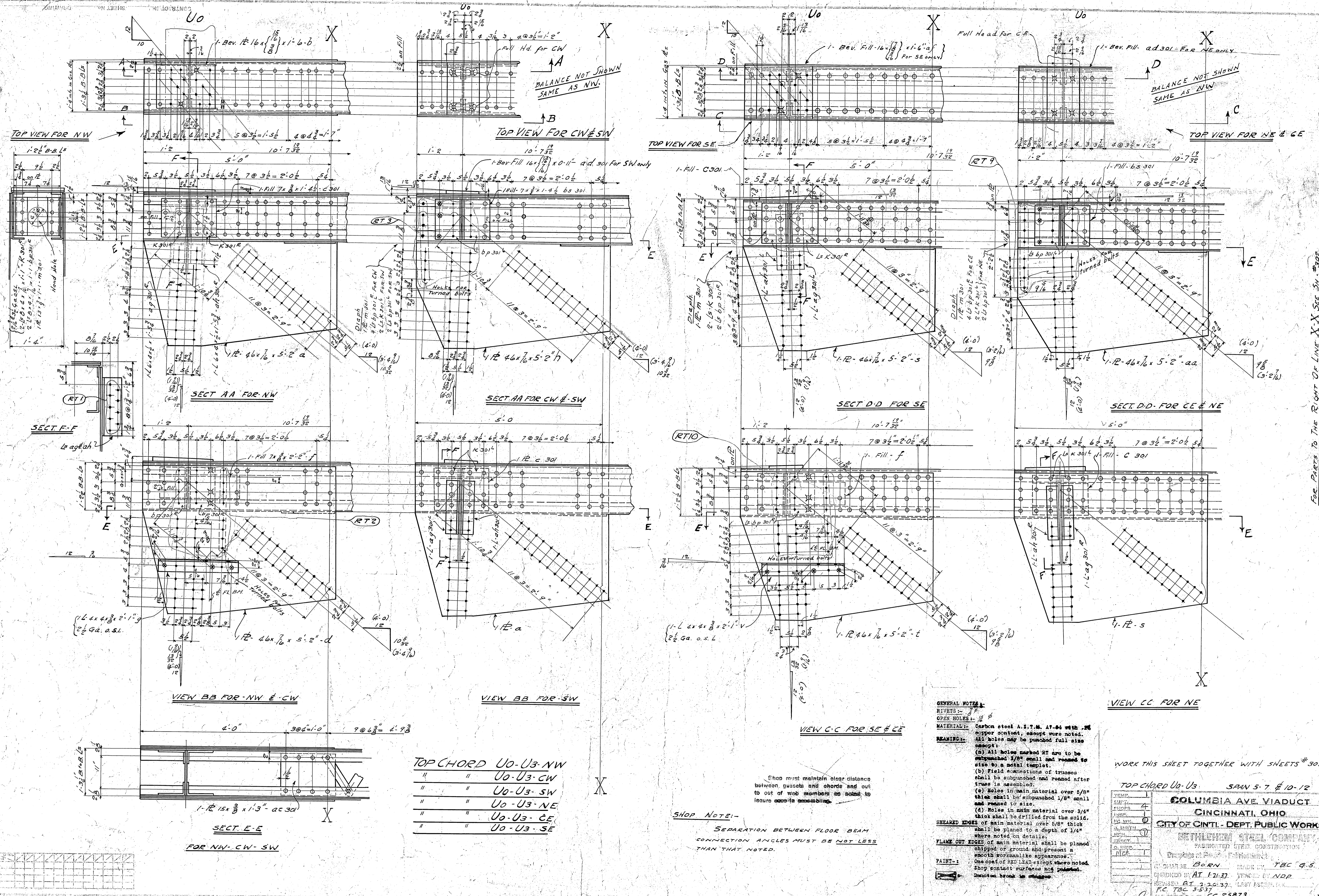
OUTSIDE GIRDERS SPANS 15-16, 16-17, 17-18

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTL. - DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at

IN CHARGE: BORN MADE BY J.K.L. 3-4-37
 CHECKED BY G.S. 4/5/37 TRACED BY M.P. 2-18-37
 REVISED: LAST ASSEMB. INK.

CONTRACT CC 25272 SHEET 226
 FC WFC 4-21-37



BALANCE NOT SHOWN
SAME AS NW.

BALANCE NOT SHOWN
SAME AS NW.

SHOP NOTE:
SEPARATION BETWEEN FLOOR BEAM CONNECTION ANGLES MUST BE NOT LESS THAN THAT NOTED.

GENERAL NOTES:
 RIVETS - 7/8"
 OPEN HOLES - 1/8"
MATERIAL: Carbon steel A. S. T. M. A7-44 with .26 copper content, except where noted.
FINISH: All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 Denotes break in dimension.

WORK THIS SHEET TOGETHER WITH SHEETS # 302

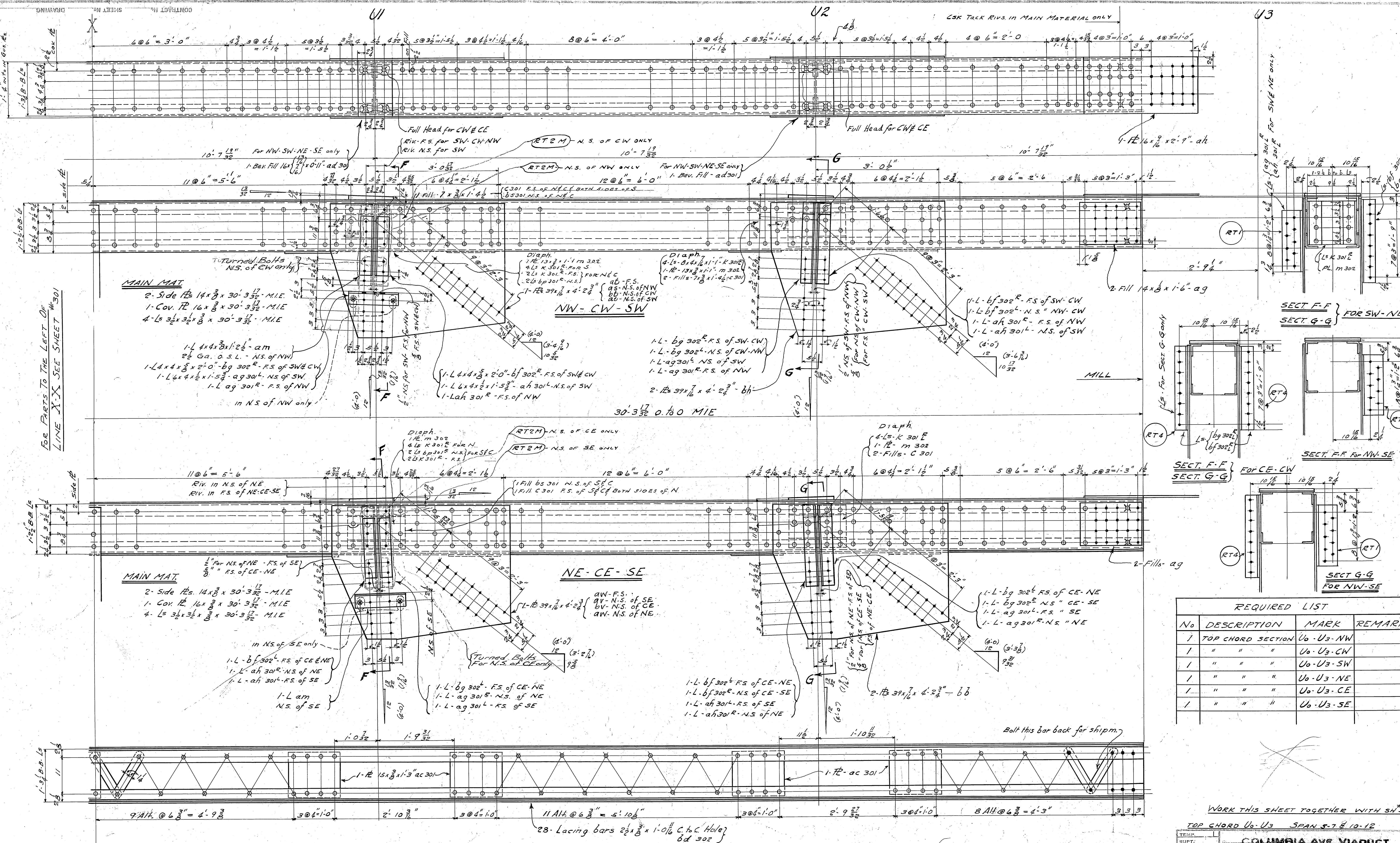
TOP CHORD U0-U3 SAHN 5-7 & 10-12

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTI. - DEPT. PUBLIC WORKS

RETIKHEIM STEEL COMPANY
 FABRICATED UNDER SUPERVISION
 OF ENGINEERS

Checked by: BORN MADE BY: TBC G.S.
 Checked by: AT. 1-21-37. TRACED BY: NDR.
 Revised AT. 2-20-37. LAST REVISION BY: TBC 3-5-37
 COLUMBIA AVE VIADUCT CC 25873

FOR PARTS TO THE RIGHT OF LINE X-X SEE SH. #302



MAIN MAT
 2- Side Pls. 14x8 3/8 x 30'-3 3/4" M.I.E.
 1- Cov. Pl. 16x8 3/8 x 30'-3 3/4" M.I.E.
 4- Ls. 3 1/2 x 3 1/2 x 3/8 x 30'-3 3/4" M.I.E.

MAIN MAT
 2- Side Pls. 14x8 3/8 x 30'-3 3/4" M.I.E.
 1- Cov. Pl. 16x8 3/8 x 30'-3 3/4" M.I.E.
 4- Ls. 3 1/2 x 3 1/2 x 3/8 x 30'-3 3/4" M.I.E.

TOP CHORD	U0-U3-NW	TOP CHORD	U0-U3-NE
"	U0-U3-CW	"	U0-U3-CE
"	U0-U3-SW	"	U0-U3-SE

REQUIRED LIST

No	DESCRIPTION	MARK	REMARK
1	TOP CHORD SECTION	U0-U3-NW	
1	"	U0-U3-CW	
1	"	U0-U3-SW	
1	"	U0-U3-NE	
1	"	U0-U3-CE	
1	"	U0-U3-SE	

WORK THIS SHEET TOGETHER WITH SH301

TOP CHORD U0-U3 SPAN 57# 10-12

COLUMBIA AVE. VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTL. DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings of Marking - Fabrication by

IN CHARGE: BORN MADE BY: G.S.
 CHECKED BY: A.T. 122:37 TRACED BY: N.D.A. 121:37
 REVISED: A.T. 2:24:37 L.S.Y. ASSEM. MK. DC
 FG. TSC. 3-23-37

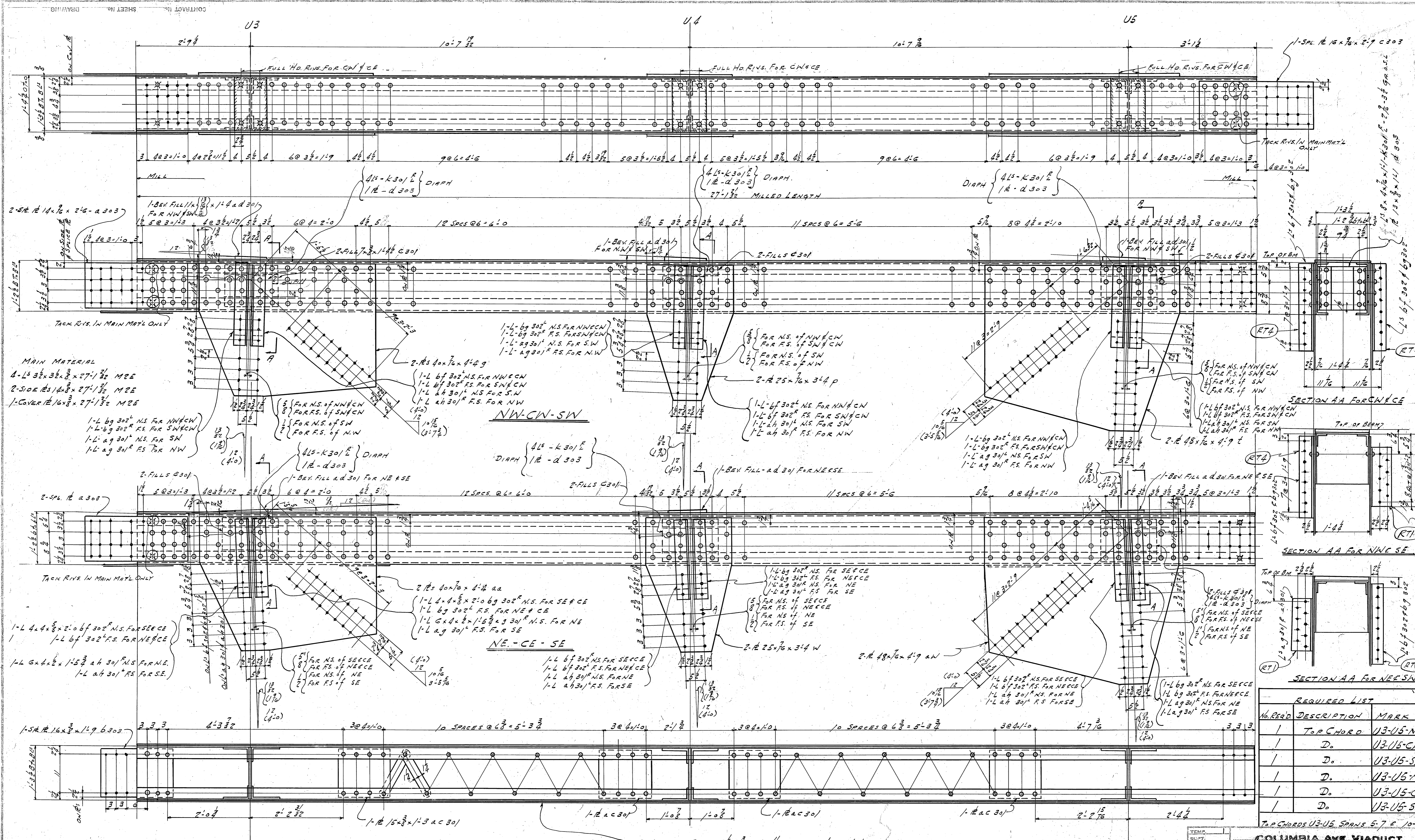
SHOP NO. 2 CONTRACT Cc 25873 SHEET 302

SHOP NOTE:-
 SEPARATION BETWEEN FLOOR BEAM CONNECTION ANGLES MUST BE NOT LESS THAN NOTED.

Chord must maintain clear distance between gussets and chords and out to out of web members as shown to insure ease in assembling.

RIVETS 7/8" dia
 OPEN HOLES 1/8" dia

FOR GENERAL NOTE
 SEE SH # 301



MAIN MATERIAL
 4-LS 3/2 x 3/2 x 27-1/2 MBE
 2-SIDE RAILS 4x8 x 27-1/2 MBE
 1-COVER PL 1/2 x 3 x 27-1/2 MBE

1-L 4x4 x 5/8 x 2'-0" bf 302 N.S. FOR SE#CE
 1-L bf 302 F.S. FOR NE#CE
 1-L 6x4 x 3/2 x 1'-5 1/2 ah 301 N.S. FOR NE
 1-L ah 301 F.S. FOR SE

1-SPL PL 1/2 x 3 x 1-9 1/2 C303
 3 @ 3/10
 4-3 3/2
 3 @ 4/10
 10 SPACES @ 6 3/8 = 5-3 3/4
 3 @ 4/10
 2'-1 1/2
 3 @ 4/10
 10 SPACES @ 6 3/8 = 5-3 3/4
 3 @ 4/10
 4'-7 1/2
 3 @ 3/10

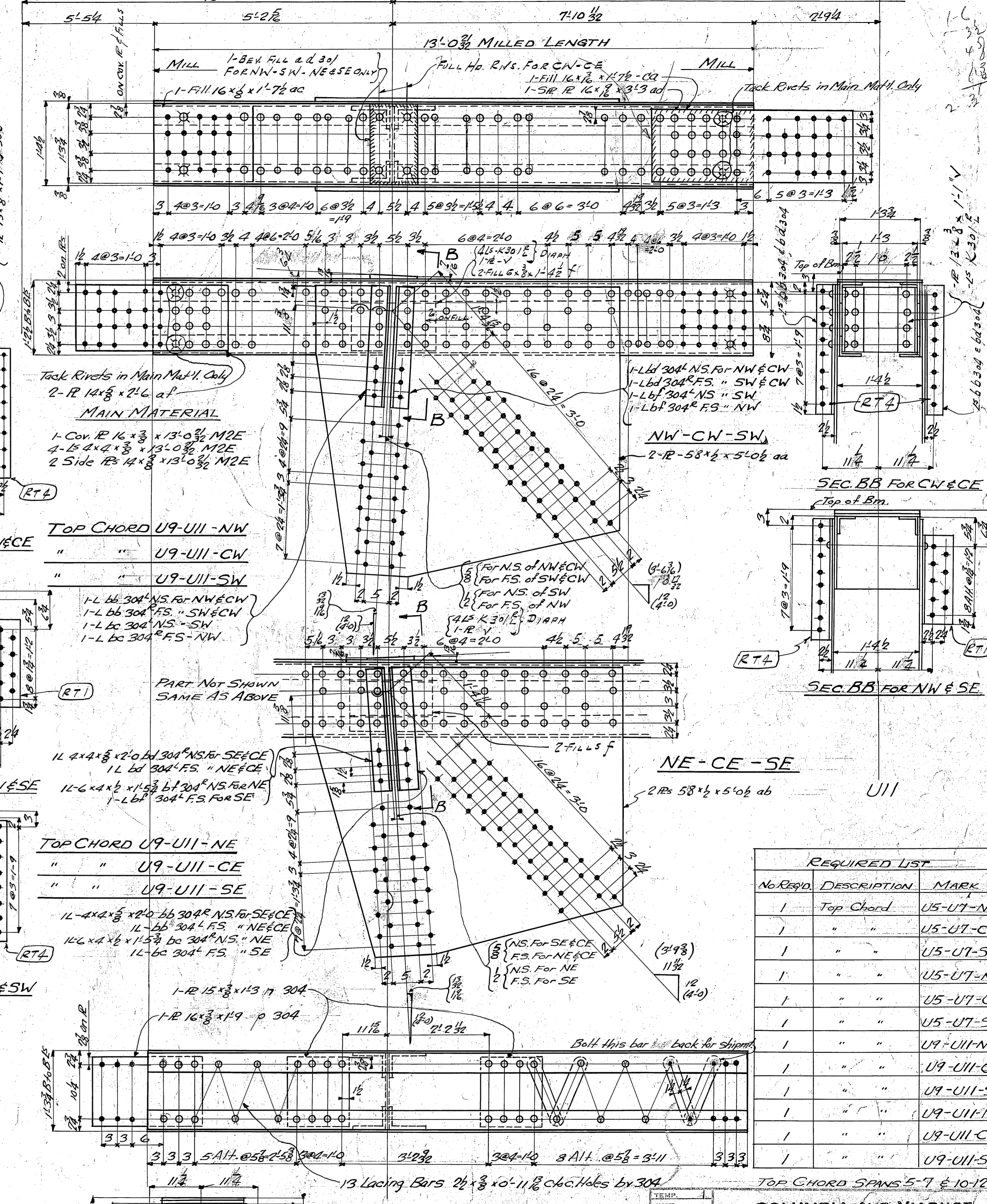
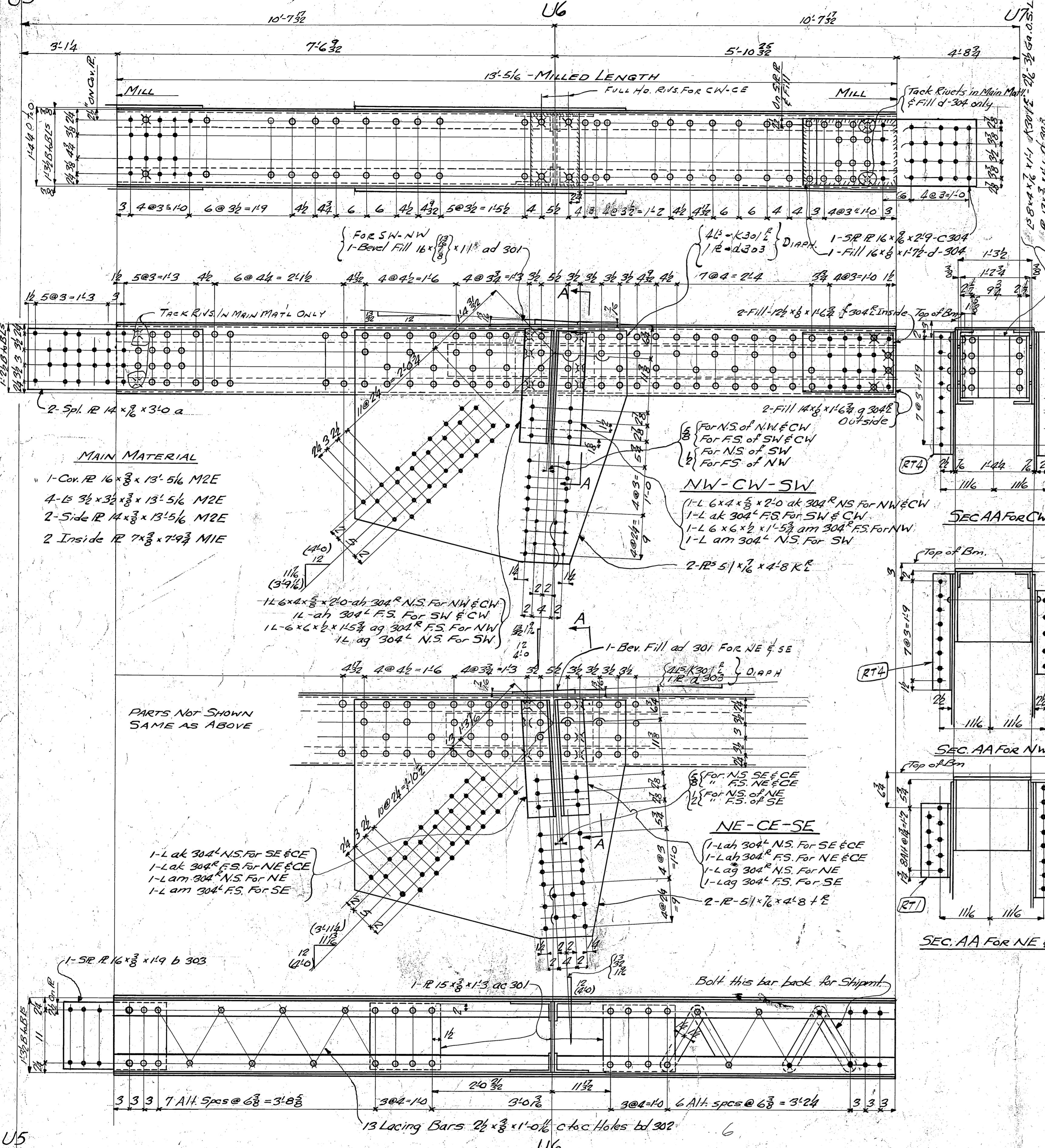
REQUIRED LIST

No. REQ'D	DESCRIPTION	MARK
1	TOP CHORD	U3-U5-NW
1	D.	U3-U5-CW
1	D.	U3-U5-SW
1	D.	U3-U5-NE
1	D.	U3-U5-CE
1	D.	U3-U5-SE

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at
 IN CHARGE BORN... MADE BY J.K.L. 11/1/37
 CHECKED BY A.T.S. 3/1... CHECKED BY J.E.E. 2/1/37
 REVISION... LAST APPROVED...
 FC - TBC 3-5-37
 SHOP NO. 2 CONTRACT CC 25873 SHEET 303

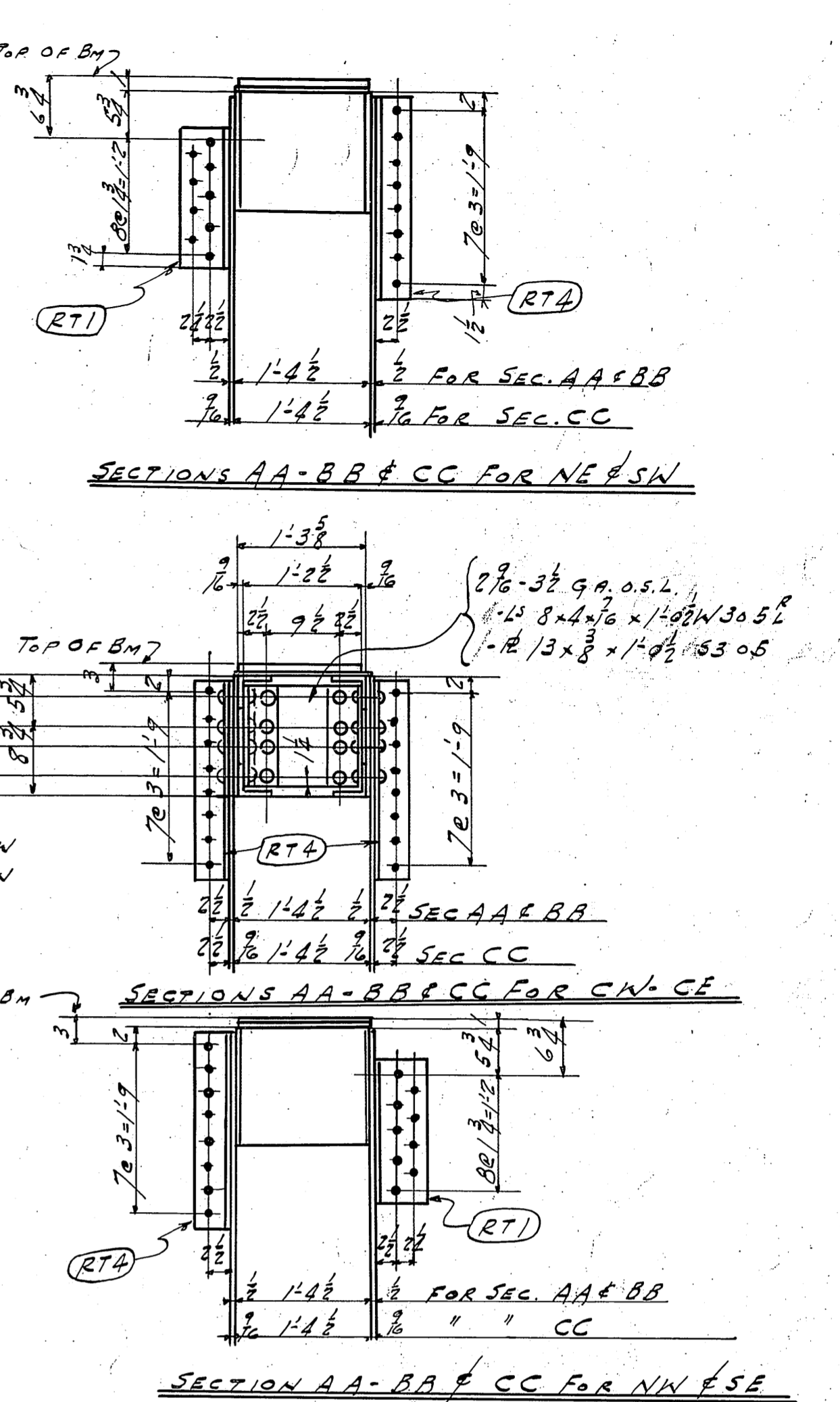
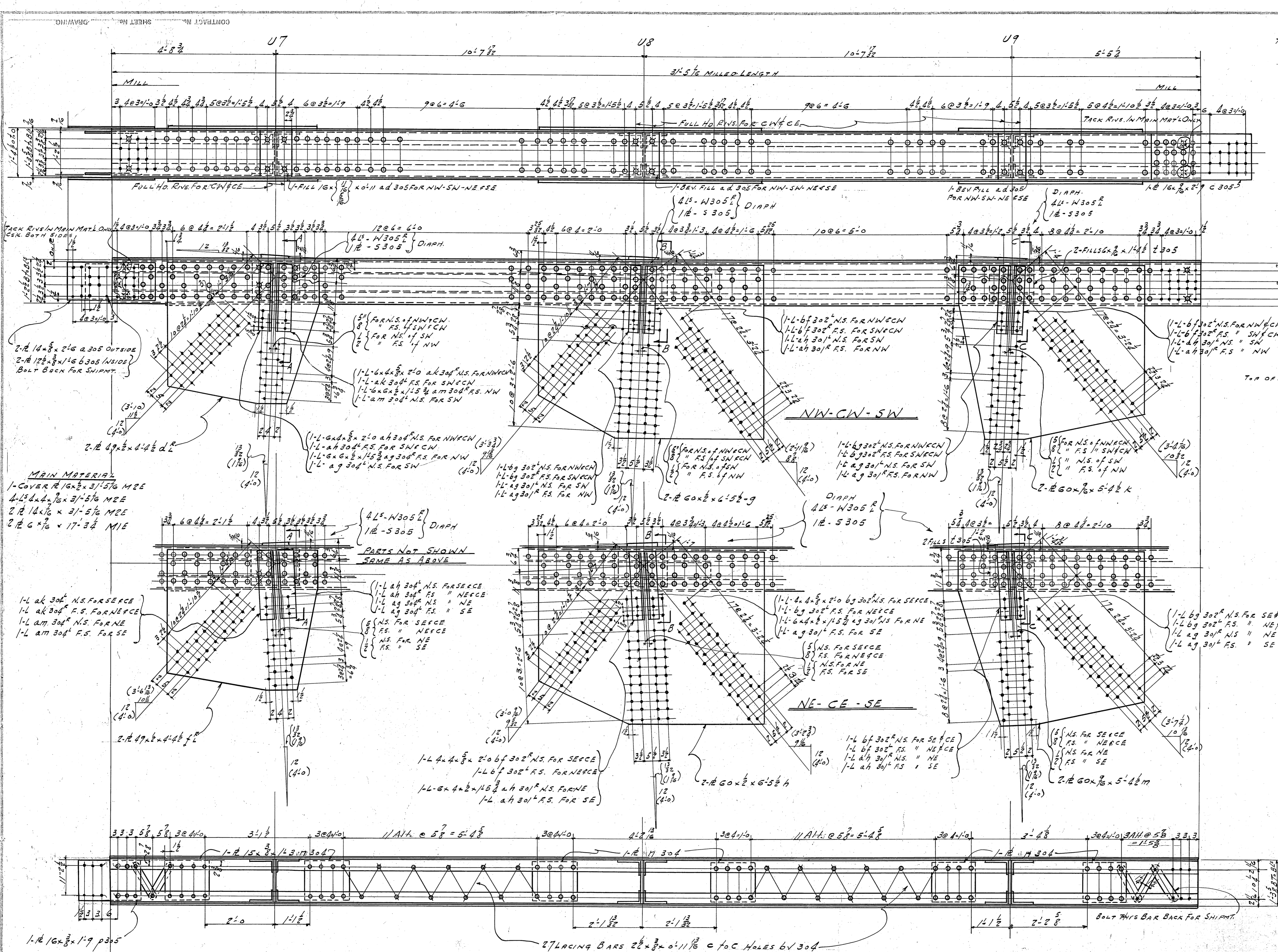
SHOP NOTE:
 SEPARATION BETWEEN FLOOR BEAMS
 CONNECTION ANGLES MUST BE NOT
 LESS THAN NOTED
 Shop must maintain clear distance
 between gussets and chords and out
 to out of web members as noted to
 insure ease in assembling.

RIVETS 7/8"
 OPEN HOLES 1 1/8"
 FOR GENERAL NOTES
 SEE SHEET #301



REQUIRED LIST			
No.	REQ'D.	DESCRIPTION	MARK
1		Top Chord	U5-U7-NW
1		"	U5-U7-CW
1		"	U5-U7-SW
1		"	U5-U7-NE
1		"	U5-U7-CE
1		"	U5-U7-SE
1		"	U9-U11-NW
1		"	U9-U11-CW
1		"	U9-U11-SW
1		"	U9-U11-NE
1		"	U9-U11-CE
1		"	U9-U11-SE

TOP CHORD SPANS 5-7 & 10-12



- GENERAL NOTES:**
- RIVETS:** - 3/8" 15#
 - OPEN HOLES:** - 1/8"
 - MATERIAL:** Carbon steel A.S.T.M. A7-34 with .23 copper content, except where noted. All holes may be punched full size except:
 - BRACKETS:**
 - (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 - (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 - (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 - (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 - CHIPPED EDGES:** of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 - FLAME CUT EDGES:** of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
 - PAINT:** One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 - RT:** Denotes break in stagger.

REQUIRED LIST				
NO.	REQ'D	DESCRIPTION	MARK	REMARKS
1		TOP CHORD	U7-U9-NW	
1		"	U7-U9-CN	
1		"	U7-U9-SW	
1		"	U7-U9-NE	
1		"	U7-U9-SE	

TOP CHORD	U7-U9-NW
"	U7-U9-CN
"	U7-U9-SW

TOP CHORD	U7-U9-NE
"	U7-U9-CE
"	U7-U9-SE

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

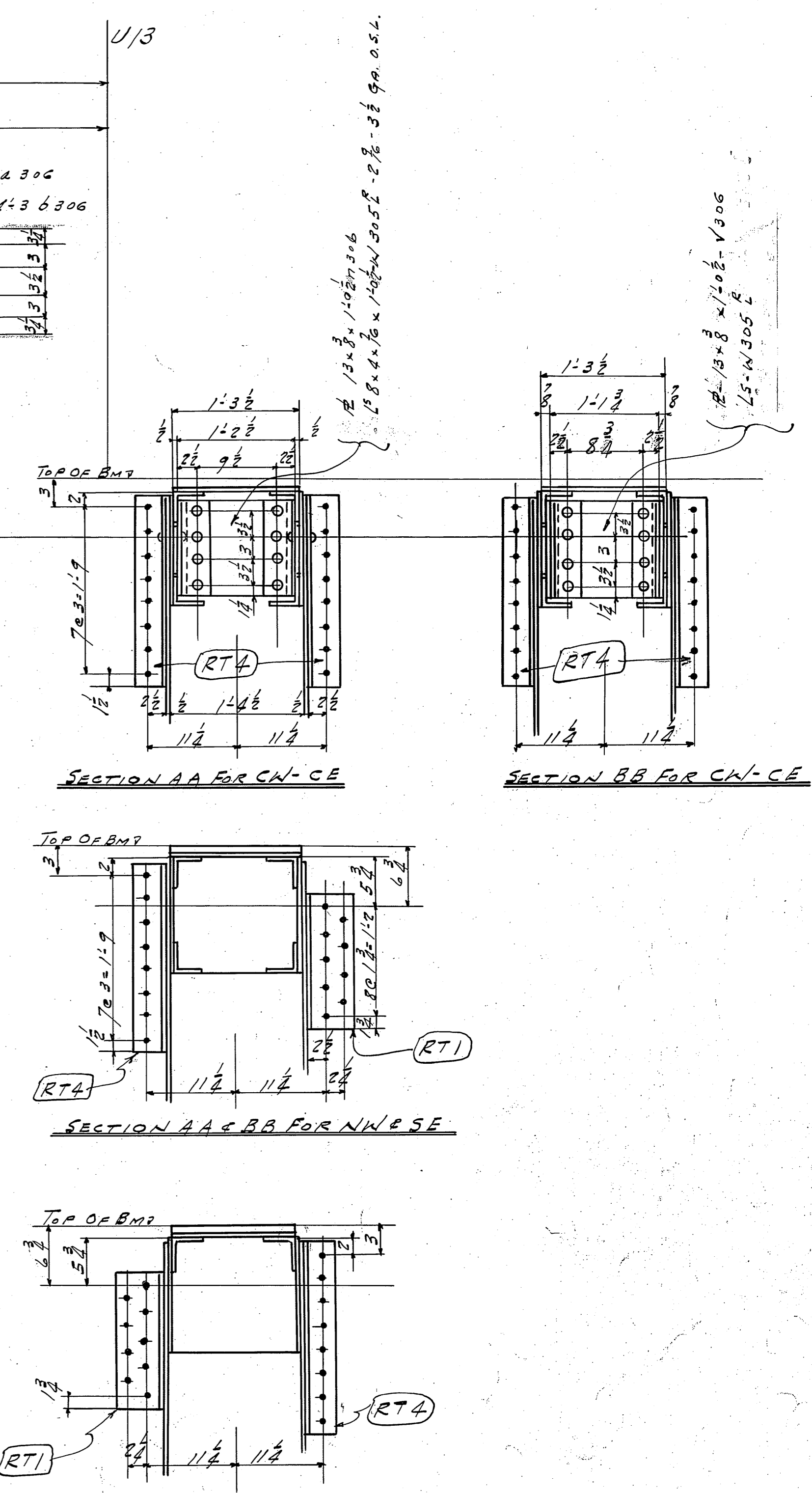
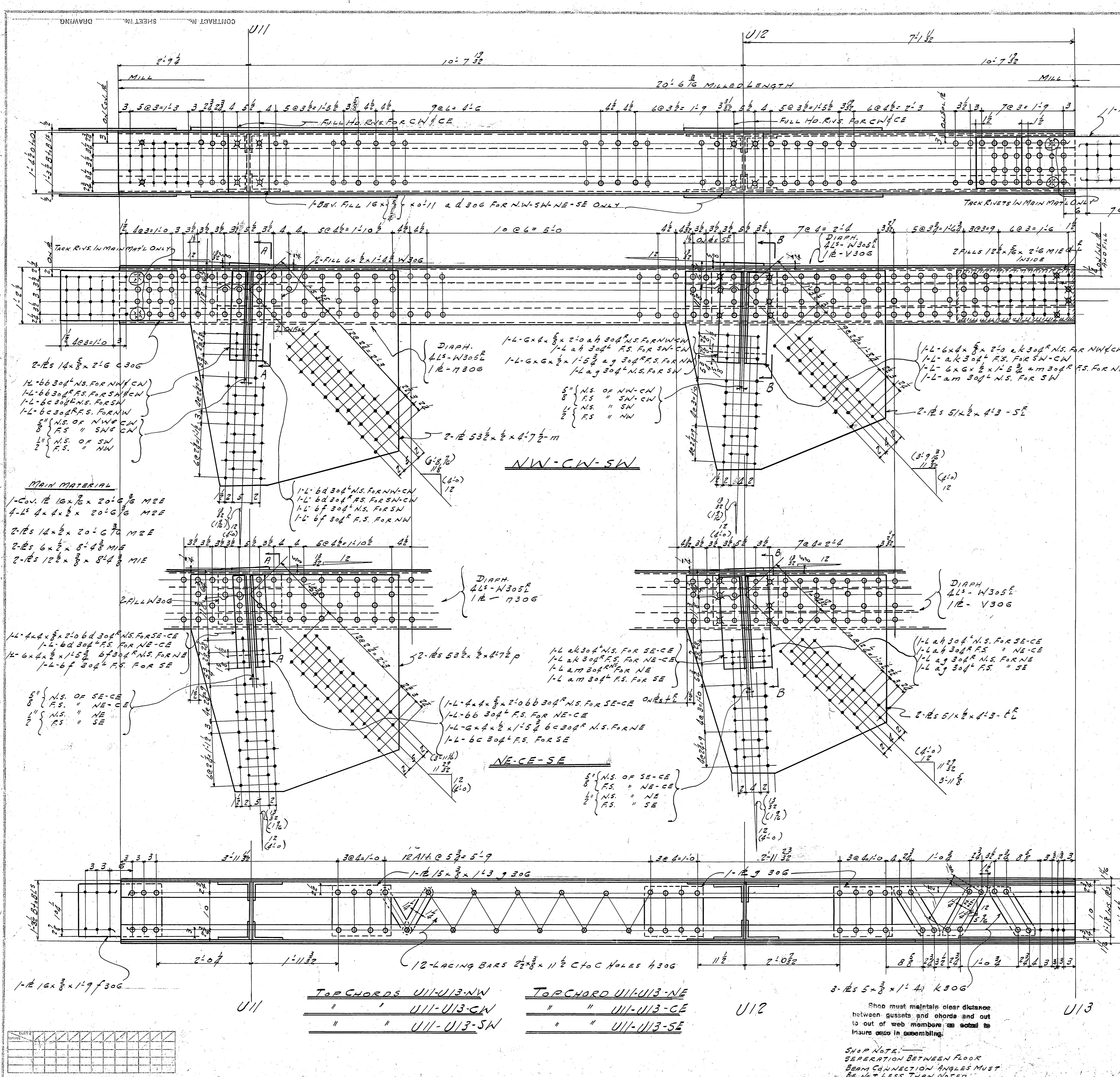
SHOP NOTE: SEPARATION BETWEEN FLOOR BEAM CONNECTION ANGLES MUST NOT BE LESS THAN NOTED.

TOP CHORDS U7-U9 SPAN-5-7 & 10-12

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINT. DEPT. PUBLIC WORKS

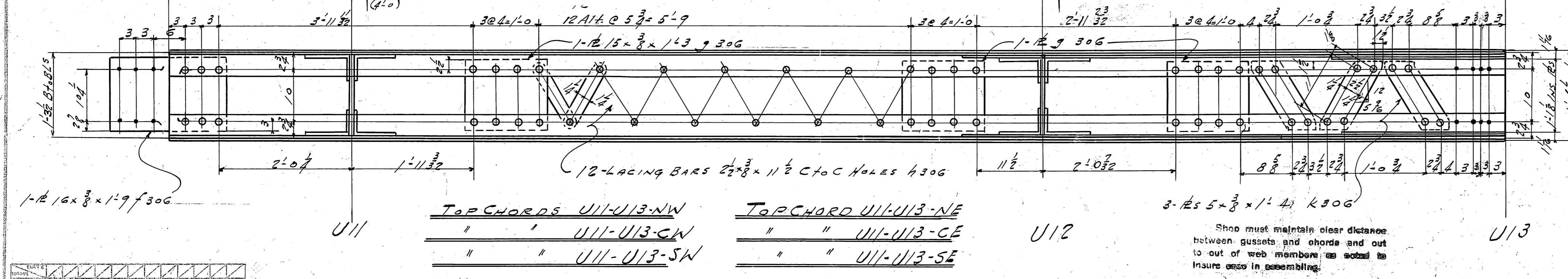
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION

Drawings at Rankin-Fabrication at
 MADE BY: JUL 11/1937
 IN CHARGE: B.A.N. CHECKED BY: A.T. 1.28.37 TRACED BY: J.E.P./22/37
 REVISED: 3.5.37 LAST ASSEMB. MK.
 SHOP NO. 2 CONTRACT CC 25873 SHEET 305



MAIN MATERIAL
 1-Cov. 12 1/2 x 20 C306 MZE
 4-L 4 x 4 x 20 C306 MZE
 2-RS 14 x 8 x 20 C306 MZE
 2-RS 6 x 8 x 8 1/2 MIE
 2-RS 12 1/2 x 8 1/2 MIE

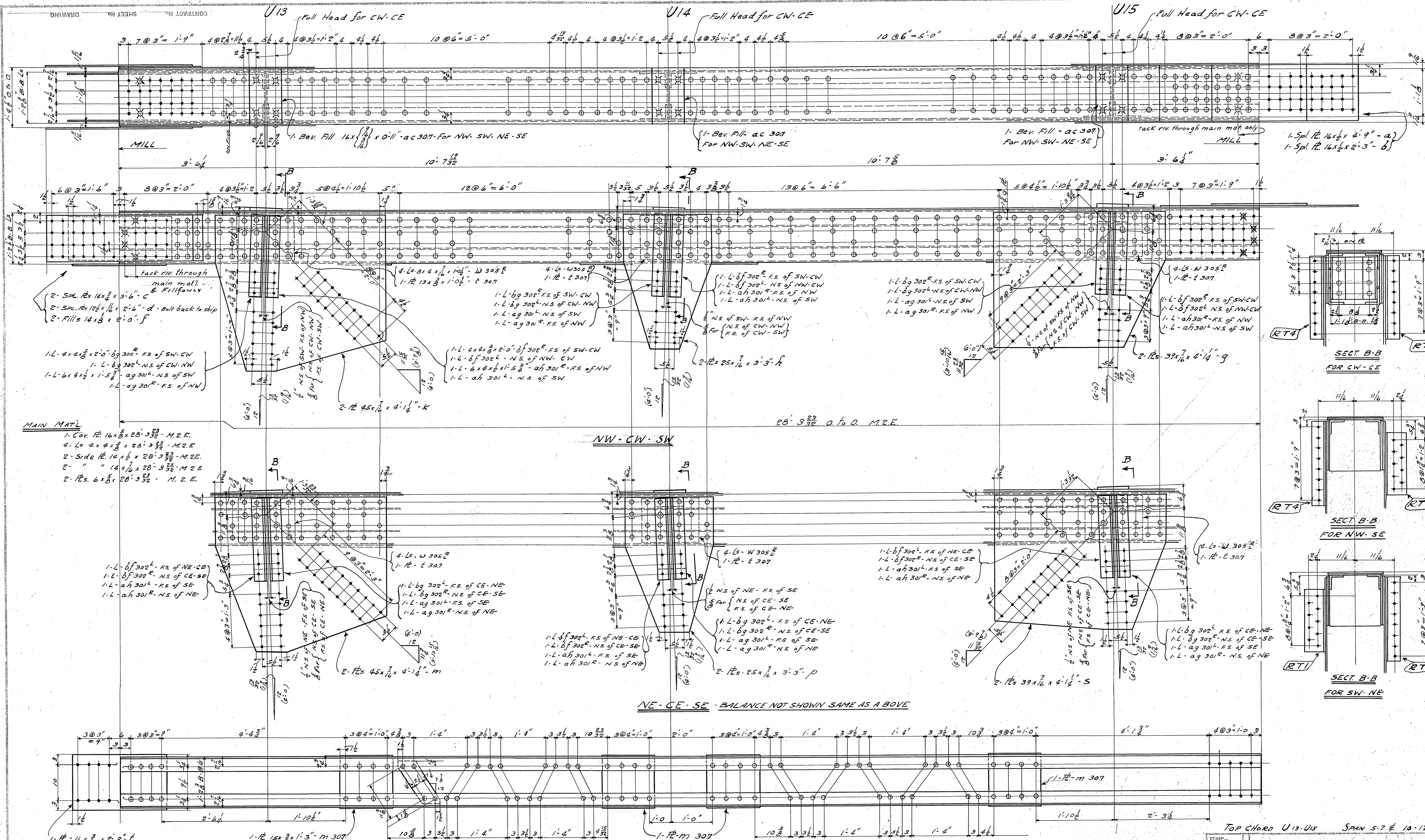
5" N.S. OF SE-CE
 8" F.S. " NE-CE
 1" N.S. " NE
 2" F.S. " SE



GENERAL NOTES
 1- Rivets 1/2"
 2- Open holes 1/8"
 3- Material: Carbon steel A.S.T.M. A7-56 with 35% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be punched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be punched and reamed after truss is assembled.
 (c) Holes in main material over 1/8" thick shall be punched 1/8" small and reamed to size.
 (d) Holes in main material over 3/8" thick shall be drilled from the solid.
 (e) Beveled edges of main material over 5/8" thick shall be punched to a depth of 1/4" where noted on details.
 (f) Flange out edges of main material shall be punched, shipped or ground and present a smooth workmanlike appearance.
 (g) One coat of RED LEAD except where noted. Shop contact surfaces not painted. Bolts to be in stagger.
 4- Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.
 5- SHOP NOTE: SEPARATION BETWEEN FLOOR BEAM CONNECTION ANGLES MUST BE NOT LESS THAN NOTED.

REQUIRED LIST			
NO	DESCRIPTION	MARK	REMARKS
1	TOP CHORD	U11-U13-NW	
1	"	U11-U13-CW	
1	"	U11-U13-NE	
1	"	U11-U13-CE	
1	"	U11-U13-SE	

Top Chord U11-U13 - SPANS 5-7 & 10-12
COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINT. DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin Fabrication pt
 IN CHARGE BORN MADE BY J.B.L. 1/20/37
 CHECKED BY A.T. 1/27/37 TRACED BY 1/25/37
 REVISED E.C. 7/8/37 LIST ASSEMB. E.K.
 EC 7/8/37
 SHOP NO. 2 CONTRACT C.C. 25873 SHEET 306



MAIN MAT'L
 1. Cov. Pl. 16x18x28-3 3/8" - M.Z.E.
 4. Ls. 4x4x3/8x28-3 3/8" - M.Z.E.
 2. Side Pl. 14x1/2x28-3 3/8" - M.Z.E.
 2. " " 14x1/2x28-3 3/8" - M.Z.E.
 2. Pls. 6x8x28-3 3/8" - M.Z.E.

SHOP NOTE:-
 SEPARATION BETWEEN FLOOR BEAM CONNECTION
 ANGLES MUST BE NOT LESS THAN NOTED

REQUIRED LIST			
No	DESCRIPTION	MARK	REMARK
1	TOP CHORD SECTION	U13-U15-NW	
1	" " "	U13-U15-CW	
1	" " "	U13-U15-SW	
1	" " "	U13-U15-NE	
1	" " "	U13-U15-CE	
1	" " "	U13-U15-SE	

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.
 RIVETS 7/8
 OPEN HOLES 1/8
 For General Notes
 SEE S4# 300

TOP CHORD U13-U15 SPAN 5-7 E 10-12

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
 CITY OF CINTL. DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION

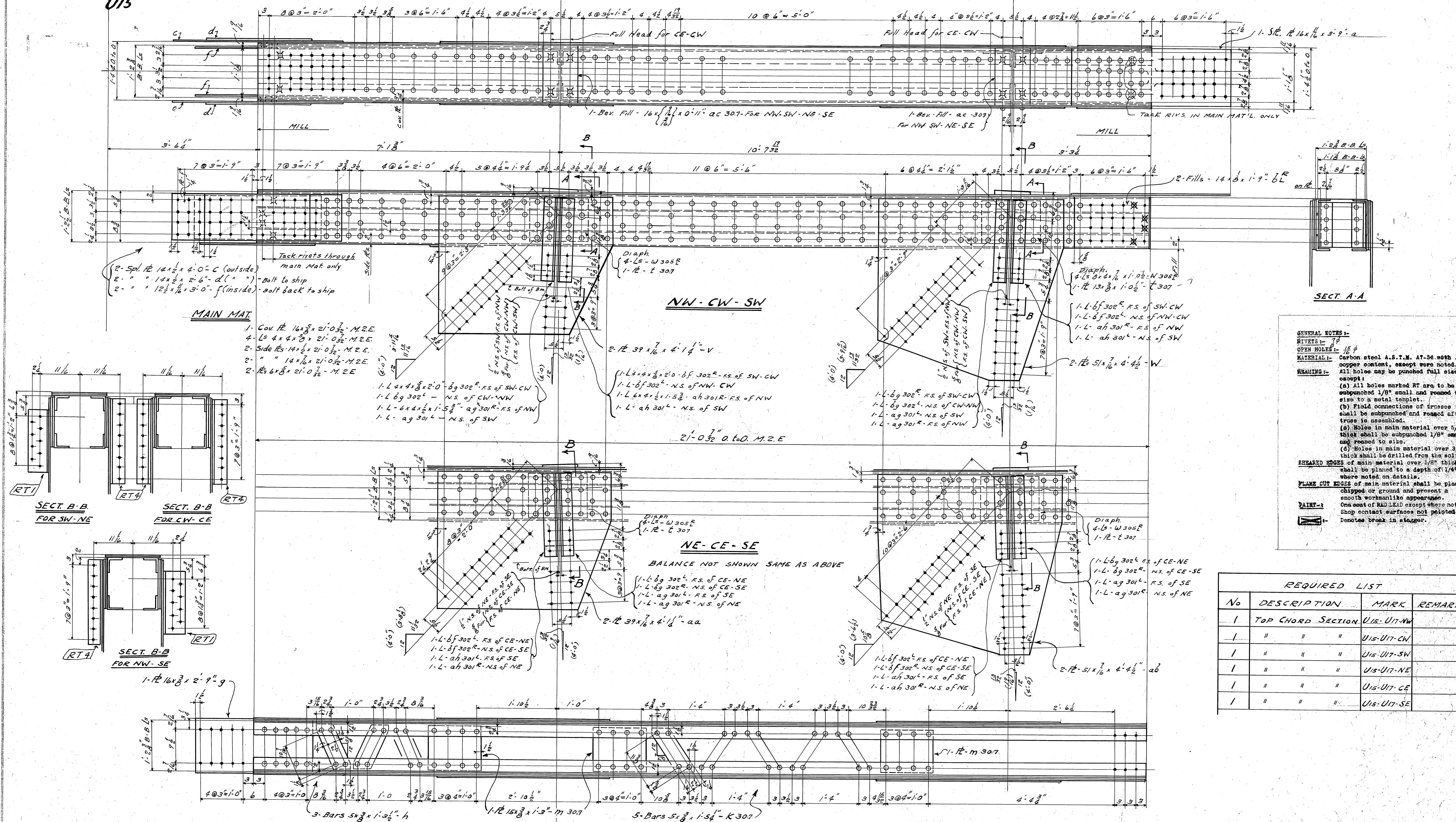
Drawings at Rankin-Fabulation at
 IN CHARGE: BERN MADE BY: G.S.
 CHECKED BY: A.L. 1-27-37 TRACED BY: M.A. 1-22-37
 REVISED: FC-78C 3-5-37 LAST ASSEM. MK.
 CONTRACT C.C. 25873

SHOP NO. 2 SHEET 307

U15

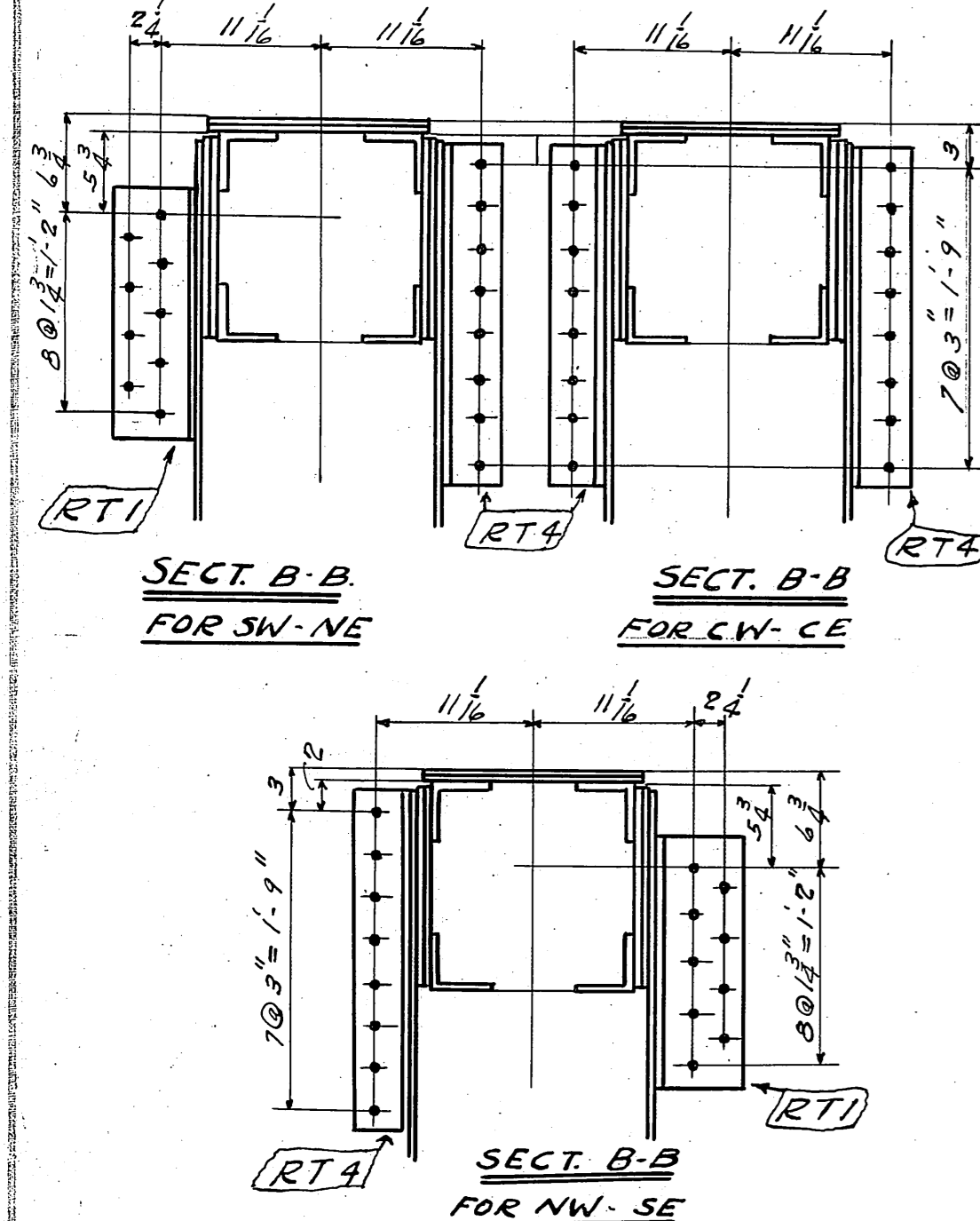
U16

U17



MAIN MAT.

- 1. Cov. Pl. 16x 1/2 x 21-0 3/4 M.R.E.
- 4-LS 4x4x3/8 x 21-0 3/4 M.R.E.
- 2. Side Pls. 14x 1/2 x 21-0 3/4 M.R.E.
- 2. " 14x 1/8 x 21-0 3/4 M.R.E.
- 2-Pls. 6x 3/8 x 21-0 3/4 M.R.E.



- GENERAL NOTES:-**
- RIVETS:-** 1/2"
 - OPEN HOLES:-** 1/8"
 - MATERIAL:-** Carbon steel A.S.T.M. A7-34 with .85 copper content, except where noted. All holes may be punched full size except:
 - (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 - (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 - (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 - (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 - SHEARED EDGES** of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 - FLAME CUT EDGES** of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
 - PAINTS:-** One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 - RT** - Denotes break in stagger.

REQUIRED LIST

No	DESCRIPTION	MARK	REMARK
1	TOP CHORD SECTION U15-U17-NW		
1	" " " U15-U17-CW		
1	" " " U15-U17-SW		
1	" " " U15-U17-NE		
1	" " " U15-U17-CE		
1	" " " U15-U17-SE		

TOP CHORD U15-U17-NW

TOP CHORD U15-U17-NE

TOP CHORD U15-U17-CW

TOP CHORD U15-U17-CE

TOP CHORD U15-U17-SW

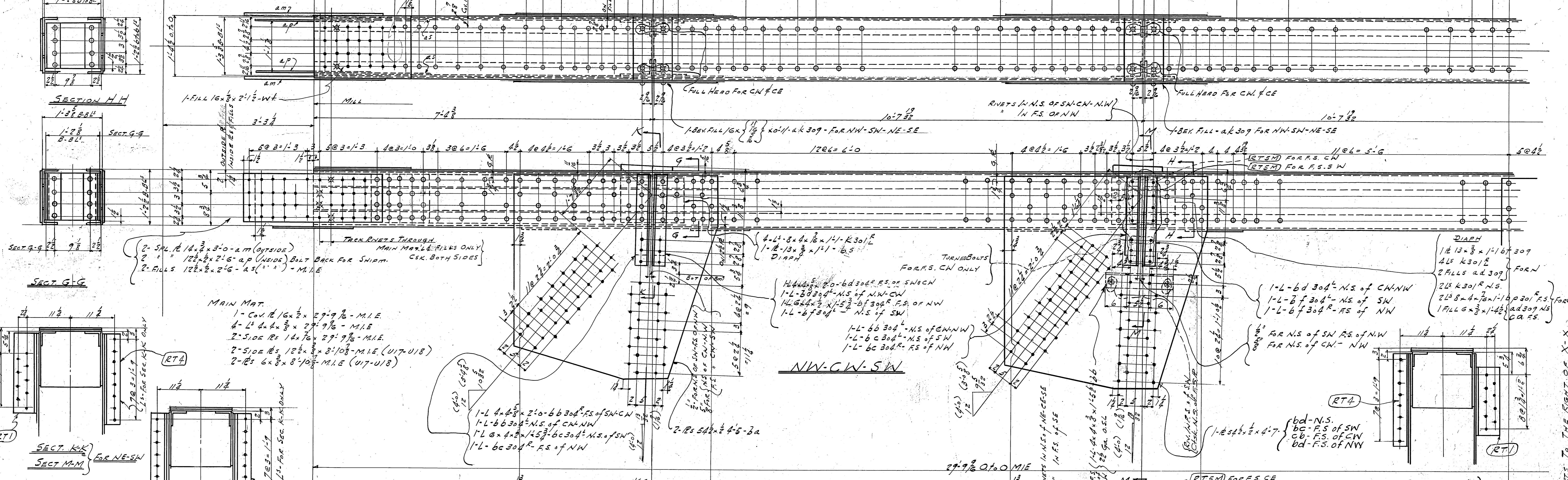
TOP CHORD U15-U17-SE

SHOP NOTE:-
SEPARATION BETWEEN FLOOR BEAM CONNECTION ANGLES MUST BE NOT LESS THAN NOTED.
Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

TOP CHORD U15 U17 SPAN 5-7 & 10-12

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTL. DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
Drawings of Barkin-Parsons et al

IN CHARGE: BORN MADE BY: G.S.
CHECKED BY: A.L. 1-24-37 TRACED BY: M.P. 1-25-37
REVISED BY: 2-23-37 LAST ASSEM. BY: K.C. 7-6-37
SHOP NO. 7 CONTRACT CC 25873



MAIN MAT.
 1 - C.V. 12 1/2 x 29 7/8 - M.I.E.
 4 - L 4 x 4 x 3/8 x 29 7/8 - M.I.E.
 2 - SIDE RS 12 1/2 x 29 7/8 - M.I.E.
 2 - SIDE RS 12 1/2 x 29 7/8 - M.I.E. (U17-U18)
 2 - RS 6 x 8 x 8 1/2 - M.I.E. (U17-U18)

REQUIRED LIST

No.	DESCRIPTION	MARK	REMARK
1	TOP CHORD SECTION	U17-U20-NW	
1	"	U17-U20-CN	
1	"	U17-U20-SW	
1	"	U17-U20-NE	
1	"	U17-U20-CE	
1	"	U17-U20-SE	

GENERAL NOTES:-
 RIVETS - 3/8"
 OPEN HOLES - 1 1/8"
MATERIAL:-
 Carbon steel A.S.T.M. A7-84 with .25% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be outpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES of main material shall be planed chipped or ground and present a smooth workmanlike appearance.
PAINT:- One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 --- Denotes break in stresses.

TOP CHORD U17-U20-NW
TOP CHORD U17-U20-NE
TOP CHORD U17-U20-CN
TOP CHORD U17-U20-CE
TOP CHORD U17-U20-SW
TOP CHORD U17-U20-SE

WORK THIS SHEET TOGETHER WITH SHEET # 310

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

SHOP NOTE:-
 SEPARATION BETWEEN FLOOR BEAM CONNECTION ANGLES MUST NOT LESS THAN NOTED.

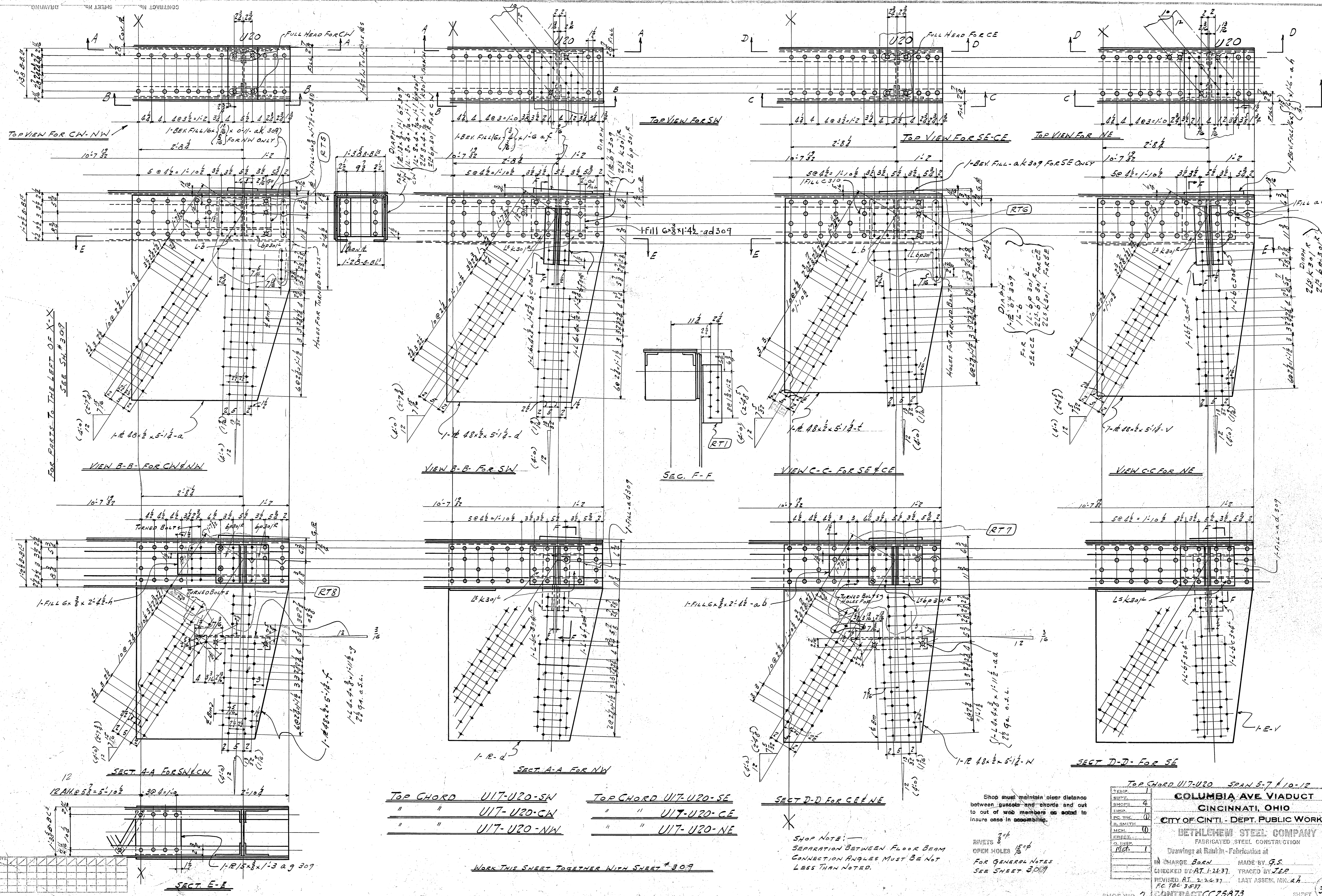
FOR GEN. NOTES SEE LEFT END OF SHEET

TEMP. 1
 SUPT. 1
 SHOP 1
 INSP. 1
 P.C. WK. 1
 B. SMITH 1
 MCH. 1
 ERECT. 1
 Q. INSP. 1
 P.C. 1

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at

IN CHARGE BORN MADE BY G.S.
 CHECKED BY A.T. 1.25.37 TRACED BY J.E.P. 1.19.37
 REVISED BY R.C. 3.2.37 LAST ASSEM. BY
 CONTRACT C.C. 25873

SHOP NO. 2 SHEET 309



TOP CHORD	U17-U20-SW	TOP CHORD	U17-U20-SE
"	U17-U20-CN	"	U17-U20-CE
"	U17-U20-NW	"	U17-U20-NE

WORK THIS SHEET TOGETHER WITH SHEET # 309

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembly.

SHOP NOTE:
SEPARATION BETWEEN FLOOR BEAM CONNECTION ANGLES MUST BE NOT LESS THAN NOTED.

AVETS 7/16
OPEN HOLES 15/16
FOR GENERAL NOTES SEE SHEET 309

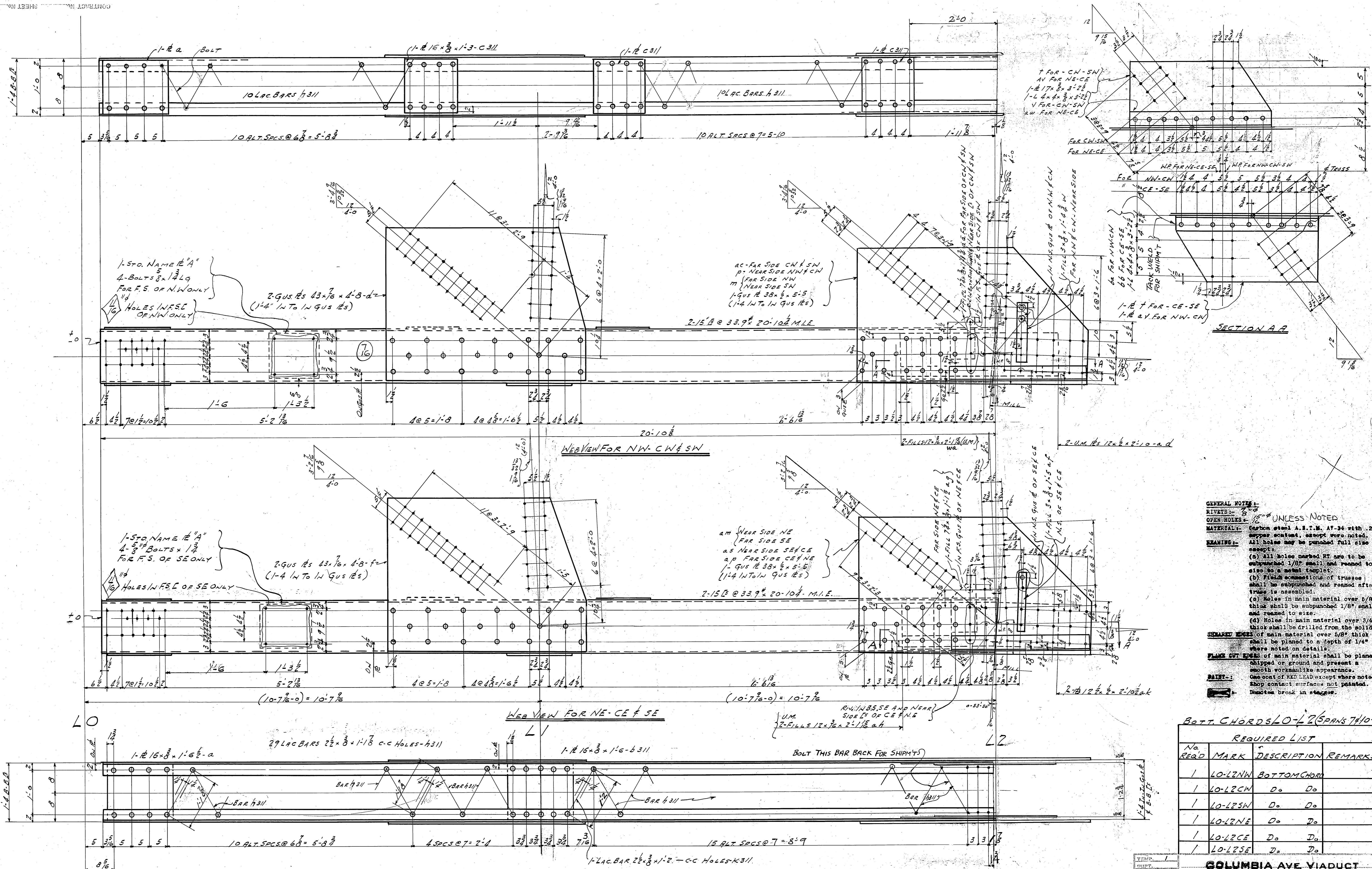
TOP CHORD U17-U20 SPAN 5-7 & 10-12

TEMP.	
SHIPT.	4
EMPR.	
ENG. CHK.	(0)
BL. SMITH	
MCH.	(0)
ERECT.	
Q. INSP.	
Met.	1

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINT. - DEPT. PUBLIC WORKS
DETLEWHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
Drawings at Rankin - Fabrication at

IN CHARGE: BORN. MADE BY: G.S.
CHECKED BY: AT. 1.12.37. TRACED BY: J.P.P.
REVISED A.T. 2.26.37. RC. TBC 3537. LAST ASSEM. INK. ah.

SHOP NO. 2 CONTRACT CC25873 SHEET 3/10



GENERAL NOTES:

RIVETS: - 3/8" UNLESS NOTED

OPEN HOLES: - 1/8" UNLESS NOTED

MATERIAL: Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted.

FINISH: All holes may be punched full size except:

(a) All holes marked HT are to be subpunched 1/8" small and reamed to size to a metal template.

(b) Field connections of trusses shall be subpunched and reamed after truss is assembled.

(c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.

(d) Holes in main material over 3/4" thick shall be drilled from the solid.

SEAM EDGES: Edges of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.

PLANS CUT: Edges of main material shall be planed, shipped or ground and present a smooth worklike appearance.

PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.

--- Denotes break in stages.

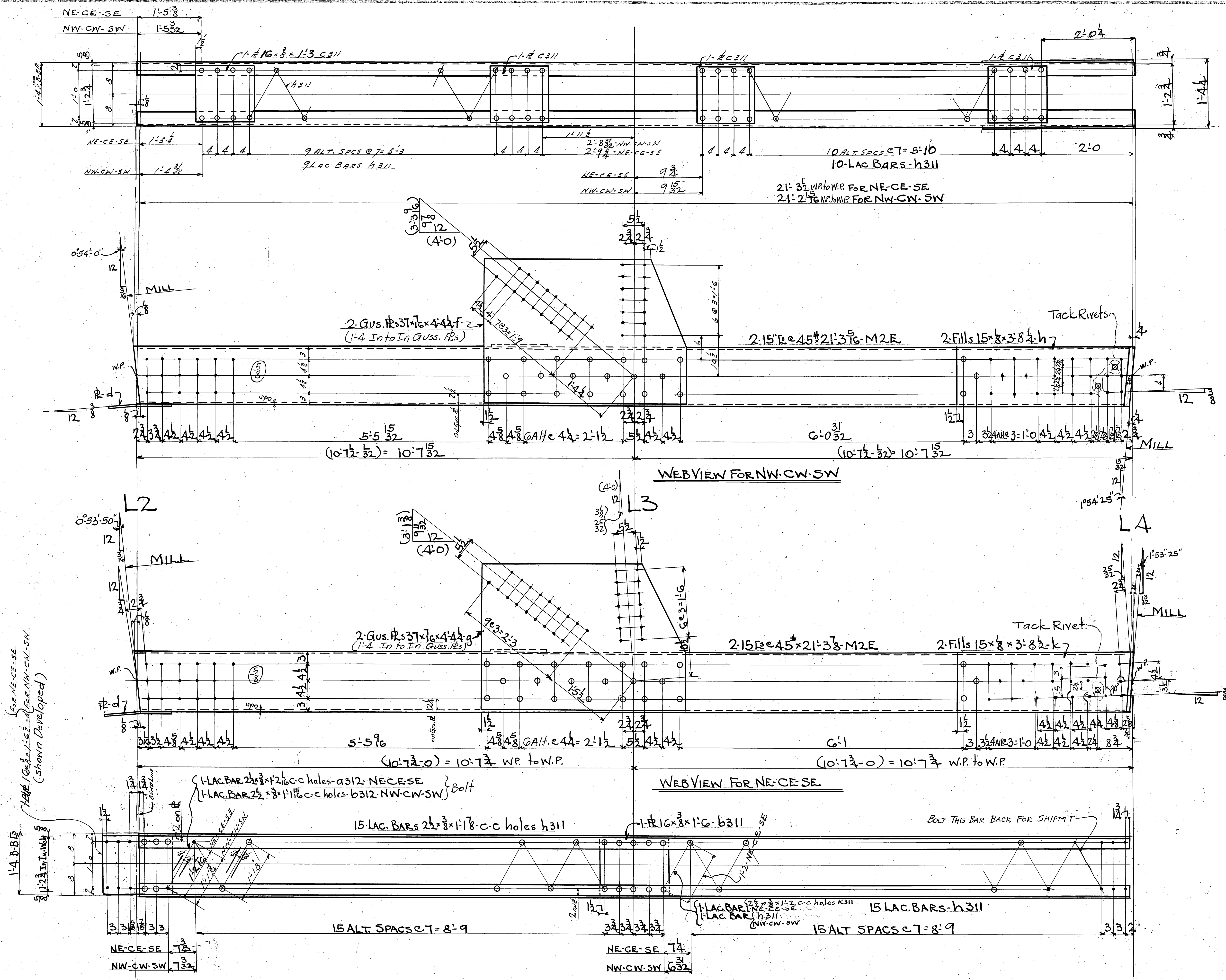
BOTT. CHORDS 10-1/2 (SPANS 7-10-12)

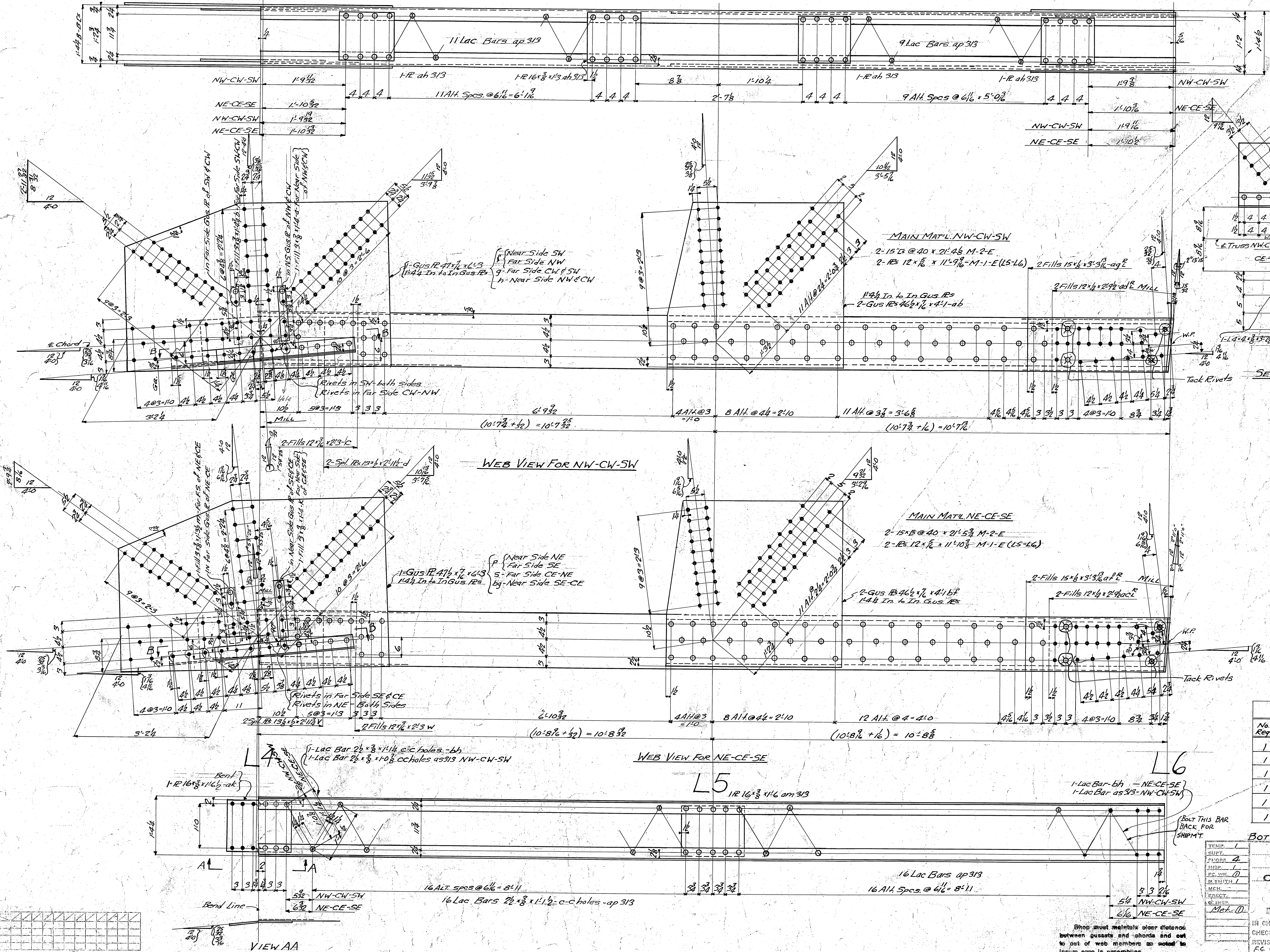
REQUIRED LIST				
No.	REQD.	MARK	DESCRIPTION	REMARKS
1		10-L2NN	BOTTOM CHORD	
1		10-L2CN	" "	
1		10-L2SN	" "	
1		10-L2NE	" "	
1		10-L2CE	" "	
1		10-L2SE	" "	

PREP. 1
 SHPT. 1
 SHOPS 4
 INSP. 1
 P.S. WK. 0
 D. SMITH
 MCH.
 FABR. 1
 CHASER
 Net 0

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINT. - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings of Plans - Fabrication at
 IN CHARGE: BORN MADE BY: J.R.M.
 CHECKED BY: T.J.S. 1/10/37 TRACED BY: J.E.P. 1/10/37
 REVISED: LAST ASSEM. MK.
 FC. 70C 3-537
 SHOP NO. 2 CONTRACT C.C. 2587-3 SHEET 3/11

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.





TACK WELD FOR SHIPMT
 {at = CW-SW
 av = NE-CE
 aw = CW-SW
 ba = NE-CE

- GENERAL NOTES:**
- RIVETS - 3/8"
 - OPEN HOLES - 1/2"
 - MATERIAL - Carbon steel A.S.T.M. A7-34 with .28 copper content, except where noted. All holes may be punched full size except:
 - REAMING:
 - (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 - (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 - (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 - (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 - BEARED EDGES of main material over 5/8" thick shall be chamfered to a depth of 1/4" where noted on details.
 - FLAT CUT EDGES of main material shall be planed, chipped on ground and present a smooth workmanlike appearance.
 - PAINT - One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 - Denotes break in stagger.

REQUIRED LIST

No. Req'd	Mark	Description	Remarks
1	L4-L6NW	Bottom Chord	
1	L4-L6CW	do	do
1	L4-L6SW	do	do
1	L4-L6NE	do	do
1	L4-L6CE	do	do
1	L4-L6SE	do	do

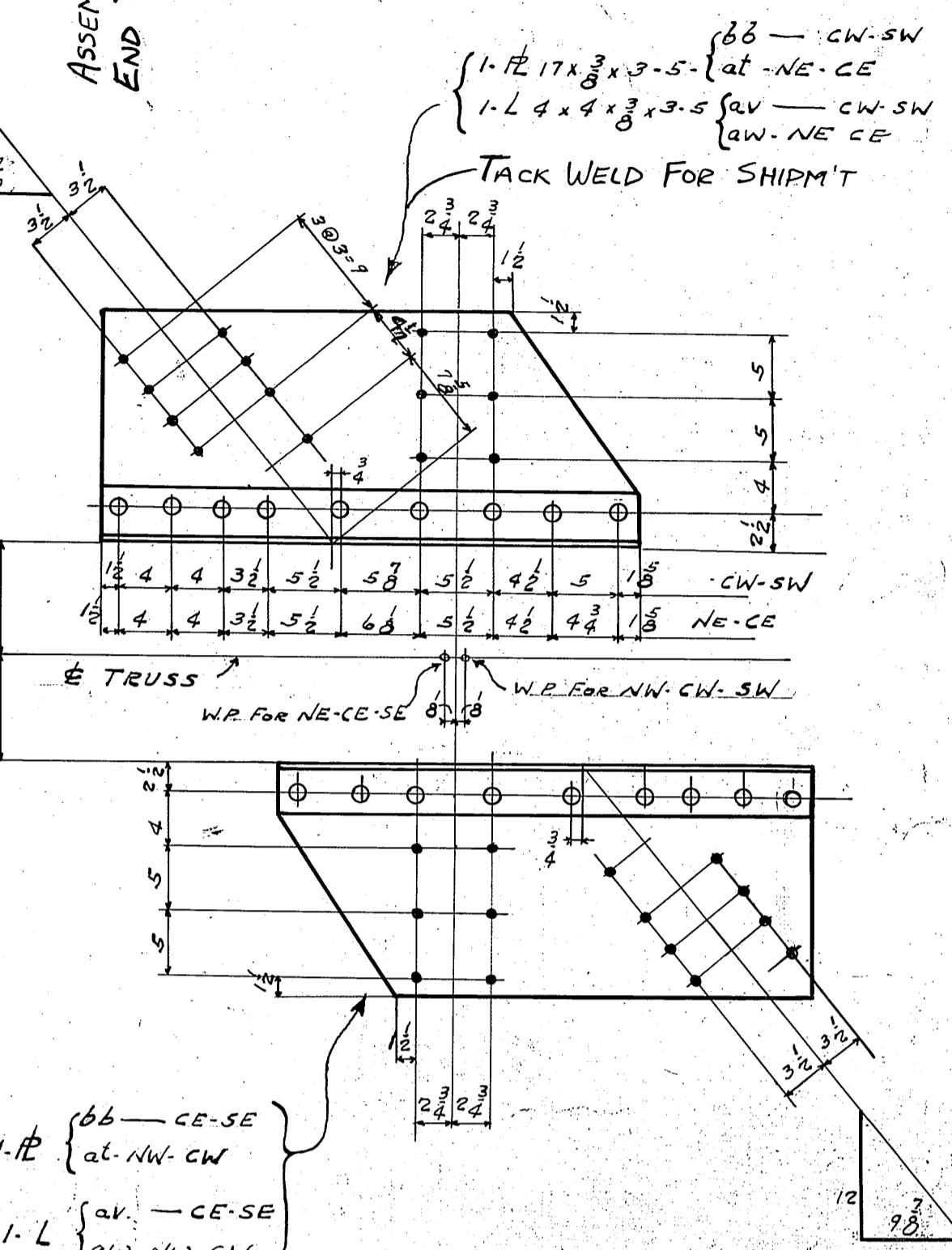
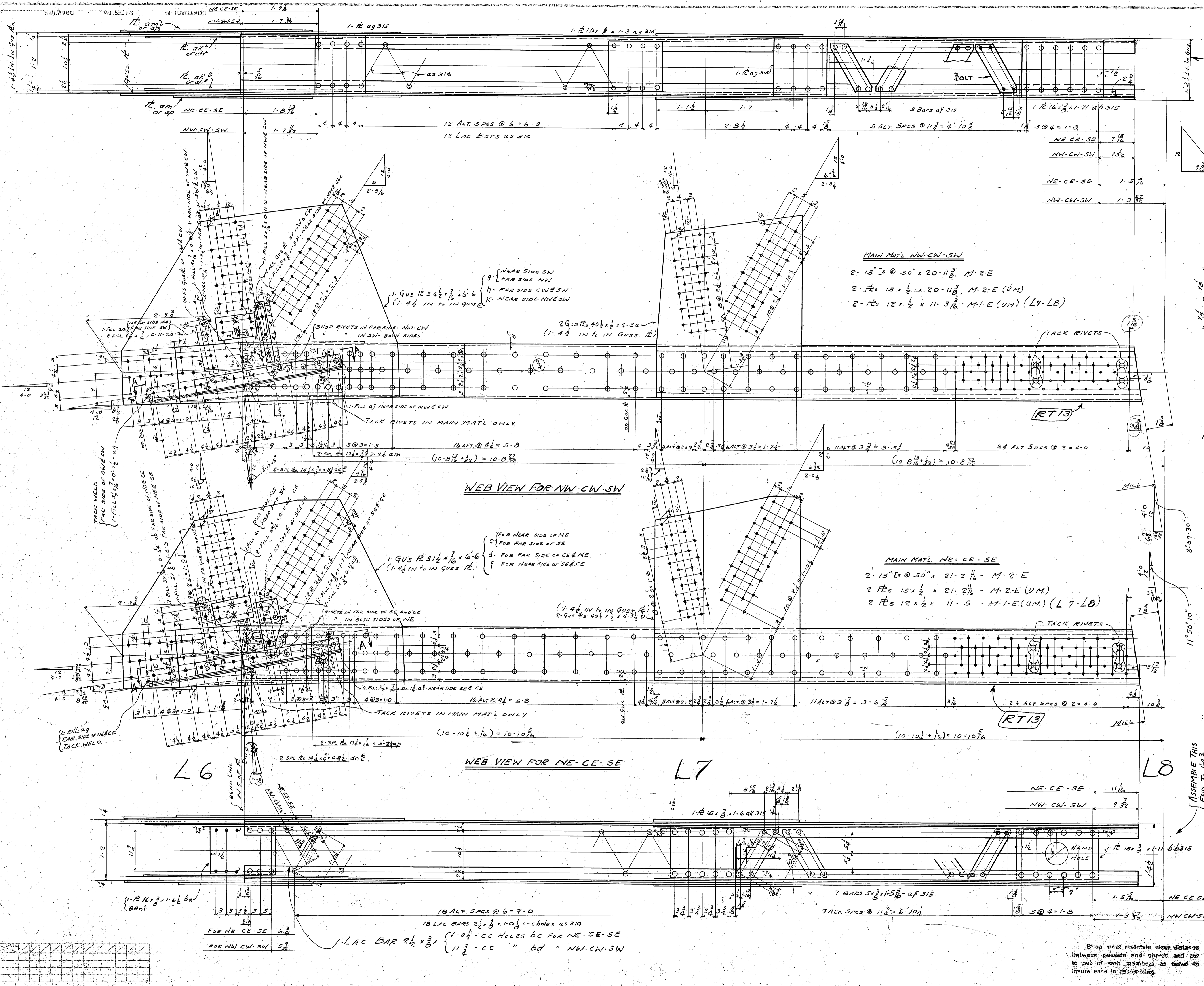
BOTTOM CHORDS L4-L6 SPANS 5-7 & 10-12

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINT. - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Handlin & Pelvignat 22

IN CHARGE: BORN MADE BY: J.R.M.
 CHECKED BY: T.J.S. 1/15/37 TRADED BY: G.A.W. 1-21-37
 REVISION: LAST ASSIGNED
 F.C. 780 3-5-37

SHOP NO. 2 CONTRACT CC 25813

Shop steel maintains clear distances between gussets and chords and out to post of web members as noted to insure ease in assembling.



GENERAL NOTES:

RIVETS: 1/2"

OPEN HOLES: 1/8"

MATERIAL: Carbon steel A.S.T.M. A7-34 with .25% copper content, except where noted.

FRAMING: All holes may be punched full size except:

- Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size to a metal template.
- Field connections of trusses shall be subpunched and reamed after truss is assembled.
- Holes in main material over 5/8" thick shall be drilled from the solid.
- Holes in main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.

FRAMING OUT EDGES: Main material shall be planed, chipped or ground and present a smooth workmanlike appearance.

PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.

SYMBOLS: Denotes break in stagger.

REQUIRED LIST

No. Req'd	MARK	DESCRIPTION	REMARKS
1	L6-LB-NW	BOTTOM CHORD	
1	L6-LB-CW	"	"
1	L6-LB-SW	"	"
1	L6-LB-NE	"	"
1	L6-LB-CE	"	"
1	L6-LB-SE	"	"

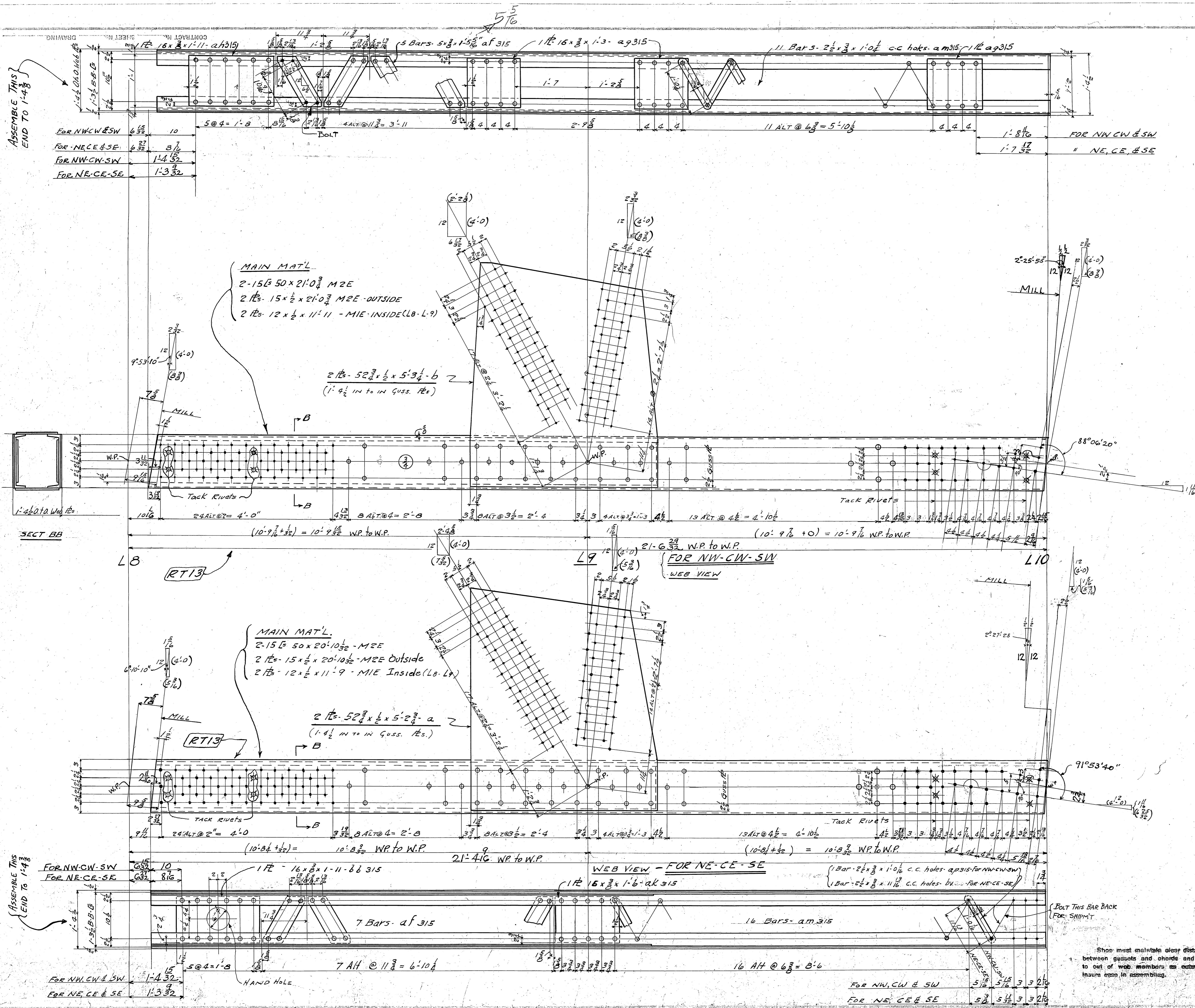
BOTTOM CHORD L6-LB SPANS 7 & 10-12

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINT. DEPT. PUBLIC WORKS
DETLEFSEN STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings of Shop - Fabrication of

IN CHARGE: *Boen* MADE BY: *JPM*
 CHECKED BY: *T.J.S. 2/15/37* TRACED BY: *NOR. 1-29-37*
 REVISION: *FC-TBC 3-5-37* LAST ASSEMBLY

SHOP NO. 2 CONTRACT CC 25873

Shop must maintain clear distance between gussets and chords and out to out of web members as shown to insure ease in assembling.



GENERAL NOTES:-

RIVETS:- 5/8"

OPEN HOLES:- 1/8"

MATERIAL:- Carbon steel A.S.T.M. A7-34 with 2% copper content, except where noted. All holes may be punched full size except:

BRACING:-

(a) All holes in main material are to be punched 1/8" small and reamed to size 40-5 metal temples.

(b) Field connections of trusses shall be punched and reamed after truss is assembled.

(c) Holes in main material over 5/8" thick shall be drilled from the solid.

(d) Holes in main material over 3/4" thick shall be punched 1/8" small and reamed to size.

REARDED EDGES: Edges of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.

PLANE CUT EDGES: Edges of main material shall be planed, chipped or rounded and present a smooth workmanlike appearance.

PAINT:- One coat of R.M. Blue, except where noted. Shop contact surfaces not painted.

SYMBOLS: - Denotes break in stagger.

REQUIRED LIST			
Nº	DESCRIPTION	MARK	REMARKS
1	BOTTOM CHORD	L8L10NW	
1		L8L10CW	
1		L8L10SW	
1		L8L10NE	
1		L8L10CE	
1		L8L10SE	

BOTTOM CHORDS L8-L10 SPANS 5-7 8 10-12

COLUMBIA AVE VIADUCT

CINCINNATI, OHIO

CITY OF CINTI. DEPT. PUBLIC WORKS

DETROIT STEEL COMPANY

INCORPORATED STEEL COMPANY

Drawings of this kind are prepared at the office of the Engineer in Charge.

IN CHARGE **BOEN** MADE BY **TBC 1-12-37**

CHECKED BY **T.J.S. 2/13/37** TRACED BY **NOP. 1-14-37**

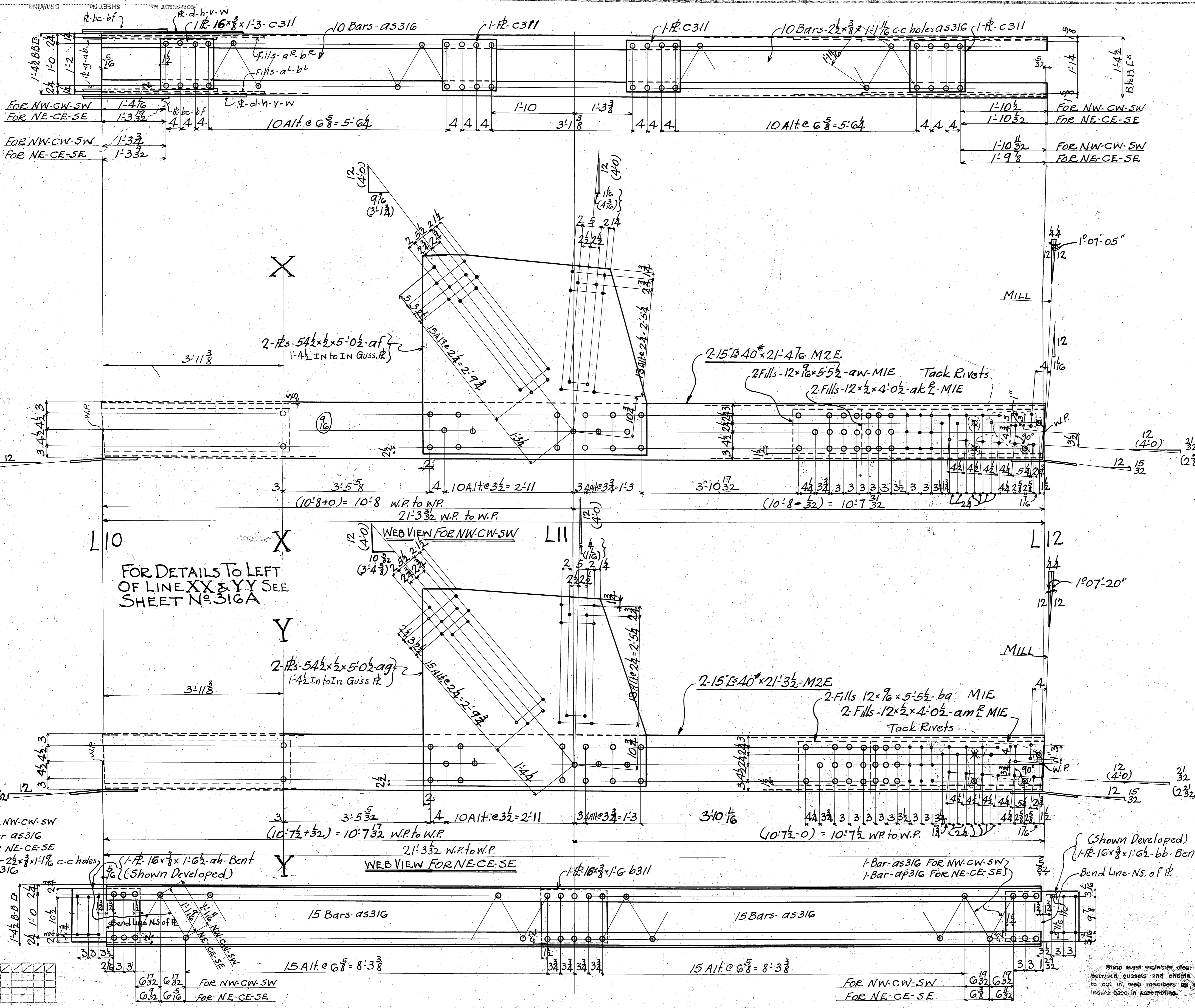
DESIGNED BY **PC 7/6 3/37** LATEST ASSEMBLY

Met. 0

SHOP NO. 2

CONTRACT NO. 16 x 3/8 x 1-11-27315

SHEET 315



GENERAL NOTES:
RIVETS: - 7/8" dia
OPEN HOLES: - 1 1/8" dia
MATERIAL: - Carbon steel A.S.T.M. A7-84 with 58 copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
BEADED EDGES: - Edges of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
PLANE CUT EDGES: - Edges of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
PAINT: - One coat of RED LEAD except where noted. Shop contact surfaces not painted.
--- - Denotes break in stagger.

REQUIRED LIST			
NO	DESCRIPTION	MARK	REMARK
1	BOTTOM CHORD	L10-L12 NW	
1	"	L10-L12 CW	
1	"	L10-L12 SW	
1	"	L10-L12 NE	
1	"	L10-L12 CE	
1	"	L10-L12 SE	

WORK THIS SHEET WITH SHEET #316
 BOTTOM CHORDS L10-L12 SPAN 5-T & SPAN 10-12

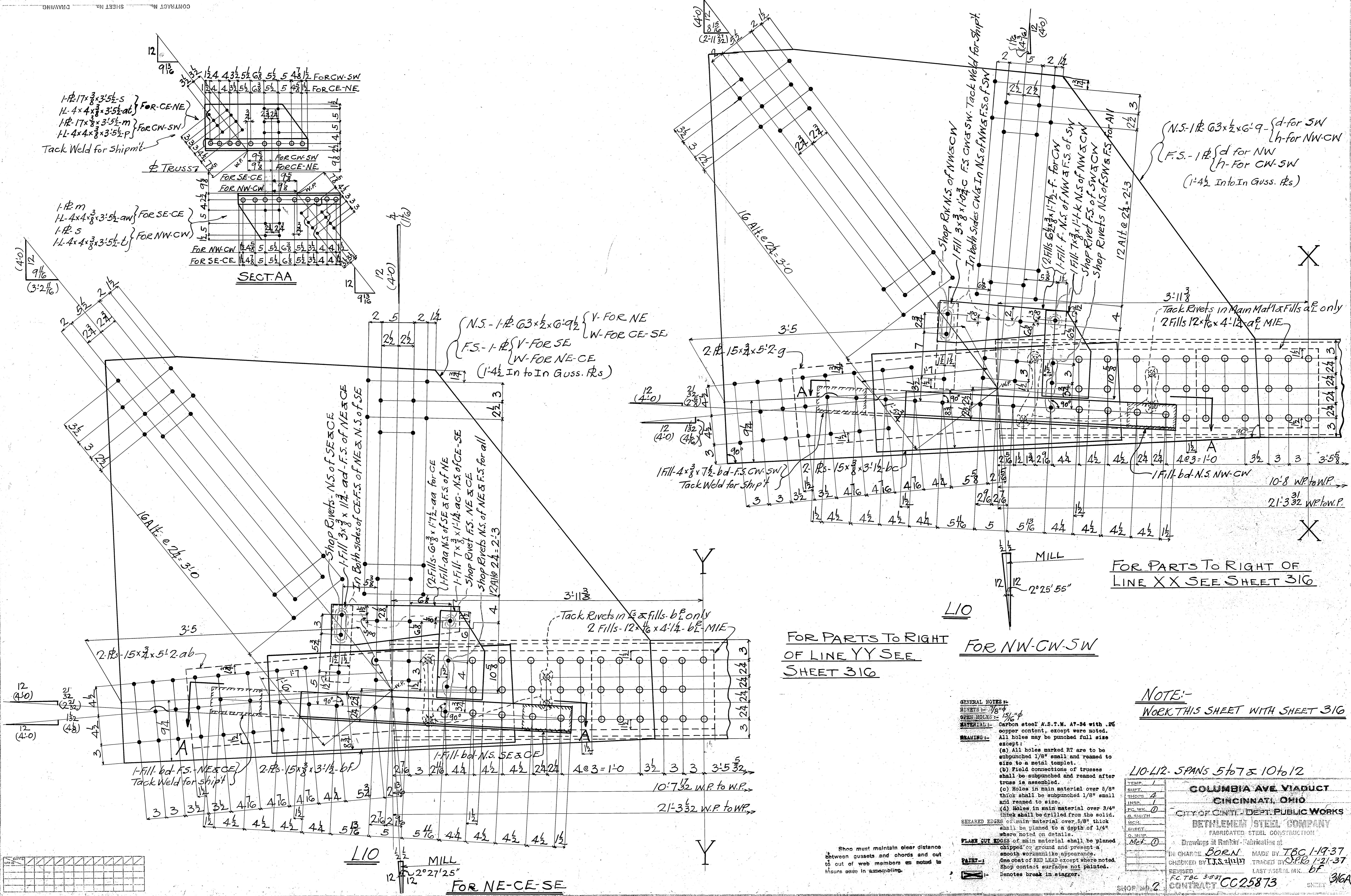
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTL - DEPT. PUBLIC WORKS
 BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at

IN CHARGE: BORN, MADE BY: TBC 1-14-37
 CHECKED BY: I.J.S. 2/13/37 TRACED BY: O.P.R. 1-19-37
 REVISION: LAST ASSEMB. MK. bb

FC-78C 3-53
 CONTRACT CC 25873

SHOP NO. 2

Shop must maintain clear distance between gussets and chords and cut to out of web members as noted to insure ease in assembling.



1-P. 17x8x3-5/8-s } FOR CE-NE
 1-L. 4x4x3/8x3-5/8-ab } FOR CE-NE
 1-P. 17x8x3-5/8-m } FOR CW-SW
 1-L. 4x4x3/8x3-5/8-p } FOR CW-SW
 Tack Weld for Shipmt

1-P. m } FOR SE-CE
 1-L. 4x4x3/8x3-5/8-aw } FOR SE-CE
 1-P. s } FOR NW-CW
 1-L. 4x4x3/8x3-5/8-l } FOR NW-CW

SECT. AA

N.S. - 1-P. G3x2x6-9/8 } V-FOR NE
 F.S. - 1-P. } W-FOR CE-SE
 W-FOR NE-CE
 (1-4 1/2 In to In Guss. R.s)

N.S. - 1-P. G3x2x6-9- } d-for SW
 h-for NW-CW
 F.S. - 1-P. } d-for NW
 h-for CW-SW
 (1-4 1/2 Into In Guss. R.s)

3-11 3/8
 Tack Rivets in Main Mat'l & Fills a^l only
 2 Fills 12x10x4-1/2 a^l MIE

Shop Rivets - N.S. of SE & CE
 1-Fill 3x3x1/4 ad-F.S. of NE & CE
 In Both Sides of CE.F.S. of NE & N.S. of SE

2-Fills G3x8x1-1/2-aa for CE
 1-Fill-aa N.S. of SE & F.S. of NE
 1-Fill 7x3x1/4 ac- N.S. of CE-SE
 Shop Rivet F.S. NE & CE
 Shop Rivets N.S. of NE & F.S. for all
 1/2" dia 24-2-3

Tack Rivets in Fills & Fills-b^l only
 2 Fills-12x10x4-1/2-b^l-MIE

FOR PARTS TO RIGHT
 OF LINE YY SEE
 SHEET 316

FOR NW-CW-SW

FOR PARTS TO RIGHT OF
 LINE XX SEE SHEET 316

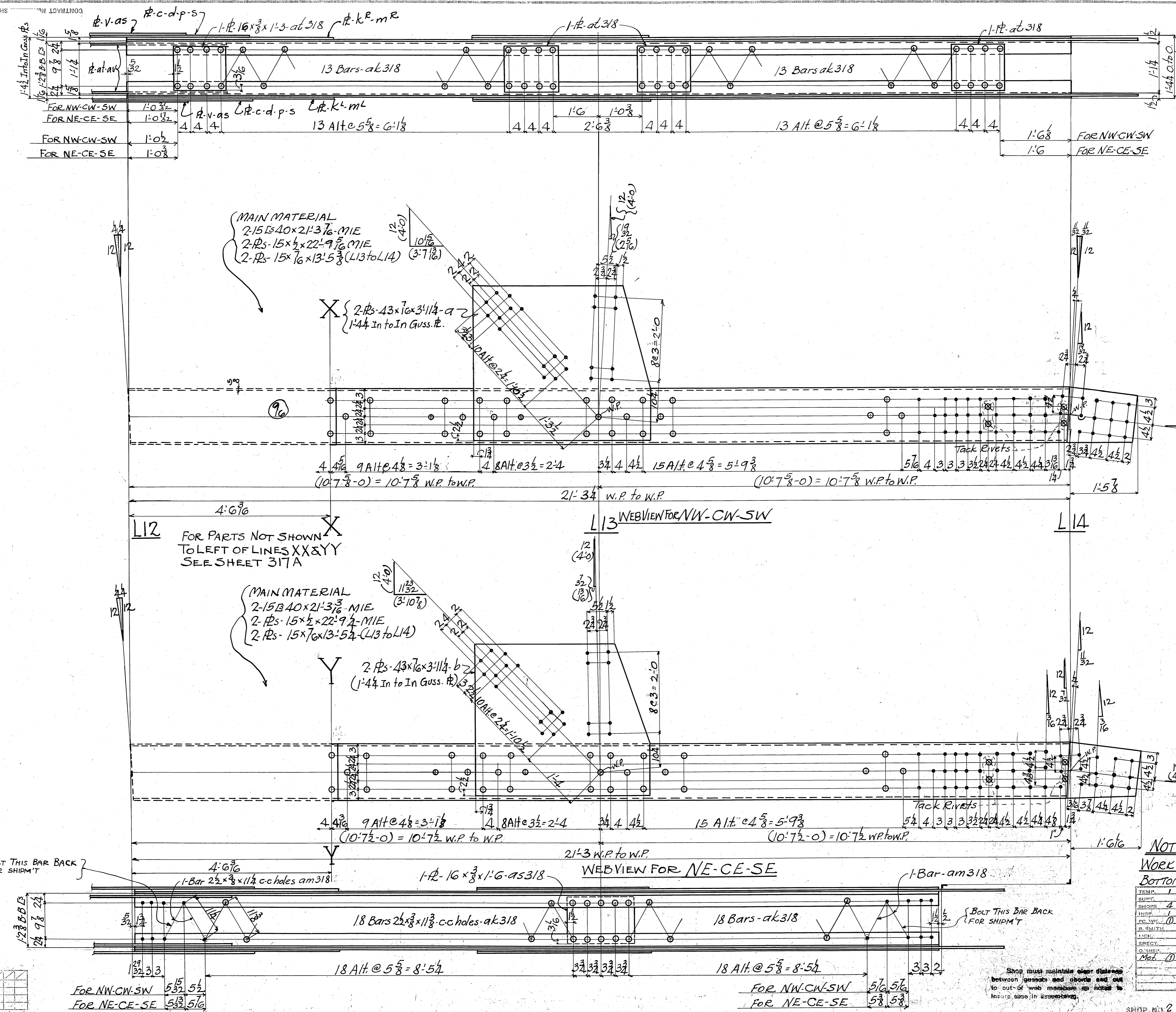
GENERAL NOTES:-
 RIVETS:- 7/8"
 OPEN HOLES:- 1 1/8"
 MATERIAL:- Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted.
 PAINT:-
 FINISH:-
 MILL

NOTE:-
 WORK THIS SHEET WITH SHEET 316

L10-L12 SPANS 5 to 7 & 10 to 12

TEMP.	1
SUFT.	
SHOPS	4
INSPE.	1
PG. WK.	0
BL. BATH	
MCH.	
WELD.	
Q. MGR.	
Met.	0

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTL. DEPT. PUBLIC WORKS
 BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rathbun - Fabrication of
 IN CHARGE BORN MADE BY TBC 1-19-37
 CHECKED BY J.S. 2/1/37 TRACED BY C.P.K. 1-21-37
 REVISED F.C. TBC 3-5-37 LAST ASSEM. BK. bf
 CONTRACT CC25873 SHEET 316A



GENERAL NOTES:-
RIVETS:- 7/8"
OPEN HOLES:- 1 1/8"
MATERIAL:- Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted.
REAMING:- All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
PLANE CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
PAINT:- One coat of RED LEAD except where noted. Shop contact surfaces not painted.
--- Denotes break in stagger.

REQUIRED LIST			
NO	DESCRIPTION	MARK	REMARK
1	BOTTOM CHORD	L12/L14 NW	
1	"	L12/L14 GN	
1	"	L12/L14 SW	
1	"	L12/L14 NE	
1	"	L12/L14 SE	

NOTE:-
 WORK THIS SHEET WITH SHEET 317A
 BOTTOM CHORDS L12-L14 SPANS 567 & 1010/2

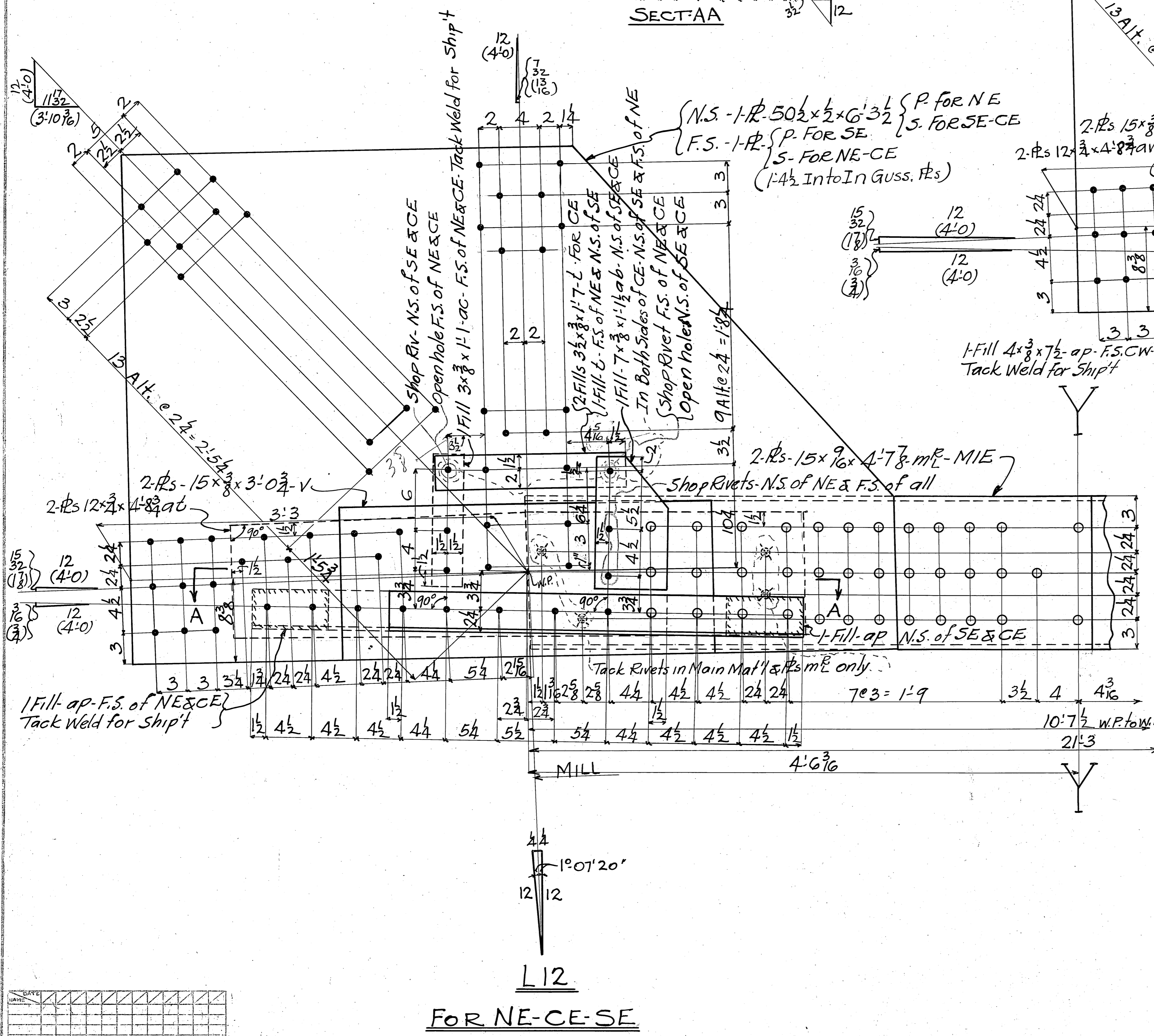
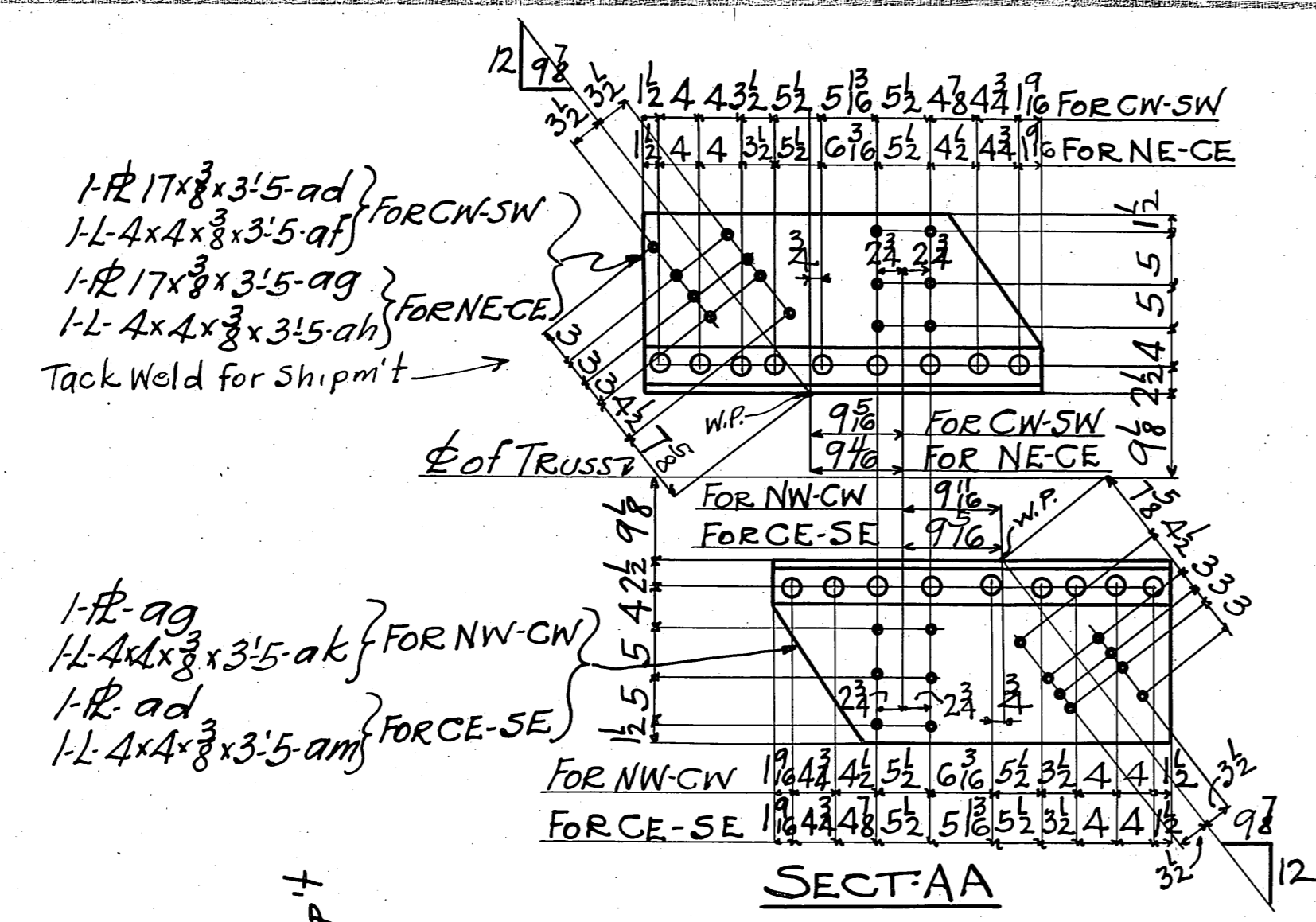
TEMP. 1
 SHOP 4
 ERECT 0
 CHECKED BY T.J.S. 2/11/37
 REVISION 0

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTI. - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION

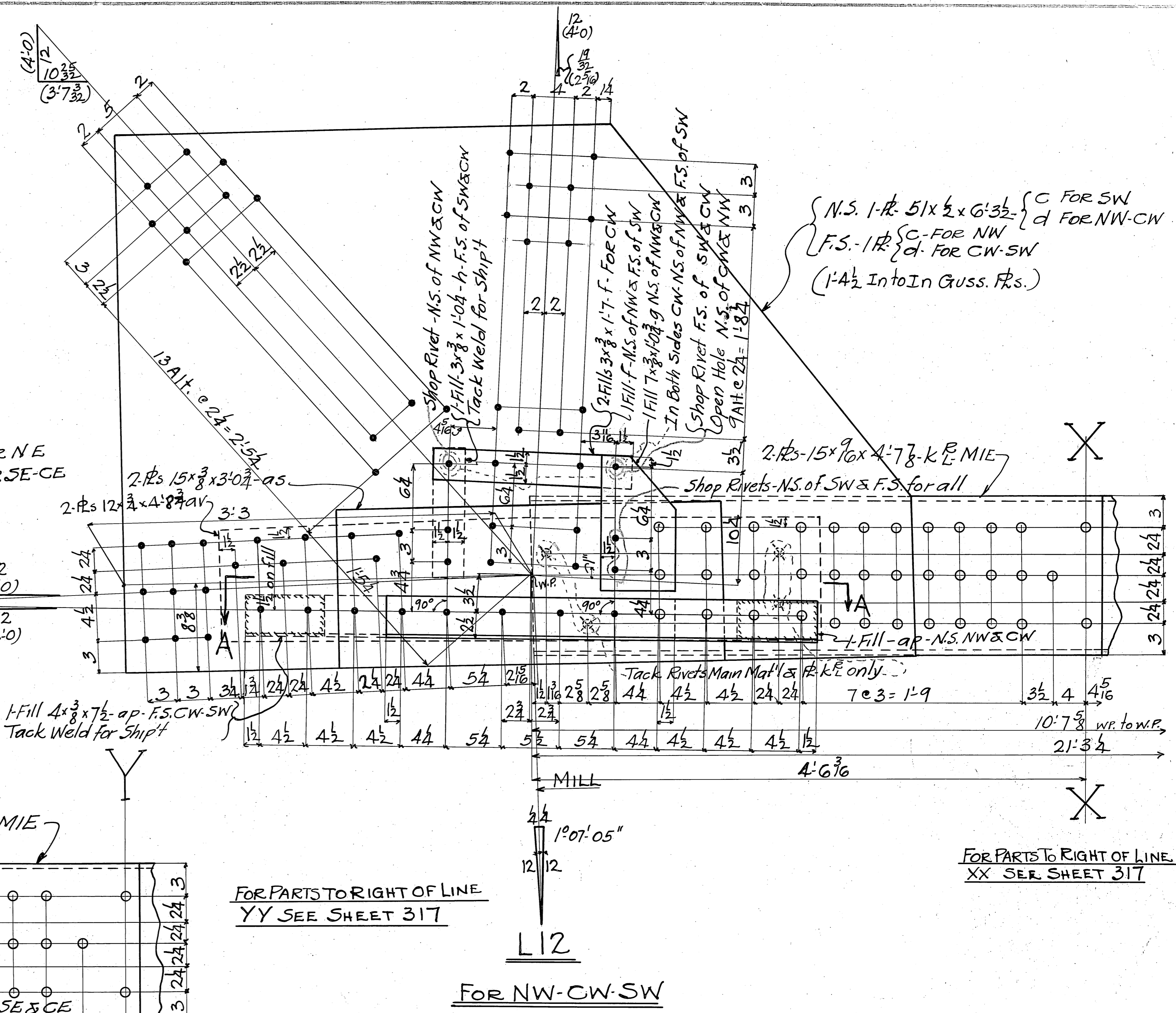
Drawings at Rankin - Fabrication at
 IN CHARGE: BOEN MADE BY: T.B.C. 1-18-37
 CHECKED BY: T.J.S. 2/11/37 TRACED BY: O.P.R. 1-23-37
 REVISION: 0 LAST ASSEM. BY: 0

SHOP NO. 2 CONTRACT CC 25873 SHEET 317

Shop must maintain clear distance between gussets and chords and out to out of web members as shown to insure ease in assembling.



L12
FOR NE-CE-SE



L12
FOR NW-CW-SW

FOR PARTS TO RIGHT OF LINE
YY SEE SHEET 317

FOR PARTS TO RIGHT OF LINE
XX SEE SHEET 317

- GENERAL NOTES:-**
- RIVETS: 7/8" dia
 - OPEN HOLES: 1 1/2" dia
 - MATERIAL: Carbon steel A.S.T.M. A7-34 with .25% copper content, except where noted. All holes may be punched full size except:
 - REAMING: (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template. (b) Field connections of trusses shall be subpunched and reamed after truss is assembled. (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size. (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 - BEARED EDGES: Edges of main material over 5/8" thick shall be beamed to a depth of 1/4" where noted on details.
 - PLANE CUT EDGES: Edges of main material shall be planed, chipped or ground, and present a smooth workmanlike appearance.
 - PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 - Denotes break in stagger.

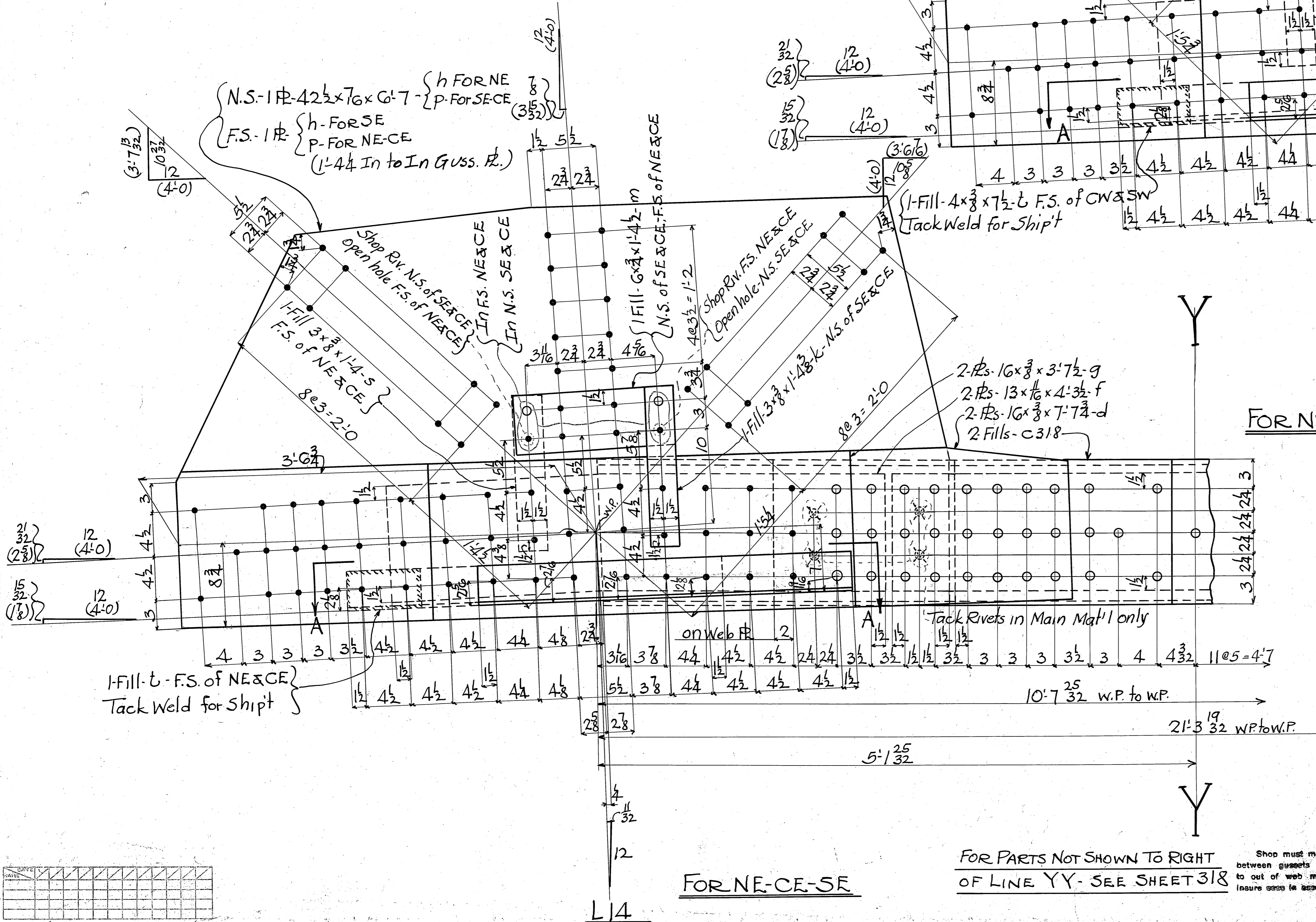
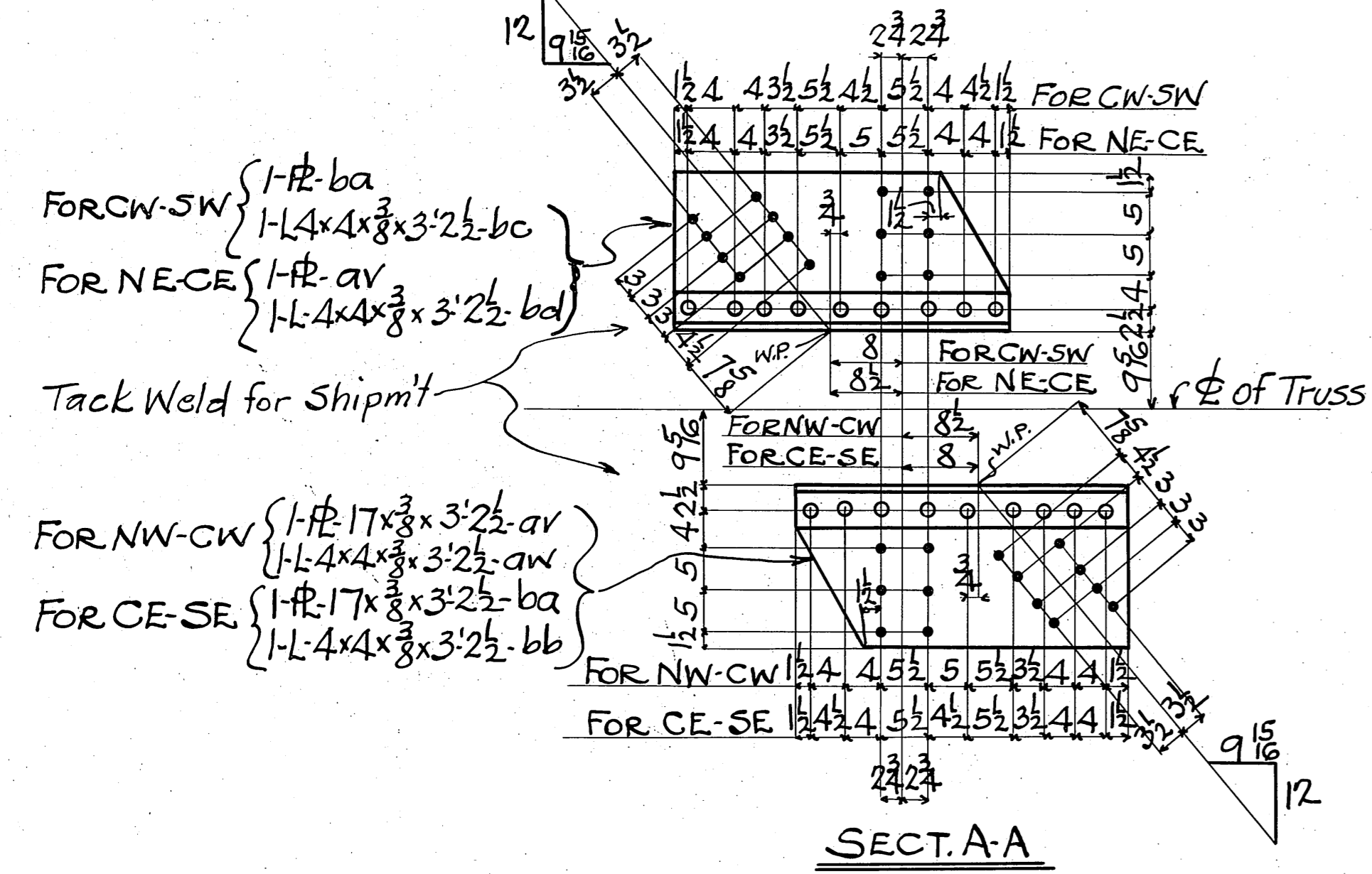
NOTE:-
WORK THIS SHEET WITH SHEET 317

L12-L14 - SPANS 5' to 7' & 10' to 12'

TEMP.	1
SUPT.	4
SMOKE	4
INSPE.	1
PC. WKS.	0
BY SMITH	
HIGH	
PRECT.	
LD. INSP.	
Net	0

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTI. - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
Drawings at Hand - Fabricator at

IN CHARGE: **BORN** MADE BY: T.B.C. 1-20-37
CHECKED BY: T.J.S. H.H.37 TRACED BY: C.P.C. 1-22-37
DESIGNED: P.C. 78c 3-5-37 LAST ACCUR. BY: **av**
SHOP NO. 2 CONTRACT CC 25873



- GENERAL NOTES:-**
- RIVETS: 7/8"
 - OPEN HOLES: 1 1/8"
 - MATERIAL: Carbon steel A.S.T.M. A7-34 with .28 copper content, except where noted.
 - REAMING: All holes may be punched full size except:
 - (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 - (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 - (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 - (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 - SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 - PLANE CUT EDGES of main material shall be planed chipped or ground and present a smooth workmanlike appearance.
 - PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 - Symbol: denotes break in stagger.

NOTE:-
 WORK THIS SHEET WITH SHEET 318

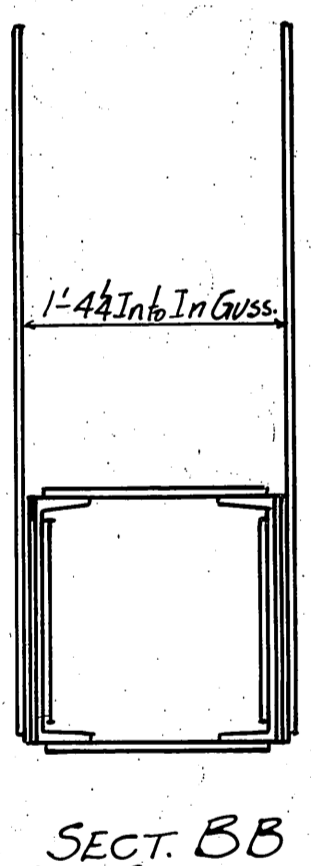
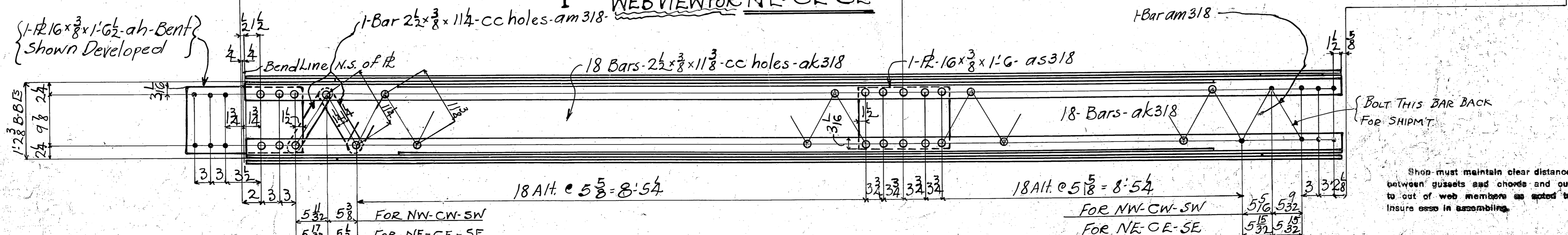
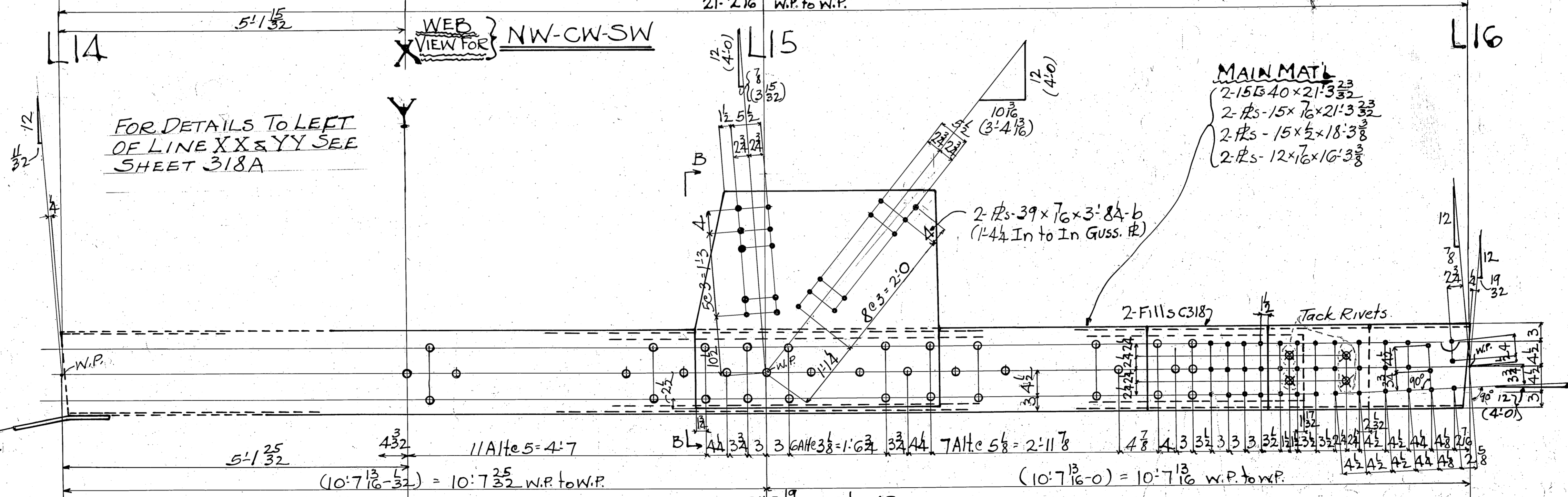
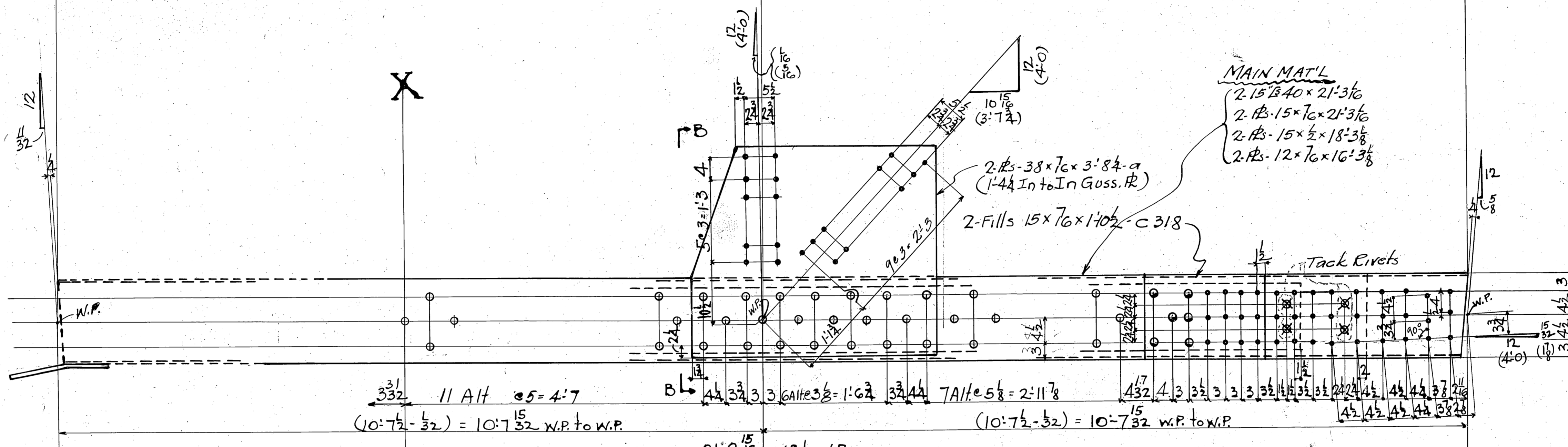
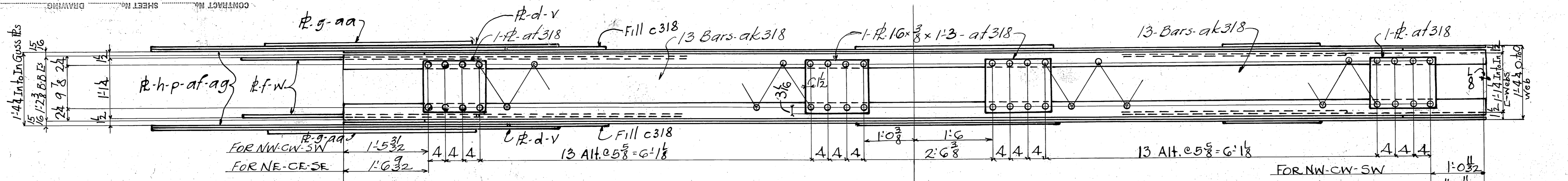
BOTTOM CHORD L14-L16 SPANS 5-7 & 10-12

TEMP.	1
SHOP	1
SHOPS	4
INSP.	1
PC. WK.	0
B. SMITH	0
MEM.	0
FR. BY	0
CL. INSP.	0
Mat.	0

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTL. DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION

Drawings at Rankin - Fabrication
 IN CHARGE: BORN MADE BY: T.B.C. 1-21-37
 CHECKED BY: T.J.S. 2/1/37 TRACED BY: J.P.D. 1-25-37
 REVISION: F.C. T.B.C. 3-5-37 LAST ASSEMBLED: 3/18/37
 CONTRACT: CC25873 SHEET: 318A



- GENERAL NOTES:-**
 RIVETS:- 7/8" φ
 OPEN HOLES:- 1 1/8" φ
MATERIAL:- Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
PAINT:- One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 [Symbol] Denotes break in stagger.

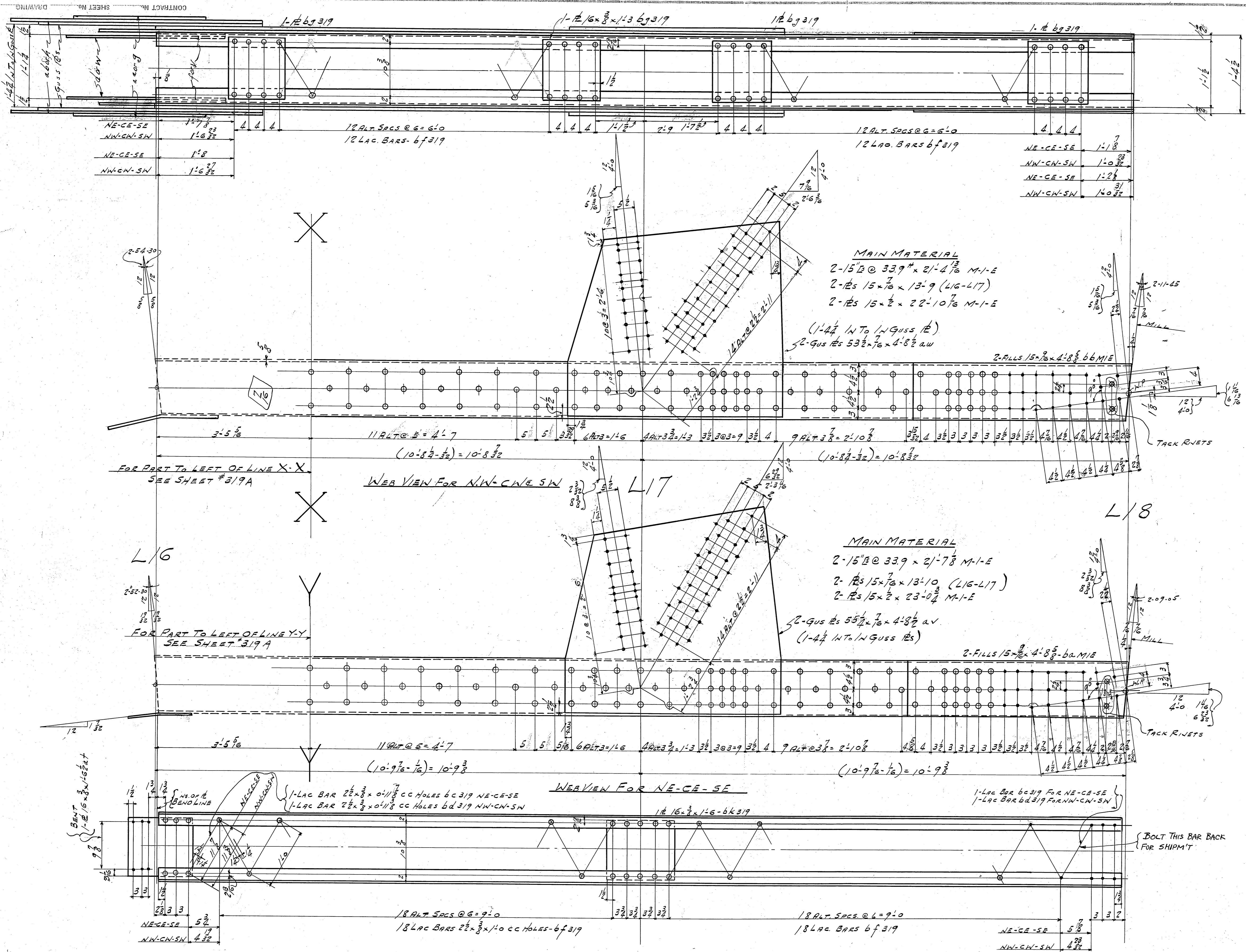
REQUIRED LIST			
NO	DESCRIPTION	MARK	REMARKS
1	BOTTOM CHORD	L14-L16NW	
1	"	L14-L16GW	
1	"	L14-L16SW	
1	"	L14-L16NE	
1	"	L14-L16CE	
1	"	L14-L16SE	

BOTTOM CHORD L14-L16 SPAN 5-7x10-12

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
 CITY OF CINT. DEPT. PUBLIC WORKS
 MCCLINTIC-MARSHALL CORPORATION
 Drawings at Rankin - Fabrication at
 IN CHARGE: BORN MADE BY: T.B.C. 116-37
 CHECKED BY: J.S. 21437 TRACED BY: C.P.R. 1-19-37
 REVISED: PA. 70c 2-5-37 LAST ASSEM. MK. 10

TEMP. 7
 SUPT. 4
 SHOPS 4
 INSP. 1
 P.C.W.K. 0
 S.MITH 1
 MCH. 1
 ERECT. 1
 CONSP. 1
 M.T. 0

SHOP NO. 2 CONTRACT C.C. 25873 SHEET 318



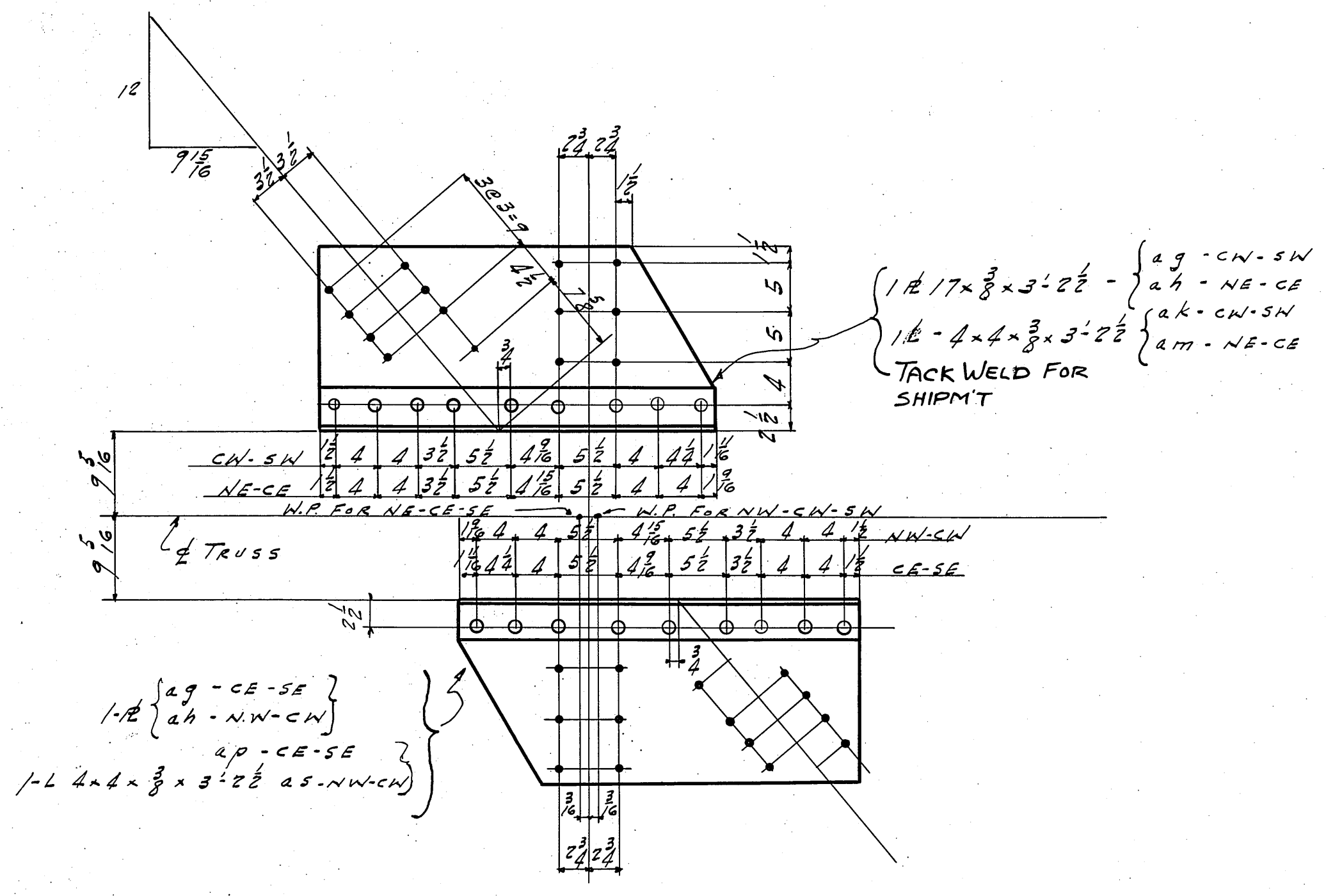
GENERAL NOTES:
RIVETS: - 8 15/16
OPEN HOLES: - 1/16
MATERIAL: Carbon steel A.S.T.M. A7-84 with .26 copper content, except where noted. All holes may be punched full size except:
REMARKS:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
BEVELLED EDGES: of main material over 5/8" thick shall be beveled to a depth of 1/4" where noted on details.
FLAME CUT EDGES: of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
PAINT: - One coat of RED LEAD except where noted. Shop contact surfaces NOT painted.
 Denotes break in stagger.

REQUIRED LIST				
No	REQ'D	MARK	DESCRIPTION	REMARKS
1		L16-L18NW	BOTTOM CHORD	
1		L16-L18CN	"	"
1		L16-L18SW	"	"
1		L16-L18NE	"	"
1		L16-L18CE	"	"
1		L16-L18SE	"	"

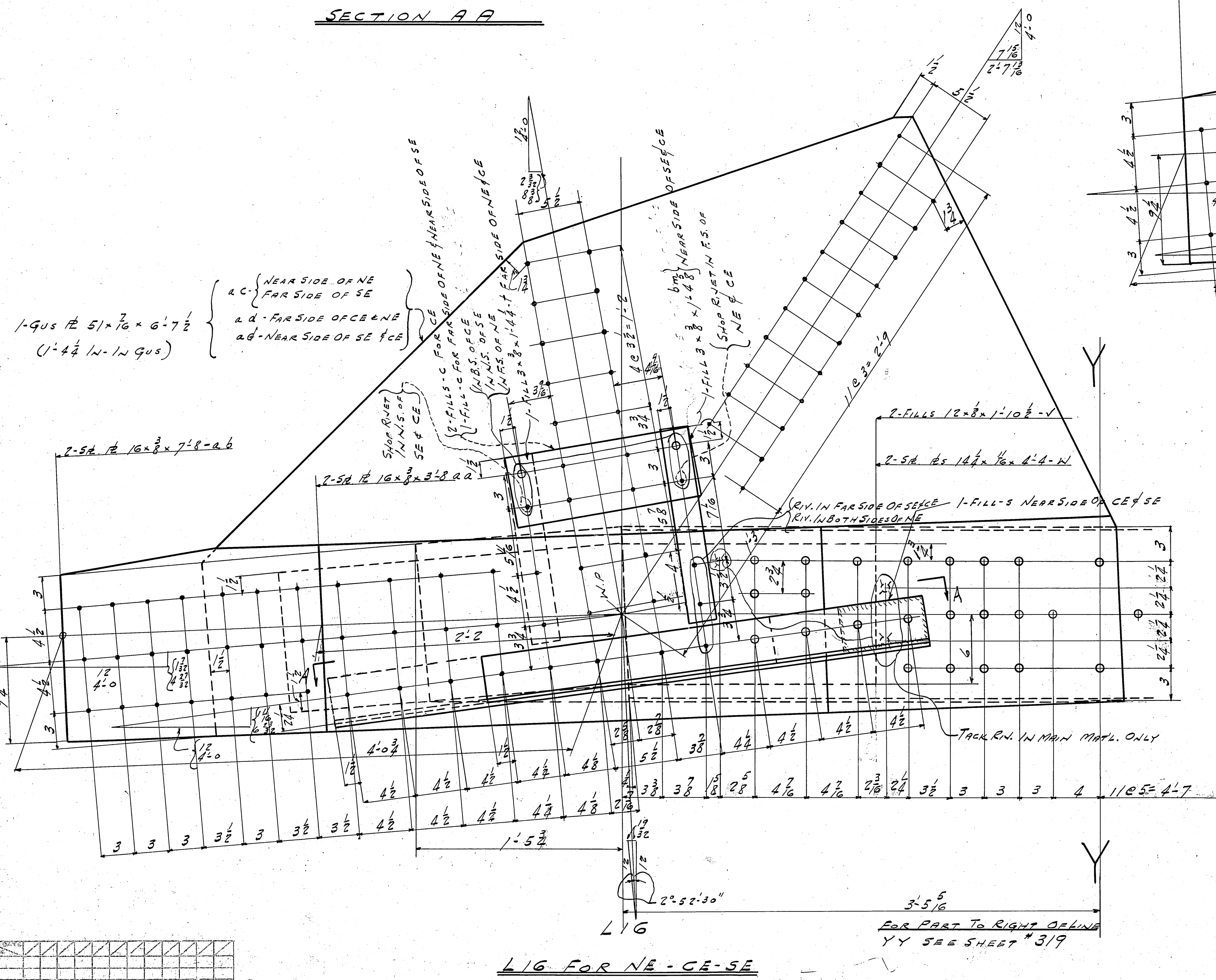
WORK THIS SHEET WITH SHEET #319A
 BOTTOM CHORD L16-L18 SPAN (57) E (10-2)

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS
 BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at
 IN CHARGE: BORN
 CHECKED BY: T.S.S. 1/13/37
 REVISION: R.C. TBC 3/5/37
 MADE BY: J.R.M.
 TRACED BY: J.E.R. 11/27/37
 LAST ASSEM. NY

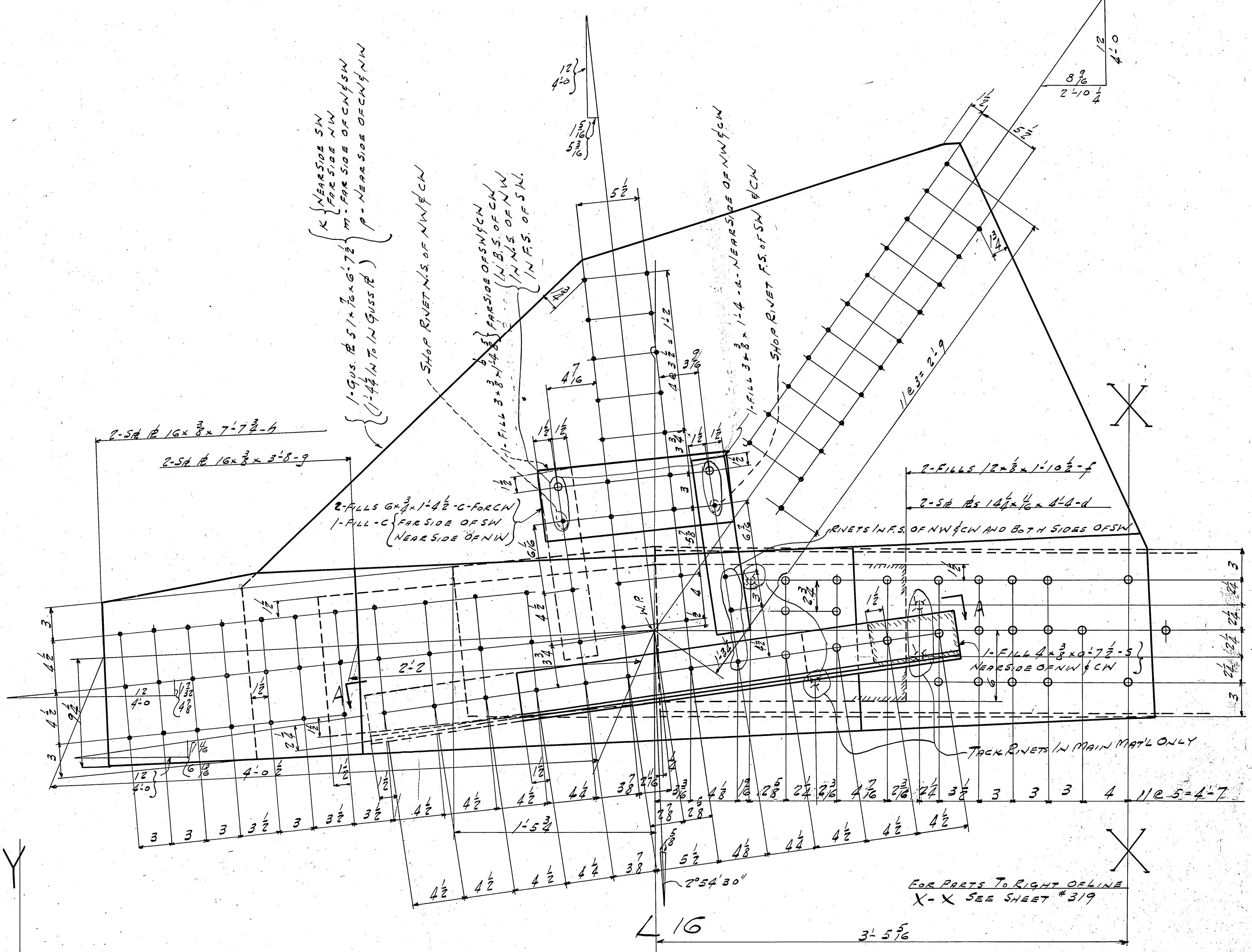
Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.



SECTION A A



L16 FOR NE-CE-SE



L16 FOR NW-CN-SW

GENERAL NOTES:-
RIVETS:- 3/4"
OPEN HOLES:- 1 1/2"
MATERIAL:- Carbon steel A.S.T.M. A7-34 with 2% copper content, except where noted.
BRACING:- All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES of main material shall be planed chipped or ground and present a smooth workmanlike appearance.
 One coat of RED LEAD except where noted.
PAINT:- Shop contact surfaces not painted.
Denotes break in stagger.

FOR REQUIRED LIST SEE SHEET 319
 WORK THIS SHEET WITH SH. 319

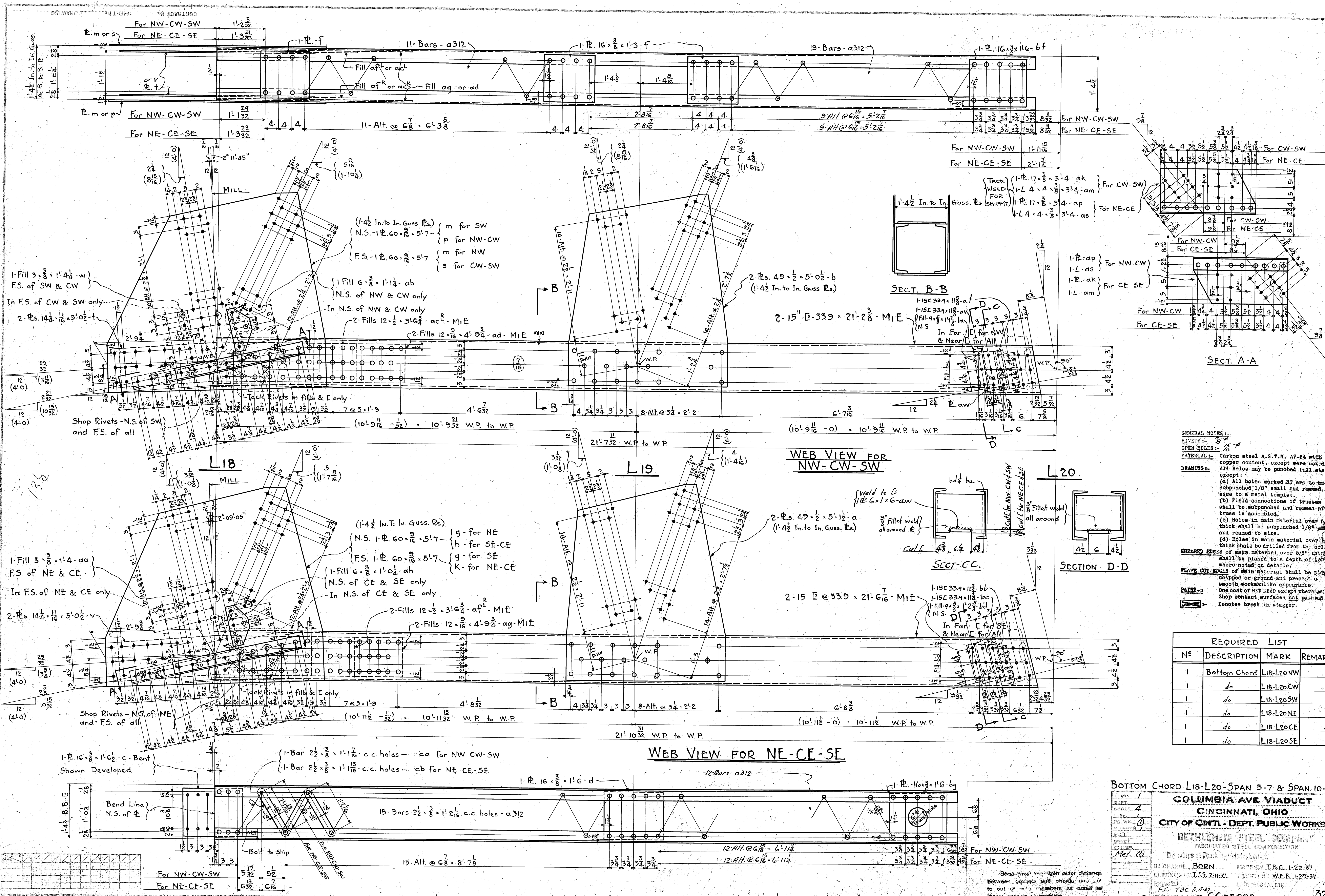
BOTT CHORD L16-L18 (SPANS 7'-10"-12")

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINT. - DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Banker's Fabrication at

IN CHARGE: BARN MADE BY: J.R.M.
 CHECKED BY: J.T.S. 2/12/57 TRACED BY: J.E.P. 1/27/57
 REVISED: FC 70C 3/5/57 LAST ASSEMBLER:
 SHOP NO. 2 CONTRACT CC 258.73 SHEET 319A

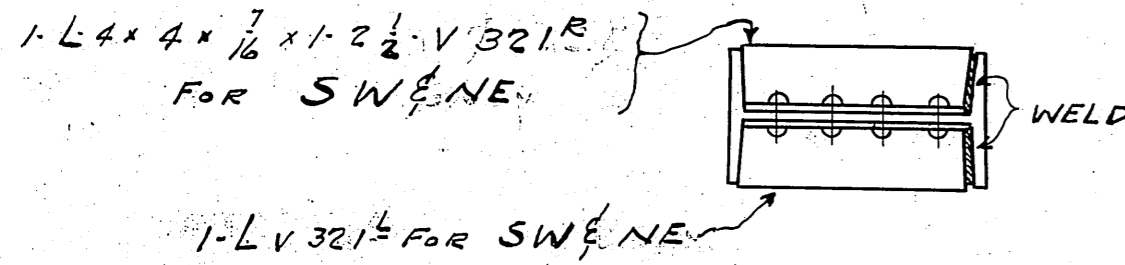
Shop must maintain clear distances between gussets and chords and out to out of web members as noted to insure ease in assembling.



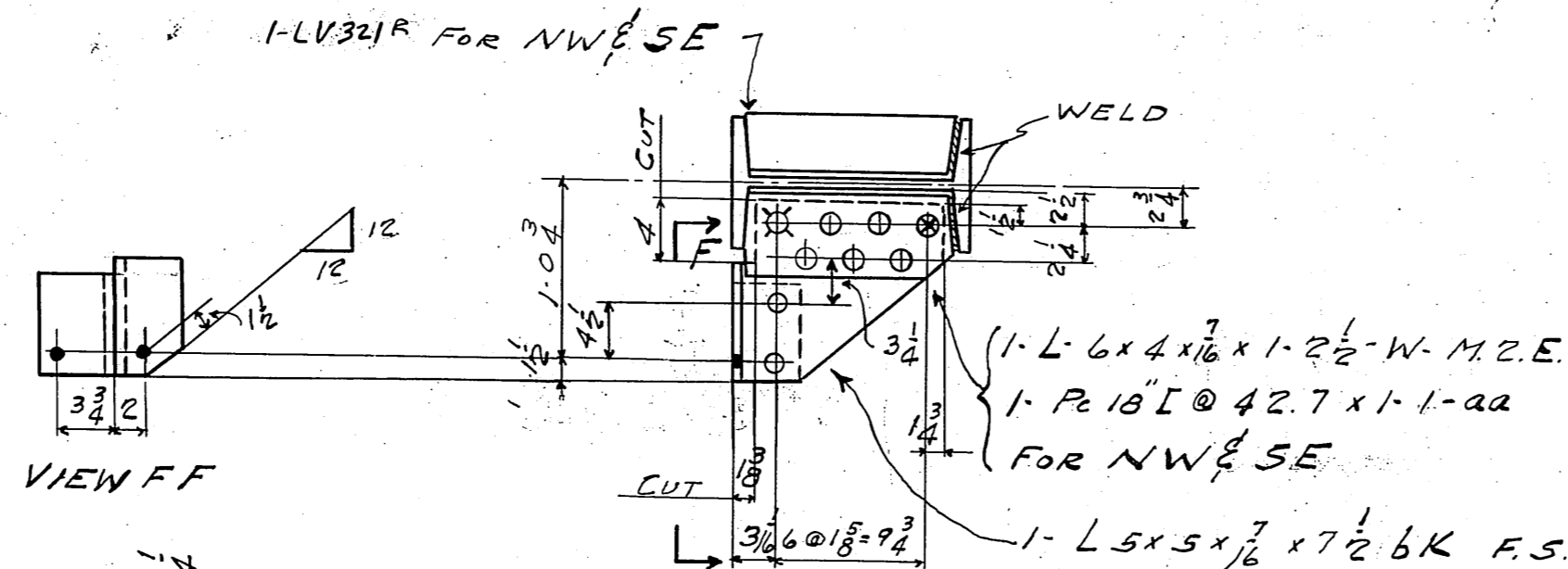
GENERAL NOTES:
 RIVETS: 5/8"
 OPEN HOLES: 1/8"
MATERIAL: Carbon steel A.S.T.M. A7-64 with .02% copper content, except where noted.
FINISHING: All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
GRADED EDGES: of main material over 5/8" thick shall be planed to a depth of 1/16" where noted on details.
PAINT: 1. Smooth workmanlike appearance. One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 2. Denotes break in stagger.

REQUIRED LIST			
Nº	DESCRIPTION	MARK	REMARKS
1	Bottom Chord	L18-L20NW	
1	do	L18-L20CW	
1	do	L18-L20SW	
1	do	L18-L20NE	
1	do	L18-L20CE	
1	do	L18-L20SE	

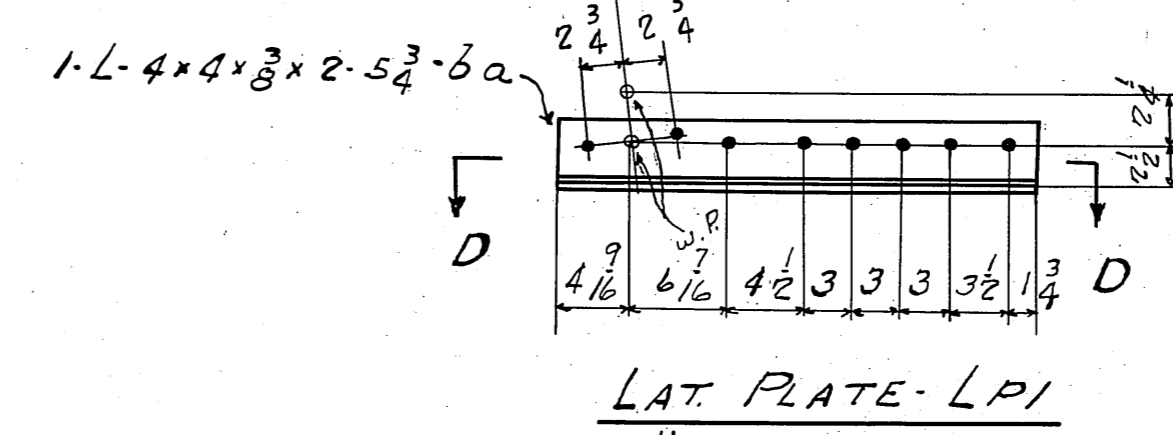
BOTTOM CHORD L18-L20- SPAN 5-7 & SPAN 10-12
COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTL - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Bethlehem, Pa. and Cincinnati, Ohio
 IN CHARGE: BORN MADE BY: I.B.C. J-22-37
 CHECKED BY: I.J.S. 2-11-37 TRACED BY: W.E.B. 1-29-37
 REVISIONS: L.A.V. 1-29-37
F.C. 73C 3-5-37
CONTRACT CC25873 SHEET 320



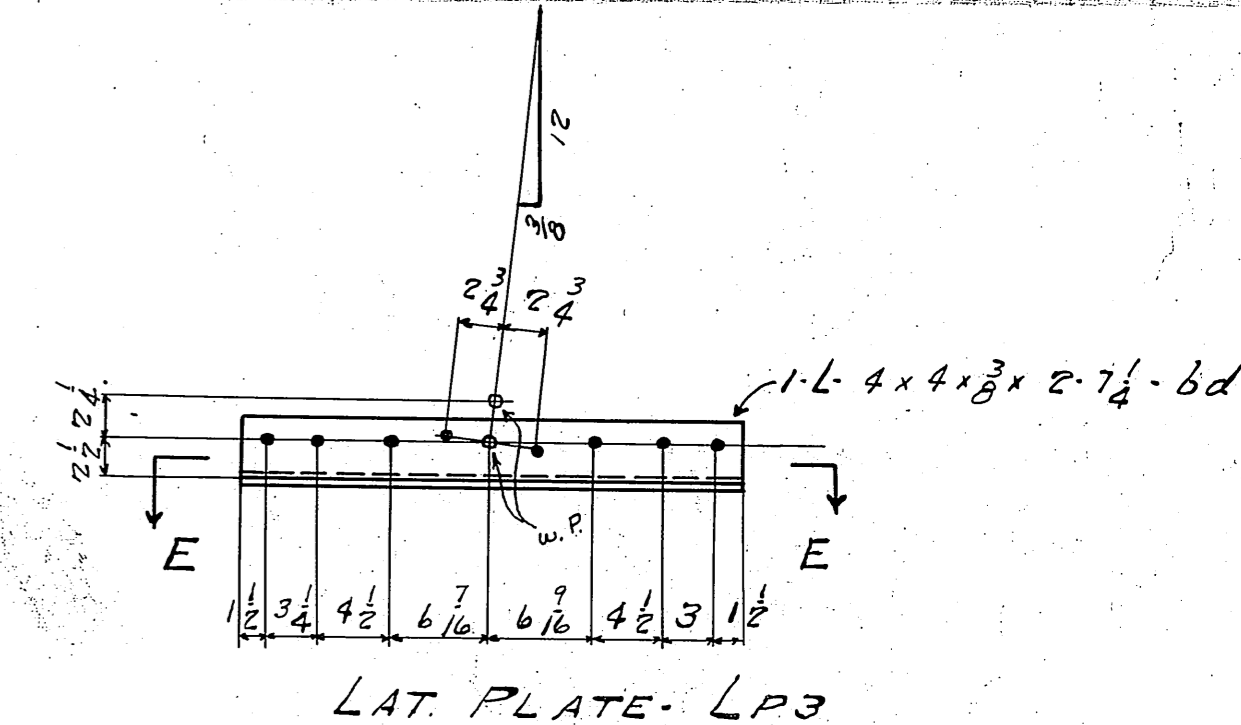
SEC AA
(FOR SW NE ONLY)



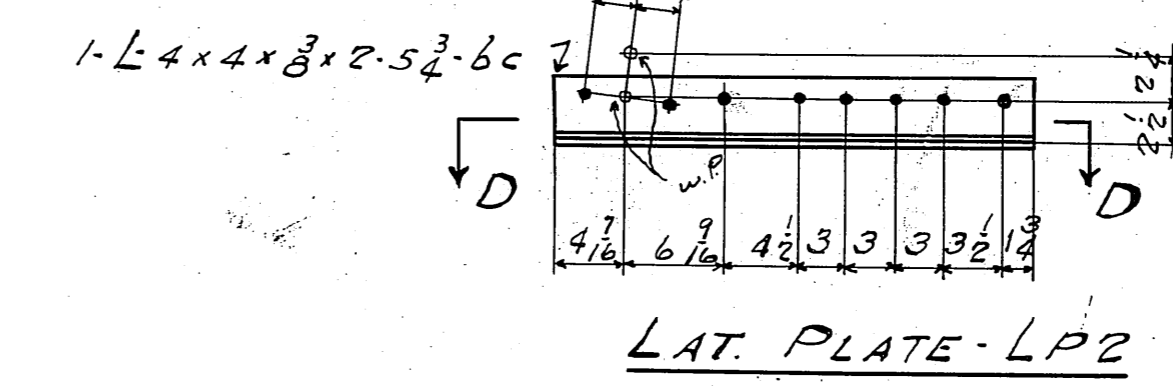
SEC BB
(FOR NW SE ONLY)



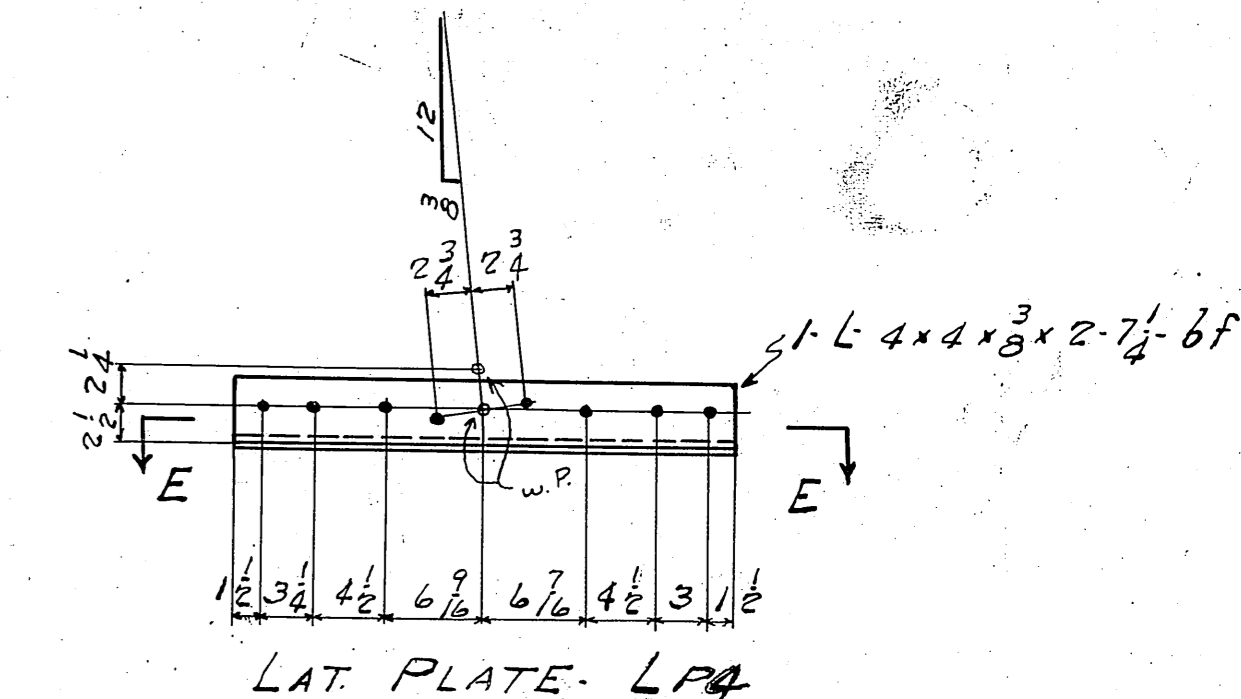
LAT. PLATE-LP1



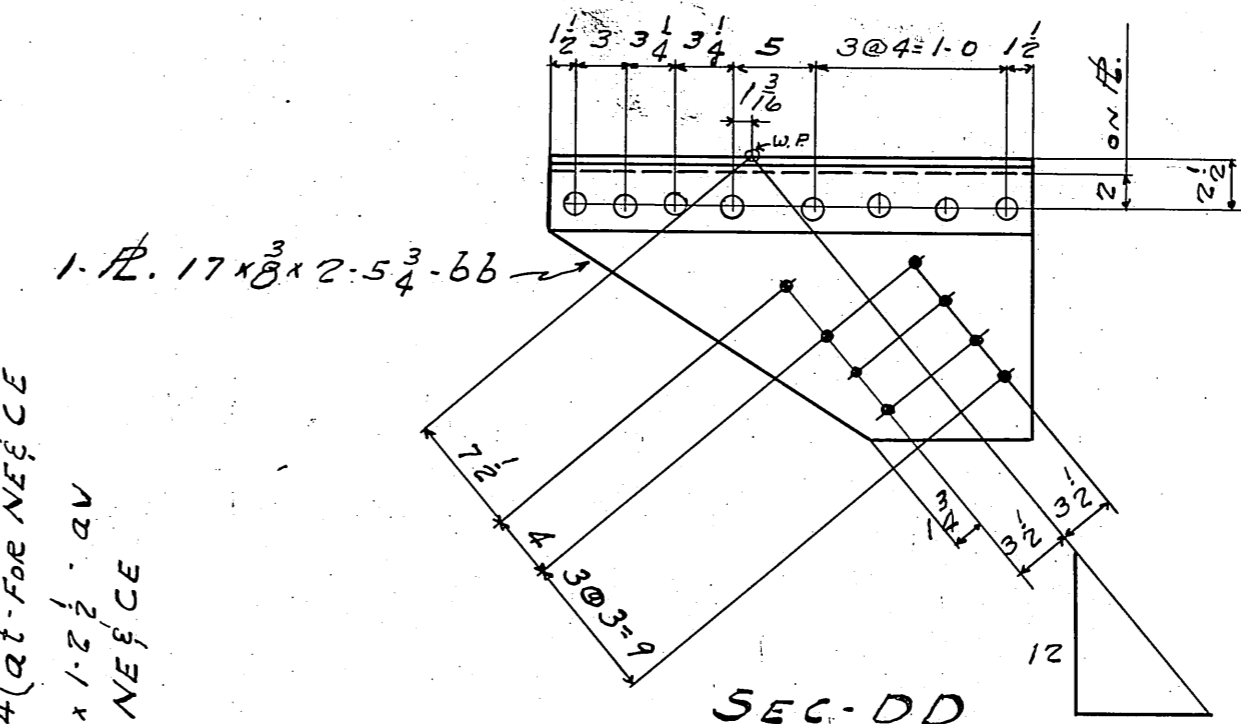
LAT. PLATE-LP3



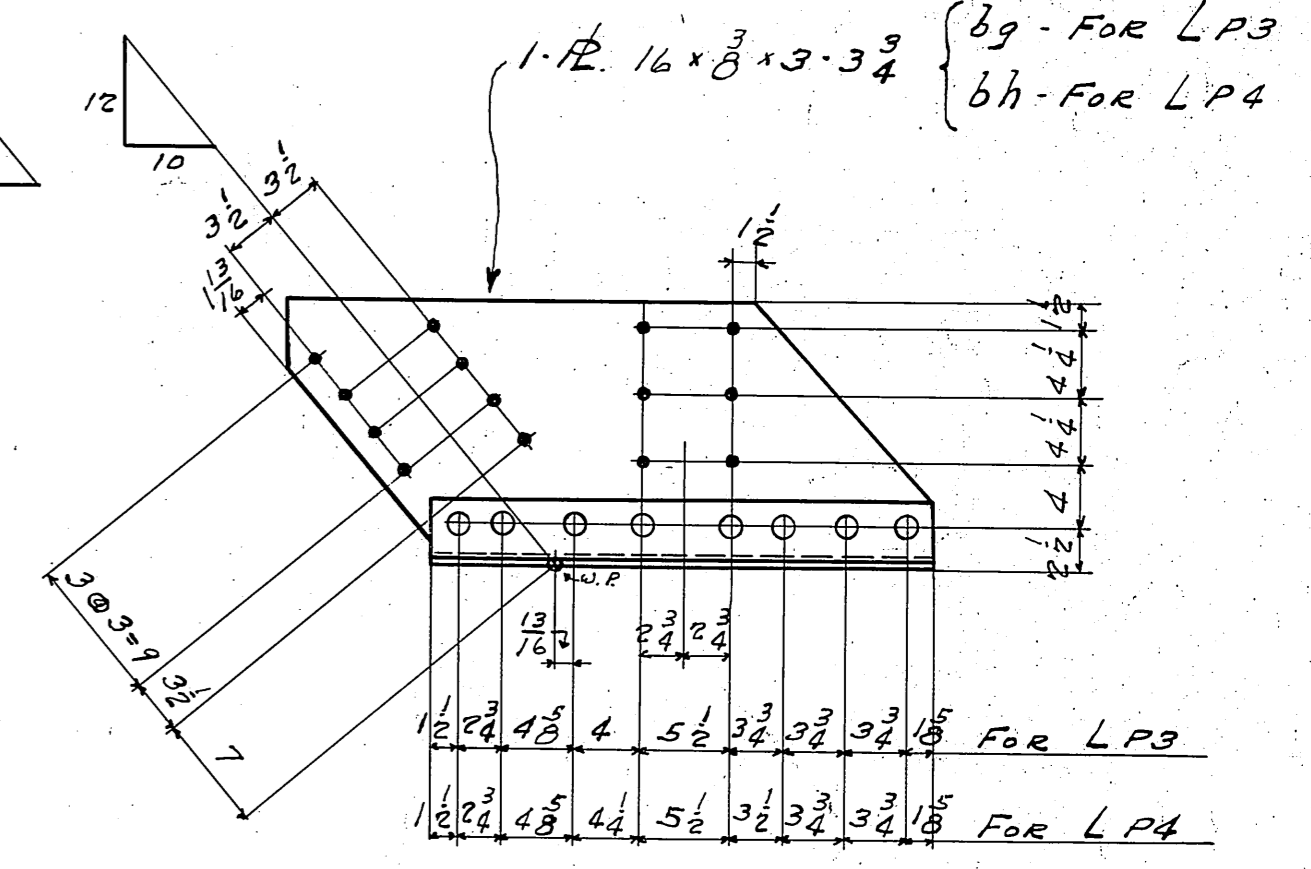
LAT. PLATE-LP2



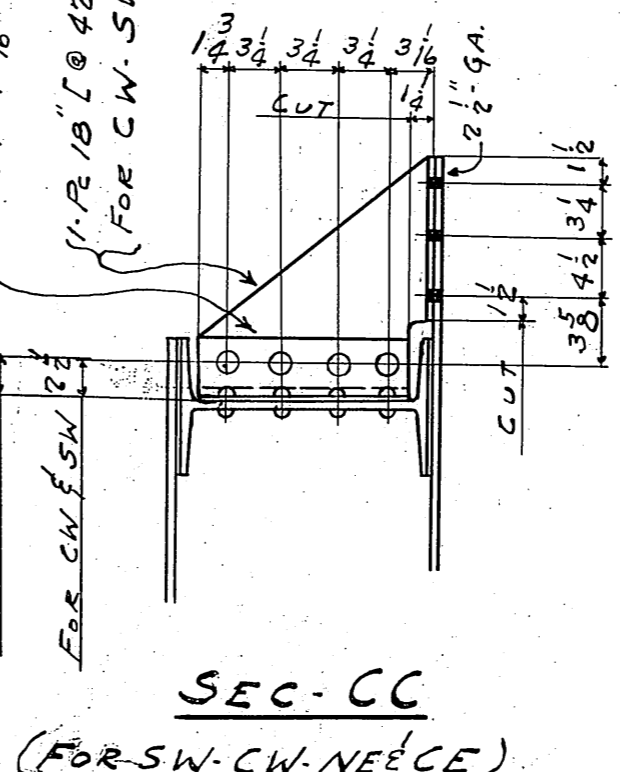
LAT. PLATE-LP4



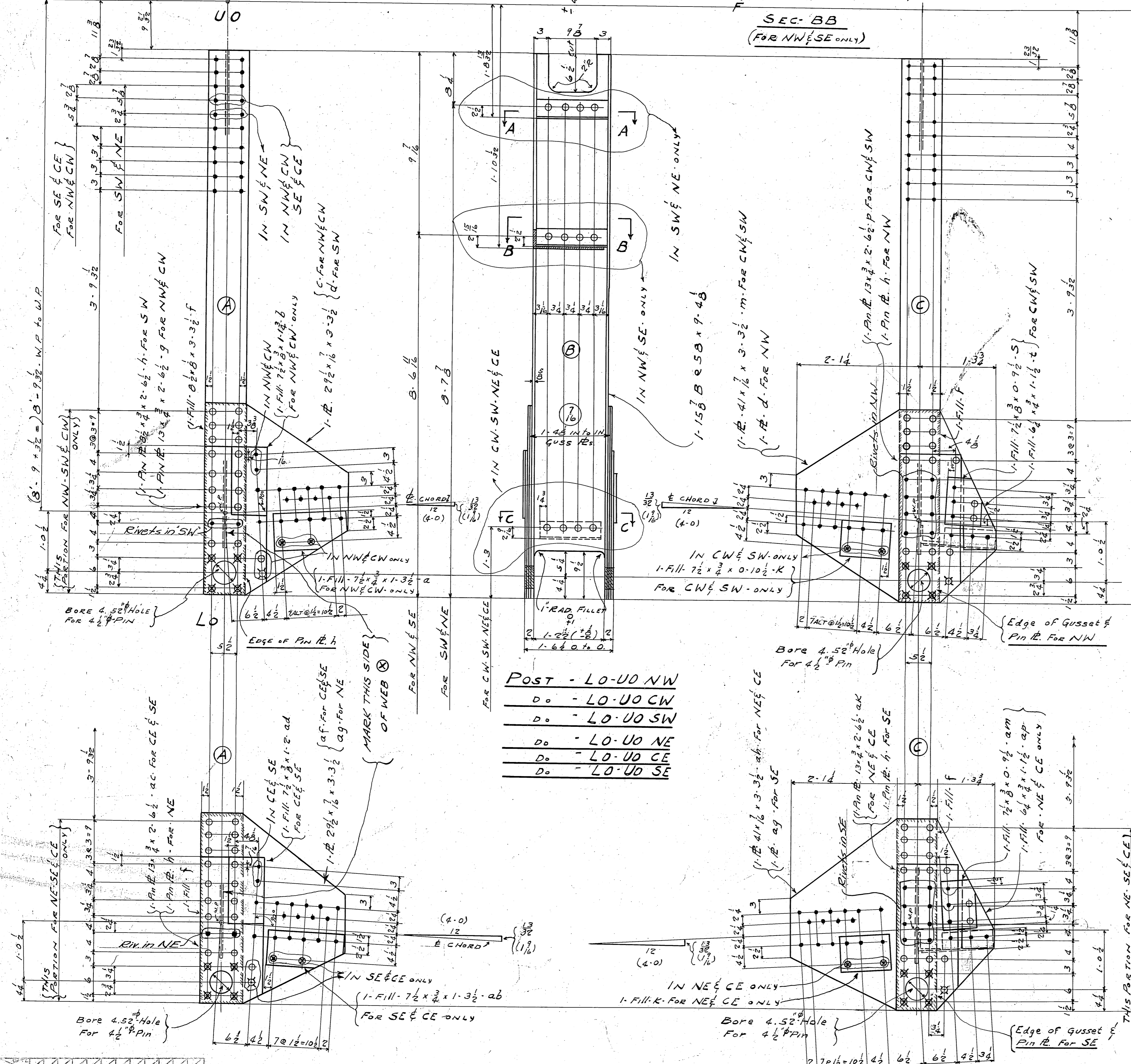
SEC DD



SEC EE



SEC CC
(FOR SW-CW-NE-CE)

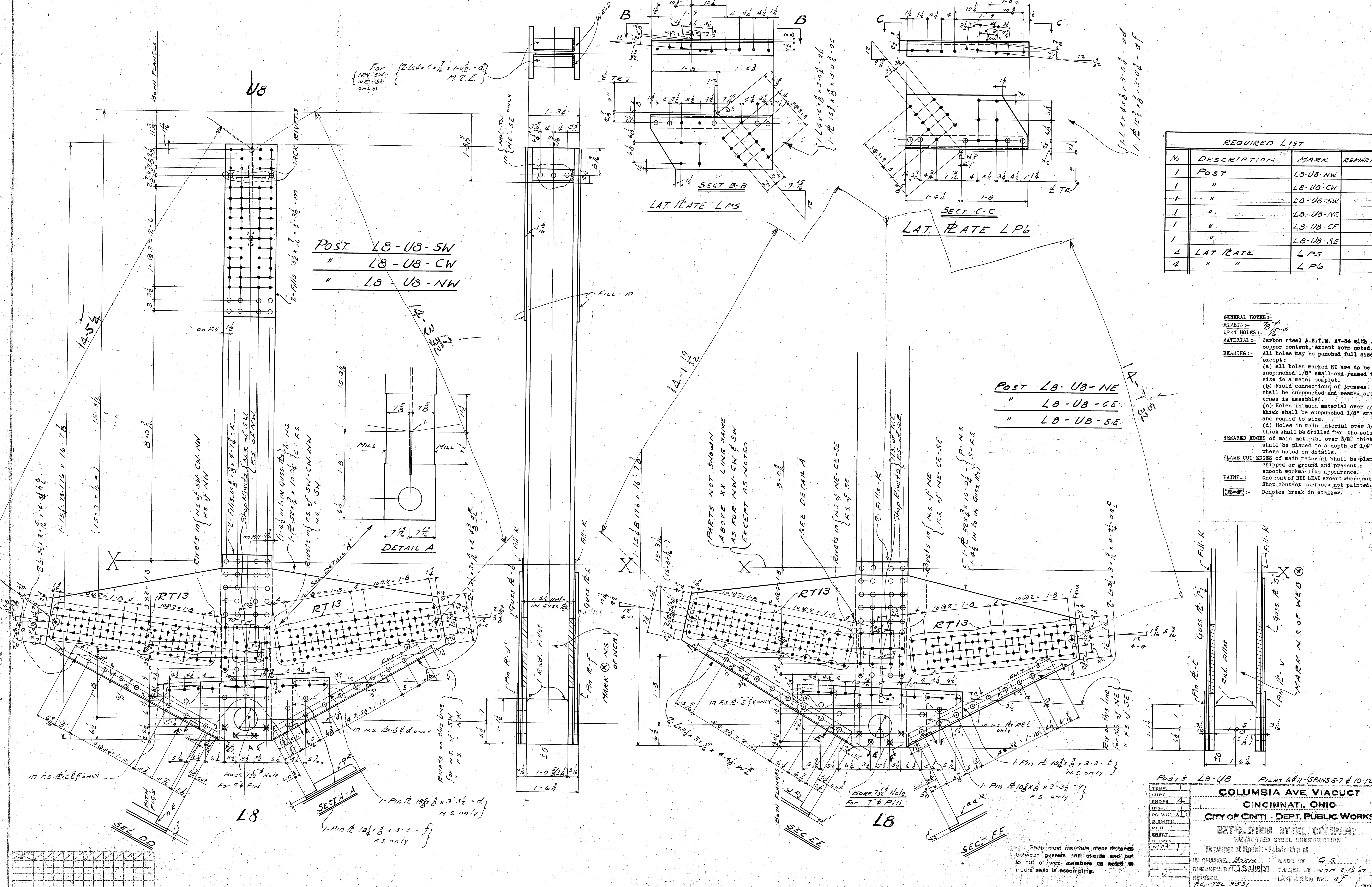


- POST - LO-UO NW
 DO - LO-UO CW
 DO - LO-UO SW
 DO - LO-UO NE
 DO - LO-UO CE
 DO - LO-UO SE

- GENERAL NOTES:-
 RIVETS - 7/8" dia
 OPEN HOLES - 1/8" dia
 MATERIAL - Carbon steel A.S.T.M. A7-34 with 5% copper content, except where noted.
 WEAVING - All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 Edges of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 FRAMING - FRAMING CUT EDGES of main material shall be planed smooth workmanlike appearance.
 PAINT - One coat of RED LEAD except where noted. Shop contact surfaces - not painted.
 Denotes break in stringer.

REQUIRED LIST			
No.	DESCRIPTION	MARK	REMARK
1	Post	LO-UO NW	
1	do	LO-UO CW	
1	do	LO-UO SW	
1	do	LO-UO NE	
1	do	LO-UO CE	
1	do	LO-UO SE	
2	LAT. PLATE	LP1	AT LO-SE-9 CE (NORTH SIDE)
2	do	LP2	AT LO-NW-CW (SOUTH SIDE)
2	do	LP3	AT LO-CW-SW (NORTH SIDE)
2	do	LP4	AT LO-NE-CE (SOUTH SIDE)

LATERAL BRACING POSTS - LO-UO (PIERS 5 & 12)
COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CNTL. DEPT. PUBLIC WORKS
REINHEIM STEEL COMPANY
 FABRICATED, STEEL CONSTRUCTION
 Drawings at Packin - Fabrication of
 IN CHARGE: BOEN MADE BY: J.V.
 CHECKED BY: T.J.S. 2/19/57 TRACED BY: N.P. 2/28/57
 REVISION: PC 78C 3537 LAST ASSEMBLY: 6K
 CONTRACT: CC 25073



GENERAL NOTES:

RIVETS: - 8-#

OPEN HOLES: - 1/8"

MATERIAL: - Carbon steel A.S.T.M. A7-54 with .2% copper content, except where noted. All holes may be punched full size except:

FINISHING:

(a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.

(b) Field connections of trusses shall be subpunched and reamed after truss is assembled.

(c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.

(d) Holes in main material over 3/4" thick shall be drilled from the solid.

SHAPED EDGES: of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.

FLAME CUT EDGES: of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.

PAINT: - One coat of RED LEAD except where noted. Shop contact surfaces not painted.

Symbol: - Denotes break in stagger.

Posts L8-UB PIERS 6'11" (SPANS 5'-7" & 10'-12")

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO

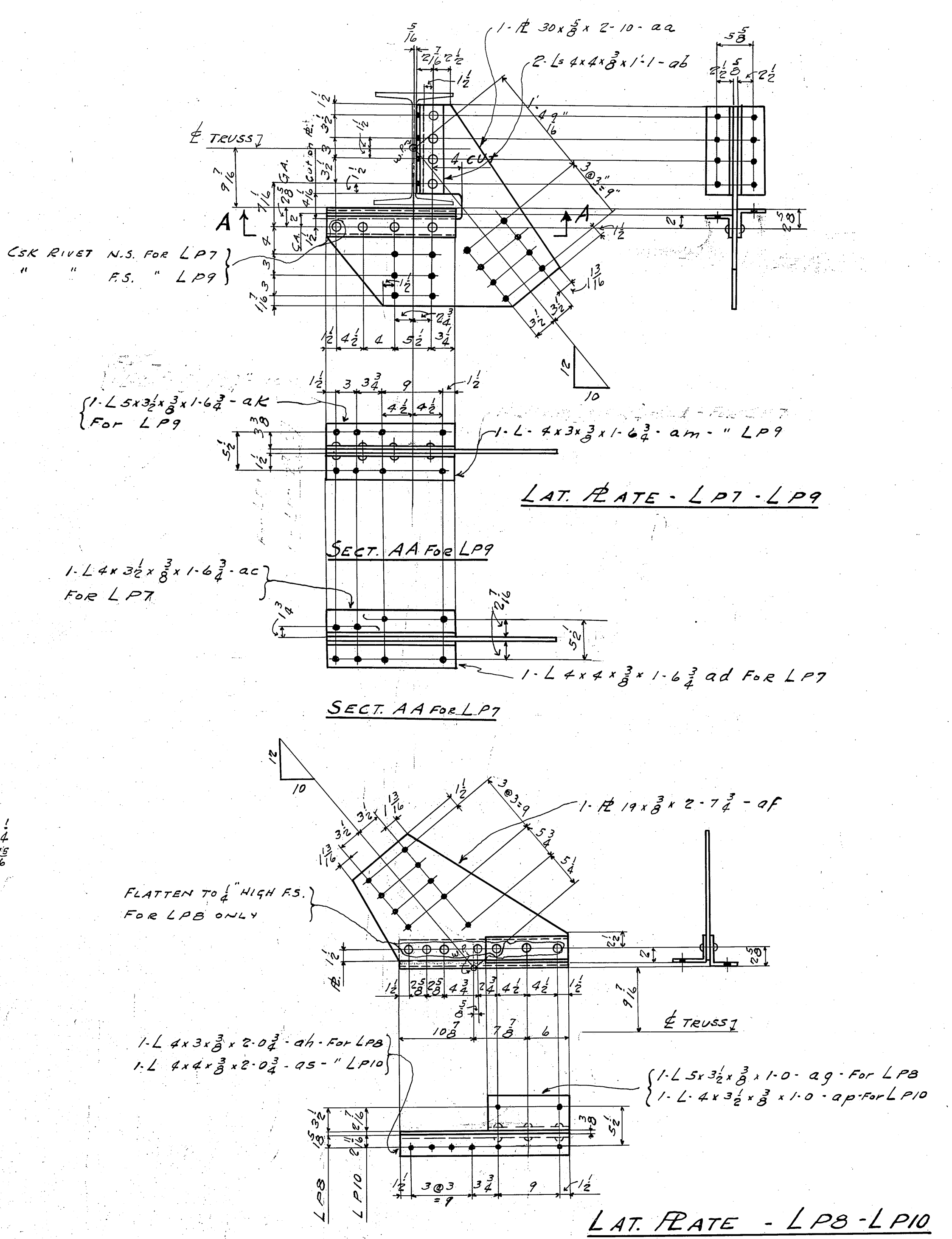
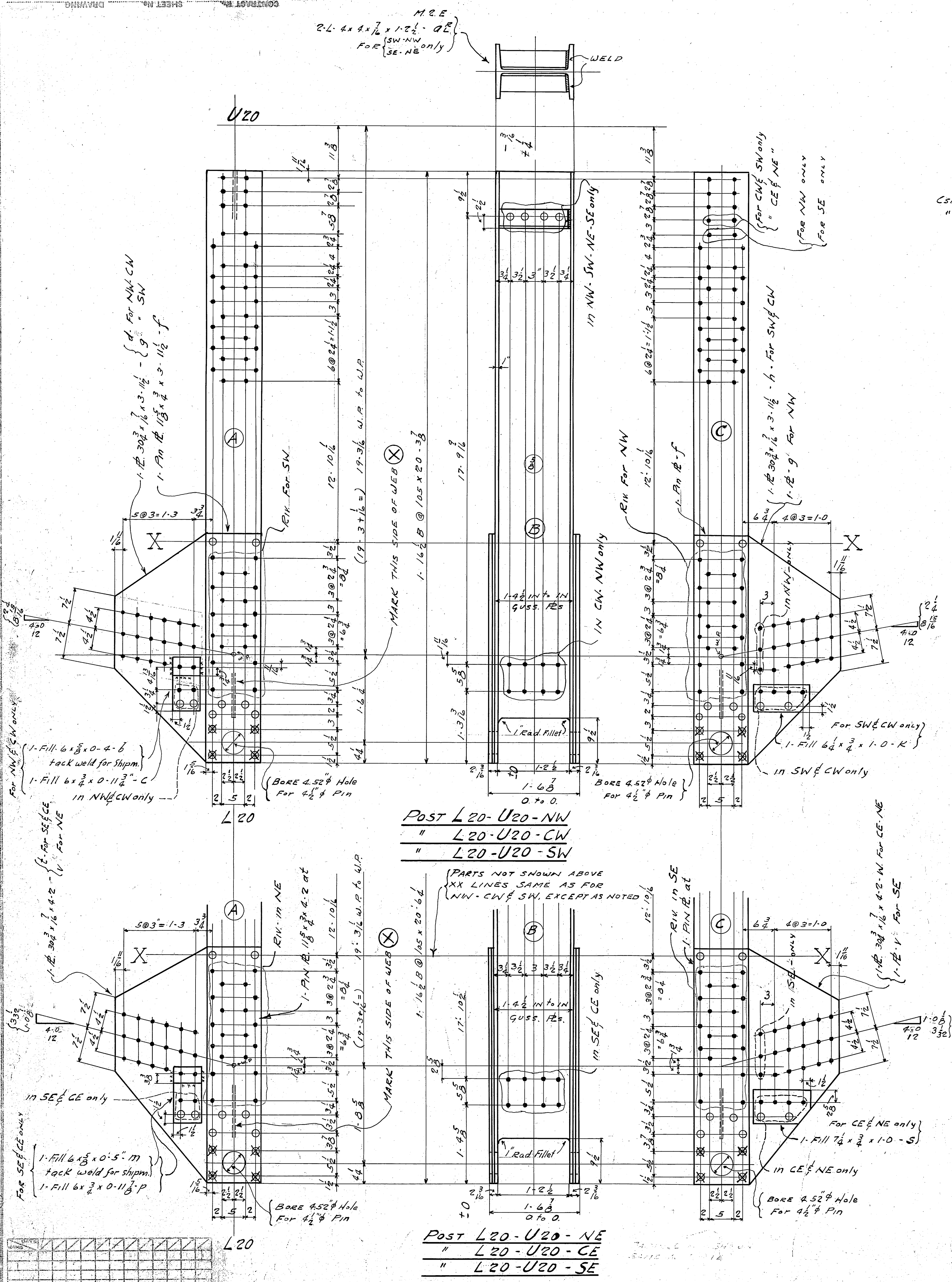
CITY OF CINTI. - DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION

Drawings at Rankin - Fabrication at

IN CHARGE: *Born* MADE BY: *G.S.*
CHECKED BY: *J.S. 2/19/31* TRACED BY: *NOR. 2/15/37*
REVISED: *RC. TBC 3/5/37* LAST ASSEMBLY: *af*

SHOP NO. *322* CONTRACT *CC 25873* SHEET *15-8-65*



REQUIRED LIST			
No.	DESCRIPTION	MARK	REMARK
1	Post	L20-U20-NW	
1	"	L20-U20-CW	
1	"	L20-U20-SW	
1	"	L20-U20-NE	
1	"	L20-U20-CE	
1	"	L20-U20-SE	
2	LAT. PLATE	LP7	AT L20 PER 10
2	"	LP8	AT L20 PER 10
2	"	LP9	AT L20 PER 10
2	"	LP10	AT L20 PER 10

Posts L20-U20 Piers 7 & 10 (SPANS 5'-10" & 12')

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTI - DEPT PUBLIC WORKS

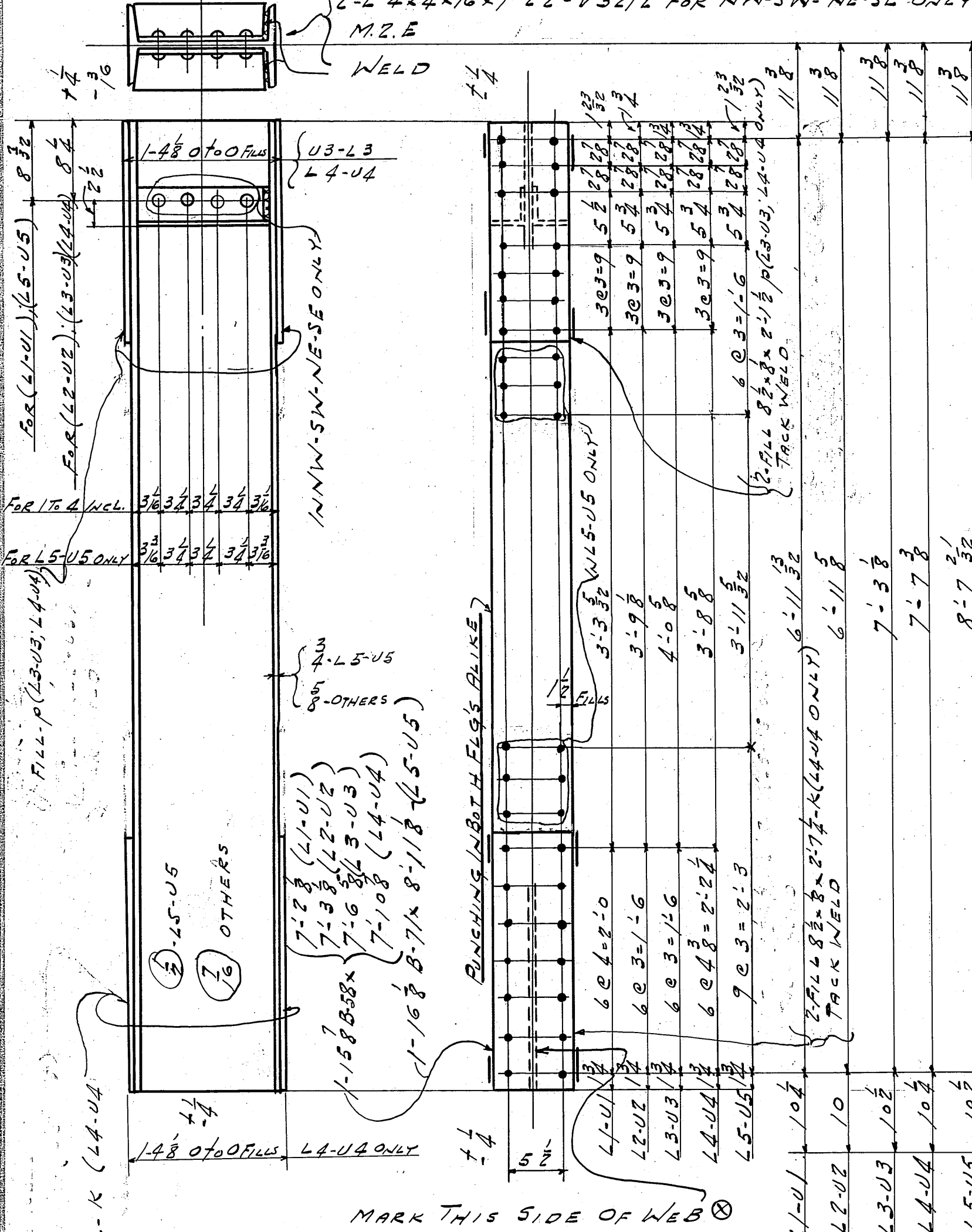
DETWILER STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION

Drawings at Detwiler Steel Co., Cincinnati, Ohio

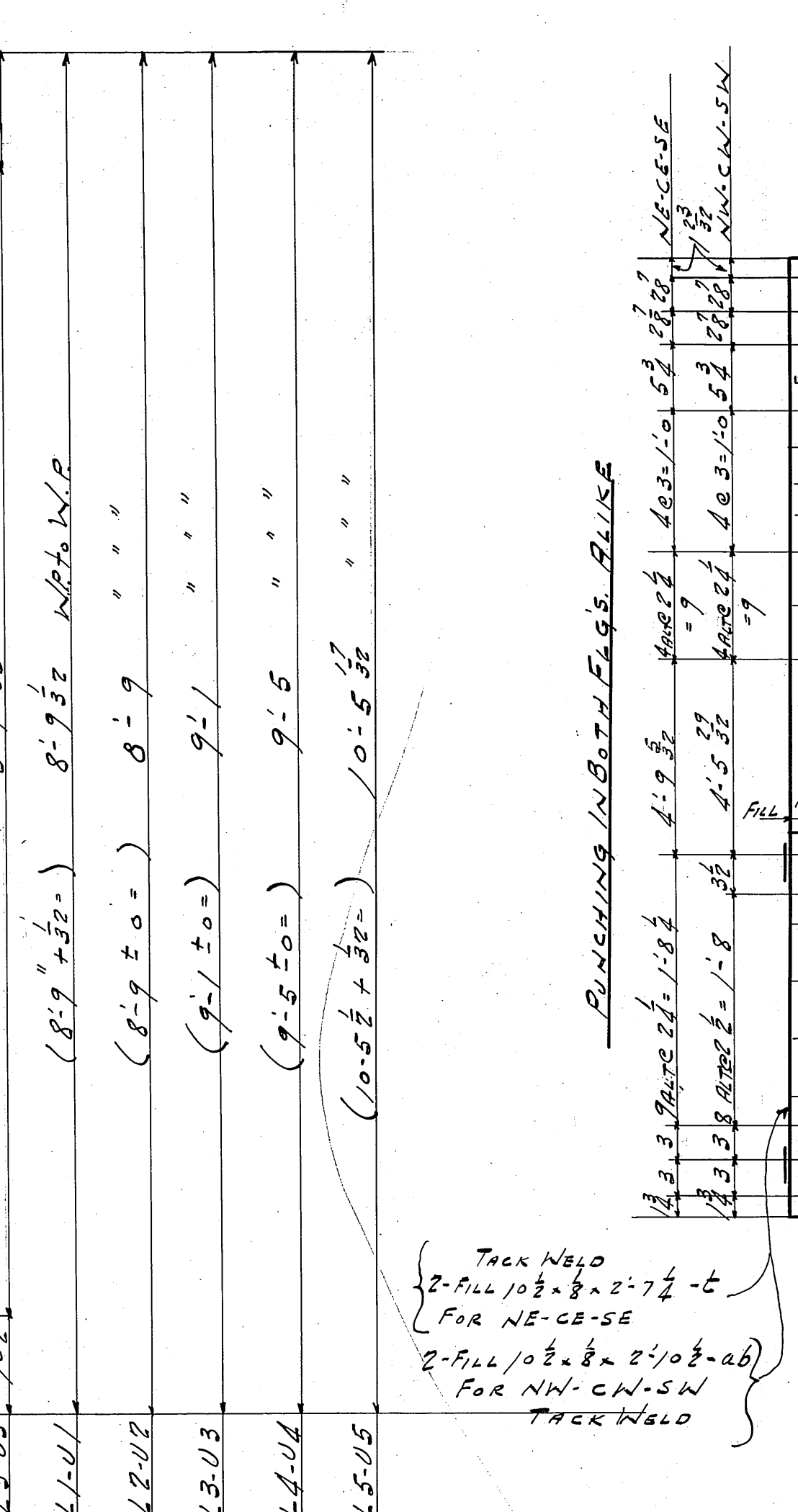
BY: CHARLES BORN
 CHECKED BY: T.J.S. 3/19/37
 REVISION: 1
 EC - TBC 3-537
 C.C. 25873

DATE: MAR 22 1937
 LAY ASSEMBLY AS NOTED

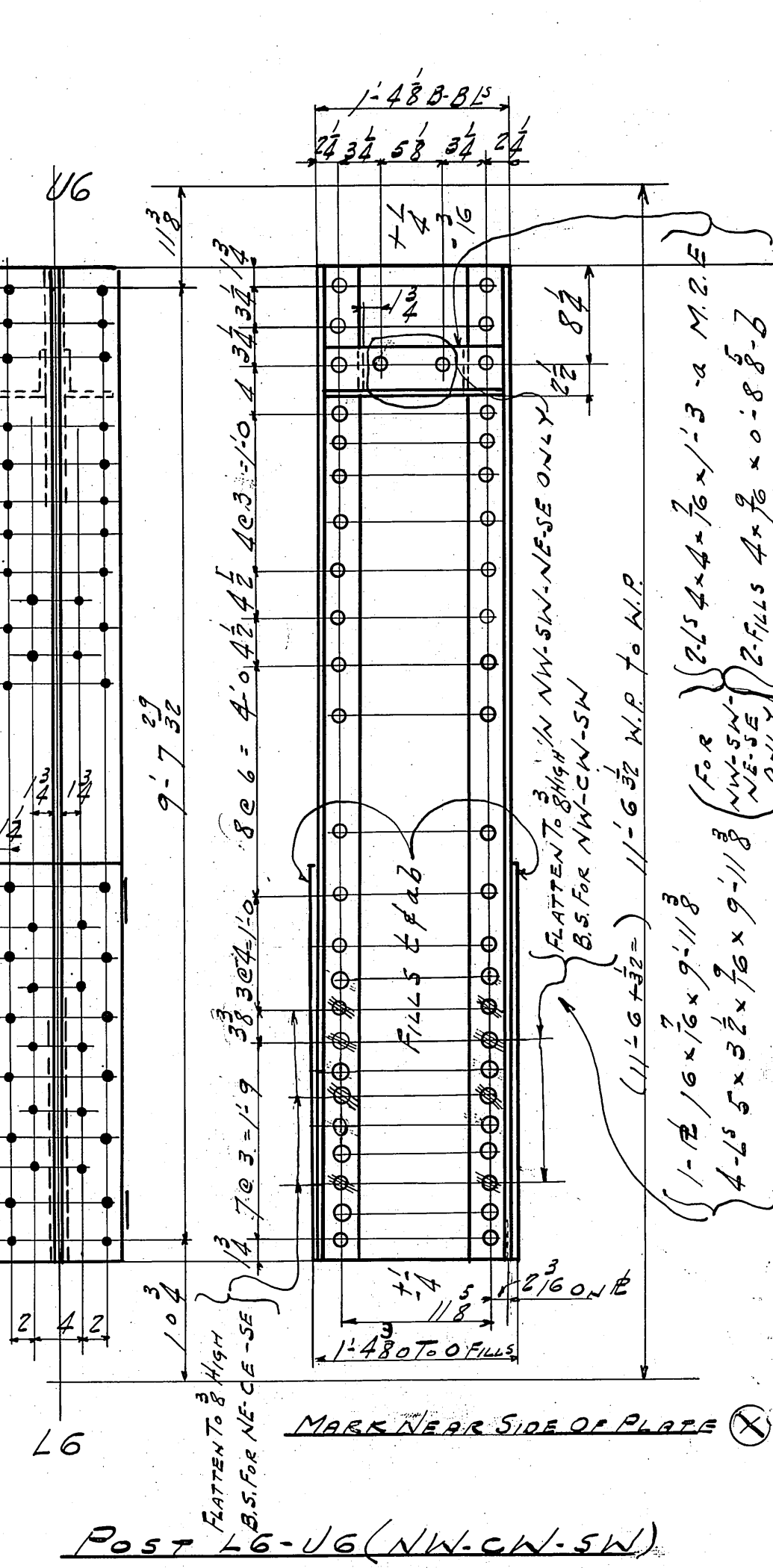
323



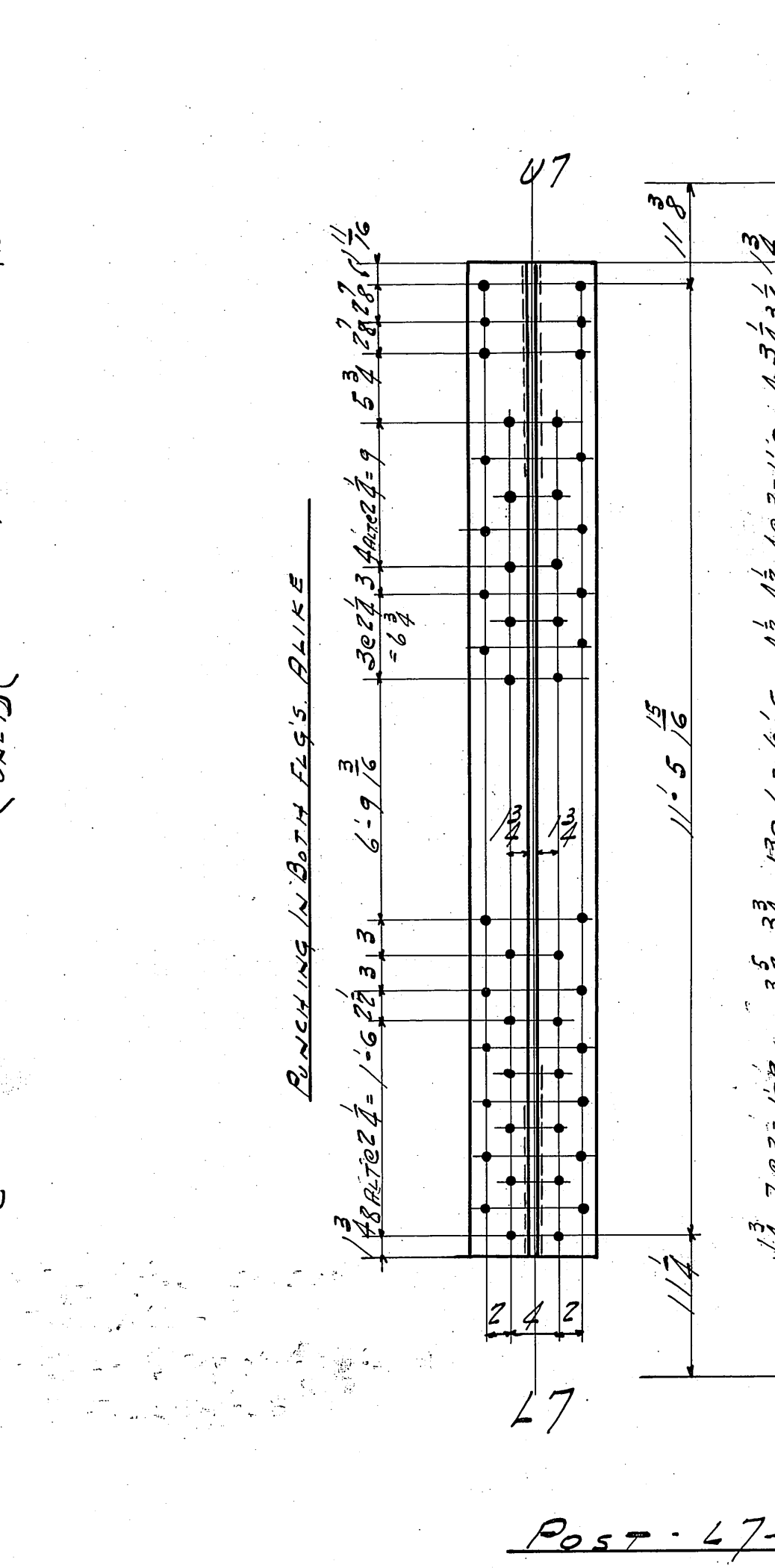
Post L1-U1 (NW-CN-SW; NE-CE-SE)
 " L2-U2 (" " " ")
 " L3-U3 (" " " ")



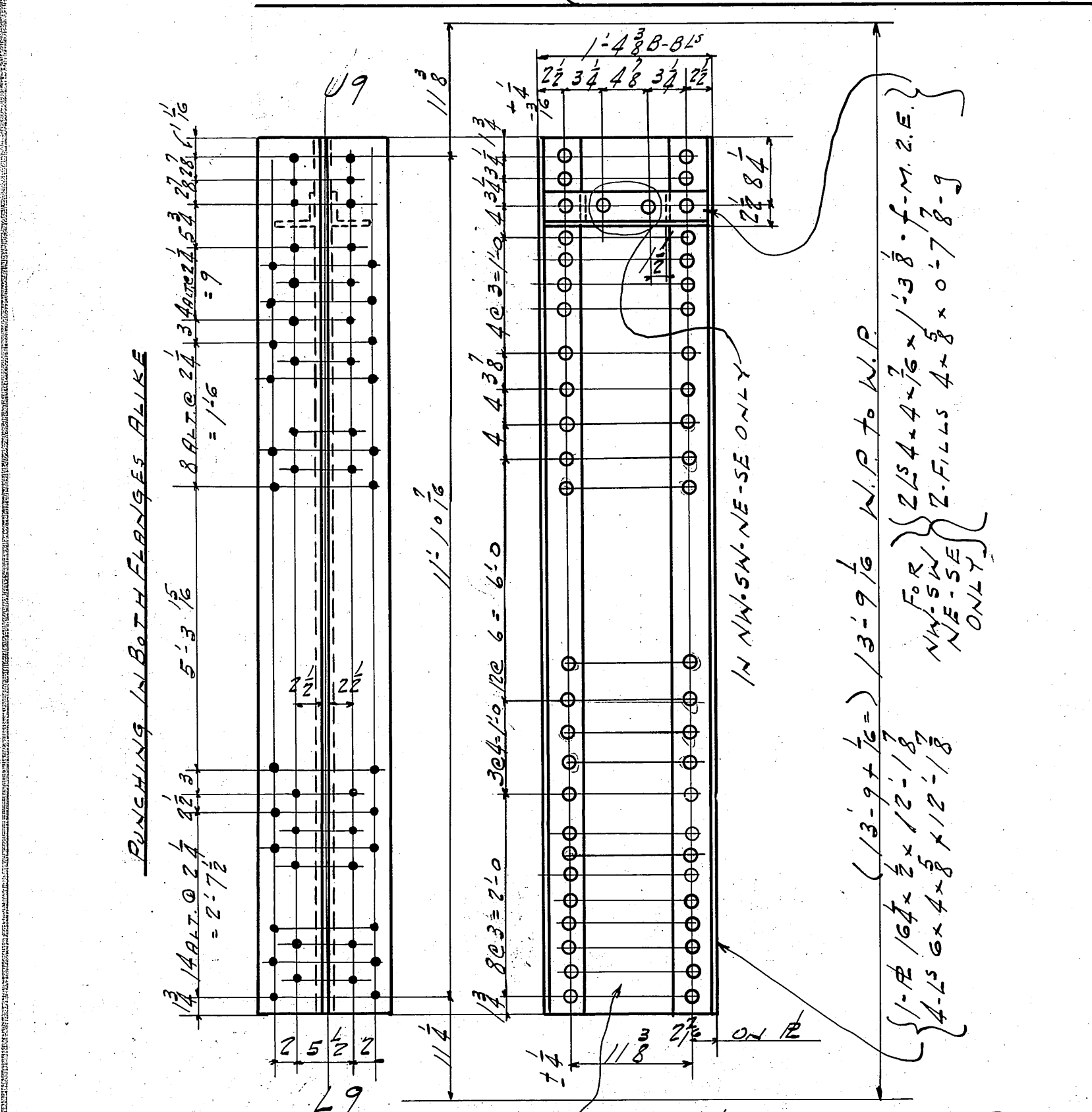
Post L4-U4 (NW-CN-SW; NE-CE-SE)
 " L5-U5 (" " " ")



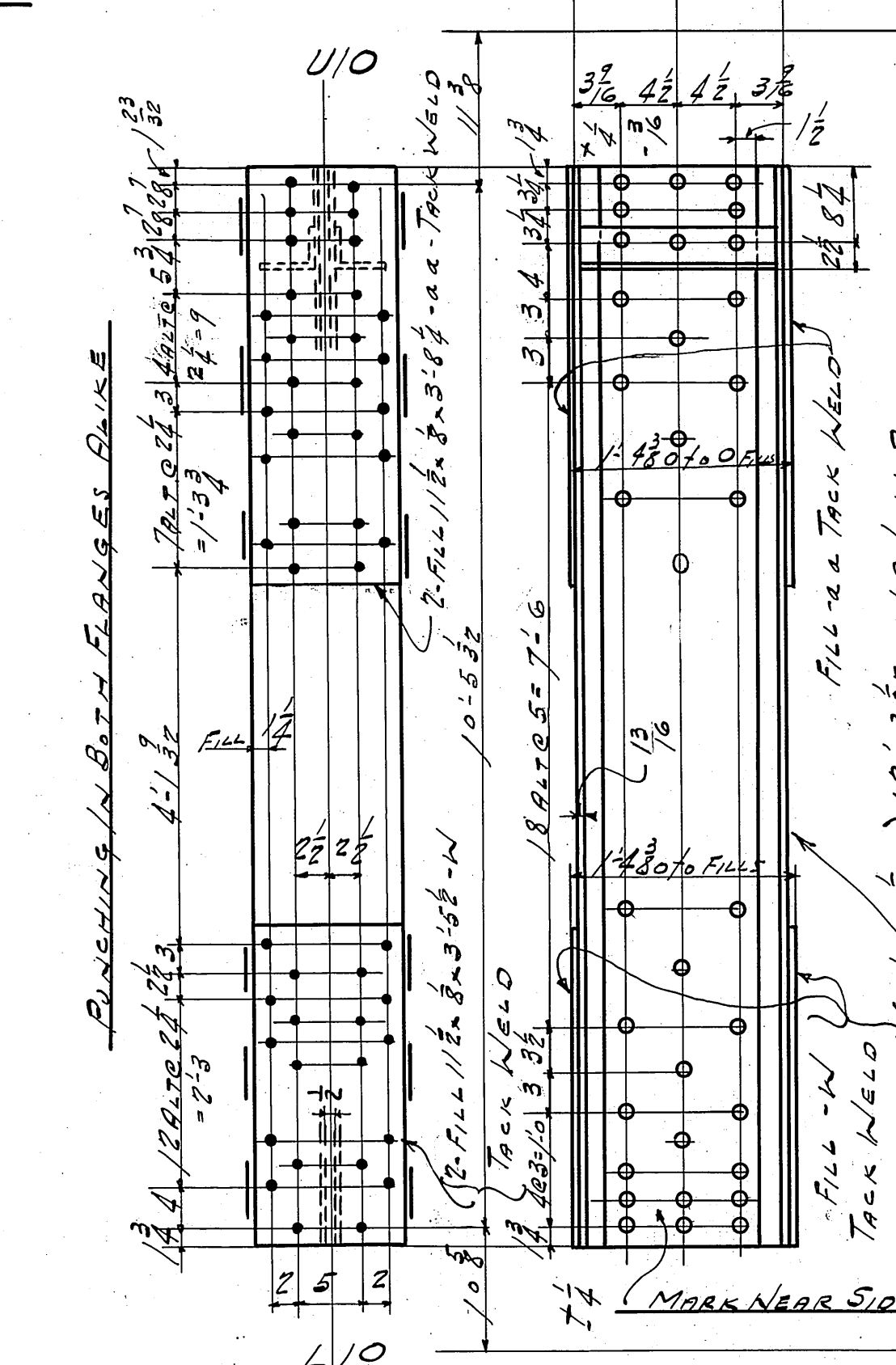
Post L6-U6 (NW-CN-SW)
 " L6-U6 (NE-CE-SE)



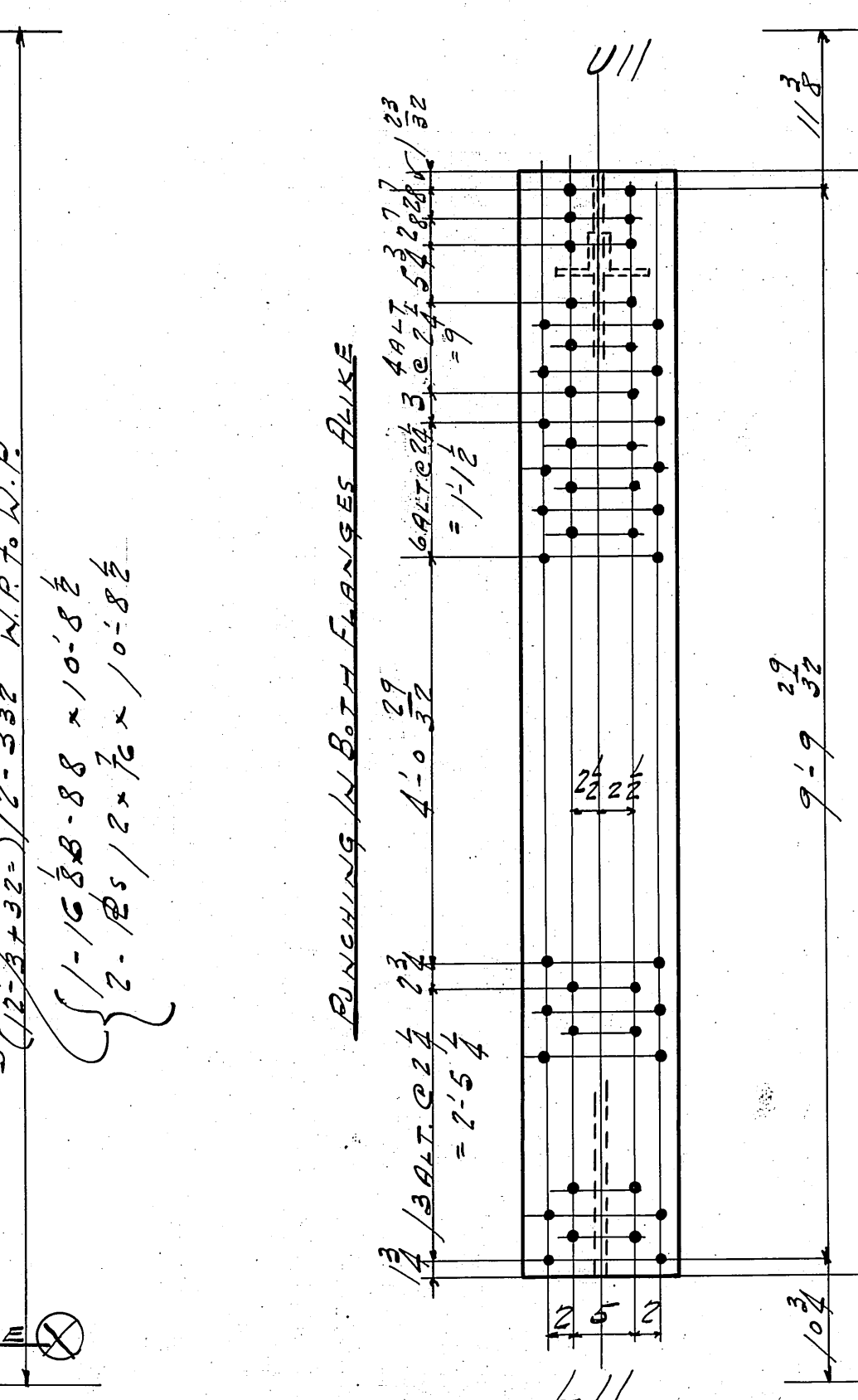
Post L7-U7 (NW-CN-SW)
 " L7-U7 (NE-CE-SE)



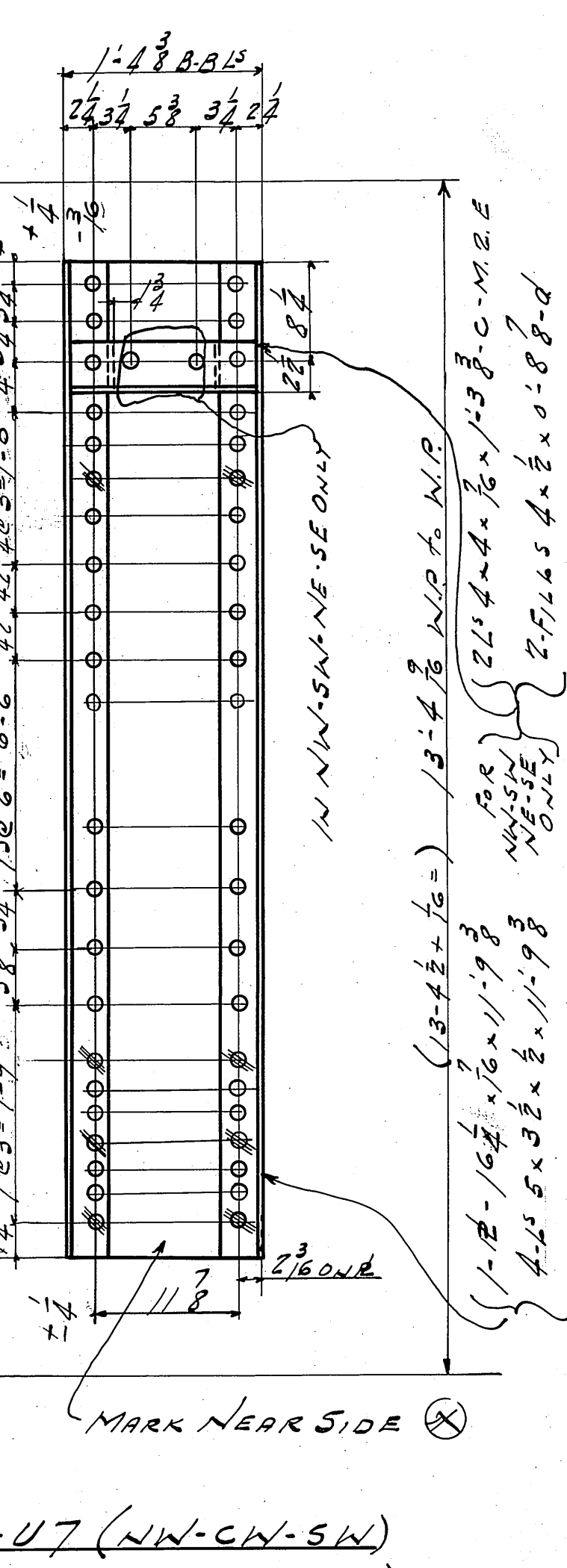
Post L9-U9 (NW-CN-SW)
 " L9-U9 (NE-CE-SE)



Post L10-U10 (NW-CN-SW)
 " L10-U10 (NE-CE-SE)



Post L11-U11 (NW-CN-SW)
 " L11-U11 (NE-CE-SE)



Post L12-U12 (NW-CN-SW)
 " L12-U12 (NE-CE-SE)

REQUIRED LIST			
No	DESCRIPTION	MARK	REMARK
1	Post	L1-U1-CN	
1	"	L1-U1-CE	ALIKE
1	"	L1-U1-NW	
1	"	L1-U1-NE	ALIKE
1	"	L1-U1-SW	ALIKE
1	"	L1-U1-SE	
1	"	L2-U2-CN	
1	"	L2-U2-CE	ALIKE
1	"	L2-U2-SW	
1	"	L2-U2-SE	
1	"	L2-U2-NE	ALIKE
1	"	L2-U2-NW	
1	"	L3-U3-CN	
1	"	L3-U3-CE	ALIKE
1	"	L3-U3-SW	
1	"	L3-U3-SE	ALIKE
1	"	L3-U3-NE	
1	"	L4-U4-CN	
1	"	L4-U4-CE	ALIKE
1	"	L4-U4-NW	
1	"	L4-U4-NE	ALIKE
1	"	L5-U5-CN	
1	"	L5-U5-CE	ALIKE
1	"	L5-U5-SW	
1	"	L5-U5-SE	ALIKE
1	"	L5-U5-NE	
1	"	L6-U6-NW	
1	"	L6-U6-SW	ALIKE
1	"	L6-U6-CN	
1	"	L6-U6-CE	ALIKE
1	"	L6-U6-NE	ALIKE
1	"	L6-U6-SE	
1	"	L7-U7-CN	
1	"	L7-U7-SW	ALIKE
1	"	L7-U7-NW	
1	"	L7-U7-SE	ALIKE
1	"	L7-U7-NE	
1	"	L9-U9-CN	
1	"	L9-U9-CE	ALIKE
1	"	L9-U9-SW	
1	"	L9-U9-NW	
1	"	L9-U9-SE	ALIKE
1	"	L9-U9-NE	
1	"	L10-U10-CN	
1	"	L10-U10-CE	ALIKE
1	"	L10-U10-SW	
1	"	L10-U10-NE	ALIKE
1	"	L10-U10-SE	
1	"	L11-U11-CN	
1	"	L11-U11-CE	ALIKE
1	"	L11-U11-SW	
1	"	L11-U11-NW	
1	"	L11-U11-SE	ALIKE
1	"	L11-U11-NE	

GENERAL NOTES:
 RIVETS - 3/8"
 OPEN HOLES - 1/8"
 MATERIAL - Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RF are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 SHARP EDGES of main material over 5/8" thick shall be planned to a depth of 1/4" where noted on details.
 FLAME CUT EDGES of main material shall be planned or ground and present a smooth workmanlike appearance.
 PAINT - One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 Denotes break in stagger.

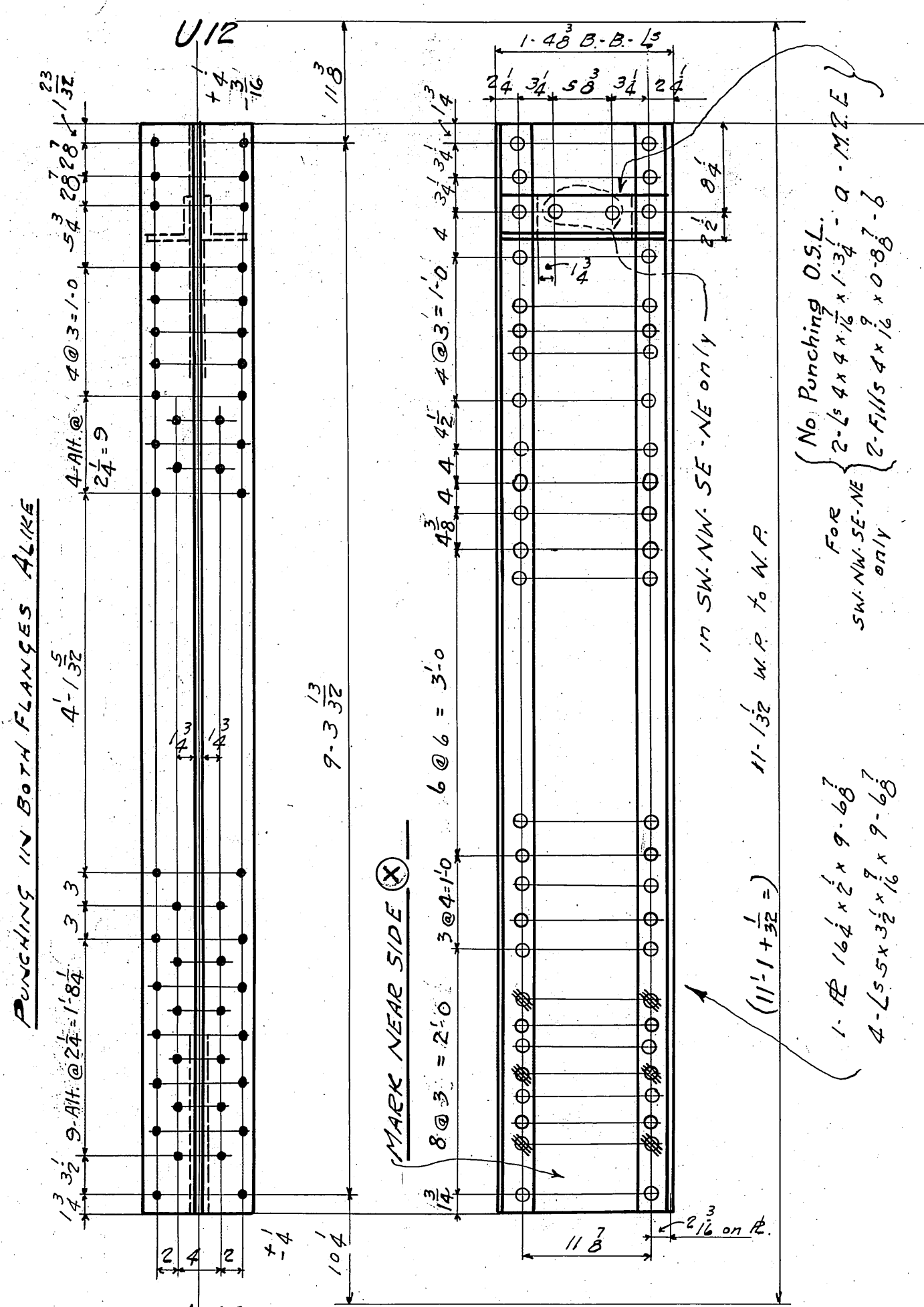
Posts 7, 9, 10, 11 SPANS 7, 9, 10, 12

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS

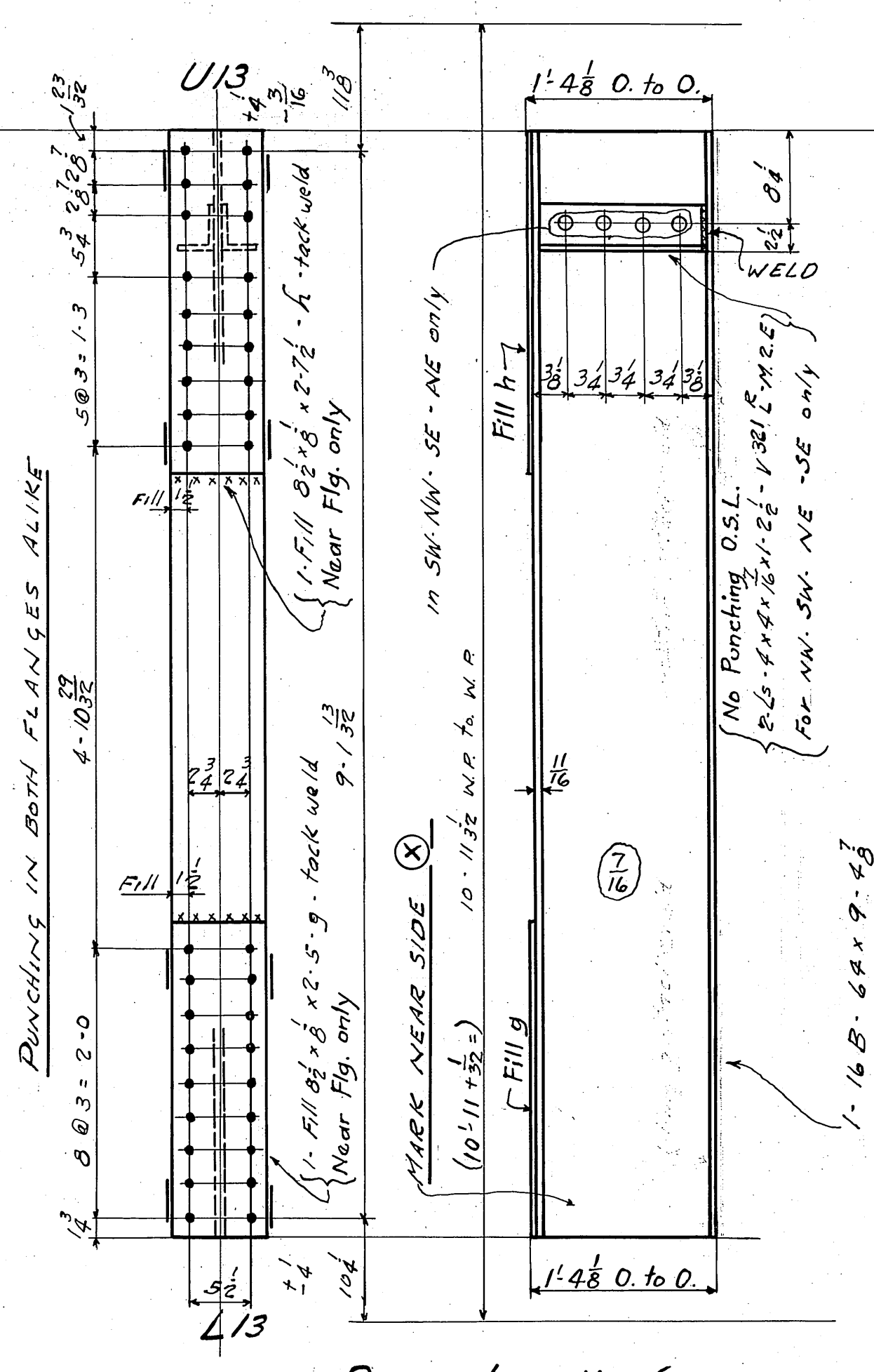
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings of Rankin - Fabrication at

IN CHARGE: BORN MADE BY: G.S.
 CHECKED BY: T.J.S. TRACED BY: T.E.P. 2-16-37
 REVISION: LAST ASSEM. MK. Q.C.
 F.C. TBC 3-5-37

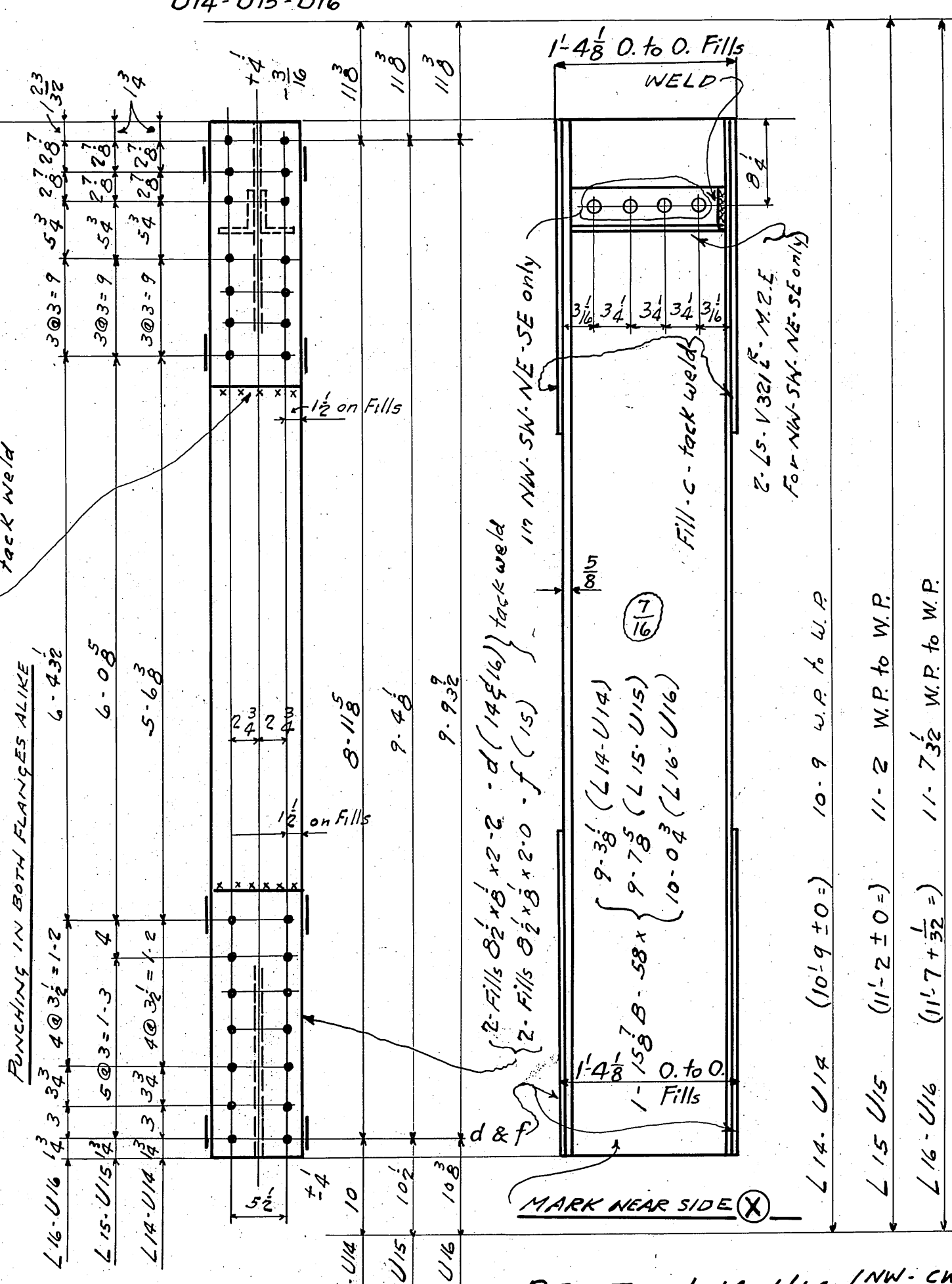
SHOP NO. CONTRACT CC 25873 SHEET 324



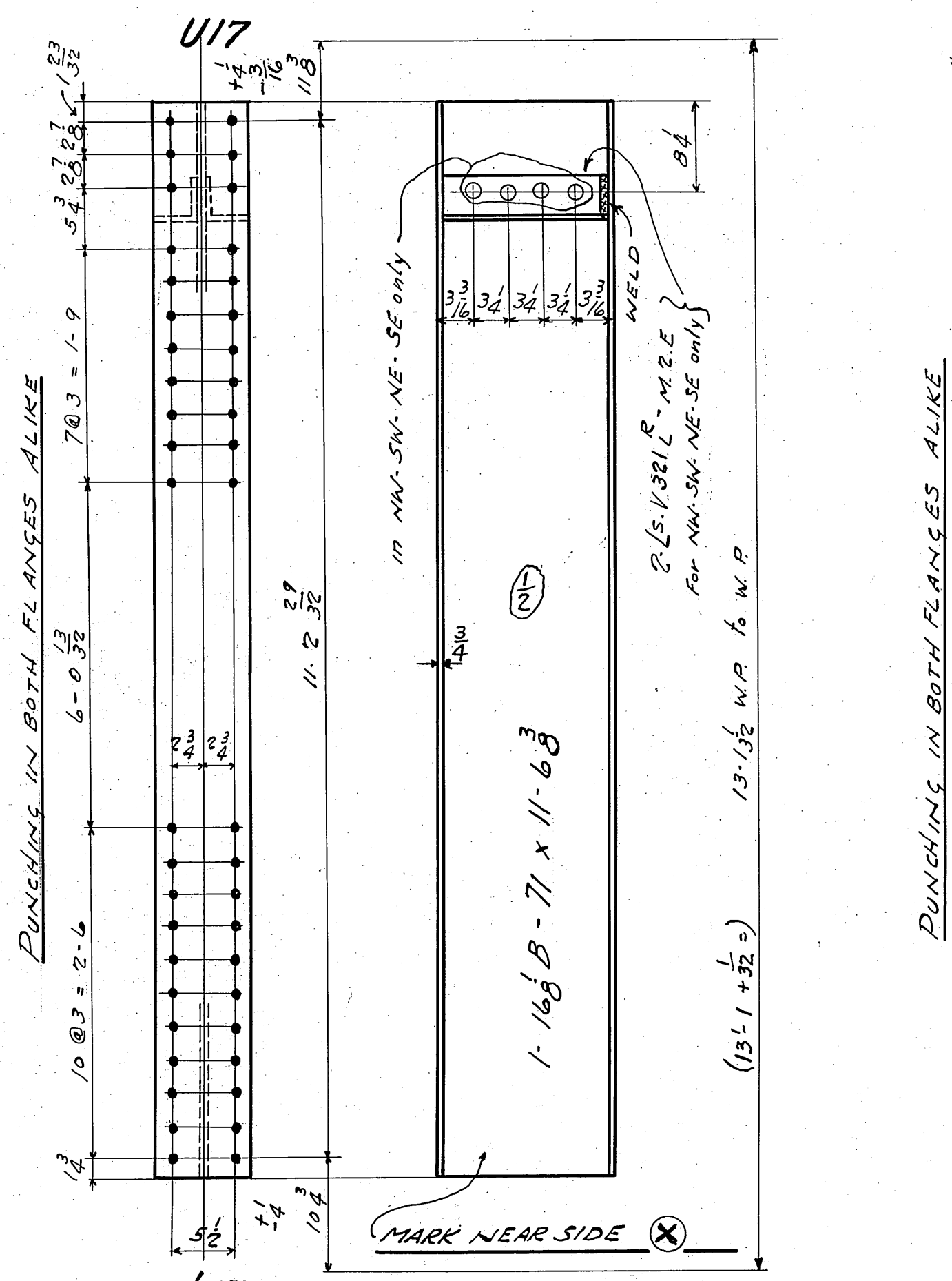
Post L12-U12 (SW-CW-NW)
 " L12-U12 (SE-CE-NE)



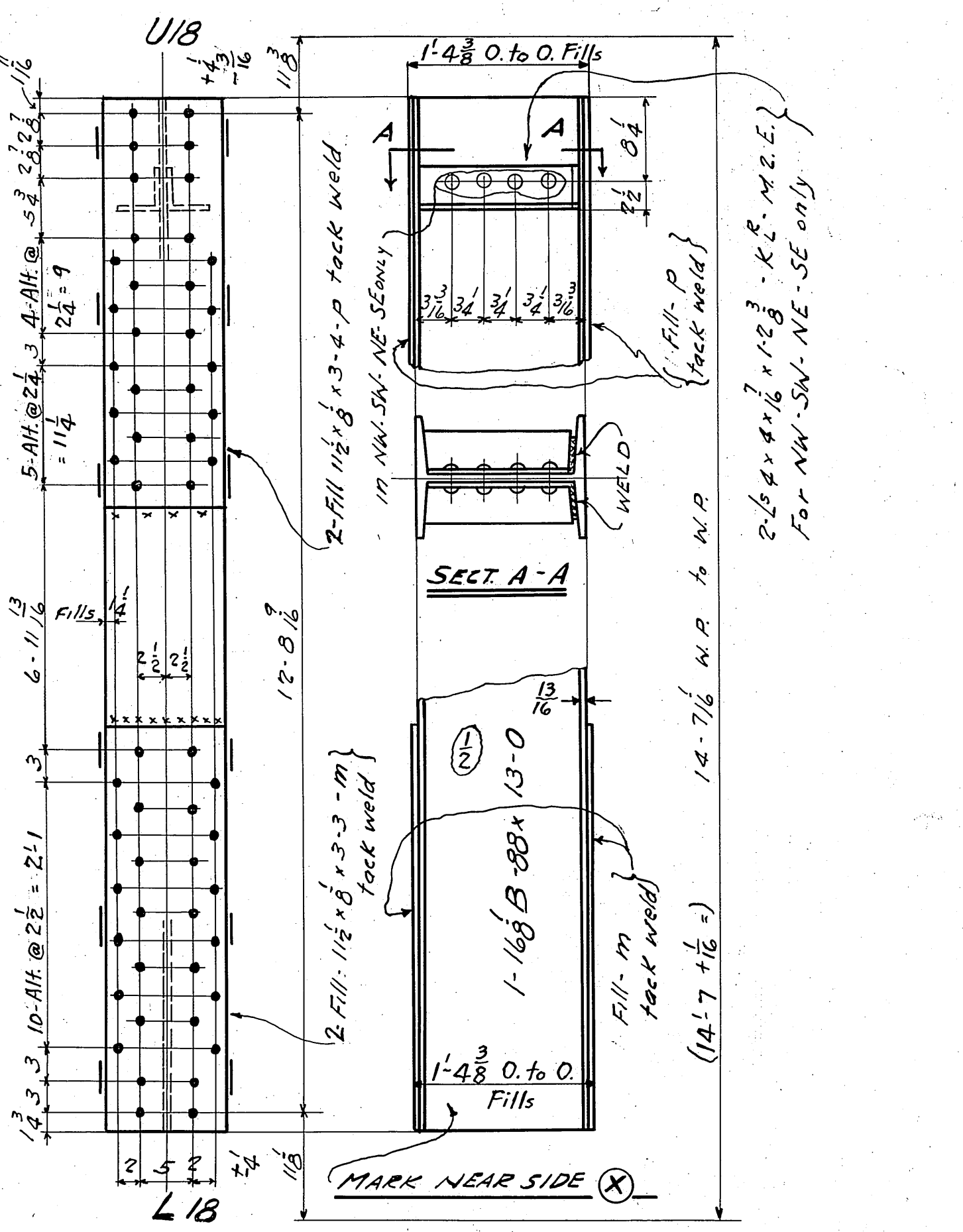
Post L13-U13 (SW-CW-NW)
 " L13-U13 (SE-CE-NE)



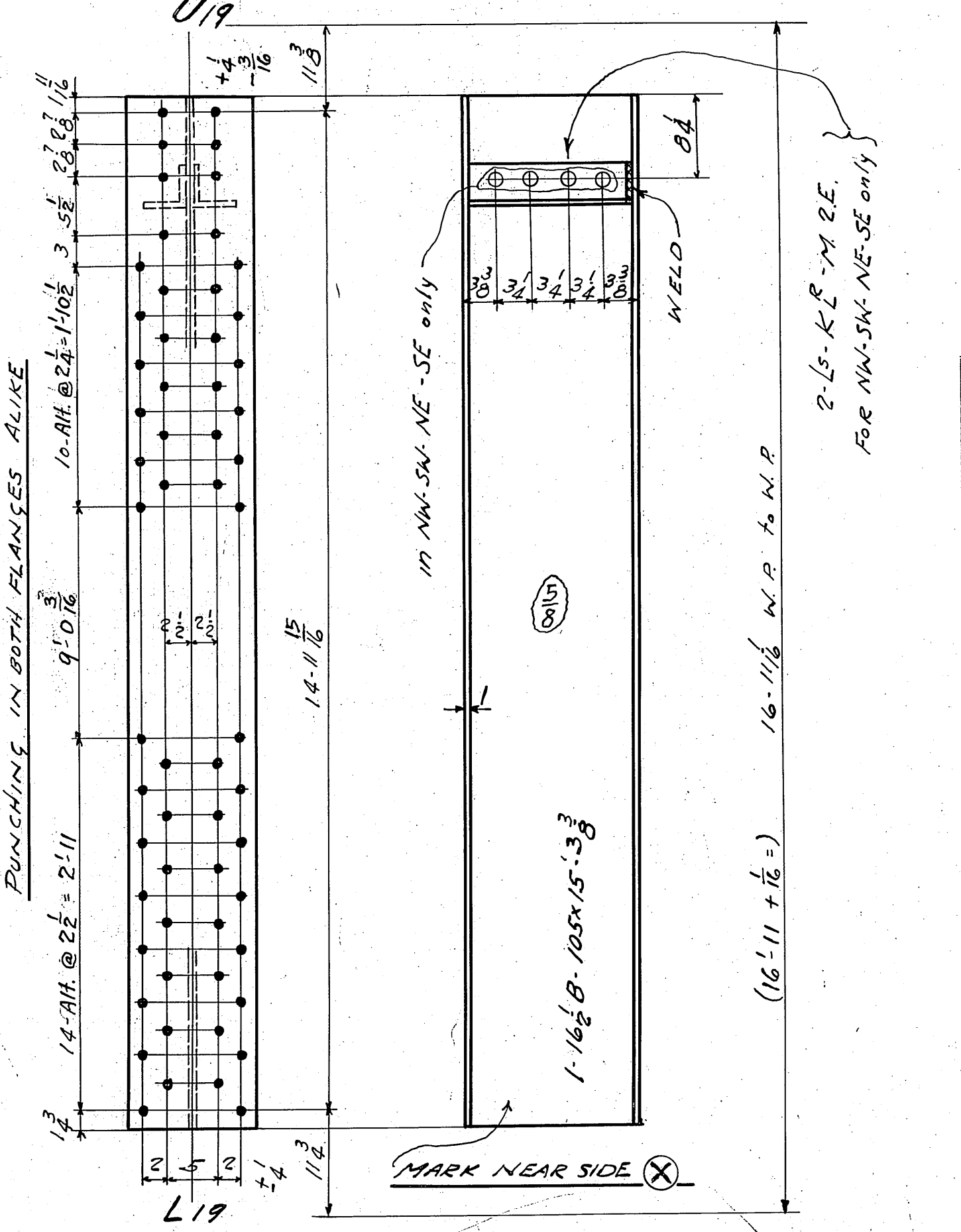
Post L14-U14 (NW-CW-SW)
 " L15-U15 (NW-CW-SW)
 " L16-U16 (NW-CW-SW)



Post L17-U17 (NW-CW-SW)
 " L17-U17 (NE-CE-SE)



Post L18-U18 (NW-CW-SW)
 " L18-U18 (NE-CE-SE)



Post L19-U19 (NW-CW-SW)
 " L19-U19 (NE-CE-SE)

GENERAL NOTES:
 RIVETS - 3/8"
 OPEN HOLES - 1/8"
MATERIAL: Carbon steel A.S.F.M. A7-34 with .26 copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
SHARP EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAKE CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
 One coat of RED LEAD except where noted. Shop contact surfaces not painted. Denotes break in stagger.

REQUIRED LIST			
No	DESCRIPTION	MARK	REMARK
1	POST	L12-U12-CW	ALIKE
1	"	L12-U12-CE	
1	"	L12-U12-NW	ALIKE
1	"	L12-U12-SW	
1	"	L12-U12-NE	ALIKE
1	"	L12-U12-SE	
1	"	L13-U13-CW	ALIKE
1	"	L13-U13-CE	
1	"	L13-U13-NW	ALIKE
1	"	L13-U13-SW	
1	"	L13-U13-NE	ALIKE
1	"	L13-U13-SE	
1	"	L14-U14-CW	ALIKE
1	"	L14-U14-CE	
1	"	L14-U14-NW	ALIKE
1	"	L14-U14-SW	
1	"	L14-U14-NE	ALIKE
1	"	L14-U14-SE	
1	"	L15-U15-CW	ALIKE
1	"	L15-U15-CE	
1	"	L15-U15-NW	ALIKE
1	"	L15-U15-SW	
1	"	L15-U15-NE	ALIKE
1	"	L15-U15-SE	
1	"	L16-U16-CW	ALIKE
1	"	L16-U16-CE	
1	"	L16-U16-NW	ALIKE
1	"	L16-U16-SW	
1	"	L16-U16-NE	ALIKE
1	"	L16-U16-SE	
1	"	L17-U17-CW	ALIKE
1	"	L17-U17-CE	
1	"	L17-U17-NW	ALIKE
1	"	L17-U17-SW	
1	"	L17-U17-NE	ALIKE
1	"	L17-U17-SE	
1	"	L18-U18-CW	ALIKE
1	"	L18-U18-CE	
1	"	L18-U18-NW	ALIKE
1	"	L18-U18-SW	
1	"	L18-U18-NE	ALIKE
1	"	L18-U18-SE	
1	"	L19-U19-CW	ALIKE
1	"	L19-U19-CE	
1	"	L19-U19-NW	ALIKE
1	"	L19-U19-SW	
1	"	L19-U19-NE	ALIKE
1	"	L19-U19-SE	

Posts 12 to 19 incl. SPANS 5-7' 10-12

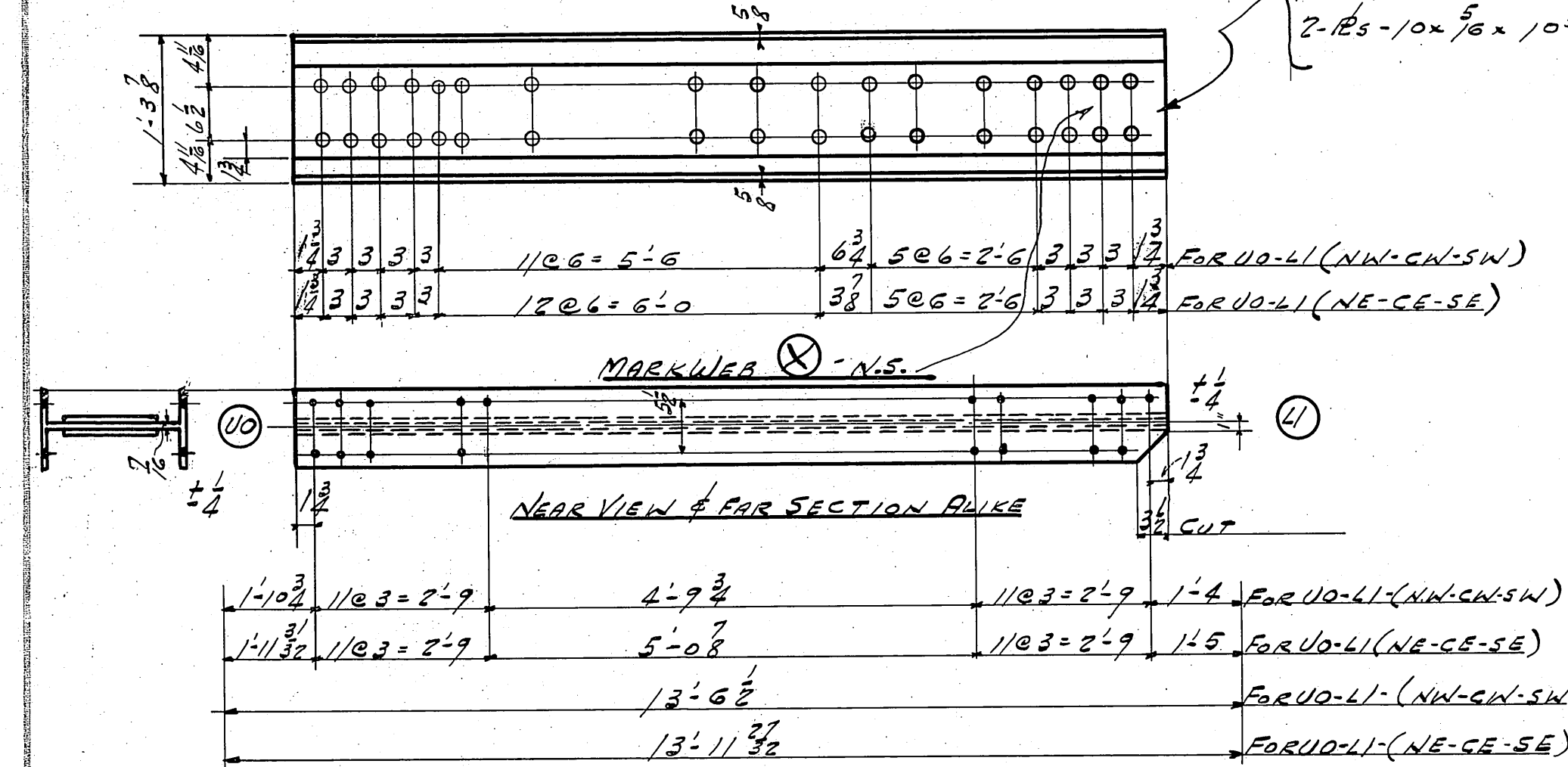
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS

BEVLEHEIM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at

IN CHARGE: BARN MADE BY: G.S.
 CHECKED BY: J.S. 2/20/27 TRADED BY: N.D. 2-14-37
 REVISED: P.C. 7-26-37 LAST ASSEM. N.K. V.

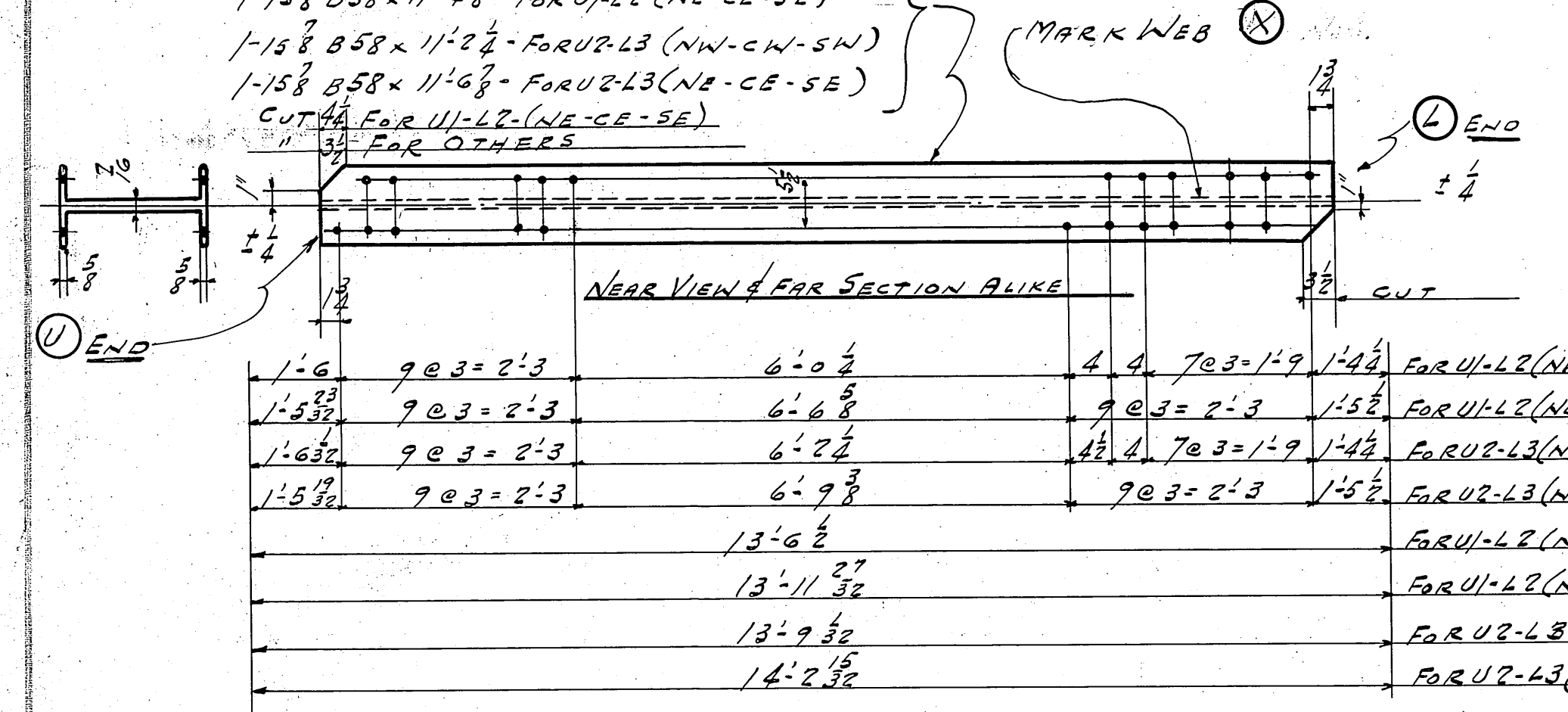
SHOP NO. CONTRACT C.C. 25873 SHEET 325

1-158 858 x 10'-7 1/2 } FOR UO-L1 (NW-CN-SW)
 2-125-10 x 5/16 x 10'-7 1/2 }
 1-158 858 x 10'-10 3/8 } FOR UO-L1 (NE-CE-SE)
 2-125-10 x 5/16 x 10'-10 3/8 }



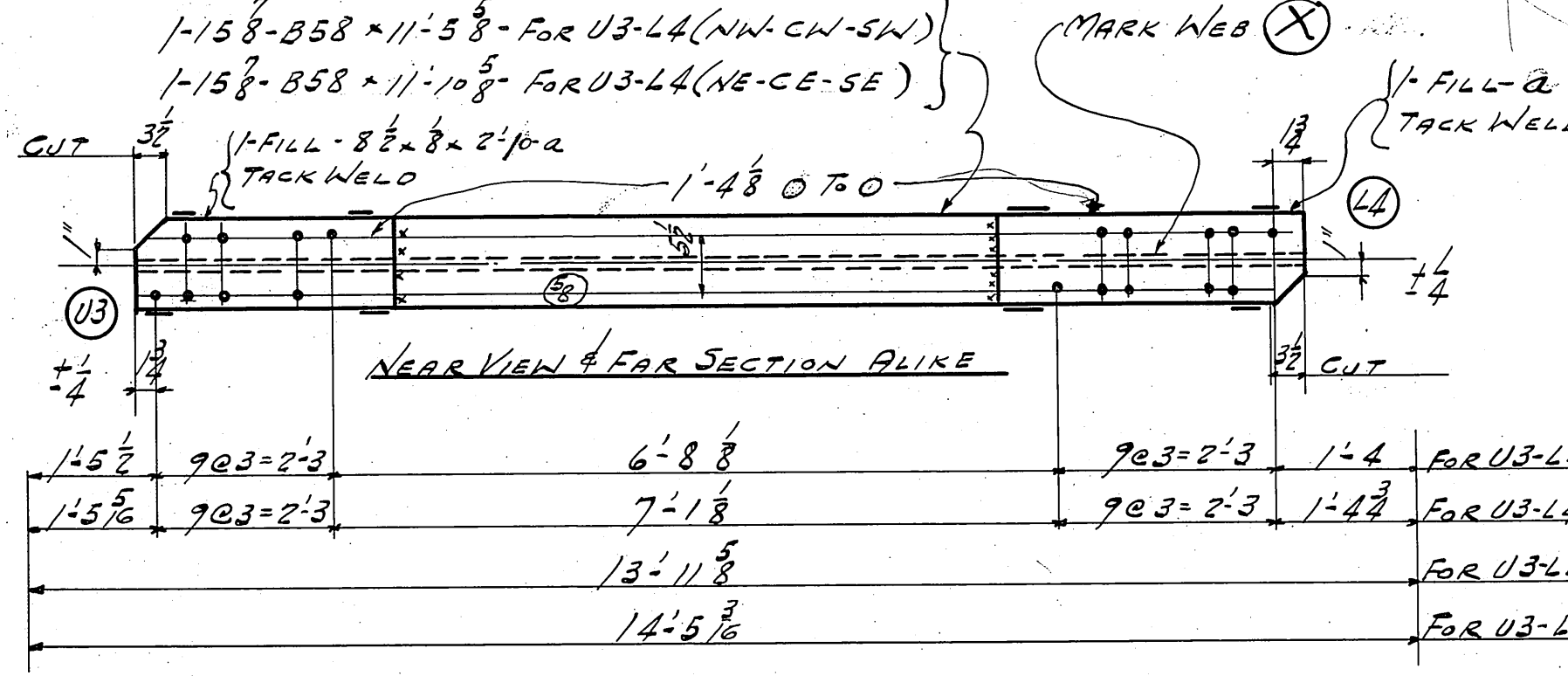
DIAGONALS - UO-L1 (NW-CN-SW)
 " - UO-L1 (NE-CE-SE)

1-158 858 x 10'-11 3/8 } FOR U1-L2 (NW-CN-SW)
 1-158 858 x 11'-4 3/8 } FOR U1-L2 (NE-CE-SE)
 1-158 858 x 11'-2 3/8 } FOR U2-L3 (NW-CN-SW)
 1-158 858 x 11'-6 3/8 } FOR U2-L3 (NE-CE-SE)
 CUT FOR U1-L2 (NE-CE-SE)
 CUT FOR U2-L3 (NE-CE-SE)
 CUT FOR OTHERS



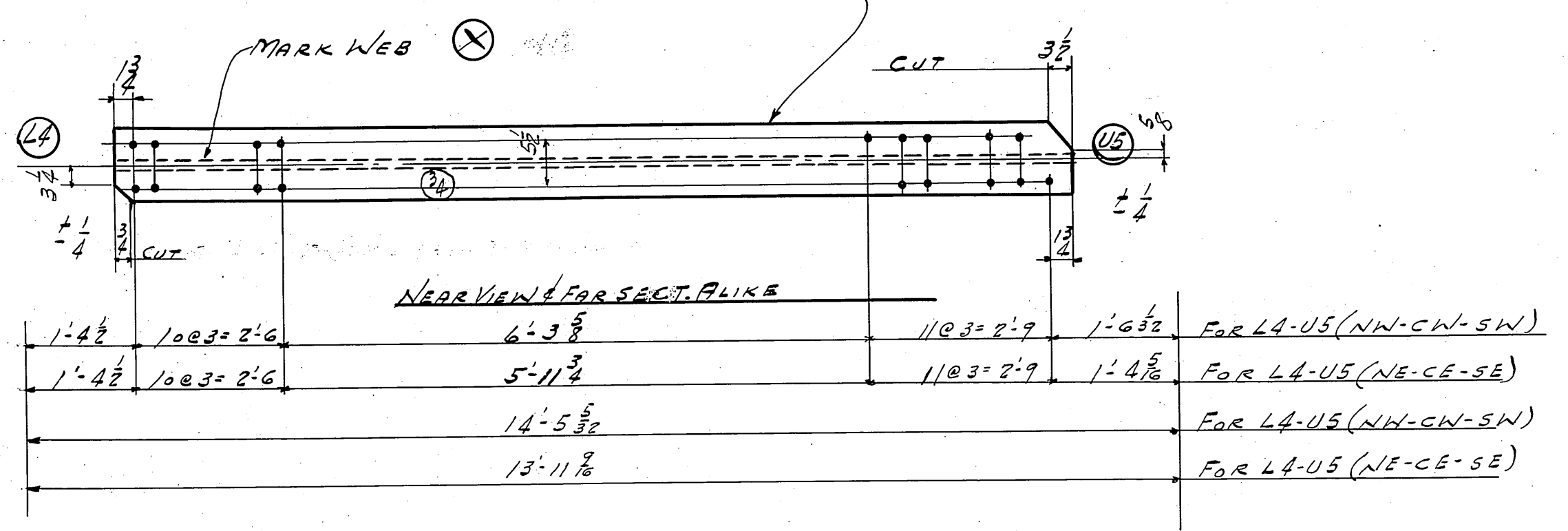
DIAGONALS - U1-L2 (NW-CN-SW)
 " - U1-L2 (NE-CE-SE)
 " - U2-L3 (NW-CN-SW)
 " - U2-L3 (NE-CE-SE)

1-158-858 x 11'-5 3/8 } FOR U3-L4 (NW-CN-SW)
 1-158-858 x 11'-10 3/8 } FOR U3-L4 (NE-CE-SE)
 1-FILL 8 3/8 x 2'-10 1/2
 TRACK WELD



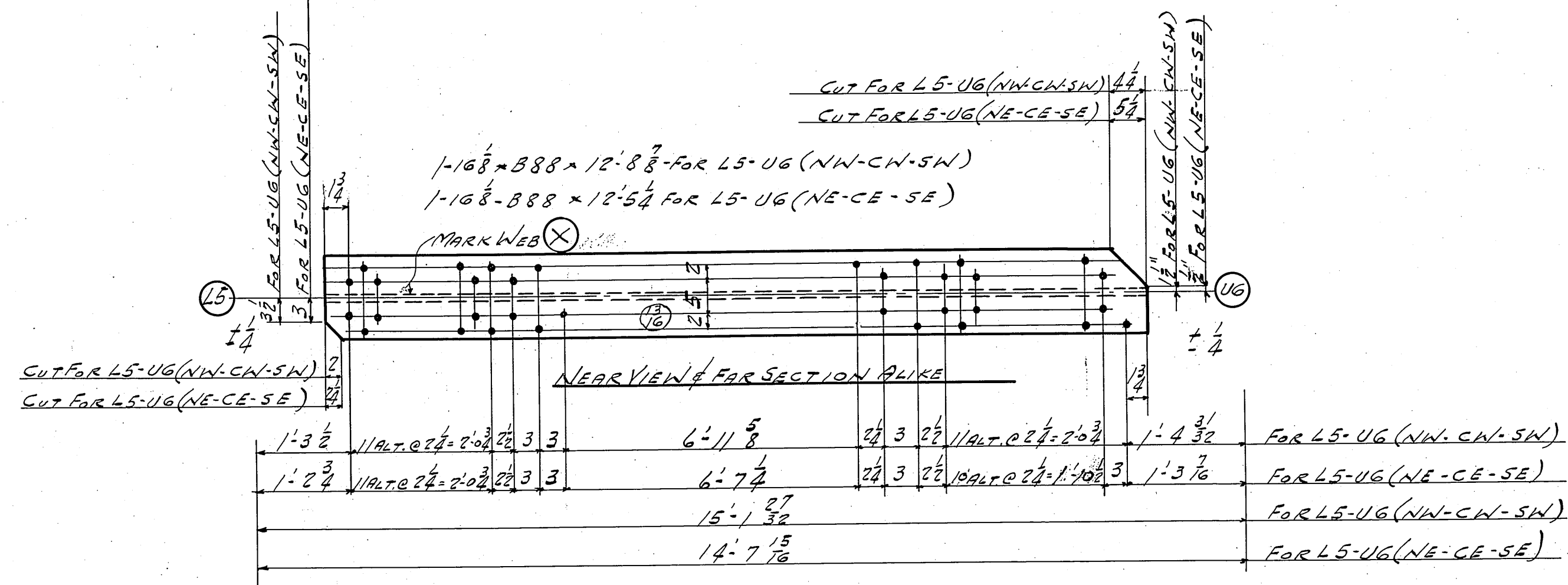
DIAGONALS U3-L4 (NW-CN-SW)
 " U3-L4 (NE-CE-SE)

1-168-871 x 11'-10 3/8 } FOR L4-U5 (NW-CN-SW)
 1-168-871 x 11'-6 3/4 } FOR L4-U5 (NE-CE-SE)



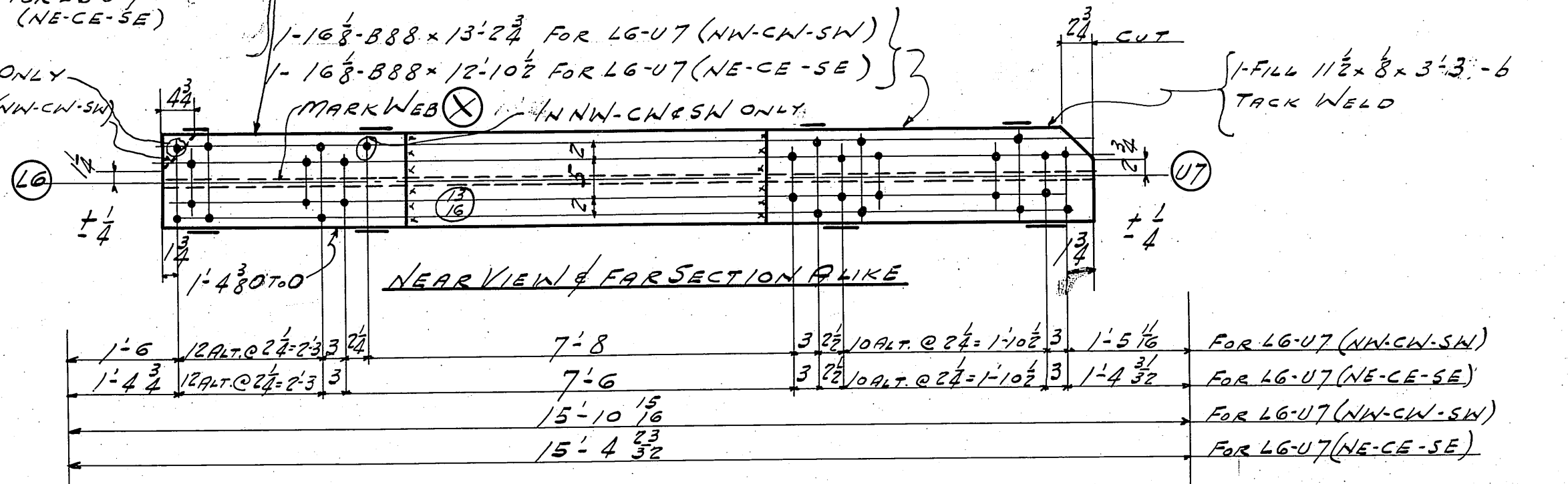
DIAGONALS L4-U5 (NW-CN-SW)
 " L4-U5 (NE-CE-SE)

1-168 888 x 12'-8 3/8 } FOR L5-U6 (NW-CN-SW)
 1-168-888 x 12'-5 1/4 } FOR L5-U6 (NE-CE-SE)



DIAGONALS L5-U6 (NW-CN-SW)
 " L5-U6 (NE-CE-SE)

1-FILL 1 1/2 x 3/8 x 3'-3 3/4 } FOR L6-U7 (NW-CN-SW)
 1-FILL 1 1/2 x 3/8 x 3'-0 3/4 } FOR L6-U7 (NE-CE-SE)
 TRACK WELD
 IN L6-U7 (NE-CE-SE) ONLY
 CUT ON THIS LINE FOR L6-U7 (NW-CN-SW)



DIAGONALS L6-U7 (NW-CN-SW)
 " L6-U7 (NE-CE-SE)

REQUIRED LIST			
NO	DESCRIPTION	MARK	REMARKS
/	DIAGONAL	UO-L1 (NW)	
/	"	UO-L1 (CN)	ALIKE
/	"	UO-L1 (SW)	
/	"	UO-L1 (NE)	
/	"	UO-L1 (CE)	ALIKE
/	"	UO-L1 (SE)	
/	"	U1-L2 (NW)	ALIKE
/	"	U1-L2 (SW)	
/	"	U1-L2 (NE)	
/	"	U1-L2 (CE)	ALIKE
/	"	U1-L2 (SE)	
/	"	U2-L3 (NW)	
/	"	U2-L3 (SW)	ALIKE
/	"	U2-L3 (NE)	
/	"	U2-L3 (CE)	ALIKE
/	"	U2-L3 (SE)	
/	"	U3-L4 (NW)	
/	"	U3-L4 (SW)	ALIKE
/	"	U3-L4 (NE)	
/	"	U3-L4 (CE)	ALIKE
/	"	U3-L4 (SE)	
/	"	L4-U5 (NW)	
/	"	L4-U5 (SW)	ALIKE
/	"	L4-U5 (NE)	
/	"	L4-U5 (CE)	ALIKE
/	"	L4-U5 (SE)	
/	"	L5-U6 (NW)	
/	"	L5-U6 (SW)	ALIKE
/	"	L5-U6 (NE)	
/	"	L5-U6 (CE)	ALIKE
/	"	L5-U6 (SE)	
/	"	L6-U7 (NW)	
/	"	L6-U7 (SW)	ALIKE
/	"	L6-U7 (NE)	
/	"	L6-U7 (CE)	ALIKE
/	"	L6-U7 (SE)	

GENERAL NOTES:
 RIVETS - 8 P
 OPEN HOLES - 1 1/2 P
 MATERIAL - Carbon steel A.S.T.M. A7-50 with 50% copper content, except heavy sections. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed when truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the shop. Edges of main material over 5/8" thick shall be planed to a depth of 1/8" where noted on details.
 SHOP EDGES of main material shall be planed, clipped or ground and present a smooth workmanlike appearance.
 One coat of HD LEAD except where noted. Shop contact surfaces not painted.
 Decotes break in stagger.

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

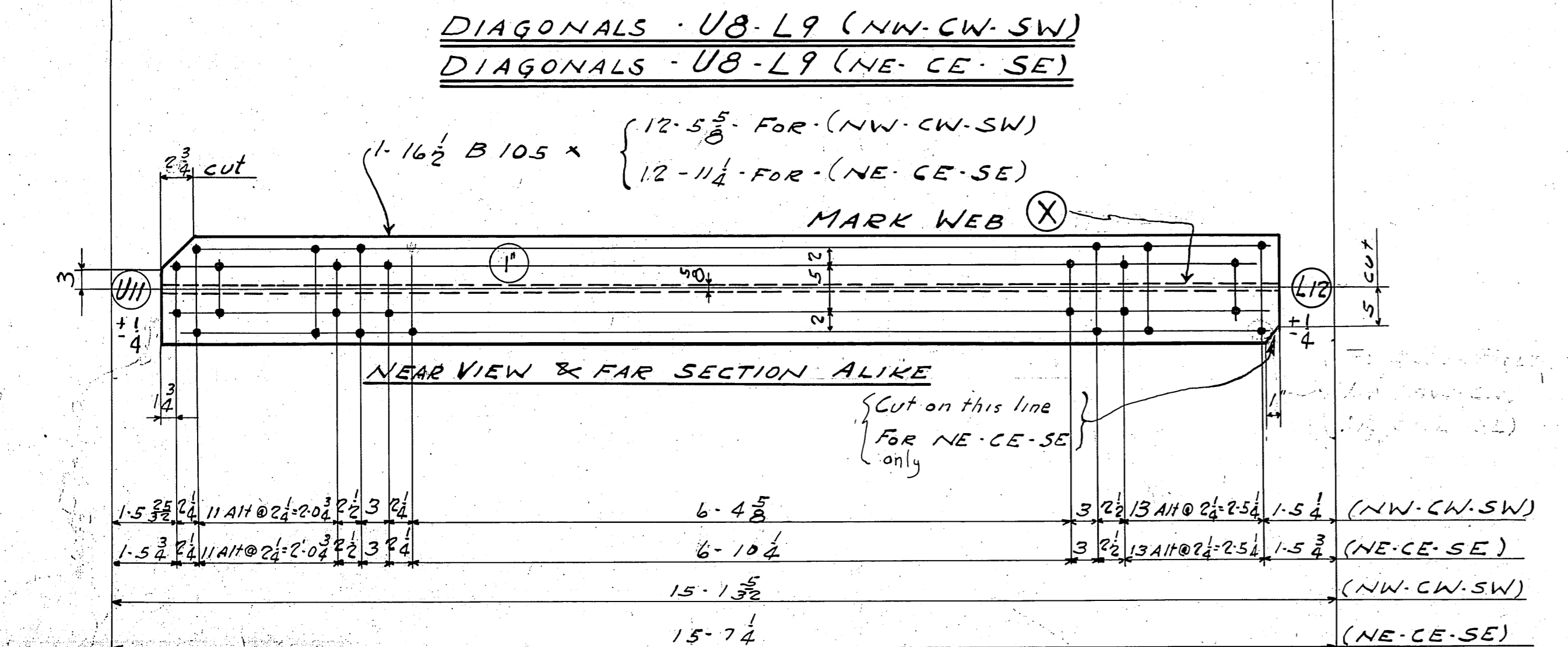
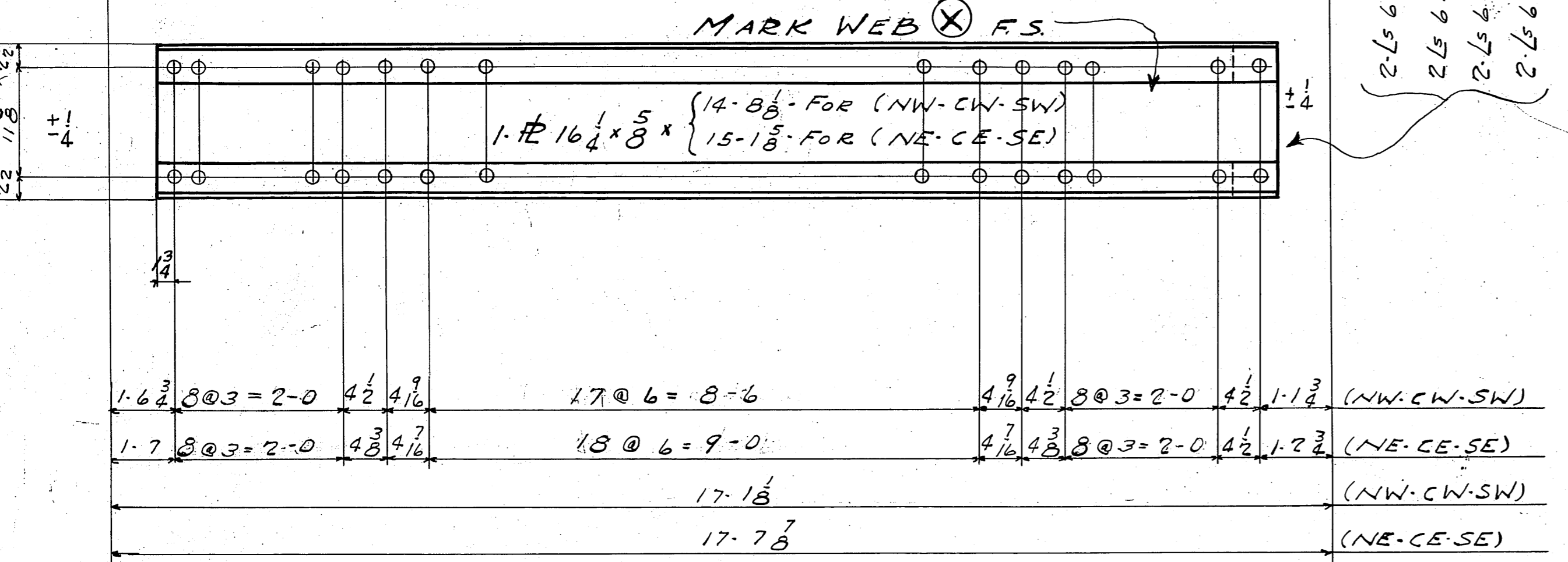
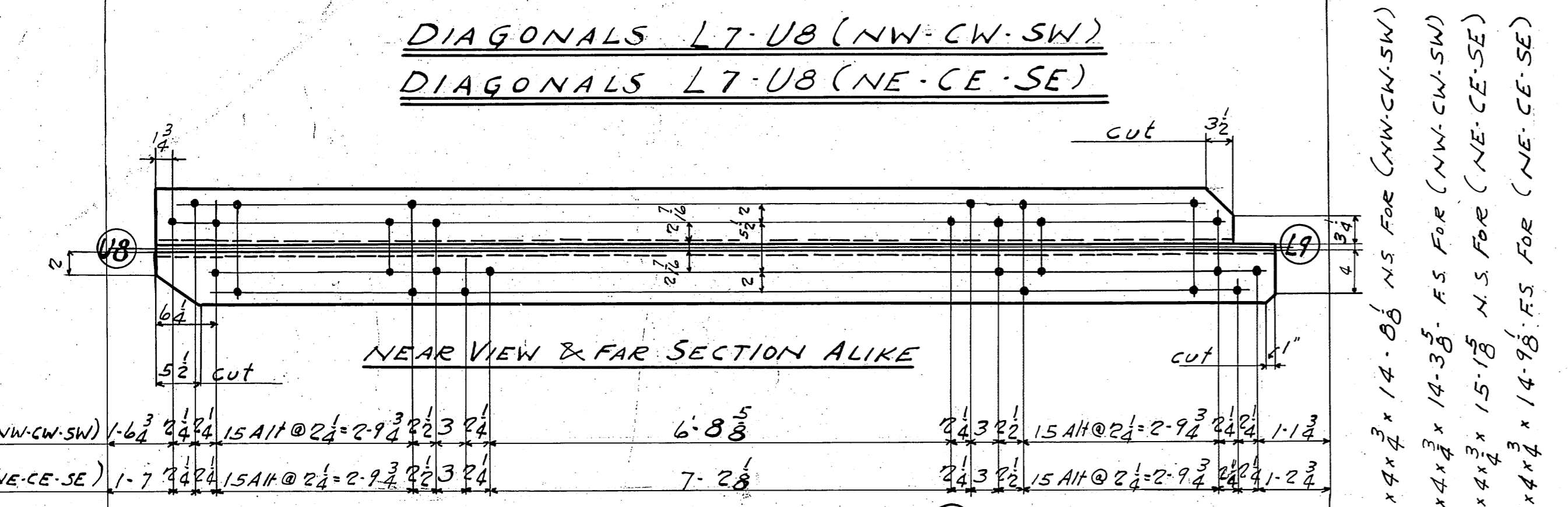
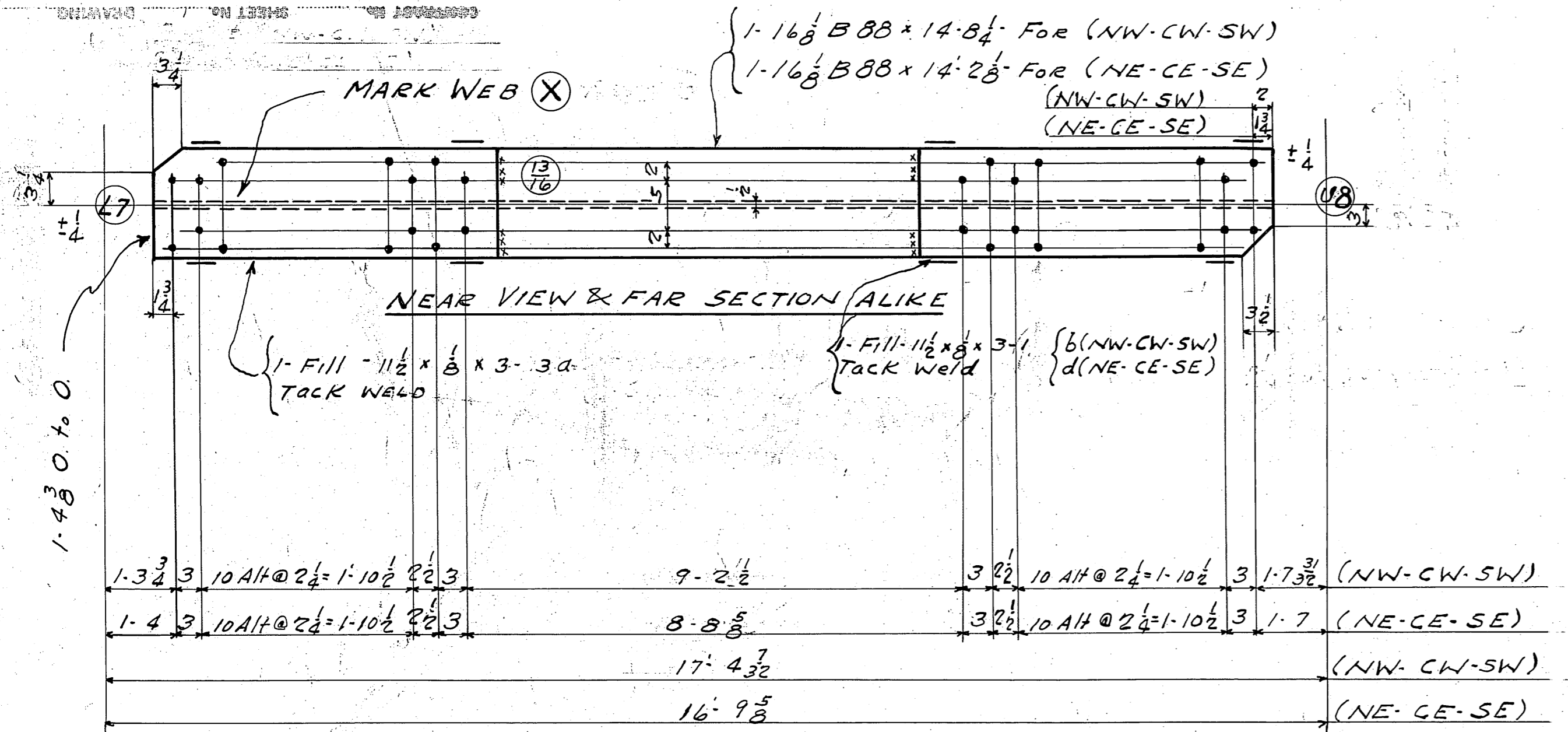
TRUSS DIAGONALS SPANS 5-7 & 10 TO 12

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTI. - DEPT. PUBLIC WORKS

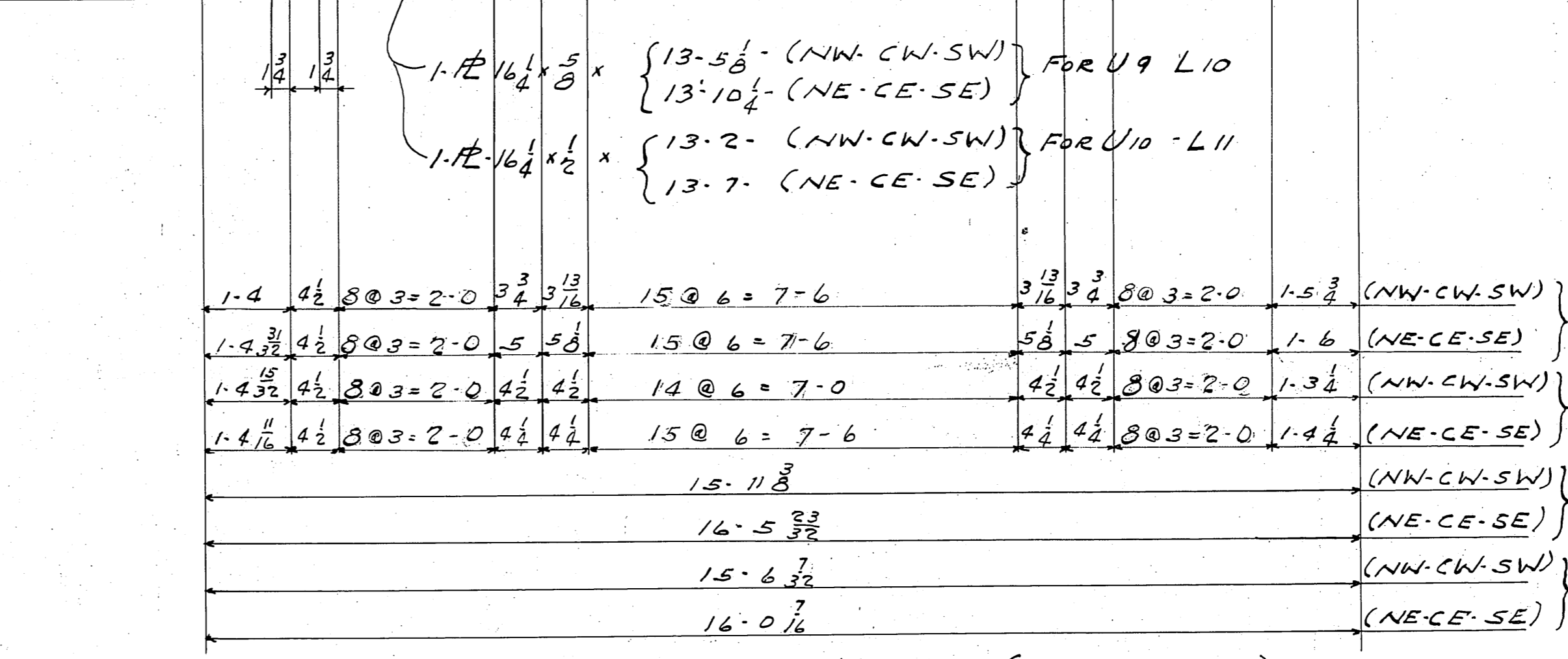
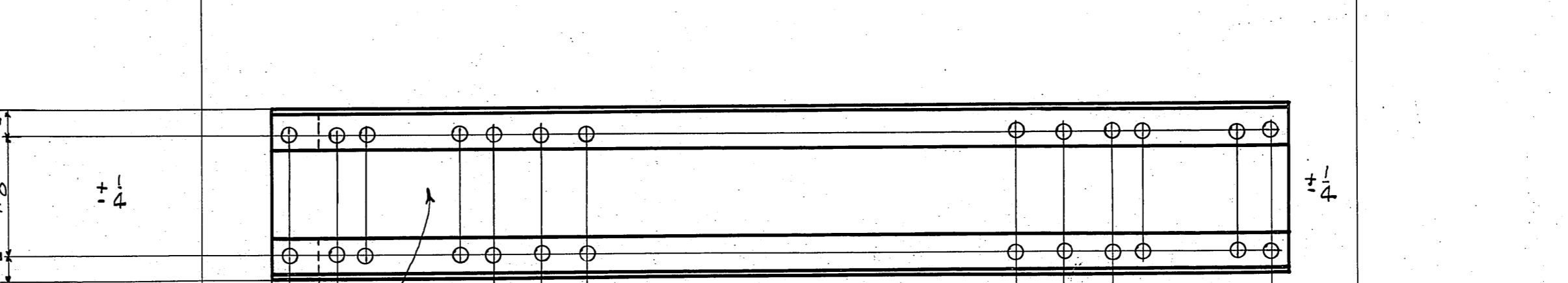
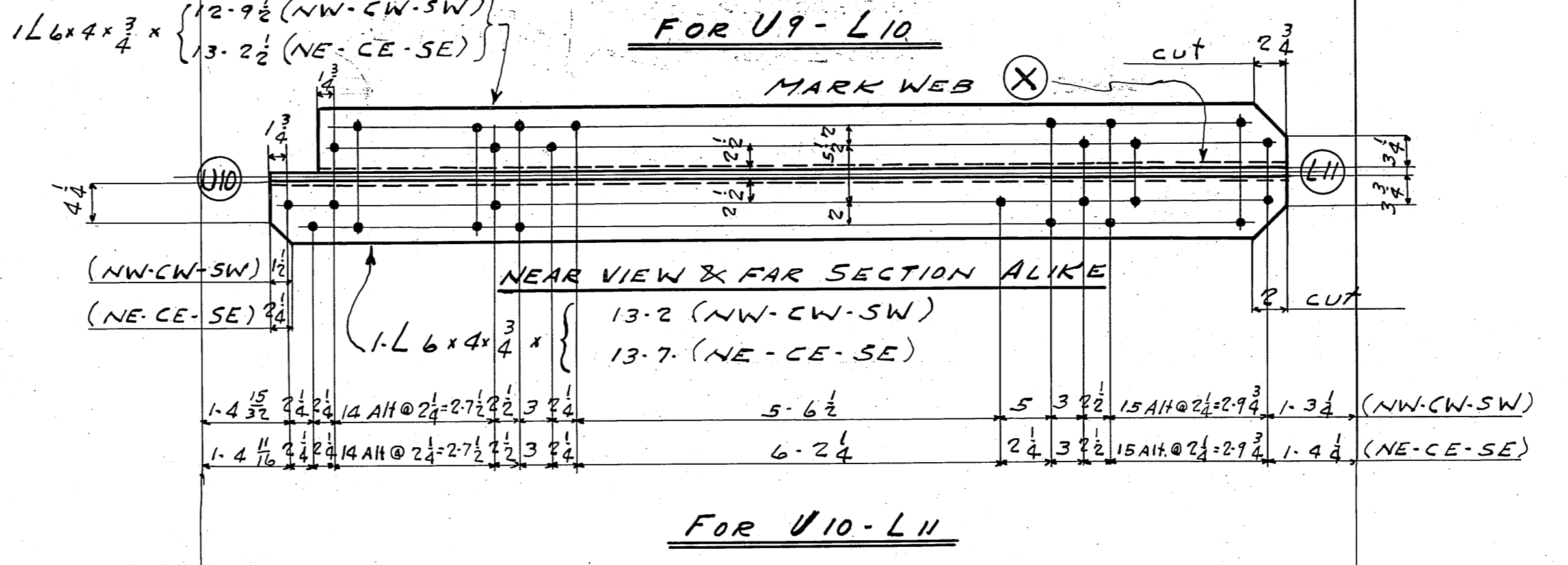
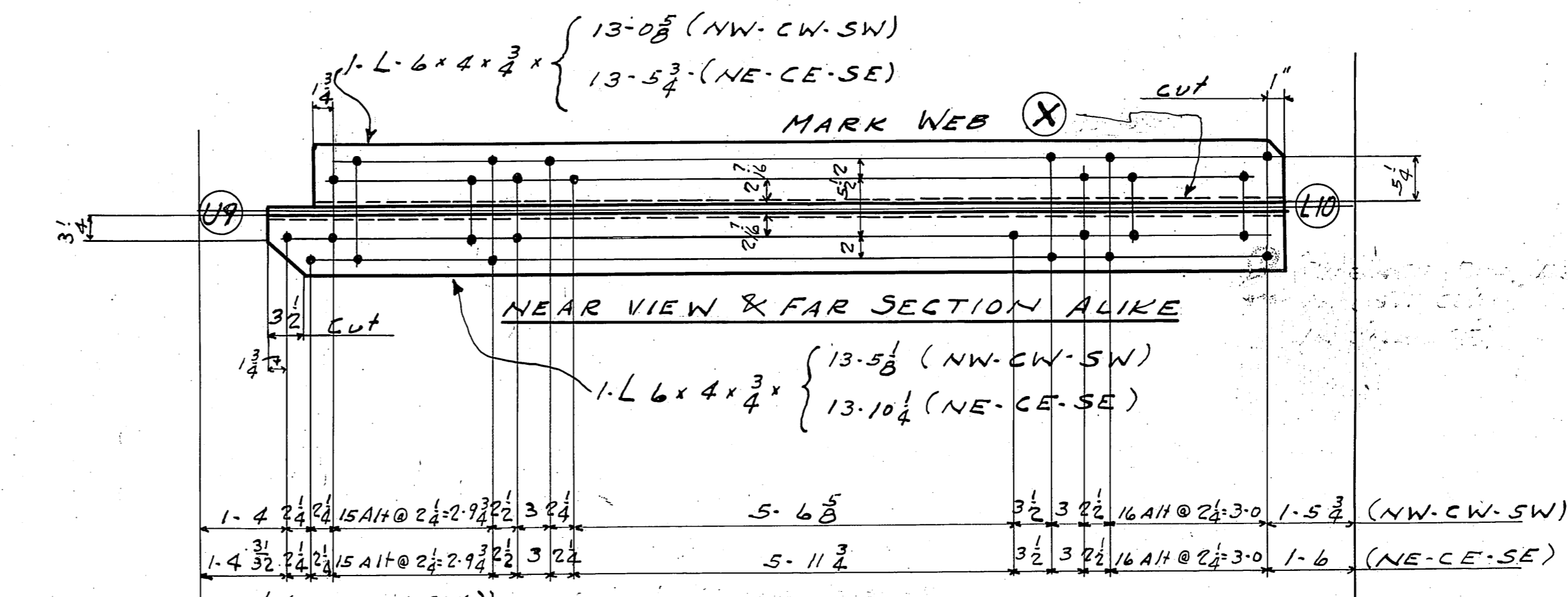
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at

IN CHARGE: BEAN
 CHECKED BY: A.T. 2-18-37
 REVISION: 1-2-37
 MADE BY: J.H.L. 1-2-37
 TRACED BY: J.E.P. 1-8-37
 LAST ASSEM. BY: J.E.P. 1-8-37

CONTRACT CC 25873



DIAGONAL U11-L12 (NW-CW-SW)
 DIAGONAL U11-L12 (NE-CE-SE)



DIAGONALS U9-L10 (NW-CW-SW)
 DIAGONALS U9-L10 (NE-CE-SE)
 DIAGONALS U10-L11 (NW-CW-SW)
 DIAGONALS U10-L11 (NE-CE-SE)

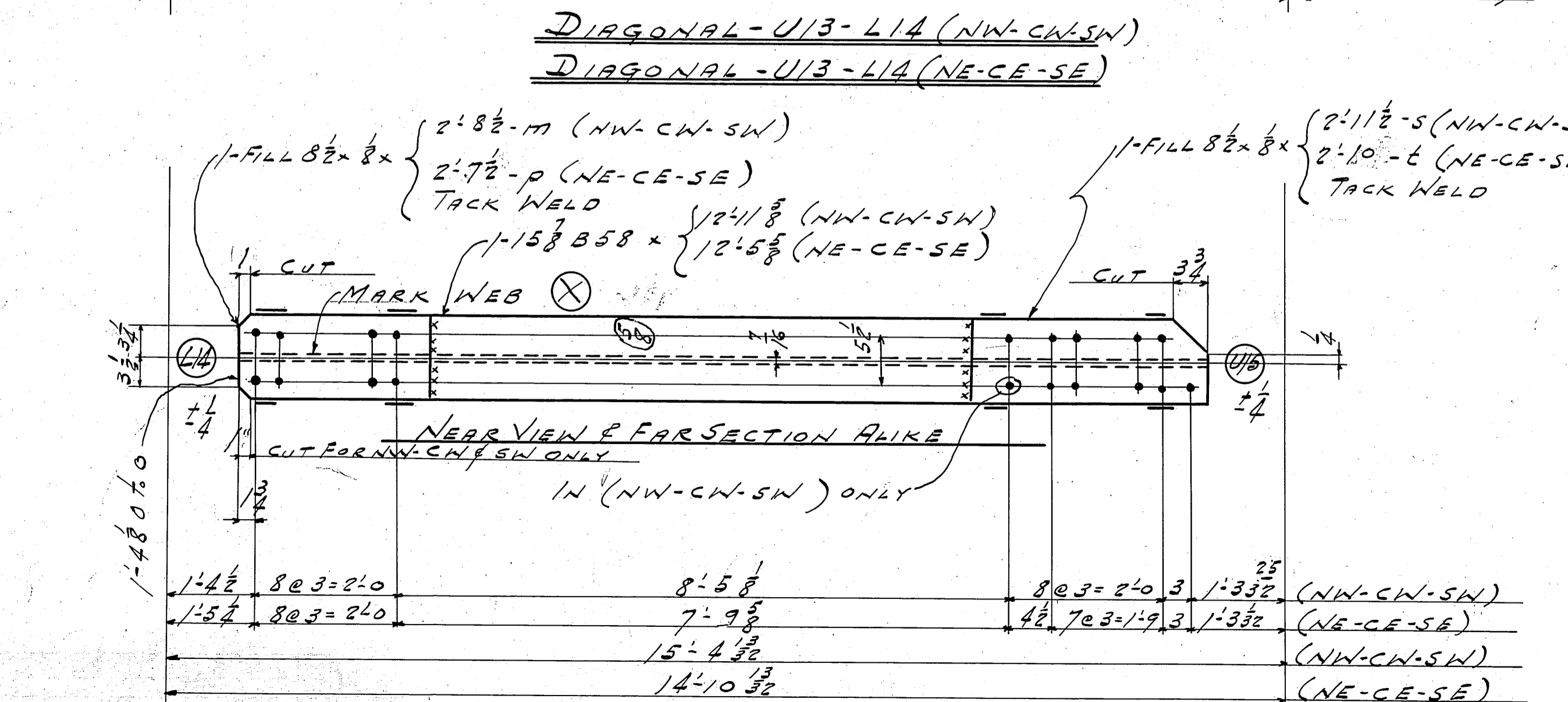
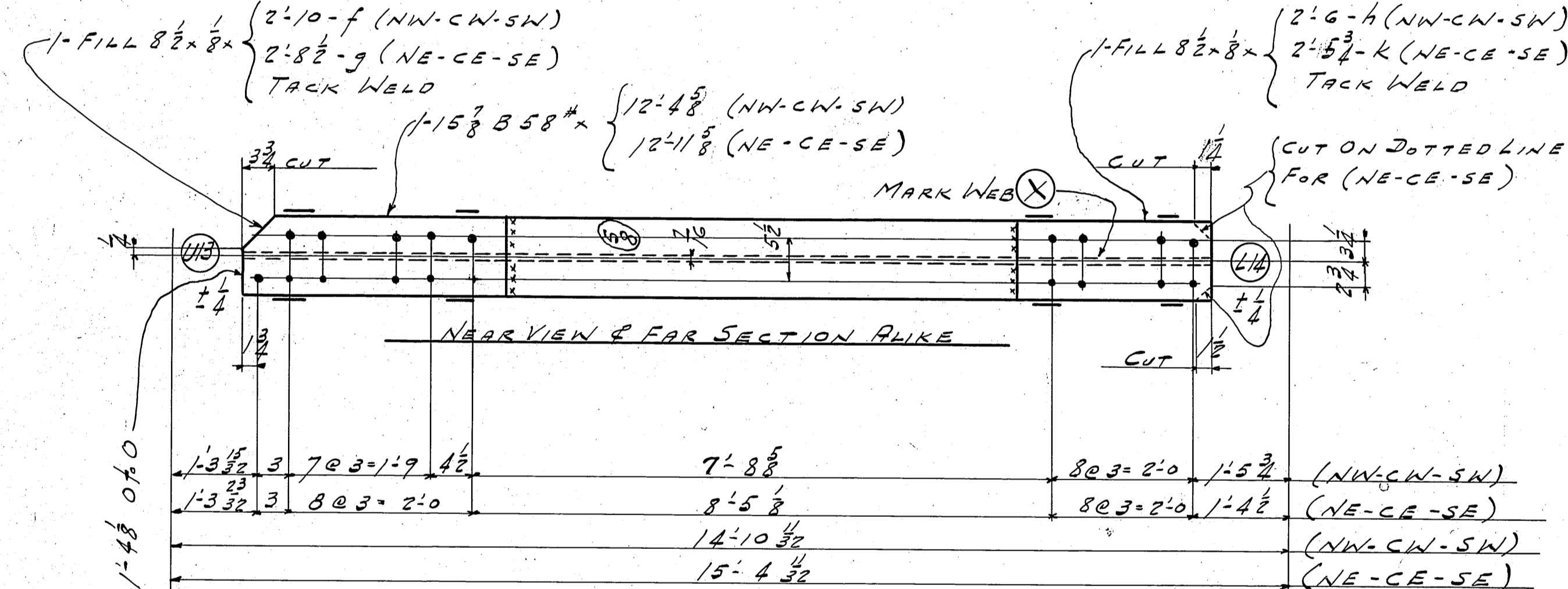
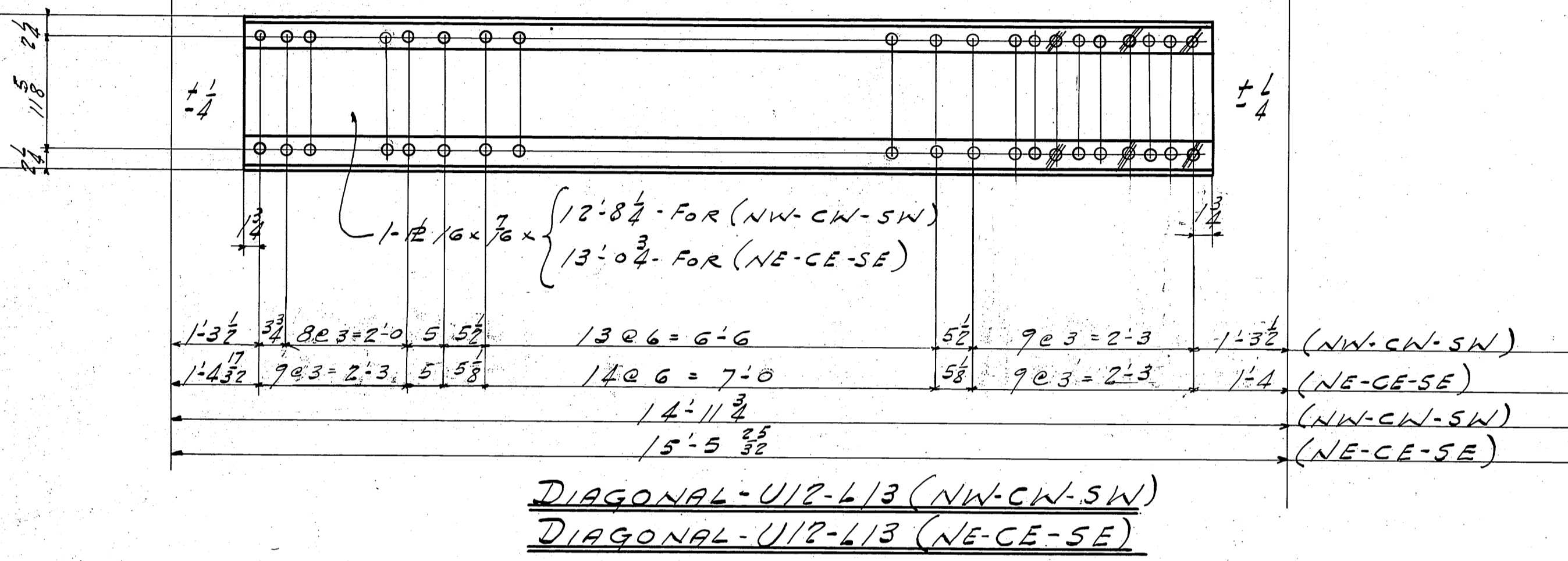
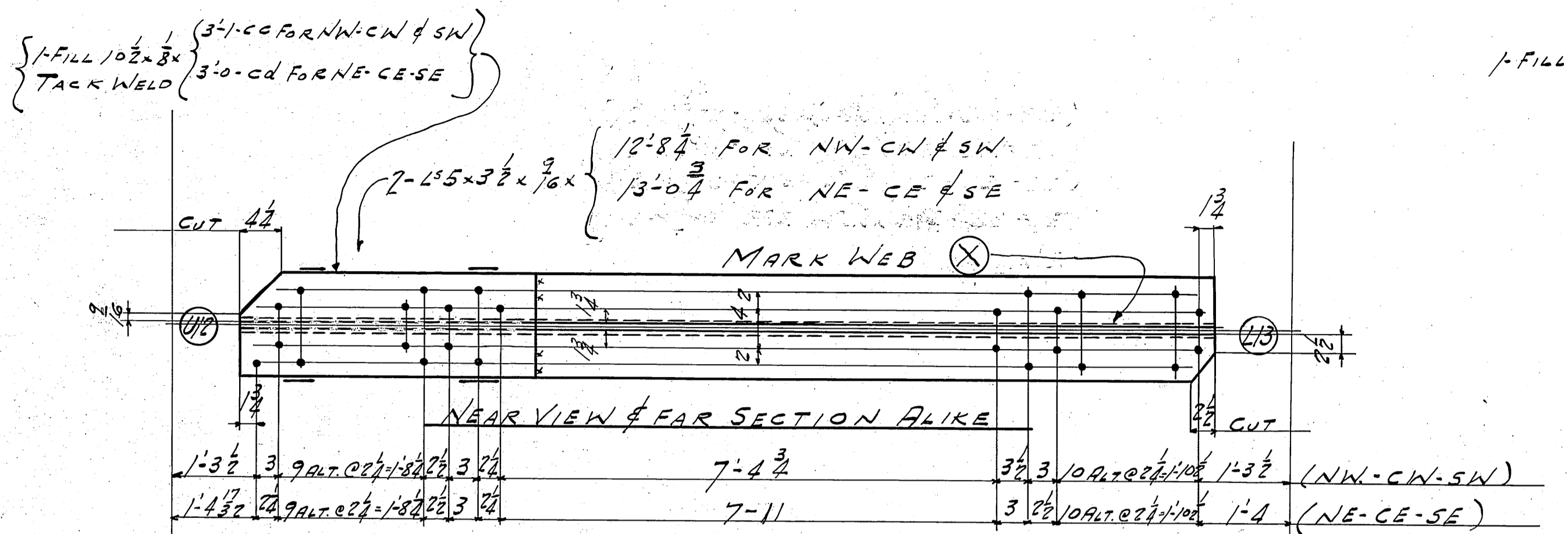
REQUIRED LIST			
No	DESCRIPTION	MARK	REMARK
1	DIAGONAL	L7-UB(NW)	
1	"	L7-UB(CW)	ALIKE
1	"	L7-UB(SW)	
1	"	L7-UB(NE)	
1	"	L7-UB(SE)	ALIKE
1	"	U8-L9(NW)	
1	"	U8-L9(CW)	ALIKE
1	"	U8-L9(SW)	
1	"	U8-L9(NE)	
1	"	U8-L9(CE)	ALIKE
1	"	U8-L9(SE)	
1	"	U9-L10(NW)	
1	"	U9-L10(CW)	ALIKE
1	"	U9-L10(SW)	
1	"	U9-L10(NE)	
1	"	U9-L10(CE)	ALIKE
1	"	U9-L10(SE)	
1	"	U10-L11(NW)	
1	"	U10-L11(CW)	ALIKE
1	"	U10-L11(SW)	
1	"	U10-L11(NE)	
1	"	U10-L11(CE)	ALIKE
1	"	U10-L11(SE)	
1	"	U11-L12(NW)	
1	"	U11-L12(CW)	ALIKE
1	"	U11-L12(SW)	
1	"	U11-L12(NE)	
1	"	U11-L12(CE)	ALIKE
1	"	U11-L12(SE)	

GENERAL NOTES:-
 RIVETS:- 5/8"
 OPEN HOLES:- 1 1/8"
 MATERIAL:- Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted. All holes may be punched full size except:
 REMARKING:-
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 FLAME CUT EDGES of main material shall be planed chipped or ground and present a smooth workmanlike appearance.
 PAINT:- One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 [Symbol] Denotes break in stagger.
 Web Plates must not project past back of W.

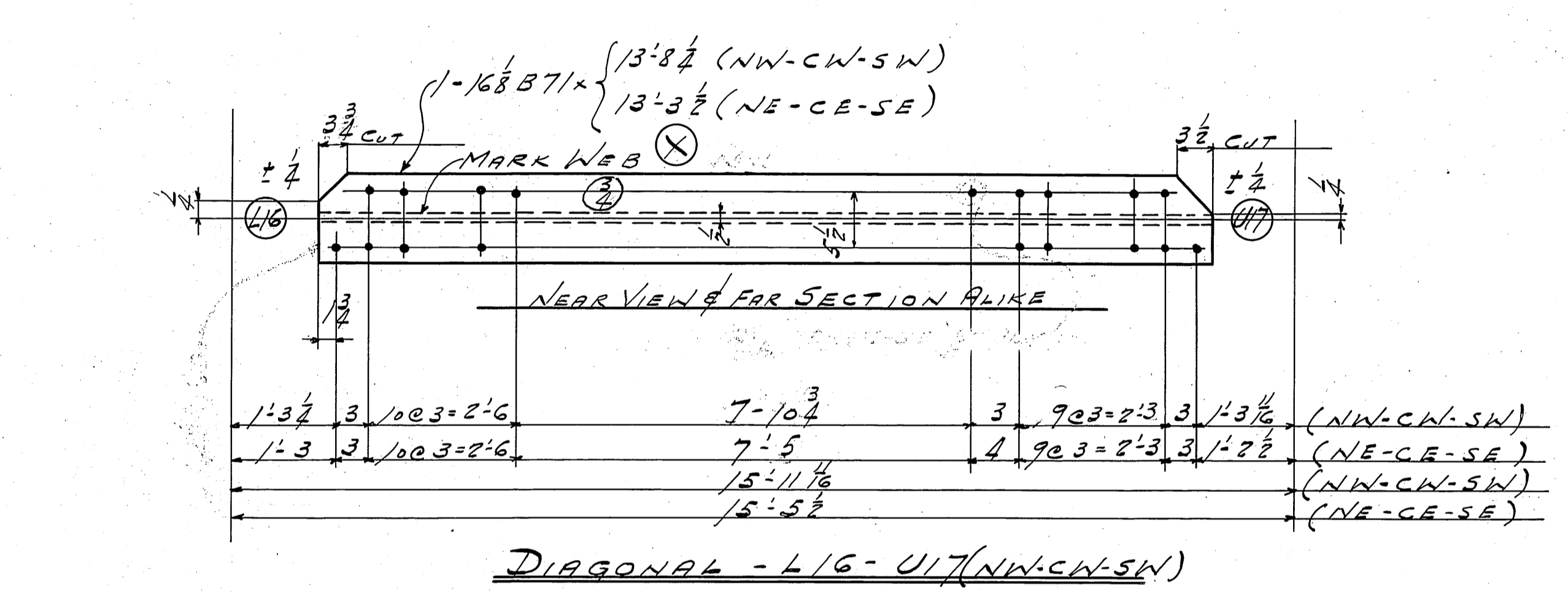
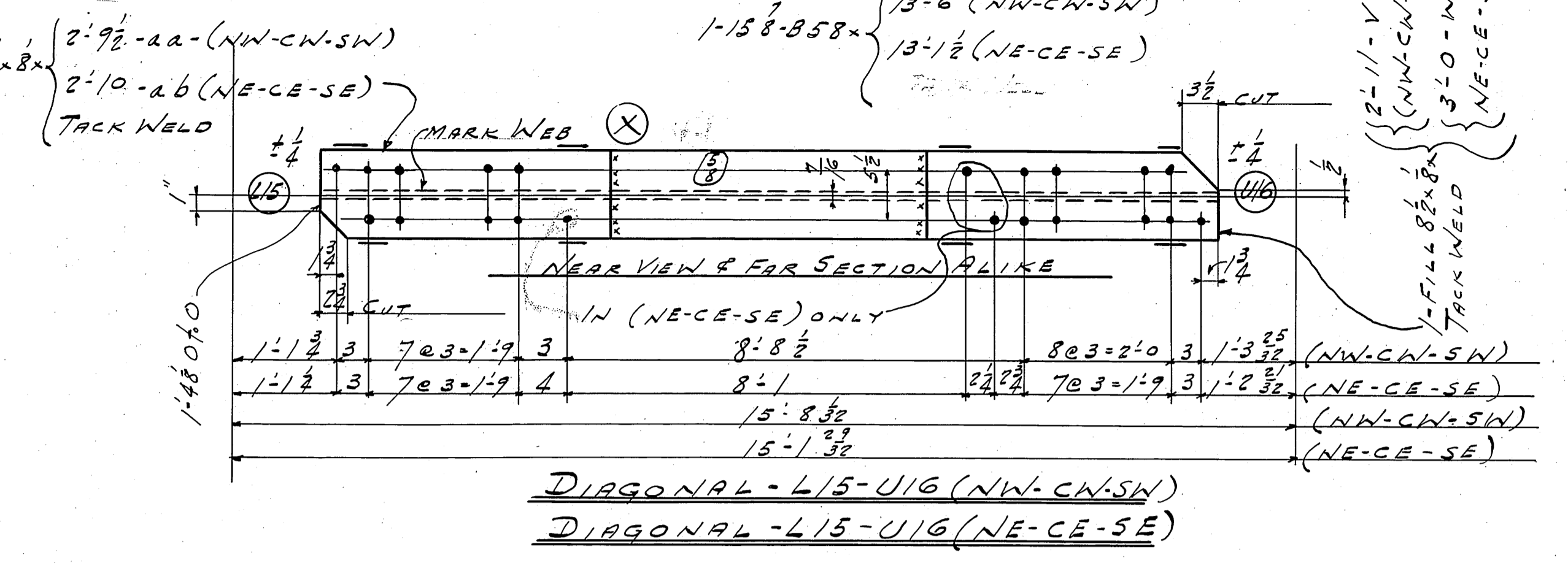
Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

TRUSS DIAGONALS - SPANS 5 to 7 & 10 to 12

TEMP. L	COLUMBIA AVE. VIADUCT	
SHIPT. A	CINCINNATI, OHIO	
SHOP. A	CITY OF CINT. - DEPT. PUBLIC WORKS	
INSP. 1	BETHLEHEM STEEL COMPANY	
PG. WK. 0	FABRICATED STEEL CONSTRUCTION	
MCH. 0	Drawings at Rankin - Fabrication at	
ERECT. 0	IN CHARGE Boen MADE BY J.P.R. 2.8.37	
Met. 0	CHECKED BY A.T. 1.12.37 TRACED BY N.D.R. 2.11.37	
	REVISED..... LAST ASSEM. MK.....	
	F.C. 78c 3-5-37	
SHOP NO. 2	CONTRACT C.C. 25873	SHEET 327



DIAGONAL - L14-U15 (NW-CN-SW)
DIAGONAL - L14-U15 (NE-CE-SE)



DIAGONAL - L16-U17 (NW-CN-SW)
DIAGONAL - L16-U17 (NE-CE-SE)

REQUIRED LIST			
No	DESCRIPTION	MARK	REMARK
1	DIAGONAL	U12-L13(NW)	
1	"	U12-L13(EN)	ALIKE
1	"	U12-L13(SW)	
1	"	U12-L13(NE)	ALIKE
1	"	U12-L13(CE)	ALIKE
1	"	U12-L13(SE)	
1	"	U13-L14(NW)	
1	"	U13-L14(EN)	ALIKE
1	"	U13-L14(SW)	
1	"	U13-L14(NE)	ALIKE
1	"	U13-L14(CE)	ALIKE
1	"	U13-L14(SE)	
1	"	L14-U15(NW)	
1	"	L14-U15(EN)	ALIKE
1	"	L14-U15(SW)	
1	"	L14-U15(NE)	ALIKE
1	"	L14-U15(CE)	ALIKE
1	"	L14-U15(SE)	
1	"	L15-U16(NW)	
1	"	L15-U16(EN)	ALIKE
1	"	L15-U16(SW)	
1	"	L15-U16(NE)	ALIKE
1	"	L15-U16(CE)	ALIKE
1	"	L15-U16(SE)	
1	"	L16-U17(NW)	
1	"	L16-U17(EN)	ALIKE
1	"	L16-U17(SW)	
1	"	L16-U17(NE)	ALIKE
1	"	L16-U17(CE)	ALIKE
1	"	L16-U17(SE)	

GENERAL NOTES:-
 MATERIAL:- Carbon steel A.S.T.M. A7-34 with .25% copper content, except where noted.
 FINISH:- All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/8" thick shall be drilled from the solid.
 SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 FLAME CUT EDGES of main material shall be planed smooth or ground and present a smooth workmanlike appearance.
 PAINT:- One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 Web Plate must not project past back of IS

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

TRUSS DIAGONALS - SPAN 5-7 & 10-12

SUPT. _____
 SHOPS 4
 INSP. _____
 P.E. WK. _____
 S. SMITH
 INCH. _____
 SHEET _____
 O. INSP. _____
 MET. O. _____

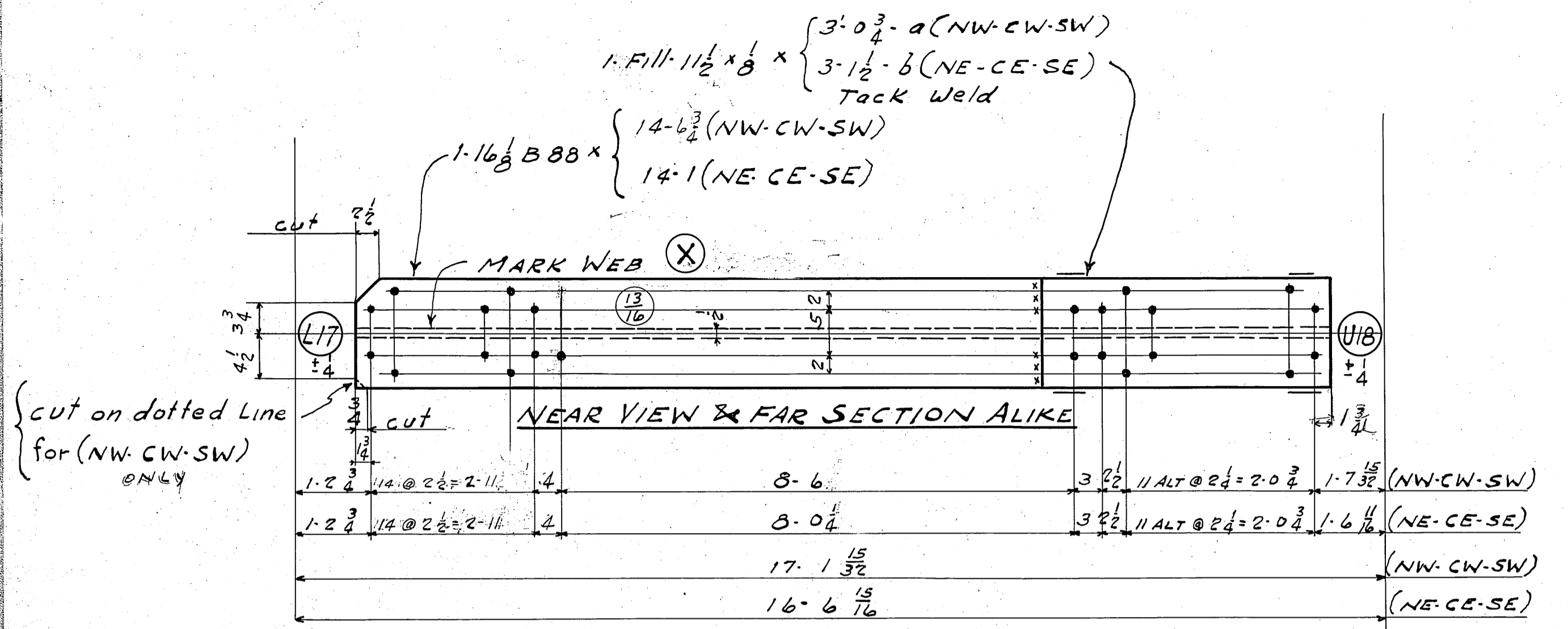
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTL. - DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at

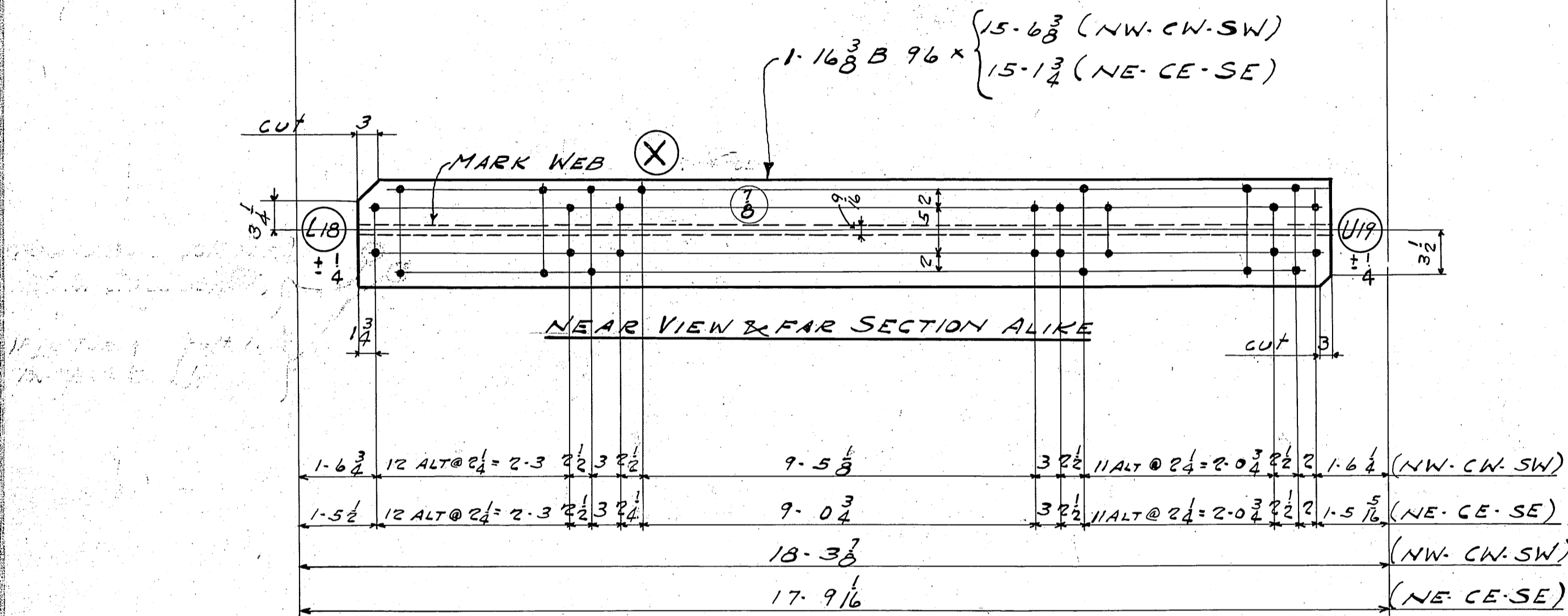
IN CHARGE BORN _____ MADE BY J.P.R. 2-10-37
 CHECKED BY A.T. 2-15-37 TRACED BY J.E.P. 2-12-37
 REVISED _____ PART ASSEM. MK. _____

SHOP NO. 2 CONTRACT CC 25873 SHEET 328

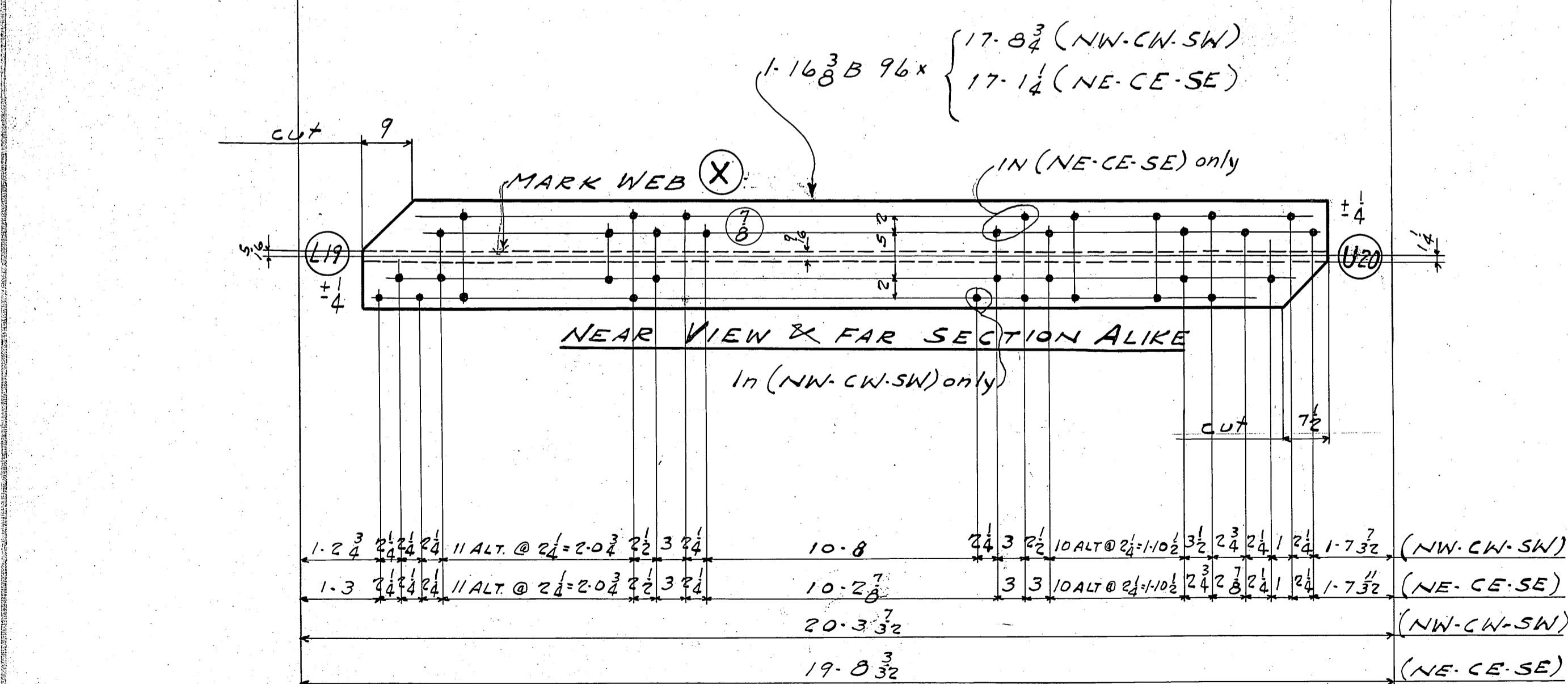
REQUIRED LIST			
NO	DESCRIPTION	MARK	REMARK
1	DIAGONAL	L17-U18(NW)	
1	"	L17-U18(CW)	ALIKE
1	"	L17-U18(SW)	
1	"	L17-U18(NE)	
1	"	L17-U18(CE)	ALIKE
1	"	L17-U18(SE)	
1	"	L18-U19(NW)	
1	"	L18-U19(CW)	ALIKE
1	"	L18-U19(SW)	
1	"	L18-U19(NE)	
1	"	L18-U19(CE)	ALIKE
1	"	L18-U19(SE)	
1	"	L19-U20(NW)	
1	"	L19-U20(CW)	ALIKE
1	"	L19-U20(SW)	
1	"	L19-U20(NE)	
1	"	L19-U20(CE)	ALIKE
1	"	L19-U20(SE)	



DIAGONAL-L17-U18(NW-CW-SW)
DIAGONAL-L17-U18(NE-CE-SE)



DIAGONAL-L18-U19(NW-CW-SW)
DIAGONAL-L18-U19(NE-CE-SE)



DIAGONAL-L19-U20(NW-CW-SW)
DIAGONAL-L19-U20(NE-CE-SE)

GENERAL NOTES:-
RIVETS:- 3/4
OPEN HOLES:- 1/8
MATERIAL:- Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted. All holes may be punched full size except:
REAMING:-
(a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
(b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
(c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
(d) Holes in main material over 3/4" thick shall be drilled from the solid.
SHEARED EDGES:- Edges of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES:- Edges of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
PAINT:- One coat of RED LEAD except where noted. Shop contact surfaces not painted.
Denotes break in stagger.

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

TRUSS DIAGONALS - SPANS 5-7 & 10-12

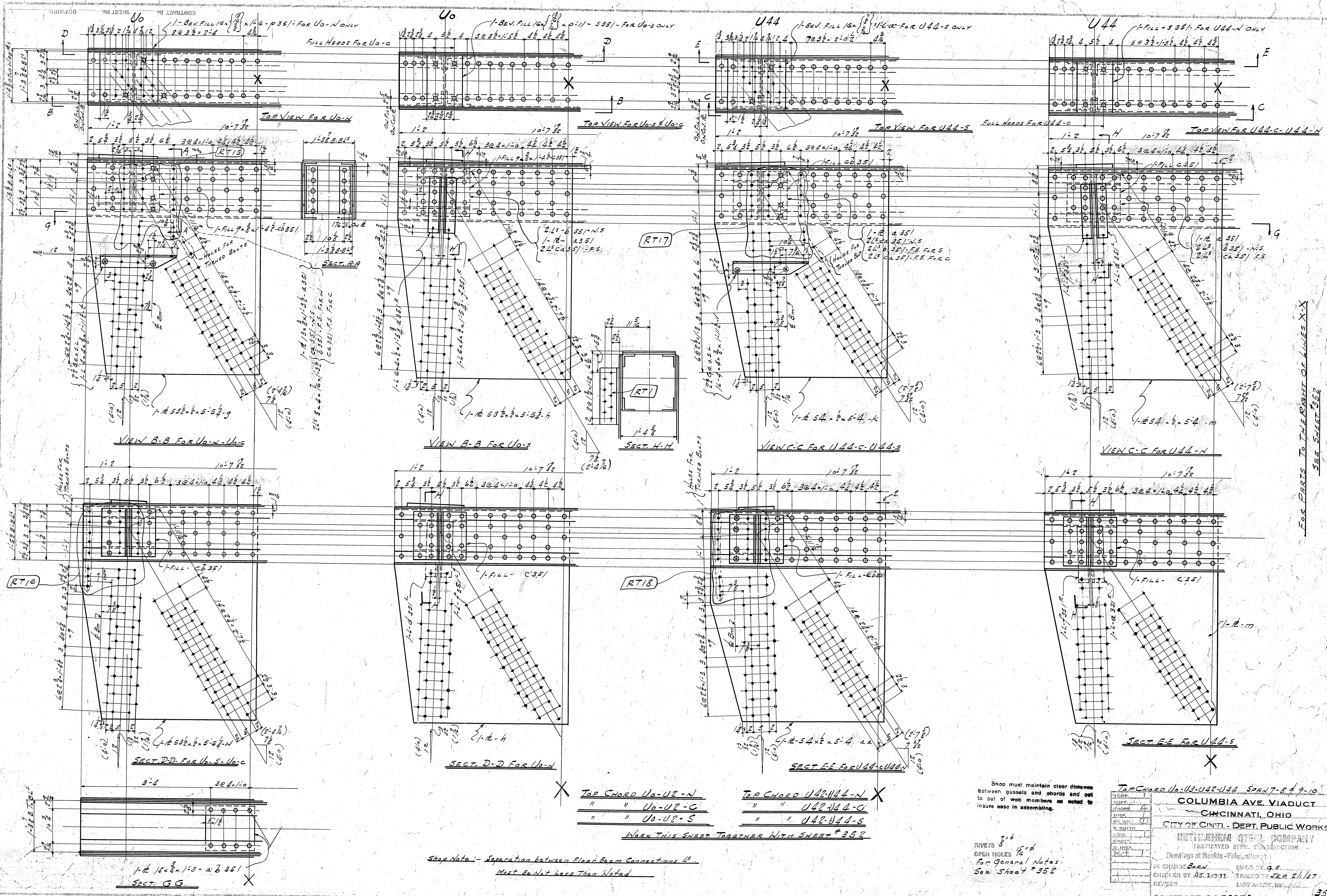
TEMP	1
SUPT.	4
SHOPS	4
INS.	1
EC. WK.	0
E. SMITH	
MCH.	
ERECT.	
C. INSP.	
Met. O.	

COLUMBIA AVE. VIADUCT
CINCINNATI, OHIO
CITY OF CINTI. - DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
Drawings at Bethl. Fabrication at

IN CHARGE BORN MADE BY J.P.R. 2-11-37
CHECKED BY AT 2-15-37 TRACED BY N.D.P. 2-12-37
REVISED FC 78C 3-3-37 LAST ASSEM. MK.

SHIP NO. 2 CONTRACT, C.C. 25873 SHEET 329



TOP CHORD Uo-U2-N
 " " Uo-U2-C
 " " Uo-U2-S
 TOP CHORD U42-U44-N
 " " U42-U44-C
 " " U42-U44-S
 WORK THIS SHEET TOGETHER WITH SHEET # 352

Shop Note: Separation between Floor Beam Connections L5
 Must Be Not Less Than Noted

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

RIVERS 306
 OPEN HOLES 1/2
 For General Notes See Sheet # 352

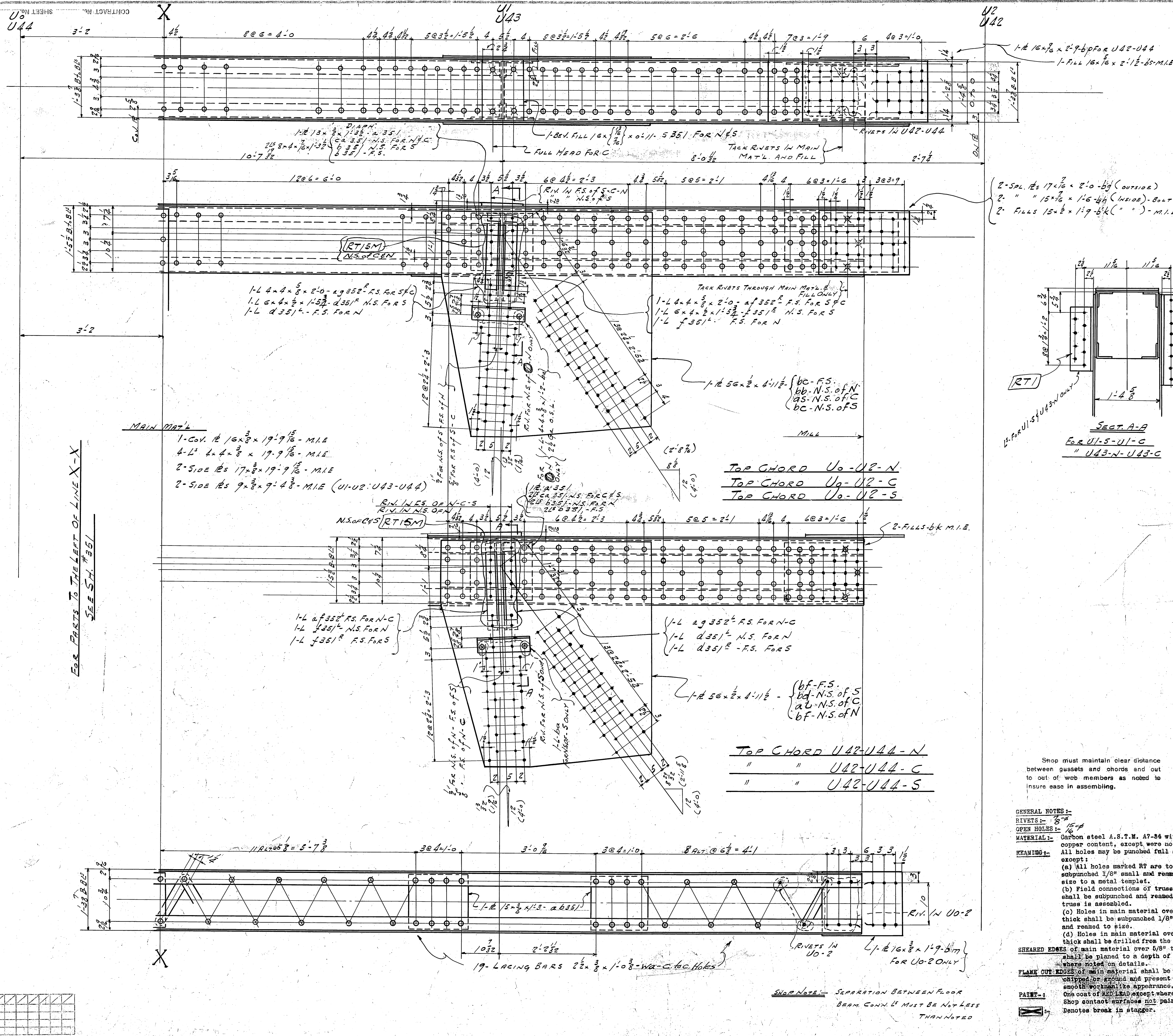
TOP CHORD Uo-U2-U42-U44 SPAN 7-8 & 9-10

TEMP.	
DESIGN.	
SHOP.	
INSPE.	
PREP. BY	
DATE	
BY	
DATE	
BY	
DATE	

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. DEPT. PUBLIC WORKS
 RETAILER STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings of Rankin-Palmer Co.
 IN CHARGE BOSS MADE BY G.S.
 CHECKED BY AT. 2-10-31. TRAGED BY JER. 2/1/37
 REVISIONS LAST ASSEMB. N.C.

SHOP NO. CONTRACT CC 25873 SHEET 351
 R.C. T.B.C. 5-14-37

FOR PARTS TO THE RIGHT OF LINES X-X SEE SHEET 352



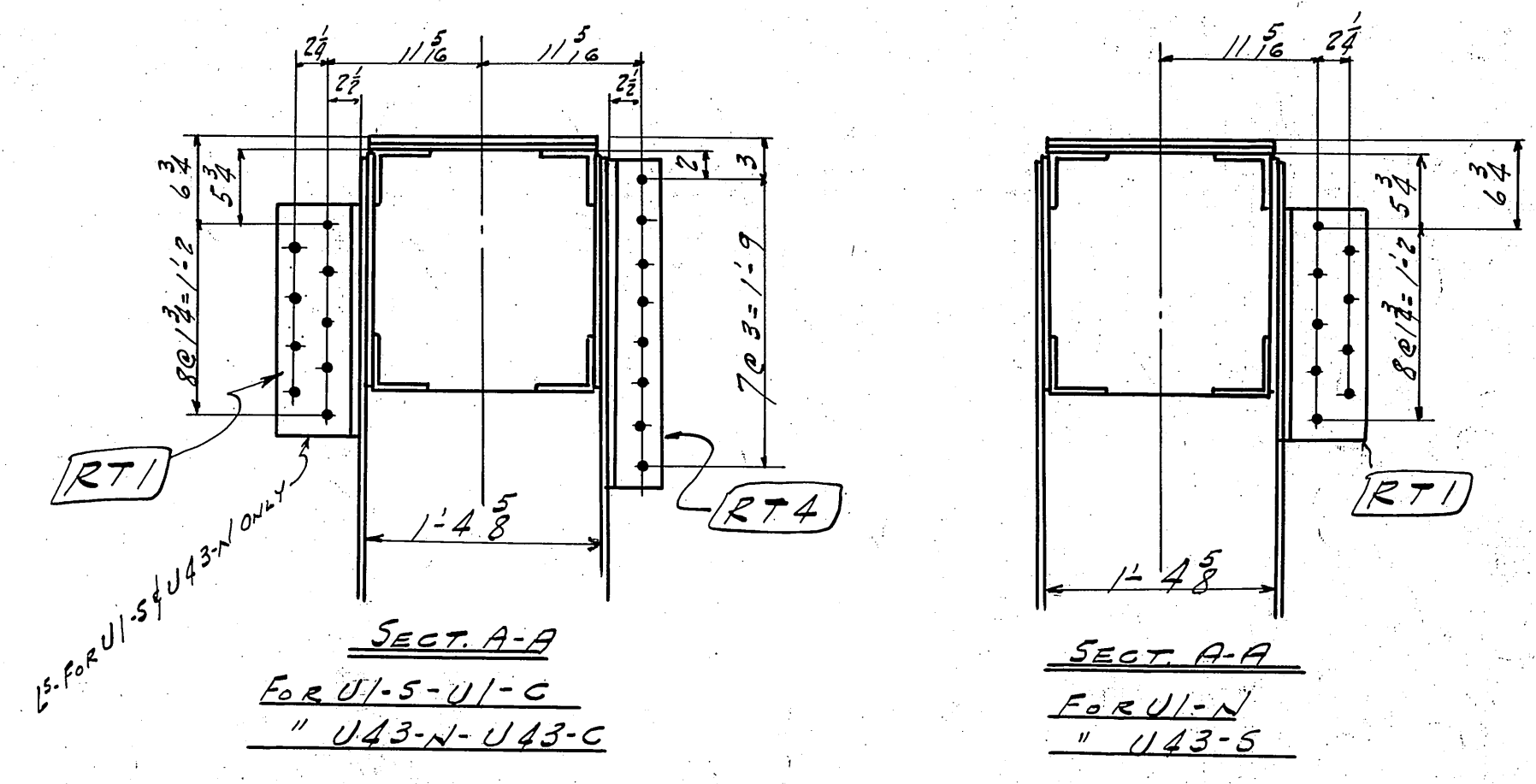
FOR PARTS TO THE LEFT OF LINE X-X
SEE SH. #351

- MAIN MAT'L**
- 1-Cov. Pl. 1/8 x 8 x 17'-9 1/2" - M.I.E.
 - 4-L 4 x 4 x 3/8 x 17'-9 1/2" - M.I.E.
 - 2-SIDE RS 17 x 8 x 1/2 x 17'-9 1/2" - M.I.E.
 - 2-SIDE RS 9 x 8 x 1/2 x 17'-9 1/2" - M.I.E. (U1-U2-U43-U44)

- TOP CHORD**
- Uo-U2-N
 - Uo-U2-C
 - Uo-U2-S

- TOP CHORD**
- U42-U44-N
 - U42-U44-C
 - U42-U44-S

- 2-SOL. RS 17 x 8 x 1/2 x 2'-0" - b/g (OUTSIDE)
- 2" " 15 x 8 x 1/2 x 1'-6" - b/g (INSIDE) - BOLT BACK FOR SHIM.
- 2" FILLS 15 x 8 x 1/2 x 1'-9" - b/g (") - M.I.E.



Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

- GENERAL NOTES:**
- RIVETS: 3/8"
 - OPEN HOLES: 1/8"
 - MATERIAL:** Carbon steel A.S.T.M. A7-34 with .24 copper content, except where noted. All holes may be punched full size except:
 - (a) All holes marked RF are to be subpunched 1/8" small and reamed to size to a metal templet.
 - (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 - (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 - (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 - SHEARED EDGES:** of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 - FLAME CUT EDGES:** of main material shall be planed or ground and present a smooth workmanlike appearance.
 - PAINT:** One coat of RED LEAD except where noted. Shop contact surfaces NOT painted.
 - Symbol:** Denotes break in stagger.

REQUIRED LIST			
No	DESCRIPTION	MARK	REMARKS
1	TOP CHORD SECTION	Uo-U2-N	
1	" " "	Uo-U2-C	
1	" " "	Uo-U2-S	
1	" " "	U42-U44-N	
1	" " "	U42-U44-C	
1	" " "	U42-U44-S	

Work THIS SHEET TOGETHER WITH SHEET #351

TOP CHORDS Uo-U2- U42-U44 SPAN 78'-9" - 10'

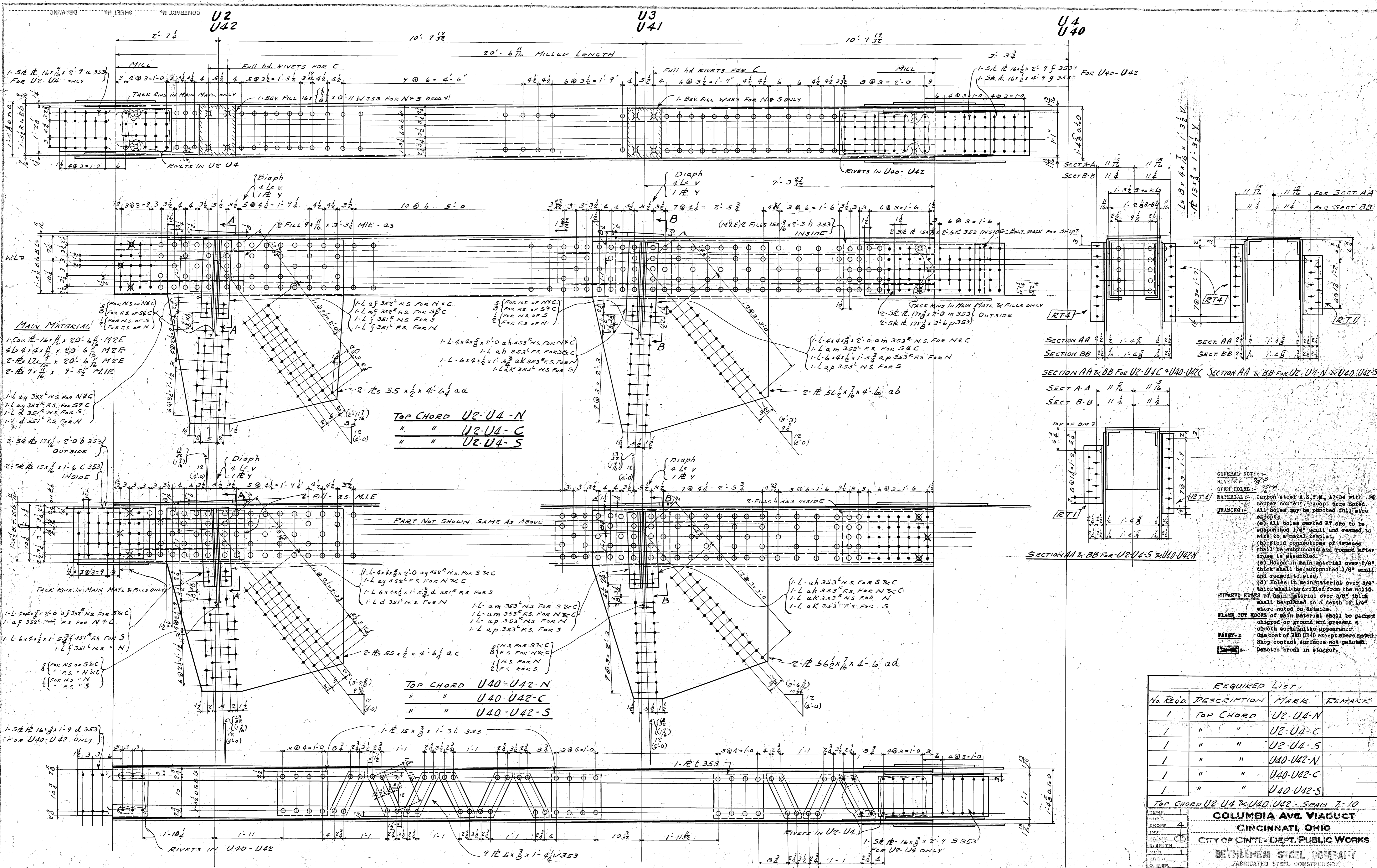
COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTL. - DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
Drawings at Rankin - Fabrication at

IN CHARGE: BARN... MADE BY: G.S.
CHECKED BY: AT. 1.17.37... TRACED BY: J.E.R. 2.2.37
REVISED: ... LAST ASSEM. WORK: ...

SHOP NO. 2... CONTRACT CG 25873... SHEET 352
P.C. TBC. 5-14-37

SHOP NOTE: SEPARATION BETWEEN FLOOR BRAM. CONN. IS MUST BE NOT LESS THAN NOTED



MAIN MATERIAL

1-Cor. 12-16 1/2 x 20-6 1/2 MZE
 4 Ls 4 x 4 1/2 x 20-6 1/2 MZE
 2-12s 17 x 10 x 20-6 1/2 MZE
 2-12s 9 x 10 x 9-5 1/2 M.I.E.

1-L 29 352⁴ NS FOR N&C
 1-L 29 352⁴ RS FOR S&C
 1-L 29 351⁴ NS FOR S
 1-L 29 351⁴ RS FOR N

2-5/8 17 1/2 x 2-0 353⁴
 OUTSIDE

2-5/8 15 x 1-6 C 353⁴
 INSIDE

1-L 4 x 4 1/2 x 2-0 352⁴ NS FOR S&C
 1-L 4 x 4 1/2 x 2-0 352⁴ RS FOR N&C

1-L 6 x 4 1/2 x 1-5 3/4 351⁴ RS FOR S
 1-L 6 x 4 1/2 x 1-5 3/4 351⁴ NS FOR N

5 (NS FOR S&C)
 8 (RS FOR N&C)
 1 (NS FOR N)
 2 (RS FOR S)

1-5/8 16 x 3 x 1-9 d 353⁴
 For U40-U42 ONLY

TOP CHORD U2-U4-N
 " " U2-U4-C
 " " U2-U4-S

TOP CHORD U40-U42-N
 " " U40-U42-C
 " " U40-U42-S

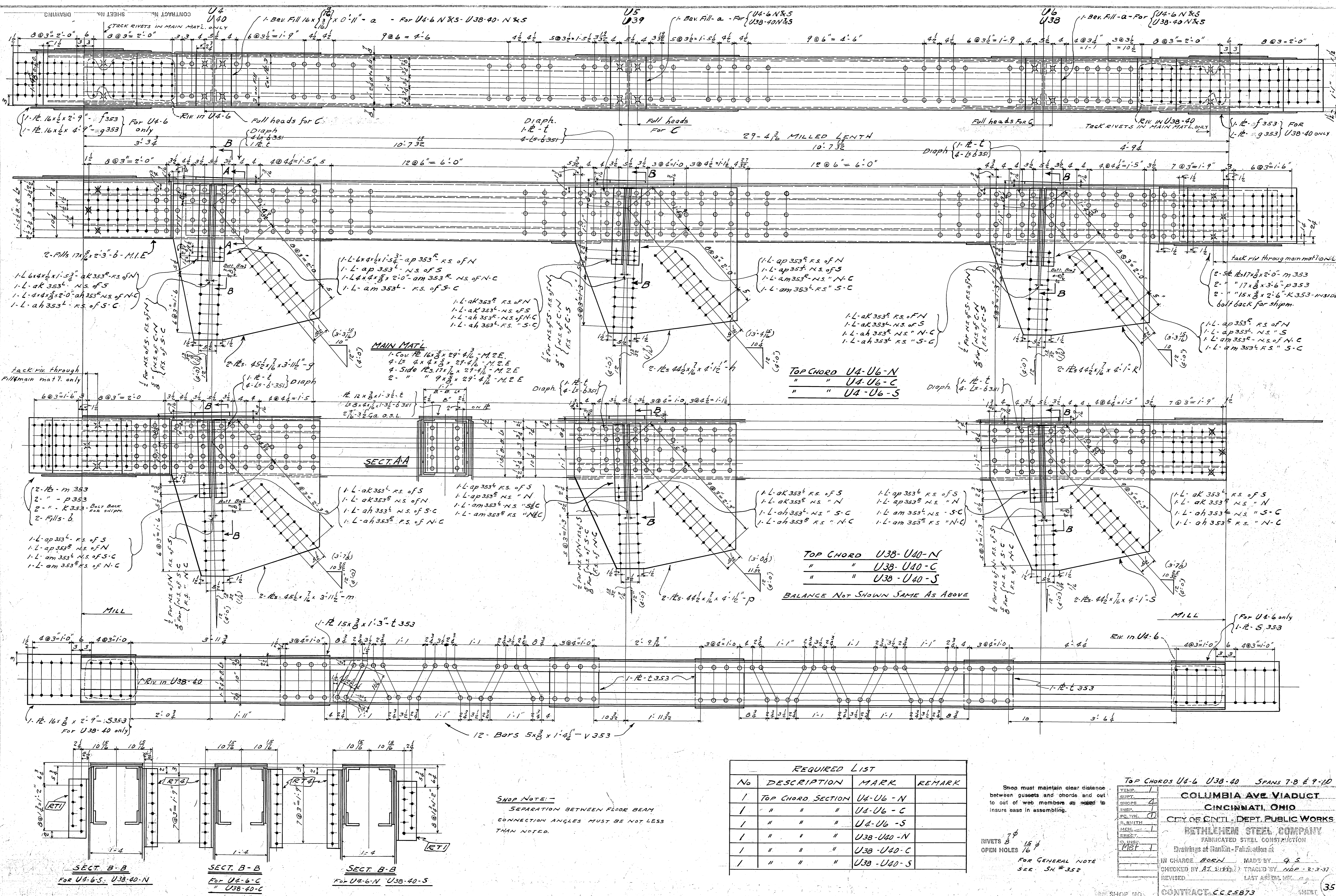
SHOP NOTE-
 SEPARATION BETWEEN FLOOR BEAM CONNECTION
 ANGLES MUST BE NOT LESS THAN NOTED.

Shop must maintain clear distance
 between gussets and chords and out
 to put of web members as noted to
 insure ease in assembling.

- GENERAL NOTES**-
 RIVETS: 1/2"
 OPEN HOLES: 1/8"
MATERIAL- Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted.
FRAMING- All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 6/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/8" thick shall be drilled from the solid.
STRAIGHT EDGES of main material over 1/8" thick shall be planed to a depth of 1/8" where noted on details.
FLAME CUT EDGES of main material shall be planed chipped or ground and present a smooth workmanlike appearance.
PAINT- One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 - denotes break in stagger.

REQUIRED LIST			
No. Req'd	DESCRIPTION	MARK	REMARK
1	TOP CHORD	U2-U4-N	
1	"	U2-U4-C	
1	"	U2-U4-S	
1	"	U40-U42-N	
1	"	U40-U42-C	
1	"	U40-U42-S	

TOP CHORD U2-U4 & U40-U42 - SPAN 7-10
COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin-Fabritation Co.
 IN CHARGE: BARN MADE BY: JKL 1-23-37
 CHECKED BY: AT 2-18-37 TRACED BY: MDR 1-2-37
 REVISED: LAST ASSEM. MK.



SHOP NOTE:
 SEPARATION BETWEEN FLOOR BEAM CONNECTION ANGLES MUST BE NOT LESS THAN NOTED.

REQUIRED LIST			
No	DESCRIPTION	MARK	REMARK
1	TOP CHORD SECTION	U4-U6-N	
1	" "	U4-U6-C	
1	" "	U4-U6-S	
1	" "	U38-U40-N	
1	" "	U38-U40-C	
1	" "	U38-U40-S	

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

RIVETS 7/8" 15/16" OPEN HOLES 1/8"

FOR GENERAL NOTE SEE SH #352

TOP CHORDS U4-6 U38-40 SPANS 7-8 & 9-10

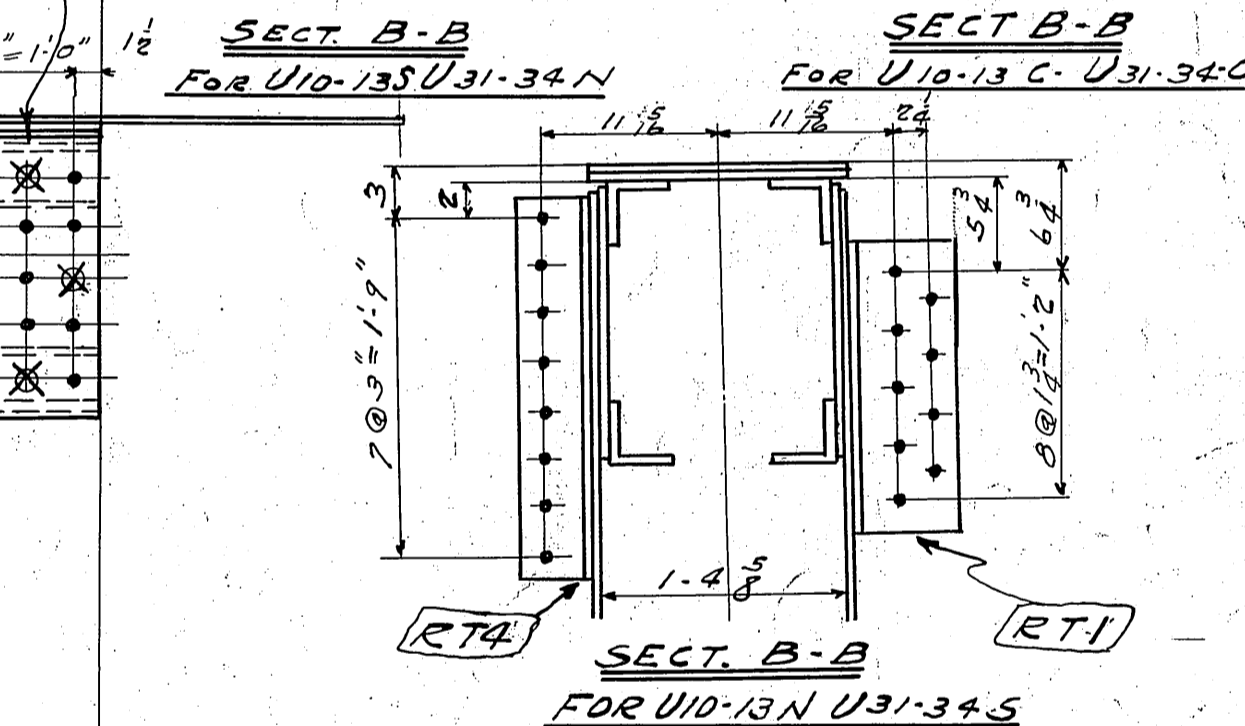
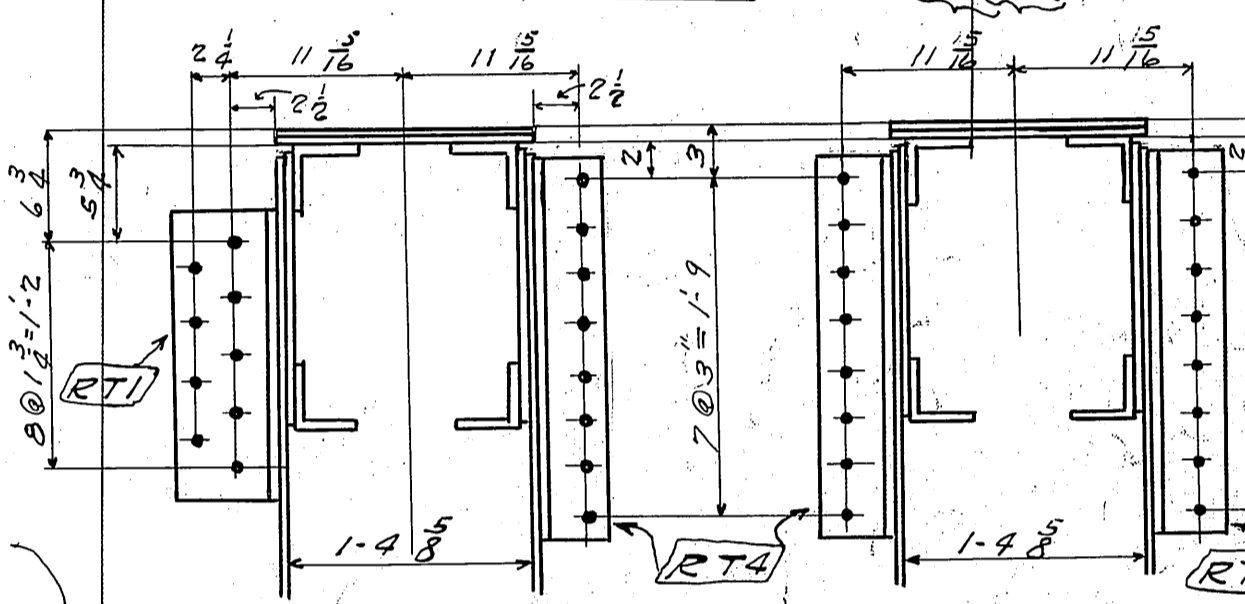
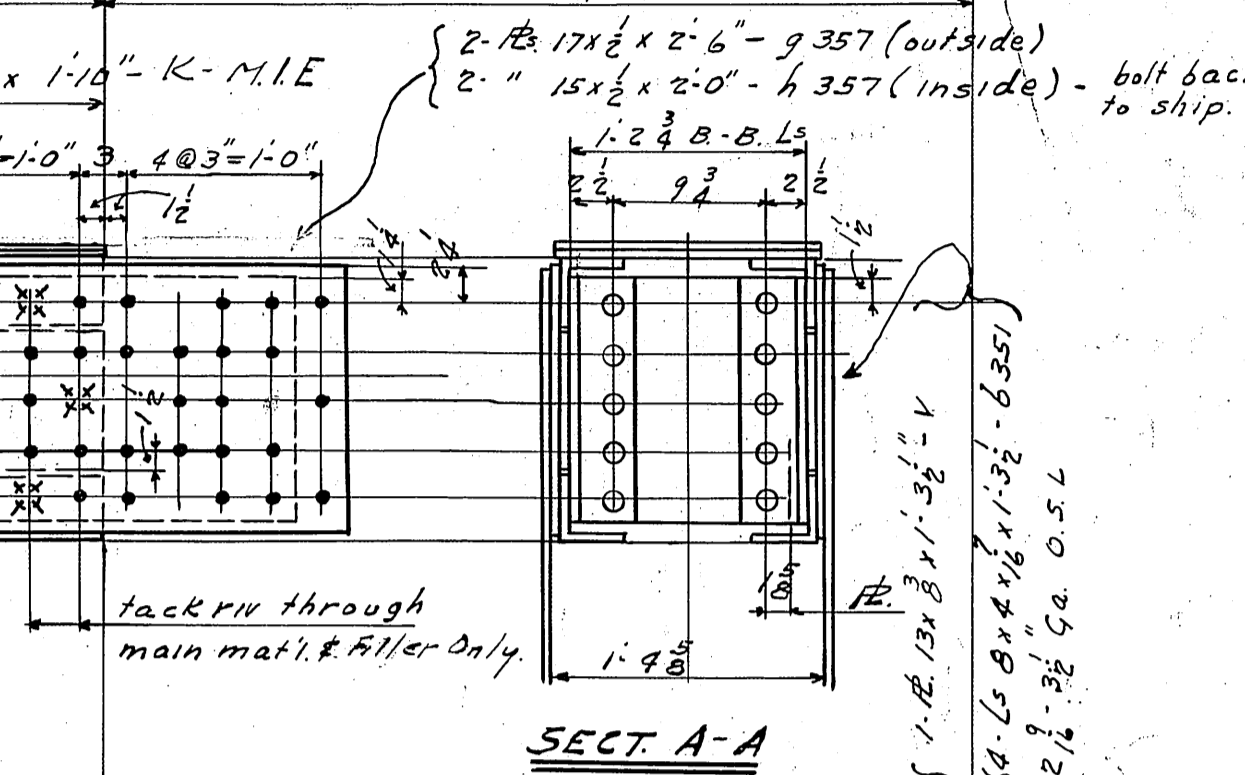
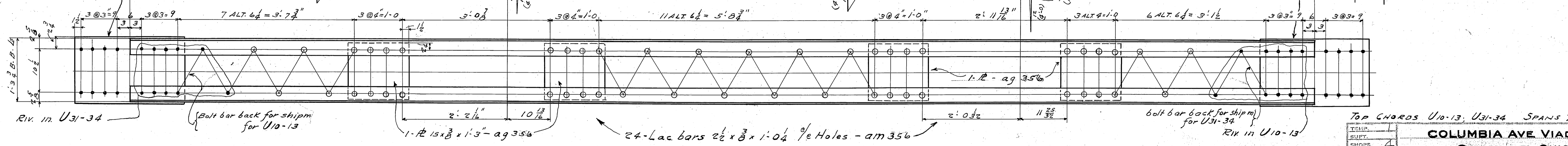
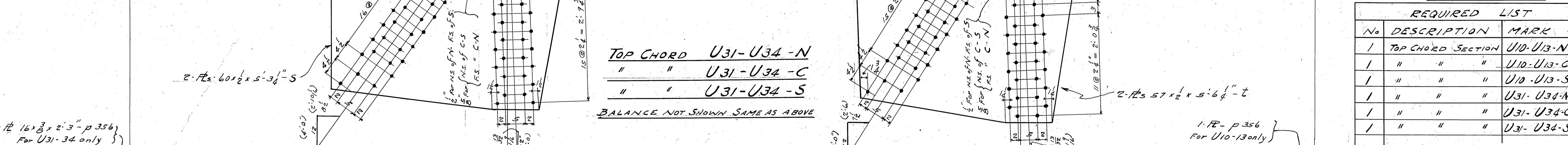
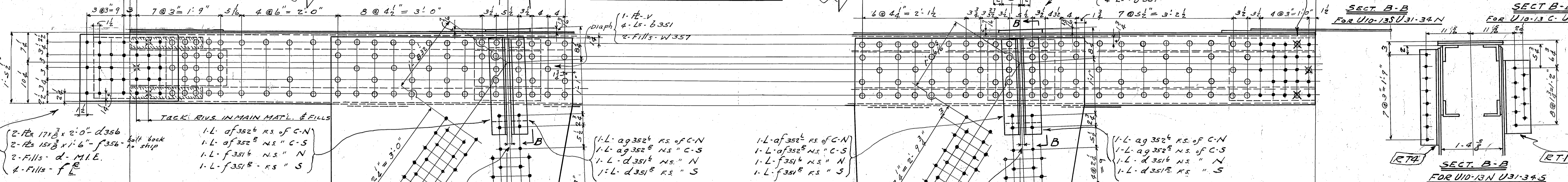
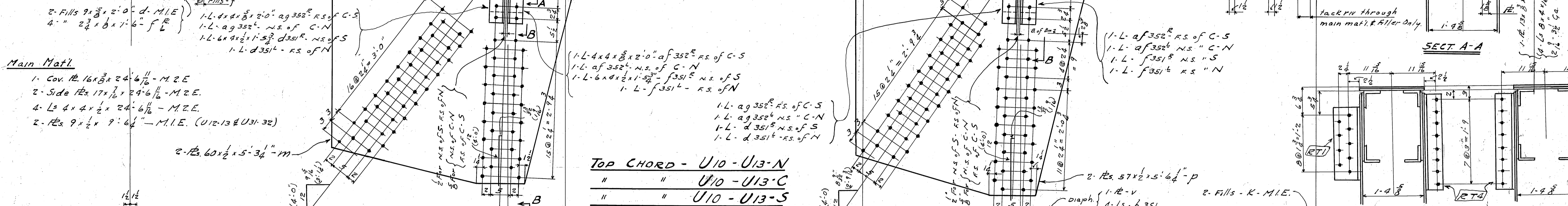
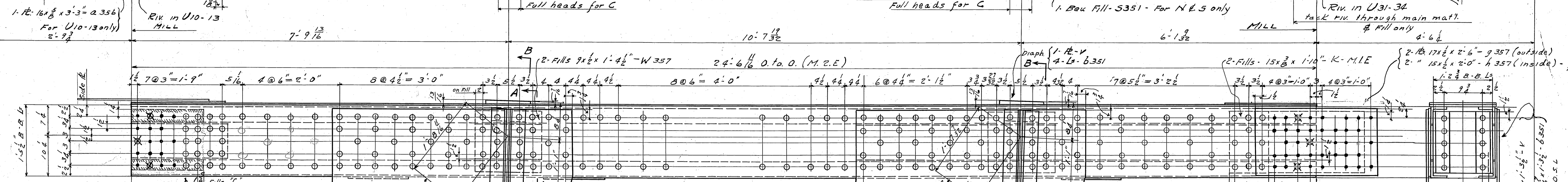
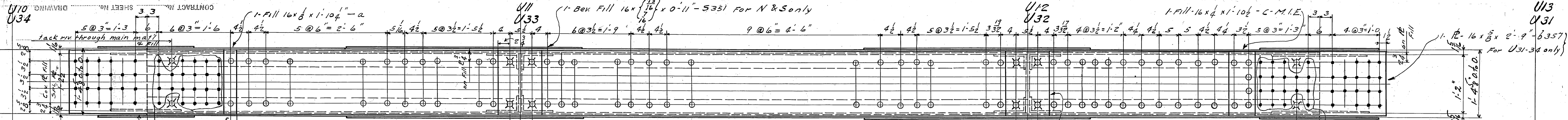
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTL. DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION

Drawings at Rankin - Fabrication at

IN CHARGE BORN MADE BY 9-5
 CHECKED BY A.T. (10/27) TRACED BY N.B. 2-7-37
 REVISED LAST ASSEMBLY

SHOP NO. CONTRACT C.C. 25873 SHEET 354
 F.C. TBC 5-1437 15-9-10



REQUIRED LIST			
No	DESCRIPTION	MARK	REMARK
1	TOP CHORD SECTION	U10-U13-N	
1	" "	U10-U13-C	
1	" "	U10-U13-S	
1	" "	U31-U34-N	
1	" "	U31-U34-C	
1	" "	U31-U34-S	

SHOP NOTE:-
SEPARATION BETWEEN FLOOR BEAM CONNECTION ANGLES MUST BE NOT LESS THAN NOTED.

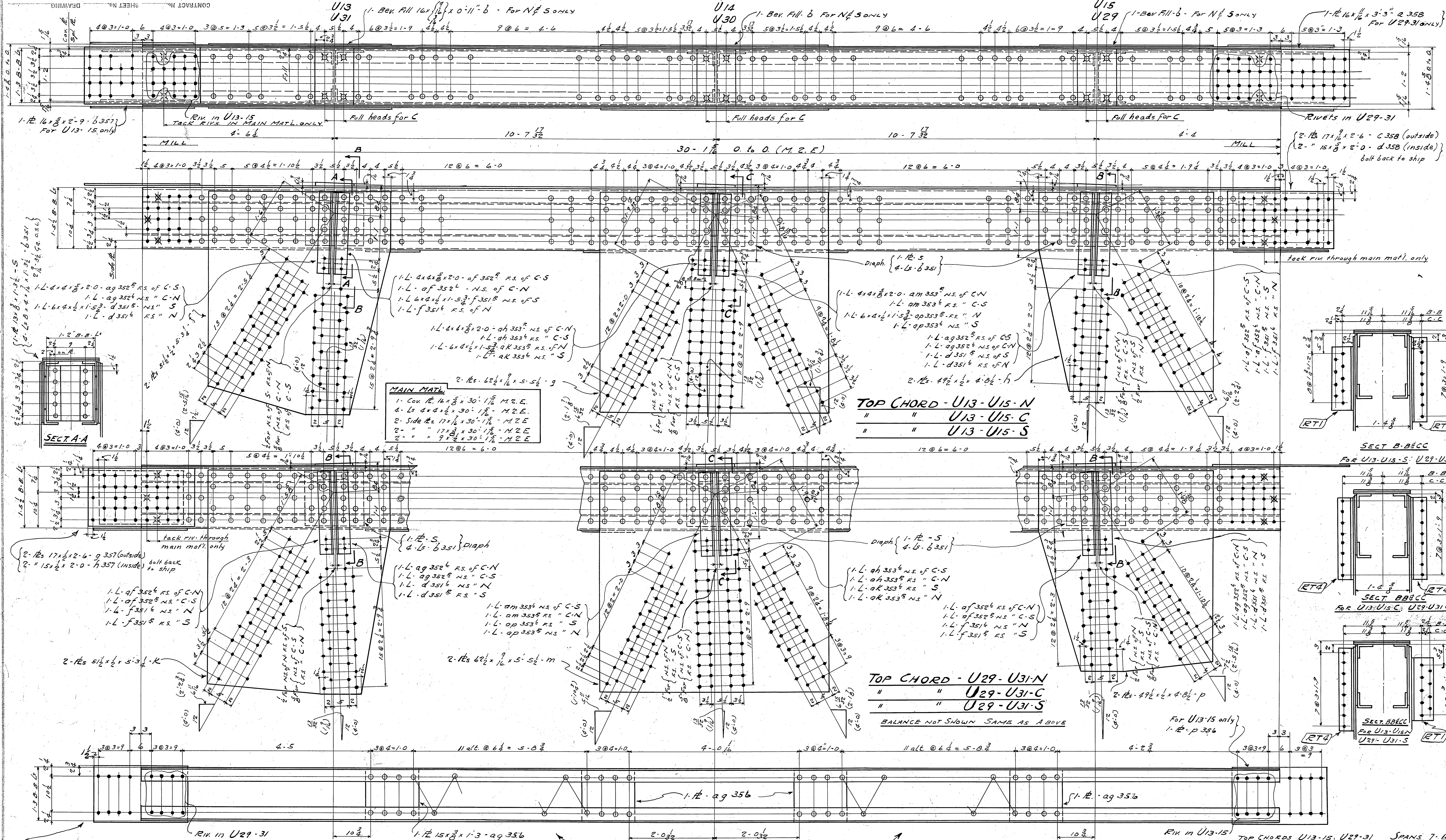
Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.
RIVETS 7/8"
OPEN HOLES 1/8"

TOP CHORDS U10-13, U31-34 SPANS 7-B# 9-10

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTL. DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION

Drawings at Plan: Fabrication at
IN CHARGE: BORN MADE BY: G.S.
CHECKED BY: AT. J. (4.37) TRACED BY: NDR. 2.9.37
REUSED: LAST ASSET. MK.



SHOP NOTE:-
SEPARATION BETWEEN FLOOR BEAM CONNECTION ANGLES MUST BE NOT LESS THAN NOTED.

REQUIRED LIST			
No	DESCRIPTION	MARK	REMARK
1	TOP CHORD SECTION	U13-U15-N	
1	" "	U13-U15-C	
1	" "	U13-U15-S	
1	" "	U29-U31-N	
1	" "	U29-U31-C	
1	" "	U29-U31-S	

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

RIVETS 7/8
OPEN HOLES 1/8 φ

FOR GENERAL NOTE SEE SHEET # 355

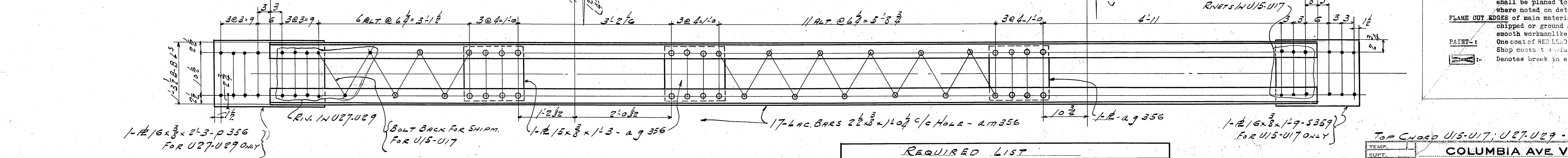
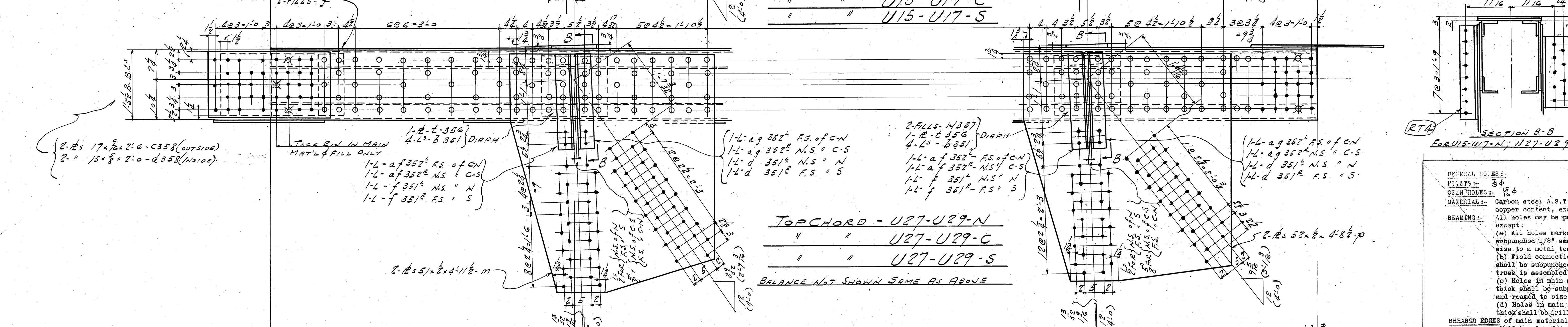
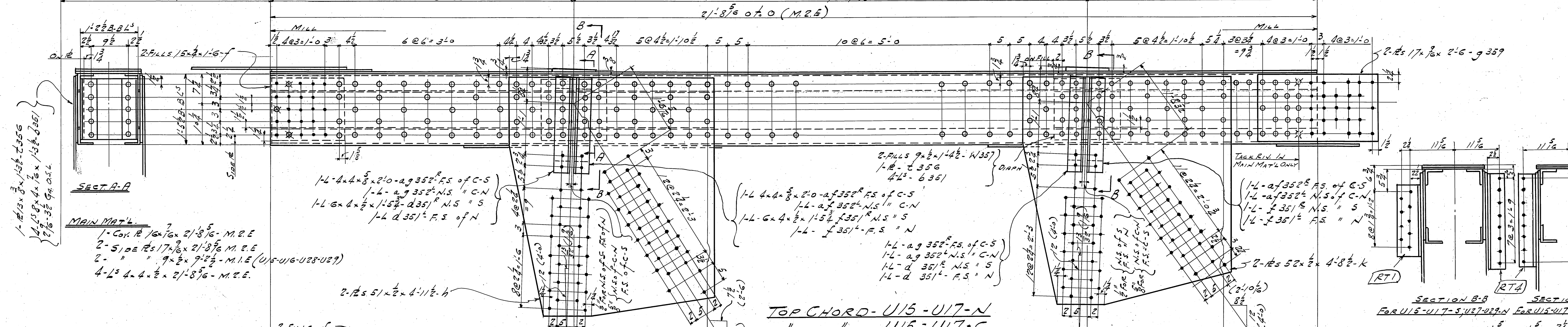
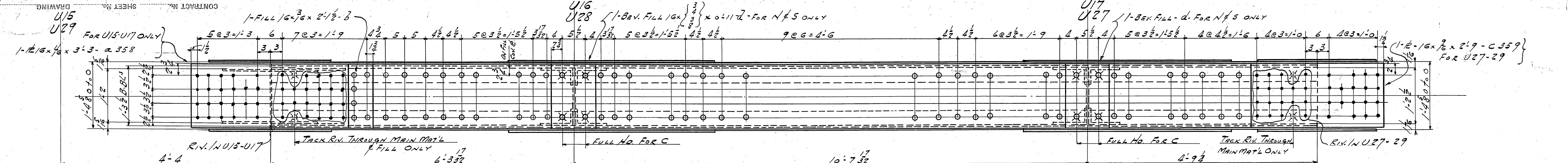
TEMP. SHOP 4
INSP. 0
DES. WK. 0
H. BMITT
MCH.
ELEC.
CANTY
M/C

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTI. DEPT. PUBLIC WORKS

DETLEWEN STEEL COMPANY
FABRICATED STEEL CONSTRUCTION

Drawings at Rankin - Fabrication at
IN CHARGE BARN MADE BY C.S.
CHECKED BY AT. 2.11.31 TRACED BY N.P. 2.10.31
REVISED LAST ASSEM. BOK

SHOP NO. CONTRACT CC 25873 SHEET 35
F.C. TBC 5-14-37 15-9-14



REQUIRED LIST

No.	DESCRIPTION	MARK	REMARK
1	TOP CHORD SECTION	U15-U17-N	
1	"	U15-U17-C	
1	"	U15-U17-S	
1	"	U27-U29-N	
1	"	U27-U29-C	
1	"	U27-U29-S	

Shop Note
Separation between Floor Beam Connection Angles Must be Not Less Than Noted.

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

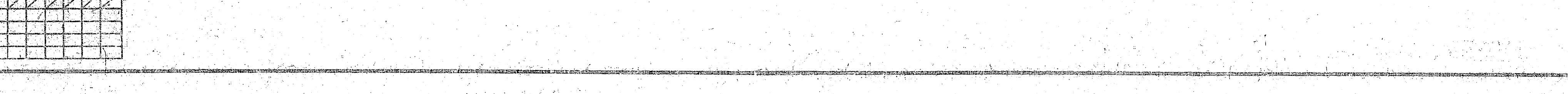
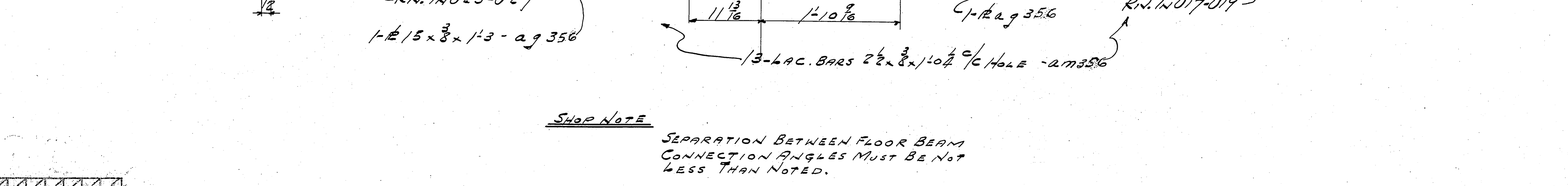
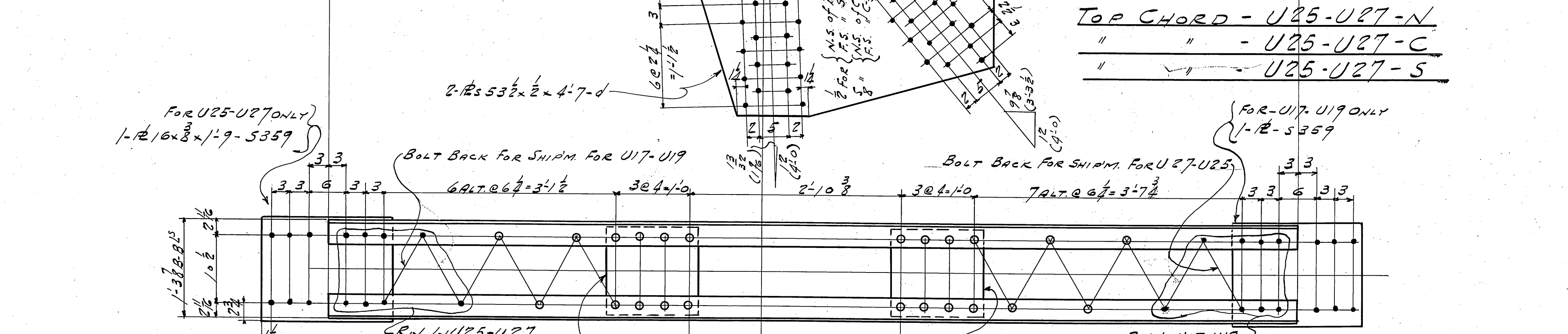
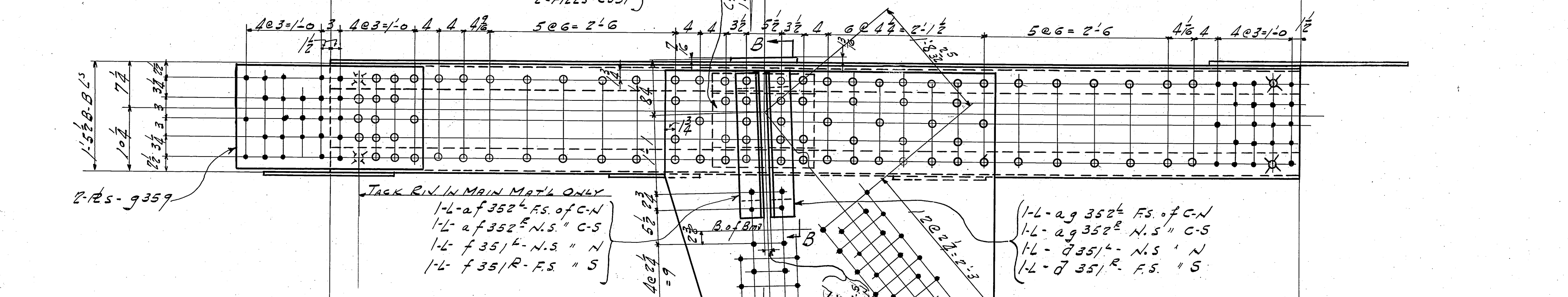
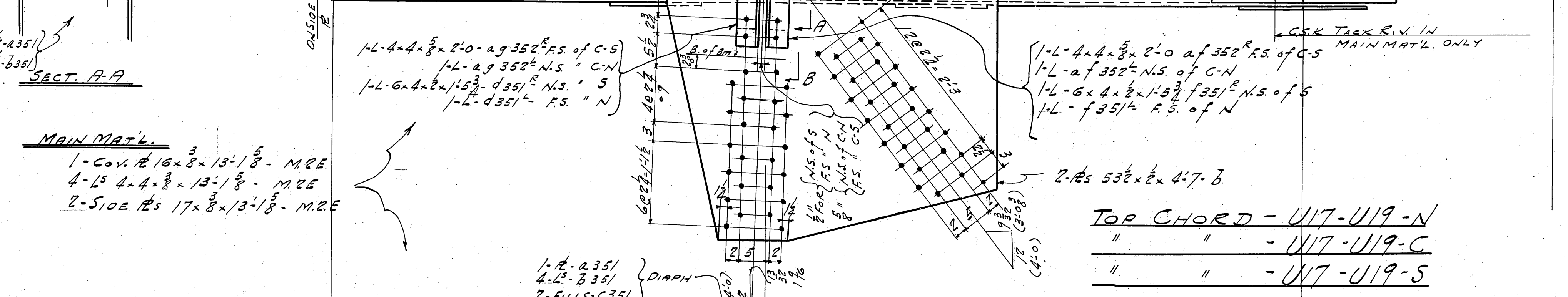
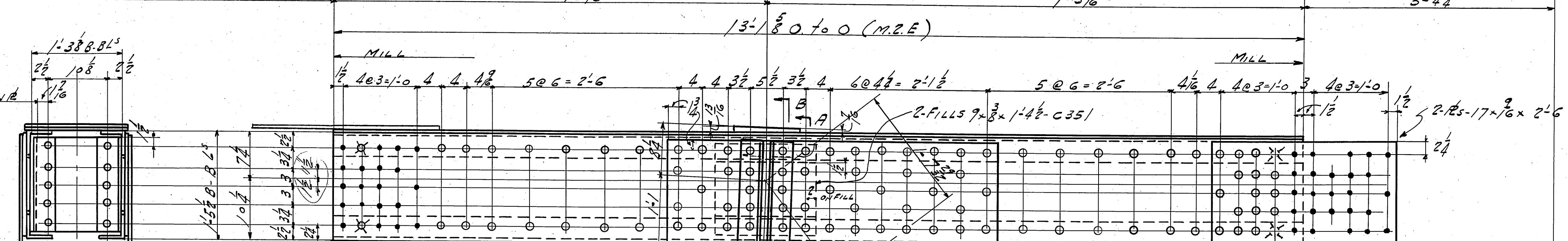
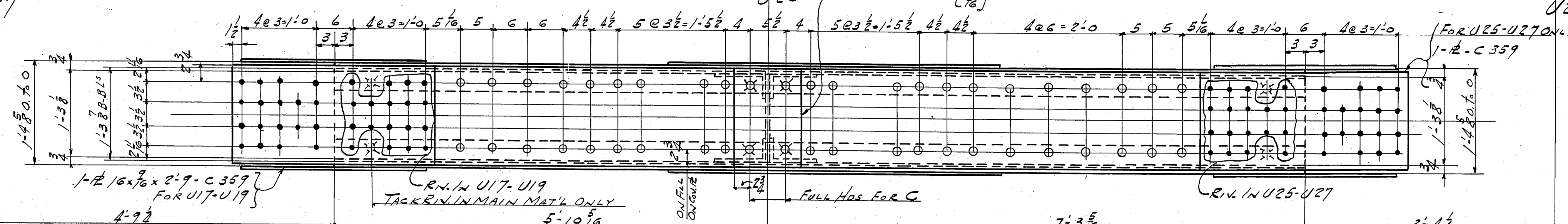
GENERAL NOTES:
 HOLE: 8 1/4
 OPEN HOLES: 1/8
 MATERIAL: Carbon steel A.S.T.M. A7-34, 516, 56 copper content, except where noted.
 BRACING: All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 1/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the inside.
 SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 FLAME CUT EDGES of main material shall be planed chipped or ground and present a smooth workmanlike appearance.
 PAINT: One coat of RED OXIDIZING PRIMER where noted. Shop coats & surfaces not painted.
 Denotes break in structure.

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTI. - DEPT PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at
 IN CHARGE: BOEN MADE BY: G.S.
 CHECKED BY: A.T. 2-22-31 TRACED BY: J.E.P. 2-10-37
 REVISED: LAST ASSEMB. MK.
 SHOP NO. CONTRACT C.C. 25873 SHEET 359
 F.C. T.B.C. 5/4/37 15-9-15

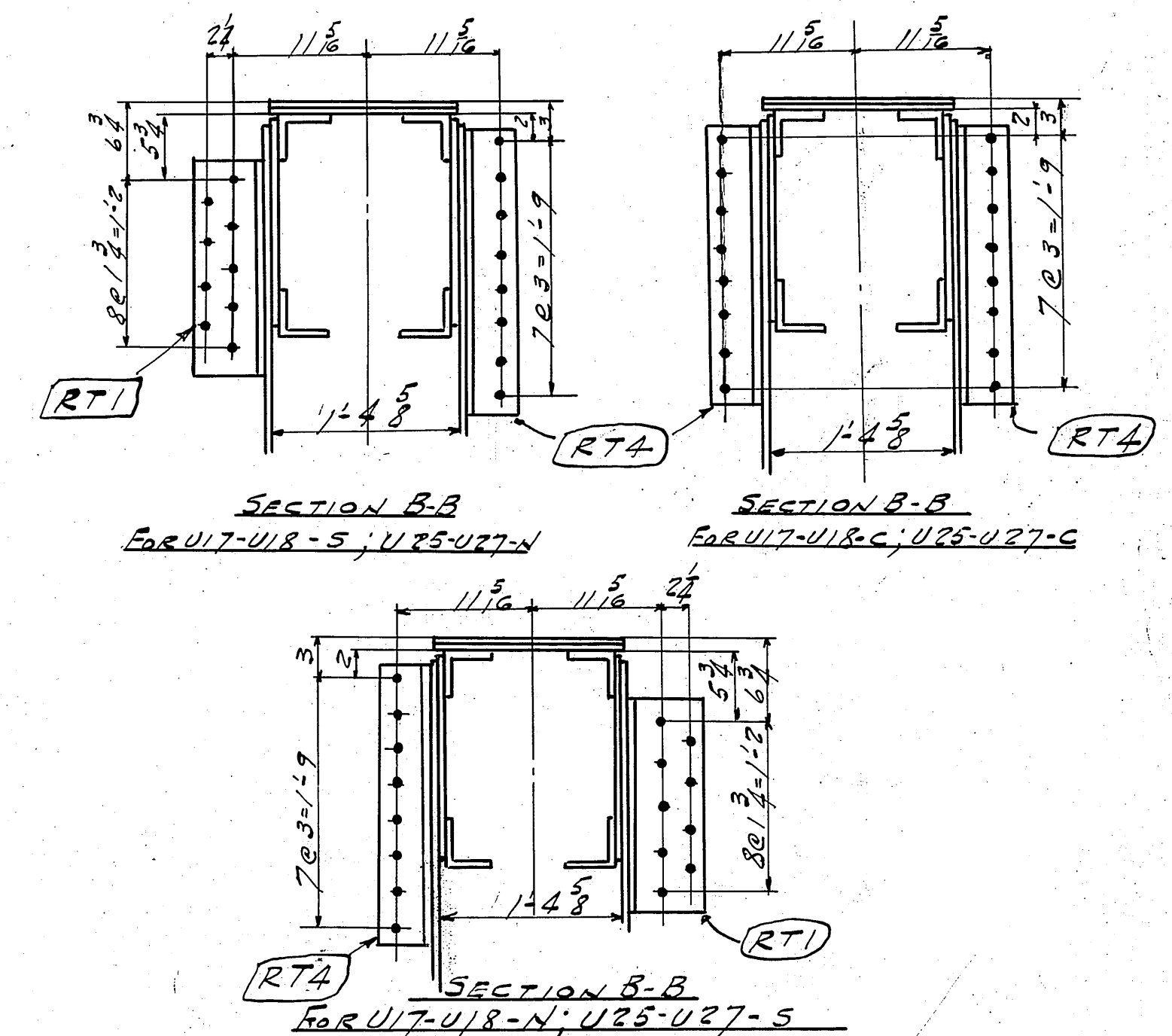
U17
U27

U18
U26

U19
U25



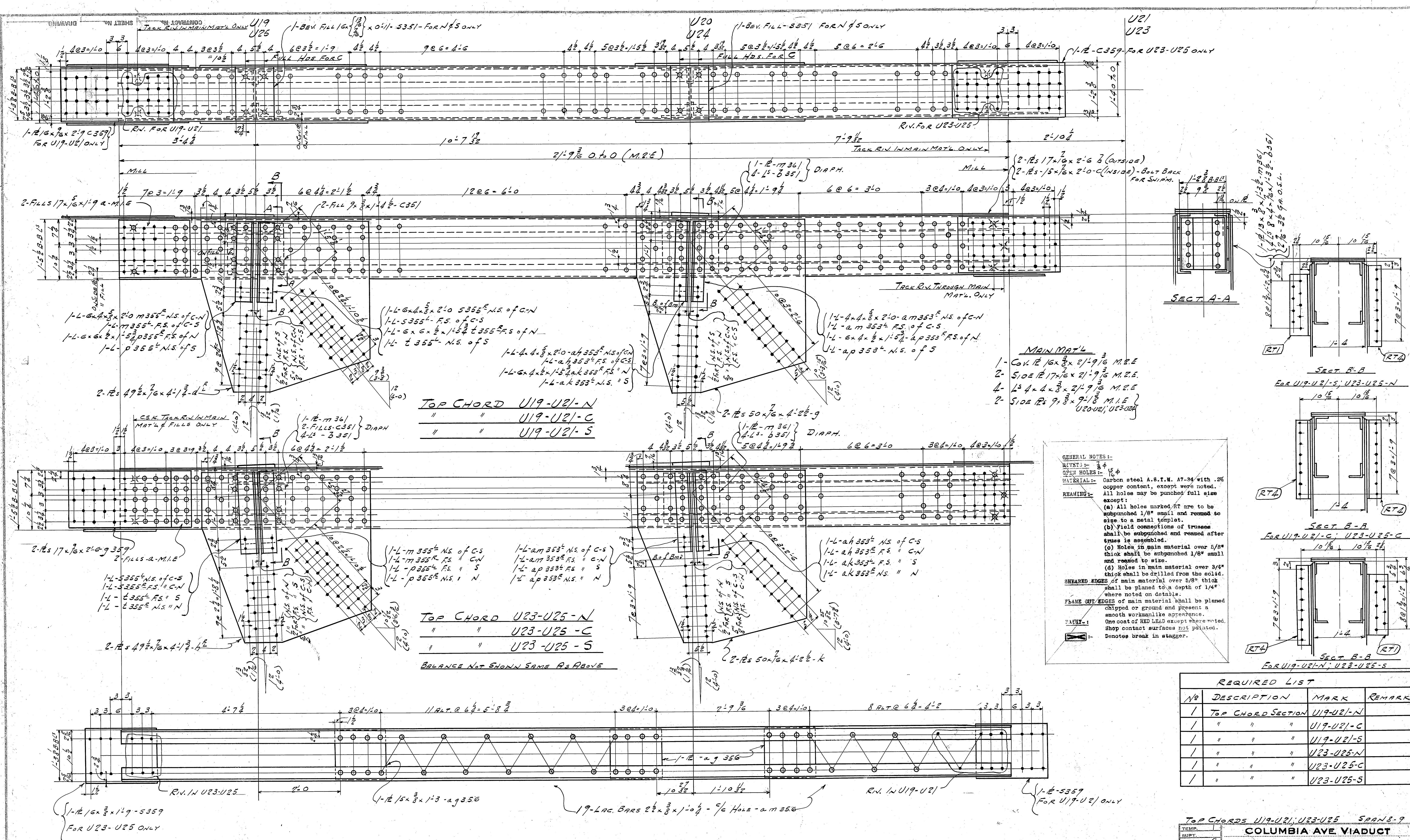
SHOP NOTE
SEPARATION BETWEEN FLOOR BEAM
CONNECTION ANGLES MUST BE NOT
LESS THAN NOTED.



GENERAL NOTES:-
BOLTS:- 3/4"
OPEN HOLES:- 1/8"
MATERIAL:- Carbon steel A.S.T.M. A7-34 with .05% copper content, except where noted. All holes may be punched full size except:
(a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
(b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
(c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
(d) Holes in main material over 2 3/4" thick shall be drilled from the solid. Holes shall be planned to a depth of 1/4" where noted on details.
FLAME CUT EDGES of main material shall be planed, clipped or ground and present a smooth workmanlike appearance.
PAINT:- One coat of RED LEAD EXCEPT where noted. Shop contact surfaces not painted. Denotes break in stagger.
Shop must maintain clear distance between gussets and chords and out to cut of web members as noted to insure ease in assembling.

REQUIRED LIST			
No	DESCRIPTION	MARK	REMARKS
1	TOP CHORD SECTION U17-U19-N		
1	" " " U17-U19-C		
1	" " " U17-U19-S		
1	" " " U25-U27-N		
1	" " " U25-U27-C		
1	" " " U25-U27-S		

TOP CHORDS U17-U19, U25-U27 SPAN 8-9
TEMP. SHOP NO. 4
COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTL. - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
Drawings at Rankin - Fabrication at
IN CHARGE BORN MADE BY G.S.
CHECKED BY A.T. 1-2-37 TRACED BY J.A.P. 2-11-37
REVISED. LAST ASSEM. W.K.
SHOP NO. CONTRACT CC 25873 SHEET 360
P.C. 180 0/1/487



- MAIN MAT'L**
- 1- Cov. 12 1/2 x 1/2 x 2 1/2 355 M.R.E.
 - 2- Side 12 1/2 x 1/2 x 2 1/2 355 M.R.E.
 - 4- L 4 x 4 x 3/8 x 2 1/2 355 M.R.E.
 - 2- Side 12 1/2 x 1/2 x 2 1/2 355 M.R.E.

GENERAL NOTES:

RYST: 1/8" ϕ

OPEN HOLES: 1/8" ϕ

MATERIAL: Carbon steel A.S.T.M. A7-34 with 2% copper content, except where noted. All holes may be punched full size except:

REAMING:

(a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.

(b) Field connections of trusses shall be subpunched and reamed after truss is assembled.

(c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.

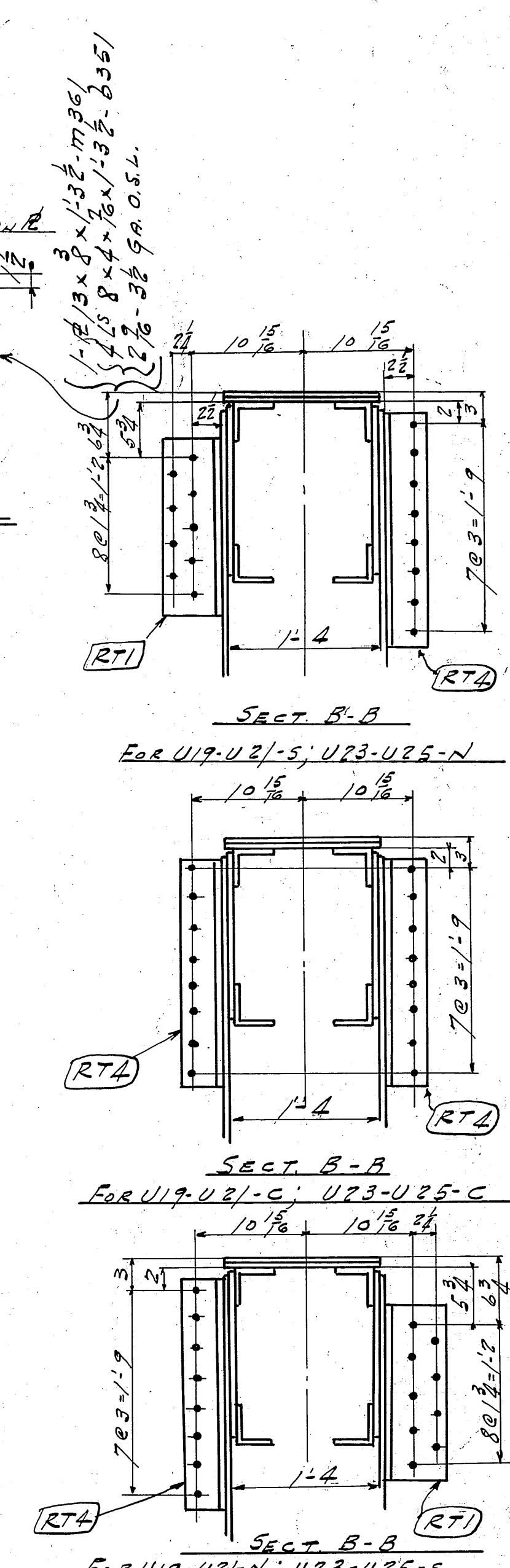
(d) Holes in main material over 3/4" thick shall be drilled from the solid.

SHARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.

FLAME CUT EDGES of main material shall be planed chipped or ground and present a smooth workmanlike appearance.

PATIN: One coat of RED LEAD except where noted. Shop contact surfaces not painted.

---|--- Denotes break in stagger.



REQUIRED LIST

No	DESCRIPTION	MARK	REMARK
1	TOP CHORD SECTION	U19-U21-N	
1	" "	U19-U21-C	
1	" "	U19-U21-S	
1	" "	U23-U25-N	
1	" "	U23-U25-C	
1	" "	U23-U25-S	

SHOP NOTE

SEPARATION BETWEEN FLOOR BEAM CONNECTION ANGLES MUST BE NOT LESS THAN NOTED.

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

TOP CHORDS U19-U21; U23-U25 SPAN 8-9

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO

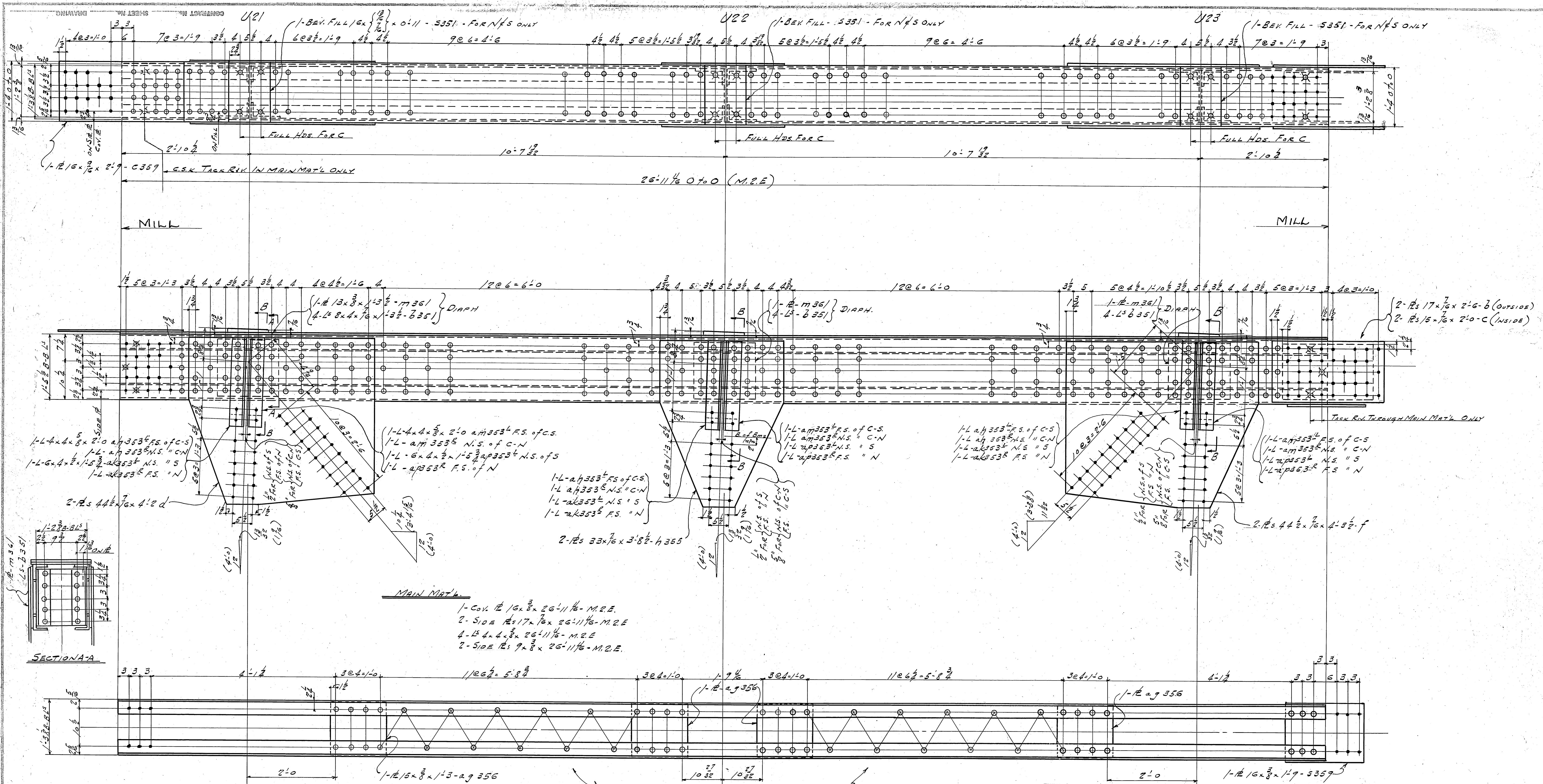
CITY OF CINT. - DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION

Drawings at Rankin - Fabrication at

IN CHARGE: *Boysen* MADE BY: *G.S.*
CHECKED BY: *A.T. 22222* TRACED BY: *J.E.P. 212-37*
REVISED: LAST ASSEM. MK.

SHOP NO. **CONTRACT CC 25873** SHEET **361**
FC. TBC 5/14/37 **15-9-17**



GENERAL NOTES:
 RIVETS - 5/8"
 OPEN HOLES - 3/8"
MATERIAL: Carbon steel A.S.T.M. A7-34 with .05% copper content, except where noted.
FINISH: All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES of main material shall be planed, clipped or ground and present a smooth workmanlike appearance.
PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 [Symbol] - Denotes break in stagger.

REQUIRED LIST			
No	DESCRIPTION	MARK	REMARK
1	TOP CHORD SECTION U21-U23-N		
1	" " " U21-U23-C		
1	" " " U21-U23-S		

TOP CHORDS U21-U23 SPANS 8-9

TEMP. SHOP 4

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO

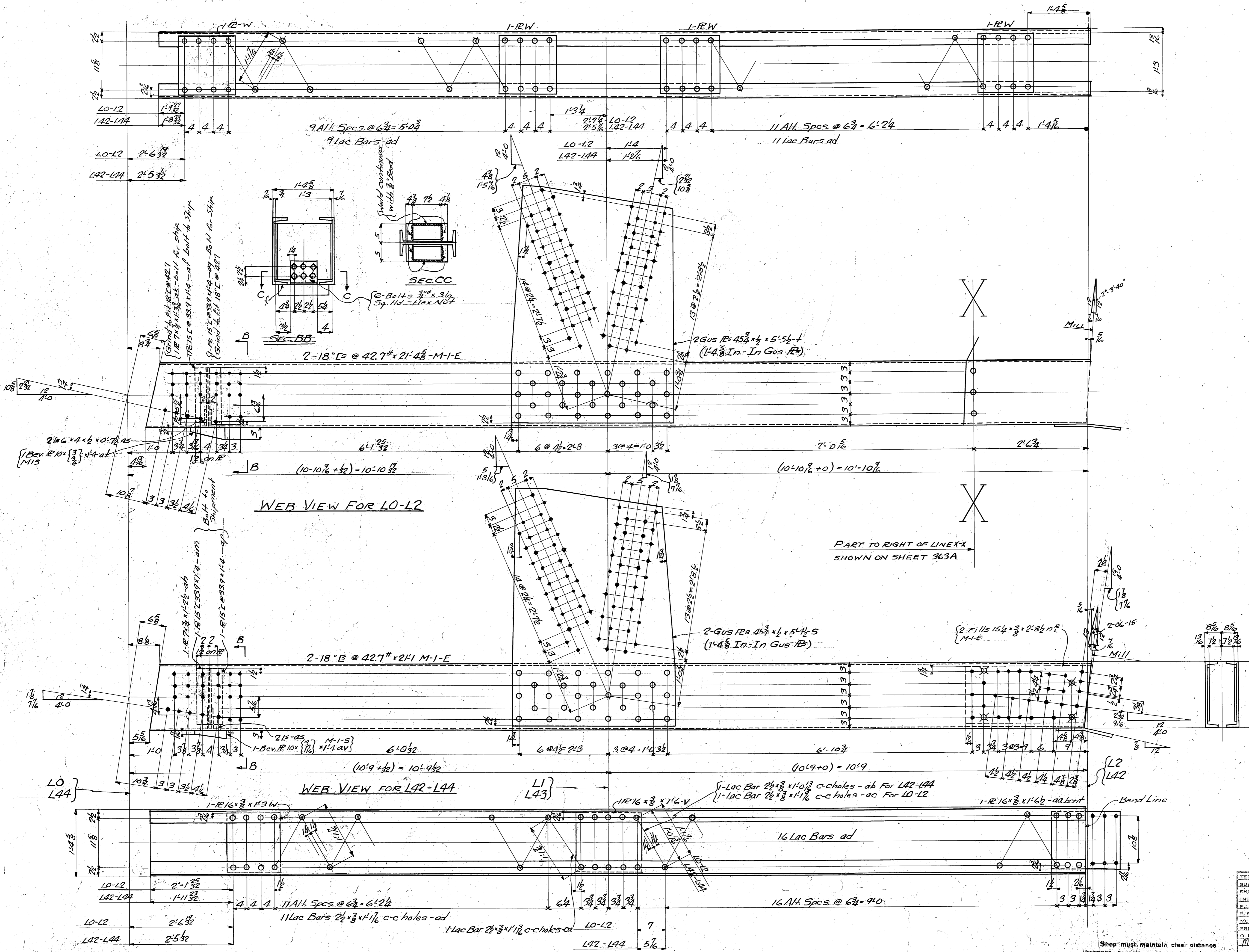
CITY OF CINTI. DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION

Drawing at Fabricator's Fabrication at

IN CHARGE B.R.D. MADE BY G.S.
 CHECKED BY A.T. (A.T. 2-15-37) TRACED BY J.E.R. 2-15-37
 REVISED. LAST ASSEM. MK.

SHOP NO. **CONTRACT C.C.25875** SHEET **362**
 P.C. 780. 5/14/37 15-9-18



GENERAL NOTES:

1. MATERIAL: Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted.

2. ALL HOLES: All holes may be punched full size except:

(a) All holes marked RT are to be subpunched 1/8" small and rounded to size to a metal toolset.

(b) Field connections of trusses shall be subpunched and rounded after truss is assembled.

(c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and rounded to size.

(d) Holes in main material over 3/4" thick shall be drilled from the field. Holes in main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.

3. PLANE CUT EDGES: Edges of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.

4. PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.

5. Break in stagger: Denotes break in stagger.

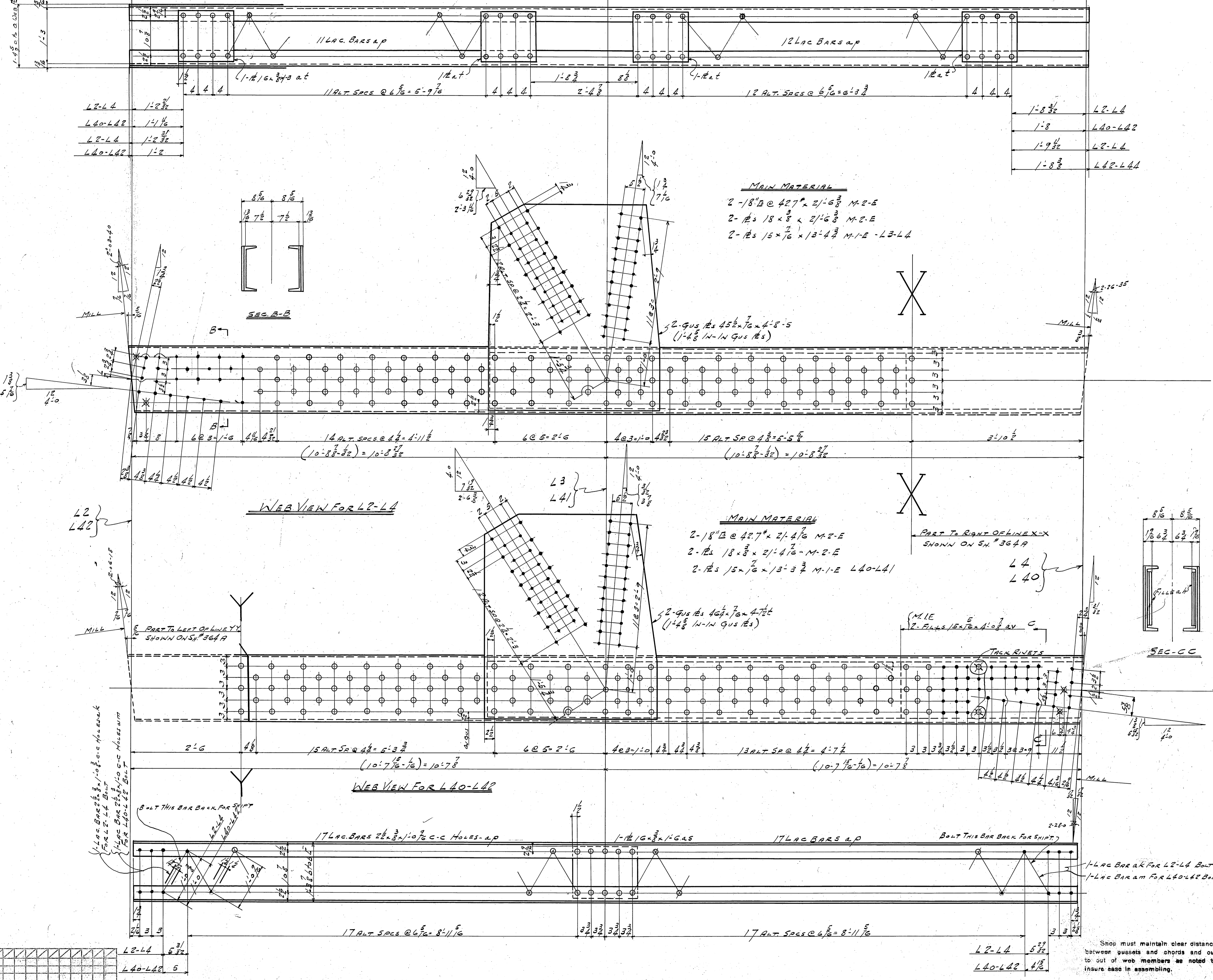
REQUIRED LIST			
No Req'd	MARK	DESCRIPTION	REMARKS
1	L0-L2N	Bottom Chord	
1	L0-L2C	do	do
1	L0-L2S	do	do
1	L42-L44N	do	do
1	L42-L44C	do	do
1	L42-L44S	do	do

WORK THIS SHEET WITH SH 363A
SPANS 7 TO 10
BOTTOM CHORDS L0-L2 & L42-L44

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTL - DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
Drawings at Hamilton - Fabrication at

IN CHARGE: BORN MADE BY: J.R.M.
CHECKED BY: A.T. TRACED BY: G.A.W. 2-1-37
REVISION: LAST ASSEMBLY



MAIN MATERIAL
 2 - 18" B @ 42.7" x 2' - 6 3/8" M-2-E
 2 - 18" x 3/8" x 2' - 6 3/8" M-2-E
 2 - 15 x 7/16 x 13' - 4 3/4" M-1-E - L2-L4

MAIN MATERIAL
 2 - 18" B @ 42.7" x 2' - 4 1/16" M-2-E
 2 - 18" x 3/8" x 2' - 4 1/16" M-2-E
 2 - 15 x 7/16 x 13' - 3 3/4" M-1-E L40-L41

GENERAL NOTES
 RIVETS - 3/8"
 OPEN HOLES - 1/8"
MATERIAL - Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal temple.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
SHARP EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
PLANE CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
PAINT - 1. One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 2. Denotes break in stagger.

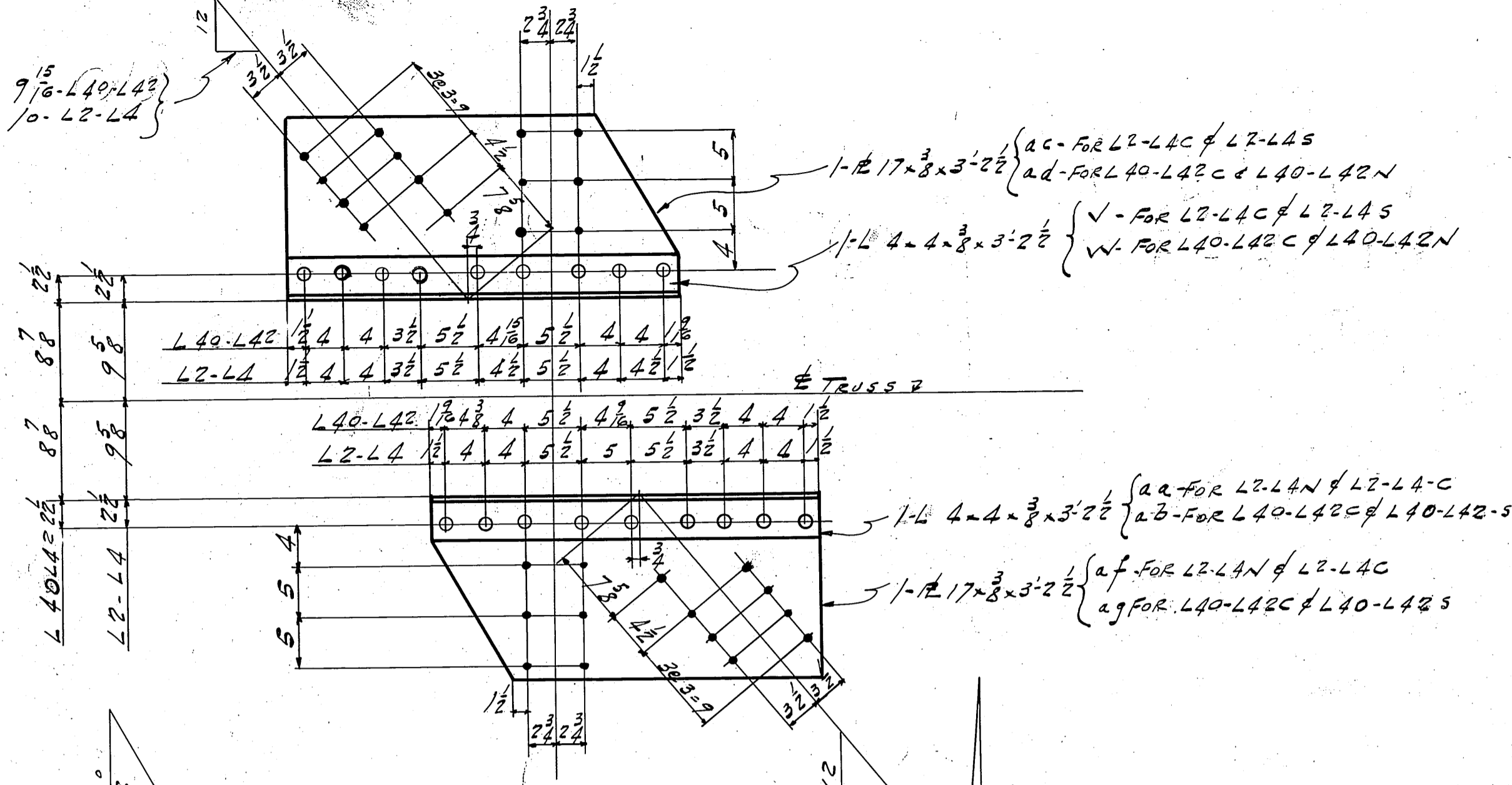
REQUIRED LIST			
No.	REQ'D MARK	DESCRIPTION	REMARKS
1	L2-L4N	BOTTOM CHORD	
1	L2-L4C	D. D.	
1	L2-L4S	D. D.	
1	L40-L42N	D. D.	
1	L40-L42C	D. D.	
1	L40-L42S	D. D.	

WORK THIS SHEET WITH SHEET # 364 A

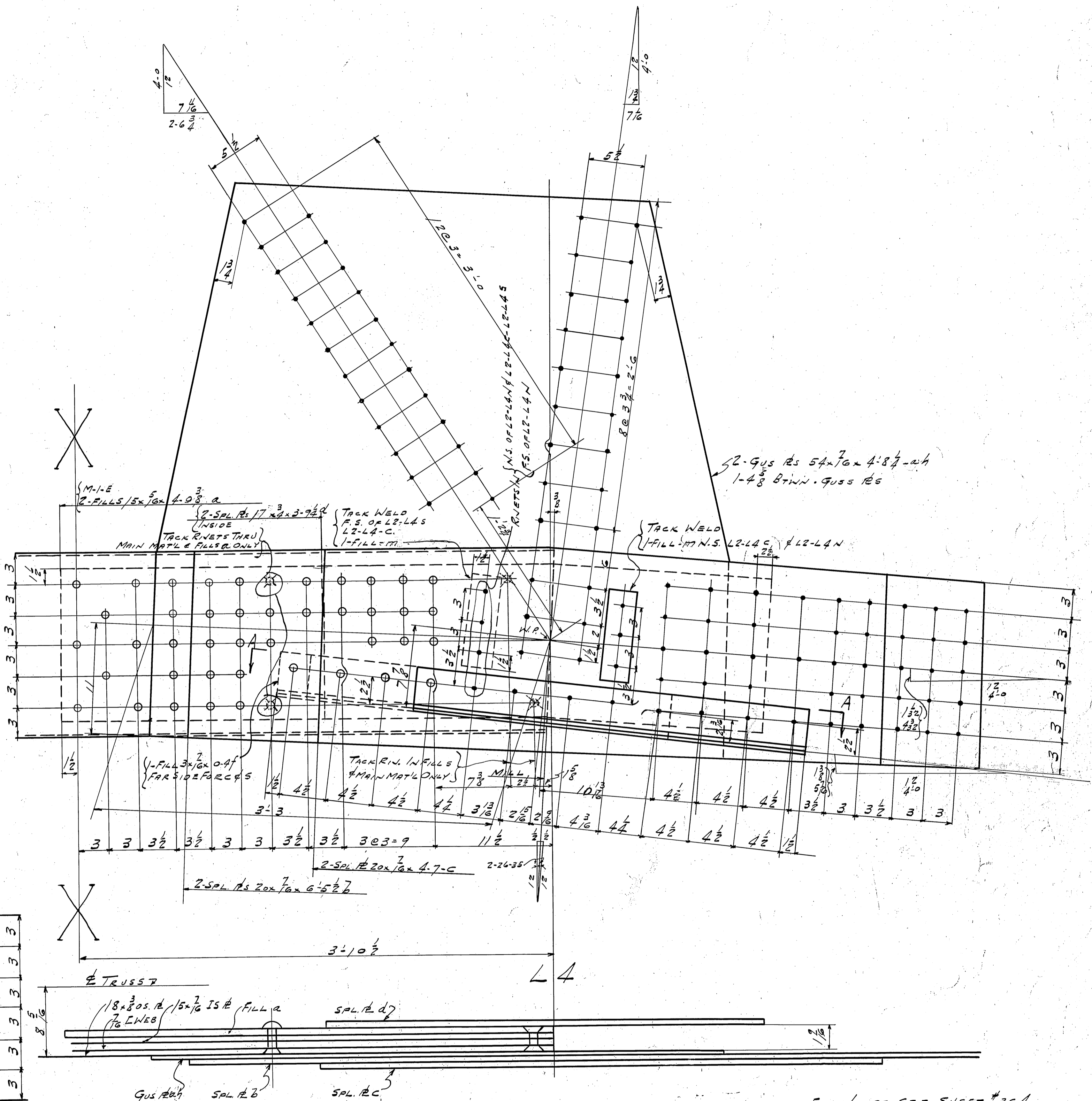
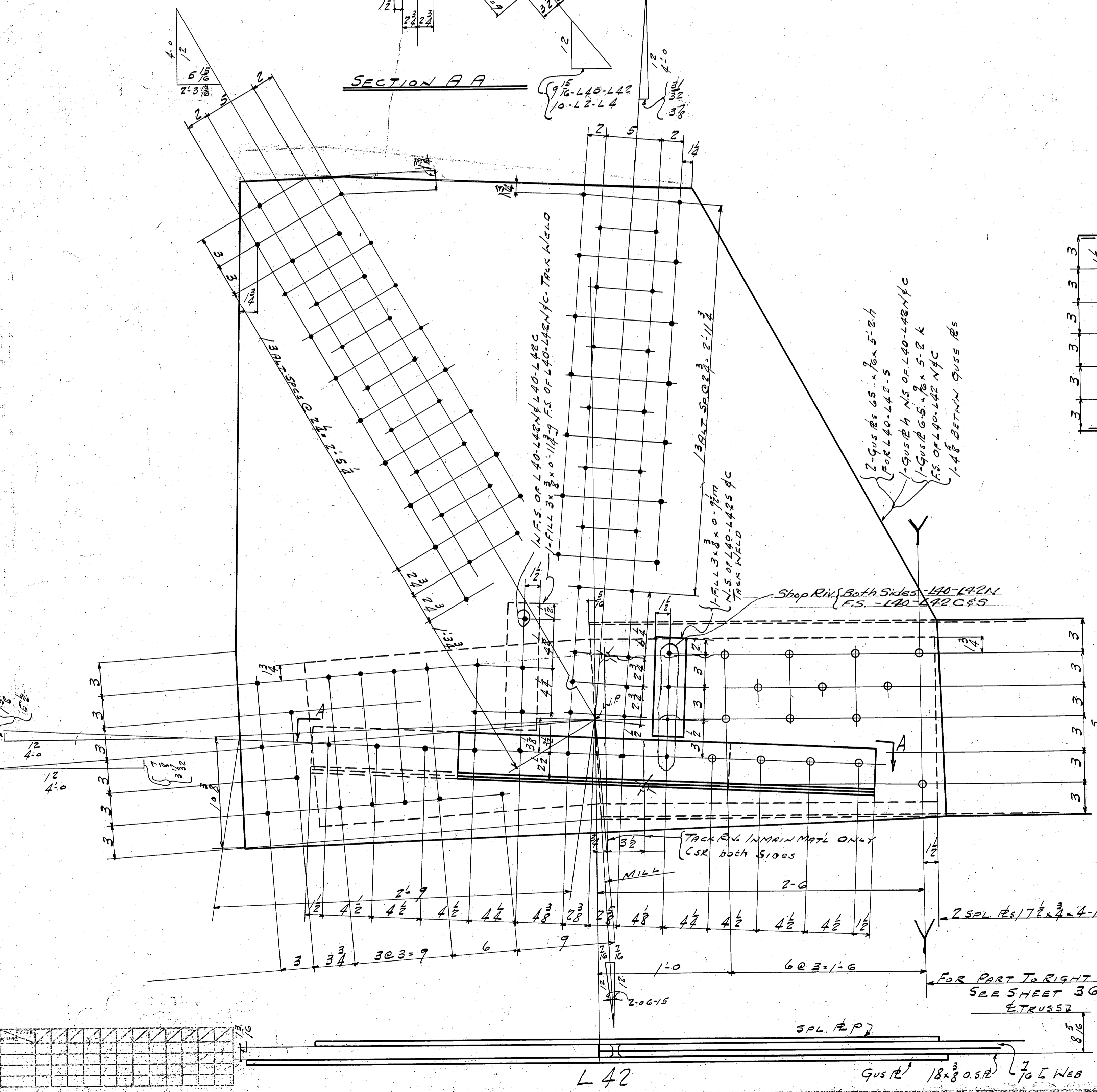
BOTTOM CHORDS L2-L4 L40-L42 (SPAN 7-10)

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabricated
 IN CHARGE BARN MADE BY J.R.M.
 CHECKED BY A.L.P. TRACED BY J.L.P. 2-16-37
 REVISED BY L.A. JOHNSON, M.K. AV.

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.



SECTION A-A



FOR NOTES SEE SHEET #364
 FOR REQUIRED LIST SEE SH #364
 WORK THIS SHEET WITH SH #364
 L4-L42 (SPAN 7 TO 10)

Shop must maintain clear distance
 between gussets and chords and out
 to out of web members as noted to
 insure ease in assembling.

RIVETS 3/4"
 OPEN HOLES 1/8"
 BEAM
 MILLING
 PAINT

TEMP	
SHOP	
INSPE	
PG. W.K.	
E. SMITH	
MCH	
ERECT	
O. INSP	
M. L.	

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at

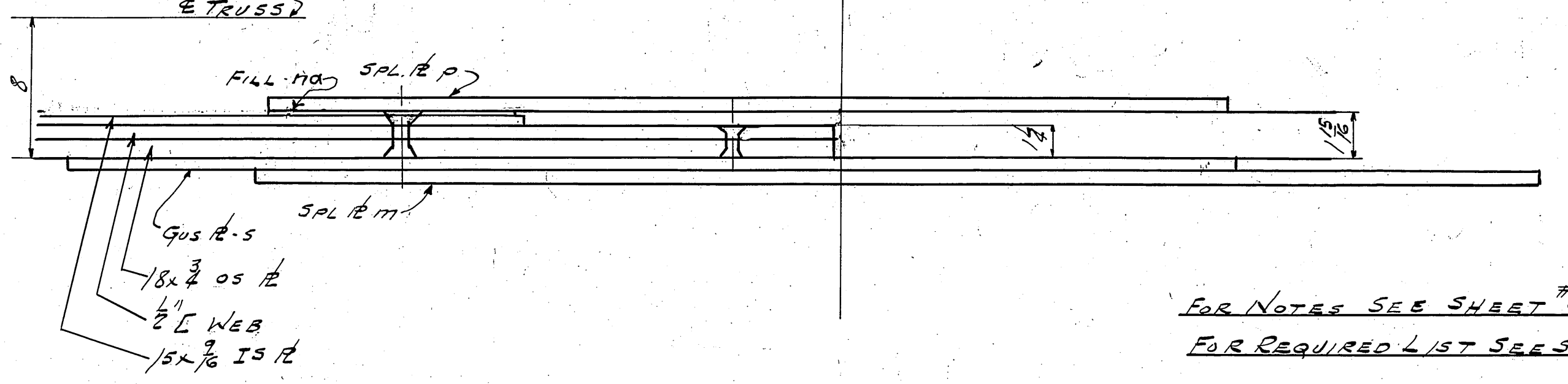
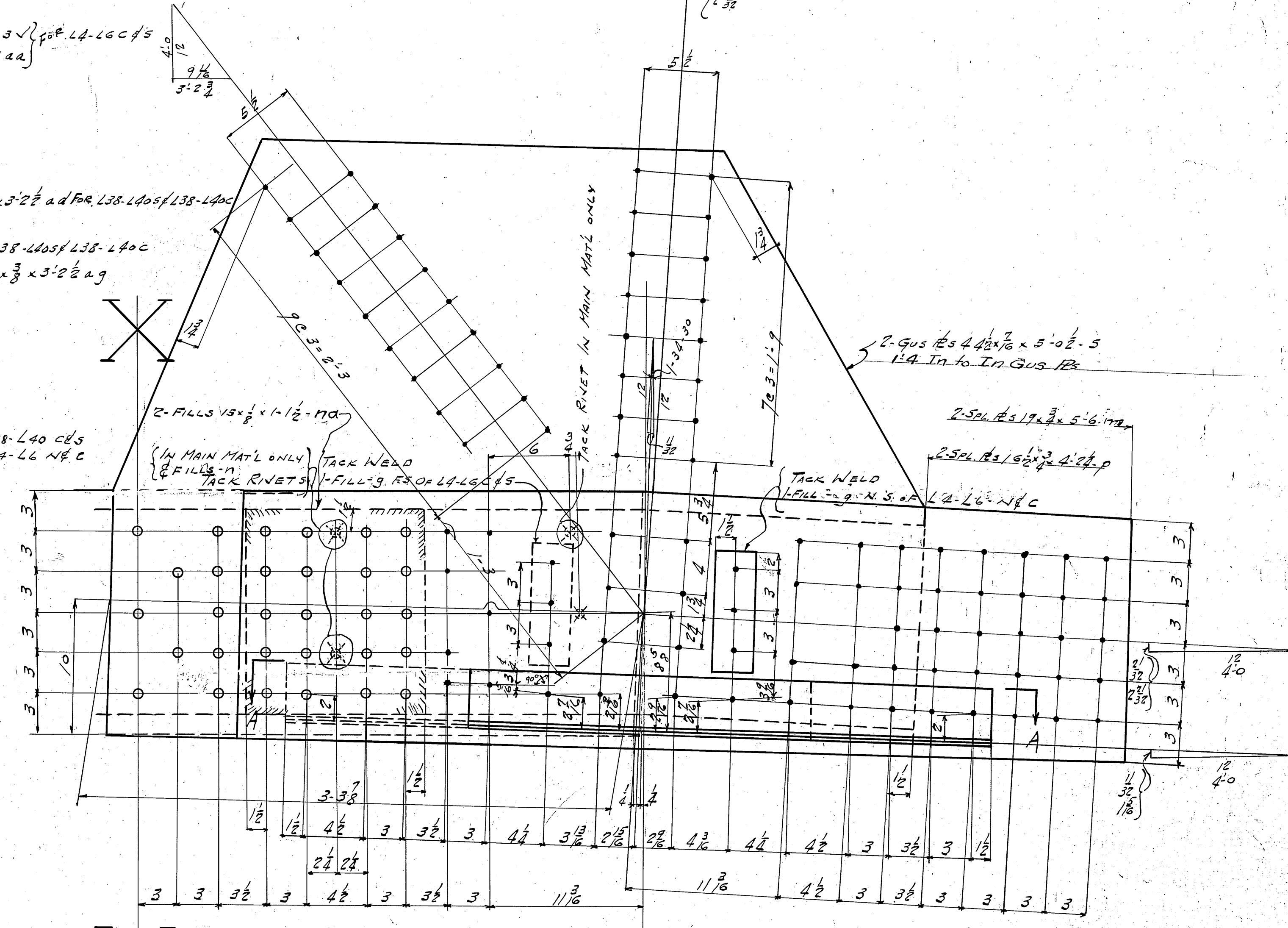
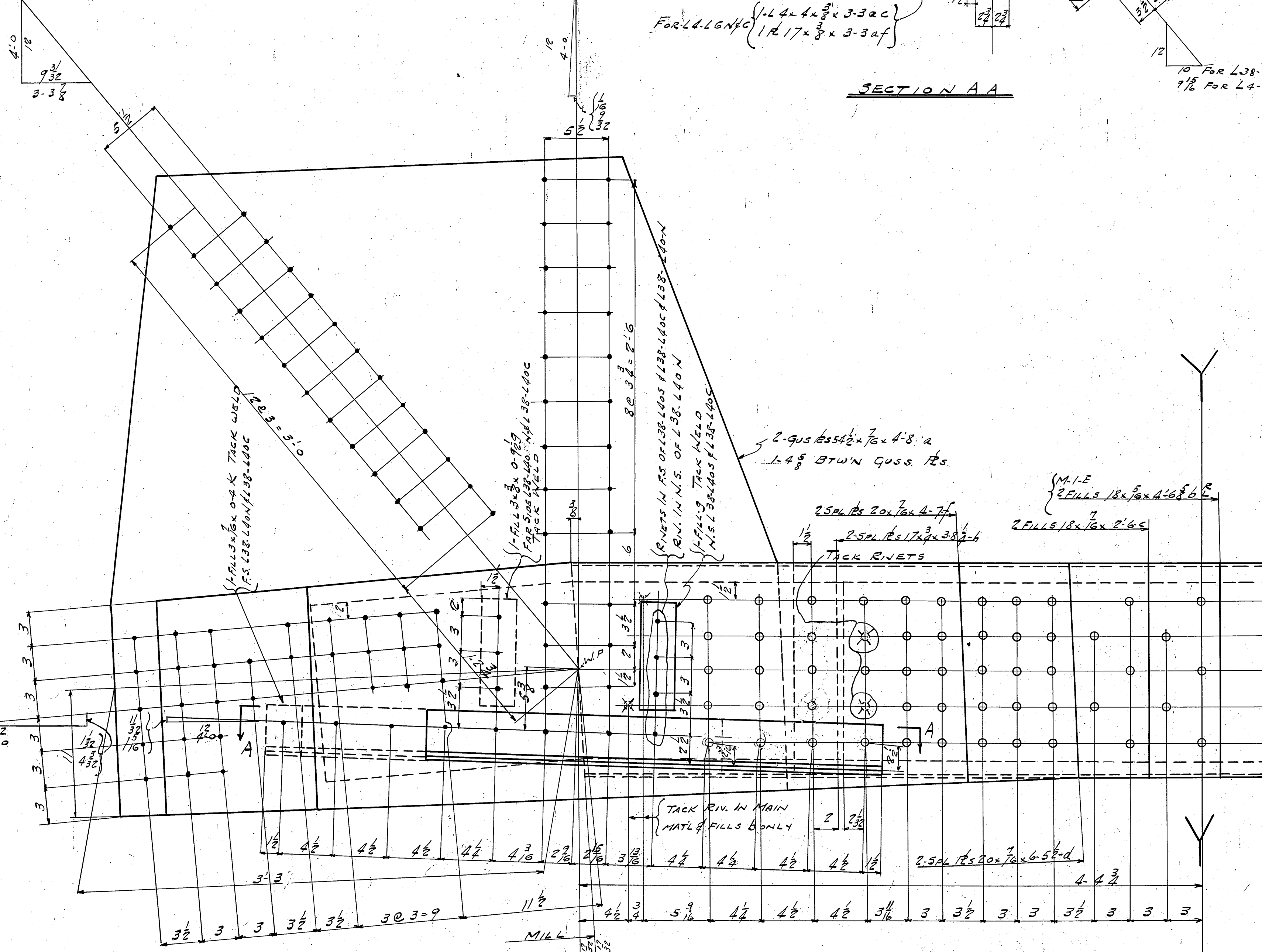
IN CHARGE: BORN MADE BY: J.R.M.
 CHECKED BY: A.T. (3/27) TRACED BY: J.E.P. 2/16-37
 REVISED: 12-38 LAST ASSEM. MK. AN

SHOP NO. 2 CONTRACT CC25873 SHEET 364A
 F.C. TBC 5/19/37 15-9-22

10" FOR L38-L40 CHN
9/8" LA-L6 C&S
1-L 4x4x3/8 x 3-2 3/4 W.F.P. L38-L40C & L38-L40N
1-1/2 17x3/8 x 3-2 1/2 A6-P L38-L40C & L38-L40N

LA-L6	4	4	3 1/2	5 1/2	5 1/2	4	4 1/2
L38-L40	4	4	3 1/2	5 1/2	5 1/2	4	4 1/2

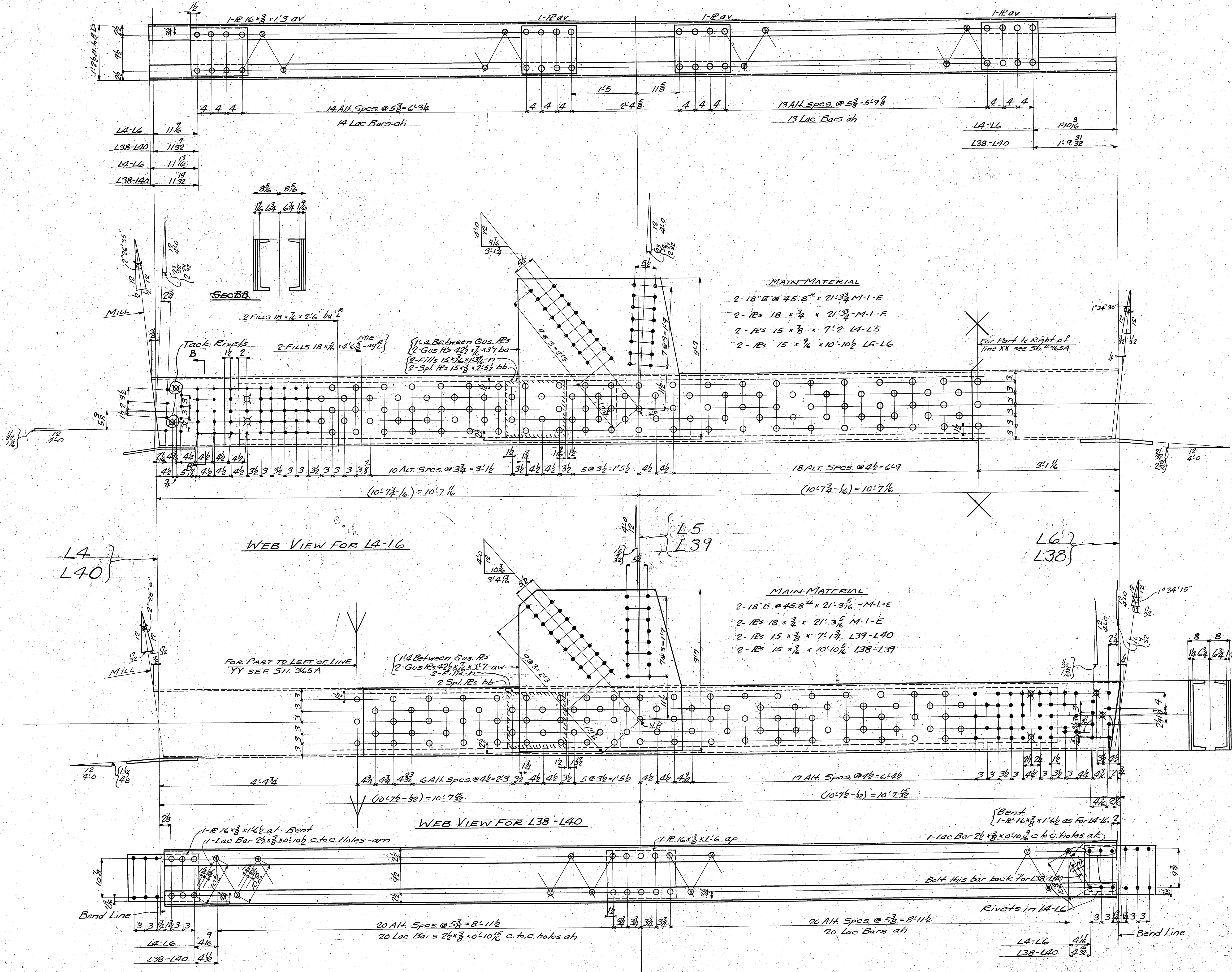
SECTION AA



FOR NOTES SEE SHEET #365
FOR REQUIRED LIST SEE SH. #365
WORK THIS SHEET WITH SH #365
L6 & L40 (SPAN 7 TO 10)

TEMP.	
SHFT.	
SHOPS	
INSPE.	
ERECT.	
CHECK.	
IN CHARGE	
DRAWN BY	
DESIGNED BY	
APPROVED BY	

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINT. - DEPT. PUBLIC WORKS
DETHLEFSEN STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
Drawing of Member - Fabrication at
IN CHARGE B.A.N. MADE BY J.R.M.
CHECKED BY A.T.M. TRACED BY J.P.S. 11-37
REVISED T.C. 5/10/37 LAST ASSEMB. I.K.



GENERAL NOTES:
 RIVETS - 3/4"
 OPEN HOLES - 1 1/2"
MATERIAL: Carbon steel A.S.T.M. A7-34 with copper content, except where noted.
FRAMING: All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
SHARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/16" where noted on details.
FLAME CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
PAINT: One coat of RED LEAD paint where noted. Shop contact surfaces not painted.
 [Symbol] Denotes break in stagger.

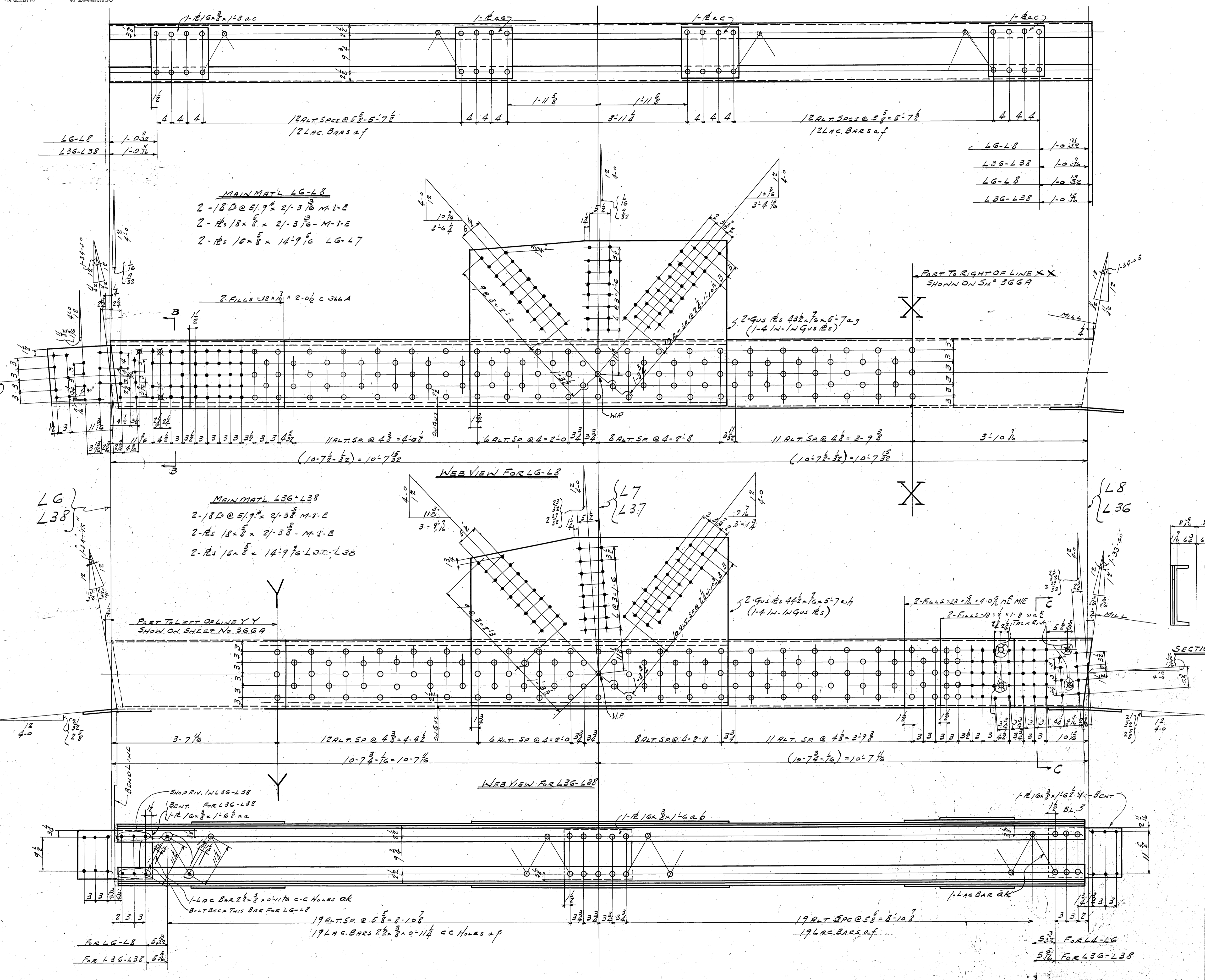
REQUIRED LIST				
No. Req'd.	Mark	Description	Remarks	
1	L4-L6N	Bottom Chord		
1	L4-L6C	do do		
1	L4-L6S	do do		
1	L38-L40N	do do		
1	L38-L40C	do do		
1	L38-L40S	do do		

WORK THIS SHEET WITH SH.# 365A
 BOTTOM CHORD L4-L6 & L38-L40 (SPAN 710)

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTL. DEPT. PUBLIC WORKS
MBETHLEHEM STEEL COMPANY
 Fabricated Steel Construction

In-Charge: *Boen*
 Made by: *J.R.M.* Date: _____
 Traced by: *S.A.W.* Date: *3-10-37* Revised: *J.C. 5-10-37* Date: _____
 Scale: _____
 Shop No. *12* Cont. No. *CC25873* Sheet *365*

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.



MAIN MAT'L L6-L8
 2-18 @ 5.9" x 2'-3 1/8" M-1-E
 2-18 @ 5.9" x 2'-3 1/8" M-1-E
 2-18 @ 5.9" x 2'-3 1/8" M-1-E
 2-18 @ 5.9" x 2'-3 1/8" M-1-E

MAIN MAT'L L36-L38
 2-18 @ 5.9" x 2'-3 1/8" M-1-E
 2-18 @ 5.9" x 2'-3 1/8" M-1-E
 2-18 @ 5.9" x 2'-3 1/8" M-1-E
 2-18 @ 5.9" x 2'-3 1/8" M-1-E

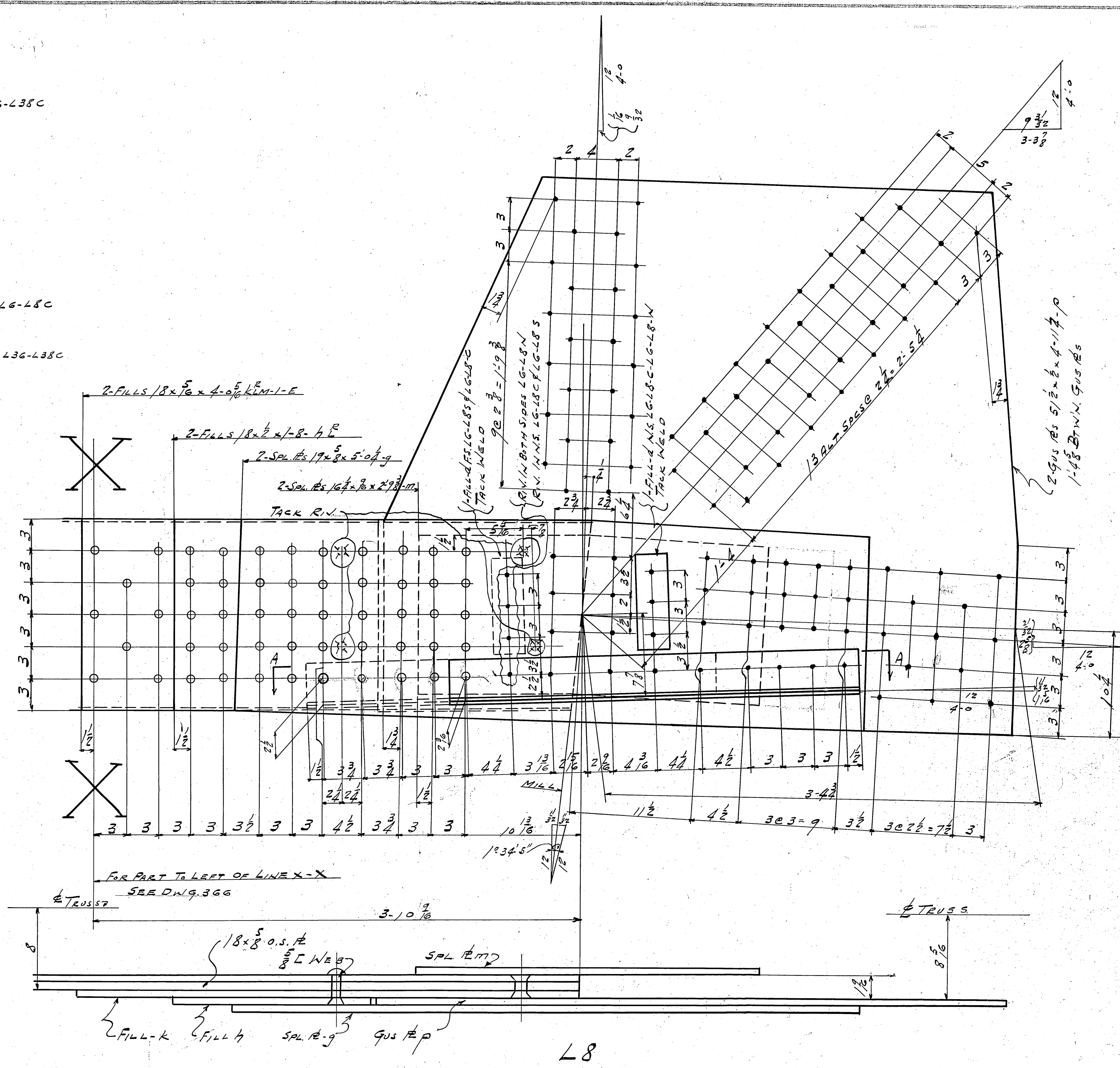
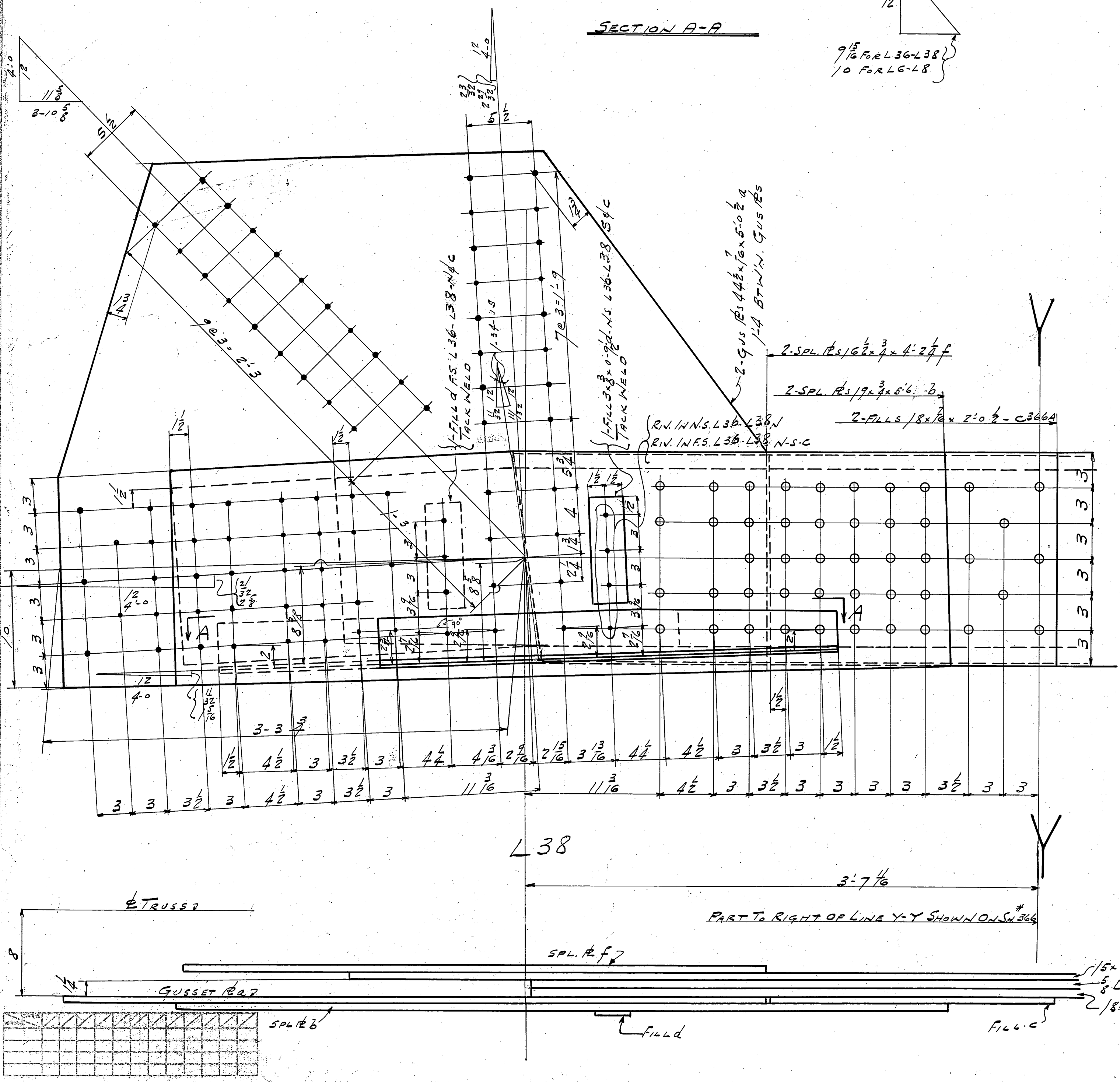
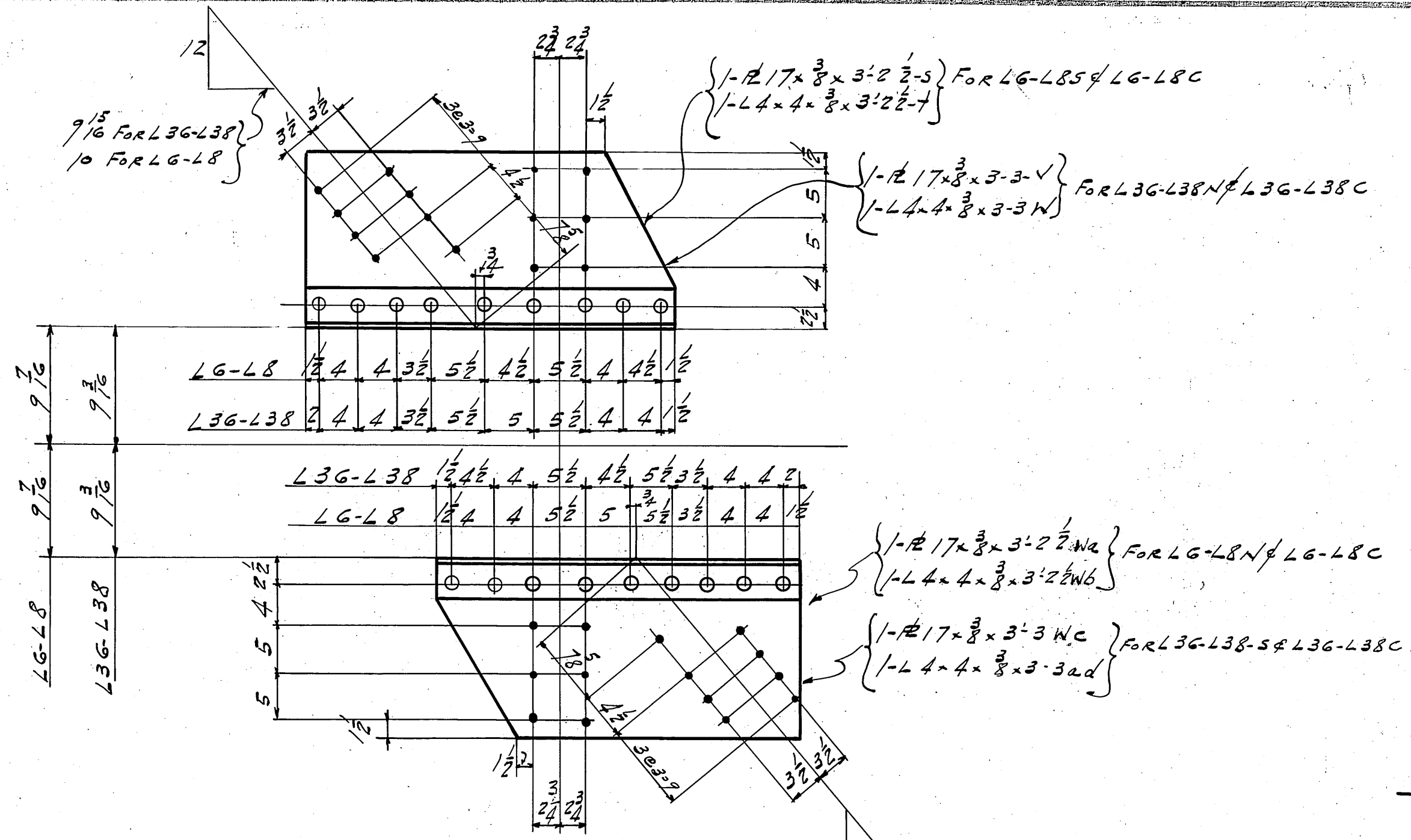
GENERAL NOTES:
 RIVETS: 3/8"
 OPEN HOLES: 1/8"
 MATERIAL: Carbon steel A.S.T.M. A7-34 with .25 copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 SHEARED EDGES of main material over 1/8" thick shall be planed to a depth of 1/4" where noted on details.
 FLAME CUT EDGES of main material shall be planed chipped or ground and present a smooth workmanlike appearance.
 PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 [Symbol] Denotes break in stagger.

REQUIRED LIST				
No	REQ'D	MARK	DESCRIPTION	REMARKS
1		L6-L8N	BOTTOM CHORD	
1		L6-L8C	D.	D.
1		L6-L8S	D.	D.
1		L36-L38N	D.	D.
1		L36-L38C	D.	D.
1		L36-L38S	D.	D.

WORK THIS SHEET WITH SH# 366A
 BOTTOM CHORD L6-L8 & L36-L38 (SPAN 7'-10")

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTL. DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabjofation at

IN CHARGE: BARN MADE BY: J.R.M.
 CHECKED BY: A.T. 2.12.37 TRACED BY: J.E.P. 2.17.37
 REVISED: LAST ASSEM. WK.



GENERAL NOTES:
 RIVETS: 1/2" dia.
 OPEN HOLES:
MATERIAL: Carbon steel A.S.T.M. A7-34 with .26 copper content, except where noted.
BEAMING: All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
BEHAVED EDGES: Edges of main material over 1/8" thick shall be punched to a depth of 1/16" where noted on details.
FLAME OUT EDGES: Edges of main material shall be planed chipped or ground and present a smooth workmanlike appearance.
PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 [Symbol] - Denotes break in stagger.

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

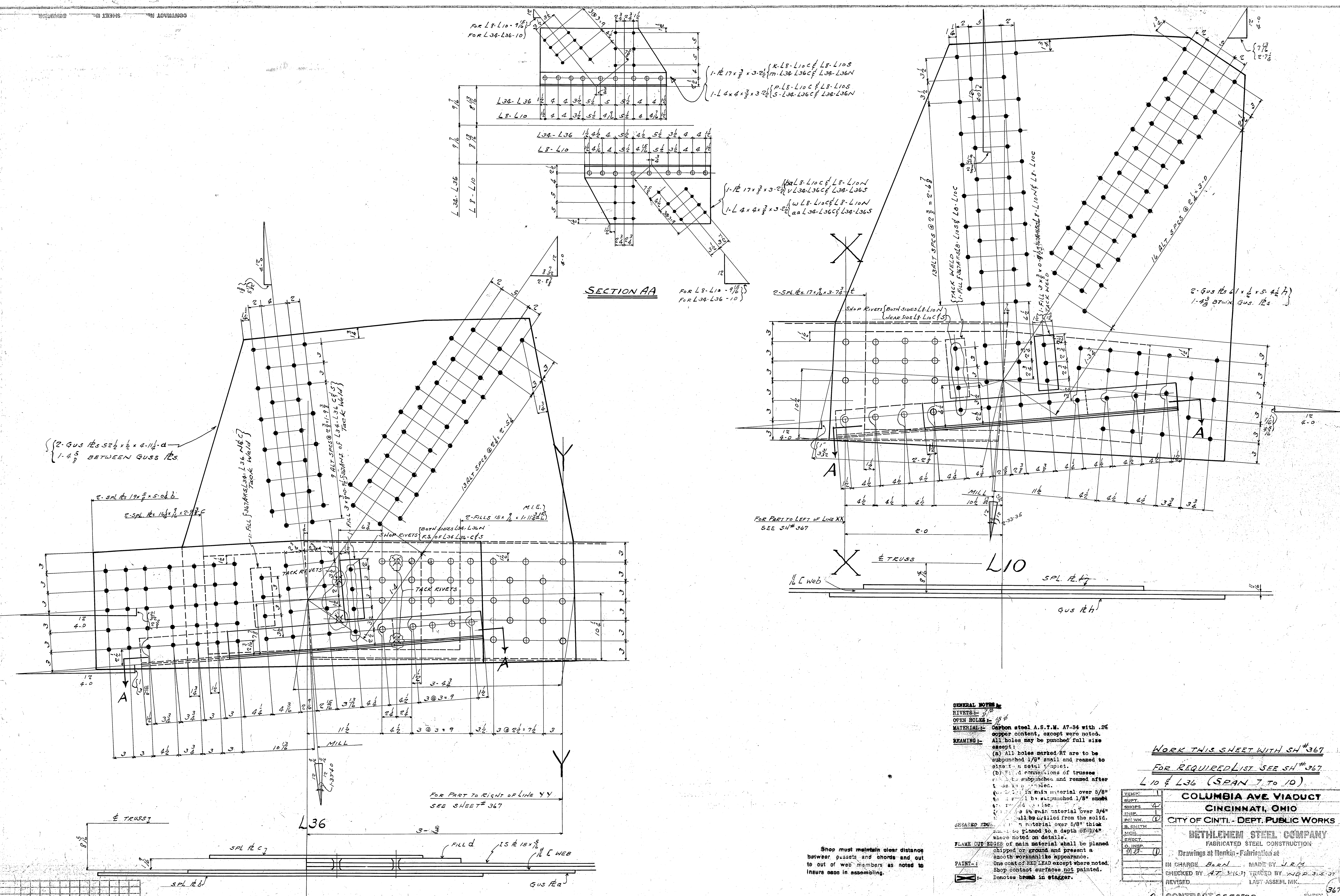
WORK THIS SHEET WITH SH # 366
 FOR REQUIRED LIST SEE SH # 366
 L8 & L38 (SPAN 7 TO 10)

TEMP.	1
SUPT.	1
SHOP	4
INSP.	1
DES. VPK.	1
J.S. SMITH	1
MCHL.	1
ENGR.	1
C. INSP.	1
REV.	1

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINT. DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at

IN CHARGE: BORN MADE BY: J.R.M.
 CHECKED BY: A.T. 2-15-37 TRADED BY: J.E.P. 2-17-37
 REVISED: LAST ASSEM. MK.

SHOP NO. 2 CONTRACT CC25873 SHEET 366A
 F.C. TBC 5/13/37 15-9-26



SECTION AA

- GENERAL NOTES:**
- RIVETS: 3/8"
 - OPEN HOLES: 1/8"
 - MATERIAL: Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted. All holes may be punched full size except:
 - (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a total 1/8" spigot.
 - (b) Field connections of trusses shall be subpunched and reamed after fabrication.
 - (c) All main material over 5/8" shall be subpunched 1/8" small and reamed to size.
 - (d) All main material over 3/4" shall be drilled from the solid.
 - (e) All main material over 5/8" thick shall be planed to a depth of 3/4" where noted on details.
 - FLAME CUT EDGES of main material shall be planed, chipped, or ground and present a smooth workmanlike appearance.
 - PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 - Denotes break in stagger.

WORK THIS SHEET WITH SH #367
 FOR REQUIRED LIST SEE SH #367
 L10 & L36 (SPAN 7 TO 10)

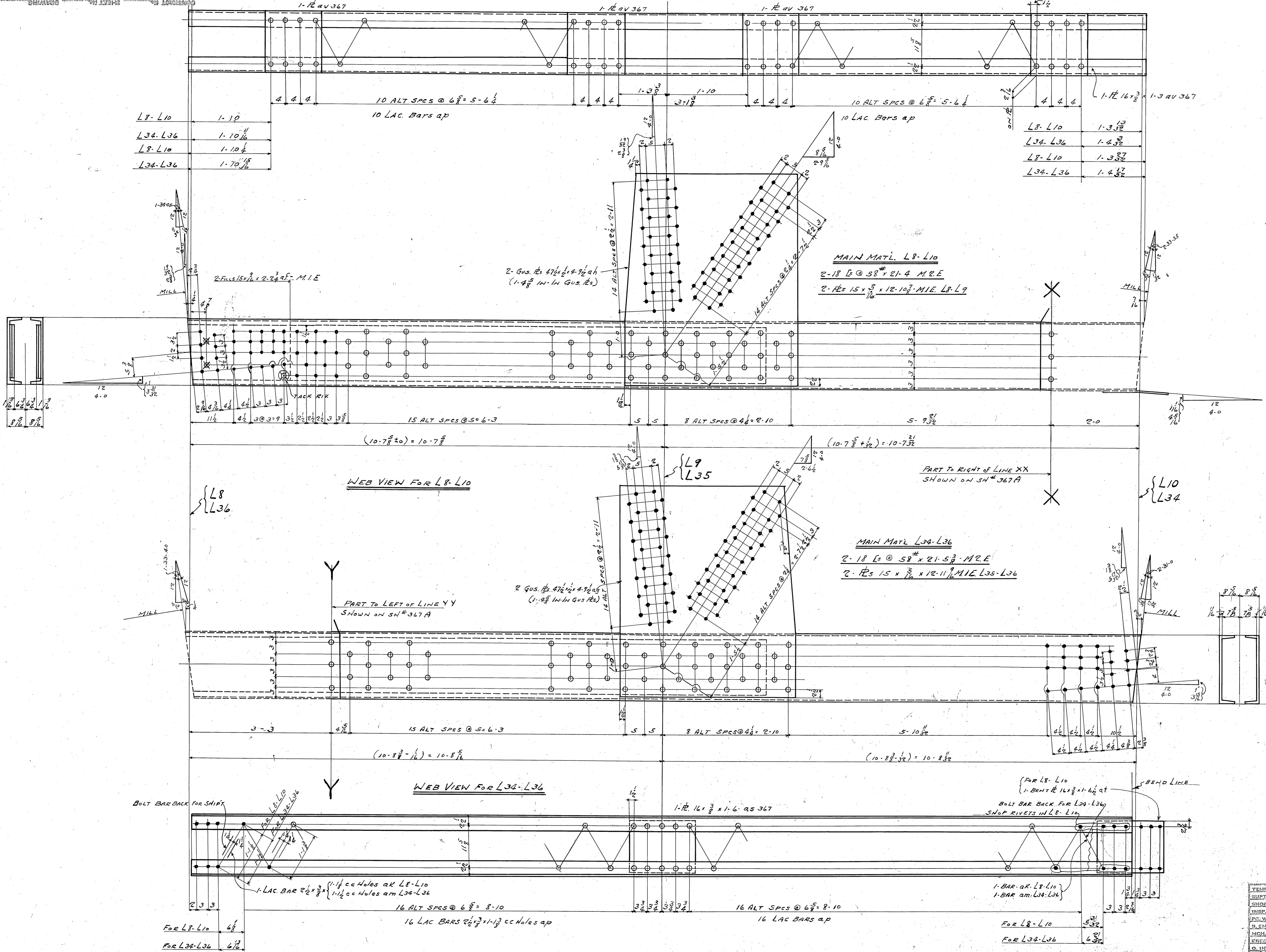
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION

Drawings at Rankin - Fabricated at
 IN CHARGE: B.A.E.N. MADE BY: J.R.M.
 CHECKED BY: A.T. (3.10.37) TRACED BY: N.B.P. (3.10.37)
 REVISED: LAST ASSEM. MK.

SHOP NO. 2 CONTRACT C.C. 5587.8 SHEET 367A
 F.C. T.B.C. 5/13/37 15-9-27

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.



GENERAL NOTES:
RIVETS: -
OPEN HOLES: -
MATERIAL: Carbon steel A.S.F.M. A7-24 with .75 copper content, except where noted. All holes may be punched full size except:
REMARKS:
 (a) All holes marked RT are to be subpunched 1/8" small and rounded to size to a metal template.
 (b) Field connections of trusses shall be subpunched and rounded after truss is assembled.
 (c) Holes in main material over 1/4" thick shall be subpunched 1/8" small and rounded to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
SEAM EDGES: of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES: of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
PAINT: - One coat of RED LEAD except where noted. Shop contact surfaces not painted.
SYMBOLS: - Denotes break in stagger.

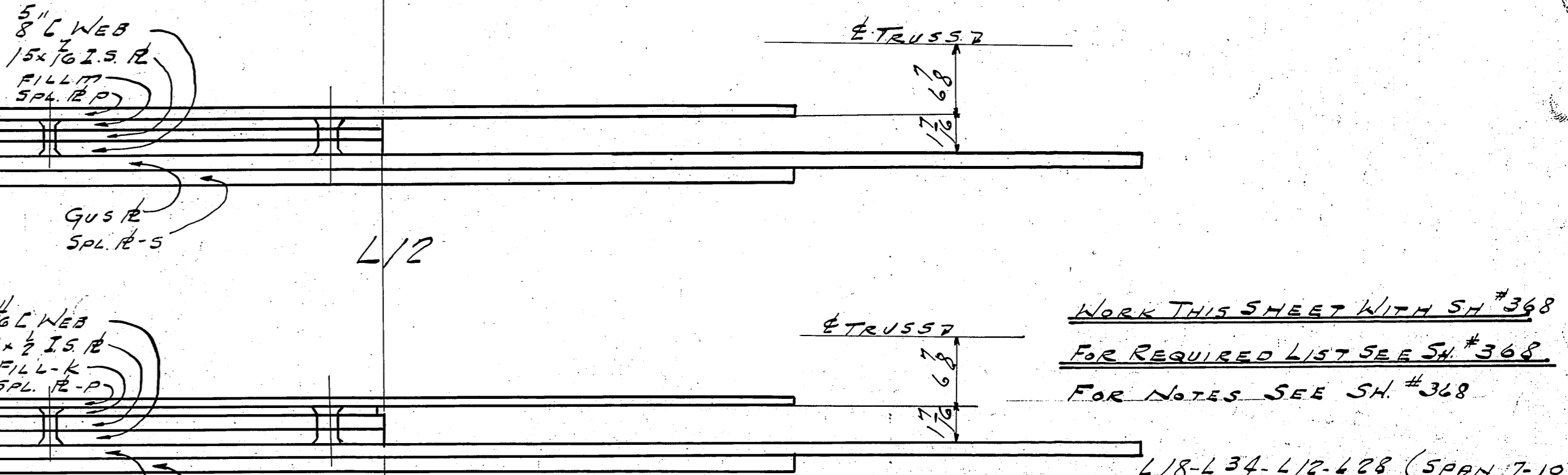
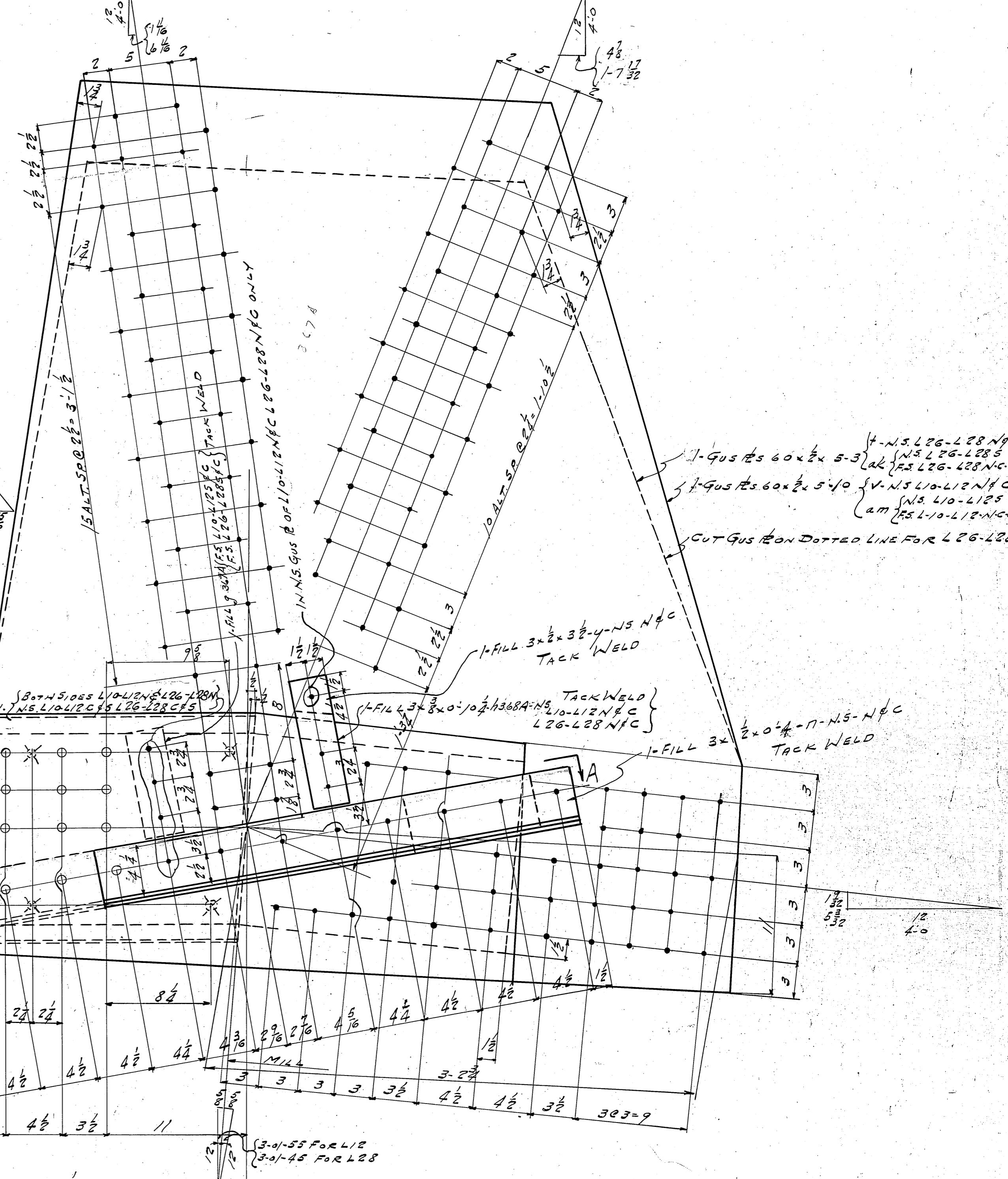
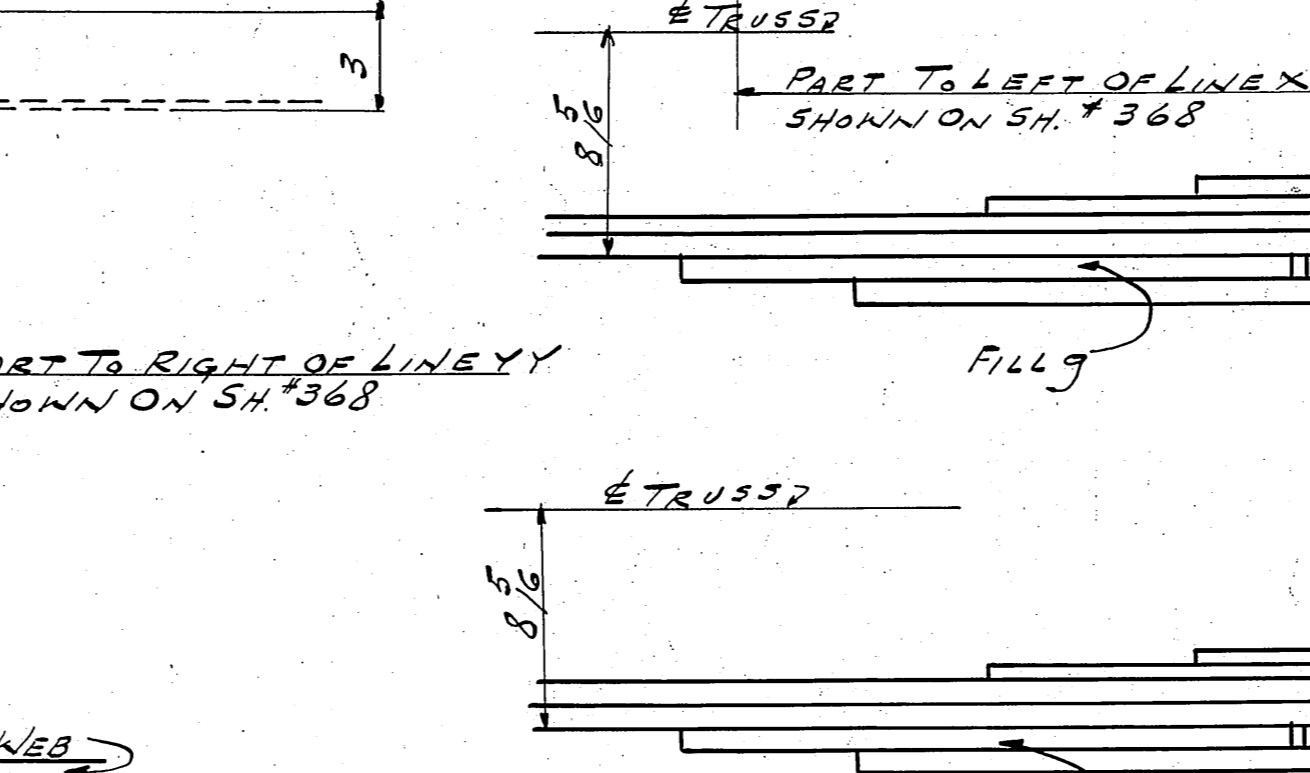
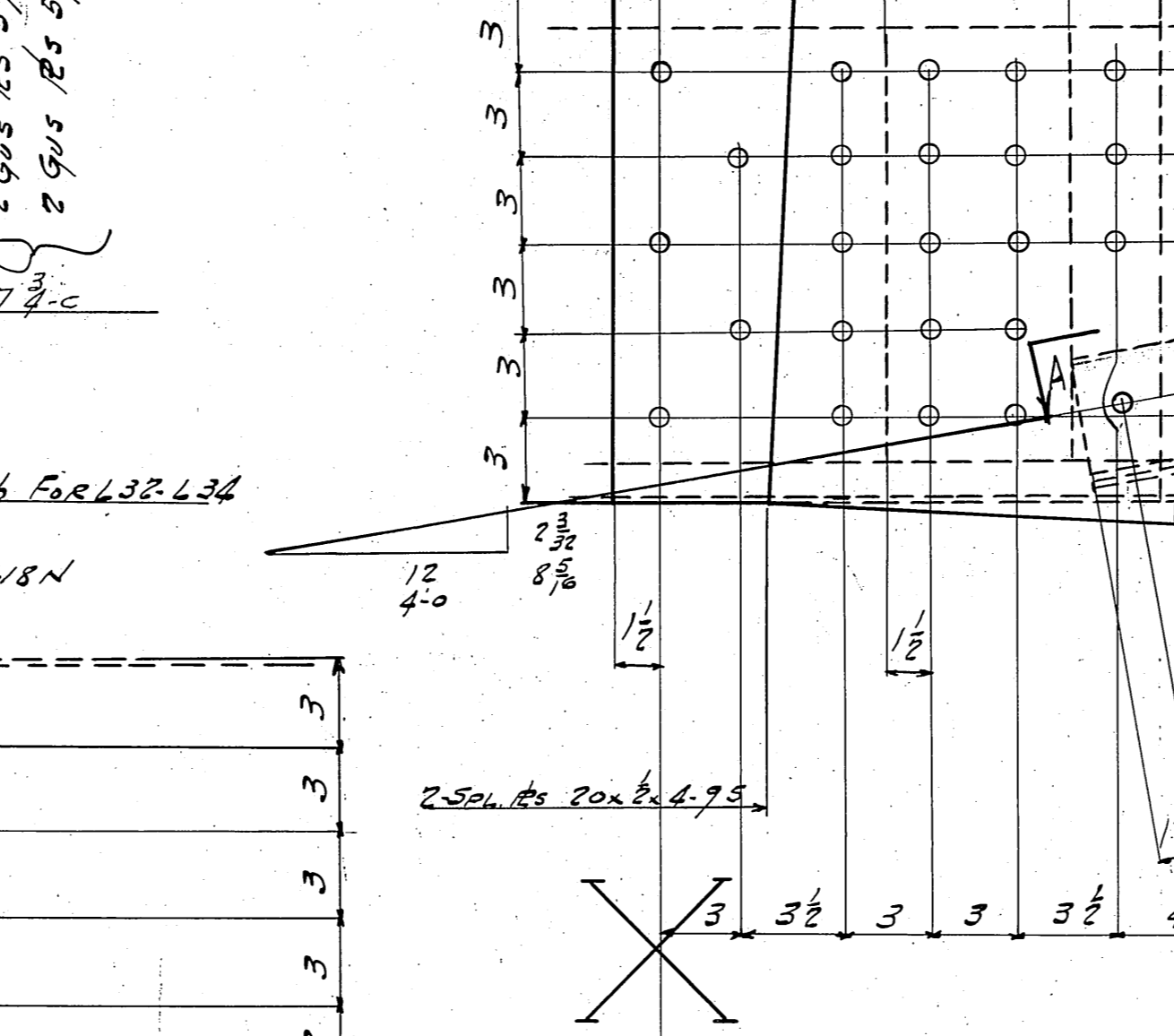
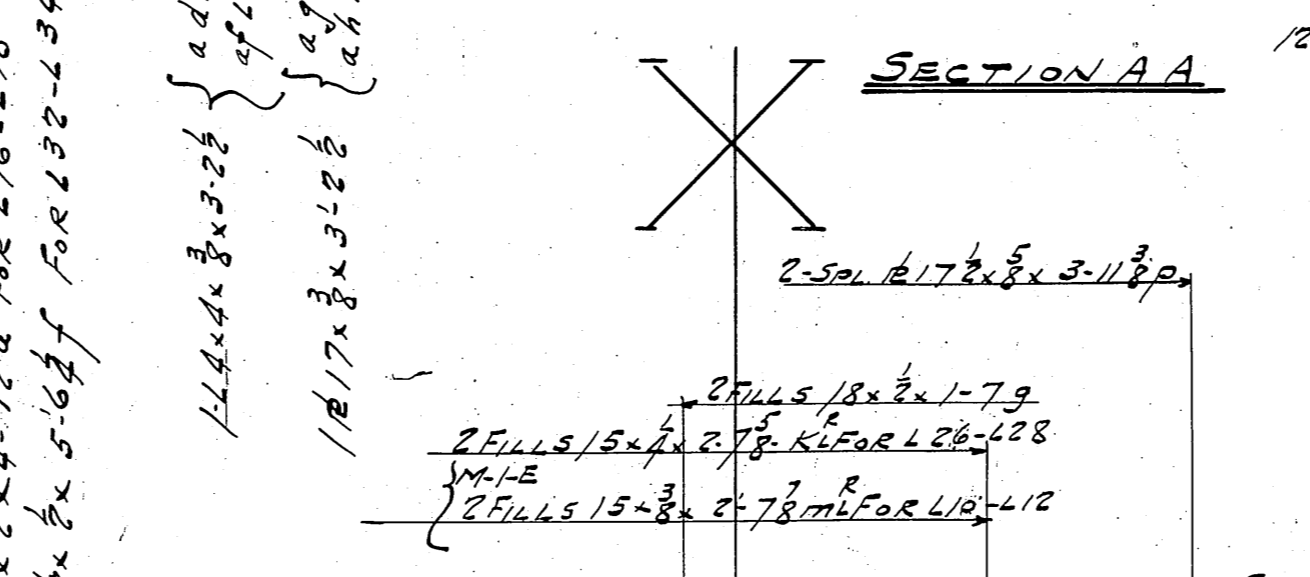
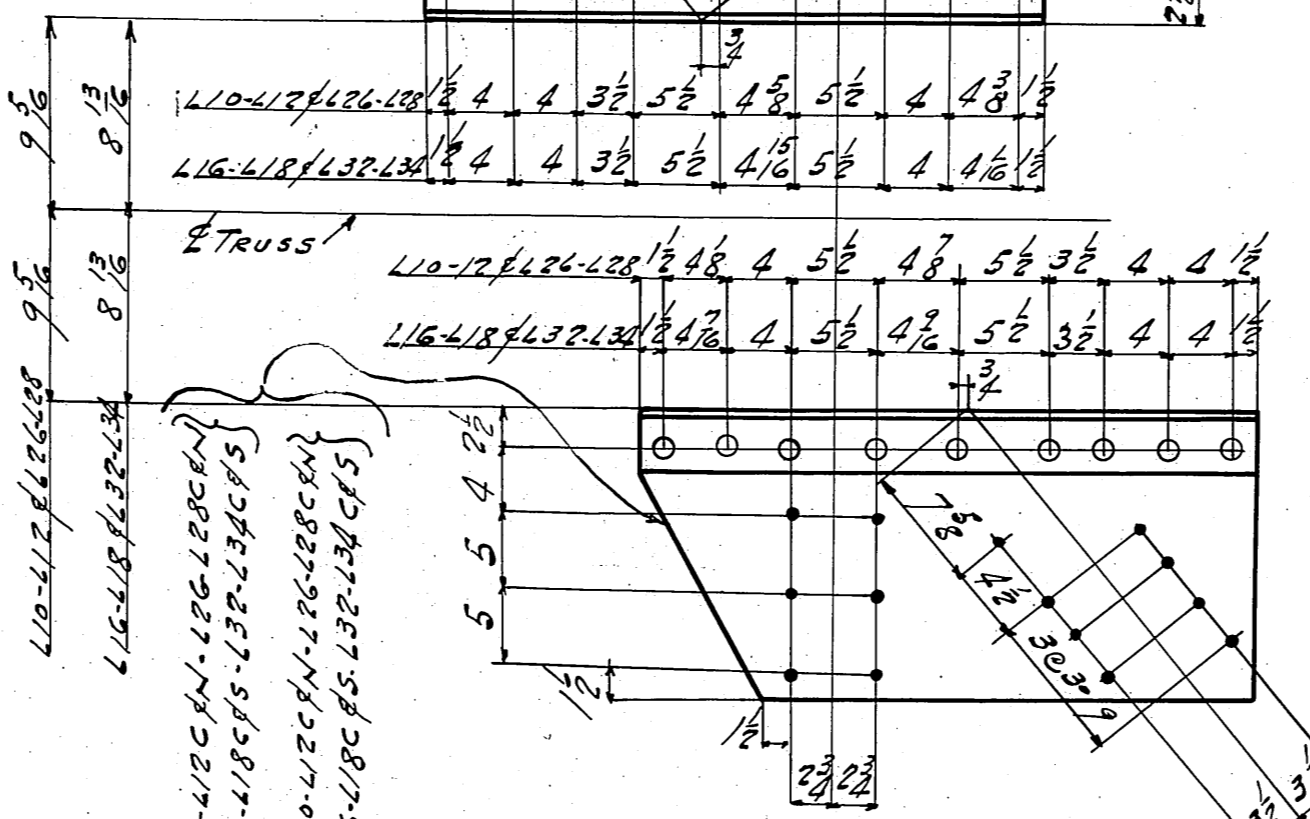
REQUIRED LIST				
No.	REQ'D	MARK	DESCRIPTION	REMARKS
1		L8-L10 N	BOTTOM CHORD	
1		L8-L10 C	Do Do	
1		L8-L10 S	Do Do	
1		L34-L36 N	Do Do	
1		L34-L36 C	Do Do	
1		L34-L36 S	Do Do	

WORK THIS SHEET WITH SH 367A
 BOTTOM CHORDS L8-L10 & L34-L36 (SPAN 7-10)

COLUMBIA AVE. VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. DEPT. PUBLIC WORKS
 BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings of Rankin - Fabrication at
 IN CHARGE: BARR MADE BY: J.R.M.
 CHECKED BY: A.T. 3. (7.37) TRACED BY: N.D.R. 3. (7.37)
 REVISED: LAST ASSEM. MK.
 SHOP NO. 2 CONTRACT C.C. 25873 SHEET 367
 F.C. TBC 5/19/27 15-9-28

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

$1/4 \times 4 \times 3/8 \times 3-2 1/2$ { W-110-112 CFS - L26-L28 CFS
 aa. L16-L18 CFS - L32-L34 CFS
 $1/4 \times 17 \times 3/8 \times 3-2 1/2$ { ab. L10-L12 CFS - L26-L28 CFS
 ac. L16-L18 CFS - L32-L34 CFS



WORK THIS SHEET WITH SH #368
 FOR REQUIRED LIST SEE SH #368
 FOR NOTES SEE SH #368

L18-L34-L12-L28 (SPAN 7-10)
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTL - DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at

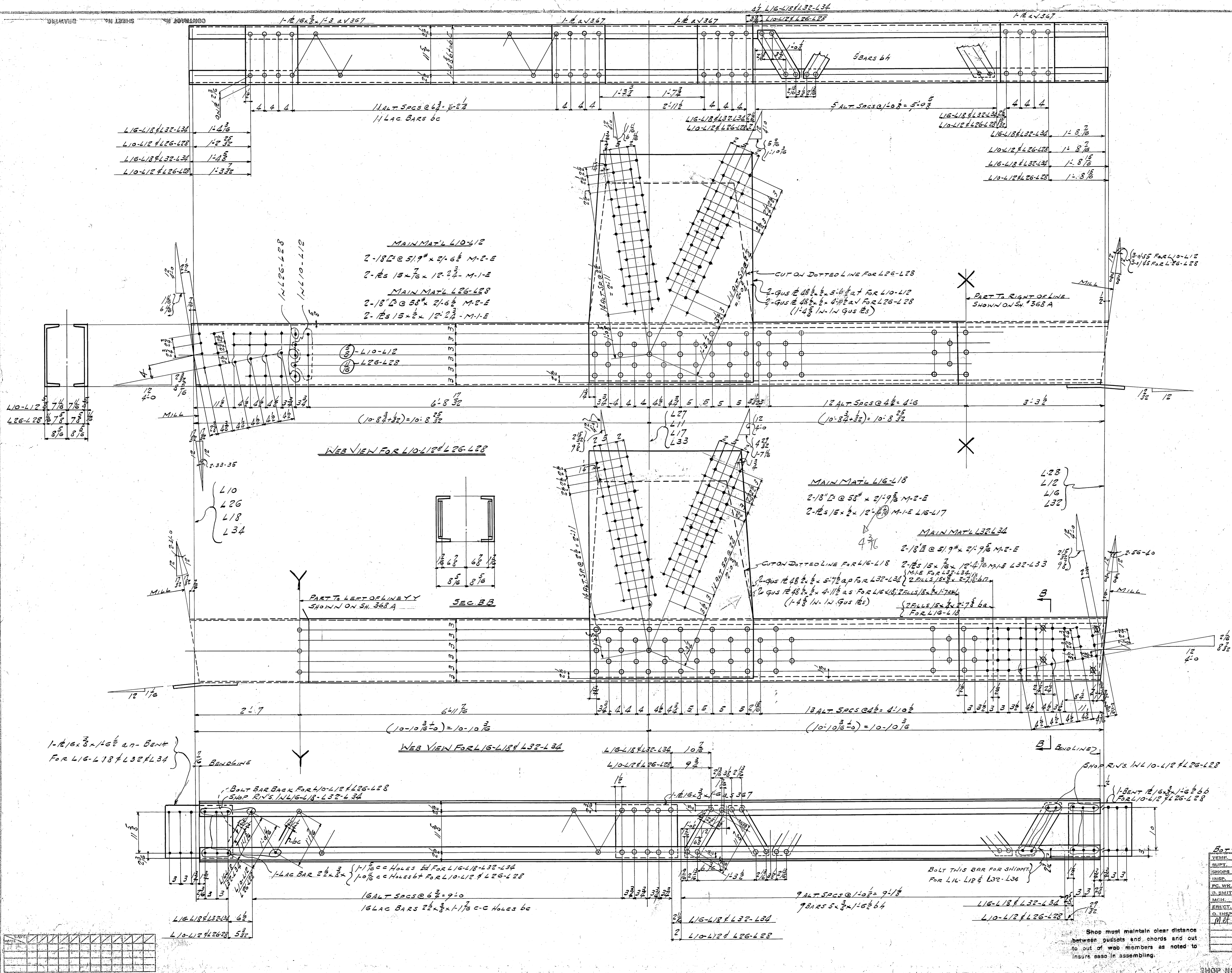
IN CHARGE: *Boen* MADE BY: *J.R.M.*
 CHECKED BY: *A.T. 12-37* TRACED BY: *J.R. 3-12-37*
 REVISED: *T.C. 5-10-37* LAST ASSEM. *M.K.*

SHOP NO. 2 CONTRACT CC 25873 SHEET 368A
 FC TBC 5/13/37 15-9-29

Shop must maintain clear distance
 between gussets and chords and out
 to out of web members as noted to
 insure ease in assembling.

RIVETS 3/8
 OPEN HOLES 1/8
 REAM
 MILLING
 PAINT

TEMP.	
SUPT.	
SHOP	
INSP.	
P.C. WK.	
P. SMITH	
MCH.	
ERECT.	
D. INSP.	
W.A.	



GENERAL NOTES:
 RIVETS: 3/4"
 OPEN HOLES: 1/8"
 MATERIAL: Carbon steel A.S.T.M. A7-34 with .28 copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 SHARP EDGES: of main material over 5/8" thick shall be chamfered to a depth of 1/4" where noted on details.
 FLAME CUT EDGES: of main material shall be flame chipped or ground and present a smooth workmanlike appearance.
 PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 Break in stagger.

REQUIRED LIST

No. REQD.	MARK	DESCRIPTION	REMARKS
1	L10-L12N	BOTTOM CHORD	
1	L10-L12C	D.	D.
1	L10-L12S	D.	D.
1	L26-L28N	D.	D.
1	L26-L28C	D.	D.
1	L26-L28S	D.	D.
1	L16-L18N	D.	D.
1	L16-L18C	D.	D.
1	L16-L18S	D.	D.
1	L32-L34N	D.	D.
1	L32-L34C	D.	D.
1	L32-L34S	D.	D.

WORK THIS SHEET WITH SH. 368 A

BOTTOM CHORDS L10-L12, L26-L28, L16-L18, L32-L34 (SPAN 710)

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTI. DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Hankin - Fabrication at

IN CHARGE: BORN MADE BY: J.R.M.
 CHECKED BY: A.T. 3.14.33 TRACED BY: J.P. 3.14.37
 REVISED: I.C. 5.10.37 LAST ASSEM. MK.

SHOP NO. 2 CONTRACT C.C. 25873 SHEET 368
 FC. 780 5/13/37 15-9-30

L12-L14 & L28-L30	1-6
L14-L16 & L30-L32	1-8 1/2
L12-L14 & L28-L30	1-7 1/2
L14-L16 & L30-L32	1-8 1/2

L12-L14 & L28-L30	6 1/2
L14-L16 & L30-L32	7 3/4
L12-L14 & L28-L30	1-4 1/2
L14-L16 & L30-L32	1-6 1/2

MAIN MAT'L L12-L14 & L28-L30

- 2-18" @ 51.9" x 21-5 1/2" M-2-E
- 2-12" @ 13 1/2" x 21-5 1/2" M-2-E
- 2-12" @ 10 3/8" x 21-5 1/2" M-2-E
- 2-12" @ 15 1/8" x 12-6 1/2" M-1-E {L13-L14, L29-L30}

WEB VIEW FOR L12-L14 & L28-L30

CUT ON DOTTED LINE FOR L28-L30
 FOR L28-L30
 2-GUS #s 44 x 1/2" x 5-4 1/2"
 2-GUS #s 44 x 1/2" x 6-0"
 FOR L12-L14
 (1-4 1/2" IN-IN GUS #s)

MAIN MAT'L L14-L16 & L30-L32

- 2-18" @ 51.9" x 21-10 1/2" M-2-E
- 2-12" @ 13 1/2" x 21-10 1/2" M-2-E
- 2-12" @ 10 3/8" x 21-10 1/2" M-2-E
- 2-12" @ 15 1/8" x 12-9 1/2" M-1-E {L14-L15, L30-L31}

CUT ON DOTTED LINE FOR L14-L16
 FOR L14-L16
 2-GUS #s 44 x 1/2" x 5-4"
 2-GUS #s 44 x 1/2" x 6-0"
 FOR L30-L32
 (1-4 1/2" IN-IN GUS #s)

WEB VIEW FOR L14-L16 & L30-L32

SHOP RIVETS IN L14-L16 & L30-L32

- GENERAL NOTES:-**
- RIVETS:-
 - OPEN HOLES:-
 - MATERIAL:- Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted.
 - FINISHING:- All holes may be punched full size except:
 - (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 - (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 - (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 - (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 - BEVELLED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 - FLARE CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
 - PAINT:- One coat of RED LEAD except where noted. Shop contact surface not painted.
 - Denotes break in stagger.

REQUIRED LIST			
No.	MARK	DESCRIPTION	REMARKS
1	L12-L14A	BOTTOM CHORD	
1	L12-L14C	Do	Do
1	L12-L14S	Do	Do
1	L28-L30A	Do	Do
1	L28-L30C	Do	Do
1	L28-L30S	Do	Do
1	L14-L16A	Do	Do
1	L14-L16C	Do	Do
1	L14-L16S	Do	Do
1	L30-L32A	Do	Do
1	L30-L32C	Do	Do
1	L30-L32S	Do	Do

WORK THIS SHEET WITH SHEET # 369A

BOTTOM CHORDS L12-L14, L28-L30, L14-L16 & L30-L32 (SPAN 7'-10")

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTI. - DEPT. PUBLIC WORKS

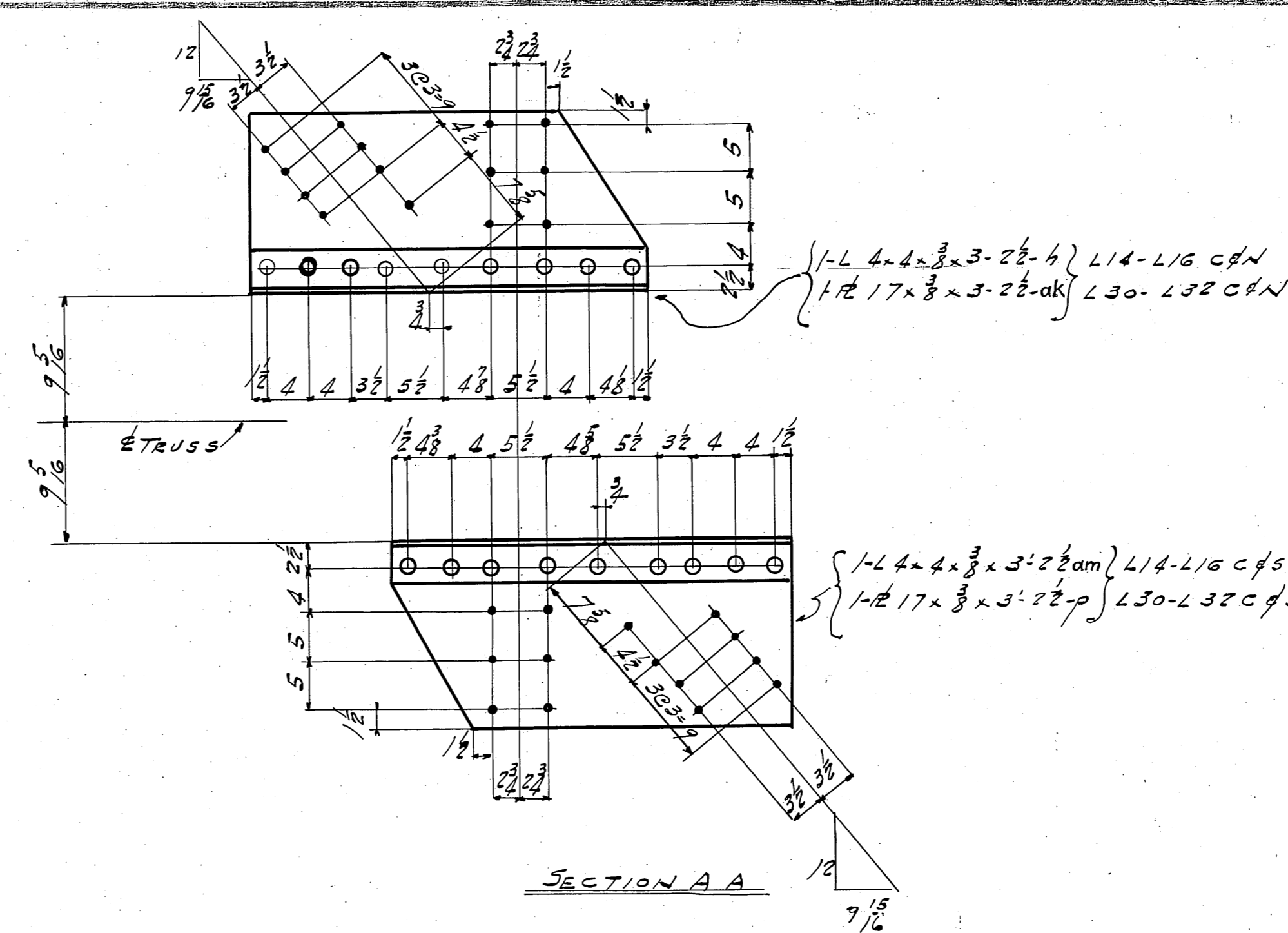
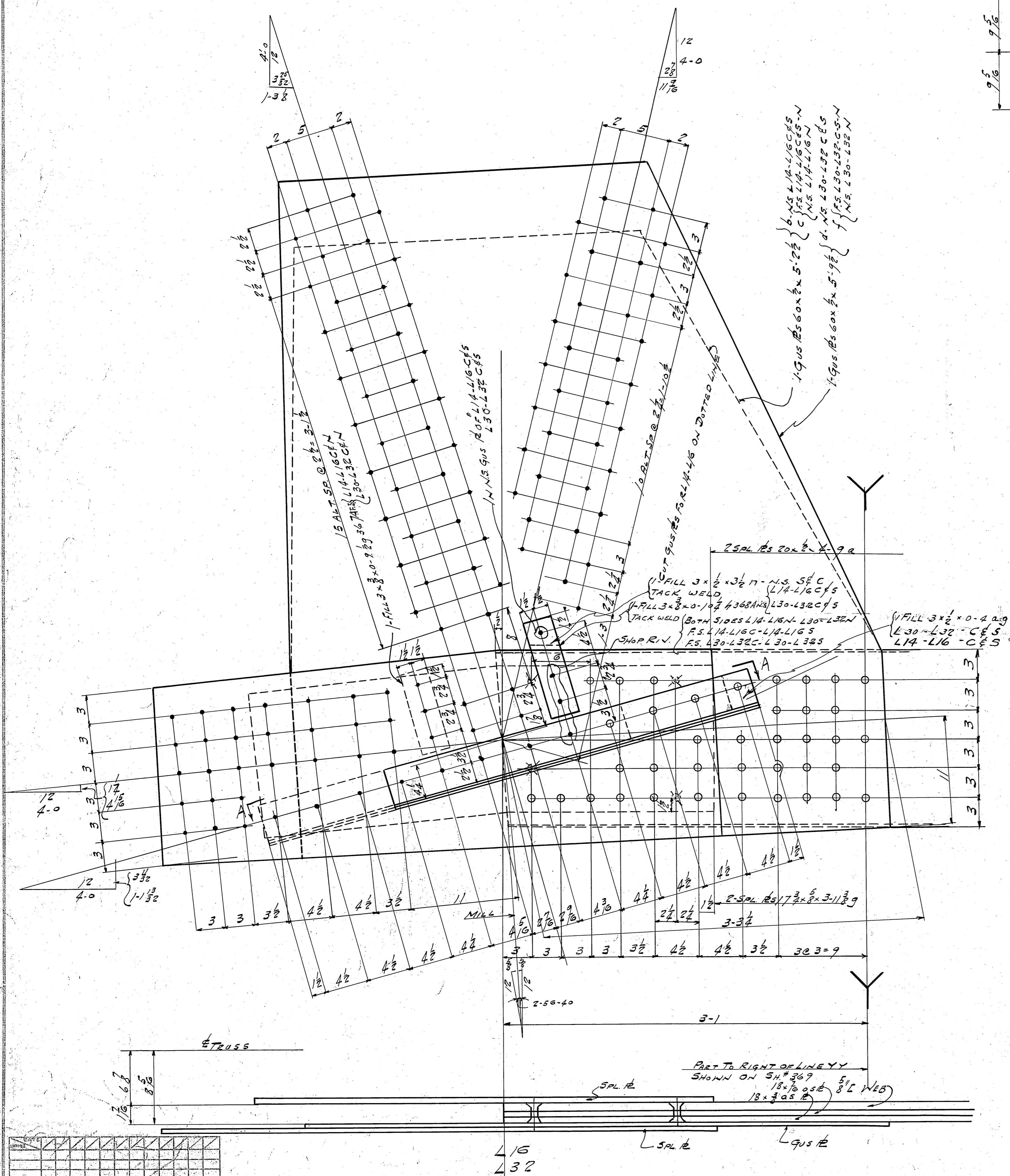
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at

IN CHARGE: BARN... MADE BY: J.R.M.
 CHECKED BY: AT... TRACED BY: J.P.S. & J.T.
 REVISION: ... LAST ASSEM. NIK.

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

{L13
L29
L15
L31}

{L14
L30}



WORK THIS SHEET WITH SH #369
 FOR REQUIRED LIST SEE SH #369
 FOR NOTES SEE SH #369

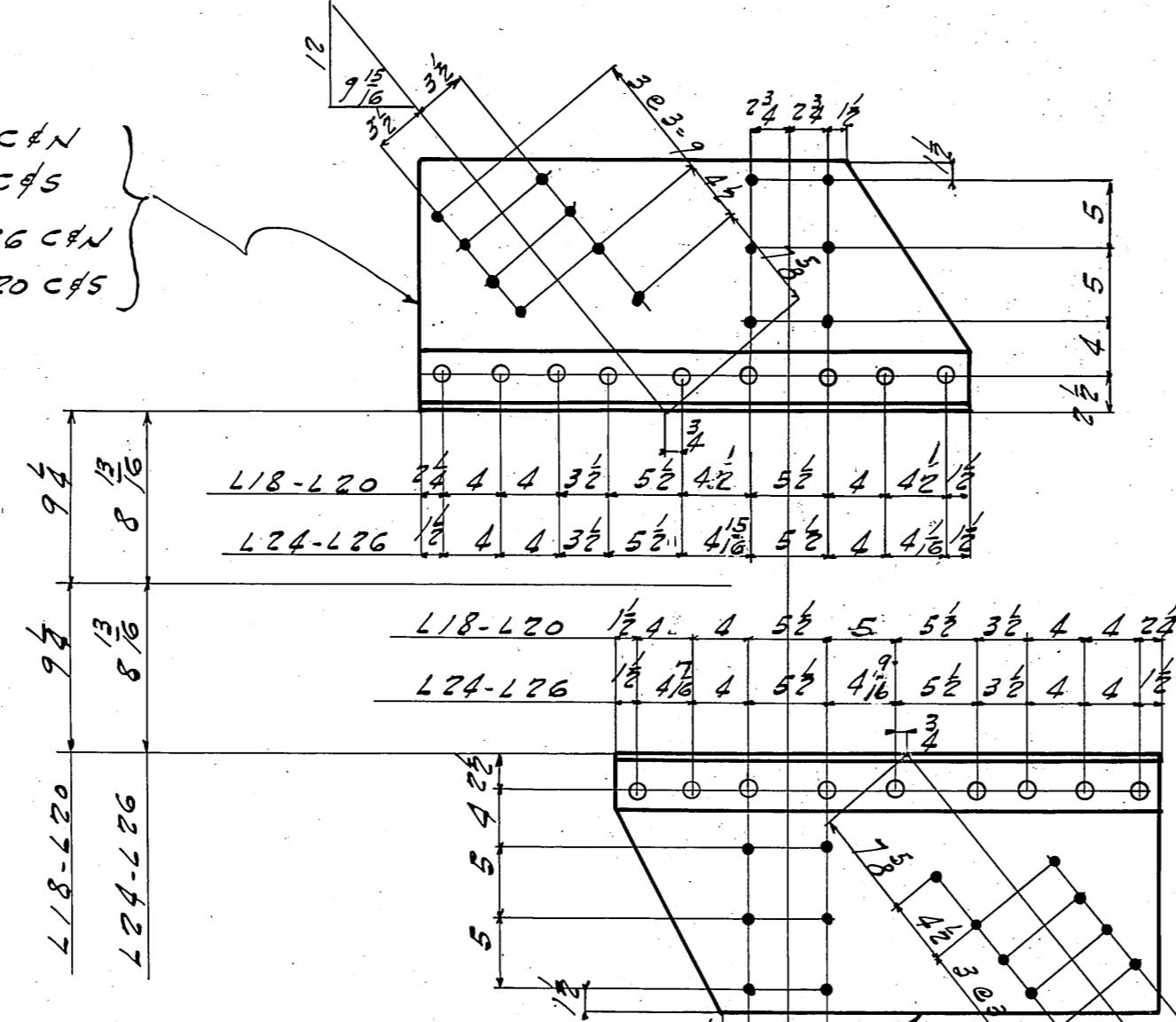
L16 & L32 (SPAN 7'-10")

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

RIVETS 8[#]
 OPEN HOLES 1/8[#]
 BEAM MILLING PAINT

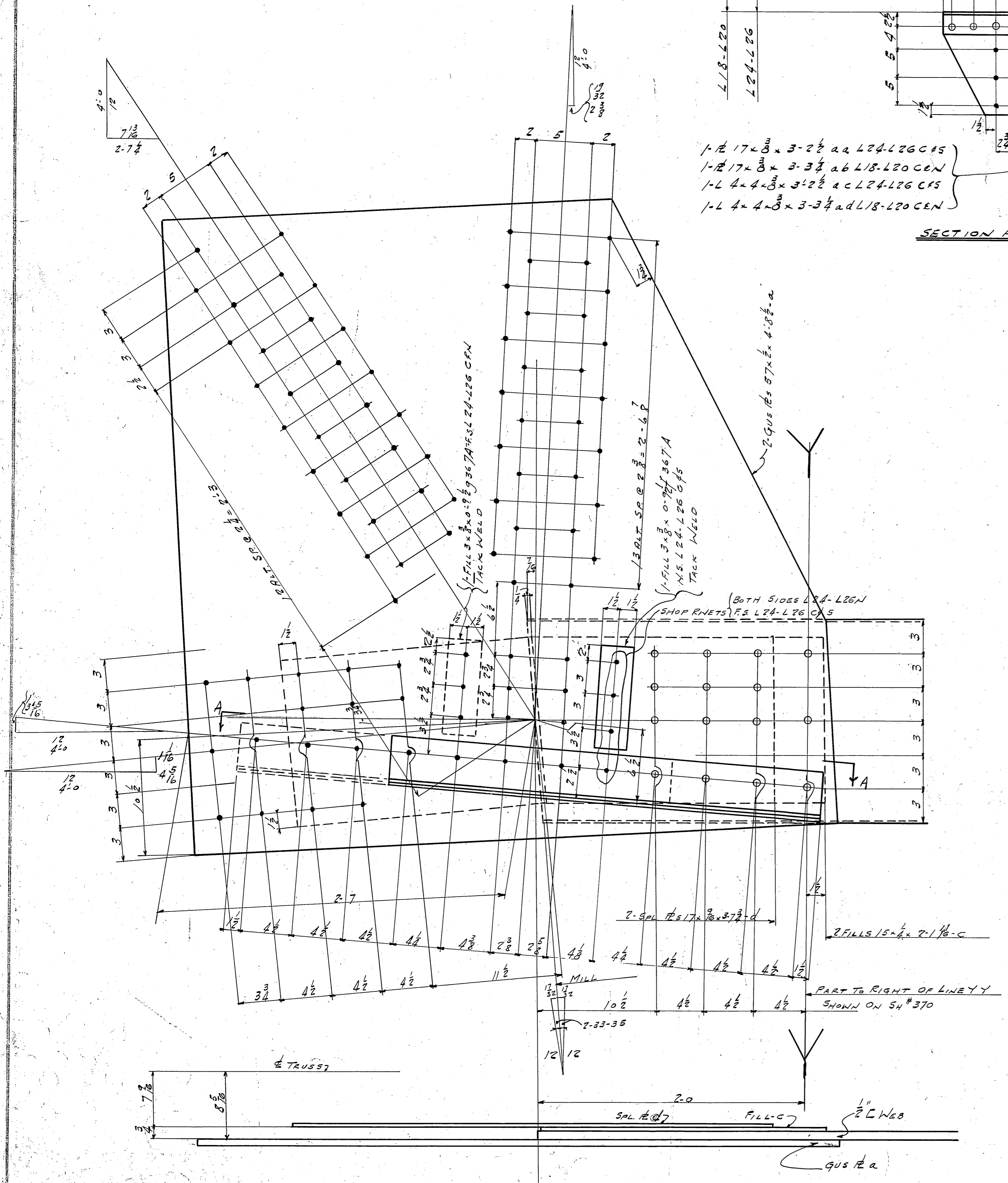
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SUPT.	4	
INSP.	0	
DES. WK.	0	
E. SMITH		
MCH.		
ERECT.		
C. INSP.	0	
DR.	0	
369A		

1-12 17x8x3-2 1/2 S L24-L26 C/W
 1-12 17x8x3-3/4 L18-L20 C/F5
 1-L 4x4x3/8x3-2 1/2 L24-L26 C/W
 1-L 4x4x3/8x3-3/4 L18-L20 C/F5

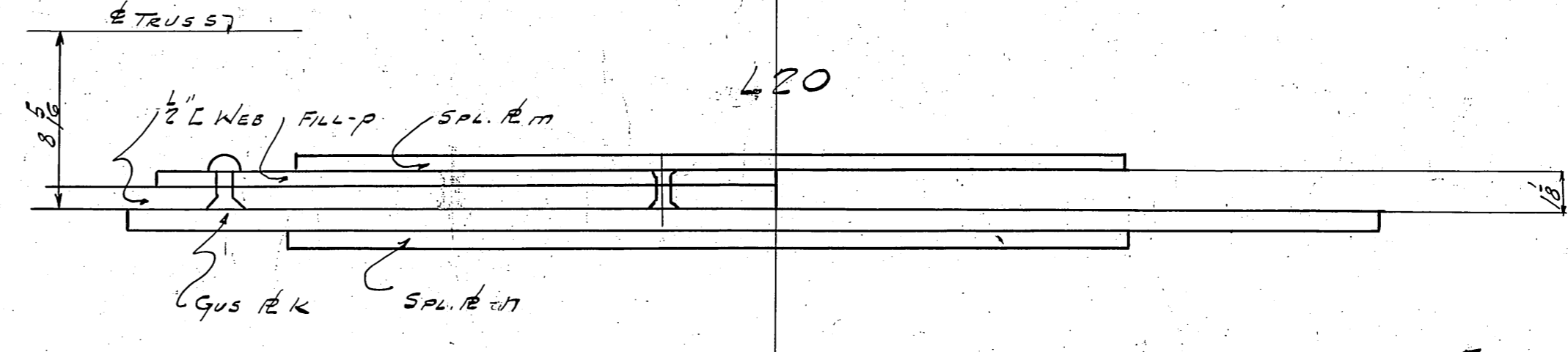
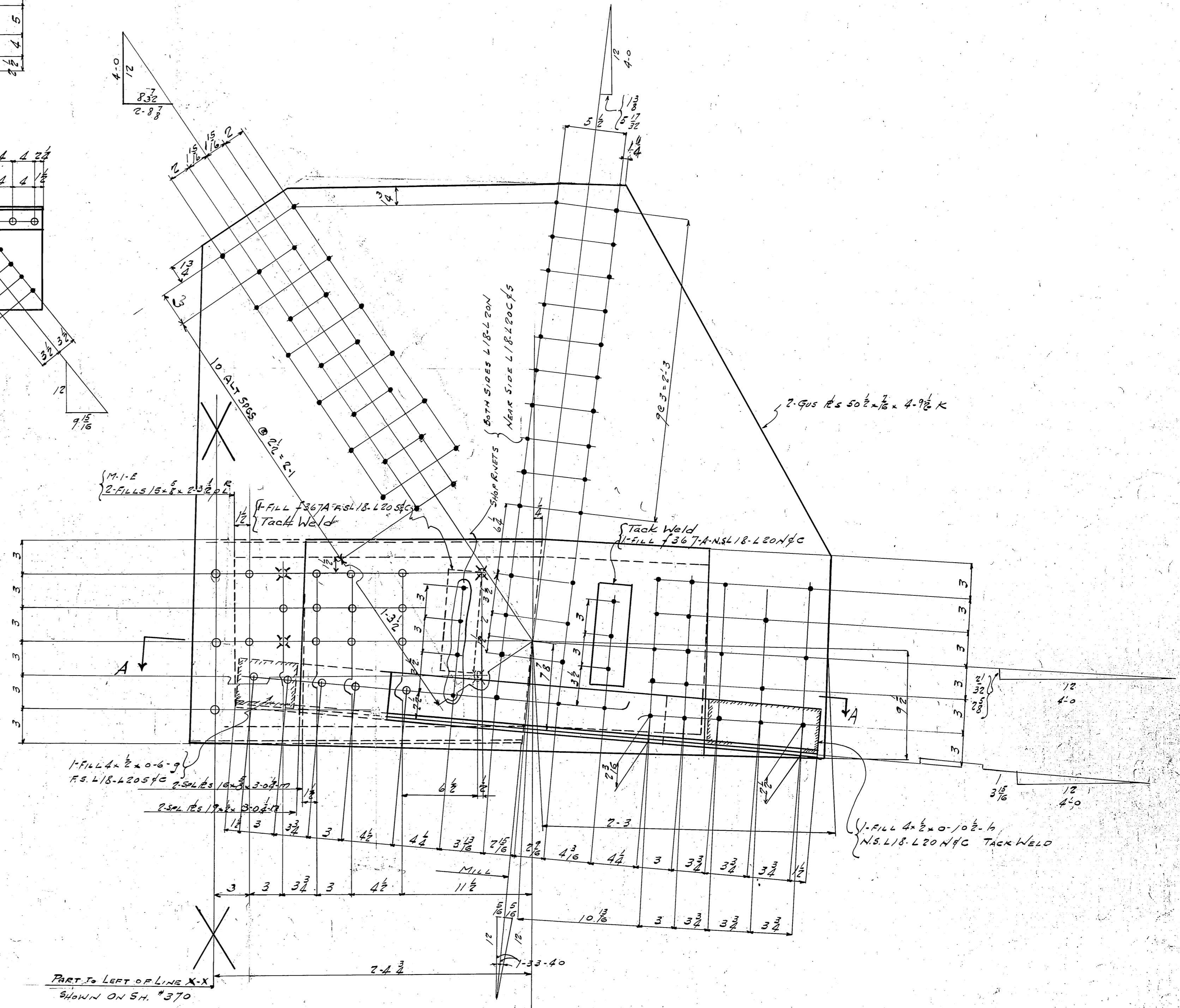


1-12 17x8x3-2 1/2 aa L24-L26 C/F5
 1-12 17x8x3-3/4 ab L18-L20 C/W
 1-L 4x4x3/8 ac L24-L26 C/F5
 1-L 4x4x3/8 ad L18-L20 C/W

SECTION A-A



L26



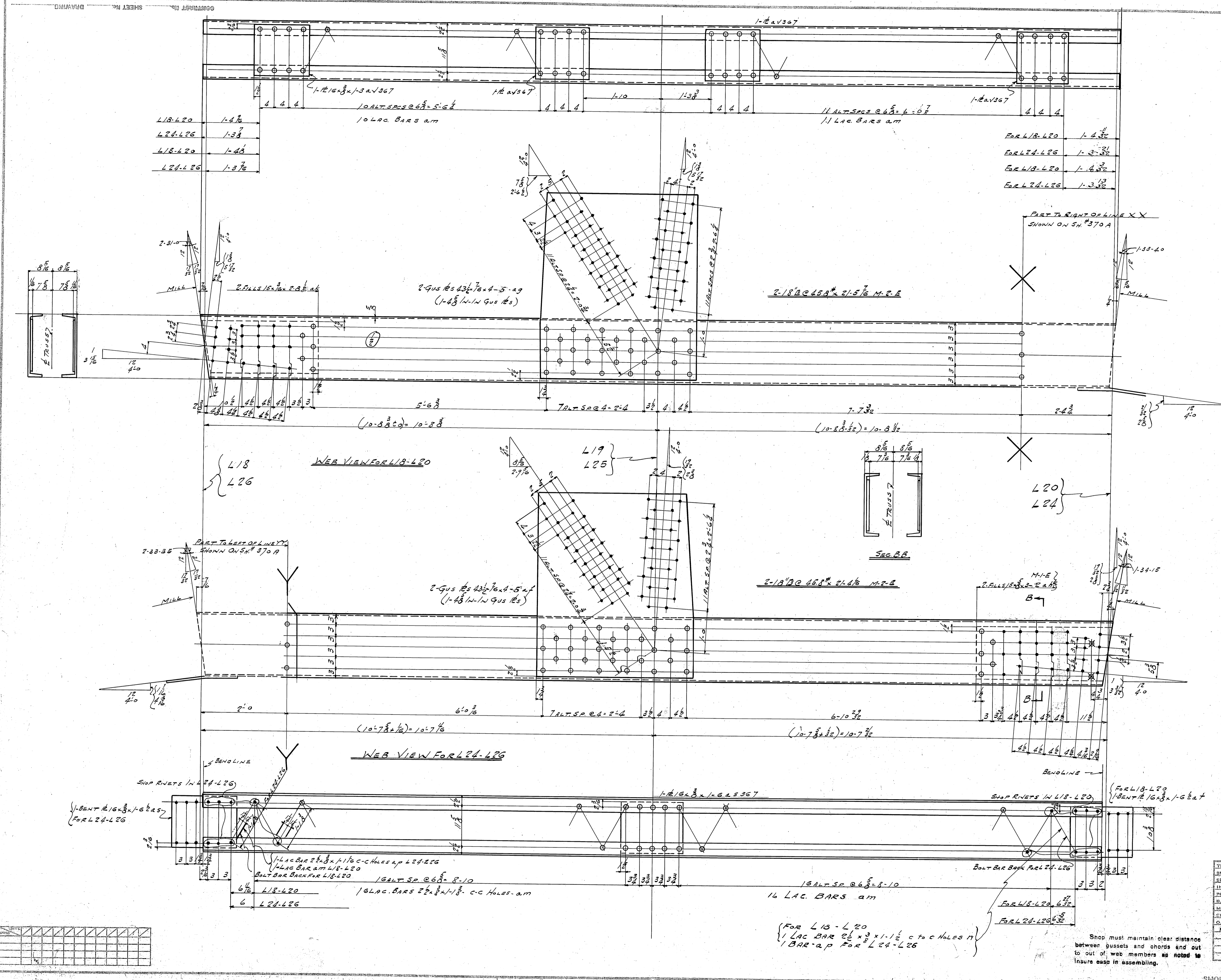
FOR NOTES SEE SH #370
 WORK THIS SHEET WITH SHEET #370
 FOR REQUIRED LIST SEE SHEET #370
 L20 & L26 (SPAN 7-10)

TEMP.	1
SUPT.	4
SHOP	4
INSP.	1
AC.WK.	1
B.SMITH	
MCH.	
ERECT.	
Q.INSP.	
IN CHARGE	B.A.N.
MADE BY	J.R.M.
CHECKED BY	A.T. 3-24-37
TRACED BY	J.P. 3-16-37
REVISED	I.C. 5-10-37
LAST ASSEM.	M.K.

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

RIVETS 7/8
 OPEN HOLES 1 1/8
 BEAM 1/2
 MILLING
 PAINT

SHOP NO. 2 CONTRACT CC 25873 SHEET 370A



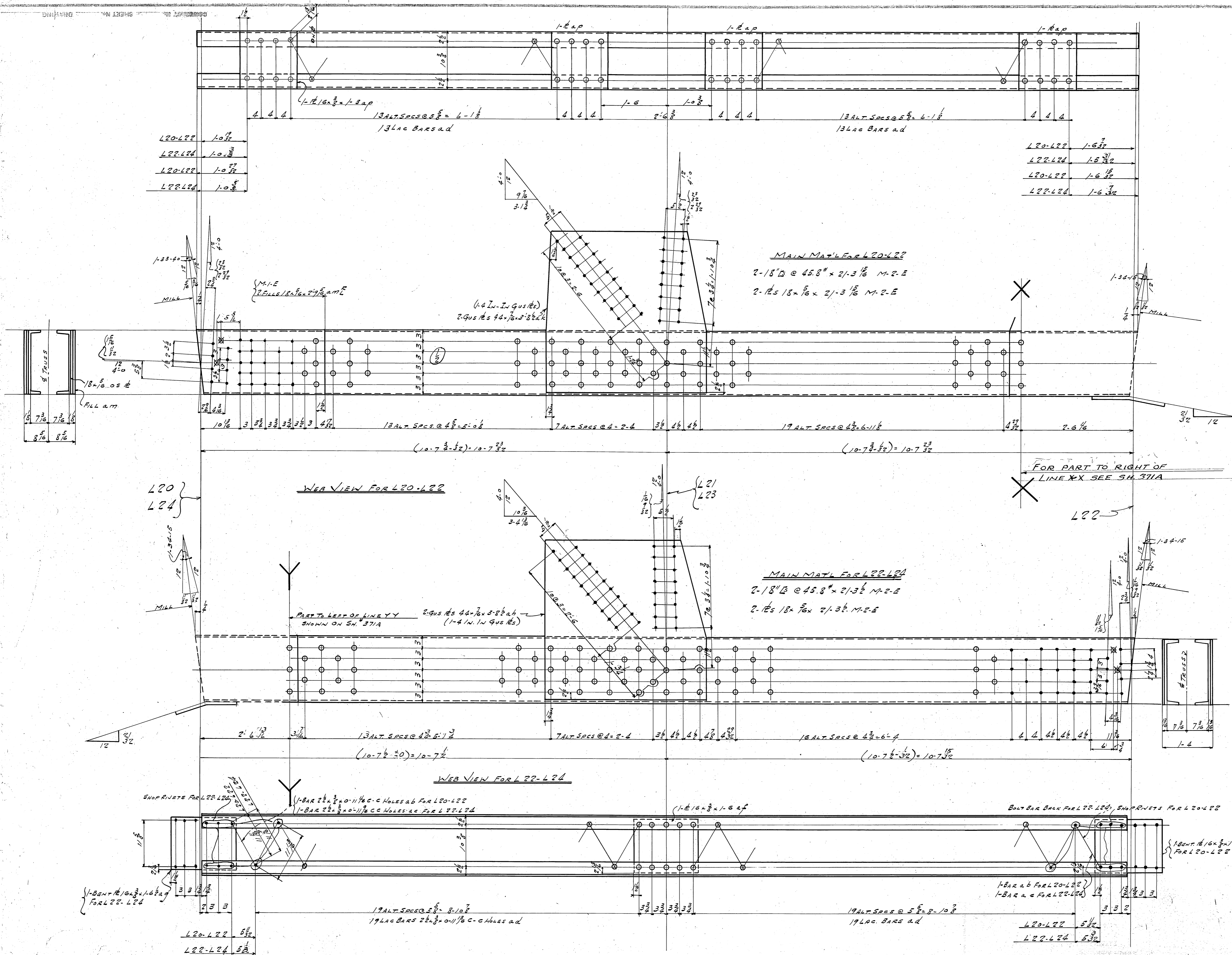
GENERAL NOTES:-
BIVETS:- 3/4
OPEN HOLES:- 1 1/2
MATERIAL:- Carbon steel A.S.F.M. A7-86 with .25% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid. Holes of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES of main material shall be planed, shipped or ground and present a smooth workmanlike appearance.
PAINT-1 One coat of RED LEAD except where noted. Shop contact surfaces not painted.
XXX Denotes break in stagger.

REQUIRED LIST			
No	MARK	DESCRIPTION	REMARKS
1	L18-L20	BOTTOM CHORD	
1	L18-L20C	D.	D.
1	L18-L20S	D.	D.
1	L24-L26	D.	D.
1	L24-L26C	D.	D.
1	L24-L26S	D.	D.

WORK THIS SHEET WITH SH # 370 A
 BOTTOM CHORDS L18-L20 & L24-L26 (SPAN 710)

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTI. - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at
 IN CHARGE *BORN* MADE BY *J.R.M.*
 CHECKED BY *AT 3-24-37* TRACED BY *J.P. 3-13-37*
 REVISED _____ LAST ASSEM. MIC.
 SHOP NO. 2 CONTRACT CC25873 SHEET 370

Shop must maintain clear distance between busses and chords and out to out of web members as noted to insure ease in assembling.



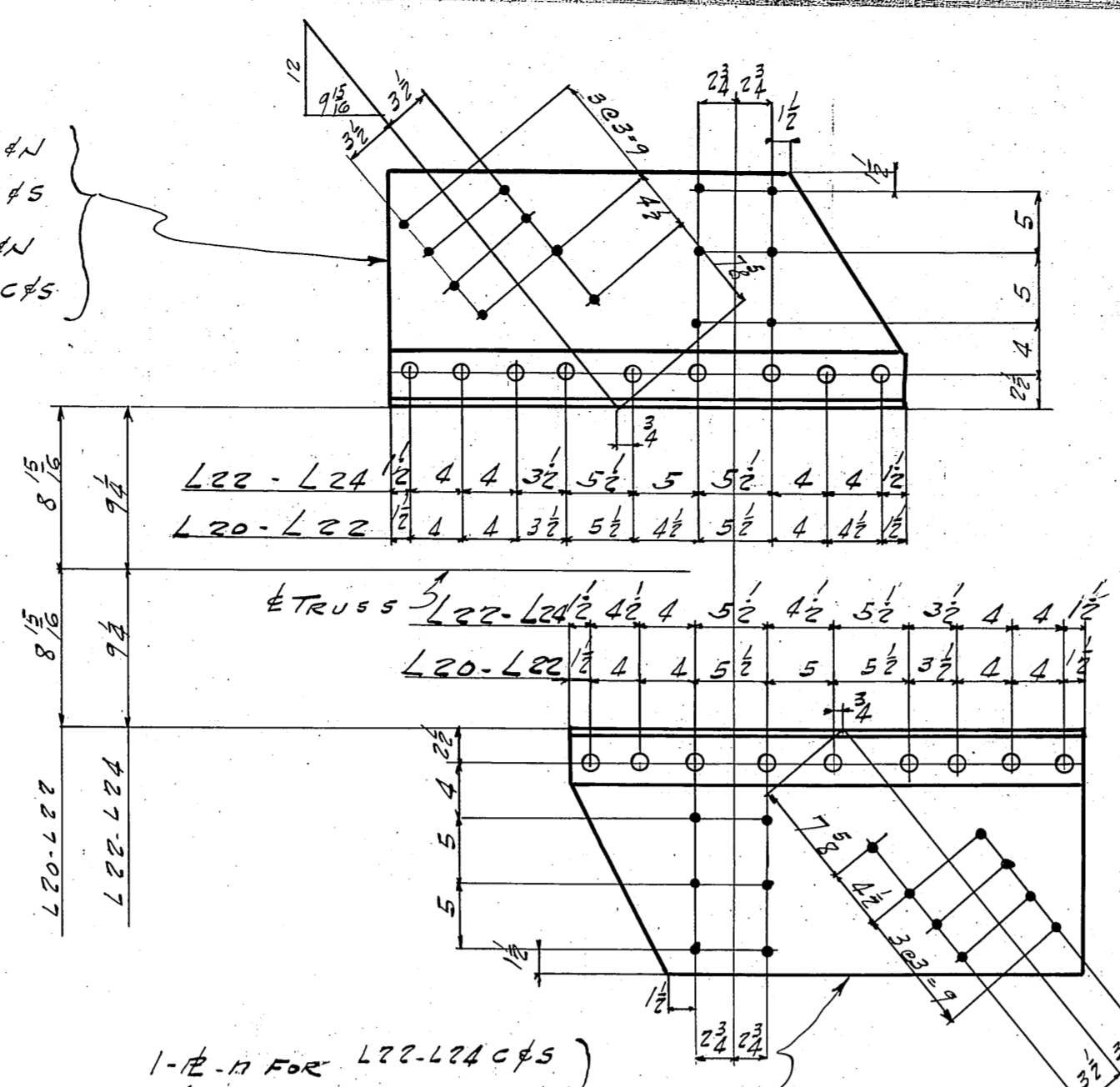
GENERAL NOTES:-
 RIVETS:- $\frac{3}{4}$ "
 GUSSET HOLES:- $\frac{1}{2}$ "
MATERIAL:- Carbon steel A.S.T.M. A7-34 with .25% copper content, except where noted.
FINISHING:- All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched $\frac{1}{8}$ " small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over $\frac{5}{8}$ " thick shall be subpunched $\frac{1}{8}$ " small and reamed to size.
 (d) Holes in main material over $\frac{3}{4}$ " thick shall be drilled from the solid.
PREPARED EDGES of main material over $\frac{5}{8}$ " thick shall be planed to a depth of $\frac{1}{4}$ " where noted on details.
FLAME CUT EDGES of main material shall be planed, clipped or ground and present a smooth workmanlike appearance.
PAINT:- One coat of RED LEAD except where noted. Shop contact surfaces not painted.
--- Denotes break in stagger.

REQUIRED LIST				
No.	REQ'D	MARK	DESCRIPTION	REMARKS
1		L20-L22N	BOTTOM CHORD	
1		L20-L22C	D. D.	
1		L20-L22S	D. D.	
1		L22-L24N	D. D.	
1		L22-L24C	D. D.	
1		L22-L24S	D. D.	

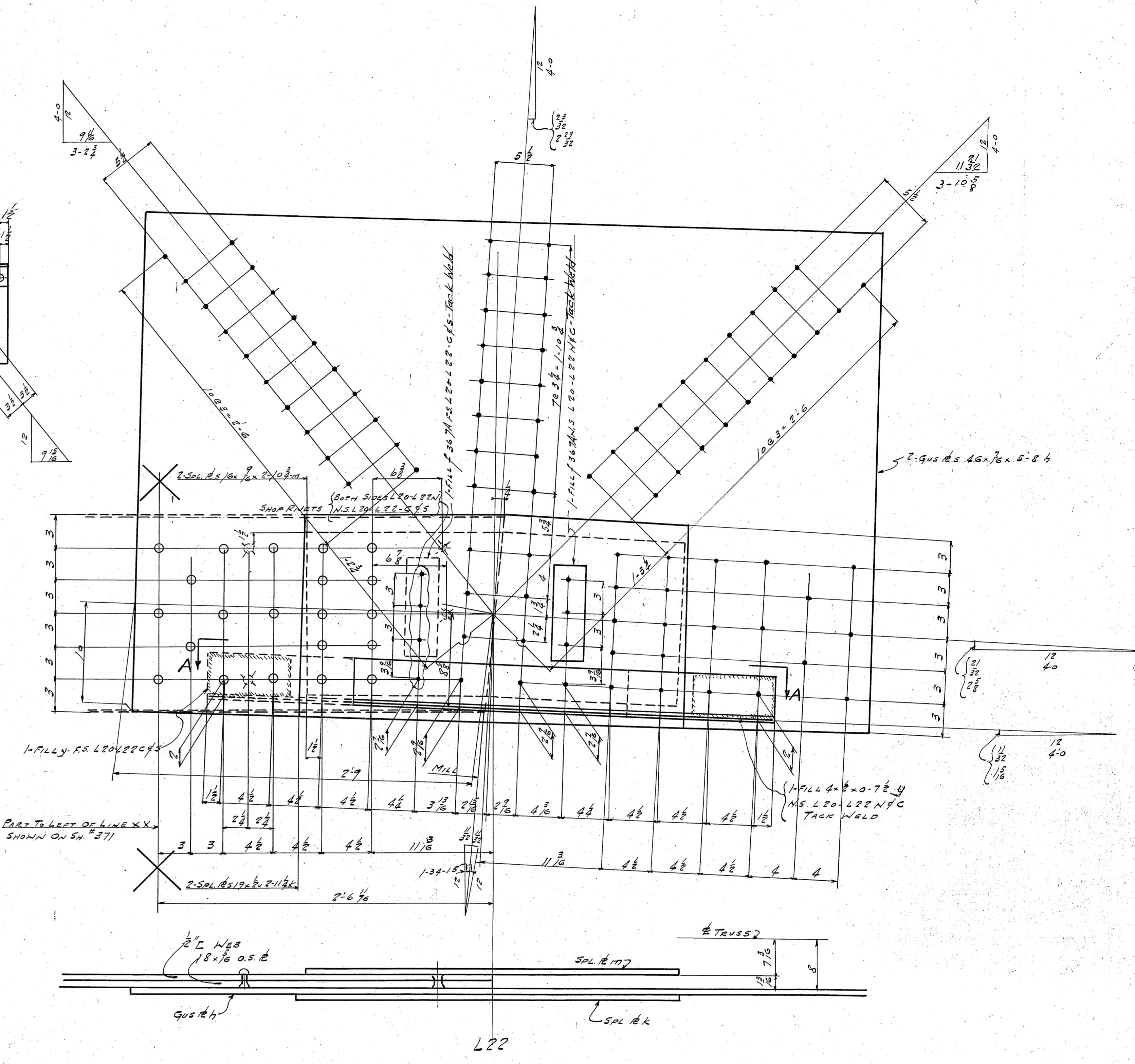
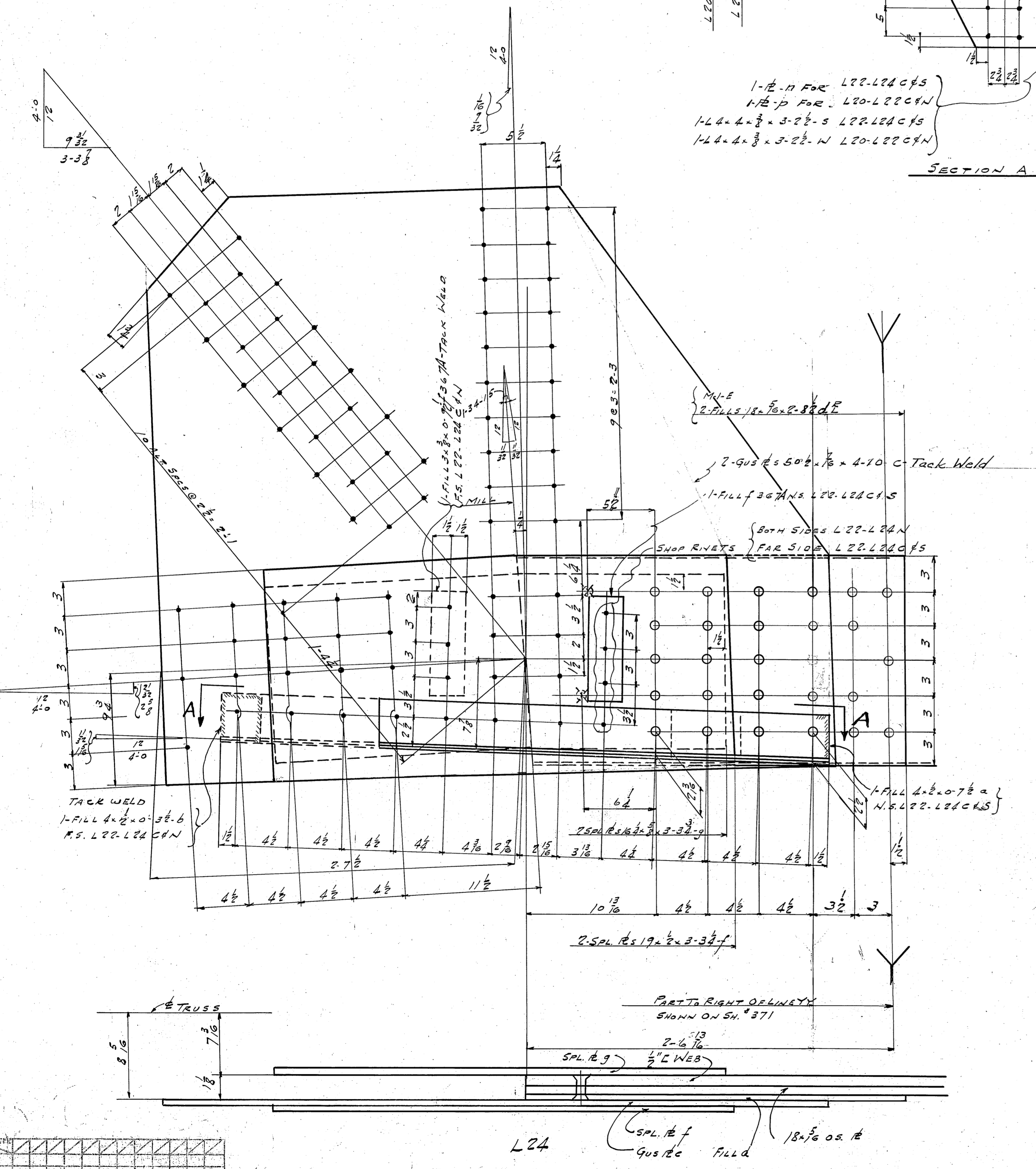
WORK THIS SHEET WITH SHEET #371A
 BOTTOM CHORDS L20-L22 & L22-L24 (SPAN 7'-10")
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTI - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at
 IN CHARGE: BORN MADE BY: J.R.M.
 CHECKED BY: A.T. 3-25-37 TRACED BY: J.P. 3-16-37
 REVISED: LAST ASSEM. PRK.
 SHOP NO. 2 CONTRACT CG 25873 SHEET 371
 FC. 78C 5/13/37 15-9-35

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

1-1/2 17x3x3-2 1/2 P L22-L24 CN
 1-1/2 17x3x3-2 1/2 N L20-L22 CF5
 1-L-4x4x3/8x3-2 1/2 L22-L24 CN
 1-L-4x4x3/8x3-2 1/2 N L20-L22 CF5



1-1/2 N FOR L22-L24 CF5
 1-1/2 P FOR L20-L22 CN
 1-L-4x4x3/8x3-2 1/2 L22-L24 CF5
 1-L-4x4x3/8x3-2 1/2 N L20-L22 CN



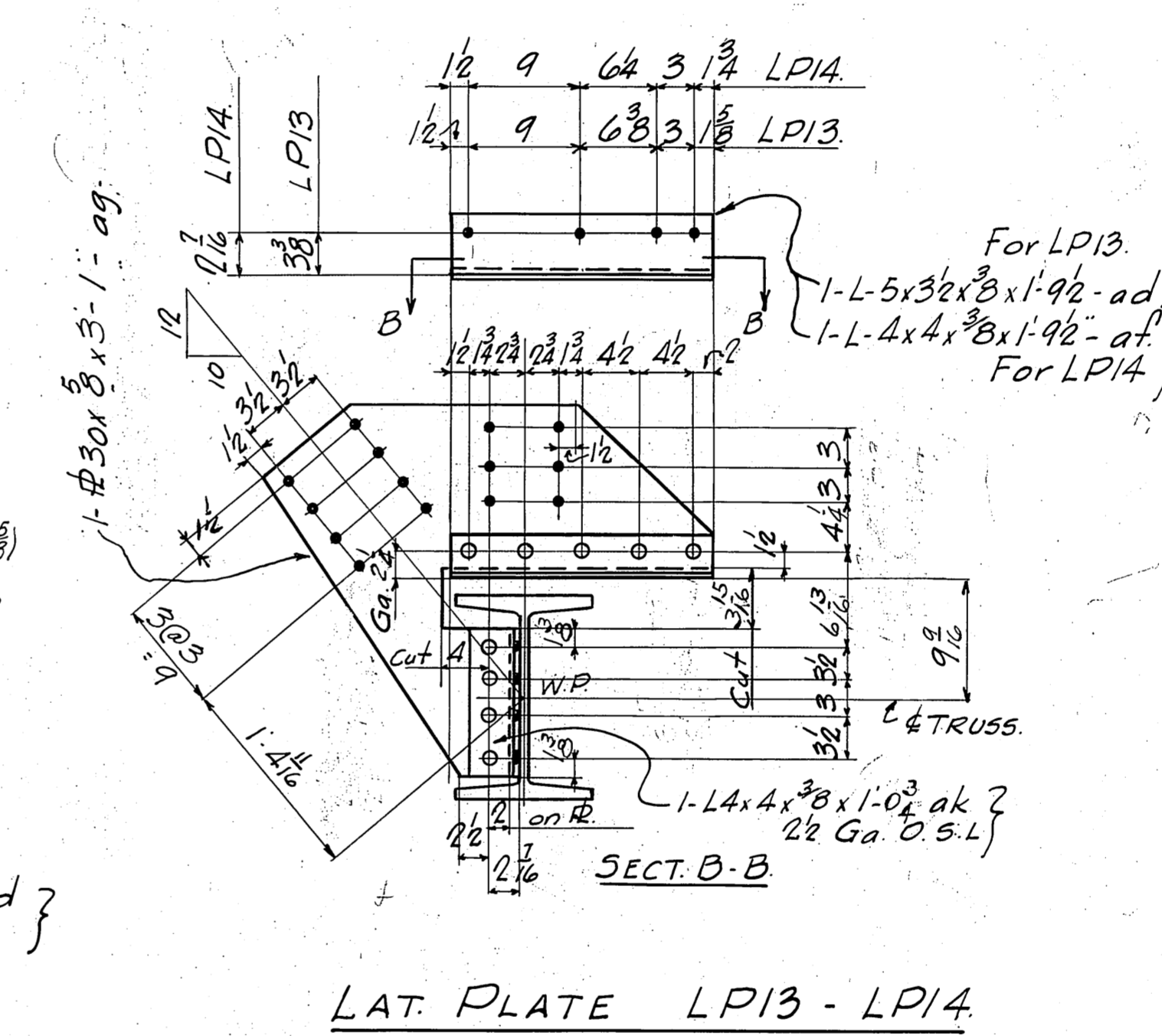
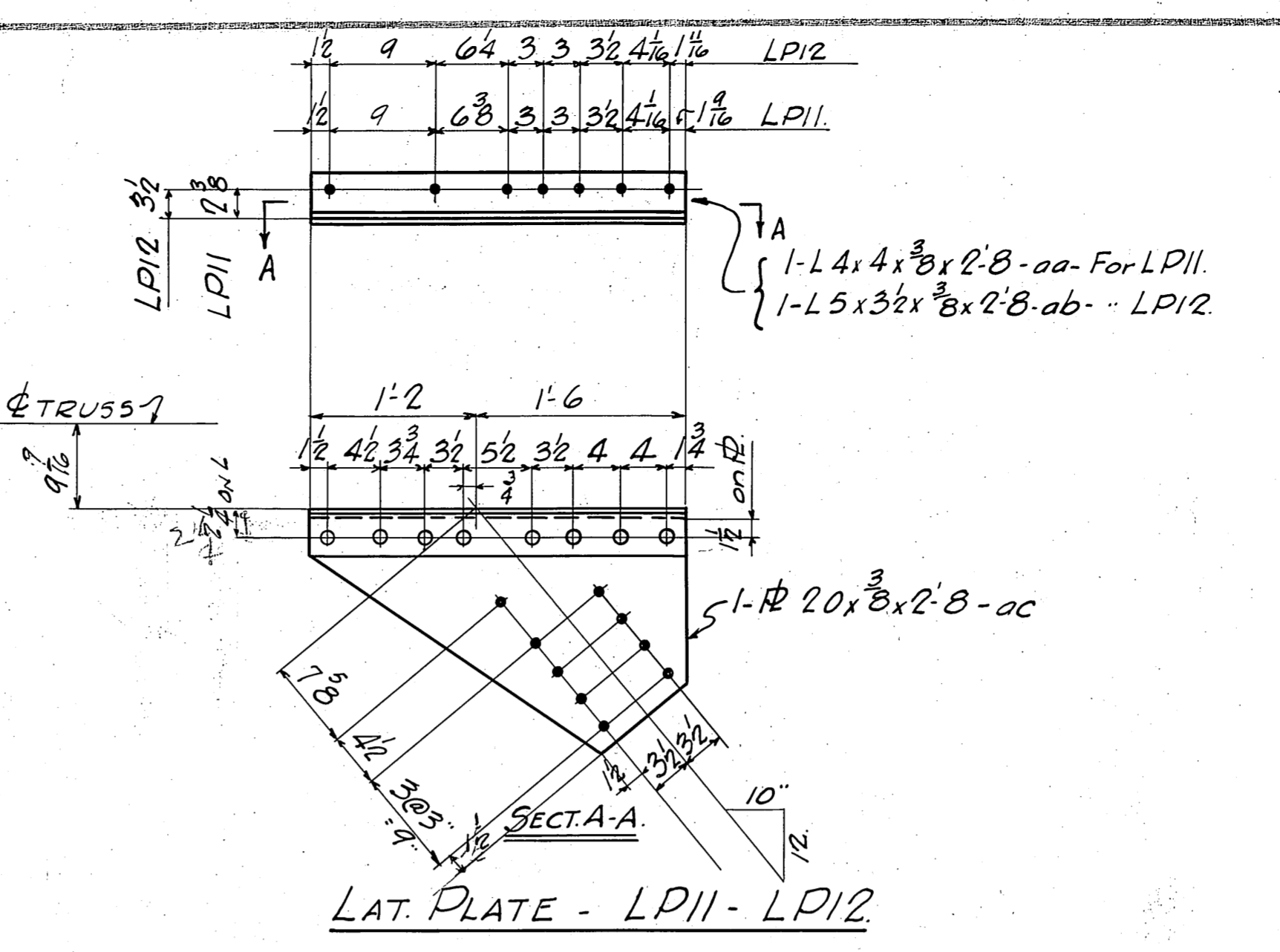
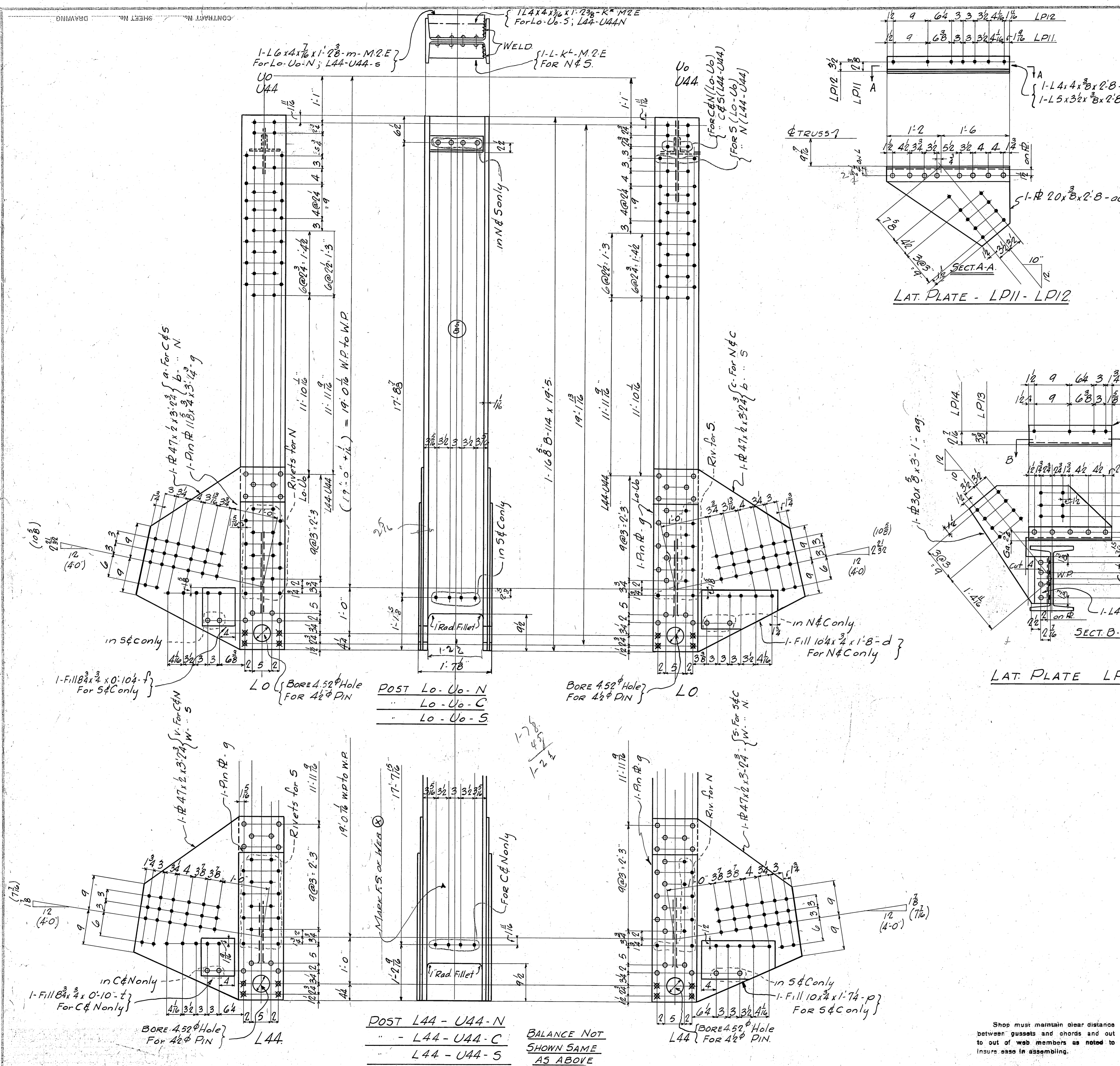
FOR NOTES SEE SH # 371
 WORK THIS SHEET WITH SH # 371
 FOR REQUIRED LIST SEE SH # 371

L22 & L24 (SPAN 7-10)

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTL - DEPT. PUBLIC WORKS
 DETLERSHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at
 IN CHARGE B. A. N. MADE BY J. R. M.
 CHECKED BY A. T. R. TRACED BY J. R. M.
 REVISED T.C. 5-10-37 LAST ASSEM. M.K.

Shop must maintain clear distance between gussets and chords and out to cut of web members as noted to insure ease in assembling.

RIVETS 7/8
 OPEN HOLES 1 1/8
 BEAM MILLING
 PRINT



REQUIRED LIST

No.	DESCRIPTION	MARK	REMARK
1	POST	Lo-Uo-N	
1		Lo-Uo-C	
1		Lo-Uo-S	
1		L44-U44-N	
1		L44-U44-C	
1		L44-U44-S	
2	LAT. PLATE	LP11	
2		LP12	
2		LP13	
2		LP14	

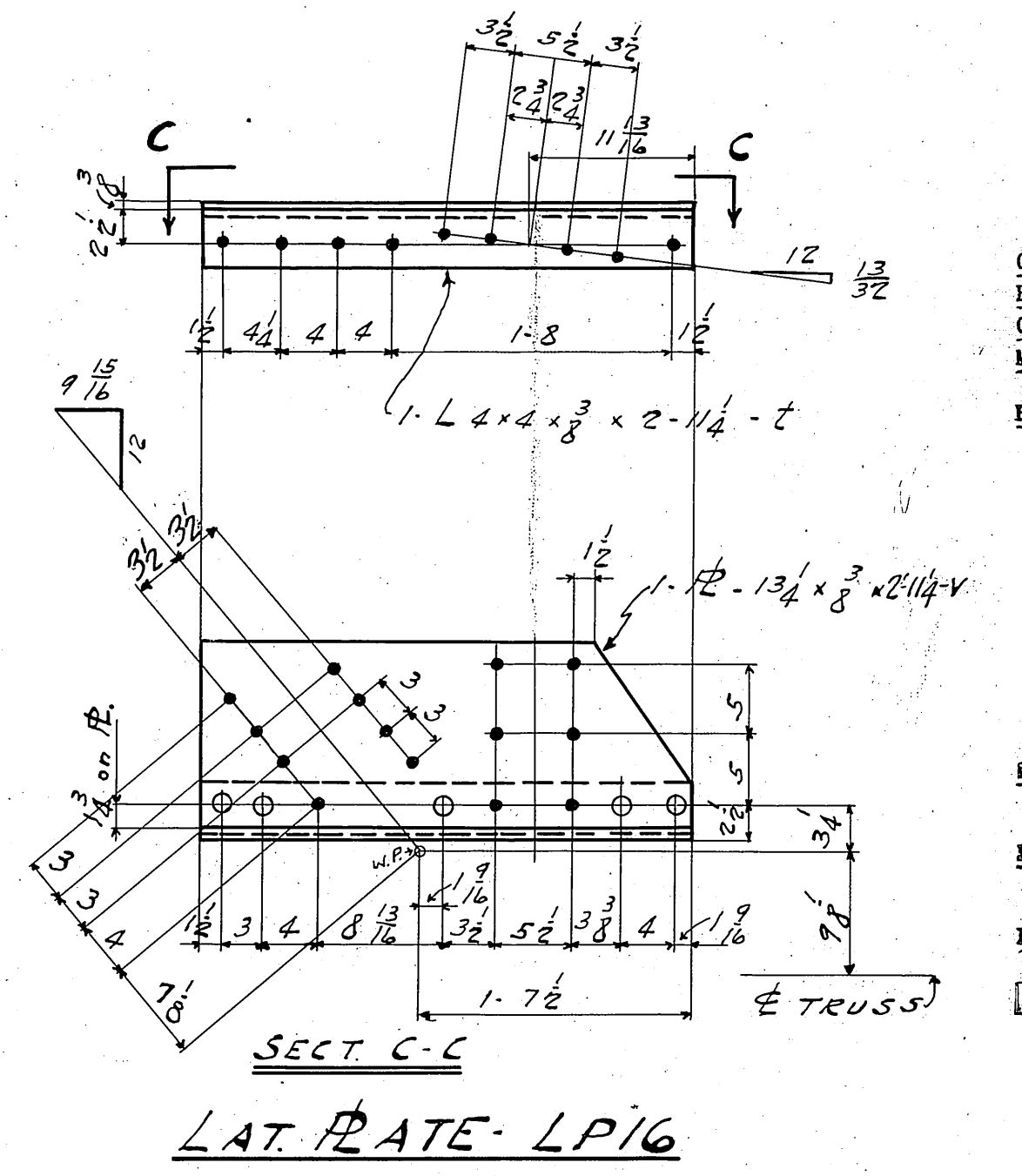
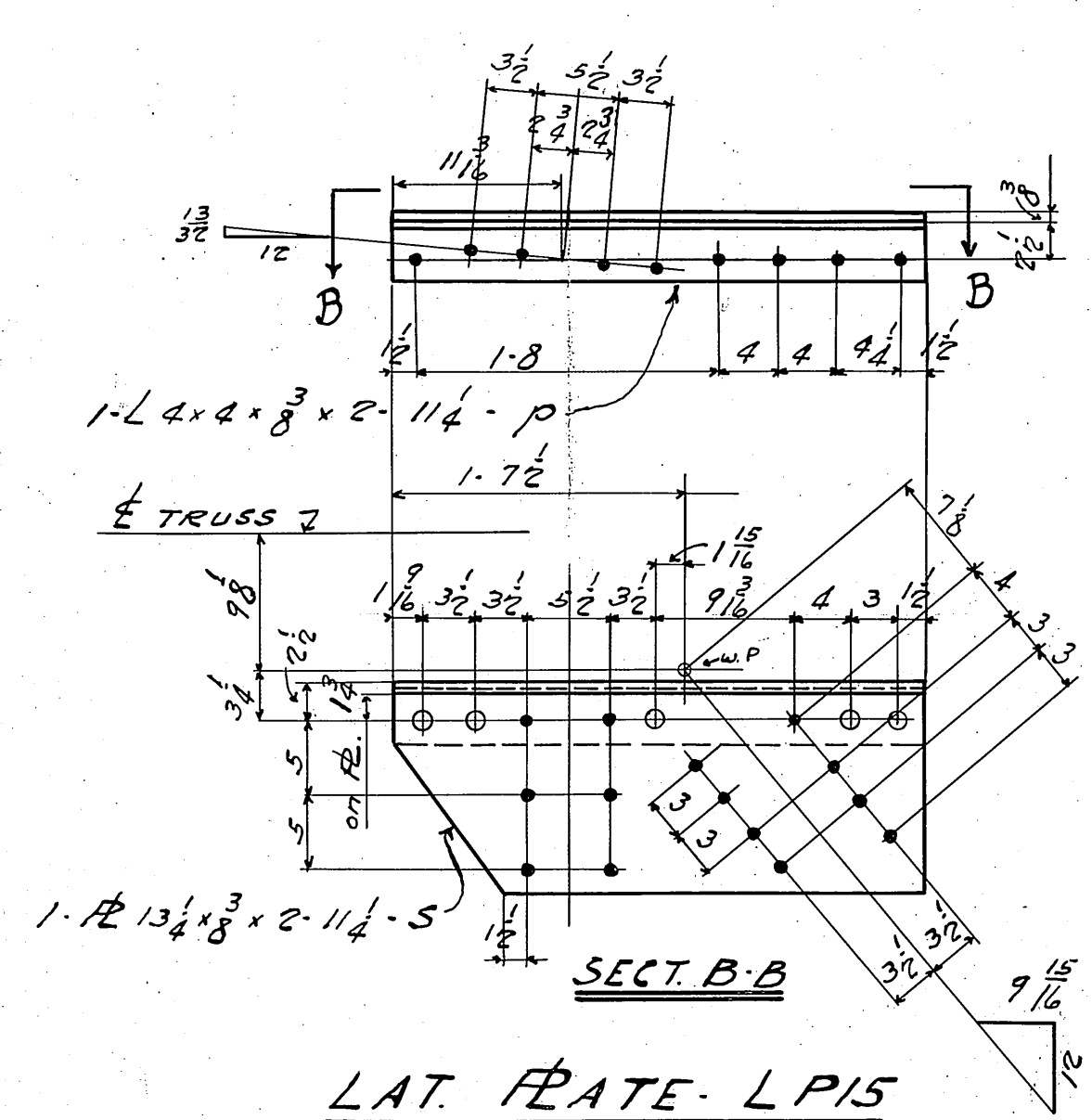
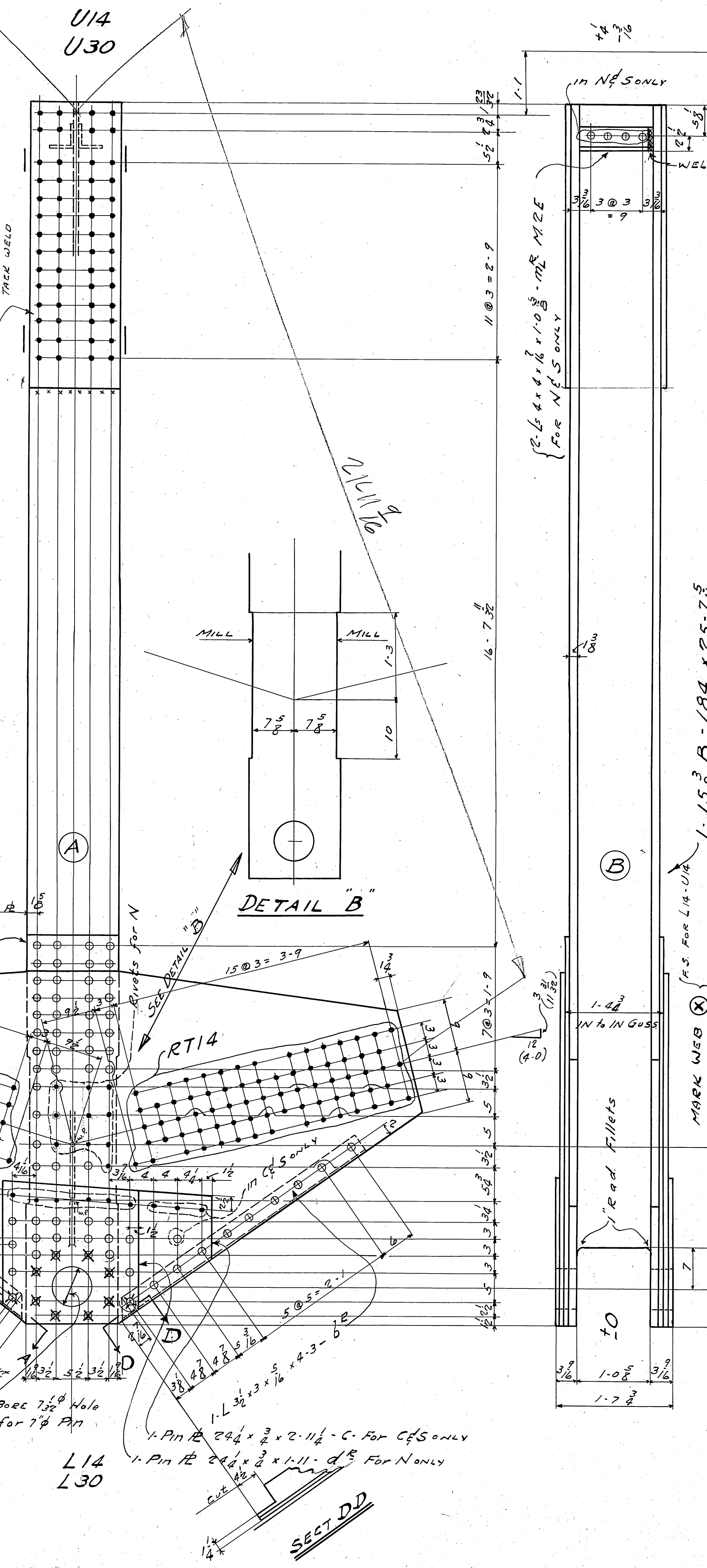
GENERAL NOTES:
 RIVETS - 3/4"
 OPEN HOLES - 1/2"
 MATERIAL - Carbon steel A.S.T.M. A7-34 with .25% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 SHARP EDGES - Edges of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 FLAME CUT EDGES - Edges of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
 PAINT - One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 Denotes break in stagger.

LATERAL BRACES LP 11-12-13-14
 POST Lo-Uo; L44-U44 (SPAN 7'-10")
COLUMBIA AVE. VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTI. - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at:
 IN CHARGE: BORN MADE BY: G.S.
 CHECKED BY: A.T. 3-27-37 TRACED BY: W.H.M. 2-20-37
 REVISED: LAST ASSEMBLY: 372
 SHOP NO. 2 CONTRACT CC 25873 SHEET 372
 P.C. 78C 9/497

Shop must maintain clear distance between gussets and chords and out to out of web members as noted to insure ease in assembling.

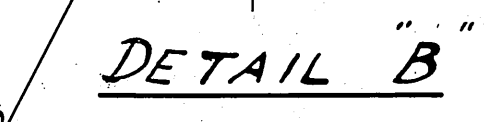
BALANCE NOT SHOWN SAME AS ABOVE

POST L44 - U44 - N
 - L44 - U44 - C
 L44 - U44 - S



GENERAL NOTES:-
RIVETS:- 7/8"
OPEN HOLES:- 1 1/8"
MATERIAL:-
FRAMING:-
 Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
SEAMER EDGES OF MAIN MATERIAL OVER 5/8" THICK shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance. One coat of RED LEAD except where noted. Shop contact surfaces not painted.
PAINT:-
 Denotes break in stagger.

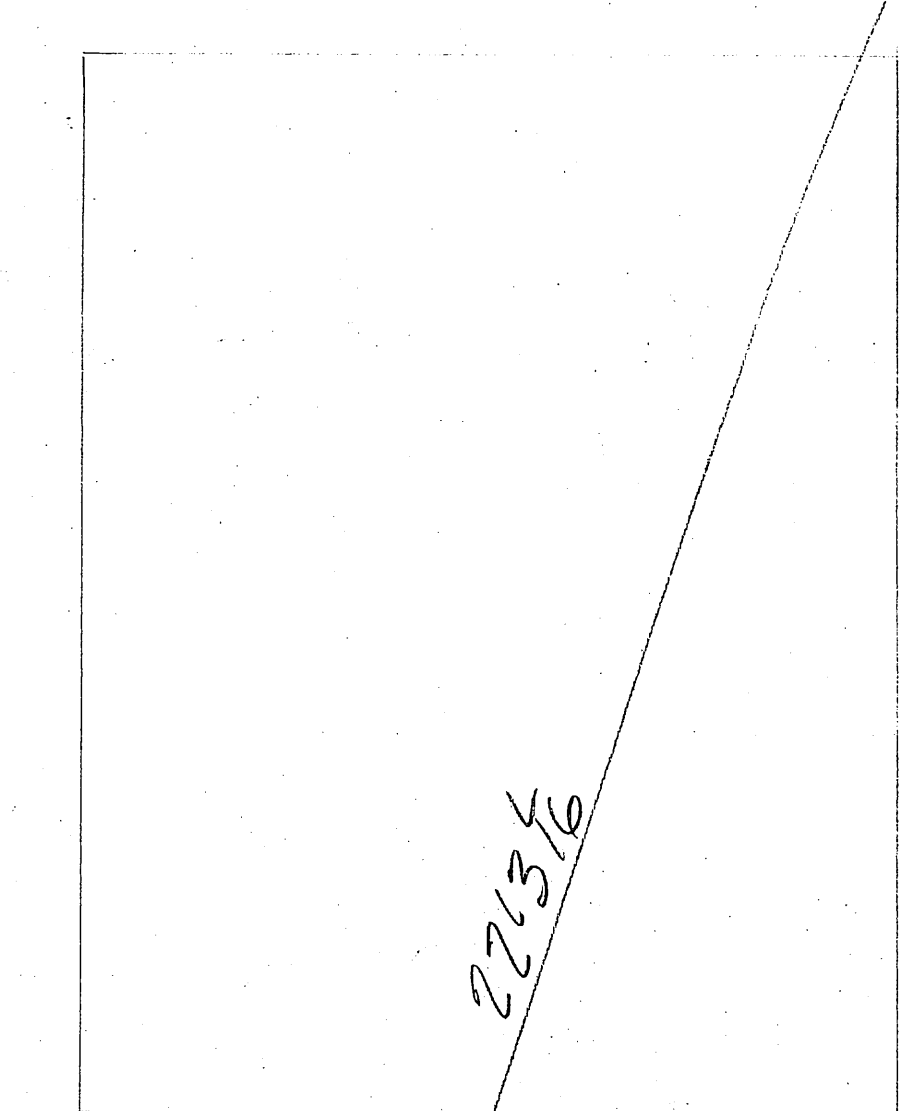
REQUIRED LIST			
Nº	DESCRIPTION	MARK	REMARK
1	Post	L14-U14-N	
1	"	L14-U14-C	
1	"	L14-U14-S	
1	"	L30-U30-N	
1	"	L30-U30-C	
1	"	L30-U30-S	
4	LAT. PLATES	LP15	
4	"	LP16	



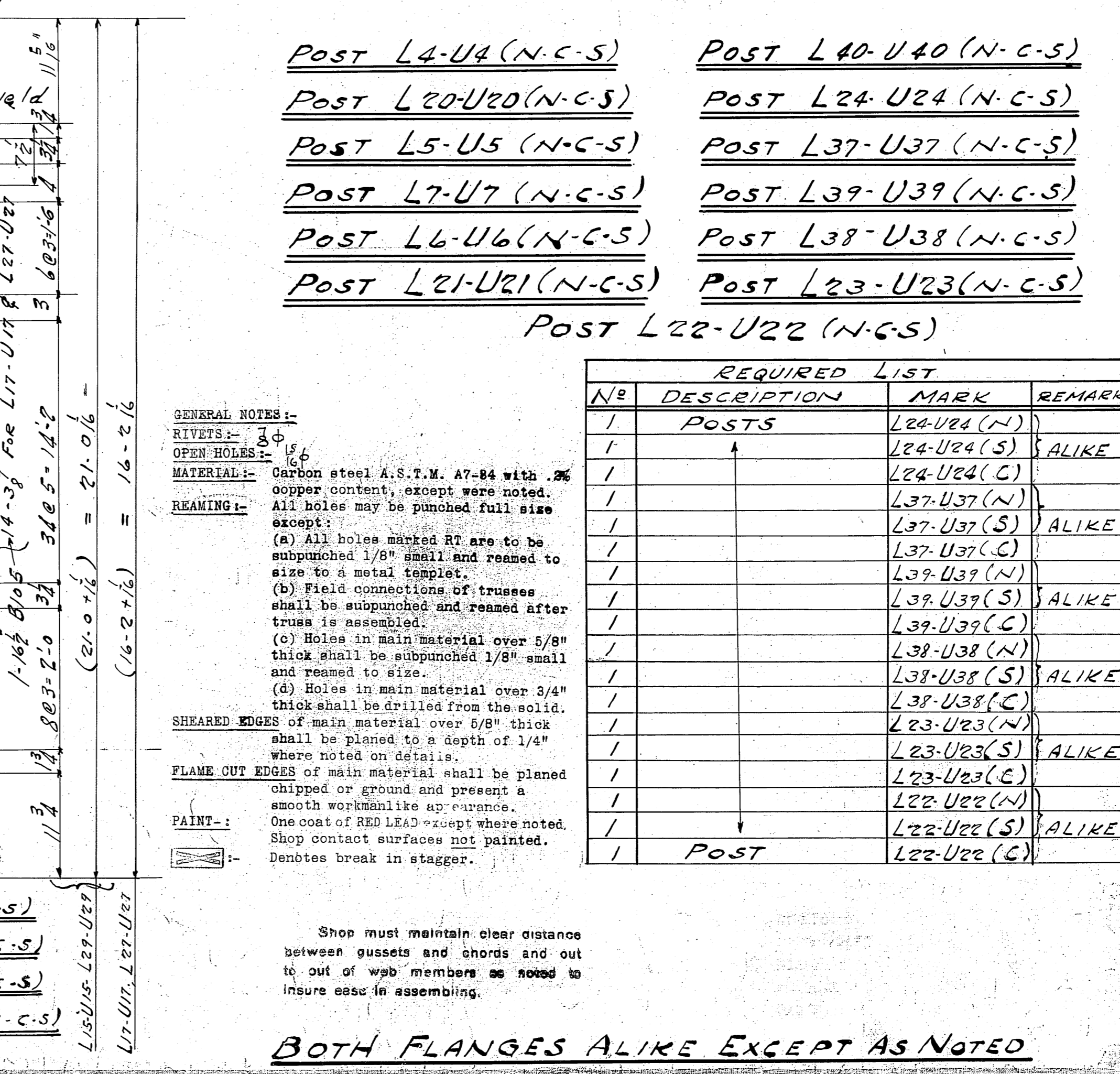
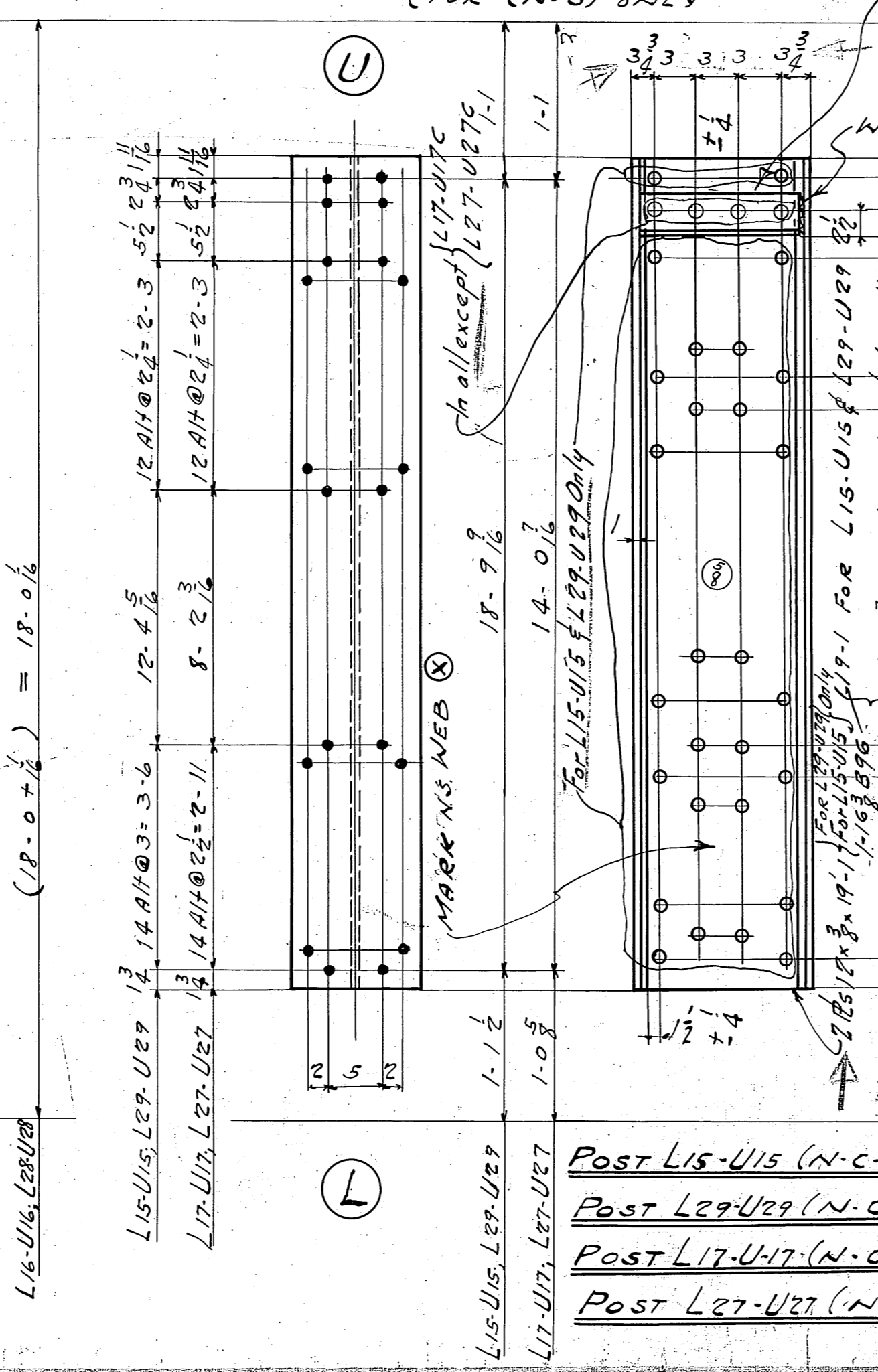
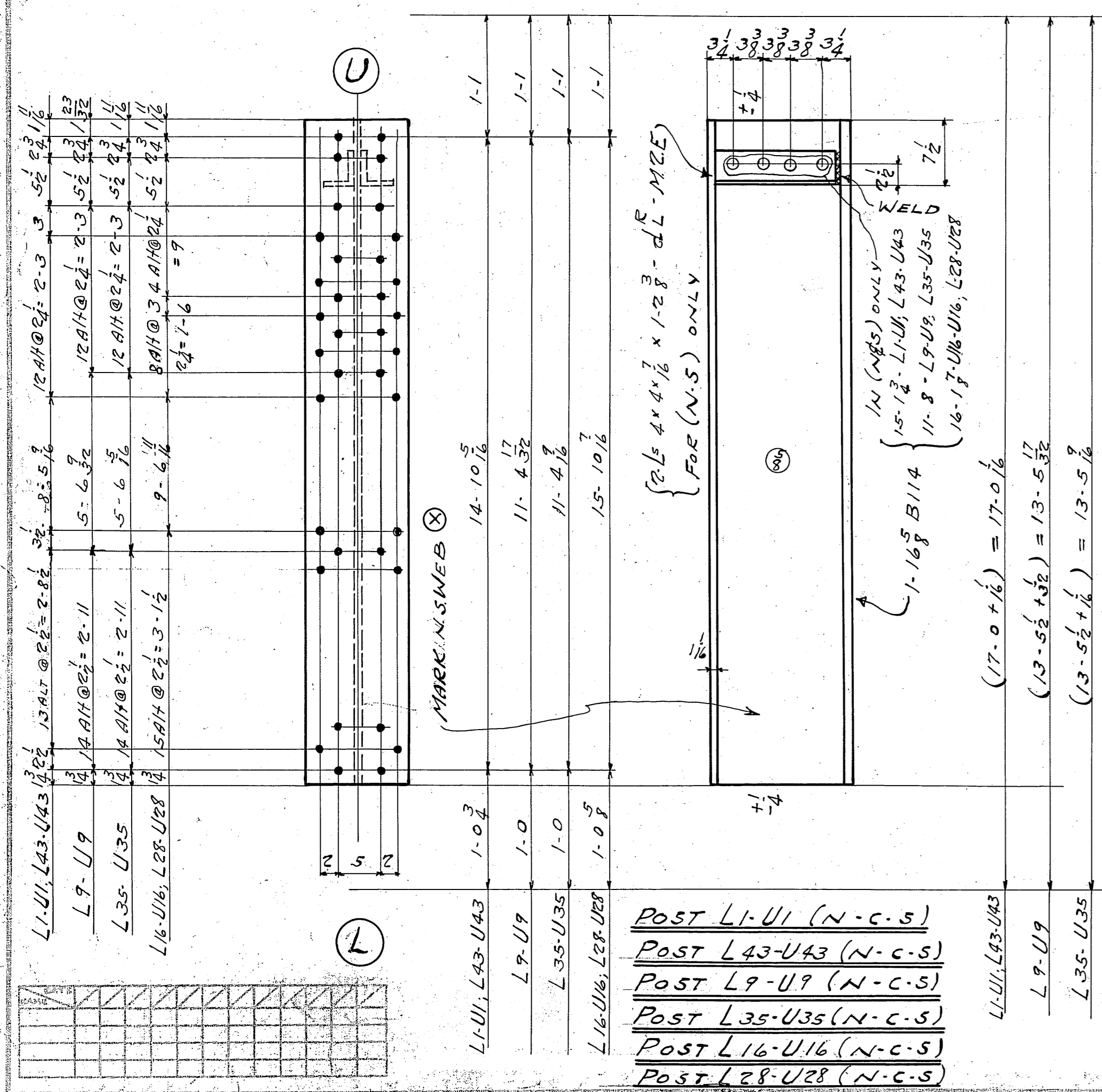
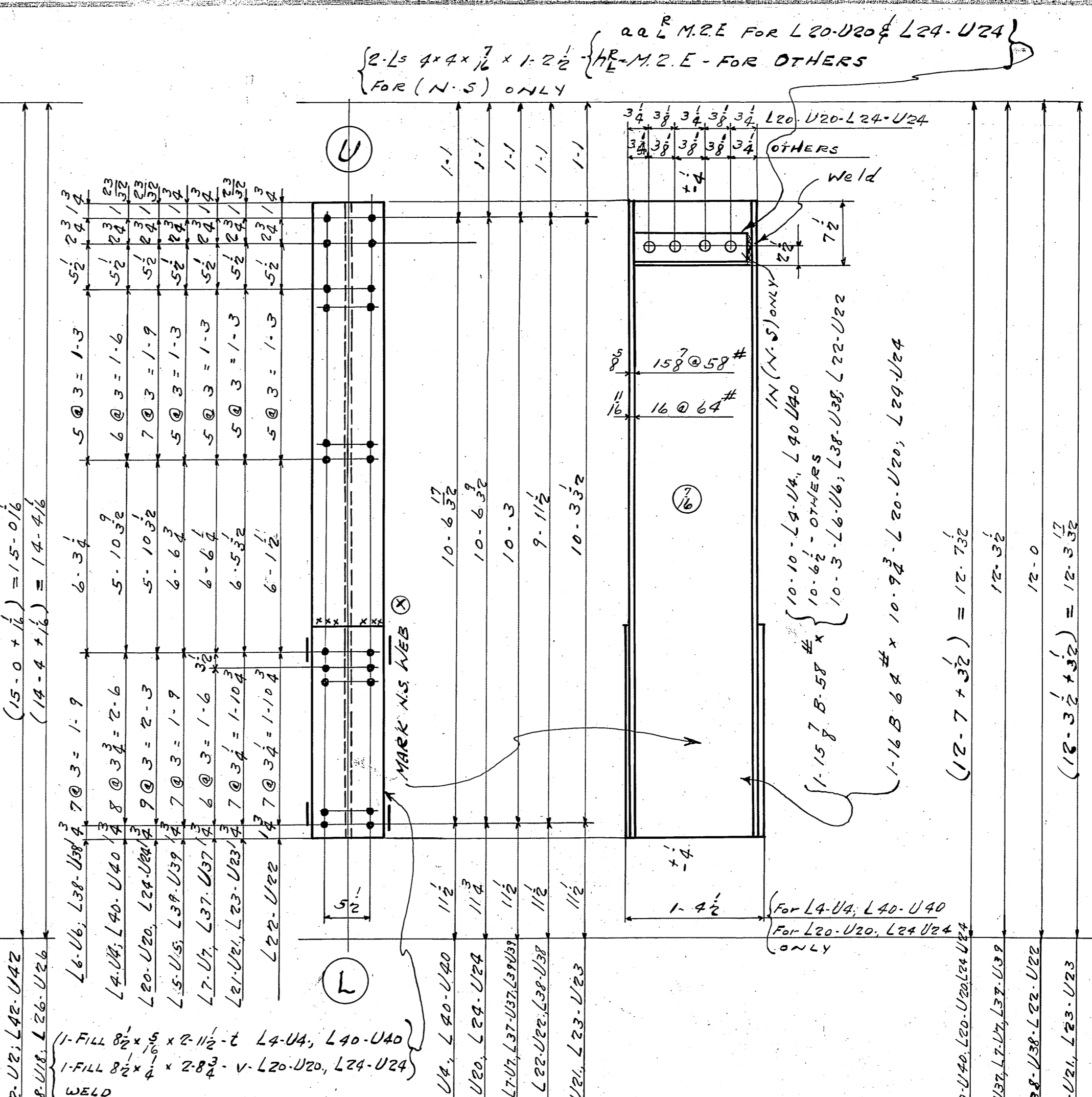
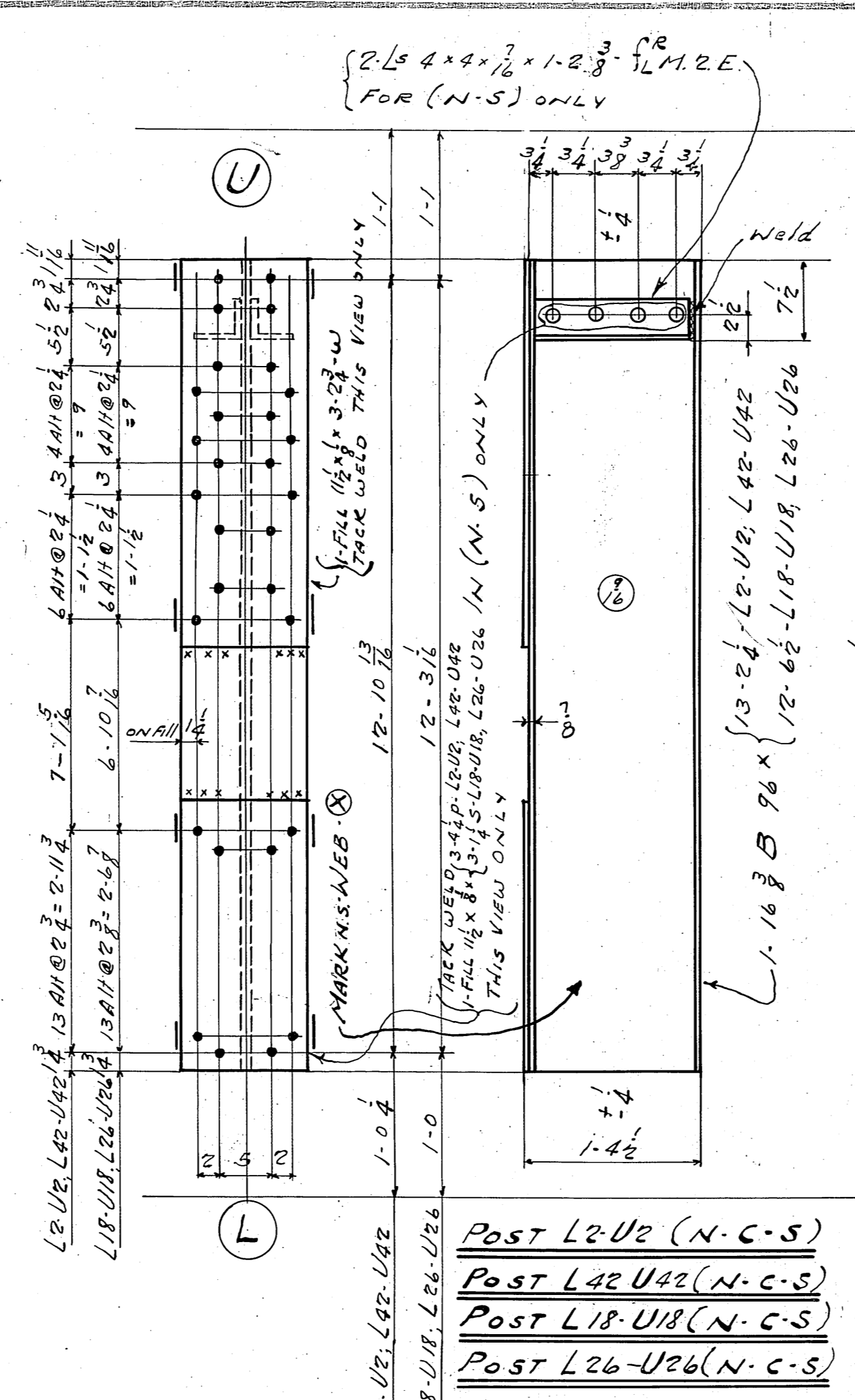
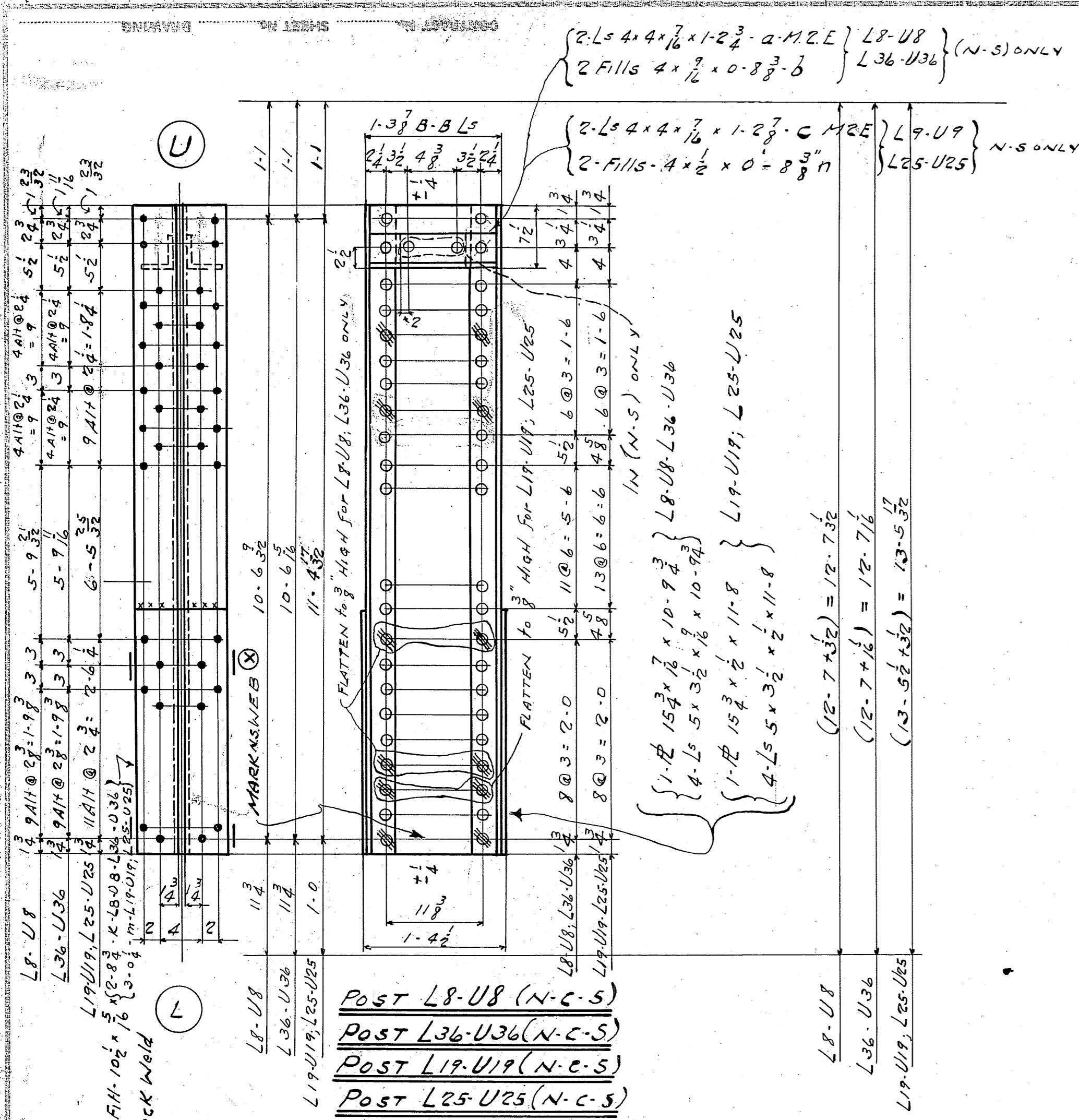
1-R. 602 x 2 x 9-11. { F-for CFS }
 1-Pin R. 15 3/4 x 1 1/2 x 5-6 3/4. h

1-R. 602 x 2 x 9-11. { K-for CFN }
 1-Pin S

BALANCE NOT SHOWN SAME AS FACE A



LATERAL BRACES LP15 & LP16
 POST L14-U14, L30-U30 (SPAN 7-10)
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTL - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings of Rankin - Fabrication at
 IN CHARGE *Born* MADE BY *G.S.*
 CHECKED BY *A.T. 3-25-37* TRACED BY *M.D.R. 2-23-37*
 REVISED *W.A.T. 1-10-37* VAST ASSEM. PKG.
 SHOP NO. 2 CONTRACT CC 25873 SHEET 373
 EC 78C 5/1437



REQUIRED LIST			
Nº	DESCRIPTION	MARK	REMARKS
1	POST	L8-U8 (N)	
1		L8-U8 (S)	ALIKE
1		L8-U8 (C)	
1		L36-U36 (N)	
1		L36-U36 (S)	ALIKE
1		L36-U36 (C)	
1		L19-U19 (N)	
1		L19-U19 (S)	ALIKE
1		L19-U19 (C)	
1		L25-U25 (N)	
1		L25-U25 (S)	ALIKE
1		L25-U25 (C)	
1		L1-U1 (N)	
1		L1-U1 (S)	ALIKE
1		L1-U1 (C)	
1		L43-U43 (N)	
1		L43-U43 (S)	ALIKE
1		L43-U43 (C)	
1		L9-U9 (N)	
1		L9-U9 (S)	ALIKE
1		L9-U9 (C)	
1		L35-U35 (N)	
1		L35-U35 (S)	ALIKE
1		L35-U35 (C)	
1		L16-U16 (N)	
1		L16-U16 (S)	ALIKE
1		L16-U16 (C)	
1		L28-U28 (N)	
1		L28-U28 (S)	ALIKE
1		L28-U28 (C)	
1		L2-U2 (N)	
1		L2-U2 (S)	ALIKE
1		L2-U2 (C)	
1		L42-U42 (N)	
1		L42-U42 (S)	ALIKE
1		L42-U42 (C)	
1		L18-U18 (N)	
1		L18-U18 (S)	ALIKE
1		L18-U18 (C)	
1		L26-U26 (N)	
1		L26-U26 (S)	ALIKE
1		L26-U26 (C)	
1		L15-U15 (N)	
1		L15-U15 (S)	ALIKE
1		L15-U15 (C)	
1		L29-U29 (N)	
1		L29-U29 (S)	ALIKE
1		L29-U29 (C)	
1		L17-U17 (N)	
1		L17-U17 (S)	ALIKE
1		L17-U17 (C)	
1		L27-U27 (N)	
1		L27-U27 (S)	ALIKE
1		L27-U27 (C)	
1		L4-U4 (N)	
1		L4-U4 (S)	ALIKE
1		L4-U4 (C)	
1		L20-U20 (N)	
1		L20-U20 (S)	ALIKE
1		L20-U20 (C)	
1		L5-U5 (N)	
1		L5-U5 (S)	ALIKE
1		L5-U5 (C)	
1		L7-U7 (N)	
1		L7-U7 (S)	ALIKE
1		L7-U7 (C)	
1		L39-U39 (N)	
1		L39-U39 (S)	ALIKE
1		L39-U39 (C)	
1		L38-U38 (N)	
1		L38-U38 (S)	ALIKE
1		L38-U38 (C)	
1		L21-U21 (N)	
1		L21-U21 (S)	ALIKE
1		L21-U21 (C)	
1		L23-U23 (N)	
1		L23-U23 (S)	ALIKE
1		L23-U23 (C)	
1		L22-U22 (N)	
1		L22-U22 (S)	ALIKE
1		L22-U22 (C)	

GENERAL NOTES:-
 RIVETS:
 OPEN HOLES:
 MATERIAL: Carbon steel A.S.T.M. A7-84 with .2% copper content, except where noted. All holes may be punched full size except:
 REAMING:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 FLAME CUT EDGES of main material shall be planed chipped or ground and present a smooth workmanlike appearance.
 PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted. Don'ts break in stagger.

REQUIRED LIST			
Nº	DESCRIPTION	MARK	REMARK
1	POSTS	L24-U24 (N)	
1		L24-U24 (S)	ALIKE
1		L24-U24 (C)	
1		L37-U37 (N)	
1		L37-U37 (S)	ALIKE
1		L37-U37 (C)	
1		L39-U39 (N)	
1		L39-U39 (S)	ALIKE
1		L39-U39 (C)	
1		L38-U38 (N)	
1		L38-U38 (S)	ALIKE
1		L38-U38 (C)	
1		L21-U21 (N)	
1		L21-U21 (S)	ALIKE
1		L21-U21 (C)	
1		L40-U40 (N)	
1		L40-U40 (S)	ALIKE
1		L40-U40 (C)	
1		L23-U23 (N)	
1		L23-U23 (S)	ALIKE
1		L23-U23 (C)	
1		L22-U22 (N)	
1		L22-U22 (S)	ALIKE
1		L22-U22 (C)	

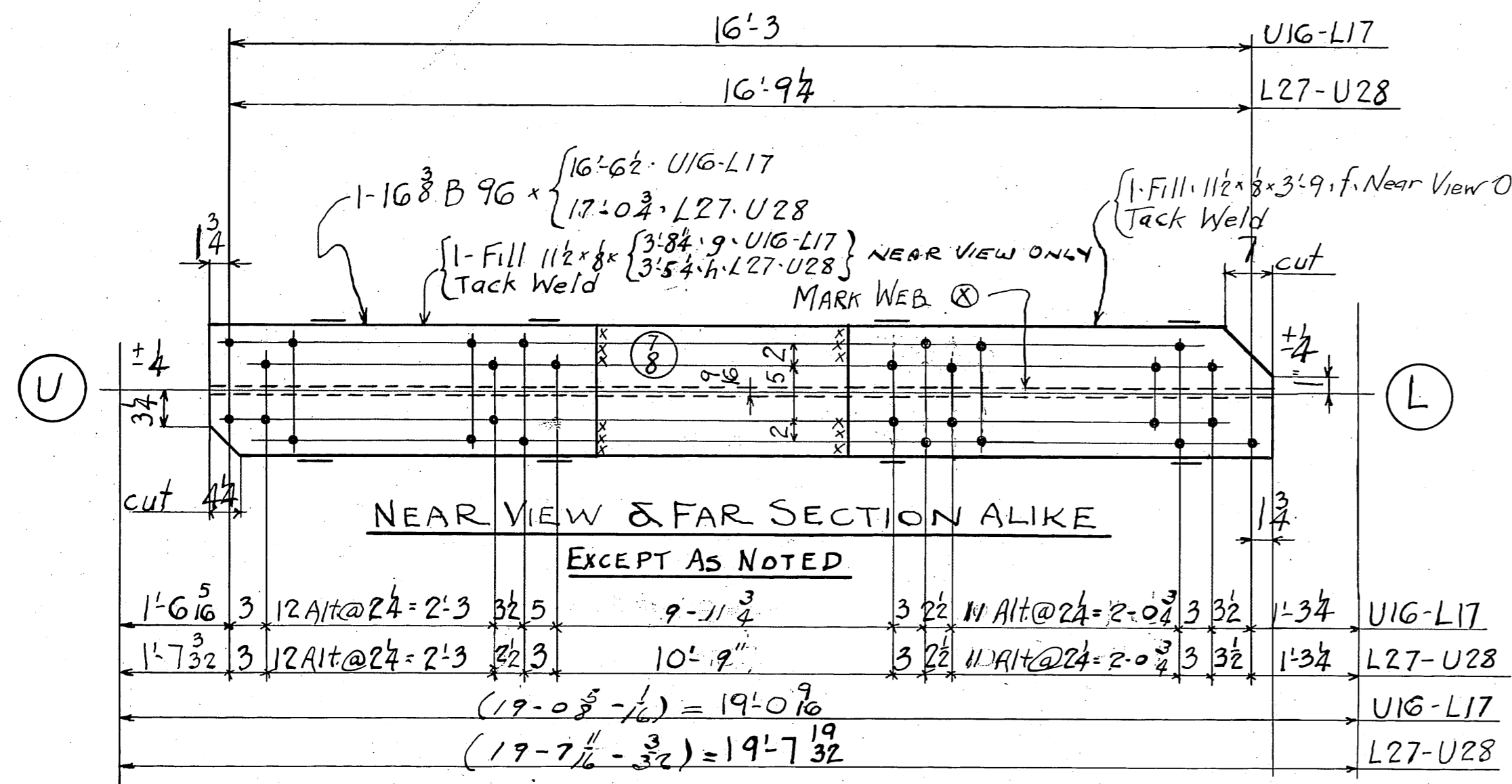
TRUSS POSTS SPAN 7 to 10
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION

IN CHARGE: B. OREN
 CHECKED BY: A.T. 3-31-37
 MADE BY: J.P.R. 2-25-37
 TRACED BY: N.O.P. 3-3-37
 REVISION: J.P.R. 4-1-37
 LAST ASSEMB. MK.

374

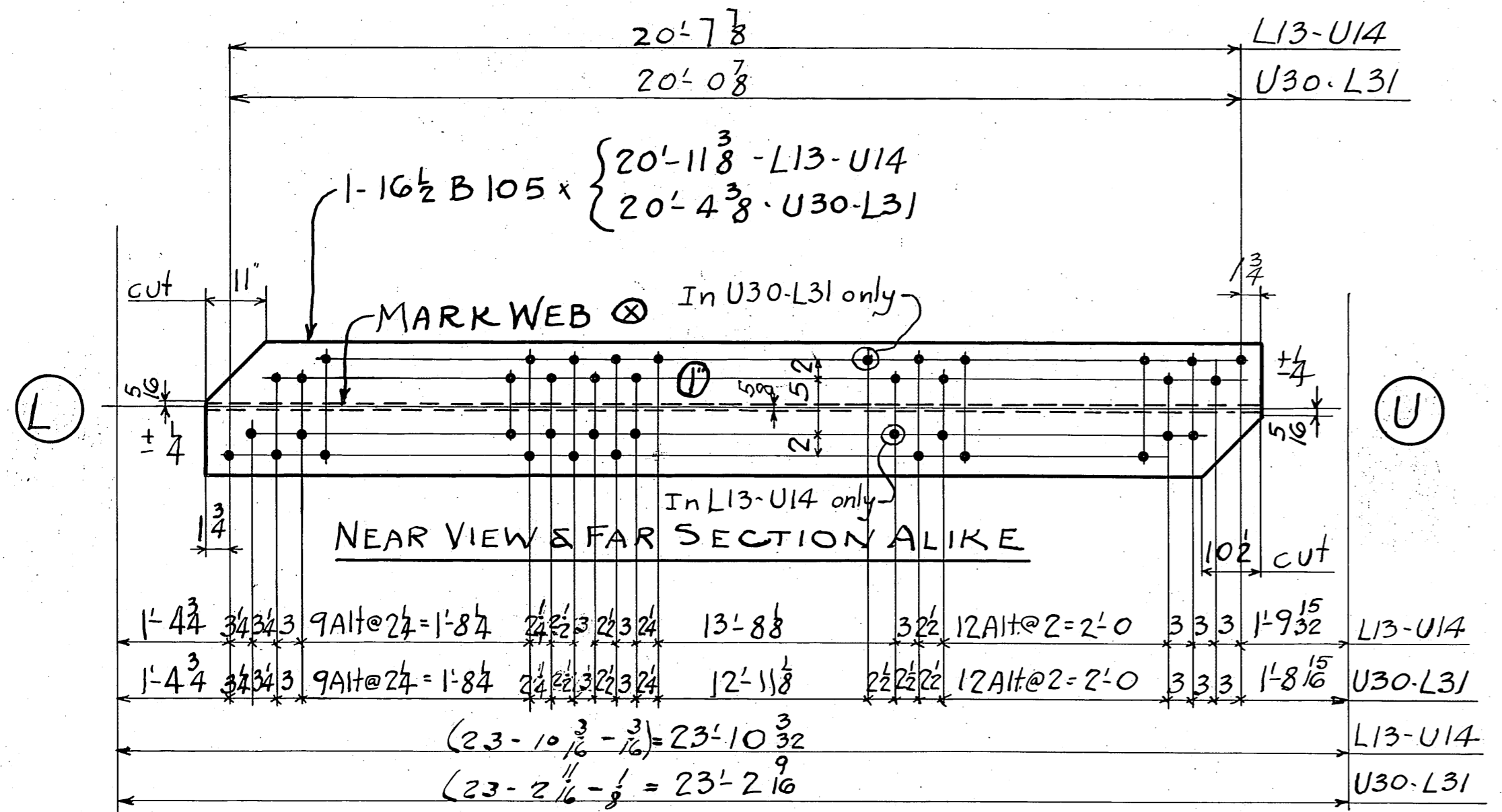
BOTH FLANGES ALIKE EXCEPT AS NOTED



NEAR VIEW & FAR SECTION ALIKE EXCEPT AS NOTED

1'-6 5/16	3	12 AH @ 2 1/2 = 2'-3	3 1/2	9'-11 3/4	3 1/2	11 AH @ 2 1/2 = 2'-0 3/4	3 1/2	1'-3 3/4	U16-L17
1'-7 3/32	3	12 AH @ 2 1/2 = 2'-3	3 1/2	10'-2"	3 1/2	11 AH @ 2 1/2 = 2'-0 3/4	3 1/2	1'-3 3/4	L27-U28
$(17'-0 3/8 - 1/2) = 19'-0 1/8$									
$(17'-7 1/2 - 3/2) = 19'-7 3/2$									

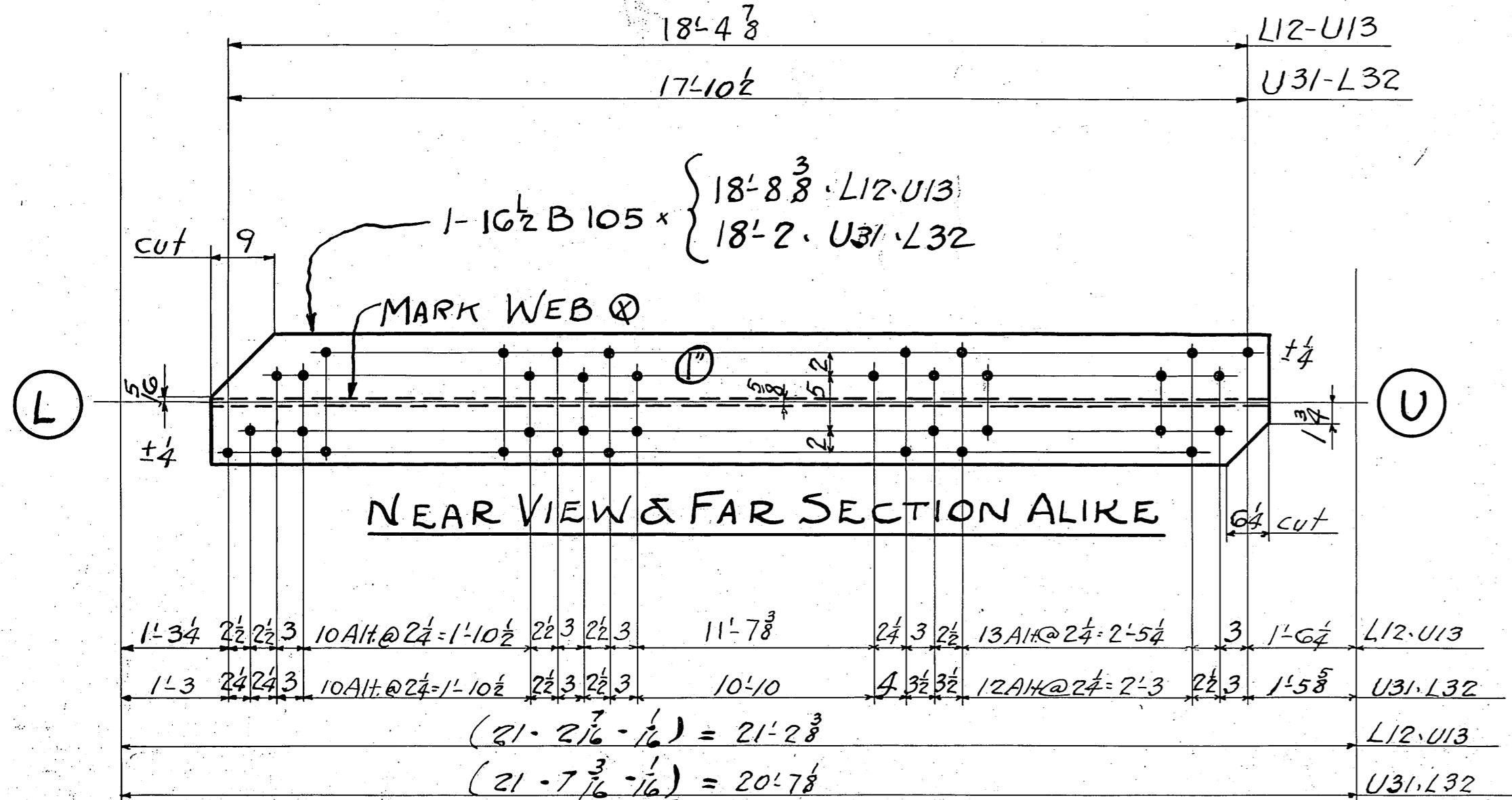
DIAGONAL U16-L17 (N-C-S)
DIAGONAL L27-U28 (N-C-S)



NEAR VIEW & FAR SECTION ALIKE

1'-4 3/4	3	9 AH @ 2 1/2 = 1'-8 1/2	2 3/4	13'-8 1/8	3 1/2	12 AH @ 2 = 2'-0	3 3/4	1'-9 3/32	L13-U14
1'-4 3/4	3	9 AH @ 2 1/2 = 1'-8 1/2	2 3/4	12'-11 1/8	2 3/4	12 AH @ 2 = 2'-0	3 3/4	1'-8 1/8	U30-L31
$(23'-10 3/8 - 3/8) = 23'-10 3/32$									
$(23'-2 1/2 - 1/2) = 23'-2 1/8$									

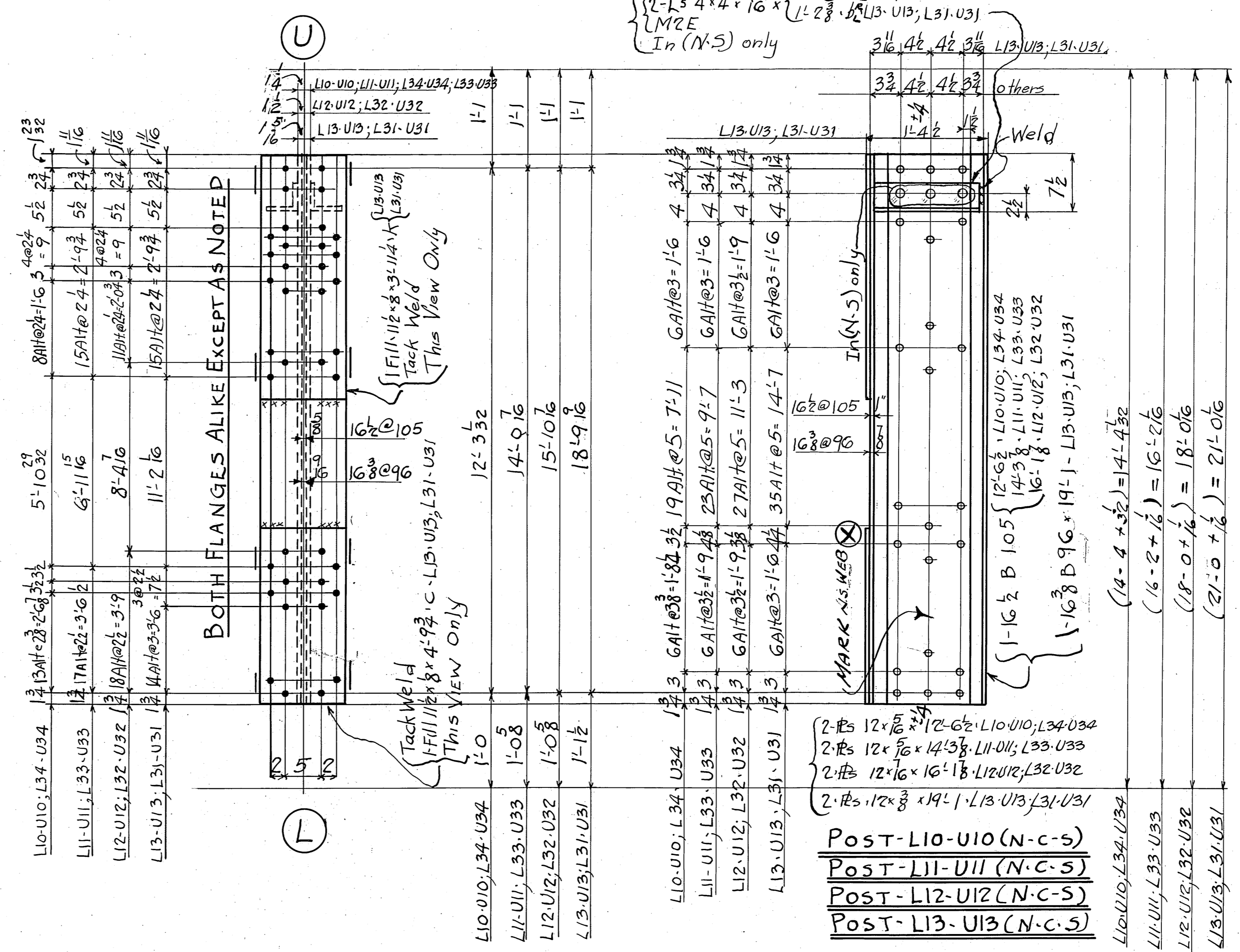
DIAGONAL L13-U14 (N-C-S)
DIAGONAL U30-L31 (N-C-S)



NEAR VIEW & FAR SECTION ALIKE

1'-3 3/4	3	10 AH @ 2 1/2 = 1'-10 1/2	2 3/4	11'-7 1/8	2 3/4	13 AH @ 2 1/2 = 2'-5 1/4	3	1'-6 1/2	L12-U13
1'-3	3	10 AH @ 2 1/2 = 1'-10 1/2	2 3/4	10'-10	2 3/4	12 AH @ 2 1/2 = 2'-3	2 3/4	1'-5 1/8	U31-L32
$(21'-2 1/2 - 1/2) = 21'-2 1/8$									
$(21'-7 1/2 - 1/2) = 20'-7 1/8$									

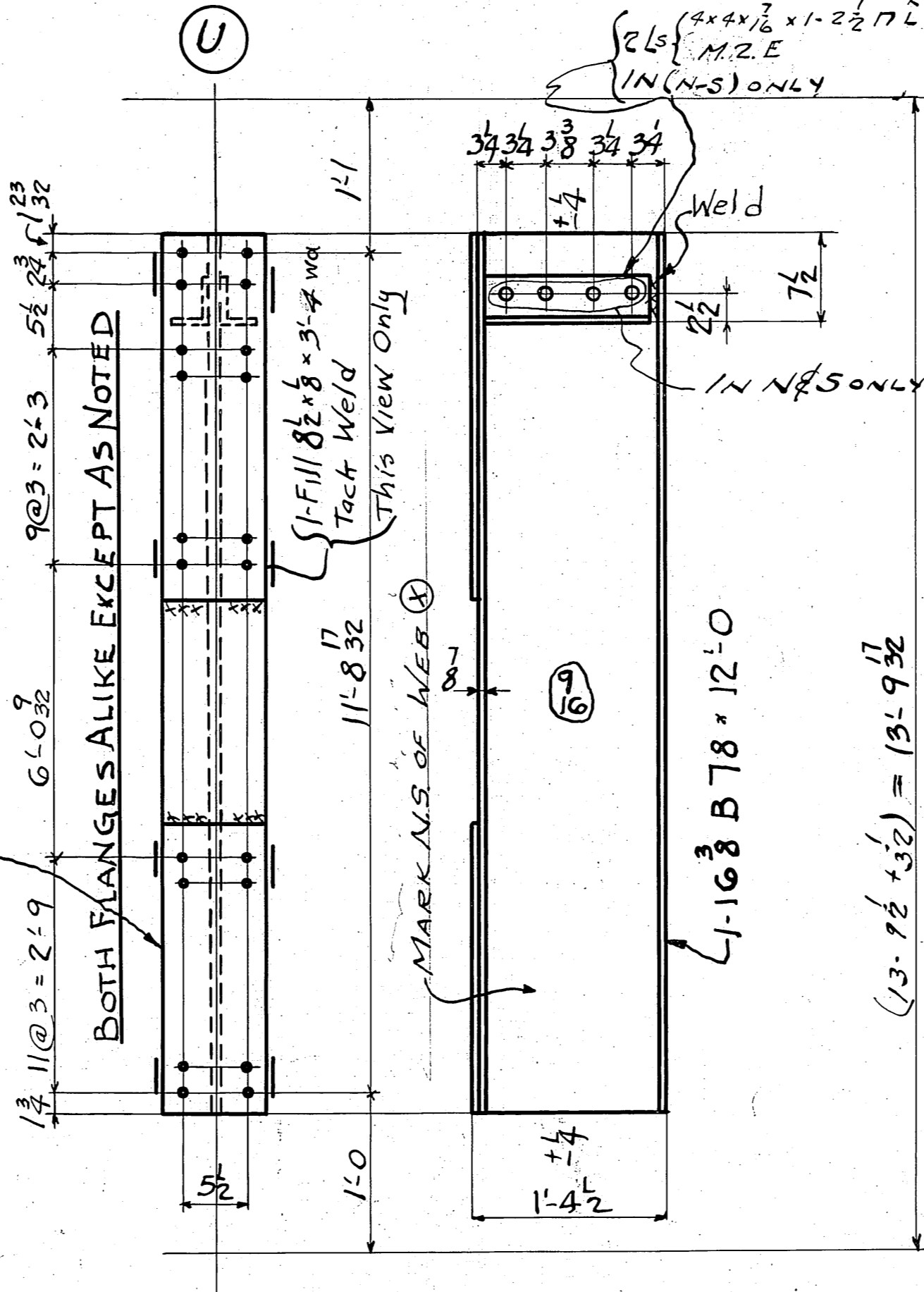
DIAGONAL L12-U13 (N-C-S)
DIAGONAL U31-L32 (N-C-S)



BOTH FLANGES ALIKE EXCEPT AS NOTED

1'-0	1'-0 1/8	1'-0 1/8	1'-1 1/2	12'-3 3/2	14'-0 7/16	15'-10 1/8	18'-9 1/8
L10-U10, L34-U34	L11-U11, L33-U33	L12-U12, L32-U32	L13-U13, L31-U31	L10-U10, L34-U34	L11-U11, L33-U33	L12-U12, L32-U32	L13-U13, L31-U31

POST L10-U10 (N-C-S)
POST L11-U11 (N-C-S)
POST L12-U12 (N-C-S)
POST L13-U13 (N-C-S)



POST L13-U13 (N-C-S)
POST L31-U31 (N-C-S)

Shop must maintain clear distance between pusses and chords and out to out of web members as noted to insure ease in assembling.

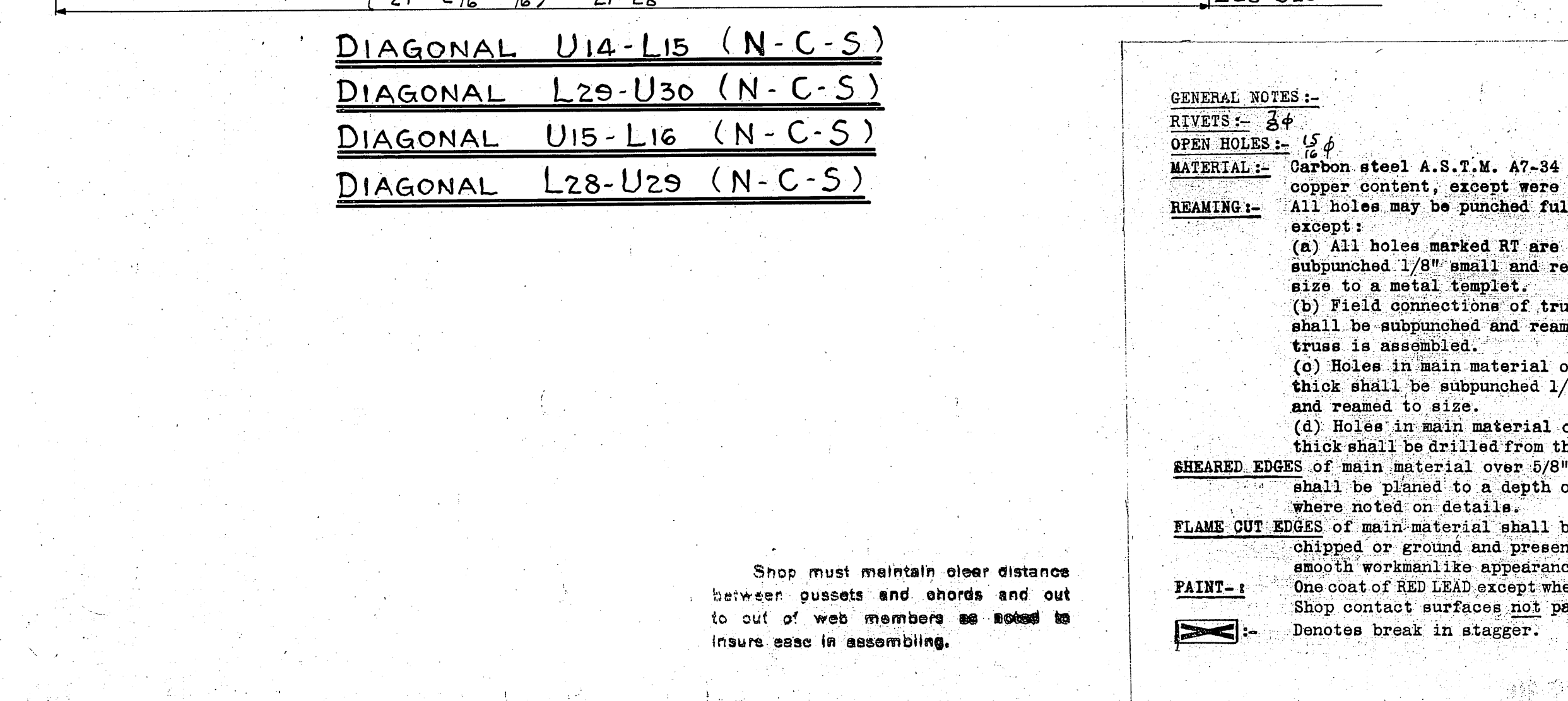
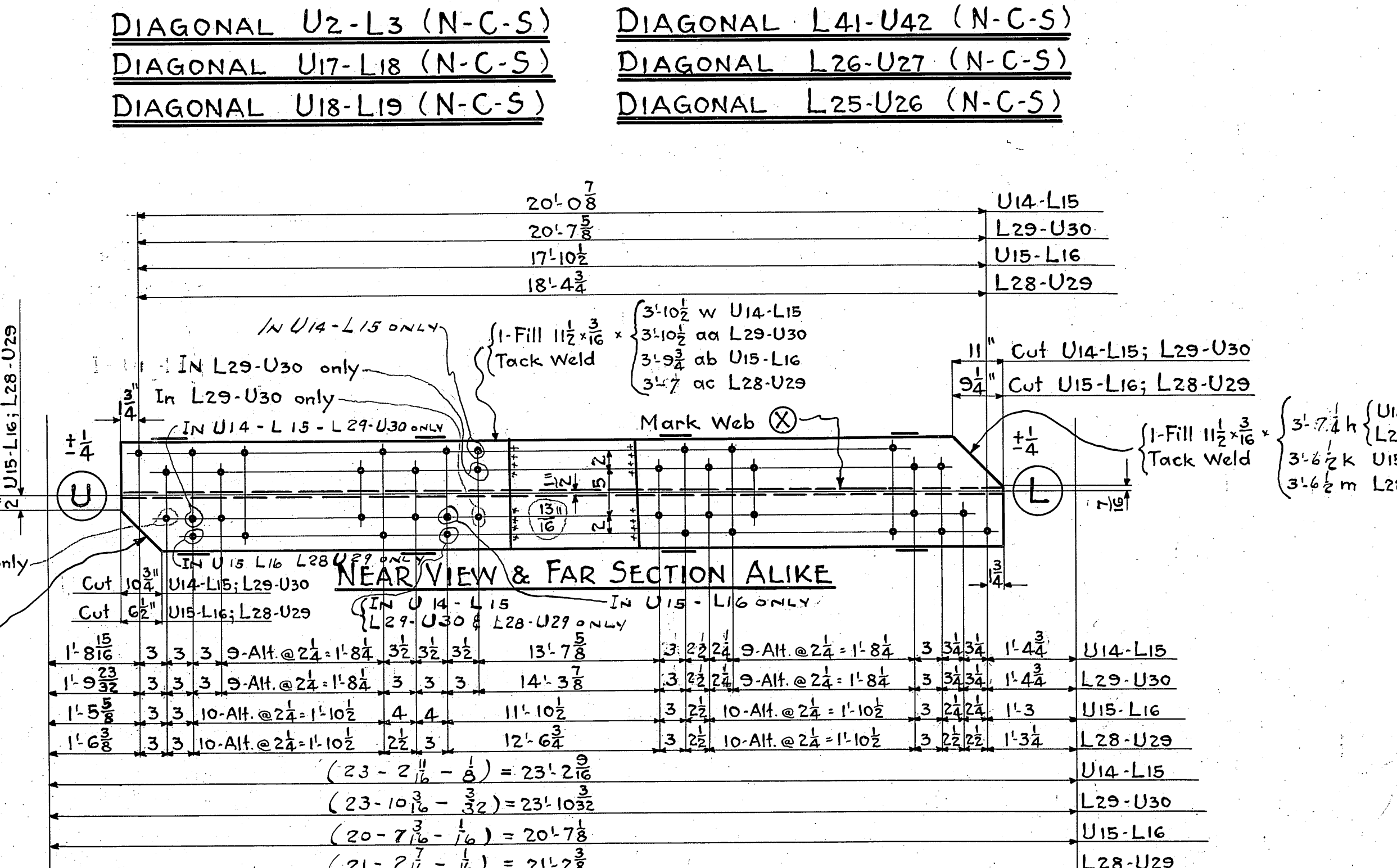
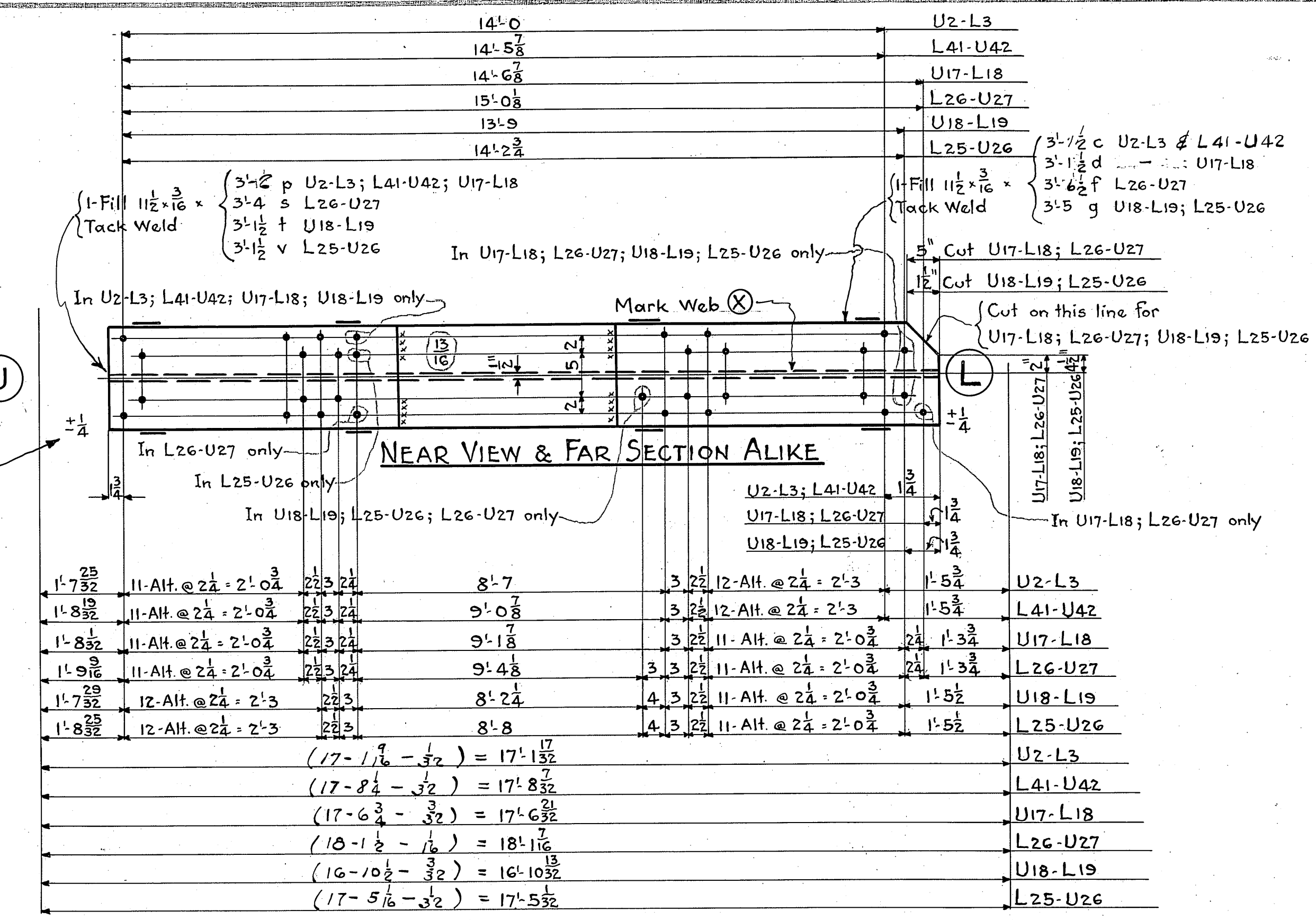
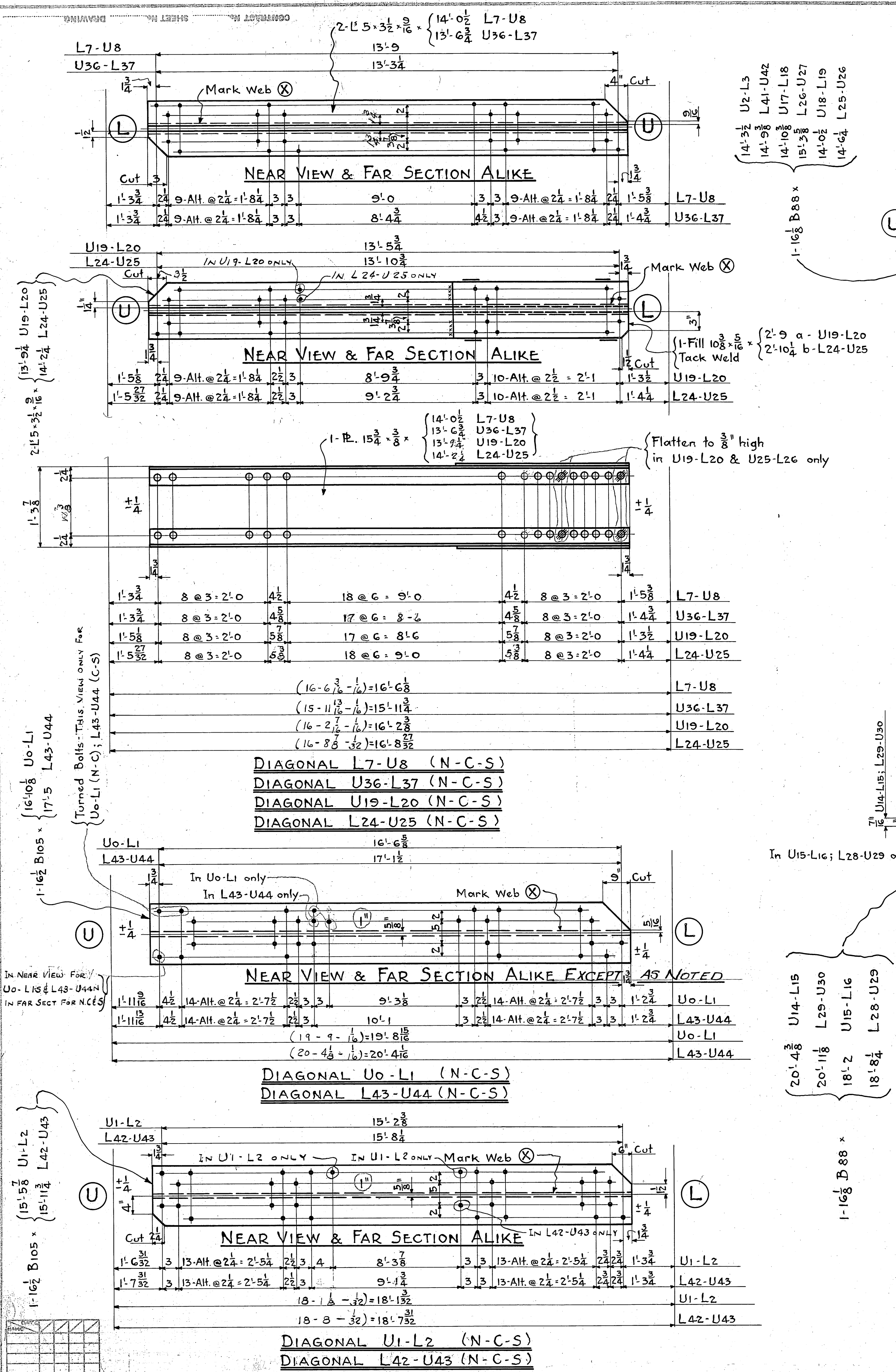
GENERAL NOTES:-
RIVETS:- 5/8"
OPEN HOLES:- 1 1/4"
MATERIAL:- Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted. All holes may be punched full size except:
FRAMING:-
(a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
(b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
(c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
(d) Holes in main material over 3/4" thick shall be drilled from the solid.
SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES of main material shall be planed chipped or ground and present a smooth workmanlike appearance.
PAINT:-
One coat of RED LEAD except where noted. Shop contact surfaces not painted.
Denotes break in stagger.

REQUIRED LIST			
No.	DESCRIPTION	MARK	REMARKS
1	DIAGONAL	U16-L17(N)	
1	"	U16-L17(E)	ALIKE
1	"	U16-L17(S)	
1	"	L27-U28(N)	
1	"	L27-U28(C)	ALIKE
1	"	L27-U28(S)	
1	"	L13-U14(N)	
1	"	L13-U14(C)	ALIKE
1	"	L13-U14(S)	
1	"	U30-L31(N)	
1	"	U30-L31(C)	ALIKE
1	"	U30-L31(S)	
1	"	L12-U13(N)	
1	"	L12-U13(C)	ALIKE
1	"	L12-U13(S)	
1	"	U31-L32(N)	
1	"	U31-L32(C)	ALIKE
1	"	U31-L32(S)	
1	Post	L10-U10(N)	
1	"	L10-U10(S)	ALIKE
1	"	L10-U10(C)	
1	"	L11-U11(N)	
1	"	L11-U11(S)	ALIKE
1	"	L11-U11(C)	
1	"	L12-U12(N)	
1	"	L12-U12(S)	ALIKE
1	"	L12-U12(C)	
1	"	L13-U13(N)	
1	"	L13-U13(S)	ALIKE
1	"	L13-U13(C)	
1	"	L34-U34(N)	
1	"	L34-U34(C)	ALIKE
1	"	L34-U34(S)	
1	"	L33-U33(N)	
1	"	L33-U33(S)	ALIKE
1	"	L33-U33(C)	
1	"	L32-U32(N)	
1	"	L32-U32(S)	ALIKE
1	"	L32-U32(C)	
1	"	L31-U31(N)	
1	"	L31-U31(S)	ALIKE
1	"	L31-U31(C)	
1	"	L3-U3	ALIKE
1	"	L41-U41(N)	
1	"	L41-U41(S)	ALIKE
1	"	L41-U41(C)	

TRUSS DIAGONAL & POSTS SPAN 7 to 10
COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTL. - DEPT. PUBLIC WORKS

BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
Drawings of Planke - Fabrication at
IN CHARGE: BORN MADE BY: J.P.R. 2-25-37
CHECKED BY: A.T. 4-1-31 TRACED BY: 3-12-37
REVISED: LAST ASSGN. WK.

SHOP NO. 2 CONTRACT CC 25873 SHEET 315
FC. 78c 5/14/37 15-9-40



REQUIRED LIST			
Nº	DESCRIPTION	MARK	REMARK
1	Diagonal	L7-U8 (N)	
1	"	L7-U8 (C)	Alike
1	"	L7-U8 (S)	
1	"	U36-L37 (N)	
1	"	U36-L37 (C)	Alike
1	"	U36-L37 (S)	
1	"	U19-L20 (N)	
1	"	U19-L20 (C)	Alike
1	"	U19-L20 (S)	
1	"	L24-U25 (N)	
1	"	L24-U25 (C)	Alike
1	"	L24-U25 (S)	
1	"	U0-L1 (N)	
1	"	U0-L1 (C)	Alike
1	"	U0-L1 (S)	
1	"	L43-U44 (N)	
1	"	L43-U44 (C)	Alike
1	"	L43-U44 (S)	
1	"	U1-L2 (N)	
1	"	U1-L2 (C)	Alike
1	"	U1-L2 (S)	
1	"	L42-U43 (N)	
1	"	L42-U43 (C)	Alike
1	"	L42-U43 (S)	
1	"	U2-L3 (N)	
1	"	U2-L3 (C)	Alike
1	"	U2-L3 (S)	
1	"	U17-L18 (N)	
1	"	U17-L18 (C)	Alike
1	"	U17-L18 (S)	
1	"	U18-L19 (N)	
1	"	U18-L19 (C)	Alike
1	"	U18-L19 (S)	
1	"	L25-U26 (N)	
1	"	L25-U26 (C)	Alike
1	"	L25-U26 (S)	
1	"	L41-U42 (N)	
1	"	L41-U42 (C)	Alike
1	"	L41-U42 (S)	
1	"	L26-U27 (N)	
1	"	L26-U27 (C)	Alike
1	"	L26-U27 (S)	
1	"	L29-U30 (N)	
1	"	L29-U30 (C)	Alike
1	"	L29-U30 (S)	
1	"	U14-L15 (N)	
1	"	U14-L15 (C)	Alike
1	"	U14-L15 (S)	
1	"	L28-U29 (N)	
1	"	L28-U29 (C)	Alike
1	"	L28-U29 (S)	
1	"	U15-L16 (N)	
1	"	U15-L16 (C)	Alike
1	"	U15-L16 (S)	
1	"	L28-U29 (N)	
1	"	L28-U29 (C)	Alike
1	"	L28-U29 (S)	

DIAGONAL U2-L3 (N-C-S)
 DIAGONAL U17-L18 (N-C-S)
 DIAGONAL U18-L19 (N-C-S)
 DIAGONAL L41-U42 (N-C-S)
 DIAGONAL L26-U27 (N-C-S)
 DIAGONAL L25-U26 (N-C-S)

DIAGONAL U14-L15 (N-C-S)
 DIAGONAL L29-U30 (N-C-S)
 DIAGONAL U15-L16 (N-C-S)
 DIAGONAL L28-U29 (N-C-S)

DIAGONAL L7-U8 (N-C-S)
 DIAGONAL U36-L37 (N-C-S)
 DIAGONAL U19-L20 (N-C-S)
 DIAGONAL L24-U25 (N-C-S)

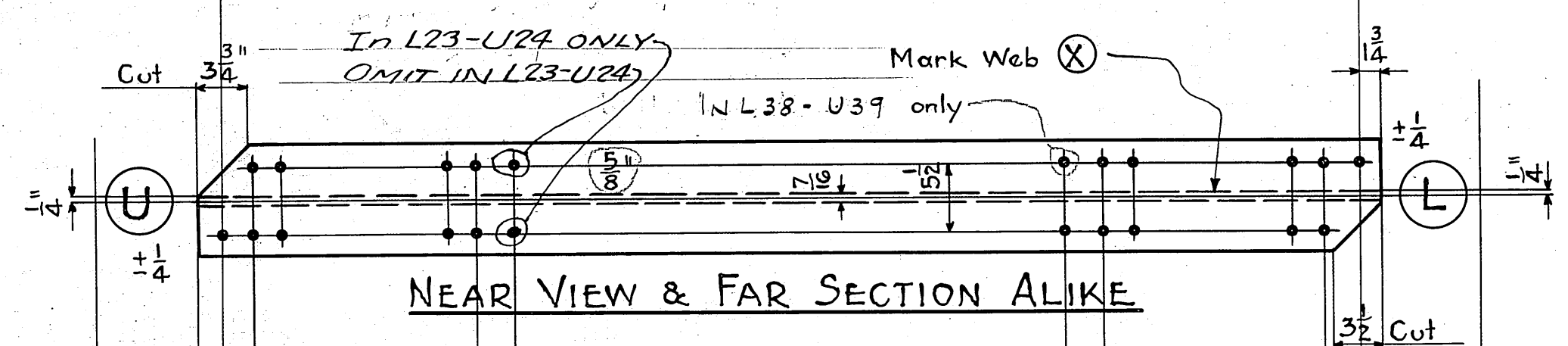
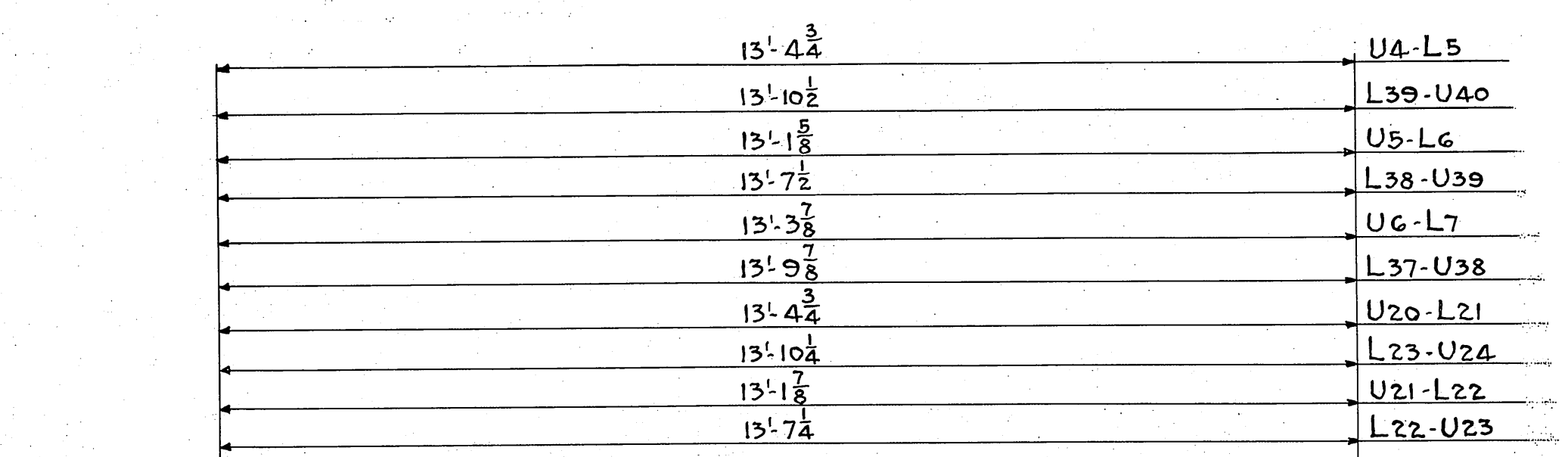
DIAGONAL U0-L1 (N-C-S)
 DIAGONAL L43-U44 (N-C-S)

DIAGONAL U1-L2 (N-C-S)
 DIAGONAL L42-U43 (N-C-S)

GENERAL NOTES:-
 RIVETS:- 3/4"
 OPEN HOLES:- 1 1/2"
 MATERIAL:- Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted.
 BRACING:- All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 SHARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 FLAME CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
 PAINT:- One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 Denotes break in stagger.

TRUSS DIAGONALS - SPAN 7 TO 10
 COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS
 BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin; Fabrication at
 IN CHARGE: BORN MADE BY J.P.R. 2-22-37
 CHECKED BY AT. 4-2-37. TRACED BY W.E.B. 3-13-37
 REVISION: LAST ASSEMB. 3-13-37
 SHOP NO. 2 CONTRACT CC25873 SHEET 376
 F.C. TBC 5/14/37

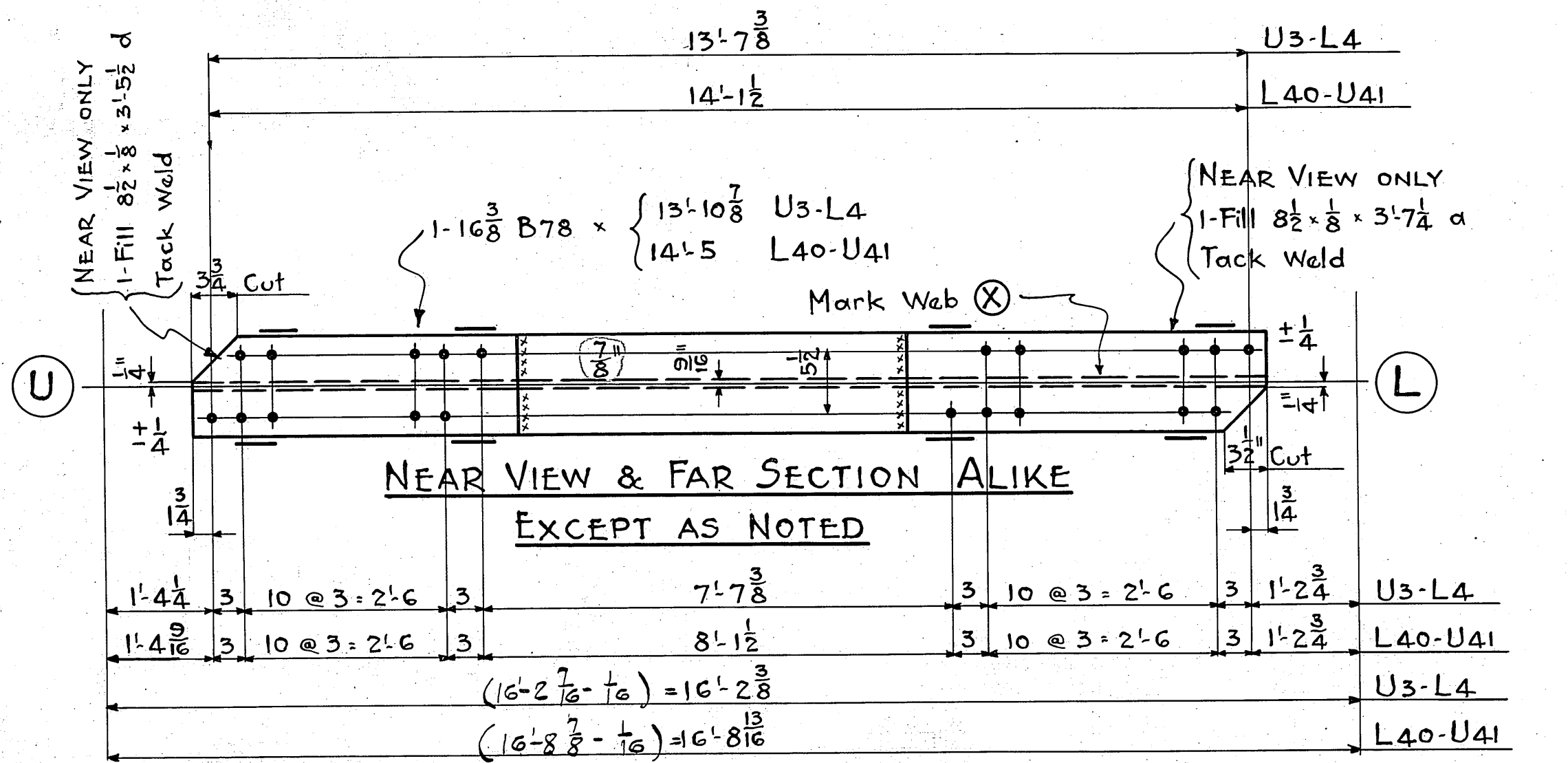
Shop must maintain clear distances between gussets and chords and out to cut of web members as noted to insure ease in assembling.



1'-4 3/8	3	7 @ 3'-1 9/8	5	8'-8 3/8	3	7 @ 3'-1 9/8	3	1'-2 3/8	U4-L5
1'-4 3/8	3	7 @ 3'-1 9/8	3	9'-4 1/2	3	7 @ 3'-1 9/8	3	1'-2 3/8	L39-U40
1'-4 3/8	3	7 @ 3'-1 9/8	5	8'-5 5/8	3	7 @ 3'-1 9/8	3	1'-3	U5-L6
1'-5	3	7 @ 3'-1 9/8	3	9'-1 1/2	3	7 @ 3'-1 9/8	3	1'-3	L38-U39
1'-4 3/8	3	7 @ 3'-1 9/8	5	8'-7 7/8	3	7 @ 3'-1 9/8	3	1'-3 1/2	U6-L7
1'-4 3/8	3	7 @ 3'-1 9/8	3	9'-3 3/8	3	7 @ 3'-1 9/8	3	1'-3 1/2	L37-U38
1'-4 3/8	3	8 @ 3'-2'-0	3	8'-4 3/4	3	8 @ 3'-2'-0	3	1'-2 3/4	U20-L21
1'-4 3/8	3	8 @ 3'-2'-0	3	8'-10 1/4	3	8 @ 3'-2'-0	3	1'-3 1/4	L23-U24
1'-4 3/8	3	8 @ 3'-2'-0	3	8'-1 1/8	3	8 @ 3'-2'-0	3	1'-2 3/4	U21-L22
1'-5	3	8 @ 3'-2'-0	3	8'-7 1/4	3	8 @ 3'-2'-0	3	1'-3 1/4	L22-U23

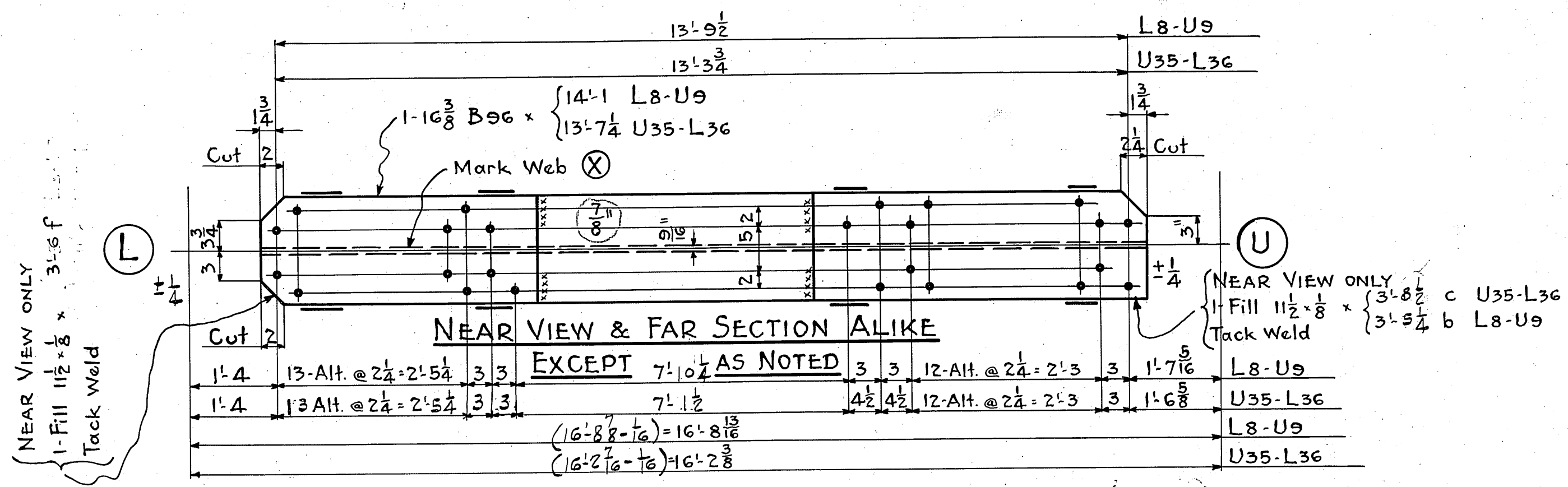
$(15'-11 1/8 - 3/2) = 15'-11 3/2$	U4-L5
$(16'-6 3/8 - 3/2) = 16'-6 3/2$	L39-U40
15'-9 1/8	U5-L6
16'-3 1/2	L38-U39
$(15'-11 3/8 + 3/2) = 15'-11 3/2$	U6-L7
$(16'-6 3/8 + 3/2) = 16'-6 3/2$	L37-U38
$(15'-11 3/8 - 1/8) = 15'-11 3/2$	U20-L21
$(16'-6 3/8 - 1/8) = 16'-6 3/2$	L23-U24
15'-9 1/8	U21-L22
16'-3 1/2	L22-U23

- DIAGONAL U4-L5 (N-C-S)
- DIAGONAL U5-L6 (N-C-S)
- DIAGONAL U6-L7 (N-C-S)
- DIAGONAL U20-L21 (N-C-S)
- DIAGONAL U21-L22 (N-C-S)
- DIAGONAL L39-U40 (N-C-S)
- DIAGONAL L38-U39 (N-C-S)
- DIAGONAL L37-U38 (N-C-S)
- DIAGONAL L23-U24 (N-C-S)
- DIAGONAL L22-U23 (N-C-S)

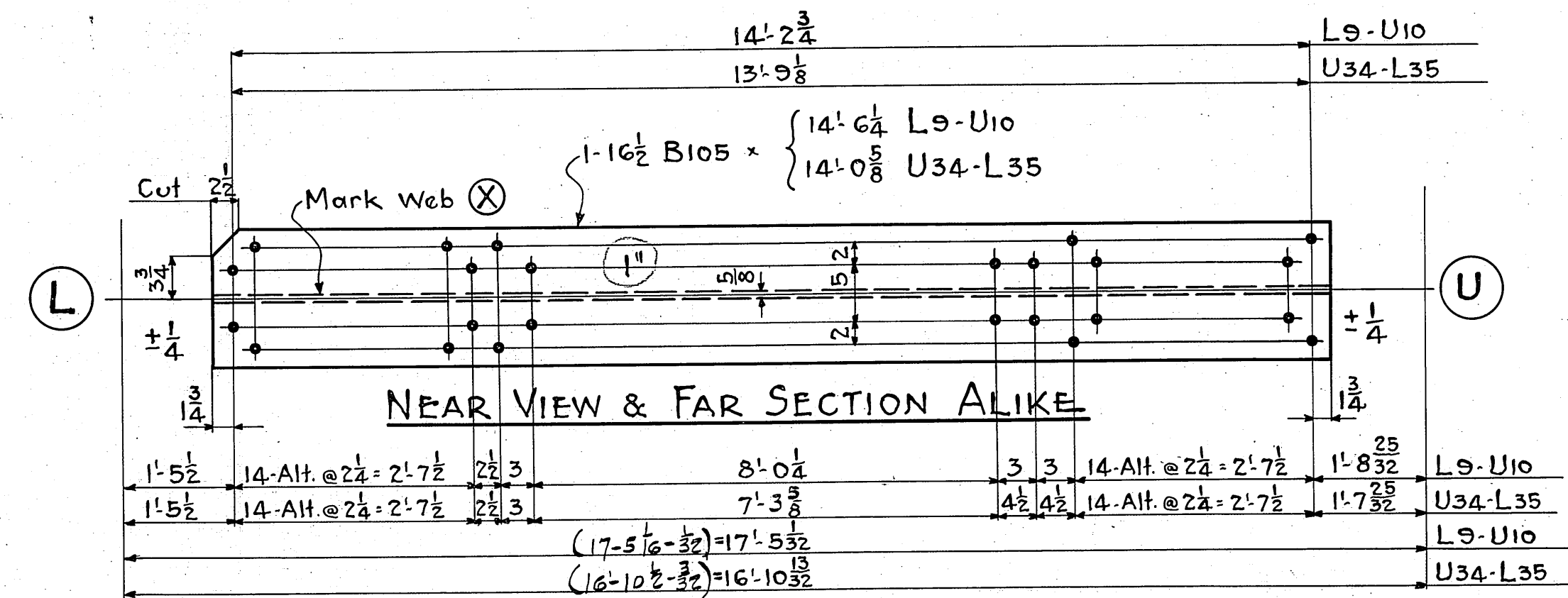


1'-4 1/4	3	10 @ 3'-2'-6	3	7'-7 3/8	3	10 @ 3'-2'-6	3	1'-2 3/4	U3-L4
1'-4 9/16	3	10 @ 3'-2'-6	3	8'-1 1/2	3	10 @ 3'-2'-6	3	1'-2 3/4	L40-U41
$(16'-2 7/8 - 1/8) = 16'-2 3/4$	U3-L4								
$(16'-8 3/8 - 1/8) = 16'-8 1/4$	L40-U41								

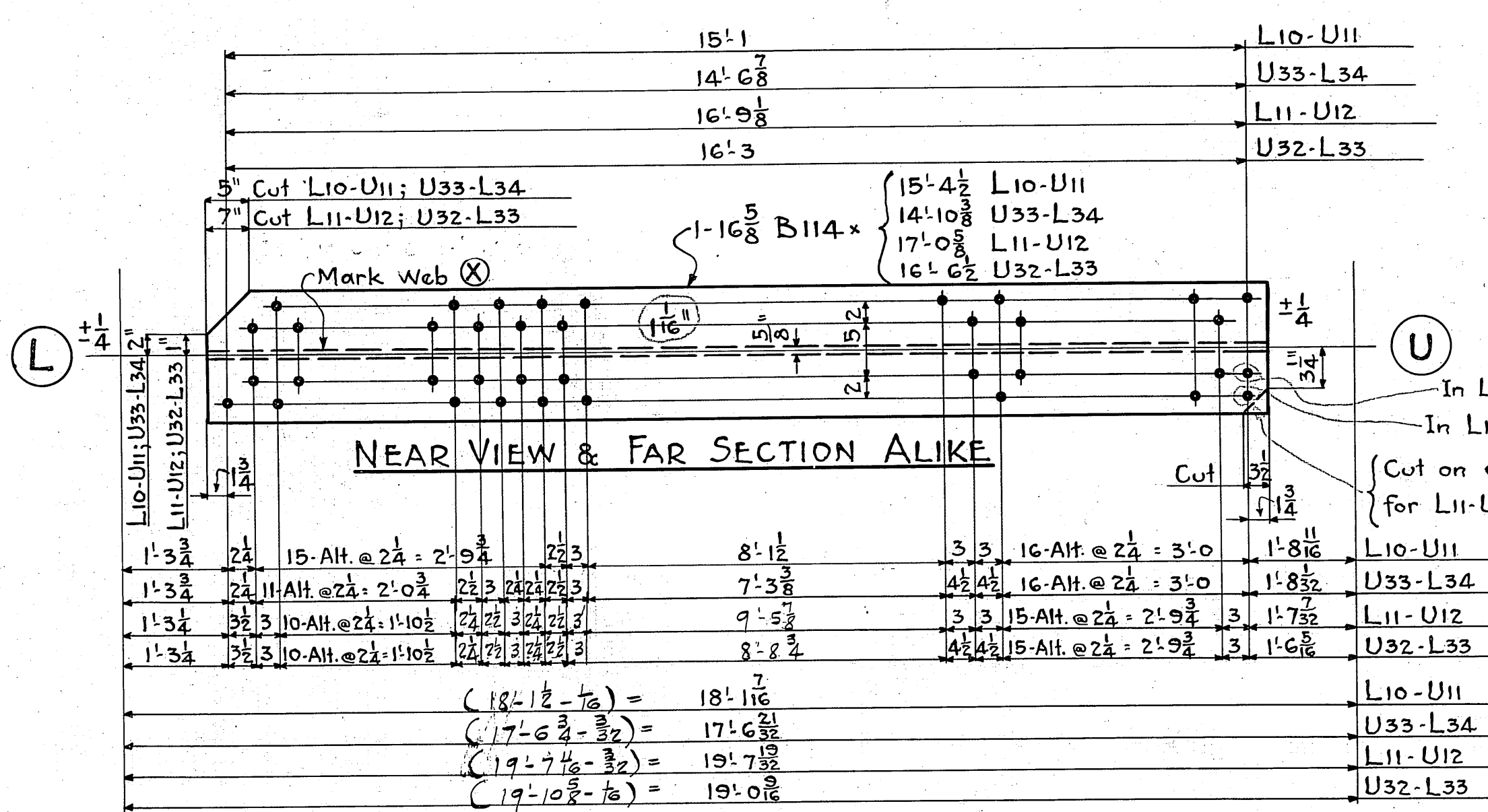
- DIAGONAL U3-L4 (N-C-S)
- DIAGONAL L40-U41 (N-C-S)



DIAGONAL L8-U9 (N-C-S) DIAGONAL U35-L36 (N-C-S)



DIAGONAL L9-U10 (N-C-S) DIAGONAL U34-L35 (N-C-S)

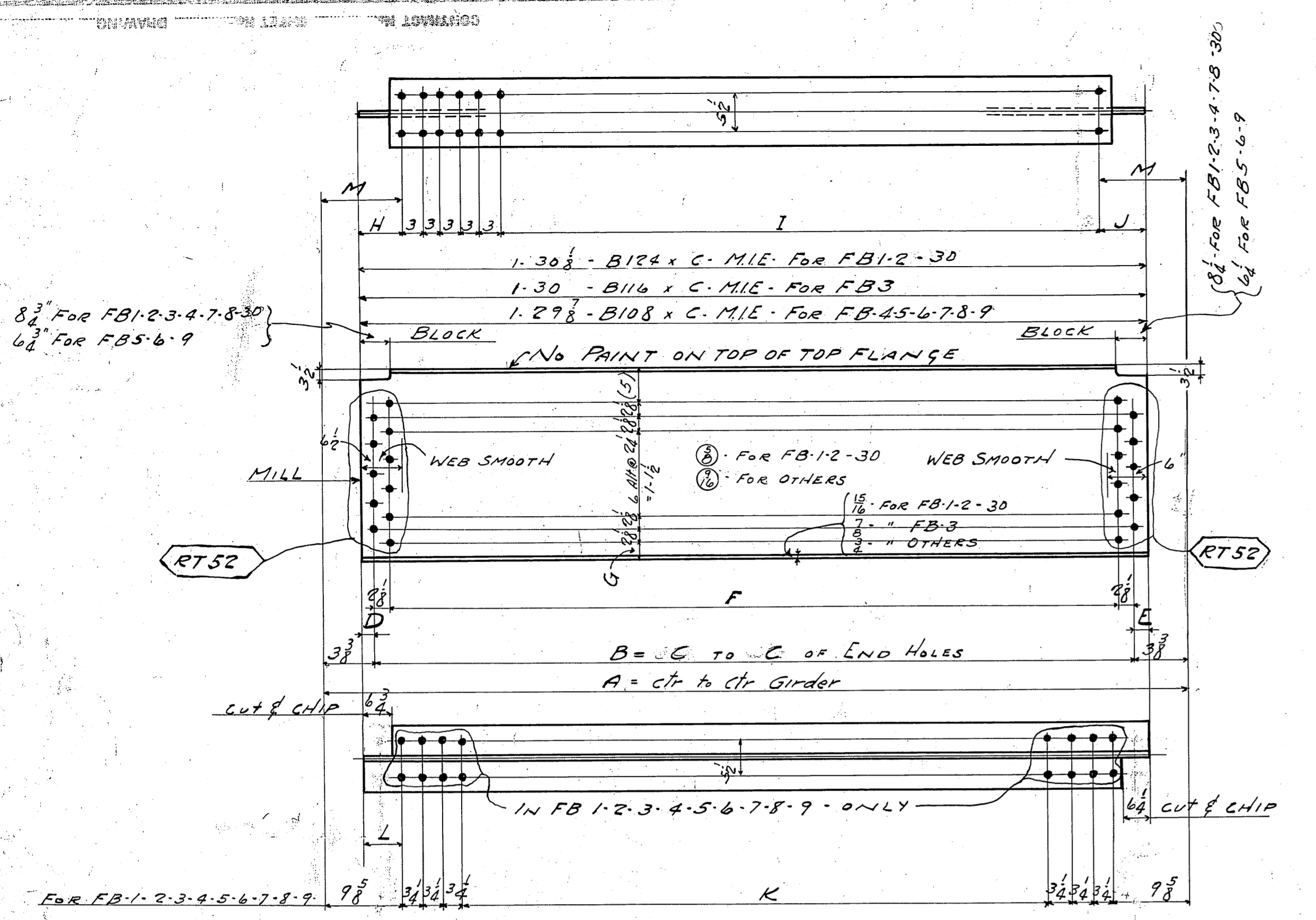


DIAGONAL L10-U11 (N-C-S) DIAGONAL U33-L34 (N-C-S) DIAGONAL L11-U12 (N-C-S) DIAGONAL U32-L33 (N-C-S)

GENERAL NOTES:-
 RIVETS:- 3/4"
 OPEN HOLES:- 1 1/2"
 MATERIAL:- Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 (e) Holes of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 FLAME CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
 PAINT:- One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 X:- Denotes break in stagger.

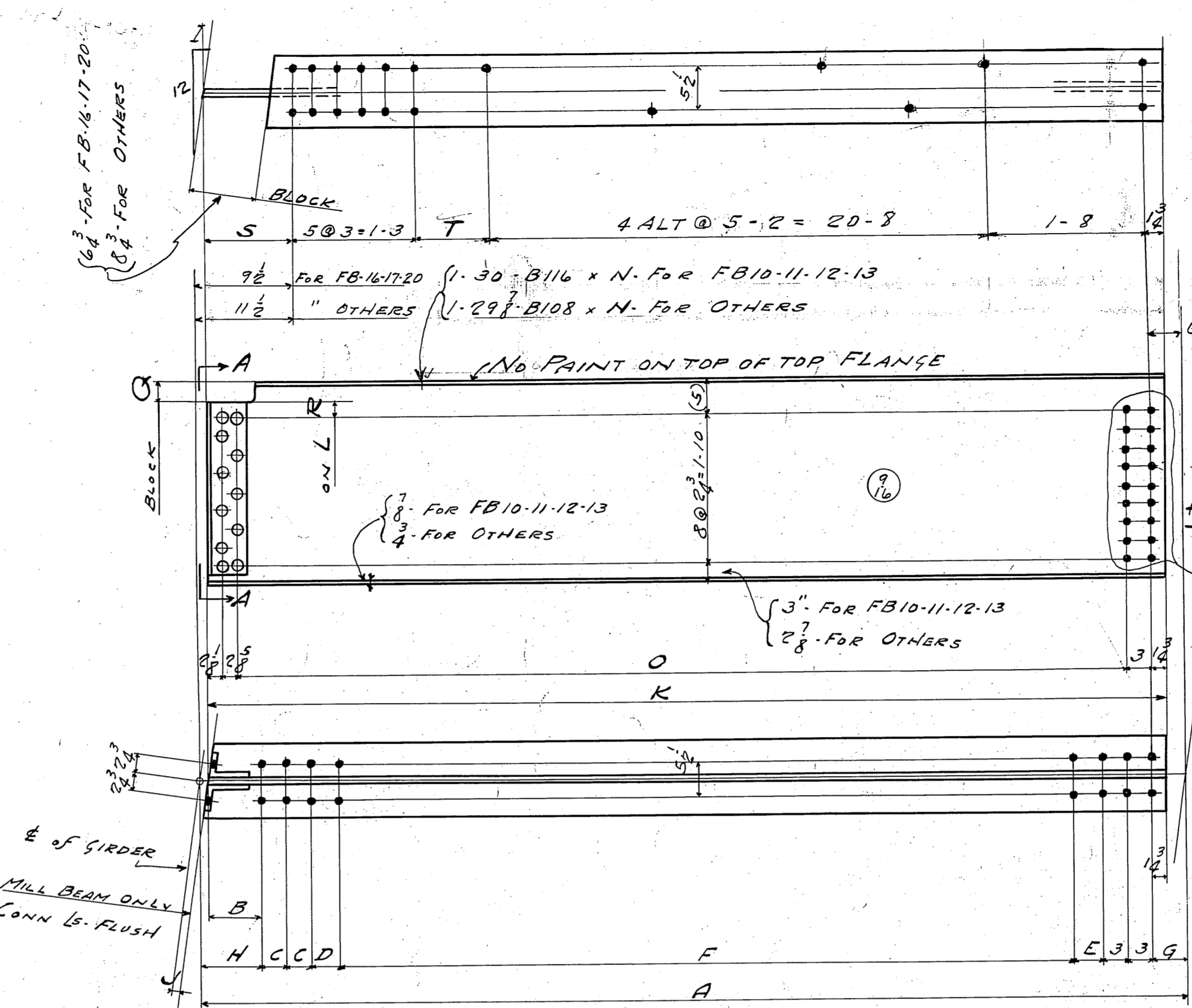
REQUIRED LIST			
NO	DESCRIPTION	MARK	REMARK
1	Diagonal	U4-L5 (N)	
1	"	U4-L5 (C)	Alike
1	"	U4-L5 (S)	
1	"	U5-L6 (N)	
1	"	U5-L6 (C)	Alike
1	"	U5-L6 (S)	
1	"	U6-L7 (N)	
1	"	U6-L7 (C)	Alike
1	"	U6-L7 (S)	
1	"	U20-L21 (N)	
1	"	U20-L21 (C)	Alike
1	"	U20-L21 (S)	
1	"	U21-L22 (N)	
1	"	U21-L22 (C)	Alike
1	"	U21-L22 (S)	
1	"	L39-U40 (N)	
1	"	L39-U40 (C)	Alike
1	"	L39-U40 (S)	
1	"	L38-U39 (N)	
1	"	L38-U39 (C)	Alike
1	"	L38-U39 (S)	
1	"	L37-U38 (N)	
1	"	L37-U38 (C)	Alike
1	"	L37-U38 (S)	
1	"	L23-U24 (N)	
1	"	L23-U24 (C)	Alike
1	"	L23-U24 (S)	
1	"	L22-U23 (N)	
1	"	L22-U23 (C)	Alike
1	"	L22-U23 (S)	
1	"	L40-U41 (N)	
1	"	L40-U41 (C)	Alike
1	"	L40-U41 (S)	
1	"	L8-U9 (N)	
1	"	L8-U9 (C)	Alike
1	"	L8-U9 (S)	
1	"	U35-L36 (N)	
1	"	U35-L36 (C)	Alike
1	"	U35-L36 (S)	
1	"	L9-U10 (N)	
1	"	L9-U10 (C)	Alike
1	"	L9-U10 (S)	
1	"	U34-L35 (N)	
1	"	U34-L35 (C)	Alike
1	"	U34-L35 (S)	
1	"	L10-U11 (N)	
1	"	L10-U11 (C)	Alike
1	"	L10-U11 (S)	
1	"	U33-L34 (N)	
1	"	U33-L34 (C)	Alike
1	"	U33-L34 (S)	
1	"	L11-U12 (N)	
1	"	L11-U12 (C)	Alike
1	"	L11-U12 (S)	
1	"	U32-L33 (N)	
1	"	U32-L33 (C)	Alike
1	"	U32-L33 (S)	

TRUSS DIAGONALS - SPAN 7 TO 10
 COLUMBIA AVE. VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS
 BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at
 IN CHARGE BORN MADE BY J.P.R. 2-23-37
 CHECKED BY AT. 4-3-37 TRACED BY W.E.B. 2-15-37
 REVISED LAST ASSEM. MK.
 SHOP NO. 2 CONTRACT CC25873 SHEET 377
 F.C. TBC 3/14/37



BEAMS FB1^R TO FB9^L & FB30

MARK	A	B	C	D	E	F	G	H	I	J	K	L	M
FB1	27.4	26.9 1/4	27.1 5/8	22 1/2	18 1/2	26.5	3 1/2	10 1/2	24.2	10	24.1 1/2	8 3/4	11 1/2
FB2	27.4	26.9 1/4	27.1 5/8	22 1/2	17 1/2	26.5	3 1/2	10 1/2	24.2	10 1/2	24.1 1/2	8 1/2	11 1/2
FB3	26.9	26.2 1/4	26.6 1/2	22 3/8	18 1/2	25.10	3	10 1/2	23.7	10	23.6 1/2	8 5/8	11 1/2
FB4	25.3	24.8 1/4	25.0 1/2	22 3/8	18 1/2	24.4	2 7/8	10 1/2	22.1	10	22.0 1/4	8 3/8	11 1/2
FB5	26.2	25.7 1/4	26.0	22 3/8	22 1/2	25.3	2 7/8	8 1/2	23.4	8 1/2	22.1 1/4	8 1/8	9 1/2
FB6	26.2	25.7 1/4	25.1 1/2	22 3/8	22 1/2	25.3	2 7/8	8 1/2	23.4	8 1/2	22.1 1/4	8 1/8	11 1/2
FB7	26.2	25.7 1/4	25.1 1/2	22 3/8	18 1/2	25.3	2 7/8	10 1/2	23.0	10	22.1 1/4	8 3/8	11 1/2
FB8	26.2	25.7 1/4	25.1 1/2	22 1/2	12 1/2	25.3	2 7/8	10 1/2	23.0	9 1/2	22.1 1/4	8 3/8	11 1/2
FB9	26.2	25.7 1/4	25.1 1/2	22 1/2	2	25.3	2 7/8	8 1/2	23.4	8 1/2	22.1 1/4	8 3/8	9 1/2
FB30	27.4	26.9 1/4	27.1 5/8	22 1/2	15 1/2	26.5	3 1/2	10 1/2	24.2	10 1/2			11 1/2



BEAMS FB-10-11-14-15-16-17-18^R-19^R-20^R
BEAMS FB-12-13 OPP HAND TO SKETCH

MARK	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
FB10	26.9 1/2	8 1/2	3 1/2	3 1/2	3	24.1	4 1/2	9 1/2	18 1/2	8	26.6 1/2	5 1/2	3	26.6 1/2	25.8 1/2	1 1/2	3 1/2	1 1/2	10 1/2	1.10 1/2
FB11	26.9 1/2	8 1/2	3 1/2	3 1/2	3	24.1	4 1/2	9 1/2	18 1/2	8	26.6 1/2	5 1/2	3	26.6 1/2	25.8 1/2	1 1/2	3 1/2	1 1/2	10 1/2	1.10 1/2
FB12	26.9 1/2	8 1/2	3 1/2	3 1/2	3	24.0 1/2	4 1/2	9 1/2	18 1/2	8	26.5 1/2	5 1/2	3	26.6 1/2	25.8 1/2	1 1/2	3 1/2	1 1/2	10 1/2	1.10 1/2
FB13	26.9 1/2	8 1/2	3 1/2	3 1/2	3	24.0 1/2	4 1/2	9 1/2	18 1/2	8	26.5 1/2	5 1/2	3	26.5 1/2	25.8 1/2	1 1/2	3 1/2	1 1/2	10 1/2	1.10 1/2
FB14	26.9	8 1/2	3 1/2	3 1/2	3	24.0 1/2	4 1/2	9 1/2	18 1/2	8	26.5 1/2	5 1/2	3	26.5 1/2	25.7 1/2	1 1/2	3 1/2	1 1/2	10 1/2	1.10
FB15	26.9	8 1/2	3 1/2	3 1/2	3	24.0 1/2	4 1/2	9 1/2	18 1/2	8	26.5 1/2	5 1/2	3	26.5 1/2	25.7 1/2	1 1/2	3 1/2	1 1/2	10 1/2	1.10
FB16	26.9	8 1/2	3 1/2	3 1/2	3	24.0 1/2	4 1/2	9 1/2	18 1/2	8	26.5 1/2	5 1/2	3	26.5 1/2	25.7 1/2	1 1/2	3 1/2	1 1/2	10 1/2	1.10
FB17	25.6 1/2	8 1/2	3	3 1/2	3	23.0 1/2	2 1/2	9 1/2	16 1/2	7 1/2	25.5 1/2	4 1/2	3 1/2	25.5 1/2	24.7 1/2	1 1/2	2 1/2	2 1/2	8 1/2	11 1/2
FB18	25.6 1/2	8 1/2	3	3 1/2	3	22.10 1/2	4 1/2	9 1/2	16 1/2	8	25.5 1/2	4 1/2	3 1/2	25.5 1/2	24.7 1/2	1 1/2	2 1/2	2 1/2	10 1/2	8 1/2
FB19	25.6 1/2	8 1/2	3	3 1/2	3	22.10 1/2	4 1/2	9 1/2	16 1/2	8	25.3 1/2	5 1/2	3 1/2	25.3 1/2	24.6 1/2	1 1/2	3 1/2	1 1/2	10 1/2	8 1/2
FB20	25.6 1/2	8 1/2	3	3 1/2	3 1/2	23.0	2 1/2	9 1/2	16 1/2	8	25.5 1/2	4 1/2	3 1/2	25.5 1/2	24.7 1/2	1 1/2	2 1/2	2 1/2	8 1/2	1.9

GENERAL NOTES:
 RIVETS: - 1/2"
 OPEN HOLES: - 1/2"
MATERIAL: - Carbon steel A.S.F.S. A7-34 with .2% copper content, except where noted.
 All holes may be punched full size except:
 (a) All holes except RT are to be subpunched 1/16" small and rounded to size to a metal template.
 (b) Field connections of trusses shall be subpunched and rounded after truss is assembled.
 (c) Holes in main material over 6/8" thick shall be subpunched 1/8" small and rounded to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
REWORKED EDGES: of main material over 5/8" thick shall be planed to a depth of 1/8" where noted on details.
FLAME CUT EDGES: of main material shall be planed, clipped or ground and present a smooth workmanlike appearance.
PAINT: - One coat of RED LEAD except where noted. Shop contact surfaces not painted.

REQUIRED LIST			
N ^o	DESCRIPTION	MARK	REMARKS
6	BEAMS	FB1 ^R	
3	"	FB1 ^L	
10	"	FB2 ^R	
4	"	FB3 ^L	
12	"	FB4 ^R	
2	"	FB5 ^R	
1	"	FB5 ^L	
6	"	FB6 ^R	
6	"	FB7 ^R	
8	"	FB7 ^L	
6	"	FB8 ^R	
8	"	FB8 ^L	
18	"	FB9 ^R	
12	"	FB9 ^L	
1	"	FB10	
1	"	FB11	
1	"	FB12	OPP HAND
1	"	FB13	OPP HAND
1	"	FB14	
1	"	FB15	
1	"	FB16	
1	"	FB17	
4	"	FB18 ^R	
4	"	FB19 ^L	
12	"	FB20 ^L	
1	"	FB30	

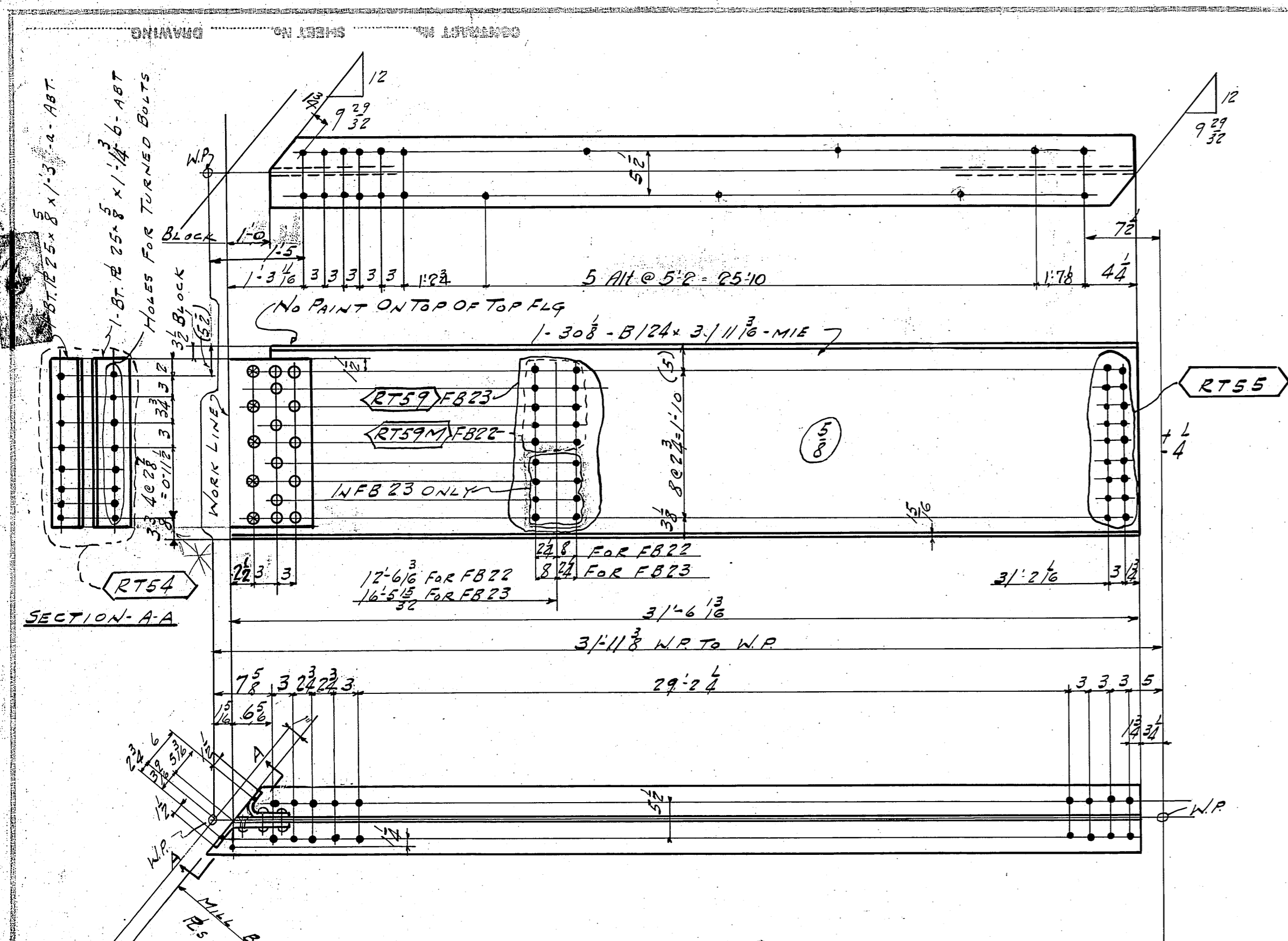
FLOOR BEAMS-GIRDER SPANS

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTI - DEPT. PUBLIC WORKS

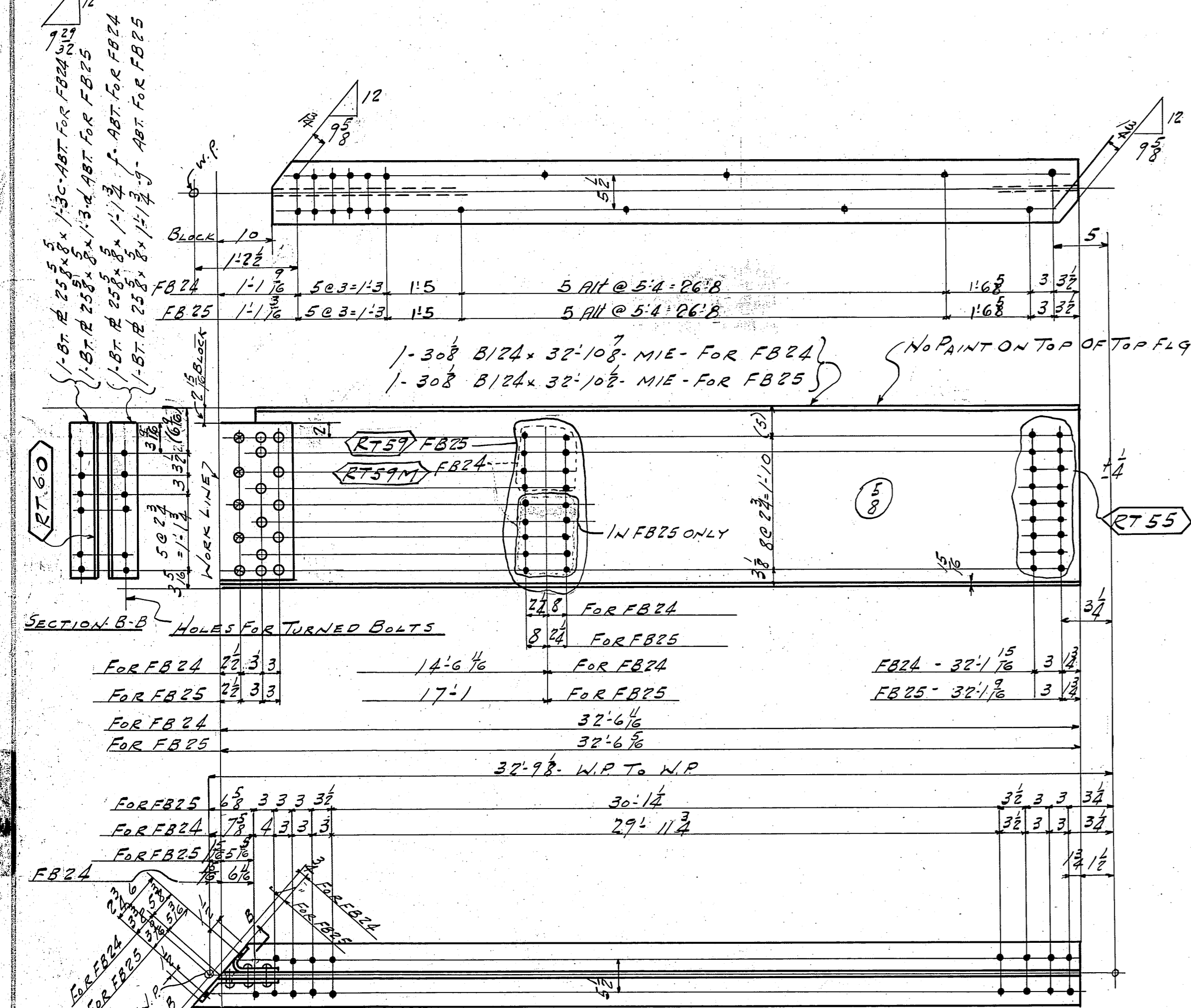
DETLEFSEN STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings of Blank - Fabrication at

IN CHARGE: BORN MADE BY: J.H.L. 2-20-37
 CHECKED BY: T.B.C. 2-23-37 TRACED BY: H.P.R. 2-22-37
 REVISION: LAST APPROV. D.K.

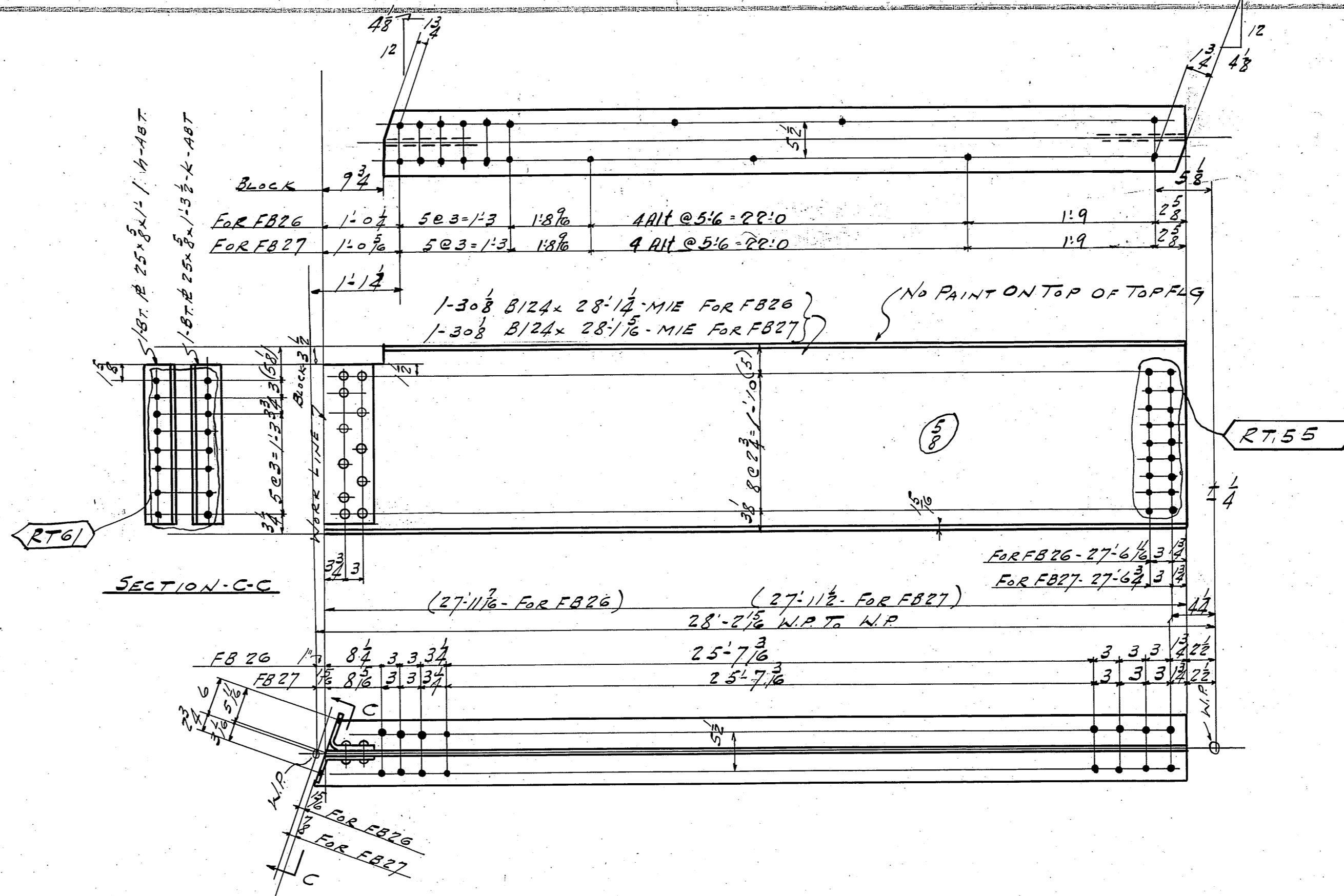
CONTRACT C.C. 25874
 P.C. N.F.C. 4-21-37



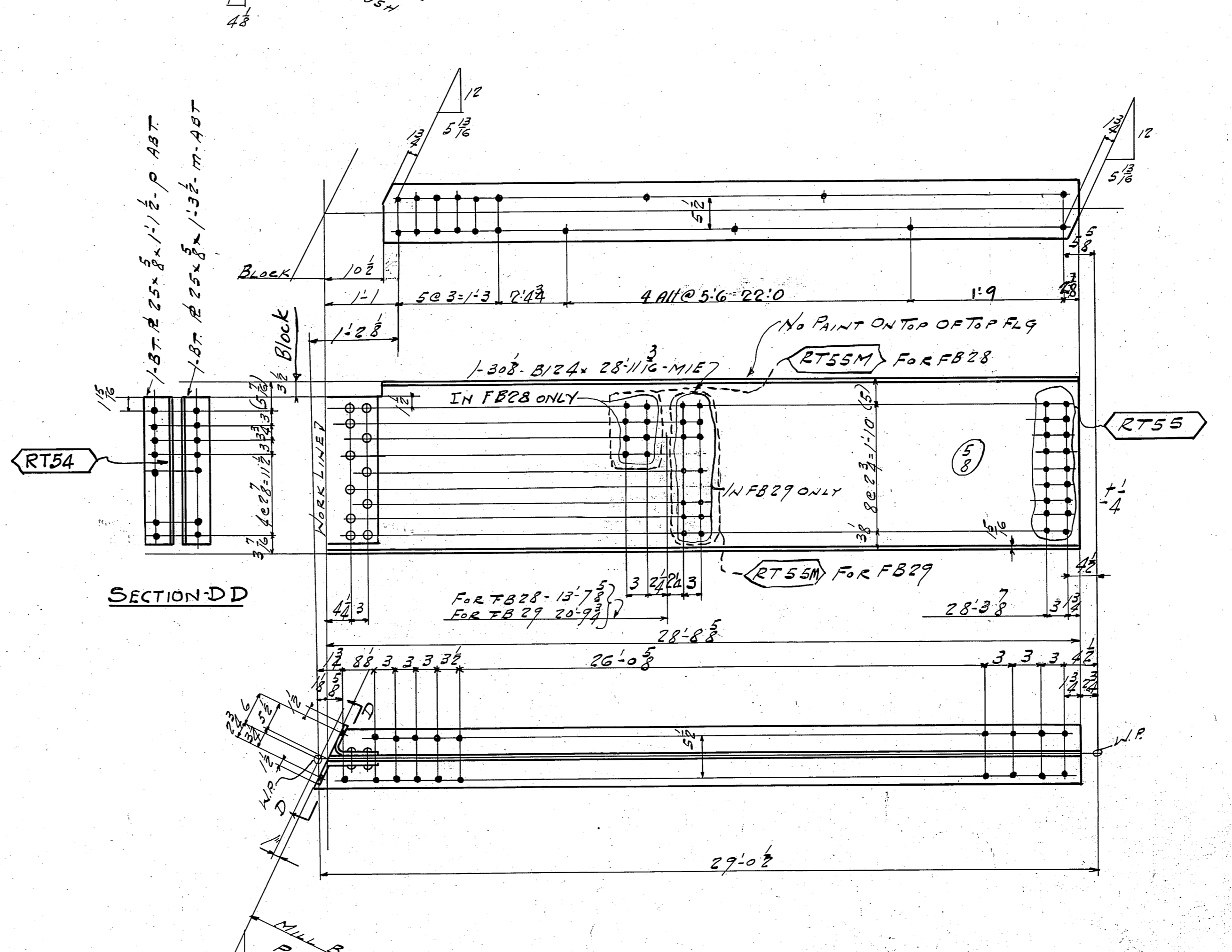
BEAMS - FB22-23



BEAMS - FB24-25



BEAMS - FB26-27



BEAMS - FB28-29

GENERAL NOTES:
 RIVETS: 8 15/16"
 OPEN HOLES: 1/8"
 MATERIAL: Carbon steel A.S.T.M. A7-23 5008 .02 copper content, except where noted. All holes may be punched full depth except:
 (a) All holes punched at top to be unpunched 1/8" small and rounded on also to a steel template.
 (b) Field connections of beams shall be unpunched and rounded after truss is assembled.
 (c) Holes in main material over 1/8" thick shall be unpunched 1/8" small and rounded to size.
 (d) Holes in main material over 1/8" thick shall be drilled from the collar.
BEVELLED EDGES: of main material over 5/8" thick shall be planed to a depth of 1/8" where noted on details.
FLAME CUT EDGES: of main material shall be planed, clipped or ground and present a smooth workmanlike appearance. One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 PAINT: Denotes break in stagger.

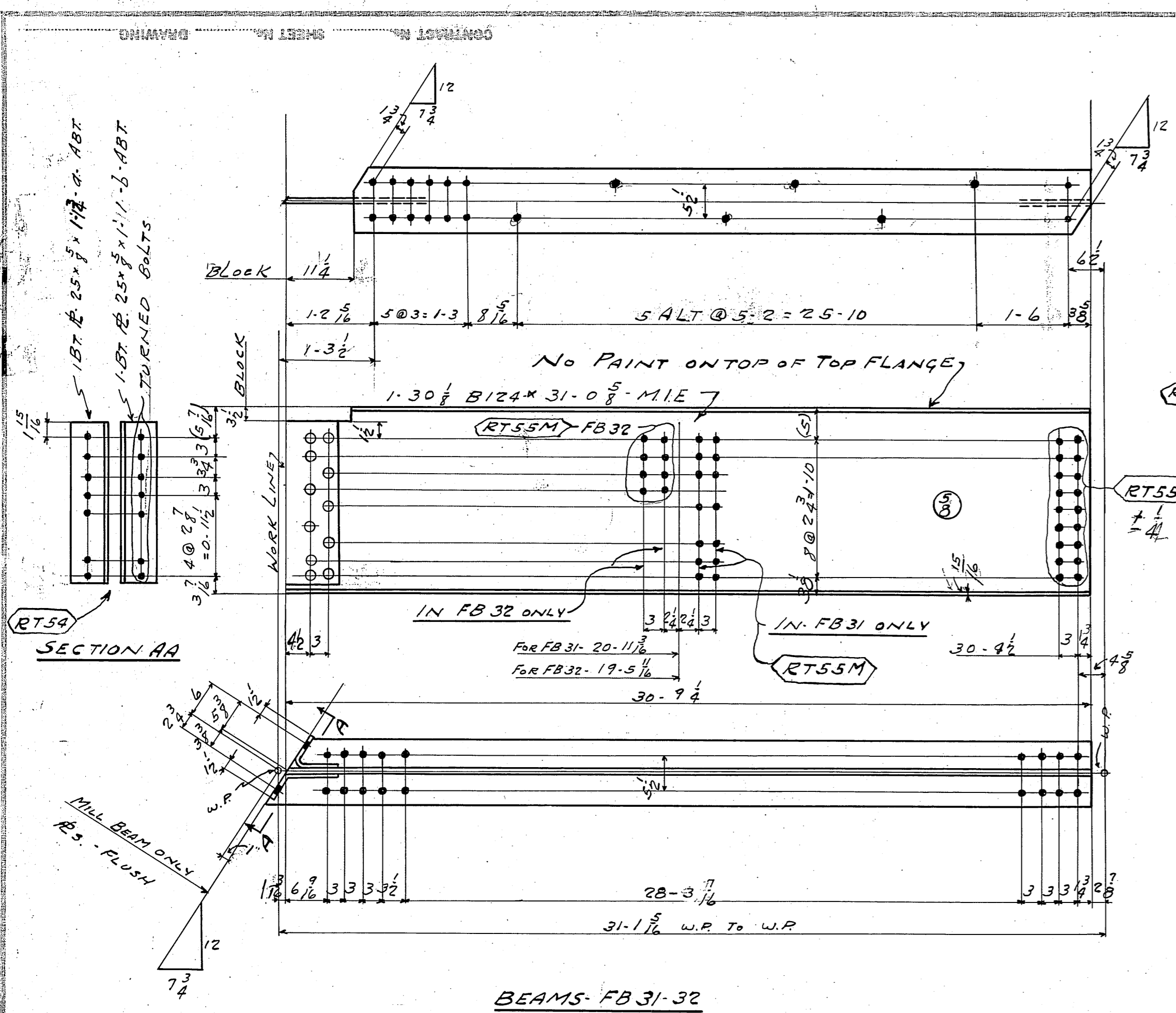
REQUIRED LIST			
N ^o	DESCRIPTION	MARK	REMARKS
2	BEAMS	FB22	
2	"	FB23	
1	"	FB24	
1	"	FB25	
1	"	FB26	
1	"	FB27	
1	"	FB28	
1	"	FB29	

FLOOR BEAMS GIRDER SPANS
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTI. - DEPT. PUBLIC WORKS

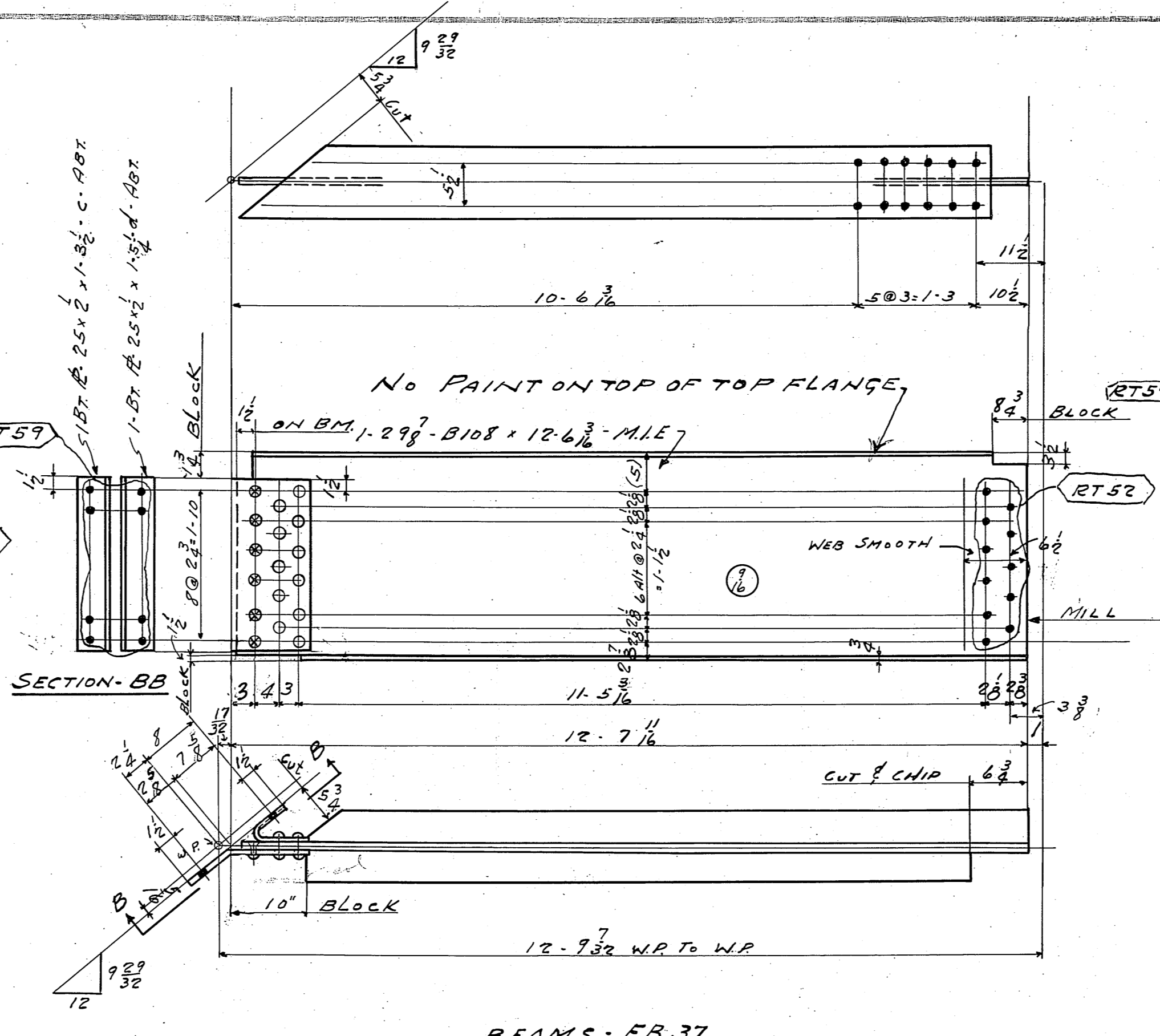
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin-Fabrication at

IN CHARGE: BORN MADE BY: J.H.L. 2-23-37
 CHECKED BY: T.B.C. 2-26-37 TRACED BY: J.D. 2-24-37
 REVISED: LAST ASST. INK. P.

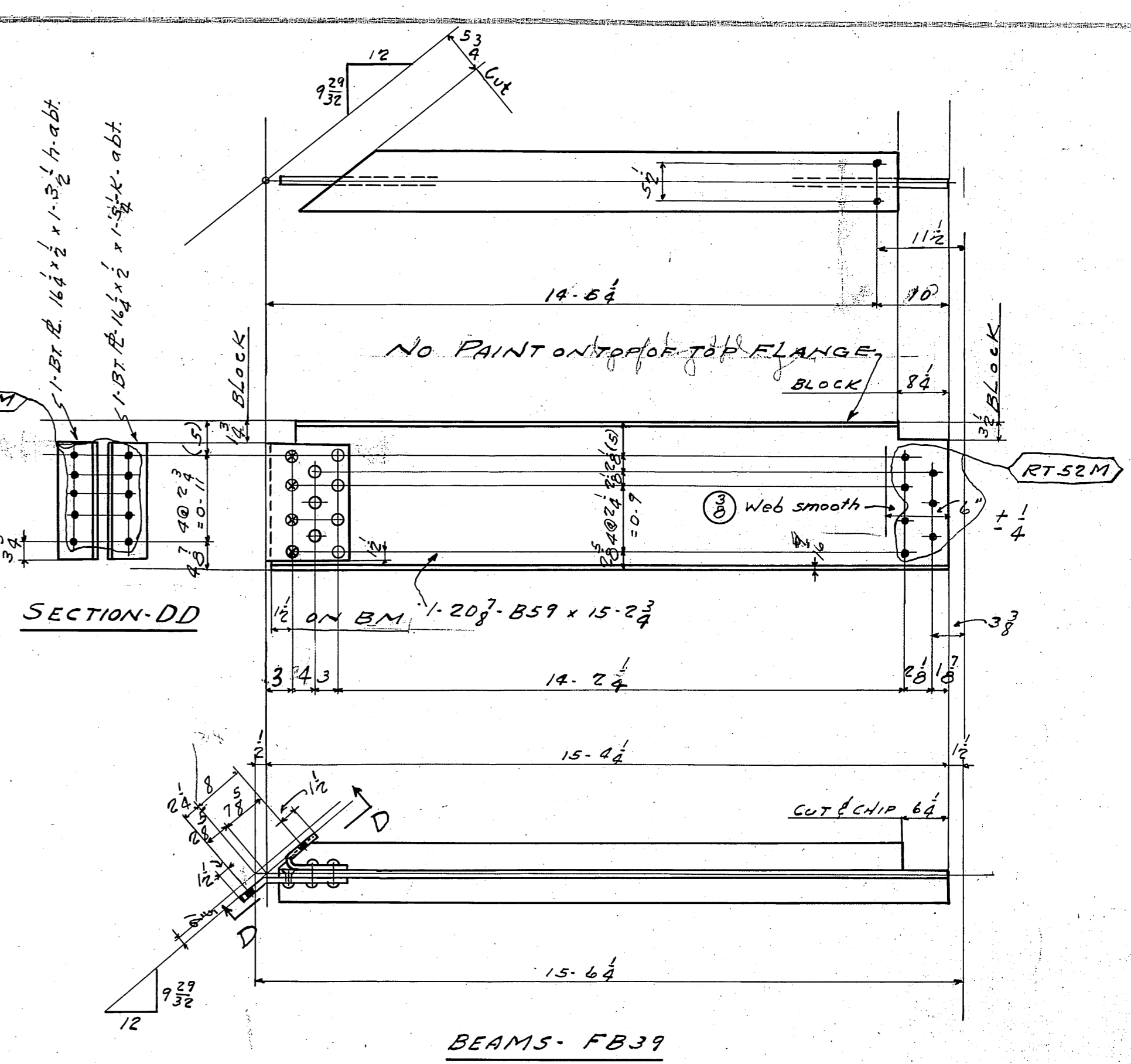
SHOP NO. 1 CONTRACT C.C. 25874 SHEET 402
 P.C. W.R.C. 4-21-37



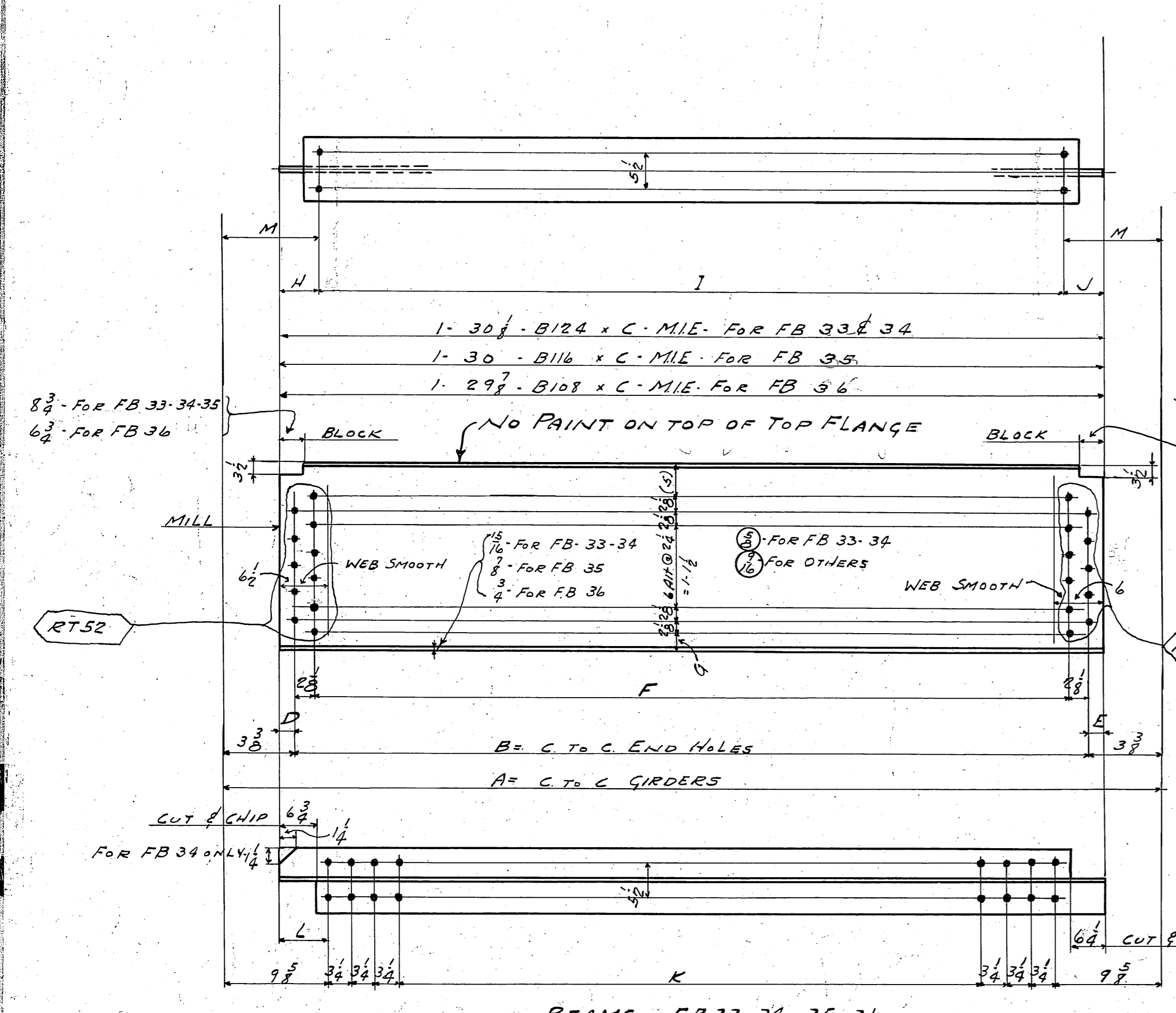
BEAMS - FB 31-32



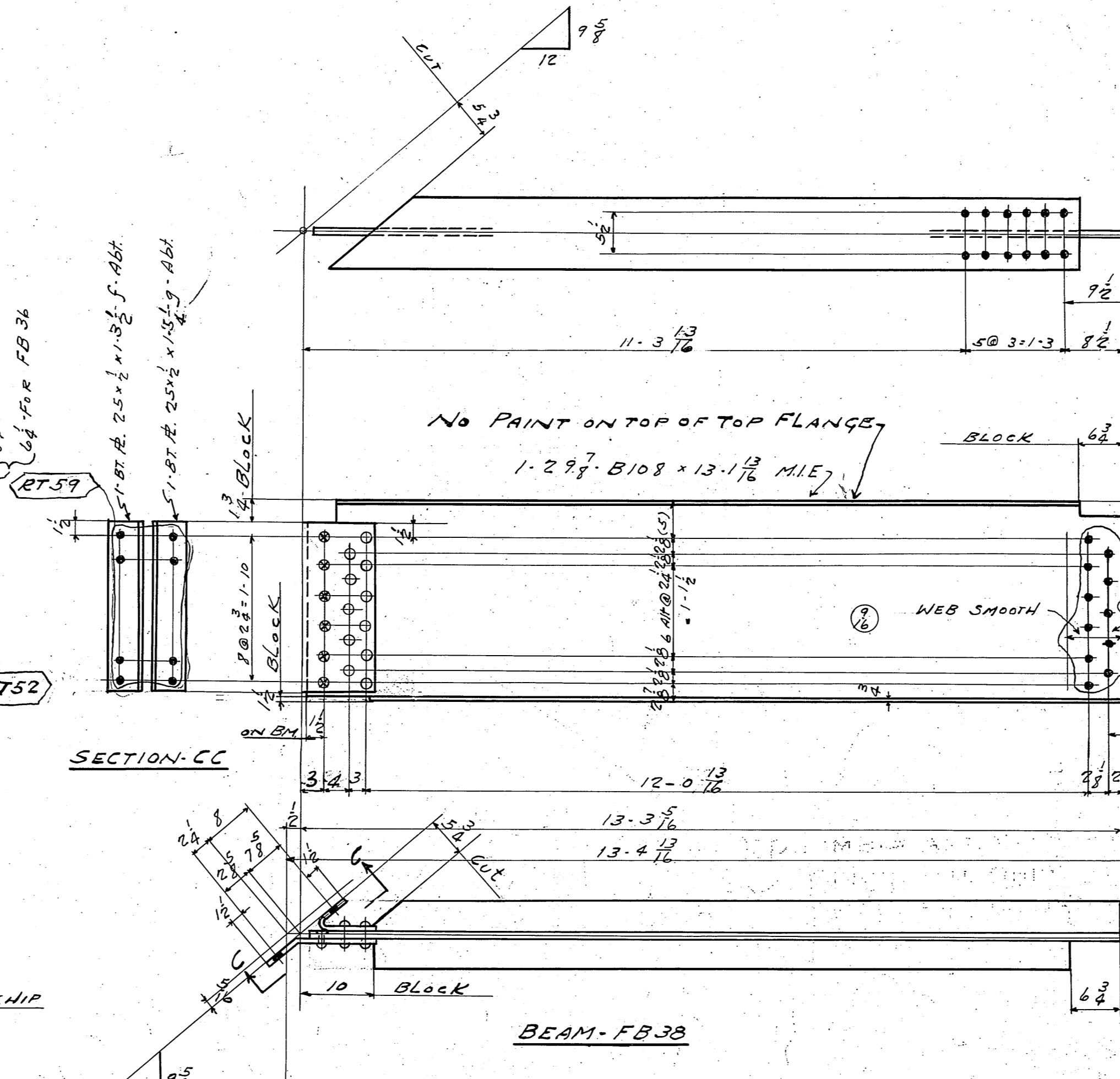
BEAMS - FB 37



BEAMS - FB 39



BEAMS - FB 33-34-35-36



BEAM - FB 38

MARK	A	B	C	D	E	F	G	H	I	J	K	L	M
FB 33	27.4	26.9 1/2	27.1 1/2	2 1/2	1 1/2	26.5	3 1/2	10 1/2	25.5	10	24.1 1/2	8 1/2	11 1/2
FB 34	26.9	26.2 1/2	26.6 1/2	2 1/2	1 1/2	25.10	3 1/2	10 1/2	24.10	10	23.6 1/2	8 1/2	11 1/2
FB 35	25.3	24.8 1/2	25.0 1/2	2 1/2	1 1/2	24.4	3 1/2	10 1/2	23.7	10	22.0 1/2	8 1/2	11 1/2
FB 36	26.2	25.7 1/2	26.0	2 1/2	1 1/2	25.3	3 1/2	10 1/2	24.7	8 1/2	22.11 1/2	8 1/2	9 1/2

GENERAL NOTES:
 RIVETS - 3/8" 15#
 OPEN HOLES - 1/8"
MATERIAL: Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted. All holes may be punched full size except as noted.
FINISHING:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
FLAME CUT EDGES: of main material shall be planed, chipped or ground and present a smooth workmanlike appearance. One coat of RED LEAD except where noted. Shop contact surfaces not painted.
PAINT:
 Denote break in stagger.

REQUIRED LIST			
N ^o	DESCRIPTION	MARK	REMARKS
1	BEAM	FB 31	
1	"	FB 32	
1	"	FB 33	
2	"	FB 34	
2	"	FB 35	
1	"	FB 36	
2	"	FB 37	
1	"	FB 38	
2	"	FB 39	

FLOOR BEAMS - GIRDER SPANS

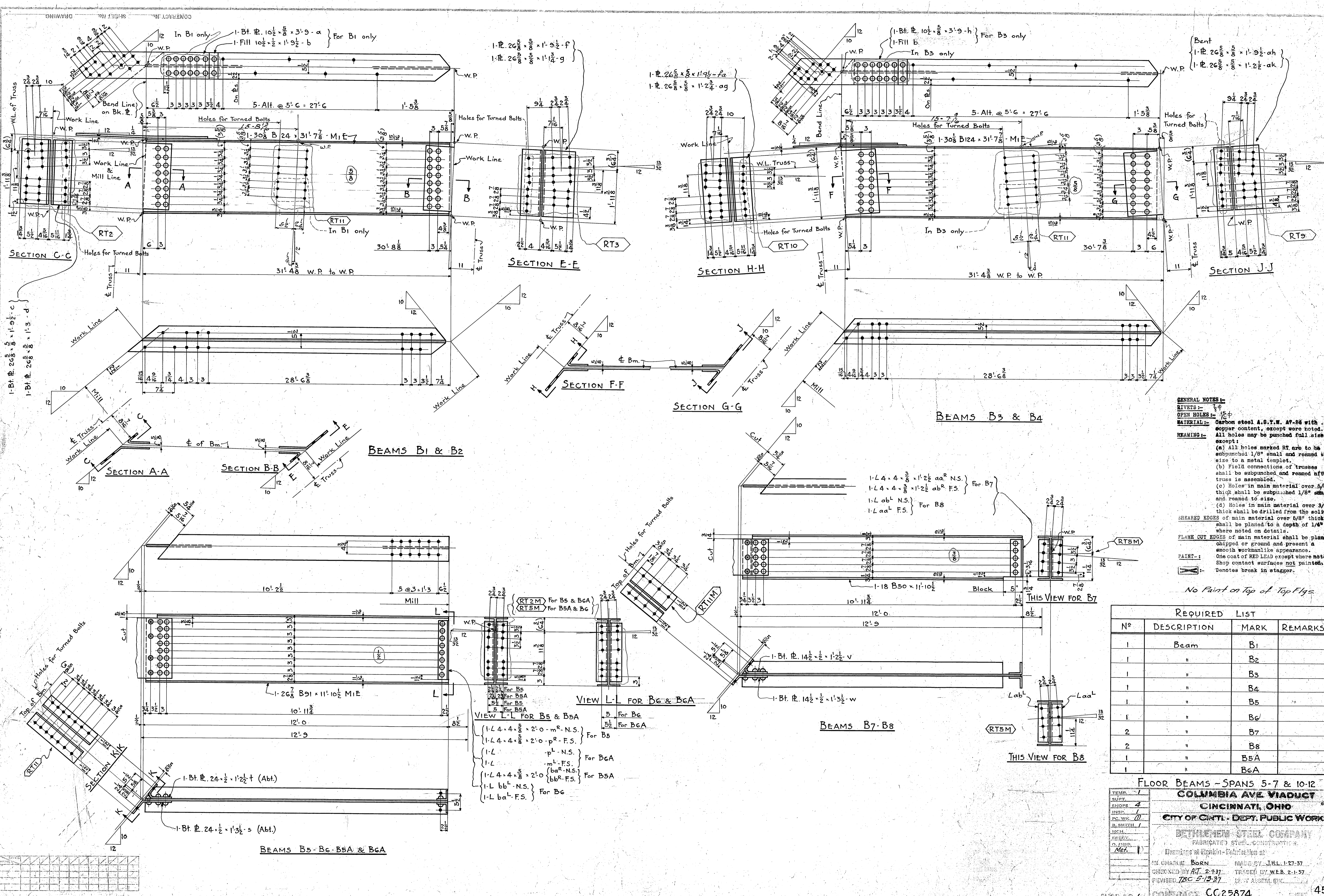
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO

CITY OF CINTI. - DEPT. PUBLIC WORKS

RETLEFFER STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Cinti. - Fabrication at

IN CHARGE: BORN MADE BY: J.L. 2-24-36
 CHECKED BY: TBC 3-1-37 TRACEY BY: HOP. 2-25-37
 REVISED: LAST ASSEMB. MK. K

SHOP NO. 1 CONTRACT CC 25874 SHEET 403
 P.C. M.F.C. 4-21-37

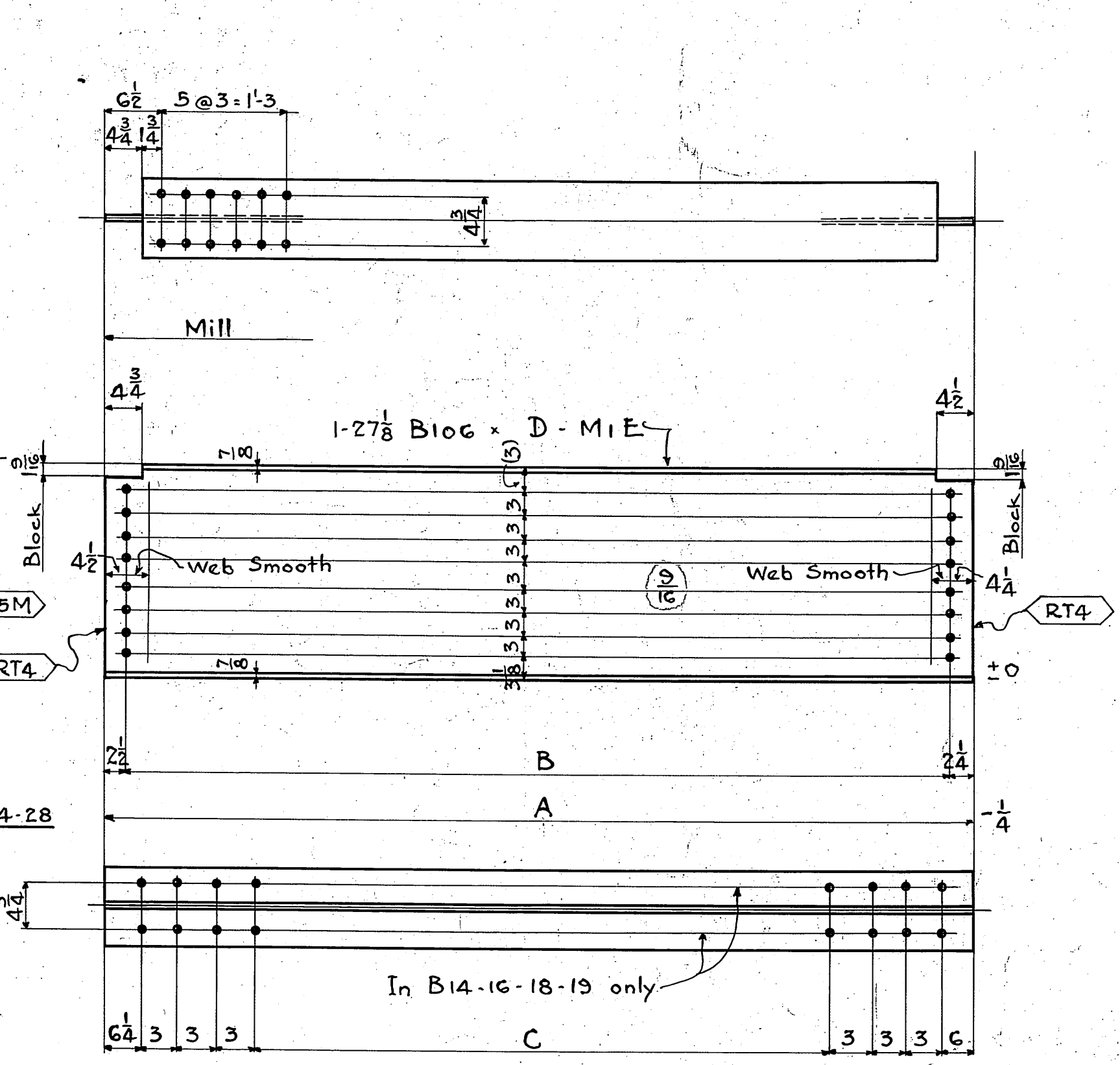
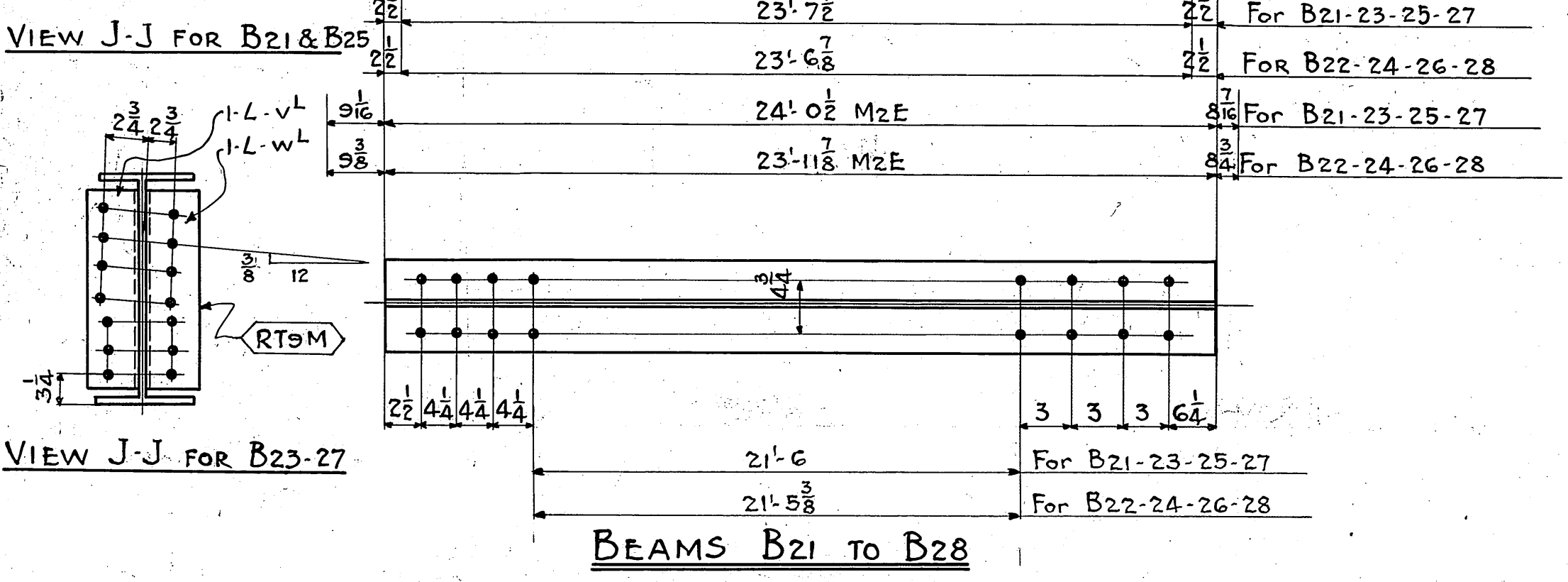
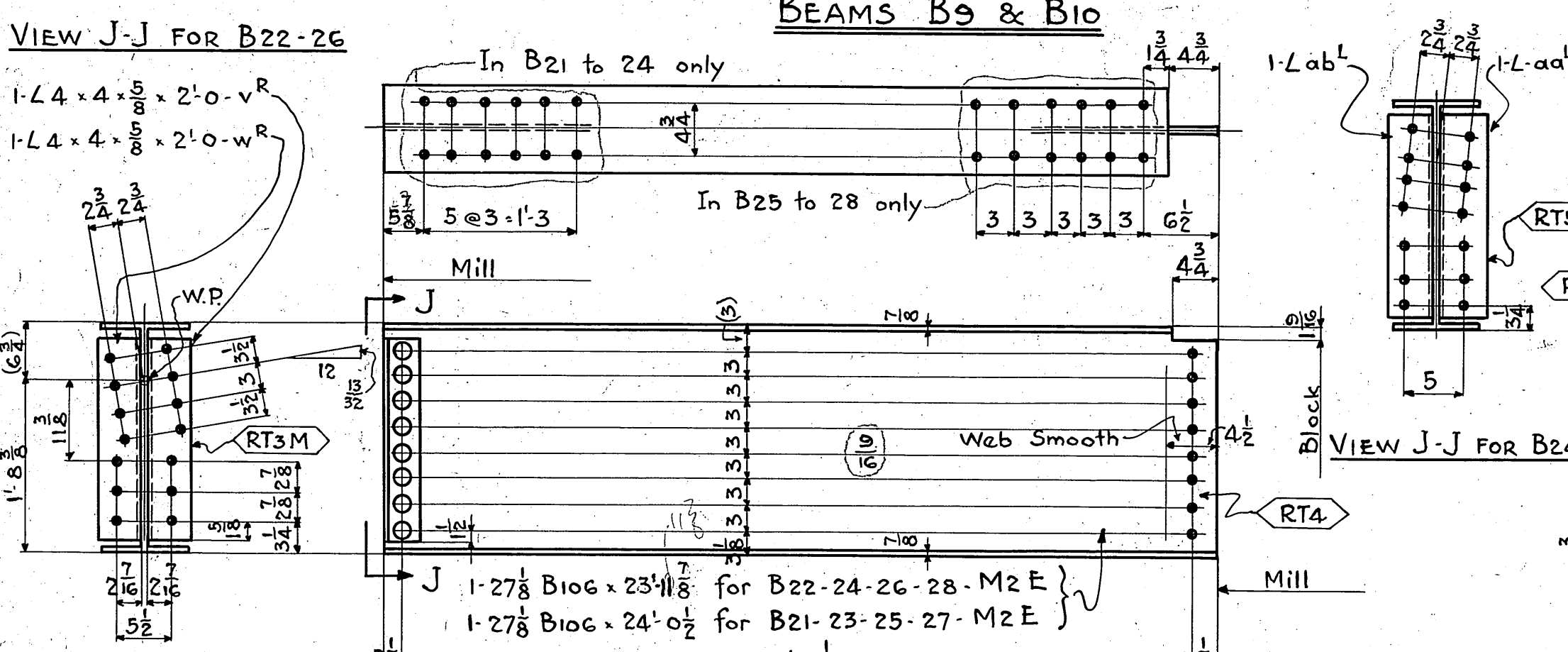
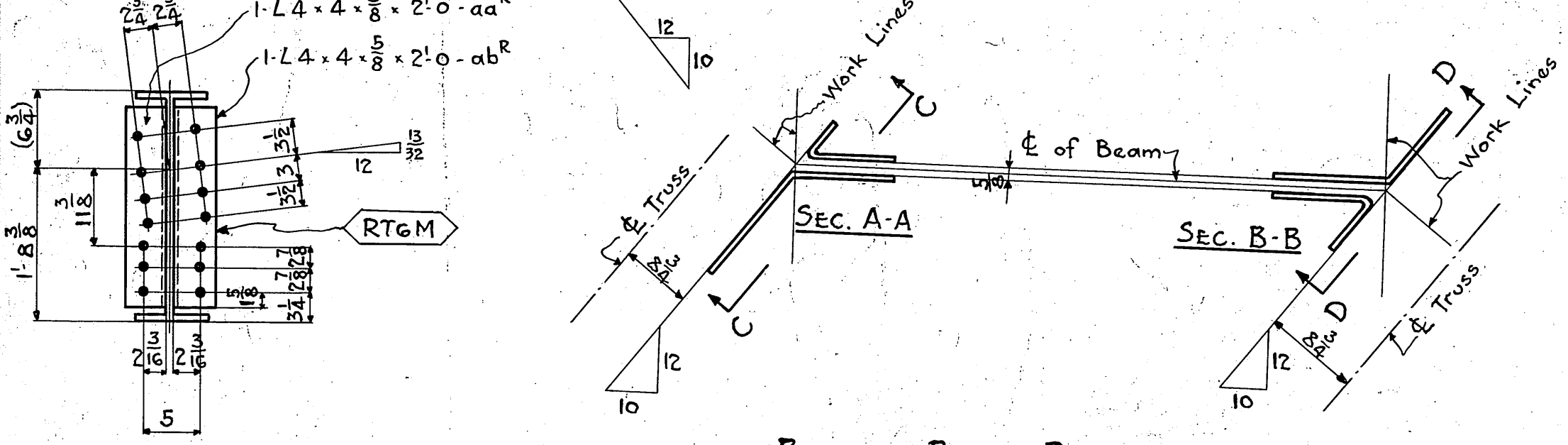
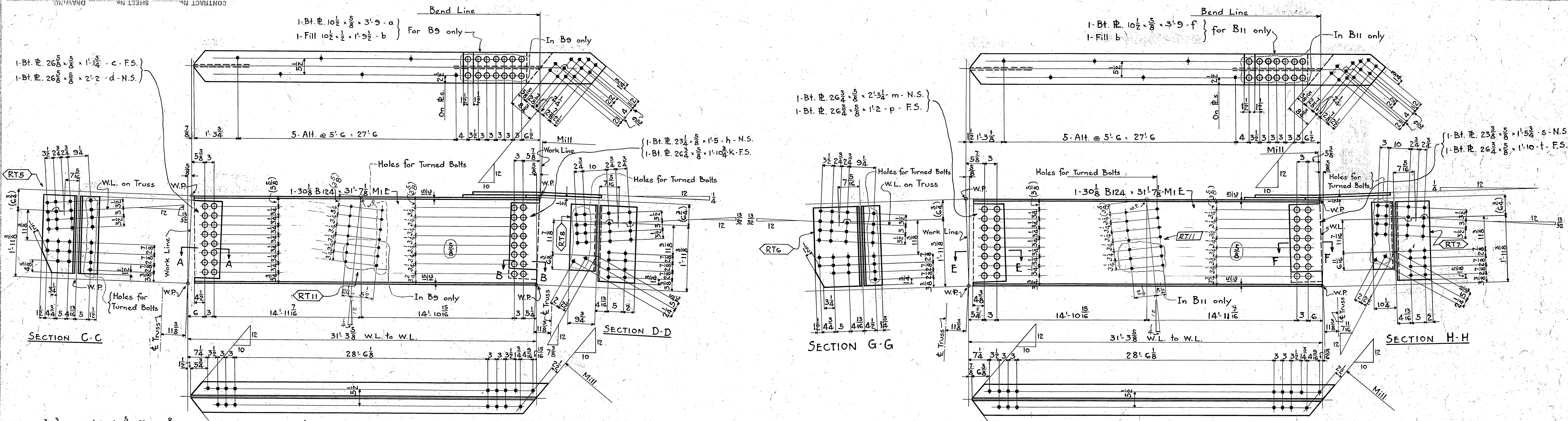


GENERAL NOTES:
RIVETS: -
OPEN HOLES: -
MATERIAL: Carbon steel A.S.T.M. A7-84 with .05 copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/8" thick shall be drilled from the solid.
SHARP EDGES: of main material over 5/8" thick shall be planed to a depth of 1/8" where noted on details.
FLAME CUT EDGES: of main material shall be planed, clipped or ground and present a smooth workmanlike appearance.
PAINT: - One coat of RED LEAD except where noted. Sharp contact surfaces not painted.
 Denotes break in stagger.

No Paint on Top of Top Flgs.

REQUIRED LIST			
Nº	DESCRIPTION	MARK	REMARKS
1	Beam	B1	
1	"	B2	
1	"	B3	
1	"	B4	
1	"	B5	
1	"	B6	
2	"	B7	
2	"	B8	
1	"	B5A	
1	"	B6A	

FLOOR BEAMS - SPANS 5-7 & 10-12
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS
 BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings at Rankin-Parsons and
 IN CHARGE: BORN MADE BY: J.M.L. 1-27-37
 CHECKED BY: A.J. 2-7-37 TRACED BY: W.E.B. 2-1-37
 REVISED: 7-5-37
 SHOP NO. 1 CONTRACT CC25874



MARK	A	B	C	D
B13	24'-0 3/16	23'-7 7/16		24'-0 3/16
B14	24'-0 1/4	23'-7 1/2	21'-6	24'-0 1/4
B15	24'-0 1/16	23'-7 1/16		24'-0 1/16
B16	24'-0 1/16	23'-7 1/16	21'-6 1/16	24'-0 1/16
B17	24'-0 5/8	23'-7 7/8		24'-0 5/8
B18	24'-0 5/8	23'-7 7/8	21'-6 3/8	24'-0 5/8
B19	24'-0 3/4	23'-8	21'-6 1/2	24'-0 3/4
B20	24'-0 3/4	23'-8		24'-0 3/4

GENERAL NOTES:
 RIVETS: 3/8"
 OPEN HOLES: 1/8"
MATERIAL: Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
SEAM EDGES: of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES: of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 Denotes break in stagger.
 No Paint on Top of Top Flgs.

REQUIRED LIST			
Nº	DESCRIPTION	MARK	REMARKS
1	Beam	B9	
1	"	B10	
1	"	B11	
1	"	B12	
8	"	B13	
8	"	B14	
12	"	B15	
12	"	B16	
12	"	B17	
8	"	B18	
4	"	B19	
4	"	B20	
1	"	B21	
1	"	B22	
1	"	B23	
1	"	B24	
1	"	B25	
1	"	B26	
1	"	B27	
1	"	B28	

FLOOR BEAMS - SPANS 5-7 & 10-12

COLUMBIA AVE VIADUCT

CINCINNATI, OHIO

CITY OF CINT. DEPT. PUBLIC WORKS

DETACHMENT STEEL COMPANY

FABRICATED STEEL CONSTRUCTION

Drawing at Rankin - Fabrication at

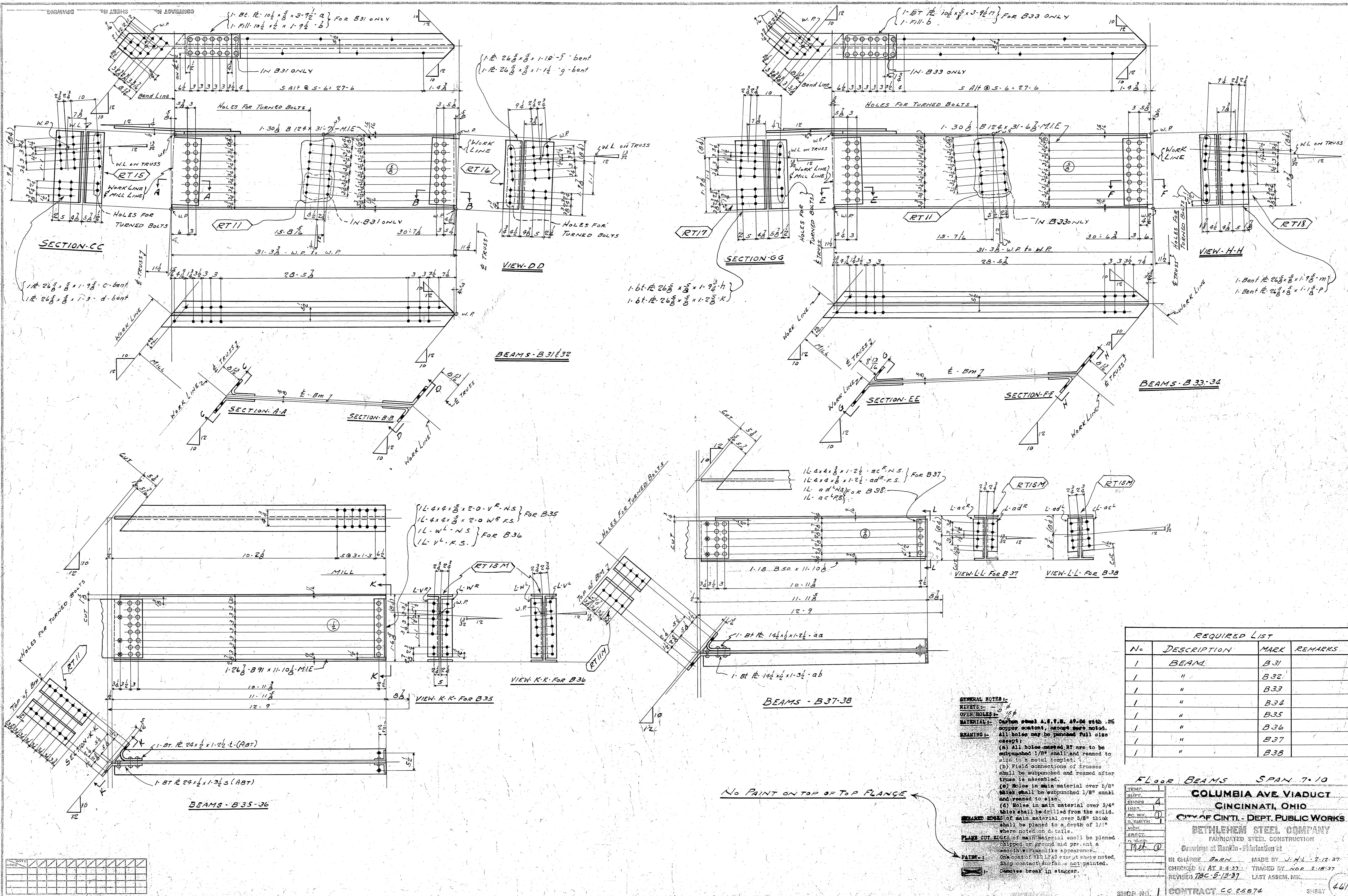
IN CHARGE: BORN MADE BY J.H.L. 1-31-37

CHECKED BY AT 2-10-37 TRACED BY W.E.B. 2-2-37

REVISED JAN. 2-3-37 LAST ASSEM. BY

FC 78C 3-5-37

SHOP NO. 1 CONTRACT CC25874

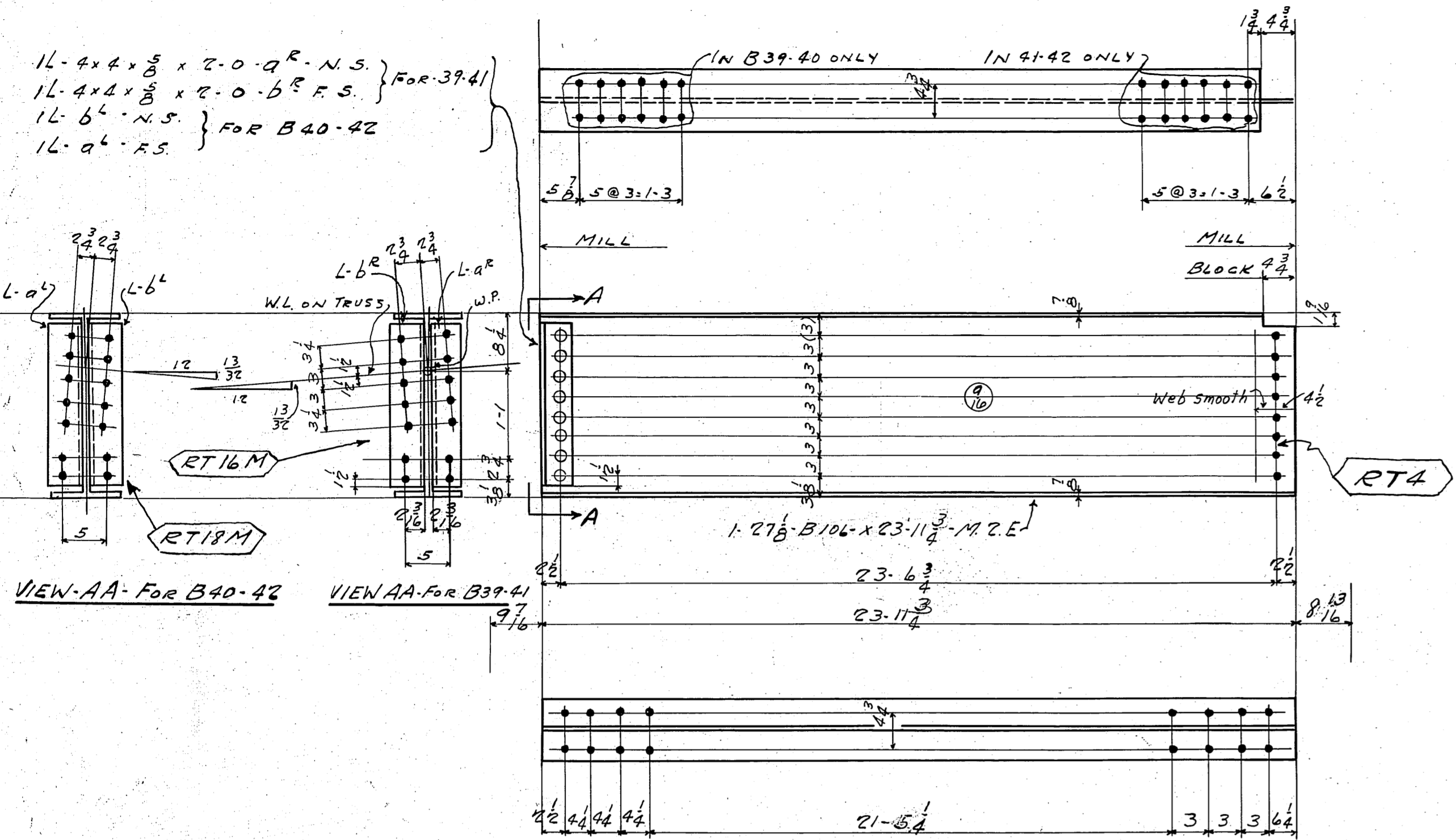


GENERAL NOTES:
 RIVETS: 5/8"
 OPEN HOLES: 1/8" (min)
 MATERIAL: Carbon steel A. S. F. S. 49-04 with .25 copper content; (except where noted). All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" shall be drilled from the solid.
 (d) Holes in main material over 5/8" thick shall be punched 1/8" small and reamed to size.
 (e) Holes in main material over 3/4" shall be drilled from the solid.
 (f) Holes in main material over 5/8" thick shall be punched to a depth of 1/2" where noted on details.
 PLAIN CUT EDGES: of main material shall be plain chipped or ground and present a smooth workmanlike appearance.
 PAINTING: One coat of Red Lead oxide white primer shall be applied to all surfaces not painted. Details break in stagger.
 BRAND MARKS: shall be placed to a depth of 1/16" where noted on details.

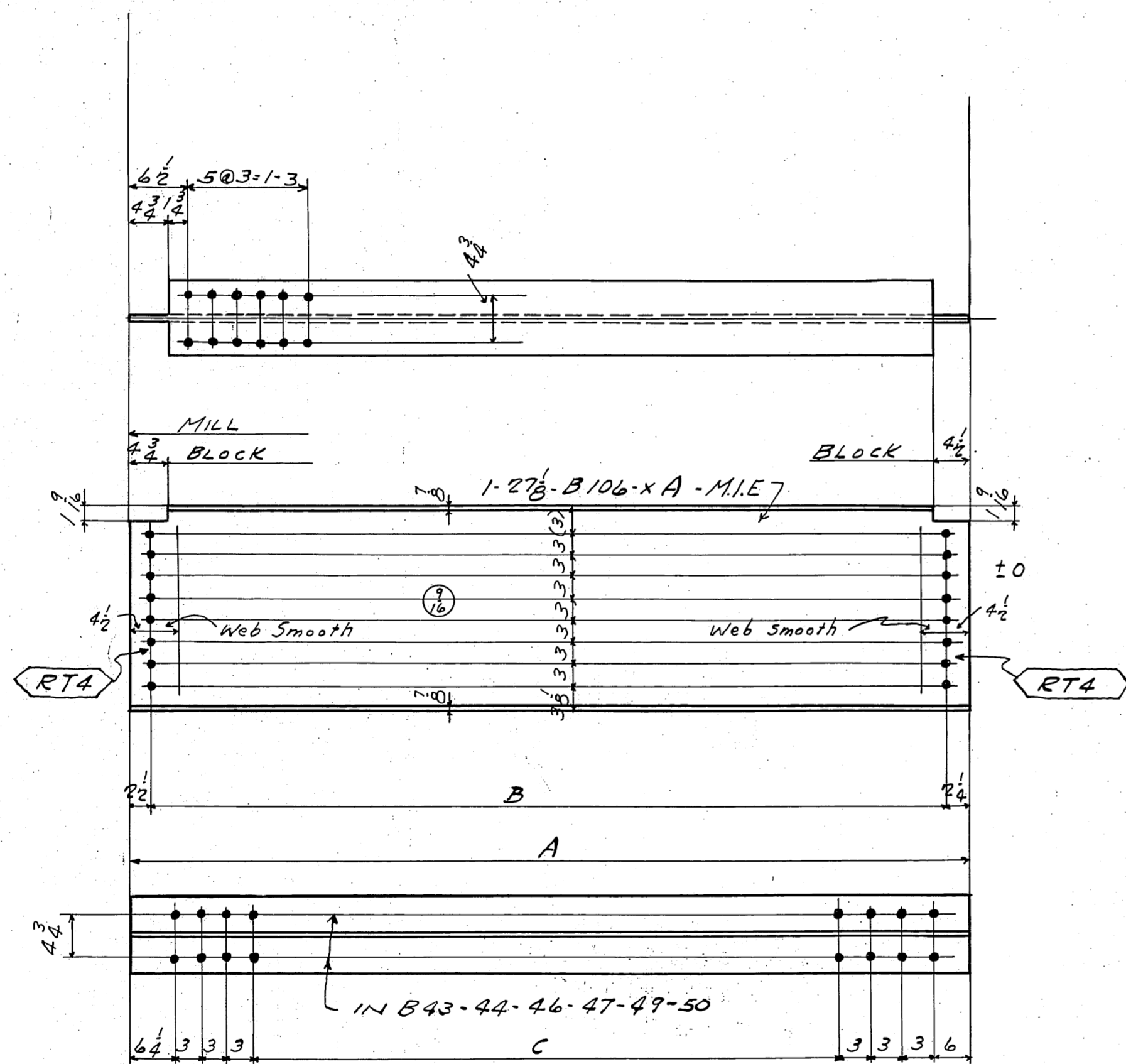
REQUIRED LIST			
No.	DESCRIPTION	MARK	REMARKS
1	BEAM	B31	
1	"	B32	
1	"	B33	
1	"	B34	
1	"	B35	
1	"	B36	
1	"	B37	
1	"	B38	

FLOOR BEAMS SPAN 7-10
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawing at Rankin - Fabrication at
 IN CHARGE: BARN MADE BY: J.H.L. 2.12.37
 CHECKED BY: AT 3.4.37 TRACED BY: N.O.R. 2.18.37
 REVISED: TBC 5.13.37 LAST ASSEM. NIK.
 SHOP NO. 1 CONTRACT CC 25074 SHEET 461
 F.C. - TBC 5-13-37 15-9-49

No PAINT ON TOP OF TOP FLANGE



BEAMS - B39-40-41-42



MARK	A	B	C
B43	24-0 1/16	23-7 1/16	21-5 1/16
B44	24-0 3/16	23-7 3/16	21-5 3/16
B45	24-0 5/16	23-7 5/16	
B46	24-0 7/16	23-7 7/16	21-6 1/16
B47	24-0 9/16	23-7 9/16	21-6 3/16
B48	24-0 11/16	23-7 11/16	
B49	24-0 13/16	23-8 1/16	21-6 5/16
B50	24-0 15/16	23-8 3/16	21-6 7/16

REQUIRED LIST			
N ^o	DESCRIPTION	MARK	REMARKS
1	BEAM	B39	
1	"	B40	
1	"	B41	
1	"	B42	
8	"	B43	
8	"	B44	
16	"	B44A	
4	"	B45	
4	"	B46	
8	"	B47	
8	"	B47A	
4	"	B48	
4	"	B49	
8	"	B50	
16	"	B50A	

FLOOR BEAMS SPAN 7-10

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO

CITY OF CINTL - DEPT. PUBLIC WORKS

REDFLESH STEEL COMPANY
 FABRICATED STEEL CONNECTION

Drawings of Rankin - Fabrication at

IN CHARGE BORN MADE BY J.M.H.

CHECKED BY AT 3.2.37 TRACED BY G.P. 2.12.37

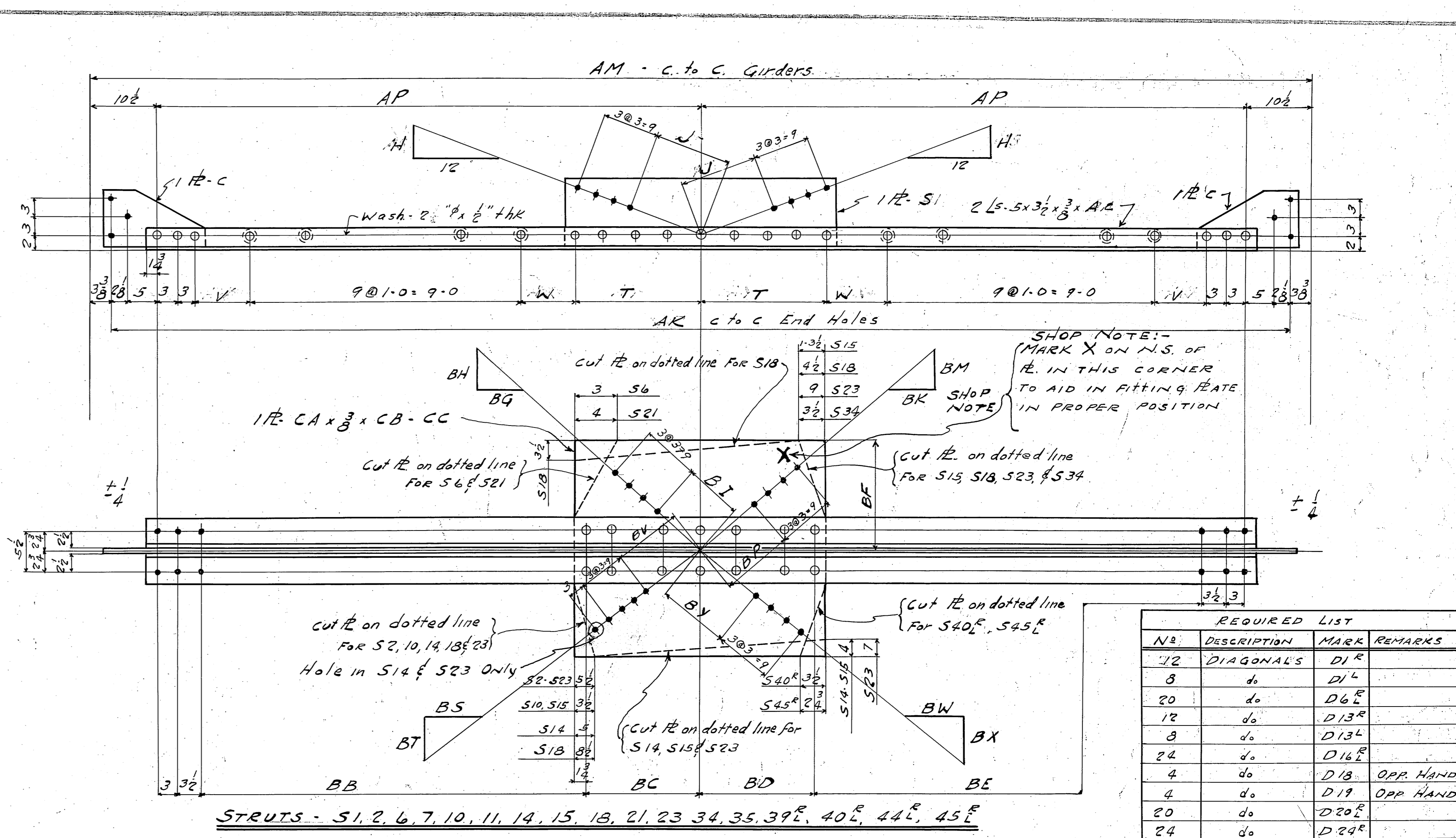
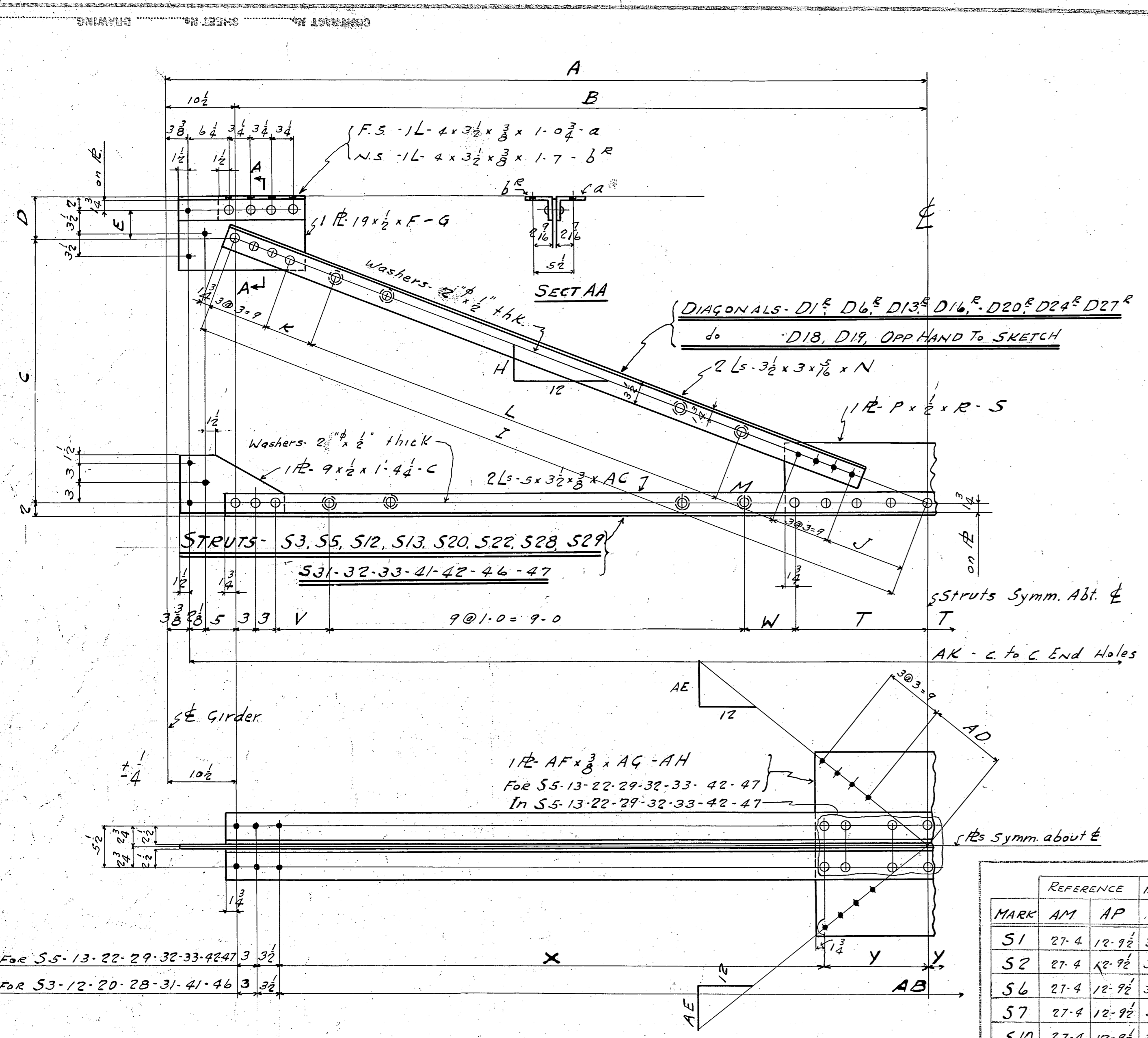
REVISED LAST ASSEM. MK.

SHOP NO. 1 CONTRACT CC 25874 SHEET 462

F.C.T.C. 5/14/37

15-9-50

GENERAL NOTES:
 RIVETS: 7/8"
 OPEN HOLES: 1 1/8"
 MATERIAL: Carbon steel A.S.T.M. A7-34 with .25 copper content, except where noted. All holes may be punched full size except:
 BEAMING:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 BEAMED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 FLAME CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
 PAINTING: One coat of RED LEAD, except where noted. Shop contact surfaces not painted. Demotee break in stagger.
 No PAINT on top of TOP FLANGE



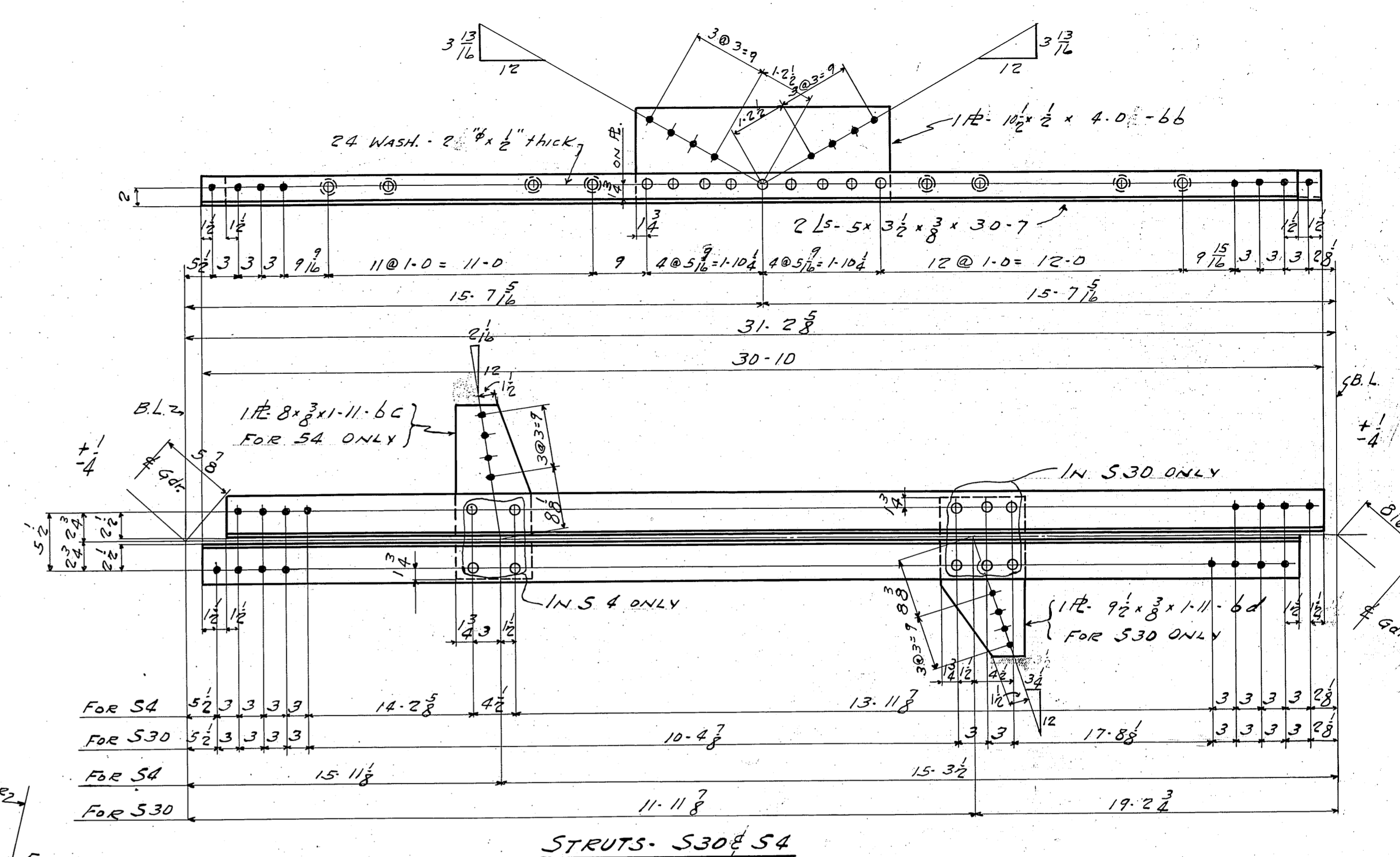
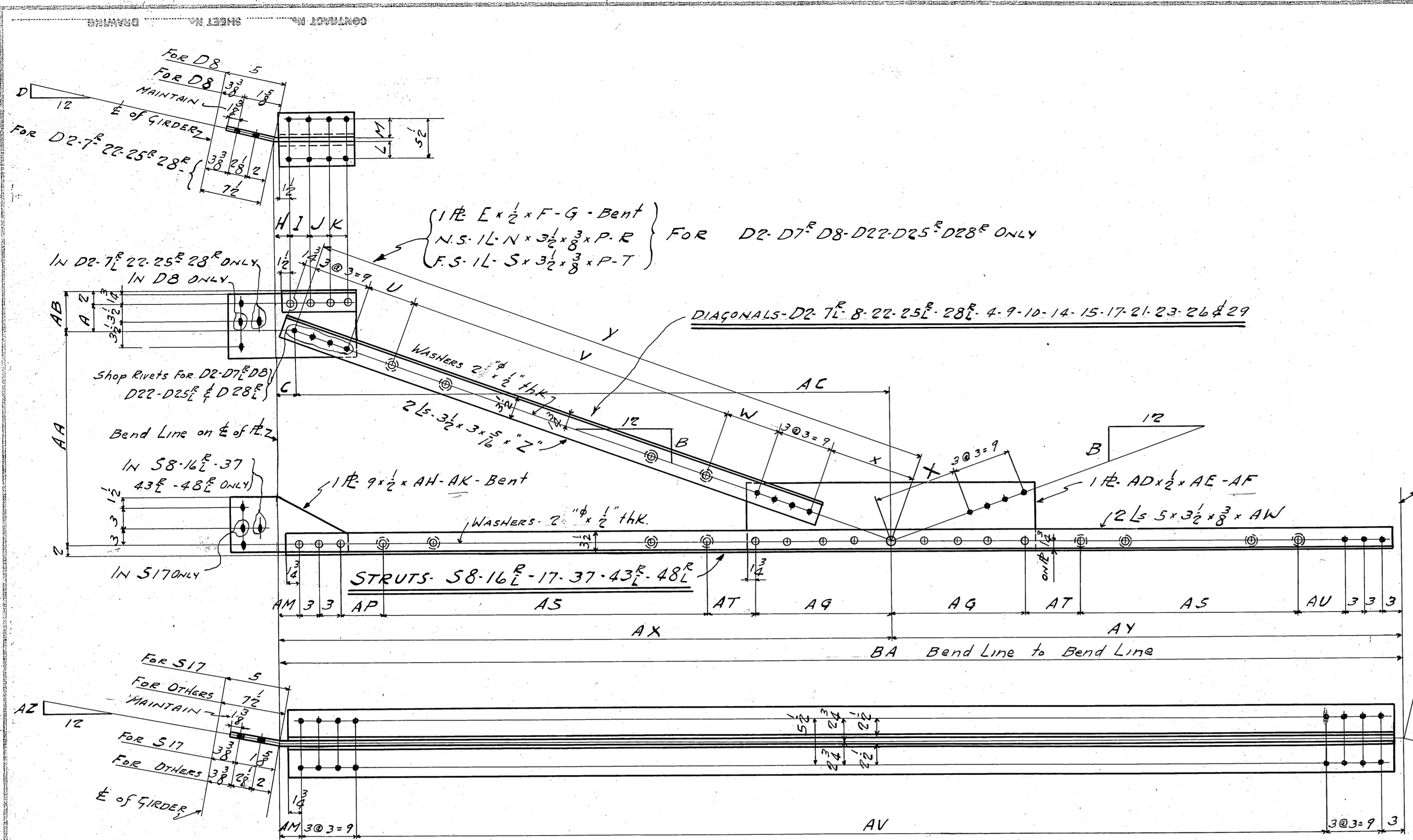
For S5-13-22-29-32-33-42-47 3 3/8"
 For S3-12-20-28-31-41-46 3 3/8"

MARK	A	B	C	D	E	F	G	H	I	J	K	L	M	N
D1 ^L	13-8	12-9 1/2	3-10 1/2	6 1/2	4 1/2	10 1/2	d	3 1/2	13-4 1/2	1-3 1/2	9 1/2	9 @ 1.0 = 9.0	7 3/8	12-4 1/2
D6 ^L	13-8	12-9 1/2	3-10 1/2	6 1/2	4 1/2	10 1/2	f	3 3/8	13-4 1/2	1-3 1/2	9 1/2	9 @ 1.0 = 9.0	9 1/8	12-4 1/2
D13 ^L	13-4 1/2	12-6	4-11 1/2	6 1/2	4 1/2	11	g	4 5/8	13-5 1/2	1-0 3/8	11 3/8	9 @ 1.0 = 9.0	11 1/2	12-8 1/2
D16 ^L	12-7 1/2	11-9	4-11 1/2	6 1/2	4 1/2	11 1/2	h	5 3/8	12-8 1/2	1-1 1/2	7 3/8	9 @ 1.0 = 9.0	7 3/8	12-0 1/2
D18	13-4 1/2	12-6	4-11 1/2	6 1/2	4 1/2	11	k	4 3/8	13-5 1/2	1-0 3/8	11 3/8	9 @ 1.0 = 9.0	11 1/2	12-8 1/2
D19	12-7 1/2	11-9	4-11 1/2	6 1/2	4 1/2	11 1/2	m	5 3/8	12-8 1/2	1-1 1/2	7 3/8	9 @ 1.0 = 9.0	7 3/8	12-0 1/2
D20 ^L	13-1	12-2 1/2	4-5 1/2	6 1/2	4 1/2	11	p	4 3/8	12-11 1/2	1-1 1/2	8 1/2	9 @ 1.0 = 9.0	8 5/8	12-2
D24 ^L	13-1	12-2 1/2	4-4 1/2	6 1/2	4 1/2	11	s	4 1/2	12-11 1/2	1-1 1/2	8 1/2	9 @ 1.0 = 9.0	8 1/2	12-2
D27 ^L	13-1	12-2 1/2	3-5 1/2	6 1/2	4 1/2	10 1/2	t	3 3/8	12-8 1/2	1-3 1/2	10 3/8	8 @ 1.0 = 8.0	1-0	11-8 1/2

MARK	AM	AP	H	J	S	V	W	X	Y	AB	AC	AD	AE	AF	AG	AH	AK	MARK											
S1	27-4	12-9 1/2	3 1/2	1-3 1/2	V	8	8 1/2	4 @ 5 1/2 = 1.1 1/2	25-10 1/2	10-9 1/2	3 @ 5 1/2 = 1.5 3/8	3 @ 5 1/2 = 1.5 3/8	10-11 1/2	1-4 1/2	12	11 1/2	1-0	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	32 1/2	3-0 1/2	2-0	26-9 1/2	S1	
S2	27-4	12-9 1/2	3 1/2	1-3 1/2	V	8	8 1/2	4 @ 5 1/2 = 1.1 1/2	25-10 1/2	10-9 1/2	3 @ 5 1/2 = 1.5 3/8	3 @ 5 1/2 = 1.5 3/8	10-11 1/2	1-4 1/2	12	11 1/2	1-0	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	32	3-6	6-2	26-9 1/2	S2	
S6	27-4	12-9 1/2	3 1/2	1-3 1/2	V	8	8 1/2	4 @ 5 1/2 = 1.1 1/2	25-10 1/2	10-9 1/2	3 @ 5 1/2 = 1.5 3/8	3 @ 5 1/2 = 1.5 3/8	10-11 1/2	1-4 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	32	3-3	6-6	26-9 1/2	S6	
S7	27-4	12-9 1/2	3 1/2	1-3 1/2	V	8	8 1/2	4 @ 5 1/2 = 1.1 1/2	25-10 1/2	10-10 1/2	3 @ 5 1/2 = 1.4 1/2	3 @ 5 1/2 = 1.4 1/2	10-11 1/2	1-4 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-0	32 1/2	2-11 1/2	6-6	26-9 1/2	S7	
S10	27-4	12-9 1/2	3 1/2	1-3 1/2	V	8	8 1/2	4 @ 5 1/2 = 1.1 1/2	25-10 1/2	10-7 1/2	3 @ 5 1/2 = 1.5 3/8	3 @ 5 1/2 = 1.5 3/8	10-9 1/2	1-3 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	31 1/2	3-4 1/2	6-6	26-9 1/2	S10	
S11	27-4	12-9 1/2	3 1/2	1-3 1/2	V	8	8 1/2	4 @ 5 1/2 = 1.1 1/2	25-10 1/2	10-9 1/2	3 @ 5 1/2 = 1.5 3/8	3 @ 5 1/2 = 1.5 3/8	10-10 1/2	1-4	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	32	3-1 1/2	6-6	26-9 1/2	S11	
S14	27-4	12-9 1/2	3 1/2	1-3 1/2	V	8	8 1/2	4 @ 5 1/2 = 1.1 1/2	25-10 1/2	10-10 1/2	3 @ 5 1/2 = 1.4 1/2	3 @ 5 1/2 = 1.4 1/2	10-10 1/2	1-4	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	32 1/2	2-11 1/2	6-9	26-9 1/2	S14	
S15	27-4	12-9 1/2	3 1/2	1-3 1/2	V	8	8 1/2	4 @ 5 1/2 = 1.1 1/2	25-10 1/2	10-10 1/2	3 @ 5 1/2 = 1.4 1/2	3 @ 5 1/2 = 1.4 1/2	10-10 1/2	1-4	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	32 1/2	4-3 1/2	6-6	26-9 1/2	S15	
S18	26-9	12-6	4 3/8	1-0 3/8	aa	8	8	4 @ 5 = 1.8	25-3 1/2	9-11 1/2	5 @ 4 1/2 = 2.0 1/2	3 @ 5 1/2 = 1.3 1/2	10-7 1/2	1-5 1/2	8 1/2	12	10 1/2	1-0 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	34	3-7 1/2	6-6	26-2 1/2	S18
S21	26-9	12-6	4 3/8	1-0 3/8	aa	8	8	4 @ 5 = 1.8	25-3 1/2	10-7 1/2	3 @ 5 1/2 = 1.3 1/2	3 @ 5 1/2 = 1.3 1/2	10-7 1/2	1-5 1/2	8 1/2	12	10 1/2	1-0 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	34	2-10 1/2	6-6	26-2 1/2	S21
S23	26-9	12-6	4 3/8	1-0 3/8	aa	8	8	4 @ 5 = 1.8	25-3 1/2	10-7	3 @ 5 1/2 = 1.2 1/2	3 @ 5 1/2 = 1.2 1/2	10-7 1/2	1-5 1/2	8 1/2	12	10 1/2	1-0 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	37	3-9 1/2	6-6	26-2 1/2	S23
S34	26-2	12-2 1/2	4 3/8	1-1 1/2	ad	6	5 1/2	4 @ 5 1/2 = 1.9	24-8 1/2	9-11	4 @ 5 1/2 = 1.9	4 @ 5 1/2 = 1.1	10-10 1/2	1-7	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-3 1/2	30	3-1 1/2	6-5	25-7 1/2	S34	
S35	26-2	12-2 1/2	4 3/8	1-1 1/2	ad	6	5 1/2	4 @ 5 1/2 = 1.9	24-8 1/2	9-11	4 @ 5 1/2 = 1.9	4 @ 5 1/2 = 1.7	10-10 1/2	1-7	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-3 1/2	30	3-8	6-7	25-7 1/2	S35	
S39 ^R	26-2	12-2 1/2	4 3/8	1-1 1/2	ad	6	5 1/2	4 @ 5 1/2 = 1.9	24-8 1/2	10-2 1/2	3 @ 5 1/2 = 1.5 3/8	4 @ 4 1/2 = 1.7	10-1	1-3 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-1 1/2	31 1/2	3-4 1/2	6-6	25-7 1/2	S39 ^R	
S40 ^R	26-2	12-2 1/2	4 3/8	1-1 1/2	ad	6	5 1/2	4 @ 5 1/2 = 1.9	24-8 1/2	10-1	4 @ 4 1/2 = 1.7	4 @ 5 1/2 = 1.9	10-1	1-3 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-1 1/2	31	3-7 1/2	6-6	25-7 1/2	S40 ^R	
S44 ^R	26-2	12-2 1/2	3 3/8	1-3 1/2	af	4 1/2	4 1/2	4 @ 5 1/2 = 1.1 1/2	24-8 1/2	10-2 1/2	3 @ 5 1/2 = 1.5 3/8	4 @ 4 1/2 = 1.6 1/2	10-1 1/2	1-3 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-1 1/2	31 1/2	3-3 1/2	6-6	25-7 1/2	S44 ^R	
S45 ^R	26-2	12-2 1/2	3 3/8	1-3 1/2	af	4 1/2	4 1/2	4 @ 5 1/2 = 1.1 1/2	24-8 1/2	10-1/2	4 @ 4 1/2 = 1.6 1/2	4 @ 5 = 1.8	10-0	1-3 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-0 1/2	12	11 1/2	1-1 1/2	31 1/2	3-6	6-6	25-7 1/2	S45 ^R	

MARK	A	H	J	P	R	S	T	V	W	X	Y	AB	AC	AD	AE	AF	AG	AH	AK	MARK	
S3	13-8	3 1/2	1-3 1/2	10 1/2	4-2	V	4 @ 5 1/2 = 1.1 1/2	8	8 1/2			24-6	25-10 1/2							26-9 1/2	S3
S5	13-8	3 1/2	1-3 1/2	10 1/2	4-2	V	4 @ 5 1/2 = 1.1 1/2	8	8 1/2	10-11 1/2	3 @ 5 1/2 = 1.3 3/8		25-10 1/2	1-0 1/2	11 1/2	32 1/2	2-10 1/2	2-9		26-9 1/2	S5
S12	13-8	3 1/2	1-3 1/2	10 1/2	4-2	V	4 @ 5 1/2 = 1.1 1/2	8	8 1/2			24-6	25-10 1/2							26-9 1/2	S12
S13	13-8	3 1/2	1-3 1/2	10 1/2	4-2	V	4 @ 5 1/2 = 1.1 1/2	8	8 1/2	10-10 1/2	3 @ 5 1/2 = 1.4 1/2		25-10 1/2	1-0 1/2	10 1/2	32	2-11 1/2	2-9		26-9 1/2	S13
S20	13-4 1/2	4 3/8	1-0 3/8	11 1/2	3-7 1/2	aa	4 @ 5 = 1.8	8	8			23-11	25-3 1/2							26-2 1/2	S20
S22	13-4 1/2	4 3/8	1-0 3/8	11 1/2	3-7 1/2	aa	4 @ 5 = 1.8	8	8	10-7 1/2	3 @ 5 1/2 = 1.3 1/2		25-3 1/2	1-0 1/2	11 3/2	32 1/2	2-10 1/2	2-9		26-2 1/2	S22
S28	12-7 1/2	5 3/8	1 1/8	11 1/2	3-5 1/2	ab	4 @ 4 1/2 = 1.7	4	4			22-5	23-9 1/2							24-8 1/2	S28
S29	12-7 1/2	5 3/8	1 1/8	11 1/2	3-5 1/2	ab	4 @ 4 1/2 = 1.7	4	4	9-10	3 @ 5 1/2 = 1.4 1/2		23-9 1/2	1-0 1/2	10 3/2	32	3-0 1/2	2-9		24-8 1/2	S29
S31	13-1	4 3/8	1-1 1/2	11 1/2	3-9 1/2	ac	4 @ 5 1/2 = 1.9	6	5 1/2			23-4	24-8 1/2							25-7 1/2	S31
S32	13-1	4 3/8	1-1 1/2	11 1/2	3-9 1/2	ac	4 @ 5 1/2 = 1.9	6	5 1/2	10-2 1/2	3 @ 5 1/2 = 1.5 3/8		24-8 1/2	1-1 1/2	9 3/2	31 1/2	3-2 1/2	2-9		25-7 1/2	S32
S33	13-1	4 3/8	1-1 1/2	11 1/2	3-9 1/2	ac	4 @ 5 1/2 = 1.9	6	5 1/2	10-0 1/2	4 @ 4 1/2 = 1.7 1/2		24-8 1/2	1-2 1/2	8 1/2	30	3-4 1/2	2-9		25-7 1/2	S33
S41	13-1	4 3/8	1-1 1/2	11 1/2	3-9 1/2	ad	4 @ 5 1/2 = 1.9	6	5 1/2			23-4	24-8 1/2							25-7 1/2	S41
S42	13-1	4 3/8	1-1 1/2	11 1/2	3-9 1/2	ad	4 @ 5 1/2 = 1.9	6	5 1/2	10-2 1/2	3 @ 5 1/2 = 1.5 3/8		24-8 1/2	1-1 1/2	9 3/2	31 1/2	3-2 1/2	2-9		25-7 1/2	S42
S46	13-1	3 3/8	1-0 3/8	10 1/2	4-2 1/2	af	4 @ 5 1/2 = 1.1 1/2	4 1/2	4 1/2			23-4	24-8 1/2							25-7 1/2	S46
S47	13-1	3 3/8	1-0 3/8	10 1/2	4-2 1/2	af	4 @ 5 1/2 = 1.1 1/2	4 1/2	4 1/2	10-2 1/2	3 @ 5 1/2 = 1.5 3/8		24-8 1/2	1-1 1/2	9 3/2	31 1/2	3-2	2-9		25-7 1/2	S47

NO.	DESCRIPTION	MARK	REMARKS
12	DIAGONALS	D1 ^L	
3	do	D1 ^L	
20	do	D6 ^L	
12	do	D13 ^L	



MARK	PLATE "G"											ANGLES "R" & "T"					MAIN ANGLES					REFERENCE					
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	MARK
D2	4 1/2	3 3/8	3	1 1/2	19	10 1/2	2	2 1/2	3 1/2	3 1/2	2 1/2	2 1/2	4	1-1	h	k	1.0	9@10=9-0	7 7/8	1-3 1/4	13-5 1/2	12-5 1/2	3-10 1/2	6 1/2	12-10 1/2	D2	
D7	4 1/2	3 3/8	3	1 1/2	19	10 1/2	2	2 1/2	3 1/2	3 1/2	2 1/2	2 1/2	4	1-1	m	p	1.0	9@10=9-0	7 7/8	1-3 1/4	13-5 1/2	12-5 1/2	3-10 1/2	6 1/2	12-9 1/2	D7	
D8	4 1/2	3 3/8	3	1 1/2	19	10 1/2	2	2 1/2	3 1/2	3 1/2	2 1/2	2 1/2	4	1-1	q	r	1.0	10@10=10-0	7 7/8	1-4	14-0 1/2	13-0 1/2	3-10 1/2	6 1/2	13-6 1/2	D8	
D22	4 1/2	3 3/8	3	1 1/2	19	11	d	2	3	3	3 1/2	3 1/2	5	7-7	v	w	8	9@10=9-0	8 1/2	1-1 1/4	12-11 1/2	12-2	4-4 1/2	6 1/2	12-2 1/2	D22	
D25	4 1/2	3 3/8	3	1 1/2	19	11	f	2	3	3	3 1/2	3 1/2	5	11-1	aa	ab	8	9@10=9-0	8 1/2	1-1 1/4	12-11 1/2	12-2 1/2	4-4 1/2	6 1/2	12-2 1/2	D25	
D28	4 1/2	3 3/8	3	1 1/2	19	10 1/2	g	2	3	3	3 1/2	3	2	5	1-4	ac	ad	1.0	8@10=8-0	10 1/2	1-3 1/4	12-8 1/2	11-8 1/2	3-5 1/2	6 1/2	12-2 1/2	D28
D4																	1.0	9@10=9-0	7 7/8	1-3 1/4	13-5 1/2	12-5 1/2	3-10 1/2	6 1/2	12-10 1/2	D4	
D9																	1.0	9@10=9-0	7 7/8	1-3 1/4	13-5 1/2	12-5 1/2	3-10 1/2	6 1/2	12-9 1/2	D9	
D10																	7 7/8	10@10=10-0	7 7/8	1-4	14-0 1/2	13-0 1/2	3-10 1/2	6 1/2	13-6 1/2	D10	
D14																	1.0	10@10=10-0	10 1/2	1-1 1/4	14-7 1/2	13-9 1/2	4-10 1/2	6 1/2	13-9 1/2	D14	
D15																	1.0	11@10=11-0	11 1/2	1-2 1/2	15-8 1/2	14-9 1/2	4-10 1/2	6 1/2	14-10 1/2	D15	
D17																	9	12@10=12-0	8 1/2	1-2 1/2	16-1 1/2	15-2 1/2	4-11	6 1/2	15-4 3/2	D17	
D21																	9	12@10=12-0	8 1/2	1-3 1/4	16-4 1/2	15-4 1/2	4-4 1/2	6 1/2	15-9 3/2	D21	
D23																	8	9@10=9-0	8 1/2	1-1 1/4	12-11 1/2	12-2	4-4 1/2	6 1/2	12-2 1/2	D23	
D26																	8	9@10=9-0	8 1/2	1-1 1/4	12-11 1/2	12-2 1/2	4-4 1/2	6 1/2	12-2 1/2	D26	
D29																	1.0	8@10=8-0	10 1/2	1-3 1/4	12-8 1/2	11-8 1/2	3-5 1/2	6 1/2	12-2 1/2	D29	

MARK	PLATE AF					PLATE AK					MAIN ANGLES					REFERENCE				
	AD	AE	AF	B	X	AG	AH	AK	AZ	AM	AP	AS	AT	AU	AV	AW	AX	AY	BA	MARK
S8	10 1/2	4-2	at	3 3/8	1-3 1/4	4@5 1/2=1-1 1/2	1-4 1/2	as	1 1/2	3	8 1/2	9@10=9-0	8	8 1/2	24-2 1/2	25-11 1/2	13-1 1/2	13-1 1/2	26-2 1/2	S8
S16	10 1/2	4-2	ag	3 3/8	1-3 1/4	4@5 1/2=1-1 1/2	1-4 1/2	as	1 1/2	3	8 1/2	9@10=9-0	8	8 1/2	24-1 1/2	25-11	13-0 1/2	13-0 1/2	26-1 1/2	S16
S17	10 1/2	4-3 1/2	ah	3 3/8	1-4	4@6=2-0	1-5 1/2	as	4 1/2	6 1/2	10	9@10=9-0	1-0	10 1/2	25-4 1/2	27-1 1/2	13-10 1/2	13-9 1/2	27-8	S17
S37	11	3-9 1/2	ak	4 1/2	1-1 1/4	4@5 1/2=1-0 1/2	1-4 1/2	as	1 1/2	3 1/2	11 1/2	8@10=8-0	1-0	11 1/2	22-1 1/2	24-8 1/2	12-5 1/2	12-5 1/2	24-1 1/2	S37
S43	11	3-9 1/2	ak	4 1/2	1-1 1/4	4@5 1/2=1-0 1/2	1-4 1/2	as	1 1/2	3 1/2	11 1/2	8@10=8-0	1-0	11 1/2	22-1 1/2	24-9	12-5 1/2	12-5 1/2	24-1 1/2	S43
S48	10 1/2	4-2 1/2	am	3 3/8	1-3 1/4	4@5 1/2=1-1 1/2	1-4 1/2	as	1 1/2	3	10 1/2	8@10=8-0	1-1	10 1/2	22-1 1/2	24-8 1/2	12-5 1/2	12-5 1/2	24-1 1/2	S48

REQUIRED LIST			
Nº	DESCRIPTION	MARK	REMARKS
2	DIAGONALS	D2	
4	do	D7	
2	do	D8	
2	do	D22	
8	do	D25	
12	do	D28	
2	do	D4	
4	do	D9	
2	do	D10	
4	do	D14	
4	do	D15	
4	do	D17	
4	do	D21	
2	do	D23	
8	do	D26	
12	do	D29	
2	STRUTS	S8	
4	do	S16	
2	do	S17	
2	do	S37	
8	do	S43	
12	do	S48	
2	do	S30	
2	do	S4	

GENERAL NOTES-
 RIVETS-1/4"
 OPEN HOLES-1 1/4"
MATERIAL- Carbon steel A.S.F.M. A7-84 with .75 copper content, except where noted. All holes may be punched full size except:
NOTING-
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
BEVELLED EDGES of main material over 5/8" thick shall be beveled to a depth of 1/4" where noted on details.
FLAME CUT EDGES of main material shall be planed, shipped or ground and present a smooth workmanlike appearance.
PAINT- One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 Denotes break in stagger.

BRACING FOR GIRDER SPANS

**COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO**

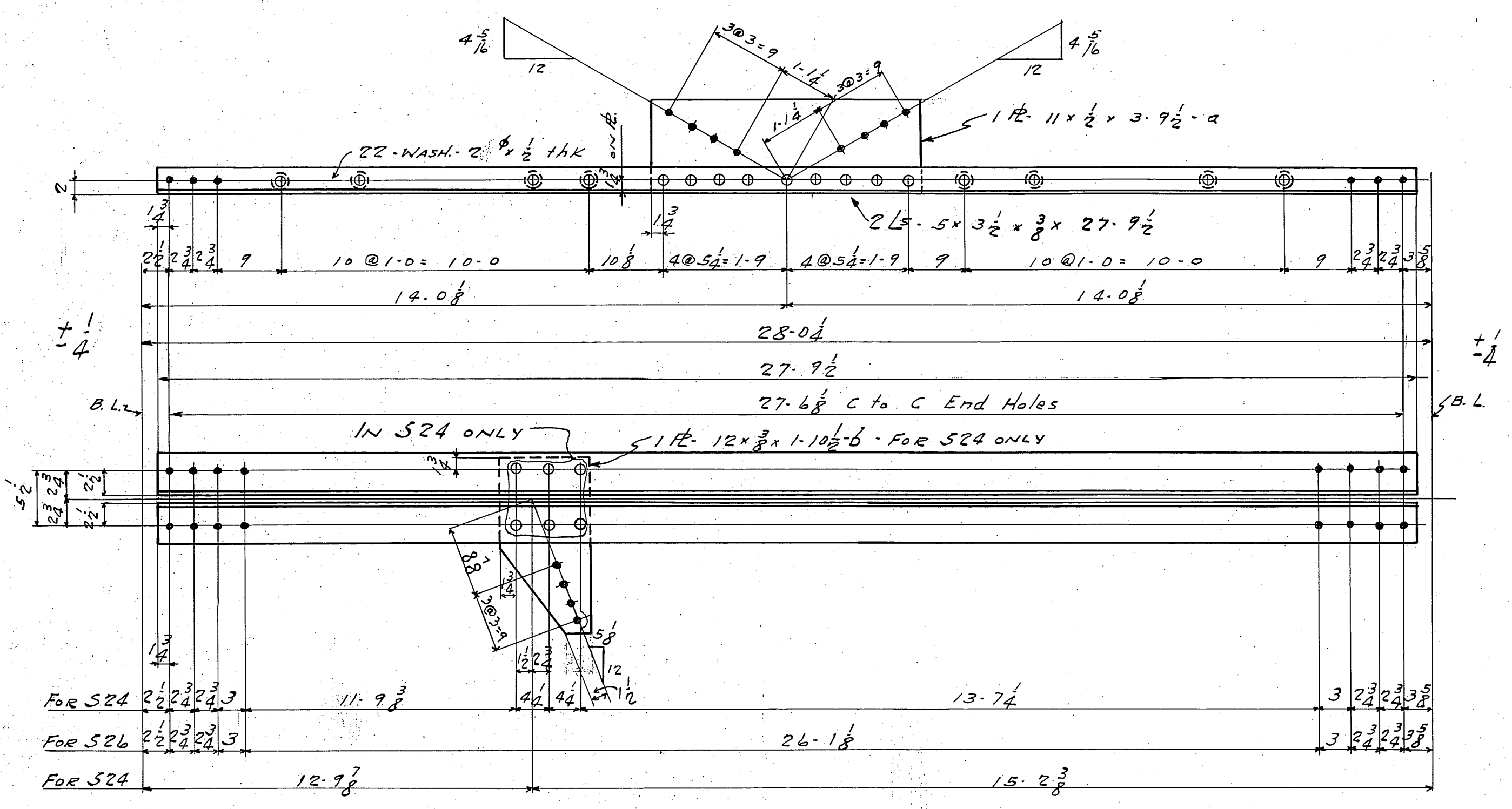
CITY OF CINT. DEPT. PUBLIC WORKS

DETLEFSEN STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION

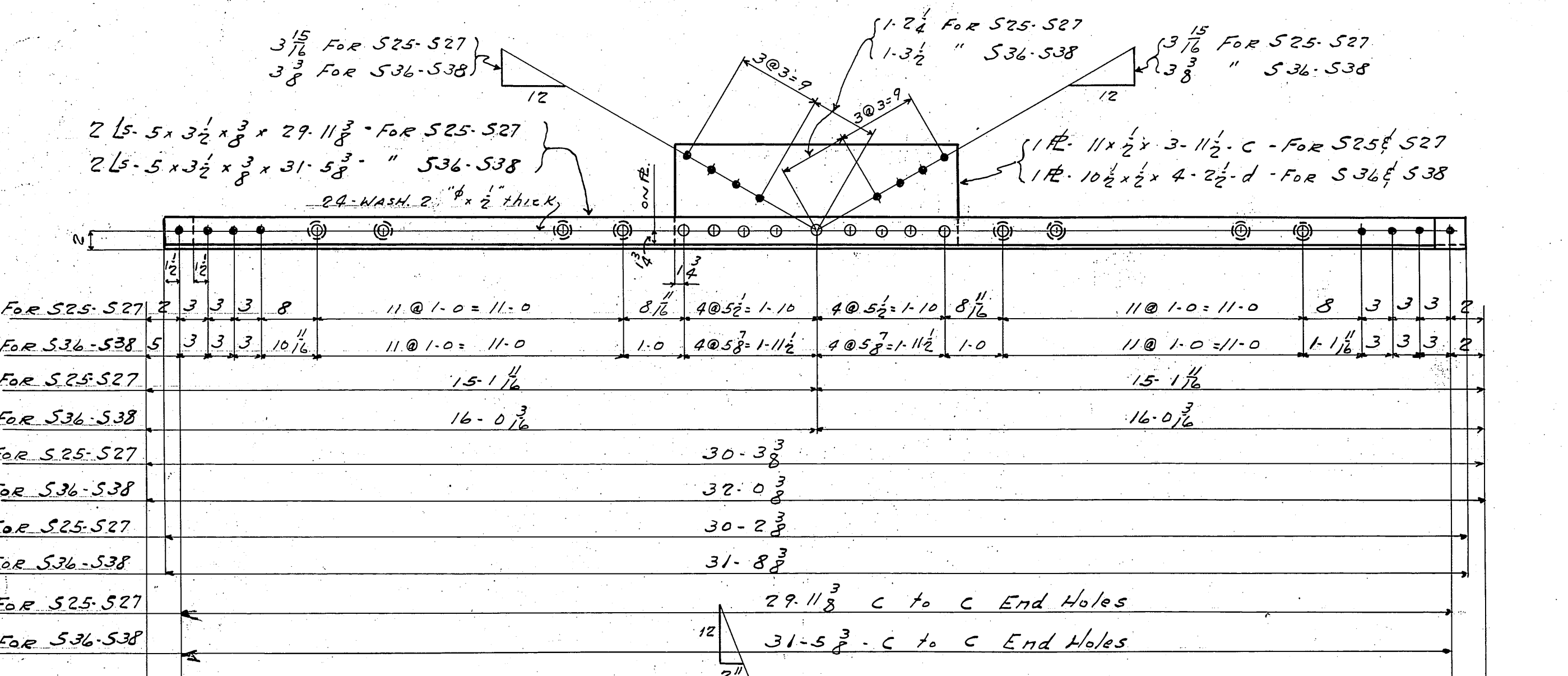
Drawings of Rankin, Fabrication at

IN CHARGE: BERN MADE BY T.C.C. 2-20-37
 CHECKED BY J.N. TRACED BY A.P.R. 2-20-37
 REVISED: LAST ISSUE MK. 6d

SHOP NO. 1 CONTRACT C.C. 25875 SHEET 502
 F.C. W.F.C. 421-37

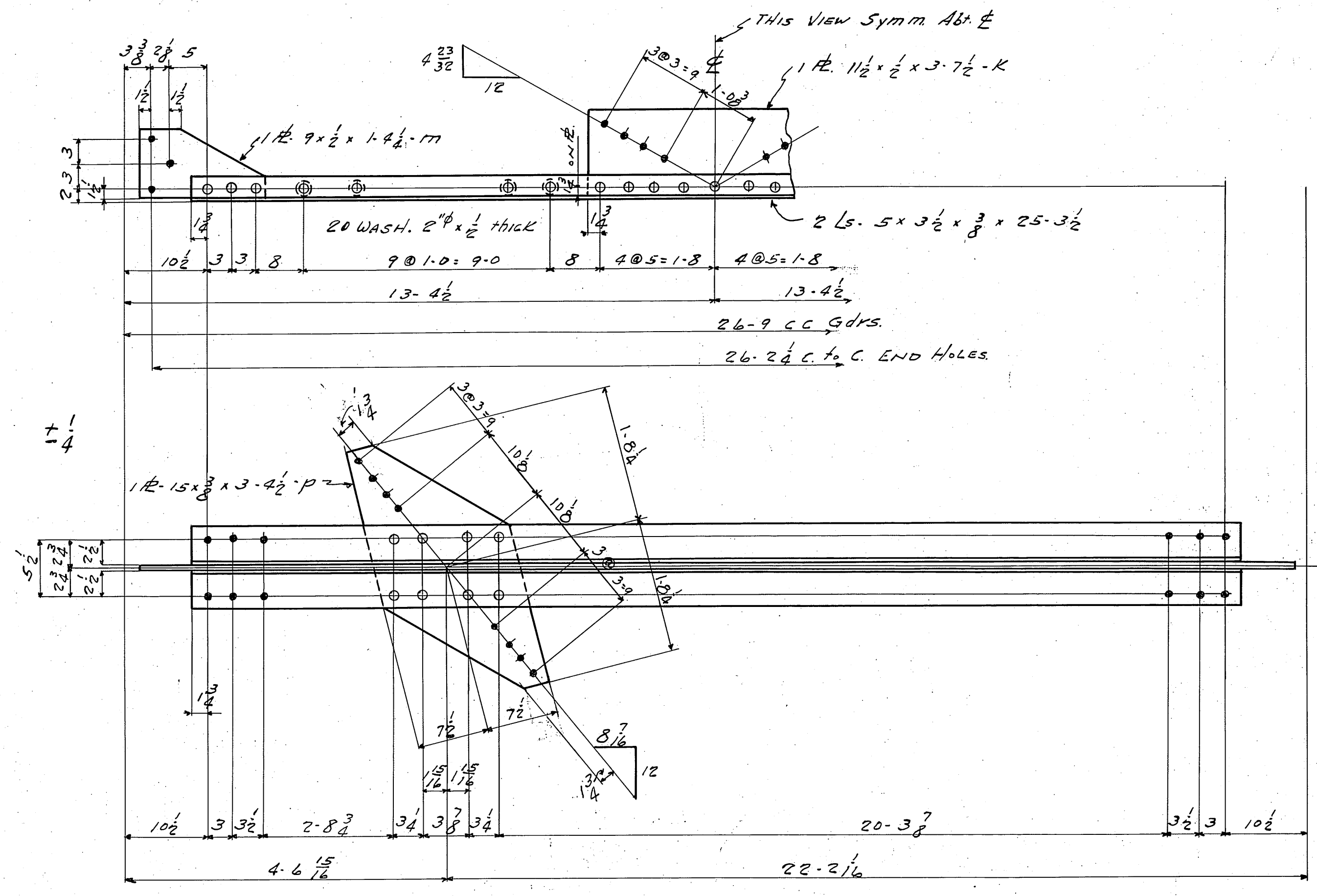


STRUTS - S24 & S26



STRUTS - S25, S27, S36 & S38

For S25-S27	2 3 3 3 8	11 @ 1-0 = 11-0	8 1/2	4 @ 5 1/2 = 1-10	4 @ 5 1/2 = 1-10	8 1/2	11 @ 1-0 = 11-0	8	3 3 3 2
For S36-S38	5 3 3 3 10 1/4	11 @ 1-0 = 11-0	1-0	4 @ 5 3/8 = 1-11 1/2	4 @ 5 3/8 = 1-11 1/2	1-0	11 @ 1-0 = 11-0	1 1/8	3 3 3 2
For S25-S27		15-1 1/4				15-1 1/4			
For S36-S38		16-0 3/8				16-0 3/8			
For S25-S27			30-3 3/8						
For S36-S38			32-0 3/8						
For S25-S27			30-2 3/8						
For S36-S38			31-8 3/8						
For S25-S27		29-11 3/8 C to C End Holes							
For S36-S38		31-5 3/8 C to C End Holes							
		1 Ls. 8 1/2 x 3/8 x 1-11-9 For S38 ONLY							
		1 Ls. 9 x 3/8 x 1-11-7 For S36							
		1 Ls. 7 1/2 x 3/8 x 1-11-7 For S25 ONLY							
For S25	2 3 3 3 3		17-6 3/8						
For S36	5 3 3 3 3	12-6	3 3			16-5 3/8			
For S38	5 3 3 3 3		14-9 1/4	4 3/4		14-2 1/2			
For S27	2 3 3 3 3					27-11 3/8			
For S25			18-10 1/4				11-5 1/4		
For S36		14-0				18-0 3/8			
For S38			16-6 1/4			15-5 1/4			



STRUT - S19

REQUIRED LIST		
N ^o	DESCRIPTION	MARK REMARKS
1	STRUT	S24
1		S26
1		S25
1		S27
1		S36
1		S38
1		S19

GENERAL NOTES:-
 RIVETS:- 3/4"
 OPEN HOLES:- 1 1/8"
MATERIAL:- Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked **HF** are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 1/4" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/8" thick shall be drilled from the outside of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES of main material shall be planed shipped or ground and present a smooth, workmanlike appearance.
PAINT:- One coat of RED LEAD except where noted. Shop contact surfaces not painted.
⊗ - Denotes break in stagger.

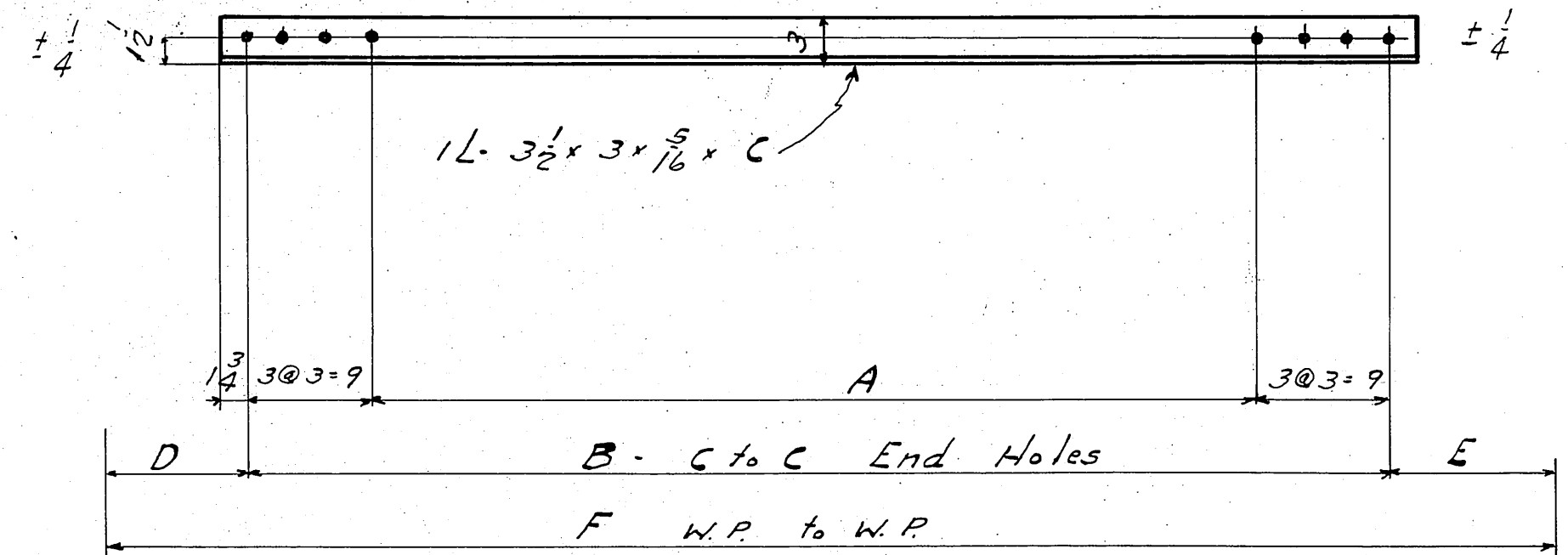
BRACING FOR GIRDER SPANS

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CANT. DEPT. PUBLIC WORKS

REINHEIM STEEL COMPANY
 FARMINGTON STEEL CONSTRUCTION
 Drawings at Rankin - Ferguson St.

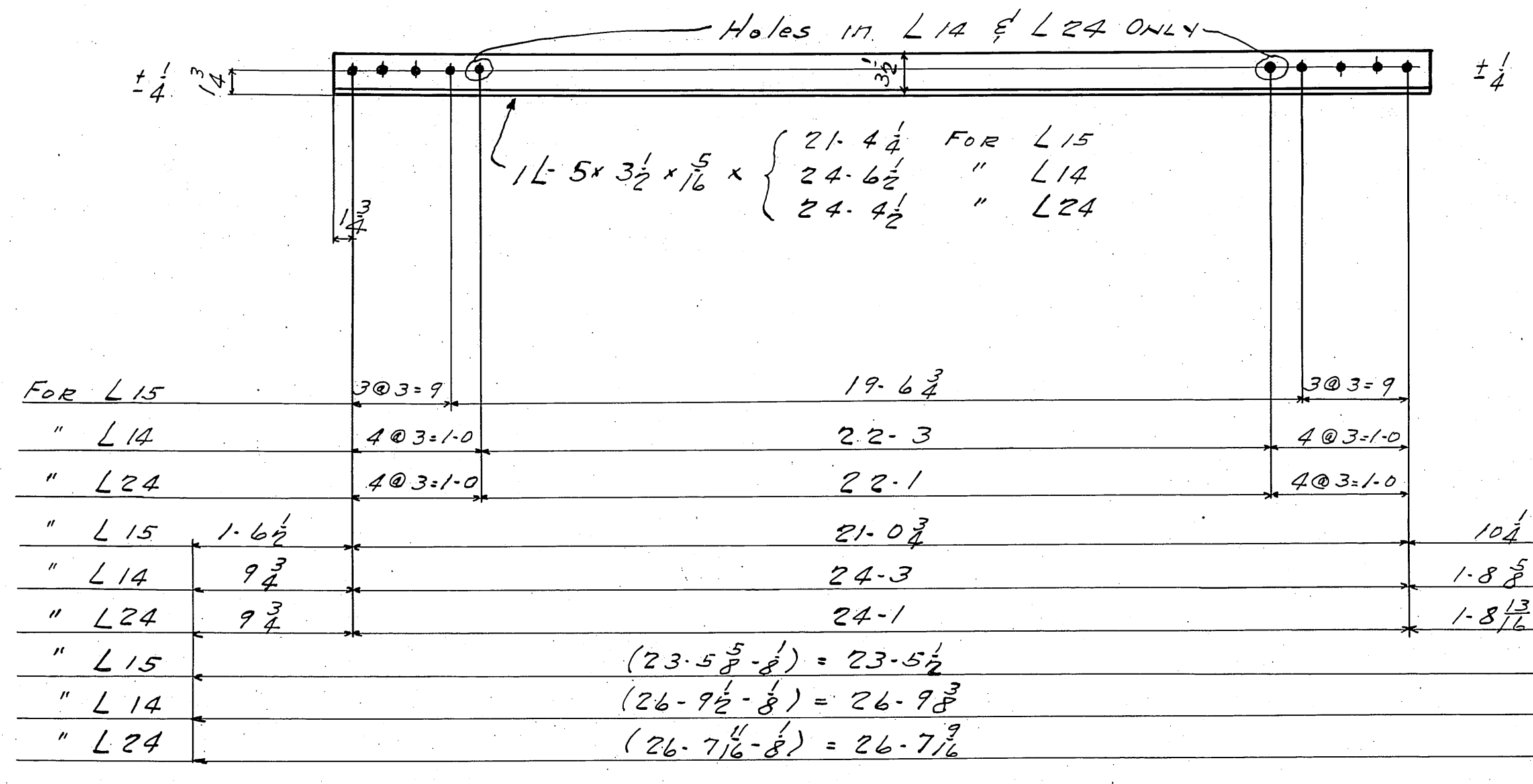
IN CHARGE: BORN MADE BY: T.B.C. 2-22-37
 CHECKED BY: M.V. 3/8/37 TRACED BY: N.D.R. 2-24-37
 REVISED: LAST ASSEM. W.K. P.

SHOP NO. 1 CONTRACT C.C. 25075 SHEET 503
 F.C. W.F.C. 4-21-37



BOTTOM LATERALS - L1 to 13, L16 to 23 & L25 to 42 Inchl.

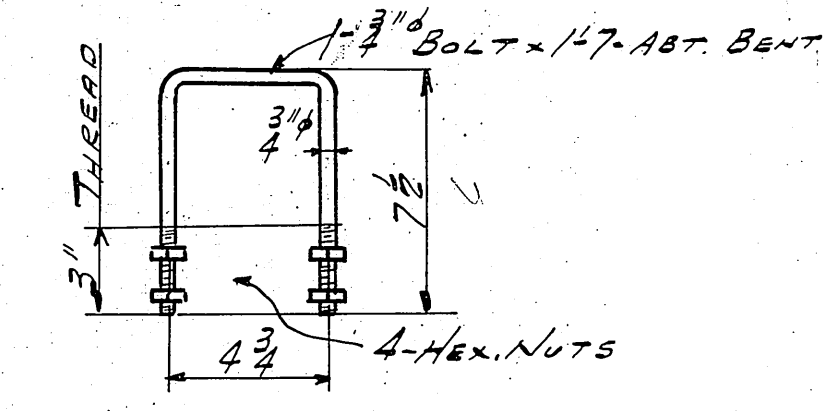
MARK	A	B	C	D	E	F
L1	15.3 1/4	16.9 1/4	19.0 1/4	1.2 1/8	1.0	(18.11 1/8 - 1/8) = 18.11 1/8
L2	13.8 1/4	15.2 1/4	15.5 1/4	1.1 3/8	1.1 1/4	(17.4 1/8 - 1/8) = 17.4 1/8
L3	12.2 1/2	13.8 1/2	14.0	1.0 5/8	1.3 5/8	(16.0 1/2 - 1/8) = 16.0 1/2
L4	15.0 1/8	16.6 1/8	16.10	1.0 3/8	1.2 1/8	(18.9 1/8 - 1/8) = 18.9 1/8
L5	15.2 1/4	16.8 1/4	16.11 1/4	1.0	1.2 1/2	(18.10 1/4 - 1/4) = 18.10 1/4
L6	14.2 1/8	15.8 1/8	15.11 1/2	1.0 1/8	1.1 1/4	(17.10 1/8 - 1/8) = 17.10 1/8
L7	13.2 1/8	14.8 1/8	15.0	1.1	1.2	(16.11 1/8 - 1/8) = 16.11 1/8
L8	14.8 1/4	16.2 1/4	16.5 1/4	1.2 1/8	1.0 1/2	(18.4 1/8 - 1/8) = 18.4 1/8
L9	13.8 1/4	15.2 1/4	15.6 1/2	1.1 1/8	1.1 1/4	(17.5 1/8 - 1/8) = 17.5 1/8
L10	12.9 1/2	14.3 1/2	14.7	1.0 1/2	1.2 1/2	(16.6 1/2 - 1/2) = 16.6 1/2
L11	14.5 1/8	15.11 1/8	16.3	1.0 1/2	1.2	(18.2 1/2 - 1/2) = 18.2 1/2
L12	10.0 1/8	11.6 1/8	11.9 1/2	1.1 1/8	2.0 1/2	(14.5 1/8 - 1/8) = 14.5 1/8
L13	15.9 1/8	17.3 1/8	17.6 1/2	1.1 1/8	1.3	(19.5 1/8 - 1/8) = 19.5 1/8
L16	10.11 1/8	12.5 1/8	12.8 1/2	1.1 1/8	1.6 1/2	(14.11 1/8 - 1/8) = 14.11 1/8
L17	15.8	17.2	17.5 1/2	8 3/8	1.1 1/8	(19.0 1/2 - 1/2) = 19.0 1/2
L18	4.1	5.7	5.10 1/2	1.6 1/2	1.0 1/8	(7.11 1/8 - 0) = 7.11 1/8
L19	14.7 1/8	16.1 1/8	16.4 1/2	1.0 1/8	1.2 1/8	(18.3 1/8 - 1/8) = 18.3 1/8
L20	12.0 1/8	13.6 1/8	13.10 1/2	1.0 1/8	1.0 1/2	(15.3 1/8 - 1/8) = 15.3 1/8
L21	12.0 1/2	13.6 1/2	13.7 1/2	8	1.3 1/2	(15.6 1/2 - 1/2) = 15.6 1/2
L22	13.11 1/8	15.5 1/8	15.9 1/2	1.1 1/8	1.0 1/2	(17.8 1/8 - 1/8) = 17.8 1/8
L23	10.8	12.2	12.5 1/2	1.7 1/2	1.1 1/4	(14.8 1/2 - 1/2) = 14.8 1/2
L25	13.6 1/8	15.0 1/8	15.3 1/2	8 3/8	1.1 1/8	(16.10 1/8 - 1/8) = 16.10 1/8
L26	13.0 1/2	14.6 1/2	14.9 1/2	1.0 1/2	1.1 1/2	(16.8 1/2 - 1/2) = 16.8 1/2
L27	15.8 1/8	17.2 1/8	17.6 1/2	8 3/8	1.0 1/2	(19.0 1/2 - 1/2) = 19.0 1/2
L28	13.10 1/2	15.4 1/2	15.8	8 1/2	1.1 1/2	(17.2 1/2 - 1/2) = 17.2 1/2
L29	12.10 1/8	14.4 1/8	14.8	1.1 1/2	1.1 1/2	(16.7 1/8 - 1/8) = 16.7 1/8
L30	14.6 1/2	16.0 1/2	16.3 1/2	8 1/2	1.2 1/2	(17.11 1/2 - 1/2) = 17.11 1/2
L31	11.11 1/8	13.5 1/8	13.8 1/2	1.2 1/8	1.2 1/2	(15.10 1/8 - 1/8) = 15.10 1/8
L32	10.9	12.3	12.6 1/2	1.5	1.2 1/2	(14.10 1/2 - 1/2) = 14.10 1/2
L33	11.2 1/2	12.8 1/2	13.0	1.3 1/2	1.4 1/2	(15.4 1/2 - 1/2) = 15.4 1/2
L34	11.10 1/8	13.4 1/8	13.7 1/2	1.2 1/8	1.3 1/2	(15.10 1/8 - 1/8) = 15.10 1/8
L35	11.4 1/2	12.10 1/2	13.1 1/2	1.2 1/8	1.3 1/2	(15.4 - 1/8) = 15.3 1/8
L36	12.2	13.8	13.11 1/2	1.2 1/8	1.2 1/2	(16.0 1/2 - 1/2) = 16.0 1/2
L37	12.11 1/2	14.5 1/2	14.9	1.2 1/2	1.1 1/2	(16.9 1/2 - 1/2) = 16.9 1/2
L38	12.10 1/2	14.4 1/2	14.8	1.1 1/2	1.1 1/2	(16.7 1/2 - 1/2) = 16.7 1/2
L39	11.11 1/8	13.5 1/8	13.9	1.1 1/2	1.2 1/2	(15.9 1/2 - 1/2) = 15.9 1/2
L40	12.7 1/8	14.1 1/8	14.4 1/2	1.1 1/2	1.1 1/2	(16.4 1/2 - 1/2) = 16.4 1/2
L41	13.2 1/8	14.8 1/8	15.0 1/2	1.2 1/8	1.0 1/2	(17.0 1/2 - 1/2) = 17.0 1/2
L42	13.1 1/2	14.7 1/2	14.10 1/2	1.1 1/8	1.2 1/2	(16.10 1/2 - 1/2) = 16.10 1/2



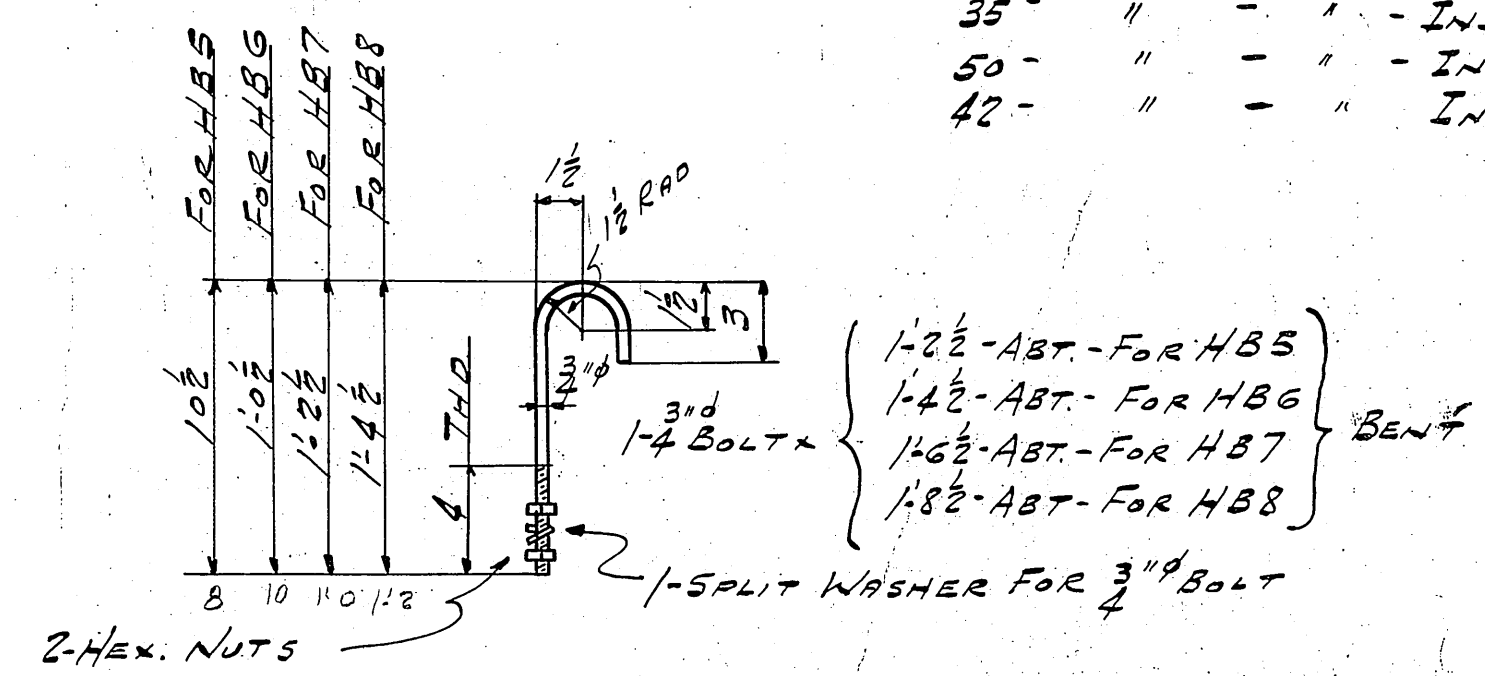
FOR L15	3@3-9	19.6 1/2	3@3-9
" L14	4@3-1.0	22.3	4@3-1.0
" L24	4@3-1.0	22.1	4@3-1.0
" L15	1.6 1/2	21.0 1/2	1.0 1/4
" L14	9 3/4	24.3	1.8 1/2
" L24	9 3/4	24.1	1.8 1/2
" L15		(23.5 5/8 - 1/8) = 23.5 1/2	
" L14		(26.9 1/2 - 1/8) = 26.9 3/8	
" L24		(26.7 1/2 - 1/8) = 26.7 1/4	

BOTTOM LATERALS L14-L15-L24

REQUIRED LIST			
Nº	DESCRIPTION	MARK	REMARKS
1	LATERALS	L1	
1		L2	
1		L3	
16		L4	
1		L5	
2		L6	
1		L7	
1		L8	
2		L9	
1		L10	
16		L11	
1		L12	
2		L13	
1		L14	
1		L15	
1		L16	
1		L17	
1		L18	
17		L19	
1		L20	
1		L21	
2		L22	
1		L23	
1		L24	
2		L25	
24		L26	
2		L27	
1		L28	
4		L29	
1		L30	
12		L31	
1		L32	
2		L33	
1		L34	
4		L35	
8		L36	
4		L37	
48		L38	
6		L39	
12		L40	
6		L41	
48		L42	
40	Hook Bolts	HB5	
40	"	HB6	
48	"	HB7	
80	"	HB8	
156	U-BOLT	HB9	



U-BOLTS - HB9
 27 - BOLTS - FOR INST. 3
 35 - " - " - INST. 2
 50 - " - " - INST. 8
 42 - " - " - INST. 9



Hook Bolts HB5-6-7-8
FOR END BEAMS

Inst	HB5	HB6	HB7	HB8
3	8	8	8	16
2	8	8	14	16
8	12	12	14	24
9	12	12	12	24

GENERAL NOTES:-
 RIVETS:- $\frac{3}{4}$ "
 OPEN HOLES:- $\frac{1}{8}$ "
MATERIAL:- Carbon steel A.S.T.M. A7-34 with .25% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance. One coat of RED LEAD except where noted. Shop contact surfaces not painted.
PAINT:- Denotes break in stagger.

HOOK BOLTS FOR GIRDER SPANS
 Bottom LATERALS FOR GIRDER SPANS

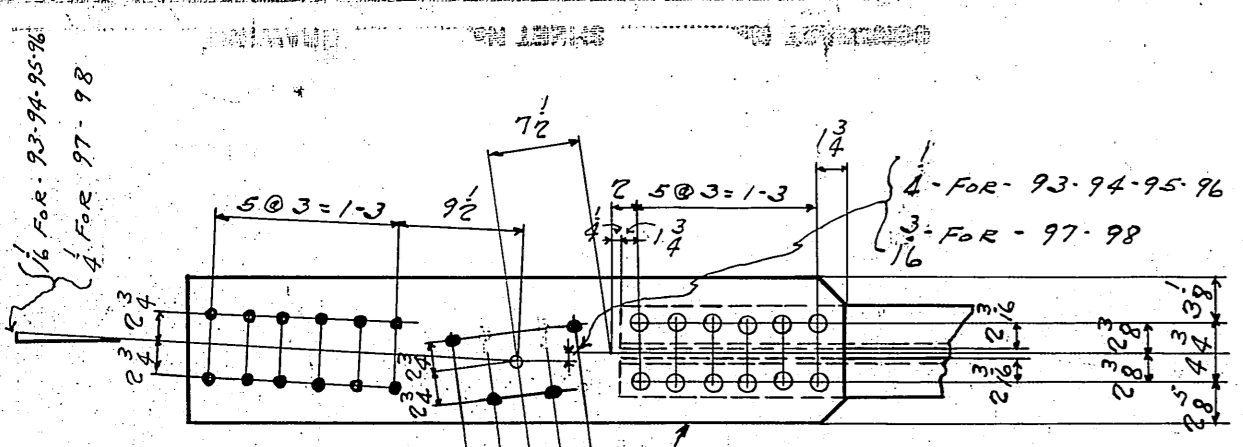
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. DEPT. PUBLIC WORKS

BETHELHEIM STEEL COMPANY
 FABRICATED IN STEEL CONSTRUCTION
 Drawings at Rankin - Fabrication at

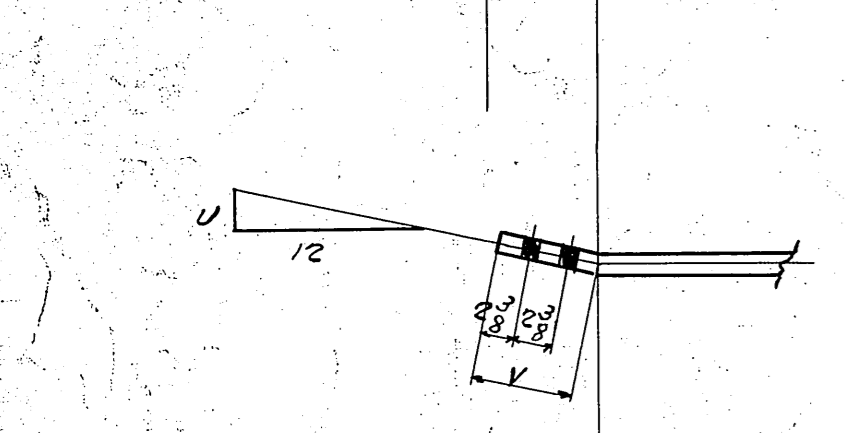
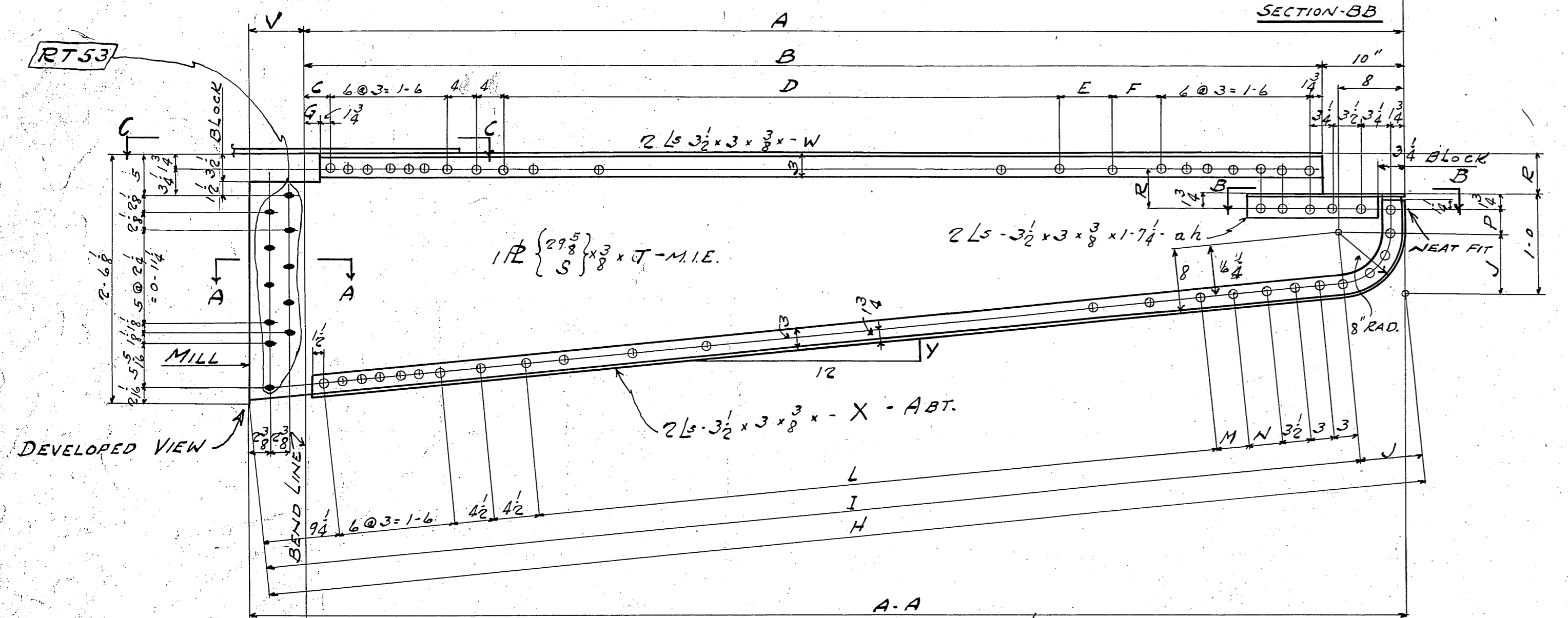
IN CHARGE: BOEN MADE BY: T.B.C. 2-23-37
 CHECKED BY: D.V. 3/8/27 TRACED BY: N.D.P. 2-25-37
 REVISION: LAST ASSEM. DIV.

SHOP NO. 1 CONTRACT C.C. 25825 SHEET 504
 F.C. W.F.C. #21-37

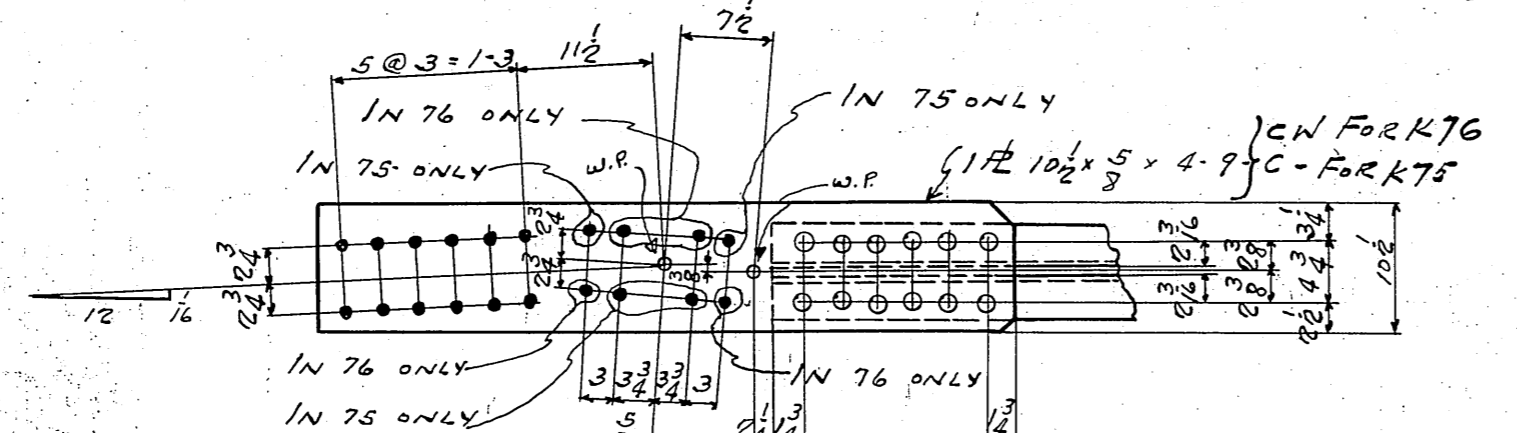
No. REQ'D.	MARK	REMARKS	A	B	C	D	E	F	G	H	I	K	L	M	N	P	R	T	U	V	W	Y	Z	AB	MARK
1	K1	Opp. Hand	7'-8 1/2	10 1/2	2 @ 6'-1 1/2	5 1/2	5 1/2	8 1/2	7'-9 1/2	7'-3 1/2	2 1/2	5 @ 6'-2 1/2	3	3 1/2	4 1/2	6 1/2	3 1/2	1 1/2	15 1/2	7'-8 1/2	6'-1 1/2	8'-7	8'-0 1/2	5'-7 1/2	K1
1	K2	As Shown	7'-9 1/2	10 1/2	2 @ 6'-1 1/2	5 1/2	5 1/2	8 1/2	7'-10 1/2	7'-3 1/2	2 1/2	5 @ 6'-2 1/2	3	3 1/2	4 1/2	6 1/2	3 1/2	1 1/2	15 1/2	7'-8 1/2	6'-2 1/2	8'-7 1/2	8'-0 1/2	5'-7 1/2	K2
1	K3	Opp. Hand	7'-9 1/2	10 1/2	2 @ 6'-1 1/2	5 1/2	5 1/2	8 1/2	7'-10 1/2	7'-3 1/2	2 1/2	5 @ 6'-2 1/2	3 1/2	3 1/2	4 1/2	6 1/2	3 1/2	1 1/2	15 1/2	7'-10 1/2	6'-3 1/2	8'-7 1/2	8'-1 1/2	5'-8 1/2	K3
2	K4	Opp. Hand	7'-10 1/2	10 1/2	2 @ 6'-1 1/2	6	5 1/2	8 1/2	7'-11 1/2	7'-4 1/2	2 1/2	5 @ 6'-2 1/2	3 1/2	3 1/2	4 1/2	6 1/2	3 1/2	1 1/2	15 1/2	7'-10 1/2	6'-3 1/2	8'-8 1/2	8'-1 1/2	5'-8 1/2	K4
1	K5	Opp. Hand	7'-10 1/2	10 1/2	3 @ 6'-1 1/2	3 1/2	3 1/2	8 1/2	7'-11 1/2	7'-4 1/2	2 1/2	5 @ 6'-2 1/2	4	3 1/2	4 1/2	6 1/2	3 1/2	1 1/2	15 1/2	7'-10 1/2	6'-3 1/2	8'-8 1/2	8'-2 1/2	5'-9 1/2	K5
1	K6	Opp. Hand	7'-10 1/2	10 1/2	3 @ 6'-1 1/2	3 1/2	3 1/2	8 1/2	7'-11 1/2	7'-4 1/2	2 1/2	5 @ 6'-2 1/2	4	3 1/2	4 1/2	6 1/2	3 1/2	1 1/2	15 1/2	7'-10 1/2	6'-3 1/2	8'-8 1/2	8'-2 1/2	5'-9 1/2	K6
2	K7	Opp. Hand	7'-11 1/2	10 1/2	3 @ 6'-1 1/2	3 1/2	3 1/2	8 1/2	8'-0 1/2	7'-5 1/2	2 1/2	5 @ 6'-2 1/2	4 1/2	4 1/2	6 1/2	3 1/2	1 1/2	15 1/2	7'-11 1/2	6'-3 1/2	8'-9 1/2	8'-3 1/2	5'-10 1/2	K7	
1	K8	Opp. Hand	8'-1 1/2	10 1/2	3 @ 6'-1 1/2	4 1/2	4 1/2	8 1/2	8'-2 1/2	7'-7 1/2	2 1/2	5 @ 6'-2 1/2	5 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	8'-1 1/2	6'-3 1/2	8'-11 1/2	8'-4 1/2	5'-11 1/2	K8	
2	K9	Opp. Hand	8'-2 1/2	10 1/2	3 @ 6'-1 1/2	5 1/2	5 1/2	8 1/2	8'-3 1/2	7'-8 1/2	2 1/2	5 @ 6'-2 1/2	6	6 1/2	4 1/2	6 1/2	3 1/2	1 1/2	15 1/2	8'-2 1/2	6'-8	9'-1	8'-4 1/2	5'-12 1/2	K9
1	K10	Opp. Hand	8'-2 1/2	10 1/2	3 @ 6'-1 1/2	5 1/2	5 1/2	8 1/2	8'-3 1/2	7'-8 1/2	2 1/2	5 @ 6'-2 1/2	6	5 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	8'-2 1/2	6'-8 1/2	9'-0 1/2	8'-4 1/2	5'-12 1/2	K10
1	K11	Opp. Hand	8'-2 1/2	10 1/2	3 @ 6'-1 1/2	5 1/2	5 1/2	8 1/2	8'-3 1/2	7'-8 1/2	2 1/2	5 @ 6'-2 1/2	6	5 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	8'-2 1/2	6'-8 1/2	9'-0 1/2	8'-4 1/2	5'-12 1/2	K11
1	K12	Opp. Hand	8'-4 1/2	10 1/2	4 @ 6'-2 1/2	3 1/2	3 1/2	8 1/2	8'-5 1/2	7'-10 1/2	2 1/2	6 @ 6'-3 1/2	3 1/2	3 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	8'-4 1/2	6'-9 1/2	9'-2 1/2	8'-7 1/2	6'-2 1/2	K12
1	K13	Opp. Hand	8'-7 1/2	10 1/2	4 @ 6'-2 1/2	4 1/2	4 1/2	8 1/2	8'-8 1/2	8'-1 1/2	2 1/2	6 @ 6'-3 1/2	5 1/2	5 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	8'-7 1/2	6'-10 1/2	9'-5 1/2	8'-10 1/2	6'-5 1/2	K13
1	K14	Opp. Hand	8'-7 1/2	10 1/2	4 @ 6'-2 1/2	4 1/2	4 1/2	8 1/2	8'-8 1/2	8'-1 1/2	2 1/2	6 @ 6'-3 1/2	5 1/2	5 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	8'-7 1/2	6'-10 1/2	9'-5 1/2	8'-10 1/2	6'-5 1/2	K14
1	K15	Opp. Hand	8'-7 1/2	10 1/2	4 @ 6'-2 1/2	4 1/2	4 1/2	8 1/2	8'-8 1/2	8'-1 1/2	2 1/2	6 @ 6'-3 1/2	5 1/2	5 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	8'-7 1/2	6'-10 1/2	9'-5 1/2	8'-10 1/2	6'-5 1/2	K15
2	K16	Opp. Hand	8'-7 1/2	10 1/2	4 @ 6'-2 1/2	4 1/2	4 1/2	8 1/2	8'-8 1/2	8'-1 1/2	2 1/2	6 @ 6'-3 1/2	5 1/2	5 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	8'-7 1/2	6'-10 1/2	9'-5 1/2	8'-11 1/2	6'-6 1/2	K16
1	K17	Opp. Hand	8'-10 1/2	10 1/2	4 @ 6'-2 1/2	6	5 1/2	8 1/2	8'-11 1/2	8'-4 1/2	2 1/2	7 @ 6'-3 1/2	3 1/2	3 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	8'-10 1/2	7'-3 1/2	9'-8	9'-1 1/2	6'-8 1/2	K17
1	K18	Opp. Hand	8'-11 1/2	10 1/2	5 @ 6'-2 1/2	3 1/2	3 1/2	8 1/2	8'-11 1/2	8'-4 1/2	2 1/2	7 @ 6'-3 1/2	4	3 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	8'-10 1/2	7'-4 1/2	9'-8 1/2	9'-2 1/2	6'-9 1/2	K18
1	K19	Opp. Hand	8'-11 1/2	10 1/2	5 @ 6'-2 1/2	3 1/2	3 1/2	8 1/2	8'-11 1/2	8'-4 1/2	2 1/2	7 @ 6'-3 1/2	4 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	8'-11 1/2	7'-4 1/2	9'-8 1/2	9'-2 1/2	6'-10	K19	
2	K20	Opp. Hand	9'-0 1/2	10 1/2	5 @ 6'-2 1/2	4	3 1/2	8 1/2	9'-1 1/2	8'-5 1/2	2 1/2	7 @ 6'-3 1/2	4 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-0 1/2	7'-5 1/2	9'-10 1/2	9'-3 1/2	6'-10 1/2	K20	
1	K21	Opp. Hand	9'-0 1/2	10 1/2	5 @ 6'-2 1/2	4	3 1/2	8 1/2	9'-1 1/2	8'-5 1/2	2 1/2	7 @ 6'-3 1/2	4 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-0 1/2	7'-5 1/2	9'-10 1/2	9'-3 1/2	6'-10 1/2	K21	
1	K22	Opp. Hand	9'-1 1/2	10 1/2	5 @ 6'-2 1/2	4 1/2	4 1/2	8 1/2	9'-2 1/2	8'-7 1/2	2 1/2	7 @ 6'-3 1/2	5	5 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-1 1/2	7'-6 1/2	9'-10 1/2	9'-3 1/2	6'-11 1/2	K22
1	K23	Opp. Hand	9'-1 1/2	10 1/2	5 @ 6'-2 1/2	4 1/2	4 1/2	8 1/2	9'-2 1/2	8'-7 1/2	2 1/2	7 @ 6'-3 1/2	5	5 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-1 1/2	7'-6 1/2	9'-11	9'-4 1/2	6'-11 1/2	K23
2	K24	Opp. Hand	9'-1 1/2	10 1/2	5 @ 6'-2 1/2	4 1/2	4 1/2	8 1/2	9'-2 1/2	8'-7 1/2	2 1/2	7 @ 6'-3 1/2	5	5	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-1 1/2	7'-6 1/2	9'-11	9'-4 1/2	6'-11 1/2	K24
1	K25	Opp. Hand	9'-2	10 1/2	5 @ 6'-2 1/2	4 1/2	4 1/2	8 1/2	9'-2 1/2	8'-7 1/2	2 1/2	7 @ 6'-3 1/2	5 1/2	5 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-1 1/2	7'-7 1/2	9'-11 1/2	9'-5	7'-0 1/2	K25
4	K26	Opp. Hand	9'-2	10 1/2	5 @ 6'-2 1/2	4 1/2	4 1/2	8 1/2	9'-2 1/2	8'-7 1/2	2 1/2	7 @ 6'-3 1/2	5 1/2	5 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-1 1/2	7'-7 1/2	9'-11 1/2	9'-5 1/2	7'-0 1/2	K26
3	K27	Opp. Hand	9'-3 1/2	10 1/2	6 @ 6'-3 1/2	3 1/2	3 1/2	8 1/2	9'-3 1/2	9'-4 1/2	2 1/2	8 @ 6'-4 1/2	3 1/2	3 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-3 1/2	7'-10 1/2	10'-1 1/2	9'-6 1/2	7'-4 1/2	K27
1	K28	Opp. Hand	9'-3 1/2	10 1/2	6 @ 6'-3 1/2	3 1/2	3 1/2	8 1/2	9'-4 1/2	9'-4 1/2	2 1/2	8 @ 6'-4 1/2	3 1/2	3 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-3 1/2	7'-10 1/2	10'-1 1/2	9'-6 1/2	7'-4 1/2	K28
1	K29	Opp. Hand	9'-4 1/2	10 1/2	6 @ 6'-3 1/2	4	4	8 1/2	9'-5	9'-5	2 1/2	8 @ 6'-4 1/2	3 1/2	3 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-4 1/2	7'-11 1/2	10'-1 1/2	9'-7 1/2	7'-4 1/2	K29
4	K30	Opp. Hand	9'-4 1/2	10 1/2	6 @ 6'-3 1/2	4	4	8 1/2	9'-5	9'-5	2 1/2	8 @ 6'-4 1/2	3 1/2	3 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-4 1/2	7'-11 1/2	10'-1 1/2	9'-7 1/2	7'-4 1/2	K30
2	K31	As Shown	9'-4 1/2	8 1/2	6 @ 6'-3 1/2	3 1/2	4	7 1/2	9'-5	8'-9 1/2	2 1/2	8 @ 6'-4 1/2	3 1/2	3 1/2	5 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-4 1/2	7'-11 1/2	10'-1 1/2	9'-7 1/2	7'-4 1/2	K31
3	K31	Opp. Hand	9'-4 1/2	8 1/2	6 @ 6'-3 1/2	3 1/2	4	7 1/2	9'-5	8'-9 1/2	2 1/2	8 @ 6'-4 1/2	3 1/2	3 1/2	5 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-4 1/2	7'-11 1/2	10'-1 1/2	9'-7 1/2	7'-4 1/2	K31
1	K32	Opp. Hand	9'-4 1/2	8 1/2	6 @ 6'-3 1/2	4 1/2	4 1/2	7 1/2	9'-5 1/2	8'-10 1/2	2 1/2	8 @ 6'-4 1/2	3 1/2	3 1/2	5 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-4 1/2	8'-0	10'-2 1/2	9'-7 1/2	7'-5 1/2	K32
1	K33	Opp. Hand	9'-4 1/2	8 1/2	6 @ 6'-3 1/2	4 1/2	4 1/2	7 1/2	9'-5 1/2	8'-10 1/2	2 1/2	8 @ 6'-4 1/2	3 1/2	3 1/2	5 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-4 1/2	8'-0	10'-2 1/2	9'-7 1/2	7'-5 1/2	K33
1	K34	Opp. Hand	9'-5 1/2	8 1/2	6 @ 6'-3 1/2	4 1/2	4 1/2	7 1/2	9'-6 1/2	8'-11 1/2	2 1/2	8 @ 6'-4 1/2	4 1/2	4 1/2	5 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-5 1/2	8'-1 1/2	10'-3 1/2	9'-9	7'-6 1/2	K34
4	K35	Opp. Hand	9'-6 1/2	10 1/2	6 @ 6'-3 1/2	4 1/2	4 1/2	8 1/2	9'-7 1/2	9'-0 1/2	2 1/2	8 @ 6'-4 1/2	4 1/2	5 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-6 1/2	8'-1 1/2	10'-4 1/2	9'-9 1/2	7'-5 1/2	K35	
2	K36	As Shown	9'-6 1/2	8 1/2	6 @ 6'-3 1/2	5 1/2	5 1/2	8 1/2	9'-7 1/2	9'-0 1/2	2 1/2	8 @ 6'-4 1/2	5 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-6 1/2	8'-1 1/2	10'-4 1/2	9'-9 1/2	7'-7 1/2	K36	
4	K36	Opp. Hand	9'-6 1/2	8 1/2	6 @ 6'-3 1/2	5 1/2	5 1/2	8 1/2	9'-7 1/2	9'-0 1/2	2 1/2	8 @ 6'-4 1/2	5 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-6 1/2	8'-1 1/2	10'-4 1/2	9'-9 1/2	7'-7 1/2	K36	
1	K37	Opp. Hand	9'-6 1/2	8 1/2	6 @ 6'-3 1/2	5 1/2	5 1/2	8 1/2	9'-7 1/2	9'-0 1/2	2 1/2	8 @ 6'-4 1/2	4 1/2	5 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-6 1/2	8'-2 1/2	10'-4 1/2	9'-9 1/2	7'-7 1/2	K37	
4	K38	As Shown	9'-7 1/2	8 1/2	6 @ 6'-3 1/2	5 1/2	5 1/2	8 1/2	9'-8 1/2	9'-1 1/2	2 1/2	8 @ 6'-4 1/2	4 1/2	4 1/2	5 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-7 1/2	8'-2 1/2	10'-5 1/2	9'-10 1/2	7'-8 1/2	K38
2	K38	Opp. Hand	9'-7 1/2	8 1/2	6 @ 6'-3 1/2	5 1/2	5 1/2	8 1/2	9'-8 1/2	9'-1 1/2	2 1/2	8 @ 6'-4 1/2	4 1/2	4 1/2	5 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-7 1/2	8'-2 1/2	10'-5 1/2	9'-10 1/2	7'-8 1/2	K38
1	K39	Opp. Hand	9'-7 1/2	8 1/2	6 @ 6'-3 1/2	5 1/2	5 1/2	8 1/2	9'-8 1/2	9'-1 1/2	2 1/2	8 @ 6'-4 1/2	4 1/2	5 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-7 1/2	8'-2 1/2	10'-5 1/2	9'-10 1/2	7'-8 1/2	K39	
2	K40	Opp. Hand	9'-8 1/2	10 1/2	6 @ 6'-3 1/2	5	5	8 1/2	9'-9 1/2	9'-1 1/2	2 1/2	8 @ 6'-4 1/2	5 1/2	5 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-8 1/2	8'-1 1/2	10'-6	9'-11 1/2	7'-6 1/2	K40
4	K41	Opp. Hand	9'-8 1/2	10 1/2	6 @ 6'-3 1/2	5	4 1/2	8 1/2	9'-8 1/2	9'-1 1/2	2 1/2	8 @ 6'-4 1/2	5 1/2	5 1/2	4 1/2	7 1/2	3 1/2	1 1/2	15 1/2	9'-8 1/2	8'-1 1/2	10'-5 1/2	9'-11 1/2	7'-6 1/2	K41
1	K42	Opp. Hand	9																						



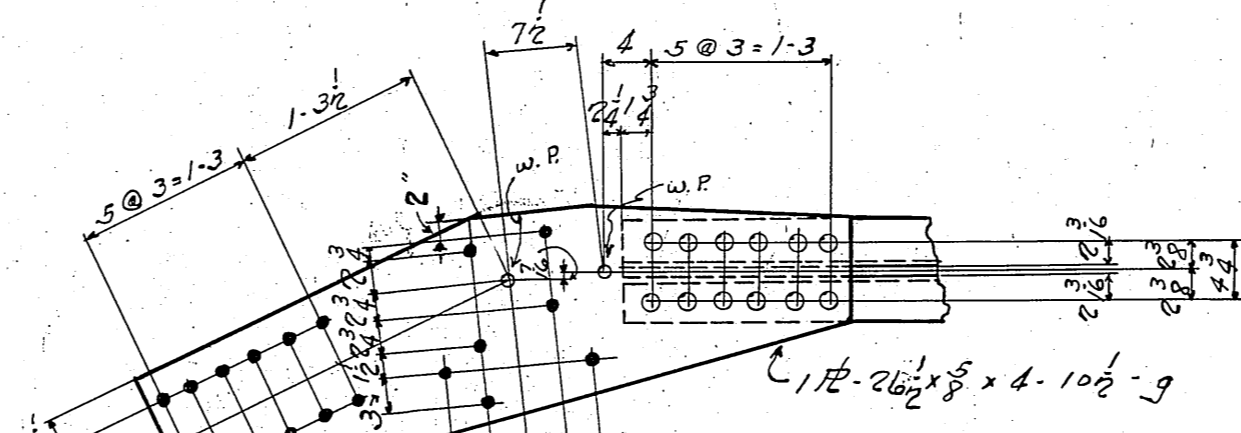
VIEW-CC-For-K93-94-95-96-97-98



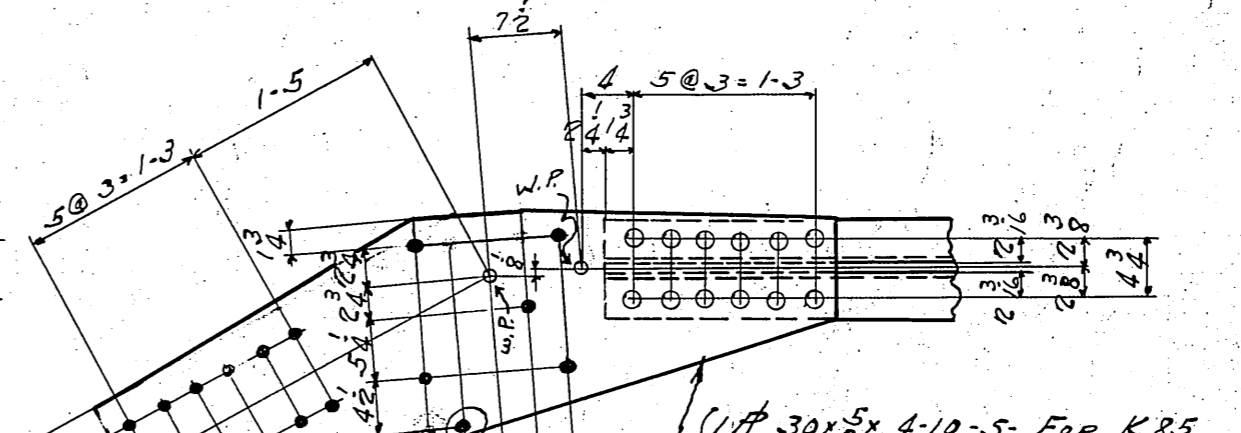
SEC-AA-For-K71-72-75-76-79-80



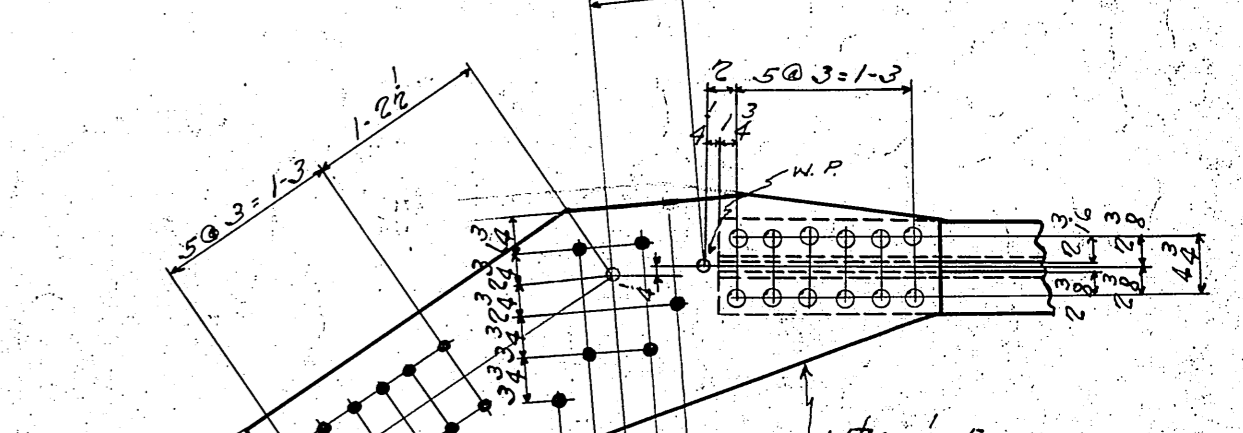
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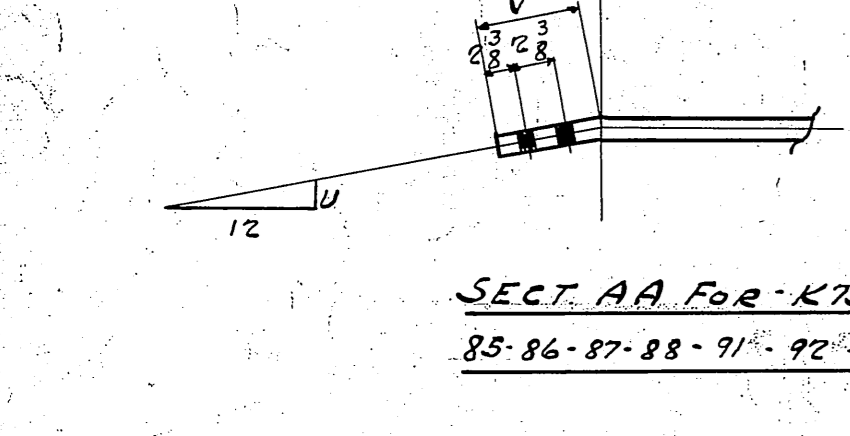
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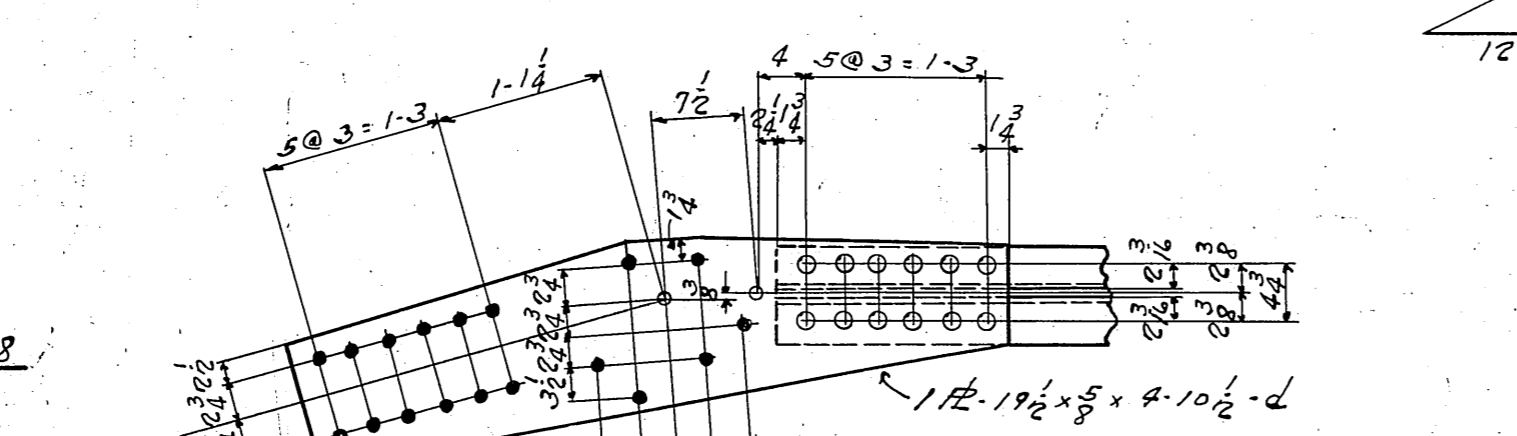
VIEW-CC-For-K85-86



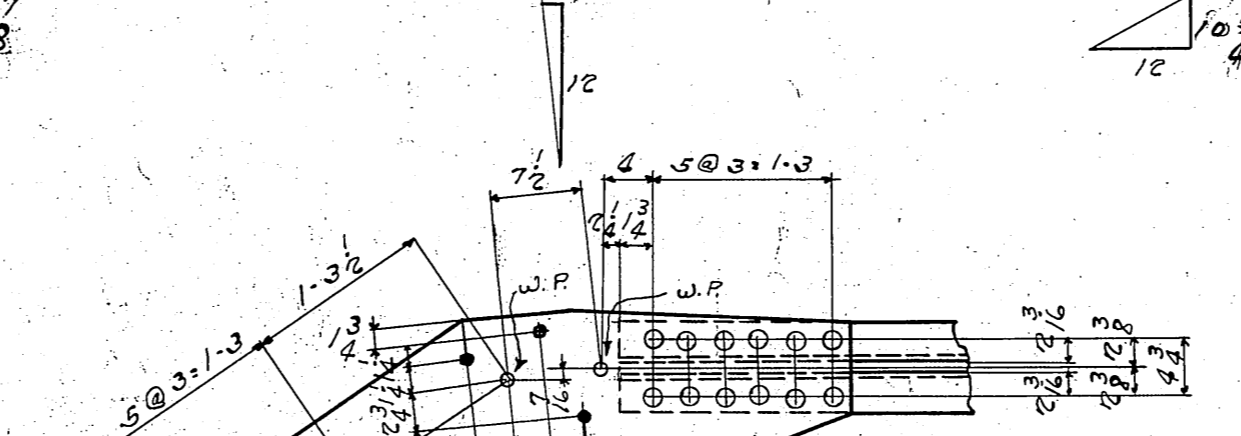
VIEW-CC-For-K88



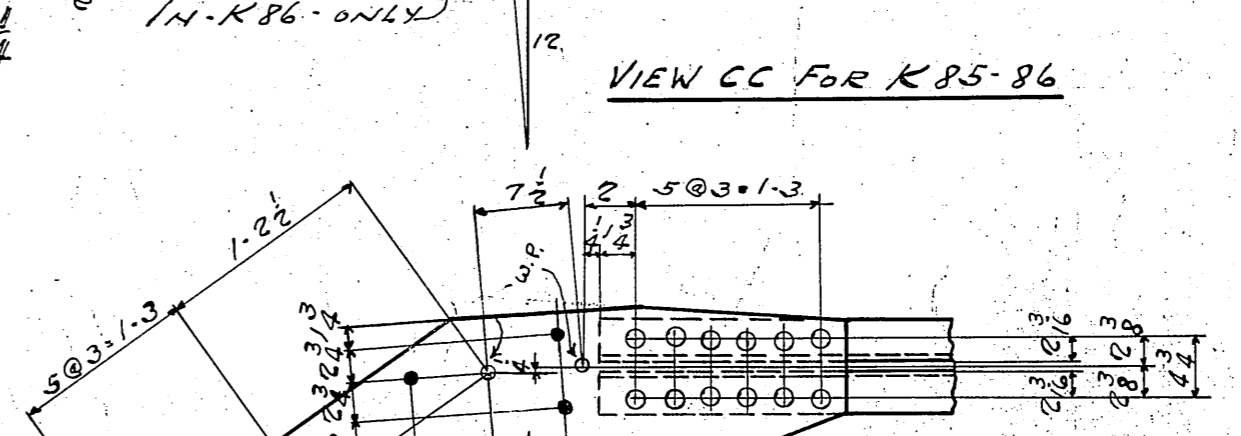
SECT AA For-K73-74-77-78-81-82



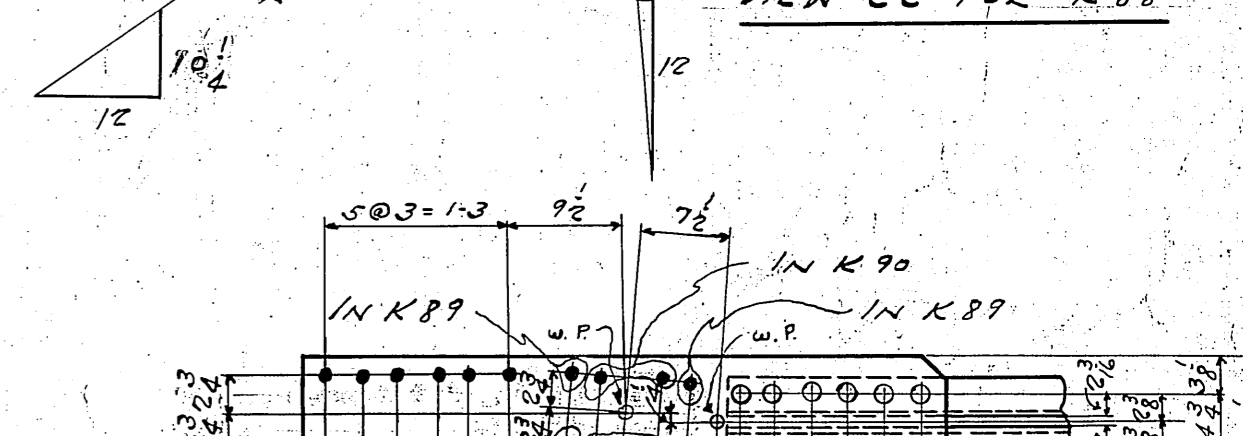
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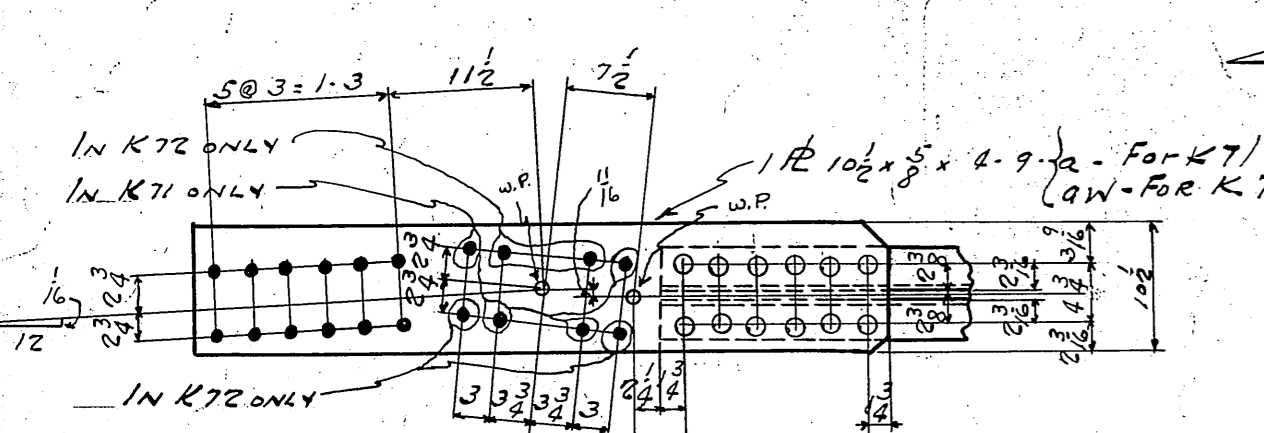
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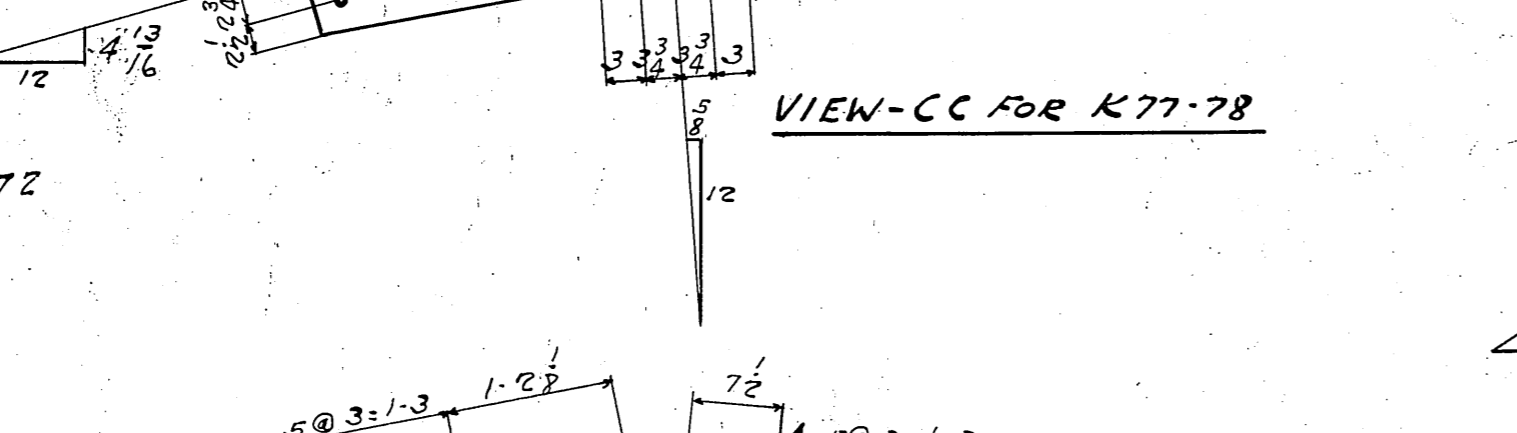
VIEW-CC-For-K87



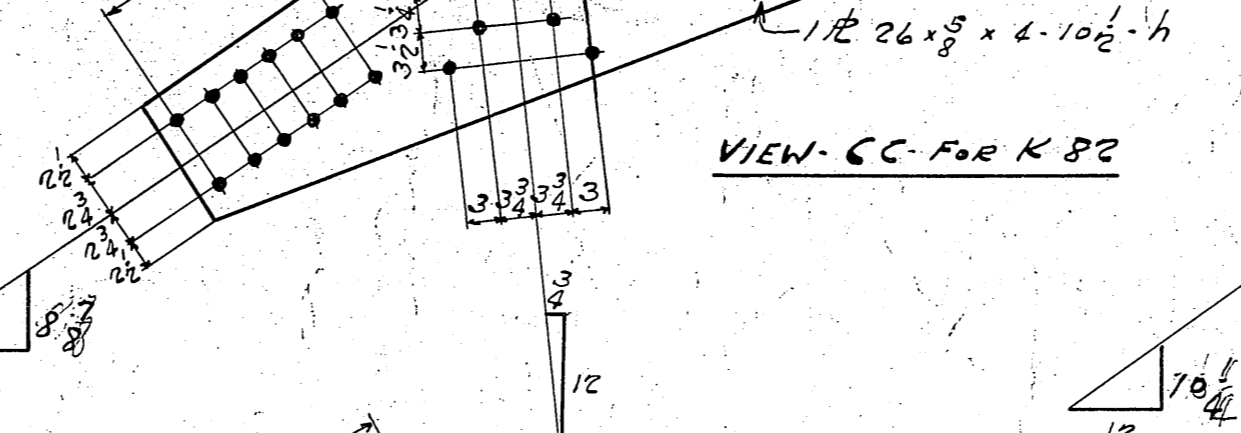
VIEW-CC-For-K89-90



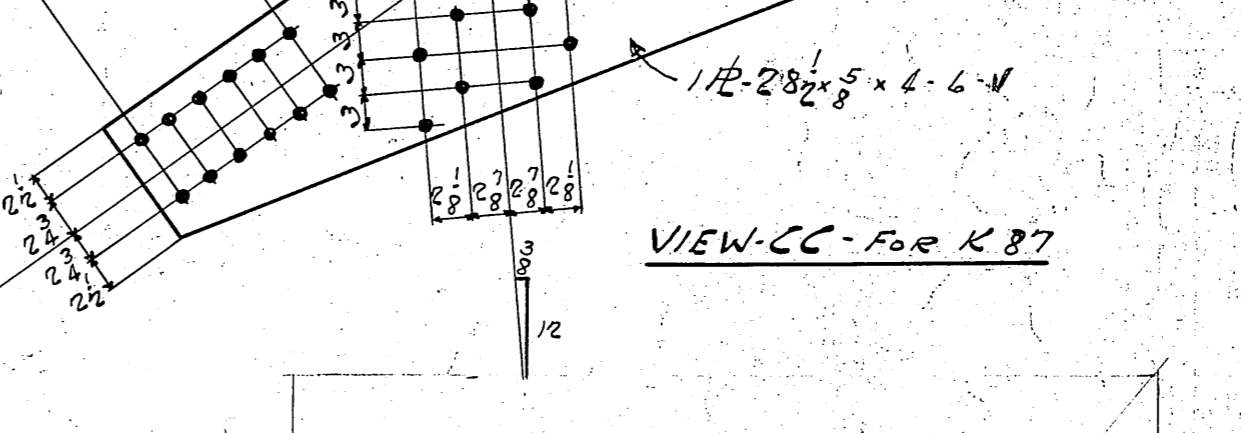
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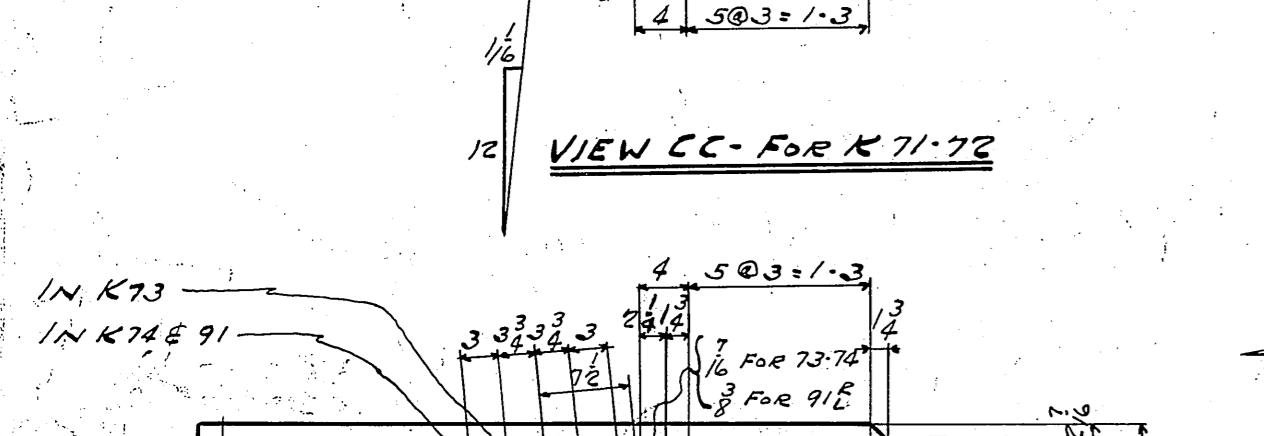
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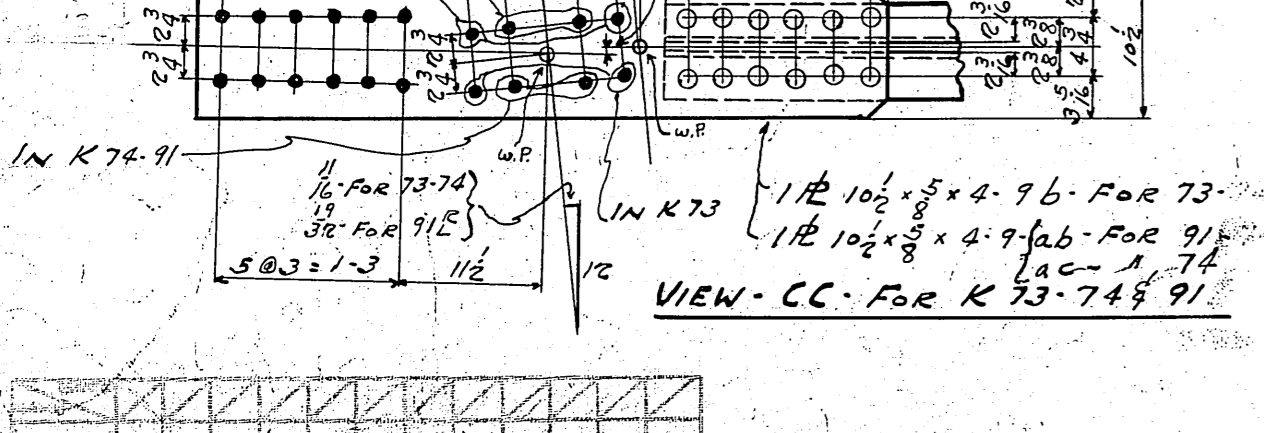
VIEW-CC-For-K83-84



VIEW-CC-For-K92



VIEW-CC-For-K73-74-91

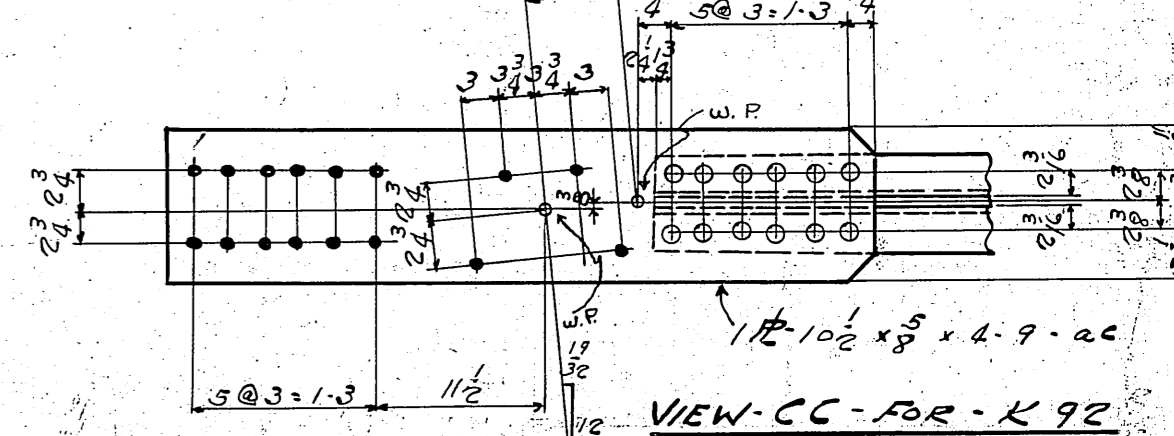


VIEW-CC-For-K93-94-95-96-97-98

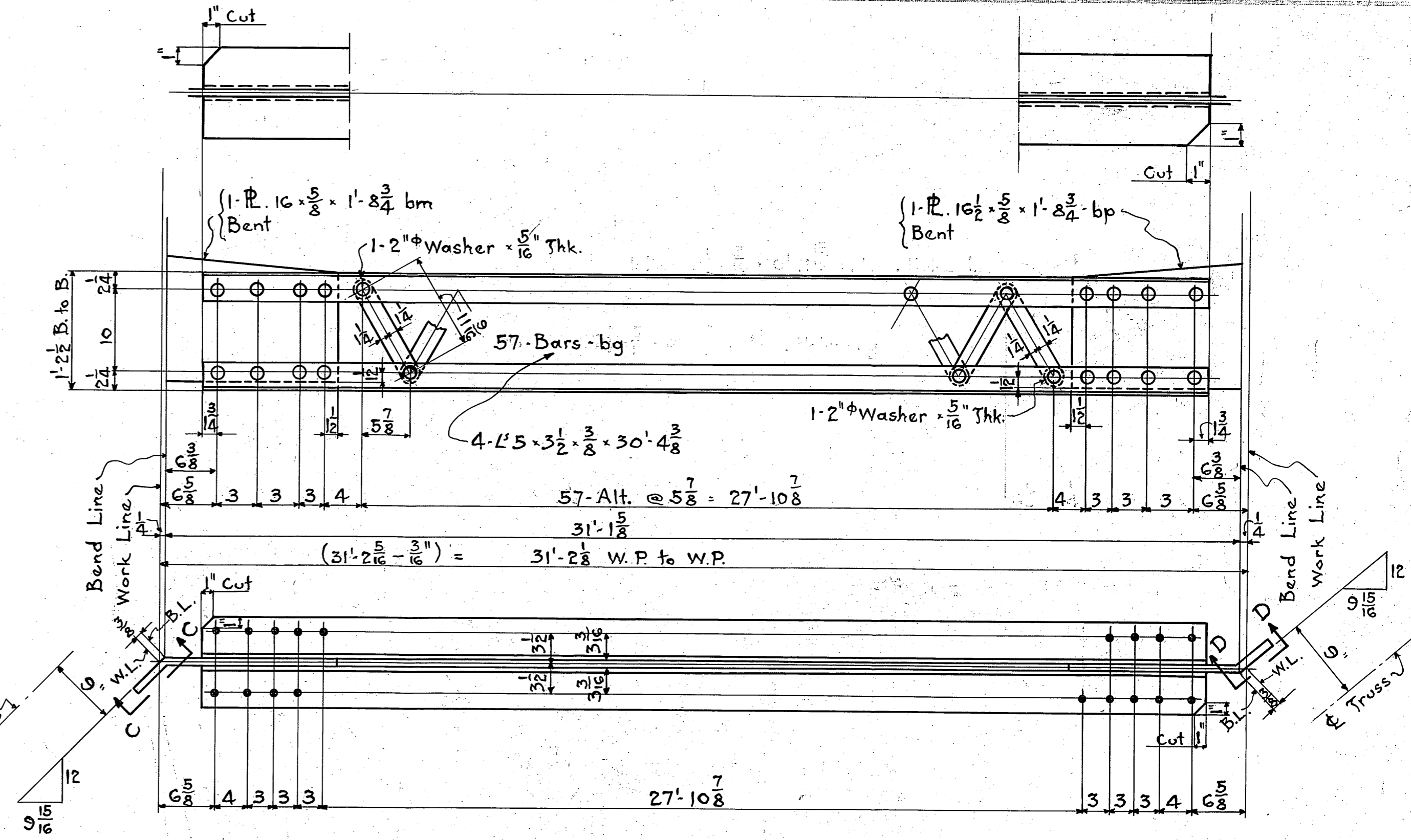
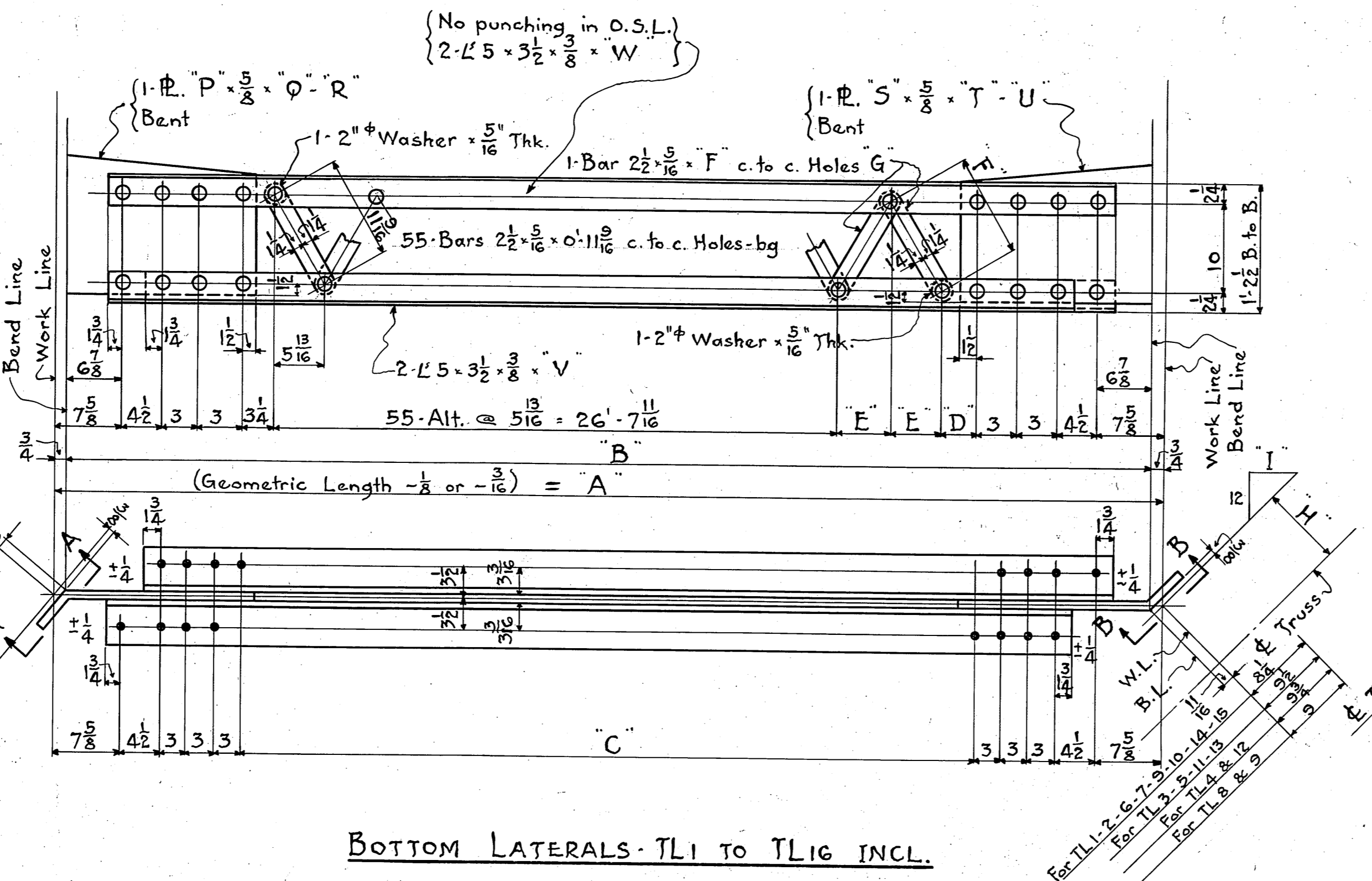
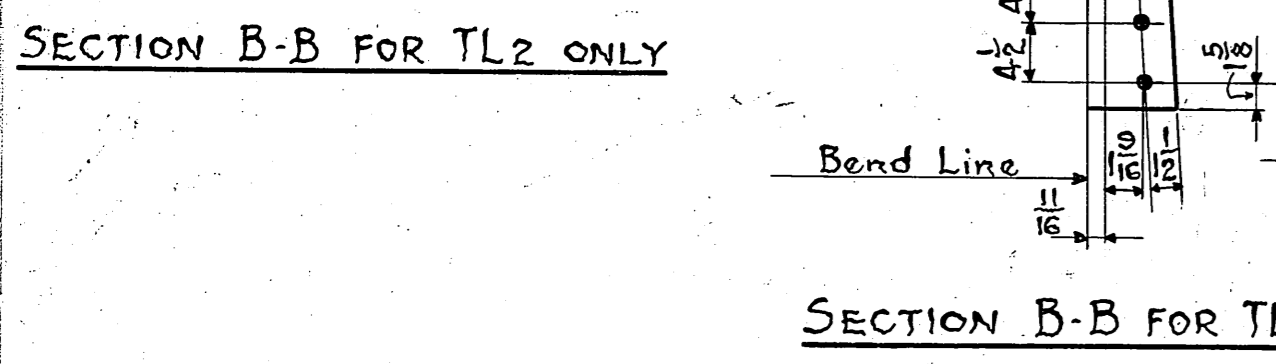
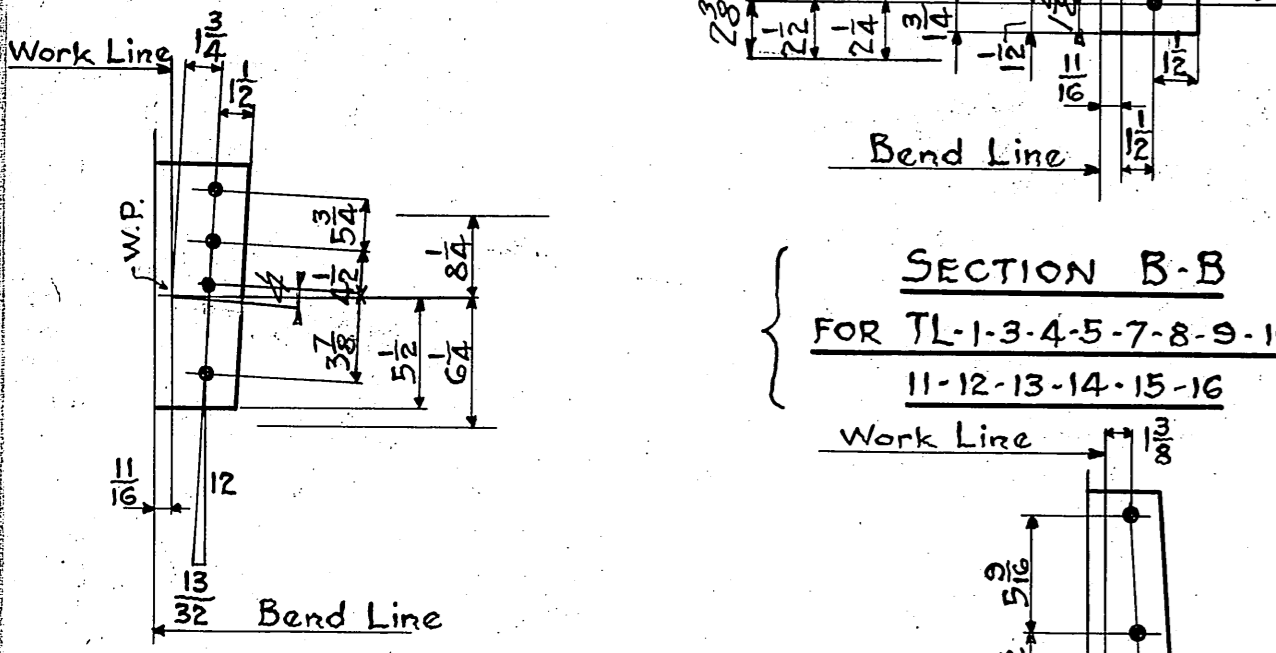
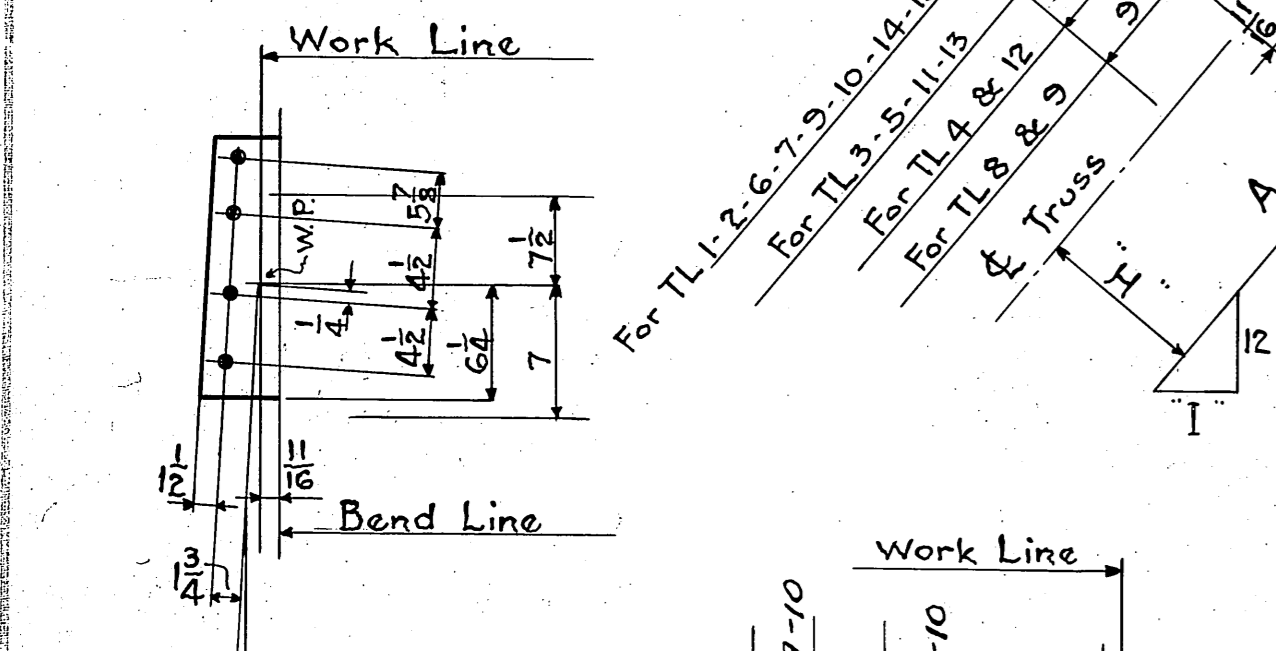
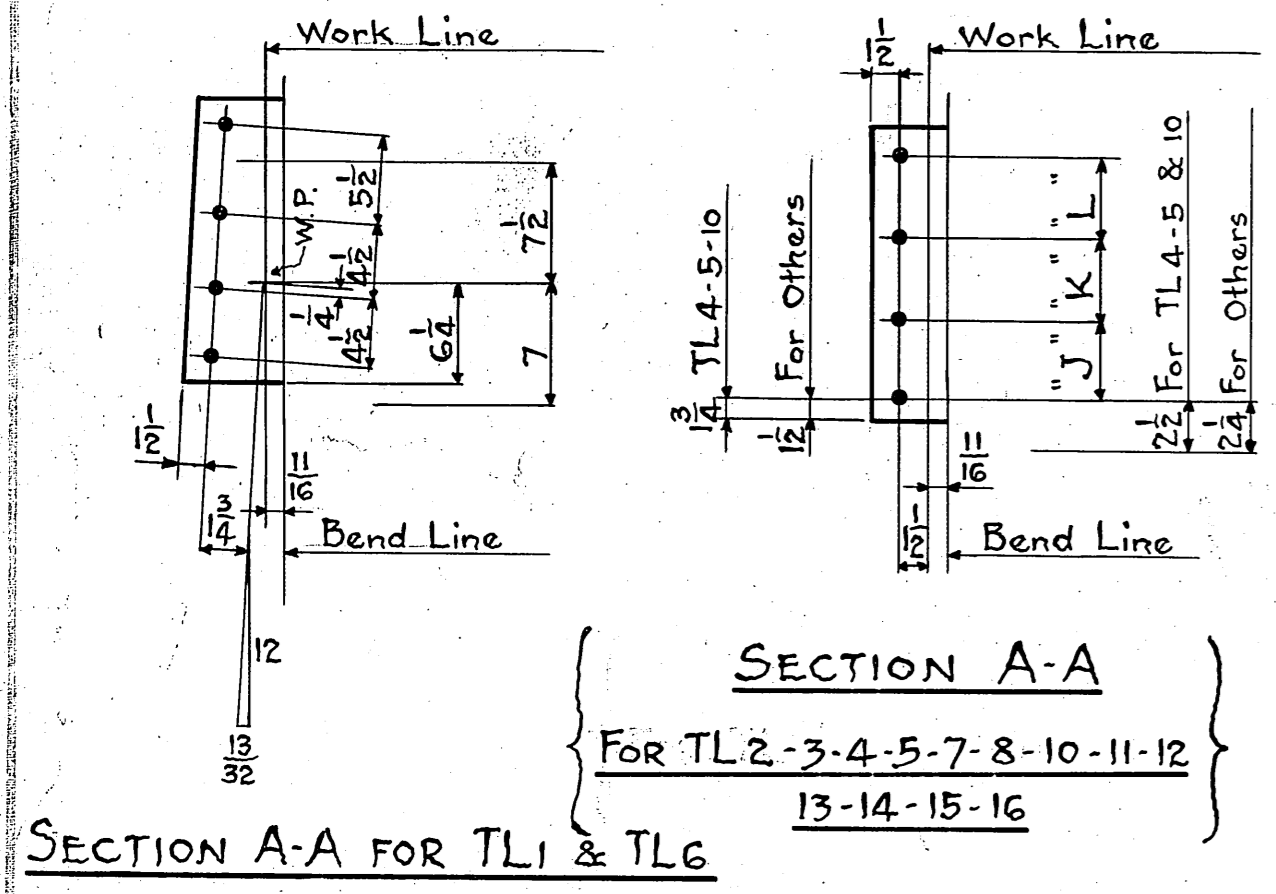
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1	K72		
1	K73		
1	K74		
1	K75		
1	K76		
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1	K78		
1	K79		
1	K80		
1	K81		
1	K82		
1	K83		
1	K84		
1	K85		
1	K86		
1	K87		
1	K88		
1	K89		
1	K90		
1	K91		
1	K92		
1	K93		
1	K94		
1	K95		
1	K96		
1	K97	OPP HO	
1	K98	OPP HO	

A	B	C	D	E	F	G	H	I	J	L	M	N	P	R	S	T	U	V	W	X	Y	AA	
7-6 1/2	6-8 1/2	4	4@6-2-0	3 1/2	3 1/2	2 1/2	8-1 1/2	7-6 1/2	6 1/2	6@6-3-0	4 1/2	4 1/2	3 1/2	4 1/2	15 1/2	8-0 1/2	1 1/2	6 1/2	6-6 1/2	8-3 1/2	1 1/2	8-0 1/2	K71
8-0 1/2	7-2 1/2	4	5@6-2-6	3 1/2	3 1/2	2 1/2	8-8 1/2	8-1 1/2	7	7@6-3-6	4 1/2	4 1/2	3 1/2	4 1/2	15 1/2	8-0 1/2	1 1/2	6 1/2	7-0 1/2	8-3 1/2	1 1/2	8-7 1/2	K72
7-6 1/2	6-8 1/2	4	4@6-2-0	3 1/2	3 1/2	2 1/2	8-2 1/2	7-9 1/2	6 1/2	6@6-3-0	5 1/2	4 1/2	3 1/2	4 1/2	15 1/2	8-1 1/2	1 1/2	6 1/2	6-6 1/2	8-4 1/2	1 1/2	8-1 1/2	K73
8-1 1/2	7-3 1/2	4	5@6-2-6	3 1/2	3 1/2	2 1/2	8-8 1/2	8-1 1/2	7	7@6-3-6	5 1/2	5 1/2	4 1/2	4 1/2	15 1/2	8-0 1/2	1 1/2	6 1/2	7-10 1/2	8-10 1/2	1 1/2	8-9 1/2	K74
7-6 1/2	6-8 1/2	4	4@6-2-0	3 1/2	3 1/2	2 1/2	8-2 1/2	7-7 1/2	6 1/2	6@6-3-0	5 1/2	4 1/2	3 1/2	4 1/2	15 1/2	8-0 1/2	1 1/2	6 1/2	6-6 1/2	8-3 1/2	1 1/2	8-7 1/2	K75
8-1 1/2	7-3 1/2	4	5@6-2-6	4	3 1/2	2 1/2	8-8 1/2	8-1 1/2	7	7@6-3-6	5 1/2	5 1/2	4 1/2	4 1/2	16 1/2	8-0 1/2	1 1/2	6 1/2	7-12 1/2	8-10 1/2	1 1/2	8-0 1/2	K76
8-0 1/2	7-2 1/2	4	5@6-2-6	3 1/2	3 1/2	2 1/2	8-8 1/2	8-1 1/2	7	7@6-3-6	4 1/2	4 1/2	3 1/2	4 1/2	16 1/2	8-7 1/2	1 1/2	6 1/2	6-8 1/2	8-3 1/2	1 1/2	8-7 1/2	K77
8-8 1/2	7-10 1/2	4	6@6-3-0	4 1/2	4 1/2	2 1/2	9-4 1/2	8-8 1/2	7 1/2	8@6-4-0	6 1/2	5 1/2	3 1/2	4 1/2	16 1/2	7-3 1/2	1 1/2	6 1/2	7-10 1/2	8-5 1/2	1 1/2	9-3 1/2	K78
7-6 1/2	6-6 1/2	4	3@6-1-6	5 1/2	5 1/2	2 1/2	8-0 1/2	7-5 1/2	6 1/2	6@6-3-0	3 1/2	3 1/2	3 1/2	4 1/2	16 1/2	7-10 1/2	1 1/2	6 1/2	6-8 1/2	8-3 1/2	1 1/2	8-7 1/2	K79
8-0 1/2	7-2 1/2	4	5@6-2-6	3 1/2	3 1/2	2 1/2	8-8 1/2	8-1 1/2	7	7@6-3-6	4 1/2	4 1/2	3 1/2	4 1/2	16 1/2	8-7 1/2	1 1/2	6 1/2	7-0 1/2	8-9 1/2	1 1/2	8-7 1/2	K80
9-1 1/2	8-3 1/2	4	7@6-3-6	3 1/2	3 1/2	2 1/2	9-8 1/2	9-1 1/2	7 1/2	9@6-4-6	4 1/2	4 1/2	3 1/2	4 1/2	16 1/2	8-7 1/2	1 1/2	6 1/2	8-1 1/2	9-20 1/2	1 1/2	9-7 1/2	K81
10-0 1/2	9-2 1/2	4	9@6-4-6	3 1/2	3 1/2	2 1/2	10-7 1/2	10-0 1/2	7 1/2	11@6-5-6	4 1/2	4 1/2	3 1/2	4 1/2	16 1/2	10-16 1/2	1 1/2	6 1/2	9-11 1/2	10-9 1/2	1 1/2	10-6 1/2	K82
8-7 1/2	7-9 1/2	4	6@6-3-0	4	3 1/2	2 1/2	9-2 1/2	8-7 1/2	7 1/2	8@6-4-0	5 1/2	4 1/2	3 1/2	4 1/2	16 1/2	8-10 1/2	1 1/2	6 1/2	8-10 1/2	9-4 1/2	1 1/2	9-1 1/2	K83
9-4 1/2	8-6 1/2	4	7@6-3-6	5 1/2	5 1/2	2 1/2	9-11 1/2	9-4 1/2	7 1/2	10@6-5-0	3 1/2	3 1/2	3 1/2	4 1/2	16 1/2	9-10 1/2	1 1/2	6 1/2	8-10 1/2	9-10 1/2	1 1/2	9-11 1/2	K84
10-2 1/2	9-4 1/2	4	9@6-4-6	4 1/2	3 1/2	2 1/2	10-9 1/2	10-2 1/2	7 1/2	11@6-5-6	5 1/2	5 1/2	3 1/2	4 1/2	16 1/2	10-8 1/2	1 1/2	6 1/2	9-11 1/2	10-10 1/2	1 1/2	10-8 1/2	K85
10-5 1/2	9-7 1/2	4	9@6-4-6	5 1/2	5 1/2	2 1/2	10-5 1/2	10-5 1/2	7 1/2	12@6-6-0	3 1/2	3 1/2	3 1/2	4 1/2	16 1/2	10-11 1/2	1 1/2	6 1/2	10-11 1/2	11-2 1/2	1 1/2	11-0 1/2	K86
9-10 1/2	9-0 1/2	2	9@6-4-6	3 1/2	3 1/2	4	10-5 1/2	9-10 1/2	7 1/2	11@6-5-6	3 1/2	3 1/2	3 1/2	4 1/2	16 1/2	10-5 1/2	1 1/2	6 1/2	9-10 1/2	10-10 1/2	1 1/2	10-5 1/2	K87
9-3 1/2	8-5 1/2	2	7@6-3-6	5 1/2	5 1/2	4	9-10 1/2	9-3 1/2	7 1/2	9@6-4-6	5 1/2	5 1/2	3 1/2	4 1/2	16 1/2	9-9 1/2	1 1/2	6 1/2	8-10 1/2	9-10 1/2	1 1/2	9-10 1/2	K88
9-2 1/2	8-4 1/2	2	7@6-3-6	5 1/2	5 1/2	4	9-10 1/2	9-2 1/2	7 1/2	9@6-4-6	5 1/2	5 1/2	3 1/2	4 1/2	16 1/2	9-9 1/2	1 1/2	6 1/2	8-10 1/2	9-10 1/2	1 1/2	9-9 1/2	K89
9-9 1/2	7-11 1/2	2	6@6-3-0	6	5 1/2	4	9-5 1/2	8-10 1/2	7 1/2	9@6-4-6	3 1/2	3 1/2	3 1/2	4 1/2	16 1/2	9-4 1/2	1 1/2	6 1/2	7-11 1/2	9-10 1/2	1 1/2	9-4 1/2	K90
9-5 1/2	8-7 1/2	4	7@6-3-6	6	5 1/2	2 1/2	10-0 1/2	9-5 1/2	7 1/2	10@6-5-0	4 1/2	4 1/2	3 1/2	4 1/2	16 1/2	9-11 1/2	1 1/2	6 1/2	8-10 1/2	9-10 1/2	1 1/2	10-0 1/2	K91
8-6 1/2	7-8 1/2	4	6@6-3-0	3 1/2	3 1/2	2 1/2	9-2 1/2	8-7 1/2	7 1/2	8@6-4-0	4 1/2	4 1/2	3 1/2	4 1/2	16 1/2	9-9 1/2	1 1/2	6 1/2	8-10 1/2	9-10 1/2	1 1/2	9-1 1/2	K92
9-3 1/2	8-5 1/2	2	7@6-3-6	5 1/2	5 1/2	4	9-10 1/2	9-3 1/2	7 1/2	9@6-4-6	5 1/2	5 1/2	3 1/2	4 1/2	16 1/2	9-9 1/2	1 1/2	6 1/2	8-10 1/2	9-10 1/2	1 1/2	9-10 1/2	K93
9-1 1/2	7-11 1/2	2	6@6-3-0	5 1/2	5 1/2	4	9-4 1/2	8-9 1/2	7 1/2	8@6-4-0	5 1/2	5 1/2	3 1/2	4 1/2	16 1/2	9-3 1/2	1 1/2	6 1/2	7-11 1/2	9-6 1/2	1 1/2	9-3 1/2	K94
9-7 1/2	8-5 1/2	2	7@6-3-6	5 1/2	5 1/2	4	9-10 1/2	9-3 1/2	7 1/2	9@6-4-6	5 1/2	5 1/2	3 1/2	4 1/2	16 1/2	9-9 1/2	1 1/2	6 1/2	8-10 1/2	9-10 1/2	1 1/2	9-7 1/2	K95
8-9 1/2	7-11 1/2	2	6@6-3-0	5 1/2	5 1/2	4	9-4 1/2	8-9 1/2	7 1/2	9@6-4-6	3 1/2	3 1/2	3 1/2	4 1/2	16 1/2	9-4 1/2	1 1/2	6 1/2	7-11 1/2	9-6 1/2	1 1/2	9-4 1/2	K96
9-3 1/2	8-5 1/2	2	7@6-3-6	5 1/2	5 1/2	4	9-10 1/2	9-3 1/2	7 1/2	9@6-4-6	5 1/2	5 1/2	3 1/2	4 1/2	16 1/2	9-9 1/2	1 1/2	6 1/2	8-10 1/2	9-10 1/2	1 1/2	9-3 1/2	K97
8-9 1/2	7-11 1/2	2	6@6-3-0	5 1/2	5 1/2	4	9-4 1/2	8-9 1/2	7 1/2	9@6-4-6	3 1/2	3 1/2	3 1/2	4 1/2	16 1/2	9-4 1/2	1 1/2	6 1/2	7-11 1/2	9-6 1/2	1 1/2	9-4 1/2	K98

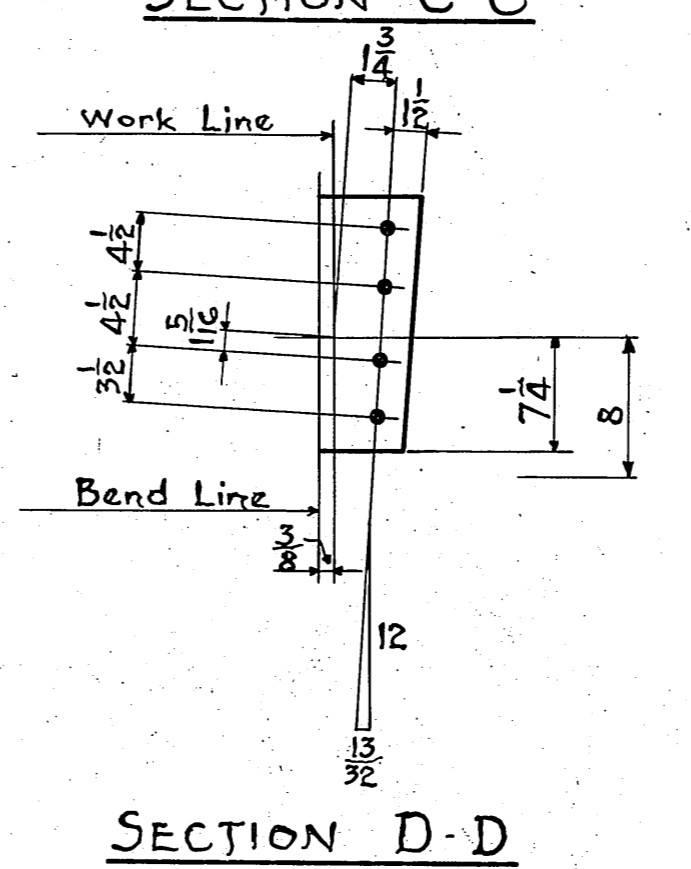
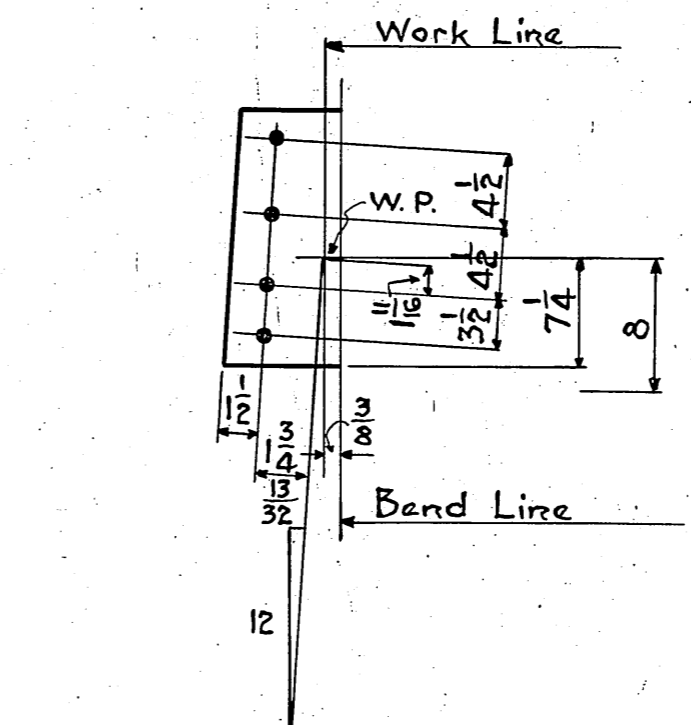
GENERAL NOTES:
 RIVETS: 1/2"
 OPEN HOLES: 1/8"
 MATERIAL: Carbon steel A.S.T.M. A7-84 with .2% copper content, except where noted.
 REAMING: All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
 SHEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
 FLAME CUT EDGES of main material shall be planed smooth workmanlike appearance.
 PAINT: One coat of RED LEAD primer and two coats of SHOP CONTACT SURFACE not painted.
 Denotes break in-stagger.



COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINTL - DEPT. PUBLIC WORKS
 BLUENHORN STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings of Rankin-Fairbank
 IN CHARGE: B.E.M. MADE BY: W.H.L.
 CHECKED BY: G.S. TRADED BY: A.D.A. 3-22-37
 REUSED 12.8.20.37.1971 LAST ASSEMBLED
 CONTRACT: CC 25875
 SHEET: 506
 F.C.W.C. 4-21-37



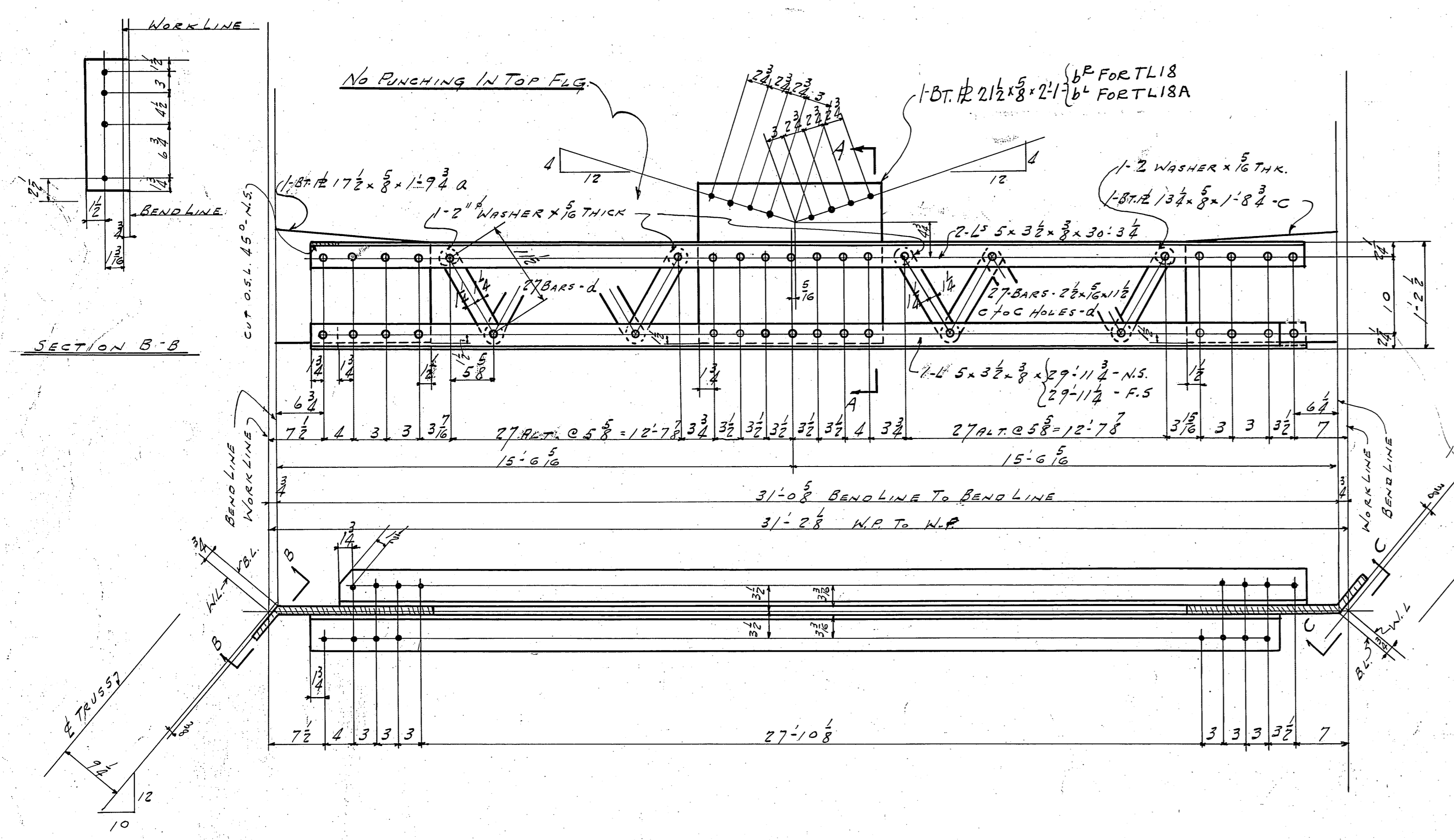
MARK	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	MARK
TL1	31'-2 3/8"	31'-1 1/8"	27'-2 3/8"	3 1/16"	6	11 1/16"	bf	8 1/2"	9 15/16"	SEE SKETCH	4 1/2"	4 1/2"	5 1/2"	17 1/2"	1'-11"	a	17 1/2"	1'-10 3/8"	ac	29'-10 3/8"	30'-2 7/8"		TL1	
TL2	31'-2 1/2"	31'-1"	27'-8 1/4"	3 1/16"	6	11 1/16"	bf	8 1/2"	9 15/16"	4	3 3/4"	5 3/4"	SEE SKETCH	16 1/2"	1'-10 5/8"	b	17 1/2"	1'-11"	ad	29'-10 1/4"	30'-2 3/4"		TL2	
TL3	31'-0 1/8"	30'-10 5/8"	27'-5 3/8"	3 1/16"	4 5/8"	11	bs	9 1/8"	9 7/8"	5 1/2"	5	5	4	3 1/2"	6	18 1/2"	1'-10 5/8"	c	16 1/2"	1'-10 5/8"	af	29'-7 7/8"	30'-0 3/8"	TL3
TL4	30'-11 1/4"	30'-10 1/4"	27'-5 1/2"	3 1/16"	4 5/8"	11	bs	9 1/8"	9 13/16"	3 3/4"	3	6 1/2"	3 1/2"	7	2 1/4"	16 1/2"	1'-10 5/8"	d	16 1/2"	1'-10 5/8"	ag	29'-7 7/8"	30'-0	TL4
TL5	31'-0 3/8"	30'-10 5/8"	27'-5 1/2"	3 1/16"	4 5/8"	11	bs	9 1/8"	9 7/8"	4 1/4"	3	6 1/4"	4 1/4"	3	6 1/4"	16 1/2"	1'-10 5/8"	f	17	1'-10 5/8"	ah	29'-7 7/8"	30'-0 3/8"	TL5
TL6	31'-1 3/8"	30'-11 1/8"	27'-7 1/8"	3 1/16"	5 3/8"	11 3/8"	bt	9 5/8"	9 15/16"	SEE SKETCH	SEE SKETCH	17 1/2"	1'-11"	g	17 1/2"	1'-10 3/8"	ak	29'-9 3/8"	30'-1 1/8"				TL6	
TL7	31'-1 3/8"	30'-11 1/8"	27'-7 1/8"	3 1/16"	5 3/8"	11 3/8"	bt	9 5/8"	9 15/16"	4 1/2"	3	6 7/16"	3 3/4"	4 1/2"	6 1/16"	17	1'-10 5/8"	h	17 1/2"	1'-10 5/8"	am	29'-9 3/8"	30'-1 1/8"	TL7
TL8	31'-1 1/4"	30'-11 3/4"	27'-7	3 1/16"	5 3/8"	11 3/8"	bt	8 1/2"	9 7/8"	4 1/4"	5 1/2"	5	3 3/4"	3	7 1/4"	18	1'-10 5/8"	k	17	1'-10 5/8"	ap	29'-9	30'-1 1/2"	TL8
TL9	31'-2 3/8"	31'-1 1/8"	27'-8 3/8"	3 1/16"	6	11 1/16"	bf	8 1/2"	9 15/16"	SEE SKETCH	4 1/2"	4 1/2"	5 1/16"	18	1'-11"	m	17 1/2"	1'-10 5/8"	as	29'-10 3/8"	30'-2 7/8"		TL9	
TL10	31'-2 1/2"	31'-1"	27'-8 1/4"	3 1/16"	6	11 1/16"	bf	8 1/2"	9 15/16"	4 1/2"	3	6 3/4"	5	3	5 3/4"	17 1/2"	1'-10 5/8"	p	17	1'-10 5/8"	at	29'-10 1/4"	30'-2 3/4"	TL10
TL11	31'-0 3/8"	30'-10 5/8"	27'-5 3/8"	3 1/16"	4 5/8"	11	bs	9 1/8"	9 7/8"	3 3/4"	4	6	5	5 3/4"	3	17	1'-10 5/8"	s	17	1'-10 5/8"	av	29'-7 7/8"	30'-0 3/8"	TL11
TL12	30'-11 1/4"	30'-10 1/4"	27'-5 1/2"	3 1/16"	4 5/8"	11	bs	9 1/8"	9 13/16"	3 3/4"	4	6	5	5 3/4"	3	17	1'-10 5/8"	t	17	1'-10 5/8"	aw	29'-7 7/8"	30'-0	TL12
TL13	31'-0 3/8"	30'-10 5/8"	27'-5 3/8"	3 1/16"	4 5/8"	11	bs	9 1/8"	9 7/8"	3 3/4"	4	6	5	5 3/4"	3	17	1'-10 5/8"	u	17	1'-10 5/8"	ax	29'-7 7/8"	30'-0 3/8"	TL13
TL14	31'-1 3/8"	30'-11 1/8"	27'-7 1/8"	3 1/16"	5 3/8"	11 3/8"	bt	9 5/8"	9 15/16"	4 1/2"	4 1/2"	5 3/8"	4 3/8"	4 1/2"	5 3/8"	18	1'-10 5/8"	w	17 1/2"	1'-10 5/8"	ba	29'-7 7/8"	30'-0 3/8"	TL14
TL15	31'-1 3/8"	30'-11 1/8"	27'-7 1/8"	3 1/16"	5 3/8"	11 3/8"	bt	9 5/8"	9 15/16"	3 3/4"	3 1/2"	7 1/16"	3 3/4"	4 1/2"	5 1/16"	17 1/2"	1'-10 5/8"	aa	17	1'-10 5/8"	bc	29'-9 3/8"	30'-1 1/8"	TL15
TL16	31'-1 1/4"	30'-11 1/4"	27'-7	3 1/16"	5 3/8"	11 3/8"	bt	8 1/2"	9 7/8"	4	5	4 1/2"	3 3/4"	3	7	16 1/2"	1'-10 5/8"	ab	17	1'-10 5/8"	bd	29'-9	30'-1 1/2"	TL16



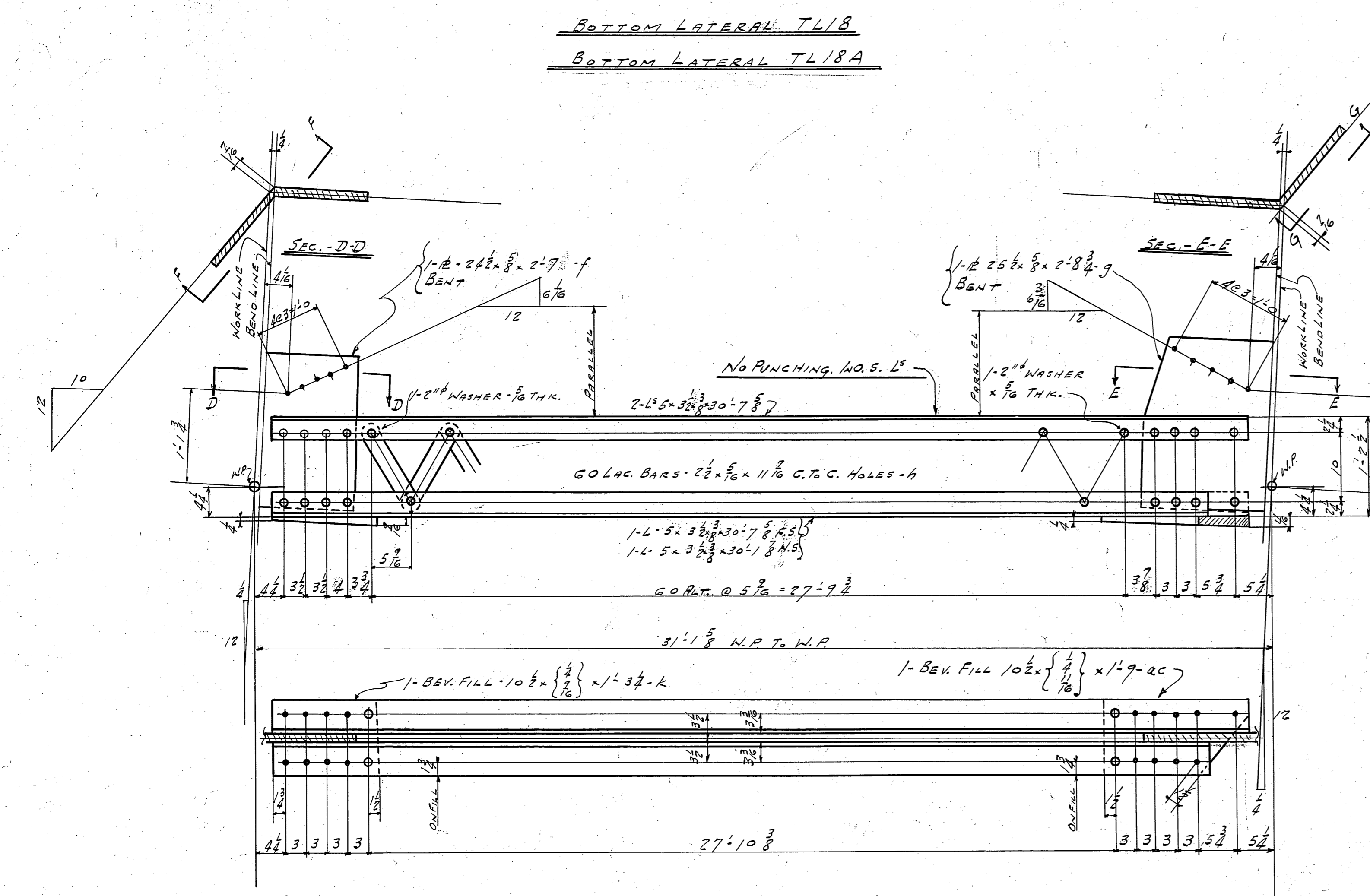
GENERAL NOTES:-
 RIVETS:- 3/8"
 OPEN HOLES:- 1/2"
MATERIAL:- Carbon steel A.S.T.M. A7-84 with .2% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RY are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
SHARPED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES of main material shall be planed chipped or ground and present a smooth workmanlike appearance. One coat of RED LEAD except where noted. Shop contact surfaces not painted.
PAINT:- Denotes break in stagger.

REQUIRED LIST			
Nº	DESCRIPTION	MARK	REMARKS
2	Bottom Lateral	TL1	
2	"	TL2	
2	"	TL3	
2	"	TL4	
2	"	TL5	
2	"	TL6	
2	"	TL7	
2	"	TL8	
2	"	TL9	
2	"	TL10	
2	"	TL11	
2	"	TL12	
2	"	TL13	
2	"	TL14	
2	"	TL15	
2	"	TL16	
4	"	TL17	

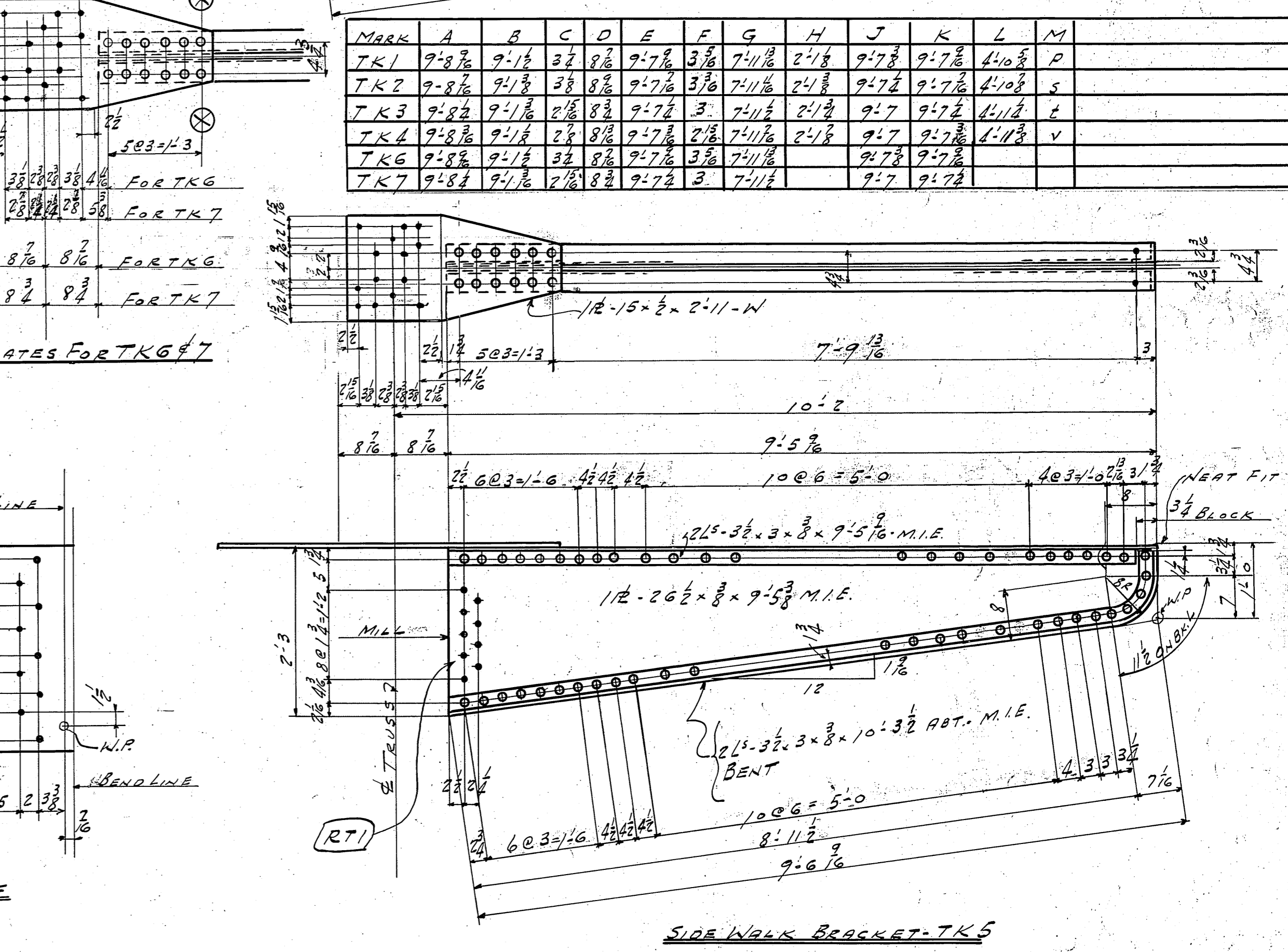
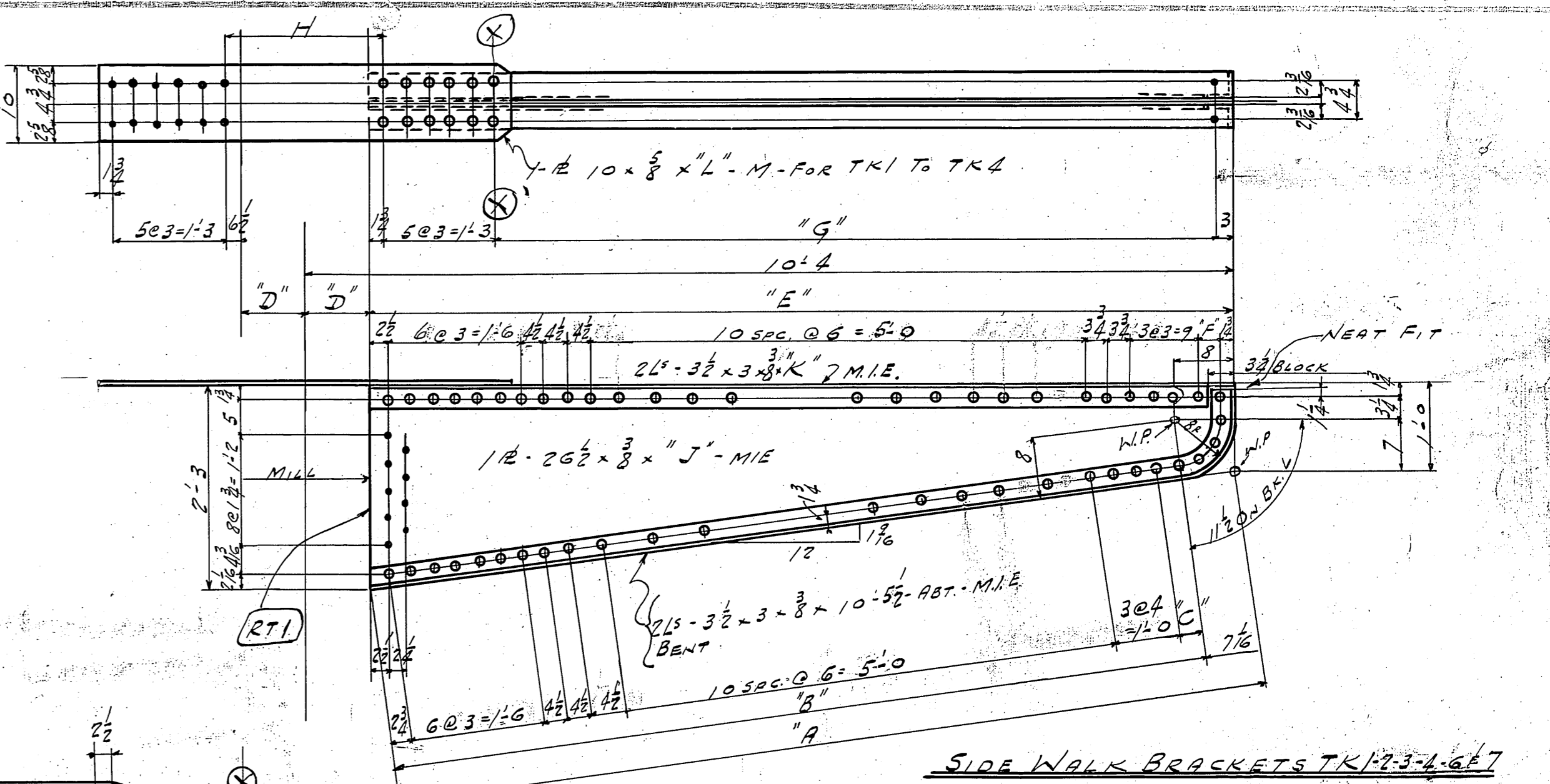
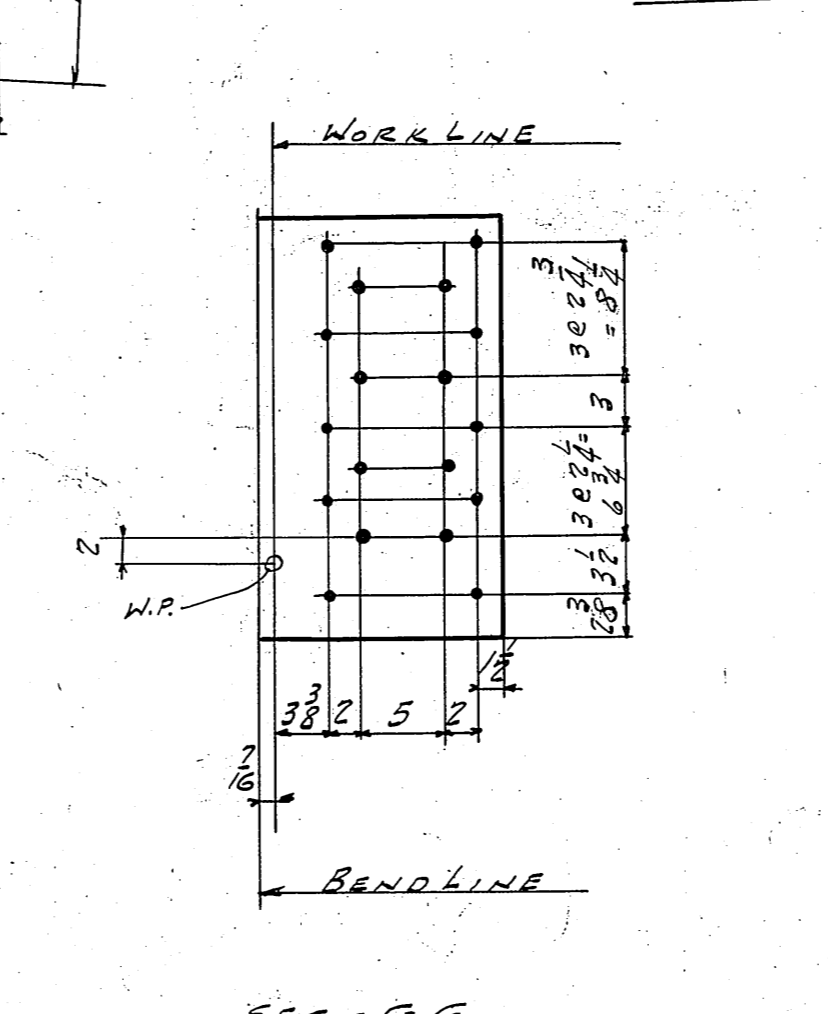
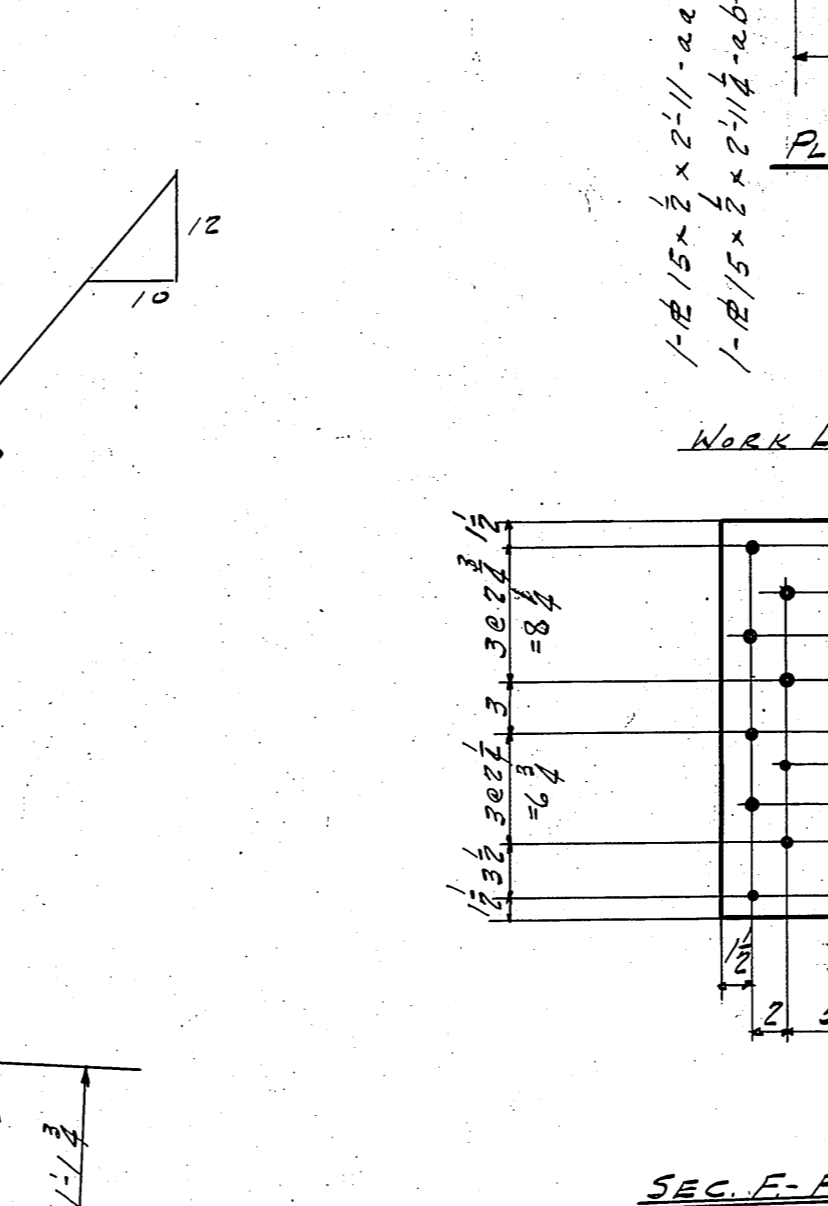
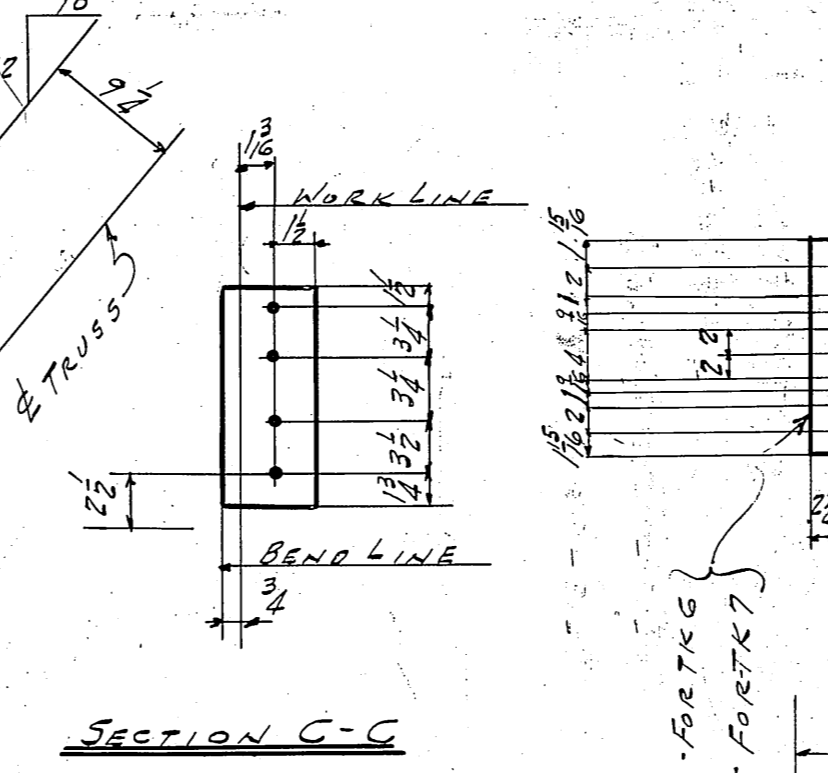
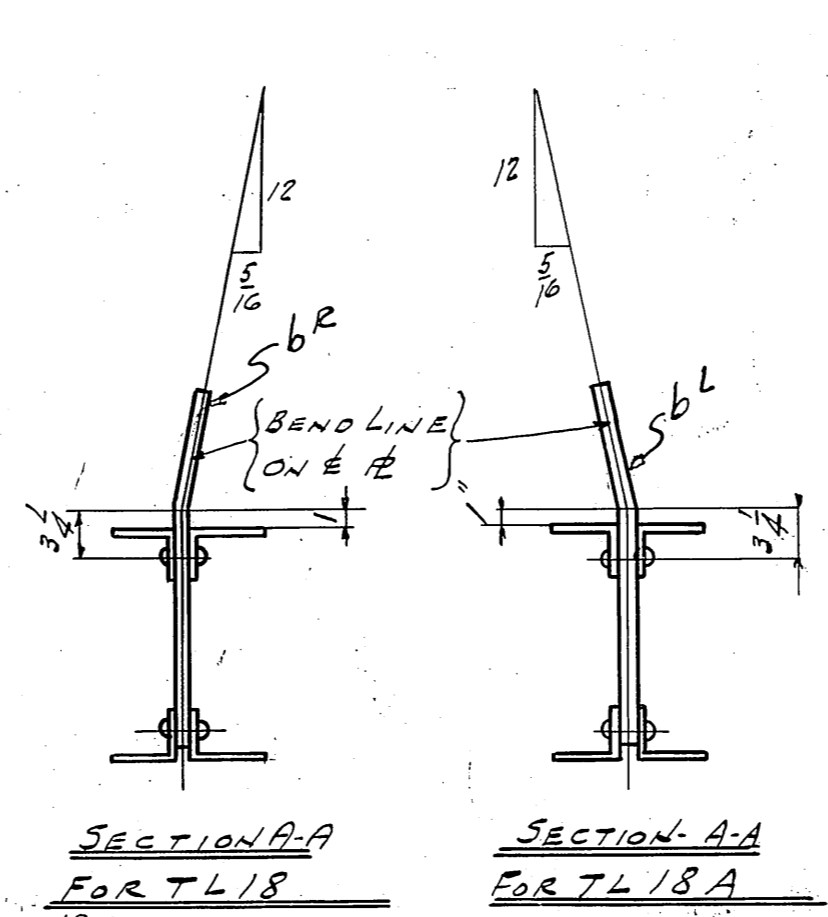
BOTTOM LATERALS - SPANS 5-7 & 10-12
COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTL. - DEPT. PUBLIC WORKS
DETLEFSEN STEEL COMPANY
 FABRICATED STEEL CONNECTION
 Drawings of Rankin - Fabrication at
 IN CHARGE: BORN... MADE BY: J.H.L. 1-15-37
 CHECKED BY: A.T. 2-1-37... TRACED BY: Bosworth 1-25-37
 REVISED BY: A.T. 2-25-37... LAST ASSEM. BY: ...
 SHOP NO. 1... CONTINUED... CC-25875... 553
 PC-TBC-3-5-37



BOTTOM LATERAL TL18
BOTTOM LATERAL TL18A



BOTTOM LATERAL TL19

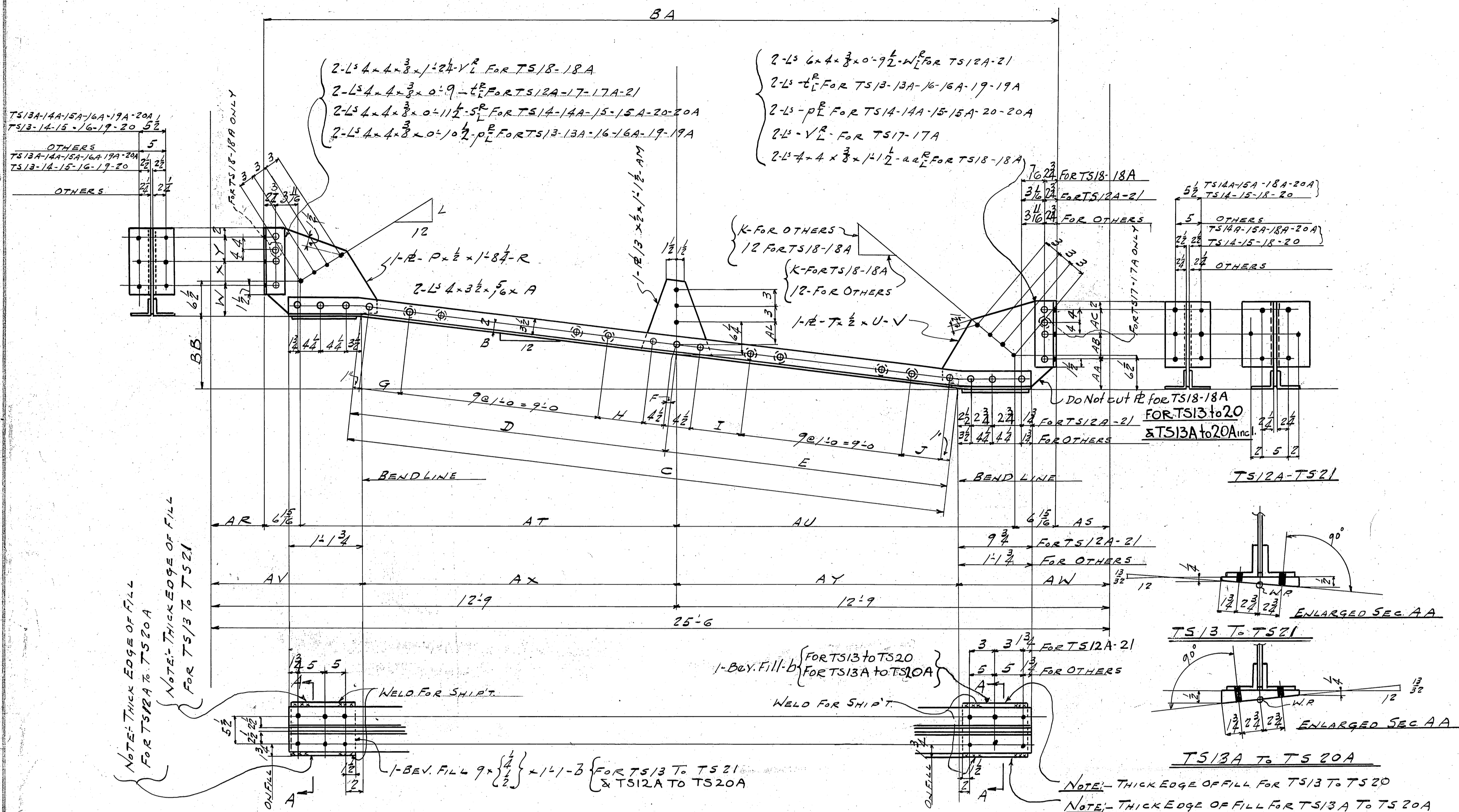


MARK	A	B	C	D	E	F	G	H	J	K	L	M
TK1	9'-8 1/2	9'-1 1/2	2 1/2	8 1/2	9'-7 1/2	3 3/8	7'-11 1/2	2'-1 1/2	9'-7 1/2	9'-7 1/2	4'-10 3/8	D
TK2	9'-8 1/2	9'-1 1/2	3 1/2	8 1/2	9'-7 1/2	3 3/8	7'-11 1/2	2'-1 1/2	9'-7 1/2	9'-7 1/2	4'-10 3/8	S
TK3	9'-8 1/2	9'-1 1/2	2 1/2	8 1/2	9'-7 1/2	3 3/8	7'-11 1/2	2'-1 1/2	9'-7 1/2	9'-7 1/2	4'-11 1/2	E
TK4	9'-8 1/2	9'-1 1/2	2 1/2	8 1/2	9'-7 1/2	3 3/8	7'-11 1/2	2'-1 1/2	9'-7 1/2	9'-7 1/2	4'-11 1/2	V
TK5	9'-8 1/2	9'-1 1/2	2 1/2	8 1/2	9'-7 1/2	3 3/8	7'-11 1/2	2'-1 1/2	9'-7 1/2	9'-7 1/2	4'-11 1/2	V
TK7	9'-8 1/2	9'-1 1/2	2 1/2	8 1/2	9'-7 1/2	3 3/8	7'-11 1/2	2'-1 1/2	9'-7 1/2	9'-7 1/2	4'-11 1/2	V

REQUIRED LIST		
N ^o	DESCRIPTION	MARK
2	BOTTOM LATERALS	TL18
2	"	TL19
10	SIDE WALK BRACKETS	TK1
36	"	TK2
30	"	TK3
4	"	TK4
1	"	TK5
1	"	TK6
2	"	TK7
2	BOTTOM LATERALS	TL18A

GENERAL NOTES:-
RIVETS:- 3/8"
OPEN HOLES:- 1/2"
MATERIAL:- Carbon steel A.S.T.M. A7-34 with .26 copper content, except where noted. All holes may be punched full size except:
REAMING:-
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the side.
SEARED EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance. One coat of RED LEAD except where noted. Shop contact surfaces not painted.
PAINT:-
 Denotes break in stagger.

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTL. - DEPT. PUBLIC WORKS
DEFINITION STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings as shown - Fabrication at
 IN CHARGE: BORN MADE BY: J.H.L. 1-18-37
 CHECKED BY: A.L. 2-3-37 TRACED BY: J.E.P. 1-27-37
 REVISION: LAST ASSEMB. DATE:
 EC. TSC 3557 CONTRACT C.C. 25,875 SHOP NO. 1



REQUIRED LIST			
NO	DESCRIPTION	MARK	REMARK
2	BOTTOM STRUTS	TS13	
2	"	TS14	
2	"	TS15	
2	"	TS16	
4	"	TS17	
4	"	TS18	
2	"	TS19	
2	"	TS20	
2	"	TS21	
2	"	TS12A	
2	"	TS13A	
2	"	TS14A	
2	"	TS15A	
2	"	TS16A	
4	"	TS17A	
4	"	TS18A	
2	"	TS19A	
2	"	TS20A	

MARK	A	B	C	D	E	F	G	H	I	J	K	L	P	R	T	U	V	W	X	Y	AA	AB	AC	AL	AM	AR	AS	AT	AU	AV	AW	AX	AY	BA	BB
TS12A	23'-6 1/2	2 1/2	21'-7	10'-7 1/2	10'-11 3/8	3	7	6 1/2	9	9 1/2	11	6 1/2	13	ad	14 3/4	1'-4	ak	5 3/4	2 3/4	2 3/4	7 3/8	3	3	4 1/2	(W)	8 1/2	10 1/2	11'-5 3/8	11'-3 1/2	2'-3 3/8	2'-0 1/2	10'-5 5/8	10'-8 1/2	23'-10 1/8	3'-11 3/8
TS13	23'-3 1/2	1 5/8	20'-11 1/2	10'-5 1/2	10'-6 3/4	4	5 1/2	5 3/8	6 1/2	6 1/2	7 1/2	5 1/2	14 3/4	ac	12 3/4	1'-8 1/2	am	6	3 1/2	3 1/2	5 3/4	2 3/4	2 3/4	4 1/2	d	9 1/2	8 1/2	11'-4 3/8	11'-5 3/8	2'-4 3/8	2'-3 3/8	10'-4 3/8	10'-5 5/8	23'-11 3/8	2'-2 3/8
TS14	23'-1 1/2	1 5/8	20'-10 1/2	10'-5 1/2	10'-4 1/2	10	5 3/8	5 3/8	5 3/2	5 3/2	5 1/2	15 1/4	ad	14 3/4	1'-8 1/2	ap	6	4	4	6	3 1/2	3 1/2	4 1/2	c	9 1/2	9 1/2	11'-4 1/2	11'-4 3/8	2'-3 1/2	2'-4 3/8	10'-5 5/8	10'-4 3/8	23'-11 1/2	6 1/2	
TS15	23'-1 1/2	1 5/8	20'-10 1/2	10'-5 1/2	10'-5 1/2	10	5 3/8	5 3/8	5 3/2	5 1/2	5 1/2	15 1/4	ad	14 3/4	1'-8 1/2	ap	6	4	4	6	3 1/2	3 1/2	4 1/2	c	9 1/2	9 1/2	11'-4 1/2	11'-4 3/8	2'-3 1/2	2'-3 1/2	10'-5 5/8	10'-5 1/2	23'-11 1/2	6 1/2	
TS16A	23'-3	1 5/8	20'-11 1/2	10'-5 1/2	10'-6 1/2	10	5 3/8	5 3/8	6 3/8	6 3/8	7 1/2	5 1/2	14 3/4	af	13 1/2	1'-8 1/2	as	6	3 1/2	3 1/2	6 3/8	2 3/4	2 3/4	4 1/2	f	9 1/2	8 7/8	11'-4 1/2	11'-5 3/8	2'-3 1/2	2'-3 1/2	10'-5 1/2	10'-5 1/2	23'-11 3/8	1'-7 3/8
TS17	23'-5 1/2	2	21'-2 1/2	10'-7 1/2	10'-6 3/4	5 1/2	6 1/2	6 1/2	6 1/2	6 3/8	10 1/2	6 3/8	13 3/8	ag	18	1'-8 1/2	at	6 3/8	2 3/4	2 3/4	5 3/4	2 3/4	8	4 1/2	g	8 3/8	9 3/8	11'-5 1/2	11'-4 1/2	2'-3 1/2	2'-3 1/2	10'-5 1/2	10'-5 1/2	23'-11 3/8	3'-5 3/8
TS18A	24'-4	3 1/2	22'-0 1/2	10'-10 3/8	11'-2 3/8	10	9	7 5/8	10 1/2	10 1/2	9 1/2	8 1/2	18 1/2	ah	17 1/2	1'-5 1/2	av	5 3/2	2 3/2	8	6	5	5	4 1/2	h	9 3/8	9 1/2	11'-4 1/2	11'-4 1/2	2'-3 1/2	2'-0 1/2	10'-5 1/2	10'-8 1/2	23'-11 1/2	6'-2 1/2
TS19A	23'-3 1/2	1 5/8	20'-11 1/2	10'-5 1/2	10'-6 1/2	10	6	5 1/2	6 3/8	6 3/8	7 1/2	5 1/2	14 3/4	af	13 1/2	1'-8 1/2	as	6	3 1/2	3 1/2	6 3/8	2 3/4	2 3/4	4 1/2	f	9 1/2	8 7/8	11'-4 1/2	11'-5 3/8	2'-3 1/2	2'-3 1/2	10'-5 1/2	10'-5 1/2	23'-11 1/2	1'-7 3/8
TS20	23'-2 3/8	1 5/8	20'-10 1/2	10'-5 1/2	10'-5 1/2	10	6	6	5 1/2	5 1/2	5 1/2	15 1/4	ad	14 3/4	1'-8 1/2	ap	6	4	4	6	3 1/2	3 1/2	4 1/2	c	9	9 1/2	11'-5 1/2	11'-4 3/8	2'-3 1/2	2'-3 1/2	10'-5 1/2	10'-5 1/2	23'-11 1/2	6 1/2	
TS21	23'-6 3/8	2 1/2	21'-6 1/2	10'-7 1/2	10'-11 3/8	3	7	6 1/2	9	9 1/2	11	6 1/2	13	ba	13 3/4	1'-4	ak	5 3/4	2 3/4	2 3/4	7 3/8	3	3	4 1/2	k	8 1/2	10 1/2	11'-5 3/8	11'-3 1/2	2'-3 3/8	2'-0 1/2	10'-5 5/8	10'-8 1/2	23'-10 1/8	3'-10 1/8

GENERAL NOTES:
 RIVETS - 1/8" dia
 OPEN HOLES - 1/16" dia
MATERIAL: Carbon steel A.S.T.M. A36
FINISH: All holes may be punched full size except:
 (a) All holes except RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 3/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/8" thick shall be drilled from the inside.
SEAM EDGES: Edges of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES: Edges of main material shall be planed, chipped or ground and present a smooth, scale-free appearance.
 One corner of each edge shall be noted.
PAINT: Shop contact surfaces not painted.
 Denotes break-in stagger.

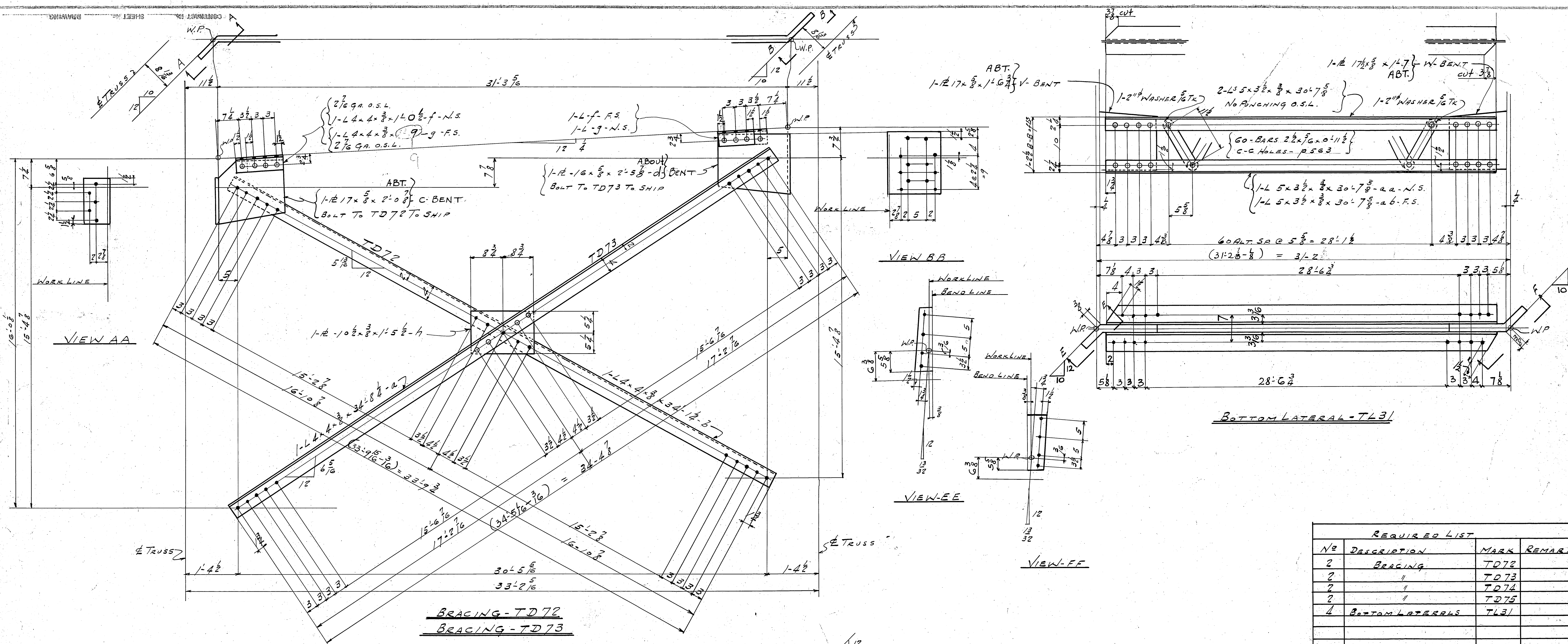
BOTTOM STRUTS - SPAN - 7 TO 10

COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS

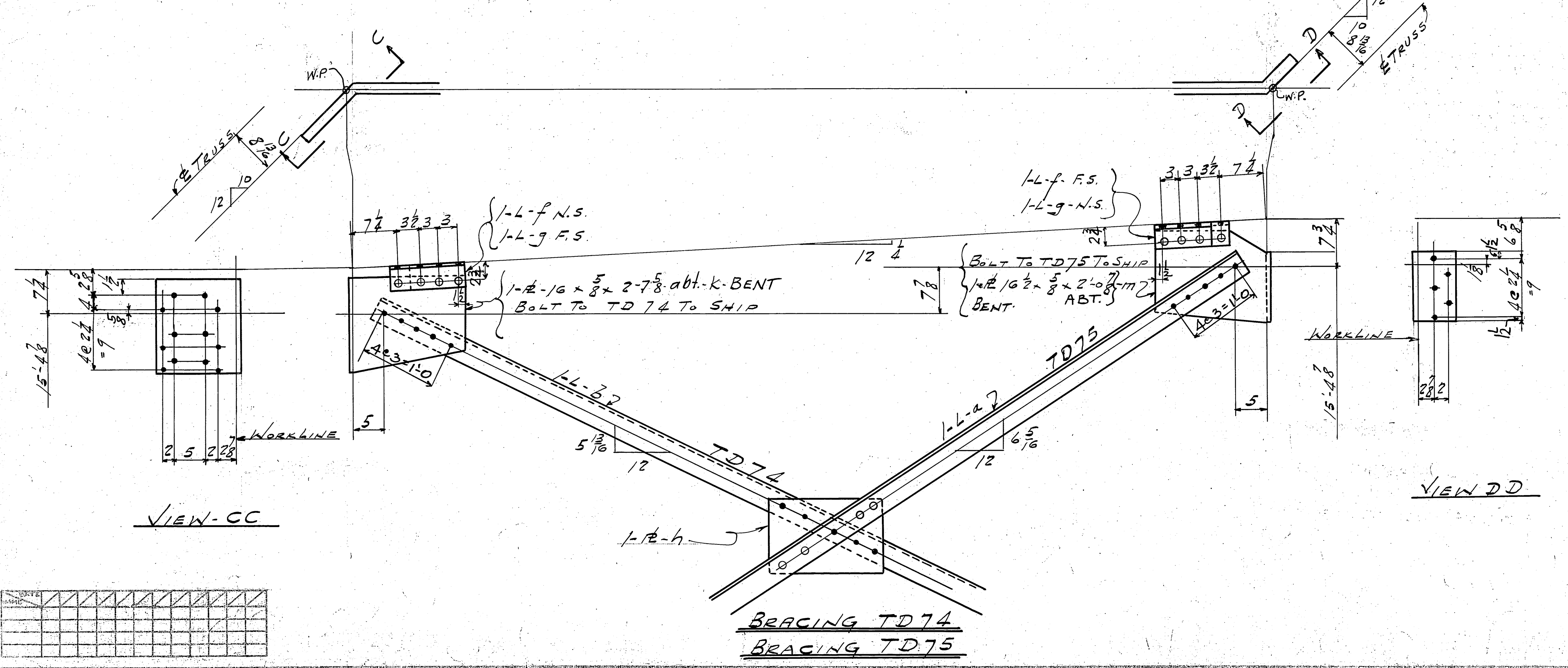
BETHLEHEM STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION

Drawings of Rankin - Fabrication at
 IN CHARGE B.A.N. MADE BY J.P.R. 1-29-57
 CHECKED BY A.M. 2-24-57 TRACED BY J.P.R. 2-18-57
 REVISED LAST ASSEM. NR.

SHOP NO. 1 CONTRACT CC 25875 SHEET 562
 P.C. 78-5/4437 15-9-63



REQUIRED LIST			
No	DESCRIPTION	MARK	REMARK
2	BRACING	TD72	
2	"	TD73	
2	"	TD74	
2	"	TD75	
4	BOTTOM LATERALS	TL31	



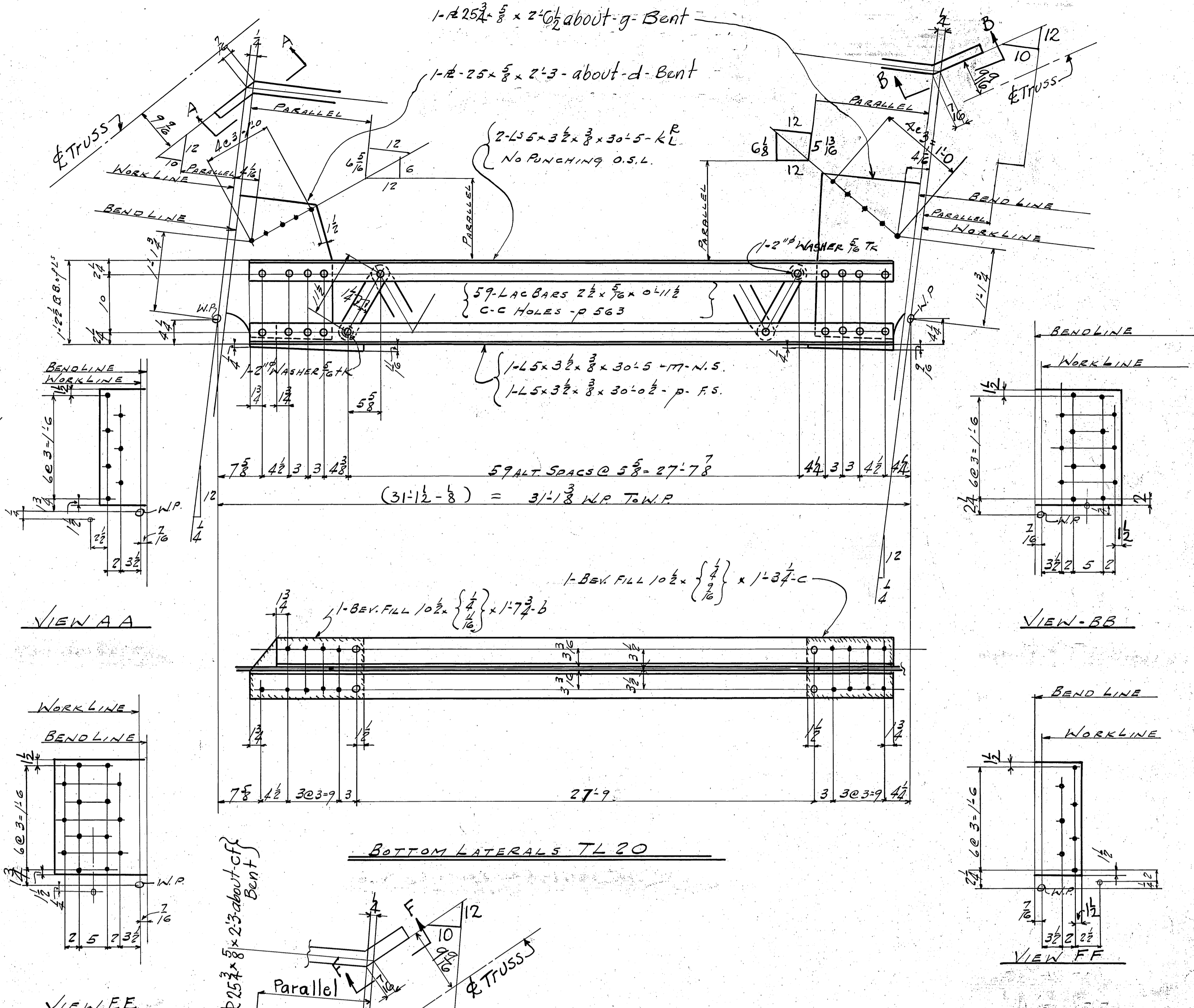
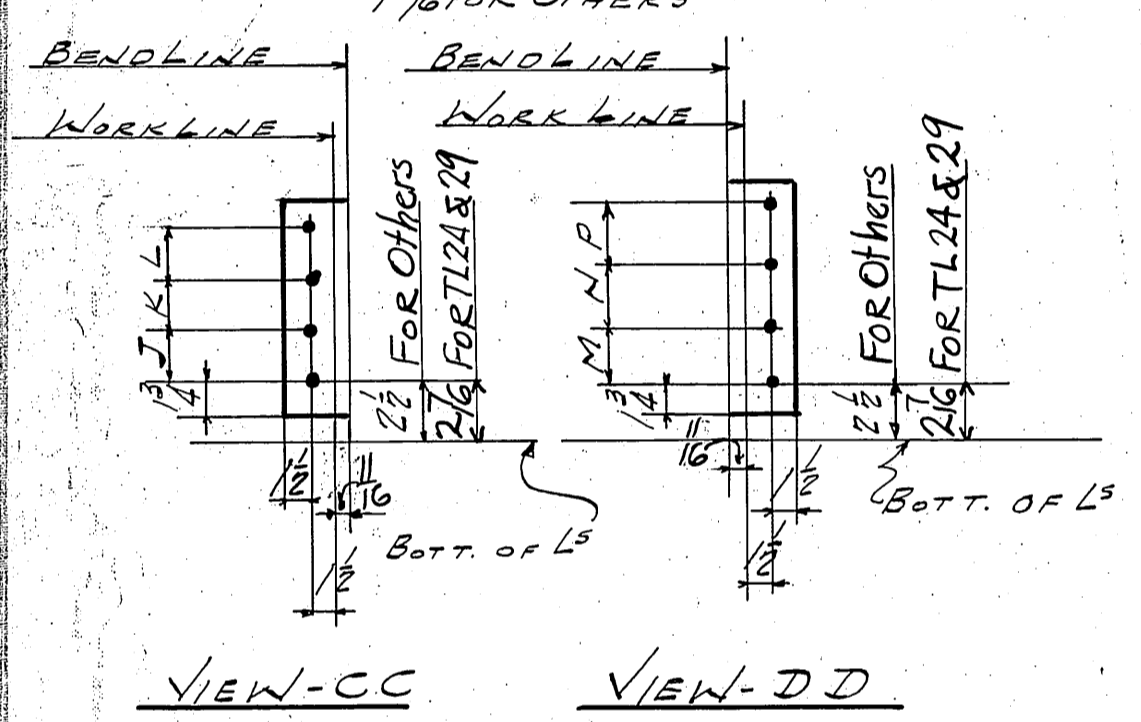
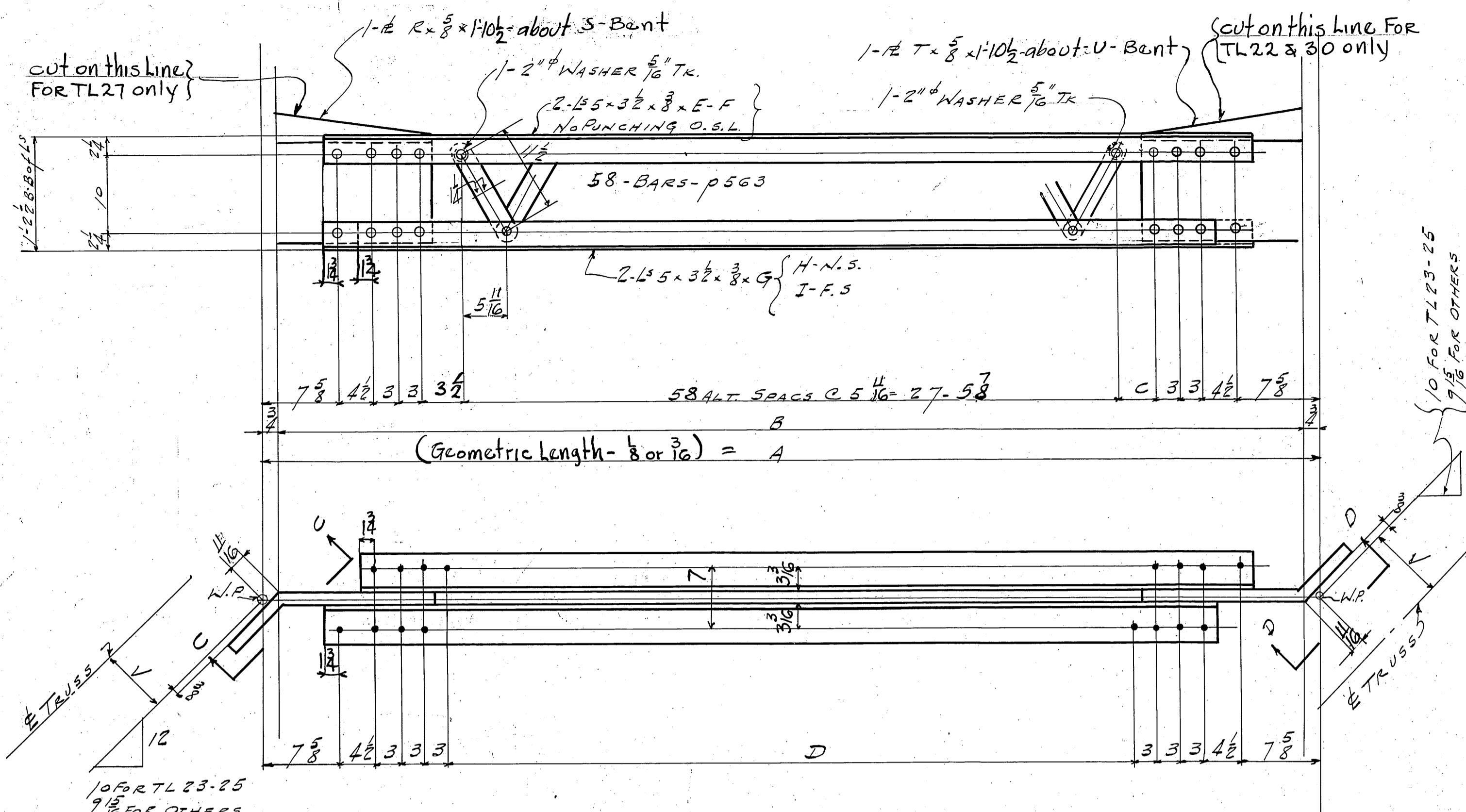
GENERAL NOTES:
 RIVETS: 1/2" dia
 OPEN HOLES: 1/2" dia
MATERIAL: Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
SEAM EDGES of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLAME CUT EDGES of main material shall be planed, chipped or ground and present a smooth workmanlike appearance.
PAINT: One coat of RED LEAD except where noted. Shop contact marks not painted. Draw on break in stagger.

BRACING & BOTTOM LATERALS SPAN 77.5

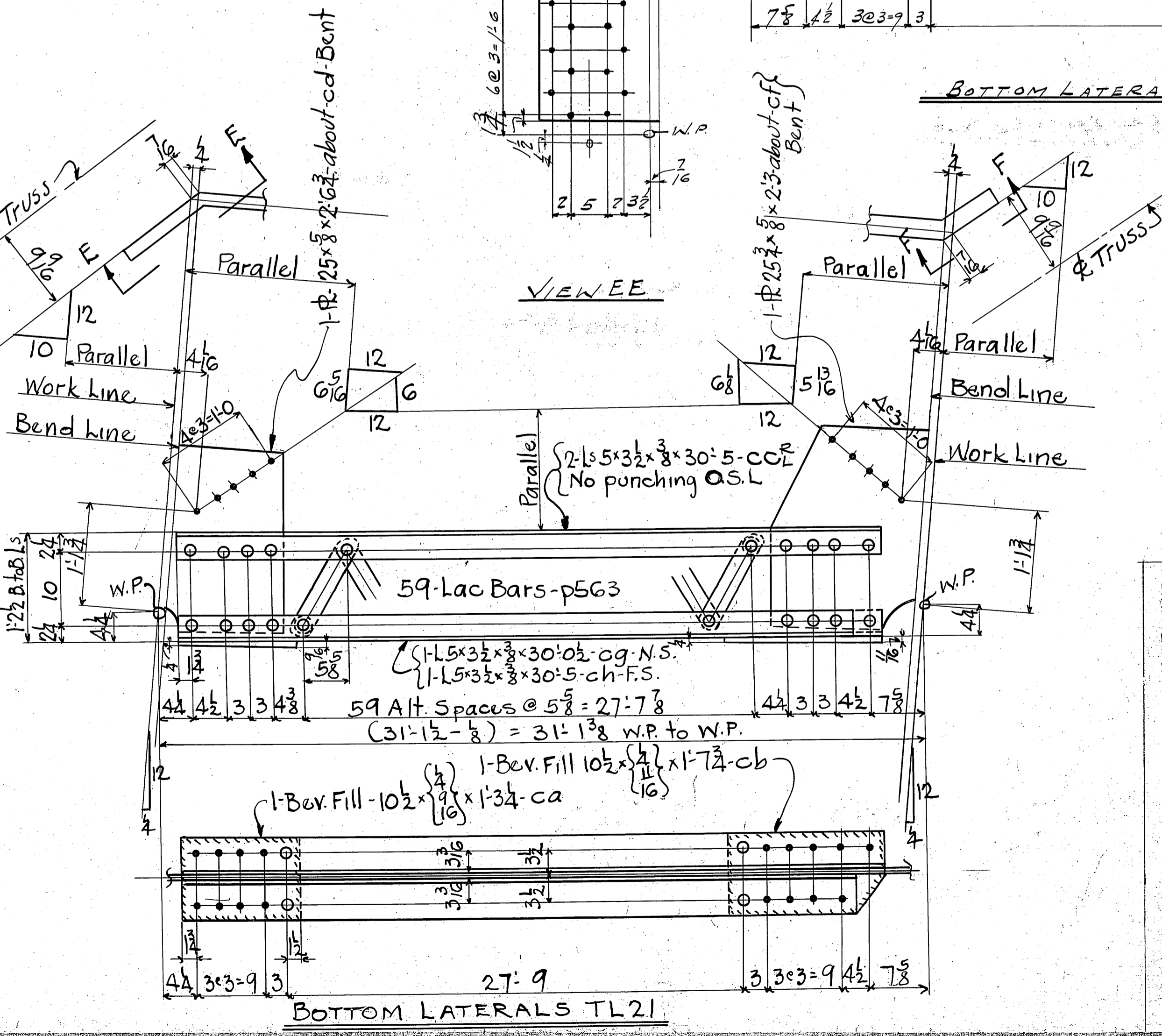
COLUMBIA AVE VIADUCT
 CINCINNATI, OHIO
 CITY OF CINT. - DEPT. PUBLIC WORKS
 DETMERS/ STEEL COMPANY
 FABRICATED STEEL CONSTRUCTION
 Drawings of Rankin - Fabrication at

IN CHARGE: B.A.N. MADE BY: J.P.R. 2-1-37
 CHECKED BY: A.T. 2/2/37 TRACED BY: J.P. 2-17-37
 REVISED: LAST ASSEM. MK.

SHOP NO. 1 CONTRACT C.C. 25875 SHEET 563
 REC. TBC 5/14/37 15-9-64



MARK	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R	S	T	U	V
TL 22	31-2	31-0 $\frac{1}{8}$	4 $\frac{3}{8}$	27-7 $\frac{7}{8}$	30-2 $\frac{1}{2}$	5 $\frac{1}{2}$	27-9 $\frac{3}{4}$	af	av	3 $\frac{1}{2}$	3	3 $\frac{1}{2}$	3 $\frac{1}{2}$	6	13 $\frac{1}{4}$	6h	16 $\frac{1}{2}$	6s	8 $\frac{1}{2}$	
TL 23	31-0 $\frac{7}{8}$	30-1 $\frac{1}{8}$	3 $\frac{3}{4}$	27-6 $\frac{5}{8}$	30-1	5 $\frac{1}{2}$	27-8 $\frac{1}{2}$	ag	an	3 $\frac{1}{2}$	3	3 $\frac{1}{2}$	3	3	13 $\frac{1}{4}$	6v		6v	9 $\frac{1}{2}$	
TL 24	31-1 $\frac{1}{8}$	31-0 $\frac{1}{8}$	4	27-7 $\frac{3}{8}$	30-1 $\frac{1}{4}$	5 $\frac{1}{2}$	27-9 $\frac{1}{2}$	ah	ba	3 $\frac{3}{8}$	3	3 $\frac{3}{8}$	3	3	13 $\frac{1}{4}$	6k		6k	9 $\frac{11}{16}$	
TL 25	31-1 $\frac{1}{8}$	30-1 $\frac{1}{8}$	3 $\frac{1}{2}$	27-6 $\frac{1}{2}$	30-1 $\frac{1}{2}$	5 $\frac{1}{2}$	27-8 $\frac{3}{4}$	ak	bb	3 $\frac{1}{2}$	3	3 $\frac{1}{2}$	3	3		6v		6v	9 $\frac{1}{2}$	
TL 26	31-2 $\frac{1}{8}$	31-0 $\frac{1}{8}$	4 $\frac{1}{2}$	27-7 $\frac{1}{8}$	30-2 $\frac{1}{2}$	5 $\frac{1}{2}$	27-9 $\frac{1}{2}$	am	bc	3 $\frac{1}{2}$	2 $\frac{3}{4}$	2 $\frac{3}{4}$	3 $\frac{1}{2}$	3	13 $\frac{1}{4}$	6m		6h	8 $\frac{11}{16}$	
TL 27	31-1 $\frac{1}{8}$	30-1 $\frac{1}{8}$	3 $\frac{3}{4}$	27-7 $\frac{1}{8}$	30-1 $\frac{1}{2}$	5 $\frac{1}{2}$	27-9	ap	bd	3 $\frac{1}{2}$	2 $\frac{3}{4}$	4 $\frac{1}{2}$	3 $\frac{1}{2}$	2 $\frac{3}{4}$	14 $\frac{1}{2}$	6p		6m	9 $\frac{1}{2}$	
TL 28	31-1 $\frac{1}{2}$	31-0	3 $\frac{3}{8}$	27-7 $\frac{1}{2}$	30-1 $\frac{1}{2}$	5 $\frac{1}{2}$	27-9 $\frac{1}{2}$	as	bf	3 $\frac{1}{2}$	3	3 $\frac{1}{2}$	3	3		6h		6h	9 $\frac{1}{4}$	
TL 29	31-2	31-0 $\frac{1}{8}$	4 $\frac{3}{8}$	27-7 $\frac{1}{2}$	30-2 $\frac{1}{2}$	5 $\frac{1}{2}$	27-9 $\frac{1}{2}$	af	av	3 $\frac{1}{2}$	3	3 $\frac{1}{2}$	3	3		6k		6k	8 $\frac{15}{16}$	
TL 30	31-2	31-0 $\frac{1}{2}$	4 $\frac{3}{8}$	27-7 $\frac{1}{2}$	30-2 $\frac{1}{2}$	5 $\frac{1}{2}$	27-9 $\frac{1}{2}$	af	av	3 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4 $\frac{1}{2}$	4 $\frac{1}{2}$		6h	15 $\frac{1}{2}$	6t	8 $\frac{1}{2}$	



GENERAL NOTES:-
RIVETS:- 3/4
OPEN HOLES:- 1 1/8
MATERIAL:- Carbon steel A.S.T.M. A9-66 with 5% copper content, except where noted. All holes may be punched full size except:
(a) All holes marked RT are to be subpunched 1/8" small and reamed to size as a metal template.
(b) Field connections of trusses shall be subpunched and reamed after trusses are assembled.
(c) Holes in main material over 1/8" thick shall be subpunched 1/8" small and reamed to size.
(d) Holes in main material over 1/4" thick shall be drilled over the full thickness and reamed to size.
(e) Holes in main material over 1/2" thick shall be drilled over the full thickness and reamed to size.
PAINTING:- One coat of RED LEAD except where noted. Shop contact surfaces not painted.
FLAME CUT EDGES of main material shall be flame chipped or ground and present a smooth workmanlike appearance.
WELDING shall be planned to a depth of 2" where noted on detail.
FLAME CUT EDGES of main material shall be flame chipped or ground and present a smooth workmanlike appearance. (One coat of RED LEAD except where noted. Shop contact surfaces not painted.)
WELDED Denotes break in stagger.

REQUIRED LIST			
N ^o	DESCRIPTION	MARK	REMARK
2	BOTTOM LATERALS	TL20	
2	"	TL21	
2	"	TL22	
4	"	TL23	
4	"	TL24	
4	"	TL25	
8	"	TL26	
8	"	TL27	
4	"	TL28	
2	"	TL29	
2	"	TL30	

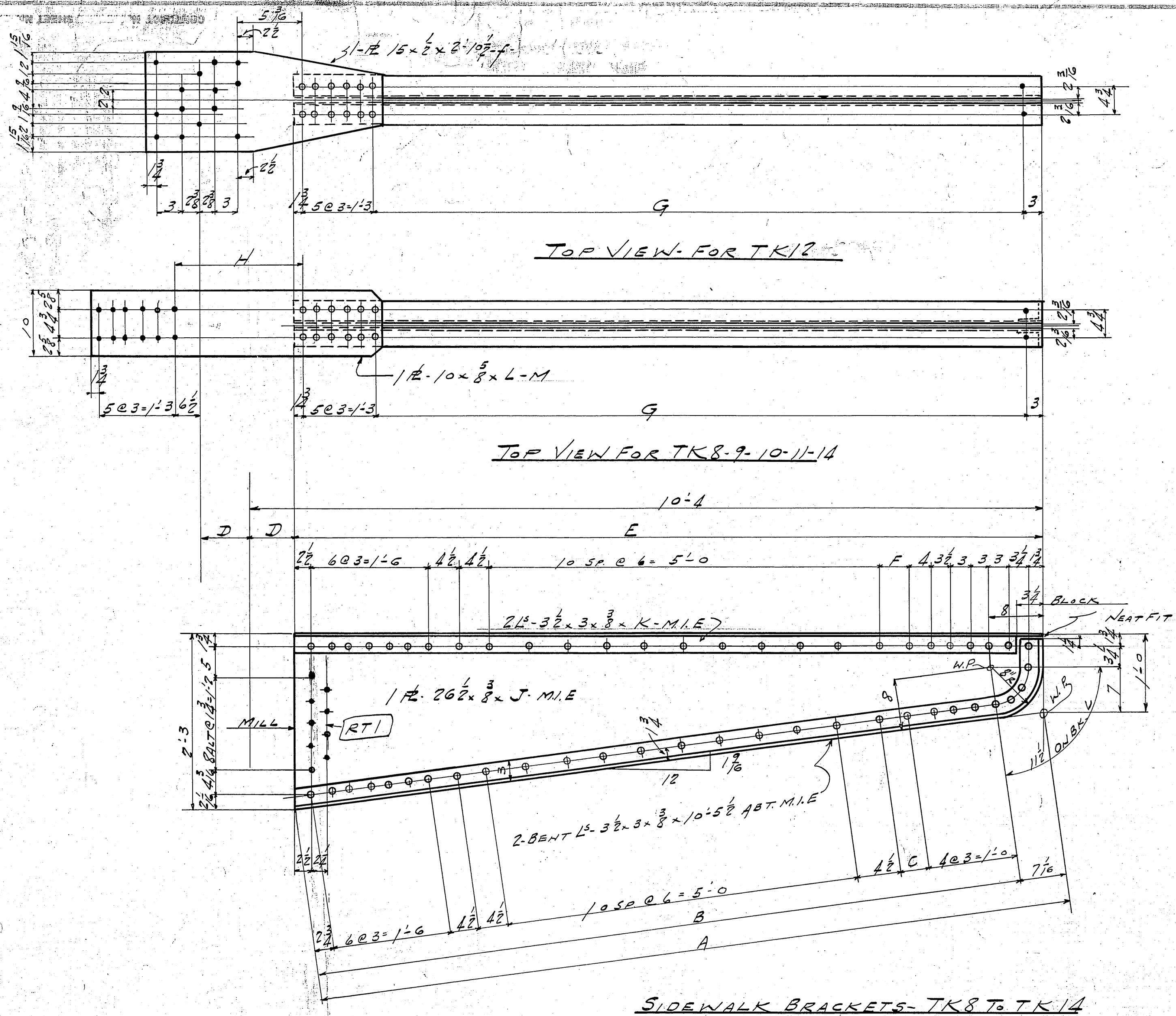
BOTTOM LATERALS SPAN 7'-10"

COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CMT. DEPT. PUBLIC WORKS

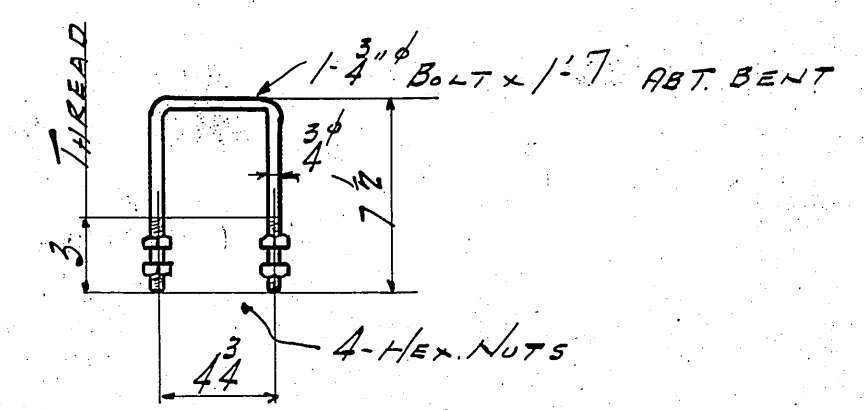
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
Drawings at Rankin Fabrication

IN CHARGE: B.A.N. MADE BY: J.P.R. 2-2-57
CHECKED BY: A.C. 27-AT. TRACED BY: J.P.R. 2-17-57
REVISED: LAST ASSEM. INK.

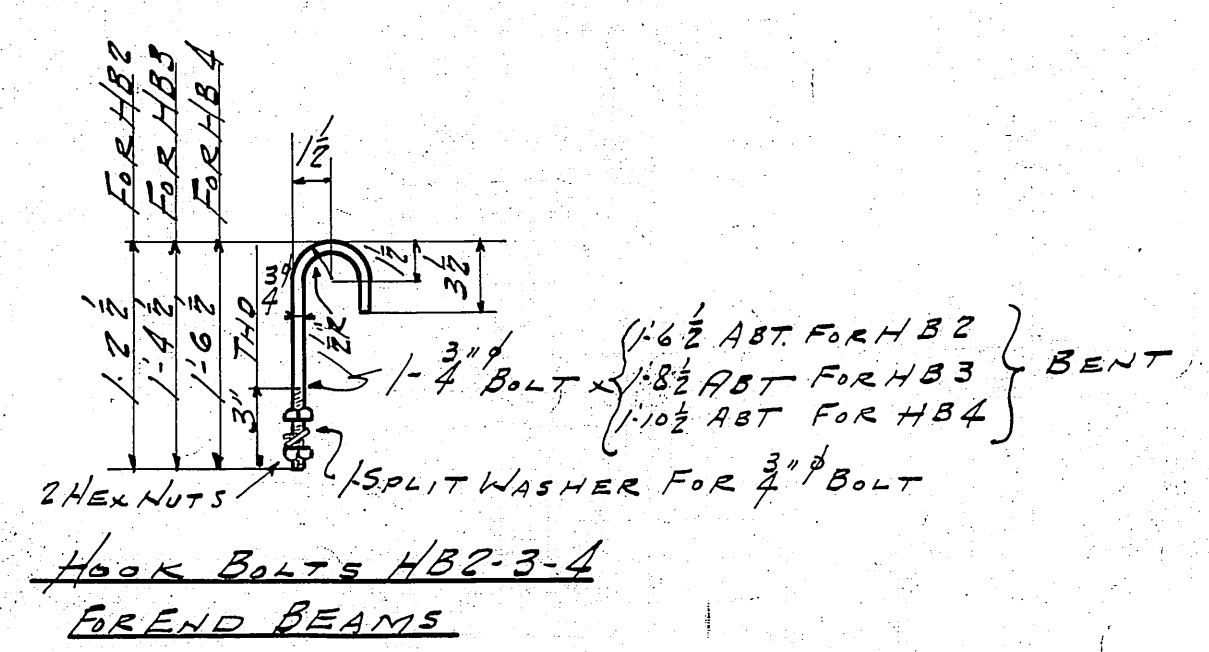
SHOP NO. 1/1 CONTRACT CC25875 SHEET 564
FC 78C 5/4/57 15-9-65



MARK	A	B	C	D	E	F	G	H	J	K	L	M
TK8	9'-8 1/2"	9'-1 1/2"	3 3/8"	8 1/8"	9'-7 1/8"	4 1/8"	7-11 1/8"	2'-1 1/8"	9'-7 3/8"	9'-7 1/8"	4'-10 1/8"	a
TK9	9'-8 1/2"	9'-1 1/2"	3 3/8"	8 1/8"	9'-7 1/8"	4 1/8"	7-11 1/8"	2'-1 1/8"	9'-7 3/8"	9'-7 1/8"	4'-10 1/8"	b
TK10	9'-8 1/2"	9'-1 1/2"	2 1/8"	8 1/8"	9'-7 1/8"	4 1/8"	7-11 1/8"	2'-1 1/8"	9'-7 3/8"	9'-7 1/8"	4'-11 1/8"	c
TK11	9'-8 3/8"	9'-1 1/8"	2 1/8"	8 1/8"	9'-7 1/8"	4 1/8"	7-11 1/8"	2'-1 1/8"	9'-7 3/8"	9'-7 1/8"	4'-11 3/8"	d
TK12	9'-8 3/8"	9'-1 1/8"	2 1/8"	8 1/8"	9'-7 1/8"	4 1/8"	7-11 1/8"	2'-1 1/8"	9'-7 3/8"	9'-7 1/8"	4'-11 3/8"	e
TK14	9'-8 3/8"	9'-1 1/8"	2 1/8"	8 1/8"	9'-7 1/8"	4 1/8"	7-11 1/8"	2'-1 1/8"	9'-7 3/8"	9'-7 1/8"	4'-11 3/8"	f



U-BOLTS-HB1
FOR SIDEWALK BRACKETS
 42 BOLTS FOR #1 INST.
 30 " FOR #4 INST.
 28 " FOR #5 INST.
 32 " FOR #6 INST.
 42 " FOR #7 INST.



INST.	HB2	HB3	HB4
1	4	8	12
4	2	4	6
6	2	4	6
7	4	8	12

GENERAL NOTES:
RIVETS: 1/2"
OPEN HOLES: 1/2"
MATERIAL: Carbon steel A.S.T.M. A7-34 with .2% copper content, except where noted. All holes may be punched full size except:
 (a) All holes marked RT are to be subpunched 1/8" small and reamed to size to a metal template.
 (b) Field connections of trusses shall be subpunched and reamed after truss is assembled.
 (c) Holes in main material over 5/8" thick shall be subpunched 1/8" small and reamed to size.
 (d) Holes in main material over 3/4" thick shall be drilled from the solid.
PREPARED EDGES: of main material over 5/8" thick shall be planed to a depth of 1/4" where noted on details.
FLANGE CONNECTIONS: of main material shall be planed, chipped, or ground and present a smooth workmanlike appearance.
PAINT: One coat of RED LEAD except where noted. Shop contact surfaces not painted.
 Denotes break in stagger.

REQUIRED LIST			
NO	DESCRIPTION	MARK	REMARKS
30	SIDEWALK BRACKETS	TK8	
4	"	TK9	
4	"	TK10	
46	"	TK11	
2	"	TK12	
4	"	TK14	
174	U-BOLTS	HB1	
12	HOOK BOLTS	HB2	
24	"	HB3	
36	"	HB4	

SIDEWALK BRACKETS AND HOOK BOLTS SPANS 5 TO 7 TO 10 TO 12
COLUMBIA AVE VIADUCT
CINCINNATI, OHIO
CITY OF CINTI. - DEPT. PUBLIC WORKS
DETROIT STEEL COMPANY
 FABRICATED STEEL
 100 CHRYSLER BLDG. NEW YORK, N.Y.
 IN CHARGE: BARN
 CHECKED BY: AT 3-3-37
 REVISED BY: J.P. 2-22-37