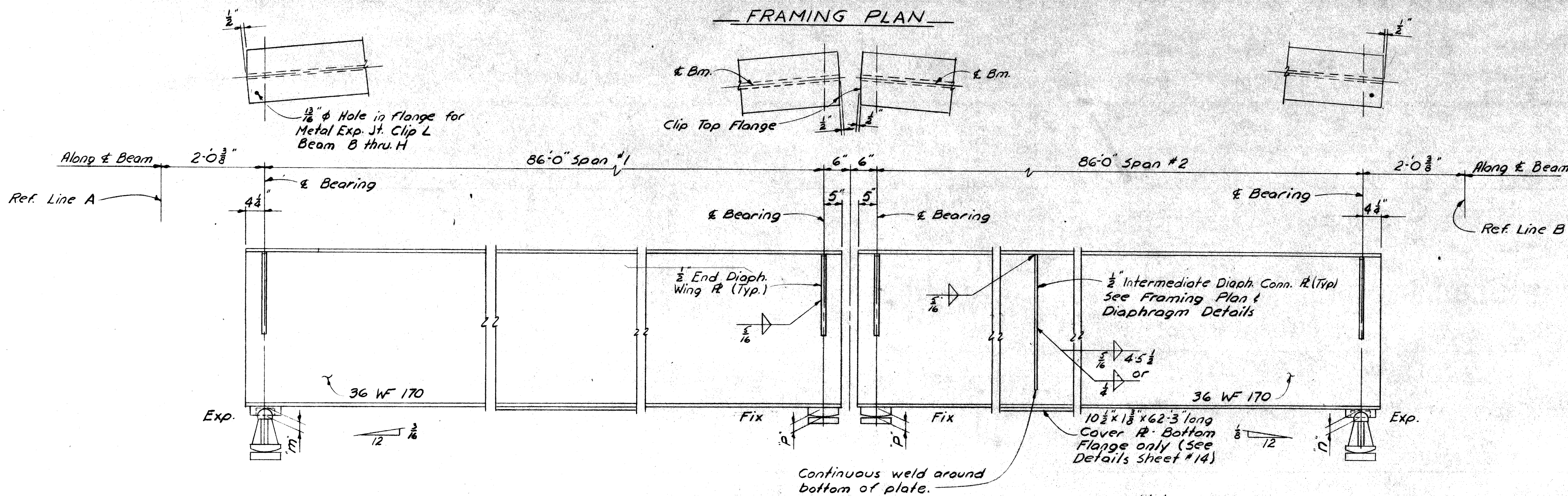


FRAMING PLAN



BEAM ELEVATION

STRUCTURAL STEEL NOTES

Design: M.D.S.H. Specifications for Design of Highway Bridges, 1958 edition and current AASHTO Standard Specifications for Highway Bridges (HS20-44 Loading).

Fabrication: M.D.S.H. Standard Specifications for Road and Bridge Construction - 1967 edition.

Shop Connections: Shop connections shall be welded as shown on the plans.

Field Connections: Field connections shall be bolted with 3/4" high-strength bolts, (except as noted).

Camber: The beams are to have a camber as shown on the camber diagram. This camber is to be measured with the beam laying on its side. Allowable camber tolerance for rolled beams is ± 4. Heating is to be used if necessary, to assure camber permanency within the above tolerance. For calculated dead load deflection of the beams alone see table.

Sole Plates: 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 continuous weld for the full perimeter. Welds shall be ground flush with faces of plates.

Welding: Welding on tension flanges of beams will not be permitted unless such welding is shown on the plans or specified. Welding at other locations on the beams, except where shown on plans, may be permitted by written authorization providing the welding is to be performed in strict accordance with all specification requirements for structural welding. Magnetic particle inspection of welds is required and shall consist of 100% inspection of not less than one fabricated section selected at random from each ten sections or fractions thereof.

Steel: All steel shall be unpainted A588. Position dowels and anchor bolts (including nuts and washers) shall be galvanized in accordance with ASTM designation A153. All steel material used for bearings, with exception of portion welded to beams, shall be galvanized in accordance with ASTM designation A123. Galvanizing shall be applied after fabrication of bearing. Mill scale and foreign material shall be removed prior to galvanizing.

Quantities: The quantity structural steel includes:
 Structural Steel - Furnishing and Fabricating* - 357,100 Lbs.
 Structural Steel - Erection - 357,100 Lbs.
 Shear Developers - Lump Sum

*Includes weight of Metal Exp. Jt., Sh. #16 and P.L.C. steel, Sh. #16 and consists of:
 A.S.T.M. A-588 Steel 356,900 Lbs.
 Sheet Lead 200 Lbs.

Note:
 Ends of beams @ abutments shall be vertical in their final position.

PLANS PREPARED BY
 CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERING OFFICE
 BUREAU OF BRIDGES AND EXPRESSWAYS
 APPROVED: *H. Court*
 JOB NO. PW 9903

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

STRUCTURAL STEEL DETAILS

REVISIONS

NO.	DESCRIPTION	DATE	BY

DATE OF DESIGN: 2-69

SQUAD BOSS: *Locher* 2-69

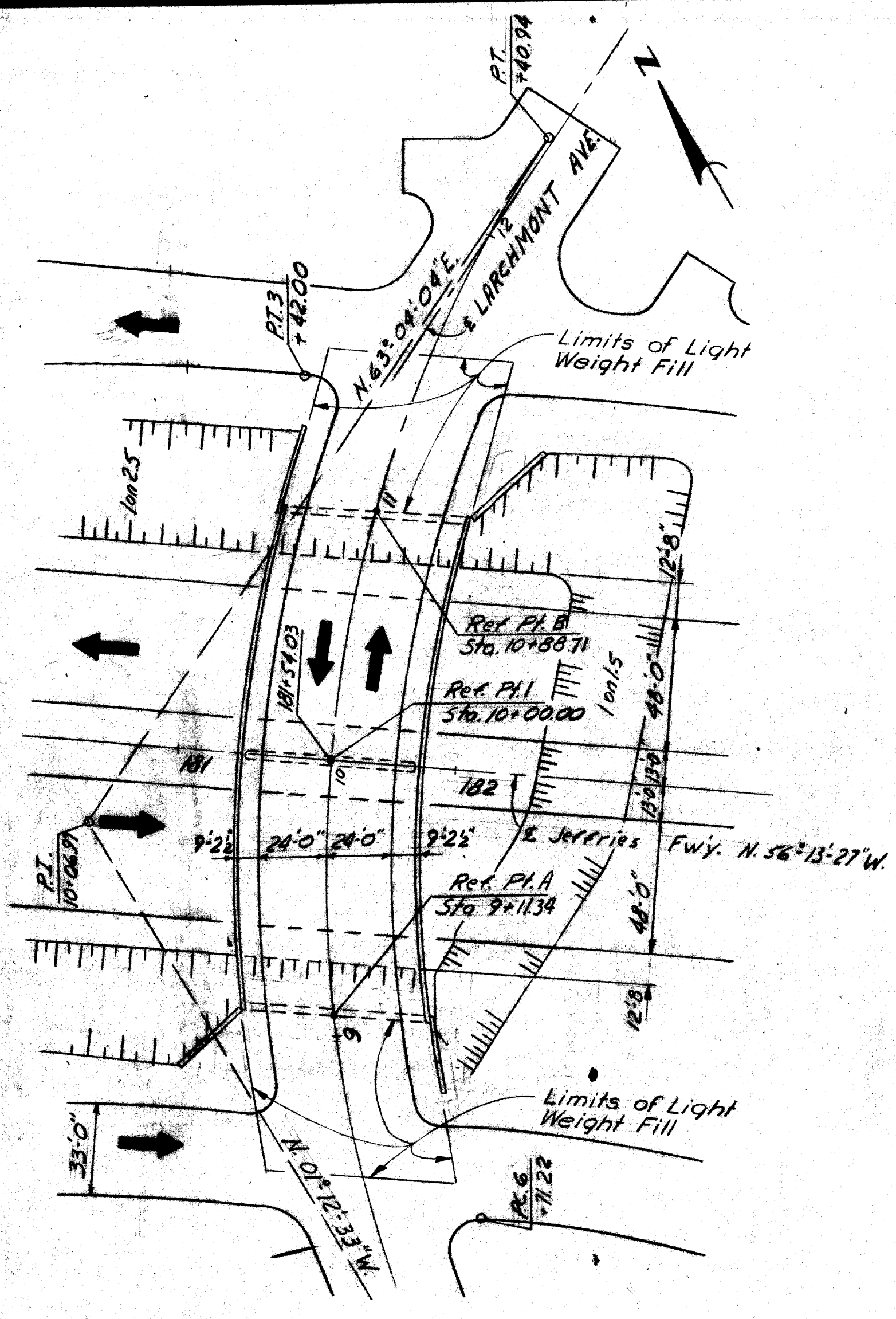
DRAWN BY: *Garavaglia* 1-69

TRACED BY: *D.J.R.* 3-69

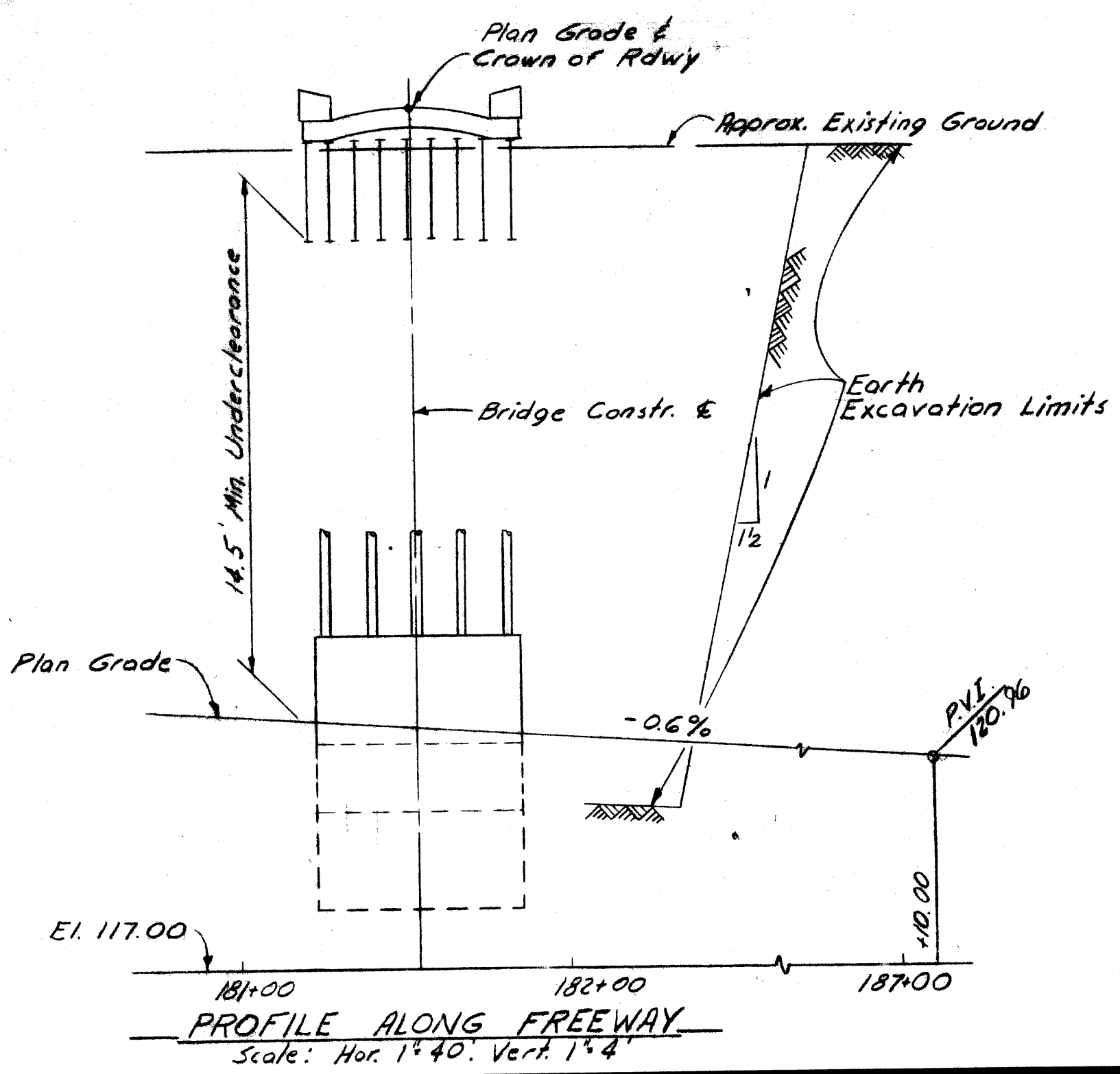
CHECKED BY: *D.J.R.* 3-69

SHEET 13 OF 22

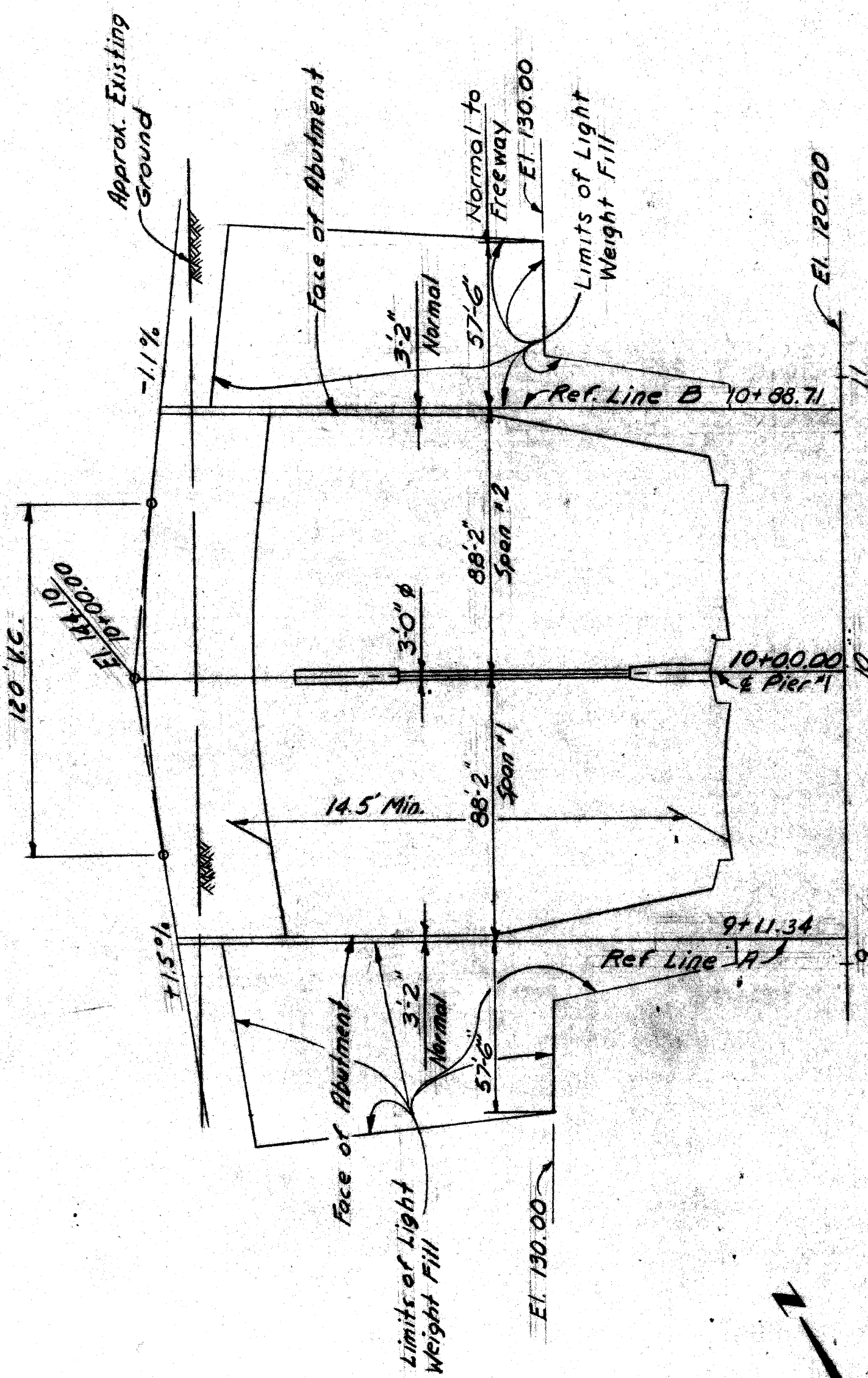
550 of 82123J



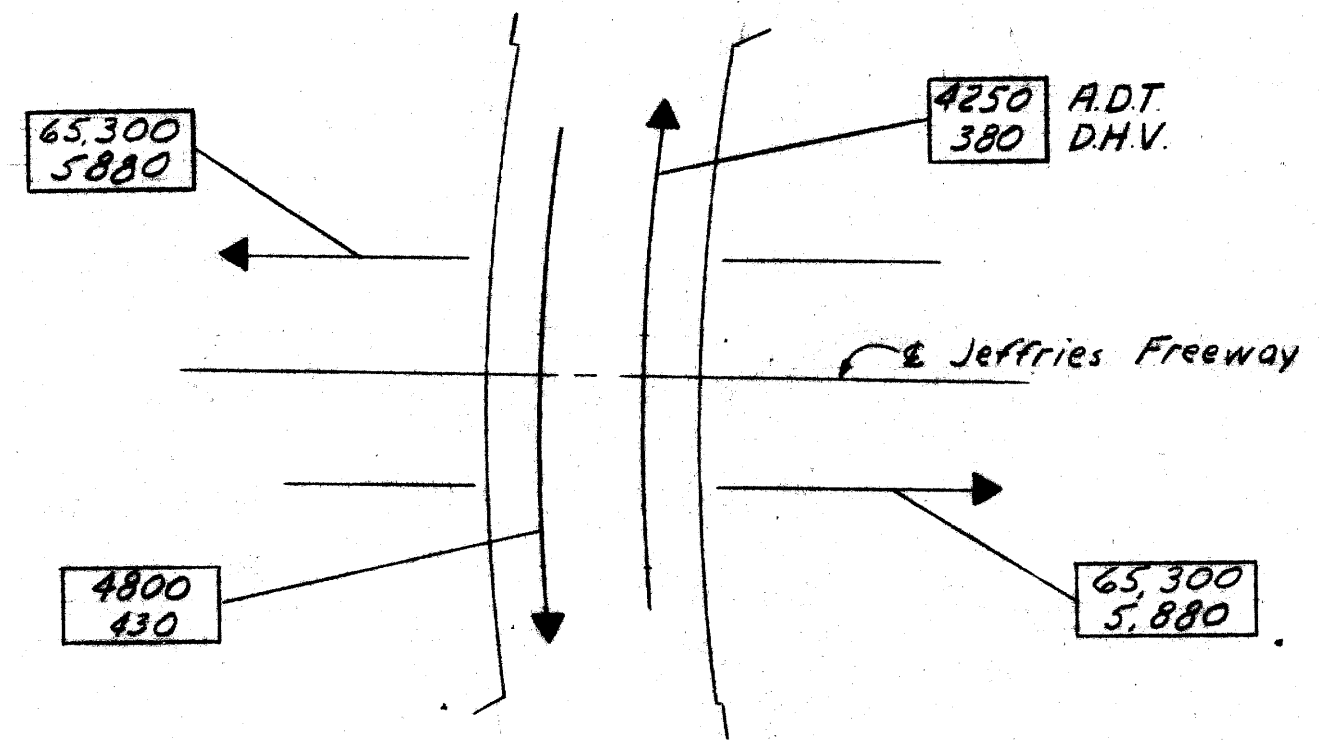
PLAN
Scale: 1"=40'



PROFILE ALONG FREEWAY
Scale: Hor. 1"=40', Vert. 1"=4'



PROFILE ALONG BRIDGE CONSTR. E
Scale: Vert. 1"=4'

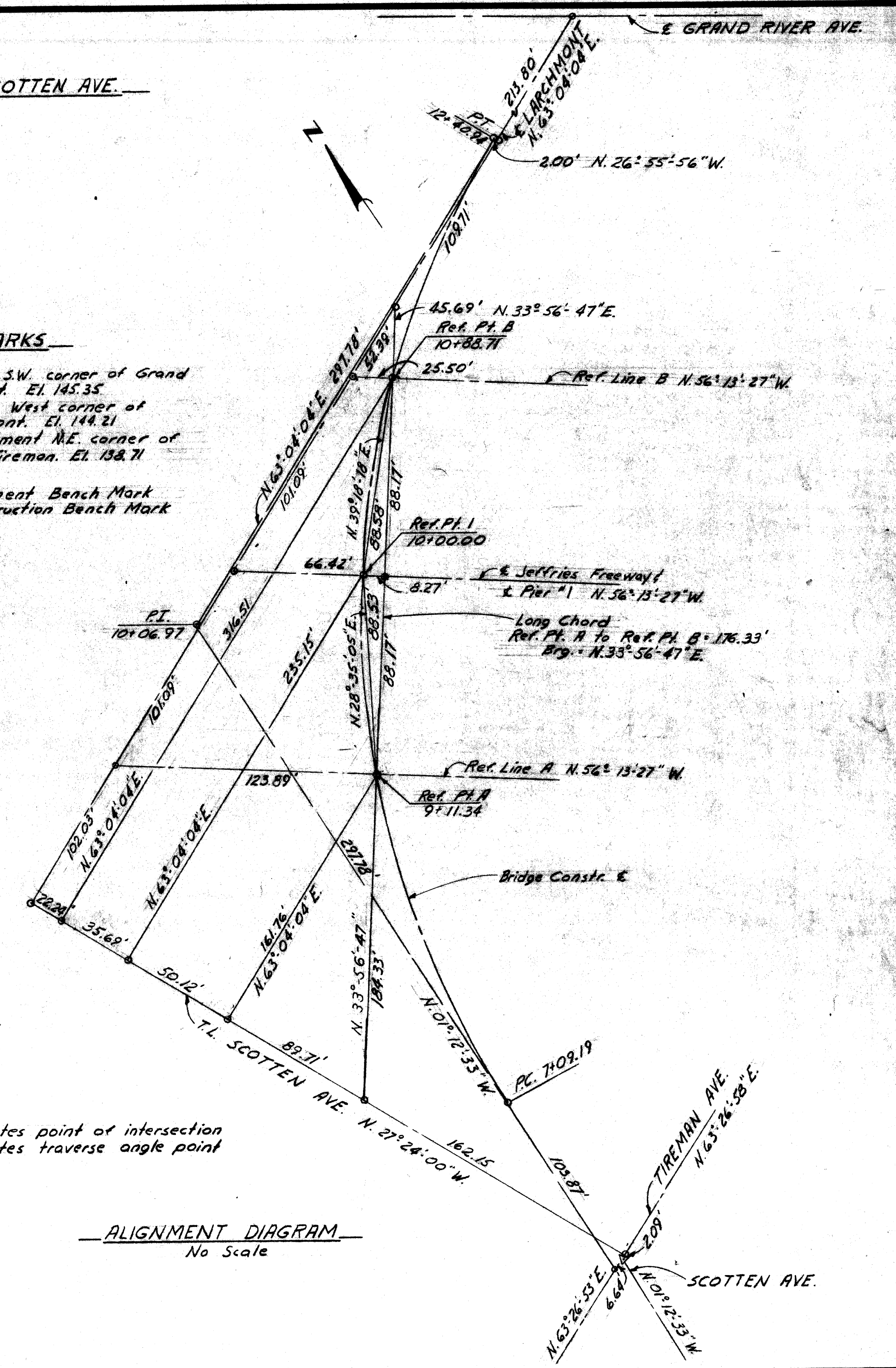


TRAFFIC COUNT
Estimated Traffic 1990

A.D.T. denotes Average Daily Traffic
D.H.V. denotes Design Hourly Volume

CURVE DATA FOR SCOTTEN AVE.
 $\Delta = 64^\circ 16' 37''$
 $D = 12^\circ 05' 16''$
 $R = 474.00'$
 $T = 297.78'$
 $L = 531.75'$
 $E = 85.78'$
 $PC = 7+09.19$
 $PI = 10+06.97$
 $PT = 12+40.94$

BENCH MARKS
 C.B.M. 81 Arrow on Hydrant S.W. corner of Grand River & Larchmont, El. 145.35
 C.B.M. 82 Arrow on Hydrant West corner of Scotten & Larchmont, El. 144.21
 P.B.M. 21-251 A C.O.D. Monument N.E. corner of Scotten & Treman, El. 138.71
 P.B.M. Denotes Permanent Bench Mark
 C.B.M. Denotes Construction Bench Mark



ALIGNMENT DIAGRAM
No Scale

o denotes point of intersection
 Δ denotes traverse angle point

PLANS PREPARED BY
 CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED: *[Signature]* JOB No. PW 990(3)
 STRUCTURAL ENGINEER

NO.	DESCRIPTION	DATE	BY

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

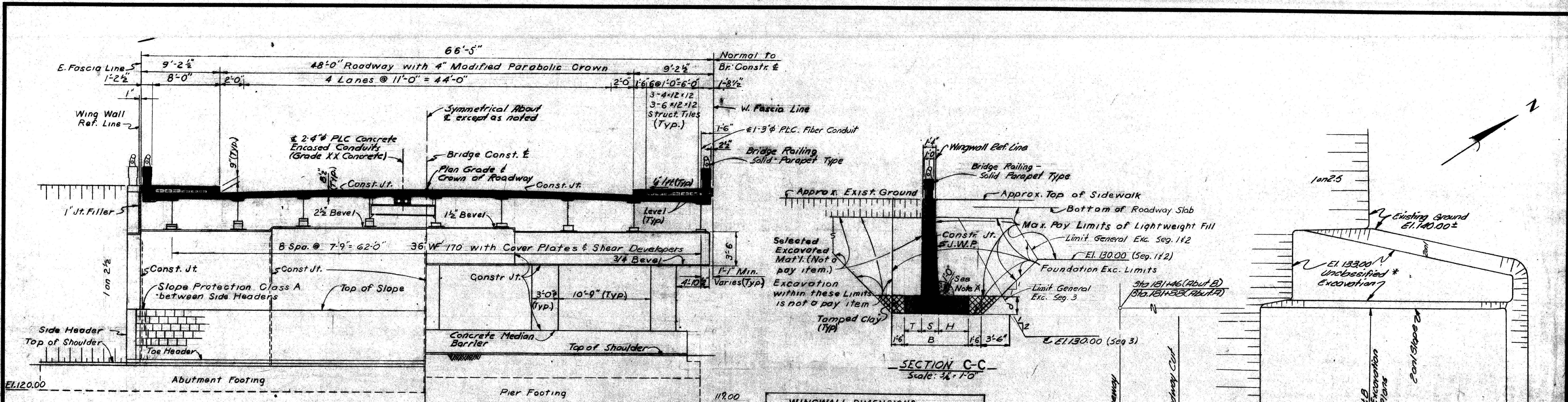
SCOTTEN AVE. CROSSING THE JEFFRIES FREEWAY IN DETROIT

GENERAL DRAWING

APPROVED: _____ DESIGN SUPERVISING ENGINEER
 APPROVED: _____ DESIGN ENGINEER

CITY OF DETROIT
 SQUAD BOSS: *R. James* 4-68
 DRAWN BY: *Garavaglia* 2-68
 CHECKED BY: *D.J.R.* 4-68
 SHEET 3 OF 22

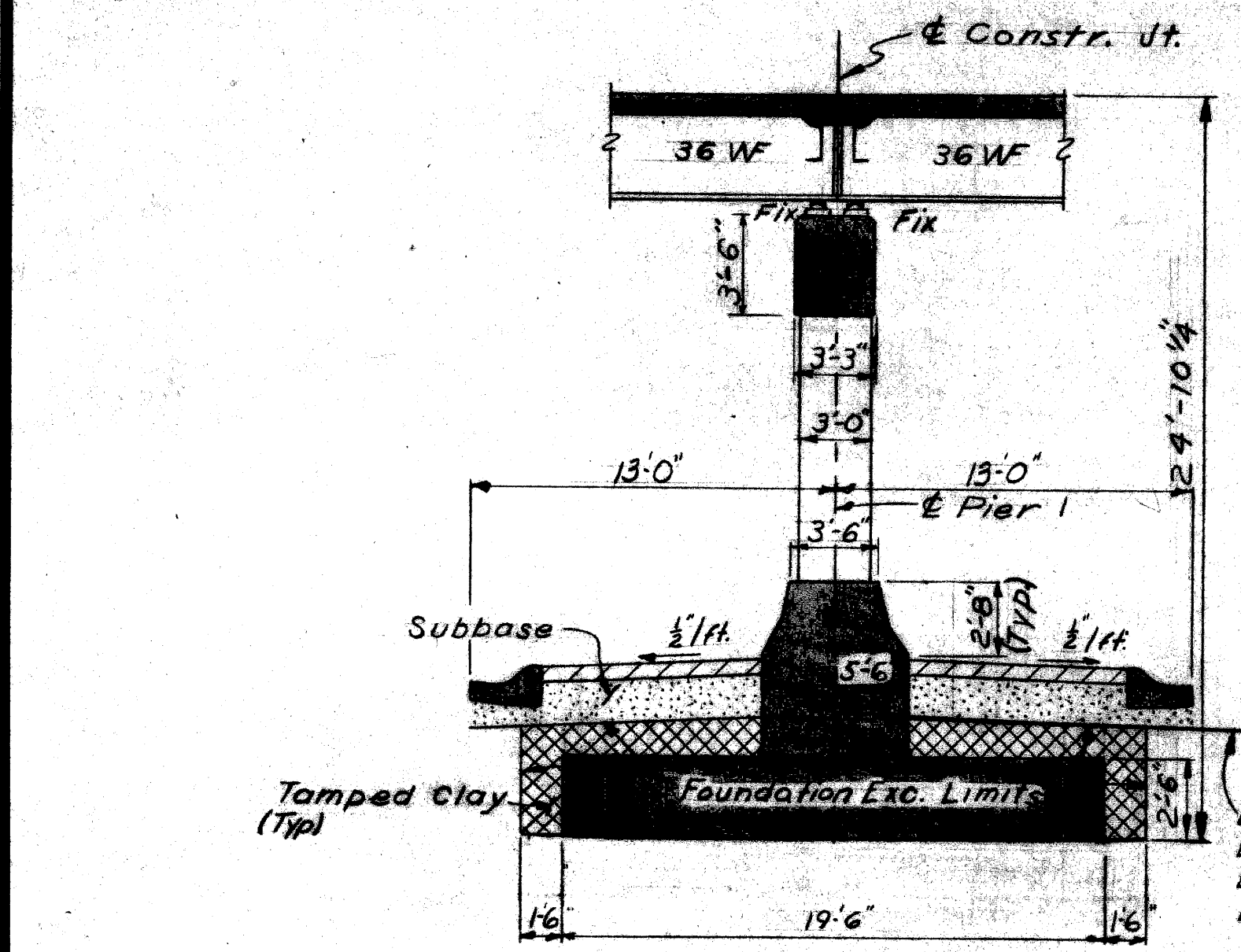
S50 of 82123J



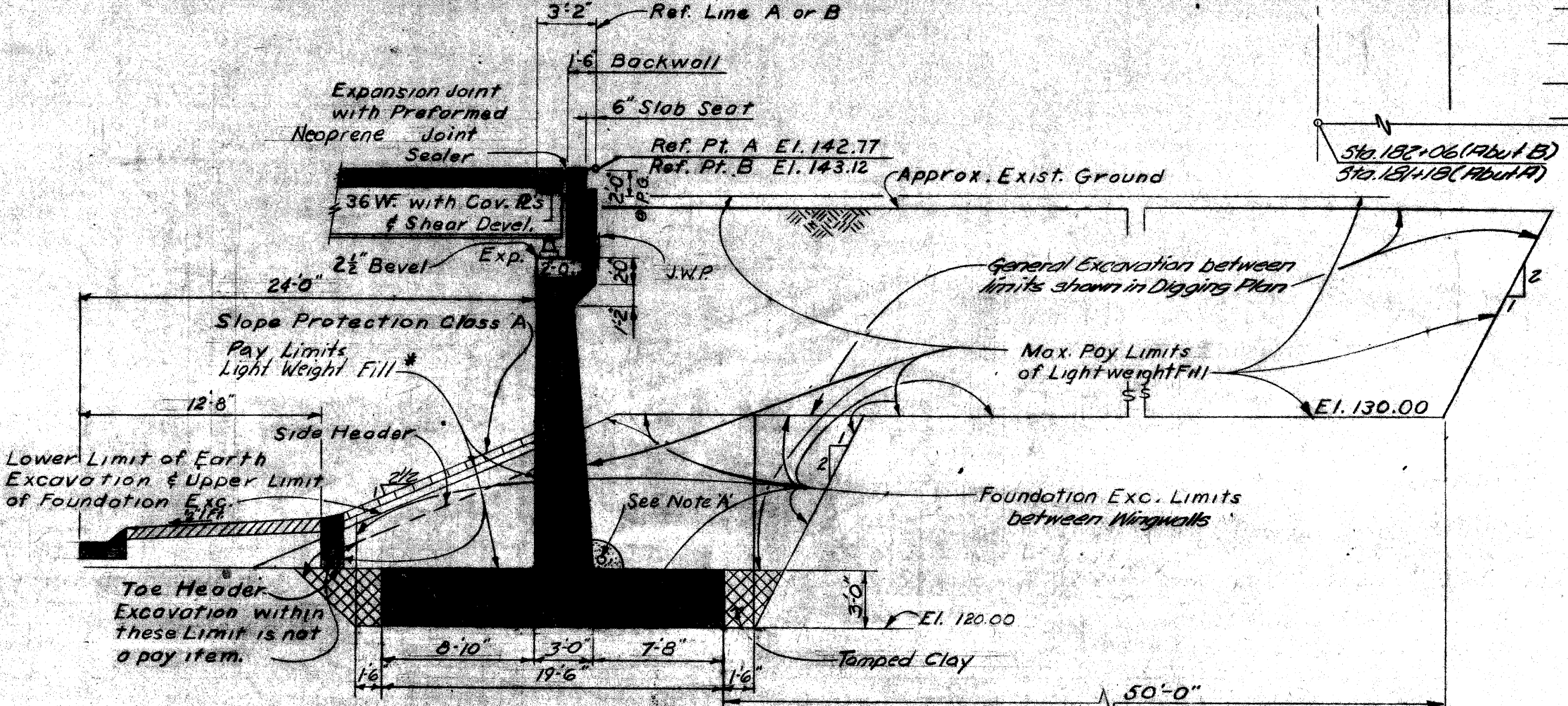
SECTION A-A
Scale: 3/8" = 1'-0"

WINGWALL DIMENSIONS

Segment	T	S	H	B	d
1	7'-9"	2'-9"	7'-0"	17'-6"	3'-0"
2	3'-3"	2'-0"	4'-3"	9'-6"	2'-6"
3	2'-6"	1'-8"	2'-10"	7'-0"	2'-0"



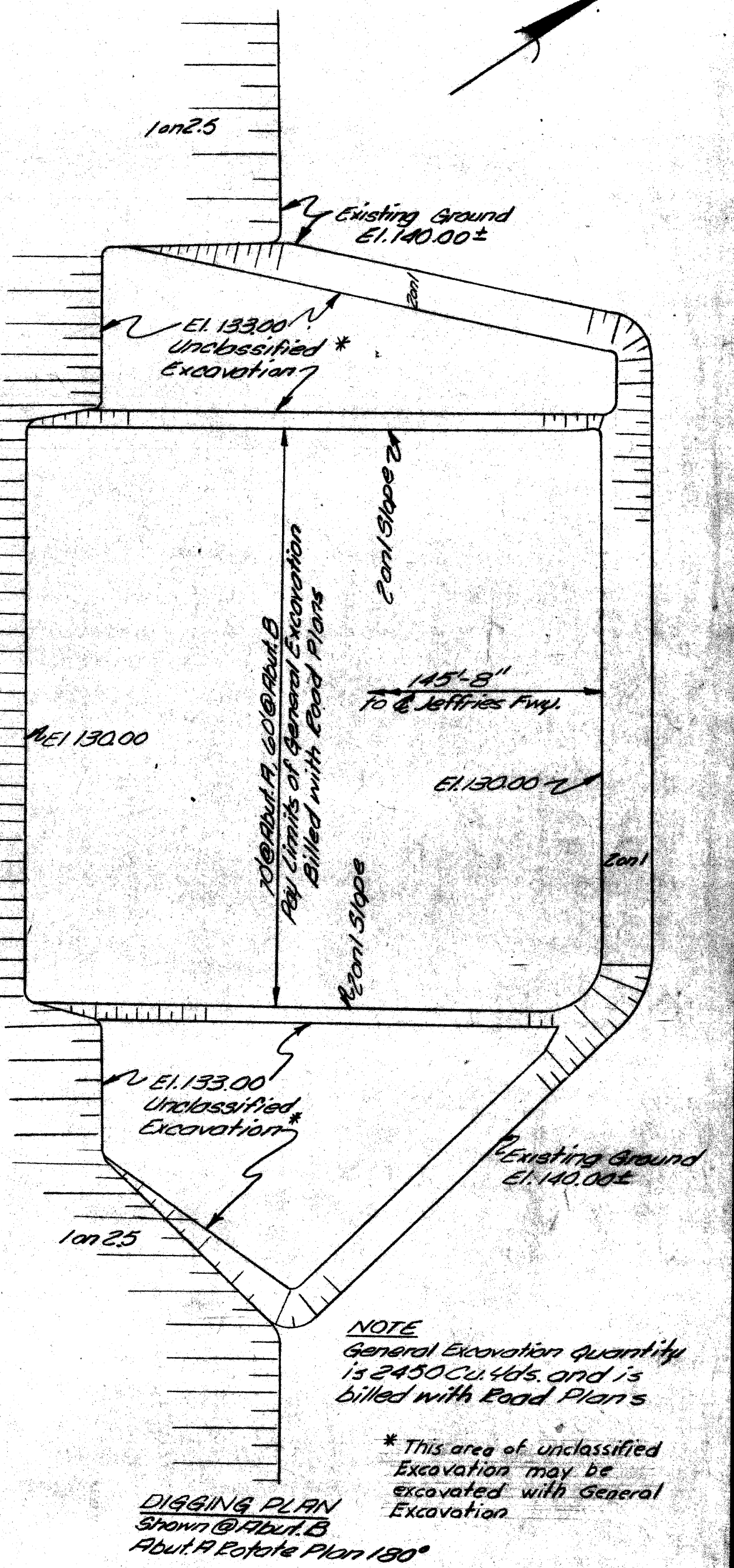
SECTION B-B
Scale: 3/8" = 1'-0"



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

*Longitudinal Pay Limits for Light Weight Fill are the Side Headers

NOTE A
Foundation Drain with Granular Material - Class I Incidental Found. Drain



NOTE
General Excavation Quantity is 2450 Cu. Yds. and is billed with Road Plans

DIGGING PLAN
Shown @ Abut. B
Abut. A Refer to Plan 150

PLANS PREPARED BY
CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEERS OFFICE
BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED: [Signature] STRUCTURAL ENGINEER
JOB No. PW 990(3)

REVISIONS

NO.	DESCRIPTION	DATE	BY

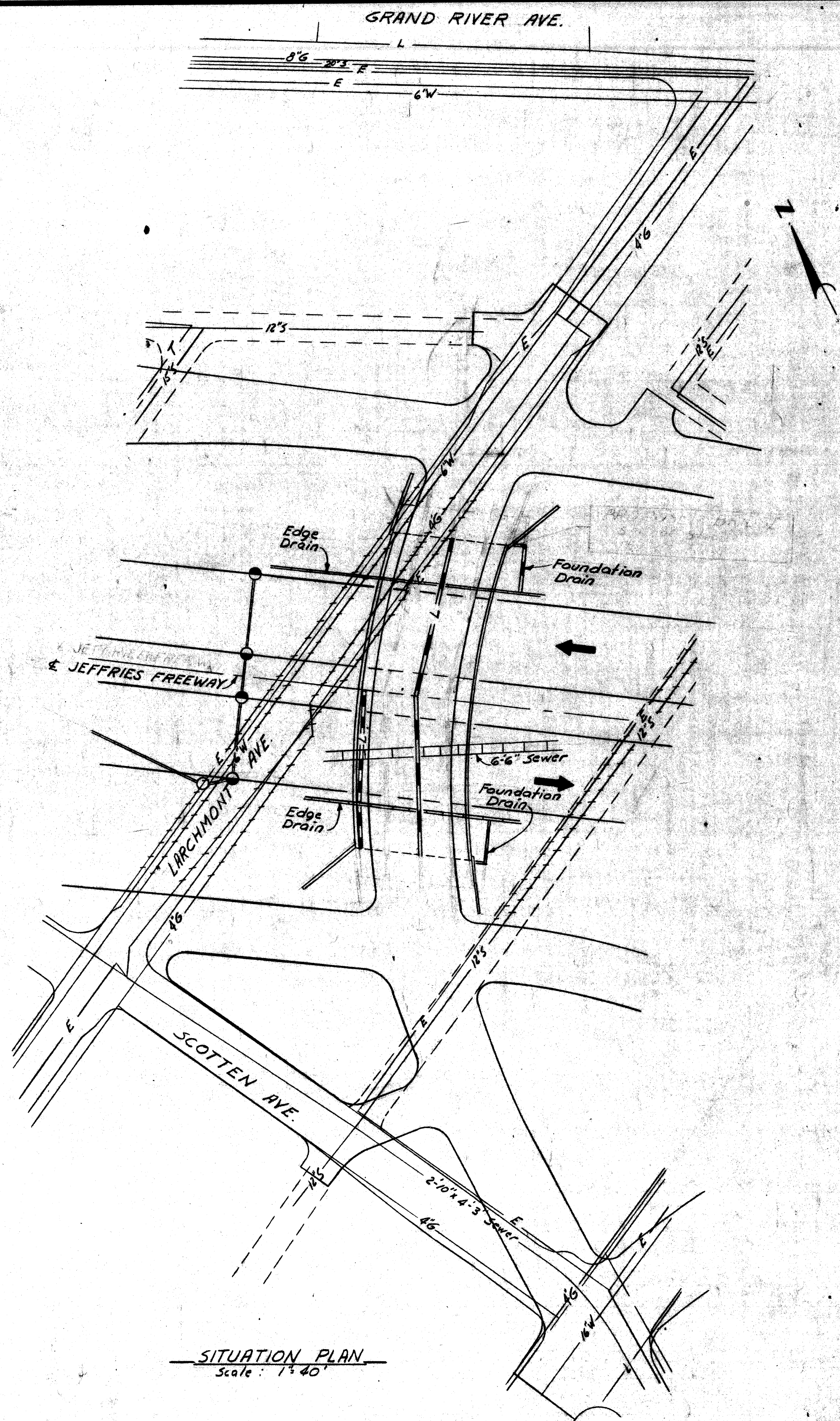
MICHIGAN DEPARTMENT OF STATE HIGHWAYS

SCOTTEN AVE. CROSSING
THE JEFFRIES FREEWAY IN DETROIT
GENERAL PLAN OF STRUCTURE

APPROVED: [Signature] DESIGN SUPERVISING ENGINEER

CITY OF DETROIT
SQUAD BOSS: [Signature] 4-68
DRAWN BY: SPURGEON 3-68
CHECKED BY: DJR 4-68
SHEET 5 OF 22

DESIGN ENGINEER: 550 of 82123J



SITUATION PLAN
Scale: 1" = 40'

LEGEND

UTILITY	Existing	Deleted or Abandoned	New Work by Others	New Work by Contractor
Michigan Consolidated Gas Co.	— G —	--- G ---		— G —
Water	— W —	--- W ---		— W —
Sewers	— S —	--- S ---	— S —	— S —
Michigan Bell Telephone Co.	— T —	--- T ---		— T —
Public Lighting Commission	— L —	--- L ---		— L —
Detroit Edison Co.	— E —	--- E ---		— E —

NOTE:
 Bridge construction and utility alterations are included in package contract for control section 82123 J.
 The contractor shall locate all active underground utilities prior to starting work, and shall conduct his operations in such a manner as to insure that those utilities not requiring relocation will not be disturbed.

PLANS PREPARED BY
 CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED: *[Signature]*
 STRUCTURAL ENGINEER

JOB NO.
 PW 990(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

SCOTTEN AVE. CROSSING THE JEFFRIES FREEWAY IN DETROIT

EXISTING UTILITIES AND PROPOSED ALTERATIONS

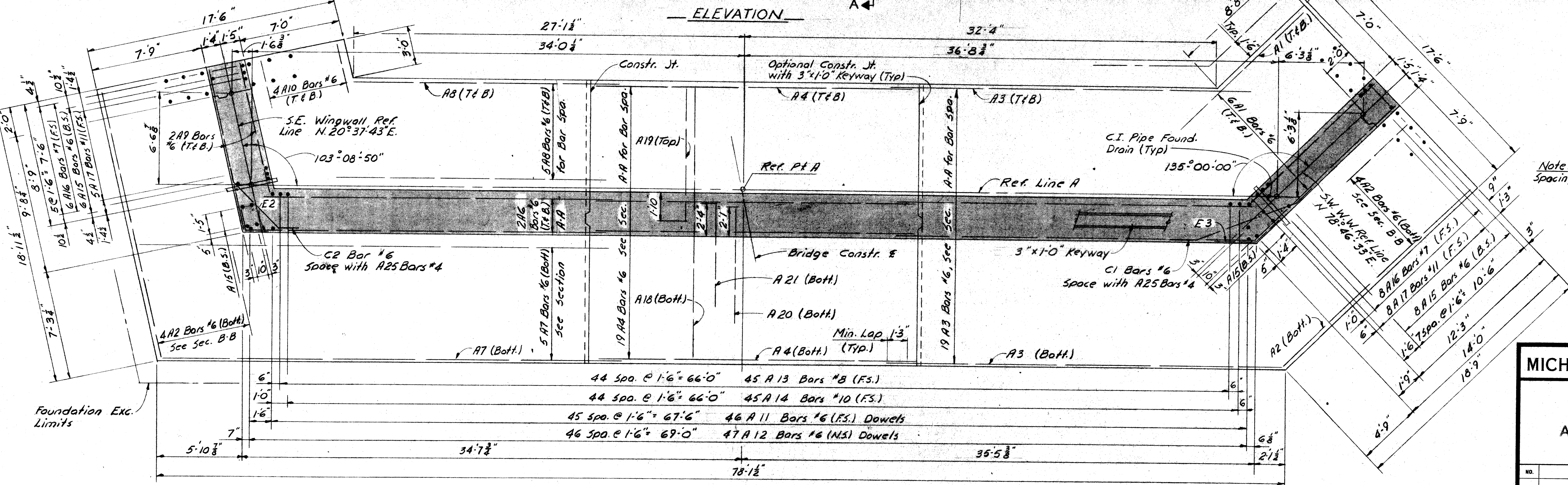
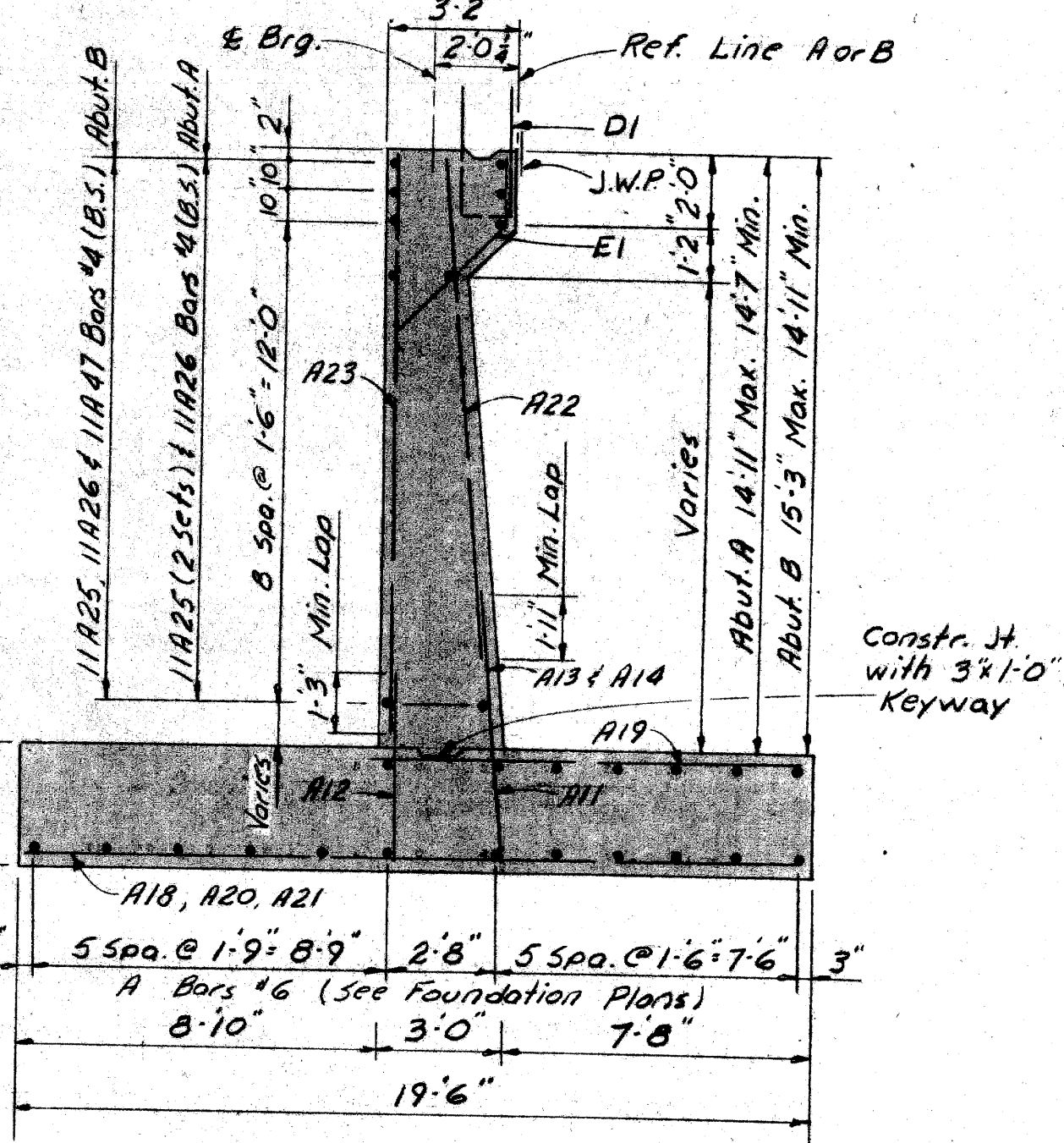
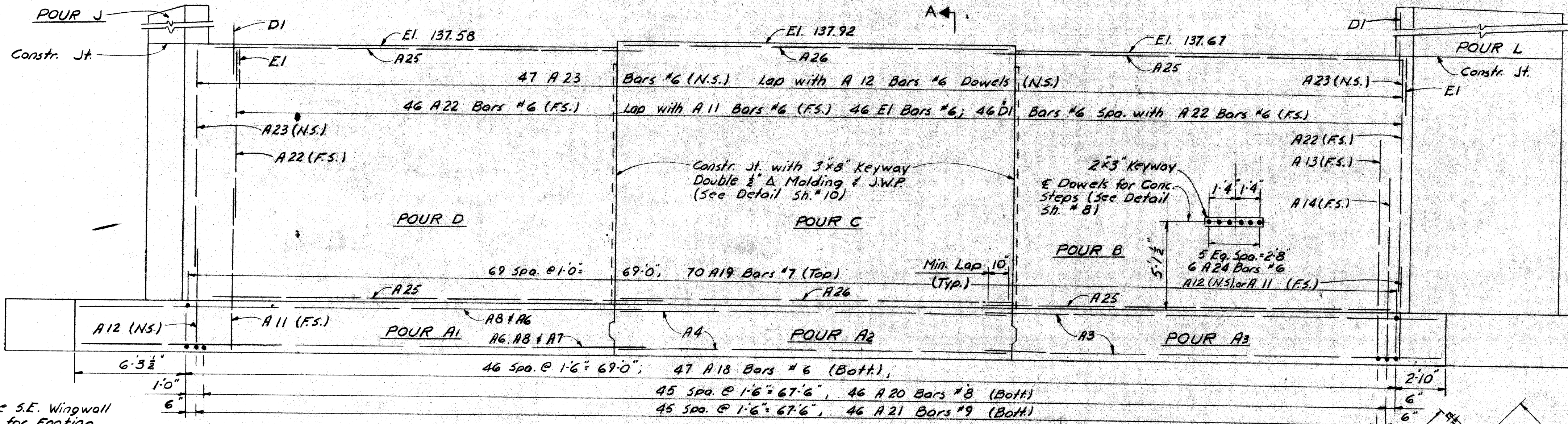
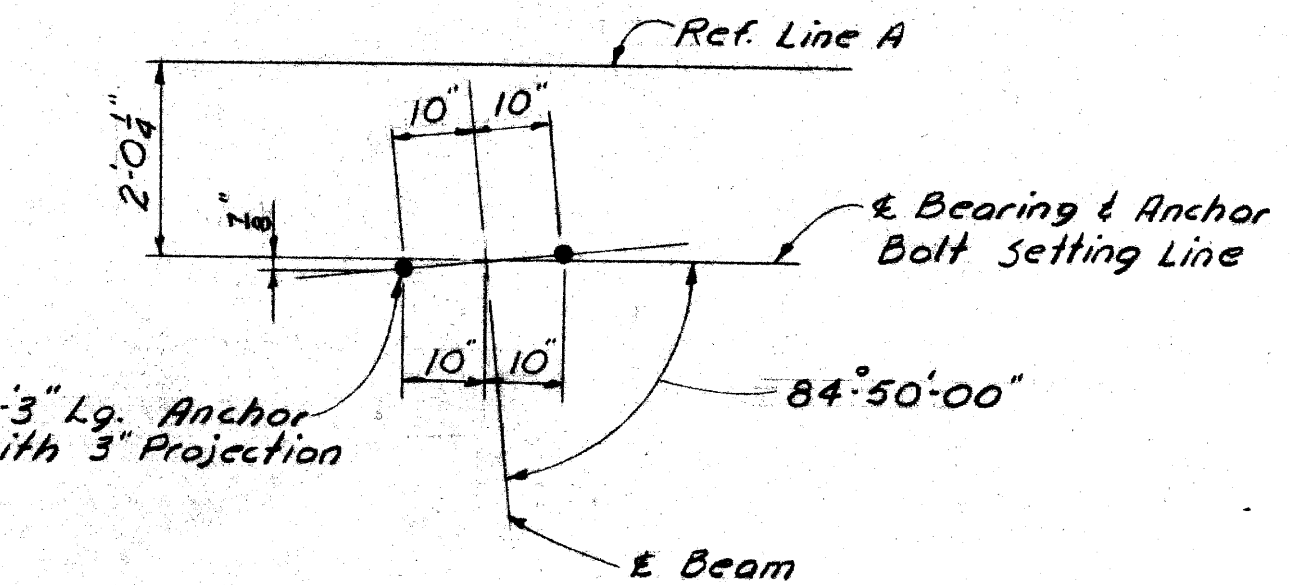
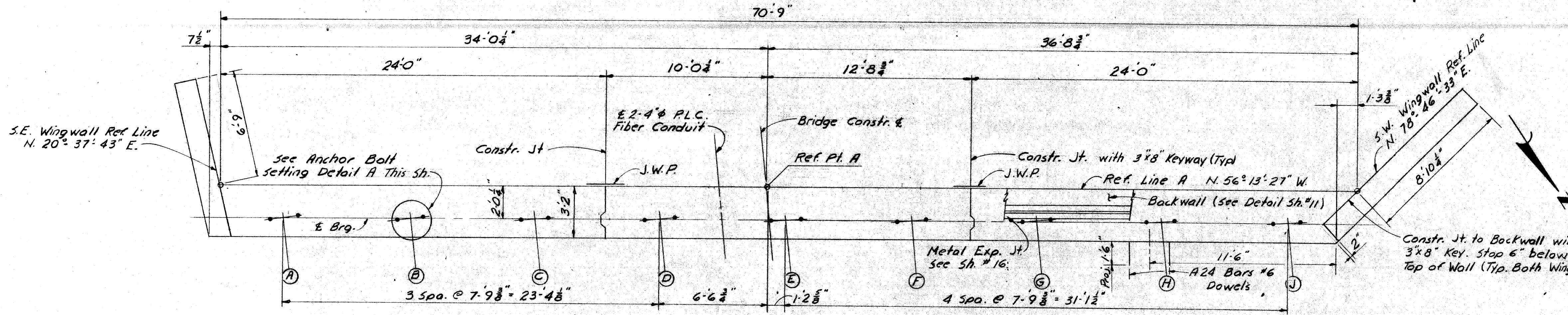
REVISIONS

NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT

SQUAD BOSS	<i>E. James</i>	1-68
DRAWN BY	<i>Geravaglia</i>	3-68
CHECKED BY	<i>D.J.R.</i>	2-68
SHEET	6	OF 22

S50 of 82123 J



Note: See S.E. Wingwall Elevation for Footing Reinforcement.

Note: See S.W. Wingwall Elevation for Footing Reinforcement.

Note: For Dowel Spacing See Sh.# 9

PLANS PREPARED BY
 CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED: *[Signature]*
 STRUCTURAL ENGINEER

JOB NO.
 PW 990(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

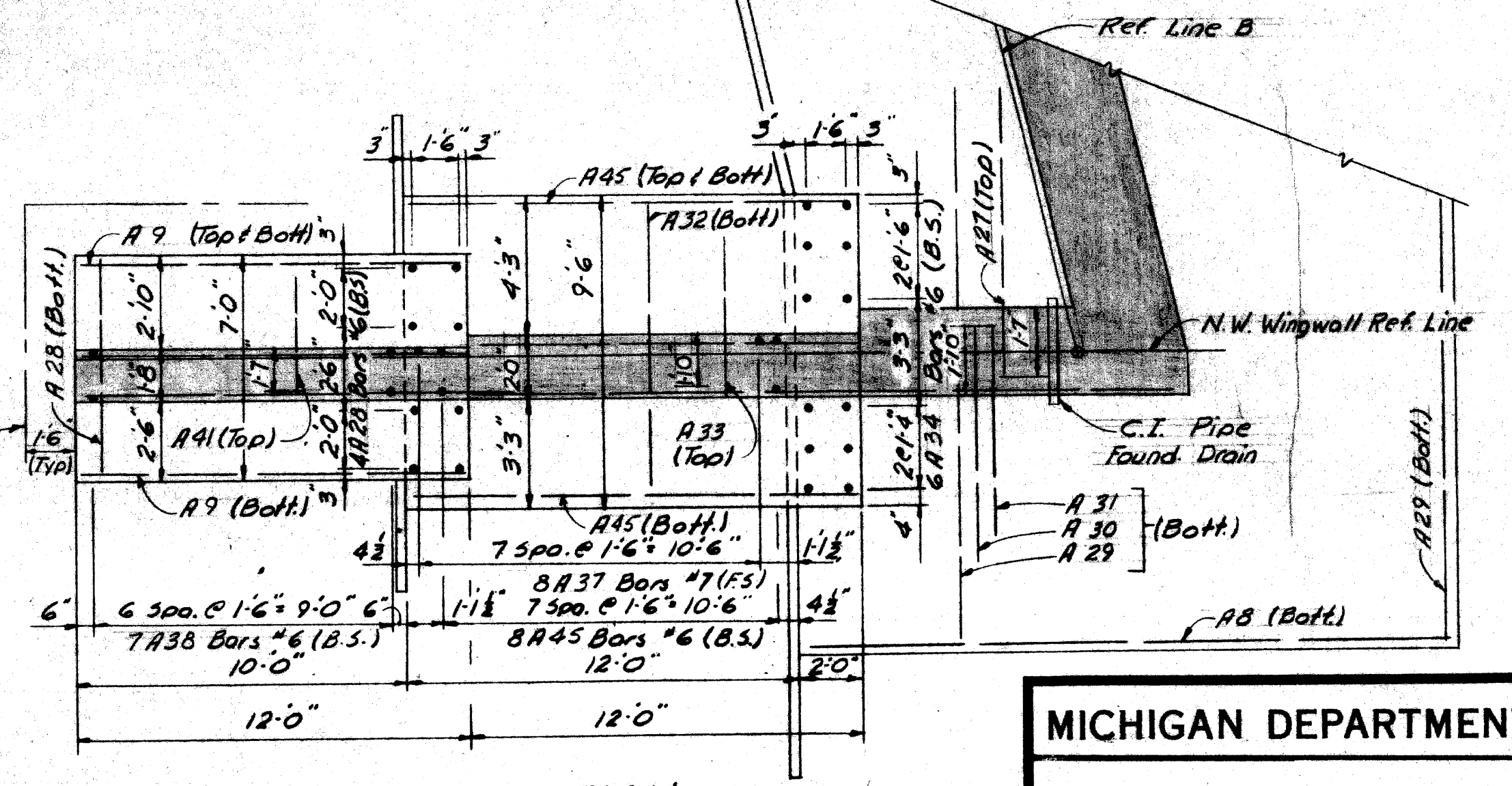
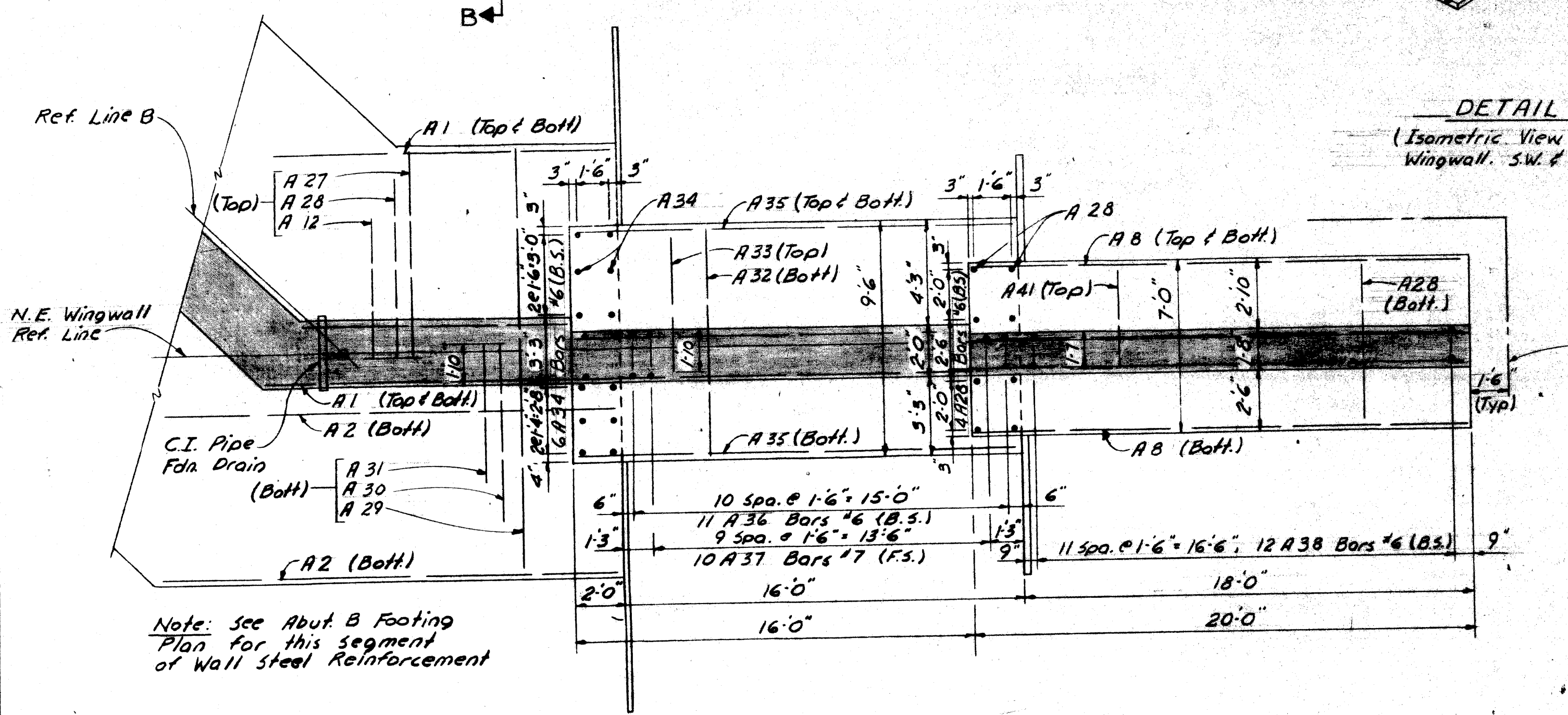
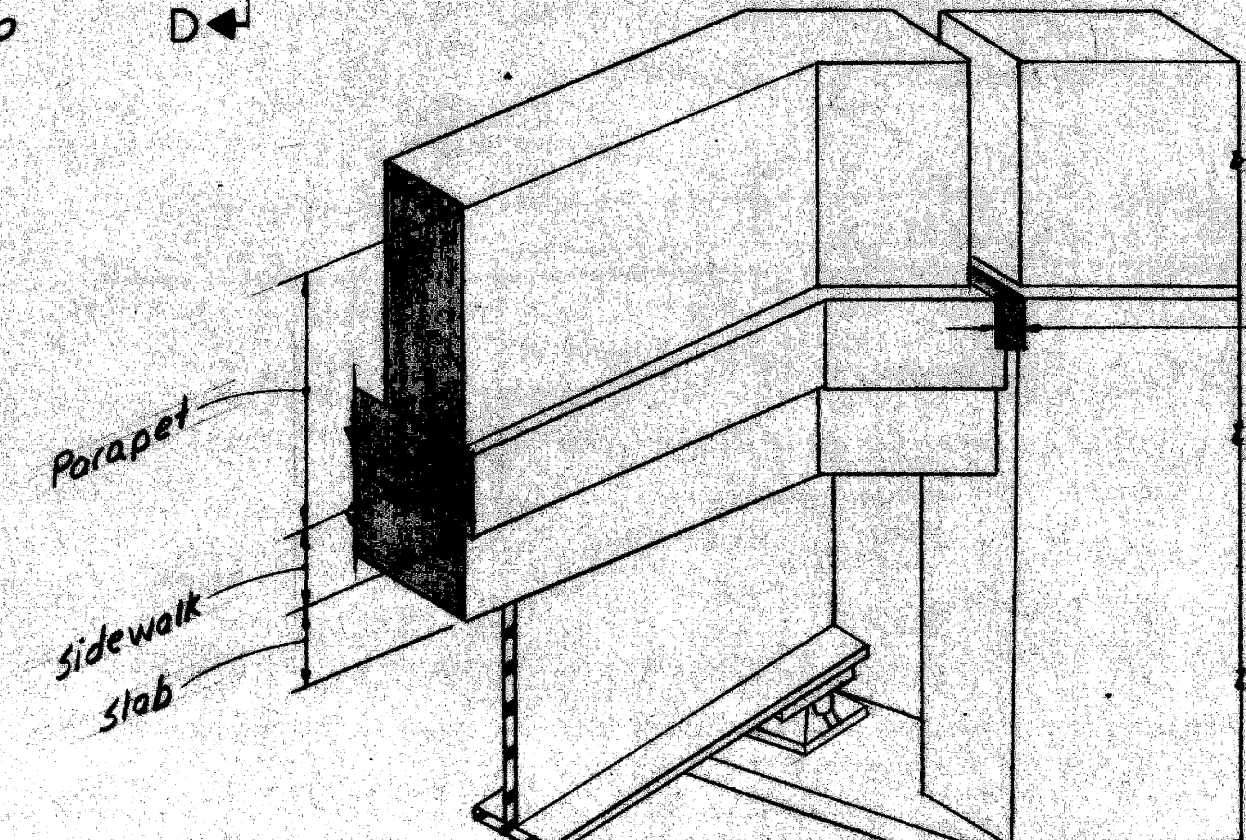
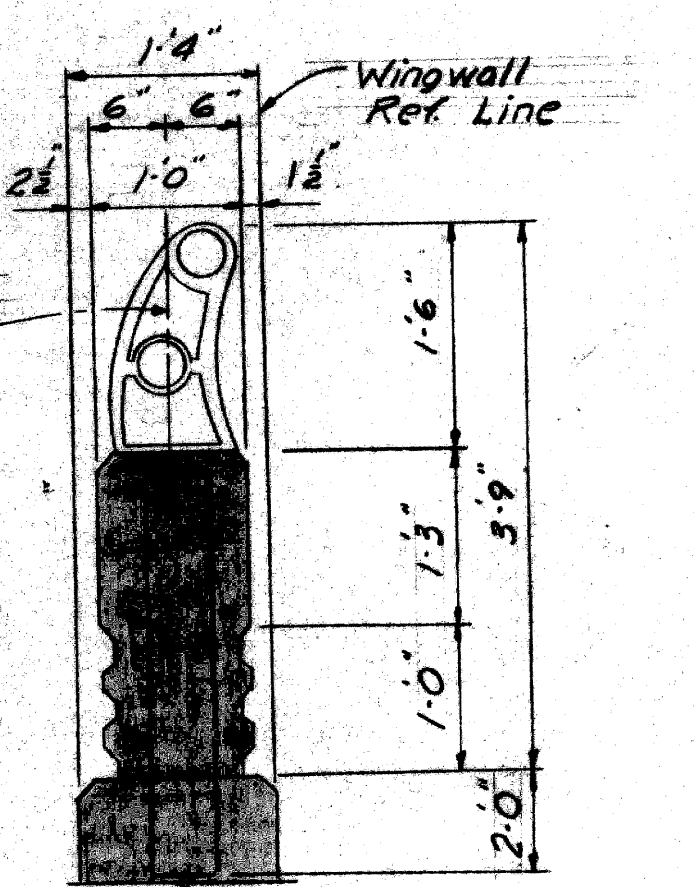
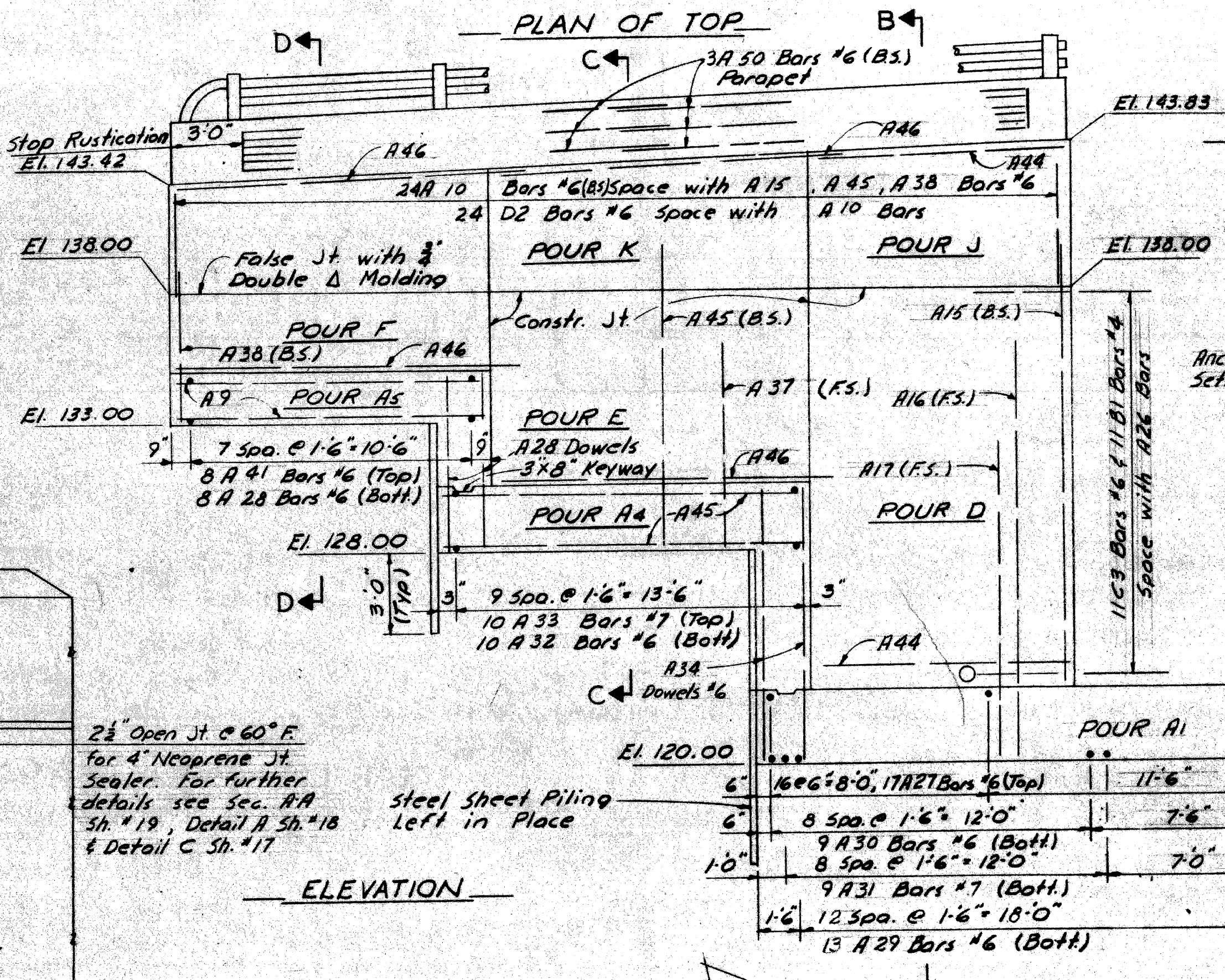
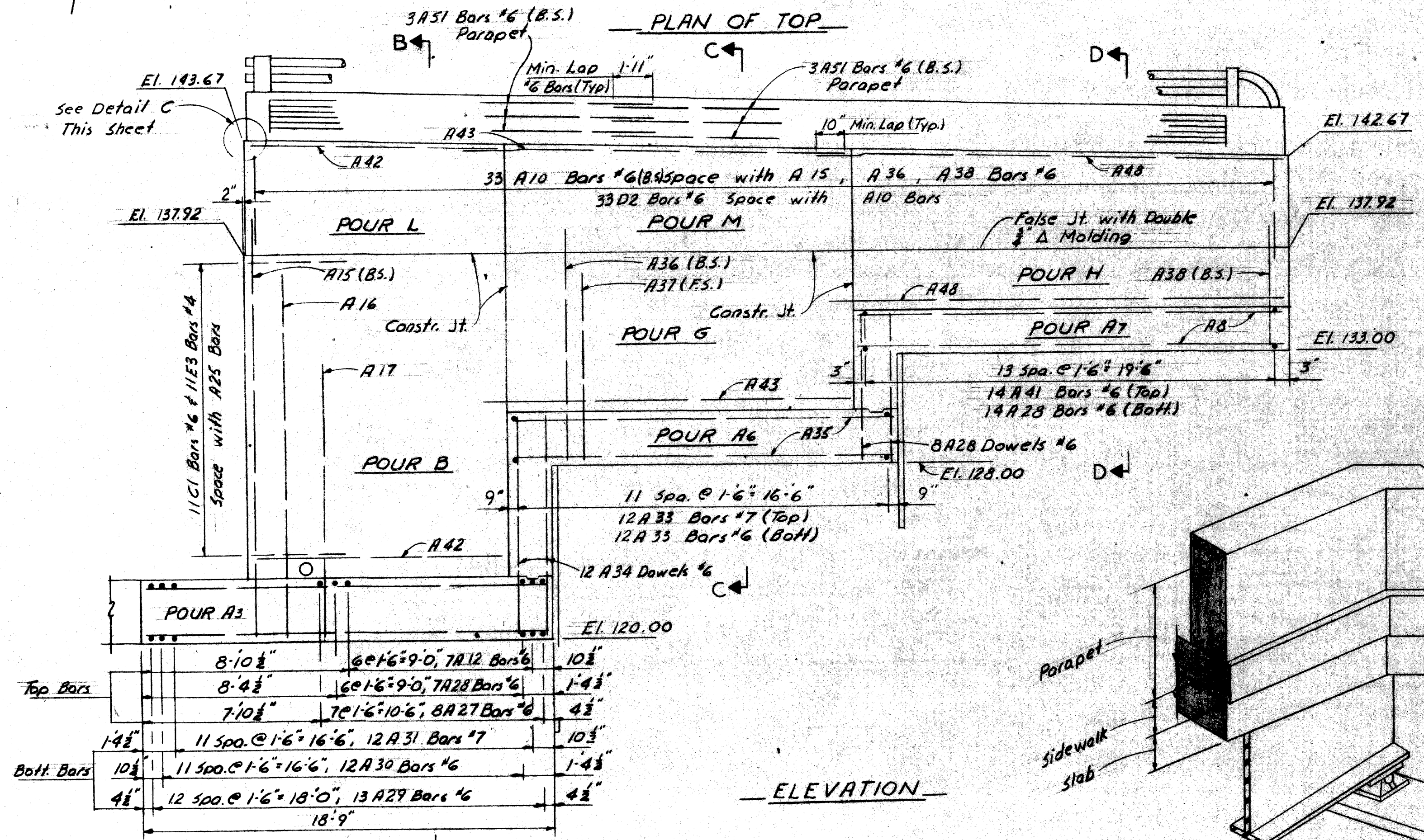
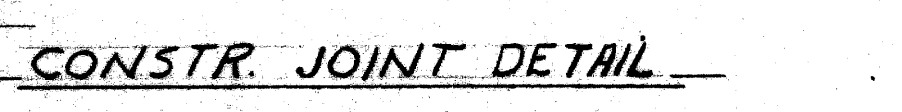
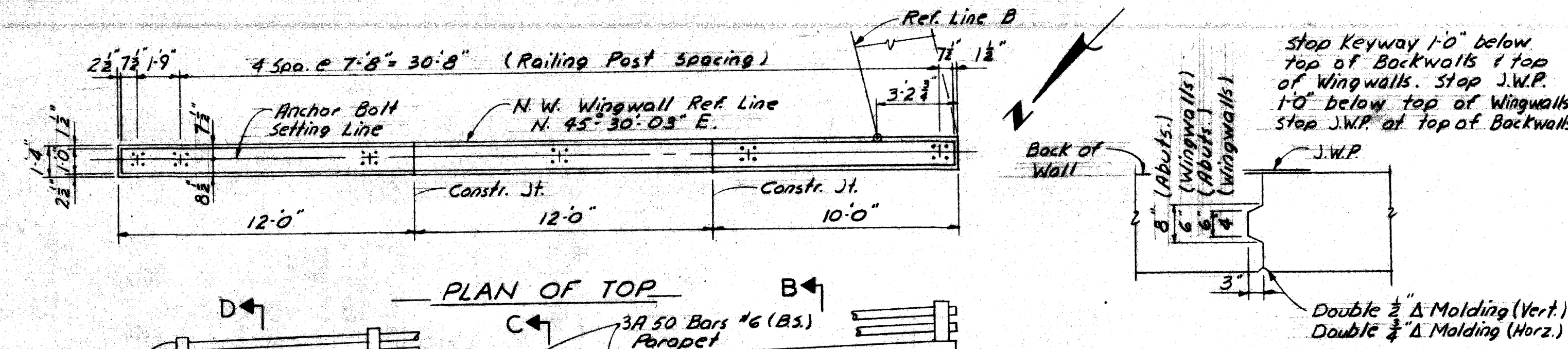
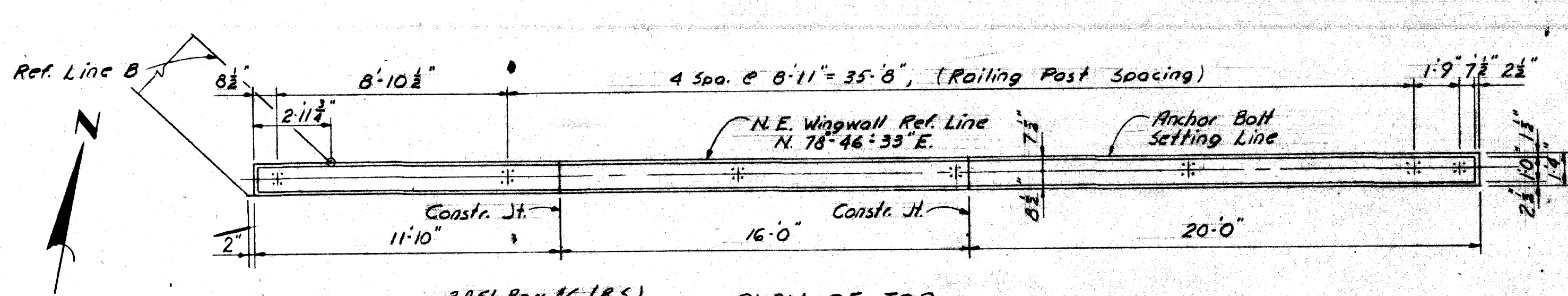
ABUTMENT DETAILS

REVISIONS			
NO.	DESCRIPTION	DATE	BY

DESIGNED BY	Locher	2-69
DRAWN BY	Coanaga	2-69
CHECKED BY	D.J.R.	3-69
SHEET	7	OF 22

550 of 821231

Work This Sheet with Sheets 8 thru 11



Note: See Abut. B Footing Plan for this segment of Wall Steel Reinforcement

FOUNDATION PLAN

FOUNDATION PLAN

PLANS PREPARED BY
CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ABUTMENT DETAILS

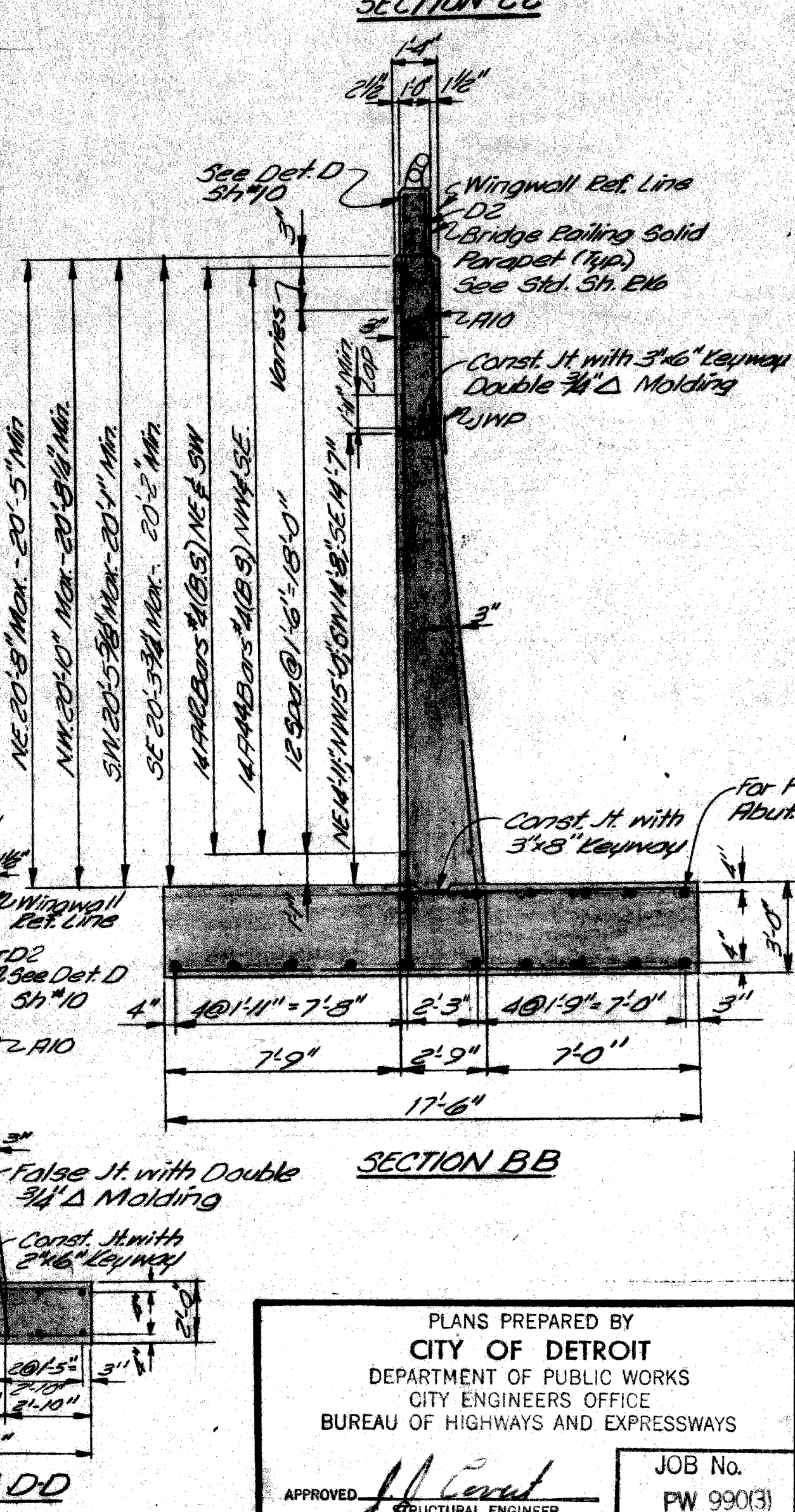
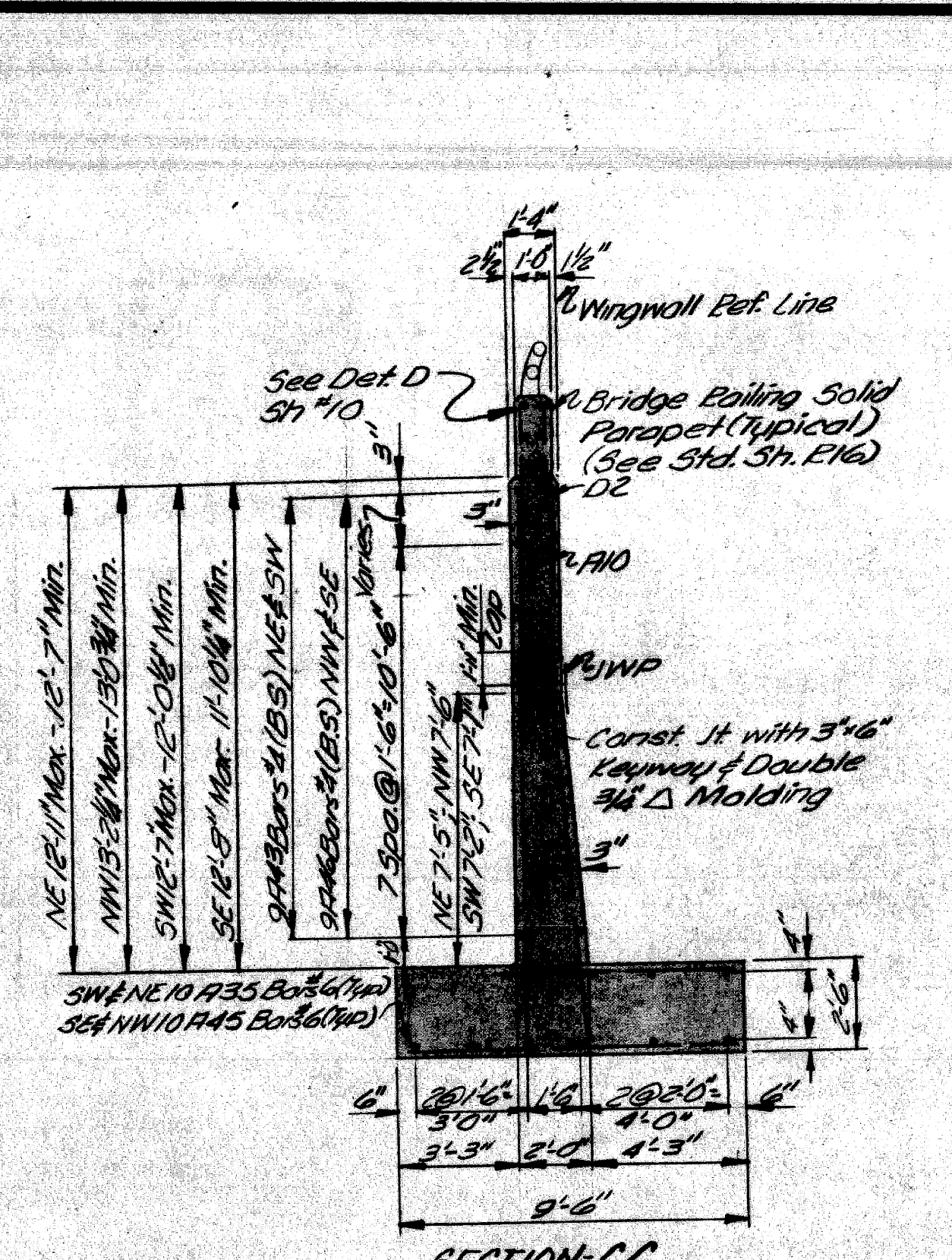
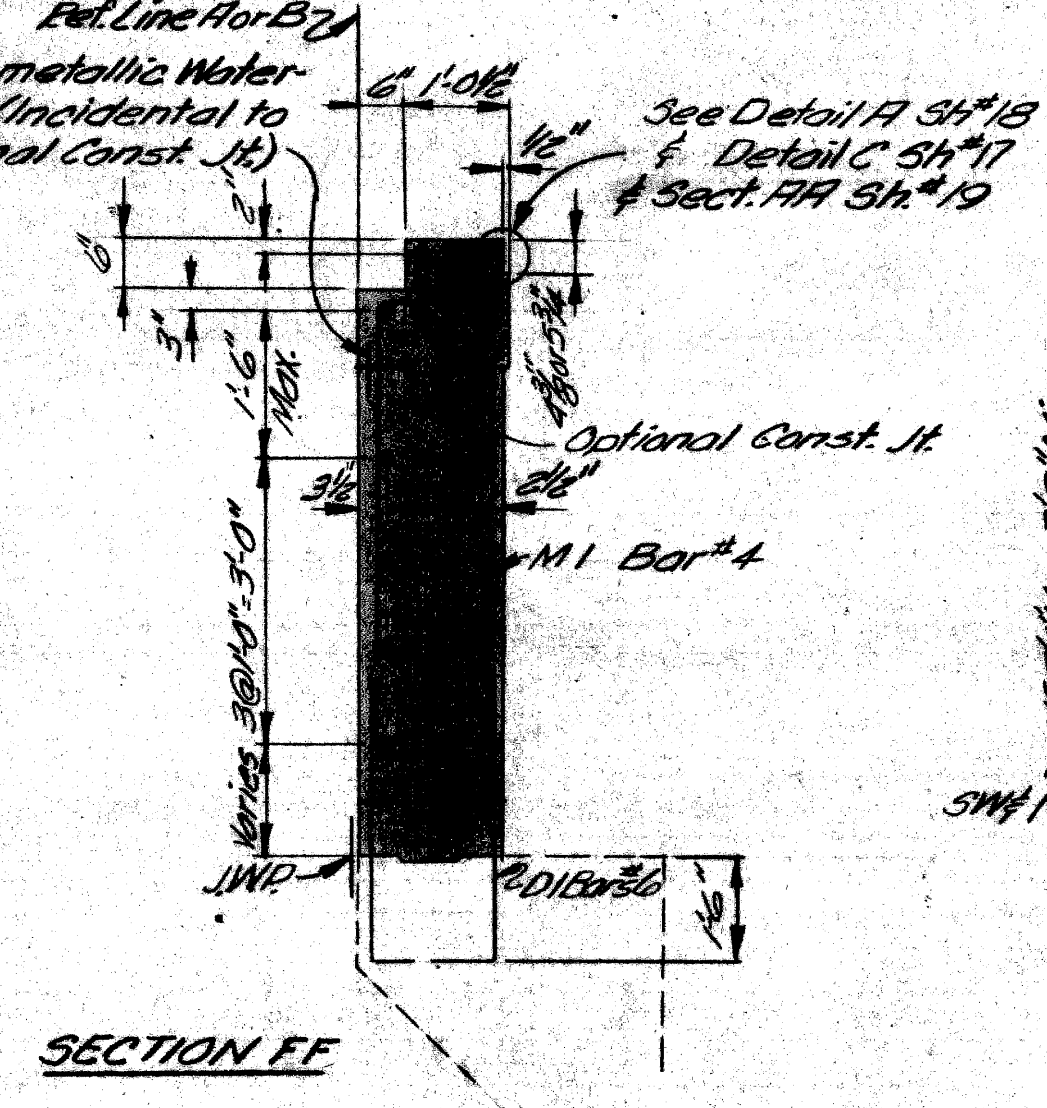
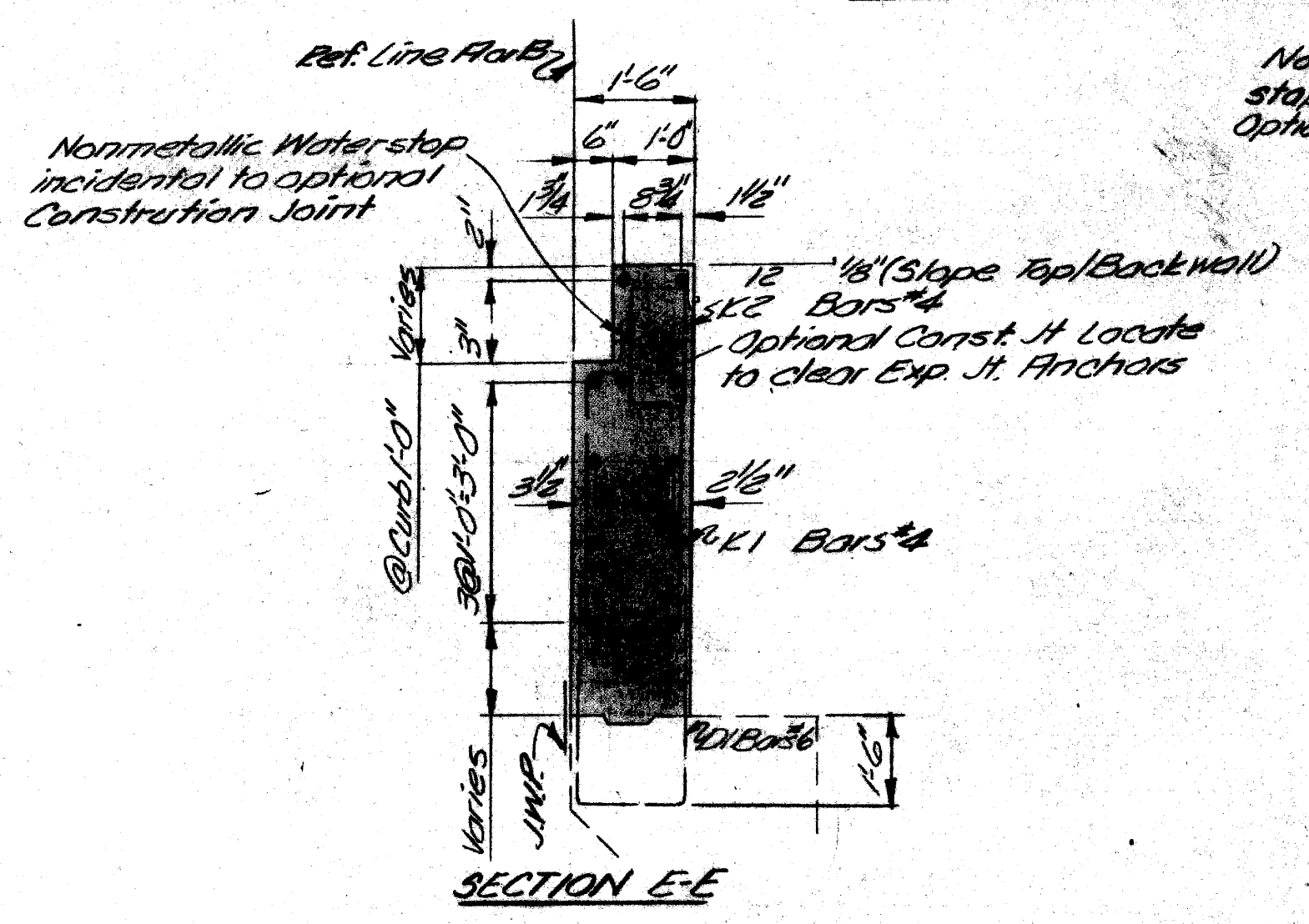
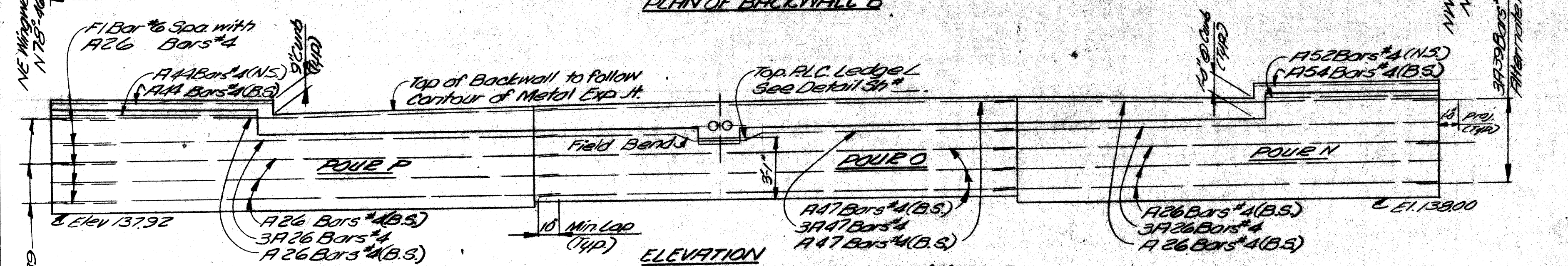
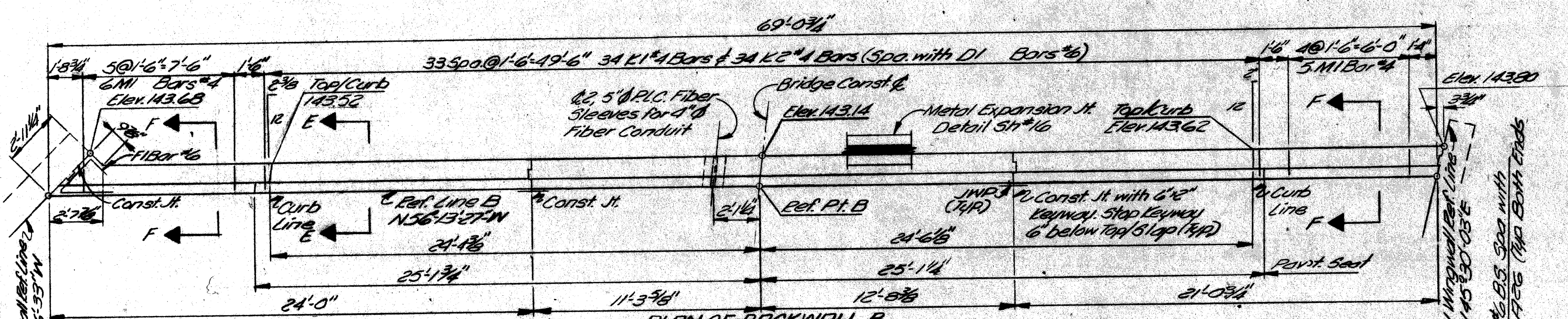
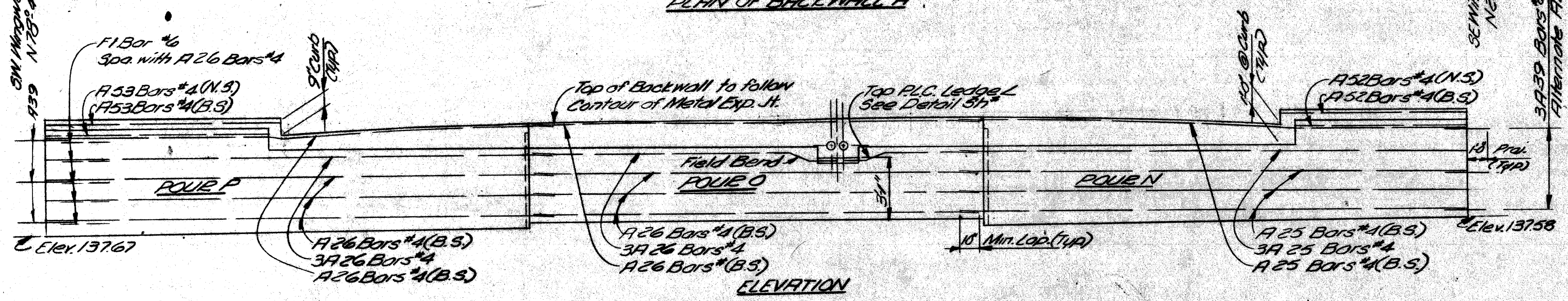
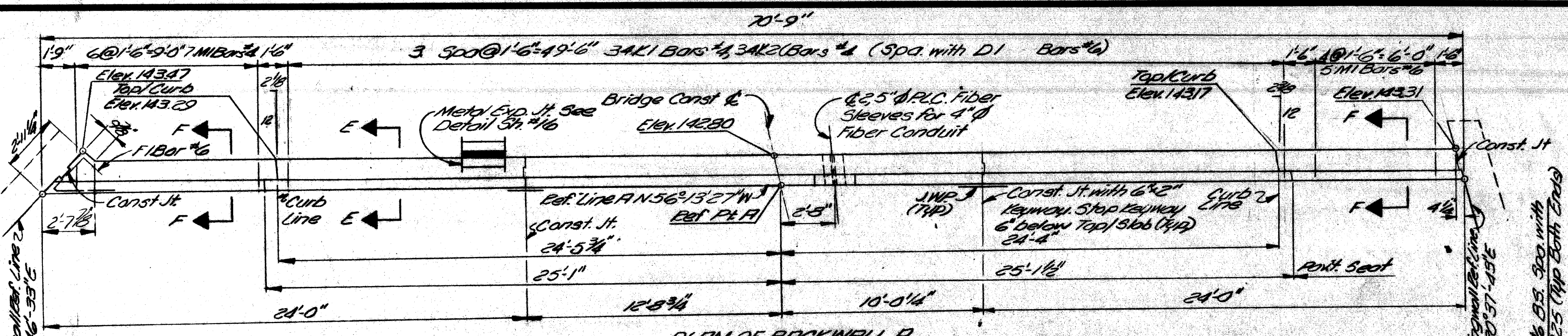
REVISIONS			
NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT		
SQUAD BOSS	Locher	2-69
DRAWN BY	Gunn	2-69
CHECKED BY	D.J.R.	3-69
SHEET	10	OF 22

S50 of 82123J

JOB No.
 PW 990(3)

APPROVED: *[Signature]*



CONCRETE QUANTITIES				
Pour Location	Abutment A		Abutment B	
	Gr. A (GA)	Gr. A (GAA)	Gr. A (GB)	Gr. A (GAB)
A1 Abut. Fig.	72.8		68.9	
A2 "	49.3		52.0	
A3 "	74.8		74.8	
A4 Wingwall Fig.	15.8		15.8	
A5 "	7.5		7.5	
A6 "	19.4		19.4	
A7 "	9.6		11.7	
B Abut. Wall		43.7		44.4
C "		32.6		35.2
D "		42.5		40.6
E Wingwalls		5.2		5.6
F "		4.9		5.2
G "		7.1		7.9
H "		6.0		8.1
J "		2.7		2.8
K "		3.3		3.3
L "		3.3		3.3
M "		4.1		4.2
N Backwall		6.8		6.0
O "		5.8		5.9
P "		6.7		6.7
Total	249.2	174.5	248.1	178.6

MISCELLANEOUS QUANTITIES				
Item	Unit	Abut. A	Abut. B	Total
Lightweight Fill	Cu. Yds.	2610	2280	4890
Unclassified Excavation	Cu. Yds.	1060	990	2050
Steel Sheet Piling L.I.P.	Sq. Ft.	795	795	1590
Low Temp. Protect. Substr. Conc.	Cu. Yds.	424	427	851
1" Joint Filler	Sq. Ft.	4	4	8
Joint Waterproofing	Sq. Ft.	363	365	728
Bridge Railing Solid Parapet Type	Lin. Ft.	77.1	81.3	158.4
Foundation Drain	Lin. Ft.	162	164	326
Concrete Steps	Each	1	1	2

Parapet Conc. 13.2 Cu. Yds. Incidental to Bridge Railing - Solid Parapet Type and not a pay item

GENERAL NOTES
 JWP denotes Joint Waterproofing
 NS, FS, and BS denotes Near-Side, Far Side and Both Sides respectively.
 For Bevel, Molding and Railing Details see Standard Sh. E16
 Anchor Bolts shall be set accurately to a template.
 Steel Sheet Piling (L.I.P.) shall be driven to its final penetration before adjacent concrete is poured. If it is necessary to lower top of the sheathing after the concrete has been poured, the excess shall be removed by cutting.
 Max. Average foundation pressure D.L. only - 2150 psf
 Max. Foundation pressure D.L. and LL - 2600 psf
 Backwall not to be poured until beams are erected

Work This Street with Sheets 7 thru 10

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ABUTMENT DETAILS

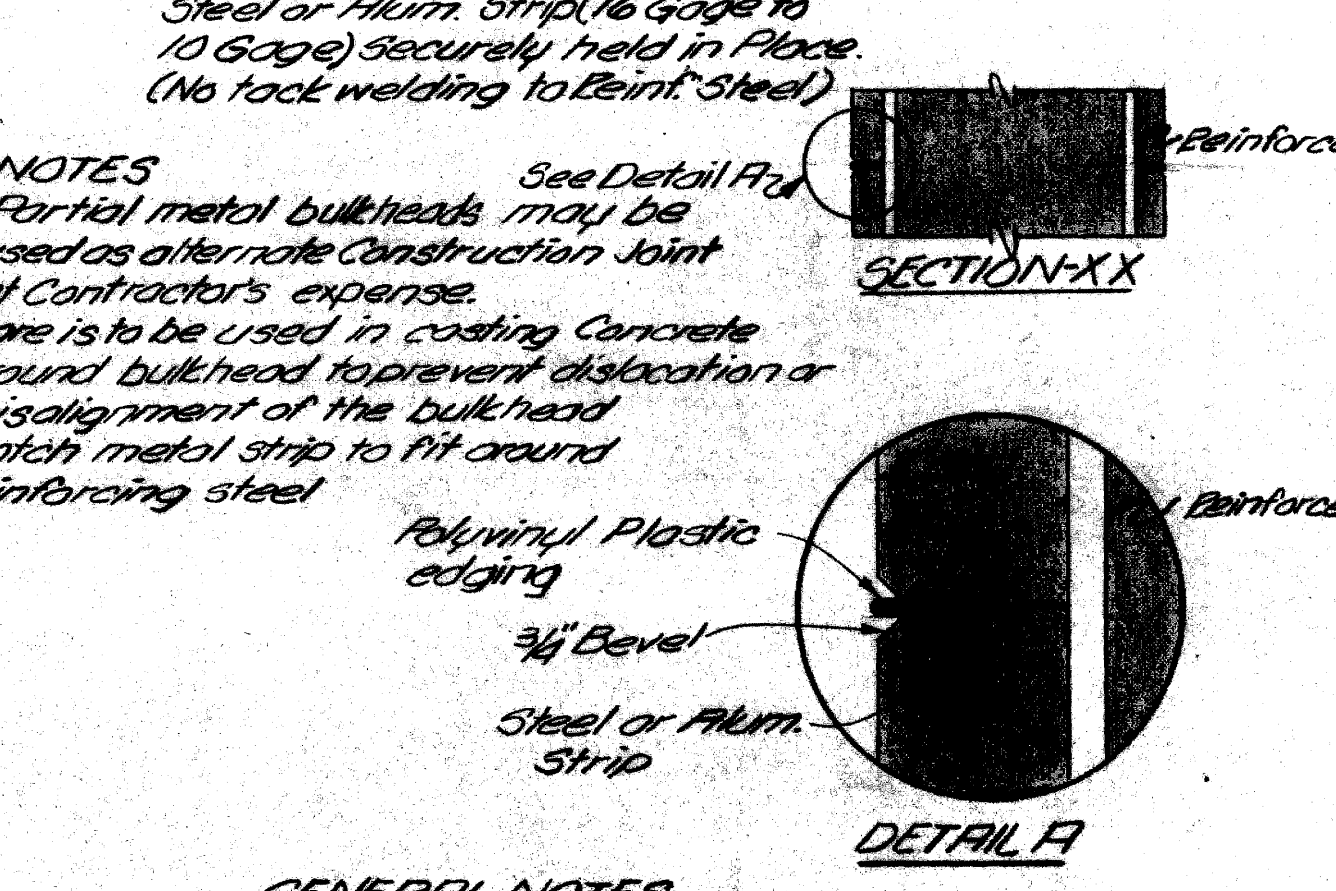
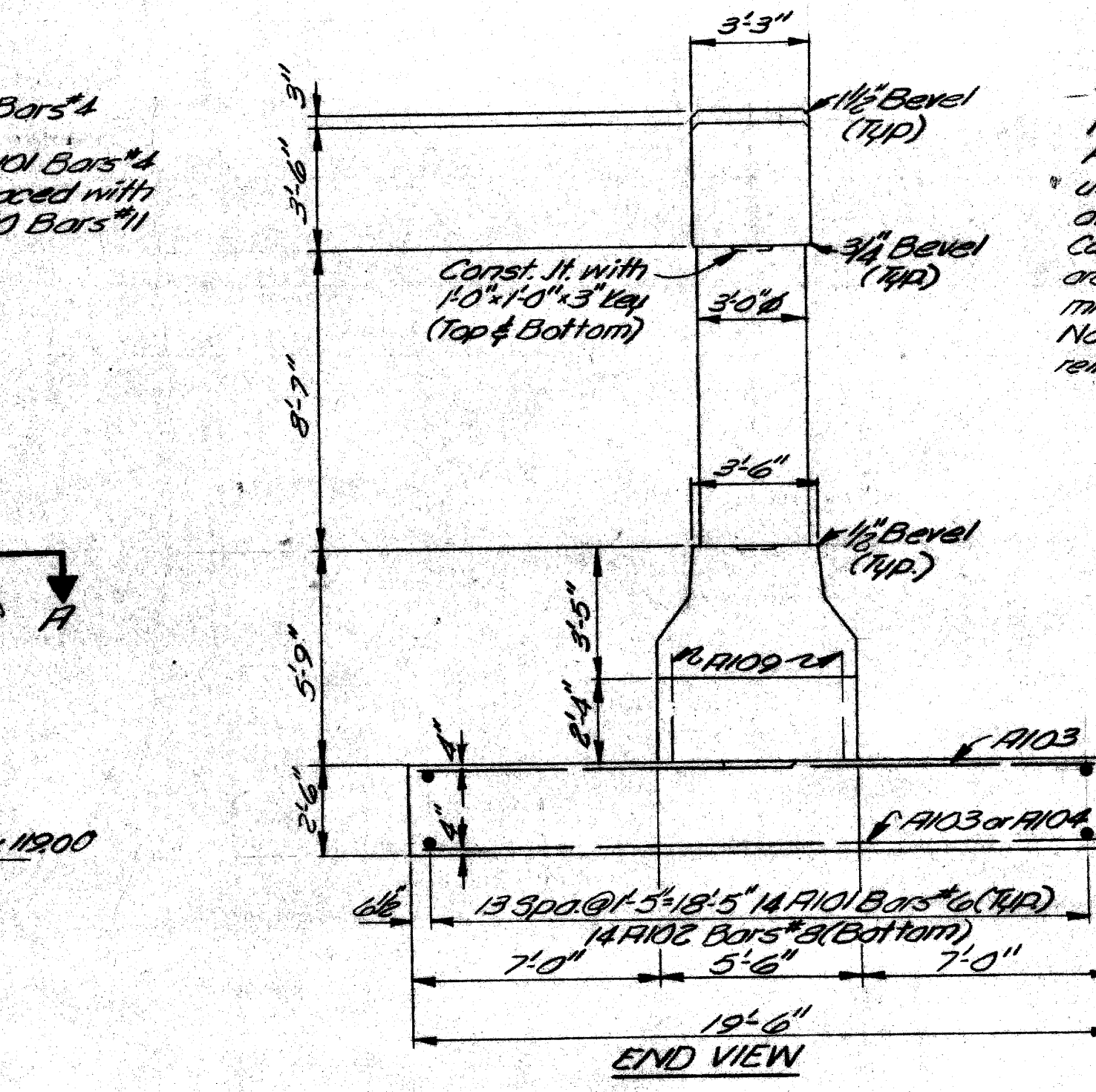
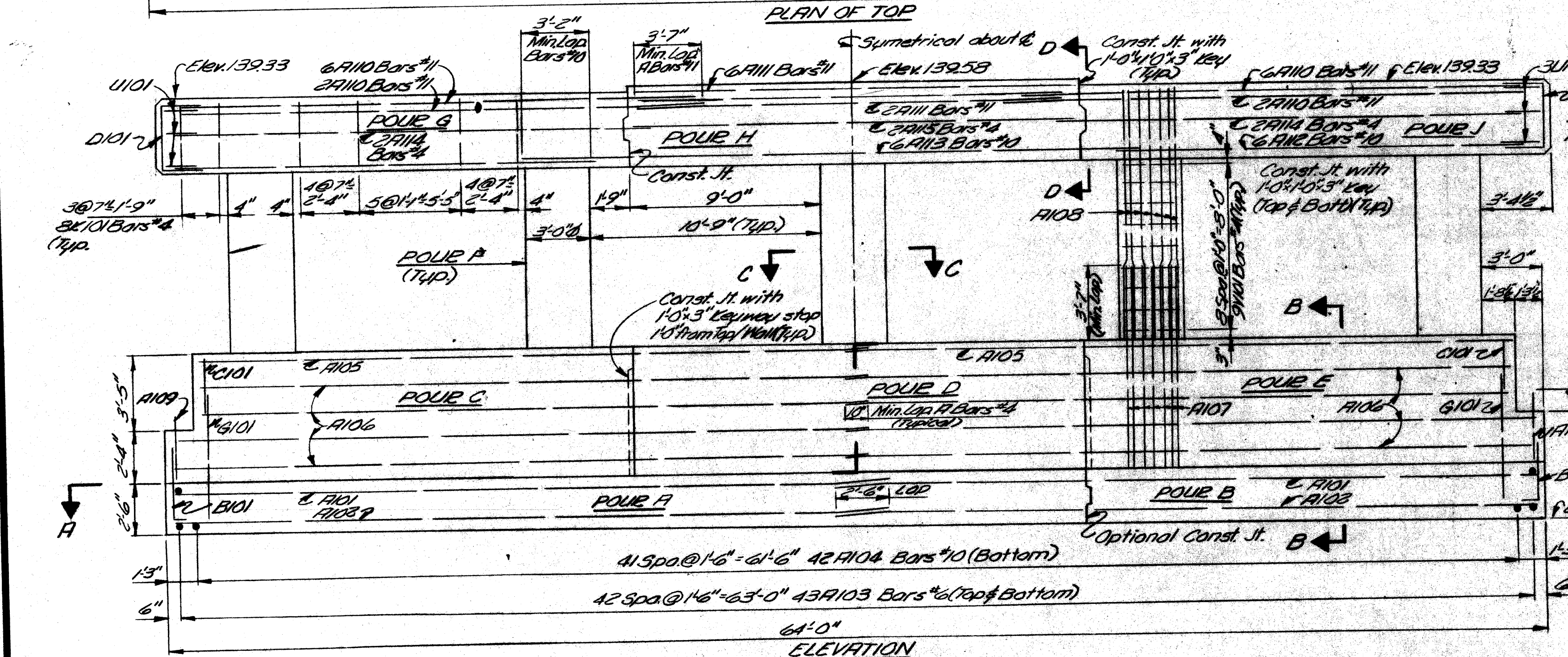
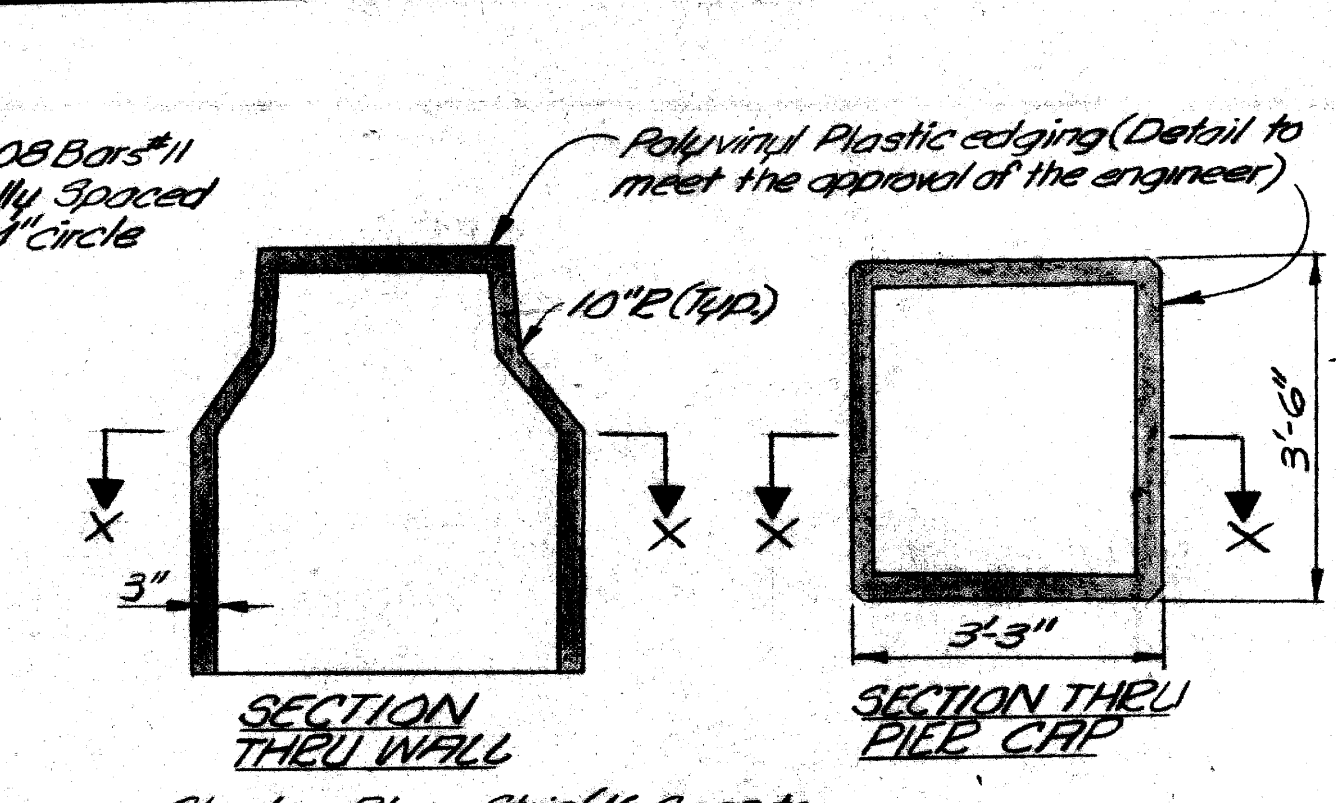
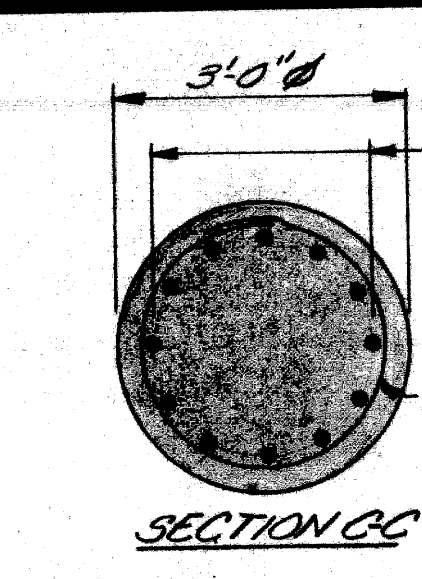
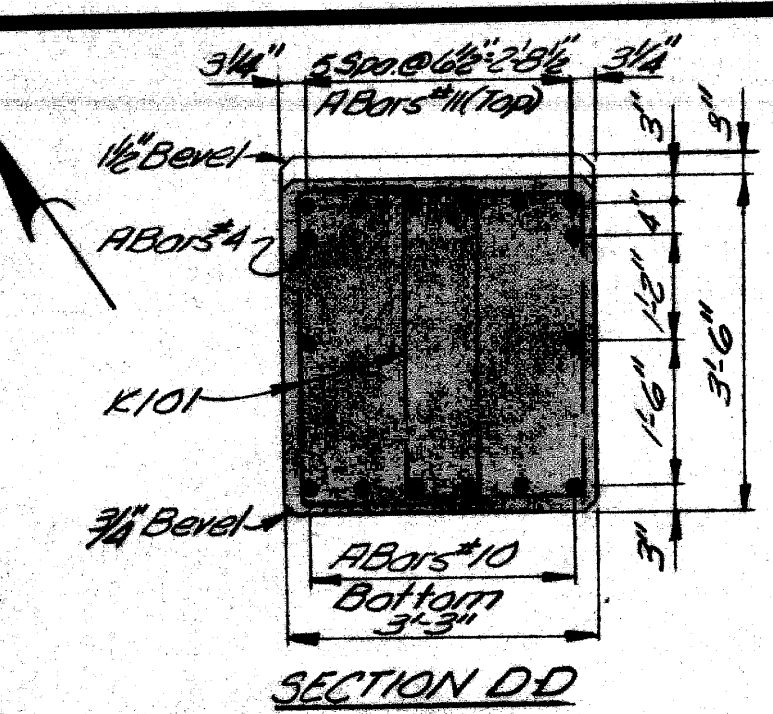
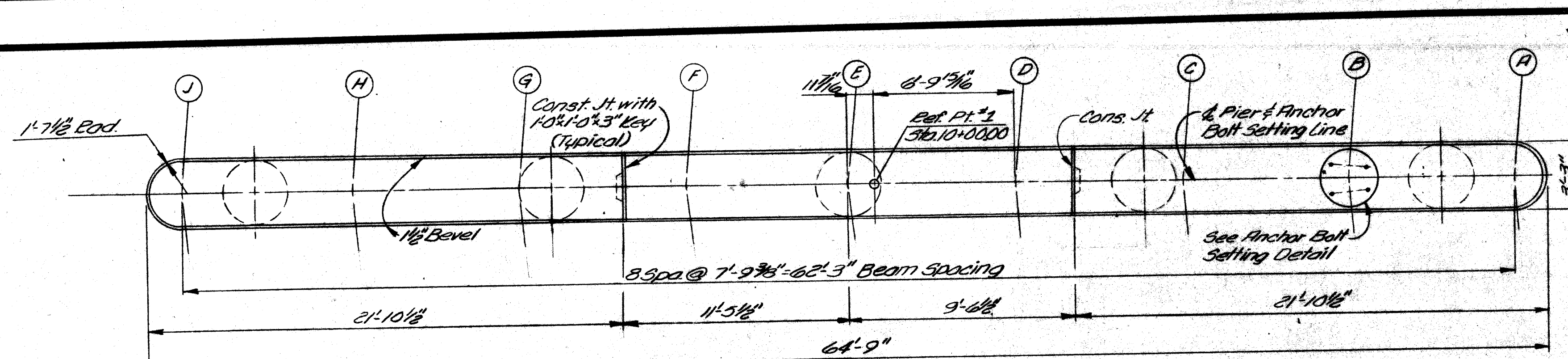
REVISIONS			
NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT
 SQUAD BOSS: Lecher 2-69
 DRAWN BY: L.B.H. 2-69
 TRACED BY:
 CHECKED BY: D.J.R. 3-69
 SHEET 11 OF 22

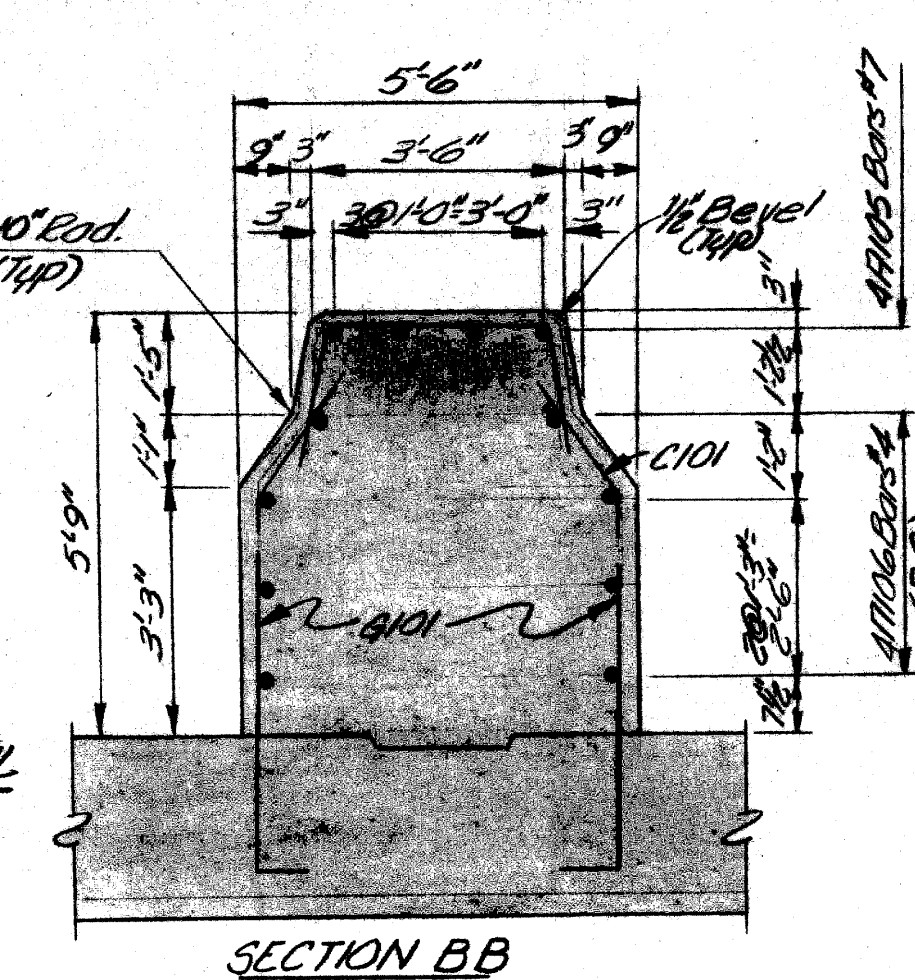
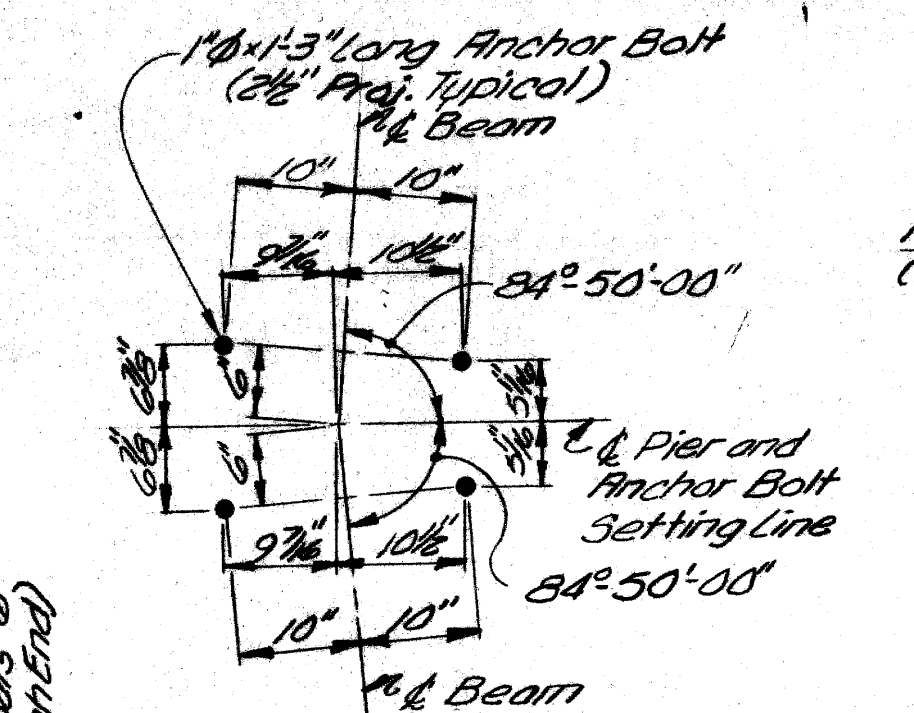
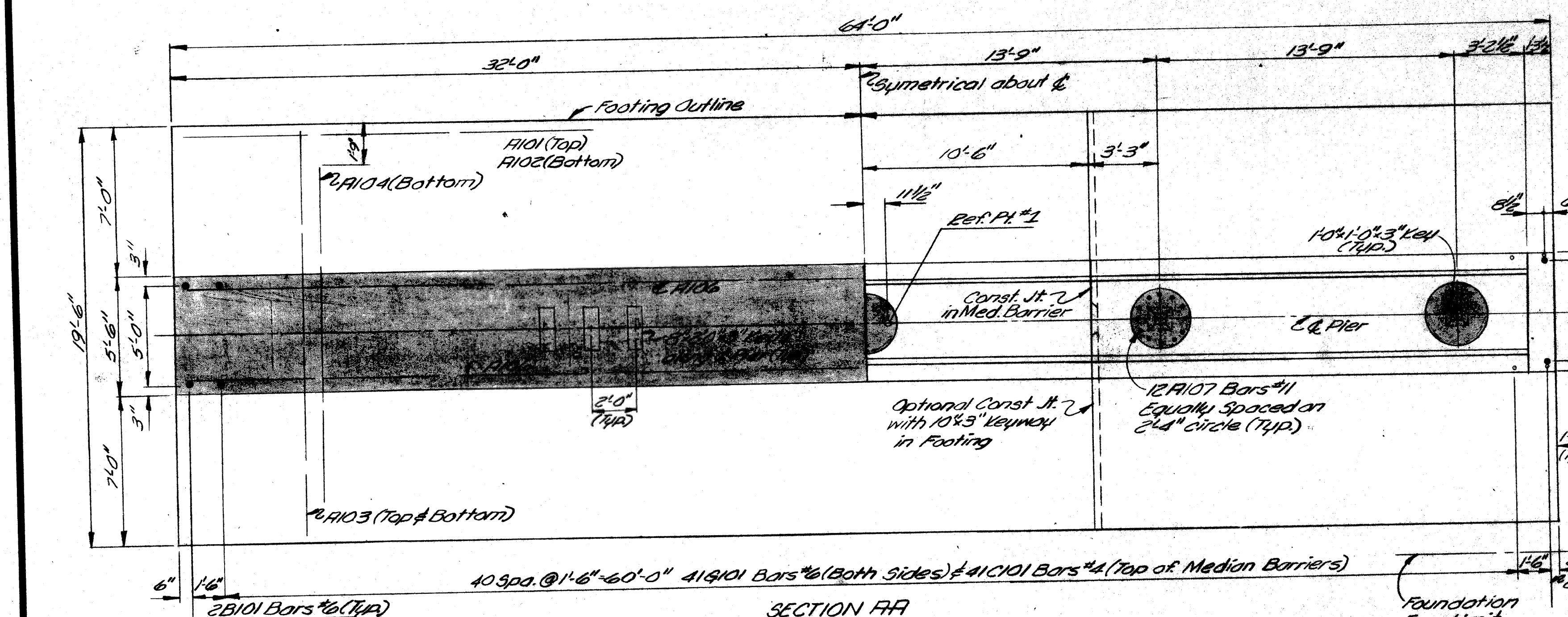
PLANS PREPARED BY
CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED: *[Signature]*
 STRUCTURAL ENGINEER

JOB No.
 PW 990(3)



GENERAL NOTES
 For Bevel and mending details, see standard 5th E.I.G.
 Anchors Bolts shall be accurately set to a template.
 Max. average foundation pressure DL only - 2000 psf
 and Max. foundation pressure DL and LL - 350 psf.



MISCELLANEOUS QUANTITIES		
ITEM	AMOUNT	UNIT
Unclassified Excavation	170	Cu.Yds.
Low Temperature Protection	220	Cu.Yds.

CONCRETE QUANTITIES (Cu. Yds)		
POUR	LOCATION	AMOUNT
A	Footing	76.7
B	Footing	33.8
C	Barrier	21.8
D	Barrier	22.0
E	Barrier	21.8
F	Columns	11.2
G	Pier Cap	9.1
H	Pier Cap	9.5
J	Pier Cap	9.1
TOTAL		115.5

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

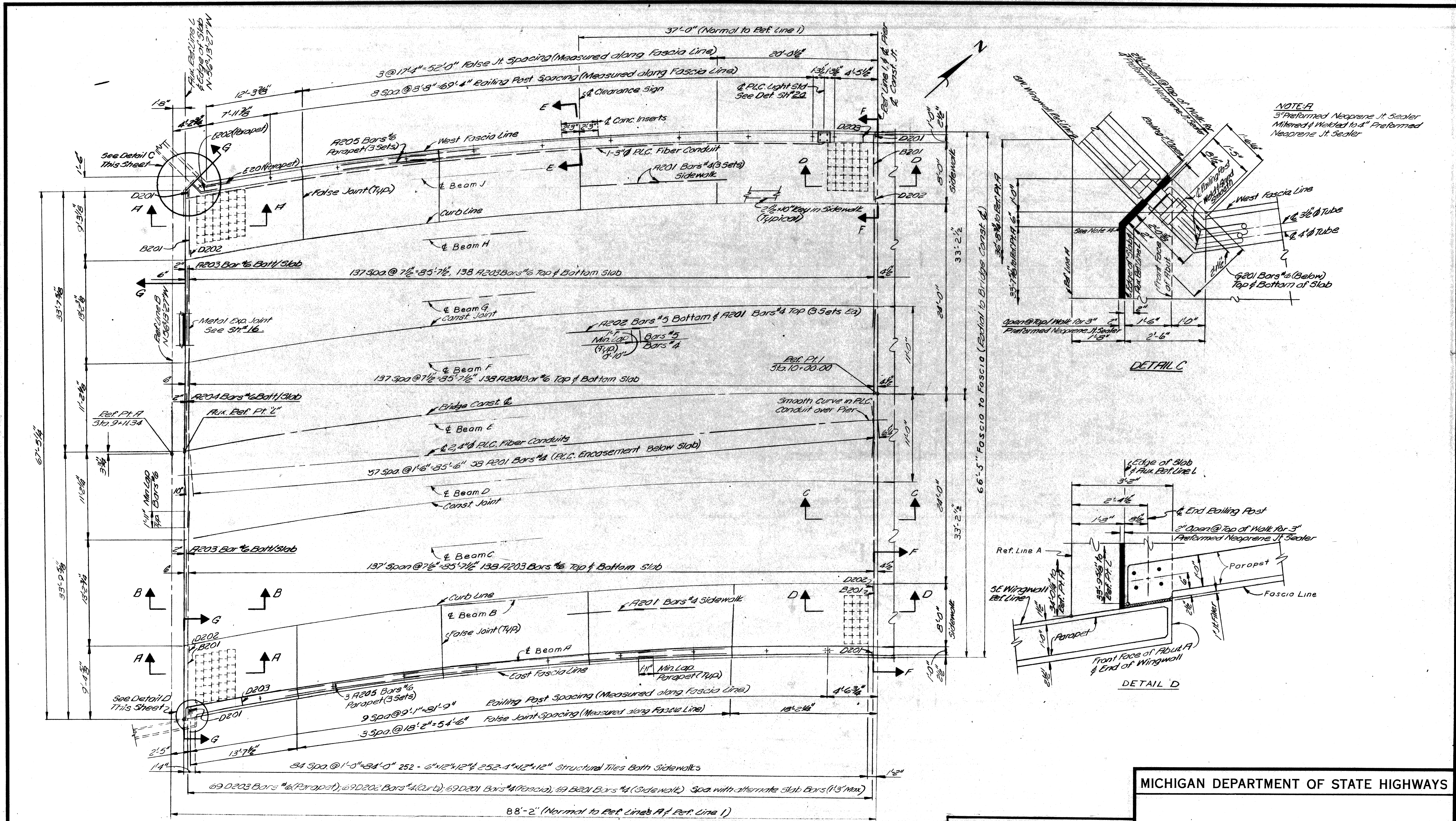
PIER No. DETAILS

NO.	DESCRIPTION	DATE	BY

APPROVED: *H. Cant* STRUCTURAL ENGINEER

JOB No. FW 990(3)

CITY OF DETROIT
 SQUAD BOSS: Lecher 2-69
 DRAWN BY: J. Hart 2-69
 CHECKED BY: [Signature]
 SHEET 12 OF 22
 550 of 82123J



PLANS PREPARED BY
CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEERS OFFICE
BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED: *H. Condit*
STRUCTURAL ENGINEER

JOB No.
PW 990(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

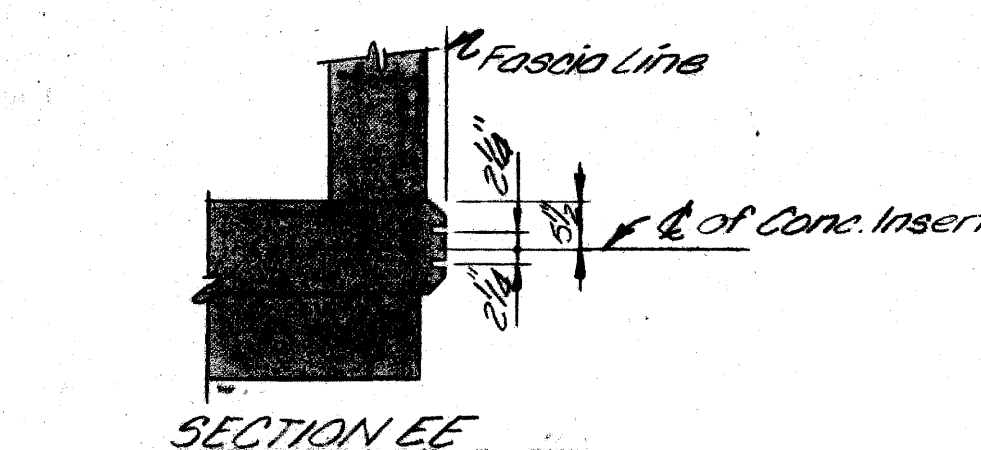
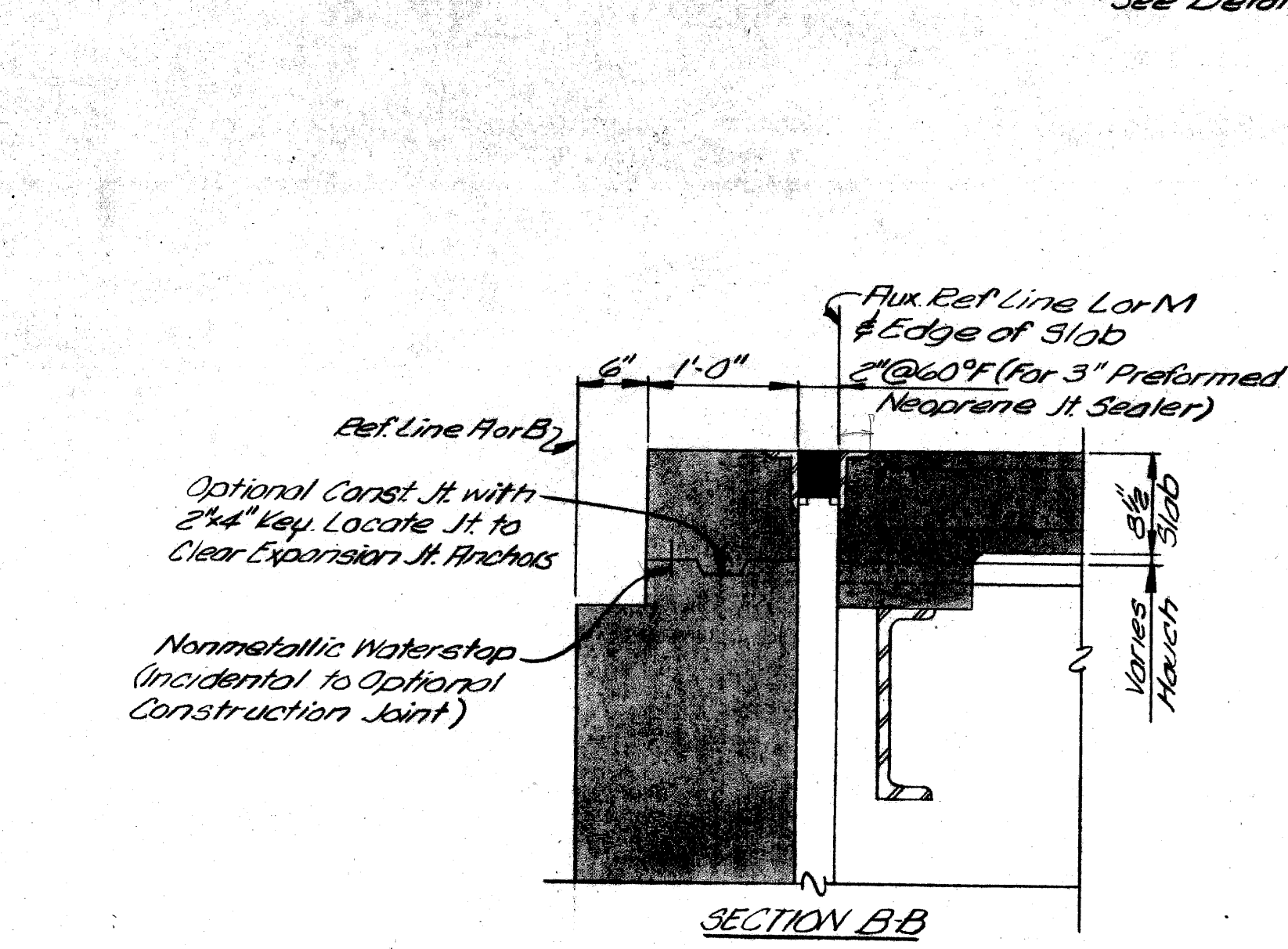
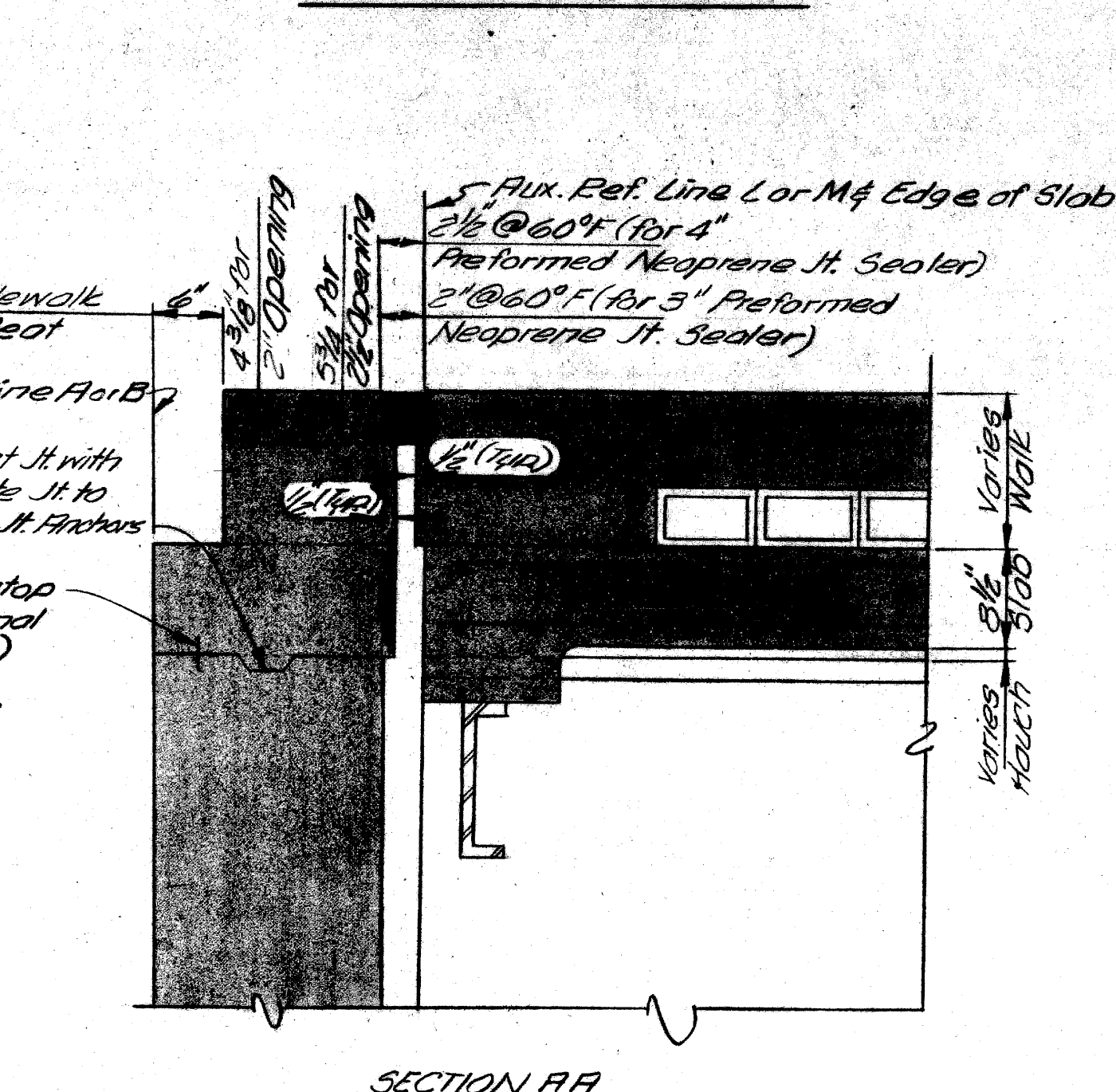
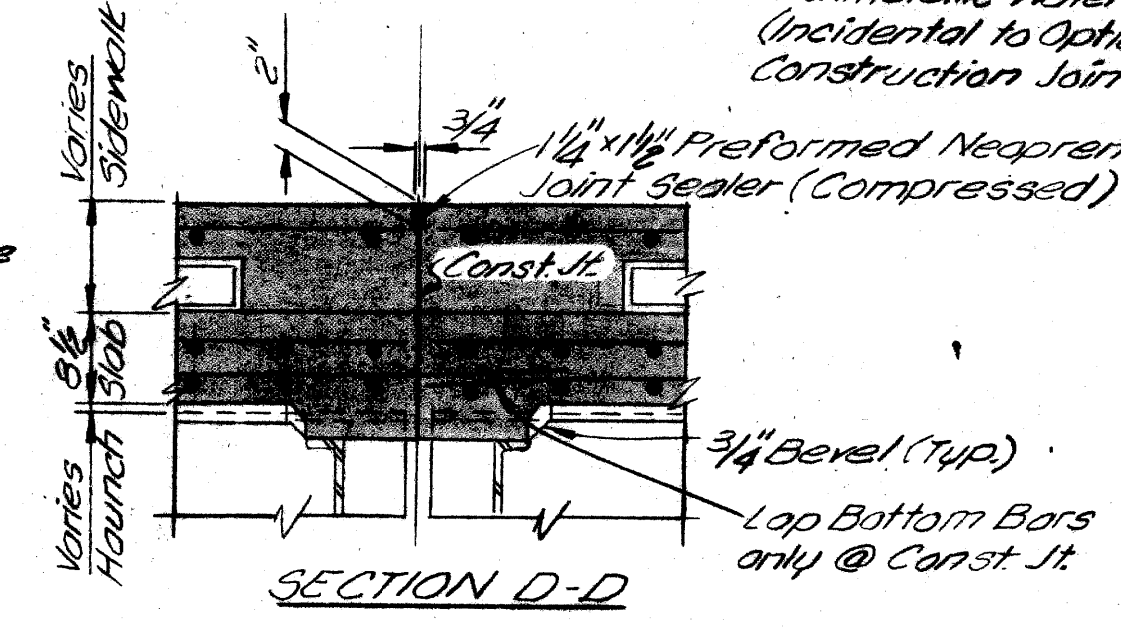
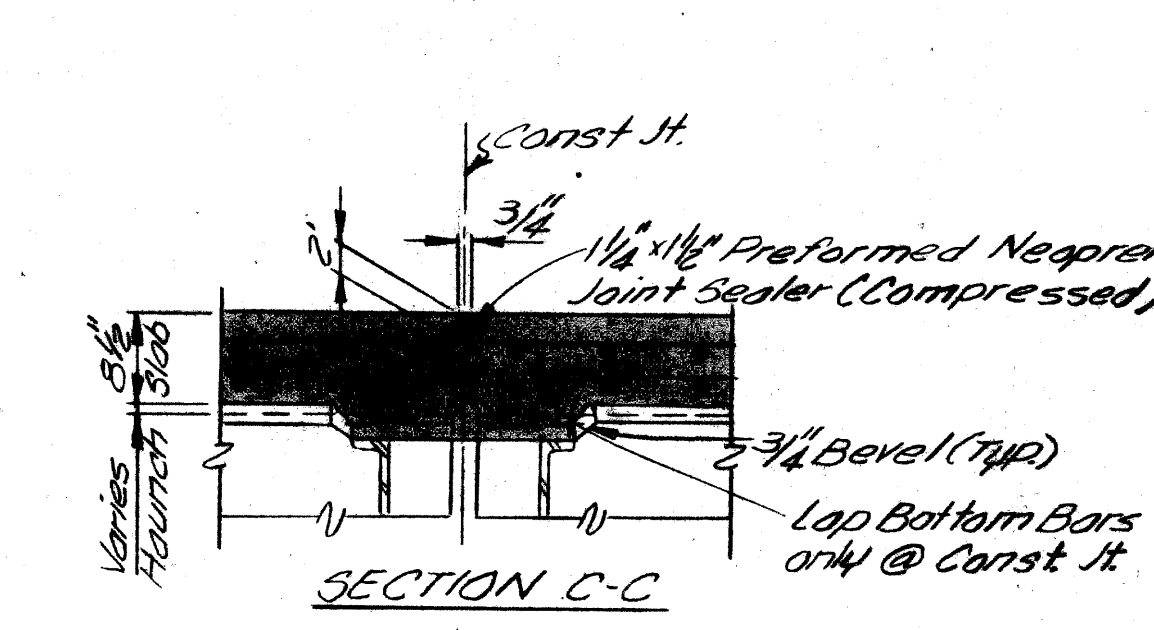
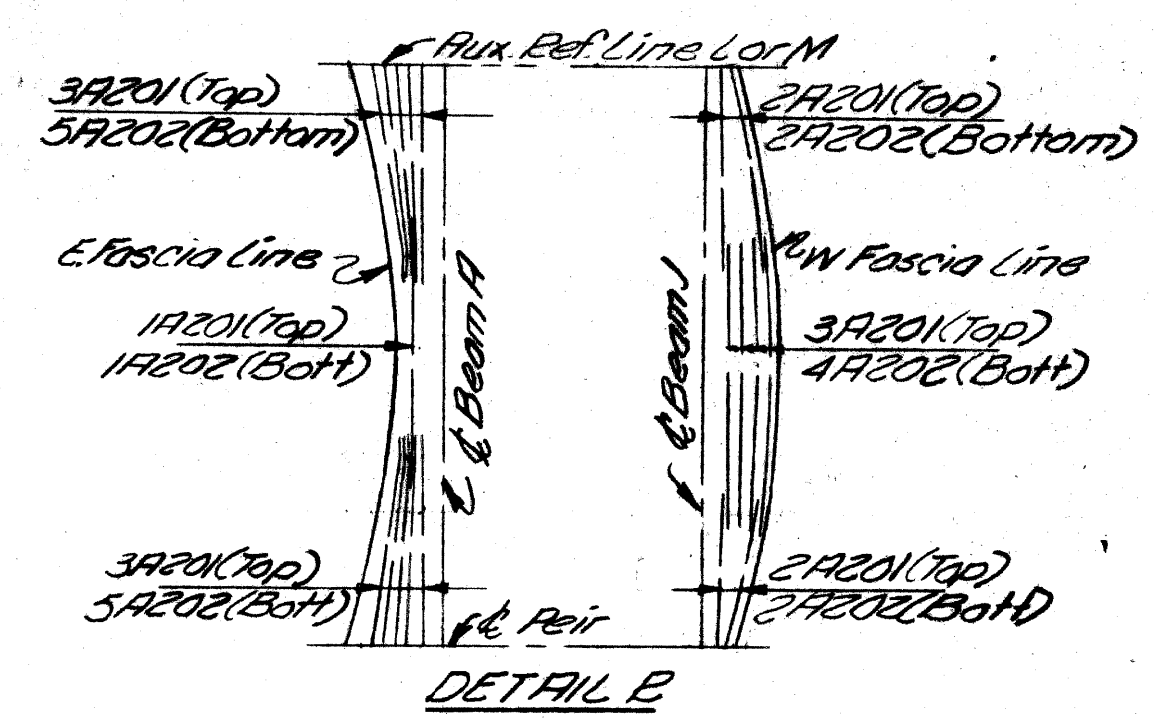
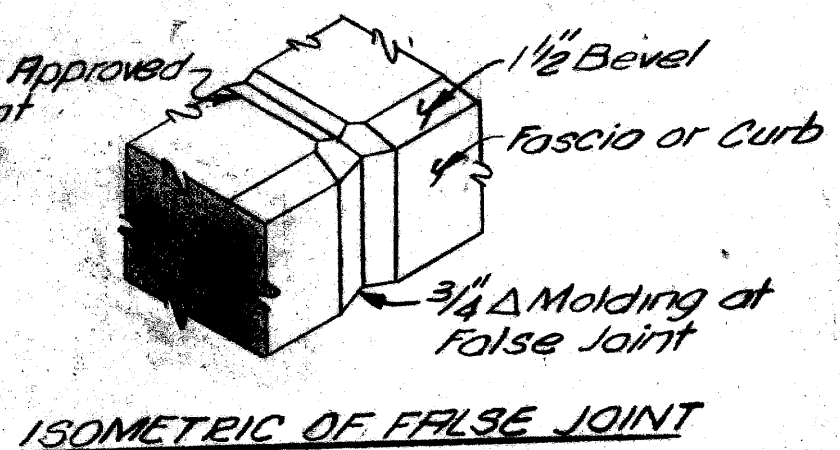
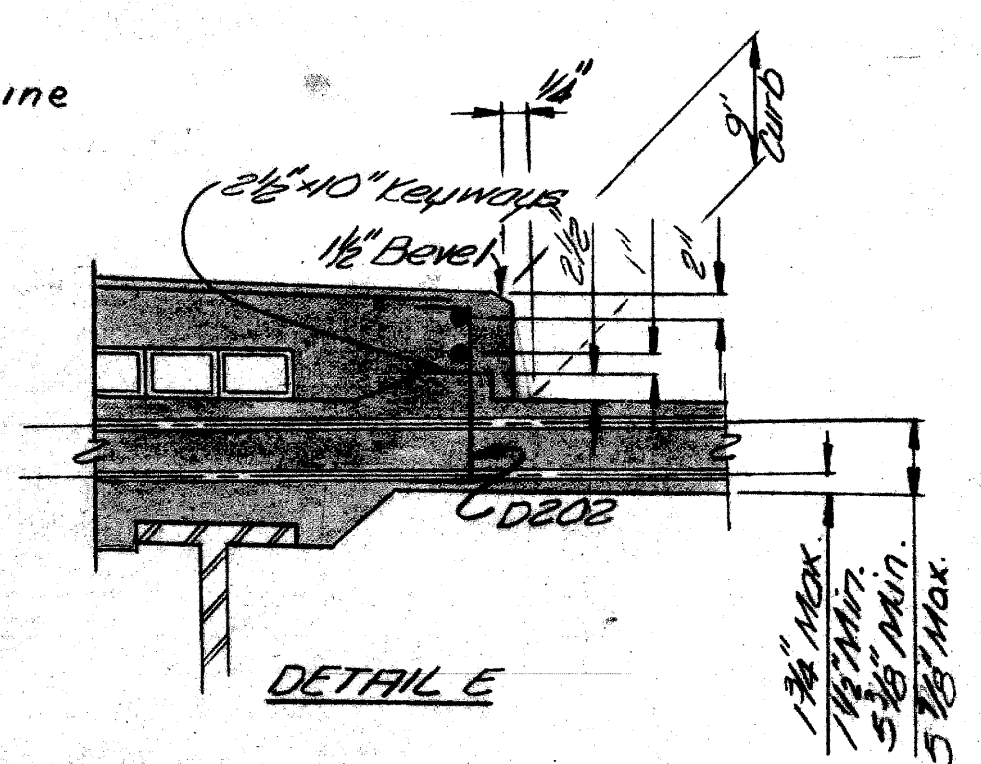
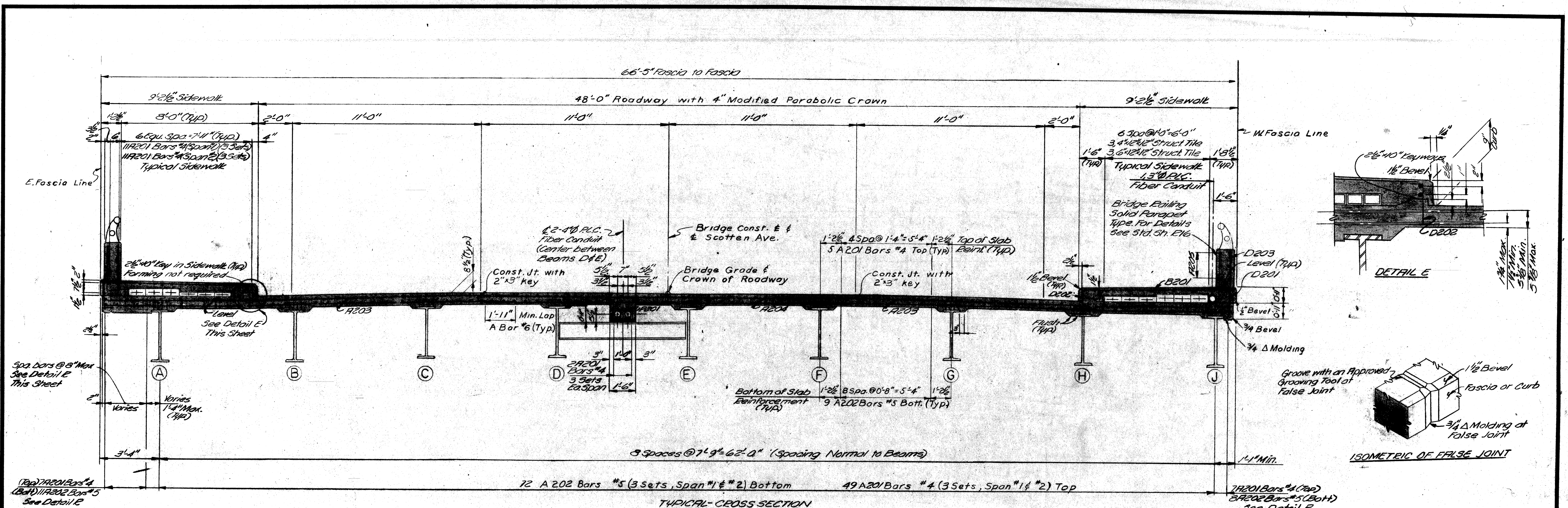
SUPERSTRUCTURE DETAILS

CITY OF DETROIT

REVISIONS			
NO.	DESCRIPTION	DATE	BY

DRAWN BY	Locher	2-69
TRACED BY	LBH	2-69
CHECKED BY	D.J.R.	3-69
SHEET 17 OF 22		

550 of 82123J



NOTE: Inserts are to be 3/8" Truscon Threaded Inserts or approved equal and are to be provided with a suitable setting Plug. Furnishing & Placing Conc. Inserts is incidental to Superstructure concrete. Clearance signs and mounting brackets are to be furnished and installed by others.

PLANS PREPARED BY
 CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS

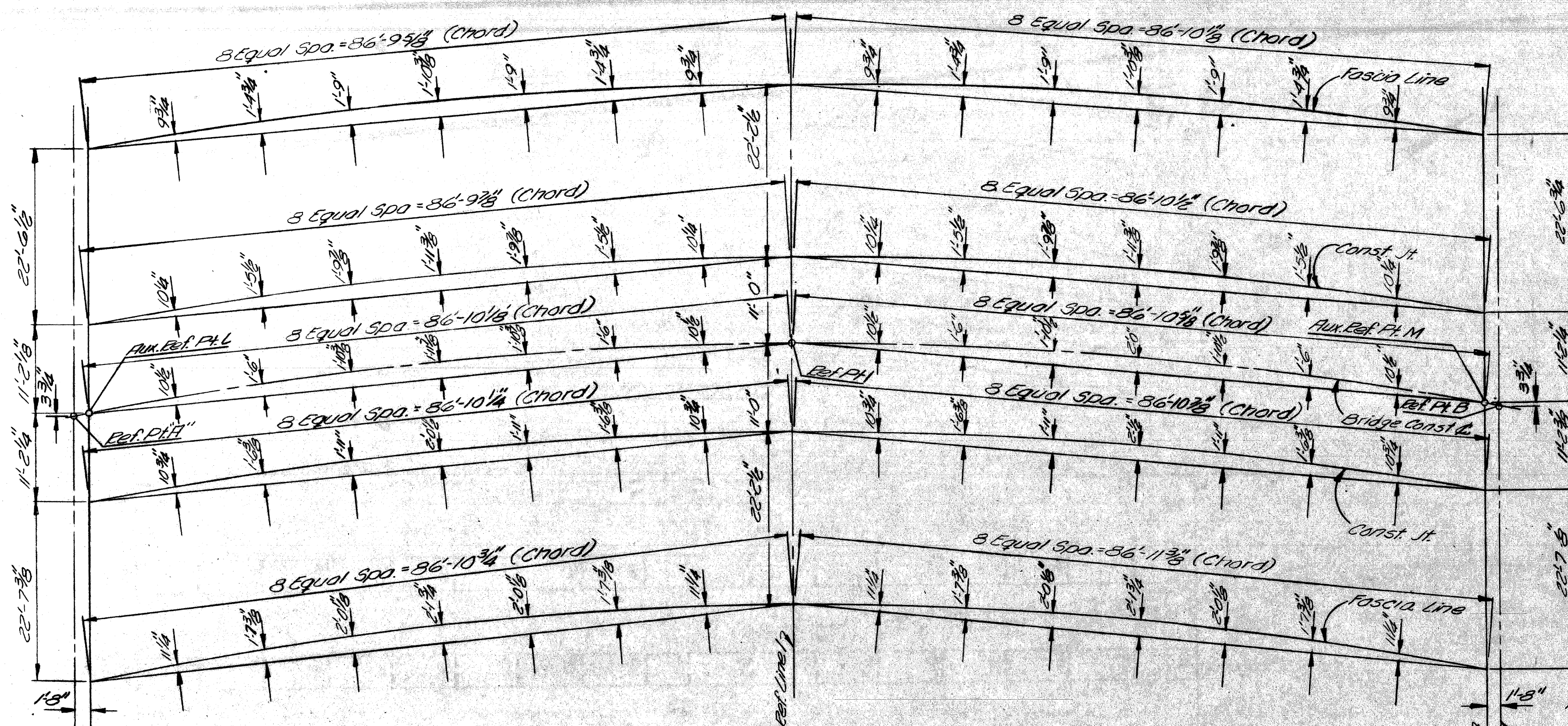
APPROVED: *H. Covert*
 STRUCTURAL ENGINEER

JOB NO.
 PW 99013

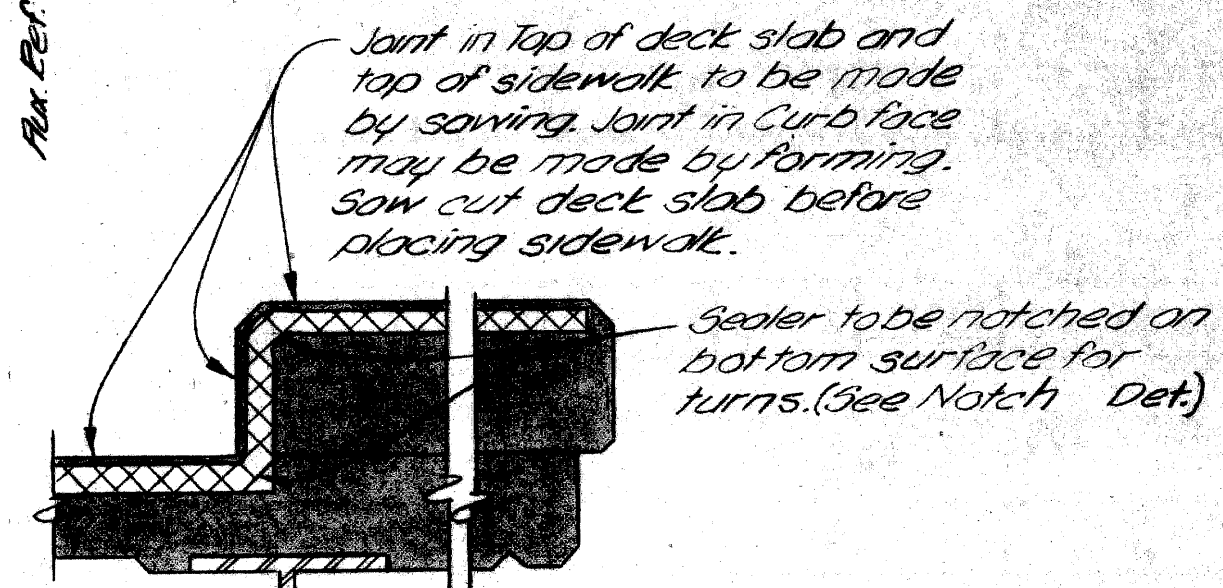
MICHIGAN DEPARTMENT OF STATE HIGHWAYS			
SUPERSTRUCTURE DETAILS			
REVISIONS			
NO.	DESCRIPTION	DATE	BY

DRAWN BY	
TRACED BY	
CHECKED BY	D.J.R. 3-69
SHEET	19 OF 22

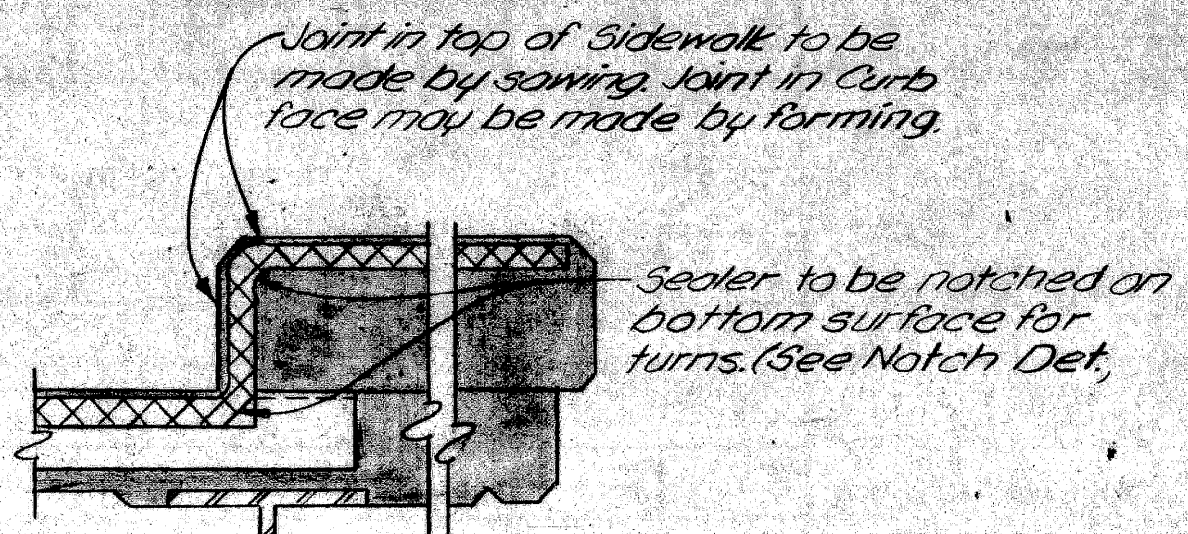
\$50 of 821231



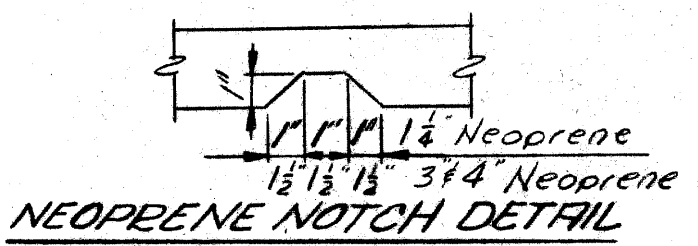
HORIZONTAL CURVE ORDINATES & DECK PLAN LOCATION



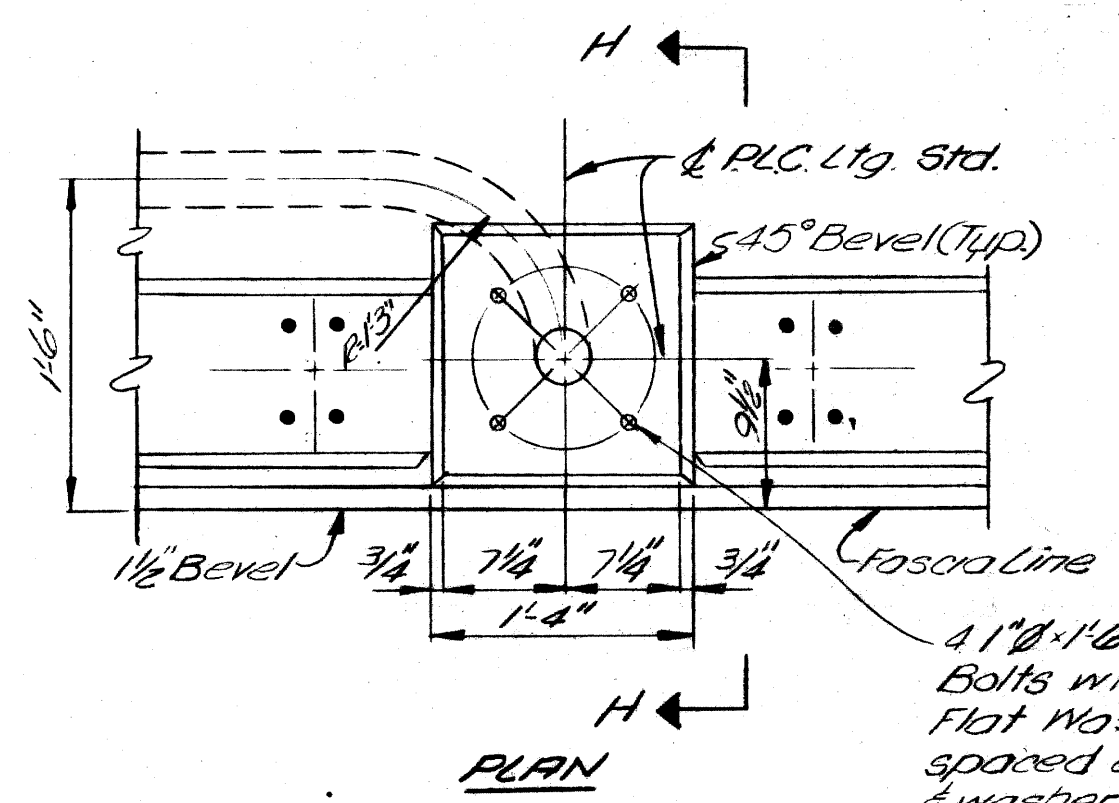
SECTION F-F



SECTION G-G

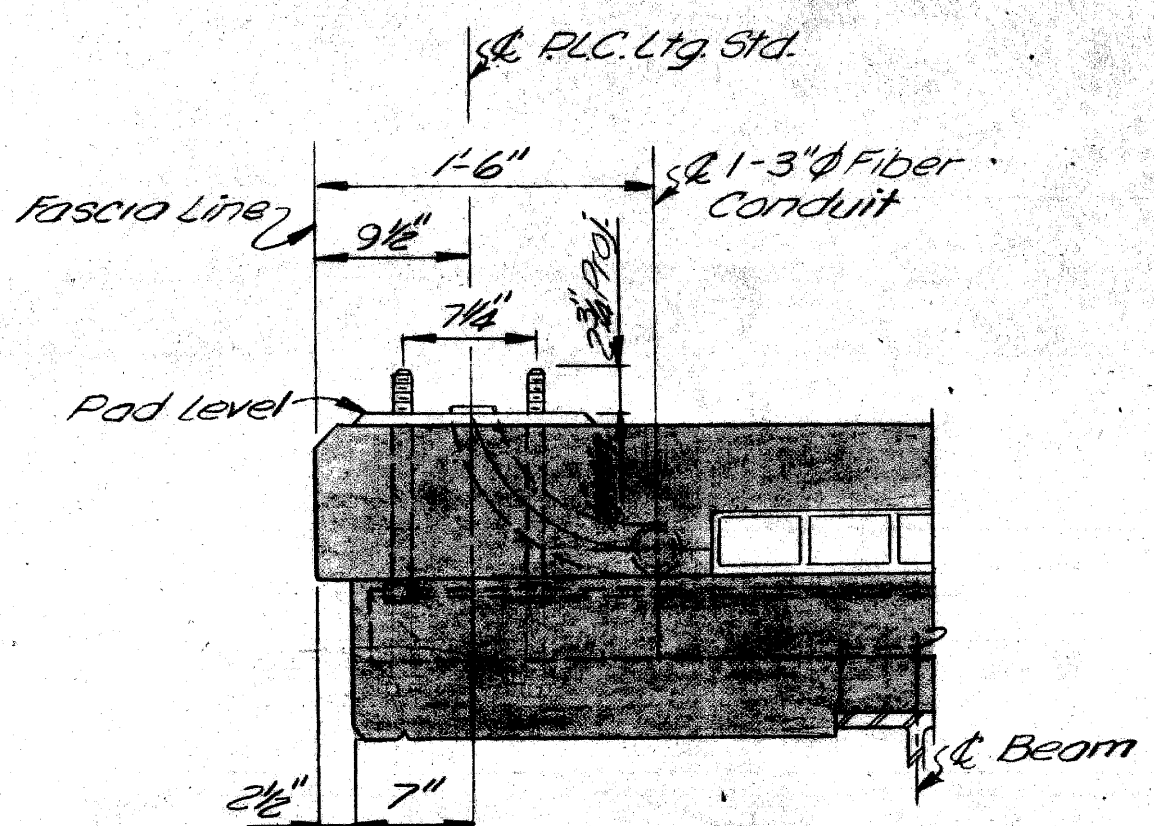


NEOPRENE NOTCH DETAIL



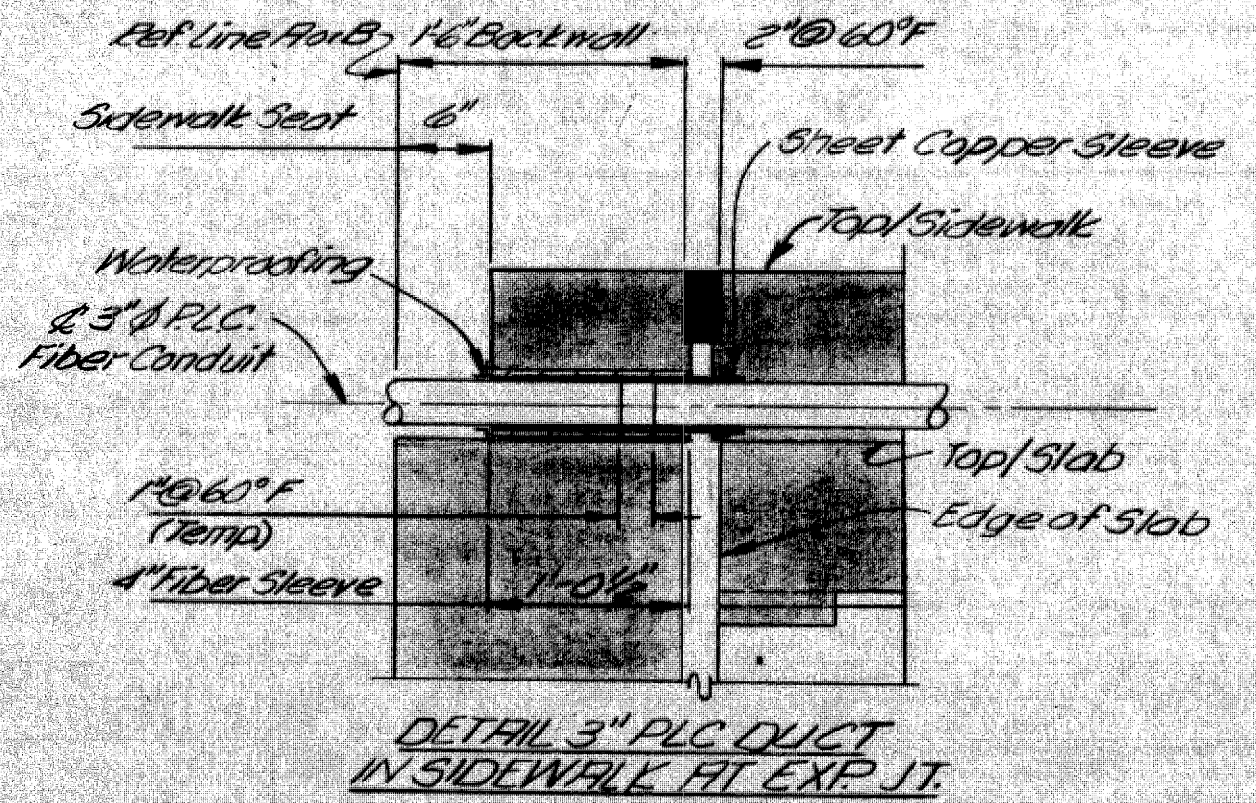
PLAN

PLC LIGHTING STANDARD BASE DETAILS

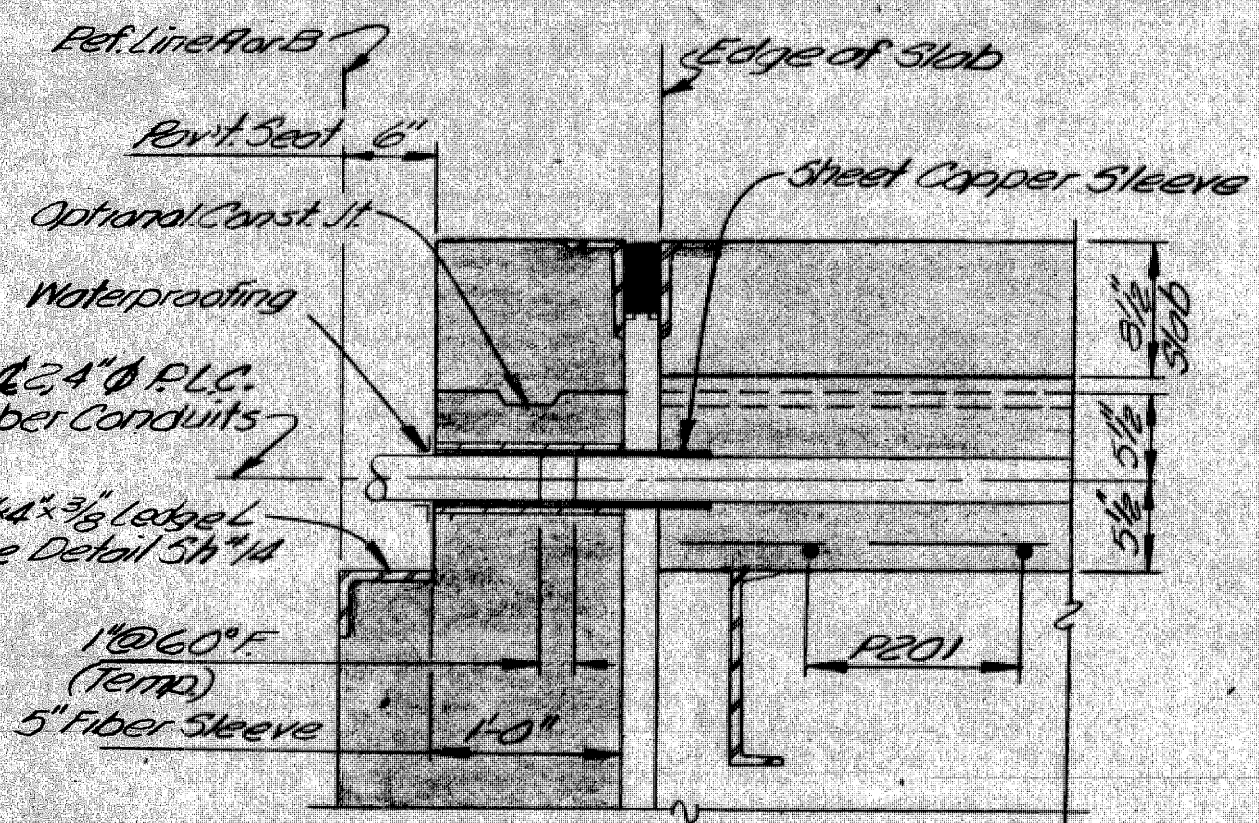


SECTION-HH

NOTE: Waterproofing, 4" Fiber Sleeves and Sheet Copper Sleeves are incidental to 3" Fiber Conduit

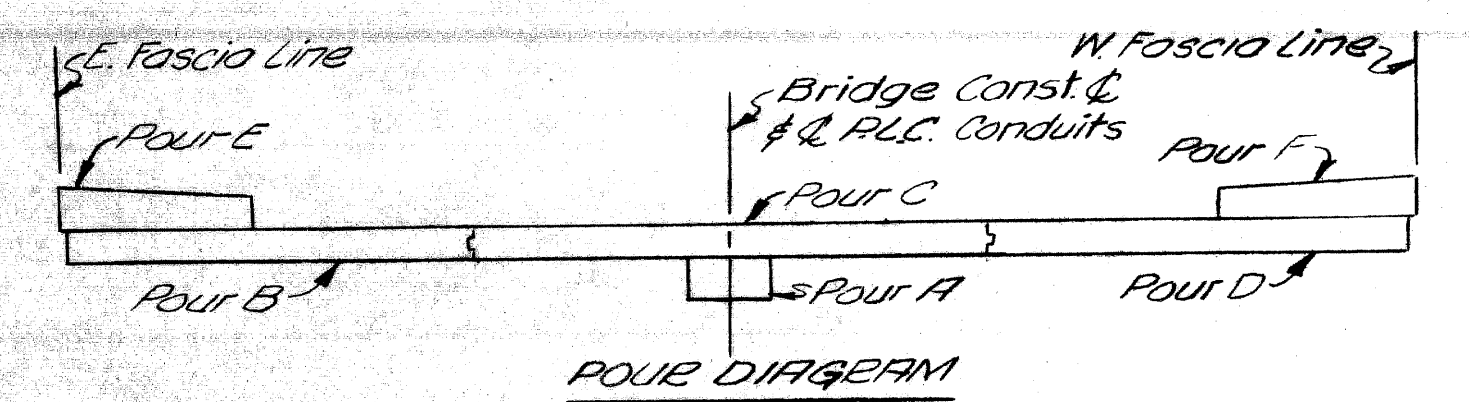


DETAIL 3" PLC DUCT IN SIDEWALK AT EXP. JT.



DETAIL PLC ENCASUREMENT AT EXP. JOINT

NOTE: Waterproofing, 5" Fiber Sleeve and Sheet Copper Sleeve are incidental to 4" Fiber Conduit



POUR DIAGRAM

CONCRETE QUANTITIES (CU. YDS.)				
GRADE	POUR	DESCRIPTION	SPAN	
			1	2
Grade XX	A	PLC Encasement	41	41
	B	Deck Slab	533	533
	C	Deck Slab	522	522
	D	Deck Slab	535	535
	E	East Sidewalk	169	170
	F	West Sidewalk	169	169
Total Grade XX			32	Cu. Yds.
Total Grade A (G.A.A.)			3557	Cu. Yds.

* Grade XX

MISCELLANEOUS QUANTITIES		
ITEM	AMOUNT	UNIT
Water Reducing Retarding Admixture	87	Gals.
Protective Treatment for Br. Decks	11,780	Sq. Ft.
Structural Tiles 4x12x12	1008	Each
Structural Tiles 6x12x12	1008	Each
1 1/2" Preformed Neoprene Jt. Sealer	68	Lin. Ft.
3" Preformed Neoprene Jt. Sealer	139	Lin. Ft.
4" Preformed Neoprene Jt. Sealer	50	Lin. Ft.
Bridge Railing Solid Parapet Type	3453	Lin. Ft.
3" Fiber Conduit	83	Lin. Ft.
4" Fiber Conduit	354	Lin. Ft.
4" Preformed Neoprene Jt. Sealer		
1 1/2" Preformed Neoprene Jt. Sealer		

NOTE: Parapet Concrete equals 288 Cu. Yds. (Gr. A.G.A.) incidental to bridge railing - solid parapet type and not a pay item.

GENERAL NOTES
For details of bevels, moldings, name plate and Bridge Railing See Standard Sheet E16.

Edge or Groove denotes edging or grooving with approved tool

Sidewalk pours shall not be cast until slab concrete has attained at least 50% of its original design strength as determined by Section 5.01.05 of the Standard Specification.

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

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

SUPERSTRUCTURE DETAILS

PLANS PREPARED BY
CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEERS OFFICE
BUREAU OF HIGHWAYS AND EXPRESSWAYS

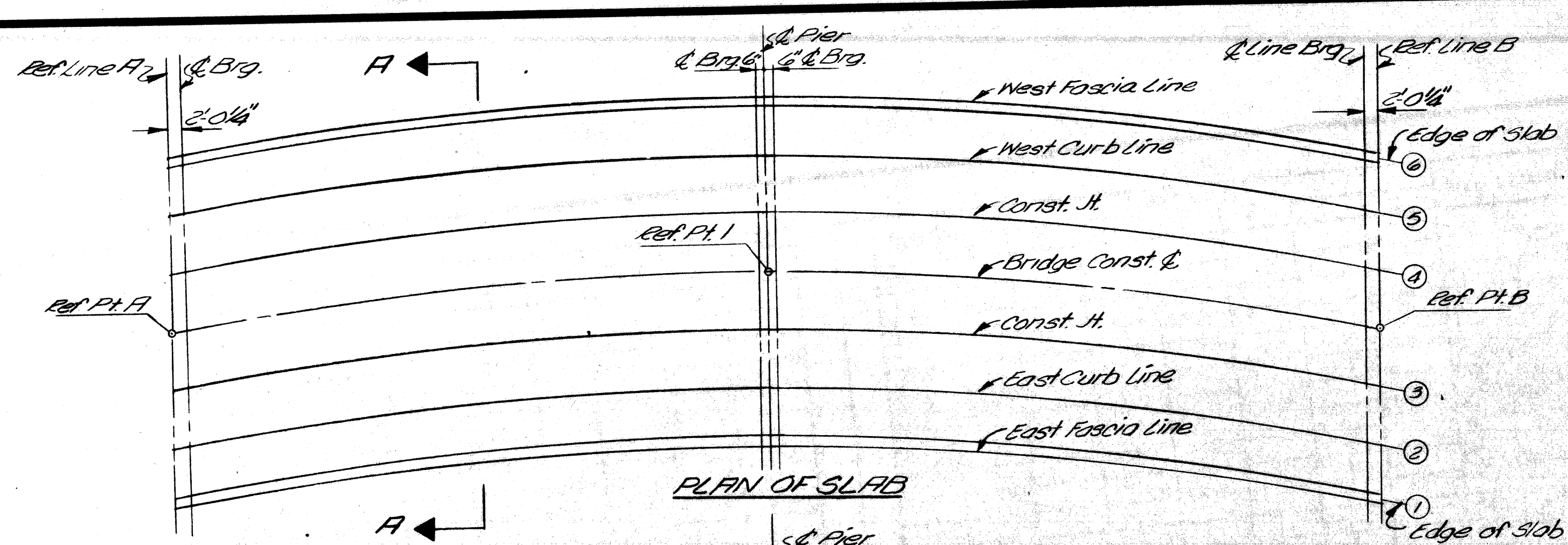
APPROVED: *H. Cant*
STRUCTURAL ENGINEER

JOB No.
PW 99013

REVISIONS			
NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT	
SQUAD BOSS	Locher 2-69
DRAWN BY	LBHart
TRACED BY	
CHECKED BY	D.J.R. 3-69
	SHEET 20 OF 22

550 of 82123J



PLAN OF SLAB

8 Spans @ 10'-9" = 86'-0" Span 1 8 Spans @ 10'-9" = 86'-0" Span 2

1	255	278	299	317	331	339	343	342	338	338	346	351	352	349	338	324	306	288
2	253	276	297	315	329	337	341	340	336	336	344	349	350	347	336	322	304	287
3	222	242	260	278	296	305	310	310	306	306	314	319	320	317	306	292	274	257
4	268	289	307	325	339	347	352	352	348	348	356	361	362	359	348	334	316	300
5	284	307	325	343	357	365	370	370	366	366	374	379	380	377	366	352	334	318
6	239	261	280	298	316	325	330	330	326	326	334	339	340	337	326	312	294	278

SLAB ORDINATES AND SCREED ELEVATIONS For Loading Case II

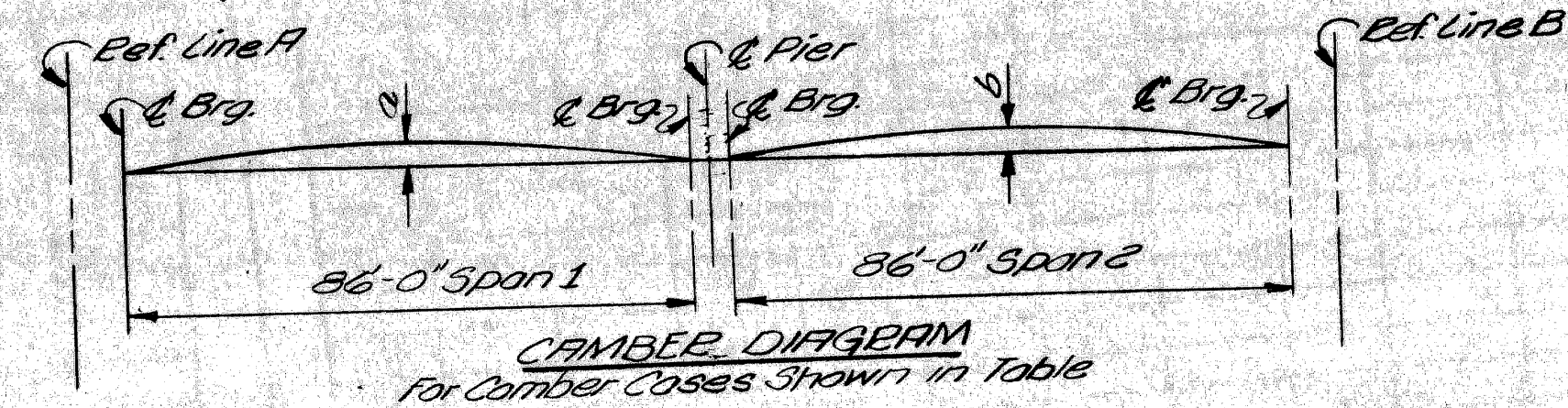
Notes: Add 140.00 to all Screed Elevations. Slab ordinates are along the C of Beams shown. Screed Elev. are at intersections of screed lines and radial lines thru beams at 1/8 points.

8 Spans @ 10'-9" = 86'-0" Span 1 8 Spans @ 10'-9" = 86'-0" Span 2

1	184	208	230	250	263	272	274	276	267	267	279	288	294	299	297	280	255	237
2	183	210	235	256	270	279	281	285	267	267	282	292	298	296	277	260	237	216
3	195	223	248	269	285	293	294	299	281	282	295	303	305	301	290	273	252	228
4	205	236	261	282	294	306	304	309	293	293	306	313	315	311	300	286	262	239
5	209	241	266	287	299	311	309	314	300	300	313	319	322	317	306	290	267	244
6	202	239	264	285	297	309	307	312	295	295	307	314	315	310	299	281	260	238
7	190	215	240	262	277	288	291	296	281	281	295	301	301	296	285	267	247	226
8	174	199	224	245	260	273	277	286	271	271	280	286	287	281	269	250	232	211
9	168	194	219	241	257	269	274	282	267	267	277	283	282	277	265	246	226	205

BOTTOM OF SLAB ELEVATIONS (for loading case I)

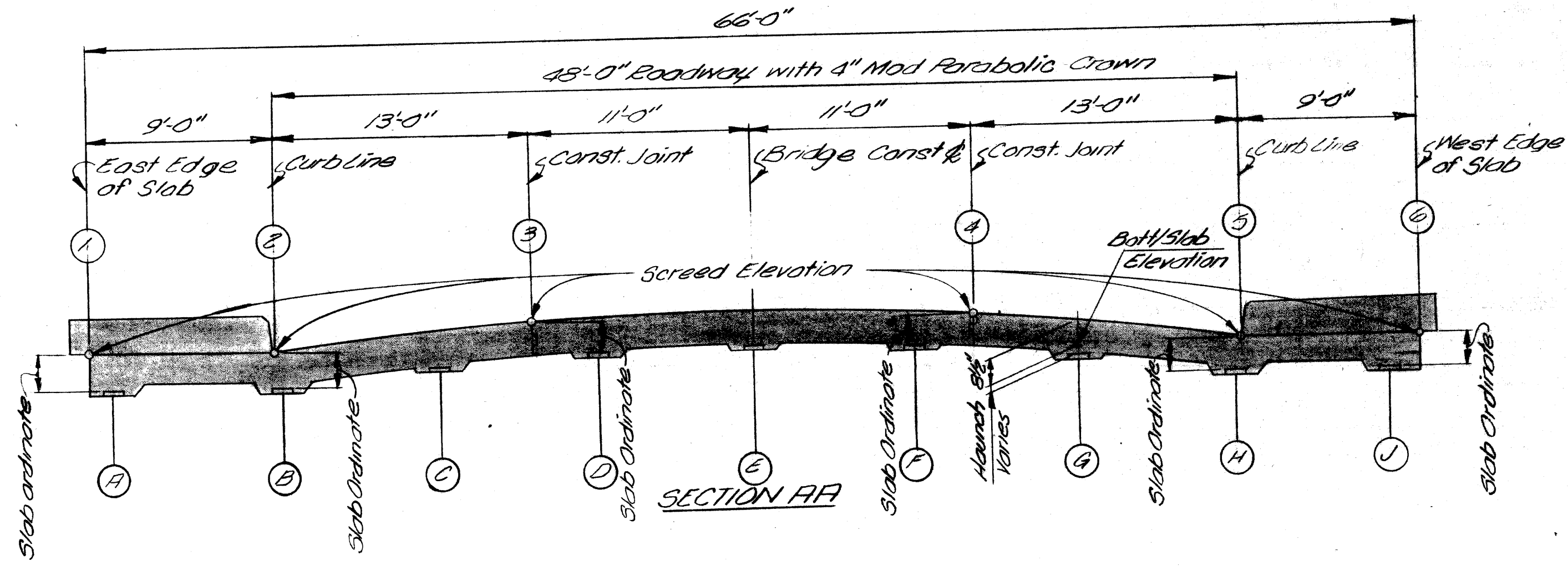
NOTE: Add 140.00' to all Bottom of Slab elevations. Elevations are at C of Beam.



CAMBER ORDINATES (inches)

Dimension	a			b		
	I	II	III	I	II	III
Beam Case A	5"	4 3/8"	2 7/8"	5"	4 3/8"	2 7/8"
B	4 7/8"	4 3/8"	2 1/2"	4 7/8"	4 3/8"	2 1/2"
C	4 7/8"	4 3/8"	2 1/2"	4 7/8"	4 3/8"	2 1/2"
D	5 1/2"	4 1/2"	2 3/8"	5 1/2"	4 1/2"	2 3/8"
E	5 1/2"	4 3/4"	2 3/8"	5 1/2"	4 3/4"	2 3/8"
F	5 1/2"	5"	2 3/4"	5 1/2"	5"	2 3/4"
G	5 3/8"	5 1/8"	2 3/8"	5 3/8"	5 1/8"	2 3/8"
H	5 3/8"	5 1/8"	2 1/2"	5 3/8"	5"	2 3/4"
J	4 1/2"	4 1/8"	2 1/2"	4 1/2"	4 1/8"	2 1/2"

GENERAL NOTES:
 Transverse strike-off finishing machine is to be used in placing deck concrete.
 Deflection @ Midspan of Girders D & E due to weight of R.C. Encasement is 1/4".
 CASE I
 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, deck concrete, railing, utilities and sidewalk.
 CASE II
 Screed elevations are based on the condition that no slab concrete has been cast and that formwork, steel reinf. & R.C. encasement are in place.
 CASE III
 Steel reinforcement and slab concrete in place on structural steel and no other loads applied. After screeds are set, if a check indicates that less than the minimum slab thickness will be obtained, adjust screeds and metal expansion joint accordingly.



PLANS PREPARED BY
 CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED: *H. East*
 STRUCTURAL ENGINEER

JOB No. PW 9903

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

SUPERSTRUCTURE DETAILS

REVISIONS

NO.	DESCRIPTION	DATE	BY

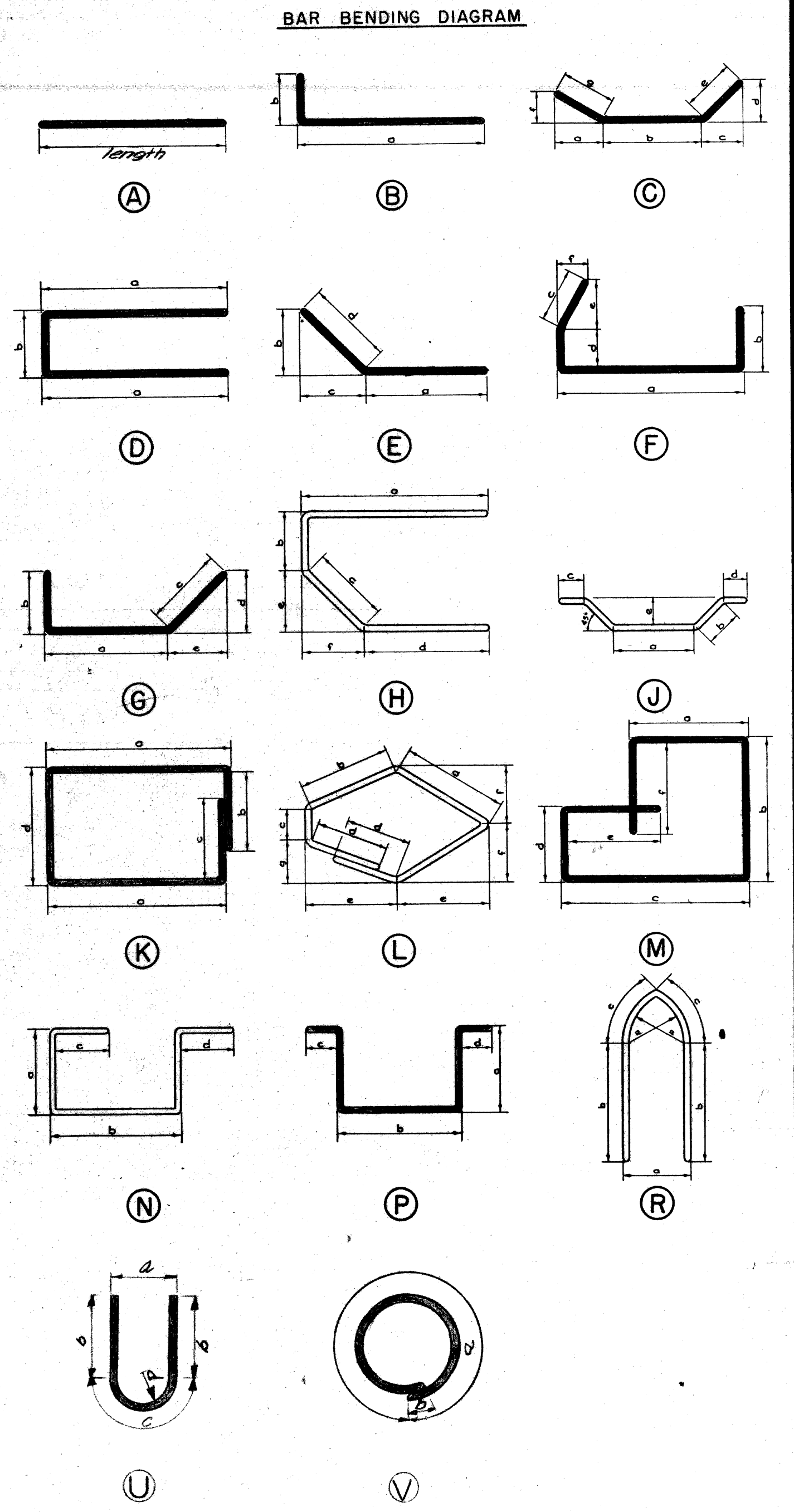
CITY OF DETROIT
 SQUAD BOSS: Locher 2-69
 DRAWN BY: LBHort 2-69
 TRACED BY: D.J.R. 3-69
 CHECKED BY: SHEET 21 OF 22

550 of 82123J

BAR	DIMENSIONS							SIZE	LENGTH	NO. REQ'D	TOTAL WT.
	a	b	c	d	e	f	g				
A1								#6	12'6"	24	451
A2								#6	18'6"	12	333
A3								#6	26'9"	38	1521
A4								#6	22'6"	19	642
A5								#6	23'6"	23	812
A6								#6	25'6"	4	153
A7								#6	33'0"	5	248
A8								#6	19'6"	28	820
A9								#6	11'6"	24	415
A10								#6	4'0"	230	1382
A11								#6	7'6"	91	1025
A12								#6	5'6"	107	884
A13								#8	15'6"	89	3683
A14								#10	10'0"	89	5830
A15								#6	21'3"	79	2521
A16								#7	16'0"	28	916
A17								#11	12'0"	26	1658
A18								#6	19'0"	92	2625
A19								#7	9'6"	137	2660
A20								#8	9'0"	92	2211
A21								#9	6'6"	91	2011
A22								#6	12'3"	91	1674
A23								#6	14'3"	93	1991
A24								#6	3'9"	12	68
A25								#4	25'6"	77	1312
A26								#4	22'6"	88	1323
A27								#6	9'3"	50	695
A28								#6	6'6"	87	849
A29								#6	17'0"	58	1481
A30								#6	7'3"	42	457
A31								#7	5'6"	42	472
A32								#6	9'0"	44	595
A33								#7	5'9"	44	517
A34								#6	10'0"	48	721
A35								#6	17'6"	20	526
A36								#6	12'9"	60	1149
A37								#7	7'3"	36	533
A38								#6	8'0"	72	865
A39								#8	2'6"	24	90
A40								#6	15'6"	10	233
A41								#6	4'3"	41	262
A42								#4	11'6"	56	430
A43								#4	17'0"	48	545
A44								#4	9'9"	59	384
A45								#6	13'6"	36	730
A46								#4	13'0"	60	521
A47								#4	23'9"	33	524
A48								#4	21'0"	12	168
A49								#6	22'9"	12	410
A50								#6	17'9"	24	640
A51								#6	21'9"	12	446
A52								#4	8'3"	4	22
A53								#4	10'6"	3	21
A54								#4	8'9"	2	12
B1	1'6 3/4	1'6"						#4	3'0"	11	22
C1	1'0 3/4	7'6"	1'0 3/4	1'0 3/4	1'6"	1'0 3/4	1'6"	#6	10'6"	22	347
C2	0'10"	4'6"	0'10"	1'3"	1'6"	1'3"	1'6"	#6	7'6"	11	124
C3	1'0"	4'0"	1'0"	1'1"	1'6"	1'1"	1'6"	#6	7'0"	11	116
D1	4'0 3/4	1'0"						#6	9'0"	91	1230
D2	4'0 3/4	0'6 3/4						#6	8'6"	111	1417
E1	1'2"	2'7 3/4	2'7 3/4	3'9"				#6	5'6"	91	752
E2	1'6"	1'5 1/2	0'10"	1'6"				#4	3'0"	11	22
E3	1'6"	1'0 3/4	1'0 3/4	1'6"				#4	3'0"	22	44
F1	2'2"	1'0 1/2	2'0"	0'2"	1'5"	1'5"		#4	5'10"	10	39
G1	3'0"	0'10"	0'10"	1'0 1/2				#4	8'8"	68	394
G2	1'0"	0'7"	0'6 1/2	0'7 1/2				#4	5'5"	68	246
H1	4'6"	1'0 1/2	5'1"	0'7 1/2	1'0"	0'11 1/2		#4	13'11"	23	201
Total Abutls 56,427#											

BAR	DIMENSIONS							SIZE	LENGTH	NO. REQ'D	TOTAL WT.
	a	b	c	d	e	f	g				
A101								#6	33'0"	28	1388
A102								#8	33'0"	28	2167
A103								#6	19'0"	86	2254
A104								#10	16'0"	42	2892
A105								#7	31'6"	8	515
A106								#4	32'3"	16	345
A107								#11	9'4"	60	2975
A108								#11	11'9"	60	3746
A109								#6	3'3"	4	80
A110								#11	25'0"	16	2125
A111								#11	20'6"	8	871
A112								#10	19'6"	12	1007
A113								#4	30'9"	6	794
A114								#4	21'3"	4	57
A115								#4	20'8"	2	27
B101	4'3"	0'6 3/4						#6	4'9"	4	29
C101	0'4 1/2	3'2"	0'4 1/2	2'11"	2'2"	2'4"	2'2"	#4	7'6"	41	205
D101	2'2"	3'1"									
G101	5'3"	0'6 3/4	1'11"	1'10"	1'7"			#6	7'8"	52	944
E101	3'2 1/2	1'5"	1'5"	1'10"				#4	11'0"	123	941
U101	2'10"	1'1"	4'5"	1'5"				#4	6'7"	6	26
V101	7'9"	0'4 1/2						#4	8'7"	45	258
Total Pier 29,086#											

BAR	DIMENSIONS							SIZE	LENGTH	NO. REQ'D	TOTAL WT.
	a	b	c	d	e	f	g				
A201								#4	29'3"	466	9105
A202								#5	30'0"	470	14706
A203								#6	25'0"	1108	41605
A204								#6	21'6"	554	17890
A205								#6	30'3"	72	3271
B201	8'10"	3 1/2"						#4	9'6"	276	1752
D201	0'6"	1'4"						#4	2'3"	276	415
D202	0'9"	1'3"						#4	2'5"	276	445
D203	2'1 1/2	0'6 1/4						#6	6'4"	276	2625
E201	1'3"	1'7 3/4	1'7 3/4	2'0"				#6	3'3"	3	15
E202	1'9"	1'7 3/4	1'7 3/4	2'0"				#6	3'9"	3	17
E203	1'2"	1'7 3/4	1'7 3/4	2'0"				#6	4'2"	3	19
E204	1'6"	1'7 3/4	1'7 3/4	2'0"				#6	4'6"	3	20
G201	1'8"	2'7 3/4	2'0"	1'5"	1'5"			#6	6'3"	4	38
P201	1'2"	1'2"	0'9"	0'9"				#4	4'11"	116	381
Total Superstructure 98,304#											
A301								#4	2'8"	16	29
E301	10'0"	1'7 1/2	0'7 1/2	1'9"				#4	11'9"	12	94
E302	11'9"	2'1 1/2	0'10"	2'3"				#4	14'0"	4	37
Total Conc Steps (Not a piers) 160#											



PLANS PREPARED BY
CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED: *[Signature]*
 STRUCTURAL ENGINEER

JOB No.
 PW 990(3)

MICHIGAN STATE HIGHWAY DEPARTMENT

STEEL REINFORCEMENT DETAILS

CITY OF DETROIT

REVISIONS

NO.	DESCRIPTION	DATE	BY

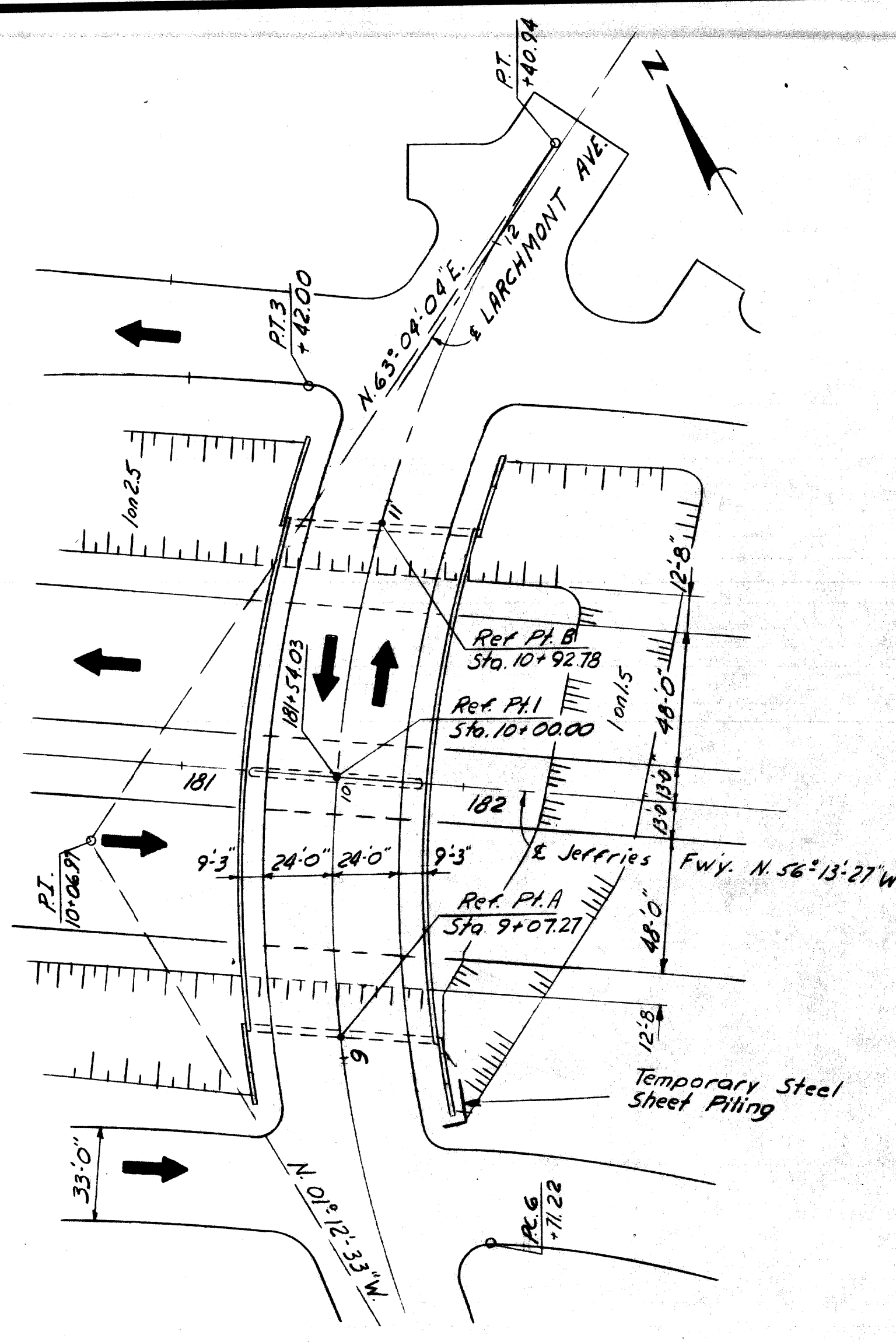
SQUAD BOSS: *Locher* 2-68
 DRAWN BY: *LBhart* 2-69
 TRACED BY: *GRANAGLIA* 3-69
 CHECKED BY: *GRANAGLIA* 3-69
 SHEET 22 OF 22

S50 of 82123J

Note:—
 All right angle bends in Reinforcing Steel to be made about a pin of the minimum diameter allowed by the Standard Specifications.

All bar numbers shown on this sheet are to be prefixed S50
 Steel for reinforcement shall be intermediate or hard grade.

Tolerances in cutting and bending bars are as established in Manual of Standard Practice of the Concrete Reinforcing Steel Institute and Detailing Manual of the American Concrete Institute.
 Grand Total Steel Reinforcement 172,817 #



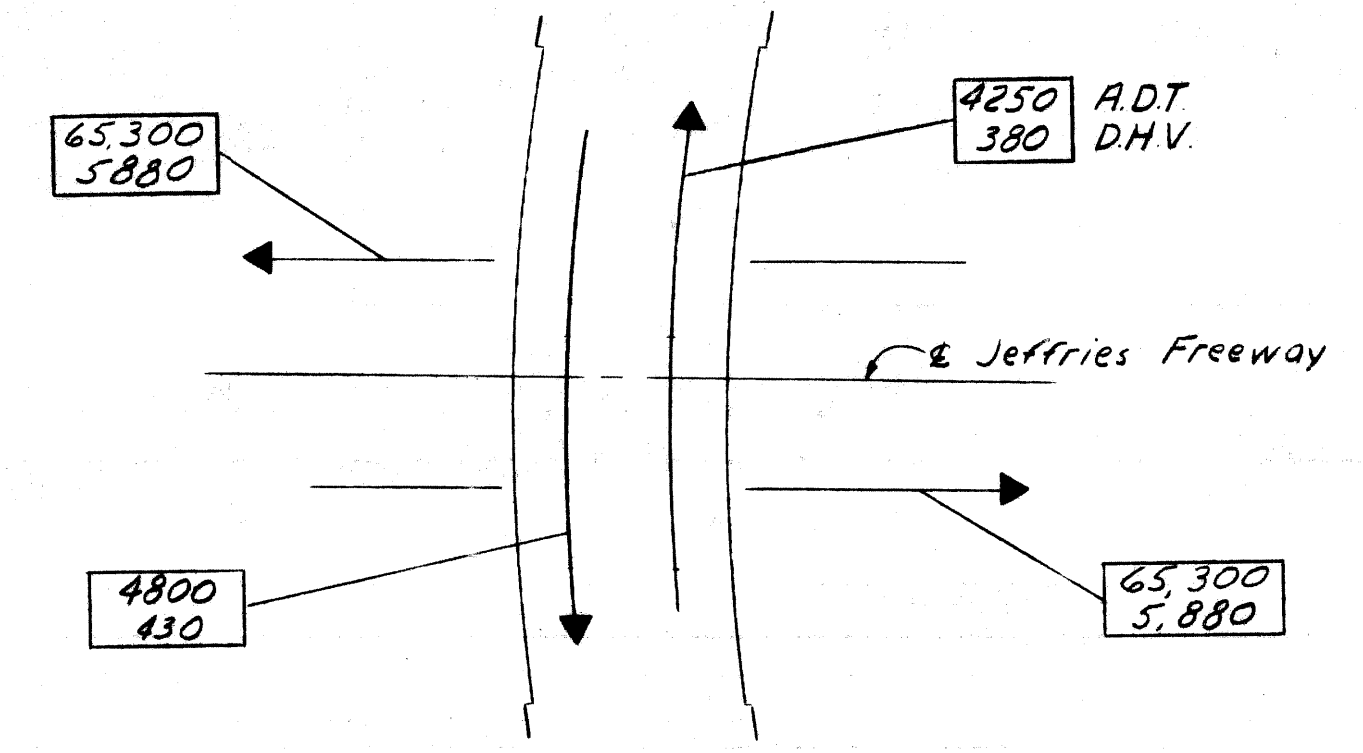
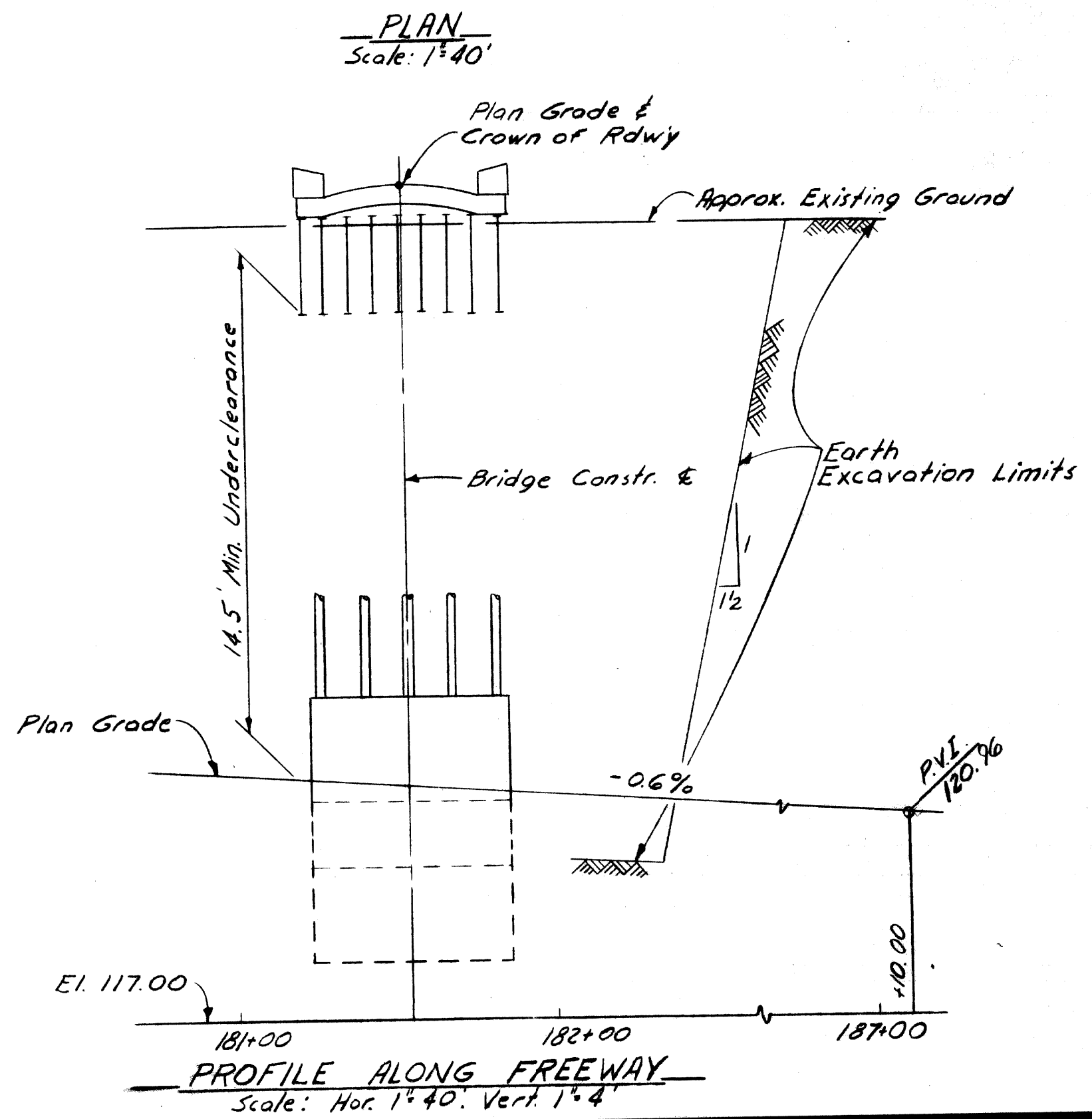
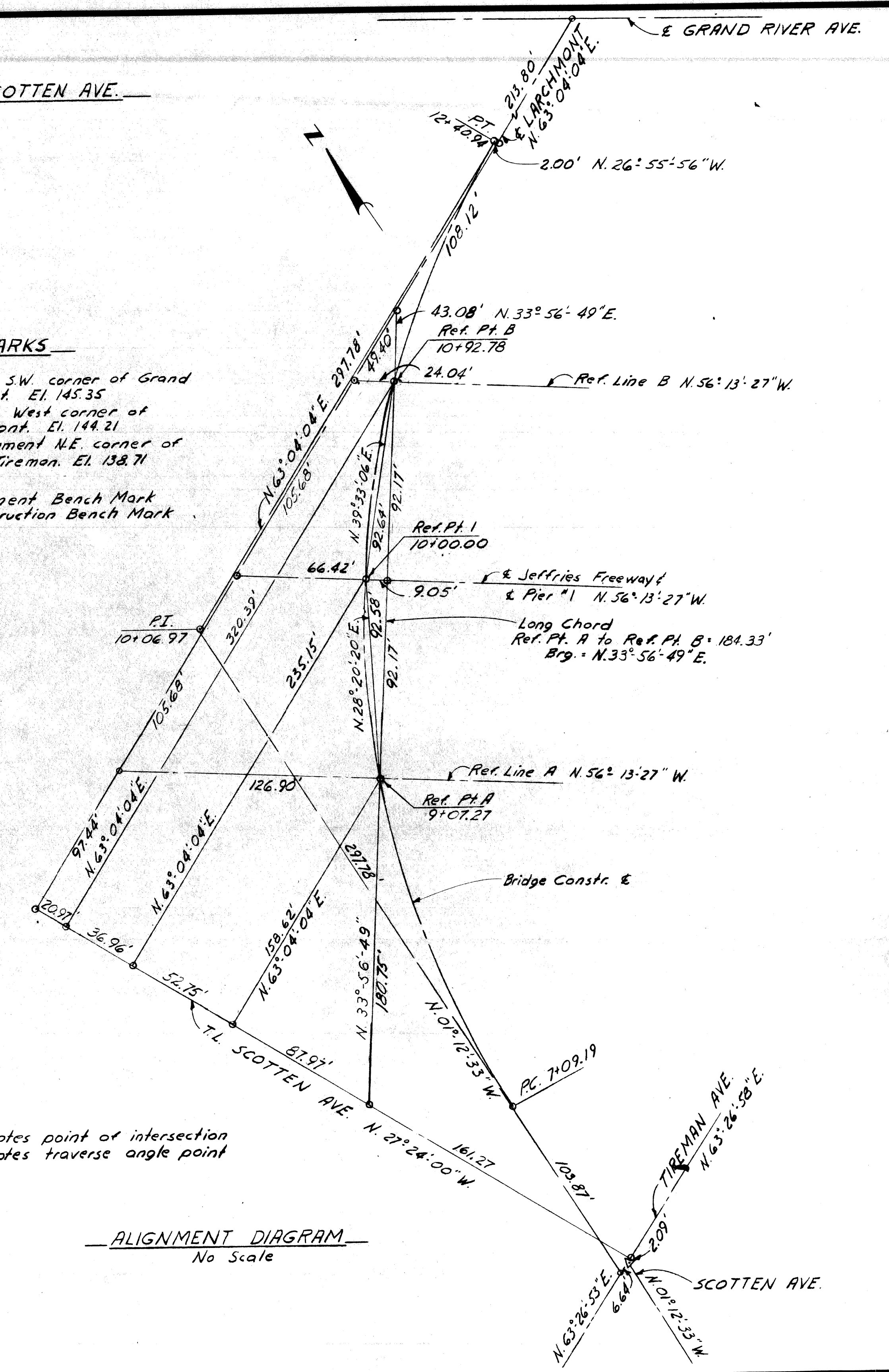
CURVE DATA FOR SCOTTEN AVE.

Δ: 64° 16' 37"
 D: 12° 05' 16"
 R: 474.00'
 T: 297.78'
 L: 531.75'
 E: 85.78'
 PC: 7+09.19
 PI: 10+06.97
 PT: 12+40.94

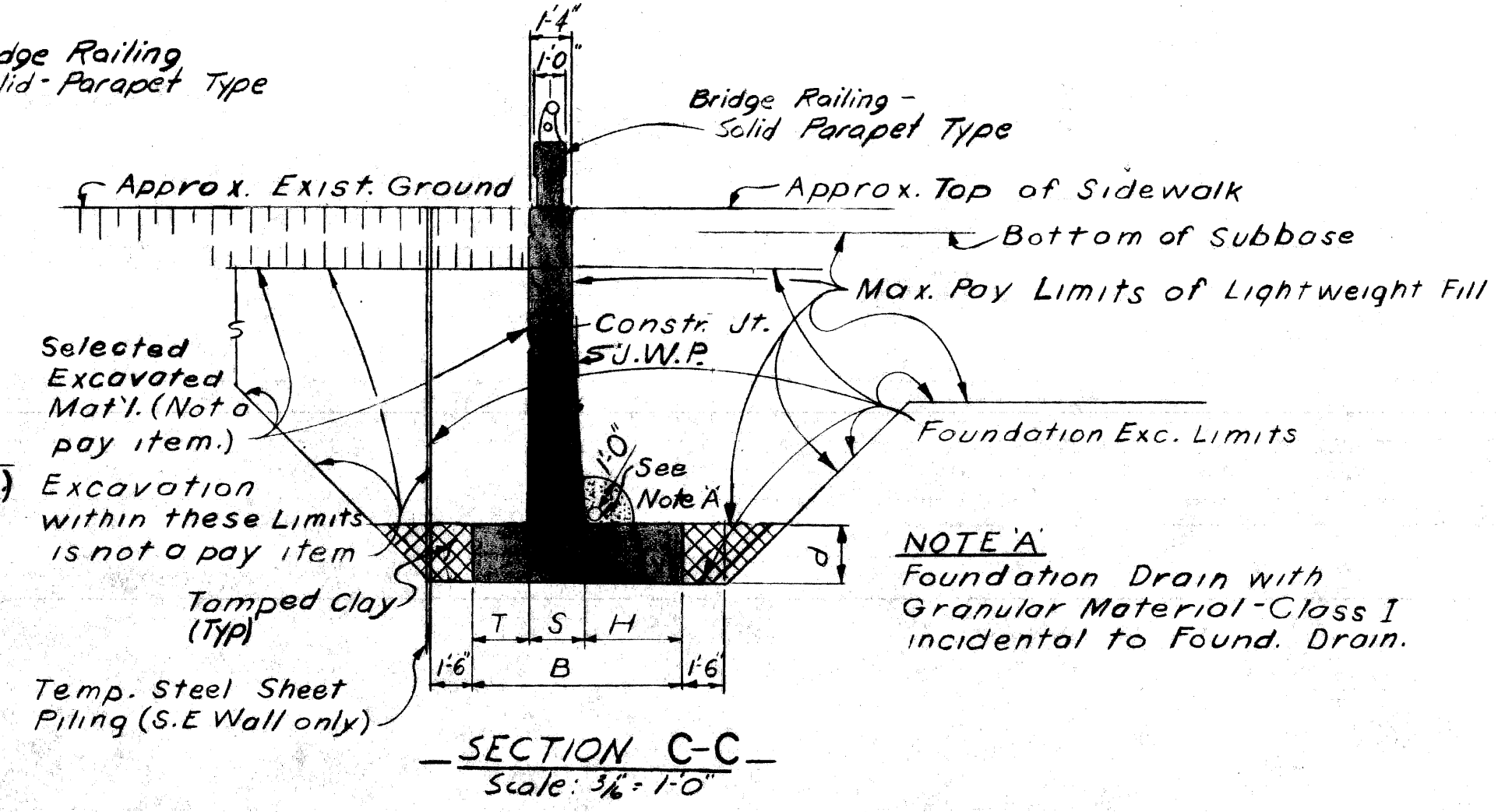
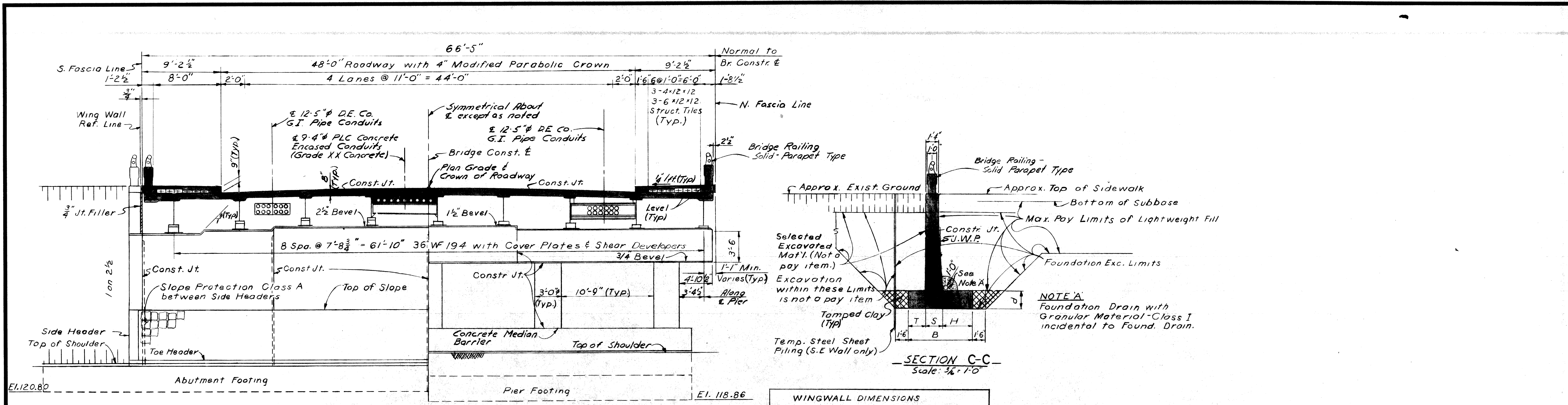
BENCH MARKS

C.B.M. 81 Arrow on Hydrant S.W. corner of Grand River & Larchmont. El. 145.35
 C.B.M. 82 Arrow on Hydrant West corner of Scotten & Larchmont. El. 144.21
 P.B.M. 21-251A Cot. D. Monument N.E. corner of Scotten & Tireman. El. 138.71

P.B.M. Denotes Permanent Bench Mark
 C.B.M. Denotes Construction Bench Mark



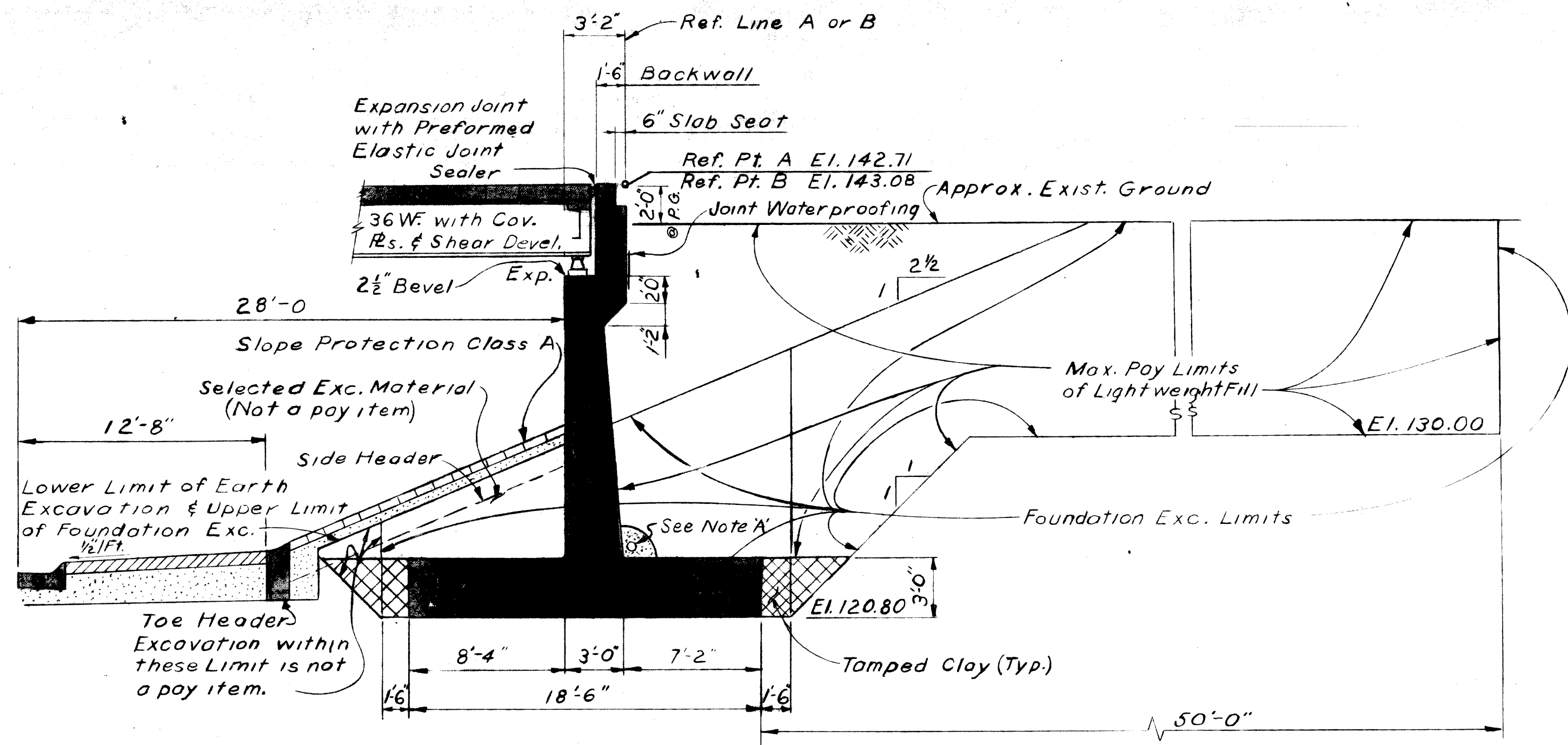
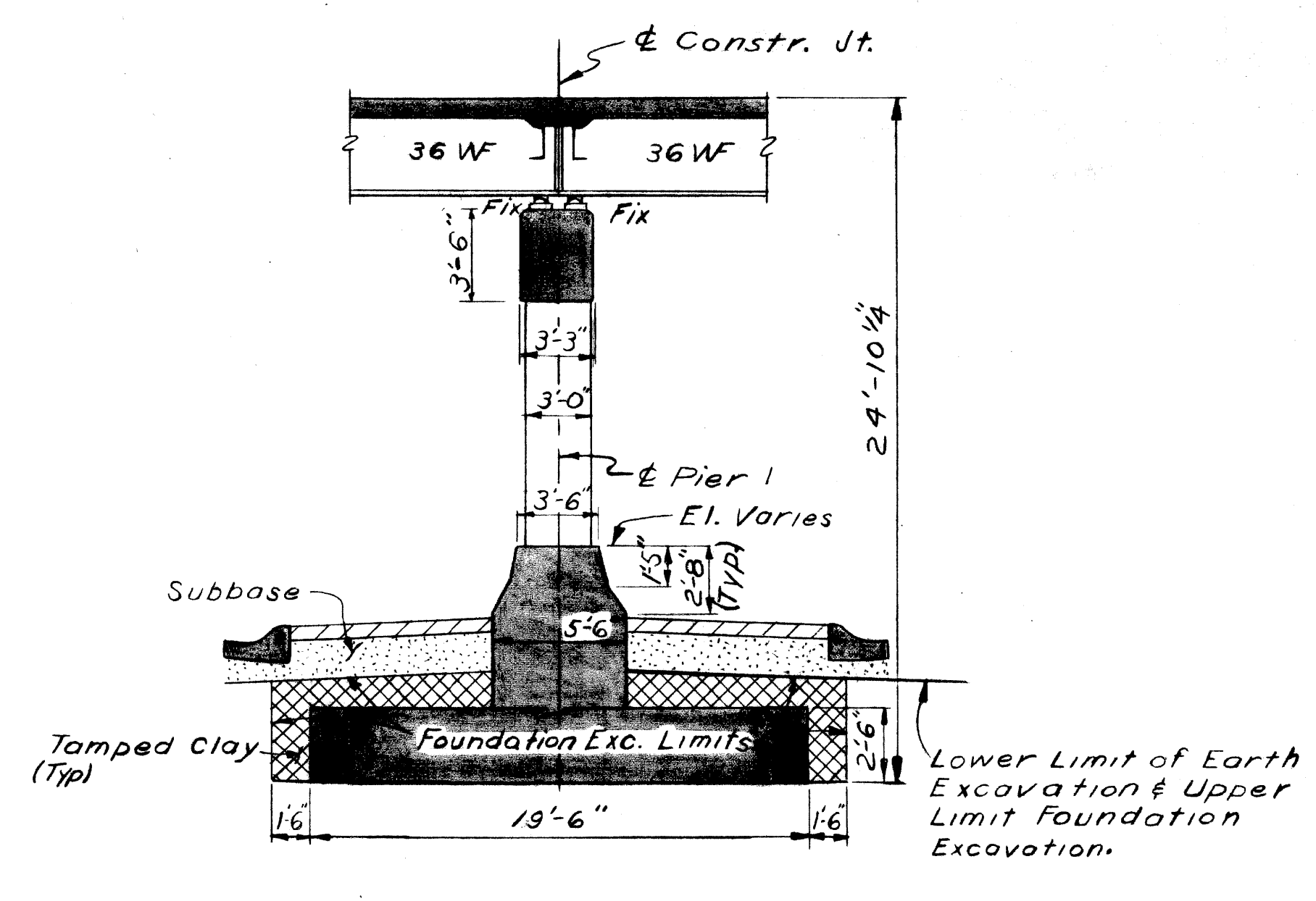
PLANS PREPARED BY CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE BUREAU OF HIGHWAYS AND EXPRESSWAYS		MICHIGAN DEPARTMENT OF STATE HIGHWAYS	
APPROVED _____ STRUCTURAL ENGINEER		JOB No. PW 990(3)	
REVISIONS NO. DESCRIPTION DATE BY		SCOTTEN AVE. CROSSING THE JEFFRIES FREEWAY IN DETROIT	
APPROVED _____ DESIGN SUPERVISING ENGINEER		GENERAL DRAWING	
APPROVED _____ ENGINEER OF DESIGN CONSULTANTS		CITY OF DETROIT SQUAD BOSS <i>K. James</i> 4-68 DRAWN BY <i>Garavaglia</i> 2-68 CHECKED BY <i>DJR</i> 4-68 SHEET 2 OF 5 S50 of 82123J	



WINGWALL DIMENSIONS

Section	T	S	H	B	d
1	3'-3"	2'-7"	Part of Abut. Footing		
2	3'-3"	2'-0"	4'-3"	9'-6"	2'-6"
3	2'-6"	1'-8"	2'-10"	7'-0"	2'-0"

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



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

PLANS PREPARED BY
 CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED _____
 STRUCTURAL ENGINEER

JOB No.
 PW 0107

NO.	DESCRIPTION	DATE	BY

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

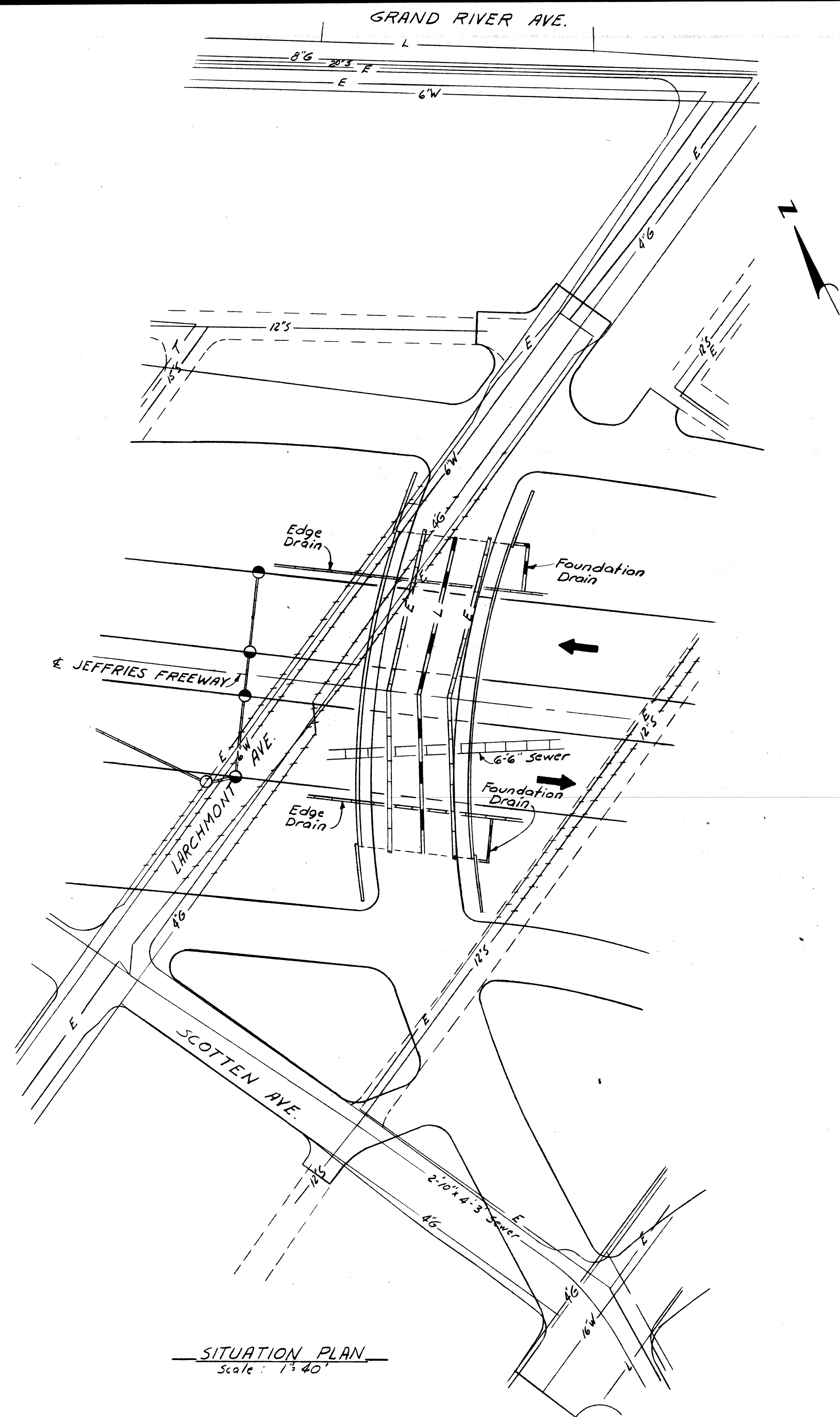
SCOTTEN AVE. CROSSING
 THE JEFFRIES FREEWAY IN DETROIT
 GENERAL PLAN OF STRUCTURE

APPROVED _____
 DESIGN SUPERVISING ENGINEER

APPROVED _____
 ENGINEER OF DESIGN CONSULTANTS

CITY OF DETROIT

SQUAD BOSS	DATE
RAMES	4-68
SPURGEON	5-68
TRACED BY	
CHECKED BY	DJR 4-68
SHEET	4 OF 5



SITUATION PLAN
Scale: 1" = 40'

LEGEND

UTILITY	Existing	Deleted or Abandoned	New Work by Others	New Work by Contractor
Michigan Consolidated Gas Co.	— G —	--- G ---	--- G ---	--- G ---
Water	— W —	--- W ---	--- W ---	--- W ---
Sewers	— S —	--- S ---	== S ==	== S ==
Michigan Bell Telephone Co.	— T —	--- T ---	--- T ---	--- T ---
Public Lighting Commission	— L —	--- L ---	--- L ---	--- L ---
Detroit Edison Co.	— E —	--- E ---	== E ==	== E ==

NOTE:
 Bridge construction and utility alterations are included in package contract for control section 82123 J.
 The contractor shall locate all active underground utilities prior to starting work, and shall conduct his operations in such a manner as to insure that those utilities not requiring relocation will not be disturbed.

PLANS PREPARED BY
 CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERING
 BUREAU OF PLANNING AND DESIGN

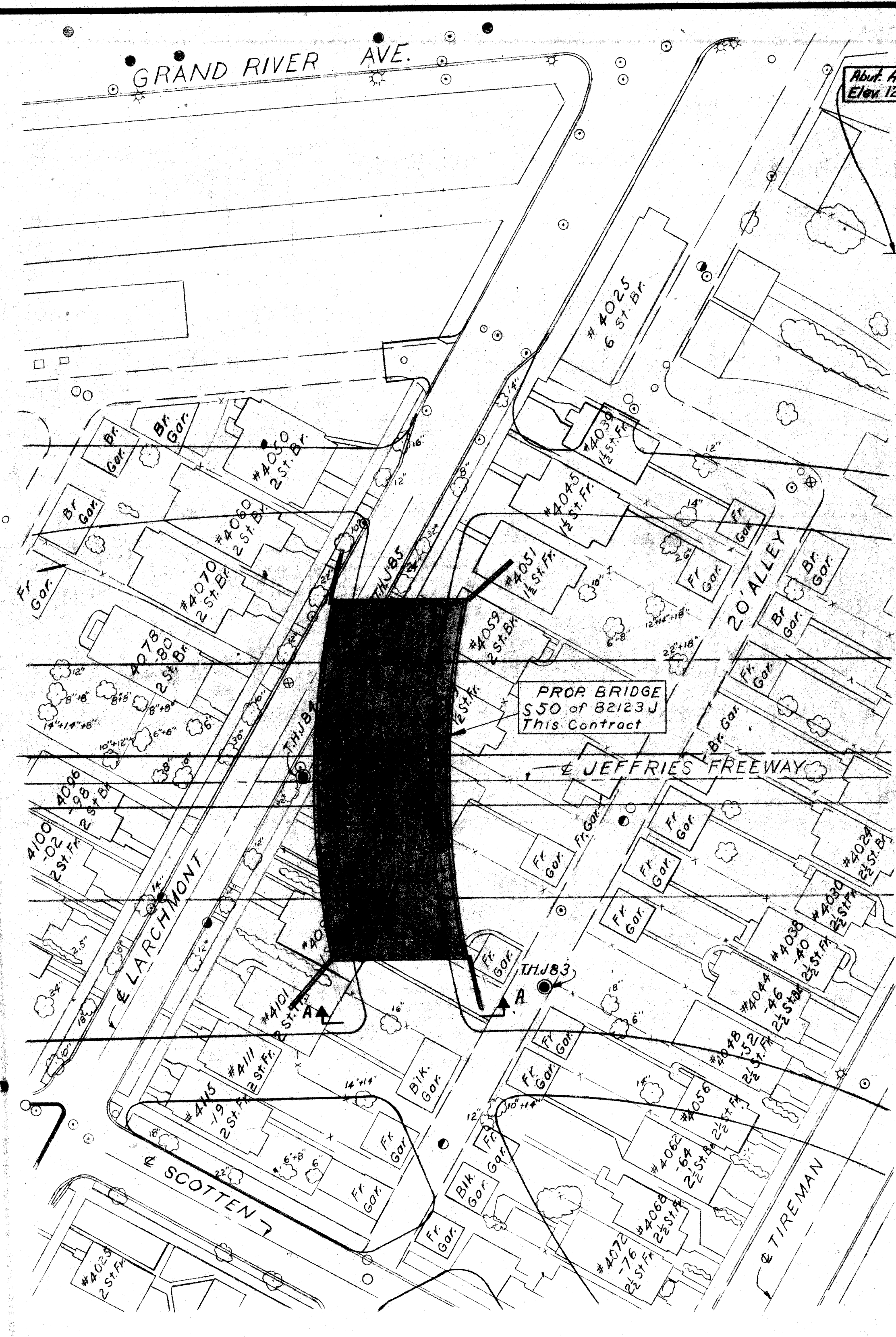
MICHIGAN DEPARTMENT OF STATE HIGHWAYS

SCOTTEN AVE. CROSSING THE
 JEFFRIES FREEWAY IN DETROIT
 EXISTING UTILITIES AND
 PROPOSED ALTERATIONS

NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT			
SQUAD BOSS	A. James	4-68	
DRAWN BY	Garavaglia	3-68	
CHECKED BY	DJR	4-68	
SHEET	3	OF	5

S50 of 82123 J



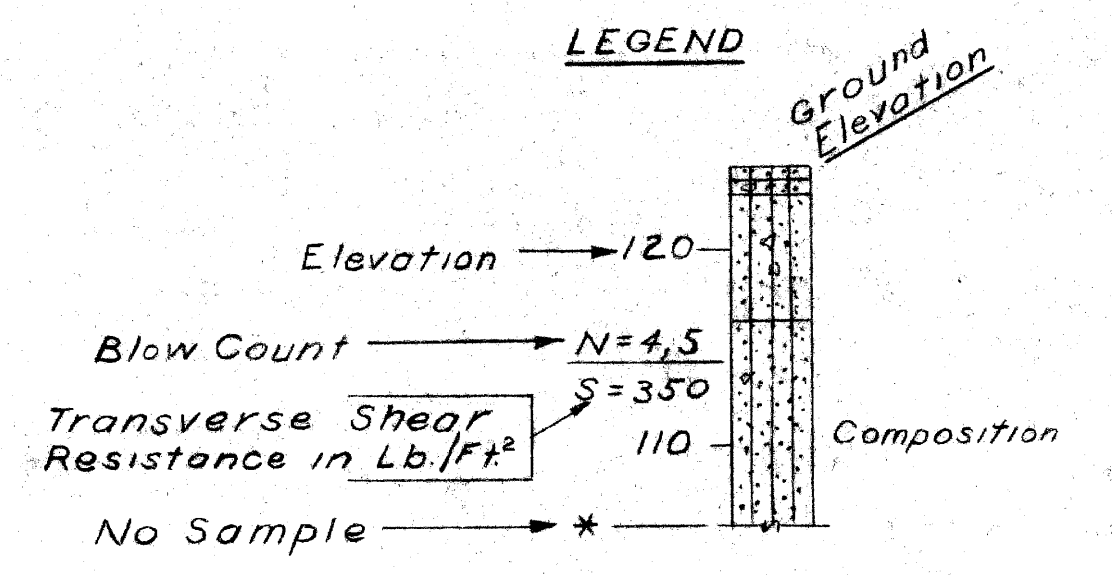
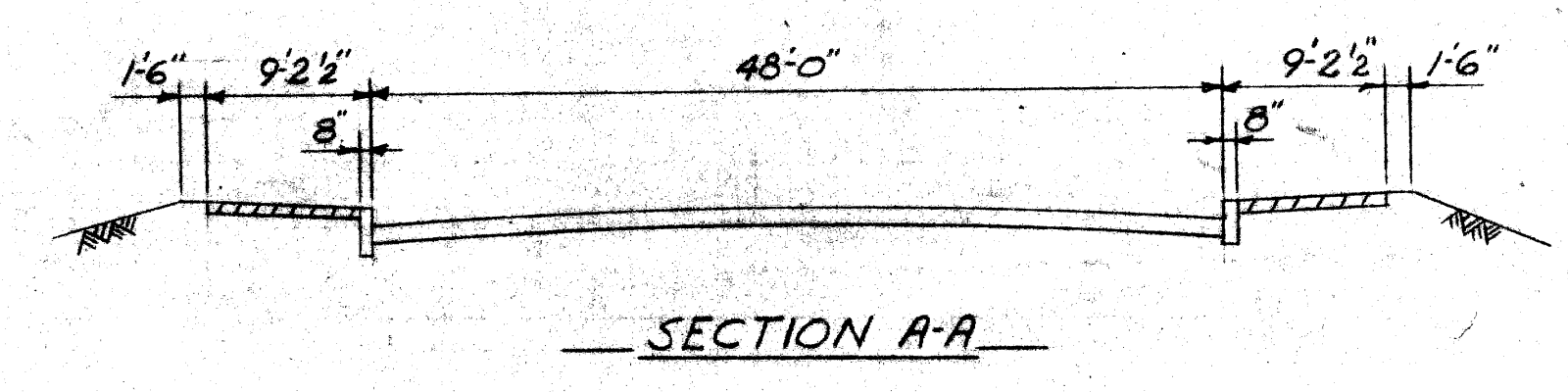
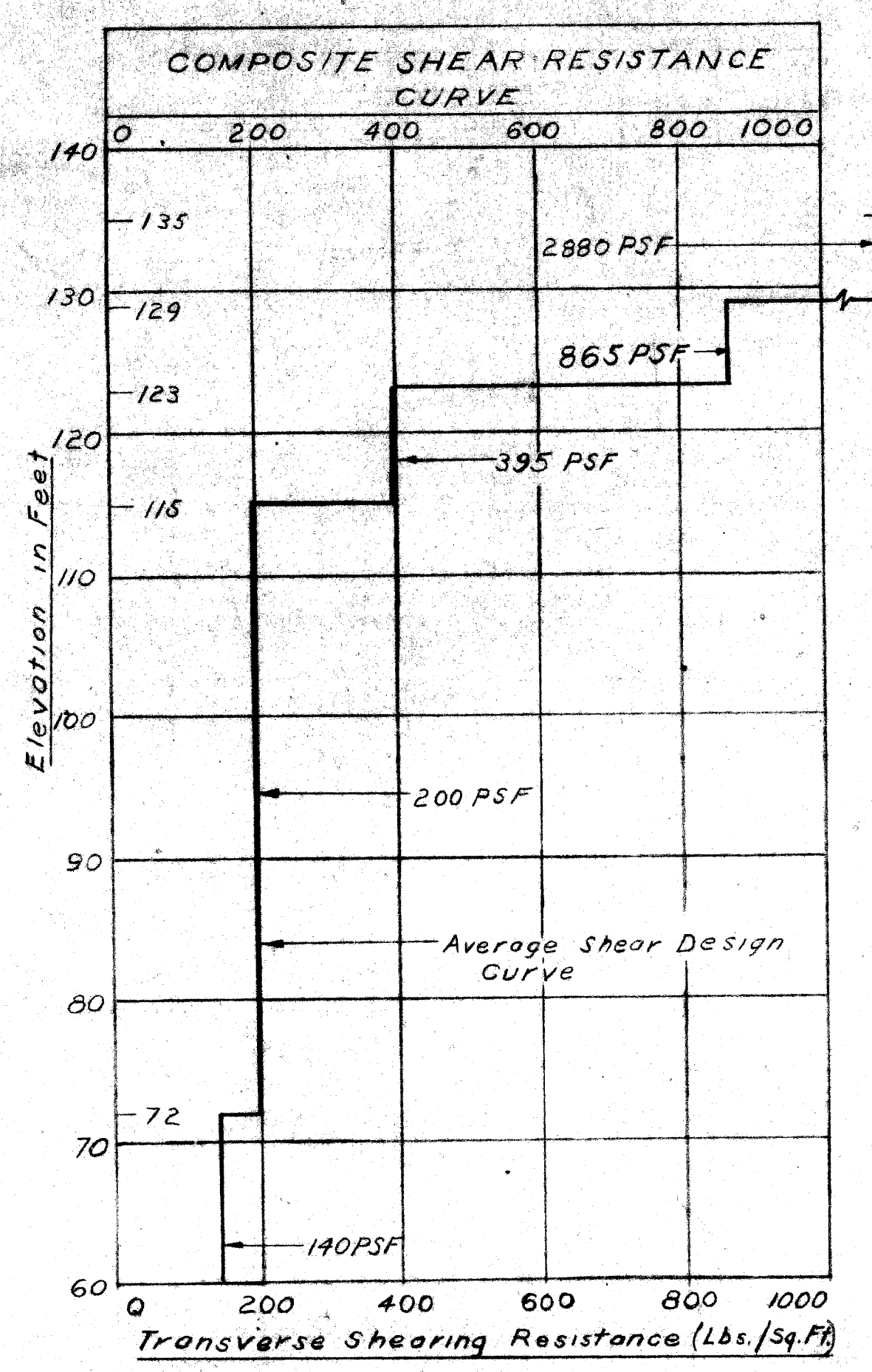
SURVEY PLAN
Scale 1" = 40'

- LEGEND**
- Tree 12" (Size)
 - x — Fence
 - Sewer Manhole
 - P.L.C. Manhole
 - ⊕ Water Gate Well & Valve
 - D.E. Manhole
 - ⊙ P.L.C. Lightpole
 - Sewer Inlet or Catch Basin
 - Test Hole for Soil Profile

LOG OF SOIL BORINGS

Boring ID	Elevation (ft)	Soil Description	Notes
Abut. A Ftg. Elev. 120.00	140	Stiff moist sandy brown clay fill, some cinders, pebbles, light vegetation.	
T.H. J83	130	Stiff moist oxidized brown clay, some sand & pebbles.	
	120	Very stiff moist silty oxidized brown clay, sand & pebbles.	
	110	Extremely stiff moist silty oxidized brown clay, sand & pebbles.	
	100	Very stiff moist silty oxidized brown clay, sand & pebbles, rouge markings.	
Pier #1 Ftg. Elev. 119.00	140	Soft moist sandy black topsoil	
T.H. J84	130	Firm moist sandy discolored clay, medium vegetation	
	120	Stiff moist silty oxidized variegated clay, sand & pebbles, lenses of sand	
	110	Very stiff moist silty oxidized variegated clay sand & pebbles.	
	100	Extremely stiff moist oxidized brown clay, sand & pebbles.	
	90	Extremely stiff moist oxidized blue clay, sand & pebbles.	
	80	Very stiff moist blue clay, sand & pebbles	
	70	Stiff moist silty blue clay, sand & pebbles, traces of gray sand & gravel.	
	60	Firm moist silty blue clay, sand & pebbles.	
	50	Firm moist silty blue clay, high sand & pebble content, rouge markings.	
	40	Firm moist silty blue clay, occasional rouge markings.	
	30	Firm moist silty blue clay, occasional rouge markings.	
	20	Soft moist silty blue clay.	
	10	Firm moist silty blue clay, sand & pebbles.	
	0	End of boring (Refusal)	
		No noticeable ground water at 12'	
		Abut. B Ftg. Elev. 120.00	
T.H. J85	140	Compact moist sandy black topsoil, medium vegetation & pebbles.	
	130	Firm moist silty oxidized variegated clay, sand & pebbles.	
	120	Stiff moist oxidized brown clay, sand & pebbles, streaks of silt.	
	110	Very stiff moist silty oxidized brown clay, sand & pebbles.	
	100	Firm wet silty blue clay, sand & pebbles, occasional rouge markings.	
	90	Firm wet silty blue clay, sand & pebbles, occasional rouge markings.	
	80	Firm wet silty blue clay, sand & pebbles, occasional rouge markings.	
	70	Firm wet silty blue clay, sand & pebbles, occasional rouge markings.	
	60	Firm wet silty blue clay, sand & pebbles, occasional rouge markings.	
	50	Firm wet silty blue clay, sand & pebbles, occasional rouge markings.	
	40	Firm wet silty blue clay, sand & pebbles, occasional rouge markings.	
	30	Firm wet silty blue clay, sand & pebbles, occasional rouge markings.	
	20	Firm wet silty blue clay, sand & pebbles, occasional rouge markings.	
	10	Firm wet silty blue clay, sand & pebbles, occasional rouge markings.	
	0	End of boring	
		No noticeable ground water @ 10'	

NOTE: Transverse Shearing Resistance is not available for boring T.H. J83.



NOTES:
 N Indicates the number of blows required to drive the 2" O.D. Sampler 6" (or as noted) using a 140# hammer falling 30". Where blow count is not shown, Sampler was levered, pushed or hand driven.
 S Indicates Transverse Shearing Resistance in Lbs. per Sq. Ft. as determined by M.D.S.H. Standard Test.
 * Indicates No Sample.
 The topography shown represents conditions existing at the time the field survey was made. These conditions may have been altered by the operations of others before this work is started.
 Bench Marks are referenced to the City of Detroit Datum.
 The work covered by these plans includes construction of the proposed bridge and placing lightweight fill & Slope protection to the limits shown. All other work is included in the road plans which are a part of this contract.
 Removal of fences and buildings is not part of this Contract.

PLANS PREPARED BY
 CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED: [Signature] STRUCTURAL ENGINEER

JOB No. PW 990(3)

NO.	DESCRIPTION	DATE	BY

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

SCOTTEN AVE. CROSSING THE JEFFRIES FREEWAY IN DETROIT

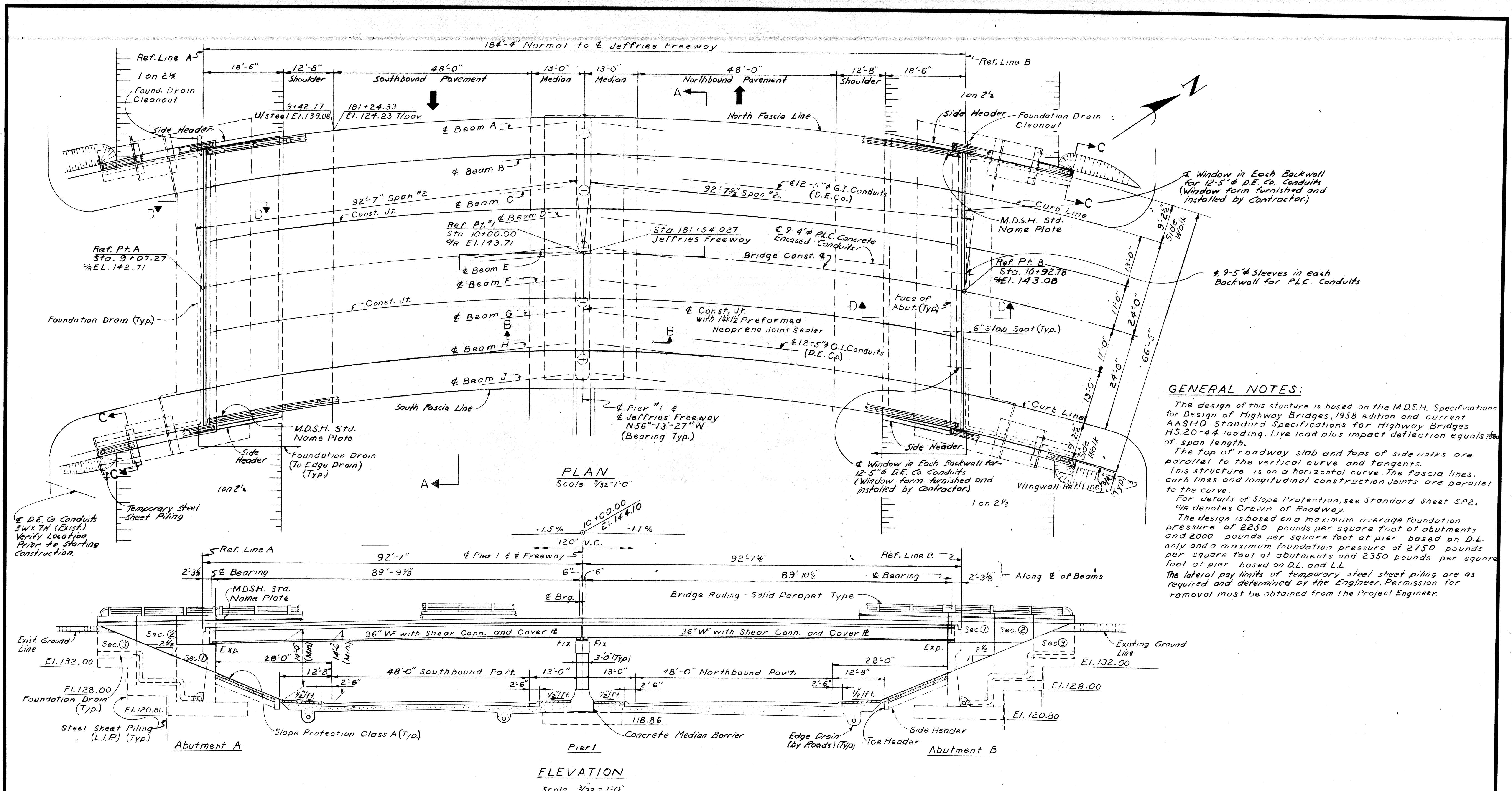
GENERAL PLAN OF SITE

APPROVED: [Signature] DESIGN SUPERVISING ENGINEER

APPROVED: [Signature] DESIGN ENGINEER

CITY OF DETROIT	
SQUAD BOSS	R. James 4-68
DRAWN BY	SPURGEON 2-68
CHECKED BY	D.V.R. 4-68
SHEET 2 OF 22	

S50 of 82123J



GENERAL NOTES:

The design of this structure is based on the M.D.S.H. Specifications for Design of Highway Bridges, 1958 edition and current AASHTO Standard Specifications for Highway Bridges HS-20-44 loading. Live load plus impact deflection equals dead of span length.

The top of roadway slab and tops of sidewalks are parallel to the vertical curve and tangents.

This structure is on a horizontal curve. The fascia lines, curb lines and longitudinal construction joints are parallel to the curve.

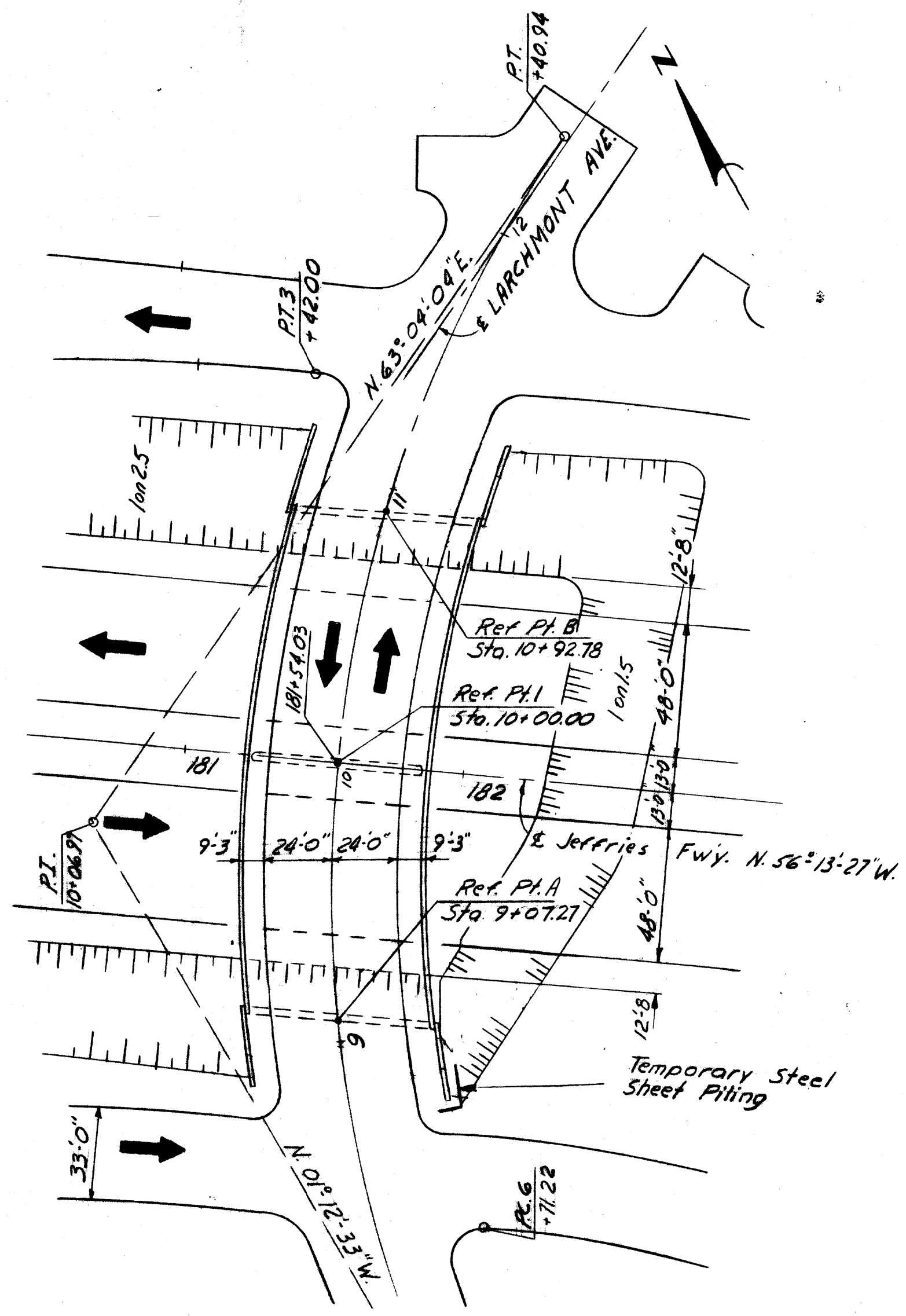
For details of Slope Protection, see Standard Sheet SP-2.

c/c denotes Crown of Roadway.

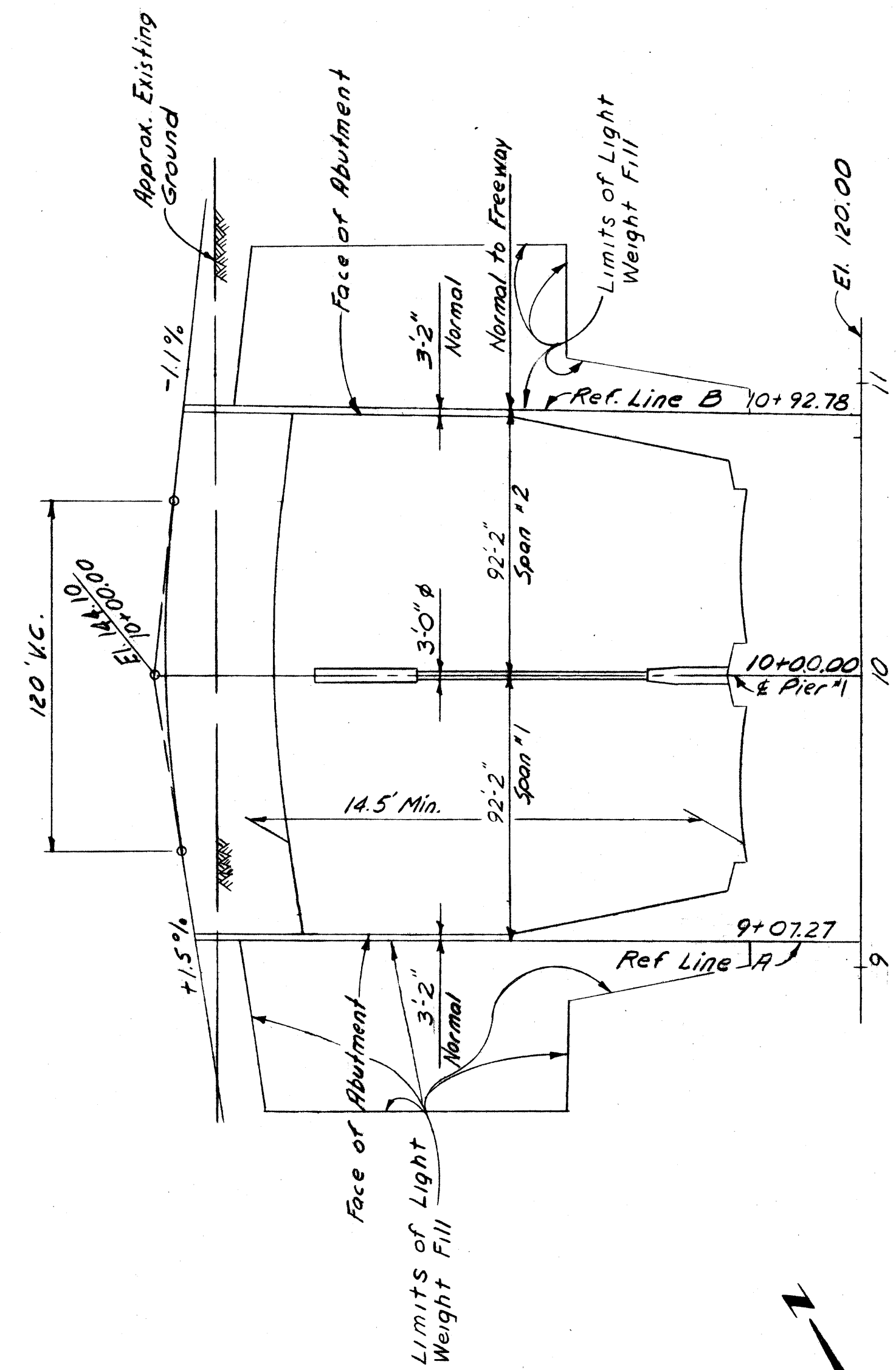
The design is based on a maximum average foundation pressure of 2250 pounds per square foot at abutments and 2000 pounds per square foot at pier based on D.L. only and a maximum foundation pressure of 2750 pounds per square foot at abutments and 2350 pounds per square foot at pier based on D.L. and L.L.

The lateral pile limits of temporary steel sheet piling are as required and determined by the Engineer. Permission for removal must be obtained from the Project Engineer.

PLANS PREPARED BY CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE BUREAU OF HIGHWAYS AND EXPRESSWAYS		MICHIGAN DEPARTMENT OF STATE HIGHWAYS SCOTTEN AVE. CROSSING THE JEFFRIES FREEWAY IN DETROIT GENERAL PLAN OF STRUCTURE	
APPROVED _____ STRUCTURAL ENGINEER	JOB NO. PW 39010	CITY OF DETROIT SQUAD BOSS <i>C. James</i> 4-68 DRAWN BY <i>SPURGEON</i> 2-68 TRACED BY _____ CHECKED BY <i>DJR</i> 4-68 SHEET 3 OF 5	
REVISIONS NO. DESCRIPTION DATE BY		APPROVED _____ DESIGN SUPERVISING ENGINEER	APPROVED _____ ENGINEER OF DESIGN CONSULTANTS



PLAN
Scale: 1"=40'

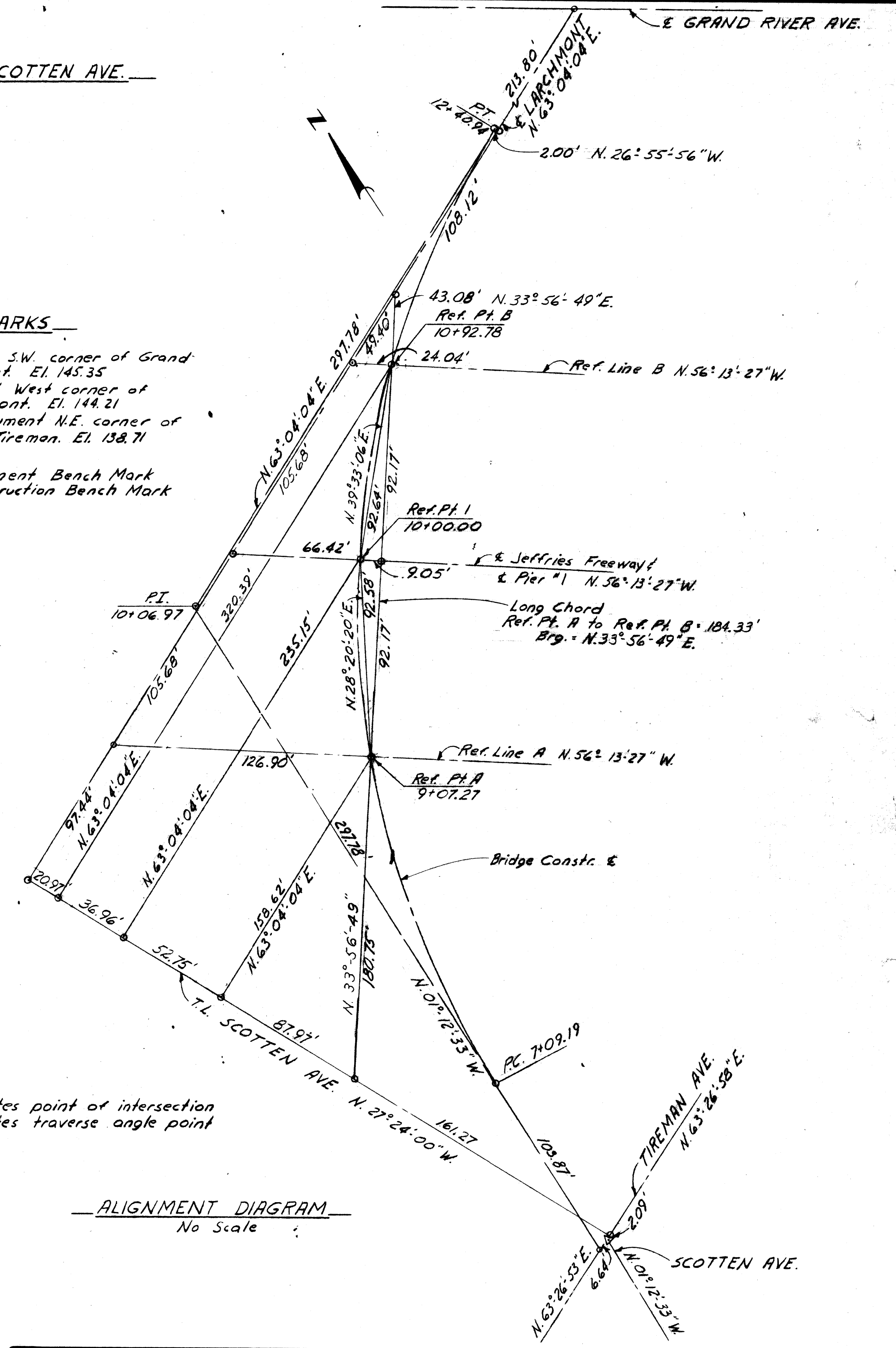


PROFILE ALONG BRIDGE CONSTR. &
Scale: Hor. 1"=40' Vert. 1"=4'

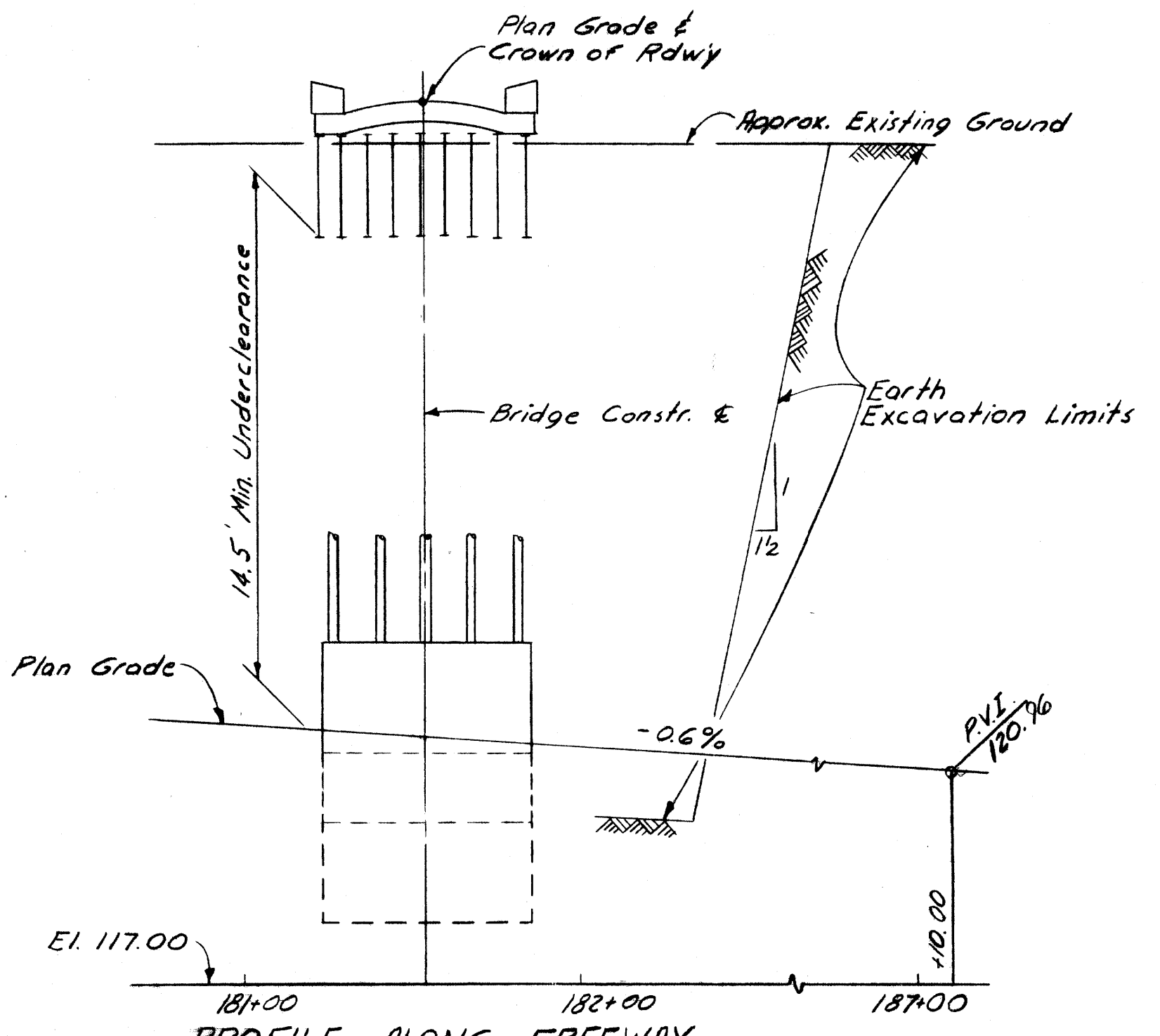
CURVE DATA FOR SCOTTEN AVE.
 $\Delta = 64^{\circ}16'37''$
 $D = 12^{\circ}05'16''$
 $R = 474.00'$
 $T = 297.78'$
 $L = 531.75'$
 $E = 85.78'$
 $PC = 7+09.19$
 $PI = 10+06.97$
 $PT = 12+40.94$

BENCH MARKS

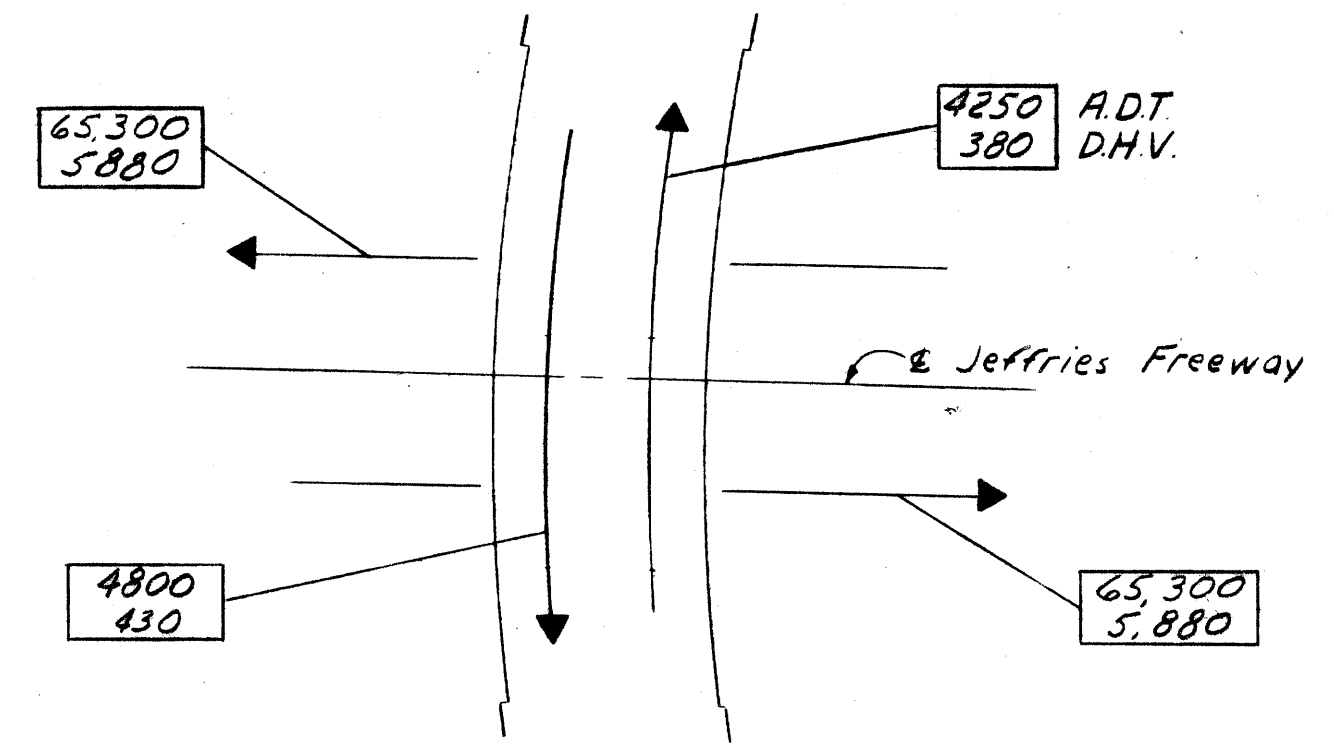
C.B.M. B1 Arrow on Hydrant S.W. corner of Grand River & Larchmont. El. 145.35
 C.B.M. B2 Arrow on Hydrant West corner of Scotten & Larchmont. El. 144.21
 P.B.M. 21-251 A C of D. Monument N.E. corner of Scotten & Tireman. El. 138.71
 P.B.M. Denotes Permanent Bench Mark
 C.B.M. Denotes Construction Bench Mark



ALIGNMENT DIAGRAM
No Scale



PROFILE ALONG FREEWAY
Scale: Hor. 1"=40' Vert. 1"=4'

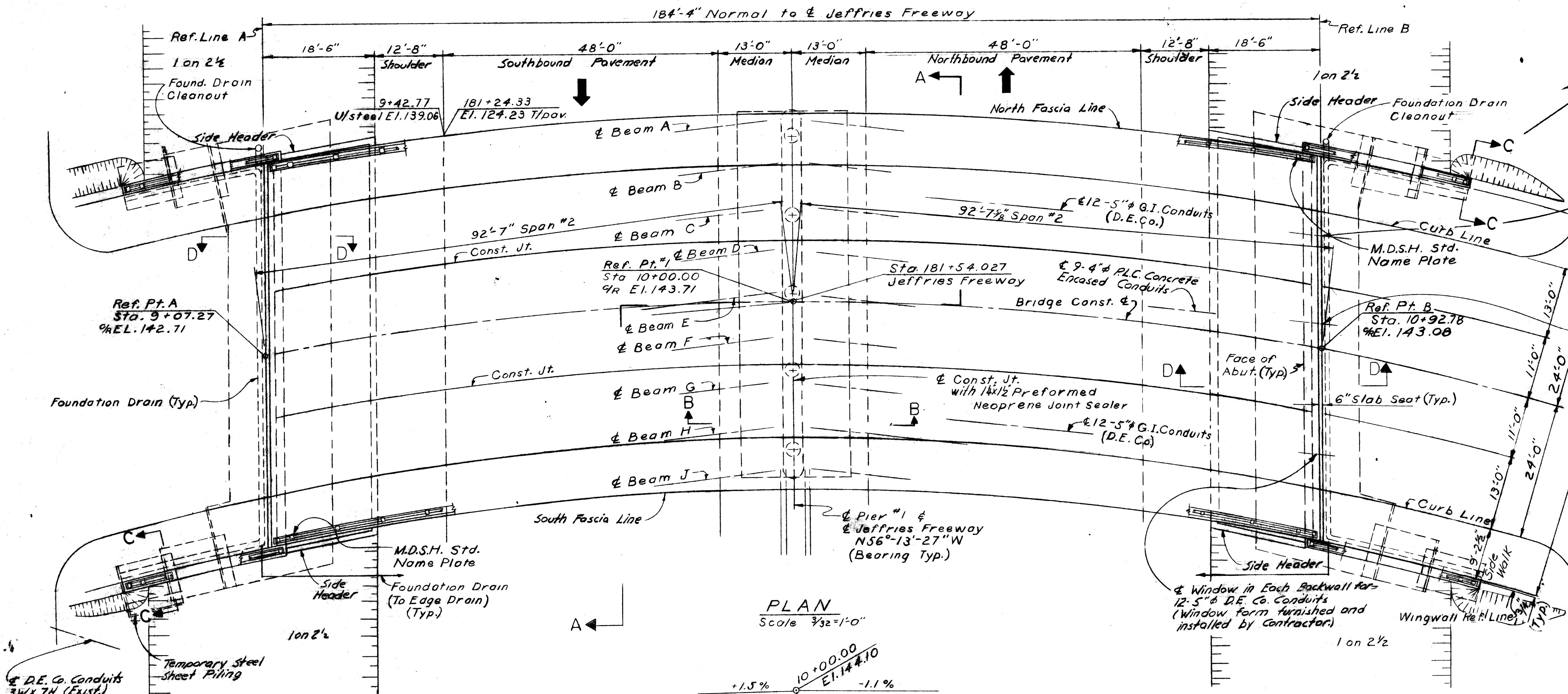


TRAFFIC COUNT
Estimated Traffic 1990

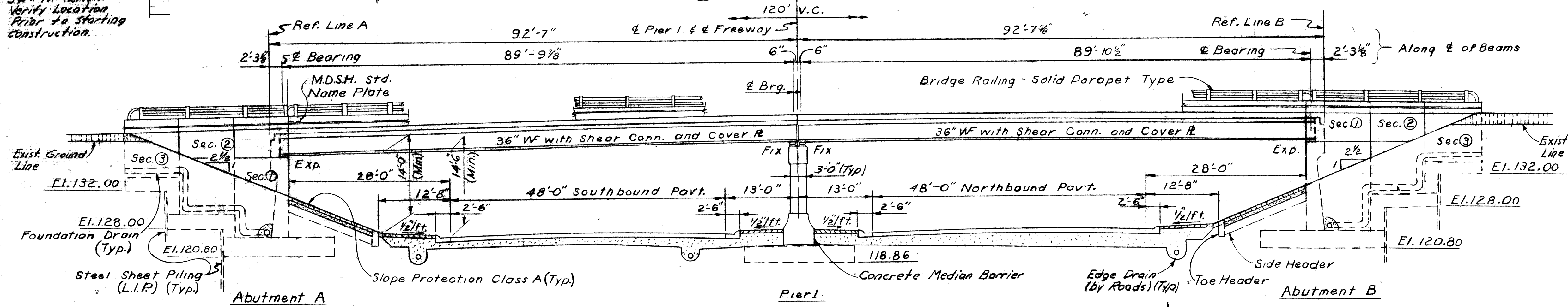
ADT denotes Average Daily Traffic
 DHV denotes Design Hourly Volume

PLANS PREPARED BY CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE BUREAU OF HIGHWAYS AND EXPRESSWAYS			
APPROVED _____ STRUCTURAL ENGINEER	JOB No. PW 990(3)		
REVISIONS			
NO.	DESCRIPTION	DATE	BY

MICHIGAN DEPARTMENT OF STATE HIGHWAYS	
SCOTTEN AVE. CROSSING THE JEFFRIES FREEWAY IN DETROIT	
GENERAL DRAWING	
APPROVED _____ DESIGN SUPERVISING ENGINEER	CITY OF DETROIT SQUAD BOSS P. James 1-68 DRAWN BY Garavaglia 1-68 CHECKED BY D.J.R. 4-68 SHEET 2 of 3
APPROVED _____ ENGINEER OF DESIGN CONSULTANTS	S50 of 82123J



PLAN
Scale 3/32" = 1'-0"



ELEVATION
Scale 3/32" = 1'-0"

GENERAL NOTES:

The design of this structure is based on the M.D.S.H. Specifications for Design of Highway Bridges, 1958 edition and current AASHTO Standard Specifications for Highway Bridges H.S. 20-44 loading. Live load plus impact deflection equals 1.33 times of span length.

The top of roadway slab and tops of sidewalks are parallel to the vertical curve and tangents. This structure is on a horizontal curve. The fascia lines, curb lines and longitudinal construction joints are parallel to the curve.

For details of Slope Protection, see Standard Sheet SP.2. C/R denotes Crown of Roadway.

The design is based on a maximum average foundation pressure of 2250 pounds per square foot at abutments and 2000 pounds per square foot at pier based on D.L. only and a maximum foundation pressure of 2750 pounds per square foot at abutments and 2350 pounds per square foot at pier based on D.L. and L.L.

The lateral pay limits of temporary steel sheet piling are as required and determined by the Engineer. Permission for removal must be obtained from the Project Engineer.

PLANS PREPARED BY
CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEERS OFFICE
BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED _____
STRUCTURAL ENGINEER

JOB No.
PW 990(3)

NO.	DESCRIPTION	DATE	BY

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

SCOTTEN AVE. CROSSING THE
JEFFRIES FREEWAY IN DETROIT
GENERAL PLAN OF STRUCTURE

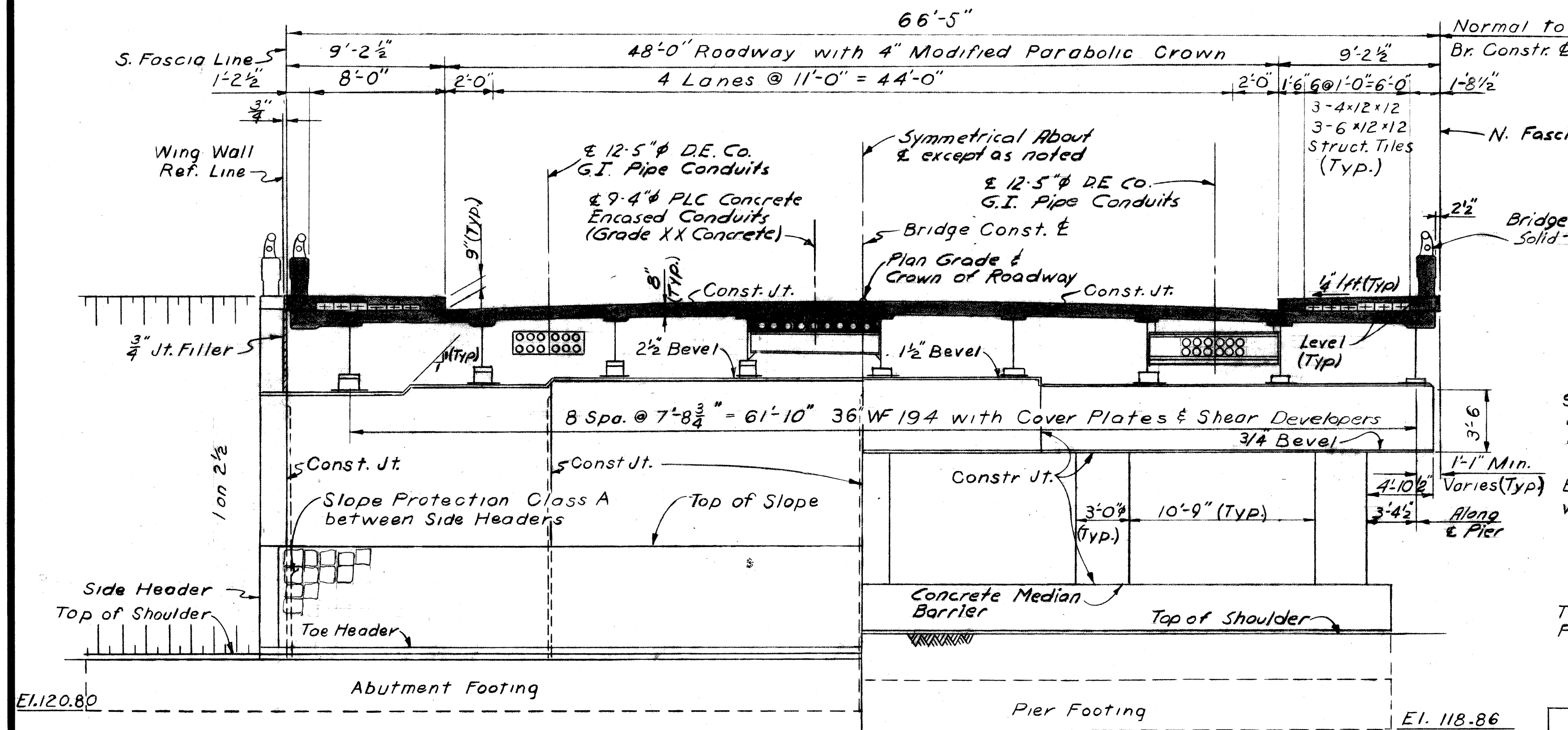
CITY OF DETROIT

SQUAD BOSS *E. James* 4-68
DRAWN BY *SPURGEON* 2-68
TRACED BY
CHECKED BY *DJR* 4-68
SHEET 3 OF 5

APPROVED _____
DESIGN SUPERVISING ENGINEER

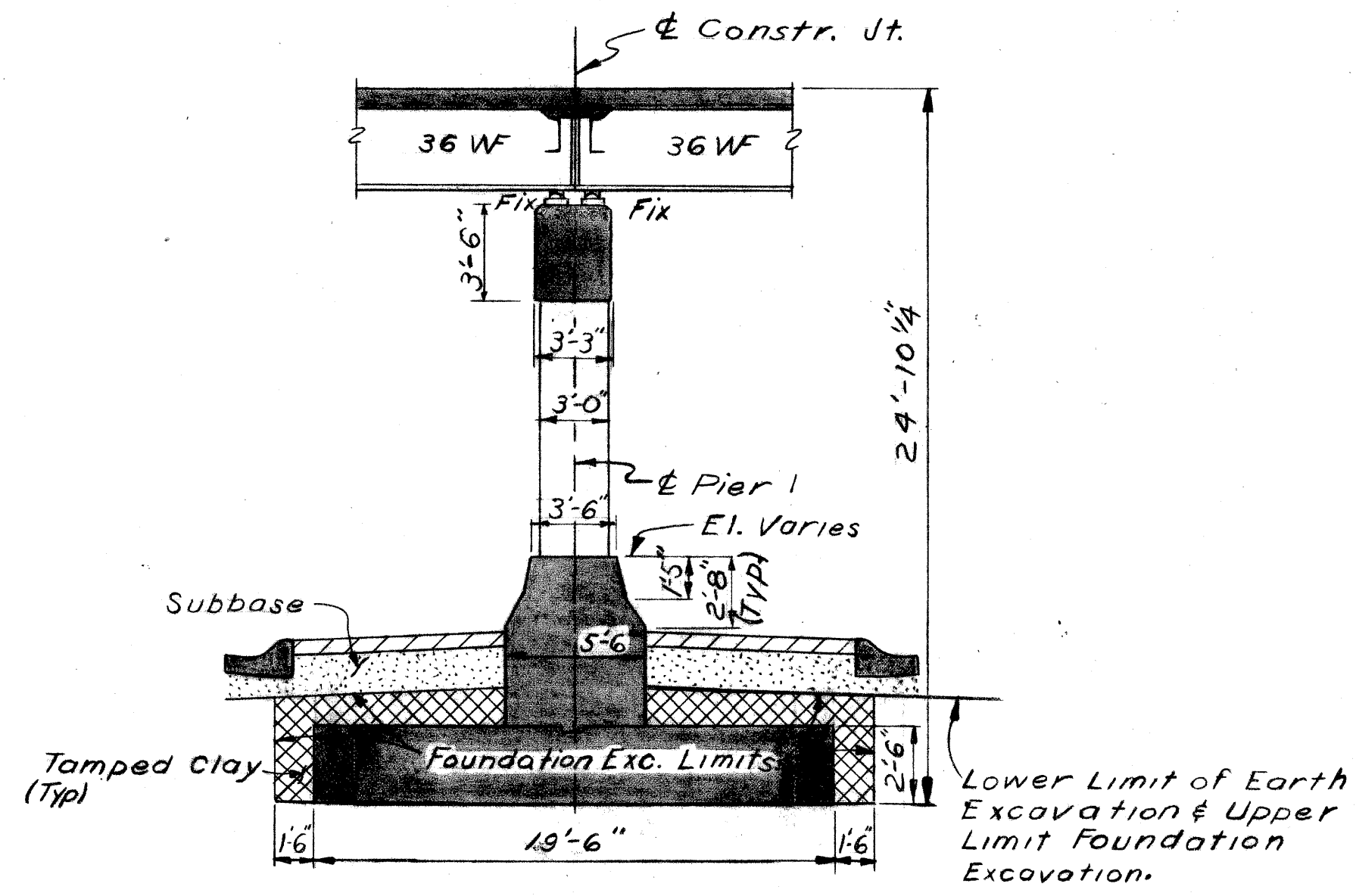
APPROVED _____
ENGINEER OF DESIGN CONSULTANTS

S50 of 82123J

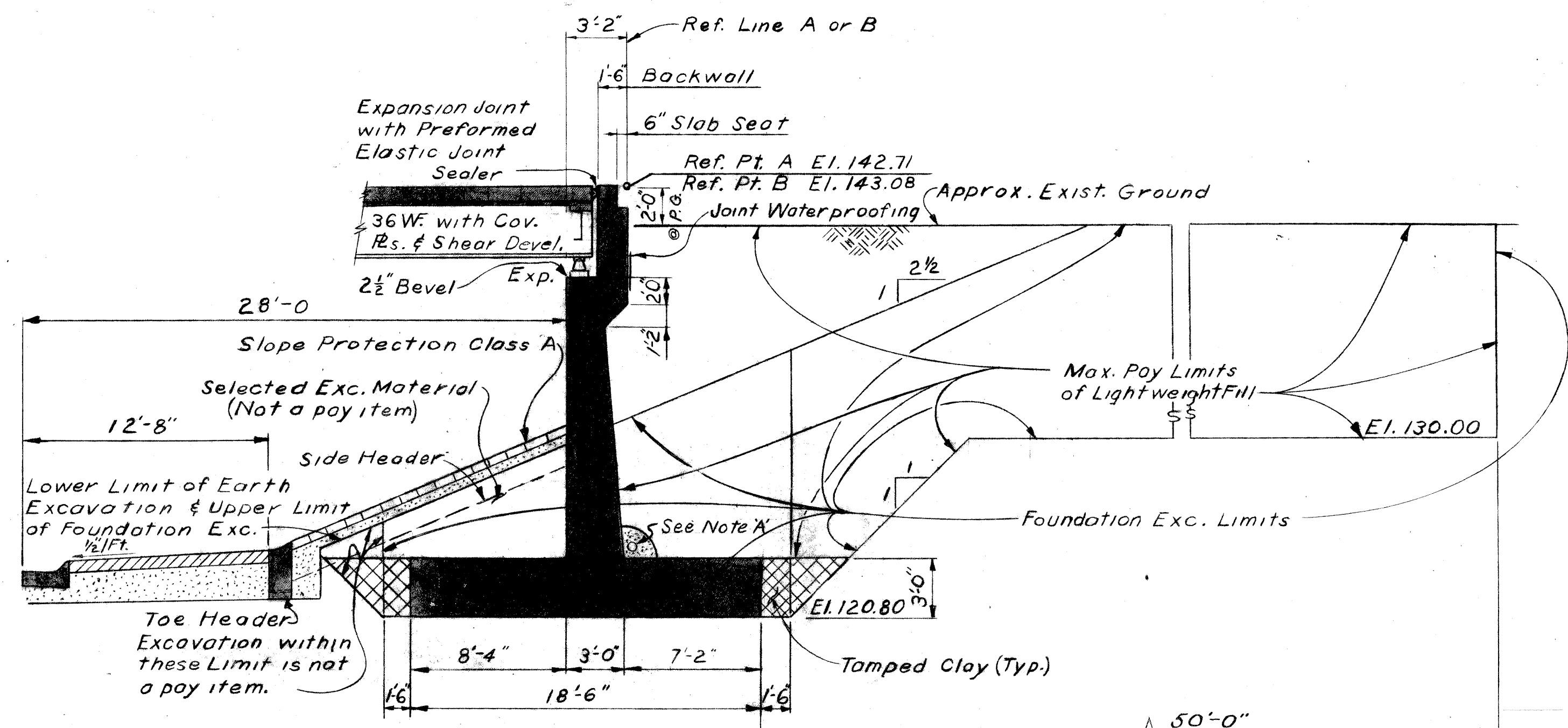


SECTION A-A
Scale: 3/8" = 1'-0"

WINGWALL DIMENSIONS					
Section	T	S	H	B	d
1	3'-3"	2'-7"	Part of Abut. Footing		
2	3'-3"	2'-0"	4'-3"	9'-6"	2'-6"
3	2'-6"	1'-8"	2'-10"	7'-0"	2'-0"



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



SECTION D-D
Scale: 3/16" = 1'-0"

PLANS PREPARED BY
CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEERS' OFFICE
BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED _____
STRUCTURAL ENGINEER

JOB No.
PW 990(3)

REVISIONS			
NO.	DESCRIPTION	DATE	BY

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

SCOTTEN AVE. CROSSING
THE JEFFRIES FREEWAY IN DETROIT
GENERAL PLAN OF STRUCTURE

CITY OF DETROIT

SQUAD BOSS James 4-68

DRAWN BY SPURGEON 3-68

TRACED BY

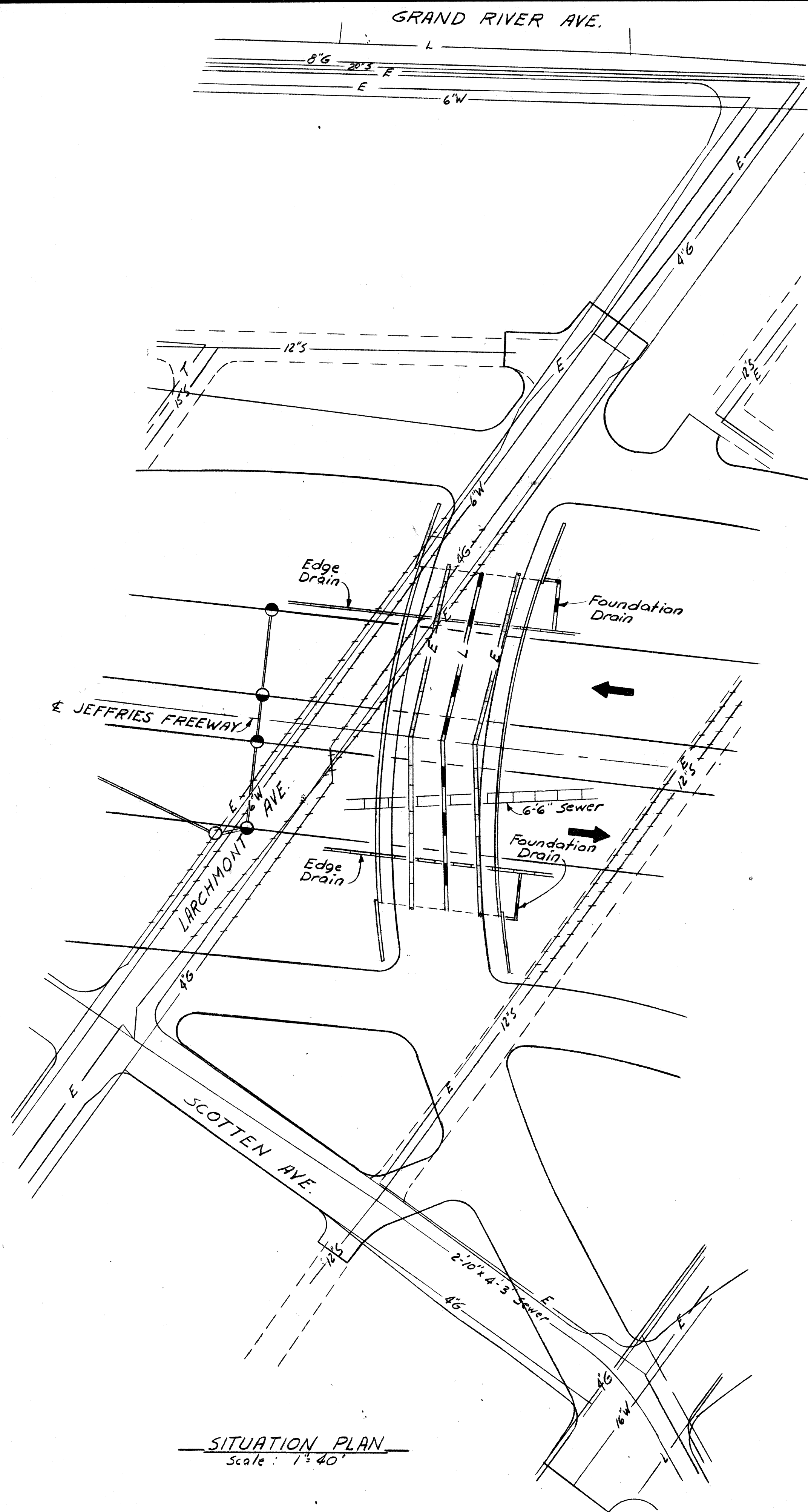
CHECKED BY DJR 4-68

SHEET 4 OF 5

APPROVED _____
DESIGN SUPERVISING ENGINEER

APPROVED _____
ENGINEER OF DESIGN CONSULTANTS

S50 of 82123J



SITUATION PLAN
Scale: 1" = 40'

LEGEND

UTILITY	Existing	Deleted or Abandoned	New Work by Others	New Work by Contractor
Michigan Consolidated Gas Co.	— G —	--- G ---	== S ==	== S ==
Water	— W —	--- W ---	== S ==	== S ==
Sewers	— S —	--- S ---	== S ==	== S ==
Michigan Bell Telephone Co.	— T —	--- T ---	== S ==	== S ==
Public Lighting Commission	— L —	--- L ---	== S ==	== L ==
Detroit Edison Co.	— E —	--- E ---	== E ==	== L ==

NOTE:
 Bridge construction and utility alterations are included in package contract for control section 82123 J.
 The contractor shall locate all active underground utilities prior to starting work, and shall conduct his operations in such a manner as to insure that these utilities not requiring relocation will not be disturbed.

PLANS PREPARED BY
 CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED _____
 STRUCTURAL ENGINEER

JOB No.
 PW 990(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

SCOTTEN AVE. CROSSING THE JEFFRIES FREEWAY IN DETROIT

EXISTING UTILITIES AND PROPOSED ALTERATIONS

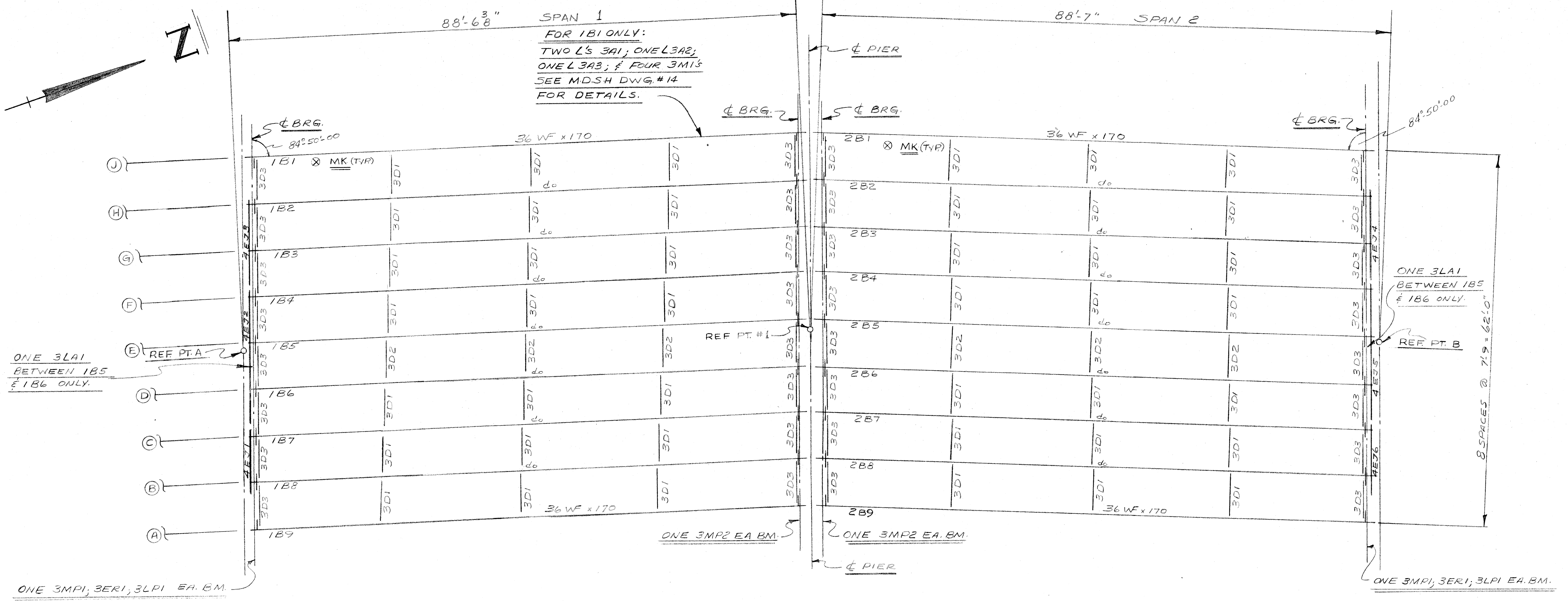
REVISIONS

NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT

SQUAD BOSS	R. James	4-68
DRAWN BY	Garavaglia	3-68
CHECKED BY	DJR	4-68
SHEET	3	OF 5

S50 of 82123 J

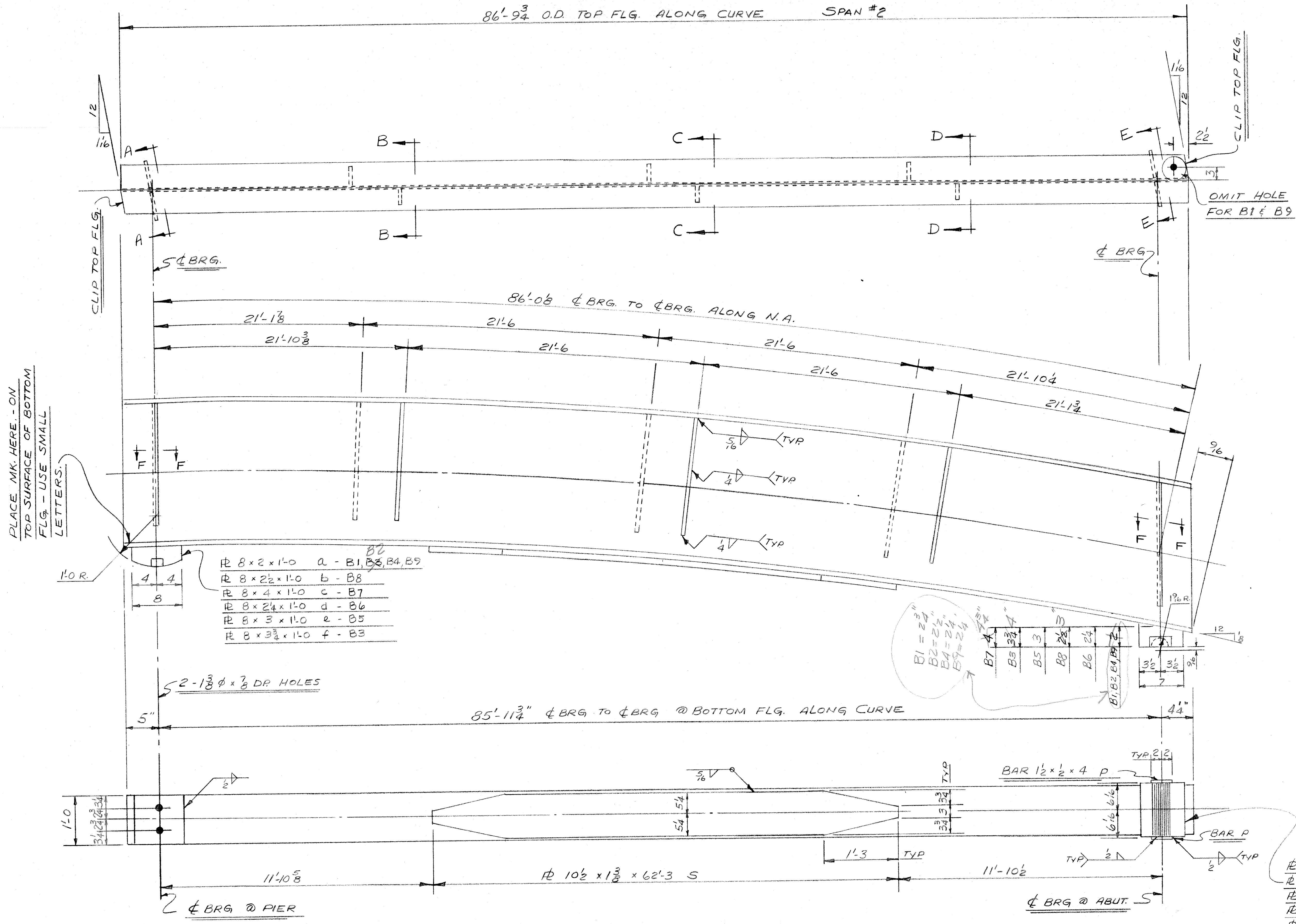


OFFICE COPY
550 of 82123 J

Checked by P.D.D. 9-17-69

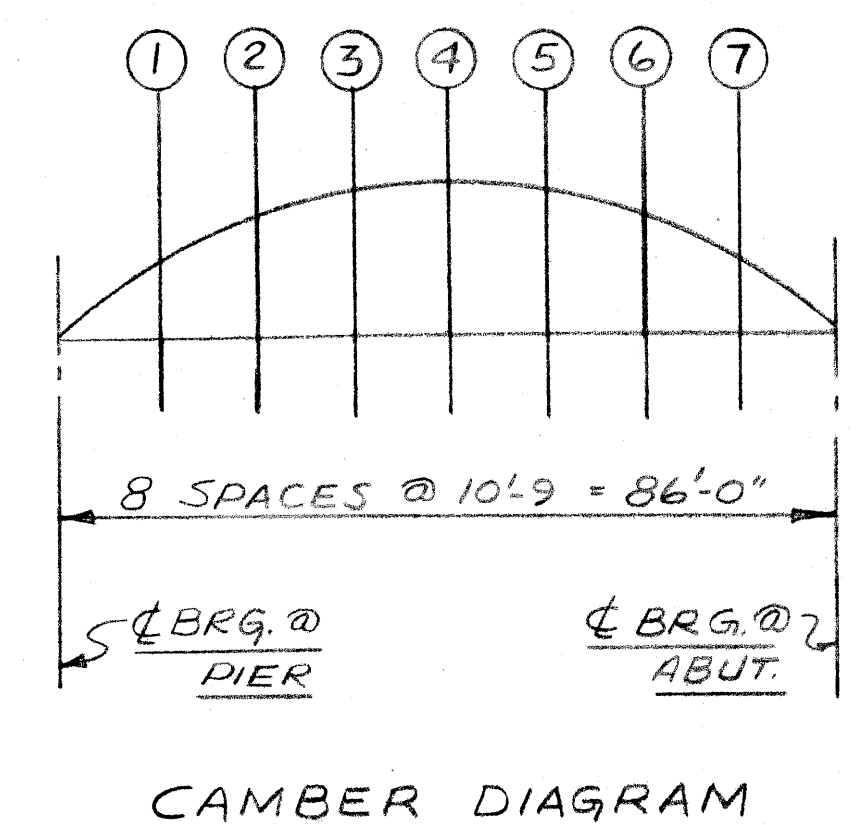
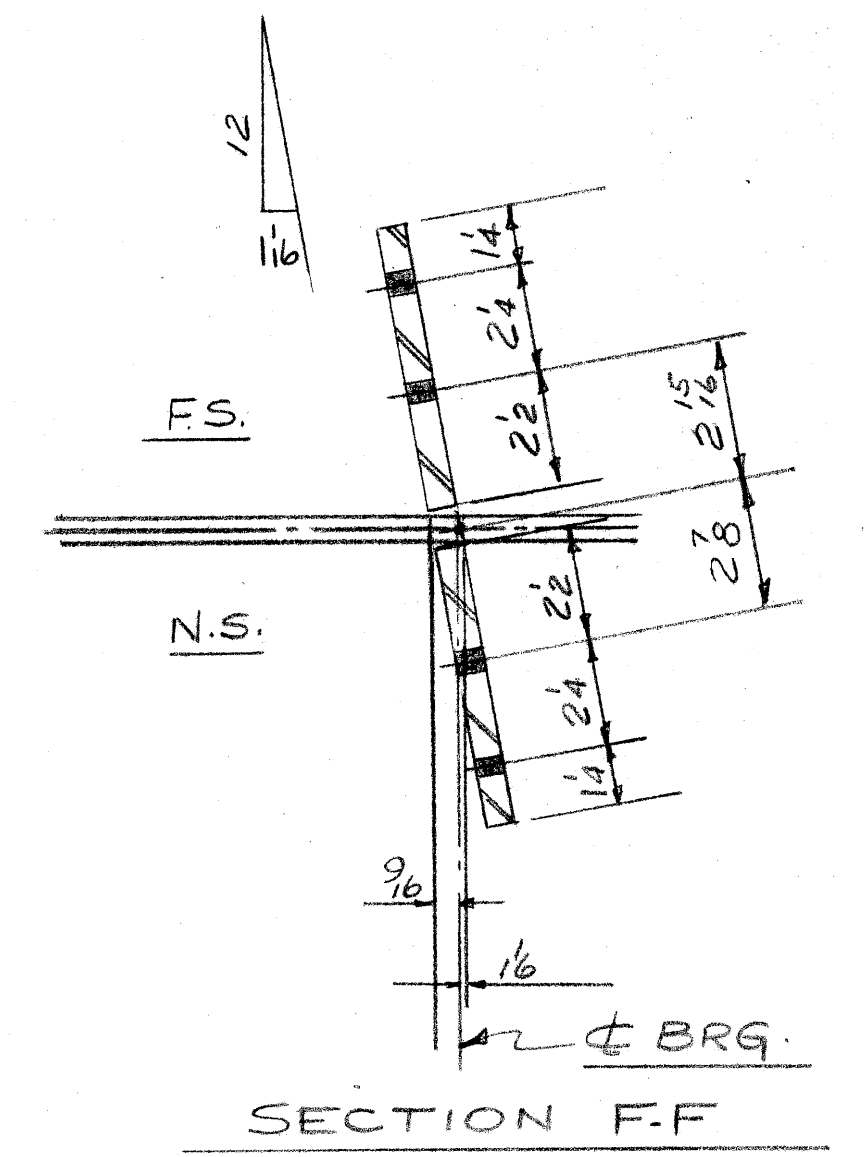
REVISION				F. YEAGER BRIDGE & CULVERT COMPANY	
NO.	DESCRIPTION	DATE	BY	1701 KEARNEY ST. - PORT HURON, MICH.	
				BRIDGE 550 OF 82123 J	
				SCOTTEN AVE. CROSSING THE JEFFRIES FREEWAY IN DETROIT.	
				K. G. MARKS, INC. CONTR.	
				DATE 8-5-69	JOB NO. S-4688
				BY SAW.	SHEET E1

86'-9 3/4" O.D. TOP FLG. ALONG CURVE SPAN #2



- 8x2x1'-0" a - B1, B3, B4, B9
- 8x2 1/2x1'-0" b - B8
- 8x4x1'-0" c - B7
- 8x2 1/4x1'-0" d - B6
- 8x3x1'-0" e - B5
- 8x3 1/4x1'-0" f - B3

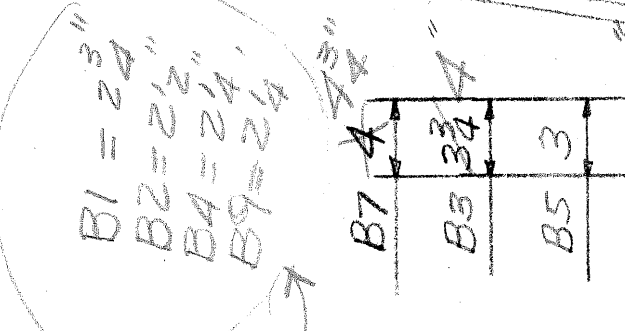
9-BEAMS (36 WF.170 x 86'-9 3/4" : SEE CAMB. TABLE) REQ'D AS SHOWN & NOTED - MK. 281 THRU 289



CAMBER ORDINATES - SPAN 2

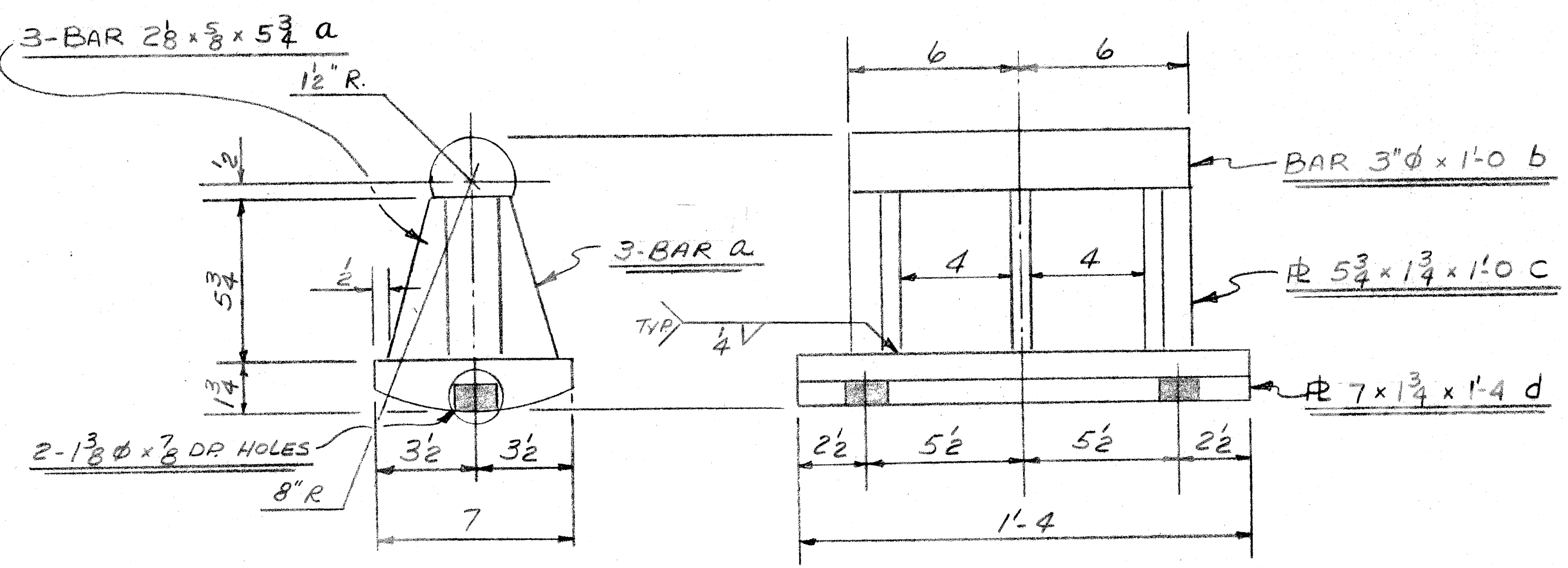
BM.	①	②	③	④	⑤	⑥	⑦
289	2 3/8	4 1/4	5 1/4	5 5/8	5	3 5/8	1 7/8
288	2 1/4	4 3/8	5 1/4	5 1/2	4 7/8	3 5/8	1 3/8
287	2 3/8	4 3/8	5 1/4	5 1/2	5	3 5/8	1 7/8
286	2 3/8	4 3/8	5 1/2	5 7/8	5 1/4	3 3/8	2
285	2 3/8	4 1/2	5 1/4	6 3/8	5 1/2	4 3/8	2 1/4
284	2 3/8	4 1/2	5 1/4	6 3/8	5 5/8	4 3/8	2 1/4
283	2 3/8	4 3/8	5 3/8	6 1/4	5 5/8	4 1/4	2 1/4
282	2 1/2	4 1/2	5 3/8	6 3/8	5 5/8	4 1/4	2 1/4
281	2 3/8	3 3/4	4 3/8	5 3/8	4 3/4	3 1/2	1 3/8

- 7x2 5/8x1'-0 1/8" g - B4, B6, B9
- 7x3 1/8x1'-0 1/8" h - B5, B8
- 7x4 1/8x1'-0 1/8" j - B7
- 7x4 1/8x1'-0 1/8" k - B3
- 7x2 9/16x1'-0 1/8" m - B2
- 7x2 1/8x1'-0 1/8" n - B1



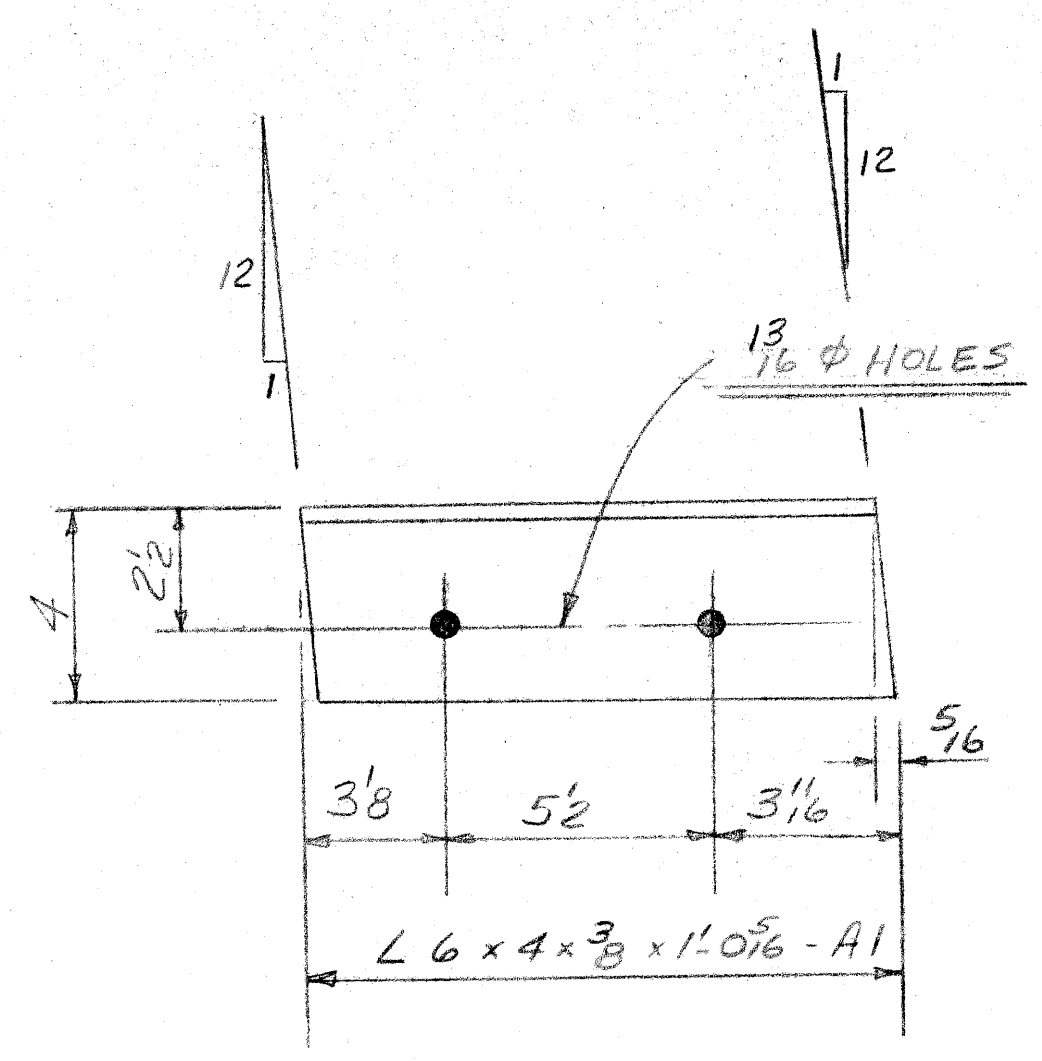
REVISION				F. YEAGER	
NO.	DESCRIPTION	DATE	BY	BRIDGE & CULVERT COMPANY	
				1701 KEARNEY ST. - PORT HURON, MICH	
				BRIDGE 550 OF 82123 J	
				SCOTTEN AVENUE CROSSING	
				JEFFRIES FREEWAY IN DETROIT	
				K.G. MARKS, INC. - CONT'R.	
				DATE 8-16-69	JOB NO. S4688
				BY SAW	SHEET 2A OF 4

SEE SHEET 1A FOR SHOP NOTES.

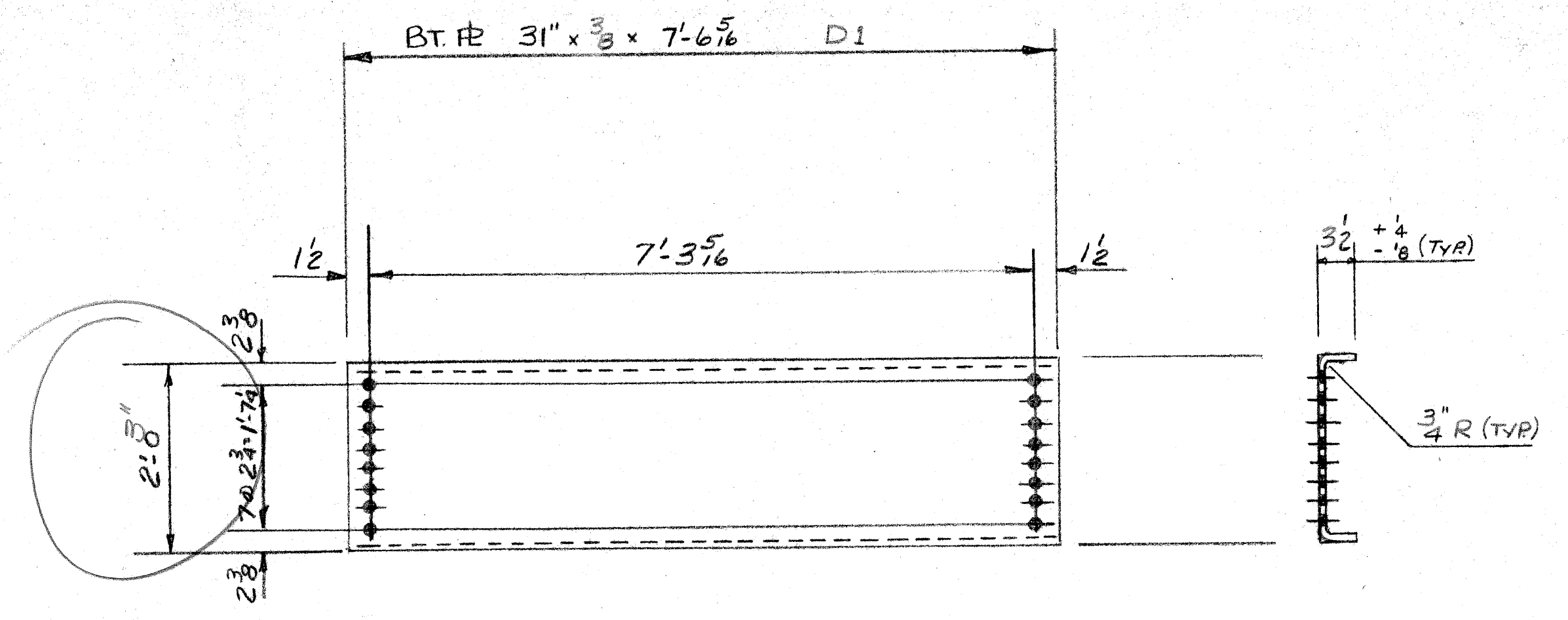


NOTE: WELD ALL JOINTS 1/2" CONT. FILLET UN.

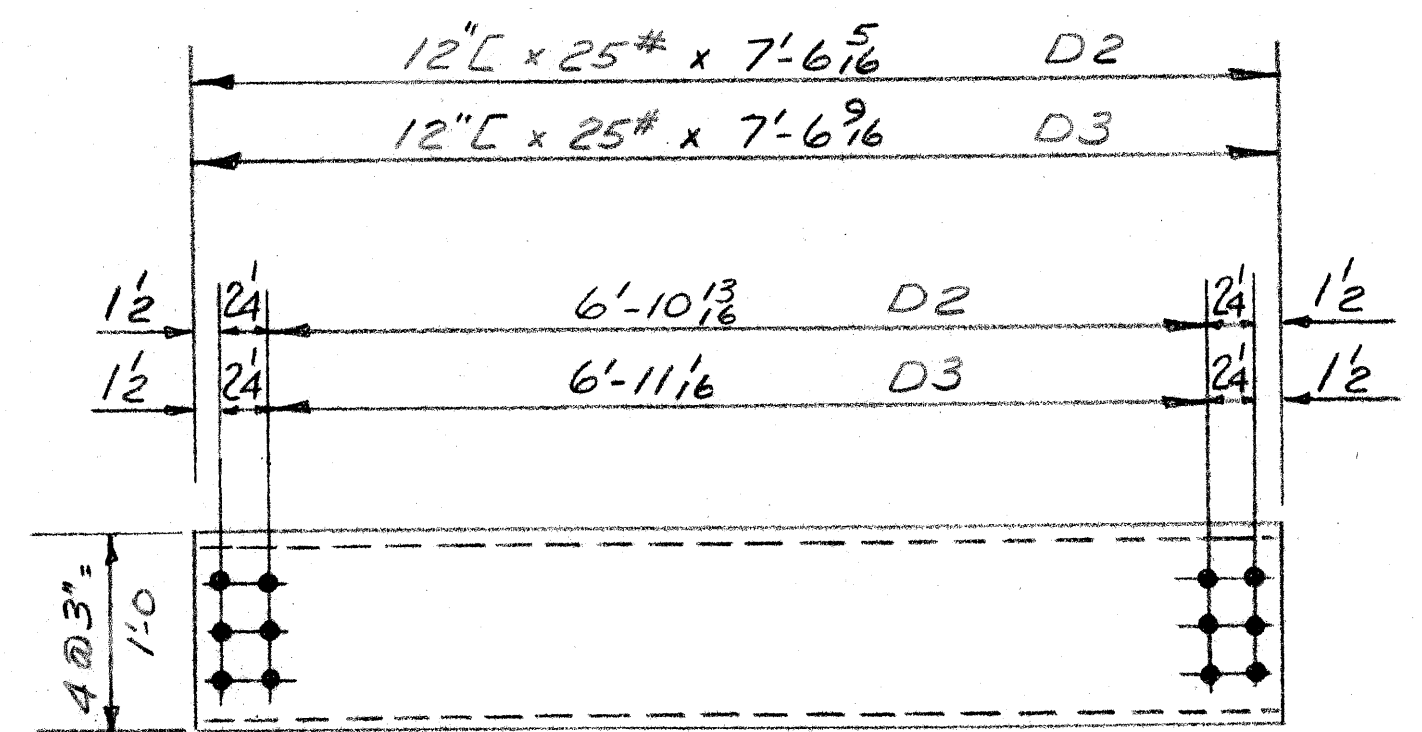
18 - EXPANSION ROCKERS REQ'D. AS SHOWN & NOTED MK. 3ER1



2-ANGLES REQ'D - MK 3A1

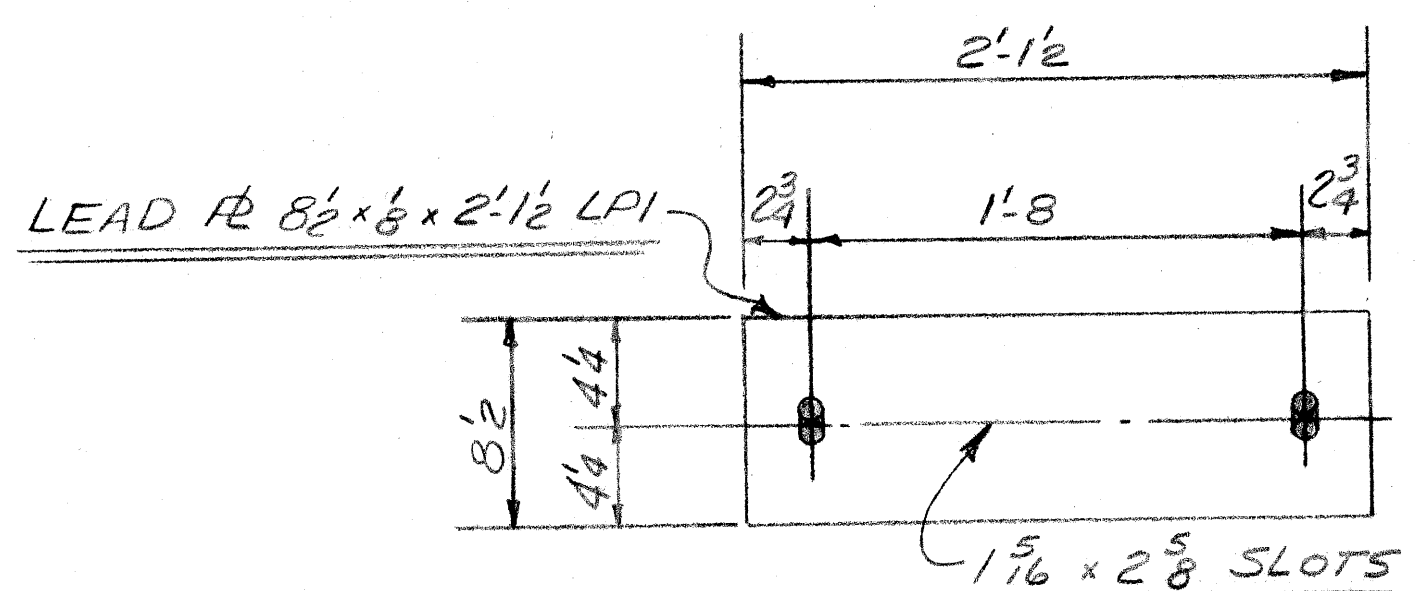


42-DIAP REQ'D. AS SHOWN & NOTED - MK. 3D1

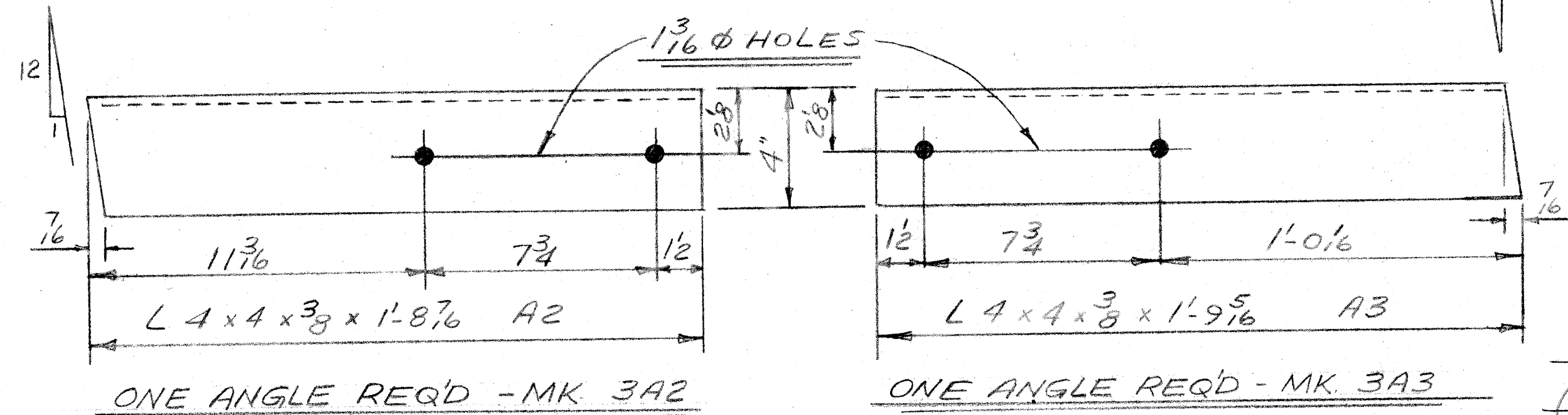


6-DIAP REQ'D. AS SHOWN & NOTED - MK. 3D2

36-DIAP REQ'D. AS SHOWN & NOTED - MK. 3D3

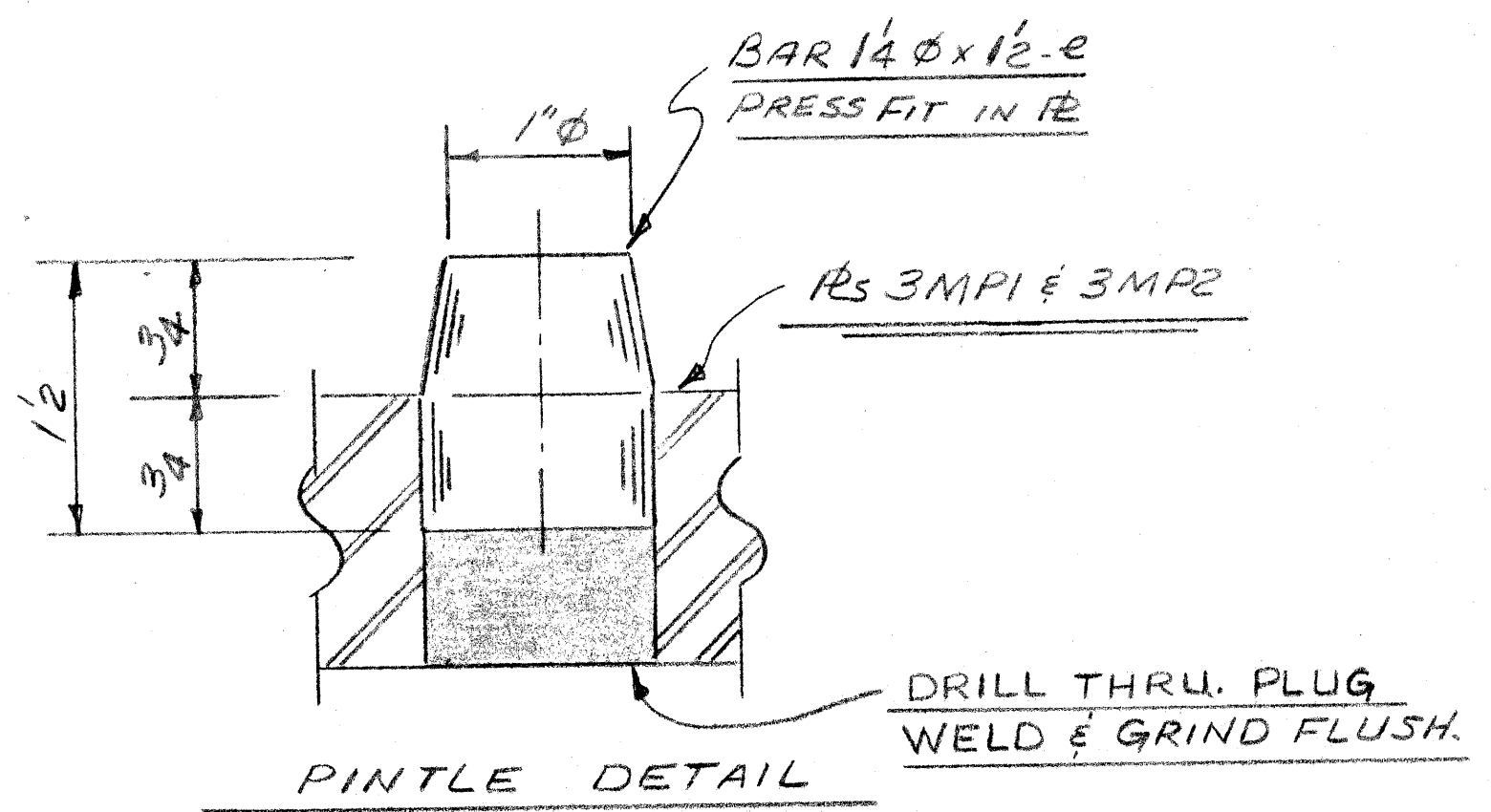


18-LEAD BARS REQ'D. AS SHOWN & NOTED MK 3LPI

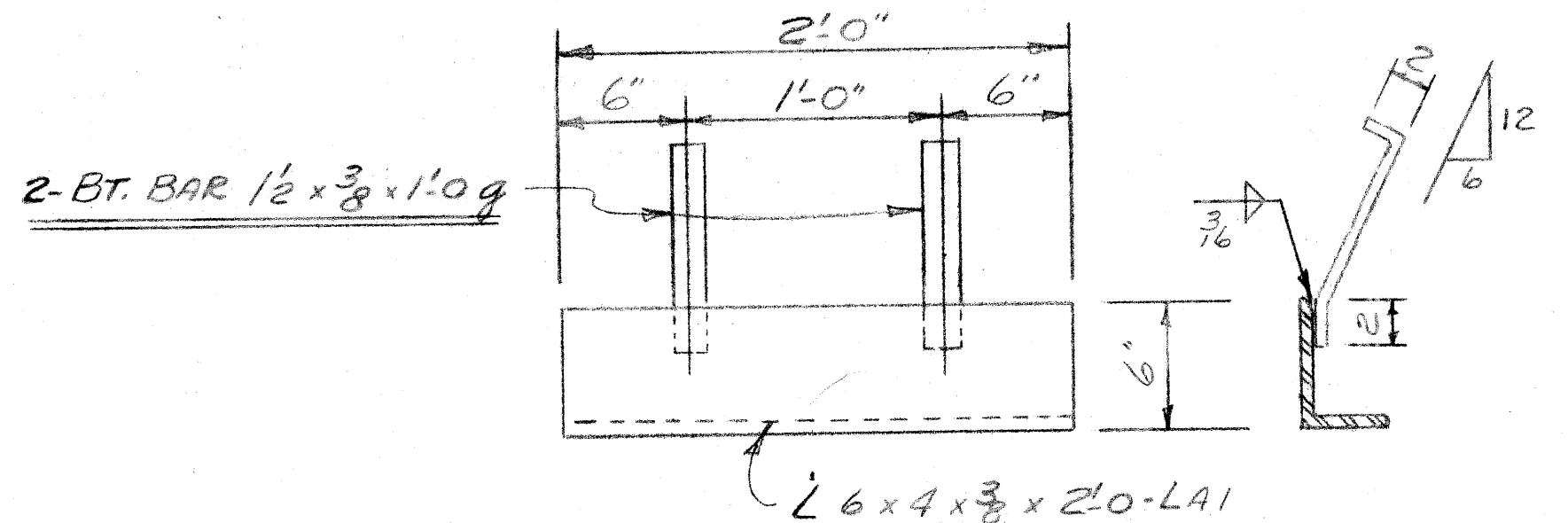


ONE ANGLE REQ'D - MK 3A2

ONE ANGLE REQ'D - MK 3A3



PINTLE DETAIL



TWO LEDGE ANGLES REQ'D - MK 3LA1

NOTE: BOLTS, NUTS, & WASHERS ARE ASTM. A-325 WEATH-R

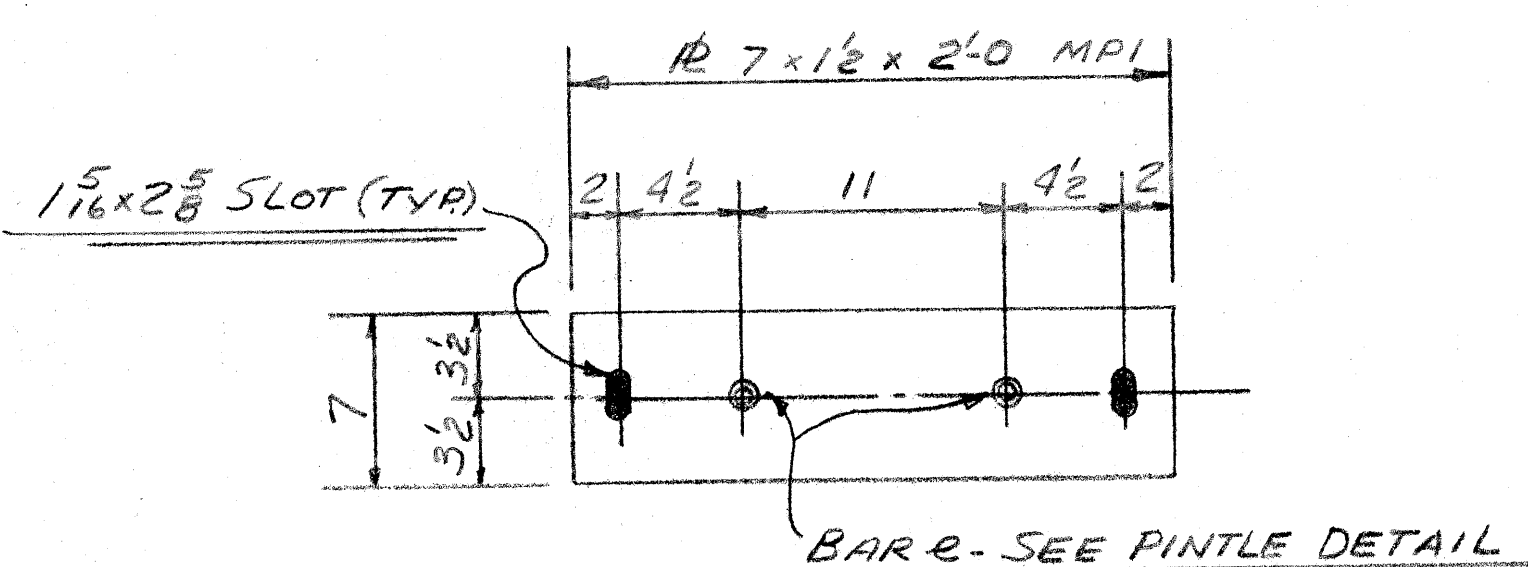
COUNT	SHIP	FIELD BOLTS
1128	1235	3/4" x 2 1/4" H. HEX HD. H.S. BOLT; H. HEX NUT
1176	1235	3/4" HD. FLAT WASHER
1176	1235	3/4" x 1 3/4" FLAT HEAD MACH. BOLT, HEX NUT
16	16	3/4" x 2 1/2" SQ. HD. BOLT, HEX NUT
13	13	3/4" x 2 1/2" SQ. HD. BOLT, HEX NUT
13	13	3/4" STD. FL. WASHER

GALV. ANCHOR BOLTS

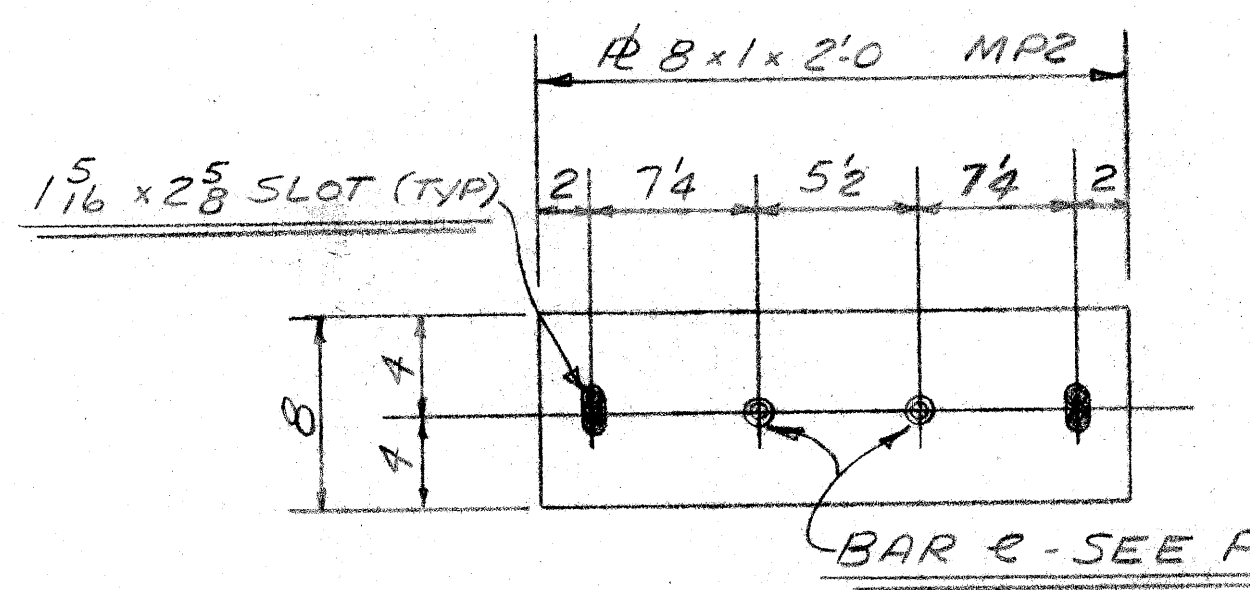
72	1" x 1 1/3" SQ. HD. HX. NUT, GALV. M. BOLT (4" HD.)
72	1" GALV. FLAT WASHERS (BAR 2 1/2" x 2 1/2")

SEE SHEET # 10 FOR SHOP NOTES.

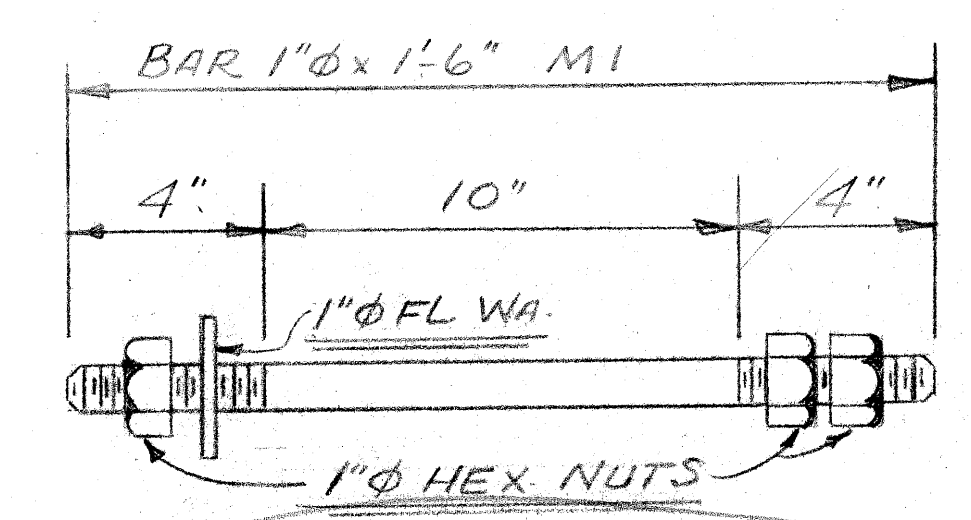
REVISION				F. YEAGER	
NO.	DESCRIPTION	DATE	BY	BRIDGE & CULVERT COMPANY	
				1701 KEARNEY ST. - PORT HURON, MICH	
				BRIDGE 550 OF 82123 J	
				SCOTTEN AVENUE CROSSING	
				JEFFRIES FREEWAY IN DETROIT.	
				K. G. MARKS, INC. - CONTR.	
				DATE 8-20-69	JOB NO. 54688
				BY SAW.	3 OF 4



18 - MAS. BARS REQ'D AS SHOWN & NOTED - MK. 3MPI

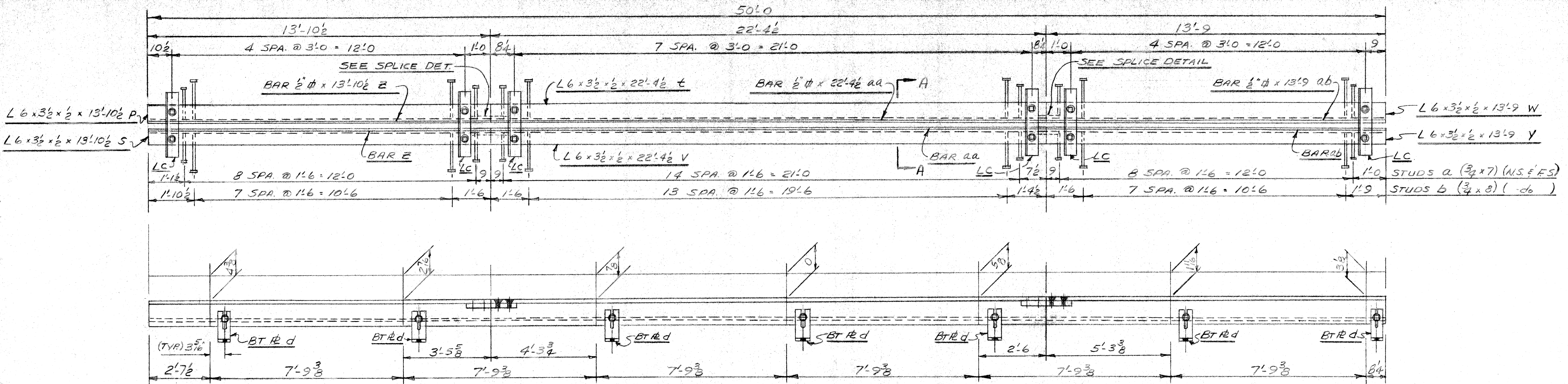


18 - MAS. BARS REQ'D. AS SHOWN & NOTED - MK 3MP2

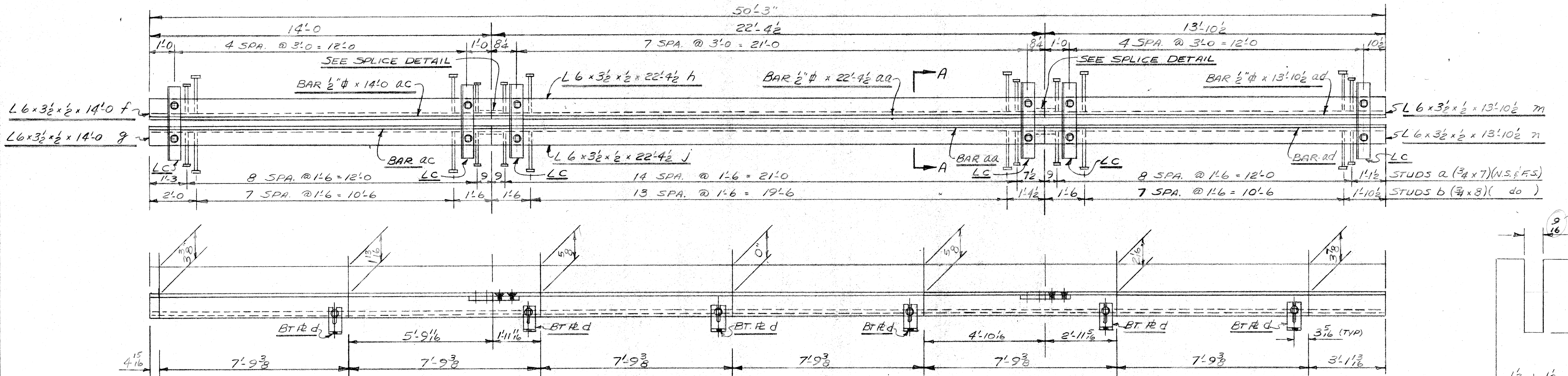


NOTE: ALL PARTS TO BE GALVANIZED.
4-LIGHTING STD. BOLTS REQ'D - MK. 3M1

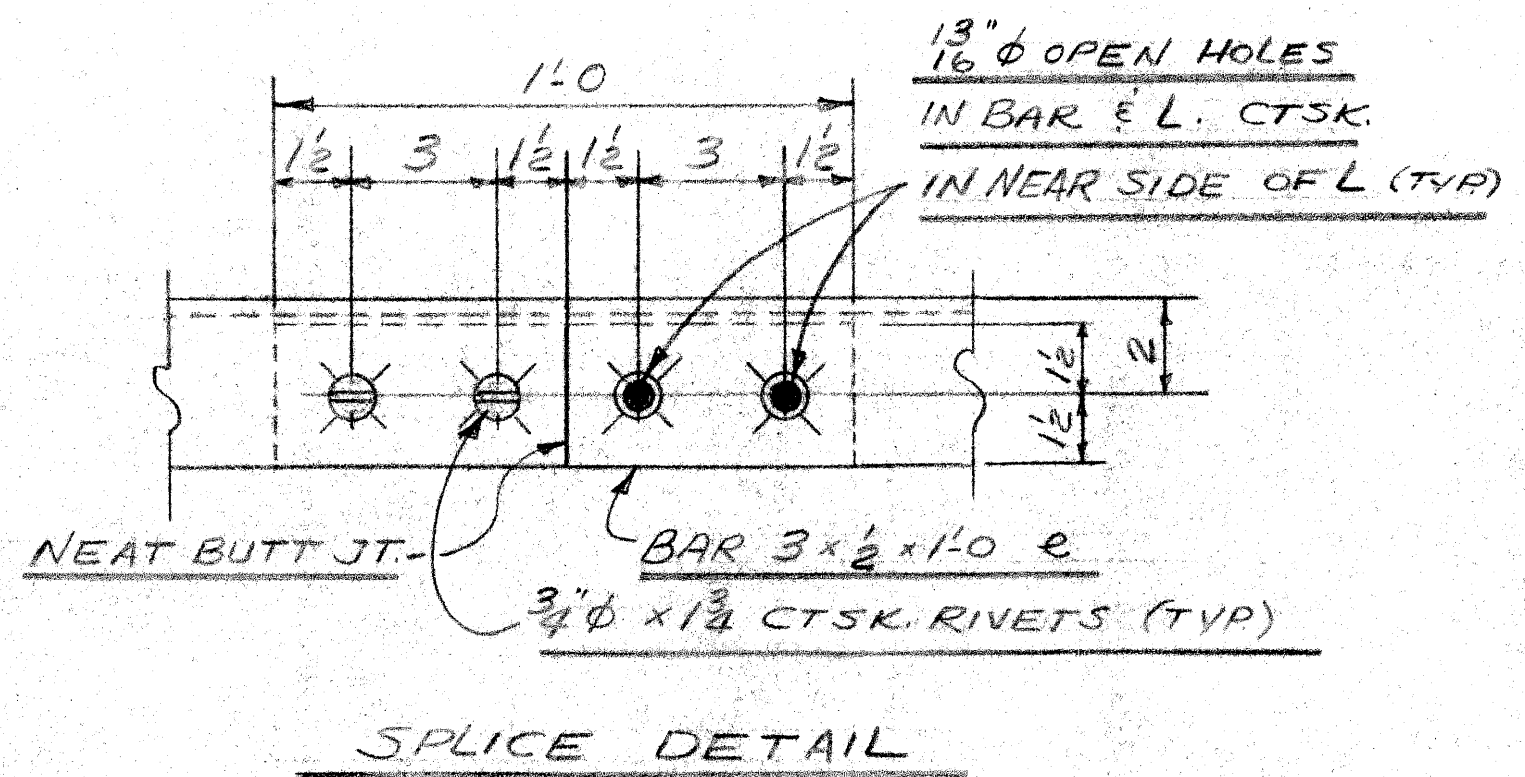
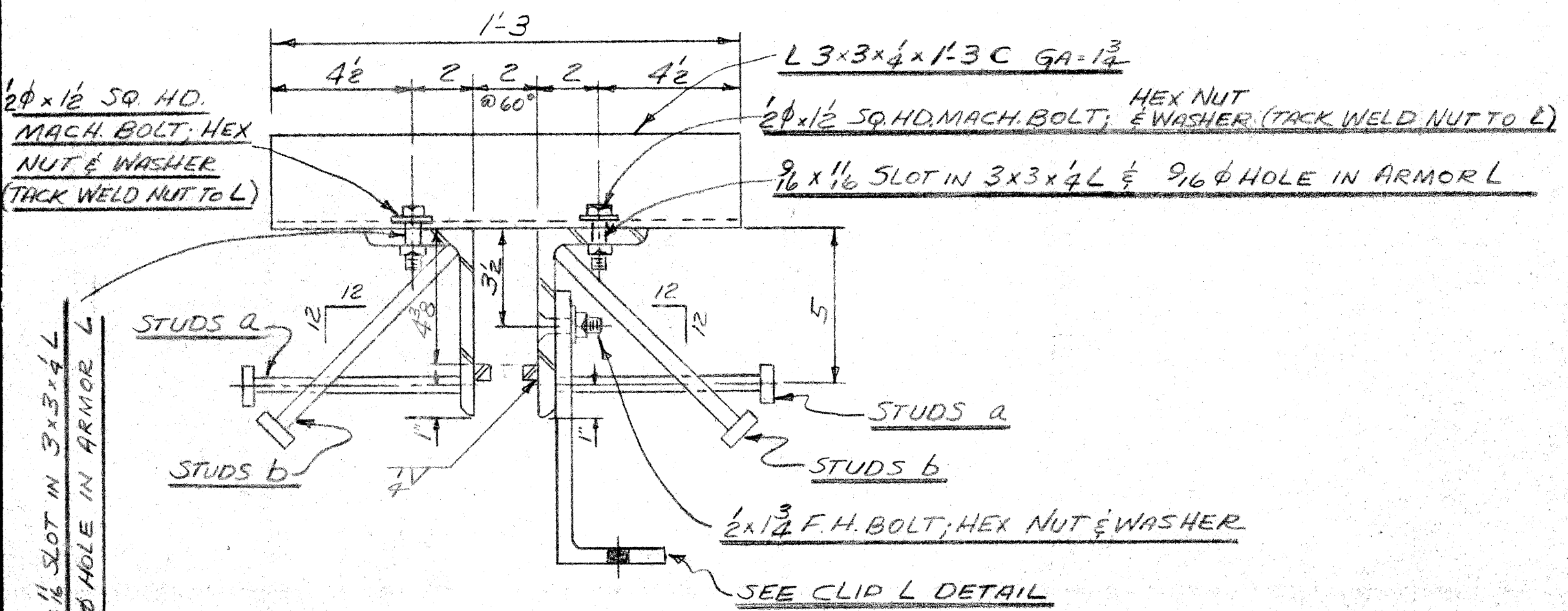
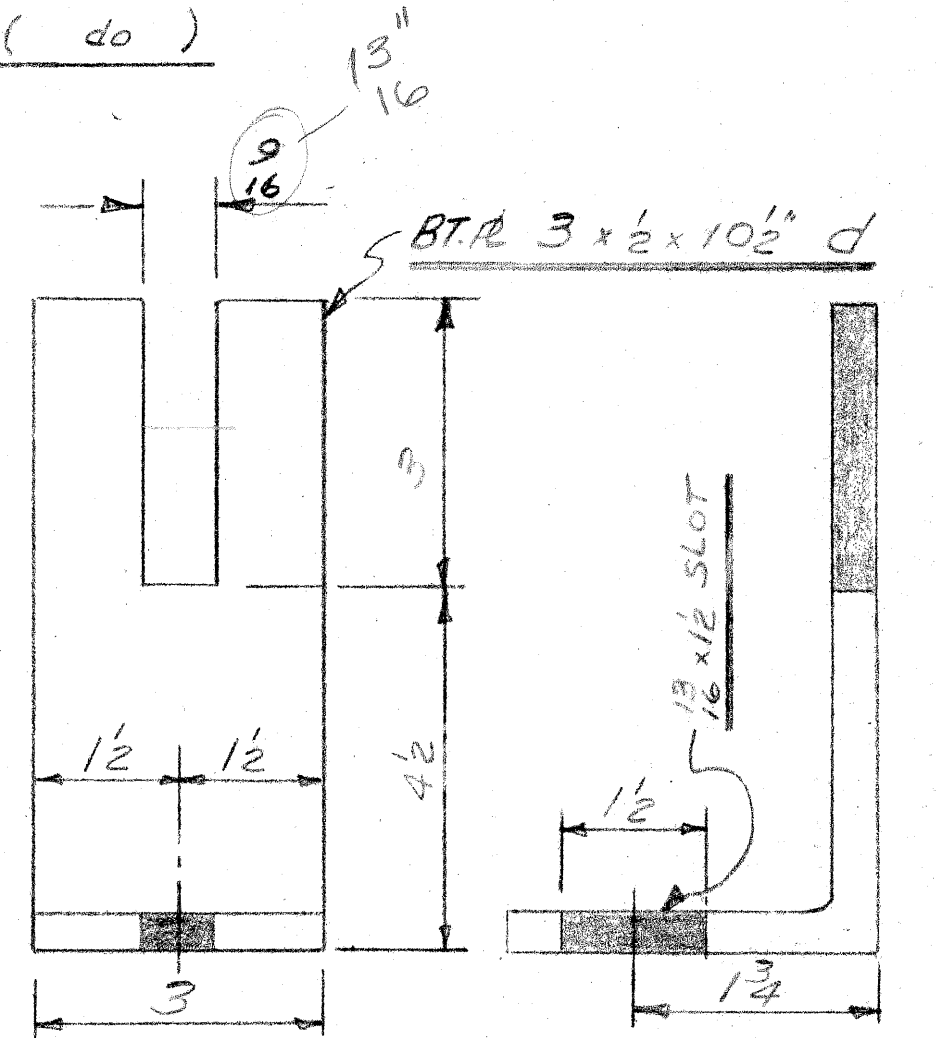
Calcium Phosphate



ONE EXP JOINT REQ'D. AS SHOWN & NOTED - MK 4EJ1 ONE EXP JOINT REQ'D. AS SHOWN & NOTED - MK 4EJ2 ONE EXP JOINT REQ'D. AS SHOWN & NOTED - MK 4EJ3



ONE EXP JOINT REQ'D. AS SHOWN & NOTED - MK 4EJ4 ONE EXP JOINT REQ'D. AS SHOWN & NOTED - MK 4EJ5 ONE EXP JOINT REQ'D. AS SHOWN & NOTED - MK 4EJ6



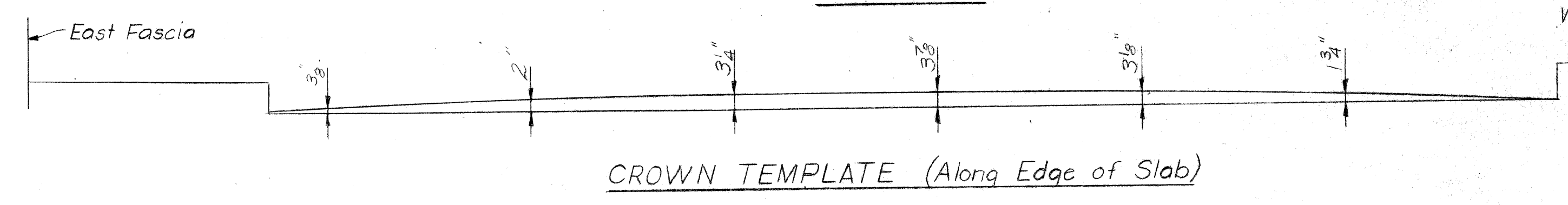
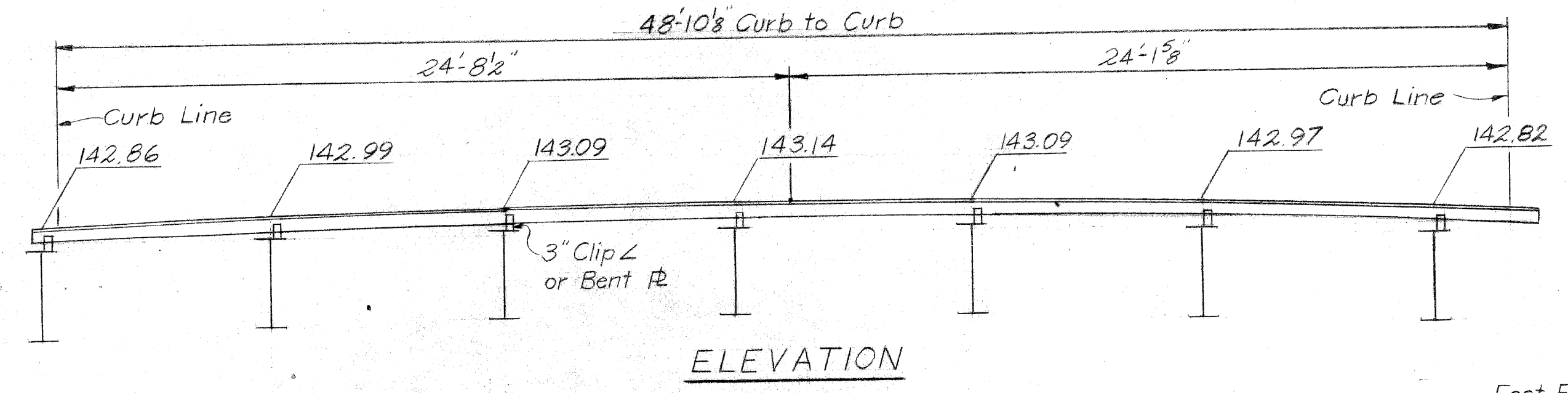
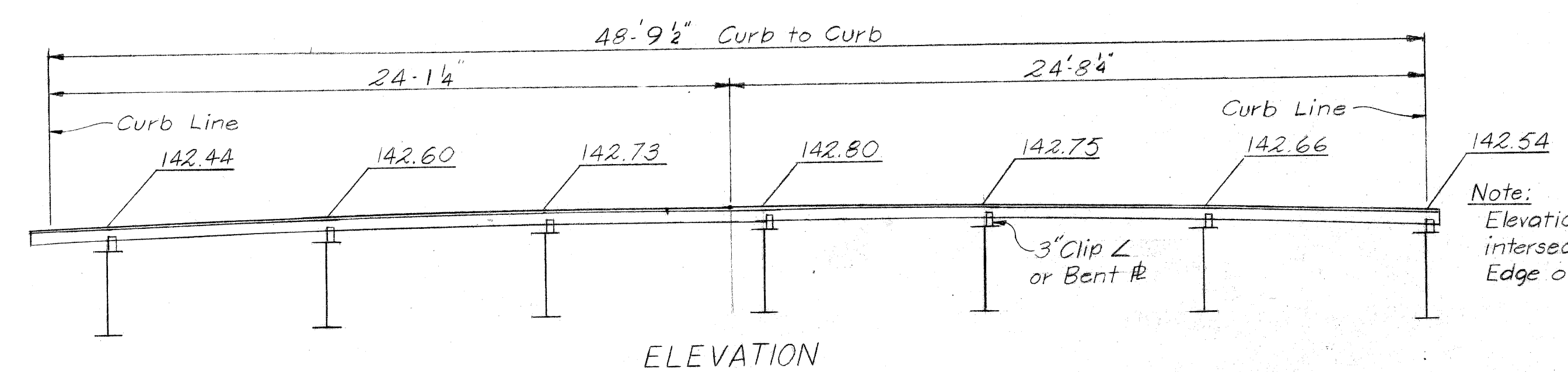
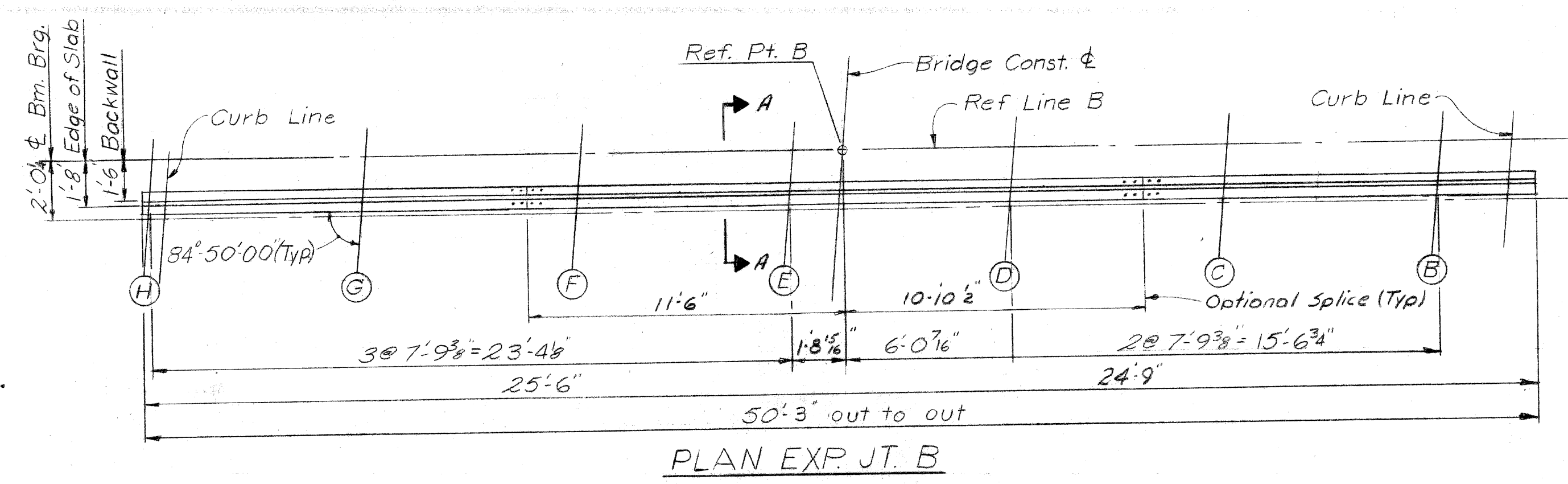
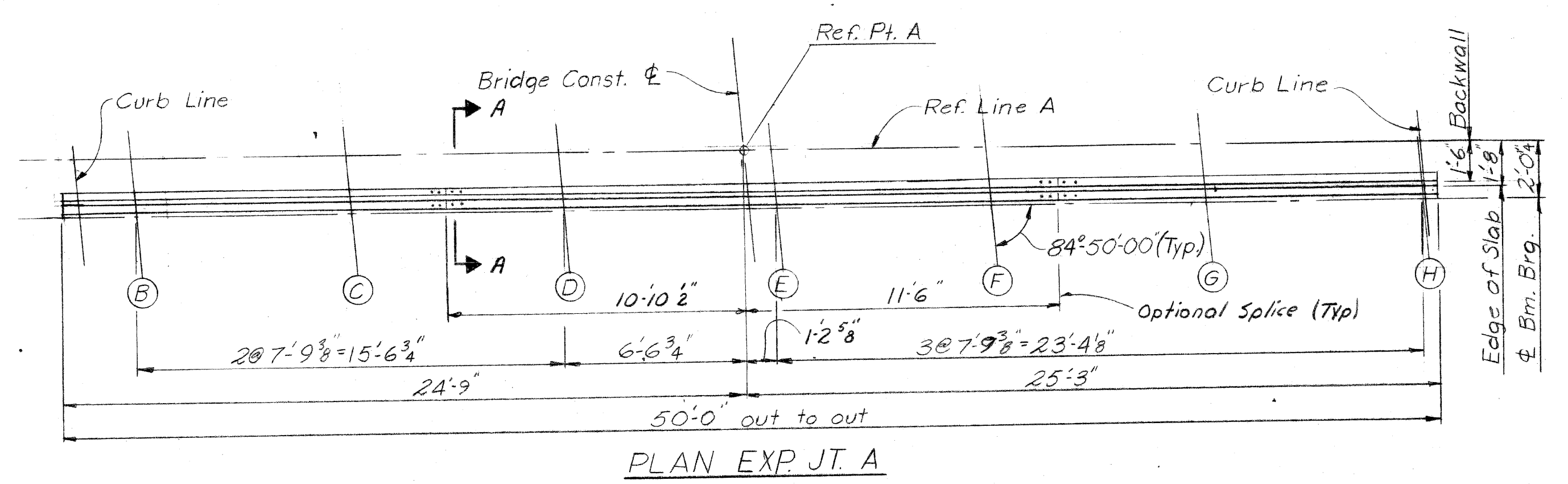
SEE SHEET 10 FOR SHOP NOTES.

REVISION			
NO.	DESCRIPTION	DATE	BY

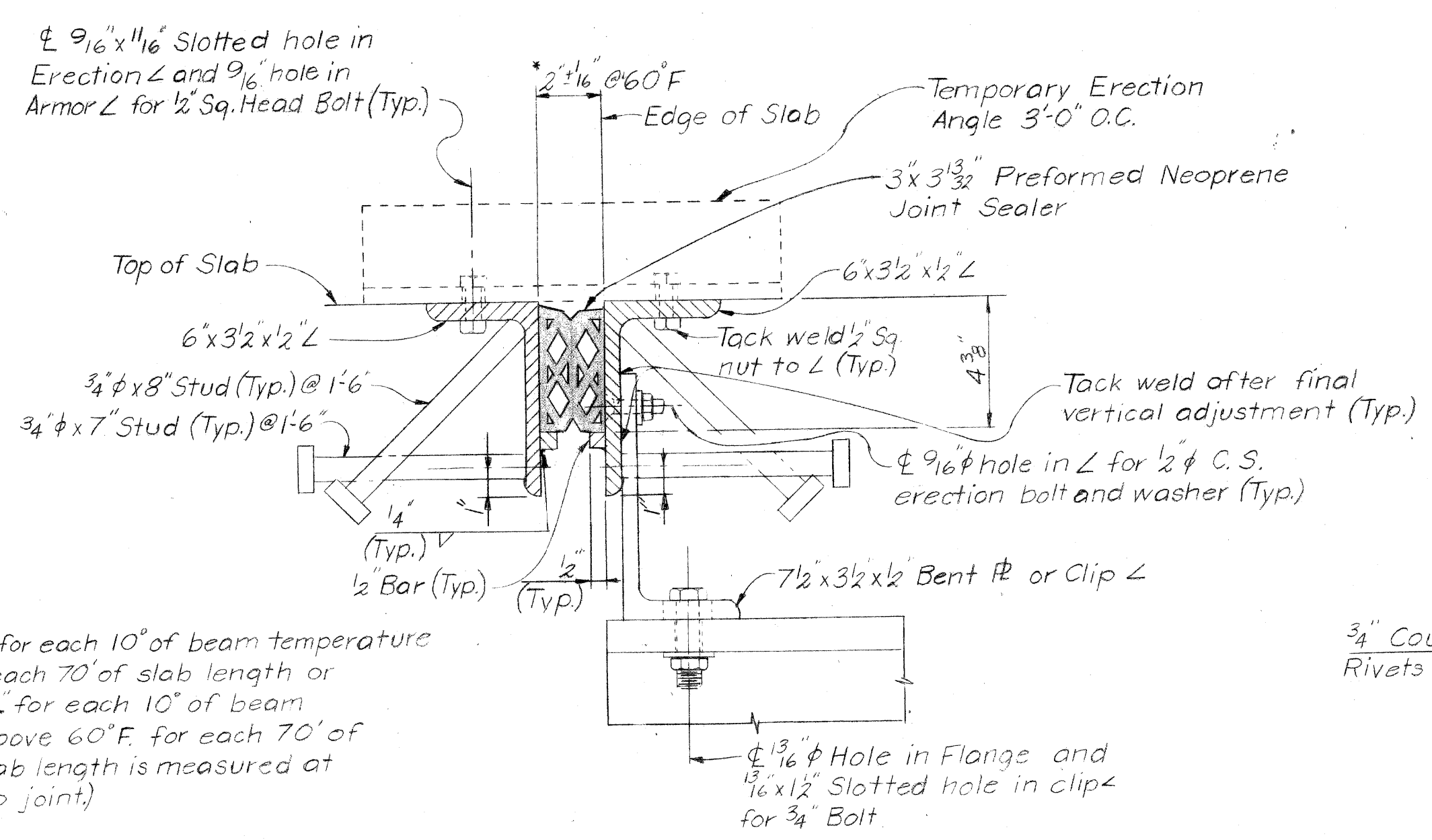
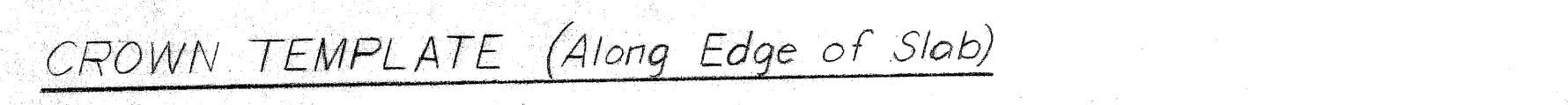
F. YEAGER
BRIDGE & CULVERT COMPANY
1701 KEARNEY ST. - PORT HURON, MICH

BRIDGE 550 OF 82123 J
SCOTTEN AVENUE CROSSING
JEFFRIES FREEWAY IN DETROIT.
K.G. MARKS, INC. CONT'R.

DATE 9-4-69 JOB NO. S4688 SHEET 4 OF 4
BY SAW

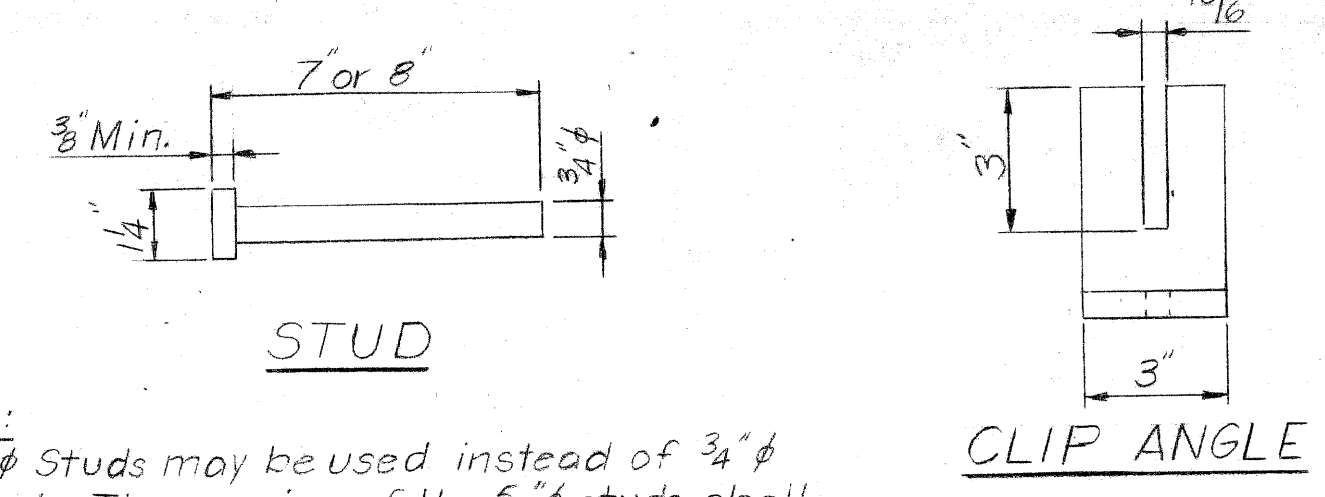


Note: Crown Template offsets are given at intersection of Beam ϕ and edge of slab between Curb Lines.

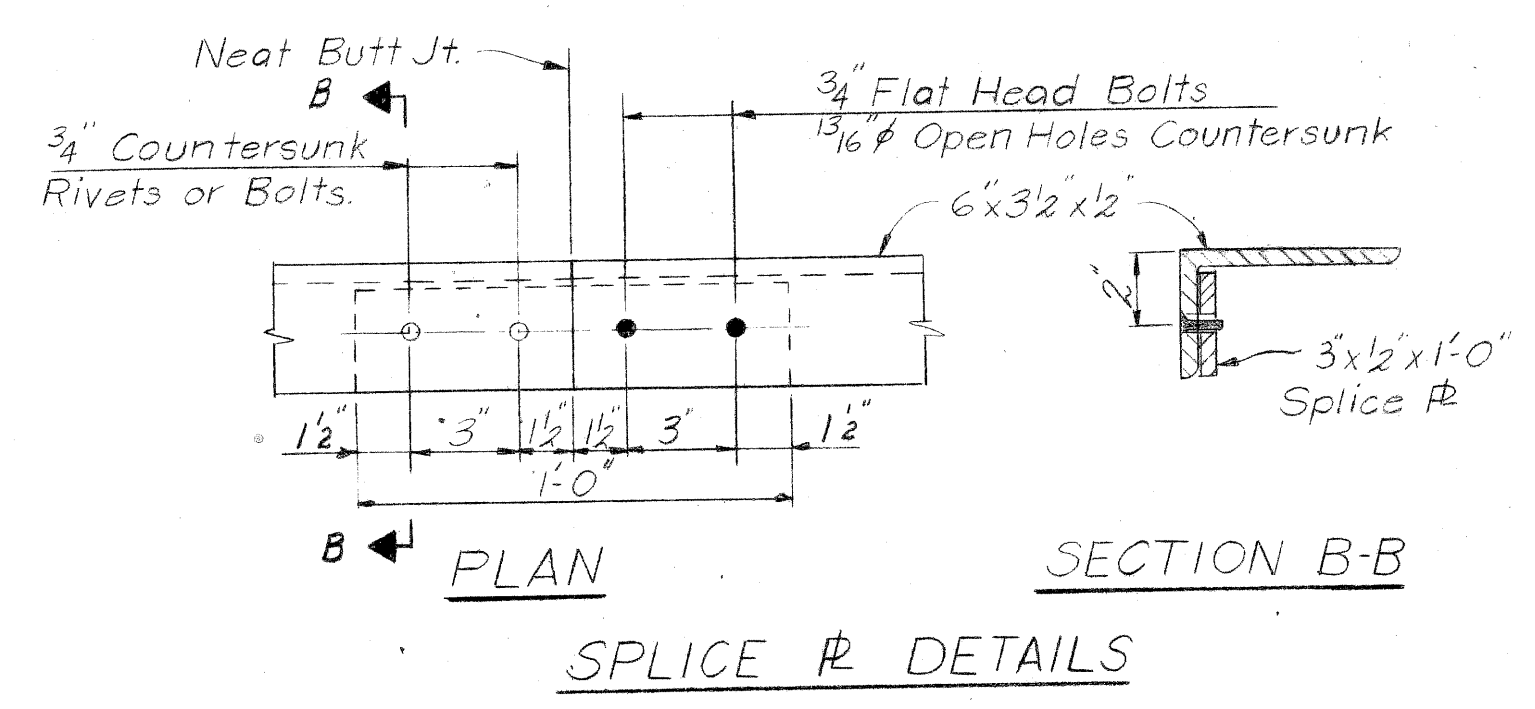


Note: Alternate 7 and 8" Studs @ 9" (Typ.)

* Increase by 1/16" for each 10° of beam temperature below 60°F for each 70' of slab length or decrease by 1/16" for each 10° of beam temperature above 60°F for each 70' of slab length. (Slab length is measured at right angles to joint)



Notes: 3/8" ϕ Studs may be used instead of 3/4" ϕ studs. The spacing of the 5/8" ϕ studs shall be 2 1/2' of that shown for 3/4" ϕ studs. For details of sealer and installation procedure see supplemental specifications.



Notes:
The Metal Expansion Joints Shall be bent in the shop to follow the top of slab.
3" x 3 1/2" Preformed Neoprene is included in Superstructure Quantities Sh. 20.
Metal Expansion Joint Wt. is 4,000 lbs and is included in Structural Steel Weight. Sh. 13.

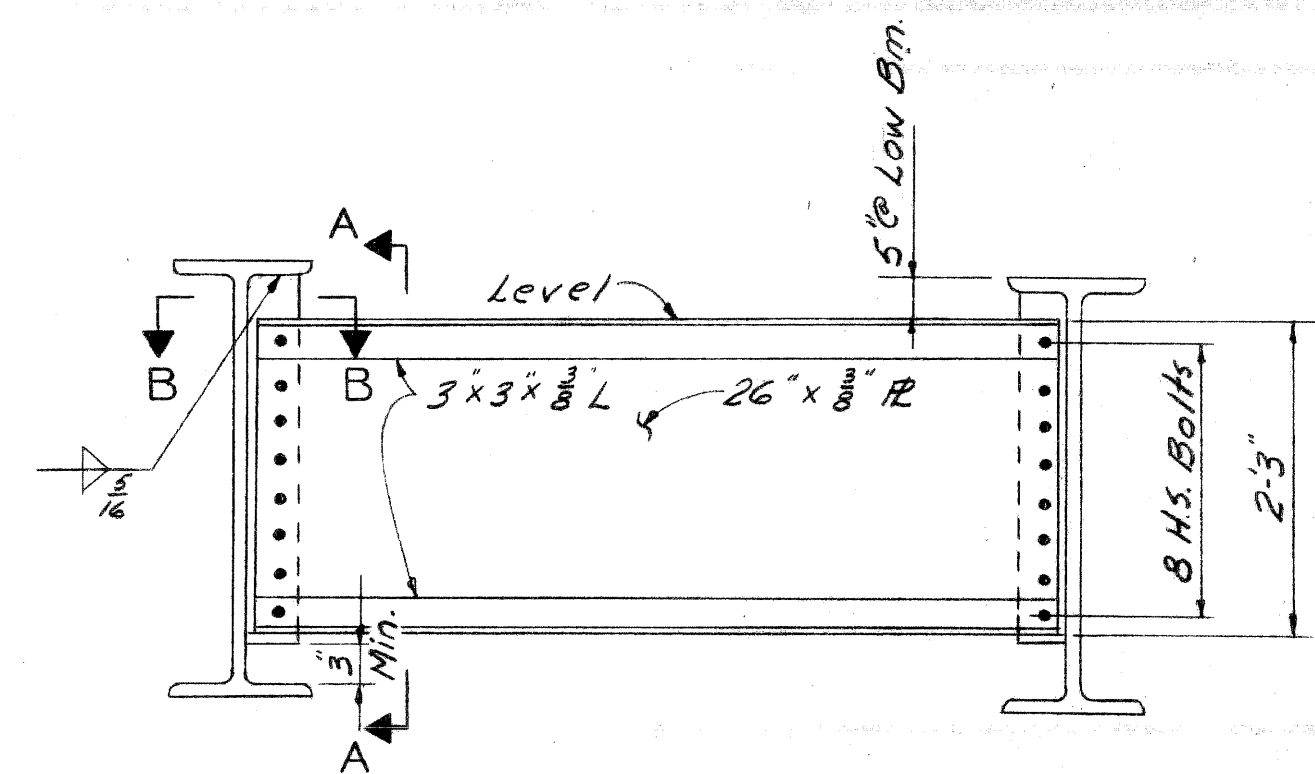
PLANS PREPARED BY
CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEERS OFFICE
BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED: *H. Cant*
STRUCTURAL ENGINEER

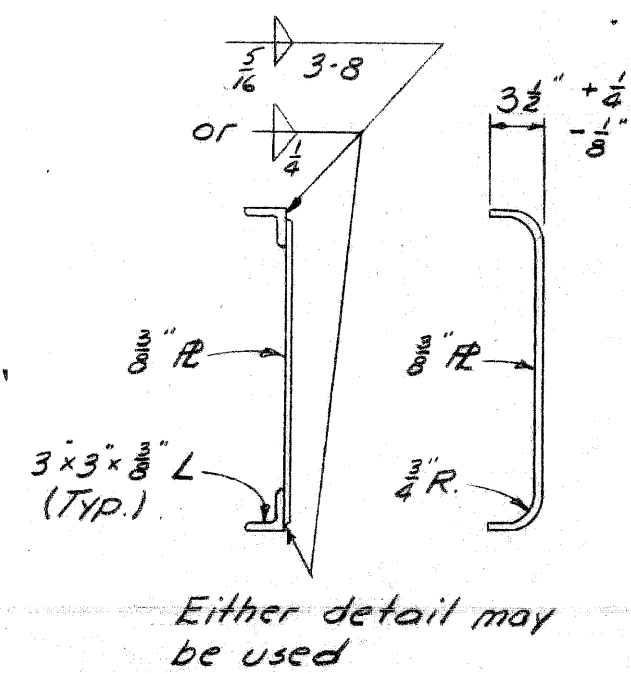
JOB No. PW 99033

MICHIGAN DEPARTMENT OF STATE HIGHWAYS			
METAL EXPANSION JOINT DETAILS			
REVISIONS			
NO.	DESCRIPTION	DATE	BY

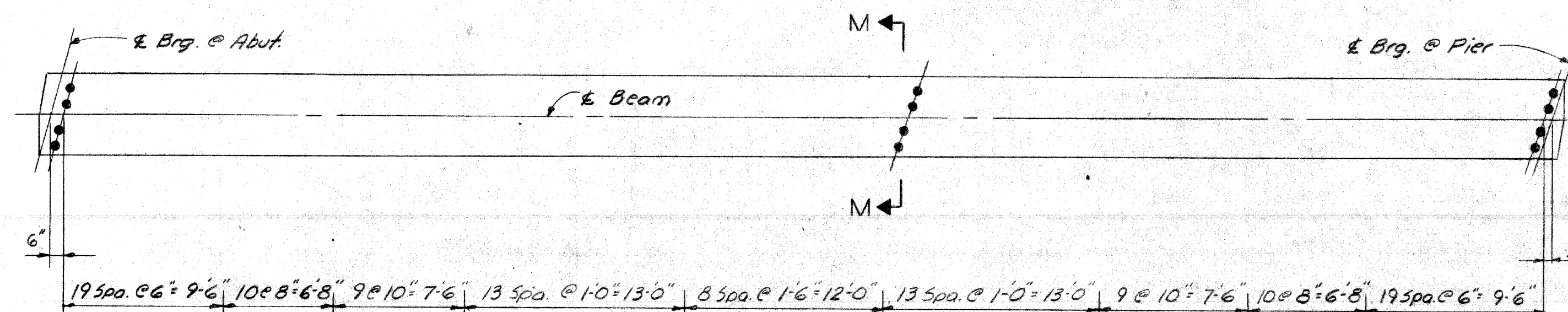
SQUAD BOSS	Loche	2-69
DRAWN BY	W.L.	2-69
TRACED BY	L.G.	2-69
CHECKED BY	D.V.R.	3-69
SHEET 16 OF 22		
S50 of 82123J		



D1

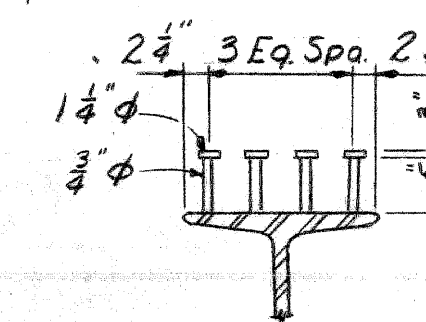


SECTION A-A

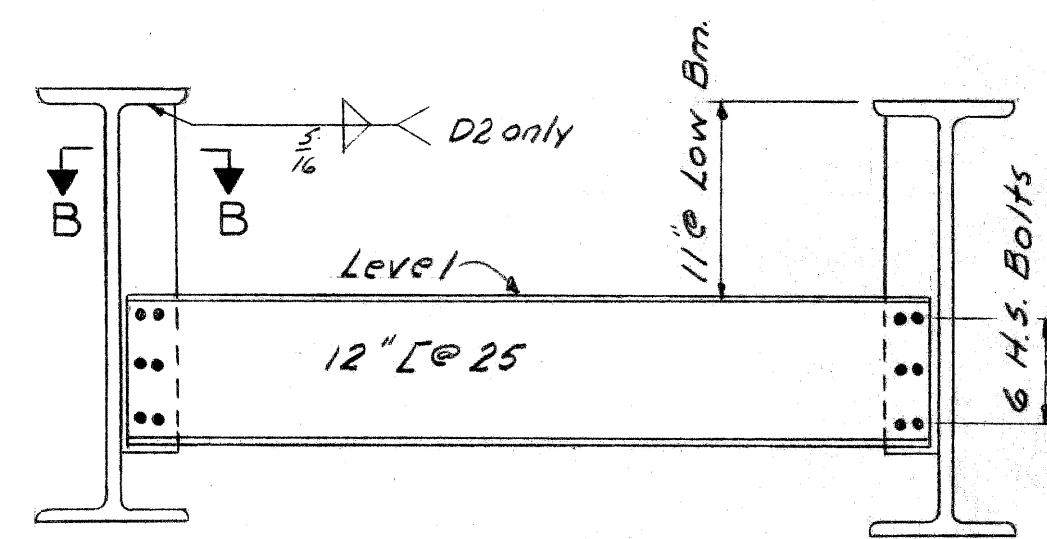


STUD SHEAR DEVELOPERS

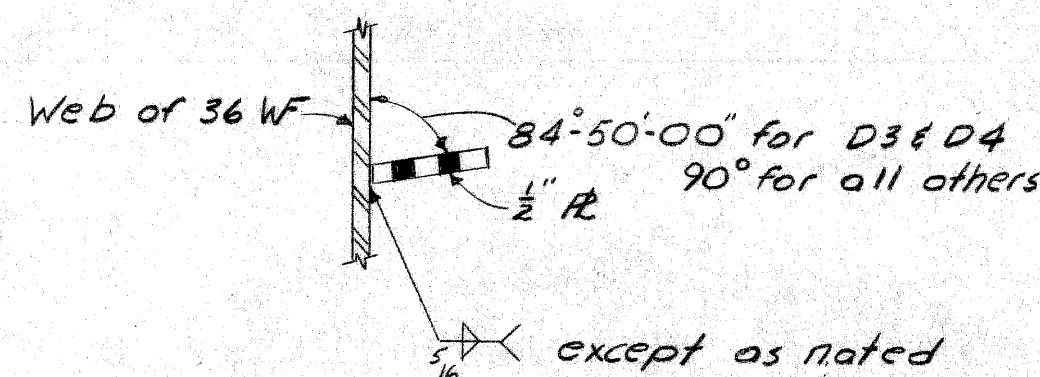
Span 1 Shown, Span 2 Similar



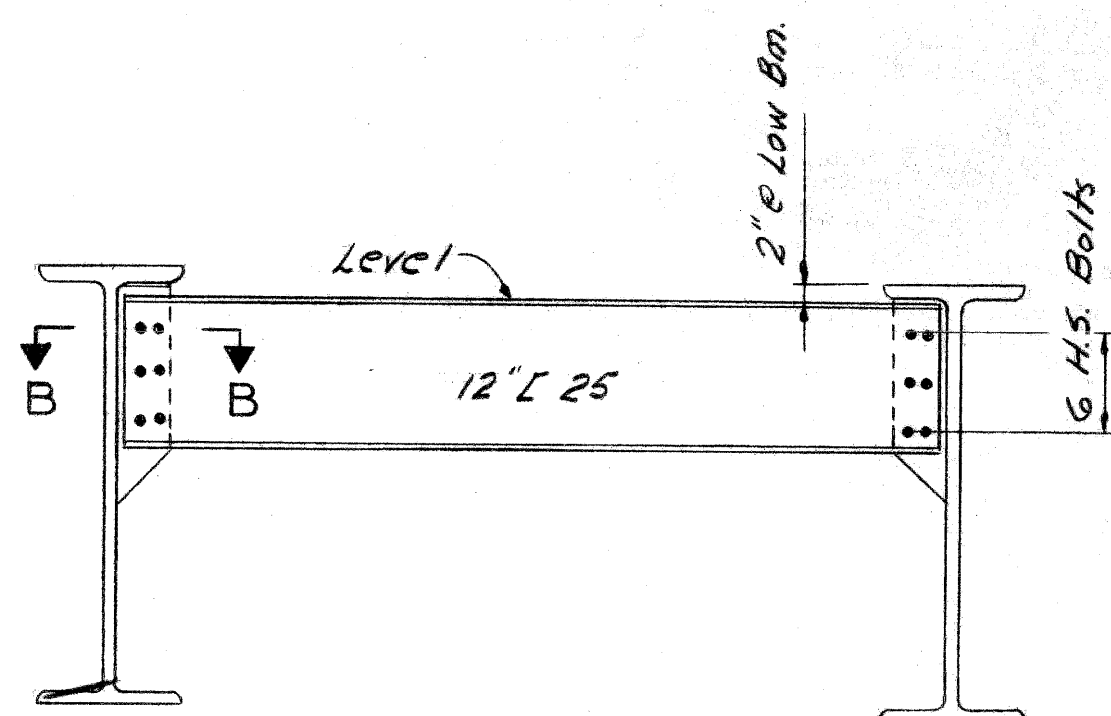
SECTION M-M



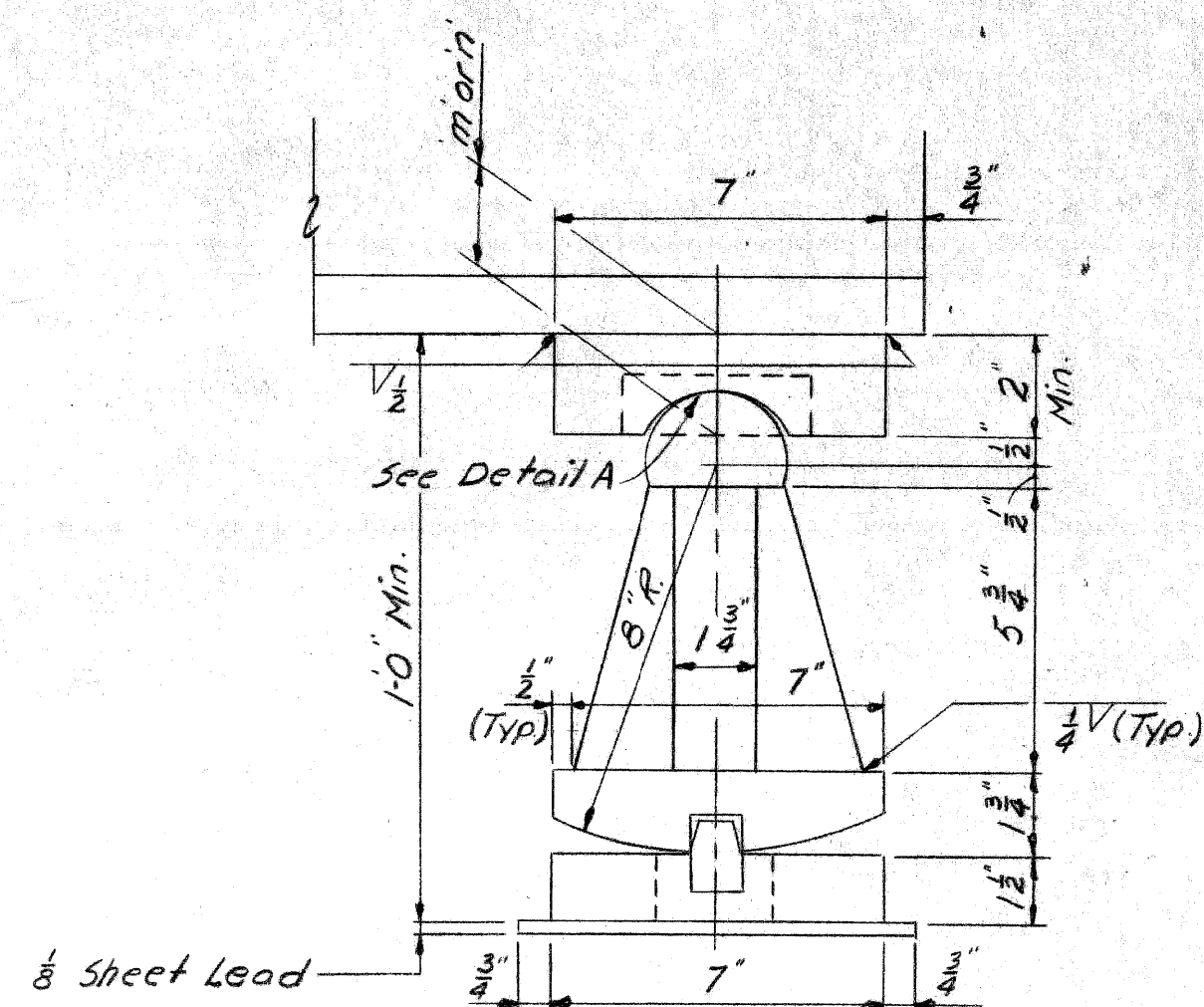
D2, D4



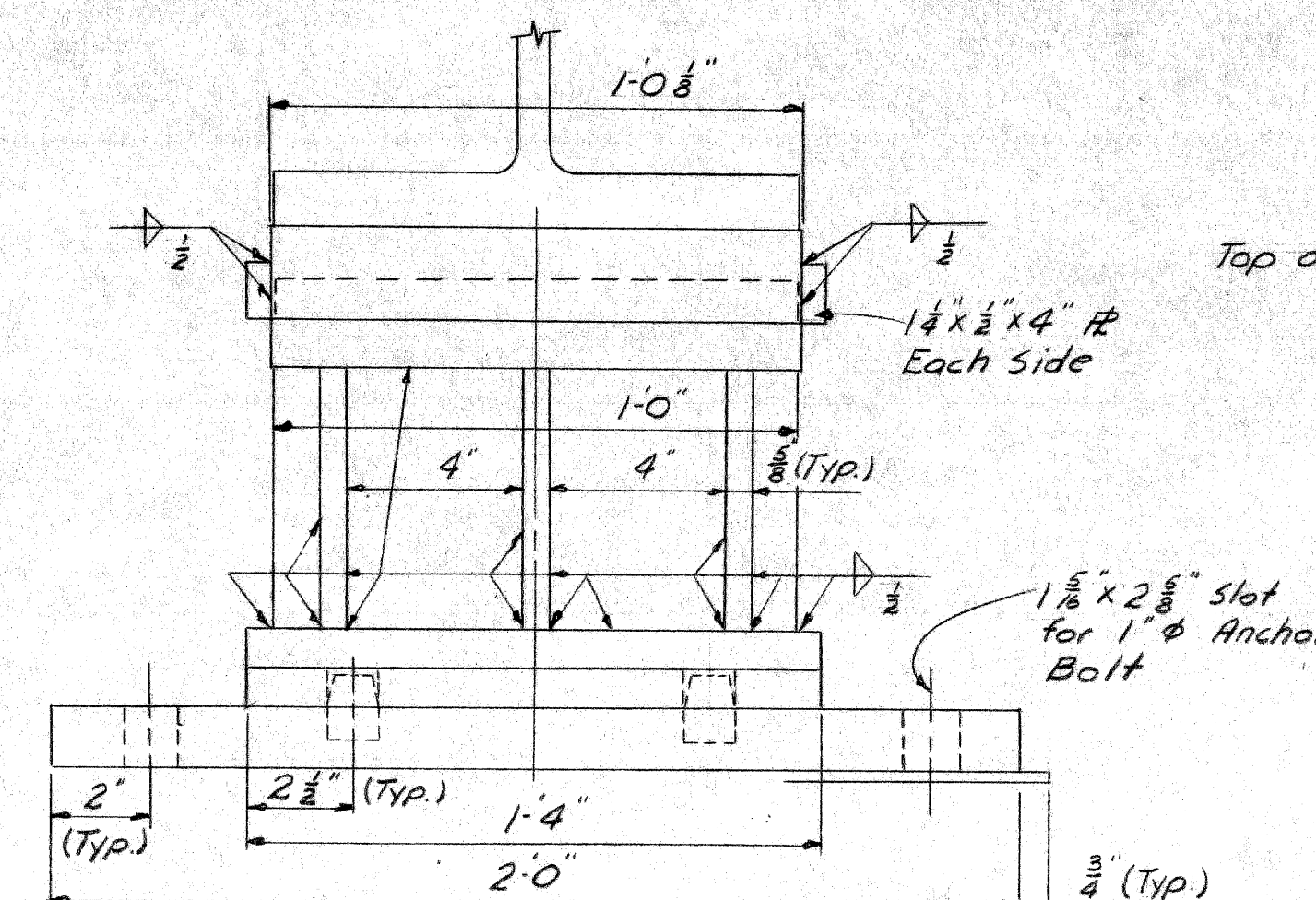
SECTION B-B



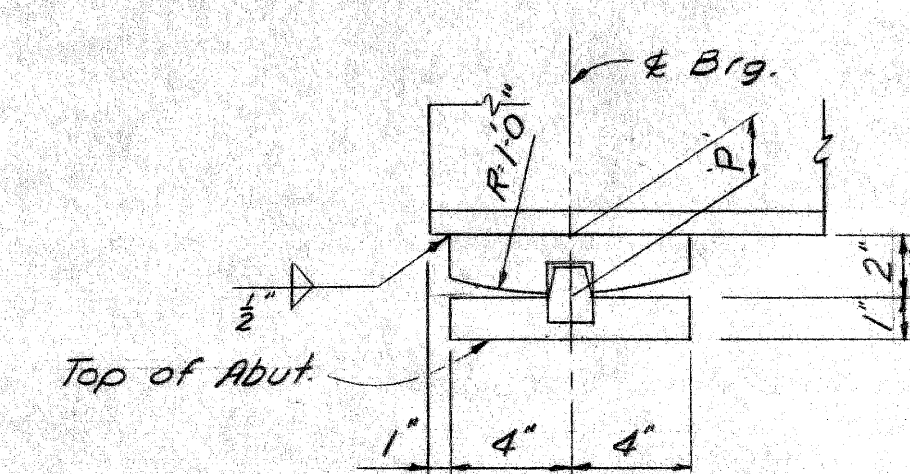
D3



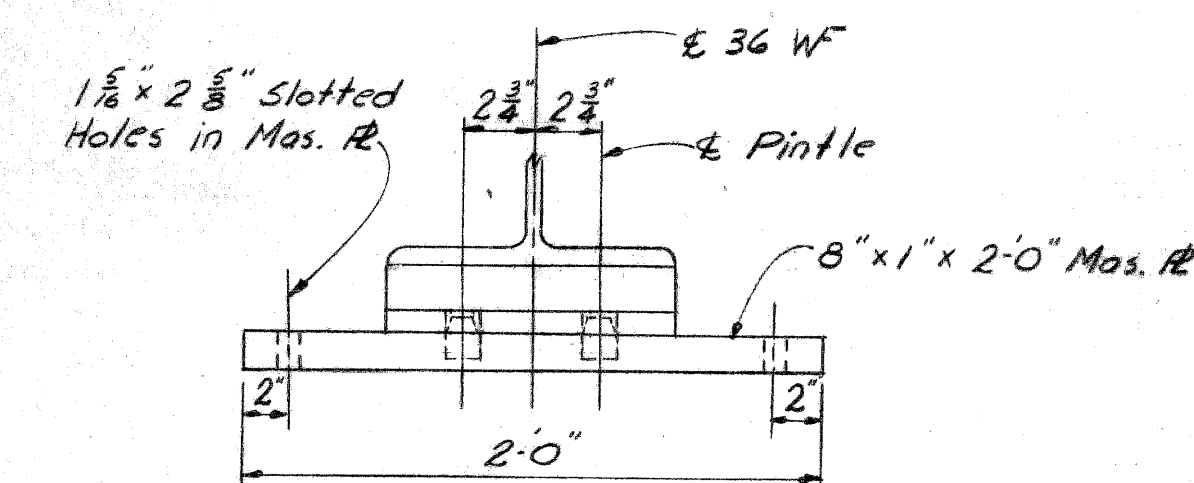
SECTION



END VIEW

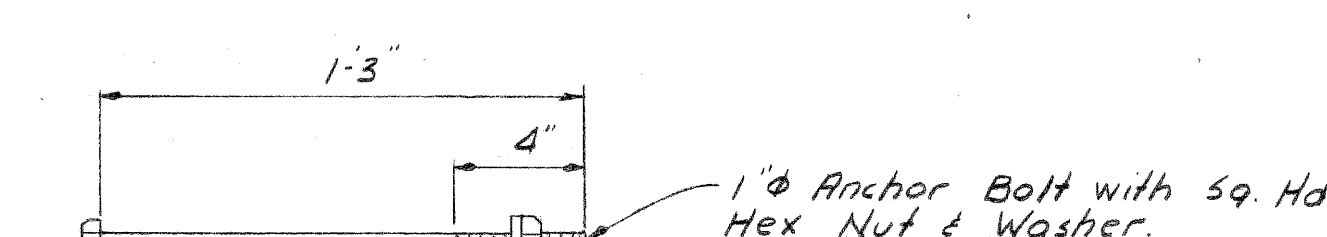


SECTION



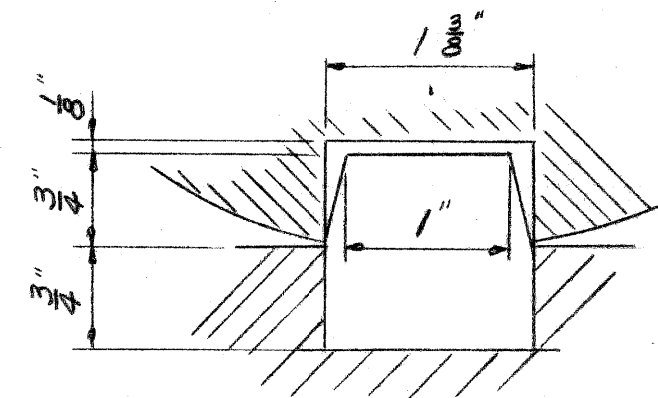
ELEVATION

PIER BEARING DETAILS

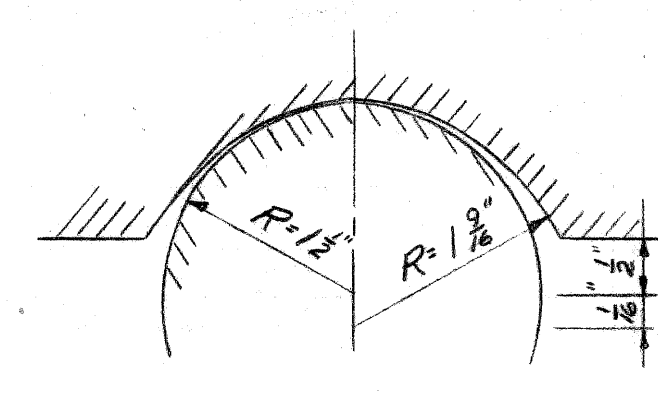


ANCHOR BOLT DETAIL

SOLE PLATE THICKNESS TABLE									
Br.	A	B	C	D	E	F	G	H	J
'm'	2"	2 1/2"	4 1/2"	2"	2 3/4"	2 1/4"	4"	2 1/2"	2 3/4"
'n'	2 1/4"	3"	4 3/4"	2 1/4"	3"	2 1/4"	4"	2 1/2"	2 3/4"
'p'	2"	2 1/2"	4"	2 1/4"	3"	2"	3 3/4"	2"	2"



PINTLE DETAIL



DETAIL A

ABUTMENT BEARING DETAILS

PLANS PREPARED BY
 CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED: *H. Paul*
 STRUCTURAL ENGINEER

JOB No.
 PW 990(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

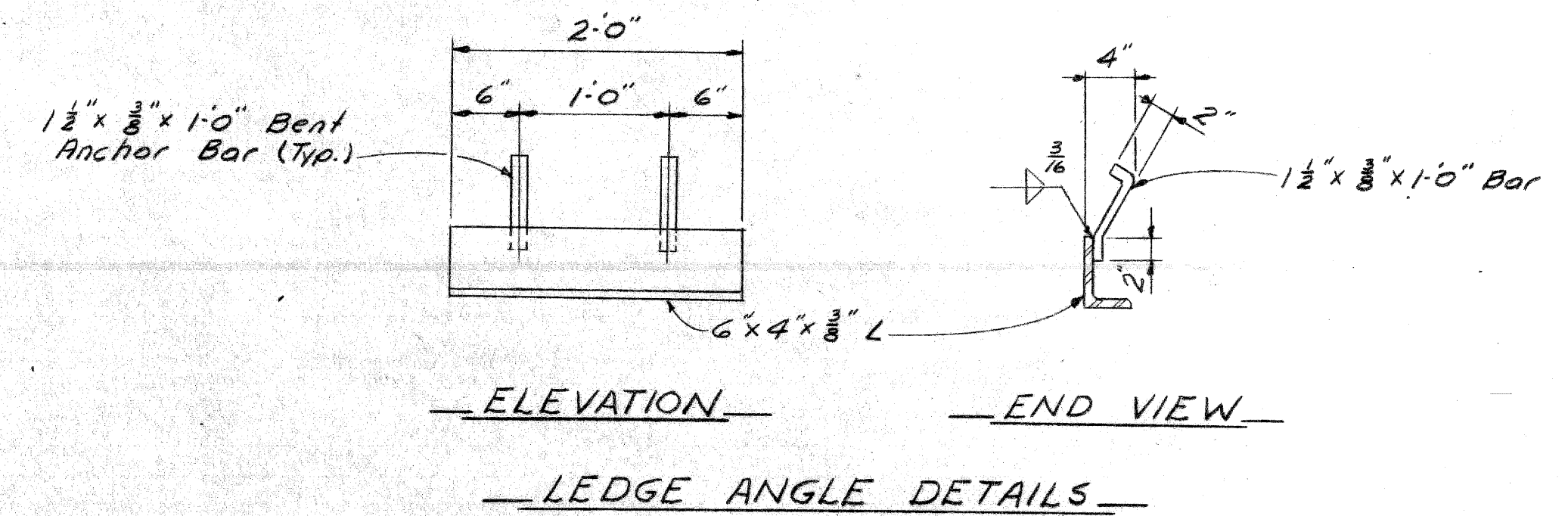
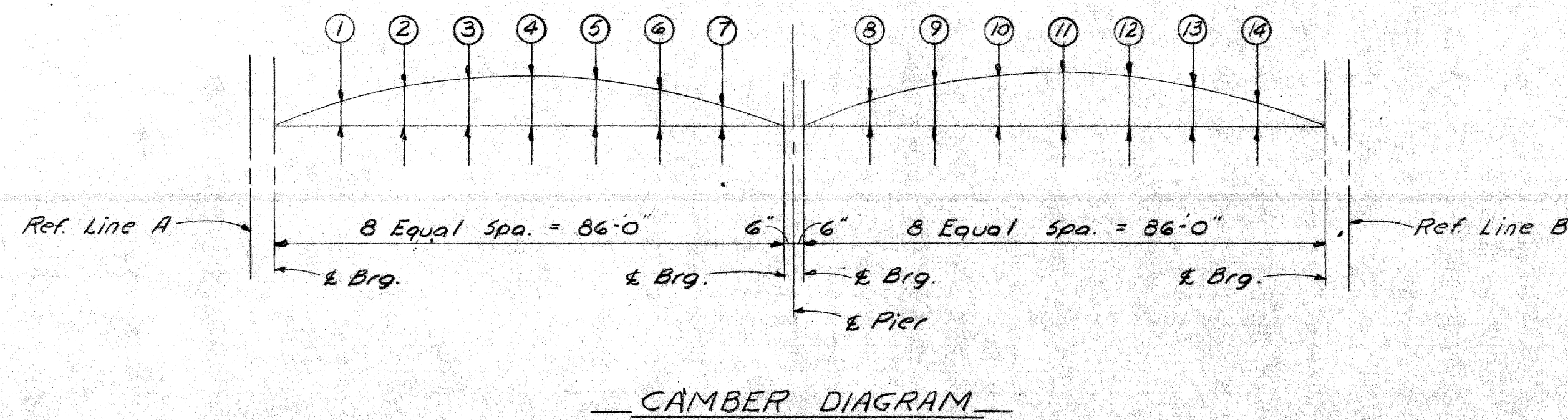
STRUCTURAL STEEL DETAILS

CITY OF DETROIT

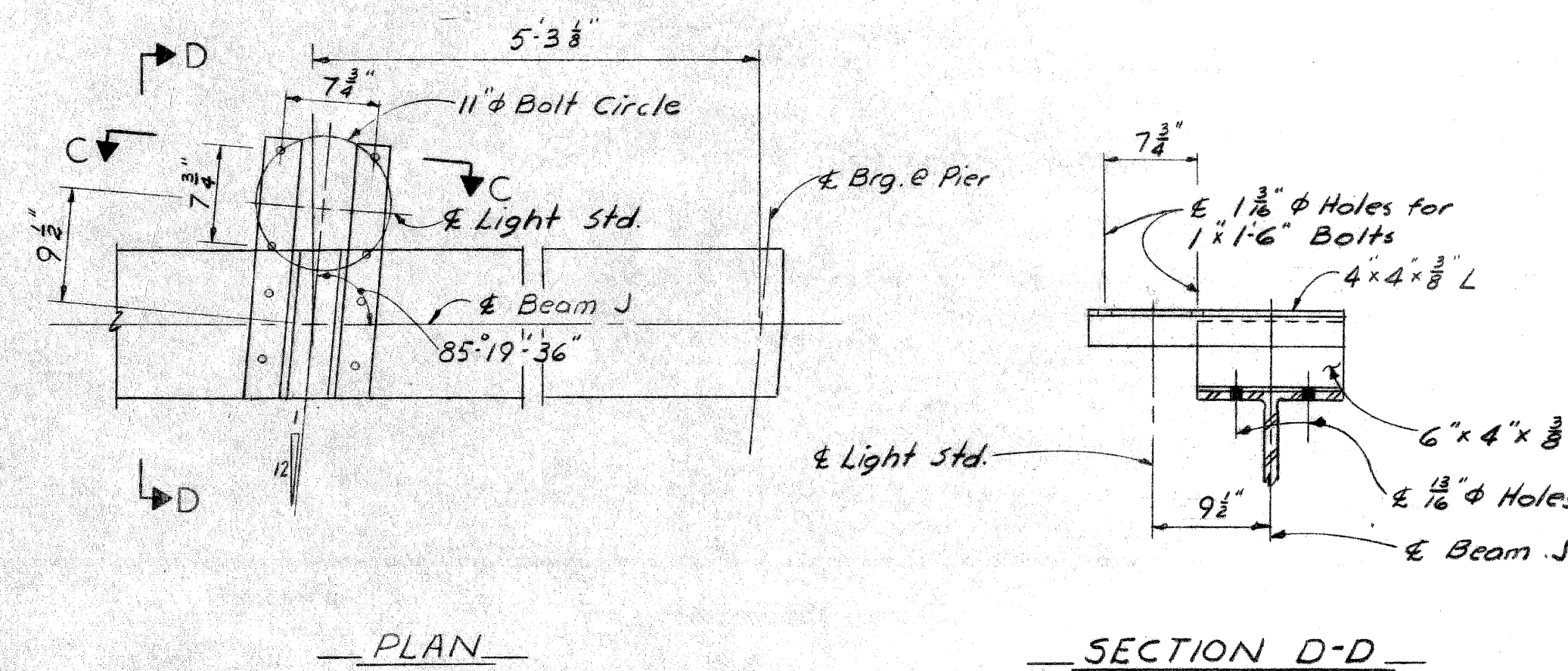
REVISIONS

NO.	DESCRIPTION	DATE	BY

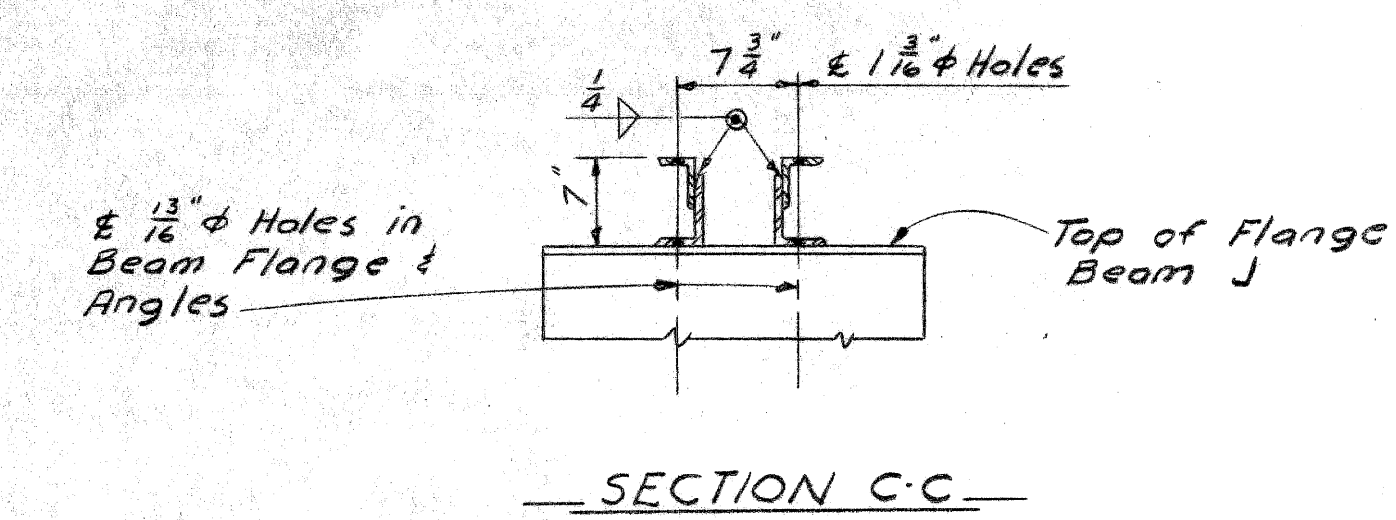
SQUAD BOSS: *Locher* 2-69
 DRAWN BY: *GARAVAGLIA* 1-69
 CHECKED BY: *D.J.R.* 3-69
 SHEET 15 OF 22
 550 of 82123J



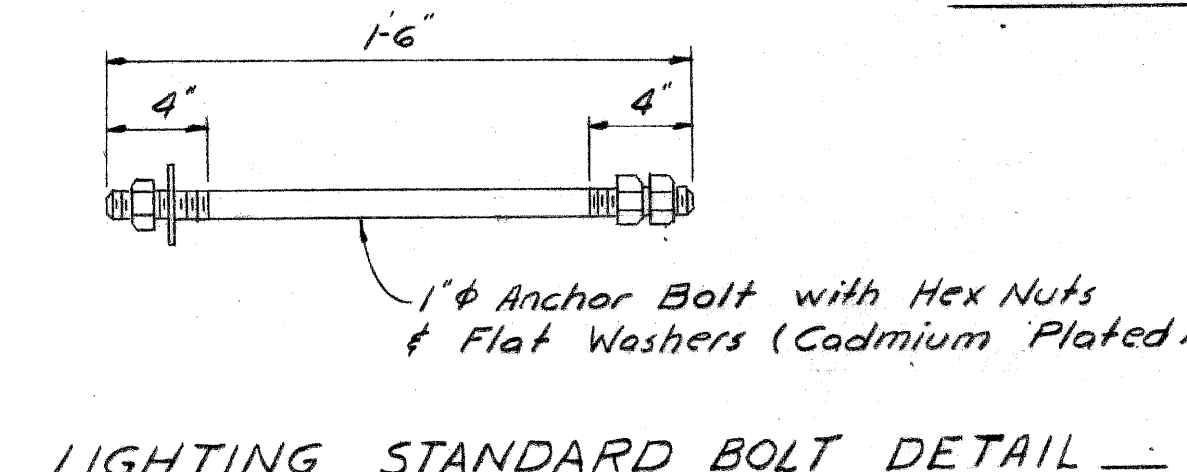
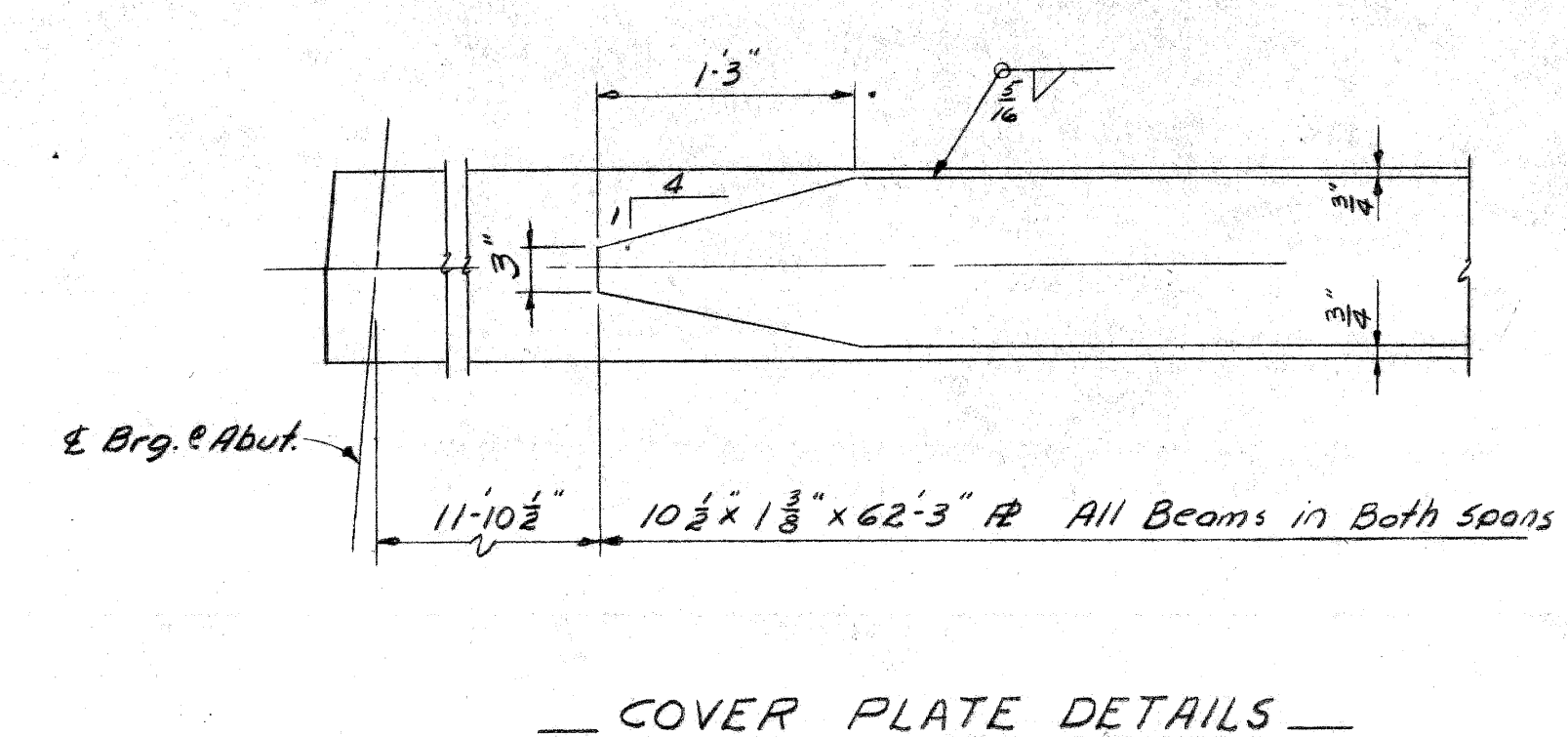
CAMBER ORDINATES (INS.)														
Beam	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭
A	1 7/8	3 5/8	5	5 5/8	5 1/2	4 1/2	2 3/8	2 3/8	4 1/2	5 1/4	5	3 5/8	1 7/8	
B	1 7/8	3 5/8	4 3/8	5 1/2	5 1/4	4 3/8	2 3/8	2 1/4	4 3/8	5 1/4	5 1/2	4 3/8	3 5/8	1 7/8
C	1 7/8	3 5/8	5	5 1/2	5 1/4	4 3/8	2 3/8	2 3/8	4 3/8	5 1/4	5 1/2	5	3 5/8	1 7/8
D	2	3 3/8	5 1/4	5 5/8	5 1/2	4 3/8	2 1/2	2 1/2	4 3/8	5 1/2	5 5/8	5 1/4	3 5/8	2
E	2 1/4	4 3/8	5 1/2	6 3/8	5 3/4	4 1/2	2 5/8	2 3/8	4 1/2	5 3/4	6 3/8	5 1/2	4 3/8	2 1/4
F	2 1/4	4 3/8	5 5/8	6 3/8	5 3/4	4 1/2	2 1/2	2 5/8	4 1/2	5 3/4	6 3/8	5 5/8	4 3/8	2 1/4
G	2 1/4	4 1/2	5 5/8	6 1/2	5 3/4	4 5/8	2 5/8	2 5/8	4 5/8	5 3/4	6 1/2	5 5/8	4 1/2	2 1/4
H	2 1/4	4 1/2	5 5/8	6 1/2	5 3/4	4 5/8	2 1/2	2 1/2	4 1/2	5 3/8	6 1/2	5 5/8	4 1/2	2 1/4
J	1 7/8	3 1/2	4 3/4	5 3/8	4 3/8	3 3/4	2 3/8	2 3/8	3 3/4	4 3/8	5 3/8	4 3/4	3 1/2	1 7/8



SCHEDULE OF TOP OF STEEL ELEVATIONS						
Beam	Span #1			Span #2		
	± Brg. & Abut.	1/2	± Brg. & Pier	± Brg. & Pier	1/2	± Brg. & Abut.
A	141.60	142.51	142.59	142.59	142.69	141.96
B	141.64	142.54	142.63	142.63	142.73	142.02
C	141.81	142.69	142.76	142.76	142.87	142.17
D	141.94	142.84	142.86	142.86	143.01	142.29
E	142.00	142.92	142.92	142.92	143.10	142.35
F	141.96	142.86	142.84	142.84	143.02	142.29
G	141.86	142.77	142.74	142.74	142.93	142.19
H	141.73	142.63	142.59	142.59	142.78	142.06
J	141.75	142.55	142.59	142.59	142.71	142.08



Note: For location of ± Light Standard on Beam J, see Framing Plan Sh. #13



P.L.C. LIGHTING STANDARD SUPPORT DETAILS

PLANS PREPARED BY
CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED: *H. Conant*
 STRUCTURAL ENGINEER

JOB No.
 PW 990(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS	
STRUCTURAL STEEL DETAILS	
CITY OF DETROIT	
SQUAD BOSS	Locher 2-69
DRAWN BY	GARRAGLIA 1-69
TRACED BY	
CHECKED BY	D.V.R. 3-69
SHEET 14 OF 22	
550 of 82123J	

REVISIONS			
NO.	DESCRIPTION	DATE	BY