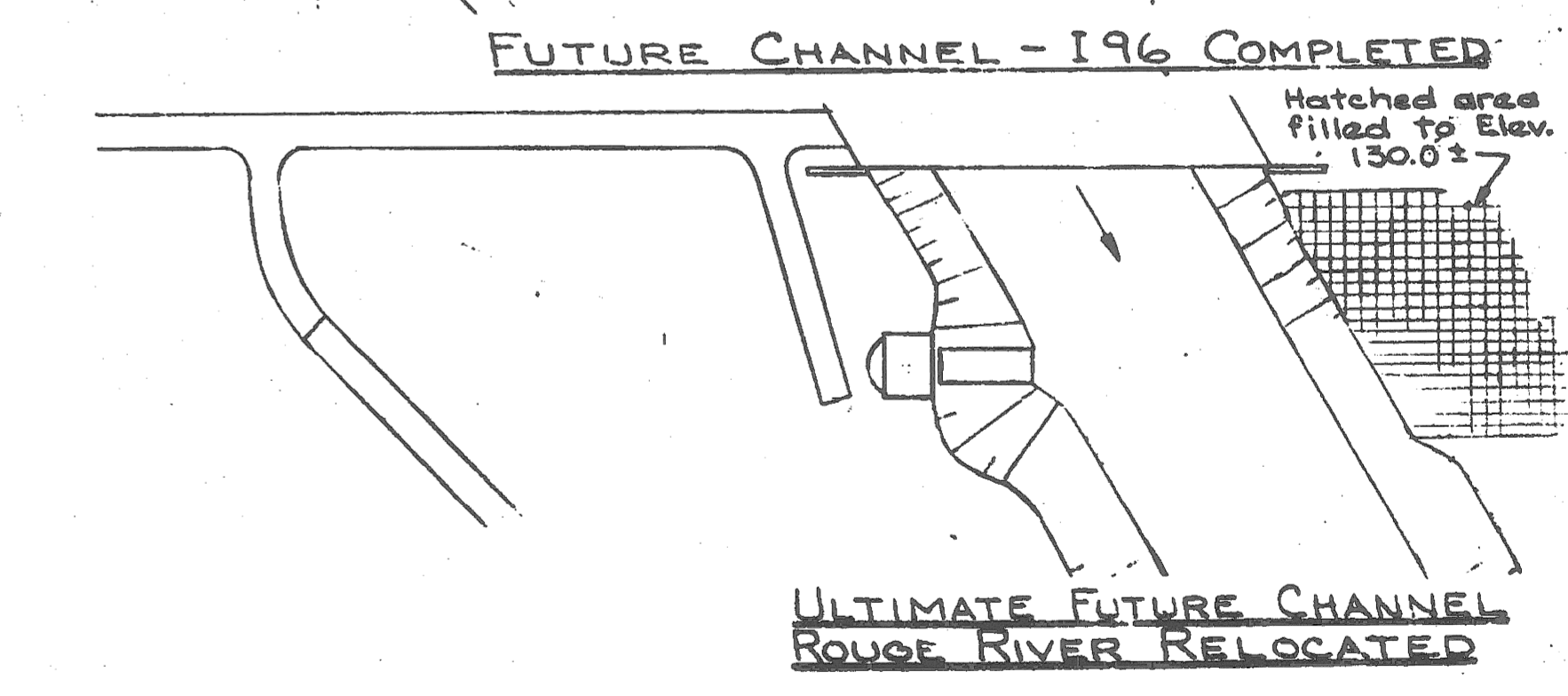
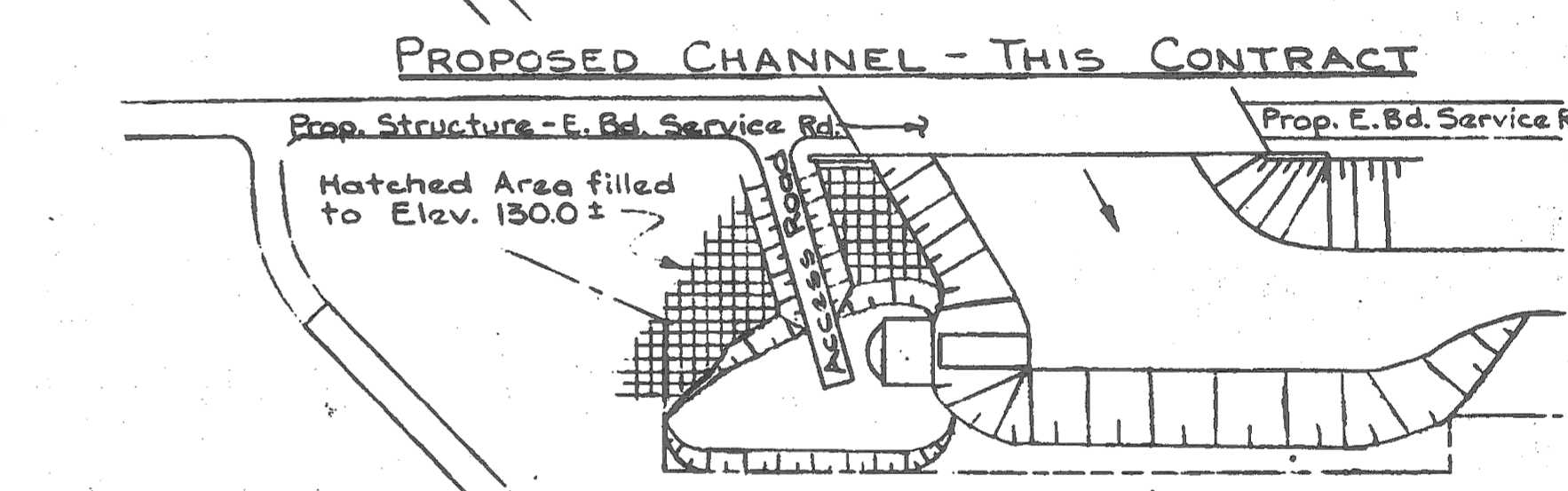
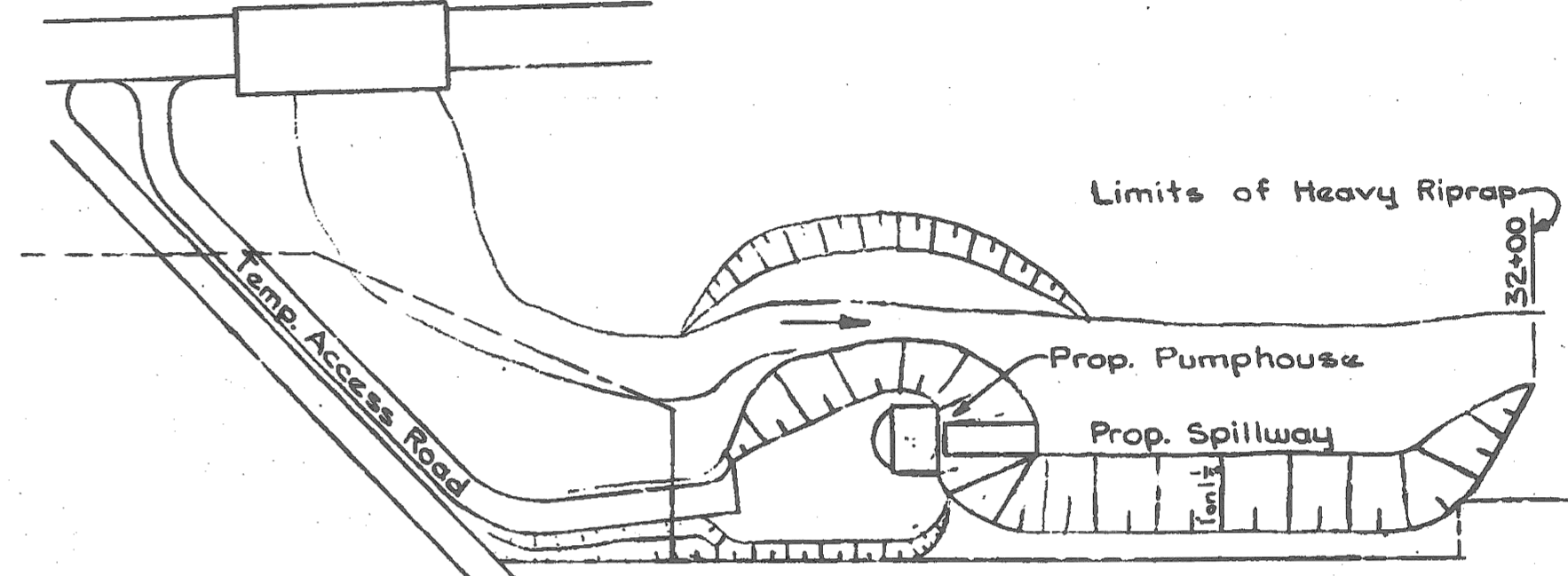
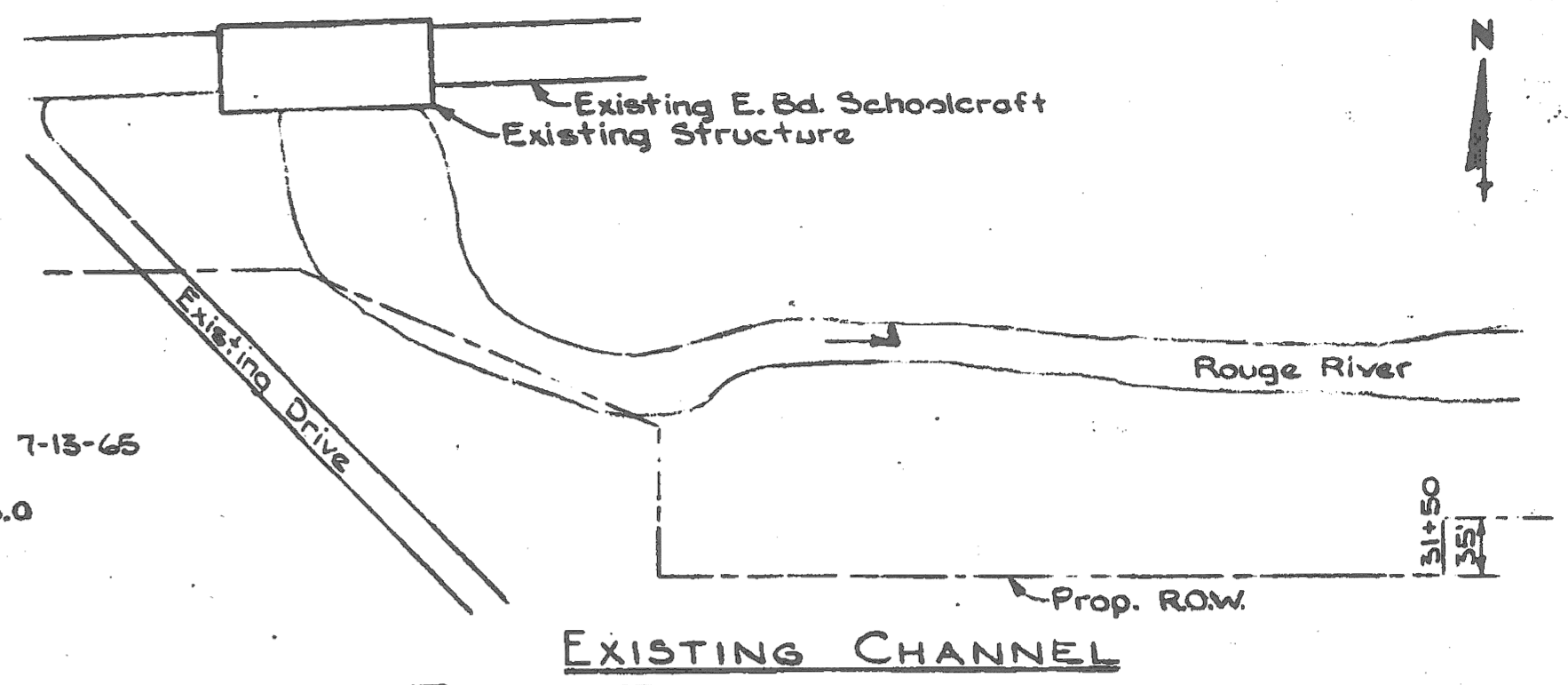
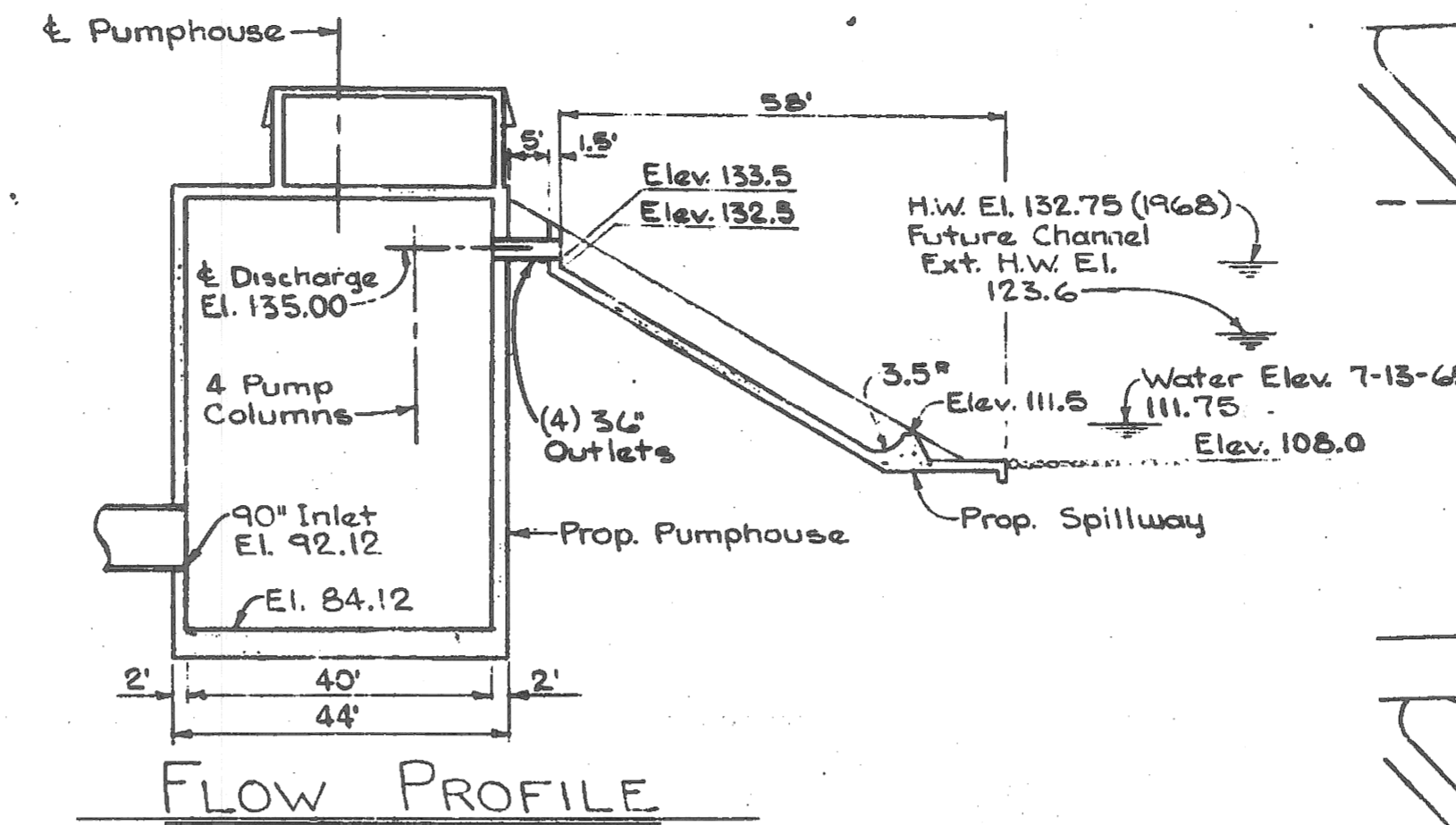
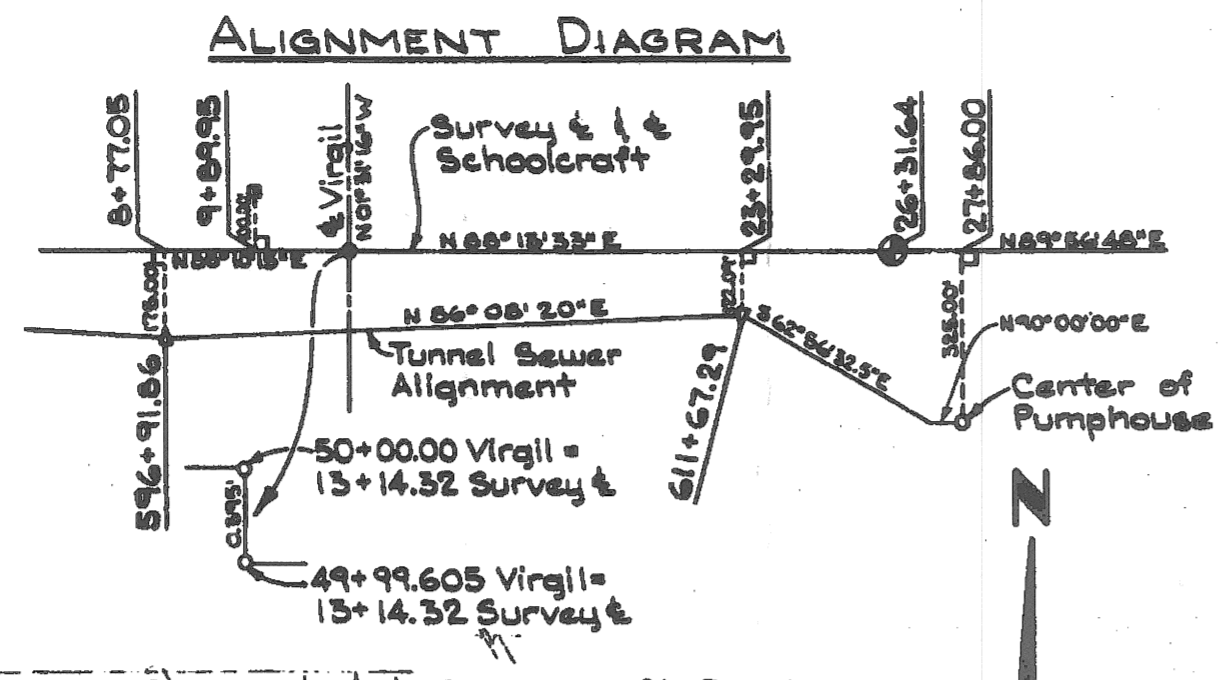


BENCH MARKS	
B.M.#10	El. 129.44 N.E. Cor. River Rouge Bridge (City B.M.#120-255 Recorded El. 153.077)
B.M.#11	El. 128.69 B.M. Cap in N.E. root of 15' Elm 60'E. of Rouge River Bridge N. Side of Schoolcraft.
B.M.#12	El. 131.63 Tip of arrow on hydrant N.E. corner Bramell / School- craft 110' Lt. of Sta. 30+55

ALIGNMENT	
P.I. Sta. 26+31.64	Defl. 1°43'15" Rt. No Curve
WITNESSES	
& Appleton 100' N. of & Schoolcraft 9+87.95 N25°E-18.94'-6" Apple S60°W-34.50'-L. Pole N65°W-46.09'-Cor. Bldg. N30°W-27.87'-Cor. Bldg. Drill hole in chieled sq.	



PLAN NOTES

The work covered by these plans includes construction of the proposed pumphouse and spillway, channel excavation, construction of temporary access road and placing riprap to the limits shown.
Datum refers to City of Detroit datum.

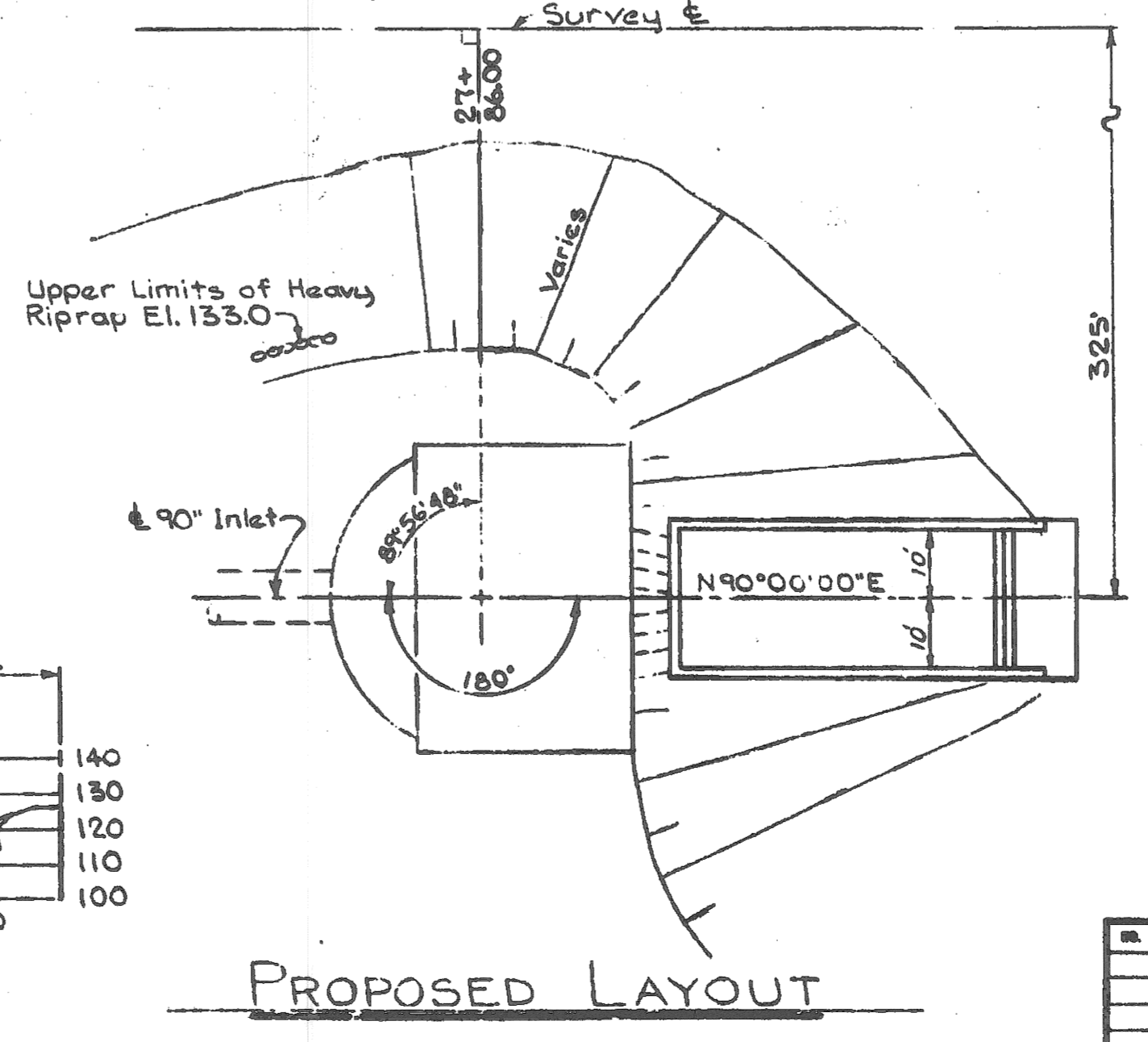
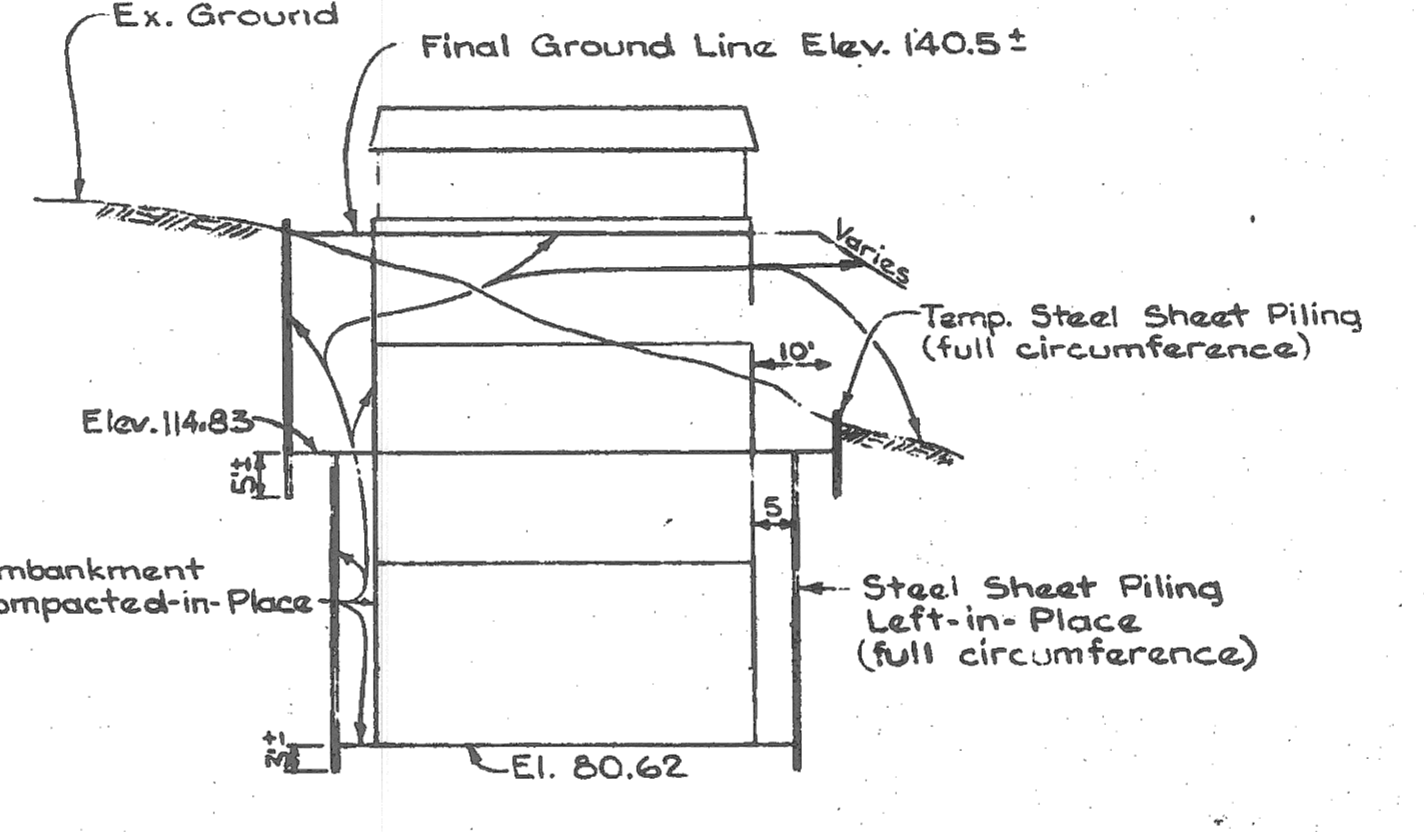
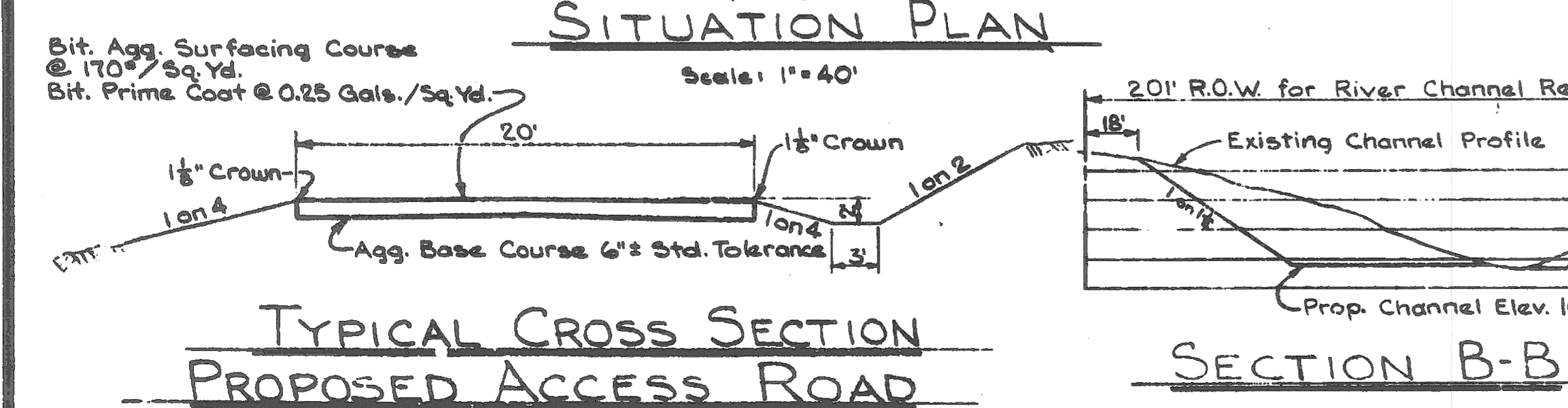
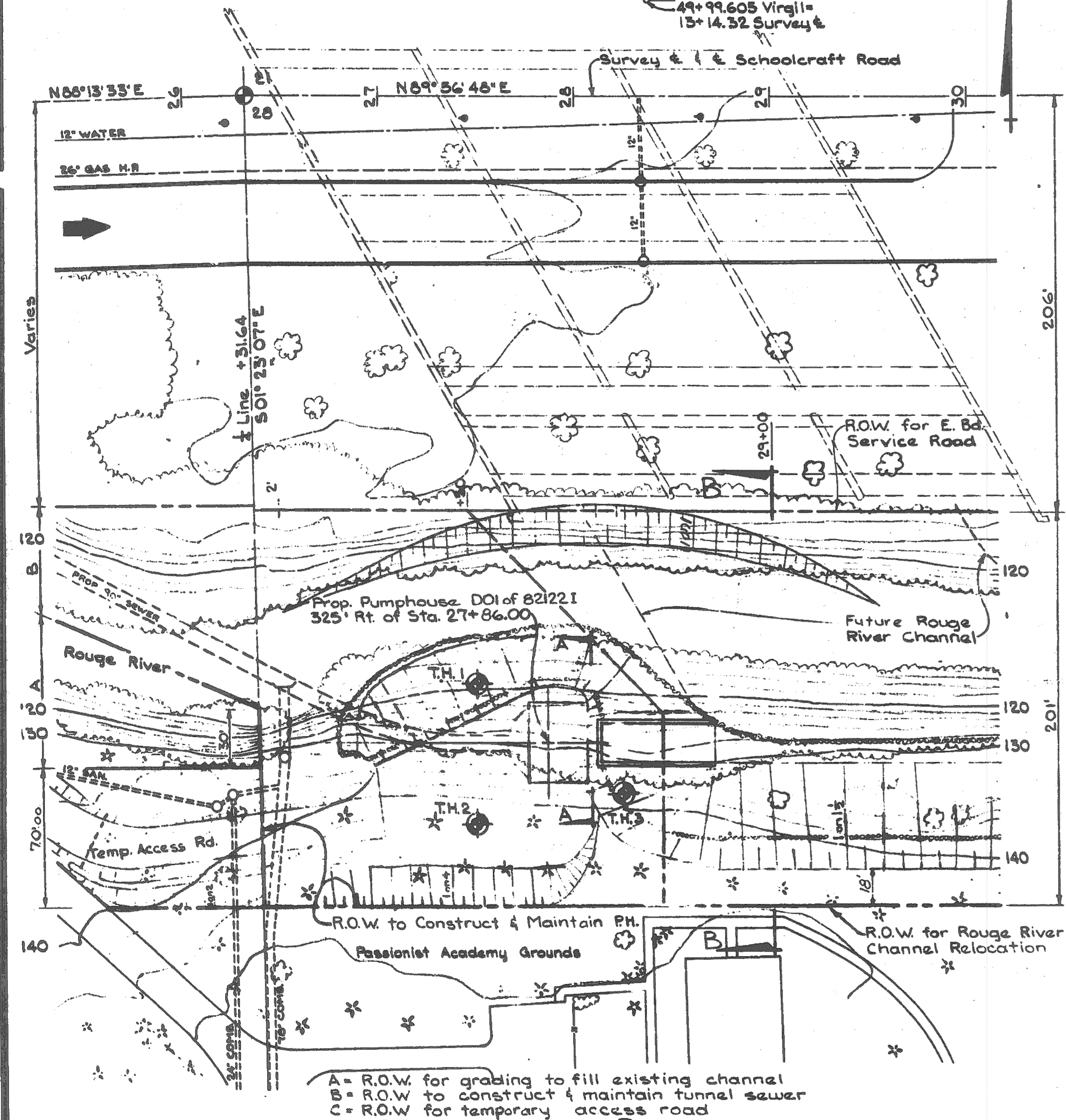
FOR INFORMATION ONLY AJLUNI

MICHIGAN DEPARTMENT OF STATE HIGHWAYS
PUMPHOUSE LOCATED ALONG E. BD. I-96 WEST OF ROUGE RIVER

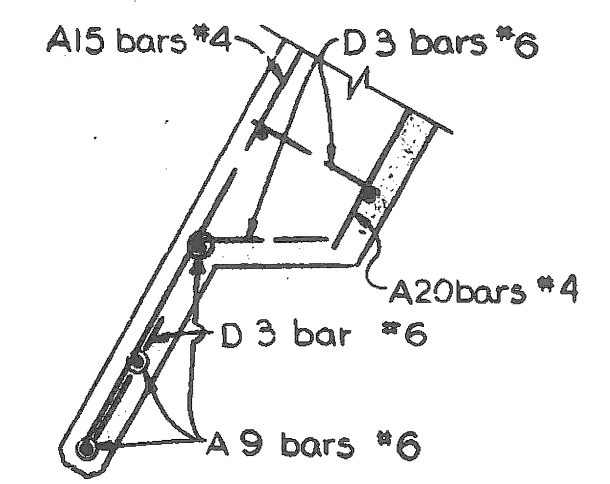
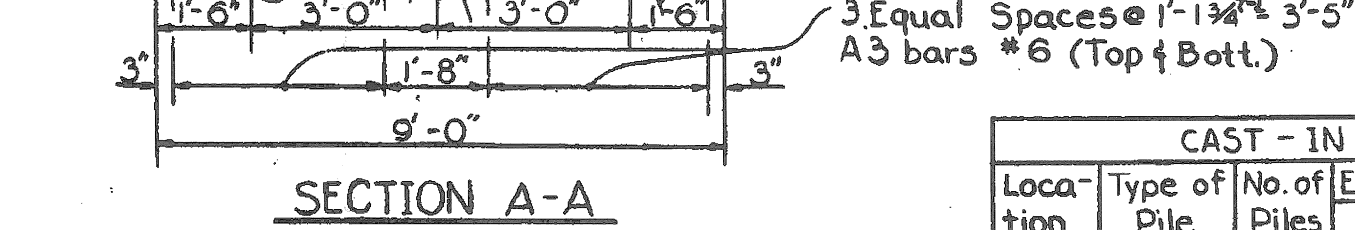
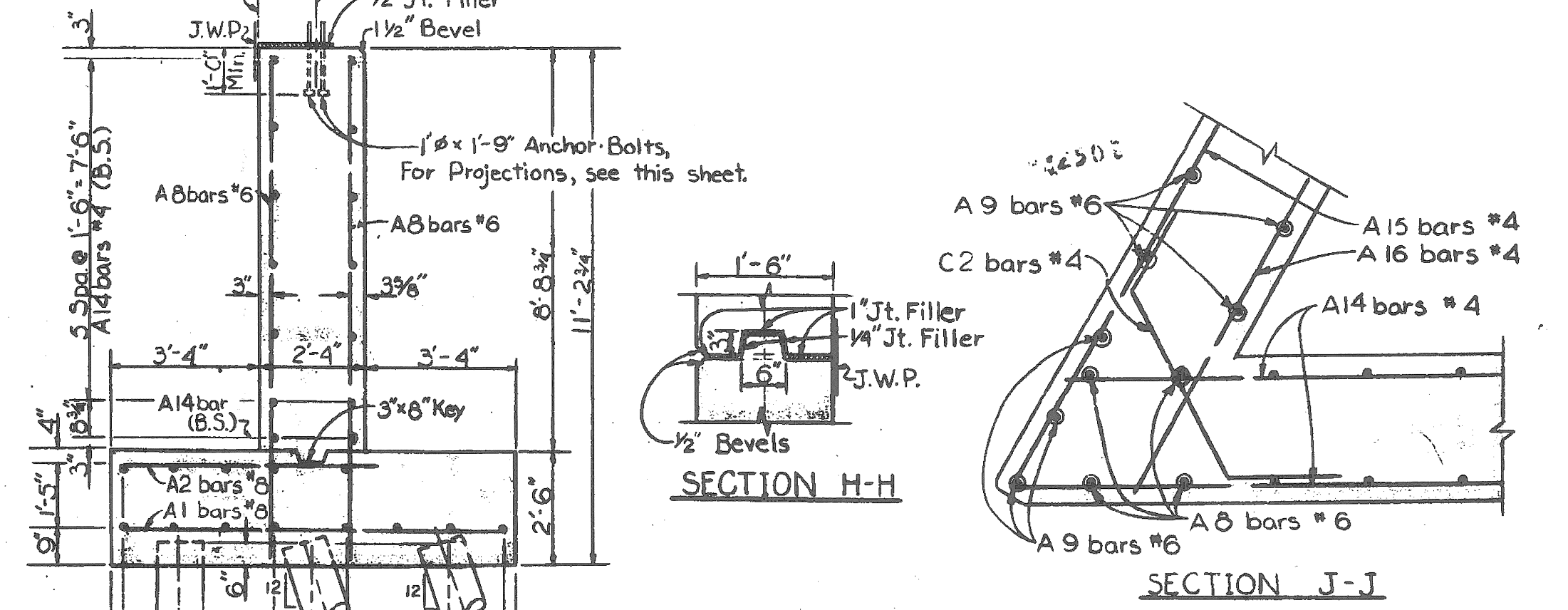
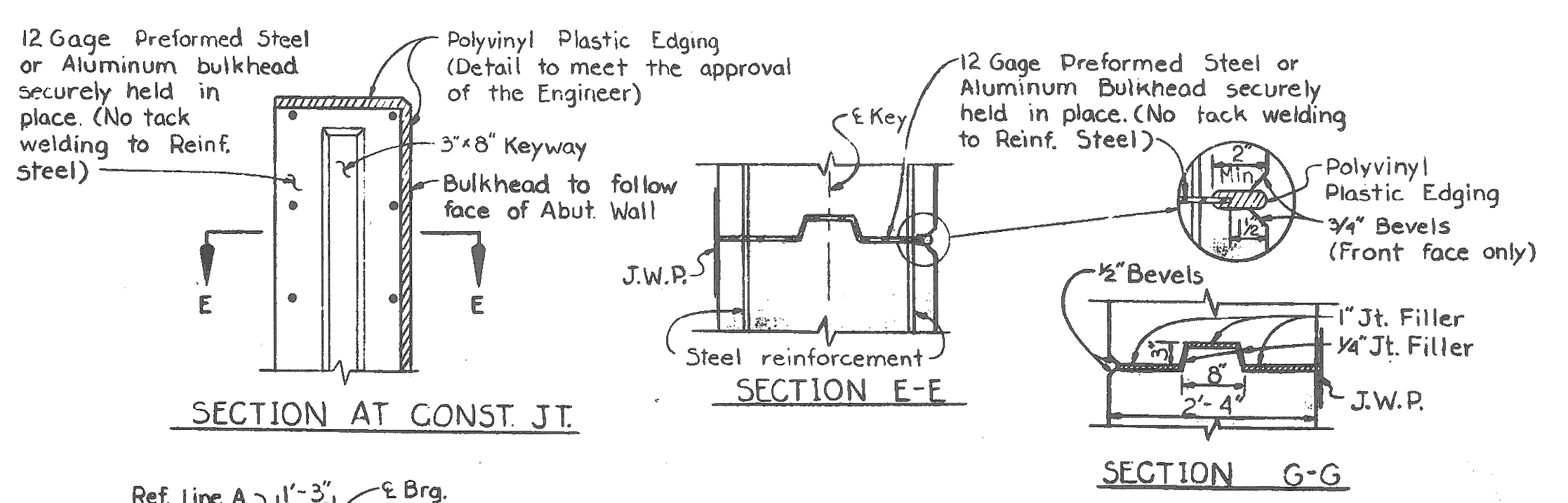
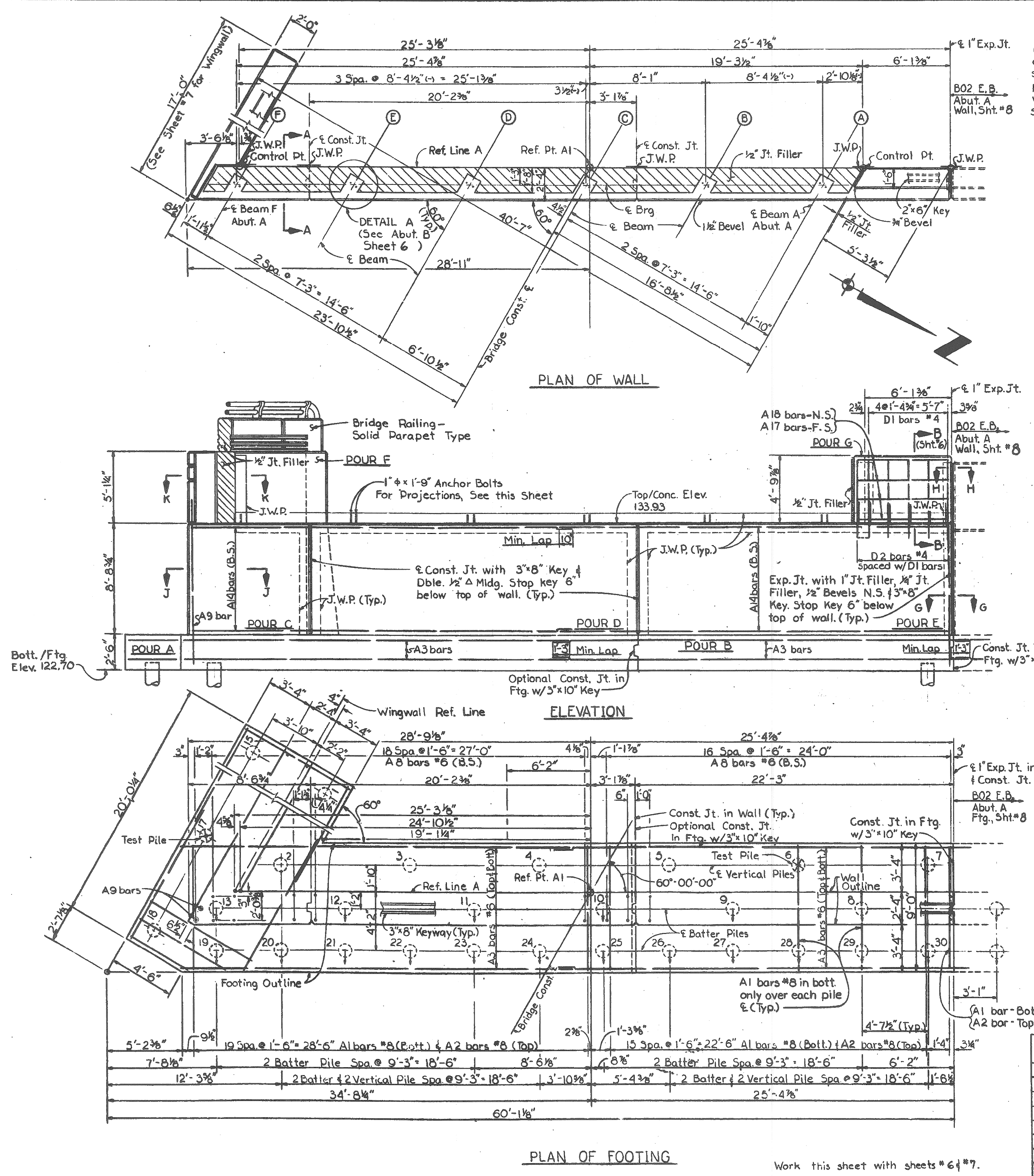
GENERAL PLAN OF SITE

DESIGNED BY	RUSMANSKI 2-67
DRAWN BY	Hawkes 8-23-68
CHECKED BY	E. J. K. 10-2-68
DATE	8-2-68

APPROVED: DO1 of 82122 I



REVISIONS			
NO.	DESCRIPTION	DATE	BY



CAST-IN-PLACE CONCRETE PILES						
Location	Type of Pile	No. of Piles	Est. Length (Each) (Furn. & Driven)	Total Est. Length (Furn. & Driven)	Pile Points	Test Piles
Abut. A	Vert.	10	40'	400'	10	10
	Batt.	18	40'	720'	18	18
	Test	2	50'	100'	2	2
Total - A				1,220'	30	28
Abut. B	Vert.	10	40'	400'	10	10
	Batt.	18	40'	720'	18	18
	Test	2	50'	100'	2	2
Total - B				1,220'	30	28
Grand Total				2,440'	60	56

Notes:
 J.W.P. denotes Joint Waterproofing.
 B.S. denotes Both Sides; N.S. denotes Near Side; F.S. denotes Far Side.
 For bevel and molding and bridge railing details, see Std. sheet R16.
 Anchor Bolts shall be accurately set to a template.
 The Metal Bulkhead may be used as alternate construction joint at contractor's expense.
 Care is to be used in casting concrete around Bulkhead to prevent dislocation or misalignment of the Bulkhead.
 Cut holes in Metal Bulkhead for reinforcing steel.
 All piles shall be driven to a minimum bearing capacity of 60 tons.
 Pile shells for Cast-in-Place Concrete Piles driven without a removable core shall be a minimum of #3 U.S. Standard Gage (0.230" nominal thickness), 12" O.D., and may be steel pipe of seamless or spiral welded type or fluted pipe as manufactured by the Union Metal Manufacturing Co. or approved equal.
 Pile points shall be pressed steel of the slip-on type in accordance with the detail shown on the plans. Points shall be attached to pile shells with 3/8" continuous welds.

MISCELLANEOUS QUANTITIES		
ITEM	Unit	Abut. A
Joint Waterproofing	Sq. Ft.	137
1/2" Jt. Filler	Sq. Ft.	91
1" Jt. Filler	Sq. Ft.	28
1/4" Jt. Filler	Sq. Ft.	6
Unclassified Excavation	Cu. Yds.	340
Bridge Railing - Solid Parapet Type	Lin. Ft.	13.8
Furnishing Equipment for Driving Piles - Lump Sum		

CONCRETE QUANTITIES		
ANCHOR BOLT PROJECTION	POUR	
	GRADE A(GA)	GRADE A(GAA)
A	36.9 cu.yd.	
B	18.5 cu.yd.	
BEAM PROJECTION	A	15.8 cu.yd.
	B	17.8 cu.yd.
	C	16.8 cu.yd.
	D	5.5 cu.yd.
	E	1.8 cu.yd.
	F	1.8 cu.yd.
TOTAL GRADE A(GA) = 55.4 cu.yd.		
TOTAL GRADE A(GAA) = 57.5 cu.yd.		

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

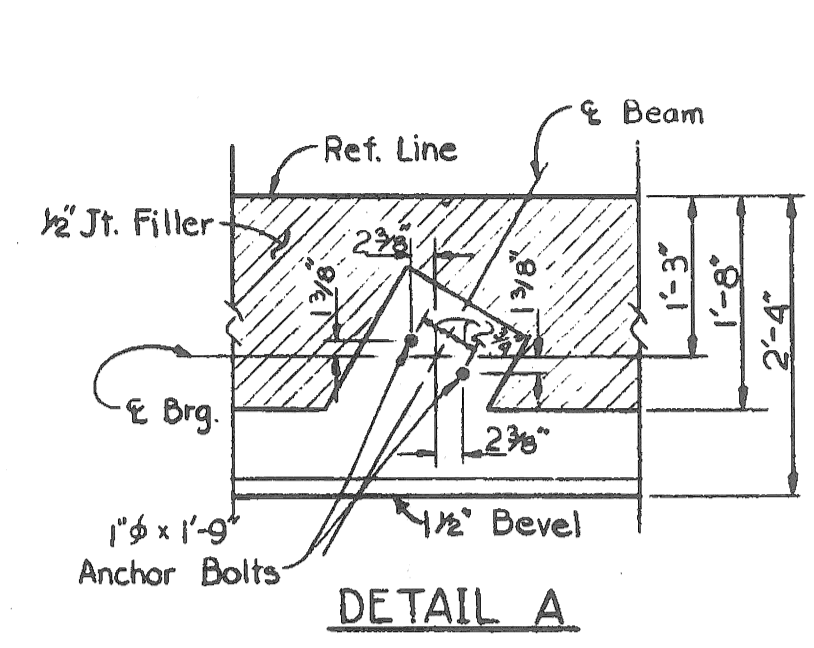
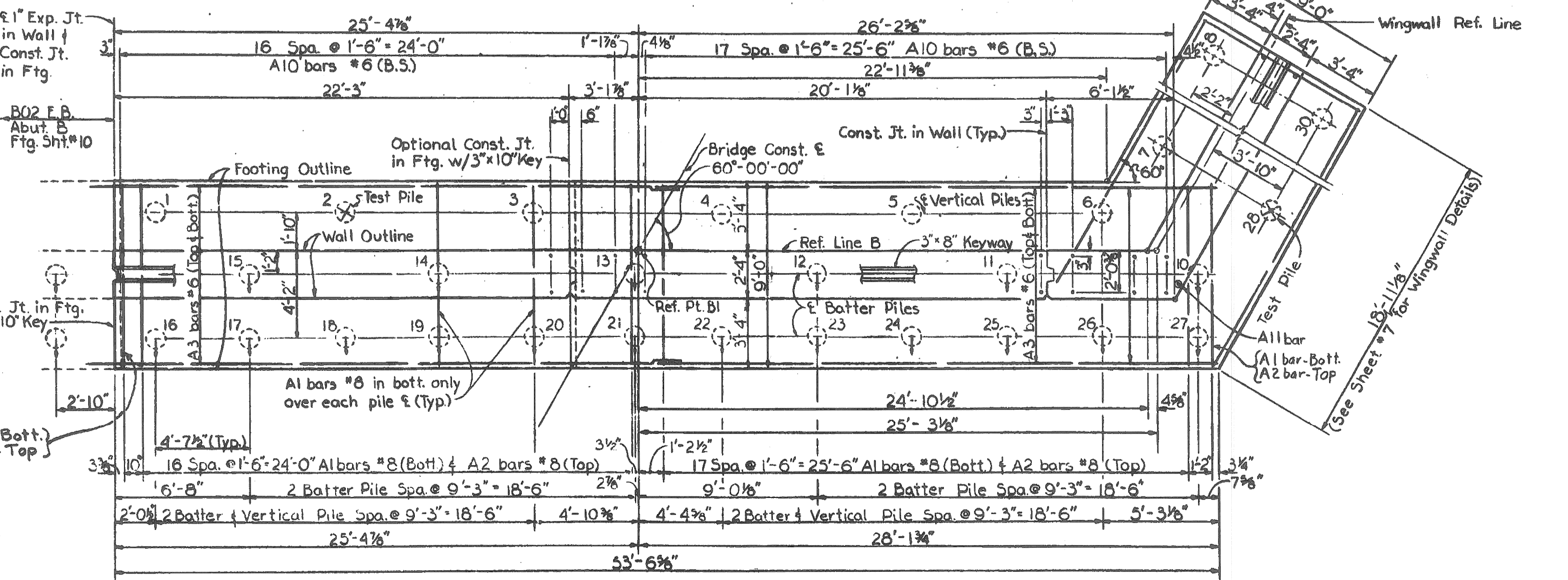
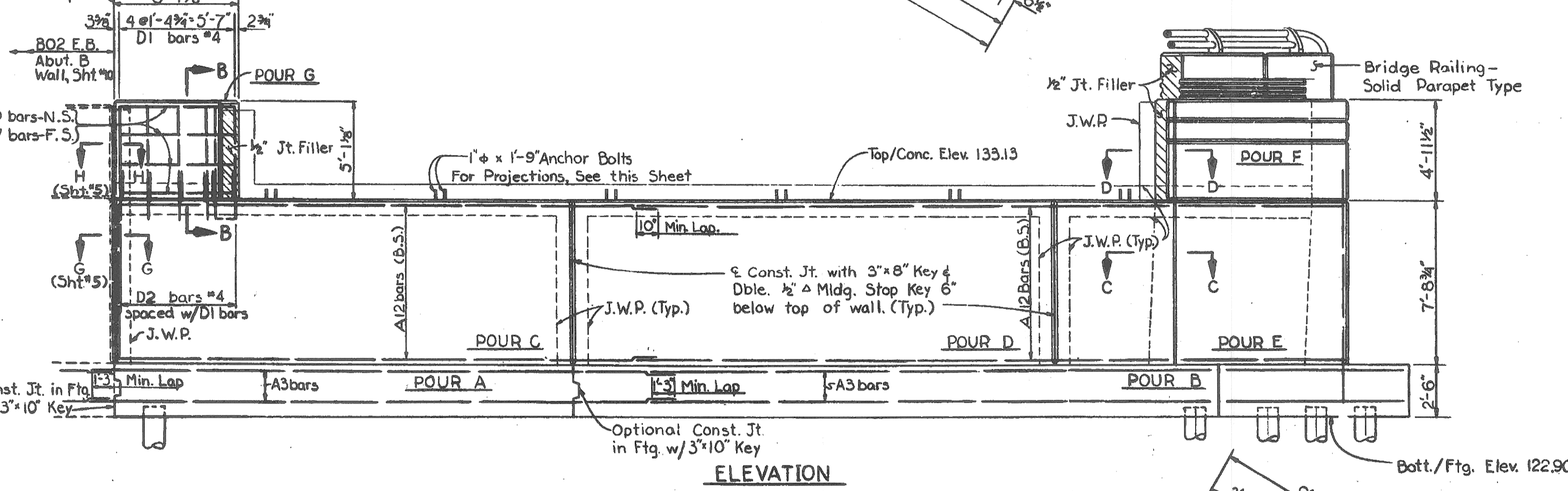
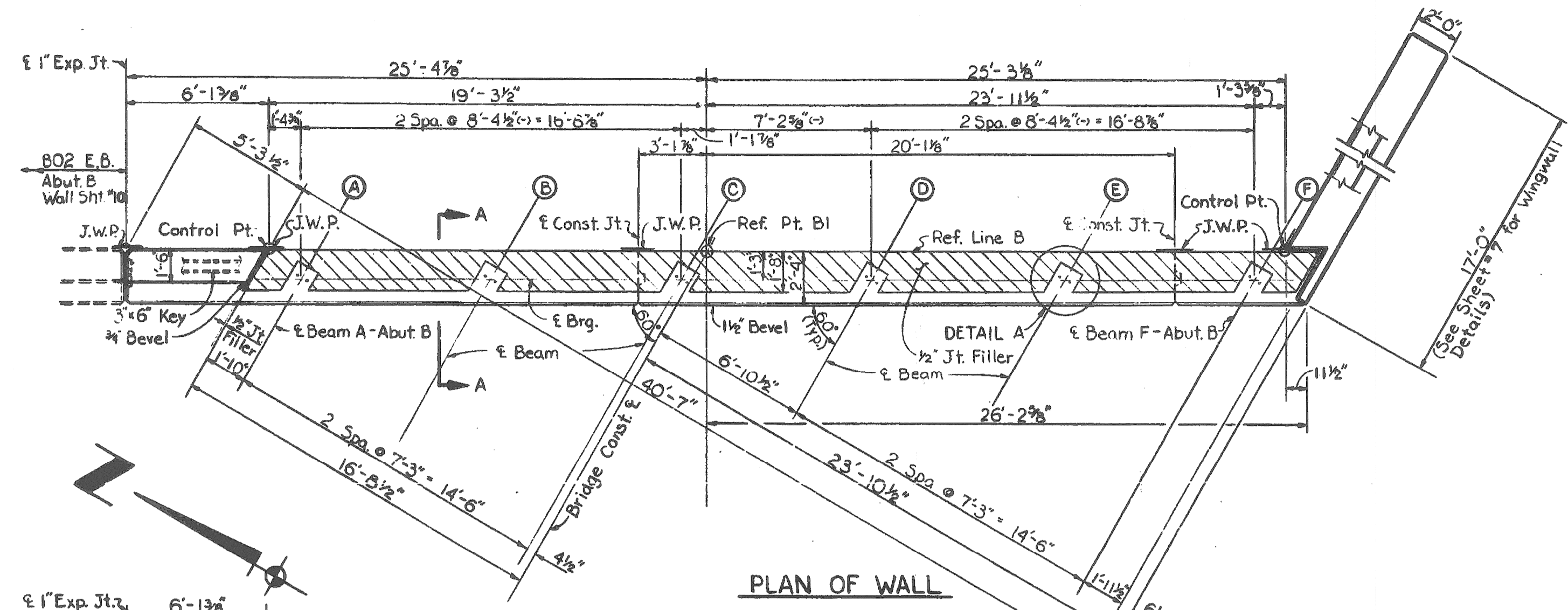
ABUTMENT A DETAILS

DESIGN BY: AJL/UNY 5-11-70
 DRAWN BY: Docil 10-1-69
 CHECKED BY: LOTT 3-26-70
 SHEET 5 OF 19

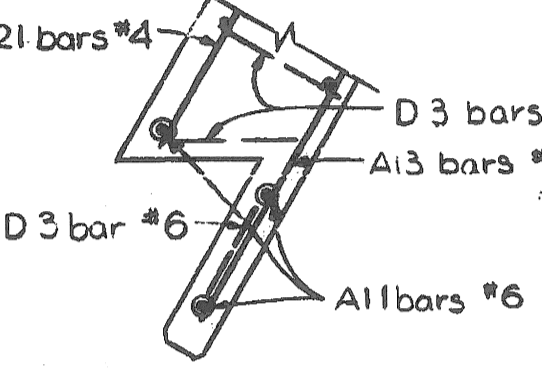
BOI of 82121

REVISIONS

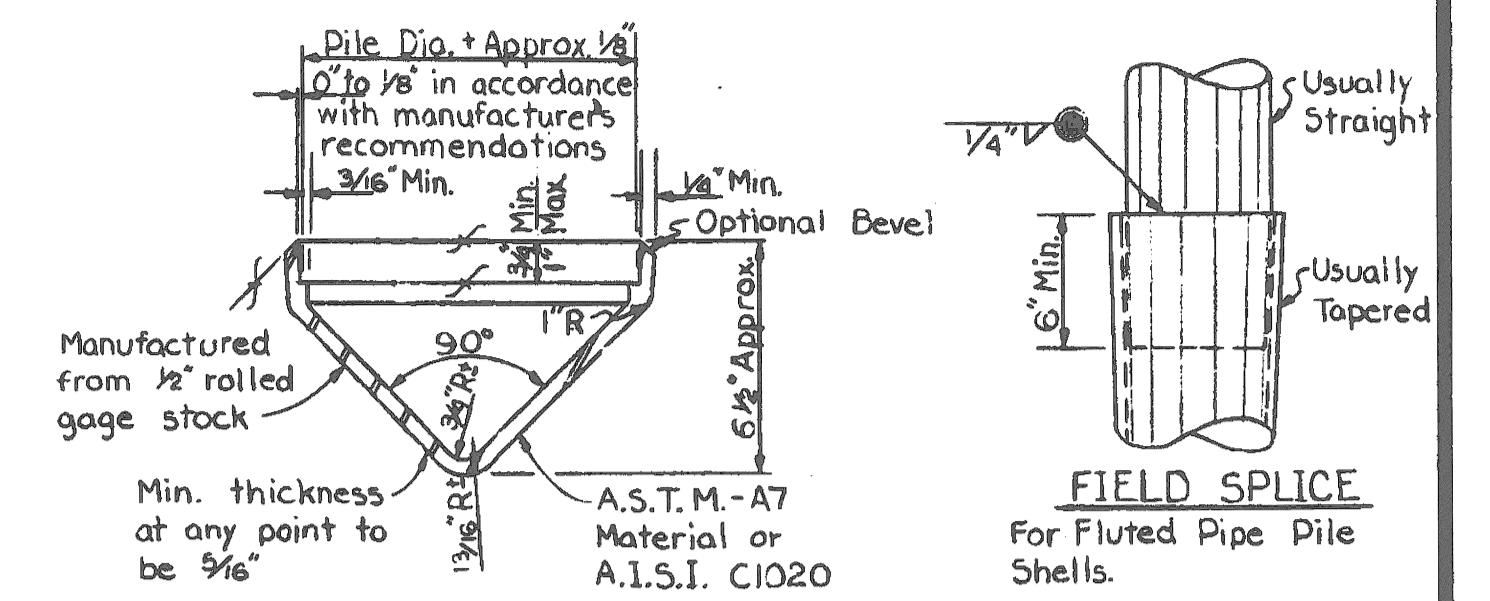
NO.	DESCRIPTION	DATE	BY



DETAIL A

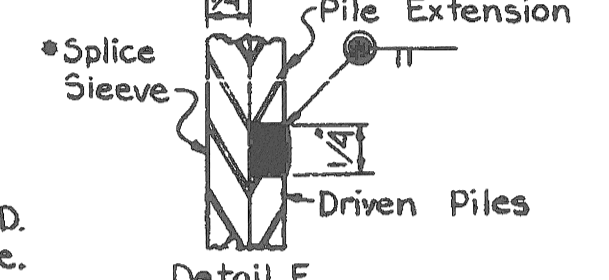
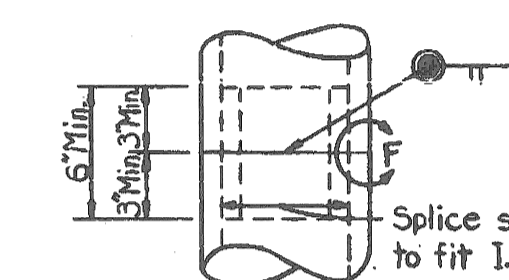


SECTION D-D



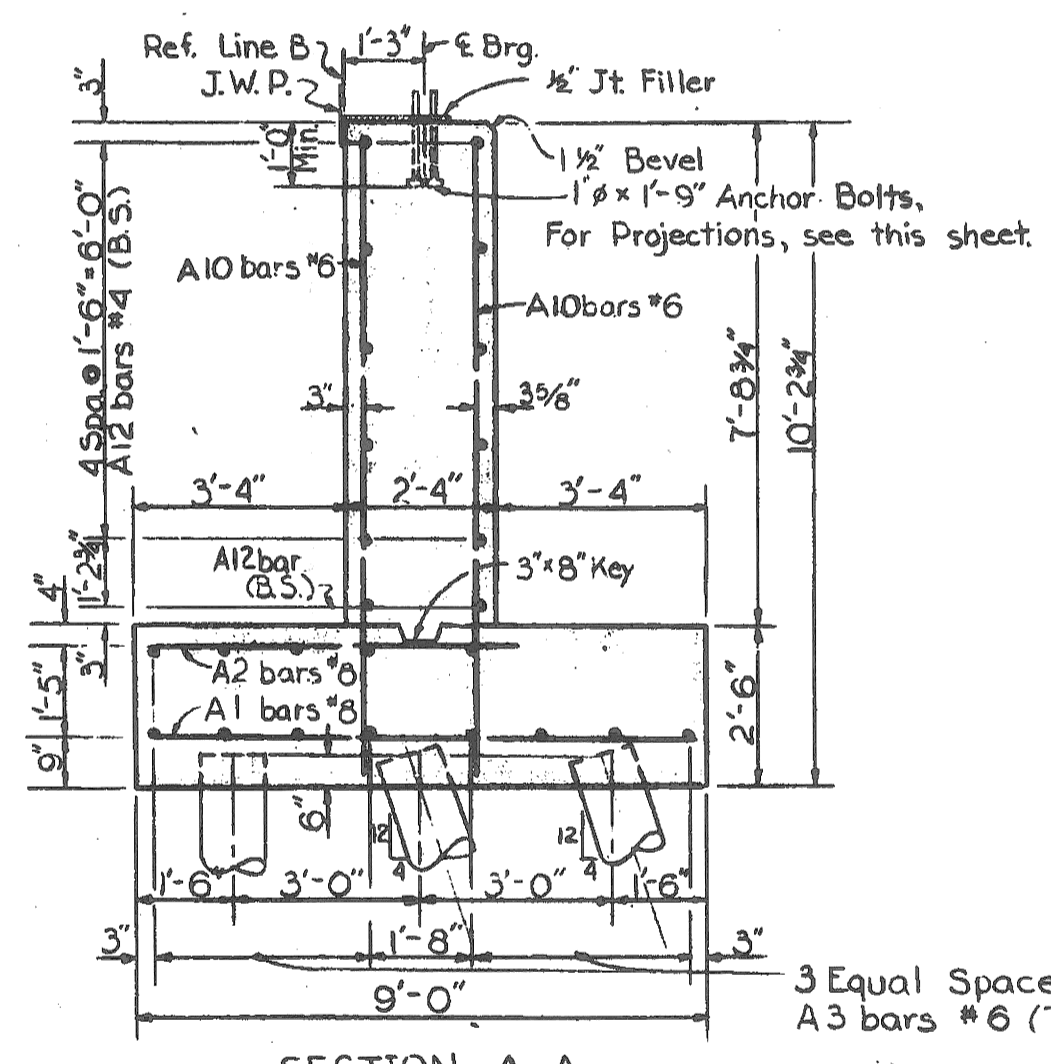
FIELD SPICE

PRESSED STEEL PILE POINT
(For Spiral Welded and Seamless Tubing)
Points for fluted shells shall be forgings in accordance with manufacturer's recommendations.

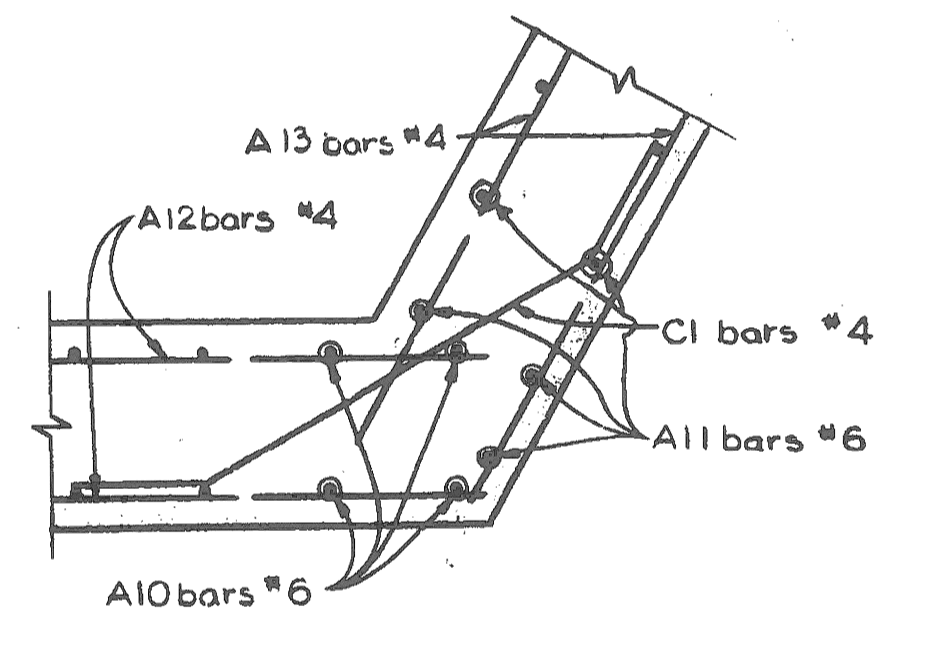


DETAIL F

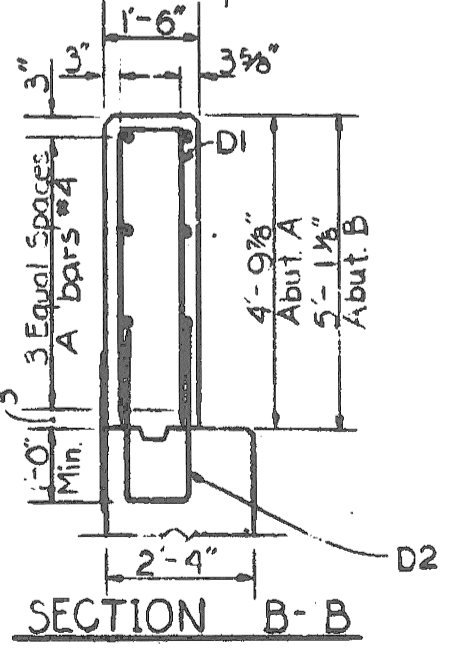
STEEL PIPE SPICE DETAILS
(For Spiral Welded and Seamless Pipe Shells)
Split chill rings as recommended by the manufacturer may be substituted for splice sleeves at the option of the Contractor.



SECTION A-A



SECTION C-C



SECTION B-B

MISCELLANEOUS QUANTITIES		
ITEM	Unit	Abut. B
Joint Waterproofing	Sq. Ft.	137
1/2" Jt. Filler	Sq. Ft.	90
1" Jt. Filler	Sq. Ft.	25
1/4" Jt. Filler	Sq. Ft.	6
Unclassified Excavation	Cu. Yds.	330
Bridge Railing - Solid Parapet Type	Lin. Ft.	145

CONCRETE QUANTITIES		
POUR	ABUTMENT B	
	GRADE A(6A)	GRADE A(6AA)
A	18.5 cu yd	
B	37.5 cu yd	
C		14.9 cu yd
D		15.5 cu yd
E		13.8 cu yd
F		5.7 cu yd
G		1.6 cu yd
TOTAL GRADE A(6A)	56.0 cu yd	
TOTAL GRADE A(6AA)	51.5 cu yd	

ANCHOR BOLT PROJECTION	
BEAM	PROJECTION
A	8 3/4"
B	8 3/4"
C	8 3/4"
D	7 3/4"
E	6 3/4"
F	5 1/2"

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

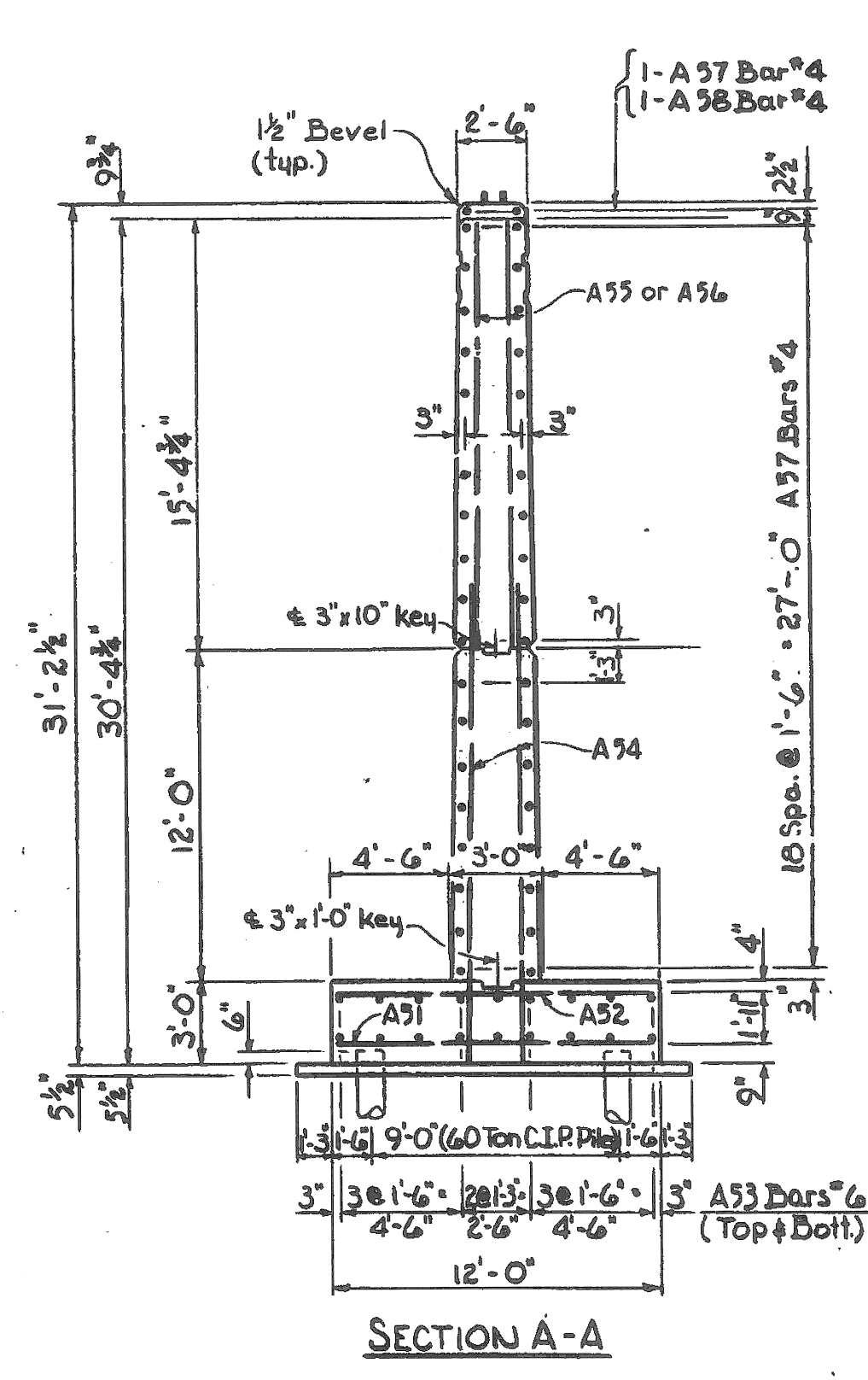
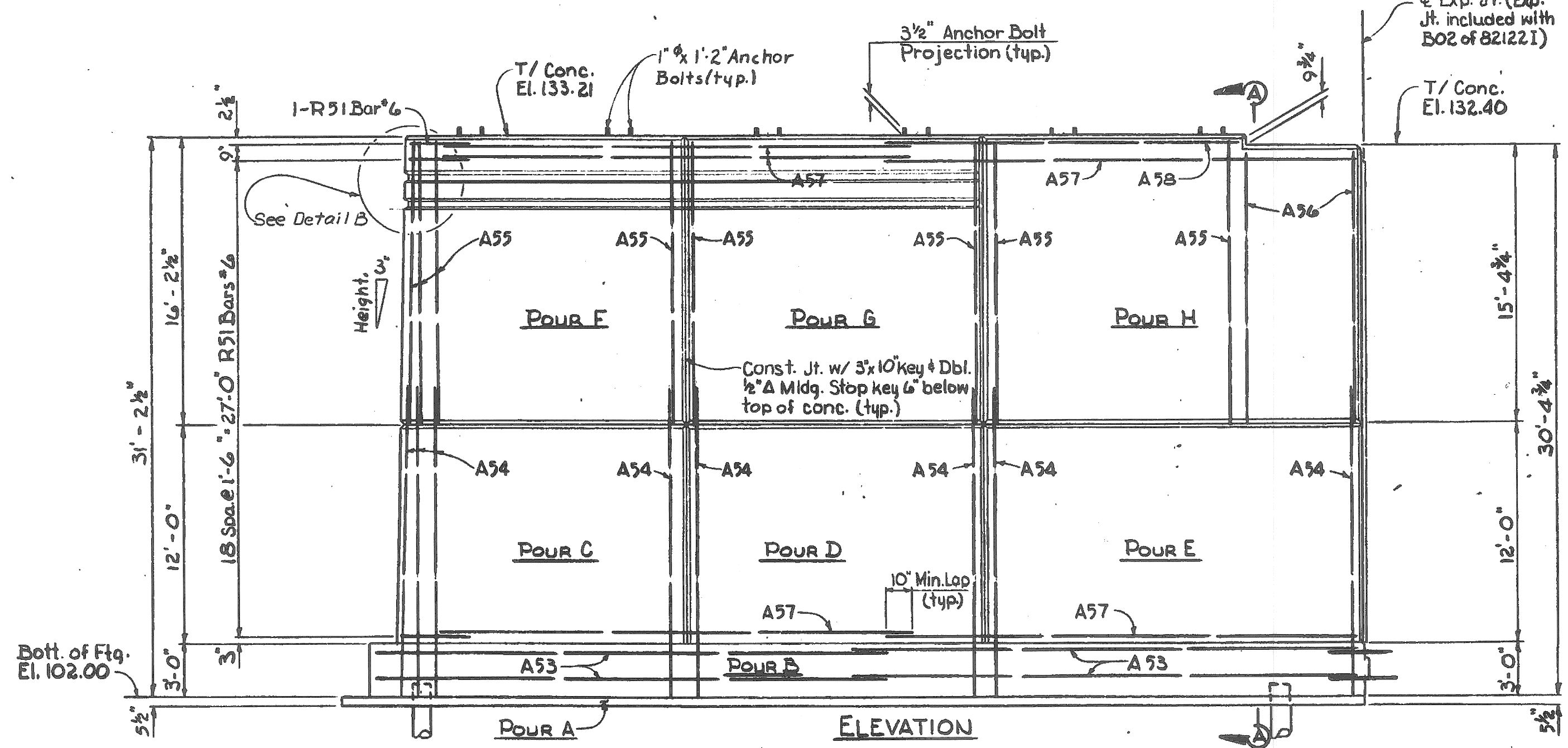
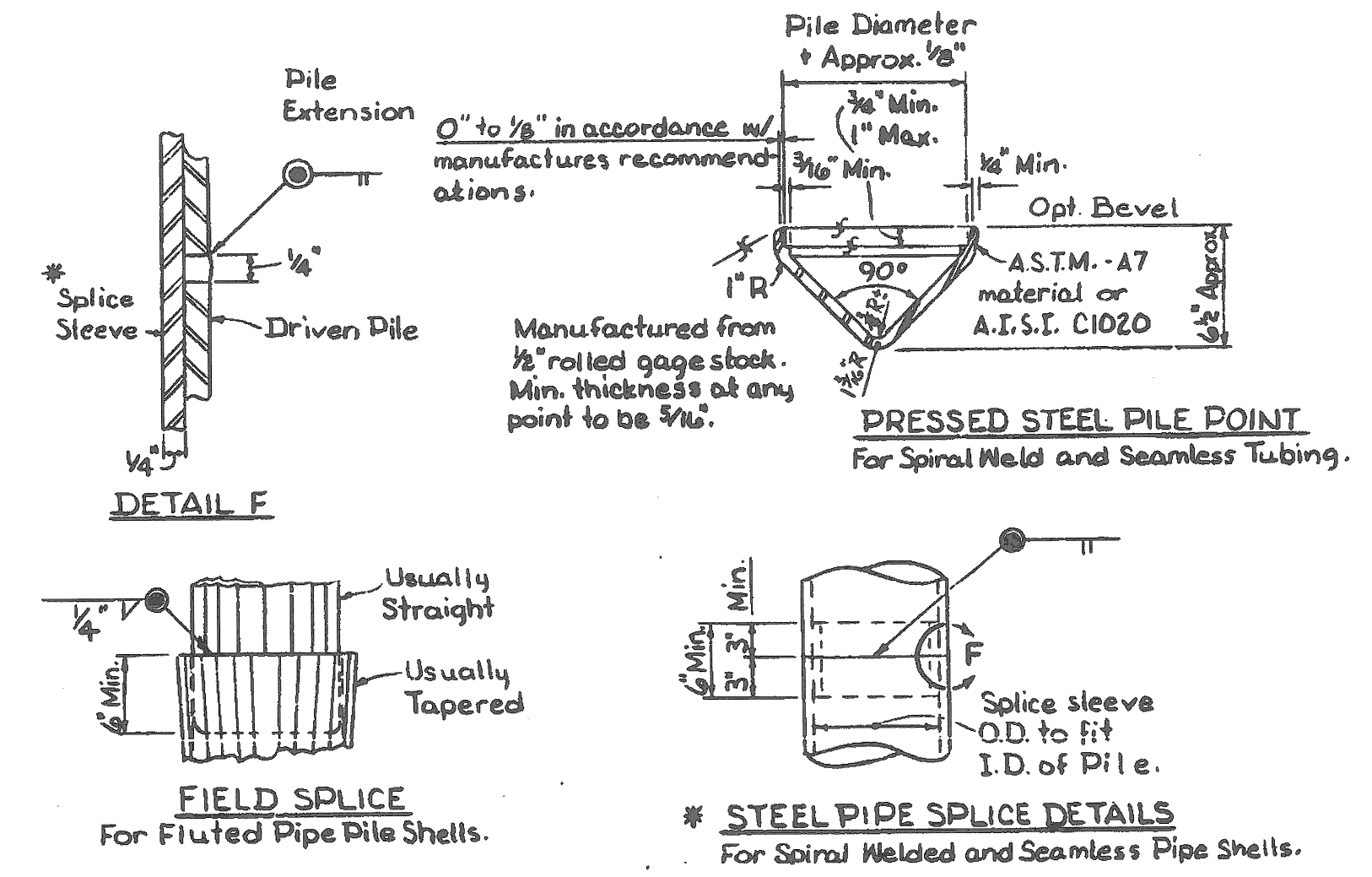
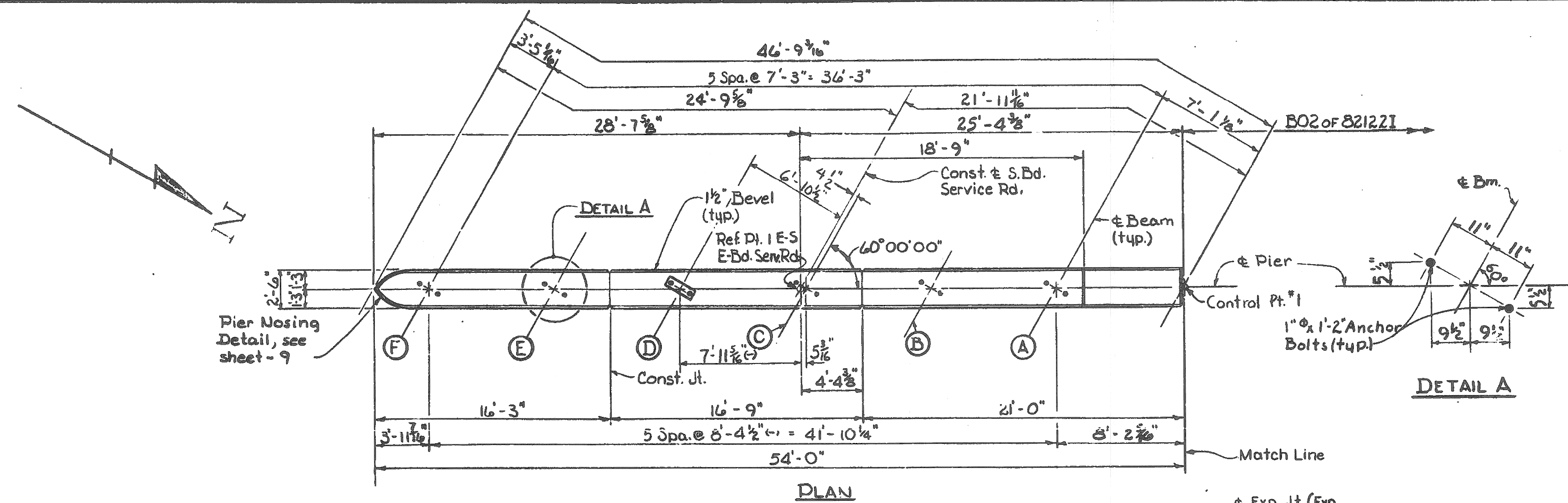
ABUTMENT B DETAILS

REVISIONS			
NO.	DESCRIPTION	DATE	BY

DESIGNED BY	ALLIANCE	DATE	5-22-70
DRAWN BY	Doell	DATE	9-25-69
CHECKED BY	LOTT	DATE	3-26-70
SHEET 6 OF 19			

BOI OF 82122I

Work this sheet with sheets #5 & #7.



* Split chill rings as recommended by the manufacturer may be substituted splice sleeves at the option of the contractor.

CAST-IN-PLACE CONCRETE PILES

CAST-IN-PLACE CONCRETE PILES							
Location	Type of Pile	No. of Piles	Est. Length (ea.)	Total Est. Length	Pile Pts. (ea.)	Test Piles (ea.)	Splices (ea.)
Pier #1	Vert.	17	18'	306'	17		7
	Test	1	28'	28'	1	1	
Pier #2	Vert.	17	18'	306'	17		7
	Test	1	28'	28'	1	1	
Total				668'	36	2	14

MISCELLANEOUS QUANTITIES				
Item	Unit	Pier 1	Pier 2	Total
Unclassified Excavation	Cu. Yds.	206	206	412

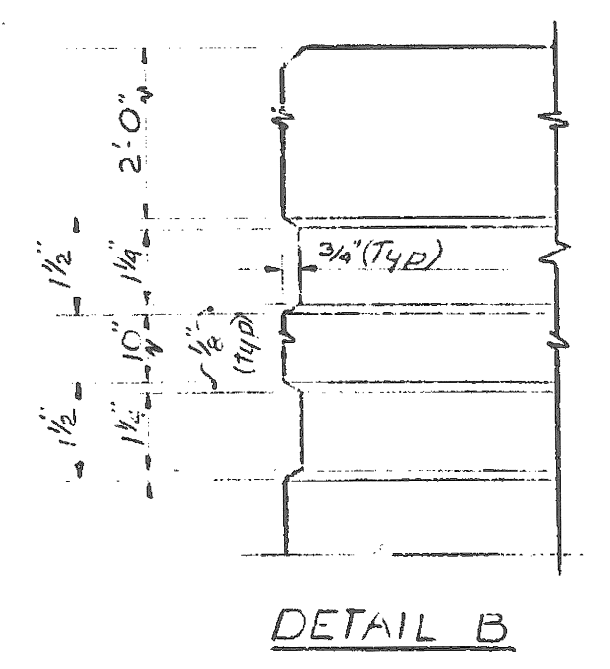
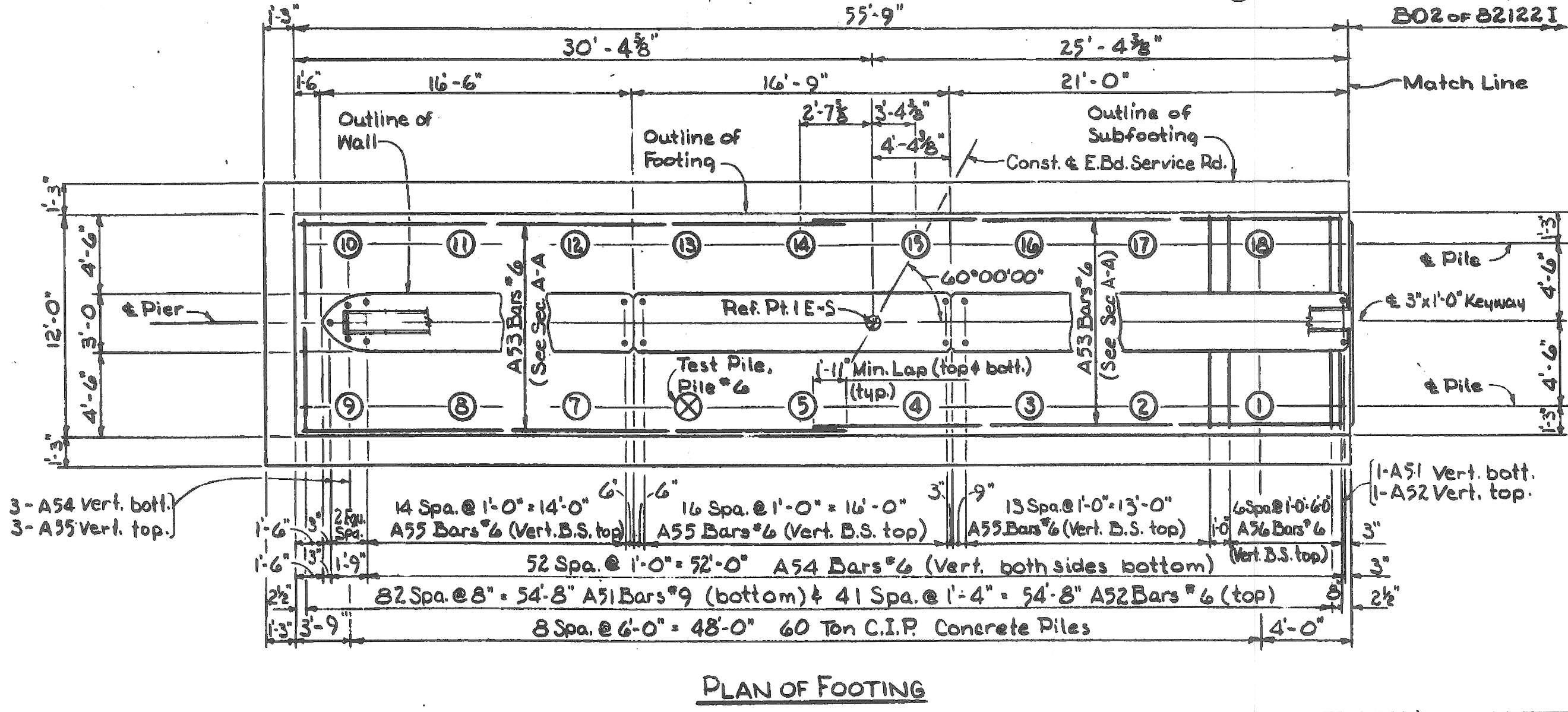
Pile Notes

All piles shall be driven to a minimum bearing capacity of 60 tons.

Pile shells for Cast-in-Place Concrete Piles driven without a removable core shall be a minimum of #3 U.S. Standard Gauge (0.230" nominal thickness), 12" O.D. and may be steel pipe of seamless or spiral welded type or fluted pipe as manufactured by the Union Manufacturing Co. or approved equal.

Pile points shall be pressed steel of the slip-on type in accordance with the detail shown on the plans. Points shall be attached to pile shells with 3/8" continuous weld.

Work this sheet with sheet 9.



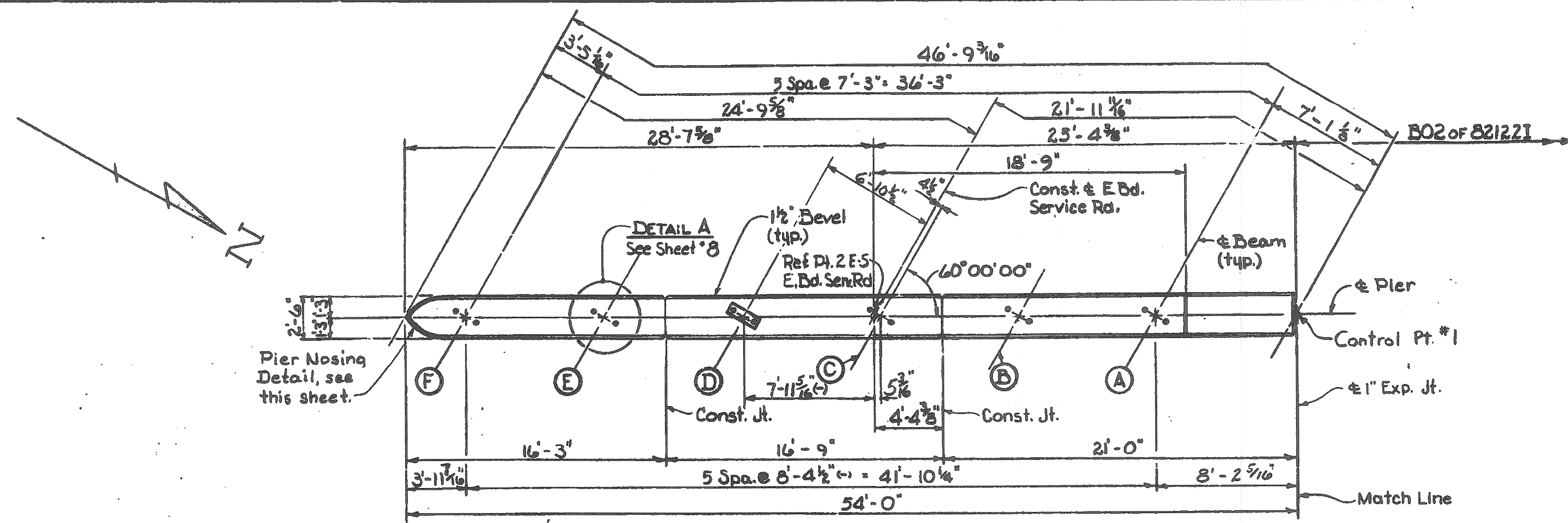
MICHIGAN DEPARTMENT OF STATE HIGHWAYS

PIER 1 DETAILS

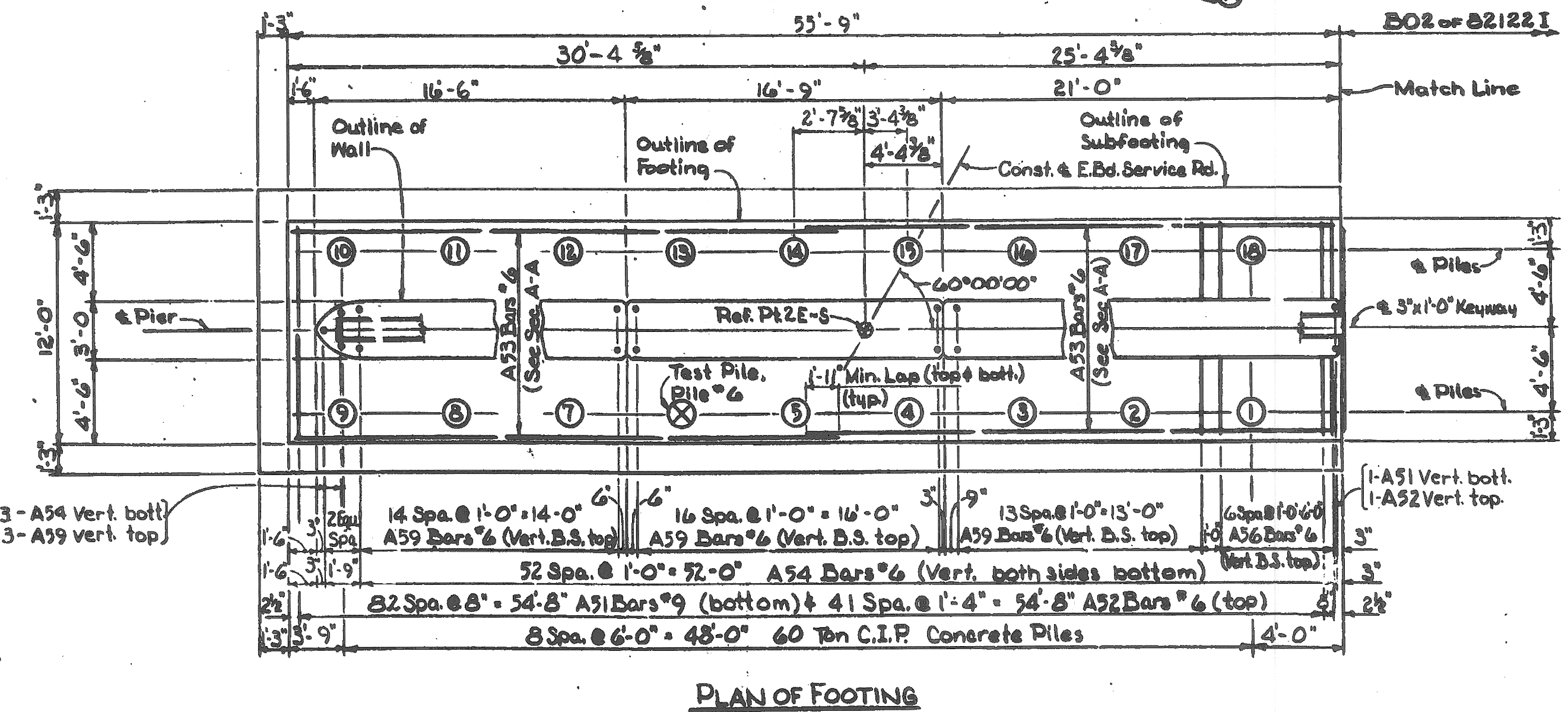
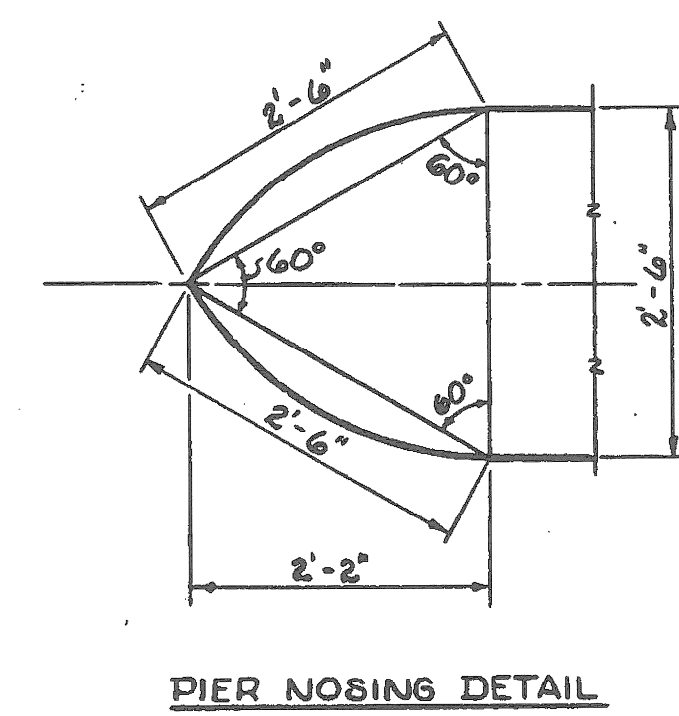
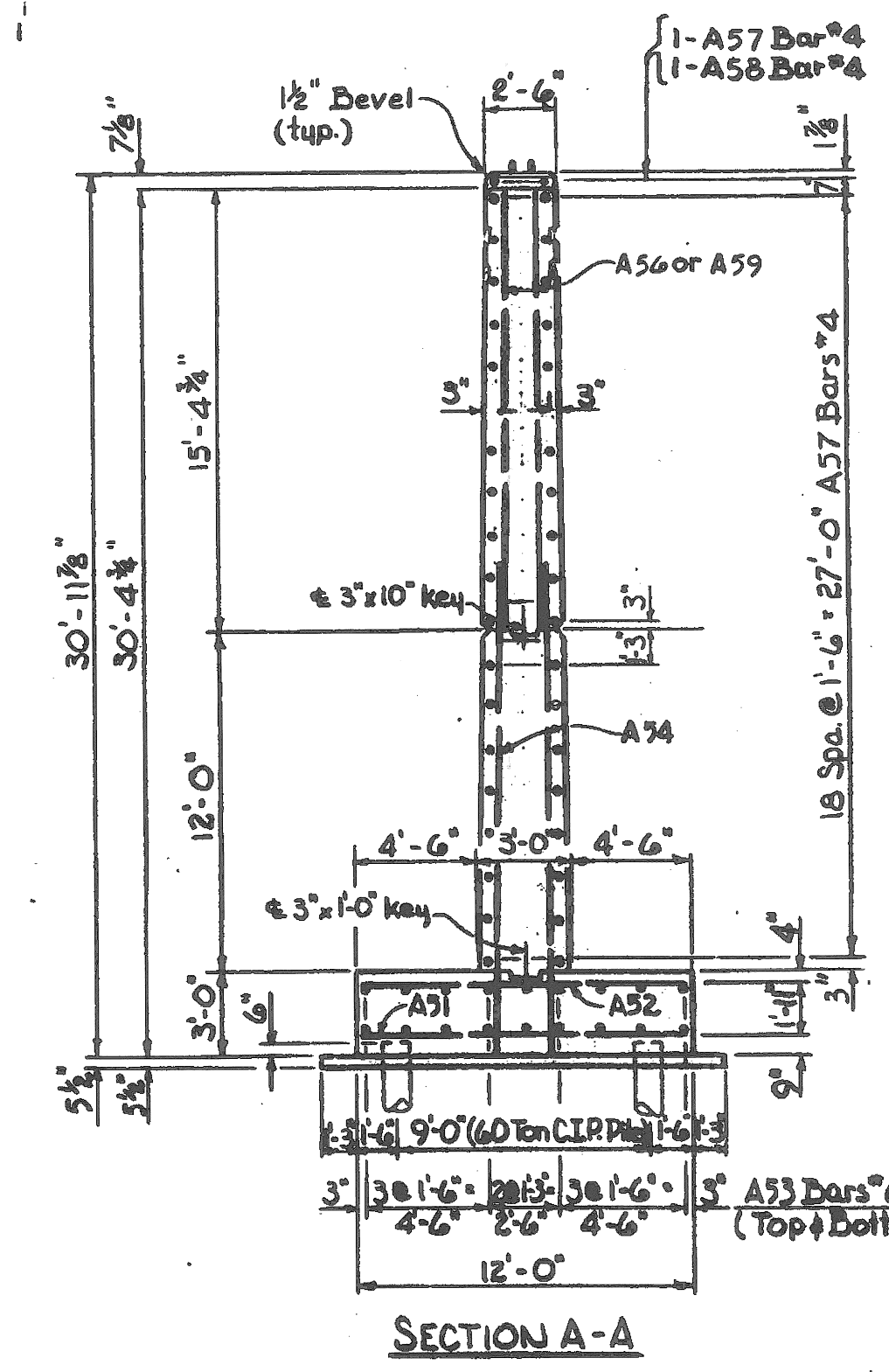
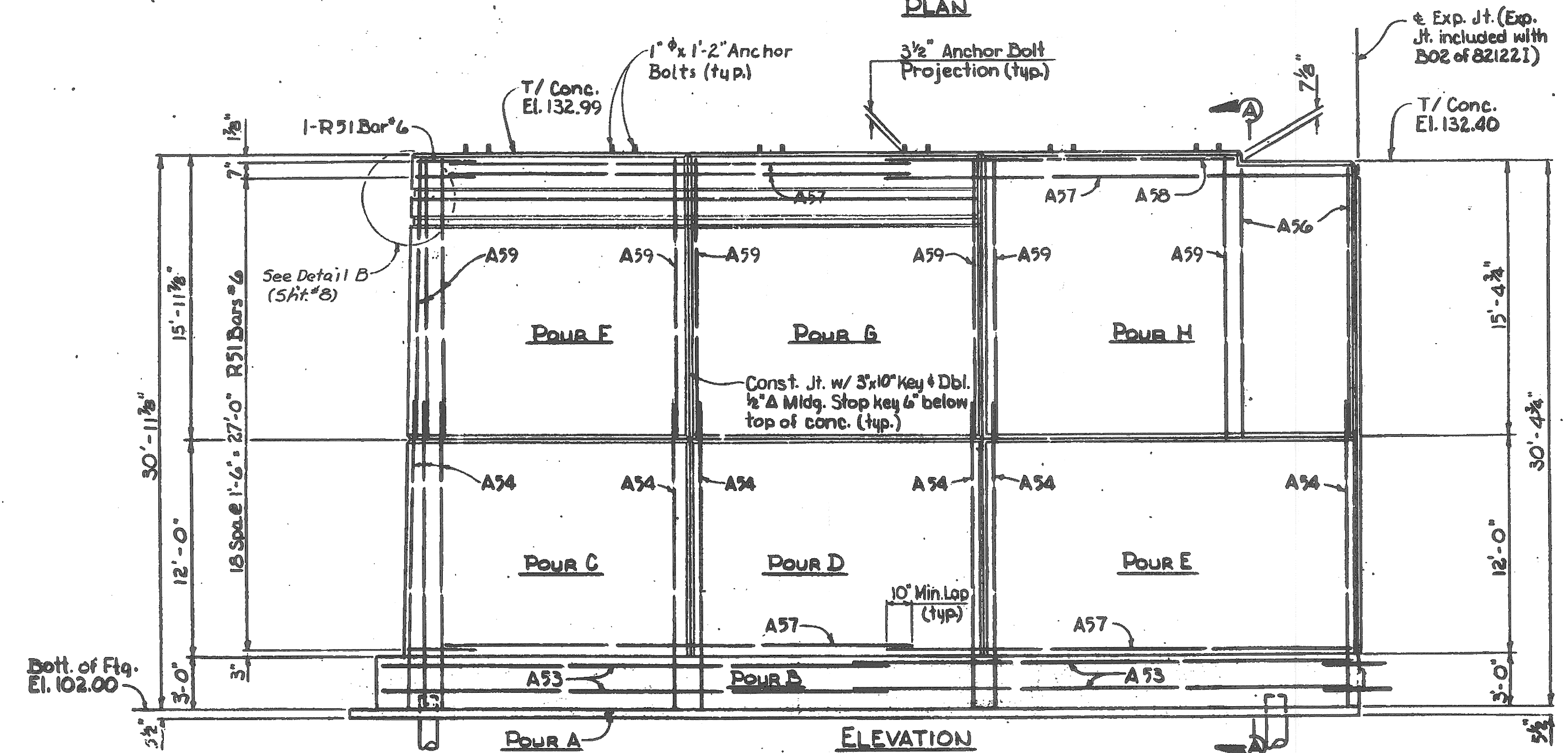
REVISIONS			
NO.	DESCRIPTION	DATE	BY

DRAWN BY: GILLER	DATE: 5-11-69
CHECKED BY: R. Beckman	DATE: 10-28-69
SHEET 8 OF 19	

BOI of 821221



POUR	CONCRETE QUANTITIES CU. YDS.			
	PIER 1		PIER 2	
	Grade A (6A)	Grade A (6AA)	Grade A (6A)	Grade A (6AA)
*A				
B	74.3		74.3	
C		19.3		18.8
D		20.9		21.0
E		26.2		26.3
F		24.1		23.5
G		26.5		26.2
H		32.8		32.5
Sub-Total	74.3	149.8	74.3	148.3
Total Grade A (6A) Concrete	148.6 Cu. Yds.			
Total Grade A (6AA) Concrete	298.1 Cu. Yds.			
*A - Concrete Subfootings-Tot. (2 Piers) 28.0 Cu. Yds.				



Notes:
 B.S. denotes Both Sides.
 For bevel and molding details, see standard sheet R16.
 Anchor bolts shall be accurately set to a template.
 For pile quantities, see sheet 8.

Work this sheet with sheet "8".

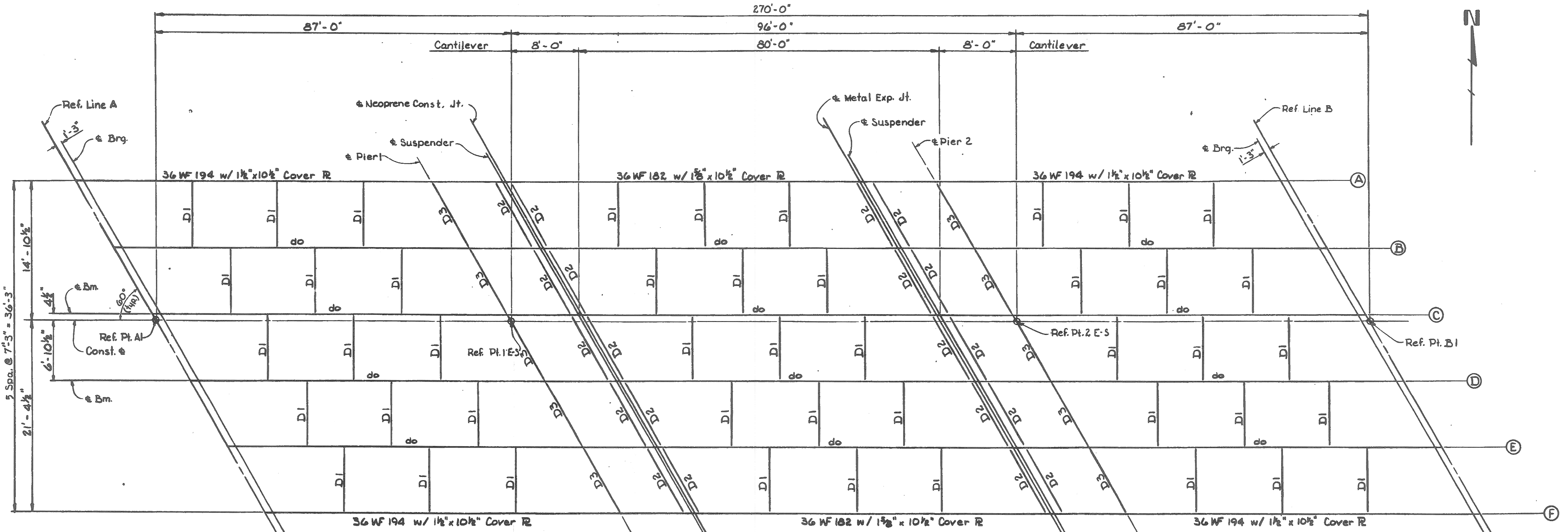
MICHIGAN DEPARTMENT OF STATE HIGHWAYS

PIER 2 DETAILS

REVISIONS			
NO.	DESCRIPTION	DATE	BY

DRAWN BY	AJLUNI	5-11-70
CHECKED BY	GILLER	10-26-69
DESIGNED BY	R. B. GOSWAMI	10-27-69
SHEET	9	OF 19

BOI of 82122 I

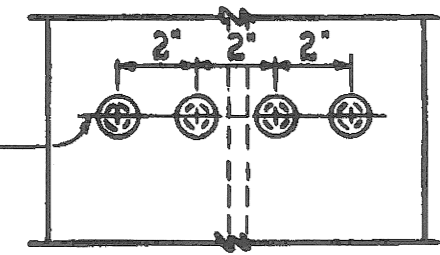


Note:
Intermediate Diaphragms @ approx. 1/4 points.

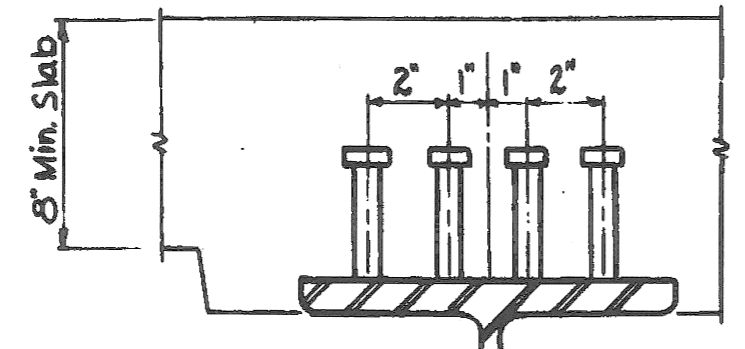
ERECTON DIAGRAM

- Notes:
- Design: Michigan Department of State Highways Specifications for Design of Highway Bridges - 1958 edition and current AASHTO Standard Specifications for Highway Bridges. HS-20 Loading.
 - Fabrication: Michigan Department of State Highways Standard Specifications for Highway Construction - 1970 edition.
 - Shop connections shall be welded as shown on the plans.
 - Field connections shall be bolted with 3/4" high-strength bolts, except as noted.
 - The beams in spans 1 & 3 are to have a parabolic camber of 2 1/2". The beams in span 2 are to have a camber of 4". This camber is to be measured with the beam lying on its side. Allowable camber tolerance for rolled beams is ± 1/8". Heating is to be used if necessary, to assure camber permanency within the above tolerance. The dead load deflection of the beams alone is 1/2".
 - Sole plates 3" or more in thickness may be built up by welding together plates not less than 1/2" in thickness. Edges must be beveled 1/4" and welded with a continuous weld for the full perimeter. Welds shall be ground flush with faces of plates.
 - Steel in anchor bolts may be ASTM. A-307.
 - The quantity Structural Steel includes:
 A36 Steel 401,379 #
 Bronze 34 #
 Lead 187 #
 Total 401,600 #
 - Finish coat of Field Paint for Structural Steel is to be No. 4-69 Green.
 - Magnetic particle inspection of welds is required and shall consist of 100% inspection of not less than one fabricated section selected at random for each ten sections or fraction thereof.
 - Steel for pins may be ASTM. A-108 or ASTM. A-237.
 - Anchor Bolts (including nuts and washers) shall be galvanized in accordance with ASTM. designation A-153.
 - All steel material used for bearings, with exception of portion welded to beams, shall be galvanized in accordance with ASTM. Designation A-123. Galvanizing shall be applied after fabrication of bearing. Mill scale and foreign material shall be removed prior to galvanizing.
 - Bronze for washers shall be ASTM. B100, ASTM. B22.

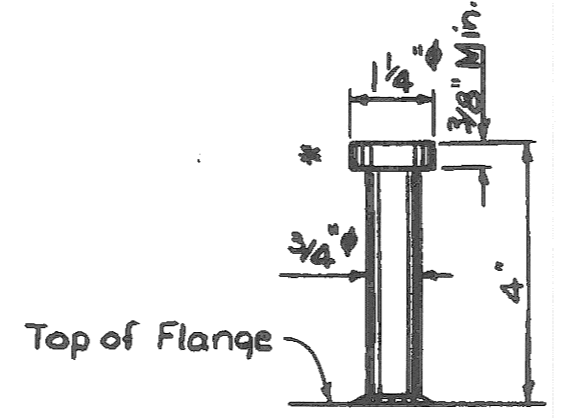
Rows of Studs shall be set parallel to transverse reinf.



PLAN



SECTION



DETAIL OF STUD

* 3/8" studs may be used instead of 1/2" studs. The spacing of the 3/8" studs shall be 3/4" of that shown for the 1/2" studs.

STUD SHEAR DEVELOPER DETAILS

Notes:
Welding of Studs to beam flanges is incidental to Shear Developers.
Weight of Studs is not included in Structural Steel Weights.

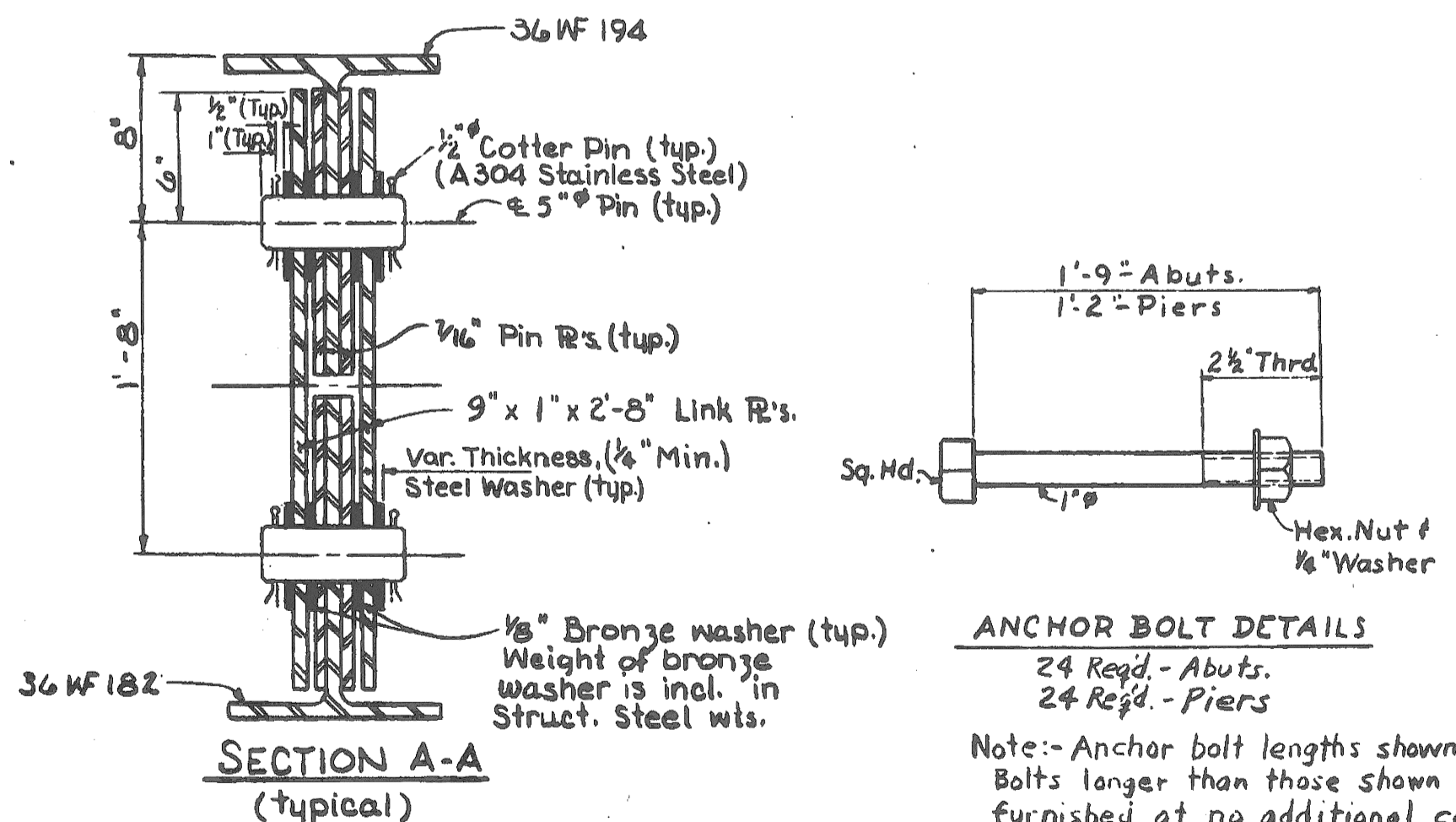
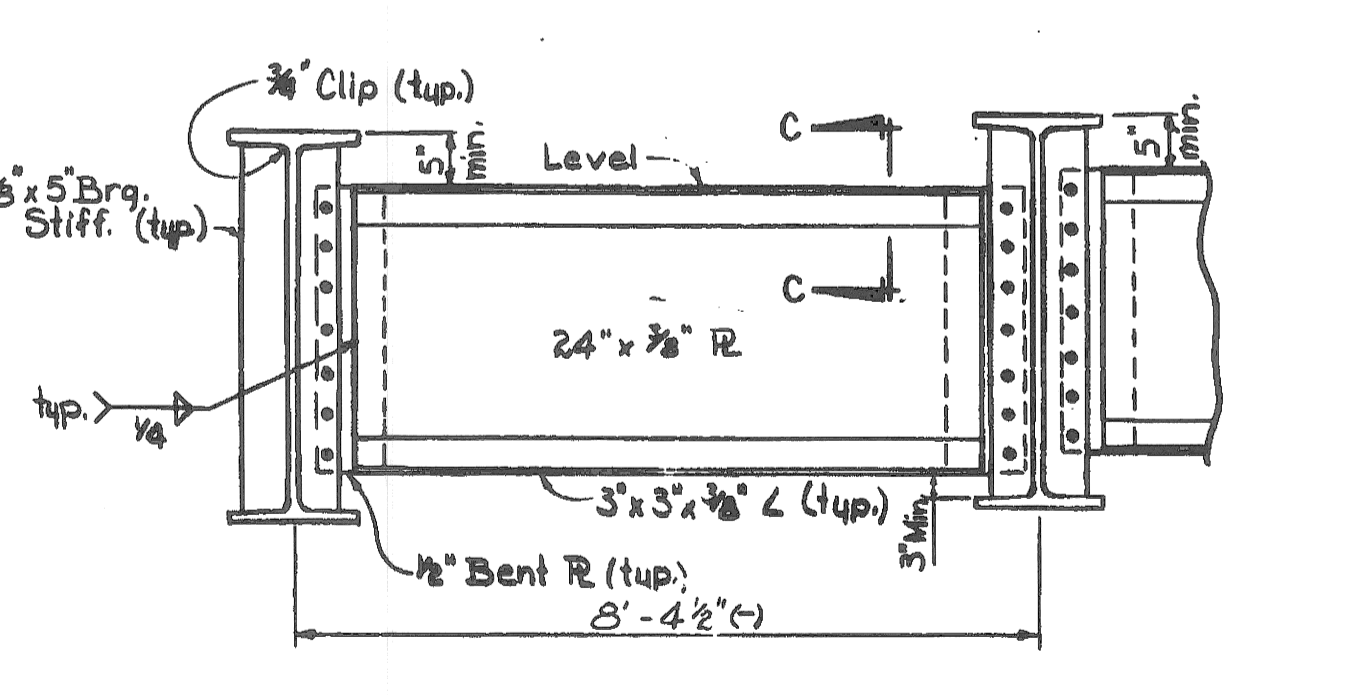
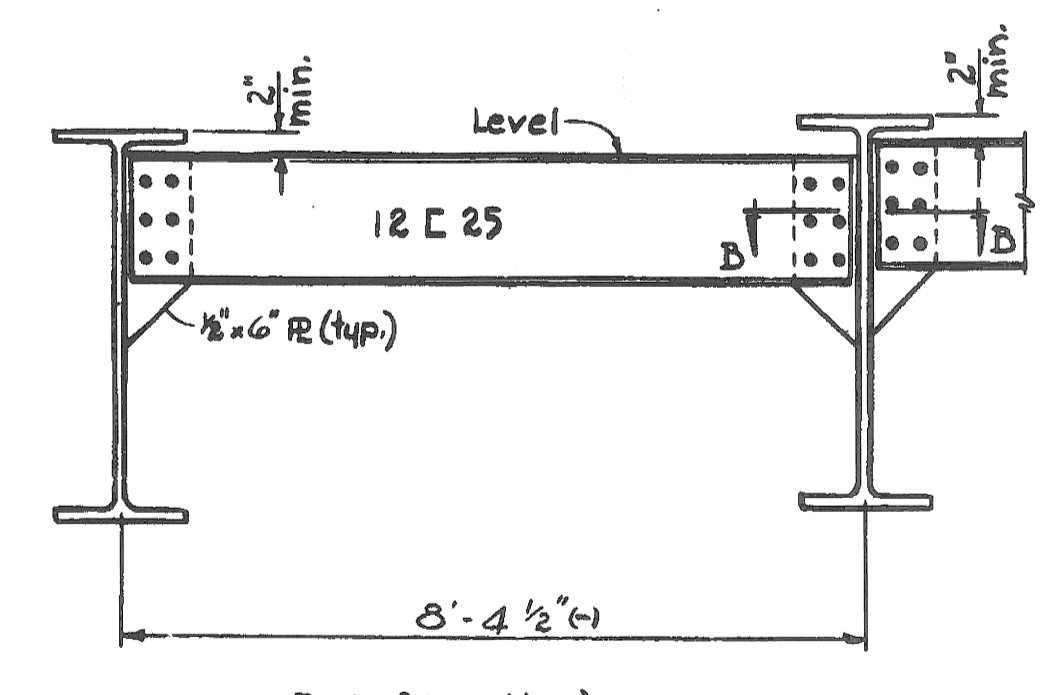
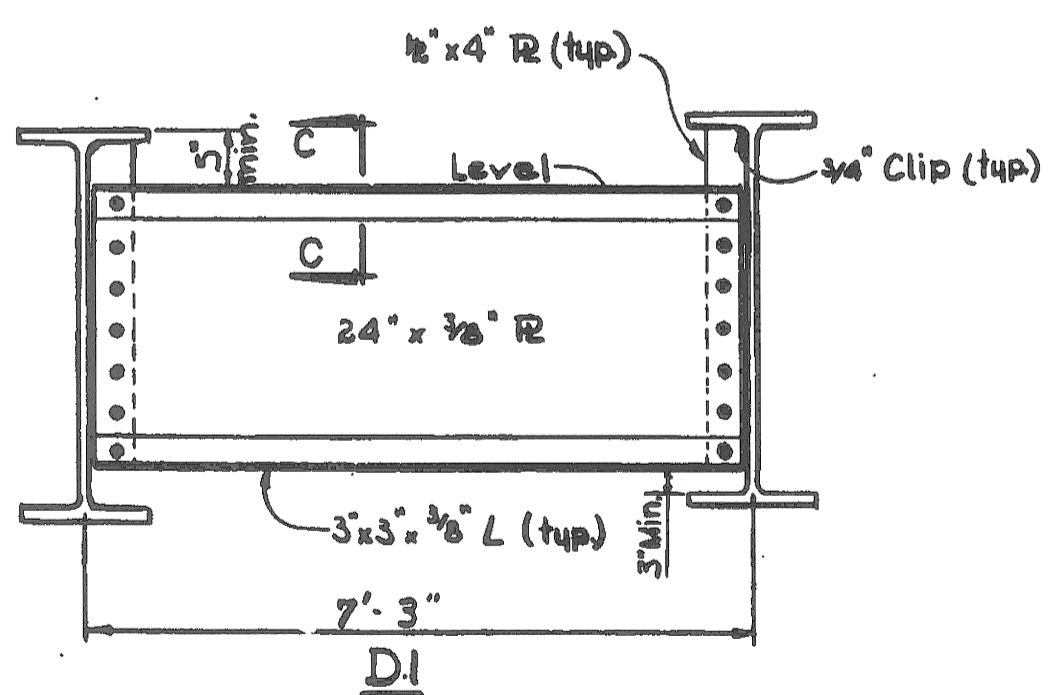
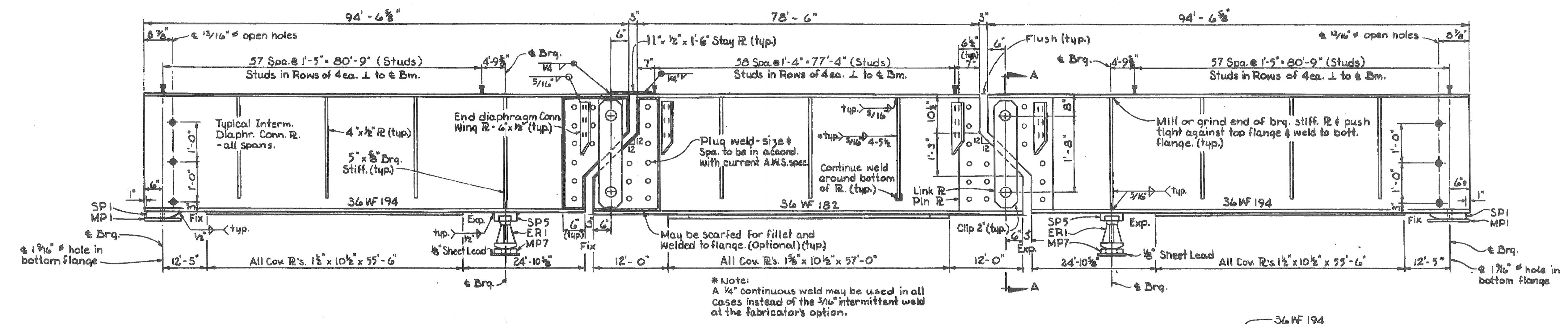
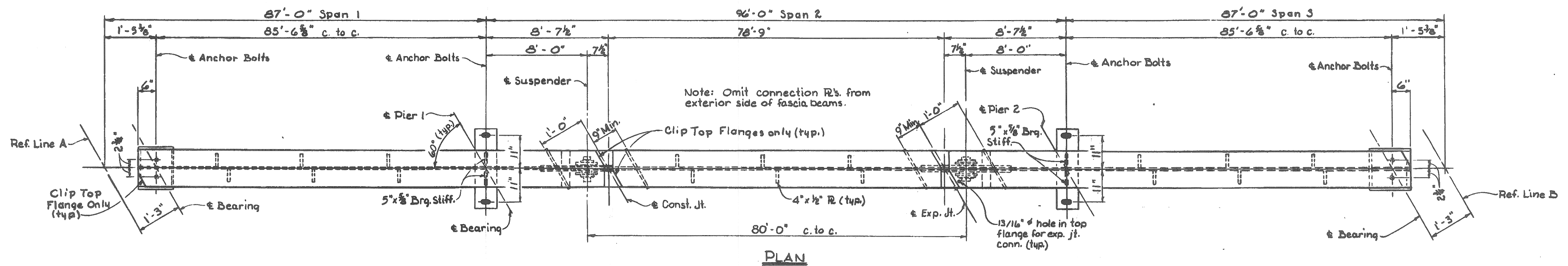
STRUCTURAL STEEL QUANTITIES		
Item	Unit	Amount
Structural Steel - Furnishing & Fabricating	Lbs.	401,600
Structural Steel - Erection	Lbs.	401,600
Shear Developers	Lump Sum	Lump Sum
Field Painting	Lump Sum	Lump Sum

**MICHIGAN DEPARTMENT OF STATE HIGHWAYS
STRUCTURAL STEEL DETAILS**

REVISIONS			
NO.	DESCRIPTION	DATE	BY

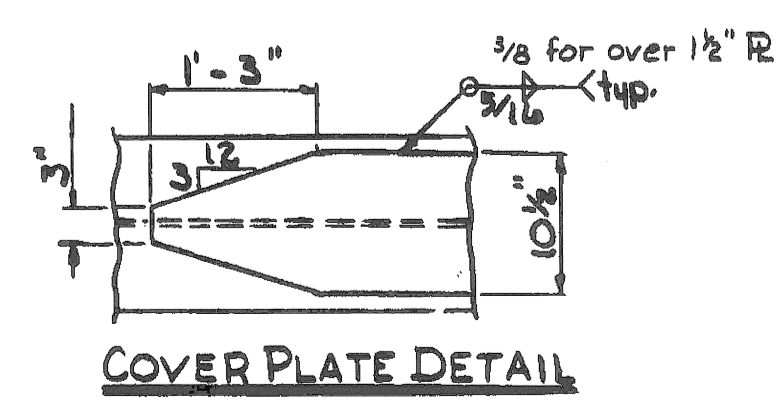
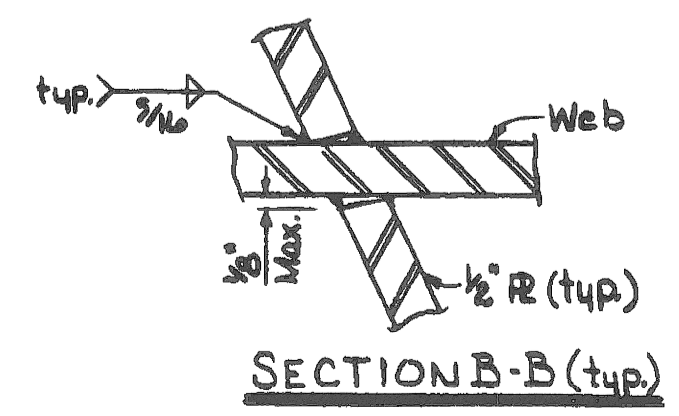
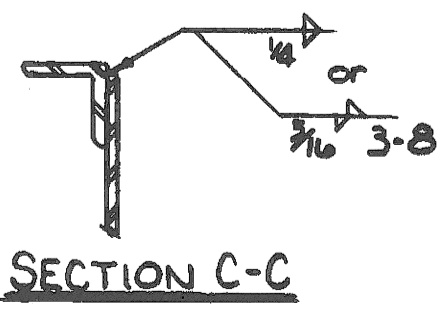
DRAMA 8888 A. J. LUNI 5-11-70
 DRAWN BY C. GILLER 6-22-69
 TRACKED BY
 CHECKED BY R. BECKMAN 11-12-69
 SHEET 10 OF 19

BOI of 82122 I



ANCHOR BOLT DETAILS
 24 Regd. - Abuts.
 24 Regd. - Piers
 Note: - Anchor bolt lengths shown are minimum. Bolts longer than those shown may be furnished at no additional cost.

OPTIONAL D1 & D3 DIAPHRAGM

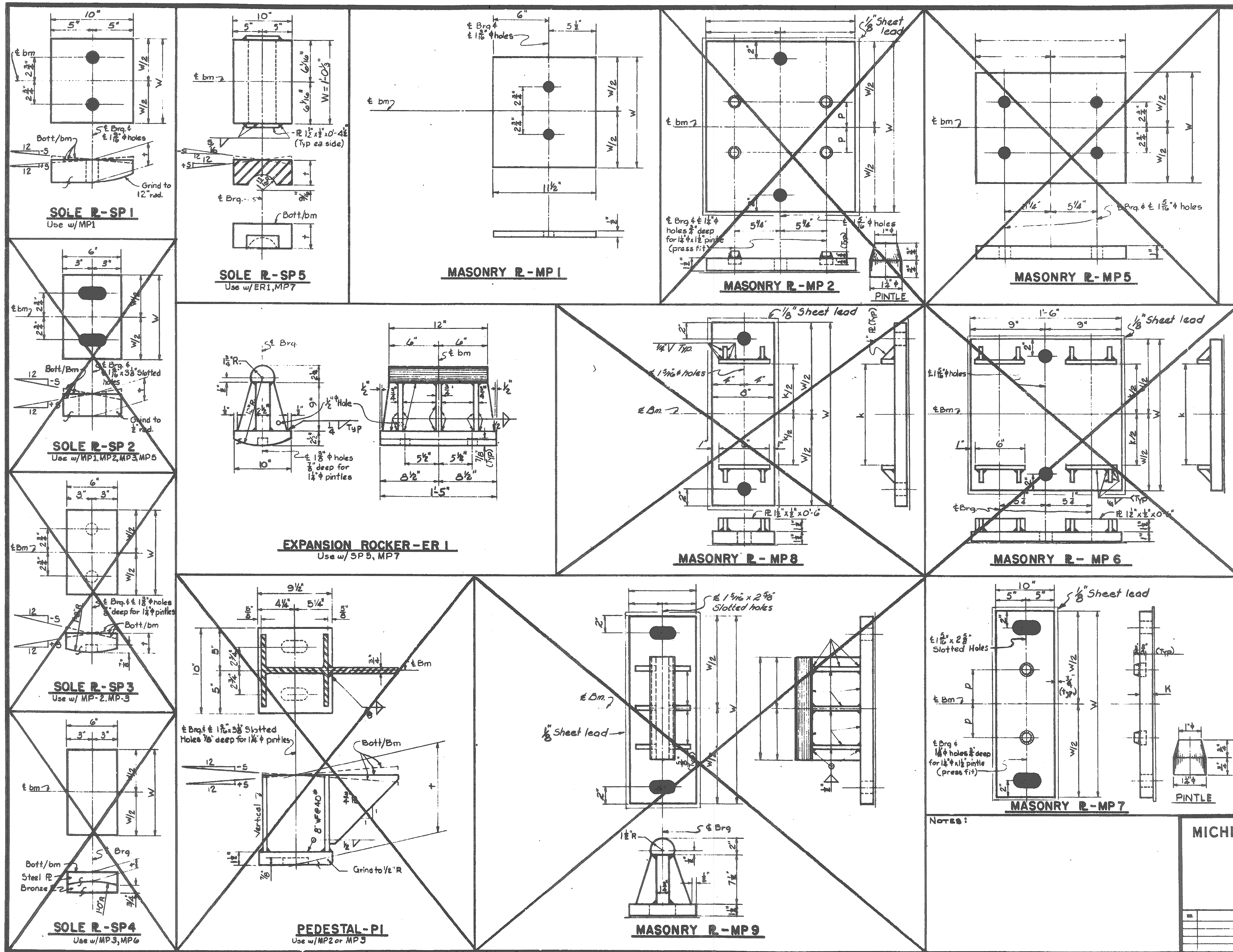


Work this sheet with sheets 10 & 12.

MICHIGAN DEPARTMENT OF STATE HIGHWAYS
STRUCTURAL STEEL DETAILS

REVISIONS			
NO.	DESCRIPTION	DATE	BY

DRAWN BY: AJJUNK 5-11-70
 CHECKED BY: C. J. Baker 6-30-69
 DESIGNED BY: R. Beckon 11-17-69
 SHEET 11 of 19
BOI of 82122 I



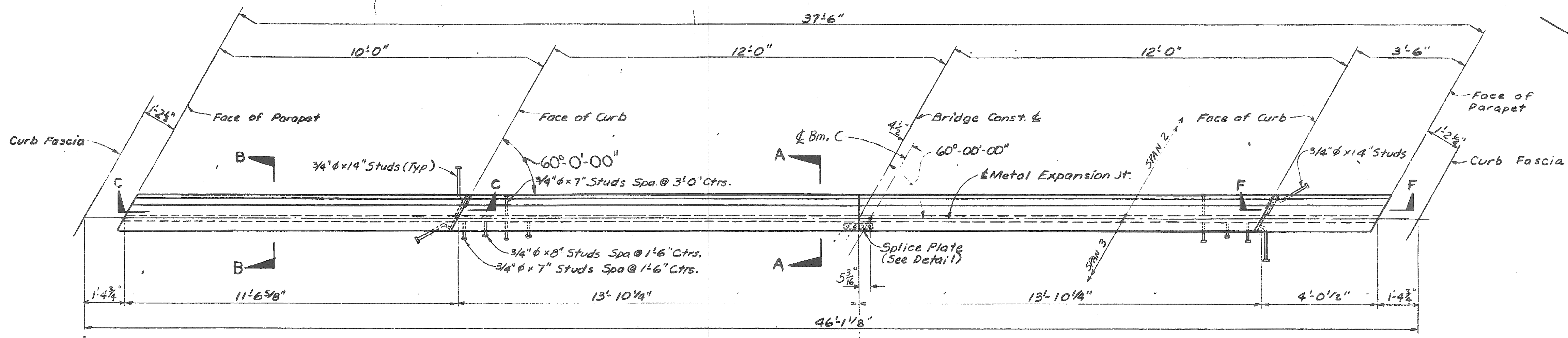
BEAM	TYPE	VARIABLE DIMENSIONS				
		L	W	t	d	s
Abut. A						
A	SP1	1'-0"	2"			0"
B			3"			
C			4"			
D	do	do	3 1/2"			do
E	do	do	3 1/2"			do
F	SP1	1'-0"	3 1/2"			0"
Pier 1						
A thru F	MP1	1'-1"				
A	SP5	1'-0 1/2"	3"			0"
B			3 1/2"			
C			5"			
D	do	do	4 1/2"			do
E			4 1/2"			
F	SP5	1'-0 1/2"	4 1/2"			0"
Pier 2						
A	SP5	1'-0 1/2"	5 1/2"			-1/8"
B			5 1/2"			
C			5 3/4"			
D	do	do	4 1/2"			
E			3 1/2"			
F	SP5	1'-0 1/2"	3"			-1/8"
Pier 2						
A	MP7	2'-2"	5 1/2"	1 1/2"		
B			do	do		
C	do	do	do	do		
D			do	do		
E	MP7	2'-2"	5 1/2"	1 1/2"		
F						
Abut. B						
A	SP1	1'-0"	5 1/2"			+1/8"
B			5 1/2"			
C	do	do	4 1/2"			do
D			2 1/2"			
E	SP1	1'-0"	2"			+1/8"
A thru F	MP1	1'-1"				

NOTES:

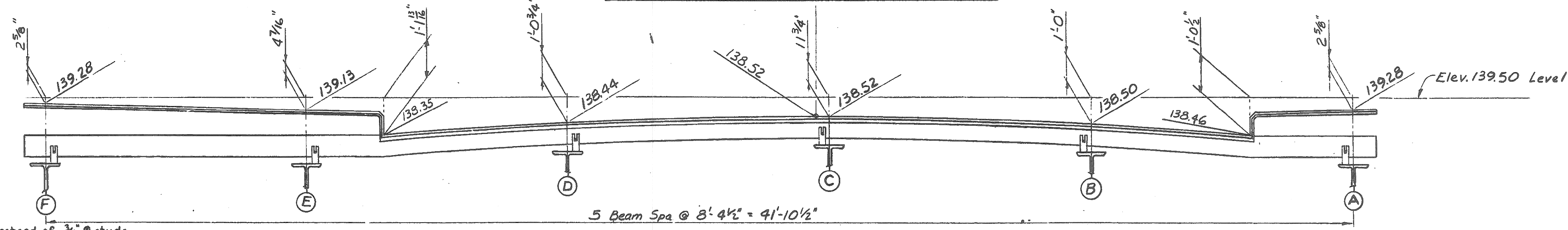
MICHIGAN STATE HIGHWAY DEPARTMENT
BEARING DETAILS

NO.	DESCRIPTION	DATE	BY

DRAWN BY: J. L. JONES
 TRACED BY: C. G. JONES
 CHECKED BY: F. O. JONES
 SHEET: 12 of 13
BOI of 82122 I



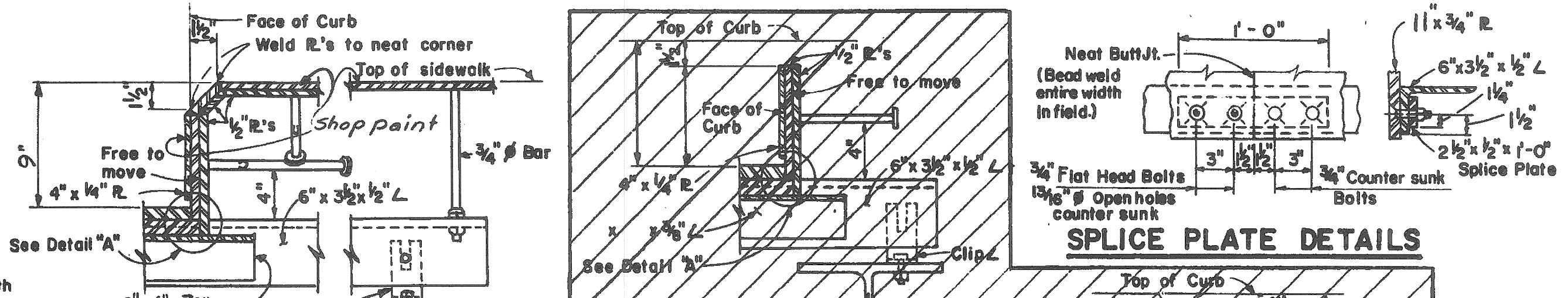
PLAN OF METAL EXPANSION JOINT



5 Beam Spa @ 8'-4 1/2" = 41'-10 1/2"

3/8" studs may be used instead of 3/4" studs. The spacing of the 3/8" studs shall be 75% of that shown for 3/4" studs. A 6" long stud may be used in place of the 7" long stud if 3/8" studs are used.

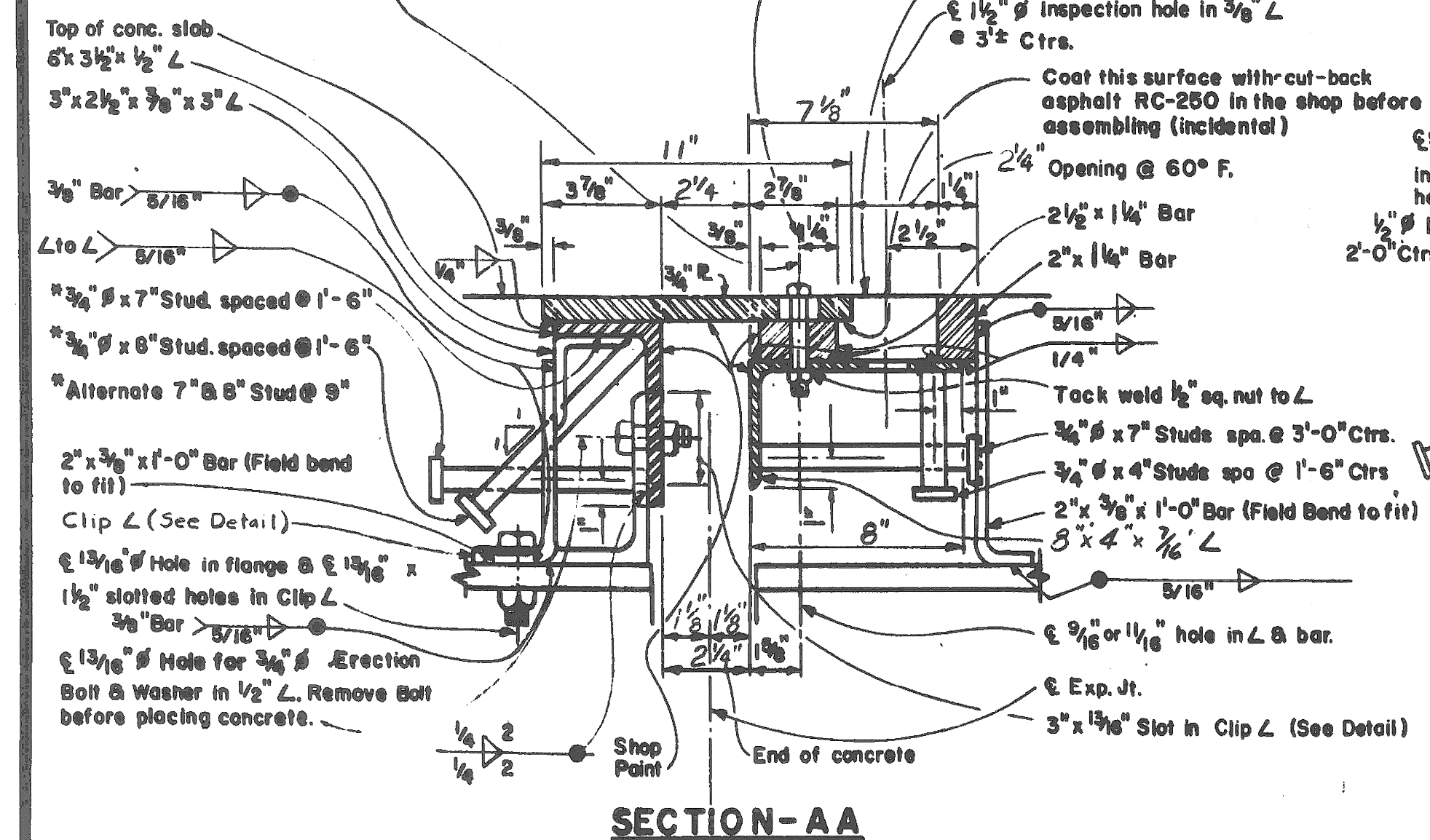
TEMPLATE



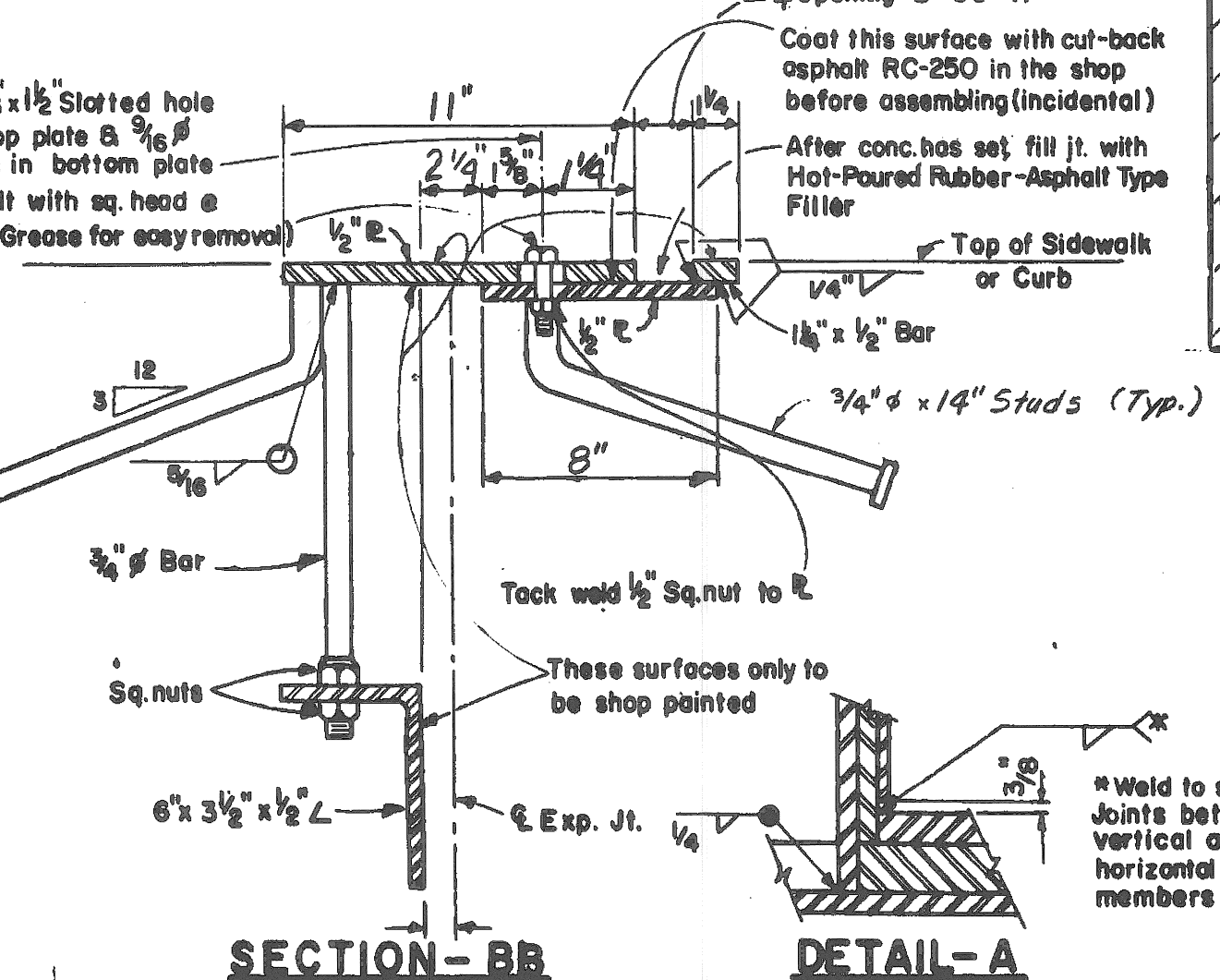
NOTES:

The Metal Expansion Joint shall be bent in the shop to conform with the contour of the top of roadway slab.
 Hot-Poured Rubber-Asphalt Type Filler is included in the Superstructure Quantities on sheet 17.
 Weight of the Metal Expansion Joint is included in the Structural Steel weight on sheet 10.
 The Metal Expansion Joint shall not be painted in the shop, except as noted on this sheet.

1/2" or 3/8" Bolt with sq head at 2'-0" Ctrs. Bolt to be loosened after 2" x 3/8" x 1'-0" bars are welded to beam flange to allow for temperature movements and removed after concrete has set. Grease for easy removal. The Contractor, at his option, may provide countersunk bolts.

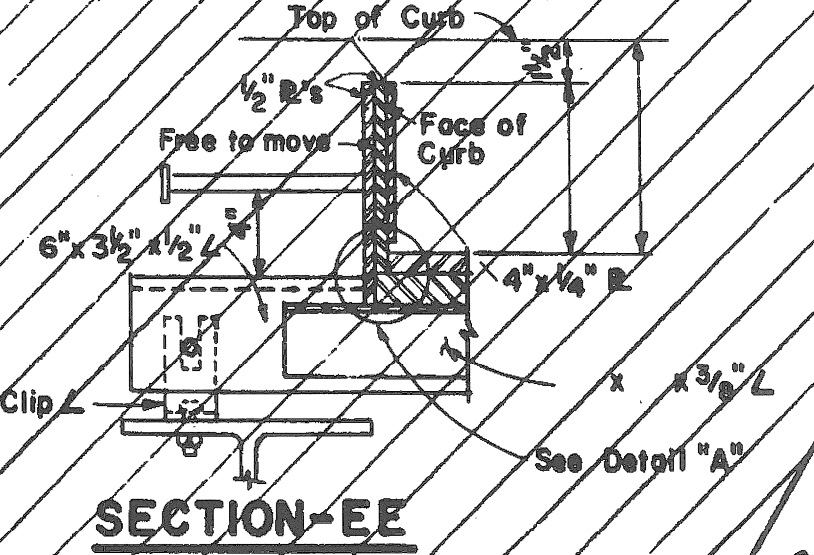


SECTION-AA

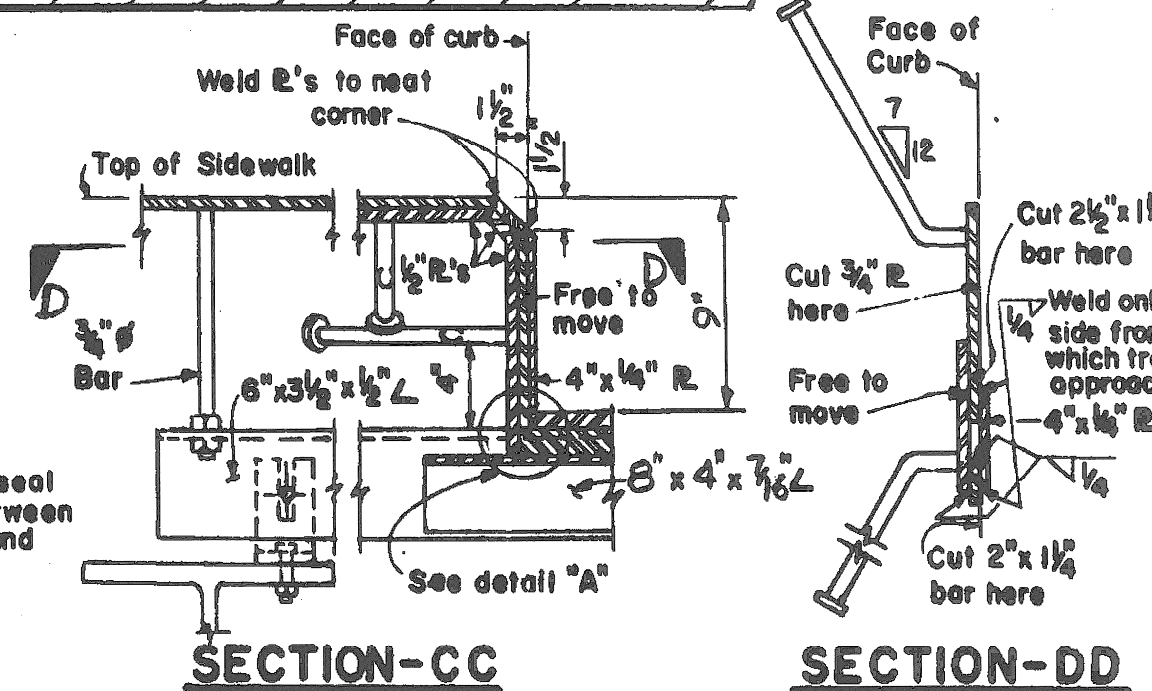


SECTION-BB

DETAIL-A

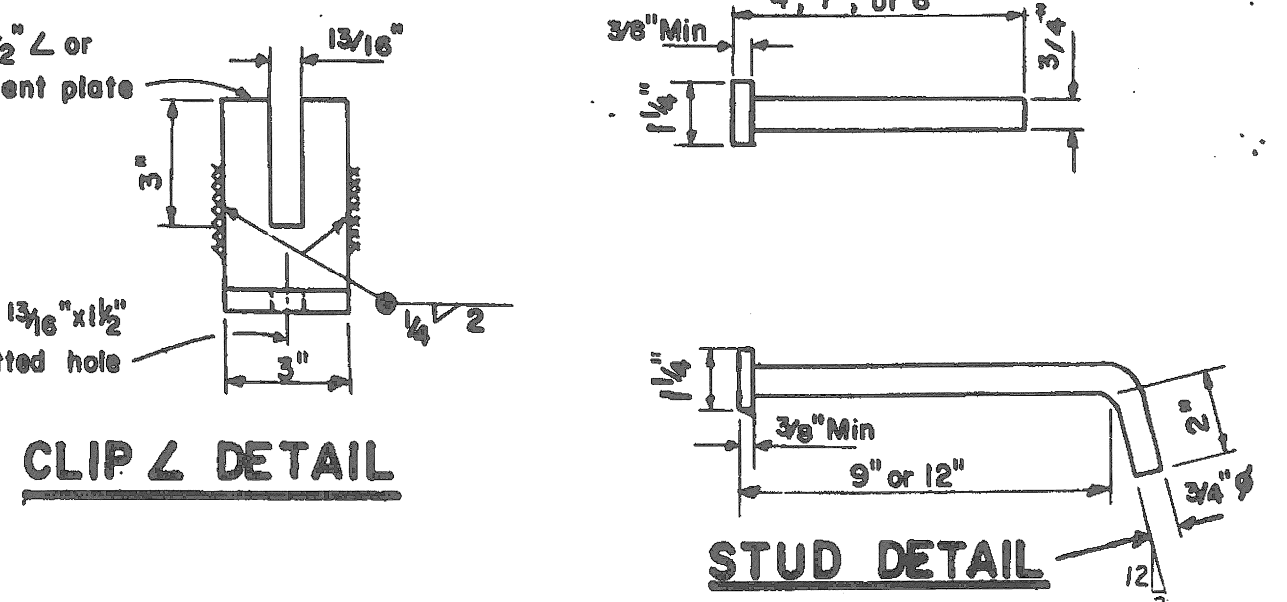


SECTION-EE



SECTION-CC

SECTION-DD



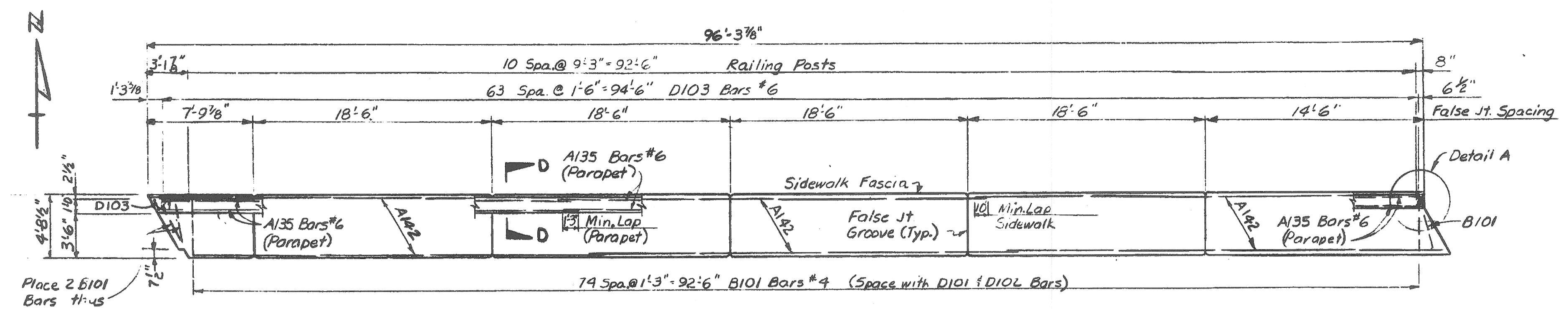
CLIP Z DETAIL

STUD DETAIL

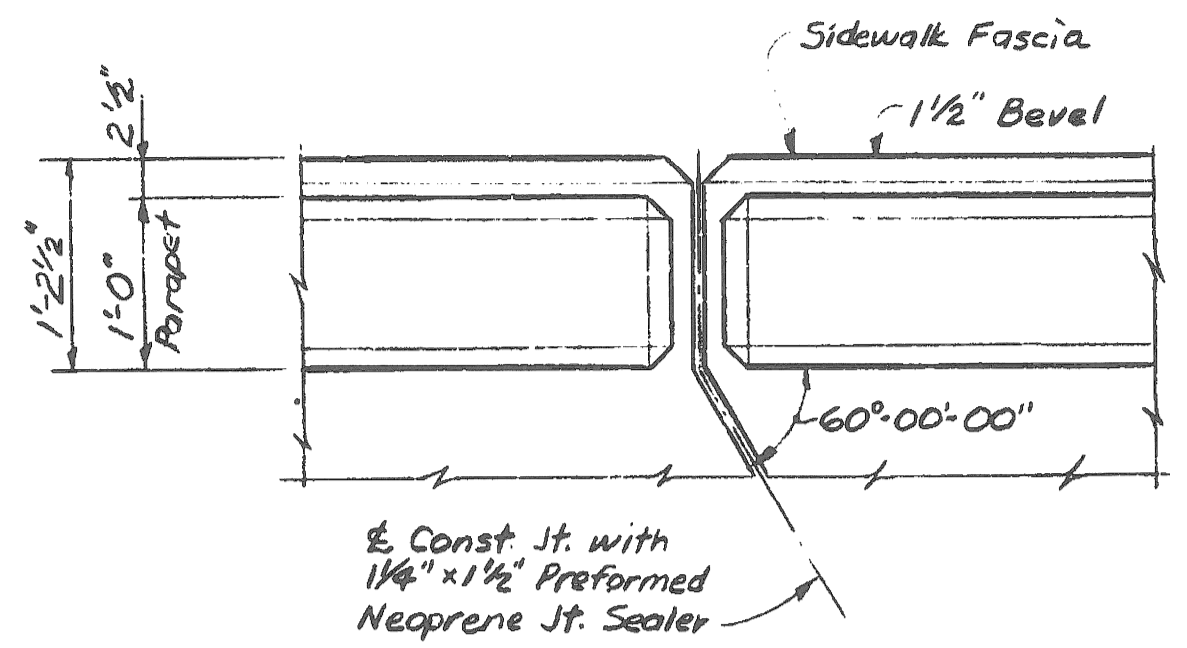
MICHIGAN DEPARTMENT OF STATE HIGHWAYS
 METAL EXPANSION JOINT DETAILS

REVISIONS			
NO.	DESCRIPTION	DATE	BY

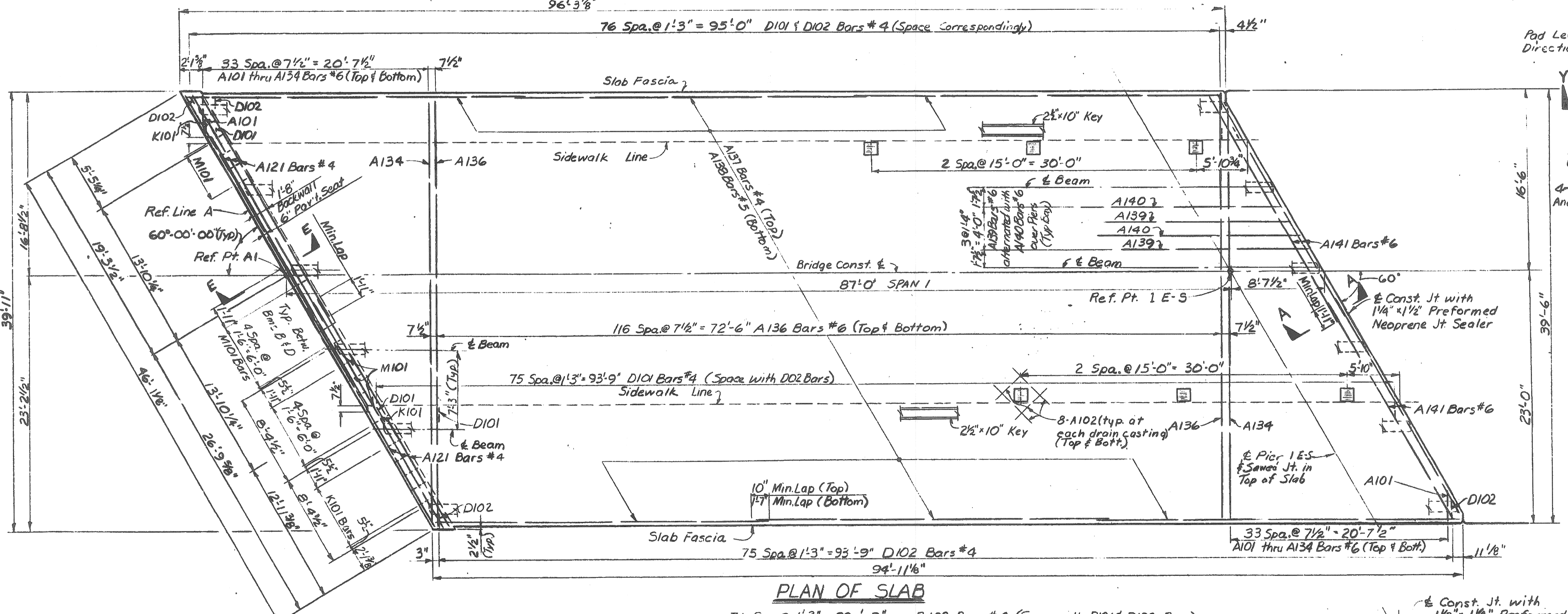
DRAWN BY: ALUNI S-L-J-C
 CHECKED BY: DAD RCB
 SHEET 13 OF 19
 BOI of 821221



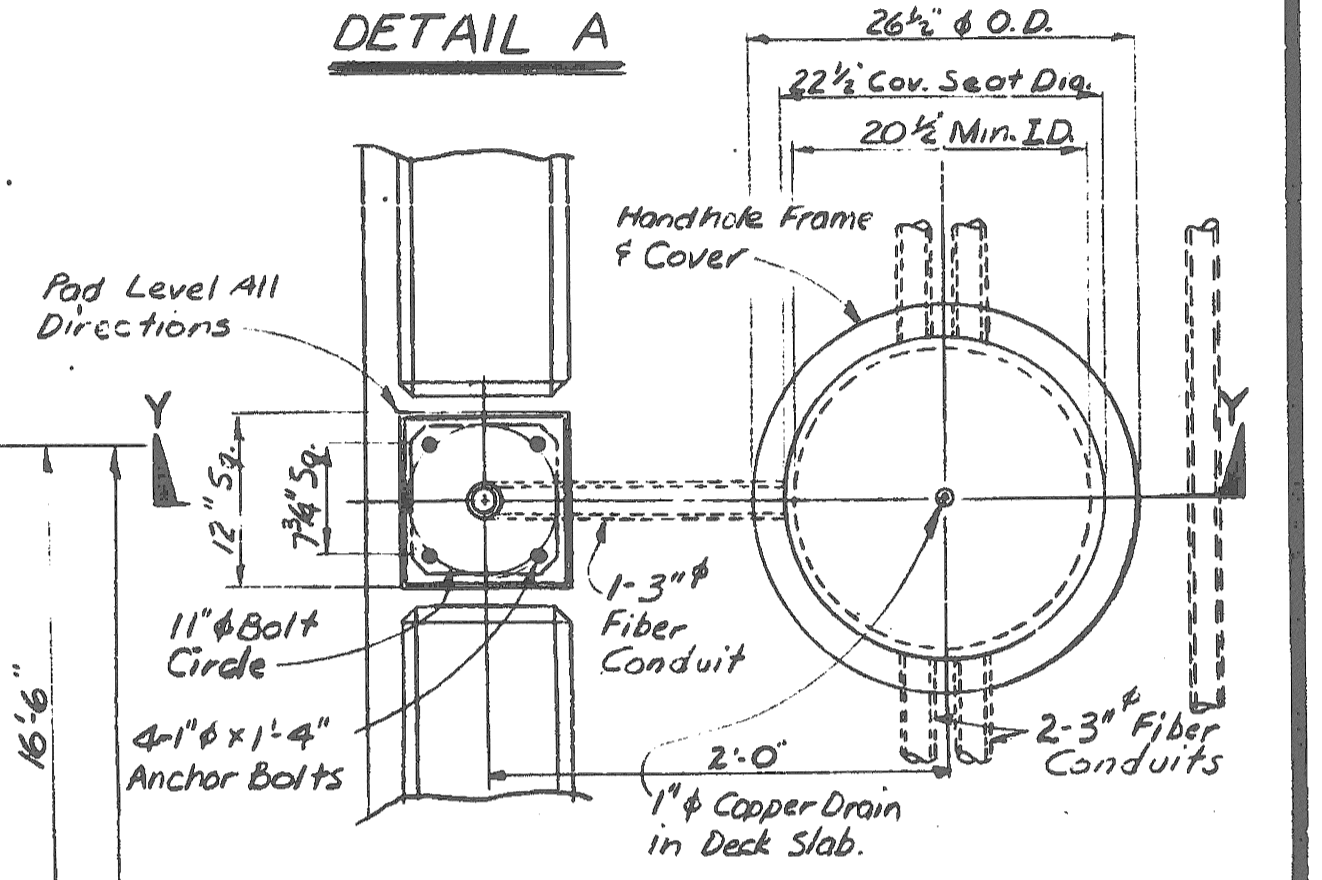
PLAN OF SIDEWALK



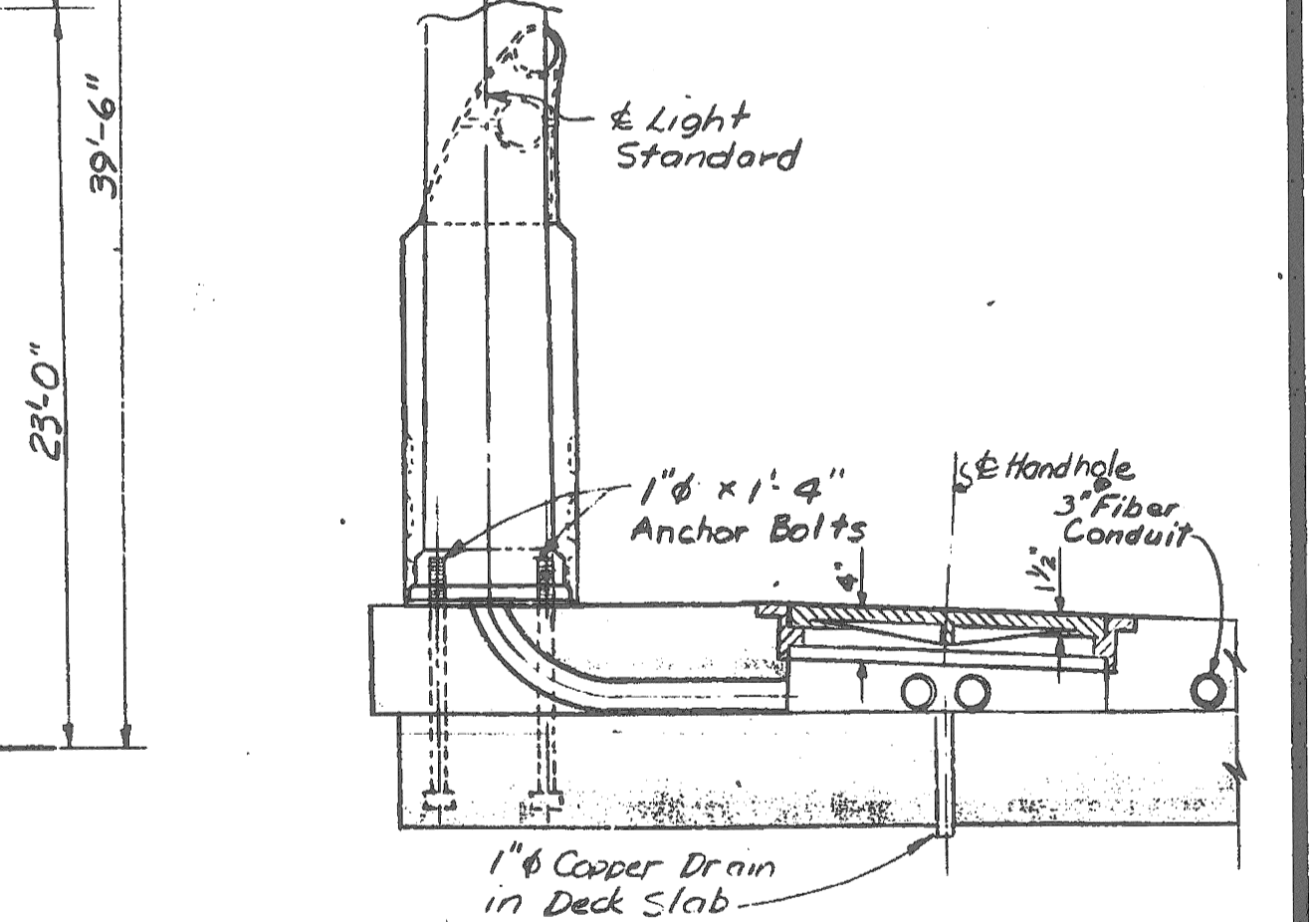
DETAIL A



PLAN OF SLAB



DETAIL X



SECTION Y-Y

NOTE:
Covers shall be castings which meet the requirements of the current specification for gray iron castings A.S.T.M. Designation A46 & shall have a minimum strength as provided for class no. 30 gray iron castings. Approximate weight 165 pounds.

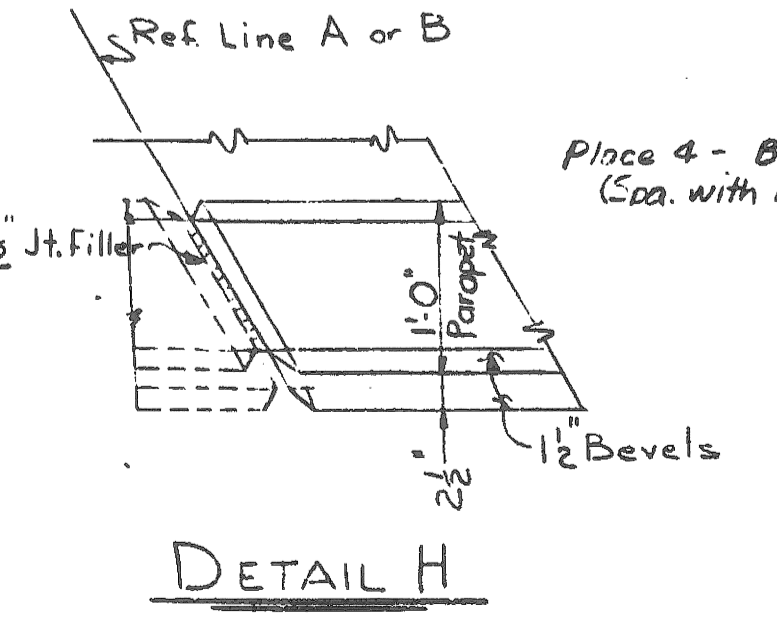
Work this sheet with sheets #15, 16, 17 & 18.

**MICHIGAN DEPARTMENT OF STATE HIGHWAYS
SUPERSTRUCTURE DETAILS
SPAN I**

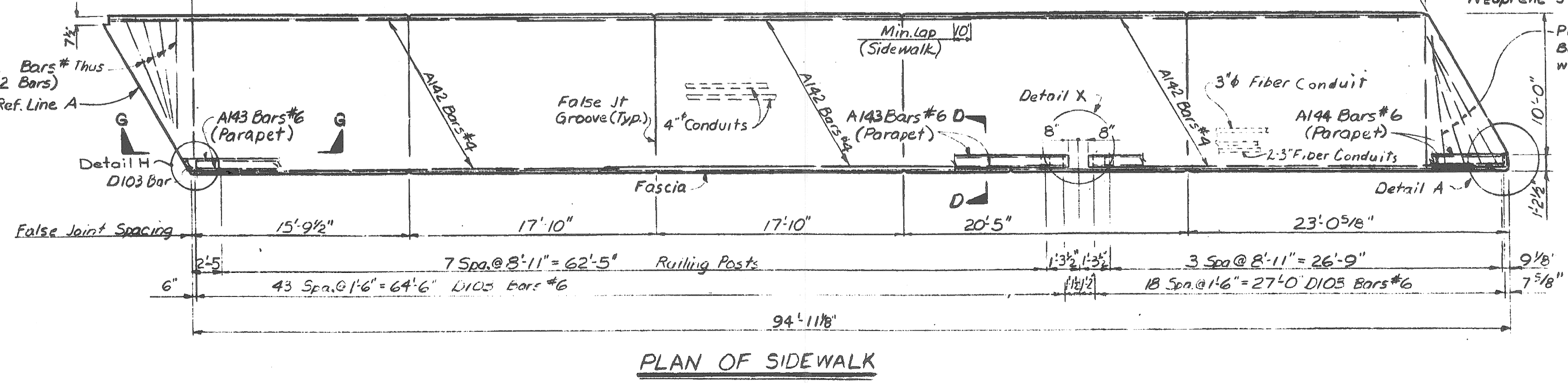
NO.	DESCRIPTION	DATE	BY

DRAWN BY	AJLUNI	5-11-75
CHECKED BY	O'Connor	8-5-79
TRACED BY	Ed Ho	8-23-83
CHECKED BY	Ed Ho	8-23-83
SHEET	14	OF 19

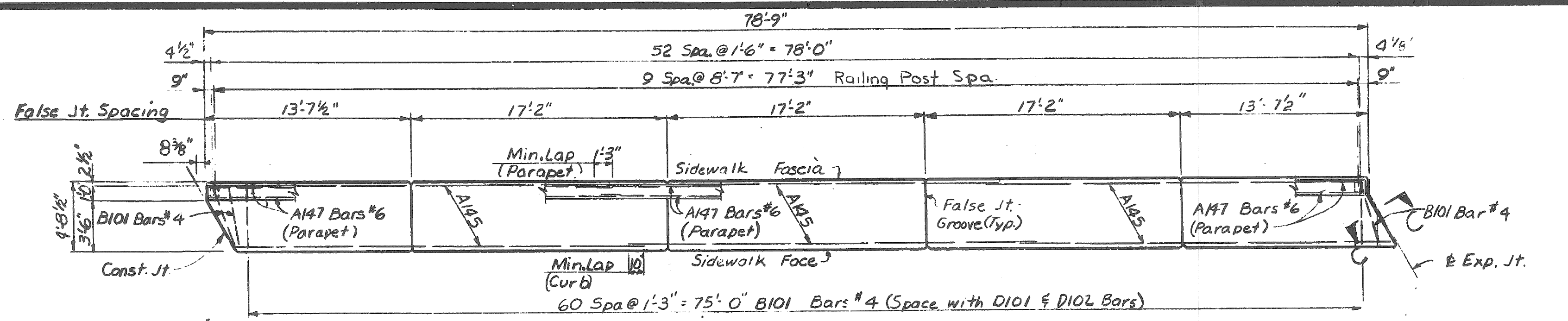
BOI of 821221



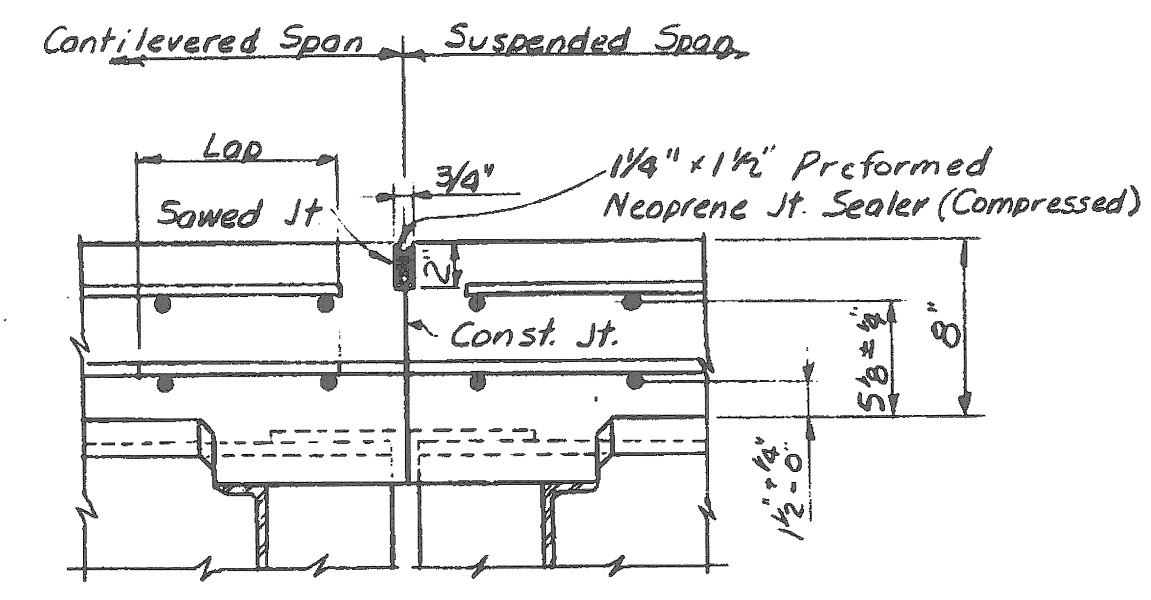
DETAIL H



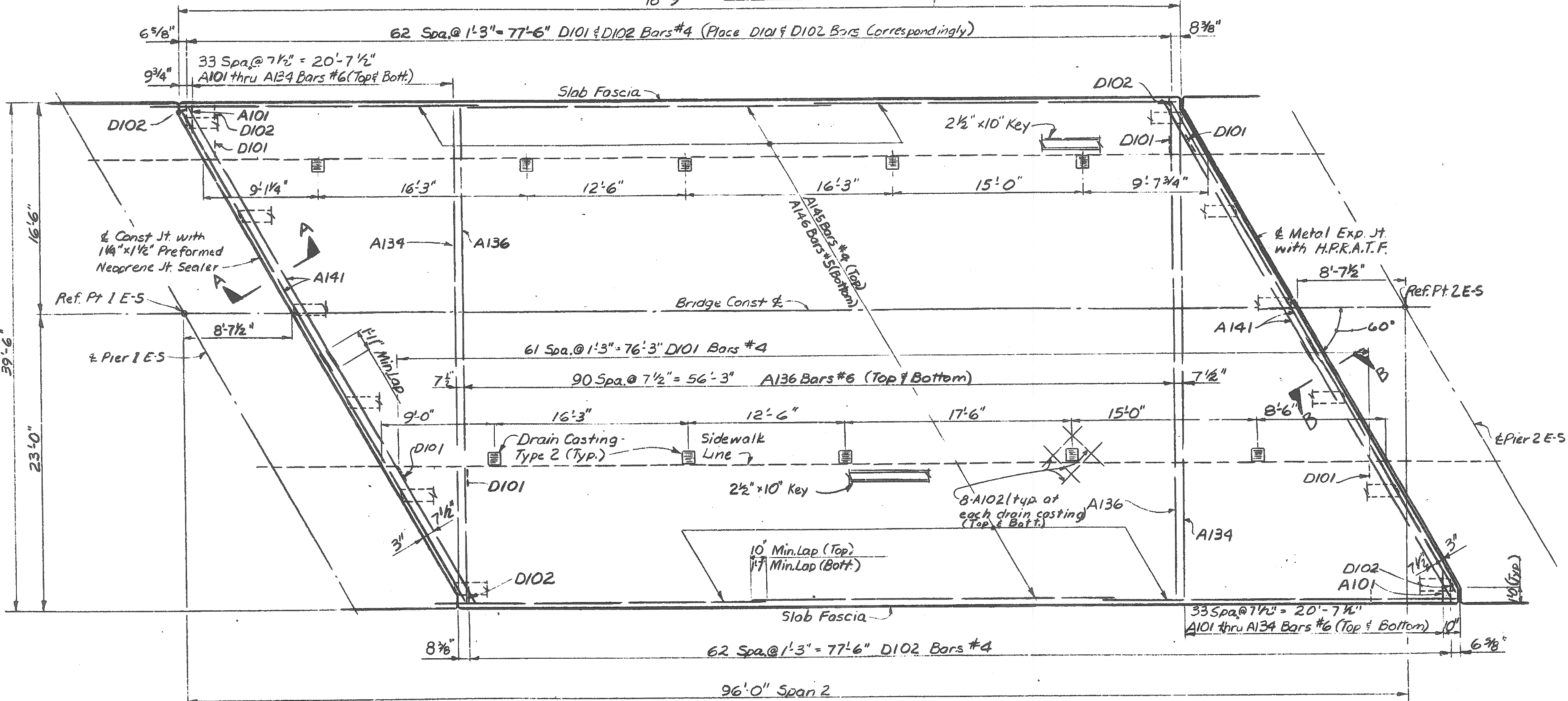
PLAN OF SIDEWALK



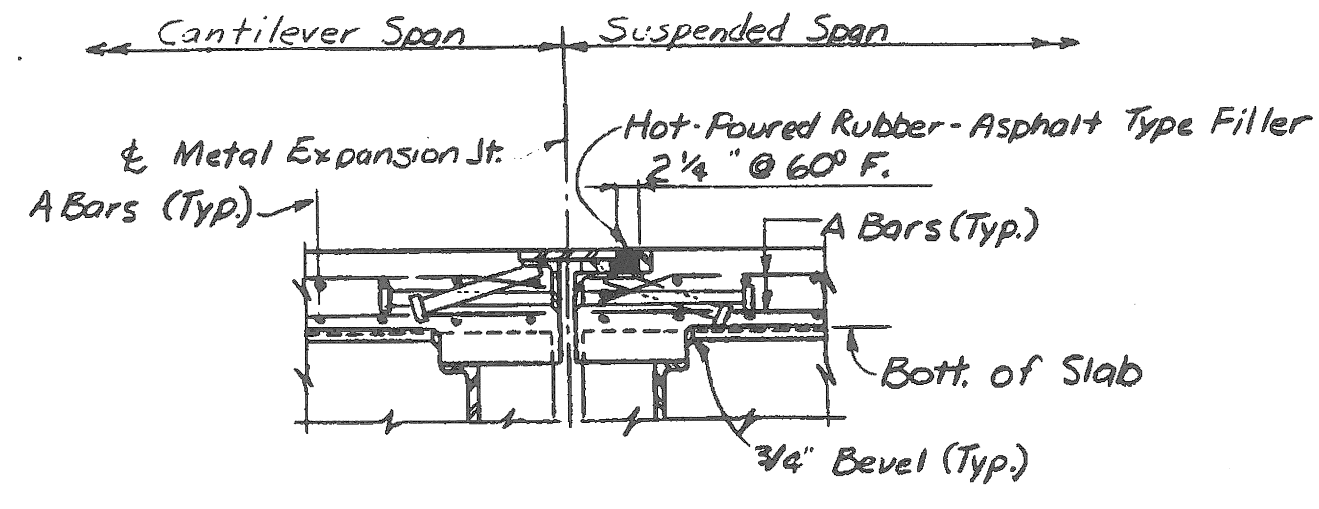
PLAN OF SIDEWALK



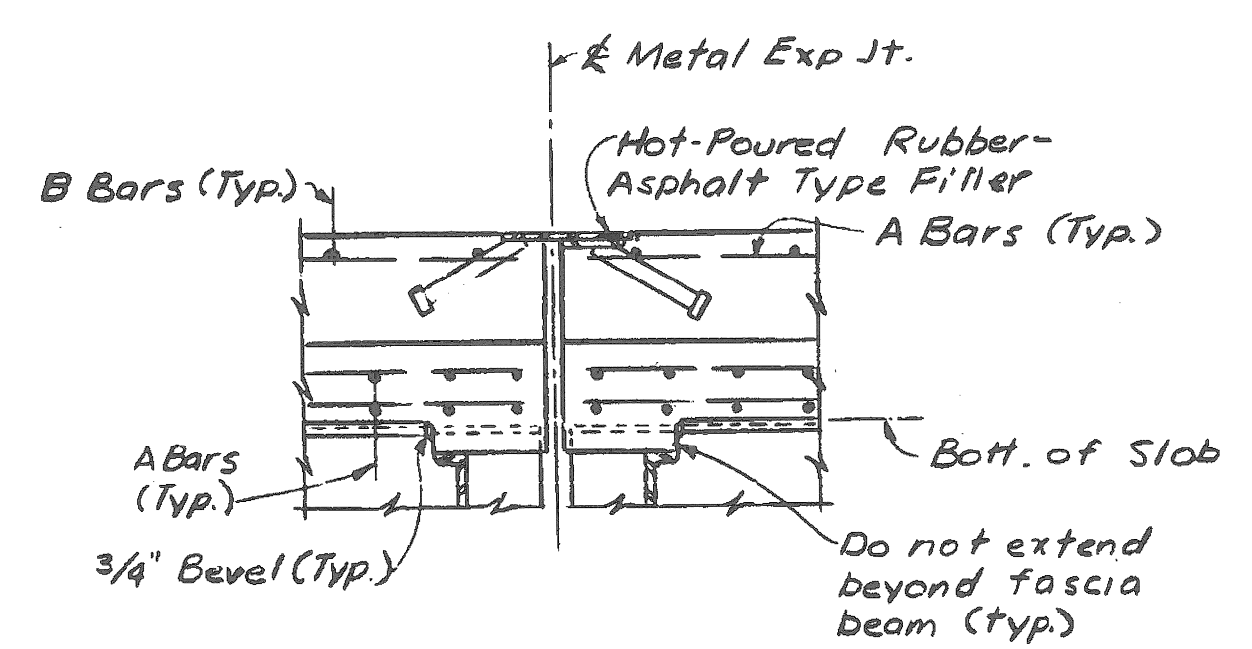
SECTION A-A



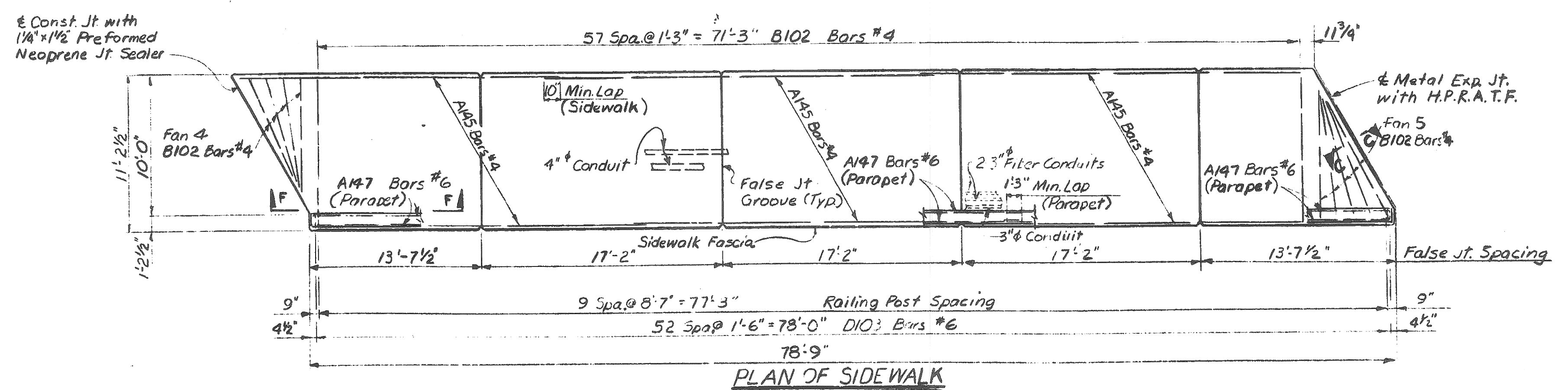
PLAN OF SLAB



SECTION B-B



SECTION C-C



PLAN OF SIDEWALK

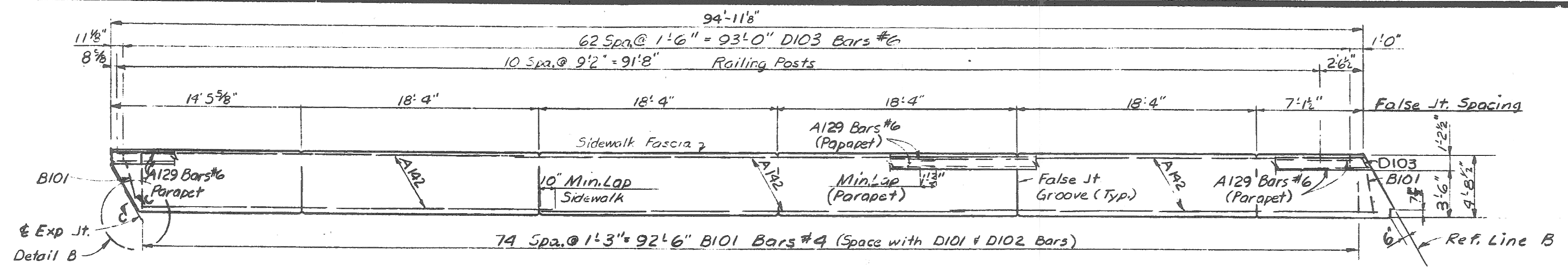
Work this sheet with sheets # 14, 16, 17 & 18.

**MICHIGAN DEPARTMENT OF STATE HIGHWAYS
SUPERSTRUCTURE DETAILS
SPAN 2**

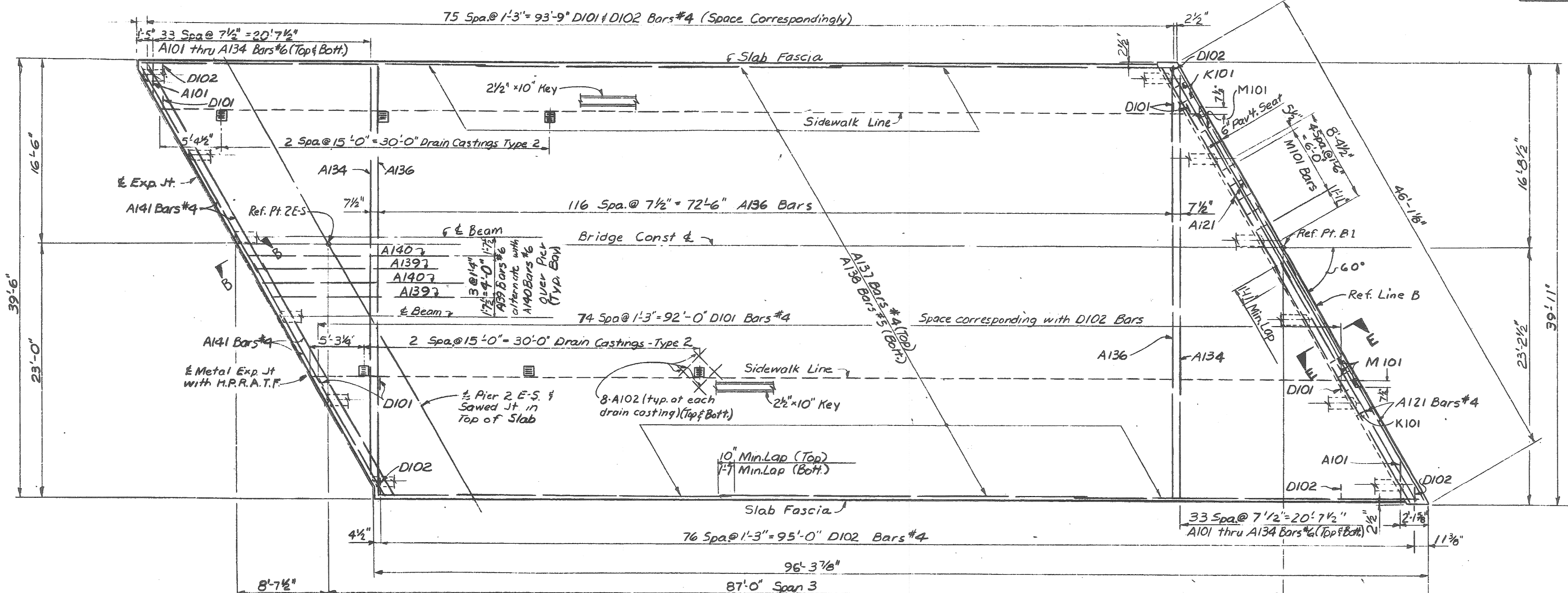
REVISIONS			
NO.	DESCRIPTION	DATE	BY

DESIGNED BY	AJLUN	5-11-70
DRAWN BY	O'Connor	8-5-69
TRACED BY		
CHECKED BY	Ed. Ho	9-23-69
DATE	15	13

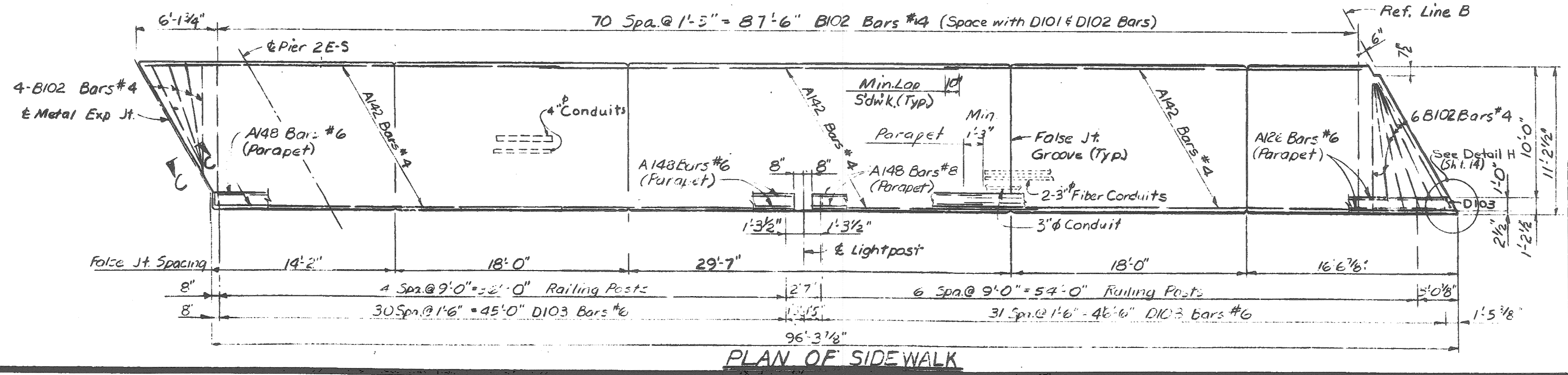
BOI of 82122I



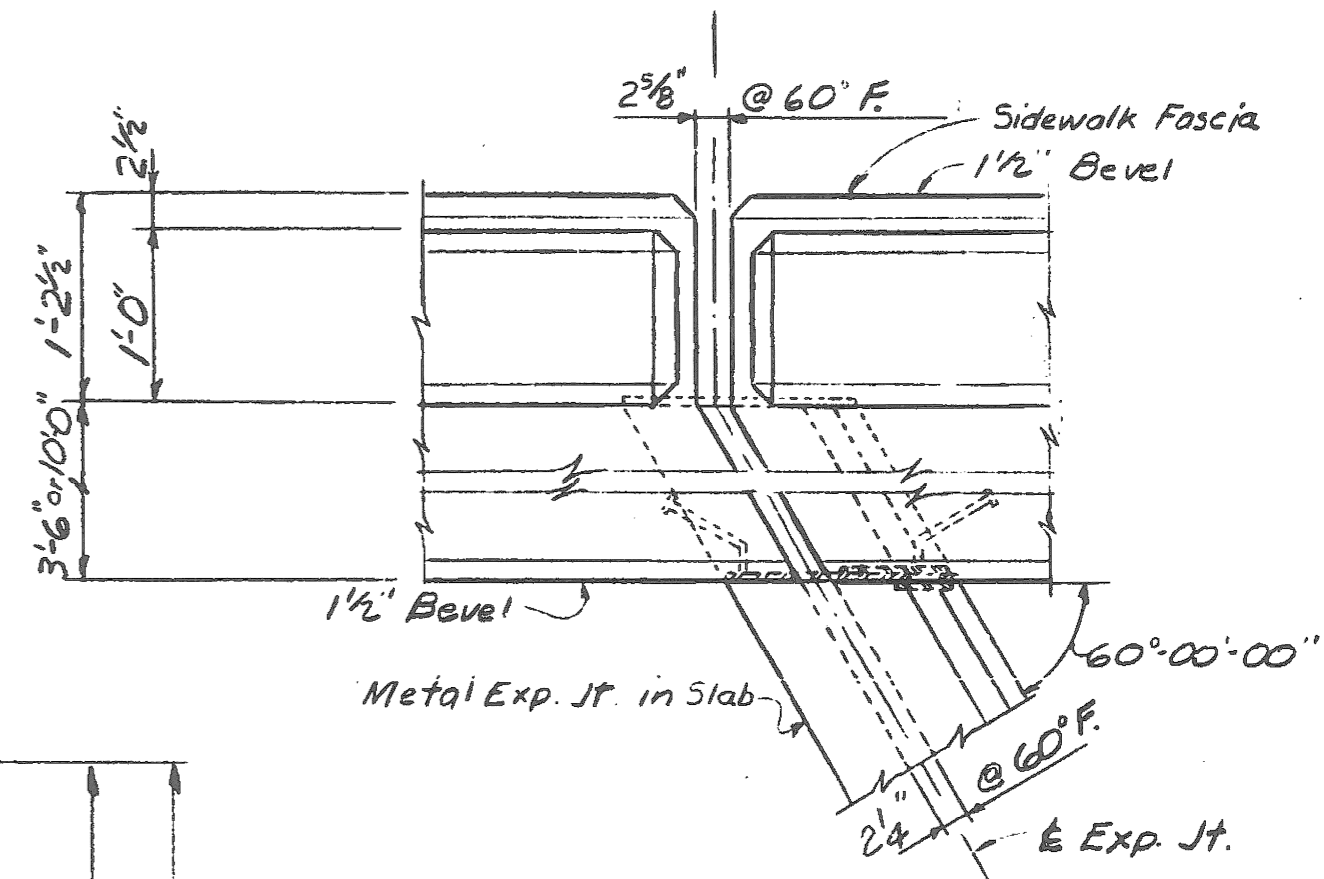
PLAN OF SIDEWALK



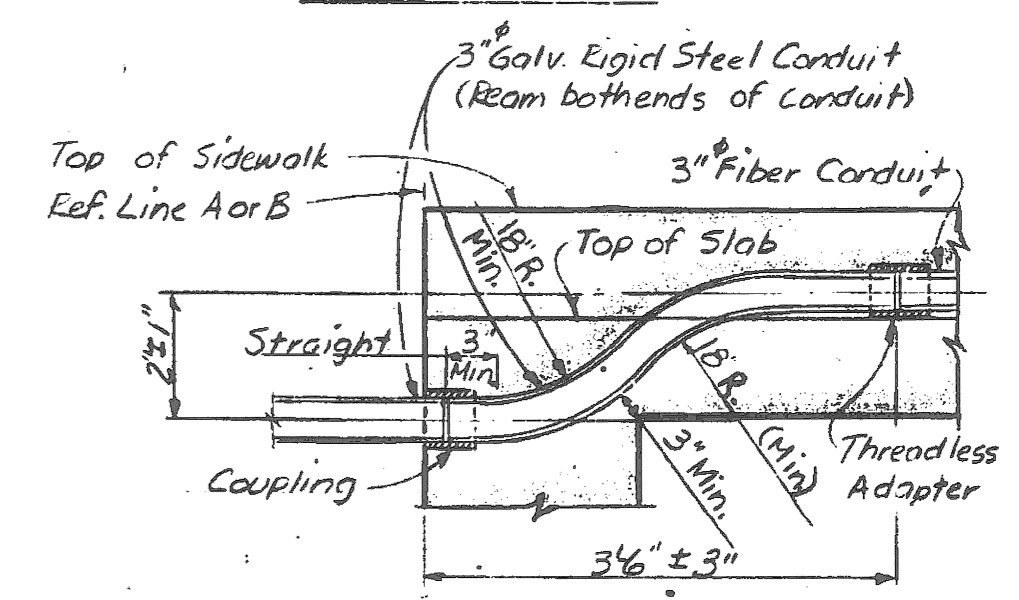
PLAN OF SLAB



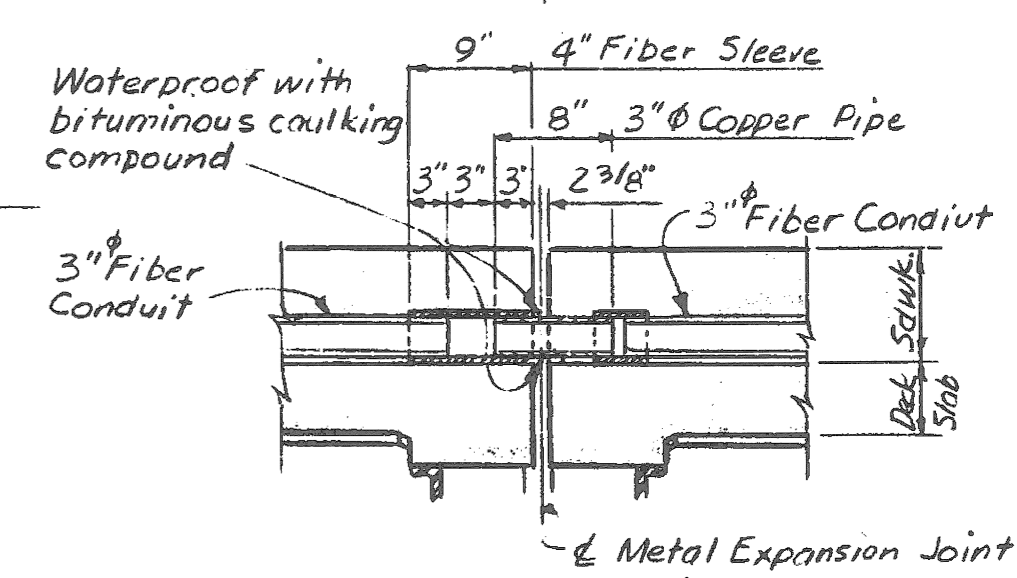
PLAN OF SIDEWALK



DETAIL B



3\"/>



SECTION THRU 3\"/>

Work this sheet with sheets # 14, 15, 17 & 18.

MICHIGAN DEPARTMENT OF STATE HIGHWAYS
SUPERSTRUCTURE DETAILS
SPAN 3

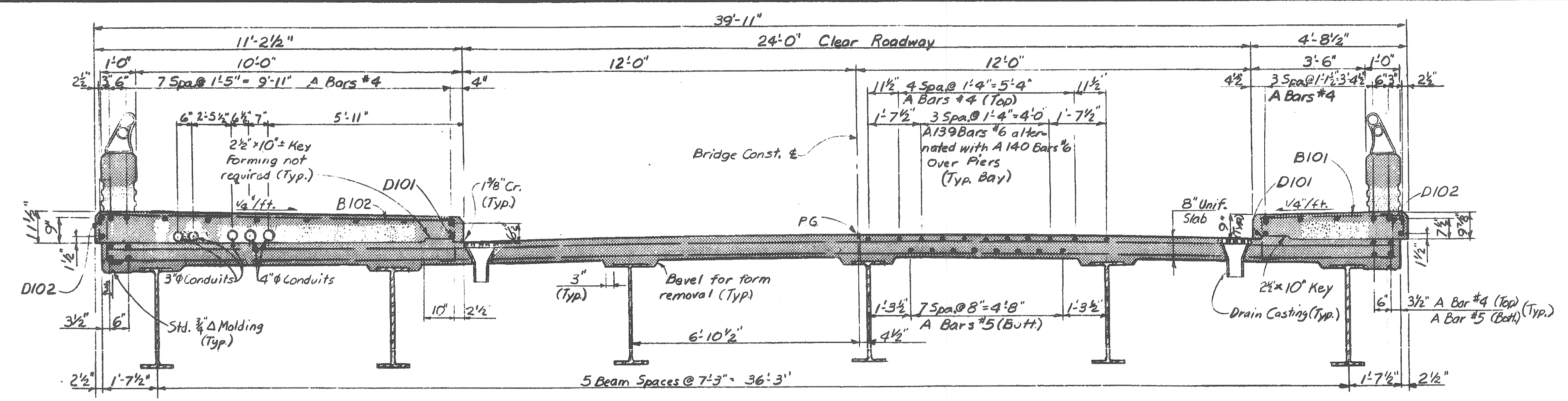
REVISIONS			
NO.	DESCRIPTION	DATE	BY

SHEET NO. 82122-1

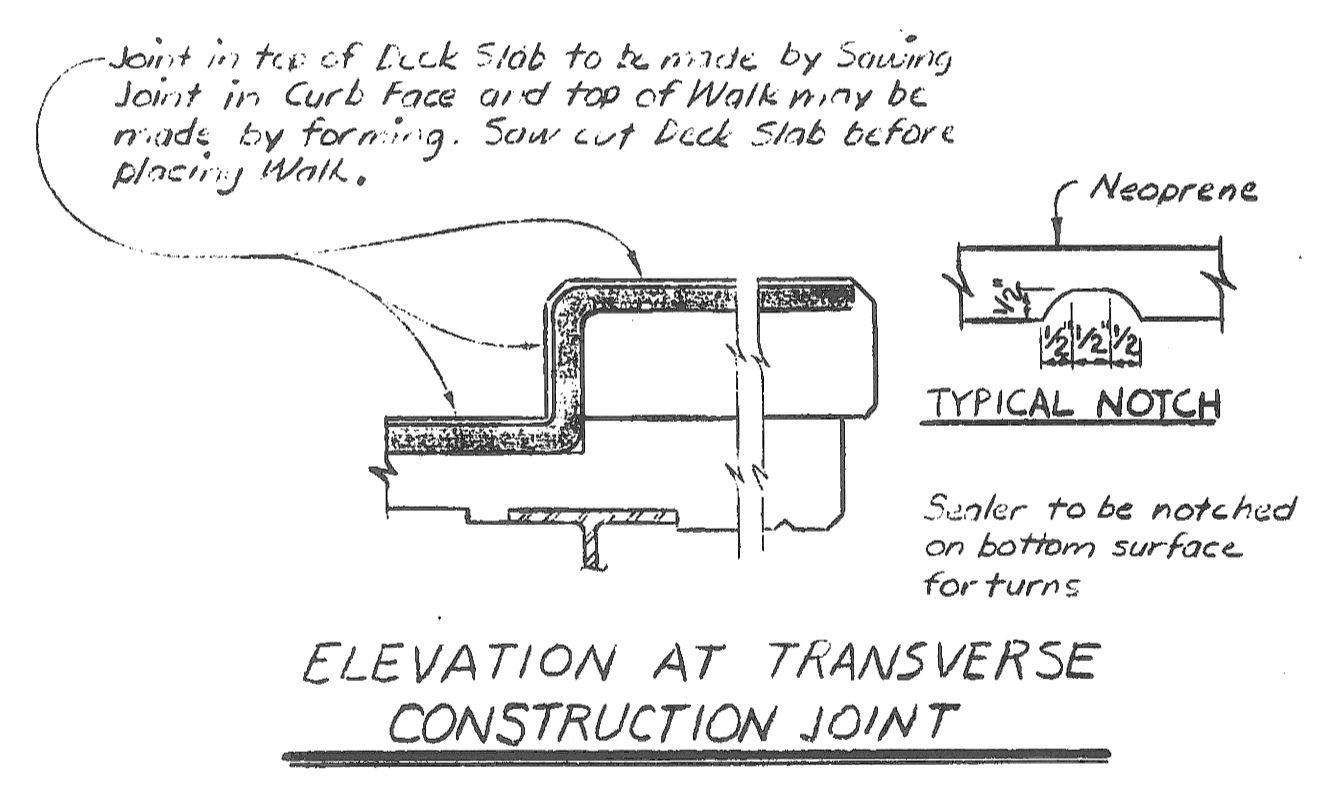
DATE: 8-5-62

BY: [Signature]

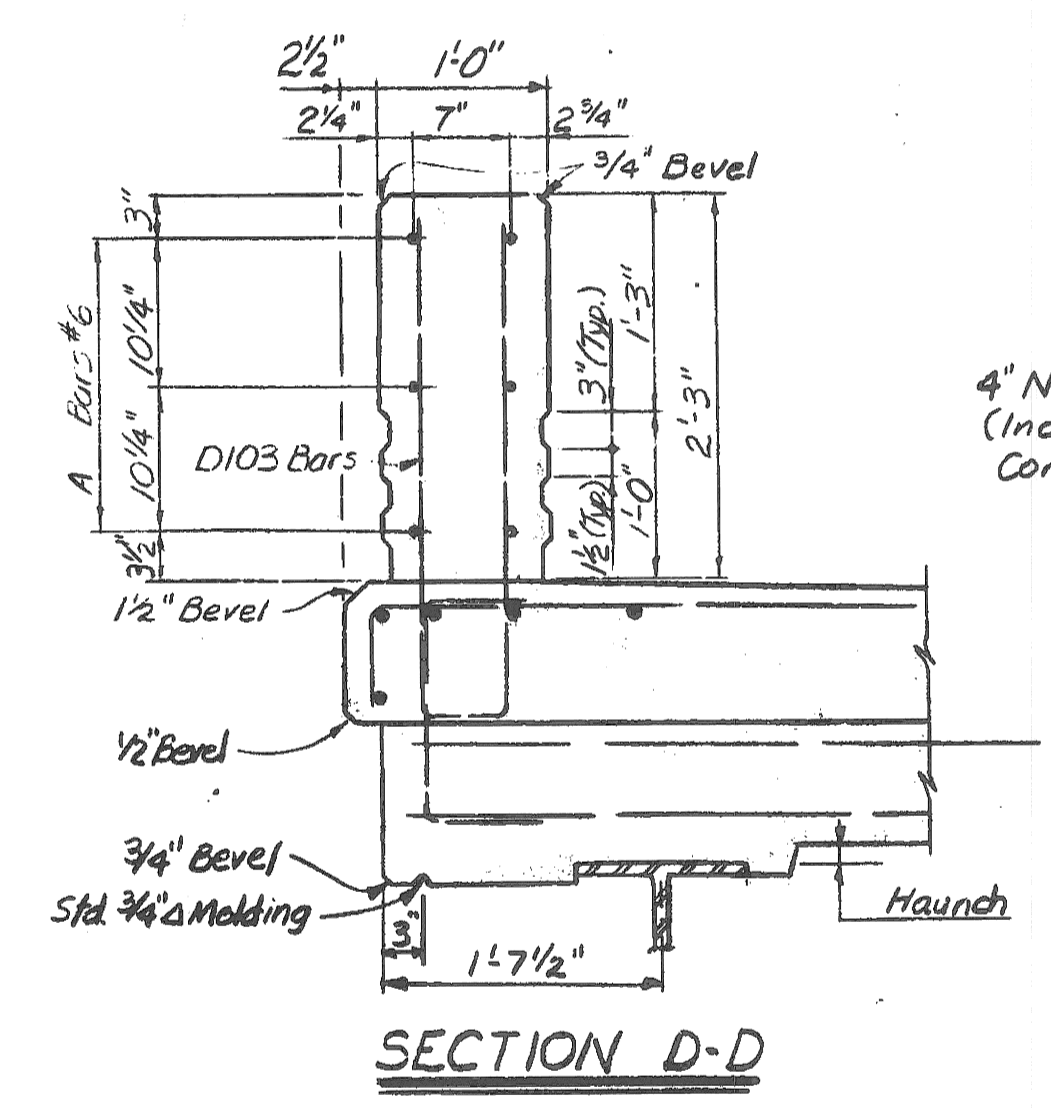
CHECKED BY: [Signature]



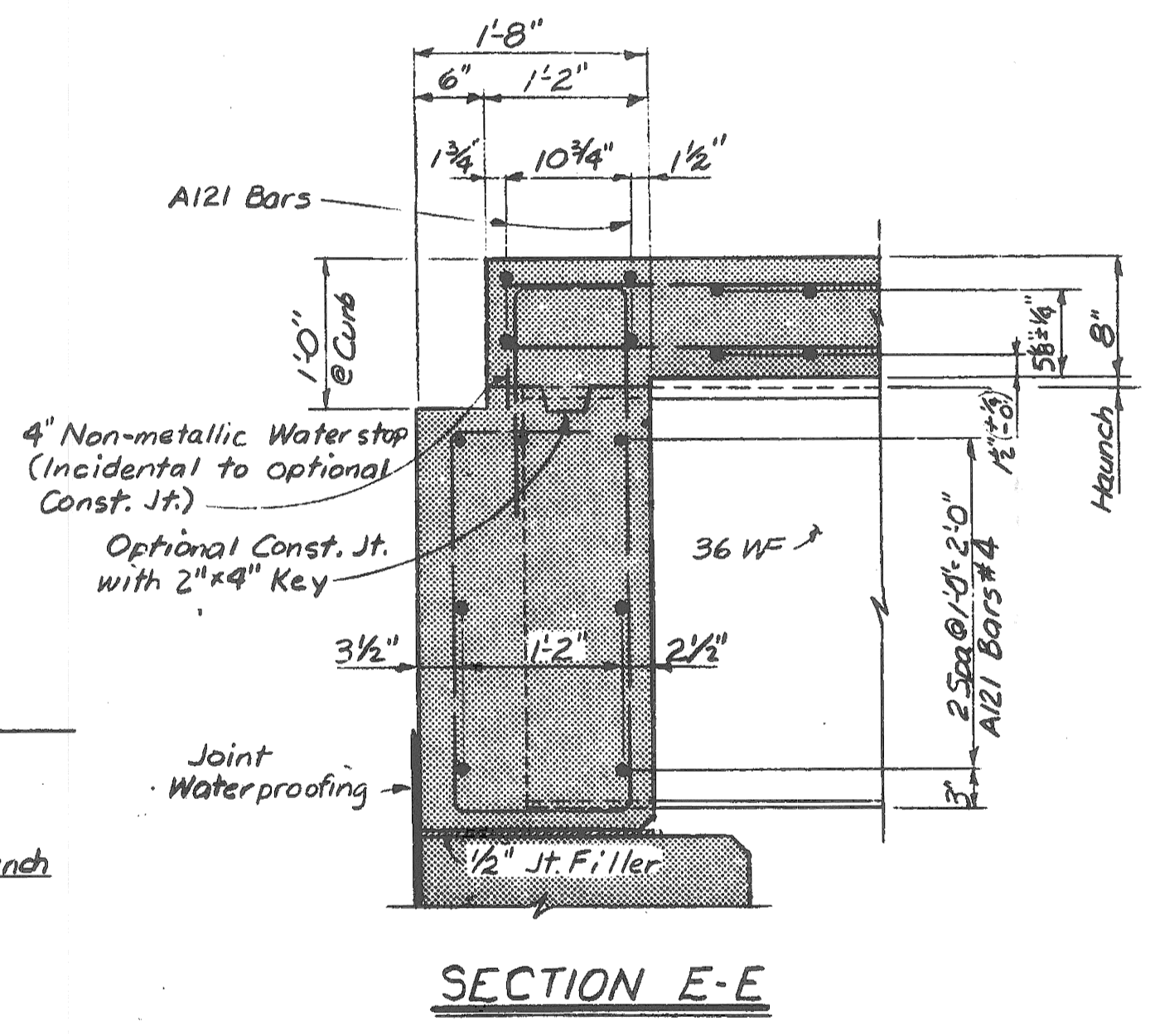
TRANSVERSE SECTION
Looking West



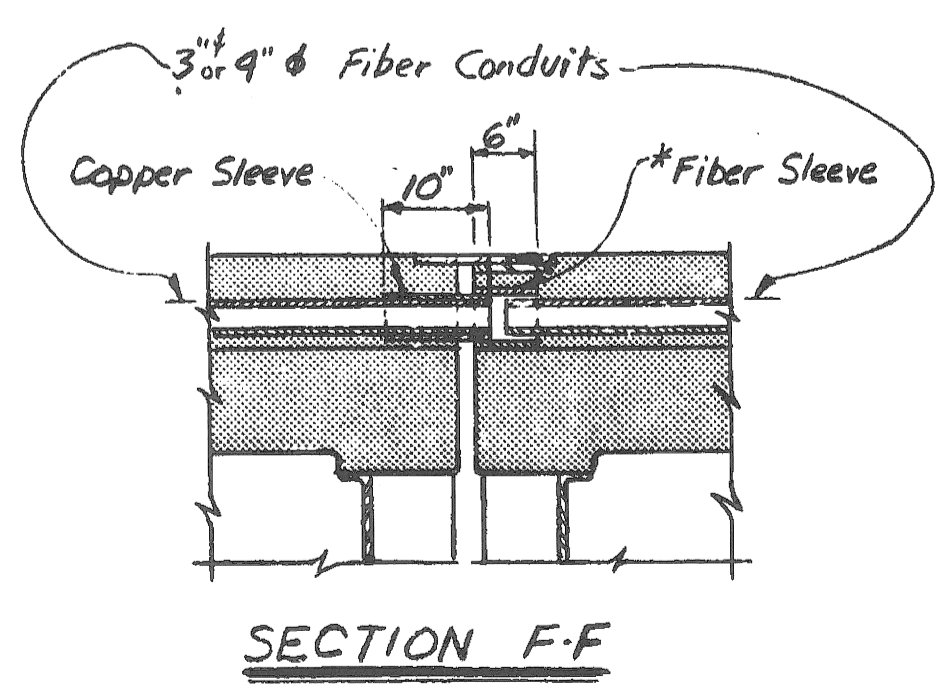
ELEVATION AT TRANSVERSE CONSTRUCTION JOINT



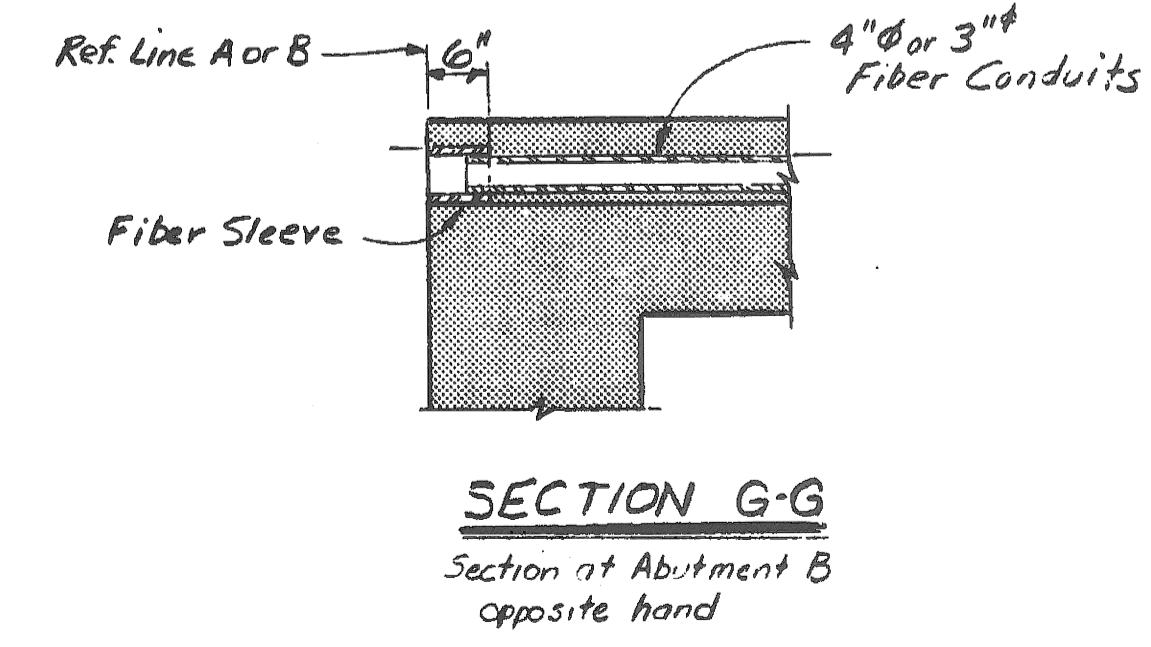
SECTION D-D



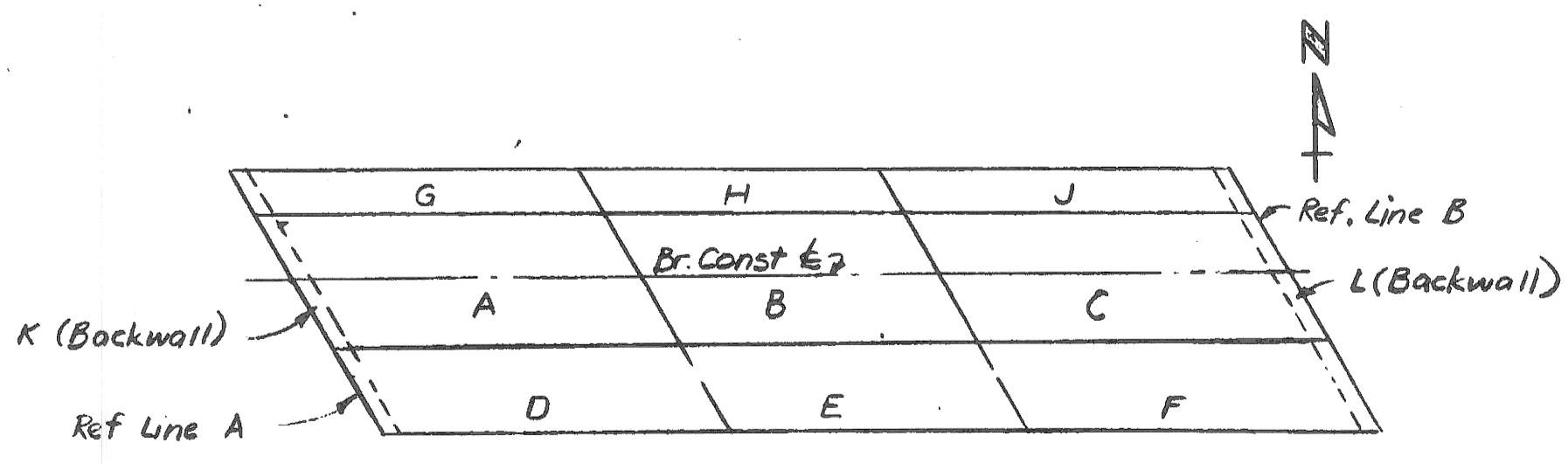
SECTION E-E



SECTION F-F



SECTION G-G
Section at Abutment B opposite hand



FOUR DIAGRAM
Alphabetical designation of pours is not to be construed as a pour sequence.

MISCELLANEOUS QUANTITIES		
ITEM	UNIT	AMT
4" Conduit	Lin.Ft	540
3" Conduit	Lin.Ft	810
Handhole Frame & Cover	Each	2
Light Standard Anchorage Assembly	Each	2
Protective Treatment for Bridge Decks	Sq.Ft	10,125
1/4" Preformed Neoprene Jt. Sealer	Lin.Ft.	46
Hot-Poured Rubber-Asphalt Type Filler	Lin.Ft.	46
Water-Reducing Retarding Admixture	Gal.	43
Drain Casting - Type 2	Each	22
Bridge Railing - Solid Parapet Type - 2 Tubes	Lin.Ft	540.0

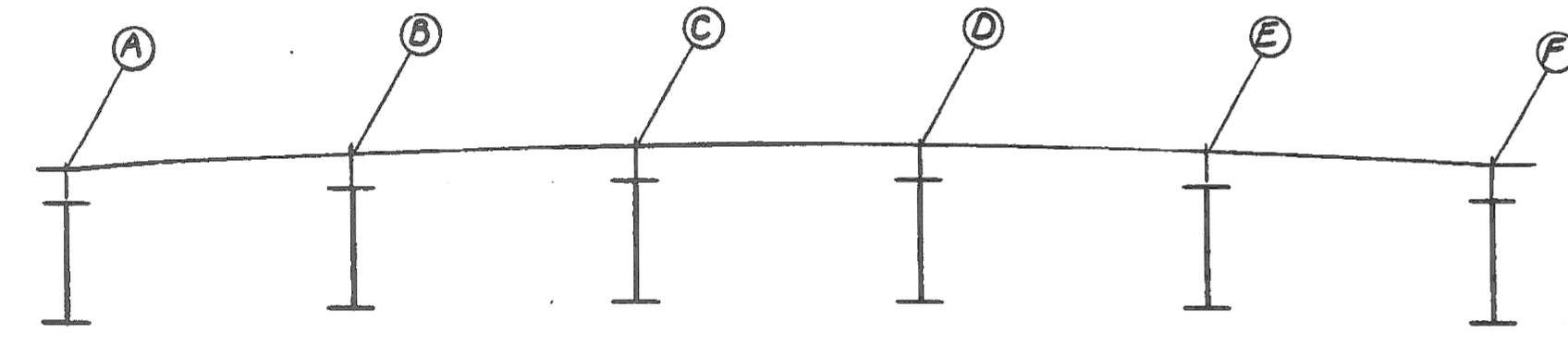
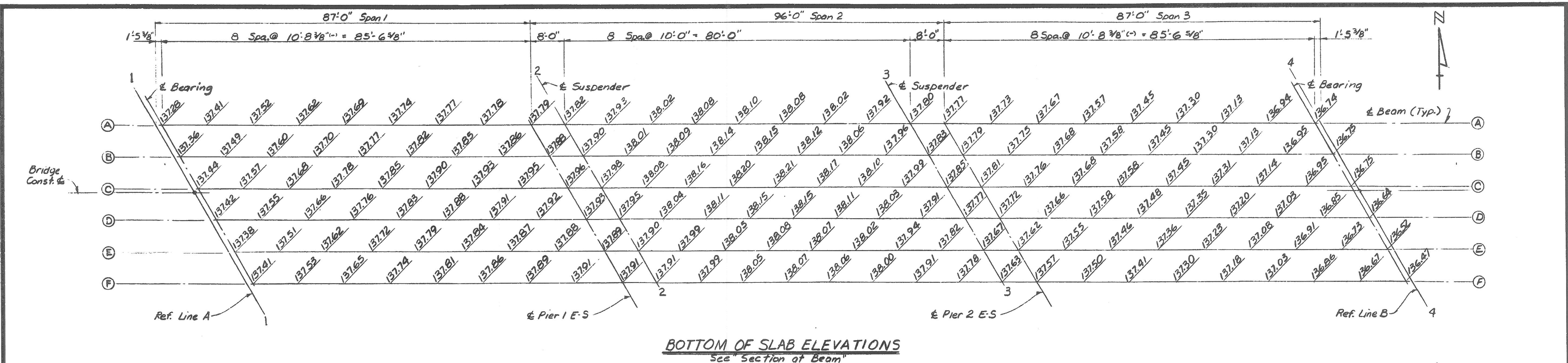
CONCRETE QUANTITIES Grade A(GAA)	
FOUR	AM'T
A	978.0
B	80.5
C	97.8
D	33.6
E	21.7
F	33.6
G	13.2
H	10.9
J	13.2
K	9.4
L	24
TOTAL	427.1

NOTES:
 H.P.R.A.T.F. denotes Hot-Poured Rubber-Asphalt Type Filler
 For details of drain castings, bevels, moldings and Bridge Railing, see Standard Sheet R16.
 Edge or groove denotes edging or grooving with an approved tool.
 Sidewalk pours shall not be cast until slab concrete has attained at least 50% of its design strength as determined by Table 7.01-3 of the Standard Specifications.
 The District Utility Engineer is to be notified one week in advance of the time of installation of the ducts in the sidewalk.
 The contractor is to provide a sawed jt. 1/2" deep by 1/8" wide (min) in the top of slab over and parallel to the centerline of piers. The joint is to be sawed before casting of sidewalks and is to be filled with H.P.R.A.T.F. (incidental).
 Bridge Railing is to be aluminum.
 Tubular railing on concrete parapet. See Railing Standard R16.
 Protective Treatment for Bridge Decks is to be applied to all superstructure concrete surfaces between inside faces of parapets.
 For name plate mounting details, see Standard Sheet R16. For location of name plate, see sheet #3.
 Anchorage for guard rail is to be provided in the parapet railing. For details, see Road Plans! Std. sheet R16.
 Work this sheet with sheets #14, 15, 16 & 18.

MICHIGAN DEPARTMENT OF STATE HIGHWAYS
SUPERSTRUCTURE DETAILS

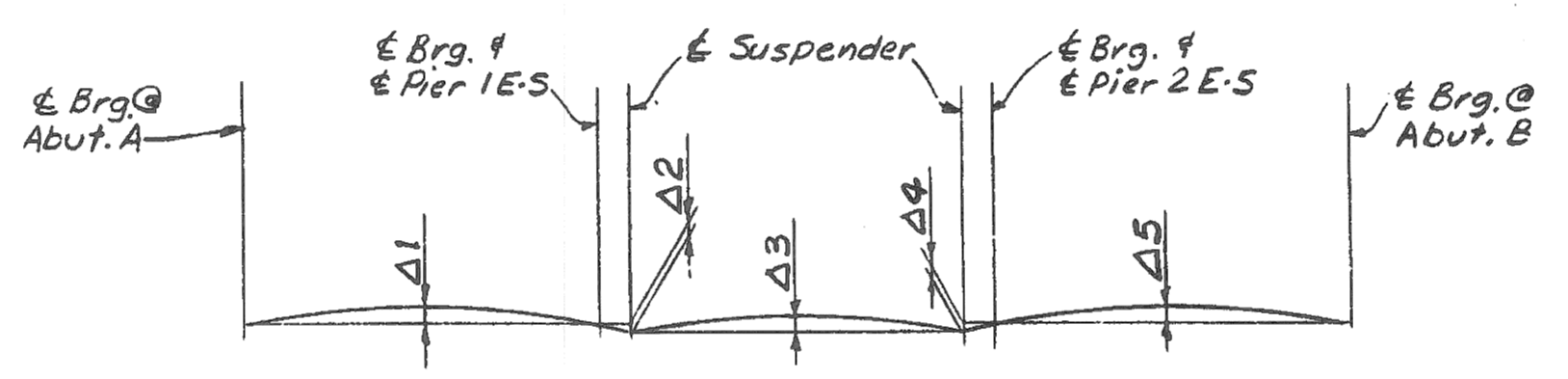
REVISIONS			
NO.	DESCRIPTION	DATE	BY

SQAD BOSS: AILUNI 5-11-76
 DRAWN BY: O'Connor 7-28-69
 CHECKED BY: Ed Ho 9-23-69
 SHEET 17 of 19
BOI of 82122I



SCREED TEMPLATE

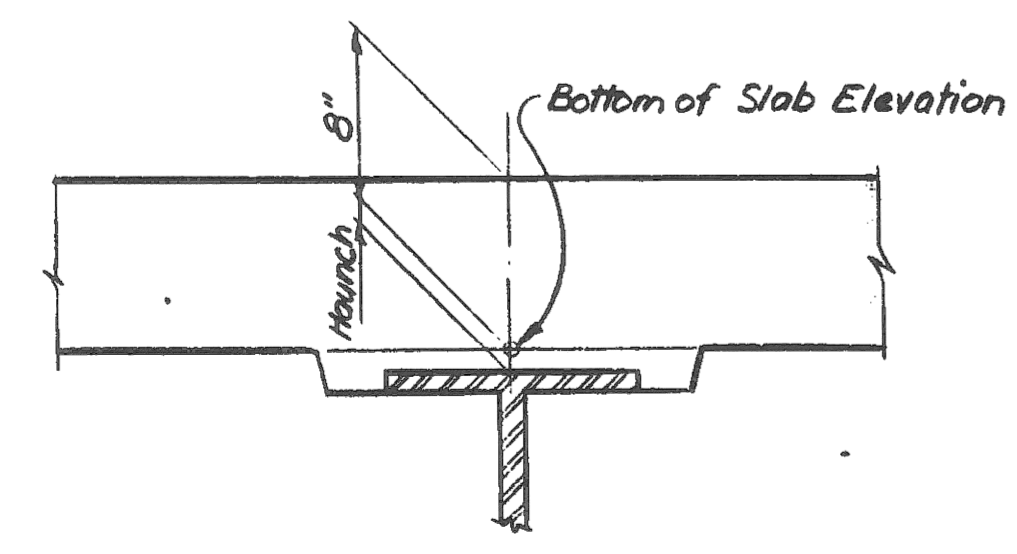
SCREED TEMPLATE ELEVATIONS						
Line	A	B	C	D	E	F
1-1	137.94	138.02	138.10	138.08	138.04	138.06
2-2	138.48	138.56	138.64	138.61	138.56	138.58
3-3	138.47	138.50	138.52	138.44	138.34	138.30
4-4	137.39	137.39	137.40	137.29	137.17	137.12



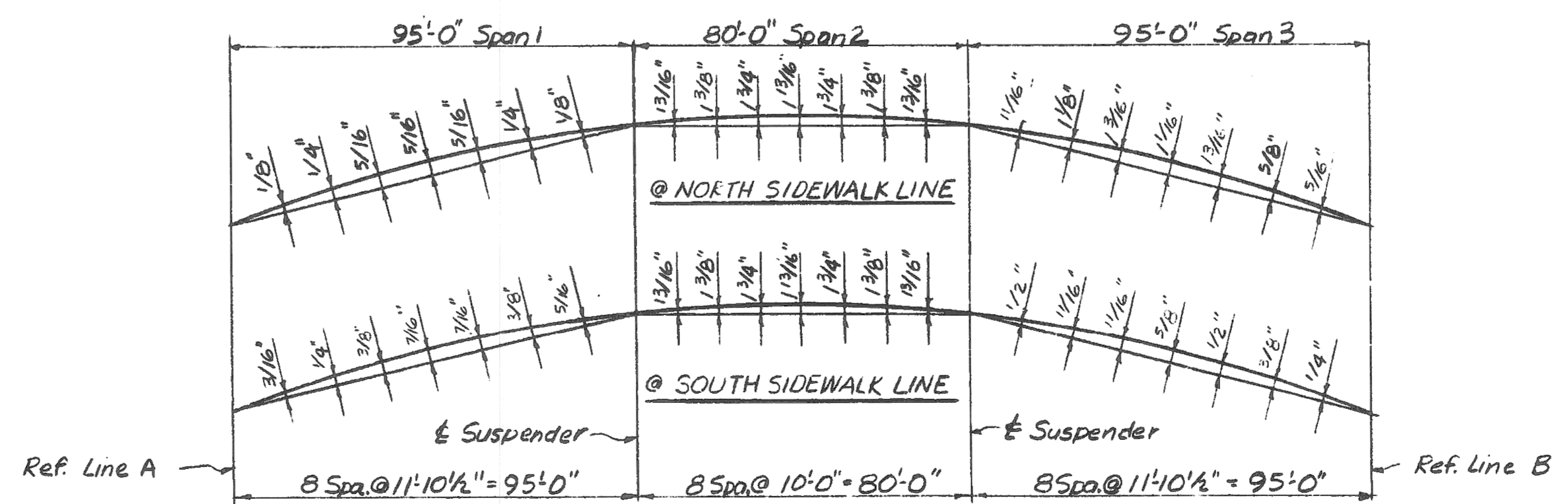
CAMBER ORDINATE DIAGRAM

CAMBER ORDINATES			
	a	b	c
Δ1	-2"	-1 13/16"	0"
Δ2	1 3/16"	3/4"	3/8"
Δ3	-3 1/2"	-3 1/2"	1 1/2"
Δ4	1 3/16"	3/4"	3/8"
Δ5	-2"	-1 13/16"	0"

- a = Camber ordinate with structural steel erected. (No other loads applied)
- b = Camber ordinate with forms, shear developers and steel reinforcement in place.
- c = Camber ordinate with deck concrete cast
- Indicates upward deflection.



TYPICAL SECTION AT EACH BEAM



TOP OF SLAB OFFSETS

Includes Vertical Curve and allowances for deflections due to curbs, railings and future Wearing Surface.

NOTES:
Screeds affected by loads in other spans are to be set to the elevations shown before casting any concrete. Concrete in the suspended span is to be cast before the concrete in the anchor spans.
Screed elevations are based on the condition that no slab concrete has been cast and that framework, steel reinforcement and shear developers are in place.
Bottom of slab elevations are based on the condition that all structural steel has been erected, but no other loads applied. These elevations include allowances for deflections due to forms, steel reinforcement, shear developers in place, deck concrete and railing.

Work this sheet with sheets # 14, 15, 16 & 17.

**MICHIGAN DEPARTMENT OF STATE HIGHWAYS
SUPERSTRUCTURE DETAILS**

REVISIONS			
NO.	DESCRIPTION	DATE	BY

DESIGNED BY	AJL/UNJ	5-11-69
DRAWN BY	D'Annunzio	7-30-69
TRACED BY		
CHECKED BY	Ed. Ho	9-23-69
SHEET	18	19

BOI of 821221

