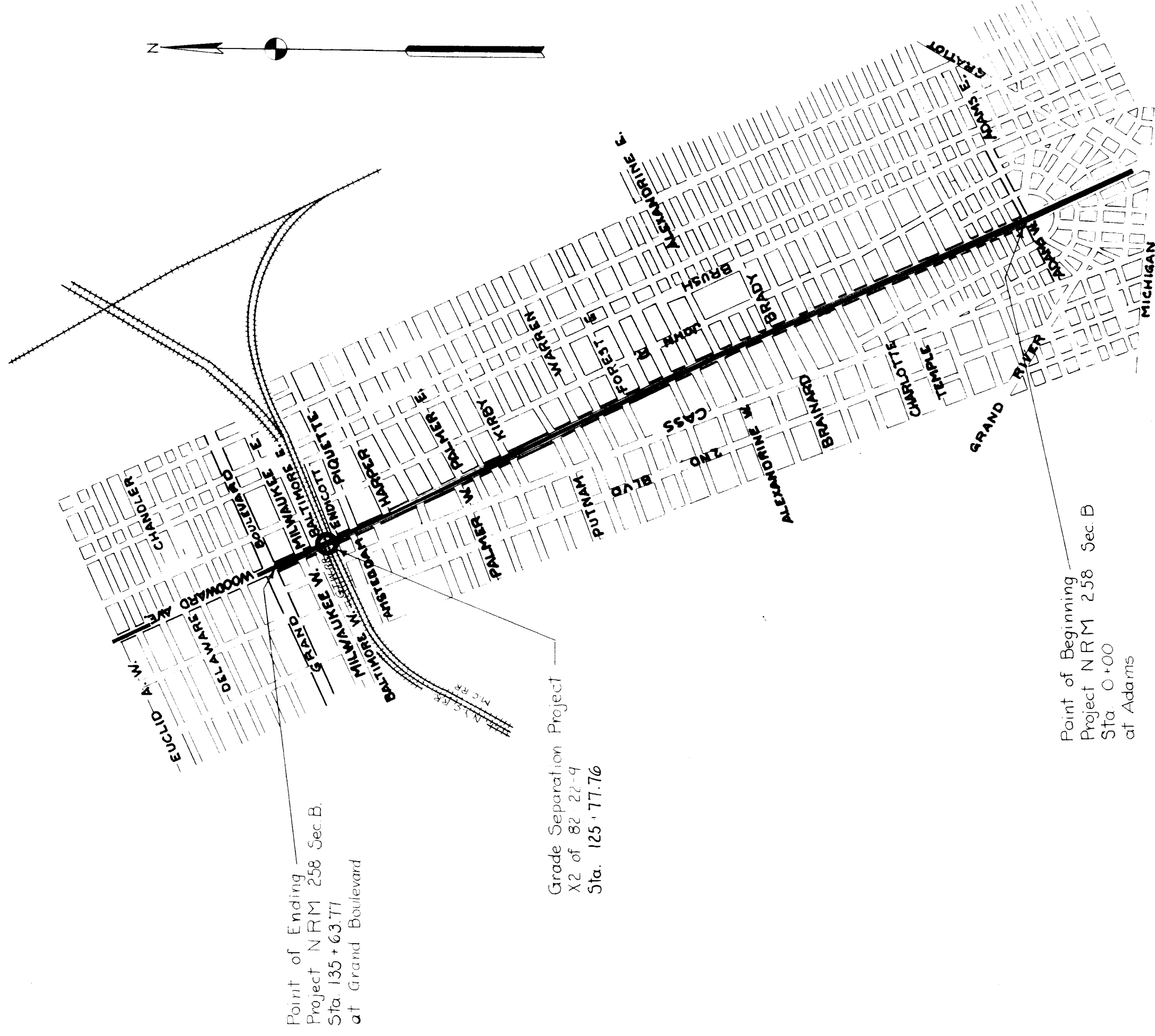


SEE SHEET No. 2
FOR INDEX

MICHIGAN
STATE HIGHWAY DEPARTMENT
MURRAY D. VAN WAGONER
COMMISSIONER

PLAN AND PROFILE OF PROPOSED
WORKS PROJECT NO. NRM 258 SEC. B
DETROIT - PONTIAC ROAD
WAYNE COUNTY
CITY OF DETROIT



FED. ROAD DIST. NO.	STATE PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	258	1934	1	44
ROUTE	COUNTY	TWP.	SHEET NO.	TOTAL SHEETS
US 101062-35	WAYNE	WYANDOT	1	44
GRADE SEPARATION PROJECT X 2 OF 82-22-9				
CONTRACT NO.				2

APPROVED FOR NEW YORK CENTRAL RAILROAD
Benjamin
CHIEF ENGINEER
DATE: 11-27-33

APPROVED FOR MICHIGAN CENTRAL RAILROAD
Benjamin
CHIEF ENGINEER
DATE: 11-27-33

APPROVED FOR GRAND TRUNK WESTERN RAILROAD
W. J. ...
CHIEF ENGINEER
DATE: 11-27-33

APPROVED FOR CITY OF DETROIT
W. J. ...
COMM. OF PUBLIC WORKS
DATE: 11-28-33

CHECKED
CHIEF DRAFTSMAN
W. J. ...
BRIDGE ENGR. MUNICIPAL ENGR. 11/28-33

CORRECT
ENGINEER OF BRIDGE DESIGN
W. J. ...
ENGINEER OF ROAD DESIGN
DATE: 11-28-33

RECOMMENDED FOR APPROVAL
ROAD ENGINEER
W. J. ...
DATE: 11-28-33

APPROVED
STATE HIGHWAY COMMISSIONER
H. C. ...
DEPUTY AND CHIEF ENGINEER
DATE: 11-28-33

RECOMMENDED FOR APPROVAL
DISTRICT ENGINEER
BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL
CHIEF ENGINEER
BUREAU OF PUBLIC ROADS

APPROVED
CHIEF
BUREAU OF PUBLIC ROADS

TITLE SHEET LEGEND

PROJECT	---
F.A. PAVED	=====
F.A. IMPROVED NOT PAVED	-----
F.A. UNIMPROVED	-----
OR F.A. PAVED	-----
OR F.A. IMPROVED NOT PAVED	-----
OR F.A. UNIMPROVED	-----
LINE	-----
VILLAGE	-----
P. LINE	-----
LINE	-----
LINE	-----

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6	Railway Track Plan & Profile (At Woodward Ave.)
7	Railway Track Plan & Profile (East of Woodward Ave.)
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10	M.C.R.R. West Abutment - Sections.
11	M.C.R.R. East Abutment - Plan & Elevation.
12	M.C.R.R. East Abutment - Sections.
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G	M.C.R.R. General Plan of Masonry
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J	M.C.R.R. South Abutment (Two Sheets)
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T	North Retaining Wall (At curb)
K	South Retaining Wall (At curb)

MICHIGAN STATE HIGHWAY DEPARTMENT
MURRAY D. VAN WAGONER - COMMISSIONER
 WAYNE CO.

BRIDGE FILE NO. X2 OF 82-22-9 ROAD WOODWARD AVE. U.S. 10
 CROSSING M.C.R.R. - N.Y.C.R.R. - G.T.W.R.R. IN CITY OF DETROIT

GENERAL NOTES - INDEX - BILL OF MATERIAL

FOR MICHIGAN STATE HIGHWAY DEPARTMENT
 APPROVED: *[Signature]*
 APPROVED: *[Signature]*
 APPROVED: *[Signature]*
 FOR GRAND TRUNK WESTERN RAILROAD COMPANY
 APPROVED: *[Signature]*
 FOR MICHIGAN CENTRAL & NEW YORK CENTRAL R.R. CO.
 APPROVED: *[Signature]*

DATE: January 25, 1934

SQUAD BOSS: *[Signature]* 1-22-34
 DRAWN BY: *[Signature]* 1-22-34
 CHECKED BY: *[Signature]* 1-23-34
 SHEET 2 OF 44

GENERAL NOTES

Except where otherwise indicated on these plans or in the Proposal and Supplementary Specifications contained therein, all materials and workmanship shall be in accordance with the Michigan State Highway Department's Standard Specifications for Roads and Bridges, 1928 Edition.

The character of all materials and extent thereof as shown by borings has been obtained by methods and from sources believed to be reliable. The exactness of this information is, however, in no case guaranteed.

All concrete shall be Grade "A" concrete mixed in accordance with the Supplemental Specifications for "Proportioning" with Class "B" aggregates unless otherwise noted or directed by the Engineer.

Name plates will be furnished by the Michigan State Highway Department and shall be carefully set by the Contractor by means of expansion anchors as directed by the Engineer.

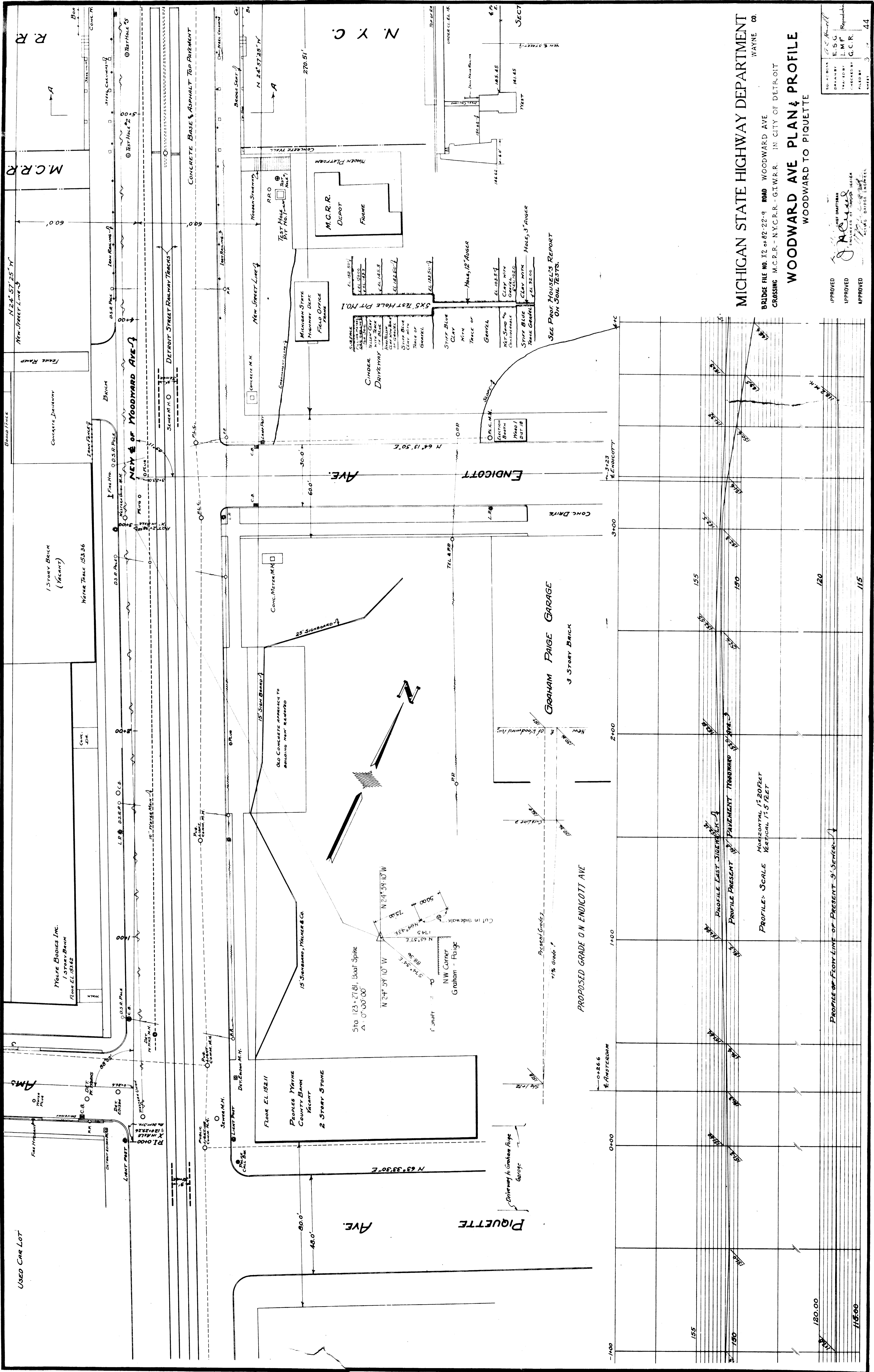
On stepped footings, care shall be taken that excavation is not carried below respective footing step levels before sheeting is in place so as to provide a minimum of disturbance of foundation soil.

BILL OF MATERIALS

ITEMS	Removal of Old Concrete			Excavation & Backfill			Concrete						Structural Steel		Waterproofing				Drainage									
	Cu Yds	Lin. Ft.	Sq. Yds	General Excavation	Foundation Excavation	Special Backfill	Cu Yds	Cu Yds	Cu Yds	Cu Yds	Cu Yds	Cu Yds	Cu Yds	Lim. Ft.	Lim. Ft.	Lbs.	Lbs.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Lim. Ft.	Lim. Ft.					
M.C.R.R. West Abutment	245			3330	315	1060	251.5	212.0	233.7							124,840	44,892	3,694	3,544	1076	34	1126	2800	175				
M.C.R.R. East Abutment				2300	315	1050	1254.7	210.5	233.4							123,252	44,892	3,574	3,544	1076	34	1126	2800	170				
G.T.W.R.R. West Abutment	160			1368	174	600	726.1	387.7	386.8							72,473	25,642	2,355	2,255	482			1100	115	36			
G.T.W.R.R. East Abutment	257			1623	194	630	1022.0	193.5	386.8							72,473	25,642	2,385	2,255	482			1100	120	36			
Street Retaining Wall (Cur-b M.C.R.R.)	70			50	50	20	228.9	57.2								2,707		345	345	505	50			836	92	48		
South East Wing Wall M.C.R.R.	142			98	45	100	186.1	55.1								5,945				508	36			508	48			
South West Wing Wall G.T.W.R.R.				100	76	140	266.4	90.1								8,204				832	136			400	42			
North Wing Walls G.T.W.R.R.																56,000	168,714							300	46			
M.C. & N.Y.C.R.R. Superstructure	143						568.0																					
G.T.W.R.R. Superstructure							381.5																					
G.T.W.R.R. W. Wall Capping				482		450	346.1																					
G.T.W.R.R. W. Wall Reconstruction	860			2785	302	1900	1900.4	543.5																				
Cass Ave. Bridge				40		15	64.0																					
Temporary Fill For Trestle				1430																								
Side walks																												
TOTALS	143	2147	1106	17	14,636	1647	6,955	8,939.2	2,179.5	1228.7	1268.2	276.2	582.3	3.711	1200	561,267	632,818	183.0	18,734	18,316	11,864	3768	5500	12,530	808	120	1252	

REVISIONS

NO.	DESCRIPTION	DATE	BY



MICHIGAN STATE HIGHWAY DEPARTMENT
 WAYNE CO.
 BRIDGE FILE NO. X2 of 82-22-9 ROAD WOODWARD AVE
 CROSSING M.C.R.R. - N.Y.C.R.R. - G.T.W.R.R. IN CITY OF DETROIT
WOODWARD AVE PLAN & PROFILE
 WOODWARD TO PIQUETTE

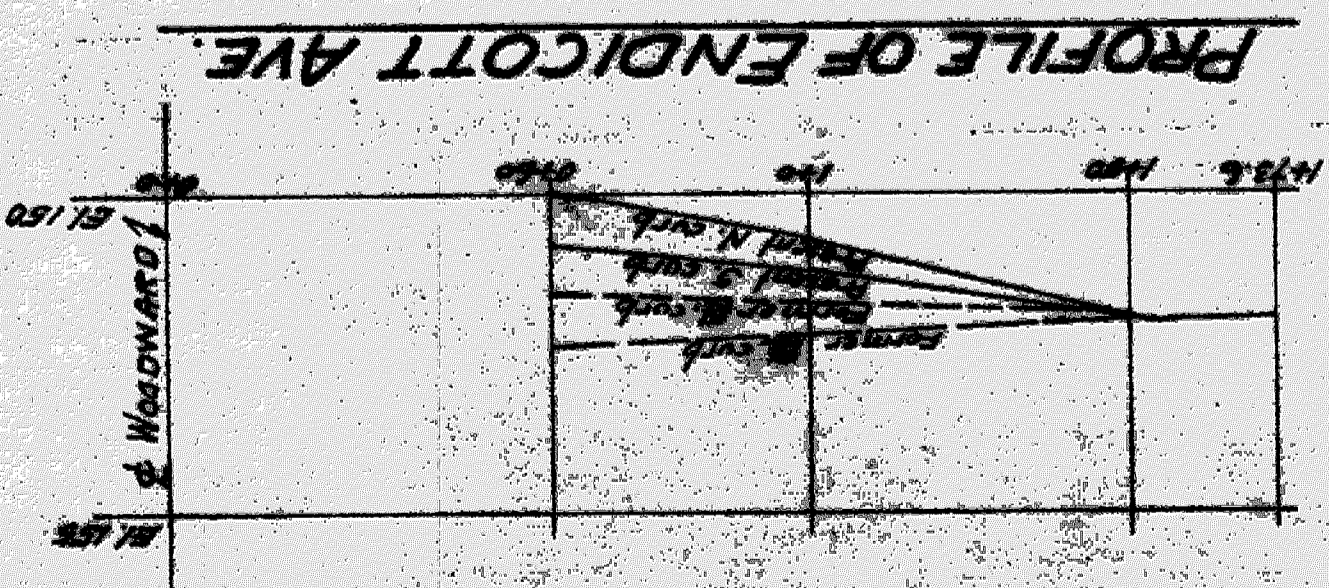
APPROVED
 APPROVED
 APPROVED

FILED BY
 DRAWN BY
 CHECKED BY
 FILED BY

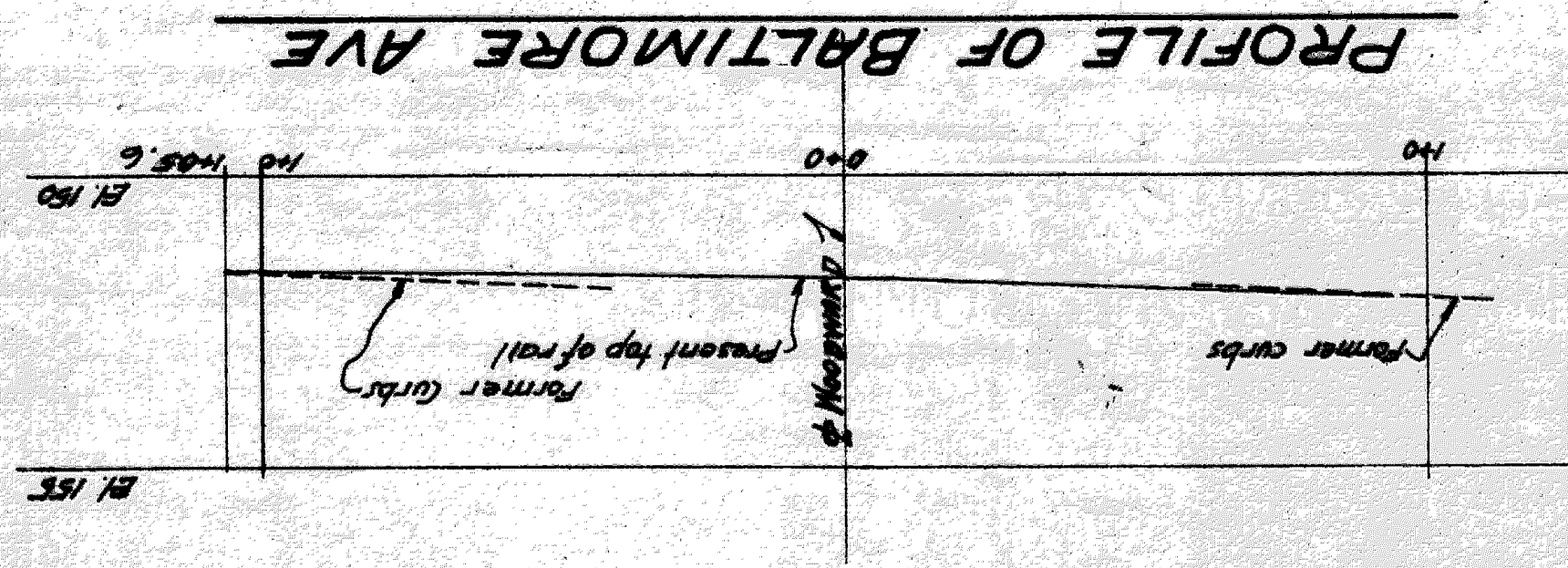
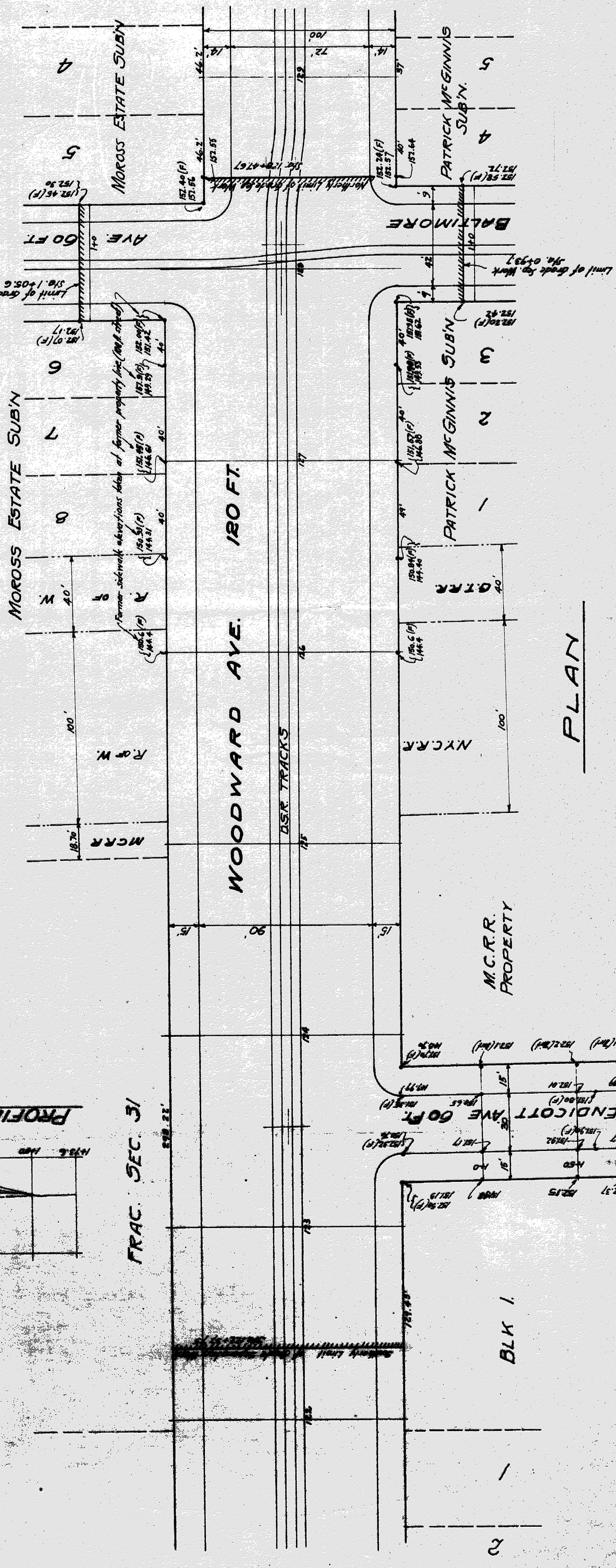
ESG
 LMF
 G.C.R.

3 44

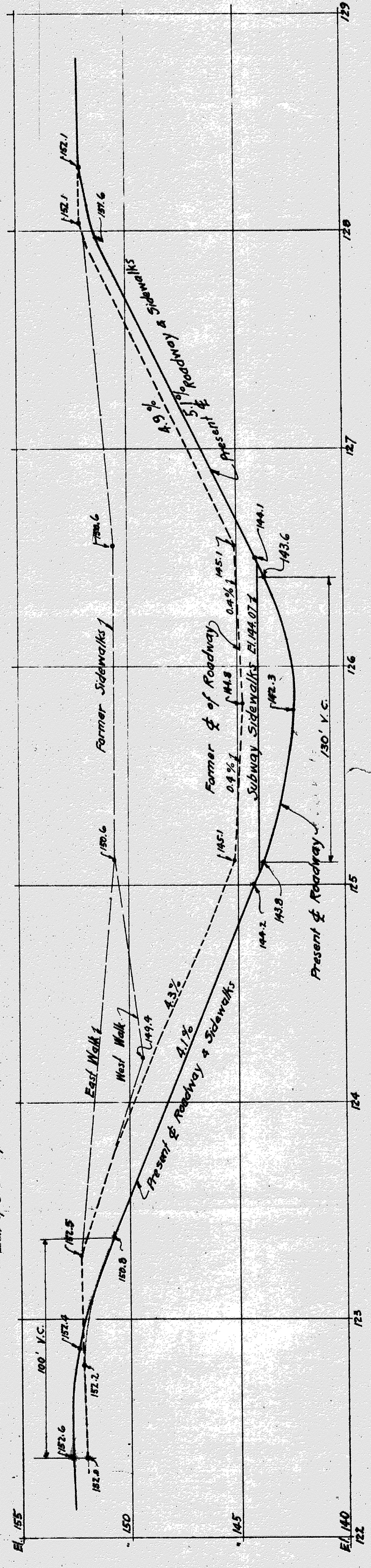
File No. 1-3



FRAC. SEC. 31



All Elevations refer to City Datum
All former elevations marked (F). Those not marked are present.

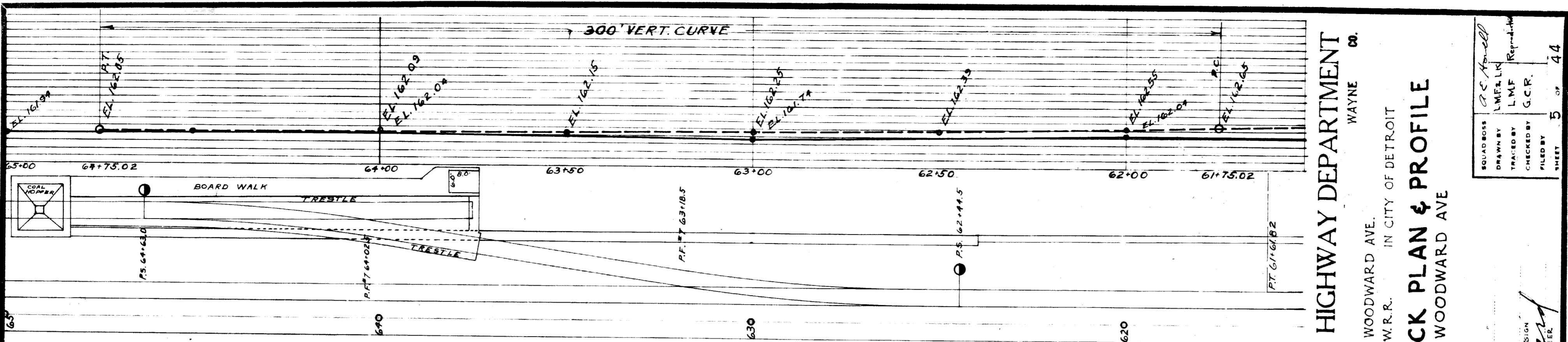


CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEERS OFFICE

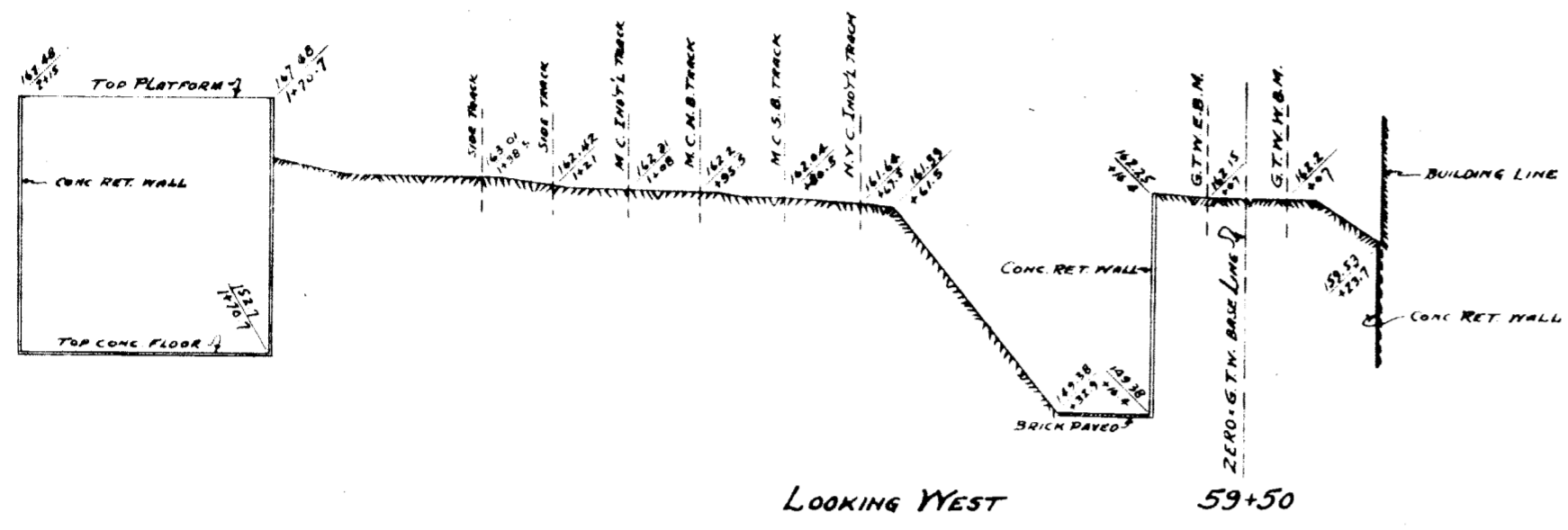
WOODWARD AVE. GRADE SEPARATION
(RECONSTRUCTION)
PAVEMENT
PLAN & PROFILE

SCALE: HORIZONTAL 1" = 30 FT. SEPT. 20, 1935.
MADE BY: R.S. CHECKED BY:

FIELD BOOK W-515
File XU1-6(a)

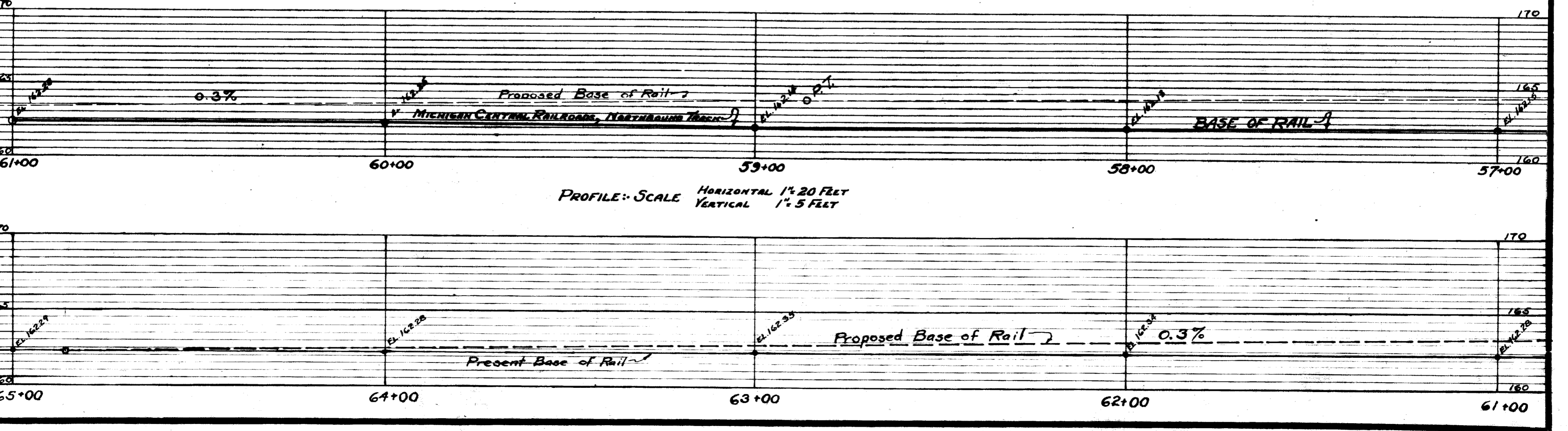
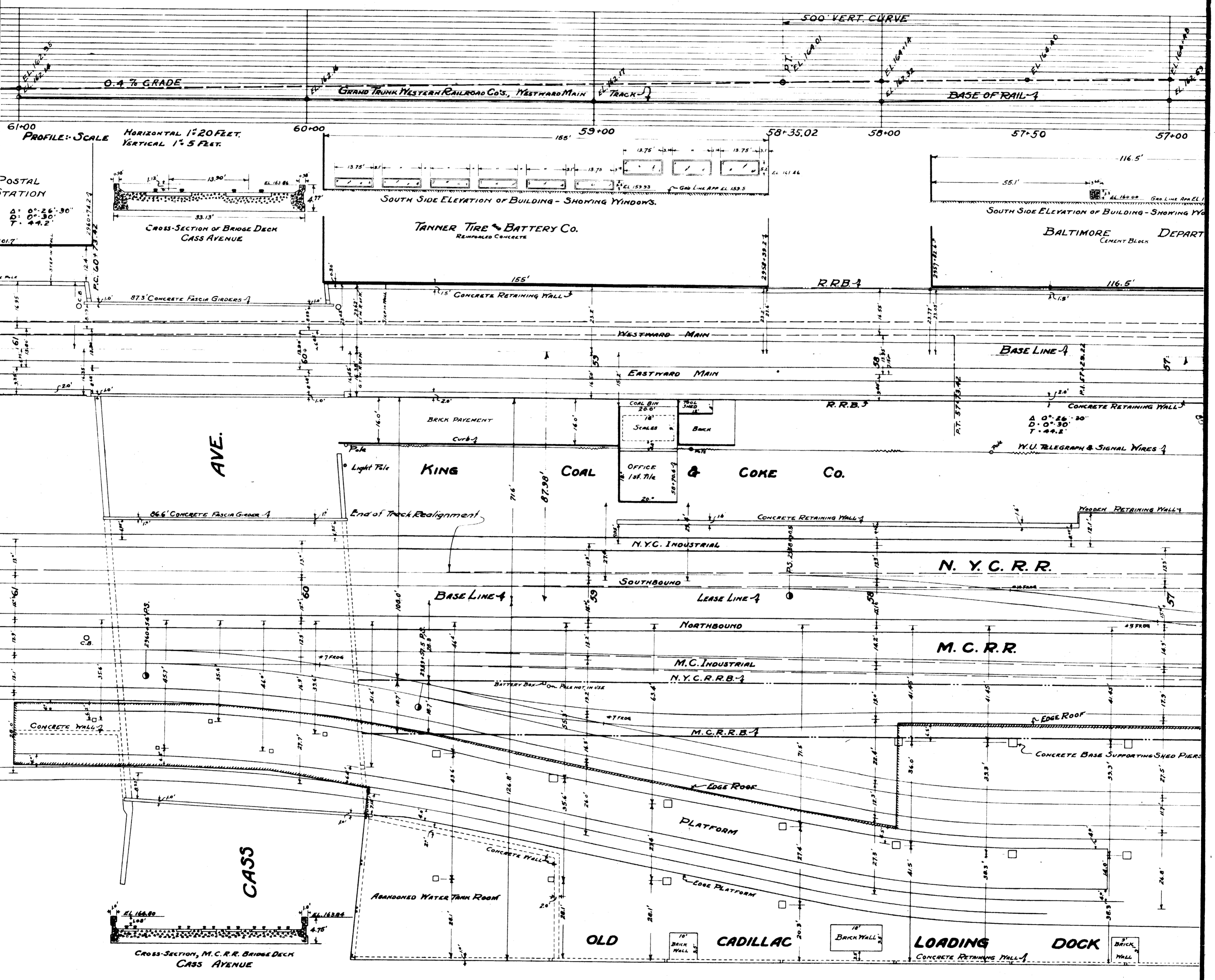


PLAN & PROFILE.
G.T.W. WEST OF CASS AVENUE.
SCALE HORIZ. 1 IN. = 20 FT.
VERT. 1 IN. = 5 FT.



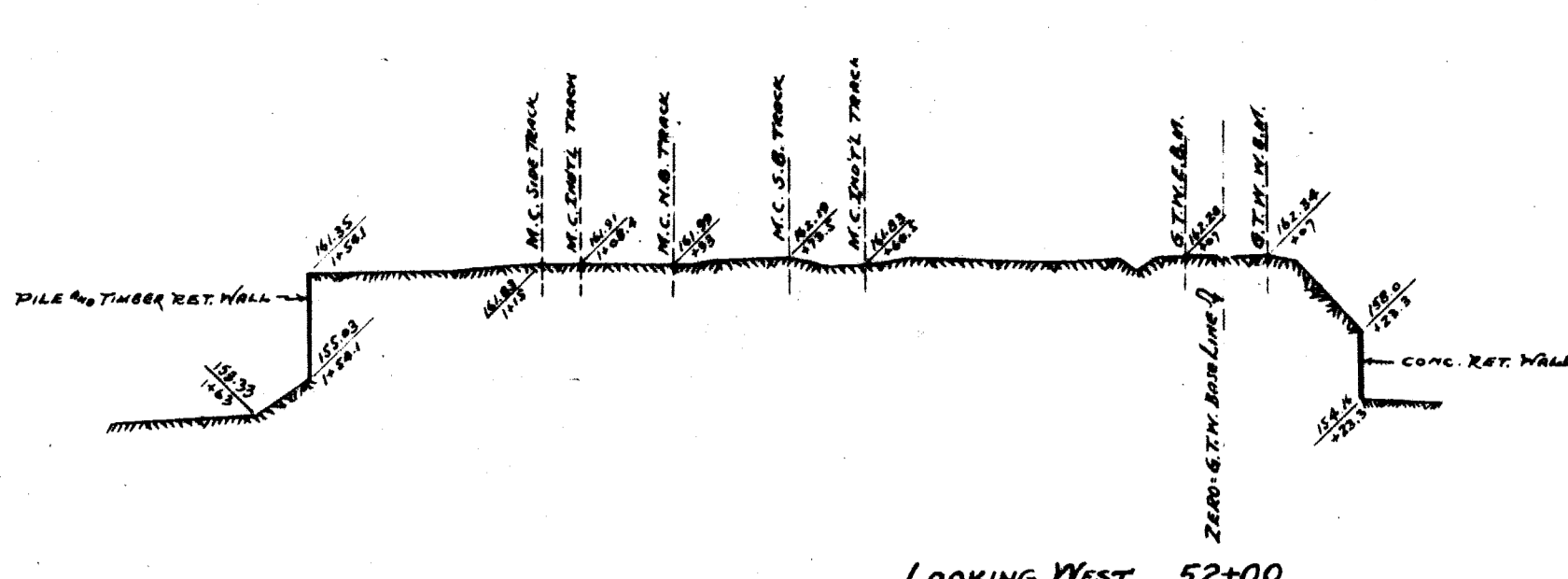
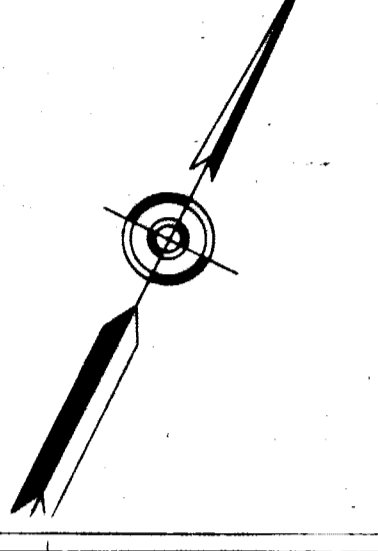
MICHIGAN STATE HIGHWAY DEPARTMENT
WAYNE
BRIDGE FILE NO. 12 OF 62-22-9 ROAD WOODWARD AVE.
CROSSING M.C.R.R. - N.Y.C.R.R. - G.T.W.R.R. IN CITY OF DETROIT
RAILWAY TRACK PLAN & PROFILE
WEST OF WOODWARD AVE

APPROVED
APPROVED
APPROVED
DRAWN BY
CHECKED BY
FILED BY
DATE
SHEET 5 OF 44

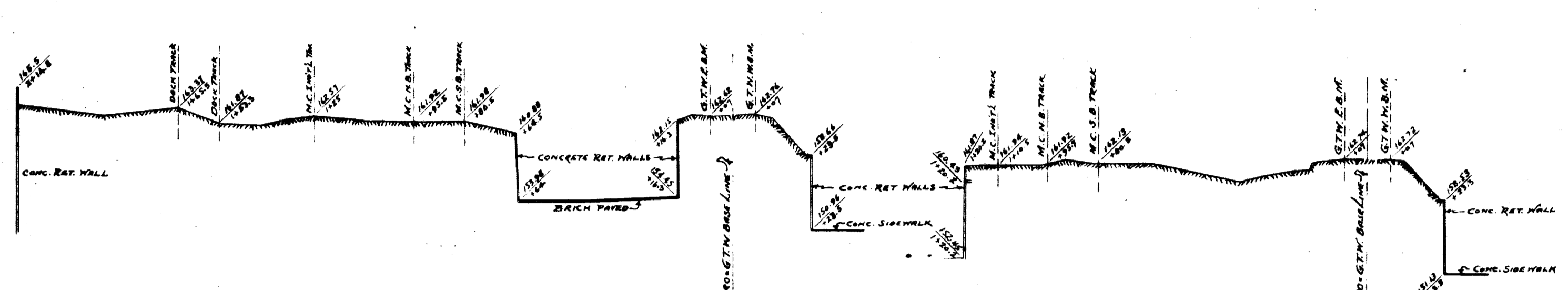


File XV 1-5

For Temporary Track Layout see Sheet 42



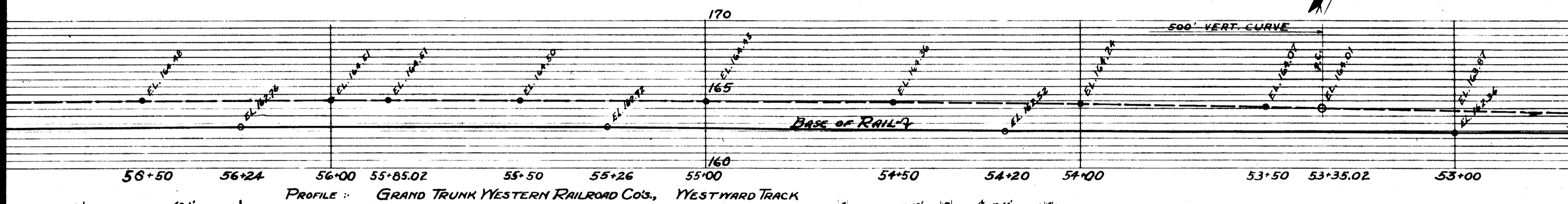
Looking West 52+00



Looking West 56+22

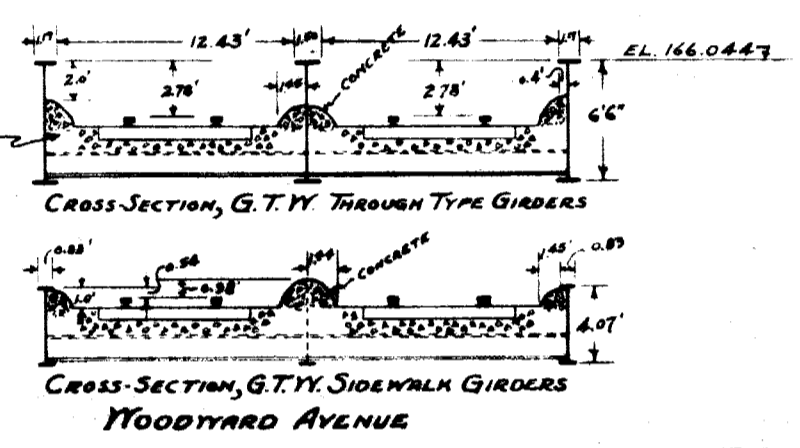
Looking West 55+25

SCALE HORIZONTAL 1"=30 FEET
 VERTICAL 1"=10 FEET

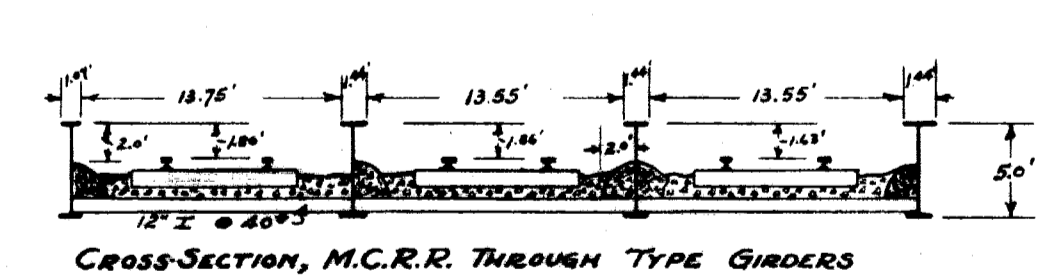
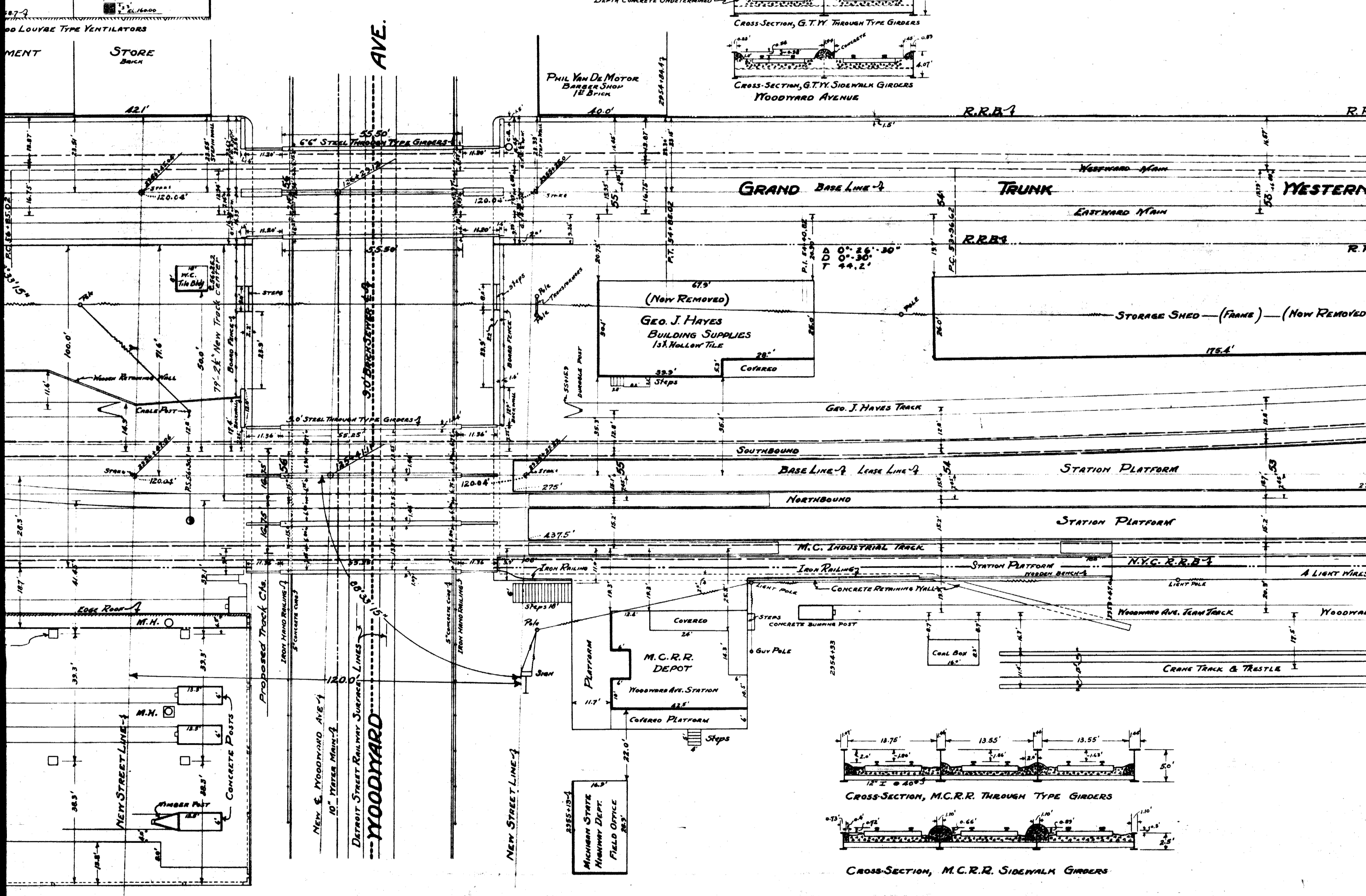


PROFILE: GRAND TRUNK WESTERN RAILROAD CO'S, WESTWARD TRACK

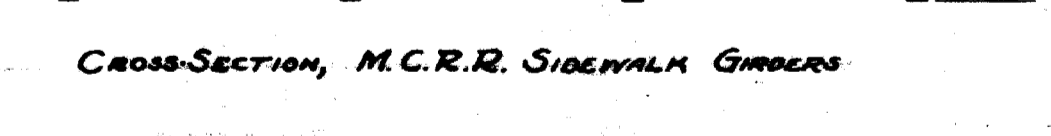
SCALE HORIZONTAL 1"=20 FEET
 VERTICAL 1"=5 FEET



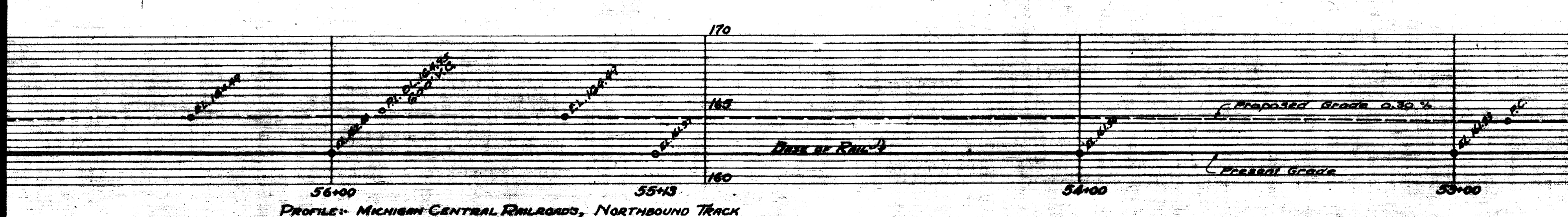
CROSS-SECTION, G.T.W. THROUGH TYPE GIRDERS
 CROSS-SECTION, G.T.W. SIDEWALK GIRDERS
 WOODWARD AVENUE



CROSS-SECTION, M.C.R.R. THROUGH TYPE GIRDERS



CROSS-SECTION, M.C.R.R. SIDEWALK GIRDERS



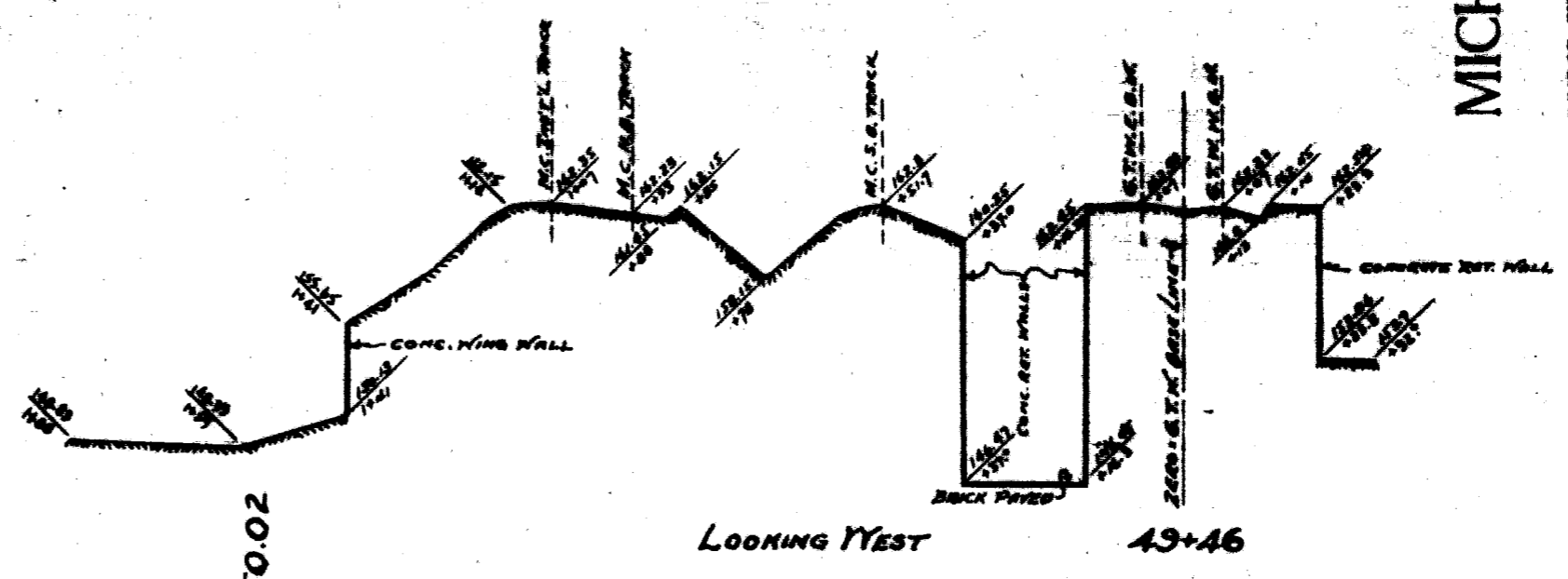
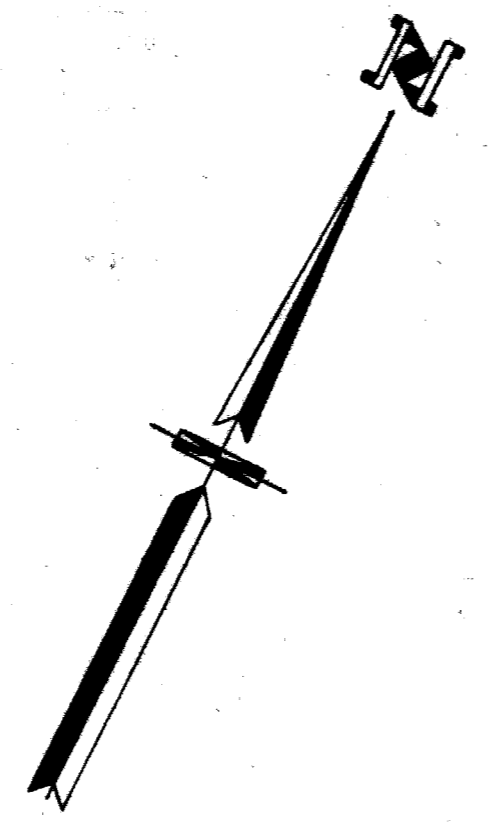
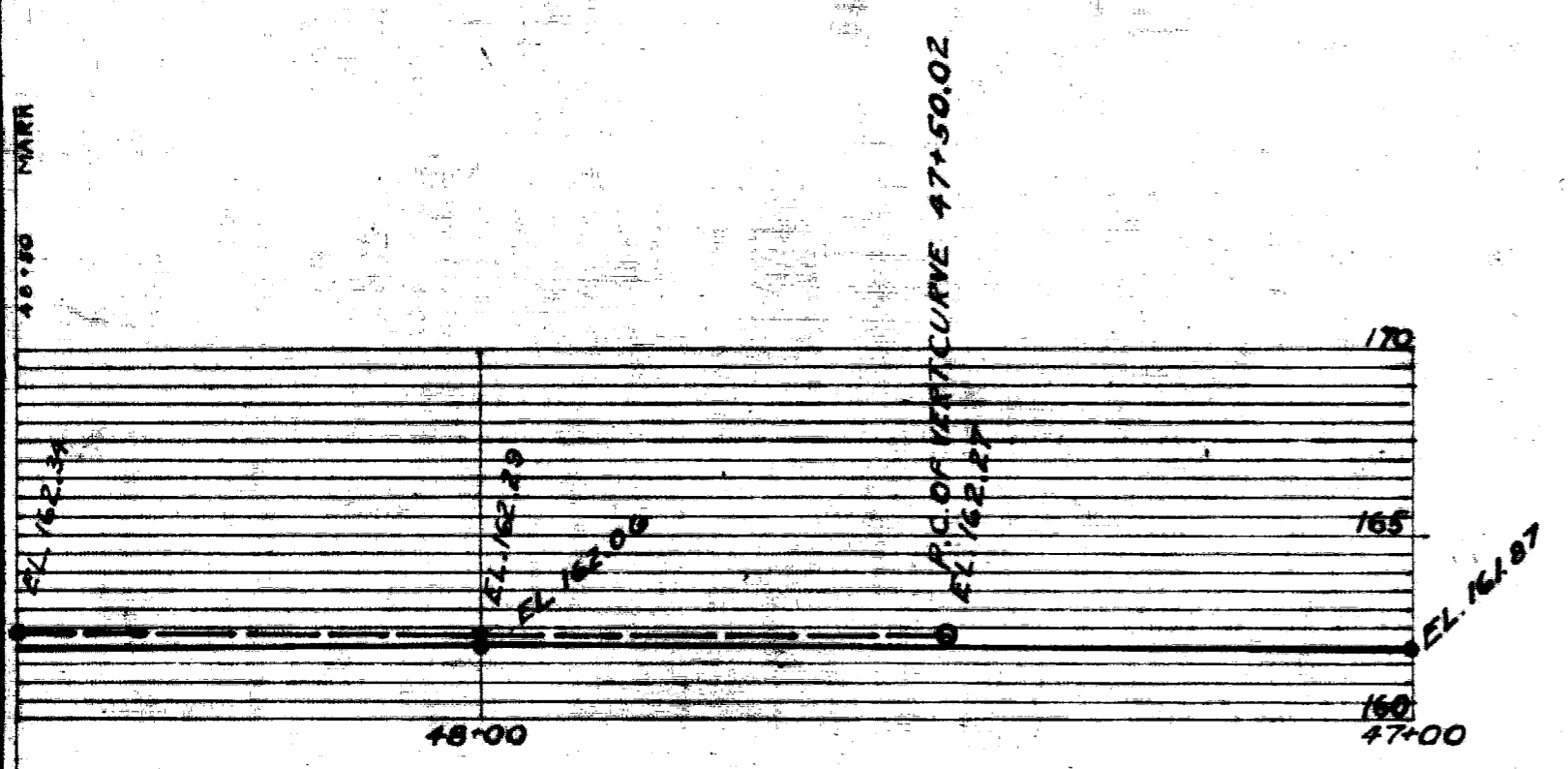
PROFILE: MICHIGAN CENTRAL RAILROAD'S, NORTHBOUND TRACK

SCALE HORIZONTAL 1"=20 FEET
 VERTICAL 1"=5 FEET

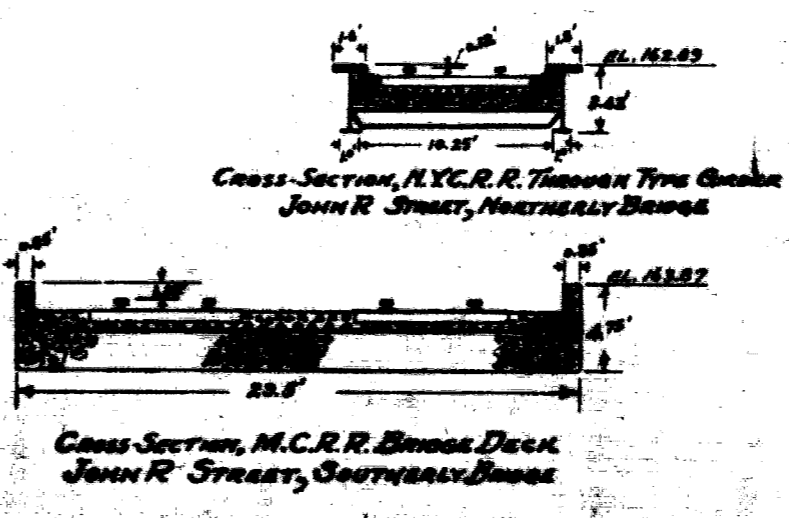
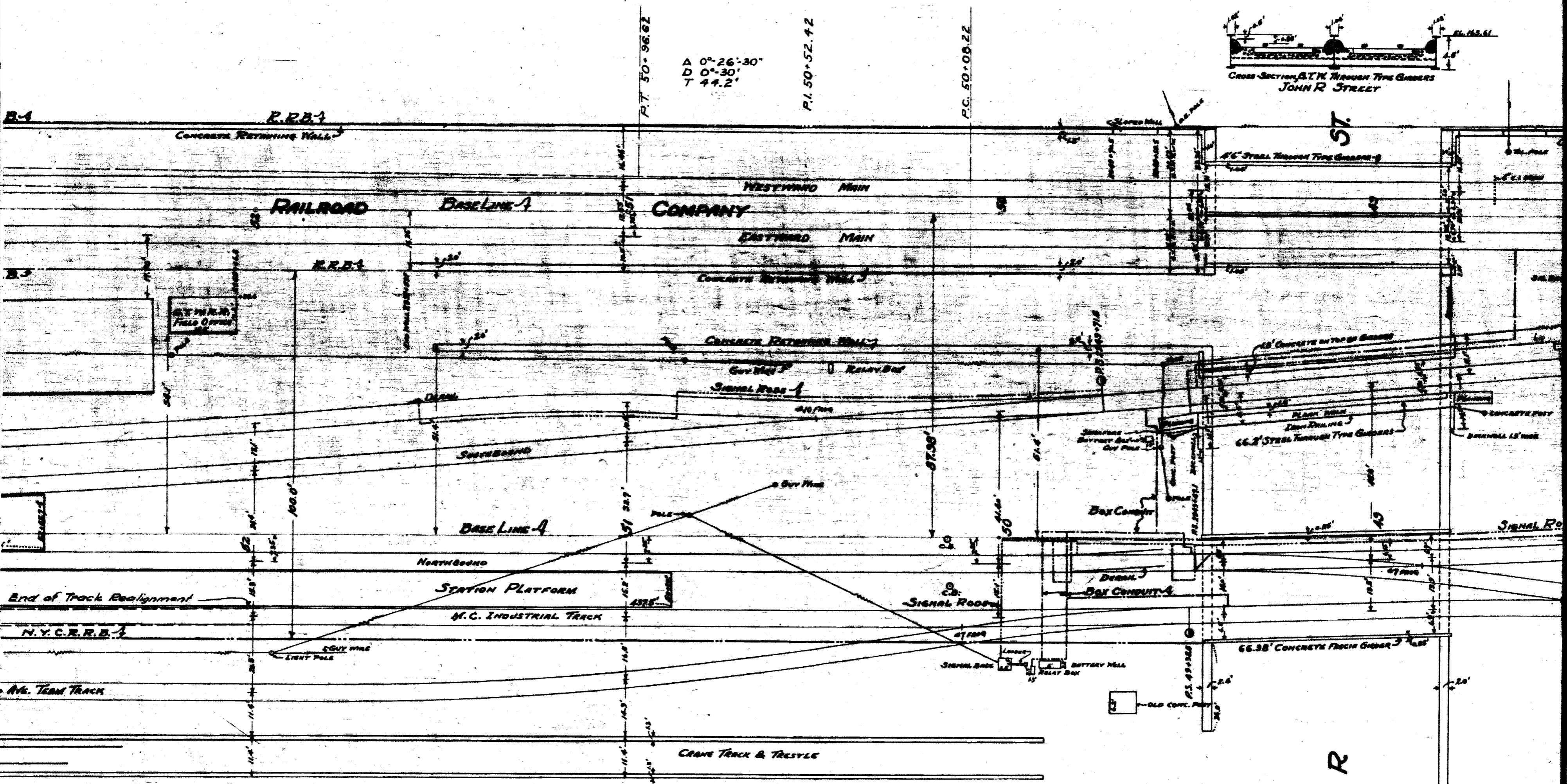
MICHIGAN STATE HIGHWAY DEPARTMENT
 WAYNE
 ENGINE FILE NO. 12 of 82-22-1 RHD WOODWARD AVE IN CITY OF DETROIT
 CROSSING M.C.R.R. - N.Y.C.R.R. - G.T.W. R.R.
RAILWAY TRACK PLAN & PROFILE
 EAST OF WOODWARD AVE

APPROVED
 APPROVED
 APPROVED
 FILE NO. 12 of 82-22-1
 SHEET 7 of 42
 FILE NO. XU 1-7

PROFILE
 G.T.W. EAST OF JOHN R.
 SCALE HORIZ 1 IN = 20 FT
 VERT 1 IN = 5 FT

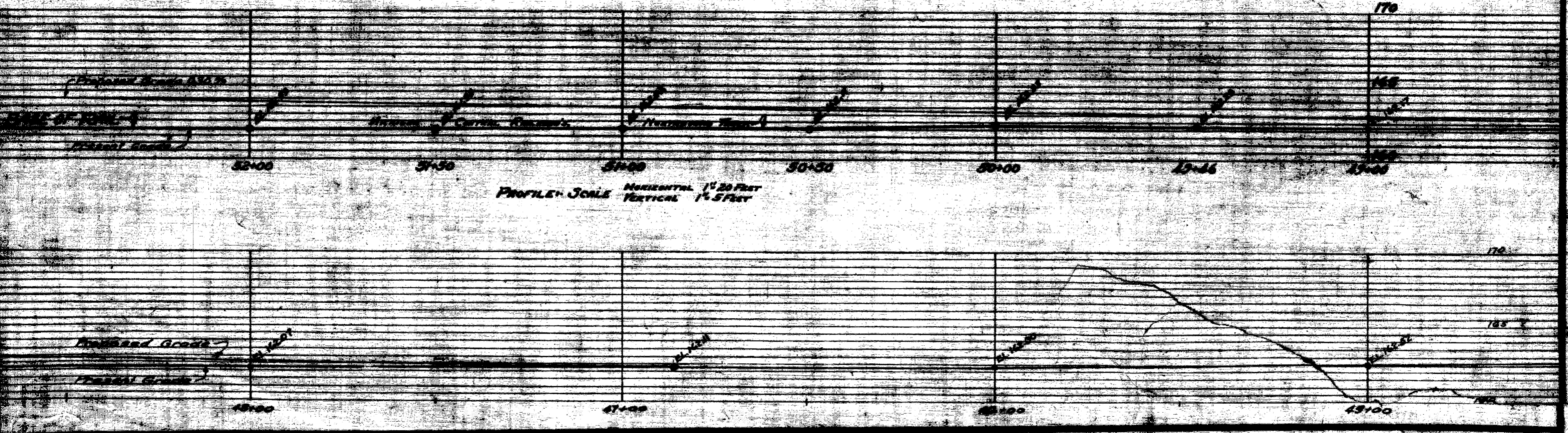


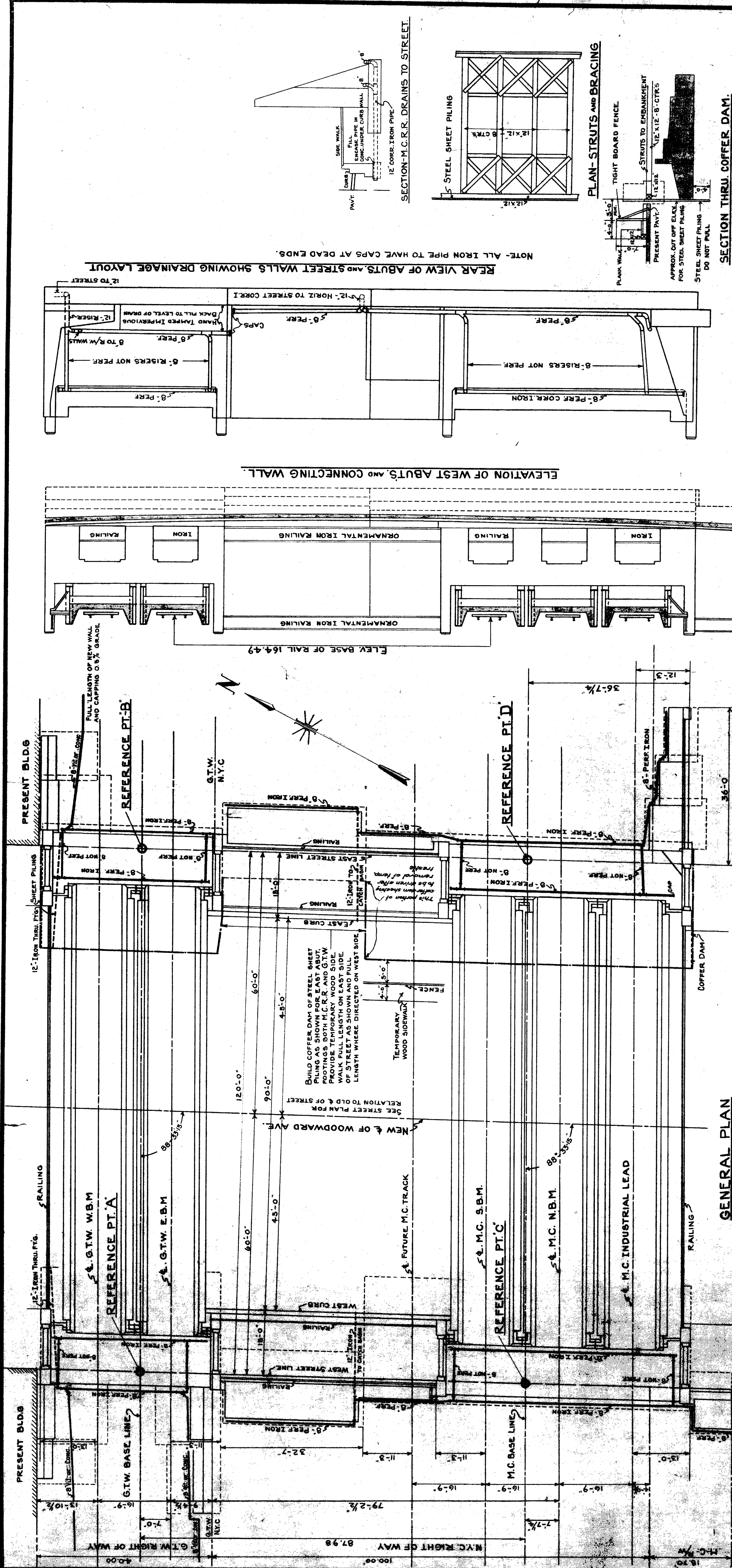
PROFILE SCALE HORIZONTAL 1" = 20 FEET
 VERTICAL 1" = 5 FEET



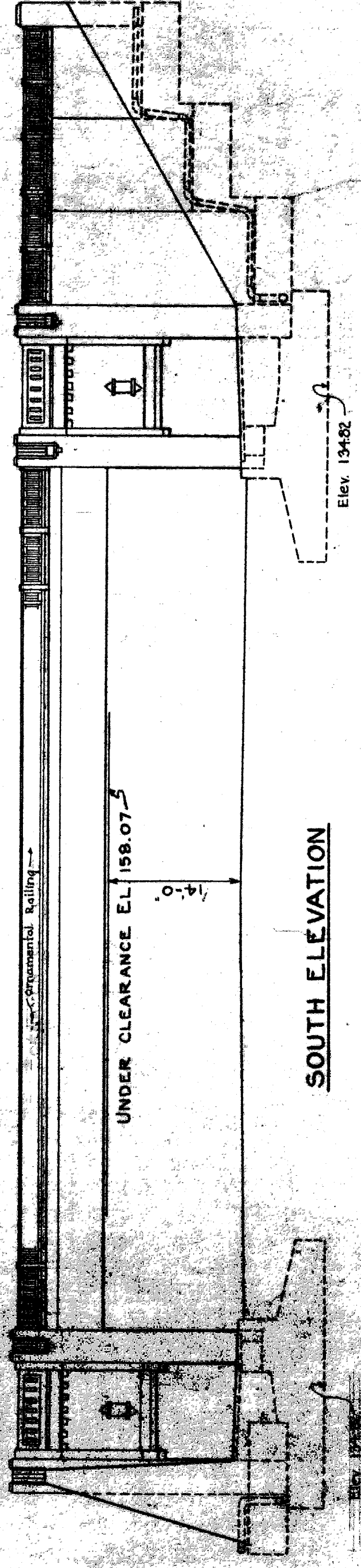
JOHN R

PROFILE SCALE HORIZONTAL 1" = 20 FEET
 VERTICAL 1" = 5 FEET

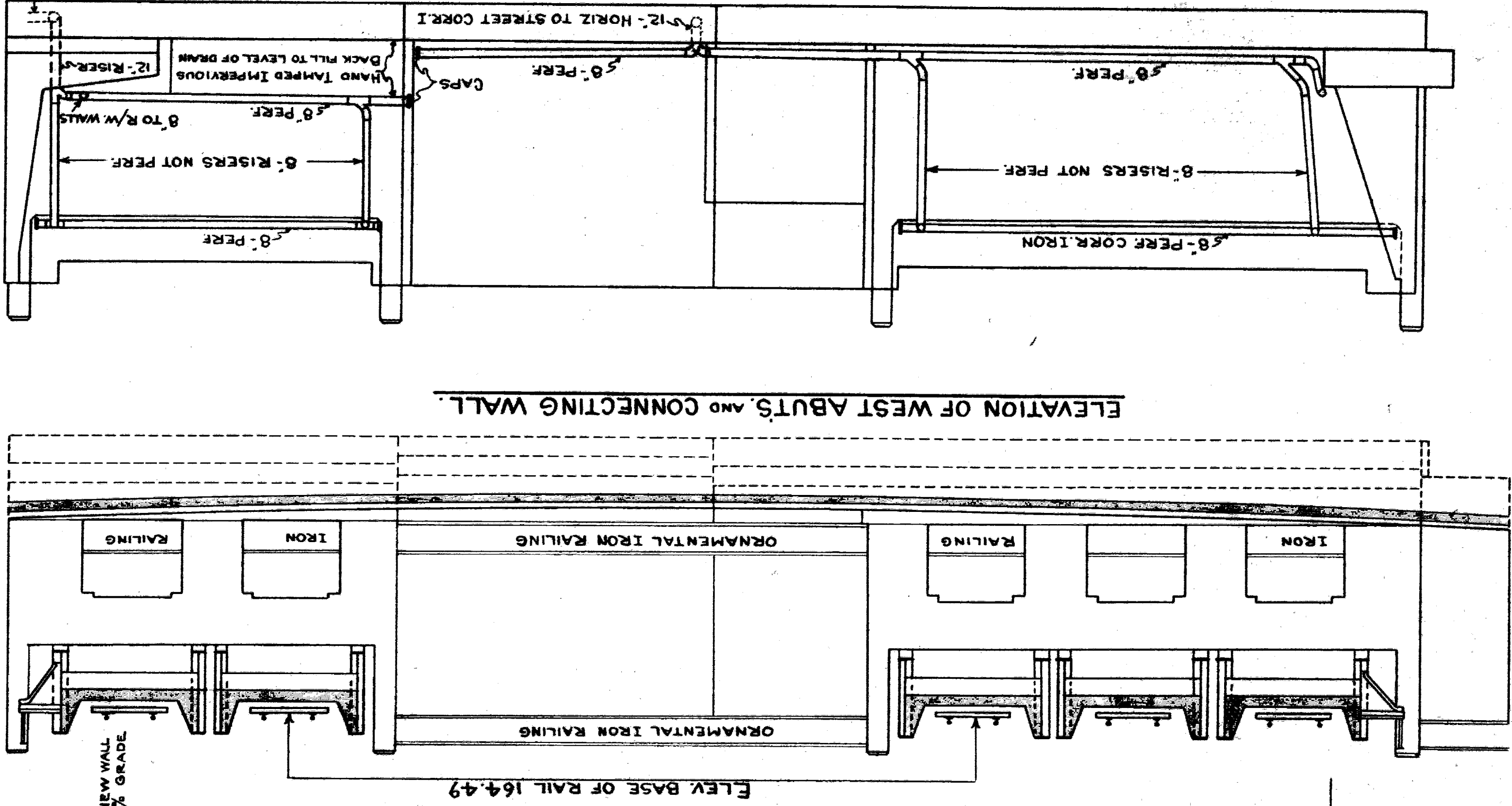




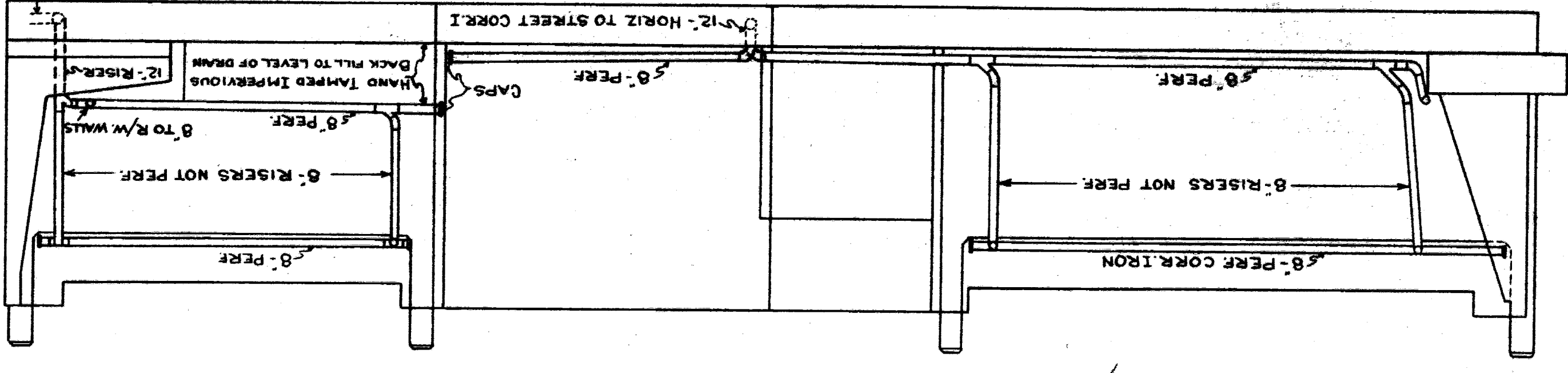
GENERAL PLAN



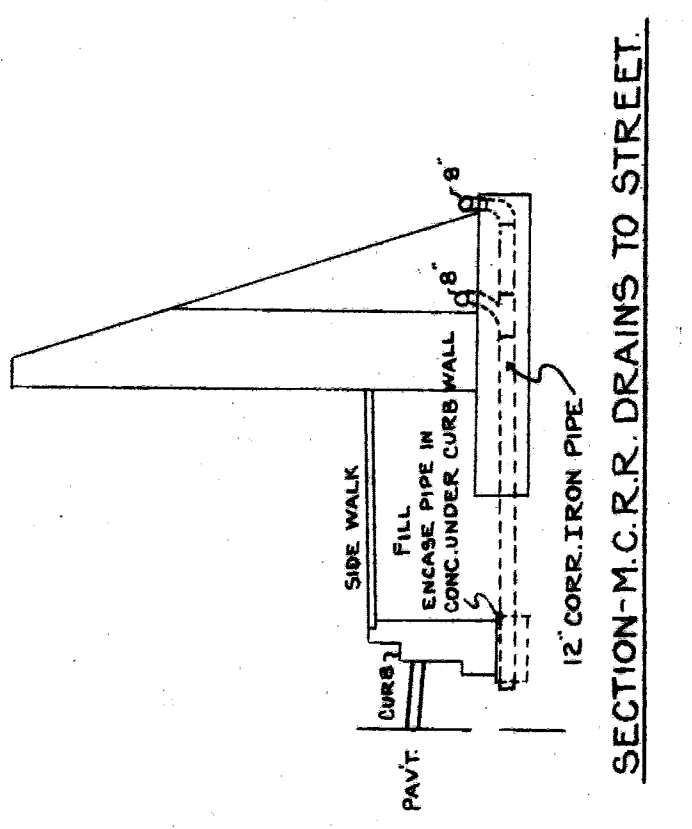
SOUTH ELEVATION



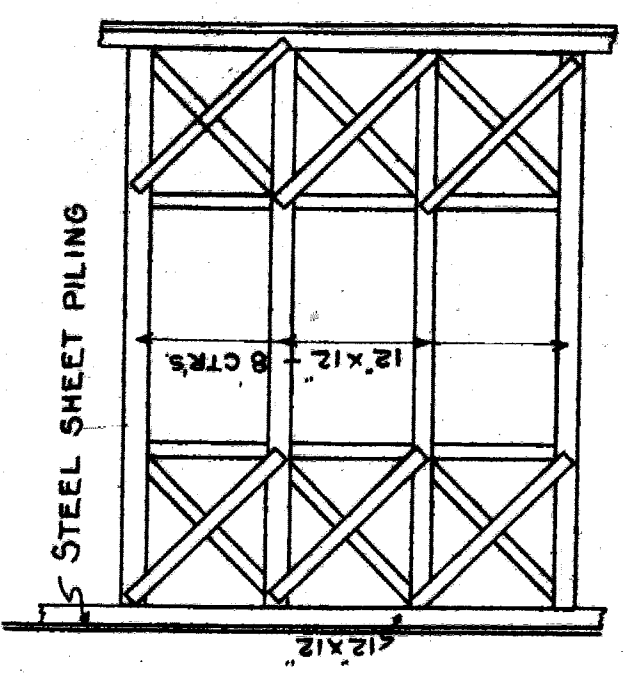
ELEVATION OF WEST ABUTS AND CONNECTING WALL



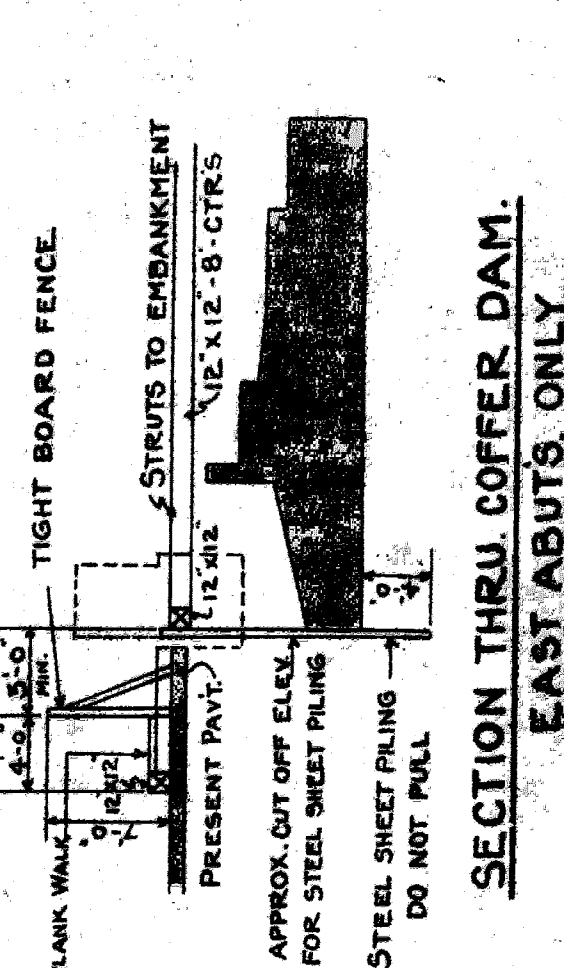
REAR VIEW OF ABUTS AND STREET WALLS SHOWING DRAINAGE LAYOUT



SECTION - M.C.R. DRAINS TO STREET



PLAN - STRUTS AND BRACING



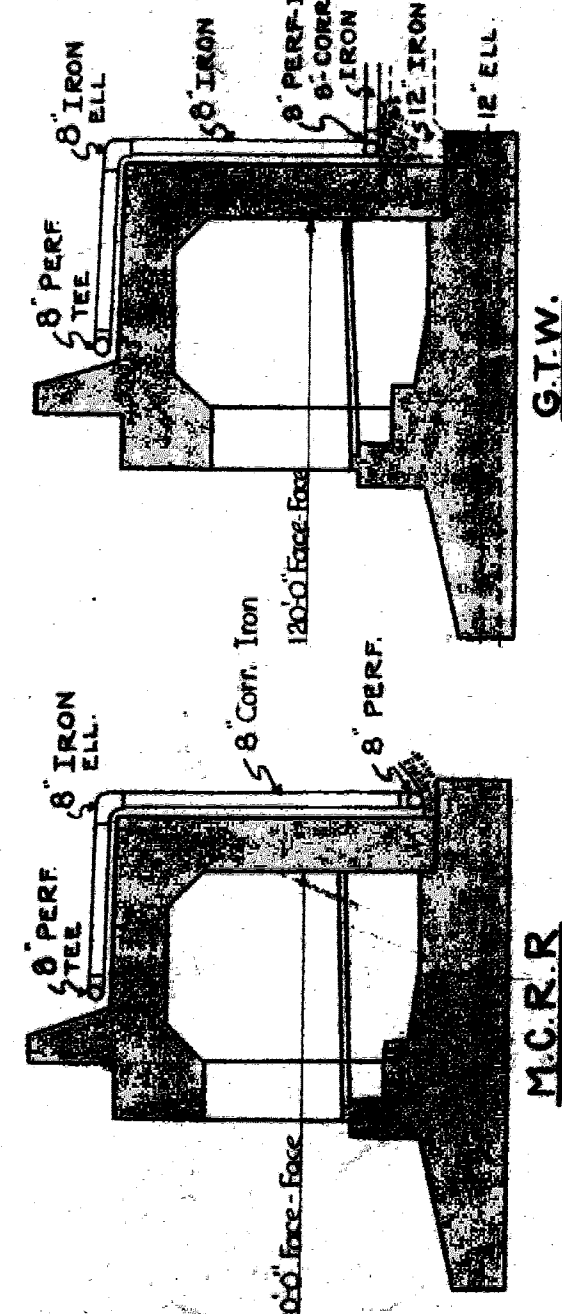
SECTION THRU COFFER DAM, EAST ABUTS ONLY

NOTE - WALKWAY ON WEST SIDE OF STREET TO BE SAME TYPE OF CONSTRUCTION AS SHOWN FOR EAST SIDE.

MICHIGAN STATE HIGHWAY DEPARTMENT
 BRIDGE FILE NO. 2-22-29 1100 WOODWARD AVE. U.S. 10
 CROSSING M.C.R. - N.Y.C. R.R. - G.T.W. R.R. CITY OF DETROIT
 WAYNE MI.
 GENERAL STRUCTURE PLAN.
 SCALE: 3/32" = 1'-0"

APPROVED: [Signature]
 APPROVED: [Signature]

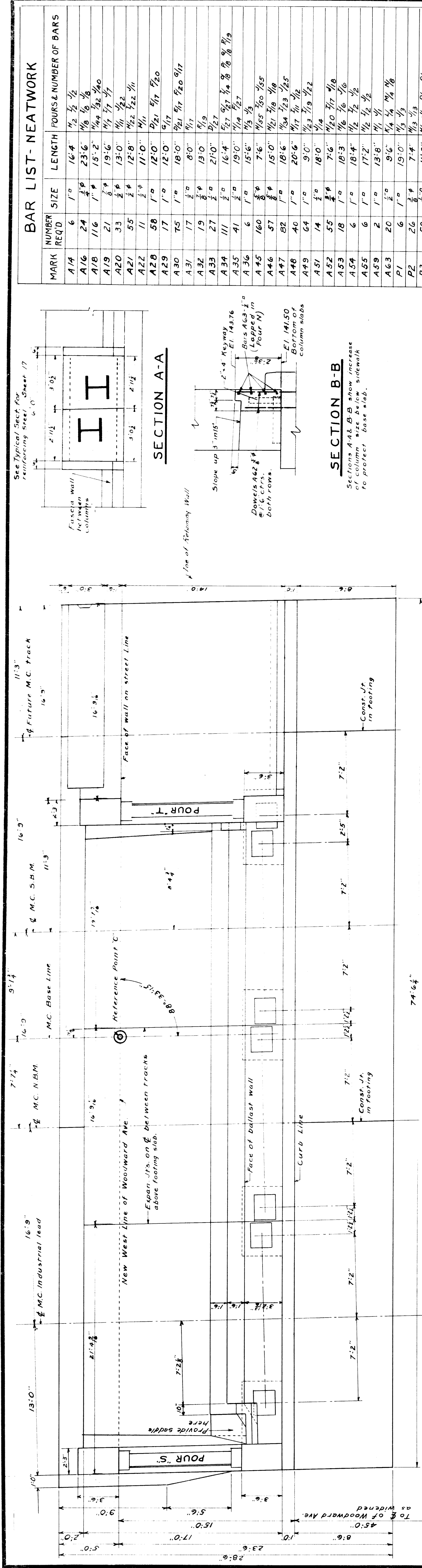
DRAWN BY	R.A. WALCOTT
CHECKED BY	L.S. & J.B. 1-19-34
DESIGNED BY	N.A.B. 1-18-34
APPROVED BY	A.N.L. 1-20-34
DATE	1-20-34
SHEET	8 OF 44



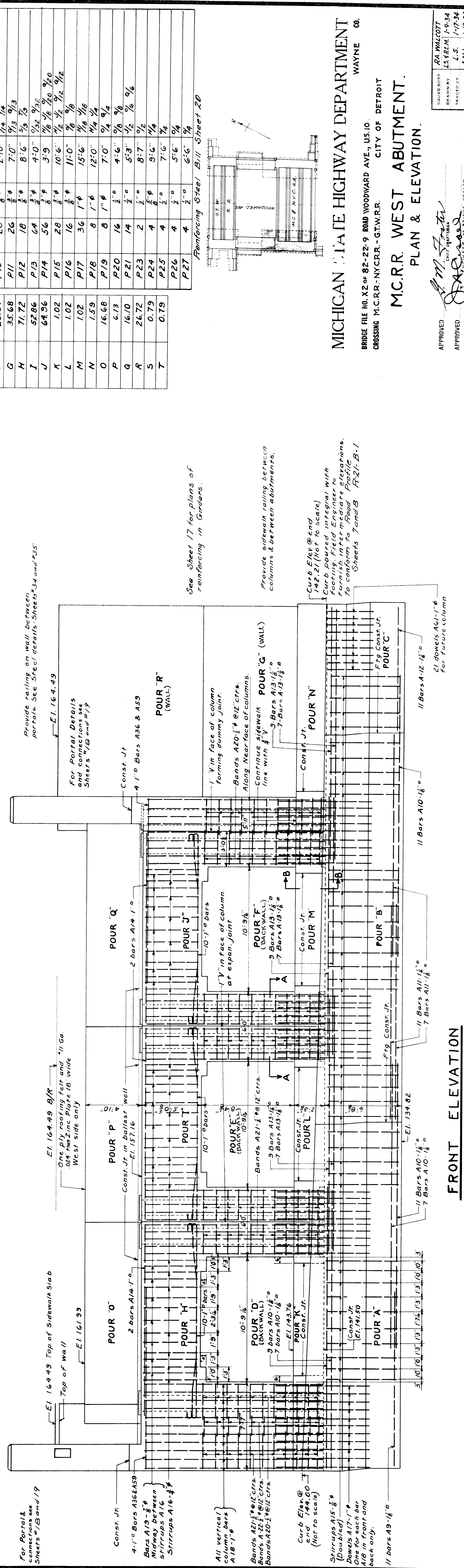
SECTIONS SHOWING DRAINAGE

NOTE - LAY LOWER PERF. IRON PIPE ON HAND TAPPED IMPERVIOUS BACK FILL TO GRADE.

File XU 1-8



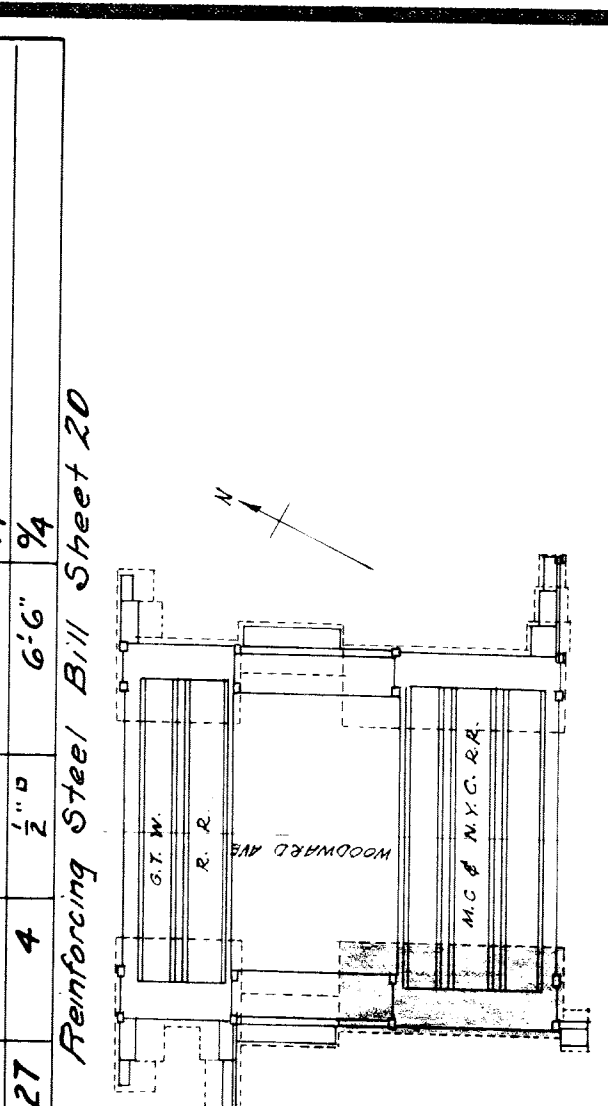
PLAN
SCALE: 3/8" IN. = 1 FT.



FRONT ELEVATION
SCALE: 3/8" IN. = 1 FT.

MARK	NUMBER REQ'D	SIZE	LENGTH	POURS & NUMBER OF BARS
A14	6	1"Ø	16'4"	1/2 1/2 1/2
A16	24	3/8"	23'6"	1/8 1/8 1/8
A18	116	1"Ø	15'2"	1/4 1/2 1/4
A19	21	3/4"	19'6"	1/2 1/2 1/2
A20	33	3/8"	13'0"	1/4 1/2 1/4
A21	55	3/8"	12'8"	1/2 1/2 1/2
A22	11	3/4"	11'0"	1/2 1/2 1/2
A28	58	1"Ø	12'0"	1/2 1/2 1/2
A29	17	1"Ø	12'0"	1/2 1/2 1/2
A30	75	1"Ø	18'0"	1/2 1/2 1/2
A31	17	3/8"	8'0"	1/2 1/2 1/2
A32	19	3/8"	13'0"	1/2 1/2 1/2
A33	27	3/8"	13'0"	1/2 1/2 1/2
A34	111	3/8"	16'4"	1/2 1/2 1/2
A35	41	3/8"	19'0"	1/2 1/2 1/2
A36	6	1"Ø	15'6"	1/2 1/2 1/2
A45	160	3/8"	7'6"	1/2 1/2 1/2
A46	57	3/8"	15'0"	1/2 1/2 1/2
A47	82	1"Ø	18'6"	1/2 1/2 1/2
A48	40	1"Ø	20'6"	1/2 1/2 1/2
A49	64	1"Ø	18'0"	1/2 1/2 1/2
A51	14	3/8"	18'0"	1/2 1/2 1/2
A52	35	3/8"	7'6"	1/2 1/2 1/2
A53	18	1"Ø	18'3"	1/2 1/2 1/2
A54	6	1"Ø	18'4"	1/2 1/2 1/2
A55	6	1"Ø	17'2"	1/2 1/2 1/2
A59	2	1"Ø	13'8"	1/2 1/2 1/2
A63	20	3/8"	9'6"	1/2 1/2 1/2
P1	6	1"Ø	19'0"	1/2 1/2 1/2
P2	26	3/8"	7'4"	1/2 1/2 1/2
P3	58	3/8"	11'3"	1/2 1/2 1/2
P4	4	3/8"	9'3"	1/2 1/2 1/2
P5	26	3/8"	8'9"	1/2 1/2 1/2
P6	14	3/8"	10'4"	1/2 1/2 1/2
P7	12	3/8"	6'9"	1/2 1/2 1/2
P8	26	3/8"	4'7"	1/2 1/2 1/2
P9	26	3/8"	6'0"	1/2 1/2 1/2
P10	28	3/8"	2'10"	1/2 1/2 1/2
P11	26	3/8"	7'0"	1/2 1/2 1/2
P12	18	3/8"	8'6"	1/2 1/2 1/2
P13	64	3/8"	4'0"	1/2 1/2 1/2
P14	56	3/8"	3'9"	1/2 1/2 1/2
P15	28	3/8"	10'6"	1/2 1/2 1/2
P16	16	3/8"	11'0"	1/2 1/2 1/2
P17	36	1"Ø	15'6"	1/2 1/2 1/2
P18	8	1"Ø	12'0"	1/2 1/2 1/2
P19	8	1"Ø	7'0"	1/2 1/2 1/2
P20	16	3/8"	4'6"	1/2 1/2 1/2
P21	14	3/8"	5'3"	1/2 1/2 1/2
P23	2	3/8"	8'7"	1/2 1/2 1/2
P24	4	3/8"	9'6"	1/2 1/2 1/2
P25	4	3/8"	7'6"	1/2 1/2 1/2
P26	4	3/8"	5'6"	1/2 1/2 1/2
P27	4	3/8"	6'6"	1/2 1/2 1/2

POUR	CONCRETE QUAN.
D	31.50
E	24.28
F	28.97
G	35.68
H	71.72
I	32.86
J	64.96
K	1.02
L	1.02
M	1.02
N	1.59
O	16.68
P	6.13
Q	16.10
R	26.72
S	0.79
T	0.79



MICHIGAN STATE HIGHWAY DEPARTMENT
WAYNE 00.
BRIDGE FILE NO. X2 OF 82-29 ROAD WOODWARD AVE., U.S. 10.
CROSSING M.C.R.R.-NYC.R.R.-G.T.W.R.R. CITY OF DETROIT

M.C.R.R. WEST ABUTMENT.
PLAN & ELEVATION.

APPROVED: [Signature]
APPROVED: [Signature]

RA WILCOFF
L.S. FREEMAN
L.S.
A.N.L.
1-9-34
1-7-34
1-9-34

FILED BY: 9
SHEET: 44

File X119

See Sheet 17 for plans of reinforcing in Girders.

Provide sidewalk railing between columns & between abutments.

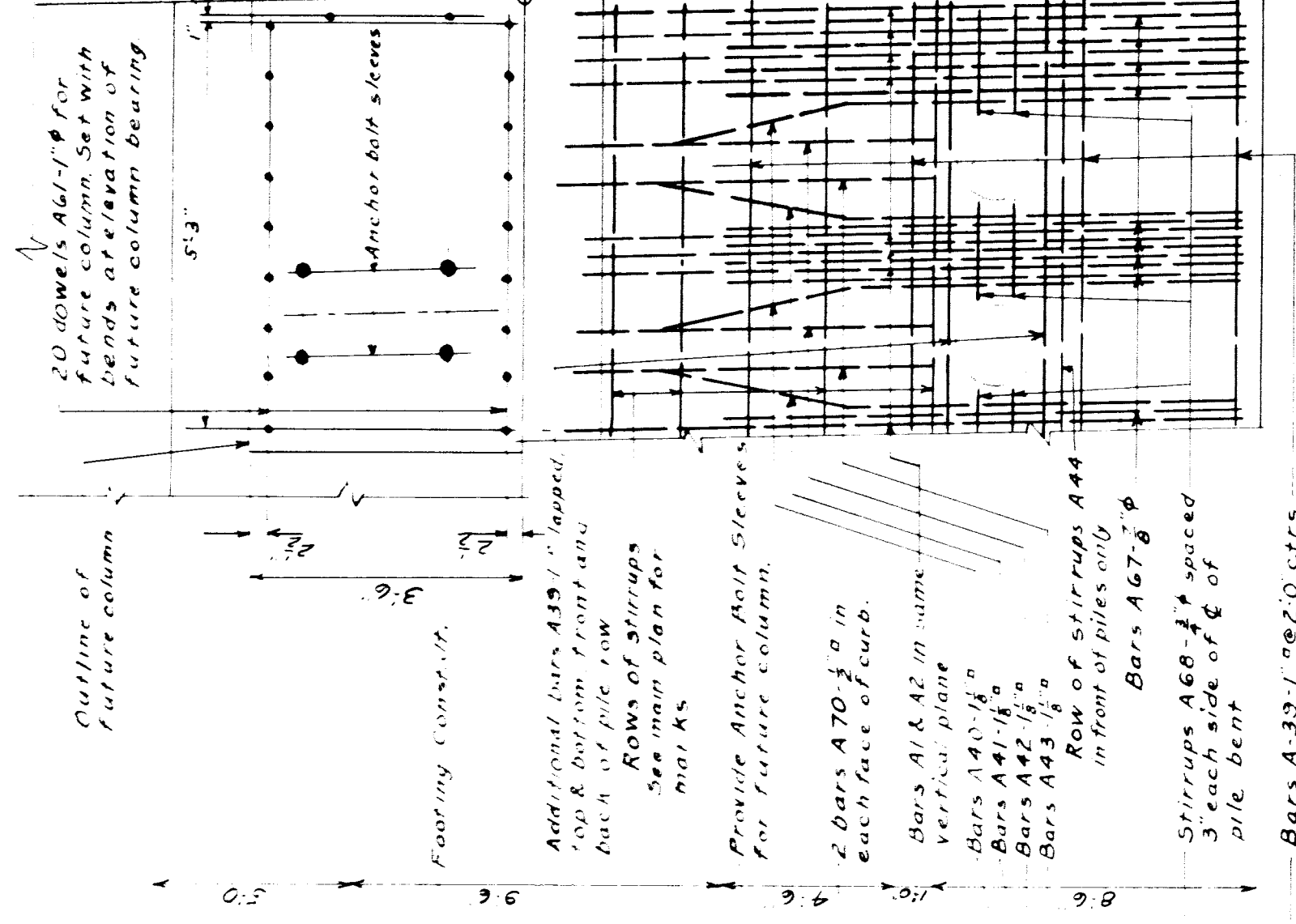
Curb Elev @ end 142.21 (Not to scale)
Curb poured integral with footing. Field Engineer to furnish intermediate elevations. To conform to Road Profile Sheets T-21-B-1

Provide railing on wall between portals. See Steel details Sheets 434 and 435.

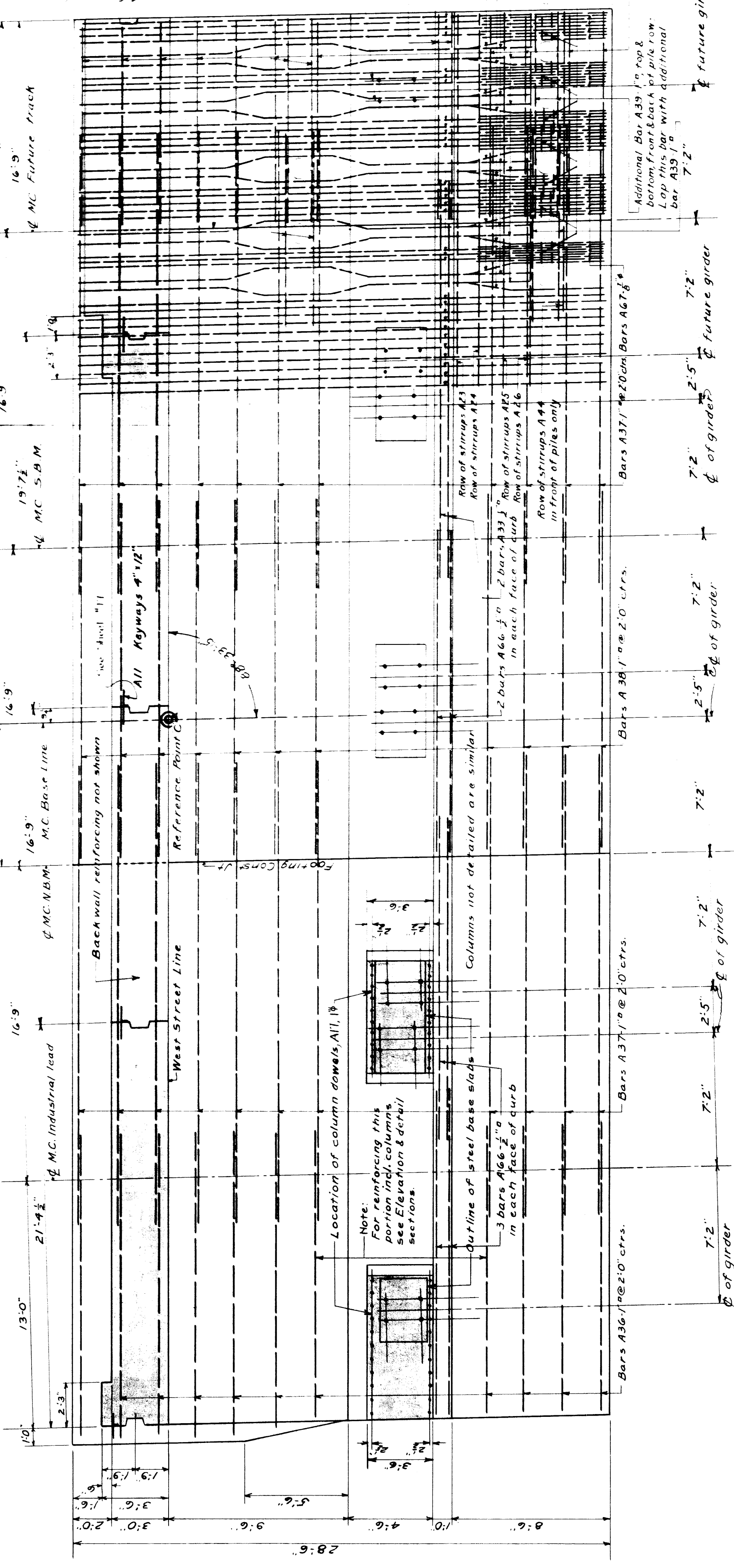
For Portal & connections see Sheets F/B and 19

FOOTING BAR LIST

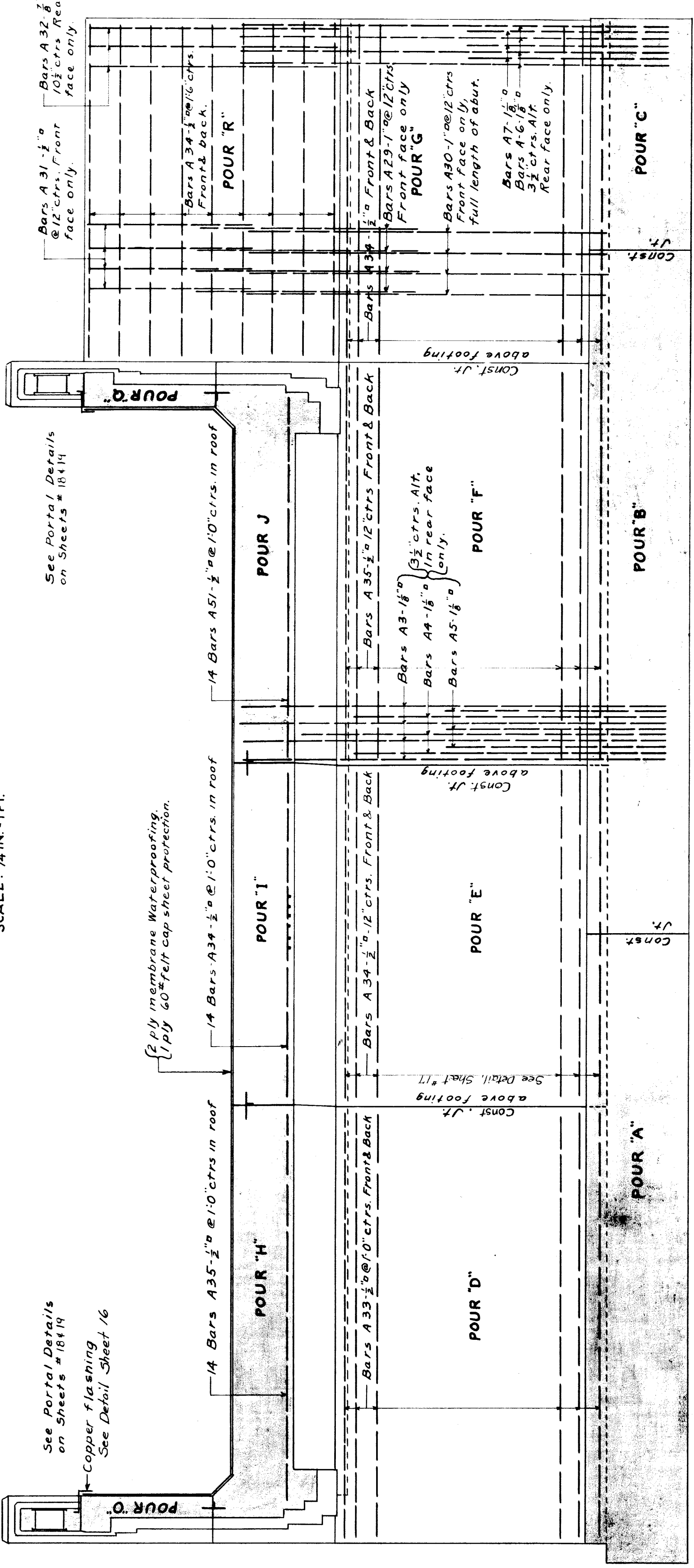
MARK	NUMBER REQD.	SIZE	LENGTH	POUR & NUMBER OF BARS
A1	140	1 1/2"	29'-0"	1/10 8/3 5/17
A2	140	1 1/2"	27'-3"	1/10 8/3 5/17
A3	66	1 1/2"	27'-6"	1/10 8/3 5/17
A4	66	1 1/2"	27'-6"	1/10 8/3 5/17
A5	66	1 1/2"	18'-0"	1/10 8/3 5/17
A6	29	1 1/2"	18'-6"	1/10 8/3 5/17
A7	29	1 1/2"	18'-6"	1/10 8/3 5/17
A9	11	1 1/2"	15'-6"	1/10 8/3 5/17
A10	45	1 1/2"	24'-3"	1/10 8/3 5/17
A11	25	1 1/2"	19'-3"	1/10 8/3 5/17
A12	11	1 1/2"	10'-9"	1/10 8/3 5/17
A13	48	1 1/2"	21'-9"	1/10 8/3 5/17
A15	80	1 1/2"	21'-9"	1/10 8/3 5/17
A17	80	1 1/2"	8'-0"	1/10 8/3 5/17
A23	25	3/4"	22'-10"	1/10 8/3 5/17
A24	25	3/4"	21'-8"	1/10 8/3 5/17
A25	25	3/4"	20'-6"	1/10 8/3 5/17
A26	25	3/4"	19'-0"	1/10 8/3 5/17
A27	50	3/4"	6'-0"	1/10 8/3 5/17
A33	4	3/4"	21'-0"	1/10 8/3 5/17
A36	11	1"	15'-6"	1/10 8/3 5/17
A37	22	1"	24'-6"	1/10 8/3 5/17
A38	11	1"	19'-0"	1/10 8/3 5/17
A39	21	1"	11'-0"	1/10 8/3 5/17
A40	5	1 1/2"	29'-1 1/2"	1/10 8/3 5/17
A41	5	1 1/2"	29'-1 1/2"	1/10 8/3 5/17
A42	5	1 1/2"	22'-4"	1/10 8/3 5/17
A43	5	1 1/2"	22'-4"	1/10 8/3 5/17
A44	3	3/4"	26'-8"	1/10 8/3 5/17
A50	75	3/4"	7'-0"	1/10 8/3 5/17
A61	21	1 1/2"	8'-0"	1/10 8/3 5/17
A62	64	3/4"	4'-0"	1/10 8/3 5/17
A64	38	3/4"	3'-0"	1/10 8/3 5/17
A65	38	3/4"	4'-0"	1/10 8/3 5/17
A66	16	3/4"	17'-0"	1/10 8/3 5/17
A67	24	3/4"	9'-8"	1/10 8/3 5/17
A68	14	3/4"	9'-9"	1/10 8/3 5/17
A70	4	3/4"	10'-9"	1/10 8/3 5/17



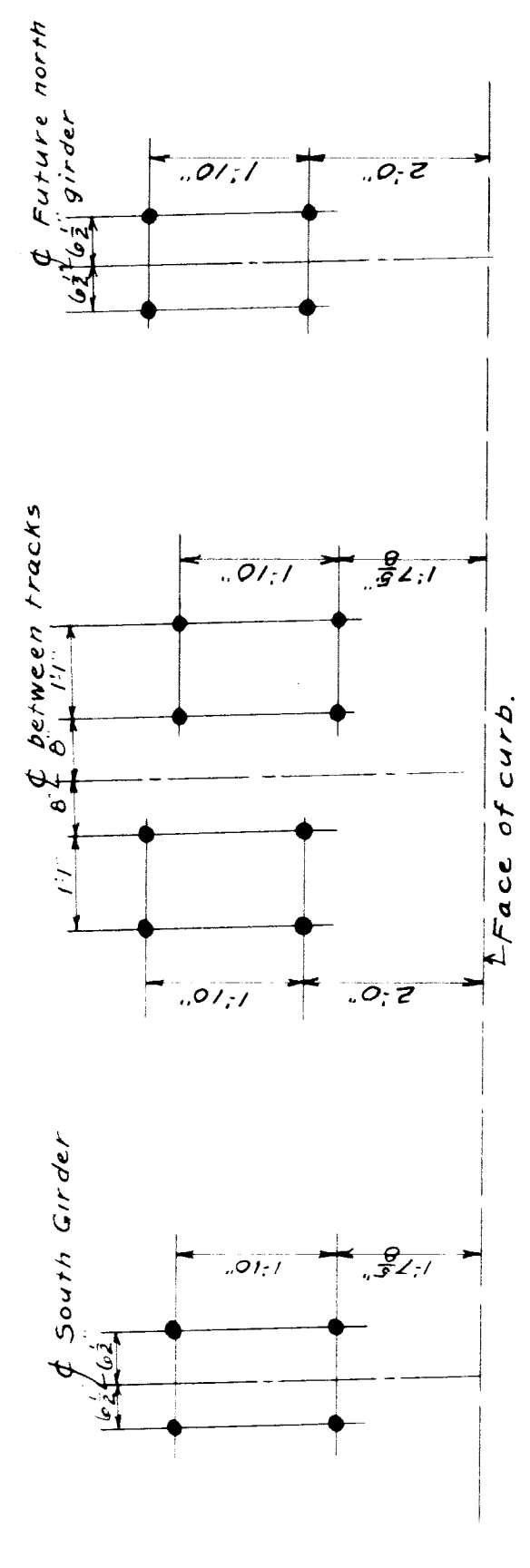
ENLARGED DETAIL
SHOWING BAR ARRANGEMENT AROUND PILES & DOWELS FOR FUTURE COLUMN.



SECTIONAL PLAN
SHOWING FOOTING REINFORCING, BACKWALL OUTLINE, & ANCHOR BOLT SLEEVES.
SCALE: 1/4" = 1'-0"



SECTIONAL ELEVATION
SCALE: 1/4" = 1'-0"



CONCRETE QUAN.	
POUR	QUAN.
A	177.30
B	174.29
C	58.08

MICHIGAN STATE HIGHWAY DEPARTMENT
WAYNE CO.
BRIDGE FILE NO. X-2 OF 82-22-9 ROAD WOODWARD AVE., US 10
CROSSING M.C.R.R.-NYCRR.-GTW.R.R. CITY OF DETROIT
M.C.R.R. WEST ABUTMENT SECTIONS

REINFORCING Steel Bill on Sheet #20
APPROVED [Signature]
APPROVED [Signature]
SQUAD BOOK: R.A. WALCOTT
DRAWN BY: L.S. FLEMING
CHECKED BY: L.S. FLEMING
FILED BY: A.N.L.
DATE: 1-15-34
SHEET: 10 OF 44

FILE XU 110

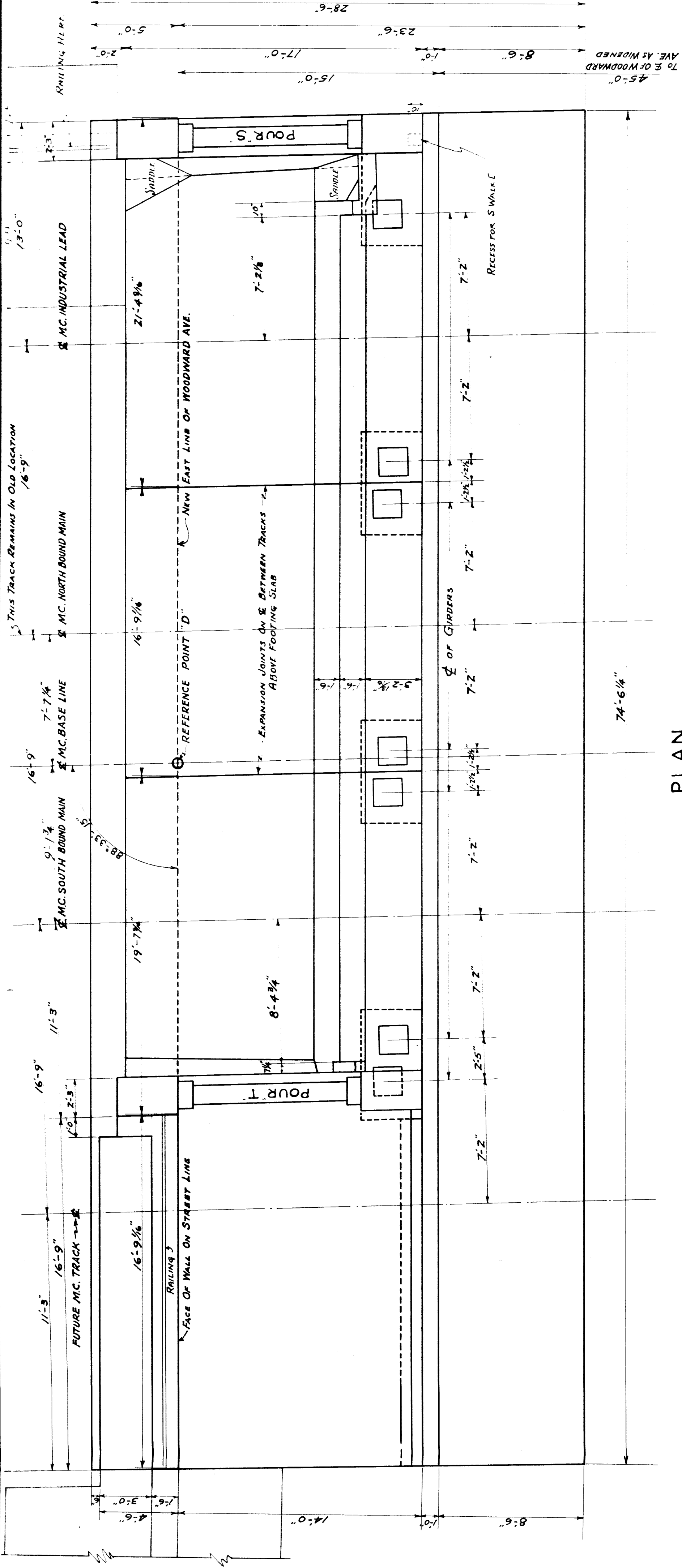
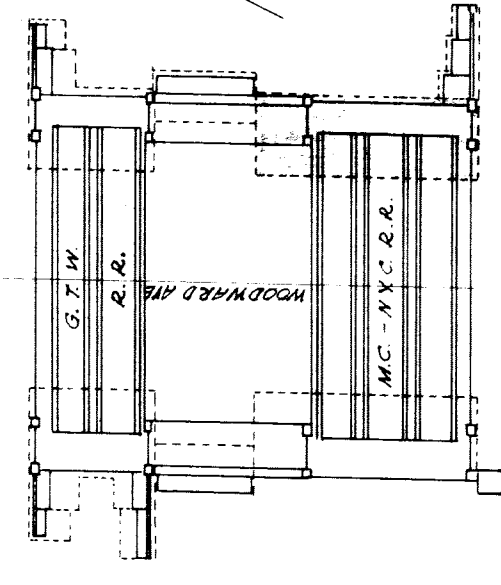
BAR LIST - NEAT WORK

MARK	NUMBER REOD	SIZE	LENGTH	POURS & NUMBER OF BARS
A 14	6	1" x 1/2"	16'-4"	1/2 1/2 1/2
A 16	24	3/8"	23'-6"	1/6 1/6 1/6
A 18	116	1" x 1/2"	15'-2"	1/4 1/4 1/4
A 19	21	3/8"	19'-6"	1/2 1/2 1/2
A 20	33	1/2"	13'-0"	1/1 1/2 1/2
A 21	55	1/2"	12'-8"	1/2 1/2 1/2
A 22	11	1/2"	11'-0"	1/1 1/1 1/1
A 28	58	1" x 1/2"	12'-0"	1/2 1/2 1/2
A 29	17	1" x 1/2"	12'-0"	1/2 1/2 1/2
A 30	82	1" x 1/2"	18'-0"	1/2 1/2 1/2
A 31	177	1" x 1/2"	8'-0"	1/1 1/1 1/1
A 32	19	3/8"	13'-0"	1/1 1/1 1/1
A 33	27	3/8"	21'-0"	1/2 1/2 1/2
A 34	111	1" x 1/2"	16'-4"	1/4 1/4 1/4
A 35	41	1" x 1/2"	19'-0"	1/4 1/4 1/4
A 36	6	1" x 1/2"	15'-6"	1/2 1/2 1/2
A 45	160	3/8"	7'-6"	1/5 1/5 1/5
A 46	57	3/8"	23'-0"	1/2 1/2 1/2
A 47	74	1" x 1/2"	18'-6"	1/2 1/2 1/2
A 48	37	1" x 1/2"	20'-6"	1/2 1/2 1/2
A 49	64	1" x 1/2"	9'-0"	1/2 1/2 1/2
A 51	14	1" x 1/2"	18'-0"	1/2 1/2 1/2
A 52	55	3/8"	7'-6"	1/5 1/5 1/5
A 53	18	1" x 1/2"	18'-3"	1/2 1/2 1/2
A 54	6	1" x 1/2"	18'-4"	1/2 1/2 1/2
A 55	6	1" x 1/2"	17'-2"	1/2 1/2 1/2
A 59	2	1" x 1/2"	13'-8"	1/1 1/1 1/1
A 63	20	1" x 1/2"	9'-6"	1/4 1/4 1/4
P 1	6	1" x 1/2"	19'-0"	1/2 1/2 1/2
P 2	26	3/8"	7'-4"	1/3 1/3 1/3
P 3	58	1" x 1/2"	17'-3"	1/2 1/2 1/2
P 4	4	3/8"	9'-3"	1/2 1/2 1/2
P 5	26	1" x 1/2"	8'-9"	1/3 1/3 1/3
P 6	14	1" x 1/2"	10'-4"	1/2 1/2 1/2
P 7	12	1" x 1/2"	6'-9"	1/2 1/2 1/2
P 8	26	1" x 1/2"	4'-7"	1/3 1/3 1/3
P 9	26	1" x 1/2"	6'-0"	1/3 1/3 1/3
P 10	28	3/8"	2'-10"	1/4 1/4 1/4
P 11	26	3/8"	7'-0"	1/3 1/3 1/3
P 12	18	3/8"	8'-6"	1/2 1/2 1/2
P 13	64	3/8"	4'-0"	1/2 1/2 1/2
P 14	56	3/8"	3'-9"	1/2 1/2 1/2
P 15	28	3/8"	10'-6"	1/2 1/2 1/2
P 16	16	3/8"	11'-0"	1/2 1/2 1/2
P 17	36	1" x 1/2"	15'-6"	1/2 1/2 1/2
P 18	8	1" x 1/2"	12'-0"	1/4 1/4 1/4
P 19	8	1" x 1/2"	7'-0"	1/4 1/4 1/4
P 20	16	1" x 1/2"	4'-6"	1/2 1/2 1/2
P 21	14	1" x 1/2"	5'-3"	1/2 1/2 1/2
P 22	2	1" x 1/2"	8'-2"	1/2 1/2 1/2
P 24	4	1" x 1/2"	9'-6"	1/4 1/4 1/4
P 25	4	1" x 1/2"	7'-6"	1/2 1/2 1/2
P 26	4	1" x 1/2"	5'-6"	1/2 1/2 1/2
P 27	4	1" x 1/2"	7'-0"	1/2 1/2 1/2

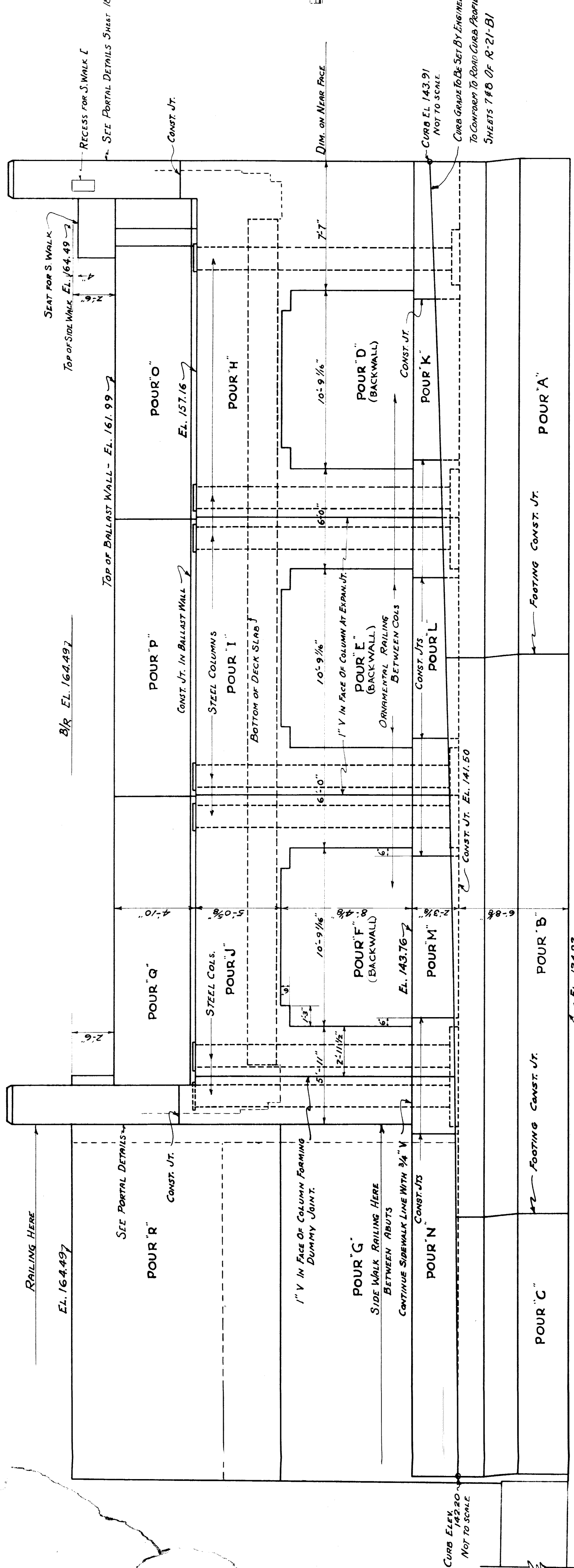
CONCRETE QUAN.

POUR	QUAN.
D	31.50
E	24.28
F	28.97
G	35.68
H	71.72
J	52.86
K	64.96
L	1.02
M	1.02
N	1.59
O	16.68
P	6.13
Q	16.10
R	26.72
S	0.79
T	0.79

NOTE: REINFORCING & DETAILS NOT SHOWN
ARE SAME AS WEST ABUTMENT. SEE SHEET
REINFORCING STEEL BILL ON SHEET 20



PLAN
SCALE: 1/4\"/>

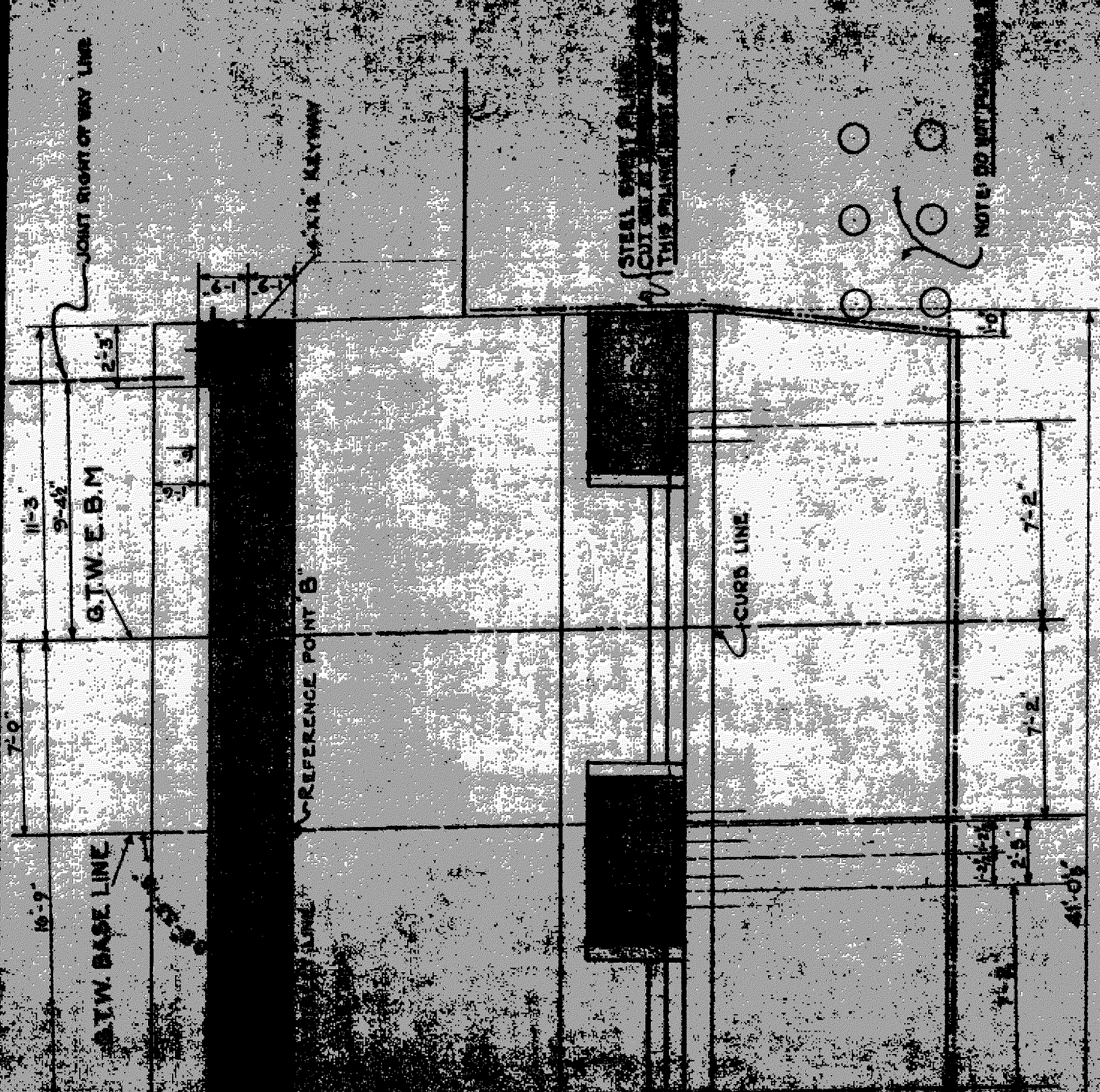


ELEVATION
SCALE: 1/4\"/>

MICHIGAN STATE HIGHWAY DEPARTMENT
WAYNE 60
BRIDGE FILE NO. X2 OF 82-22-9 ROAD WOODWARD AVE., US 10
CITY OF DETROIT
CROSSING M.C.R.R.-N.Y.C.R.R.-G.T.W.R.R.
M.C.R.R. EAST ABUTMENT
PLAN AND ELEVATION

APPROVED: *[Signature]*
APPROVED: *[Signature]*
DRAWN BY: R.A. WALCOTT
CHECKED BY: L.W. SEOR
DATE: 1-10-34
DATE: 1-16-34
DATE: 1-19-34
SHEET 11 OF 44

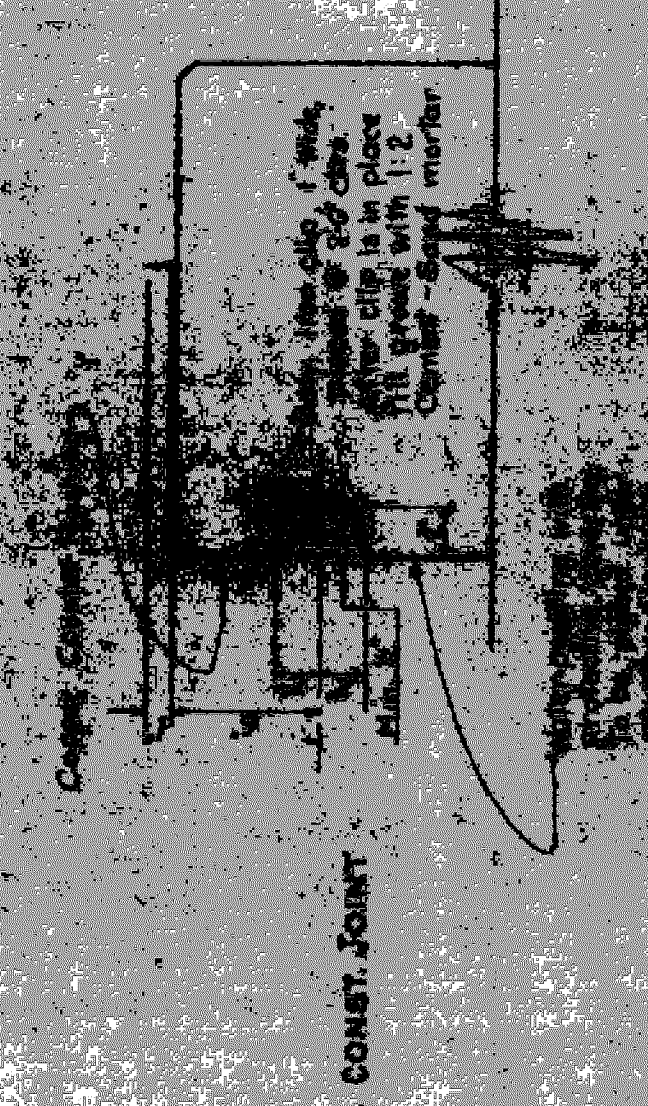
File XU 1-11



SECTIONAL PLAN
SCALE: 1/4"=1'-0"



SECTIONAL ELEVATION
SCALE: 1/4"=1'-0"



DETAIL OF FRAGILE JOINT

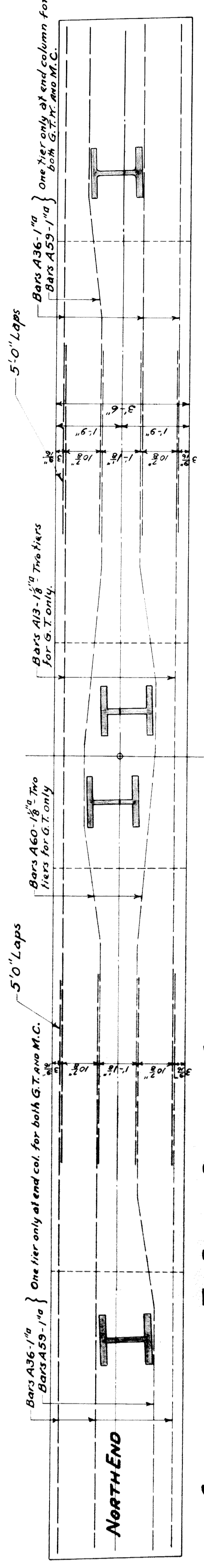
NOTE: REINFORCING AND DETAILS NOT SHOWN SAME AS G.T.W.R.
WEST ABUTMENT AND TYPICAL SECTIONS.
SHEETS 13-14-17
REINFORCING STEEL BILL ON SHEET #20

MICHIGAN STATE HIGHWAY DEPARTMENT
WAYNE
BRIDGE FILE NO. 12-82-22-9 800 WOODWARD AVE. U.S. 10
CROSSING M.C.R.R.-N.Y.C.R.R.-G.T.W.R.R. CITY OF DETROIT
G.T.W.R.R. EAST ABUTMENT
SECTIONS

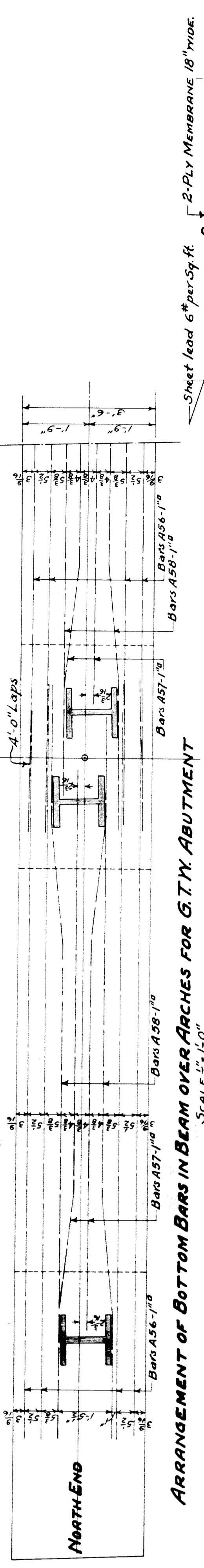
APPROVED: *[Signature]*
APPROVED: *[Signature]*

DESIGNED BY	J.A. WILCOX
CHECKED BY	J.A. WILCOX
DATE	1/19/56
SCALE	1/4"=1'-0"
SHEET NO.	16
TOTAL SHEETS	41

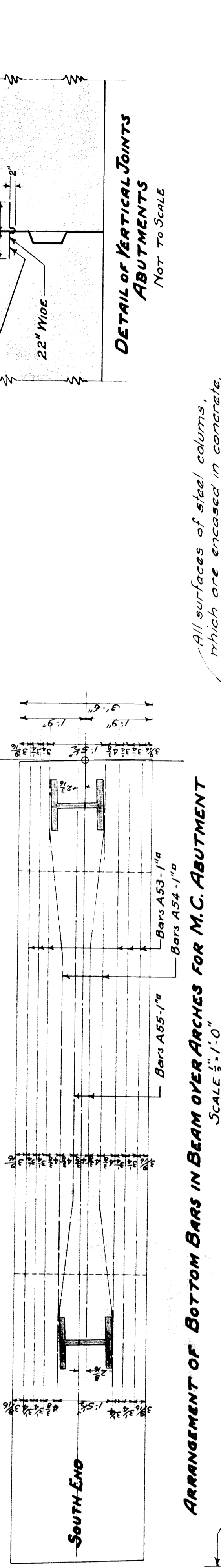
FIG. XU 1-17



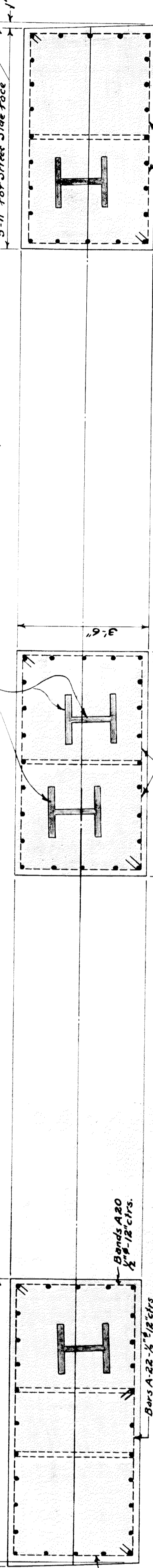
ARRANGEMENT OF TOP BARS IN BEAM OVER ARCHES FOR G.T.W. ABUTMENT
(LOCATIONS OF BARS A36 AND A53 ALSO APPLY TO M.C. ABUTMENT)
SCALE 1/2" = 1'-0"



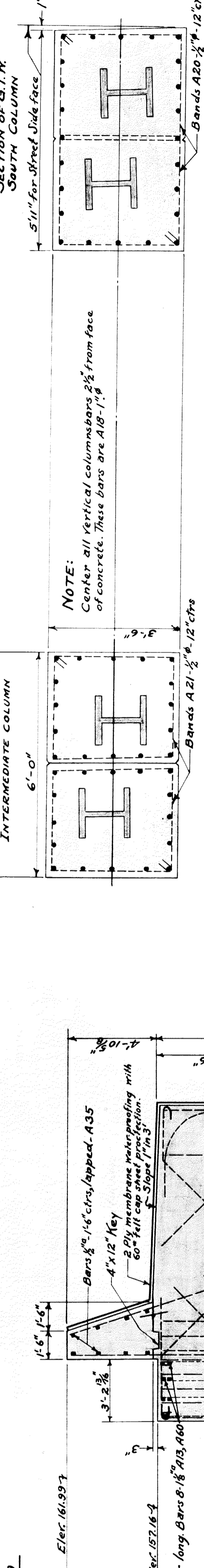
ARRANGEMENT OF BOTTOM BARS IN BEAM OVER ARCHES FOR G.T.W. ABUTMENT
SCALE 1/2" = 1'-0"



ARRANGEMENT OF BOTTOM BARS IN BEAM OVER ARCHES FOR M.C. ABUTMENT
SCALE 1/2" = 1'-0"



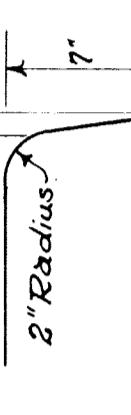
SECTION OF NORTH COLUMN FOR G.T.W. AND SOUTH FOR M.C.
SCALE 1/2" = 1'-0"



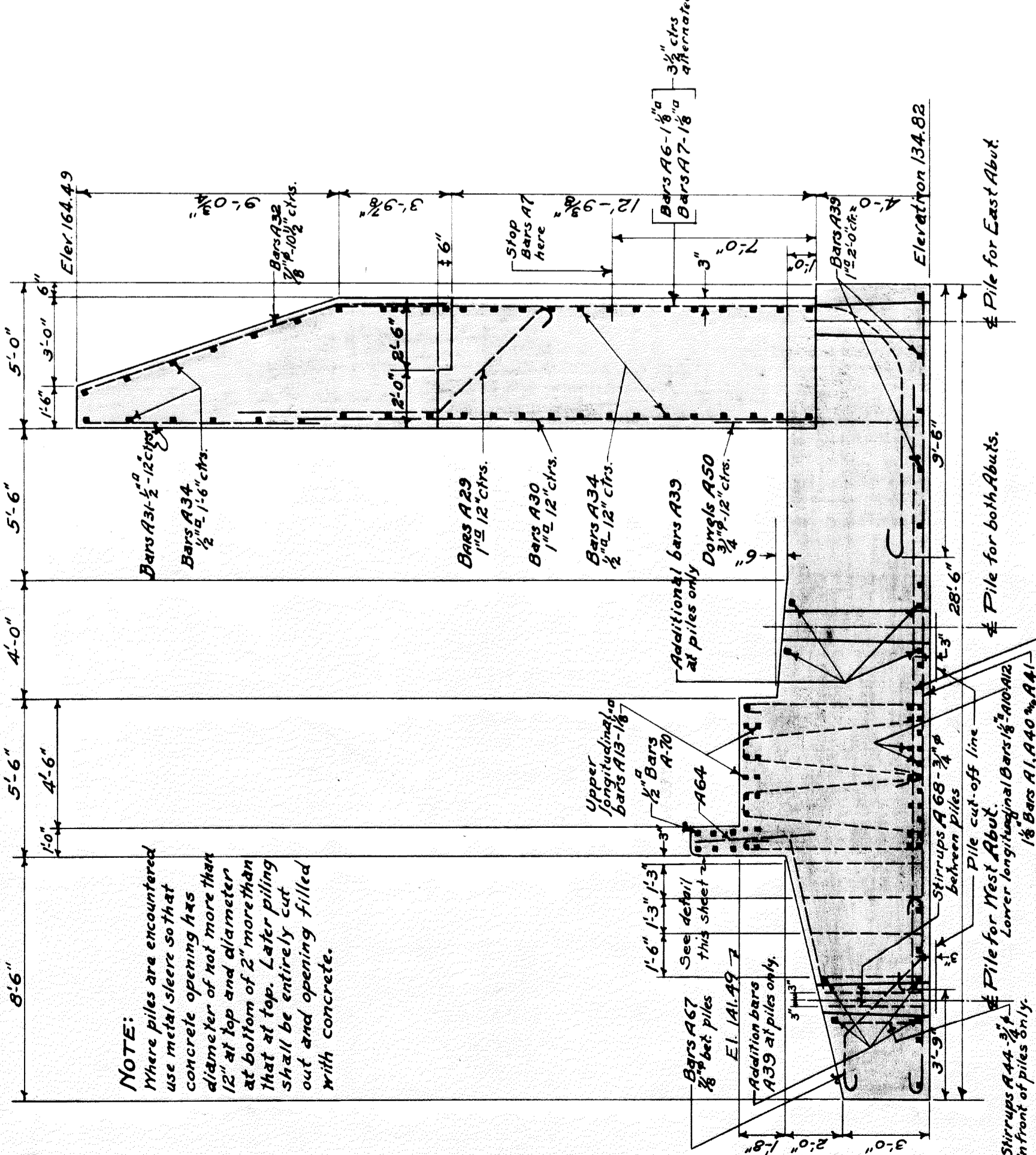
SECTION OF G.T.W. INTERMEDIATE COLUMN
SCALE 1/2" = 1'-0"



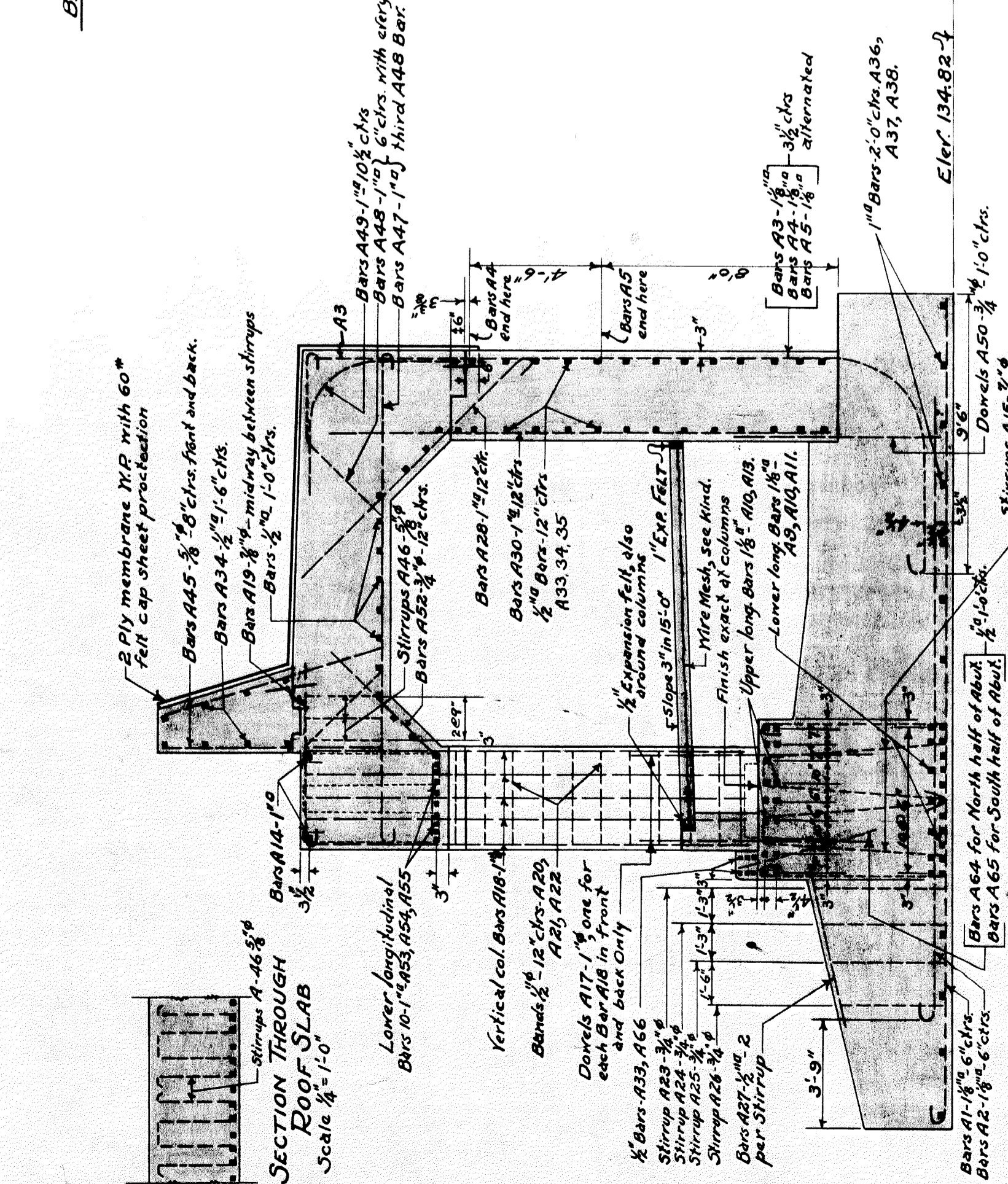
SECTION OF M.C. NORTH COLUMN
SCALE 1/2" = 1'-0"



TYPICAL SECTION THROUGH TOE
SCALE 1/2" = 1'-0"



CROSS SECTION M.C.R. FUTURE ABUTMENT
SCALE 1/4" = 1'-0"



TYPICAL CROSS SECTION OF G.T.W. ABUTMENT
SCALE 1/4" = 1'-0"

REINFORCING STEEL BILL ON SHEET 20.
MICHIGAN STATE HIGHWAY DEPARTMENT
WAYNE MI.
BRIDGE FILE NO. X2 OF 82-22-9 ROAD WOODWARD AVE., JSM
CROSSING M.C.R.R.-N.Y.C.R.R.-G.T.W.R.R. CITY OF DETROIT

TYPICAL ABUTMENT SECTIONS AND DETAILS

DESIGNED BY	R. A. WALCOTT
DRAWN BY	R. E. M. / 1-15-34
CHECKED BY	L. M. F. / 1-20-34
FILED BY	A. J. F. / 1-20-34
SHEET	17 OF 44

SCHEDULE OF REINFORCING BARS FOR ABUTMENTS AND ABUTMENT PORTALS

NO.	BAR	SIZE	LENGTH	WEIGHT	REMARKS	NO.	BAR	SIZE	LENGTH	WEIGHT	REMARKS
A30	246	1"	18'-0"	282.8	STRAIGHT	A185	12	1"	17'-2"	701	ENDING DIAGRAM
A31	34	3/4"	8'-0"	237		A186	16	1"	20'-9"	1189	ENDING DIAGRAM
A32	38	3/4"	13'-0"	1000		A187	6	1"	18'-4"	499	ENDING DIAGRAM
A33	170	3/8"	21'-0"	3189	STRAIGHT	A188	8	1"	21'-8"	289	ENDING DIAGRAM
A34	222	"	18'-4"	3189		A189	8	1"	19'-8"	572	ENDING DIAGRAM
A35	170	"	19'-0"	2745		A190	8	1/8"	22'-0"	757	ENDING DIAGRAM
A36	46	1/2"	15'-0"	2000		A191	42	1/4"	8'-0"	897	ENDING DIAGRAM
A37	44	"	24'-6"	3466		A192	184	3/4"	4'-0"	763	ENDING DIAGRAM
A38	22	"	19'-0"	1427		A193	78	"	3'-0"	492	ENDING DIAGRAM
A39	38	"	11'-0"	1227		A194	158	"	4'-0"	194	ENDING DIAGRAM
A40	5	1/8"	29'-1/2"	626	OPPOSITE HAND TO A40	A195	52	"	17'-0"	791	ENDING DIAGRAM
A41	5	1/8"	29'-1/2"	626	OPPOSITE HAND TO A40	A196	84	"		473	ENDING DIAGRAM
A42	5	1/8"	22'-4"	480	OPPOSITE HAND TO A42	A197	70	"		285	ENDING DIAGRAM
A43	5	1/8"	22'-4"	480	OPPOSITE HAND TO A42	A198	34	3/4"	26'-8"	180	ENDING DIAGRAM
A44	3	3/4"	26'-8"	180		A199	540	3/4"	7'-6"	422	ENDING DIAGRAM
A45	540	3/4"	7'-6"	422	STRAIGHT	A200	192	3/4"	15'-0"	2895	ENDING DIAGRAM
A46	192	3/4"	15'-0"	2895		A201	256	1"	18'-6"	1633	ENDING DIAGRAM
A47	256	1"	18'-6"	1633		A202	132	1"	20'-6"	2800	ENDING DIAGRAM
A48	132	1"	20'-6"	2800		A203	224	1"	9'-0"	800	ENDING DIAGRAM
A49	224	1"	9'-0"	800		A204	232	3/4"	7'-0"	1550	ENDING DIAGRAM
A50	232	3/4"	7'-0"	1550	STRAIGHT	A205	28	2"	18'-0"	287	ENDING DIAGRAM
A51	28	2"	18'-0"	287		A206	192	3/4"	7'-6"	2219	ENDING DIAGRAM
A52	192	3/4"	7'-6"	2219		A207	36	1"	18'-3"	274	ENDING DIAGRAM
A53	36	1"	18'-3"	274		A208	12	1/4"	18'-4"	492	ENDING DIAGRAM
A54	12	1/4"	18'-4"	492							

NO.	BAR	SIZE	LENGTH	WEIGHT	REMARKS
P7	48	3/4"	6'-9"	275	STRAIGHT
P8	104	3/4"	4'-7"	405	
P9	104	3/4"	6'-0"	530	
P10	112	3/4"	2'-10"	119	
P11	104	3/4"	7'-0"	274	
P12	72	3/4"	8'-6"	230	STRAIGHT
P13	256	3/4"	4'-0"	385	
P14	224	3/4"	3'-9"	316	
P15	112	3/4"	10'-6"	442	
P16	64	3/4"	11'-0"	265	
P17	144	1/2"	15'-6"	2,999	STRAIGHT
P18	92	"	12'-0"	1,025	
P19	92	"	7'-0"	798	
P20	64	3/4"	4'-6"	245	
P21	56	"	5'-3"	250	
P22	4	"		28	
P23	4	"		29	
P24	16	3/4"	9'-6"	199	STRAIGHT
P25	16	3/4"	7'-6"	102	
P26	16	3/4"	5'-6"	75	
P27	16	3/4"	6'-0"	88	
					TOTAL WT. (IN LBS) OF BARS MARKED P- 13,137
					TOTAL WT. (IN LBS) ALL BARS THIS SHEET

MICHIGAN STATE HIGHWAY DEPARTMENT
 317 W. WAYNE
 4000 WOODWARD AVE., LANSING, MICH.
 CITY OF DETROIT
 ENGINEER: H. C. BROWN, CIVIL ENGINEER

BILL OF REINFORCING STEEL -
 ABUTMENTS & PORTALS

APPROVED: *[Signature]*
 APPROVED: *[Signature]*
 SHEET 30 OF 41

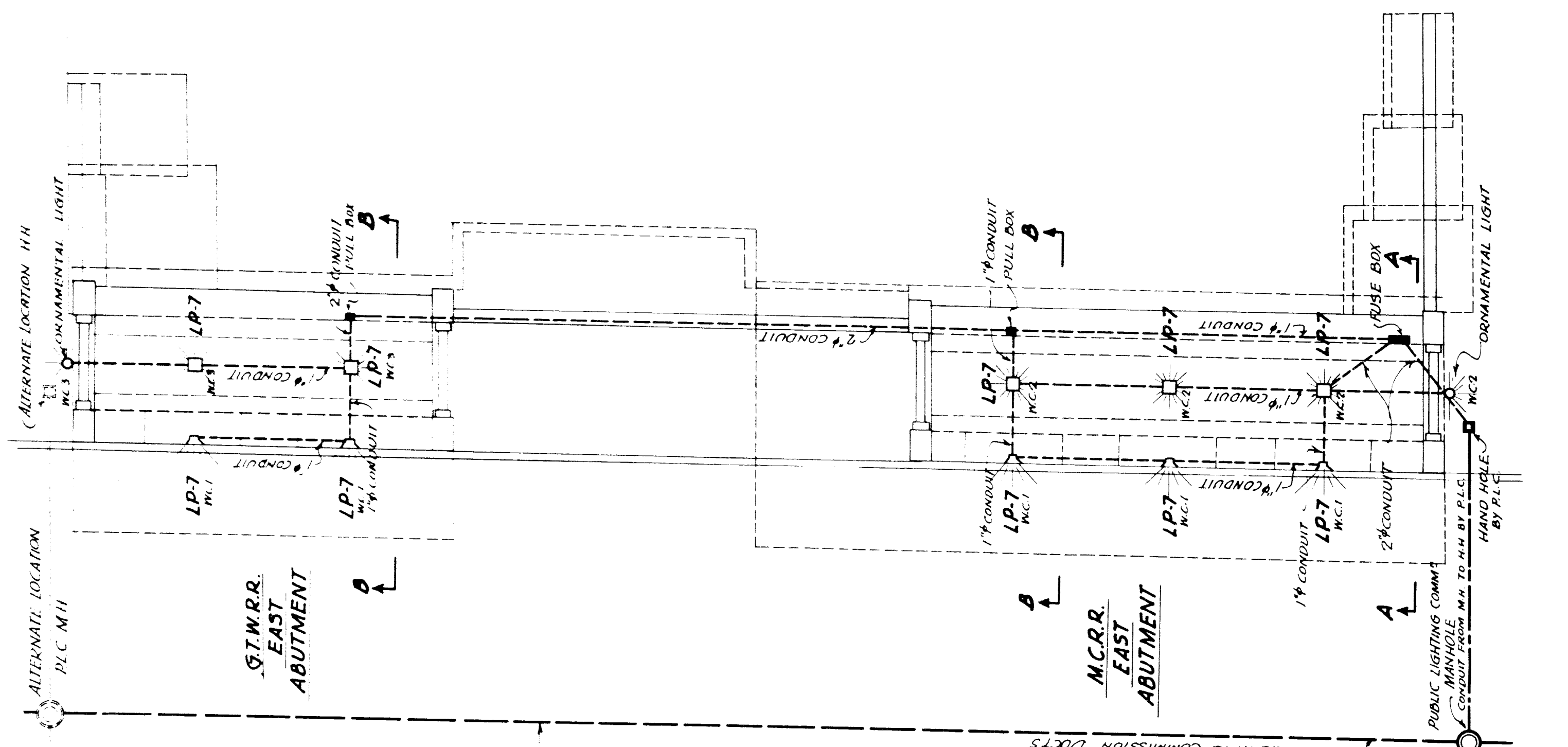
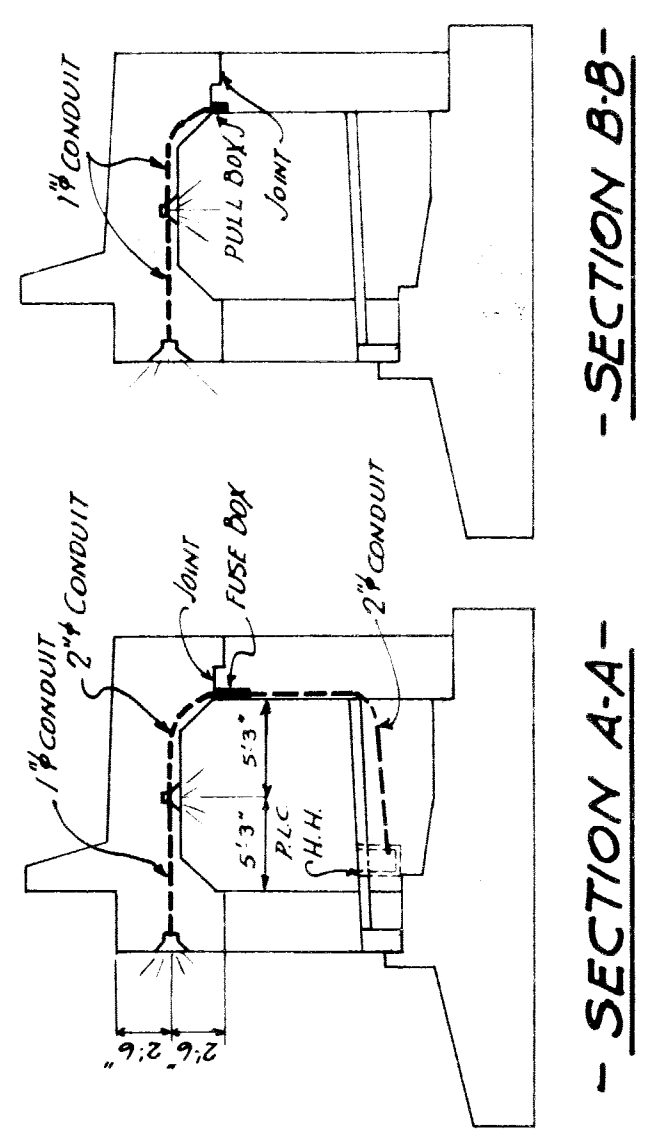
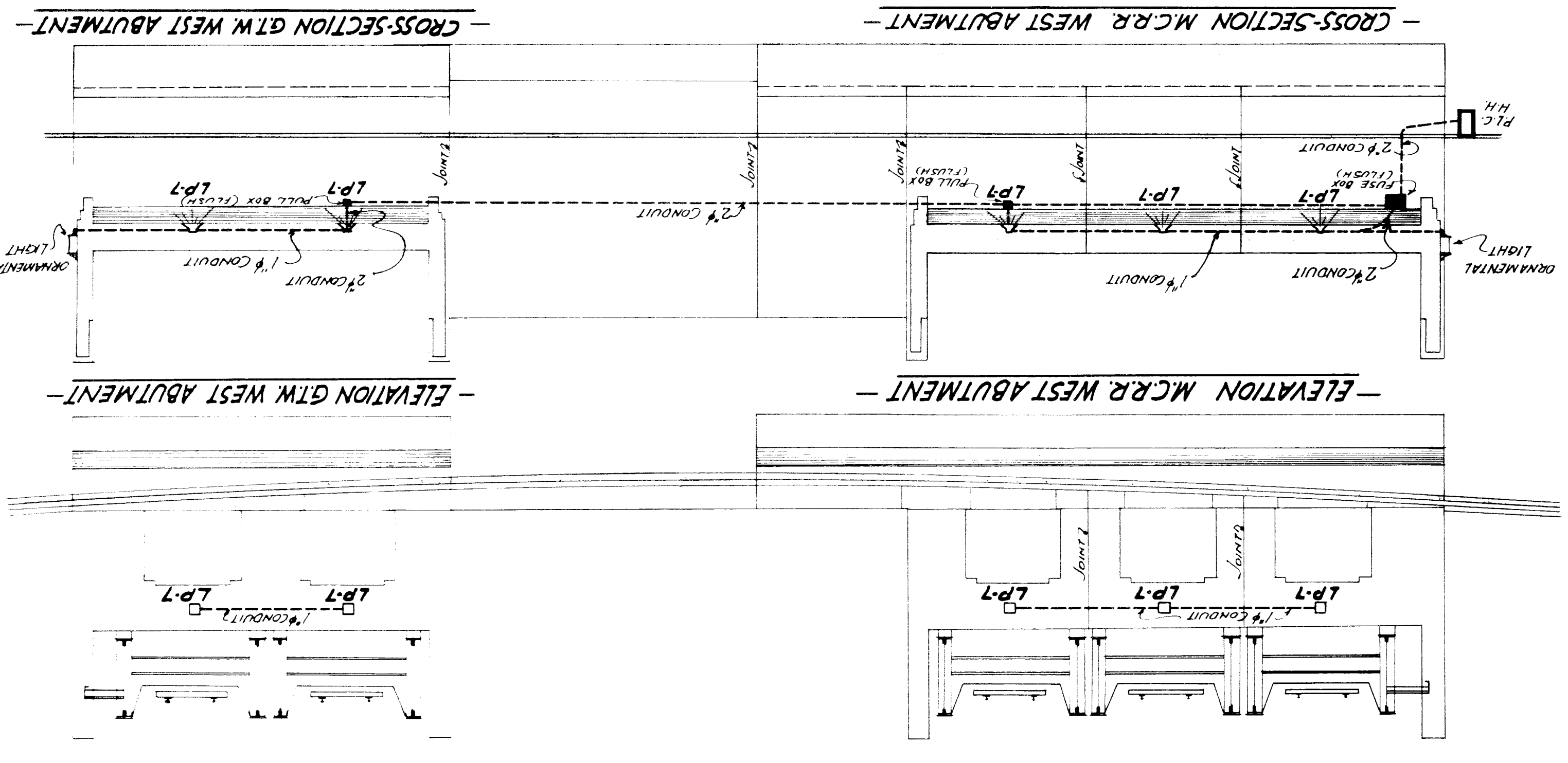
GENERAL NOTES

ALL LIGHTING UNITS 200 WATT, 110 VOLT.
 FOR DETAIL OF LIGHTING UNIT, LP-7 SEE DETAIL SHEET.
 ALL CONDUIT, FUSE, PULL BOXES TO BE GALVANIZED IRON.
 ALL CONDUIT TO BE 1/2" ABOVE THE TOP OF THE CURB.
 FUSE BOXES TO HAVE WATER TIGHT COVER.
 PUBLIC LIGHTING COMMISSION PHOENIX, 8 HAZARD TANK.
 PROVIDE SLEEVES FOR CONDUIT AT CONSTRUCTION JOINTS BETWEEN
 CONCRETE POUR SECTIONS.
 CIRCUITS ARE DESIGNATED EAST & WEST AND NUMBERED THUS
 E.C.1 - EAST CIRCUIT N.P.1, W.C.3 - WEST CIRCUIT N.P.3
 LOCATION OF ORNAMENTAL PORTAL LIGHT - BY ENGINEER

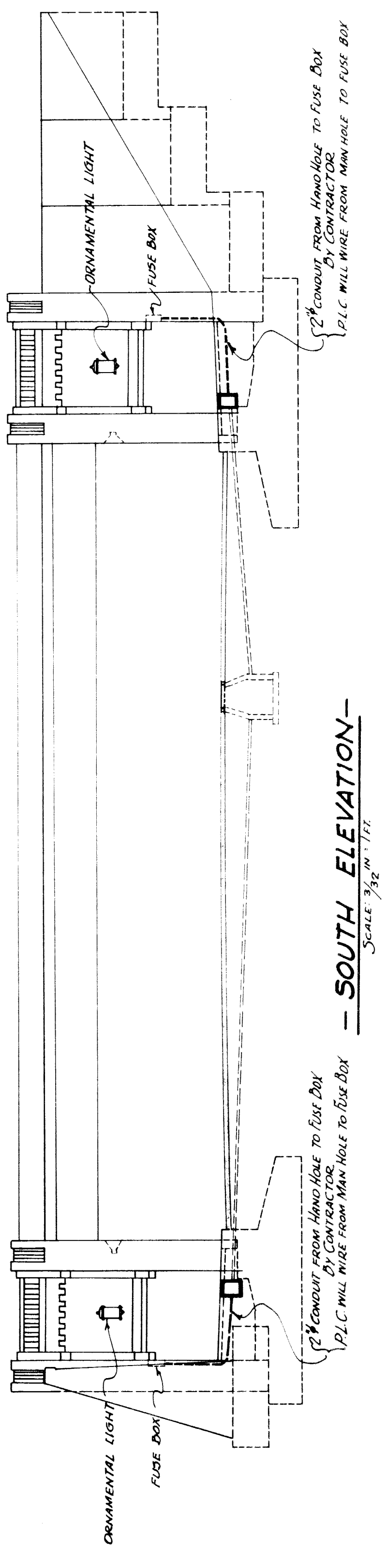
MICHIGAN STATE HIGHWAY DEPARTMENT
 WAYNE 00.
 BRIDGE FILE NO. X2 of 82-22-9 ROAD WOODWARD AVE, U.S. 10
 CITY OF DETROIT
 CROSSING M.C.R.R. - N.Y.C.R.R. - G.T.W.R.R.

APPROVED
 APPROVED
 P.A. WILCOX
 T.J. JENNINGS
 R.H. WALCOTT
 SHEET 22 44

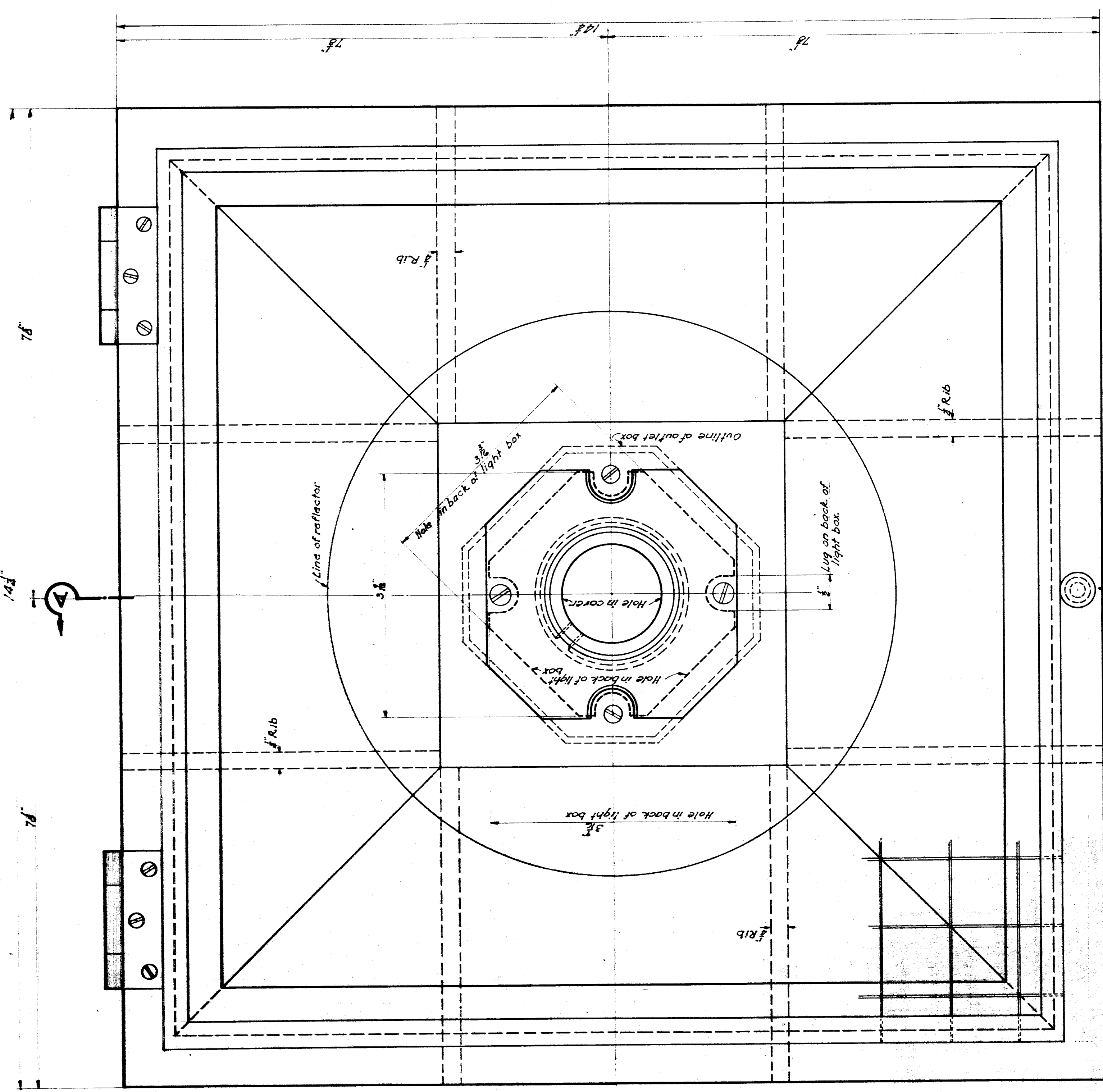
- LIGHTING PLAN -



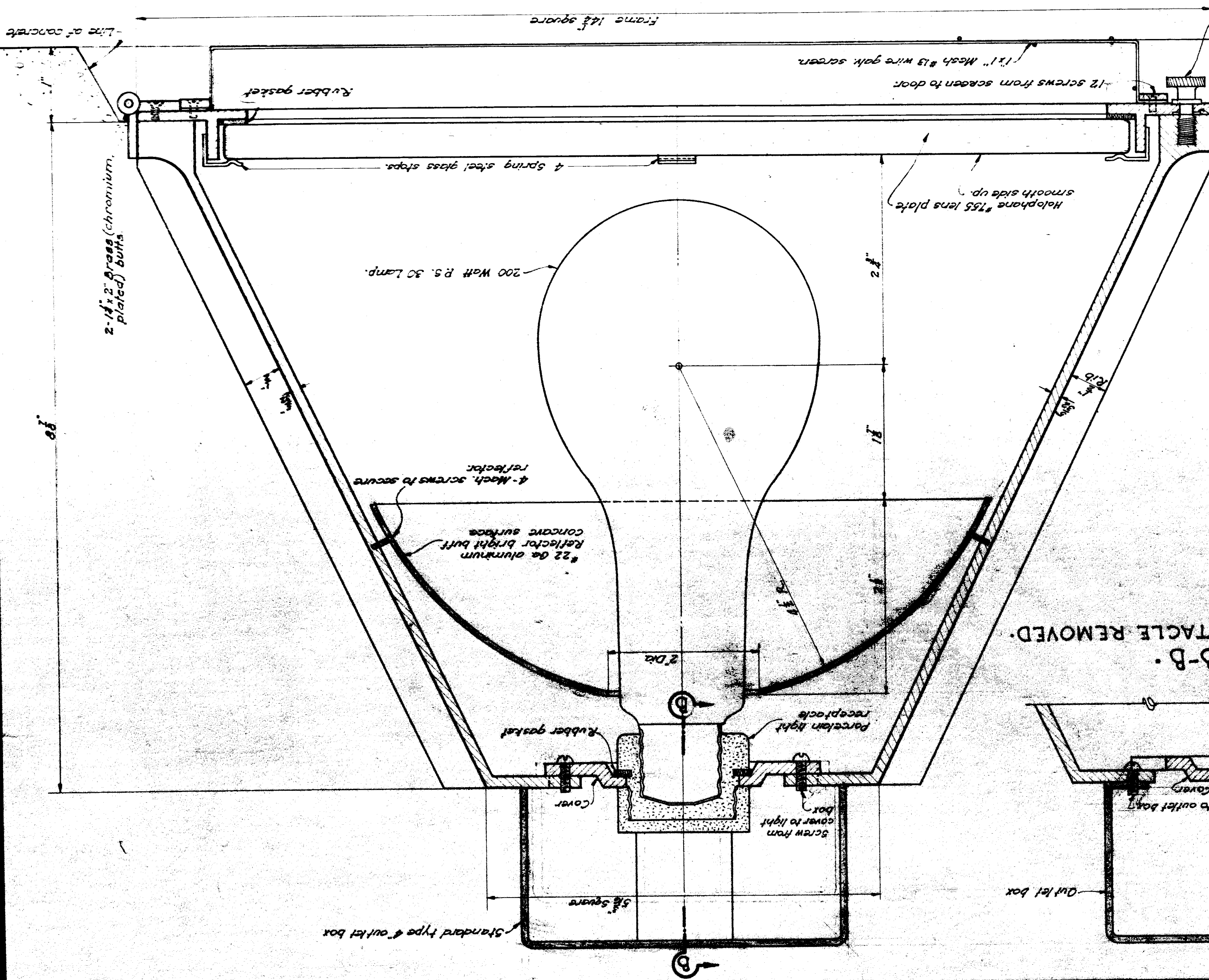
- GENERAL PLAN -
 SCALE: 3/8" = 1'-0"



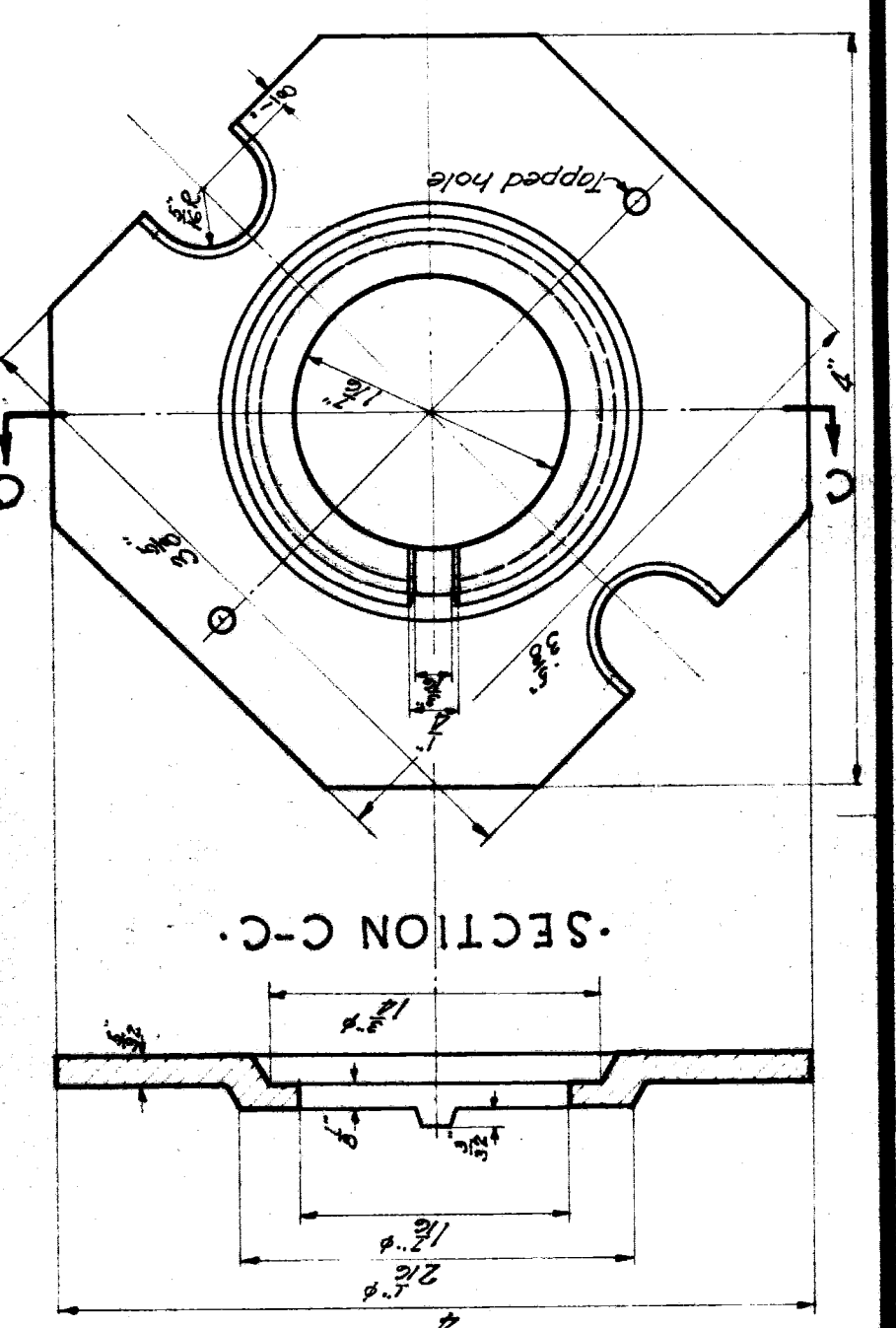
PLAN.
LENSE-LAMP & SOCKET REMOVED



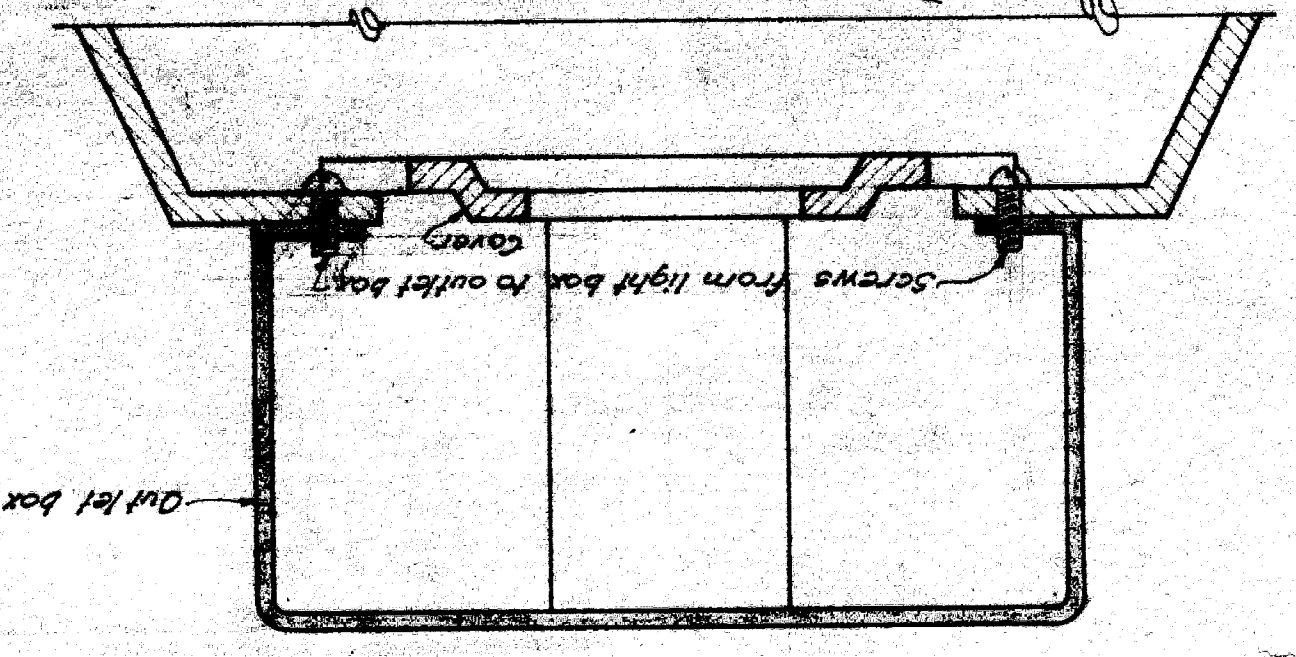
SECTION A-A



DETAIL OF COVER



SECTION B-B
PORCELAIN RECEPTACLE REMOVED



MICHIGAN STATE HIGHWAY DEPARTMENT
WAYNE CO.
BRIDGE FILE NO. X2 OF 82-22-9 ROAD WOODWARD AVE
CROSSING M.C.R.R. N.Y.C.R.R. & G.T.W.R.R. IN CITY OF DETROIT

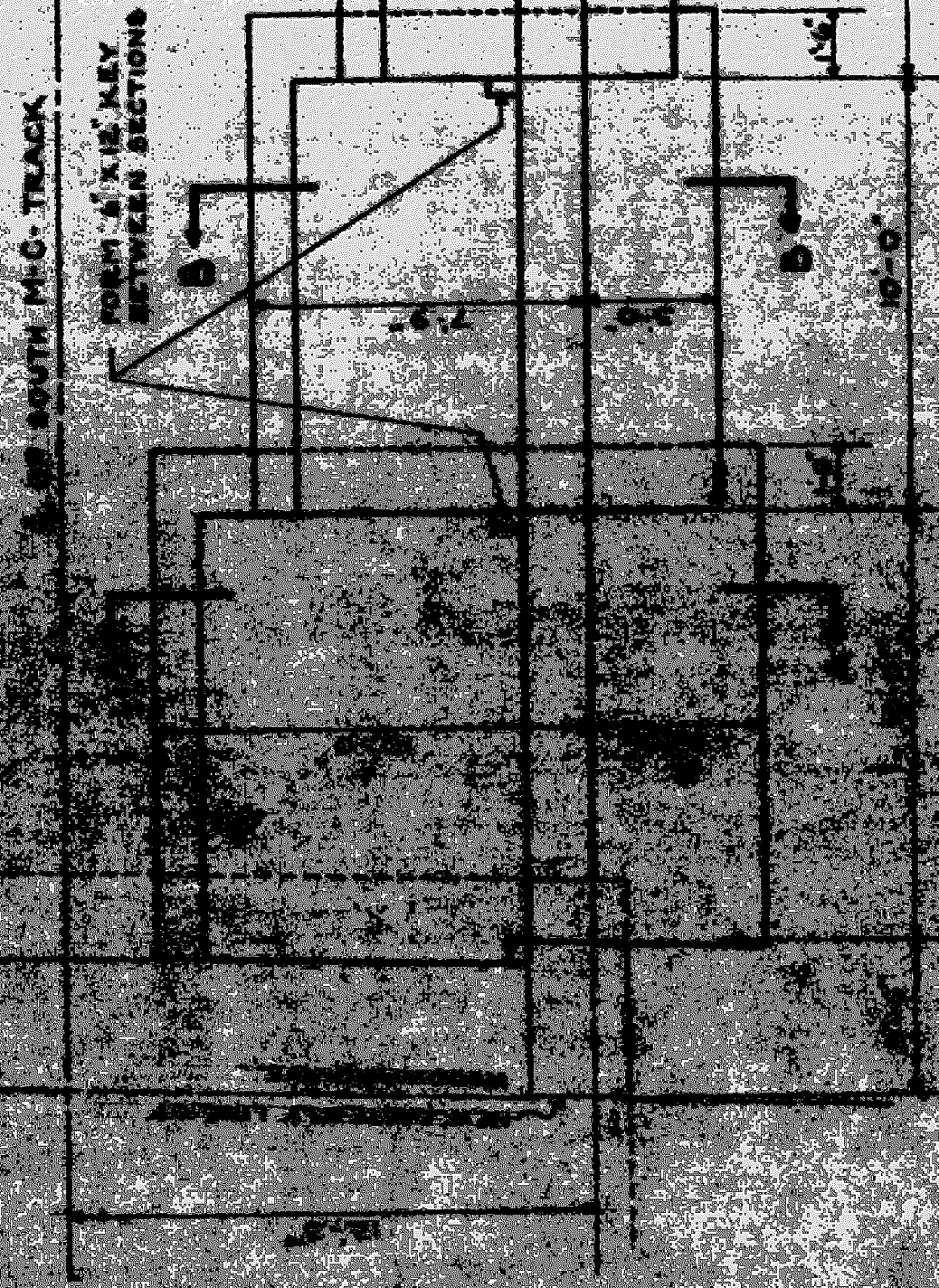
ALUMINUM LIGHTING UNIT L.P.7
Scale: Full Size

DESIGNED BY	R. S. Howard
DRAWN BY	R. B. M.
CHECKED BY	SAUER
FILED BY	GM/BSH
DATE	1-19-34
PROJECT	1-22-34
SHEET	23 of 44

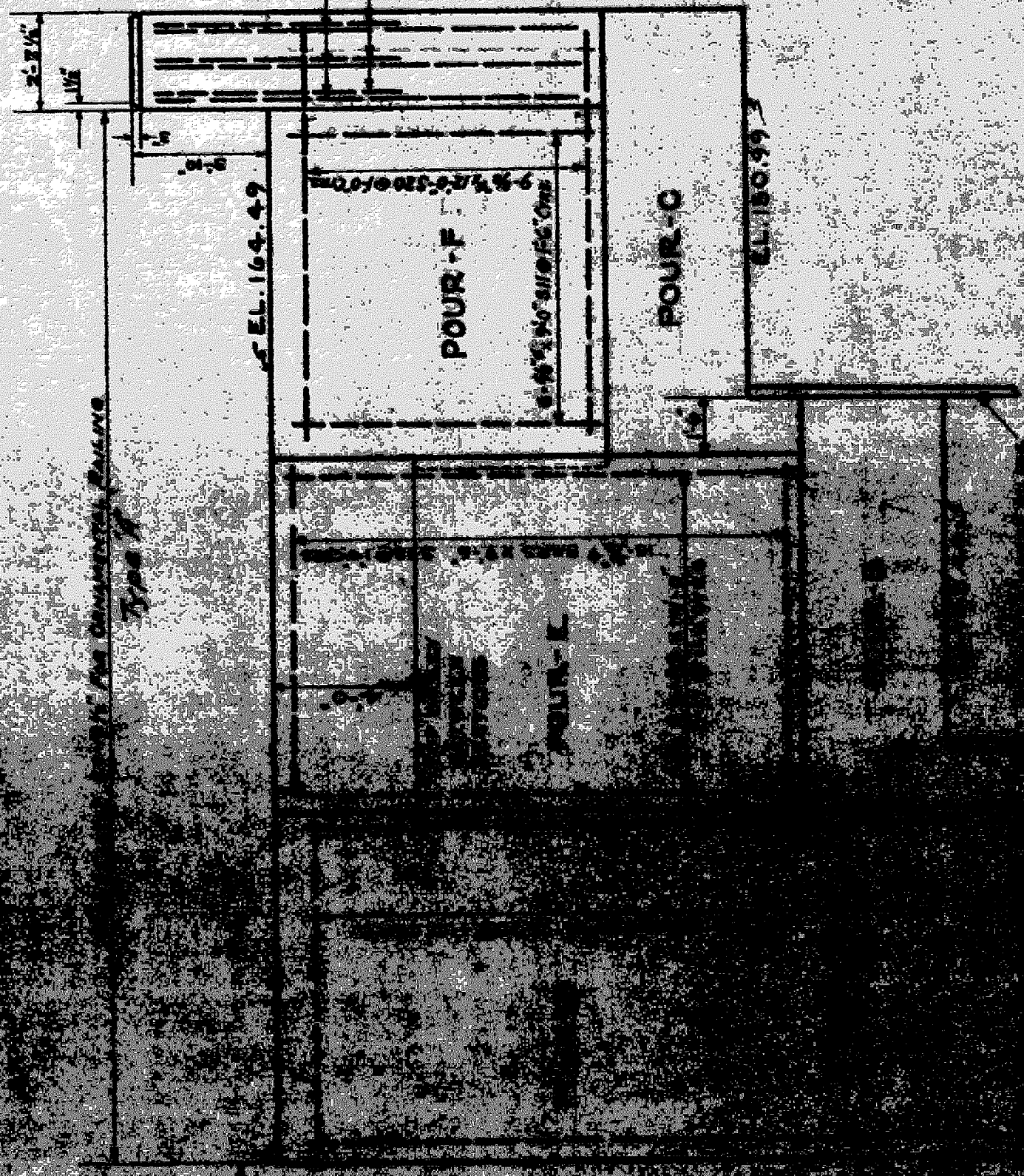
APPROVED
CHIEF ENGINEER
MICHIGAN STATE HIGHWAY DEPARTMENT
APPROVED
DIRECTOR OF BRIDGE DESIGN

Lighting Unit Box to be made of cast aluminum.

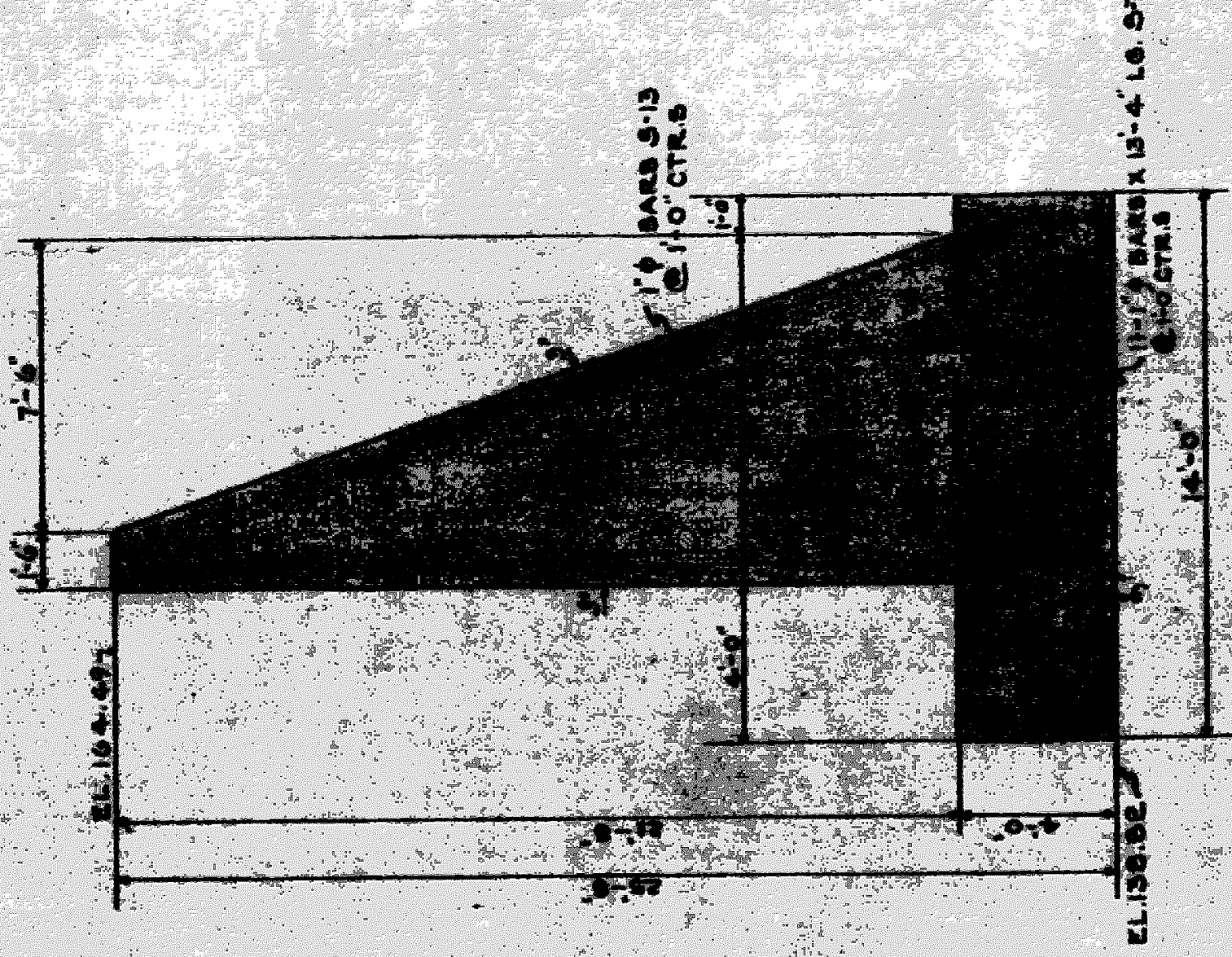
Drawn from Wayne County Road Commissions, Standard Lighting Unit for Grade Separations, April 14, 1932.



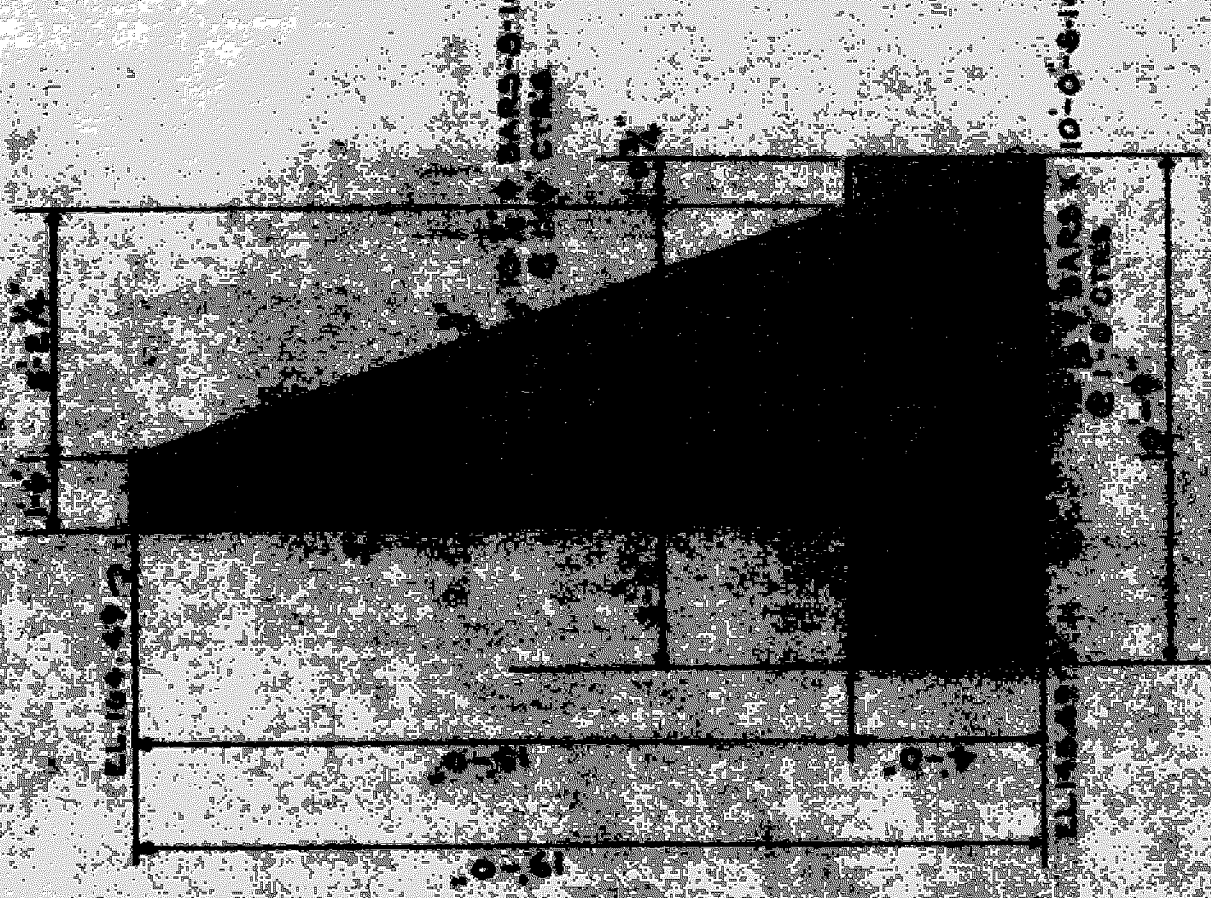
PLAN
SCALE: 1/4" = 1'-0"



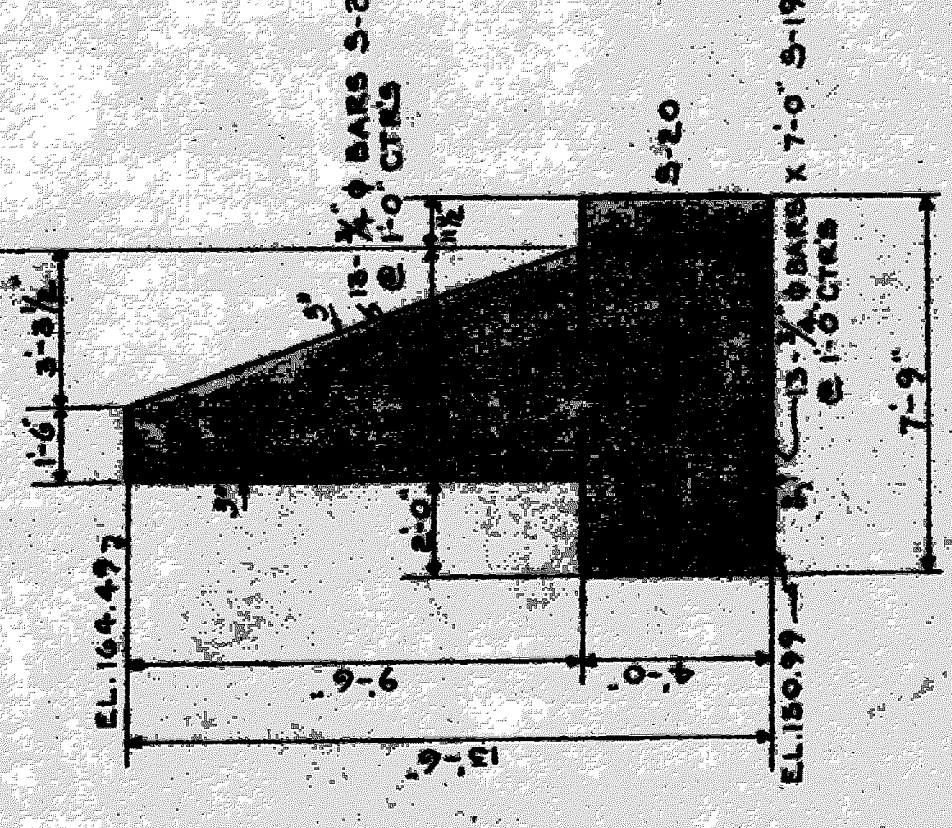
ELEVATION
RETAINING WALL
LOOKING EAST FROM SOUTH
OF EAST ABUTMENT.



SECTION-A-A

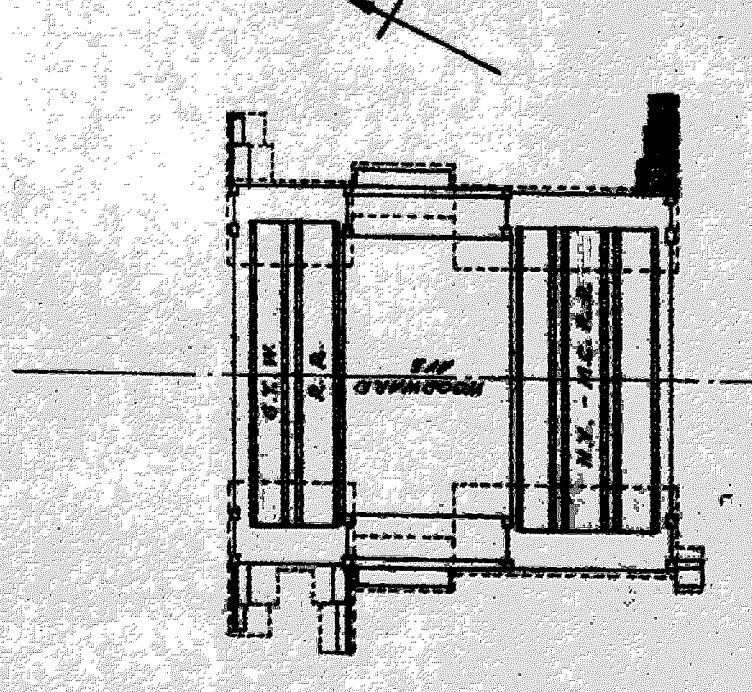


SECTION-B-B



SECTION-C-C

BAR LIST				CONCRETE QUANTITIES		
LOCATION	MARKING	REQ. SIZE	LENGTH	POUR NUMBER AND NO. OF BARS REQUIRED	LOCATION	POUR QUANTITY
FOOTING	S-7	1" #	13'-4"	7/11	FOOTING	A 23.49
NEAT WORK	S-10	7/8" #	21'-0"	7/27	"	B 19.10
"	S-11	7/8" #	9'-0"	7/27	"	C 14.54
FOOTING	S-12	1/2" #	10'-6"	7/14	NEAT WORK	D 43.57
"	S-13	1/2" #	13'-11"	7/10	"	E 23.55
"	S-14	1/2" #	10'-0"	7/12	"	F 16.00
"	S-15	1/2" #	11'-0"	7/11	"	
"	S-16	1/2" #	13'-5"	7/10	"	
NEAT WORK	S-17	7/8" #	14'-0"	7/27	"	
"	S-18	7/8" #	9'-6"	7/27	"	
FOOTING (NEAT)	S-19	3/4" #	7'-0"	7/15	"	
FTG & NEAT W	S-20	7/8" #	12'-0"	7/6	"	
FOOTING	S-21	3/4" #	10'-11"	7/12	"	



NOTE:
PROVIDE KEYWAYS AND USE SHEET LEAD (2" WIDE - 6%)
AT ALL VERTICAL JOINTS BETWEEN WALL SECTIONS.
SEE DETAIL SHEET # 17

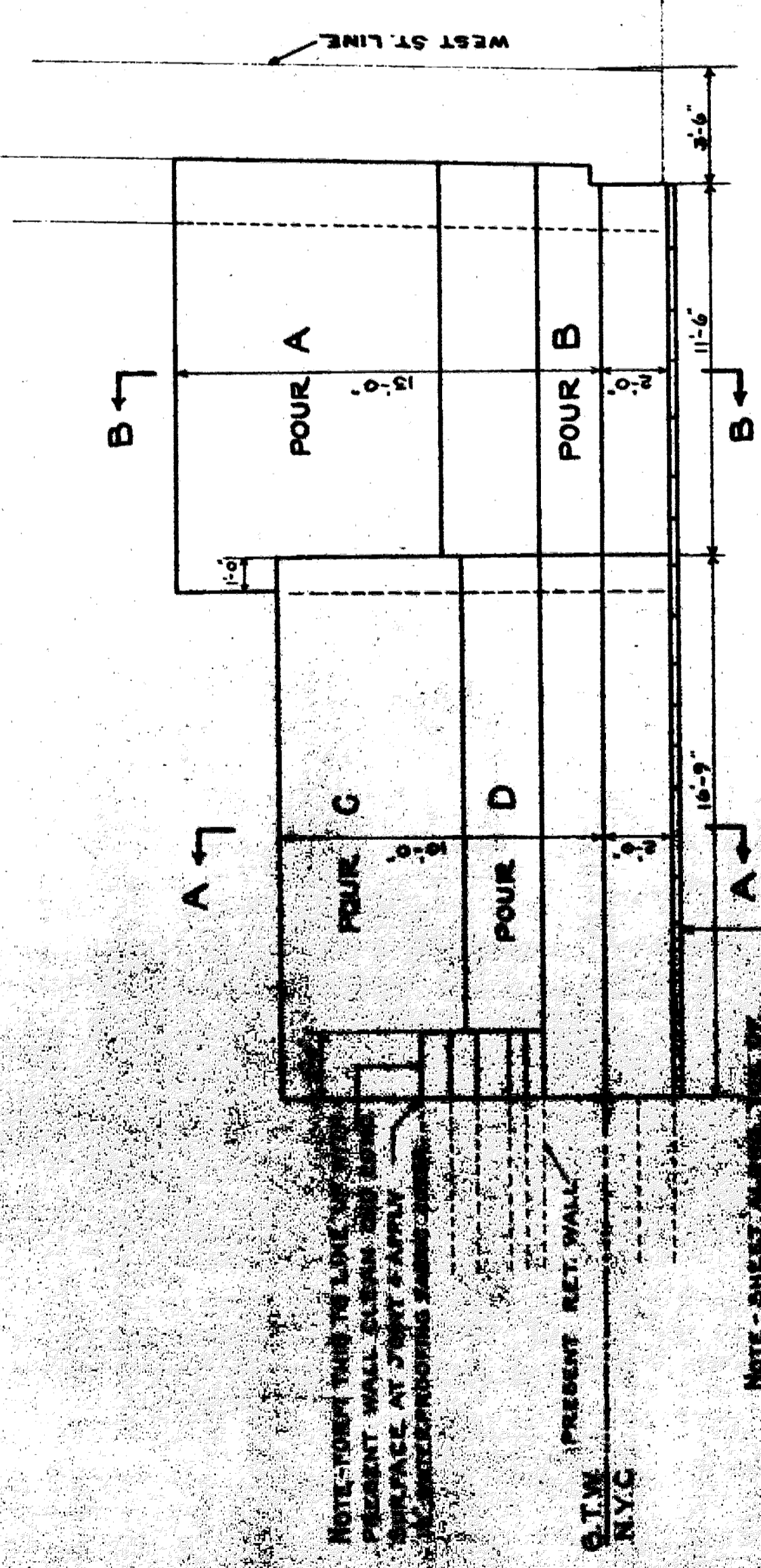
REINFORCING STEEL BILL SHEET 4/

MICHIGAN STATE HIGHWAY DEPARTMENT
WAYNE MI
ENGINEER: R. E. WOODWARD, U.S. 10
CITY OF DETROIT
CONTRACT: M.C.R.R.-N.Y.C.R.R.-61.W.R.R.
SOUTHEAST WING WALL - M.C.R.R.

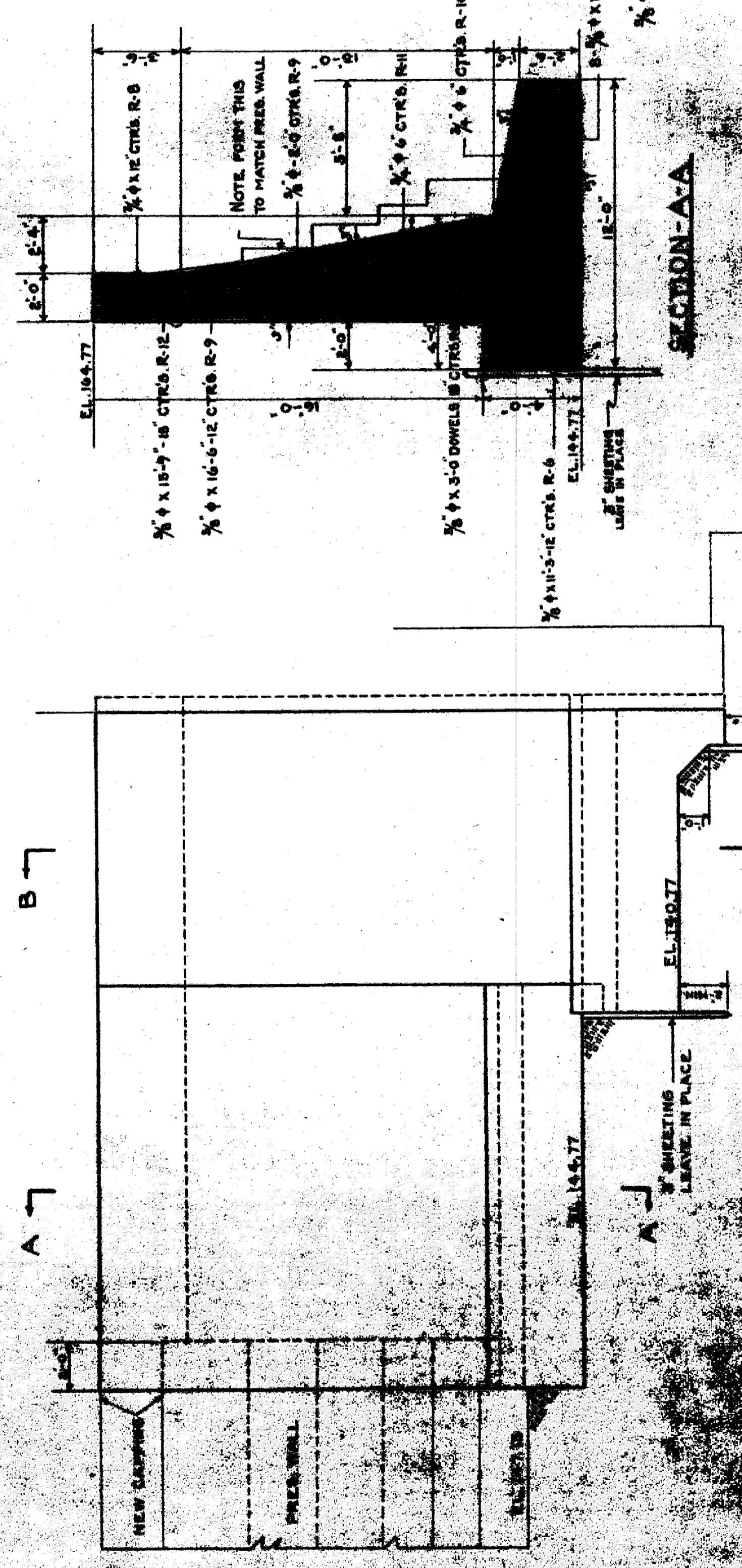
APPROVED: *[Signature]*
DRAWN BY: *[Signature]*
CHECKED BY: T.H.J.
FILED BY: *[Signature]*

SHEET	24	OF	44
DATE	1-3-34	BY	R.A. WALCOTT
CHECKED	1-3-34	BY	L.S.
DRAWN	1-3-34	BY	N.A.B.
DESIGNED	1-3-34	BY	T.H.J.
FILED	1-3-34	BY	R.A. WALCOTT

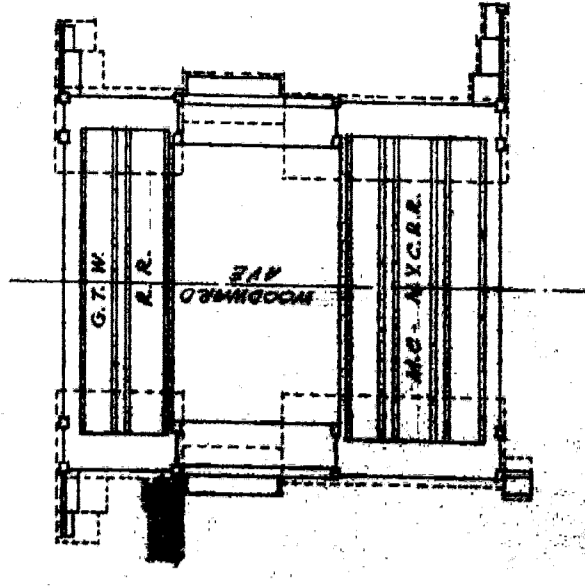
BAR LIST				CONCRETE QUANTITIES			
LOCATION	MARK NO.	REQ. SIZE	LENGTH	FOUR NO. AND NUMBER OF BARS REQUIRED	LOCATION	FOUR CU YDS	
FOOTING	R-1	13	14'-6"	7/16	FOOTING A	29.5	
	R-2	9	12'-0"	7/8	NEAT WORK B	28.4	
	R-3	25	14'-9"	7/8	FOOTING C	25.6	
FTG. & NEAT WK.	R-4	24	22'-3"	7/8	NEAT WORK D	30.7	
DOWELS	R-5	19	3'-0"	7/8			
NEAT WK. & FTG.	R-6	48	11'-3"	9/16			
NEAT WORK	R-7	8	19'-3"	9/8			
"	R-8	29	5'-0"	9/16			
FTG. & NEAT WK.	R-9	33	16'-6"	9/8			
FOOTING	R-10	33	11'-9"	7/8			
FTG. & NEAT WK.	R-11	33	18'-3"	7/8			
NEAT WORK	R-12	11	15'-9"	9/16			



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



ELEVATION
SCALE: 1/4" = 1'-0"



DETAIL OF VERTICAL JOINTS
WING WALLS
NOT TO SCALE

NOTE:
PROVIDE KEYWAYS AND USE SHEET LEAD (22' WIDE - 6/16")
IN ALL VERTICAL JOINTS IN NEW WALL SECTIONS.
SEE DETAIL THIS SHEET.

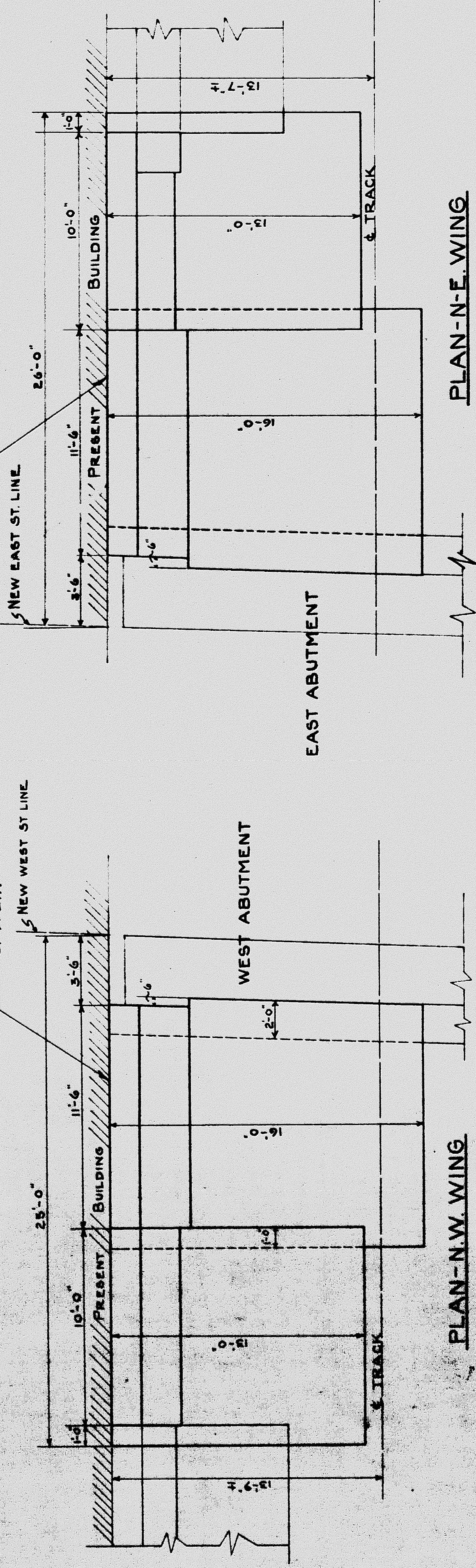
REINFORCING STEEL BILL SHEET 41

MICHIGAN STATE HIGHWAY DEPARTMENT
WAYNE MI
ENGINE FILE NO. XE 82-22-9 8MM WOODWARD AVE., US 10
CONCRETE M.C.R.R.-N.Y.C.R.R. - G.T.W.R.R. CITY OF DETROIT
SOUTHWEST WING WALLS - G.T.W.R.R.

APPROVED: *H. M. Foster*
APPROVED: *D. M. [Signature]*
SUPERVISOR OF BRIDGE CONSTRUCTION

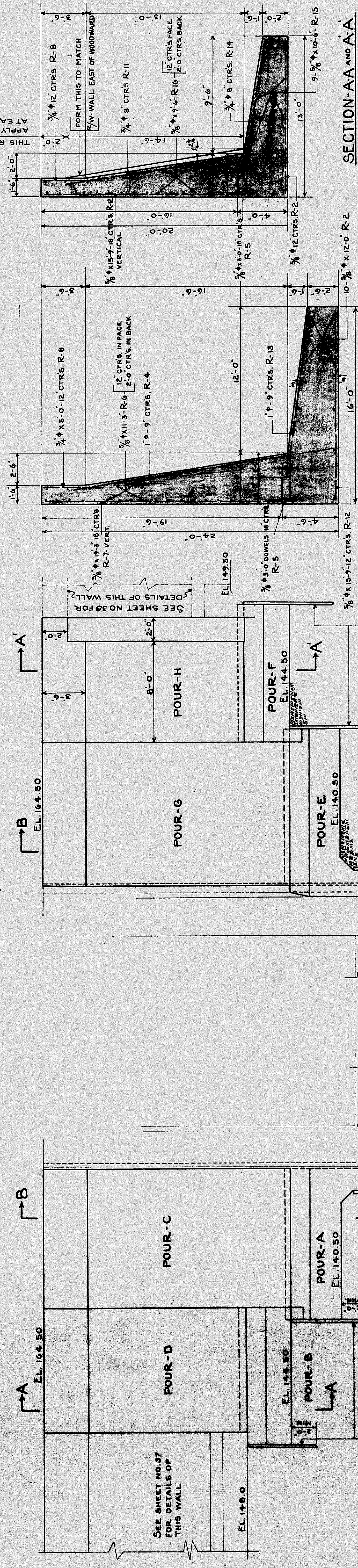
DESIGNED BY	R.A. WALDOTT
DRAWN BY	M.J.B.
CHECKED BY	N.A.B.
APPROVED BY	H.O.E.L.
FILED BY	1-19-34
SHEET	25 OF 44

Notes: No concrete to be poured directly against existing building walls on North right of way line. Face forming required in all cases sufficient to prevent damage to existing construction and provide satisfactory finish to face of wall.



BAR LIST				CONCRETE QUANTITIES			
LOCATION	MARK NO	REQ SIZE	LENGTH	FOUR NUMBER AND NO. OF BARS REQUIRED	FOOTING	NEAT WORK	FOOTING
FOOTING	R-2	3/8" Φ	12'-0"	7/16" 9/16" 5/16" 7/16"	A	B	28.43
"	R-4	1" Φ	22'-3"	7/16" 7/16"	C	D	16.18
NEAT WORK	R-5	3/8" Φ	3'-0"	7/16" 7/16"	E	F	21.04
"	R-6	3/8" Φ	11'-3"	5/16" 3/16" 5/16"	G	H	13.66
"	R-7	1/2" Φ	19'-3"	7/16" 7/16"	I	J	29.26
FOOTING	R-8	3/4" Φ	3'-0"	5/16" 5/16" 5/16" 5/16" 5/16"	K	L	16.18
FOOTING	R-11	3/4" Φ	18'-3"	7/16" 7/16" 7/16" 7/16" 7/16" 7/16"	M	N	21.23
FTG+NEAT WK	R-12	40 9/16" Φ	15'-9"	7/16" 7/16" 7/16" 7/16" 7/16"	O	P	13.89
FOOTING	R-13	3/4" Φ	17'-3"	7/16" 7/16" 7/16" 7/16" 7/16"	Q	R	
"	R-14	3/4" Φ	14'-6"	7/16" 7/16" 7/16" 7/16" 7/16"	S	T	
NEAT WORK	R-15	18 3/16" Φ	10'-6"	7/16" 7/16" 7/16" 7/16" 7/16"	U	V	
NEAT WORK	R-16	50 7/16" Φ	9'-6"	7/16" 7/16" 7/16" 7/16" 7/16"	W	X	

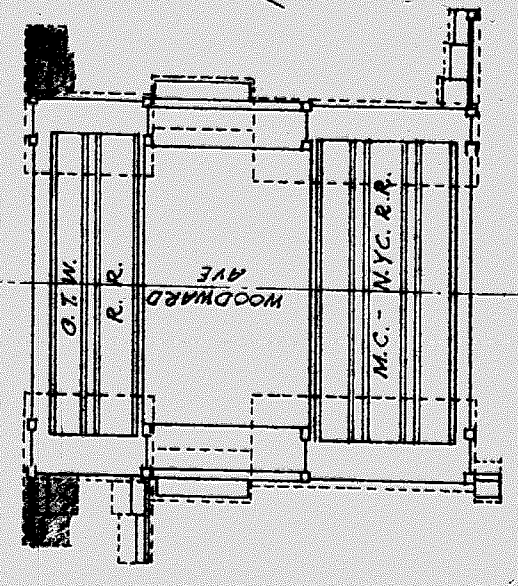
NOTE: PROVIDE KEYWAYS AND USE SHEET LEAD (22" WIDE - 6%) IN ALL VERTICAL JOINTS BETWEEN NEW WALL SECTIONS. SEE DETAIL SHEET W-25



SECTION-B-B

SECTION-A-A AND A-A

REINFORCING STEEL BILL SHEET 41



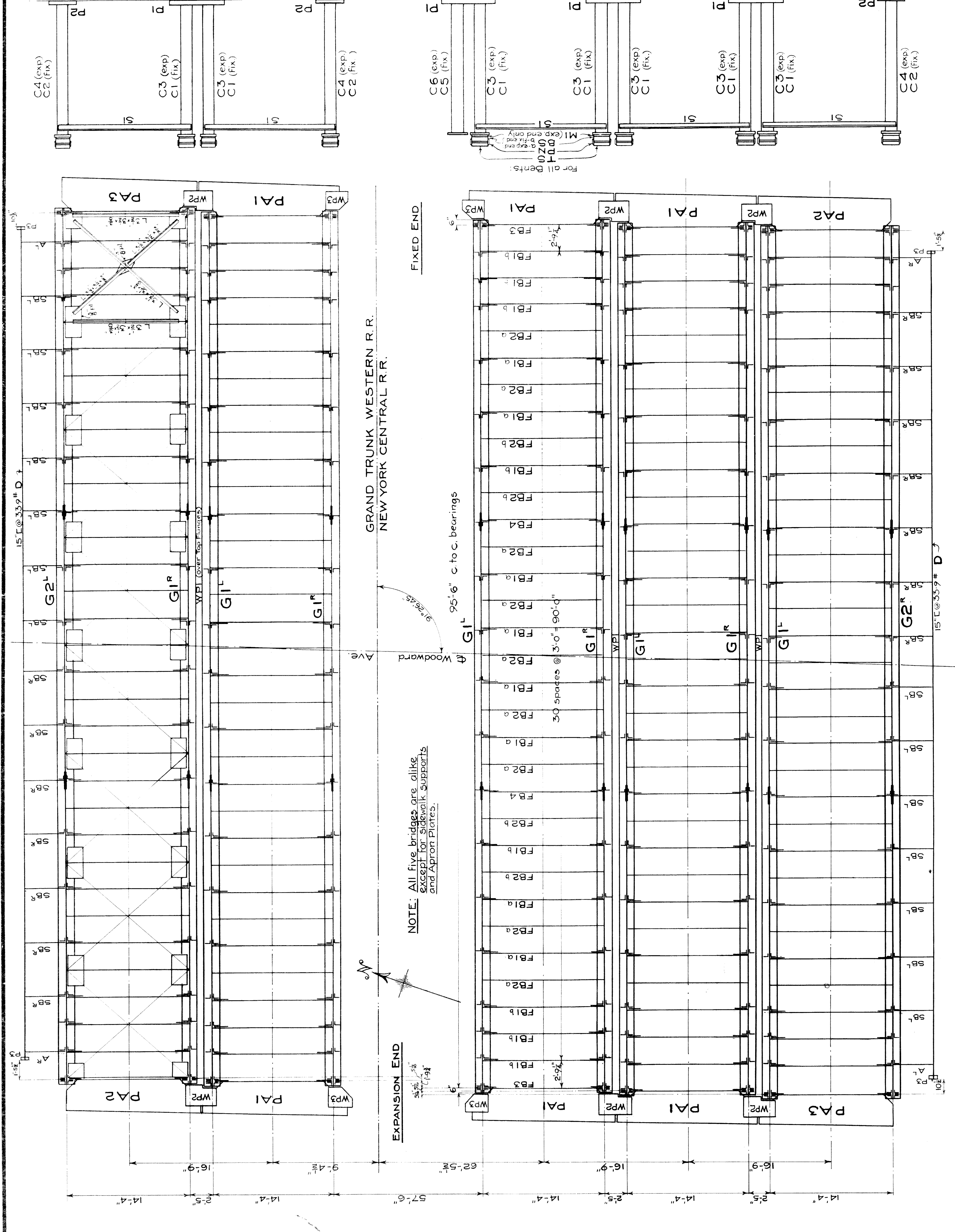
REAR-ELEVATION SCALE: 1/4" = 1'-0"

REAR-ELEVATION SCALE: 1/4" = 1'-0"

MICHIGAN STATE HIGHWAY DEPARTMENT
BRIDGE FILE NO. X2 OF 82-22-9 8000 WOODWARD AVE., US10
WAYNE MI
CROSSING M.C.R.R.-N.Y.C.R.R.-G.T.W.R.R. CITY OF DETROIT
NORTH WING WALLS - G.T.W.R.R.

APPROVED: [Signature]
APPROVED: [Signature]
ENGINEER BRIDGE DESIGN

SQUADROTT	R-A-WALCOTT
DRAWN BY	M-J-B
TRACED BY	N-A-B
CHECKED BY	H-D-F
FILED BY	I-B-34
SHEET	26 OF 44



MARKS	DESCRIPTIONS	NUMBERS		REMARKS
		INDIVIDUAL	TOTAL	
G1	Girders interm.	5	8	
G2	Girders outside	1	2	
FB1	Floor Beams	48	80	
FB2	Floor Beams	39	65	
FB3	End Floor Beams	6	10	
FB4	End Floor Beams at Web Splices	6	10	
SB	Sidewalk Brackets	14	14	28
A	Sidewalk End Supports	2	4	
WP2	Walkway End Plates	4	2	6
T5	Top Shoes	12	8	20
B5	Bottom Shoes	12	8	20
PN	Plins	12	8	20
M1	Bronze Exp. Plates	6	4	10
C1	Columns interm. East Side	5	2	7
C2	" " " " " "	1	2	3
C3	" " " " " "	5	2	7
C4	" " " " " "	1	2	3
C5	Column for Future bridge	1	1	1
C6	" " " " " "	1	1	1
S1	Struts in Col. Berths	12	8	20
P1	Base Plates for Two Columns	6	2	8
P2	" " " " " "	2	4	6
P3	" " " " " "	2	2	4
B1	Anchor Bolts for Columns	56	32	88
B2	Bolts for Castings TS	48	32	80
B3	Bolts for Plates P3, WP1-3	30	20	50
D	Sidewalk Channel Lin. FH 193-2 95'-2 186'-4			
WPI	Walkway Plates Lin. FH 192-2 96'-1 288'-3	3	2	5
	Bracings sets for bridges	4	2	6
PA1	Apron Plates	1	1	2
PA2	" " " " " "	1	1	2
PA3	" " " " " "	2	2	4
WP3	Walkway End Plates	2	2	4

Railing as noted on Sheet 34

GENERAL NOTES:

Specification -- AREA For Steel Railway Bridges, 1929 Manual, Except for Loading and Materials.
 Loading -- E 70 with full impact
 Materials:
 Structural Steel as per A.S.T.M. specification A7-35 T
 Rivet Steel A141-55
 Carbon Steel Castings " " A154-55T
 Phosphor Bronze Plates " " B 22-21
 Paint Materials as per Mich. State Highway Spec.
 Shop Paint for steel to consist of one coat which shall be in accordance with the following formula otherwise known as painting mixture #1 of the M.S.H. Specification:

Mill and Shop Inspection by Mich State Highway Dept.
 Rivets: - 1" dia. in girders, 3/4" dia. in other parts
 Open Holes: 1 1/8" dia in girder, 1 1/4" dia. in other parts, unless noted.
 All fabrication shall be according to the specification for "Reamed Work" sections 211-213 incl. of A.R.A. 1924 spec

For Railing see Sheet 34

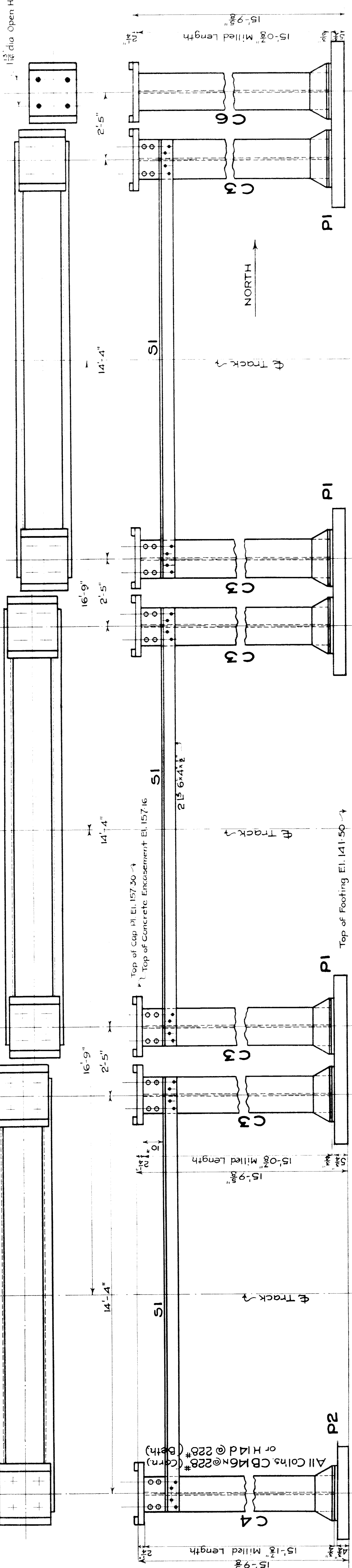
MICHIGAN STATE HIGHWAY DEPARTMENT
 WAYNE
 BRIDGE FILE NO. X20822-9 ROAD WOODWARD AVE. - US 10.
 CROSSING MCRR-NY.C.R.R.-G.T.W.R.R. IN CITY OF DETROIT

STEEL ERECTION PLAN

APPROVED: *A. M. Stetler*
 APPROVED: *O. H. S. Koch*
 O.H.S. KOCH
 KRUIZE 12-19-33
 KRUIZE 12-19-33
 O.H.S.K.
 FILED BY: 27-14

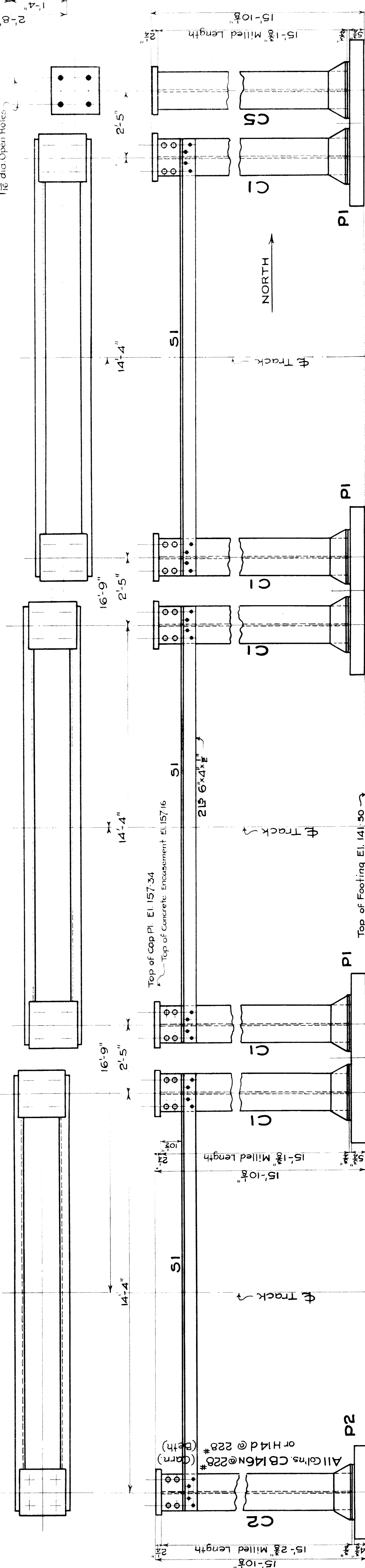
PLAN.

1 1/8" dia. Open Holes



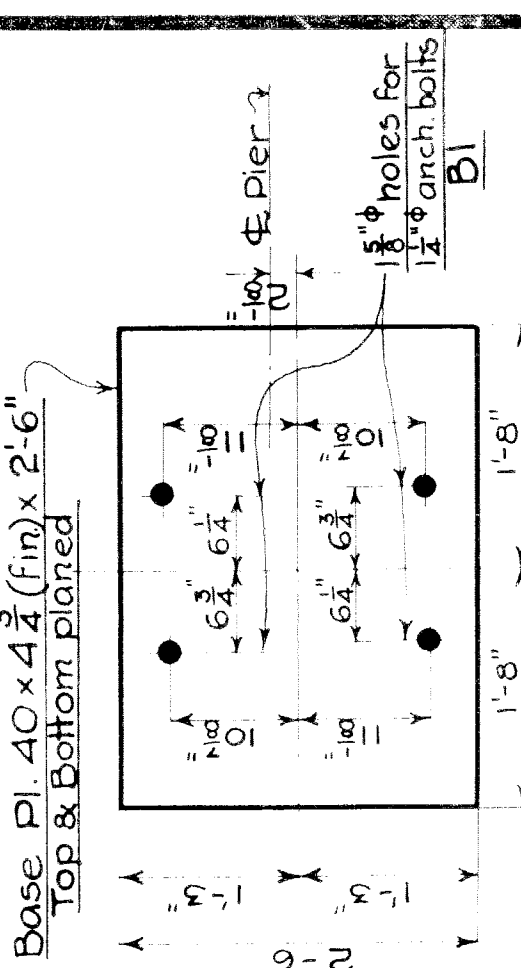
WEST BENTS. (EXP. END)

NOTE: Plan of Column Bases is same as for EAST BENTS (See below).
SCALE: 1/2" = 1'-0"



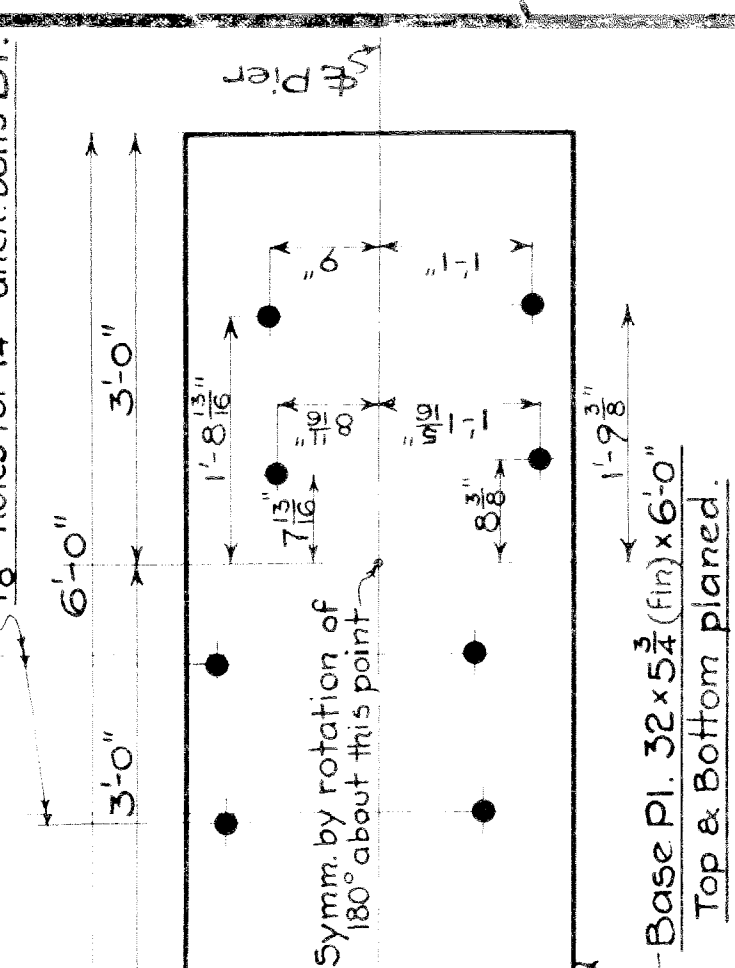
EAST BENTS. (FIXED END)

SCALE: 1/2" = 1'-0"



BASE PLATE P2.

Scale: 3/4" = 1'-0"



BASE PLATE P1.

Scale: 3/4" = 1'-0"

NOTES:

Columns C5 & C6 are same as C1 & C3 respectively with bolts on top and rivet holes for member S1 connection omitted.

Rivets: 7/8" dia. rivet holes - 1 1/8" dia.

For Details of Column Tops & Column Bases see Sh. 30

Work this Sheet and Sheet 30 together.

MICHIGAN STATE HIGHWAY DEPARTMENT
WAYNE
BRIDGE FILE NO. X2-08-22-9 ROAD WOODWARD AVE. - US 10
CROSSING MCRR-NYCR-NTW.R.R. IN CITY OF DETROIT.

STEEL

COLUMN BENTS: MCRR-NYCR.

APPROVED: *[Signature]*
APPROVED: *[Signature]*

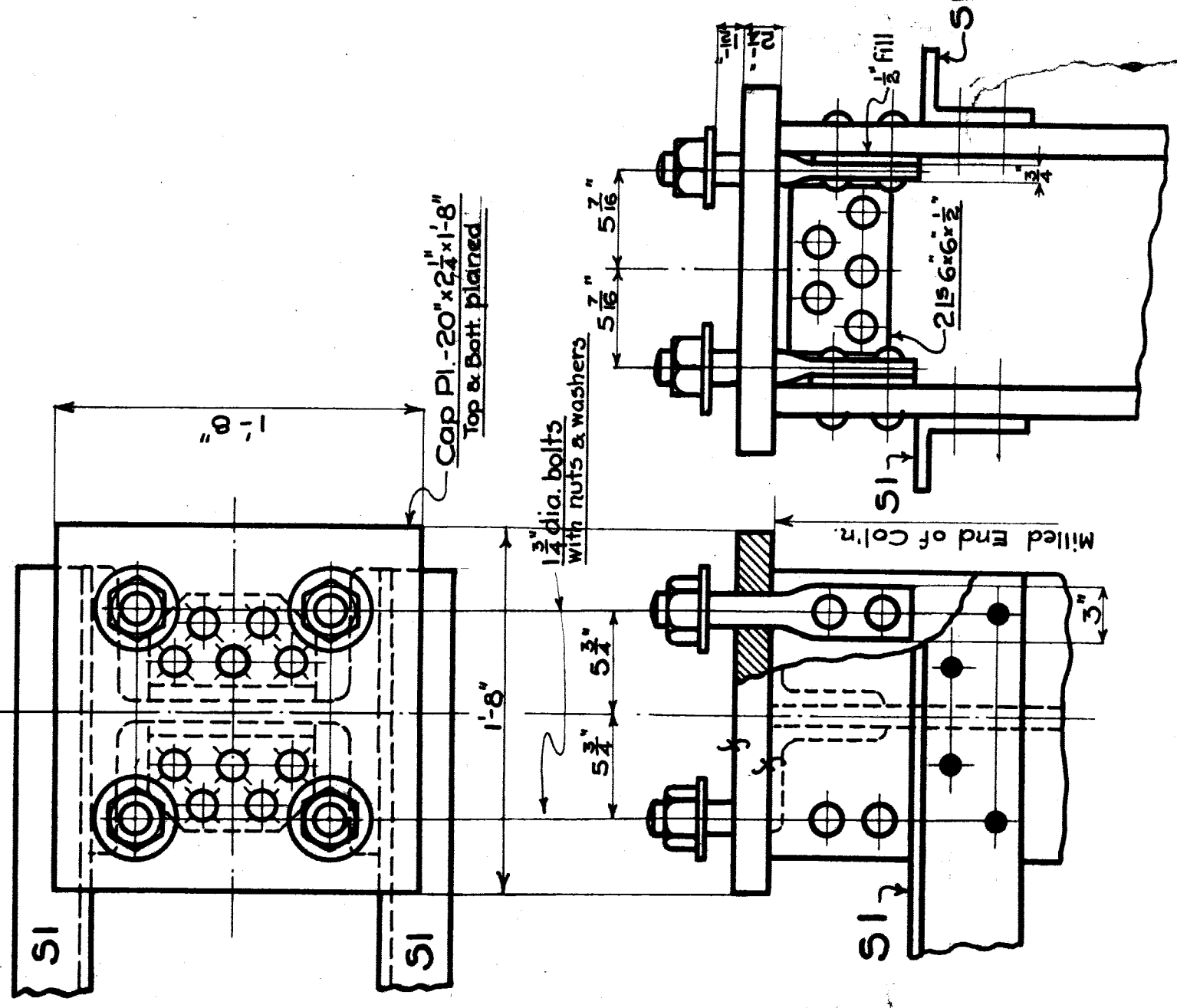
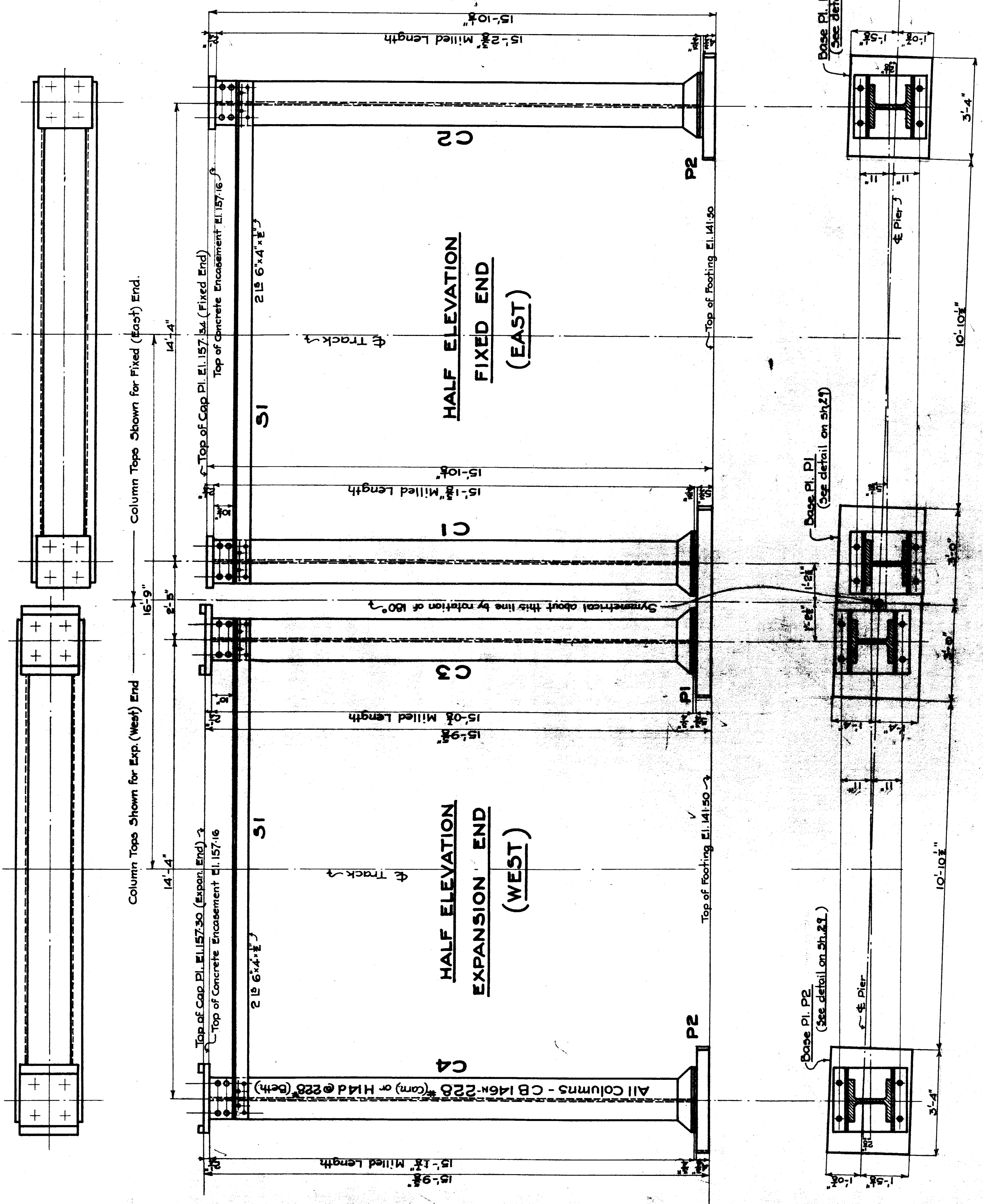
DESIGNED BY: O.H.S. KOCH
DRAWN BY: KRUIZE
CHECKED BY: KRUIZE
SCALE: 1/2" = 1'-0"



DETAIL OF ANCHOR BOLT B1 WITH NUT & WASHER

FILE NO. 29

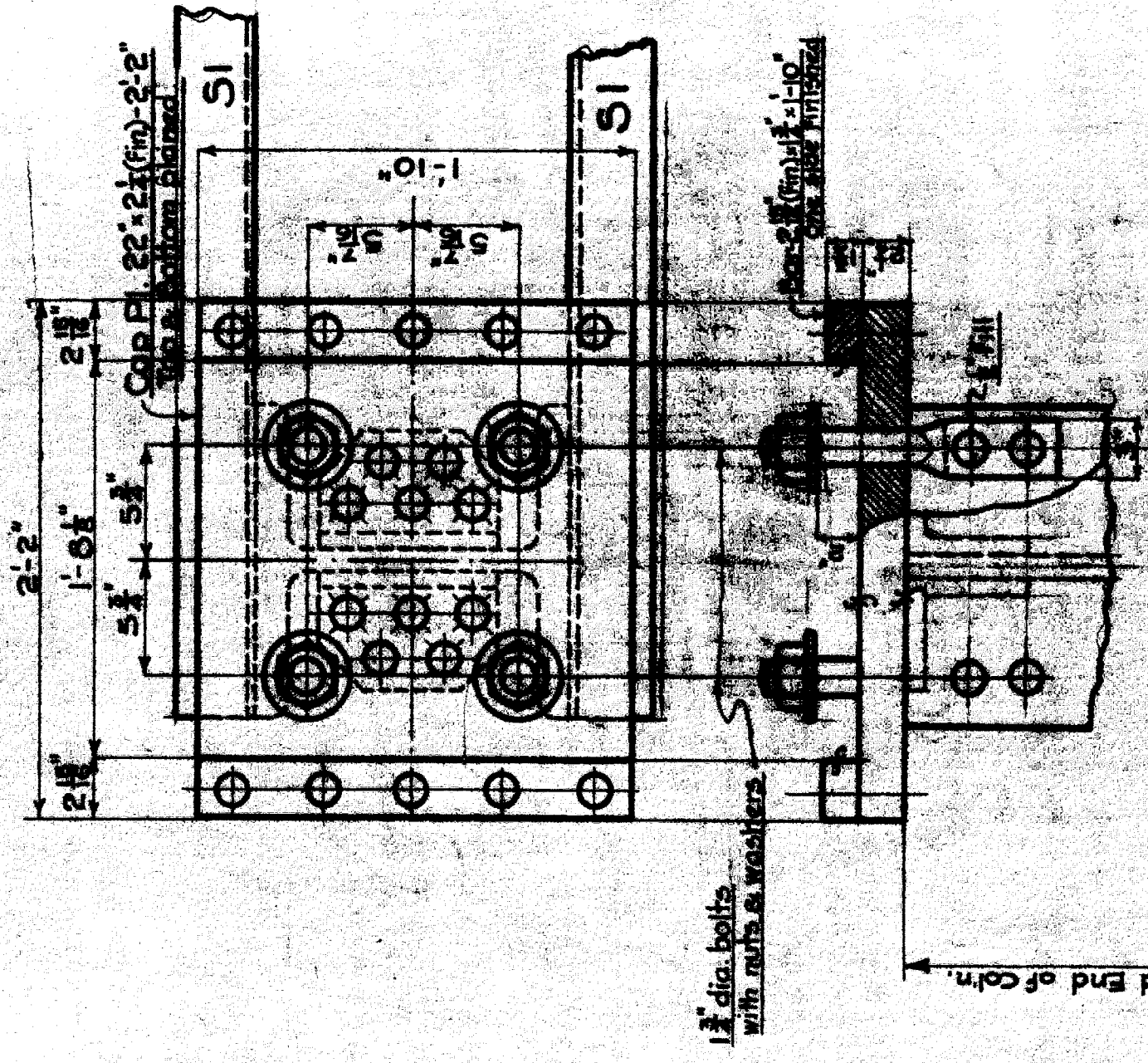
PLATE, UTM-10



DETAIL OF COLUMN TOP.
COLUMNS C1 & C2.

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

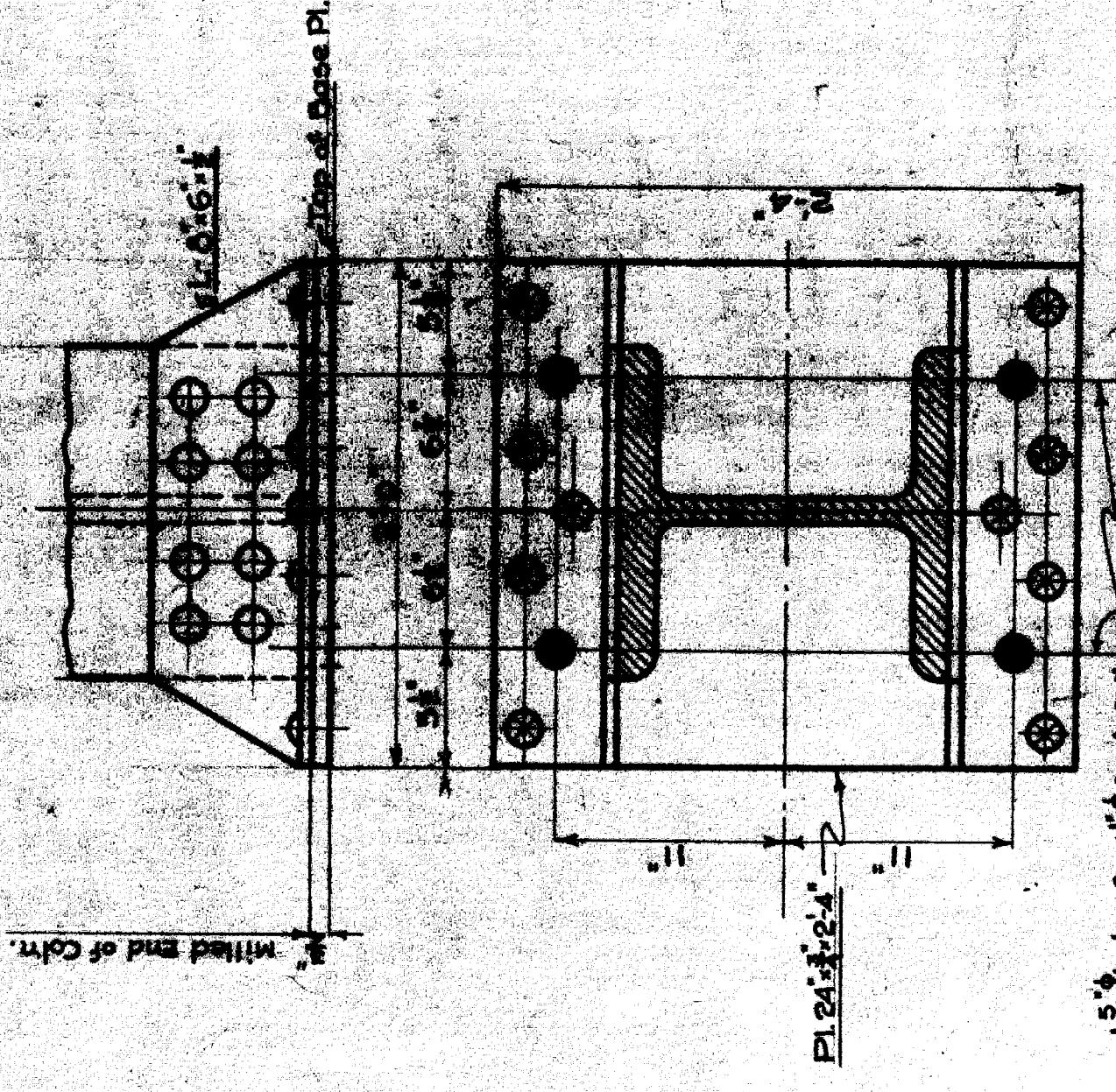
REQUIRED LIST (for Bents only)			
MARKS	N.Y.C. M.C.	G.T.W. Total	WEIGHT
P1	6	2	8
P2	2	4	6
C1	5	2	7
C2	1	2	3
C3	5	2	7
C4	1	2	3
C5	1	-	1
C6	1	-	1
B1	56	32	88
S1	12	6	20
			149067



DETAIL OF COLUMN TOP
COLUMNS C3 & C4

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

NOTES: Details not shown are same as for Cols. C1 & C2.



DETAIL OF COLUMN BASE.

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

Work this Sheet and Sheet 29 together.
MICHIGAN STATE HIGHWAY DEPARTMENT
 WAYNE MI.
 BRIDGE FILE NO. X2 OF 82-22-9 RMB WOODWARD AVE - US 10.
 CROSSING M.C.R.R. - N.Y.C.R.R. - G.T.W.R.R. IN CITY OF DETROIT.

STEEL
COLUMN BENTS - G.T.W.R.R.

APPROVED: *[Signature]*
 APPROVED: *[Signature]*
 O.H.S. KOCH
 DRAWN BY KRUISE 12-29-34
 TRACED BY KRUISE 1-2-34
 CHECKED BY O.H.S.K. 1-15-34
 FILED BY SHEET 30 OF 44

Rivets: 3/4" dia.
 Open Holes: 1 1/8" dia.
 unless noted.

PLAN.
 SCALE: 1/2"=1'-0"

90' of No. of Girders
15' of c. to c. Spacing

EXPAN. END

WEDGEMAN AVE

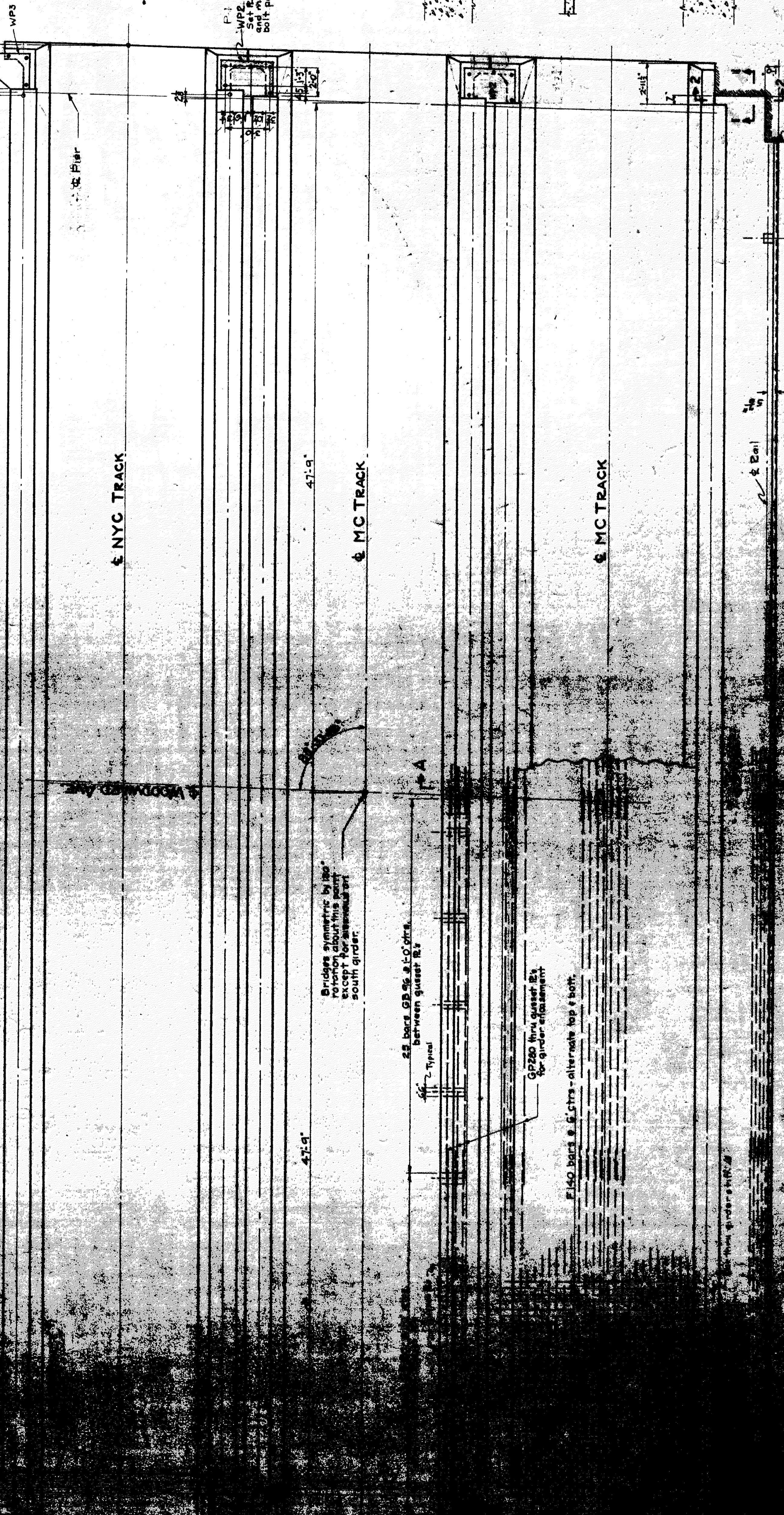
NYC TRACK

MC TRACK

MC TRACK

FLOOR PLAN

FIXED END



Bridges symmetric by top
reference about this point
except for approach and
south girder.

25 bars c.c. 8'-0" c.c.
between girders & 1'

2 Typical

G2280 form gasket B4
for girder attachment

140 bars c.c. 6' c.c. - alternate top & bottom

WP2
WP3
Set in place
bolt positions direct

SEC. 1-1

SEC. 2-2

SEC. 3-3

SEC. 4-4

SEE SHEET 83
FOR DETAILS
AND QUANTITIES

GENERAL NOTES

CONCRETE - MICH. STATE HIGHWAY DEPT.
CONCRETE - CLASS A
AGGREGATES - CLASS B
REINFORCING STEEL - MED. GRADE BILLET STEEL
AS PER A.S.T.M. SPEC. DEFORMED UNLESS NOTED.
SPEC. FOR WATERPROOFING - AM. BY ENG. ASS'N. SPEC.
FOR WATERPROOFING OF SOLID FLOOR BY BRIDGES
MANUAL 1929 - ASPHALTIC SURFACE PRIMER,
TYPE 'A' MEMBRANE, AND POURED-IN-PLACE
MASTIC 1/2" THICK.

MICHIGAN STATE HIGHWAY DEPARTMENT
WAYNE
U.S. 10
WEDGEMAN AVE.
CROSSING M.C.R.-NYC.R.-G.T.W.R. IN DETROIT

CONCRETE DECK
M.C. NYC BRIDGES

Table with columns for DRAWN BY, CHECKED BY, and DATE. Includes names like S. L. K. and dates like 1-17-34.



SEE SHEET 33 FOR
DETAILS AND QUANTITIES

SEE SHEET 34 FOR
DETAILS

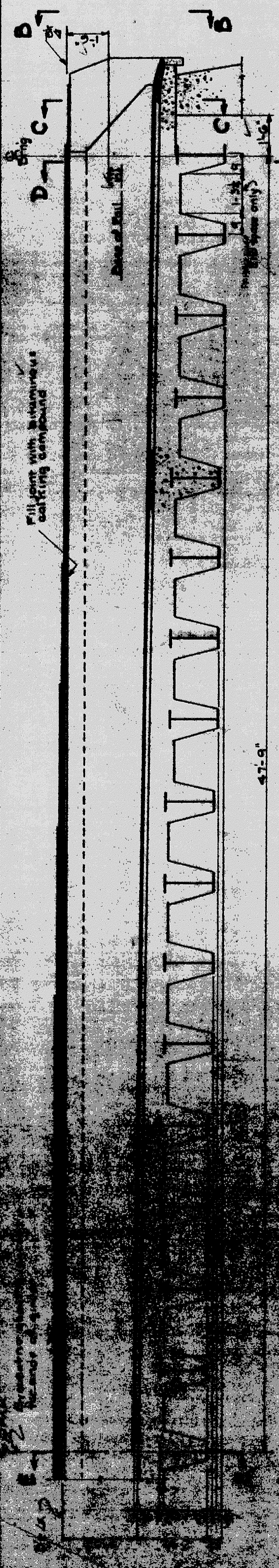
MICHIGAN STATE HIGHWAY DEPARTMENT
 BRIDGE NO. 1012 OF SR. 27-9. R.M.E. D.B. 10. WAYNE
 CROSSING M.C.R.R. - M.C.R.R. - OTWEE. ON DETROIT

CONCRETE DECK
 GRAND TRUNK BRIDGE

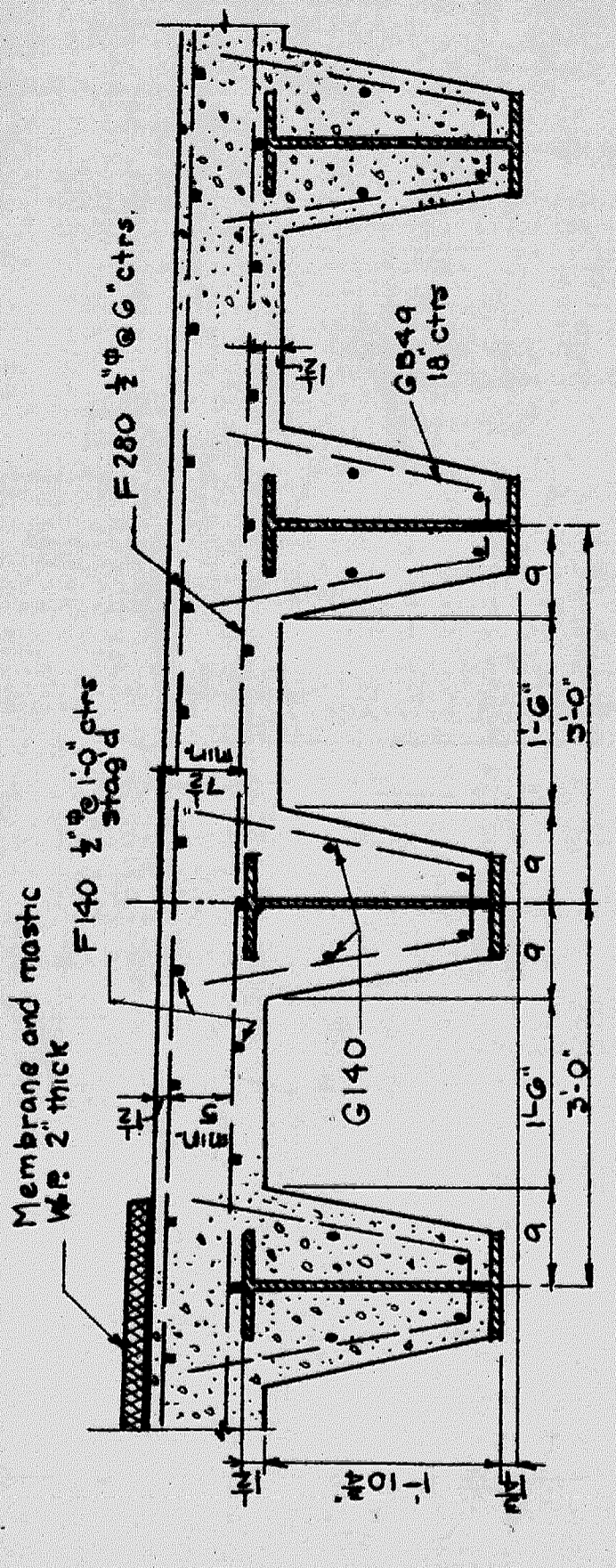
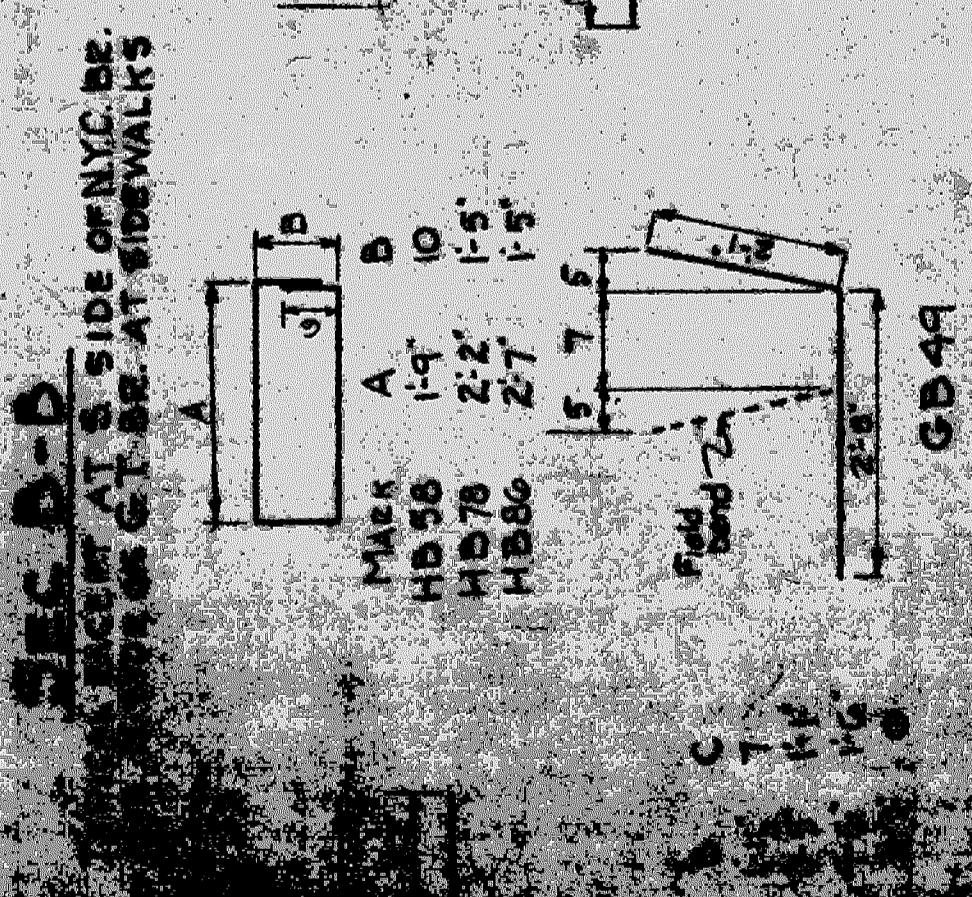
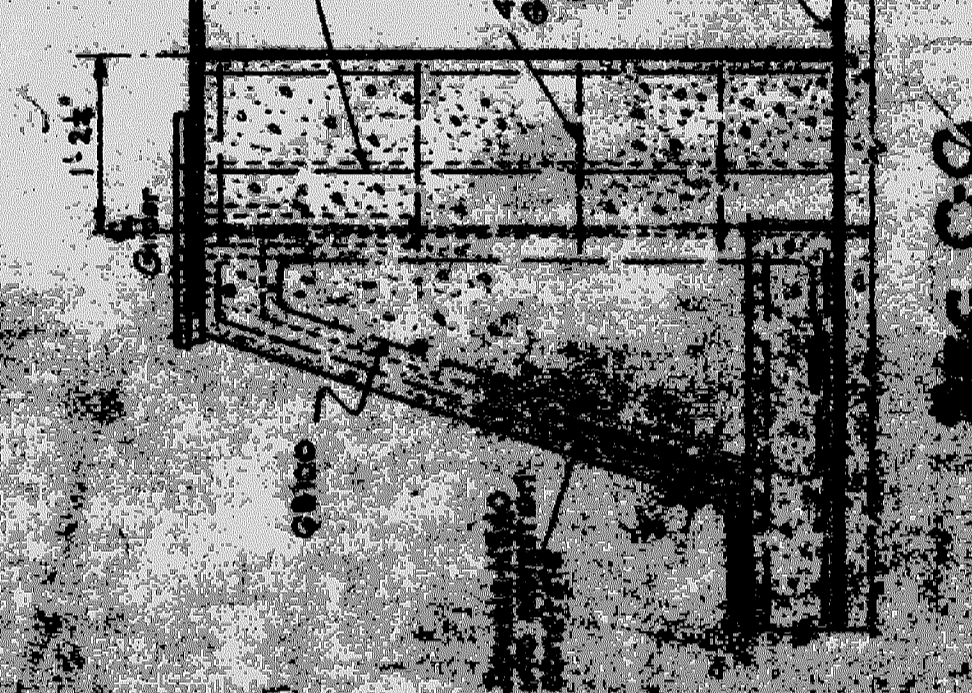
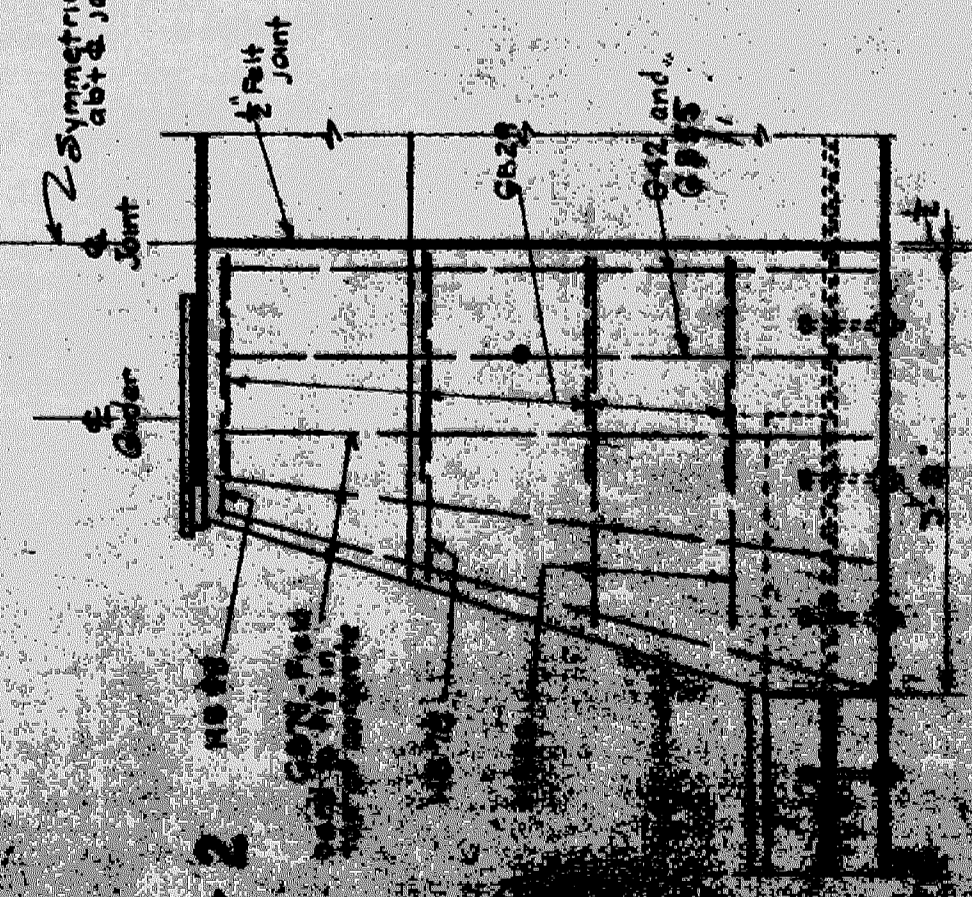
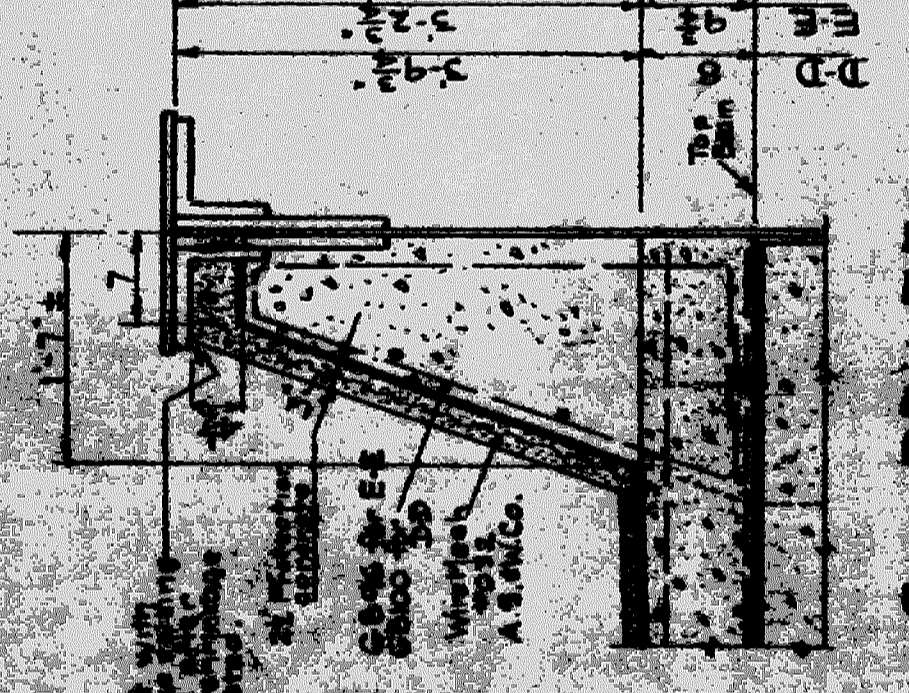
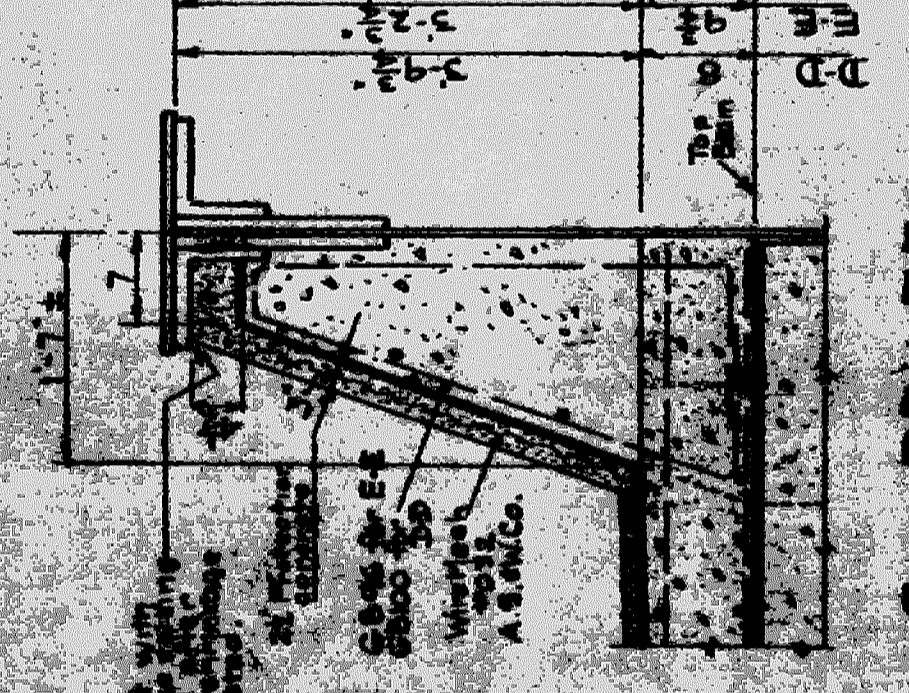
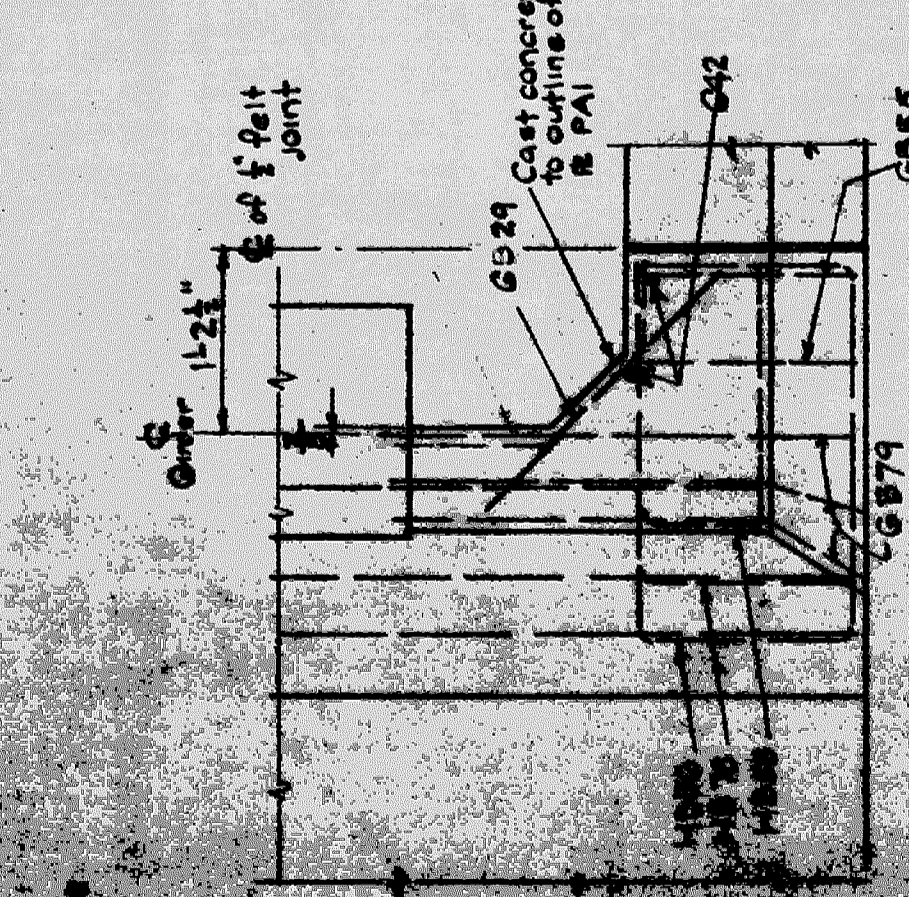
APPROVED: *[Signature]*
 CHECKED: *[Signature]*
 DRAWN: *[Signature]*

GENERAL NOTES

- 1. HIGHWAY DEPARTMENT
- 2. MICHIGAN STATE HIGHWAY DEPT
- 3. BRIDGE NO. 1012 OF SR. 27-9
- 4. R.M.E. D.B. 10
- 5. CROSSING M.C.R.R. - M.C.R.R. - OTWEE
- 6. ON DETROIT
- 7. CONCRETE DECK
- 8. GRAND TRUNK BRIDGE
- 9. ALL STEEL SHALL BE A36 UNLESS OTHERWISE SPECIFIED
- 10. ALL WELDS SHALL BE FULL PENETRATION BUTT JOINTS UNLESS OTHERWISE SPECIFIED
- 11. ALL BOLTS SHALL BE A325 UNLESS OTHERWISE SPECIFIED
- 12. ALL DIMENSIONS SHALL BE IN FEET AND INCHES UNLESS OTHERWISE SPECIFIED
- 13. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE SPECIFIED
- 14. ALL DIMENSIONS SHALL BE TO CENTER UNLESS OTHERWISE SPECIFIED
- 15. ALL DIMENSIONS SHALL BE TO SURFACE UNLESS OTHERWISE SPECIFIED
- 16. ALL DIMENSIONS SHALL BE TO CENTERLINE UNLESS OTHERWISE SPECIFIED
- 17. ALL DIMENSIONS SHALL BE TO CENTERLINE OF TRACK UNLESS OTHERWISE SPECIFIED
- 18. ALL DIMENSIONS SHALL BE TO CENTERLINE OF GIRDERS UNLESS OTHERWISE SPECIFIED
- 19. ALL DIMENSIONS SHALL BE TO CENTERLINE OF DECK UNLESS OTHERWISE SPECIFIED
- 20. ALL DIMENSIONS SHALL BE TO CENTERLINE OF BRIDGE UNLESS OTHERWISE SPECIFIED
- 21. ALL DIMENSIONS SHALL BE TO CENTERLINE OF ROAD UNLESS OTHERWISE SPECIFIED
- 22. ALL DIMENSIONS SHALL BE TO CENTERLINE OF HIGHWAY UNLESS OTHERWISE SPECIFIED
- 23. ALL DIMENSIONS SHALL BE TO CENTERLINE OF STATE UNLESS OTHERWISE SPECIFIED
- 24. ALL DIMENSIONS SHALL BE TO CENTERLINE OF COUNTRY UNLESS OTHERWISE SPECIFIED
- 25. ALL DIMENSIONS SHALL BE TO CENTERLINE OF WORLD UNLESS OTHERWISE SPECIFIED



HALF SECTION AT & BRIDGE
3/4-10"



TYPICAL FLOOR SEC. AT &
3/4-10"

MARK	SIZE	LENGTH	LOCATION	A	OUTSIDE BR. (WITH WALK)	B	INSIDE BR. (NO WALK)	TOTAL N ^o 2A + 3B	TOTAL WEIGHT
F140	1/2" x 1/2"	4'-0" Straight	Slab - Top & Bottom	205	205		205	1025	122.00
F280	1/2" x 1/2"	28'-0"	"	176	176		176	880	209.45
G140	1/2" x 1/2"	14'-0"	Fl. Beam Encasement	128	128		128	640	20.95
GP280	1/2" x 1/2"	28'-0"	Girder	32	32		32	160	7.95
G24	1/2" x 1/2"	2'-4"	End Floor Beam	20	20		20	100	15.55
H100	1/2" x 1/2"	10'-0"	End Protec. Concrete	4	4		4	20	7.5
H254	1/2" x 1/2"	25'-4"	Sidewalk Slab	46	46		46	200	9.12
H43	1/2" x 1/2"	4'-3"	End of Girder	8	8		8	40	3.24
H826	1/2" x 1/2"	4'-0"	"	8	8		8	40	4.0
H858	1/2" x 1/2"	5'-8"	"	2	2		2	16	2.7
H878	1/2" x 1/2"	7'-8"	"	2	2		2	16	4.8
H886	1/2" x 1/2"	8'-6"	"	4	4		4	32	10.4
G529	1/2" x 1/2"	2'-9" Straight	"	4	4		4	20	11.7
G55	1/2" x 1/2"	5'-5" Bent	"	4	4		4	20	11.5
G56	1/2" x 1/2"	5'-6" "	"	4	4		4	20	3.0
G57	1/2" x 1/2"	4'-9" "	Fl. Beam Encasement	310	310		310	1550	17.0
G58	1/2" x 1/2"	7'-9" "	End of Girder	12	12		12	60	3.0
G59	1/2" x 1/2"	9'-6" "	Girder Encasement	100	100		100	500	31.65
G100	1/2" x 1/2"	10'-0" "	"	104	104		104	520	34.65
G42	1/2" x 1/2"	4'-2" Straight	End of Girder	4	4		4	20	6.8
B	1/2" Bolt	0'-4"	End Protec. Concrete	23	23		23	115	1.41
BB1	1/2" "	0'-7"	End Floor Beam	16	16		16	80	6.5
BB2	1/2" "	0'-8"	"	4	4		4	20	2.0

UNIT	DECK CONCRETE		WATER PROOFING		BOLTS LBS.
	Slab	Girder	Mastic	Fabric	
A (OUTSIDE BRIDGE (WITH SIDEWALK))	79.0	28.2	6.5	5.7	119.4
B (INSIDE BRIDGE (NO SIDEWALK))	79.0	29.0	6.5	5.7	114.5
TOTAL 2A+3B	315	143.4	32.5	11.4	582.3

WORK THIS SHEET WITH SHEETS 31 AND 32

MICHIGAN STATE HIGHWAY DEPARTMENT
BRIDGE FILE NO. 32 OF 62-22-4 ROAD U.S. 10
CROSSING M.C.R.P. - N.Y.C.R.R. - G.T.W.R.R. IN DETROIT

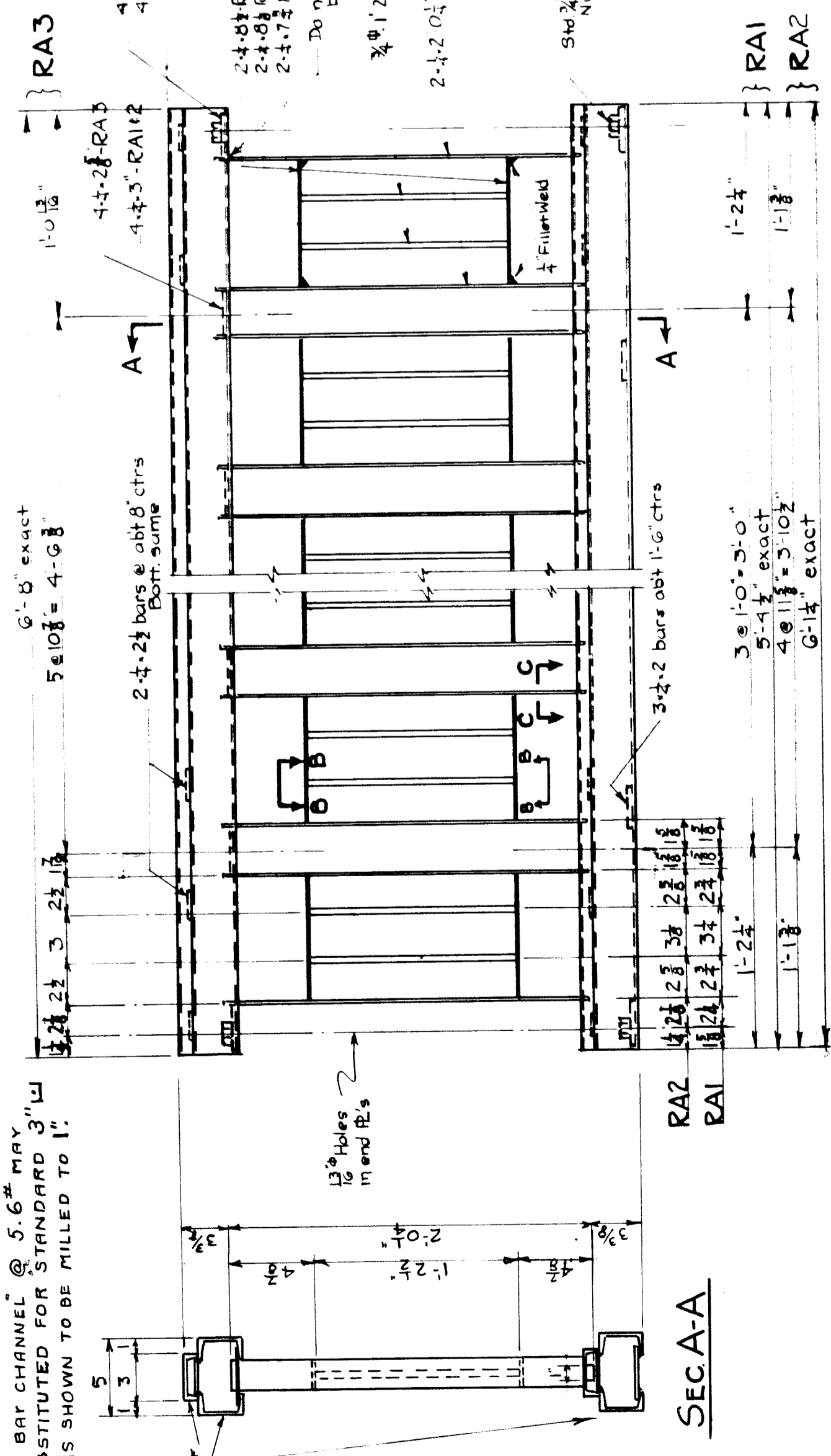
CONCRETE DECK
DETAILS

APPROVED
APPROVED
APPROVED

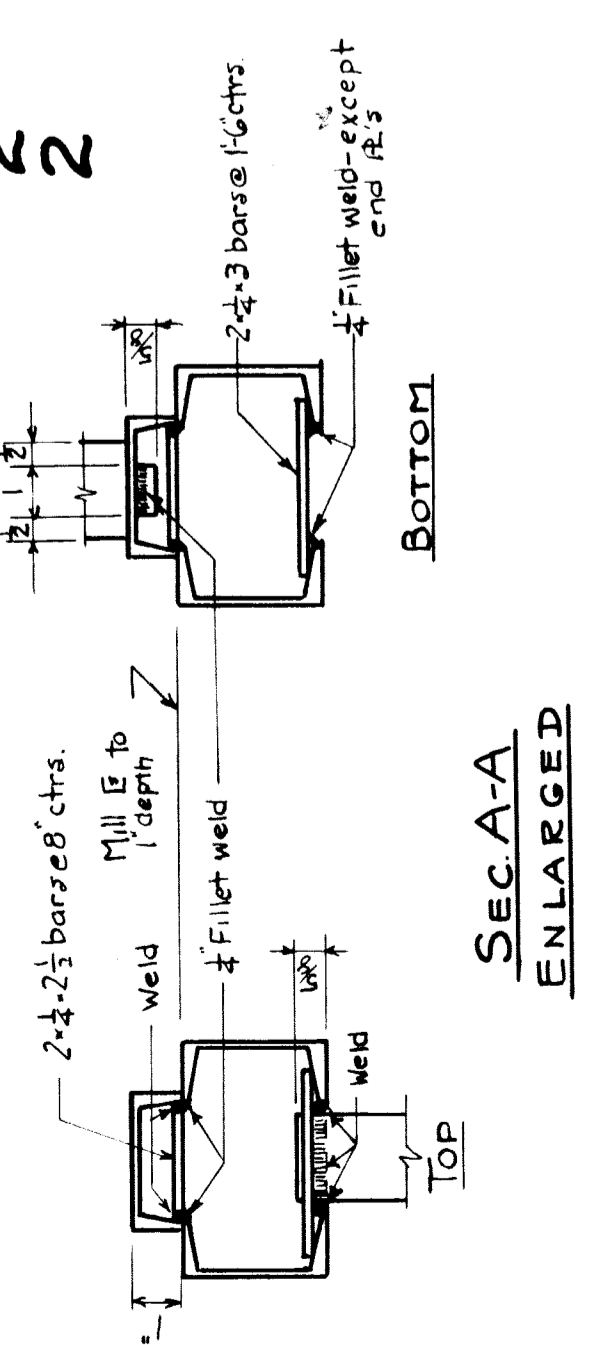
DESIGNED BY
CHECKED BY
FILED BY
33 OF 41

File XU 1-33

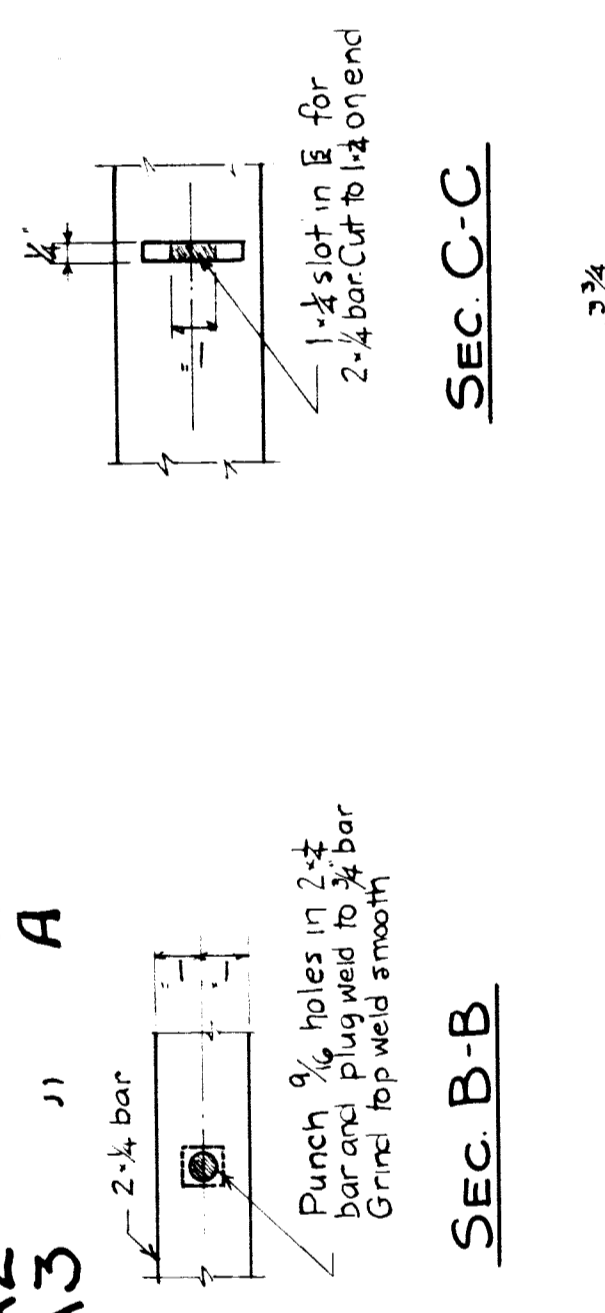
NOTE: BAR CHANNEL @ 5.6" MAY BE SUBSTITUTED FOR STANDARD 3" W WHICH IS SHOWN TO BE MILLED TO 1"



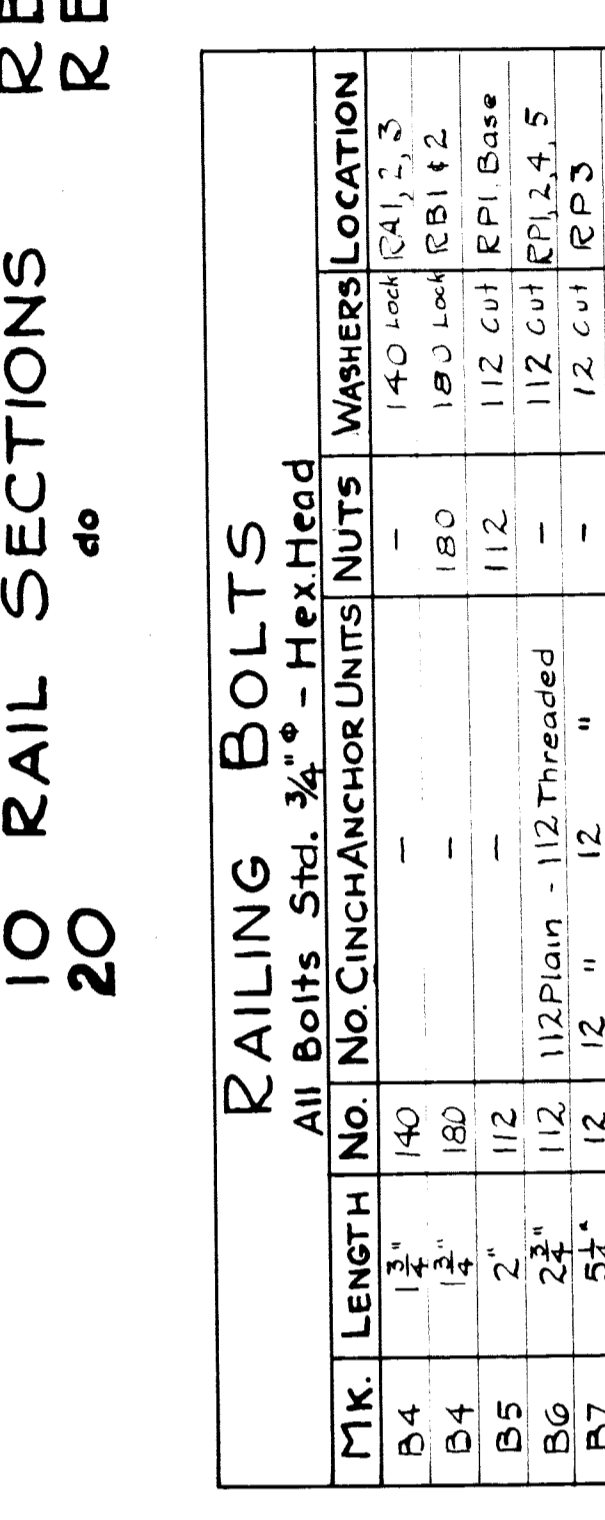
31 RAIL SECTIONS RA1 TYPE A RA2 RA3



SEC-A-A ENLARGED

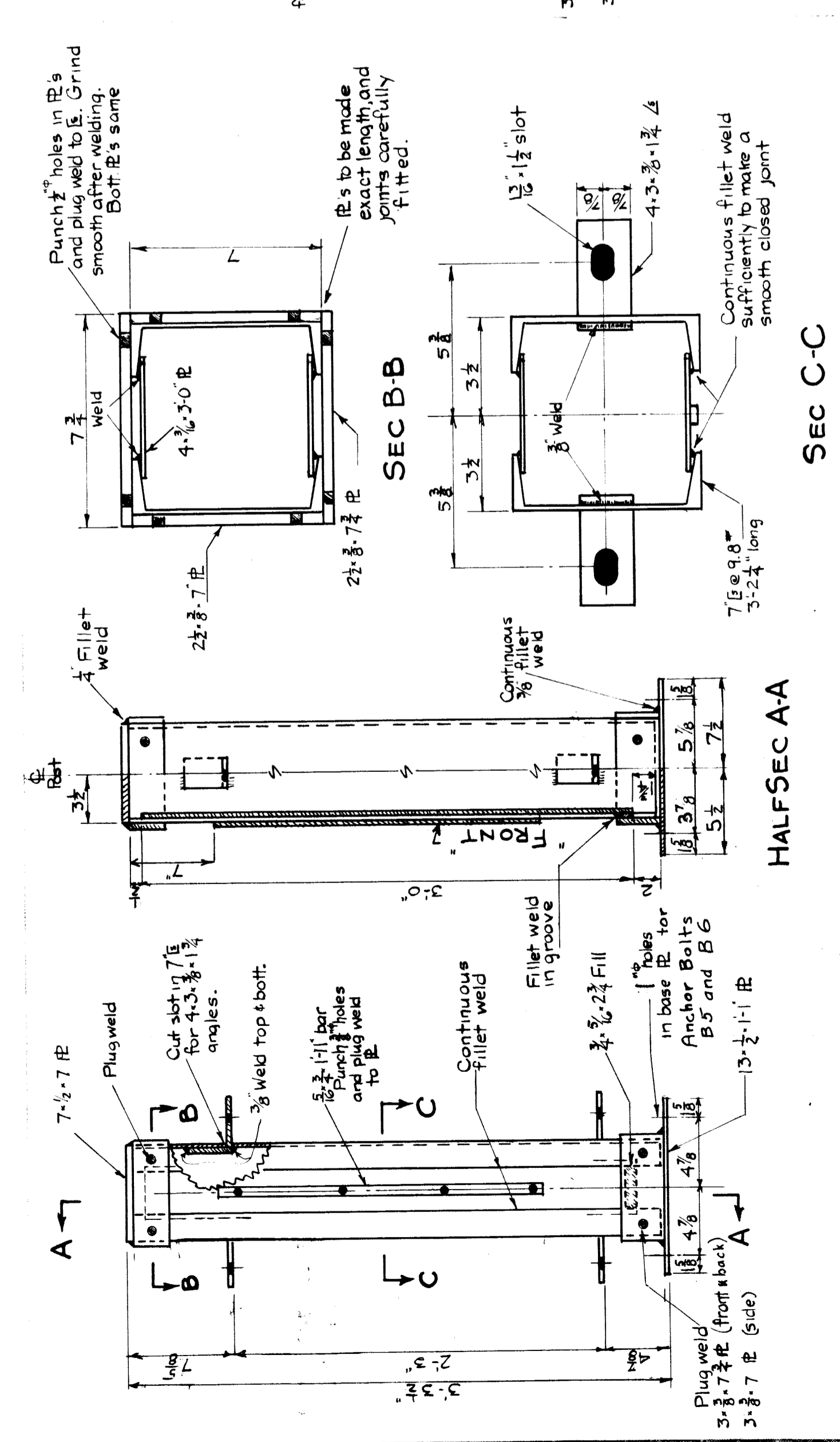


SEC-B-B



SEC-C-C

ANCHOR BOLTS B6*7



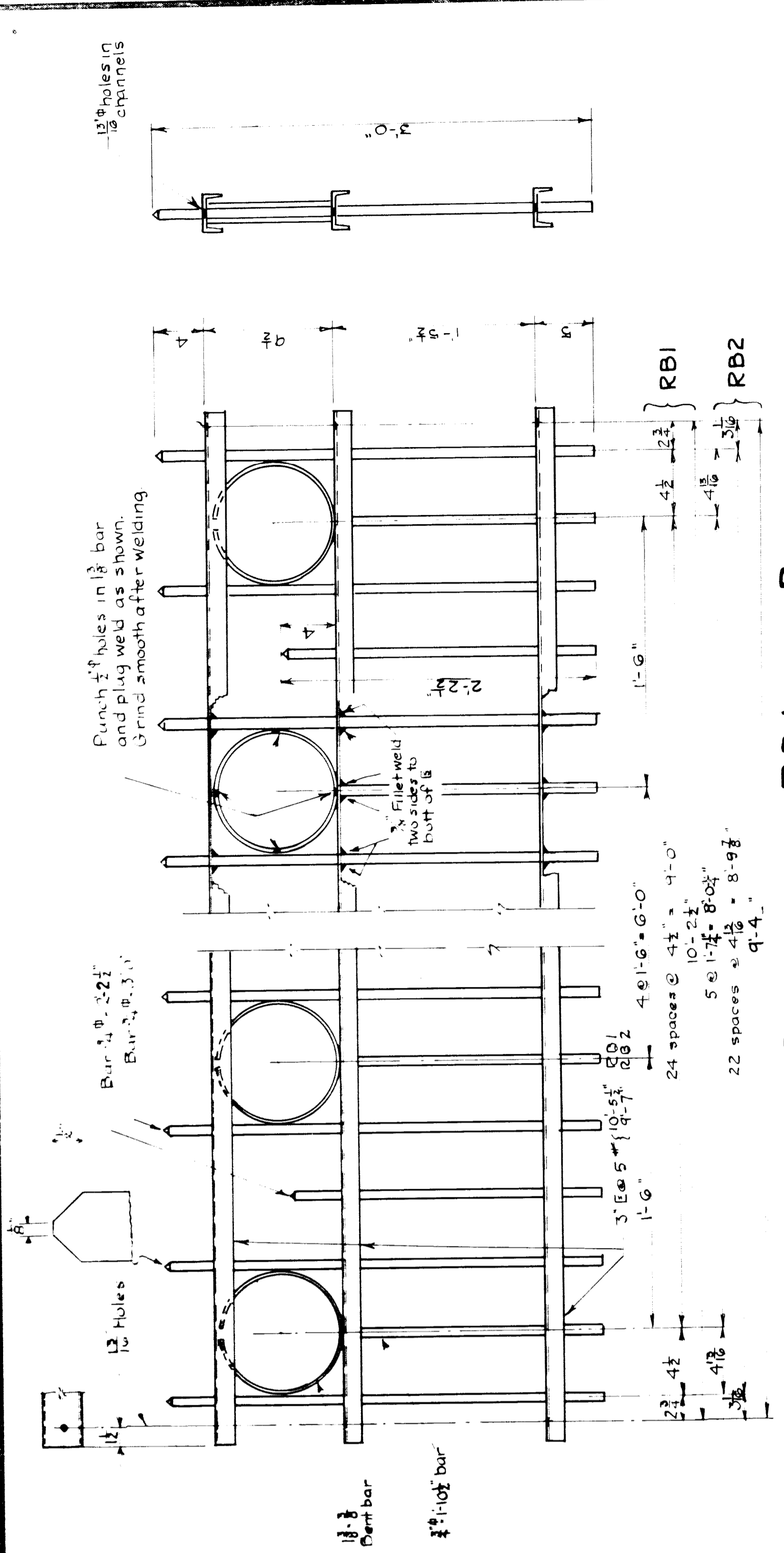
32 POSTS RPI

HALF SEC AA

6 POSTS RP3

16 POSTS RP4

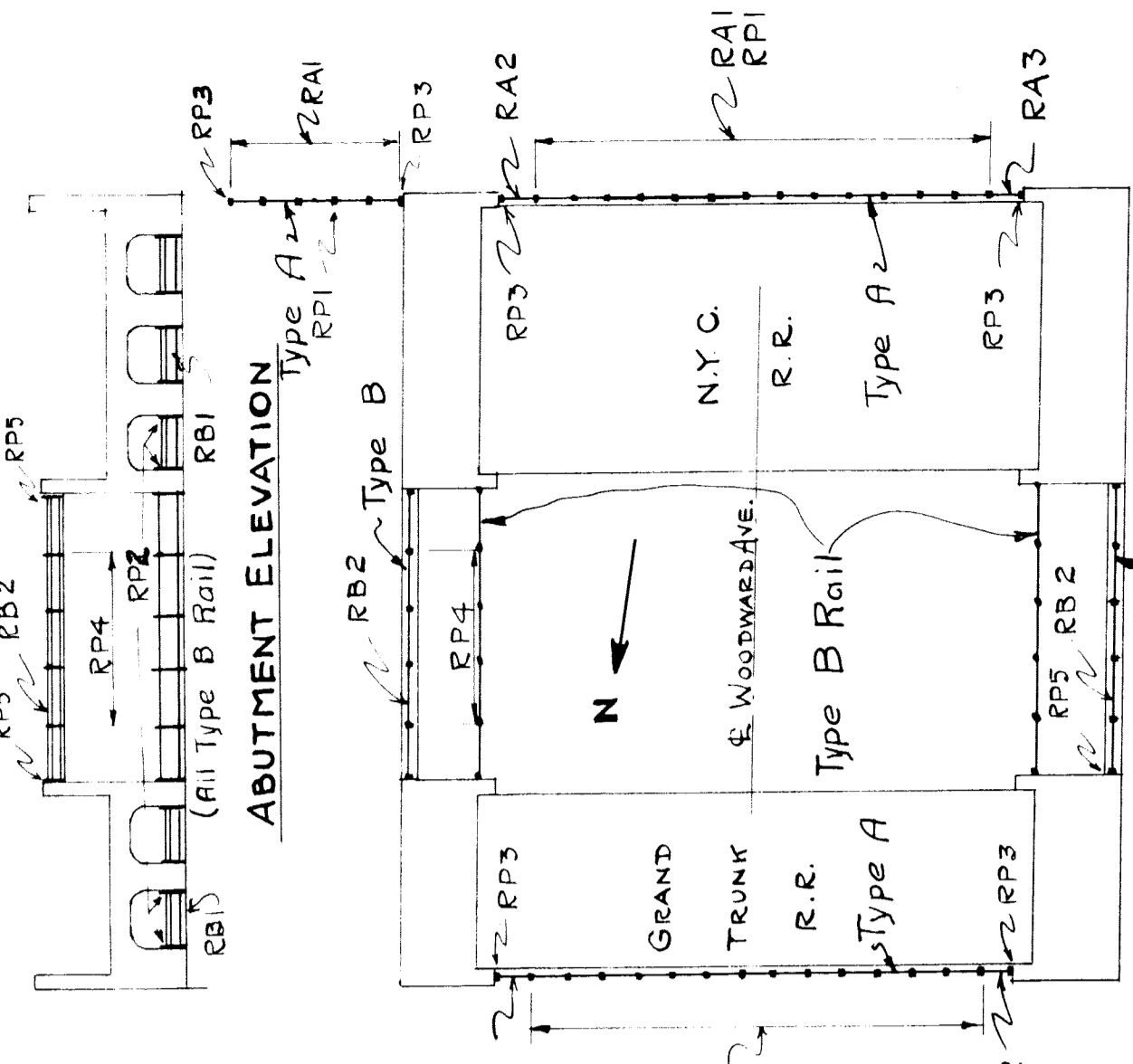
8 POSTS RP5



10 RAIL SECTIONS RB1 TYPE B RB2

RAILING BOLTS			
MK.	LENGTH	No. CINCH ANCHOR UNITS	WASHERS LOCATION
B4	1 1/2"	140	140 Loc (RA1, 2, 3)
B4	1 1/2"	180	180 Loc (RB1, 2)
B5	2"	112	112 Cut RPI Base
B6	2 1/4"	112	112 Plain - 112 Threaded
B7	5 1/4"	12	12 " 12 "
			12 Cut RPS

General Notes:
 All rail sections & posts to be Electric Arc Welded. Complete in shop. Shop Paint - One Coat Priming Mixture #1 as per M.S.H. Spec.



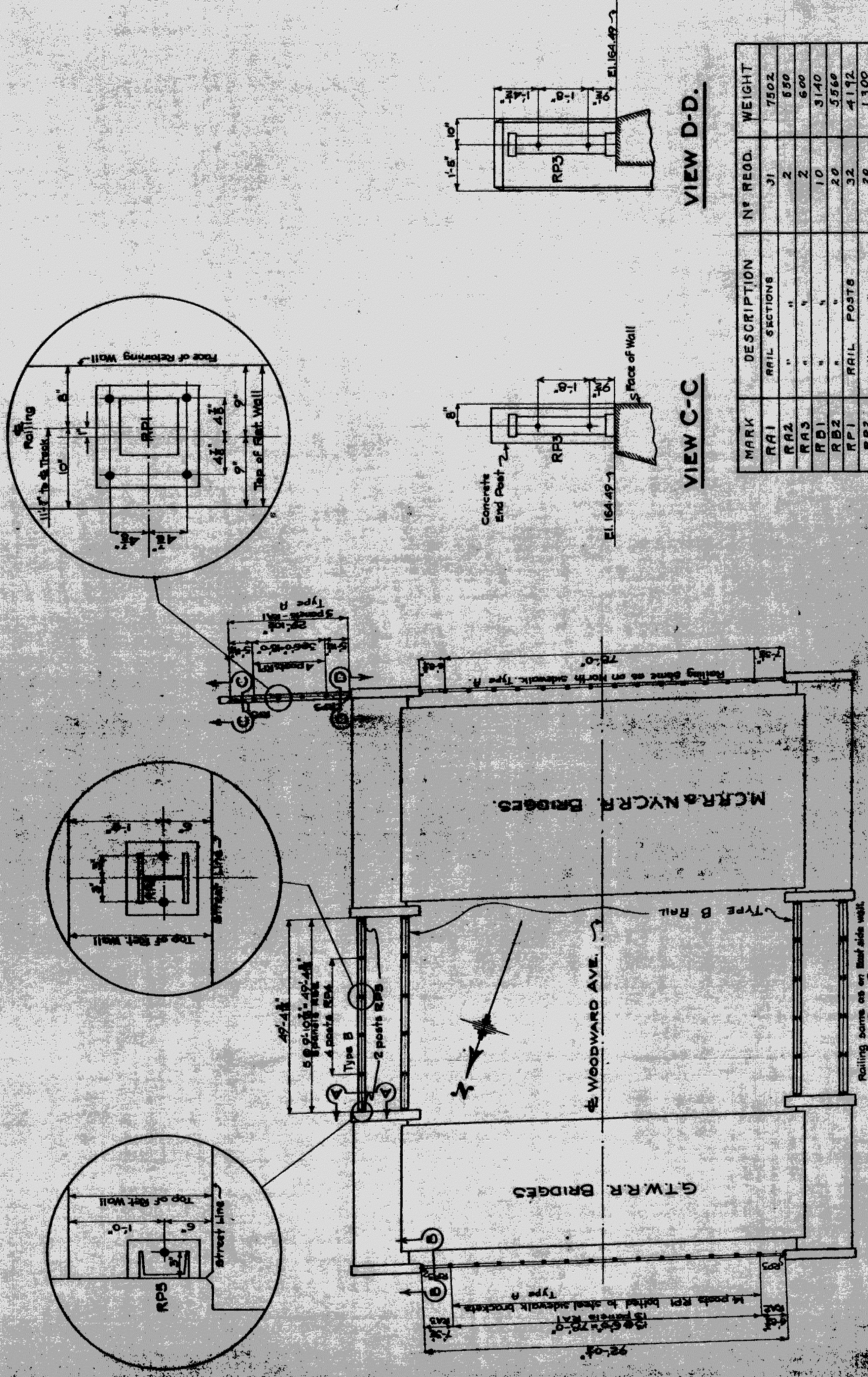
ANCHOR BOLT DIA - GRAM FOR RAILING ON SHEET 35

MICHIGAN STATE HIGHWAY DEPARTMENT
 BRIDGE FILE NO. X2 OF 82-22-9 ROAD U.S. 10
 CROSSING M.C.R.R.-N.Y.C.R.R.-GT.W.R.R. IN DETROIT

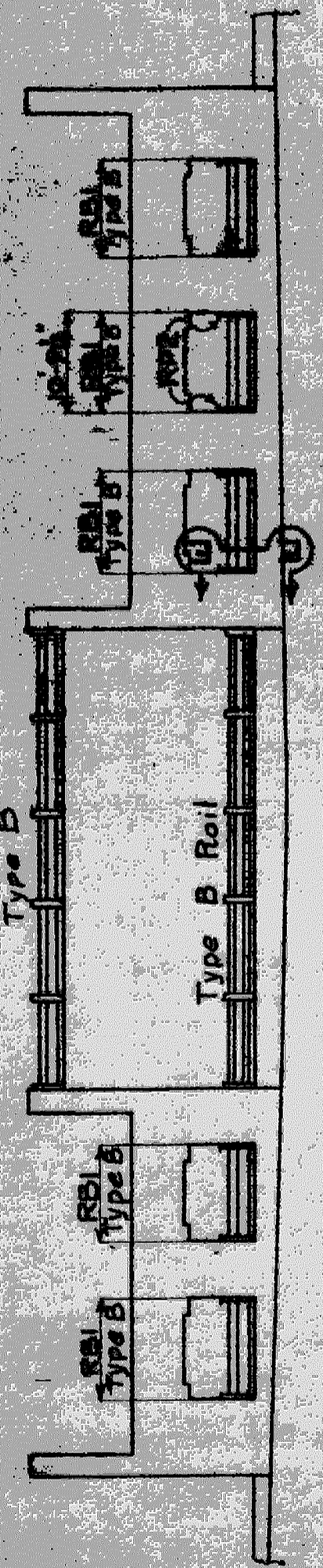
STEEL RAILING DETAILS

APPROVED
 M. M. Kelly
 ENGINEER - BRIDGE DESIGN

APPROVED
 O. H. S. Koch
 1-13-34
 1-15-34
 1-19-34
 1-19-34



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



ELEVATION OF EAST ABUTMENT.
RAILINGS IN EVERY OPEN PANEL ARE ALIKE.

MARK	DESCRIPTION	NO REQD.	WEIGHT
RA1	RAIL SECTIONS	31	7502
RA2	"	2	850
RA3	"	2	600
RB1	"	10	3140
RB2	"	20	5560
RP1	RAIL POSTS	32	4172
RP2	"	20	1300
RP3	"	6	462
RP4	"	16	1376
RP5	"	8	520
B4	3/4" x 1/2" bolts - no nuts	140	36
B4	3/4" x 1/2" bolts with Hex Nuts	120	108
B5	3/4" x 1/2" " "	112	70
B6	3/4" x 2 1/2" Cinch Anchors	112	112
B7	3/4" x 5 1/2" " "	12	17
			Total 25,548

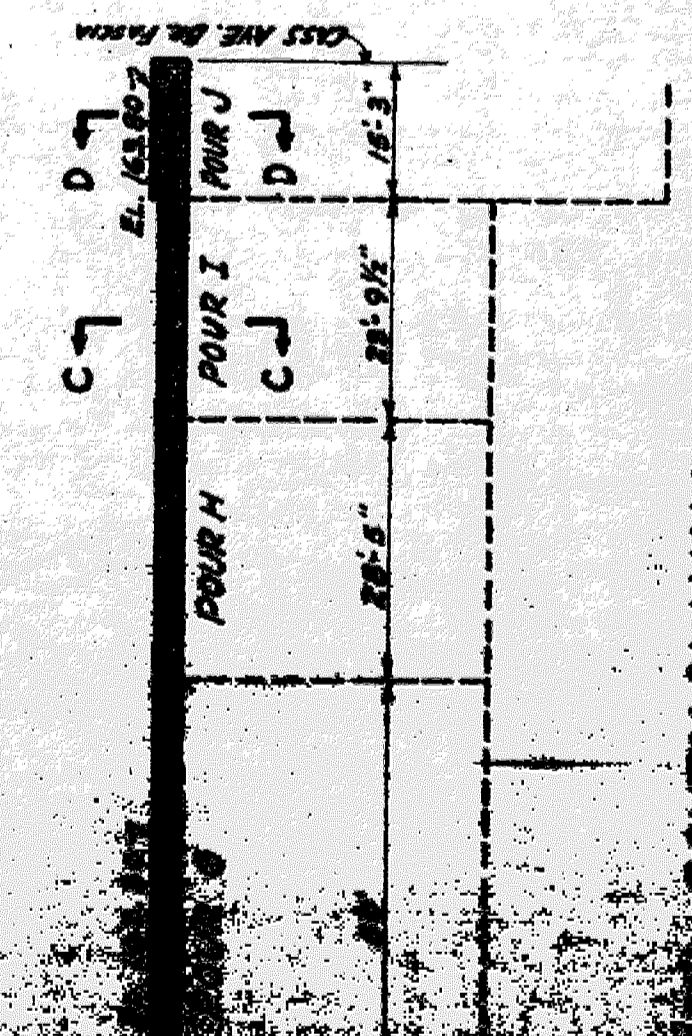
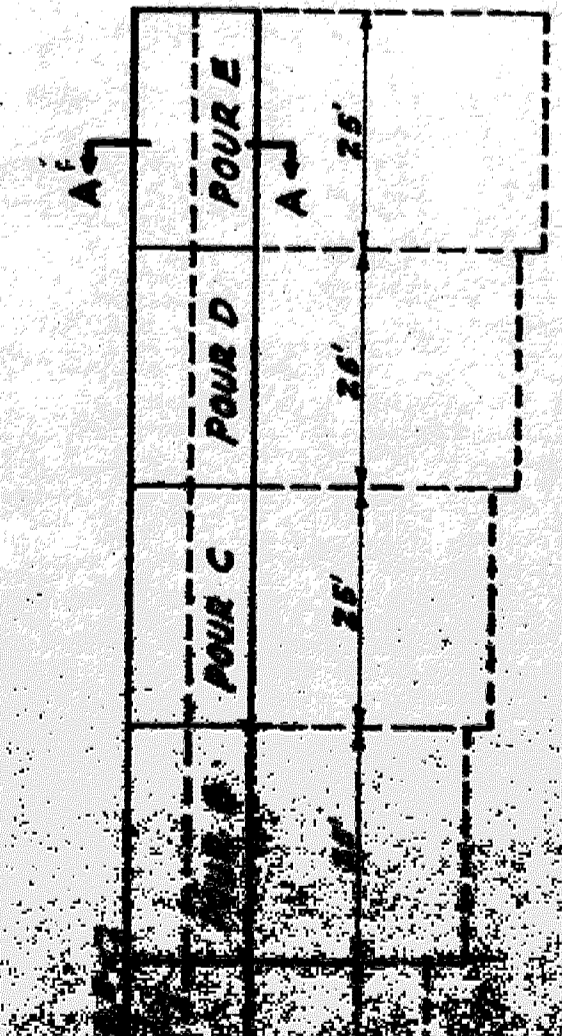
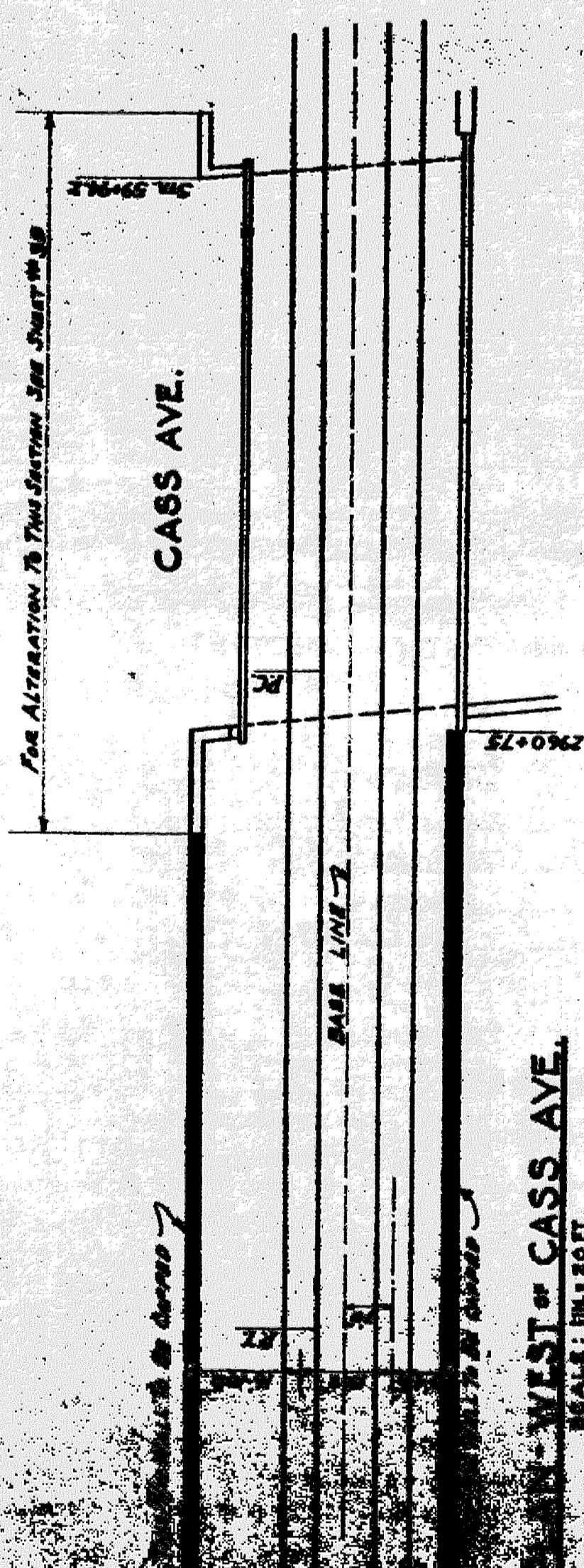
VIEW D-D.

VIEW C-C.

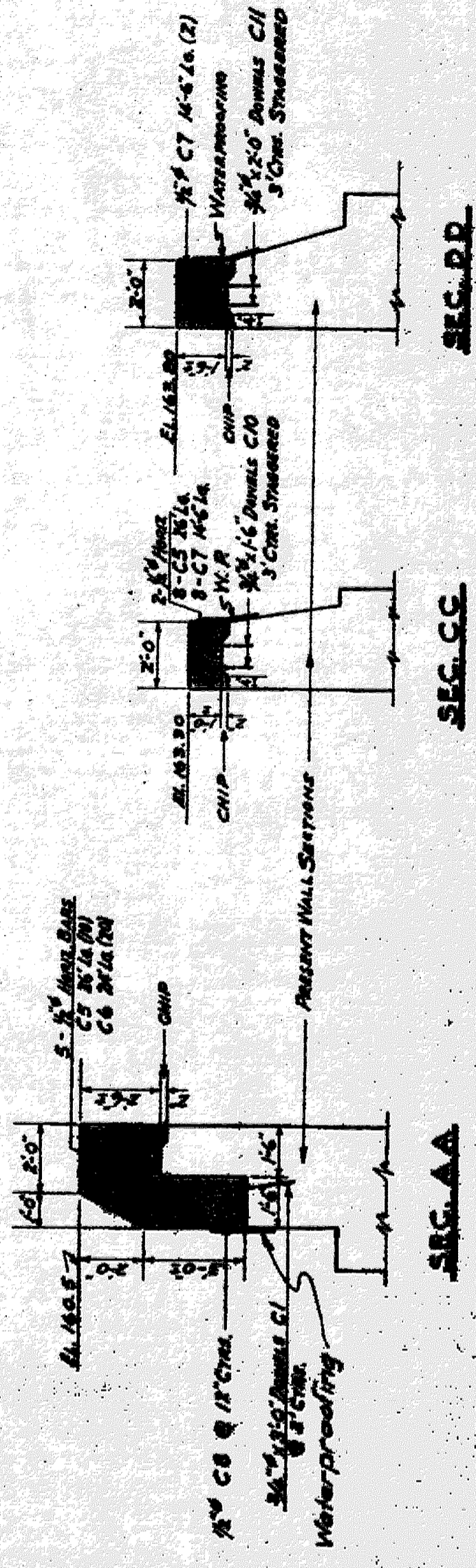
MICHIGAN STATE HIGHWAY DEPARTMENT
WAYNE
BRIDGE FILE NO. X2-25-22-9 888 WOODWARD AVE. - USIO.
CROSSING M.C.R.R.-N.Y.C.R.R.-G.T.W.R.R. IN CITY OF DETROIT

ANCHOR BOLT DIAGRAM FOR RAILING.
APPROVED: [Signature]
ENGINEER, DETROIT DIVISION

DESIGNED BY	O.H.S. KOCH
DRAWN BY	KRUZE
CHECKED BY	KRUZE
APPROVED BY	O.H.S. KOCH
DATE	1-19-34
PROJECT NO.	1-17-34
SHEET NO.	35
TOTAL SHEETS	41



BAR LIST				CONCRETE QUANTITIES			
LOCATION	MARK	NO REQ'D	SIZE	LENGTH	POUR NUMBER AND NO. OF BARS REQUIRED	LOCATION	POUR CUYDS.
DOWELS	C 1	53	3/4"	3'-0"	1/2" 3/4" 1/2" 3/4"	A	19.1
CAPPING	C 5	18	1/2"	26'-0"	1/4" 1/4" 1/4"	B	9.5
	C 6	20	1/2"	24'-0"	3/8" 3/8" 3/8"	C	9.5
	C 7	10	1/2"	14'-6"	1/4" 3/4" 1/2"	D	9.5
	C 8	150	1/2"	9'-9"	1/60" 3/8" 3/8" 3/8" 3/8"	E	9.5
DOWELS	C 10	52	3/4"	1'-6"	1/2" 3/4" 1/2" 3/8"	F	3.9
	C 11	5	3/4"	2'-0"	1/8"	G	3.9
						H	2.2
						I	1.9
						J	1.8



CAPPING DETAILS
SCALE: 1/4" = 1'-0"

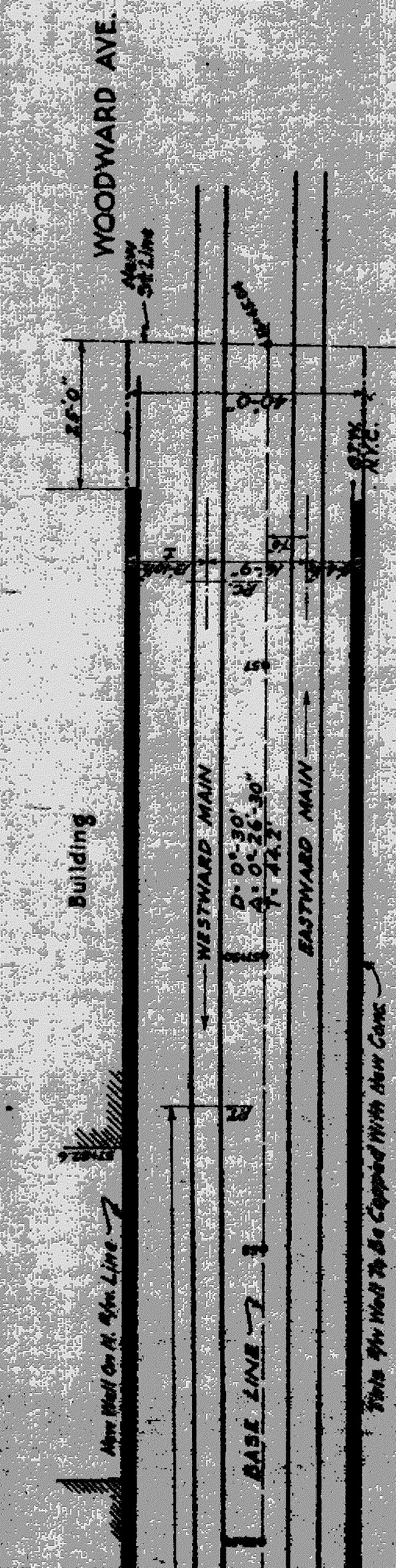
REINFORCING STEEL BILL SHEET 41

MICHIGAN STATE HIGHWAY DEPARTMENT
 2000 WEST WOODWARD AVE., DETROIT, MICHIGAN 48202
 G.T.W. RIGHT OF WAY RETAINING WALLS
 WEST OF CASS AVE.

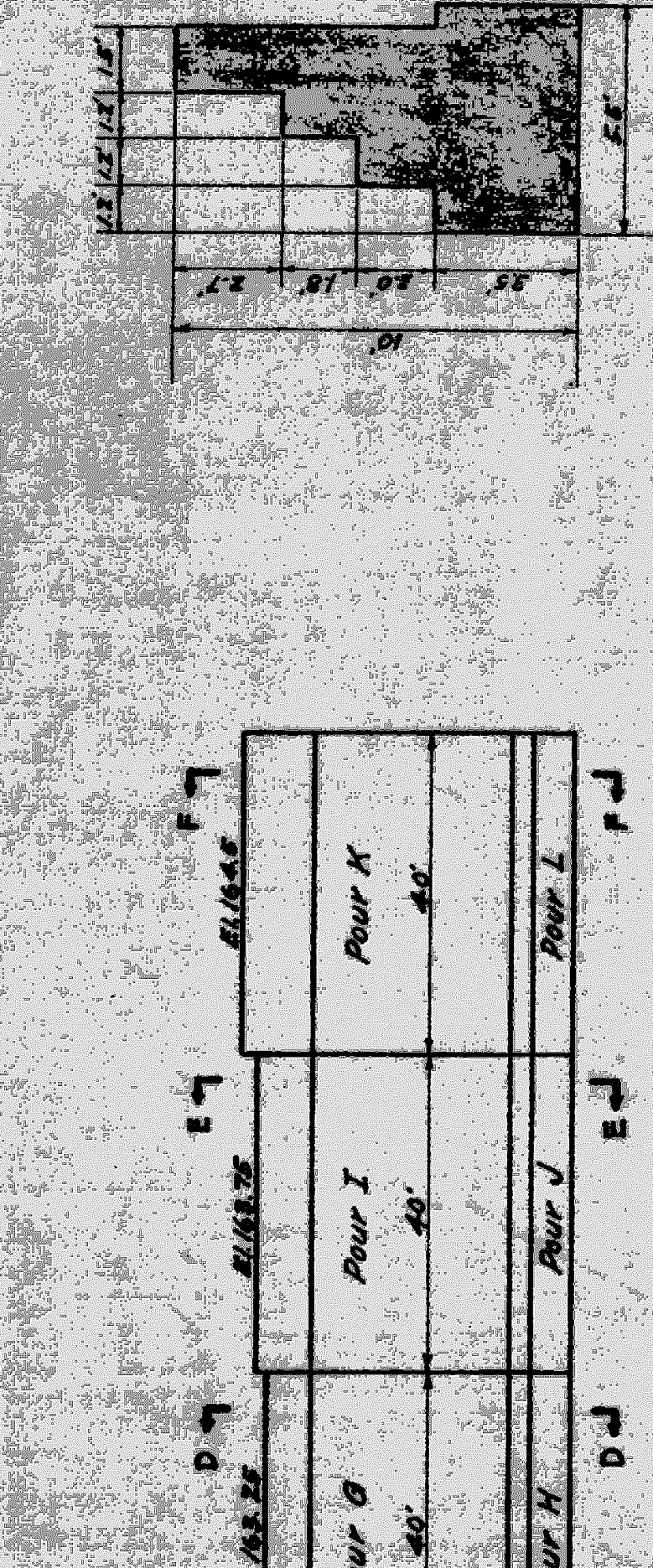
APPROVED: [Signature]
 APPROVED: [Signature]
 DESIGNED BY: H.P.C. / 1/24/54
 CHECKED BY: H.P.C. / 1/24/54
 DRAWN BY: H.P.C. / 1/24/54
 SCALE: 1/4" = 1'-0"

QUANTITIES	FOUR CUBIC YDS.
A	59.7
B	35.0
C	36.1
D	36.1
E	36.1
F	36.1
G	36.1
H	36.1
I	36.1
J	36.1
K	40.0
L	38.5
M	38.5
N	38.5
O	38.5
P	38.5
Q	38.5
R	38.5
S	38.5
T	38.5
U	38.5
V	38.5
W	38.5
X	38.5
Y	38.5
Z	38.5
AA	38.5
AB	38.5
AC	38.5
AD	38.5
AE	38.5
AF	38.5
AG	38.5
AH	38.5
AI	38.5
AJ	38.5
AK	38.5
AL	38.5
AM	38.5
AN	38.5
AO	38.5
AP	38.5
AQ	38.5
AR	38.5
AS	38.5
AT	38.5
AU	38.5
AV	38.5
AW	38.5
AX	38.5
AY	38.5
AZ	38.5
BA	38.5
BB	38.5
BC	38.5
BD	38.5
BE	38.5
BF	38.5
BG	38.5
BH	38.5
BI	38.5
BJ	38.5
BK	38.5
BL	38.5
BM	38.5
BN	38.5
BO	38.5
BP	38.5
BQ	38.5
BR	38.5
BS	38.5
BT	38.5
BU	38.5
BV	38.5
BW	38.5
BX	38.5
BY	38.5
BZ	38.5
CA	38.5
CB	38.5
CC	38.5
CD	38.5
CE	38.5
CF	38.5
CG	38.5
CH	38.5
CI	38.5
CJ	38.5
CK	38.5
CL	38.5
CM	38.5
CN	38.5
CO	38.5
CP	38.5
CQ	38.5
CR	38.5
CS	38.5
CT	38.5
CU	38.5
CV	38.5
CW	38.5
CX	38.5
CY	38.5
CZ	38.5
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DF	38.5
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DI	38.5
DJ	38.5
DK	38.5
DL	38.5
DM	38.5
DN	38.5
DO	38.5
DP	38.5
DQ	38.5
DR	38.5
DS	38.5
DT	38.5
DU	38.5
DV	38.5
DW	38.5
DX	38.5
DY	38.5
DZ	38.5
EA	38.5
EB	38.5
EC	38.5
ED	38.5
EE	38.5
EF	38.5
EG	38.5
EH	38.5
EI	38.5
EJ	38.5
EK	38.5
EL	38.5
EM	38.5
EN	38.5
EO	38.5
EP	38.5
EQ	38.5
ER	38.5
ES	38.5
ET	38.5
EU	38.5
EV	38.5
EW	38.5
EX	38.5
EY	38.5
EZ	38.5
FA	38.5
FB	38.5
FC	38.5
FD	38.5
FE	38.5
FF	38.5
FG	38.5
FH	38.5
FI	38.5
FJ	38.5
FK	38.5
FL	38.5
FM	38.5
FN	38.5
FO	38.5
FP	38.5
FQ	38.5
FR	38.5
FS	38.5
FT	38.5
FU	38.5
FV	38.5
FW	38.5
FX	38.5
FY	38.5
FZ	38.5

PLAN - WOODWARD TO CASS
Scale: 1"=20'

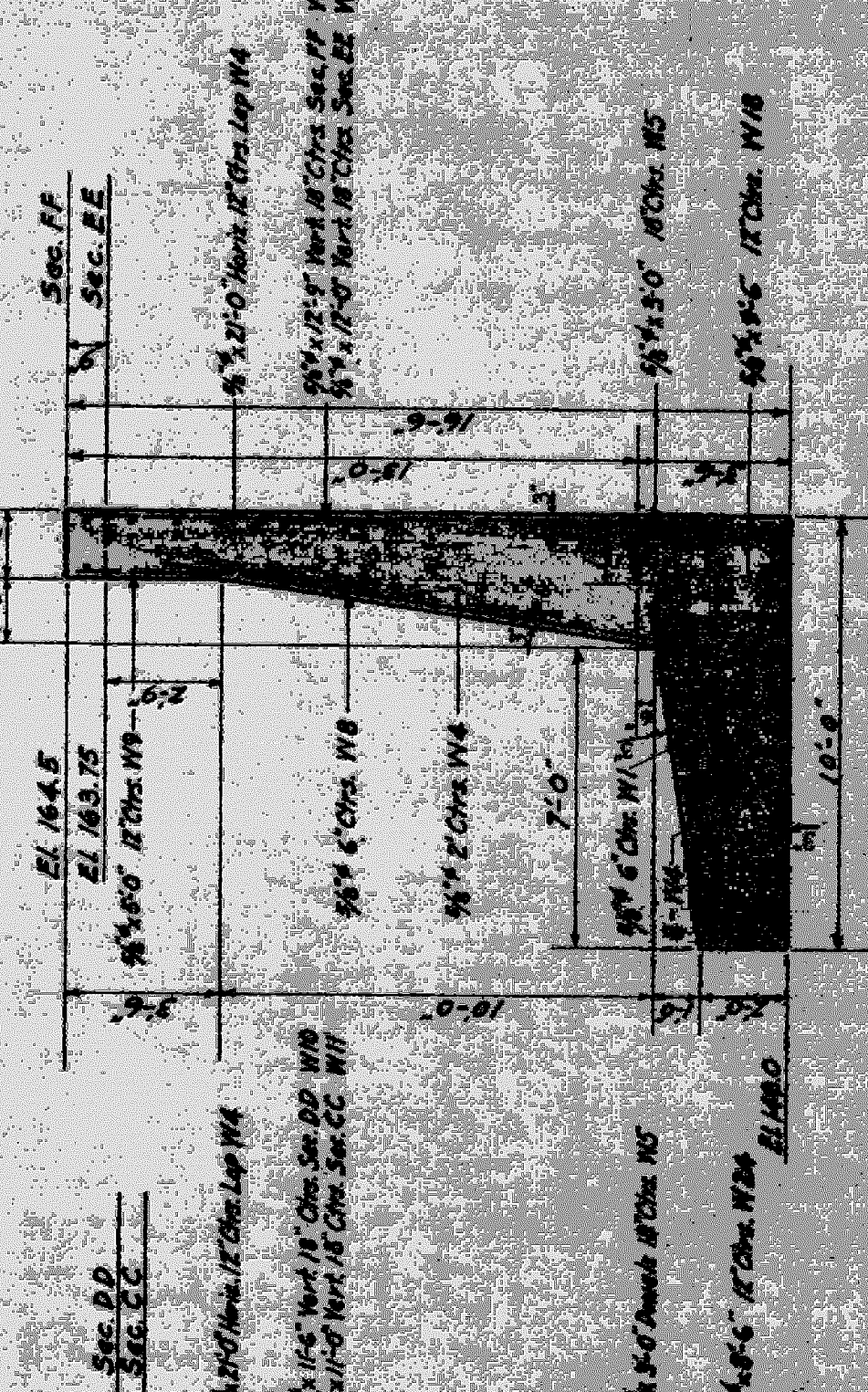


REAR ELEVATION - NORTH R/W WALL
Scale: Horiz. - 1"=8'
Vert. - 1"=8'



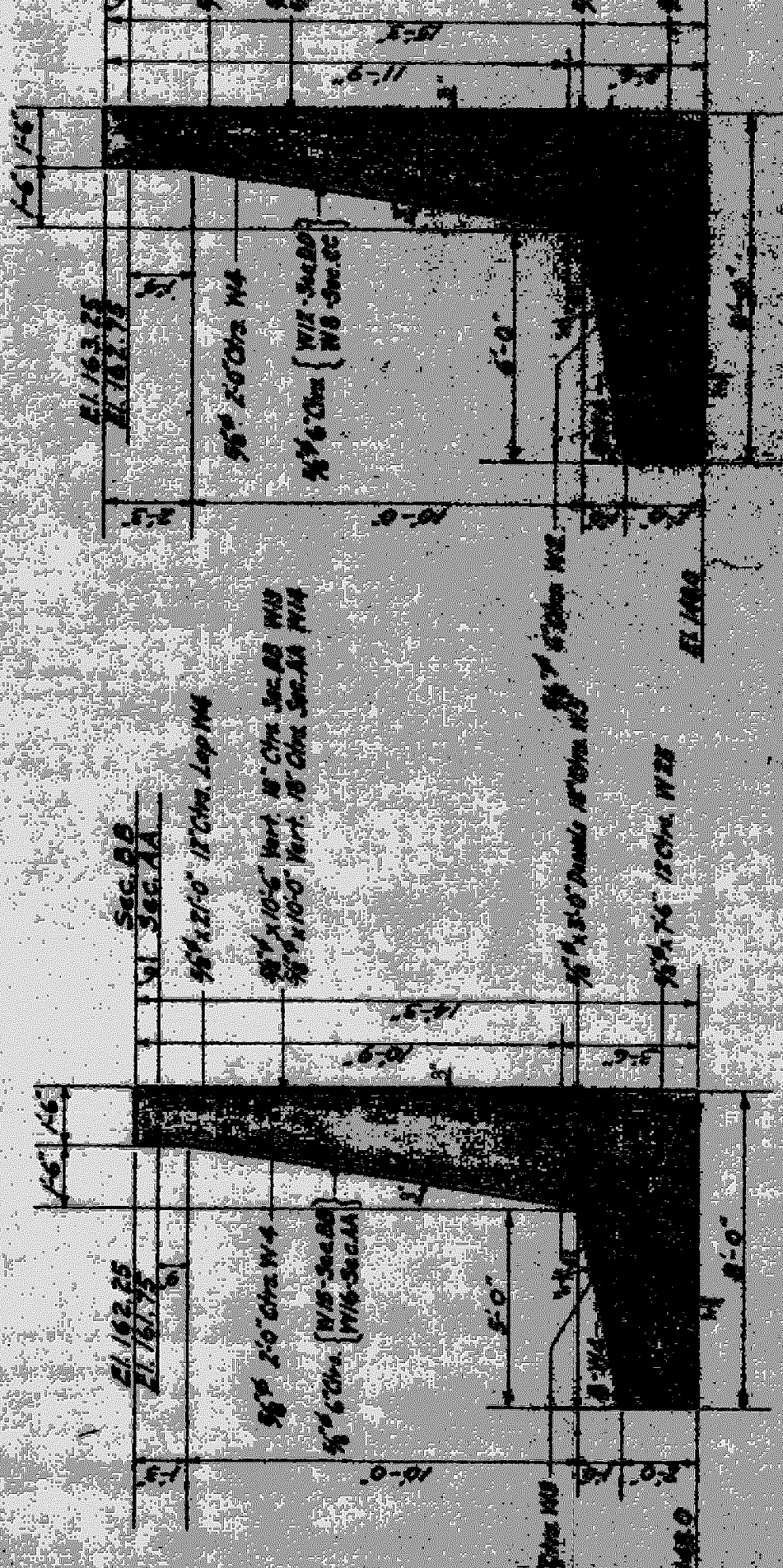
APPROX. X SEC. OF PRES. R/W WALL
ON NORTH SIDE OF R/W
318 LIN. FT. TO BE REMOVED

SECTIONS CC&DD



NOTE - Use sheet lead in all vert. joints between new wall sections (25" wide - 6") and provide keyways.
See detail - Sheet # B5
No concrete may be poured directly against existing building walls on North R/W Line.
Face forming required in all cases.

SECTIONS EE&FF



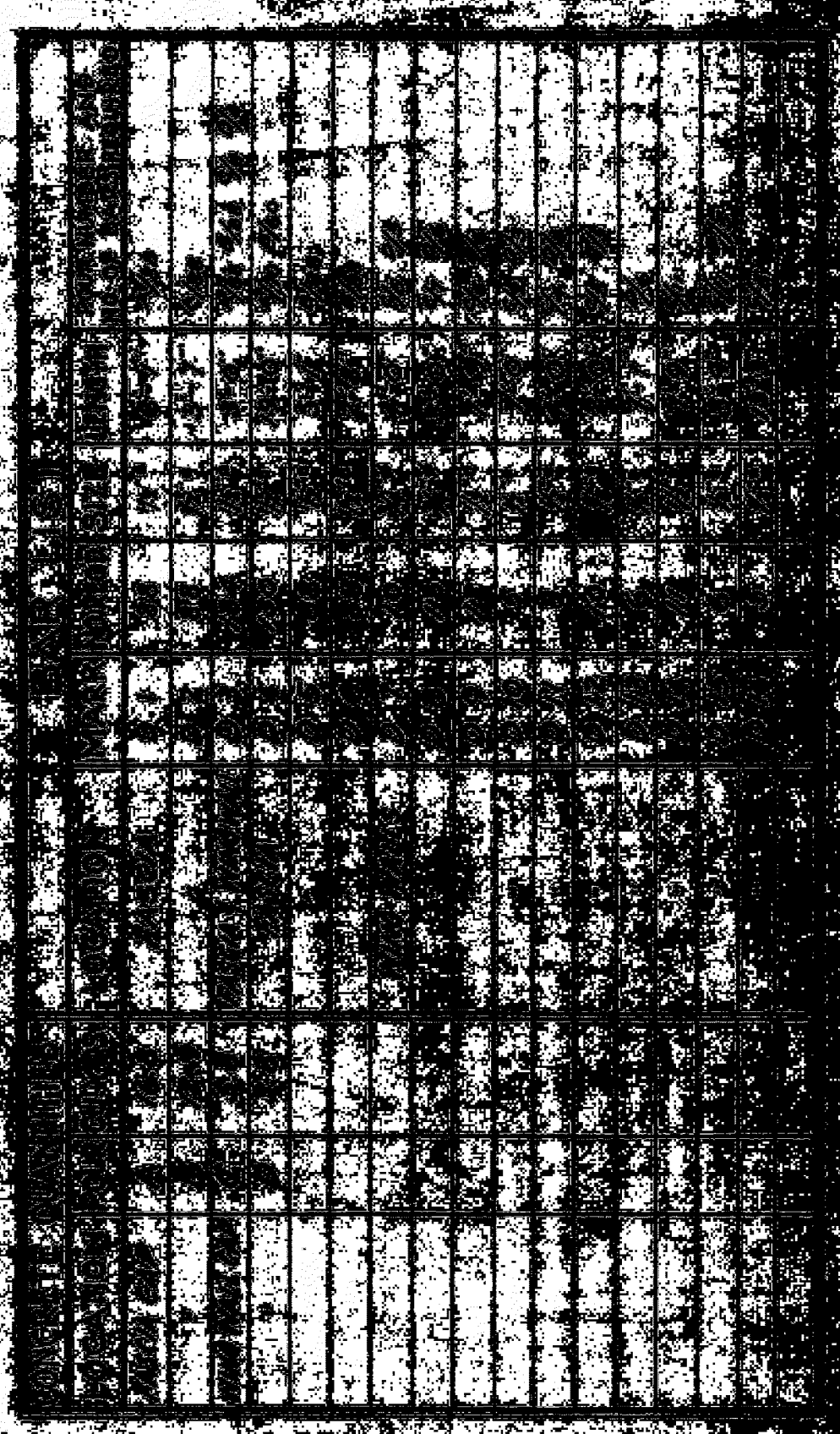
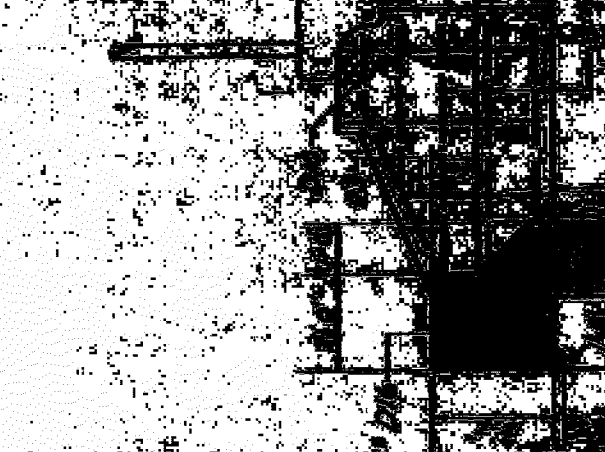
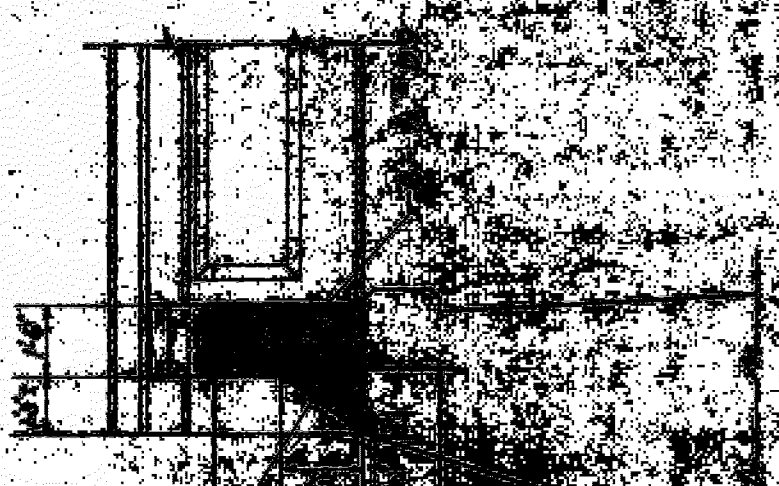
SECTIONS AA&BB



ELEVATION - SOUTH R/W WALL
Scale: Horiz. 1"=8'
Vert. 1"=8'

MICHIGAN STATE HIGHWAY DEPARTMENT
REINFORCING STEEL BILL ON SHEET #1
MAYNE ON
BRIDGE FILE NO. 12 OF 52-22-9 MID WOODWARD AVE. U.S. 10
CROSSING M.C.R.R. - N.Y.C.R.R. - G.T.W.R.R. - CITY OF DETROIT
GTW RIGHT OF WAY RETAINING WALLS
WOODWARD AVE. TO CASS AVE.

DESIGNED BY	W.A. WILCOX
DRAWN BY	M.A.B. (1915)
CHECKED BY	L.M.S. (1920)
APPROVED BY	H.D.F. (1924)
FILED BY	
DATE	
SHEET	37 OF 44



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WITHOUT PERMISSION

8'-11"

8'-11"

8'-11"

8'-11"

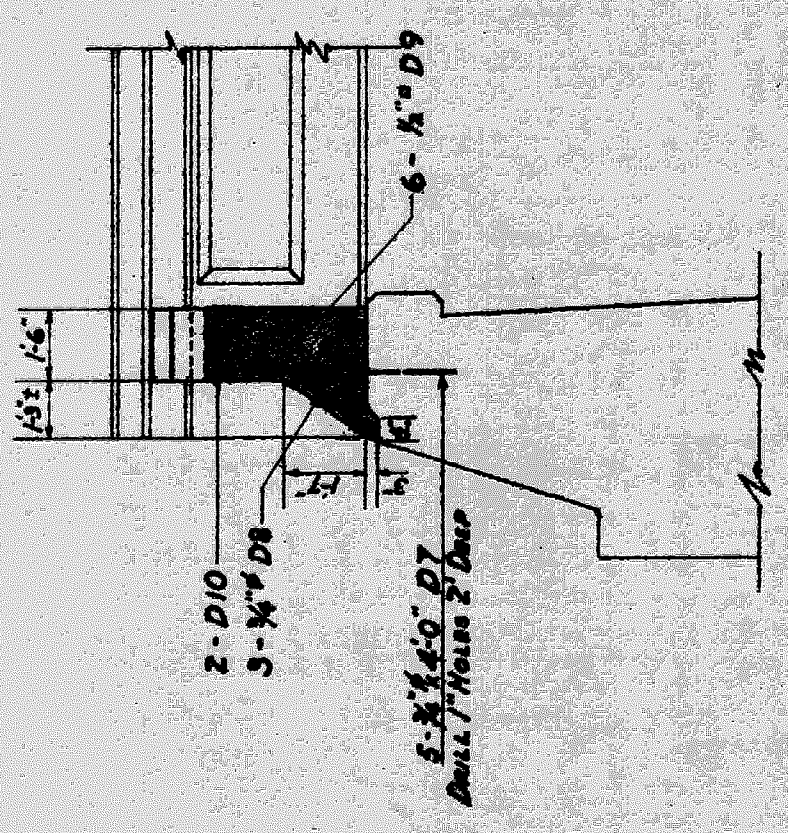
8'-11"

8'-11"

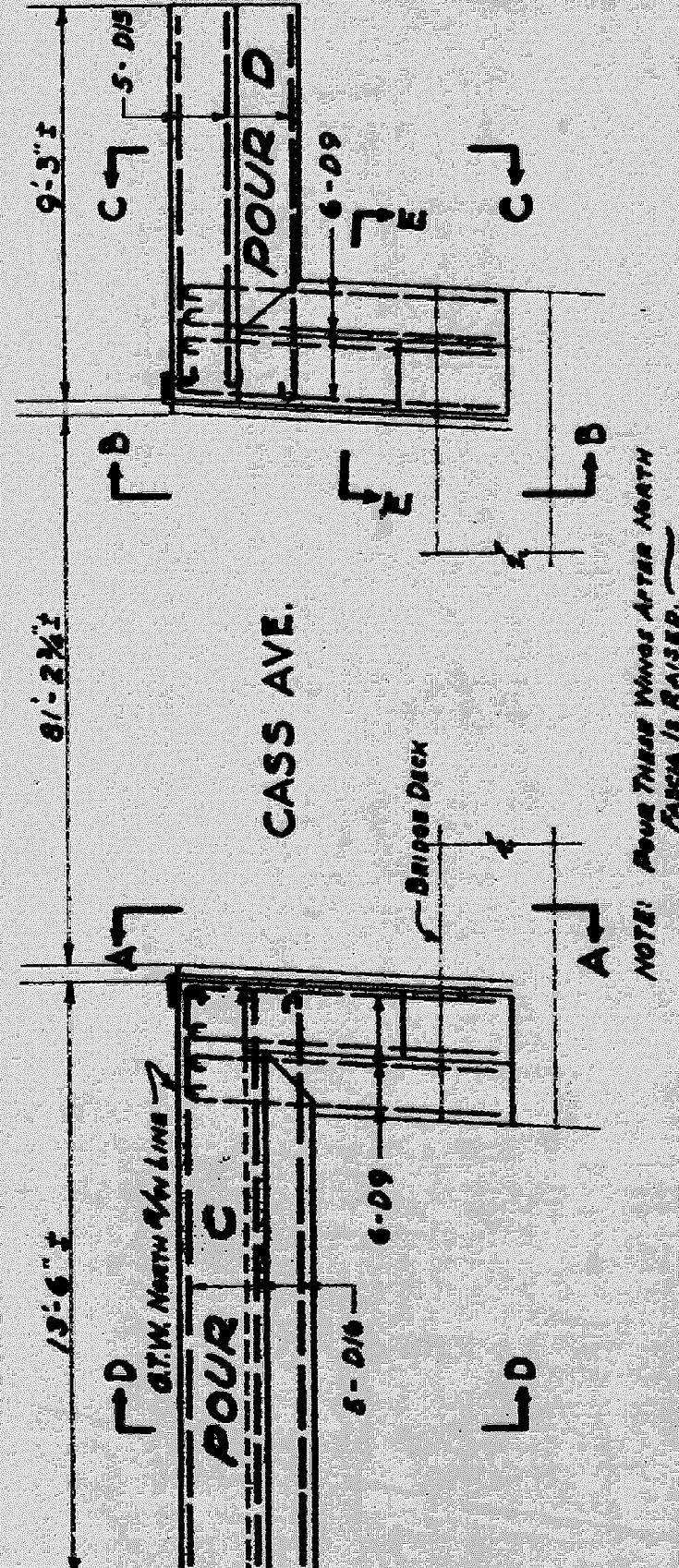
8'-11"

CASS AVE

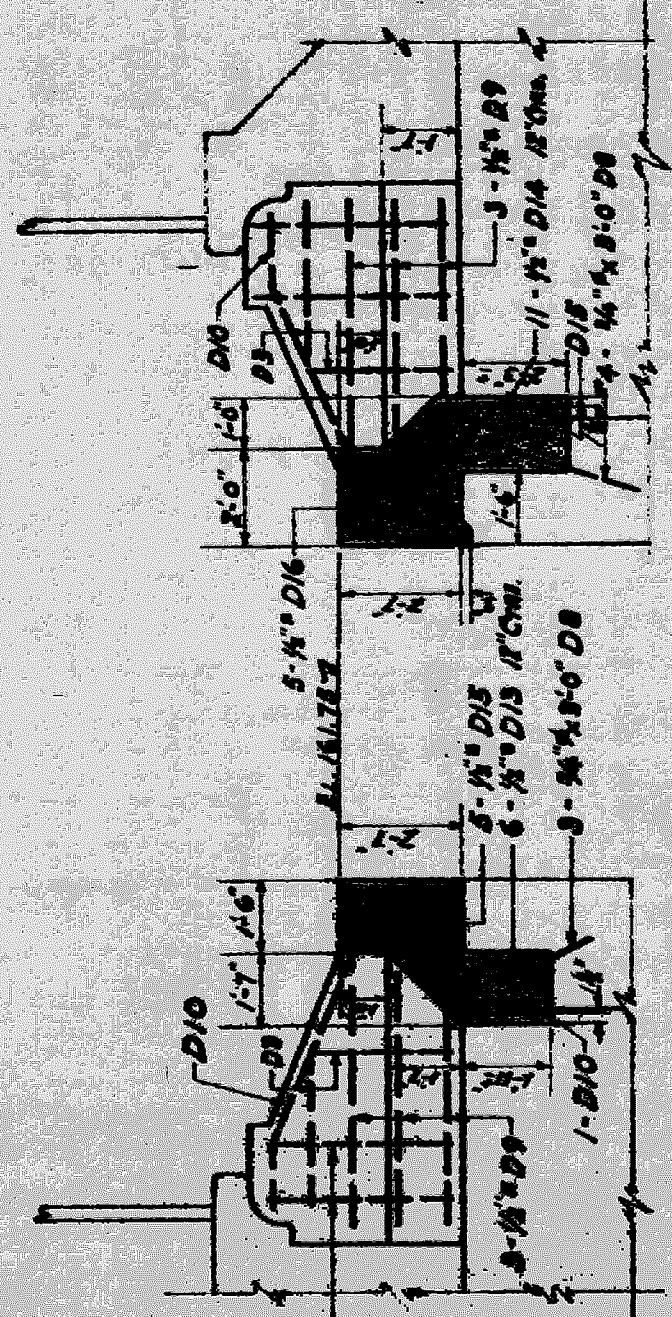
PLANNING DEPARTMENT



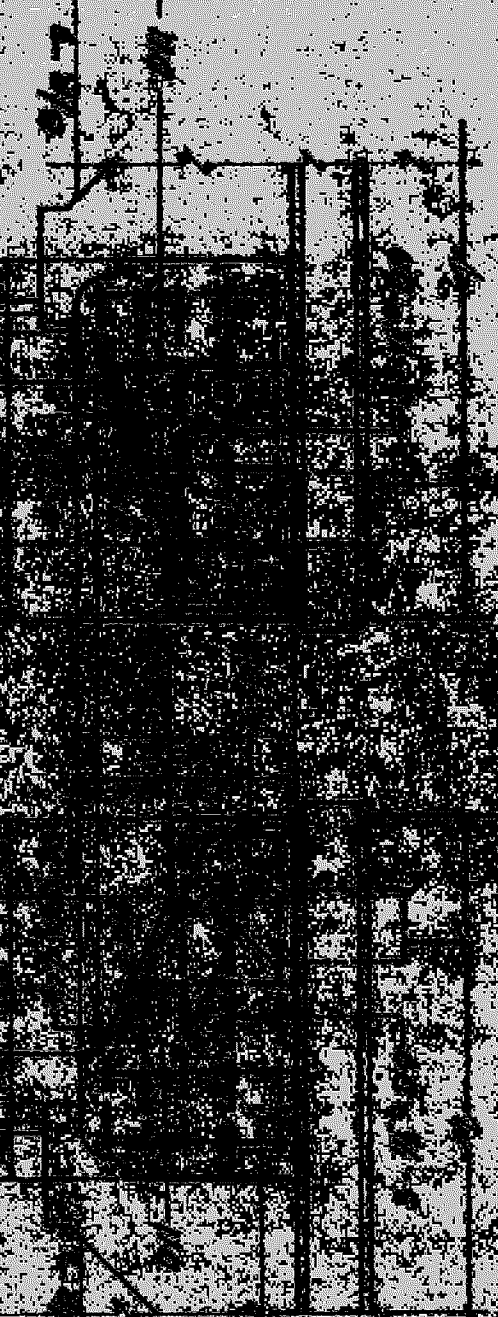
SEC. EE



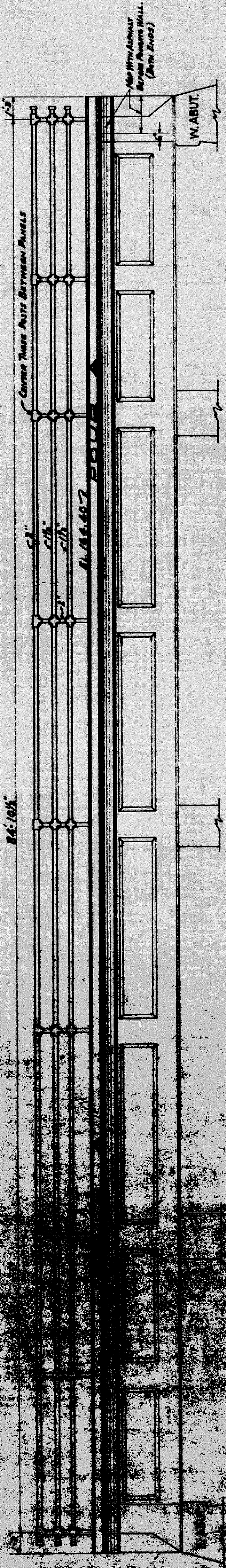
PLAN OF RETURNS - NORTH SIDE
SCALE: 1/4" = 1'-0"



SEC. CC

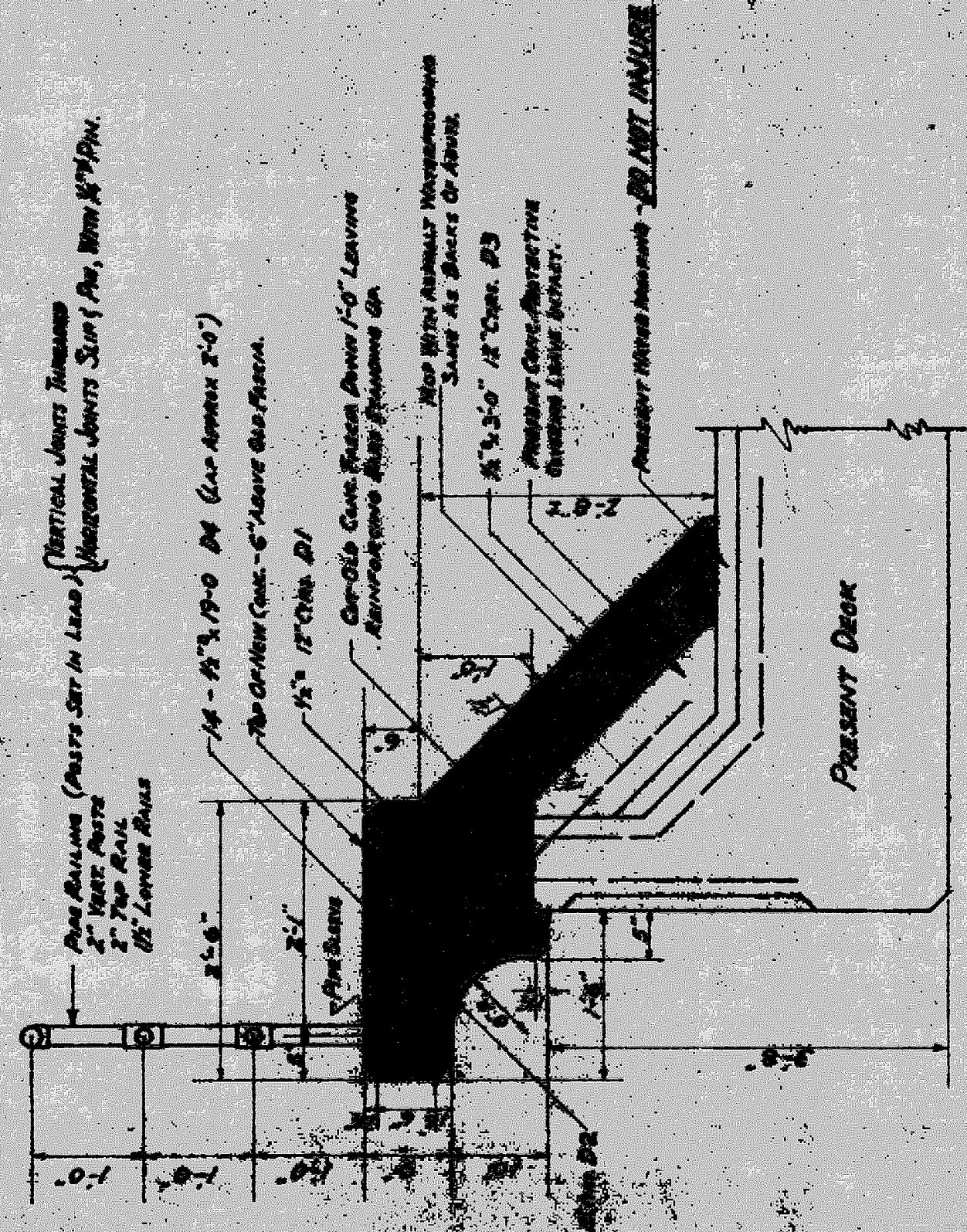


SEC. DD

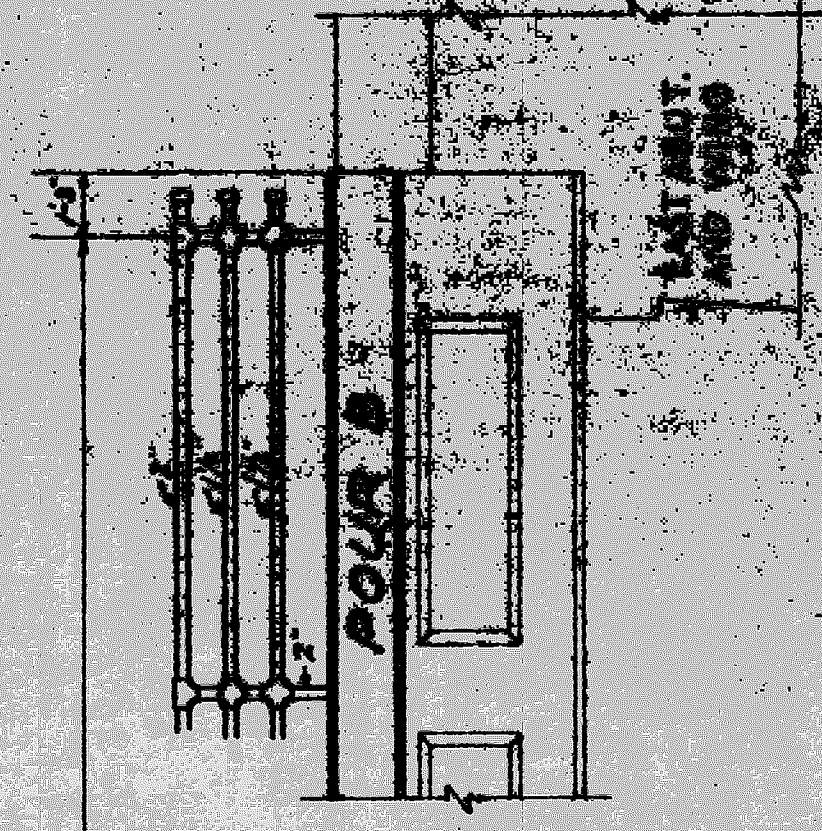


ELEVATION - NORTH FASCIA
SCALE: 1/4" = 1'-0"

CONCRETE QUANTITIES	LOCATION	MARK NUMBER	SIZE	LENGTH	POUR NUMBER AND NO. OF BARS REQUIRED
FASCIA CAP A	FASCIA	D 1	1/2"	6'-1"	1/80
B		D 2	1/2"	3'-7"	1/80
HINGE WALL CAP C	FASCIA & HINGE WALL	D 3	1/2"	3'-0"	1/80 9/80 5/4 9/4
D	FASCIA	D 4	1/2"	19'-0"	1/80 9/80 5/4 9/4
		D 5	1/2"	5'-7"	1/80
		D 6	1/2"	2'-8"	1/80
	HINGE WALLS	D 7	1/2"	4'-0"	5/4 9/4
		D 8	1/2"	3'-0"	5/4 9/4
		D 9	1/2"	7'-9"	5/4 9/4
		D 10	1/2"	7'-0"	5/4 9/4
		D 11	1/2"	4'-0"	5/4 9/4
		D 12	1/2"	2'-0"	5/4 9/4
		D 13	1/2"	7'-1"	5/4 9/4
		D 14	1/2"	7'-9"	5/4 9/4
		D 15	1/2"	8'-9"	5/4 9/4
		D 16	1/2"	18'-3"	5/4 9/4



SECTION THRU NORTH FASCIA
SCALE: 1/4" = 1'-0"



ELEVATION - SOUTH FASCIA
SCALE: 1/4" = 1'-0"

Michigan State Highway Department
WAYNE, OH.
MICHIGAN STATE HIGHWAY DEPARTMENT
WAYNE, OH.
DESIGNED BY: J. W. BROWN
CHECKED BY: J. W. BROWN
DATE: 11-15-34

APPROVED: [Signature]
DATE: 11-15-34
FILE NO. 1-1154

PK	NO. REBAR	SIZE	TOTAL LENGTH	BENDING DIAGRAM	WEIGHT
R-1	13	1/2"	14'-6"	STRAIGHT	176
R-2	21	1/2"	12'-0"	"	264
R-3	28	1/2"	14'-9"	"	388
R-4	34	1/2"	25'-3"	"	5107
R-5	49	1/2"	3'-0"	STRAIGHT	152
R-6	110	1/2"	11'-3"	"	1236
R-7	24	1/2"	13'-3"	"	440
R-8	38	1/2"	5'-0"	"	387
R-9	33	1/2"	18'-6"	"	367
R-10	33	1/2"	11'-9"	"	302
R-11	63	1/2"	18'-3"	"	1723
R-12	81	1/2"	15'-9"	STRAIGHT	328
R-13	34	1/2"	17'-3"	"	1668
R-14	32	1/2"	14'-6"	"	696
R-15	18	1/2"	10'-6"	STRAIGHT	197
R-16	80	1/2"	9'-6"	"	694
			TOTAL		19181

ABUTMENT RETURNS - G-T-W.

PK	NO. REBAR	SIZE	TOTAL LENGTH	BENDING DIAGRAM	WEIGHT
D-1	88	1/2"	6'-1"	"	433
D-2	88	1/2"	3'-7"	"	268
D-3	104	1/2"	3'-0"	STRAIGHT	469
D-4	130	1/2"	19'-0"	"	2100
D-5	88	1/2"	8'-1"	"	380
D-6	88	1/2"	2'-8"	"	200
D-7	10	3/4"	4'-0"	STRAIGHT	60
D-8	13	3/4"	3'-0"	"	59
D-9	12	1/2"	7'-9"	"	79
D-10	5	1/2"	7'-8"	"	30
D-11	8	1/2"	4'-0"	STRAIGHT	27
D-12	10	1/2"	2'-0"	"	17
D-13	6	1/2"	7'-1"	"	36
D-14	11	1/2"	7'-9"	"	72
D-15	6	1/2"	8'-9"	"	45
D-16	5	1/2"	13'-3"	"	36
			TOTAL		4353

ALTERATIONS TO CASS AVE. BRIDGE - G.T.W.

PK	NO. REBAR	SIZE	TOTAL LENGTH	BENDING DIAGRAM	WEIGHT
D-1	88	1/2"	6'-1"	"	433
D-2	88	1/2"	3'-7"	"	268
D-3	104	1/2"	3'-0"	STRAIGHT	469
D-4	130	1/2"	19'-0"	"	2100
D-5	88	1/2"	8'-1"	"	380
D-6	88	1/2"	2'-8"	"	200
D-7	10	3/4"	4'-0"	STRAIGHT	60
D-8	13	3/4"	3'-0"	"	59
D-9	12	1/2"	7'-9"	"	79
D-10	5	1/2"	7'-8"	"	30
D-11	8	1/2"	4'-0"	STRAIGHT	27
D-12	10	1/2"	2'-0"	"	17
D-13	6	1/2"	7'-1"	"	36
D-14	11	1/2"	7'-9"	"	72
D-15	6	1/2"	8'-9"	"	45
D-16	5	1/2"	13'-3"	"	36
			TOTAL		4353

ABUT. RETURNS + STREET WALLS - M-C-R.

PK	NO. REBAR	SIZE	TOTAL LENGTH	BENDING DIAGRAM	WEIGHT
S-1	130	1/2"	18'-4"	"	6962
S-2	68	1/2"	17'-3"	STRAIGHT	1760
S-3	62	1/2"	17'-8"	"	2883
S-4	44	1/2"	24'-3"	STRAIGHT	1133
S-5	50	1/2"	17'-0"	"	2473
S-6	62	1/2"	7'-0"	"	651
S-7	21	1/2"	13'-4"	"	747
S-8	14	1/2"	9'-0"	"	187
S-9	9	1/2"	18'-11"	"	293
S-10	14	1/2"	21'-0"	STRAIGHT	306
S-11	48	1/2"	3'-0"	"	498
S-12	18	1/2"	10'-6"	"	221
S-13	10	1/2"	19'-11"	"	143
S-14	32	1/2"	10'-0"	STRAIGHT	243
S-15	7	1/2"	11'-0"	"	123
S-16	10	1/2"	13'-5"	"	274
S-17	7	1/2"	14'-0"	STRAIGHT	102
S-18	13	1/2"	9'-6"	"	143
S-19	12	1/2"	7'-0"	"	153
S-20	30	1/2"	12'-0"	"	238
S-21	12	1/2"	10'-11"	"	213
S-22	44	1/2"	3'-0"	STRAIGHT	239
S-23	44	1/2"	6'-0"	"	273
S-24	44	1/2"	2'-6"	"	176
			TOTAL		19607

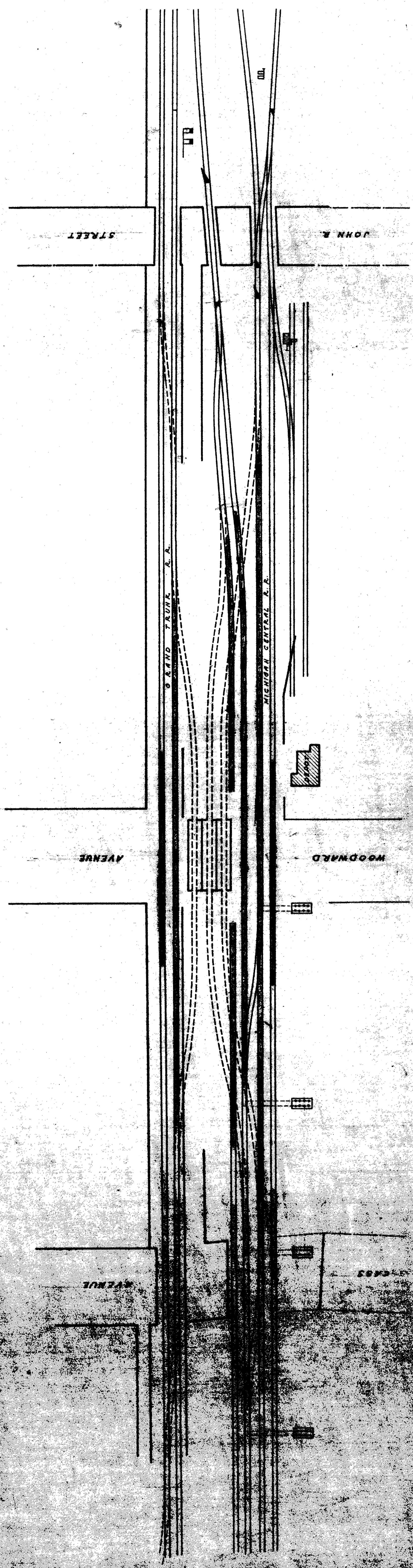
MICHIGAN STATE HIGHWAY DEPARTMENT
 WAYNE
 BRIDGE NO. 10, 12 & 22-9 OVER WOODWARD AVE., U.S. 10
 CASS-M-C-R-R-NY-C-R-R-CITY OF DETROIT
 BILL OF REINFORCING STEEL
 STREET & R.R. R/W WALLS

APPROVED

 APPROVED

 SHEET NO. 4 OF 44

File XU-1-41



LEGEND
 - - - - - Temporary tracks
 ===== Tracks to be permanently removed

MICHIGAN STATE HIGHWAY DEPARTMENT
 ENGINEER: W. L. WOODWARD
 CHIEF ENGINEER: W. L. WOODWARD
 CITY OF DETROIT
 TEMPORARY TRACK LAYOUT

DESIGNED BY	W. L. Woodward
DRAWN BY	W. L. Woodward
CHECKED BY	W. L. Woodward
APPROVED BY	W. L. Woodward
DATE	1-22-34
SHEET	42 of 44

File XU1-92 X2 of 82-22-9

