

CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
 IN CO-OPERATION WITH
MICHIGAN DEPARTMENT OF TRANSPORTATION
 AND
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL AID URBAN PROJECT NO. MICHIGAN BRO 82 (155)
CONTROL SECTION MCS 82025 JOB NO. 30288 A

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION CURRENT STANDARD SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS.

F H W A REGION	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MICH.				
STREET	CITY	COUNTY	TWP	SHEET NO.	TOTAL SHEETS



CITY OF DETROIT
BRIDGE NO. BW-246

MDOT STRUCTURE
NO. 0108300 B02

INDEX OF SHEETS

- BRIDGE TITLE SHEET
- S-1 GENERAL PLAN OF SITE
- S-2 UTILITY DRAWING AND SOIL BORINGS
- S-3 GENERAL PLAN OF STRUCTURE
- S-4 GENERAL PLAN OF STRUCTURE DETAILS
- S-5 PILING PLAN AND DETAILS
- S-6 SHEET PILING, FENCING AND TIEBACK DETAILS
- S-7 ABUTMENT A; WINGWALLS A-1 & A-2
- S-8 ABUTMENT B; WINGWALL B-1; QUANTITIES
- S-9 WINGWALL B-2; ABUTMENT AND WINGWALL SECT.
- S-10 RETAINING WALLS A-1 & A-2; GENERAL NOTES
- S-11 RETAINING WALL B-1; UNITS 1-2; SECTIONS
- S-12 RETAINING WALL B-1; UNITS 3-7
- S-13 RETAINING WALL B-2; UNITS 1-2; SECTIONS
- S-14 RETAINING WALL B-2; UNITS 3-6
- S-15 RETAINING WALL B-2; UNITS 7-11
- S-16 WALL SECTIONS AND DETAILS
- S-17 SLAB - BOTTOM REINFORCING BARS
- S-18 SLAB - TOP REINFORCING BARS
- S-19 DECK AND PIER DETAILS
- S-20 TOP OF SLAB ELEVATIONS
- S-21 SUBSTRUCTURE STEEL REINFORCEMENT DETAILS
- S-22 SUPERSTRUCTURE STEEL REINFORCEMENT DETAILS

- C-1 FINAL SITE PLAN
- C-2 DETAILED GRADES
- C-3 DETOUR ROADWAY
- C-4 ALIGNMENT AND STAKE OUT
- C-5 REMOVALS

- W-1 GENERAL NOTES
- W-2 RIVERSIDE PLAN & PROFILE
- W-3 ALTER PLAN & PROFILE
- W-4 MISC. DETAILS

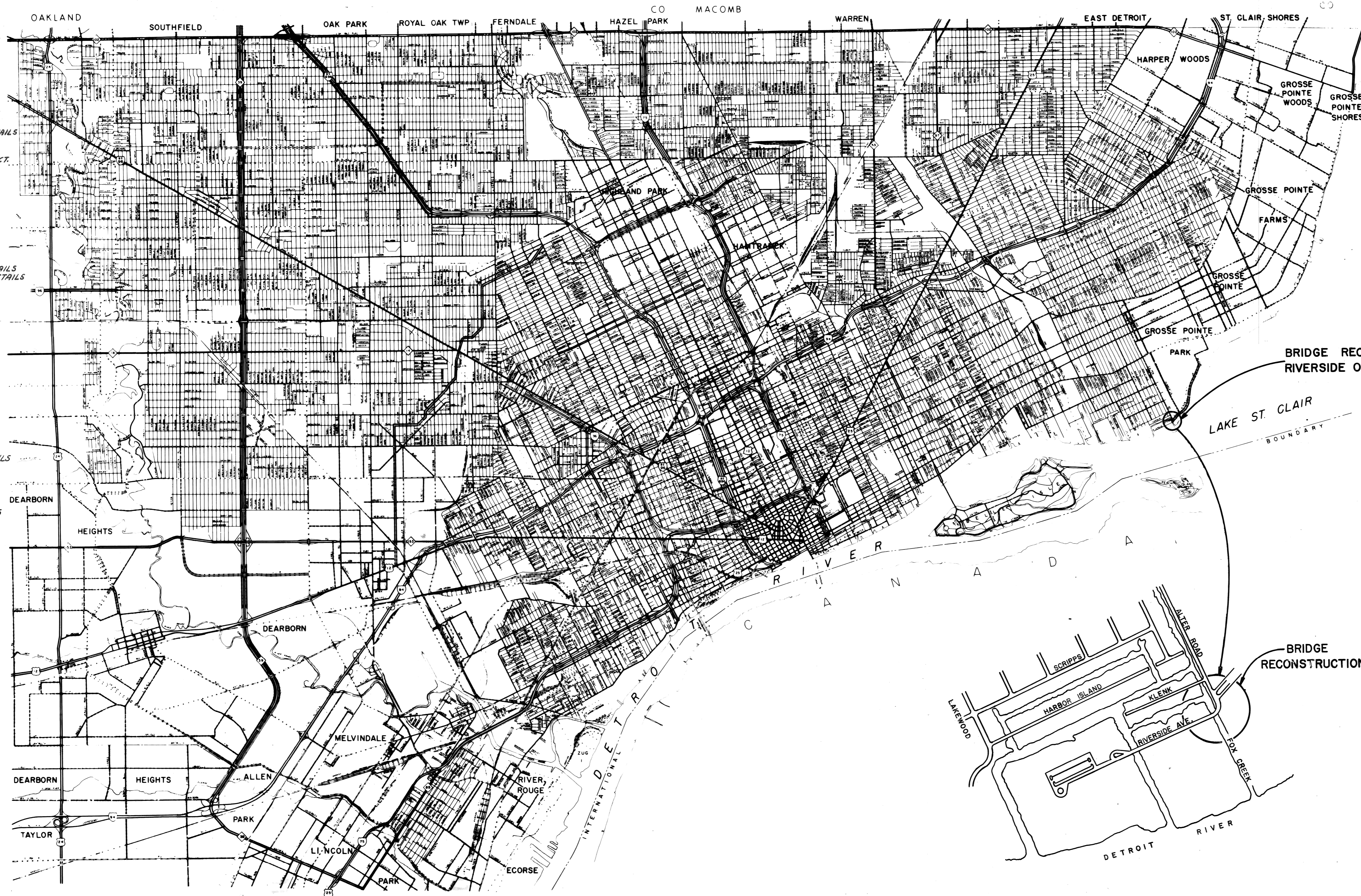
- E-1 PUBLIC LIGHTING DEPT. - LEGEND
- E-2 GENERAL INFORMATION & AREA MAP
- E-3 GENERAL PLAN - STAGE I
- E-4 GENERAL PLAN - FINAL STAGE
- E-5 MISC. ENCASED CONDUIT SECTIONS & DETAILS
- E-6 CABLE & WIRE SPECIFICATIONS, DETAILS
- E-7 "
- E-8 "
- E-9 MISC. OVERHEAD DETAILS
- E-10 MESSENGER WIRE INSTALLATION & DETAILS
- E-11 TRANSFORMER POLE & CABLE POLE DETAILS

- R-1 ORIGINAL RIVERSIDE BRIDGE DESIGN
- R-2 KLENK BRIDGE DETAILS
- R-3 "

- Q-1 QUANTITY SHEET
- Q-2 "

STANDARD PLANS

- II 41 E
- IV 45 E1
- V 17 E1
- XI 18 C
- XII 103 C



BRIDGE RECONSTRUCTION
RIVERSIDE OVER FOX CREEK

LAKE ST. CLAIR
BOUNDARY

BRIDGE
RECONSTRUCTION

ITEM NO. PB 0681

CONTRACT FOR **BRIDGE RECONSTRUCTION**

LOCAL AUTHORITY APPROVAL
CITY OF DETROIT
CITY ENGINEERING DEPARTMENT

APPROVED BY E.M. Kennedy 11-1-89
DEPUTY DIRECTOR DATE

APPROVED BY Chad R. Hopkins 10-31-89
DIRECTOR DATE

PREPARED UNDER SUPERVISION OF

Robert A. Karber 20907
REGISTERED PROFESSIONAL ENGINEER REGISTRATION NO.

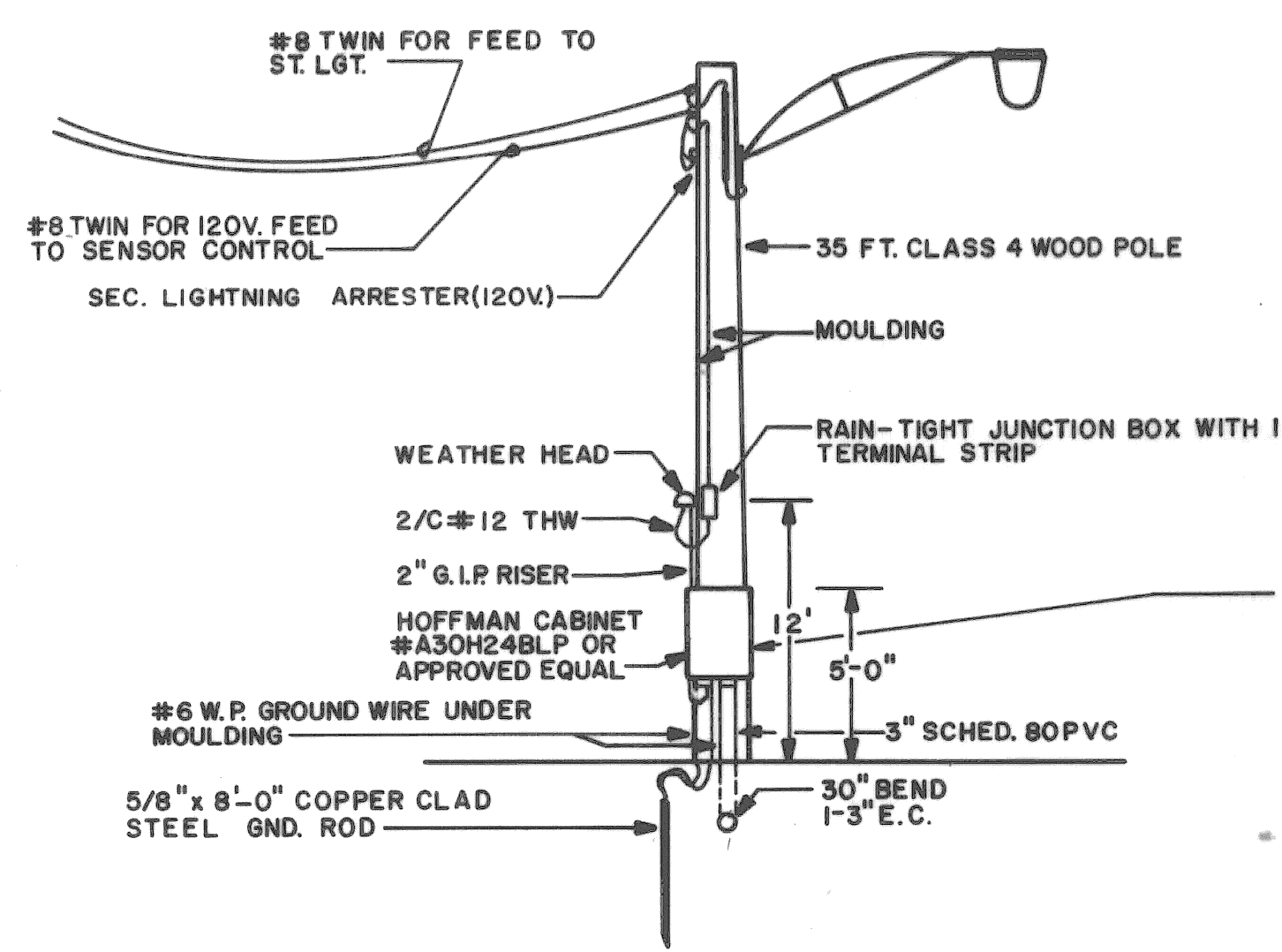
CITY OF DETROIT
ORGANIZATION

DETROIT, MICHIGAN
ADDRESS

ROBERT A. KARBER
 ENGINEER
 No. 20907
 PROFESSIONAL ENGINEER

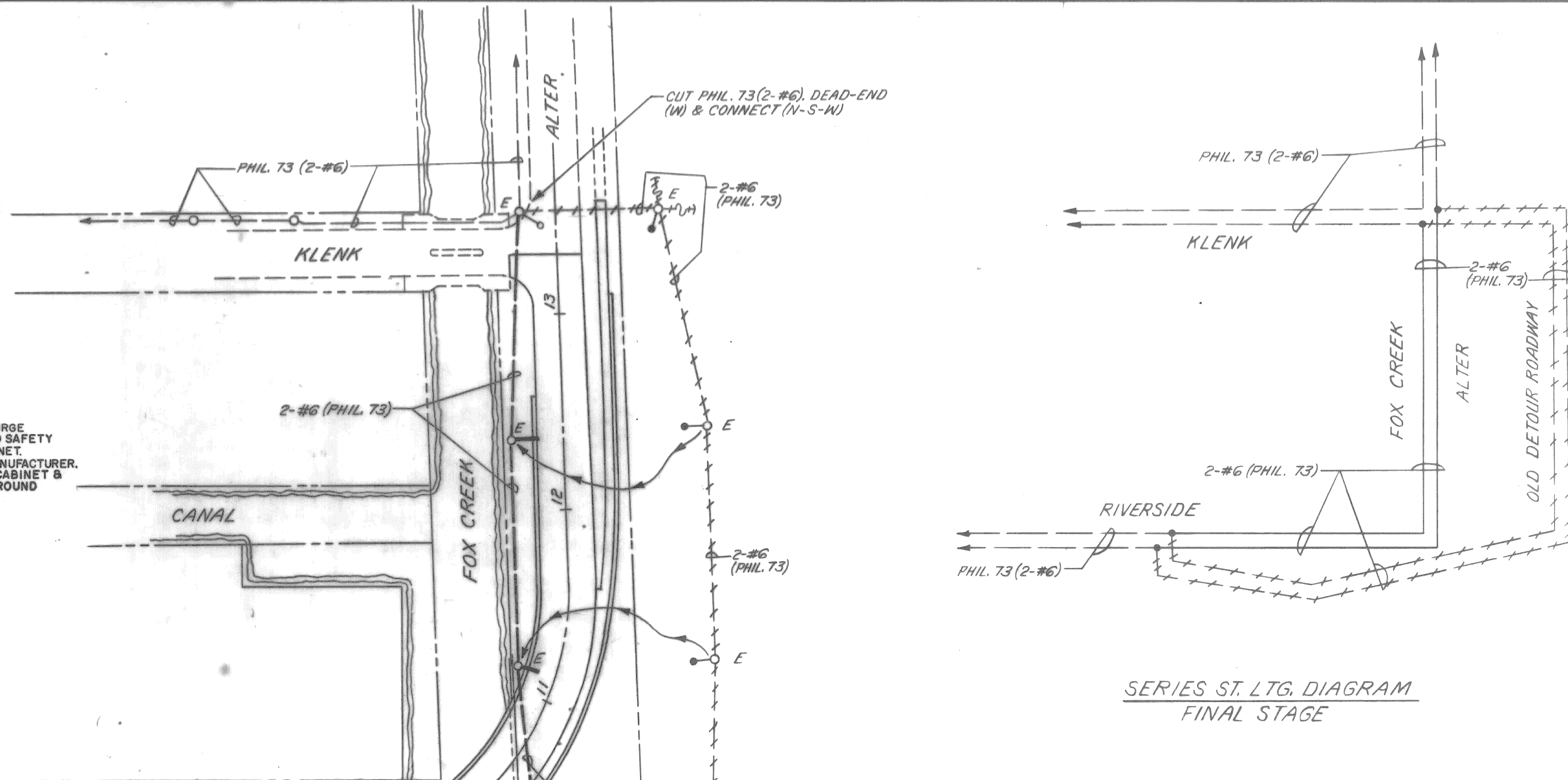
FILE NO.	STATE	PROJECT	SHEET

ITEM NO. PB 0681
 MCS 82025
 BRO 82(155)
 JOB NO. 30288 A

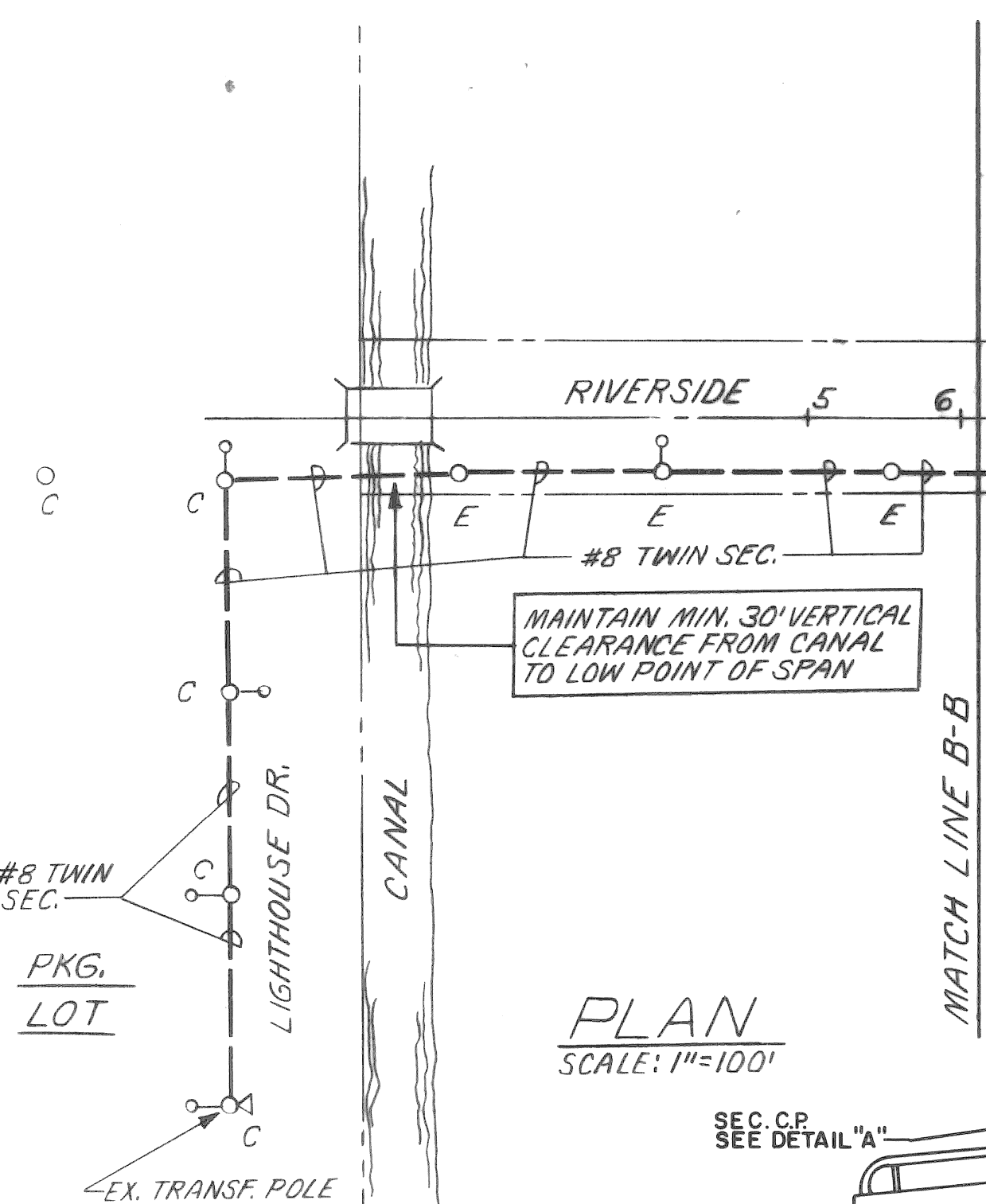


SEC. CABLE POLE DETAIL "A"
L-W (N.T.S.)

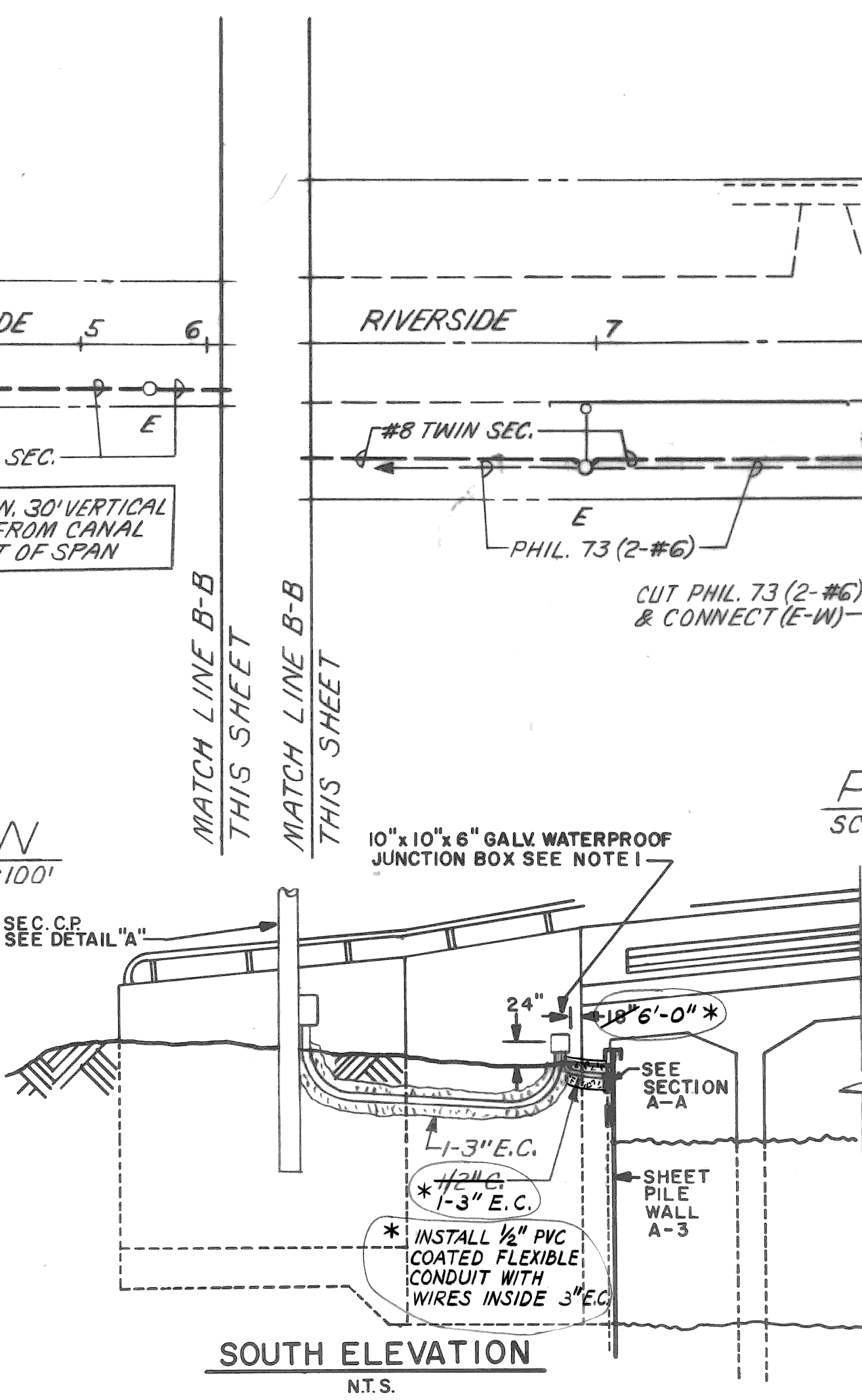
IN. MCGRAW-EDISON TYPE 235-15 SECONDARY SURGE ARRESTER AND SQUARE D TYPE D12INRB FUSED SAFETY SWITCH (OR APPROVED EQUALS) INSIDE CABINET. CONNECT TO 2-1/2" #2 120V. FEED AS PER MANUFACTURER. ATTACH GROUND LUG TO INSIDE WALL OF CABINET & CONNECT TO GROUND ROD WITH 1-#6 W.P. GROUND WIRE.



SERIES ST. LGT. DIAGRAM
FINAL STAGE



PLAN
SCALE: 1"=100'

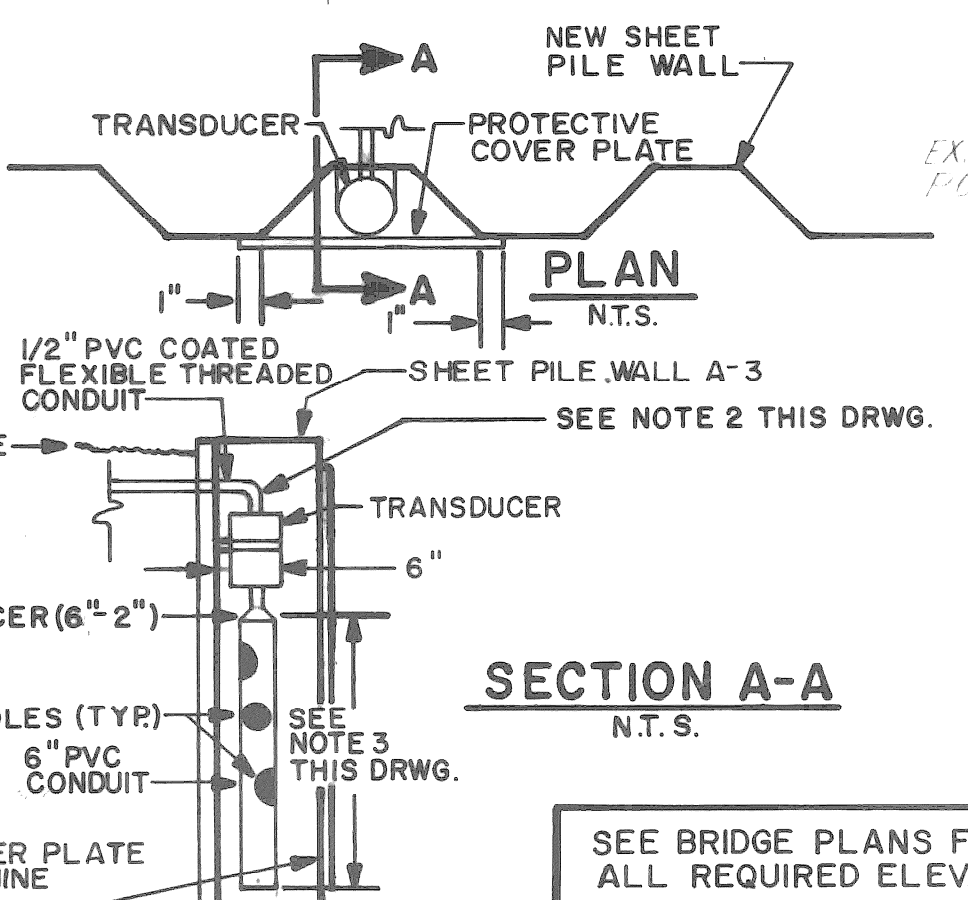


WATER SENSOR ASSEMBLY DETAIL "B"
(N.T.S.)

PLAN
SCALE: 1"=40'

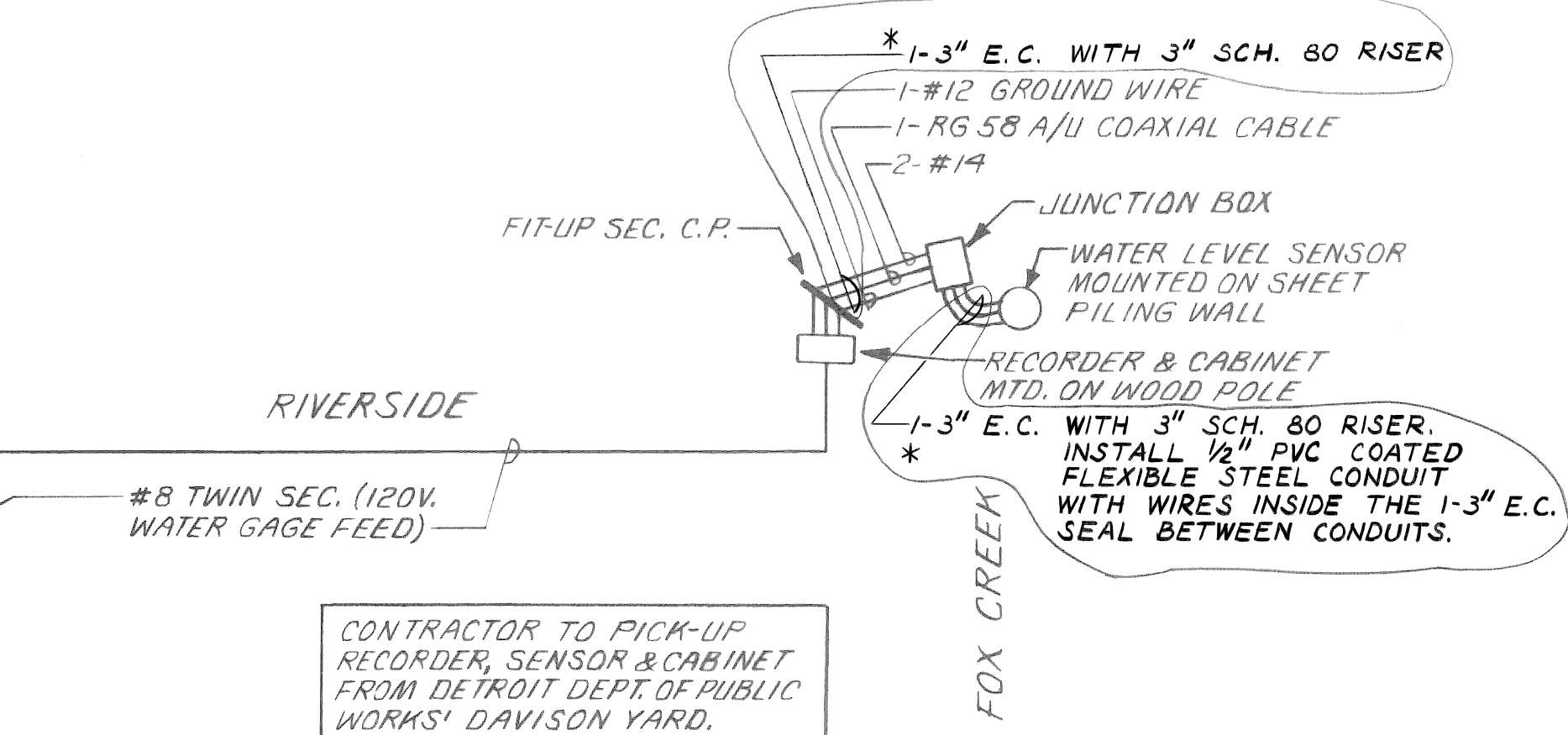
FINAL STAGE

- 1.) ATTACH TERMINAL STRIP TO INSIDE OF JUNCTION BOX FOR GROUND WIRE. CONTACT R.H. JACKSON CO. FOR PROPER TYPE OF CONNECTOR TO BE USED FOR RG 58 A/U COAXIAL CABLE.
- 2.) USE WATERPROOF SEALANT TO COMPLETELY SEAL GAP BETWEEN * FLEXIBLE * CONDUIT & SHEET PILE WALL.
- 3.) LENGTH OF CONDUIT TO BE SUCH THAT THE BOTTOM END IS 1 FT. BELOW THE LOWEST WATER LEVEL ON RECORD OR AS DIRECTED BY THE ENGINEER. COVER PLATE TO BE 1 FT. B.L.W.L. & 3" BELOW TOP OF SHEET PILE WALL.



SECTION A-A
N.T.S.

IN. WATER SENSOR ASSEMBLY. SEE DETAIL "B" THIS SHEET.
FIT-UP WOOD POLE AS A SEC. CABLE POLE. SEE DETAIL "A" THIS SHEET.
35 FT. CL. 4 (M.S.S.)
IN. RECORDER & CABINET



SECONDARY DIAGRAM

- NOTES:
1. HANDLE COAXIAL CABLE WITH EXTREME CARE TO AVOID DAMAGING OR "KINKING" CABLE.

* QUANTITY CHANGES

ITEM	CHANGE
1-3" ENCASED CONDUIT	+6 L.F.

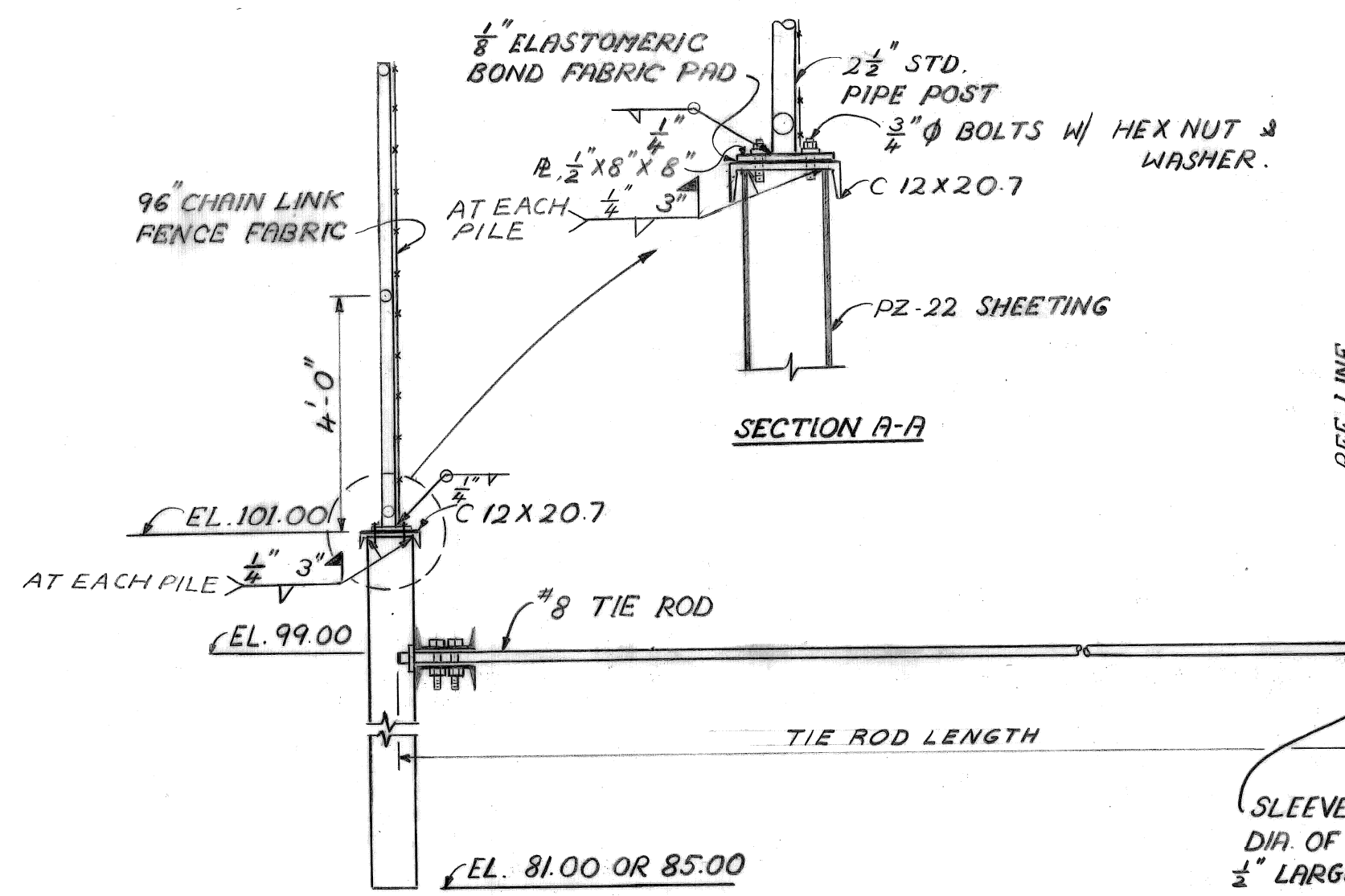
RIVERSIDE AVENUE OVER FOX CREEK
GENERAL PLAN
FINAL STAGE

DATE	DESCRIPTION	CHKD. BY
10-10-90	CHANGES REQ'D TO ACCOMMODATE GAS LINE CHANGES (*)	H2015

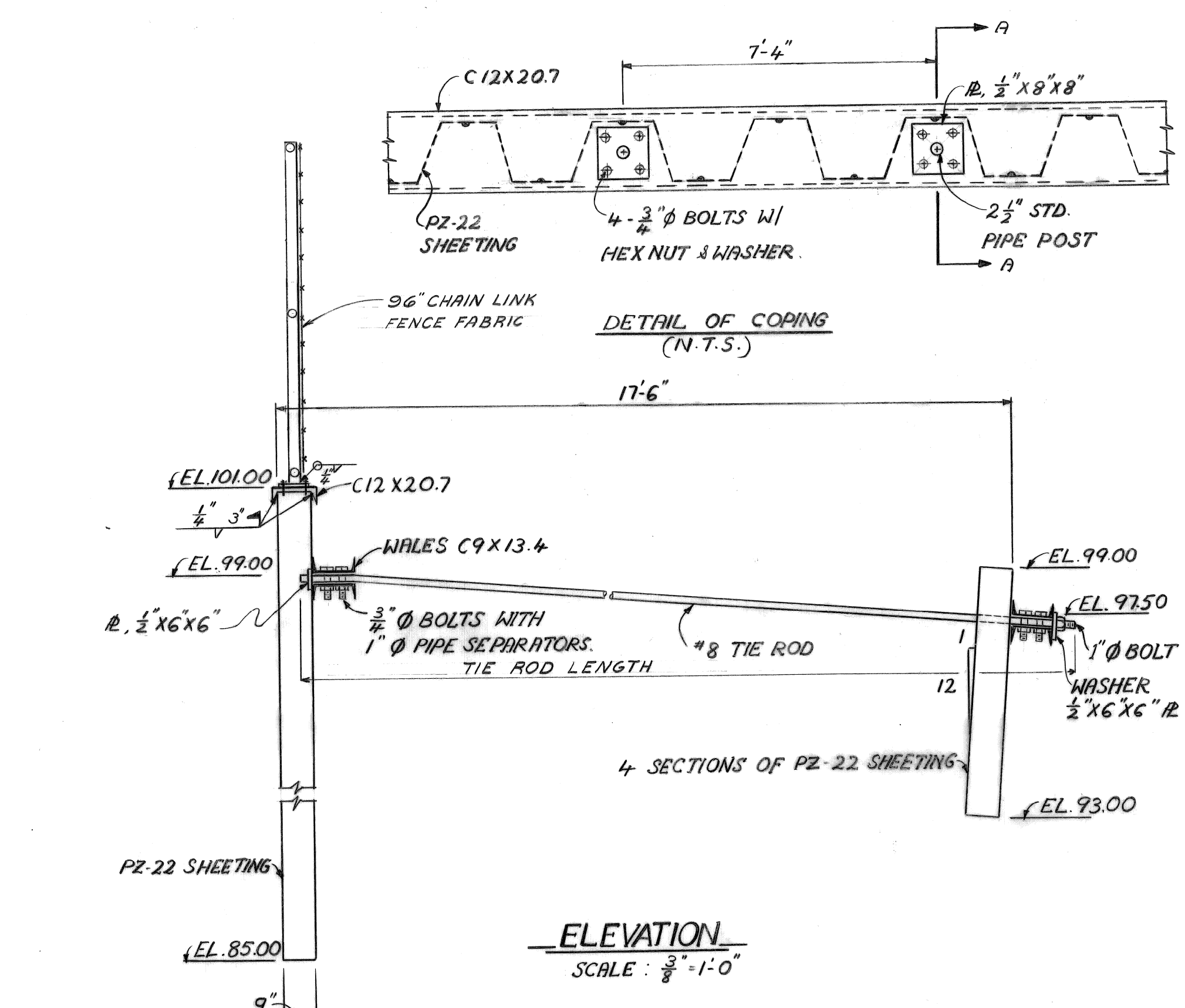
DRAWN C.E.A.	PLAN PREPARED BY CONSULTING ENGINEERING ASSOCIATES INC. ENGINEERING CONSULTANTS	FILE NO. C.E.A. 1151	DATE MAY 88
CHECKED	16580 WYOMING DETROIT, MICH. 48221	DRWG. NO. 4 OF 11	DATE MAY 88
APPROVED			

PUBLIC LIGHTING
DEPARTMENT
CITY OF DETROIT

FILE NO.
49-0609
SHEET NO.
4 OF 11
DATE
MAY 88



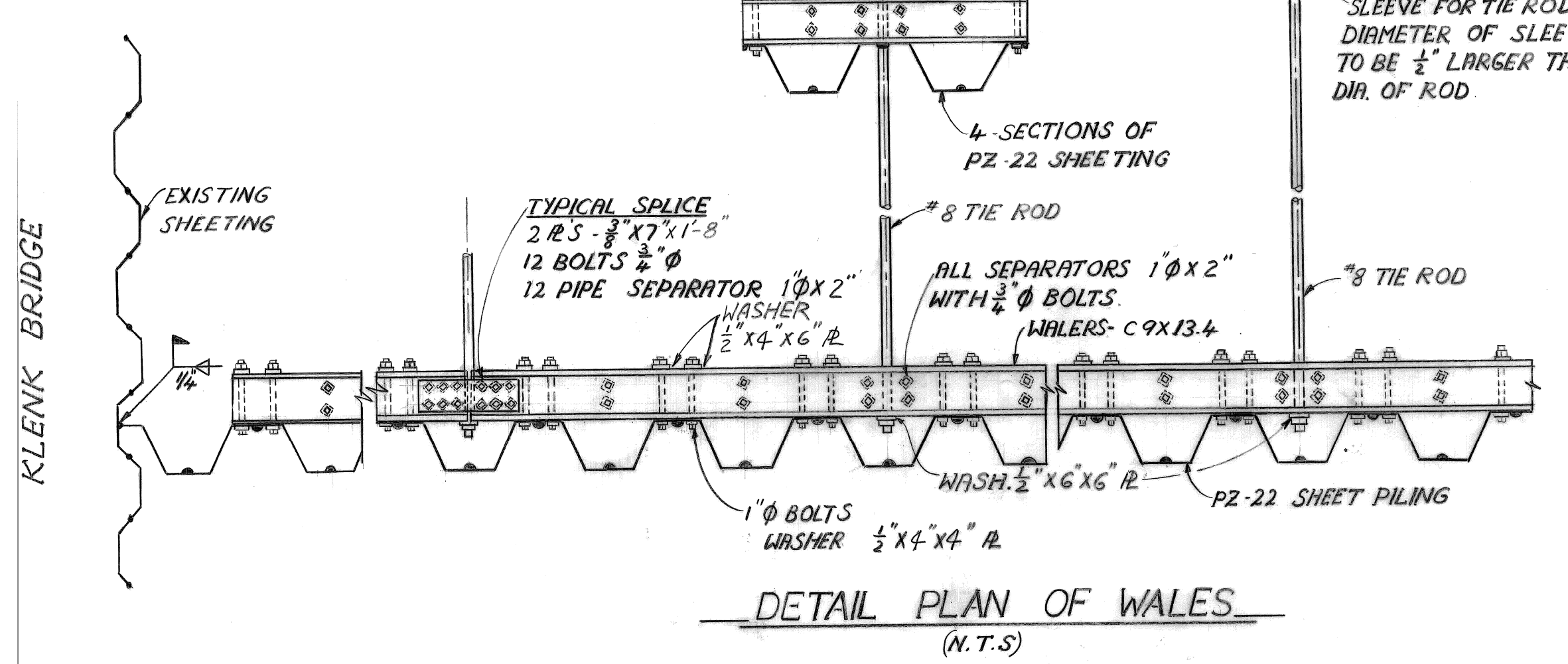
NOTES
 ALL STRUCTURAL STEEL IS TO BE A.S.T.M. A36
 BOLTS SHALL BE A.S.T.M. A307
 STEEL SHEET PILING IS TO BE A.S.T.M. A328
 PILING CHANNEL CAP SHALL BE MADE CONTINUOUS BY BUTT WELDING AND MITERING AT CORNERS PROVIDE 1/2" OPEN JOINT AT 50 FT. INTERVALS
 CHANNEL, BOLTS, NUTS AND WASHERS TO BE GALVANIZED.



ELEVATION
 SCALE: 3/8" = 1'-0"

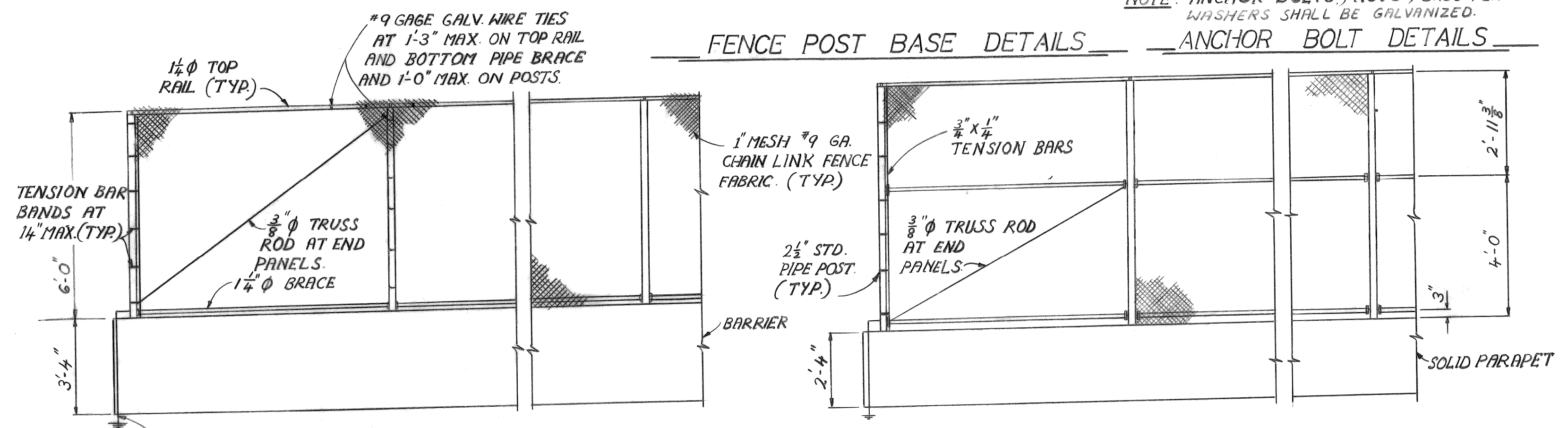
TIE ROD NUMBER	LENGTH (L.P.)
T-1	7'-2"
T-2	11'-3"
T-3	14'-6"
T-4	16'-6"
T-5	17'-9"
T-6	18'-1"
T-7	18'-3"
T-8	18'-6"
T-9	18'-8"
T-10	18'-11"
T-11	19'-1"
T-12	19'-4"
T-13	19'-6"
T-14	19'-8"
T-15	19'-11"
T-16 TO T-19	18'-3"
T-20 TO T-26	18'-3"

NOTE FOR ADDITIONAL DETAILS SEE SHEET R-2 & R-3

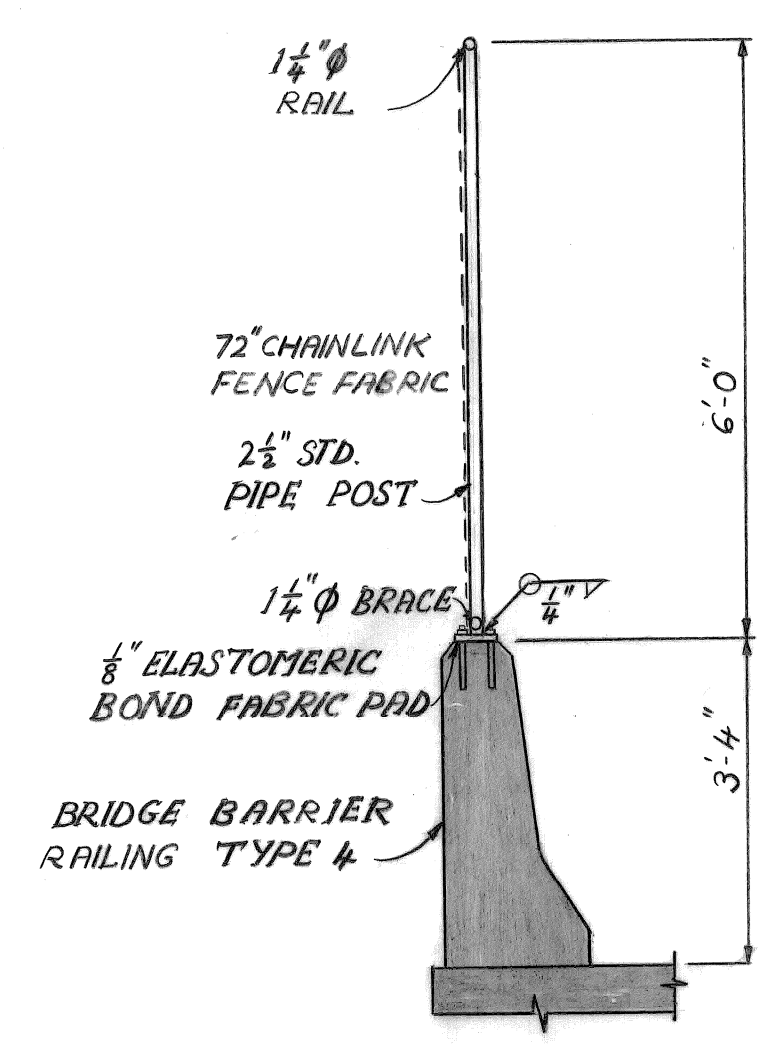


DETAIL PLAN OF WALES
 (N.T.S.)

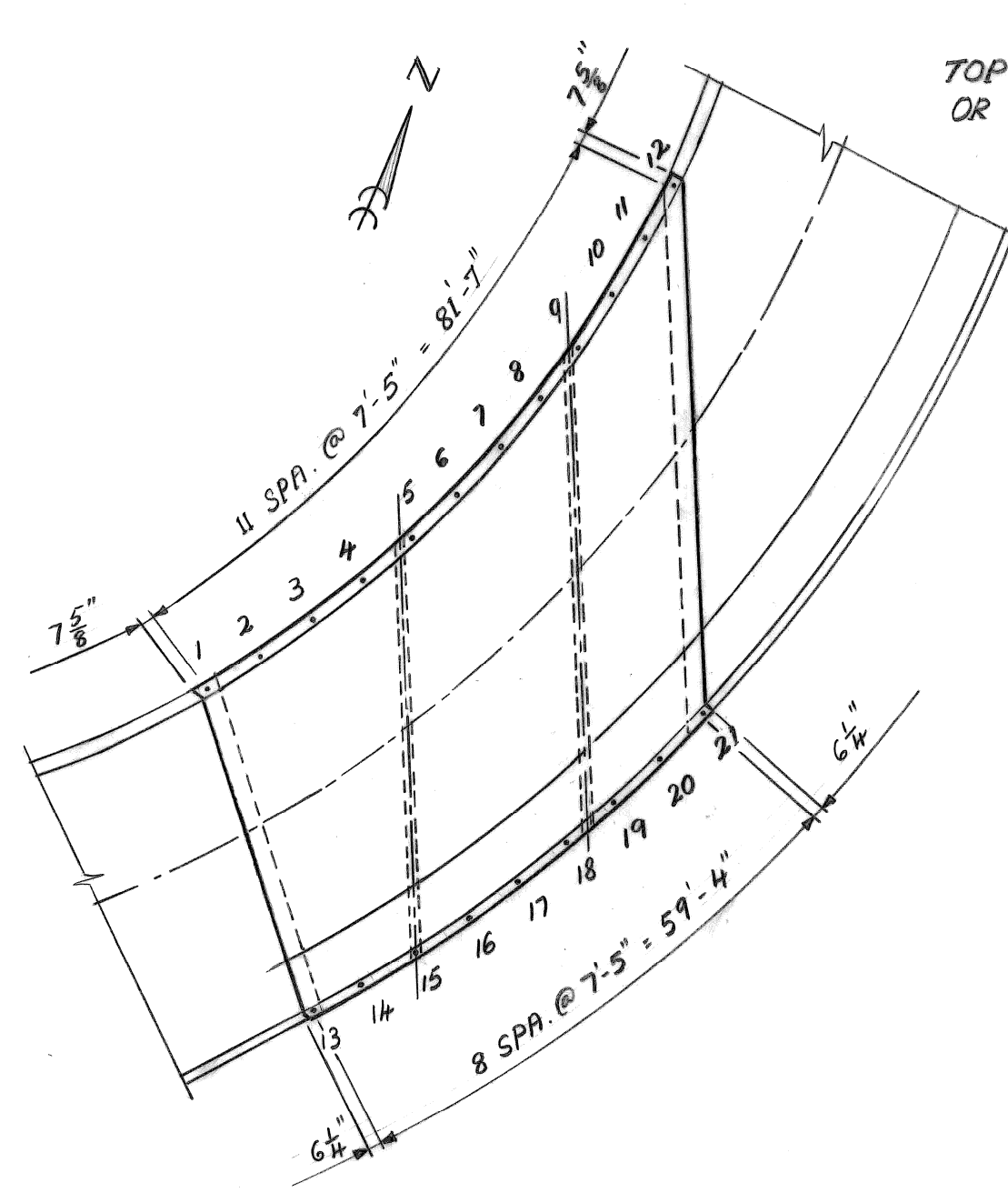
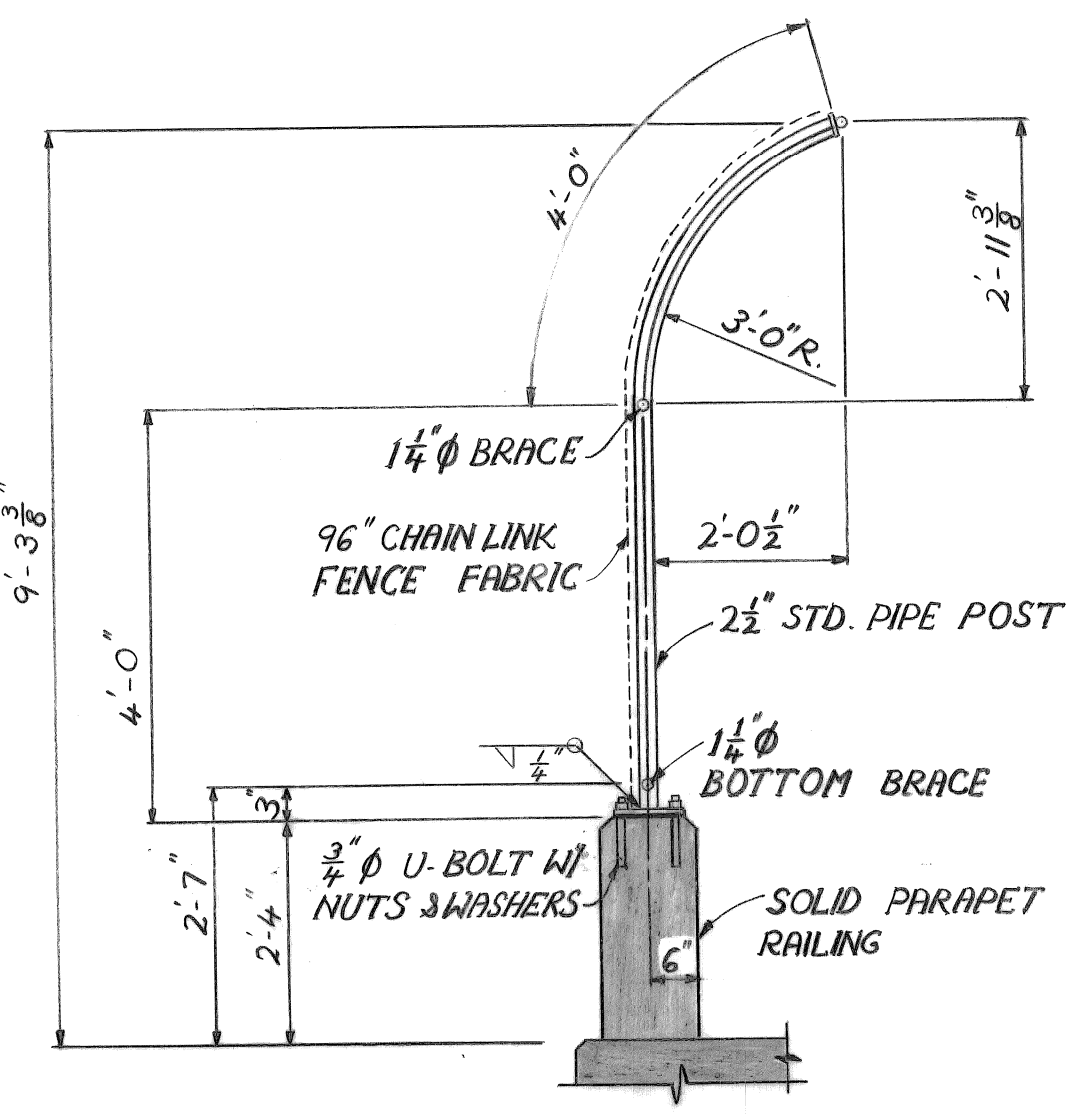
NOTE: PIPE SEPARATORS, PLATES, WASHERS, BOLTS AND NUTS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153-84



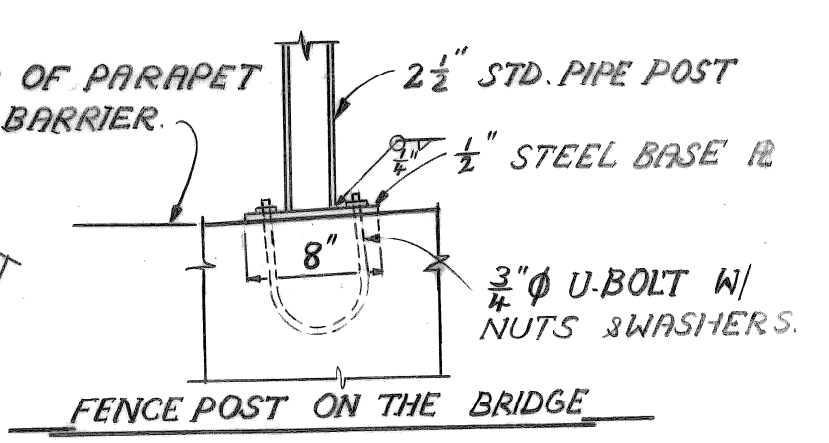
TYPICAL ELEVATION - CHAIN LINK FENCE



TYPICAL POST DETAILS



FENCE POST SPACING



POST NUMBERS	SLOPE
11, 12	0:12
10	1/8:12
7, 8, 9	1/4:12
4, 5, 6, 19, 20, 21	3/8:12
1, 2, 3, 16, 17, 18	1/2:12
13, 14, 15	5/8:12

NOTES
 ALL FABRIC FOR CHAIN LINK FENCE SHALL BE FURNISHED WITH KNUCKLING AT BOTH SELVAGES.
 ALL POSTS SHALL BE 2 1/8" O.D. PIPE OR TUBE WEIGHING 5.79 LBS. PER FT.
 ALL POSTS AND ALL OTHER COMPONENTS ARE TO BE GALVANIZED IN ACCORDANCE WITH ASTM A123, ASTM A153 RESPECTIVELY.

FABRIC FASTENERS SHALL BE DOUBLE-TWISTED, 9 GAUGE, GALVANIZED STEEL.

SEE SPECIAL PROVISION FOR ELECTRICAL GROUNDING SYSTEM.

ALL POSTS AND TUBING SHALL BE FURNISHED WITH SUITABLE CONNECTIONS AND POSTS SHALL BE BENT IN THE SHOP AS SHOWN ON THE PLAN.

SEE SPECIAL PROVISION FOR PEDESTRIAN FENCING STRUCTURES

STEEL FOR POSTS SHALL CONFORM TO ASTM A153

PAY QUANTITIES		
ITEM	UNIT	AMOUNT
PERMANENT STEEL SHEET PILING	S. F.	8323
TIE ROD	L.F.	26
STRUCTURAL STEEL FURNISHING & FABRICATION (ROLLED)	LBS.	18941
STRUCTURAL STEEL ERECTION (ROLLED)	LBS.	18941
CHAIN LINK FENCE (SPECIAL)	L. F.	295

NO.	DATE	BY	REVISIONS

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 drawn by J.K.
 checked by
 approved:

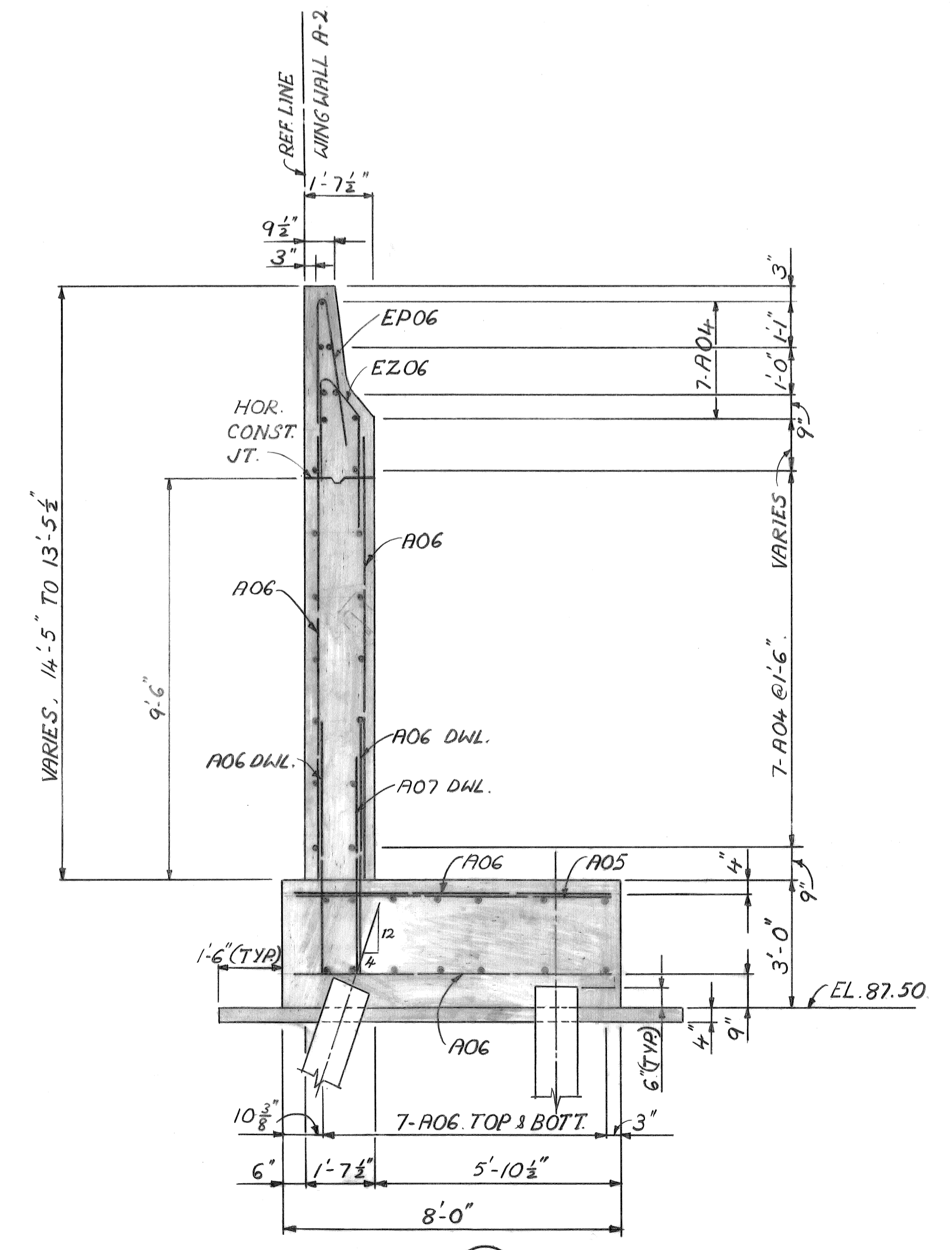
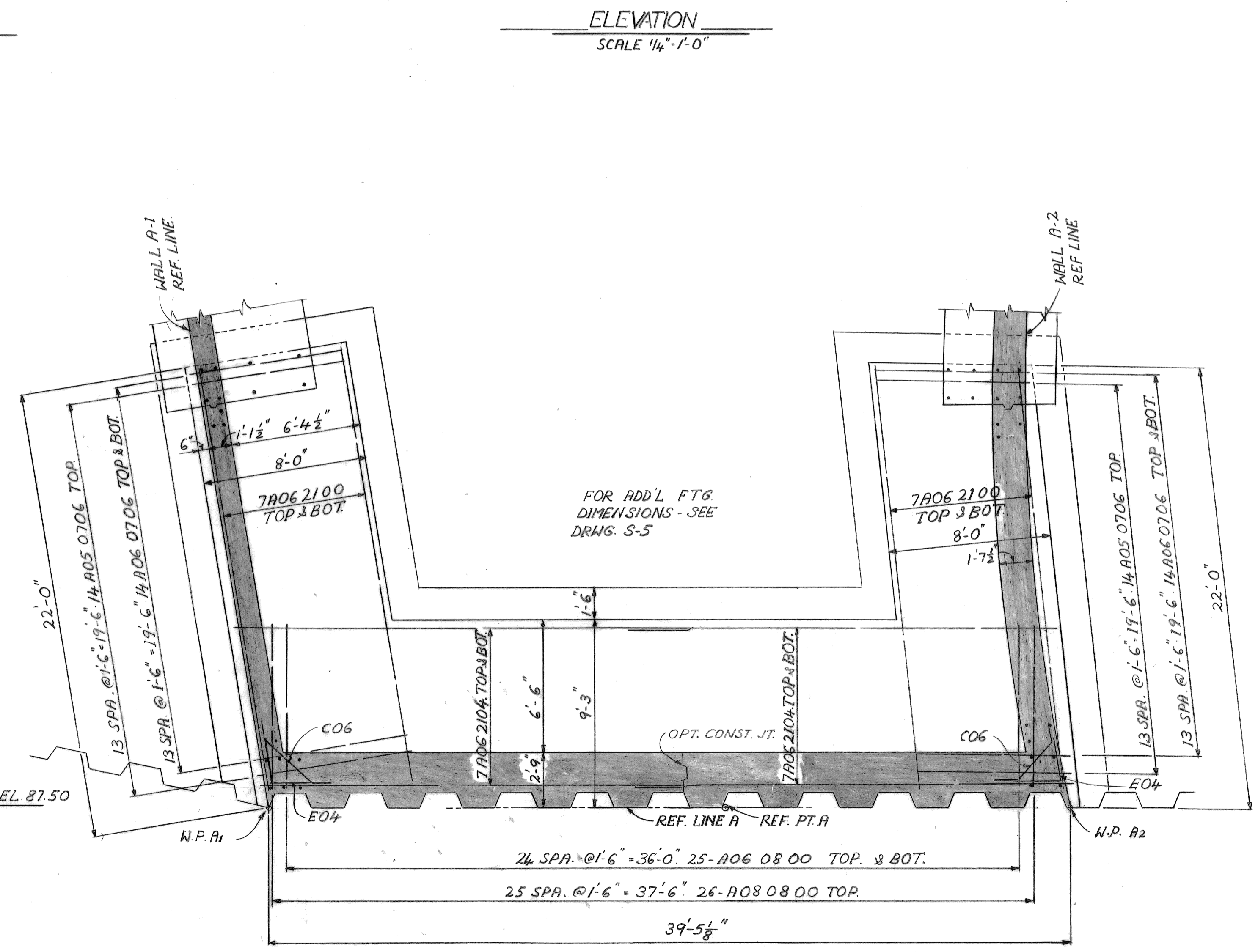
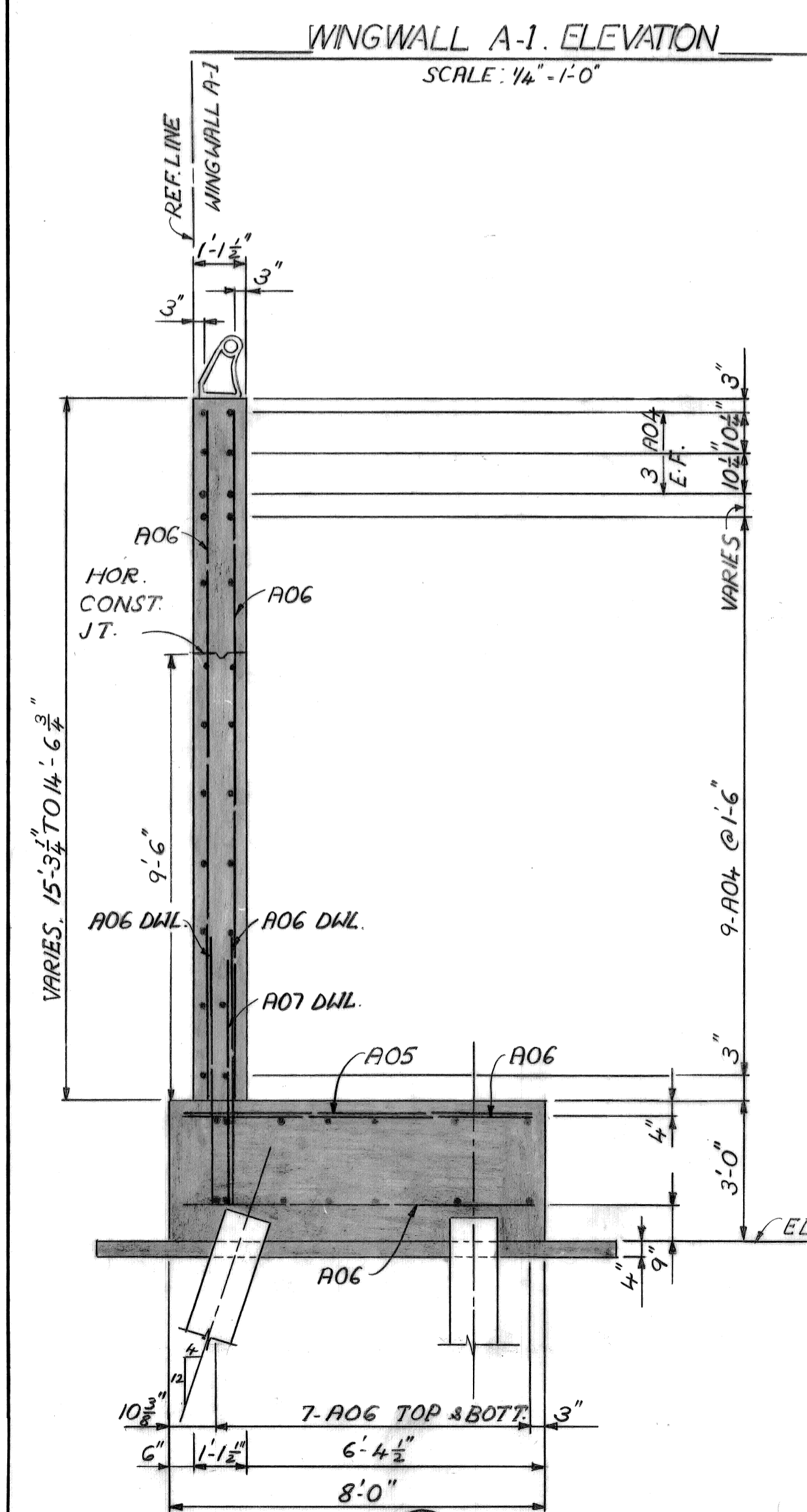
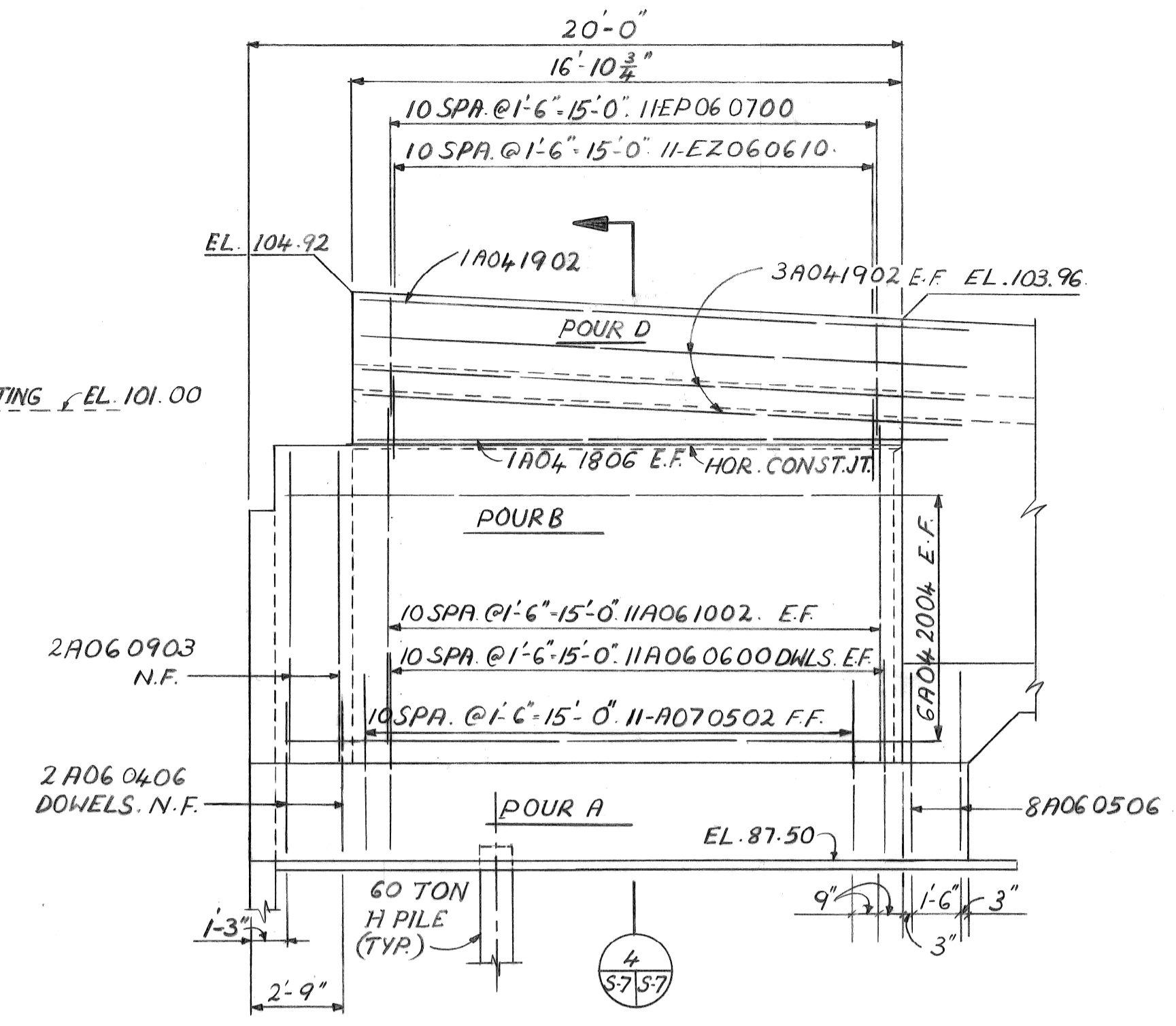
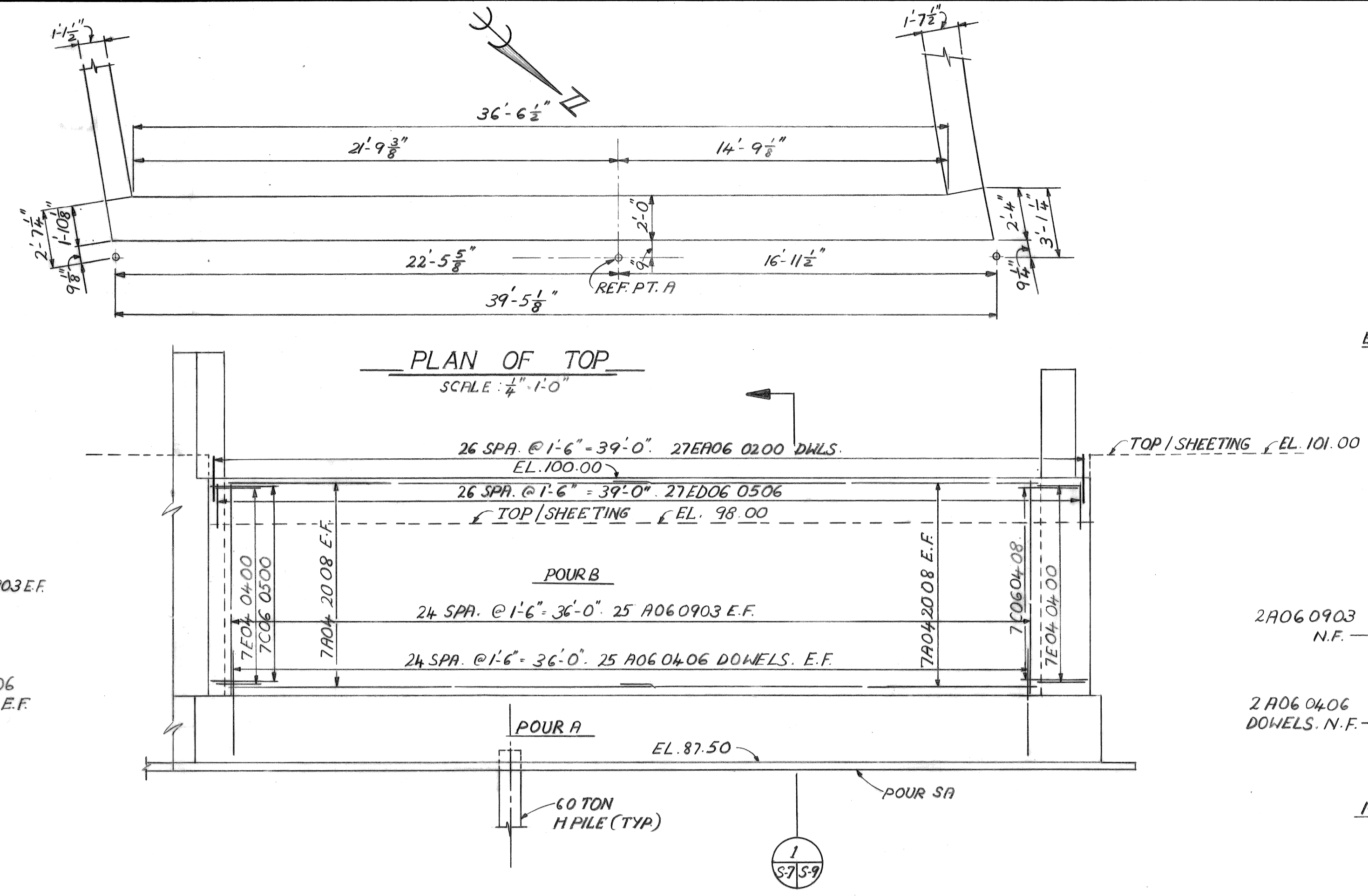
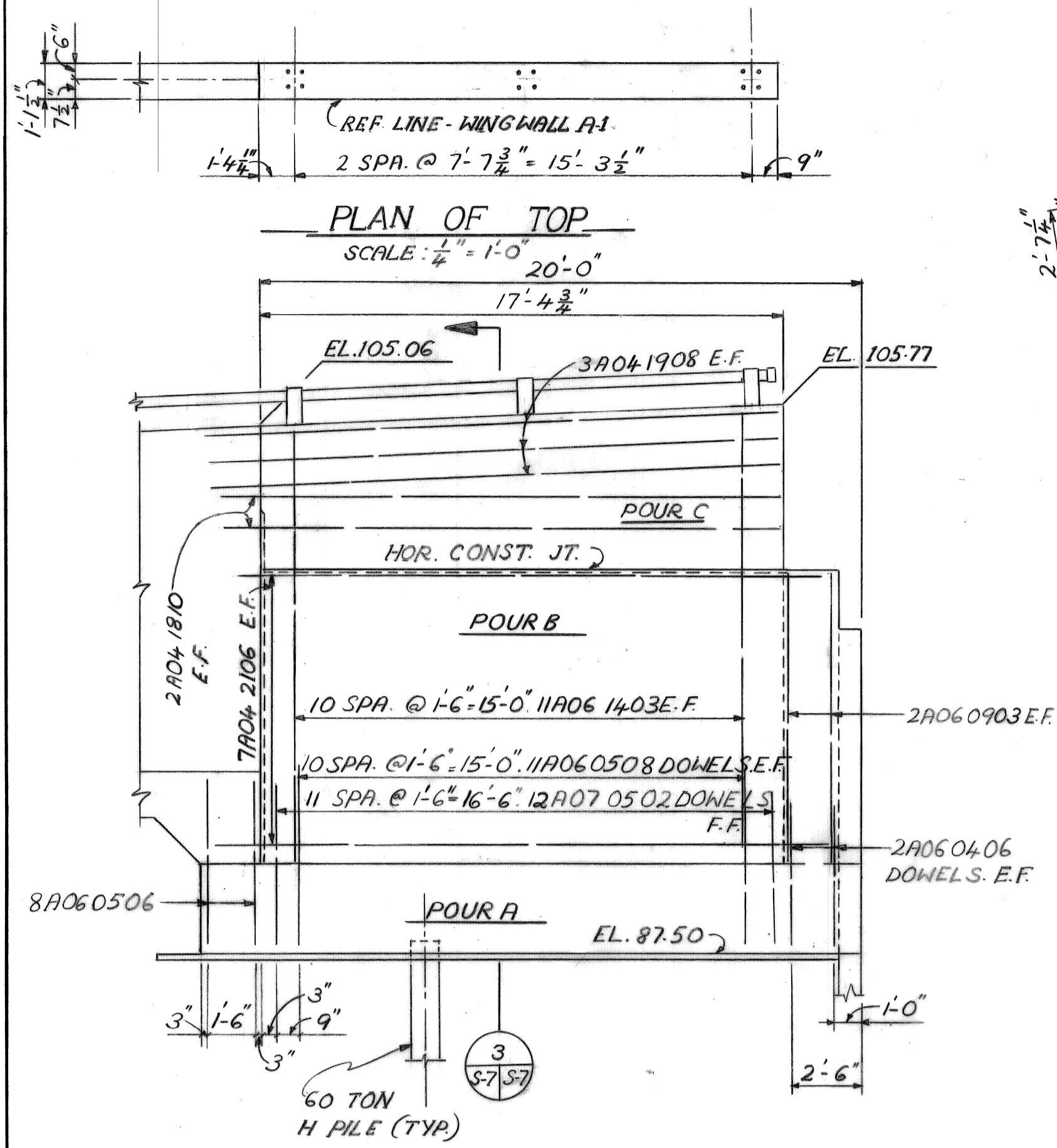
CITY OF DETROIT
 city engineering department
 for DEPARTMENT OF PUBLIC WORKS

BRIDGE RECONSTRUCTION

RIVERSIDE AVENUE OVER FOX CREEK BN-246

SHEET PILING, FENCING, AND TIE BACK DETAILS

a.o.
 contract no.
 sheet of drawing no. 5-6
 date NOV 89



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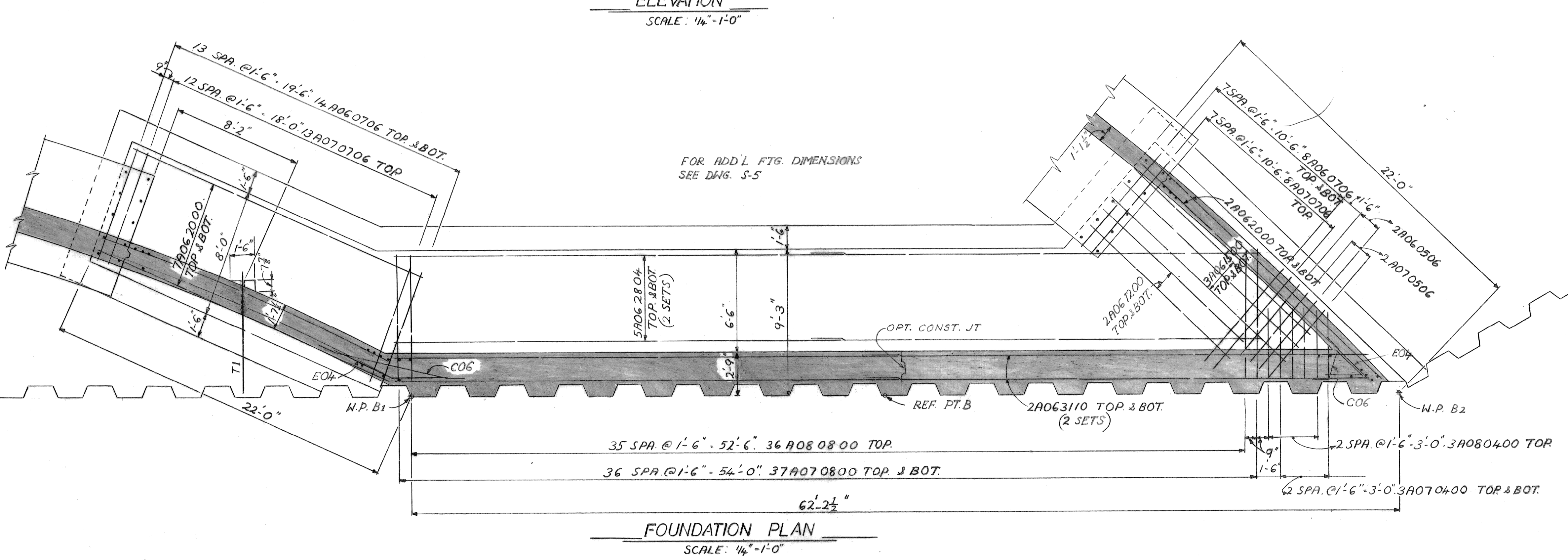
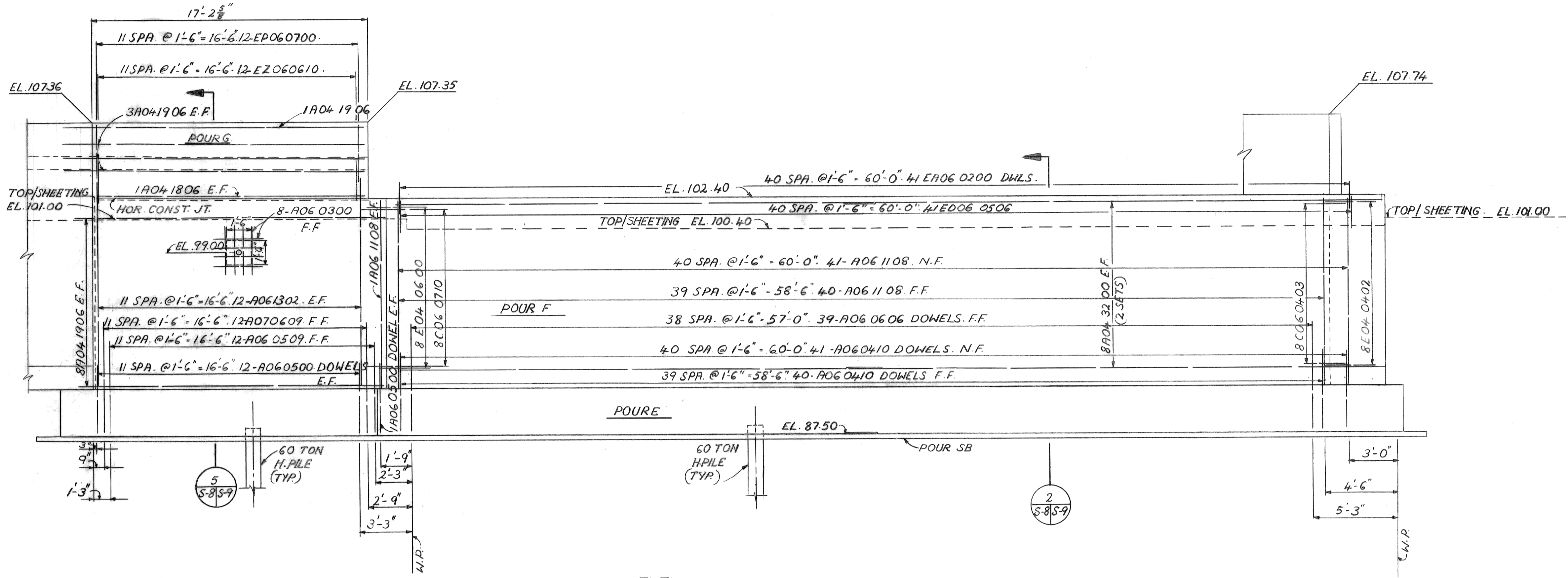
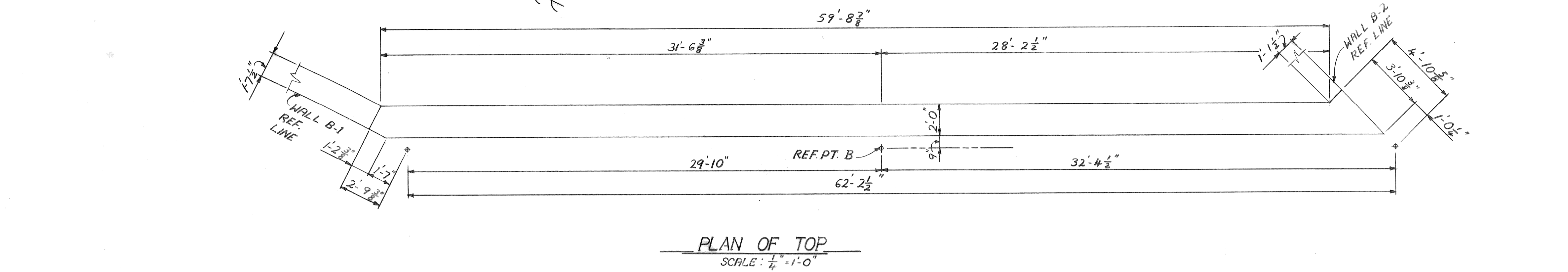
BRIDGE RECONSTRUCTION

RIVERSIDE AVENUE OVER FOX CREEK BW-246

ABUTMENT A; WINGWALLS A-1 & A-2

a.o. contract no.
 sheet of drawing no. S-7
 date NOV.89

PAY QUANTITIES		
PAY ITEM	UNIT	QUANTITY
JOINT WATER PROOFING	S. F.	270
SUBSTRUCTURE CONCRETE	C. Y.	651.5
PENETRATING CONCRETE SEALER FOR CONCRETE SURFACES	S. F.	748
CONCRETE GRADE 355-SUBFOOTING	C. Y.	20.7



SUBSTRUCTURE CONCRETE POUR QUANTITIES			
POUR	CY	POUR	CY
A	63.2	Y	9.3
B	48.4	Z	8.0
C	3.9	AA	3.9
D	3.4	AB	11.8
E	79.8	AC	13.5
F	84.6	AD	10.2
G	4.0	AE	11.1
H	3.5	AF	14.0
J	11.2	AG	12.0
K	11.2	AH	11.9
L	7.7	AJ	12.5
M	12.2	AK	11.6
N	2.9	AL	5.5
P	3.5	AM	10.9
Q	9.9	AN	7.3
R	17.1	AP	10.5
S	8.2	AQ	20.0
T	13.5	AR	9.4
U	12.6	AS	8.3
V	11.5	AT	4.0
W	10.5	AW	7.2
X	10.7	AX	5.1

TOTAL SUBSTRUCTURE CONCRETE QUANTITY = 651.5 CYD.

SA	9.3	SB	11.4
----	-----	----	------

TOTAL CONCRETE GRADE 355 - SUBFOOTING = 20.7 CU. YD.

NO.	DATE	BY	REVISIONS

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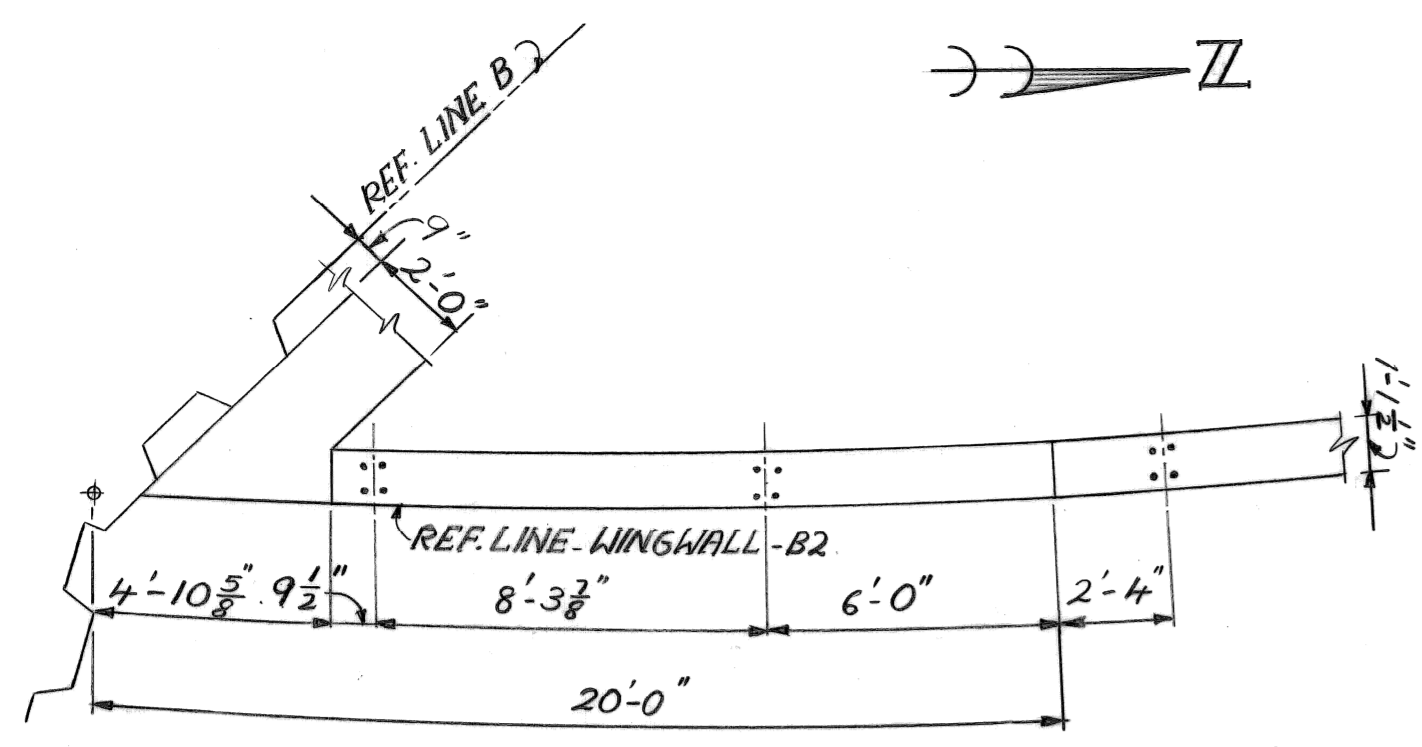
CITY OF DETROIT
 city engineering department
 for DEPARTMENT OF PUBLIC WORKS

BRIDGE RECONSTRUCTION

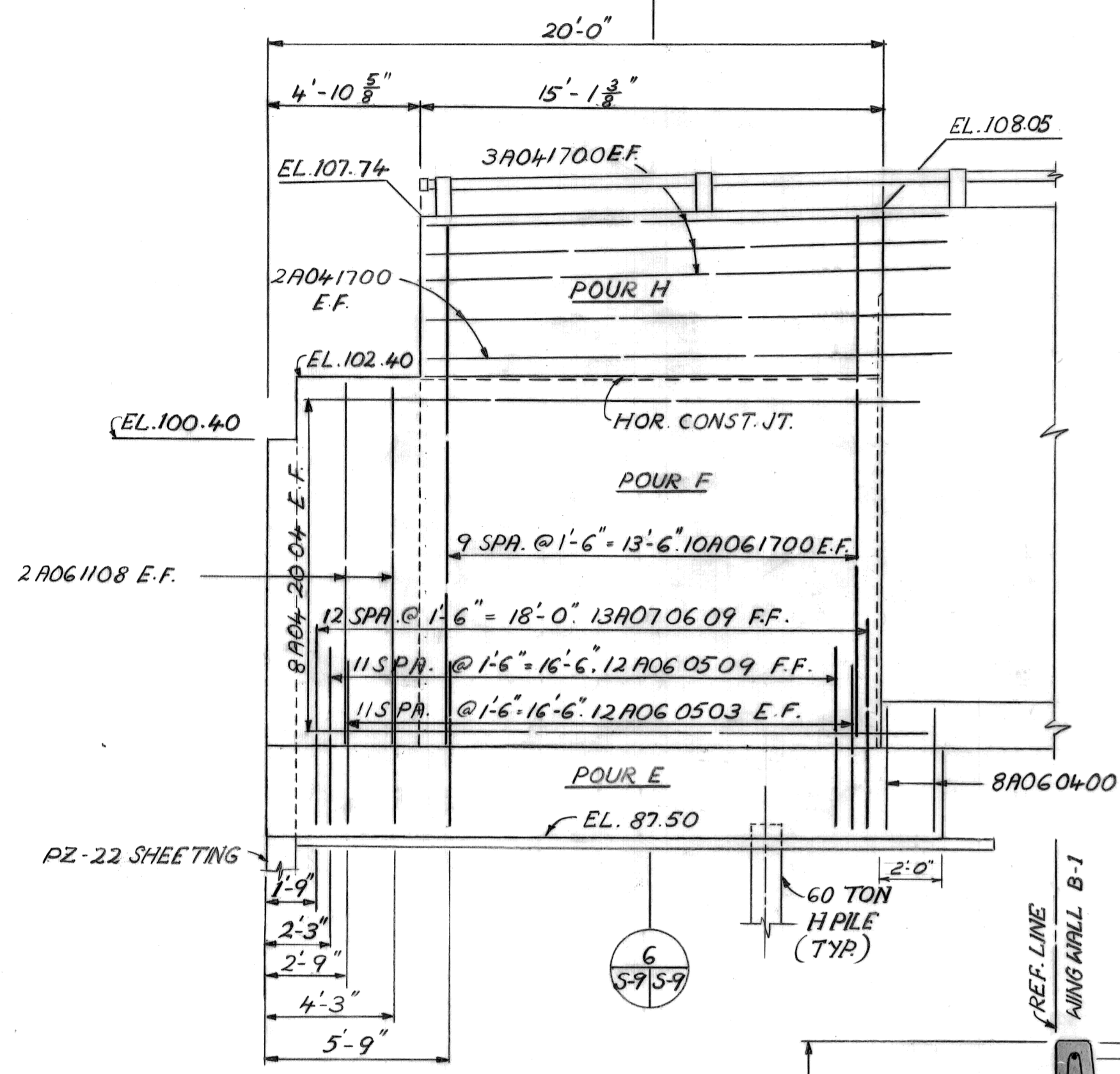
RIVERSIDE AVENUE OVER FOX CREEK BW-24G

ABUTMENT B; WINGWALL B1; QUANTITIES

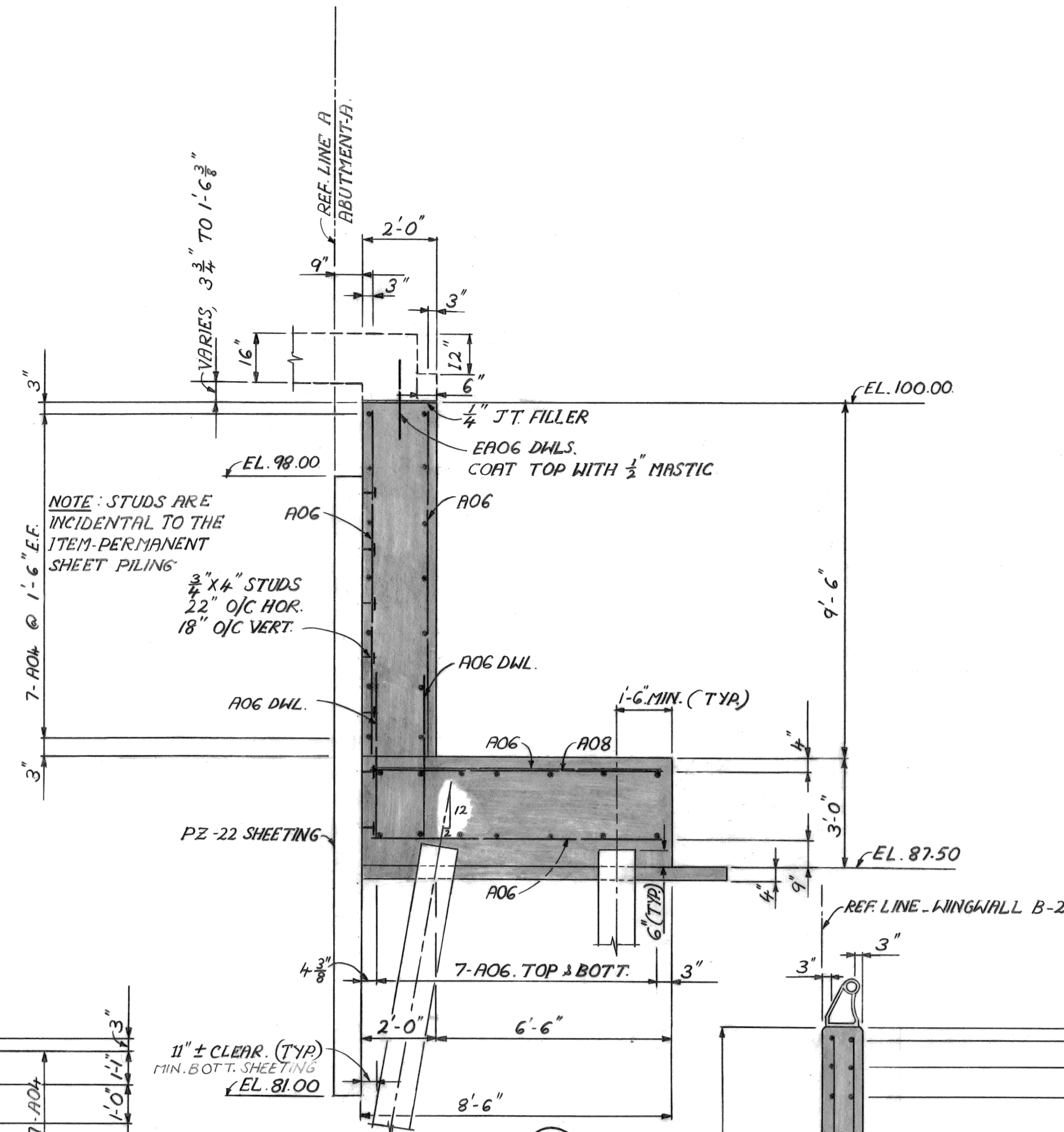
a.o. contract no.
 sheet of drawing no. S-8
 date NOV. 89



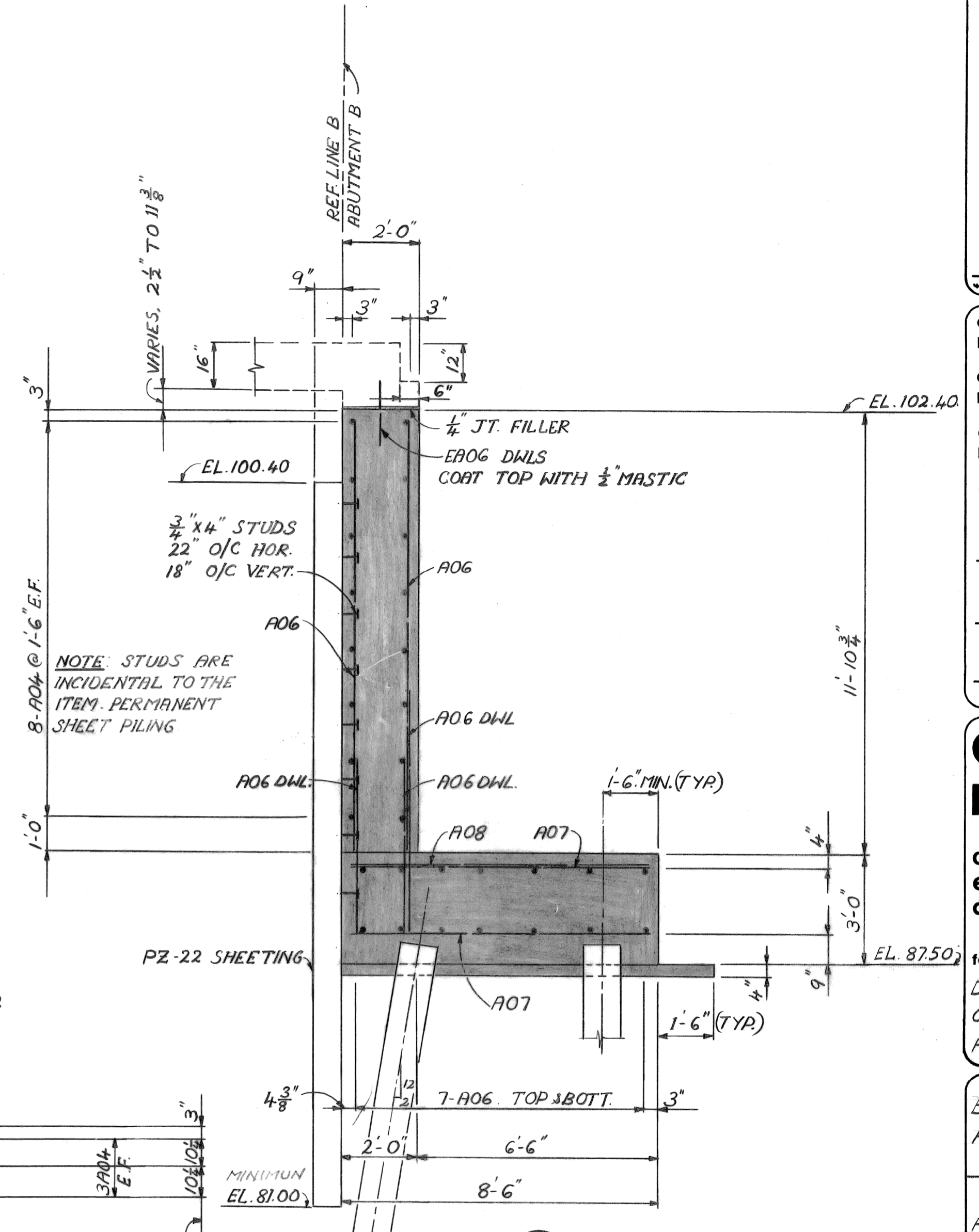
PLAN OF TOP
SCALE: 1/4" = 1'-0"



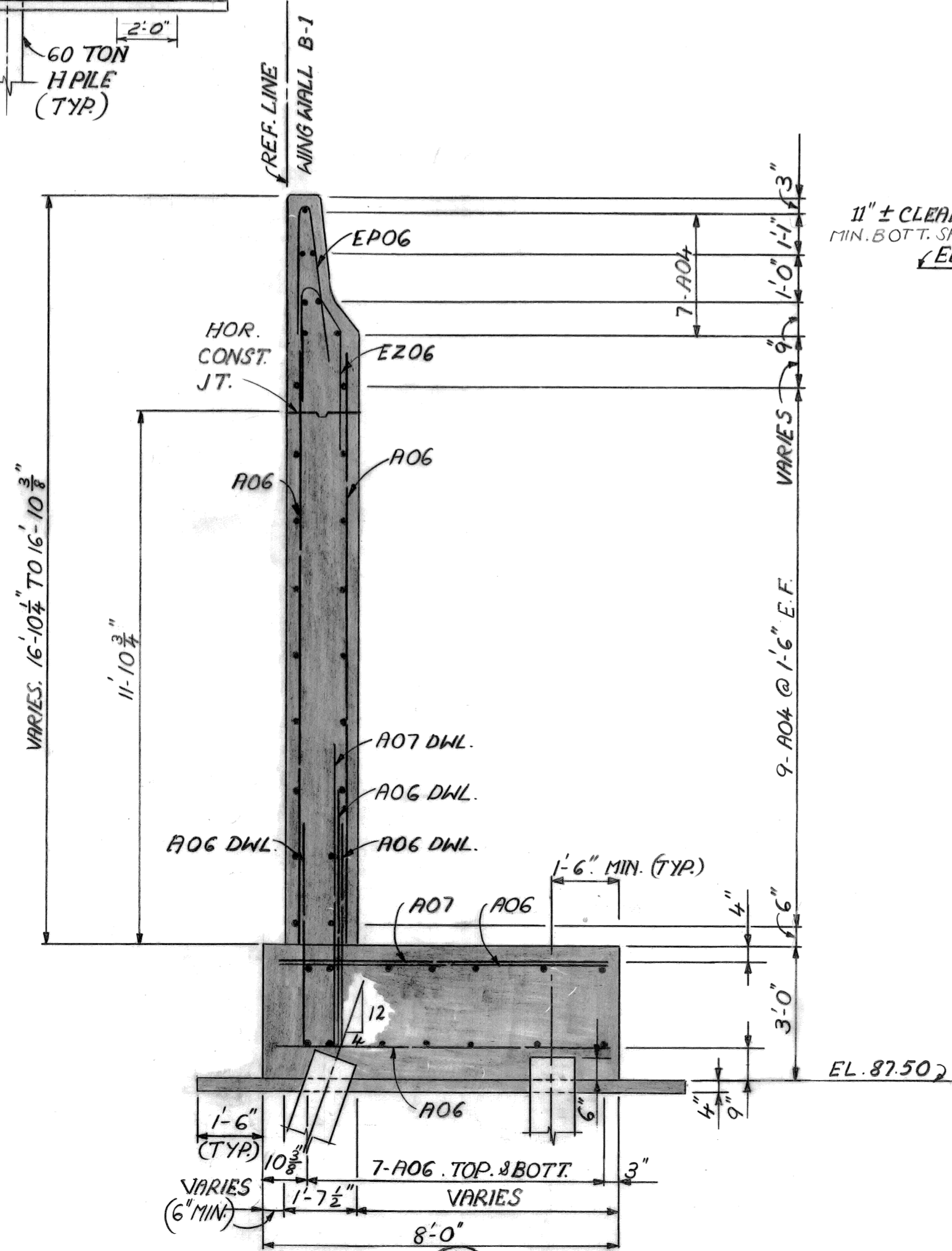
WINGWALL B-2 ELEVATION
SCALE: 1/4" = 1'-0"



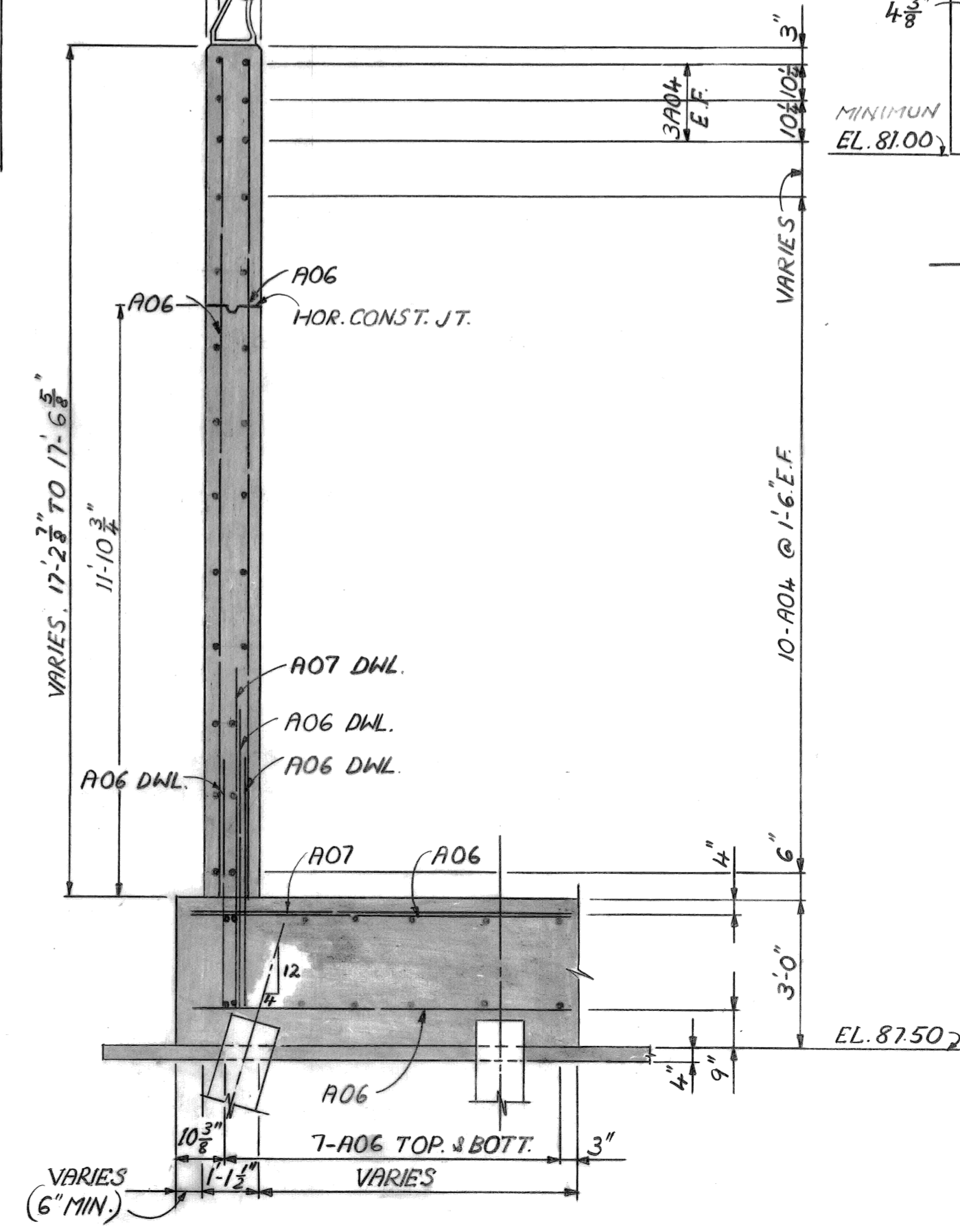
SECTION 1
SCALE: 3/8" = 1'-0"



SECTION 2
SCALE: 3/8" = 1'-0"



SECTION 3
SCALE: 3/8" = 1'-0"



SECTION 4
SCALE: 3/8" = 1'-0"

NO.	DESCRIPTION	DATE

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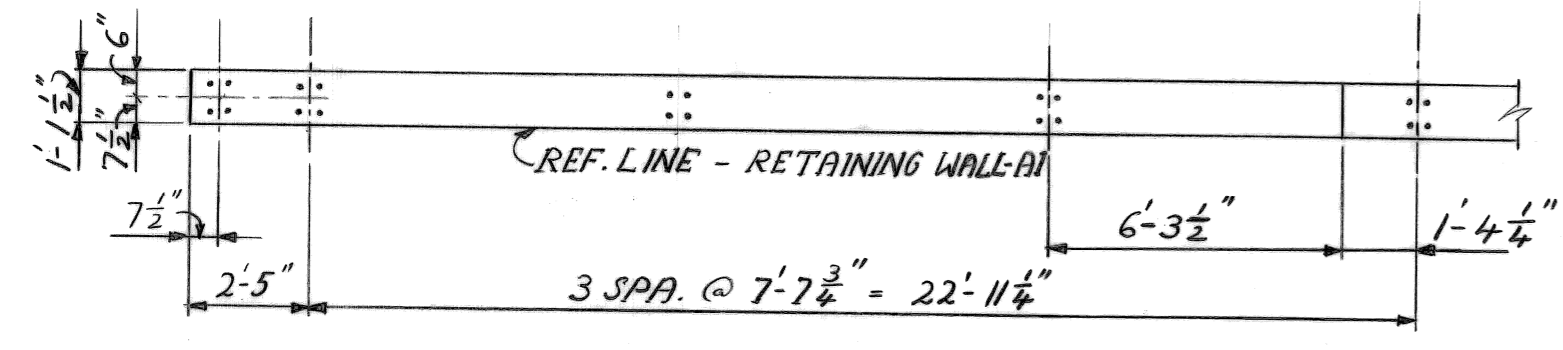
CITY OF DETROIT
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BRIDGE RECONSTRUCTION

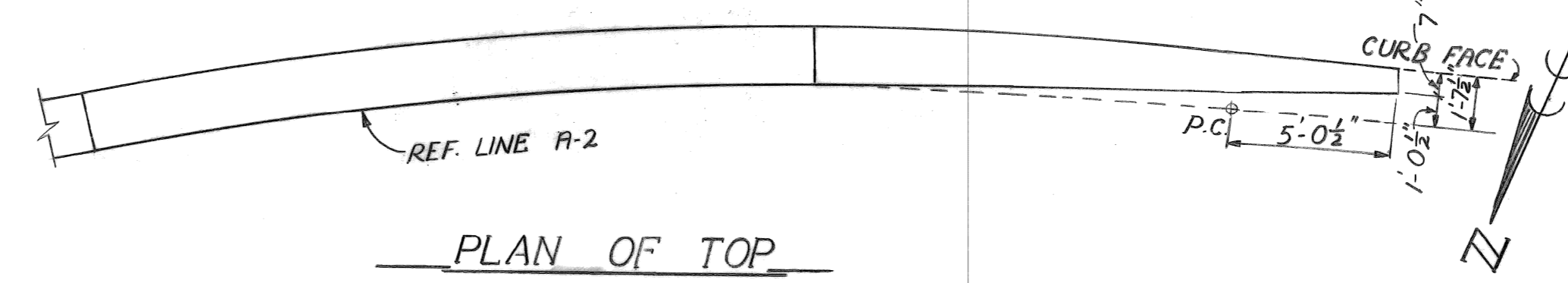
RIVERSIDE AVENUE OVER FOX CREEK BW-246

WINGWALL B-2; ABUTMENT AND WINGWALL SECTIONS

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sheet of drawing no. S-9
date NOV. 89



PLAN OF TOP



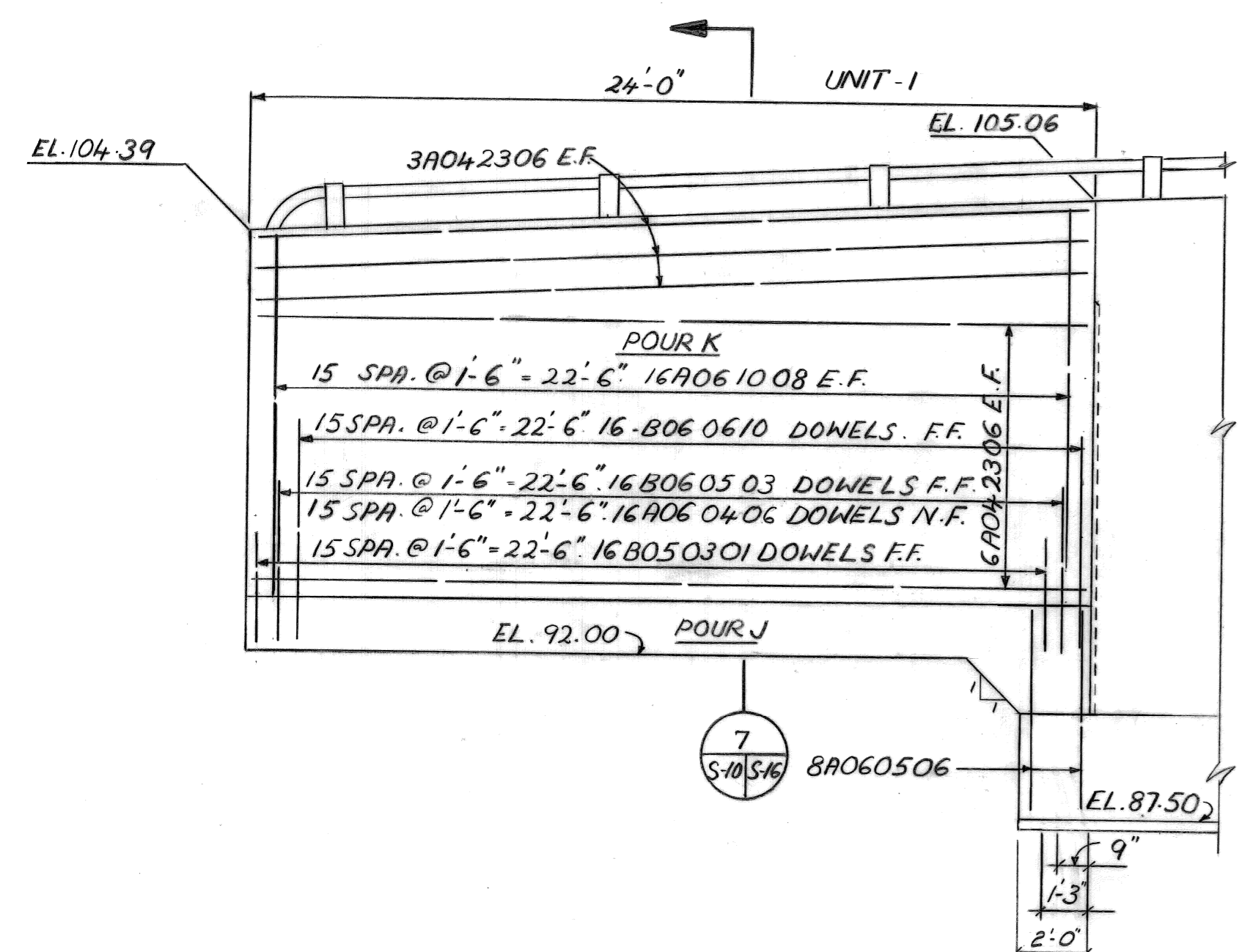
PLAN OF TOP

GENERAL NOTES

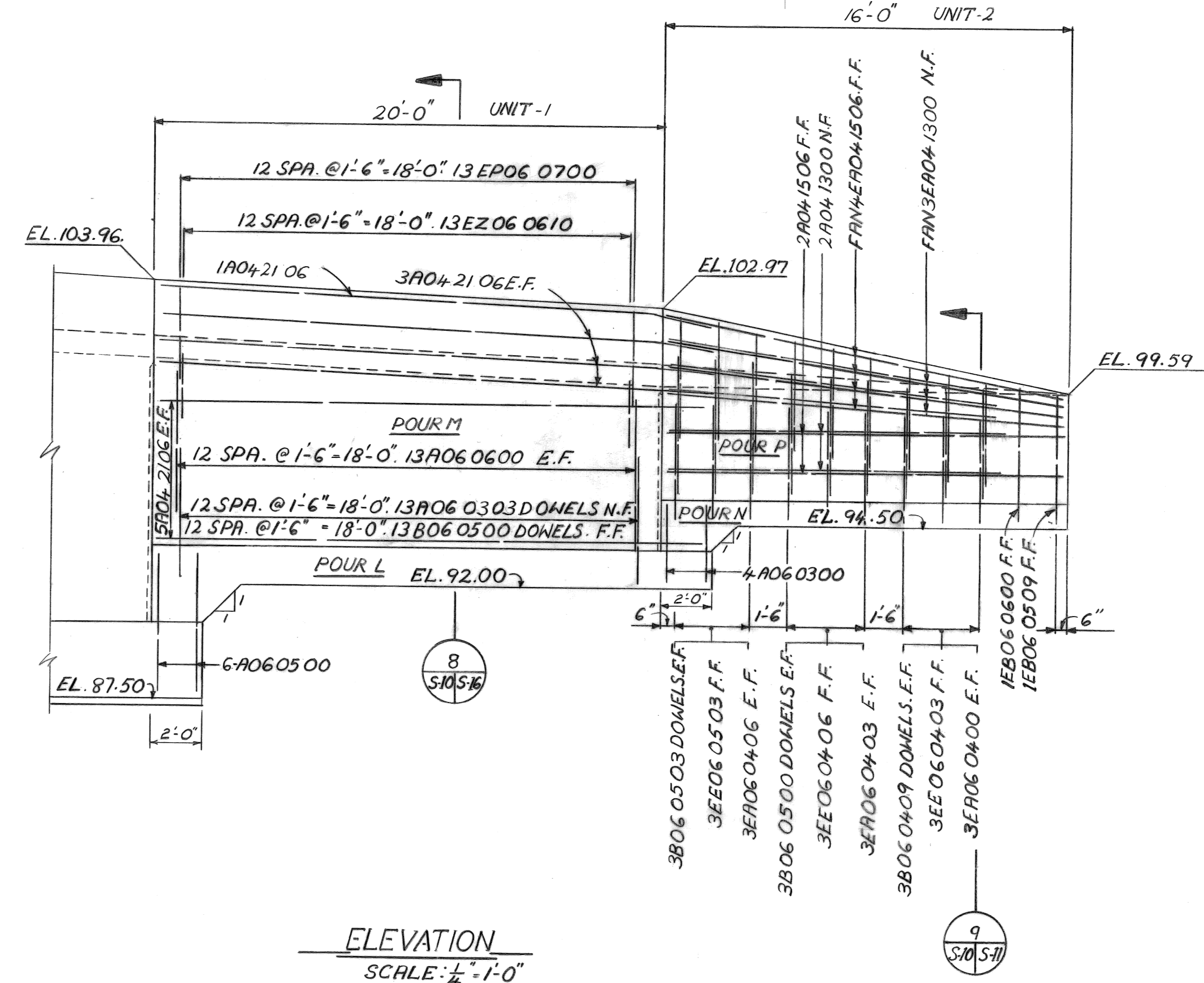
THE EXPOSED FACES OF THE RETAINING WALLS AND ABUTMENT SHALL HAVE SPECIAL ARCHITECTURAL TREATMENT IN ACCORDANCE WITH SECTION 5.03.06 (C) OF THE STANDARD SPECIFICATIONS.

THE SUBSTRUCTURE CONCRETE AND EXCAVATION QUANTITIES TAKE INTO CONSIDERATION THE ADDITIONAL CONCRETE AND EXCAVATION NECESSARY TO POUR AND EXCAVATE TO THE PERMANENT STEEL SHEET PILING.

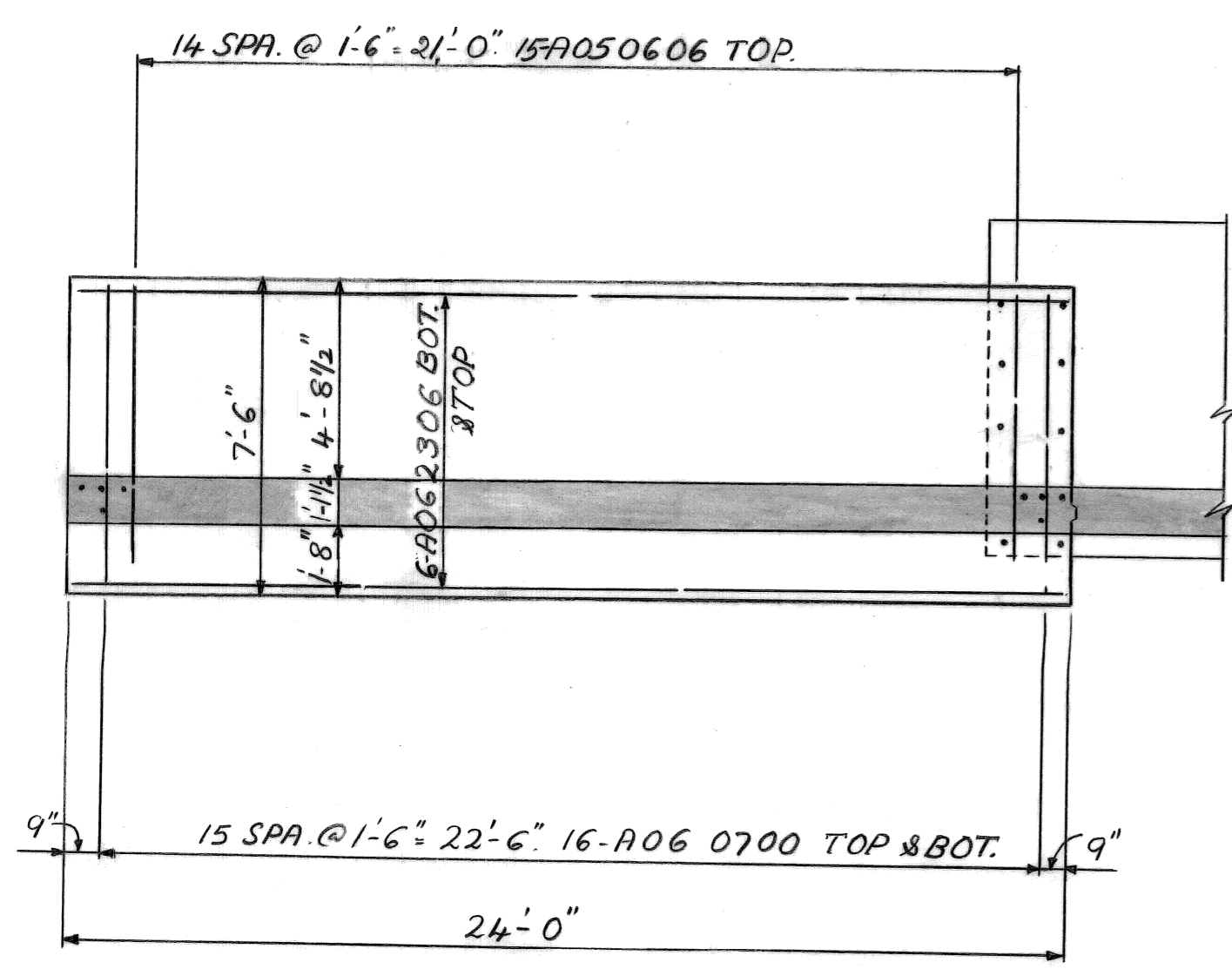
DIMENSIONS GIVEN ARE ALONG THE WALL REFERENCE LINES UNLESS OTHERWISE NOTED.



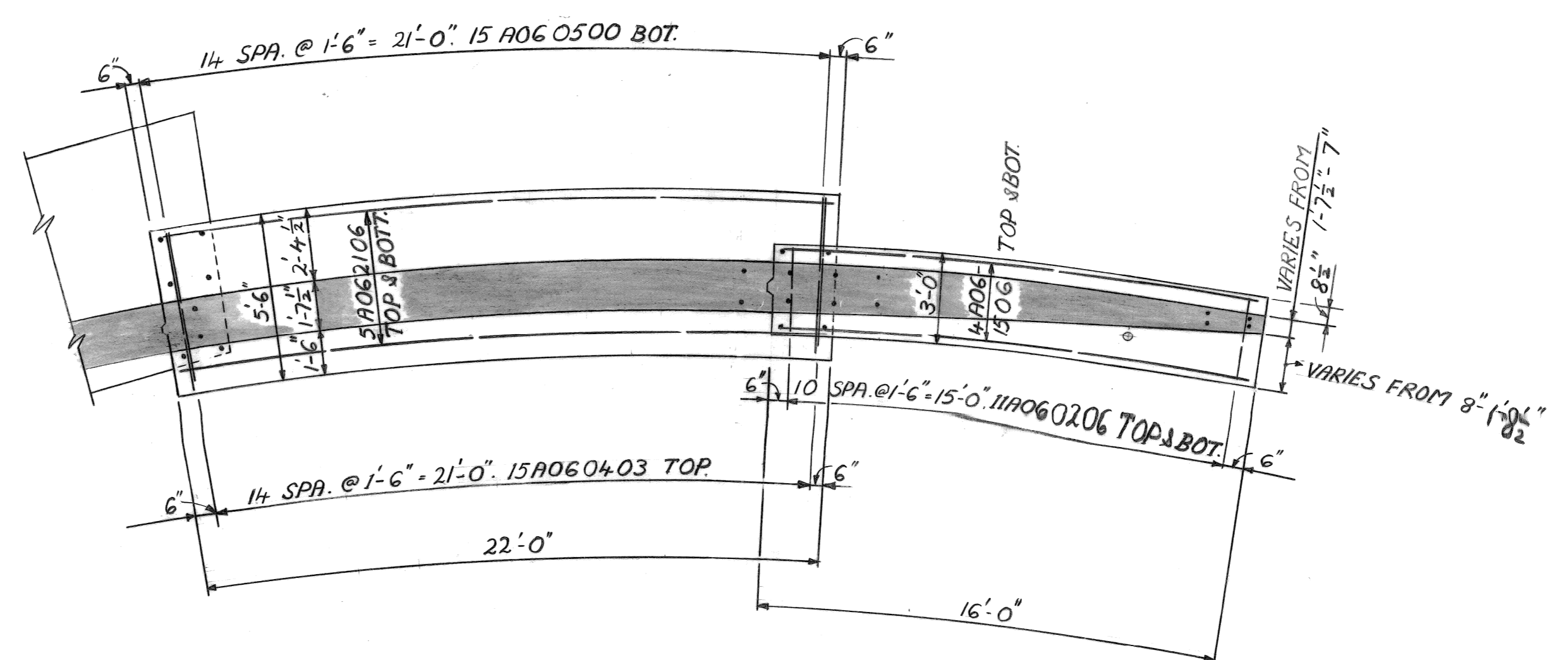
ELEVATION



ELEVATION



RETAININGWALL A-1. FOUNDATION PLAN



RETAININGWALL A-2. FOUNDATION PLAN

NO.	DESCRIPTION	DATE

designed by _____

drawn by J.K.

checked by _____

approved: _____

CITY OF DETROIT

city engineering department

for DEPARTMENT OF PUBLIC WORKS

BRIDGE RECONSTRUCTION

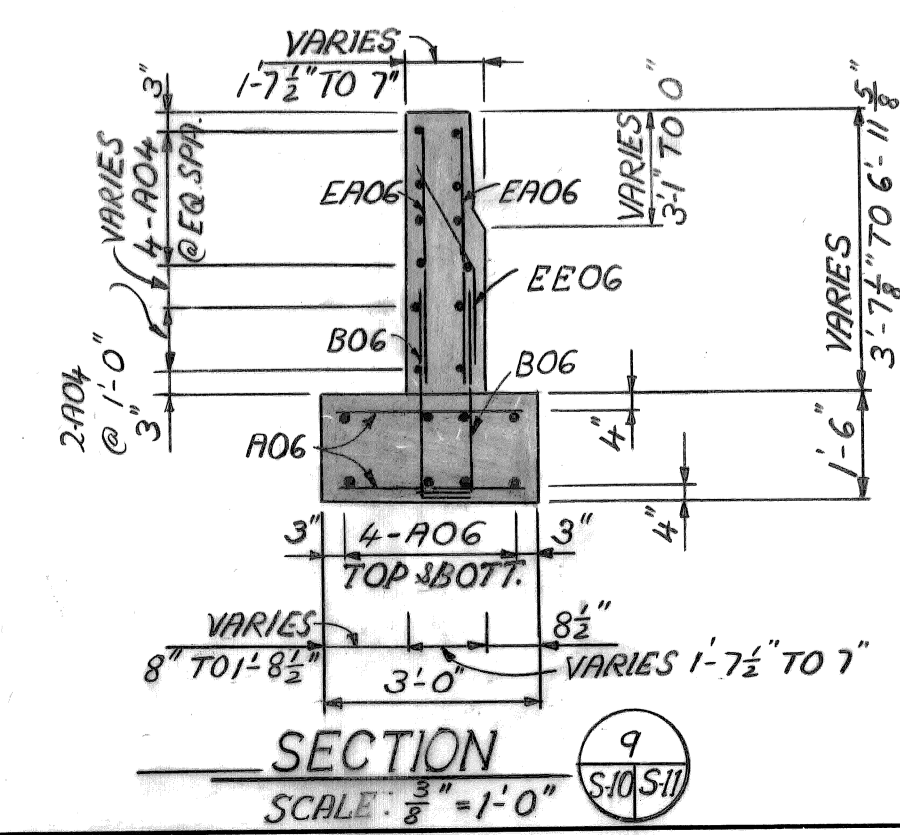
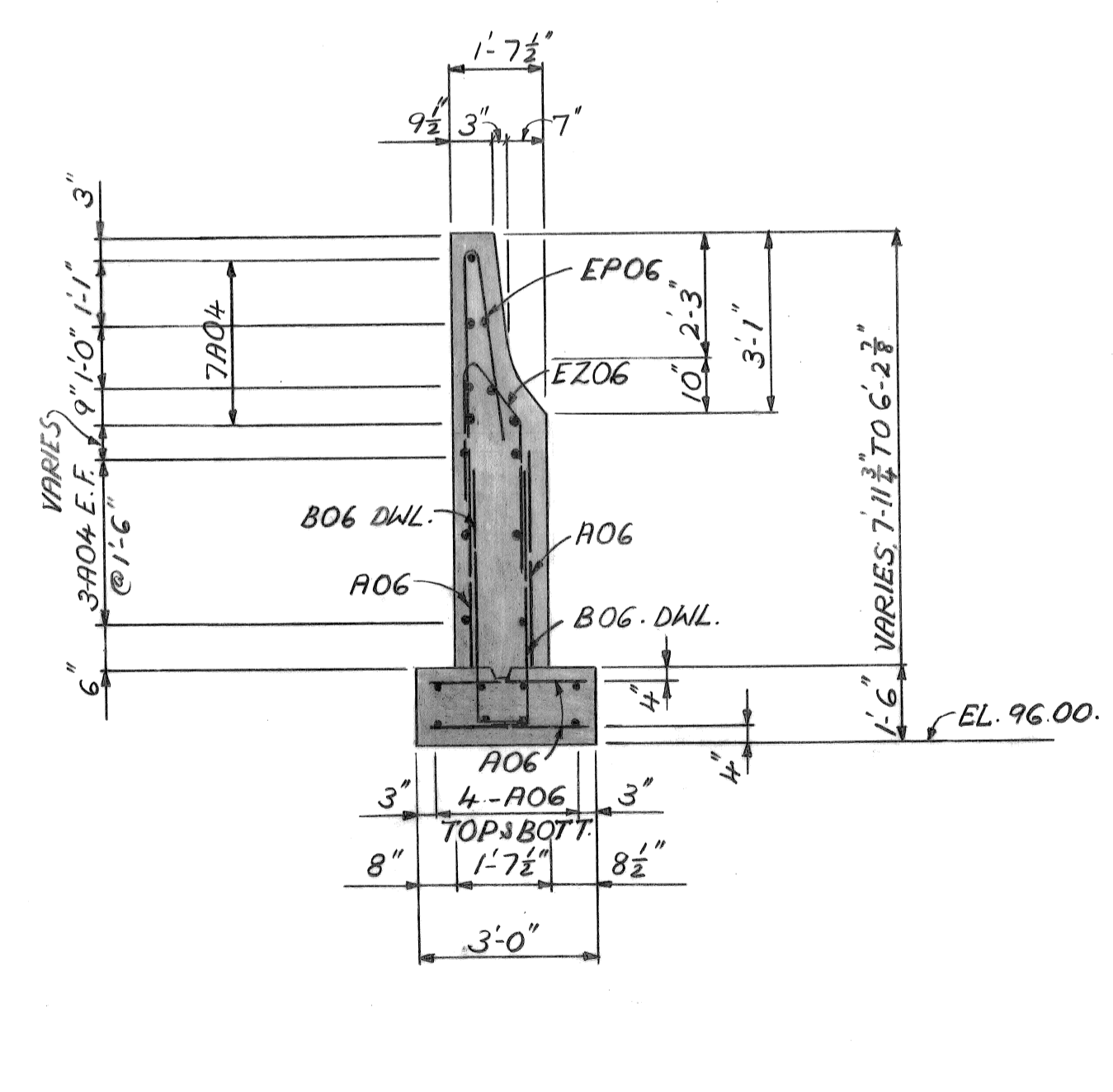
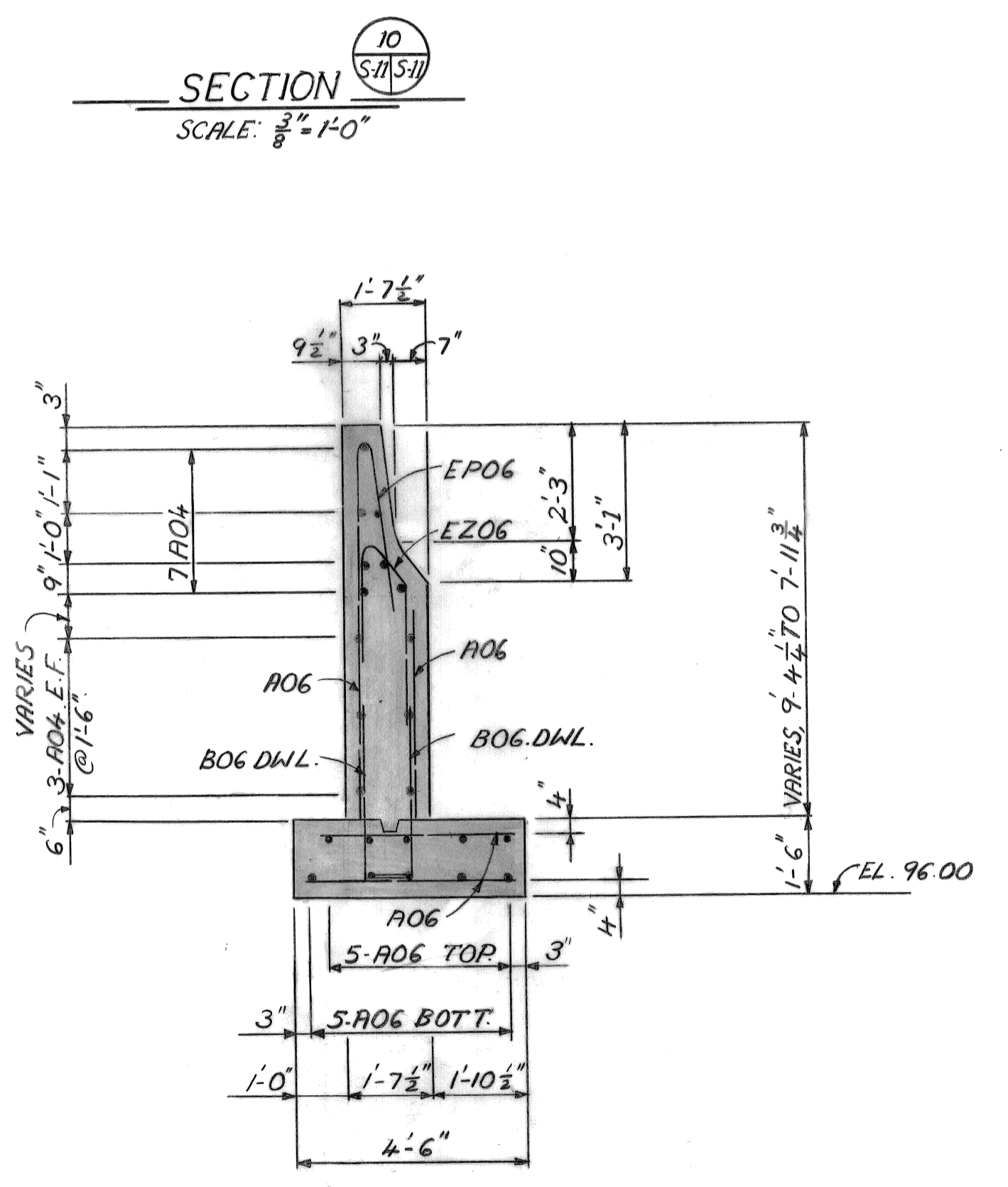
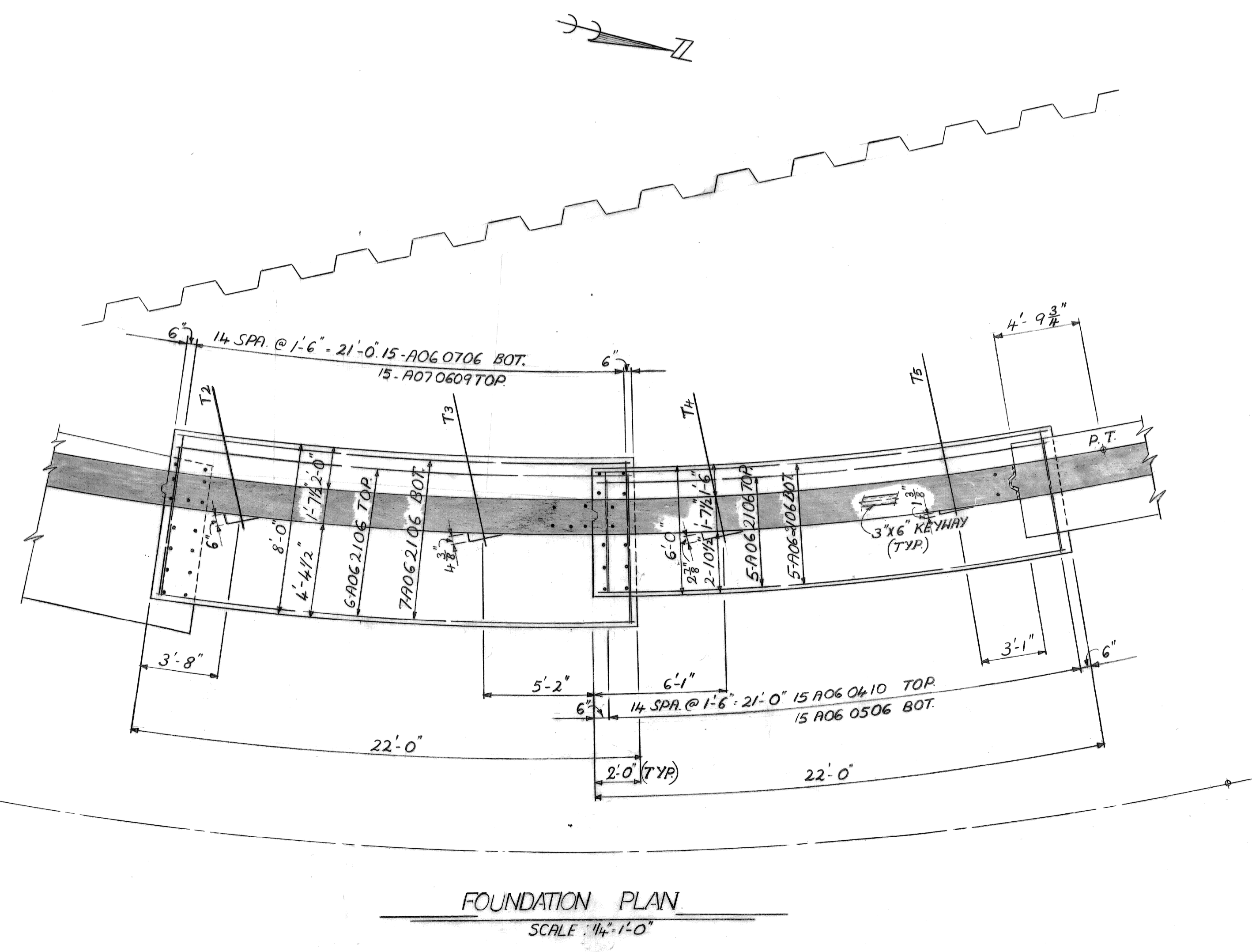
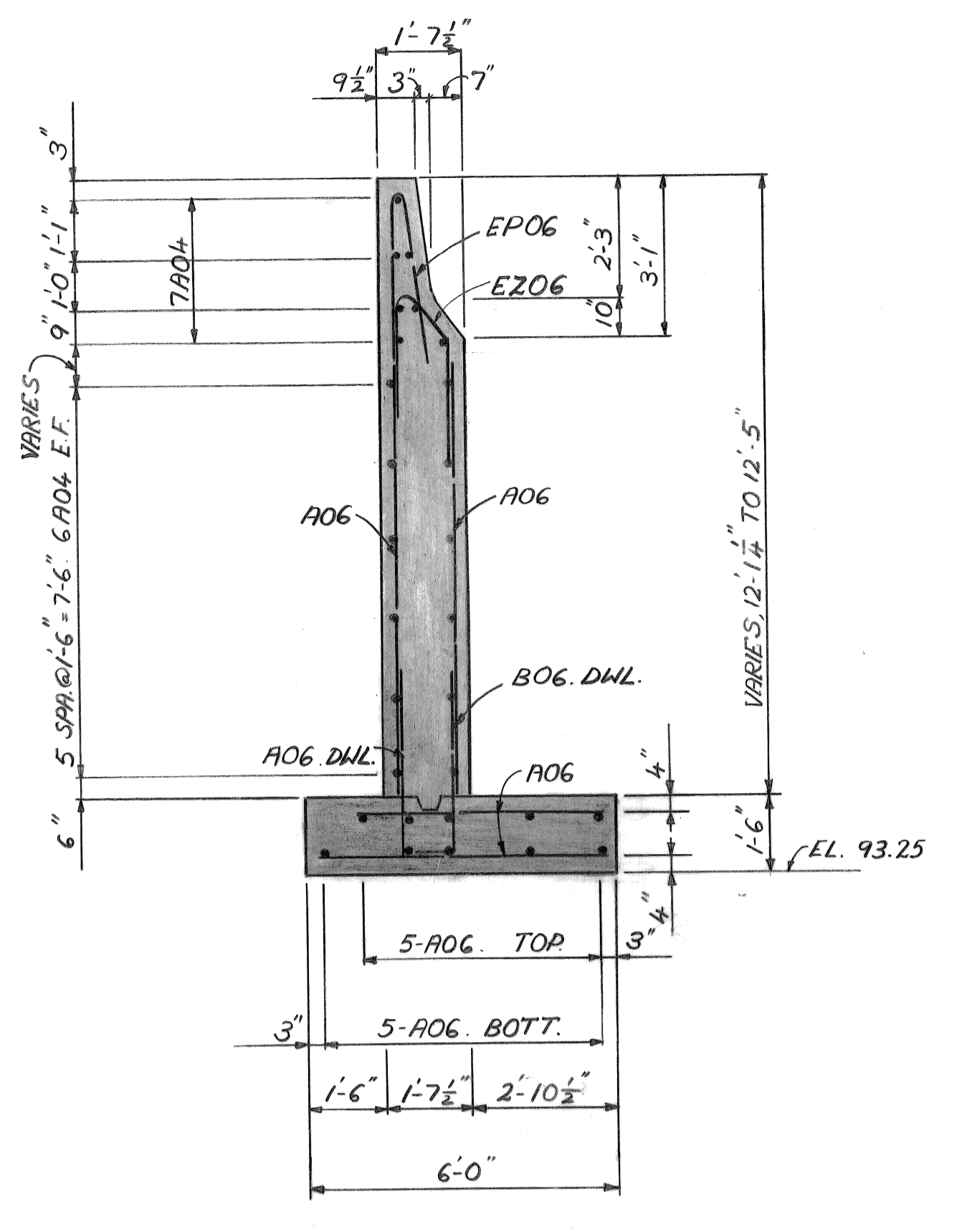
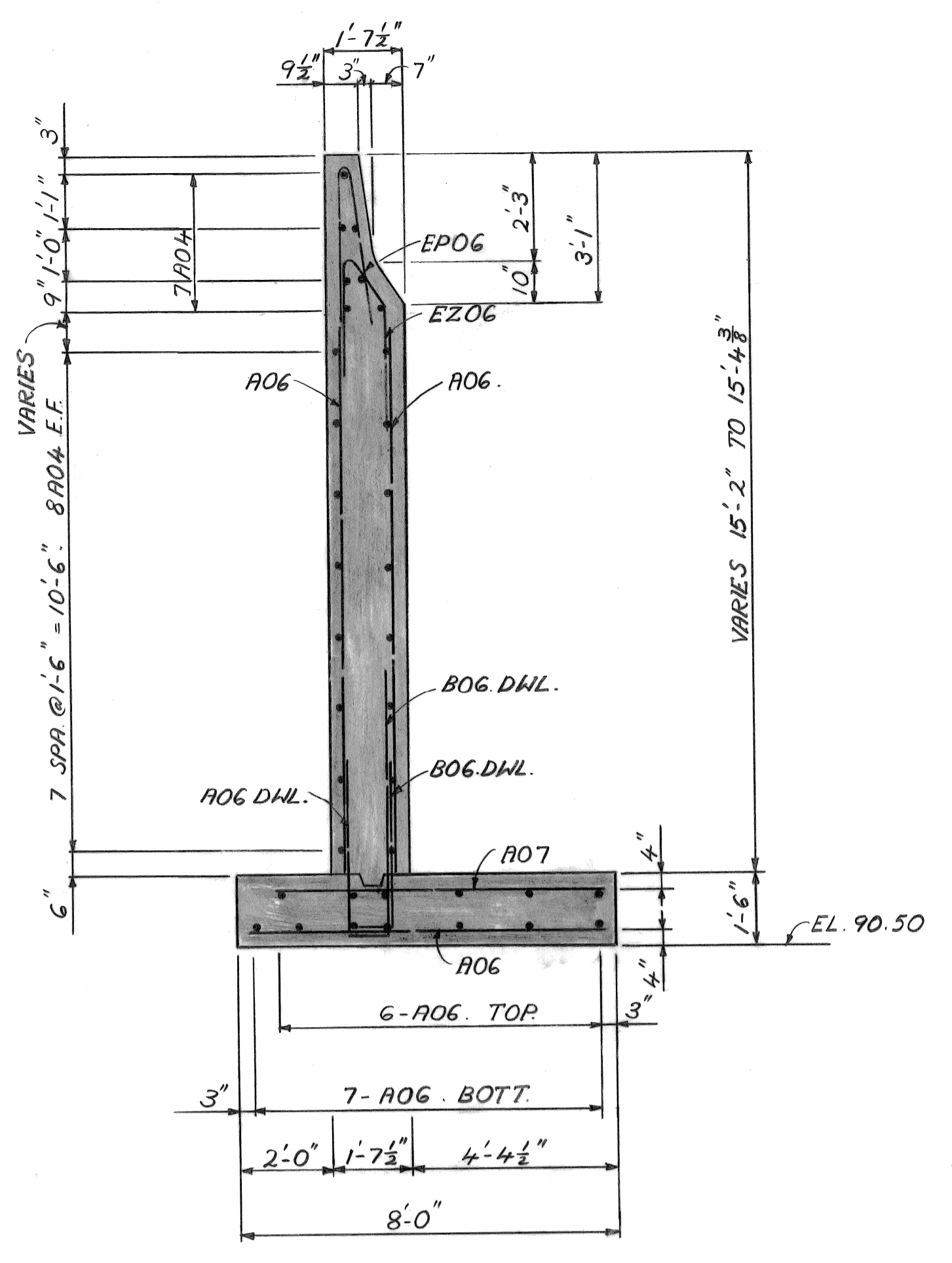
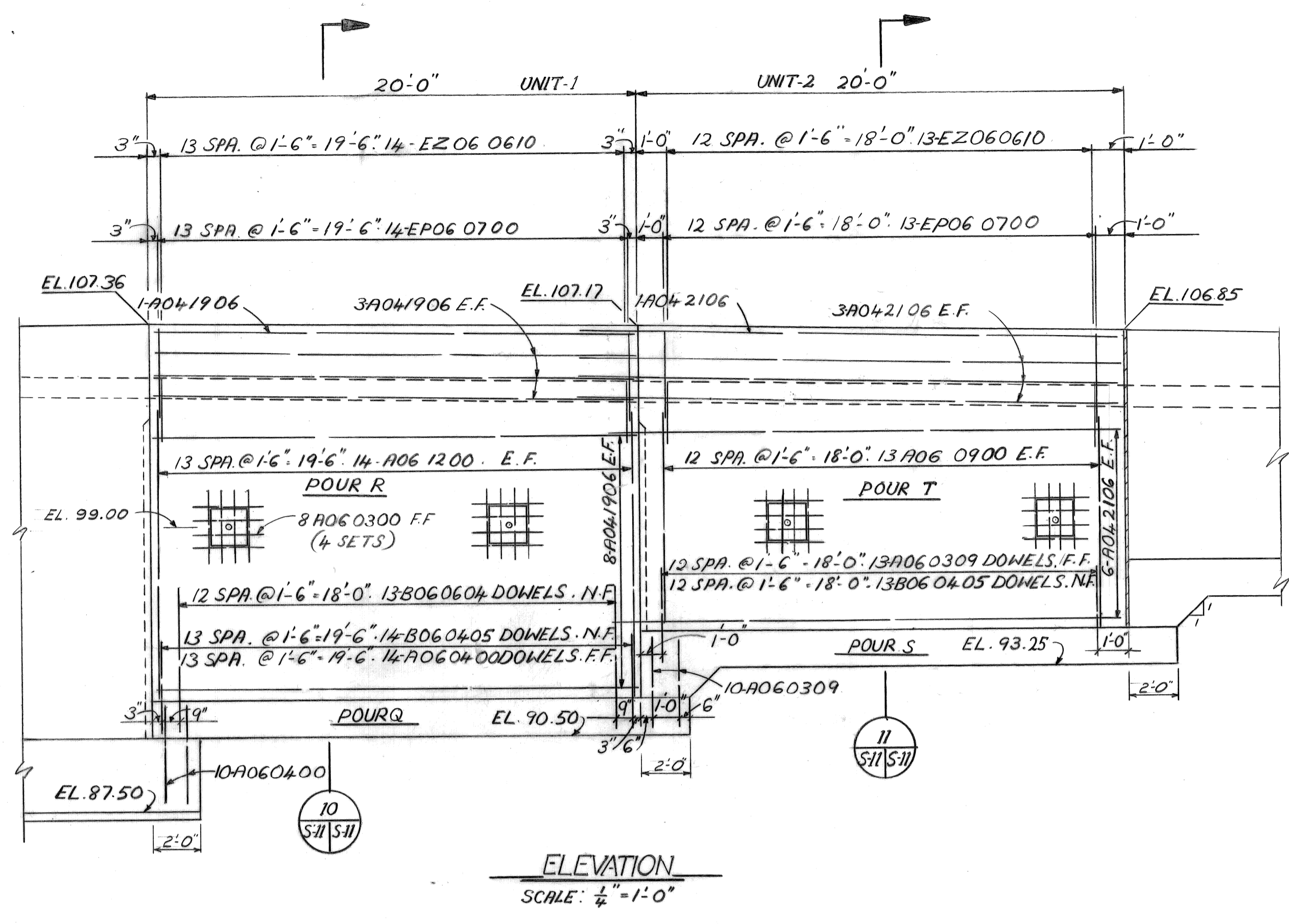
RIVERSIDE AVENUE OVER FOX CREEK BW-246

RETAINING WALLS A-1 & A-2 ; GENERAL NOTES

a.o. contract no. _____

sheet of drawing no. S-10

date NOV. 89



NO.	DATE	BY	REVISIONS

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 for DEPARTMENT OF PUBLIC WORKS

BRIDGE RECONSTRUCTION
 RIVERSIDE AVENUE OVER FOX CREEK
 BW-246

RETAINING WALL B-1, UNITS 1-2; SECTIONS

a.o. contract no.
 sheet of drawing no. S11
 date NOV. 89

no.	date	description

designed by
 drawn by J.K.
 checked by
 approved:

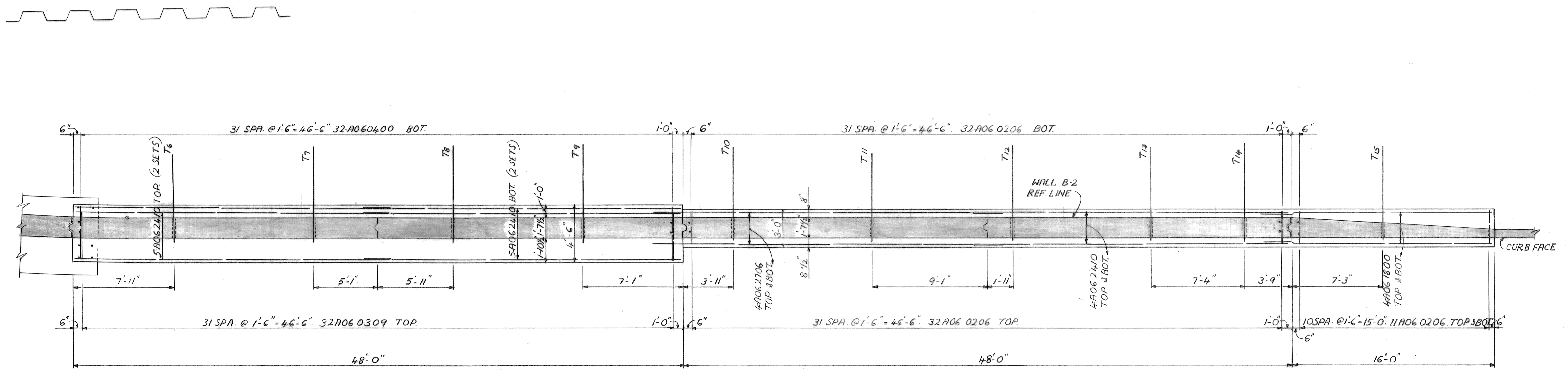
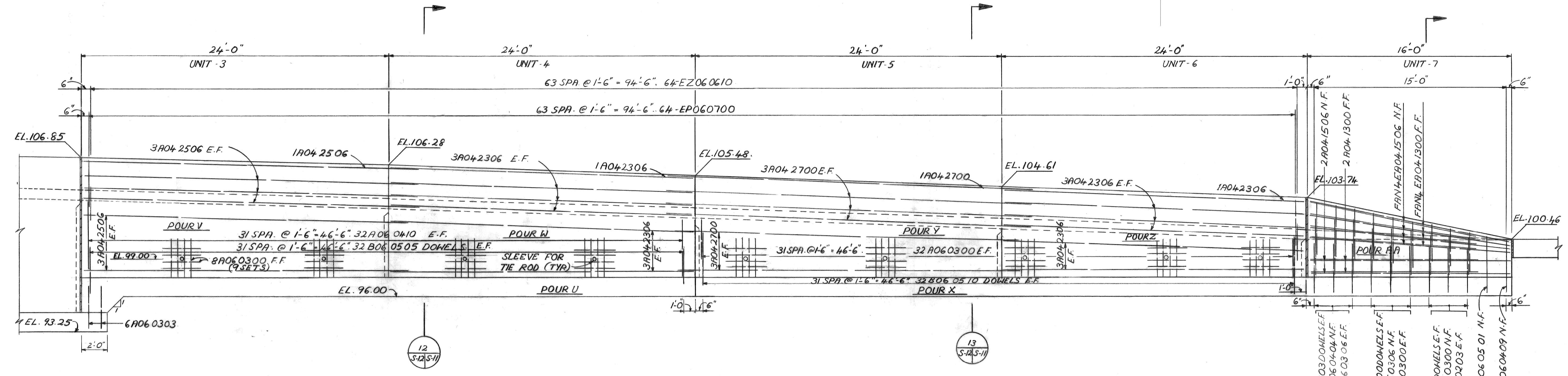
CITY OF DETROIT
 city engineering department
 for DEPARTMENT OF PUBLIC WORKS

BRIDGE RECONSTRUCTION

RIVERSIDE AVENUE OVER FOX CREEK BW-246

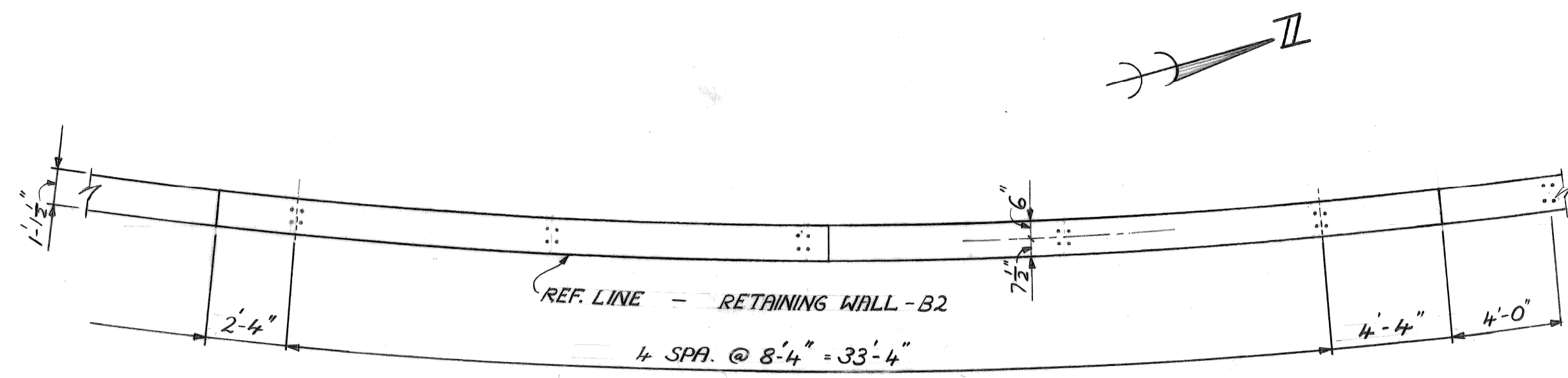
RETAINING WALL B-1 UNITS 3-7

a.o. contract no.
 sheet of drawing no. S-12
 date NOV. 89

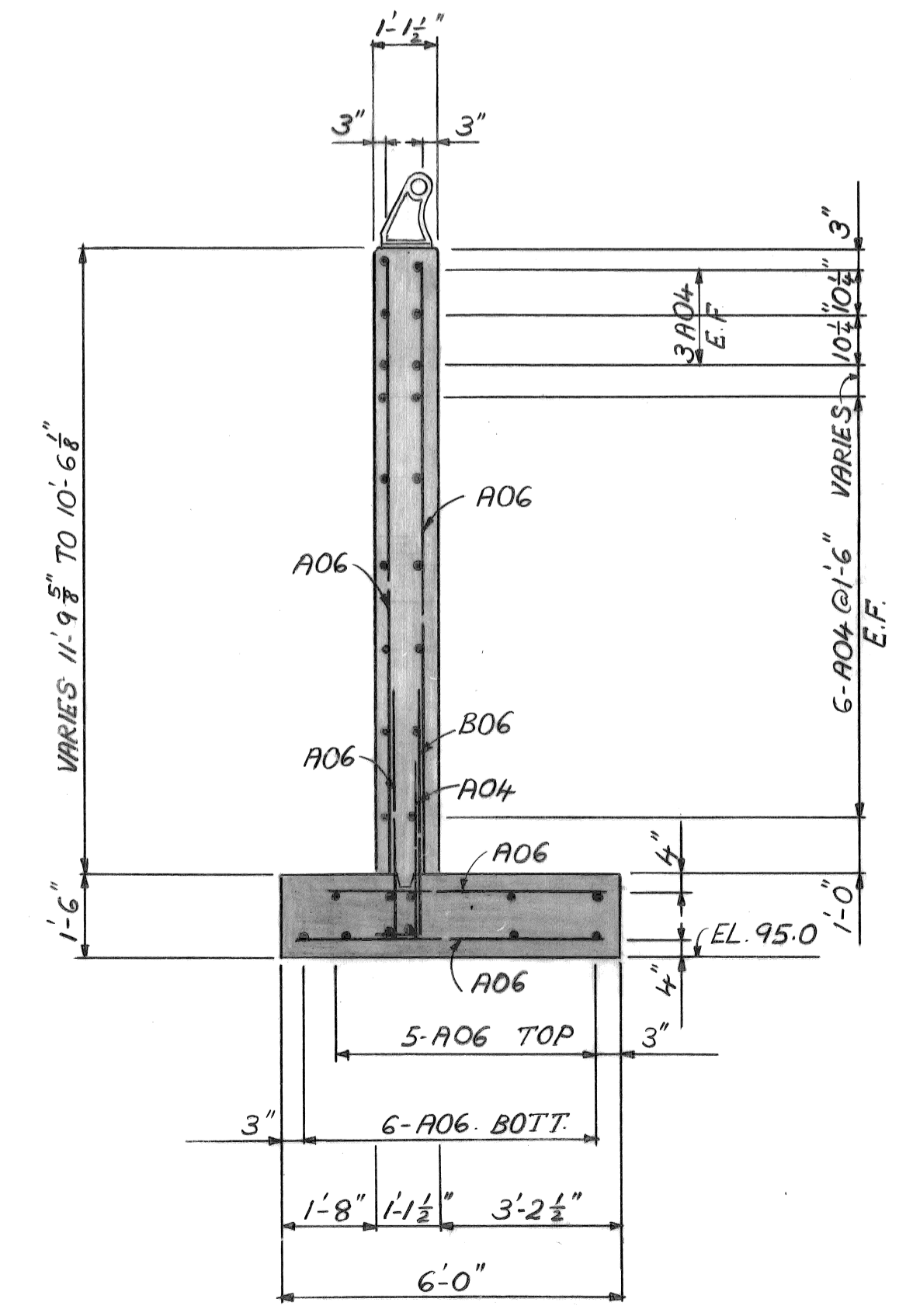
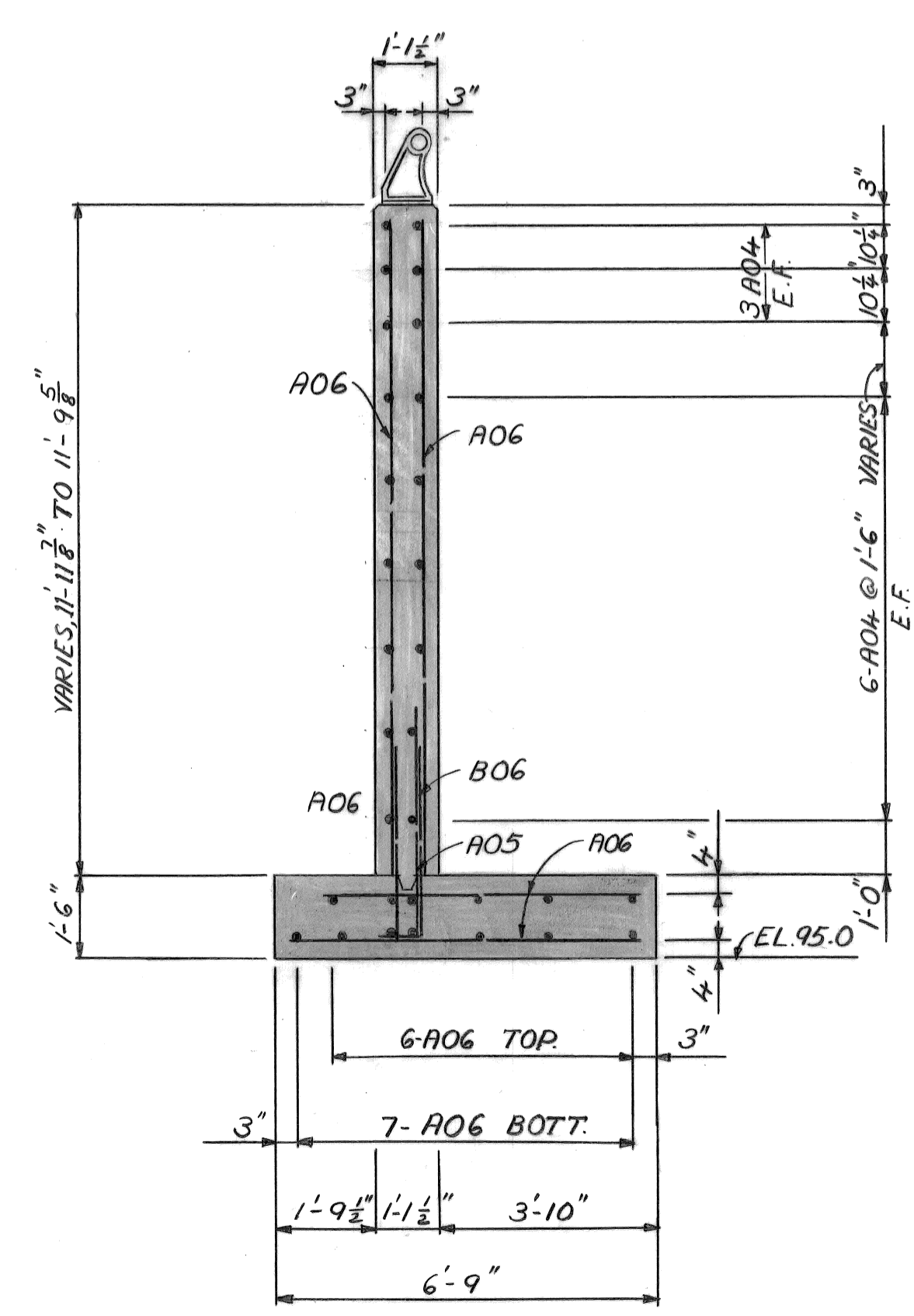
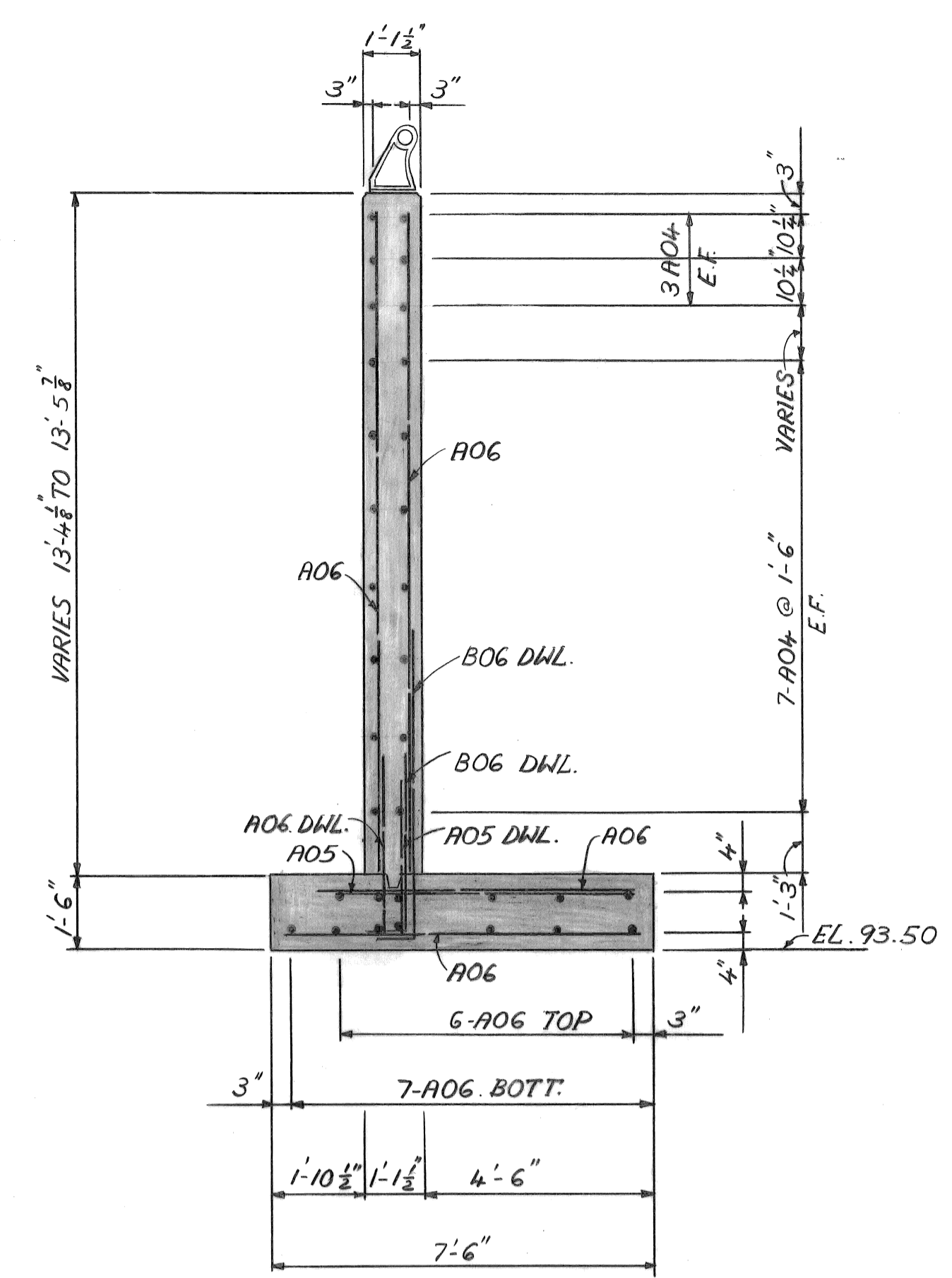
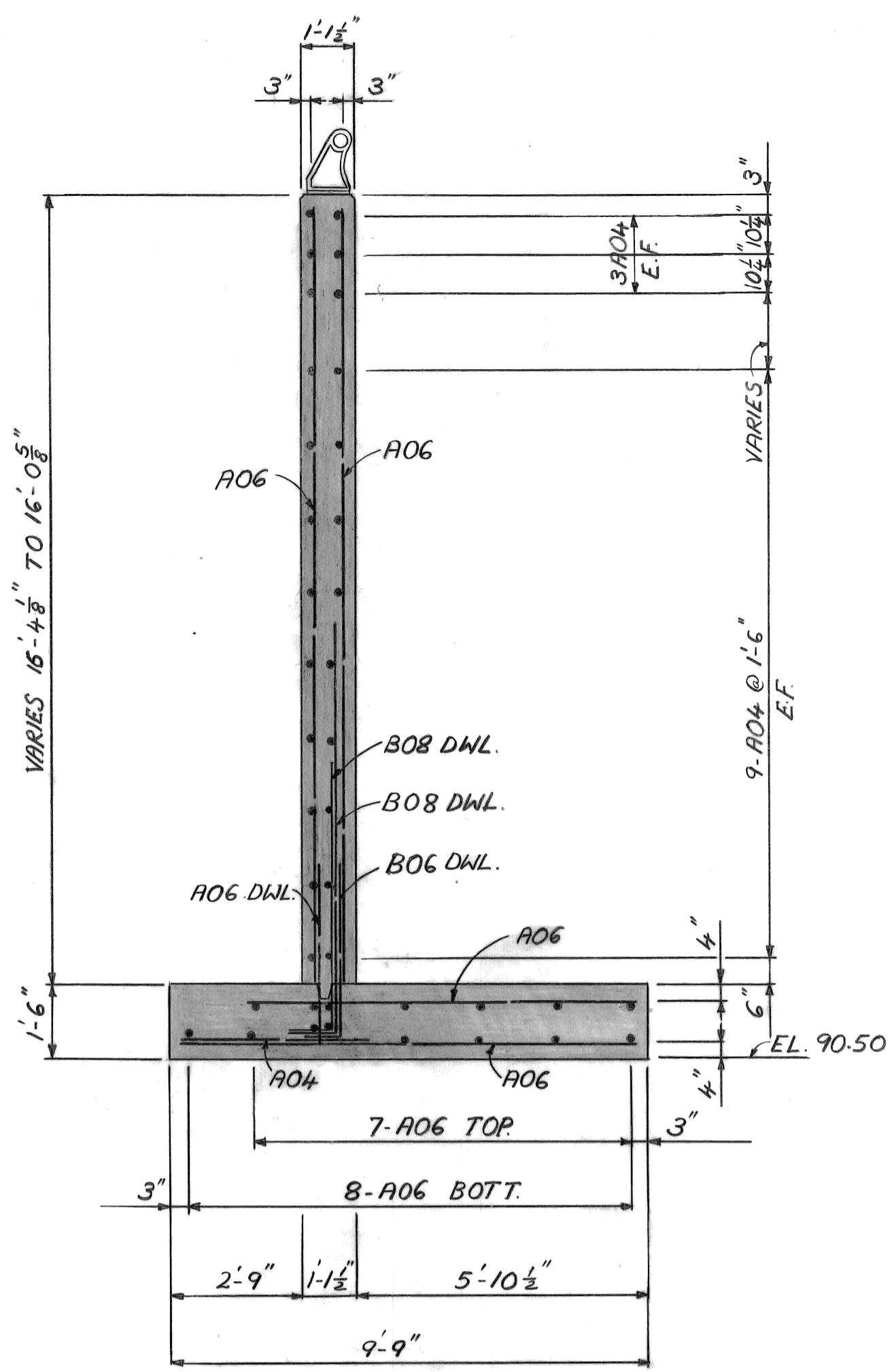
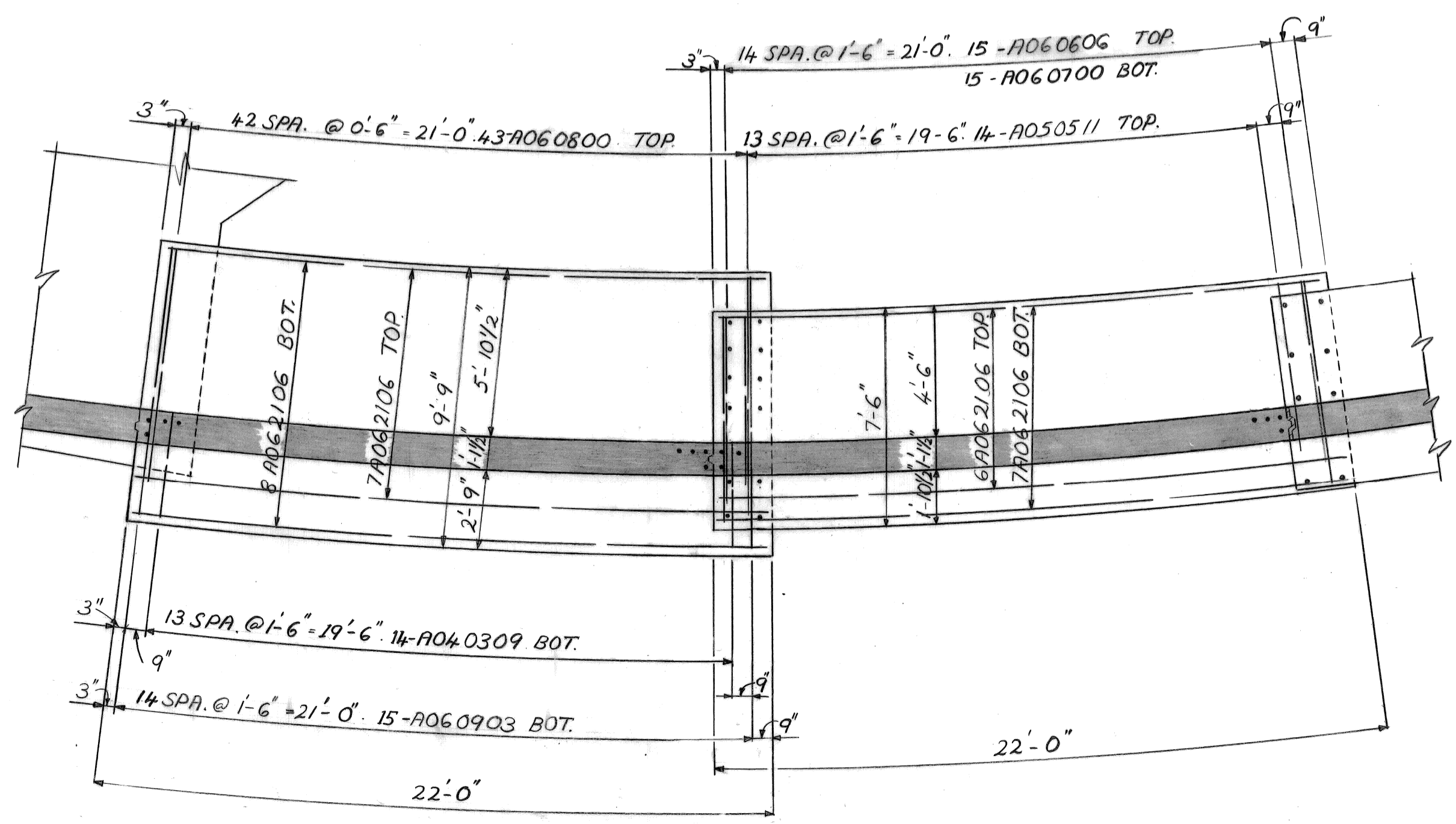
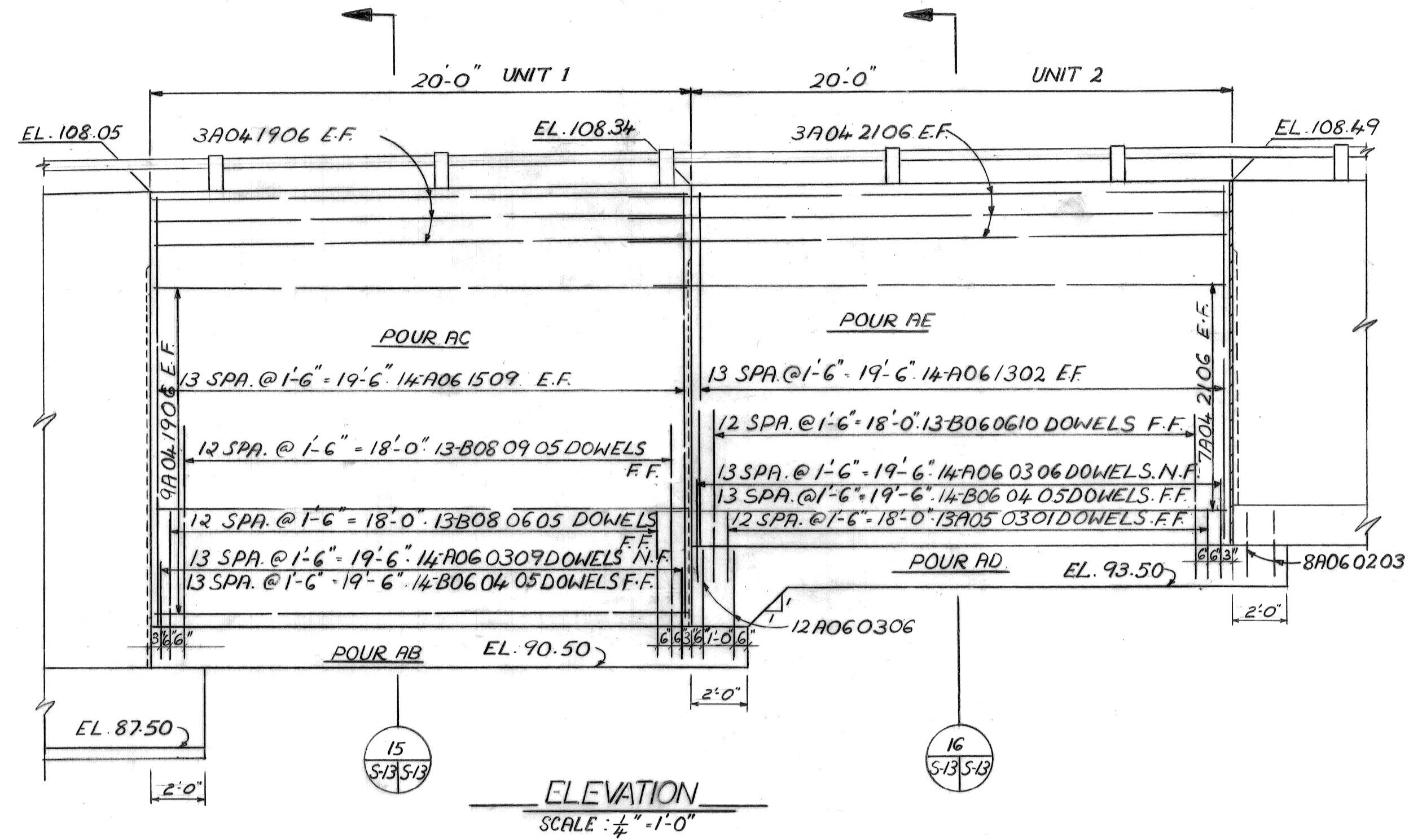


BRUNING 44-31 68860

JOB NO. 3028.8A



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



revisions	
no.	date

designed by _____
 drawn by J.K.
 checked by _____
 approved: _____

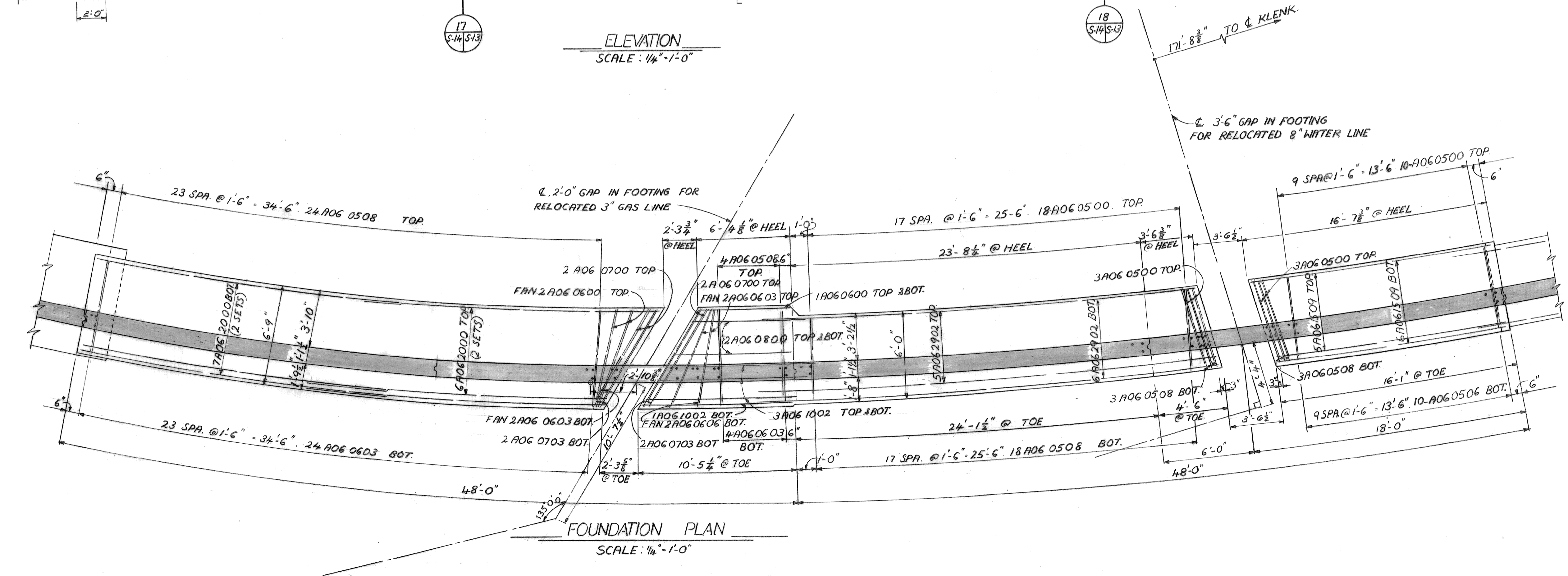
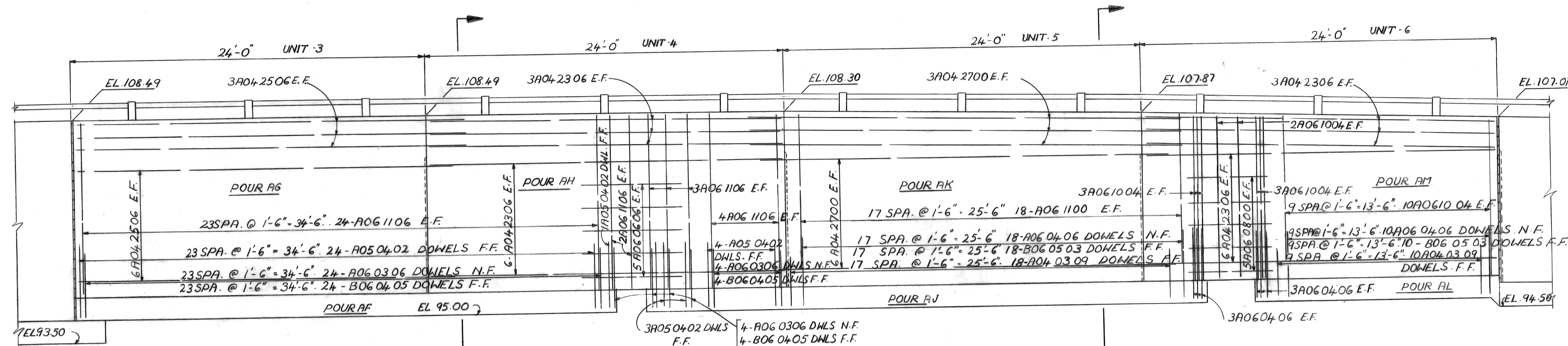
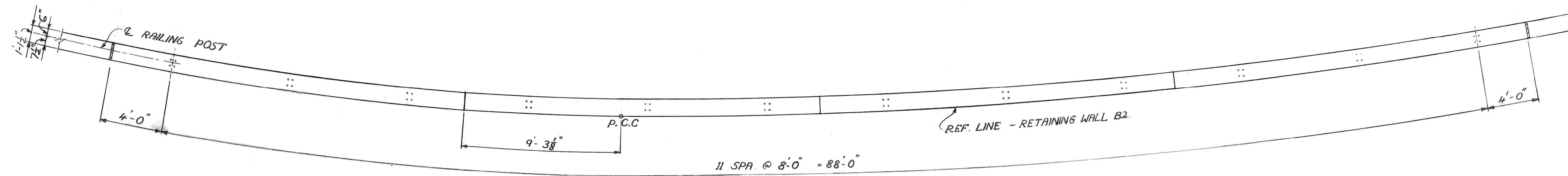
CITY OF DETROIT
 city engineering department
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BRIDGE RECONSTRUCTION

RIVERSIDE AVENUE OVER FOX CREEK
 BW-246

RETAINING WALL B-2
 UNITS 1-2;
 SECTIONS

a.o. contract no. _____
 sheet of drawing no. S-13
 date NOV. 59



no.	description	date

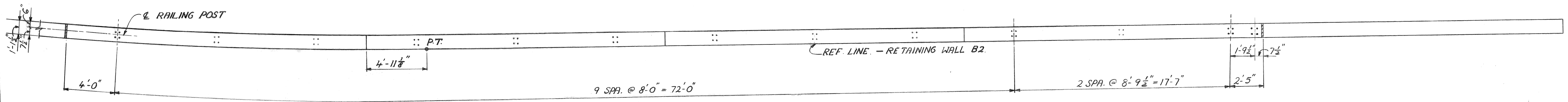
designed by
drawn by J.K.
checked by
approved:

CITY OF DETROIT
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for DEPARTMENT OF PUBLIC WORKS

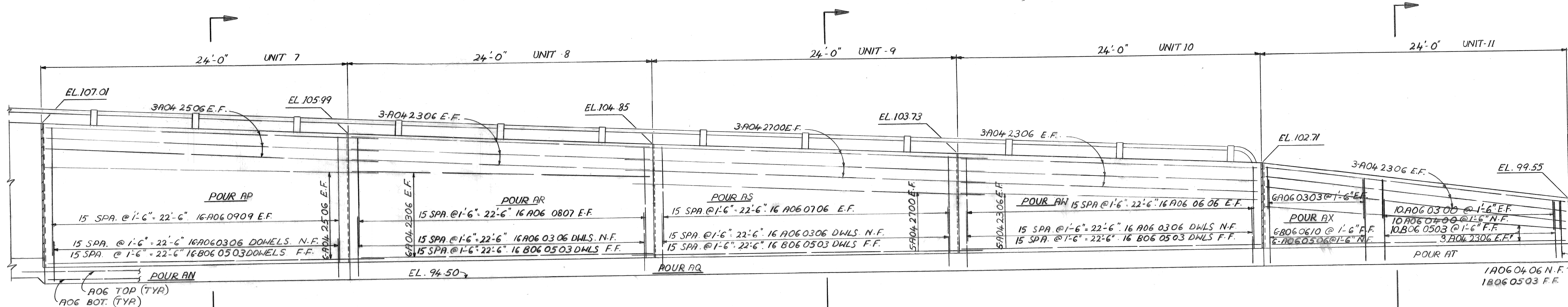
BRIDGE RECONSTRUCTION
RIVERSIDE AVENUE OVER FOX CREEK
BW-246

RETAINING WALL B-2
UNITS 3-6

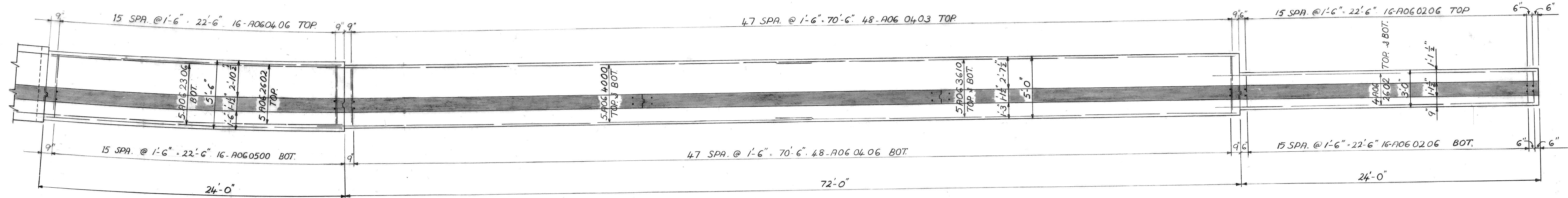
a.o.
contract no.
sheet of drawing no. S-14
date NOV. 89



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



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



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

no.	description	date

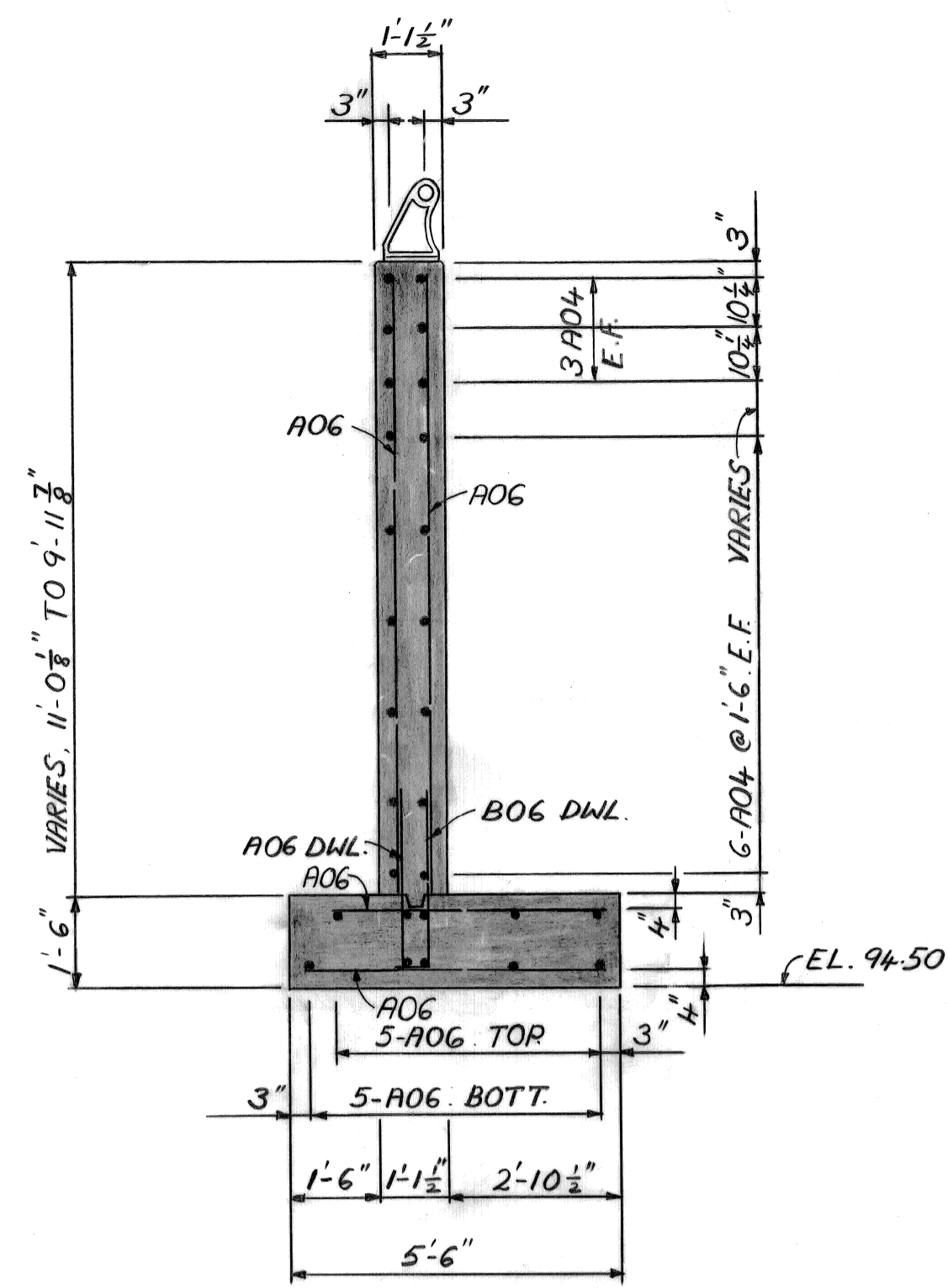
designed by
drawn by J.K.
checked by
approved:

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city engineering department
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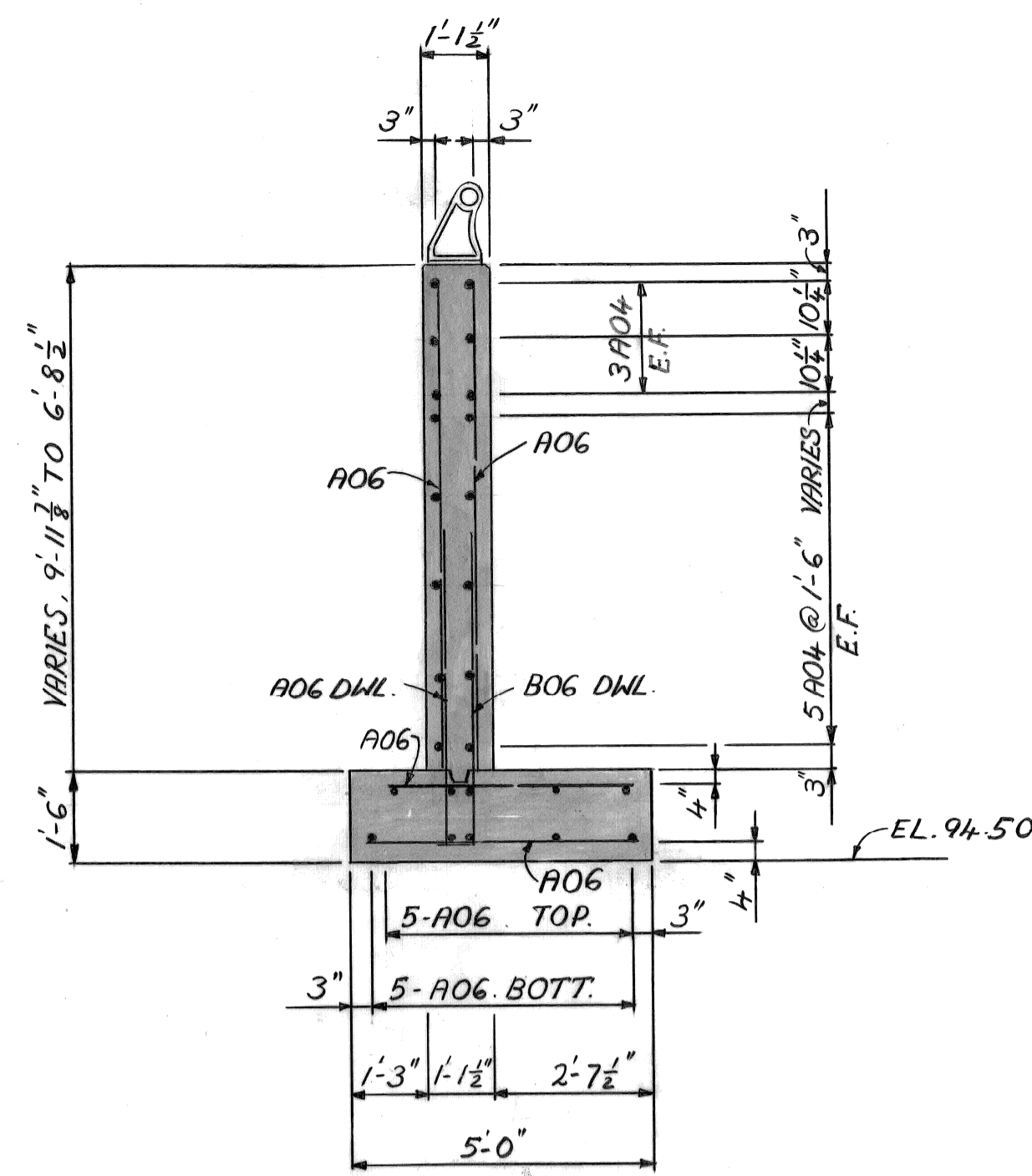
BRIDGE RECONSTRUCTION
RIVERSIDE AVENUE OVER FOX CREEK
BW-246

RETAINING WALL B-2, UNITS 7-11

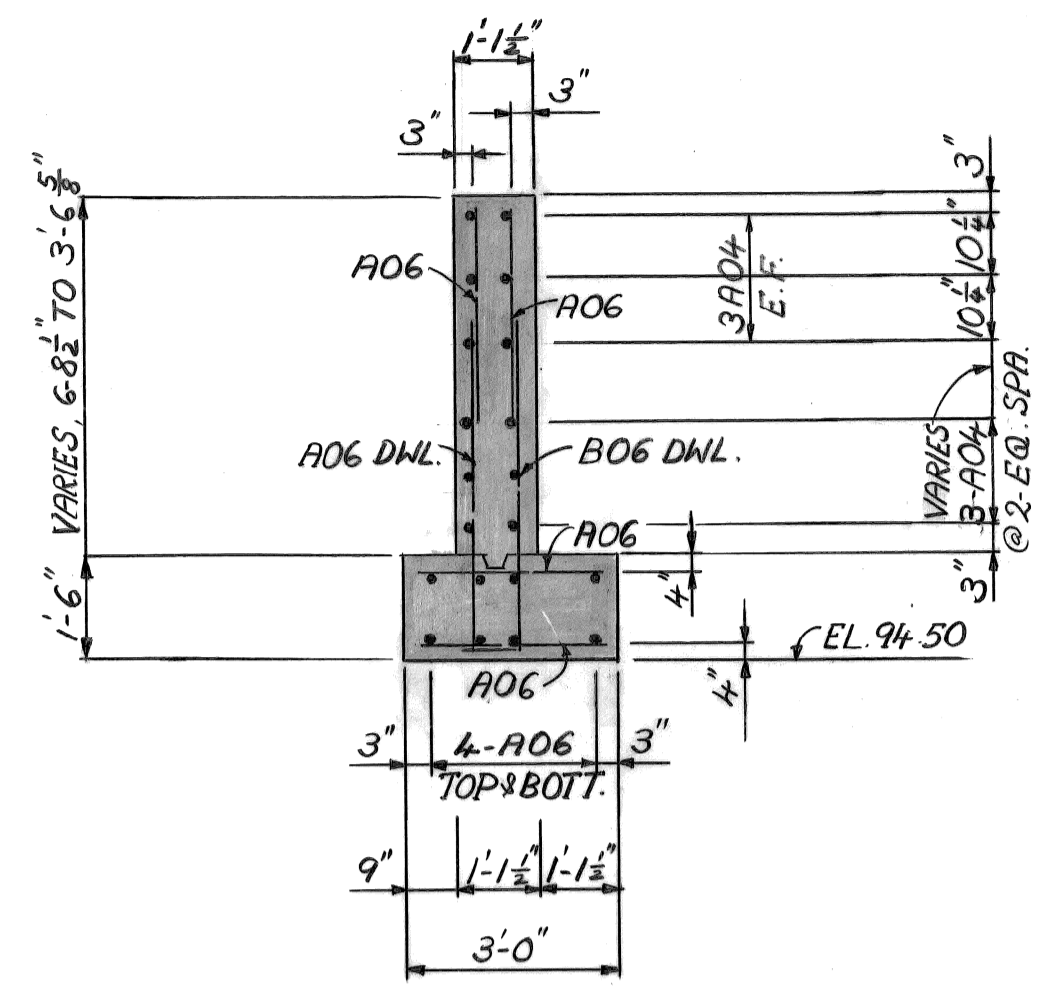
a.o. contract no.
sheet of drawing no. S-15
date NOV. 89



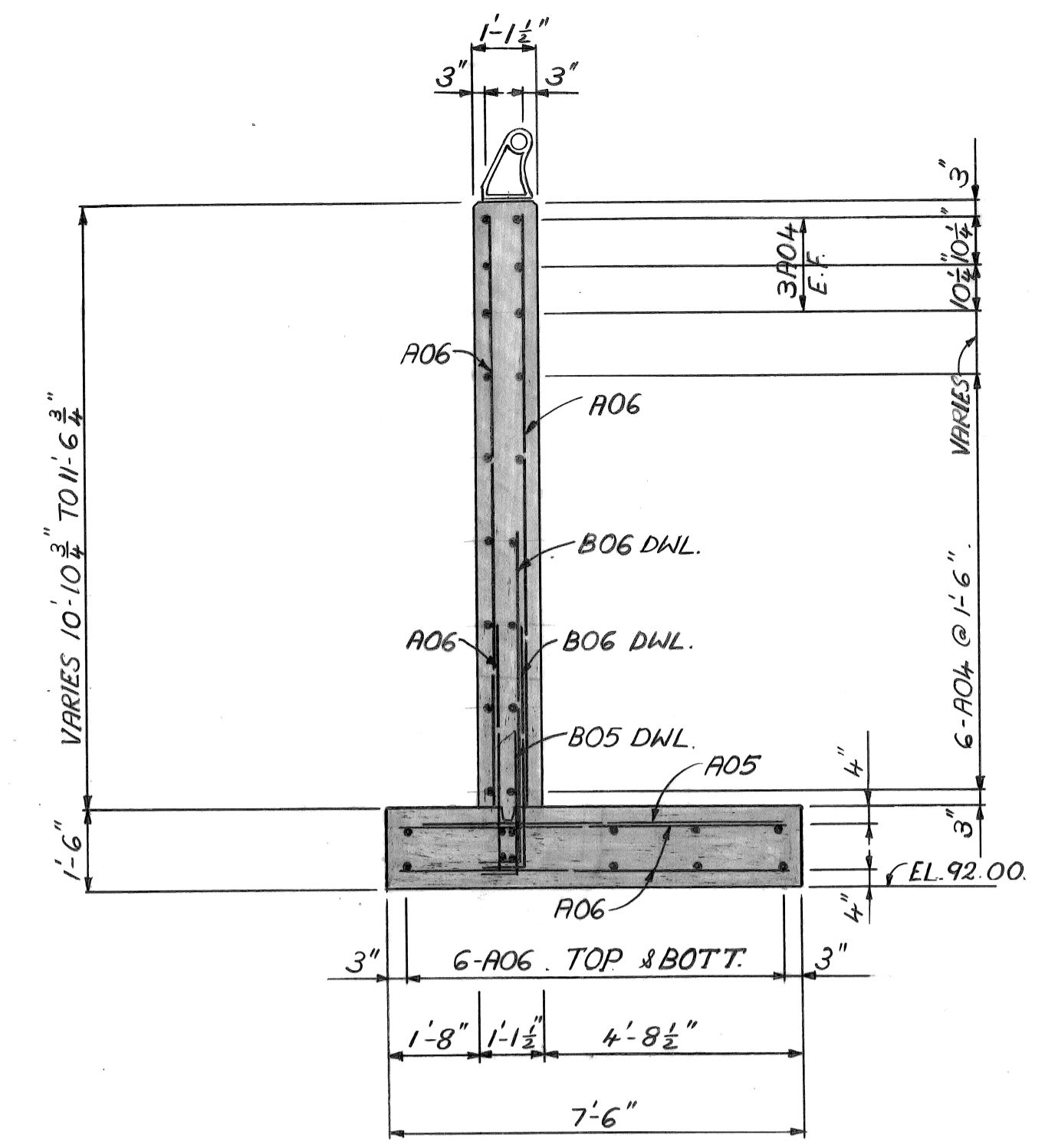
SECTION 19
SCALE: 3/8" = 1'-0"



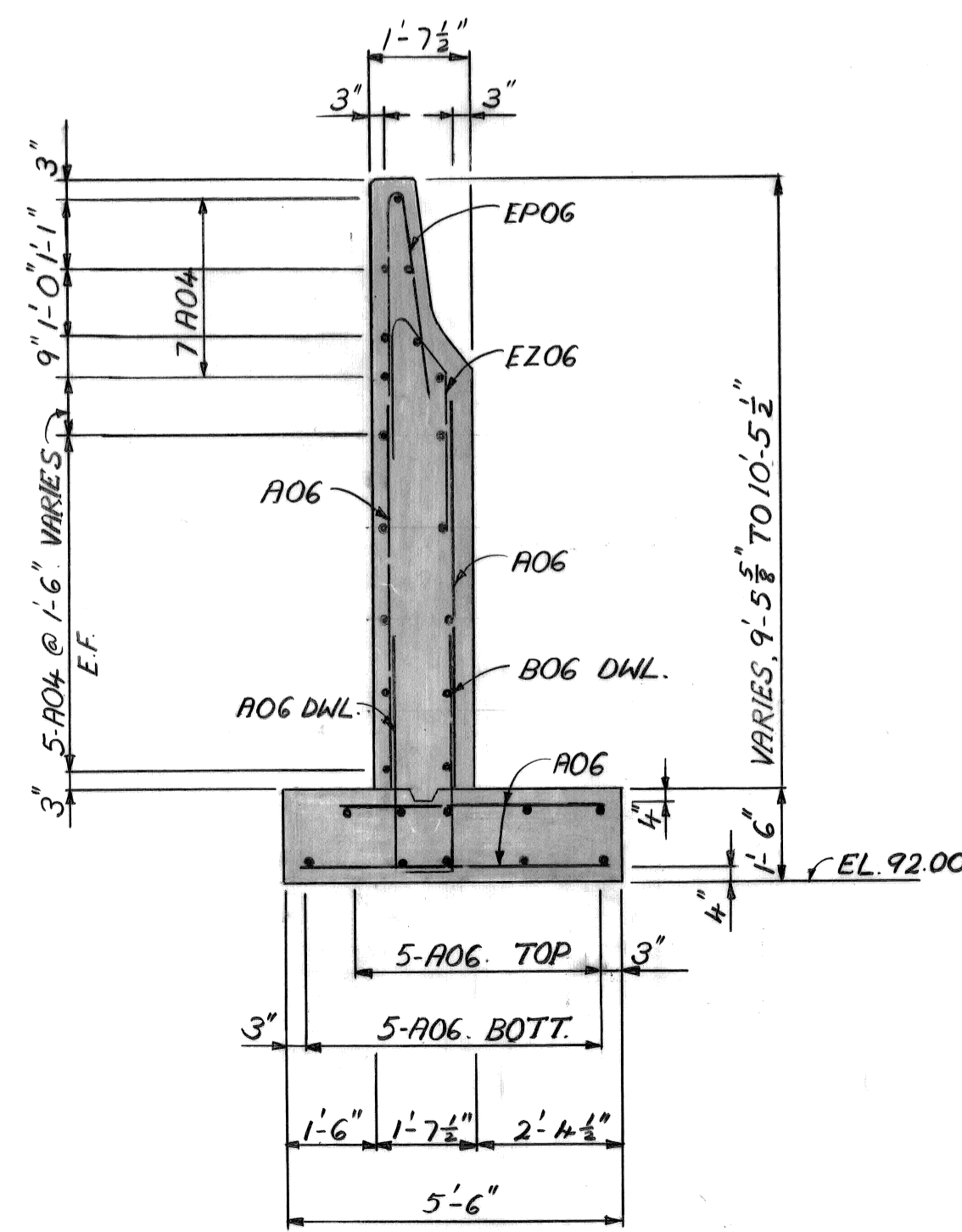
SECTION 20
SCALE: 3/8" = 1'-0"



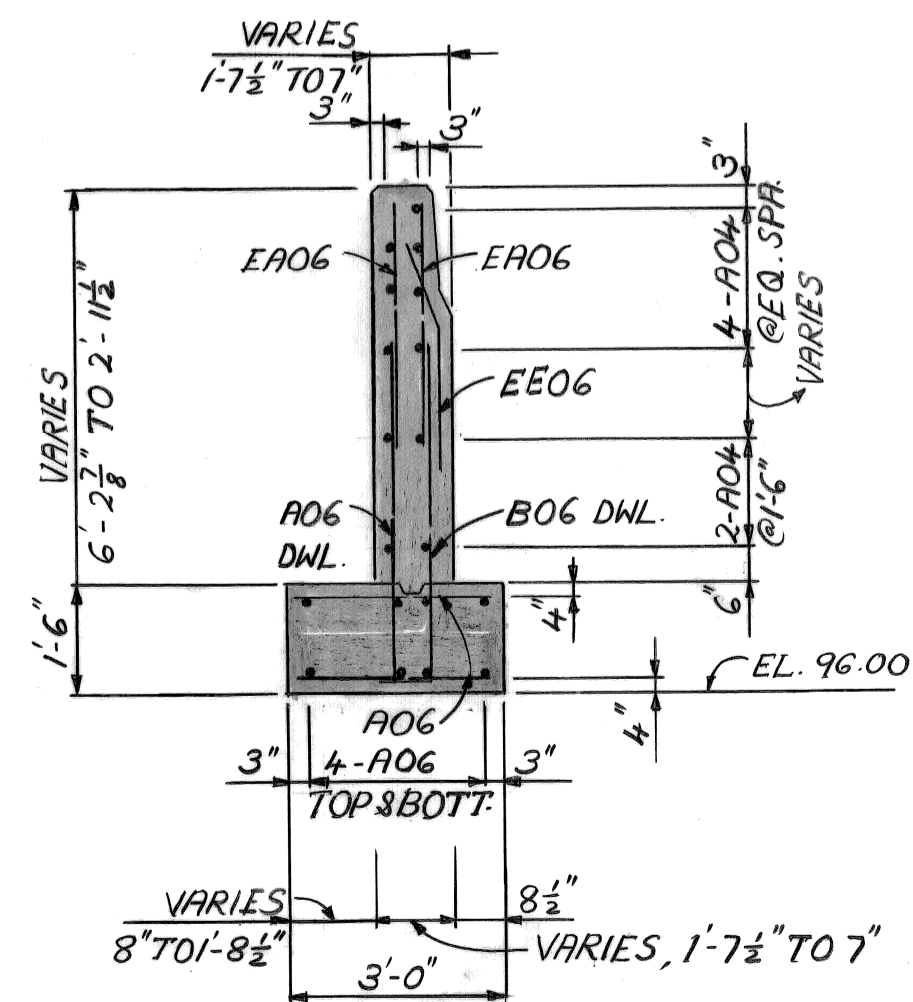
SECTION 21
SCALE: 3/8" = 1'-0"



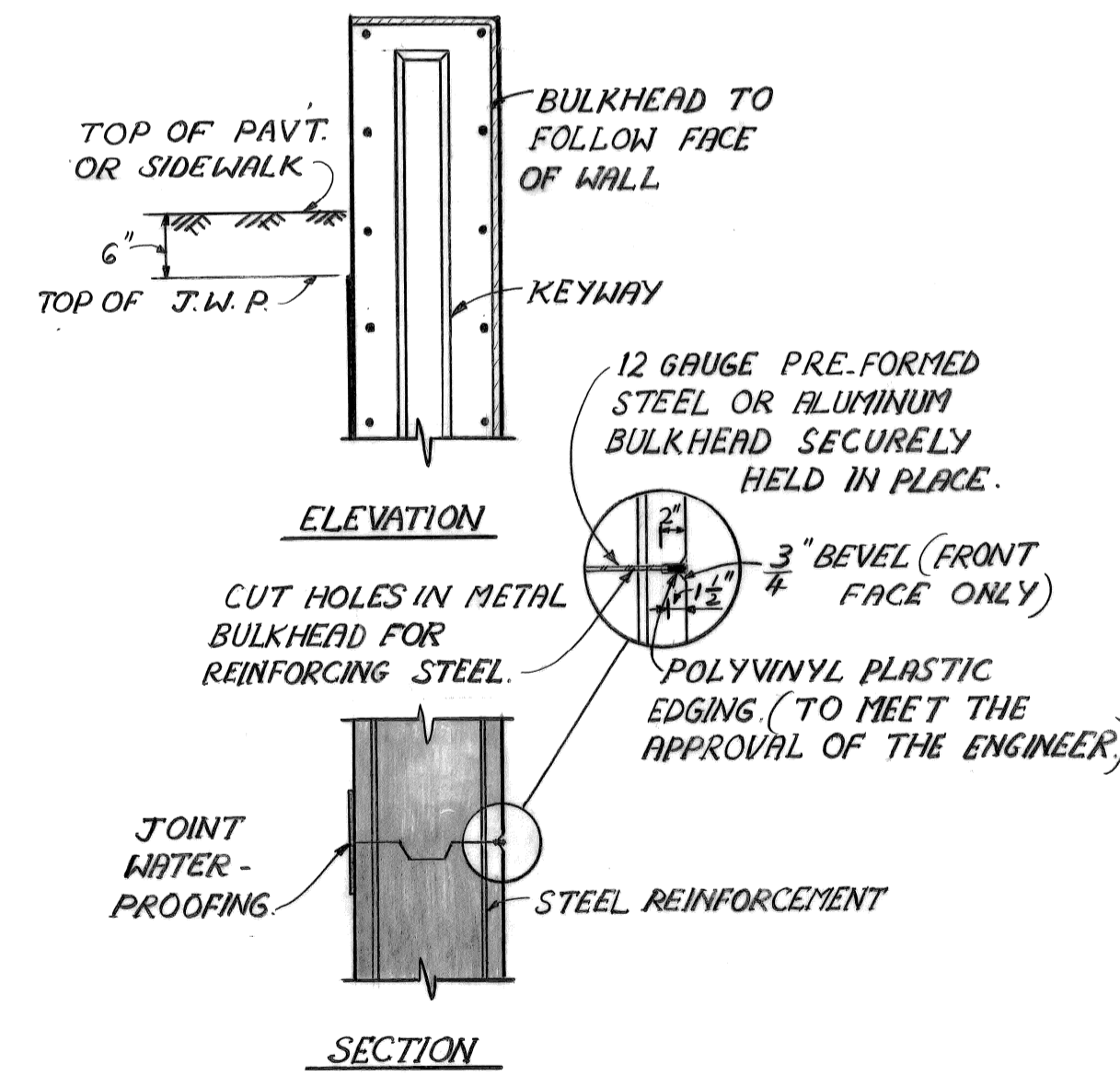
SECTION 7
SCALE: 3/8" = 1'-0"



SECTION 8
SCALE: 3/8" = 1'-0"

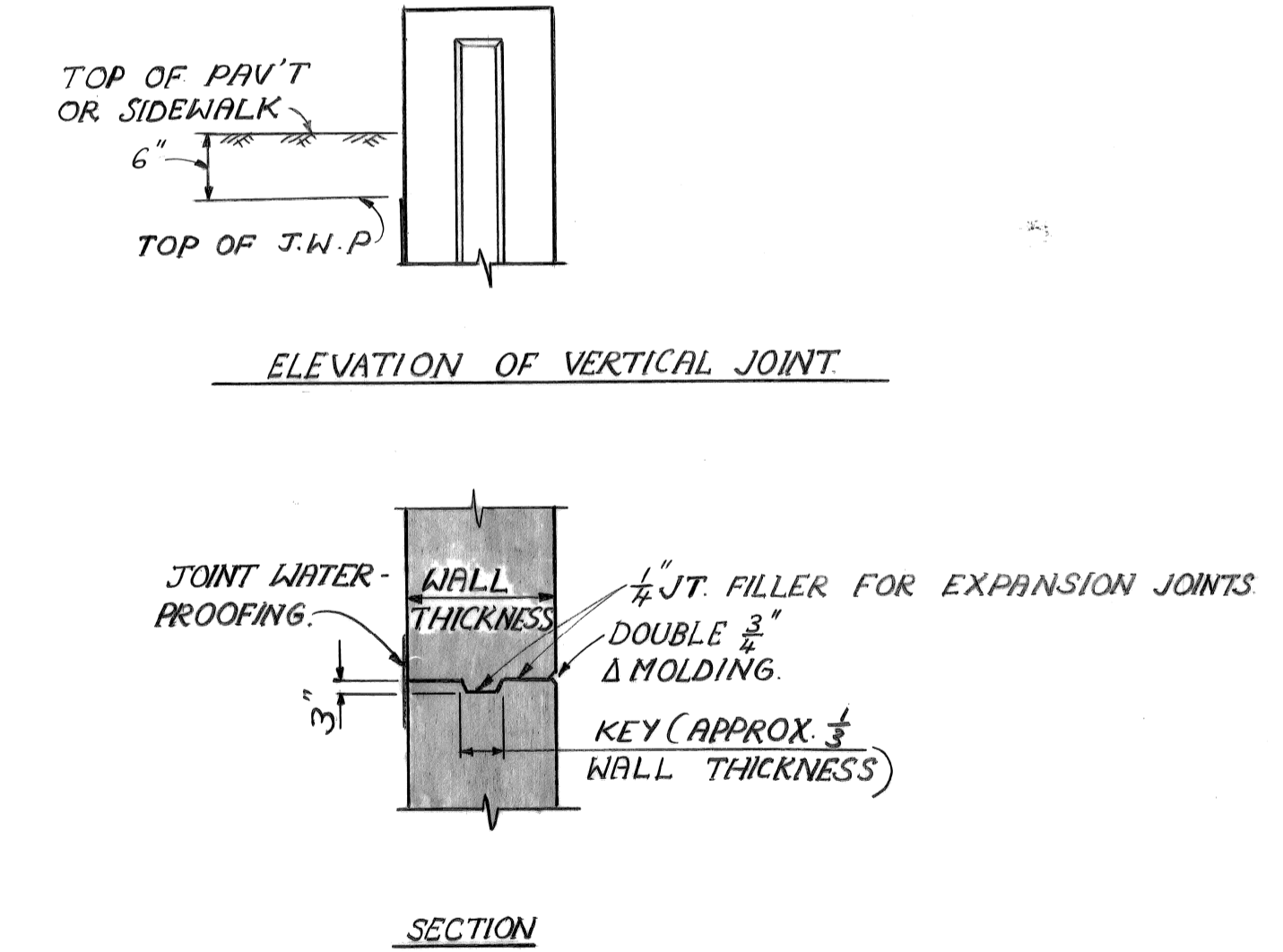


SECTION 14
SCALE: 3/8" = 1'-0"



NOTES: METAL BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT AT CONTRACTOR'S EXPENSE.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.



NOTES: WHERE OPTIONAL CONSTRUCTION JOINTS ARE USED, THERE WILL BE NO PAYMENT FOR THE REQUIRED JOINT WATERPROOFING.

NO.	DATE	BY	REVISIONS

designed by
drawn by J.K.
checked by
approved:

CITY OF DETROIT

city engineering department

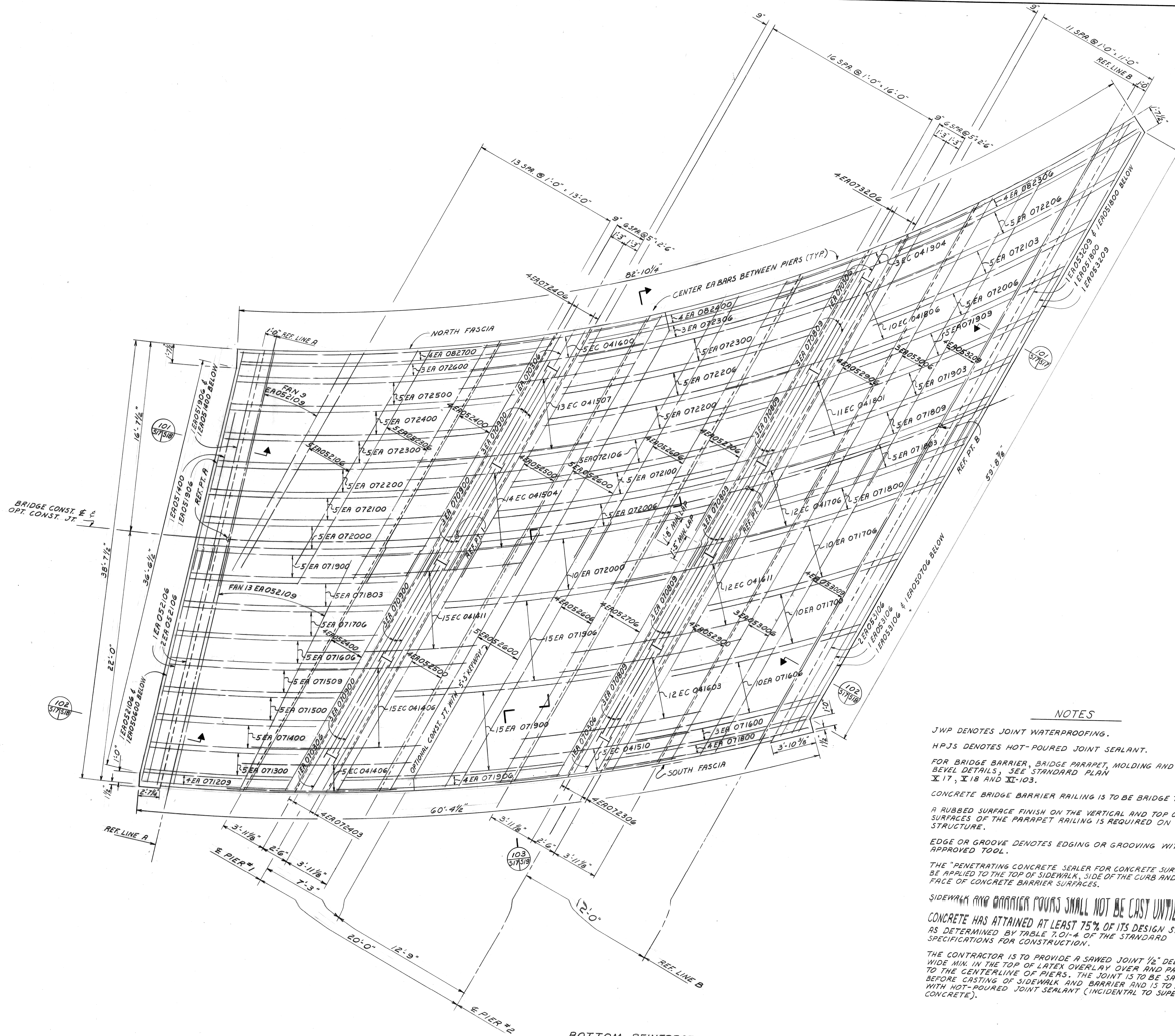
for DEPARTMENT OF PUBLIC WORKS

BRIDGE RECONSTRUCTION

RIVERSIDE AVENUE OVER FOX CREEK BW-246

WALL SECTIONS AND DETAILS

a.o. contract no.
sheet of drawing no. S-16
date NOV. 89



BOTTOM REINFORCEMENT PLAN

NOTES

- JWP DENOTES JOINT WATERPROOFING.
- HPJS DENOTES HOT-POURED JOINT SEALANT.
- FOR BRIDGE BARRIER, BIDGE PARAPET, MOLDING AND BEVEL DETAILS, SEE STANDARD PLAN X-17, X-18 AND XI-103.
- CONCRETE BRIDGE BARRIER RAILING IS TO BE BRIDGE TYPE 4.
- A RUBBED SURFACE FINISH ON THE VERTICAL AND TOP CONCRETE SURFACES OF THE PARAPET RAILING IS REQUIRED ON THIS STRUCTURE.
- EDGE OR GROOVE DENOTES EDGING OR GROOVING WITH AN APPROVED TOOL.
- THE "PENETRATING CONCRETE SEALER FOR CONCRETE SURFACE" SHALL BE APPLIED TO THE TOP OF SIDEWALK, SIDE OF THE CURB AND INSIDE FACE OF CONCRETE BARRIER SURFACES.
- SIDEWALK AND BARRIER POURS SHALL NOT BE CAST UNTIL SLAB CONCRETE HAS ATTAINED AT LEAST 75% OF ITS DESIGN STRENGTH AS DETERMINED BY TABLE 7.01-4 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- THE CONTRACTOR IS TO PROVIDE A SAWED JOINT 1/2" DEEP BY 1/8" WIDE MIN. IN THE TOP OF LATEX OVERLAY OVER AND PARALLEL TO THE CENTERLINE OF PIERS. THE JOINT IS TO BE SAWED BEFORE CASTING OF SIDEWALK AND BARRIER AND IS TO BE FILLED WITH HOT-POURED JOINT SEALANT (INCIDENTAL TO SUPERSTRUCTURE CONCRETE).

no.	description	date

designed by _____
 drawn by D.L.N.
 checked by _____
 approved: _____

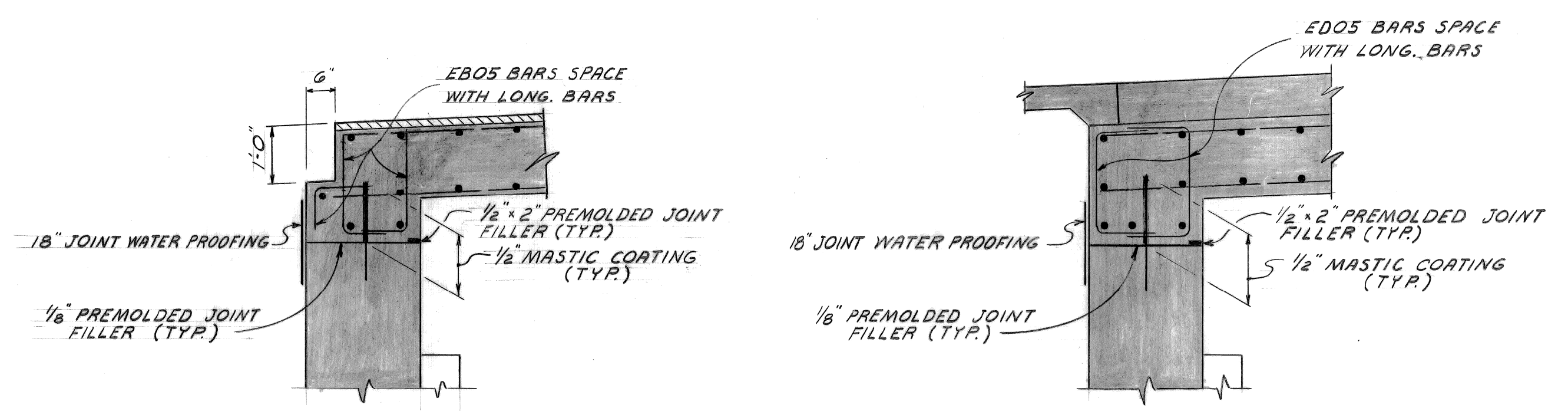
CITY OF DETROIT
 city engineering department
 for DEPARTMENT OF PUBLIC WORKS

BRIDGE RECONSTRUCTION

RIVERSIDE AVENUE OVER FOX CREEK BW-246

SLAB - BOTTOM REINFORCING BARS

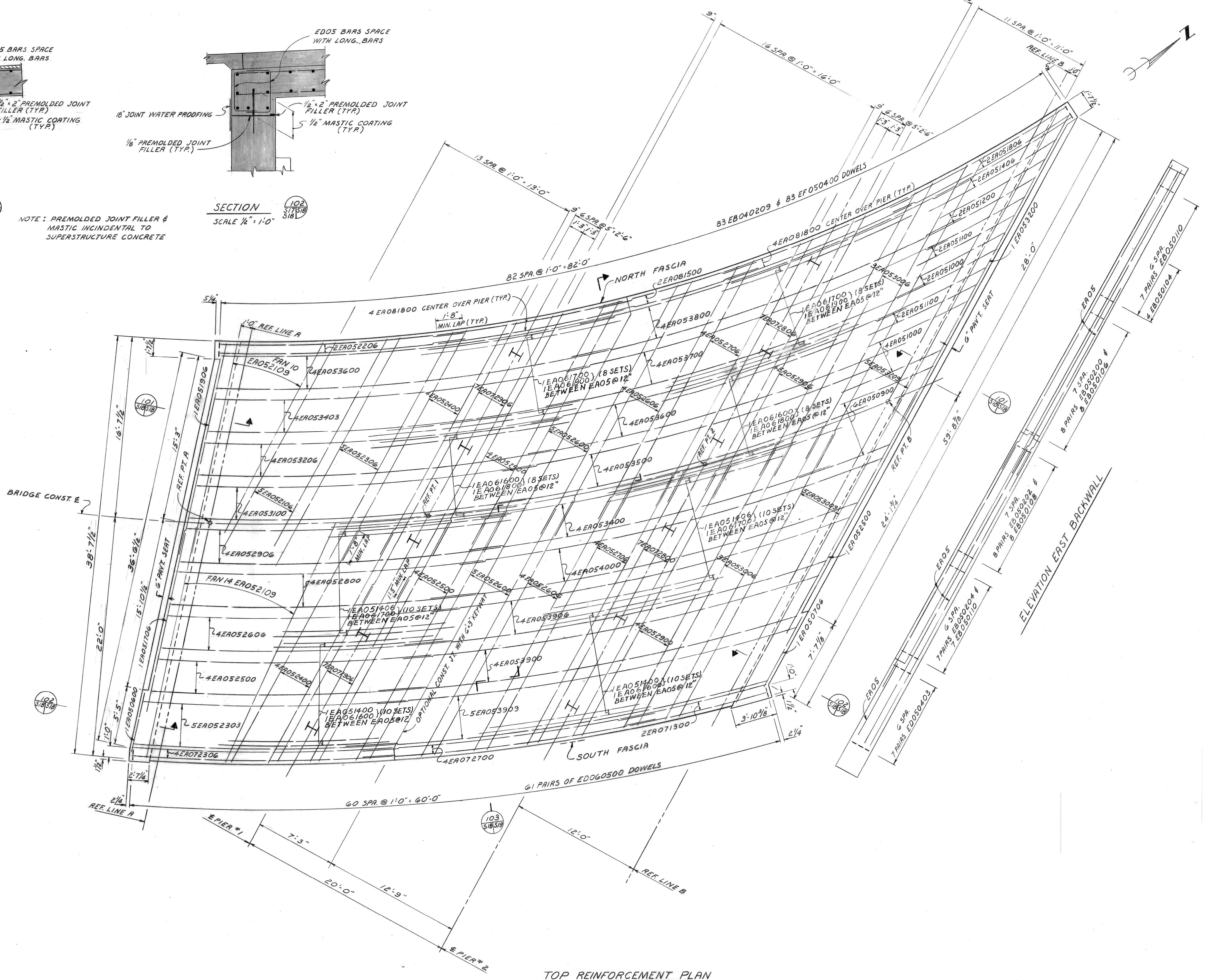
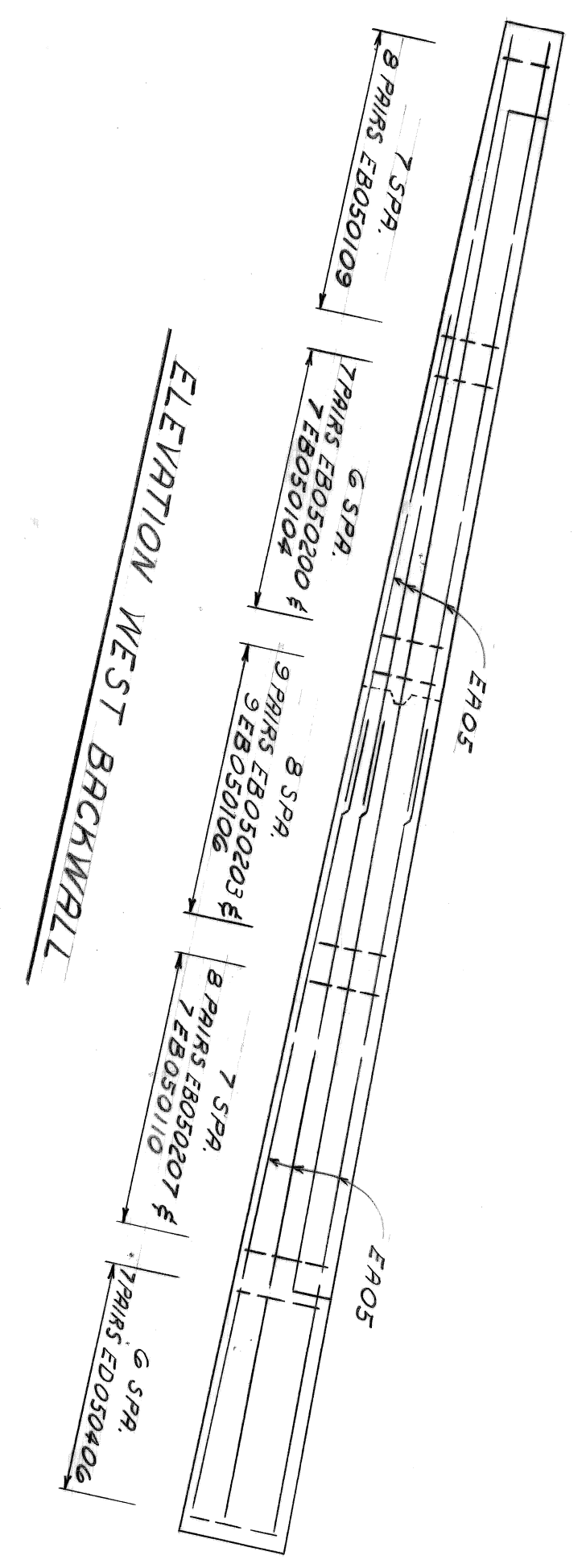
a.o.
 contract no.
 sheet of drawing no.
 5-12



SECTION 101
SCALE 1/2" = 1'-0"

SECTION 102
SCALE 1/2" = 1'-0"

NOTE: PREMOLDED JOINT FILLER & MASTIC INCIDENTAL TO SUPERSTRUCTURE CONCRETE



TOP REINFORCEMENT PLAN

NO.	DESCRIPTION	DATE

designed by M.C.
 drawn by D.L.N.
 checked by
 approved:

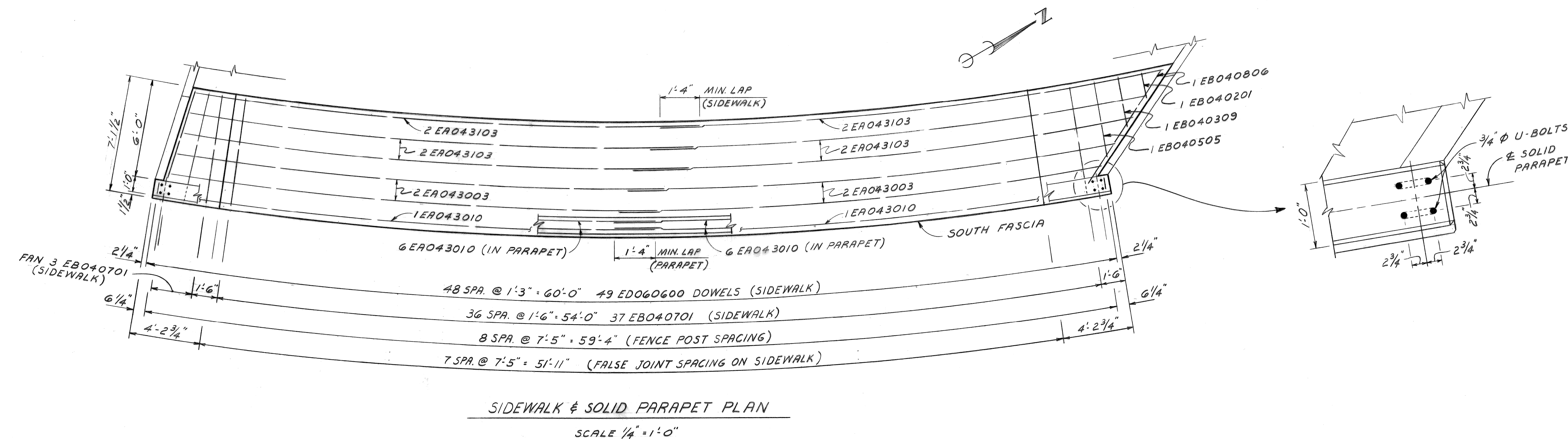
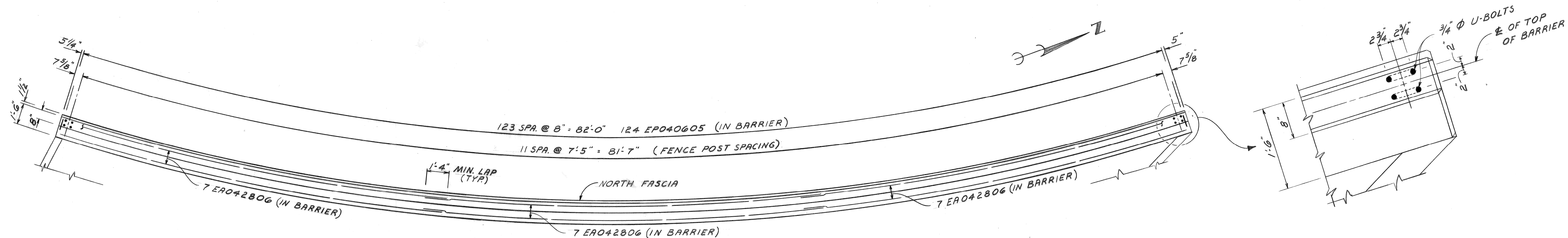
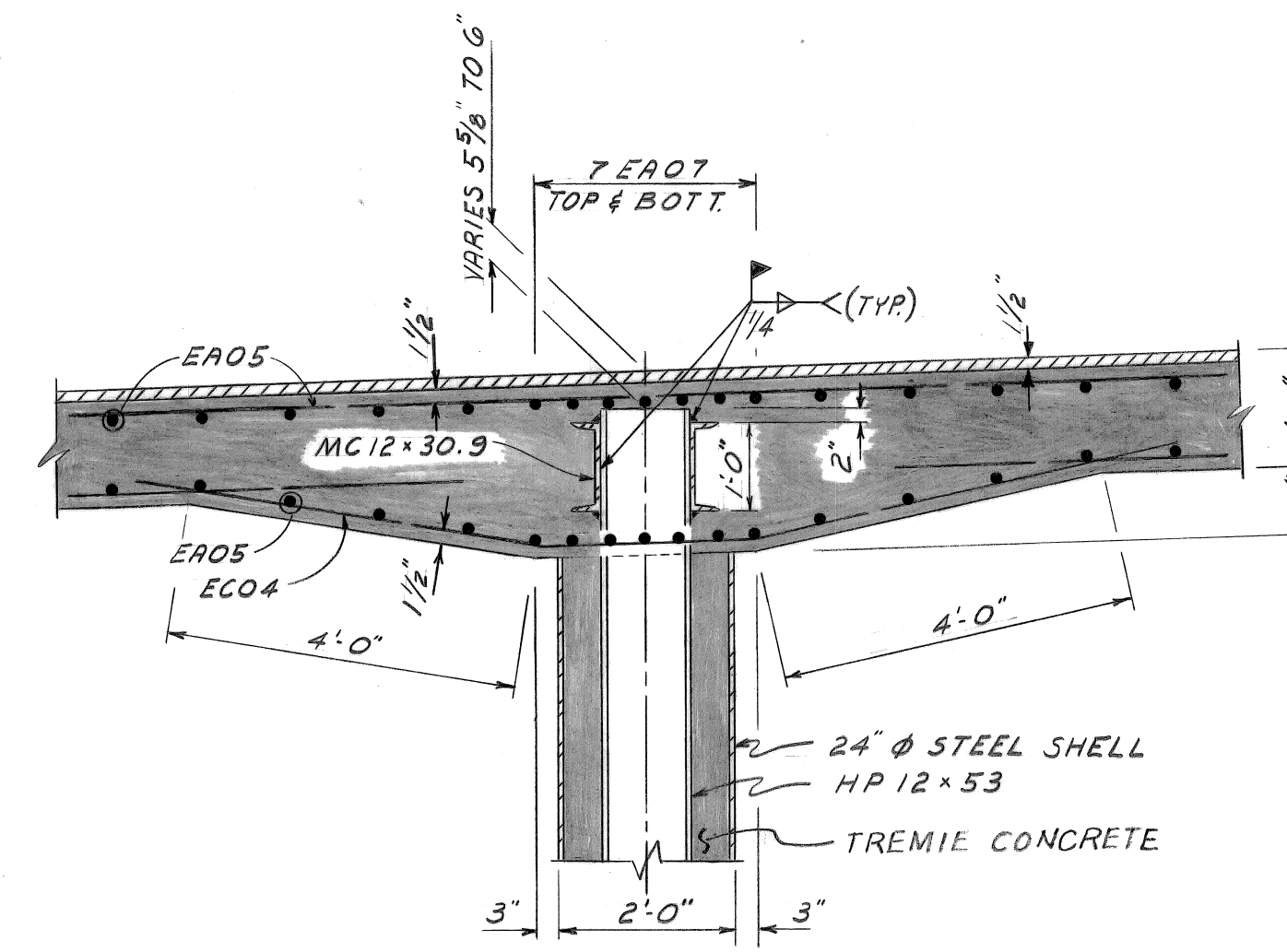
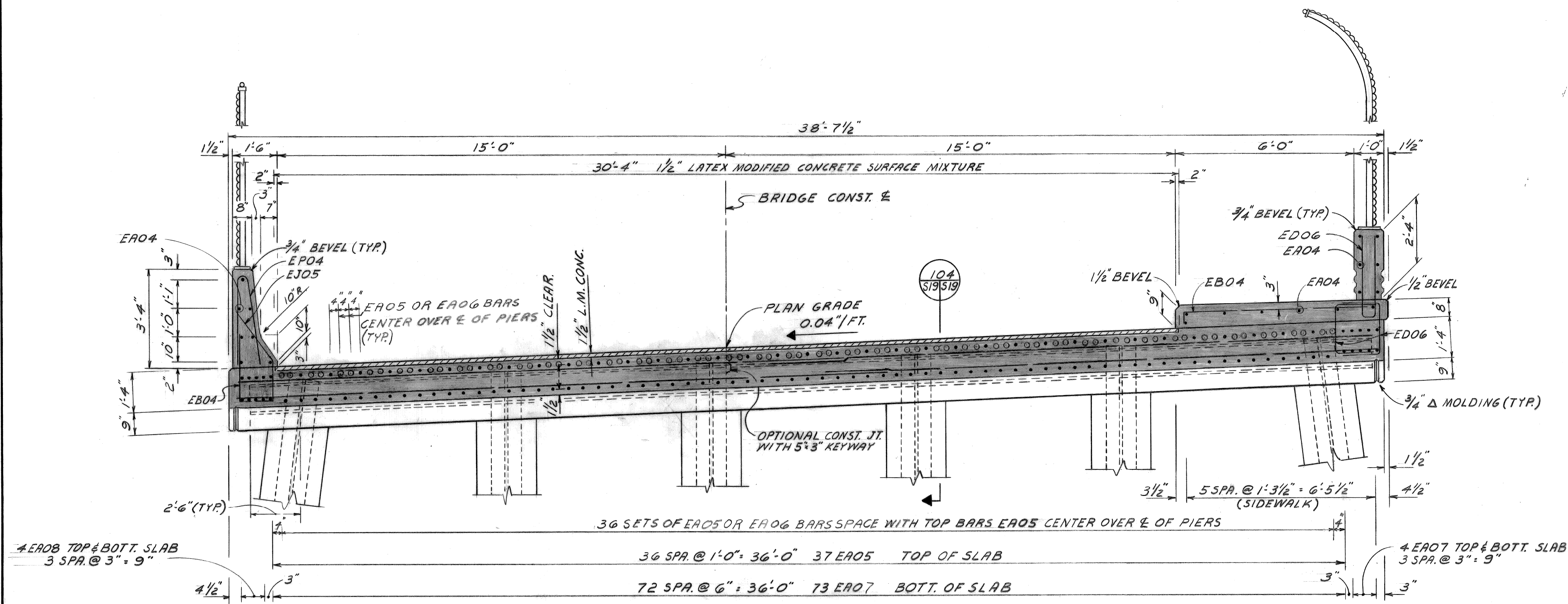
CITY OF DETROIT
 city engineering department
 for DEPARTMENT OF PUBLIC WORKS

BRIDGE RECONSTRUCTION

RIVERSIDE AVENUE OVER FOX CREEK BW - 246

SLAB - TOP REINFORCING BARS

a.o. contract no.
 sheet of drawing no. 5-18
 date NOV. 89



MISCELLANEOUS QUANTITIES		
ITEM	UNIT	AMOUNT
TEMPORARY SUPPORTS	L. S.	1
CONSTRUCTING BRIDGE DECK SURFACE	S. Y.	301
LATEX MODIFIED CONCRETE SURFACING MIXTURE	C. Y.	10.0
PEDESTRIAN FENCING STRUCTURES	S. F.	380
ELECTRICAL GROUNDING SYSTEM	E.A.	2
SUPERSTRUCTURE CONCRETE - NIGHT CASTING	C. Y.	157
FORMING, FINISHING AND CURING OF SUPERSTRUCTURE CONCRETE - NIGHT CASTING	L. S.	1
DECK LIGHTING - NIGHT CASTING	L. S.	1
JOINT WATERPROOFING	S. F.	144
BRIDGE BARRIER RAILING, TYPE 4	L. F.	83
BRIDGE PARAPET	L. F.	61
PENETRATING CONCRETE SEALER FOR CONCRETE SURFACE	S. F.	684

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drawn by D.L.N.
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approved:

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city engineering department
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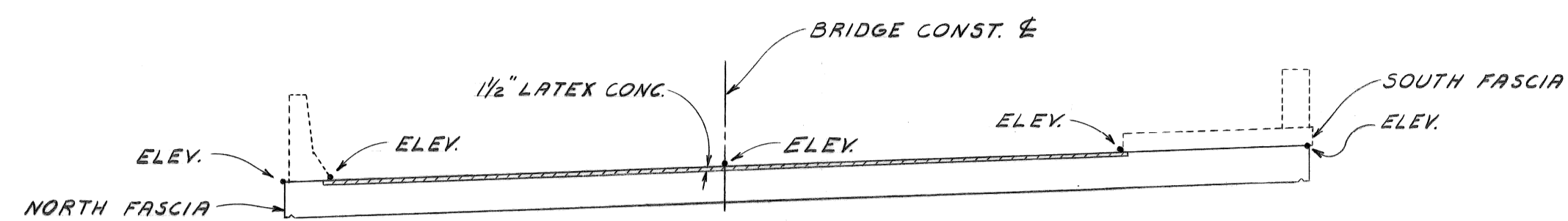
BRIDGE RECONSTRUCTION

RIVERSIDE AVENUE OVER FOX CREEK BW-24G

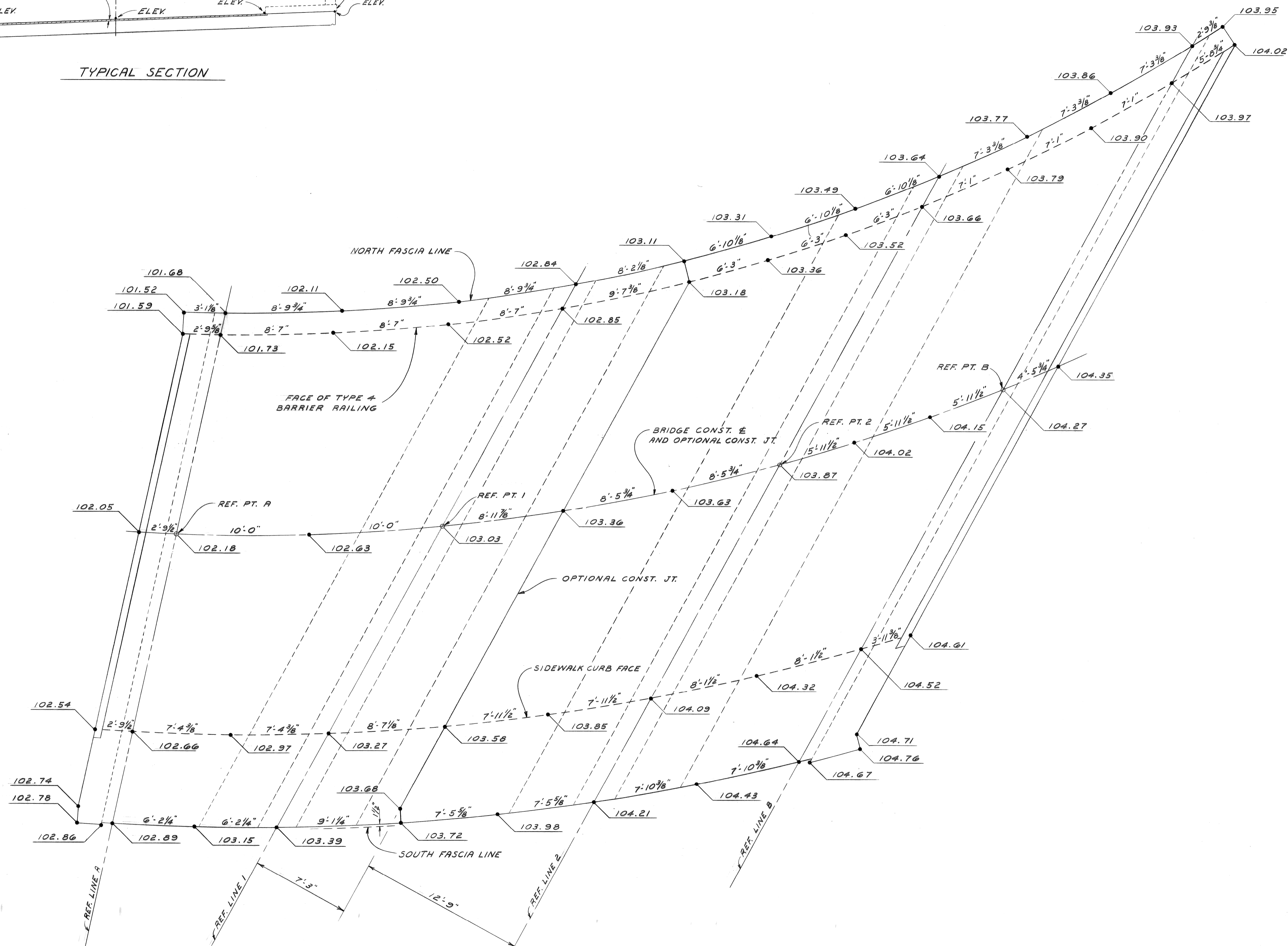
DECK AND PIER DETAILS

a.o. contract no.
sheet of drawing no. S-19
date NOV.89

ELEVATIONS GIVEN ARE FINAL TOP OF STRUCTURAL SLAB ELEVATIONS. SUBTRACT $\frac{1}{2}$ " FOR BOTTOM OF LATEX ELEVATIONS; SUBTRACT 1'-0" FOR PAVEMENT SEAT ELEVATIONS; AND SUBTRACT 1'-4" FOR BOTTOM OF SLAB ELEVATIONS. ADDITIONAL ELEVATION DATA WILL BE MADE AVAILABLE, DURING CONSTRUCTION, UPON REQUEST.

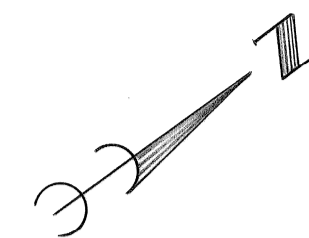


TYPICAL SECTION



TOP OF SLAB ELEVATIONS

NOTE: ALL DIMENSIONS ARE CHORD DIMENSIONS
SCALE $\frac{1}{4}$ " = 1'-0"



designed by _____
drawn by D.L.N.
checked by _____
approved: _____

CITY of DETROIT
city engineering department

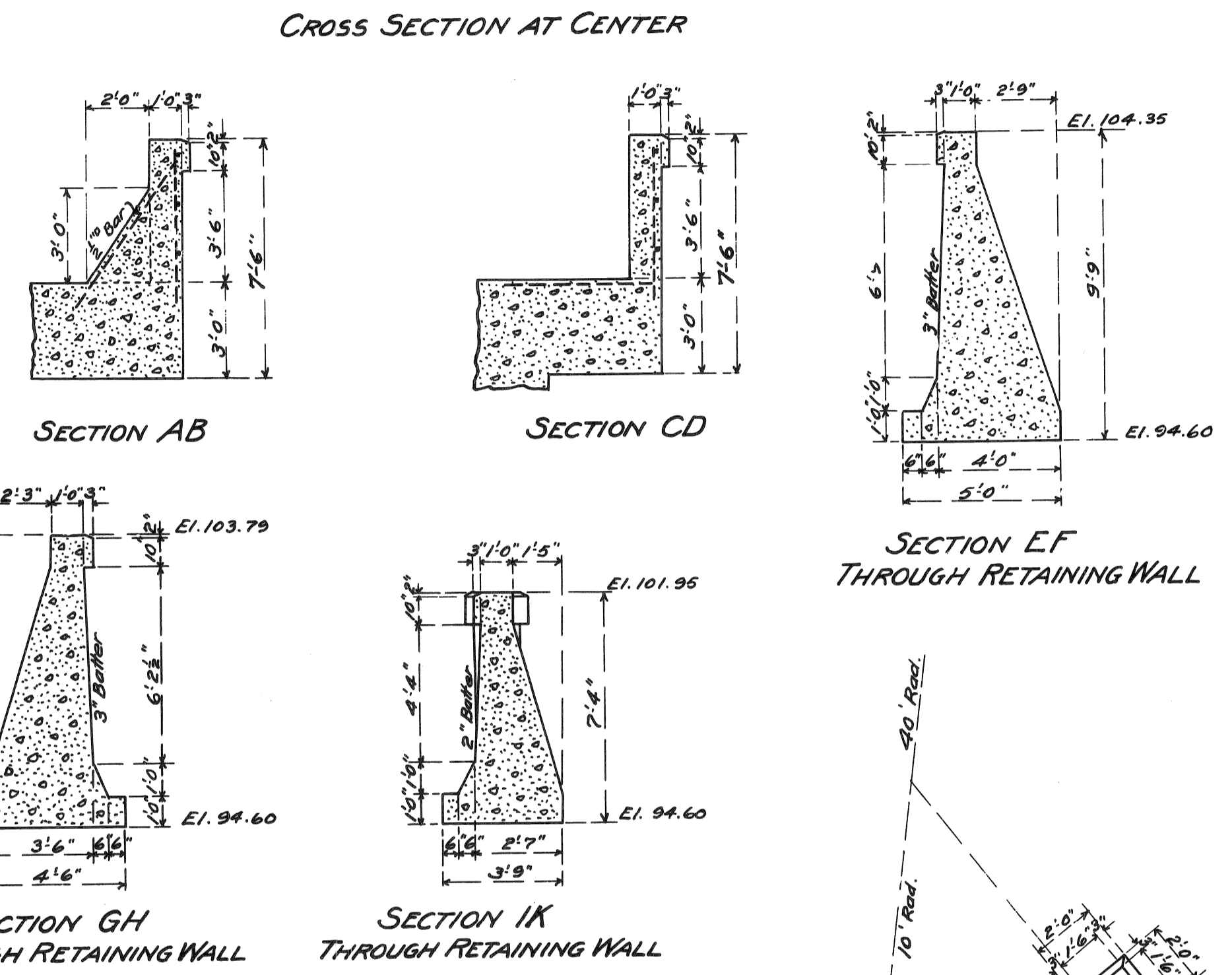
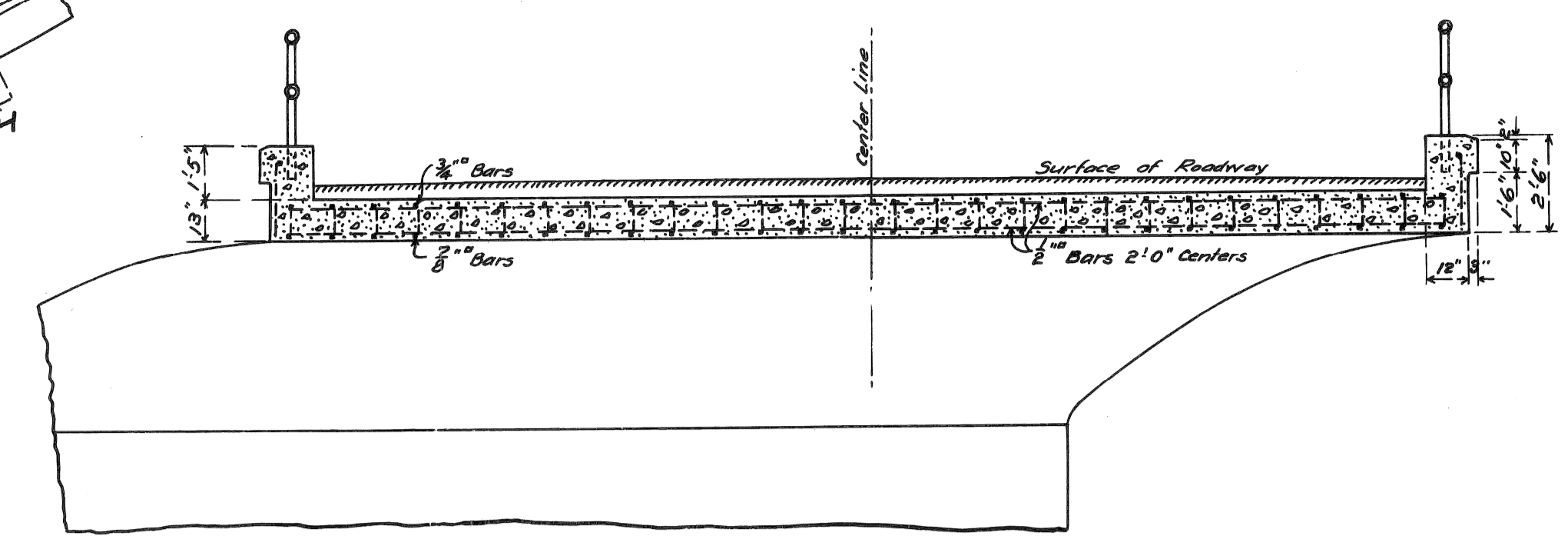
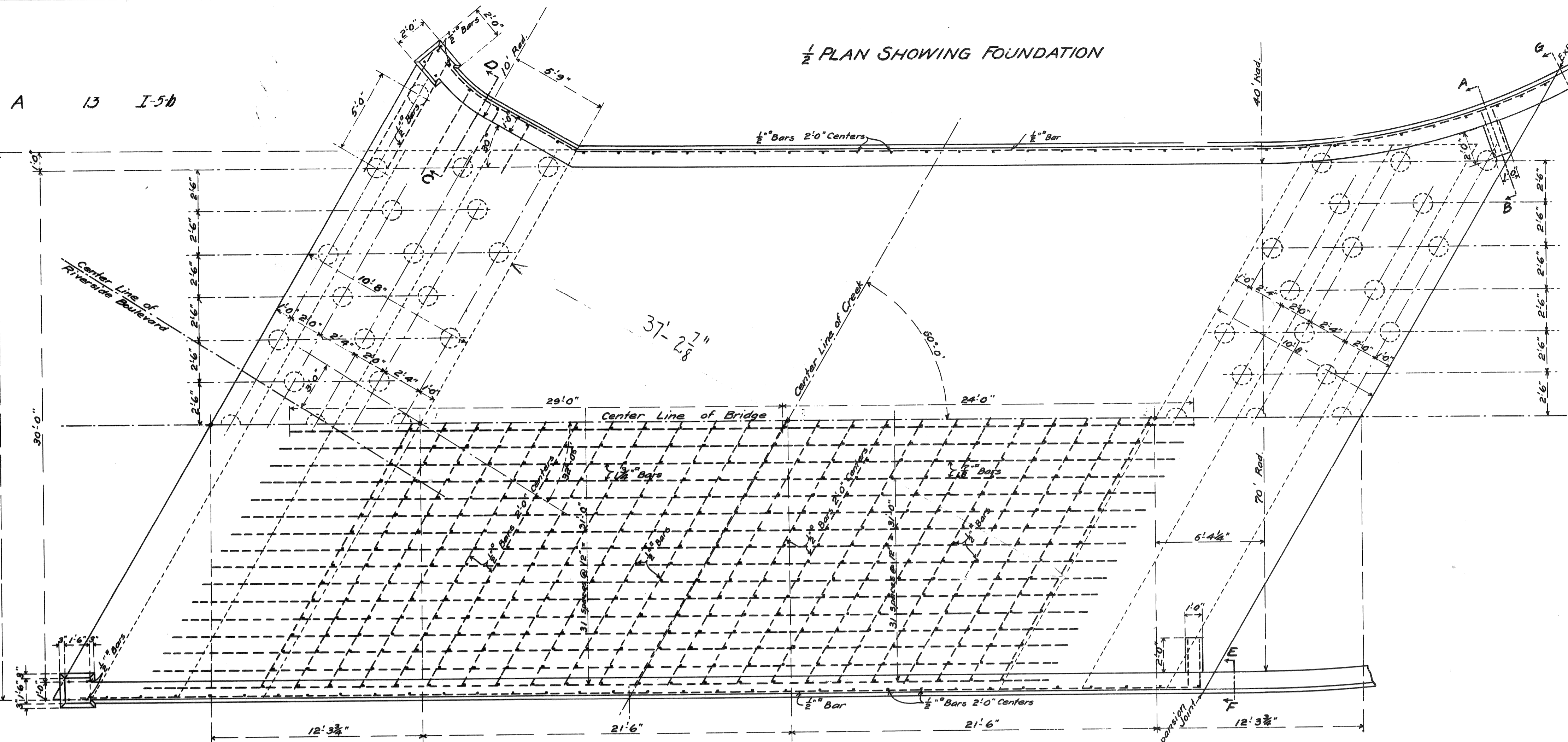
for DEPARTMENT OF PUBLIC WORKS

BRIDGE RECONSTRUCTION

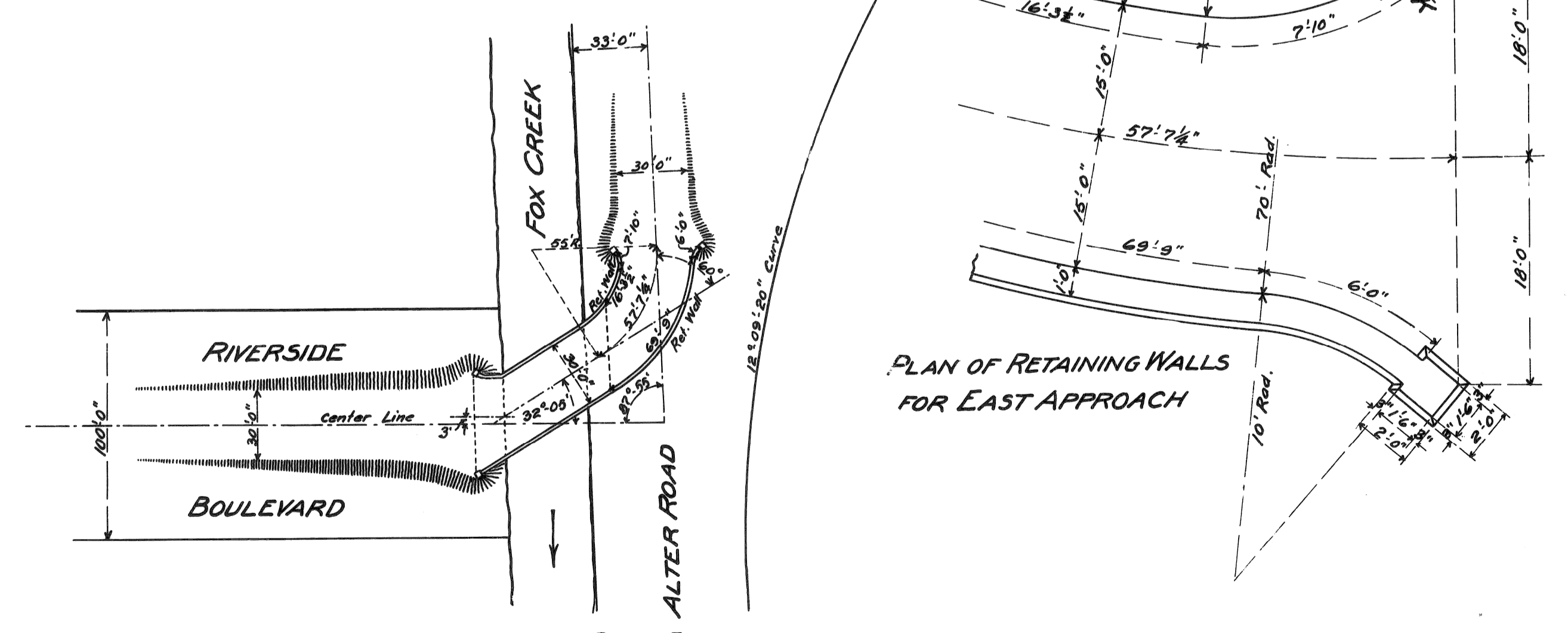
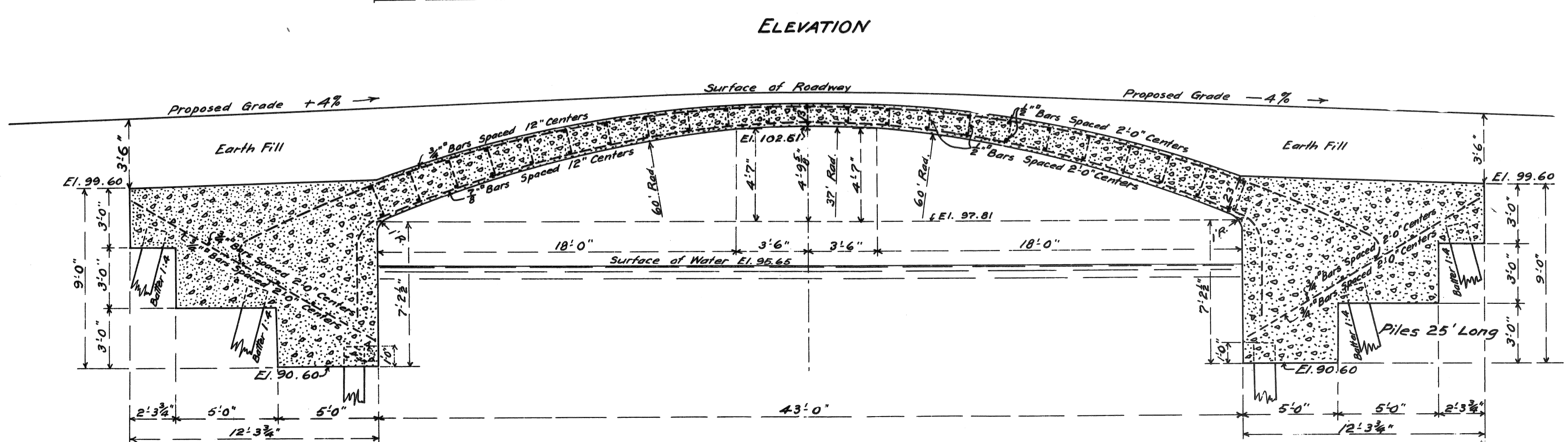
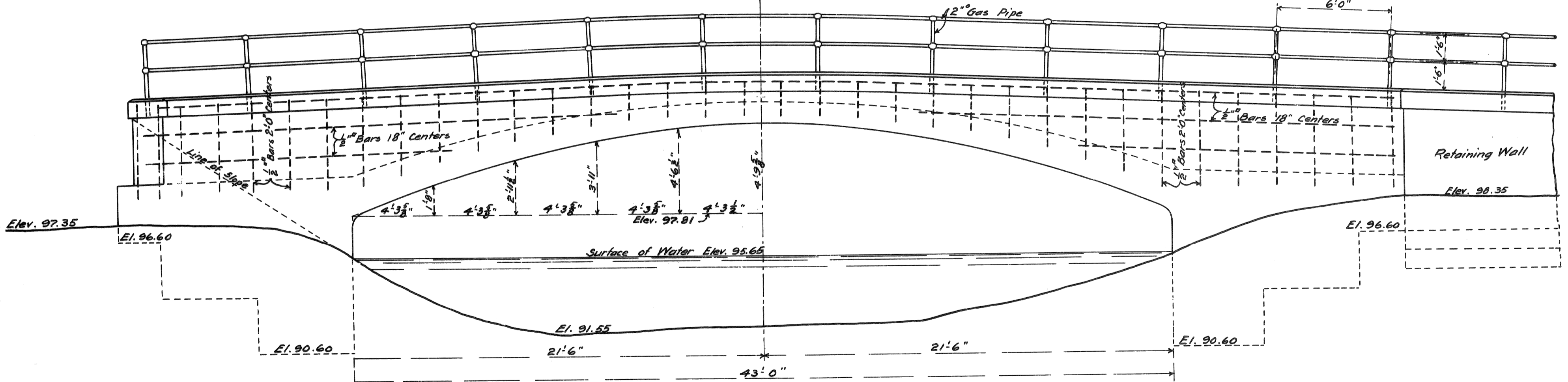
RIVERSIDE AVENUE OVER FOX CREEK BW-246

TOP OF SLAB ELEVATION

a.o. contract no. _____
sheet of drawing no. S-20
date NOV. 8



1/4 PLAN SHOWING UPPER BARS 1/4 PLAN SHOWING LOWER BARS



PLAN SHOWING LOCATION OF BRIDGE
Scale: 1 in. = 50 ft.

All Copings to be 1:1:2 Concrete
Arch Ring and Walls 1:2:4 Concrete
Foundations and Retaining Walls 1:3:6 Concrete
Reinforcing to be Corrugated or Twisted Steel Bars
All material from excavations to be so placed that the surplus after back filling will be within the limits of fill for approaches, which are to be made by the contractor.

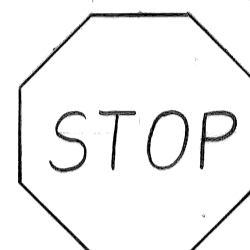
PLAN OF 43'-0"
REINFORCED CONCRETE SKEW ARCH
OVER FOX CREEK
ON RIVERSIDE BOULEVARD
Scale: 1/4 in. = 1 ft. Except Where Noted

CITY ENGINEER'S OFFICE DETROIT, MICHIGAN
May, 26th, 1909
J.A.S.

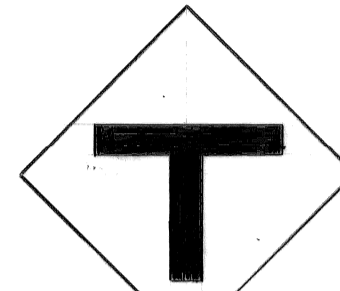
PAY ITEM	UNIT	AMOUNT	REFERENCE DRWG. NO.
AGGREGATE BASE BITUMINIOUS (6" IN PLACE)	S.Y.	2127	C-3
AGGREGATE BASE CONCRETE (VARIABLE THICKNESS)	L.S.	1 *	S-4, C-3
BITUMINIOUS MIXTURE COARSE AGG. CALC.	TON	185	C-3
BITUMINIOUS MIXTURE COARSE AGG. CATC.	TON	183	C-3
BITUMINIOUS CURB	L.F.	703	C-3
CONCRETE PAYMENT (REINF) 9" WITH INTEGRAL CURB	S.Y.	1447	C-3
4" CONCRETE SIDEWALK	S.F.	3490	C-3
CONCRETE DRIVEWAY NON REINFORCED (6" THICK)	C.Y.	7	C-2, C-3
CONCRETE CURB, DETAIL CD	L.F.	65	C-3
TEMPORARY FENCE	L.F.	575	C-3
LIGHTED ARROW, TYPE A FURNISHED	E.A.	2	C-3
LIGHTED ARROW, TYPE A OPERATED	E.A.	2	C-3
BARRICADE TYPE II LIGHTED, FURNISHED	E.A.	30	C-3
BARRICADE TYPE II LIGHTED, OPERATED	E.A.	20	C-3
BARRICADE TYPE III LIGHTED, FURNISHED	E.A.	12	C-3
BARRICADE TYPE III LIGHTED, OPERATED	E.A.	8	C-3
SIGN, TYPE A TEMPORARY	S.F.	253	C-3
TEMPORARY PAVEMENT MARKING, TYPE R	L.F.	200	C-3
TEMPORARY PAVEMENT MARKING, TYPE NR	L.F.	800	C-3
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 4" YELLOW	L.F.	1200	C-4
MINOR TRAFFIC DIVICES	L.S.	1	-
CLASS B SODDING	S.Y.	2250	C-4
TOPSOIL SURFACE, 3"	S.Y.	2250	C-4
DOUBLE LINE - YELLOW	STA.	6	C-1
SKIP LINE - YELLOW	STA.	6	C-1
SIGN TYPE III A	S.F.	57	C-1

* INFORMATIONAL QUANTITIES 175 CU. YD.

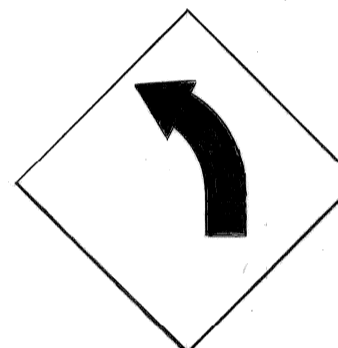
ROAD SIGN SCHEDULE	
WI-6 WARNING ARROW (TARGET) 4EA.	
WI-2L WARNING ARROW (L) 1EA.	
W2-4 T SYMBOL SIGN 1EA.	
RI-1 STOP SIGN 1EA.	
WI-2A WARNING ARROW (R) 1EA.	



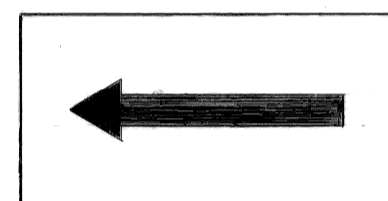
RI-1
30'x30'



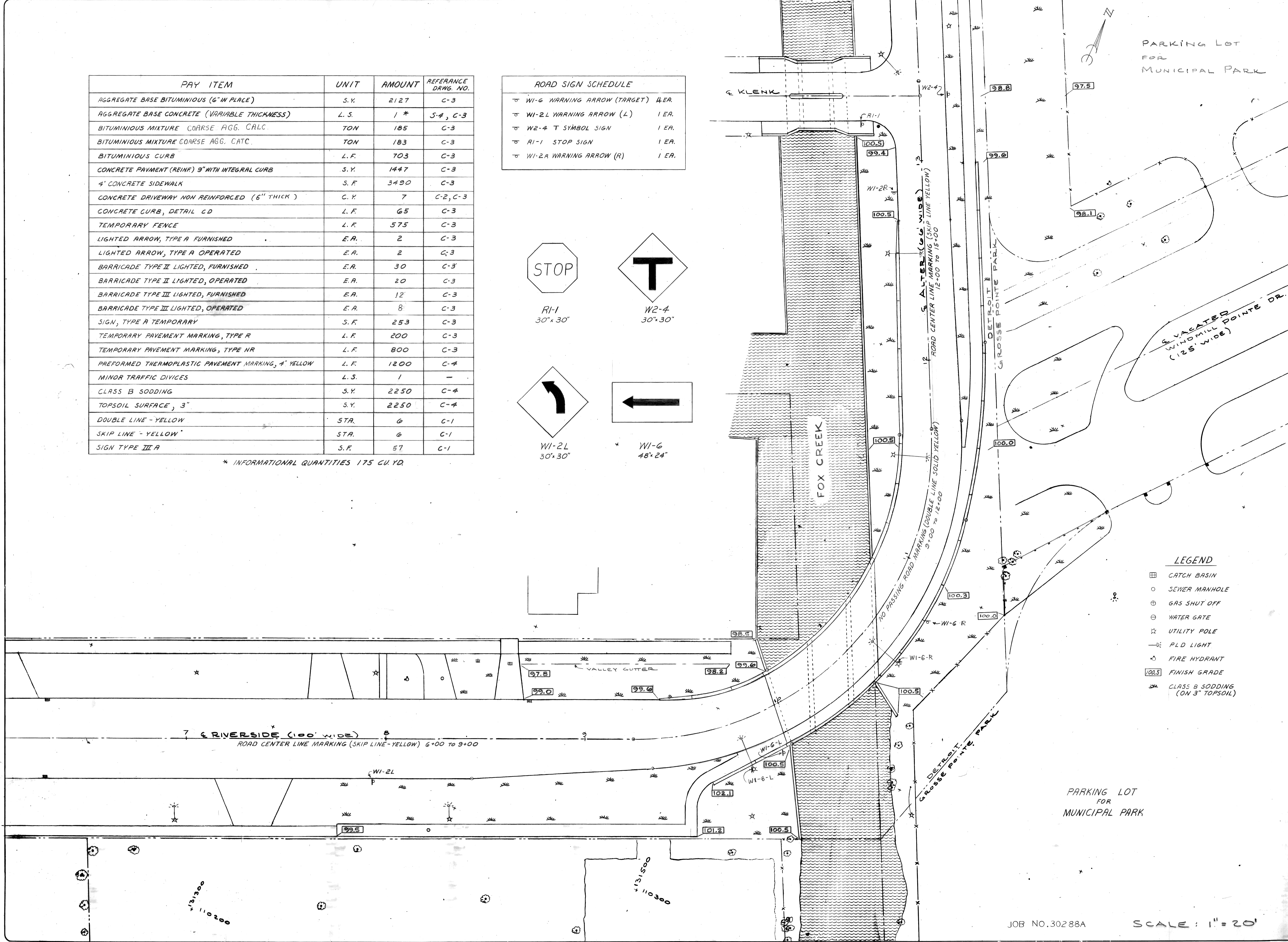
W2-4
30'x30'



WI-2L
30'x30'



WI-6
48'x24'



PARKING LOT FOR MUNICIPAL PARK

VACATED WINDMILL POINTE DR. (125' WIDE)

LEGEND

- CATCH BASIN
- SEWER MANHOLE
- GAS SHUT OFF
- WATER GATE
- UTILITY POLE
- PLD LIGHT
- FIRE HYDRANT
- FINISH GRADE
- CLASS B SODDING (ON 3" TOPSOIL)

NO.	DATE	BY	REVISIONS

designed by
drawn by
checked by
approved:

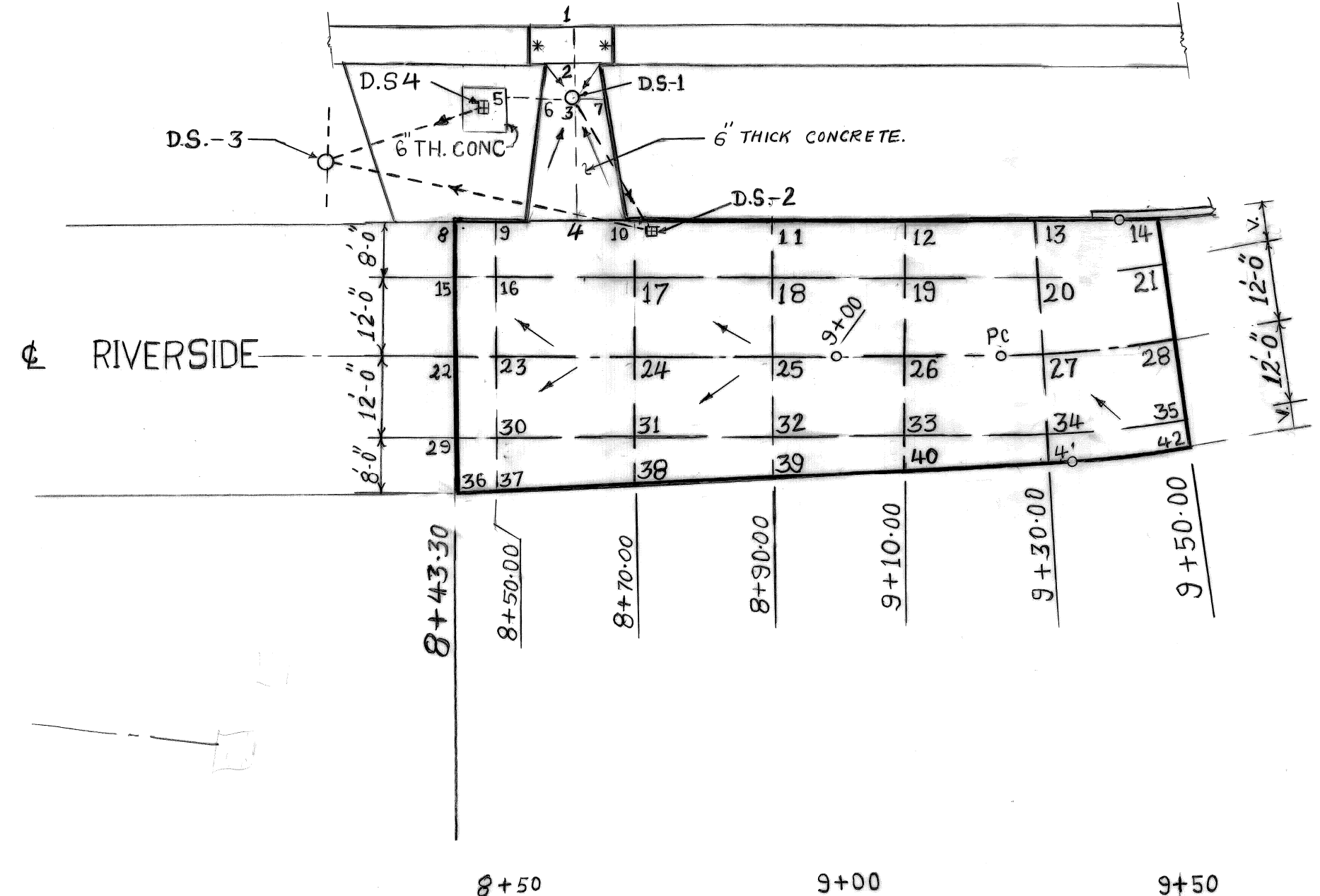
CITY OF DETROIT
city engineering department
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BRIDGE RECONSTRUCTION
RIVERSIDE AVENUE OVER FOX CREEK
BW-246

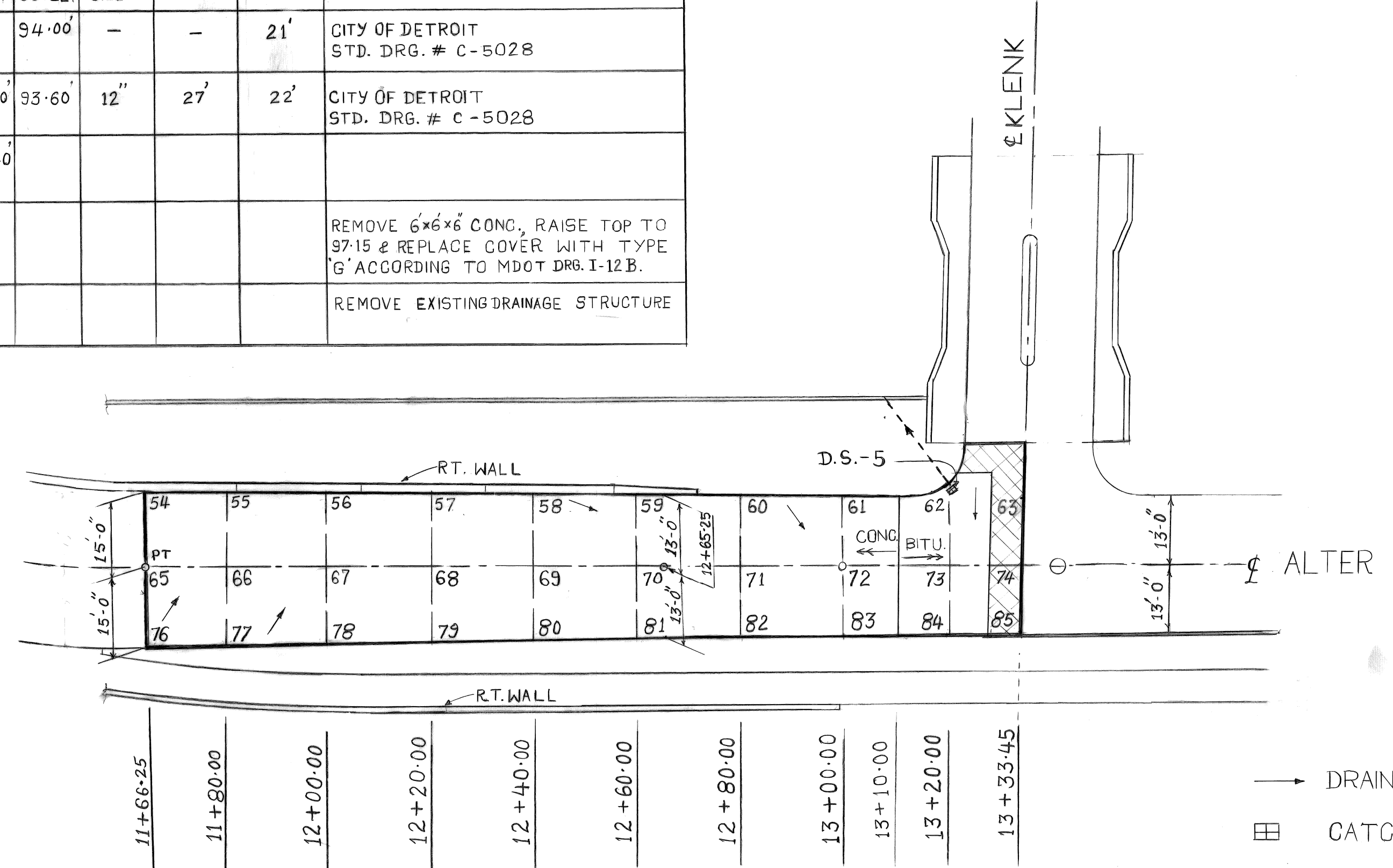
FINAL SITE PLAN

a.o. contract no.
sheet of drawing no. C-1
date NOV. 89

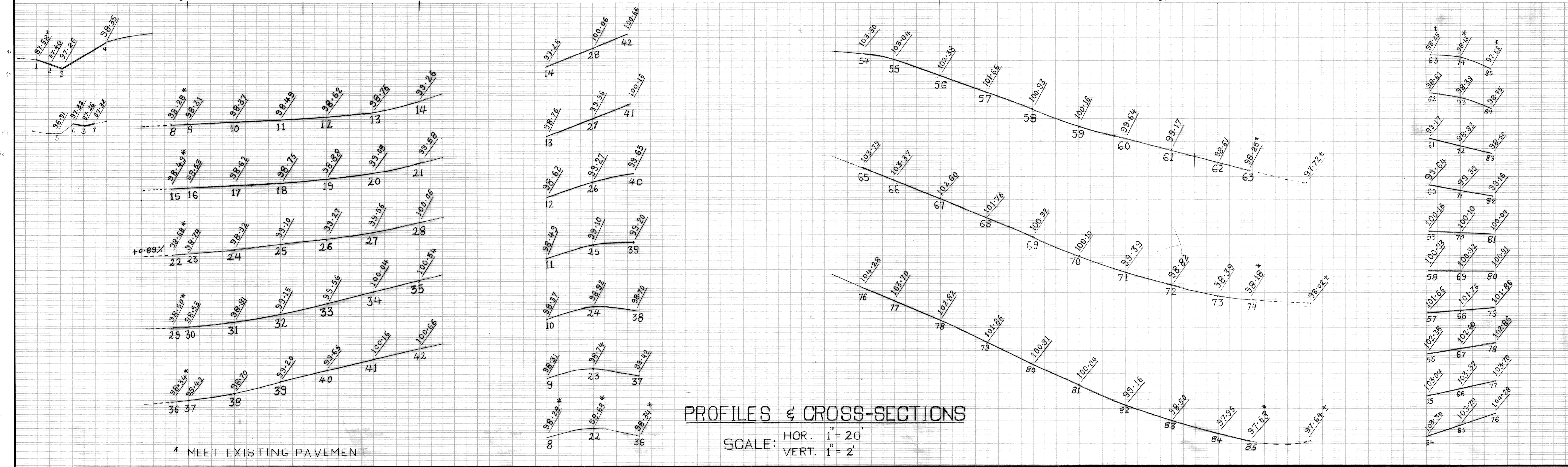
DRAINAGE STRUCTURE NO.	TYPE OF STRUCTURE	WITH TRAP	SEWER LENGTH AND TYPE, LEAVING D.S.			SEWER INVERT LEVEL		TRENCH DETAIL MDOT STD. IV-84D		REMARK
			LENGTH	SIZE	CLASS	INLET	OUTLET	8	9	
D.S.-1	C.B. "A"		21'	12"	C-76 III	-	94.00	-	21'	CITY OF DETROIT STD. DRG. # C-5028
D.S.-2	C.B. "B"	T	49'	12"	C-76 III	93.80	93.60	12"	22'	CITY OF DETROIT STD. DRG. # C-5028
D.S.-3	EXISTING M.H.					93.40				
D.S.-4	EXISTING C.B.									REMOVE 6'x6' CONC. RAISE TOP TO 97.15 & REPLACE COVER WITH TYPE 'G' ACCORDING TO MDOT DRG. I-12.B.
D.S.-5	EXISTING C.B.									REMOVE EXISTING DRAINAGE STRUCTURE



PLAN SCALE: 1" = 20'



LEGEND
 → DRAINAGE FLOW ARROWS
 [Symbol] CATCH BASIN
 [Symbol] STRIP AND RE SURFACE STRIPPING SHALL BE INCIDENTAL TO BIT. MIX. 1500 L



PROFILES & CROSS-SECTIONS SCALE: HOR. 1" = 20' VERT. 1" = 2'

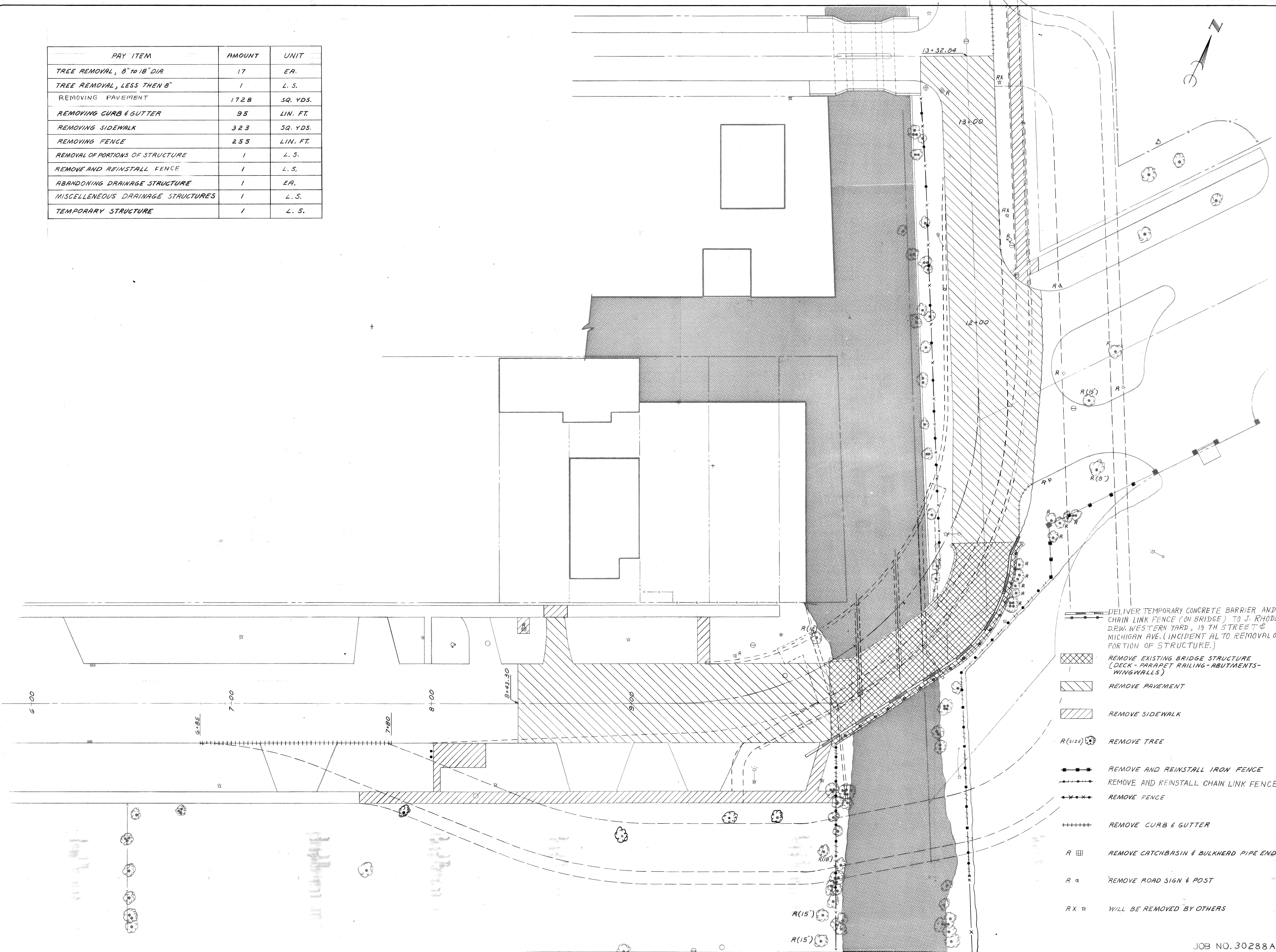
PLAN	BY	CHECKED BY	APPROVED:
GRADE	S. PATEL		ENGINEER OF STREETS
ESTIMATE			HIGHWAY ENGINEER
DESCRIPTION	OR H	CK D	AP V
REVISIONS	DATE	CHECK	REVIEW

CITY OF DETROIT
 CITY ENGINEERING DEPARTMENT
 BUREAUS OF STREETS AND HIGHWAYS

DETAILED GRADES
 RIVERSIDE AVENUE AT FOX CREEK
 RECONSTRUCTION
 JOB NO. 30288A

INDEX NO.	SHEET ____ OF ____ SHEETS
CONTRACT NO.	
ASSIGNMENT NO.	C-2
DATE	NOV. 89

PAY ITEM	AMOUNT	UNIT
TREE REMOVAL, 6" TO 18" DIA.	17	EA.
TREE REMOVAL, LESS THEN 6"	1	L. S.
REMOVING PAVEMENT	1728	SQ. YDS.
REMOVING CURB & GUTTER	95	LIN. FT.
REMOVING SIDEWALK	323	SQ. YDS.
REMOVING FENCE	255	LIN. FT.
REMOVAL OF PORTIONS OF STRUCTURE	1	L. S.
REMOVE AND REINSTALL FENCE	1	L. S.
ABANDONING DRAINAGE STRUCTURE	1	EA.
MISCELLANEOUS DRAINAGE STRUCTURES	1	L. S.
TEMPORARY STRUCTURE	1	L. S.



- DELIVER TEMPORARY CONCRETE BARRIER AND CHAIN LINK FENCE (ON BRIDGE) TO J. RHODES D.P.W. WESTERN YARD, 19 TH STREET & MICHIGAN AVE. (INCIDENTAL TO REMOVAL OF PORTION OF STRUCTURE.)
- REMOVE EXISTING BRIDGE STRUCTURE (DECK - PARAPET RAILING - ABUTMENTS - WINGWALLS)
- REMOVE PAVEMENT
- REMOVE SIDEWALK
- R(12) REMOVE TREE
- REMOVE AND REINSTALL IRON FENCE
- REMOVE AND REINSTALL CHAIN LINK FENCE
- REMOVE FENCE
- REMOVE CURB & GUTTER
- R (18) REMOVE CATCHBASIN & BULKHEAD PIPE ENDS
- R 9 REMOVE ROAD SIGN & POST
- R X * WILL BE REMOVED BY OTHERS

NO.	DESCRIPTION	DATE

designed by _____
 drawn by _____
 checked by _____
 approved: _____

CITY OF DETROIT
 city engineering department
 for DEPARTMENT OF PUBLIC WORKS

BRIDGE RECONSTRUCTION

RIVERSIDE AVENUE OVER FOX CREEK BW-246

REMOVALS

a.o. contract no. _____
 sheet of drawing no. C-5
 date NOV. 89