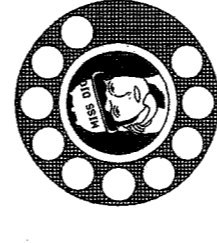
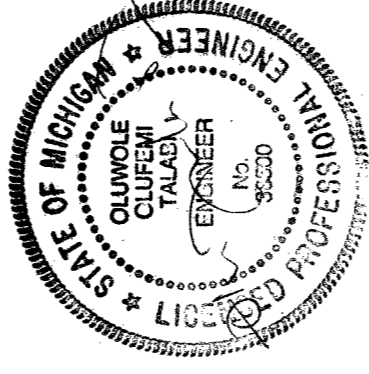


INDEX OF SHEETS

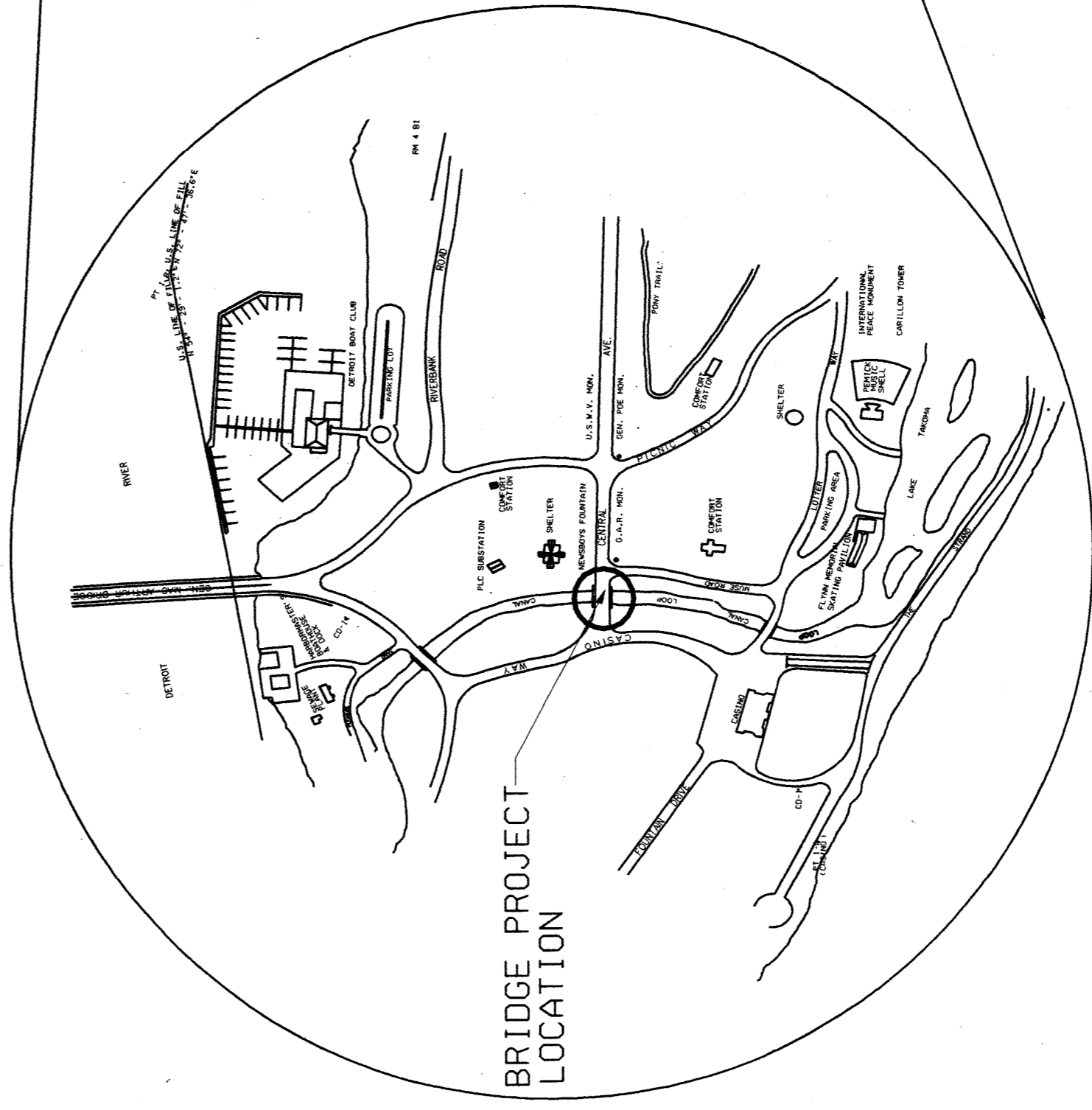
PLANS	SHEET No.
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GENERAL PLAN OF STRUCTURE 1	4
GENERAL PLAN OF STRUCTURE 2	5
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SUPERSTRUCTURE DETAILS	8
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SOIL EROSION AND SEDIMENTATION CONTROL MEASURES	R-96A
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MOLDING, BEVEL, LIGHT STANDARD ANCHOR BOLT ASSEMBLY AND NAME PLATE DETAILS	B-103B
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SODDING & SEEDING	R-100B
LONGITUDINAL PAVEMENT JOINTS	R-41B

CITY OF DETROIT
MICHIGAN
DEPARTMENT OF PUBLIC SERVICE
PLAN AND PROFILE OF PROPOSED
BRIDGE REPLACEMENT PROJECT
NO. BW 206 **PARTS 1 & 2**
REPLACEMENT OF THE CENTRAL AVENUE
BRIDGE OVER LOOP CANAL



72 HOURS
BEFORE YOU DIG
CALL MISS DIG
800-482-7171
1 TOLL-FREE



THE DESIGN OF THIS STRUCTURE IS BASED ON CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES MS-18 LOADING. LIVE LOAD PLUS IMPACT DEFLECTION DOES NOT EXCEED 1/1000 OF THE SPAN LENGTH. THE LOAD FACTOR METHOD OF DESIGN WAS USED FOR THIS STRUCTURE.

EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS THE PROPOSAL AND SUPPLEMENTAL SPECIFICATIONS CONTAINED HEREIN ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION 1996 EDITION.

THE STATIONING AS SHOWN ON THESE PLANS FOR THE INTERSECTION OF THE CENTERLINE OF BRIDGE AND ROADWAY CENTERLINE IS BELIEVED TO BE CORRECT. IT SHALL, HOWEVER, BE CHECKED AT THE TIME OF STARTING CONSTRUCTION, AND THE STATIONING SHOWN ON THESE PLANS IS INCORRECT, IT SHALL BE REPORTED TO THE DESIGN OFFICE, AND THE STRUCTURE SHALL BE STAKED OUT USING THE ACTUAL INTERSECTION OF THE CENTERLINE AS THE CONTROL POINT.

ALL EXPOSED CONCRETE CORNERS SHOWN SQUARE ON THE PLANS SHALL BE BEVELED WITH 13 mm TRIANGULAR MOLDINGS EXCEPT AS OTHERWISE NOTED.

THE DESIGN OF THE STRUCTURAL MEMBERS IS BASED ON MATERIAL OF THE FOLLOWING GRADES AND STRESSES:

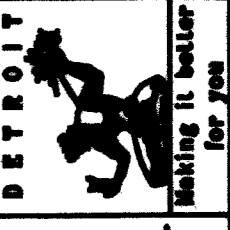
CONCRETE: GRADE S2.	f'c = 21 MPa	PRESTRESSED CONCRETE: f'c = 35 MPa
CONCRETE: GRADE D.	f'c = 28 MPa	PRESTRESSED STRANDS: f'c = 1860 MPa
STEEL REINFORCEMENT:	f'y = 400 MPa	PRESTRESSED BEAM STIRRUPS: f'y = 300 MPa

ALL DIMENSIONS ON THESE PLANS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN. ELEVATIONS, COORDINATES, AND CURVE ALIGNMENT DATA ARE IN METERS. STATIONS ARE IN KILOMETERS & METERS.

REVISIONS	100% COMPLETED	10-30-00	DSGN BY	K.O.	-99
			DR'N BY	A.A.	-99
			CK'D BY	F.T.	-99
			APP'D BY	F.T.	-99

SNELL ENVIRONMENTAL GROUP, INC. A DLZ Company
 151 W. CONGRESS AVE. #1400 DETROIT, MICHIGAN 48226
 TEL: (313) 961-4040

FTA
FRAN YILGIR & ASSOCIATES INC.
 20000 VAN DYKE AVE. SUITE 100
 FARMING HILLS, MI 48334



CITY OF DETROIT
MICHIGAN

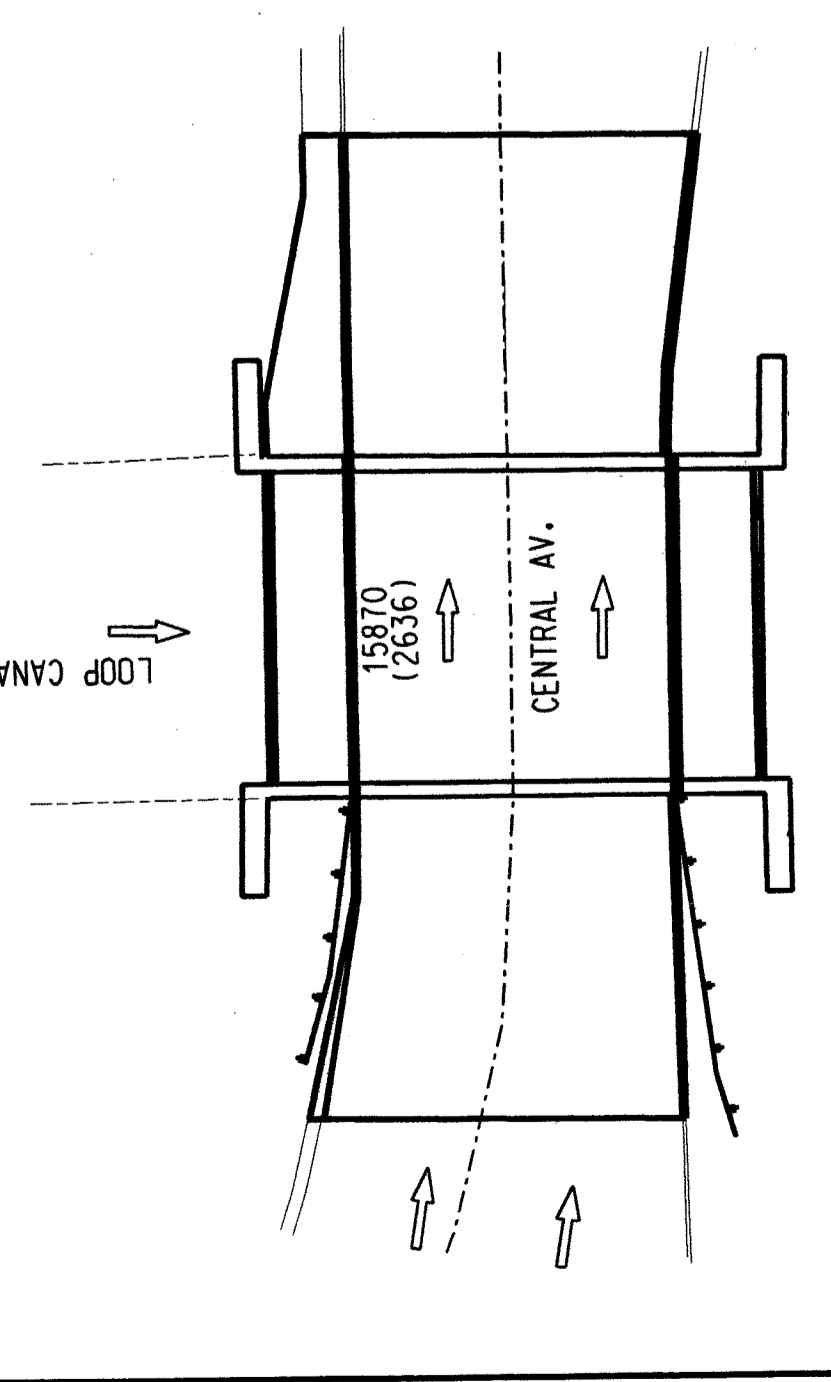
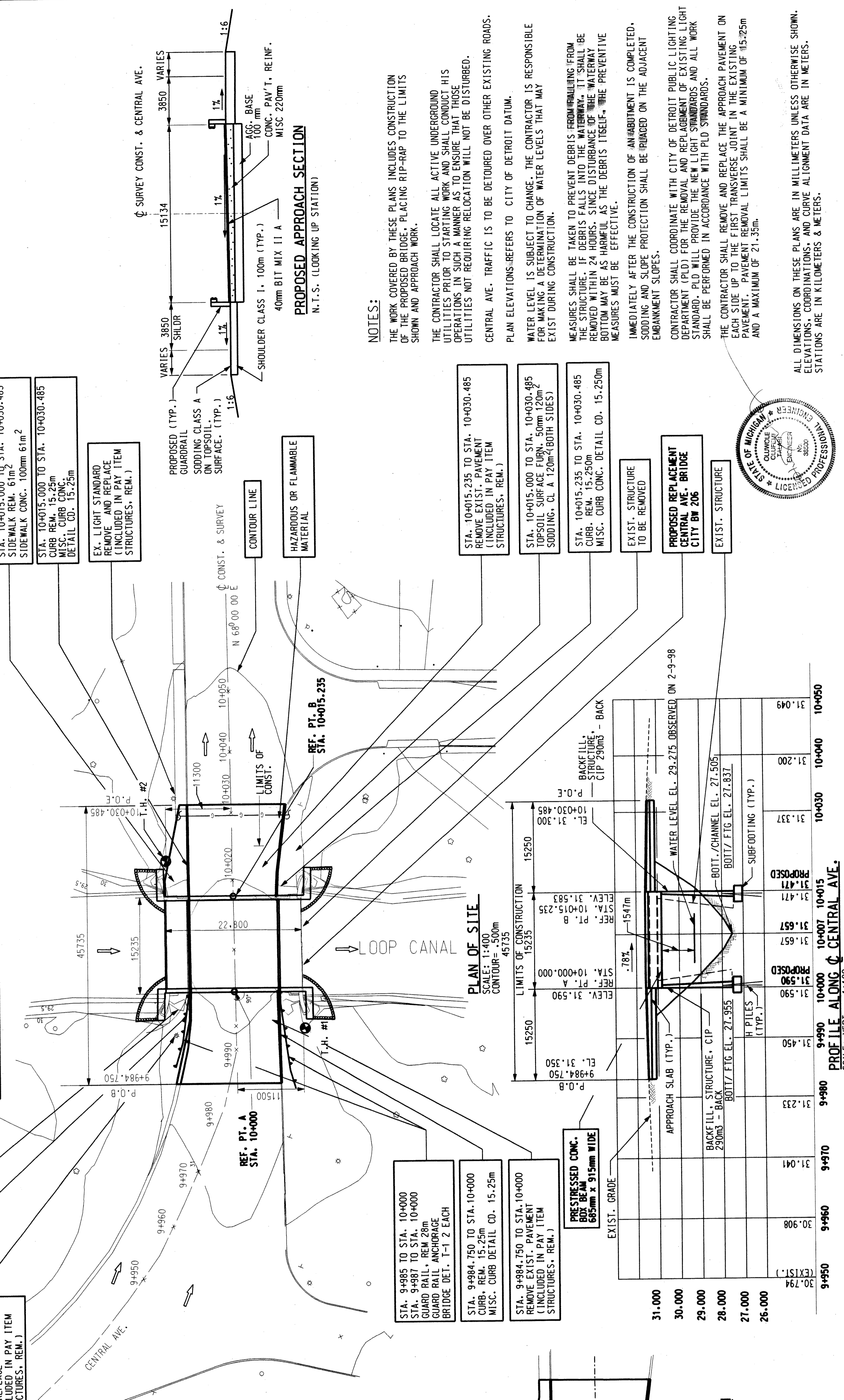
SCALE NOT TO SCALE
PROJECT NO. 9810
SHEET NO. 1 OF 10

UTILITIES	TELEPHONE
AMERITECH ROOM 101 4000 ALLEN RD. ALLEN PARK, MI. 48101 DAVE BUCIENSKI PHONE No.: (313) 389-9819	(P.K. NAIL) 44-316m 68-185m 32-788m 39-244m
WATER & SEWAGE	(P.K. NAIL) 31-998m 61-151m 46-473m 51-470m
CITY OF DETROIT WATER & SEWER DEPT. 735 RANDOLPH ST. DETROIT, MI. 48226 PHONE No.: (313) 224-4800	
ELECTRIC	
DETROIT EDISON ROOM 607 G.O. 2000 SECOND AVE. DETROIT, MI. 48226 JOHN SOURES PHONE No.: (313) 235-6597	
GAS	
MICHIGAN CONSOLIDATED GAS CO. DRAFTING CLERK MAIN REPLACEMENT TEAM MOBLE SECOND FLOOR 3200 HOBSON DETROIT, MI. 48201 PHONE No.: (313) 577-7236	
ELECTRIC	
CITY OF DETROIT PUBLIC LIGHTING DEPT. 9449 GREENELL DETROIT, MI 48213 PHONE NO (313) 267-7306	

EXISTING STRUCTURE
ONE SPAN STEEL STRUCTURE BUILT IN 1940. 14640mm CLEAR ROADWAY BRIDGE NO. 206
STA. 9+984.750 TO 10+000 50mm TOPSOIL SURFACE FURN. 100m ² SODDING CL. @ 100m ² (BOTH SIDES)
STA. 9+984.750 TO 10+000 CURB. REM. 15.25m MISC. CURB CONC. DETAIL CD. 15.250m
EXIST LIGHT STD. REMOVE AND REPLACE (INCLUDED IN PAY ITEM STRUCTURES, REM.)

BENCH MARKS
B.M. # 1 - ARROW ON TOP OF FIRE HYDRANT 114300 + EAST OF THE C OF FOUNTAIN DRIVE AND 3048 SOUTH CURB OF GRAND PRIX PIT. ROAD ELEV. 31.185m
B.M. #2 - TOP OF EAST BOLT OF LIGHT POLE AT SOUTHWEST CORNER OF THE INTERSECTION OF GRAND PRIX ROAD & CASINO WAY ELEV. 30.465m
B.M. #252 - 1524 NORTH OF NORTH CURB OF CENTRAL AVE. AND 13411 EAST OF BRIDGE OVER LOOP CANAL IT IS A STANDARD CITY OF DETROIT MONUMENT ELEV. 30.975m

WITNESSES	
REFERENCE PT. A STA. 10+000.000 N 36 32' 25" E S 55 21' 00" E S 36 27' 10" W N 68 59' 20" W	(P.K. NAIL) 44-316m 68-185m 32-788m 39-244m
REFERENCE PT. B STA. 10+015.235 N 22 24' 20" E S 43 19' 20" E S 46 20' 40" W N 80 37' 15" W	(P.K. NAIL) 31-998m 61-151m 46-473m 51-470m



2020 ESTIMATED TRAFFIC DISTRIBUTION

LEGEND

(000) DESIGN HOURLY VOLUME
0000 AVERAGE DAILY TRAFFIC
⇄ DIRECTIONAL TRAFFIC

PLAN OF SITE
SCALE: 1:400
CONTOUR = 500mm
45735

STATION	ELEVATION	DESCRIPTION
9+950	30.794	EXIST. GRADE
9+960	30.908	EXIST. GRADE
9+970	31.041	EXIST. GRADE
9+980	31.233	EXIST. GRADE
9+990	31.450	EXIST. GRADE
10+000	31.590	EXIST. GRADE
10+007	31.657	EXIST. GRADE
10+015	31.471	EXIST. GRADE
10+020	31.337	EXIST. GRADE
10+030	31.337	EXIST. GRADE
10+040	31.200	EXIST. GRADE
10+050	31.049	EXIST. GRADE

REVISIONS
DSGN BY K.O.
CHK'D BY A.A.
APP'D BY F.T.

SNELL ENVIRONMENTAL GROUP, INC. A D.L.Z. COMPANY
51 W. CONGRESS ST., STE. 328, DETROIT, MICHIGAN 48226
PHONE (313) 961-9040

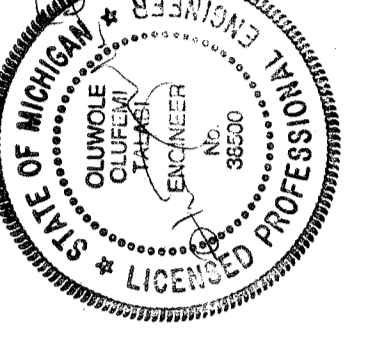
F.T.A. FIDELTALAN & ASSOCIATES INC.
68 GRANDBLVD. SUITE 100, DETROIT, MICHIGAN 48226
PHONE (313) 961-9040

CITY OF DETROIT MICHIGAN

CENTRAL AVE.

GENERAL PLAN OF SITE

SCALE NOT TO SCALE
PROJECT NO. 9810
SHEET 2 OF 10



ALL DIMENSIONS ON THESE PLANS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN. ELEVATIONS, COORDINATIONS, AND CURVE ALIGNMENT DATA ARE IN METERS. STATIONING ARE IN KILOMETERS & METERS.

NOTES:

THE WORK COVERED BY THESE PLANS INCLUDES CONSTRUCTION OF THE PROPOSED BRIDGE, PLACING RIP-RAP TO THE LIMITS SHOWN AND APPROACH WORK.

THE CONTRACTOR SHALL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK AND SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.

CENTRAL AVE. TRAFFIC IS TO BE DETOURD OVER OTHER EXISTING ROADS.

PLAN ELEVATIONS REFERS TO CITY OF DETROIT DATUM.

WATER LEVEL IS SUBJECT TO CHANGE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING A DETERMINATION OF WATER LEVELS THAT MAY EXIST DURING CONSTRUCTION.

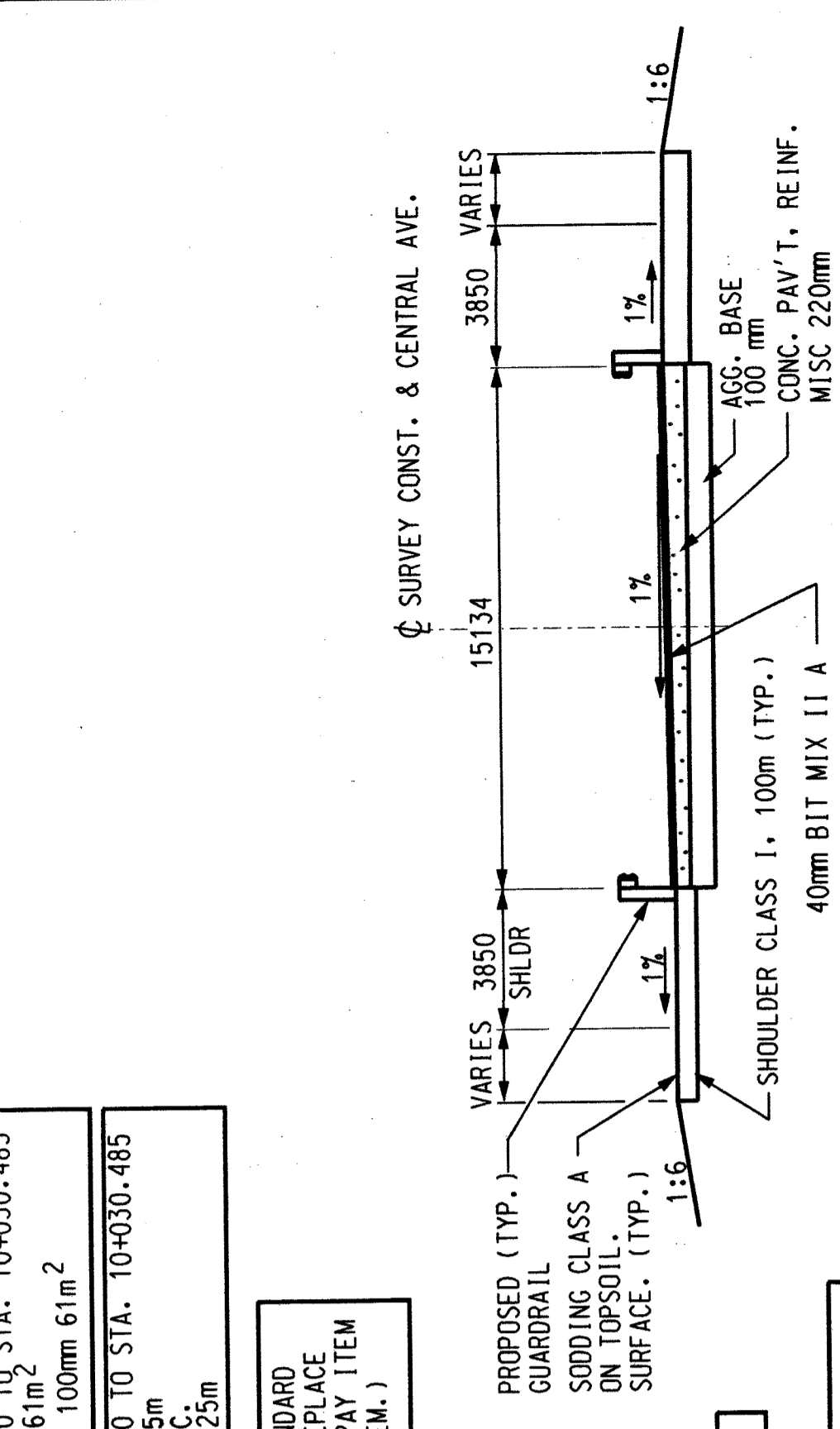
MEASURES SHALL BE TAKEN TO PREVENT DEBRIS FROM FLOWING FROM THE STRUCTURE IF DEBRIS FALLS INTO THE WATERWAY. IT SHALL BE REMOVED WITHIN 24 HOURS SINCE DISTURBANCE OF THE WATERWAY BOTTOM MAY BE AS HARMFUL AS THE DEBRIS ITSELF. THE PREVENTIVE MEASURES MUST BE EFFECTIVE.

IMMEDIATELY AFTER THE CONSTRUCTION OF AN ABUTMENT IS COMPLETED, SODDING AND SLOPE PROTECTION SHALL BE INSTALLED ON THE ADJACENT EMBANKMENT SLOPES.

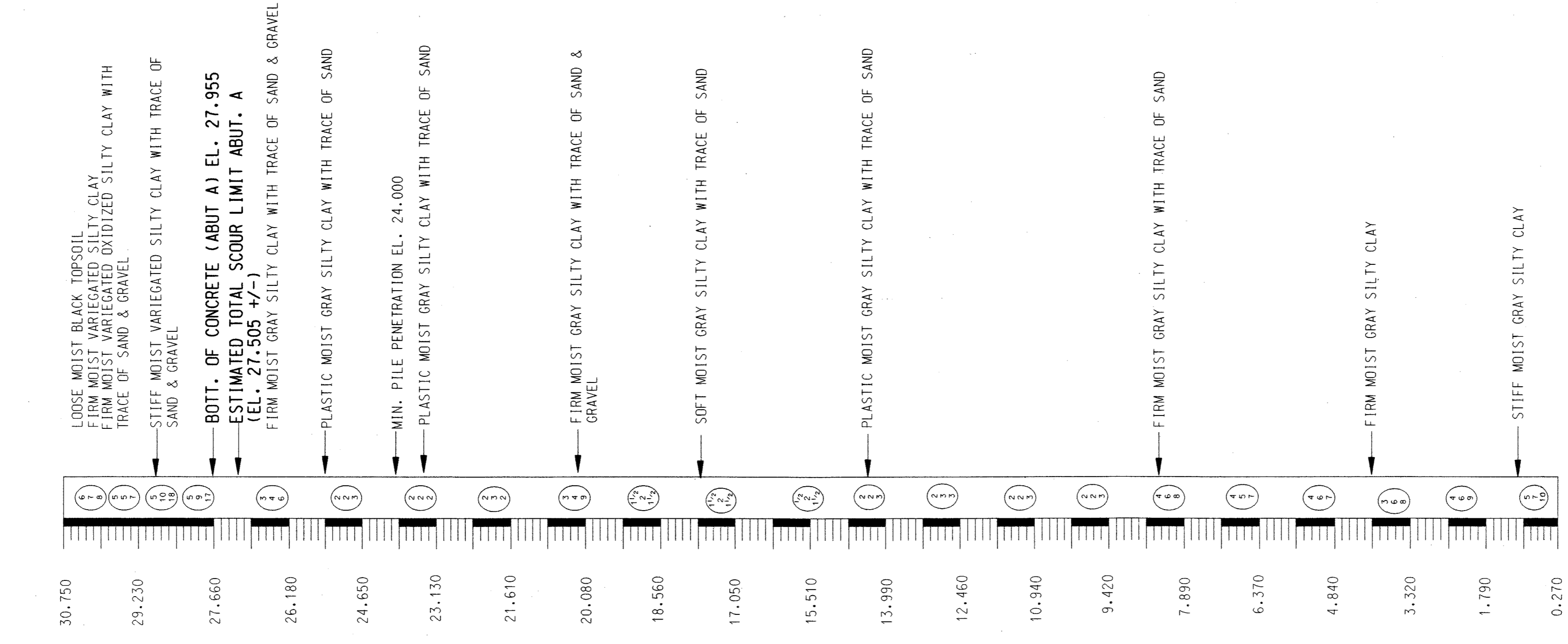
CONTRACTOR SHALL COORDINATE WITH CITY OF DETROIT PUBLIC LIGHTING DEPARTMENT (PLD) FOR THE REMOVAL AND REPLACEMENT OF EXISTING LIGHT STANDARD. PLD WILL PROVIDE THE NEW LIGHT STANDARDS AND ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH PLD STANDARDS.

THE CONTRACTOR SHALL REMOVE AND REPLACE THE APPROACH PAVEMENT ON EACH SIDE UP TO THE FIRST TRANSVERSE JOINT IN THE EXISTING PAVEMENT. PAVEMENT REMOVAL LIMITS SHALL BE A MINIMUM OF 15.25m AND A MAXIMUM OF 21.35m.

PROPOSED APPROACH SECTION
N.T.S. (LOOKING UP STATION)

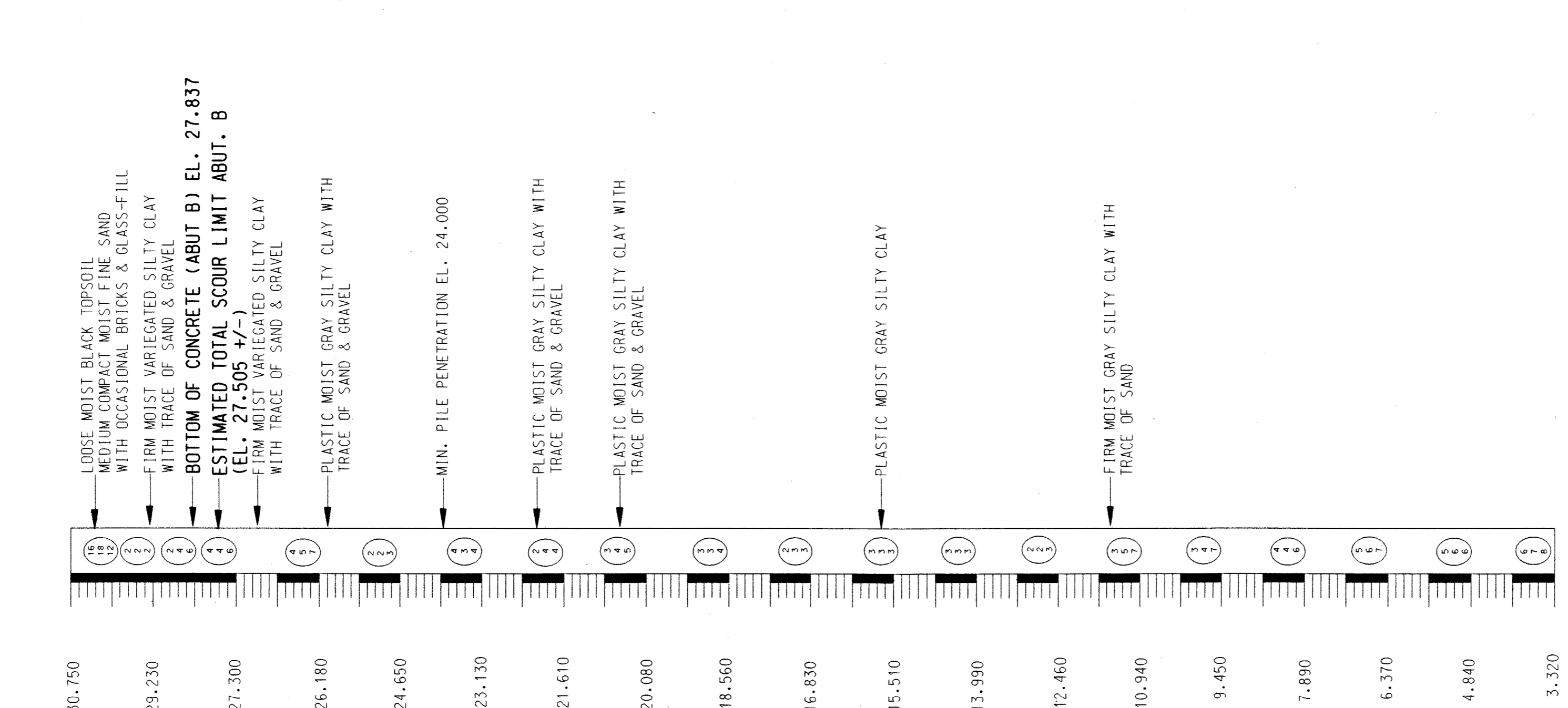


TEST HOLE TB-#R-1
 LOCATION STATION 9+993.751 11500 RT.
 CENTRAL AVE. OVER LOOP CANAL
 ELEV. GROUND SURFACE ELEVATION 30.750 m

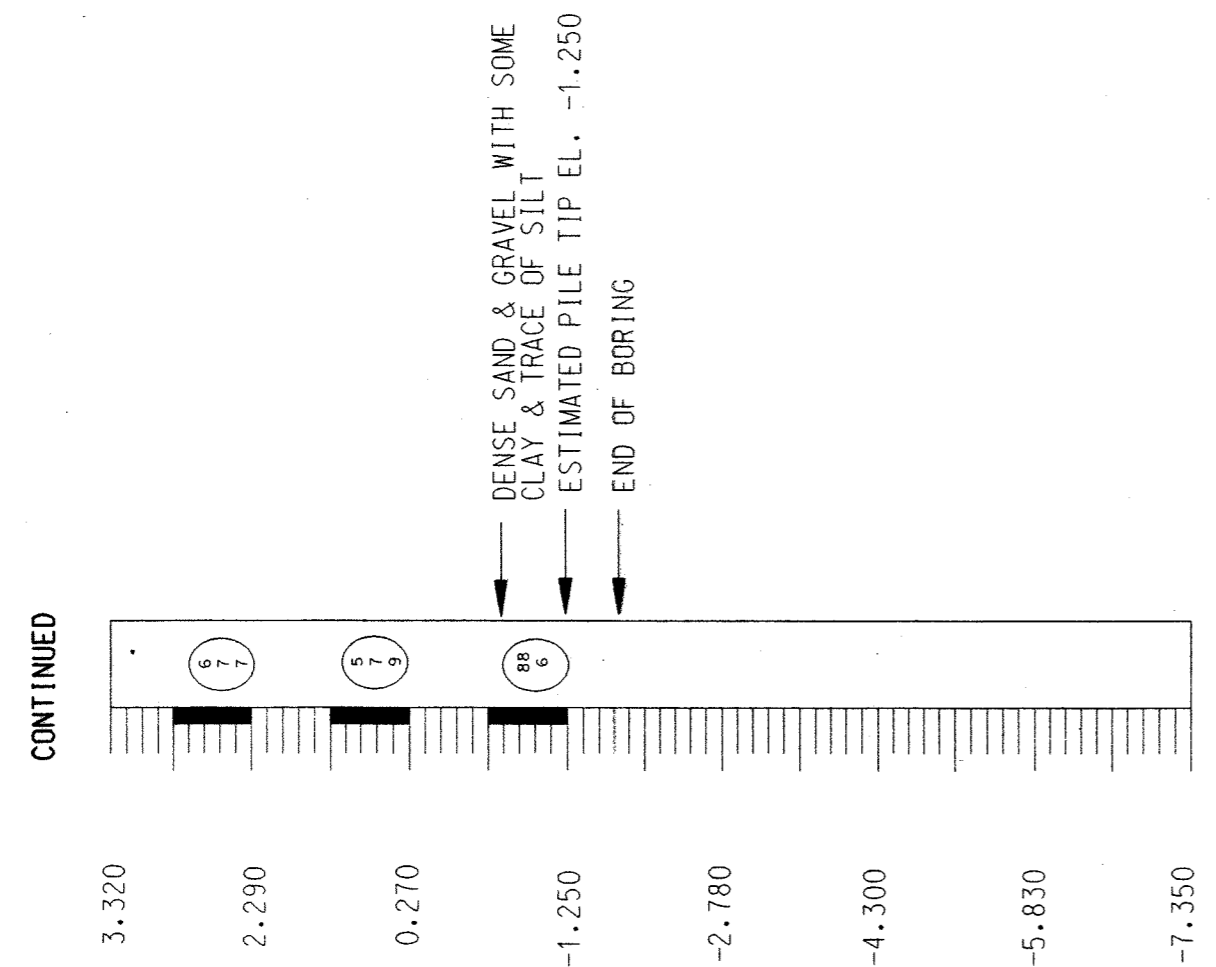


CONTINUED

TEST HOLE TB-#R-2
 LOCATION STATION 10+026.111 11300 L.T.
 CENTRAL AVE. OVER LOOP CANAL
 ELEV. GROUND SURFACE ELEVATION 30.750m

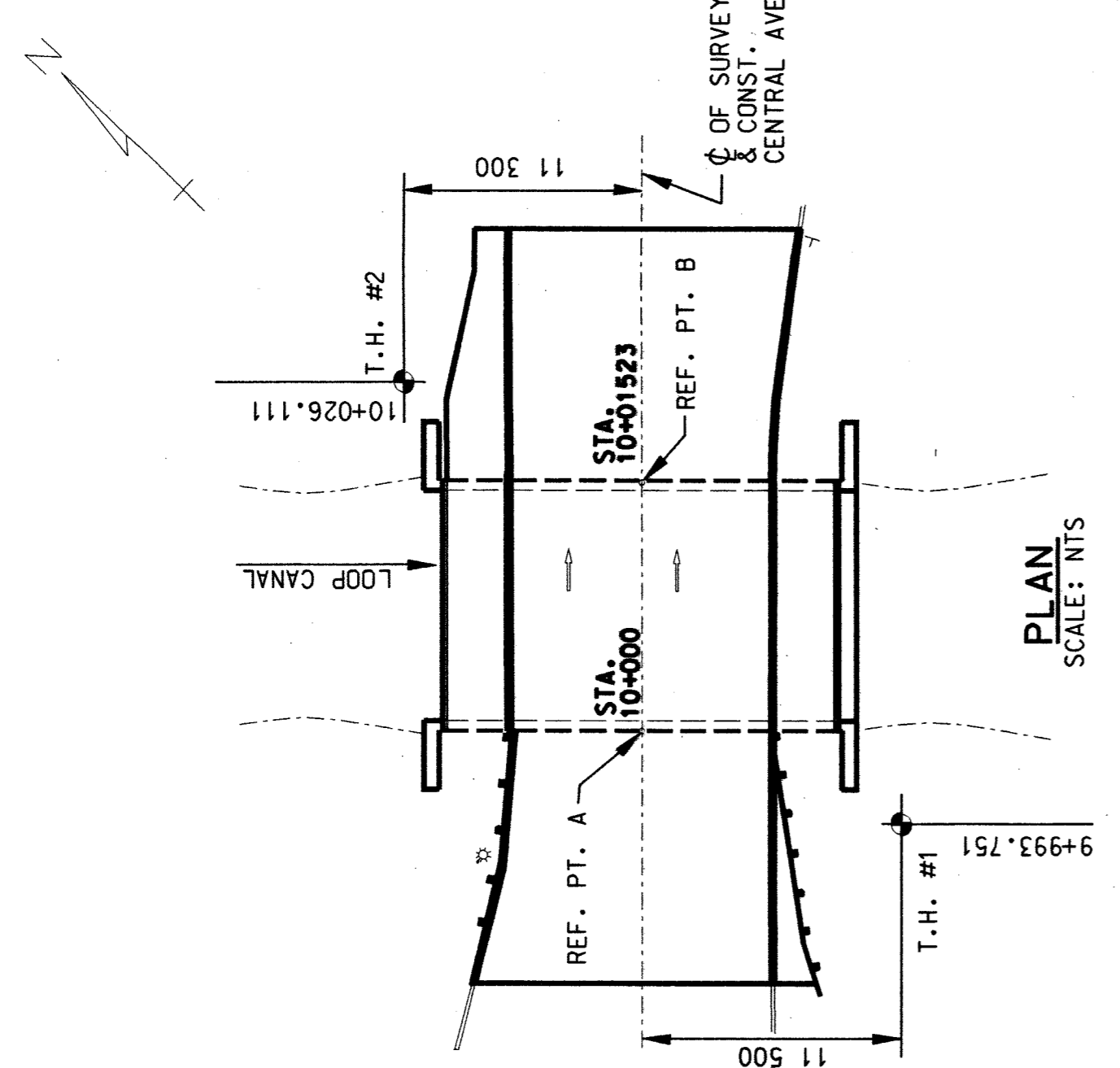


CONTINUED



NOTE: WATER SEEPAGE AT: 6.4 m.
 WATER LEVEL AT COMPLETION:
 6.4 m (INSIDE HOLLOWSTEM AUGERS & WASH ROTARY)

BORING DATE 06/30/98



NOTES:

NUMBERS IN CIRCLES DENOTE NUMBER OF BLOWS REQUIRED TO DRIVE A 51 mm O.D. (38 mm I.D.) SPLIT SPOON SAMPLER 3 SUCCESSIVE 0.15 m INCREMENTS USING A 63.5 kg HAMMER FALLING 0.76 m.

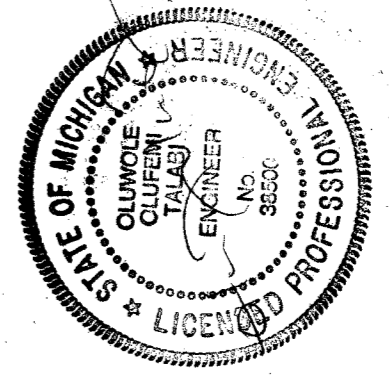
X	NUMBER OF BLOWS PER 0.15 m
X	NUMBER OF BLOWS PER 0.15 m
X	NUMBER OF BLOWS PER 0.15 m

CONSISTENCY WAS DETERMINED BY INSPECTION OF SAMPLES AND SUBSTANTIATED BY SOILS RESISTANCE TO DRILLING TOOLS.
 WATER LEVELS MAY BE INFLUENCED BY RESIDUAL BORING WATER.

THE SOIL BORING LOGS REPRESENT POINT INFORMATION. PRESENTATION OF THIS INFORMATION IN NO WAY IMPLIES THAT SUBSURFACE CONDITIONS ARE THE SAME AT LOCATIONS OTHER THAN THE EXACT LOCATION OF THE BORING.

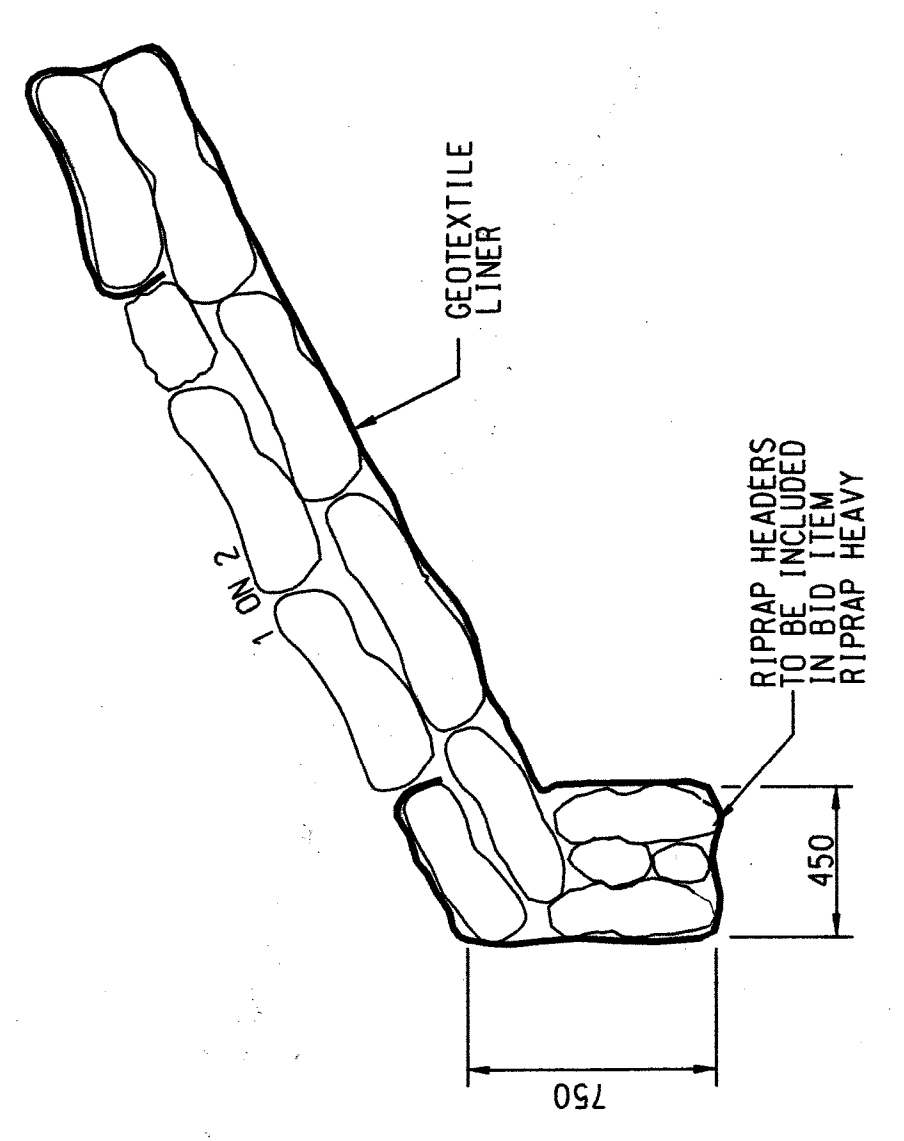
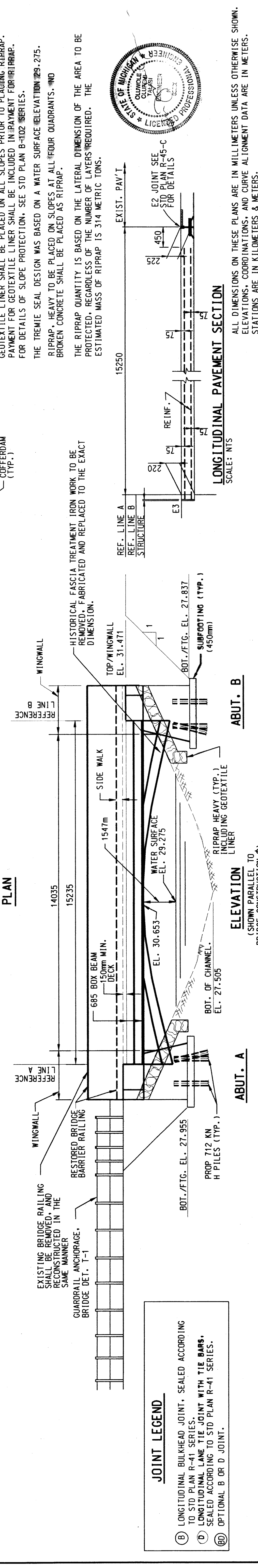
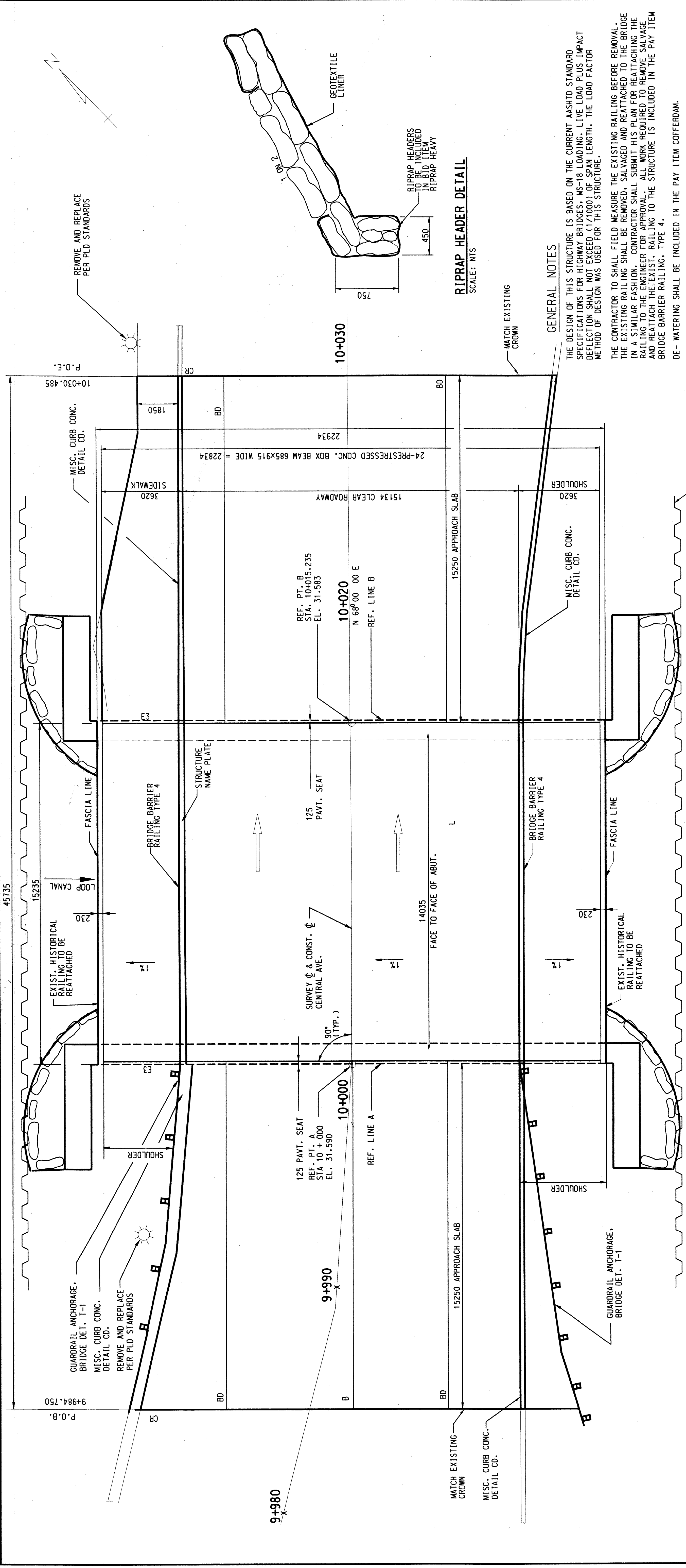
SOIL BORINGS WERE PERFORMED ON DATES SHOWN BELOW BORING.

BY: TESTING ENGINEERS & CONSULTANTS, INC.
 1333 ROCHESTER ROAD, PO BOX 249.
 TROY MICHIGAN 48069-0249
 PHONE: (248) 588-6232



ALL DIMENSIONS ON THESE PLANS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN. ELEVATIONS, COORDINATIONS, AND CURVE ALIGNMENT DATA ARE IN METERS. STATIONS ARE IN KILOMETERS & METERS.

REVISIONS	DESIGN BY	K.O.	12/17/98
	DR'N BY	A.A.	12/17/98
	CHK'D BY	F.T.	12/17/98
	APP'D BY	F.T.	12/17/98
SNELL ENVIRONMENTAL GROUP, INC. 51 N. CONGRESS, STE. 308, DETROIT, MICHIGAN 48226 TELEPHONE (313) 361-4040			
FTA FIRM TALABI & ASSOCIATES, INC. 616 GERRARD ST. E. 10th FLOOR, DETROIT, MICHIGAN 48226			
CITY OF DETROIT MICHIGAN		CENTRAL AVE.	
LOG OF BORING		SCALE NOT TO SCALE	
PROJECT NO. 9810		SHEET NO. 3 OF 10	



RIPRAP HEADER DETAIL
SCALE: NTS

GENERAL NOTES

THE DESIGN OF THIS STRUCTURE IS BASED ON THE CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, MS-18 LOADING, LIVE LOAD PLUS IMPACT DEFLECTION SHALL NOT EXCEED (1/1000) OF SPAN LENGTH. THE LOAD FACTOR METHOD OF DESIGN WAS USED FOR THIS STRUCTURE.

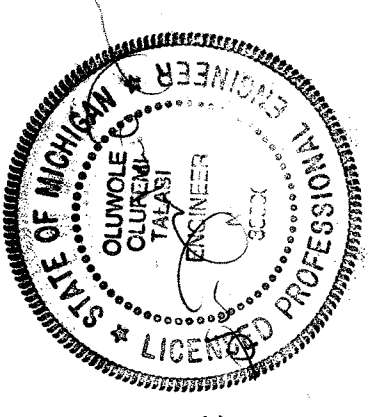
THE CONTRACTOR SHALL FIELD MEASURE THE EXISTING RAILING BEFORE REMOVAL. THE EXISTING RAILING SHALL BE REMOVED, SALVAGED AND REATTACHED TO THE BRIDGE IN A SIMILAR FASHION. CONTRACTOR SHALL SUBMIT HIS PLAN FOR REATTACHING THE RAILING TO THE ENGINEER FOR APPROVAL. ALL WORK REQUIRED TO REMOVE, SALVAGE AND REATTACH THE EXIST. RAILING TO THE STRUCTURE IS INCLUDED IN THE PAY ITEM BRIDGE BARRIER RAILING, TYPE 4.

DE - WATERING SHALL BE INCLUDED IN THE PAY ITEM COFFERDAM.

GEOTEXTILE LINER SHALL BE PLACED ON ALL SLOPES PRIOR TO PLACING RIPRAP. PAYMENT FOR GEOTEXTILE LINER SHALL BE INCLUDED IN PAYMENT FOR RIPRAP. FOR DETAILS OF SLOPE PROTECTION, SEE STD PLAN B-102 SERIES.

THE TREMIE SEAL DESIGN WAS BASED ON A WATER SURFACE ELEVATION 29.275. RIPRAP, HEAVY TO BE PLACED ON SLOPES AT ALL FOUR QUADRANTS. BROKEN CONCRETE SHALL BE PLACED AS RIPRAP.

THE RIPRAP QUANTITY IS BASED ON THE LATERAL DIMENSION OF THE AREA TO BE PROTECTED, REGARDLESS OF THE NUMBER OF LAYERS REQUIRED. THE ESTIMATED MASS OF RIPRAP IS 314 METRIC TONS.

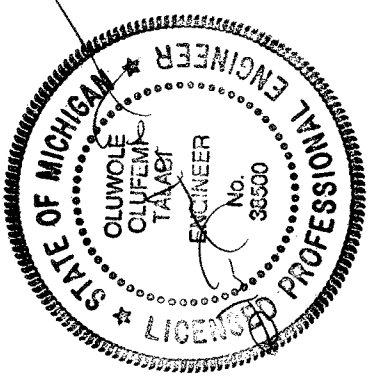


LONGITUDINAL PAVEMENT SECTION
SCALE: NTS

JOINT LEGEND

- (B) LONGITUDINAL BULKHEAD JOINT, SEALED ACCORDING TO STD PLAN R-41 SERIES.
- (D) LONGITUDINAL LANE TIE JOINT WITH TIE BARS, SEALED ACCORDING TO STD PLAN R-41 SERIES.
- (BD) OPTIONAL B OR D JOINT.

<p>REVISIONS</p> <table border="1"> <tr> <td>DESIGN BY</td> <td>K.O.</td> <td>12/17/98</td> </tr> <tr> <td>DR'N BY</td> <td>A.A.</td> <td>12/17/98</td> </tr> <tr> <td>CK'D BY</td> <td>F.T.</td> <td>12/17/98</td> </tr> <tr> <td>APP'D BY</td> <td>F.T.</td> <td>12/17/98</td> </tr> </table>		DESIGN BY	K.O.	12/17/98	DR'N BY	A.A.	12/17/98	CK'D BY	F.T.	12/17/98	APP'D BY	F.T.	12/17/98	<p>SNELL ENVIRONMENTAL GROUP, INC. A D/E COMPANY 931 W. CONGRESS, STE. 328, DETROIT, MICHIGAN 48226 TELEPHONE (313) 961-4040</p>	<p>FTA FRI TALARI & ASSOCIATES INC. 165 GERRARD STREET EAST, DETROIT, MICHIGAN 48226</p>	<p>CITY OF DETROIT MICHIGAN</p>	<p>CENTRAL AVE.</p>	<p>GENERAL PLAN OF STRUCTURE</p>	<p>SCALE NOT TO SCALE PROJECT NO. 9810 SHEET NO. 4 OF 10</p>
DESIGN BY	K.O.	12/17/98																	
DR'N BY	A.A.	12/17/98																	
CK'D BY	F.T.	12/17/98																	
APP'D BY	F.T.	12/17/98																	



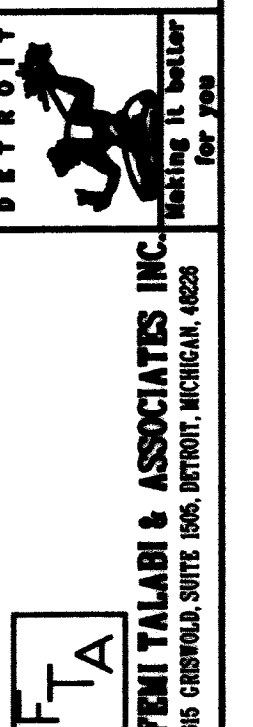
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SCALE NOT TO SCALE
PROJECT NO. 9810
SHEET NO. 5 OF 10

CITY OF DETROIT
MICHIGAN

GENERAL PLAN
OF STRUCTURE

CENTRAL AVE.



F.T.A. FEMI TALABI & ASSOCIATES INC.
115 CARRIAGE DRIVE, DETROIT, MICHIGAN 48226
TELEPHONE (313) 961-4040

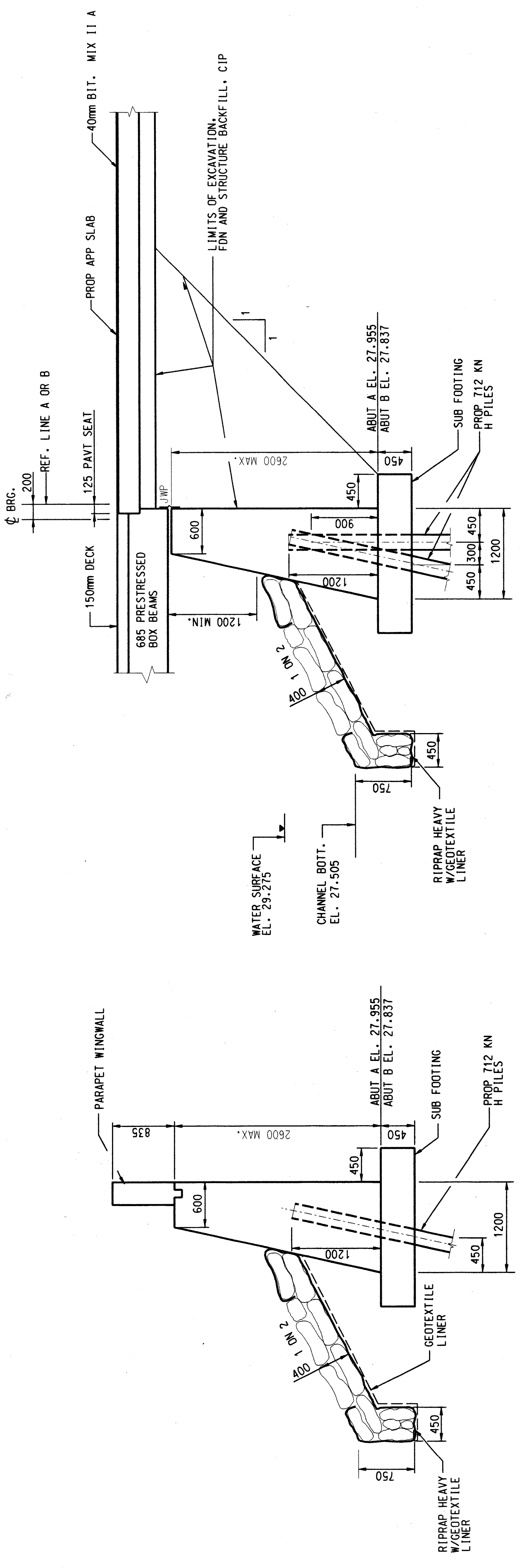
SNELL ENVIRONMENTAL GROUP, INC. A D.L.Z. COMPANY
51 W. CONGRESS ST., 5TH FLOOR, DETROIT, MICHIGAN 48226
TELEPHONE (313) 961-4040

DESIGN BY	K.O.	12/17/98
DR'N BY	A.A.	12/17/98
CR'D BY	F.T.	12/17/98
APP'D BY	F.T.	12/17/98

REVISIONS		

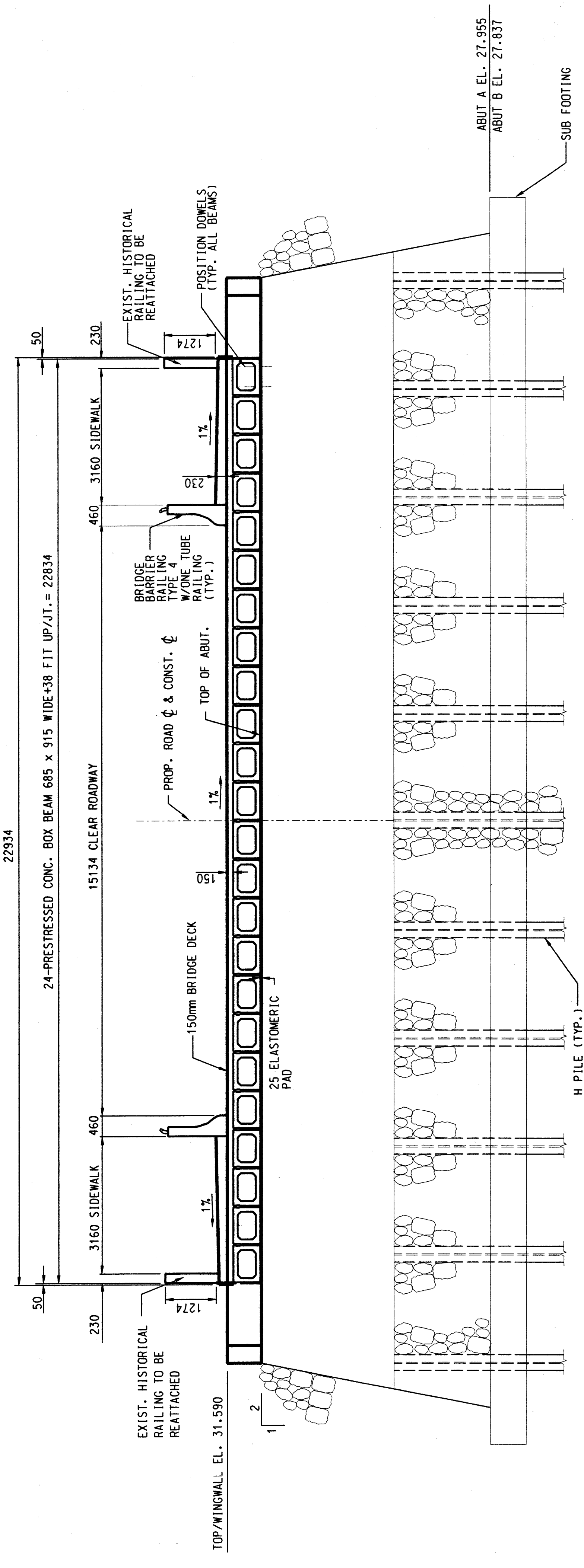
NOTE:
1-TUBE RAIL SHALL BE INSTALLED ON TOP OF BRIDGE BARRIER RAILING, TYPE 4. FOR DETAILS OF TUBE RAIL SEE STANDARD PLAN B-24 SERIES. THE COST OF INSTALLING TUBE RAILS IS INCLUDED IN THE COST OF BRIDGE BARRIER RAILING, TYPE 4.

ITEM	UNIT	TOTAL
STRUCTURES, REM	LSUM	1
STRUCTURE BACKFILL(CIP)	M3	580
BIT MIX. LIA	T	93
EXCAVATION, FDN.	M3	560
CONC. PAVT. MISC 220mm	M2	462
COFFERDAM	LSUM	1
AGGREGATE BASE, 100mm	M2	462
RIPRAP HEAVY	M2	320
SHOULDER C.I., 100mm	M2	244



TYPICAL ABUTMENT SECTION A & B

WINGWALL SECTION



ABUTMENT ELEVATION & TYPICAL DECK SECTION

22934

SUBSTRUCTURE POUR QUANTITIES			
ITEM	UNIT	ABUT. A	ABUT. B
POUR A	M3	38.75	38.75
POUR B	M3	38.75	38.75
POUR C	M3	1.25	1.25
POUR D	M3	1.25	1.25
TOTAL	M3	80	80

MISCELLANEOUS QUANTITIES				
ITEM	UNIT	ABUT. A	ABUT. B	TOTAL
JOINT WATER PROOFING	M2	1-2	1-2	2-4
WATER REPELLENT TREATMENT	M2	23-5	23-5	47
STEEL PILE, FURNISHED AND DRIVEN	M	533	531	1064
FURNISHING EQUIPMENT FOR DRIVING PILES	LSUM	-	-	1
TEST PILE, STEEL	EACH	1	1	2
CONCRETE, GRADE T	M3	33-5	33-5	67

STEEL PILE-FURNISHED AND DRIVEN (HP360X108)				
LOCATION	PILE TYPE	NUMBER OF PILES	ESTIMATED LENGTH FURNISHED AND DRIVEN EACH M	CUT-OFF ELEVATIONS
ABUT. A	TEST	1	33.0	33.0
	VERTICAL	8	30.5	244.0
	BATTERED	8	32.0	256.0
ABUT. B	TEST	1	33.0	33.0
	VERTICAL	8	30.3	242.4
	BATTERED	8	31.9	255.2
TOTAL		34	1064	

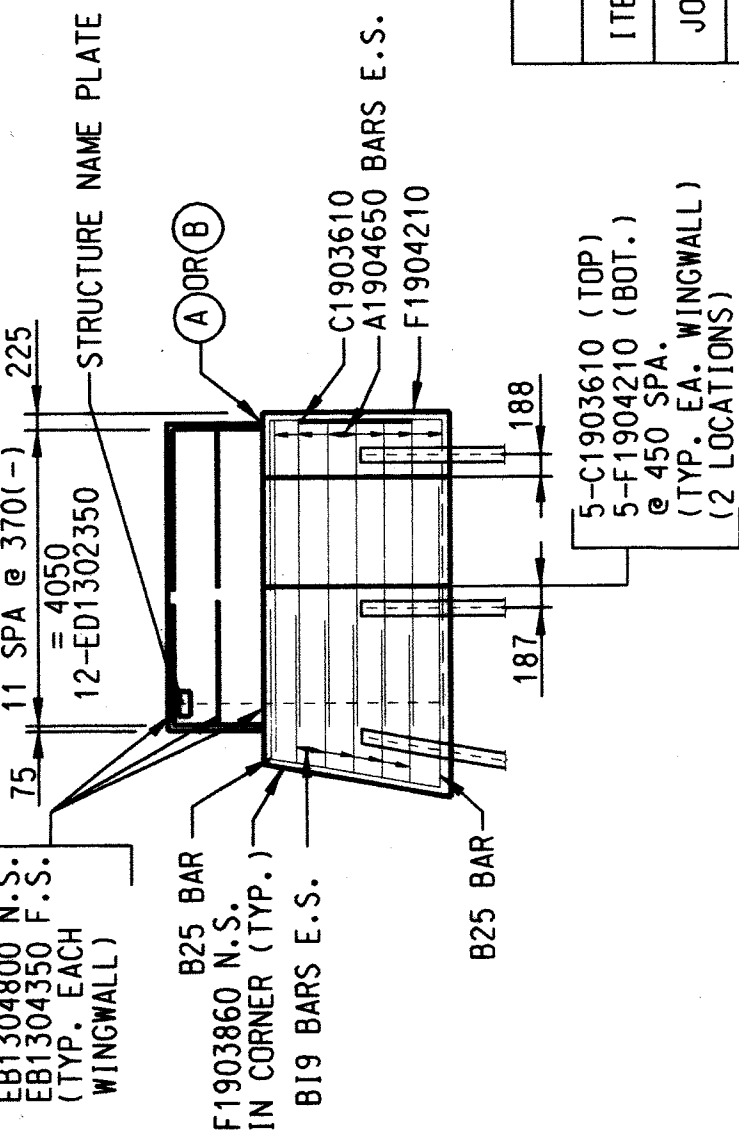
NOTES:
 F.S. DENOTES FAR SIDE
 N.S. DENOTES NEAR SIDE
 E.S. DENOTES EACH SIDE
 J.W.P. DENOTES JOINT WATERPROOFING

FOR BEVEL, MOLDING AND NAME PLATE DETAILS, SEE STANDARD PLAN B-103-B.
 ALL ABUTMENT PILES SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 712 KN. STEEL PILES SHALL BE HP360X108.

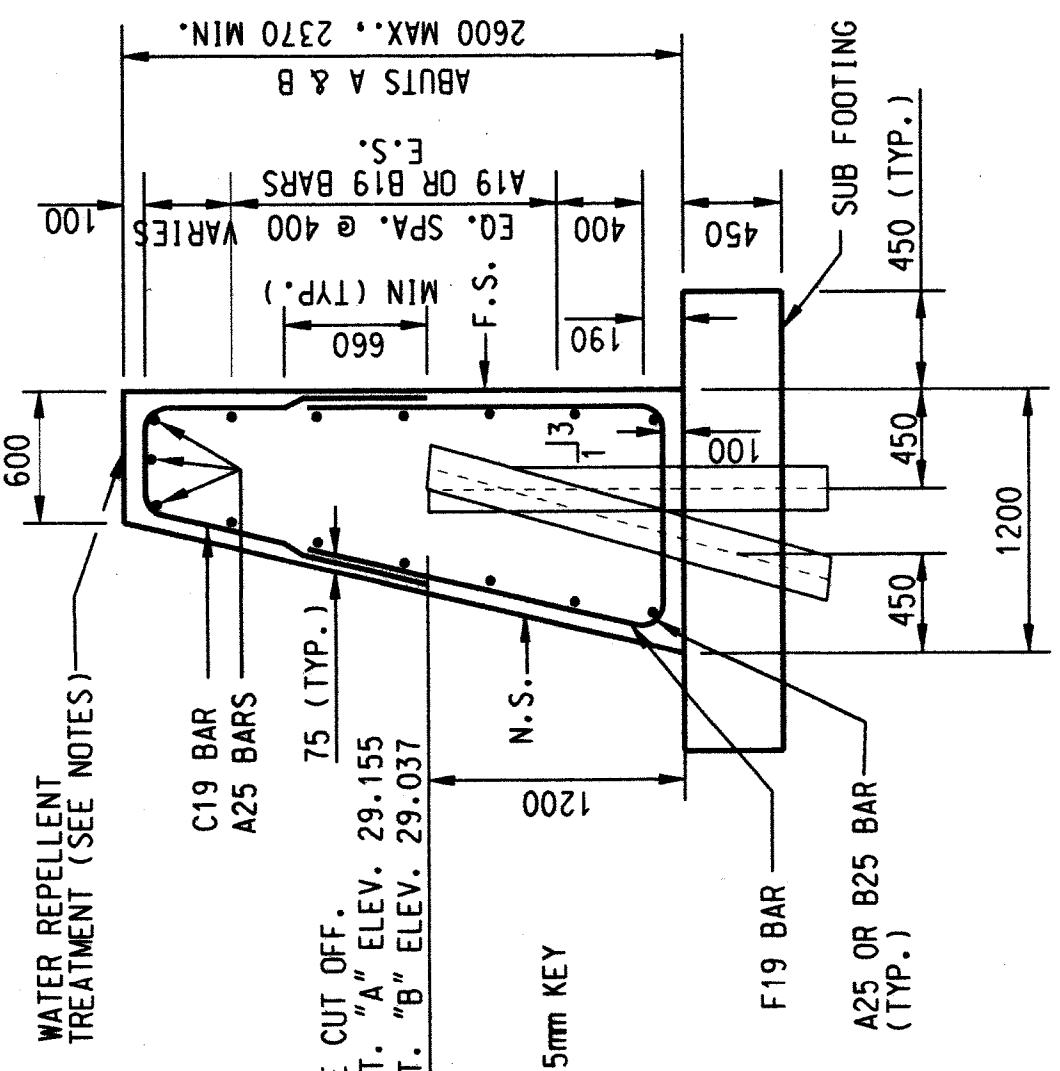
POSITION DOWELS SHALL BE INCLUDED IN PAY ITEM PRESTRESSED CONCRETE DECK, 685mm.
 THE TOP OF ABUTMENTS SHALL BE GIVEN AN APPLICATION OF PENETRATING WATER REPELLENT TREATMENT BEFORE THE ELASTOMERIC BEARING PADS HAVE BEEN PLACED IN FINAL POSITION ON THE STRUCTURE.
 MINIMUM BAR LAPS ARE AS FOLLOWS:
 19 BARS = 660
 25 BARS = 1200
 POURS B AND C ARE TO BE FORMED AND PLACED AFTER DECK IS SET. ADJUST REINFORCEMENT AS REQUIRED TO CLEAR POSITION DOWELS.
 PILE SPLICES ARE AT CONTRACTOR'S OPTION AND WILL NOT BE PAID FOR SEPARATELY.

SPLICE DETAILS
 SET UPPER SPLICE SECTION IN PLACE WITH SPLICE PLATES ATTACHED. TAP SEVERAL TIMES WITH THE HAMMER TO IMPROVE BEARING CONTACT. THEN COMPLETE WELDING OF PLATES TO THE LOWER SECTION.

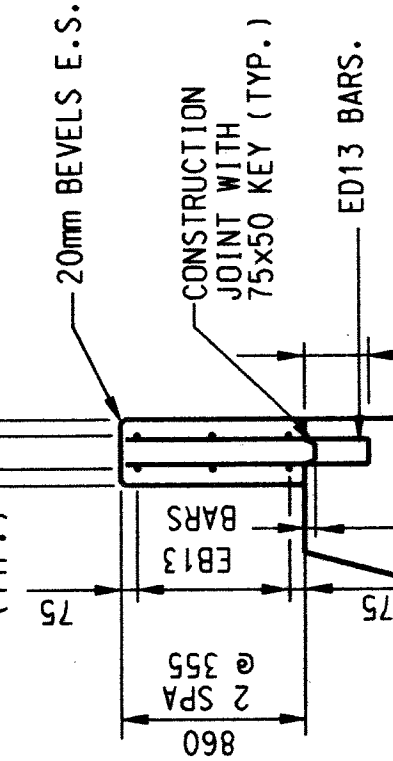
ALL DIMENSIONS ON THESE PLANS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN. ELEVATIONS, COORDINATIONS, AND CURVE ALIGNMENT DATA ARE IN METERS. STATIONS ARE IN KILOMETERS & METERS.



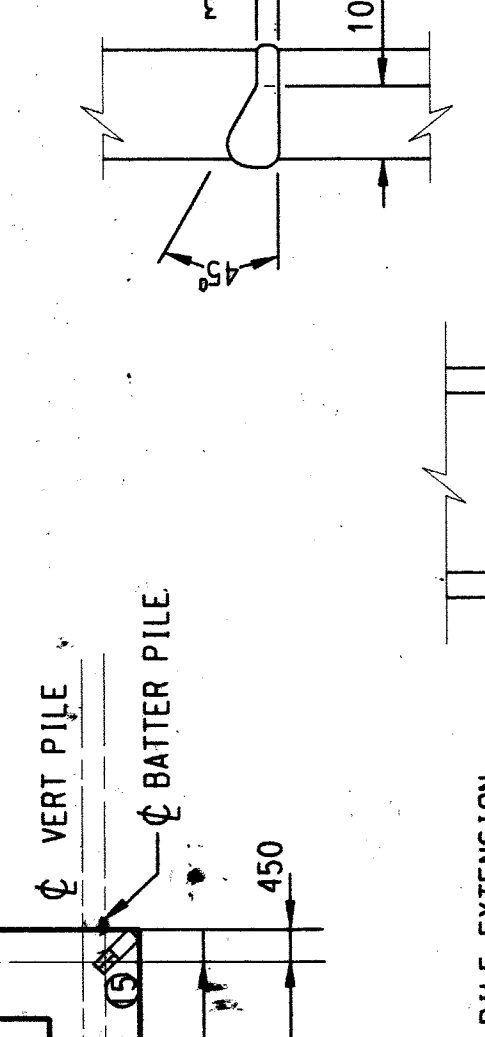
RETURN-WALL ELEVATION



TYPICAL WALL SECTION



PARAPET SECTION



SPLICE DETAILS

FOR PILES IN HORIZONTAL POSITION

FOR PILES IN VERTICAL POSITION

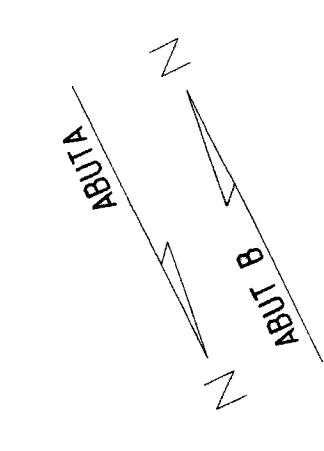
STATE OF MICHIGAN
 PROFESSIONAL ENGINEER
 FTA
 FERN TALAM & ASSOCIATES INC.
 51 W. CONGRESS, STE. 328, DETROIT, MICHIGAN 48226
 TELEPHONE (313) 961-0400

SNELL ENVIRONMENTAL GROUP, INC. A DLZ Company
 51 W. CONGRESS, STE. 328, DETROIT, MICHIGAN 48226
 TELEPHONE (313) 961-0400

FTA
 FERN TALAM & ASSOCIATES INC.
 51 W. CONGRESS, STE. 328, DETROIT, MICHIGAN 48226
 TELEPHONE (313) 961-0400

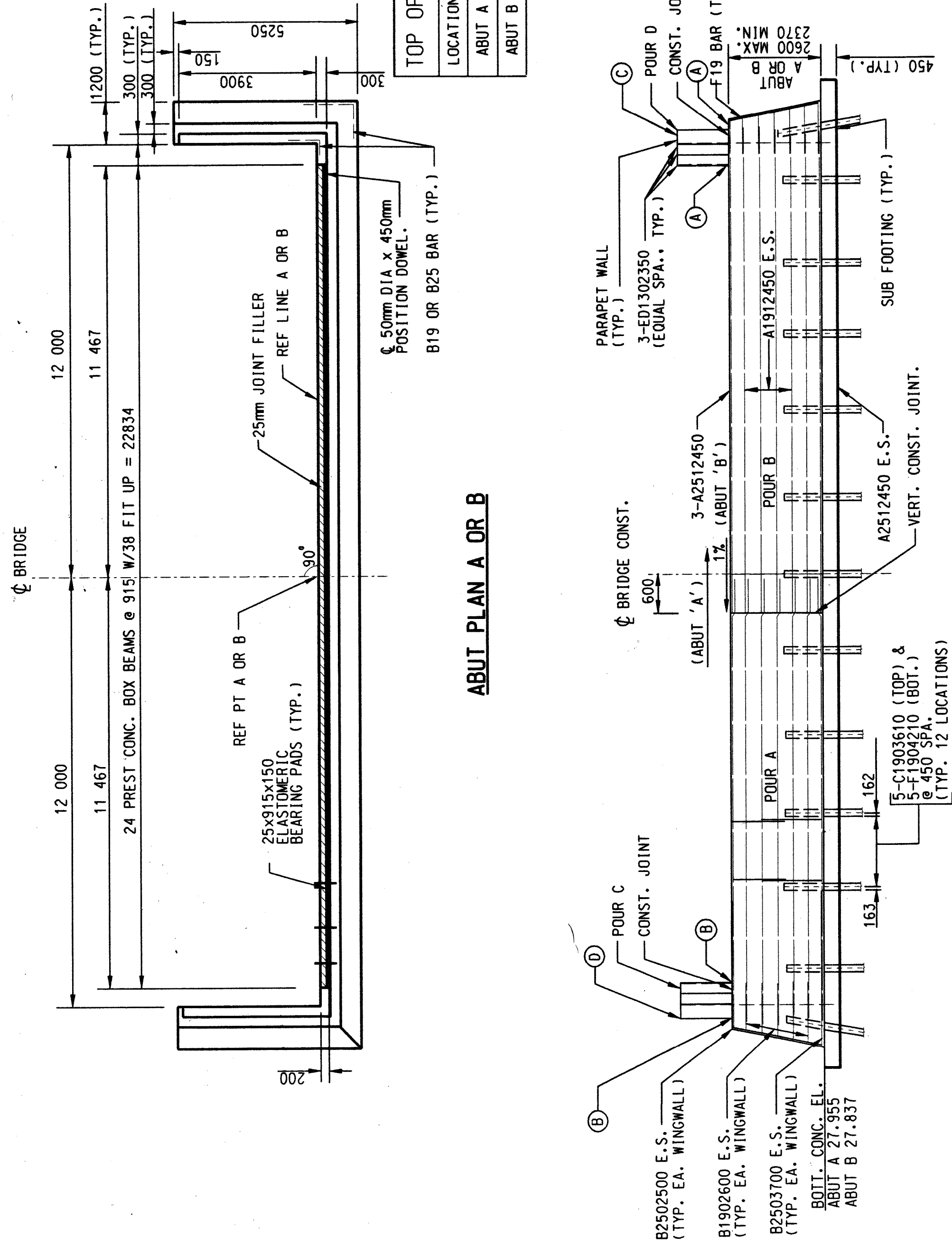
REVISIONS
 DESIGNED BY: K.O.
 DRAWN BY: A.A.
 CHECKED BY: F.T.
 APPROVED BY: F.T.

CITY OF DETROIT MICHIGAN
 CENTRAL AVE.
 SCALE: NOT TO SCALE
 PROJECT NO: 9810
 SHEET NO: 6 OF 10

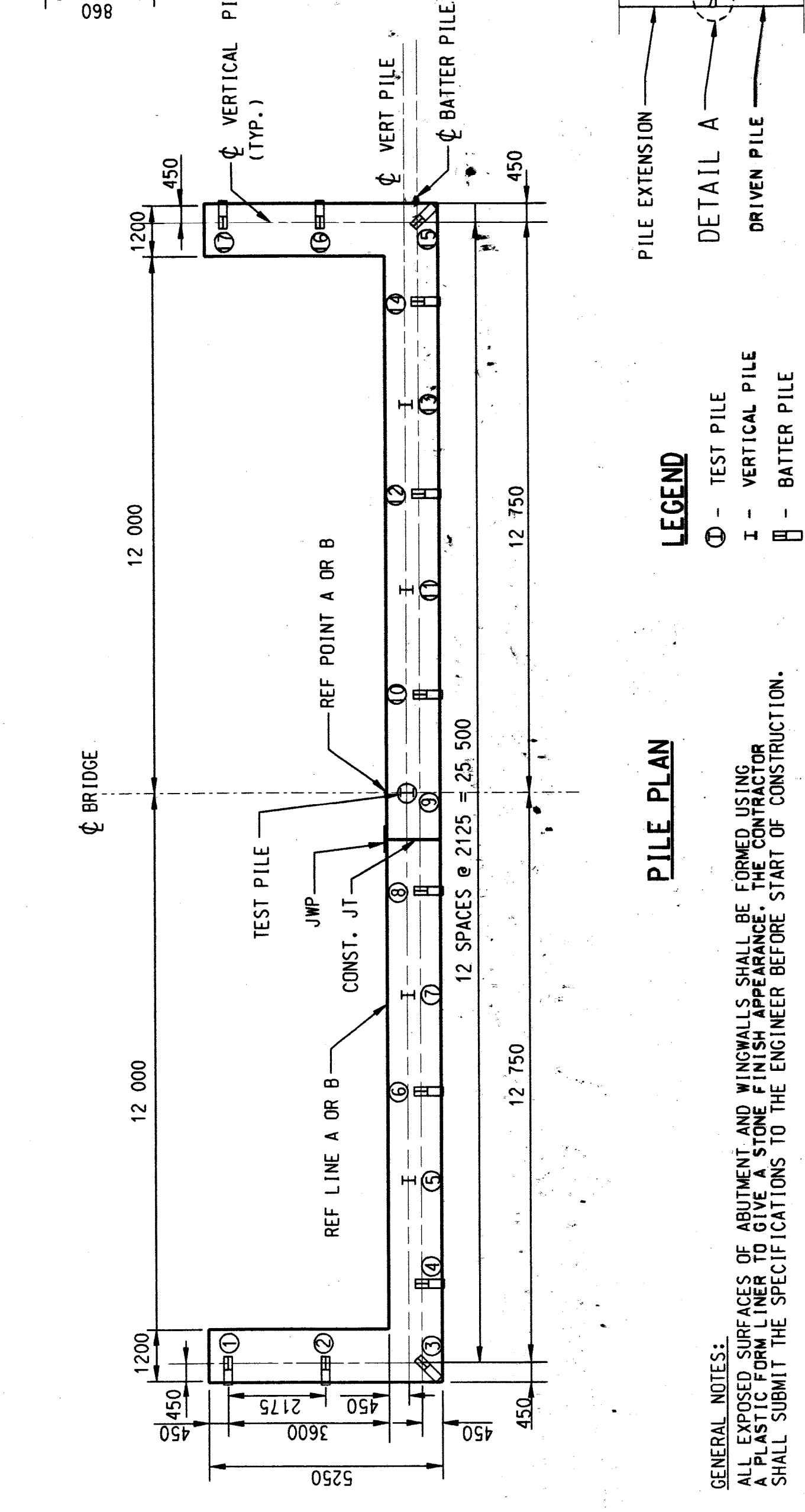


TOP OF WALL ELEVATIONS				
LOCATION	(A)	(B)	(C)	(D)
ABUT A	31.47	31.71	32.33	32.57
ABUT B	31.59	31.35	32.45	32.21

ABUT PLAN A OR B



ABUT ELEVATION A OR B

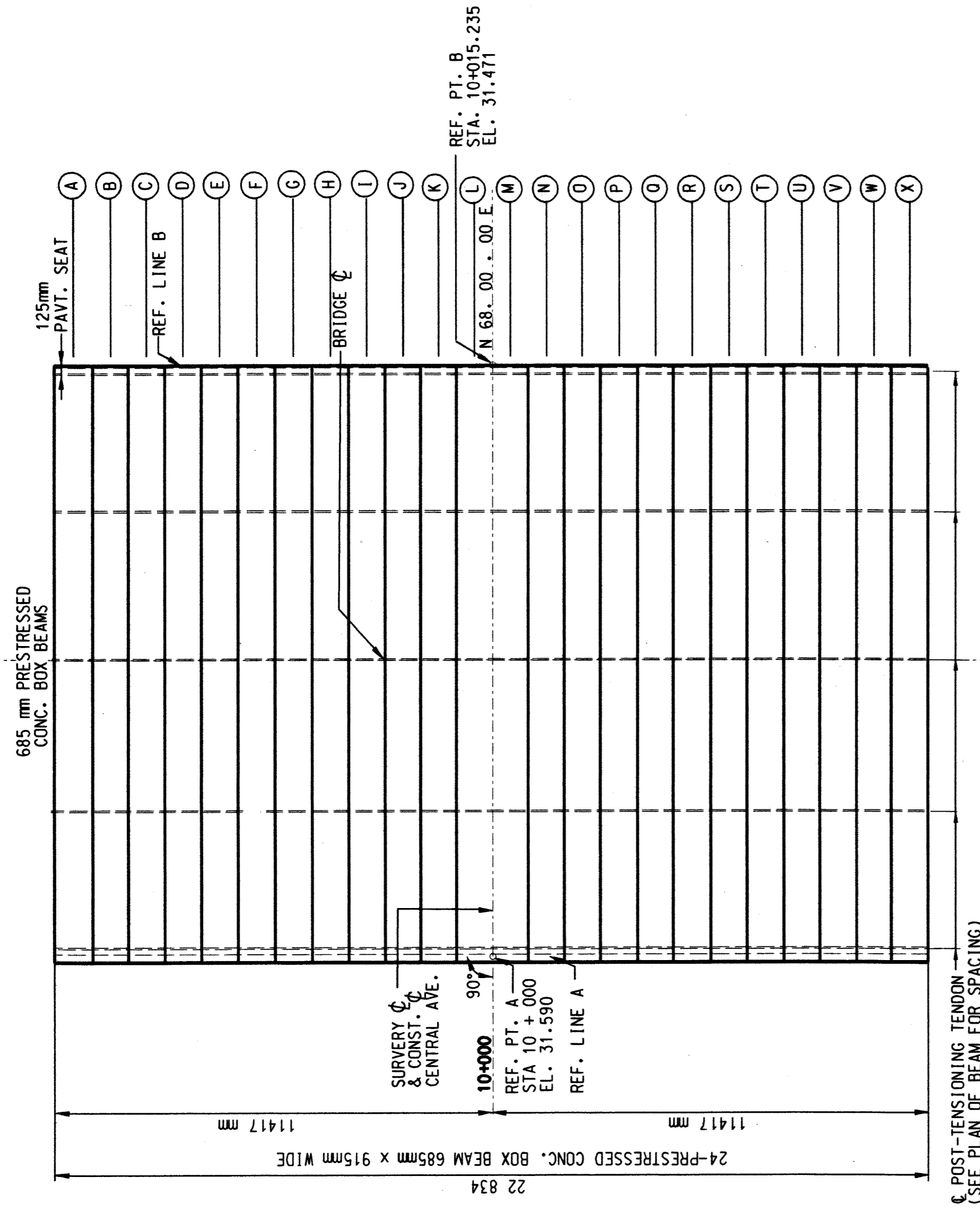


LEGEND

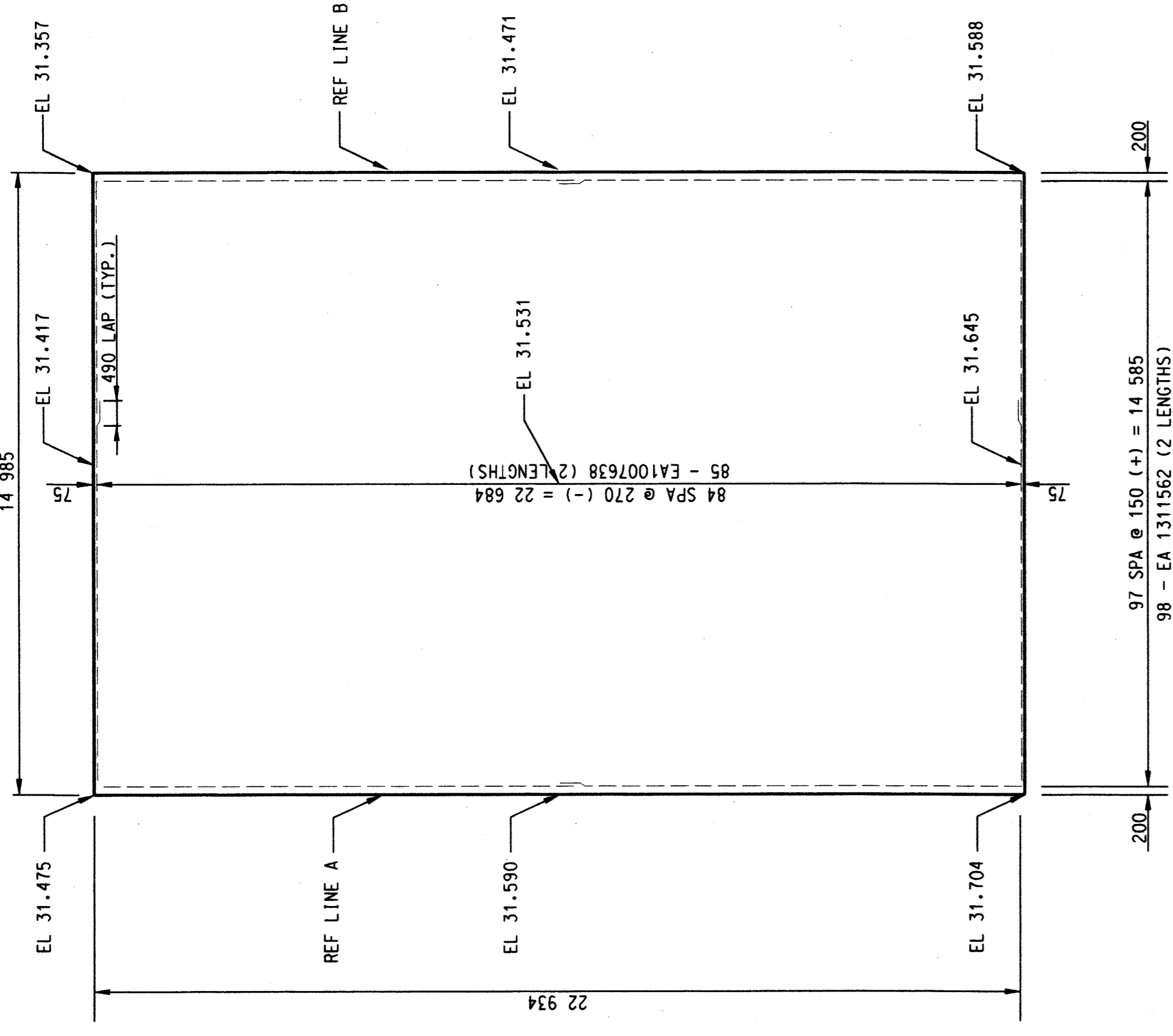
⊙ - TEST PILE
 ⊙ - VERTICAL PILE
 ⊙ - BATTER PILE

PILE PLAN

GENERAL NOTES:
 ALL EXPOSED SURFACES OF ABUTMENT AND WINGWALLS SHALL BE FORMED USING A PLASTIC FORM LINER TO GIVE A STONE FINISH APPEARANCE. THE CONTRACTOR SHALL SUBMIT THE SPECIFICATIONS TO THE ENGINEER BEFORE START OF CONSTRUCTION.



ERECTION DIAGRAM



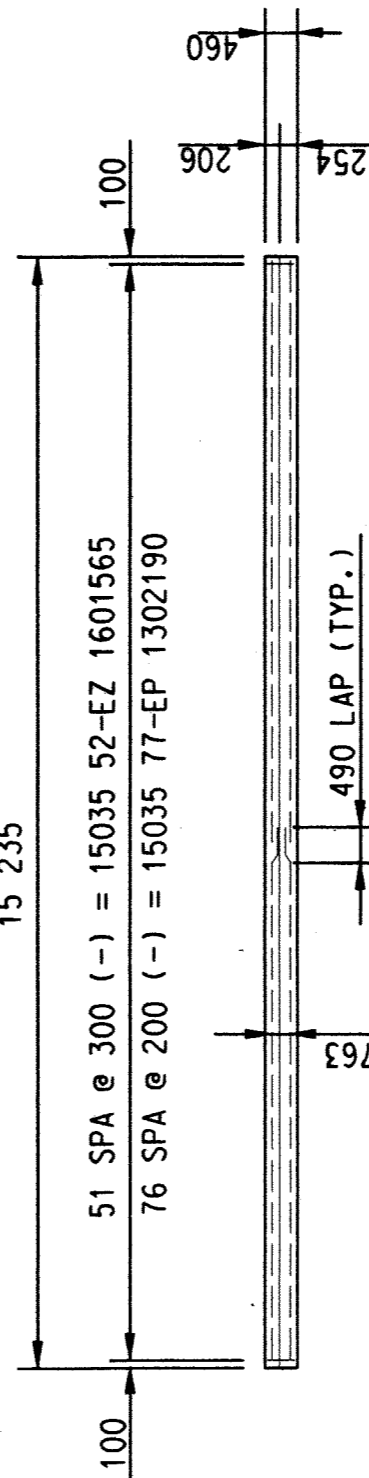
PLAN OF DECK SLAB

POUR	QUANTITY	SUPERSTRUCTURE CONCRETE
A	51.4 m ³	
B	12.8 m ³	
C	12.8 m ³	
TOTAL	77 m ³	

POUR DIAGRAM

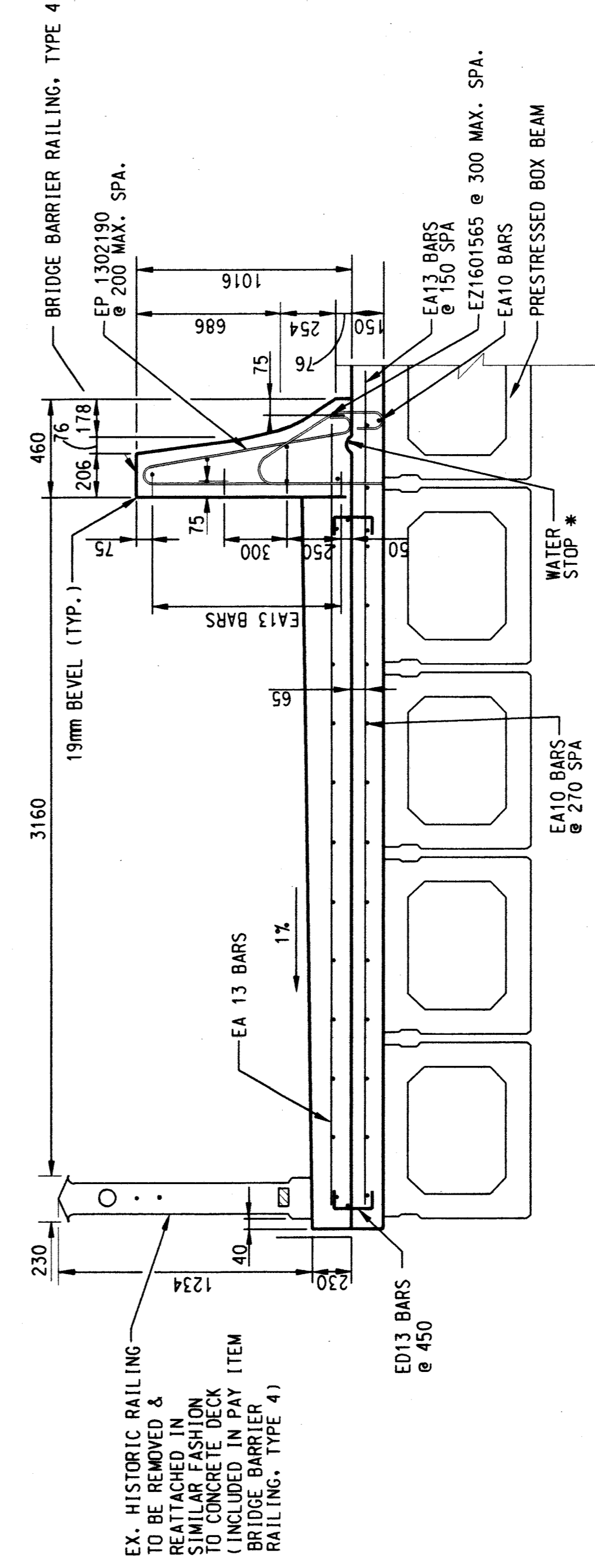
NOTES:

- FOR DETAIL OF NAME PLATES, MOLDING AND LEVELS, SEE STANDARD PLAN B-103 SERIES.
- FOR NAME PLATE LOCATION SEE GENERAL PLAN OF STRUCTURE SHEET.
- ALPHABETICAL DESIGNATION OF DECK POURS IS NOT TO BE CONSTRUED AS A POUR SEQUENCE
- BRIDGE BARRIER RAILING, TYPE 4 SHALL BE PROVIDED WITH A RUBBED SURFACE FINISH ON THE PEDESTRIAN SIDE AT NO ADDITIONAL COST.
- BRIDGE BARRIER RAILING, TYPE 4 SHALL BE PROVIDED WITH A RUBBED SURFACE FINISH ON THE PEDESTRIAN SIDE AT NO ADDITIONAL COST.



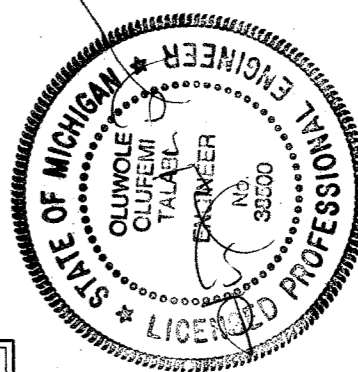
PLAN OF BRIDGE BARRIER RAILING (TYP. BOTH SIDES)

MISCELLANEOUS	UNITS	QUANTITIES
BRIDGE BARRIER OR RAILING, TYPE 4	m	31
STRUCTURE NAME PLATE	Eg	1
SUPERSTRUCTURE CONCRETE	m ³	77
FORMING, FINISHING & CURING SUPERSTRUC. CONC.	L.SUM	1
CONCRETE QUALITY ASSURANCE	m ³	223
CONCRETE QUALITY INITIATIVE	d/r	1400



TYPICAL DECK SECTION THRU SIDEWALK

NOTE
* 50 mm HIGH x 100 mm LONG (FORMING NOT REQ'D)



PLAN OF SIDEWALK

ALL DIMENSIONS ON THESE PLANS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN. ELEVATIONS, COORDINATIONS, AND CURVE ALIGNMENT DATA ARE IN METERS. STATIONS ARE IN KILOMETERS & METERS.

REVISIONS	DESIGN BY	K.O.	DATE
	DR'N BY	A.A.	
	CK'D BY	F.T.	
	APP'D BY	F.T.	

SNELL ENVIRONMENTAL GROUP, INC. A DALZ Company
31 W. CONGRESS, STE. 328, DETROIT, MICHIGAN 48226
TEL: (313) 961-0600

FTA
FEMI YALAN & ASSOCIATES INC.
66 GERRARD ST. W. 6TH FLOOR, TORONTO, ONTARIO, CANADA
For more information visit our website at www.femiyalan.com

CITY OF DETROIT MICHIGAN

CENTRAL AVE.

SUPER STRUCTURE DETAILS

SCALE NOT TO SCALE
PROJECT NO. 9810
SHEET NO. 8 OF 10

APPROACHES - PARTICIPATING

ITEM CODE	ITEM	UNIT	AMOUNT
1500000	MOBILIZATION, MAX	1sum	1
2040005	CURB, REM	m	61
2040008	GUARDRAIL, REM	m	28
2040013	SIDEWALK, REM	m ²	61
3020010	AGGREGATE BASE 100mm	m ²	462
3070106	SHOULDER CI 1, 100mm	m ²	244
5020060	BIT MIX, 11A	T	93
6020156	CONC. PAVT/MISC REINF., 220mm	m ²	462
8027102	MISC CONC. CURB-DETAIL CD	m	61
8030002	SIDEWALK CONC., 100mm	m ²	61
8070040	GUARDRAIL ANCHORAGE, BRIDGE DETAIL T-1	ea	2
8120026	PLASTIC DRUM, LIGHTED, FURN.	ea	30
8120027	PLASTIC DRUM, LIGHTED, OPER.	ea	30
8120036	BARRICADE, TYPE III, LIGHTED, FURN.	ea	6
8120037	BARRICADE, TYPE III, LIGHTED, OPER.	ea	6
8160001	SIGN, TYPE B, TEMP.	m ²	30
8160001	SODDING, CL A	m ²	220
8160033	TOP SOIL SURFACE, FURN 50mm	m ²	220

BRIDGE

ITEM CODE	ITEM	UNIT	AMOUNT
2040020	STRUCTURES, REM.	Lsum	1
2060002	BACKFILL, STRUCTURE, CIP	m ³	580
2060011	EXCAVATION, FOUNDATION	m ³	980
6050100	CONCRETE QUALITY ASSURANCE	m ³	233
6050101	CONCRETE QUALITY INITIATIVE	dir	1400
7040007	COFFERDAMS	1sum	1
7050030	STEEL PILE, FURNISHED AND DRIVEN	m	1064
7050041	TEST PILE, STEEL	ea	2
7050150	PILE DRIVING EQUIPMENT, FURN.	Lsum	1
7060002	CONCRETE, GRADE T	m ³	67
7060020	SUBSTRUCTURE CONCRETE	m ³	160
7060022	SUPERSTRUCTURE CONCRETE	m ³	77
7060024	FORMING, FINISHING & CURING SUPERSTRUCTURE CONCRETE	Lsum	1
7060030	REINFORCEMENT, STEEL	kg	7736
7060031	REINFORCEMENT, STEEL, EPOXY COATED	kg	3384
7060050	STRUCTURE NAME PLATE	ea	1
7060052	WATER REPELLENT TREATMENT	m ²	47
7070065	ELASTOMERIC BEARING, 26mm	m ²	6.6
7080004	PRESTRESSED CONC. DECK, 685 mm	m ²	348
7080015	POST TENSIONING	Lsum	1
7110001	JOINT WATERPROOFING	m ²	12.4
7110022	BRIDGE BARRIER RAILING, TYPE 4	m	31
8130015	RIPRAP, HEAVY	m ²	320

NON PARTICIPATING QUANTITIES

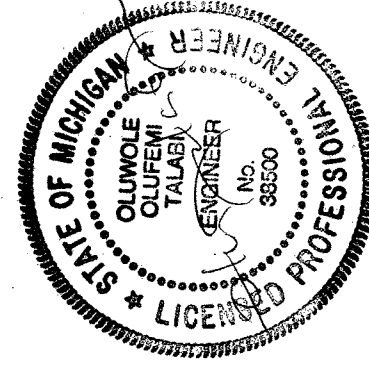
ITEM CODE	ITEM	UNIT	AMOUNT

STEEL REINFORCEMENT

BAR	DIMENSIONS											NO. REQ'D	TOTAL WT. (kg)
	a	b	c	d	e	f	g	h					
E81304350	3450	900										12	52
E81304800	3900	900										12	57
E81302350	1100	150	1100									60	140
A1904650	4650											56	582
A1912450	12450											20	557
B1902600	1250	1350										40	232
C1903610	360	450		1560	1560	1600						280	2259
F1904210	1050	1560	0	1560	360							280	2635
F1903860	1480	0	2380	0	2230	850						4	35
A2512450	12450						12450					20	989
B2502500	1250	1250					2500					8	80
B2503700	1300	2400					3700					8	118
TOTAL STEEL REINFORCEMENT												7736	kg

STEEL REINFORCEMENT, EPOXY

BAR	DIMENSIONS											NO. REQ'D	TOTAL WT. (kg)
	a	b	c	d	e	f	g	h					
E810 07638	7638											172	736
E813 11562	11562											196	2253
E813 07763	7763											34	262
E813 03680	3680											35	128
E813 00880	270	340										70	61
E813 02190	910	170	865	75	40	860	95					77	168
E816 01565	565	95	440	210	130	125	260	355				52	126
TOTAL STEEL REINFORCEMENT												3734	kg.

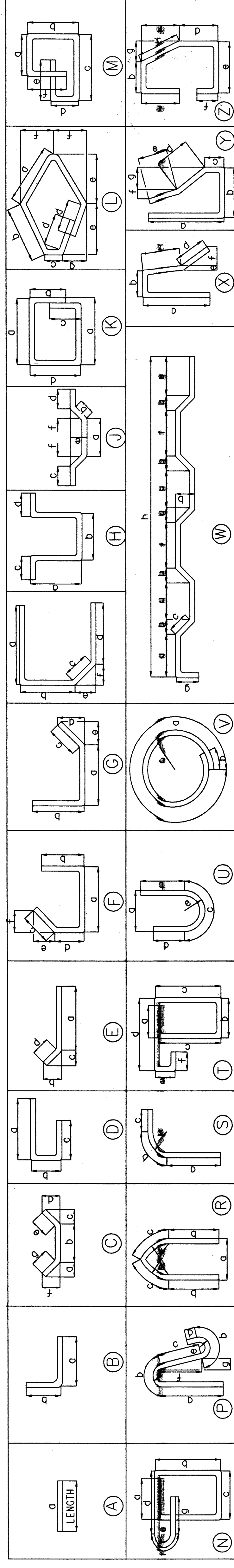


NOTES:

TOLERANCE IN CUTTING AND BENDING BARS ARE AS ESTABLISHED IN THE MANUAL OF STANDARD PRACTICE OF THE CONCRETE REINFORCING INSTITUTE AND THE DETAILING MANUAL OF THE AMERICAN CONCRETE INSTITUTE. STEEL FOR REINFORCING SHALL BE INTERMEDIATE OR HARD GRADE ONLY.

ALL RIGHT ANGLE BENDS IN REINFORCING STEEL TO BE MADE ABOUT A POINT OF MINIMUM DIAMETER ALLOWED BY THE STANDARD SPECIFICATIONS.

ALL DIMENSIONS ON THESE PLANS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN. ELEVATIONS, COR. DIMENSIONS, AND CURVE ALIGNMENT DATA ARE IN METERS. STATIONS ARE IN KILOMETERS & METERS.



REVISIONS

NO.	DATE	BY	REVISION

SNELL ENVIRONMENTAL GROUP, INC. A D.L.Z. COMPANY
151 W. CONGRESS ST. SUITE 1301, DETROIT, MICHIGAN 48226
TELEPHONE (313) 961-1000

FTA
F. T. TALARI & ASSOCIATES INC.
645 GERRARD ST. E. SUITE 106, DETROIT, MICHIGAN 48226
TEL: (313) 961-1000

CITY OF DETROIT MICHIGAN

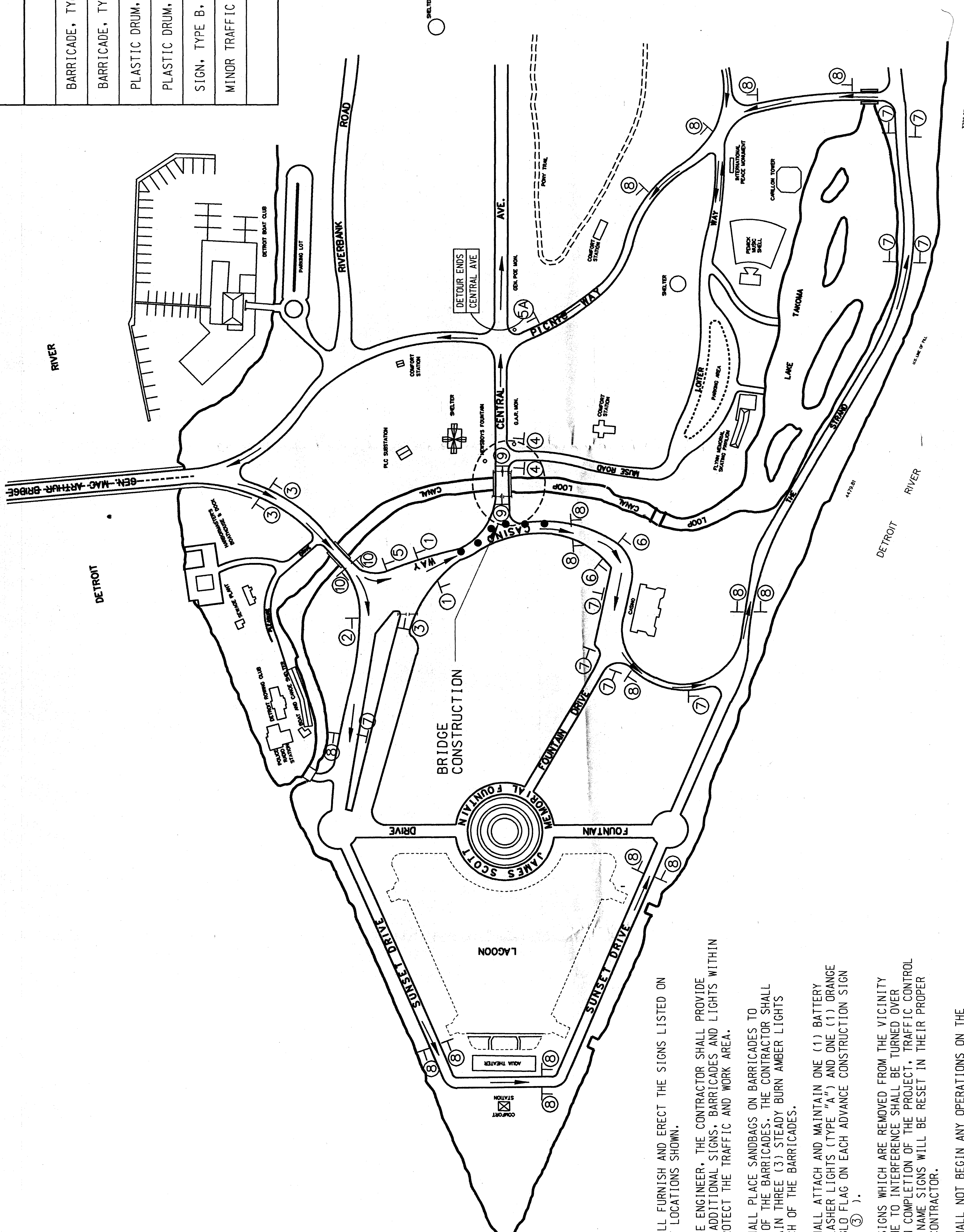
CENTRAL AVE.

SUMMARY OF STEEL REINFORCEMENT
SCALE NOT TO SCALE
PROJECT NO. 9810
SHEET 9 OF 10

MISCELLANEOUS QUANTITIES		
ITEM	UNIT	AMOUNT
BARRICADE, TYPE 111, LIGHTED, OPER	ea	9
BARRICADE, TYPE 111, LIGHTED, FURN	ea	9
PLASTIC DRUM, LIGHTED, FURN	ea	10
PLASTIC DRUM, LIGHTED, OPER	ea	10
SIGN, TYPE B, TEMPORARY, RETROREFLECTIVE SHEETING	SF	610
MINOR TRAFFIC DEVICES	LS	1

SIGN TYPE LEGEND	
L	SIGN, TYPE B
— —	TYPE 111 BARRICADE
●	PLASTIC DRUM

SIGN CHART			
I.D. NUMBER	SIGN	DESIGNATION	NUMBER REQUIRED
1		W20-3	2
2		W20-3	1
3		W20-3	3
4		D3-1 M6-1b	2
5 5A		R11-3	1
6		D3-1 M4-9	2
7		D3-1 M4-9	9
8		D3-1 M4-9	16
9		R11-2	2
10		W20-3 D3-1	2



NOTES:

THE CONTRACTOR WILL FURNISH AND ERECT THE SIGNS LISTED ON THE SIGN CHART AT LOCATIONS SHOWN.

AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ANY ADDITIONAL SIGNS, BARRICADES AND LIGHTS WITHIN THE PROJECT TO PROTECT THE TRAFFIC AND WORK AREA.

THE CONTRACTOR SHALL PLACE SANDBAGS ON BARRICADES TO PREVENT MOVEMENT OF THE BARRICADES. THE CONTRACTOR SHALL ATTACH AND MAINTAIN THREE (3) STEADY BURN AMBER LIGHTS (TYPE "C") ON EACH OF THE BARRICADES.

THE CONTRACTOR SHALL ATTACH AND MAINTAIN ONE (1) BATTERY OPERATED AMBER FLASHER LIGHTS (TYPE "A") AND ONE (1) ORANGE FLUORESCENT DAY-GLO FLAG ON EACH ADVANCE CONSTRUCTION SIGN (SIGNS ①, ② & ③).

TRAFFIC CONTROL SIGNS WHICH ARE REMOVED FROM THE VICINITY OF THE PROJECT DUE TO INTERFERENCE SHALL BE TURNED OVER TO THE CITY. UPON COMPLETION OF THE PROJECT, TRAFFIC CONTROL SIGNS AND STREET NAME SIGNS WILL BE RESET IN THEIR PROPER POSITION BY THE CONTRACTOR.

THE CONTRACTOR SHALL NOT BEGIN ANY OPERATIONS ON THE PROJECT UNTIL ALL OF THE SIGNS HAVE BEEN POSITIONED AND FLASHER LIGHTS AND FLAGS ARE ATTACHED TO ALL REQUIRED SIGNS AND BARRICADES.

ANY OTHER SIGNS WHICH THE CONTRACTOR MAY BE REQUIRED TO FURNISH SHALL CONFORM TO MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

ALL CONSTRUCTION SIGNS SHALL CONFORM TO LATEST MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.

APPROVED
JUL 29 2003
DEPARTMENT OF PUBLIC WORKS

From Traffic Engineering.

REVISIONS	DESIGN BY	F.T.	SCALE	NOT TO SCALE
	DR'N BY	A.A.		PROJECT NO.
	CK'D BY	F.T.	SHEET	10 OF 10
	APP'D BY	F.T.		
				DETOUR PLAN
SNELL ENVIRONMENTAL GROUP, INC. • A DLZ Company 151 W. CONGRESS, STE. 328, DETROIT, MICHIGAN 48226 TELEPHONE (313) 961-6040		CITY OF DETROIT MICHIGAN		CENTRAL AVE.
DETROIT 		FEMI TALABI & ASSOCIATES INC. 45 GERRARD ST. E. TORONTO, ONTARIO, CANADA M5E 1H4		DETOUR PLAN

REVISIONS	CHANGE GUARD RAIL	DATE
1	REPAIR RAILINGS, ADD BRUSH BLOCK	6-13-96
2		
3		
4		
5		
6		
7		
8		
9		
10		

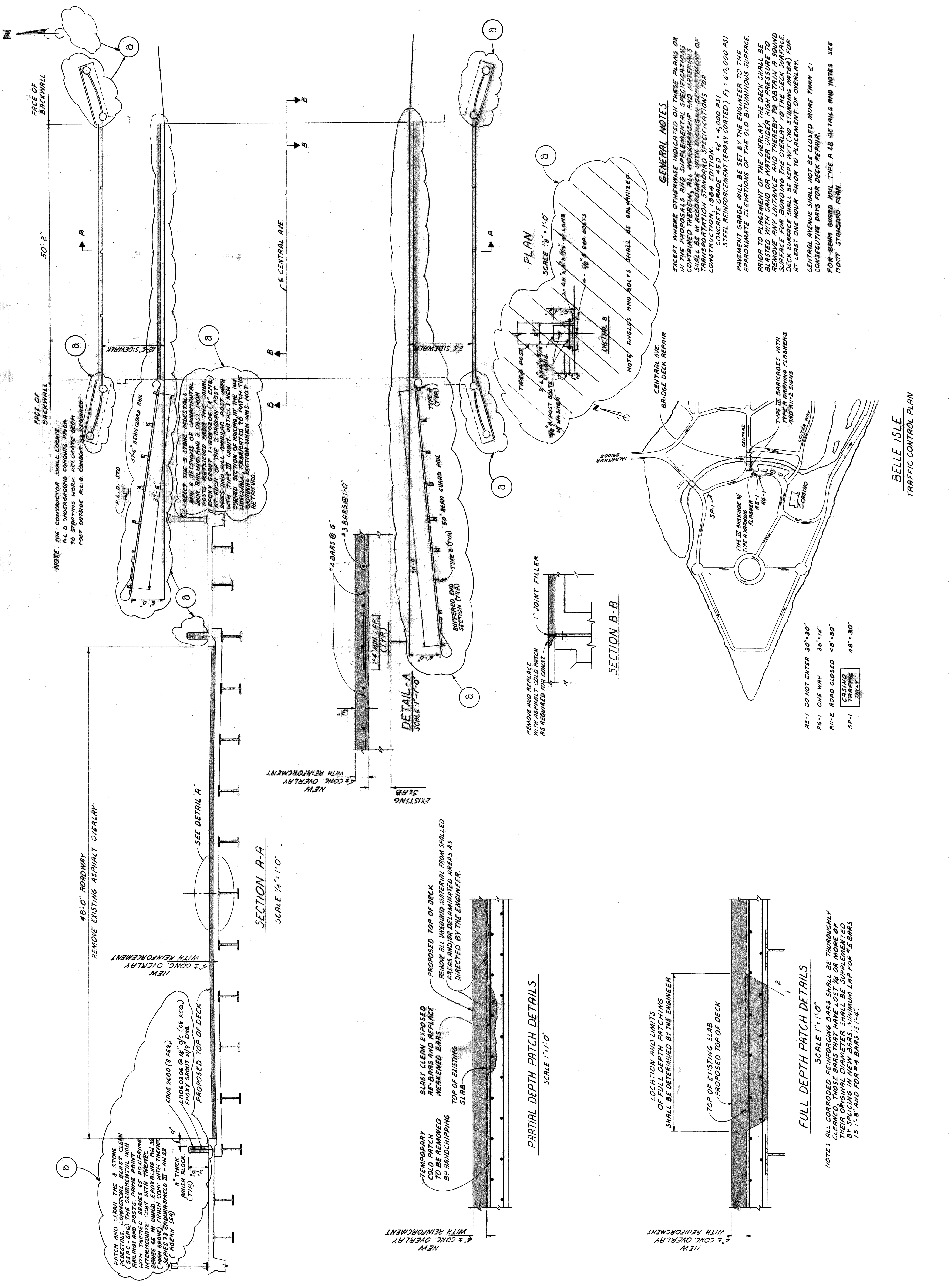
designed by M.C.
 drawn by D.L.N., J.K.
 checked by
 approved: *[Signature]*

CITY OF DETROIT
 city engineering department
 for DEPARTMENT OF PUBLIC WORKS

CENTRAL AVENUE
 BRIDGE OVER CANOE CANAL ON BELLE ISLE

BRIDGE DECK REPAIR PLAN

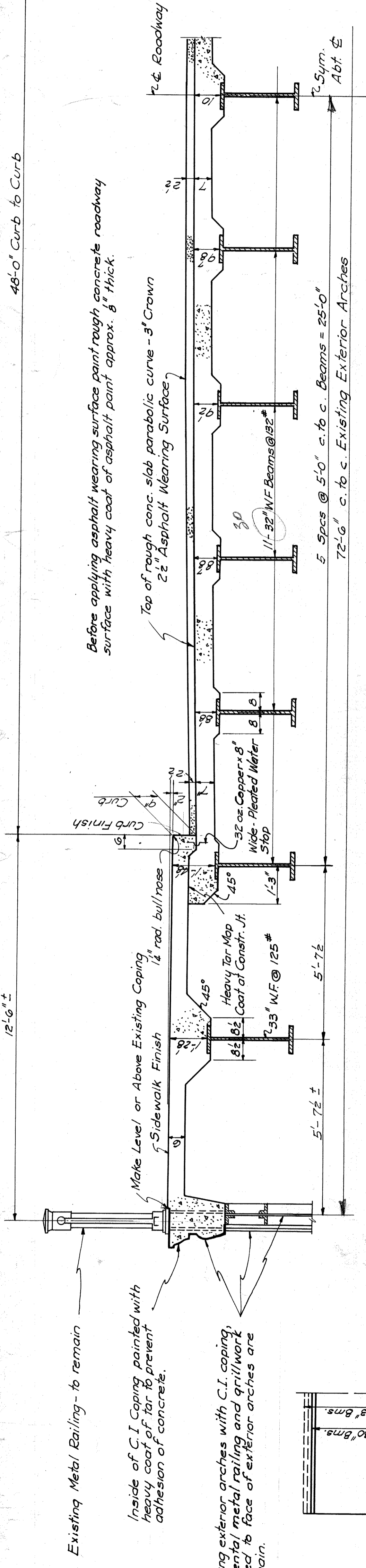
a.o. contract no.
 sheet / of /
 drawing no. S-1
 date 9-13-88



QCS.	DESCRIPTION	LENGTH
11	30" W.F. Beams @ 13'2" (Plain) With camber of 2 1/2"	50'-0"
2	33" W.F. Beams @ 125" (Plain) With camber of 2 1/2"	50'-0"
52	1 1/4" Anchor Bolts - Hex Nut & Washer one end - Hex. Hd. & 4 x 4 x 1/4" plate washer other end	1'-6"
26	16" x 1 1/2" Billets (as per Detail)	1'-0"

MK.	No.	SIZE	LENGTH	LOCATION
BB1	108	1 1/4"	9'-0"	Dowels in Bridge Seat
BB2	132	1 1/4"	8'-10"	Trans. in Top of Bridge Seat
BB3	132	1 1/4"	6'-4"	Dowels in Bridge Seat
BB4	236	1 1/4"	7'-9"	do
B5	132	1 1/4"	4'-6"	Straight. Trans. in Bottom of Bridge Seat
B6	56	3/4"	33'-9"	Longitudinal in Bridge Seat and Lapped

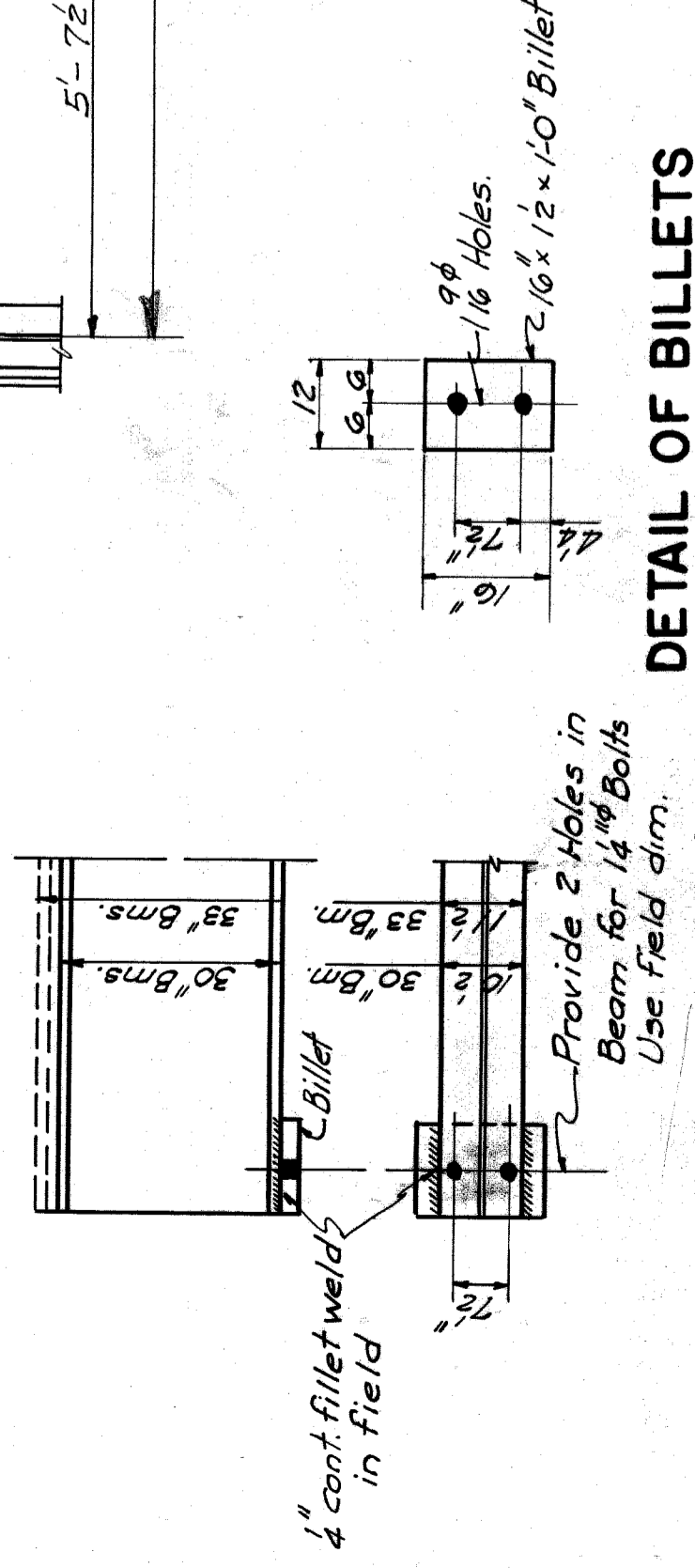
PRINCIPLE QUANTITIES - SUBSTRUCTURE		
Concrete - 2 Abutts		182 1/2 Cu. Yds.
Reinforcing Steel - 2 Abutts		17200 lbs.



HALF CROSS SECTION

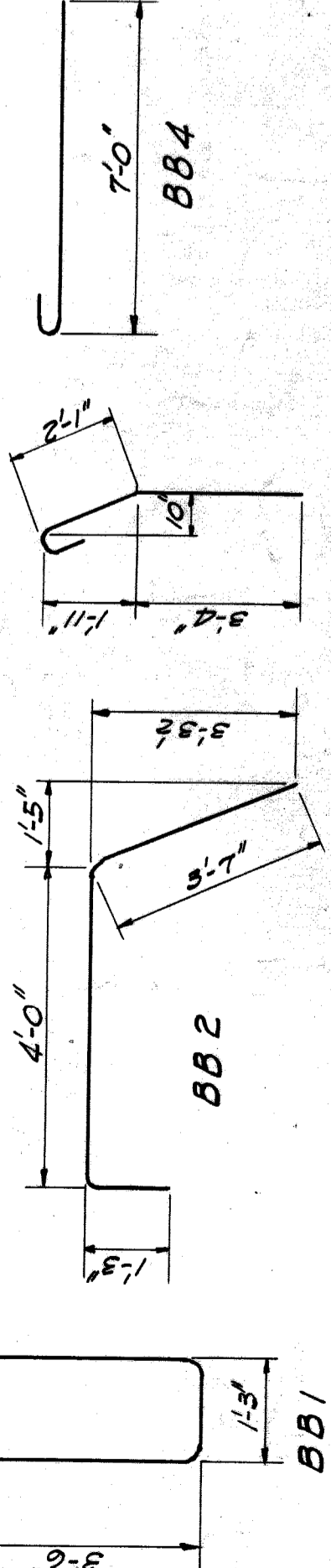
DETAIL OF BILLETS
Weld one to each end of 30" & 33" beams in field. Both Ends Alite

END DETAIL OF 30" & 33" BEAMS
All work shown to be done in field



SECTION A-A

SECTION B-B



NOTED BY	DESCRIPTION	DATE	REVISIONS
DESIGNED BY	E. Schulhof		
DRAWN BY	E.S.	7-17-40	
TRACED BY	M. Deo		
CHECKED BY	E.S.		
APPROVED:			
ENGINEER OF PUBLIC STRUCTURES			
CITY ENGINEER			
CONSTRUCTION OF BRIDGE - BELLE ISLE LOOP CANAL AND CENTRAL AVE. SUBSTRUCTURE & SUPERSTRUCTURE DETAILS			
CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE BUREAU OF PUBLIC STRUCTURES			
SHEET 2 OF 2 - SHEETS			
CONTRACT			
DRWG NO. B.I. 17			
SCALE 1" = 1'-0"		July 1940	
83 206-1			Drawn by

REINFORCING STEEL SCHEDULE

MK	Pcs.	SIZE	LENGTH	h1	h2	REMARKS
S1	384	5/8"	27'-8"	27'-2"		
T1	124	5/8"	26'-10"	26'-0"	2'-10"	
S2	124	5/8"	29'-8"	26'-2"		
A1	32	4/8"	35'-9"			Straight
U1	198	2"	14'-1"	12'-0"	1'-6"	0'-7"
S3	198	2"	13'-5"	13'-0"		
T2	32	2"	26'-7"	25'-6"	1'-1"	
T3	28	2"	27'-2"	26'-4"	0'-10"	
A2	4	2"	27'-0"			Straight
A3	16	2"	10'-3"			do

PRINCIPLE QUANTITIES - SUPERSTRUCTURE

Structural Steel - Unfabricated	42.55	Tons
" " Fabricated	406.128	Tons
Concrete - Two Sidewalk Slabs	36.0	Cu. Yds.
" " Roadway Slab	93.0	" "
Wearing Surface - Bridge Deck	275.0	Sq. Yds.
New Curbs - Approaches	2000	Lim. Ft.
New Pavement - "	2600	Sq. Yds.
Reinforcing Steel	20,300	Lbs.

NOTES

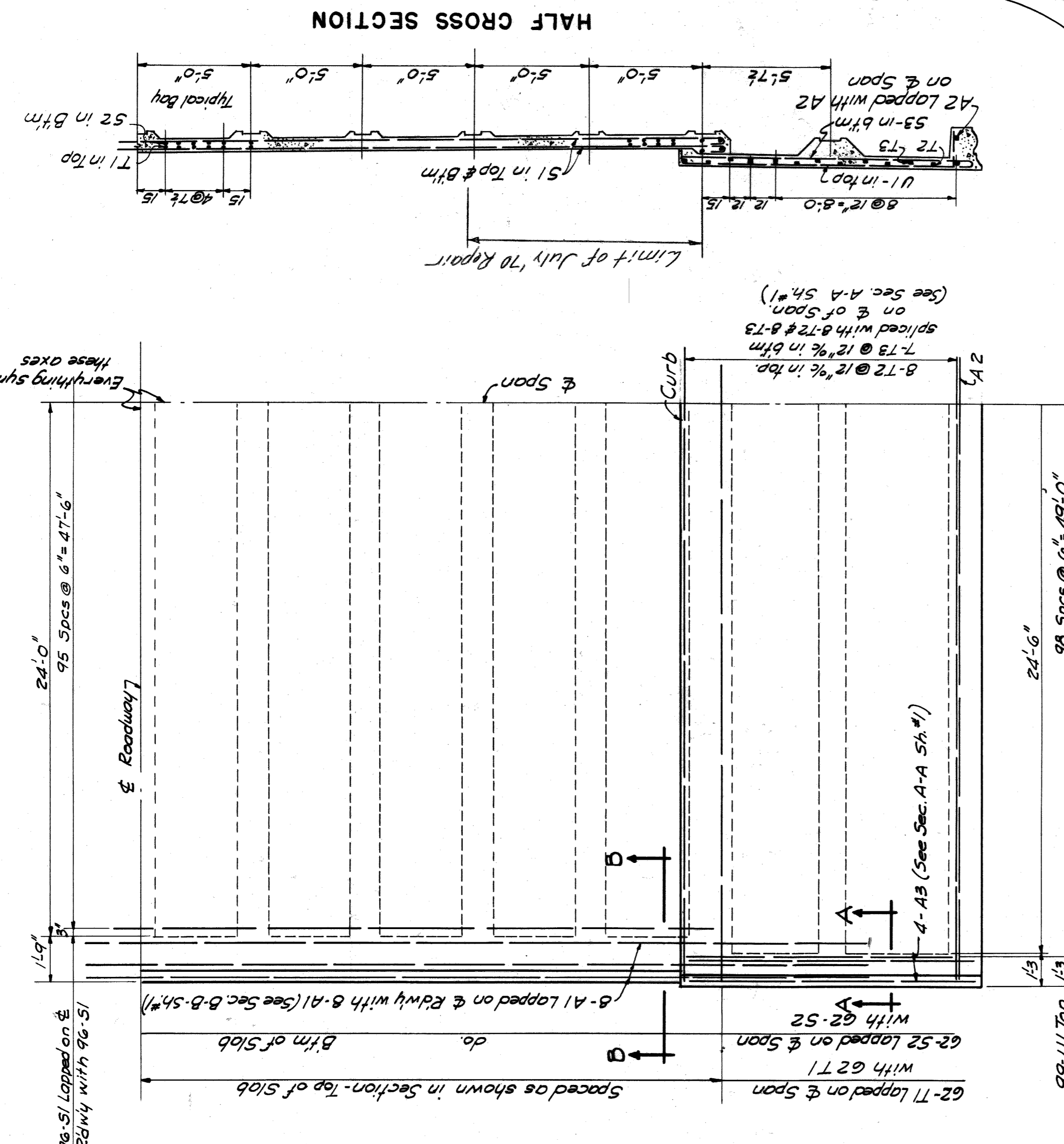
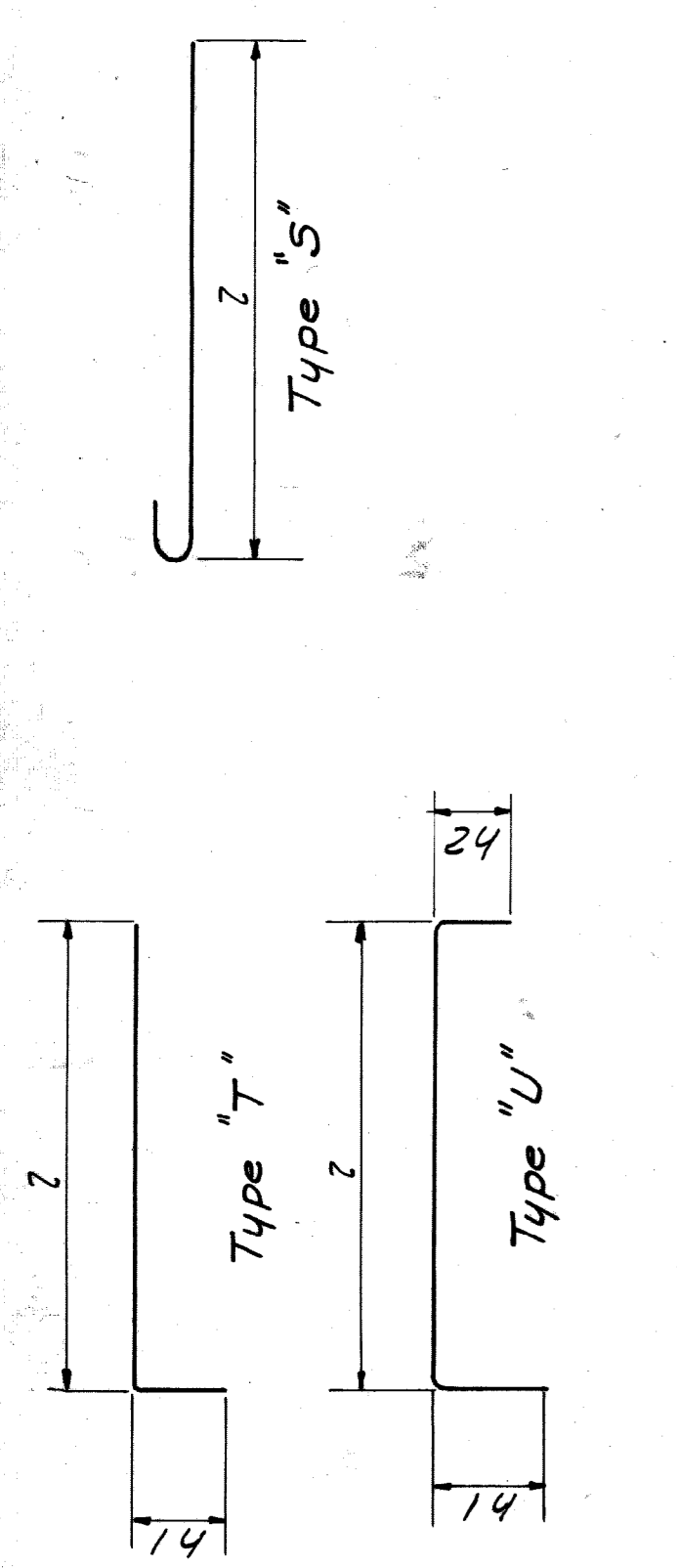
SPECIFICATIONS: See Brief Specifications for the Reconstruction of Bridge over Loop Canal - Central Ave. - Belle Isle. Loading - Roadway, 20 Ton Trucks and 30% Impact Sidewalk - 100" 15q. Ft. No Impact. To be proportioned by Water-Cement ratio for 3000 psi at twenty eight days. All exposed edges shall be bevelled 1/4" unless otherwise specified. The wearing surface shall be carefully finished to the exact crown of the road and no depression greater than (1/8) one eighth inch shall be allowed when measured from a strike board at right angle to the center of Road. No depression greater than (1/4) one quarter inch shall be allowed in a continuous distance of ten feet parallel to the center of Road. All bars shall be deformed bars of current intermediate grade as specified in the A. S. T. M. Standard Specifications for Billet Steel Reinforcing Bars (Serial Designation A-15-39). All bars to be securely wired together at each intersection. At splices, bars shall lap for a length of 40 diameters. All bars shall be securely tagged before being shipped to job. No cement to be placed until bars to be enclosed are securely fastened in place. Surface of Floor Slab, underwearing surface shall be painted with a heavy coat (about 1/2" thick) of approved asphalt paint.

CONCRETE: See Brief Specifications for the Reconstruction of Bridge over Loop Canal - Central Ave. - Belle Isle. Loading - Roadway, 20 Ton Trucks and 30% Impact Sidewalk - 100" 15q. Ft. No Impact. To be proportioned by Water-Cement ratio for 3000 psi at twenty eight days. All exposed edges shall be bevelled 1/4" unless otherwise specified. The wearing surface shall be carefully finished to the exact crown of the road and no depression greater than (1/8) one eighth inch shall be allowed when measured from a strike board at right angle to the center of Road. No depression greater than (1/4) one quarter inch shall be allowed in a continuous distance of ten feet parallel to the center of Road. All bars shall be deformed bars of current intermediate grade as specified in the A. S. T. M. Standard Specifications for Billet Steel Reinforcing Bars (Serial Designation A-15-39). All bars to be securely wired together at each intersection. At splices, bars shall lap for a length of 40 diameters. All bars shall be securely tagged before being shipped to job. No cement to be placed until bars to be enclosed are securely fastened in place. Surface of Floor Slab, underwearing surface shall be painted with a heavy coat (about 1/2" thick) of approved asphalt paint.

WATER-PROOFING: Surface of Floor Slab, underwearing surface shall be painted with a heavy coat (about 1/2" thick) of approved asphalt paint.

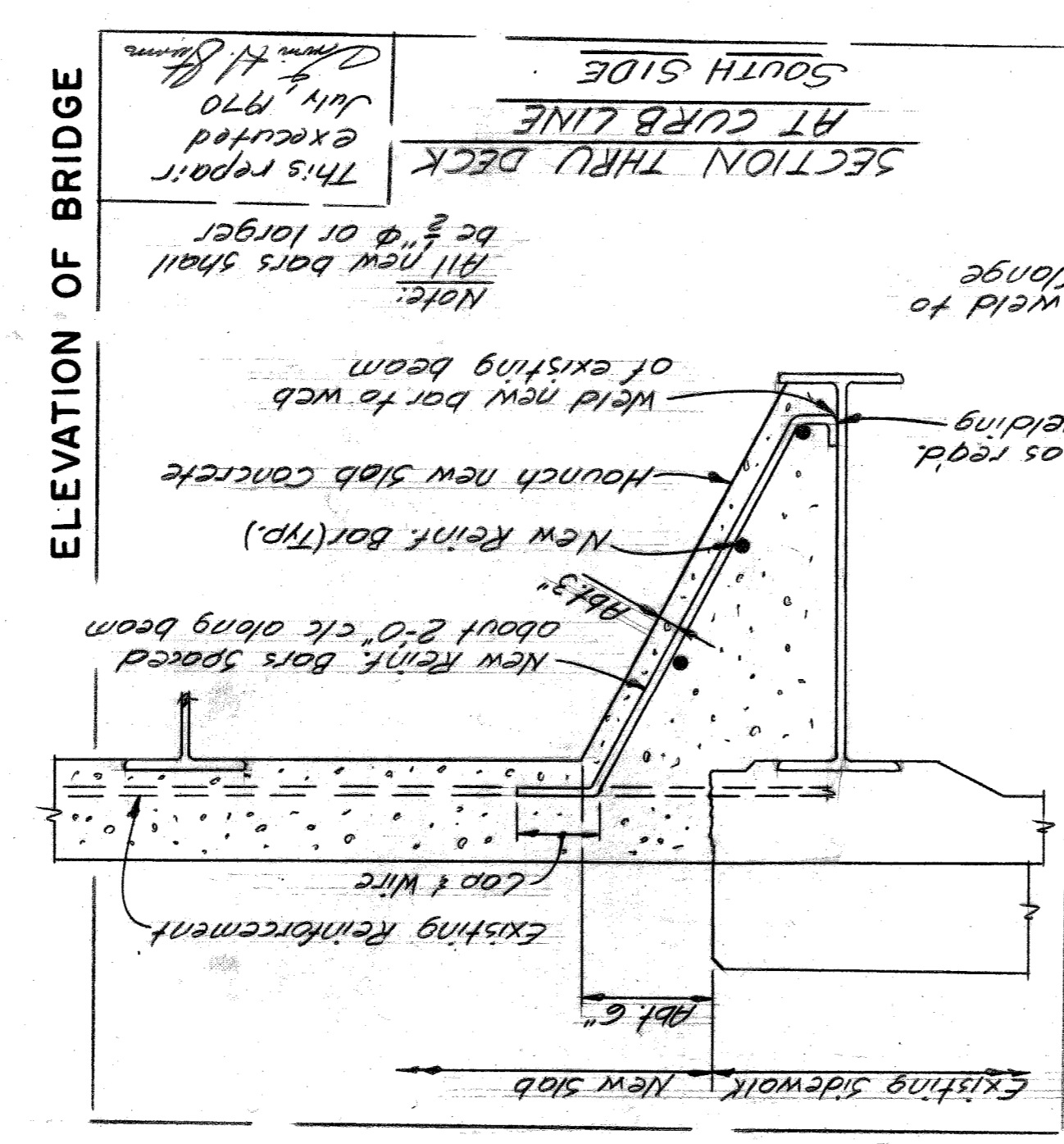
CONSTRUCTION JOINTS: Shall be located as shown and no other joints will be permitted except by approval of the City Engineer. All new steel to be shipped unpainted.

PAINTING: After erection point all exposed surfaces of new steel with one heavy coat of red lead paint. Second coat to be Detroit Graphite or equal. Color to be selected by the Commissioner of Parks & Boulevard. Second coat to be applied to all steel, new and existing, including railings.

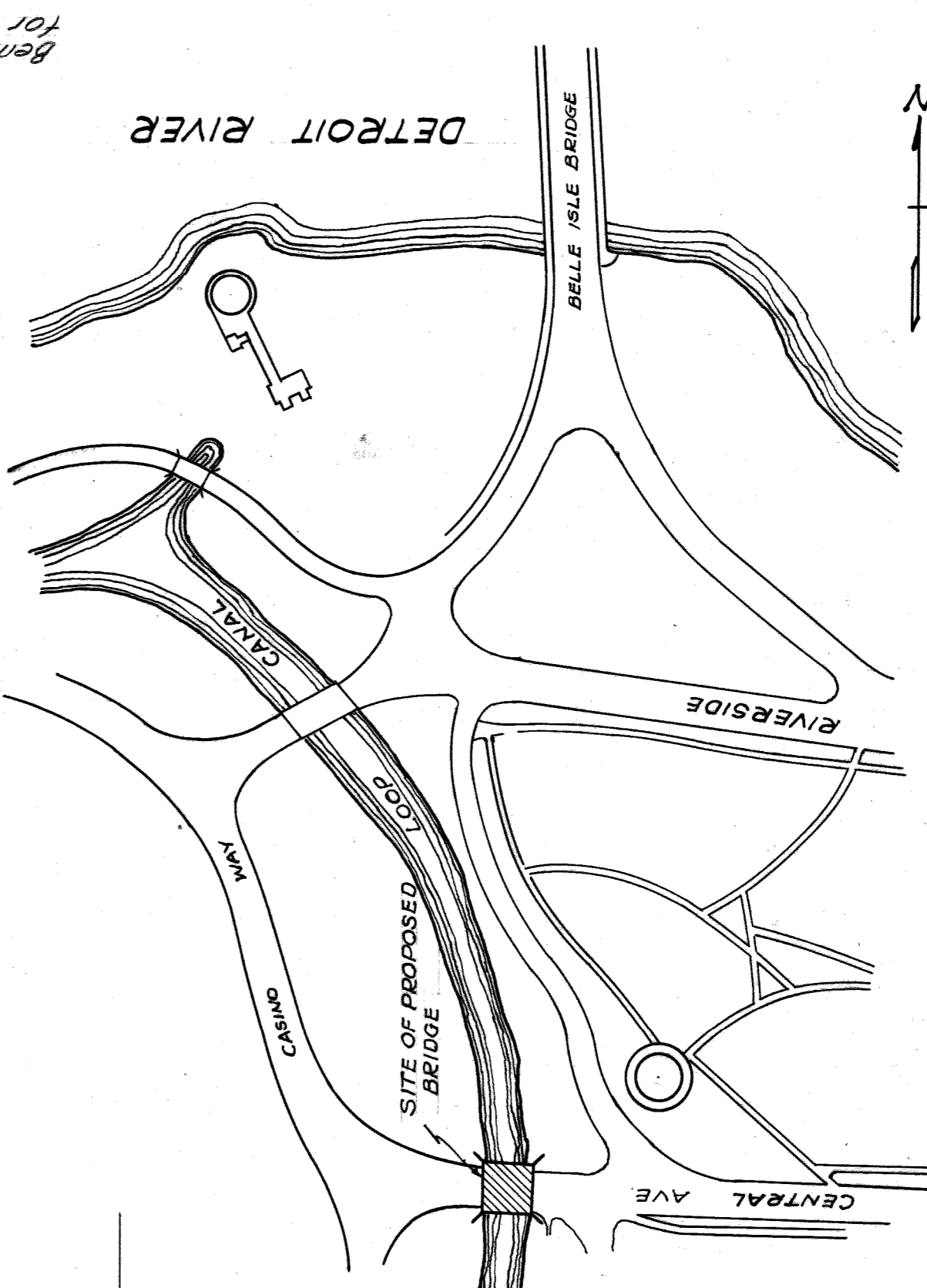


QUARTER PLAN OF DECK

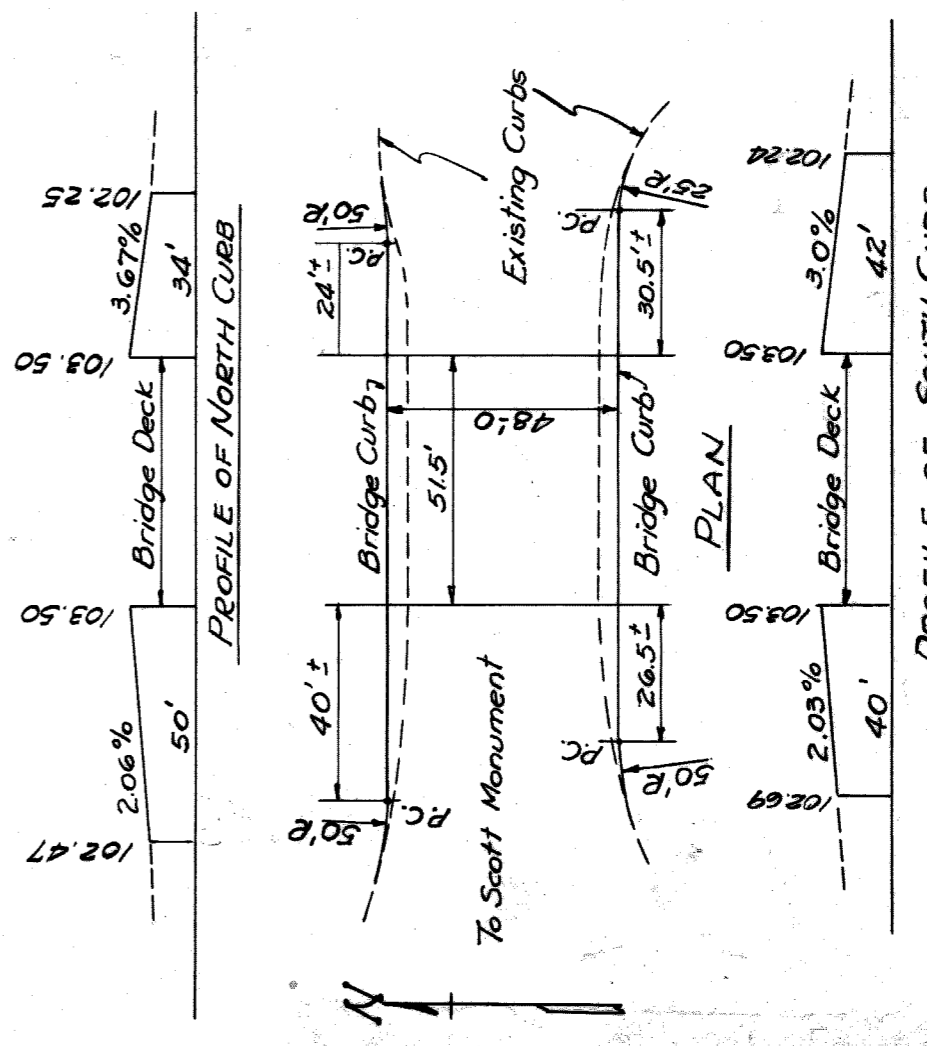
Other 3 quarters same or opposite hand.



ELEVATION OF BRIDGE



LOCATION PLAN

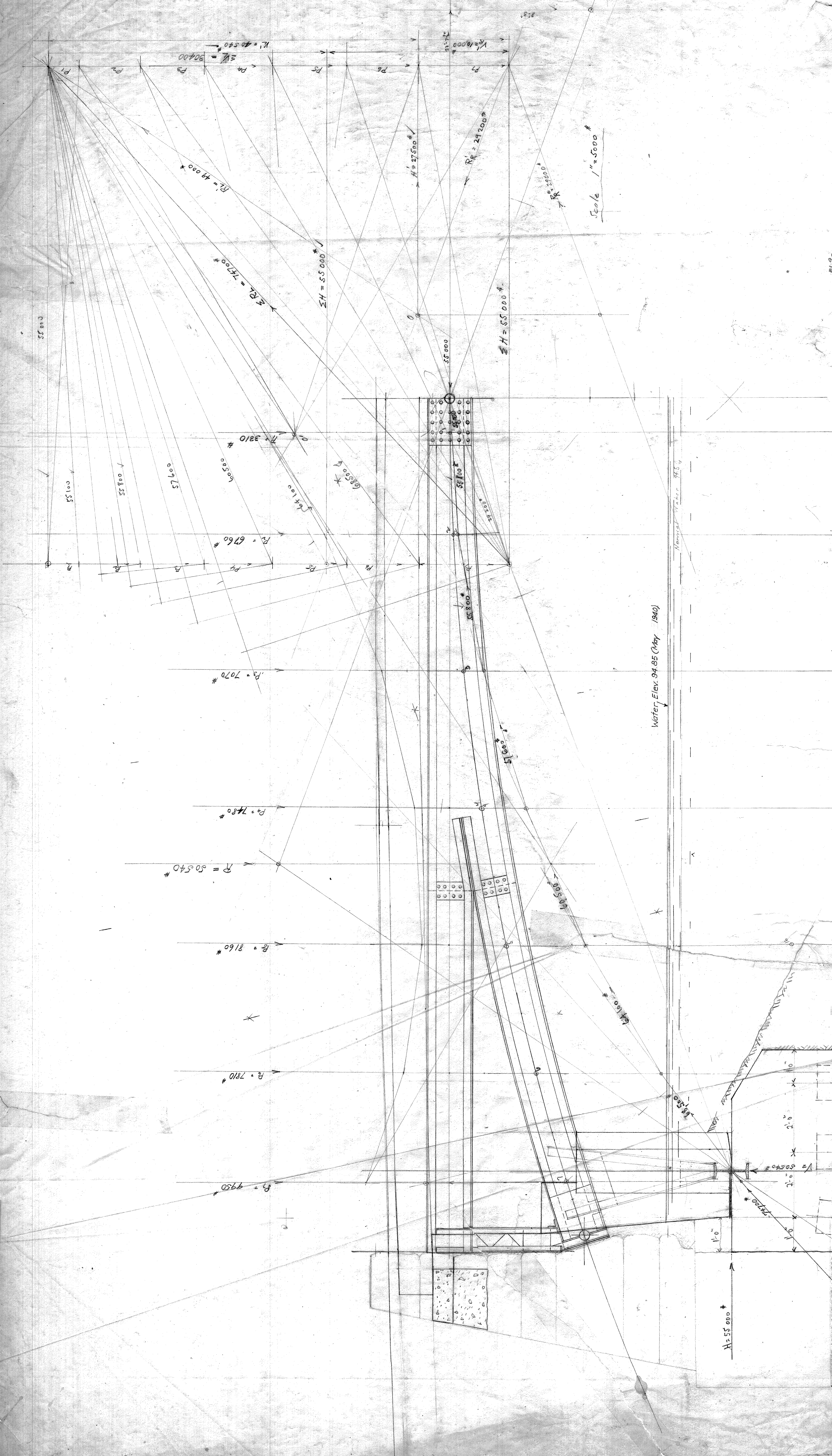


PAVING PLAN OF APPROACHES

Scale: Horiz. 1" = 40' Vert. 1" = 10'

CITY OF DETROIT		DEPARTMENT OF PUBLIC WORKS		SHEET 2 OF 2 SHEETS	
BUREAU OF PUBLIC STRUCTURES		RECONSTRUCTION OF BRIDGE - BELLE ISLE		CONTRACT	
SLAB DETAILS - PAVING & LOCATION PLAN		LOOP CANAL AND CENTRAL AVE.		DRAWING NO. B.I. 15	
Scale 1" = 1'-0" Except as Noted		July 1940		Draw. 4 DW 206-2	
DESIGNED BY	R. Schulhof	APPROVED:			
DRAWN BY	R. S.	7-25-40			
TRACED BY	M. Deo.				
CHECKED BY	R. S.				
REFERENCE DRAWINGS		ENGINEER OF PUBLIC STRUCTURES			
REVISIONS		CITY ENGINEER			

4-8
4-7
22-73

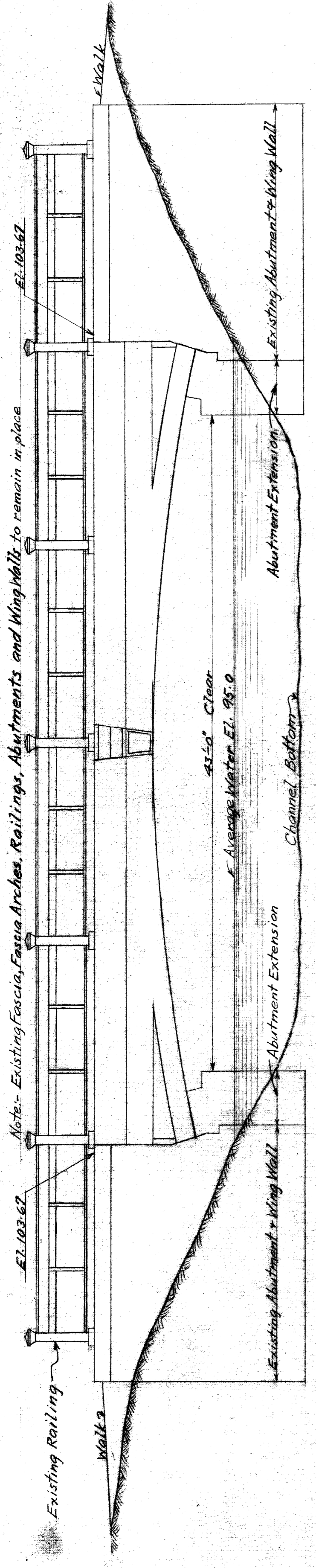


Scale 1" = 5000'

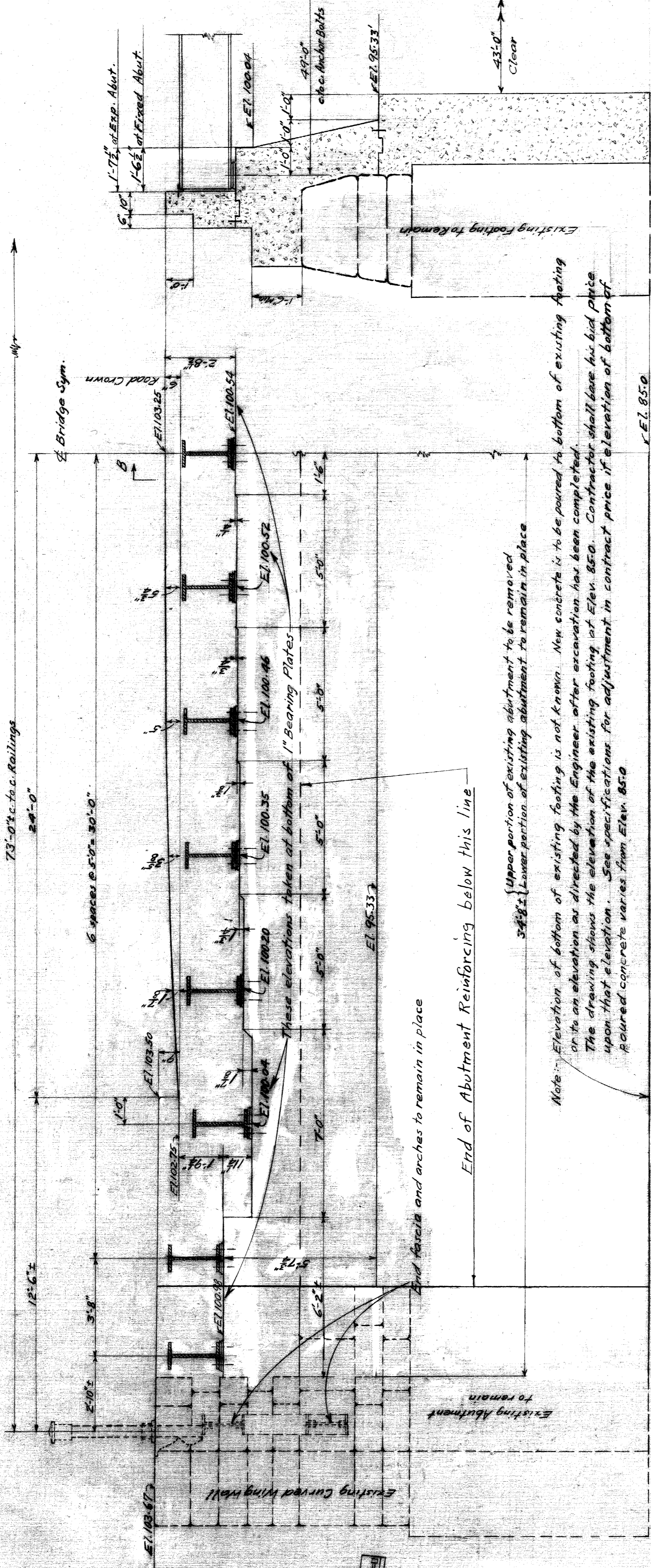
Water Elev. 94.85 (May 1940)

H = 55,000'

28P 4/5/76
 118P 4/14/76
 18P 4/24/76
 P.S.R. 8/2/76
 10 P.P. 7/11/79

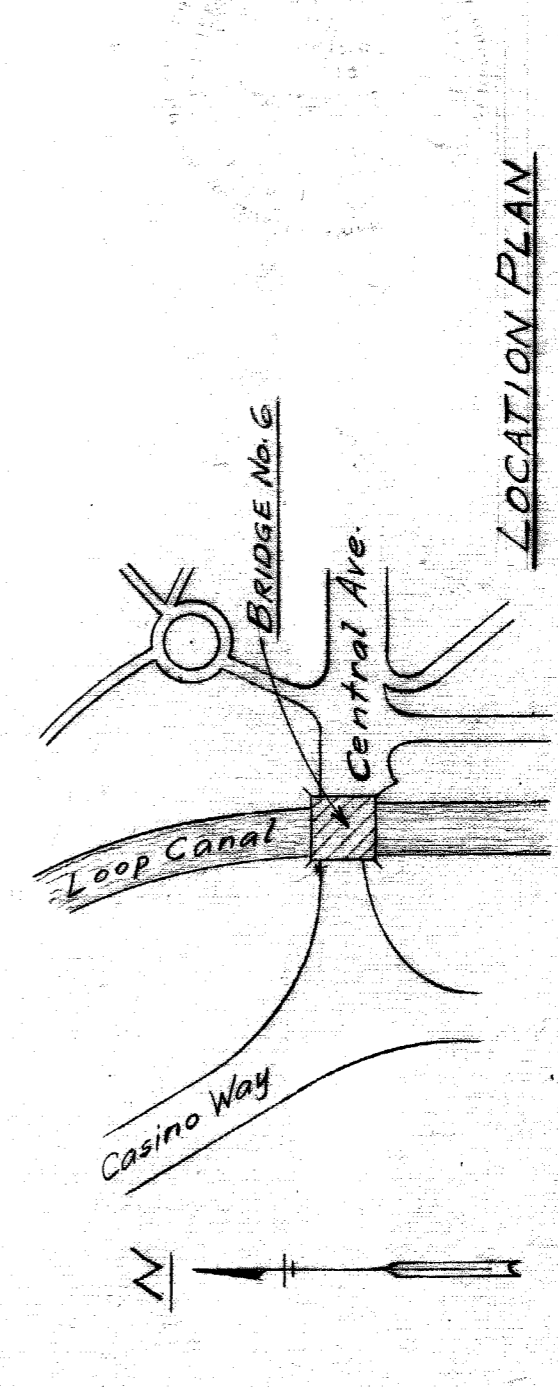


ELEVATION OF BRIDGE
 Scale 3/8" = 1'-0"

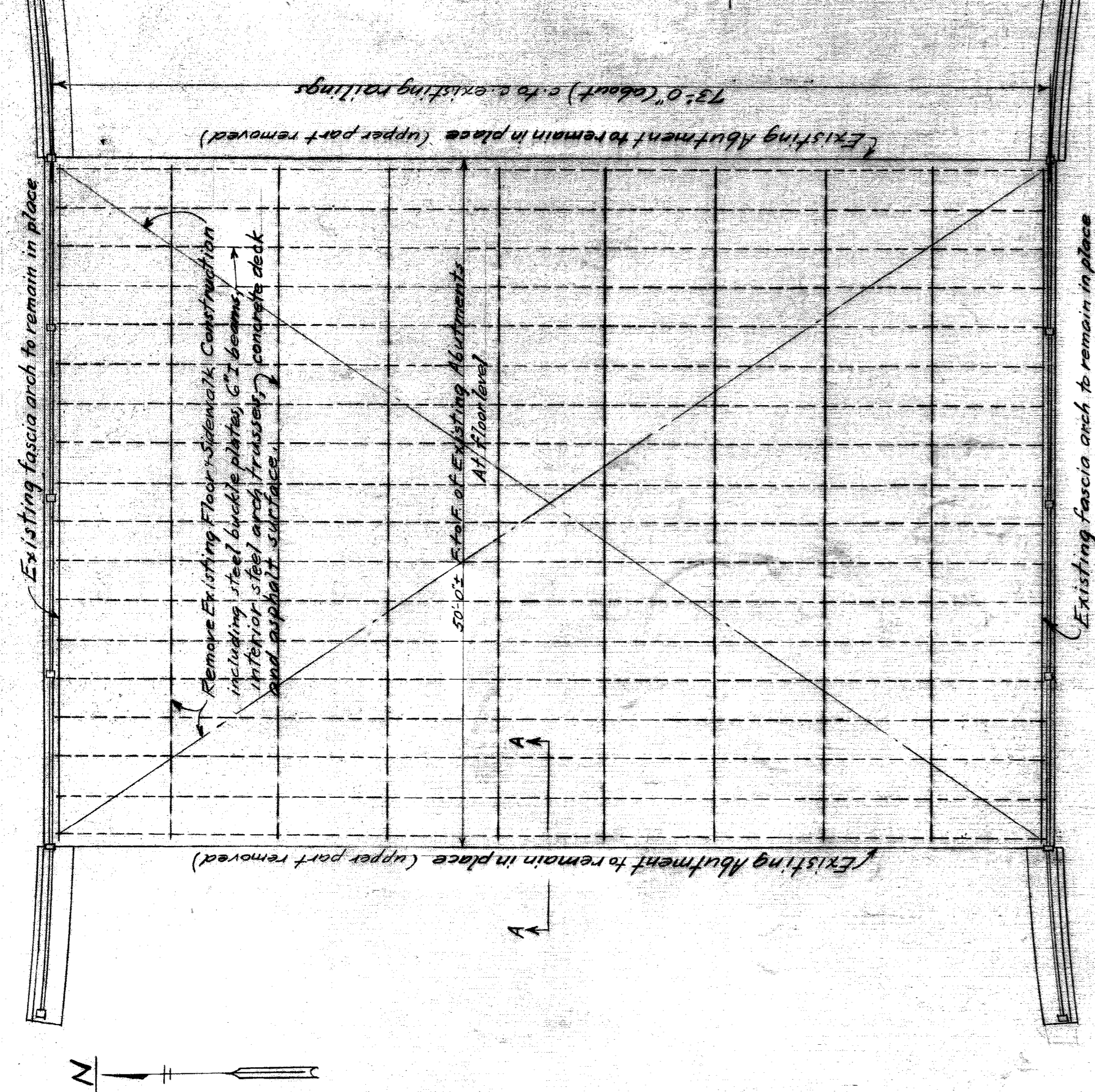


HALF FRONT ELEVATION OF ABUTMENTS
 Scale 3/8" = 1'-0"

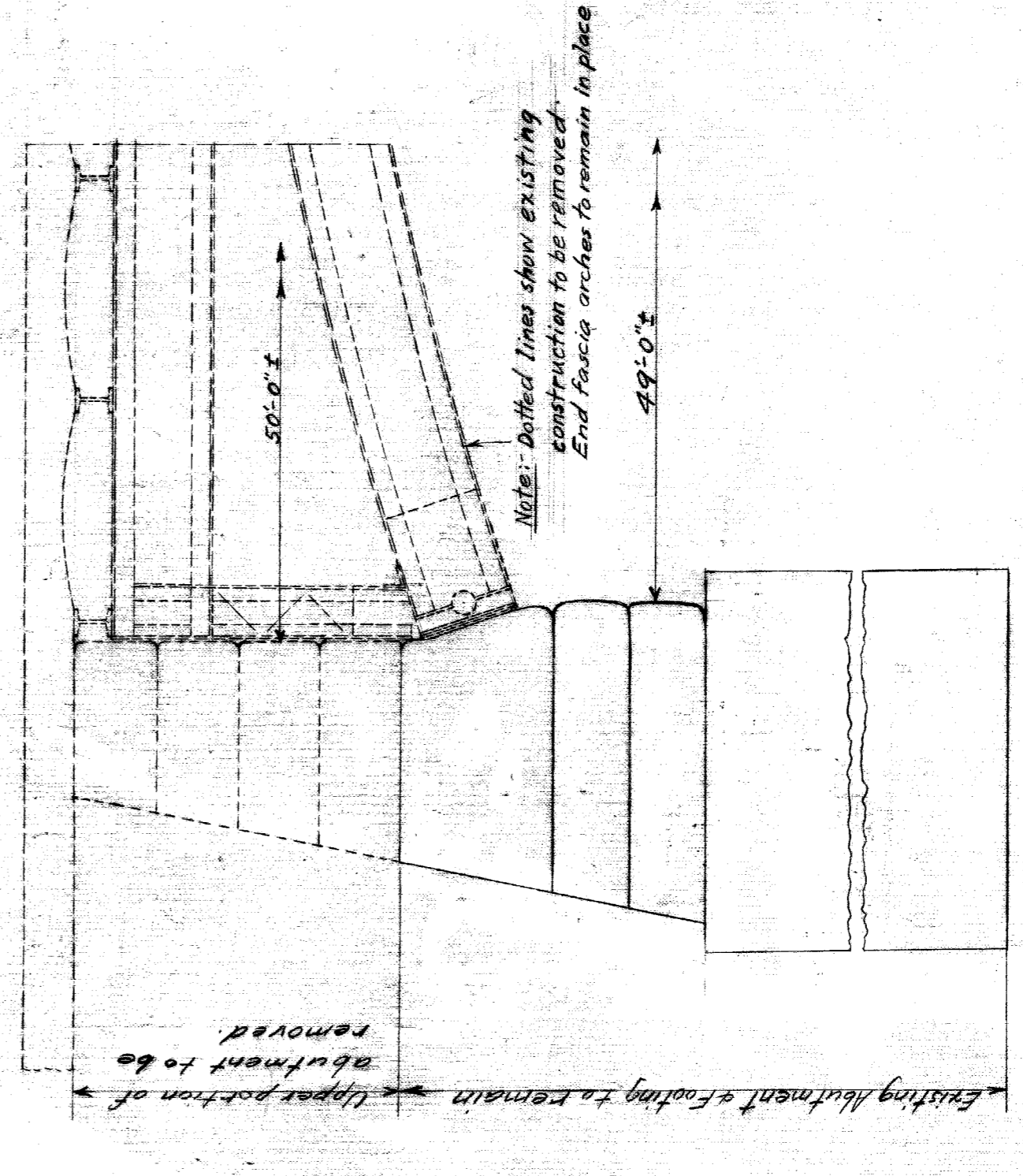
SECTION B-B
 Scale 3/8" = 1'-0"



LOCATION PLAN



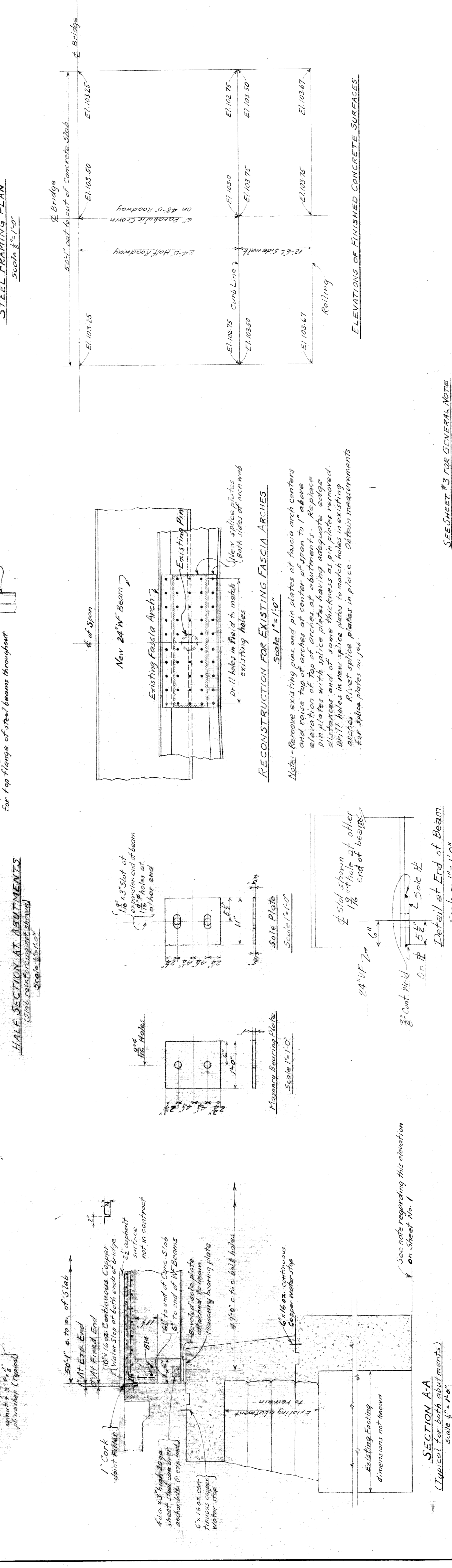
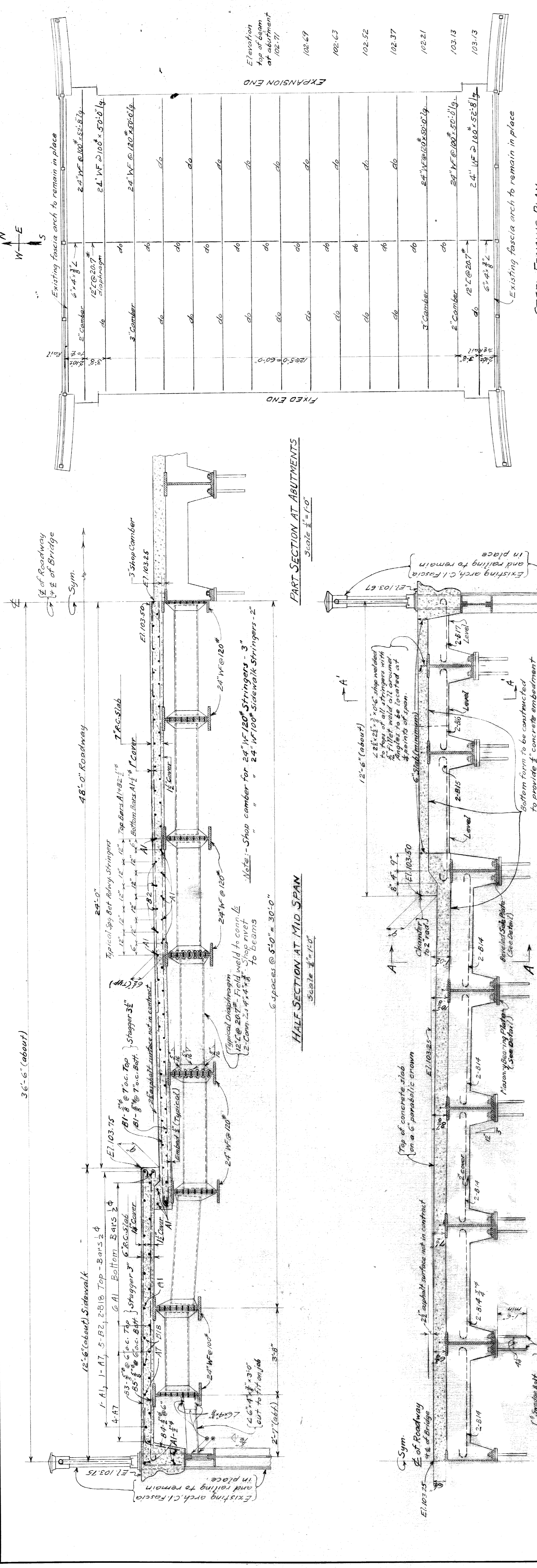
EXISTING STEEL FRAMING PLAN
 Scale 3/8" = 1'-0"



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

SEE SHEET #3 FOR GENERAL NOTE

CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE BUREAU OF DESIGN		BELLE ISLE BRIDGES RECONSTRUCTION OF BRIDGE NO. 6 EXISTING BRIDGE AND ELEVATIONS		SHEET 1 OF 3 SHEETS	JOB NO. PW-76	DRWG NO. S-1	DATE MAY 1946
APPROVED:	<i>J. L. ...</i> STRUCTURAL ENGINEER	DESIGNED BY:	<i>A. ...</i>	DRAWING NO. 1630			
DRAWN BY:	<i>W. ...</i>	TRACED BY:	<i>A. B. ...</i>	SCALE AS NOTED			
CHECKED BY:	<i>M. ...</i>	DATE:		DRAWING NO. 4			
DESCRIPTION	REVISIONS	DRAWING NO. 4					



RECONSTRUCTION FOR EXISTING FASCIA ARCHES
 Note: Remove existing pins and pin plates at fascia arch centers and raise top of arches at center of span to 1" above elevation of top of arches at abutments. Replace pin plates with splice plates having adequate edge distances and of some thickness as pin plates removed. Drill holes in new splice plates to match holes in existing arches. Rivet splice plates in place. Obtain measurements for splice plates on job.

DETAIL AT END OF BEAM
 Scale 1/4" = 1'-0"

SECTION A-A
 (Typical for both abutments)
 Scale 1/4" = 1'-0"

REVISIONS

NO.	DESCRIPTION	BY	DATE

APPROVED: *L. J. ...*
DESIGNED BY: *A. ...*
DRAWN BY: *R. ...*
TRACED BY: *A. B. White*
CHECKED BY: *A. ...*

CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF DESIGN

RECONSTRUCTION OF BRIDGE NO. 6
 FLOOR FRAME DETAILS

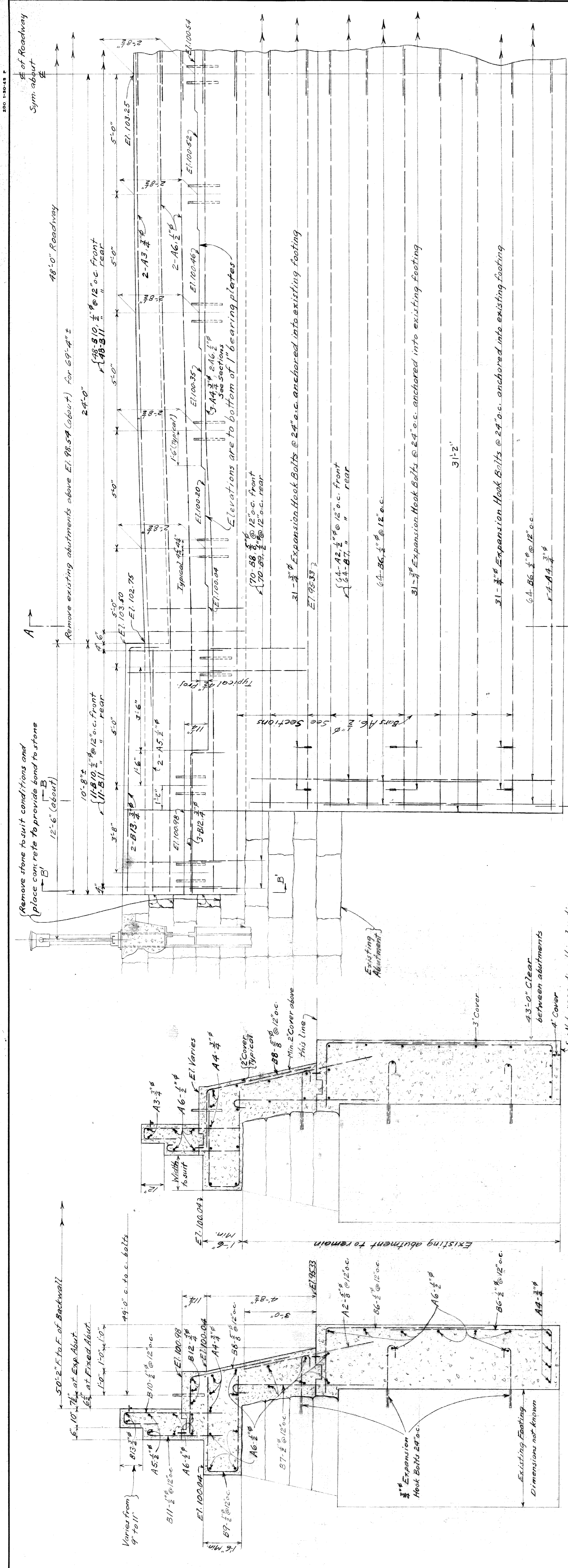
SHEET 2 OF 3 SHEETS
 JOB NO. PW-76
 DRWG NO. S-2
 DATE MAY 1946
 SCALE AS NOTED
 PAGE 1-4

BELLE ISLE BRIDGES
RECONSTRUCTION OF BRIDGE NO. 6
FLOOR FRAME DETAILS

Drawn #4 **BW-206**
AP-69

2 SP 4 1/2" x 6"
 1 SP 4 1/2" x 6"
 8 SP 4 1/2" x 6"
 10 SP 4 1/2" x 6"

1 Blueprint
 2-14-46
 Z.P. 4/3/46
 B.P. 4/4/46
 B.P. 4/15/46
 E.P. 8/2/46
 P.S. 8/7/46



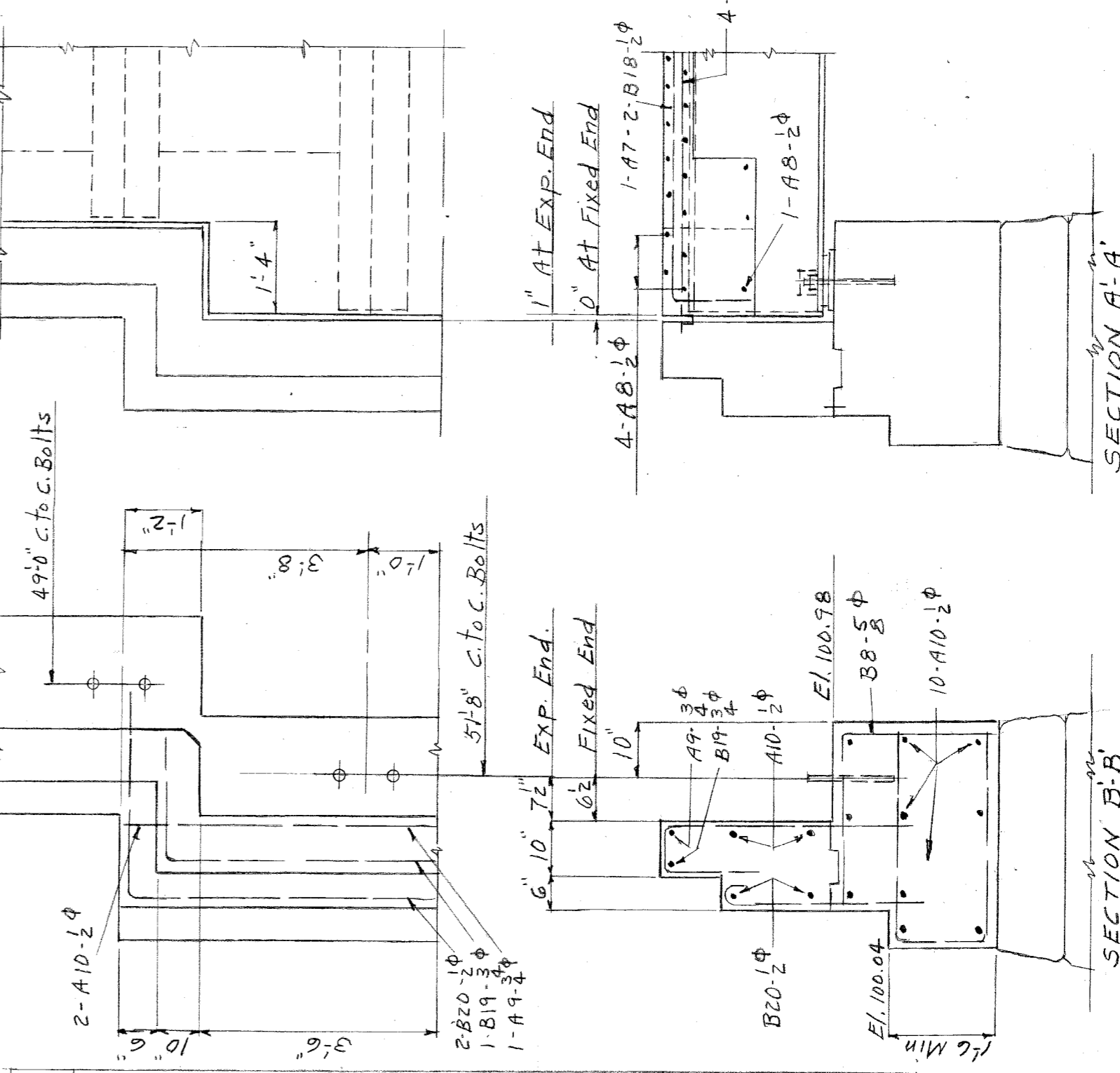
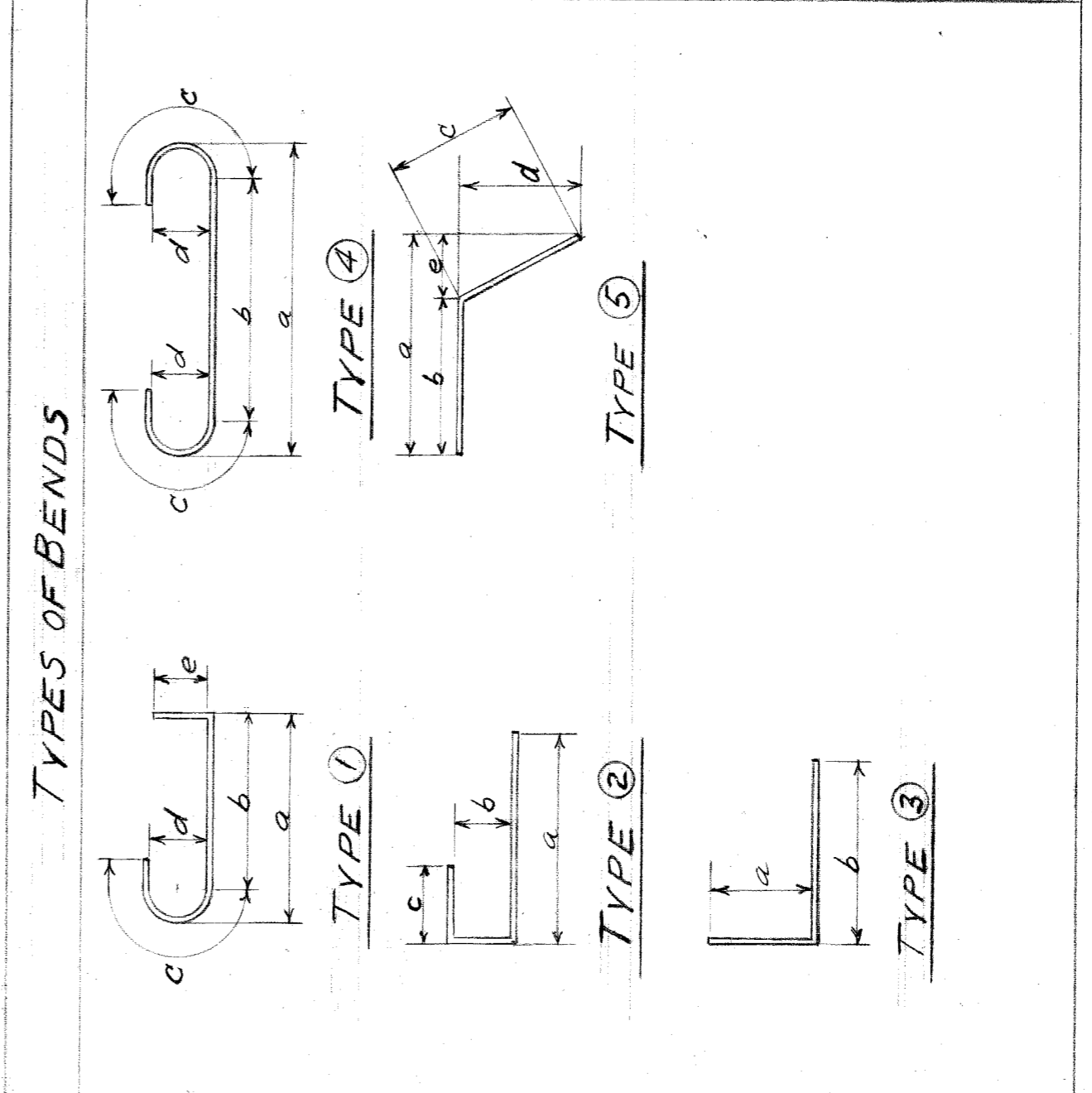
SECTION A-A
 HALF FRONT ELEVATION OF ABUTMENTS

SECTION B-B

Note: Reinforcing steel not otherwise shown same as in Section B-B

REINFORCING STEEL SCHEDULE

Mark	Number	Size	Type	Length	a	b	c	d	e	Location
				ft.	in.	ft.	in.	ft.	in.	
A1	170	3/8"		25	9					Roadway Sidewalk Slabs
A2	128	3/4"		5	6					Abutment Fig. Dwell
A3	8	3/4"		27	9					Abut. Backwall Sect. A-A
A4	28	3/4"		32	2					Bridge Seat Bot. of Fly.
A5	8	3/4"		6	6					Abut. Backwall Sect. B-B
A6	96	3/4"		31	9					Abutment a Fly. Horiz.
B1	342	3/8"	(1)	27	6	26	6	1	0	Roadway Slab Transverse
B2	100	3/8"	(2)	27	0	25	10	1	2	Roadway Sidewalk, Long.
B3	198	3/8"	(3)	14	9	12	6	12	3	Sidewalk Slab Transverse
B4	198	3/8"	(3)	3	6	1	6	2	0	"
B5	200	3/8"	(3)	14	0	12	7	12	2	"
B6	254	3/8"	(3)	9	0	7	0	2	0	Abut Footing Vertical
B7	128	3/4"	(5)	6	9	6	3	6	1	Abutment Footing Dowels
B8	140	3/4"	(5)	6	9	3	3	2	3	Abutment Vertical
B9	140	3/4"	(2)	9	0	4	0	1	0	Bridge Seat
B10	140	3/4"	(2)	6	0	4	0	5	1	Backwall Vertical
B11	140	3/4"	(2)	3	9	3	3	0	3	"
B12	12	3/4"	(3)	5	0	2	3	2	9	Bridge Seat Sect. B-B
B13	40	3/4"	(4)	9	6	4	9	2	9	Top of Backwall Sect. B-B
B14	8	3/4"	(4)	6	6	5	2	4	8	Transverse End Floor Beams
B15	8	3/4"	(4)	4	9	3	4	2	10	"
B16	8	3/4"	(4)	4	9	3	4	2	10	"
B17	8	3/4"	(4)	4	0	2	7	2	1	"
B18	20	1/2"	(4)	27	0					Sidewalk
B19	20	5/8"	(5)	28	3	27	1	1	2	"
B20	4	3/4"	(5)	3	6					Abutment
B21	4	3/4"	(5)	6	3	4	3	2	0	"
B22	4	3/4"	(5)	4	3					"
B23	8	1/2"	(5)	7	9	4	9	3	0	"
B24	48	1/2"	(5)	4	9					"



GENERAL NOTE

DESIGN DATA: A.A.S.H.O. H-15-44 Live Load
 STRUCTURAL STEEL: -Rivers 3/8", Holes 1/8"

CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF DESIGN

APPROVED: *J. L. Barton*
 53, 5300 STRUCT. ENGINEER

DESIGNED BY: *J. L. Barton*
 DRAWN BY: *W. H. Beck*
 TRACED BY: *A. B. White*
 CHECKED BY: *J. L. Barton*
 53, 5300 CITY ENGINEER

REVISIONS

NO.	DATE	DESCRIPTION

RECONSTRUCTION OF BRIDGE NO. 6
 ABUTMENT DETAILS

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

SHEET 3 OF 3 SHEETS
 JOB NO. PW-76
 DRWG NO. S-3
 DATE: MAY 1946
 Draw. #4
 AP-69