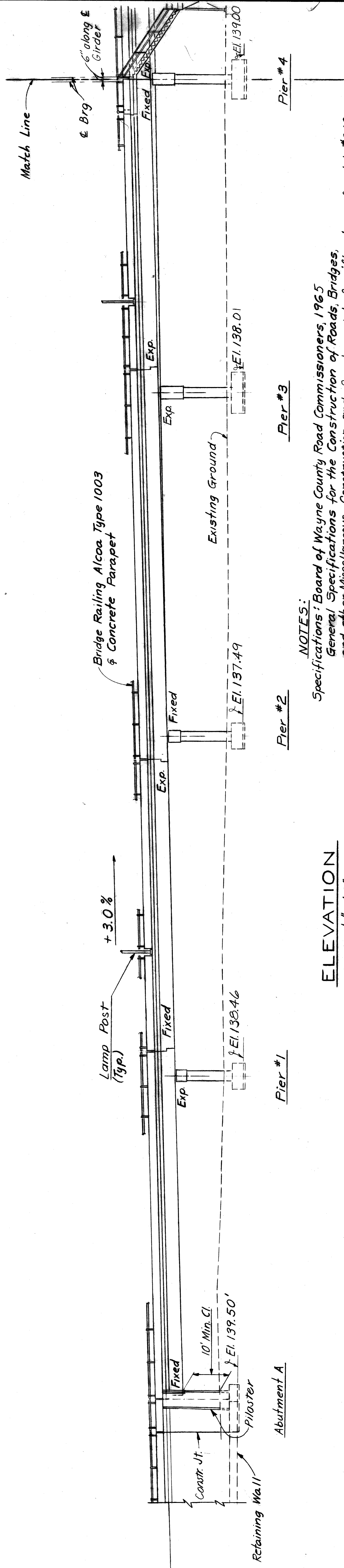


**PLAN**  
Scale 1/8" = 1'-0"

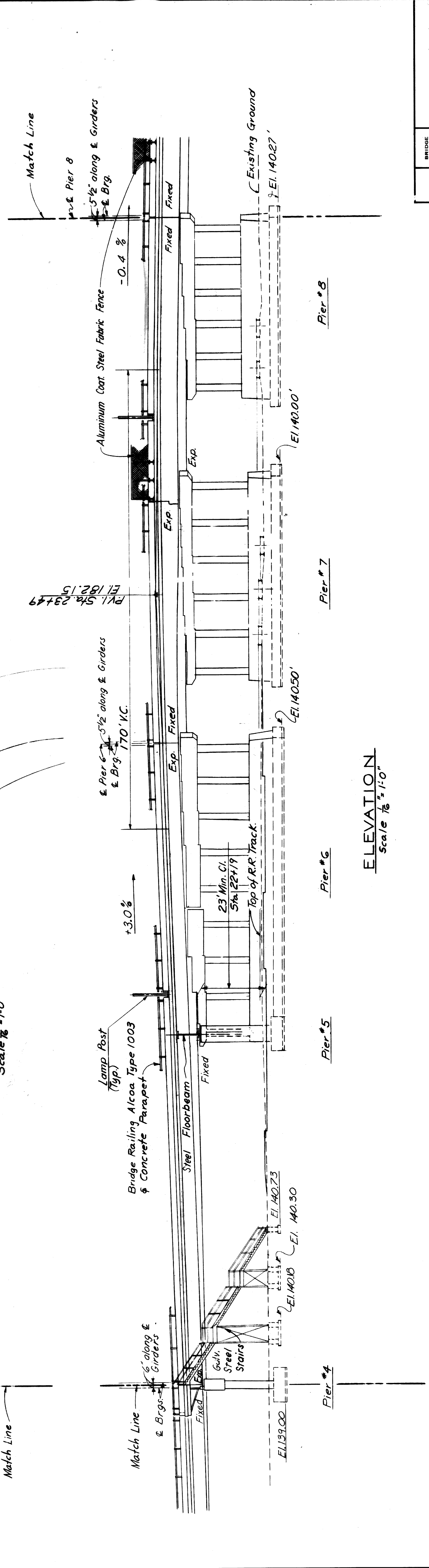
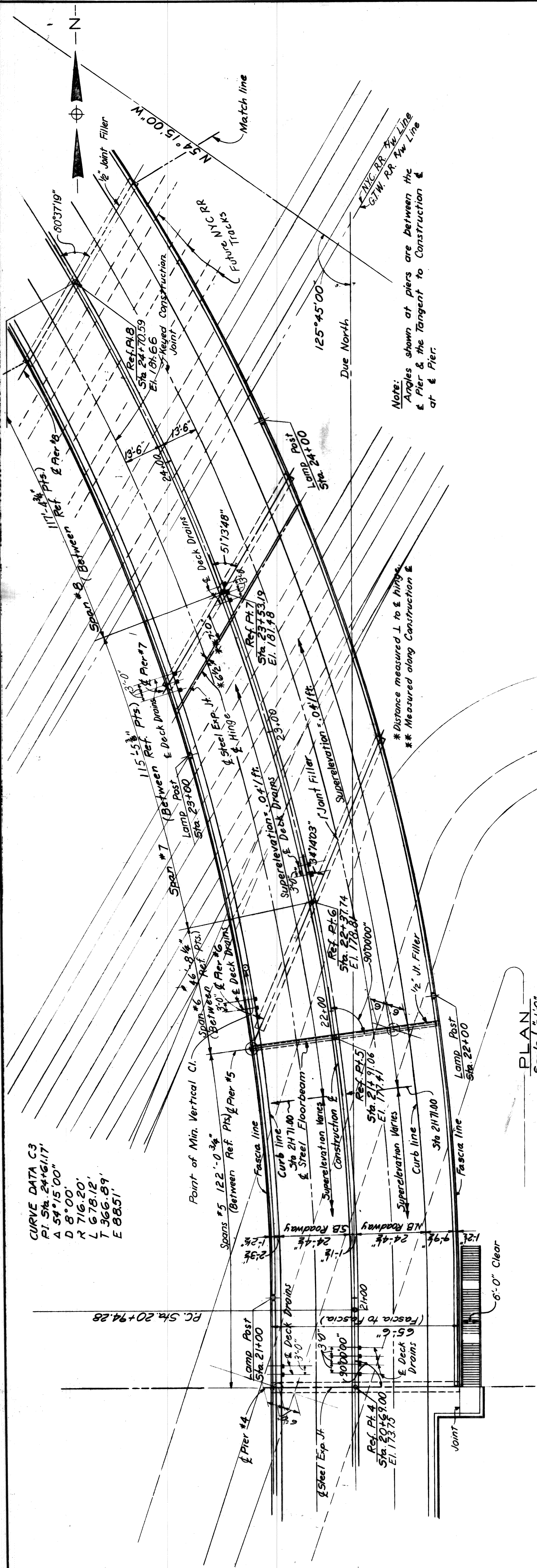
Note:  
Abutment A and Piers 1  
thru 4 are parallel.



**ELEVATION**  
Scale 1/8" = 1'-0"

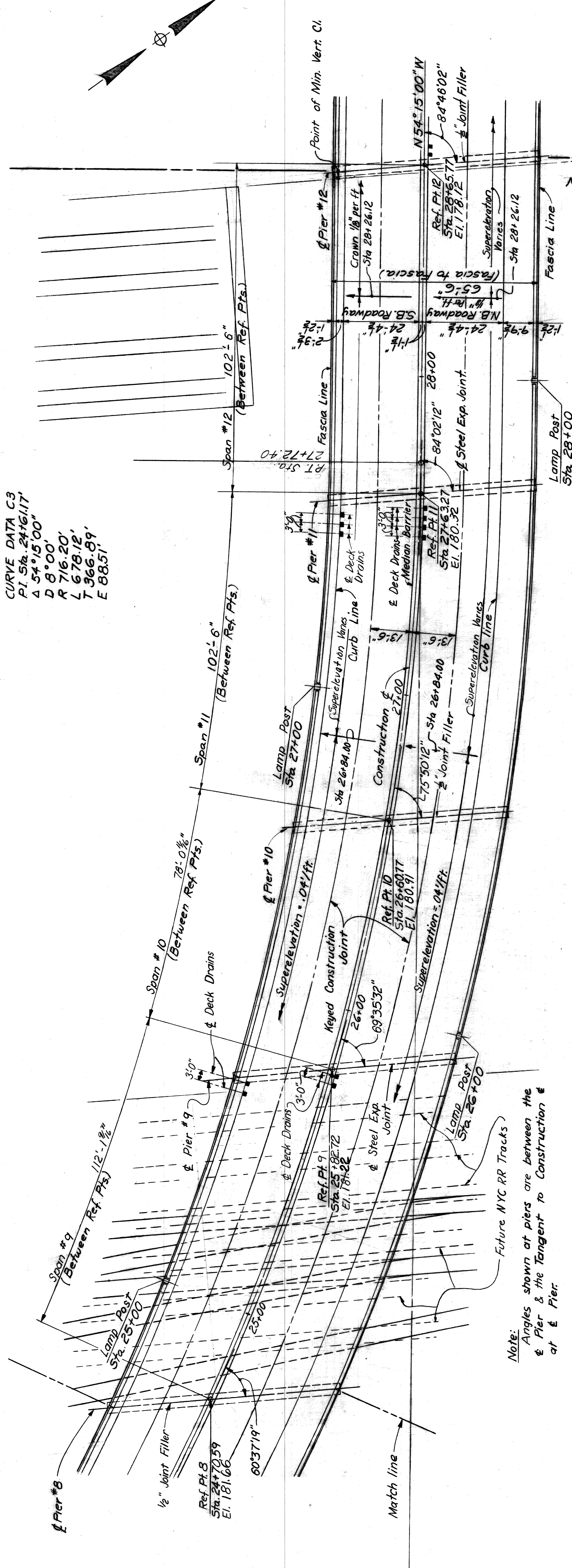
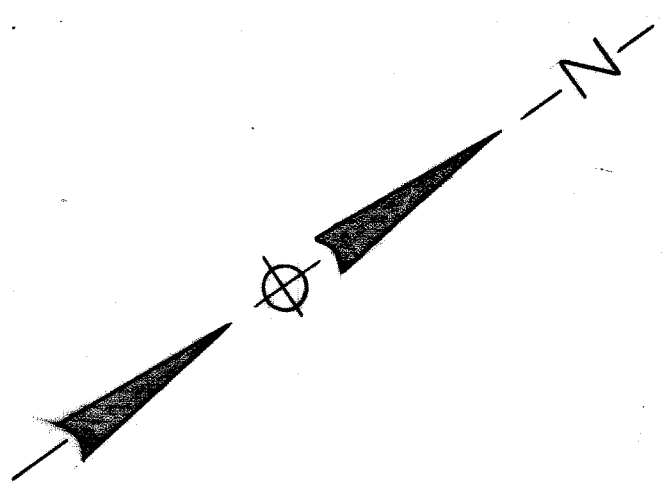
**NOTES:**  
Specifications: Board of Wayne County Road Commissioners, 1965  
General Specifications for the Construction of Roads, Bridges,  
and other Miscellaneous Construction and Supplemental Specifications for Job #246.  
Design: A.A.S.H.O. 1965 Edition  
Loading: HS-20-44 and Special Military Loading.  
Deflection: Live Load plus Impact.  
Span Length:  
Cantilever Arm - Not more than 1/350 of the Cantilever Arm.  
Concrete: Grade A (10B Gravel for 10B Slag)  
Structural Steel: Structural Steel in Girders shall be ASTM-A441 Modified  
HAZELET & ERDAL CONSULTING ENGINEERS

BOARD OF <b>WAYNE COUNTY ROAD COMMISSIONERS</b> DETROIT, MICHIGAN PHILIP J. NEUDECK WILLIAM E. KRIGER	COUNTY JOB 246 SHEET NO. 300 DATE 5/13/68	STATE PROJECT MOUNT ELLIOTT-MOUND RD. GRADE SEPARATION GENERAL PLAN OF STRUCTURE (SH. 1)	BRIDGE ROAD
		STATE FILE	COUNTY ENGINEER APPROVED  PHILIP J. NEUDECK COUNTY ENGINEER
BOARD LEADER CHECKED BY DATE TRACED BY DATE COUNTY  WILLIAM E. KRIGER COUNTY ENGINEER	REVISIONS 1. M.S.E. R-1	APPROVED  PHILIP J. NEUDECK COUNTY ENGINEER	



STATE FILE	BRIDGE ROAD	STATE PROJECT	COUNTY JOB
			246
DATE 5/13/68		ISSUE NO. 3	SHEET NO. 301
H.F.E. FILE NO. 603			
HAZELET & ERDAL CONSULTING ENGINEERS		MOUNT ELLIOTT-MOUND RD. GRADE SEPARATION GENERAL PLAN OF STRUCTURE (SH.2)	
WAYNE COUNTY ROAD COMMISSIONERS DETROIT, MICHIGAN		MICHAEL BERRY	
APPROVED		APPROVED	
ROAD LEADER	CHECKED BY	DATE	DATE
D.M. Rev	L. H. H. & E.	1-11-67	
	CHECKED BY	DATE	DATE
	M. J. J.		
PROPERTY OF STATE, TRUCKS AND EXPRESSWAYS		PROPERTY OF STATE, TRUCKS AND EXPRESSWAYS	

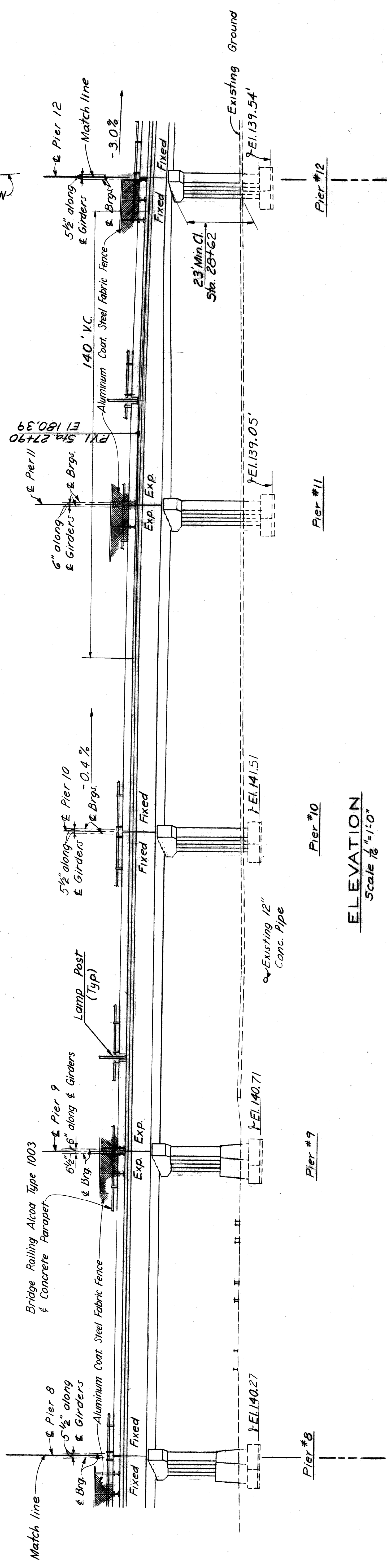
CURVE DATA C3  
 PI Sta. 24+61.17  
 Δ 54°15'00"  
 R 716.20'  
 L 678.12'  
 T 366.89'  
 E 88.51'



Note:  
 Angles shown at piers are between the  
 & Pier & the Tangent to Construction &  
 at & Pier.

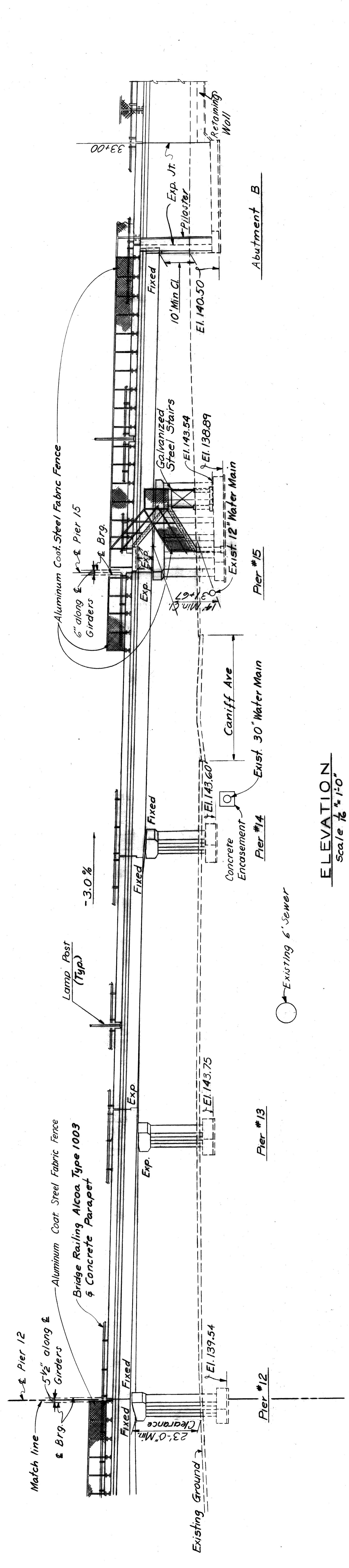
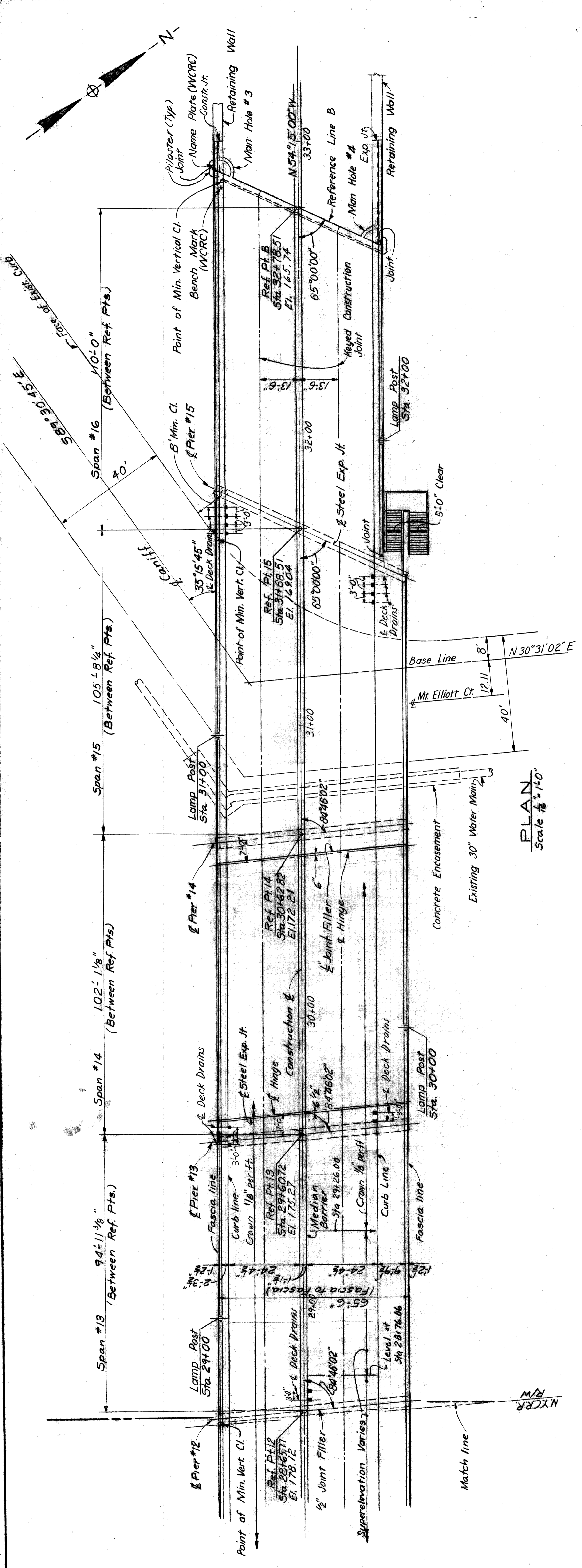
Note: Piers 7 thru 14 are Parallel

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



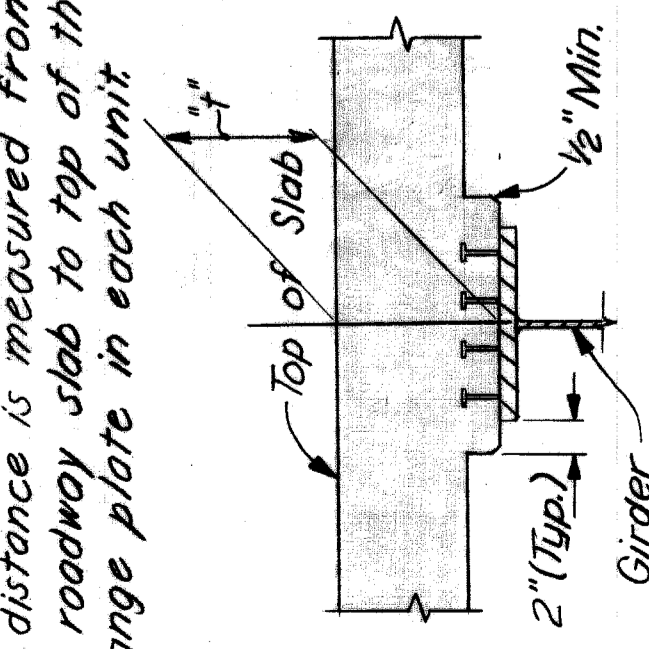
ELEVATION  
 Scale 1/8"=1'-0"

REVISIONS	DRAWN BY M. J. NEUDECK	CHECKED BY L. F. MULLER	DATE 1-17-57	APPROVED M. J. NEUDECK	COUNTY ENGINEER	STATE PROJECT MOUNT ELLIOTT-MOUND RD.	COUNTY JOB 246	BRIDGE FILE	ROAD	ISSUE NO. 3	SHEET NO. 302	DATE 5-12-56	HFE FILE NO. 603
HAZELT & ERDAL CONSULTING ENGINEERS													
BOARD OF WAYNE COUNTY ROAD COMMISSIONERS DETROIT, MICHIGAN													
GENERAL PLAN OF STRUCTURE (SH. 3)													
MICHAEL BERRY													

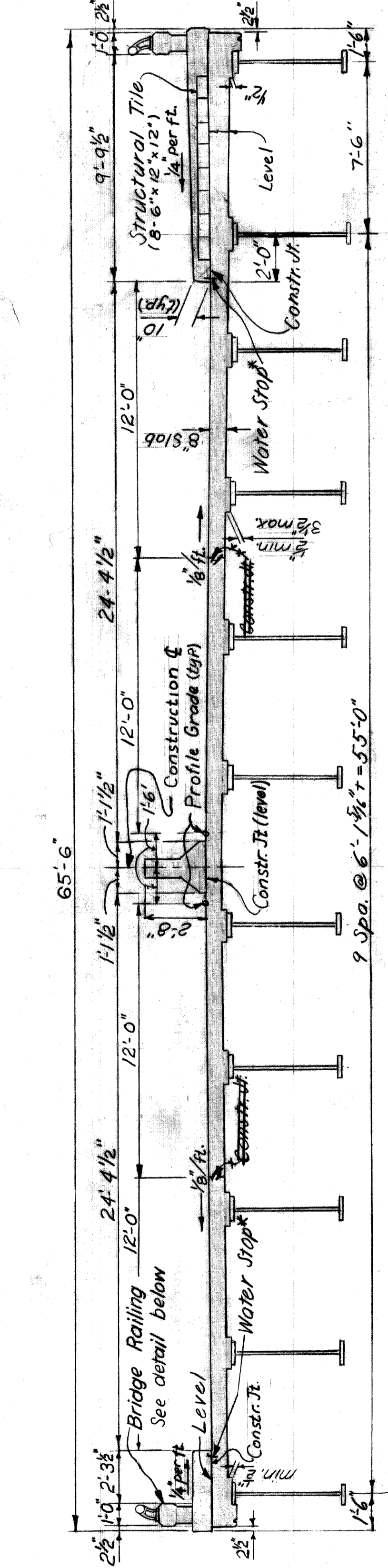


STATE FILE		BRIDGE ROAD		STATE PROJECT	COUNTY JOB
				MOUNT ELLIOTT-MOUND RD.	246
				GRADE SEPARATION	SHEET NO.
				GENERAL PLAN OF STRUCTURE (SH. 4)	303
				ISSUE NO. 3	DATE 2/13/48
				H. & E. FILE NO 603	
HAZELET & ERDAL CONSULTING ENGINEERS				BOARD OF	
WAYNE COUNTY ROAD COMMISSIONERS				DETROIT, MICHIGAN	
MICHAEL BERRY				WILLIAM E. KRIGER	
PHILIP J. NEUDECK				CONTRACT HIGHWAY ENGINEER	
APPROVED		DATE 5/1		DATE 1/1	
<i>[Signature]</i>		1/1		1/1	
ENGINEER OF STRUCTURES AND EXPRESSWAYS		CHECKED BY		CHECKED BY	
<i>[Signature]</i>		<i>[Signature]</i>		<i>[Signature]</i>	
APPROVED		DATE 5/1		DATE 1/1	
<i>[Signature]</i>		1/1		1/1	
ENGINEER OF STRUCTURES AND EXPRESSWAYS		CHECKED BY		CHECKED BY	
<i>[Signature]</i>		<i>[Signature]</i>		<i>[Signature]</i>	

"b" distance is measured from top of roadway slab to top of thinnest flange plate in each unit.

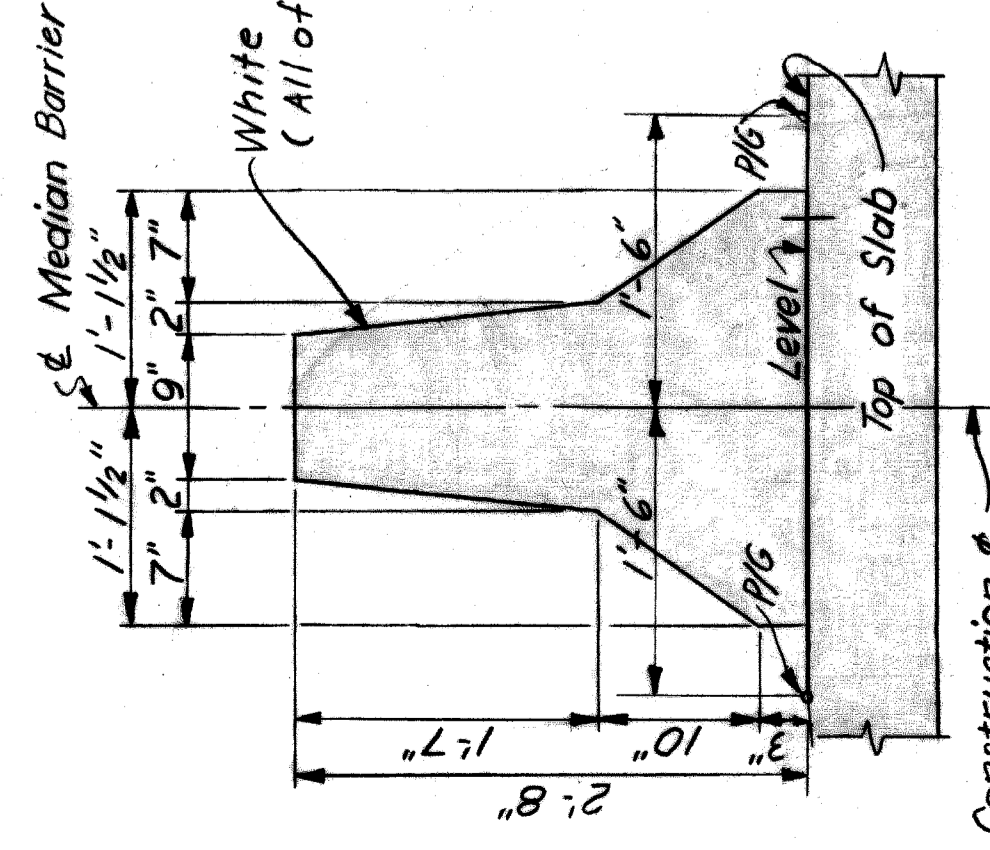


TYPICAL HAUNCH DETAIL  
Scale: 1"=1'-0"

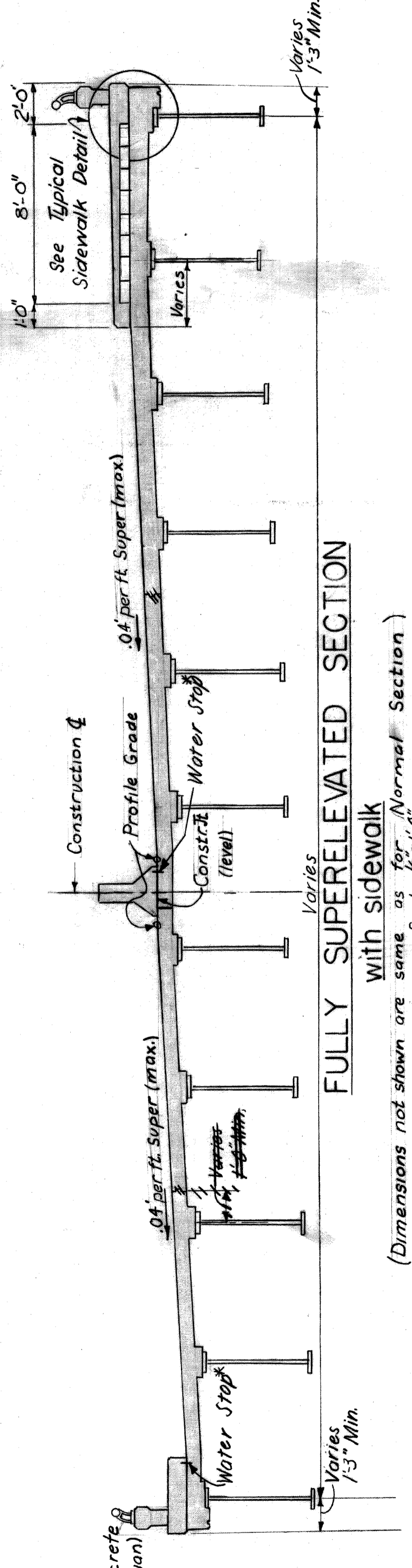


NORMAL SECTION with sidewalk  
Scale: 1/4"=1'-0"

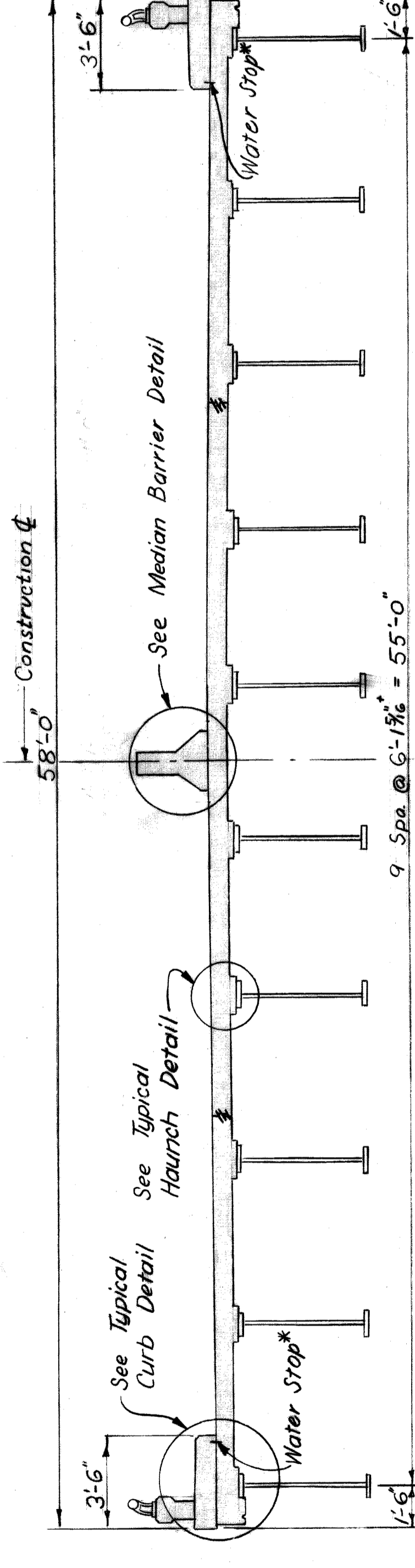
\* Use Water Stop @ Low Gutter



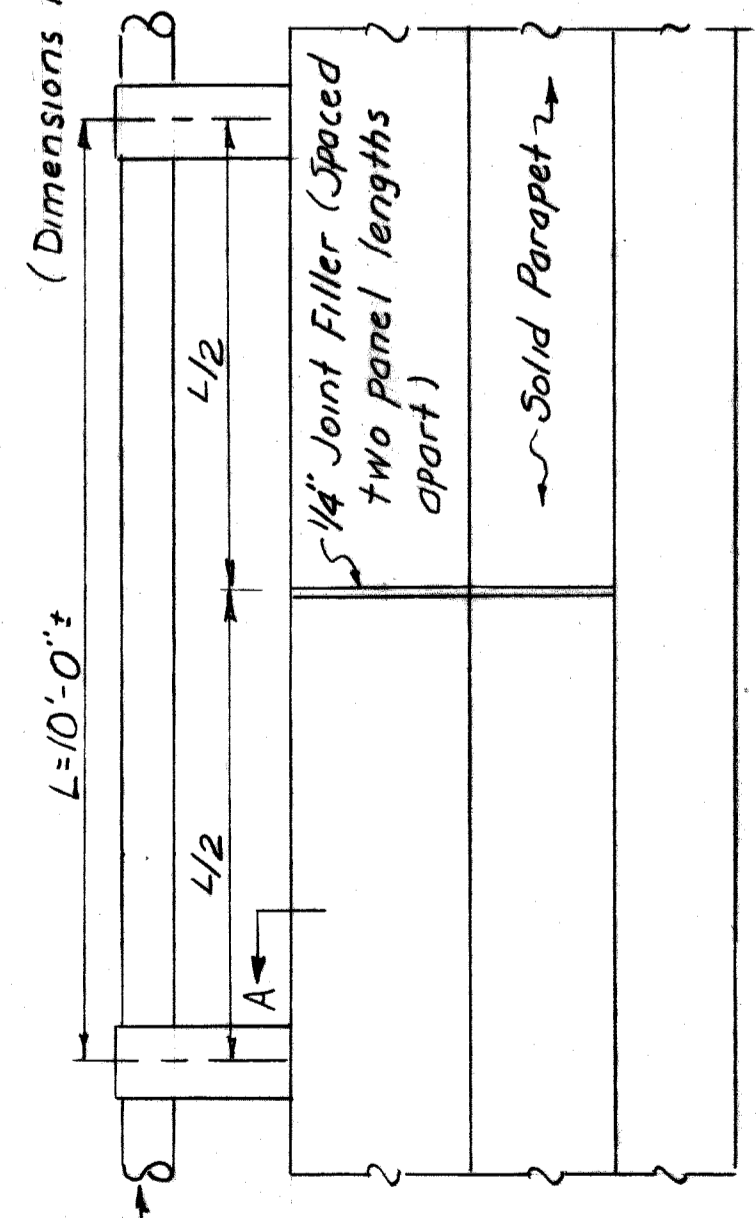
MEDIAN BARRIER DETAIL  
Scale: 1"=1'-0"



FULLY SUPERELEVATED SECTION with sidewalk  
(Dimensions not shown are same as for Normal Section)  
Scale: 1/4"=1'-0"

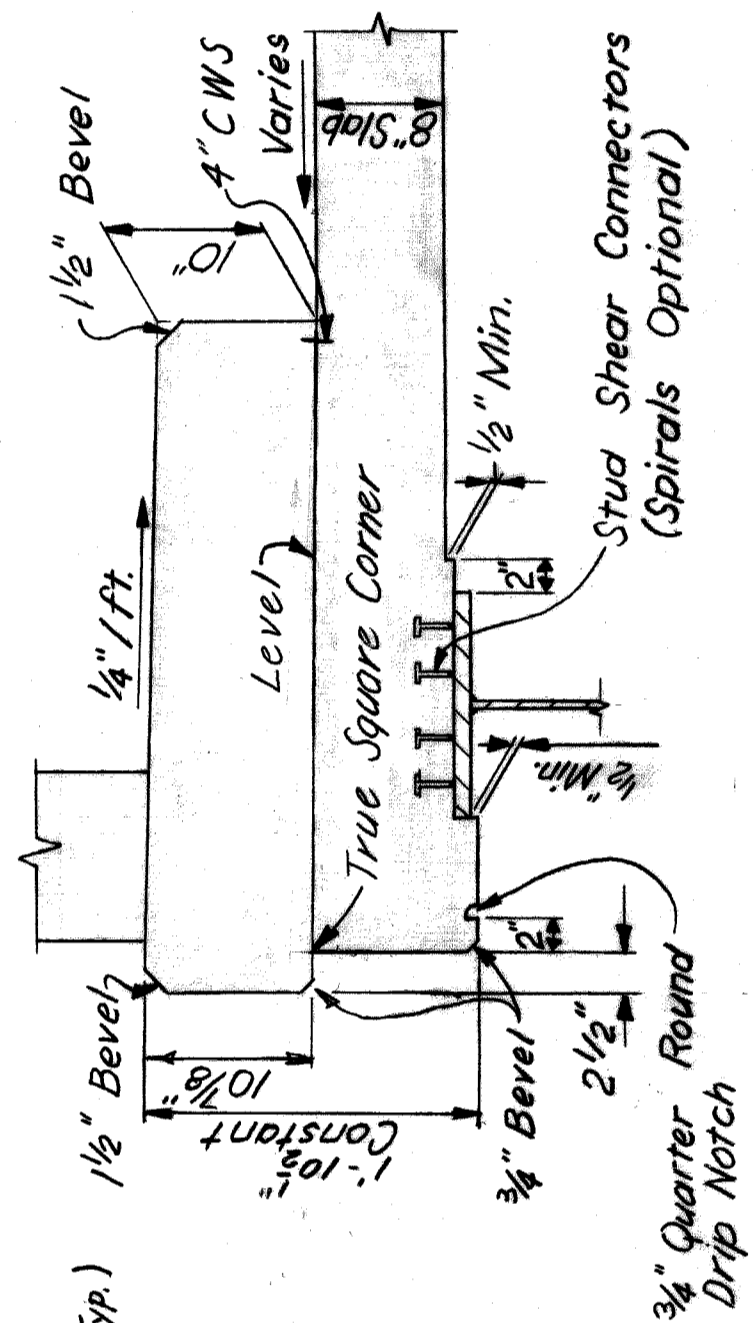


TYPICAL SECTION without sidewalk  
Scale: 1/4"=1'-0"

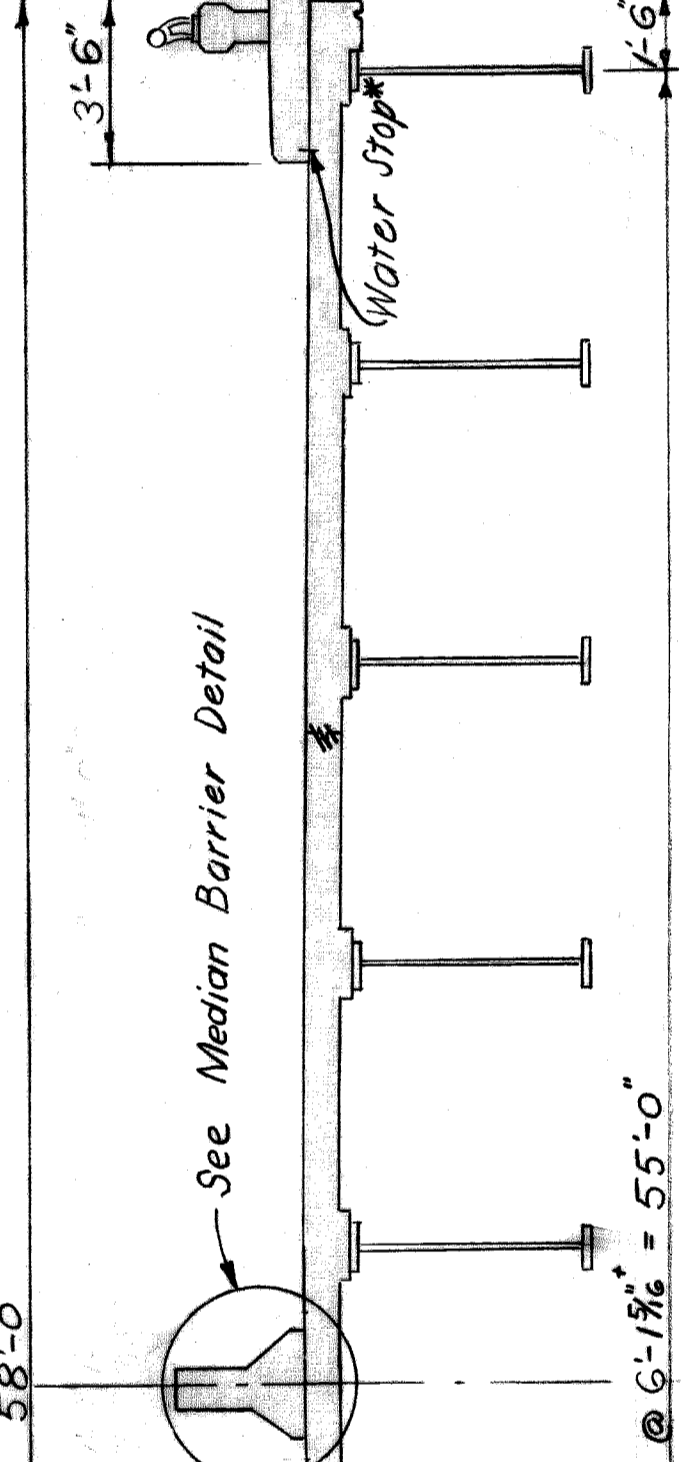


ELEVATION TYPICAL RAILING DETAILS  
Scale: 1/2"=1'-0"

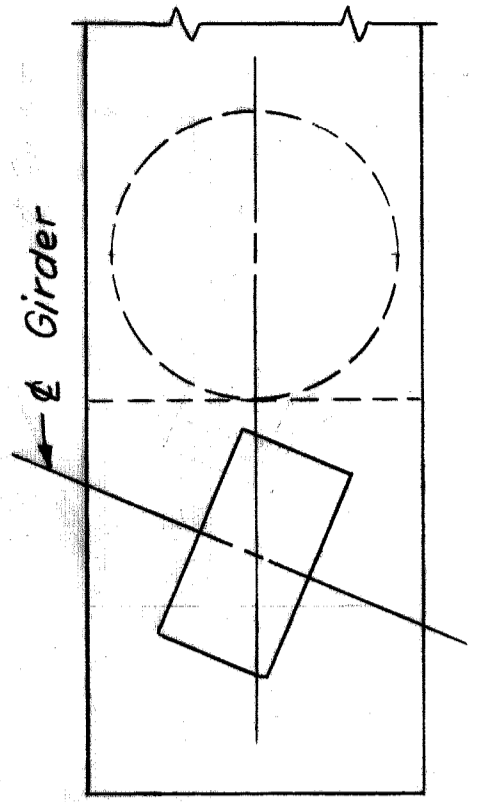
(Dimensions not shown are same as for Normal Section)



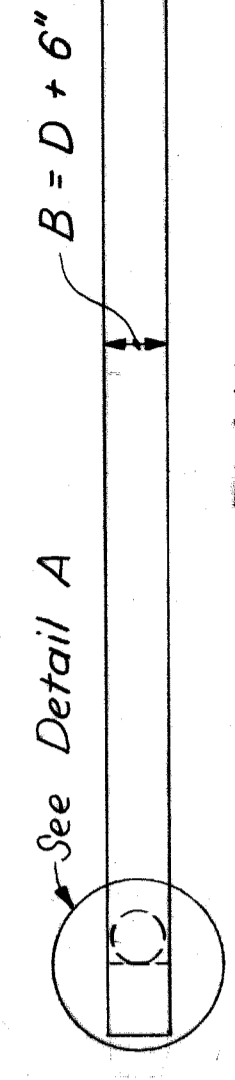
SECTION A-A TYPICAL CURB DETAIL  
Scale: 1/2"=1'-0"



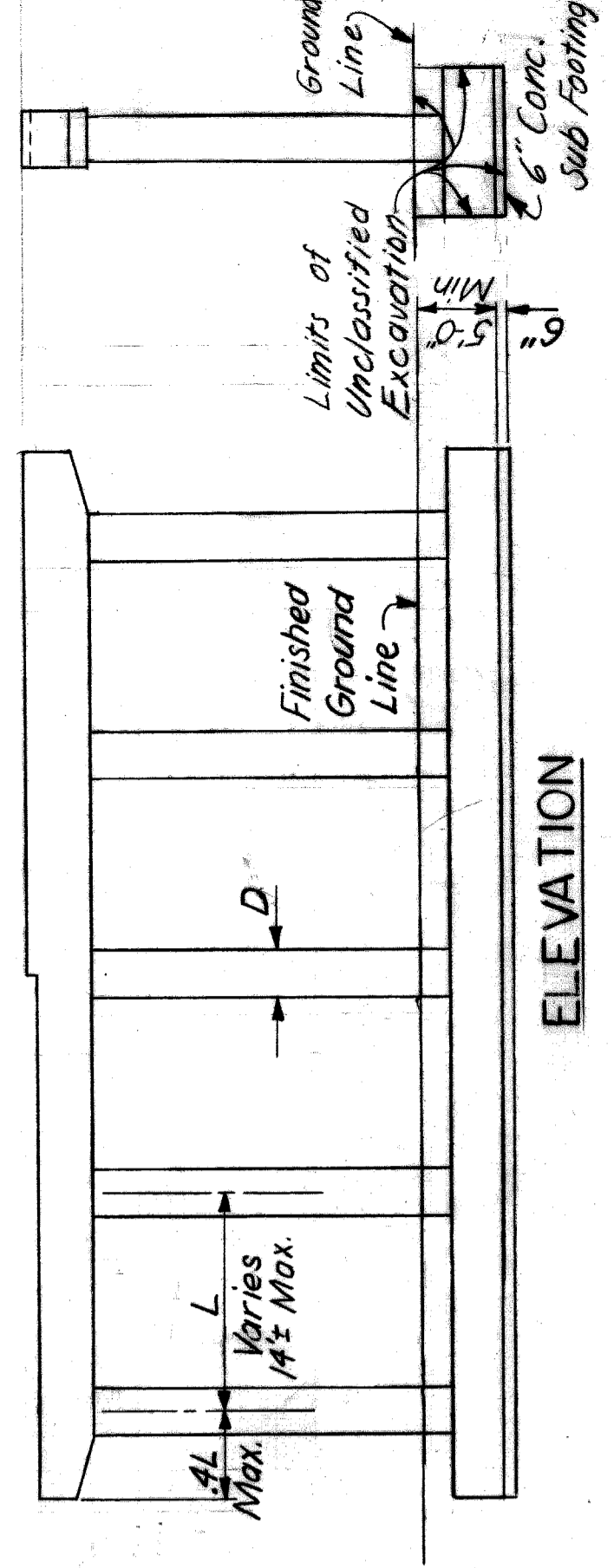
TYPICAL SECTION with sidewalk  
Scale: 1/4"=1'-0"



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

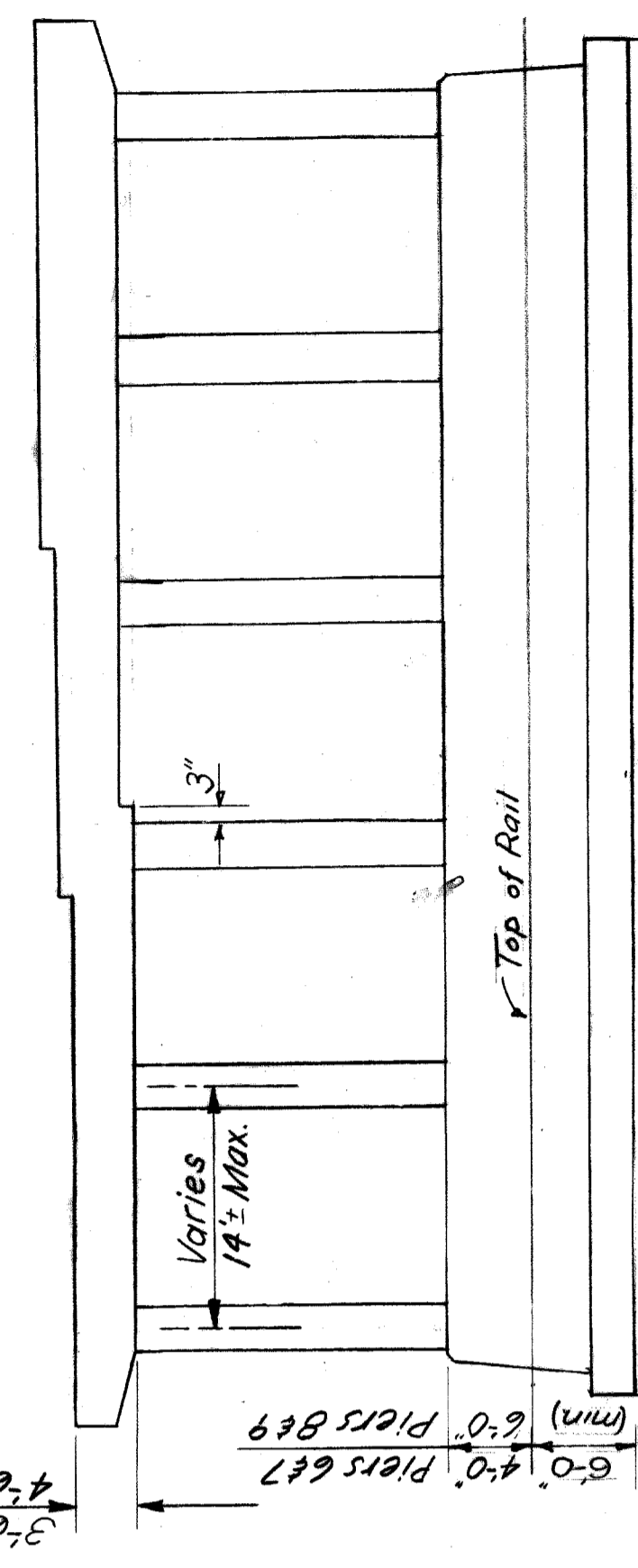


PLAN  
Scale: 1/2"=1'-0"

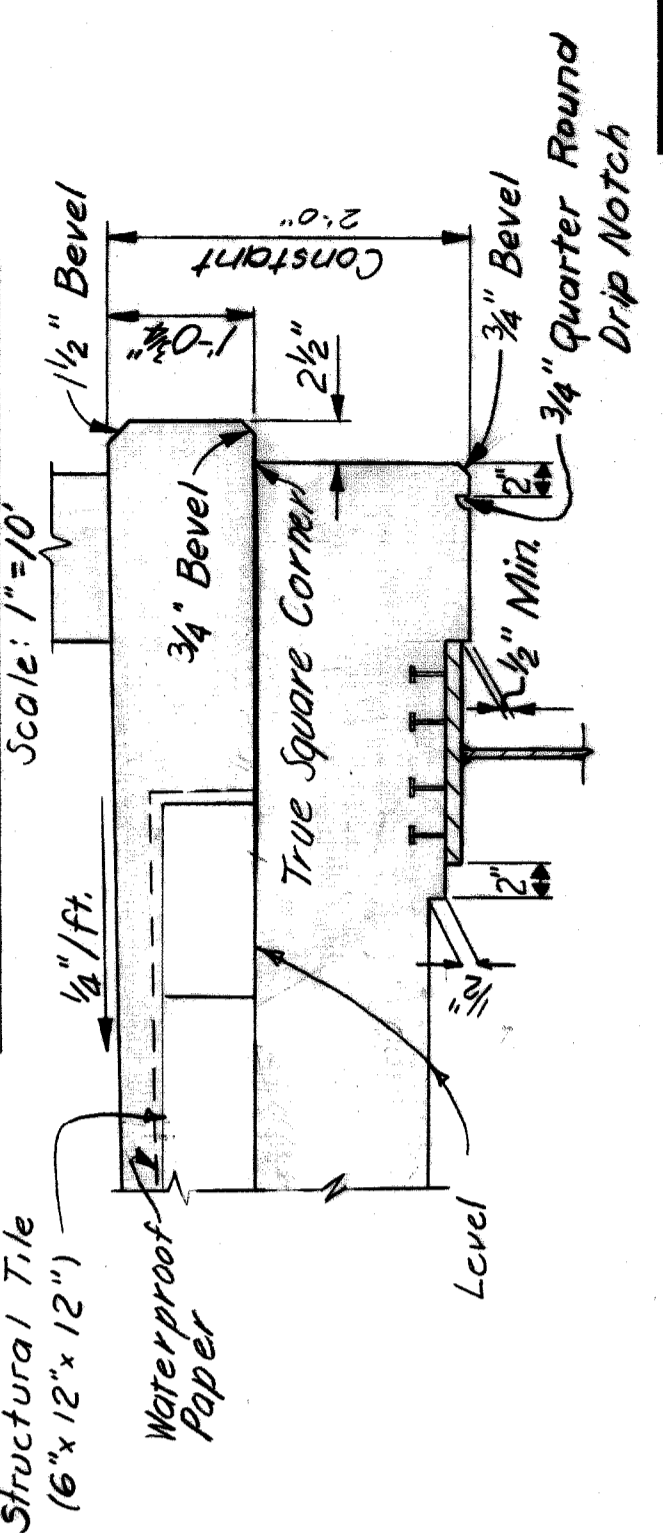


ELEVATION TYPICAL PIER DETAILS  
Scale: 1"=10'-0"

for Piers 1, 2, and 10 thru 15



TYPICAL PIER DETAILS for Piers 6, 7, 8, and 9  
Scale: 1"=10'-0"



TYPICAL SIDEWALK DETAIL  
Scale: 1"=1'-0"

AS BUILT 9-16-71 E.M.B. & LTM

REVISIONS	APPROVED	ENGINEER OF DESIGN, CONSTRUCTION AND SUPERVISION
1. 1-12-67 2. 1-12-67 3. 1-12-67	 PHILIP J. NEUDECK ENGINEER OF DESIGN, CONSTRUCTION AND SUPERVISION	 WILLIAM E. KRIEGER ENGINEER OF DESIGN, CONSTRUCTION AND SUPERVISION

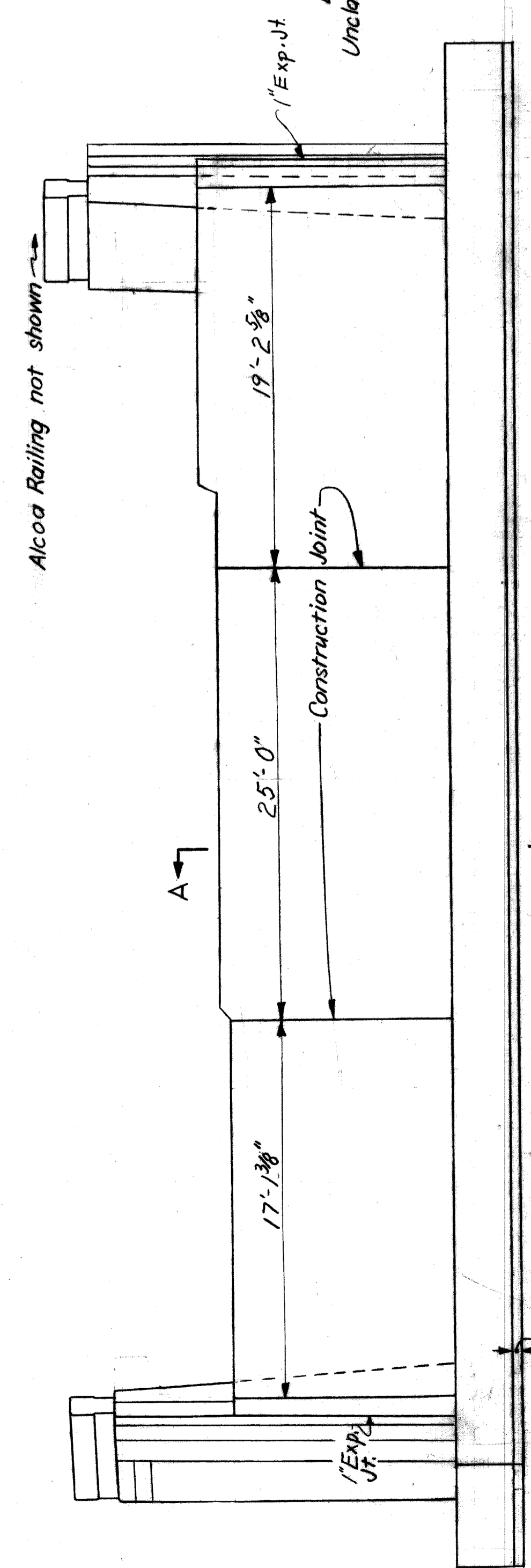
BOARD OF ROAD COMMISSIONERS  
 WAYNE COUNTY ROAD SEPARATION  
 DETROIT, MICHIGAN  
 PHILIP J. NEUDECK  
 WILLIAM E. KRIEGER

HAZELET & ERDAL CONSULTING ENGINEERS  
 TYPICAL SECTIONS AND PIER DETAILS  
 SCALE: 1"=1'-0"

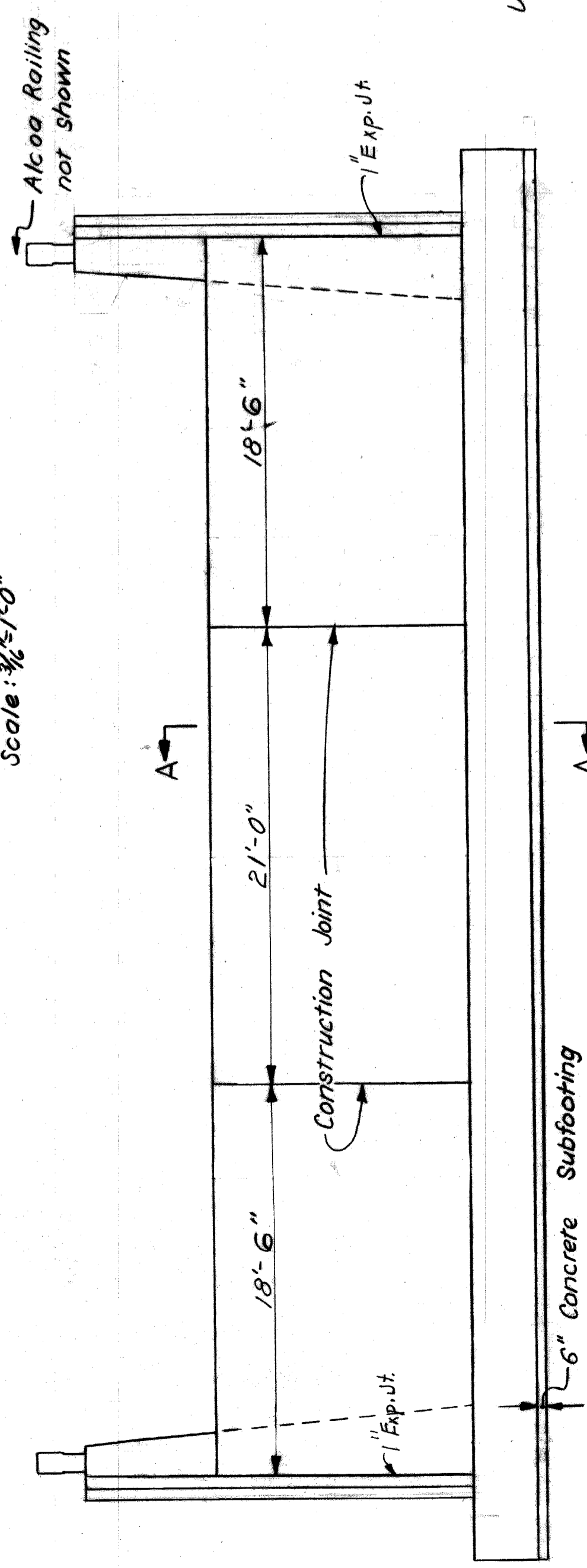
BRIDGE	STATE FILE	ROAD	STATE PROJECT	COUNTY JOB
				246
				304

XO 107

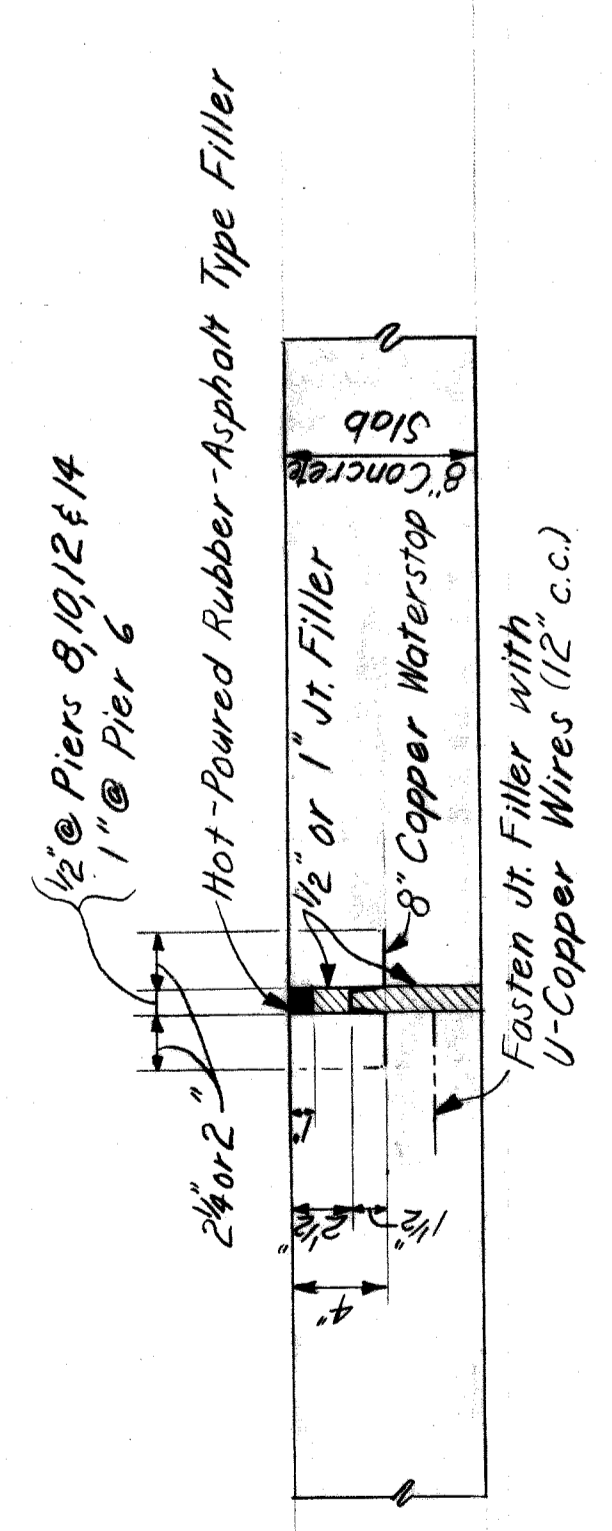
H&E FILE NO. 603



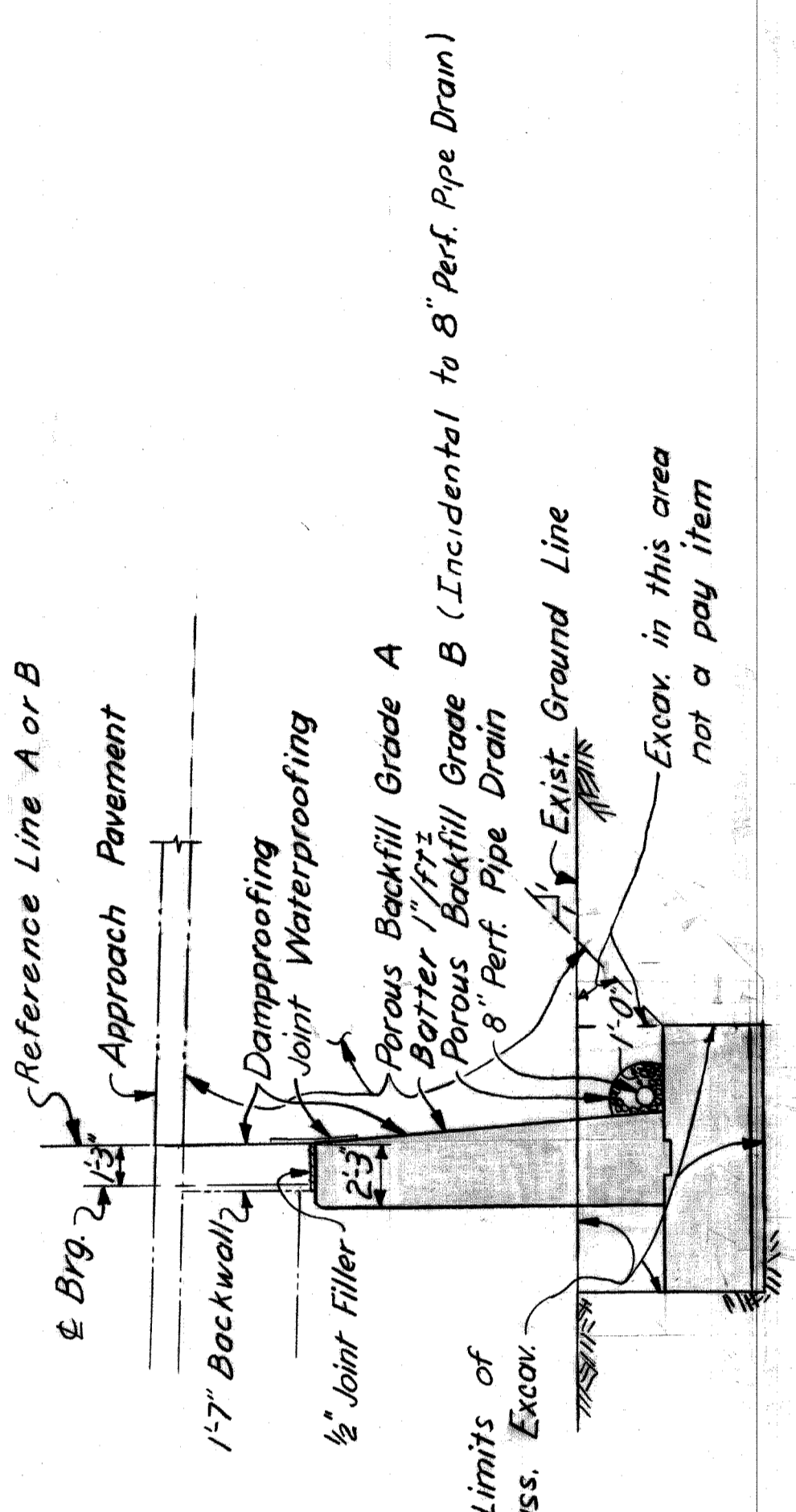
**ABUTMENT B**  
Scale: 3/8" = 1'-0"



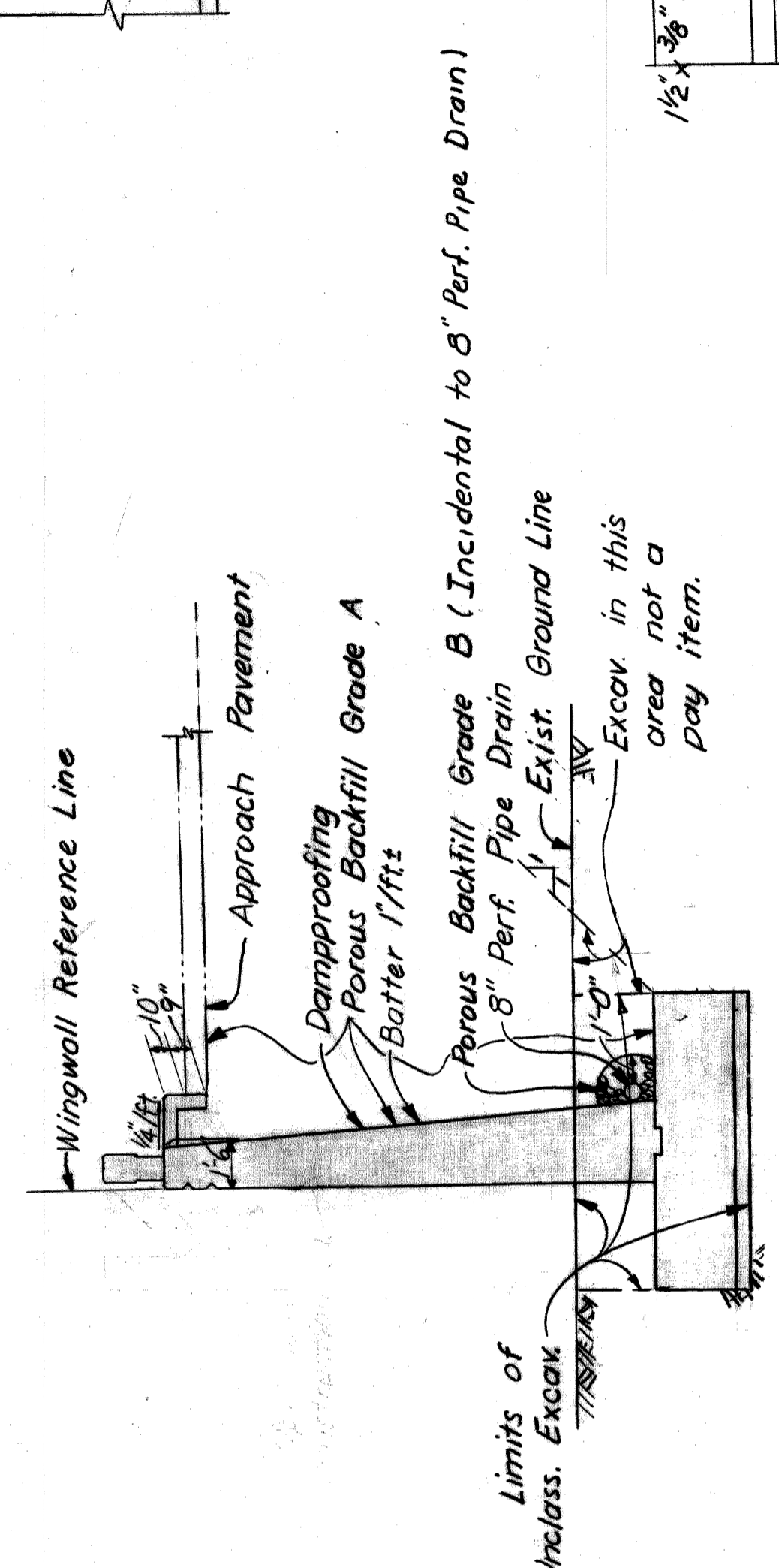
**ABUTMENT A**  
Scale: 3/8" = 1'-0"



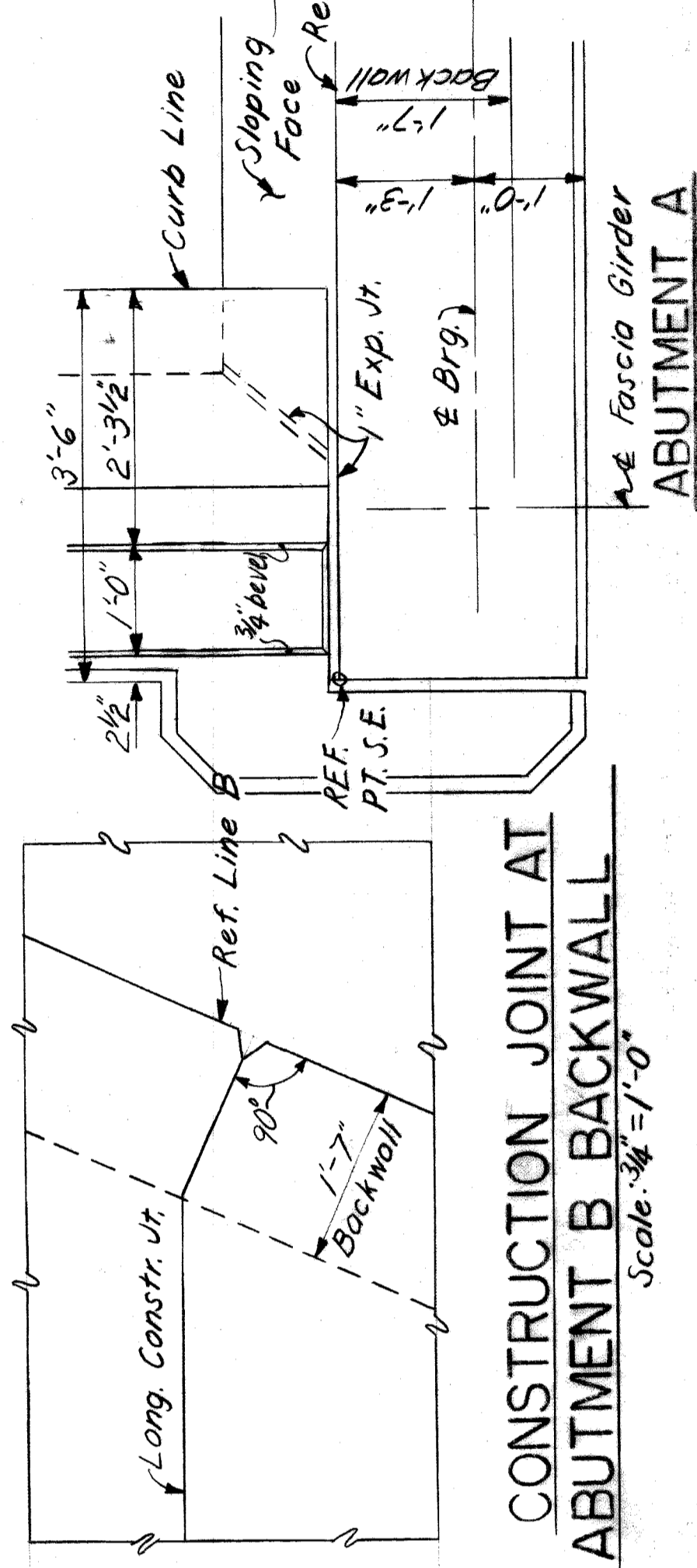
**TRANSVERSE DECK JOINTS**  
Scale: 1/2" = 1'-0"



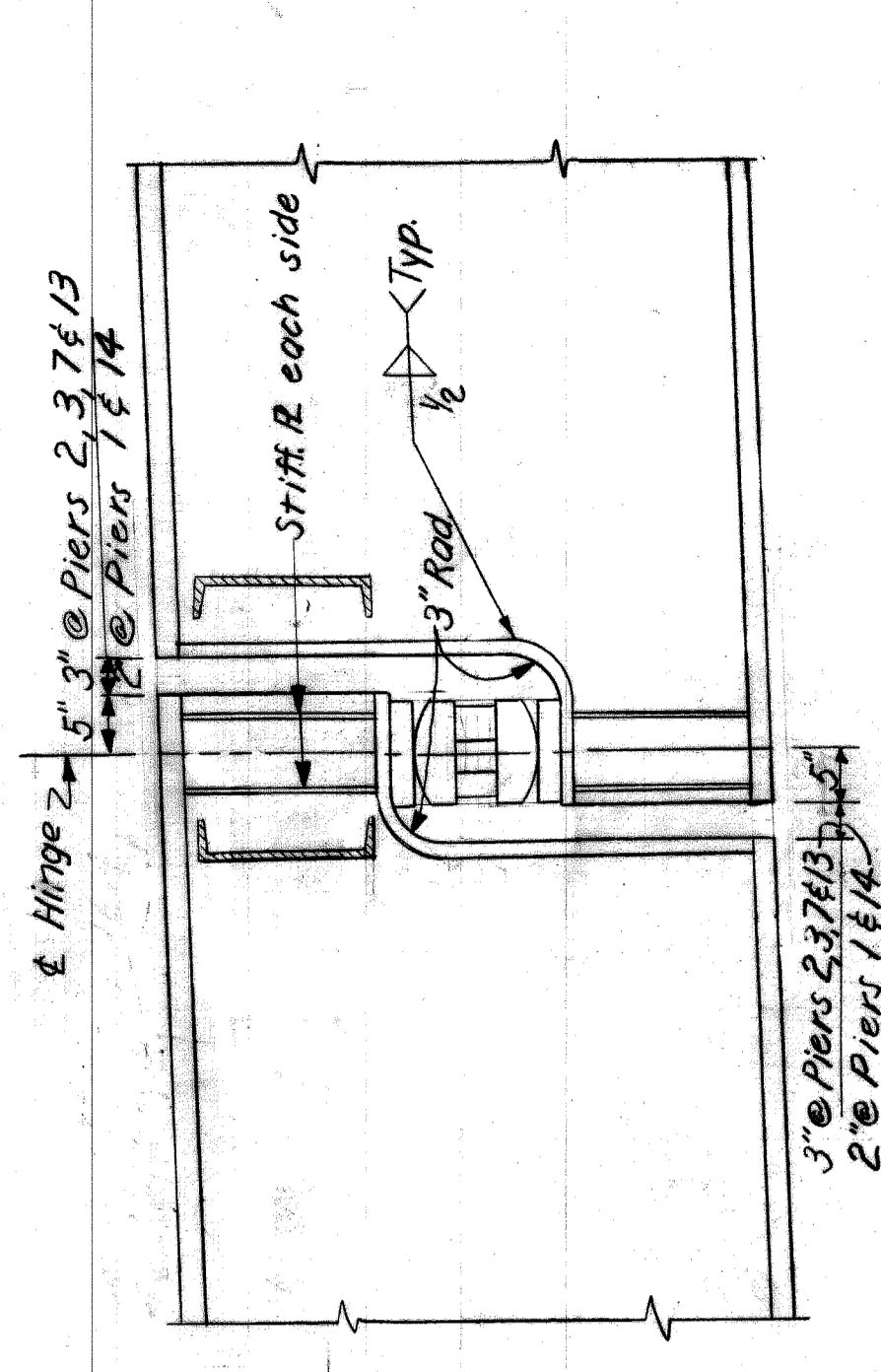
**SECTION A-A**  
Scale: 3/8" = 1'-0"



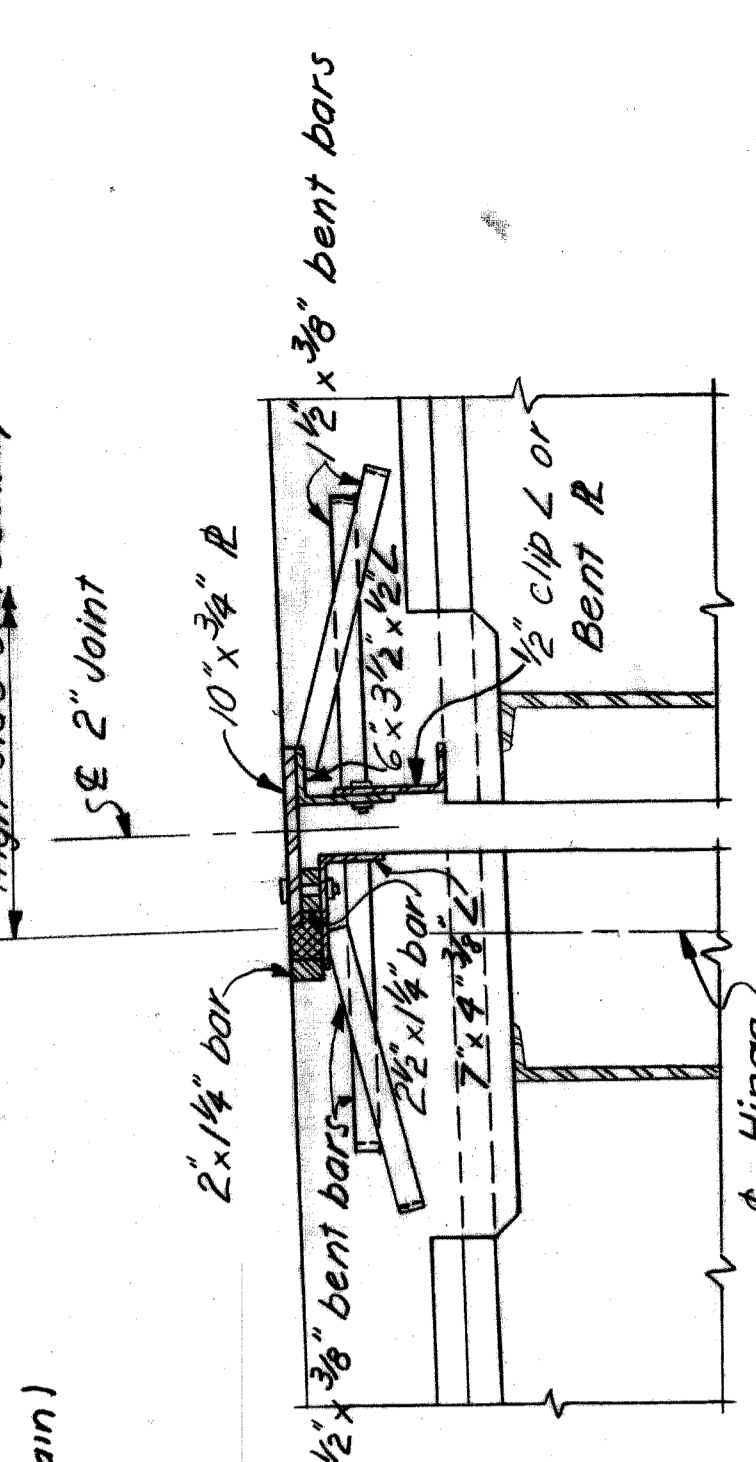
**TYPICAL WINGWALL SECTION**  
Scale: 3/8" = 1'-0"



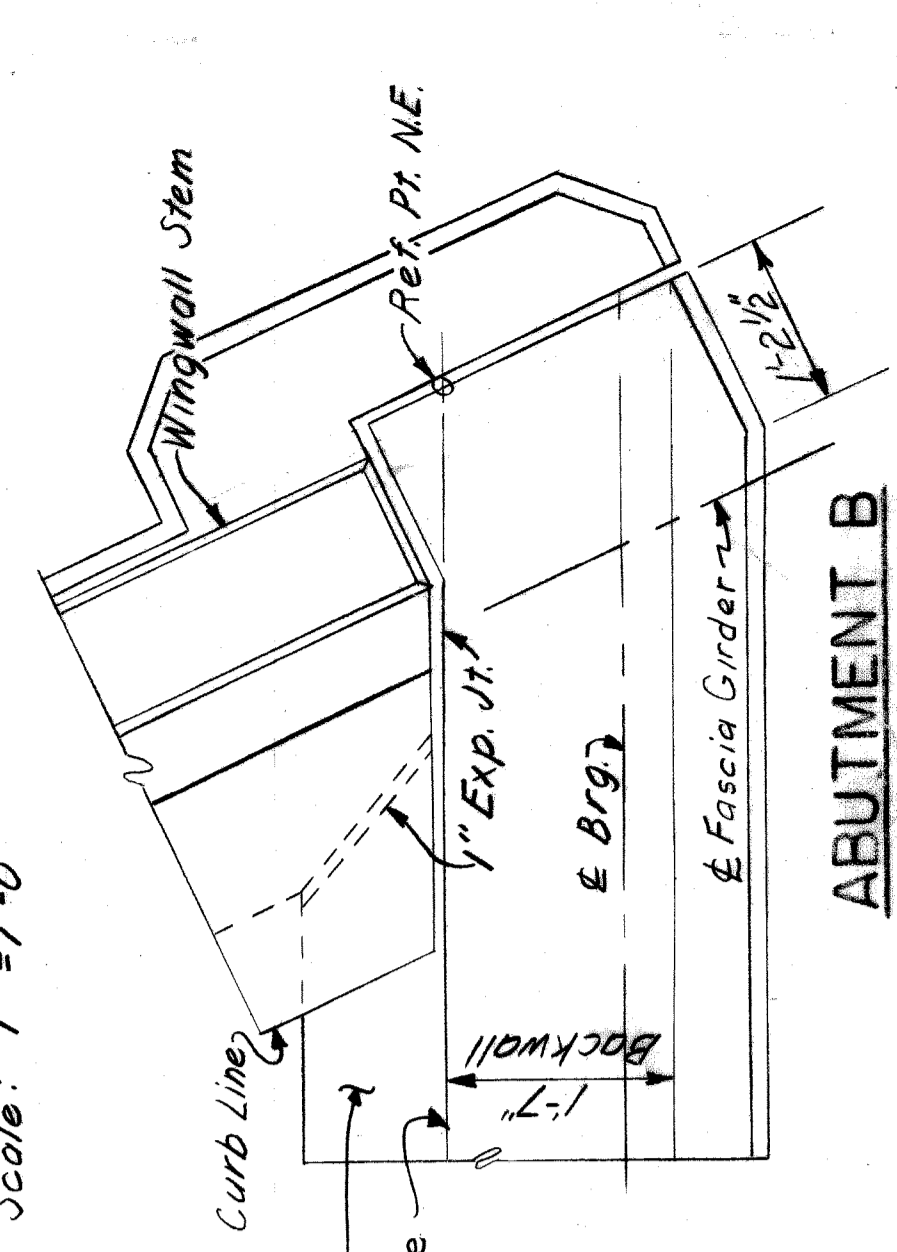
**CONSTRUCTION JOINT AT ABUTMENT B BACKWALL**  
Scale: 3/8" = 1'-0"



**HINGE DETAIL**  
Scale: 1" = 1'-0"



**METAL JOINT DETAIL**  
Scale: 1" = 1'-0"



**CORNER DETAILS**  
Scale: 3/8" = 1'-0"

NO.	REVISIONS	DATE
1	As Shown	12-67

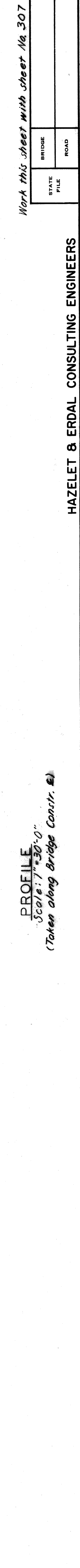
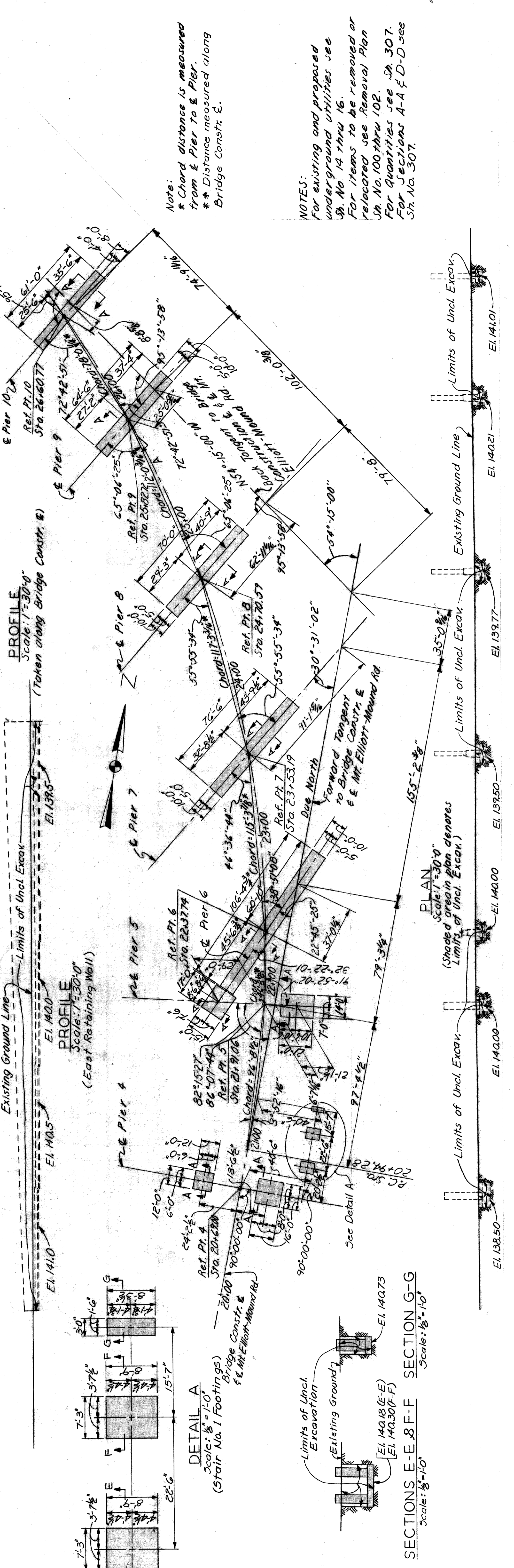
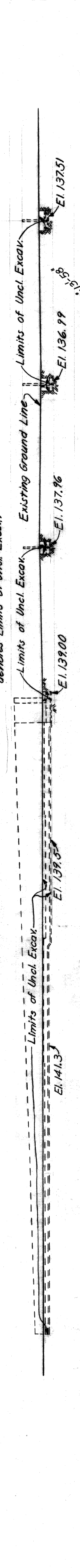
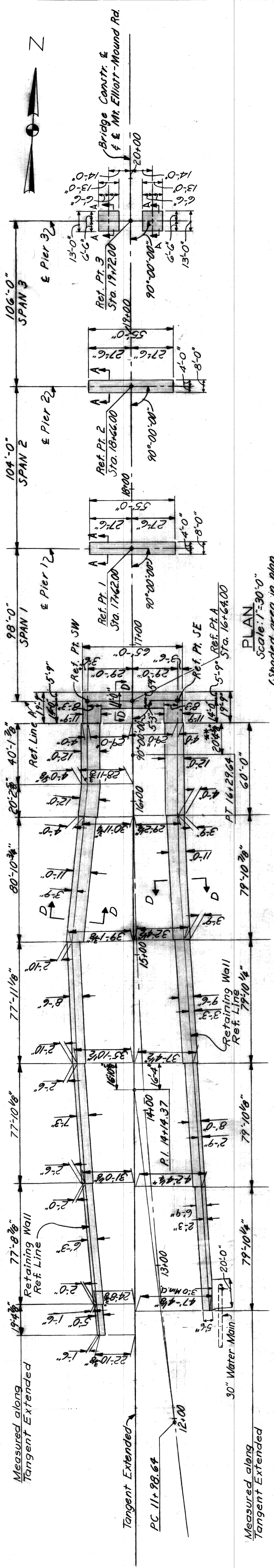
APPROVED  
*Philip J. Neudeck*  
PHILIP J. NEUDECK  
ENGINEER OF DESIGN, STRUCTURES AND EXPRESSWAYS

APPROVED  
*William E. Kregar*  
WILLIAM E. KREGAR  
ENGINEER OF DESIGN, STRUCTURES AND EXPRESSWAYS

BOARD OF  
**WAYNE COUNTY ROAD COMMISSIONERS**  
DETROIT, MICHIGAN  
WILLIAM E. KREGAR  
MICHAEL BERRY

HAZELET & ERDAL CONSULTING ENGINEERS  
STATE FILE ROAD  
BRIDGE

STATE PROJECT COUNTY JOB  
MOUNT ELLIOTT - MOUND RD. 246  
ISSUE NO. 3 SHEET NO. 305  
DATE 5/23/68

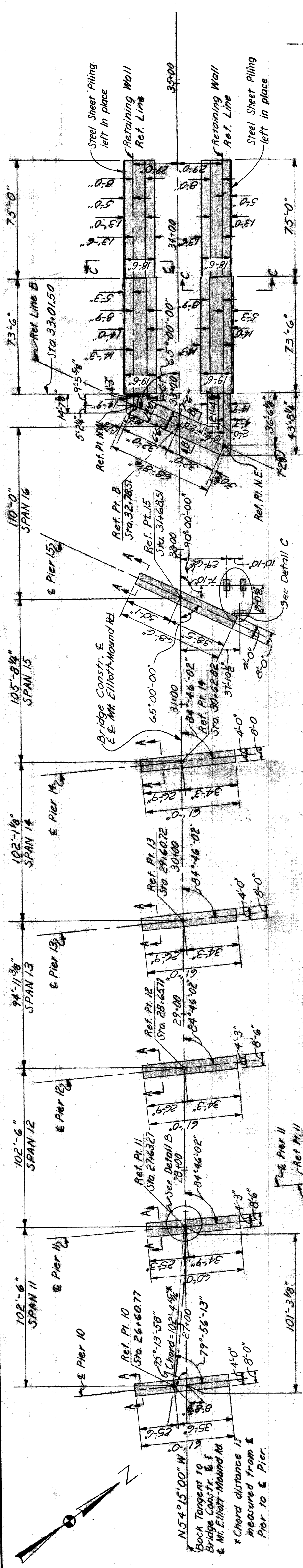


Note:  
 \* Chord distance is measured from E Pier to E Pier.  
 \*\* Distance measured along Bridge Const. E.

NOTES:  
 For existing and proposed underground utilities see Sh. No. 14 thru 16.  
 For items to be removed or relocated see Removal Plan Sh. No. 100 thru 102.  
 For quantities see Sh. 307.  
 For Sections A-A & D-D see Sh. No. 307.

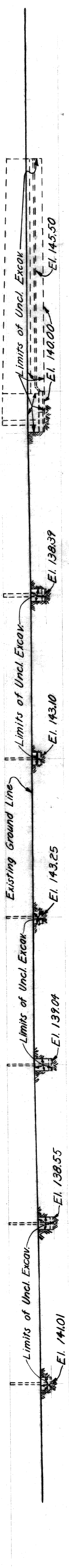
Work this sheet with sheet No. 307

STATE FILE	BRIDGE	ROAD	STATE PROJECT	COUNTY JOB
			246	246
HAZELT & ERDAL CONSULTING ENGINEERS				ISSUE NO. /
MOUNT ELLIOTT-MOUND RD.				DATE: 5-23-68
GRADE SEPARATION				SHEET NO.
DIGGING PLAN				306
WAYNE COUNTY ROAD COMMISSIONERS				
DETROIT, MICHIGAN				
PHILIP J. NEUDECK				
MICHAEL BERRY				
APPROVED				
DATE: 12-26-67				
CHECKED BY: M. J. J. J.				
CORRECTED BY: M. J. J. J.				
ENGINEER OF DESIGN, STRUCTURE AND SURVEYING				
REVISIONS				



NOTE:  
For Steel Sheet Piling  
note see Sh. 202.

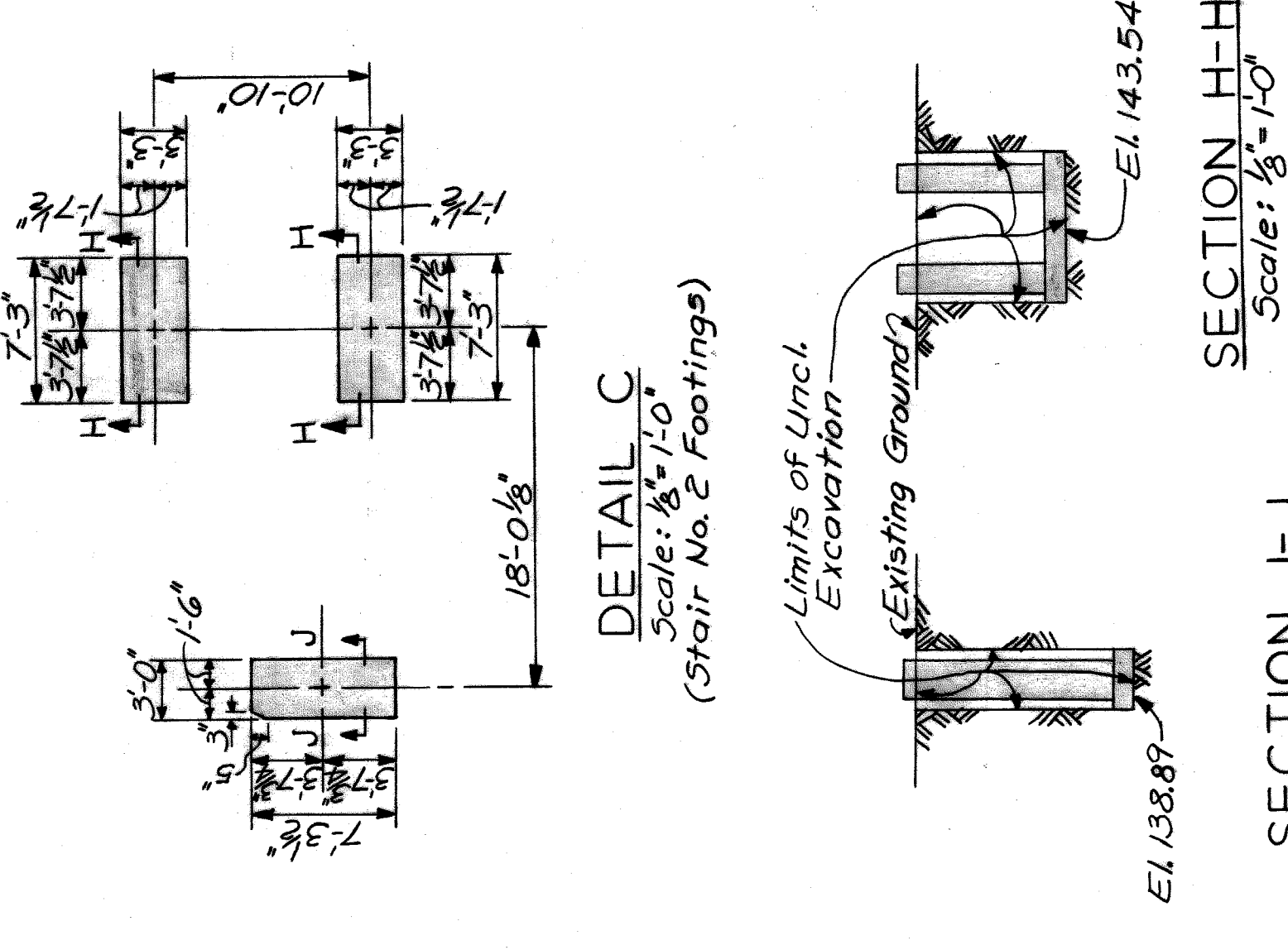
PLAN  
Scale: 1"=30'  
(Shaded area in plan denotes Limits of Unclassified Excavation)



PROFILE  
Scale: 1"=30'  
(Taken along Bridge Constr. &)

ESTIMATED QUANTITIES	
UNCLASSIFIED EXCAVATION:	
South Approach Retaining Walls	1566 Cu. Yds.
Abutment A . . . . .	205 Cu. Yds.
Pier 1 . . . . .	131 Cu. Yds.
Pier 2 . . . . .	139 Cu. Yds.
Pier 3 . . . . .	100 Cu. Yds.
Pier 4 . . . . .	111 Cu. Yds.
Pier 5 . . . . .	123 Cu. Yds.
Pier 6 . . . . .	279 Cu. Yds.
Pier 7 . . . . .	184 Cu. Yds.
Pier 8 . . . . .	174 Cu. Yds.
Pier 9 . . . . .	117 Cu. Yds.
Pier 10 . . . . .	193 Cu. Yds.
Pier 11 . . . . .	201 Cu. Yds.
Pier 12 . . . . .	344 Cu. Yds.
Pier 13 (Includes C Sewer Uncl. Ex.)	125 Cu. Yds.
Pier 14 . . . . .	228 Cu. Yds.
Pier 15 . . . . .	591 Cu. Yds.
North Approach Retaining Wall . . . . .	2404 Cu. Yds.
Stair No. 1 . . . . .	32 Cu. Yds.
Stair No. 2 . . . . .	20 Cu. Yds.
TOTAL . . . . .	7,441 Cu. Yds.
STEEL SHEET PILING LEFT IN PLACE:	2,822 Sq. Ft.

NOTE:  
Boring 15 indicates that the present material over the existing C Sewer at Pier No. 13 is not suitable for foundation material. Such material shall be removed to the extent as directed by the Project Engineer and then replaced with well compacted suitable foundation material.



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

SECTION B-B  
Scale: 1/2"=1'-0"  
(Section D-D Similar)

SECTION A-A  
Scale: 1/2"=1'-0"  
(Drawn for Pier 11. Other Piers similar)

Reference Point No.	Station	REFERENCE POINT CO-ORDINATES	
		North	East
A	16+64.00	5661.41	4970.00
1	17+62.00	5759.41	4970.00
2	18+66.00	5863.41	4970.00
3	19+72.00	5969.41	4970.00
4	20+68.00	6066.41	4970.00
5	21+91.06	6188.17	4963.47
6	22+37.74	6234.19	4955.67
7	23+53.19	6345.00	4923.70
8	24+70.59	6450.92	4873.39
9	25+82.72	6543.13	4809.80
10	26+60.77	6600.93	4757.39
11	27+63.27	6667.55	4679.61
12	28+65.77	6727.49	4596.46
13	29+60.72	6782.96	4519.40
14	30+62.82	6842.61	4436.54
15	31+68.51	6904.36	4350.77
B	32+78.51	6968.63	4261.49

For Co-ordinate Base See Sheet 23.

HAZELET & ERDAL CONSULTING ENGINEERS MOUNT ELLIOTT-MOUND RD. GRADE SEPARATION DIGGING PLAN	STATE PROJECT COUNTY JOB 246
	BRIDGE ROAD STATE FILE ROAD COUNTY JOB 307
BOARD OF COMMISSIONERS DETROIT, MICHIGAN WILLIAM E. KRIGER PHILIP J. NEUDECK MICHAEL BERRY	COUNTY JOB 246 SHEET NO. 307 ISSUE NO. 1 DATE 5-23-82

Mark this sheet with sheet No. 306.

X 0 107  
H 8 E FILE NO. 603



CONCRETE POURS		
Pour	Location	Cu Yd
A	Subfooting	17.1
B	Footings	101.5

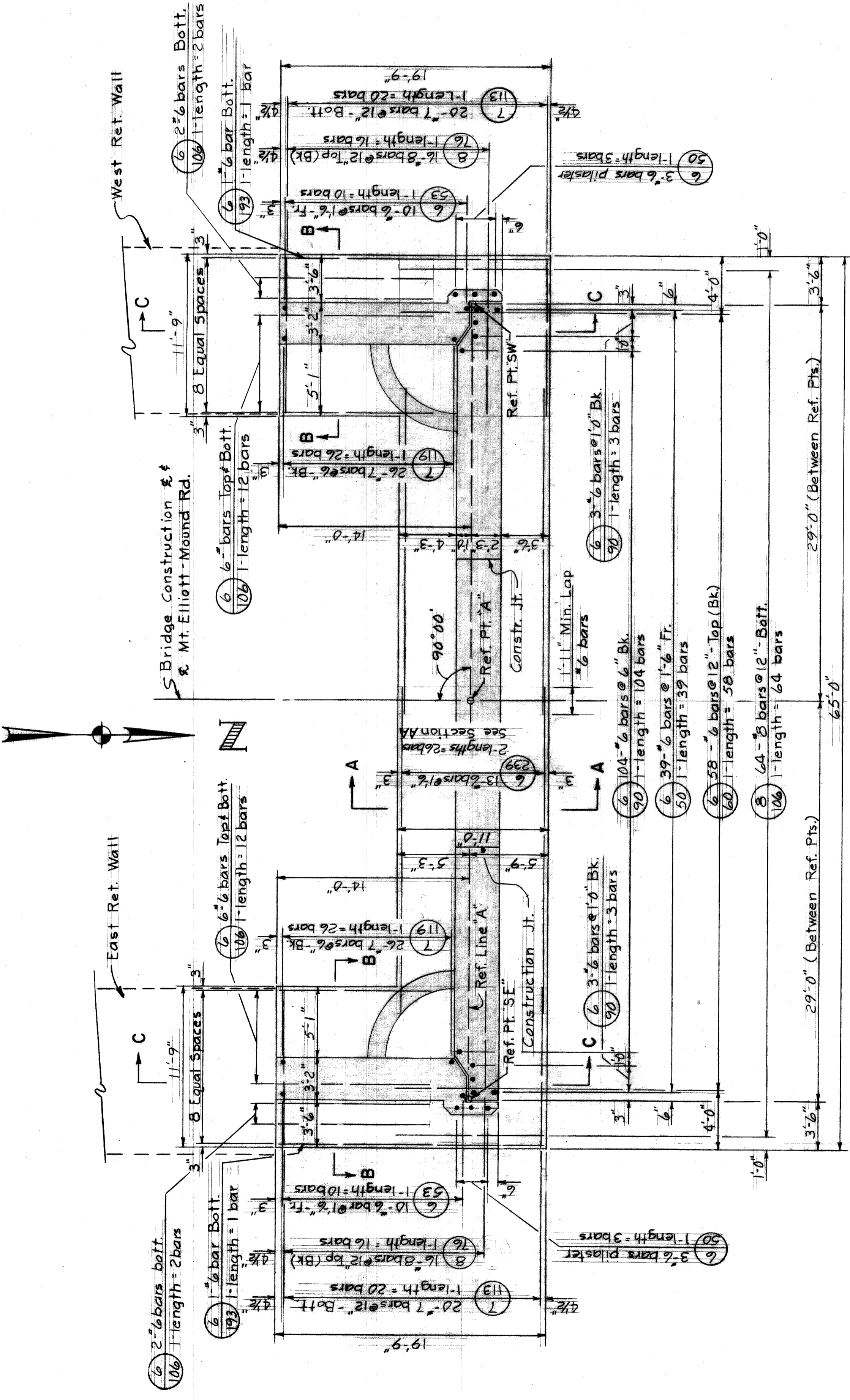
Mark	Size	Length	No. of Bars	Remarks
6-50	6	5'-0"	45	Str.
6-53	6	5'-3"	20	Str.
6-60	6	6'-0"	58	Str.
6-90	6	9'-0"	110	Str.
6-106	6	10'-6"	28	Str.
6-193	6	19'-3"	2	Str.
6-239	6	23'-9"	26	Str.
7-113	7	11'-3"	40	Str.
7-119	7	11'-9"	52	Str.
8-76	8	7'-6"	32	Str.
8-106	8	10'-6"	64	Str.

**QUANTITIES**

Steel Reinforcement 8,356 lbs.  
 Grade A (10B Gravel or 10B Slag)  
 Concrete - Substructure 118.6 cu. yds.  
 Heating and Housing Substructure Concrete 101.5 cu. yds.

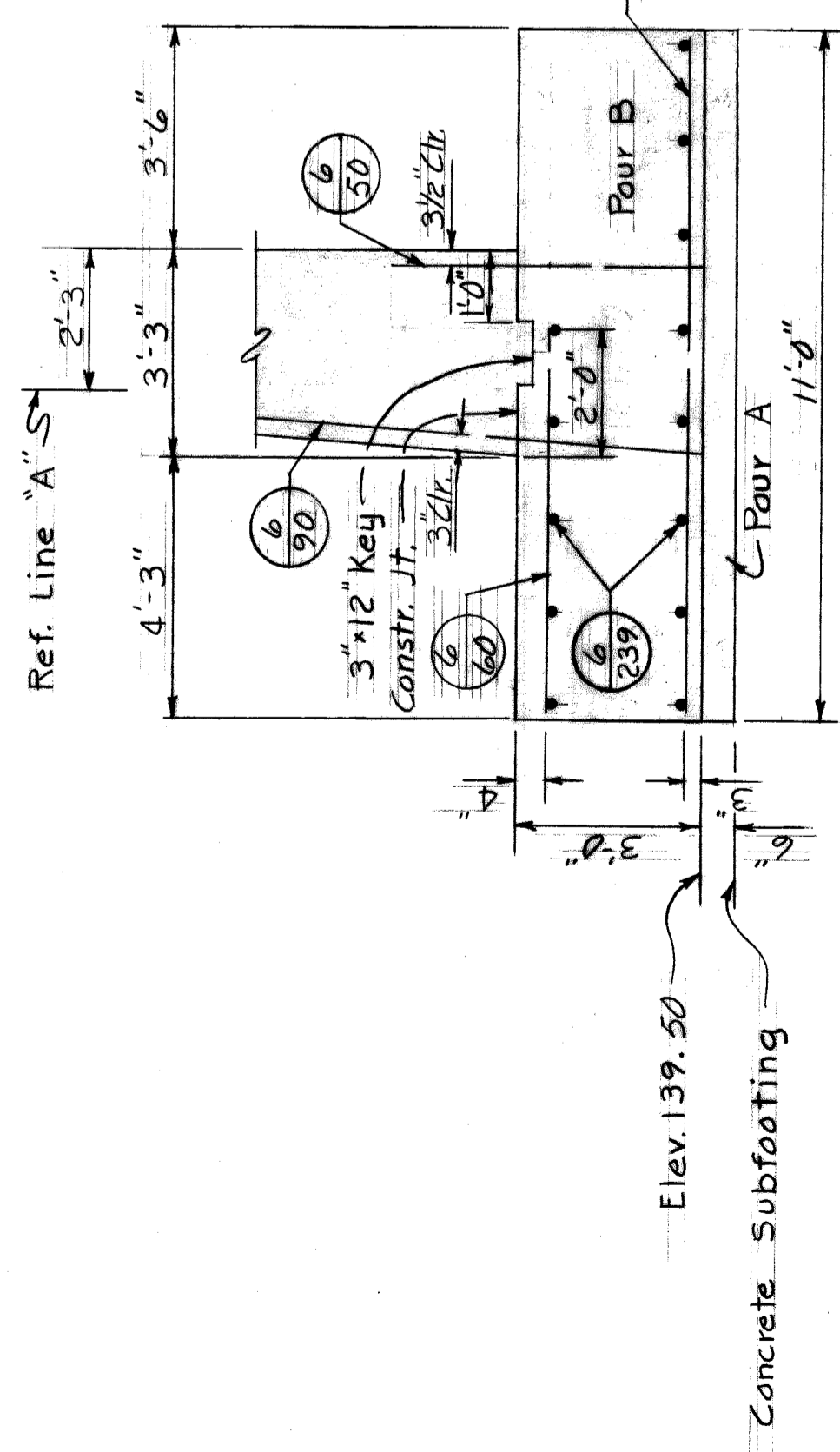
**GENERAL NOTES**  
FOR REINFORCED CONCRETE

**Bridge Seat:**  
 The bridge seat shall be finished in a true plane at the elevation shown and shall not vary more than 1/8" under a ten foot straight edge or more than 1/16" under any bearing.  
 Anchor Bolts and Position Dowels:  
 Anchor bolts and Position Dowels shall be set accurately to template.  
**Steel Reinforcement:**  
 Bends for all bars shall be made around pin diameters as recommended by the Concrete Reinforcing Steel Institute.  
 Protective Sealant Coating:  
 The tops of Piers 4, 5, 6, 8-12 & 15 shall be given an application of protective sealant coating for concrete prior to placing of masonry plates.



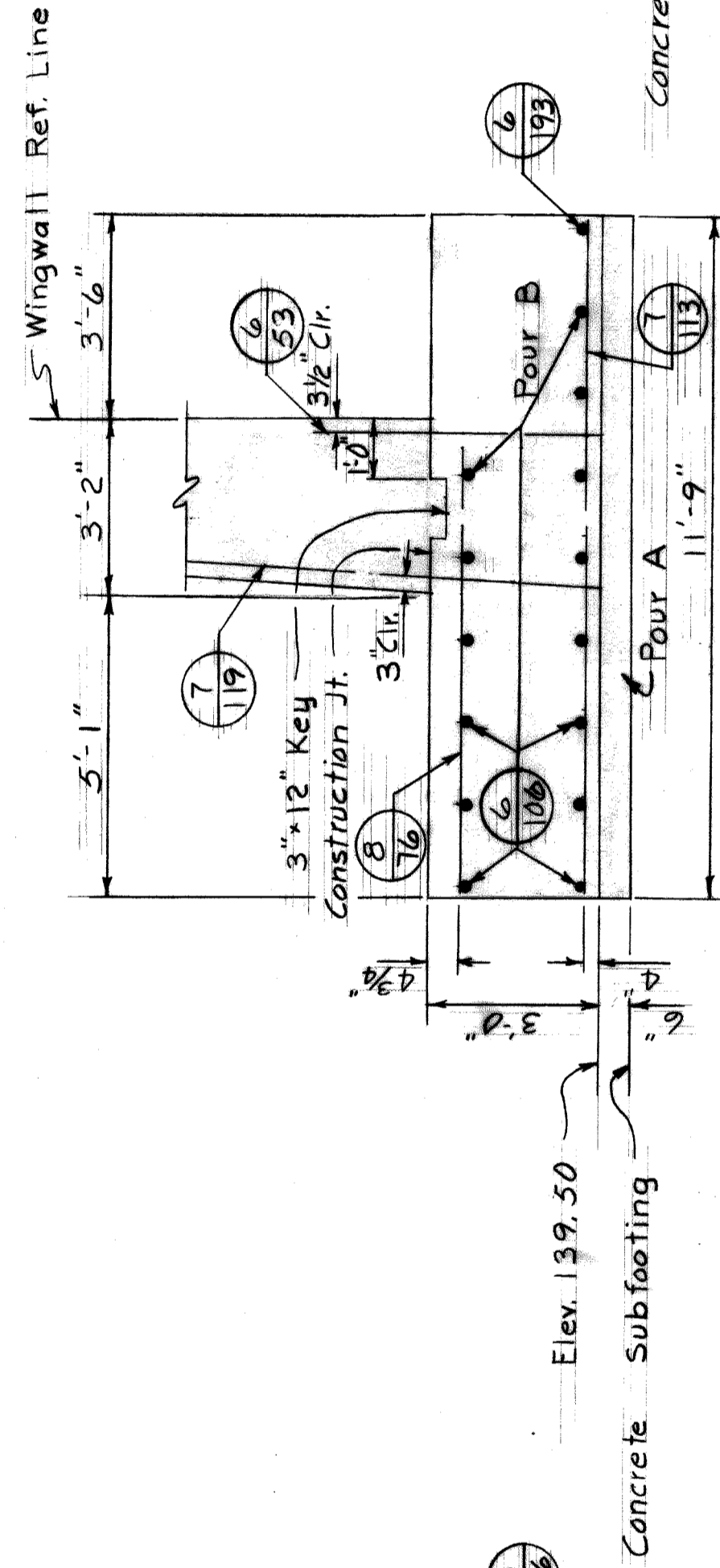
**PLAN**

(Underdrains Not Shown)  
Scale: 3/16" = 1'-0"



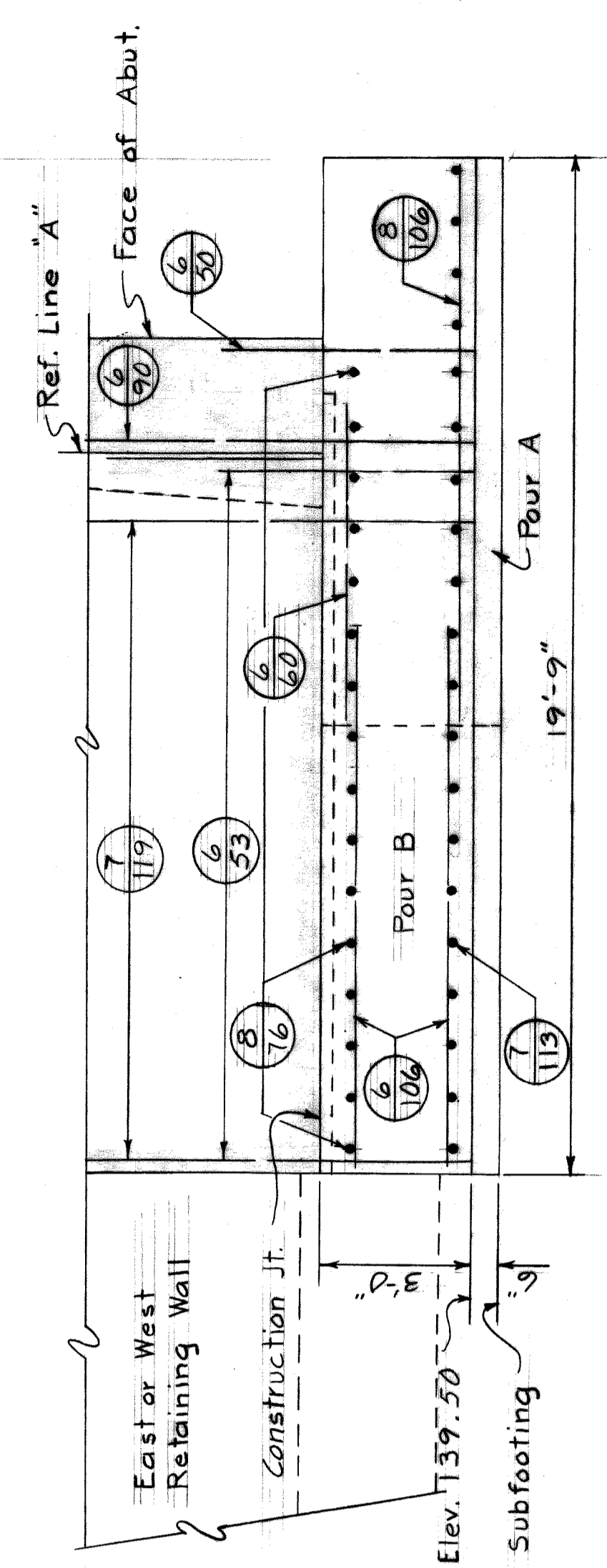
**SECTION A-A**

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



**SECTION B-B**

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



**SECTION C-C**

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

Work this sheet with Sheets 309 & 310

STATE FILE	BRIDGE	ROAD
HAZELET & ERDAL CONSULTING ENGINEERS		
MOUNT ELLIOTT-MOUND RD.		
GRADE SEPARATION		
ABUTMENT A - FOOTING		
STATE PROJECT	COUNTY JOB	ISSUE NO.
246	246	1
SHEET NO.		DATE
308		5-23-68

BOARD OF ROAD COMMISSIONERS  
 WAYNE COUNTY ROAD COMMISSIONERS  
 DETROIT, MICHIGAN

WILLIAM E. KREGER  
 COUNTY ENGINEER

PHILIP J. NEUDECK  
 COUNTY ENGINEER

MICHAEL BERRY  
 COUNTY ENGINEER

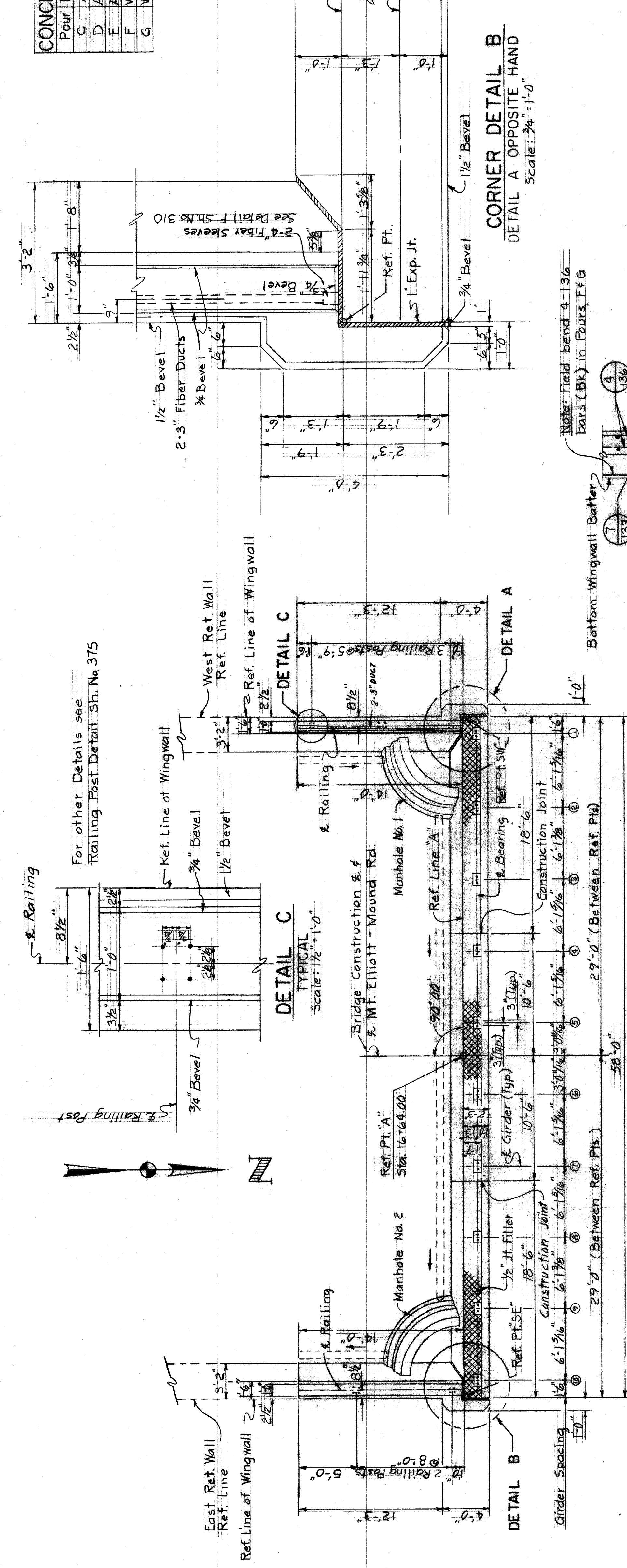
H & E FILE No. 603  
 X0107

### BILL OF REINFORCING BARS

Mark	Size	Length	No. of Bars	Remarks
4-23	#4	2'-3"	12	Str.
4-29	#4	2'-9"	40	Str.
4A-53	#4	5'-3"	28	Bent
4A-79	#4	7'-9"	20	Bent
4-136	#4	13'-6"	60	Str.
4-183	#4	18'-3"	40	Str.
4-209	#4	20'-9"	20	Str.
6-99	#6	9'-9"	40	Str.
6-139	#6	13'-9"	39	Str.
6-193	#6	19'-3"	20	Str.
6-196	#6	19'-6"	6	Str.
7-133	#7	13'-3"	20	Str.

### CONCRETE POURS

Pour	Location	Cu Yds
C	Abut. Stem	25.9
D	Abut. Stem	29.8
E	Abut. Stem	25.9
F	WW. Stem	31.7
G	WW. Stem	51.7



### QUANTITIES

Steel Reinforcement	4358 Lbs.
1/2" Joint Filler	295 Sq. Ft.
1" Joint Filler	788 Sq. Ft.
Dampproofing	861 Sq. Ft.
Joint Waterproofing	43 Sq. Ft.
8" Perforated Pipe Underdrain	58 Lin. Ft.
Porous Backfill - Grade A (C.T.P.)	433 Cu. Yds.
Bridge Railing - Barapet Type Grade A (10B Gravel or 10B Slag)	28 Lin. Ft.
Concrete - Substructure	134.4 Cu. Yds.
Rubbed Surface Finish	1414 Sq. Ft.
Heating & Housing Substructure Concrete	174.4 Cu. Yds.
3" Fiber Duct	56 Lin. Ft.

### NOTES

For Sections D-D & E-E see Sh. 310  
For Details of Manholes No. 1 and No. 2 see Sh. 310  
For General Notes see Sh. 308

HAZELLET & ERDAL CONSULTING ENGINEERS

MOUNT ELLIOTT-MOUND RD.  
GRADE SEPARATION  
ABUTMENT A - ABOVE FOOTING

WAYNE COUNTY ROAD COMMISSIONERS  
DETROIT, MICHIGAN

APPROVED  
PHILIP J. NEUDECK  
ENGINEER OF STRUCTURES AND HIGHWAYS

APPROVED  
M. J. Agnew  
ENGINEER OF STRUCTURES AND HIGHWAYS

APPROVED  
M. J. Agnew  
ENGINEER OF STRUCTURES AND HIGHWAYS

STATE PROJECT 246  
COUNTY JOB 246  
SHEET NO. 309  
DATE 5-13-68

H 8 E FILE NO. 603

MICHAEL BERRY

WILLIAM E. KREGER

PHILIP J. NEUDECK

APPROVED  
PHILIP J. NEUDECK  
ENGINEER OF STRUCTURES AND HIGHWAYS

APPROVED  
M. J. Agnew  
ENGINEER OF STRUCTURES AND HIGHWAYS

APPROVED  
M. J. Agnew  
ENGINEER OF STRUCTURES AND HIGHWAYS

Work this sheet with Sheets 308 & 310

Note:  
\* Elevations given along Ref. Line A

Note:  
\* Elevations given along Ref. Line A

Note:  
\* Elevations given along Ref. Line A

Note:  
\* Elevations given along Ref. Line A

Note:  
\* Elevations given along Ref. Line A

Note:  
\* Elevations given along Ref. Line A

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\* Elevations given along Ref. Line A

Note:  
\* Elevations given along Ref. Line A

Note:  
\* Elevations given along Ref. Line A

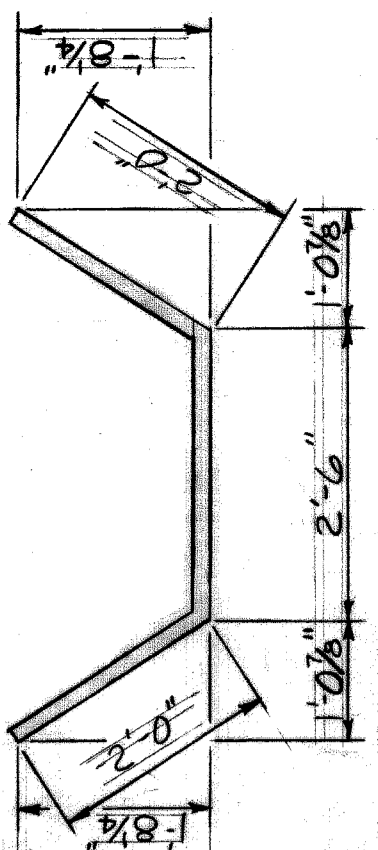
Note:  
\* Elevations given along Ref. Line A

Note:  
\* Elevations given along Ref. Line A



CONCRETE POURS		
Pour	Location	Cu Yd
A	Subfooting	27.0
B	Footings	16.1

BILL OF REINFORCING BARS				
Mark	Size	Length	No. of Bars	Remarks
6-50	#6	5'-0"	57	Str.
6-60	#6	6'-0"	23	Str.
6A-66	#6	6'-6"	2	Bent
6-76	#6	7'-6"	16	Str.
6-106	#6	10'-6"	10	Str.
6-146	#6	14'-6"	9	Str.
6-289	#6	28'-9"	10	Str.
6-300	#6	30'-0"	20	Str.
6-329	#6	32'-9"	9	Str.
6-376	#6	37'-6"	14	Str.
7-63	#7	6'-3"	53	Str.
7-80	#7	8'-0"	77	Str.
7-145	#7	14'-5"	24	Str.
8-66	#8	6'-6"	46	Str.
8-119	#8	11'-9"	41	Str.
8-136	#8	13'-6"	41	Str.
9-99	#9	9'-9"	46	Str.
9-110	#9	11'-0"	83	Str.
9-119	#9	11'-9"	39	Str.



6A-66

**QUANTITIES FOR FOOTING**

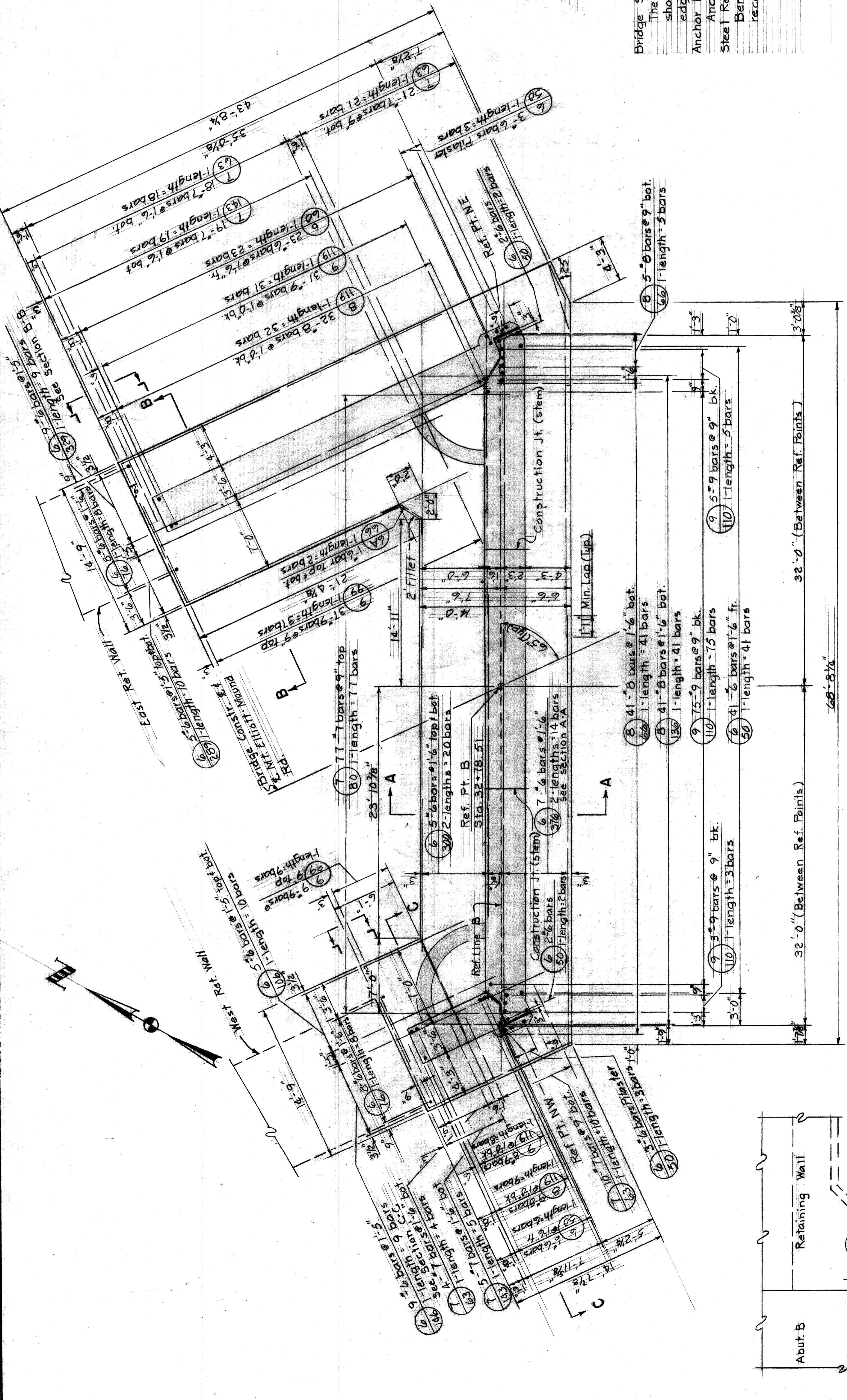
Steel Reinforcement 16,137 lbs.  
 Grade A (10B Gravel or 10B Slag) 188.1 cu. yds.  
 Concrete - Substructure 161.1 cu. yds.  
 Heating & Housing Substructure Concrete

**GENERAL NOTES FOR REINFORCED CONCRETE**

Bridge Seat: The bridge seat shall be finished in a true plane at the elevation shown and shall not vary more than 1/8" under a ten foot straight edge or more than 1/16" under any bearing.  
 Anchor Bolts and Position Dowels: Anchor bolts and Position Dowels shall be set accurately to template.  
 Steel Reinforcement: Bends for all bars shall be made around pin diameters as recommended by the Concrete Reinforcing Steel Institute.

**QUANTITIES FOR ABOVE FOOTING**

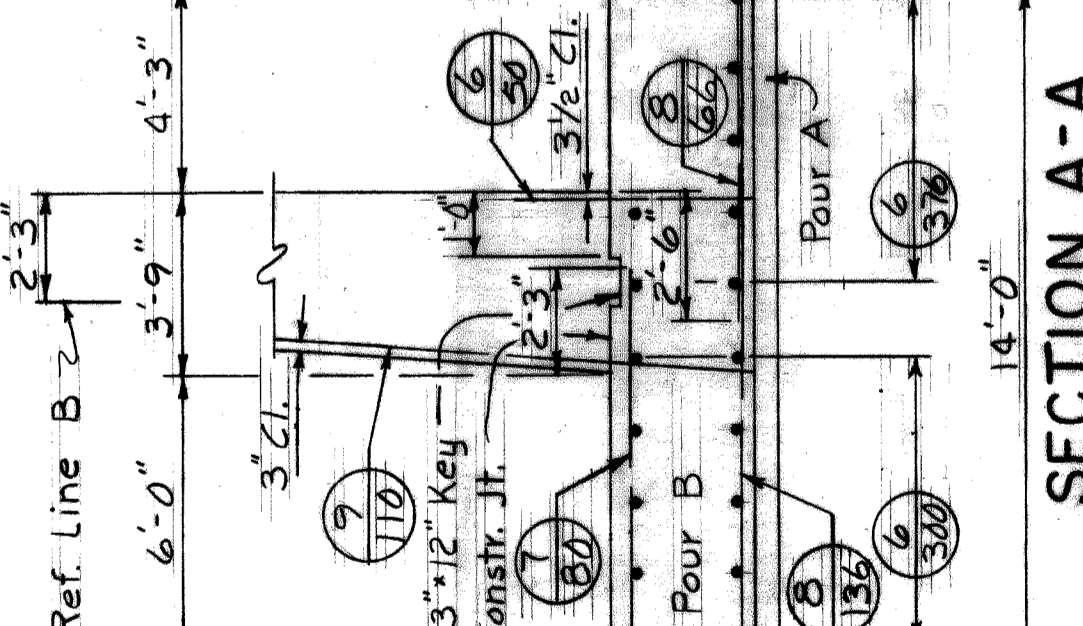
Steel Reinforcement 8,892 lbs.  
 100 Sq. Ft. 242  
 1443 Sq. Ft. 55  
 55 Sq. Ft. 76  
 76 Lin. Ft. 9  
 9 Lin. Ft. 1073  
 1073 Cu. Yds. 42  
 42 Lin. Ft. 42  
 42 Lin. Ft. 2113  
 2113 Cu. Yds. 1941  
 1941 Sq. Ft. 85  
 85 Lin. Ft. 85



**PLAN**

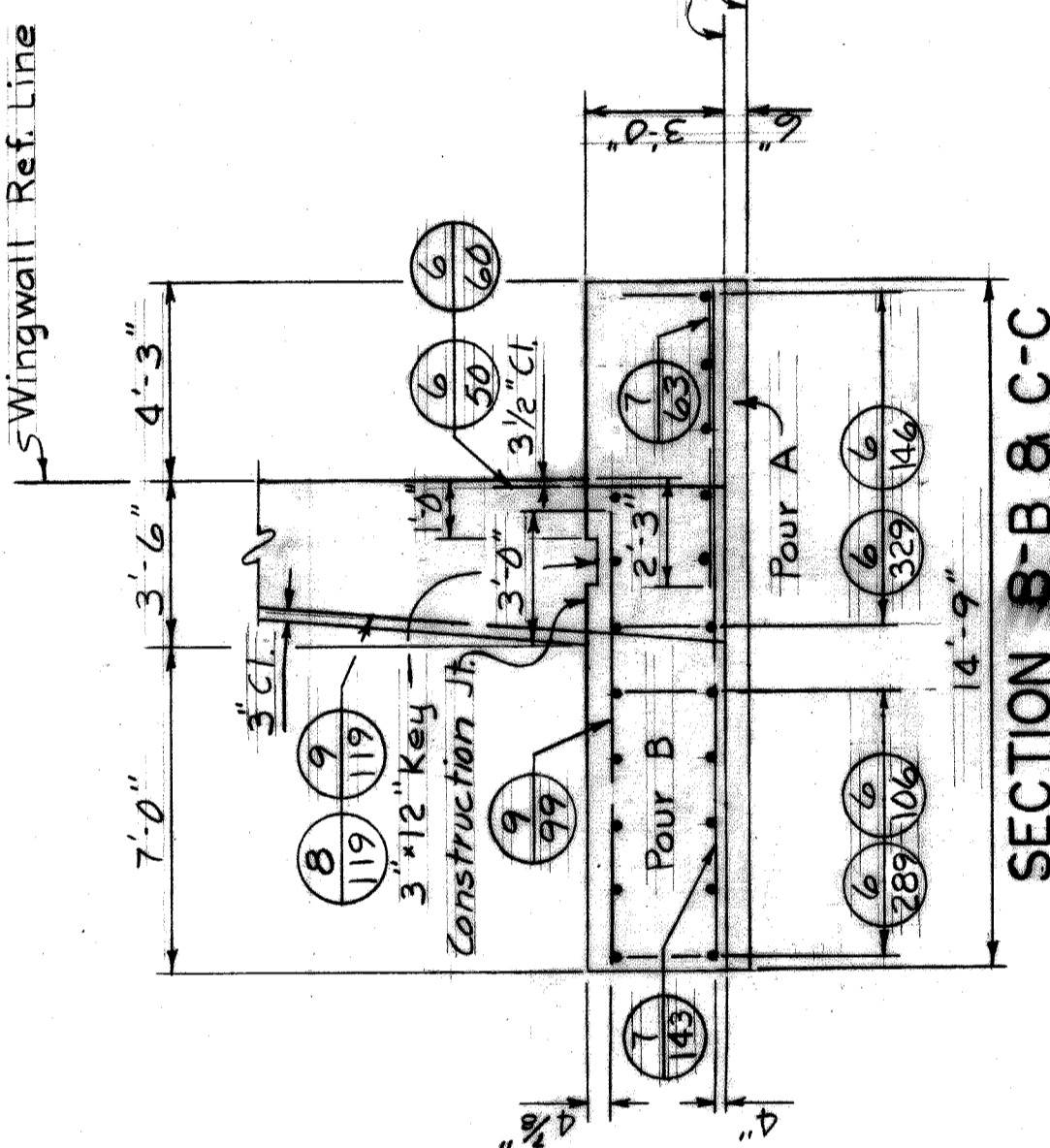
(Underdrains Not Shown)  
 Scale: 3/8" = 1'-0"

5" Wingwall Ref. Line



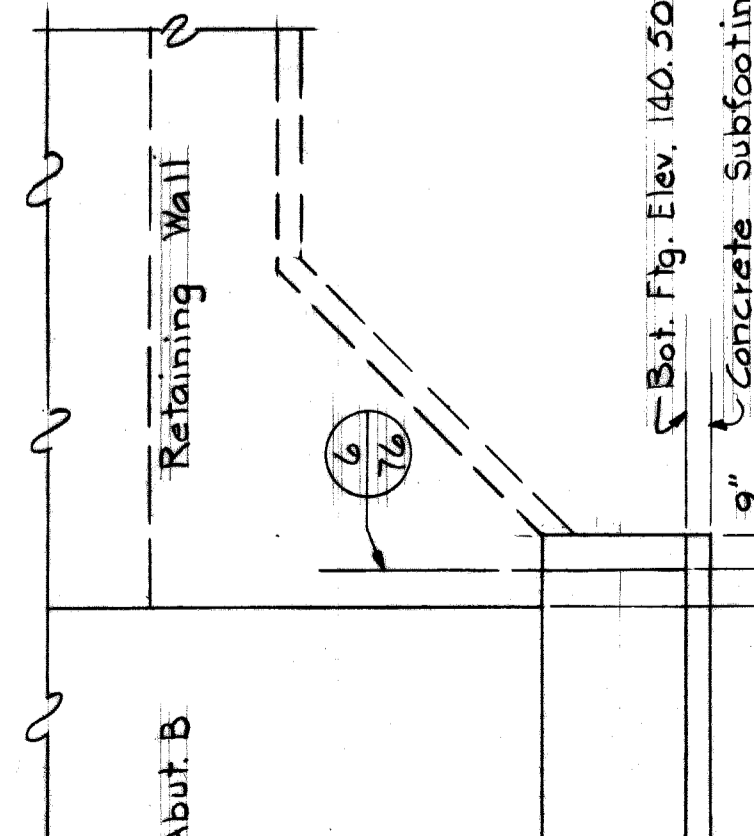
**SECTION A-A**

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



**SECTION B-B & C-C**

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



**VIEW L-L**

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

Elev. 140.50  
 Concrete Subfooting

HAZELET & ERDAL CONSULTING ENGINEERS

STATE PROJECT 246  
 COUNTY JOB 311

WAYNE COUNTY ROAD COMMISSIONERS  
 DETROIT, MICHIGAN

APPROVED: [Signature]  
 ENGINEER OF HIGHWAY STRUCTURES

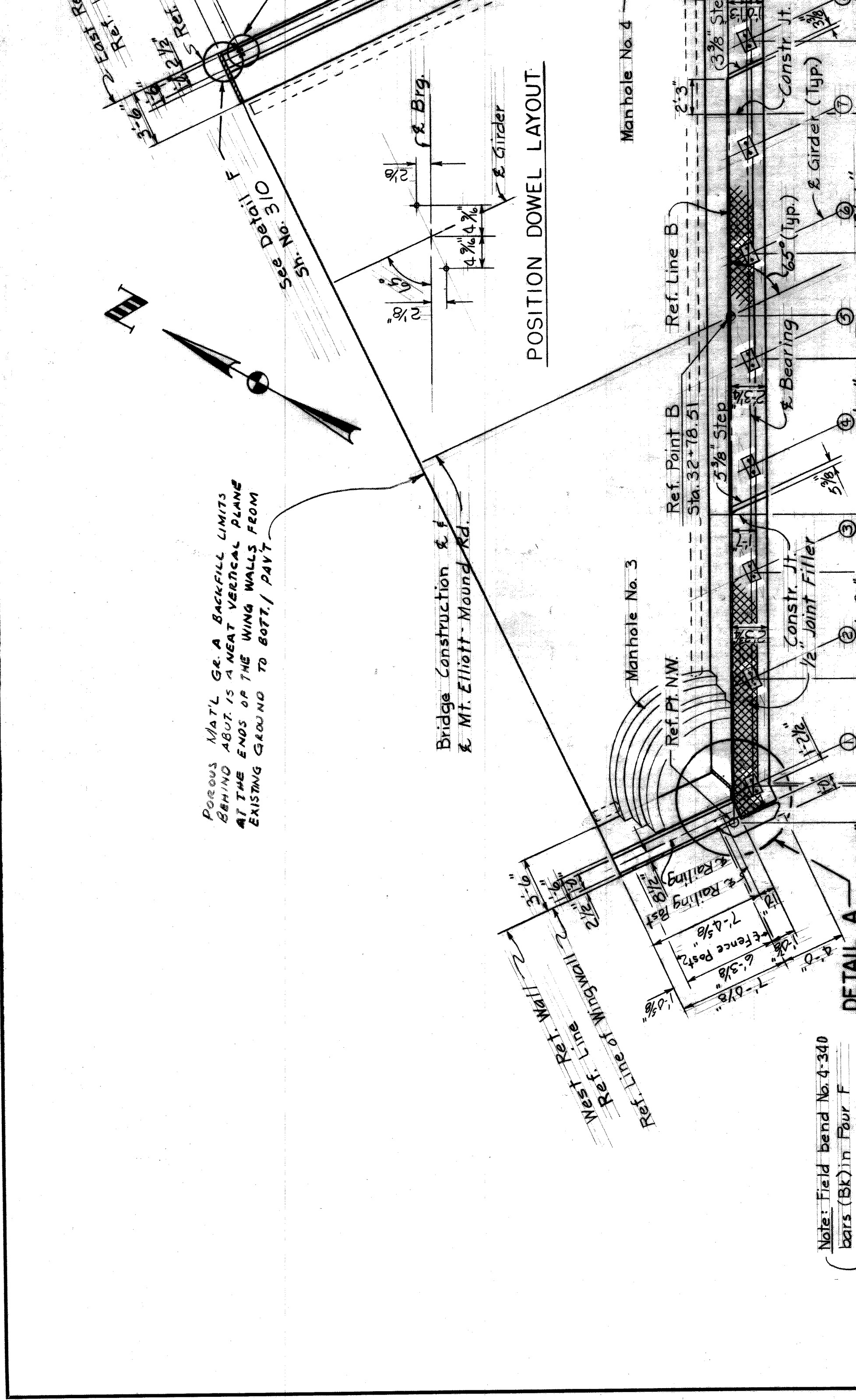
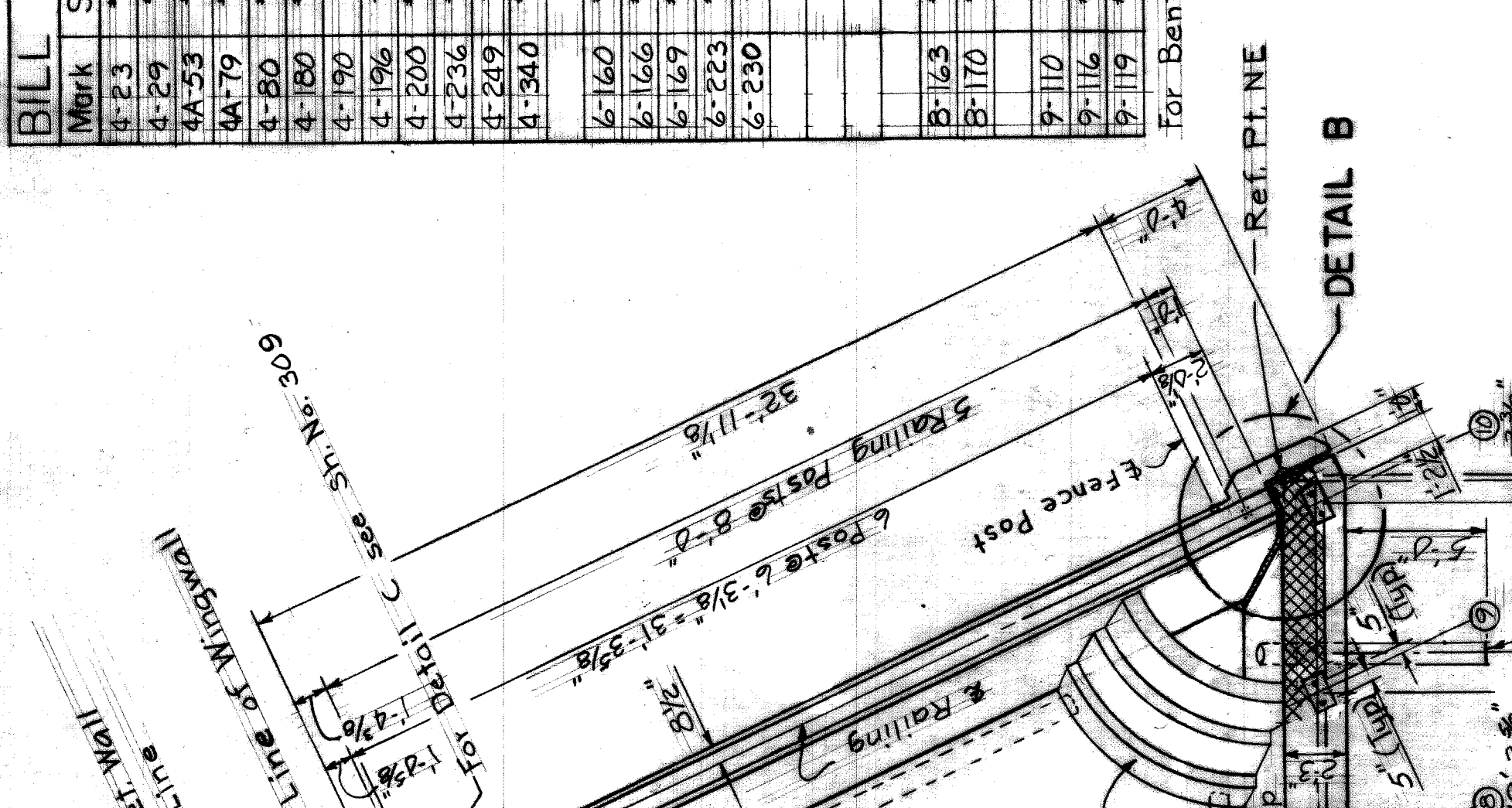
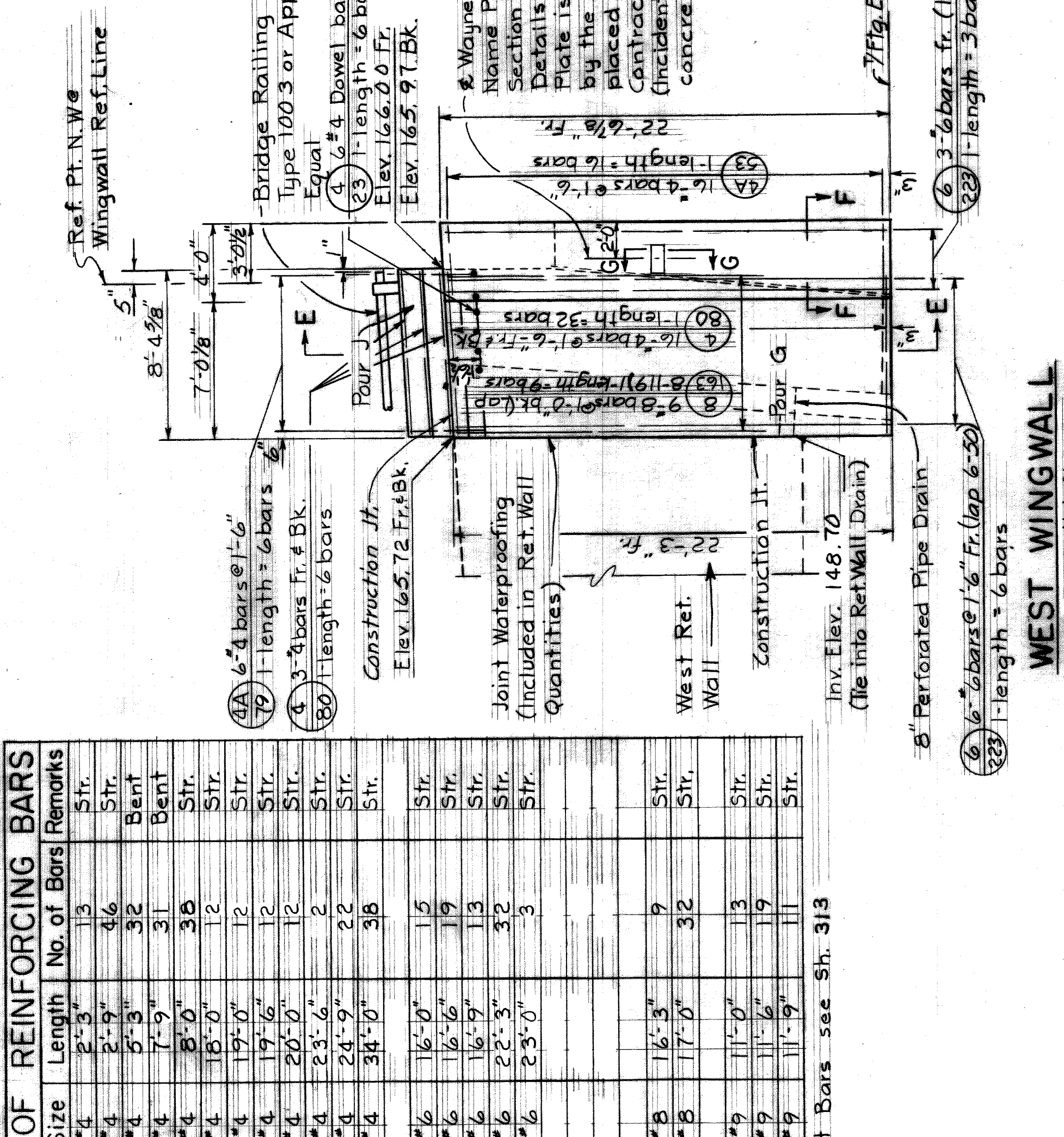
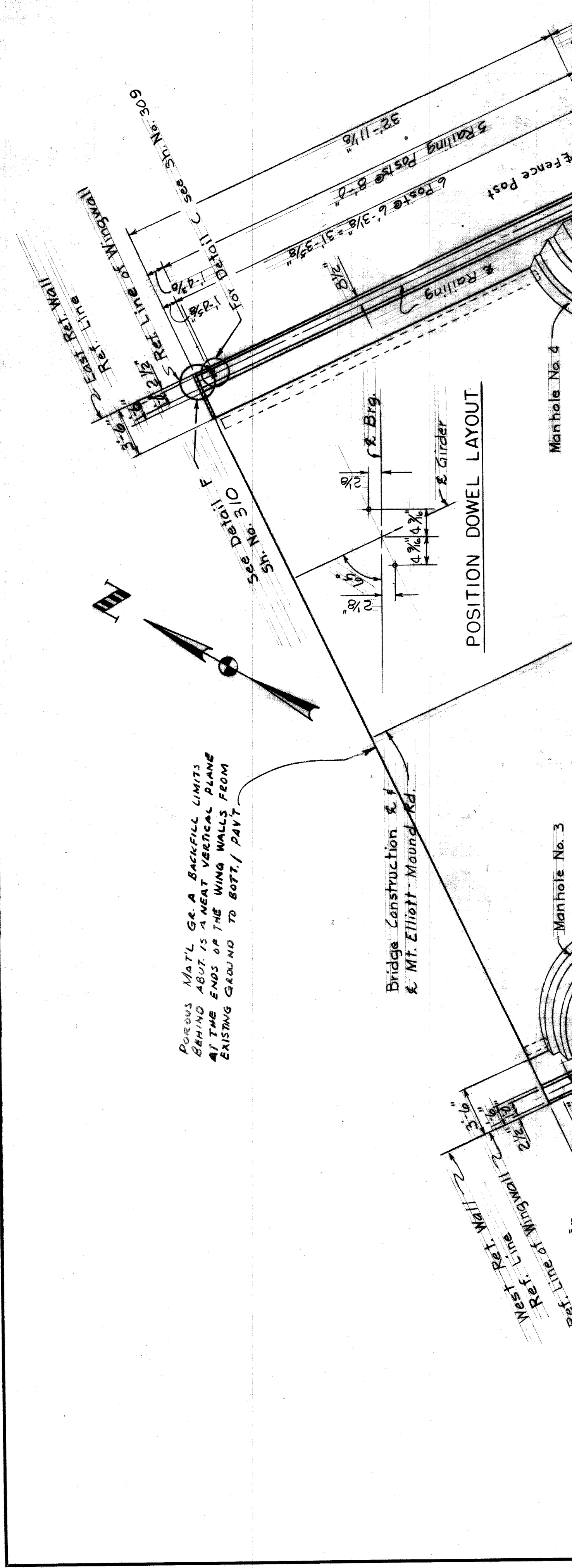
MOUNT ELLIOTT-MOUND RD.  
 GRADE SEPARATION  
 ABUTMENT B - FOOTING

Work this sheet with Sheets 312 & 313  
 STATE FILE BRIDGE ROAD  
 PHILIP J. NEUDECK  
 WILLIAM E. KREGER  
 MICHAEL BERRY  
 H 8 E FILE No. 603  
 XC107

**BILL OF REINFORCING BARS**

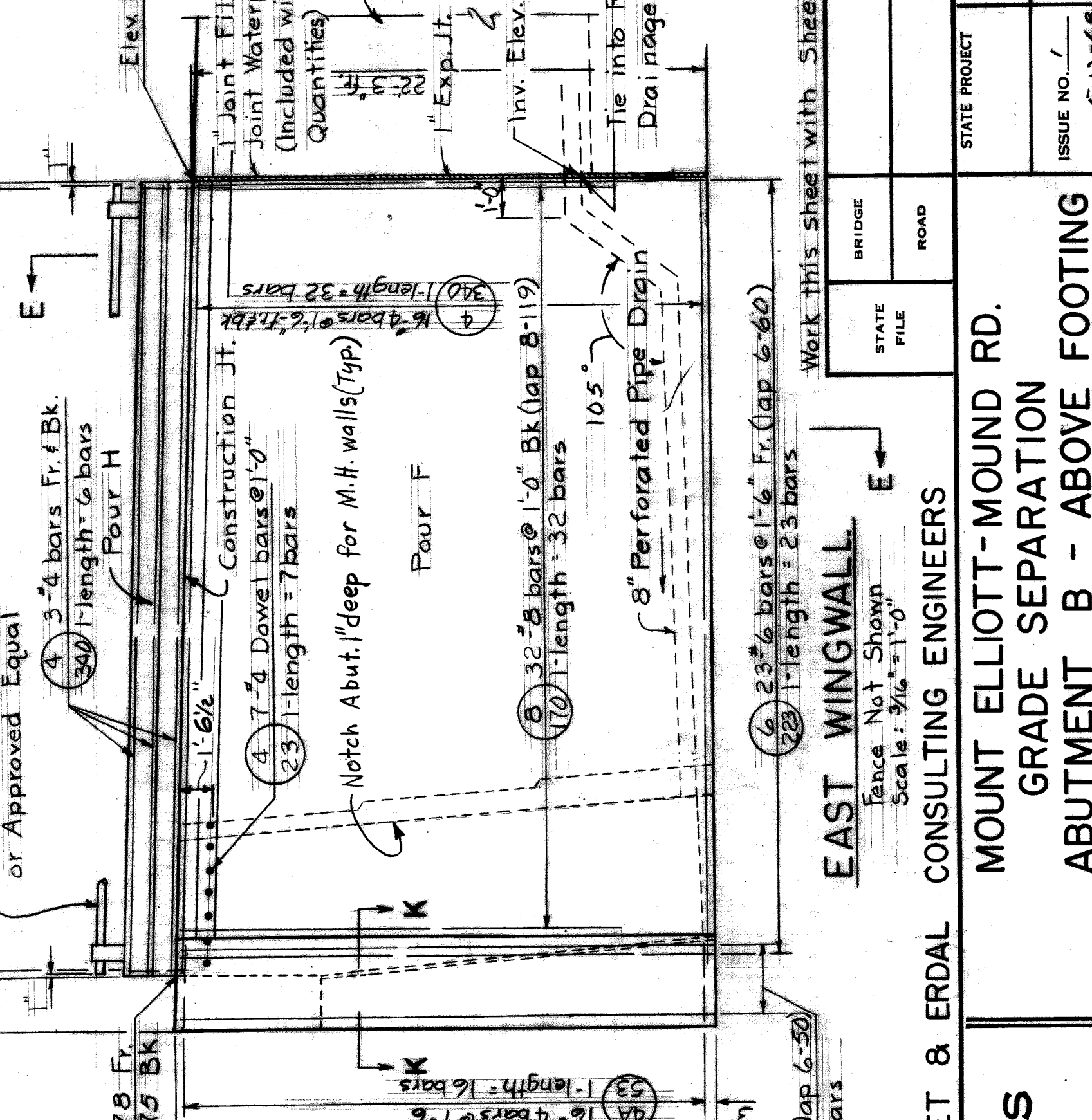
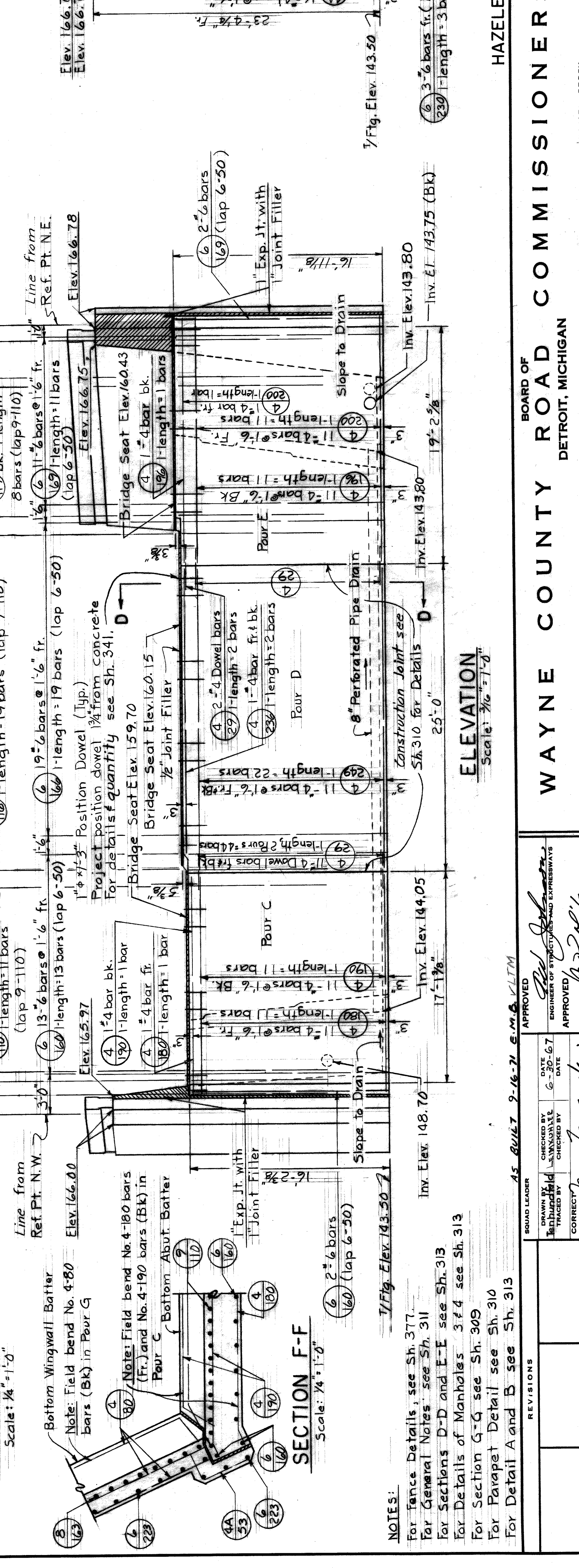
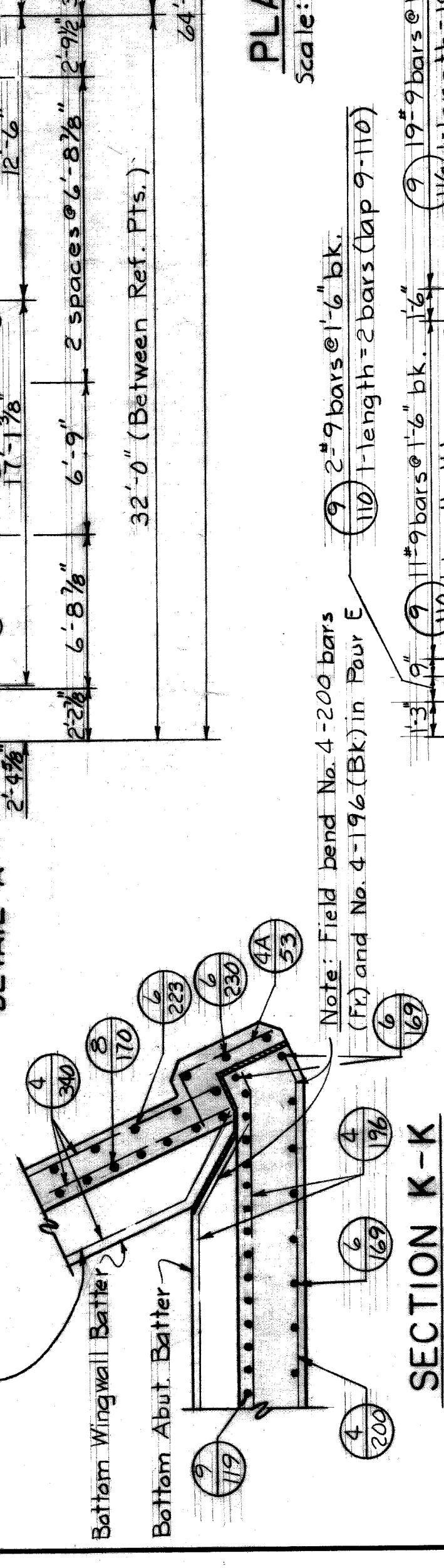
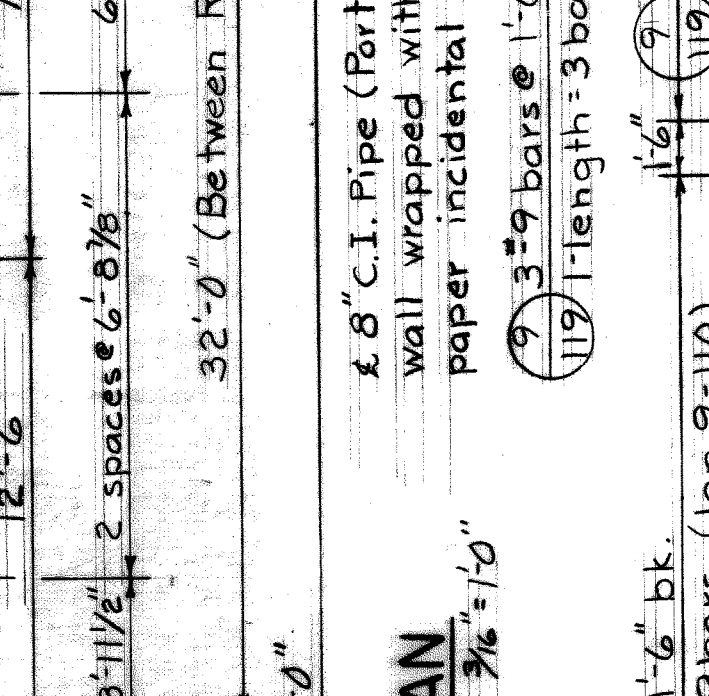
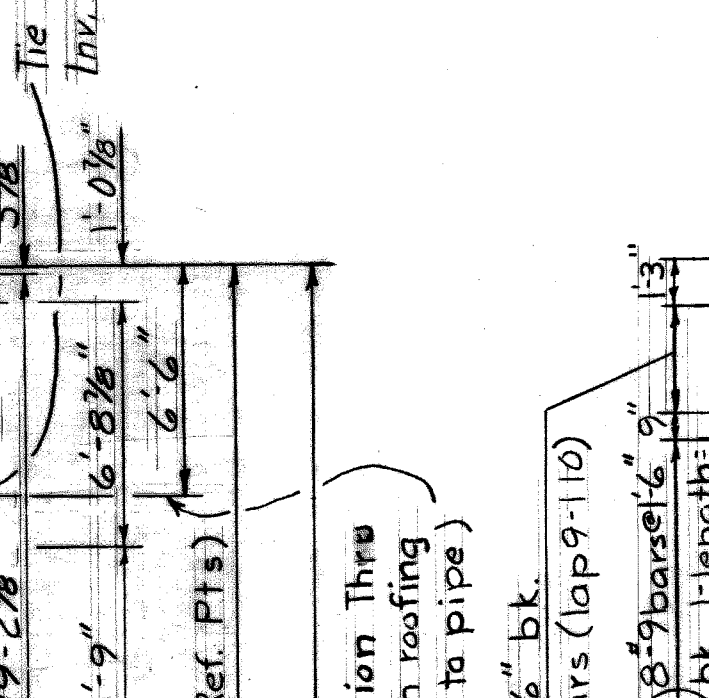
Mark	Size	Length	No. of Bars	Remarks
4-23	4"	2'-3"	13	Str.
4-29	4"	2'-9"	46	Str.
4A-53	4"	5'-3"	32	Bent
4A-79	4"	7'-9"	31	Bent
4-80	4"	8'-0"	38	Str.
4-180	4"	18'-0"	12	Str.
4-190	4"	19'-0"	12	Str.
4-196	4"	19'-6"	12	Str.
4-200	4"	20'-0"	12	Str.
4-236	4"	23'-6"	2	Str.
4-249	4"	24'-9"	22	Str.
4-340	4"	34'-0"	38	Str.
6-160	6"	16'-0"	15	Str.
6-166	6"	16'-6"	19	Str.
6-167	6"	16'-7"	13	Str.
6-223	6"	22'-3"	32	Str.
6-230	6"	23'-0"	3	Str.
8-163	8"	16'-3"	9	Str.
8-170	8"	17'-0"	32	Str.
9-110	9"	11'-0"	3	Str.
9-116	9"	11'-6"	19	Str.
9-119	9"	11'-9"	11	Str.

For Bent Bars see Sh. 313



**CONCRETE POURS**

Pour	Location	Cu Yd
C	Abut. Stem	33.6
D	Abut. Stem	46.6
E	Abut. Stem	42.6
F	E. W.W. Stem	101.2
G	W. W.W. Stem	20.7



**WAYNE COUNTY ROAD COMMISSIONERS**  
 BOARD OF ROAD COMMISSIONERS  
 DETROIT, MICHIGAN

**HAZELLET & ERDAL CONSULTING ENGINEERS**  
 MOUNT ELLIOTT-MOUND RD.  
 GRADE SEPARATION  
 ABUTMENT B - ABOVE FOOTING

COUNTY JOB: 246  
 SHEET NO.: 312  
 DATE: 5-13-68  
 H & E FILE NO. 603  
 X0107

APPROVED: [Signature]  
 DATE: 6-30-67  
 CHECKED BY: [Signature]  
 DATE: [ ]  
 CORRECTED BY: [Signature]  
 DATE: [ ]

BOARD LEADER: [Signature]  
 COUNTY ENGINEER: [Signature]

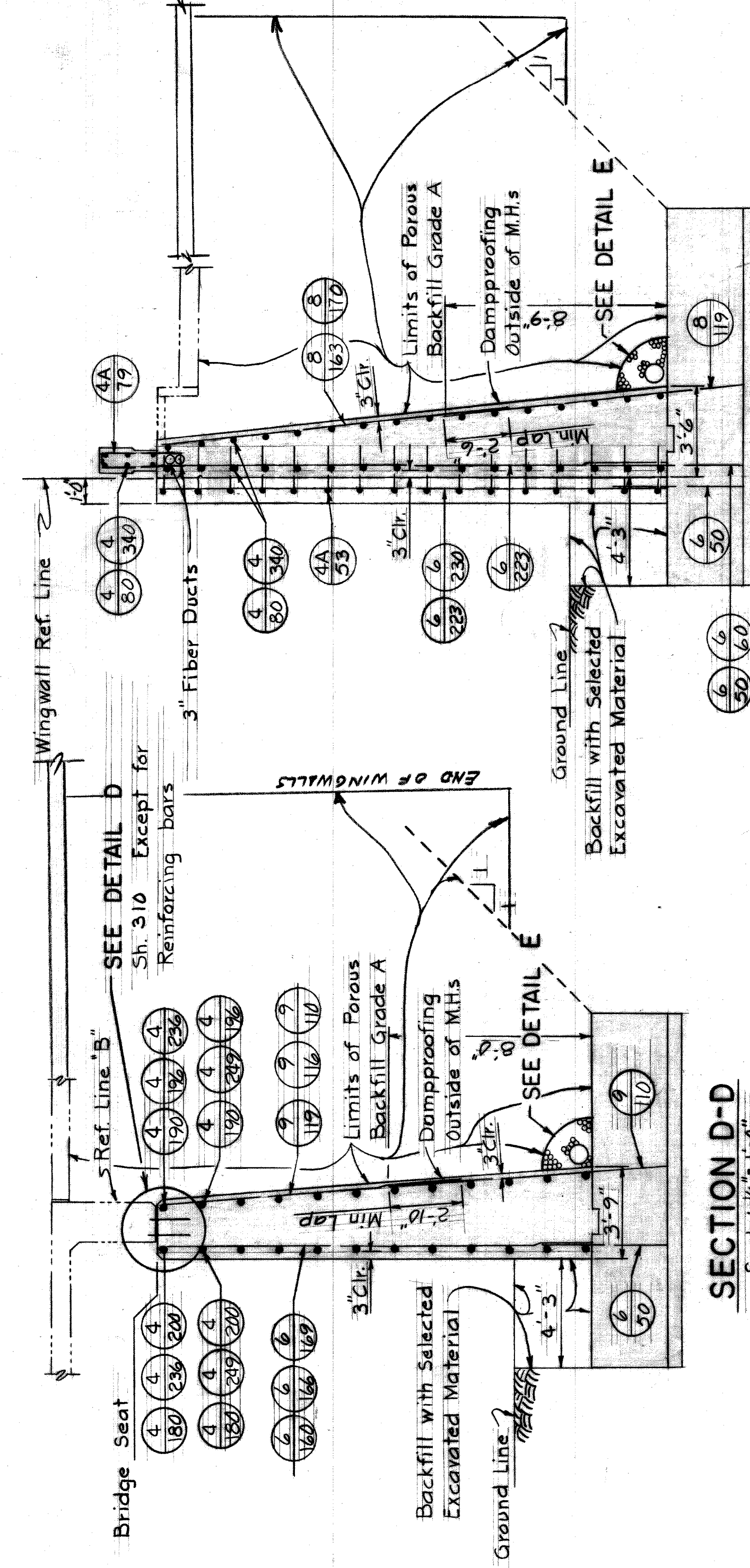
REVISIONS: [ ]

Mark	Size	Length	No. of Bars	Remarks
4-13	4	11.3	3	Str.
4-20	4	2.0	3	Str.
4-23	4	2.3	3	Str.
4-26	4	2.6	2	Str.
4-29	4	2.9	1	Str.
4-30	4	3.0	1	Str.
4-33	4	3.3	1	Str.
4-36	4	3.6	4	Str.
4-43	4	4.3	1	Str.
4-46	4	4.6	1	Str.
4-49	4	4.9	2	Str.
4-50	4	5.0	2	Str.
4-53	4	5.3	2	Str.
4-56	4	5.6	1	Str.
4-59	4	5.9	2	Str.
4-60	4	6.0	1	Str.
4-63	4	6.3	2	Str.

**QUANTITIES**

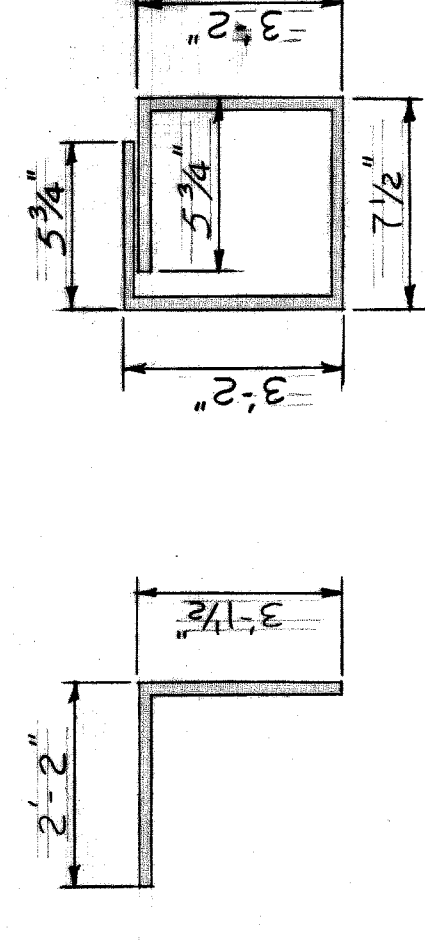
1" Joint Filler 9 Sq. Ft.  
2 each  
Abutment Manholes

Note: Reinforcing bars, manhole steps, concrete, cement and standard manhole cover "A" are included in item Abutment Manholes.

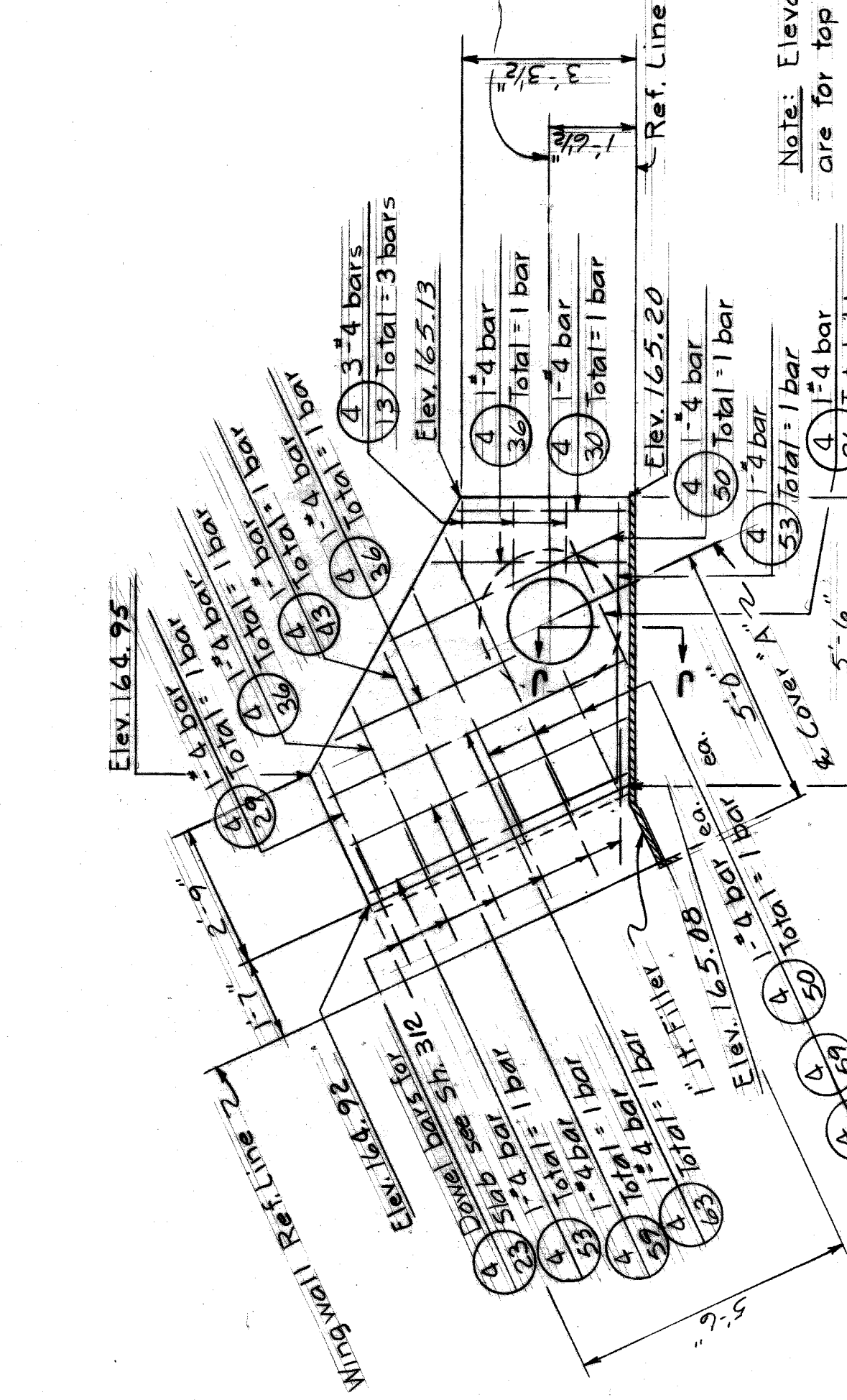
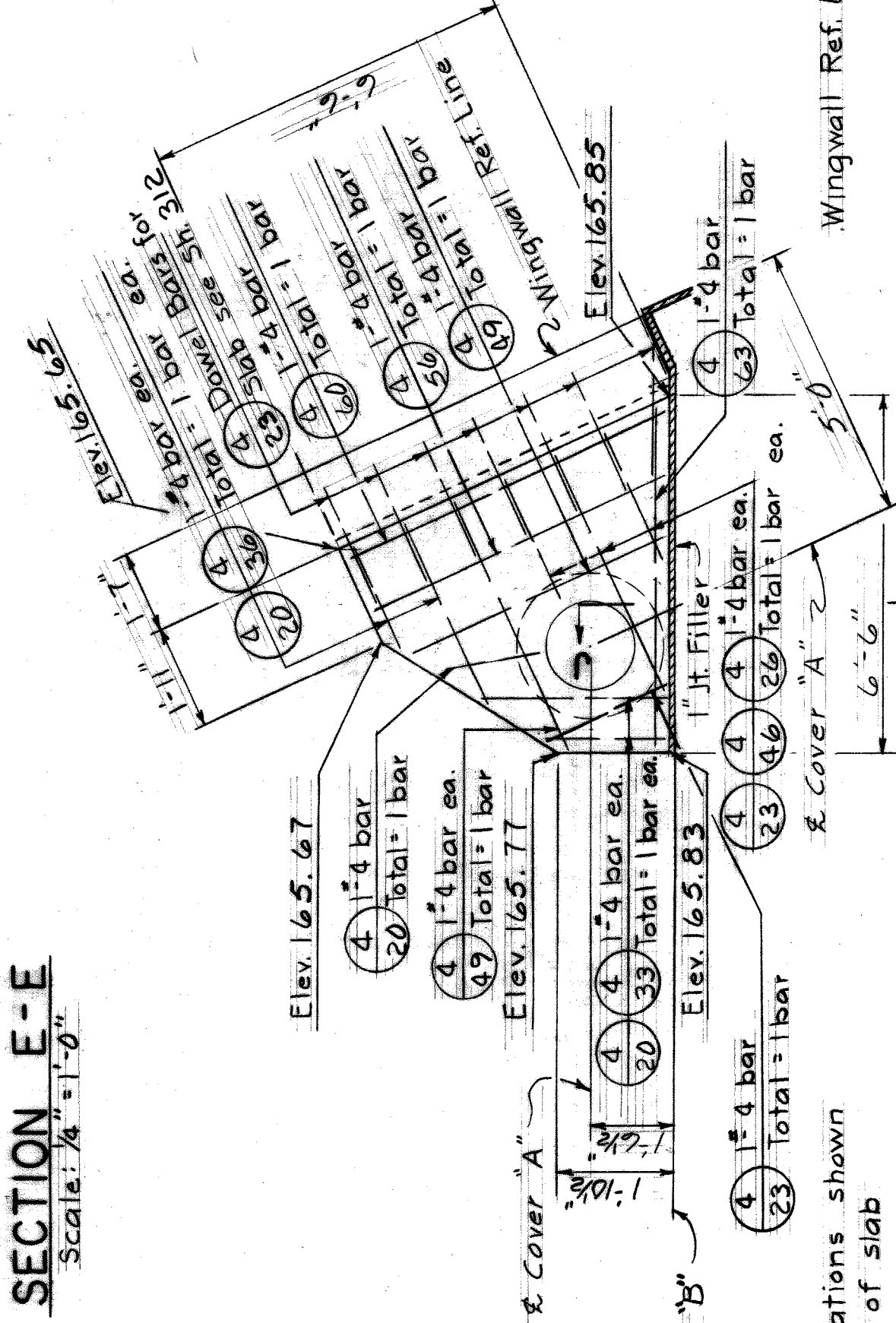
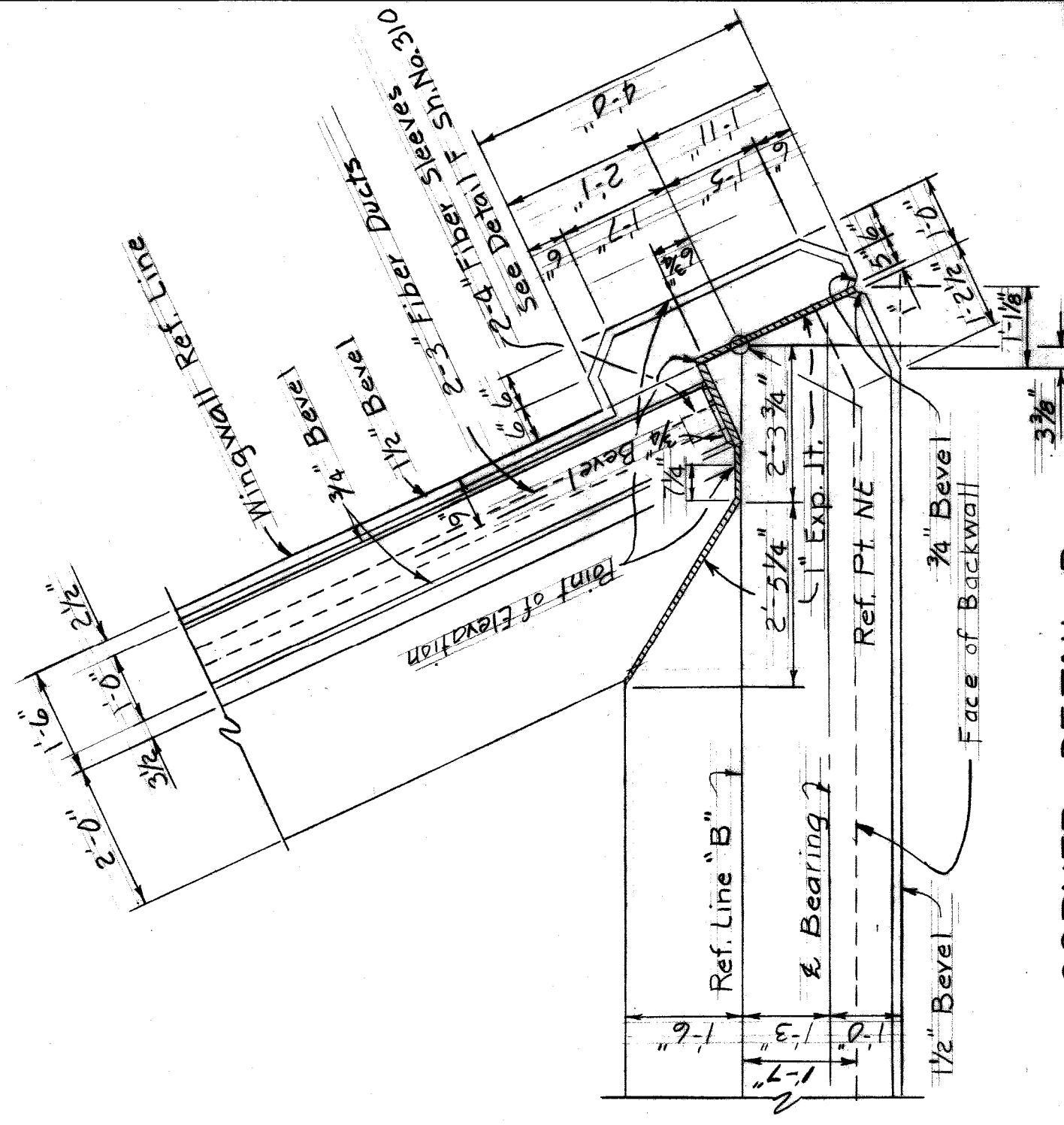
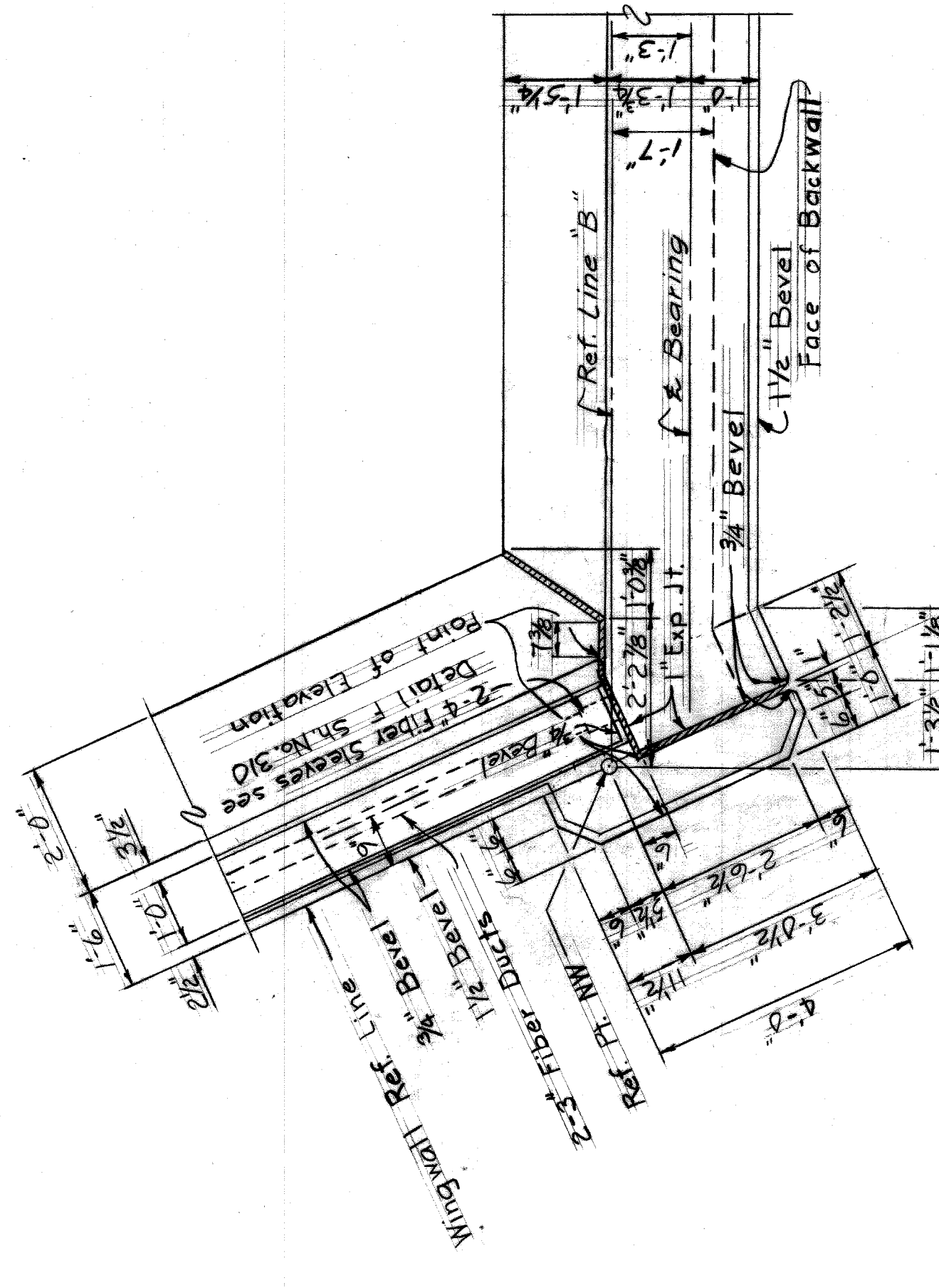
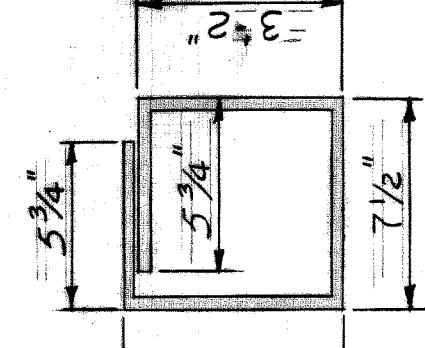


**NOTES**  
For Section J-J see Sh. 310  
For Detail E see Sh. 310  
For Detail of Manhole Steps see Sh. 310

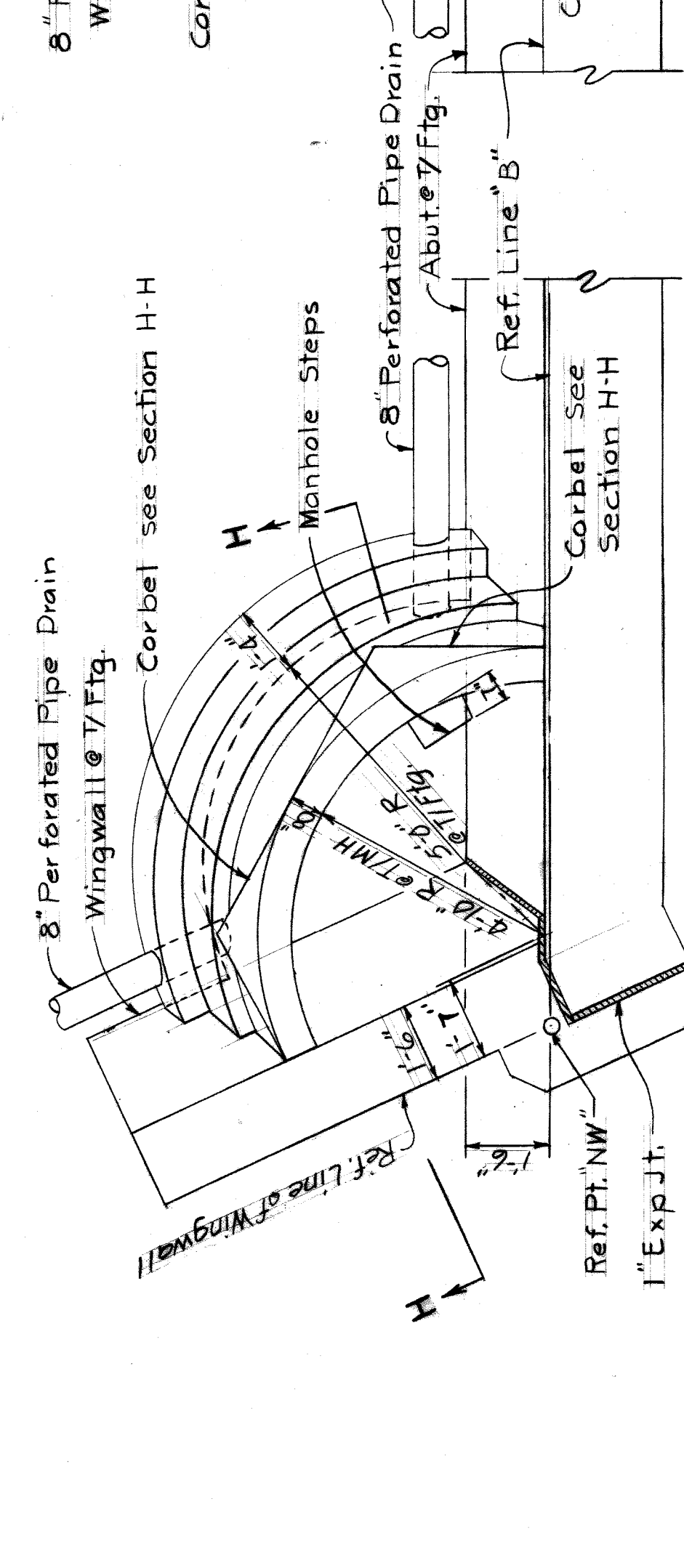
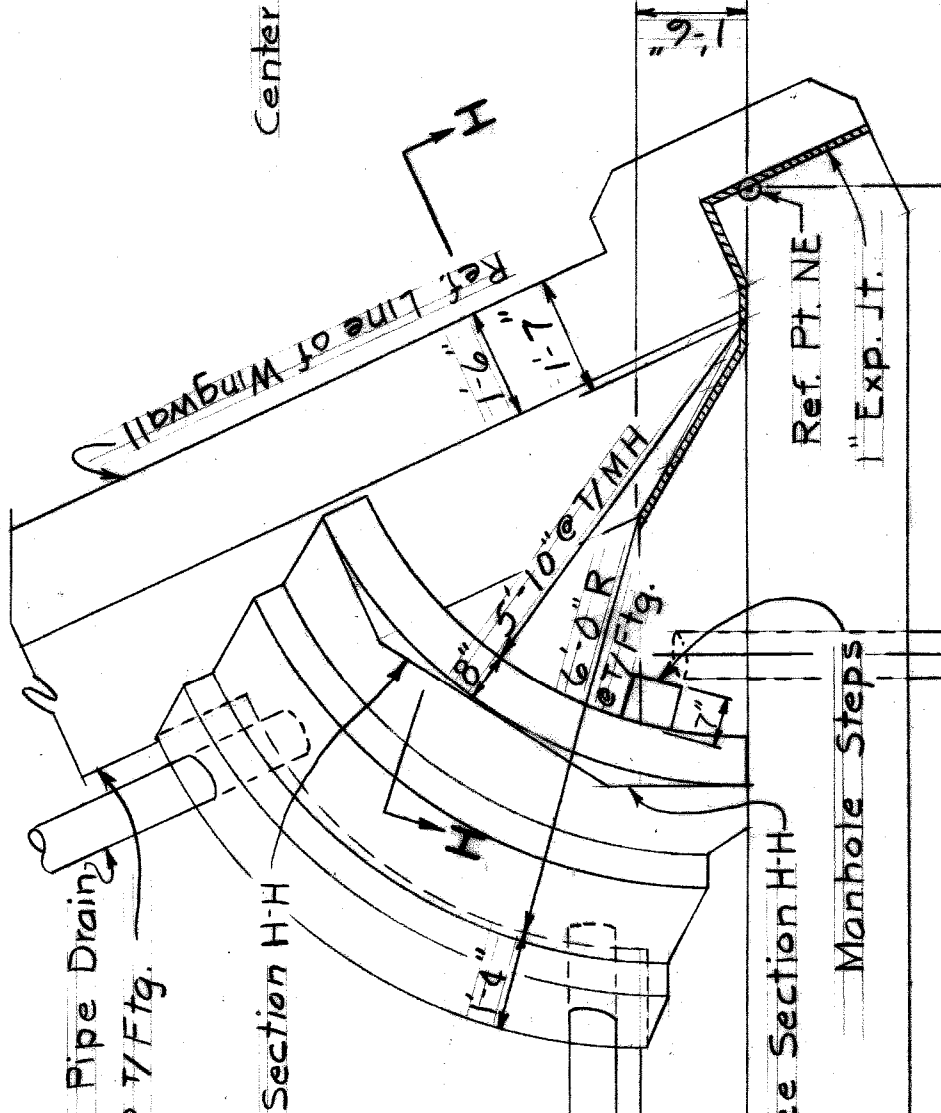
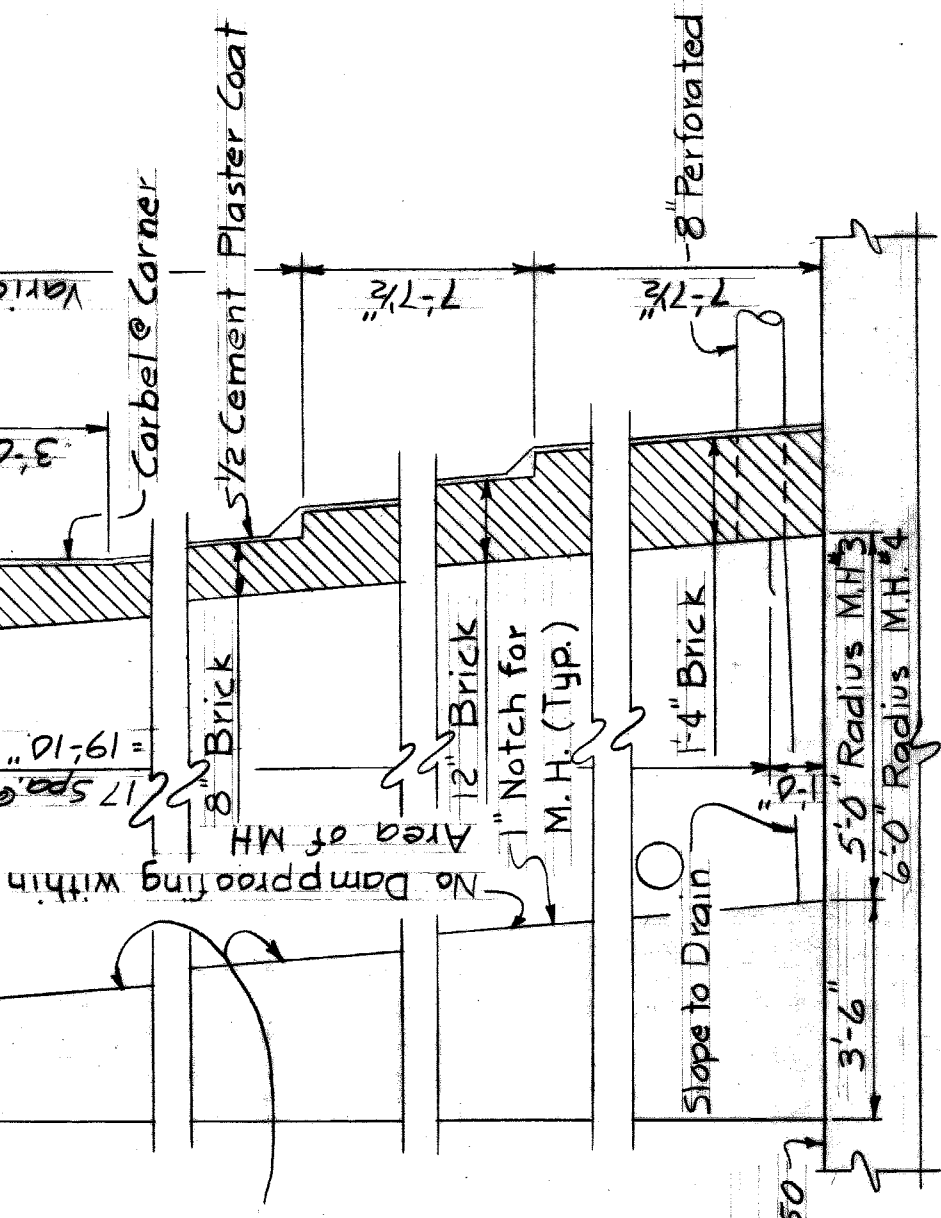
**4A-53**  
**BAR BENDING DIAGRAMS**  
(ABUT. ABOVE FOOTING)



**4A-79**  
**BAR BENDING DIAGRAMS**  
(ABUT. ABOVE FOOTING)



**SECTION H-H**  
N.T.S.



HAZELET & ERDAL CONSULTING ENGINEERS

MOUNT ELLIOTT-MOUND RD.  
GRADE SEPARATION  
ABUTMENT B - DETAILS & MANHOLES

WAYNE COUNTY ROAD COMMISSIONERS  
DETROIT, MICHIGAN

BOARD OF ROAD COMMISSIONERS  
WILLIAM E. KREGER  
PHILIP J. NEUBECK

STATE PROJECT 246  
COUNTY JOB SHEET NO. 313  
ISSUE NO. 1  
DATE 5-23-68

APPROVED: [Signature]  
SUPERVISOR OF HIGHWAYS AND EXPRESSWAYS  
WAYNE COUNTY

CHECKED BY: [Signature]  
DATE: 6-20-67

DESIGNED BY: [Signature]  
DATE: 6-20-67

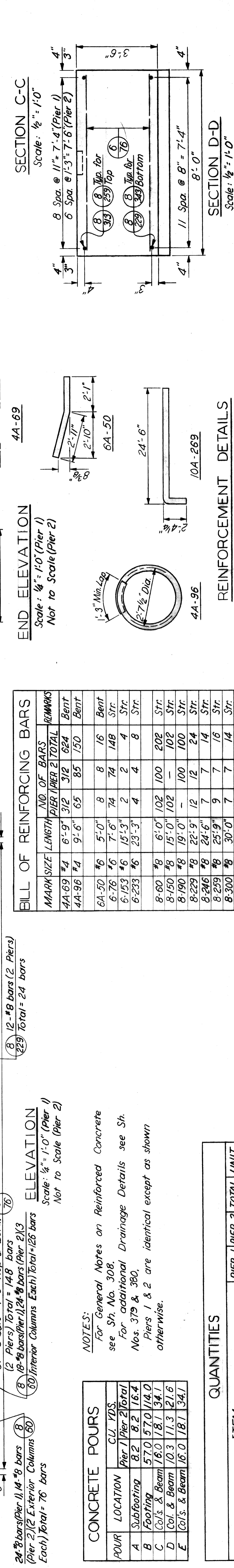
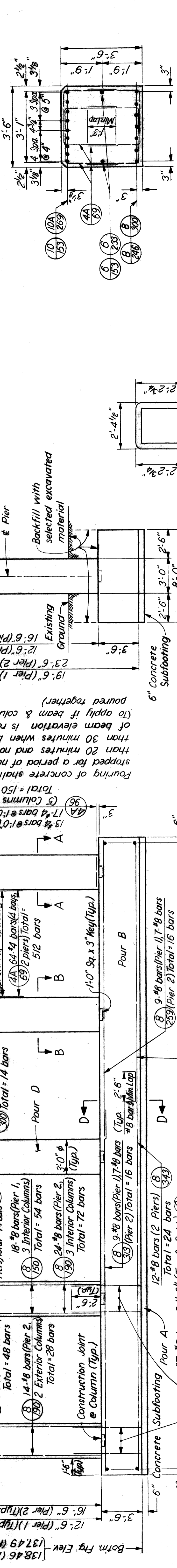
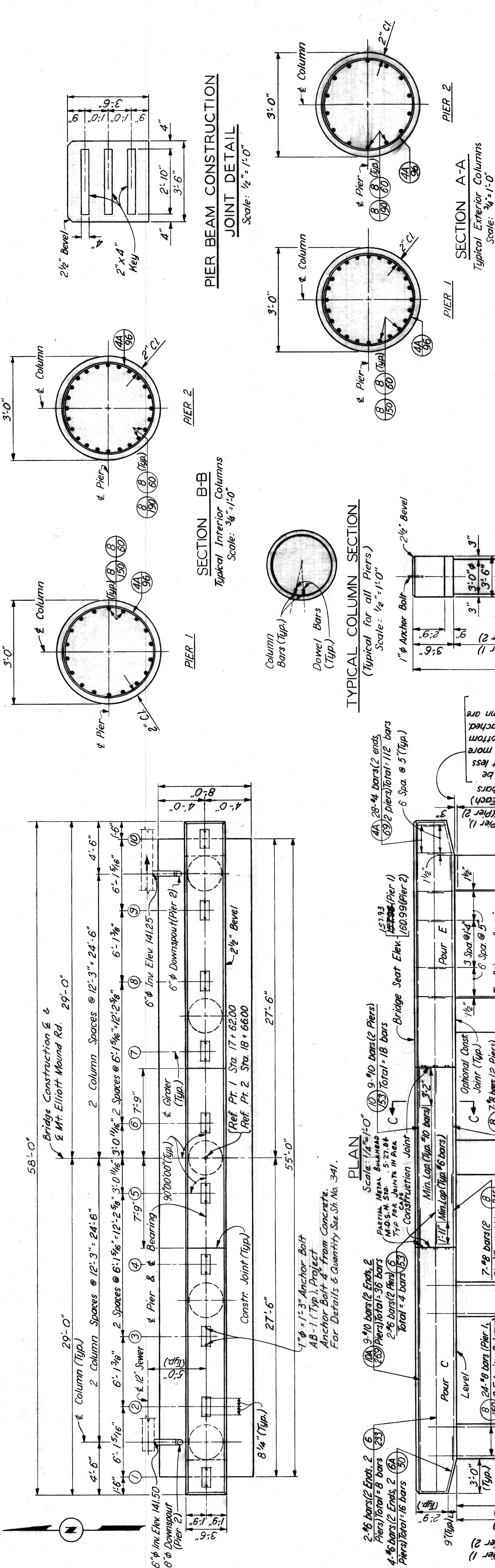
CONTRACT NO. 100-1-100-100

REVISIONS

DATE: 9-16-71  
BY: E.M.B./L.T.M.

Work this sheet with Sheets 311 & 312

H & E FILE NO. 603  
X0107



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

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

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

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

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

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

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

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

**BILL OF REINFORCING BARS**

MARK SIZE	LENGTH	NO. OF BARS	REMARKS
PIER 1	PIER 2	TOTAL	
4A-69 #4	6'-9"	312	Bent
4A-96 #4	9'-6"	65	Bent
6A-50 #6	5'-0"	8	Bent
6-76 #6	7'-6"	74	Str.
6-153 #6	15'-3"	2	Str.
6-233 #6	23'-3"	4	Str.
8-60 #8	6'-0"	102	Str.
8-150 #8	15'-0"	102	Str.
8-190 #8	19'-0"	100	Str.
8-229 #8	22'-9"	12	Str.
8-246 #8	24'-6"	7	Str.
8-259 #8	25'-9"	7	Str.
8-300 #8	30'-0"	7	Str.
8-313 #8	31'-3"	9	Str.
8-343 #8	34'-3"	12	Str.
10-153 #10	15'-3"	9	Str.
10A-269 #10	26'-9"	18	Bent
		18	
		36	

**CONCRETE POURS**

POUR	LOCATION	CU. YDS.
Pier 1	Pier 2	Total
A	Subfooting	8.2
B	Footings	57.0
C	Col's & Beam	16.0
D	Col's & Beam	10.3
E	Col's & Beam	16.0
		181.3
		341.5

**QUANTITIES**

ITEM	PIER 1	PIER 2	TOTAL	UNIT
Grade A(10B Gravel or 10B Slag) Concrete - Substructure	107.5	112.7	220.2	Cu. Yds.
Steel Reinforcement	15,494	16,272	31,766	Lbs.
Rubbed Surface Finish	1,177	1,366	2,543	Sq. Ft.
Heating & Housing Substructure Concrete	99.3	104.5	203.8	Cu. Yds.

**CONCRETE POURS**

POUR	LOCATION	CU. YDS.
Pier 1	Pier 2	Total
A	Subfooting	8.2
B	Footings	57.0
C	Col's & Beam	16.0
D	Col's & Beam	10.3
E	Col's & Beam	16.0
		181.3
		341.5

**NOTES:**  
 For General Notes on Reinforced Concrete see Sh. No. 308.  
 For additional Drainage Details see Sh. Nos. 379 & 380.  
 Piers 1 & 2 are identical except as shown otherwise.

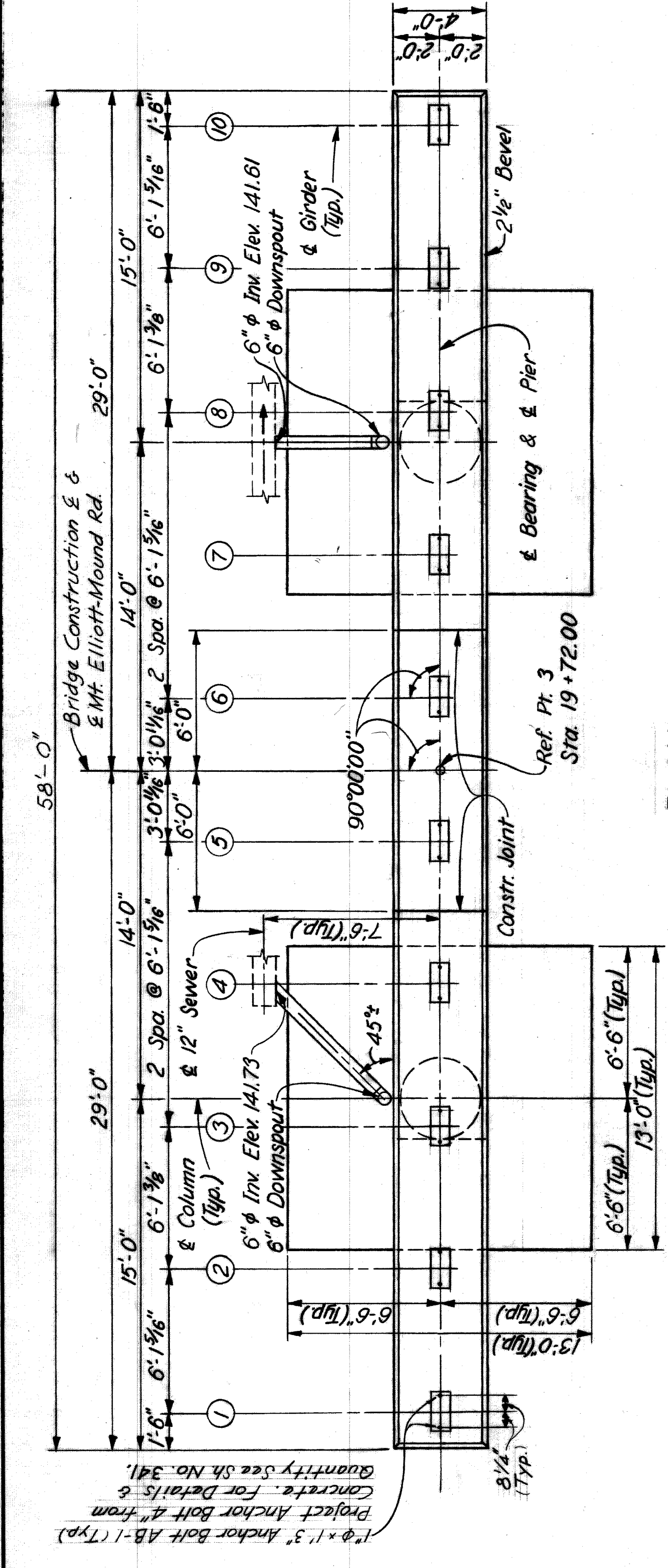
**REINFORCEMENT DETAILS**

4A-69  
 6A-50  
 10A-269

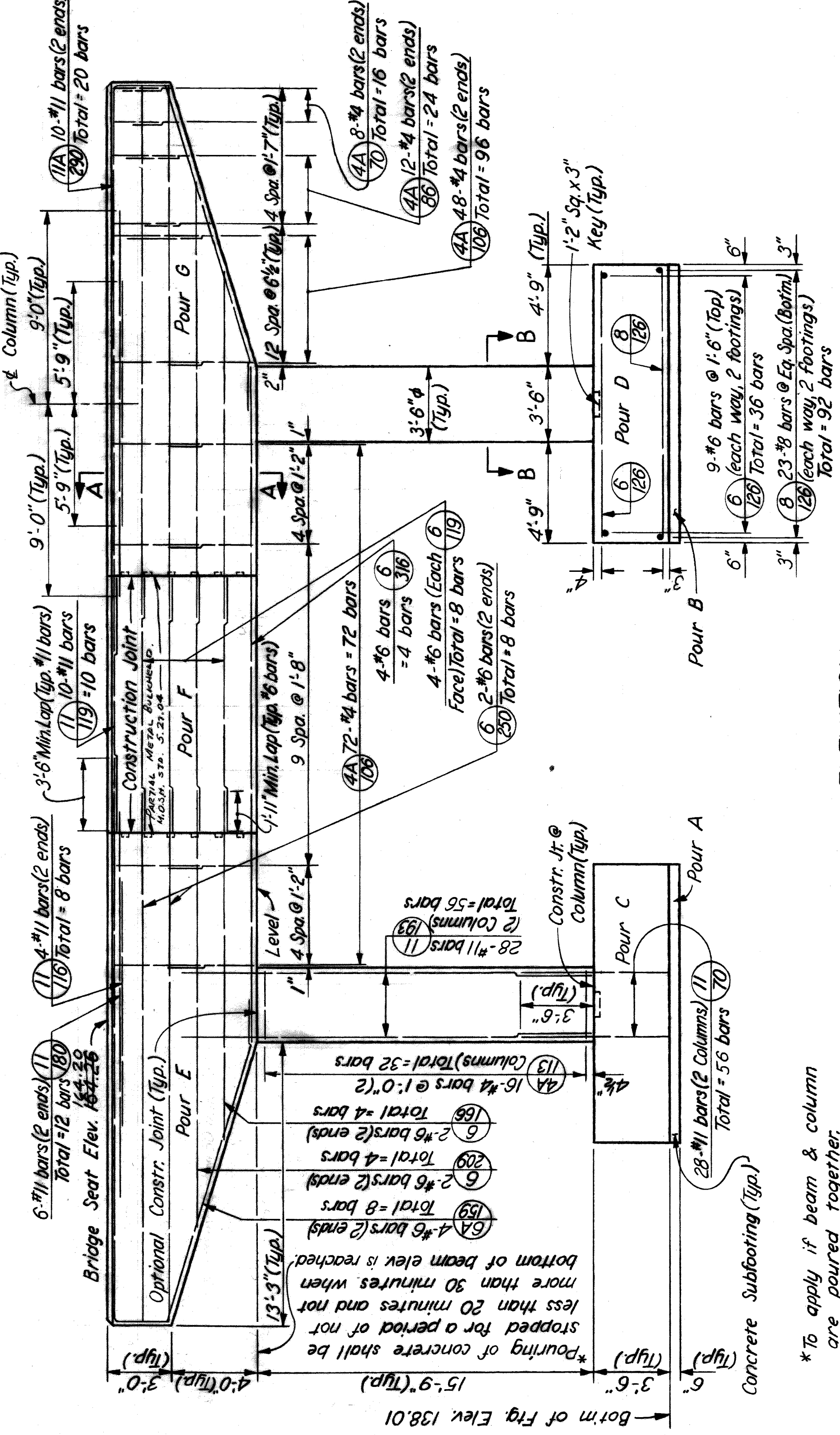
As BUILT 9-16-71 E.M.B. 4-10-11

**REVISIONS**

NO.	DATE	BY	DESCRIPTION
1	11-8-71	W.M.A.	ENGINEER OF STRUCTURES AND EXHIBITS
2	11-8-71	W.M.A.	ENGINEER OF STRUCTURES AND EXHIBITS



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



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

\*To apply if beam & column are poured together.

**CONCRETE POURS**

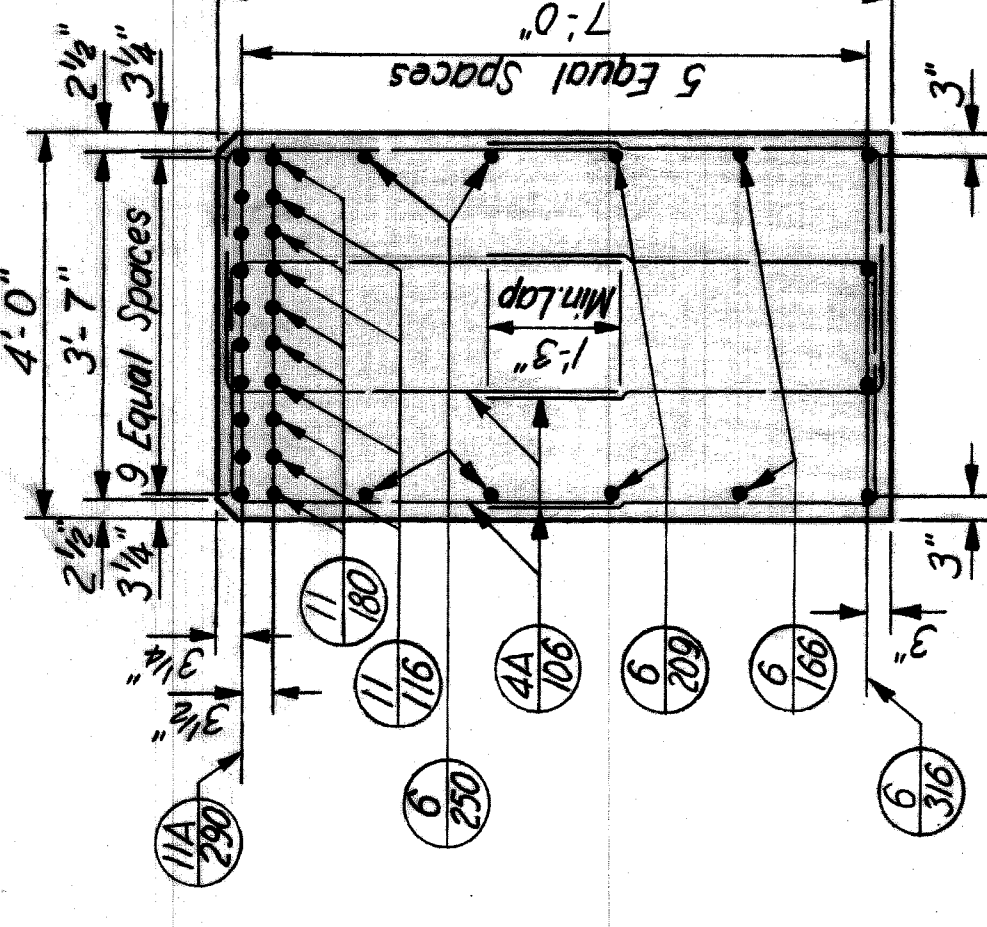
POUR	LOCATION	CU. YDS.
A	Subfooting	3.1
B	Subfooting	3.1
C	Footings	21.9
D	Footings	21.9
E	Column & Beam	25.5
F	Beam	12.4
G	Column & Beam	25.5

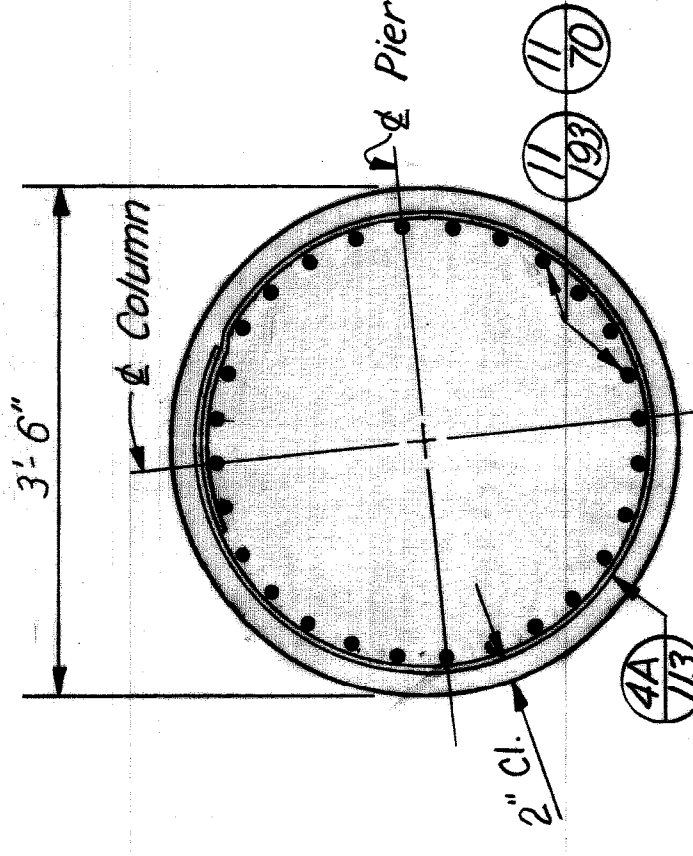
**QUANTITIES**

ITEM	TOTAL	UNIT
Grade A(108 Gravel or 10B Slag) Concrete-Substructure	713.4	Cu. Yds.
Steel Reinforcement	19,573	Lbs.
Rubbed Surface Finish	129.4	Sq. Ft.
Heating & Housing Substructure Concrete	107.2	Cu. Yds.

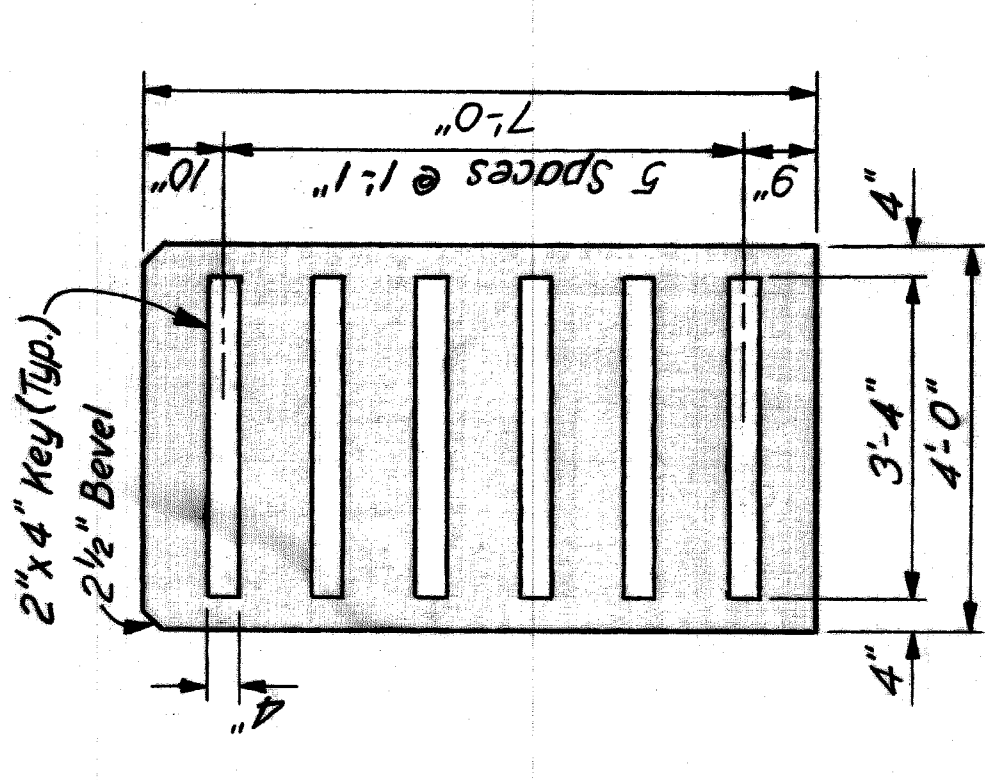
NOTES:  
 For General Notes on Reinforced Concrete see Sh. No. 308.  
 For additional Drainage Details see Sh. Nos. 379 & 380.  
 See Typical Column Section Sheet No. 314 for lapping of column bars to abut bars.



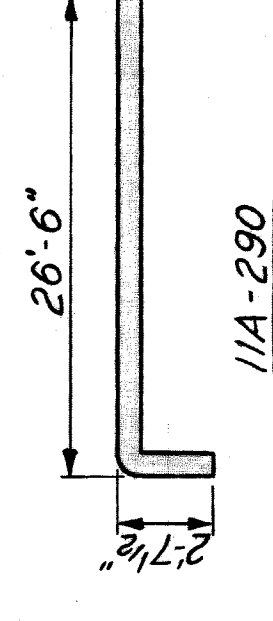
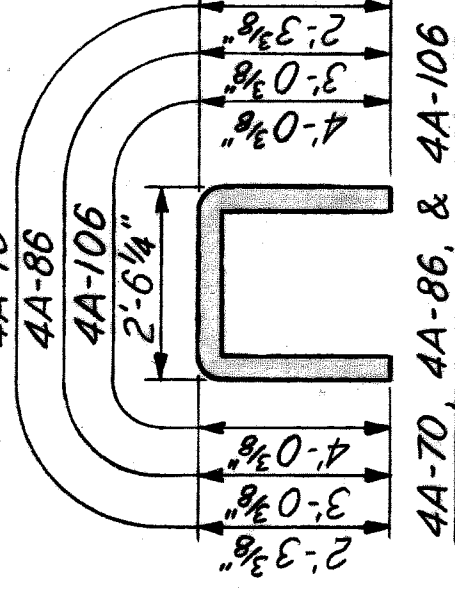
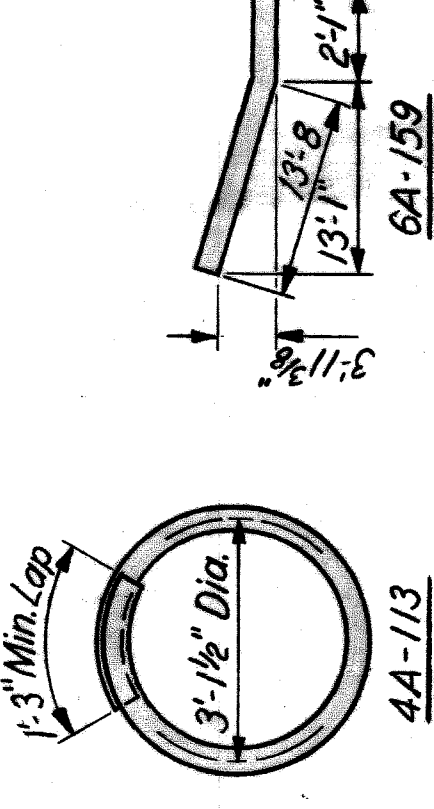
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 Scale: 1/2" = 1'-0"



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



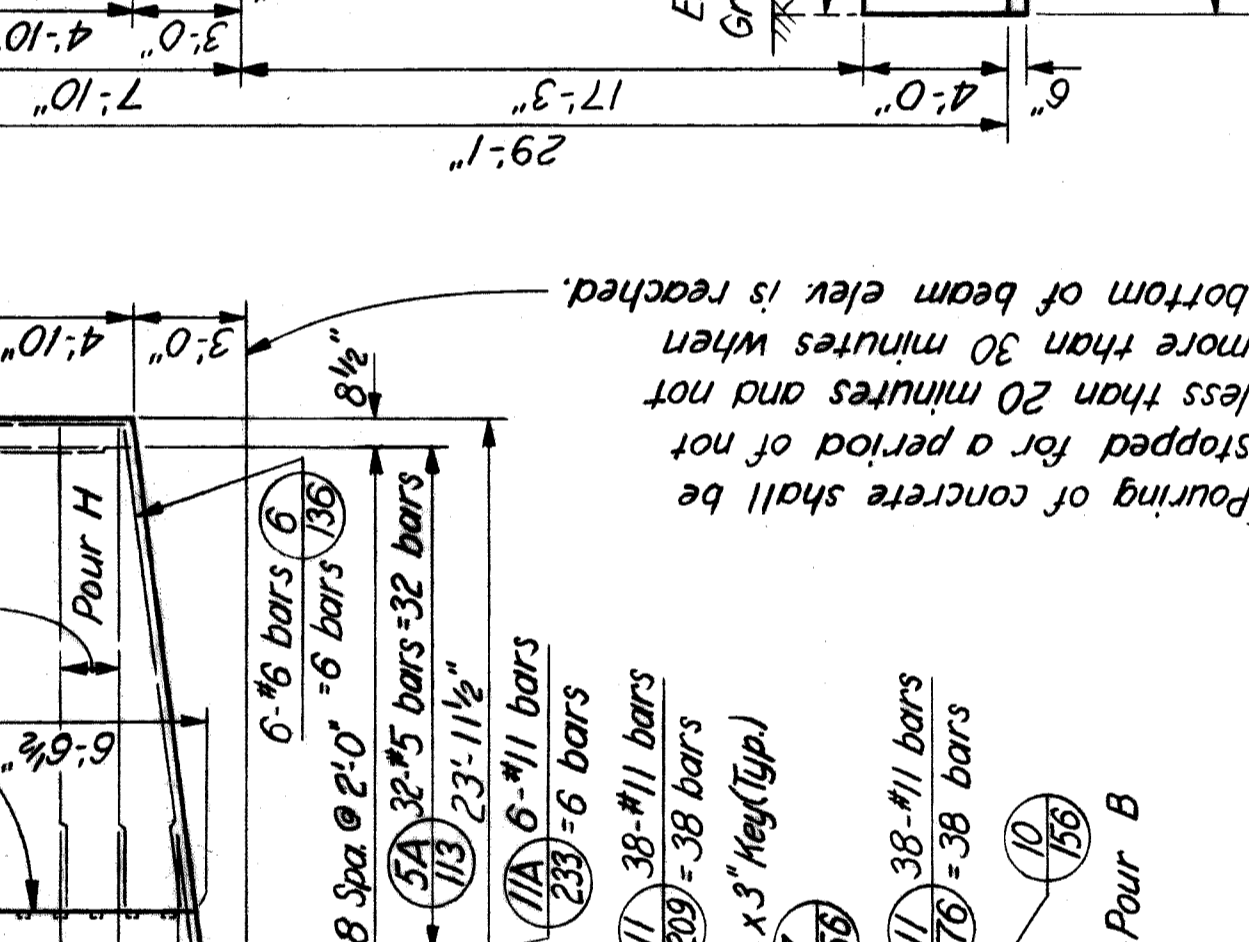
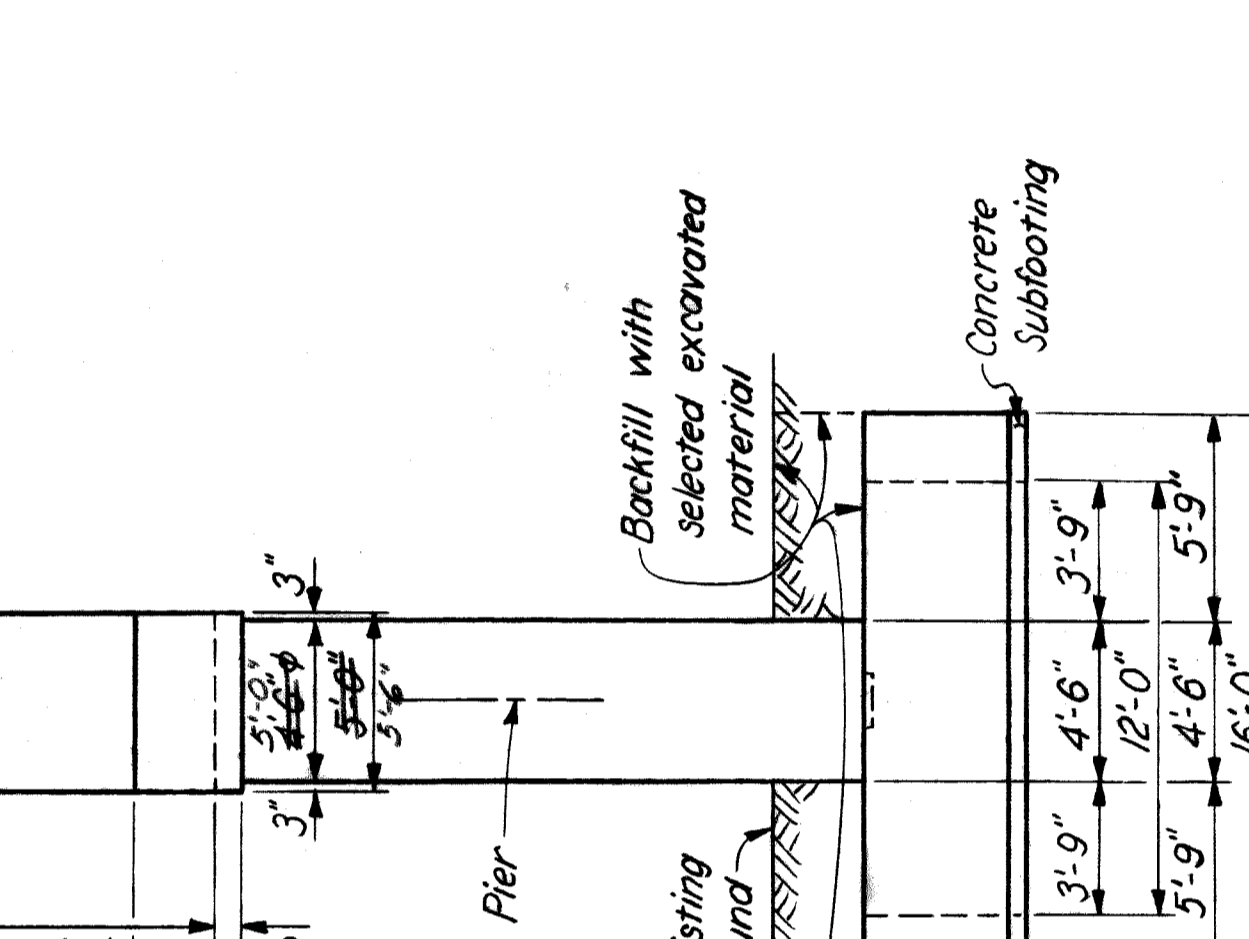
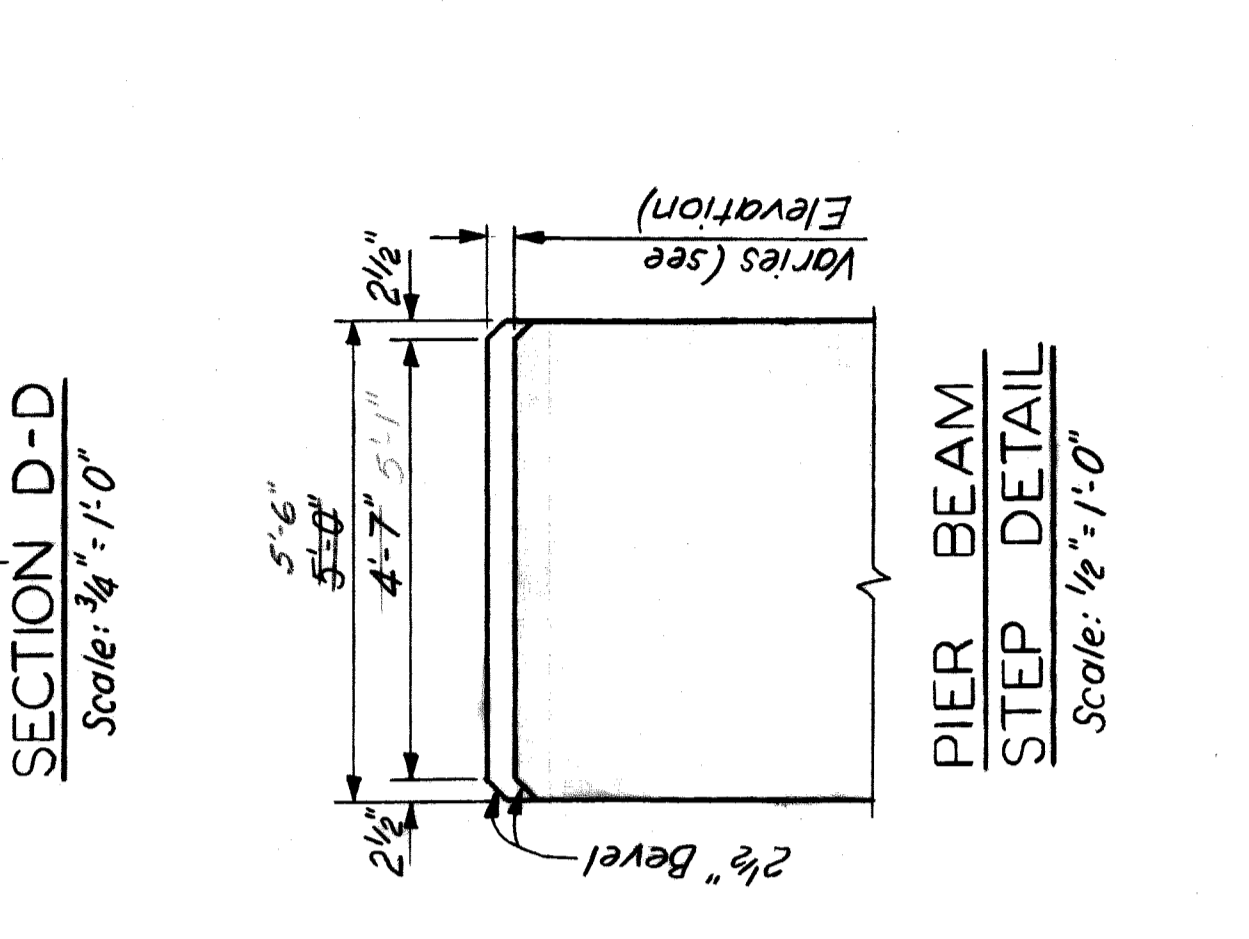
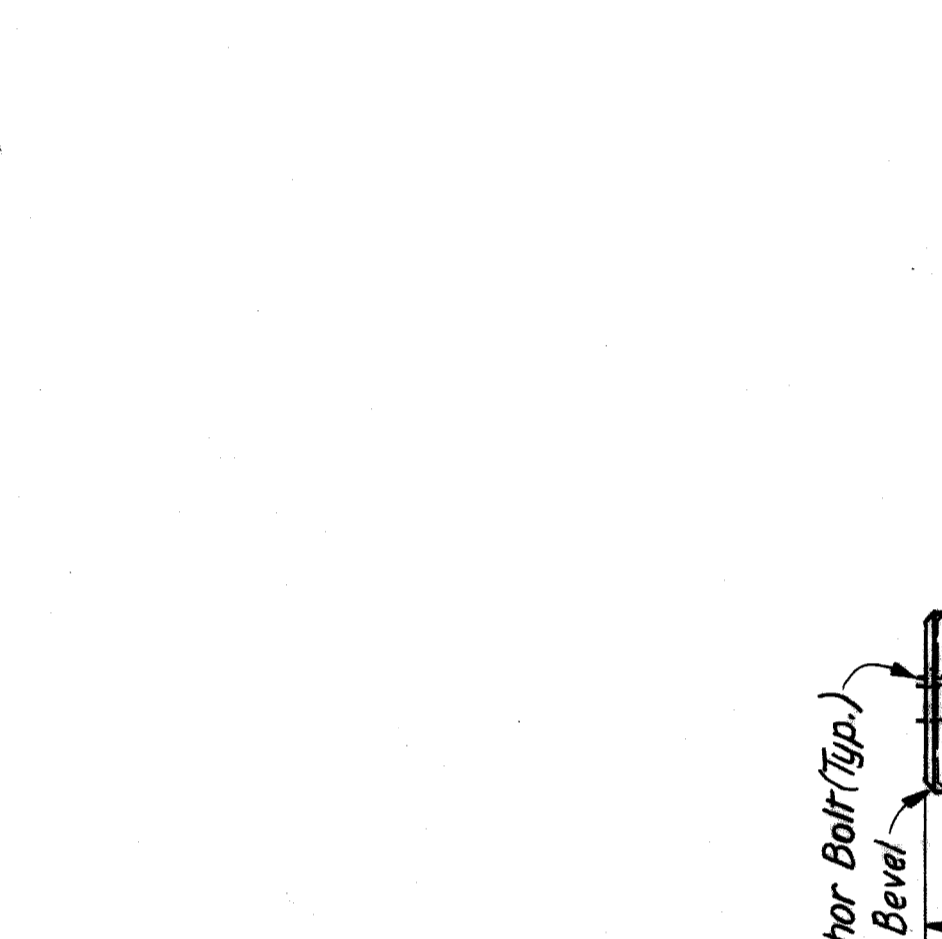
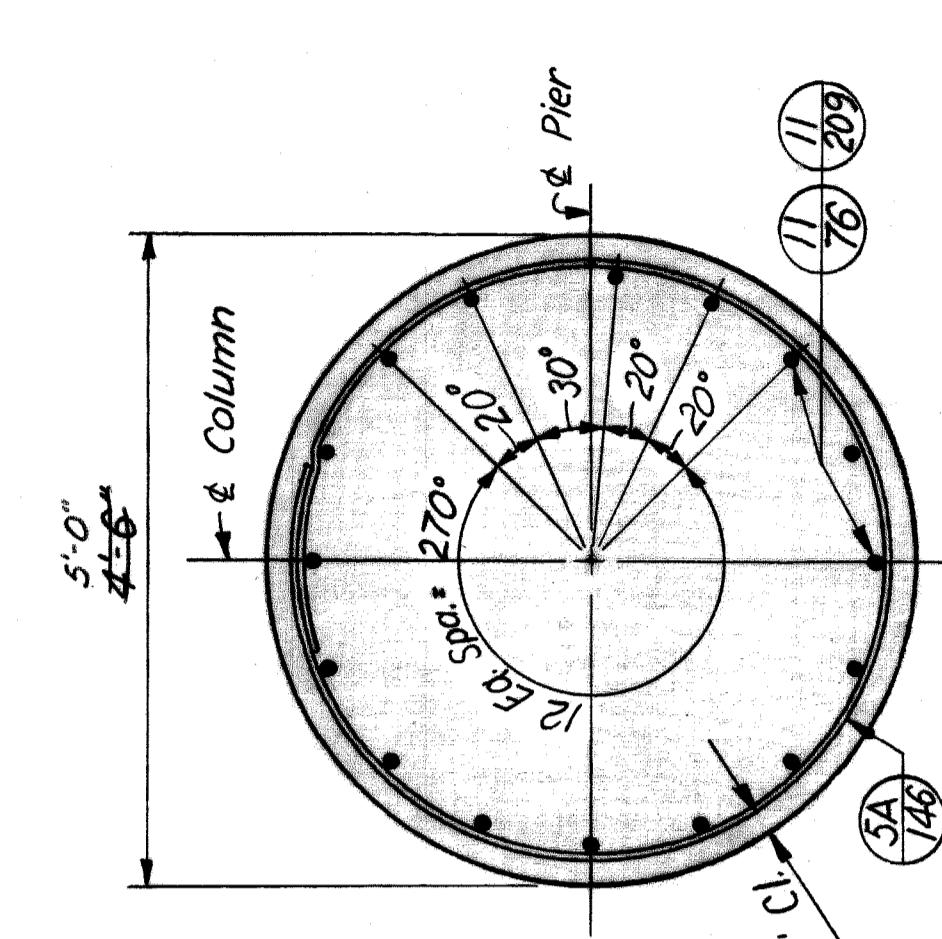
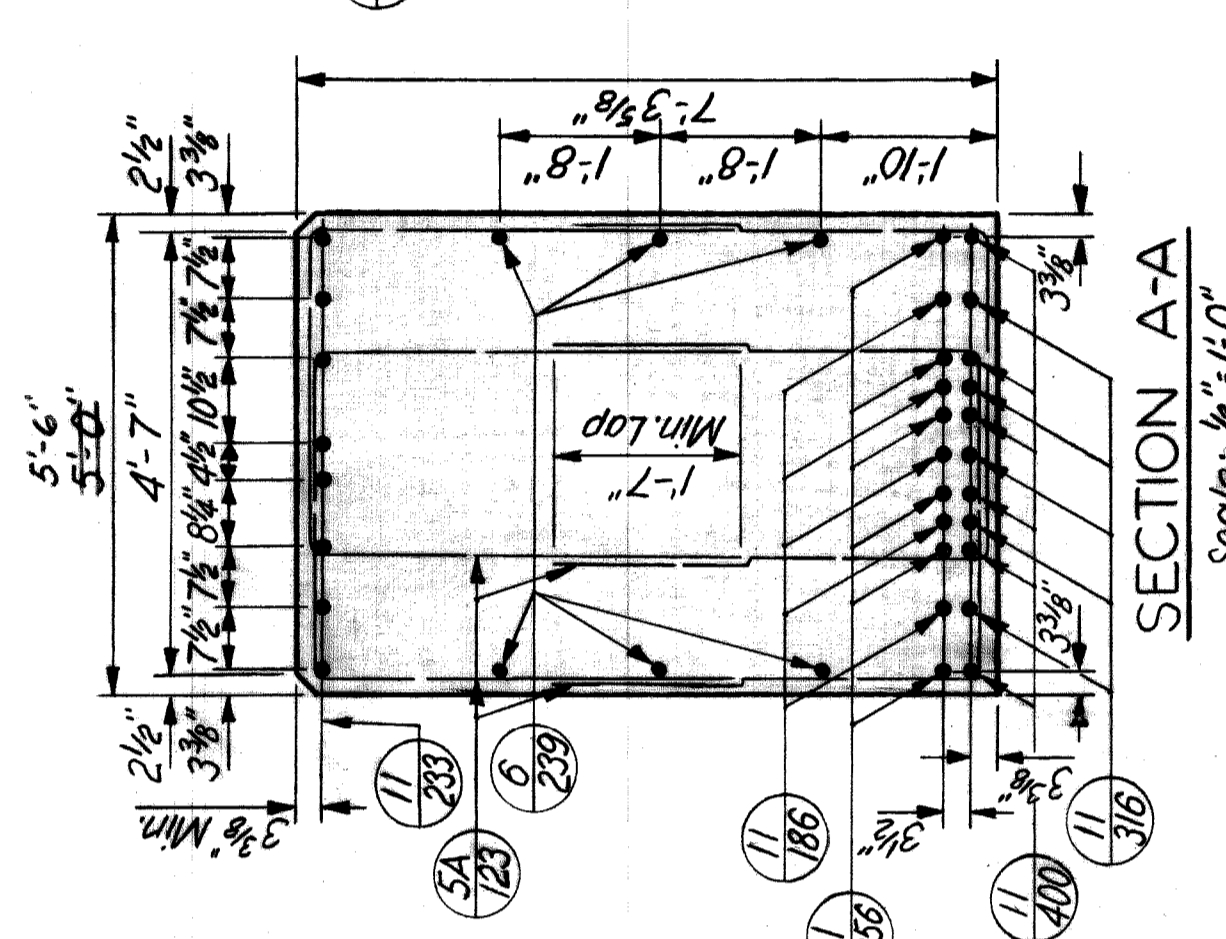
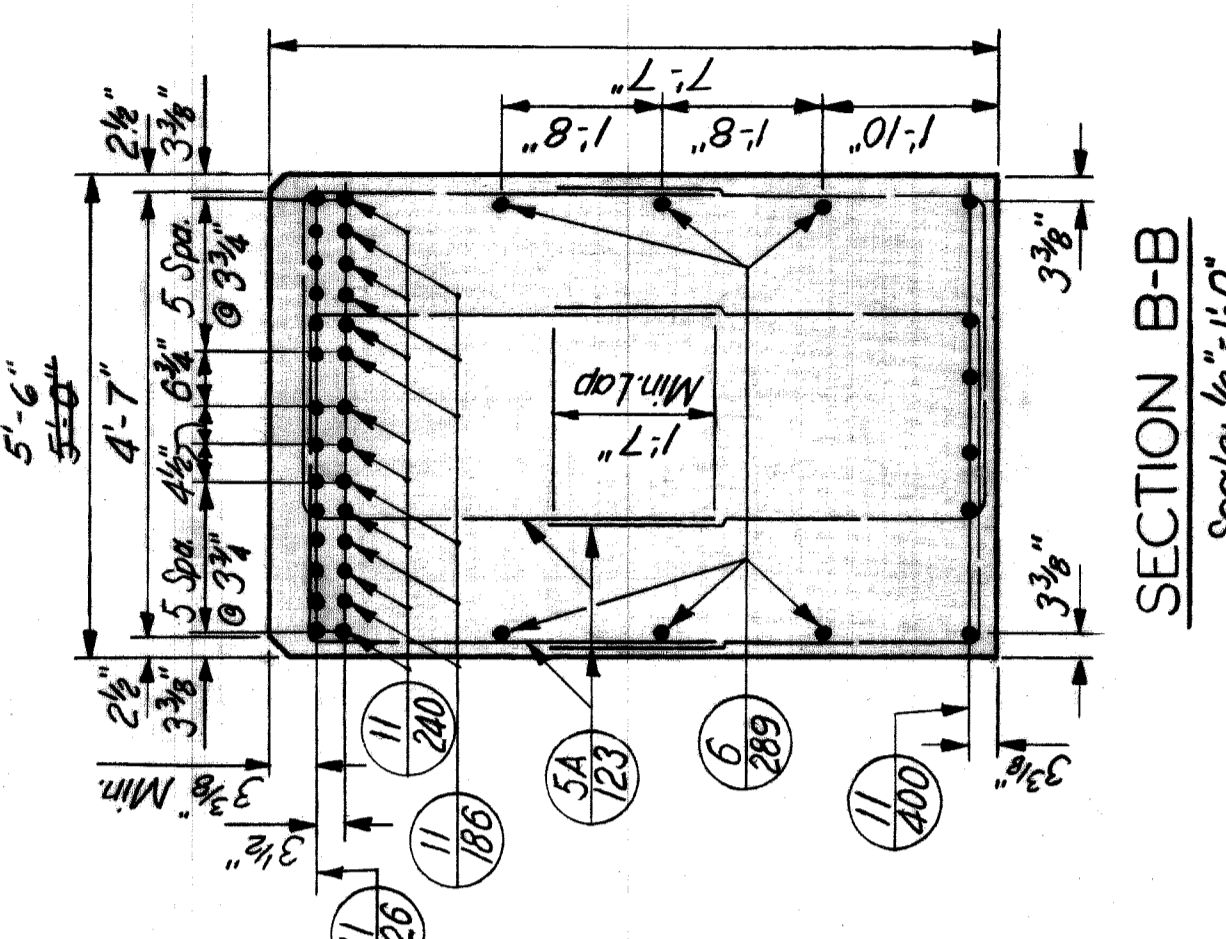
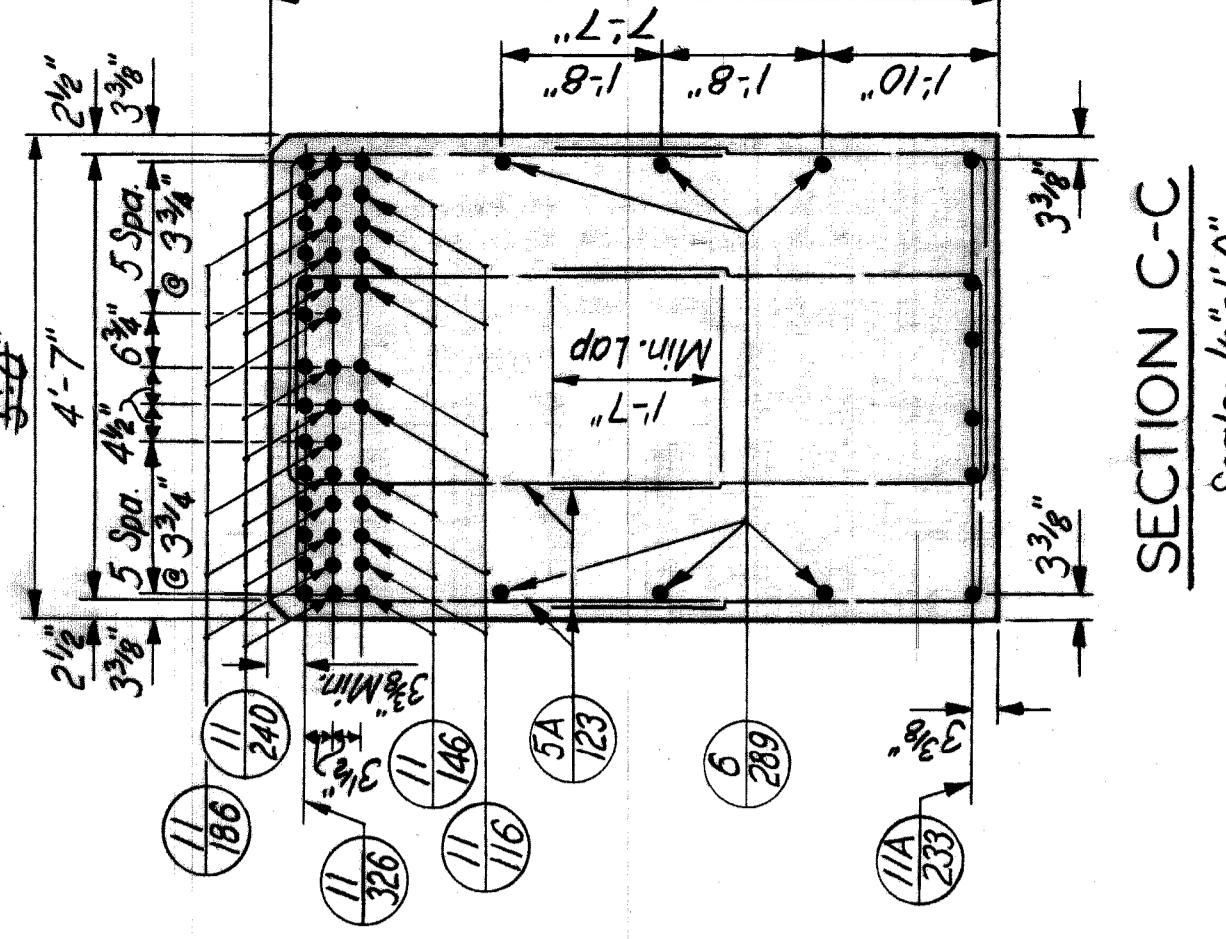
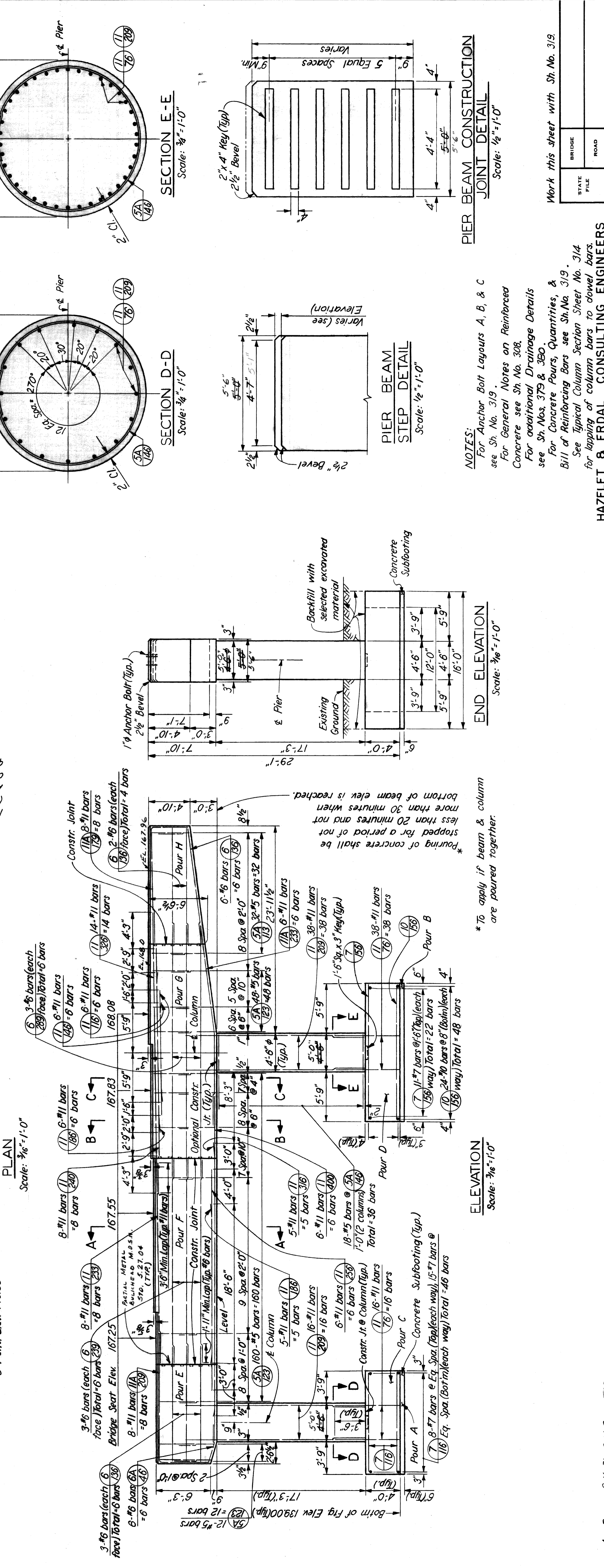
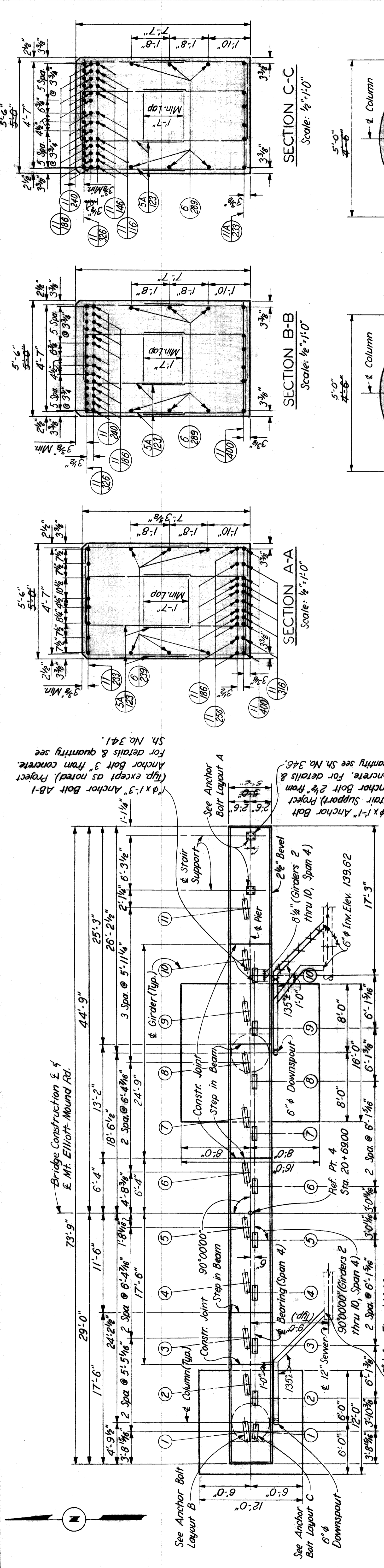
PIER BEAM CONSTRUCTION JOINT DETAIL  
 Scale: 1/2" = 1'-0"



REINFORCEMENT DETAILS

MARK	SIZE	LENGTH	NUMBER OF BARS	REMARKS
4A-70	#4	7'-0"	16	Bent
4A-86	#4	8'-6"	24	Bent
4A-106	#4	10'-6"	168	Bent
4A-113	#4	11'-3"	32	Bent
6-119	#6	11'-9"	8	Str.
6-126	#6	12'-5"	36	Str.
6A-159	#6	15'-9"	8	Bent
6-166	#6	16'-6"	4	Str.
6-209	#6	20'-9"	4	Str.
6-250	#6	25'-0"	8	Str.
6-316	#6	31'-6"	4	Str.
8-126	#8	12'-6"	92	Str.
11-70	#11	7'-0"	56	Str.
11-116	#11	11'-6"	8	Str.
11-119	#11	11'-9"	70	Str.
11-180	#11	18'-0"	12	Str.
11-193	#11	19'-3"	56	Str.
11A-290	#11	29'-0"	20	Bent





**NOTES:**  
For Anchor Bolt Layouts A, B, & C see Sh. No. 319.  
For General Notes on Reinforced Concrete see Sh. No. 308.  
For additional Drainage Details see Sh. Nos. 379 & 380.  
For Concrete Pours, Quantities, & Bill of Reinforcing Bars see Sh. No. 314.  
See Typical Column Section Sheet No. 314 for lapping of column bars to dowel bars.

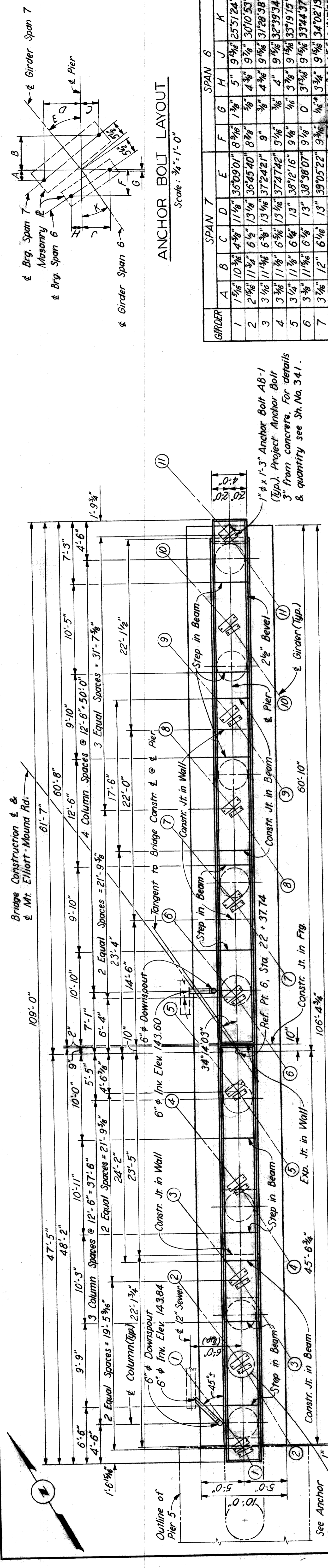
**HAZELET & ERDAL CONSULTING ENGINEERS**

**WAYNE COUNTY ROAD COMMISSIONERS**  
DETROIT, MICHIGAN  
PHILIP J. NEUDECK  
WILLIAM E. KREGER

**MOUNT ELLIOTT-MOUND RD. GRADE SEPARATION PIER 4**

STATE PROJECT: 246  
SHEET NO.: 316  
ISSUE NO.: 1  
DATE: 5-23-68

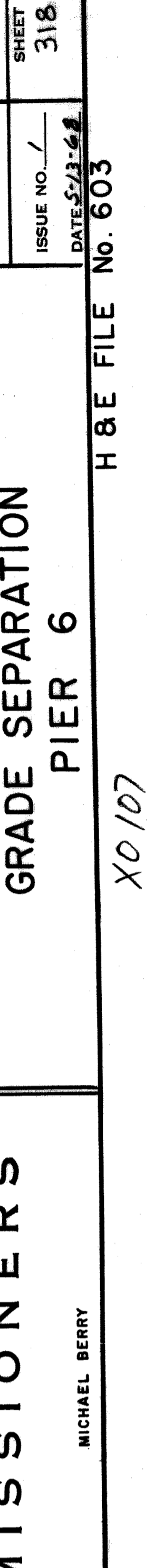
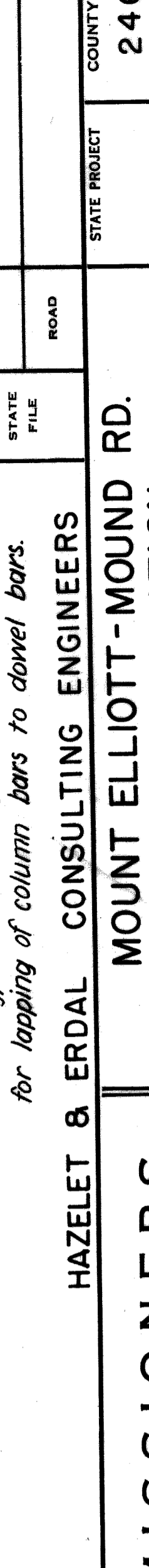
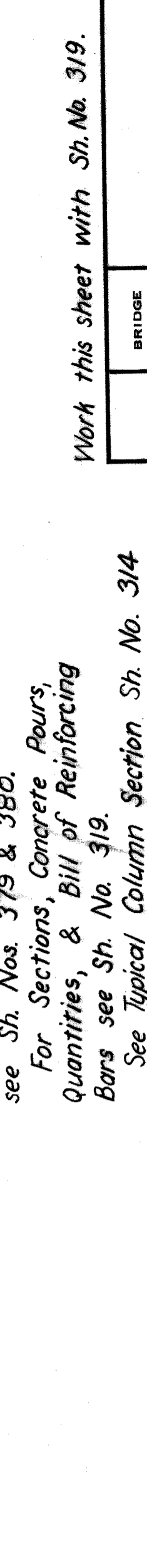
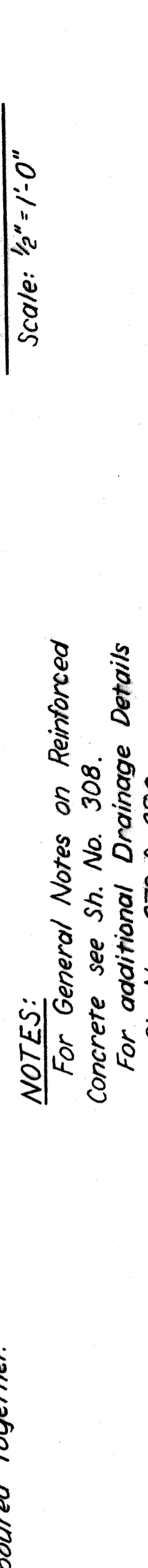
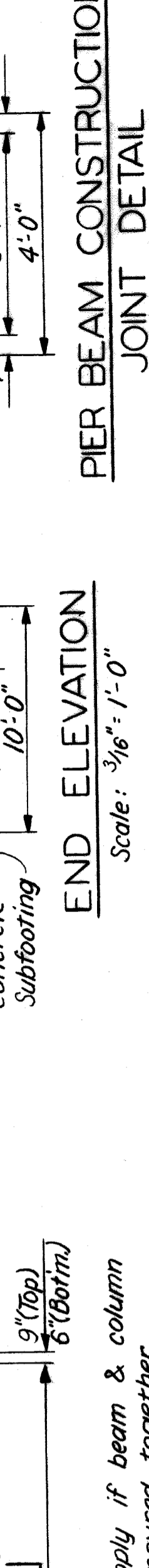
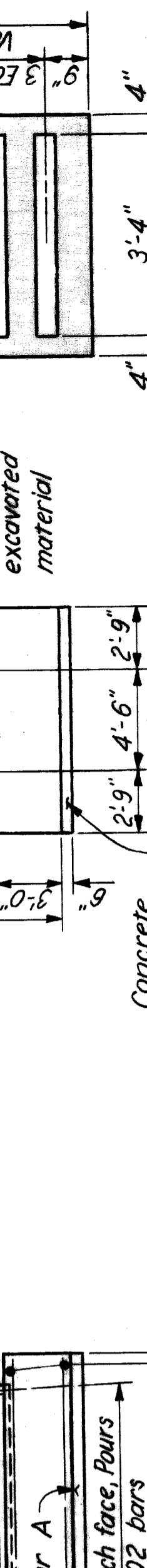
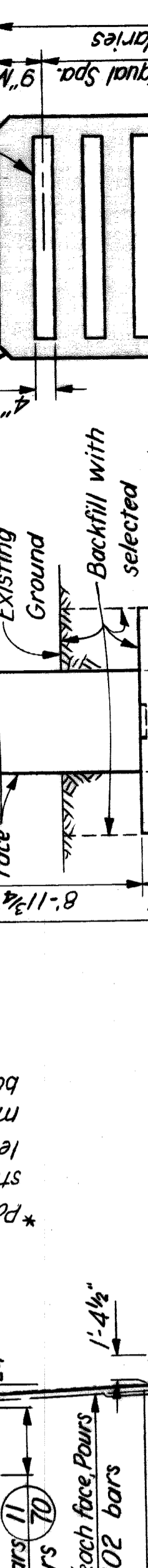
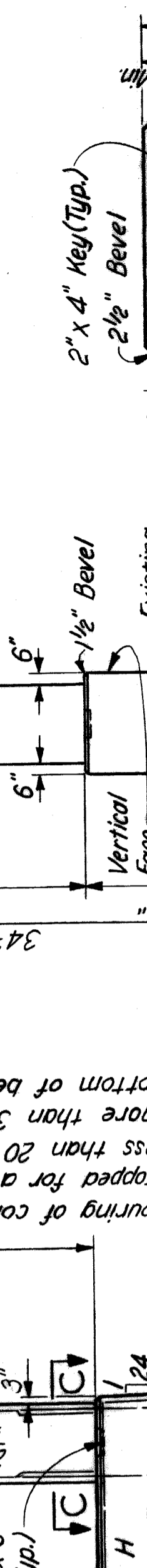
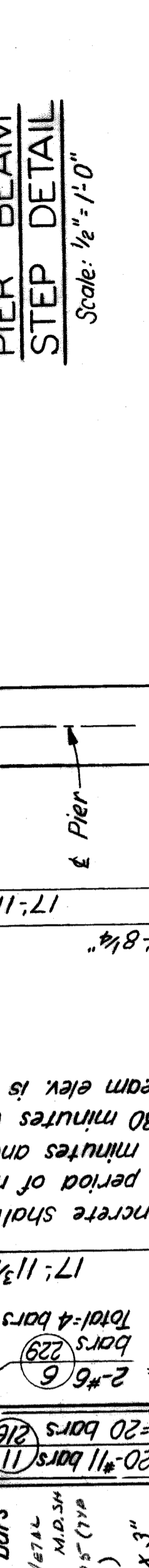
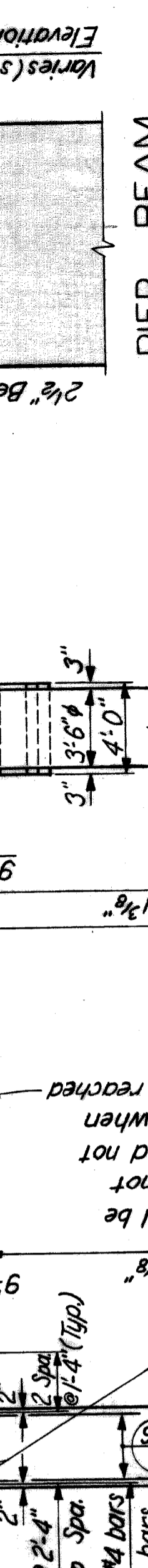
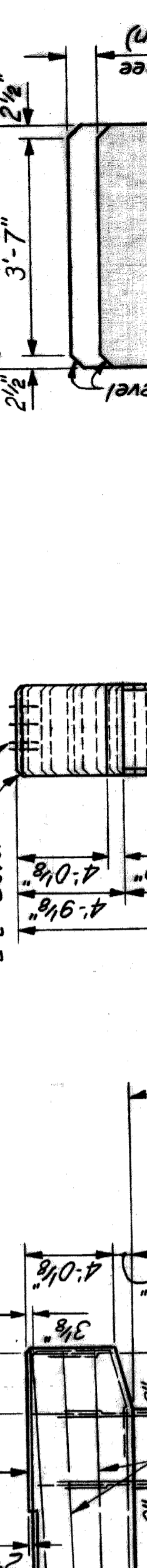
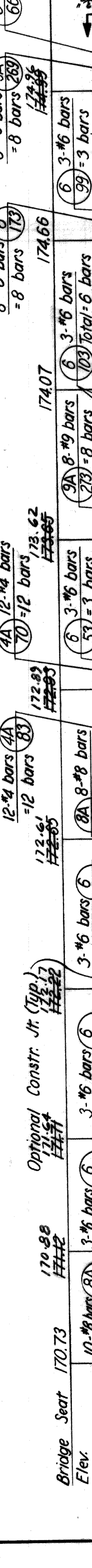
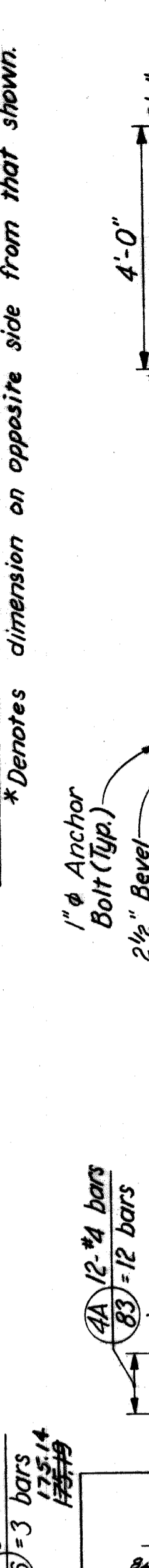
Work this sheet with Sh. No. 319.



**ANCHOR BOLT LAYOUT**  
Scale: 3/4" = 1'-0"

GIRDER	SPAN 7			SPAN 6						
	A	B	C	D	E	F	G	H	J	K
1	1 3/8"	10 3/8"	4 3/8"	11 1/8"	36'09.01"	8 9/16"	1 3/8"	5"	9 3/4"	25'51.24"
2	2"	11 3/8"	6 1/8"	13 1/8"	36'45.40"	8 9/16"	3/8"	4 3/8"	9 1/8"	30'10.53"
3	3 1/8"	11 1/8"	6 3/8"	13 3/8"	37'24.21"	9"	3/8"	4 3/8"	9 1/8"	31'28.38"
4	3 1/8"	11 1/8"	6 3/8"	13 3/8"	37'41.42"	9 1/8"	3/8"	4 3/8"	9 1/8"	32'39.34"
5	3 1/8"	11 1/8"	6 3/8"	13 3/8"	38'12.16"	9 1/8"	3/8"	4 3/8"	9 1/8"	33'19.15"
6	3 3/8"	11 1/8"	6 3/8"	13 3/8"	38'38.07"	9 1/8"	3/8"	4 3/8"	9 1/8"	33'44.37"
7	3 1/8"	12 1/8"	5 3/8"	12 3/8"	39'05.22"	9 1/8"	3/8"	4 3/8"	9 1/8"	34'02.13"
8	3 1/8"	12 1/8"	5 3/8"	12 3/8"	39'34.08"	9 1/8"	3/8"	4 3/8"	9 1/8"	34'15.08"
9	3 1/8"	12 1/8"	5 3/8"	12 3/8"	40'11.16"	9 1/8"	3/8"	4 3/8"	9 1/8"	34'15.08"
10	3 3/8"	12 3/8"	5 3/8"	12 3/8"	40'50.99"	9 1/8"	3/8"	4 3/8"	9 1/8"	34'15.08"
11	1 3/8"	9 3/8"	2 3/8"	9 3/8"	41'32.31"	9 1/8"	3/8"	4 3/8"	9 1/8"	34'15.08"

\* Denotes dimension on opposite side from that shown.



**NOTES:**  
For General Notes on Reinforced Concrete see Sh. No. 308.  
For additional Drainage Details see Sh. Nos. 379 & 380.  
For Sections, Concrete Pours, Quantities, & Bill of Reinforcing Bars see Sh. No. 319.  
See Typical Column Section Sh. No. 314 for lapping of column bars to dowel bars.

Work this sheet with Sh. No. 319.

HAZELET & ERDAL CONSULTING ENGINEERS  
MOUNT ELLIOTT-MOUND RD.  
GRADE SEPARATION  
PIER 6

BOARD OF  
**WAYNE COUNTY ROAD COMMISSIONERS**  
DETROIT, MICHIGAN

APPROVED: [Signature]  
ENGINEER OF STRUCTURES AND EXPRESSWAYS

APPROVED: [Signature]  
COUNTY HIGHWAY ENGINEER

As BUILT 9-16-71 E.M.S. LTM

REVISIONS

CHECKED BY: [Signature]  
LEWIS & CLARK

THROUGHT BY: [Signature]  
M. J. J. J.

APPROVED: [Signature]  
COUNTY ENGINEER

STATE PROJECT: 246  
COUNTY JOB: 318  
ISSUE NO.: 1  
DATE: 5-23-66

H & E FILE NO. 603

PHILIP J. NEUDECK  
WILLIAM E. KREGER

MICHAEL BERRY

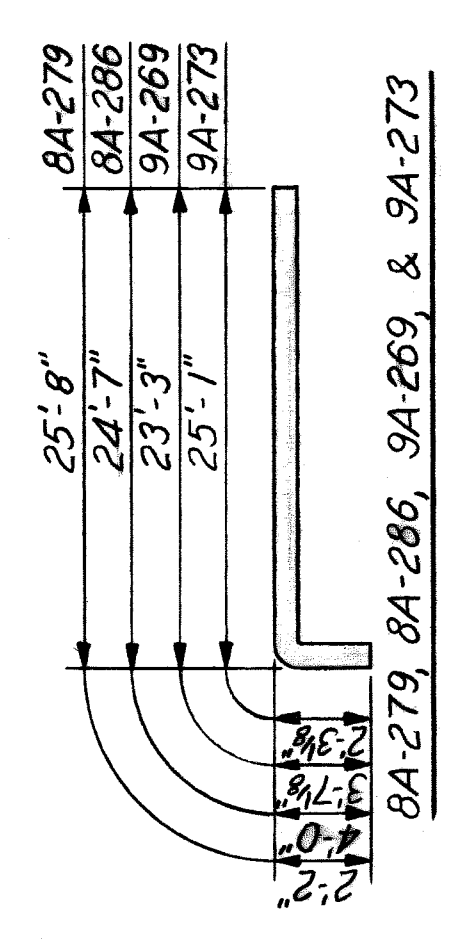
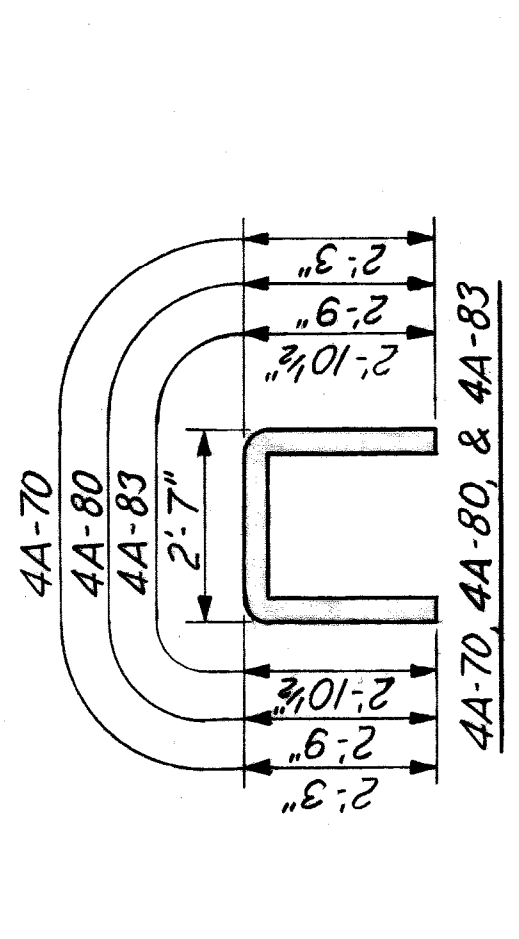
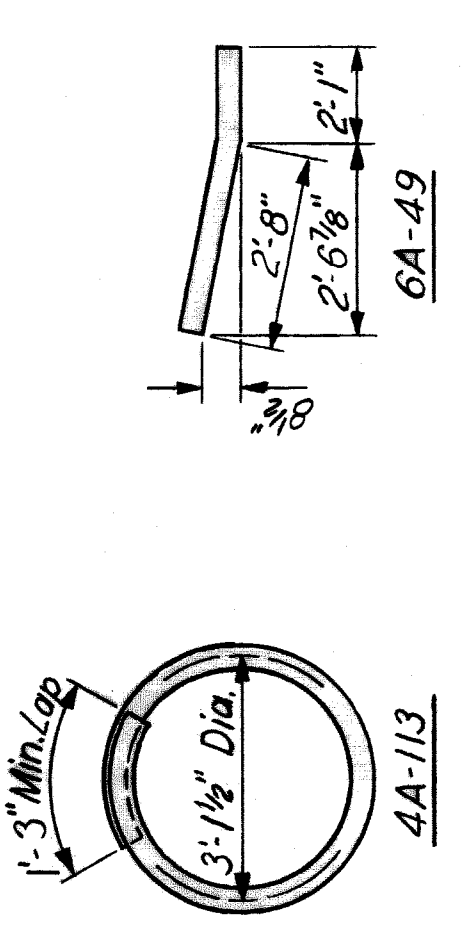
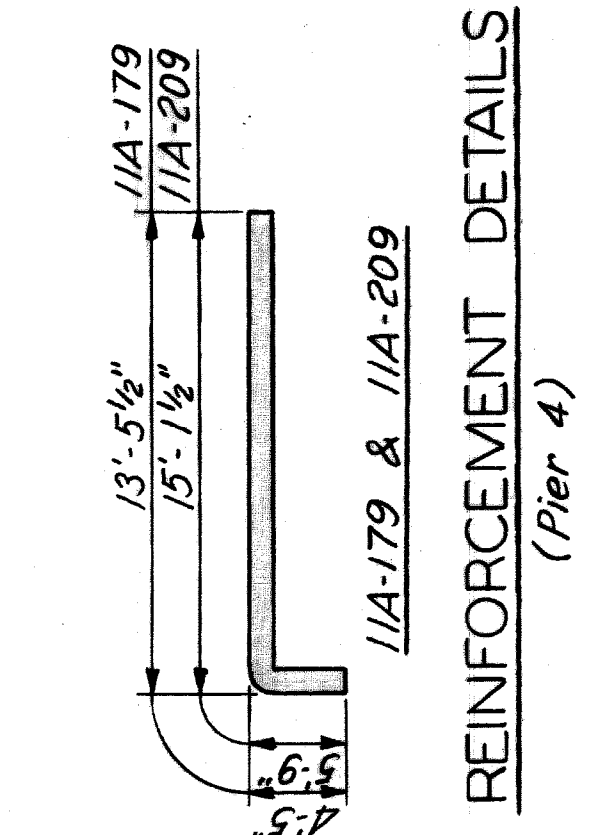
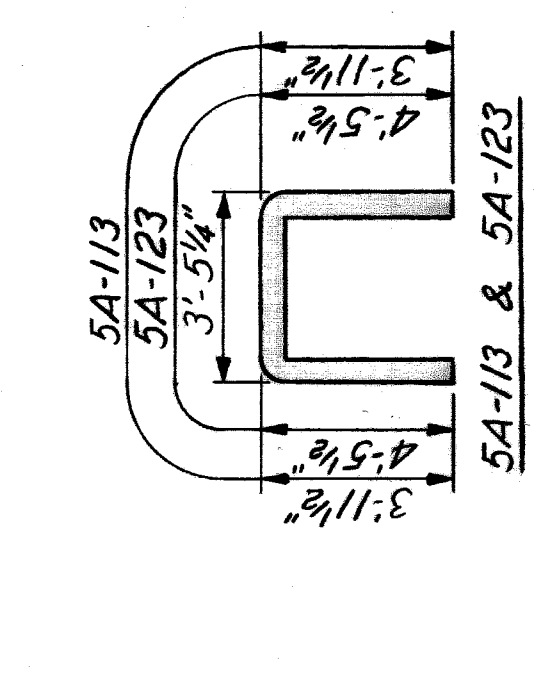
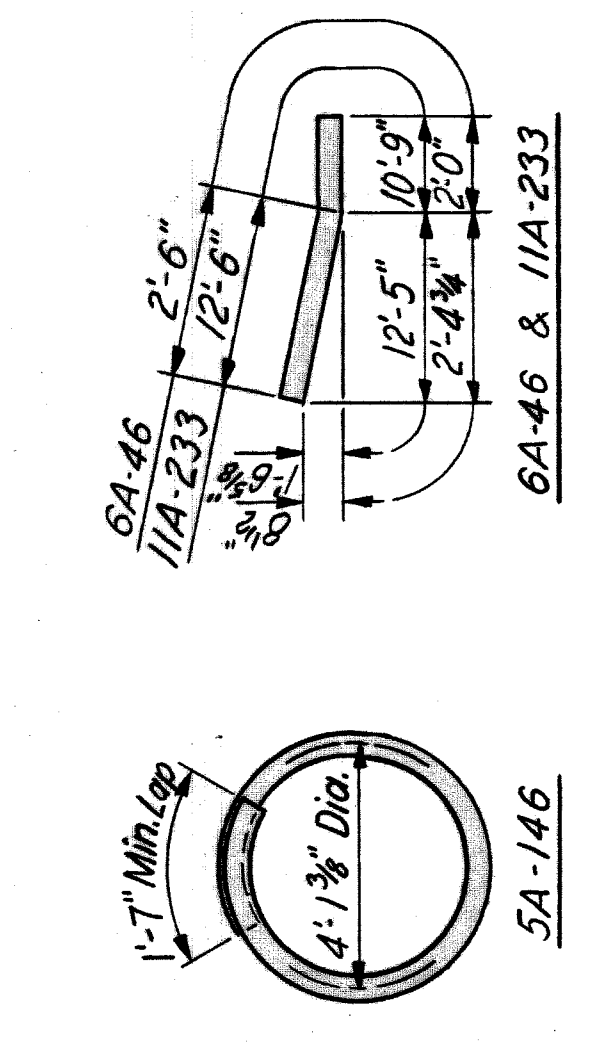
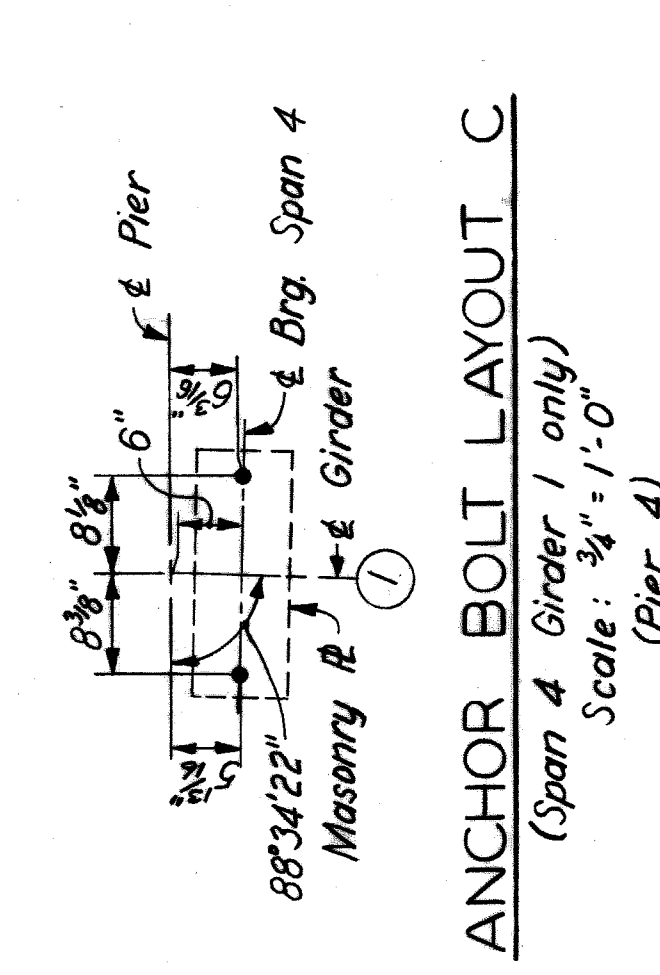
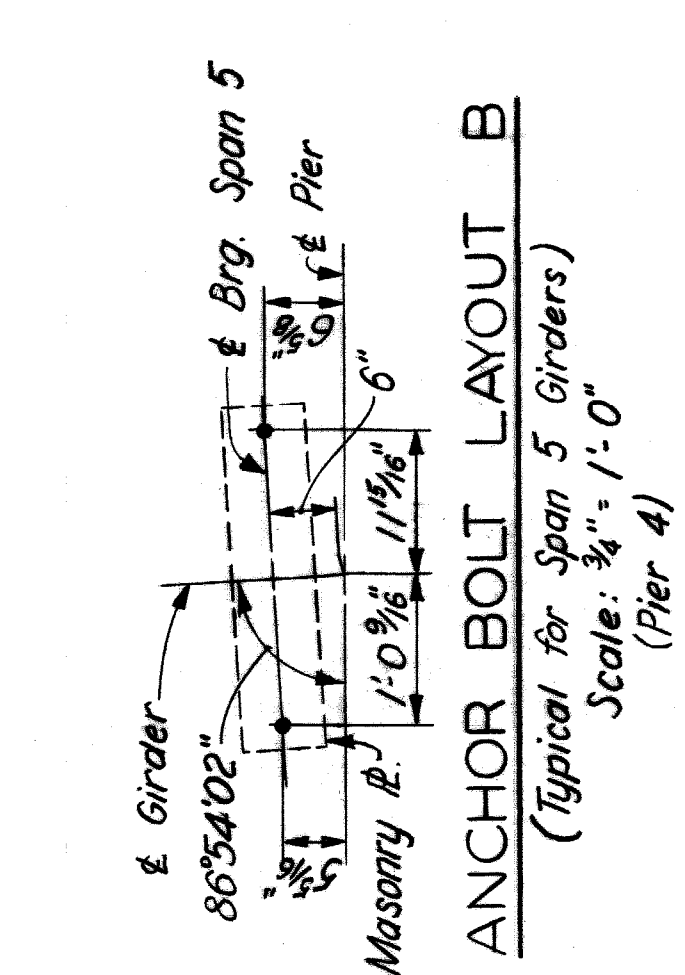
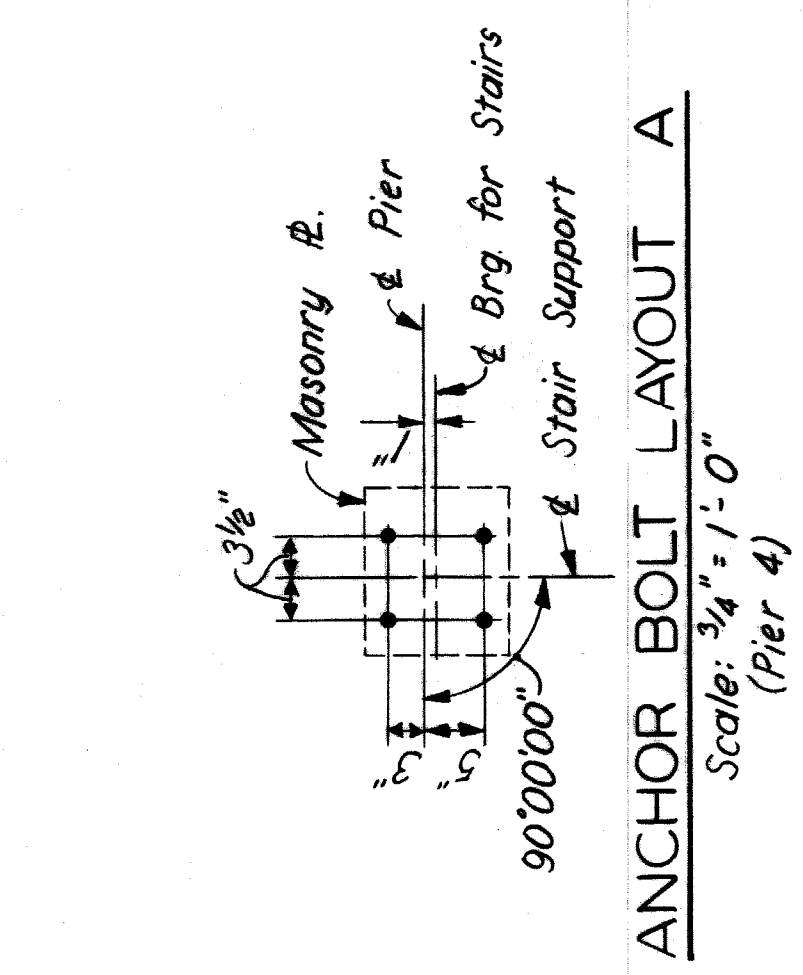
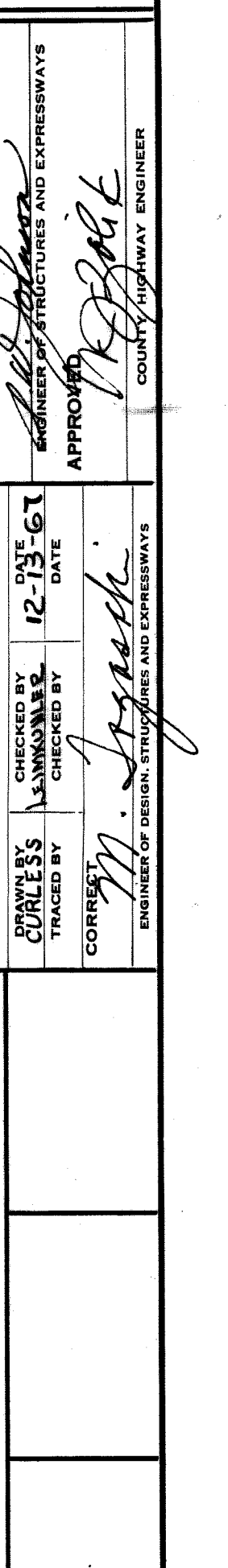
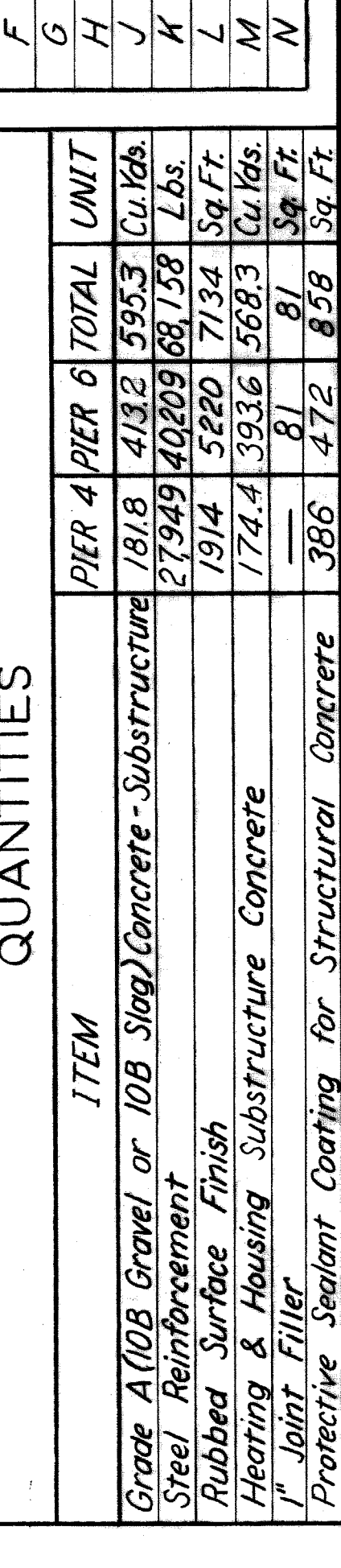
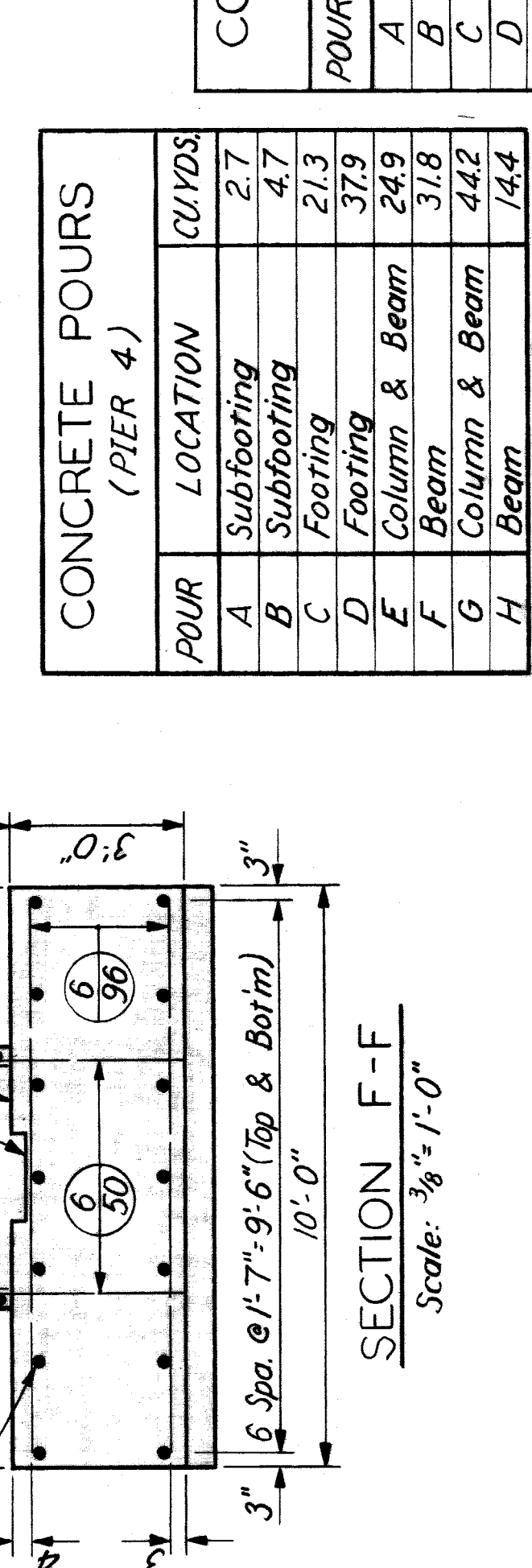
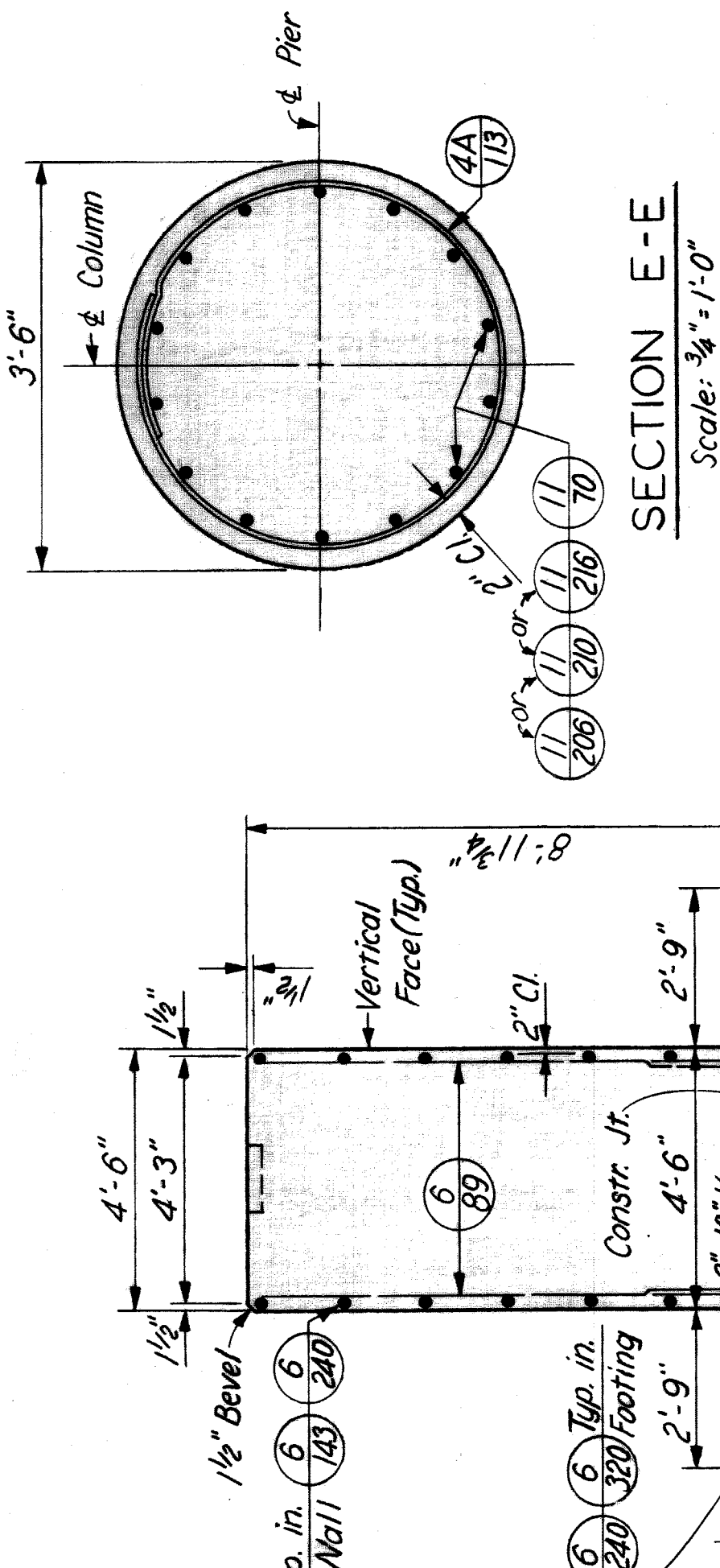
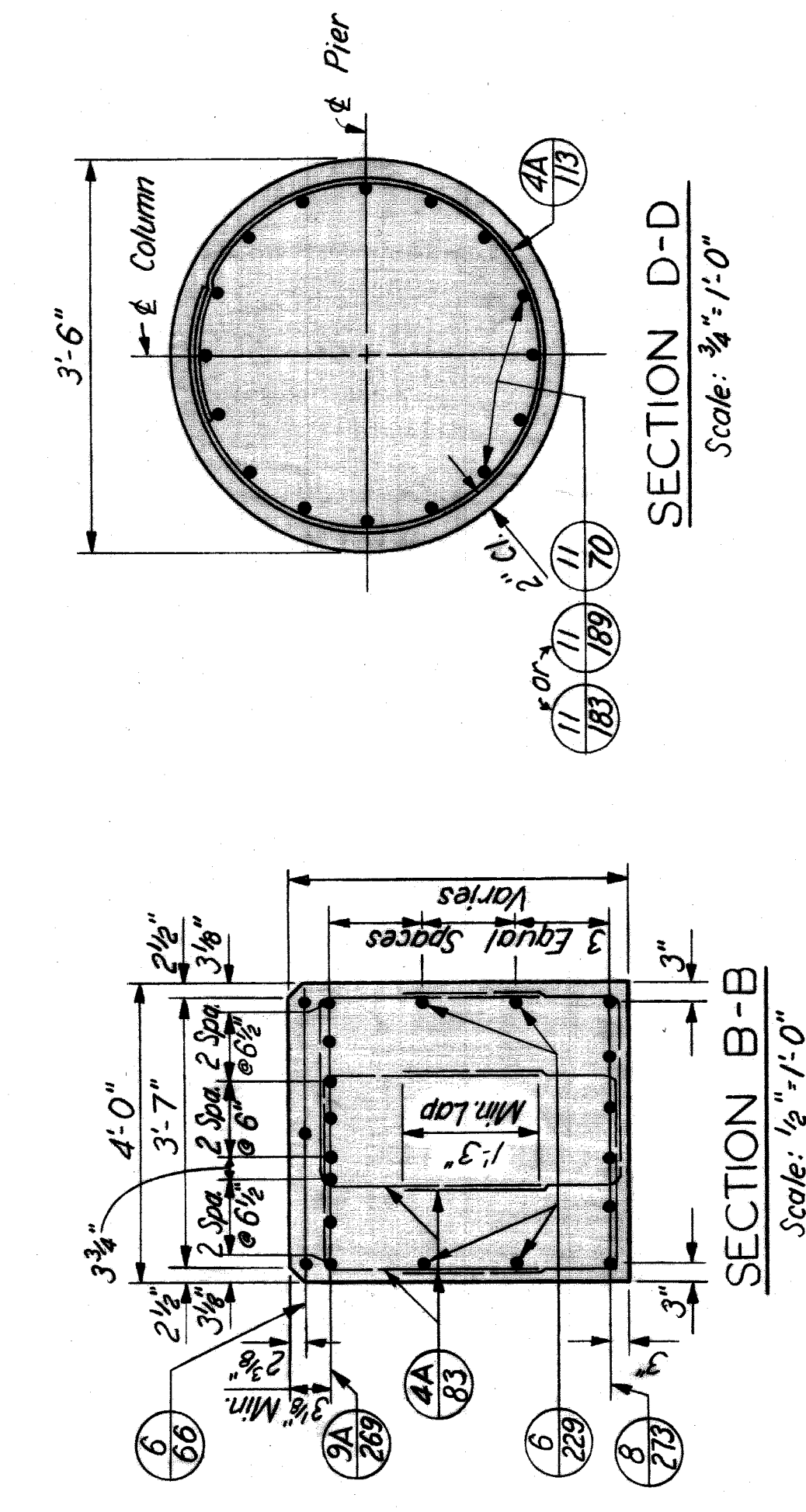
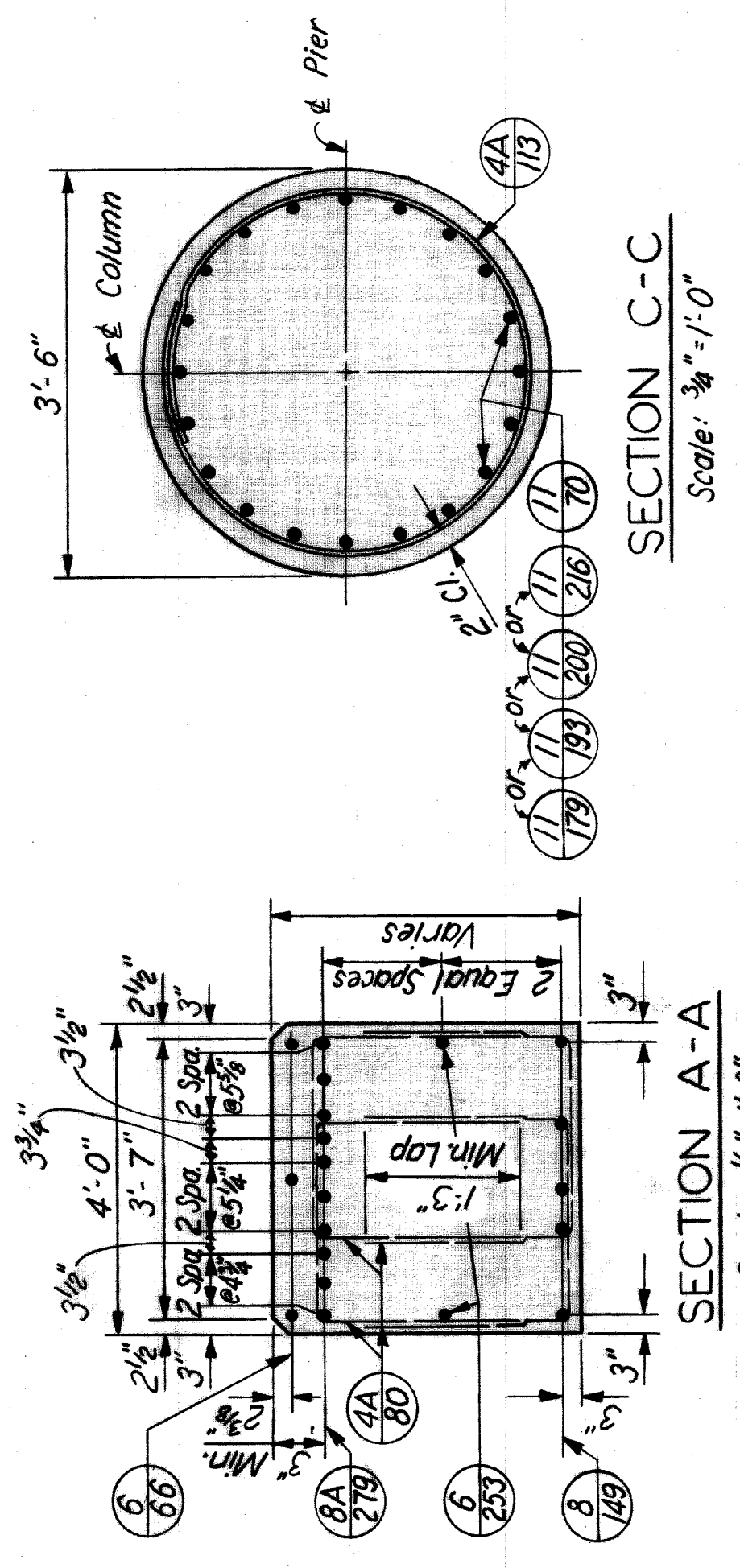
XC107

**BILL OF REINFORCING BARS (PIER 4)**

MARK	SIZE	LENGTH	NUMBER OF BARS	REMARKS
5A-113	#5	11'-3"	32	Bent
5A-123	#5	12'-3"	220	Bent
5A-146	#5	14'-6"	36	Bent
6A-46	#6	4'-6"	6	Bent
6-136	#6	13'-6"	16	Str.
6-239	#6	23'-9"	6	Str.
6-289	#6	28'-9"	6	Str.
7-116	#7	11'-6"	46	Str.
7-156	#7	15'-6"	22	Str.
10-156	#10	15'-6"	48	Str.
11-76	#11	7'-6"	54	Str.
11-116	#11	11'-6"	6	Str.
11-146	#11	14'-6"	6	Str.
11A-179	#11	17'-9"	8	Bent
11-186	#11	18'-6"	11	Str.
11A-209	#11	20'-9"	8	Bent
11A-233	#11	23'-3"	6	Bent
11-240	#11	24'-0"	8	Str.
11-256	#11	25'-6"	6	Str.
11-316	#11	31'-6"	5	Str.
11-400	#11	40'-0"	6	Str.

**BILL OF REINFORCING BARS (PIER 6)**

MARK	SIZE	LENGTH	NUMBER OF BARS	REMARKS
8-149	#8	14'-9"	11	Str.
4A-80	#8	16'-0"	5	Str.
4A-83	#8	17'-3"	8	Str.
8-190	#8	19'-0"	5	Str.
8-203	#8	20'-3"	6	Str.
8-279	#8	27'-3"	6	Str.
8A-286	#8	28'-6"	8	Bent
6-46	#6	4'-6"	3	Str.
6A-49	#6	4'-9"	8	Bent
6-50	#6	5'-0"	158	Str.
6-53	#6	5'-3"	3	Str.
6-60	#6	6'-0"	3	Str.
6-66	#6	6'-6"	6	Str.
6-89	#6	8'-9"	158	Str.
6-96	#6	9'-6"	178	Str.
6-99	#6	9'-9"	3	Str.
6-103	#6	10'-3"	6	Str.
6-143	#6	14'-3"	14	Str.
6-173	#6	17'-3"	4	Str.
6-229	#6	22'-9"	4	Str.
6-240	#6	24'-0"	84	Str.
6-243	#6	24'-3"	2	Str.
6-249	#6	24'-9"	4	Str.
6-253	#6	25'-3"	2	Str.
6-320	#6	32'-0"	28	Str.



REINFORCEMENT DETAILS  
(Pier 6)

**CONCRETE POURS (PIER 6)**

POUR	LOCATION	CU.YDS.
A	Subfooting	19.6
B	Footings	57.4
C	Footings	66.5
D	Wall	33.1
E	Wall	36.2
F	Wall	21.7
G	Wall	32.9
H	Wall	32.8
J	Columns & Beam	23.6
K	Columns & Beam	26.8
L	Columns & Beam	24.9
M	Columns & Beam	17.0
N	Columns & Beam	26.7

**QUANTITIES**

ITEM	PIER 4	PIER 6	TOTAL	UNIT
Grade A 10B Gravel or 10B Slag Concrete - Substructure	1818	4132	5953	Cu.Yds.
Steel Reinforcement	27949	40809	68758	Lbs.
Rubbed Surface Finish	1914	5220	7134	Sq.Ft.
Heating & Housing Substructure Concrete	174.4	393.6	568.0	Cu.Yds.
Joint Filler	81	81	162	Sq.Ft.
Protective Sealant Coating for Structural Concrete	386	472	858	Sq.Ft.

**REVISIONS**

APPROVED: *[Signature]*  
 DATE: 12-13-61  
 CHECKED BY: *[Signature]*  
 TRACED BY: *[Signature]*  
 COUNTY ENGINEER

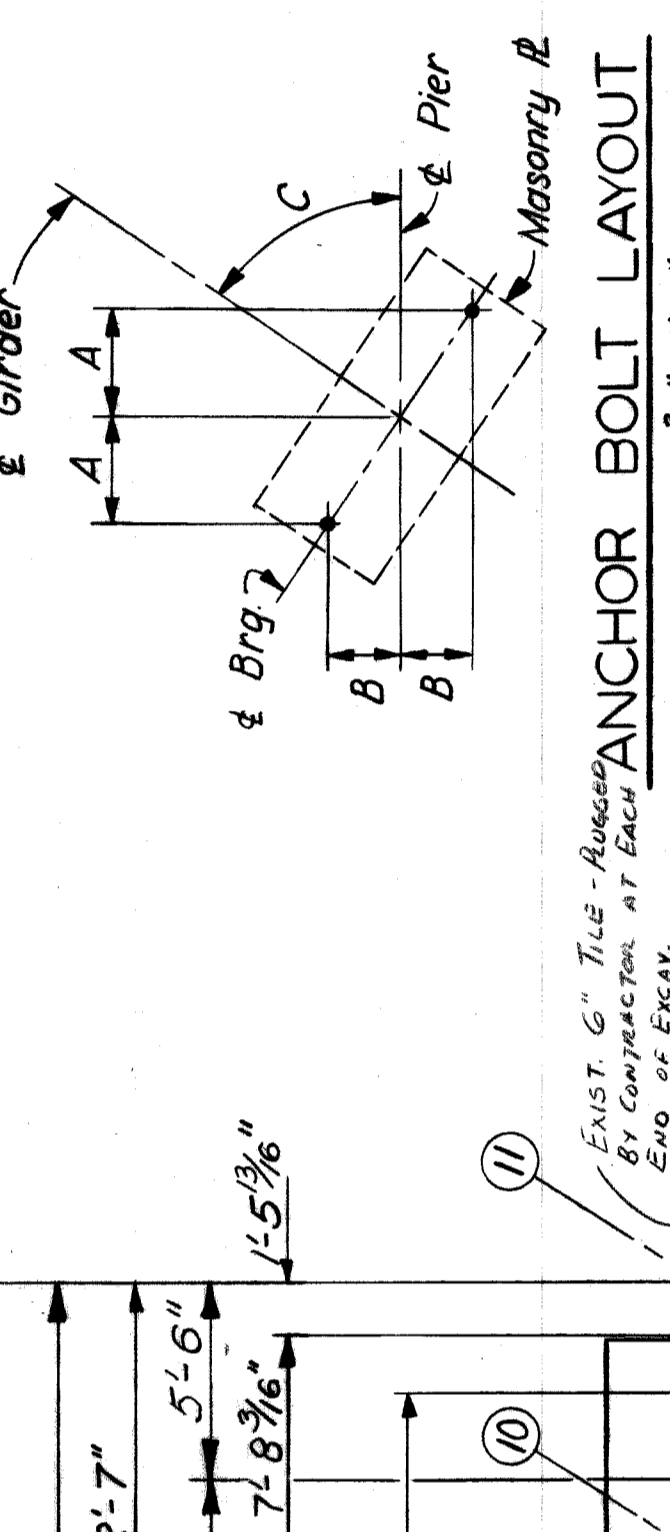
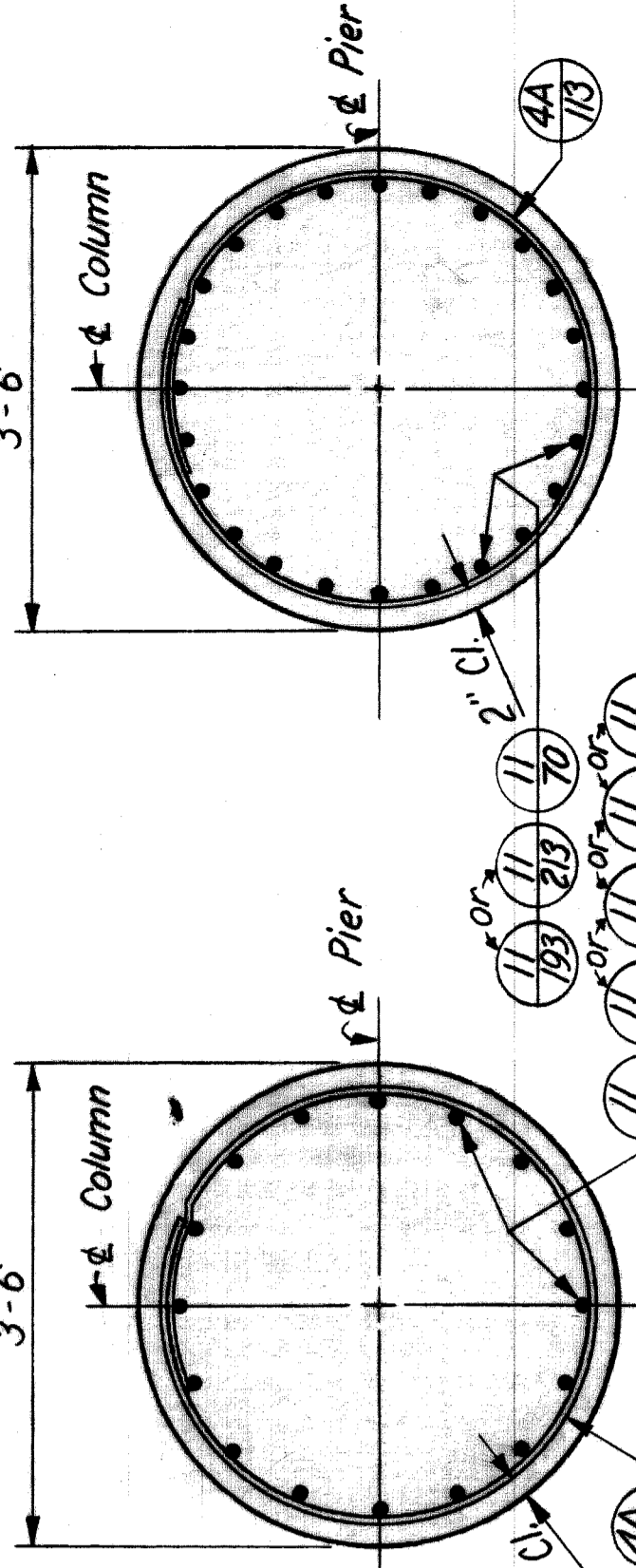
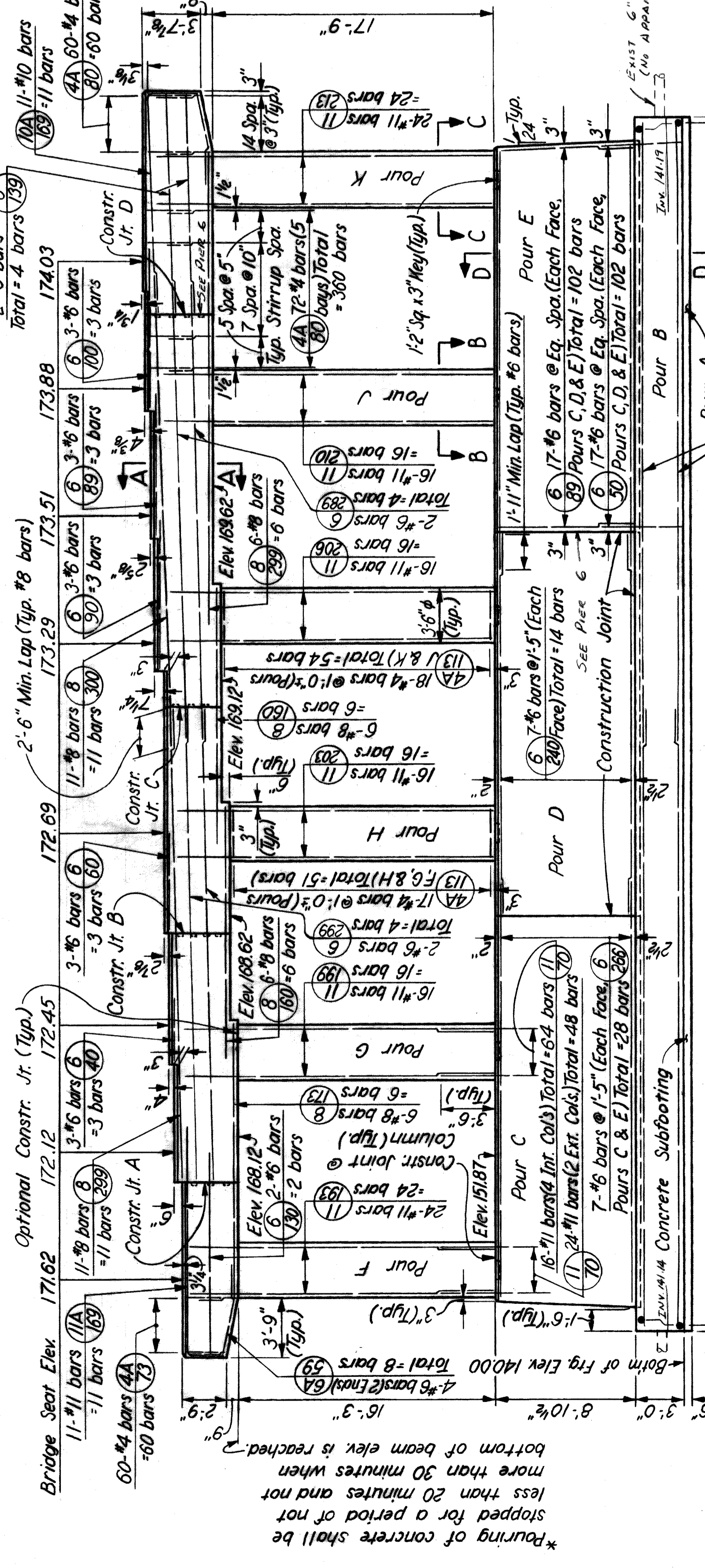
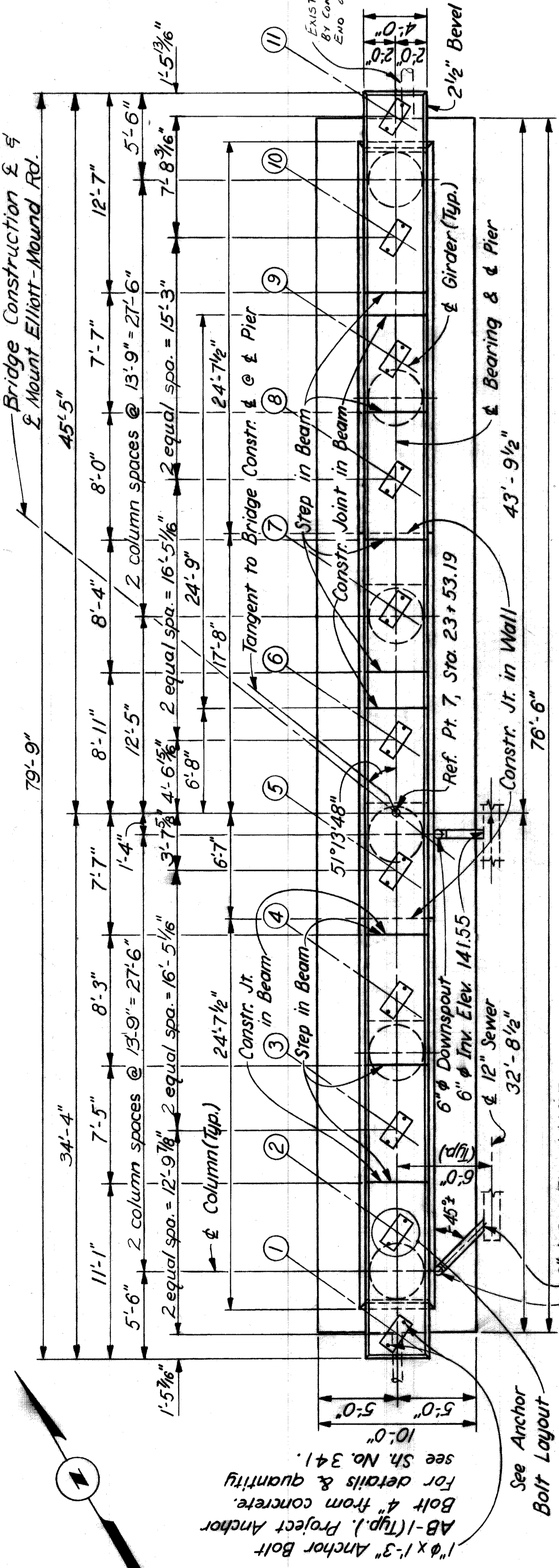
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STATE PROJECT: \_\_\_\_\_  
 COUNTY JOB: 246  
 SHEET NO.: 319  
 ISSUE NO.: \_\_\_\_\_  
 DATE: 5-23-68

HAZELET & ERDAL CONSULTING ENGINEERS  
 MOUNT ELLIOTT-MOUND RD.  
 GRADE SEPARATION  
 PIER 6

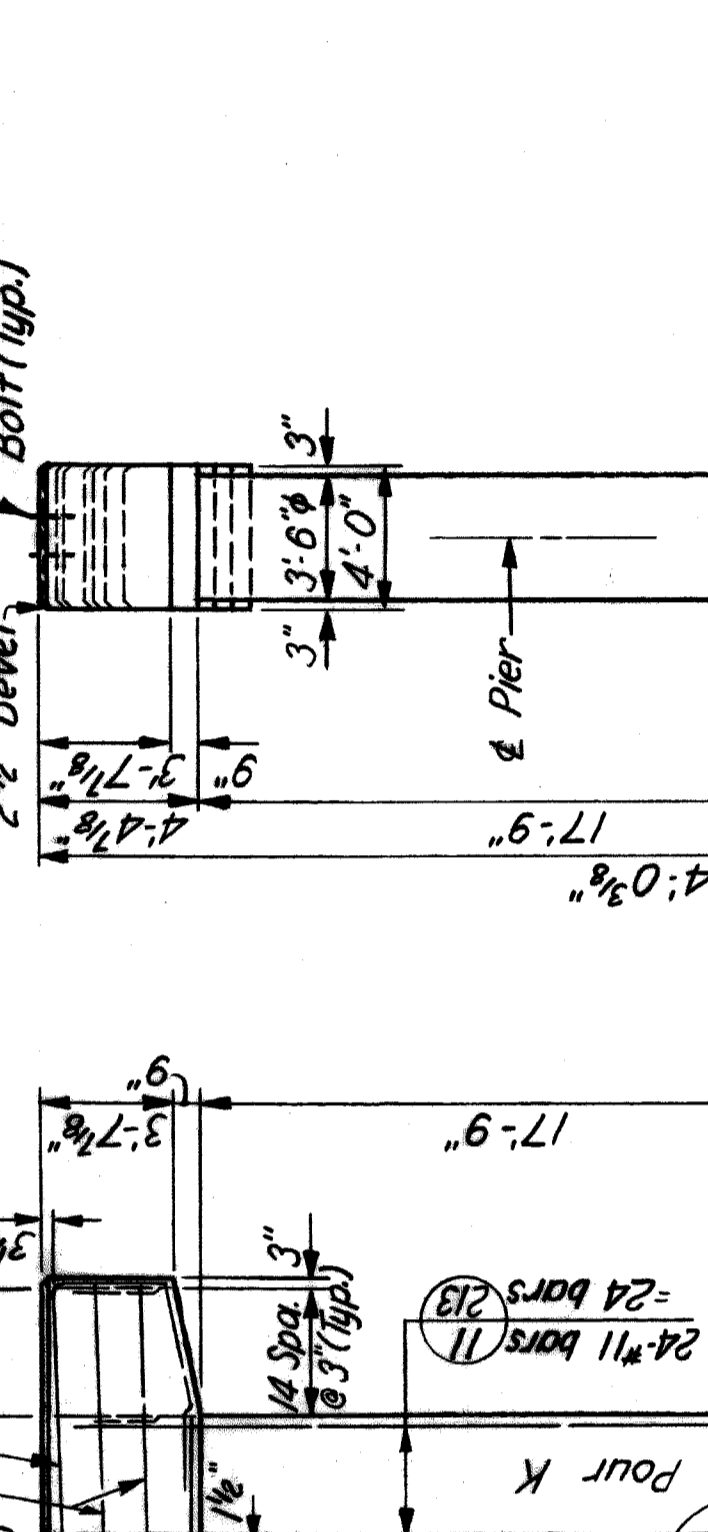
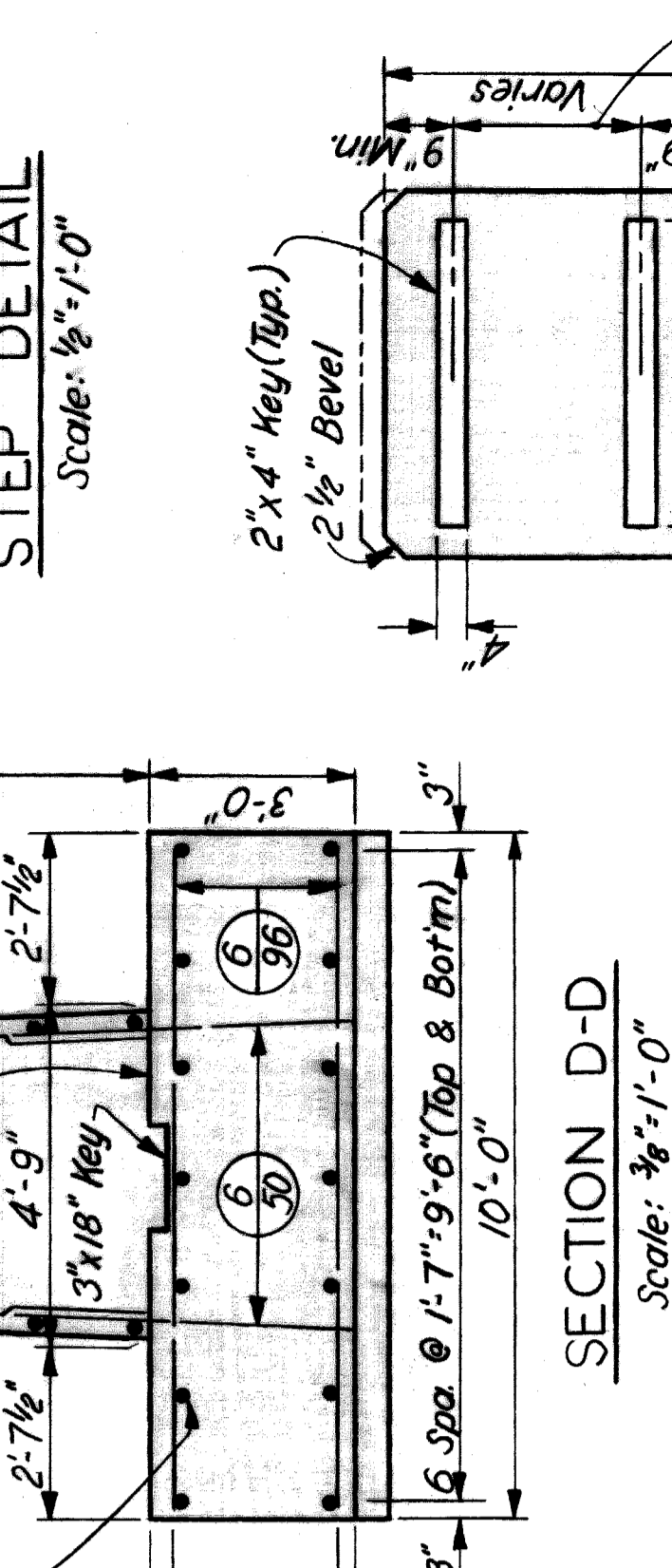
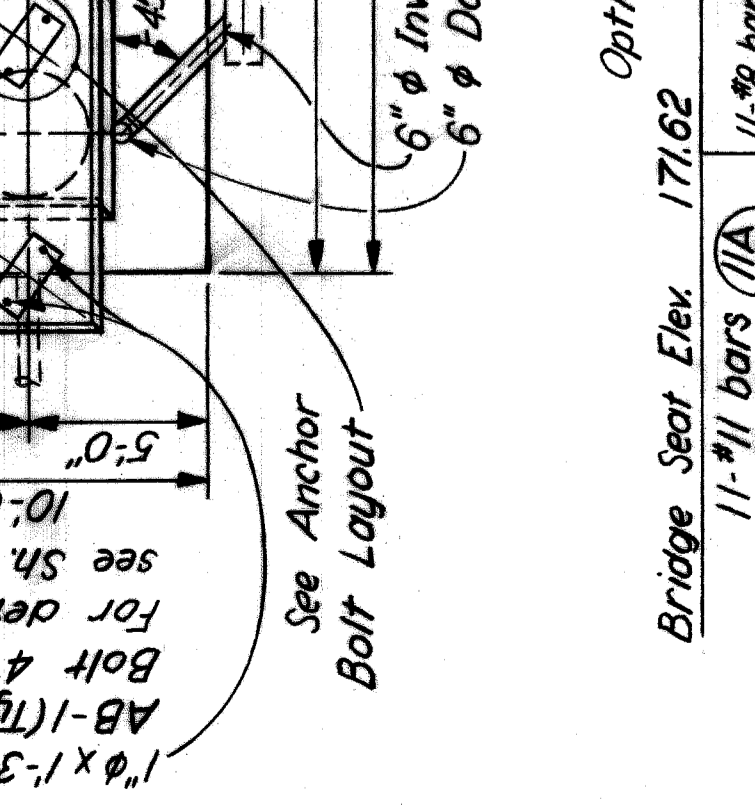
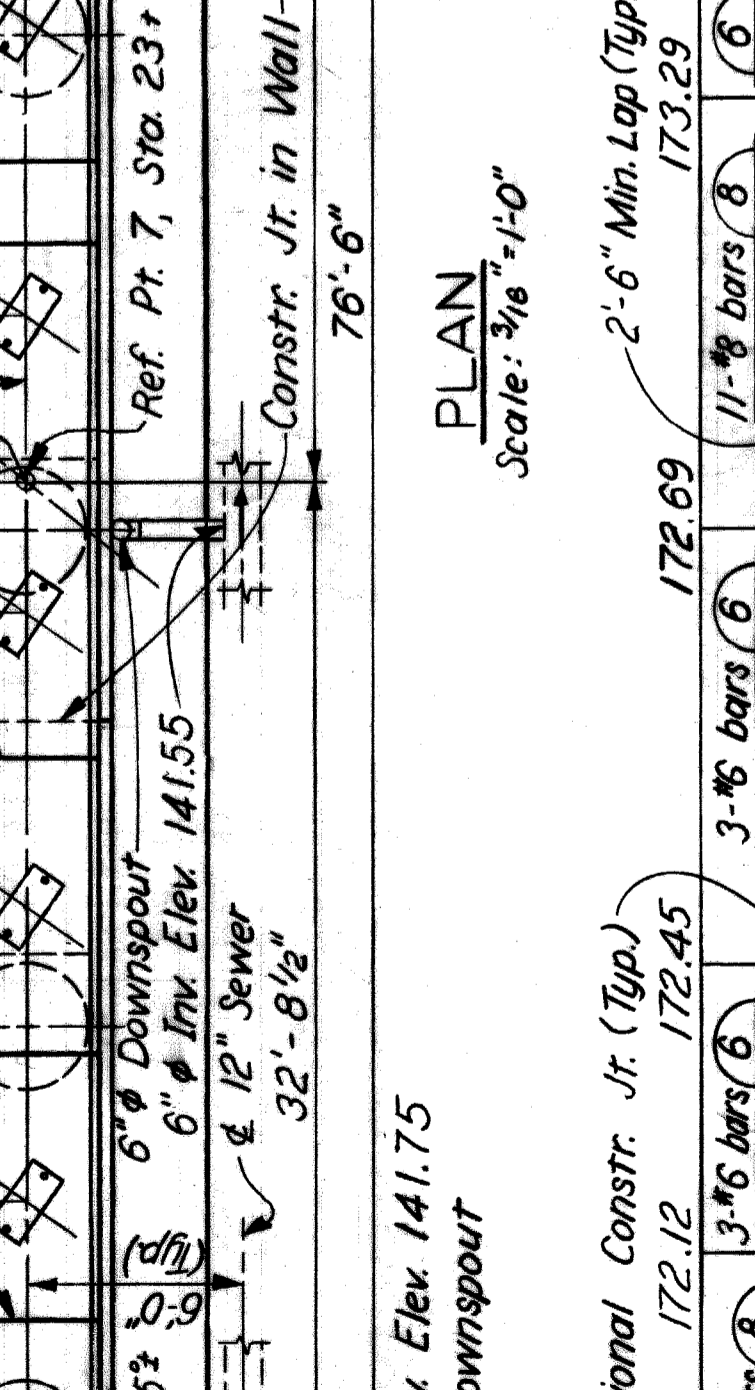
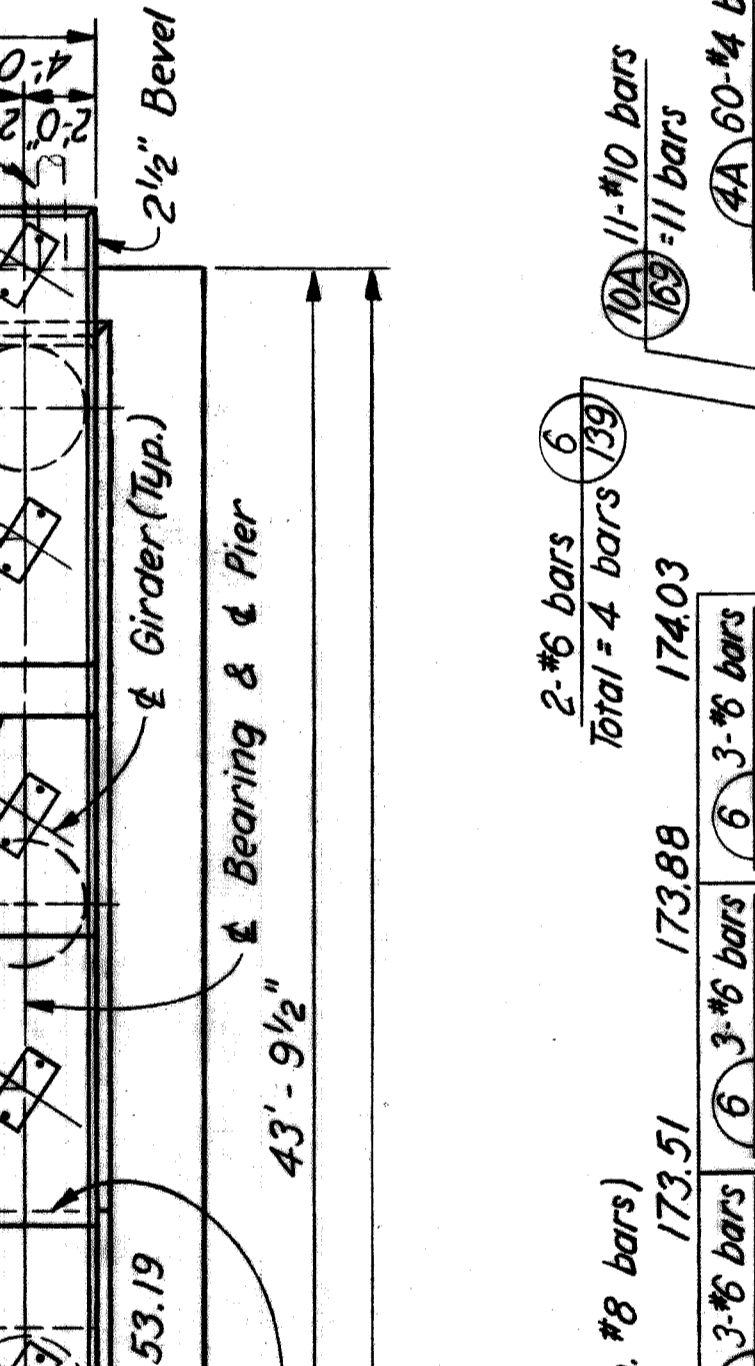
WAYNE COUNTY ROAD COMMISSIONERS  
 DETROIT, MICHIGAN  
 WILLIAM E. KREGER  
 PHILIP J. NEIDICK

H & E FILE NO. 603  
 X0107



ANCHOR BOLT LAYOUT Scale: 3/8"=1'-0"

Girder	A	B	C
1	8 3/4"	6 1/2"	5 1/2" 51"
2	8 3/8"	6 1/4"	5 4 29" 54"
3	8 3/8"	6 3/8"	5 4 47" 04"
4	8 13/16"	6 1/8"	5 5 07" 07"
5	8 7/8"	6 1/8"	5 5 27" 20"
6	8 7/8"	6 1/8"	5 5 47" 42"
7	8 13/16"	6"	5 6 08" 15"
8	8 13/16"	5 15/16"	5 6 28" 57"
9	9 1/16"	5 11/16"	5 7 25" 09"
10	9 1/16"	5 3/4"	5 7 28" 53"
11			



BILL OF REINFORCING BARS Scale: 3/8"=1'-0"

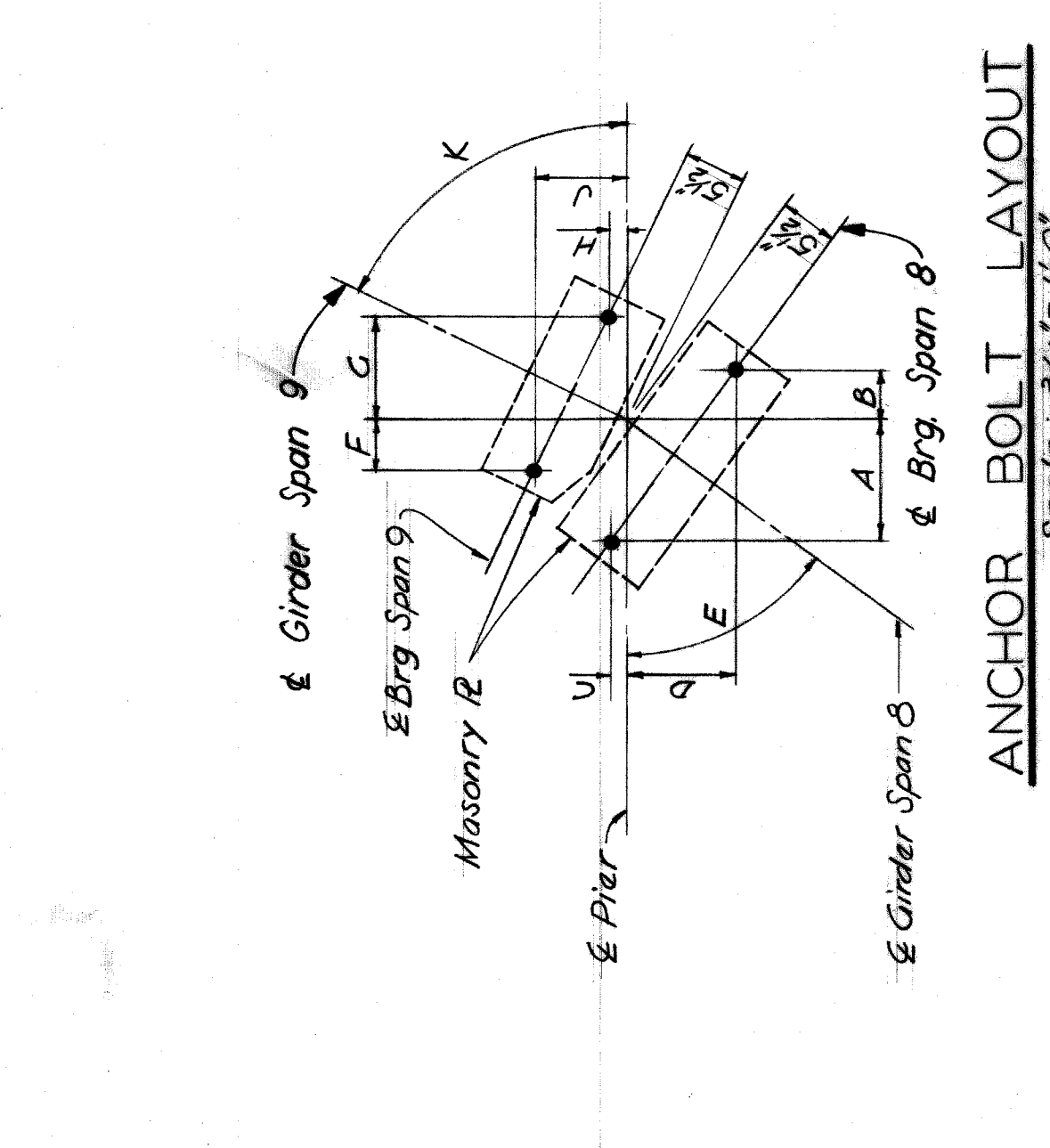
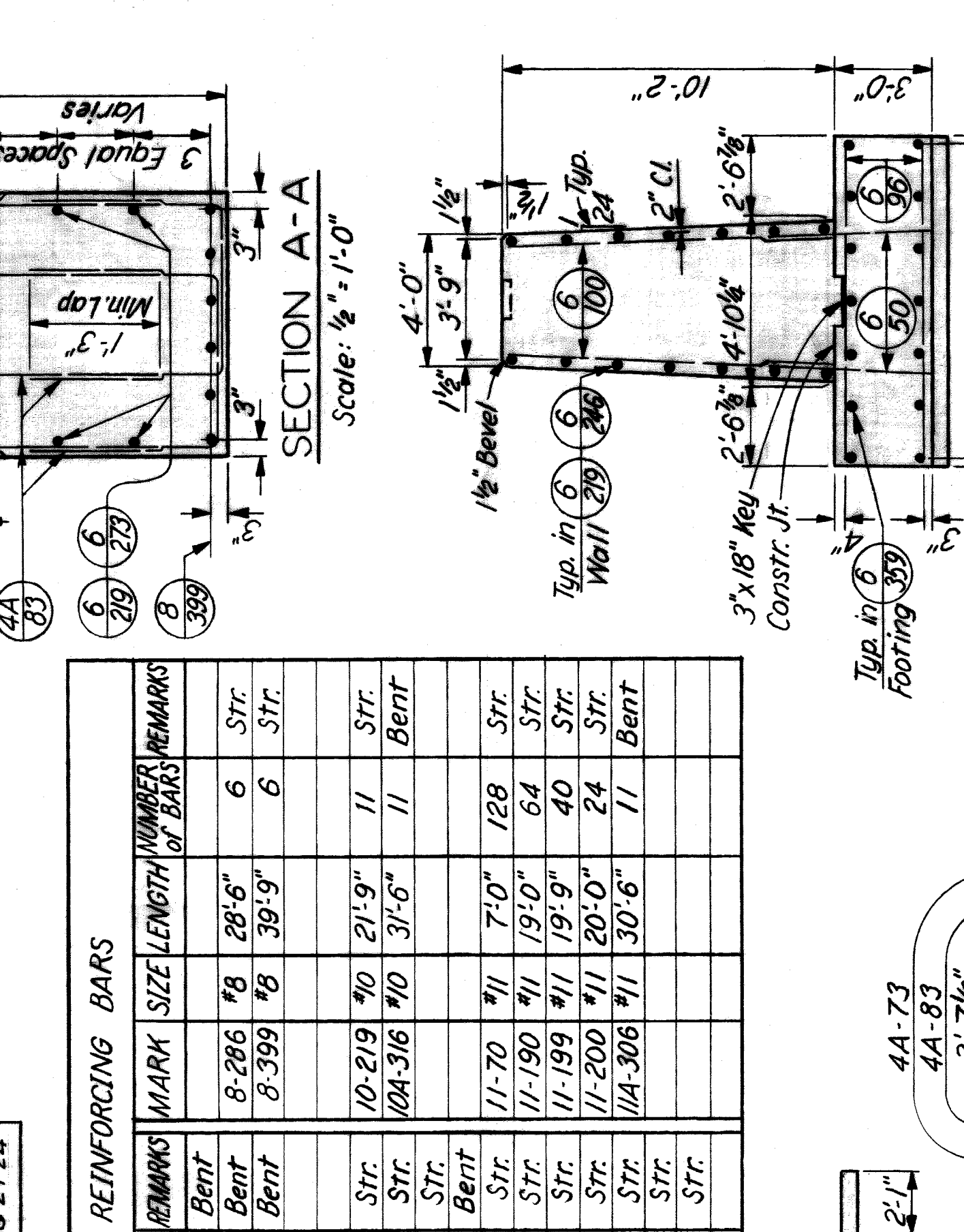
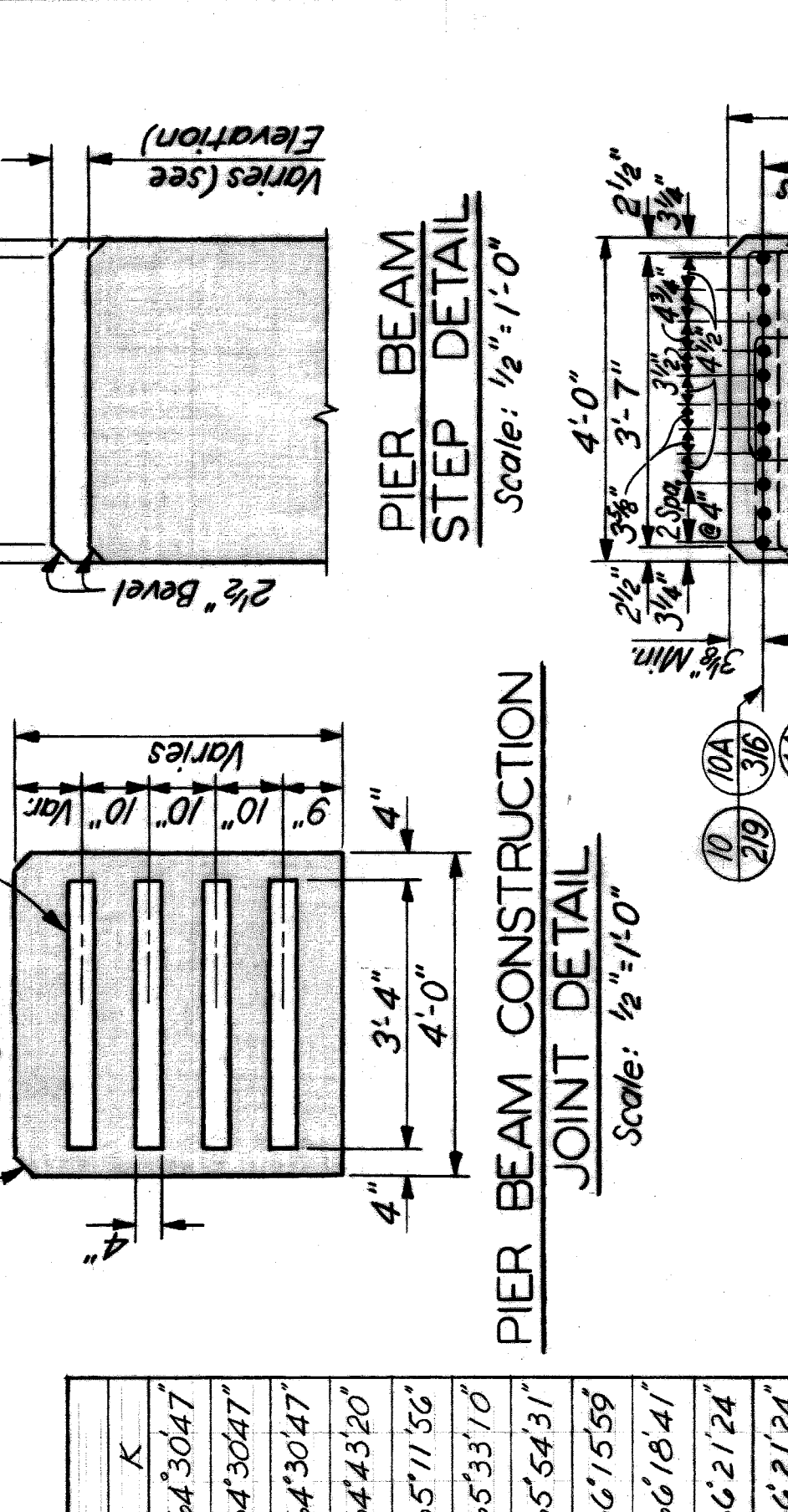
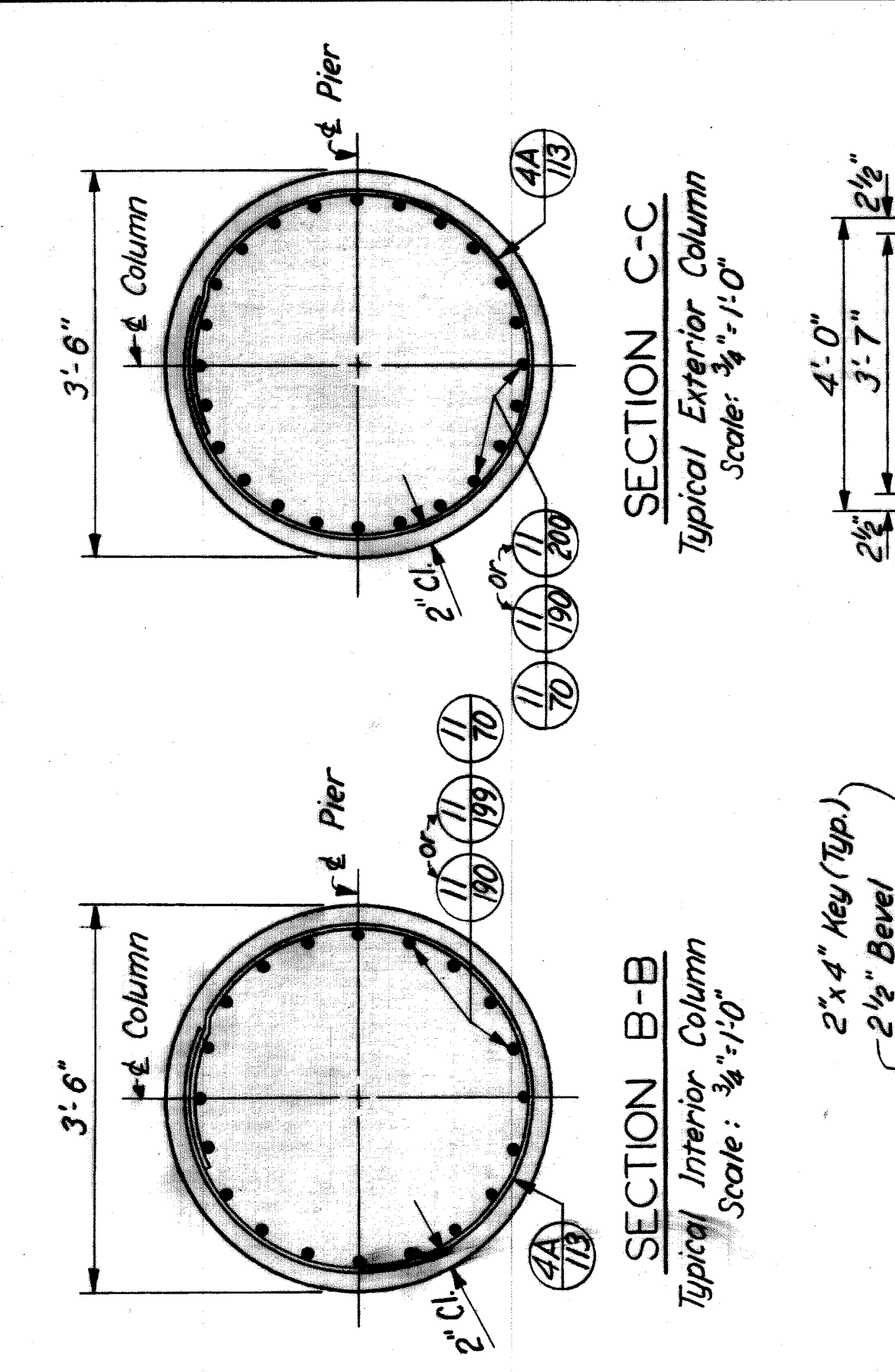
MARK	SIZE	LENGTH	NUMBER OF BARS	REMARKS	MARK	SIZE	LENGTH	NUMBER OF BARS	REMARKS
4A-73	#4	7'-3"	60	Bent	10A-169	#10	16'-9"	11	Bent
4A-80	#4	8'-0"	420	Str.	11-70	#11	7'-0"	112	Str.
4A-113	#4	11'-3"	105	Bent	11A-169	#11	16'-9"	11	Bent
					11-199	#11	19'-3"	24	Str.
6-40	#6	4'-0"	3	Str.	11-203	#11	20'-3"	16	Str.
6-50	#6	5'-0"	102	Str.	11-206	#11	20'-6"	16	Str.
6A-59	#6	5'-9"	8	Bent	11-210	#11	21'-0"	16	Str.
6-60	#6	6'-0"	3	Str.	11-213	#11	21'-3"	24	Str.
6-69	#6	6'-9"	105	Str.					
6-89	#6	8'-9"	3	Str.					
6-90	#6	9'-0"	3	Str.					
6-96	#6	9'-6"	128	Str.					
6-100	#6	10'-0"	3	Str.					
6-130	#6	13'-0"	2	Str.					

QUANTITIES

ITEM	TOTAL	UNIT
Grade A (10B Gravel or 10B 5/8) Concrete Substructure	2871	Cu. Yds.
Steel Reinforcement	32 278	Lbs.
Rubbed Surface Finish	3258	Sq. Ft.
Heating & Housing Substructure Concrete	272.9	Cu. Yds.

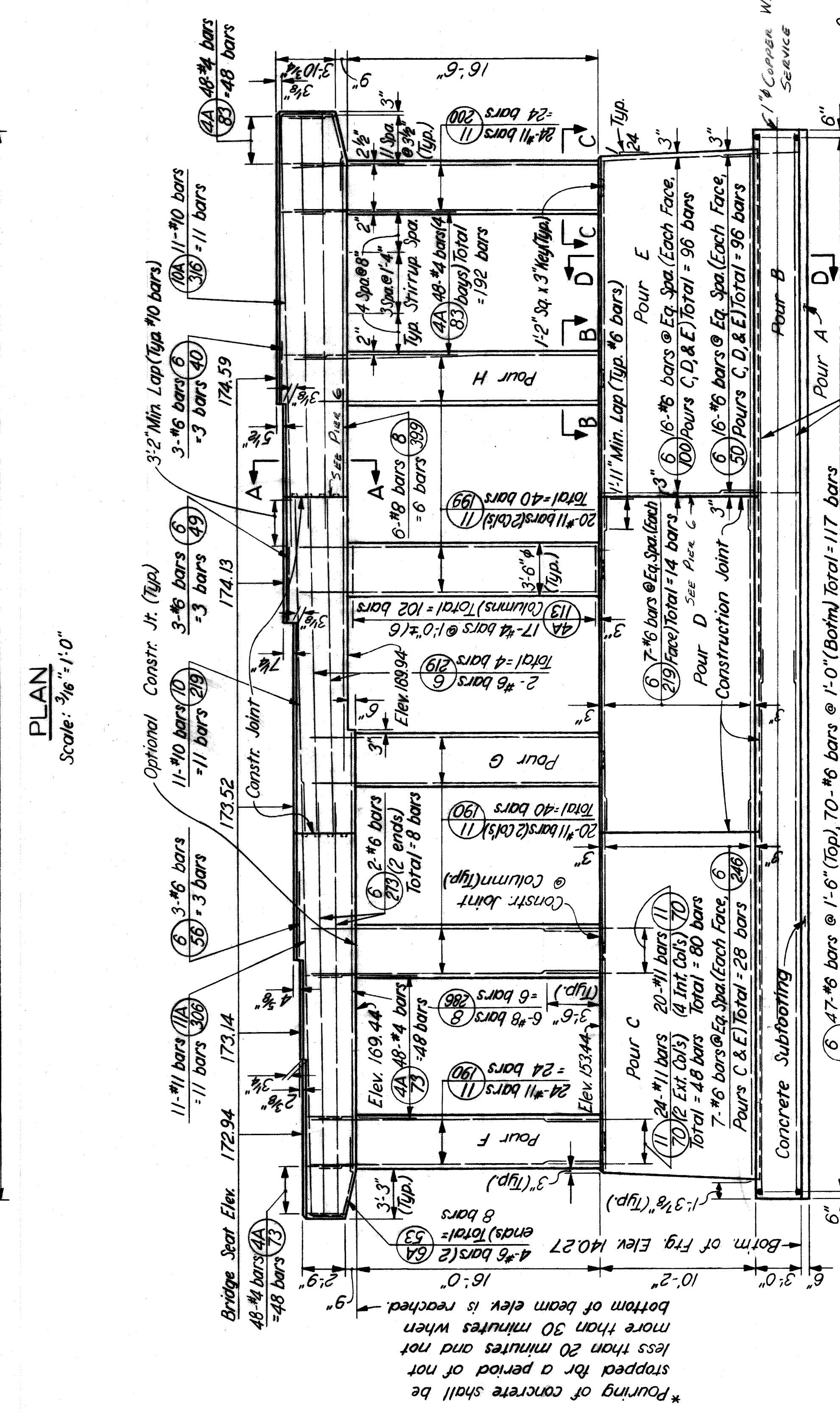
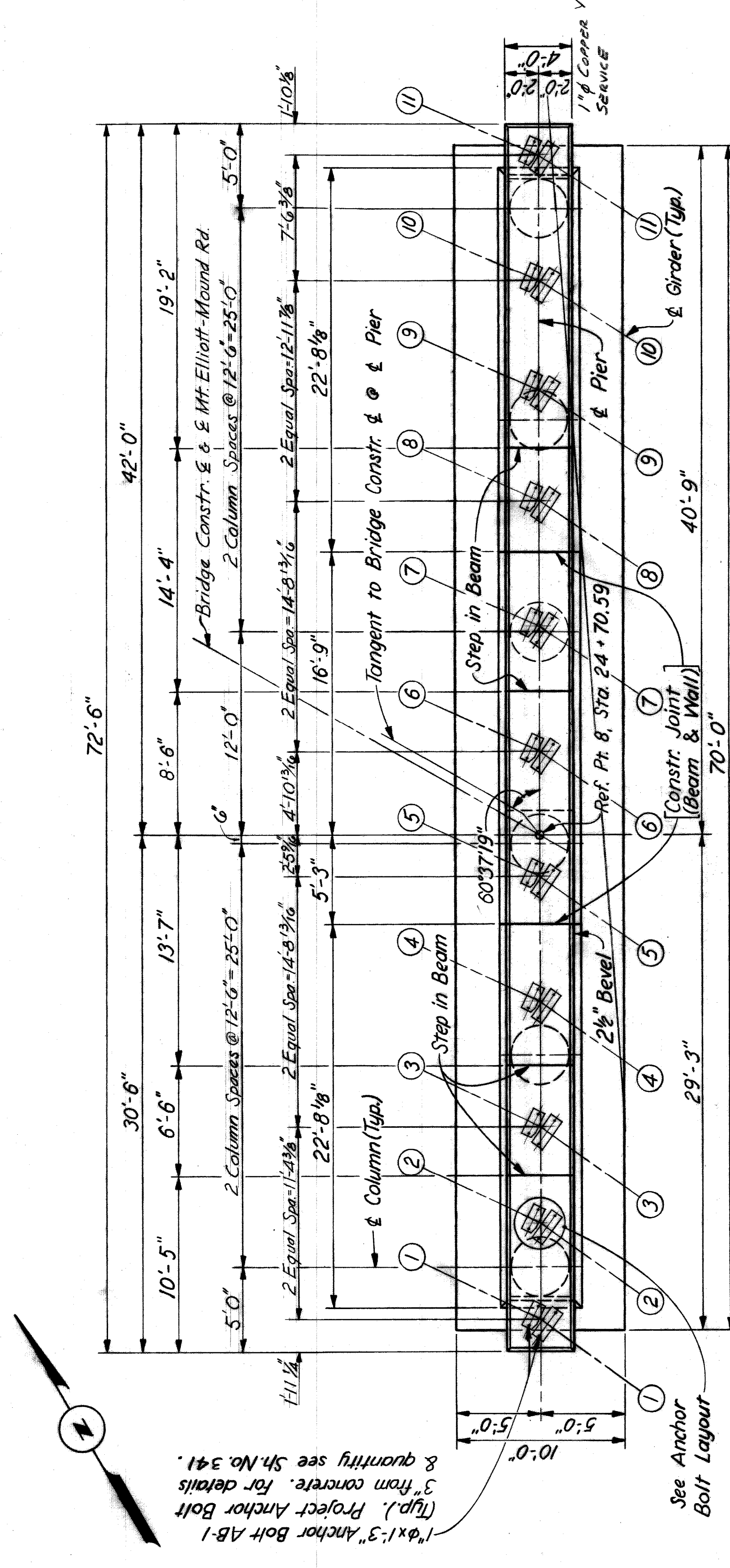
CONCRETE POURS

POUR	LOCATION	CUYDS
A	Subfooting	14.2
B	Footings	84.9
C	Wall	35.2
D	Wall	34.9
E	Wall	35.2
F	Column & Beam	17.3
G	Column & Beam	15.0
H	Column & Beam	14.1
J	Column & Beam	27.1
K	Column & Beam	15.2



Girder	SPAN										
	A	B	C	D	E	F	G	H	I	J	K
1	11'-8"	4'-1/2"	1'-1/4"	10'-3/8"	5'-1/8"	5'-1/8"	1'-1/4"	7'-3/8"	96"	96"	64'-30/47"
2	11'-8"	4'-3/4"	1'-3/8"	10'-1/8"	5'-1/8"	5'-1/8"	1'-1/8"	7'-3/8"	96"	96"	64'-30/47"
3	11'-8"	4'-1/8"	1'-1/8"	10'-1/8"	5'-1/8"	5'-1/8"	1'-1/8"	7'-3/8"	96"	96"	64'-30/47"
4	11'-8"	4'-7/8"	1'-10/16"	10'-10/16"	5'-1/8"	5'-1/8"	1'-1/16"	7'-3/8"	96"	96"	64'-30/47"
5	11'-8"	4'-5/8"	1"	10'-1/4"	5'-3/8"	5'-3/8"	1'-1/2"	7'-3/8"	96"	96"	65'-11/56"
6	11'-8"	5"	1'-5/8"	10'-5/8"	5'-1/4"	5'-1/4"	1'-1/8"	7'-3/8"	96"	96"	65'-33/70"
7	11'-8"	5'-1/8"	1'-7/8"	10'-7/8"	5'-3/4"	5'-3/4"	1'-1/8"	7'-3/8"	96"	96"	65'-54/31"
8	11'-8"	5'-1/8"	1'-3/4"	10'-9/8"	5'-3/4"	5'-3/4"	1'-1/8"	7'-3/8"	96"	96"	66'-15/59"
9	11'-8"	5'-3/8"	1'-1/4"	10'-9/8"	5'-3/8"	5'-3/8"	1'-3/4"	7'-3/8"	96"	96"	66'-18/41"
10	11'-8"	5'-1/4"	1'-5/8"	10'-9/8"	5'-3/8"	5'-3/8"	1'-3/4"	7'-3/8"	96"	96"	66'-21/24"
11	11'-8"	5'-1/4"	1'-5/8"	10'-9/8"	5'-3/8"	5'-3/8"	1'-3/4"	7'-3/8"	96"	96"	66'-21/24"

MARK	SIZE	LENGTH	NUMBER OF BARS	REMARKS
4A-73	#4	7'-3"	96	Bent
4A-83	#4	8'-3"	240	Bent
4A-113	#4	11'-3"	102	Bent
6-40	#6	4'-0"	3	Str.
6-49	#6	4'-9"	3	Str.
6-50	#6	5'-0"	96	Str.
6A-53	#6	5'-3"	8	Bent
6-56	#6	5'-6"	3	Str.
6-96	#6	9'-6"	117	Str.
6-100	#6	10'-0"	96	Str.
6-219	#6	21'-9"	18	Str.
6-246	#6	24'-6"	28	Str.
6-273	#6	27'-3"	28	Str.
6-359	#6	35'-9"	28	Str.



**CONCRETE POURS**

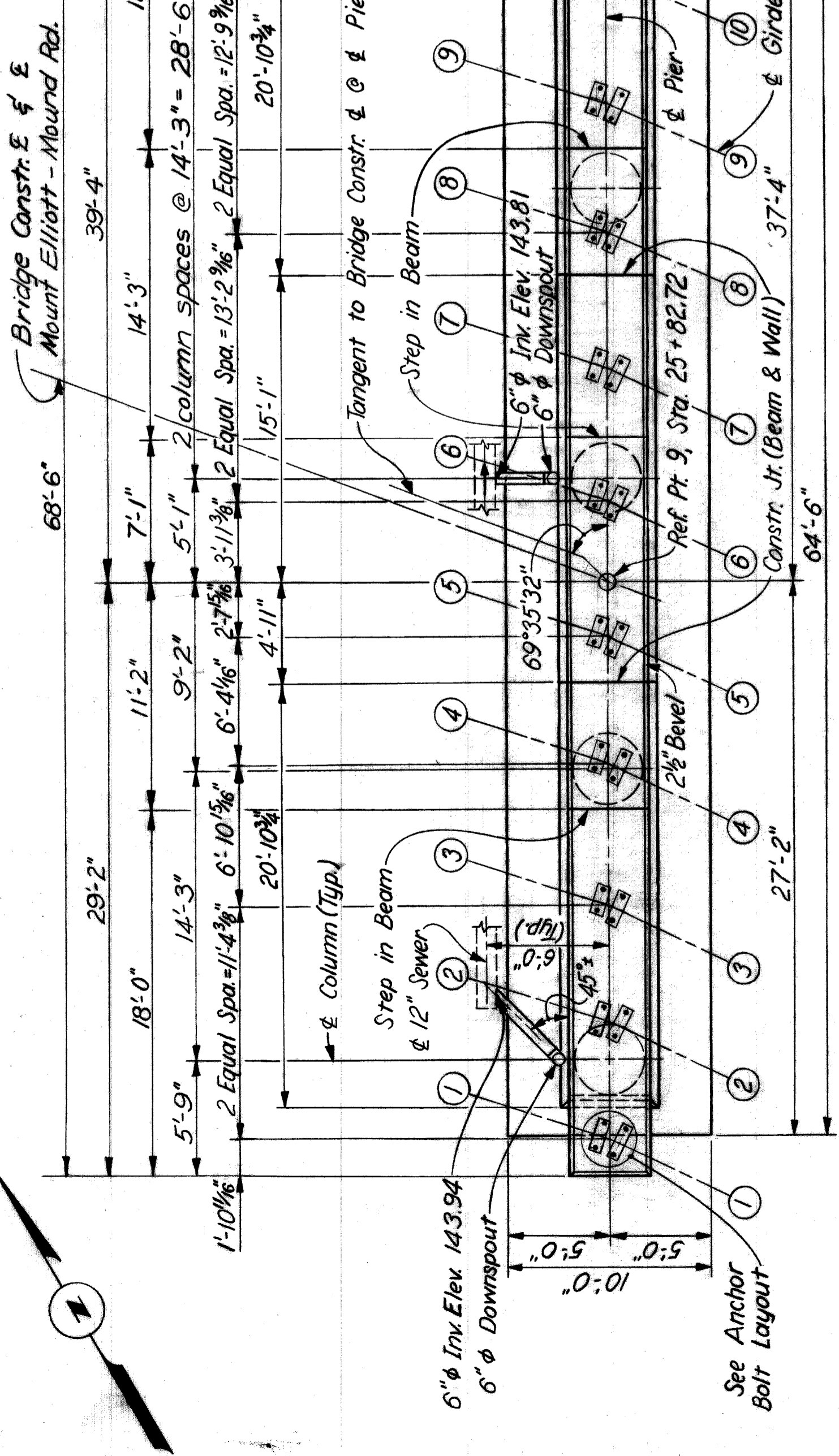
POUR	LOCATION	CU.YDS.
A	Subfooting	13.0
B	Footing	7.8
C	Wall	37.5
D	Wall	36.7
E	Wall	37.5
F	Columns & Beam	252
G	Columns & Beam	24.5
H	Columns & Beam	28.5

**QUANTITIES**

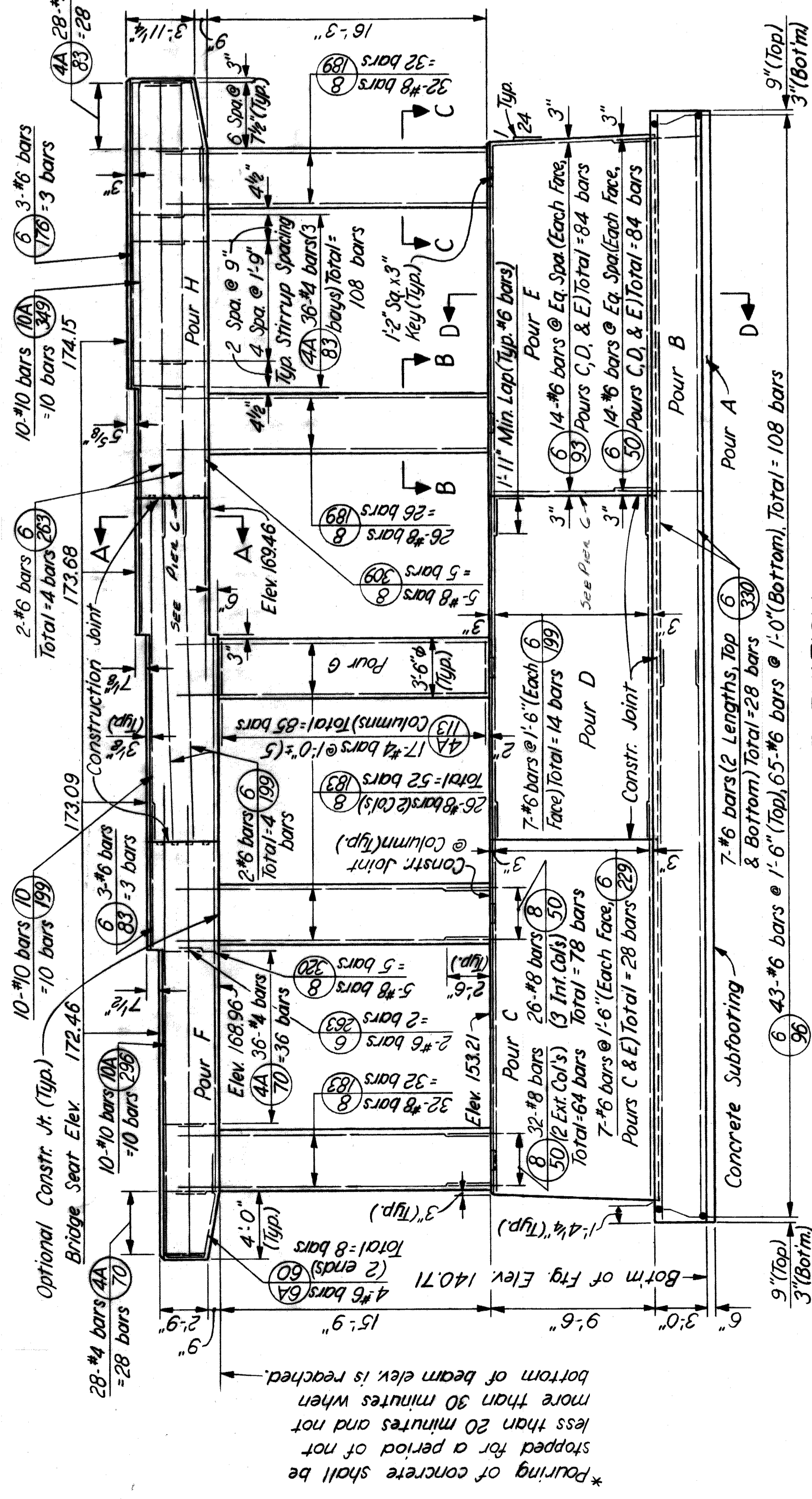
ITEM	TOTAL UNIT
Grade A (10B Gravel or 10B Slag) Concrete-Substructure	280.7 Cu.Yds.
Steel Reinforcement	33,327 Lbs.
Rubbed Surface Finish	34.01 Sq. Ft.
Heating & Housing Substructure Concrete	267.7 Cu.Yds.
Protective Sealant Coating for Structural Concrete	31.0 Sq. Ft.

**ELEVATION** Scale: 3/16"=1'-0"  
 \*To apply if beam & column are poured together.

**NOTES:**  
 For General Notes on Reinforced Concrete see Sh. No. 308.  
 See Typical Column Section Sh. No. 314 for lapping of column bars to dowel bars.



**PLAN**  
Scale: 3/16" = 1'-0"



**ELEVATION**  
Scale: 3/16" = 1'-0"

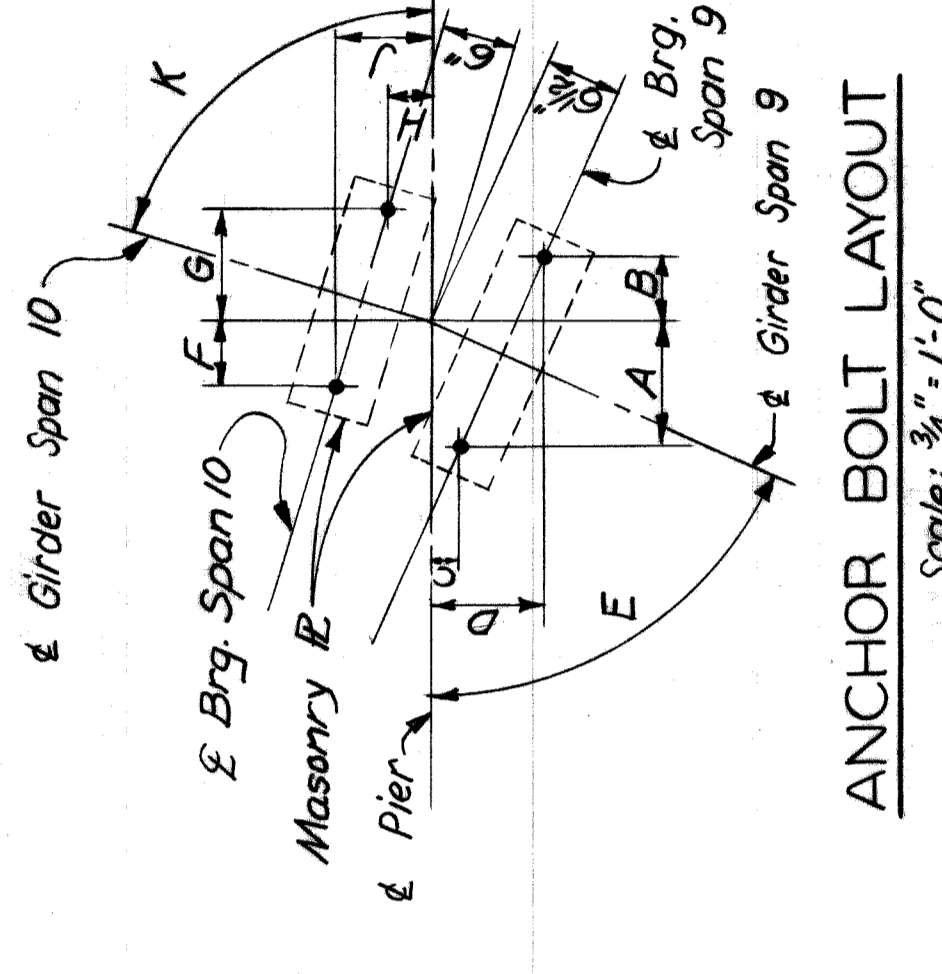
POUR	LOCATION	CU/YDS
A	Subfooting	119
B	Footing	71.7
C	Wall	32.0
D	Wall	30.9
F	Wall	32.0
F	Columns & Beam	24.1
G	Columns & Beam	17.9
H	Columns & Beam	27.7

\* To apply if beam & column are poured together.

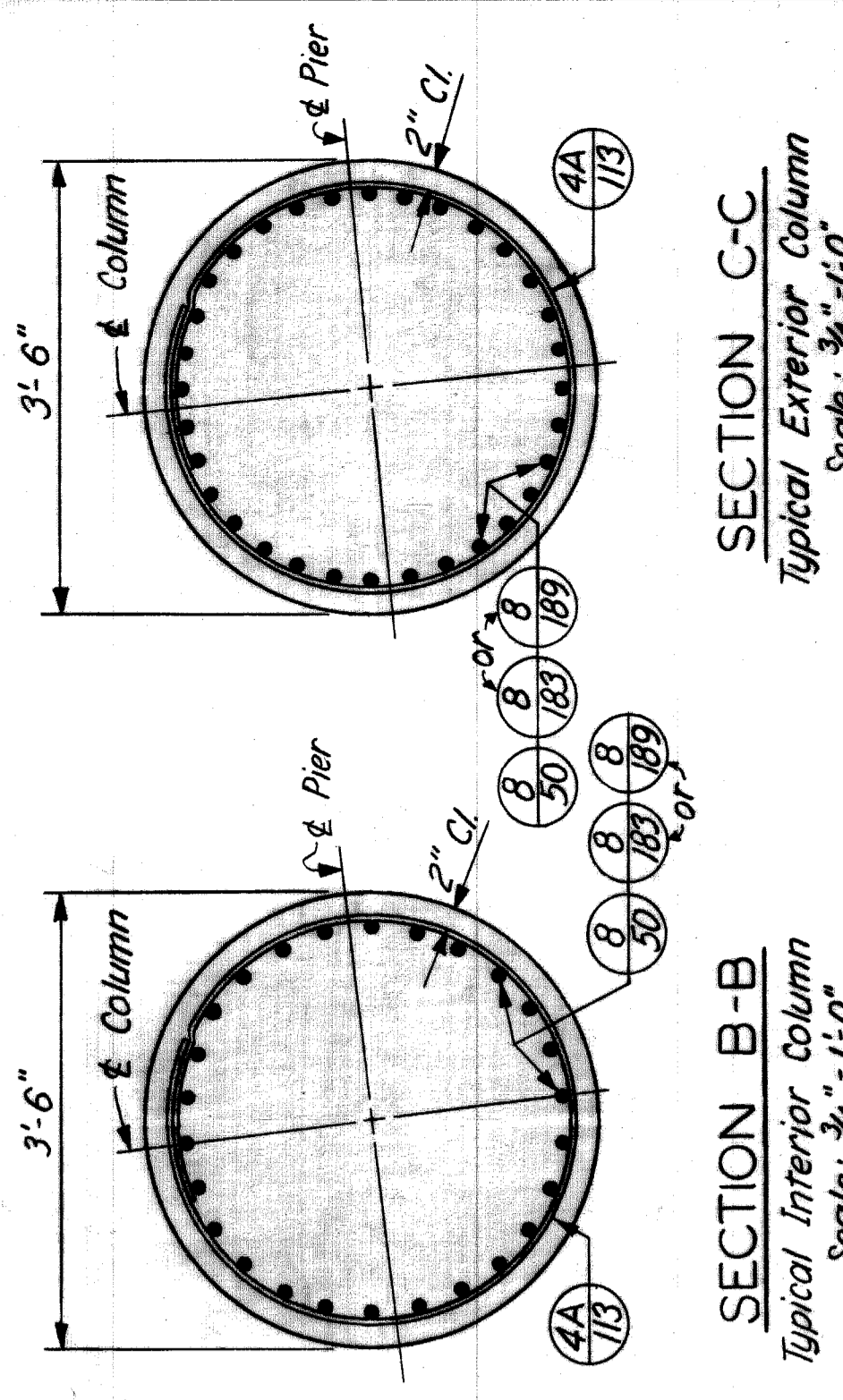
ITEM	TOTAL	UNIT
Grade A (108 Gravel or 108 slag) Concrete-Substructure	2482	Cu.Yds.
Steel Reinforcement	21,675	Lbs.
Heating & Surface Finish	2908	Sq. Ft.
Protective Sealant Coating for Structural Concrete	2363	Cu.Yds.
	293	Sq. Ft.

MARK	SIZE	LENGTH	NUMBER OF BARS	REMARKS	NUMBER OF BARS
4A-70	#4	7'-0"	64	Bent	142
4A-83	#4	8'-3"	136	Bent	84
4A-113	#4	11'-3"	85	Bent	58
6-50	#6	5'-0"	84	Str.	5
6A-60	#6	6'-0"	8	Bent	5
6-83	#6	8'-3"	3	Str.	10
6-93	#6	9'-3"	84	Str.	10
6-96	#6	9'-6"	108	Str.	10
6-176	#6	17'-6"	3	Str.	10
6-199	#6	19'-9"	18	Str.	10
6-229	#6	22'-9"	28	Str.	10
6-263	#6	26'-3"	6	Str.	10
6-330	#6	33'-0"	28	Str.	10

**REINFORCEMENT DETAILS**



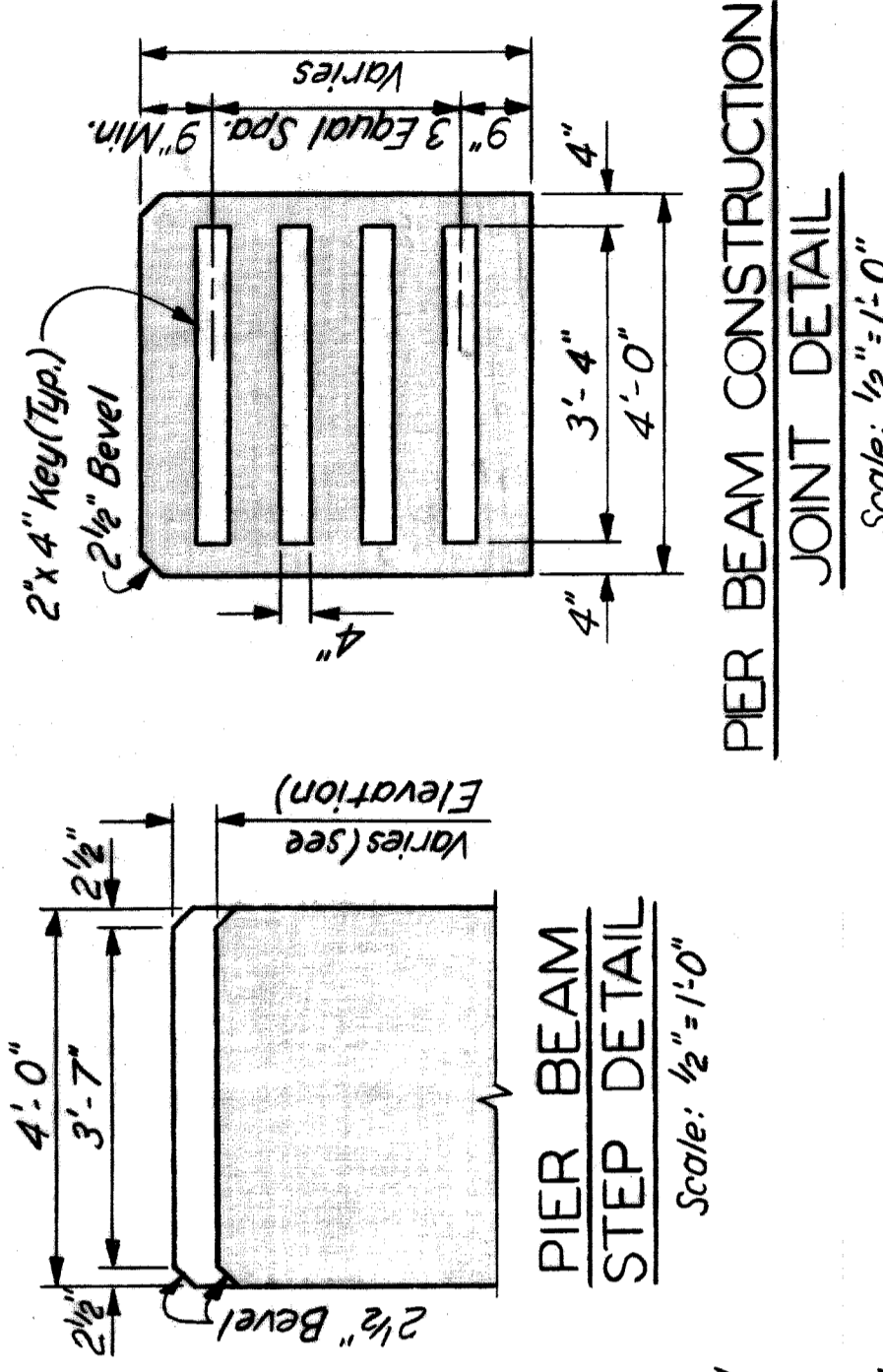
**ANCHOR BOLT LAYOUT**  
Scale: 3/8" = 1'-0"



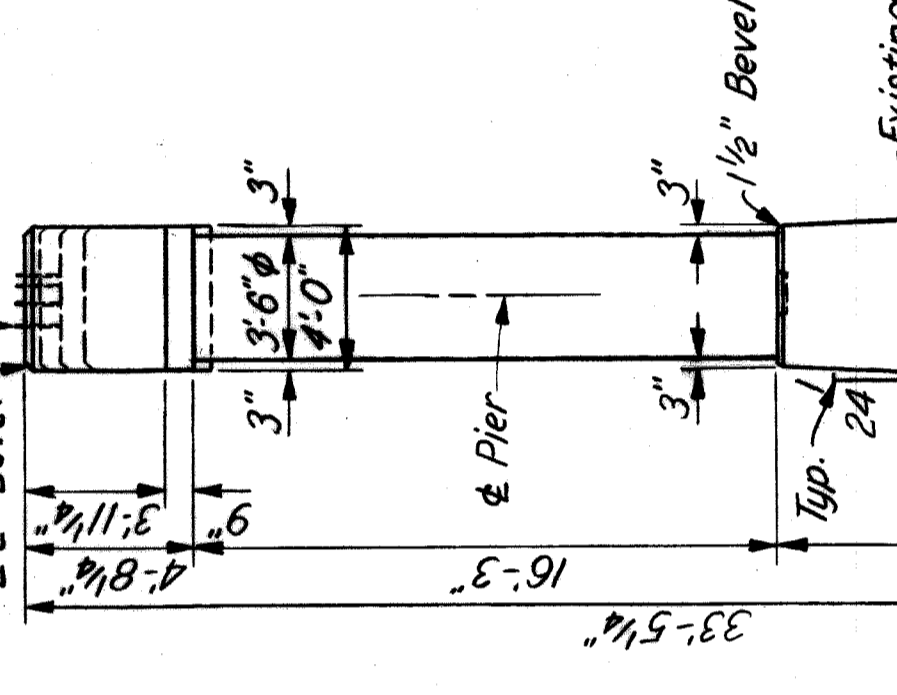
**SECTION B-B**  
Typical Interior Column  
Scale: 3/8" = 1'-0"

**SECTION C-C**  
Typical Exterior Column  
Scale: 3/8" = 1'-0"

GIRDER	SPAN 9										SPAN 10									
	A	B	C	D	E	F	G	H	J	K	A	B	C	D	E	F	G	H	J	K
1	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'
2	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'
3	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'
4	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'
5	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'
6	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'
7	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'
8	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'
9	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'
10	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'
11	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'	10 1/2%	5 1/8%	2 1/8%	1 3/8%	64.30.47	5 1/2%	9 1/4%	3 3/4%	8 1/8%	72.03.10'



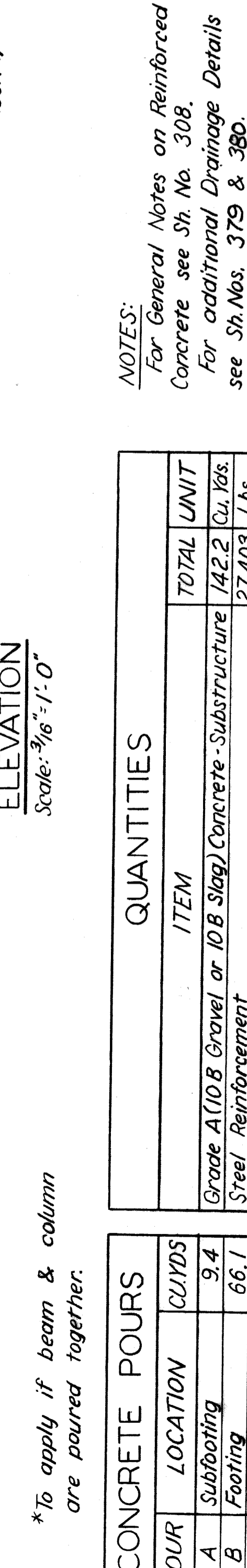
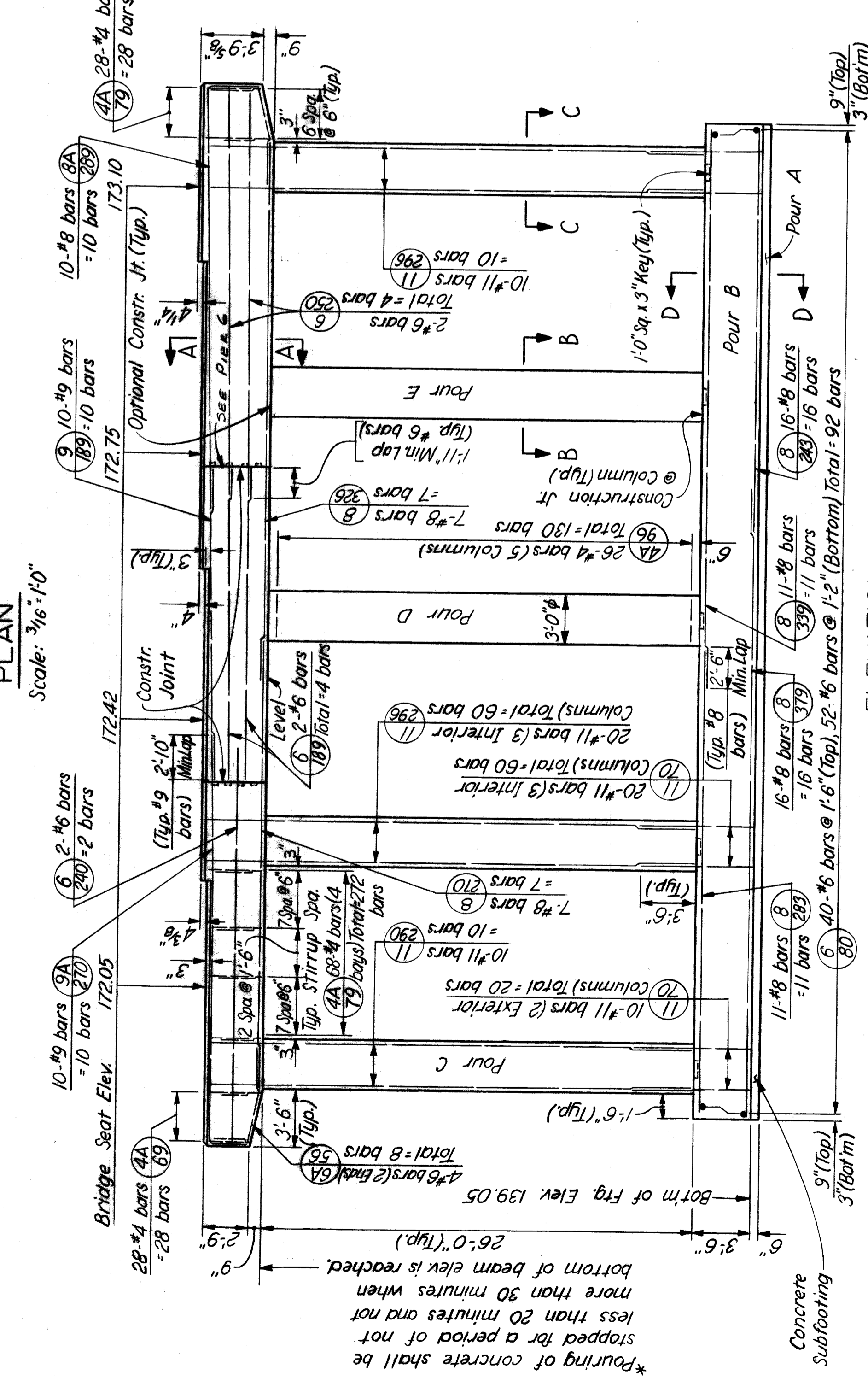
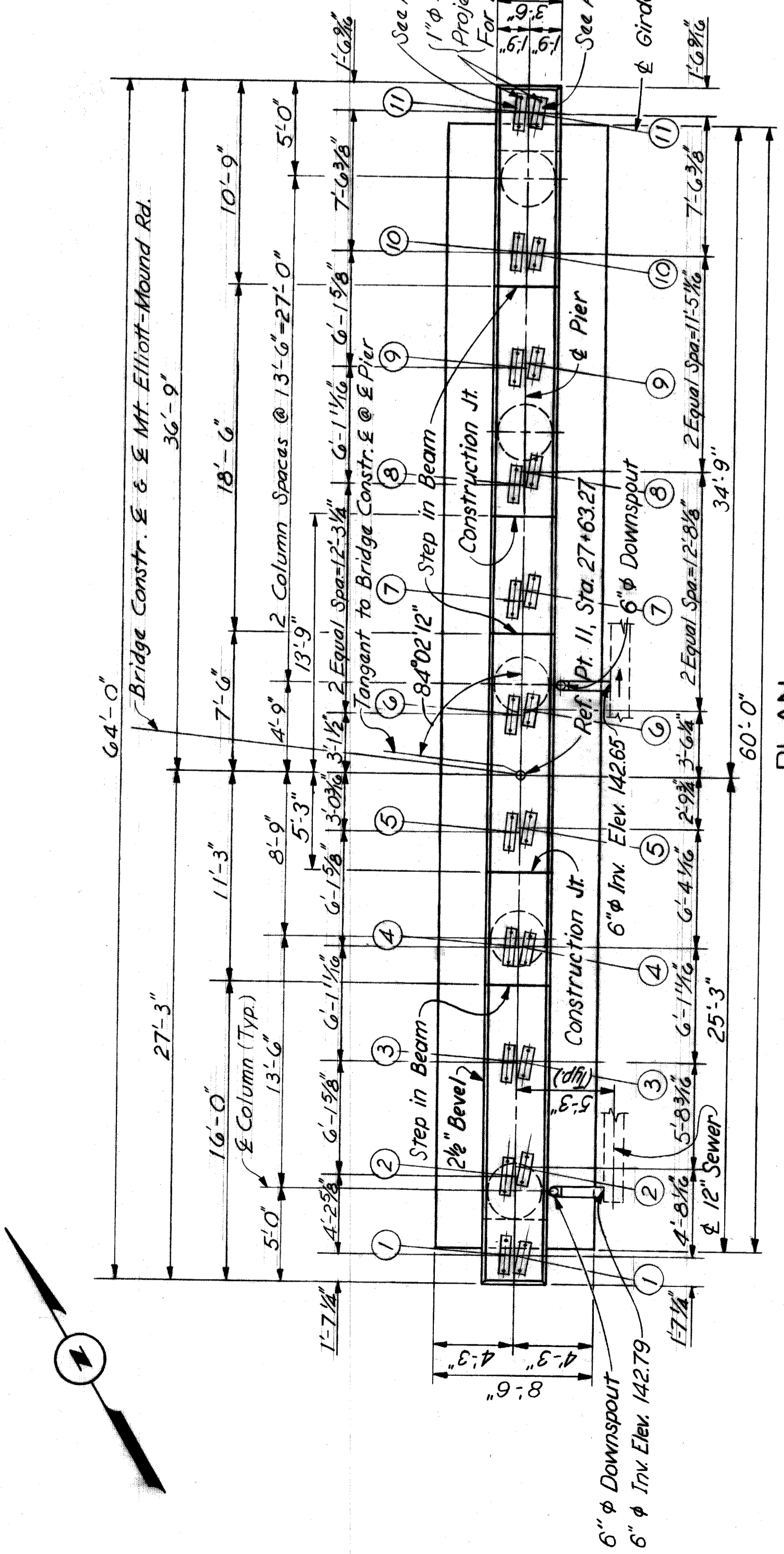
**PIER BEAM CONSTRUCTION JOINT DETAIL**  
Scale: 1/2" = 1'-0"



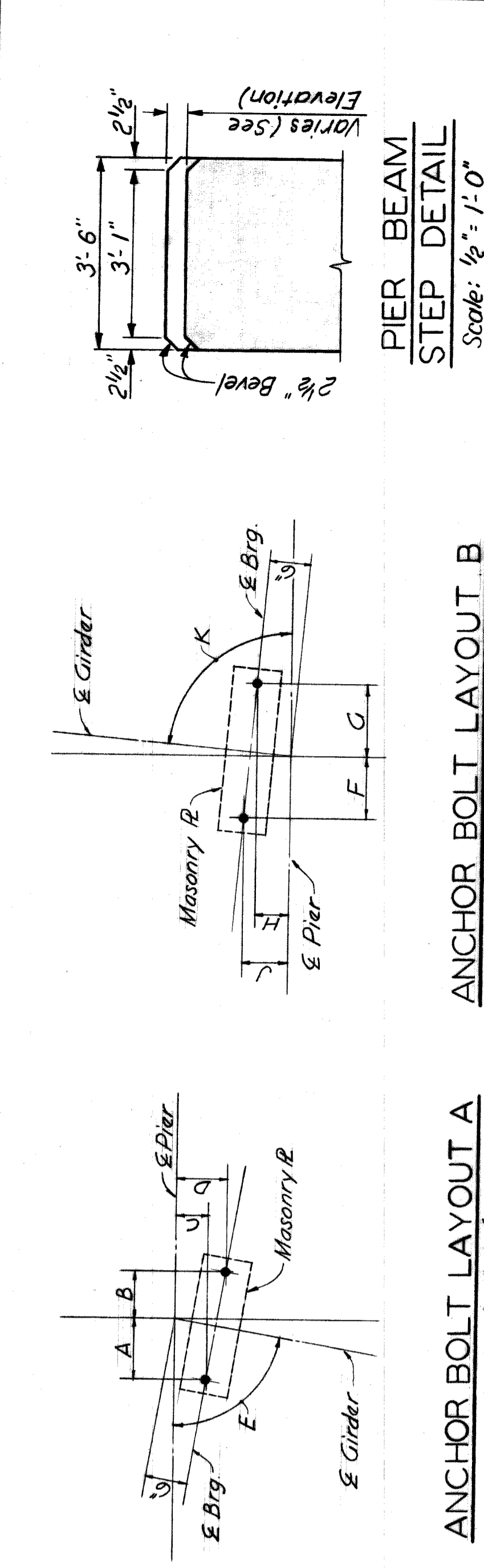
**PIER BEAM STEP DETAIL**  
Scale: 1/2" = 1'-0"

CONCRETE POURS	LOCATION	CU/YDS
A	Subfooting	119
B	Footing	71.7
C	Wall	32.0
D	Wall	30.9
F	Wall	32.0
F	Columns & Beam	24.1
G	Columns & Beam	17.9
H	Columns & Beam	27.7

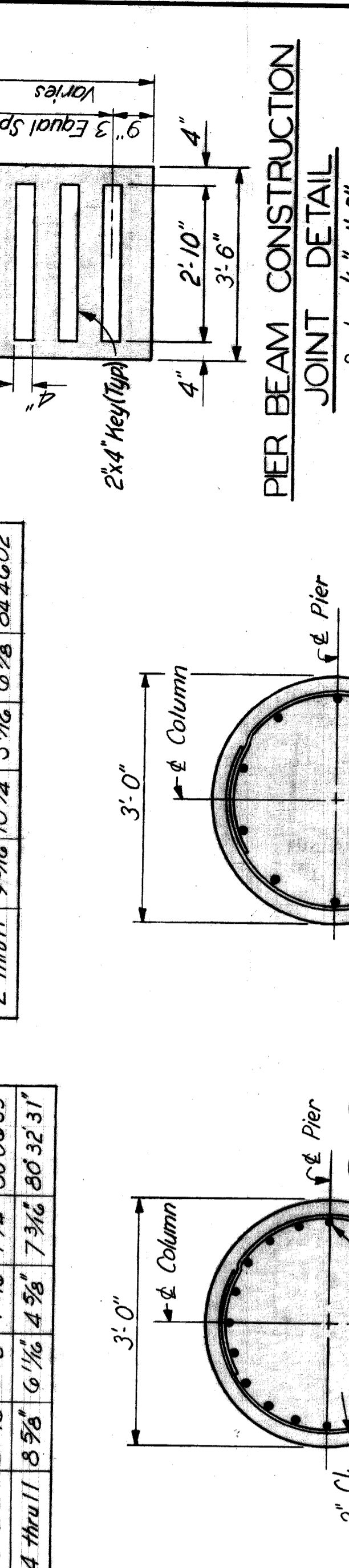




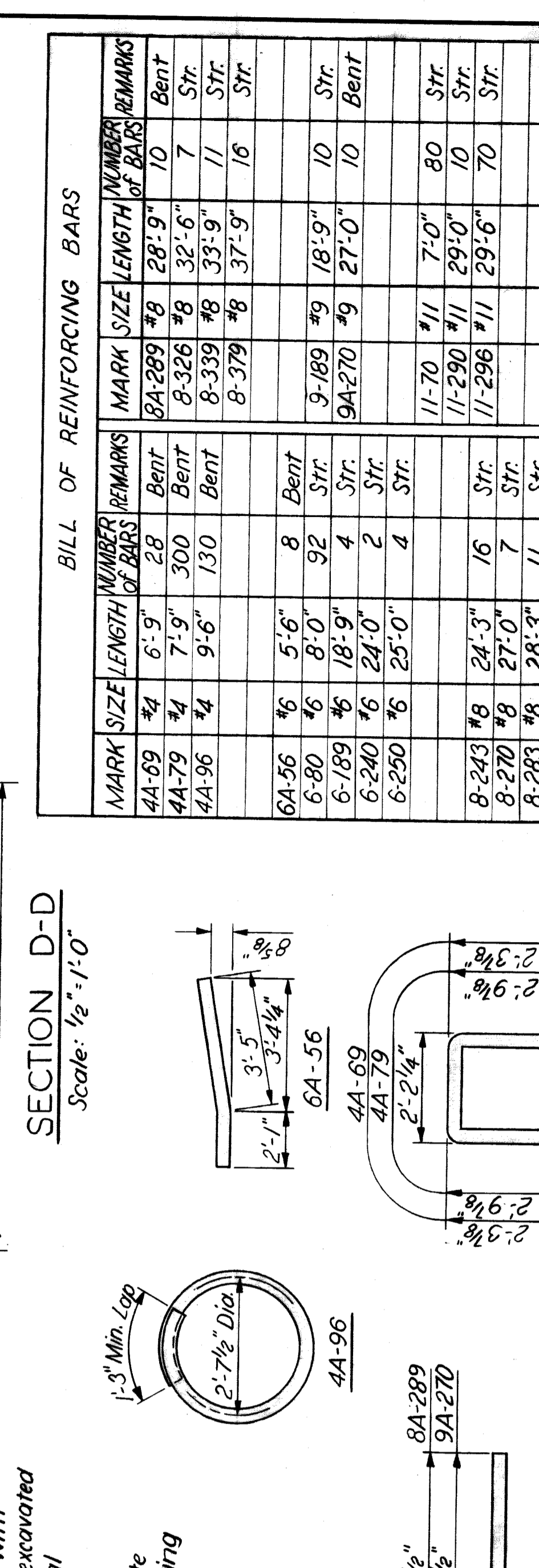
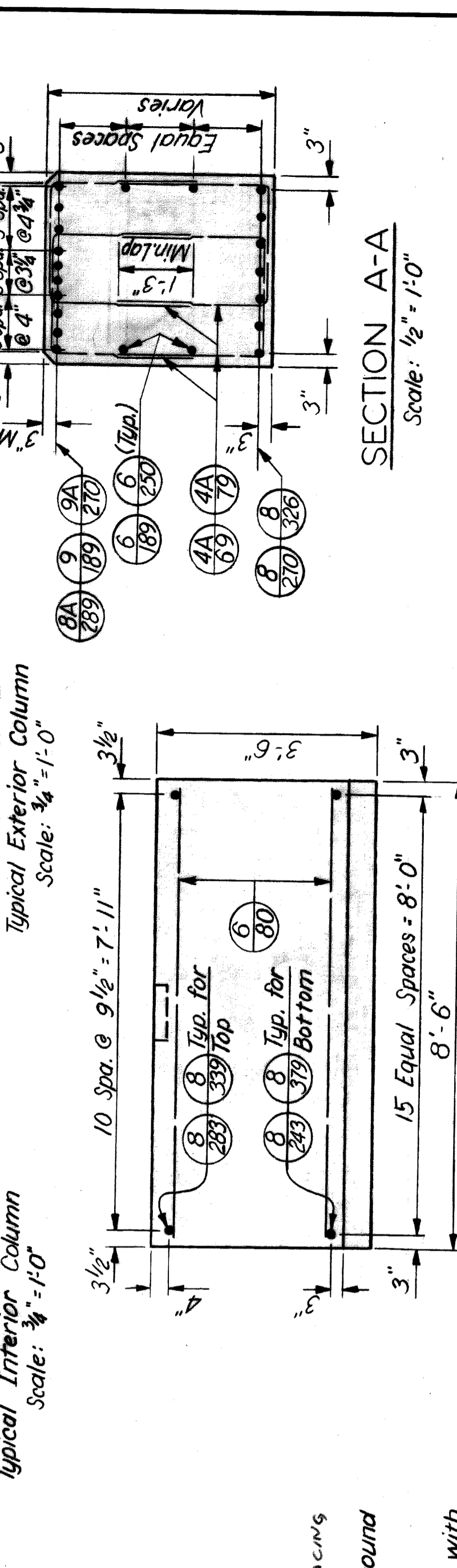
ITEM	TOTAL UNIT
Grade A (10 B Gravel or 10 B Slag) Concrete-Substructure	142.2 Cu Yds.
Steel Reinforcement	27,403 Lbs.
Rubbed Surface Finish	1942 Sq Ft.
Heating & Housing Substructure Concrete	132.8 Cu Yds.
Protective Sealant Coating for Structural Concrete	239 Sq Ft.



GIRDER	SPAN 11				
	A	B	C	D	E
1	8 1/4"	6 1/4"	4 1/2"	7 5/8"	7 3/4"
2 & 3	8 1/4"	6 1/4"	4 1/2"	7 1/4"	8 0/16 53"
4 thru 11	8 5/8"	6 1/4"	4 5/8"	7 3/4"	8 0/16 32 31"

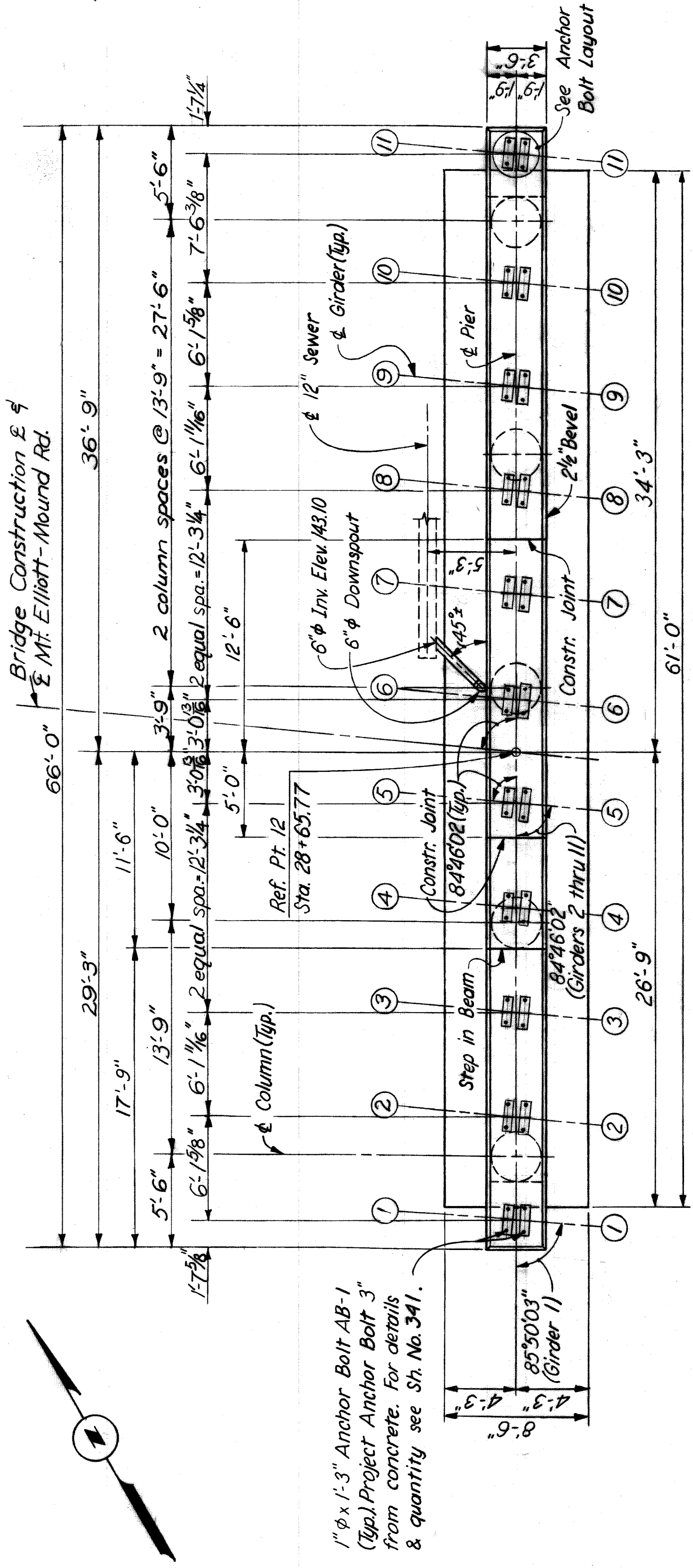


GIRDER	SPAN 12				
	F	G	H	J	K
1	9 3/4"	10 3/4"	5 1/4"	6 1/4"	8 5/16 50 03"
2 thru 11	9 3/4"	10 1/4"	5 1/4"	6 7/8"	8 4/16 46 02"



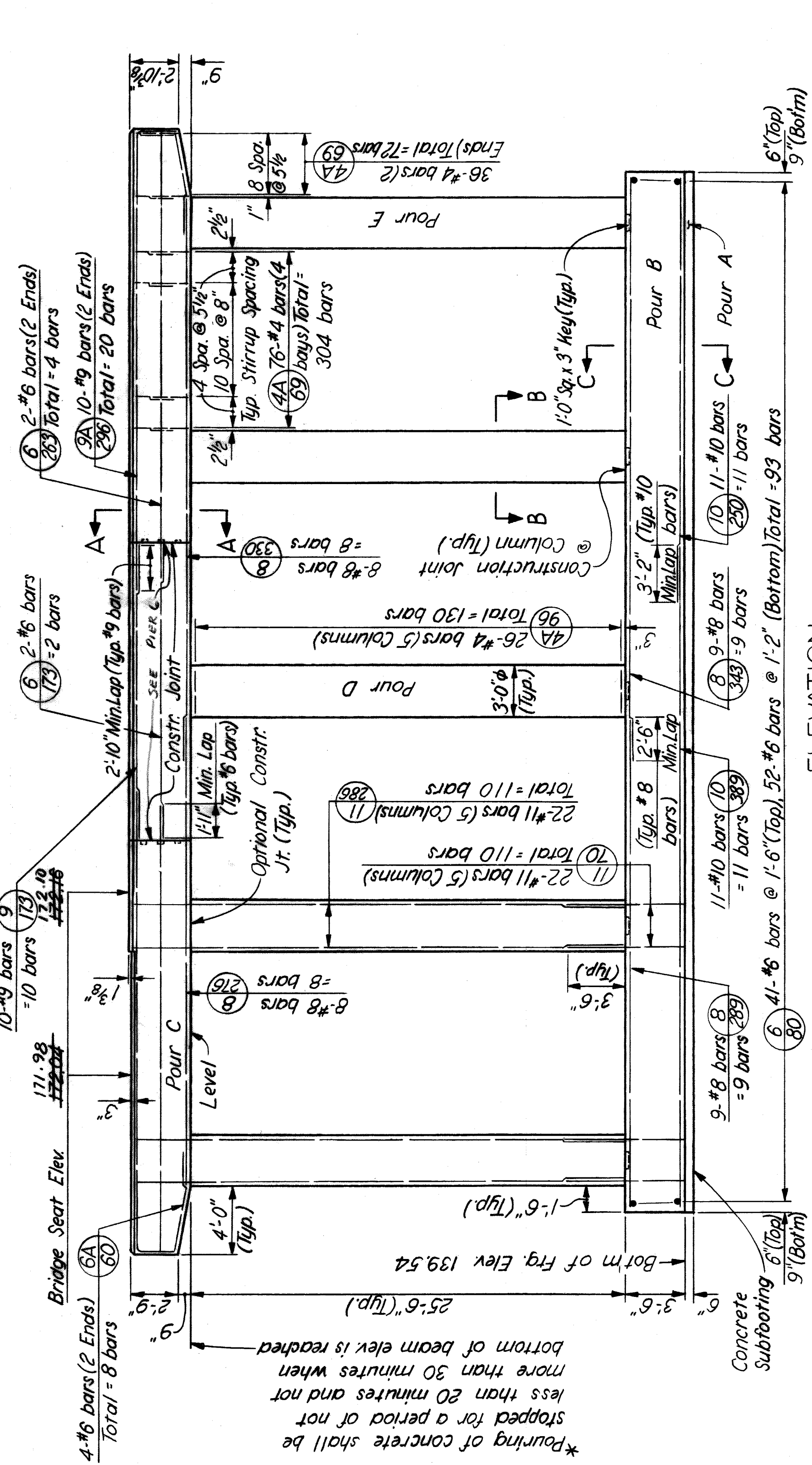
MARK	SIZE	LENGTH	NUMBER OF BARS	REMARKS
8A-289	#8	28'-9"	10	Bent
8-326	#8	32'-6"	7	Str.
8-339	#8	33'-9"	11	Str.
8-379	#8	37'-9"	16	Str.
9-189	#9	18'-9"	10	Str.
9A-270	#9	27'-0"	10	Bent
11-70	#11	7'-0"	80	Str.
11-290	#11	29'-0"	10	Str.
11-296	#11	29'-6"	70	Str.





\*Pouring of concrete shall be stopped for a period of not less than 20 minutes and not more than 30 minutes when bottom of beam elev is reached

**PLAN**  
Scale:  $\frac{3}{16}'' = 1'-0''$



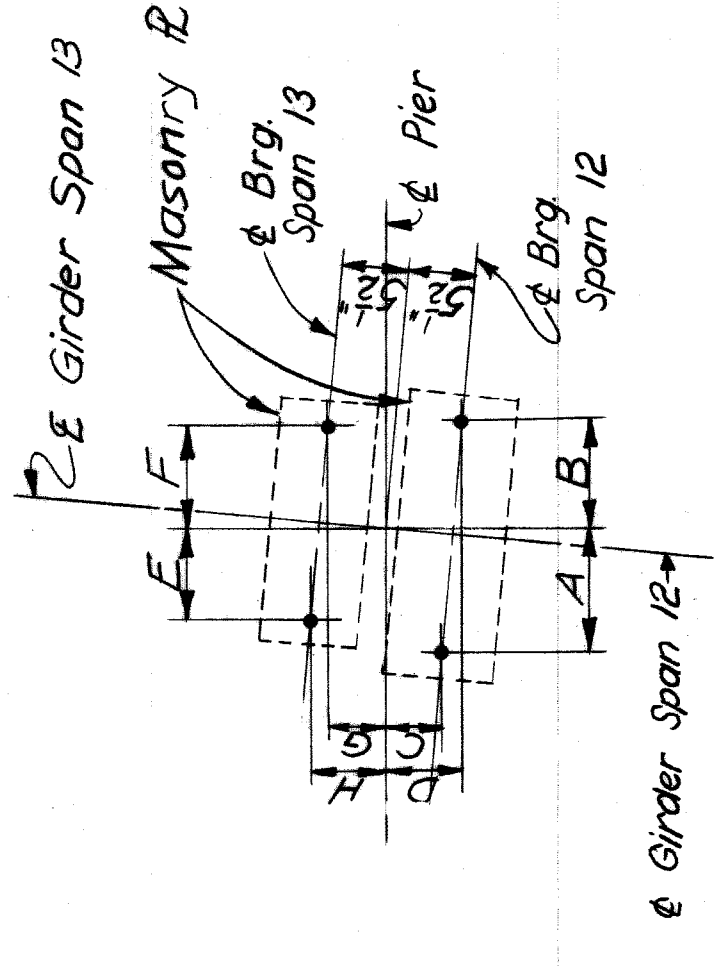
**ELEVATION**  
Scale:  $\frac{3}{16}'' = 1'-0''$

\*To apply if beam & column are poured together.

CONCRETE POURS	LOCATION	CU.YDS
A	Subfooting	9.6
B	Footings	67.2
C	Columns & Beam	24.2
D	Column & Beam	14.8
E	Columns & Beam	24.5

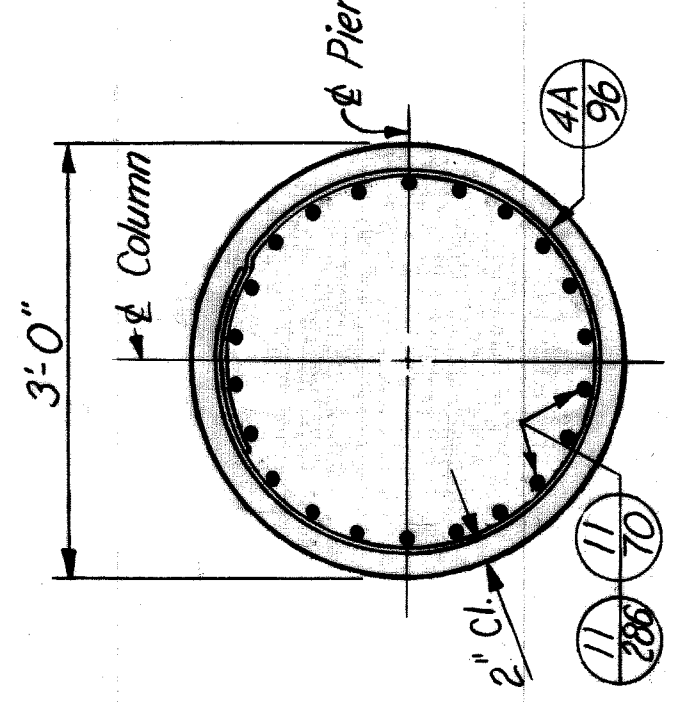
QUANTITIES	ITEM	TOTAL	UNIT
	Grade A(10B Gravel or 10B Slag)Concrete-Substructure	140.3	Cu.Yds.
	Steel Reinforcement	3302.3	Lbs.
	Rubbed Surface Finish	188.4	Sq.Ft.
	Heating & Housing Substructure Concrete	130.7	Cu.Yds.
	Protective Sealant Coating for Structural Concrete	2.43	Sq.Ft.

**NOTES:**  
For General Notes on Reinforced Concrete see Sh. No. 308.  
For additional Drainage Details see Sh. Nos. 375 & 380.  
See Typical Column Section Sh. No. 314 for lapping of column bars to dowel bars.

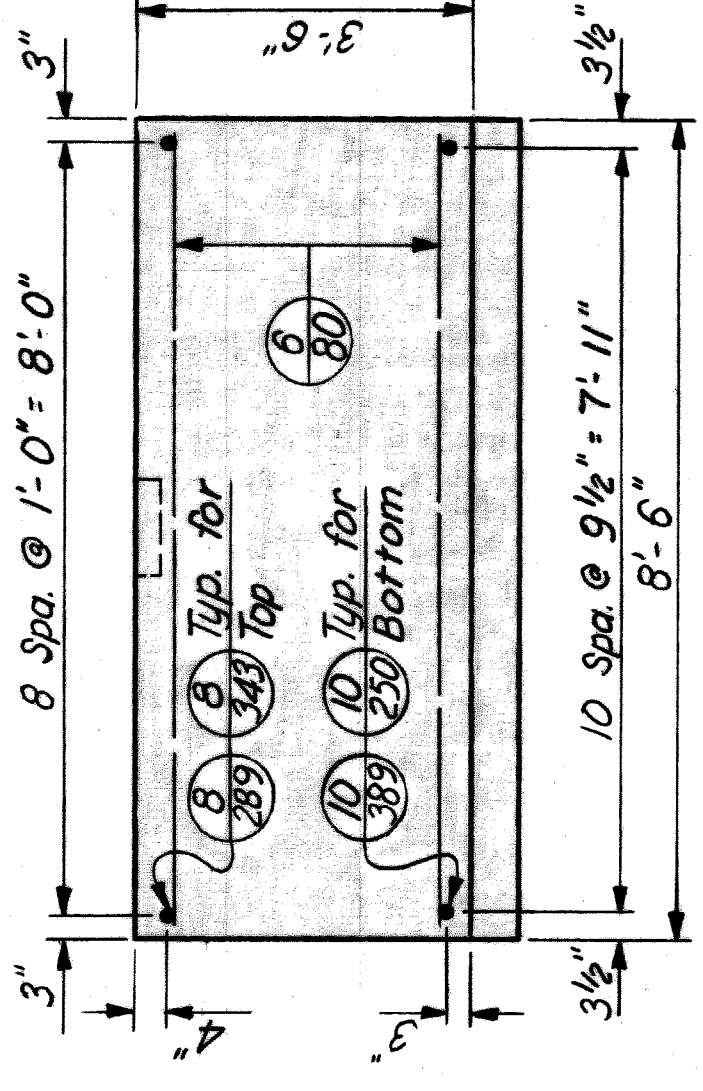


**ANCHOR BOLT LAYOUT**  
Scale:  $\frac{3}{4}'' = 1'-0''$

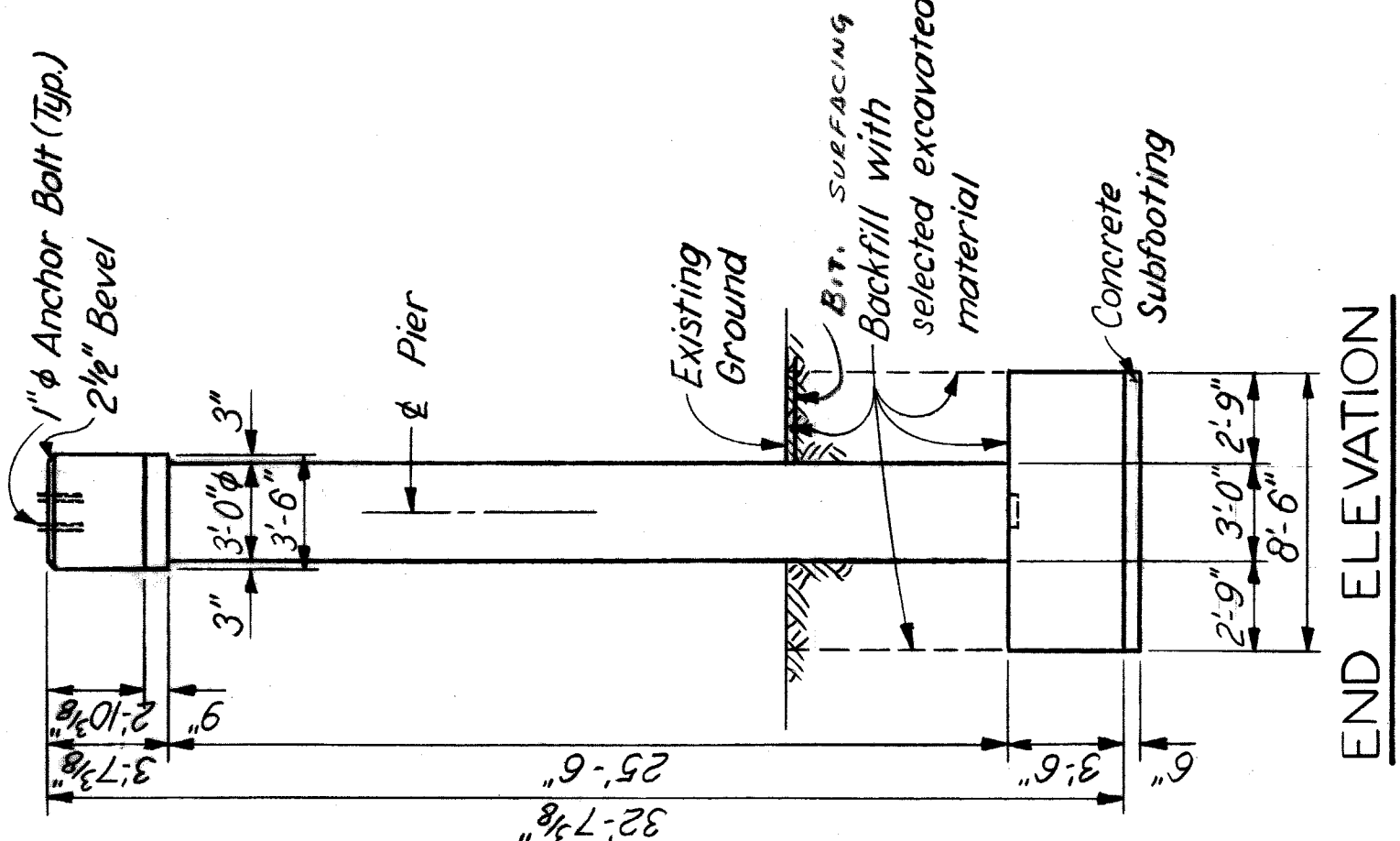
Girder	A	B	C	D	E	F	G	H
Span 12								
Span 13								



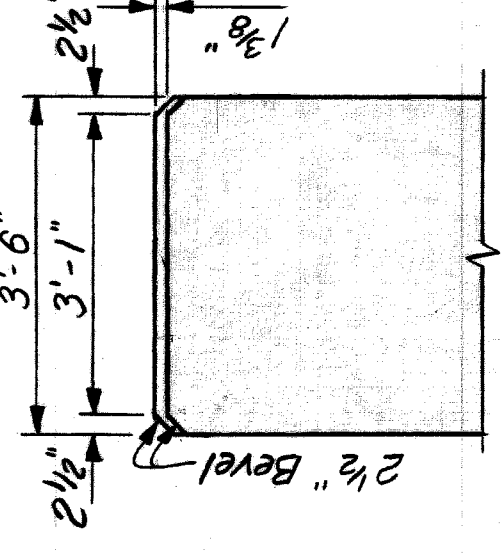
**SECTION B-B**  
Scale:  $\frac{3}{4}'' = 1'-0''$



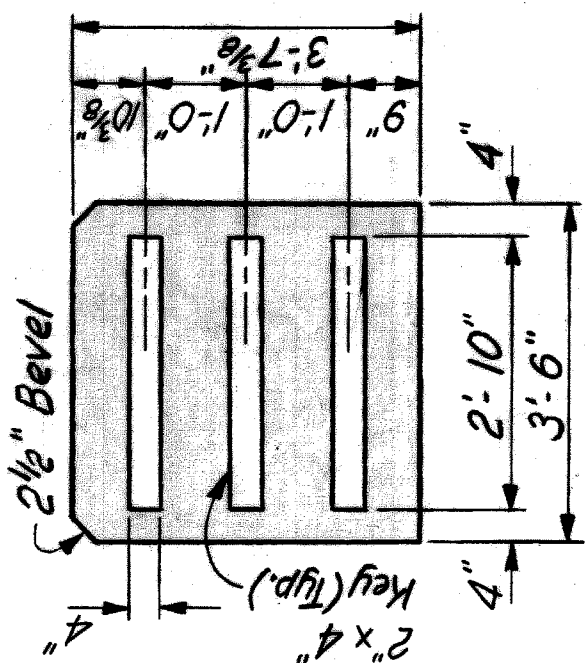
**SECTION C-C**  
Scale:  $\frac{1}{2}'' = 1'-0''$



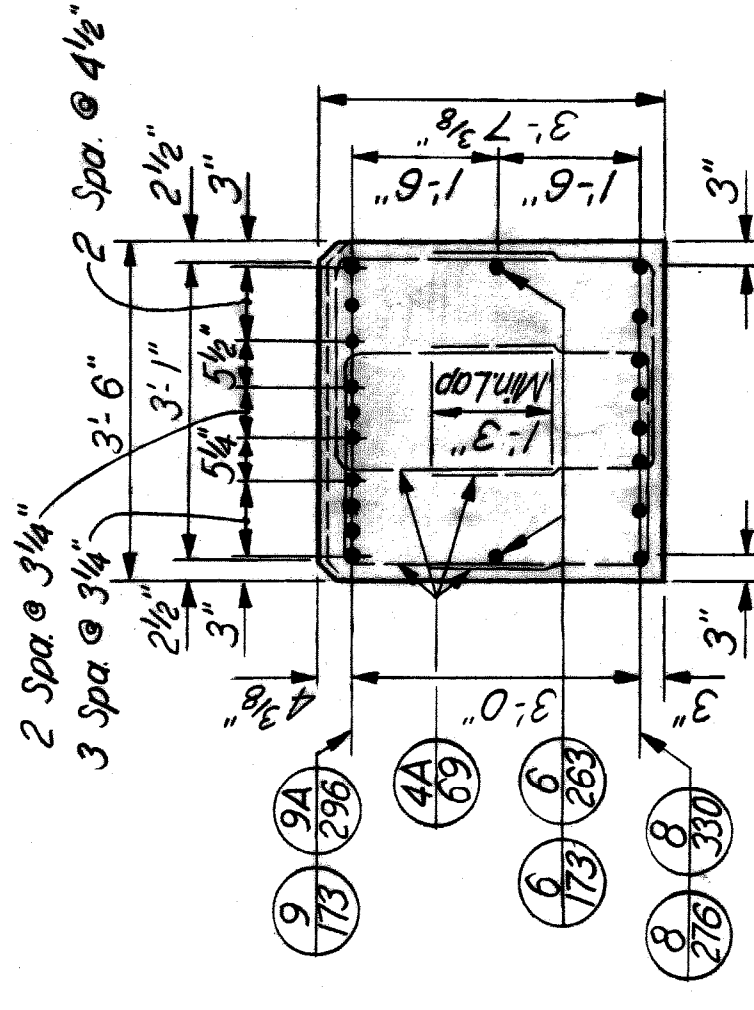
**END ELEVATION**  
Scale:  $\frac{3}{16}'' = 1'-0''$



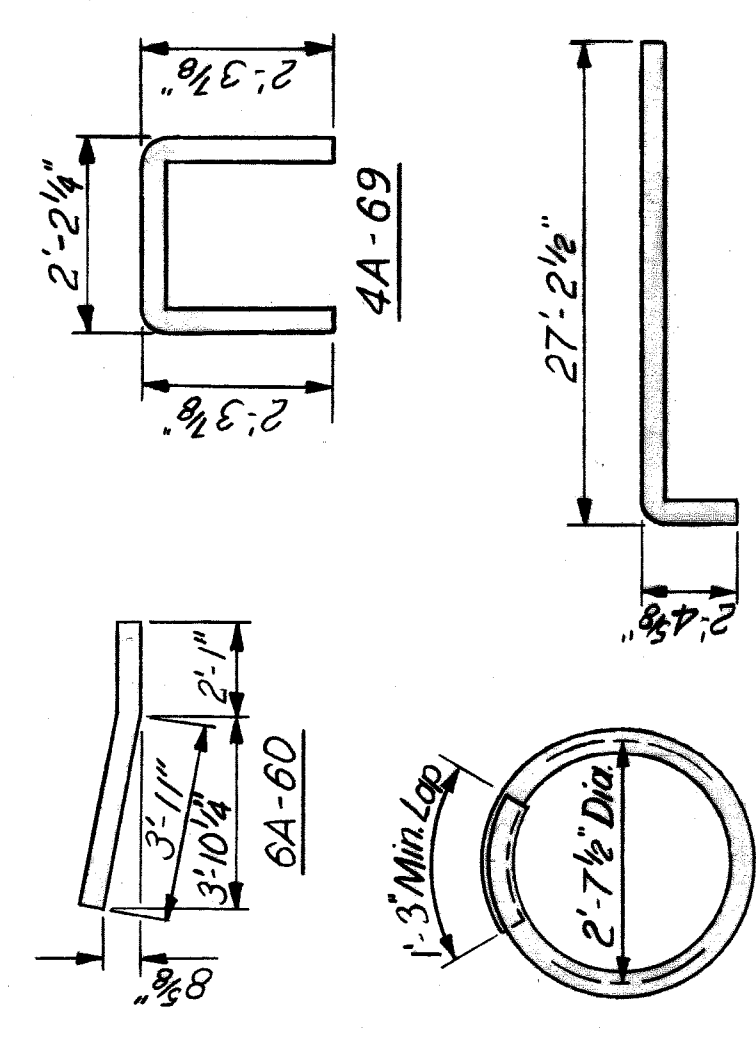
**PIER BEAM STEP DETAIL**  
Scale:  $\frac{1}{2}'' = 1'-0''$



**PIER BEAM CONSTRUCTION JOINT DETAIL**  
Scale:  $\frac{1}{2}'' = 1'-0''$



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



**REINFORCEMENT DETAILS**

MARK	SIZE	LENGTH	NUMBER	REMARKS
4A-69	#4	6'-9"	376	Bent
4A-96	#4	9'-6"	130	Bent
6A-60	#6	6'-0"	8	Bent
6-80	#6	8'-0"	93	Str.
6-173	#6	17'-3"	2	Str.
6-263	#6	26'-3"	4	Str.
8-276	#8	27'-6"	8	Str.
8-289	#8	28'-9"	9	Str.
8-330	#8	33'-0"	8	Str.
8-343	#8	34'-3"	9	Str.
9-173	#9	17'-3"	10	Str.
9A-296	#9	29'-6"	20	Bent
10-230	#10	25'-0"	11	Str.
10-389	#10	38'-9"	11	Str.
11-70	#11	7'-0"	110	Str.
11-286	#11	28'-6"	110	Str.

As Built 9-11-71 E.M.B. & L.M.

APPROVED  
DATE 11-15-67  
BY [Signature]  
CHECKED BY [Signature]  
DATE 11-15-67  
BY [Signature]

**WAYNE COUNTY ROAD COMMISSIONERS**  
DETROIT, MICHIGAN  
PHILIP J. NEUDECK  
WILLIAM E. KREGER

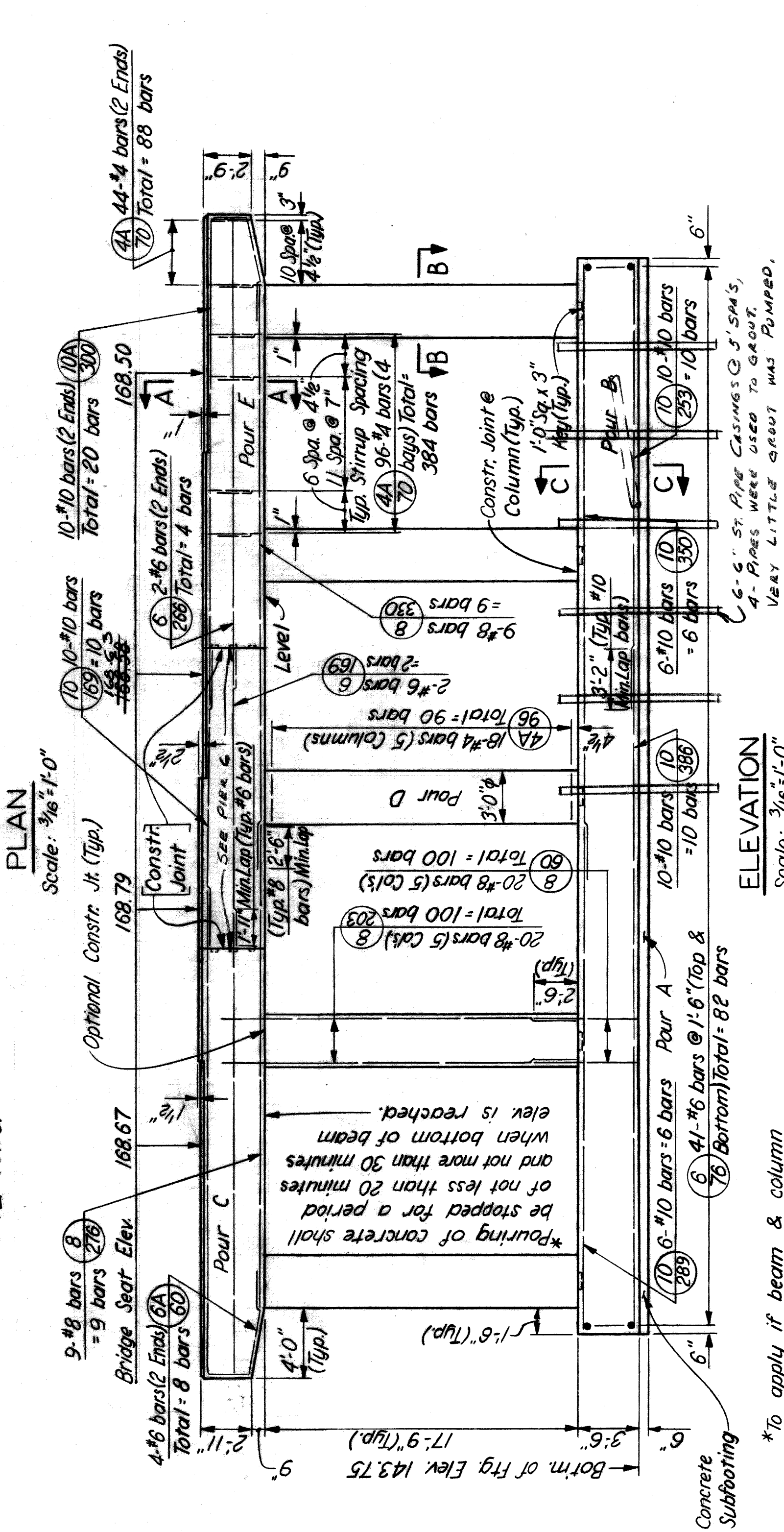
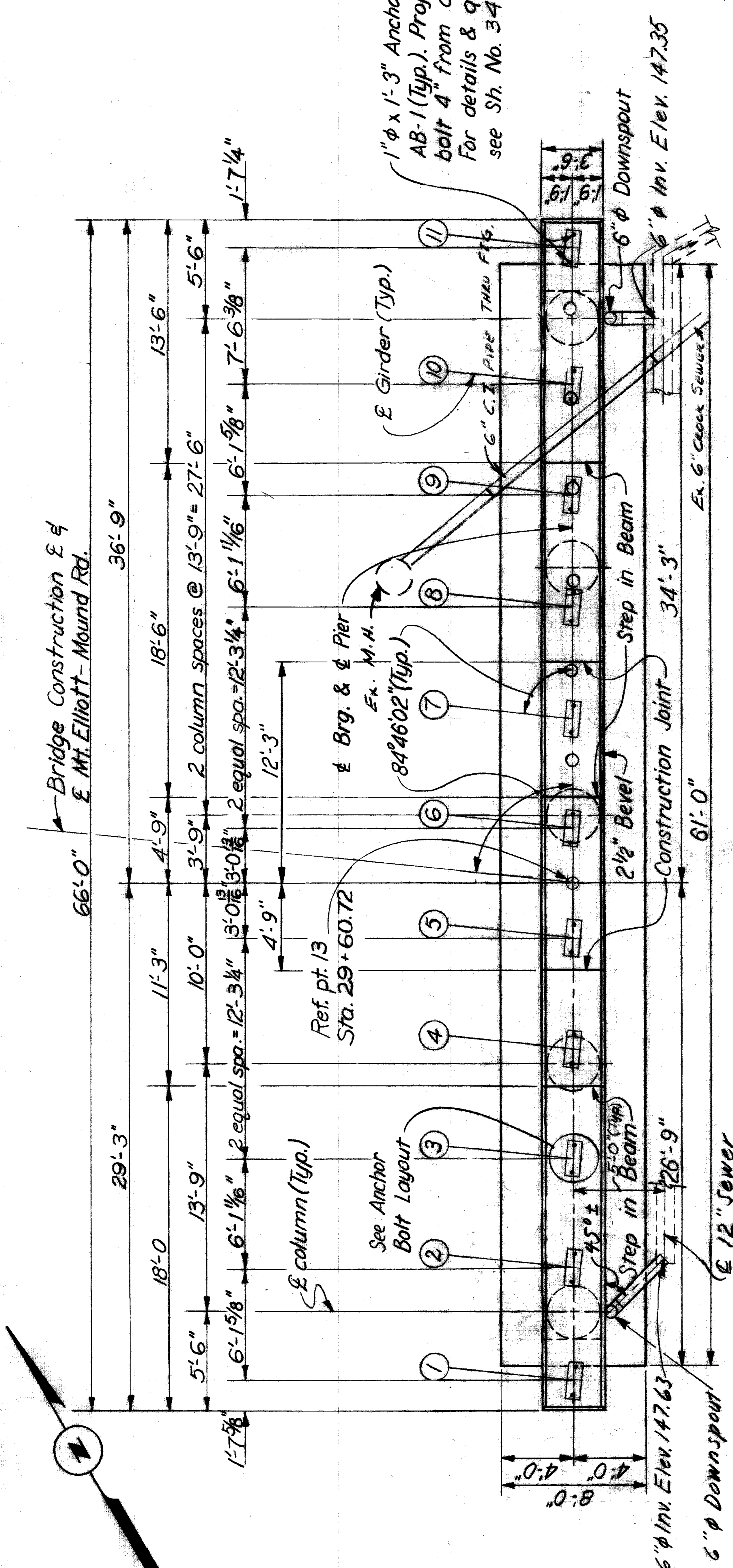
**HAZELET & ERDAL CONSULTING ENGINEERS**

**MOUNT ELLIOTT-MOUND RD. GRADE SEPARATION PIER 12**

STATE PROJECT 246  
COUNTY JOB 325  
ISSUE NO. 1  
DATE 5-13-68

XO 107

H & E FILE NO. 603



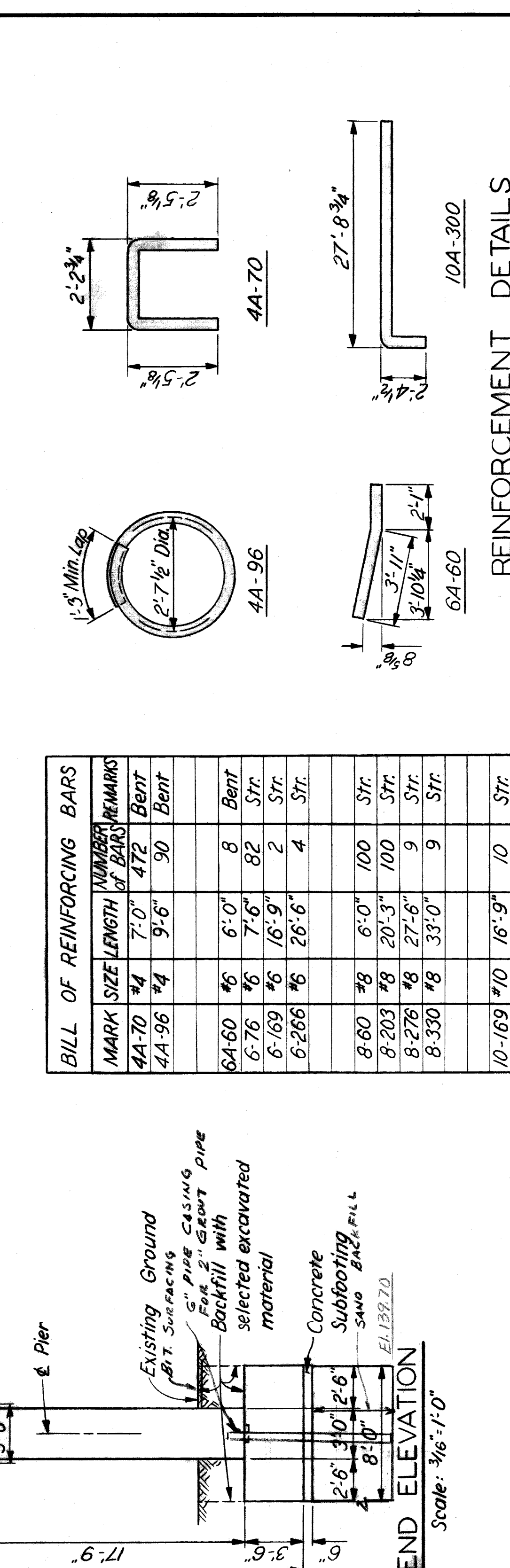
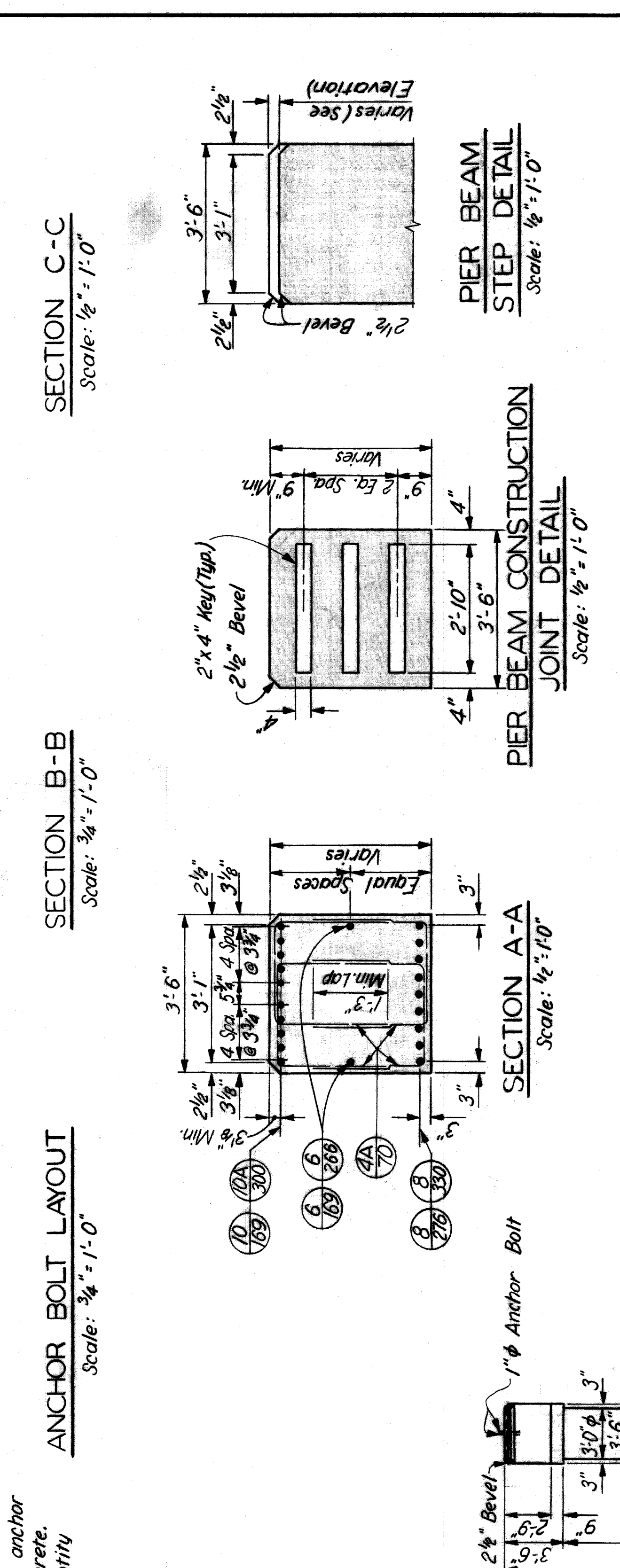
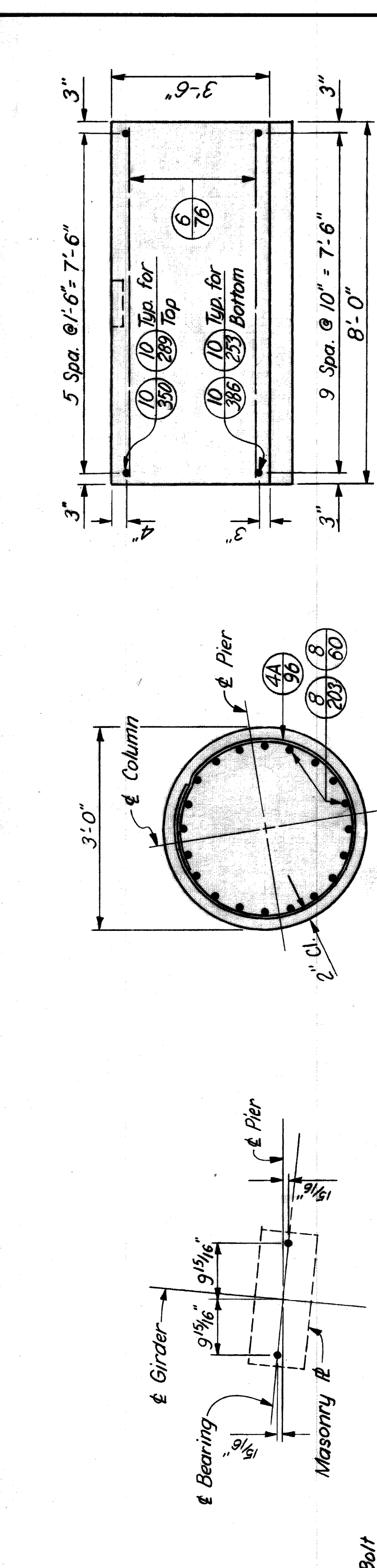
CONCRETE POURS

POUR	LOCATION	CU YDS.
A	Subfooting	9.0
B	Footing	63.3
C	Columns & Beam	20.8
D	Column & Beam	12.8
E	Columns & Beam	20.3

QUANTITIES

ITEM	TOTAL	UNIT
Grade A (10B) Gravel or 10B Slag Concrete-Substructure	26.2	Cu.Yds.
Steel Reinforcement	20,198	Lbs.
Rubbed Surface Finish	1526	Sq. Ft.
Heating & Housing Substructure Concrete	117.2	Cu.Yds.

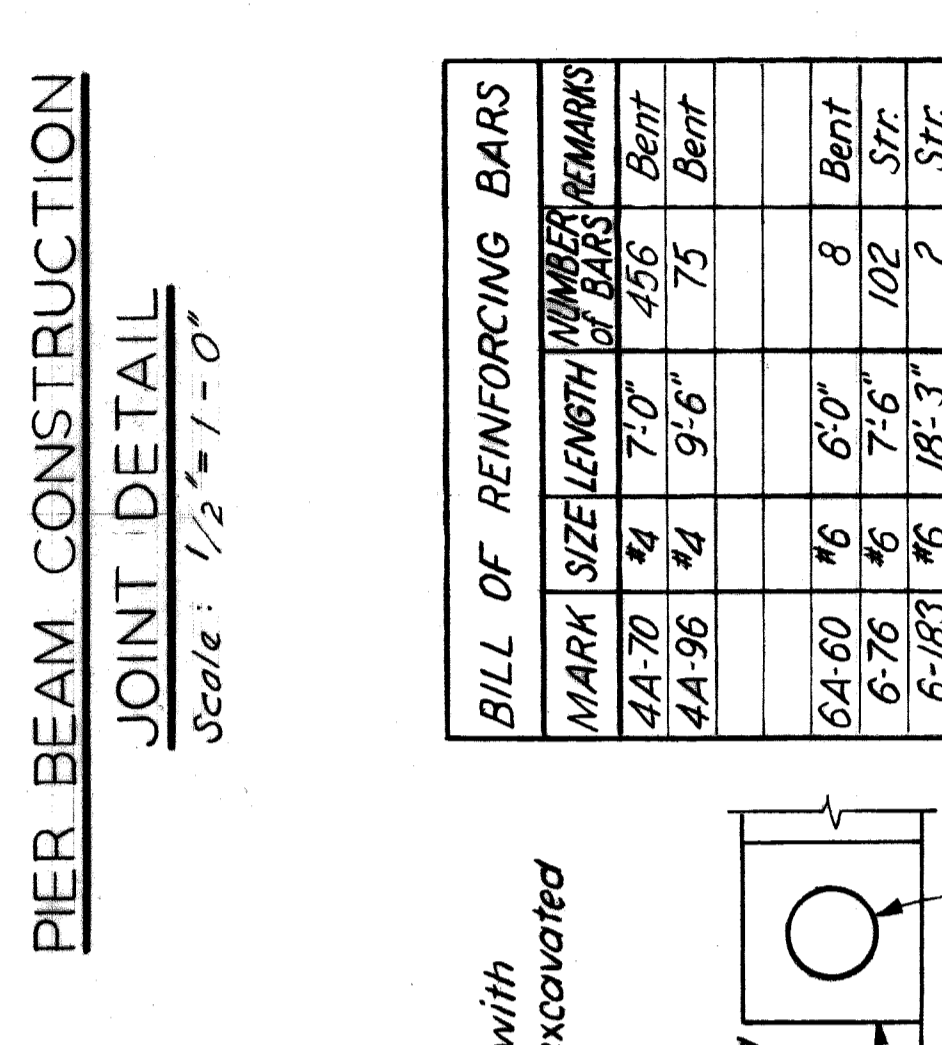
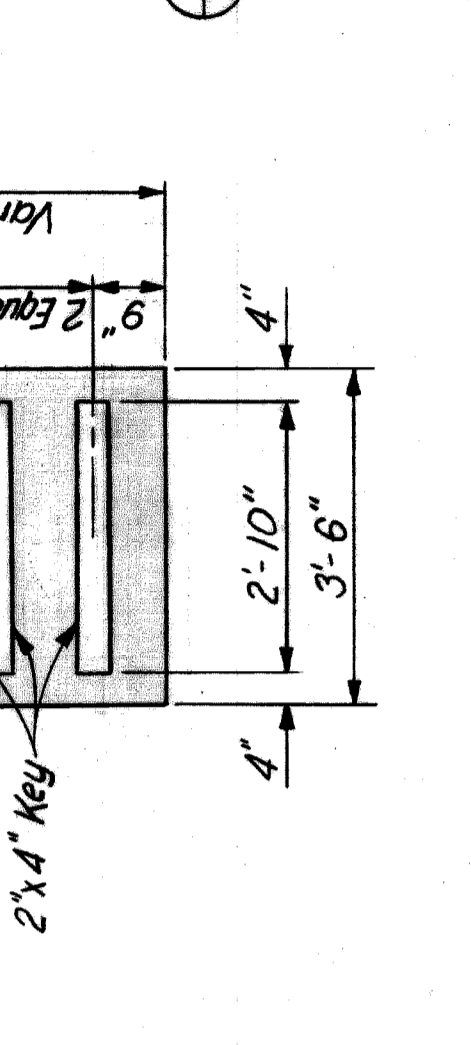
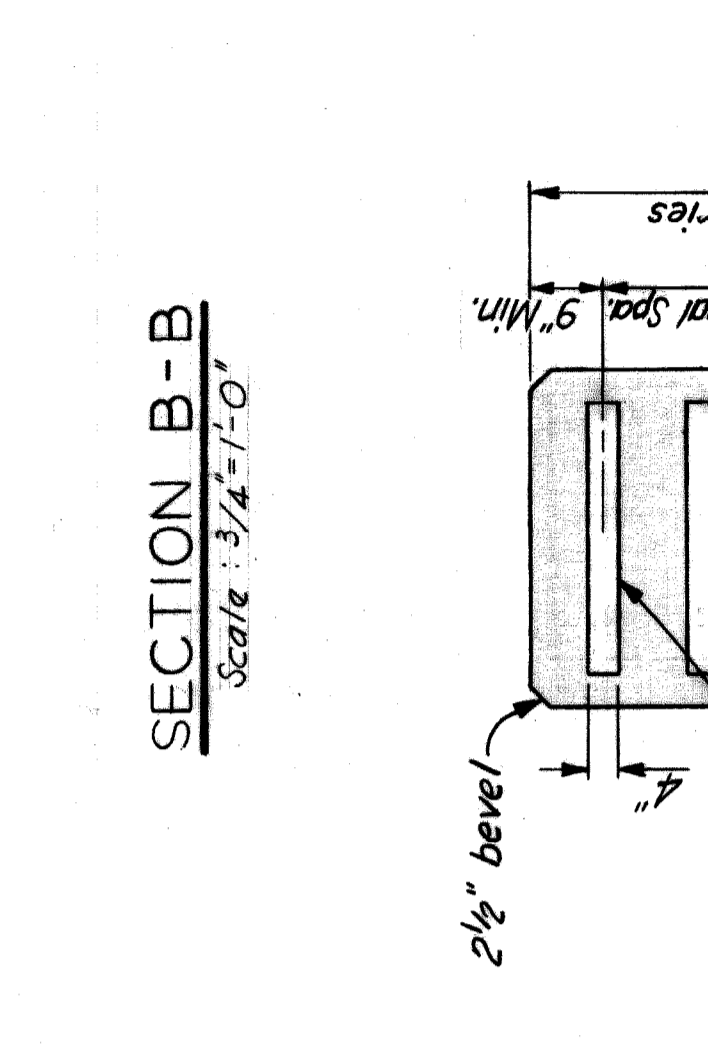
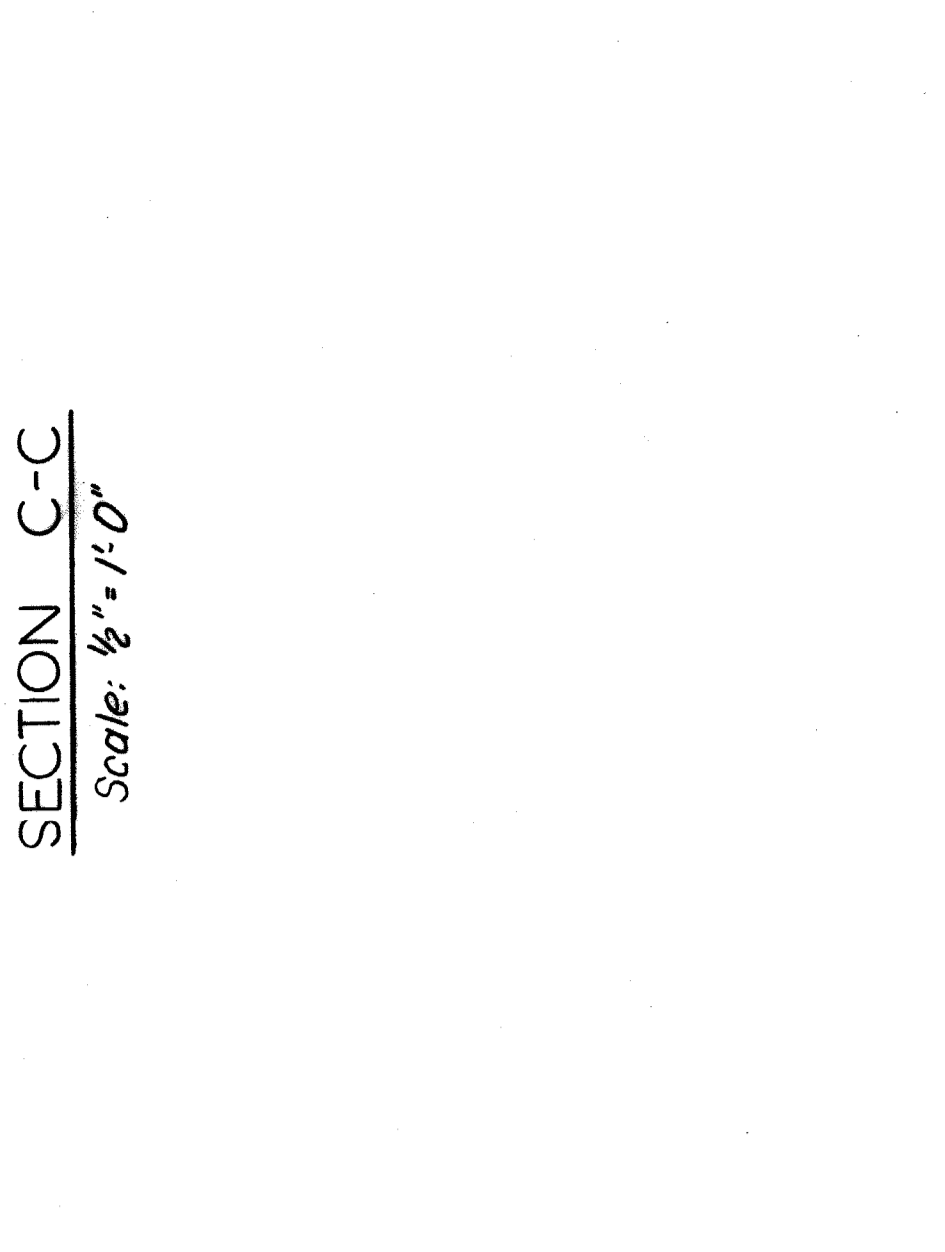
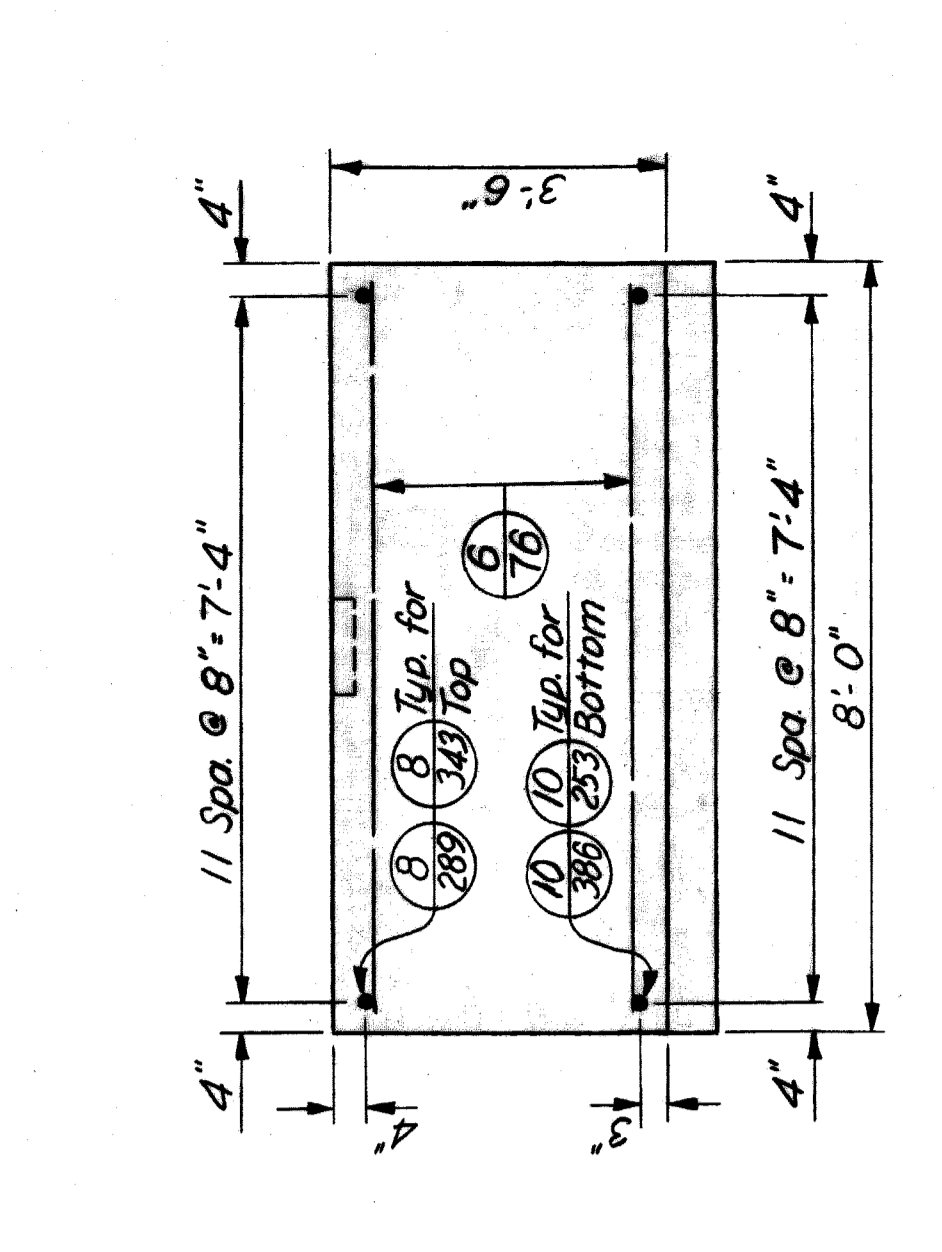
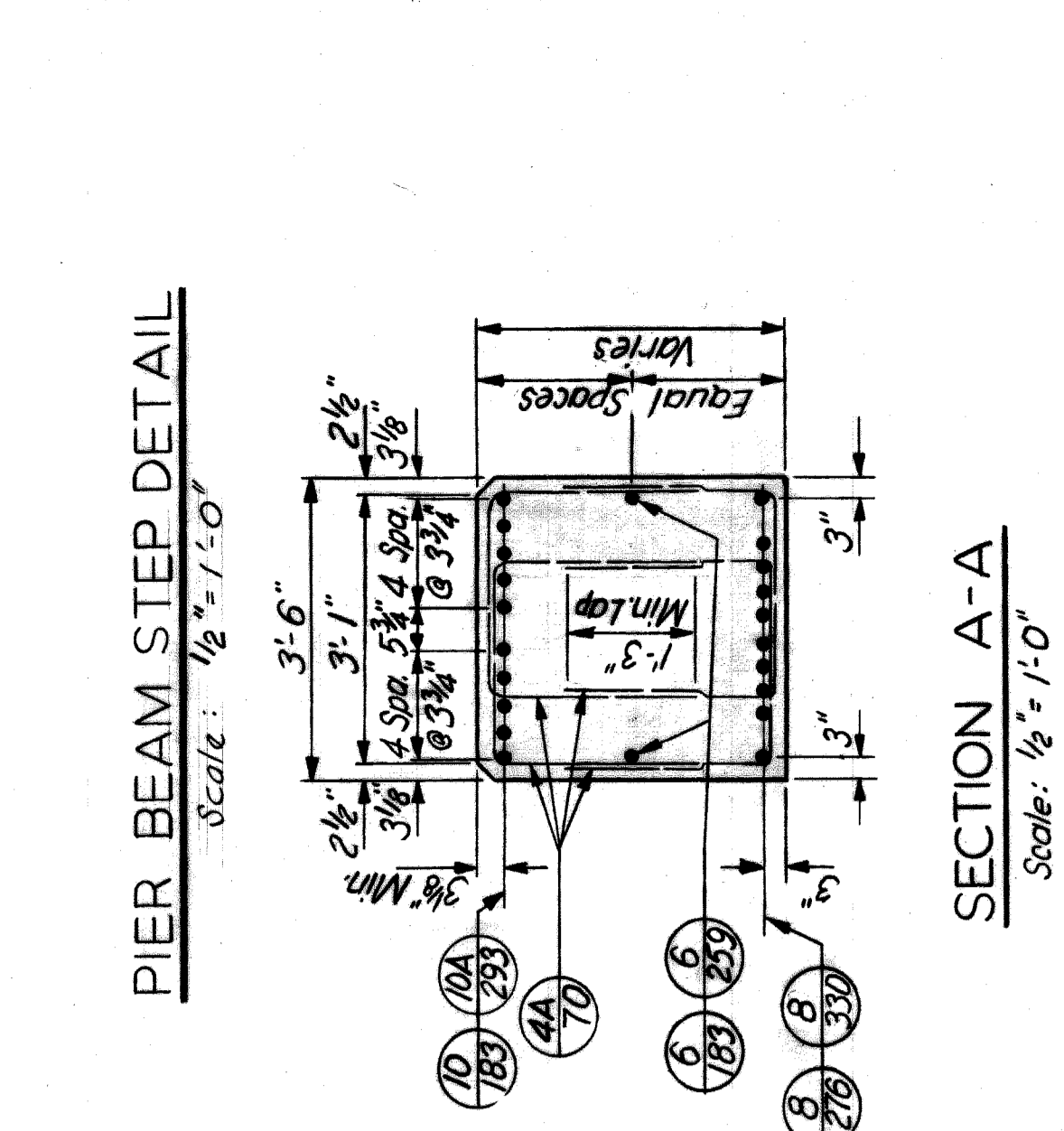
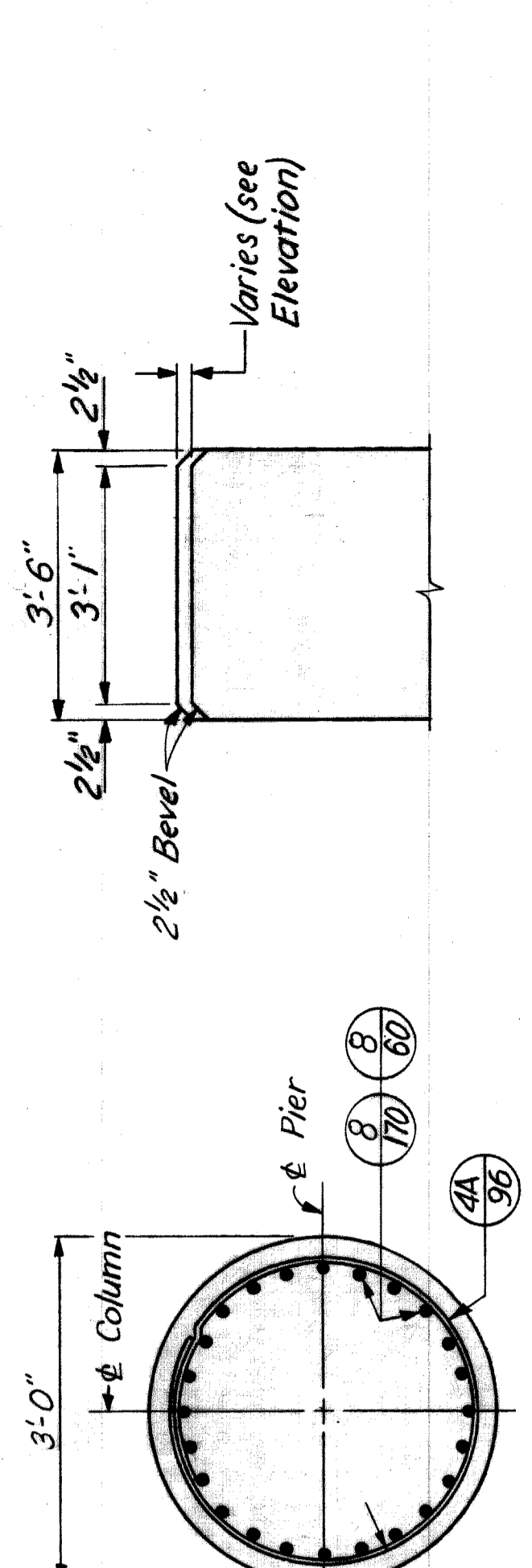
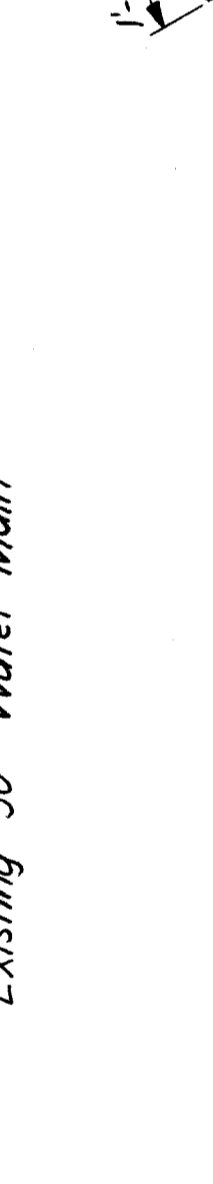
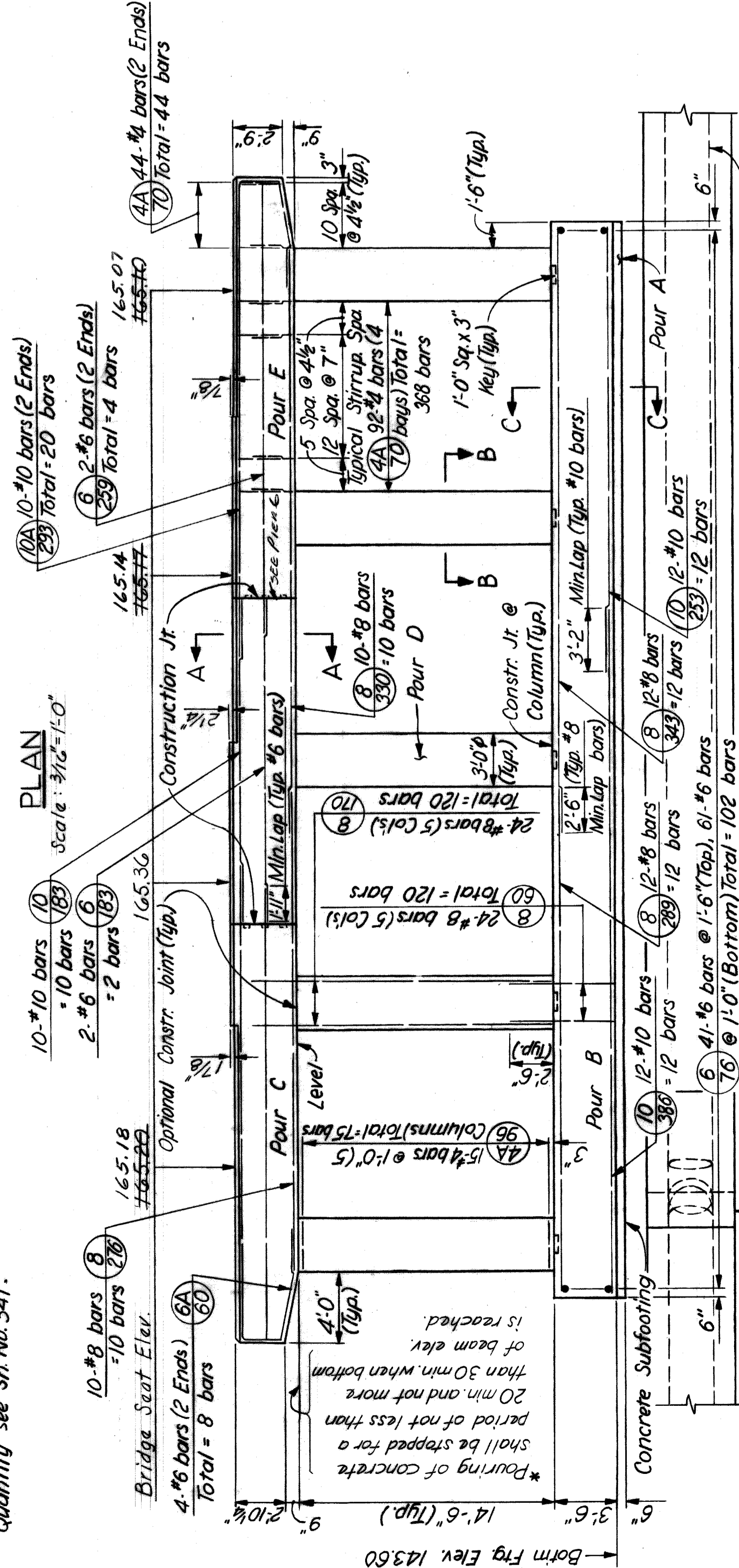
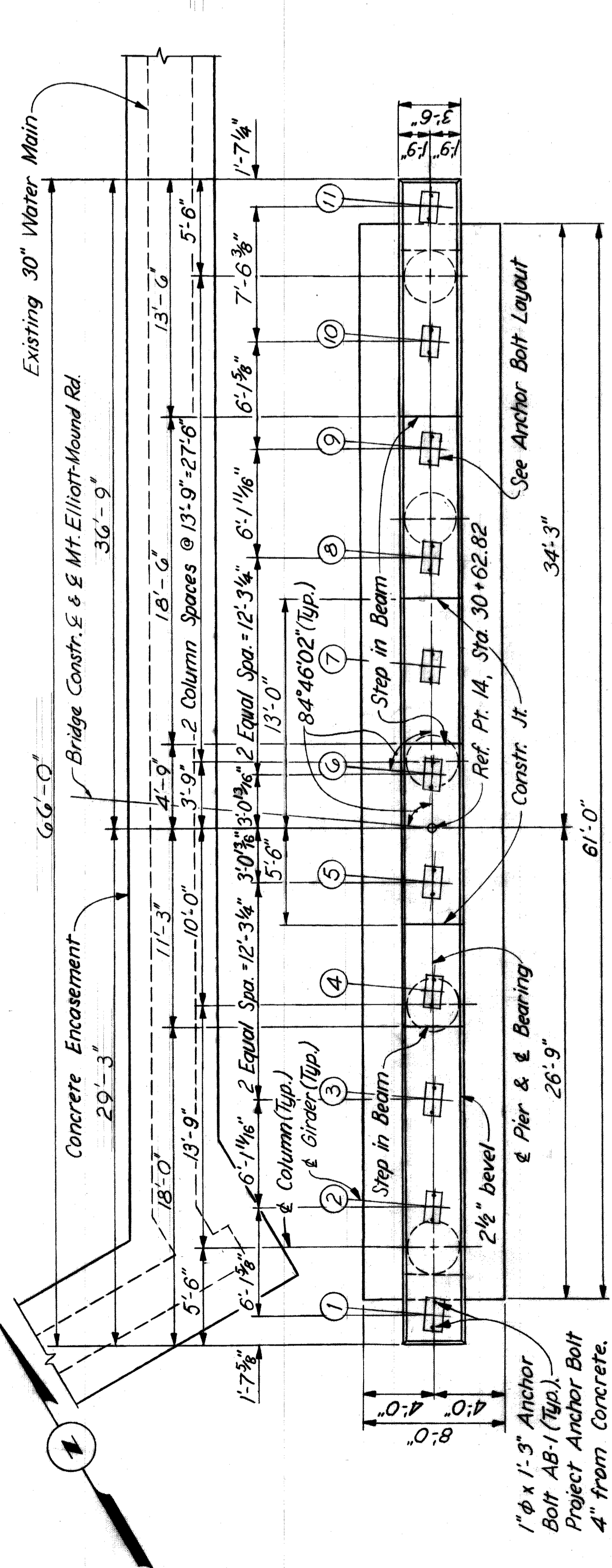
NOTES:  
 For General Notes on Reinforced Concrete see Sh. No. 308.  
 For additional Drainage Details see Sh. Nos. 379 & 380.  
 See typical Column Section Sh. No. 314 for lapping of column bars to dowel bars.  
 Access M.H. on the 6'0" sewer located 20'± right of Sta. 24+70± shall remain.



BILL OF REINFORCING BARS

MARK	SIZE	LENGTH	NUMBER OF BARS	REMARKS
4A-70	#4	7'-0"	472	Bent
4A-96	#4	9'-6"	90	Bent
6A-60	#6	6'-0"	8	Bent
6-76	#6	7'-6"	82	Str.
6-169	#6	16'-9"	2	Str.
6-266	#6	26'-6"	4	Str.
8-60	#8	6'-0"	100	Str.
8-203	#8	20'-3"	100	Str.
8-276	#8	27'-6"	9	Str.
8-330	#8	33'-0"	9	Str.
10-169	#10	16'-9"	10	Str.
10-253	#10	25'-3"	10	Str.
10-289	#10	28'-9"	6	Str.
10A-300	#10	30'-0"	20	Bent
10-350	#10	35'-0"	6	Str.
10-386	#10	38'-6"	10	Str.

HAZELET & ERDAL CONSULTING ENGINEERS  
 BOARD OF WAYNE COUNTY ROAD COMMISSIONERS  
 MOUNT ELLIOTT-MOUND RD.  
 GRADE SEPARATION  
 PIER 13  
 DETROIT, MICHIGAN  
 PHILIP J. NEUDECK  
 WILLIAM E. KREGER  
 MICHAEL BERRY  
 STATE PROJECT 246  
 COUNTY JOB 326  
 SHEET NO. 2  
 ISSUE NO. 2  
 DATE 10-30-68  
 H 8 E FILE No. 603  
 X0107



MARK	SIZE	LENGTH	NUMBER OF BARS	REMARKS
4A-70	#4	7'-0"	296	Bent
4A-96	#4	9'-6"	75	Bent
6A-60	#6	6'-0"	8	Bent
6-76	#6	7'-6"	102	Str.
6-183	#6	18'-3"	2	Str.
6-259	#6	25'-9"	4	Str.
8-60	#8	6'-0"	120	Str.
8-170	#8	17'-0"	120	Str.
8-276	#8	27'-6"	10	Str.
8-289	#8	28'-9"	12	Str.
8-330	#8	33'-0"	10	Str.
8-343	#8	34'-3"	12	Str.
10-183	#10	18'-3"	10	Str.
10-253	#10	25'-3"	12	Str.
10A-293	#10	29'-3"	20	Bent
10-386	#10	38'-6"	12	Str.

POUR	LOCATION	CU.YDS.
A	Subfooting	9.0
B	Footings	63.3
C	Columns & Beam	18.6
D	Column & Beam	12.6
E	Columns & Beam	18.3

ITEM	TOTAL UNIT
Grade A(10B Gravel or 10B Slag)Concrete-Substructure	1218 Cu.Yds.
Steel Reinforcement	21,636 Lbs.
Rubbed Surface Finish	1379 Sq.Ft.
Heating & Housing Substructure Concrete	112.8 Cu.Yds.

NOTES:  
 For General Notes on Reinforced Concrete see Sh. No. 308.  
 See Typical Column Section Sh. No. 314 for lapping of column bars to dowel bars.

\*To apply if beam & column are poured together.

REINFORCEMENT DETAILS

REINFORCEMENT DETAILS

HAZELLET & ERDAL CONSULTING ENGINEERS

BOARD OF ROAD COMMISSIONERS  
 DETROIT, MICHIGAN

WAYNE COUNTY ROAD COMMISSIONERS

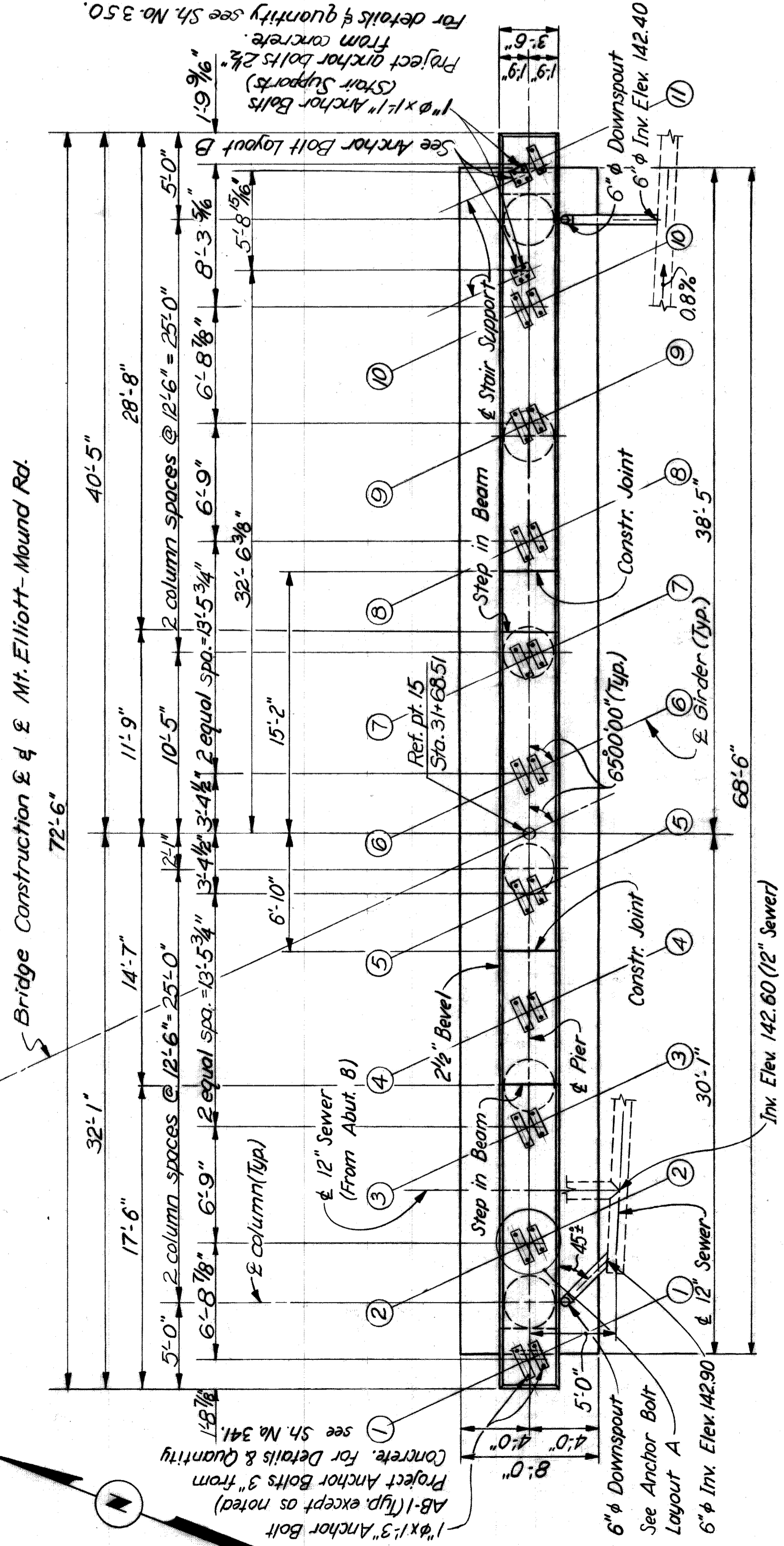
MOUNT ELLIOTT-MOUND RD.  
 GRADE SEPARATION

PIER 14

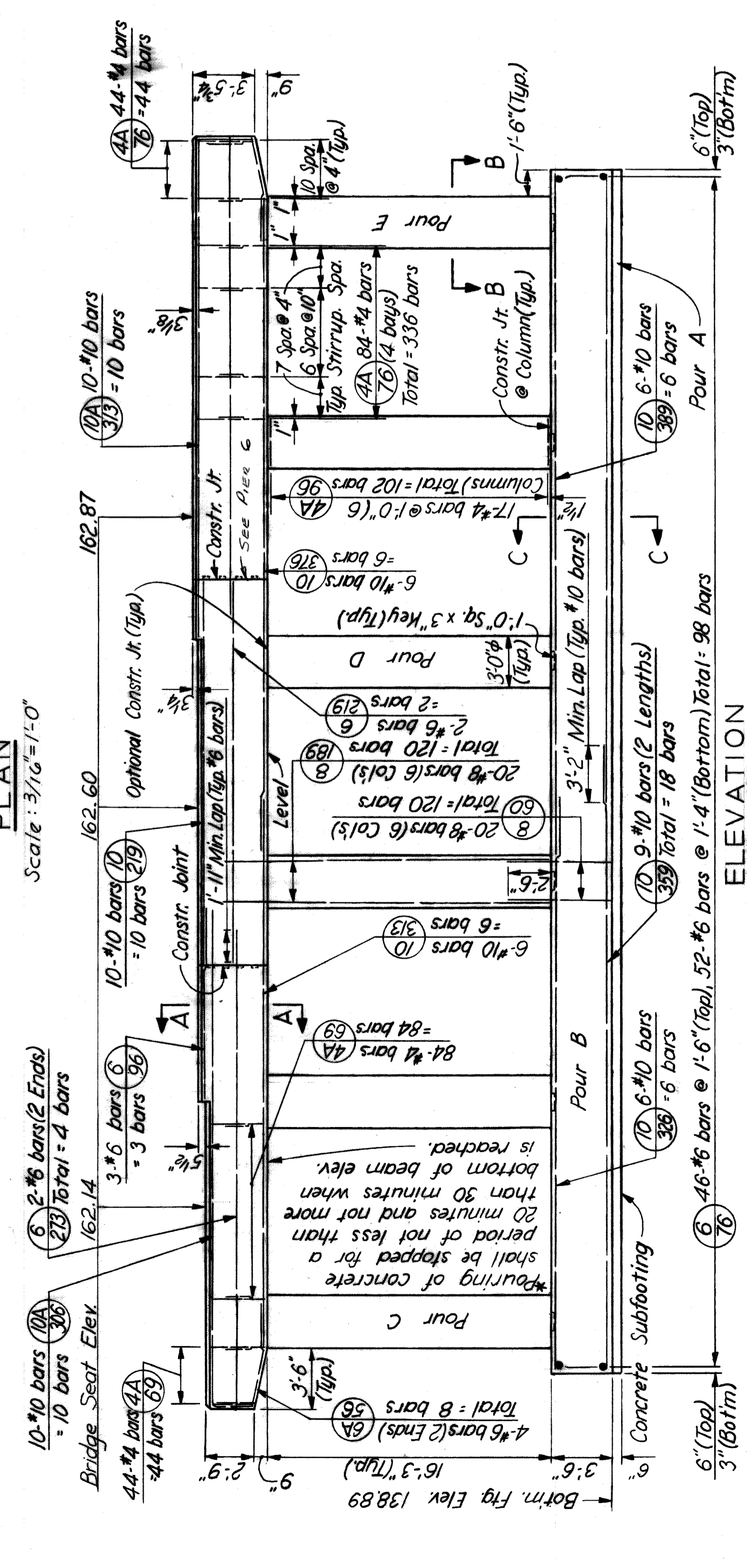
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 COUNTY JOB SHEET NO. 327  
 BRIDGE ROAD  
 STATE FILE  
 ISSUE NO. /  
 DATE 5-7-68

AS BUILT 9-17-71 E.M.B. & LTM  
 REVISIONS  
 APPROVED  
 ENGINEER OF HIGHWAYS AND EXPRESSWAYS  
 APPROVED  
 COUNTY ENGINEER  
 APPROVED  
 COUNTY ENGINEER  
 PHILIP J. NEUDECK  
 MICHAEL BERRY  
 H & E FILE NO. 603  
 X0 107

Bridge Construction E & Mt. Elliott-Mound Rd.



PLAN  
Scale: 3/16" = 1'-0"



ELEVATION  
Scale: 3/16" = 1'-0"

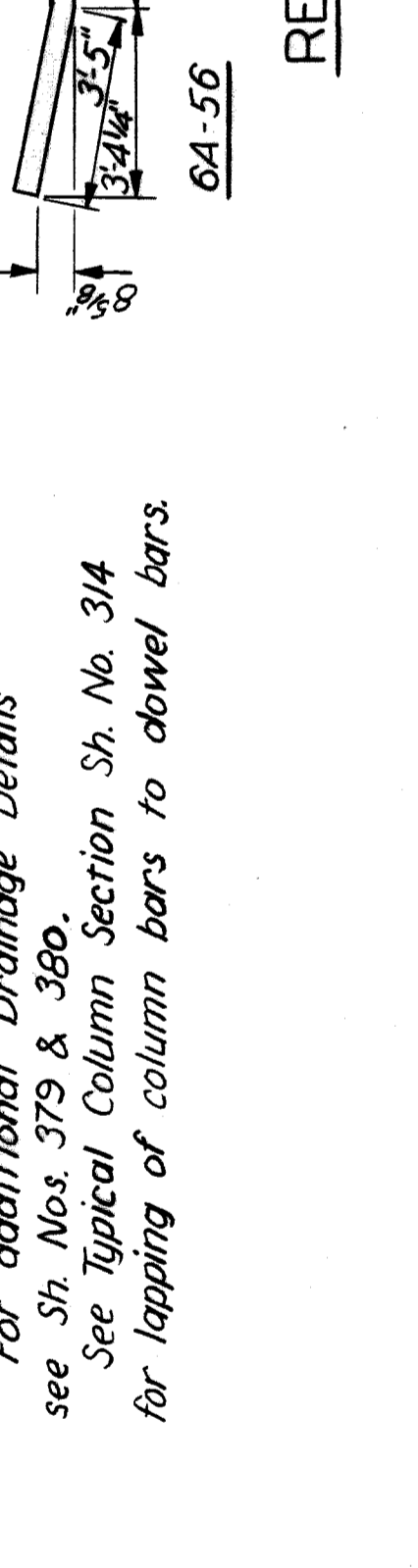
POUR	LOCATION	CU YDS.
A	Subfooting	10.1
B	Footing	71.0
C	Columns & Beam	20.2
D	Columns & Beam	19.8
E	Columns & Beam	22.1

ITEM	TOTAL	UNIT
Grade A (DB Gravel or DB Slag) Concrete-Substructure	143.2	Cu Yds.
Steel Reinforcement	22,477	Lbs.
Rubbed Surface Finish	1716	Sq. Ft.
Heating & Housing Substructure Concrete	133.1	Cu Yds.
Protective Sealant Coating for Structural Concrete	269	Sq. Ft.

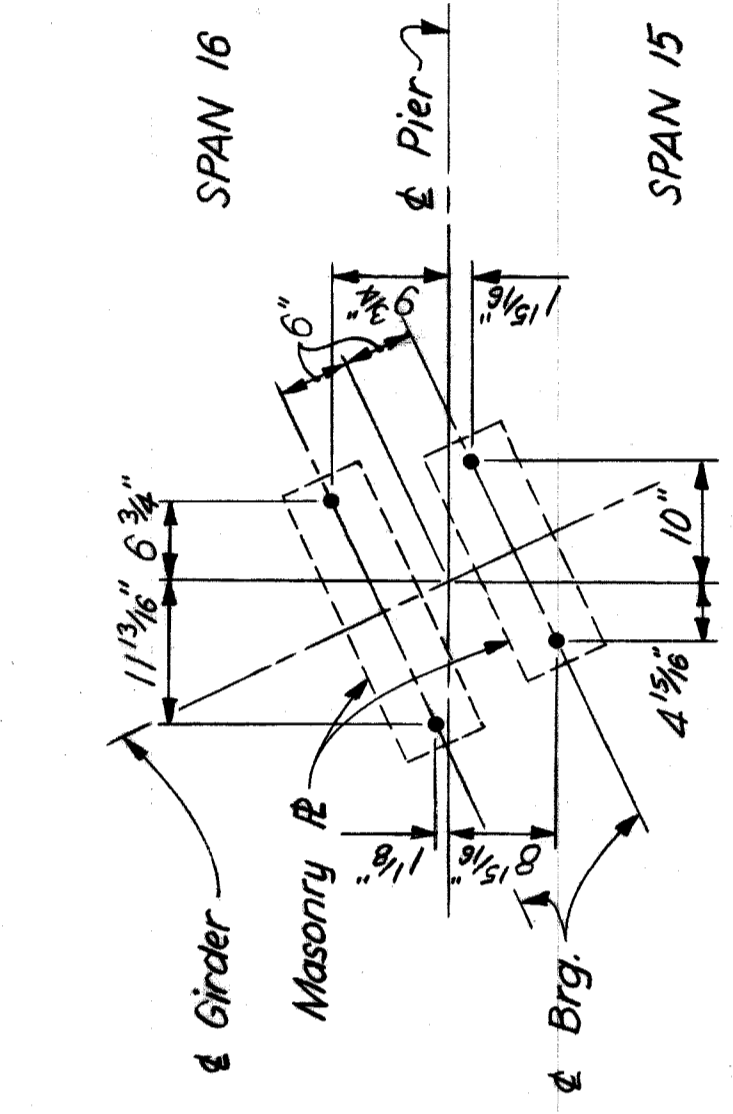
CONCRETE POURS

\*To apply if beam & column are poured together.

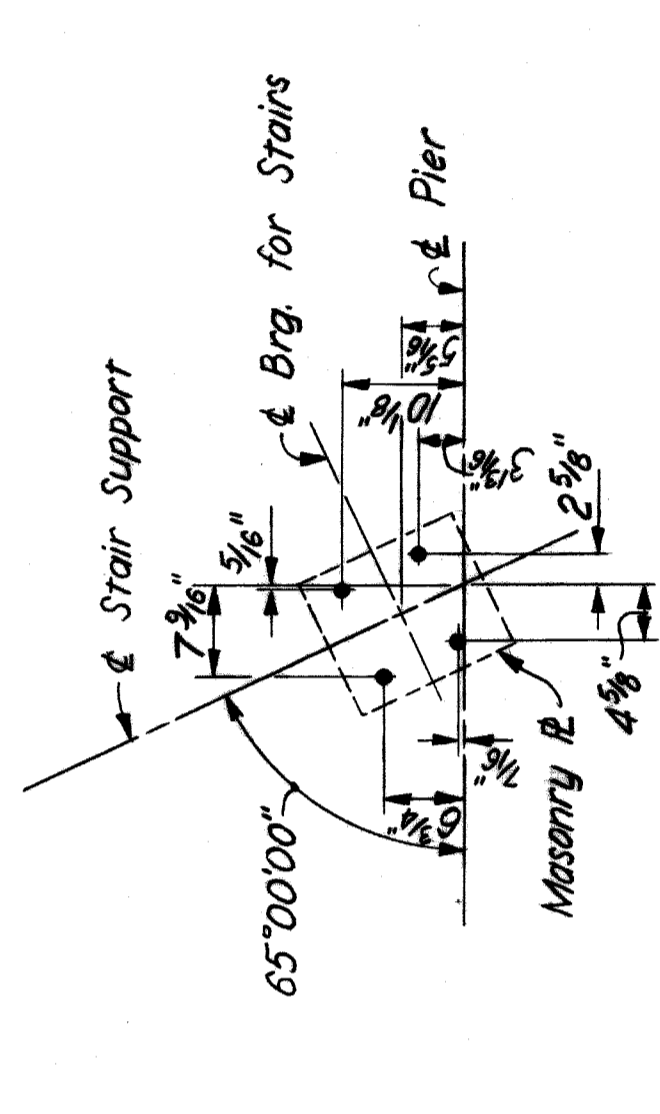
NOTES:  
For General Notes on Reinforced Concrete see Sh. No. 308.  
For additional Drainage Details see Sh. Nos. 379 & 380.  
See Typical Column Section Sh. No. 314 for lapping of column bars to dowel bars.



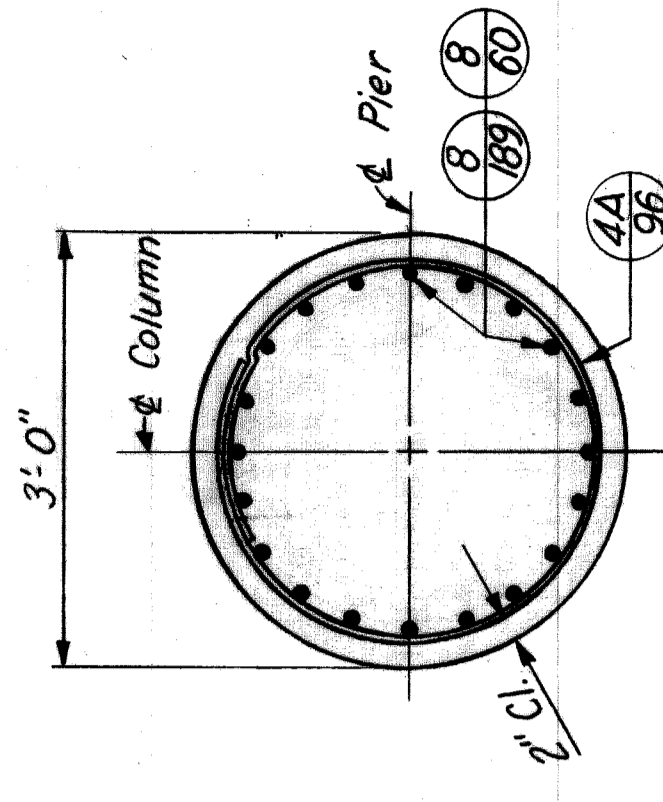
REINFORCEMENT DETAILS



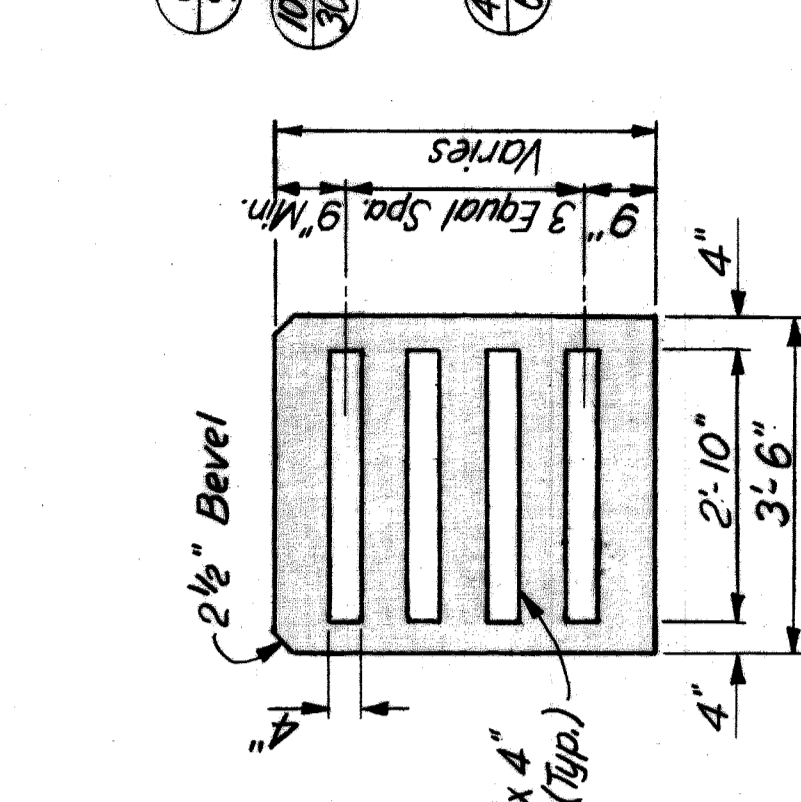
ANCHOR BOLT LAYOUT A  
Scale: 3/4" = 1'-0"



ANCHOR BOLT LAYOUT B  
Scale: 3/4" = 1'-0"

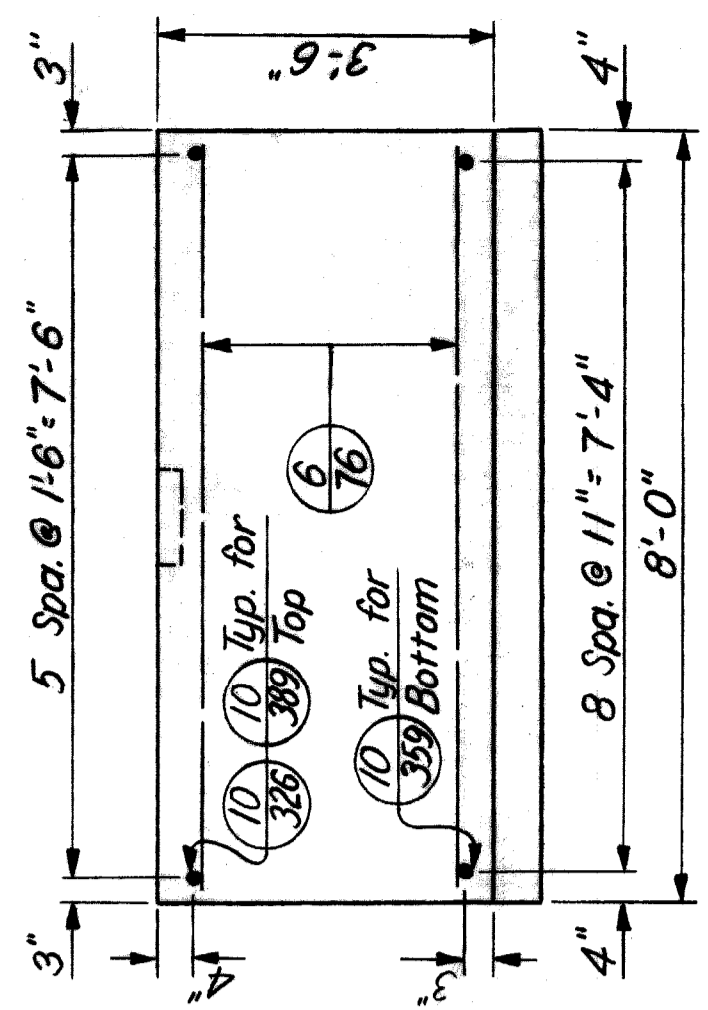


SECTION B-B  
Scale: 3/4" = 1'-0"



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

PIER BEAM JOINT DETAIL  
Scale: 1/2" = 1'-0"



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

MARK	SIZE	LENGTH	NUMBER	REMARKS
4A-69	#4	6'-9"	128	Bent
4A-76	#4	7'-6"	380	Bent
4A-96	#4	9'-6"	102	Bent
6A-56	#6	5'-6"	8	Bent
6-76	#6	7'-6"	98	Str.
6-96	#6	9'-6"	3	Str.
6-219	#6	21'-9"	2	Str.
6-273	#6	27'-3"	4	Str.
8-60	#8	6'-0"	120	Str.
8-189	#8	18'-9"	120	Str.
10-219	#10	21'-9"	10	Str.
10A-306	#10	30'-6"	10	Bent
10A-313	#10	31'-3"	10	Bent
10-313	#10	31'-3"	6	Str.
10-326	#10	32'-6"	6	Str.
10-359	#10	35'-9"	18	Str.
10-376	#10	37'-6"	6	Str.
10-389	#10	38'-9"	6	Str.

HAZELET & ERDAL CONSULTING ENGINEERS

BOARD OF WAYNE COUNTY ROAD COMMISSIONERS  
DETROIT, MICHIGAN  
PHILIP J. NEUDECK

MOUNT ELLIOTT-MOUND RD.  
GRADE SEPARATION  
PIER 15

STATE PROJECT 246  
COUNTY JOB SHEET NO. 328  
ISSUE NO. 1  
DATE 5-23-84

BRIDGE ROAD  
STATE FILE

REVISIONS

APPROVED  
CORRECTIONS  
CHECKED BY  
DATE  
11-28-87

APPROVED  
DATE  
11-28-87

APPROVED  
DATE  
11-28-87

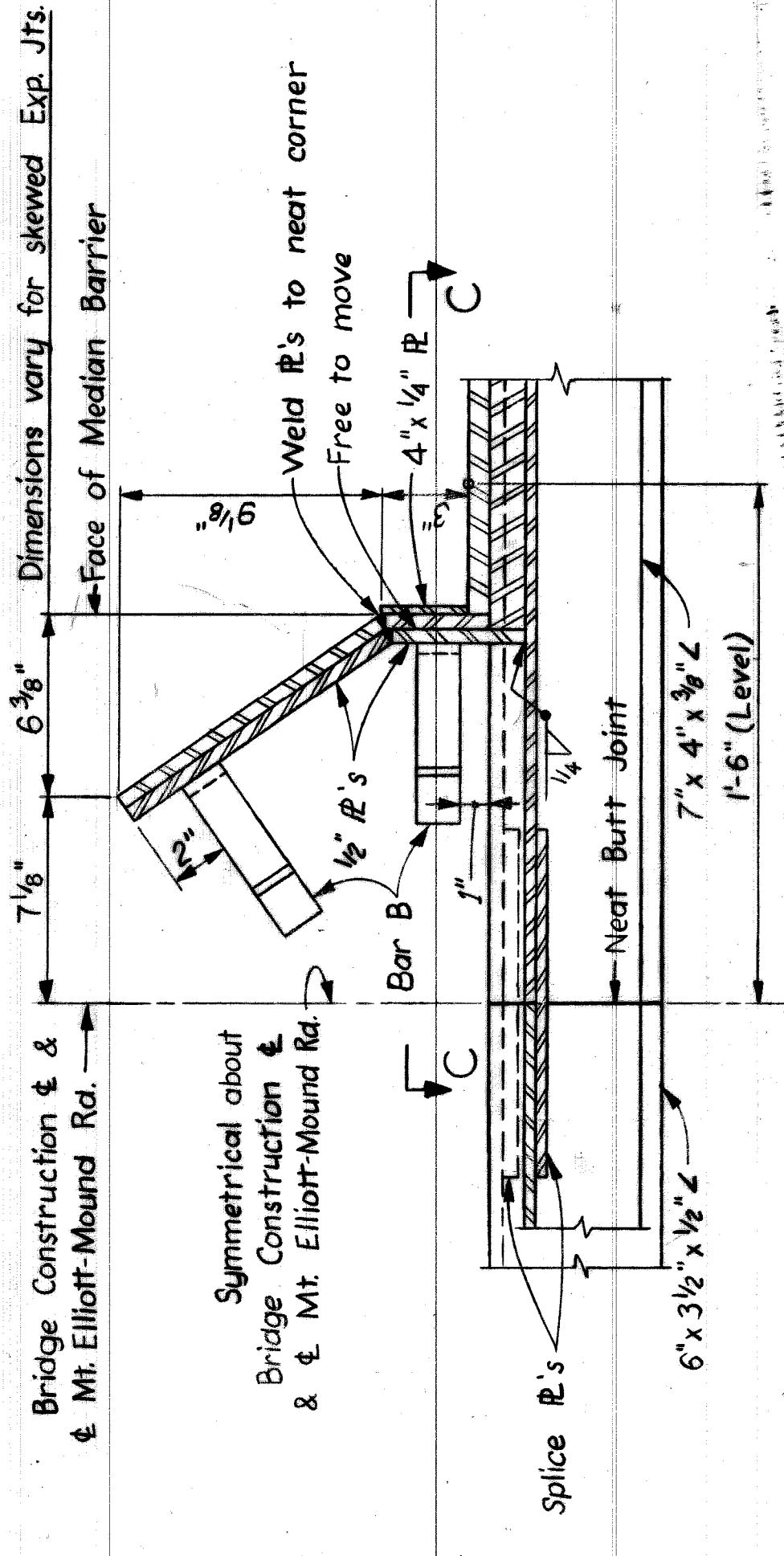
APPROVED  
DATE  
11-28-87

APPROVED  
DATE  
11-28-87

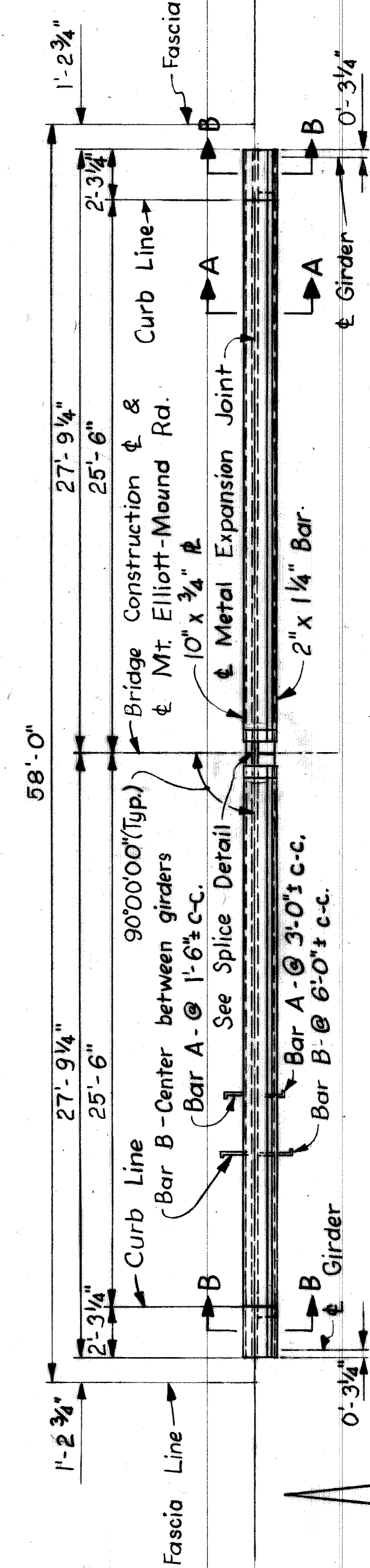
XO 107

H 8 E FILE No. 603

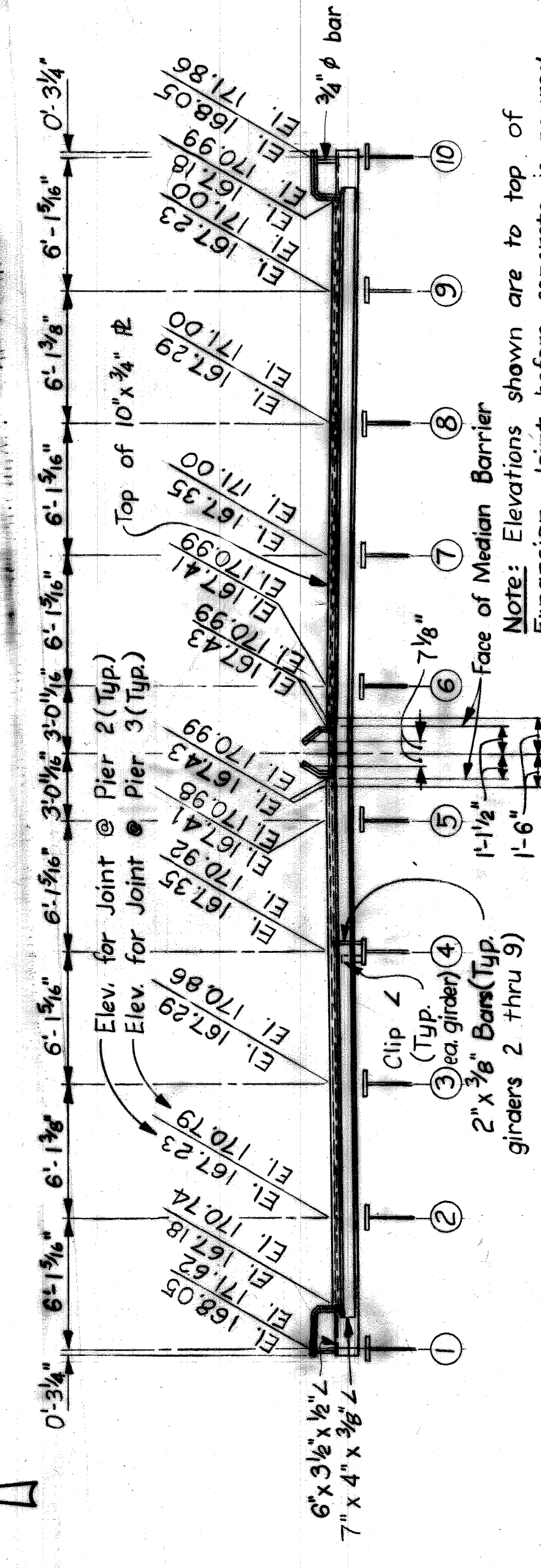
Bridge Construction & Mt. Elliott-Mound Rd.



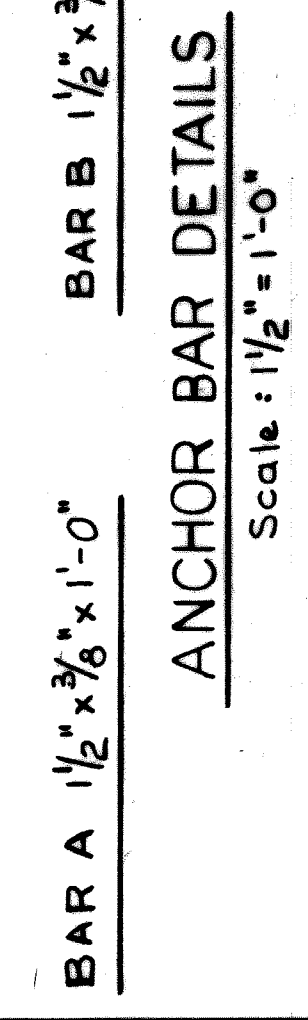
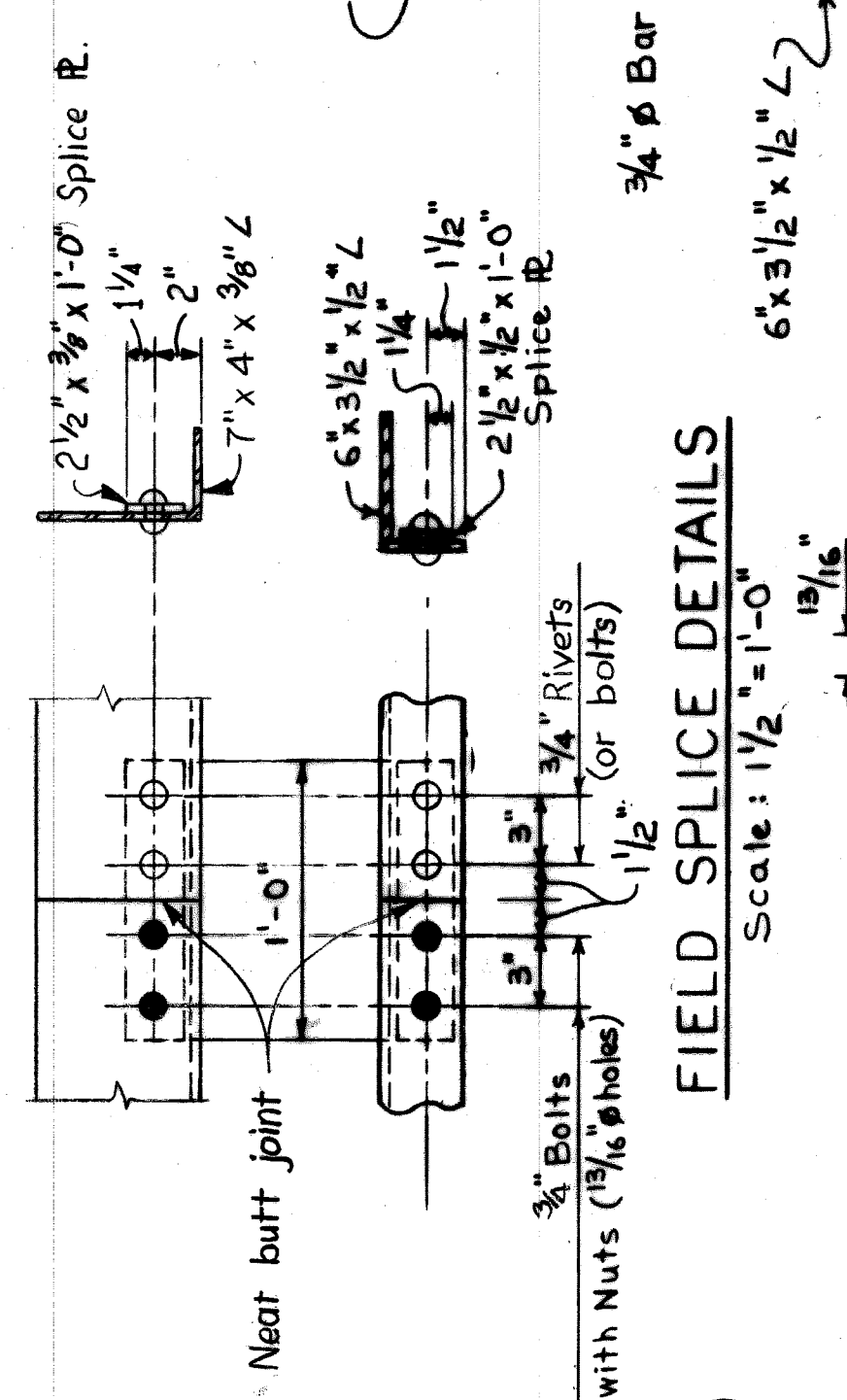
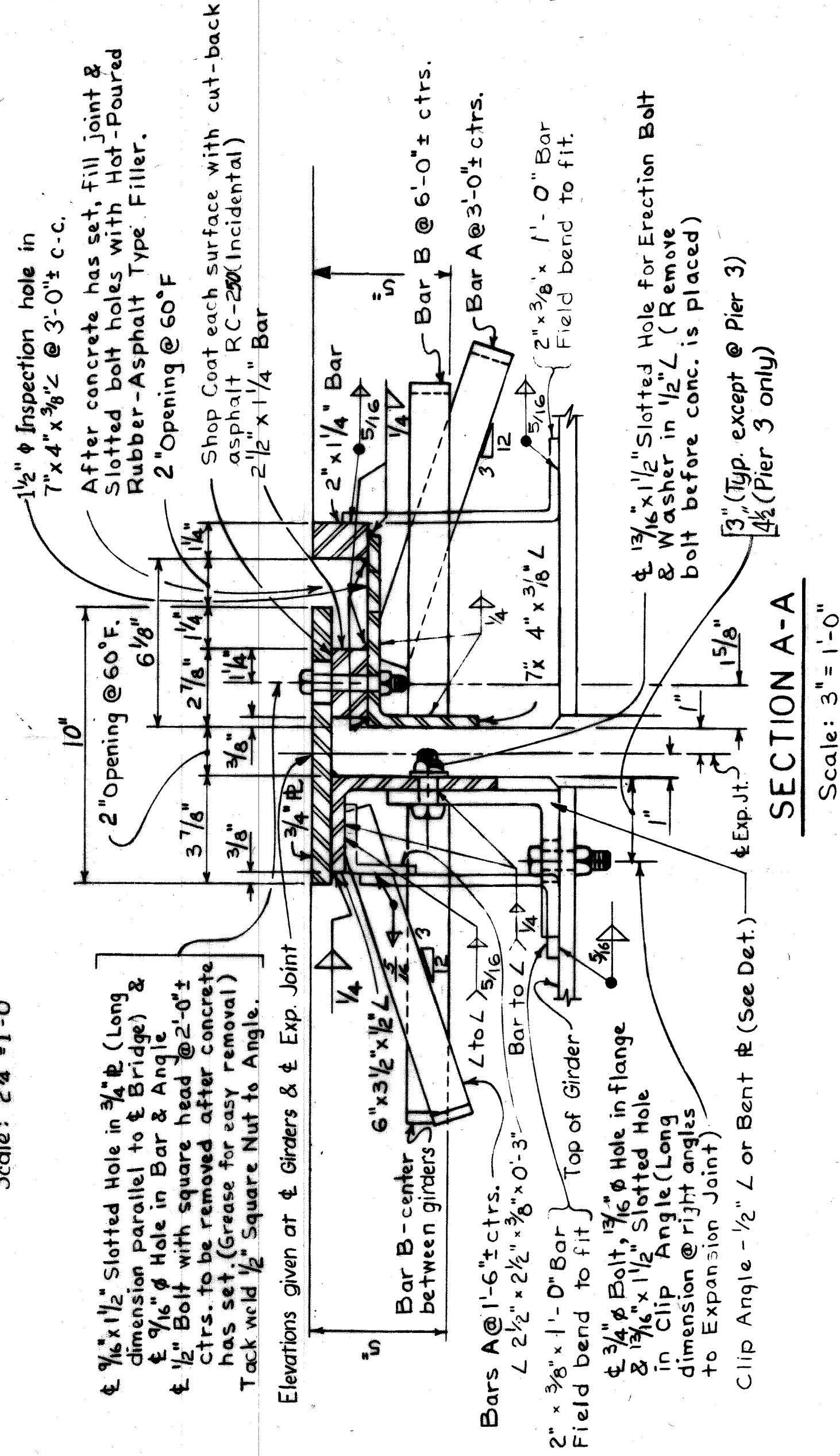
TYPICAL SECTION AT MEDIAN BARRIER  
Scale: 2 1/4" = 1'-0"



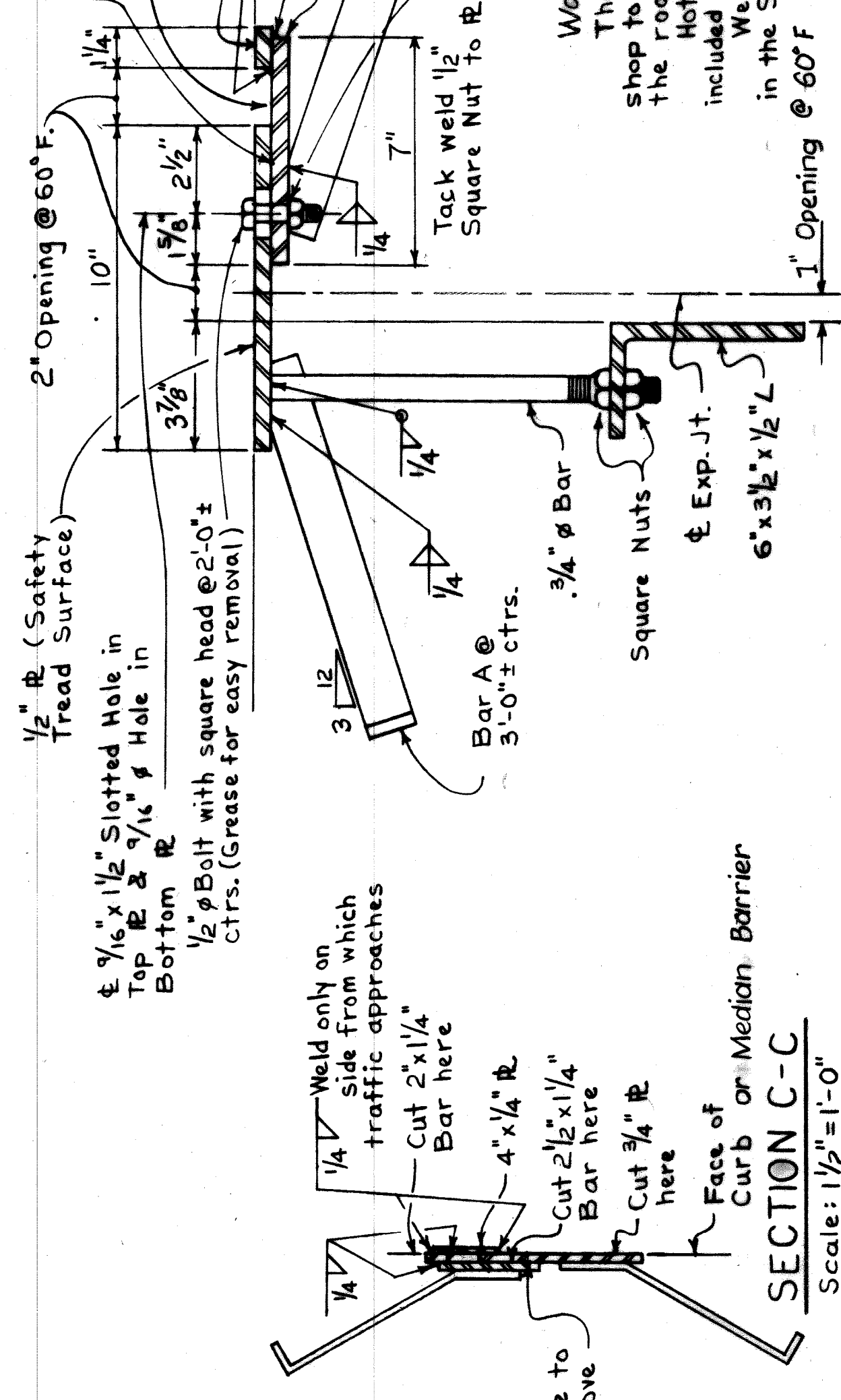
PLAN  
Not to Scale



ELEVATION AT PIERS 2 & 3  
Not to Scale



TYPICAL SECTION AT CURB AREA  
Scale: 1 1/2" = 1'-0"



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

NOTES

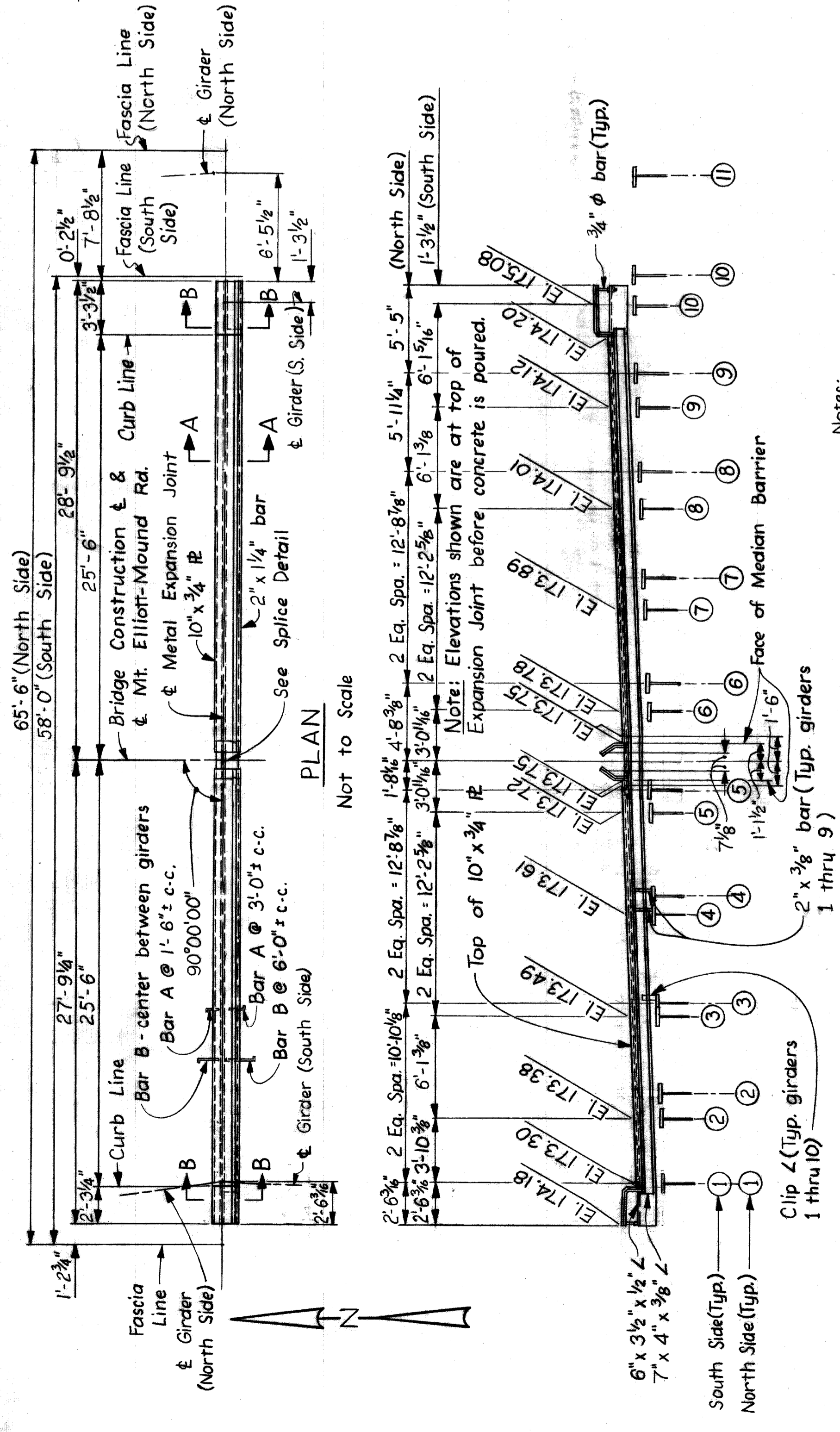
Work this steel with Shts. 343 & 344.  
The Metal Expansion Jt. shall be bent in the shop to conform with the contour of the top of the roadway.  
Hot-Poured Rubber-Asphalt Type Filler is included in the Superstructure Quantities on Sh. #365.  
Weight of Metal Expansion Joint is included in the Structural Steel weight on Sh. #329.

AS BUILT 9-17-71 E.A.B./L.M.

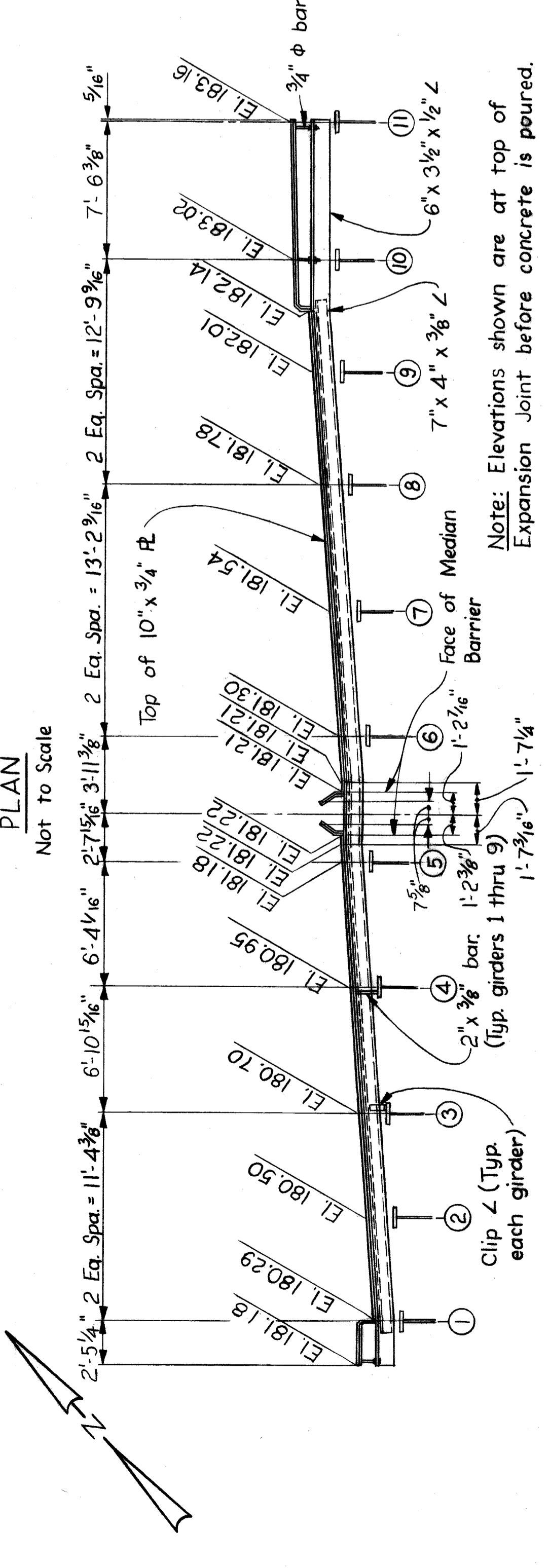
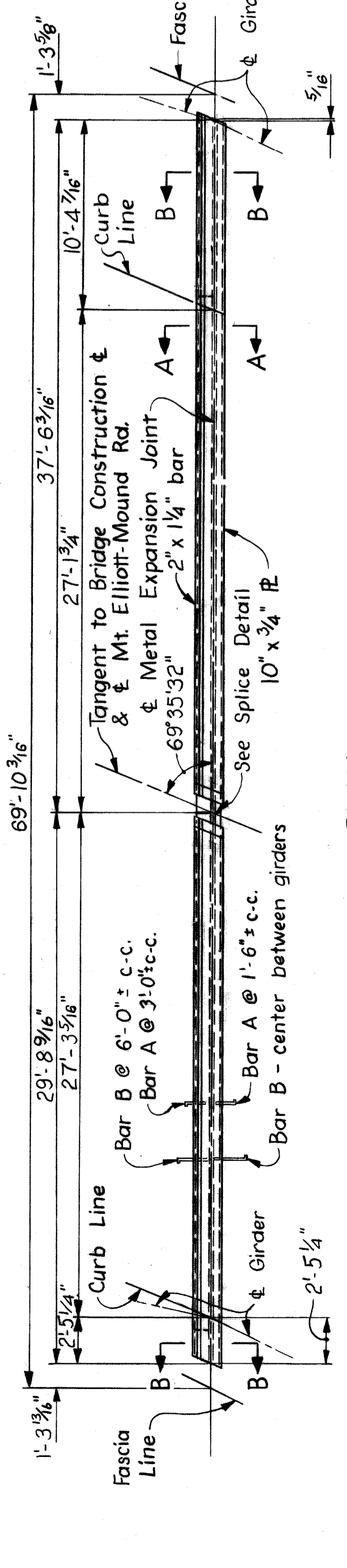
REVISIONS	DATE	BY

APPROVED: *[Signature]*  
DATE: 6-27-67  
ENGINEER: PHILIP J. NEUDECK  
CONTRACT NO. 10-100-100  
SHEET NO. 342

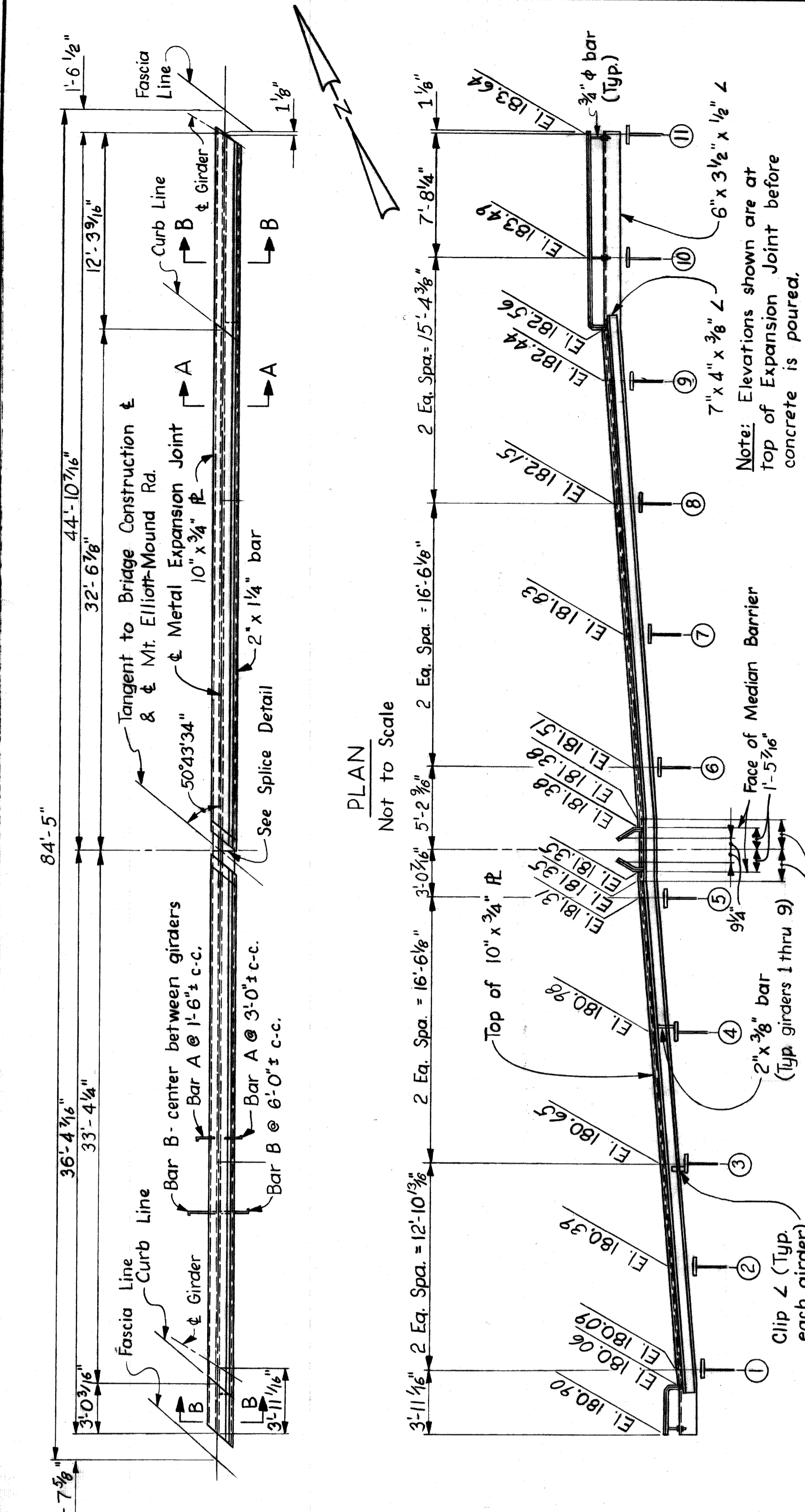
HAZELET & ERDAL CONSULTING ENGINEERS  
BOARD OF WAYNE COUNTY ROAD COMMISSIONERS  
MOUNT ELLIOTT-MOUND RD.  
DETROIT, MICHIGAN  
METAL EXPANSION JOINT DETAILS  
STATE PROJECT 246  
COUNTY JOB 246  
ISSUE NO. 1  
SHEET NO. 342  
H & E FILE NO. 603  
XO107  
MICHAEL BERRY  
WILLIAM E. KREGER



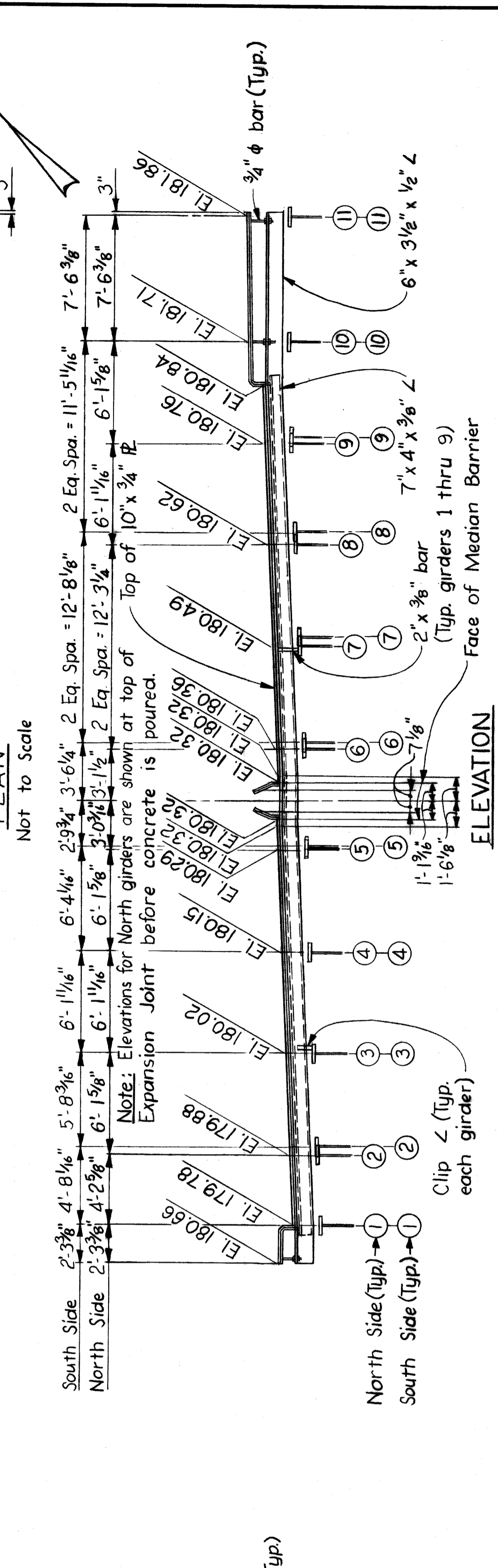
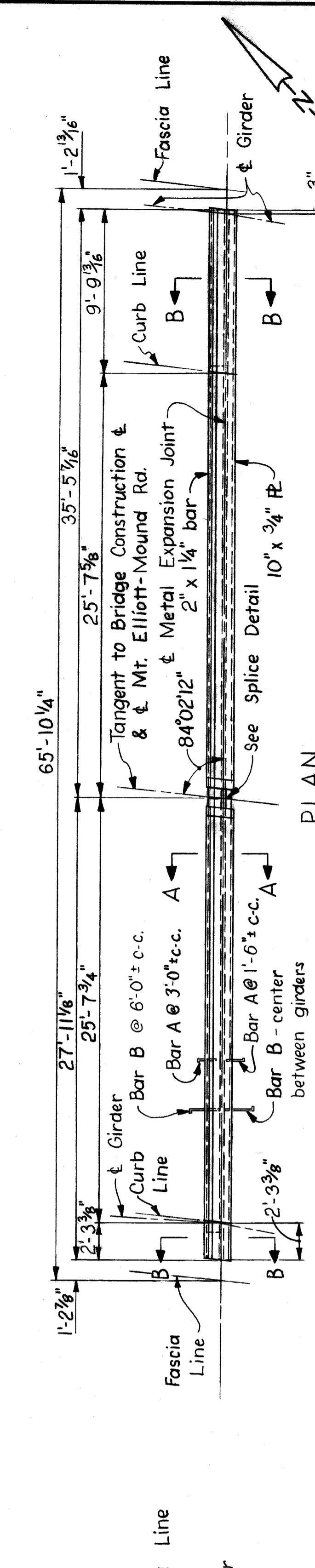
**ELEVATION**  
Not to Scale  
AT PIER 4



**ELEVATION**  
Not to Scale  
AT PIER 9



**ELEVATION**  
Not to Scale  
AT PIER 7



**ELEVATION**  
Not to Scale  
AT PIER 11

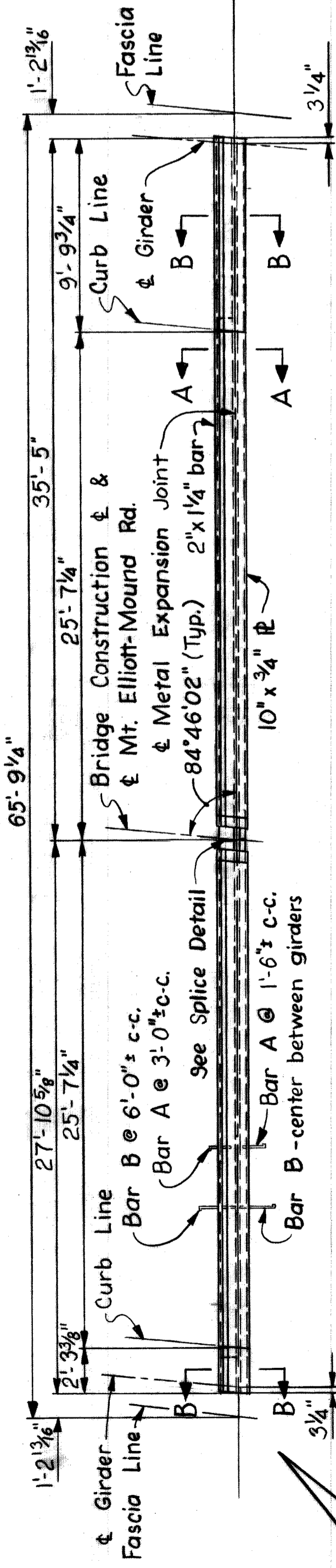
Wayne County Road Commissioners  
 Board of Road Commissioners  
 Detroit, Michigan  
 Philip J. Neudeck  
 William E. Kreeger  
 Michael Berry

Hazelet & Erdal Consulting Engineers  
 State File  
 Bridge  
 Road

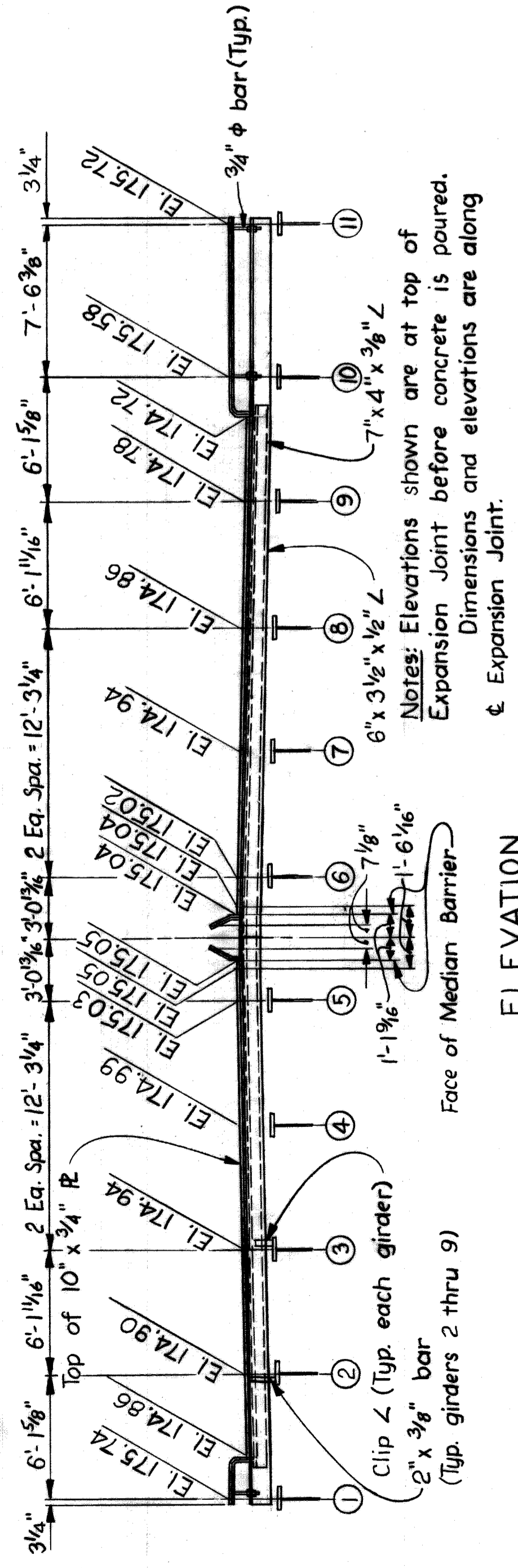
Mount Elliott-Mound Rd.  
 Grade Separation  
 Metal Expansion Joint Details

County Job 246  
 Sheet No. 343  
 Issue No. 5-13-68  
 Date 5-13-68

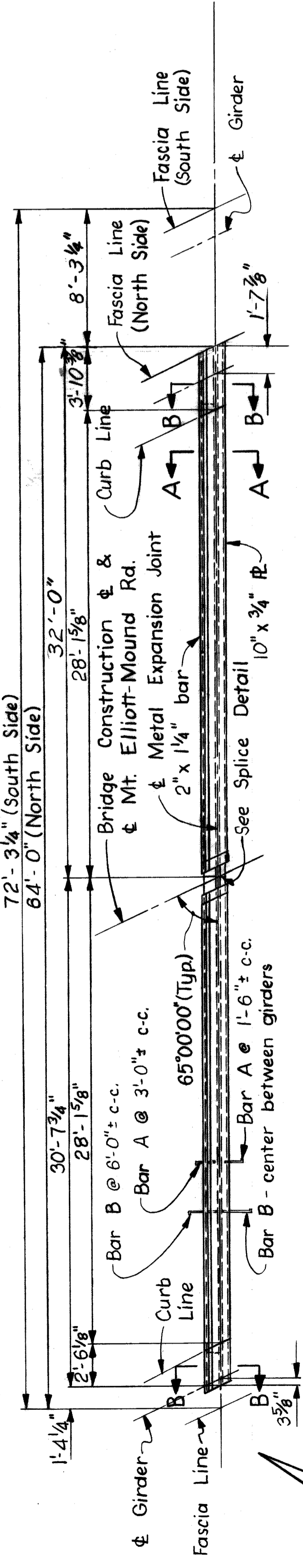
Work this sheet with Shts. 342 & 344.



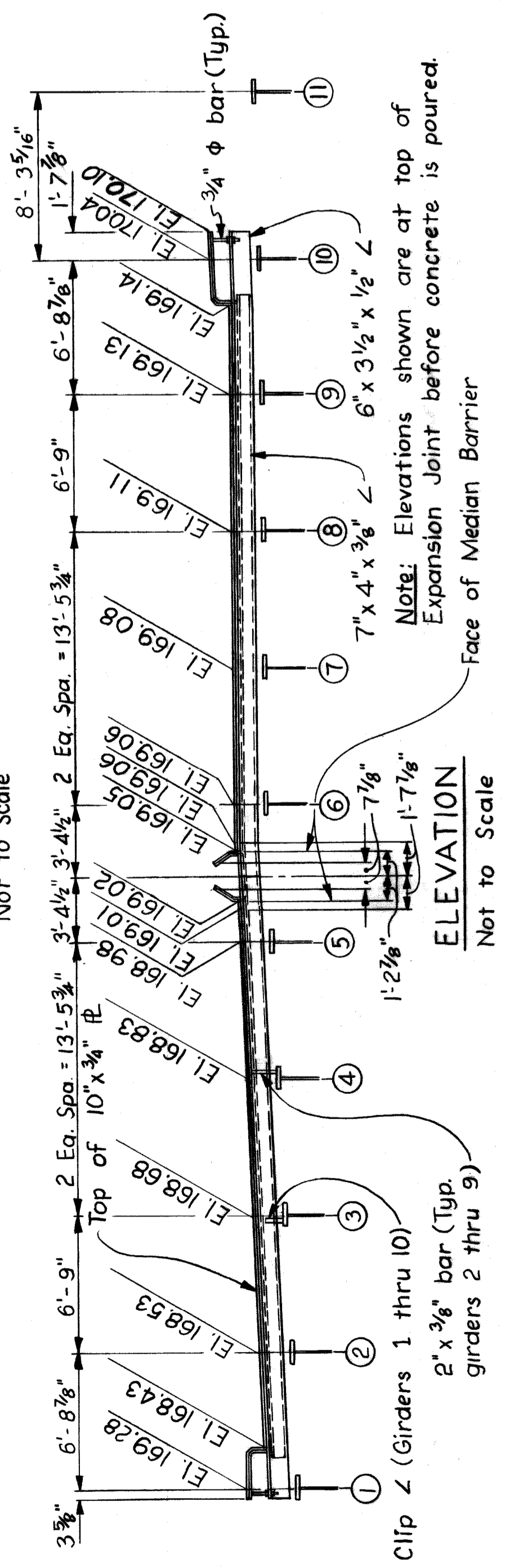
PLAN  
Not to Scale



ELEVATION  
Not to Scale  
AT PIER 13



PLAN  
Not to Scale



ELEVATION  
Not to Scale  
AT PIER 15

Note:  
For Notes, Sections A-A & B-B, curb details, median details, Field Splice Details, Clip & Details, and Anchor Bar Details see Sheet 342.

Work this sheet with Shts. 342 & 343.

STATE FILE	BRIDGE
	ROAD

HAZELET & ERDAL CONSULTING ENGINEERS

MOUNT ELLIOTT - MOUND RD.  
GRADE SEPARATION  
METAL EXPANSION JOINT DETAILS

BOARD OF  
**WAYNE COUNTY ROAD COMMISSIONERS**  
DETROIT, MICHIGAN

MICHAEL BERRY

PHILIP J. NEUDECK

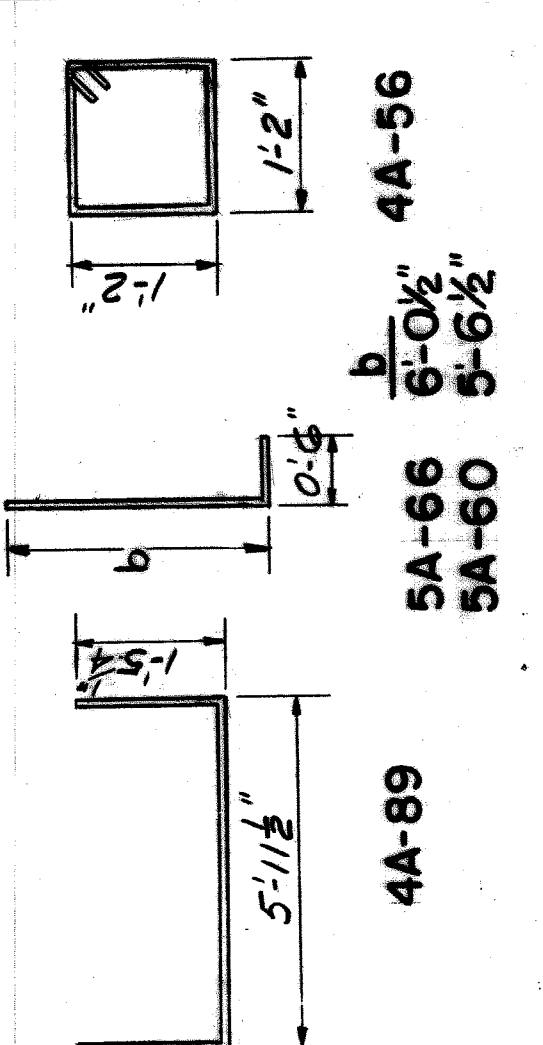
COUNTY HIGHWAY ENGINEER

REVISIONS	APPROVED <i>[Signature]</i> ENGINEER OF STRUCTURES AND HIGHWAYS	STATE PROJECT 246	COUNTY JOB 344
	DATE 6-22-67	ISSUE NO. 1	SHEET NO. 344
	CHECKED BY <i>[Signature]</i>	DATE 5-23-68	
	CONTRACT M. Agoshk		

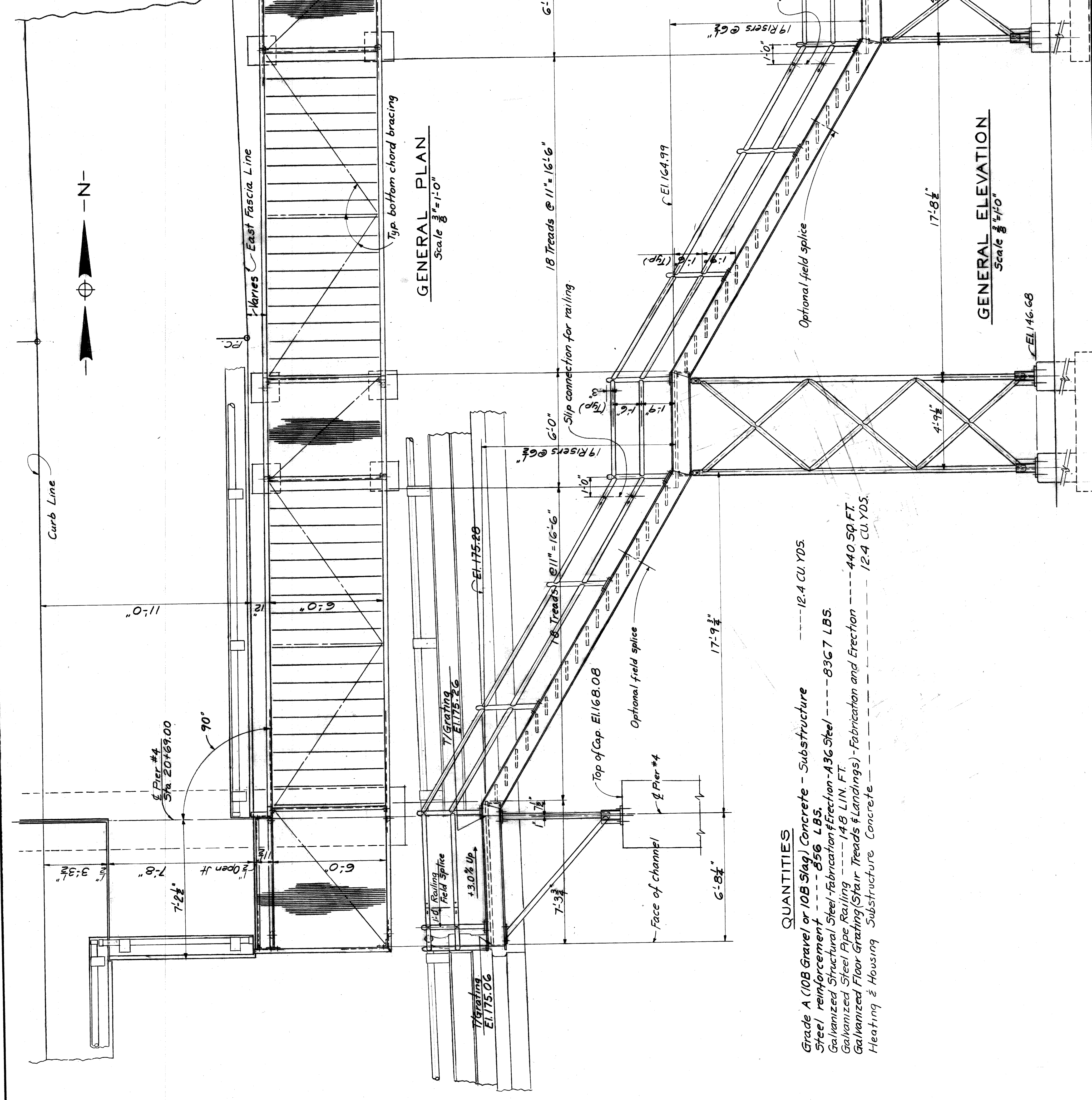
Note: Dimensions & elevations are along & Expansion Joint.

Work this sheet with Shts. 342 & 343.

Mark	Size	Length	No of Bars	Remarks
4A-56	#4	5'-6"	48	Bent
4-69	#4	6'-9"	36	Str.
4-83	#4	8'-3"	28	Str.
4A-89	#4	8'-9"	70	Bent
5A-60	#5	6'-0"	14	Bent
5A-66	#5	6'-6"	32	Bent



POUR	Location	Cu. Yds.
A	South Column Footing	2.4
B	North Column Footing	2.4
C	Stair Footing	0.9
D	South Col. - East Pedestal	0.5
E	South Col. - West Pedestal	0.5
F	North Col. - East Pedestal	0.5
G	North Col. - West Pedestal	0.5
H	North Col. - East Pedestal	0.5
J	North Col. - West Pedestal	0.5
K	North Col. - West Pedestal	0.5
L	North Col. - West Pedestal	0.5
M	Stair Pedestal	2.7



**GENERAL NOTES:**  
**STAIR TREADS AND STAIR LANDINGS:** shall be Type J, Size No. 8 floor grating with checked plate nosing as manufactured by Borden Metal Products Co., Elizabeth, N.J. or equal. It shall be galvanized in accordance with Section 10.14.03(e)1 of the General Specifications.

**STAIRS:** The width of the walkway is taken to the inside of the 12 E stringers.

**RAILING:** Galvanizing shall meet the requirements of Section 10.14.03(e)1.

**PIPE:** shall be black steel pipe, galvanized, meeting the requirements of Section 10.14.03(e)1. All pipe shall be included with Structural Steel for payment except pipe for railing.

**STRUCTURAL STEEL:** shall be A36 steel and shall be galvanized meeting the requirements of Section 10.14.03(e)1.

**WELDING:** shall be in accordance with current American Welding Society Specifications. Minimum weld to be continuous fillet except where otherwise noted.

**FIELD CONNECTIONS:** shall be welded or bolted as shown on plans. Galvanized areas on which the spelter coating has been damaged by welding or otherwise in erection, shall be regalvanized in accordance with AASHTO M36, Sec. 19(c) Metalizing Process. Unless otherwise noted, bolts shall be 3/4 High Strength Bolts with 3/8 holes.

**SHOP CONNECTIONS:** shall be welded as shown on plans.

**QUANTITIES**  
 Grade A (10B Slag) Concrete - Substructure ----- 12.4 CU. YDS.  
 Steel reinforcement ----- 856 LBS.  
 Galvanized Structural Steel Fabrication & Erection - A36 Steel ----- 8367 LBS.  
 Galvanized Steel Pipe Railing ----- 148 LIN. FT.  
 Galvanized Floor Grating (Stair Treads & Landings) - Fabrication and Erection ----- 440 SQ. FT.  
 Heating & Housing Substructure Concrete ----- 12.4 CU. YDS.

HAZELLET & ERDAL CONSULTING ENGINEERS

BOARD OF ROAD COMMISSIONERS  
 WAYNE COUNTY ROAD COMMISSIONERS  
 DETROIT, MICHIGAN  
 WILLIAM E. KREGER  
 PHILIP J. NEUDECK

MOUNT ELLIOTT-MOUND RD.  
 GRADE SEPARATION  
 STAIR NO. 1-GENERAL PLAN & ELEVATION

STATE PROJECT  
 COUNTY JOB  
 BRIDGE  
 ROAD

246  
 345

DATE: 5/13/88  
 ISSUE NO. 1

APPROVED: [Signature]  
 ENGINEER OF STRUCTURES AND EXPRESSWAYS

APPROVED: [Signature]  
 COUNTY ENGINEER

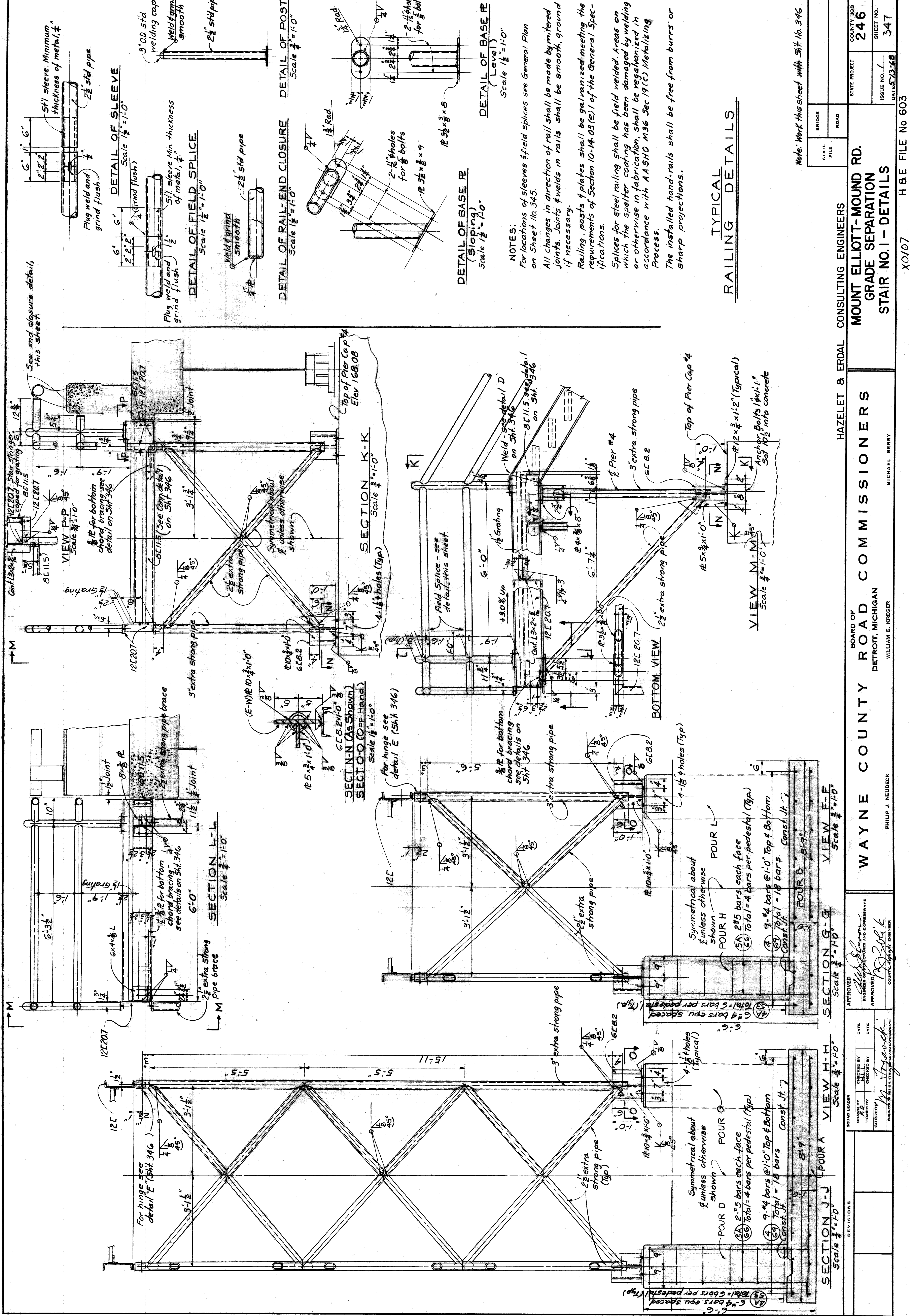
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 TRACED BY: [Signature]

REVISIONS







STATE FILE \_\_\_\_\_ BRIDGE \_\_\_\_\_ ROAD \_\_\_\_\_

STATE PROJECT \_\_\_\_\_ COUNTY JOB **246** SHEET NO. **347**

DATE: 5-13-68

HAZELET & ERDAL CONSULTING ENGINEERS

**MOUNT ELLIOTT-MOUND RD. GRADE SEPARATION STAIR NO. 1 - DETAILS**

Note: Work this sheet with Sht. No. 346.

BOARD OF WAYNE COUNTY ROAD COMMISSIONERS  
 DETROIT, MICHIGAN

WILLIAM E. KREGER  
 COUNTY ENGINEER

MICHAEL BERRY  
 ENGINEER

PHILIP J. NEUDECK  
 COUNTY ENGINEER

APPROVED: [Signature]  
 ENGINEER OF STRUCTURES AND EXPANSWAYS

APPROVED: [Signature]  
 COUNTY ENGINEER

NO.	REVISIONS	CHECKED BY	DATE

### CONCRETE POURS

POUR	Location	Cu. Yds.
A	East Column Footing	0.9
B	West Column Footing	0.9
C	Stair Footing	0.8
D	East Column Pedestal	0.5
E	West Column Pedestal	0.5
F	East Column Pedestal	0.5
G	West Column Pedestal	0.5
H	Stair Pedestal	5.0

### QUANTITIES

Grade A (10B Gravel or 10B Slag) Concrete - Substructure ----- 9.6 CU. YDS.  
 Steel reinforcement ----- 624 LBS.  
 Galvanized Structural Steel - Fabrication and Erection - A36 Steel ----- 5229 LBS.  
 Fence on Stairway ----- 104 LIN. FT.  
 Galvanized Floor Grating (Stair Treads & Landings) Fabrication and Erection ----- 257 SQ. FT.  
 Heating & Housing Substructure Concrete ----- 9.6 CU. YDS.

### GENERAL NOTES:

**STAIR TREADS AND STAIR LANDINGS:**  
 Shall be Type J, Size No. 8 floor grating with checked plate nosing as manufactured by Borden Metal Products Co., Elizabeth, N.J. or equal. It shall be galvanized in conformance with Section 10.14.03 (e) of the General Specifications.

**STAIRS:** The width of the walkway is taken to the inside of the 12" stringers.

**FENCE:** See Supplemental Specifications.

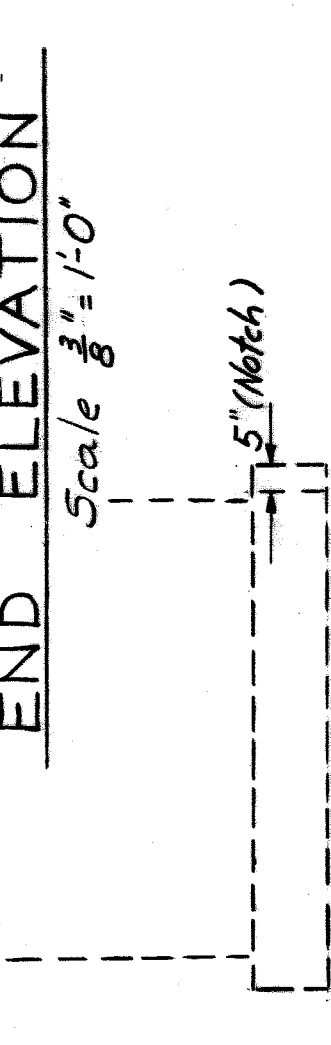
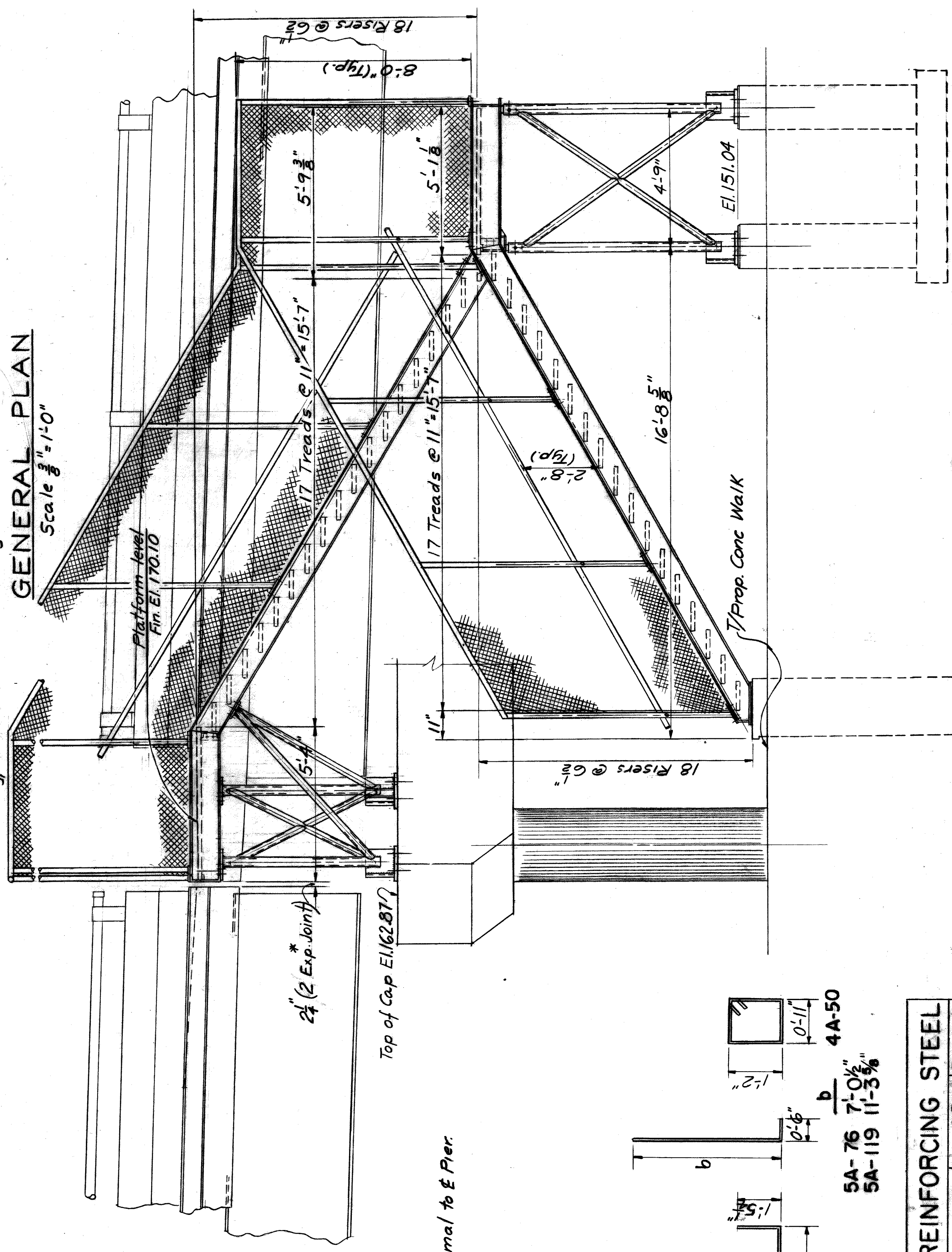
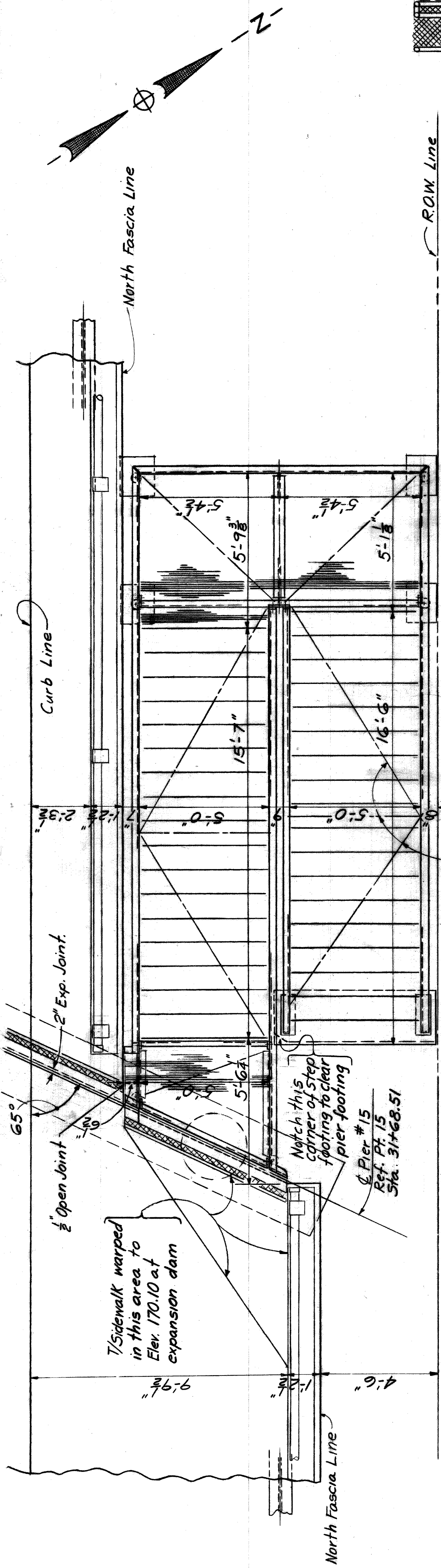
**PIPE:** shall be black steel pipe, galvanized, meeting the requirements of Section 10.14.03 (e). All pipe shall be included with Structural Steel for payment except pipe for railing.

**STRUCTURAL STEEL:** shall be A36 steel and shall be galvanized meeting the requirements of Section 10.14.03 (e).

**WELDING:** shall be in accordance with current American Welding Society Specifications. Minimum weld to be continuous fillet except where otherwise noted.

**FIELD CONNECTIONS:** shall be welded or bolted as shown on plans. Galvanized areas on which the spelter coating has been damaged by welding or otherwise in erection, shall be regalvanized in accordance with AASHTO M36, Sec. 19 (C) Metalizing Process. Unless otherwise noted, bolts shall be High Strength Bolts, with  $\frac{1}{2}$ " & holes.

**SHOP CONNECTIONS:** shall be welded as shown on plans.



Mark	Size	Length	No. of Bars	Remarks
4-2G	#4	2'-6"	7	Str
4-29	#4	2'-9"	24	Str
4A-50	#4	5'-0"	28	Bent
4-69	#4	6'-9"	19	Str
4A-89	#4	8'-9"	20	Bent
5A-76	#5	7'-6"	16	Bent
5A-119	#5	11'-9"	12	Bent

### BILL OF REINFORCING STEEL

Mark	Size	Length	No. of Bars	Remarks
4-2G	#4	2'-6"	7	Str
4-29	#4	2'-9"	24	Str
4A-50	#4	5'-0"	28	Bent
4-69	#4	6'-9"	19	Str
4A-89	#4	8'-9"	20	Bent
5A-76	#5	7'-6"	16	Bent
5A-119	#5	11'-9"	12	Bent

**HAZELET & ERDAL CONSULTING ENGINEERS**

**WAYNE COUNTY ROAD COMMISSIONERS**

**MOUNT ELLIOTT-MOUND RD. GRADE SEPARATION**

**STAIR NO. 2 - GENERAL PLAN & ELEVATIONS**

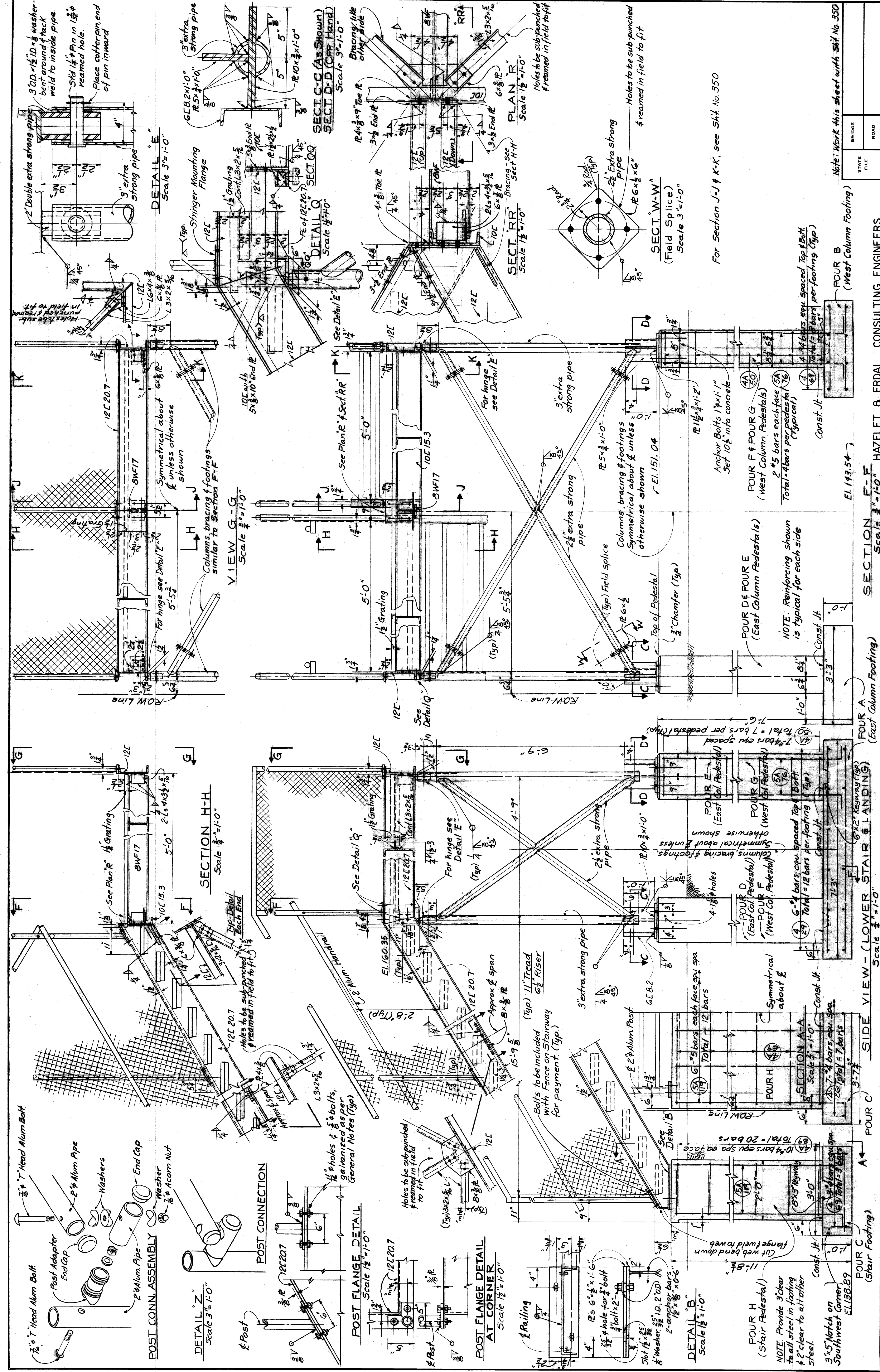
X0107 H & E FILE NO. 603

MICHAEL BERRY  
WILLIAM E. KREGER  
PHILIP J. NEUDECK

BOARD OF COUNTY ENGINEERS  
STATE PROJECT  
COUNTY JOB  
246  
SHEET NO.  
348  
ISSUE NO. / DATE: 5/23/88

APPROVED: [Signature]  
 ENGINEER OF STRUCTURES AND EXPRESSWAYS  
 DATE: 12-15-87  
 CHECKED BY: HLL  
 DATE: 12-15-87  
 CORRECTED BY: [Signature]  
 DATE: 12-15-87  
 DRAWN BY: [Signature]

REVISIONS



3" O.D. x 1/2" ID. x 8 washer-bent around & tack-weld to inside pipe. Place cotter-pin end of pin inward.

2 Double extra strong pipe

3" extra strong pipe

DETAIL E Scale 3/4" = 1'-0"

Stringer Mounting Flange

6L8.2 x 1'-0" R 5.5 x 1'-0"

3" extra strong pipe

12L 10 x 1'-0"

SECT. C-C (As Shown) SECT. D-D (Opp. Hand) Scale 3/4" = 1'-0"

Bracing, 1/2" other side

PLAN R Scale 1/2" = 1'-0"

Holes to be sub-punched &reamed in field to fit

3" extra strong pipe

Holes to be sub-punched &reamed in field to fit

SECT. W-W (Field Splice) Scale 3/4" = 1'-0"

For Section J-J & K-K, see Sht. No. 350

2" extra strong pipe

3" extra strong pipe

Columns, bracing & footings symmetrical about & unless otherwise shown

Anchor Bolts 1 1/2" x 1" Set 10" into concrete

FOUR F & FOUR G (West Column Pedestals) 2 #5 bars each face (Typical) Total = 4 bars per pedestal (Typ.) Const. Jt.

FOUR D & FOUR E (East Column Pedestals) NOTE: Reinforcing shown is typical for each side. Const. Jt.

FOUR A (East Column Footing) 6"x3" Keeway (Typ.) 2 #4 bars, eqv. spaced Top & Bot. Total = 12 bars per footing (Typ.) Const. Jt.

FOUR B (West Column Footing) 6"x3" Keeway (Typ.) 7 #4 bars eqv. spaced (Typ.) Total = 7 bars per pedestal (Typ.) Const. Jt.

SECTION F-F Scale 3/4" = 1'-0"

SECTION G-G Scale 3/4" = 1'-0"

VIEW G-G Scale 3/4" = 1'-0"

VIEW H-H Scale 3/4" = 1'-0"

SECTION H-H Scale 3/4" = 1'-0"

SECTION I-I Scale 3/4" = 1'-0"

SECTION J-J Scale 3/4" = 1'-0"

SECTION K-K Scale 3/4" = 1'-0"

DETAIL Z Scale 3/4" = 1'-0"

POST CONN. ASSEMBLY

POST CONNECTION

POST FLANGE DETAIL Scale 1/2" = 1'-0"

POST FLANGE DETAIL AT CORNER Scale 1/2" = 1'-0"

DETAIL B Scale 1/2" = 1'-0"

DETAIL C Scale 1/2" = 1'-0"

DETAIL D Scale 1/2" = 1'-0"

DETAIL E Scale 1/2" = 1'-0"

DETAIL F Scale 1/2" = 1'-0"

DETAIL G Scale 1/2" = 1'-0"

DETAIL H Scale 1/2" = 1'-0"

DETAIL I Scale 1/2" = 1'-0"

DETAIL J Scale 1/2" = 1'-0"

DETAIL K Scale 1/2" = 1'-0"

DETAIL L Scale 1/2" = 1'-0"

DETAIL M Scale 1/2" = 1'-0"

DETAIL N Scale 1/2" = 1'-0"

DETAIL O Scale 1/2" = 1'-0"

DETAIL P Scale 1/2" = 1'-0"

DETAIL Q Scale 1/2" = 1'-0"

DETAIL R Scale 1/2" = 1'-0"

DETAIL S Scale 1/2" = 1'-0"

DETAIL T Scale 1/2" = 1'-0"

DETAIL U Scale 1/2" = 1'-0"

DETAIL V Scale 1/2" = 1'-0"

DETAIL W Scale 1/2" = 1'-0"

DETAIL X Scale 1/2" = 1'-0"

DETAIL Y Scale 1/2" = 1'-0"

DETAIL Z Scale 1/2" = 1'-0"

BRIDGE	STATE FILE	ROAD	STATE PROJECT	COUNTY JOB
				246
			ISSUE NO. / DATE	SHEET NO. / DATE
			1 / 5-22-68	349 / 5-22-68

BOARD LEADER	APPROVED	ENGINEER OF STRUCTURES AND EXPRESSWAYS
DESIGNED BY	12.14.67	DATE
CHECKED BY		DATE
APPROVED		DATE
CORRECTED	M. Angack	DATE
		ENGINEER OF CIVIL, STRUCTURE AND EXPRESSWAYS

WAYNE COUNTY ROAD COMMISSIONERS	BOARD OF	HAZELT & ERDAL CONSULTING ENGINEERS	STATE PROJECT	COUNTY JOB
DETROIT, MICHIGAN	WAYNE COUNTY ROAD COMMISSIONERS	HAZELT & ERDAL CONSULTING ENGINEERS		246
PHILIP J. NEUDECK				SHEET NO. / DATE
				349 / 5-22-68

MOUNT ELLIOTT-MOUND RD  
GRADE SEPARATION  
STAIR NO.2 - DETAILS

WAYNE COUNTY ROAD COMMISSIONERS  
DETROIT, MICHIGAN

HAZELT & ERDAL CONSULTING ENGINEERS

STATE PROJECT

COUNTY JOB

246

SHEET NO. / DATE

349 / 5-22-68

BRIDGE

STATE FILE

ROAD

STATE PROJECT

COUNTY JOB

246

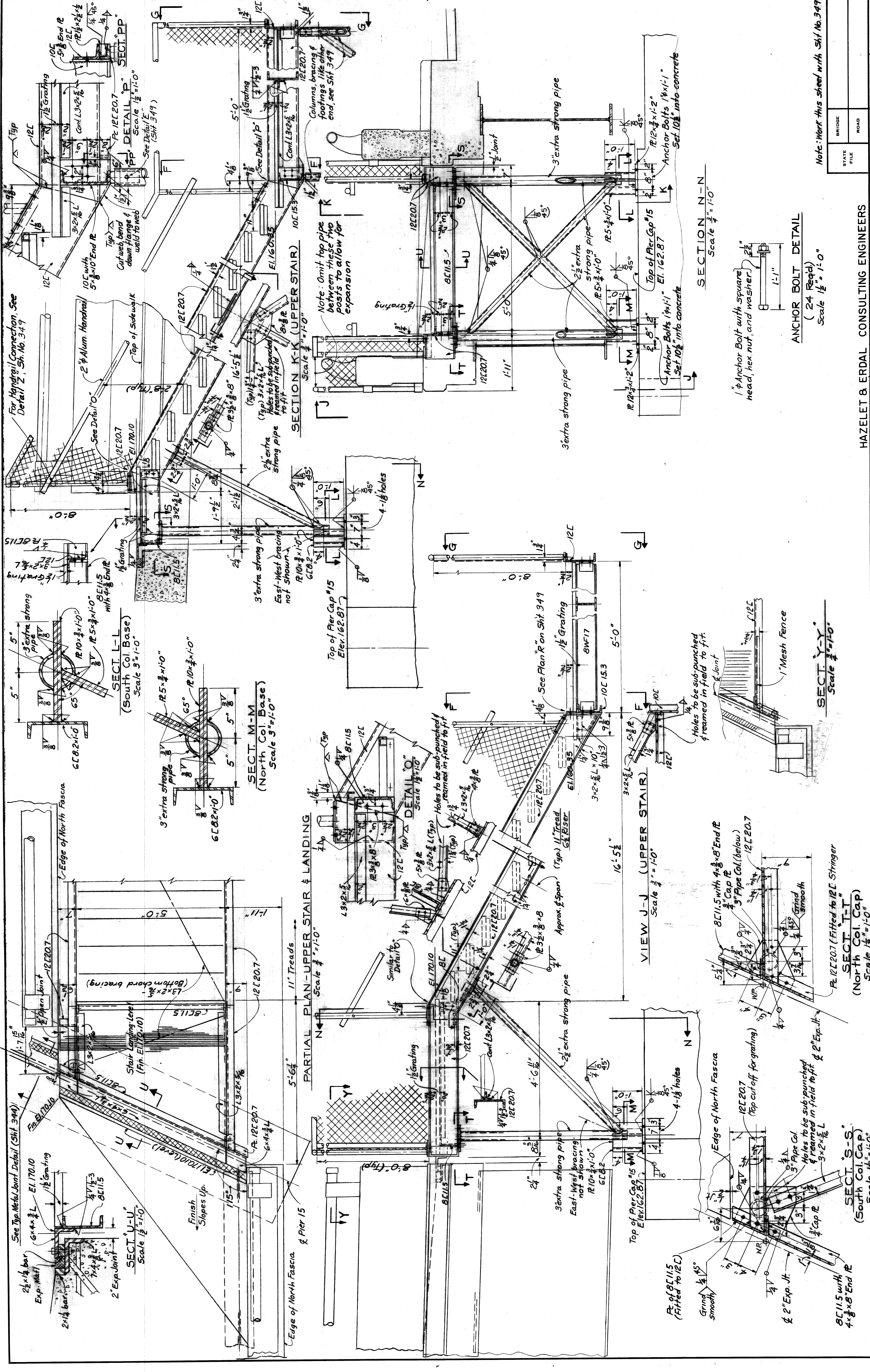
ISSUE NO. / DATE

SHEET NO. / DATE

1 / 5-22-68

349 / 5-22-68

PHILIP J. NEUDECK



STATE FILE ROAD

BRIDGE

STATE PROJECT

COUNTY JOB

246

SHEET NO.

350

ISSUE NO. / DATE

2-23-68

HAZELET & ERDAL CONSULTING ENGINEERS

MOUNT ELLIOTT-MOUND ROAD GRADE SEPARATION STAIR NO. 2 - DETAILS

WAYNE COUNTY ROAD COMMISSIONERS

DETROIT, MICHIGAN

BOARD OF ROAD COMMISSIONERS

WILLIAM E. KREGER

PHILIP J. NEUDECK

MICHAEL BERRY

APPROVED

ENGINEER OF STRUCTURES AND HIGHWAYS

ENGINEER OF HIGHWAYS AND EXPRESSWAYS

REVISIONS

DATE

BY

FOR

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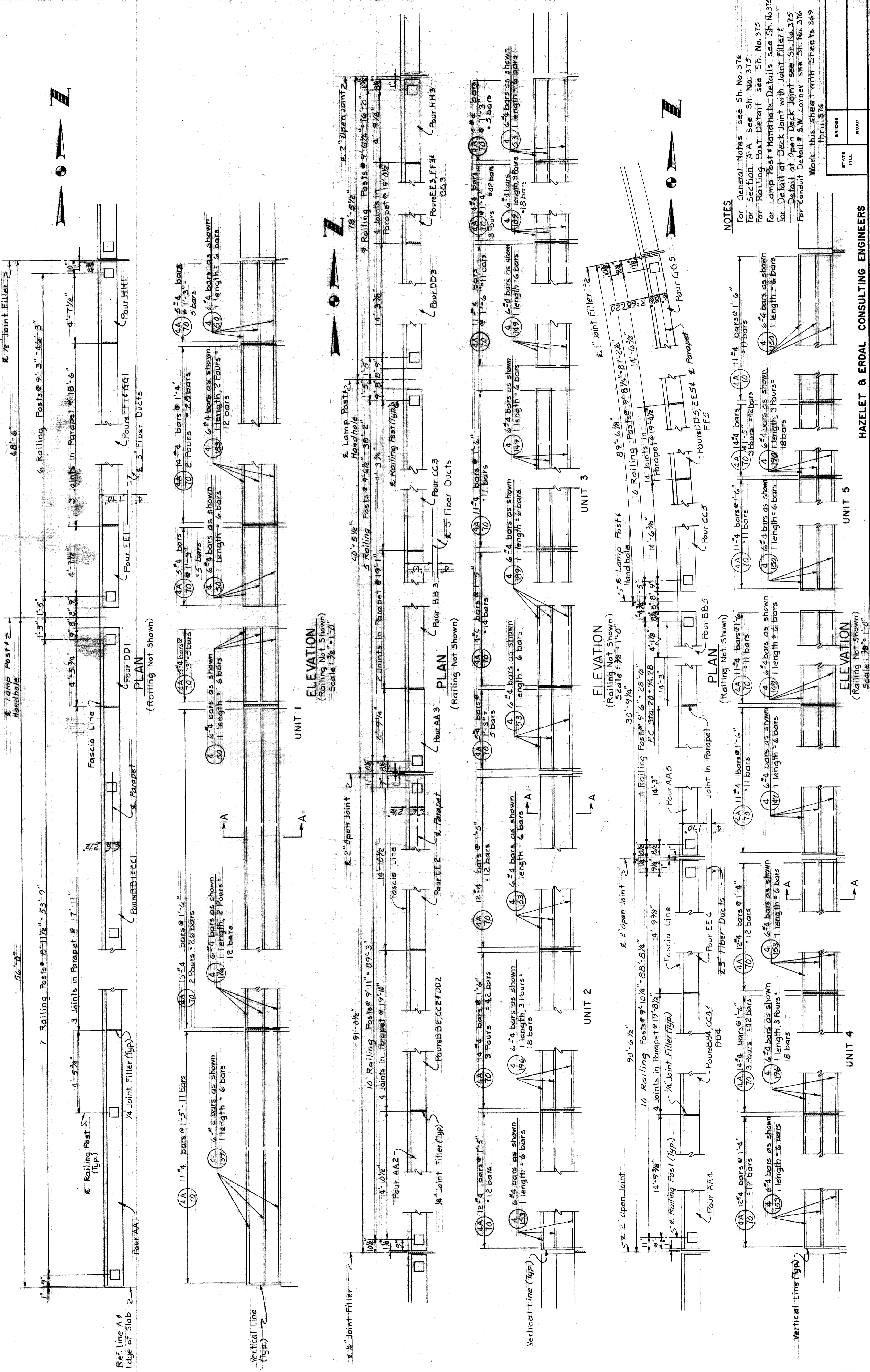
FOR

DATE

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DATE



REVISIONS		APPROVED		BOARD OF		STATE PROJECT		COUNTY JOB	
NO.	DATE	BY	DATE	NAME	DATE	NO.	NO.	NO.	NO.

STATE FILE	BRIDGE	ROAD
HAZELT & ERDAL CONSULTING ENGINEERS		
MOUNT ELLIOTT-MOUND RD.		
GRADE SEPARATION		
W. PARAPET RAILING & LIGHTING DETAILS		
ISSUE NO.	DATE	SHEET NO.

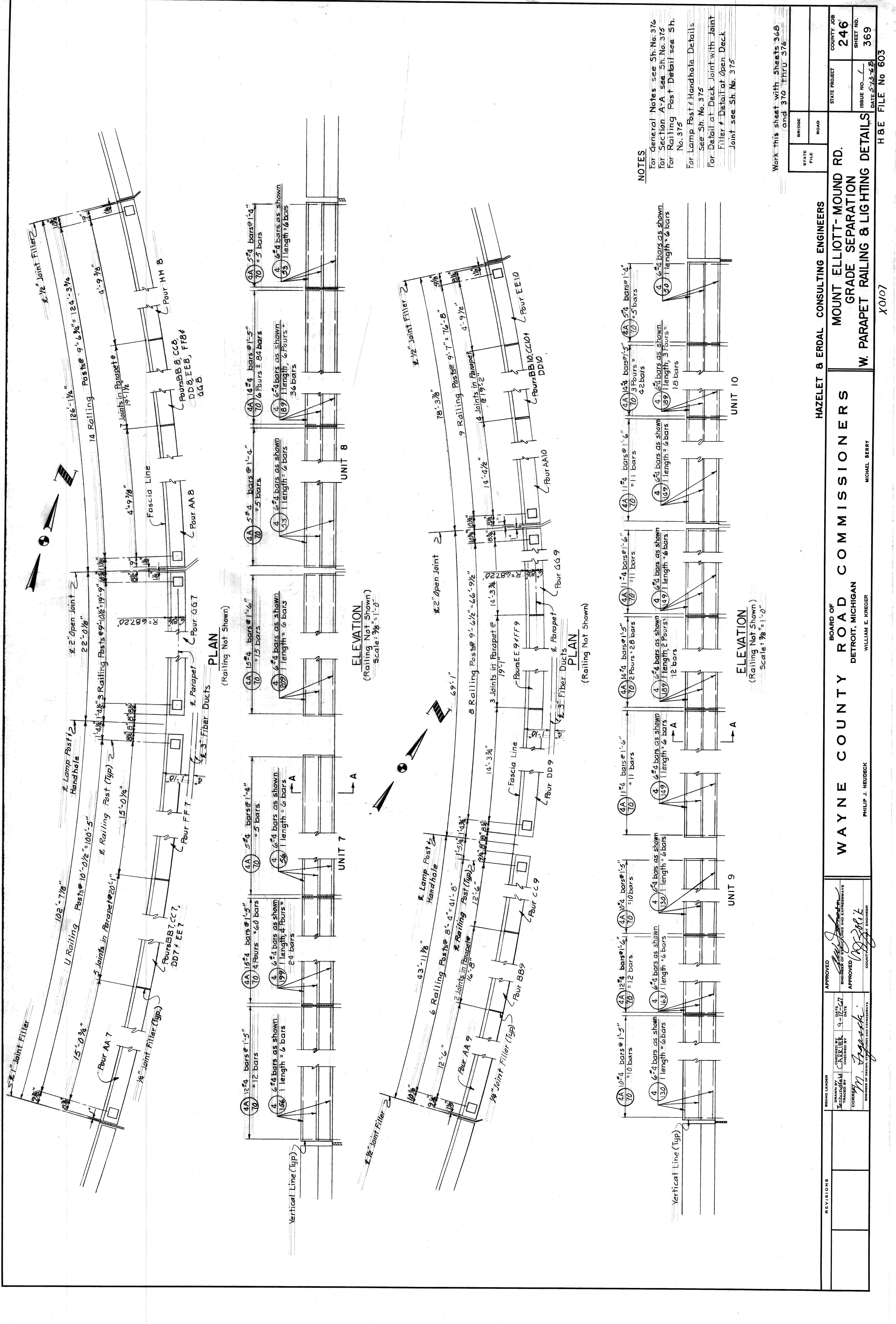
BOARD OF	WAYNE COUNTY	ROAD COMMISSIONERS	DETROIT, MICHIGAN
PHILIP J. NEUDECK	WILLIAM E. KREGER	MICHAEL BERRY	XO107

STATE PROJECT	COUNTY JOB
	246
ISSUE NO.	SHEET NO.
	368

H 8 E FILE NO. 603



**NOTES**  
 For General Notes see Sh. No. 376  
 For Section A-A see Sh. No. 375  
 For Railing Post Detail see Sh. No. 375  
 For Lamp Post & Handhole Details see Sh. No. 375  
 For Detail at Deck Joint with Joint Filler see Sh. No. 375

Work this sheet with sheets 368 and 370 thru 376

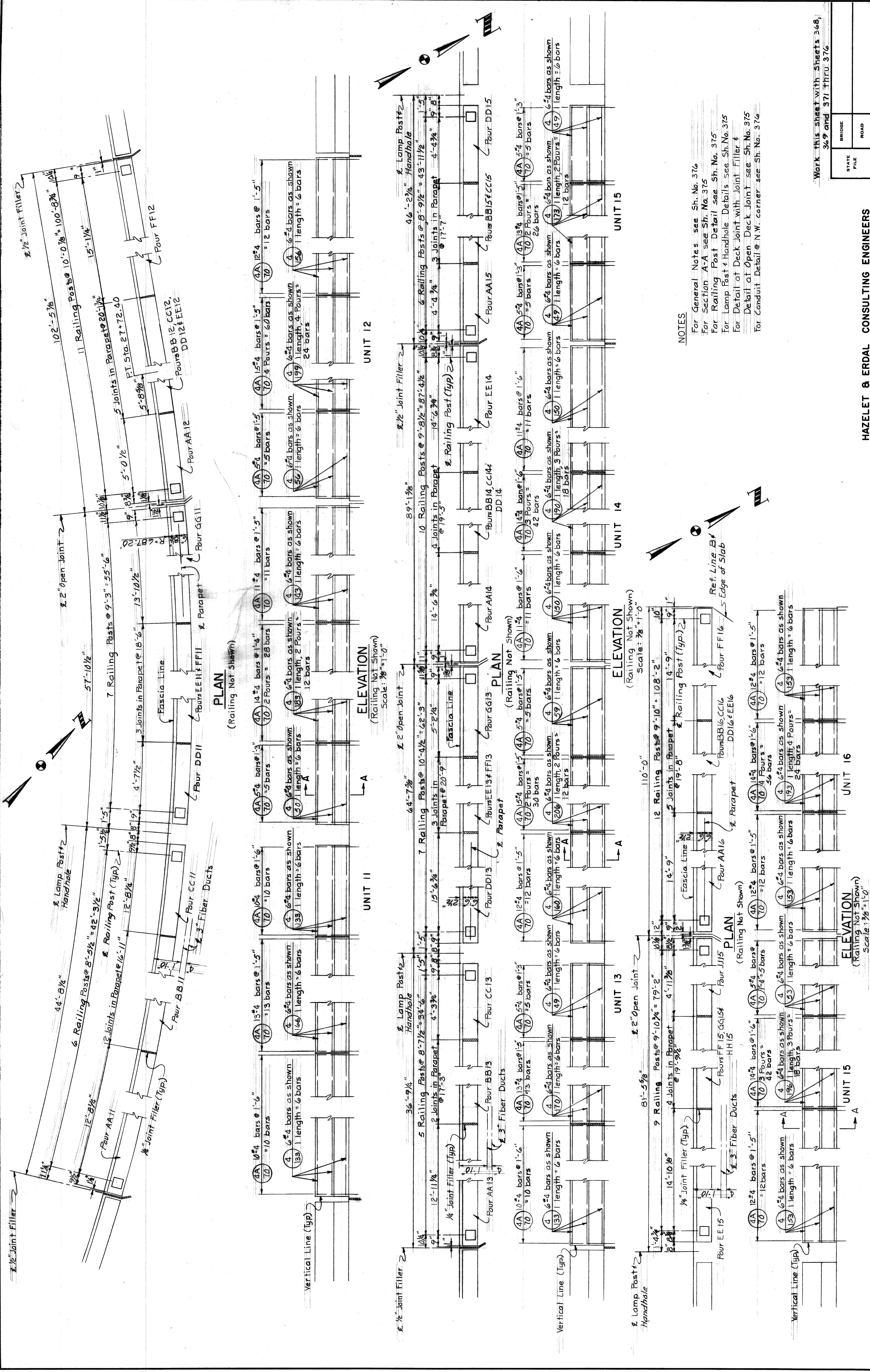
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			246	246
			W. PARAPET RAILING & LIGHTING DETAILS	ISSUE NO. 1
				DATE 5-13-42
				SHEET NO. 369
				H & E FILE NO. 603

**HAZELET & ERDAL CONSULTING ENGINEERS**  
 MOUNT ELLIOTT-MOUND RD.  
 GRADE SEPARATION  
 W. PARAPET RAILING & LIGHTING DETAILS

**WAYNE COUNTY ROAD COMMISSIONERS**  
 DETROIT, MICHIGAN  
 WILLIAM E. KREGER  
 MICHAEL BERRY

APPROVED	APPROVED
ENGINEER OF STRUCTURES AND HIGHWAYS	ENGINEER OF STRUCTURES AND HIGHWAYS
DATE 9-12-47	DATE 9-12-47
CHECKED BY C. A. ELLIOTT	CHECKED BY C. A. ELLIOTT
DESIGNED BY C. A. ELLIOTT	DESIGNED BY C. A. ELLIOTT
CORRECTED BY J. J. NEUDECK	CORRECTED BY J. J. NEUDECK
ENGINEER OF STRUCTURES AND HIGHWAYS	ENGINEER OF STRUCTURES AND HIGHWAYS
BRIDGE LEADER	BRIDGE LEADER
DRAWN BY J. J. NEUDECK	DRAWN BY J. J. NEUDECK
IN CHARGE	IN CHARGE
DATE 9-12-47	DATE 9-12-47
CHECKED BY J. J. NEUDECK	CHECKED BY J. J. NEUDECK
DESIGNED BY J. J. NEUDECK	DESIGNED BY J. J. NEUDECK
CORRECTED BY J. J. NEUDECK	CORRECTED BY J. J. NEUDECK
ENGINEER OF STRUCTURES AND HIGHWAYS	ENGINEER OF STRUCTURES AND HIGHWAYS

X0107



NOTES  
 For General Notes see Sh. No. 376  
 For Section A-A see Sh. No. 375  
 For Railing Post Detail see Sh. No. 375  
 For Lamp Post & Handhole Details see Sh. No. 375  
 For Detail of Deck Joint with Joint Filler & Detail of Open Deck Joint see Sh. No. 375  
 For Conduit Detail @ N.W. corner see Sh. No. 376

Work this sheet with Sheets 368, 369 and 371 thru 376

STATE PROJECT	246
COUNTY JOB	246
ISSUE NO.	1
SHEET NO.	370
DATE	5/23/48

HAZELT & ERDAL CONSULTING ENGINEERS

MOUNT ELLIOTT-MOUND RD.  
 GRADE SEPARATION  
 W. PARAPET RAILING & LIGHTING DETAILS

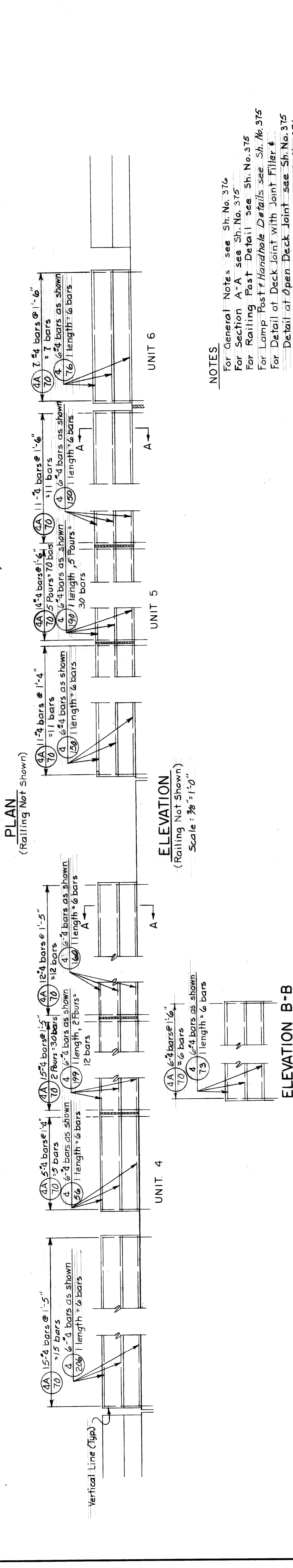
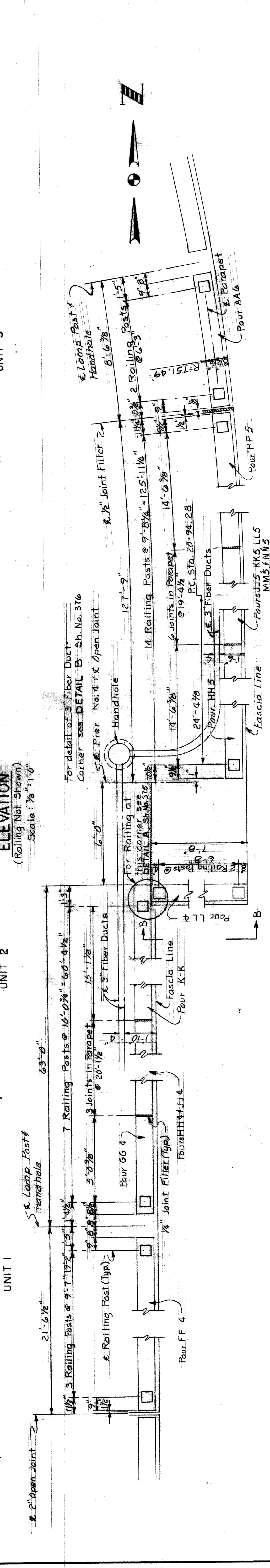
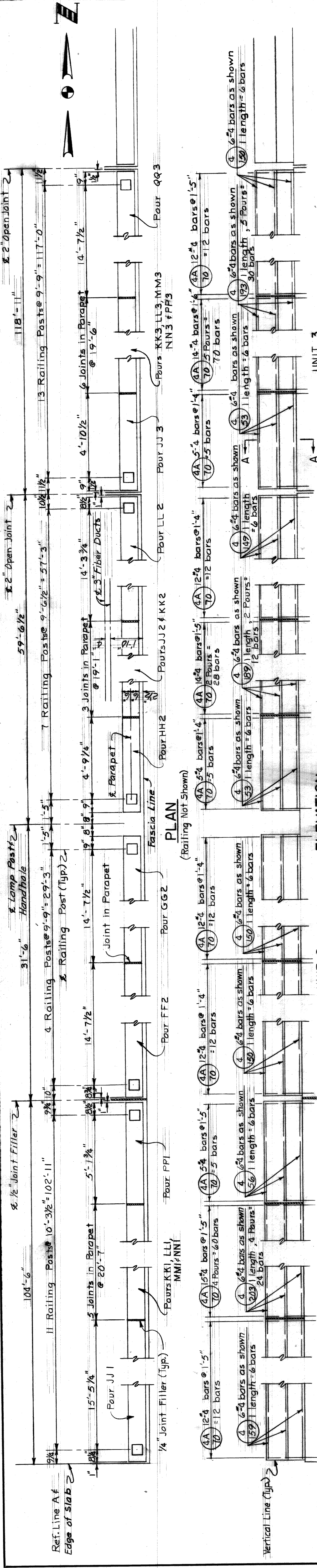
BOARD OF WAYNE COUNTY ROAD COMMISSIONERS  
 DETROIT, MICHIGAN

APPROVED  
 ENGINEER OF STRUCTURES AND EXPRESSWAYS

APPROVED  
 COUNTY HIGHWAY ENGINEER

REVISIONS





**NOTES**

- For General Notes see Sh. No. 376
- For Section A-A see Sh. No. 375
- For Railing Post Detail see Sh. No. 375
- For Lamp Post Handhole Details see Sh. No. 375
- For Detail of Deck Joint with Joint Filler see Sh. No. 375
- For Detail of Open Deck Joint see Sh. No. 375
- For Conduit Detail @ S.E. corner see Sh. No. 376

Work this sheet with Sheets 368 thru 370 and 372 thru 376

STATE FILE	BRIDGE	ROAD
STATE PROJECT		
COUNTY JOB		
246		
ISSUE NO. /		
DATE 2-23-68		
371		

**HAZELET & ERDAL CONSULTING ENGINEERS**

**BOARD OF WAYNE COUNTY ROAD COMMISSIONERS**  
DETROIT, MICHIGAN

**MOUNT ELLIOTT-MOUND RD. GRADE SEPARATION**  
**E. PARAPET RAILING & LIGHTING DETAILS**

APPROVED: *[Signature]*  
ENGINEER OF STRUCTURES AND EXPANSIVES

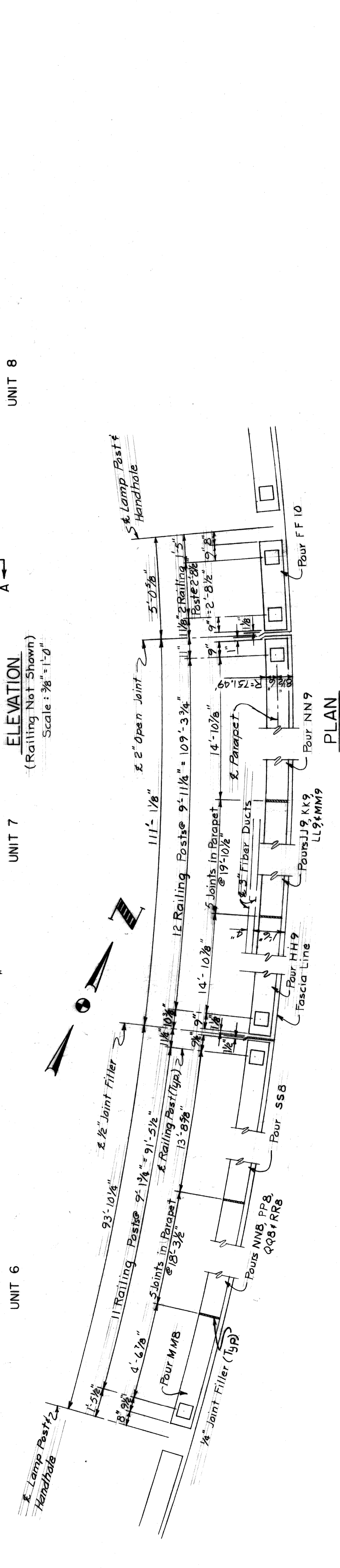
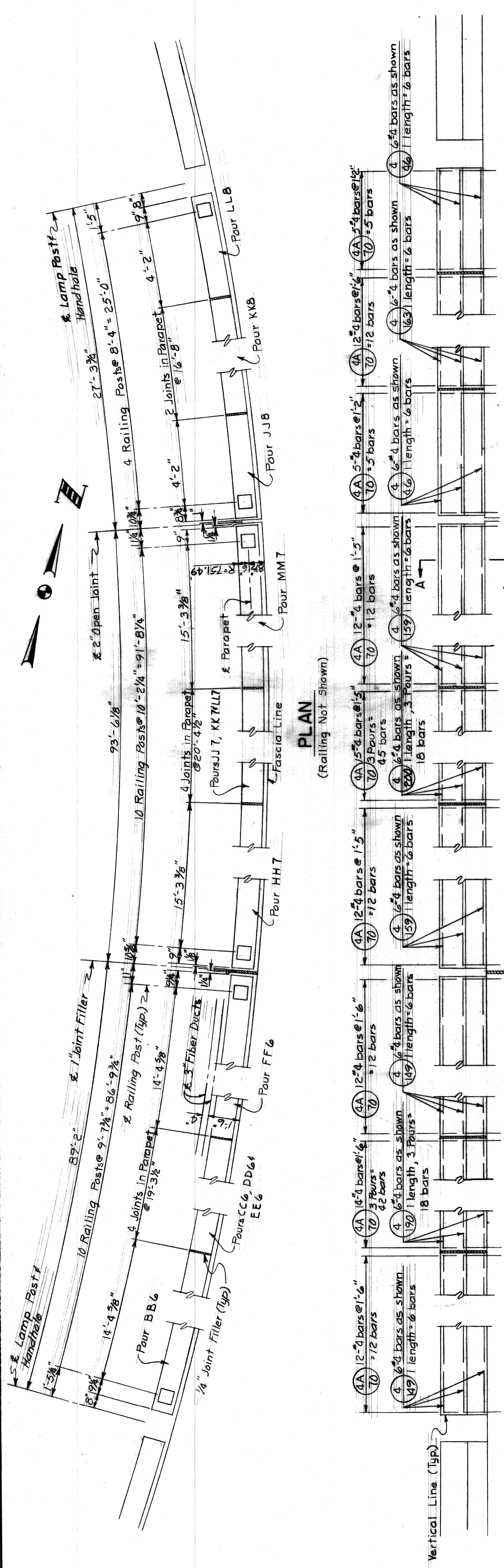
APPROVED: *[Signature]*  
COUNTY HIGHWAY ENGINEER

REVISIONS:

ROAD LEADER: *[Signature]*  
DRAWN BY: JENHURD  
CHECKED BY: CASLER  
THROU BY: CHURCH  
DATE: 3-12-67

PHILIP J. NEUDECK  
WILLIAM E. KREGER  
MICHAEL BERRY

FILE NO. 603



**NOTES**  
 For General Notes see Sh. No. 376  
 For Section A-A see Sh. No. 375  
 For Railing Post Detail see Sh. No. 375  
 For Lamp Post Handhole Details see Sh. No. 375  
 For Detail of Deck Joint with Joint Filler  
 Detail at Open Deck Joint see Sh. No. 375

Work this sheet with Sheets 368 thru 371 and 373 thru 376

STATE FILE	BRIDGE
ROAD	

STATE PROJECT	COUNTY JOB
246	246
ISSUE NO.	SHEET NO.
DATE 5-13-68	372

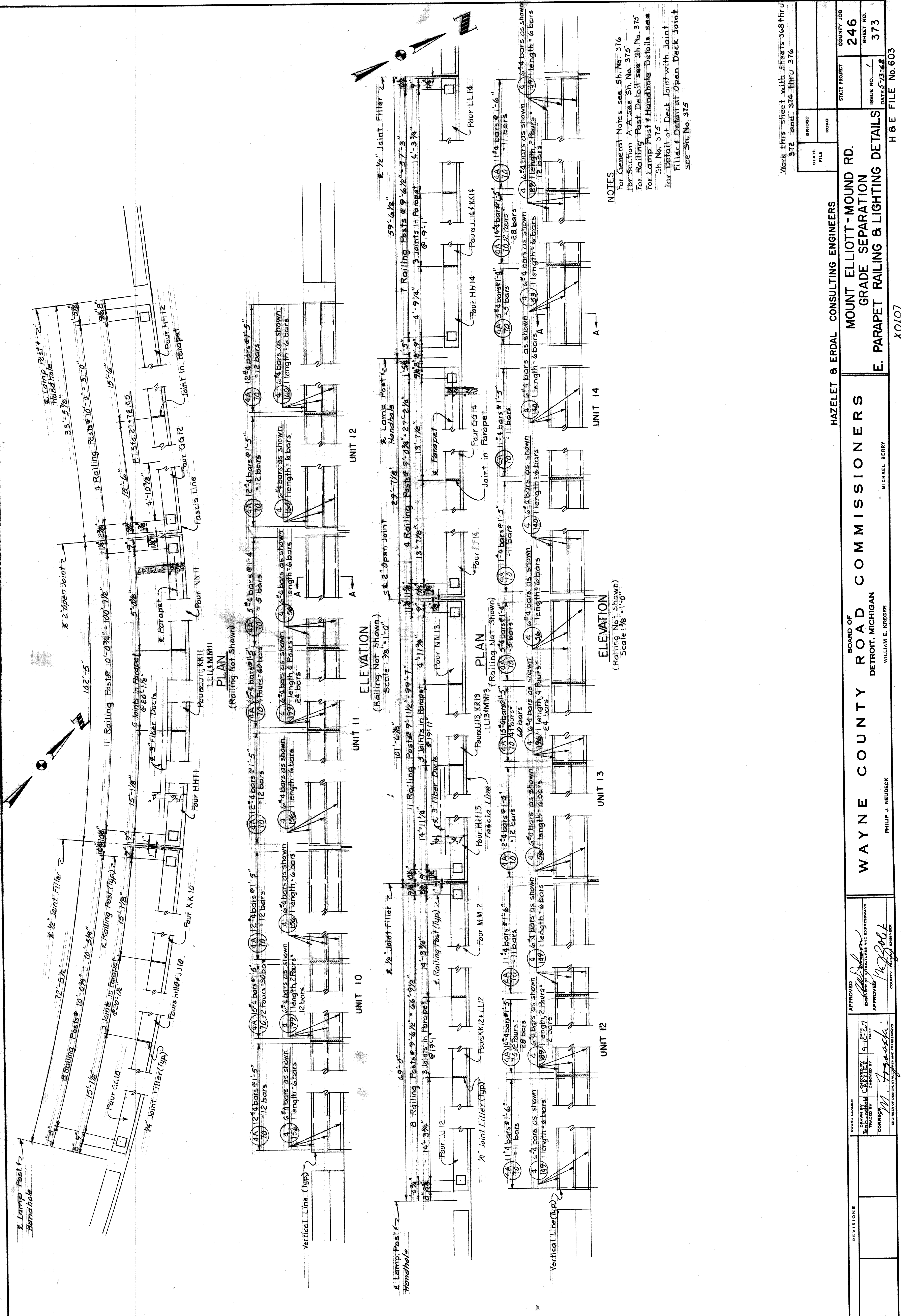
HAZELET & ERDAL CONSULTING ENGINEERS  
 MOUNT ELLIOTT-MOUND RD.  
 GRADE SEPARATION  
 E. PARAPET RAILING & LIGHTING DETAILS

BOARD OF ROAD COMMISSIONERS  
 DETROIT, MICHIGAN  
 WILLIAM E. KREGER

WAYNE COUNTY ROAD COMMISSIONERS  
 PHILIP J. NEUDECK

APPROVED  
 ENGINEER OF DESIGN AND SUPERVISOR  
 DATE 9-12-67

REVISIONS  
 CHECKED BY  
 CORRECTED BY



Work this sheet with Sheets 368 thru 372 and 374 thru 376

STATE FILE	BRIDGE	ROAD	STATE PROJECT	COUNTY JOB
				246
E. PARAPET RAILING & LIGHTING DETAILS				SHEET NO.
				373
				ISSUE NO. 1
				DATE 5/23/48

HAZELET & ERDAL CONSULTING ENGINEERS  
 MOUNT ELLIOTT - MOUND RD.  
 GRADE SEPARATION

WAYNE COUNTY ROAD COMMISSIONERS  
 DETROIT, MICHIGAN  
 MICHAEL BERRY

BOARD OF  
 WILLIAM E. KREGER  
 PHILIP J. NEUBECK

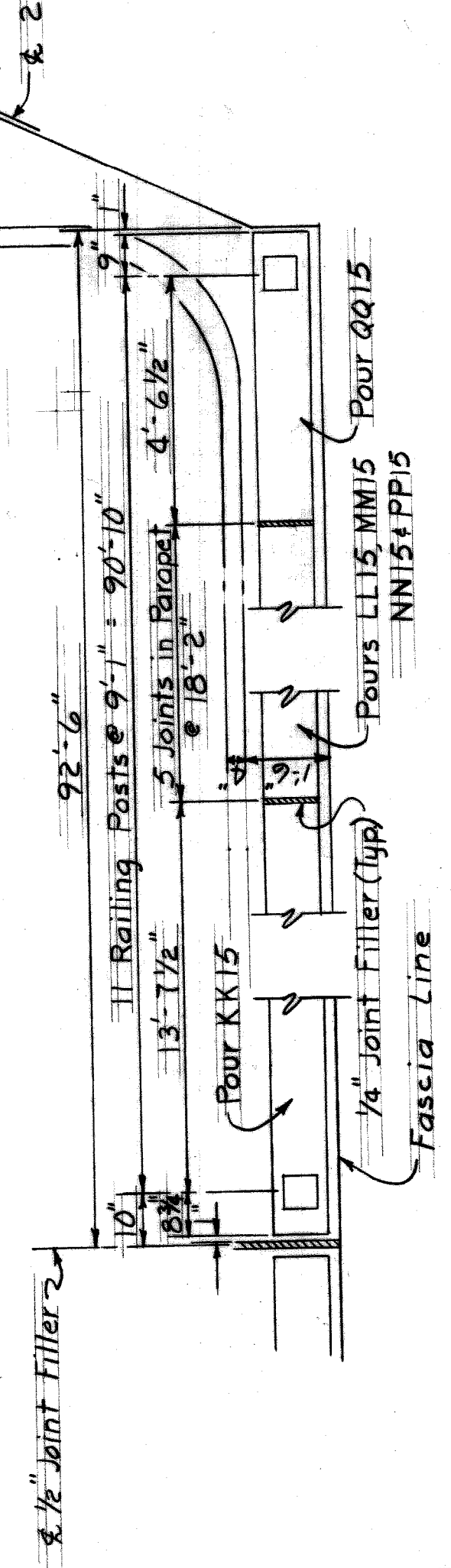
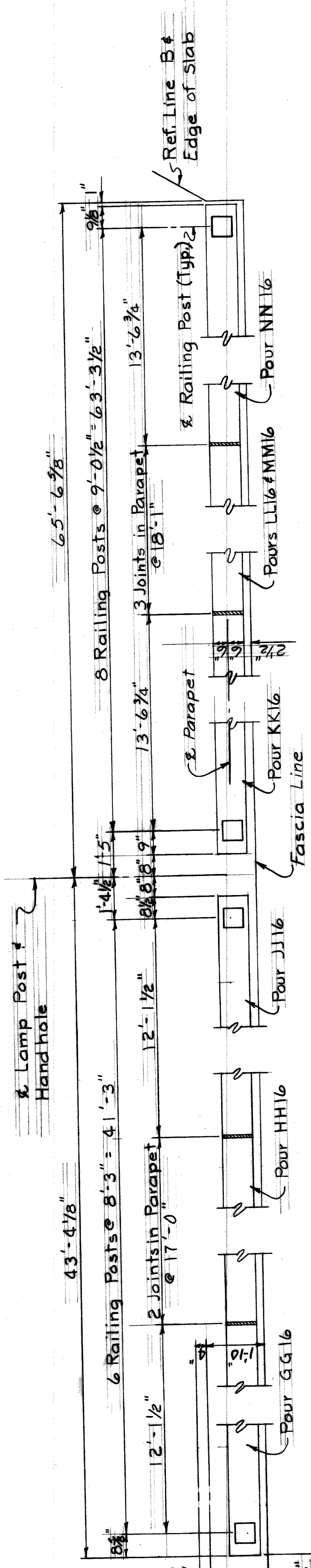
APPROVED  
 ENGINEER OF STRUCTURES AND EXPANSIVES  
 APPROVED  
 COUNTY ENGINEER

DATE 9-12-67  
 CHECKED BY  
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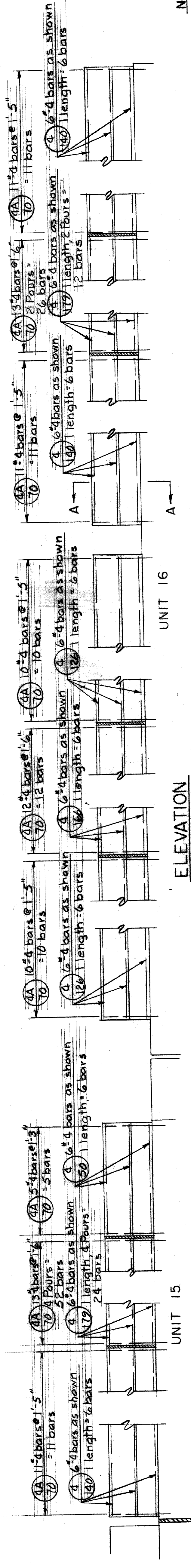
REVISIONS

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H & E FILE No. 603

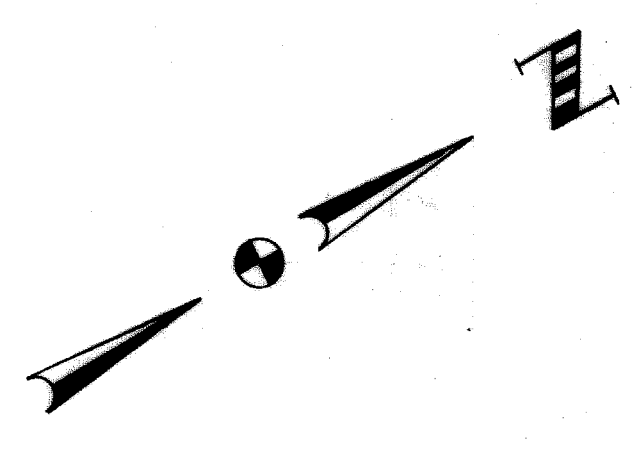


**PLAN**  
(Railing Not Shown)



**ELEVATION**  
(Railing Not Shown)  
Scale: 3/8" = 1'-0"

**NOTES**  
For General Notes see Sh. No. 376  
For Section A-A see Sh. No. 375  
For Railing Post Detail see Sh. No. 375  
For Lamp Post Hand hole Details see Sh. No. 375  
For Detail at Deck Joint with Joint Filler & Detail at Open Deck Joint see Sh. No. 375  
For Conduit Detail @ N.E. corner see Sh. No. 376



Work this sheet with Sheets 368, thru 373, 375 and 376

STATE FILE	BRIDGE	COUNTY JOB
ROAD		246
		SHEET NO.
		374
		ISSUE NO. / DATE
		2/23/68

HAZELET & ERDAL CONSULTING ENGINEERS

MOUNT ELLIOTT - MOUND RD.  
GRADE SEPARATION

WAYNE COUNTY ROAD COMMISSIONERS  
DETROIT, MICHIGAN

E. PARAPET RAILING & LIGHTING DETAILS

PHILIP J. NEUBECK  
WILLIAM E. KREGER

MICHAEL BERRY

X0107

STATE PROJECT

BRIDGE

ROAD

BOARD OF

WAYNE COUNTY ROAD COMMISSIONERS

DETROIT, MICHIGAN

MICHAEL BERRY

APPROVED

APPROVED

APPROVED

DESIGNED BY

CHECKED BY

DATE

CONTRACT

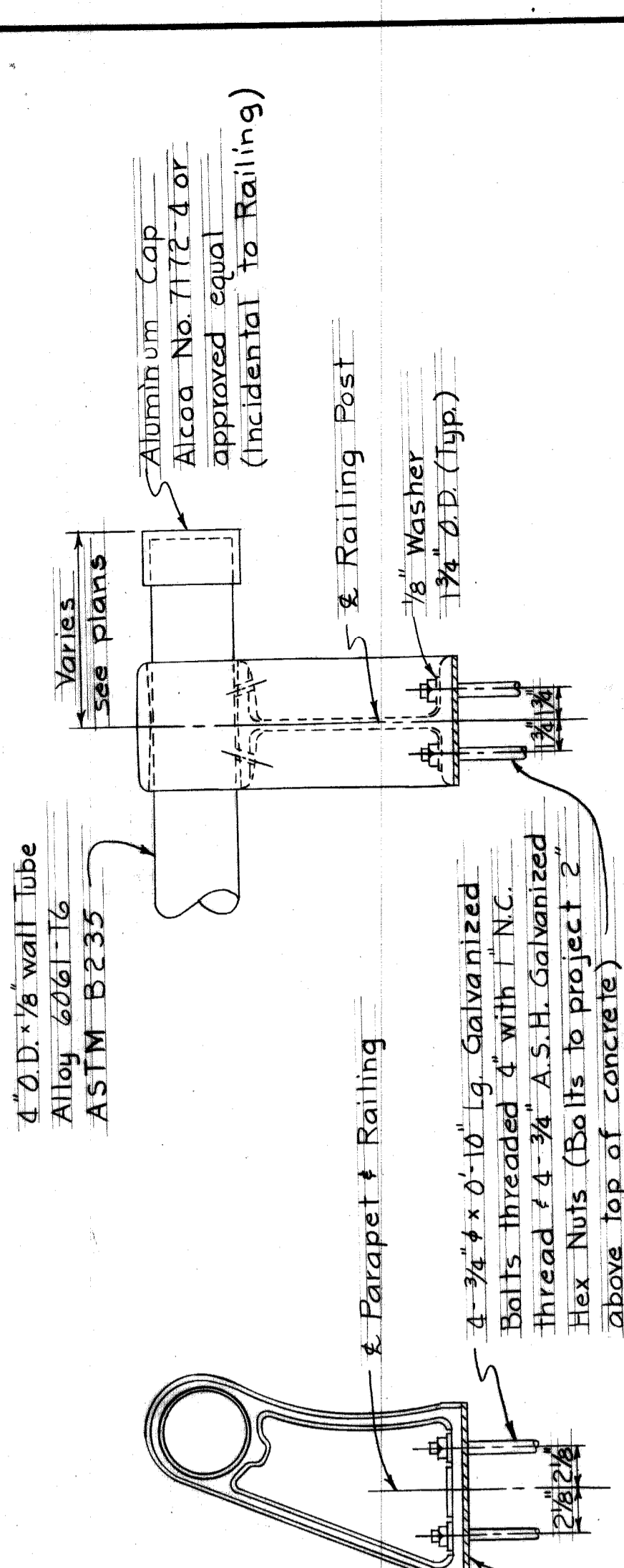
ENGINEER OF DESIGN

ENGINEER OF DESIGN

REVISIONS

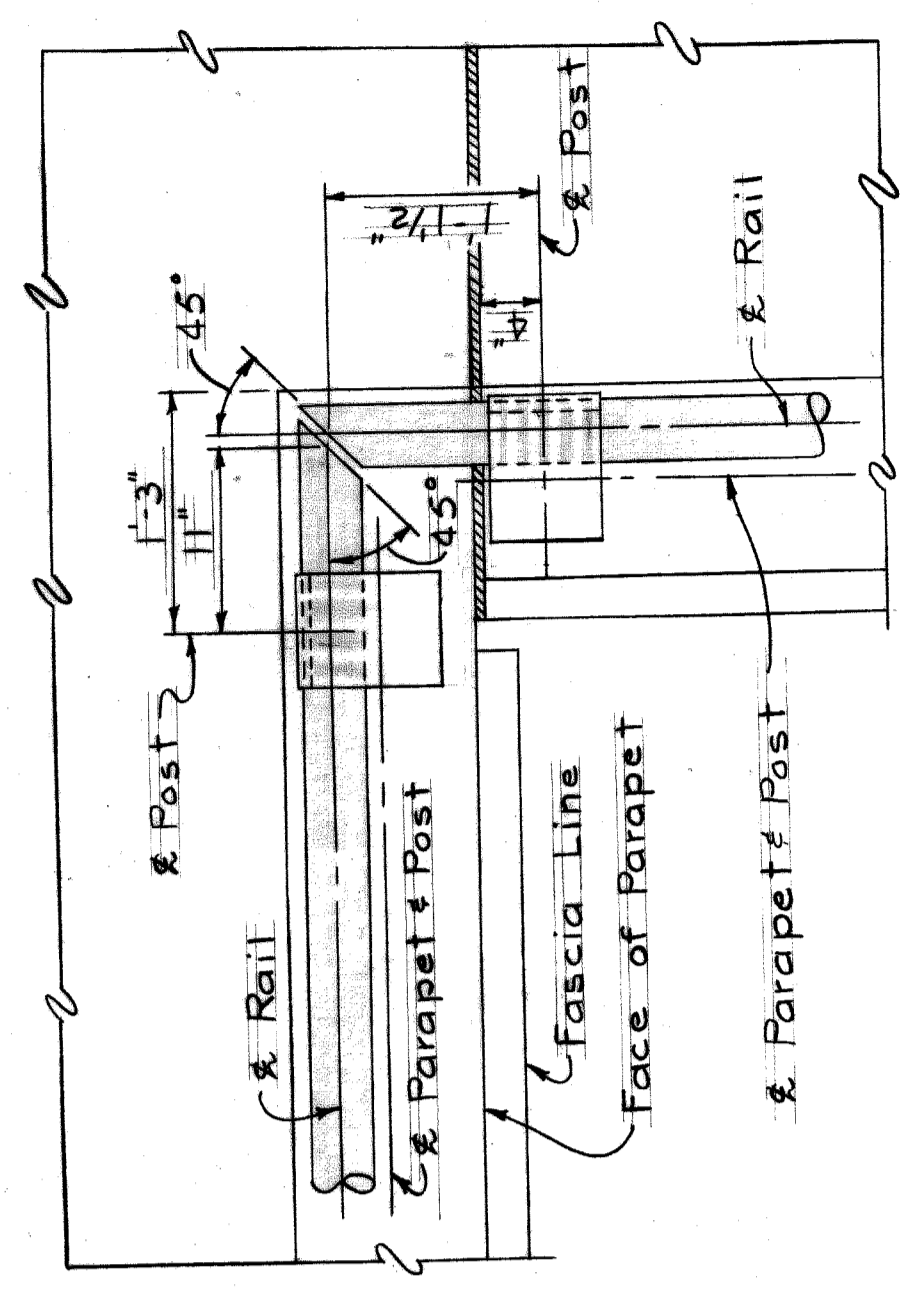
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DATE

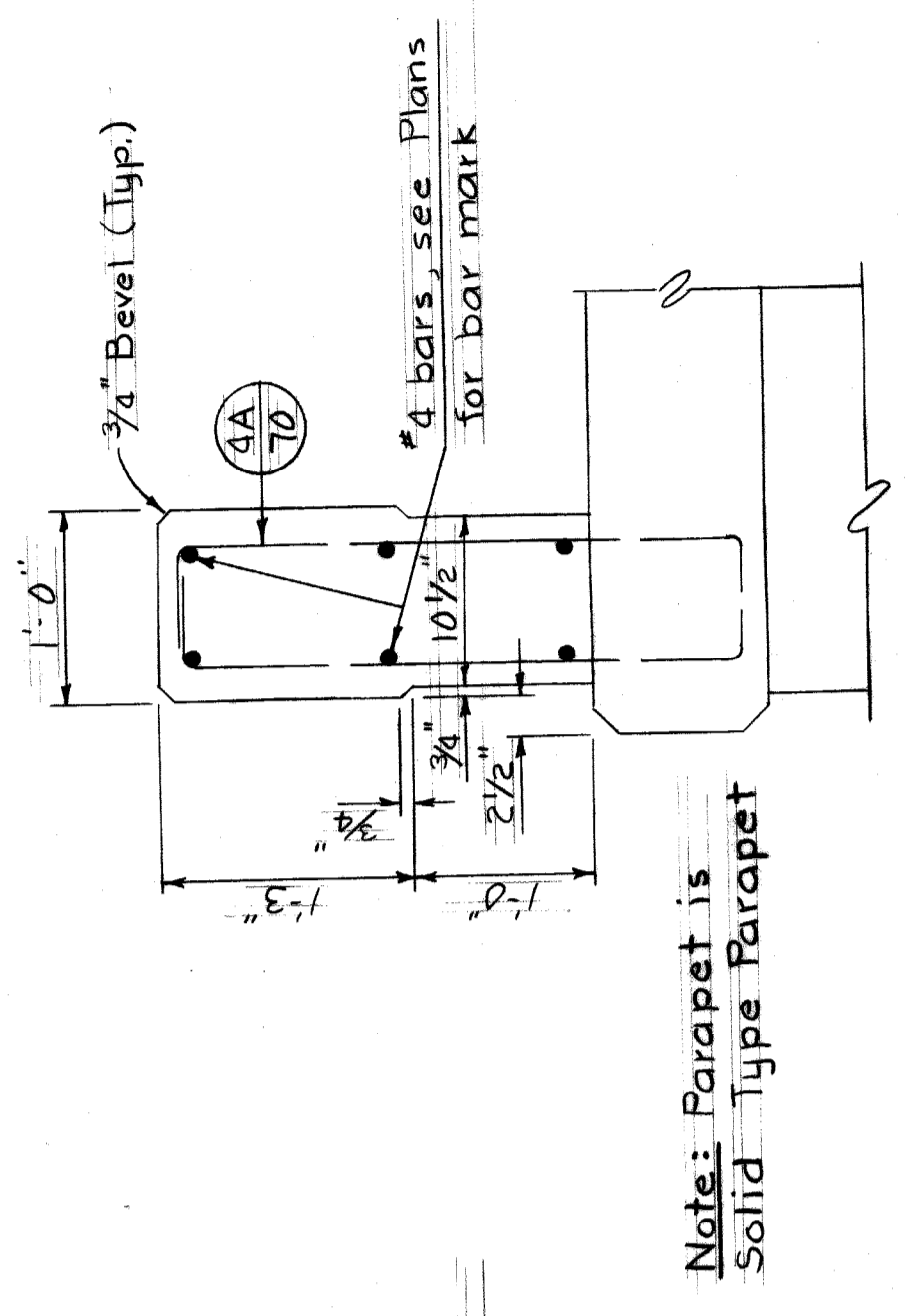


Note: Bolts, nuts and washers shall be galvanized steel (ASTM A153) or .005 cadmium plated steel (ASTM 165 Type N 5)

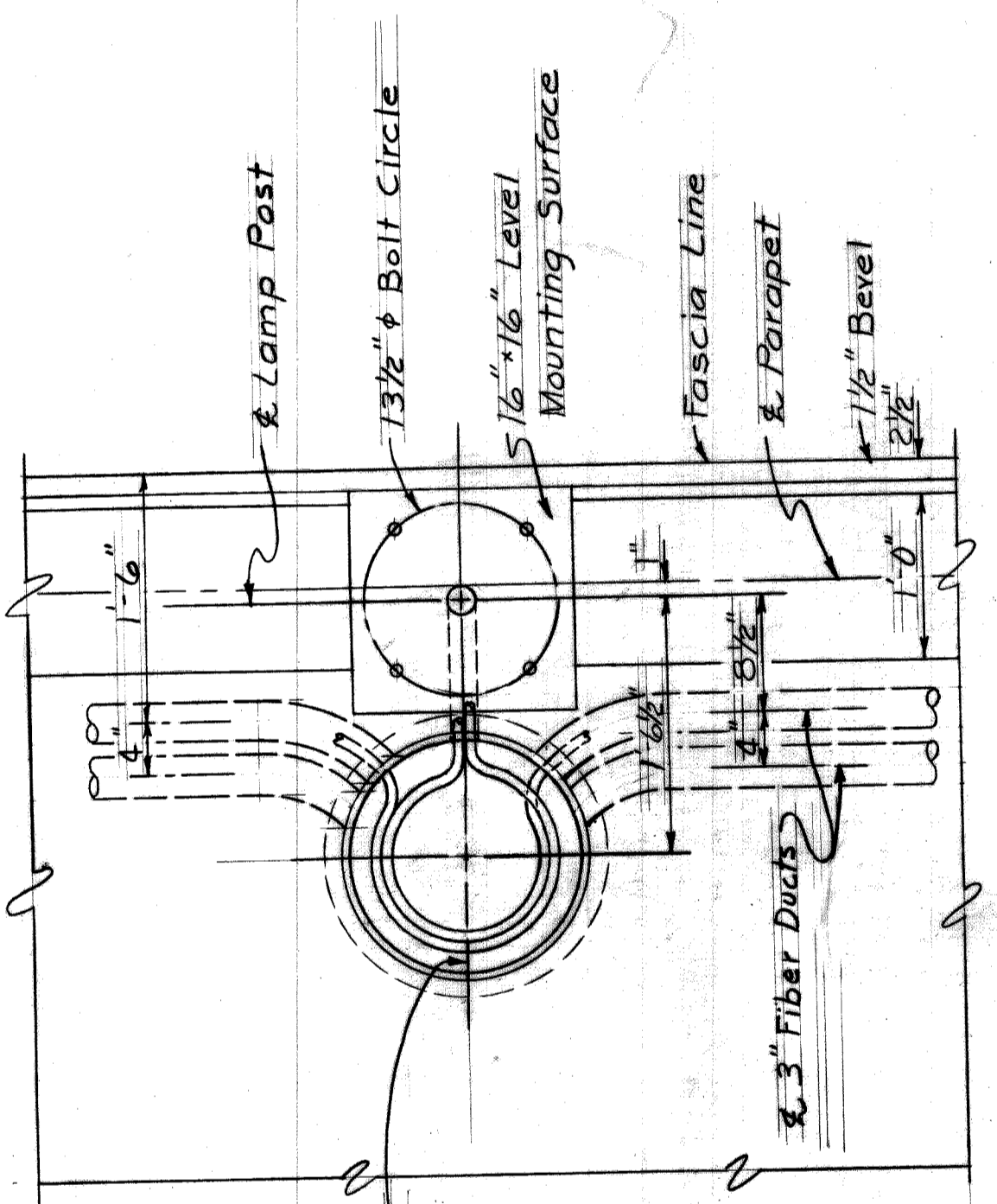
**RAILING POST DETAIL**  
Alcoa 1003 or approved equal  
N.T.S.



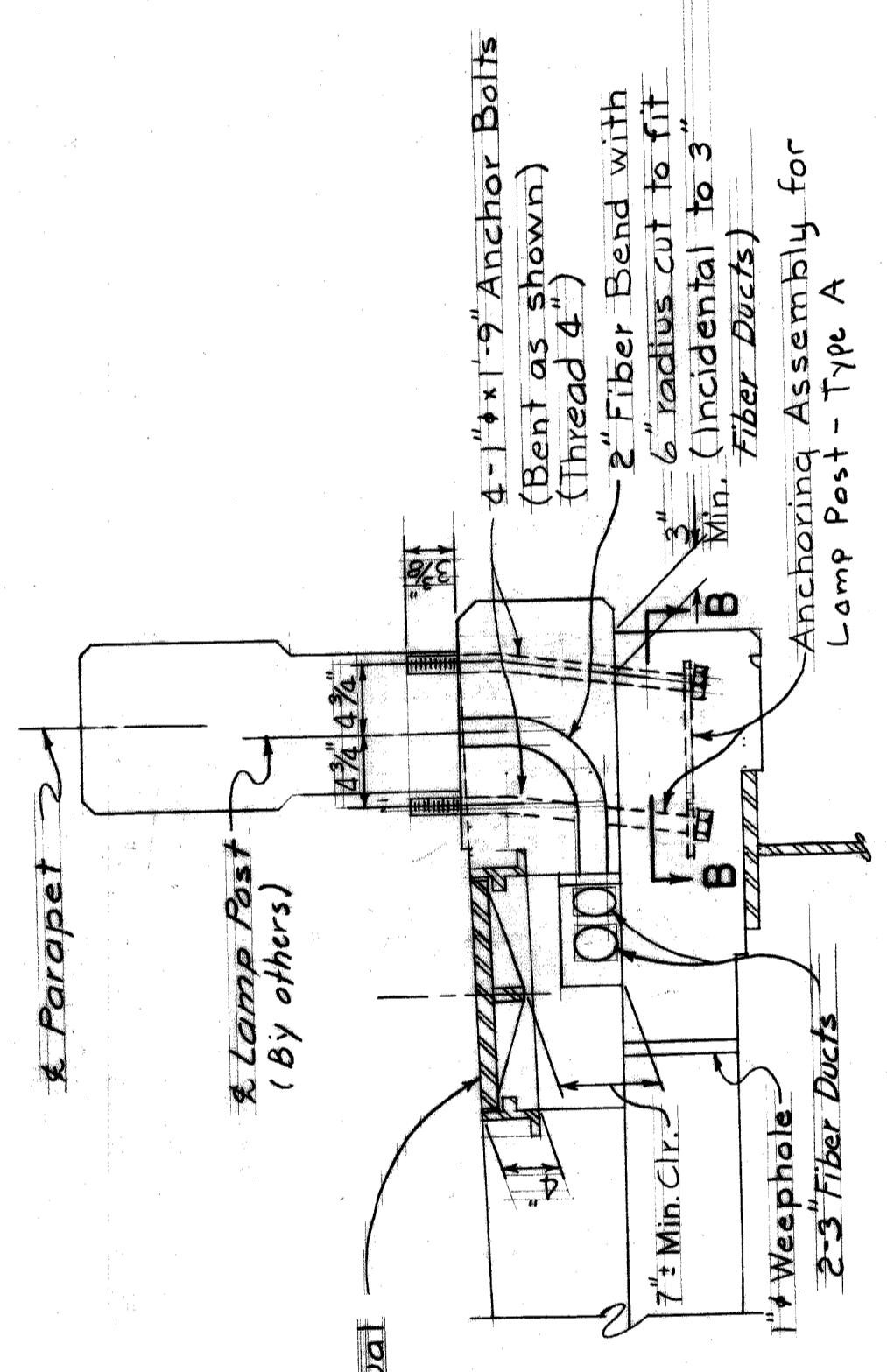
**DETAIL A**  
Scale: 1" = 1'-0"



**SECTION A-A**  
Scale: 1" = 1'-0"

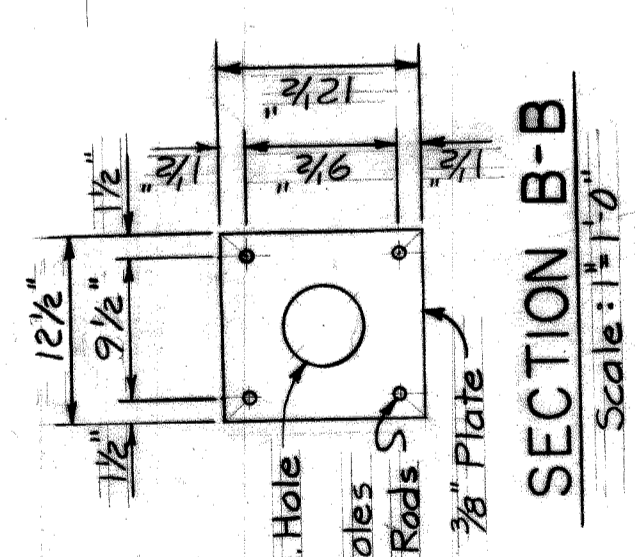


**PLAN**  
Scale: 1" = 1'-0"

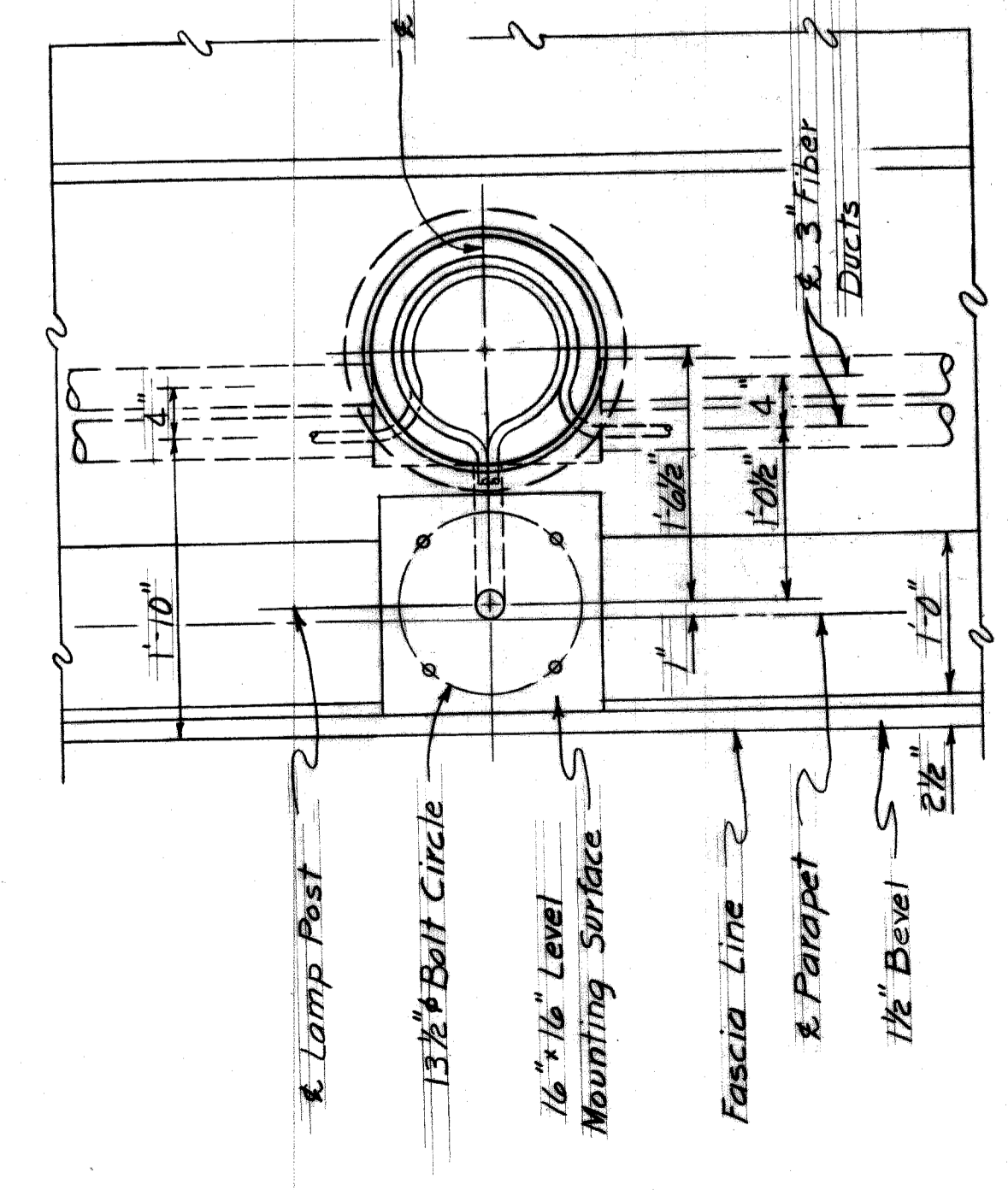


**ELEVATION**  
Scale: 1" = 1'-0"

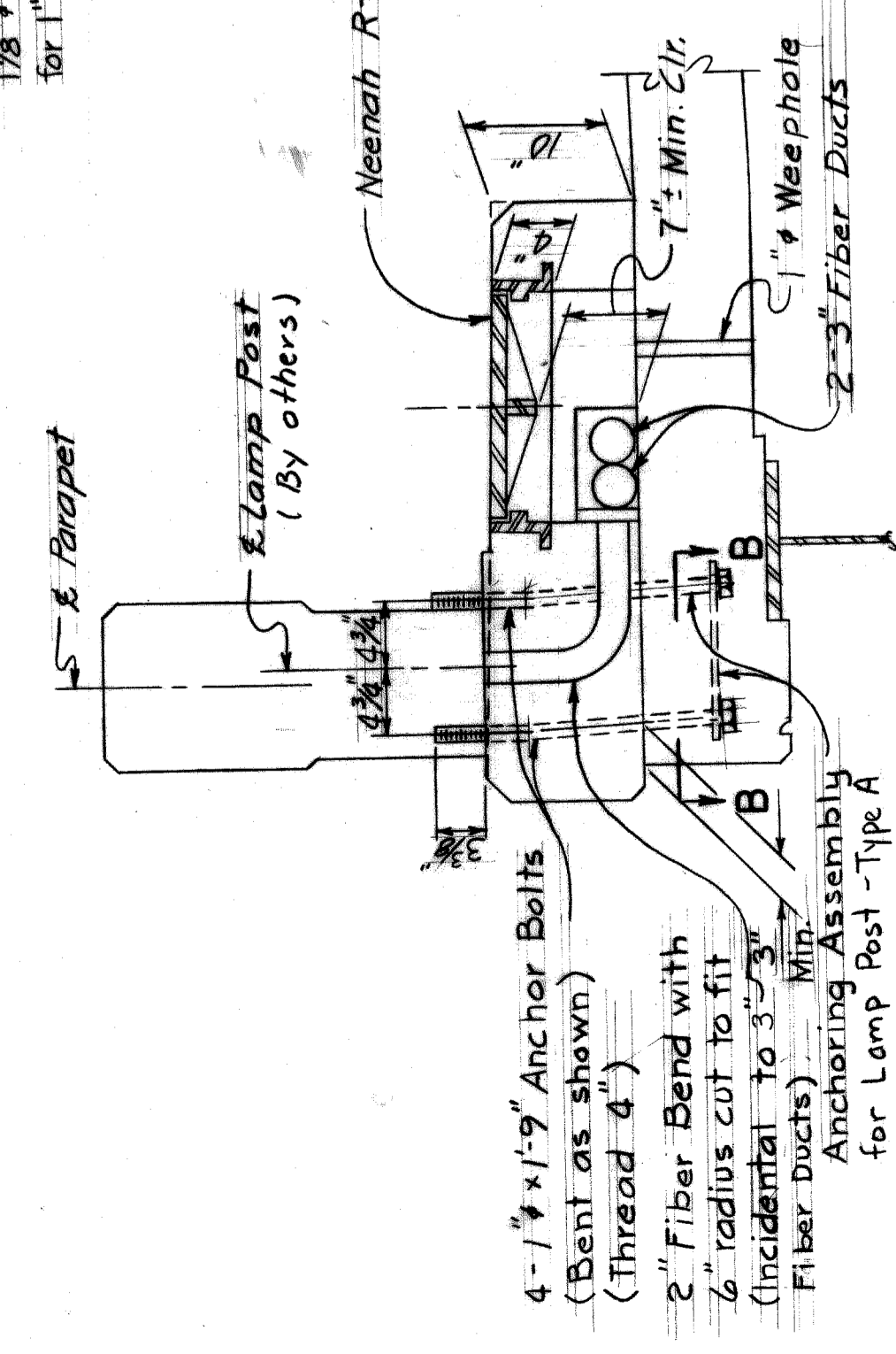
**LAMP POST & HANDHOLE  
DETAIL AT SIDEWALK**



**SECTION B-B**  
Scale: 1" = 1'-0"

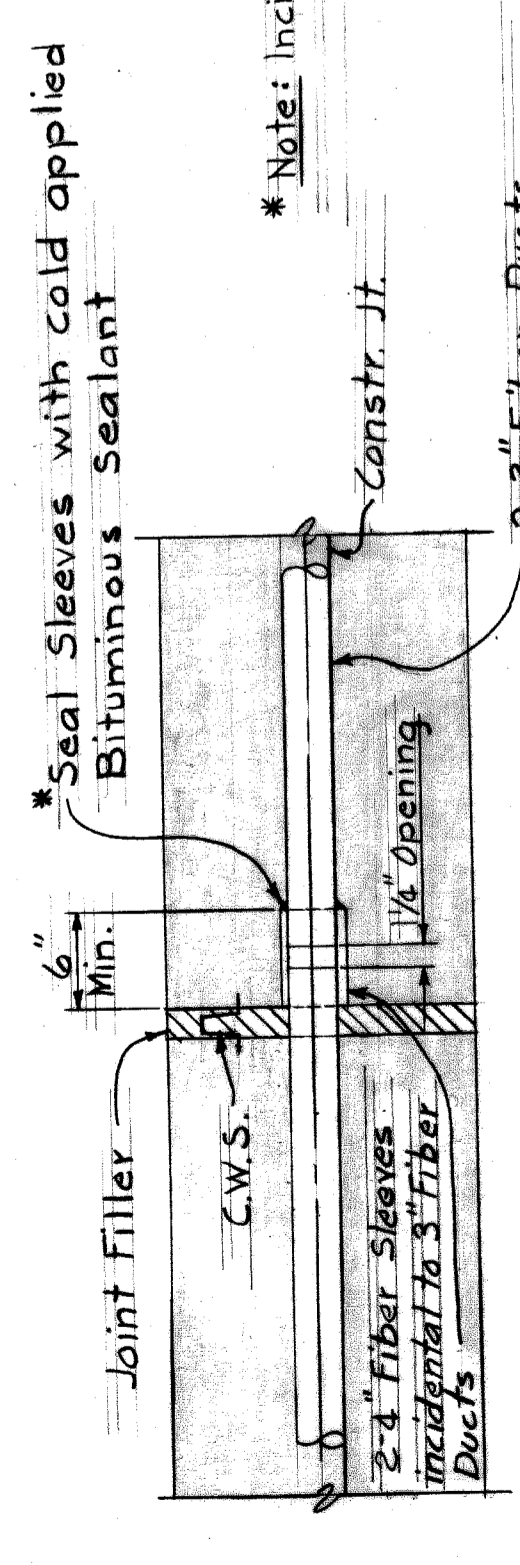


**PLAN**  
Scale: 1" = 1'-0"

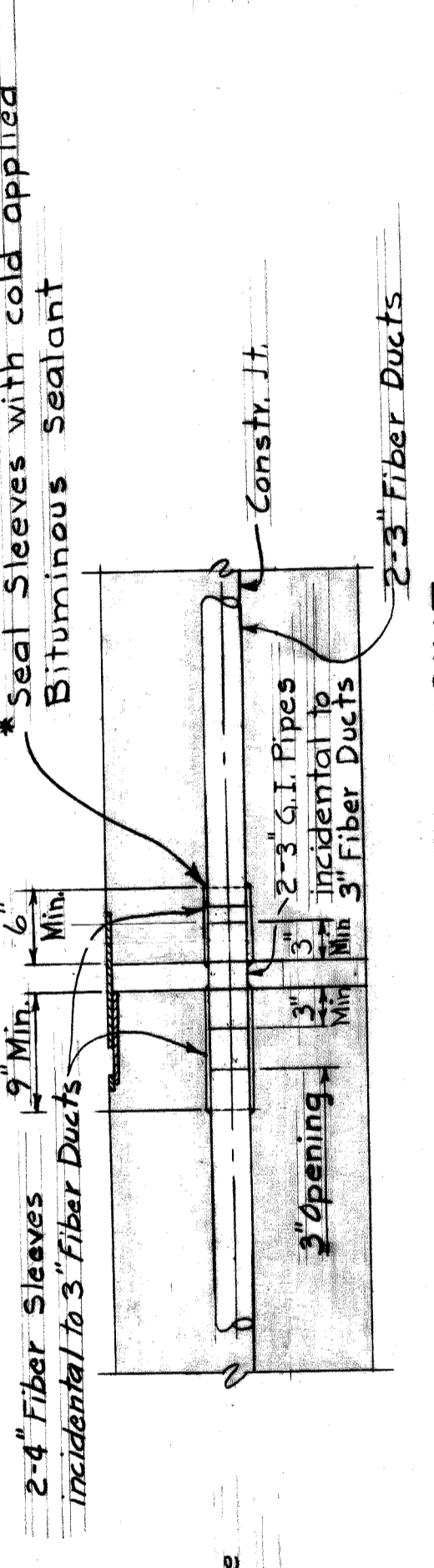


**ELEVATION**  
Scale: 1" = 1'-0"

**LAMP POST & HANDHOLE  
DETAIL AT SAFETY CURB**



**DETAIL AT DECK JOINT WITH  
JOINT FILLER**  
Scale: 1" = 1'-0"



**DETAIL AT OPEN DECK JOINT**  
Scale: 1" = 1'-0"

Work this sheet with Sheets 368 thru 374 and 376

STATE FILE	BRIDGE	ROAD	STATE PROJECT	COUNTY JOB
				246
ISSUE NO. 1			SHEET NO. 375	
DATE: 5-23-68			H & E FILE NO. 603	

HAZELET & ERDAL CONSULTING ENGINEERS

**WAYNE COUNTY ROAD COMMISSIONERS**

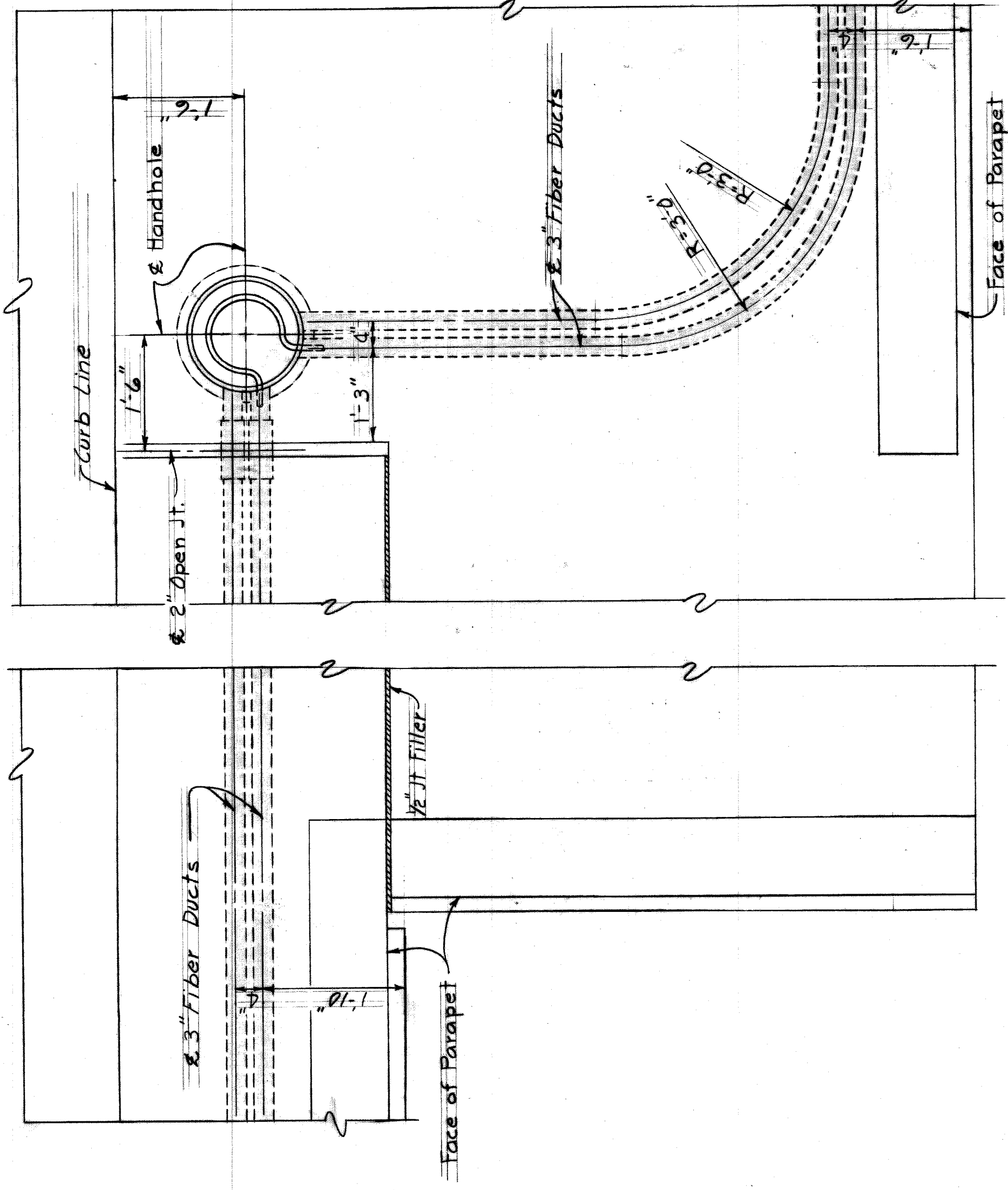
MOUNT ELLIOTT-MOUND RD.  
GRADE SEPARATION  
PARAPET RAILING & LIGHTING DETAILS

BOARD OF  
**WAYNE COUNTY ROAD COMMISSIONERS**  
DETROIT, MICHIGAN

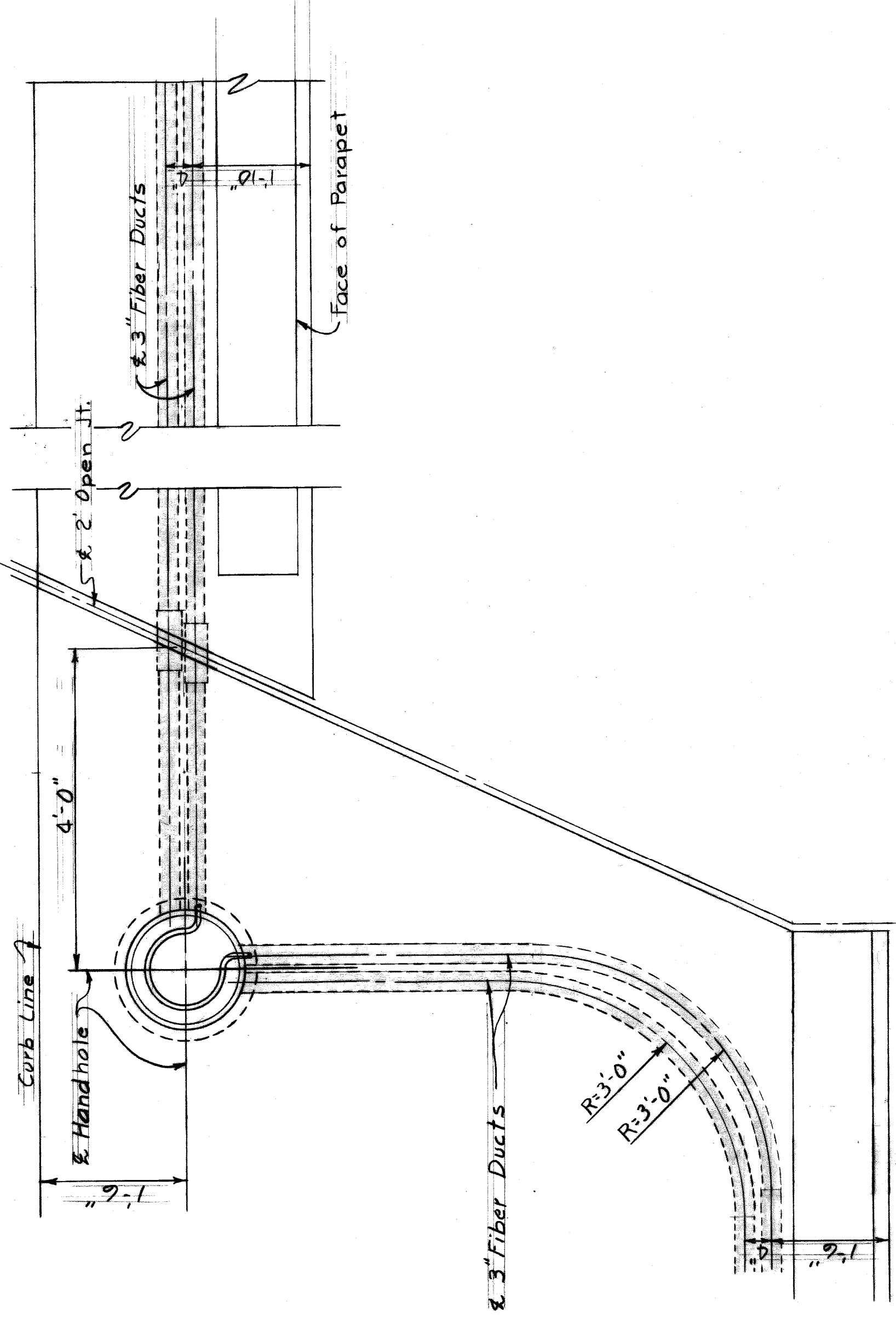
MICHAEL BERRY  
WILLIAM E. KREGER

PHILIP J. NEUDECK

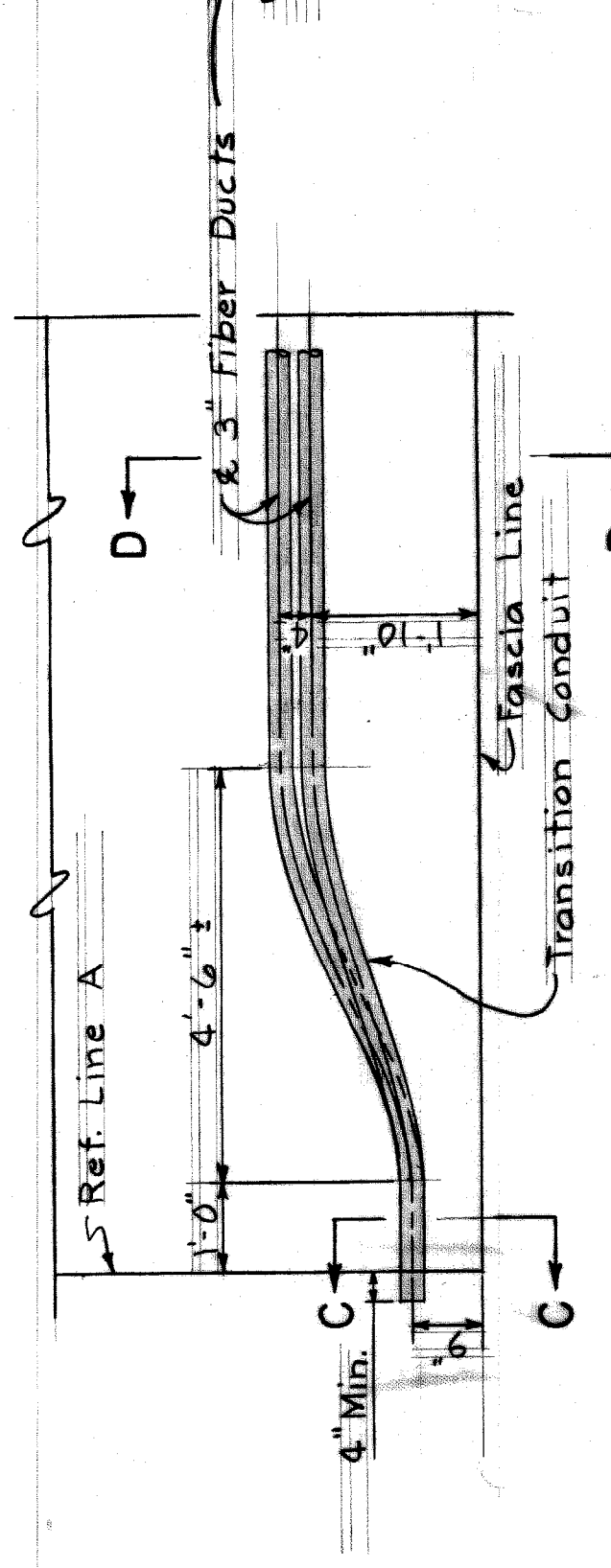
APPROVED	DATE
<i>[Signature]</i>	9-12-67
ENGINEER OF STRUCTURES AND EXPRESSWAYS	
CHECKED BY	DATE
<i>[Signature]</i>	
CORRECTED BY	DATE
<i>[Signature]</i>	
COUNTY ENGINEER	



**DETAIL B**  
Scale: 3/4" = 1'-0"

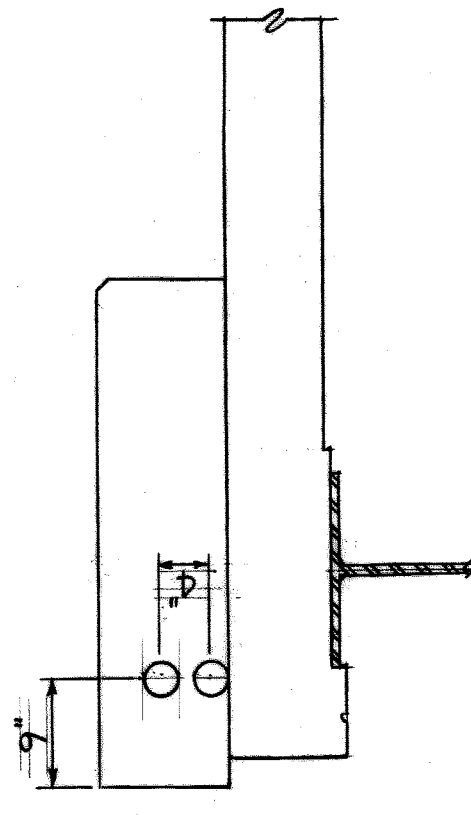


**DETAIL C**  
Scale: 3/4" = 1'-0"

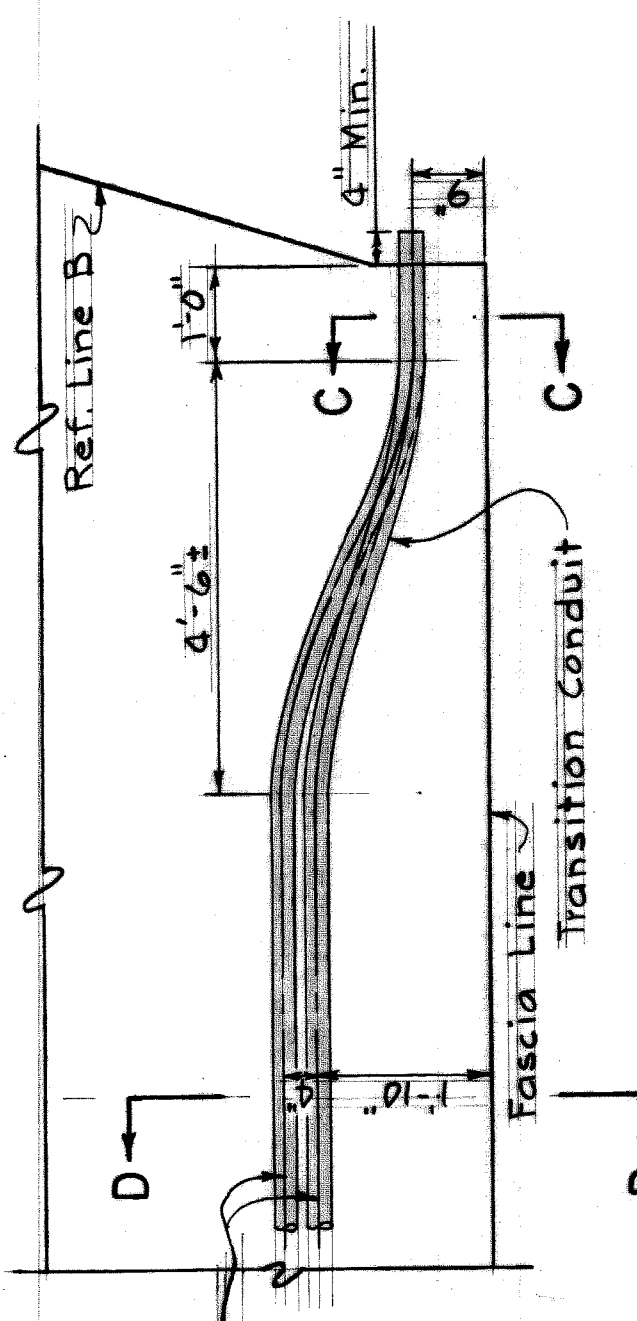


**CONDUIT DETAIL AT S.E. CORNER**

Parapet Not Shown  
S.W. Corner Opposite Hand  
Scale: 1/2" = 1'-0"

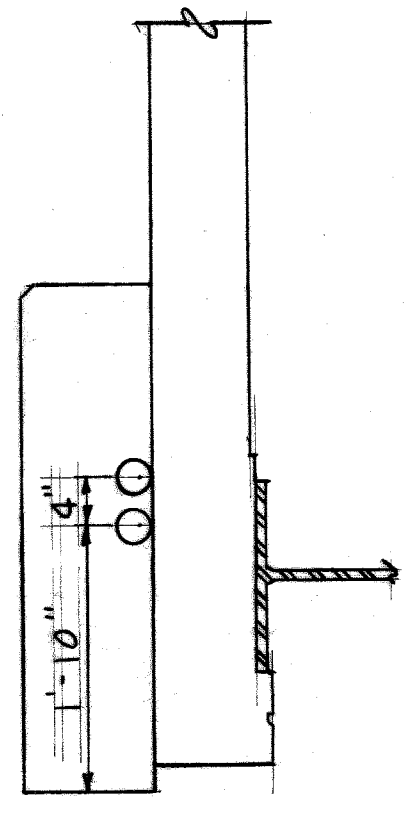


**SECTION C-C**  
Scale: 3/4" = 1'-0"



**CONDUIT DETAIL AT N.E. CORNER**

Parapet Not Shown  
N.W. Corner Opposite Hand  
Scale: 1/2" = 1'-0"



**SECTION D-D**  
Scale: 3/4" = 1'-0"

**QUANTITIES**

Anchoring Assemblies For Lamp Posts - Type A	---	16 Each
Handhole Frames and Covers	---	18 Each
Bridge Railing - Parapet Type	---	3212 Lin. Ft.
3" Fiber Ducts	---	6450 Lin. Ft.

**GENERAL NOTES**

Details of Bridge Railing to be in accordance with ALCOA Highway Railing 1003 or approved equal. Parapets included with railing except steel reinforcing. All longitudinal dimensions and reinforcing steel spacings are given along & parapet.

BOARD LEADER	APPROVED
DRAWN BY	ENGINEER OF STRUCTURES AND EXPANSIONS
CHECKED BY	DATE
CONTRACT	DATE
PROJECT	DATE

PHILIP J. NEUDECK  
ENGINEER OF STRUCTURES AND EXPANSIONS

WILLIAM E. KREGER  
ENGINEER OF STRUCTURES AND EXPANSIONS

REVISIONS

WAYNE COUNTY ROAD COMMISSIONERS

DETROIT, MICHIGAN

WILLIAM E. KREGER

PHILIP J. NEUDECK

MICHAEL BERRY

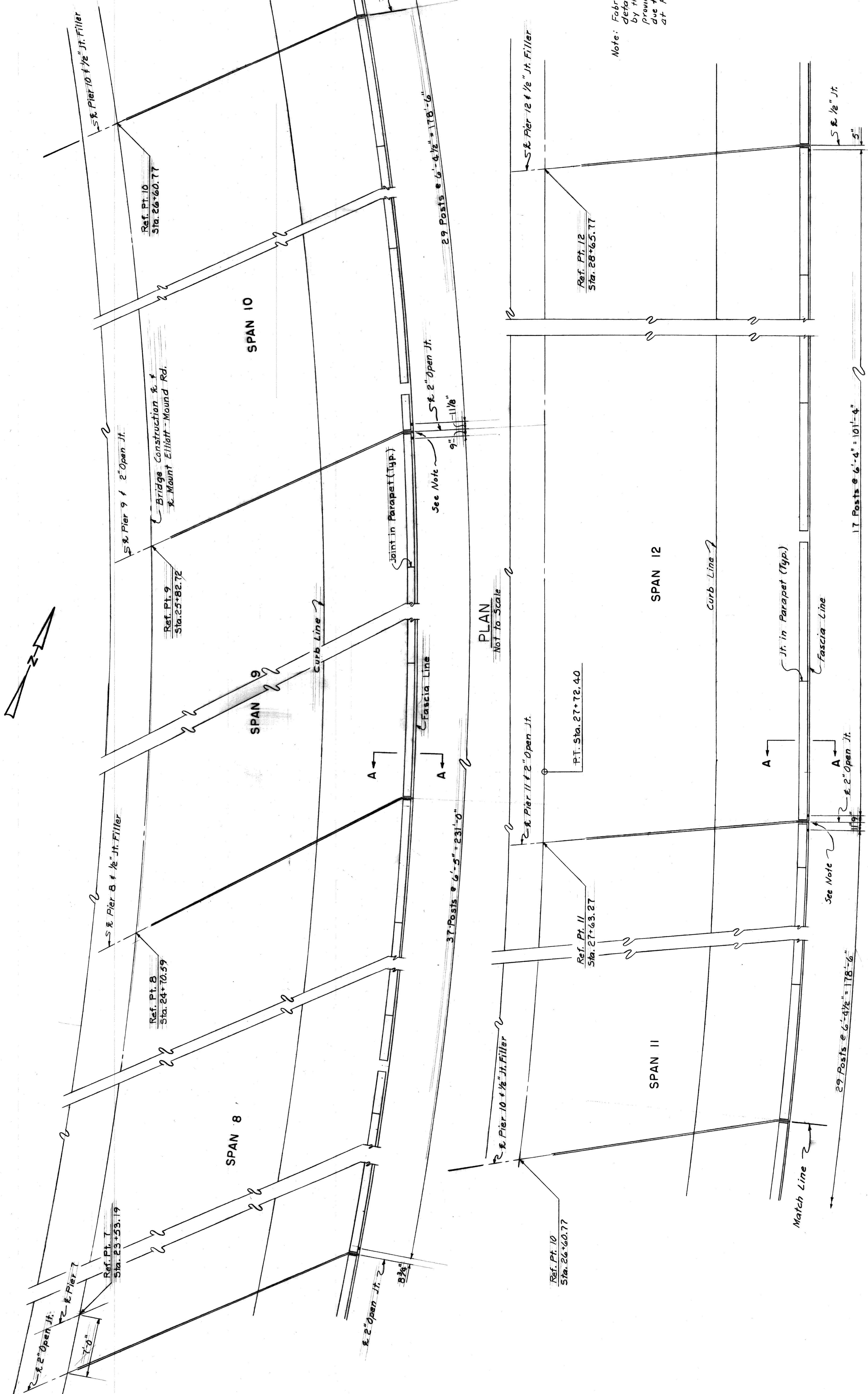
X0107

HAZELET & ERDAL CONSULTING ENGINEERS  
MOUNT ELLIOTT-MOUND RD.  
GRADE SEPARATION  
PARAPET RAILING & LIGHTING DETAILS

Work this sheet with Sheets 368 thru 375

STATE FILE	BRIDGE	STATE PROJECT	COUNTY JOB
	ROAD		246
			SHEET NO.
			376
			ISSUE NO.
			DATE 5/23/68

H 8 E FILE No. 603



PLAN  
Not to Scale

PLAN  
Not to Scale

Note: Fabricator shall furnish fence details, which shall be approved by the Engineer, that will provide expansion in the fence due to expansion of the bridge at Piers 9 & 11.

Work this Sheet with Sheet No. 378

For Section A-A see Sh. No. 378.  
For Fence Post Anchoring Details see Sh. 378.  
Dimensions measured along Fascia Line.

Notes

STATE FILE	BRIDGE	STATE PROJECT	COUNTY JOB
ROAD			246
		ISSUE NO. 1	SHEET NO. 377
		DATE 2-23-64	

MOUNT ELLIOTT-MOUND RD.  
GRADE SEPARATION  
SPECIAL FENCE DETAILS

HAZELET & ERDAL CONSULTING ENGINEERS

BOARD OF  
WAYNE COUNTY ROAD COMMISSIONERS  
DETROIT, MICHIGAN

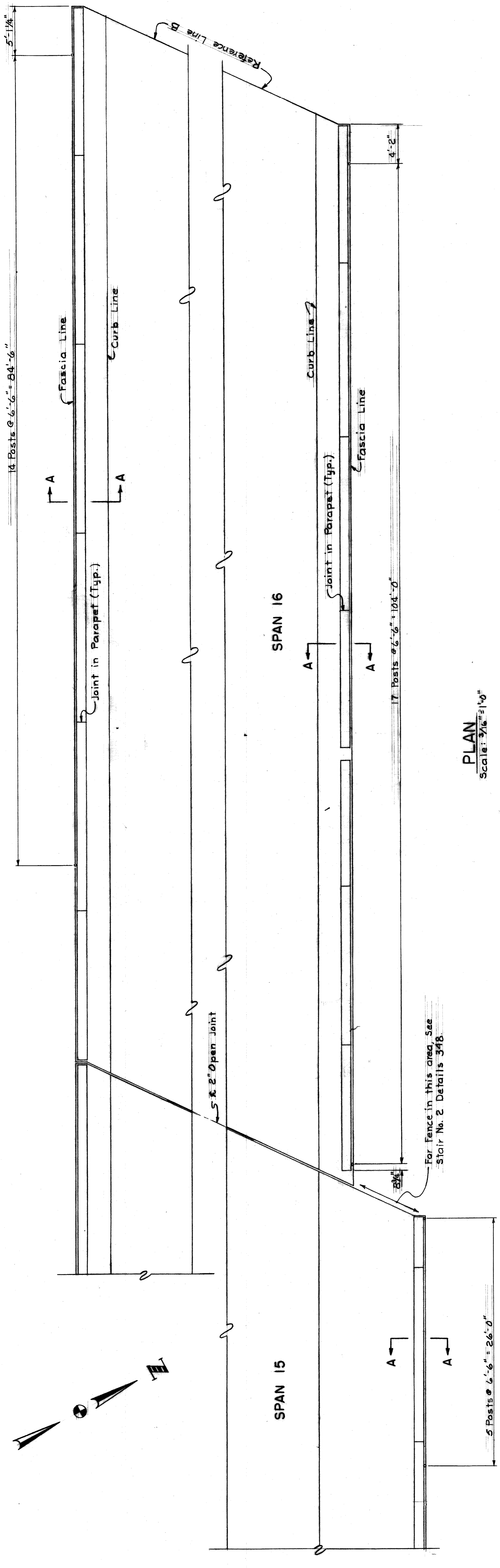
APPROVED  
3-23-68  
DATE

APPROVED  
M. J. Neudeck  
COUNTY ENGINEER

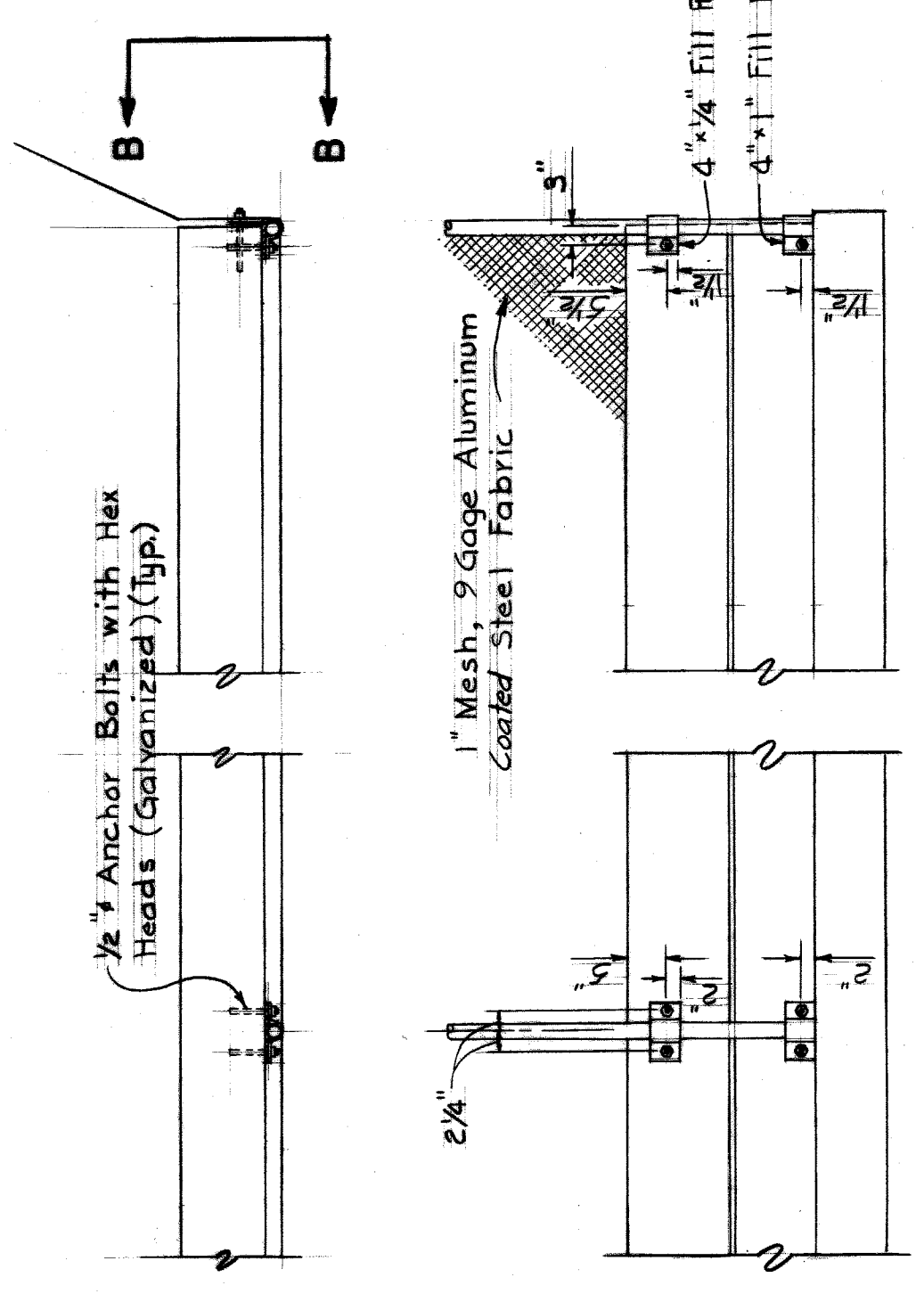
REVISIONS

XO107

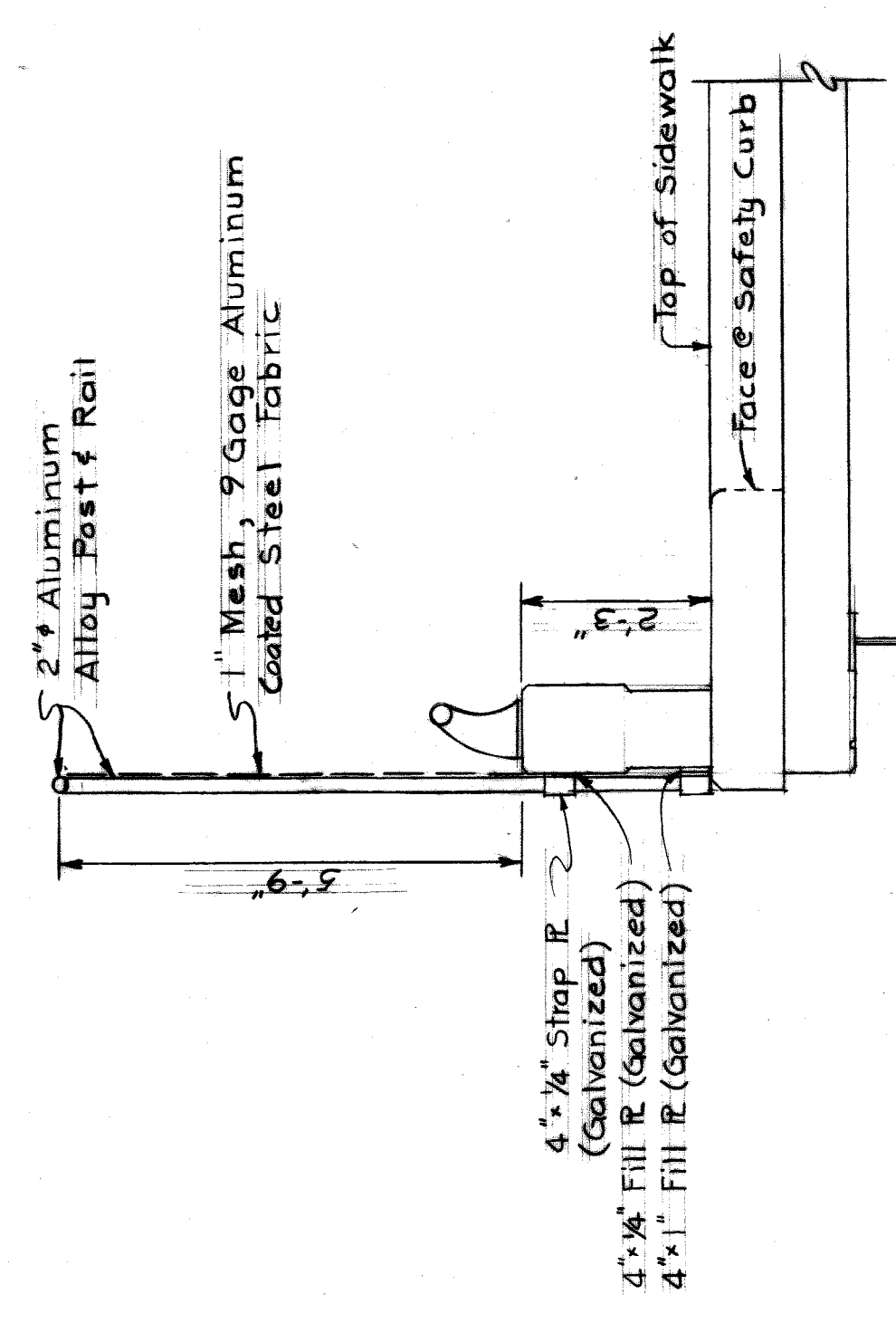
H & E FILE No. 603



**PLAN**  
Scale: 3/16" = 1'-0"



**FENCE POST ANCHORING DETAILS**  
Scale: 1/2" = 1'-0"



**SECTION A-A**  
Scale: 1/2" = 1'-0"

**QUANTITIES**  
Fence on Structure and Retaining Walls 1029  
736 Lin. Ft.

STATE FILE	BRIDGE	ROAD
Work this Sheet with Sheet No. 377		
STATE PROJECT	COUNTY JOB	SHEET NO.
MOUNT ELLIOTT-MOUND RD.	246	378
ISSUE NO. 1	DATE 5/13/88	

HAZELET & ERDAL CONSULTING ENGINEERS

WAYNE COUNTY ROAD COMMISSIONERS  
DETROIT, MICHIGAN

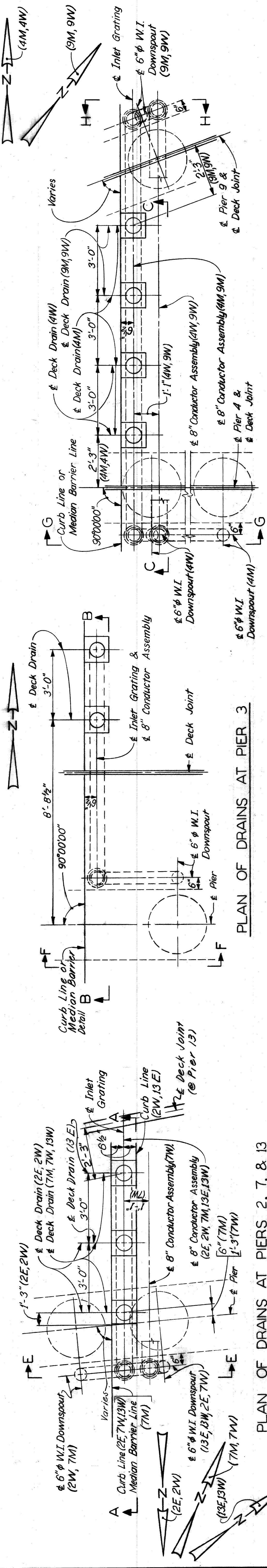
PHILIP J. NEUDECK  
WILLIAM E. KREGER  
MICHAEL BERRY

AS BUILT 9-17-71 EMB LTM

REVISIONS	APPROVED
DATE	DATE
CHECKED BY	ENGINEER OF STRUCTURES AND HIGHWAYS
CHECKED BY	APPROVED
CORRECT	COUNTY ENGINEER

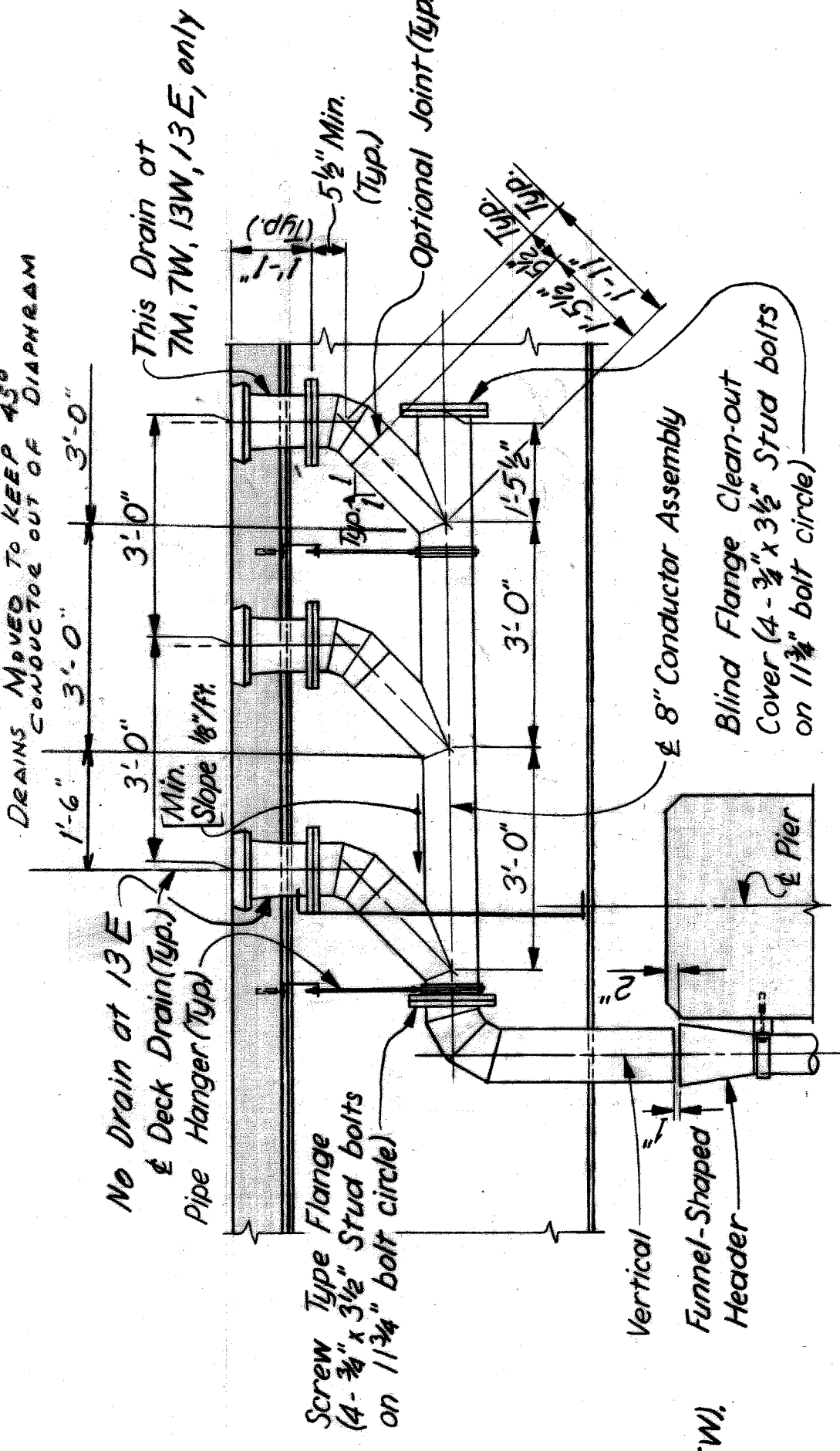
X0107 H 8 E FILE No. 603



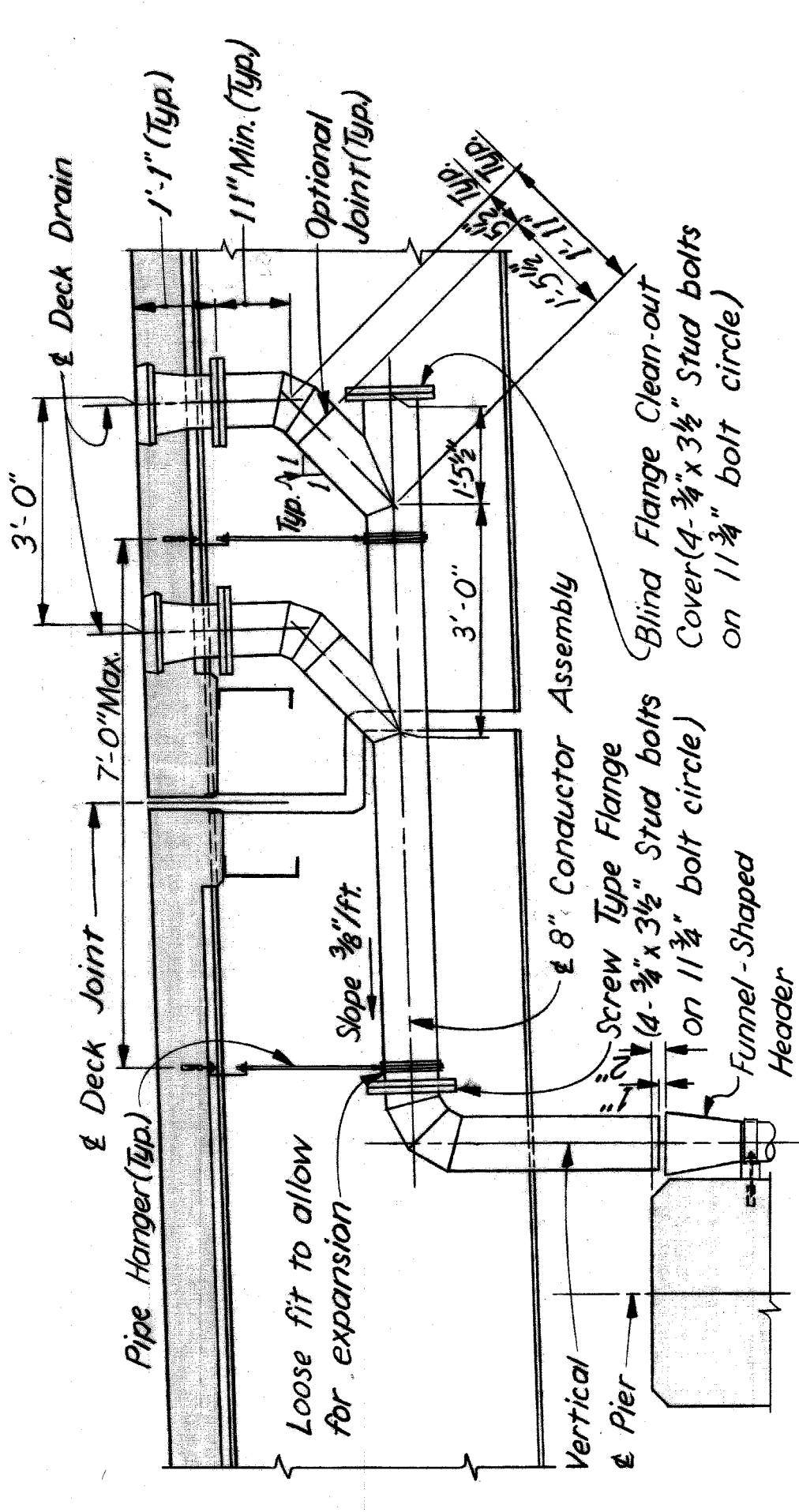


PLAN OF DRAINS AT PIERS 2, 7, & 13

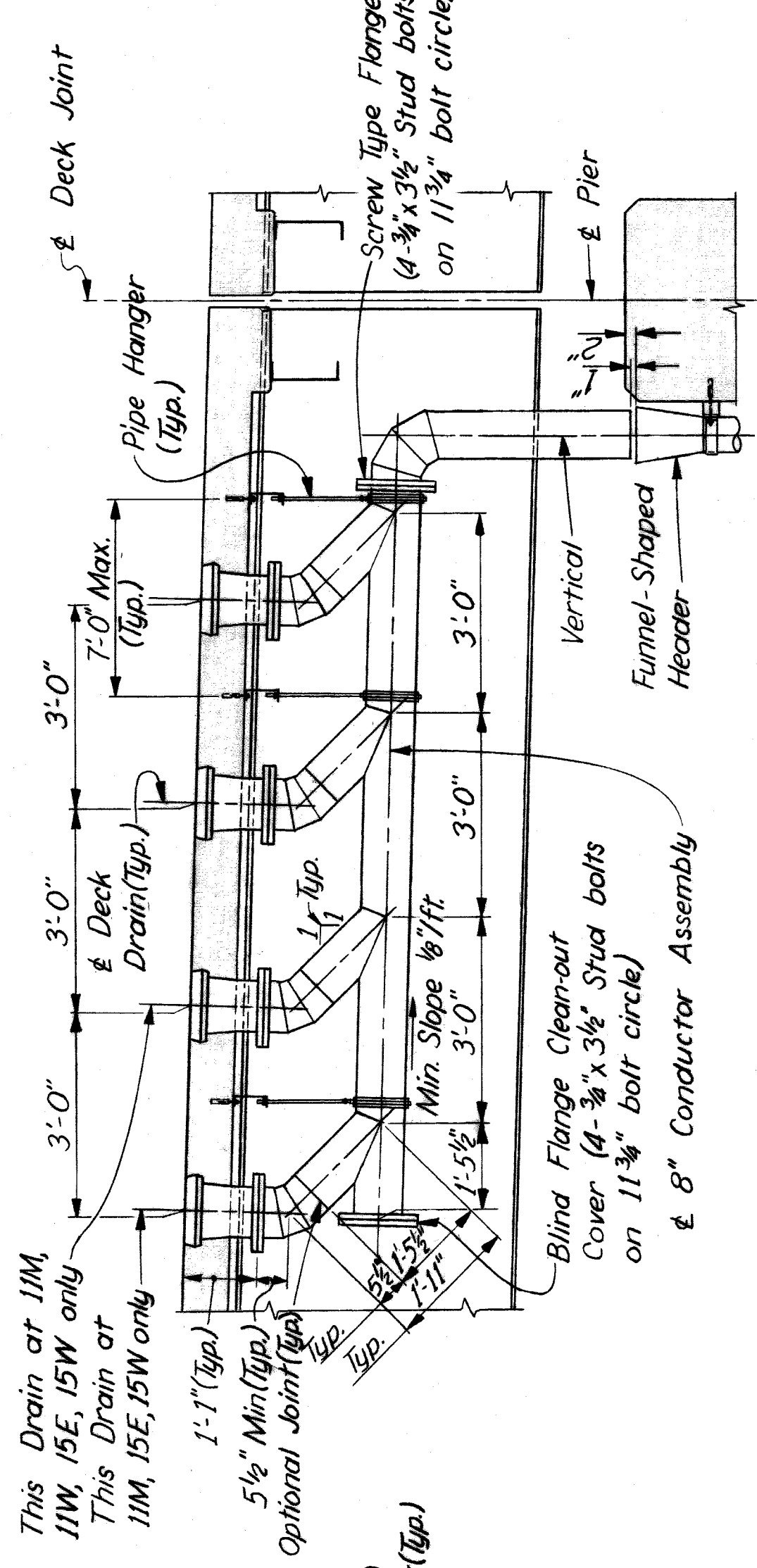
PLAN OF DRAINS AT PIERS 4 & 9



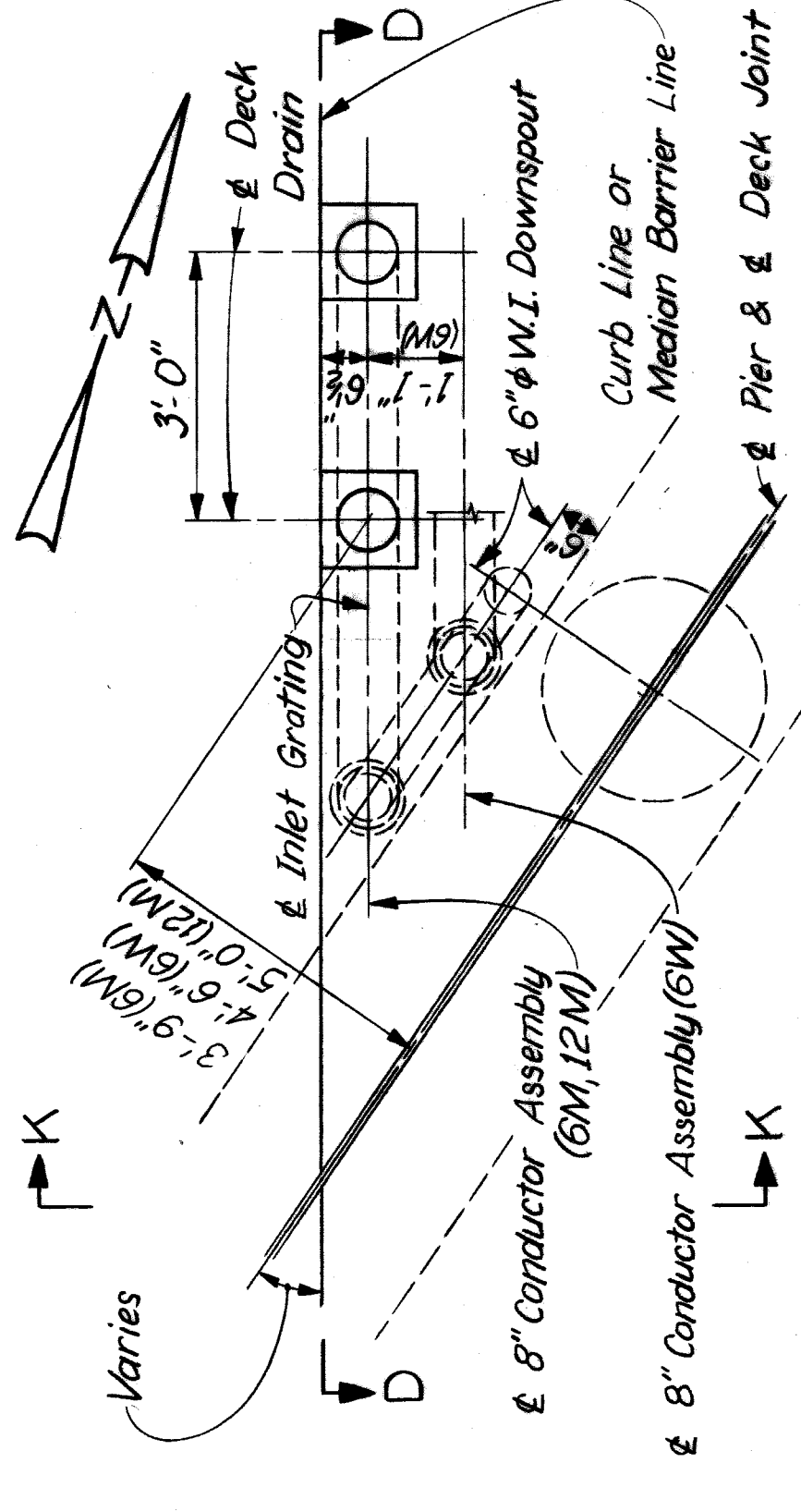
SECTION A-A  
(Shown for Pier 7)



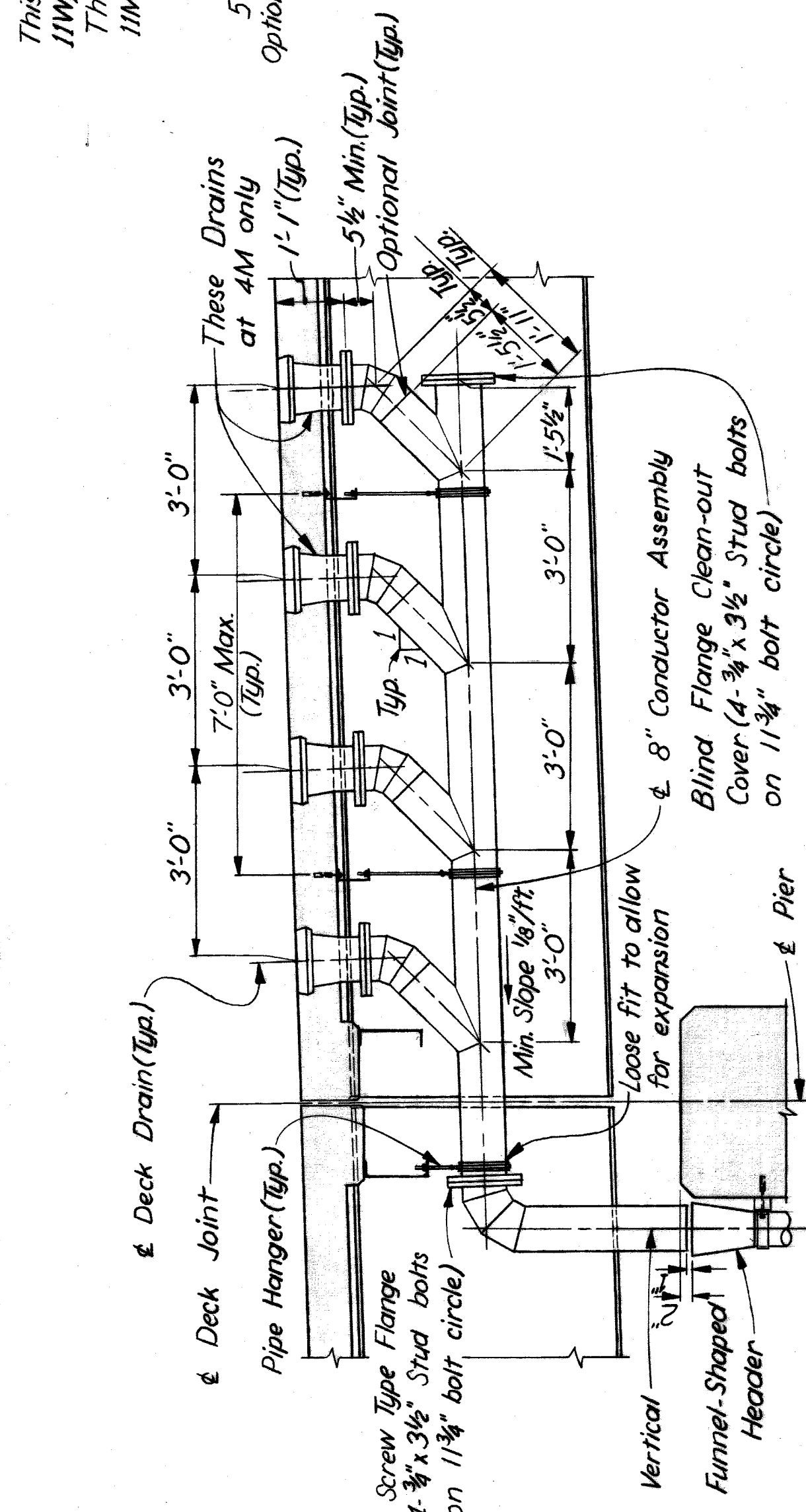
SECTION B-B



SECTION C-C  
(Shown for Pier 4)



PLAN OF DRAINS AT PIERS 6 & 12



SECTION D-D

AS BUILT 9-17-71 EMB v LTM

NO.	REVISIONS

ROAD LEADER CORRECTION	CHECKED BY M. J. Zykowski	DATE 6-27-67
TRACKED BY	CHECKED BY	DATE
APPROVED <i>[Signature]</i>		DATE

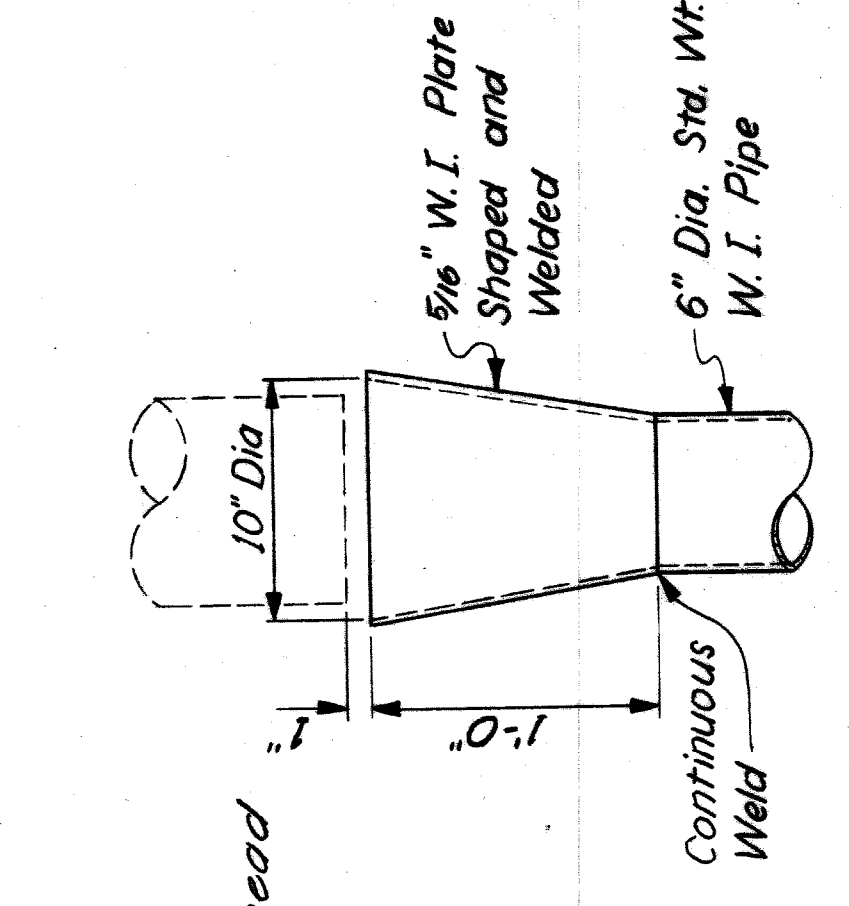
HAZELET & ERDAL CONSULTING ENGINEERS  
 BOARD OF ROAD COMMISSIONERS  
 WAYNE COUNTY ROAD COMMISSIONERS  
 DETROIT, MICHIGAN  
 PHILIP J. NEUDECK

MOUNT ELLIOTT-MOUND RD.  
 GRADE SEPARATION  
 DRAINAGE DETAILS

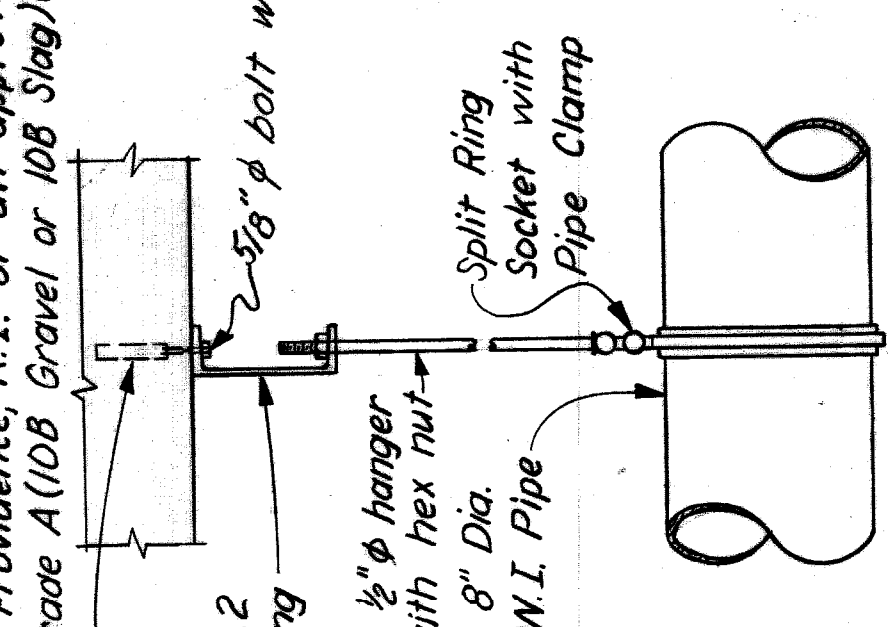
STATE PROJECT	COUNTY JOB
STATE FILE	ROAD
246	246
ISSUE NO. 1	SHEET NO.
DATE 5-23-68	379

W denotes West Curb.  
 E denotes East Curb.  
 M denotes Median Barrier.  
 Mark this sheet with Sheer 380.

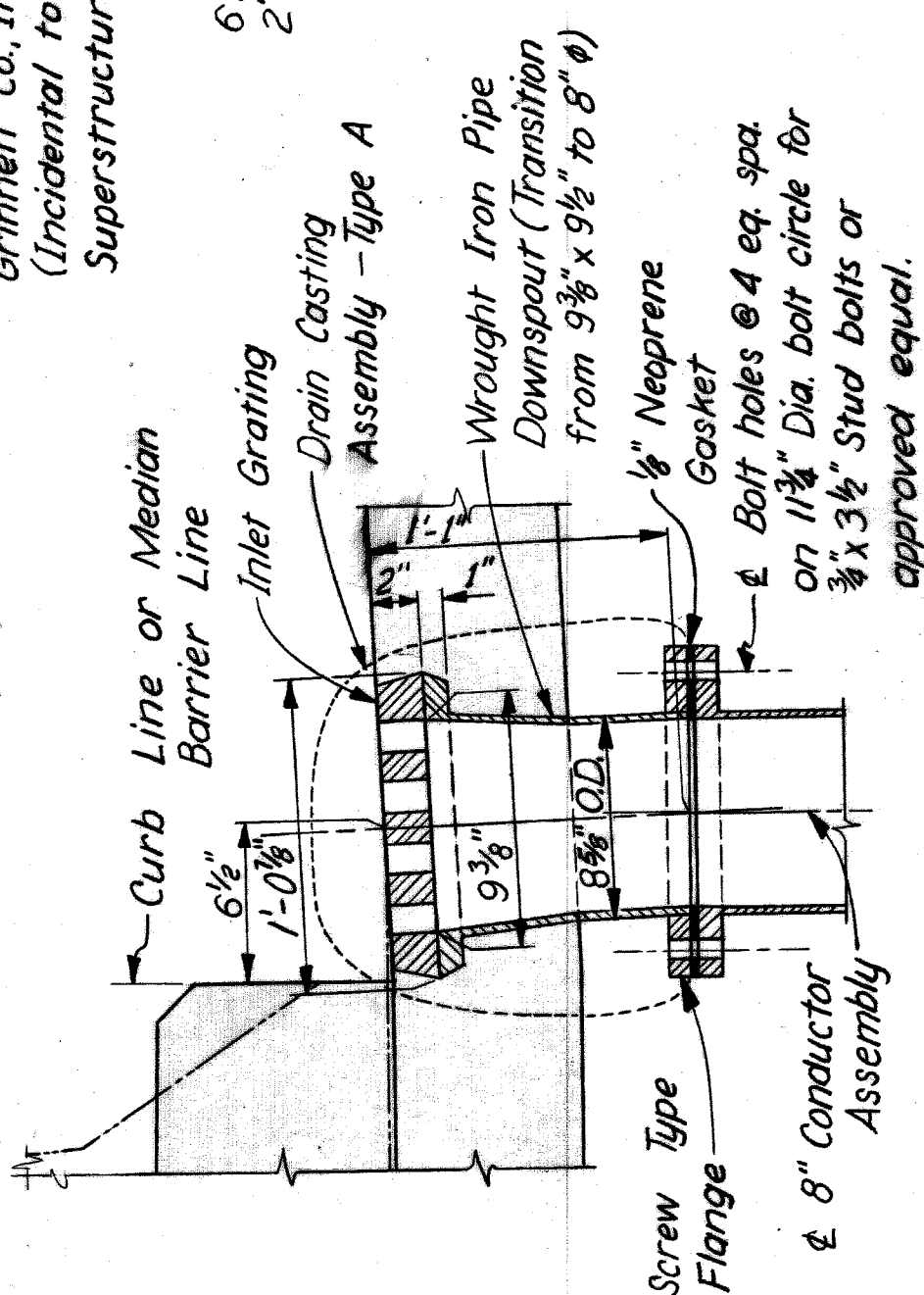
$\frac{3}{8}$ "  $\phi$  Screw Concrete Insert Fig. 152 as manufactured by Grinnell Co., Inc., Providence, R. I. or an approved equal. (Incidental to "Grade A (10B Gravel or 10B Slag) Concrete - Superstructure")



FUNNEL-SHAPED HEADER

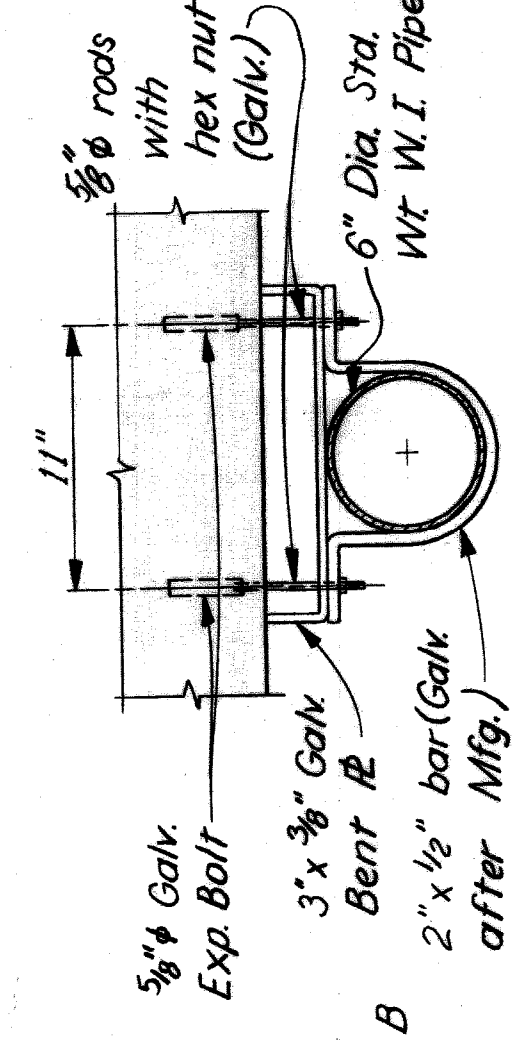


PIPE HANGER

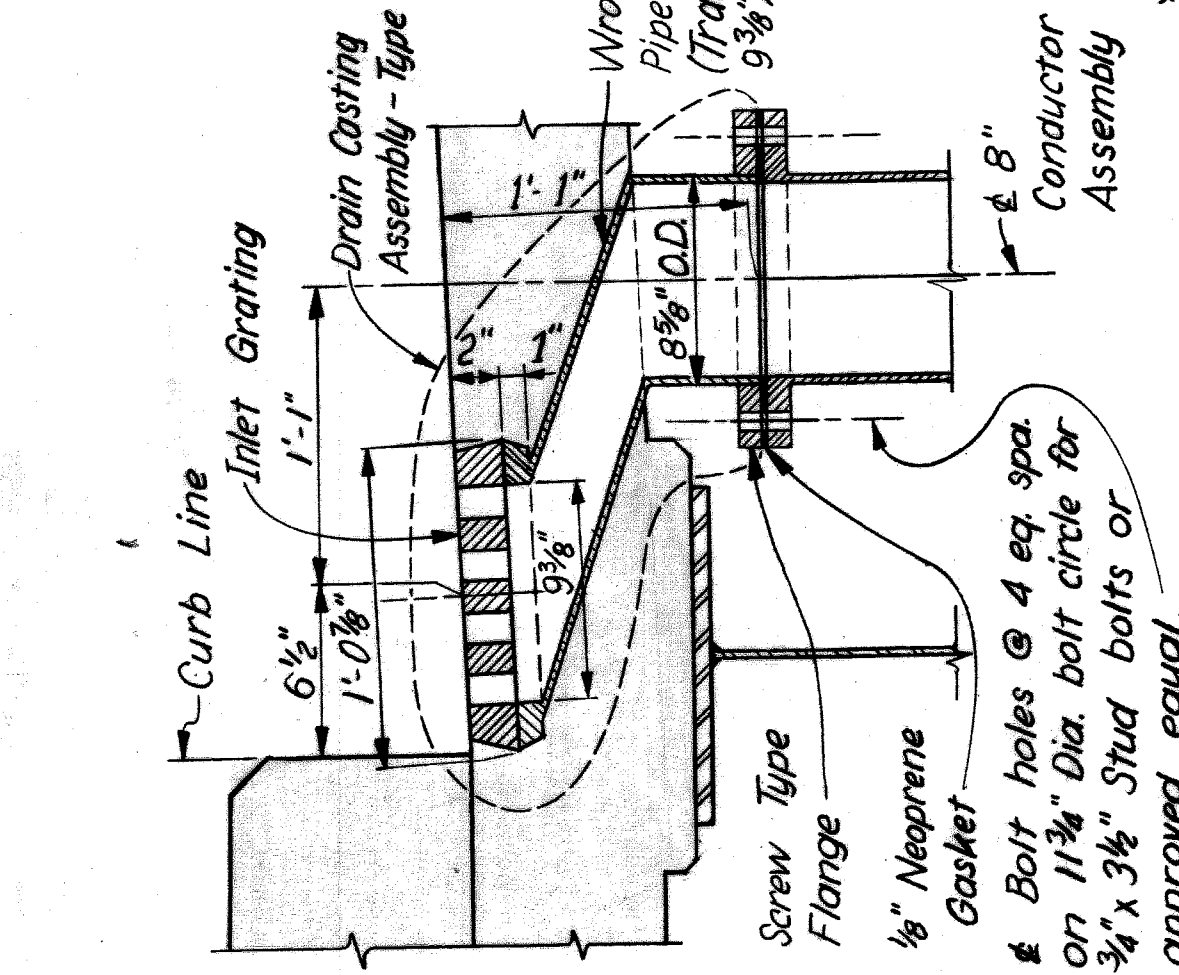


SECTION L-L

DRAIN CASTING ASSEMBLY - TYPE A

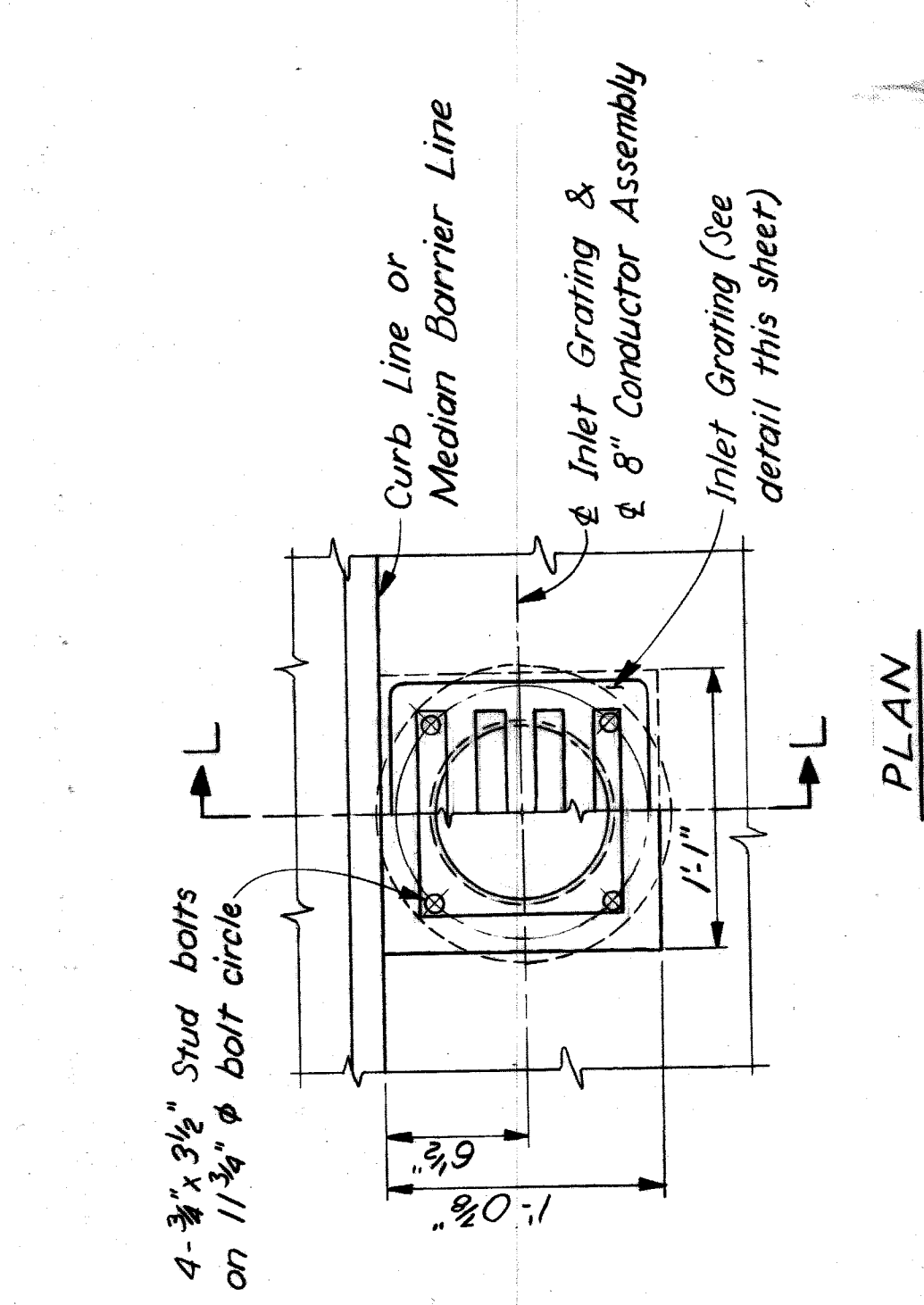


PIPE CLAMP ON PIER CAP

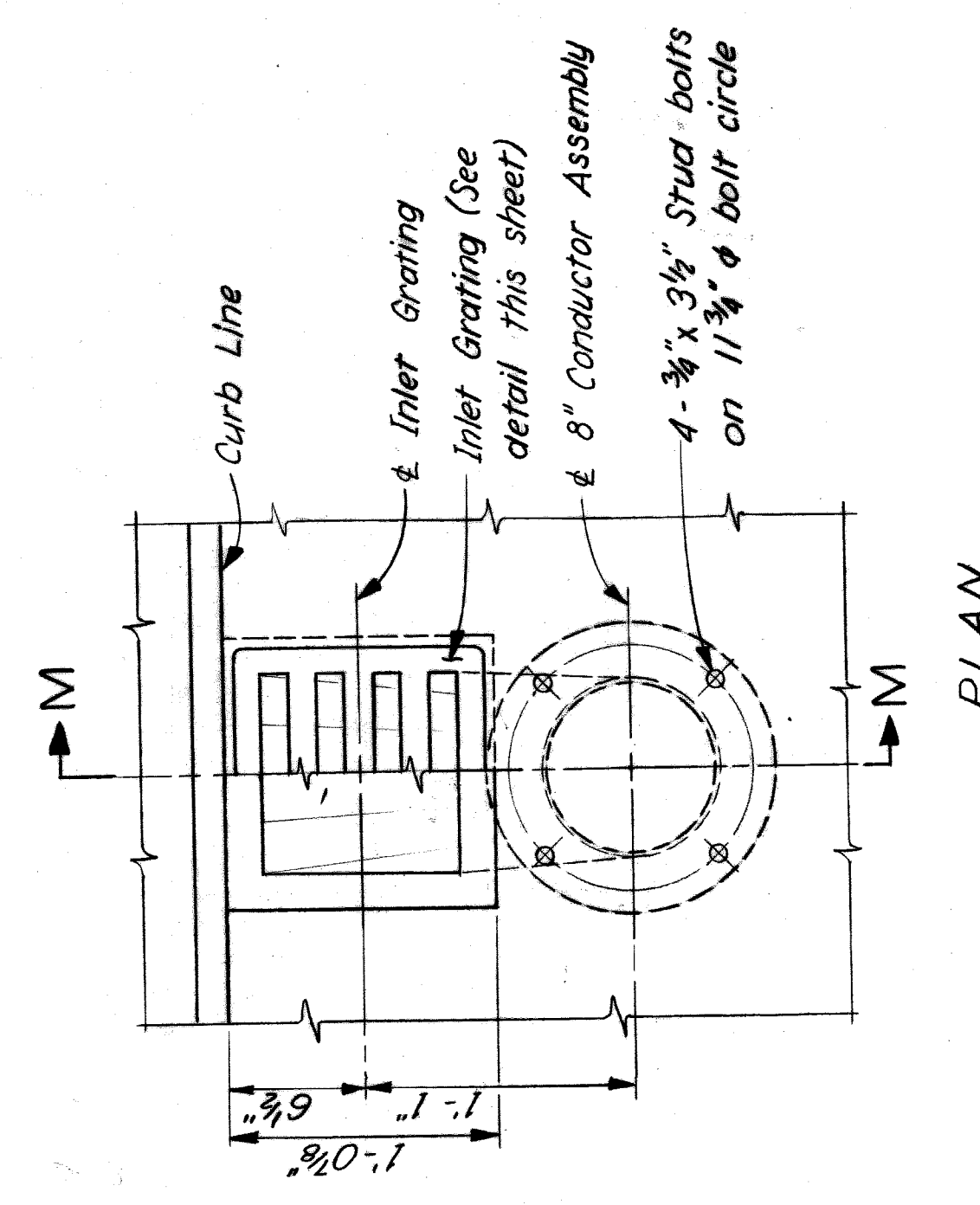


SECTION M-M

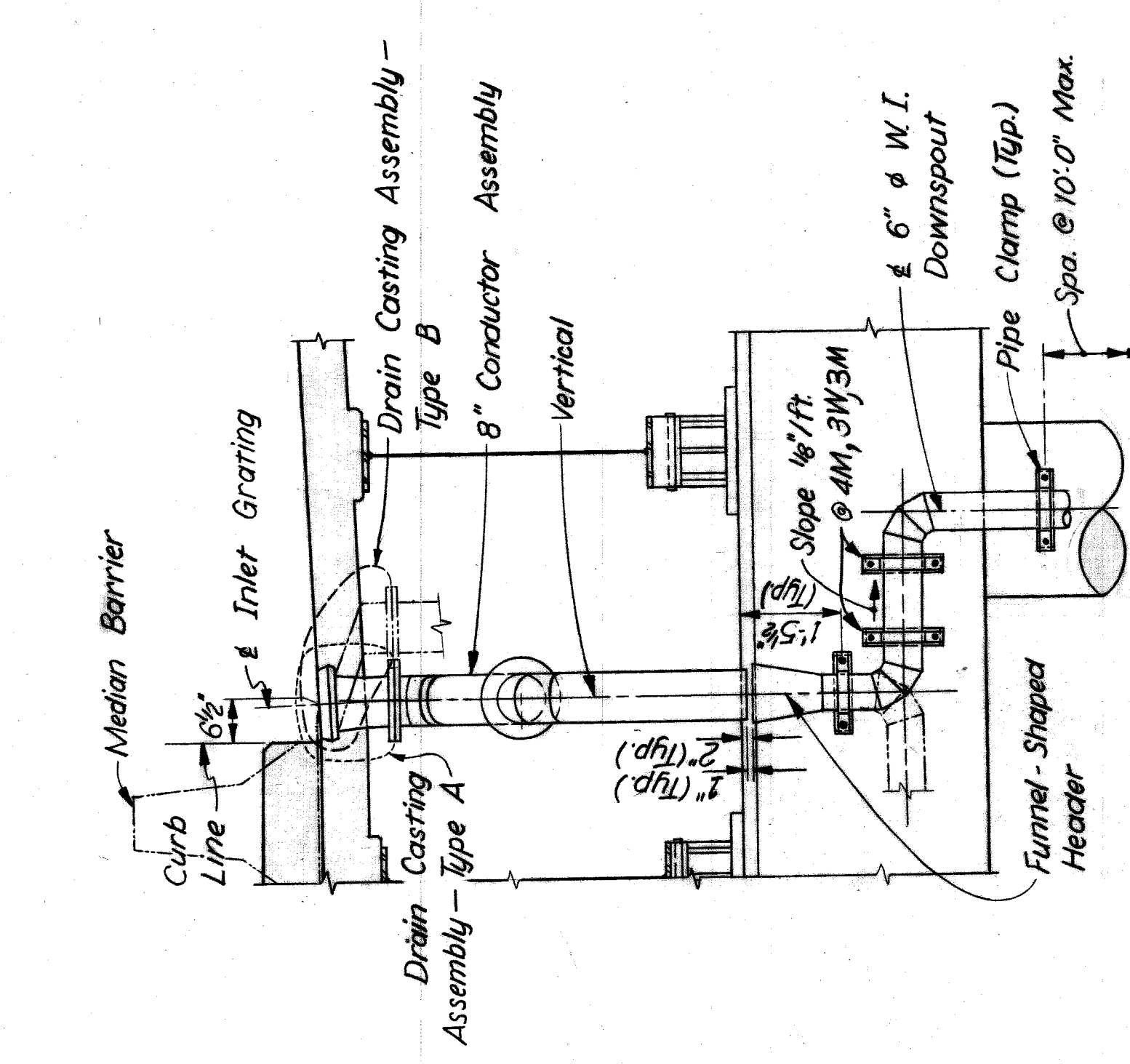
DRAIN CASTING ASSEMBLY - TYPE B



PLAN

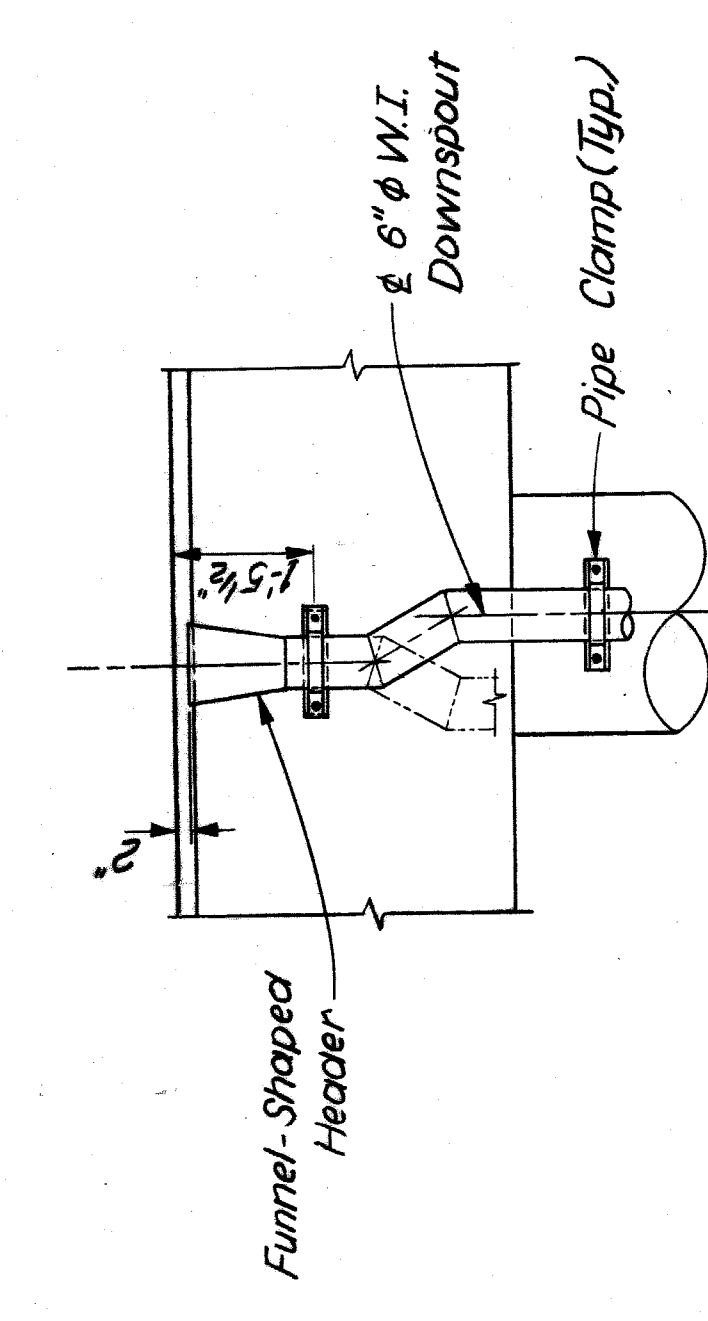


PLAN



SECTION G-G

SECTIONS E-E, F-F, J-J, & K-K SIMILAR

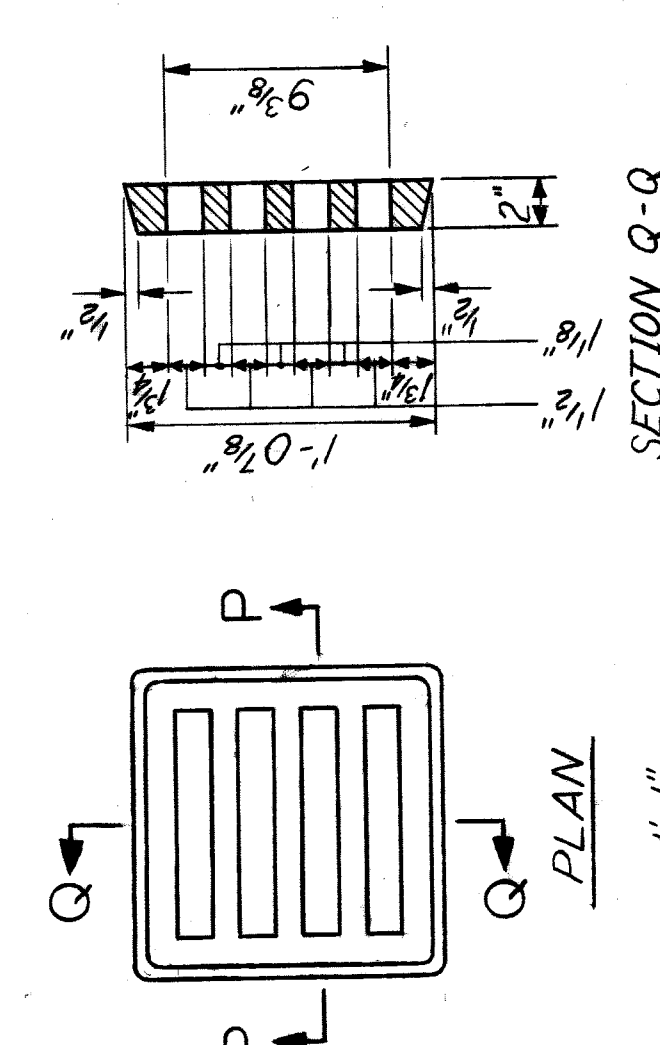


SECTION H-H

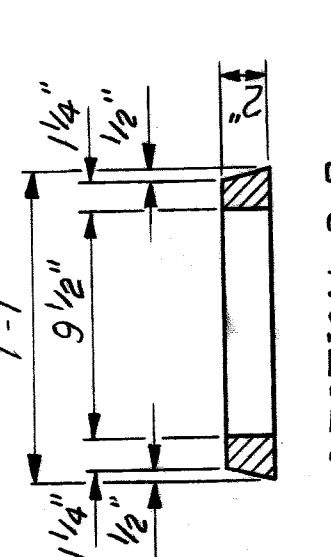
SECTIONS E-E, G-G, J-J, & K-K SIMILAR

NOTES:  
Flanges are to be unfinished faces, 4 bolt type, cast iron or equal.  
All pipe is to be std. wt. wrought iron pipe.  
All bends and elbows are to be fabricated to steel pipe dimensions.  
Pipe hanger items are to be galvanized.  
Pipe is to be given one coat of Painting Mixture 1-A in the shop.  
Weight of Conductor Assemblies, Supports, Pipe, Elbows, Flanges, Pipe Hangers, Pipe Clamps, Bolts and Washers are included in the quantity of "Structural Steel - Furnishing & Fabricating A441 Steel" and "Structural Steel - Erection A441 Steel."

PIPE CLAMP ON PIER COLUMN



SECTION Q-Q



SECTION P-P

INLET GRATING DETAIL

NOTE: Grating to be of gray iron.

CONCRETE ASSEMBLY NO.	DRAIN CASTINGS TYPE A	TYPE B
2E	2	
2W	2	
3M	2	
3W	2	
4M	4	
4W	2	
6M	2	
6W	3	
7M		3
9M	2	
9W	4	
11M		3
12M	2	
13E	2	
13W	3	
15E	4	
15W	4	
TOTAL	38	12

QUANTITIES

Drain Casting Assembly - Type A . . . . . 38 Each  
Drain Casting Assembly - Type B . . . . . 12 Each  
5/8"  $\phi$  Galvanized Expansion Bolts . . . . . 216 Each

Work this sheet with Sheet 379.

STATE FILE	BRIDGE	STATE PROJECT	COUNTY JOB
	ROAD		246
		ISSUE NO. 1	SHEET NO. 380
		DATE 5-13-68	

HAZELET & ERDAL CONSULTING ENGINEERS

MOUNT ELLIOTT-MOUND RD.  
GRADE SEPARATION  
DRAINAGE DETAILS

WAYNE COUNTY ROAD COMMISSIONERS

BOARD OF  
DETROIT, MICHIGAN

APPROVED  
ENGINEER OF STRUCTURES AND EXPRESSWAYS  
APPROVED  
COUNTY ENGINEER

CHECKED BY  
DATE  
TRACED BY  
DATE  
CORRECTED BY  
DATE

REVISIONS

STATE PROJECT  
COUNTY JOB  
ISSUE NO. 1  
SHEET NO. 380  
DATE 5-13-68

MICHAEL BERRY

PHILLIP J. NEUDECK

WILLIAM E. KREGER

APPROVED  
ENGINEER OF STRUCTURES AND EXPRESSWAYS  
APPROVED  
COUNTY ENGINEER

REVISIONS

XO107 H & E FILE NO. 603