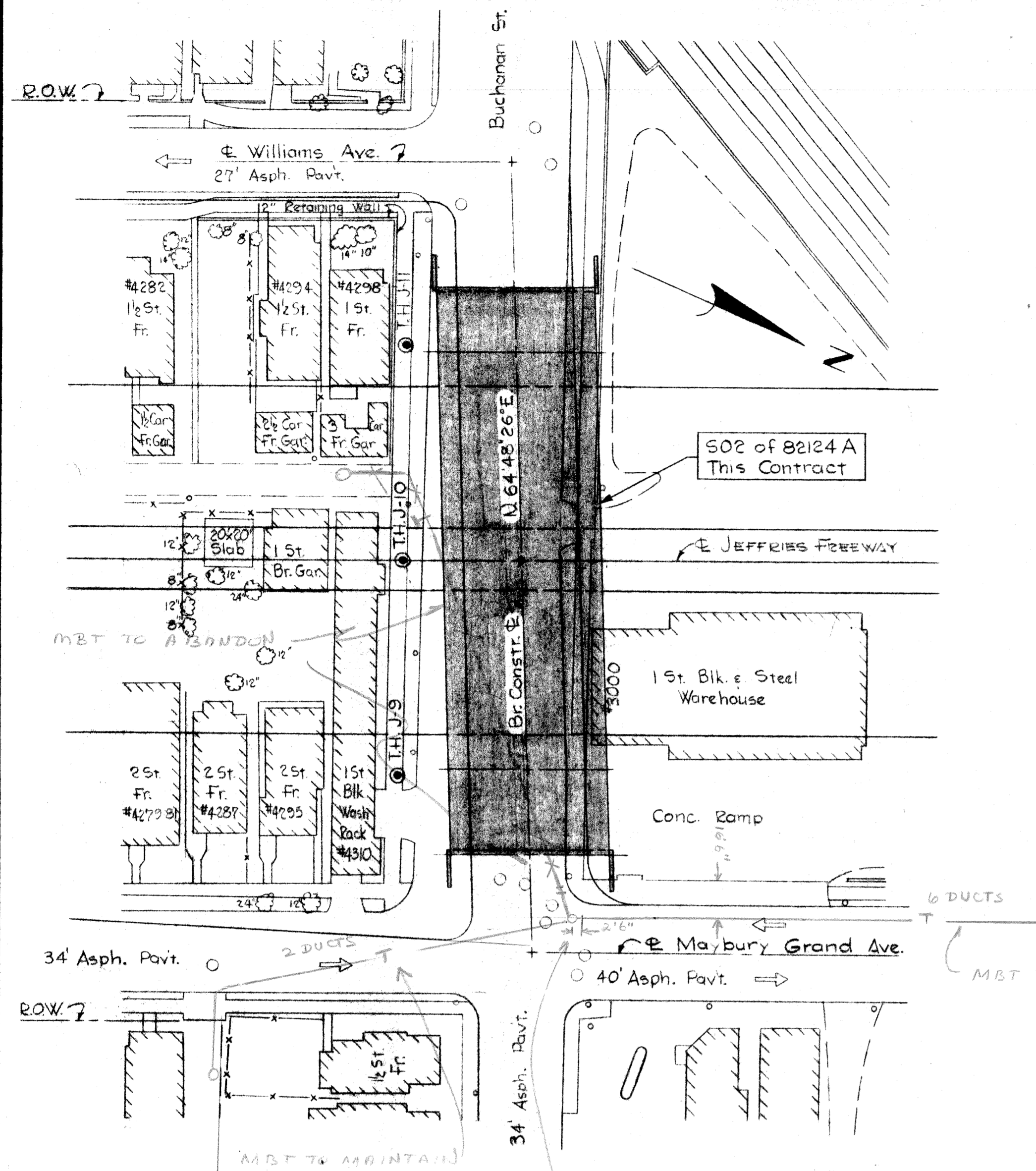
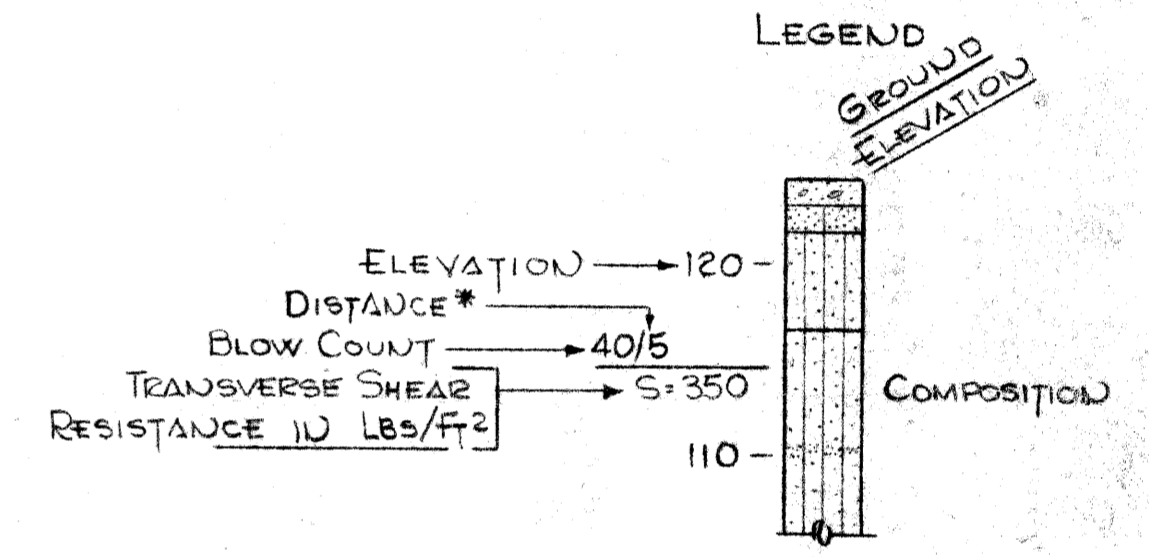
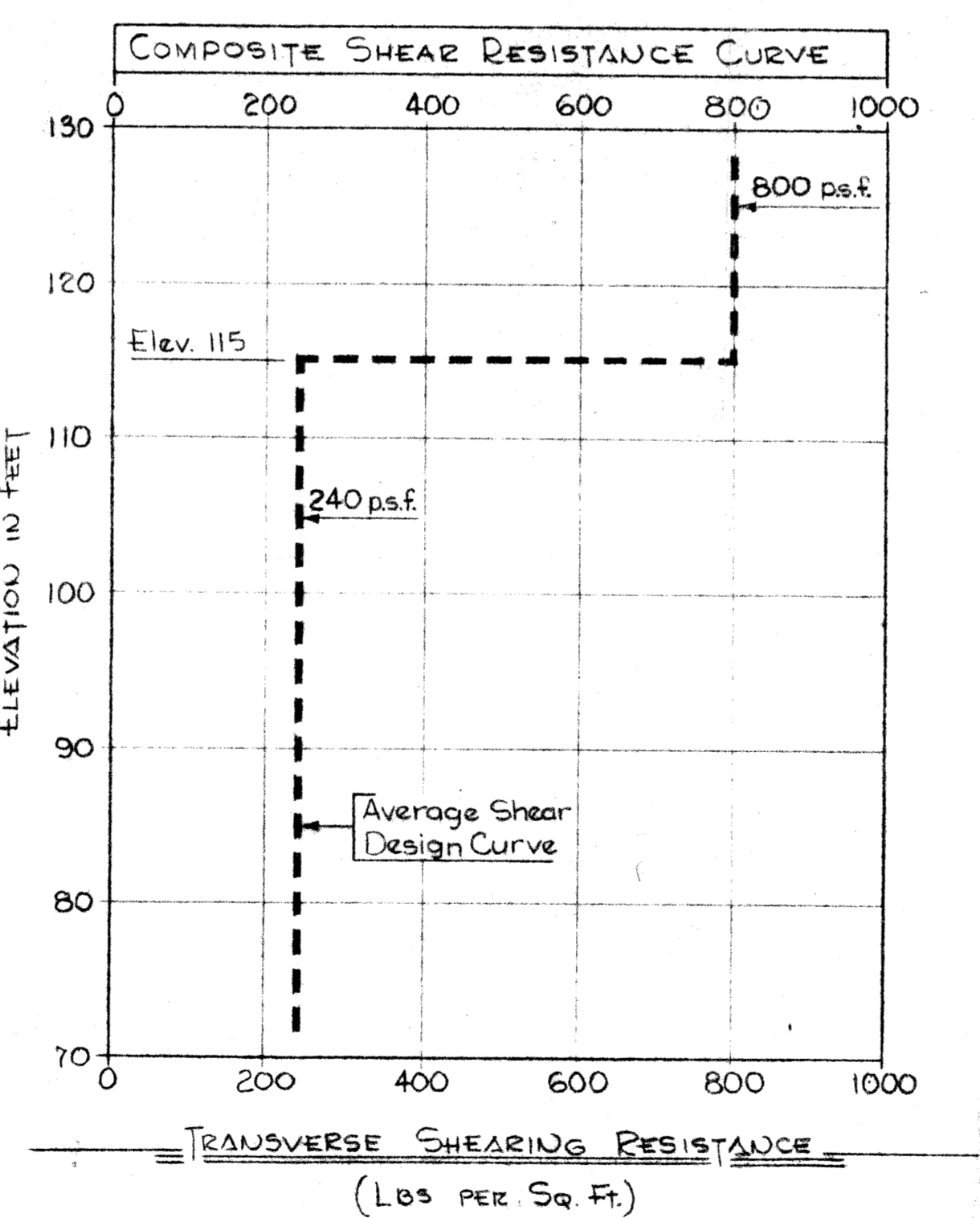
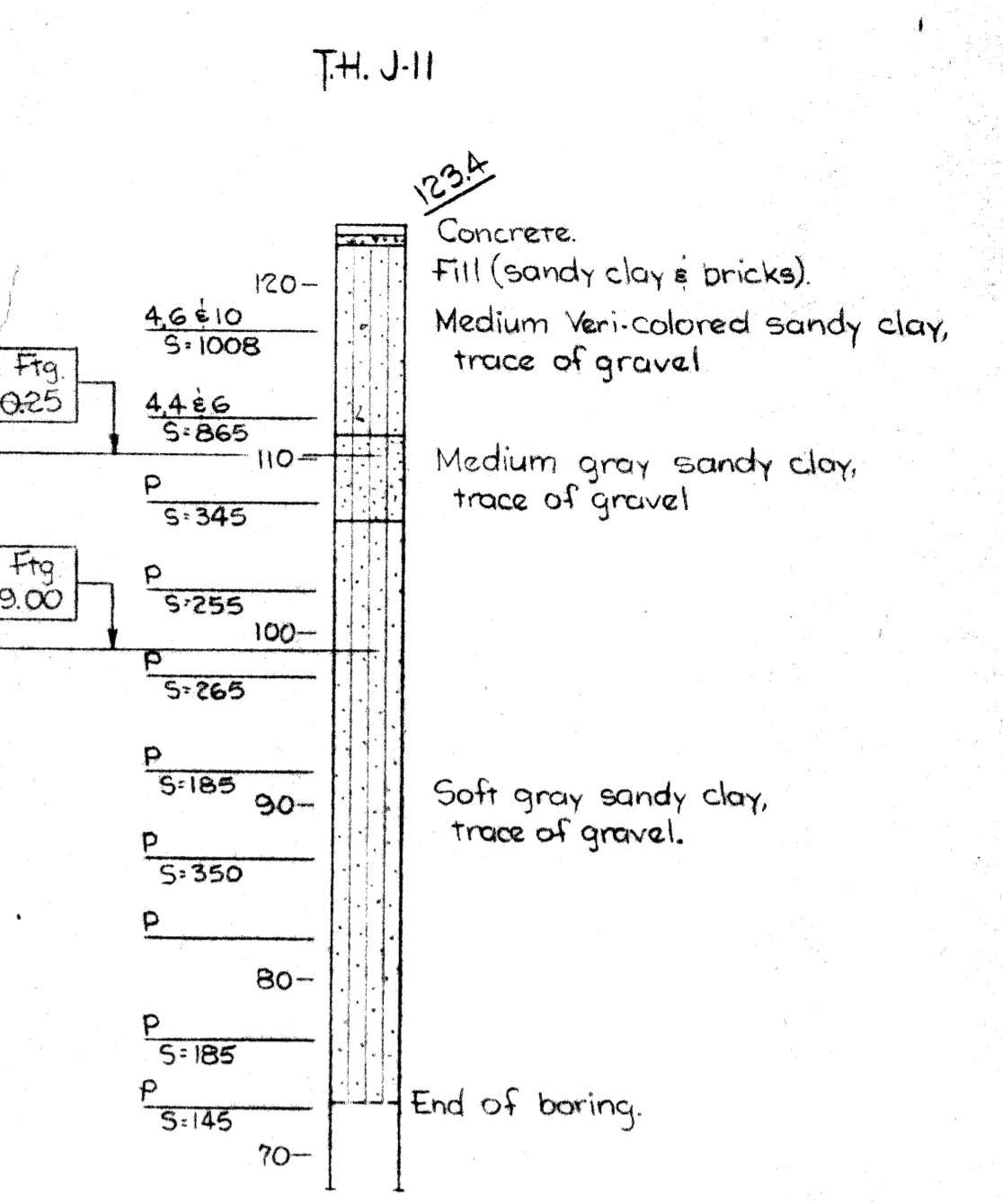
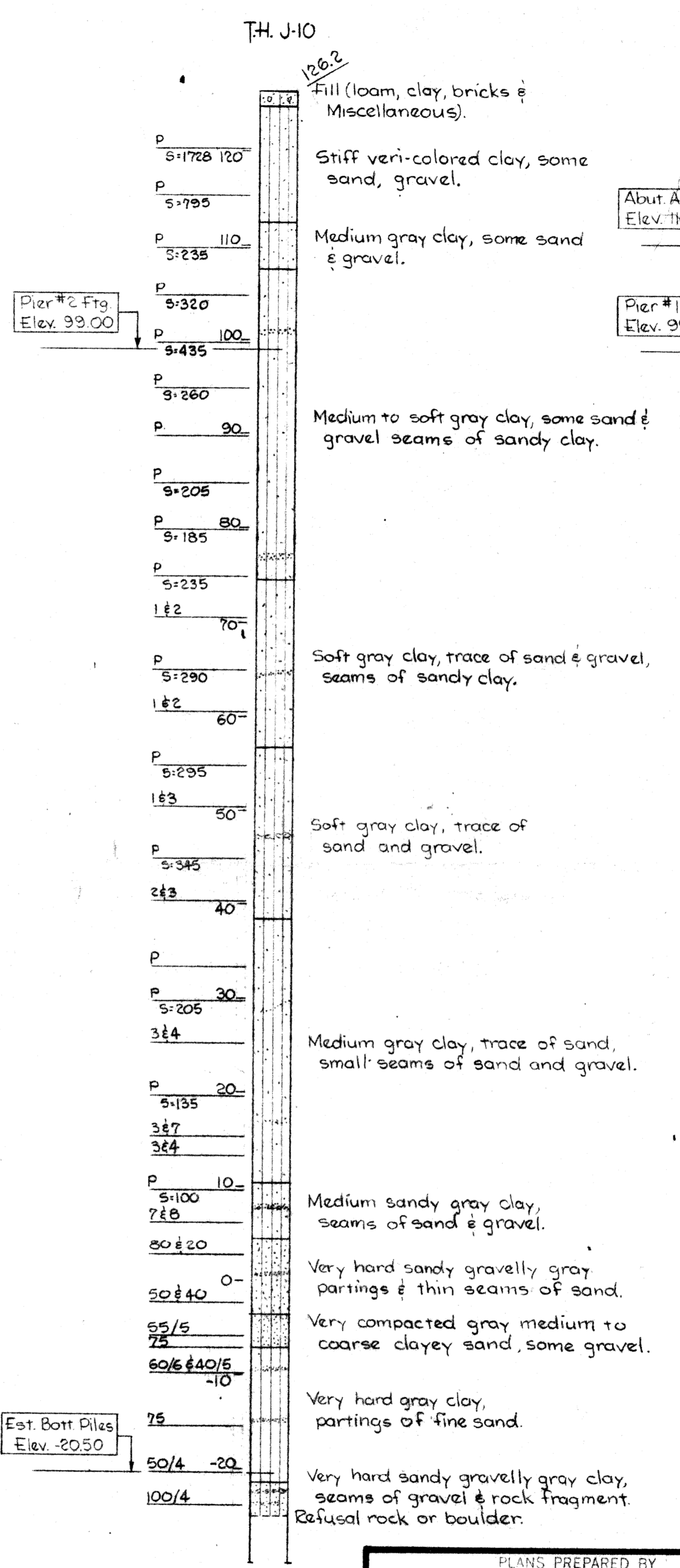
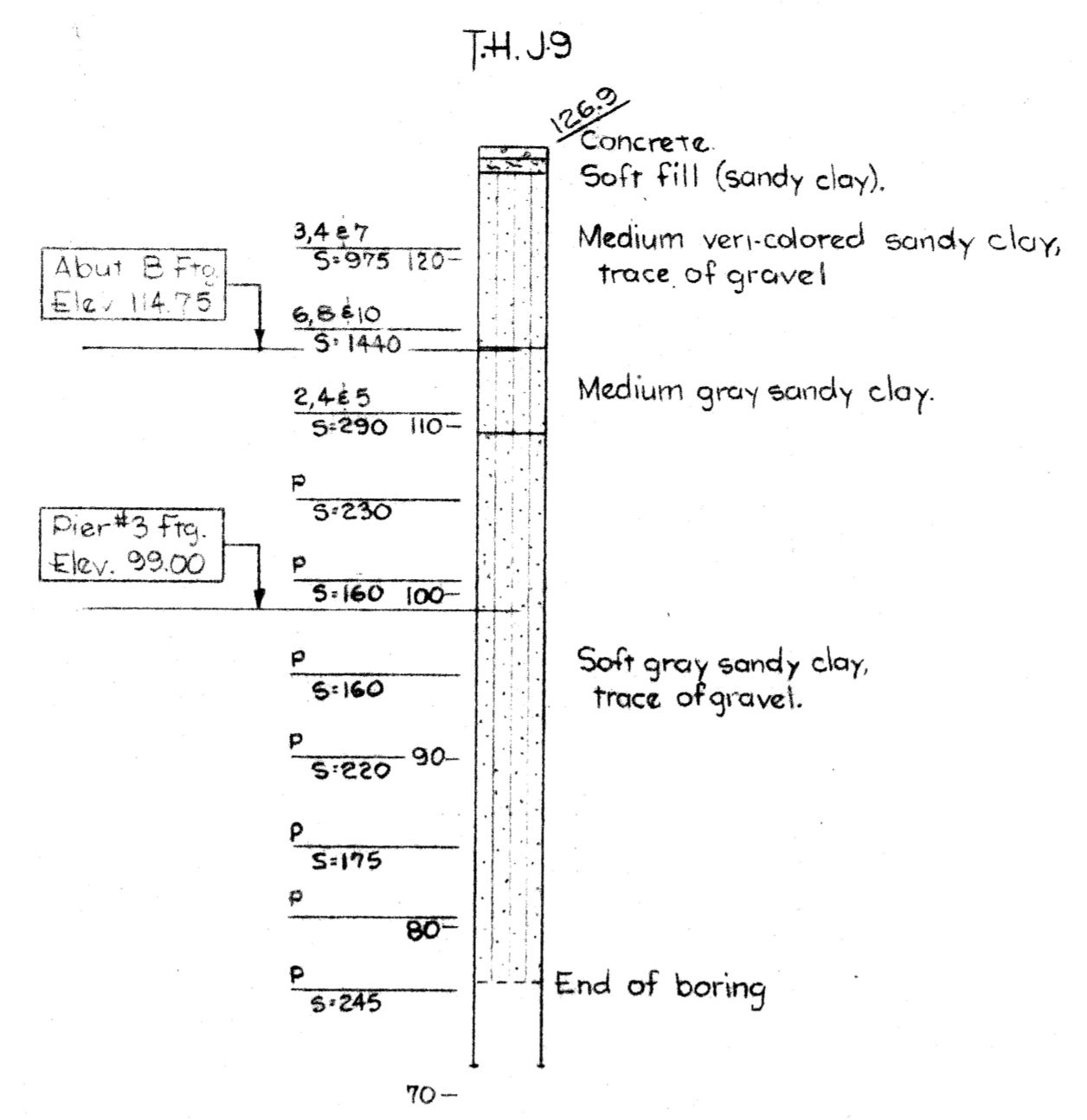


LOG OF SOIL BORINGS



SURVEY PLAN
Scale: 1"=40'

MICHIGAN BELL TELEPHONE CO
WILL NOT REQUIRE FACILITIES
IN BUCHANAN STREET BRIDGE



NOTES:
 Blow Count - Indicates number of blows required to drive a sampler G* (unless otherwise noted), using a 40# hammer falling 30"
 P - Indicates sampler was pushed.
 S - Indicates Transverse Shear Resistance in Lbs/sq. ft. as determined by M.S.H.D. Standard test.

GENERAL NOTES:
 The work covered by these plans includes construction of the proposed bridge and placing sand-gravel material and slope protection to the limits shown. All other work is included in the Road Plans which are part of this contract.
 Removal of fences and buildings is not a part of this contract.
 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.
 Topography shown hereon represents conditions existing at the time the field survey was made. However, these conditions may have been materially altered by the operations of others before the work has been started.

RECEIVED
 JUN 10 1966
 DISTRICT PLANT ENGINEER
 WILSON-WYANDOTTE

PRELIMINARY PLAN A - DATED: MAY 12, 1966
 LETTING DATE: OCT. 1967

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(1)

REVISIONS

NO.	DESCRIPTION	DATE	BY

MICHIGAN STATE HIGHWAY DEPARTMENT
 BUCHANAN ST. CROSSING JEFFRIES FREEWAY
 IN DETROIT

GENERAL PLAN OF SITE

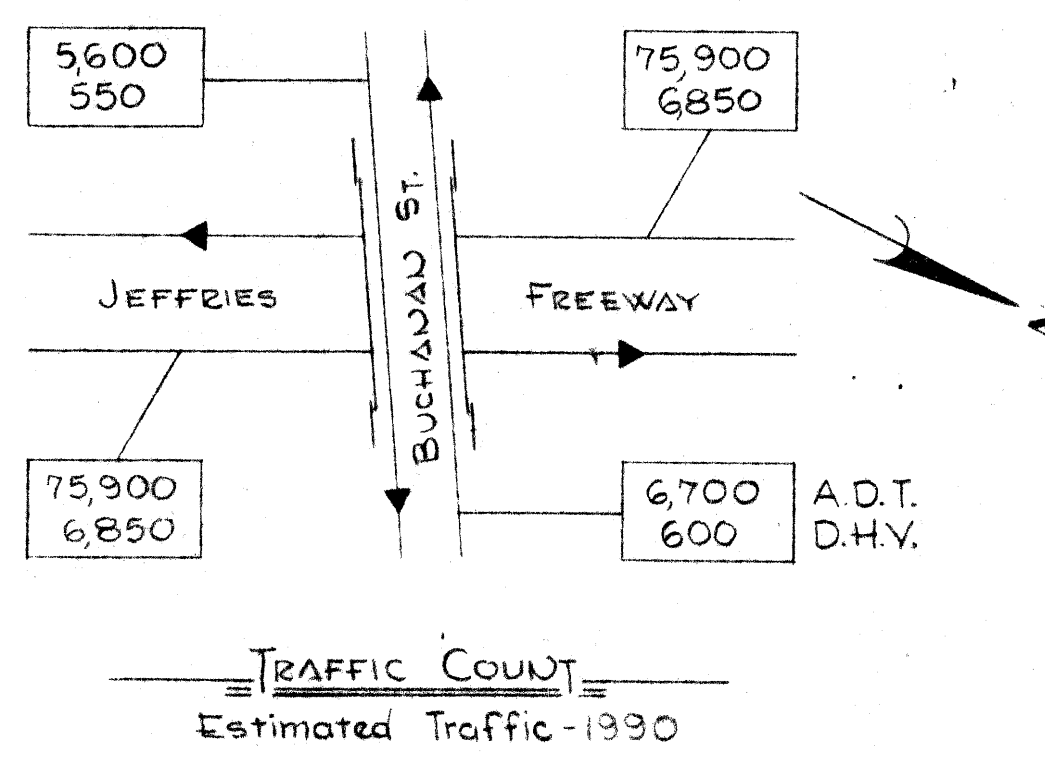
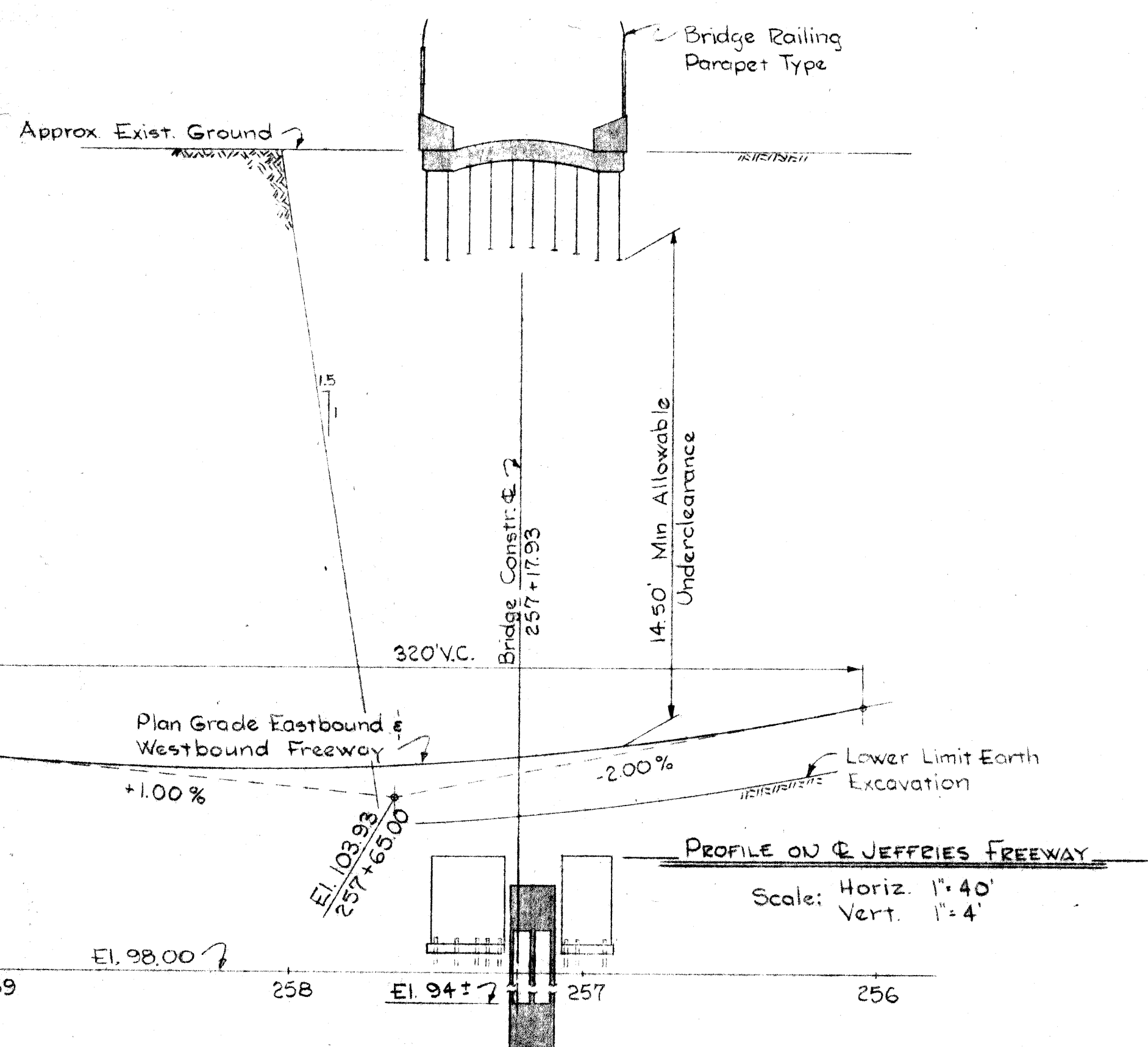
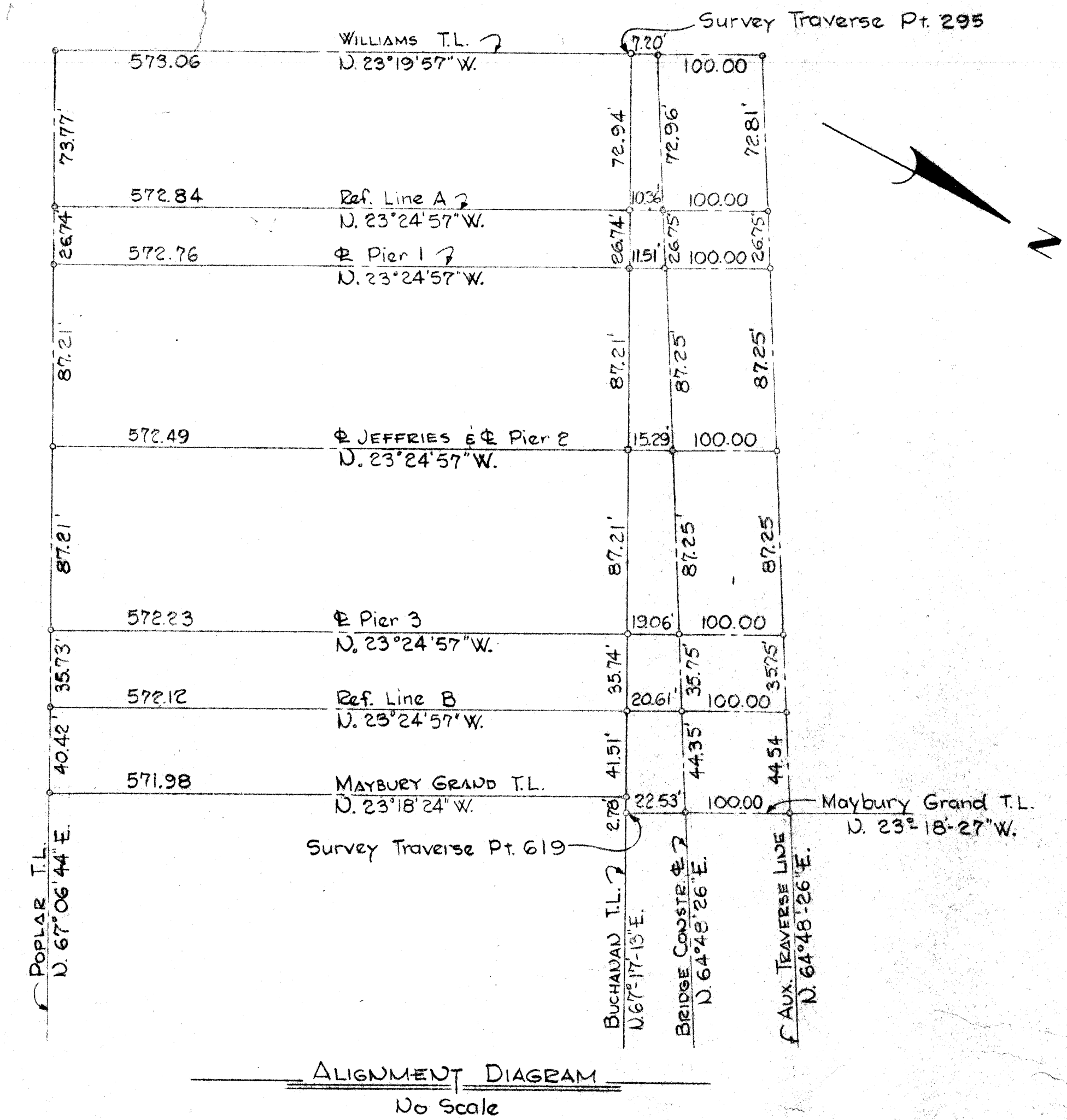
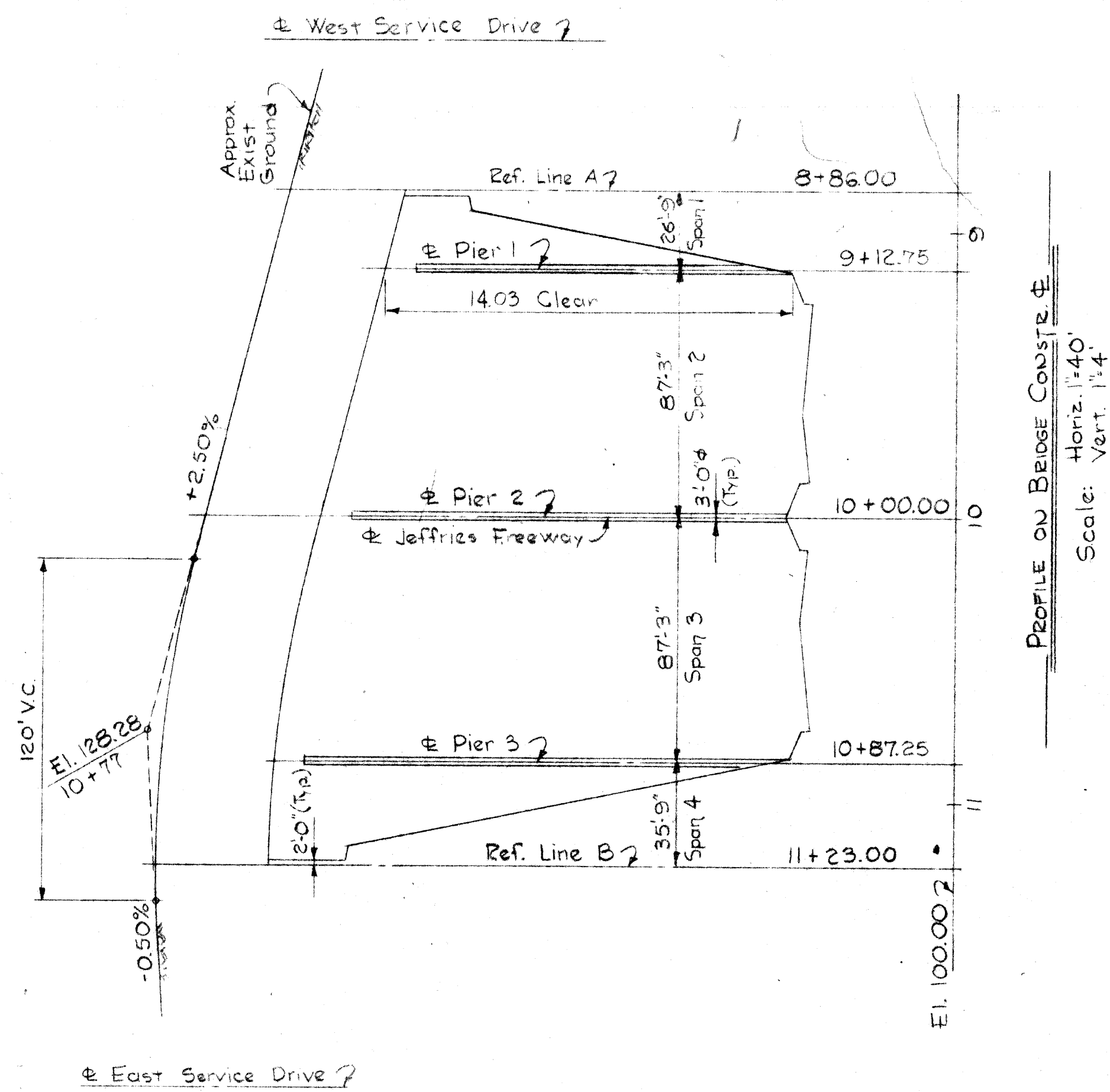
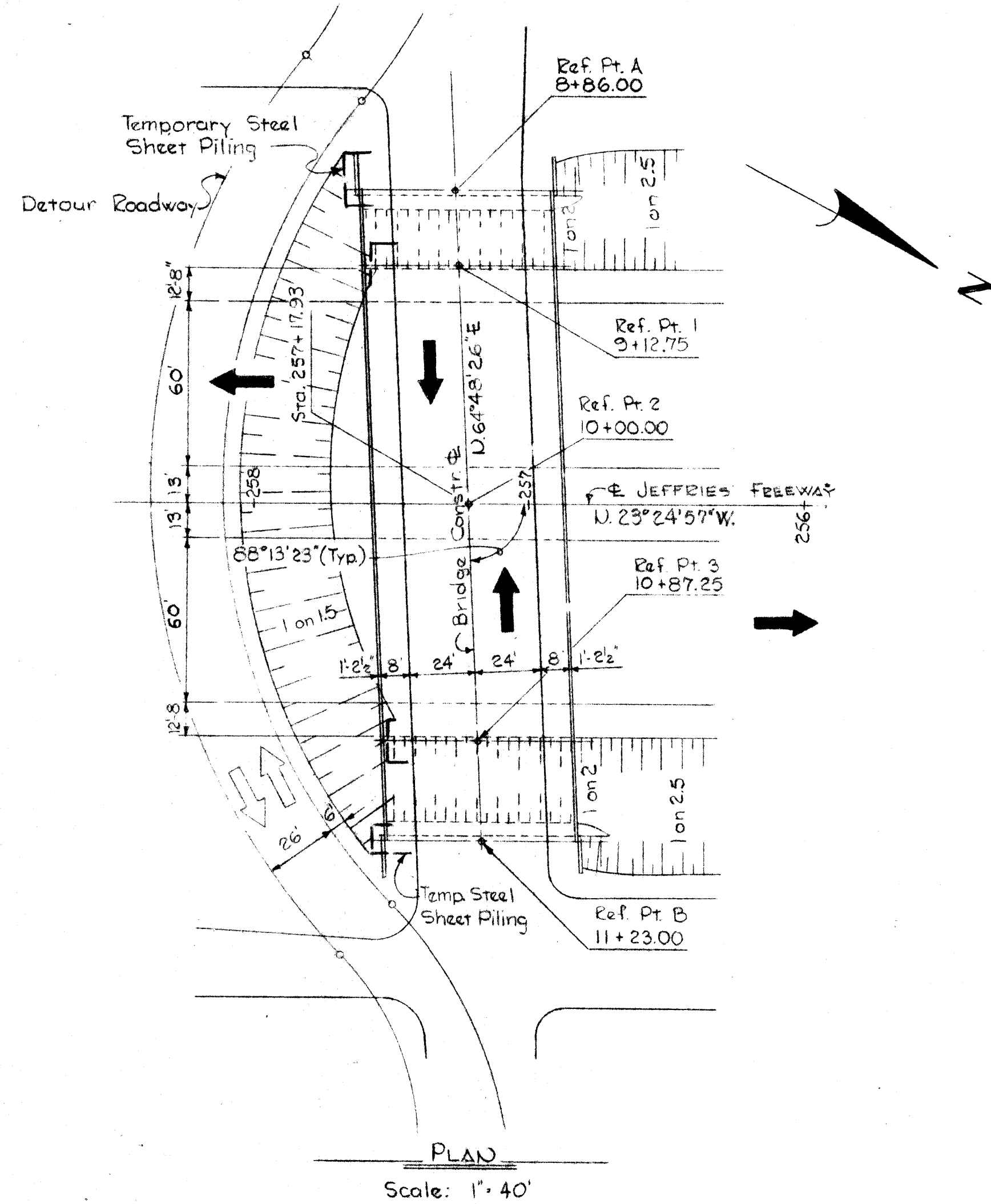
APPROVED: *L.J. Cook* 6.2.66
 DESIGN SUPERVISING ENGINEER

APPROVED: *Robert J. Fellows*
 ENGINEER OF DESIGN - CONSULTANTS

CITY OF DETROIT	
SQUAD BOSS	566
DRAWN BY	ALLIENBERG
TRACED BY	-
CHECKED BY	566
SHEET	1 OF 5

S02 of 82124A

FOR INFO
 DICAMBER
 869-9925 X544

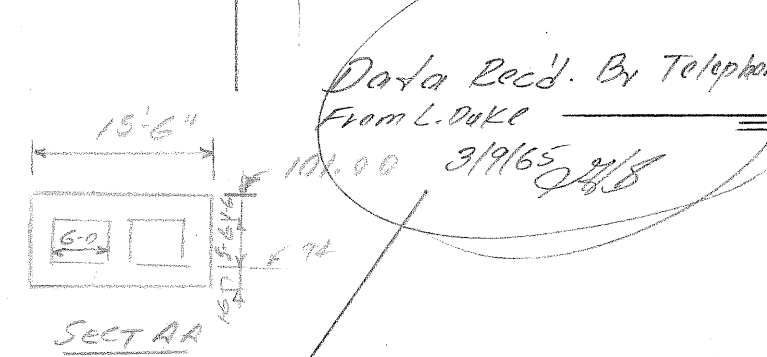
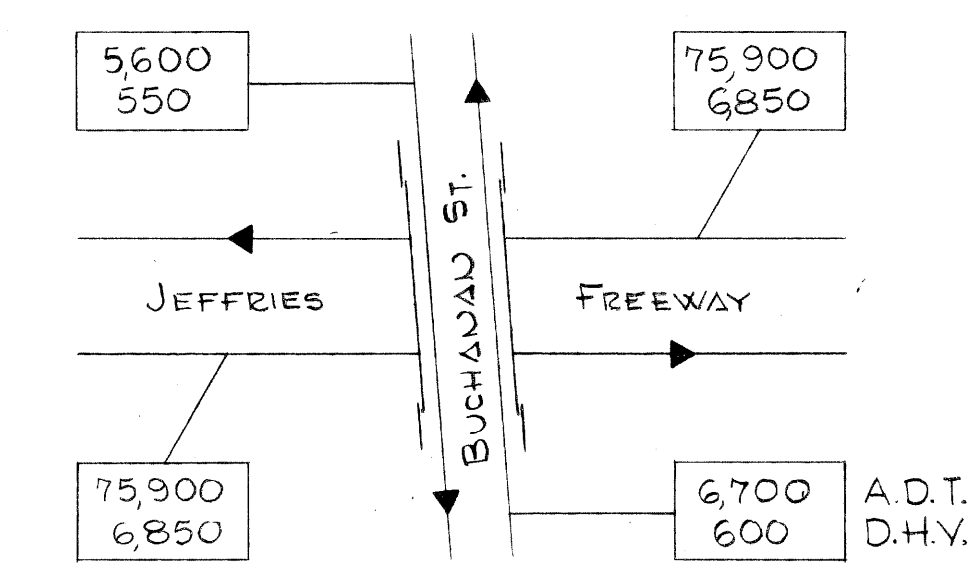
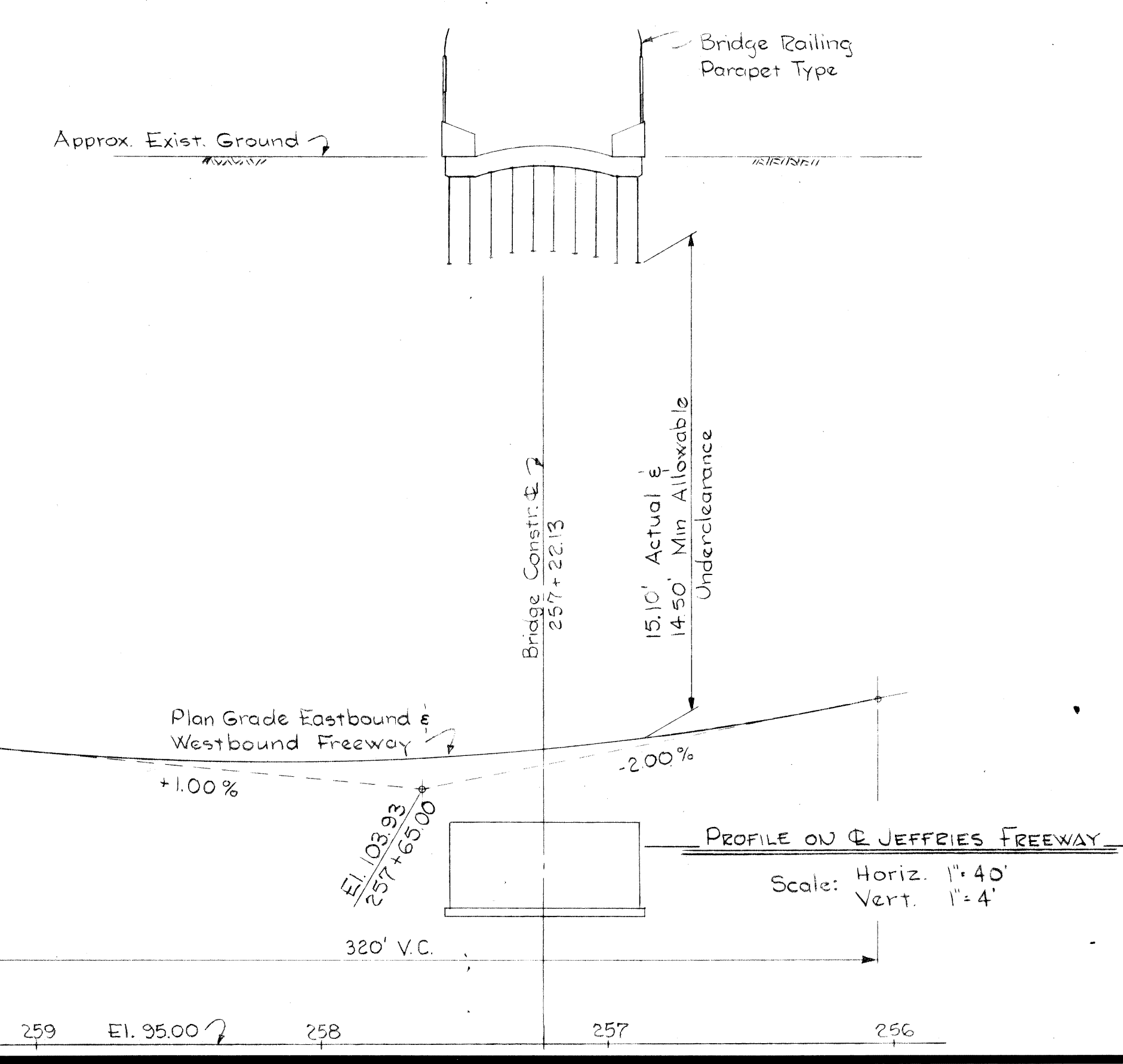
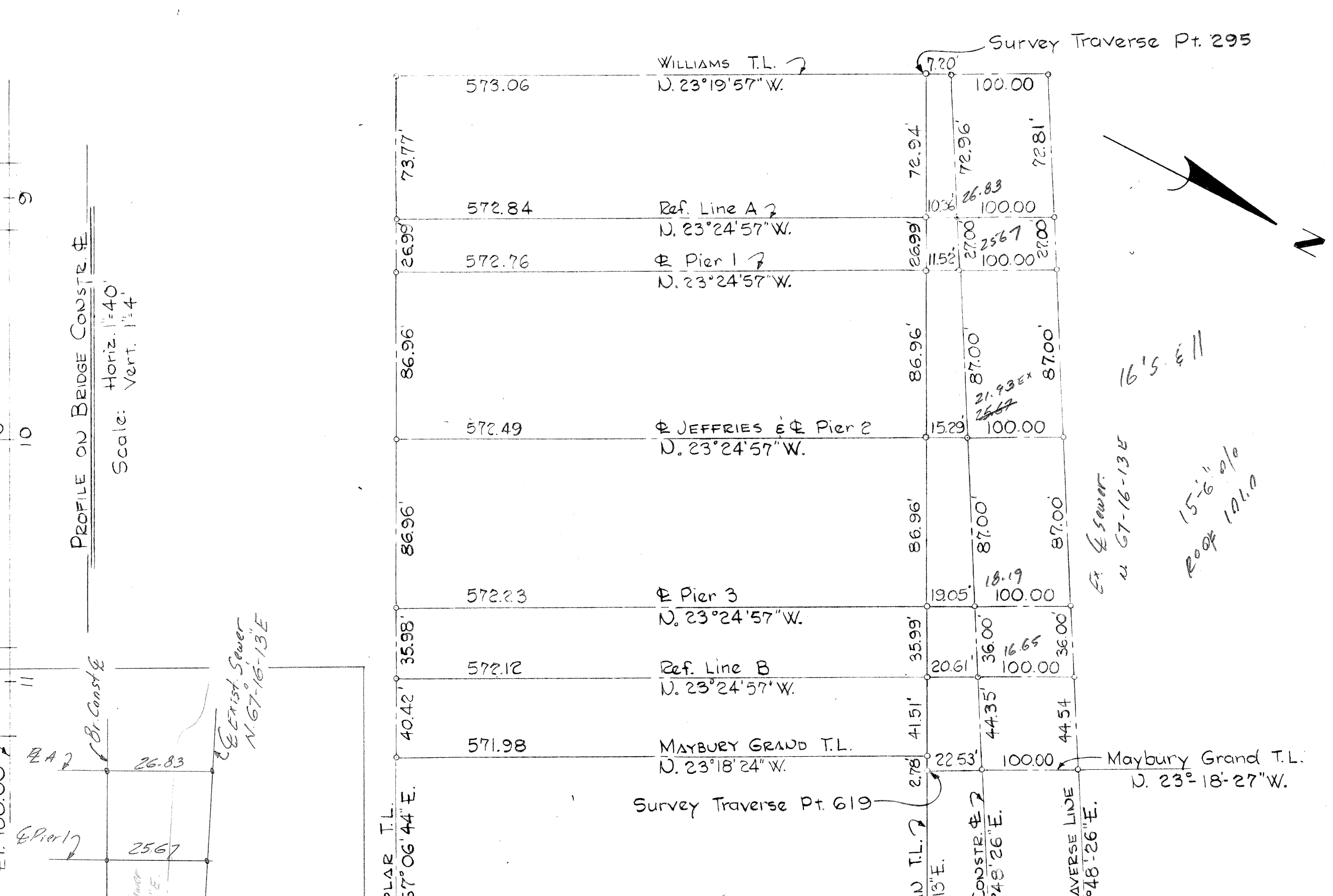
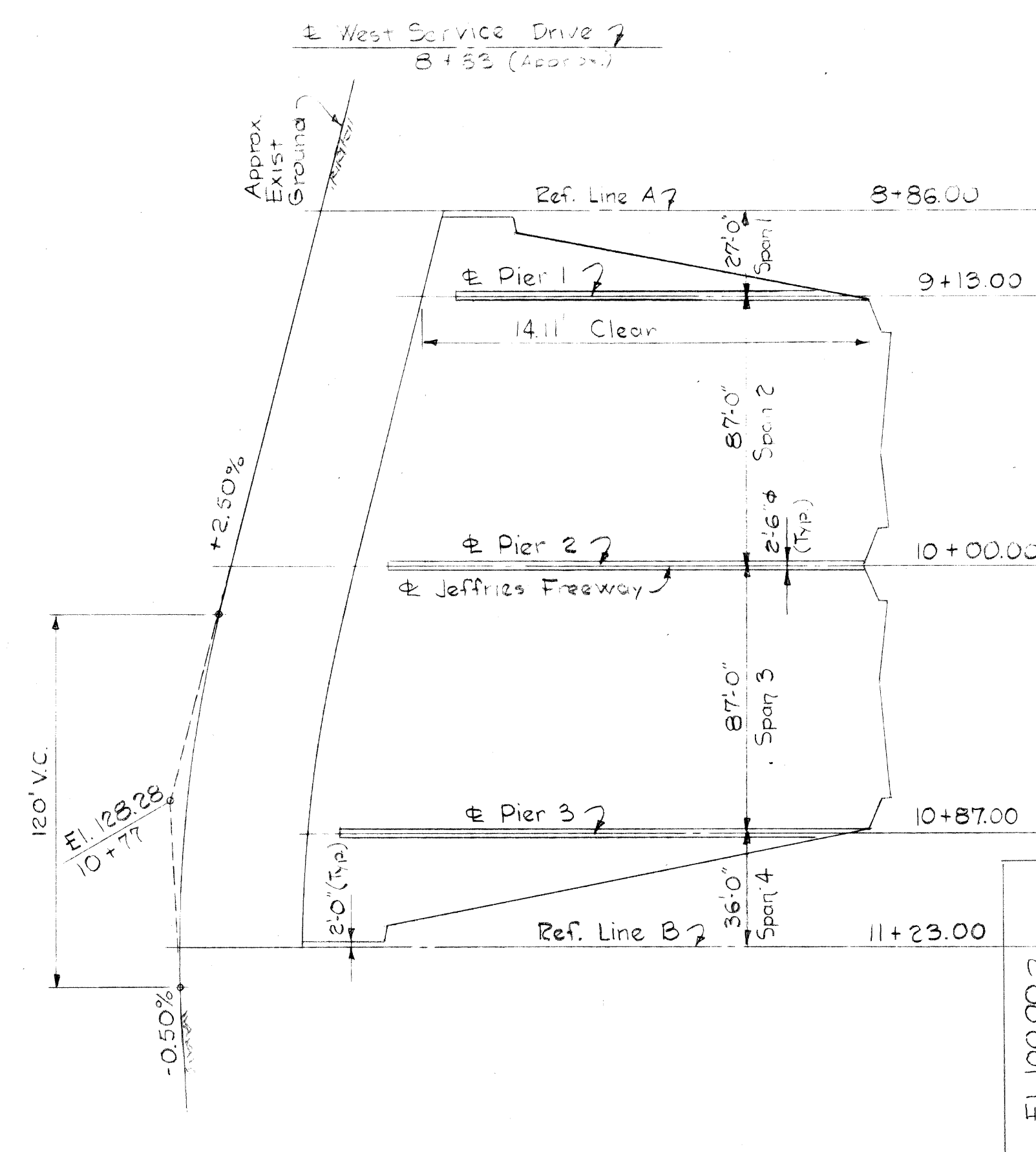
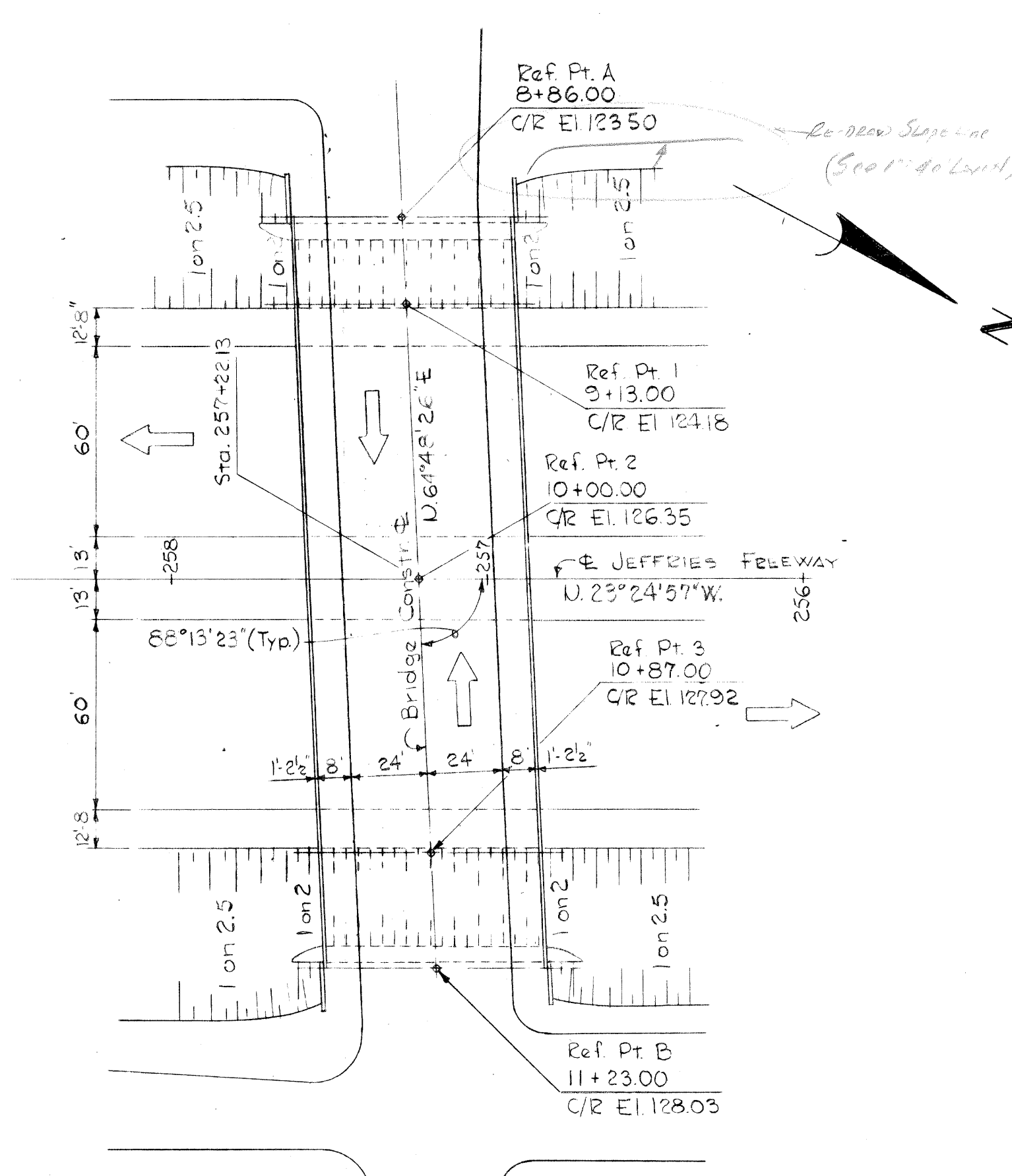


CONSTRUCTION BENCH MARKS
 C.B.M.-16 Elev. 124.71 Arrow on Fire Hydrant at S.W. corner of Buchanan & Williams.
 C.B.M.-15 Elev. 127.68 Arrow on Fire Hydrant at N.E. corner of Poplar & Maybury Grand.
 P.B.M. 20-253A Elev. 121.78 City of Detroit Monument N.E. corner of Selden & Tillman.

Elevations are referred to City of Detroit Datum. To obtain elevations based on U.S.L.S. Datum add 480.30.

PRELIMINARY PLAN A - DATED: MAY 12, 1966

PLANS PREPARED BY CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE BUREAU OF HIGHWAYS AND EXPRESSWAYS		MICHIGAN STATE HIGHWAY DEPARTMENT	
APPROVED: _____ STRUCTURAL ENGINEER		JOB No. PW 990(1)	
REVISIONS NO. DESCRIPTION DATE BY		BUCHANAN ST. CROSSING JEFFRIES FREEWAY IN DETROIT	
APPROVED: <i>J. J. Cook</i> 6.2.66 DESIGN SUPERVISING ENGINEER		GENERAL DRAWING	
APPROVED: <i>Robert J. Feltner</i> ENGINEER OF DESIGN - CONSULTANTS		CITY OF DETROIT SQUAD BOSS: <i>STUEN</i> 5-66 DRAWN BY: <i>STUEN</i> OCT. 65 CHECKED BY: <i>STUEN</i> 5-66 SHEET 2 OF 5	
		S02 of 82124A	



CONSTRUCTION BENCH MARKS
 C.B.M. 16 Elev. 124.71 Arrow on Fire Hydrant at S.W. corner of Buchanan & Williams.
 C.B.M. 15 Elev. 129.59 Arrow on Fire Hydrant at S.W. corner of Buchanan & Maybury Grand.
 P.B.M. 20-253A Elev. 121.78 City of Detroit Monument N.E. corner of Selden & Tillman.

Elevations are referred to City of Detroit Datum. To obtain elevations based on U.S.L.S. Datum add 480.30.

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(1)

REVISIONS			
NO.	DESCRIPTION	DATE	BY

MICHIGAN STATE HIGHWAY DEPARTMENT

BUCHANAN ST. CROSSING JEFFRIES FREEWAY
 IN DETROIT

GENERAL DRAWING

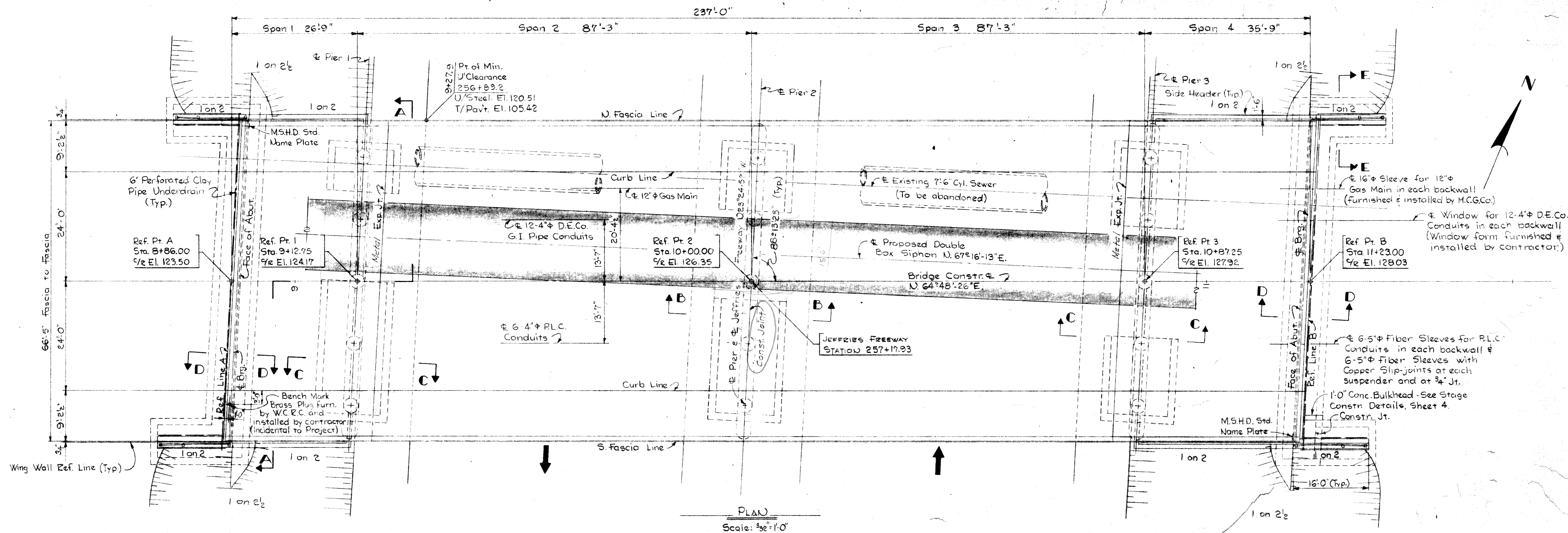
APPROVED: _____
 DESIGN SUPERVISING ENGINEER

APPROVED: _____
 ENGINEER OF DESIGN - CONSULTANTS

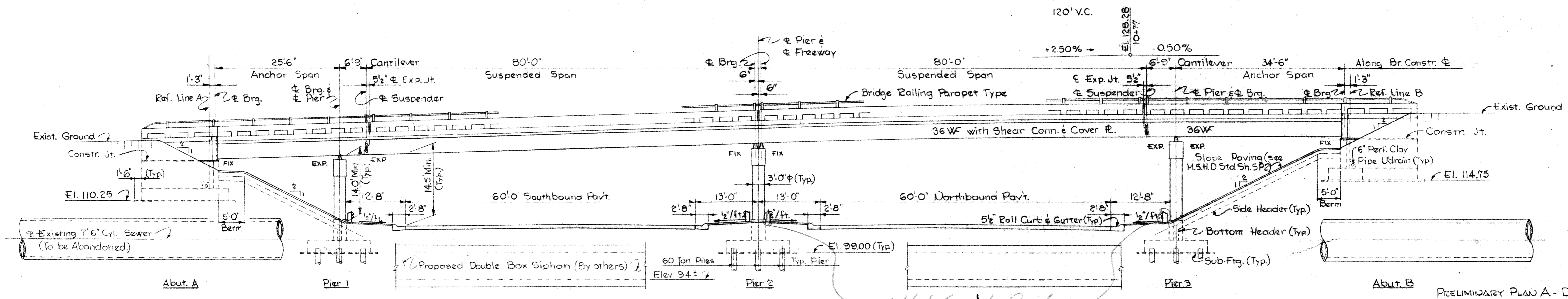
SQUAD BOSS	
DRAWN BY	ALLEN BRESK Oct. 25
TRACED BY	
CHECKED BY	

SHEET 2 OF 5

SO2 of 82124A



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



ELEVATION
(Normal to Freeway)
Scale: 3/32"=1'-0"

MISCELLANEOUS QUANTITIES		
ITEM	UNIT	AMT.
6" Class A Sewer	Lin Ft.	
Slope Protection Class A	Cu. Yds.	
Sand-Gravel Material (C.I.P.)	Cu. Yds.	

Note: Removal of existing Cyl. Sewer Covered by Road Plans.

Work this sheet with sheet no. 4

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 99011

REVISIONS			
NO.	DESCRIPTION	DATE	BY

MICHIGAN STATE HIGHWAY DEPARTMENT
BUCHANAN ST. CROSSING JEFFRIES FREEWAY
IN DETROIT

GENERAL PLAN OF STRUCTURE

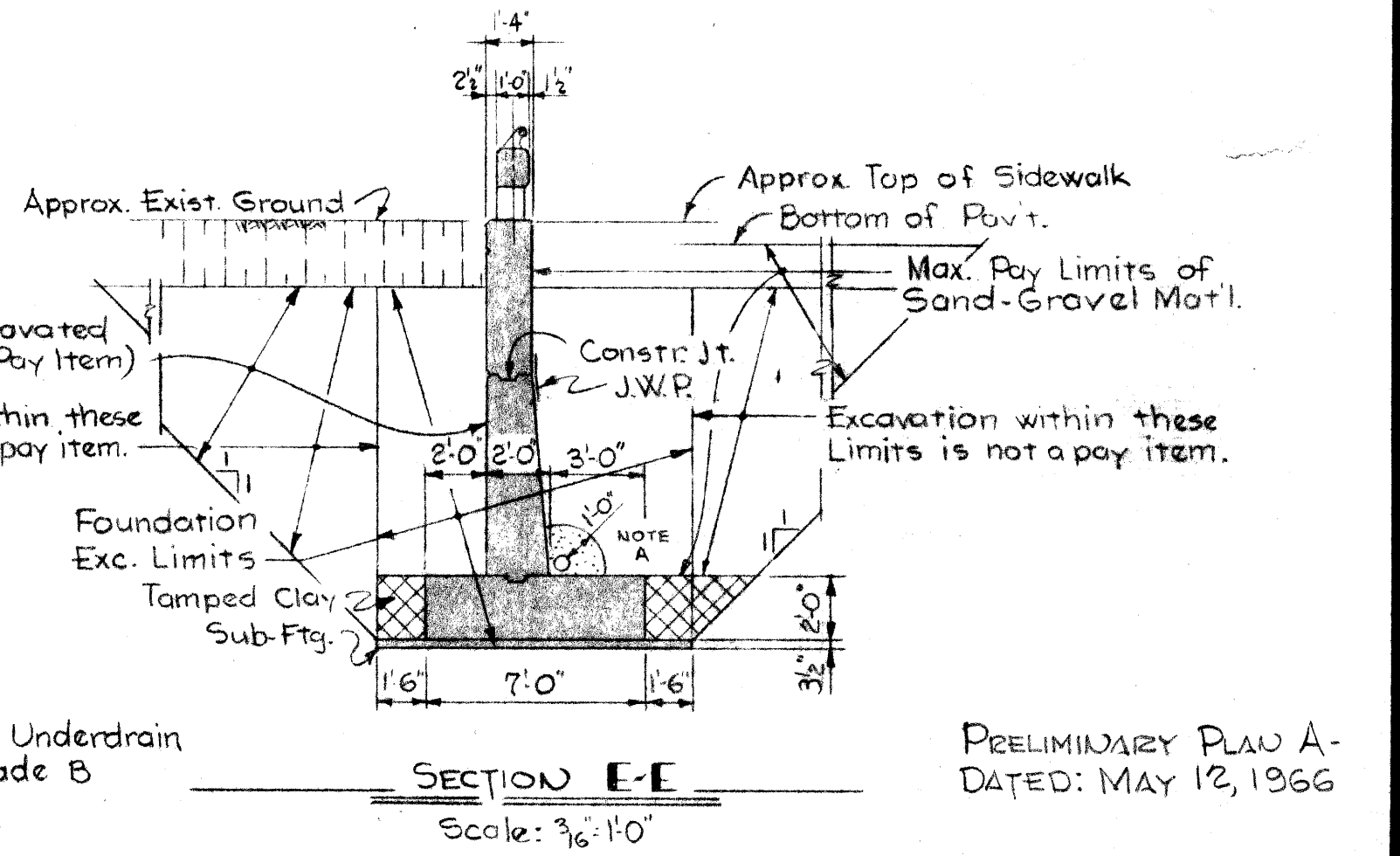
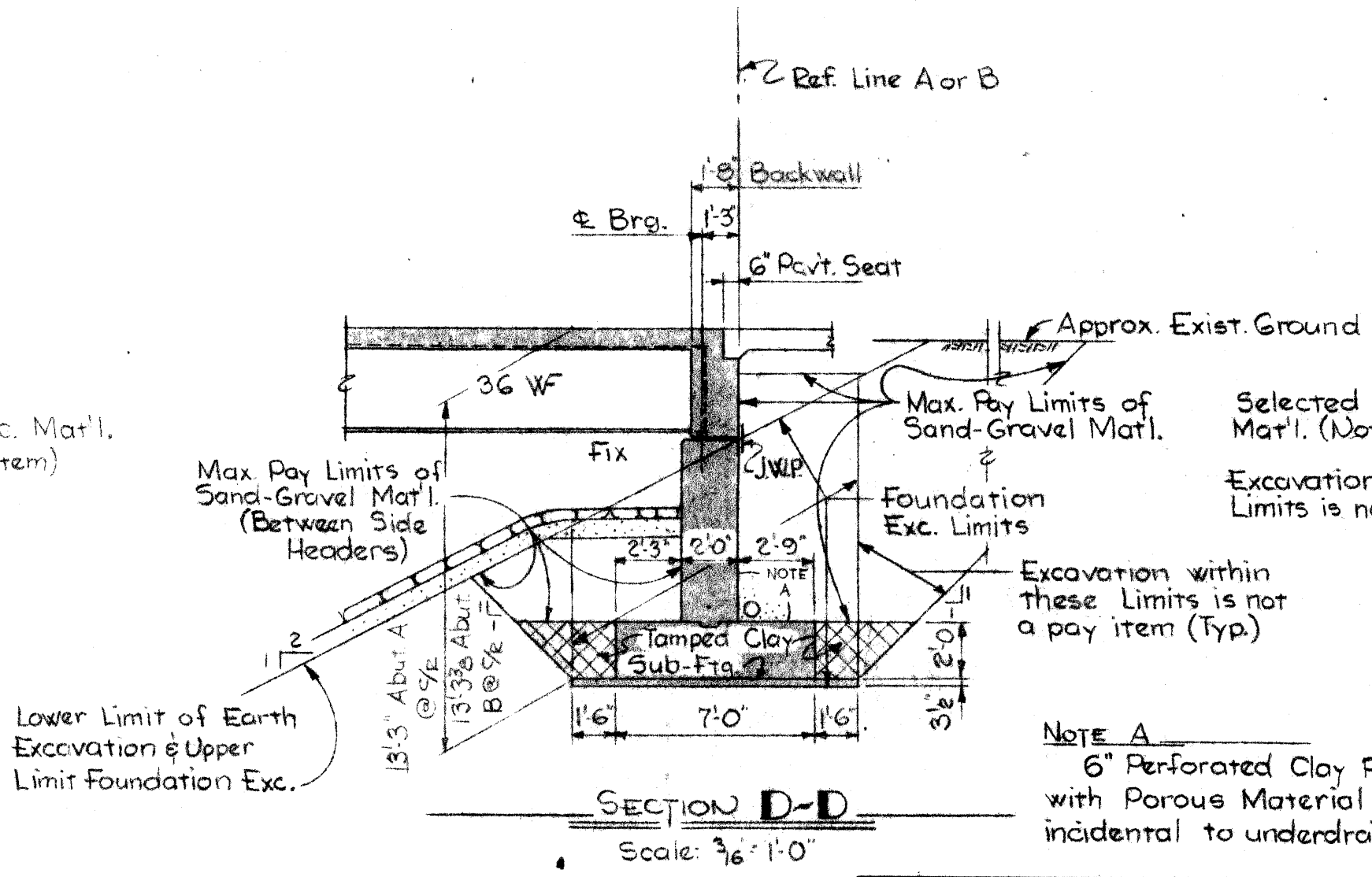
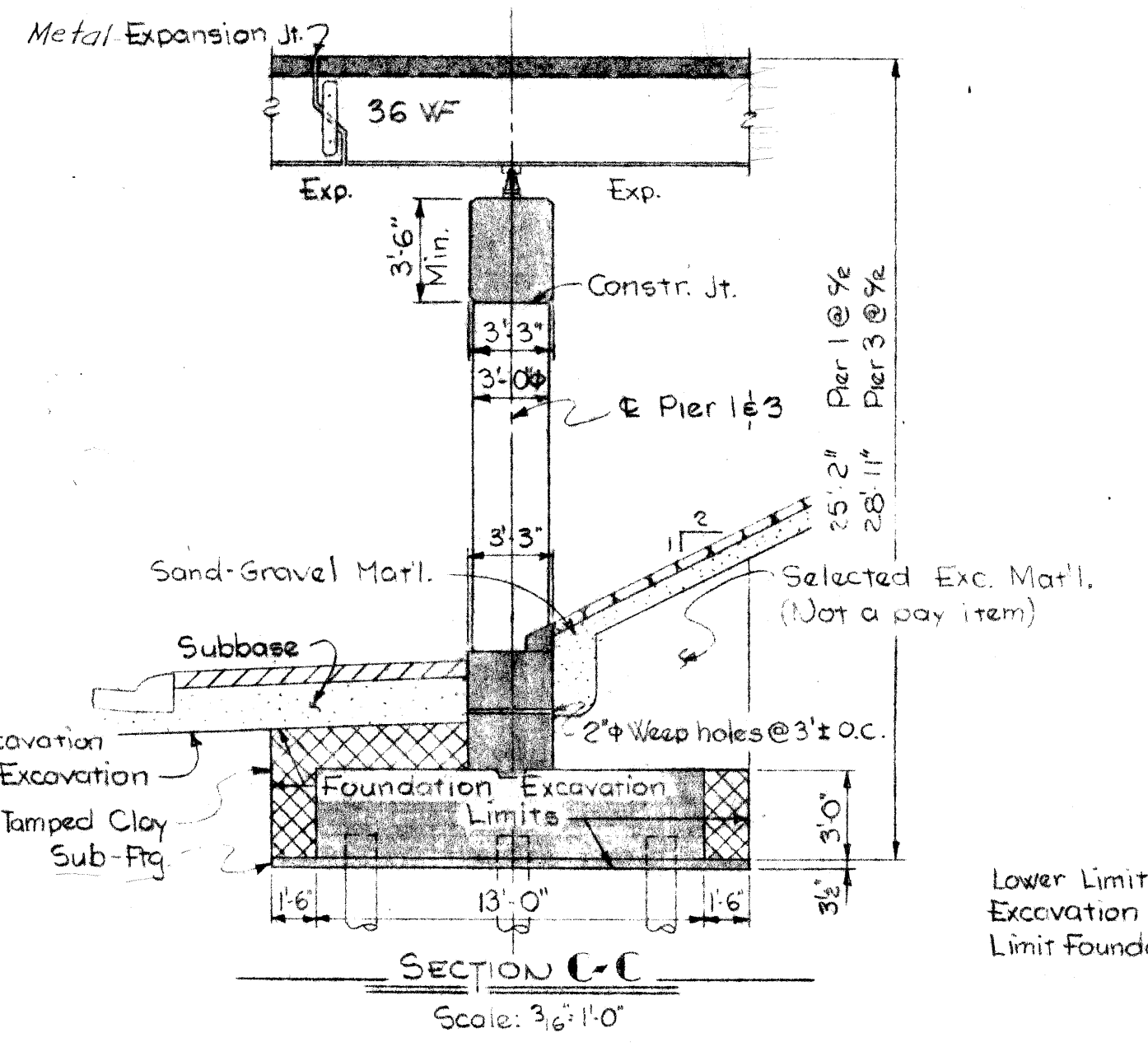
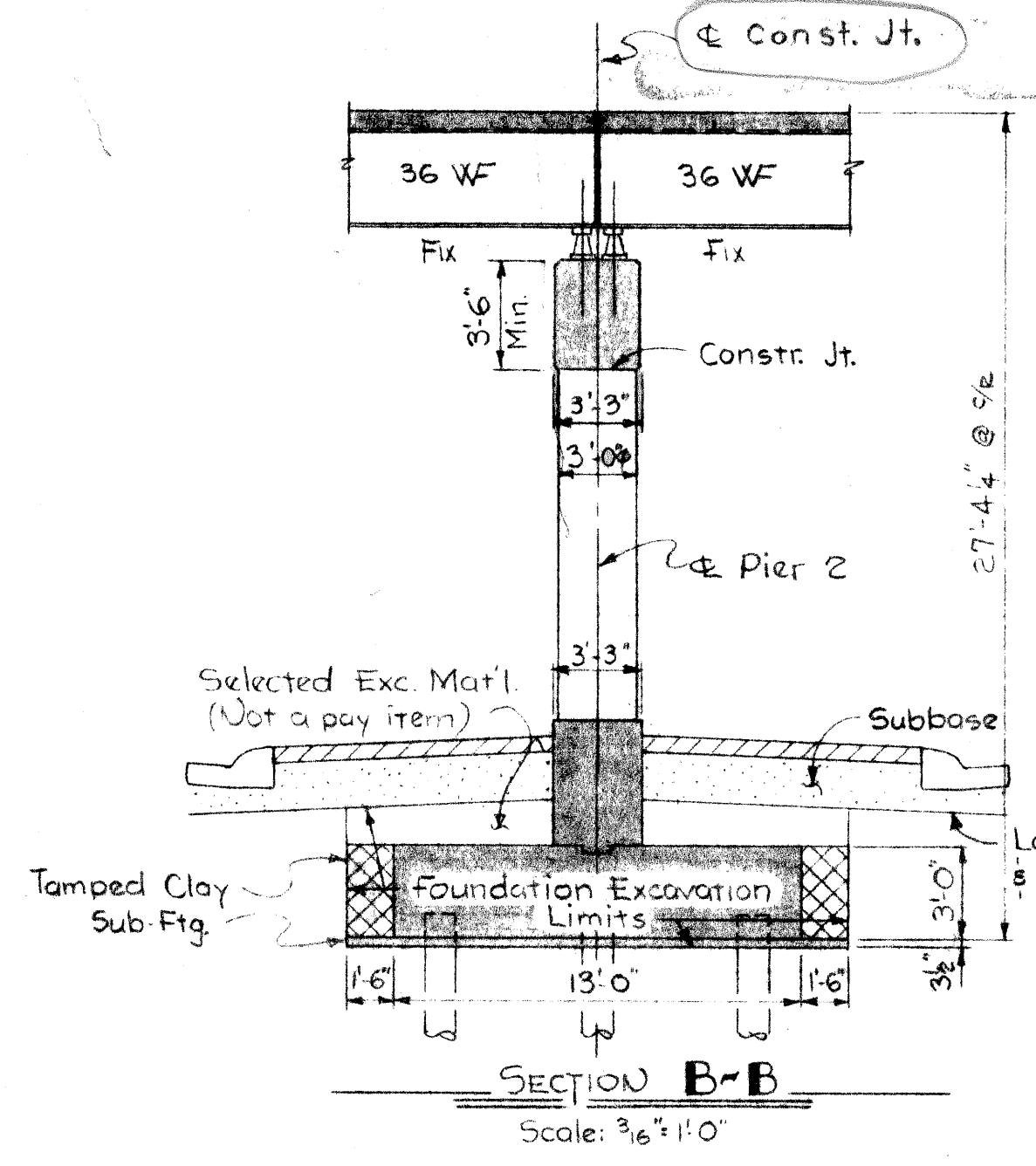
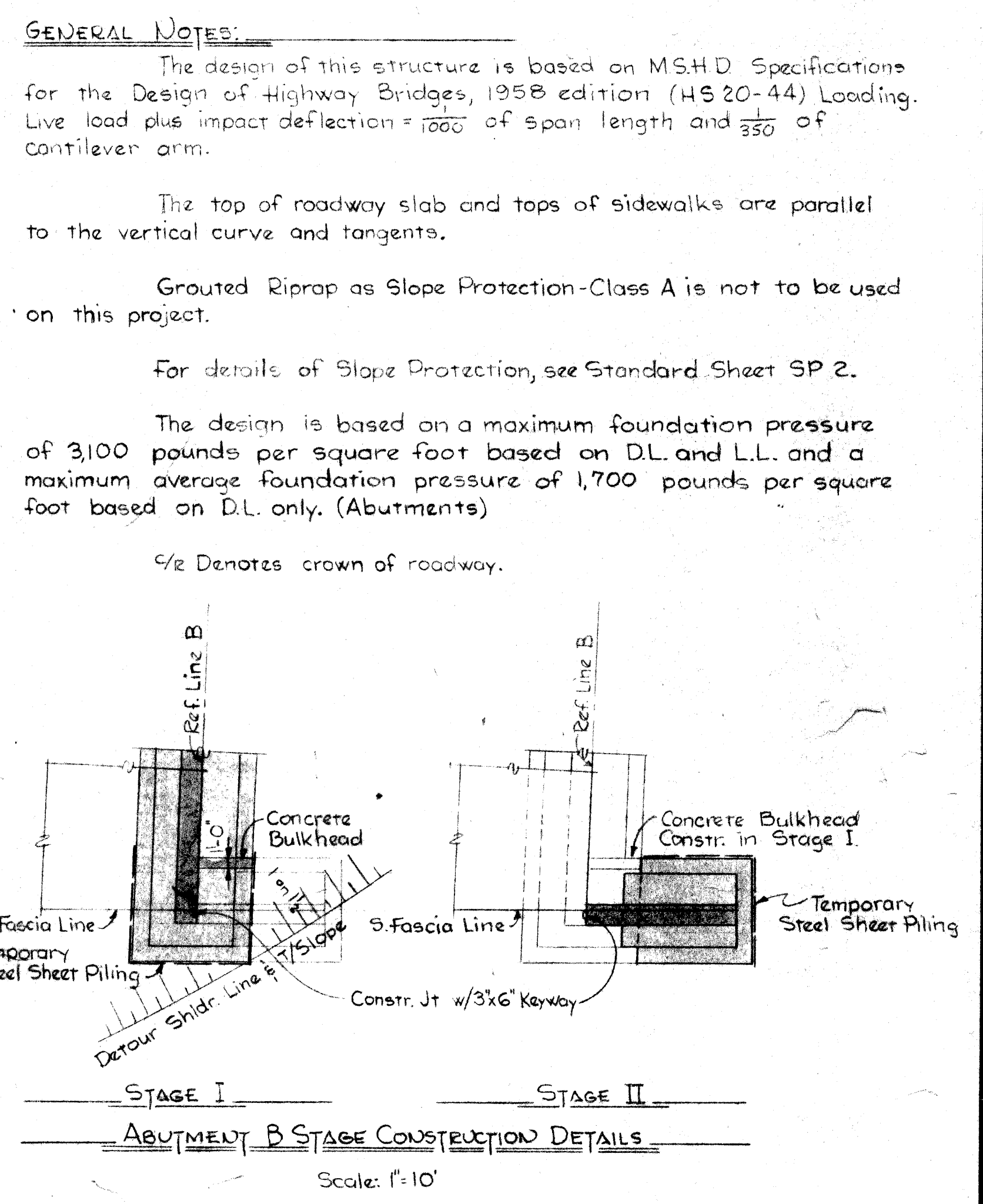
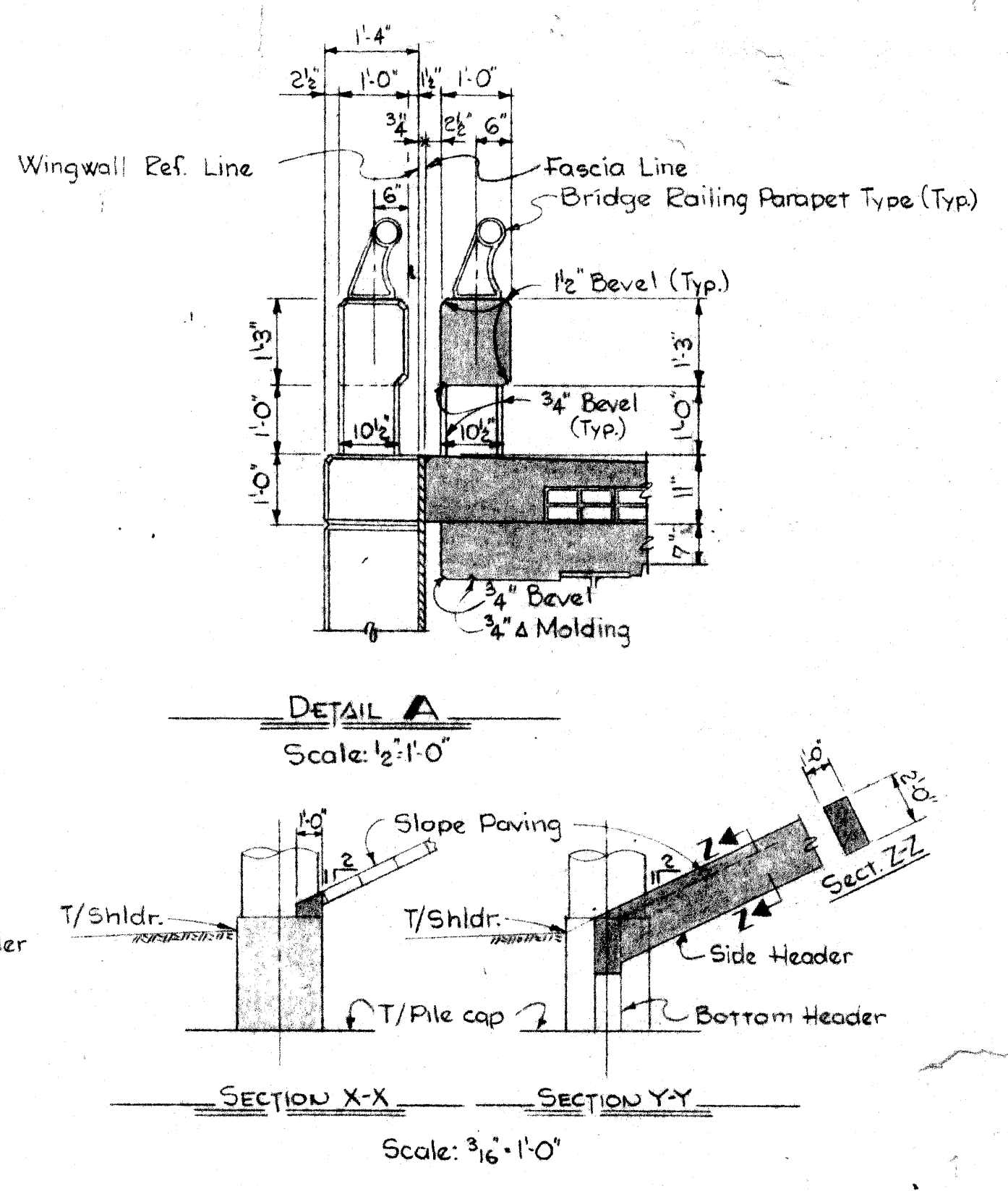
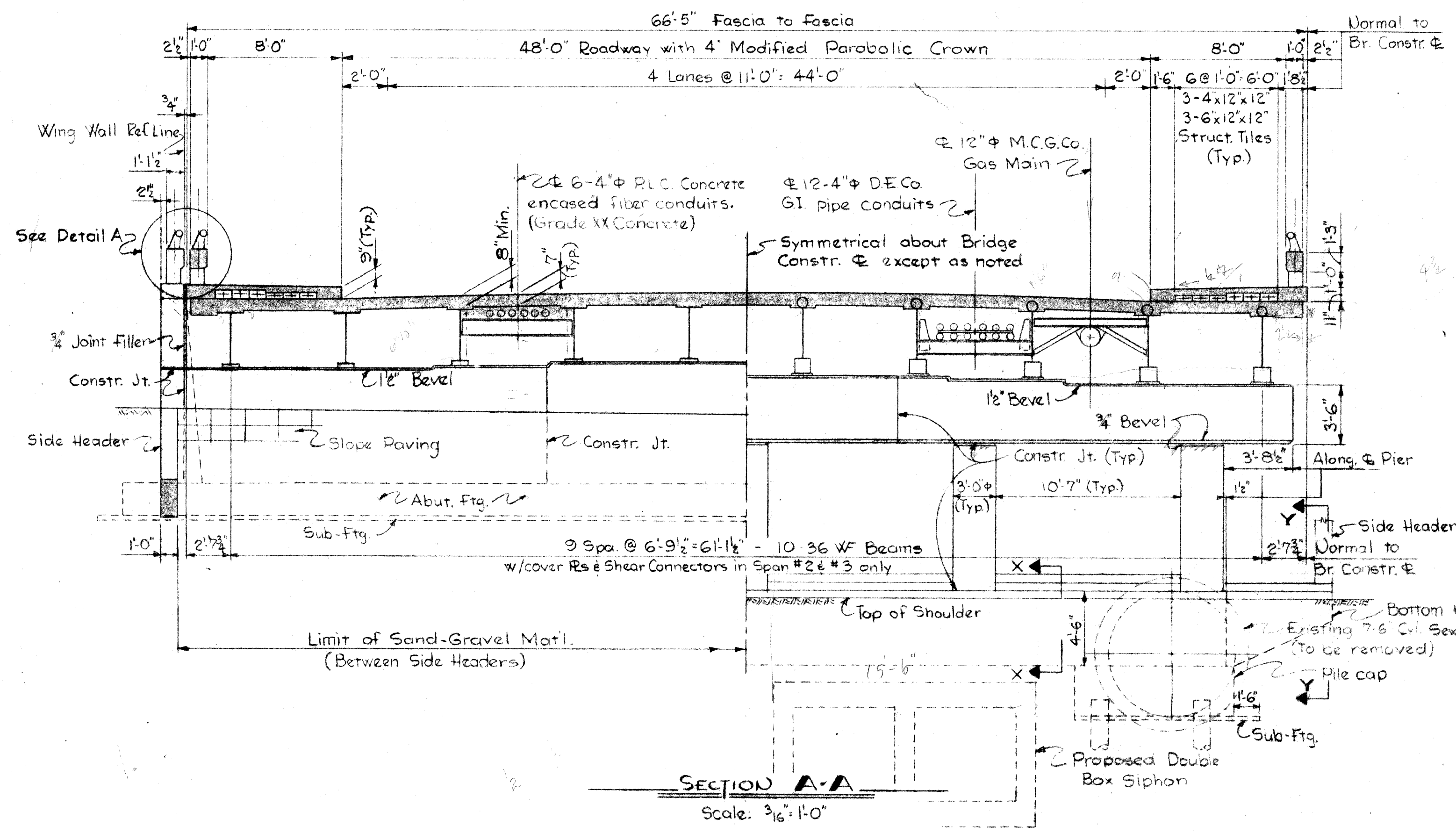
APPROVED: [Signature] DESIGN SUPERVISING ENGINEER

APPROVED: [Signature] ENGINEER OF DESIGN - CONSULTANTS

CITY OF DETROIT			
SQUAD BOSS	DRAWN BY	TRACED BY	CHECKED BY
SWEN	SWEN	SWEN	SWEN

SHEET 3 OF 5
S02 of 82124A

PRELIMINARY PLAN A - DATED: MAY 12, 1966

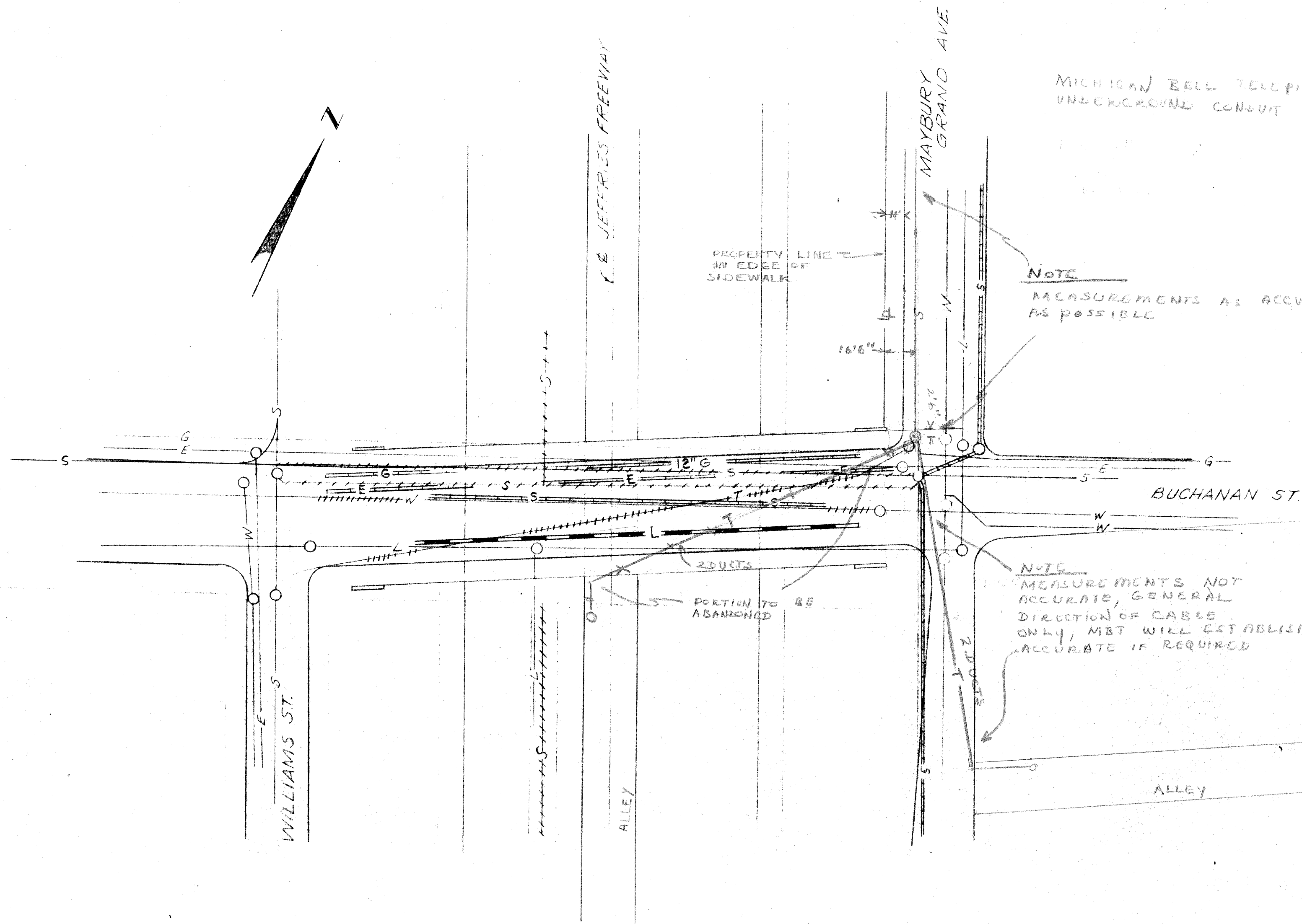


NOTE
 Tamped Clay and Selected Excavated Material are incidental to Unclassified Excavation.

Work this sheet with sheet no. 3

PLANS PREPARED BY CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE BUREAU OF HIGHWAYS AND EXPRESSWAYS		MICHIGAN STATE HIGHWAY DEPARTMENT BUCHANAN ST. CROSSING JEFFRIES FREEWAY IN DETROIT	
APPROVED _____ STRUCTURAL ENGINEER	JOB No. FW 990(1)	GENERAL PLAN OF STRUCTURE	
REVISIONS NO. DESCRIPTION DATE BY		APPROVED <i>J. J. Cook</i> 6.2.66 DESIGN SUPERVISING ENGINEER APPROVED <i>London J. Holloway</i> ENGINEER OF DESIGN CONSULTANTS	
		SHEET 4 OF 5 502 of 8212	

PRELIMINARY PLAN A-
 DATED: MAY 12, 1966



MICHIGAN BELL TELEPHONE UNDERGROUND CONDUIT

UTILITY
 DETROIT WATER DEPARTMENT
 FREEMAN & CITY OF DETROIT SEWERS
 MICHIGAN CONSOLIDATED GAS CO.
 MICHIGAN BELL TELEPHONE CO.
 PUBLIC LIGHTING COMMISSION
 DETROIT EDISON COMPANY

LEGEND

EXISTING	DELETE OR ABANDONED	NEW WORK BY OTHERS	NEW WORK BY CONTRACTOR
— W —	W	— W —	— W —
— S —	S	— S —	— S —
— G —	G	— G —	— G —
— T —	T	— T —	— T —
— L —	L	— L —	— L —
— E —	E	— E —	— E —

NOTE
 MEASUREMENTS AS ACCURATE AS POSSIBLE

NOTE
 MEASUREMENTS NOT ACCURATE, GENERAL DIRECTION OF CABLE ONLY, MBT WILL ESTABLISH ACCURATE IF REQUIRED

SITUATION PLAN
 Scale 1" = 40'

FOR INFO
 D. KIMBERG
 849-9925 X544

MICHIGAN BELL TELEPHONE CO WILL NOT REQUIRE FACILITIES IN BUCHANAN STREET BRIDGE

PRELIMINARY PLAN A - DATED: MAY 12, 1966

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

MICHIGAN STATE HIGHWAY DEPARTMENT
 BUCHANAN ST. CROSSING JEFFRIES FREEWAY IN DETROIT

EXISTING UTILITIES AND PROPOSED ALTERATIONS

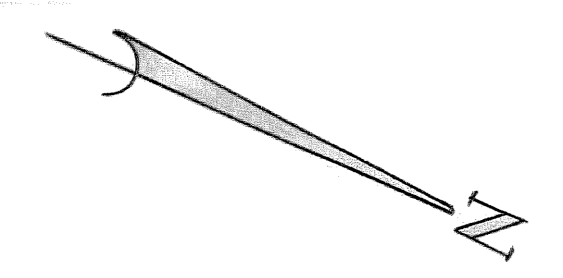
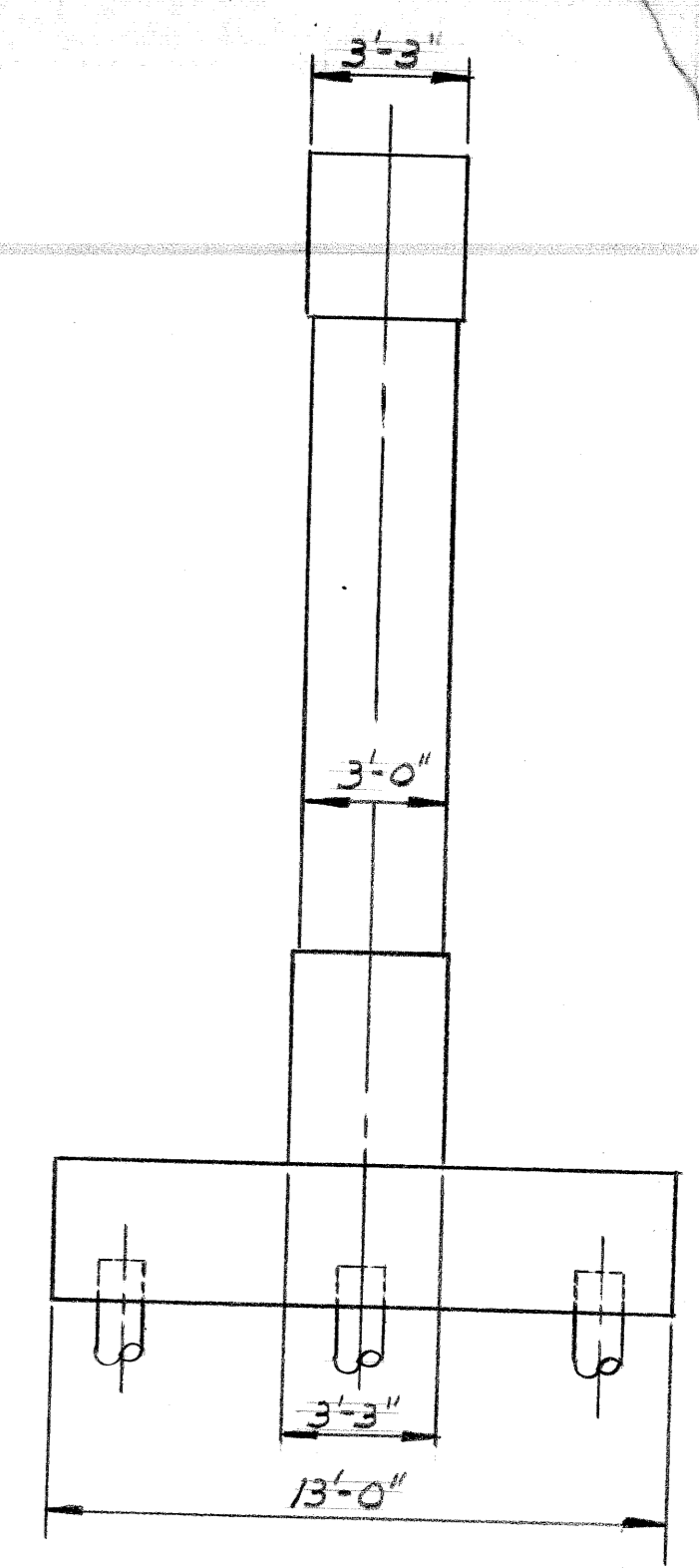
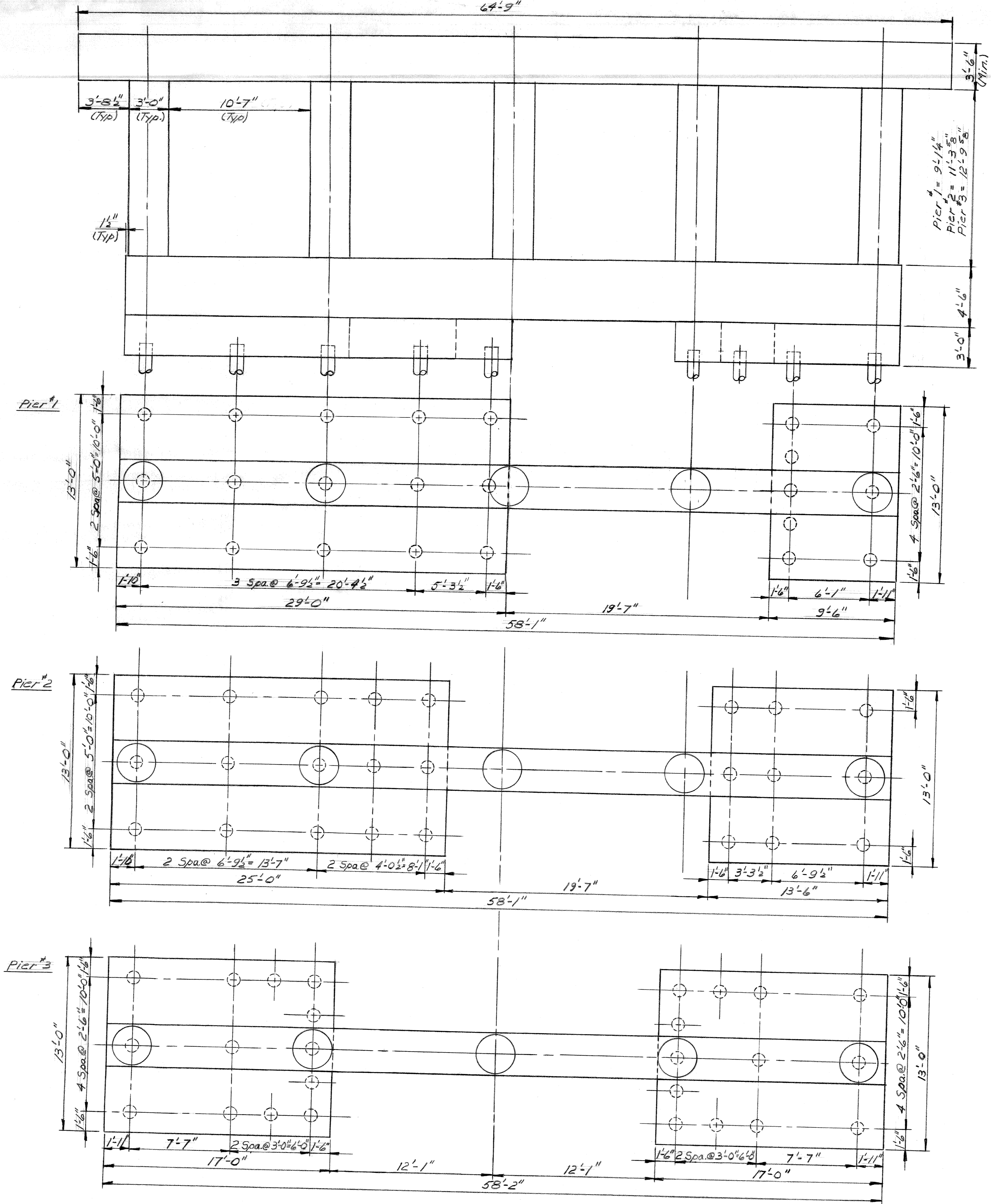
REVISIONS			
NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT

SQUAD BOSS	STURN	5-66
DRAWN BY	W.A.L.	2-66
TRACED BY	-	-
CHECKED BY	STURN	5-66
SHEET	5	OF 5

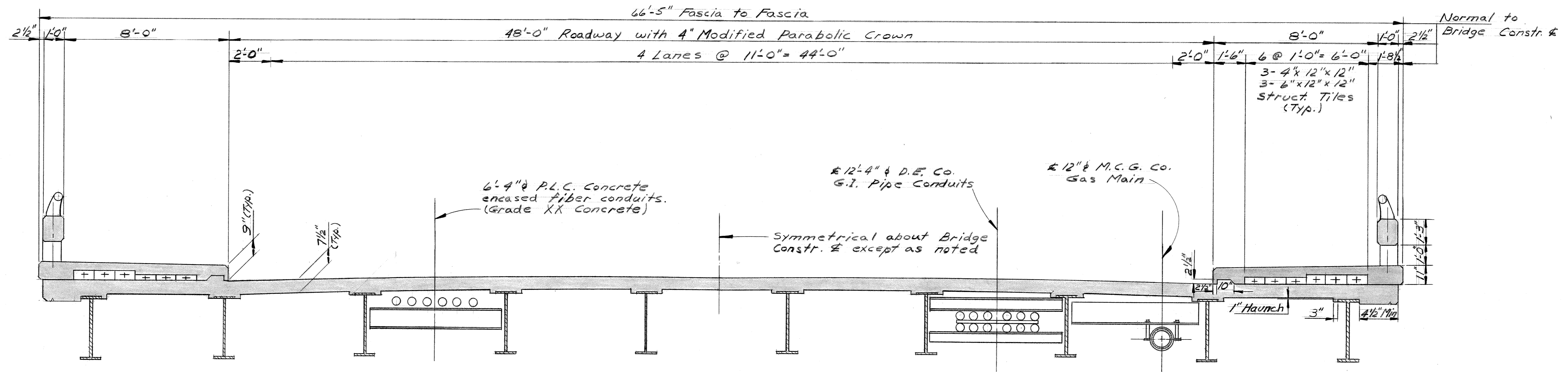
S02 of 82124A

JOB No.
 FW 990(1)

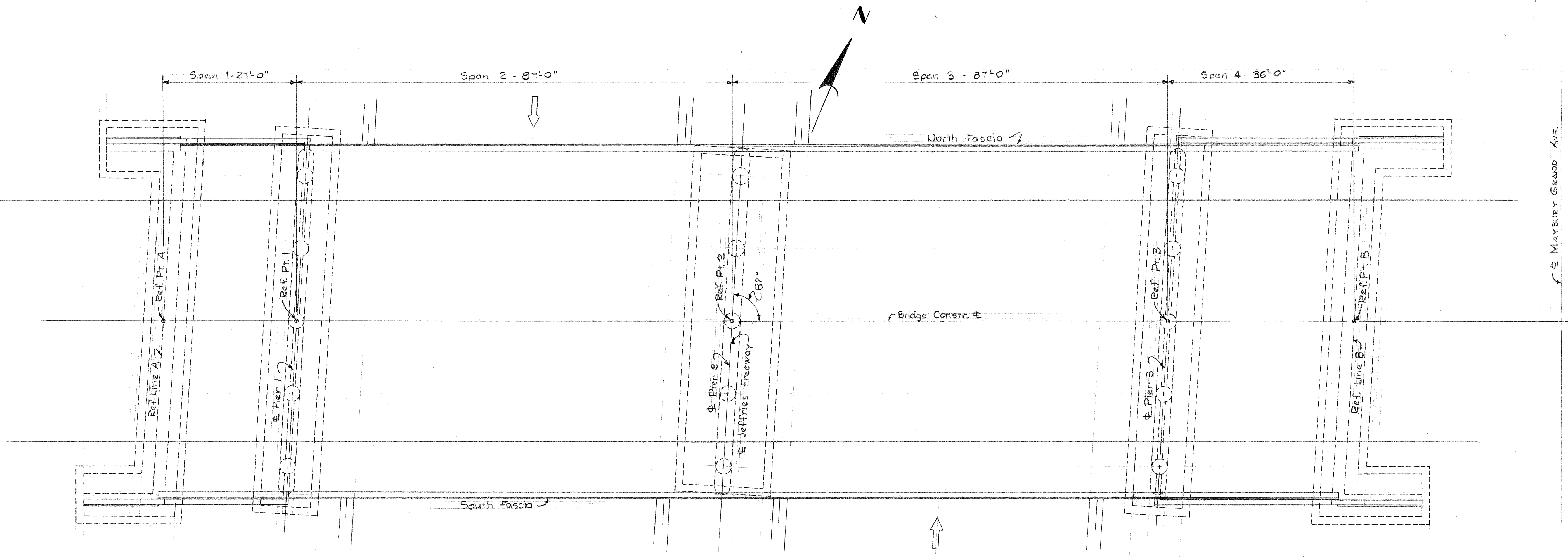


SCALE 1/4" = 1'-0"

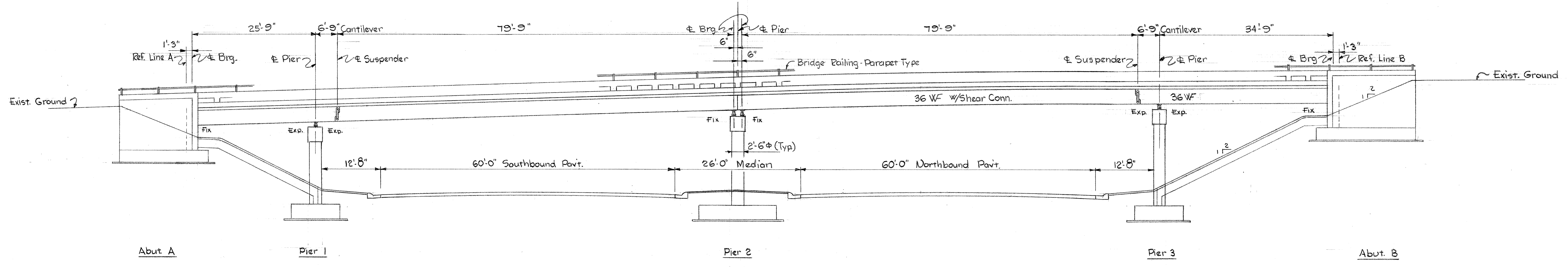
502. PIER # 1, 2, & 3
FOOTING LAYOUT
Drawn By: A. Garavaglia
Date: 7-5-66



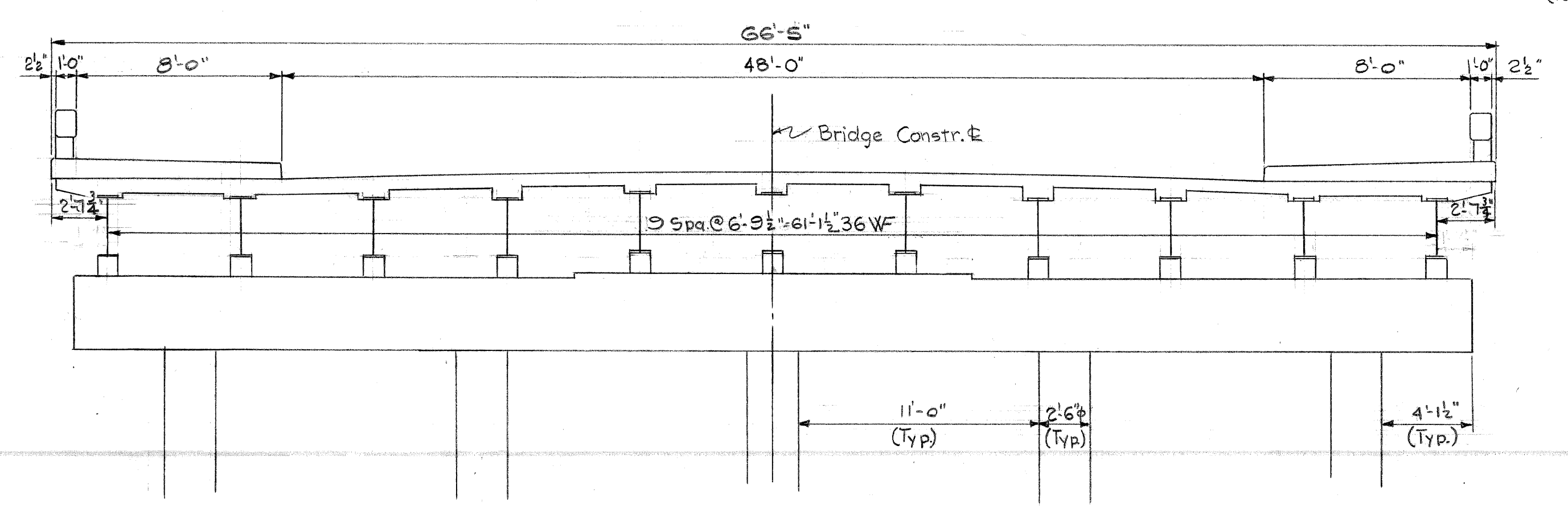
Buchanan
SOZ 990(1)



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



ELEVATION
(Normal to Freeway \perp)
Scale: 3/32" = 1'-0"



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

STUDY - GENERAL PLAN OF STRUCTURE

990(1)
502 of 82124 A
BUCHANAN ST.

DRAWN BY: GERSH
CHECKED BY:
DATE: 7-31-65
DATE:

502																				PLAN EXTRAS															
ITEM	CODE NO.	UNIT	CONTR. QUANT.	FINAL QUANT.	UNIT PRICE	FINAL COST	CONTR. QUANT.	REMARKS (AUTH. NOS.)	FINAL QUANT.	FINAL COST	CONTR. QUANT.	REMARKS (AUTH. NOS.)	FINAL QUANT.	FINAL COST	CONTR. QUANT.	REMARKS (AUTH. NOS.)	FINAL QUANT.	FINAL COST	CONTR. QUANT.	REMARKS (AUTH. NOS.)	FINAL QUANT.	FINAL COST	DATE	DESCRIPTION	UNIT	FINAL QUANT.	FINAL COST								
Removing Portions Of Existing Structures	6010	Lump Sum	Lump Sum																																
Unclassified Excavation	6040	Cu. Yds.	1313			1313																													
60 Ton Piles - Furnished And Driven	6077	Lin. Ft.	8700			8700																													
Splices - 60 Ton Pile	6078	Each	198			198																													
Test Pile - 60 Ton Pile	6079	Each	6			6																													
Furnishing Equipment For Driving Piles	6133	Lump Sum	Lump Sum			Lump Sum																													
Temporary Steel Sheet Piling	6140	Sq. Ft.	1449			1449																													
Grade A(6A) Concrete - Substructure	6170	Cu. Yds.	328.4			328.4																													
Grade A(GAA) Concrete - Substructure	6175	Cu. Yds.	389.9			389.9																													
Protective Sealant Coating For Struc. Conc.	6177	Sq. Ft.	5082			5082																													
Grade A(GAA) Concrete - Superstructure	6180	Cu. Yds.	500.8			500.8																													
Grade XX Concrete	6188	Cu. Yds.	42.8			42.8																													
Water Reducing Retarding Admixture	6189	Gal.	59			59																													
Low Temperature Protection - Substructure	6231	Cu. Yds.	721			721																													
Protective Treatment For Bridge Deck	6239	Sq. Ft.	11376			11376																													
Steel Reinforcement	6245	Lbs.	224688			224688																													
Structural Steel Furnishing & Fabricating	6250	Lbs.	511600			511600																													
Structural Steel - Erection	6260	Lbs.	511600			511600																													
Shear Developers	6265	Lump Sum	Lump Sum			Lump Sum																													
Structural Tile - 4"x12"x12"	6325	Each	1370			1370																													
Structural Tile - 6"x12"x12"	6330	Each	1370			1370																													
1/2" Joint Filler	6345	Sq. Ft.	204			204																													
3/4" Joint Filler	6350	Sq. Ft.	38			38																													
1/4" x 1/2" Prefomed Neoprene Joint Sealer	6368	Lin. Ft.	68			68																													
Hot Poured Rubber Asphalt Type Filler	6375	Lin. Ft.	132			132																													
Joint Waterproofing	6390	Sq. Ft.	284			284																													
Non-Metallic Waterstop	6401	Sq. Ft.	42			42																													
Bridge Railing - Parapet Type	6421	Lin. Ft.	529.5			529.5																													
3" Fiber Conduits	6445	Lin. Ft.	107			107																													
4" Fiber Conduits	6450	Lin. Ft.	1416			1416																													
Slope Protection - Class A	6487	Sq. Yds.	424			424																													
Slope Protection Header	6493	Lin. Ft.	150			150																													
Foundation Drains	6507	Lin. Ft.	537			537																													
TOTAL																																			

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

1-96-4(61)233

APPROVED: *[Signature]*
 STRUCTURAL ENGINEER

JOB No.
 PW 990(1)

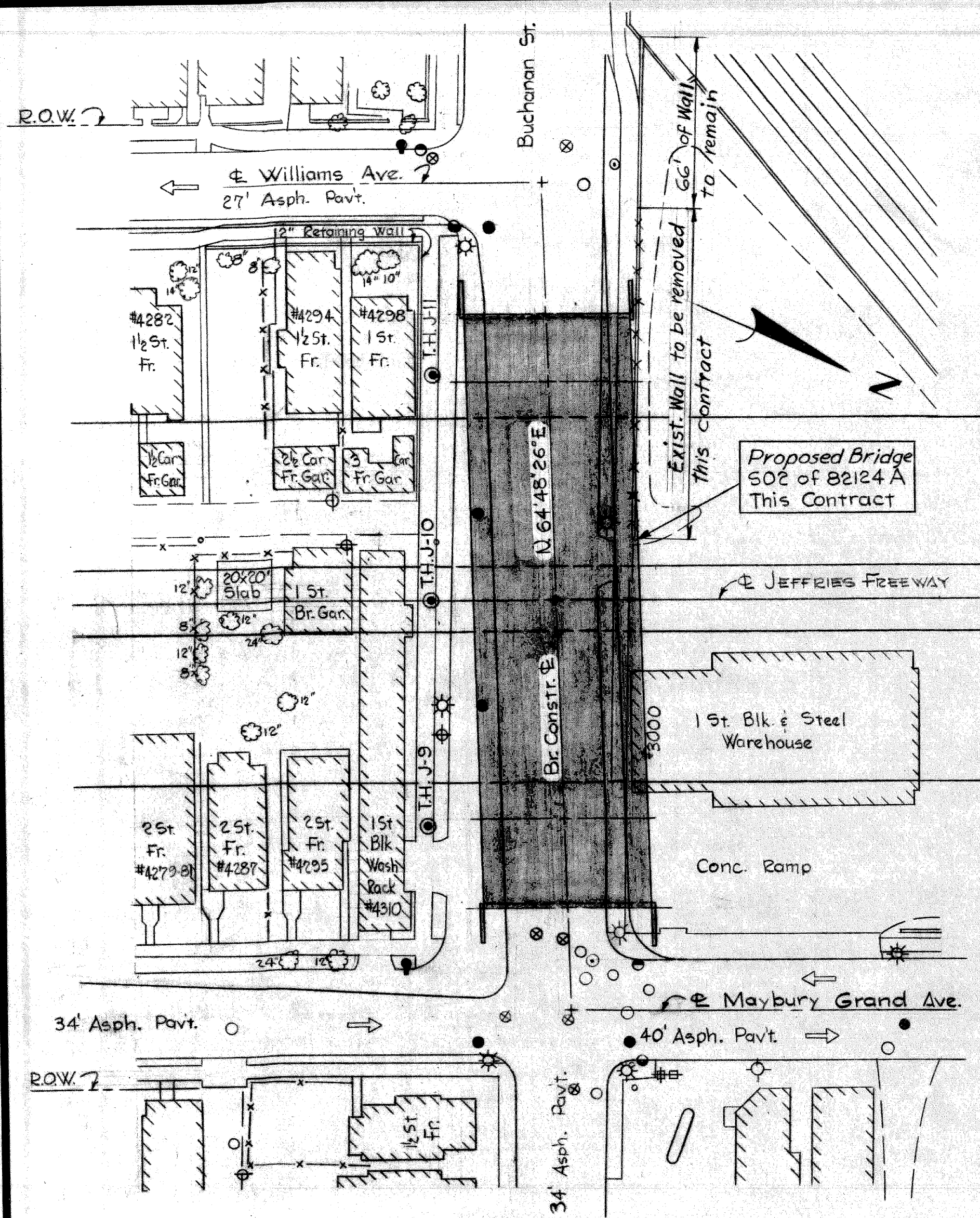
MICHIGAN STATE HIGHWAY DEPARTMENT

THE JEFFRIES FREEWAY IN DETROIT

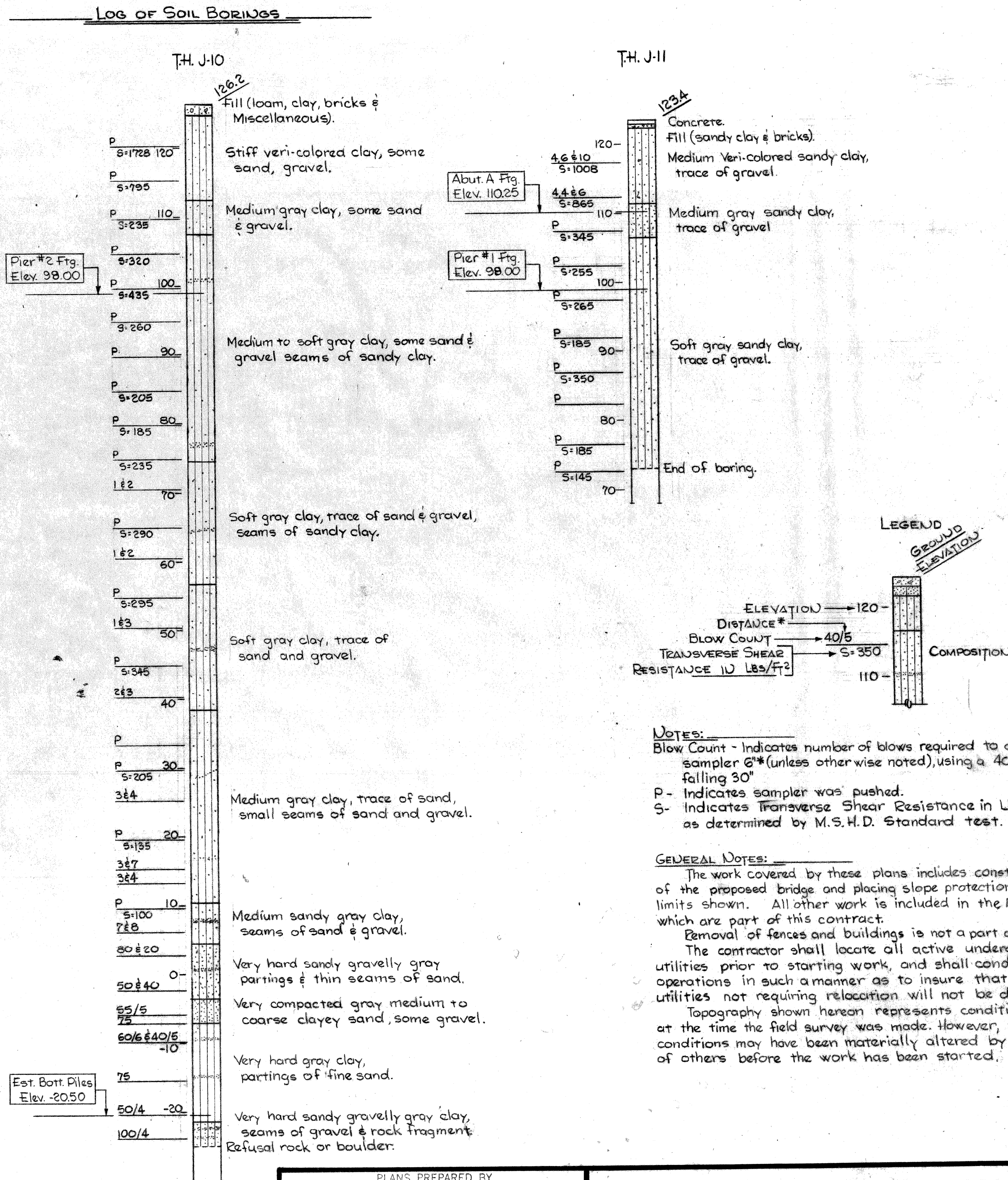
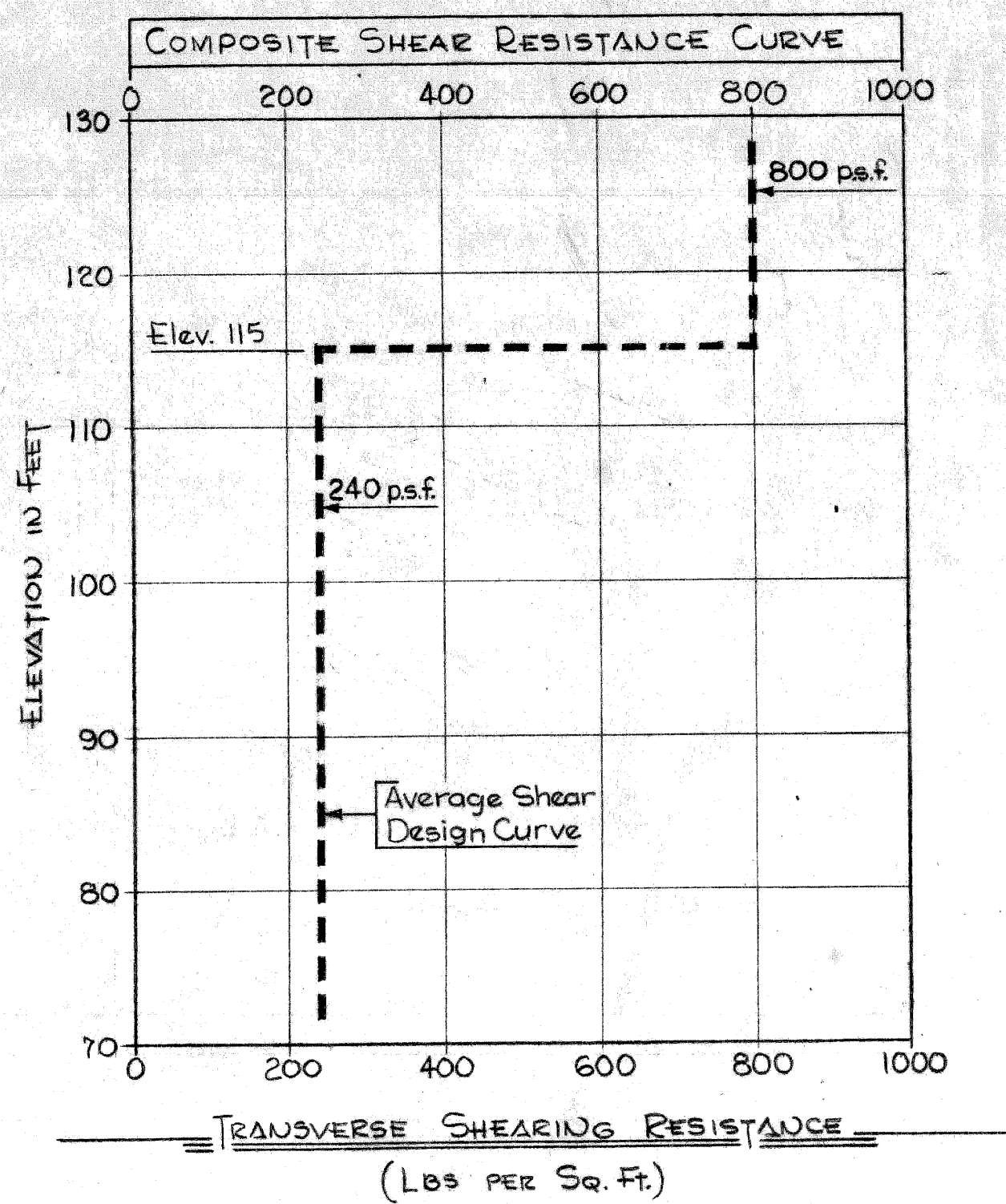
QUANTITY SHEET

CITY OF DETROIT
SQUAD BOSS <i>STYLM 947</i>
DRAWN BY <i>NAGLE 742</i>
TRACED BY
CHECKED BY <i>STYLM 742</i>
SHEET 16 OF

BI 82124,001 Part 2 S02 of 82124A



- UTILITY LEGEND**
- Sewer Manhole
 - Sewer Inlet or Catch Basin
 - ⊗ Water Gate Well and Valve
 - PLC Manhole or Handhole
 - ⊙ Detroit Edison Co. Manhole
 - ⊕ M.B.T. Pole
 - ⊕ D.E. Co. Pole
 - ⊕ P.L.C. Pole (Without Light)
 - ⊕ P.L.C. Light pole
 - Fire Hydrant
 - ⊕ D.F.D. Alarm Box
 - ⊕ Police Box
 - Test Hole for Soil Profile
 - ⊙ 12" Tree (Size)
 - x- Fence



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(1)

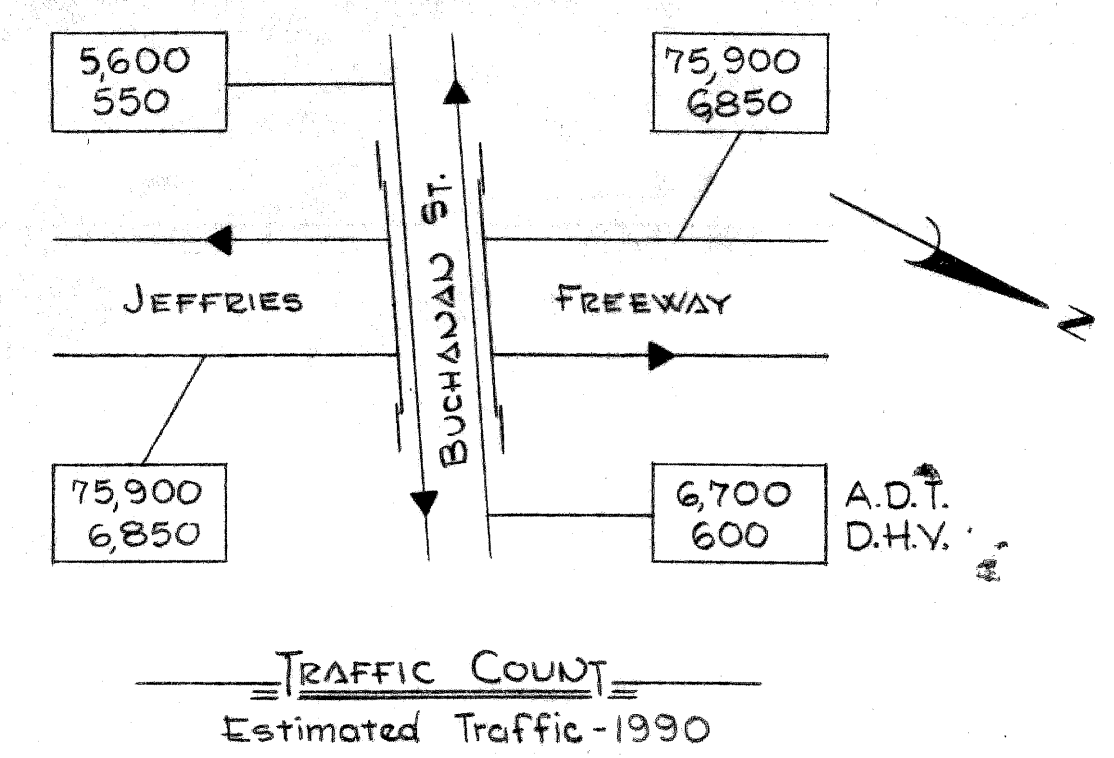
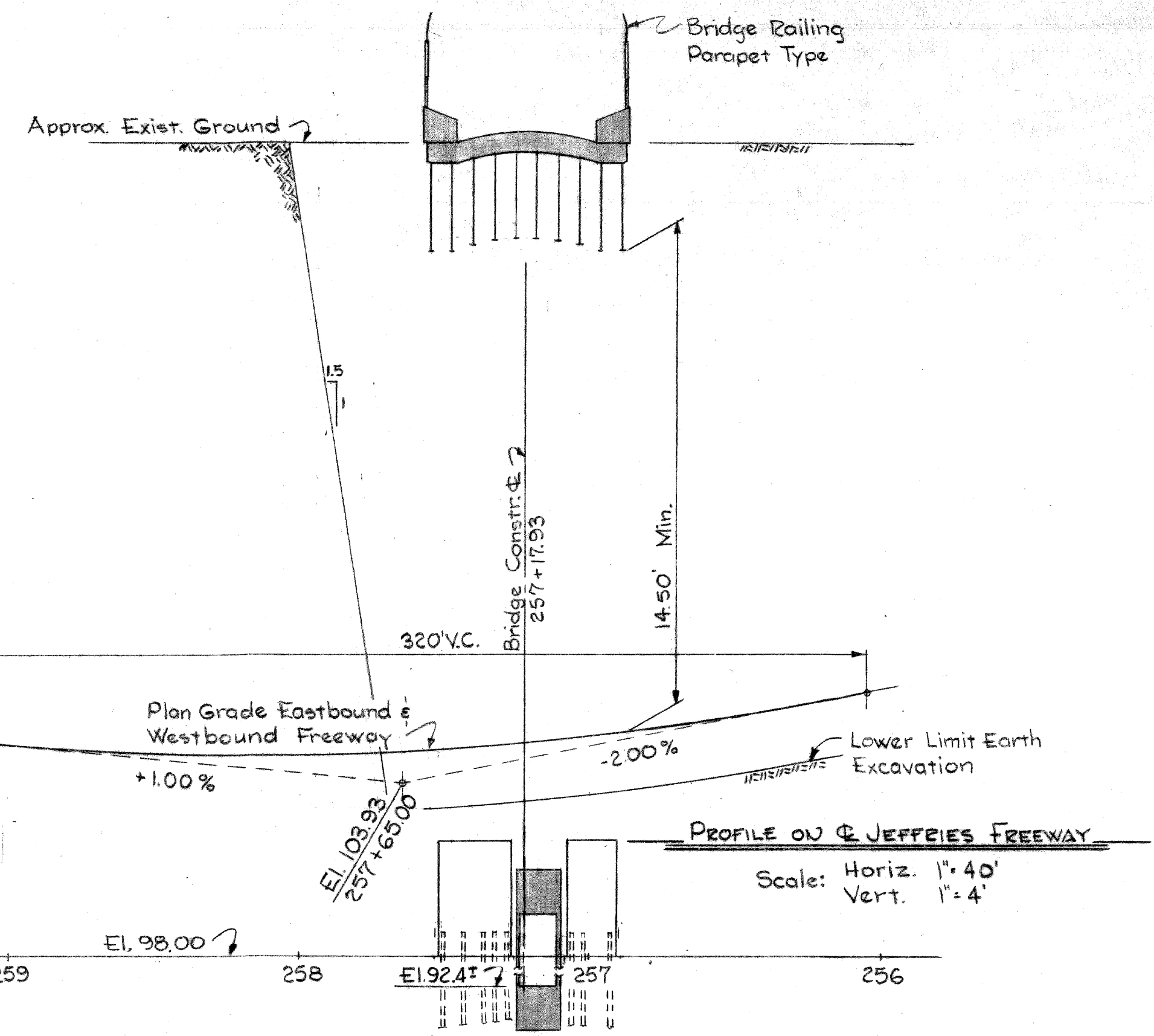
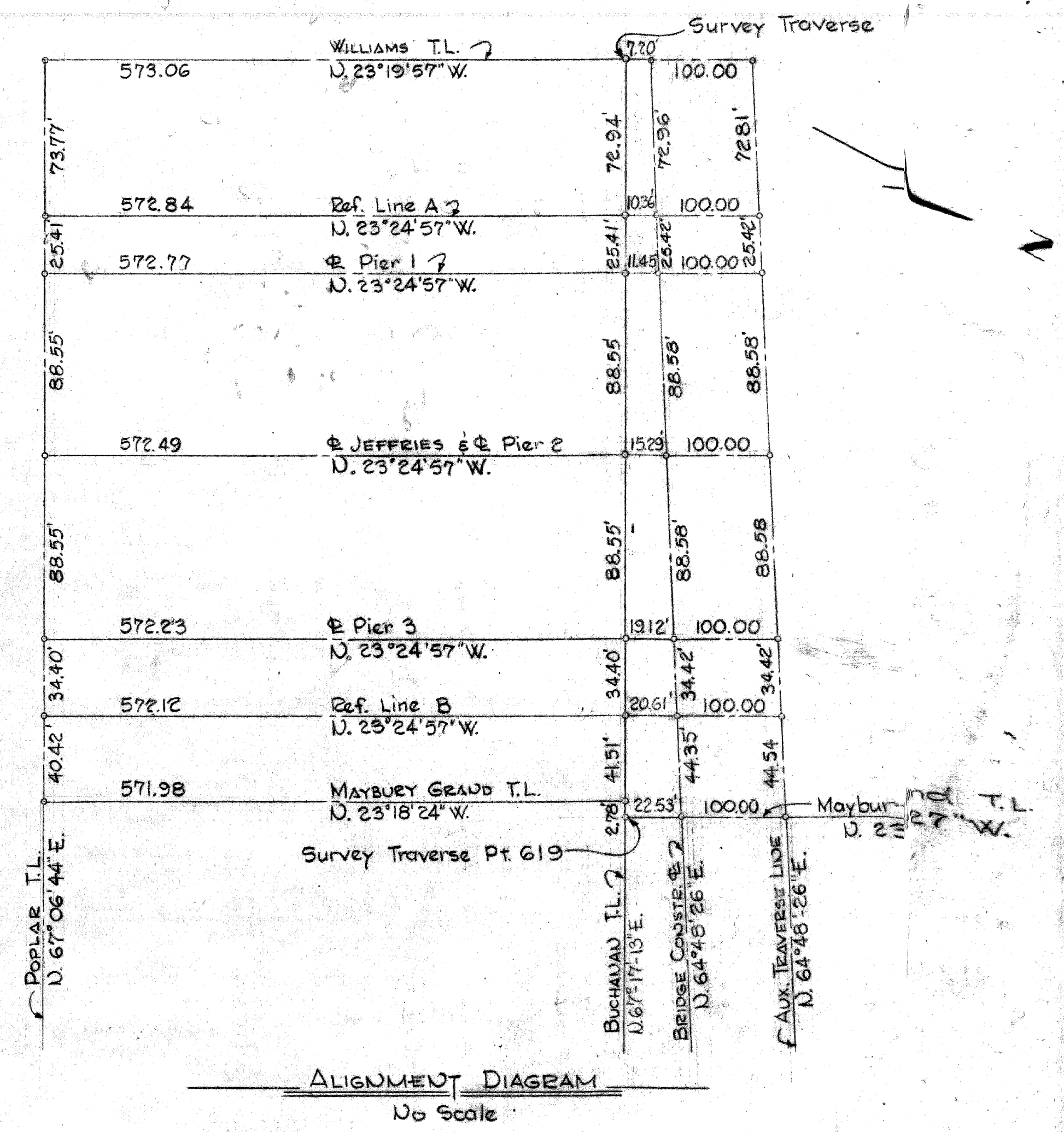
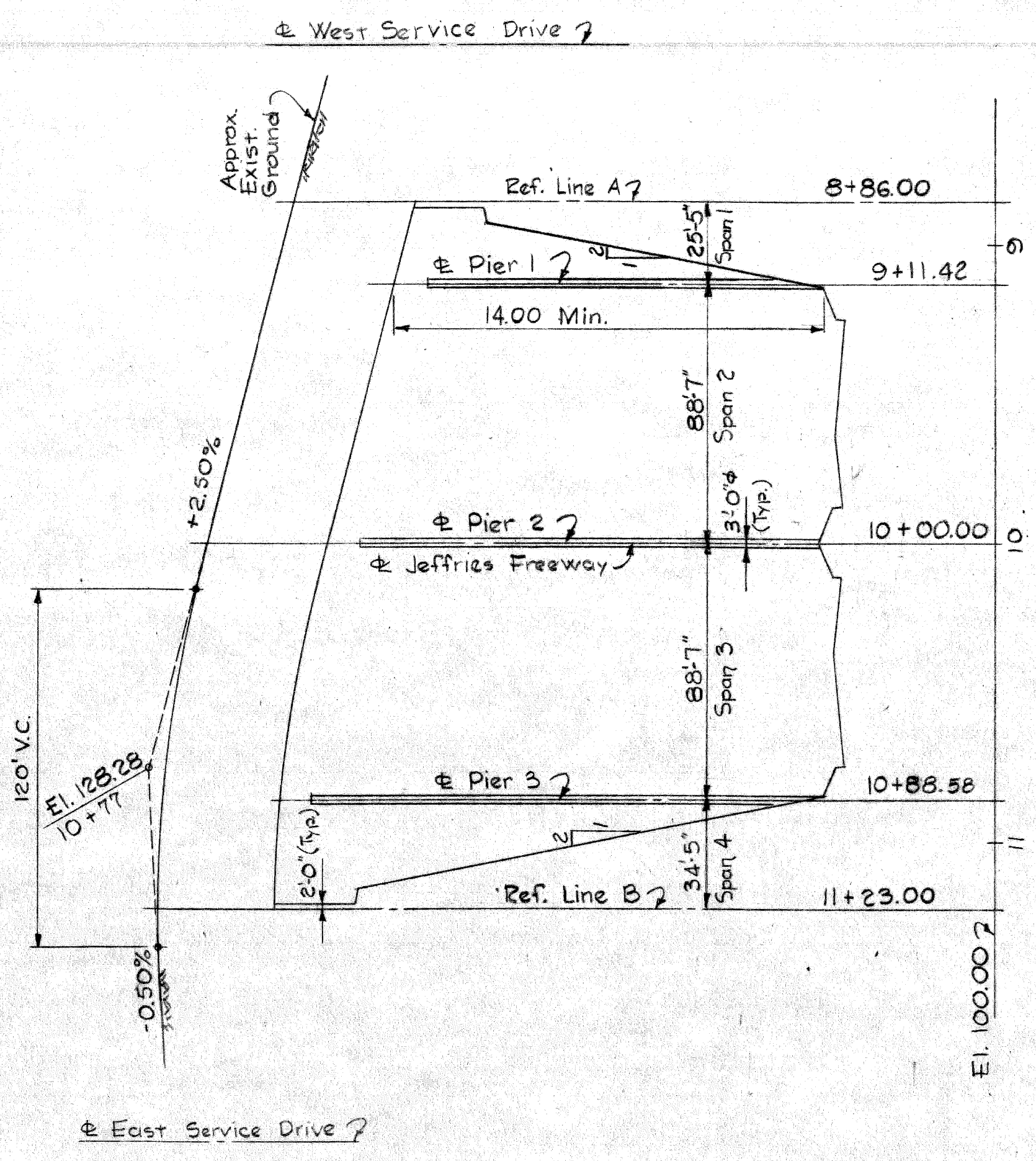
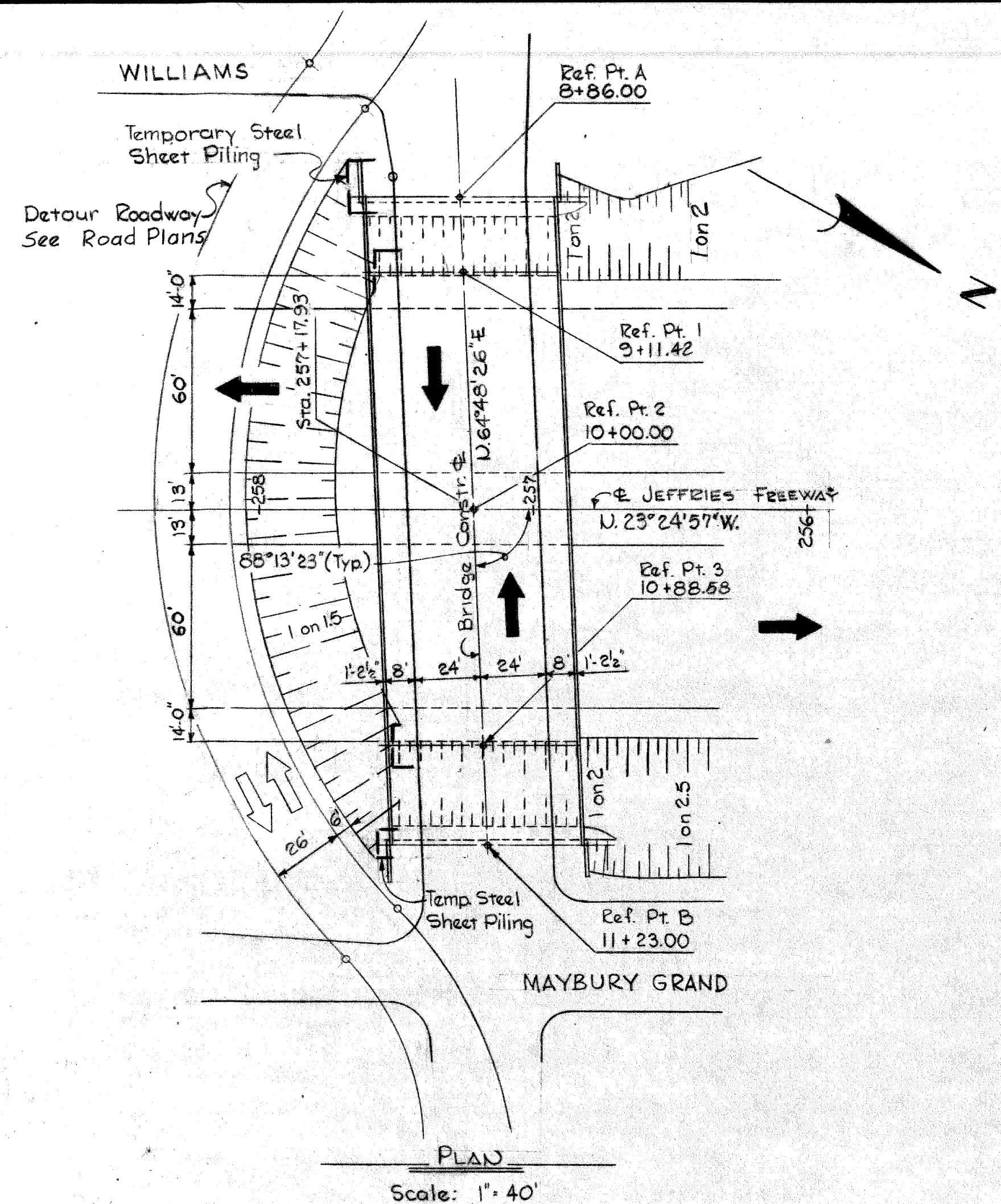
MICHIGAN STATE HIGHWAY DEPARTMENT
BUCHANAN ST. CROSSING JEFFRIES FREEWAY
IN DETROIT

GENERAL PLAN OF SITE

APPROVED: _____ DESIGN SUPERVISING ENGINEER
APPROVED: _____ ENGINEER OF DESIGN - CONSULTANTS

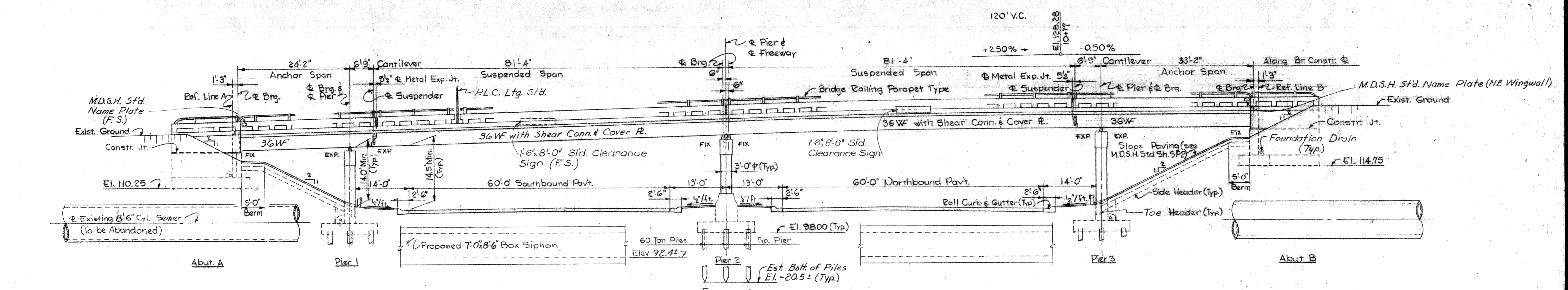
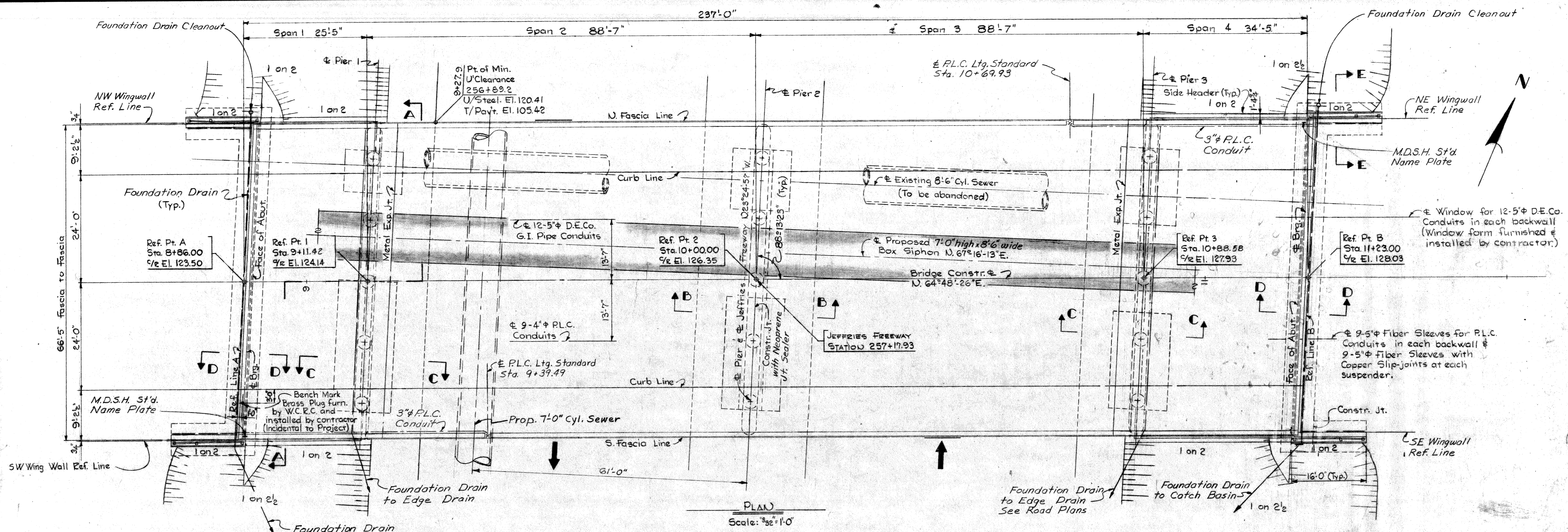
CITY OF DETROIT
SQUAD BOSS: [Signature] 566
DRAWN BY: ALLENBERG Dec '65
CHECKED BY: [Signature] 566
SHEET 2 OF 24

502 of 82124A

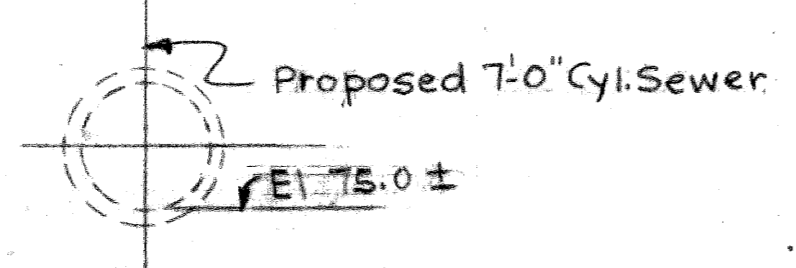


CONSTRUCTION BENCH MARKS
 C.B.M.-16 Elev. 124.71 DET on Flange of Hydrant at S.W. corner of Buchanan Williams.
 C.B.M.-15 Elev. 127.68 Arrow on Fire Hydrant at N.E. corner of Poplar & Maybury Grand.
 P.B.M. 20-253A Elev. 121.78 City of Detroit Monument N.E. corner of Selden & Man
 Elevations refer to City of Detroit Datum, 479.755 feet above sea level.

PLANS PREPARED BY CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE BUREAU OF HIGHWAYS AND EXPRESSWAYS		MICHIGAN STATE HIGHWAY DEPARTMENT	
APPROVED <i>[Signature]</i> STRUCTURAL ENGINEER		JOB No. PW 990(1)	
REVISIONS NO. DESCRIPTION DATE BY		BUCHANAN ST. CROSSING JEFFRIES FREEWAY IN DETROIT	
APPROVED _____ DESIGN SUPERVISING ENGINEER		CITY OF DETROIT SQUAD BOSS <i>[Signature]</i> 5-86 DRAWN BY <i>[Signature]</i> Oct. 85 TRACED BY <i>[Signature]</i> CHECKED BY <i>[Signature]</i> 5-86 SHEET 3 OF 24	
APPROVED _____ ENGINEER OF DESIGN - CONSULTANTS		GENERAL DRAWING 502 of 82124A	



MISCELLANEOUS QUANTITIES		
ITEM	UNIT	AMT.
Foundation Drains (6" Sewer)	Lin. Ft.	215
Slope Protection Class A	Sq. Yds.	424
Slope Protection Header	Lin. Ft.	150
Temp. Steel Sheet Piling	Sq. Ft.	1449
Removing Portions of Existing Structures	Lump Sum	



Note:
 Granular Material Class III is not a Bridge Pay Item.
 A Total of 779 cu. yds. for this Bridge is billed on Road Plans.
 Proposed 7-0 x 8-6" Box Siphon & removal of existing Cyl. Sewer are covered by Road Plans.

Work this sheet with sheet no. 5.

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(1)

NO.	DESCRIPTION	DATE	BY

MICHIGAN STATE HIGHWAY DEPARTMENT

BUCHANAN ST. CROSSING JEFFRIES FREEWAY IN DETROIT

GENERAL PLAN OF STRUCTURE

APPROVED: _____ DESIGN SUPERVISING ENGINEER

APPROVED: _____ ENGINEER OF DESIGN - CONSULTANTS

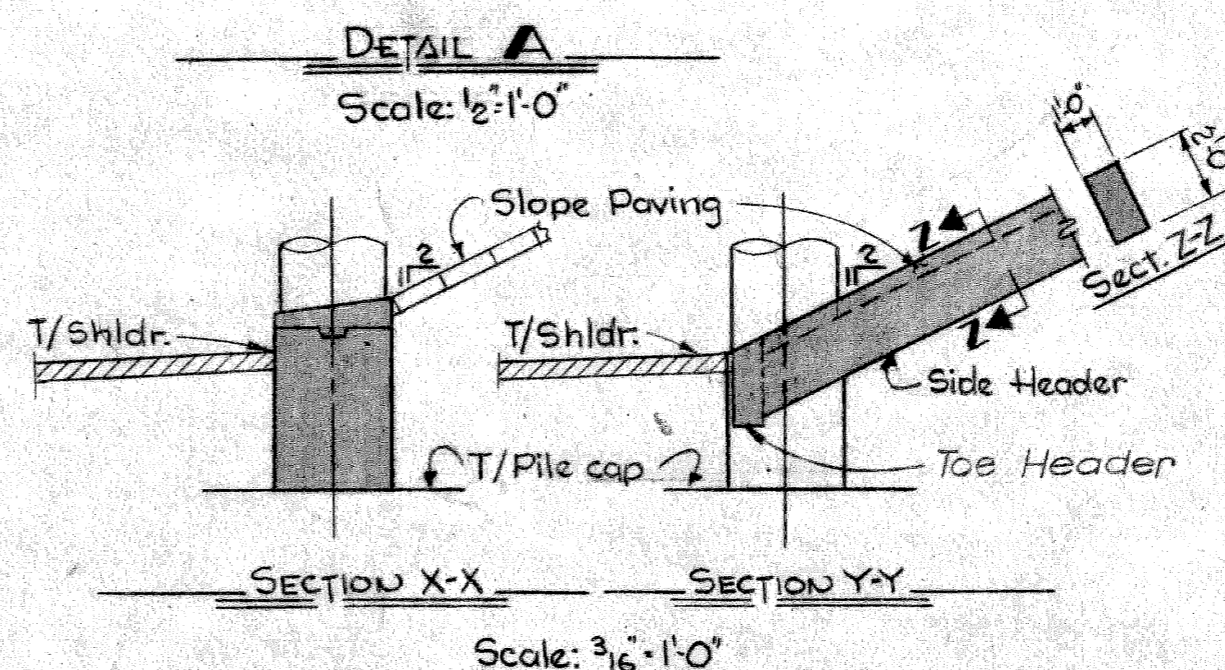
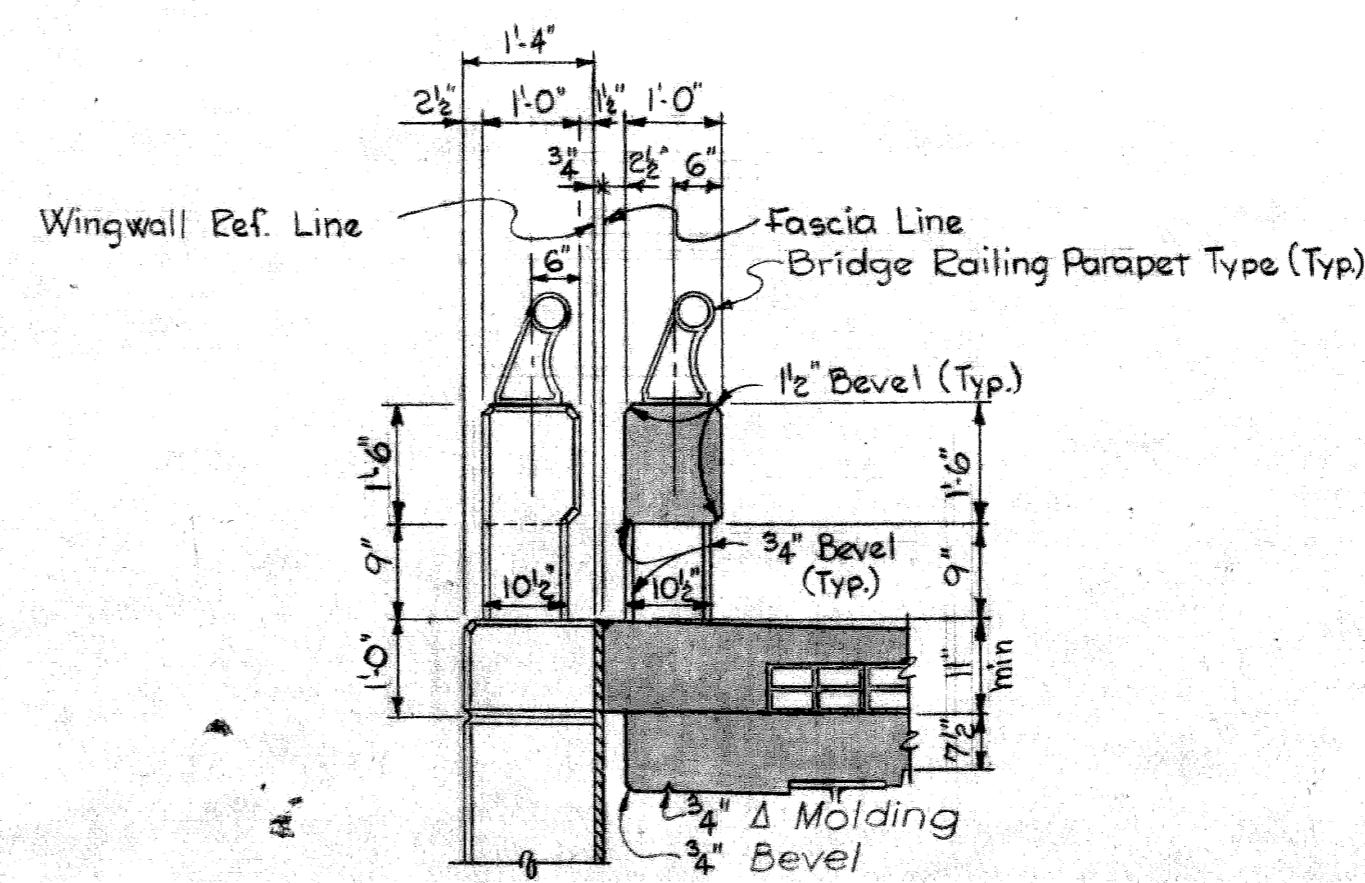
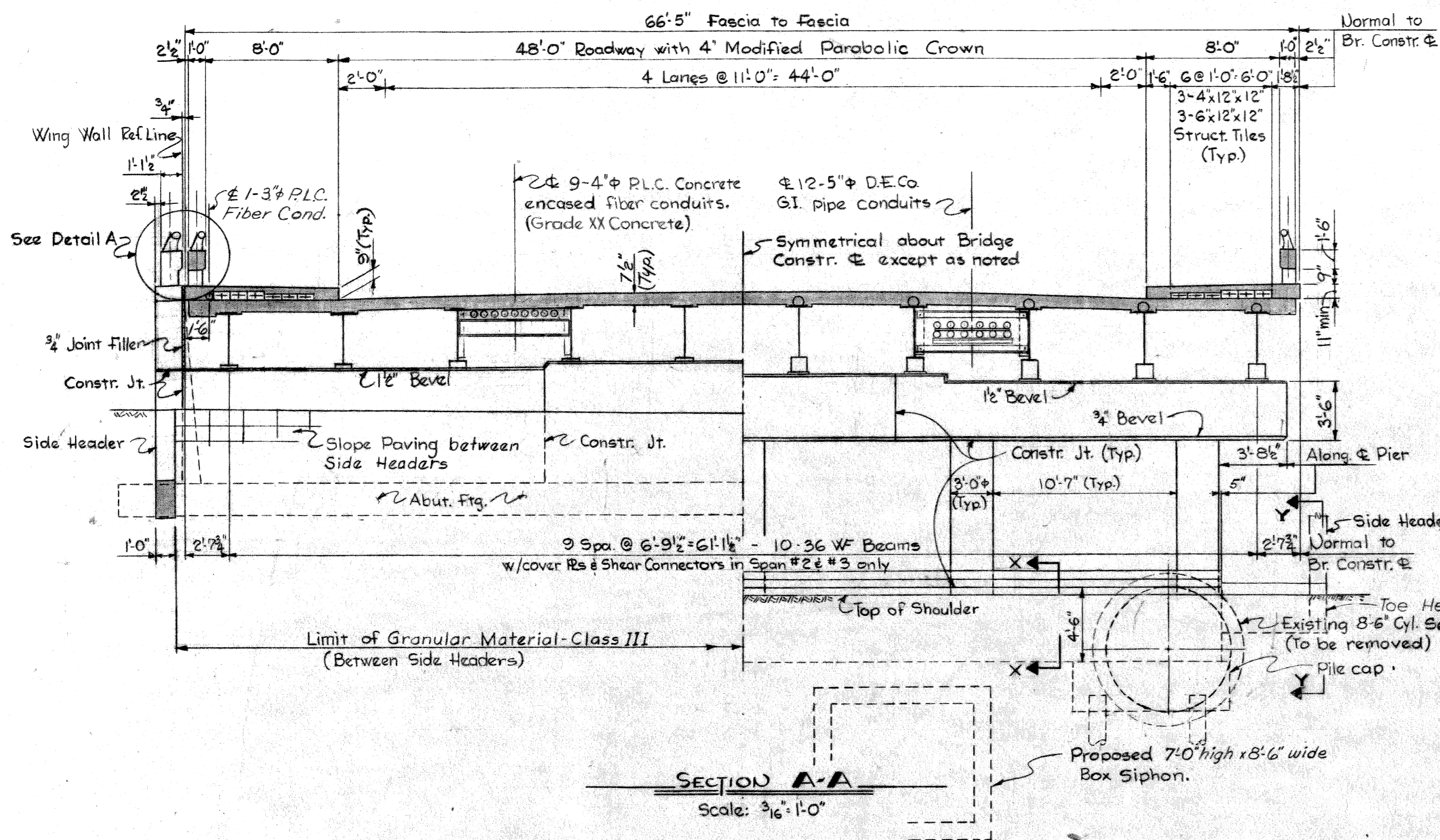
CITY OF DETROIT

SQUAD BOSS	DATE	FILE
SWEN	5-66	
AWB	5-66	

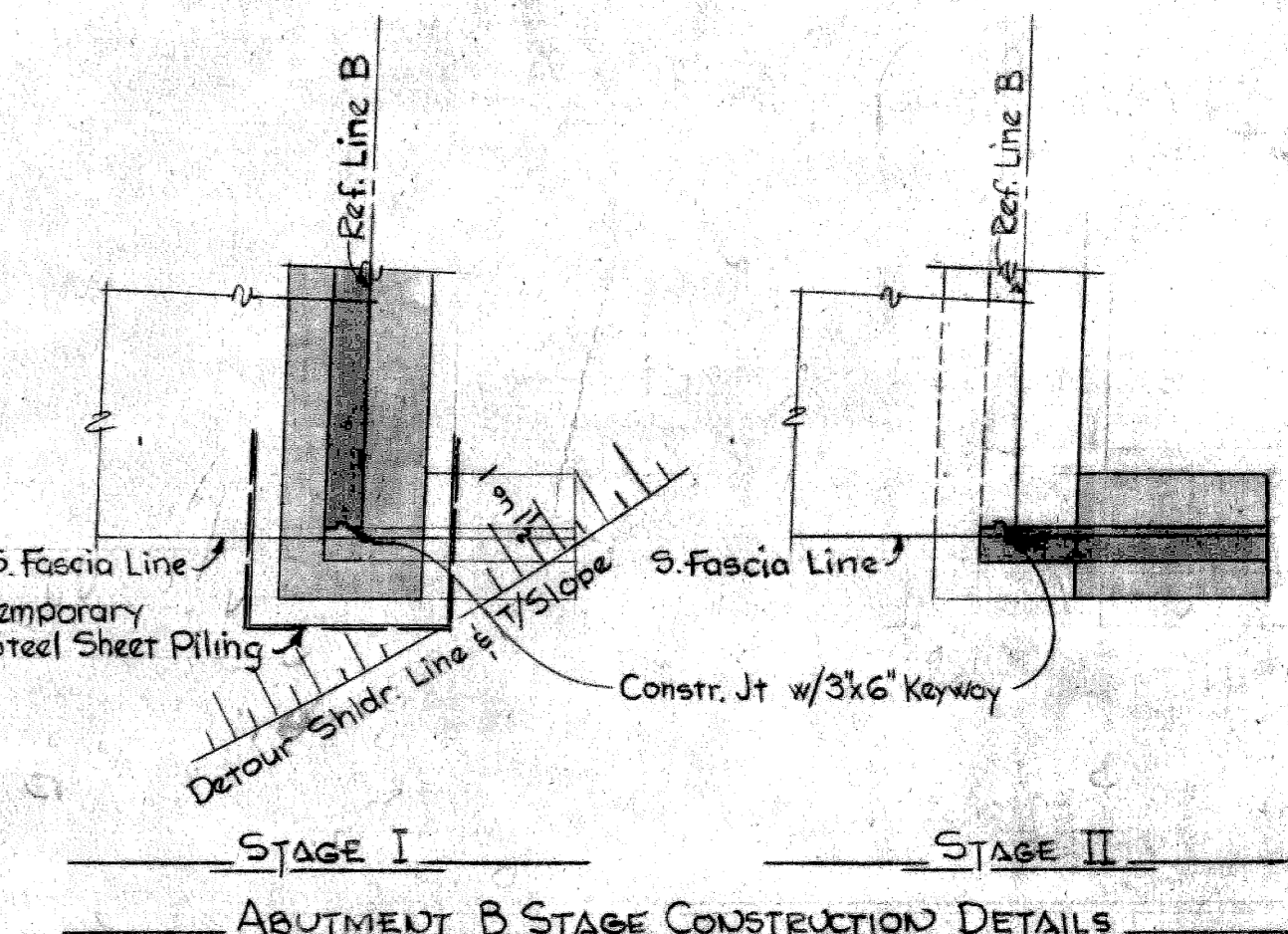
CHECKED BY: SWEN 5-66

SHEET 4 OF 24

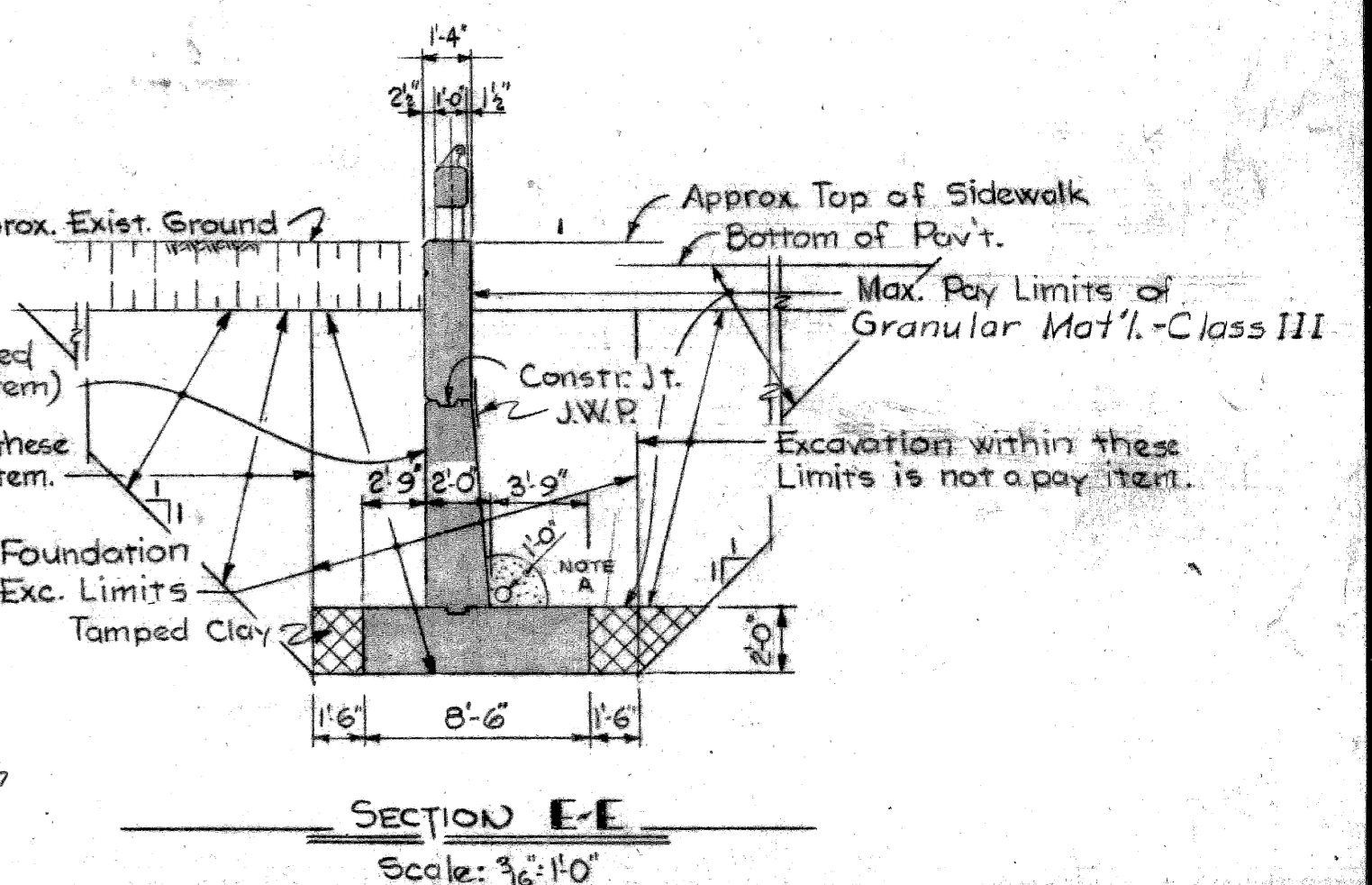
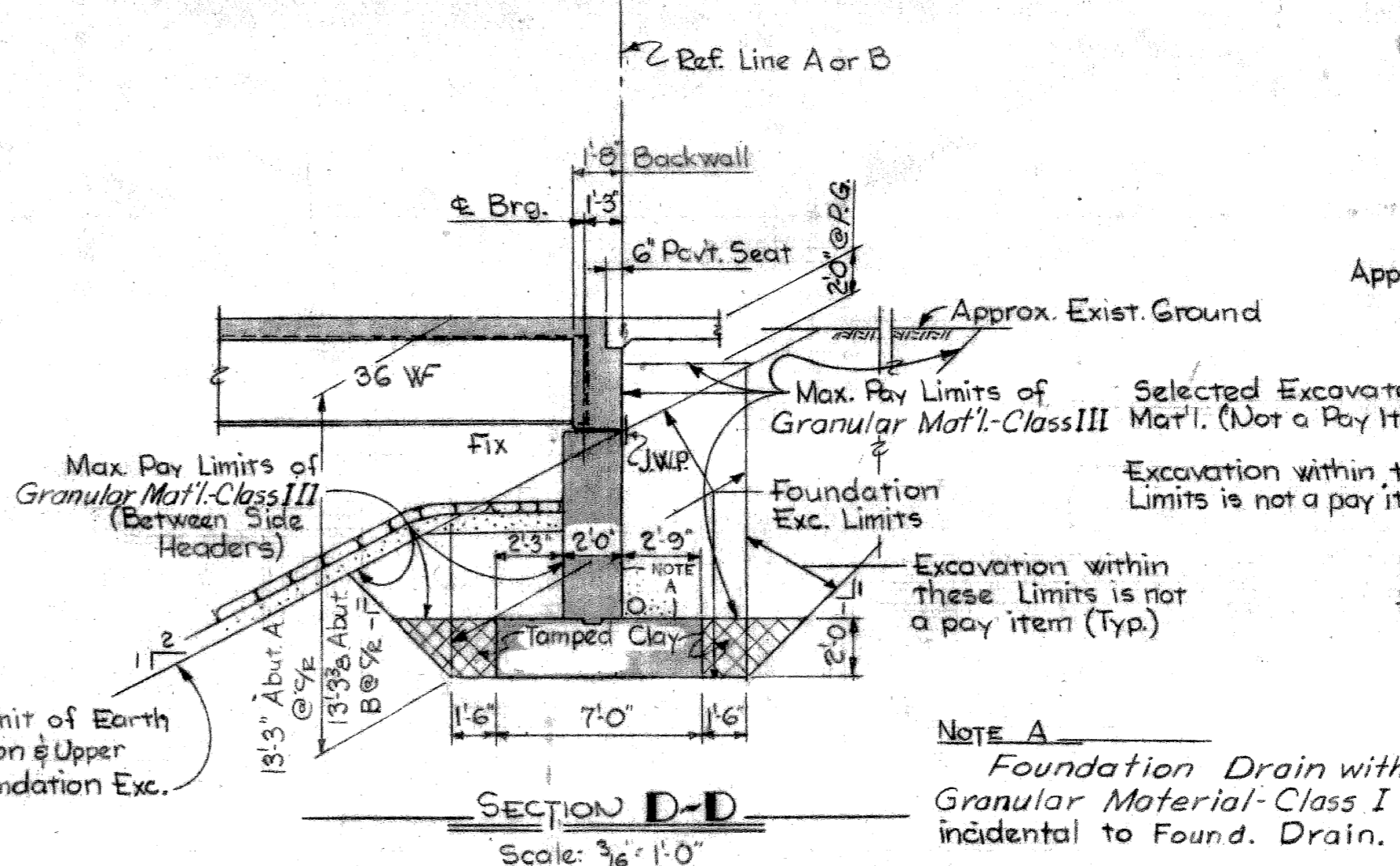
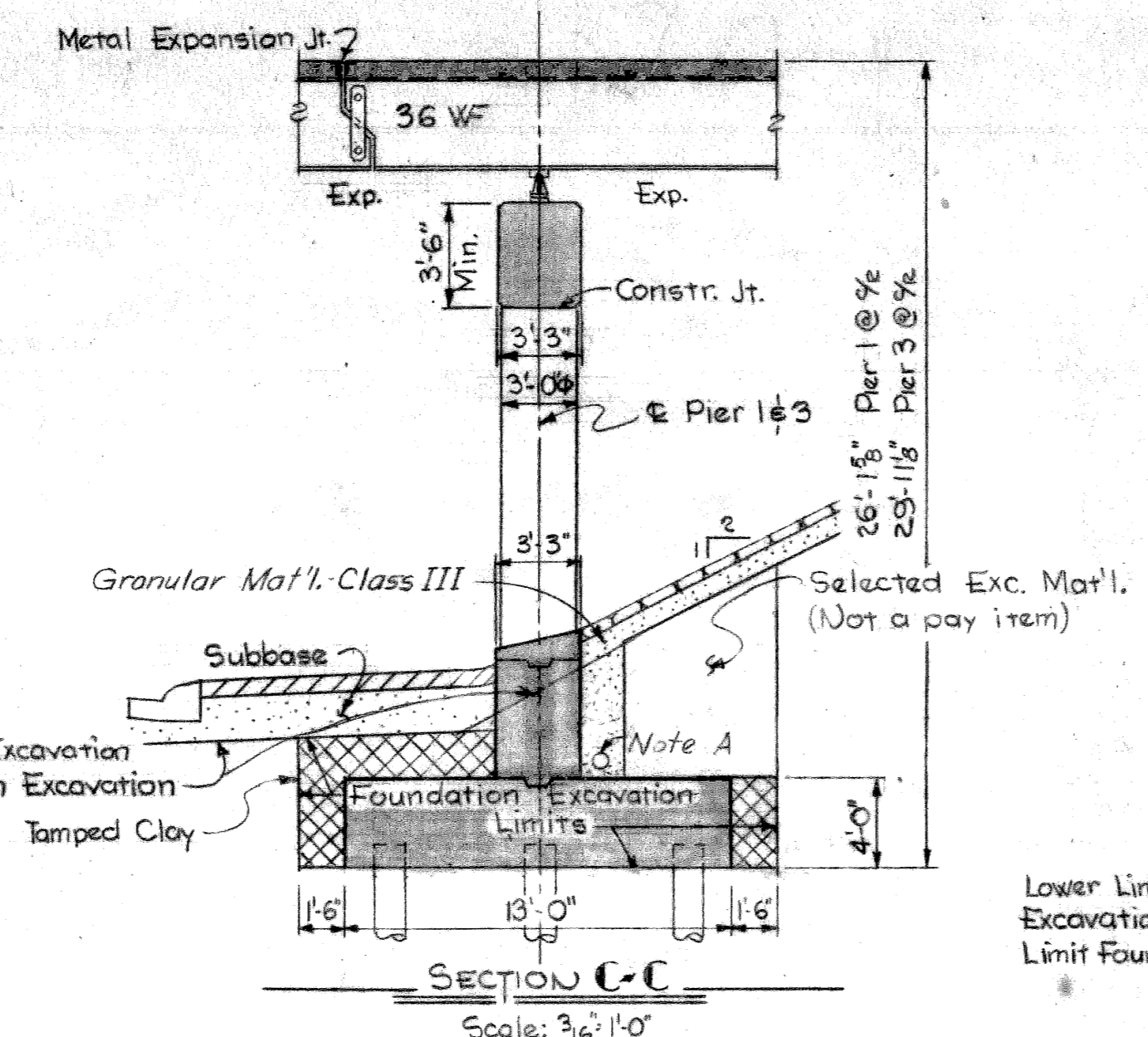
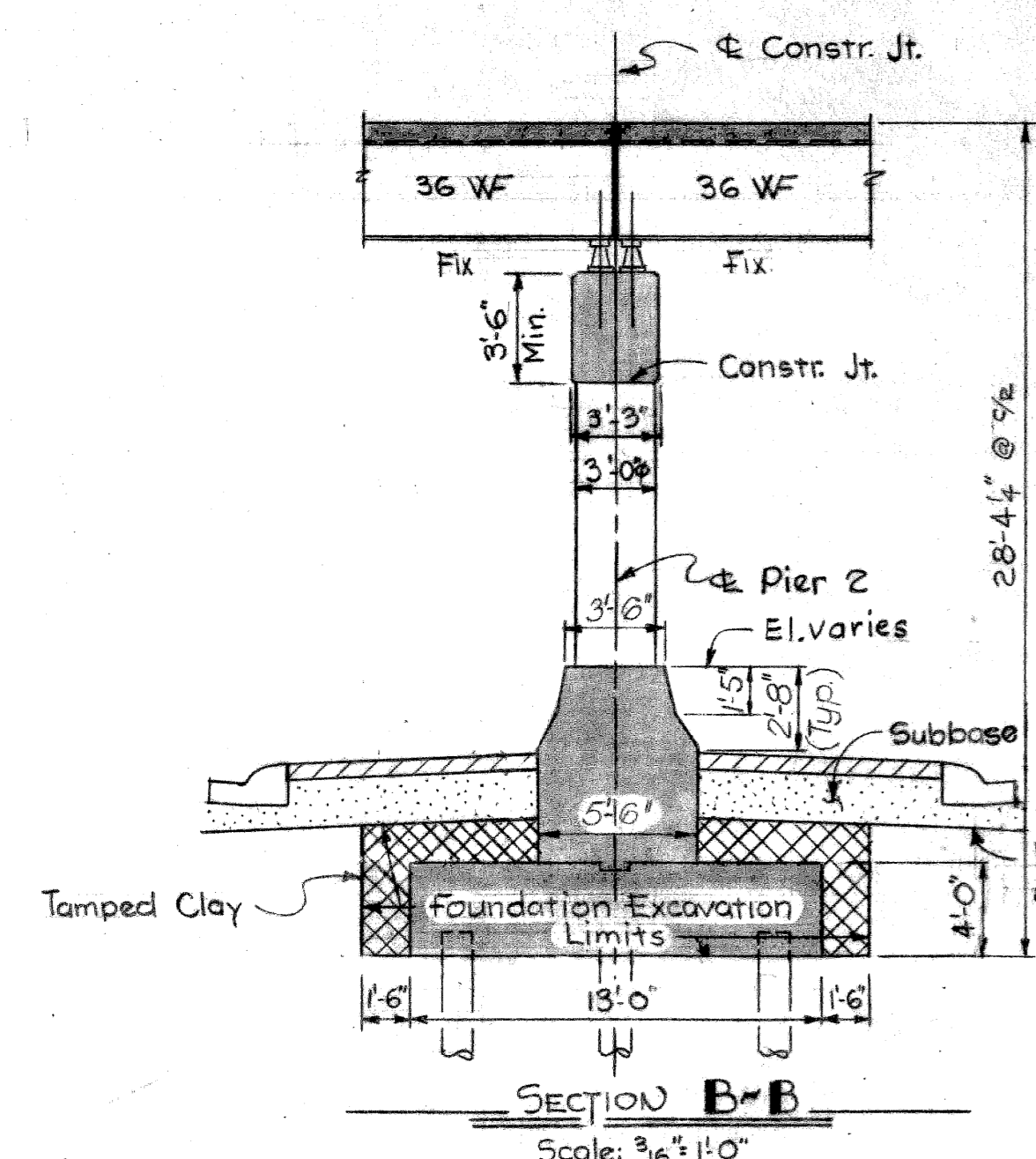
502 of 82124A



GENERAL NOTES:
 The design of this structure is based on M.S.H.D. Specifications for the Design of Highway Bridges, 1958 edition and current A.S.H.T.O. Standard Specifications for Highway Bridges HS20-44 loading. Live load plus impact deflection equals $\frac{1}{1000}$ of span length on cantilever arm.
 The top of roadway slab and tops of sidewalks are parallel to the vertical curve and tangents.
 C/R denotes crown of roadway
 For details of Slope Protection, see Standard Sheet SP 2.



Note: Vertical pay limits for Temporary Steel Sheet Piling are the top of retained earth and the bottom of footing.



Note: Tamped Clay and Selected Excavated Material are incidental to Unclassified Excavation.

Work this sheet with sheet no. 4

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(1)

NO.	DESCRIPTION	DATE	BY

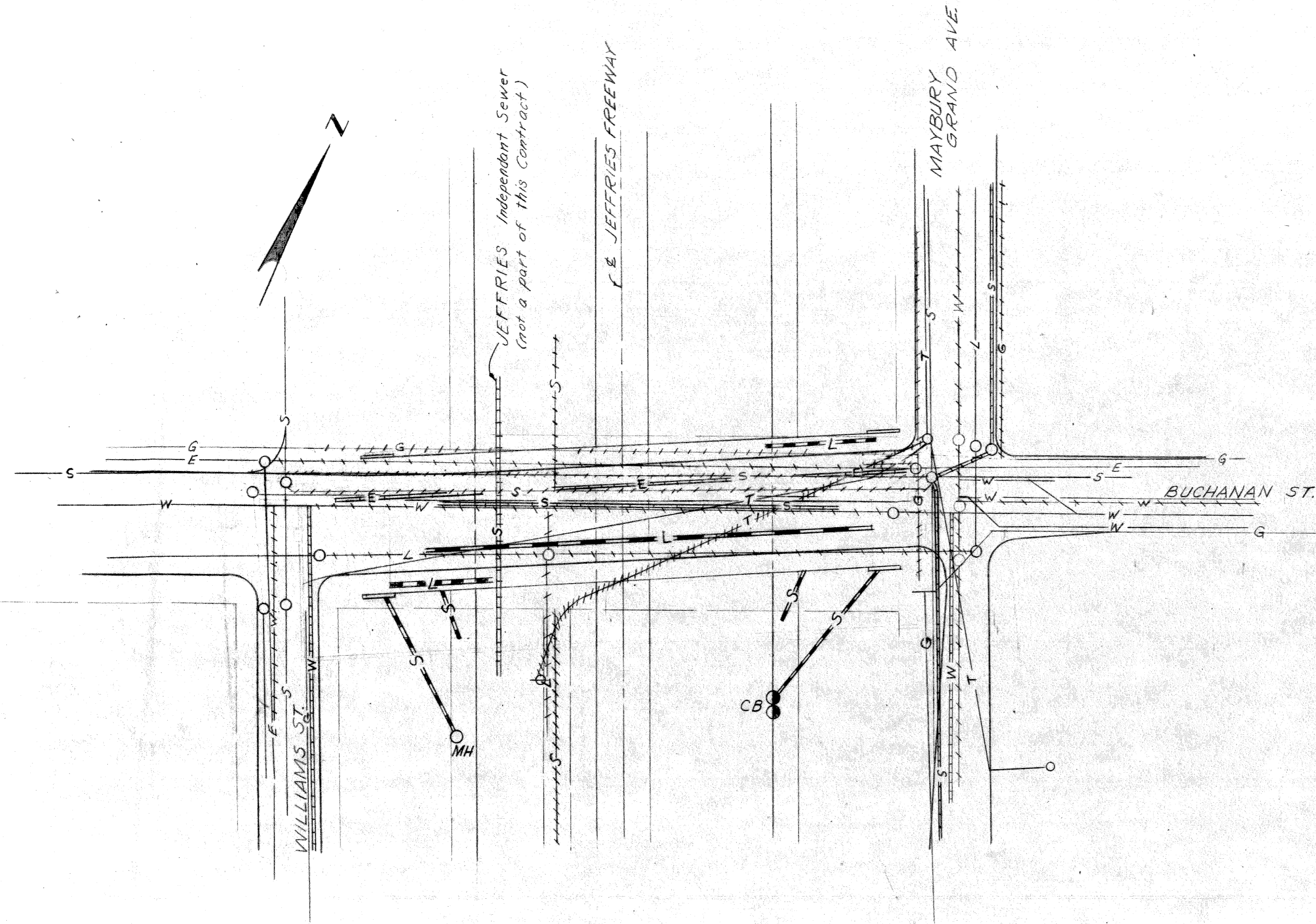
MICHIGAN STATE HIGHWAY DEPARTMENT
 BUCHANAN ST. CROSSING JEFFRIES FREEWAY
 IN DETROIT

GENERAL PLAN OF STRUCTURE

APPROVED: _____ DESIGN SUPERVISING ENGINEER
 APPROVED: _____ ENGINEER OF DESIGN - CONSULTANTS

CITY OF DETROIT	DATE
DRAWN BY: <i>[Signature]</i>	5-66
TRACED BY: <i>[Signature]</i>	DEC '65
CHECKED BY: <i>[Signature]</i>	5-66

SHEET 5 OF 24
 S02 of 82124A



SITUATION PLAN
Scale 1" = 40'

UTILITY	EXISTING	DELETE OR ABANDONED	NEW WORK BY OTHERS	NEW WORK BY CONTRACTOR
DETROIT WATER DEPARTMENT	— W —	++++ W +++++	===== W =====	----- W -----
FREEWAY & CITY OF DETROIT SEWERS	— S —	++++ S +++++	===== S =====	----- S -----
MICHIGAN CONSOLIDATED GAS CO.	— G —	++++ G +++++	===== G =====	----- G -----
MICHIGAN BELL TELEPHONE CO.	— T —	++++ T +++++	===== T =====	----- T -----
PUBLIC LIGHTING COMMISSION	— L —	++++ L +++++	===== L =====	----- L -----
DETROIT EDISON COMPANY	— E —	++++ E +++++	===== E =====	----- E -----

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

APPROVED: *W. A. L.*
STRUCTURAL ENGINEER

JOB No.
PW 990(1)

MICHIGAN STATE HIGHWAY DEPARTMENT
BUCHANAN ST. CROSSING JEFFRIES FREEWAY
IN DETROIT

EXISTING UTILITIES AND PROPOSED ALTERATIONS

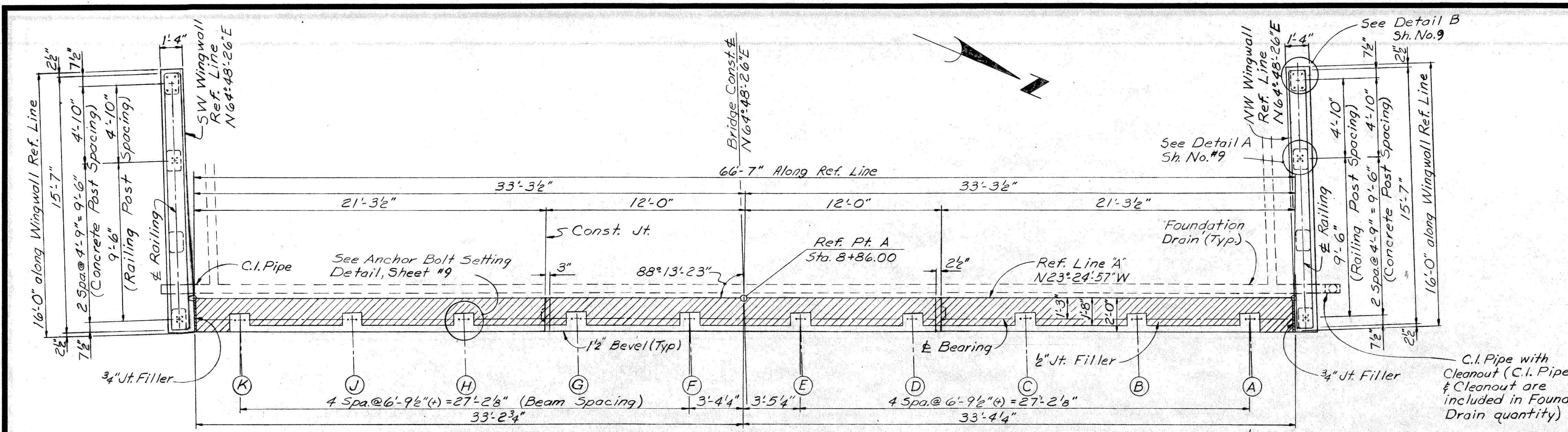
REVISIONS

NO.	DESCRIPTION	DATE	BY

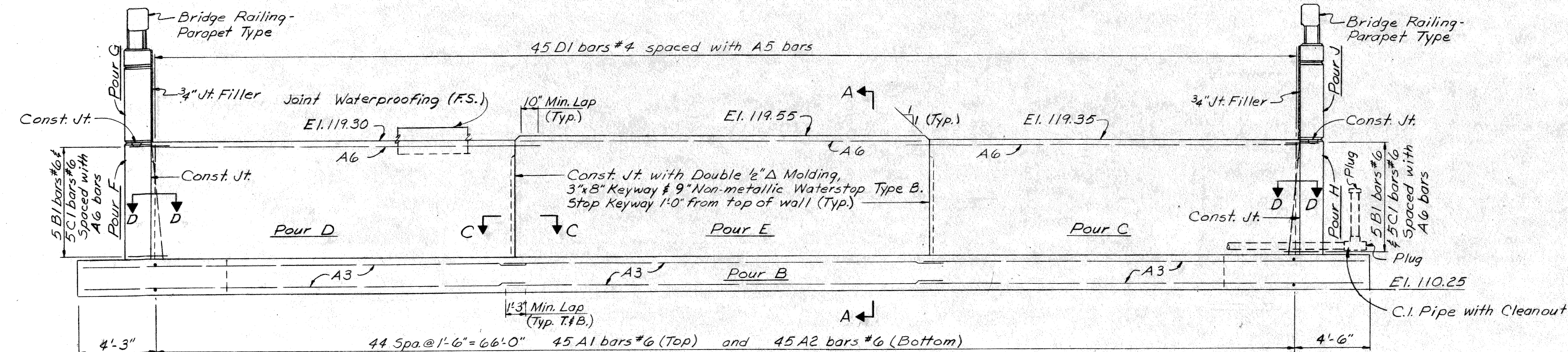
CITY OF DETROIT

SQUAD BOSS	STURM	5-66
DRAWN BY	W. A. L.	2-66
TRACED BY		
CHECKED BY	STURM	5-66
SHEET	6	OF 24

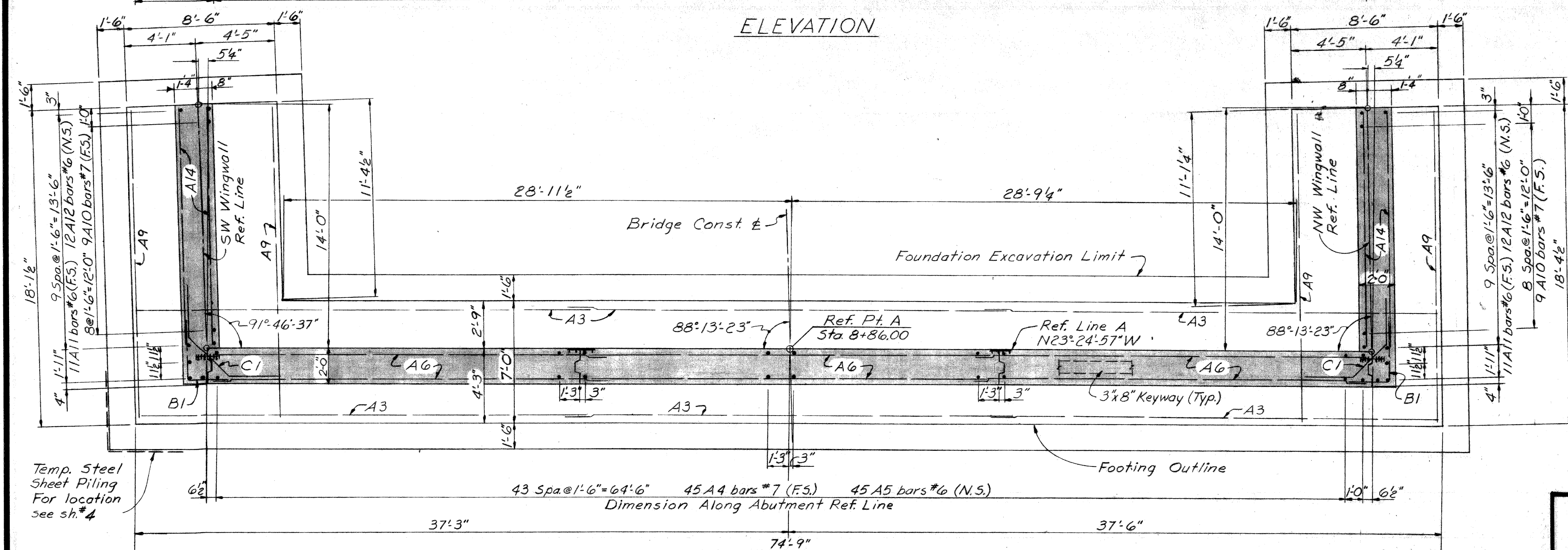
S02 of 82124A



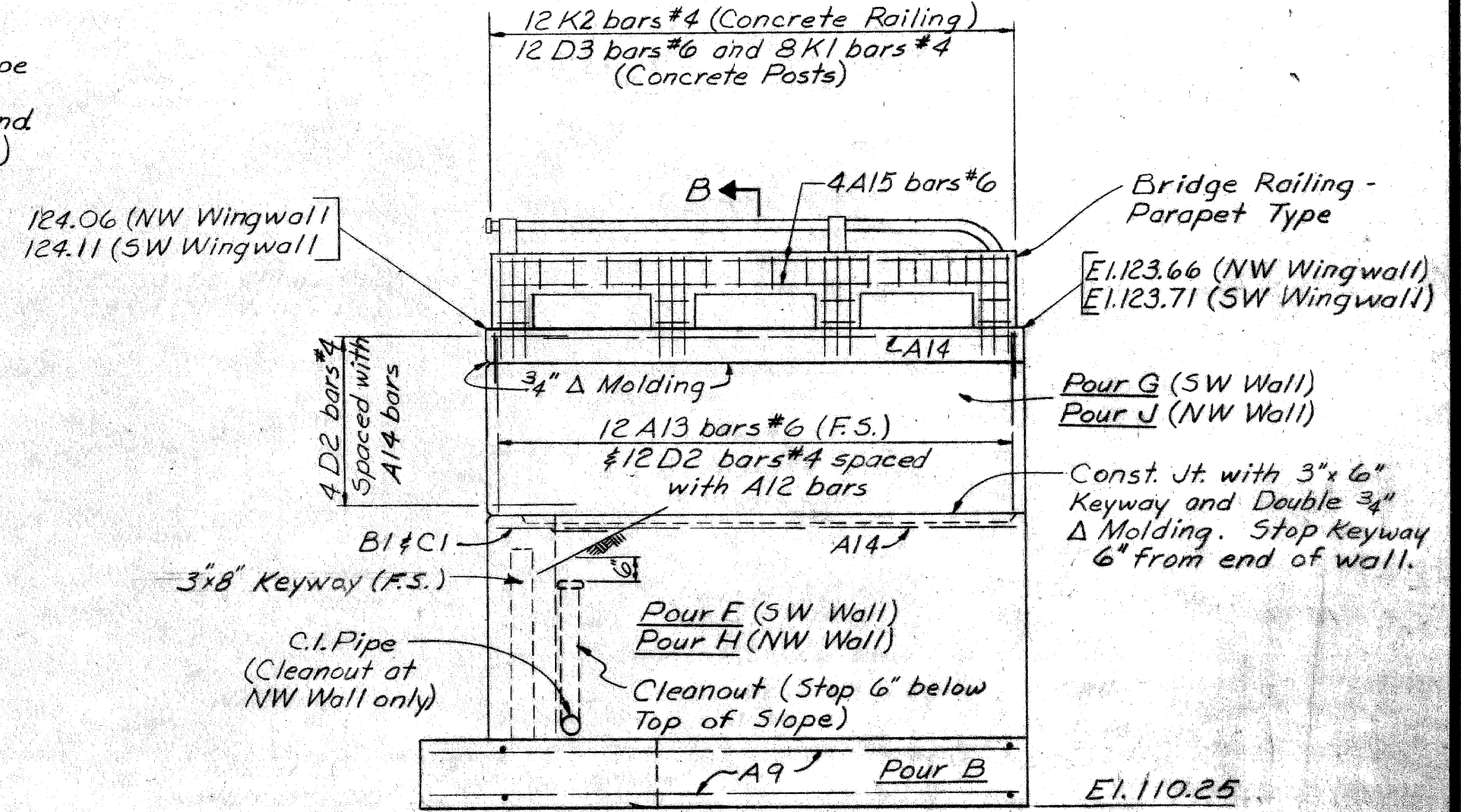
PLAN OF TOP



ELEVATION



PLAN OF FOOTING



ELEVATION AT NW WINGWALL
(SW Wingwall Opposite Hand)

GENERAL NOTES:
 N.S., F.S. and B.S. denote Near Side, Far Side and Both Sides, respectively.
 For bevel, molding, bridge railing see Std. Sheet DR11 & DR12.

Anchor Bolts shall be set accurately to a template.
 The Project Engineer shall adjust the spacing of the reinforcing steel as required to permit placing of anchor bolts.
 Maximum average foundation pressure D.L. only = 1700 lbs./sq.ft.
 Maximum foundation pressure D.L. and L.L. = 3100 lbs./sq.ft.

Work this sheet with sheet nos. 8 thru 24

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(1)

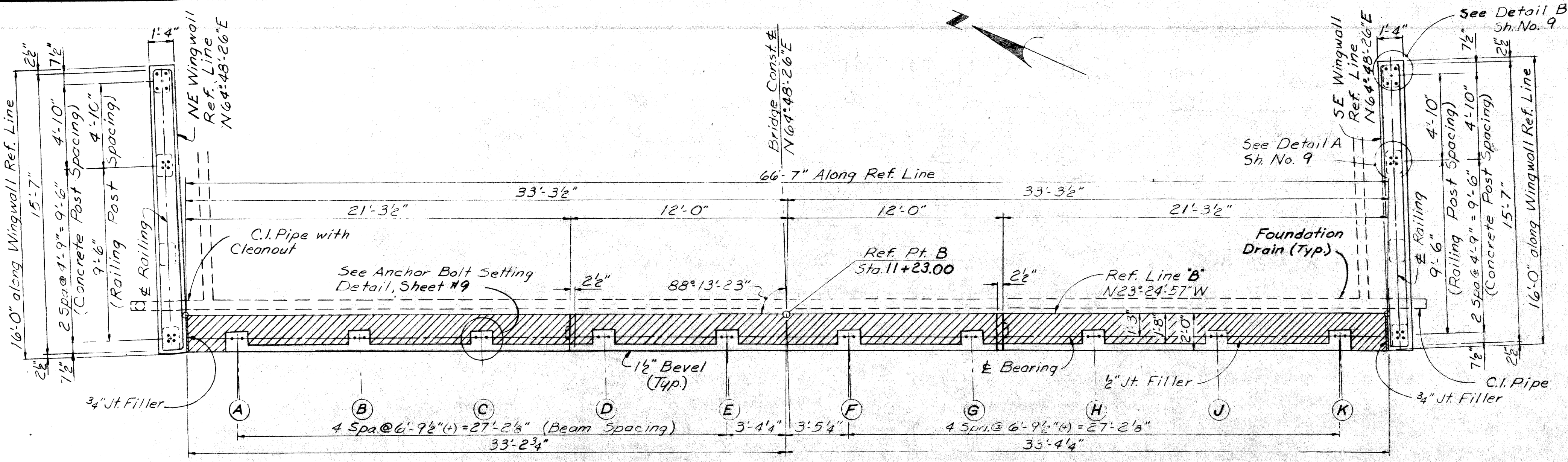
MICHIGAN DEPARTMENT OF STATE HIGHWAYS

**BUCHANAN ST. CROSSING JEFFRIES FREEWAY
 IN DETROIT**

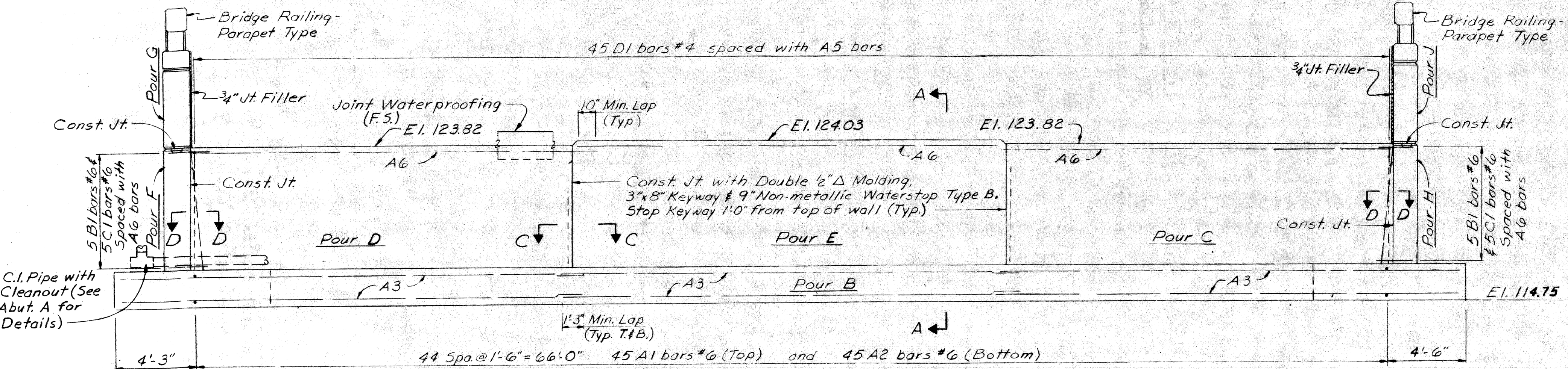
ABUTMENT A DETAILS

REVISIONS			
NO.	DESCRIPTION	DATE	BY

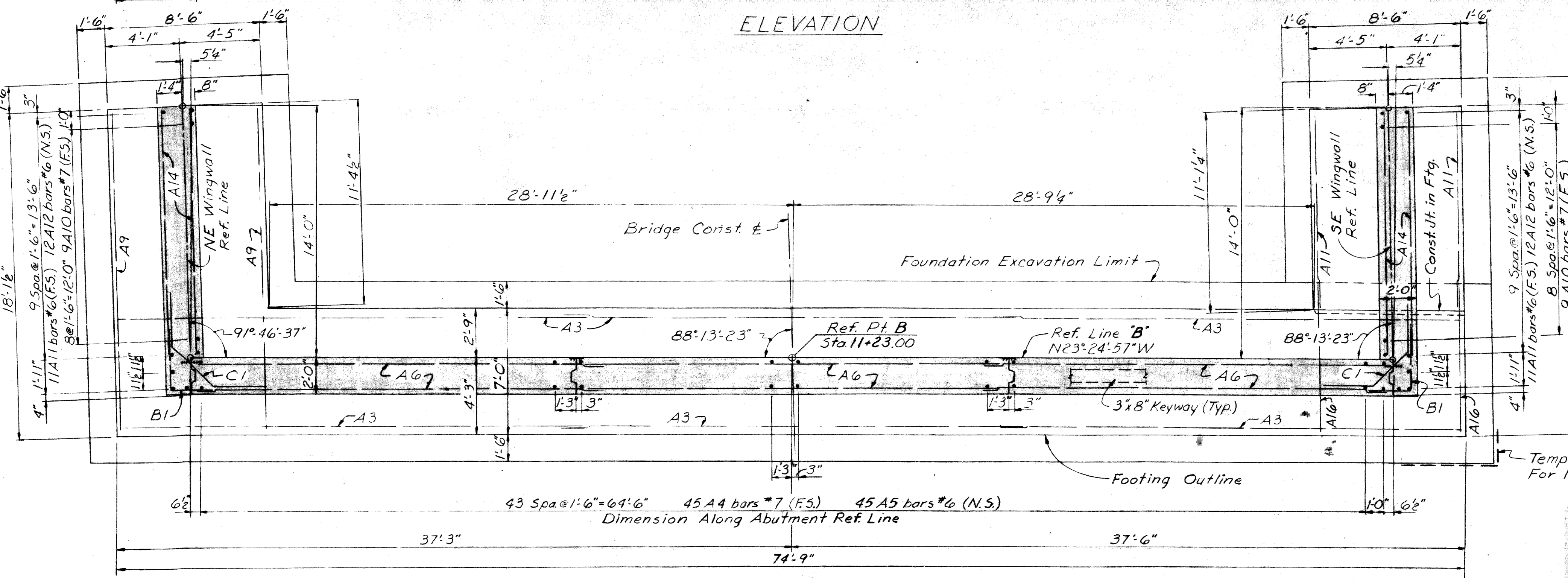
CITY OF DETROIT	
SQUAD BOSS	A. Freilich 4-67
DRAWN BY	D. Rome 7-60
TRACED BY	CR/IA 4-67
CHECKED BY	CR/IA 4-67
SHEET	7 of 24
S02 of 82124A	



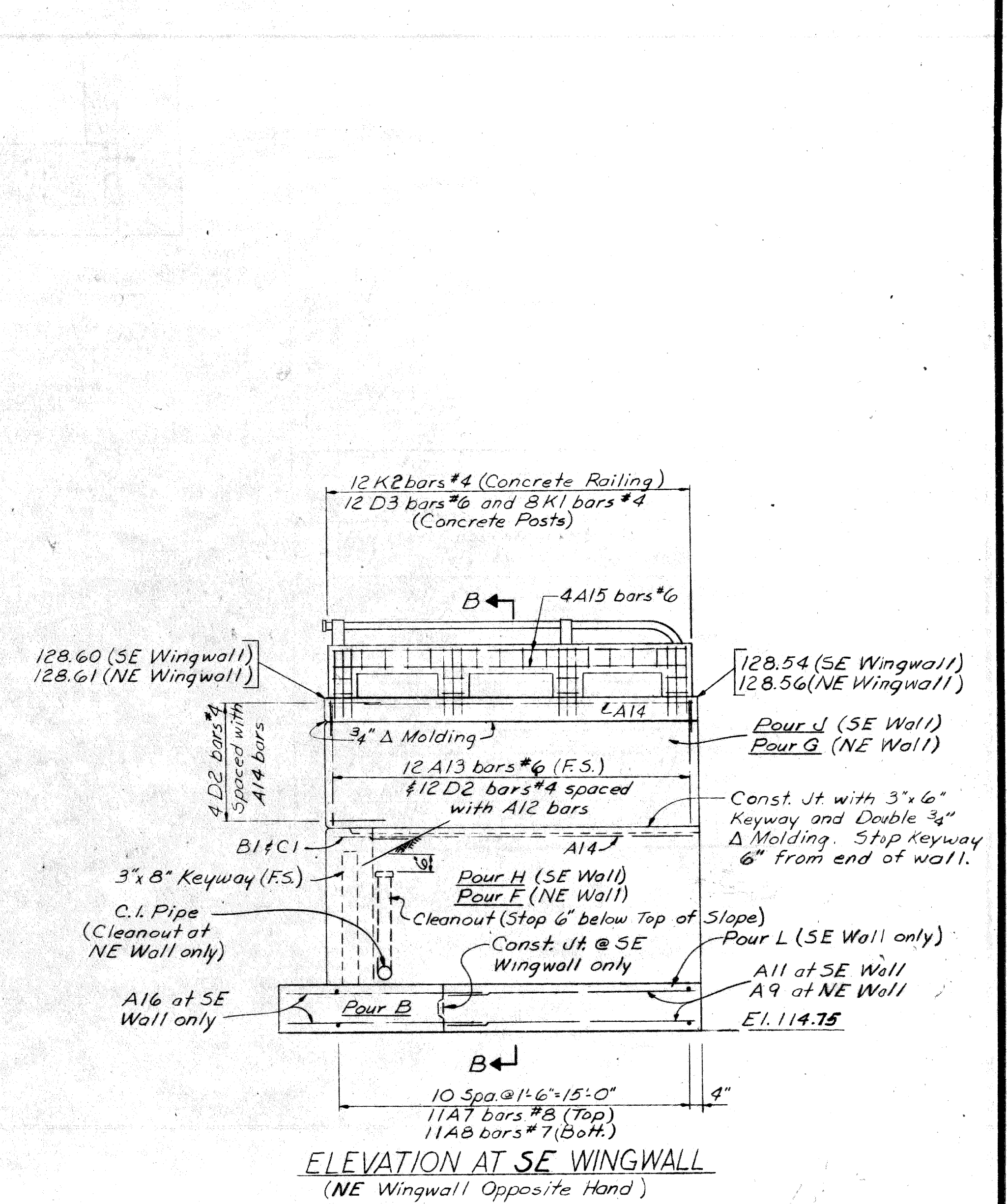
PLAN OF TOP



ELEVATION



PLAN OF FOOTING



ELEVATION AT SE WINGWALL
(NE Wingwall Opposite Hand)

Note: For Stage Construction of SE Wingwall, see sheet no. 5.

Temp. Steel Sheet Piling
For location see sh. #4.

Work this sheet with sheet nos. 7 thru 24

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(1)

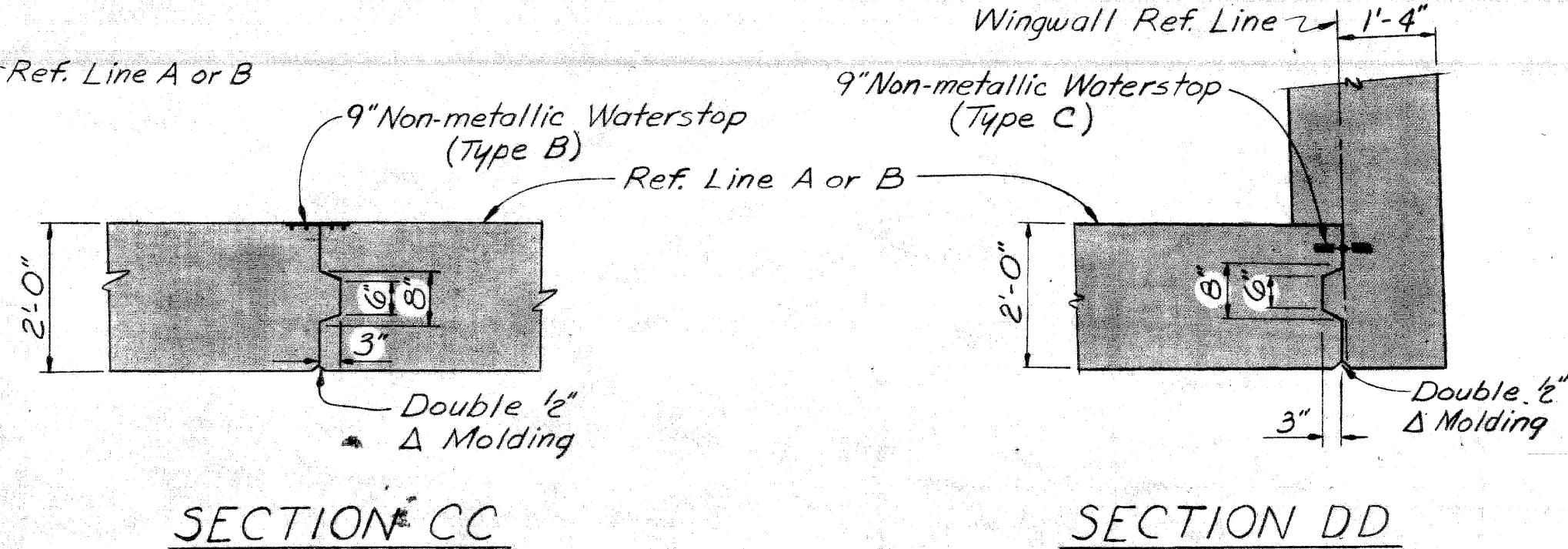
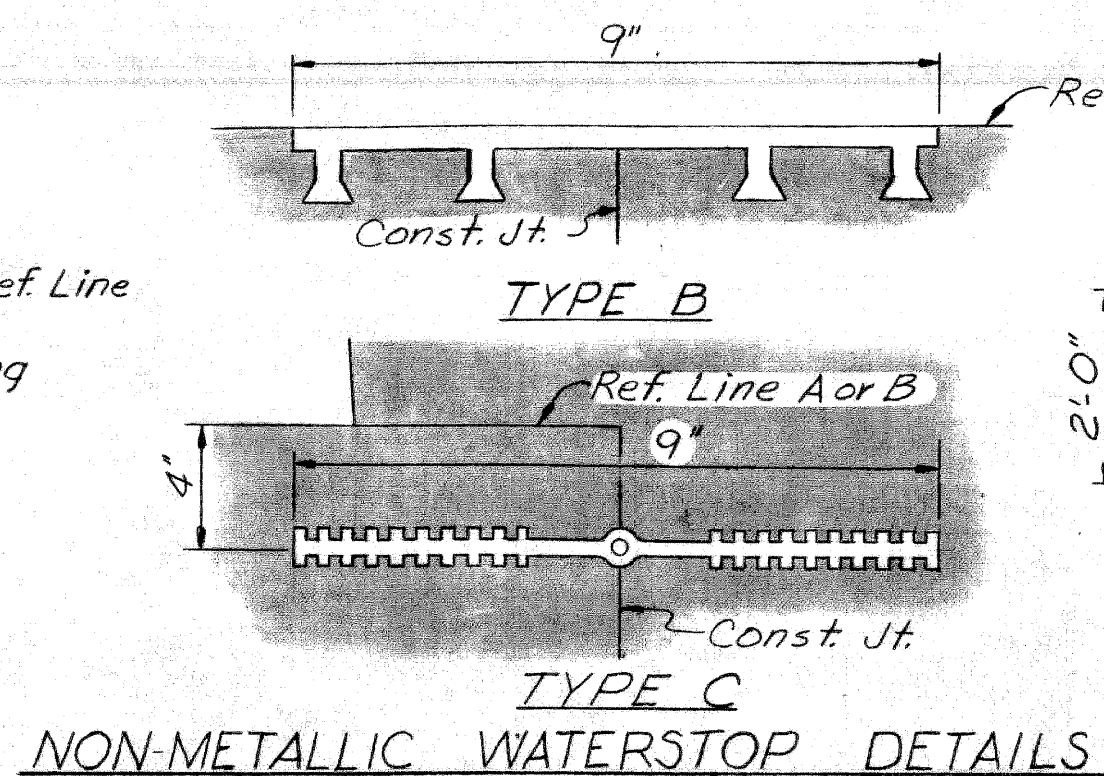
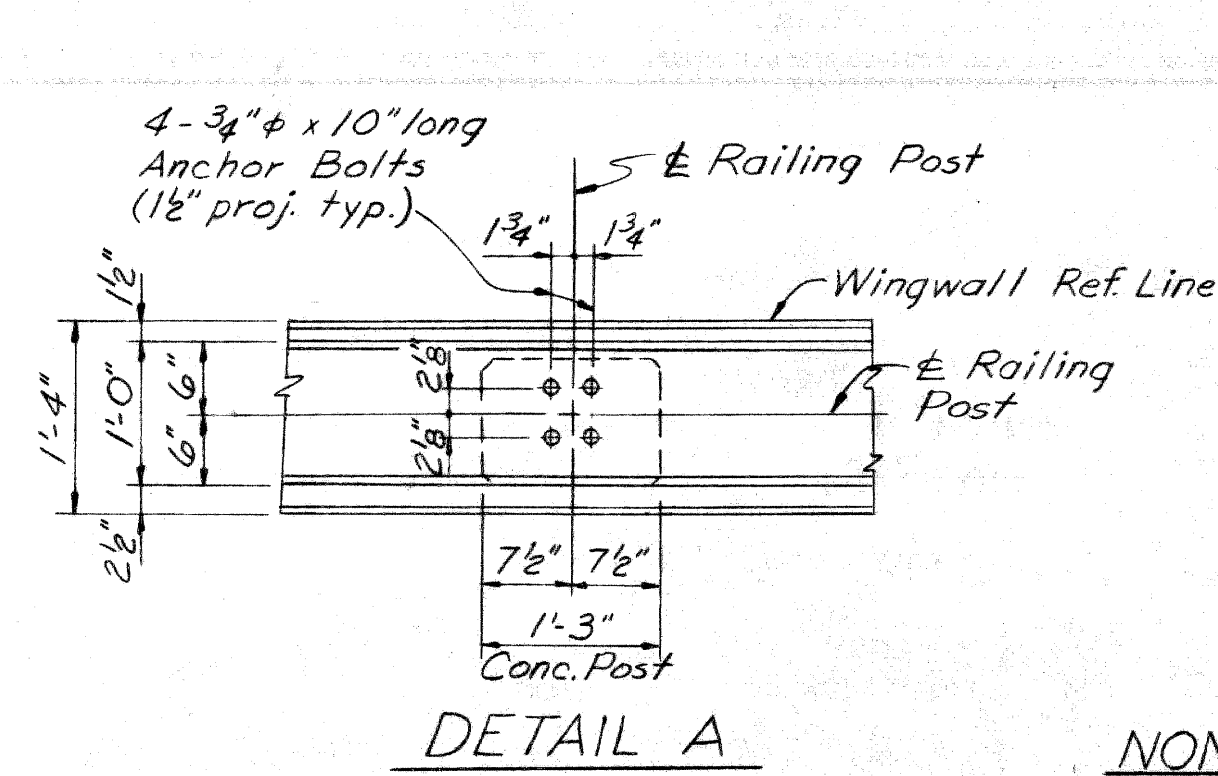
MICHIGAN DEPARTMENT OF STATE HIGHWAYS
 BUCHANAN ST. CROSSING JEFFRIES FREEWAY
 IN DETROIT

ABUTMENT B DETAILS

NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT
 DRAWN BY: *A. F. [Signature]* 4-67
 CHECKED BY: *C. R. [Signature]* 4-67
 SHEET 8 OF 24

S02 of 82124A

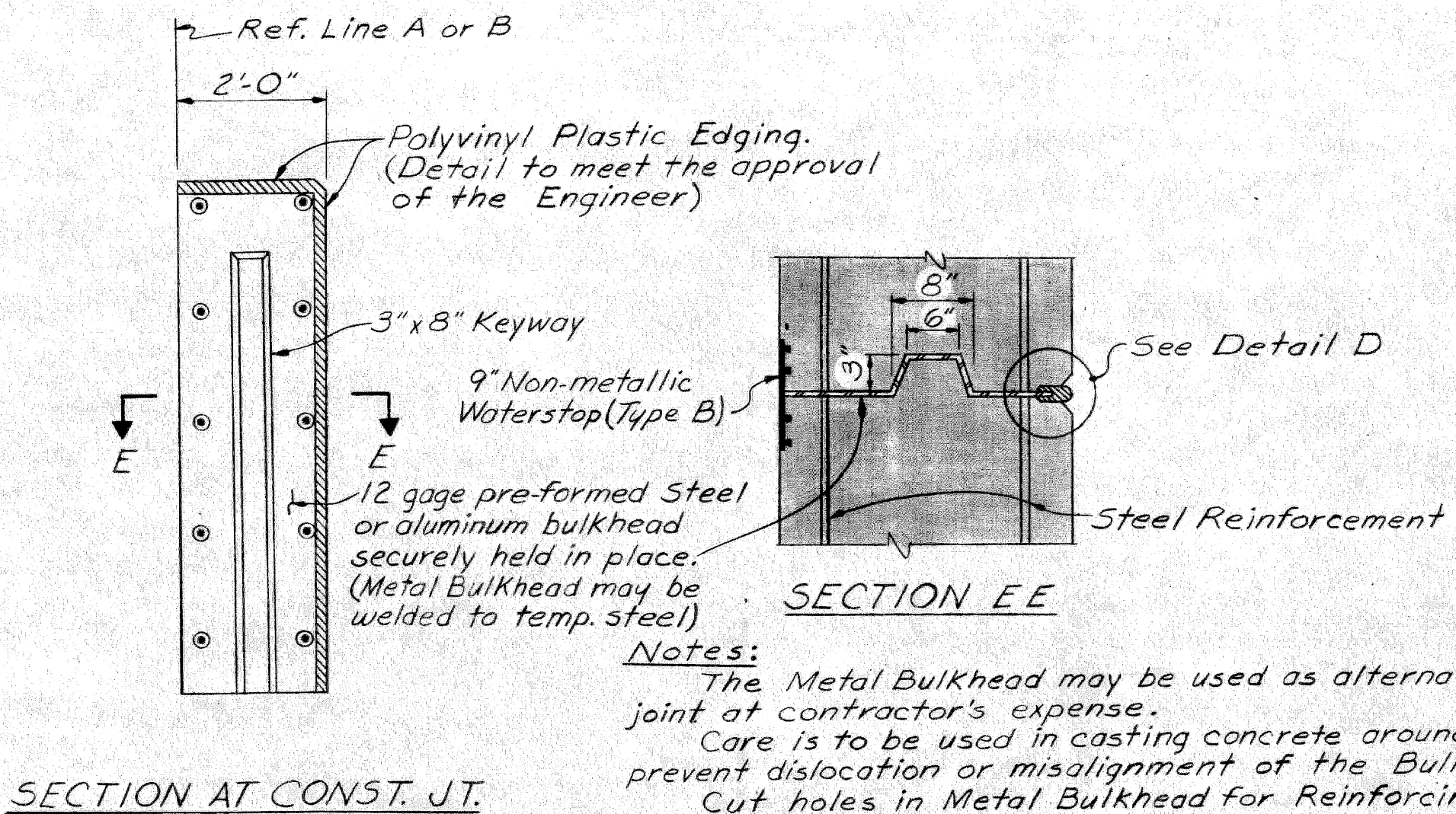
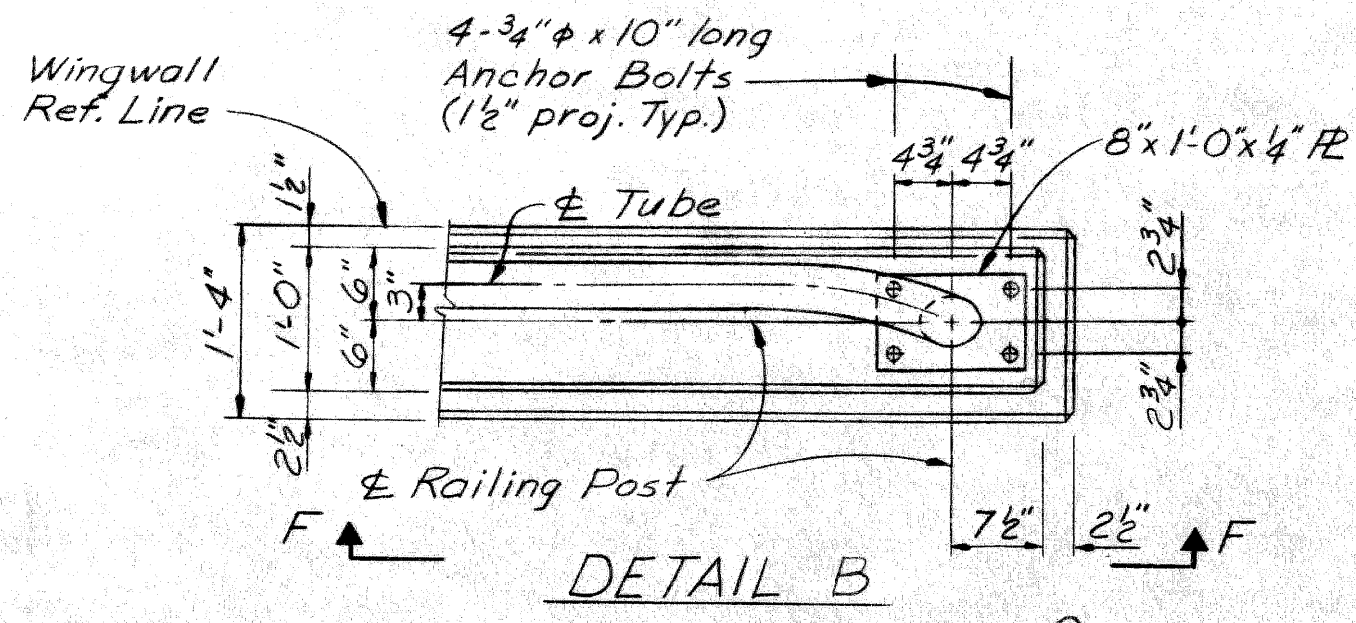
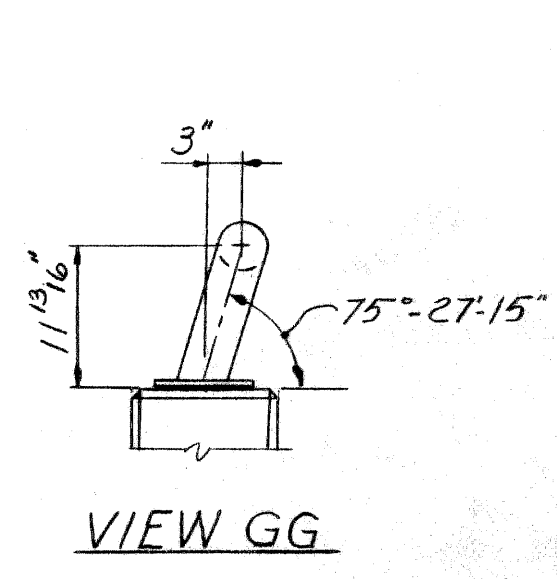


Pour	Location	Abutment A		Abutment B	
		Gr. A(6A)	Gr. A(6AA)	Gr. A(6A)	Gr. A(6AA)
B	Footing	52.9		45.8	
C	Abut. Wall		11.2		11.2
D	Abut. Wall		11.1		11.1
E	Abut. Wall		13.0		12.9
F	Wingwall		6.8		6.8
G	Wingwall		3.6		3.8
H	Wingwall		6.8		6.8
J	Wingwall		3.6		3.7
L	Footing			7.1	
TOTALS		52.9	56.1	52.9	56.3

Parapet Concrete = 3.5 Cu. Yds. Grade A6AA. Incidental to Bridge Railing-Parapet Type and not a pay item.

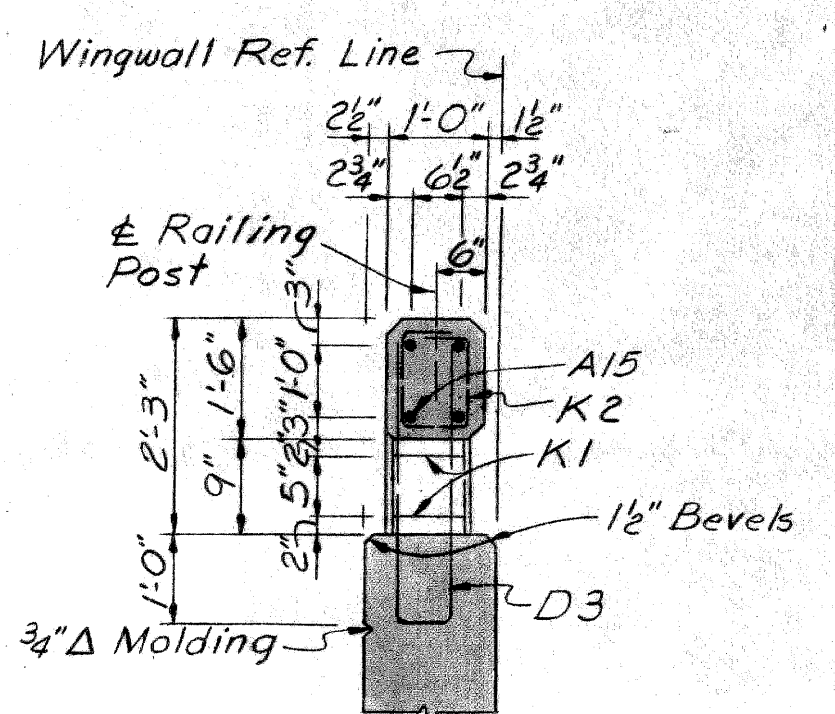
Item	Amount		Unit
	Abut. A	Abut. B	
Unclassified Excavation	358	360	Cu. Yds.
Low Temp. Protection-Substr.	109	111	Cu. Yds.
1/2" Joint Filler	102	102	Sq. Ft.
3/4" Joint Filler	18	20	Sq. Ft.
Joint Waterproofing	42	42	Sq. Ft.
Non-metallic Waterstop	21	21	Sq. Ft.
Bridge Railing-Parapet Type	31.2	31.2	Lin. Ft.
Foundation Drain*	103	103	Lin. Ft.

* Perforated Pipe.



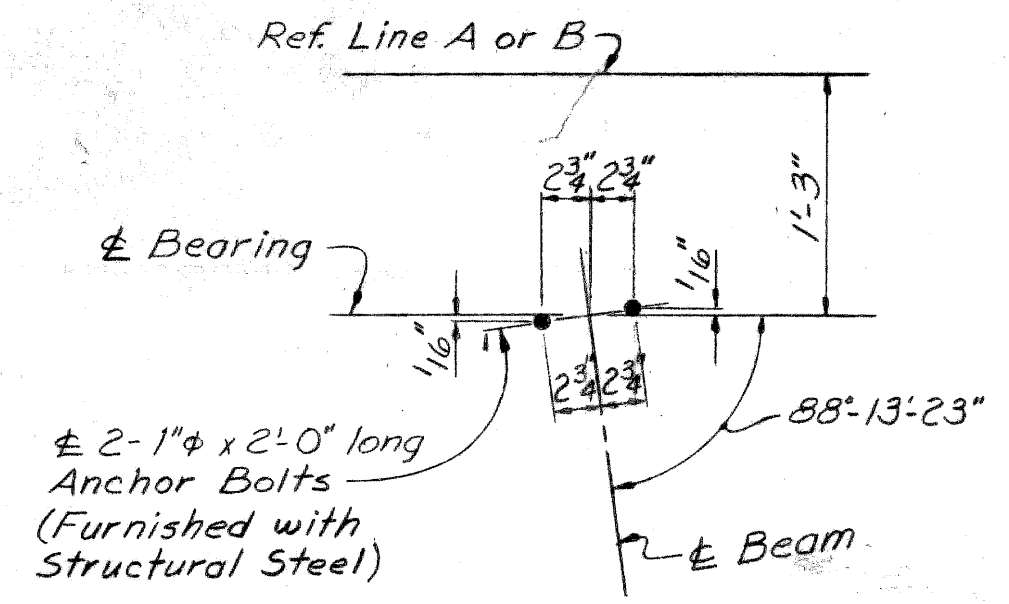
Notes:
The Metal Bulkhead may be used as alternate construction joint at contractor's expense.
Care is to be used in casting concrete around Bulkhead to prevent dislocation or misalignment of the Bulkhead.
Cut holes in Metal Bulkhead for Reinforcing Steel.

ALTERNATE CONSTRUCTION JOINT DETAIL



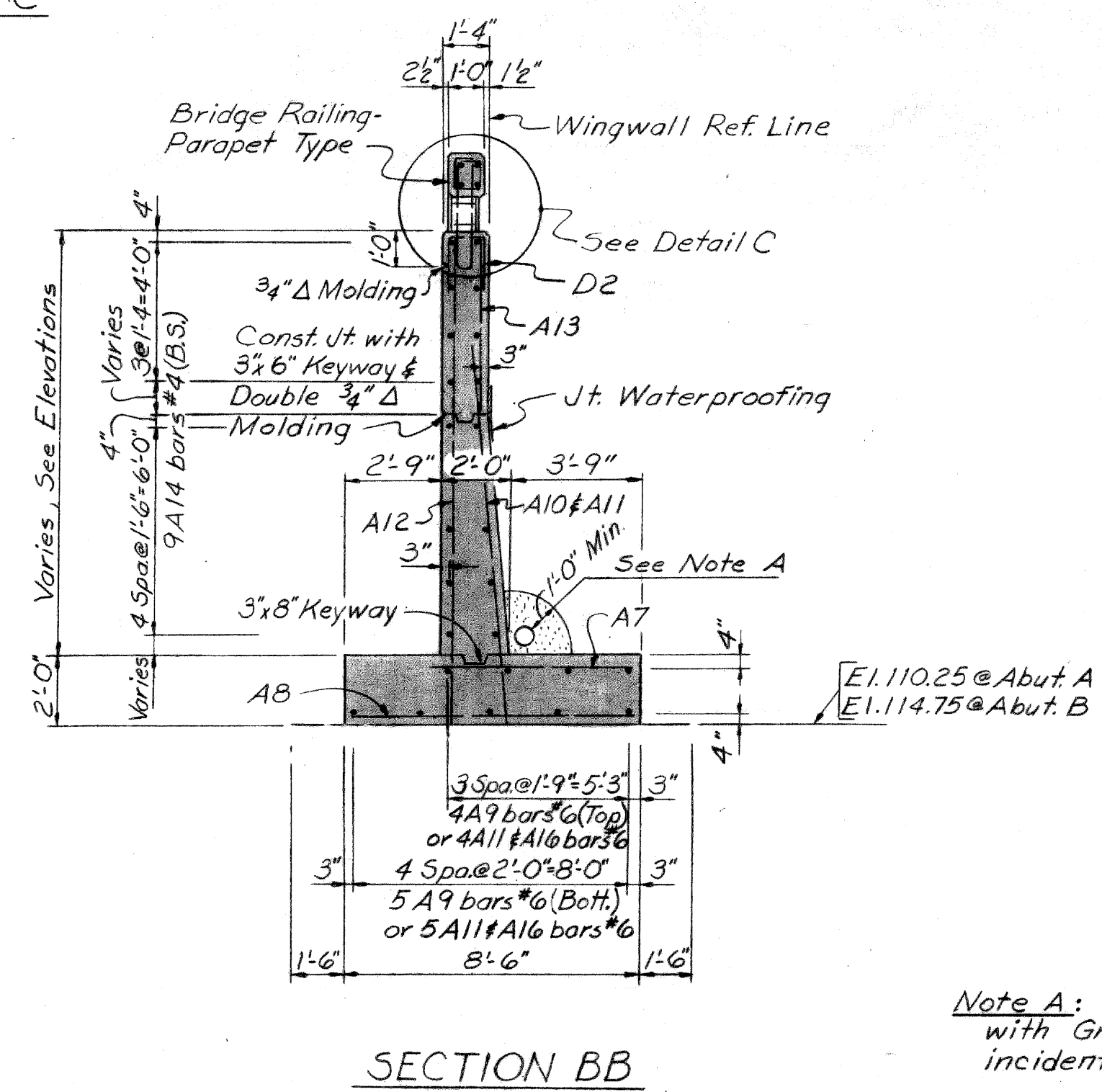
DETAIL C

VIEW FF
Note: For Railing Details see Standard Sheet DR11 or DR12.



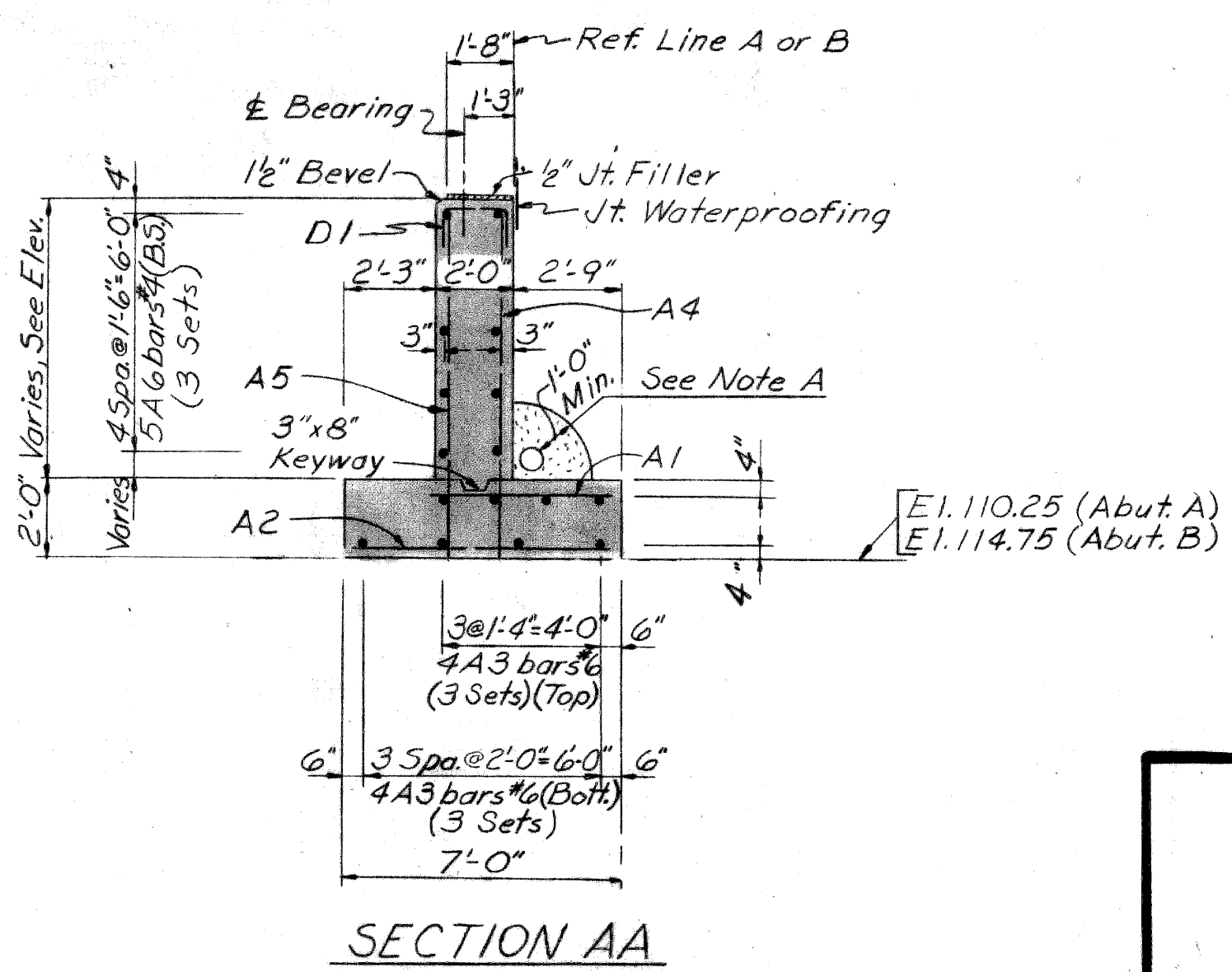
ANCHOR BOLT SETTING DETAIL

Beam	A	B	C	D	E	F	G	H	J	K
Abut. A	4 3/4"	4 3/4"	6 1/4"	5"	5 3/4"	5 3/4"	4 3/4"	6 1/2"	5"	4 3/4"
Abut. B	4 3/4"	4 3/4"	6 1/4"	5"	6"	6"	5"	6 1/4"	4 3/4"	4 3/4"



SECTION BB

Note A: Foundation Drain with Granular Mat 1-Class I incidental to drain.



SECTION AA

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

APPROVED: [Signature] STRUCTURAL ENGINEER
JOB No. PW 990(1)

Work this sheet with sheet nos. 7 thru 24.

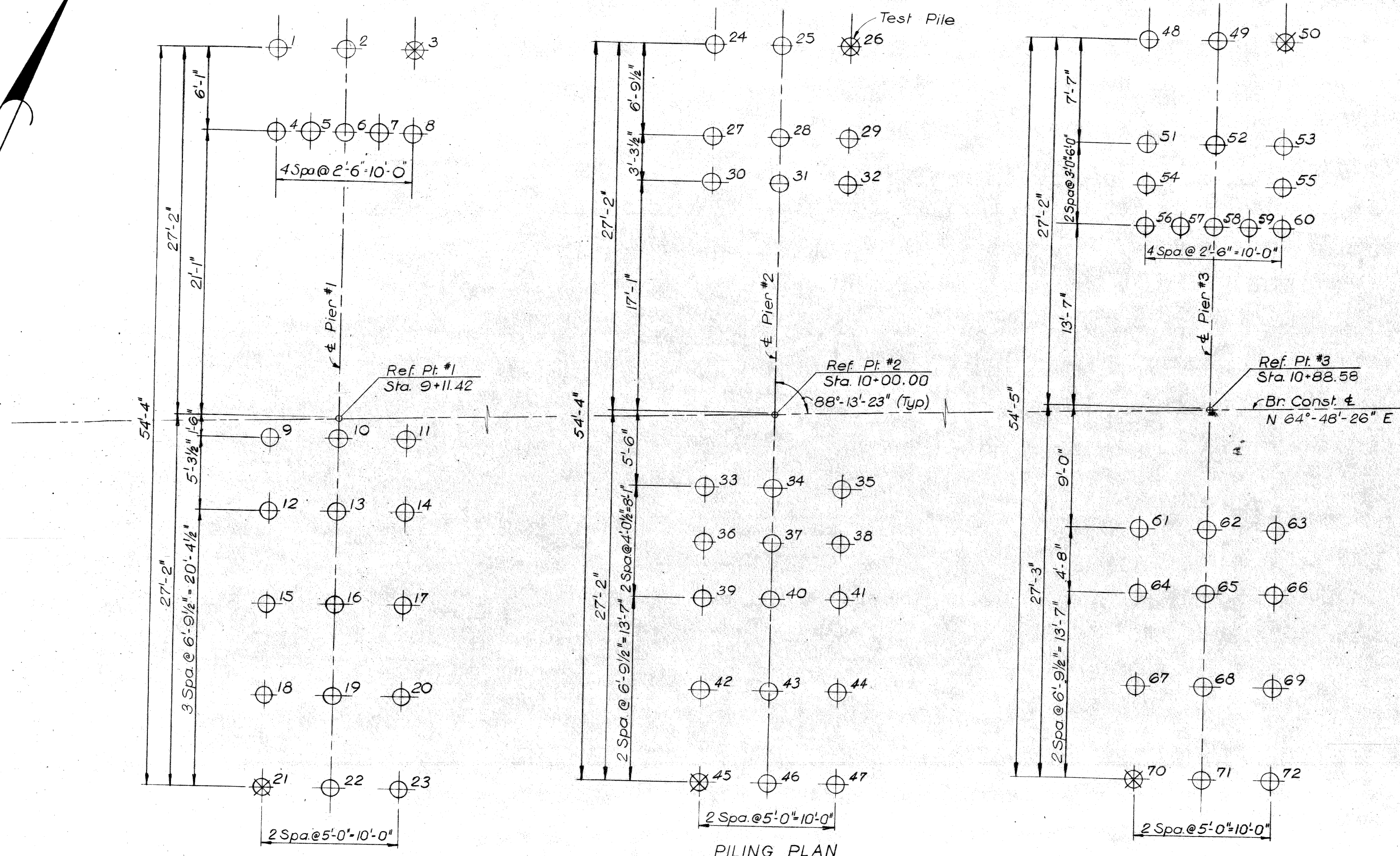
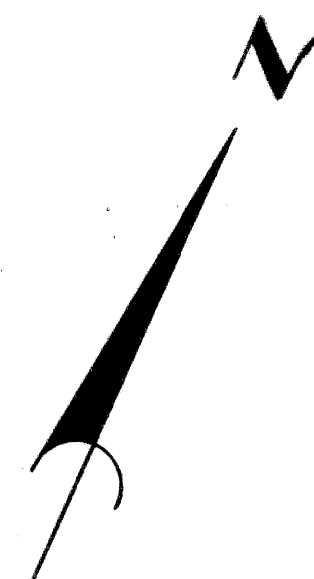
MICHIGAN DEPARTMENT OF STATE HIGHWAYS
BUCHANAN ST. CROSSING JEFFRIES FREEWAY
IN DETROIT

ABUTMENT A & B DETAILS

CITY OF DETROIT
SQUAD BOSS: A. Freiberg 4-67
DRAWN BY: D. Rome 7-66
CHECKED BY: C.B. JAP 4-67
SHEET 9 OF 24

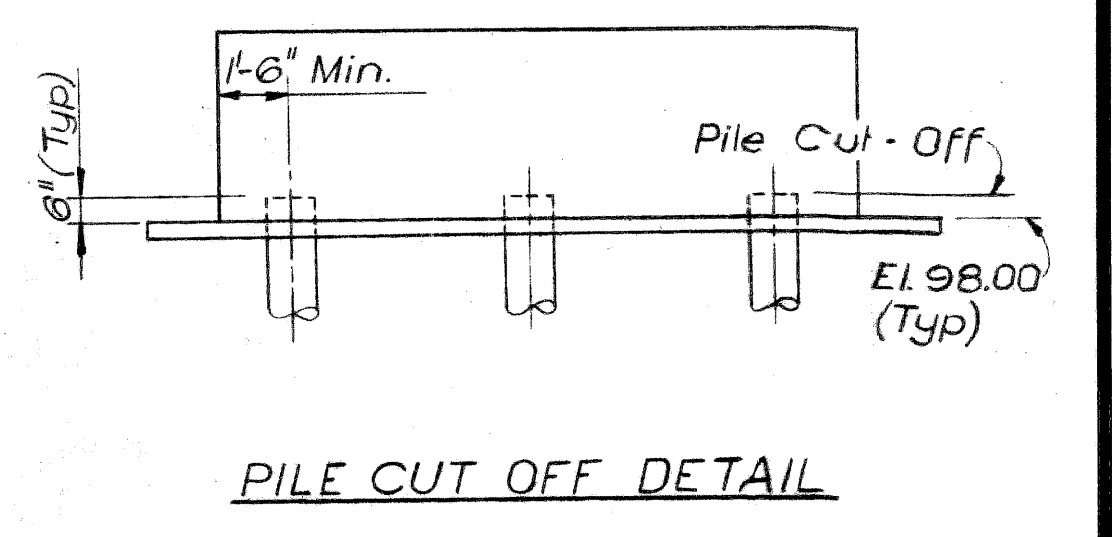
NO.	DESCRIPTION	DATE	BY

502 of 82124A



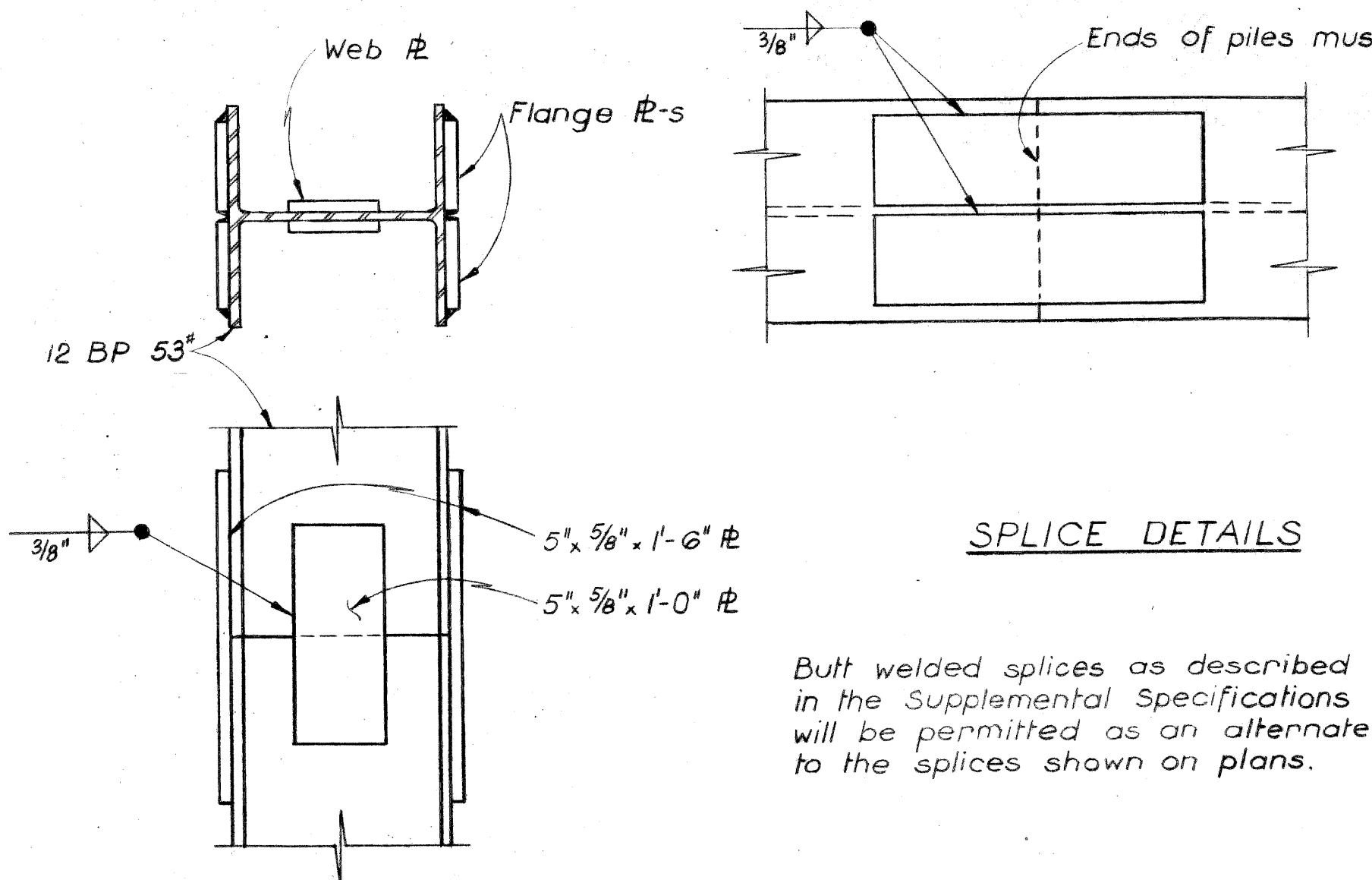
QUANTITIES					
60 TON PILES					
LOCATION	No. of Piles		Est. Length (L.F.) Furn. & Drn.		No. of Splices
	Test	Vert.	Each	Total	
PIER #1	2		130	260	63
		21	120	2520	
PIER #2	2		130	260	66
		22	120	2640	
PIER #3	2		130	260	69
		23	120	2760	
TOTAL	6	66		8700	198

Furnishing Equipment for Driving Piles - Lump Sum.
Splices for test piles are incidental to test piles.
⊗ denotes Test Pile.



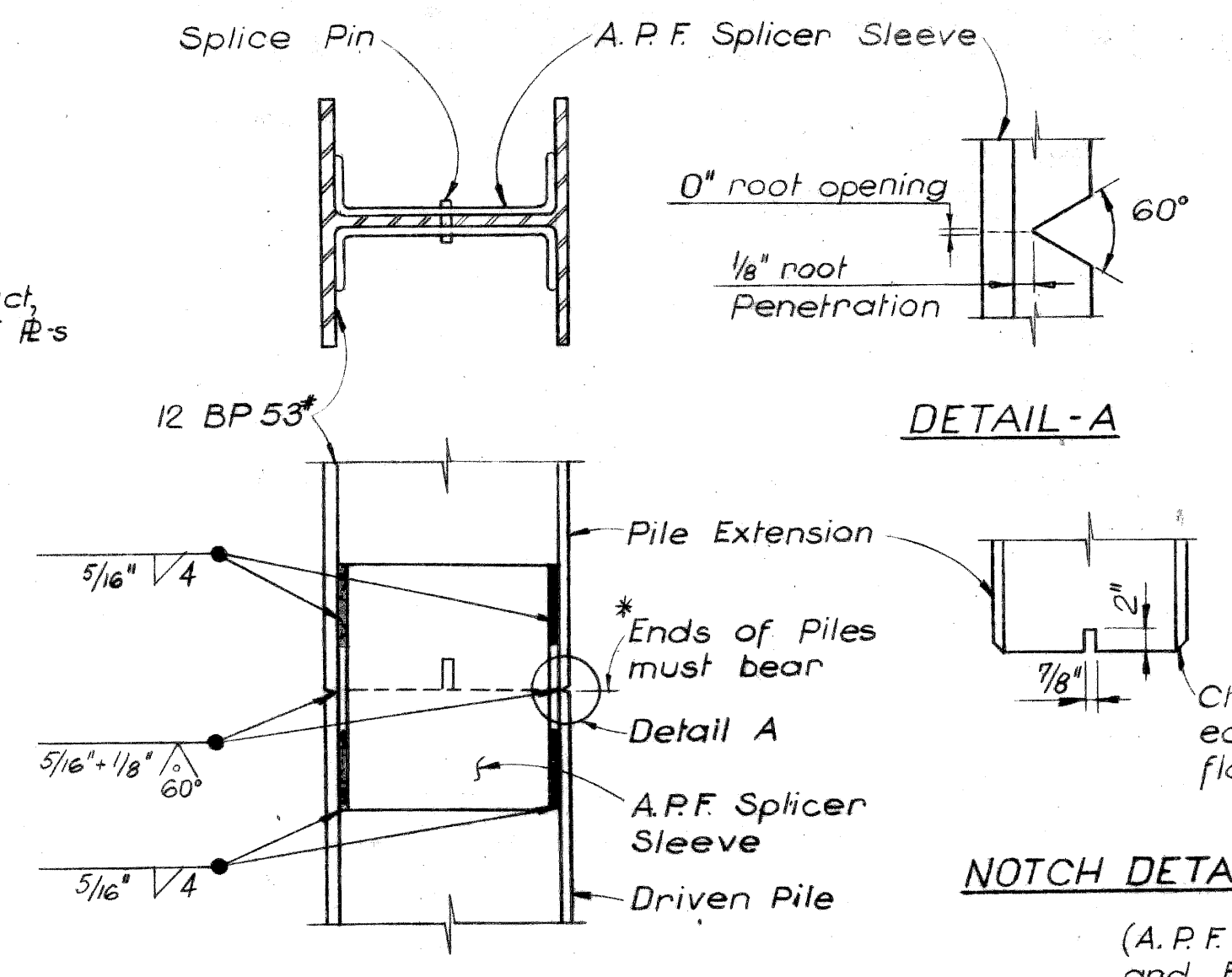
NOTES

All piles shall be driven to a capacity of 60 Tons.
Steel-Shell piles are not to be used on this project.
All Piles shall be prebored above Elevation 45 to a diameter not less than 8".
Piles shall be Steel 12" H Sections weighing not less than 53 Lbs/Ft.
Bridge Contractor shall be responsible for protection of newly relocated Box Sewer against damage during construction of the Buchanan St. Bridge.



Butt welded splices as described in the Supplemental Specifications will be permitted as an alternate to the splices shown on plans.

***NOTE**
Set upper splice section in place with splice R-s attached, tap several times with the hammer to improve bearing contact, then complete welding of R-s to the lower section.



(A.P.F. - Associated Pipe and Fitting Company)

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(1)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

BÜCHANAN ST. CROSSING JEFFRIES FREEWAY
IN DETROIT

PILING PLAN

NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT
SQUAD BOSS: A. Freiberg 8-66
DRAWN BY: G. Molnar 8-10-66
TRACED BY: G. Molnar 8-10-66
CHECKED BY: A. Freiberg 8-66
SHEET 10 of 24

237'-0" along Bridge Constr. &

STRUCTURAL STEEL NOTES

Design: Michigan State Highway Department's Specifications for Design of Highway Bridges - 1958 Edition and current A.S.H.O. Standard Specifications for Highway Bridges (HS-20-44 Loading)
 Fabrication: Michigan State Highway Department's Standard Specifications for Road and Bridge Construction - 1967 edition.

Shop connections shall be welded as shown on the Plans.

Field connections shall be bolted with $\frac{3}{4}$ " High-strength bolts, except as noted.

For beam camber, see Camber Table sheet no. 16.

Camber is to be measured with the beam lying on its side. Allowable camber tolerance for rolled beams is $\pm 1/4$ ". Heating is to be used, if necessary, to assure camber permanency within the above tolerance.

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 4" and welded with a continuous weld for the full perimeter. Welds shall be ground flush with faces of plates.

In addition to the shop paint provisions of the Standard Specifications, the top surfaces of the masonry plates shall be coated in accordance with the requirements for machine finished surfaces. Structural steel shall be Unpainted A.S.T.M. A-441 (Modified) steel in anchor bolts may be A.S.T.M. A-307.

The quantity "Structural Steel-Furnishing and Fabricating" includes Metal Exp. Joint and PLC Ledge Angle Supports as detailed on sheets No. 17 & No. 21.
 Steel ----- 511,140 lbs.
 Lead ----- 460 lbs.
 Total 511,600 lbs.

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.

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.

QUANTITIES

Structural Steel-Furnishing and Fabricating 511,600
 Structural Steel-Erection ----- 511,600
 Shear Developers ----- Lump Sum

Work this Sheet with sheet nos. 15 thru 17

MICHIGAN STATE HIGHWAY DEPARTMENT
 BUCHANAN ST. CROSSING JEFFRIES FREEWAY
 IN DETROIT
STRUCTURAL STEEL DETAILS

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

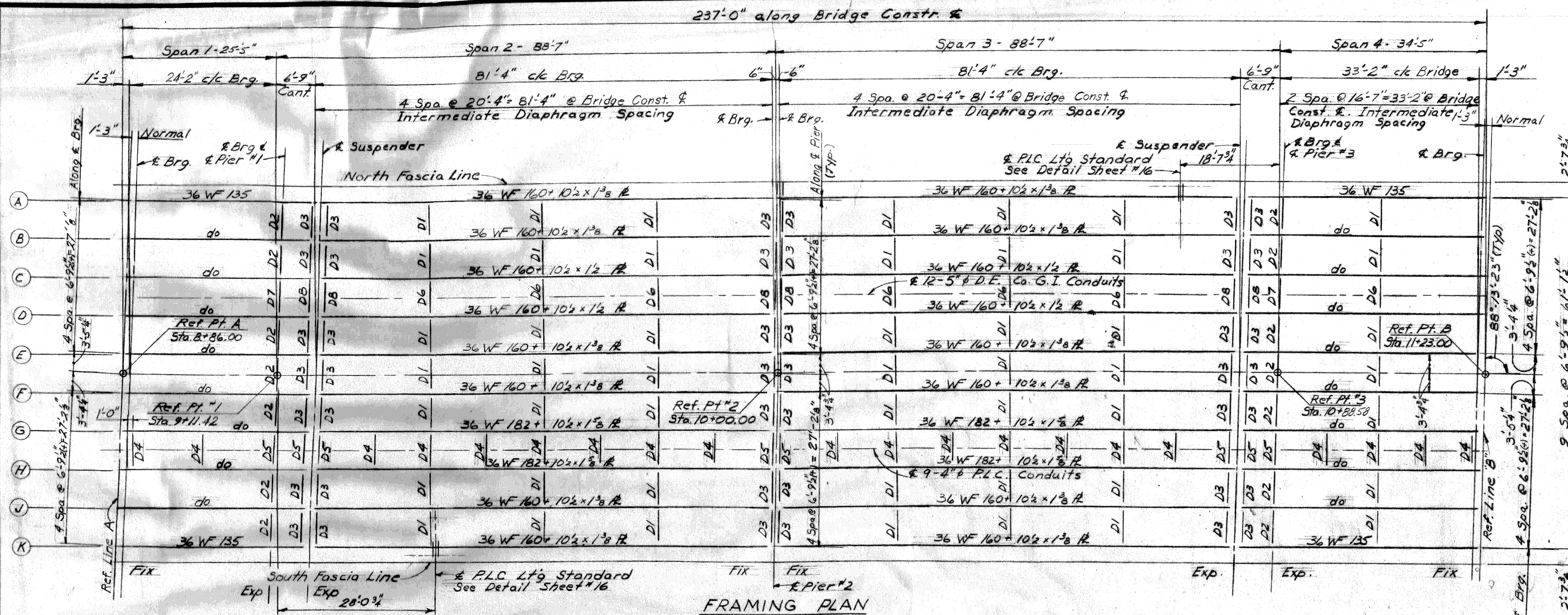
APPROVED: *[Signature]*
 STRUCTURAL ENGINEER

JOB No.
 PW 990(1)

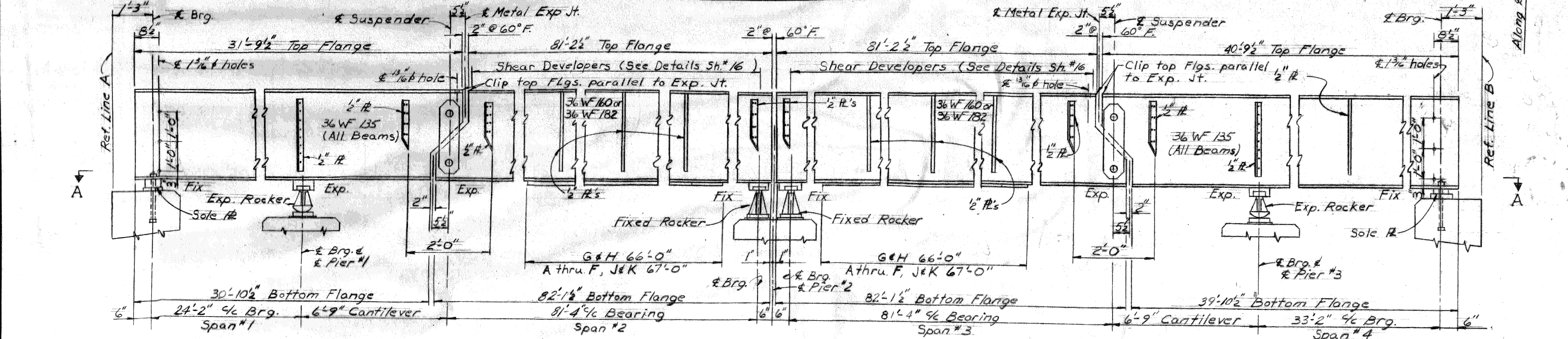
REVISIONS			
NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT
 SQUAD BOSS: A. Freiberg 4-67
 DRAWN BY: Gonzalez, J.B. 7-66
 CHECKED BY: A. Freiberg 4-67
 SHEET 14 of 24

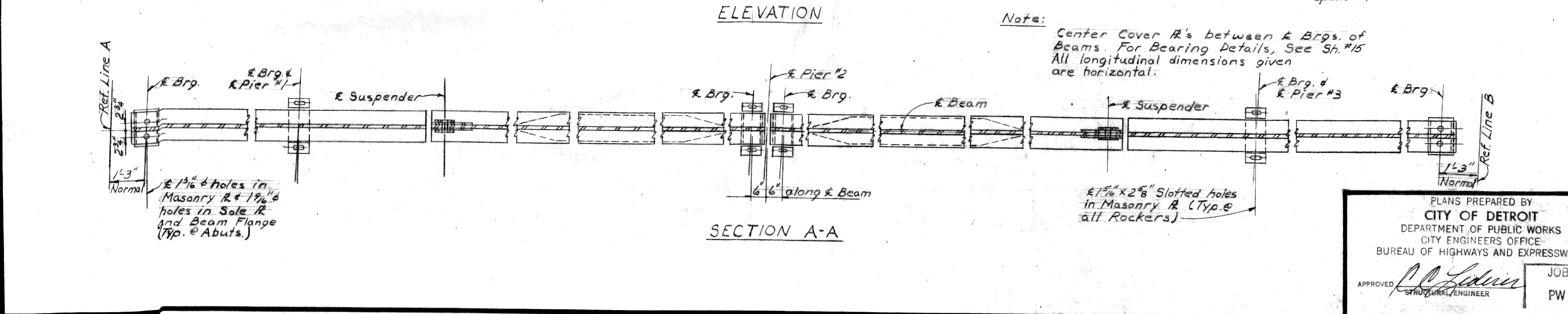
502 of 82124A



FRAMING PLAN

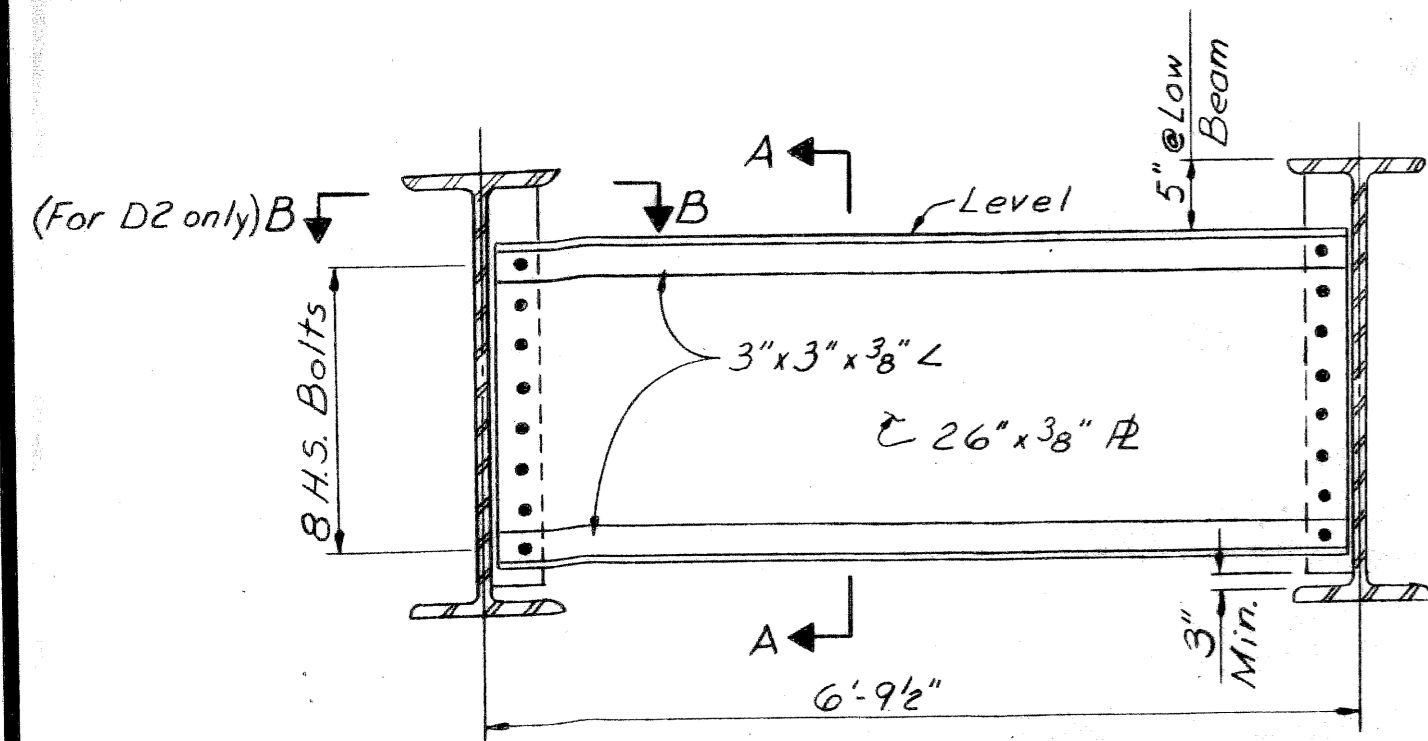


ELEVATION

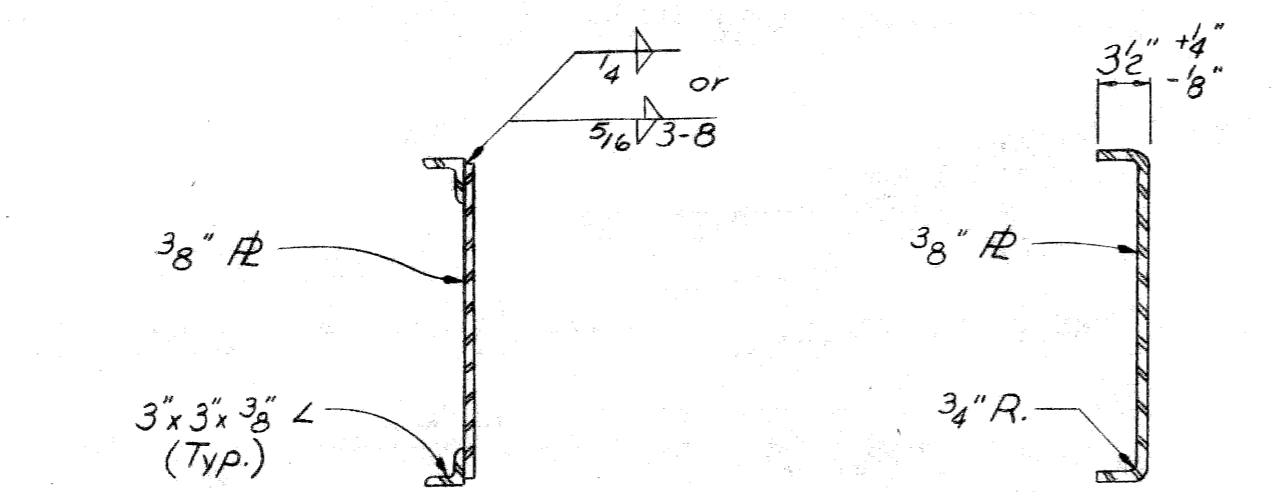


SECTION A-A

Note: Center Cover R's between & Brgs. of Beams. For Bearing Details, See Sh. #15. All longitudinal dimensions given are horizontal.



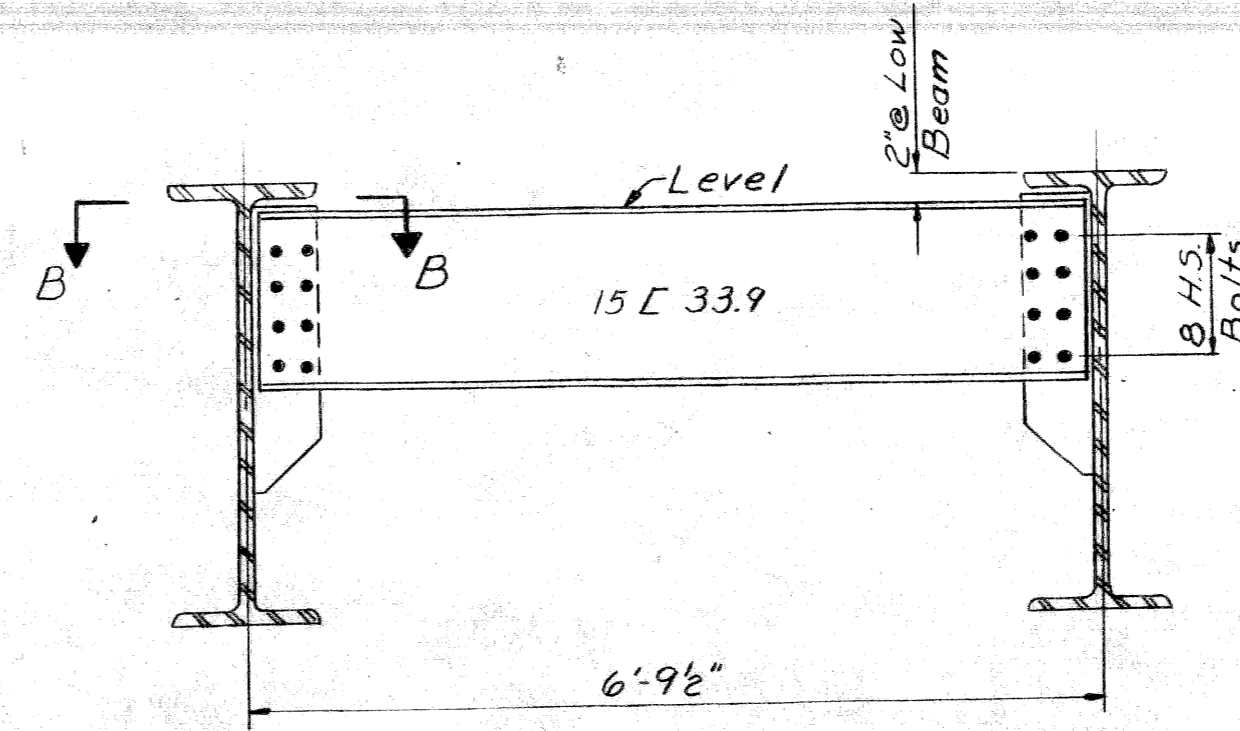
DIAPHRAGMS D1 & D2



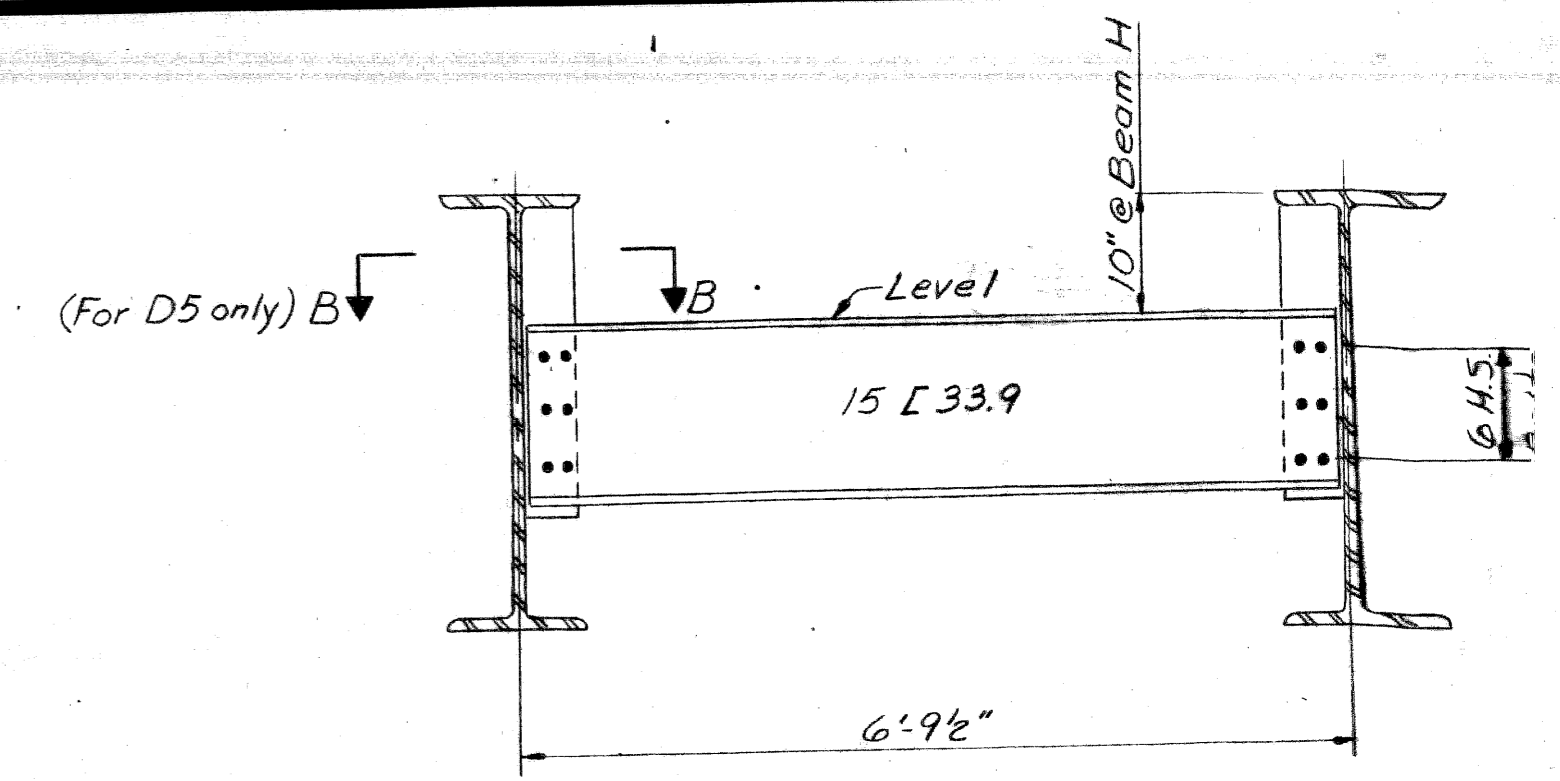
Note: A continuous weld may be used in all cases instead of the intermittent weld at the fabricator's option.

SECTION AA

ALTERNATE

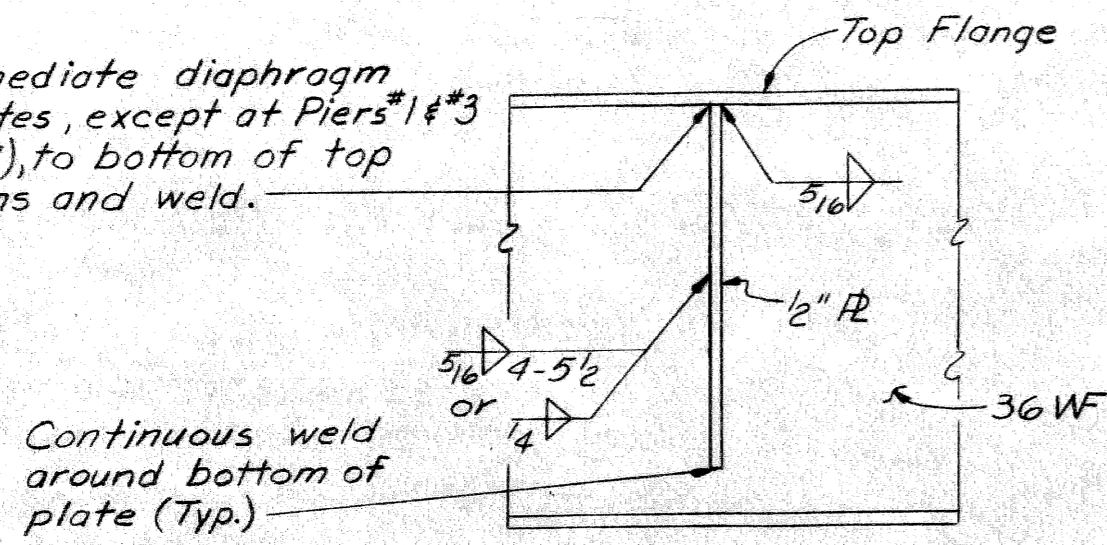


DIAPHRAGM D3

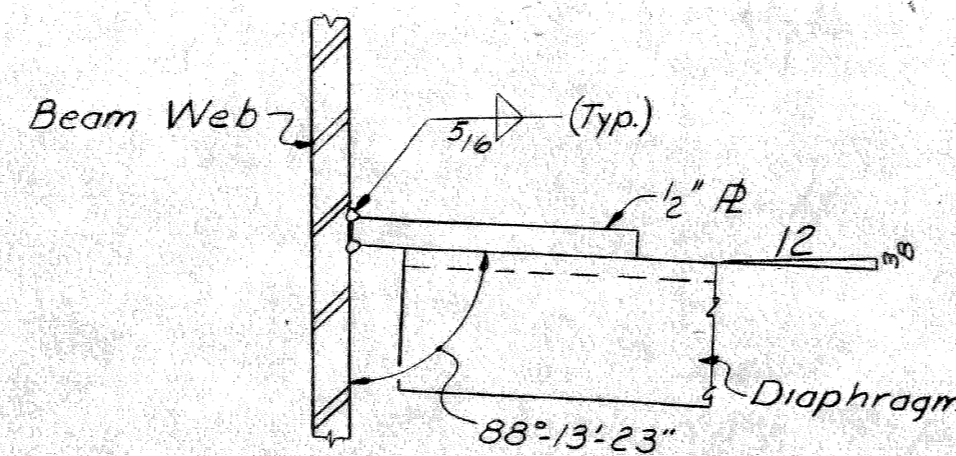


DIAPHRAGMS D4 & D5
(At P.L.C. Conduits)

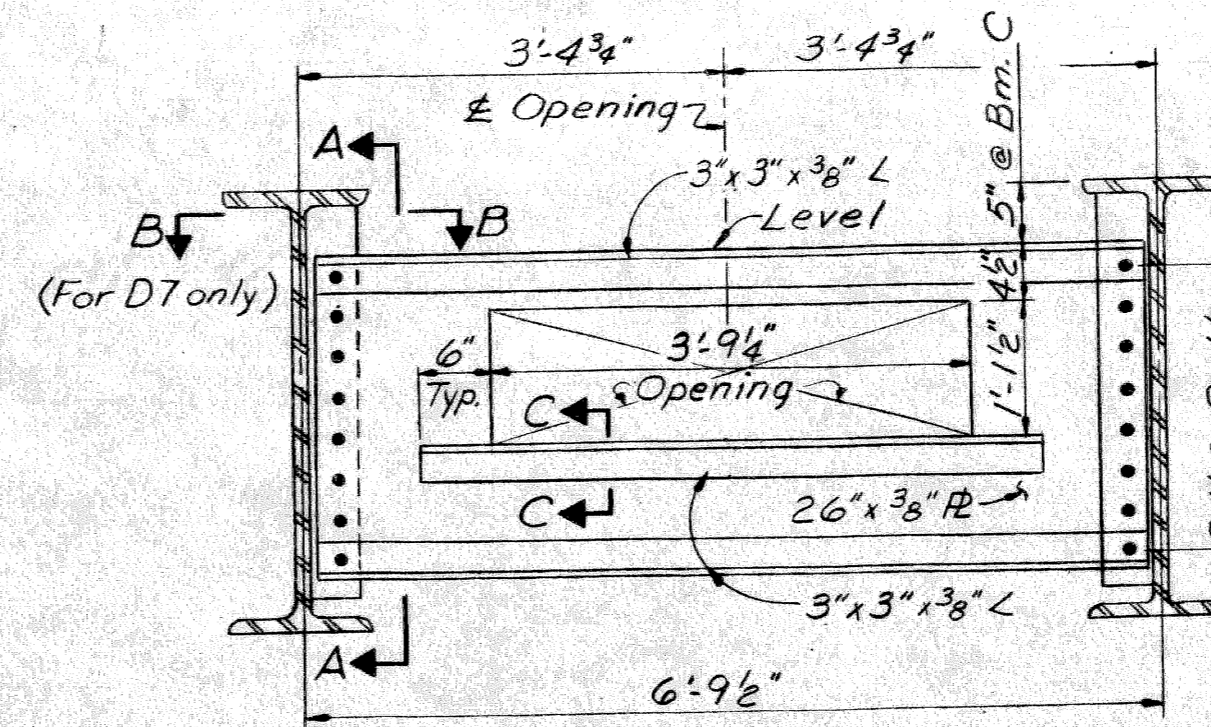
Extend intermediate diaphragm connection plates, except at Piers #1 & #3 (D2, D5 and D7), to bottom of top flange of beams and weld.



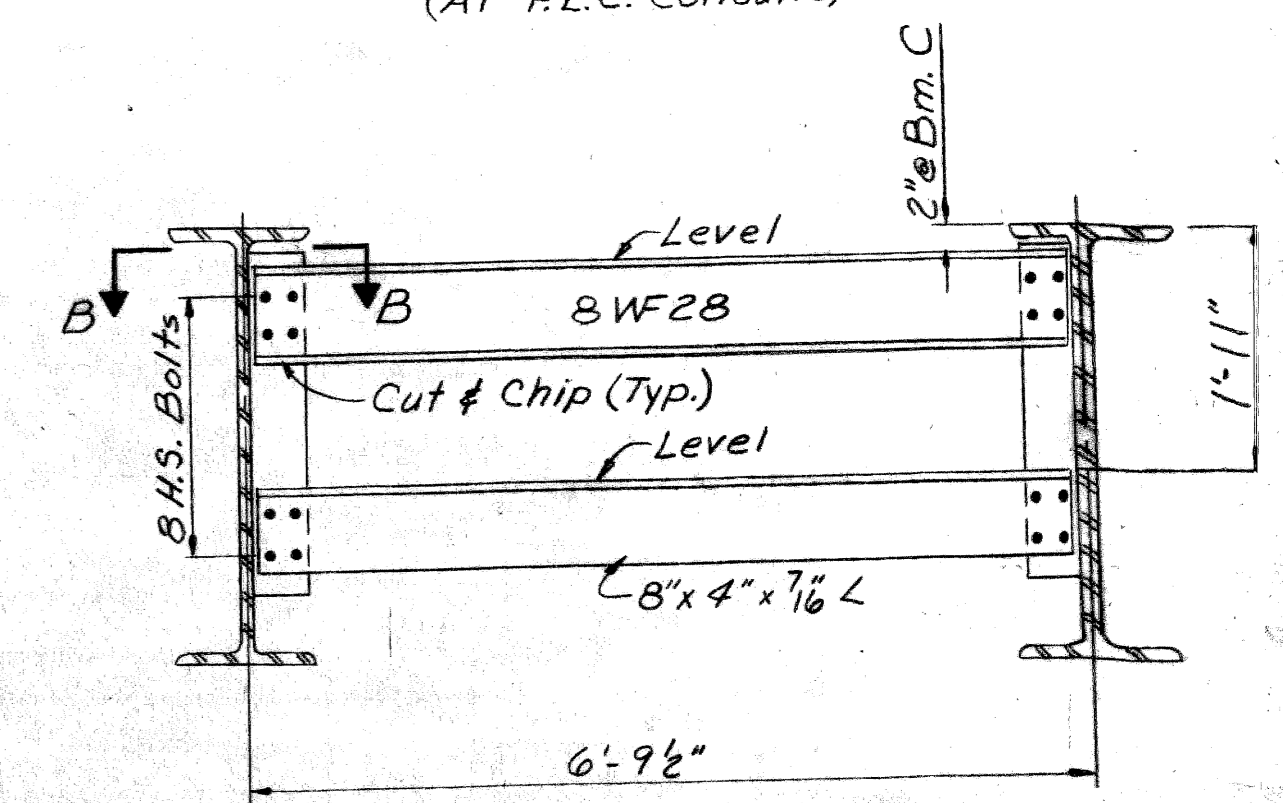
INTERMEDIATE DIAPHRAGM CONNECTION DETAILS



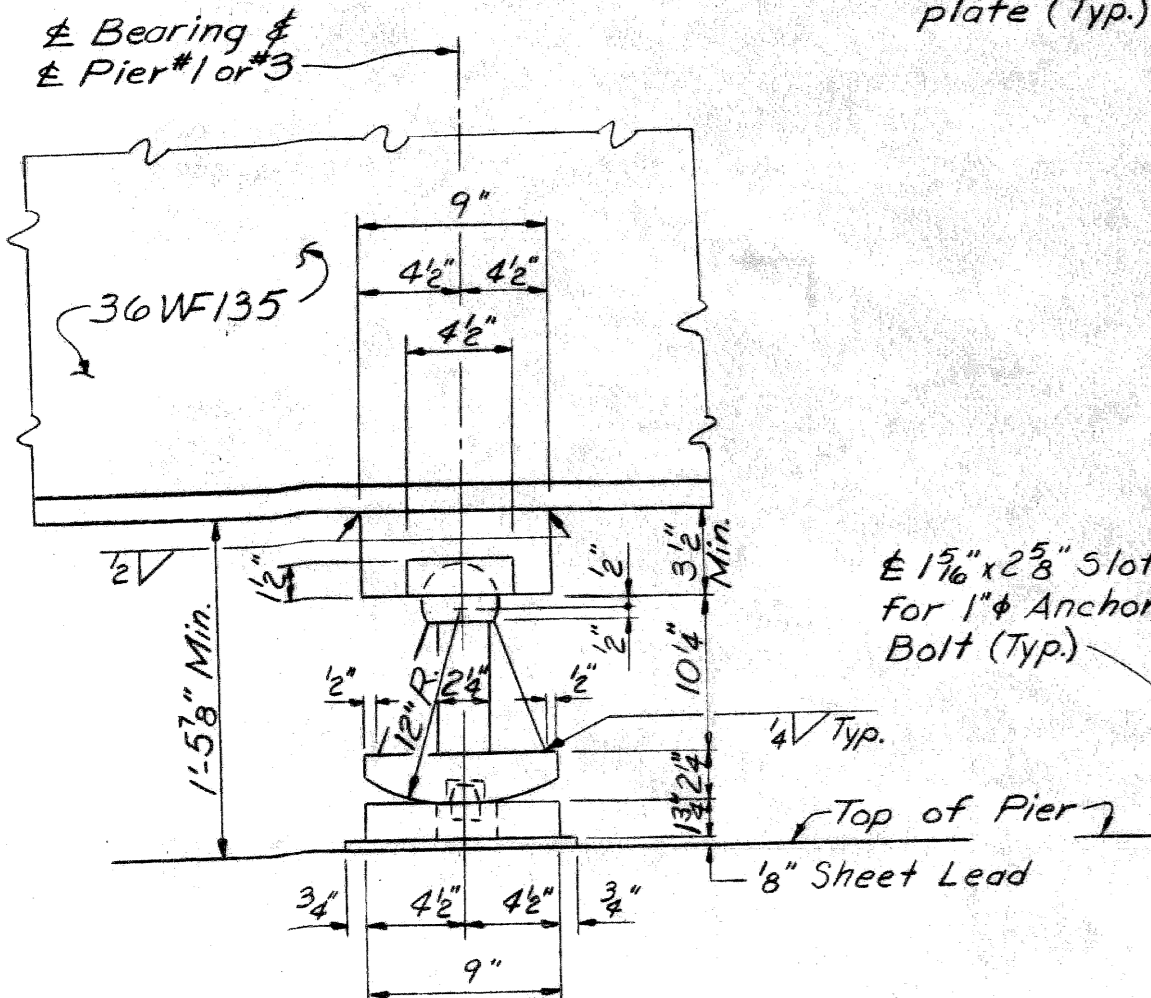
SECTION BB



DIAPHRAGMS D6 & D7
(At D.E. Co. Conduits)

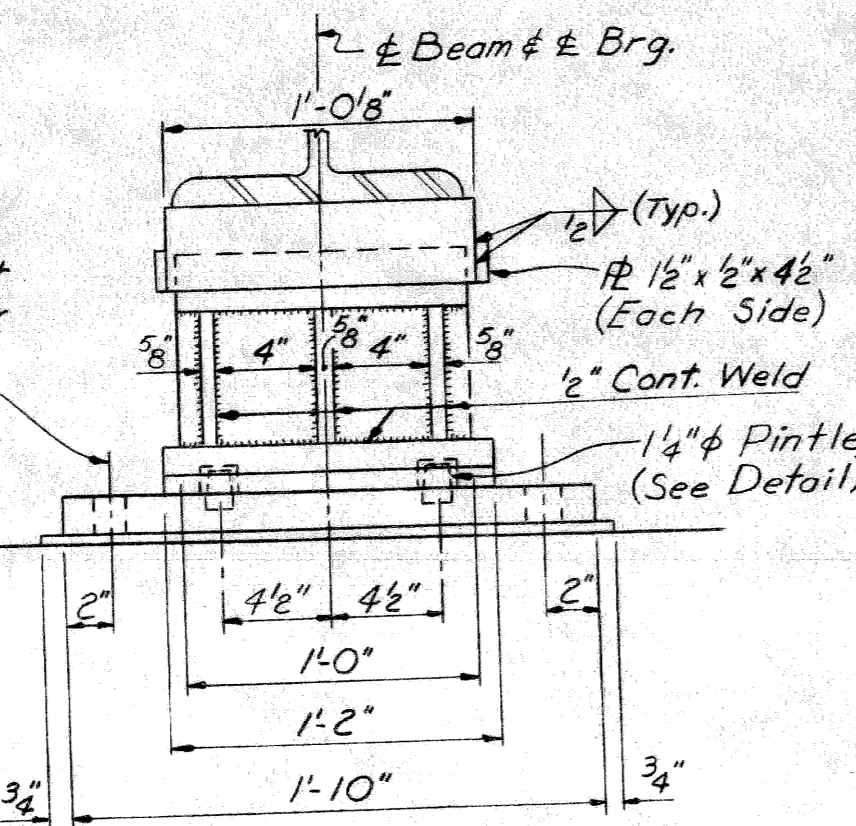


DIAPHRAGM D8
(At D.E. Co. Conduits)

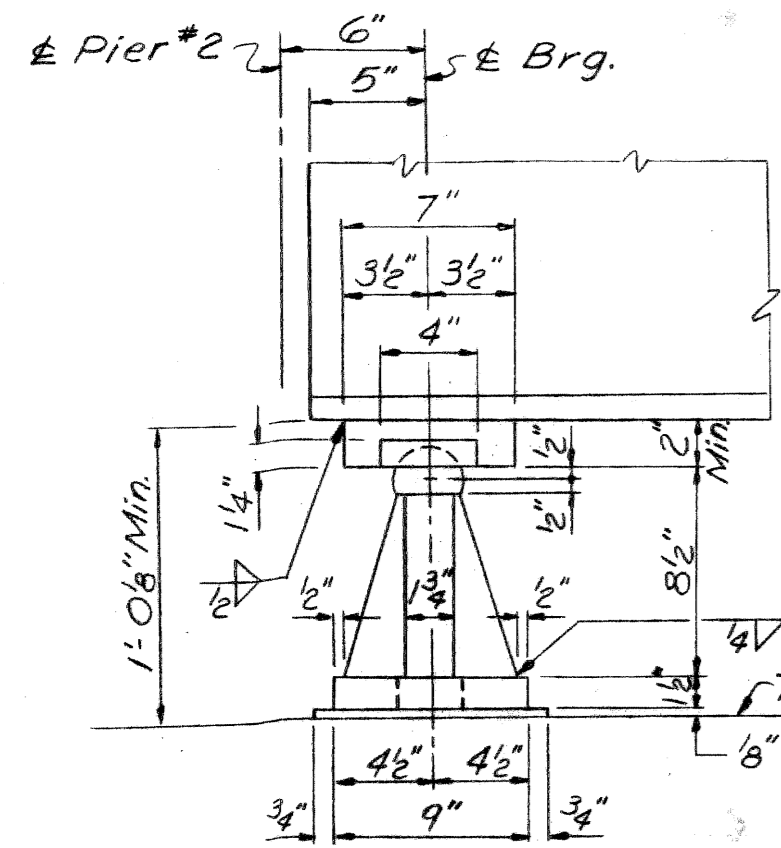


ELEVATION

EXPANSION ROCKER DETAILS
(At Pier #1 and Pier #3)

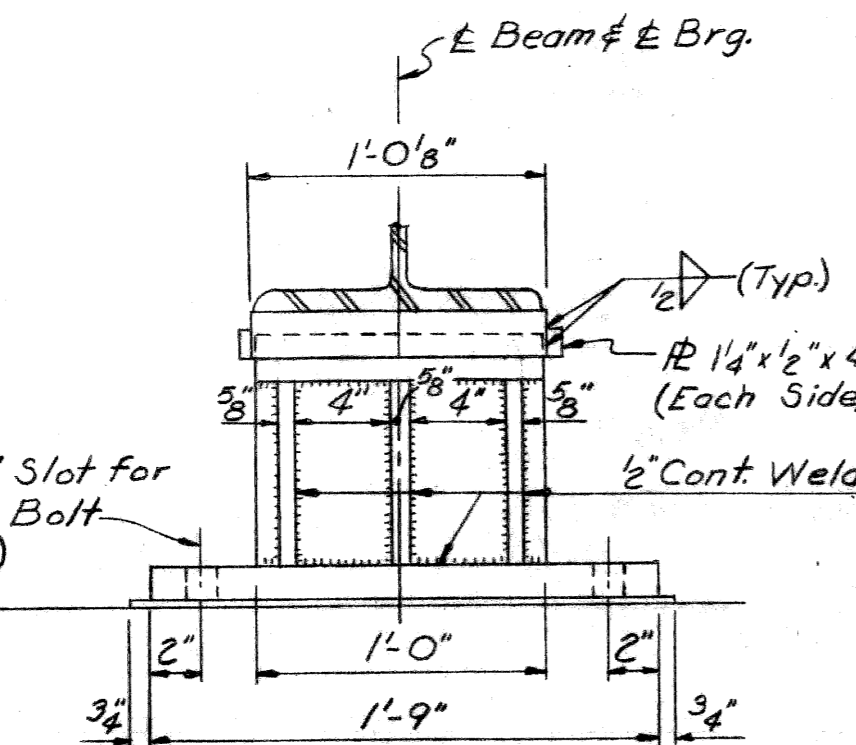


END VIEW



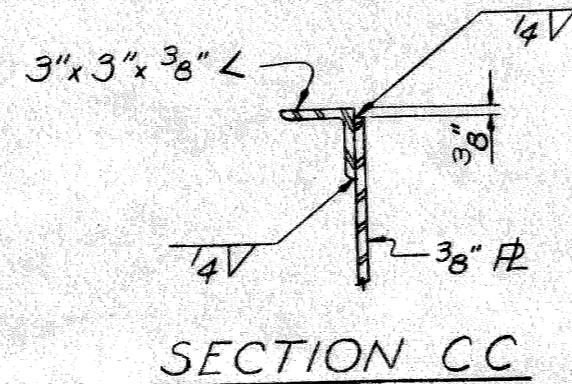
ELEVATION

FIXED ROCKER DETAILS
(At Pier #2)

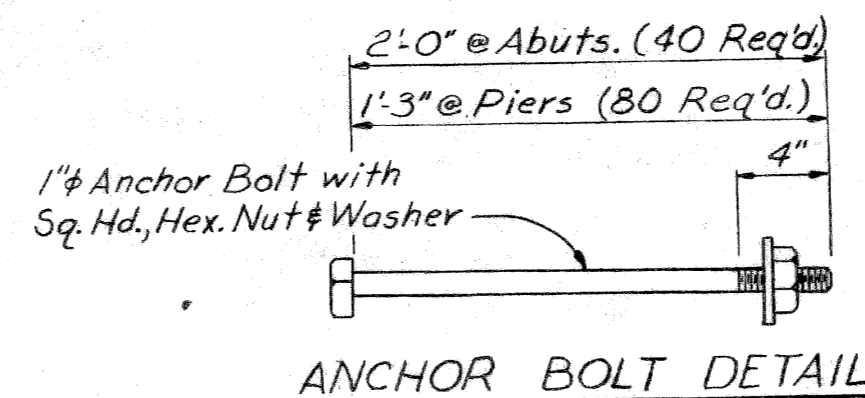


END VIEW

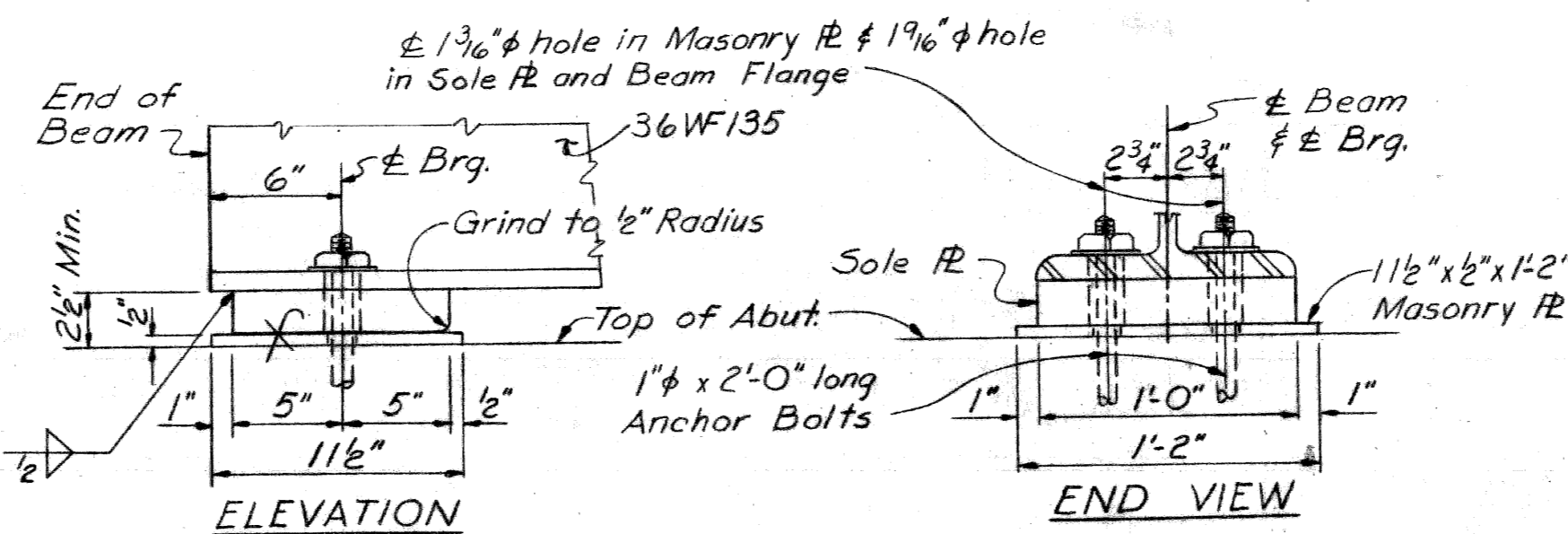
Note: For Sole PL and Cap PL thicknesses see Table on sheet no. 16.



SECTION CC

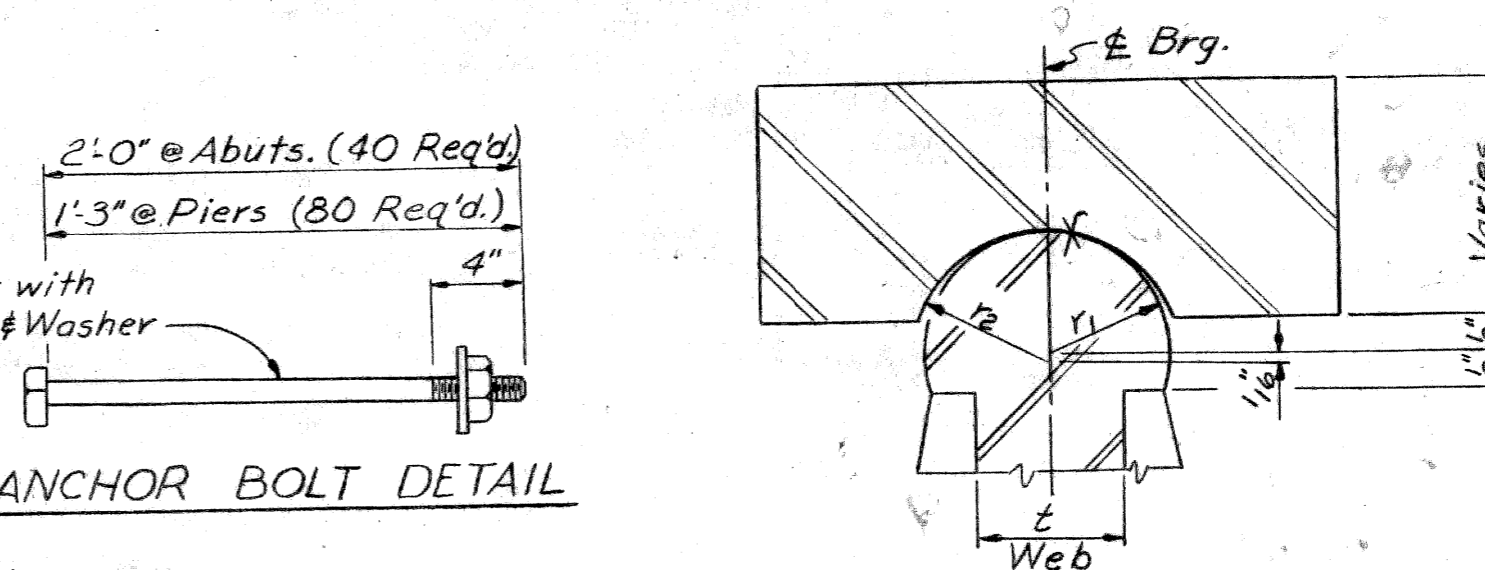


ANCHOR BOLT DETAIL



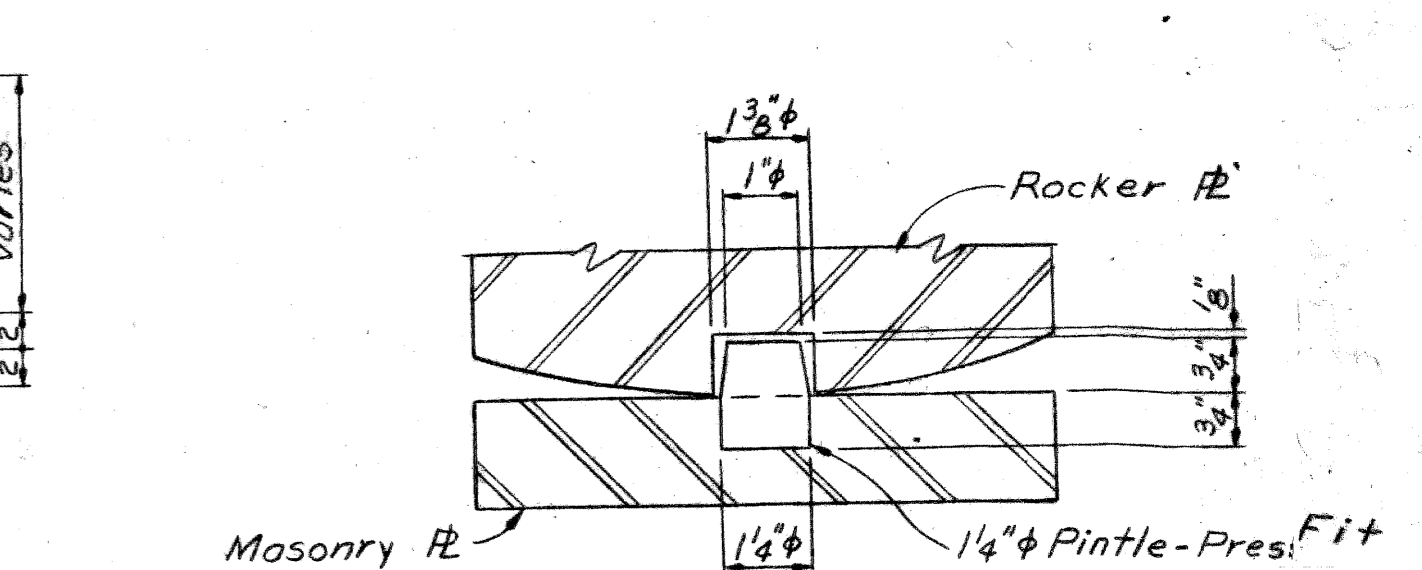
ELEVATION

BEARING DETAILS
(At Abutments)



CAP DETAIL
(For Fixed and Exp. Rockers)

Note: For $t = 1 3/4$, $r_1 = 1 1/2$ & $r_2 = 1 9/16$. For $t = 2 1/4$, $r_1 = 1 3/4$ & $r_2 = 1 9/16$.



PINTLE DETAIL

Work this sheet with sheet nos. 14 thru 17.

MICHIGAN DEPARTMENT OF STATE HIGHWAYS
BUCHANAN ST. CROSSING JEFFRIES FREEWAY
IN DETROIT

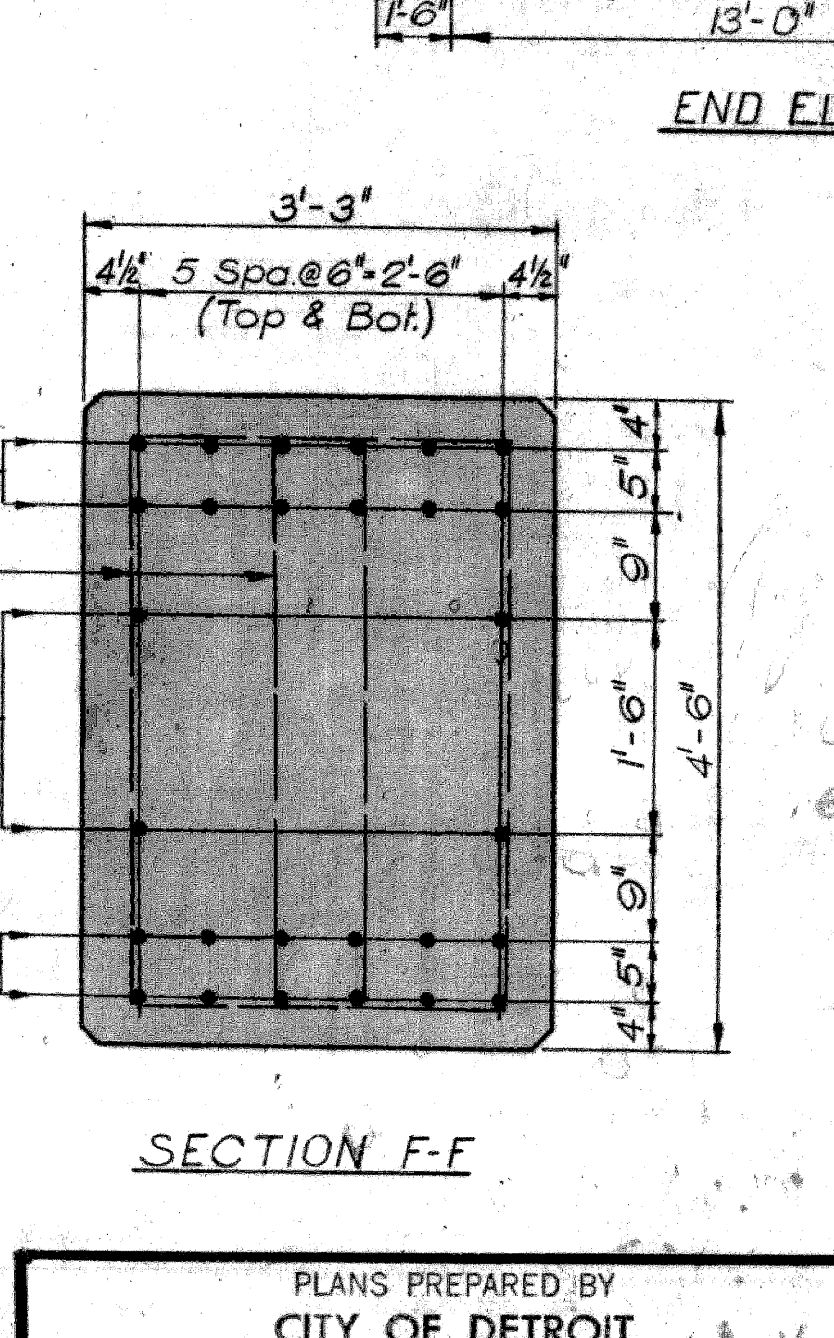
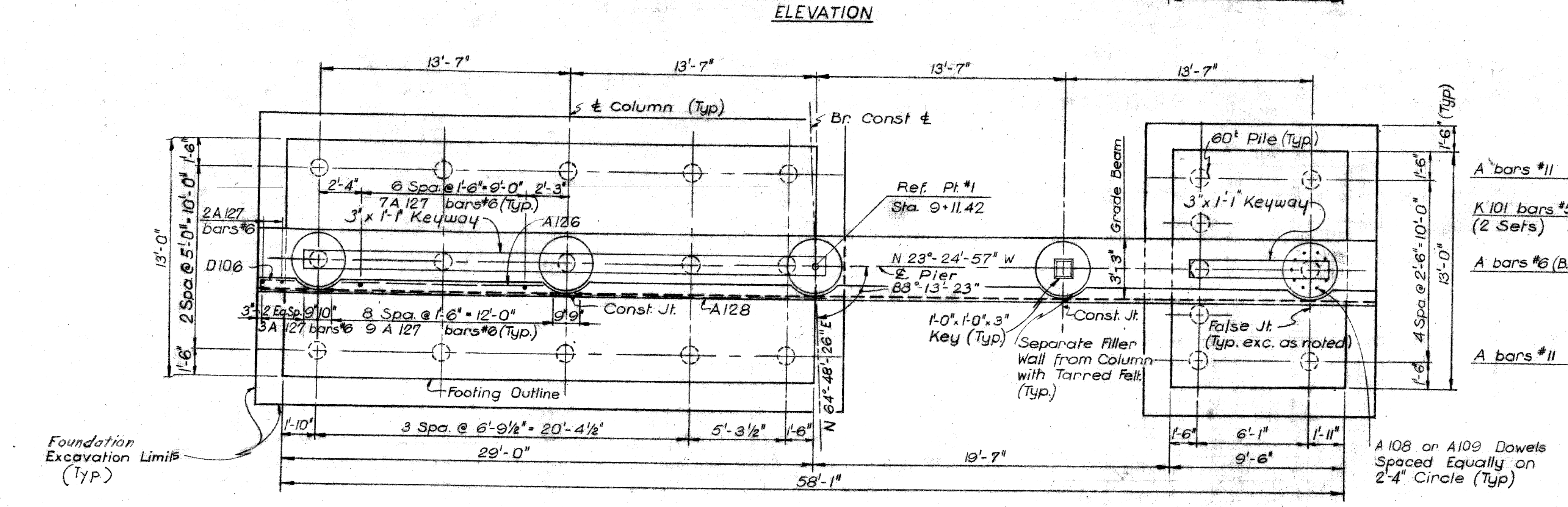
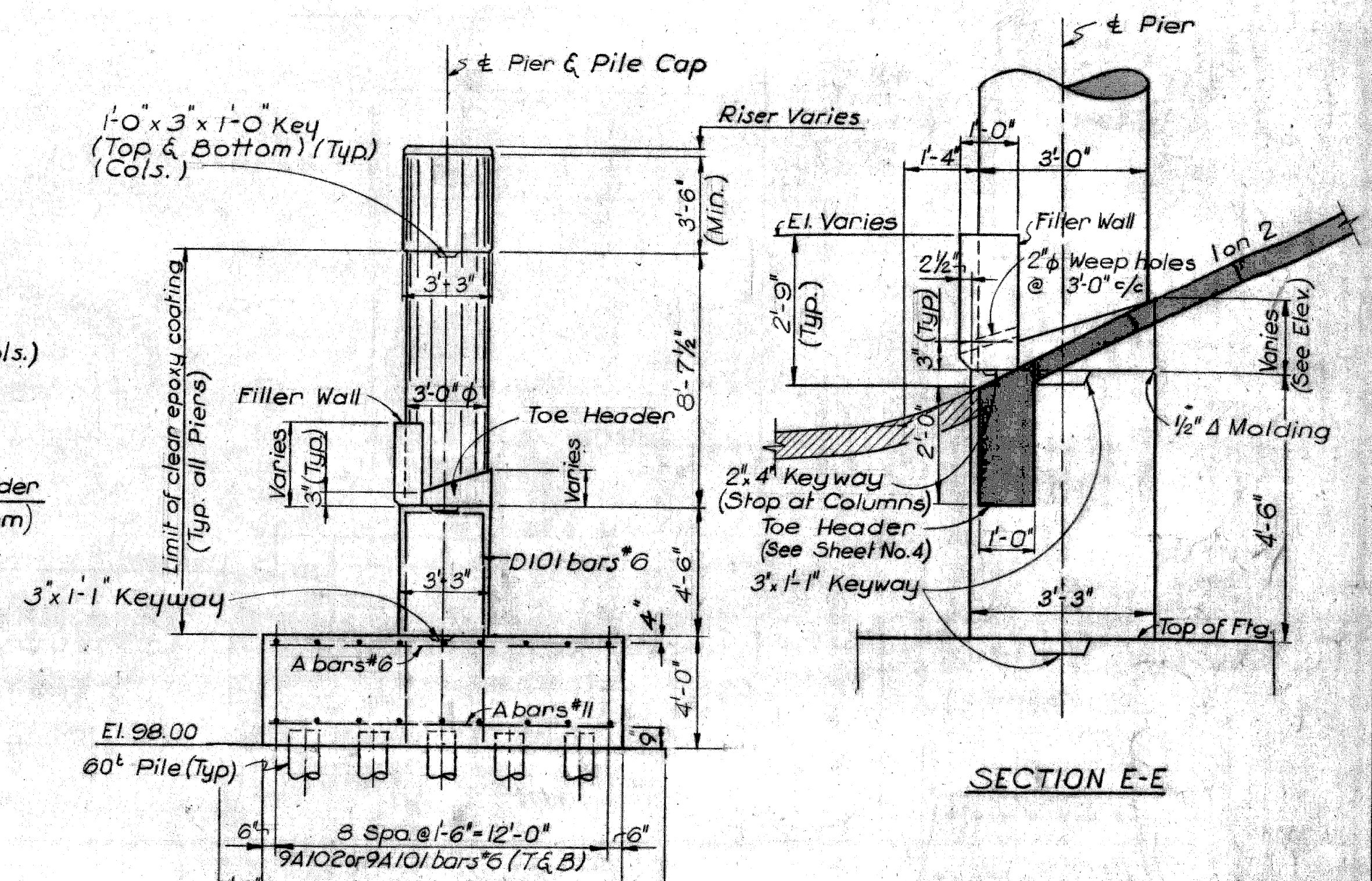
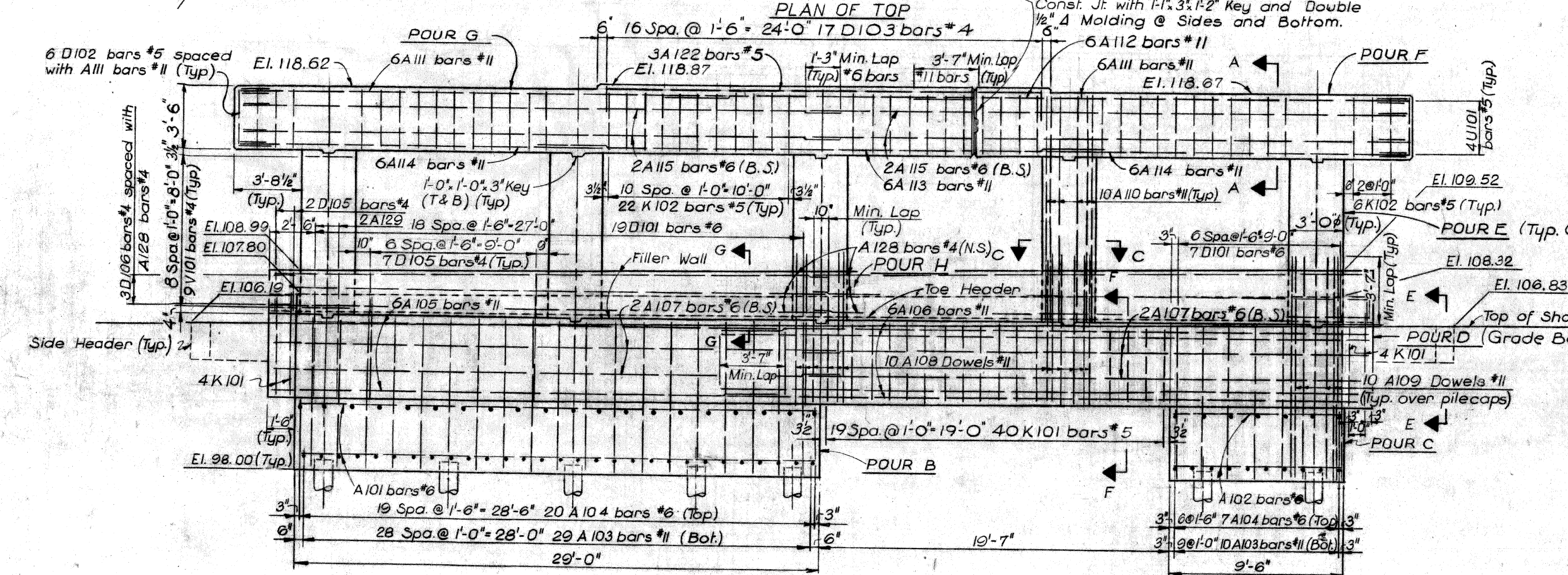
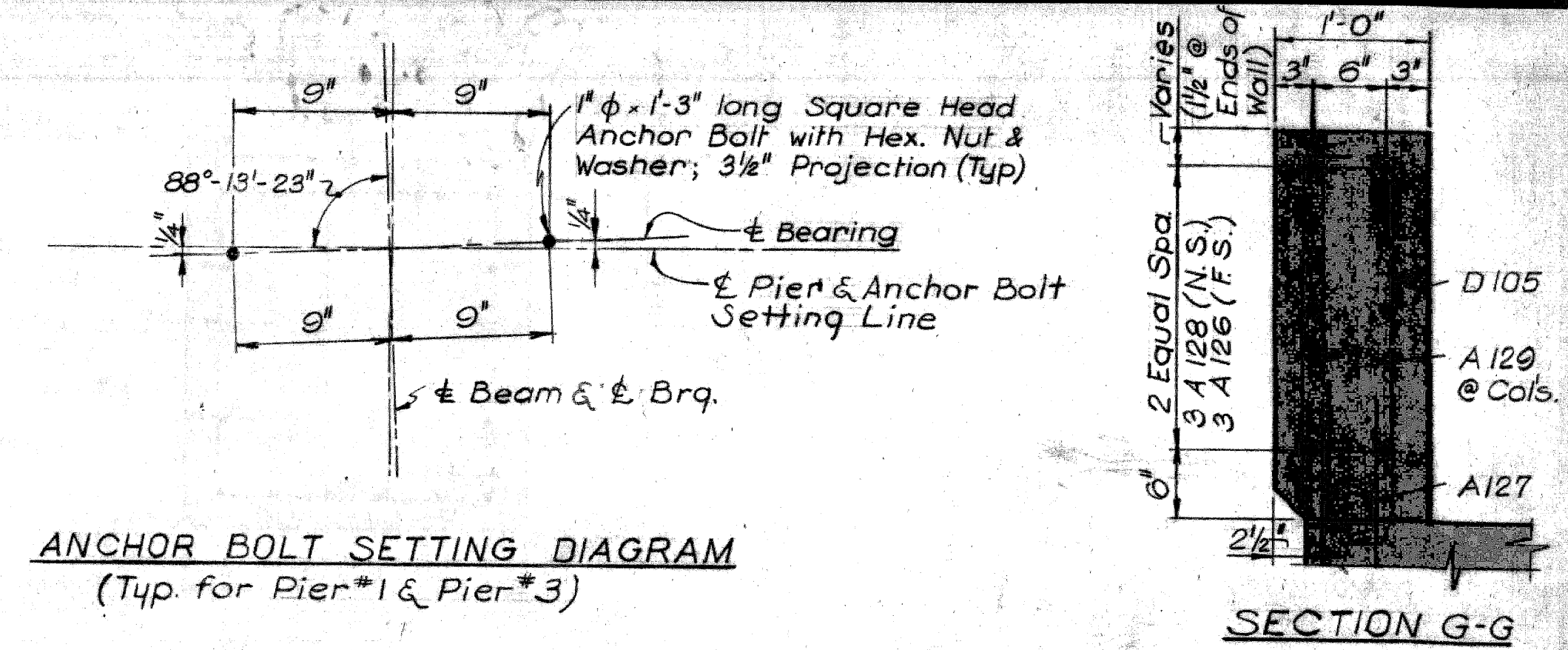
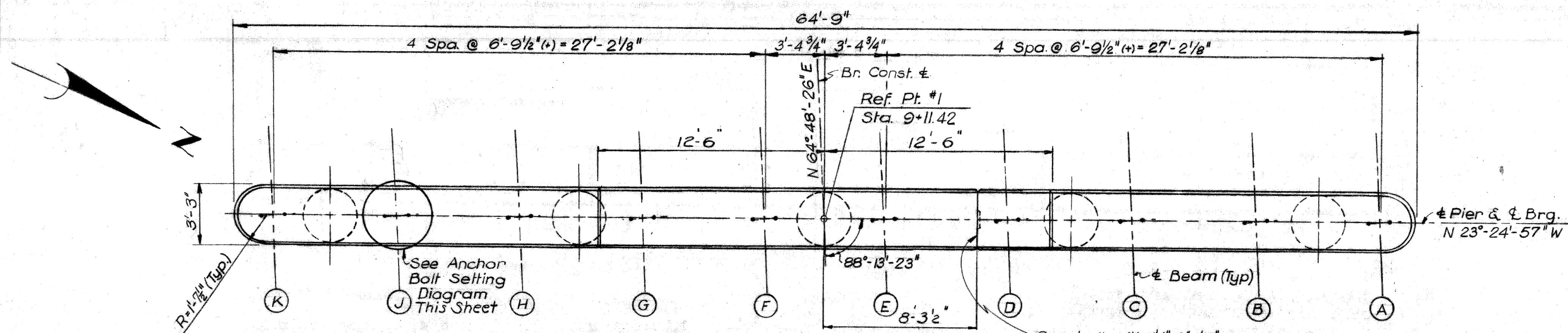
STRUCTURAL STEEL DETAILS

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

REVISIONS			
NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT
SQUAD BOSS A. Prosser 6-67
DRAWN BY D. R. Jones 7-66
TRACED BY A. Prosser 6-67
CHECKED BY A. Prosser 6-67
SHEET 12 of 24
JOB No. PW 990(1)
APPROVED [Signature] STRUCTURAL ENGINEER

502 of 82124A



GENERAL NOTES

For Molding and Bevel Details see M.S.H.D. Std. Dwg. DR11 & DR12

Anchor Bolts are to be set accurately to a Template.

Masonry Plates, Bearing Pedestal and Anchor Bolts are furnished with Structural Steel.

The Project Engineer shall adjust the spacing of the reinforcing steel as required to permit placing of Anchor Bolts.

Protective Sealant Coating to be applied to top of Pier #2 prior to placing Bearings. All Piers shall be treated from footing to cap with clear epoxy coating. (Protective Sealant Coating.) The use of membrane curing compound is prohibited where this material is to be applied.

B.S. denotes Both Sides.

Work This Sheet With Sheets Nos. 10 thru 13.

Note For piling layout & quantity see sheet no. 10

FOOTING PLAN

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

APPROVED: *[Signature]*
 STRUCTURAL ENGINEER

JOB No.
 PW 990(1)

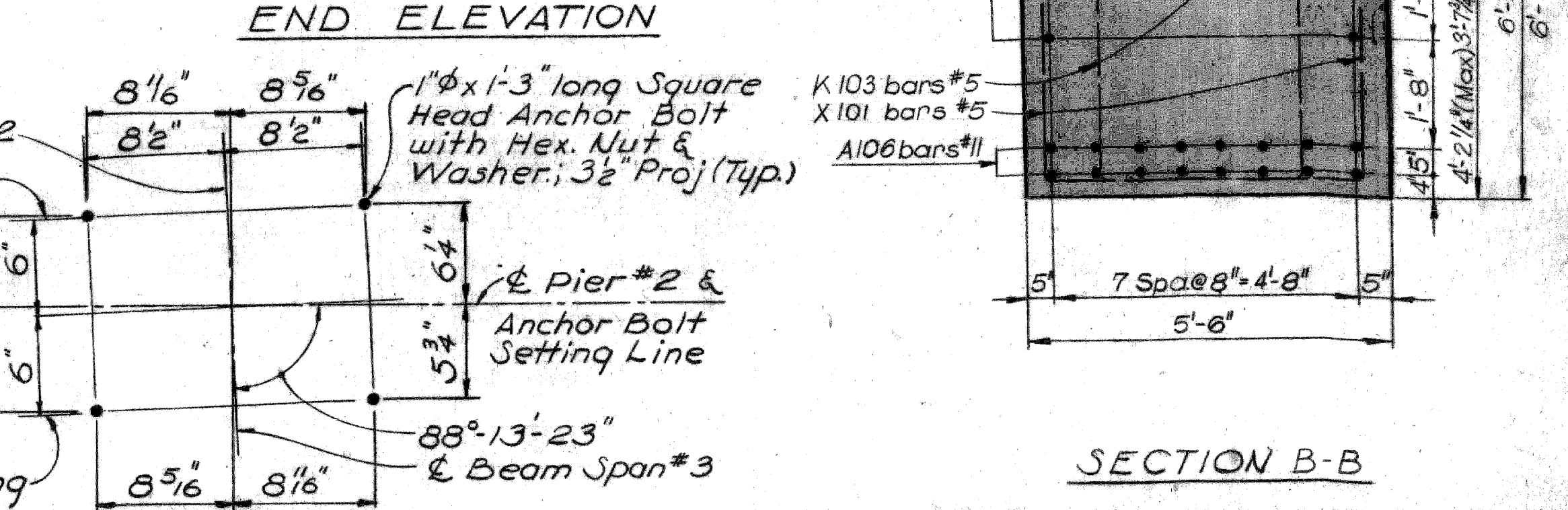
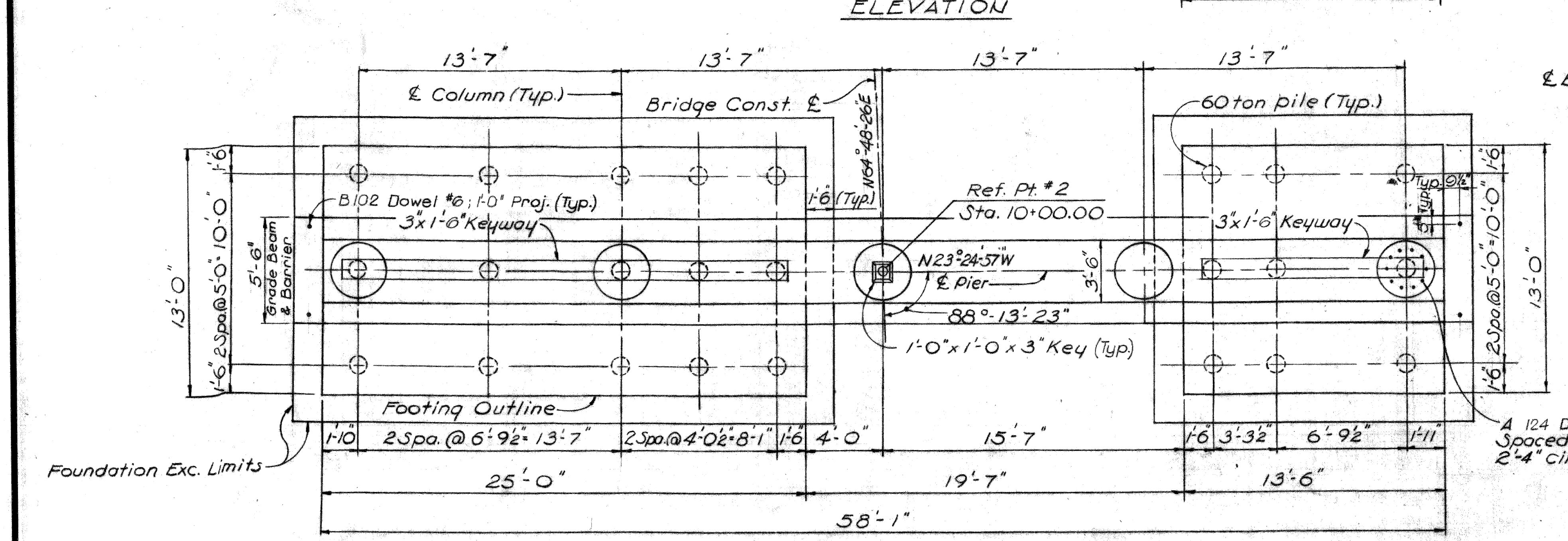
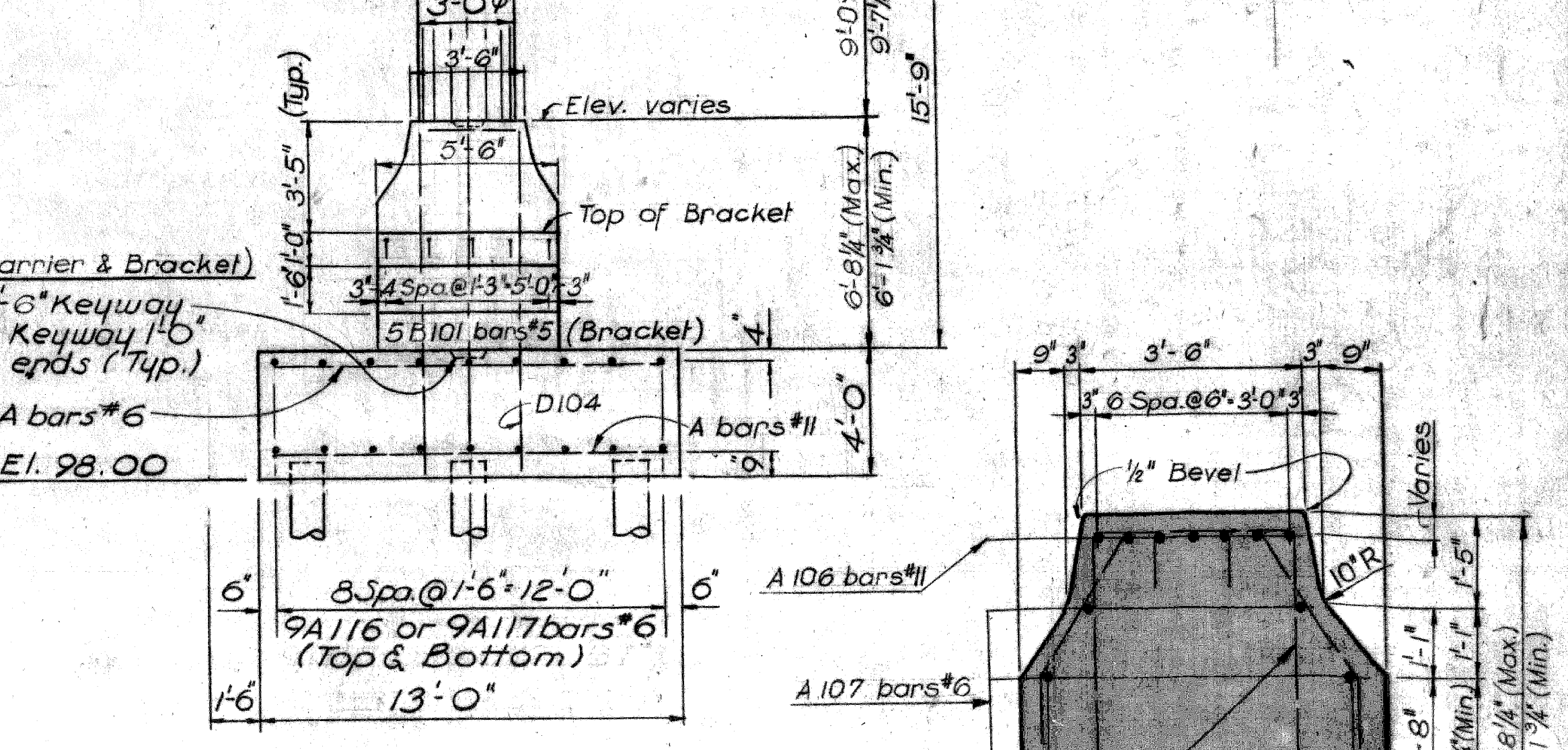
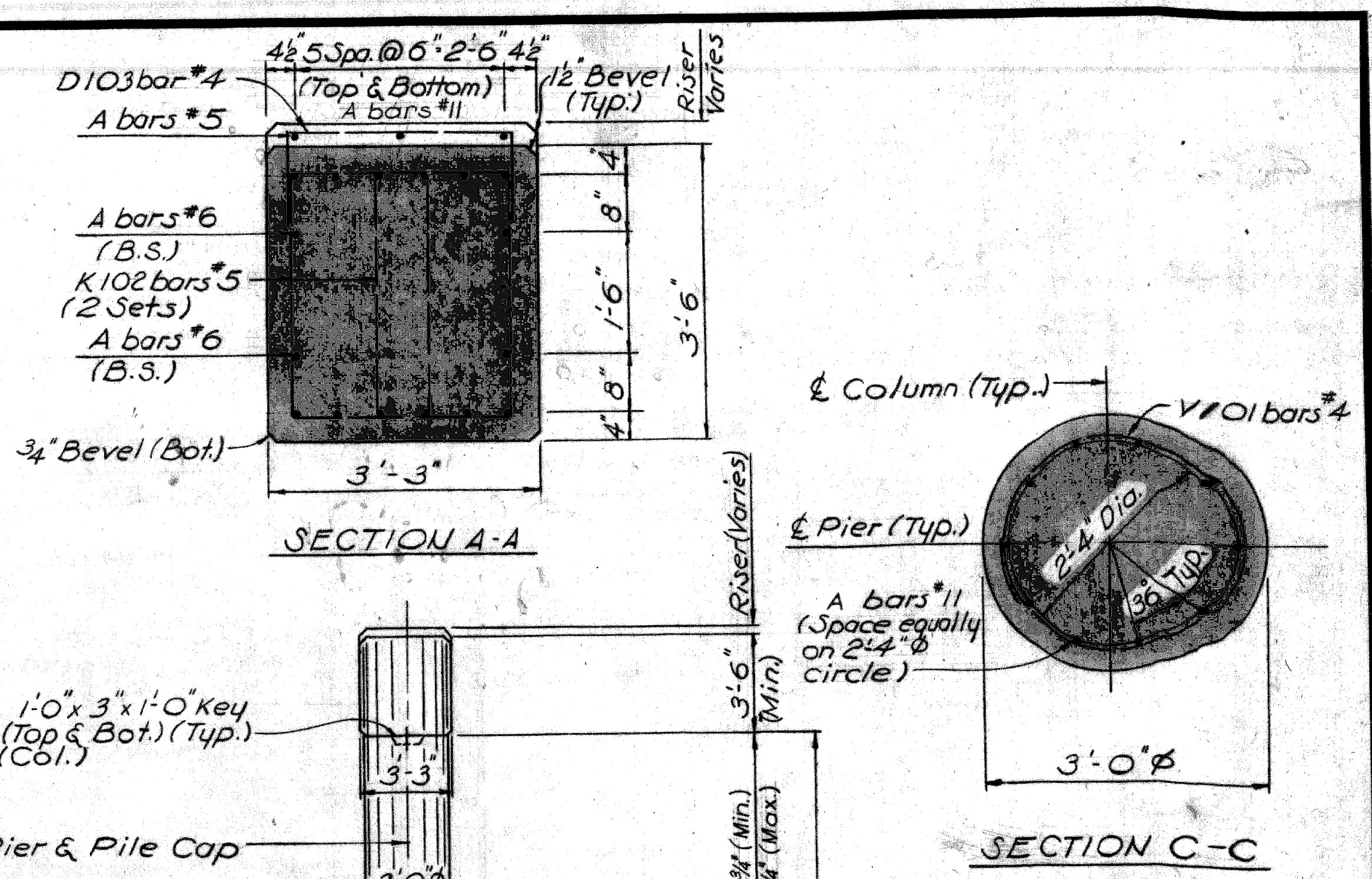
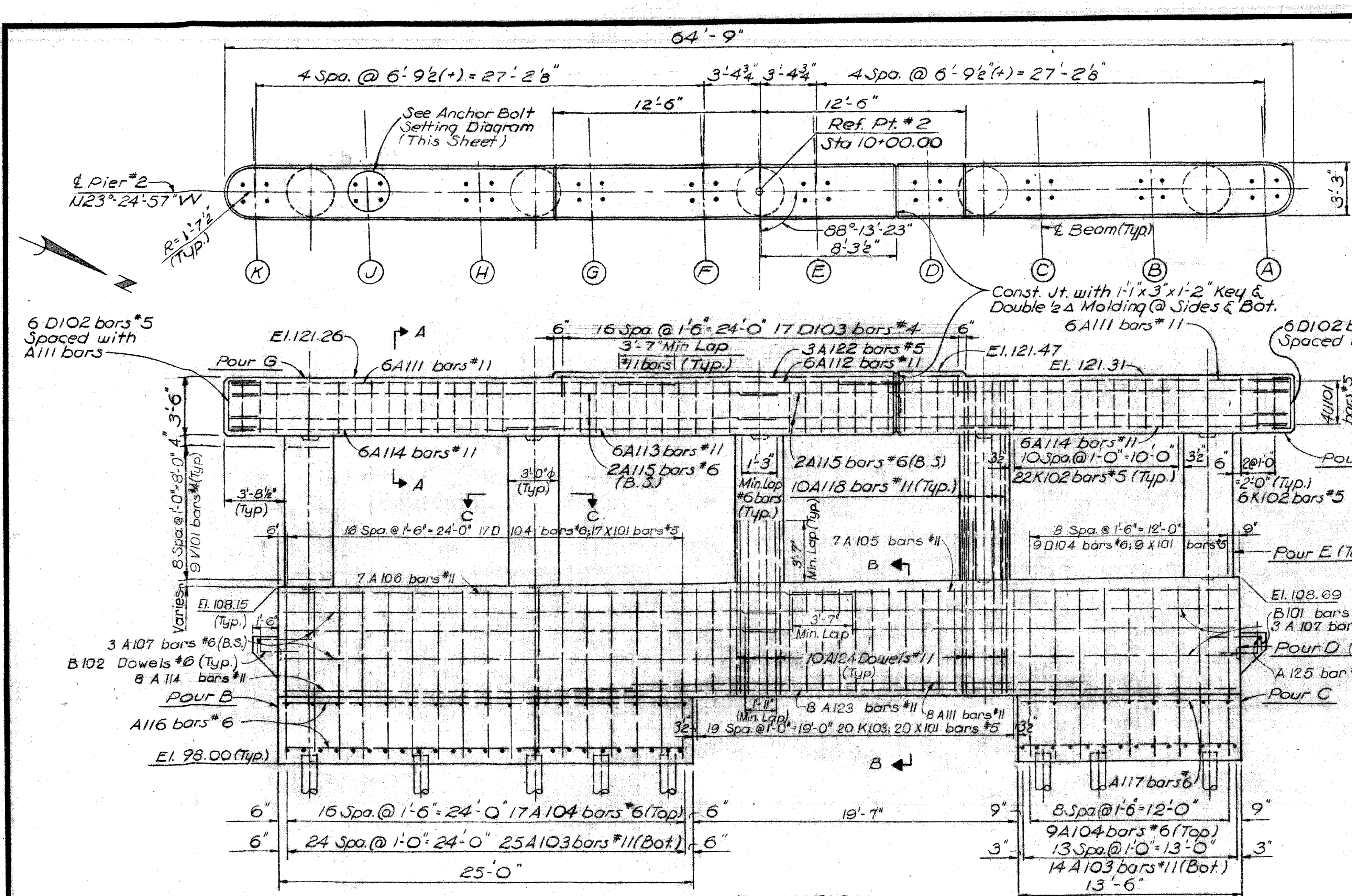
MICHIGAN STATE HIGHWAY DEPARTMENT
 BUCHANAN ST. CROSSING JEFFRIES FREEWAY
 IN DETROIT

PIER NO. 1

NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT
 DRAWN BY: *[Signature]*
 CHECKED BY: *[Signature]*
 SHEET 11 OF 24

S02 of 82124A



Note: For Piling Layout & Quantity See Sheet No. 10

Work this sheet with sheets No. 10 thru 13.

MICHIGAN STATE HIGHWAY DEPARTMENT
BUCHANAN ST. CROSSING JEFFRIES FREEWAY
IN DETROIT

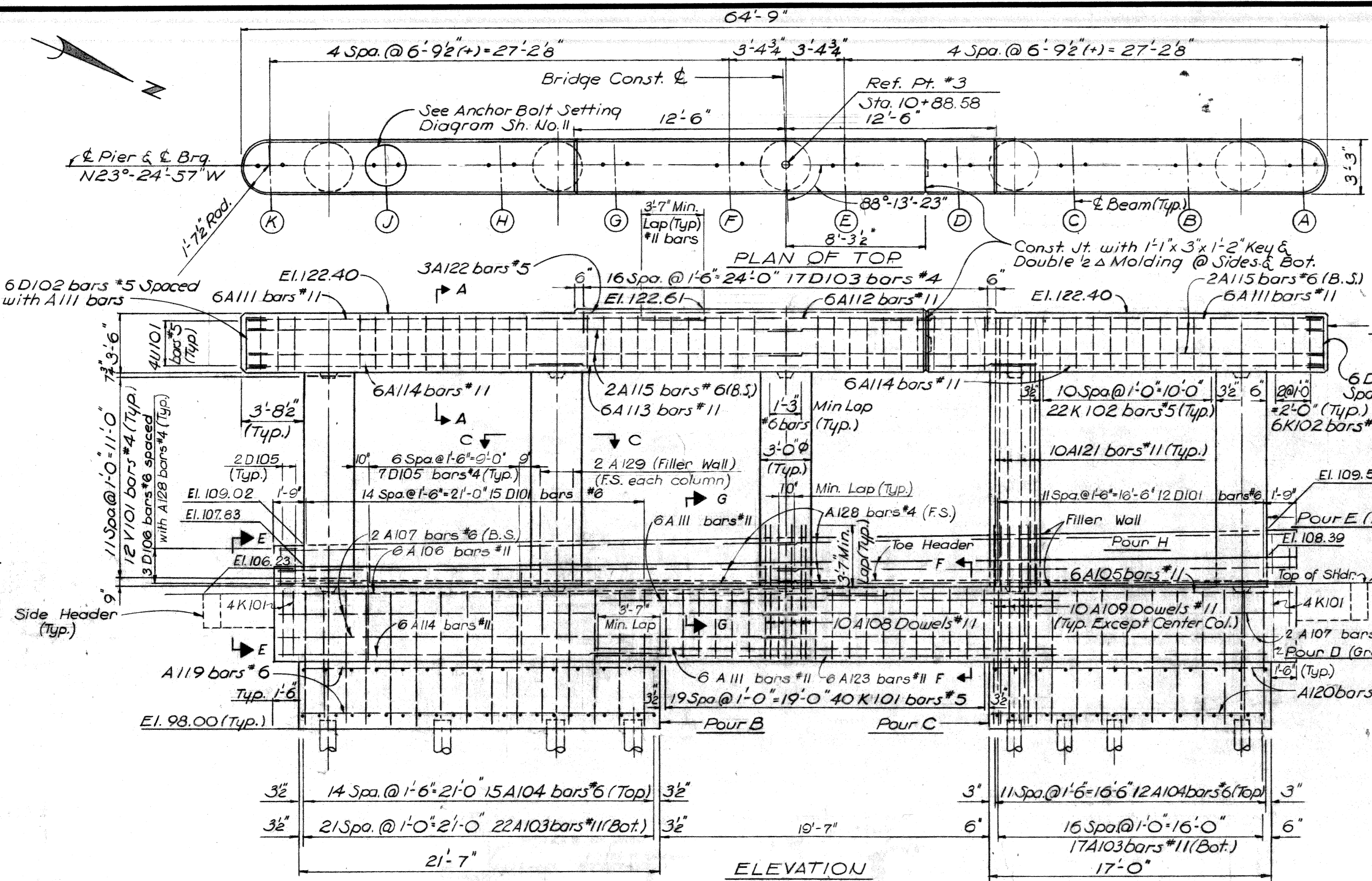
PIER NO. 2

NO.	DESCRIPTION	DATE	BY

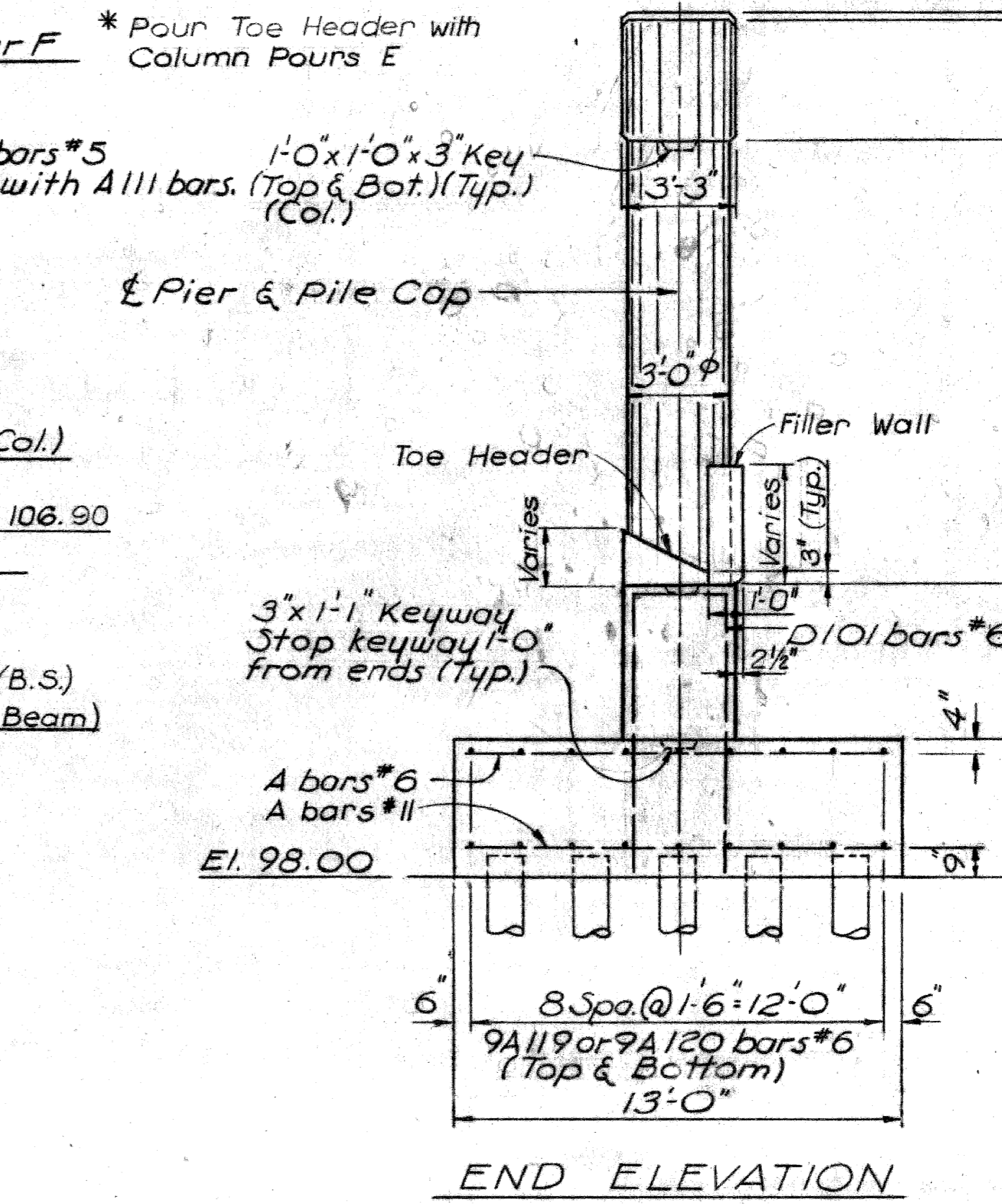
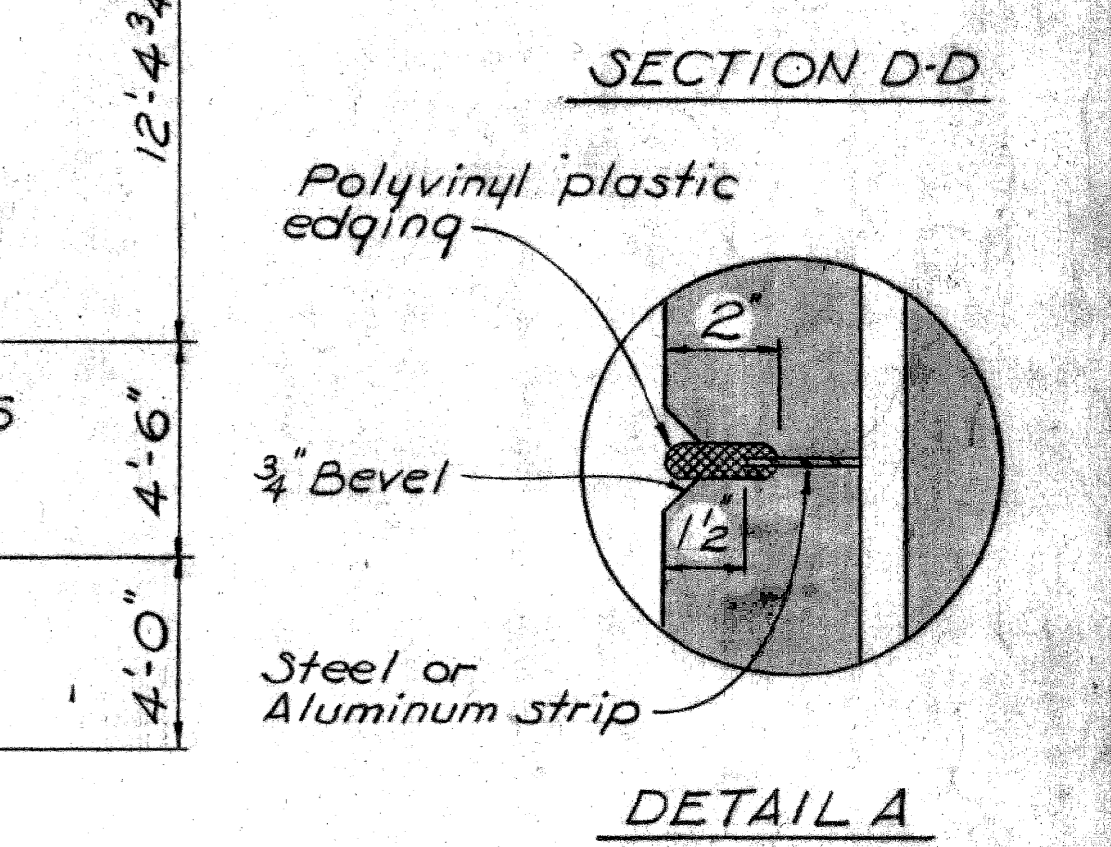
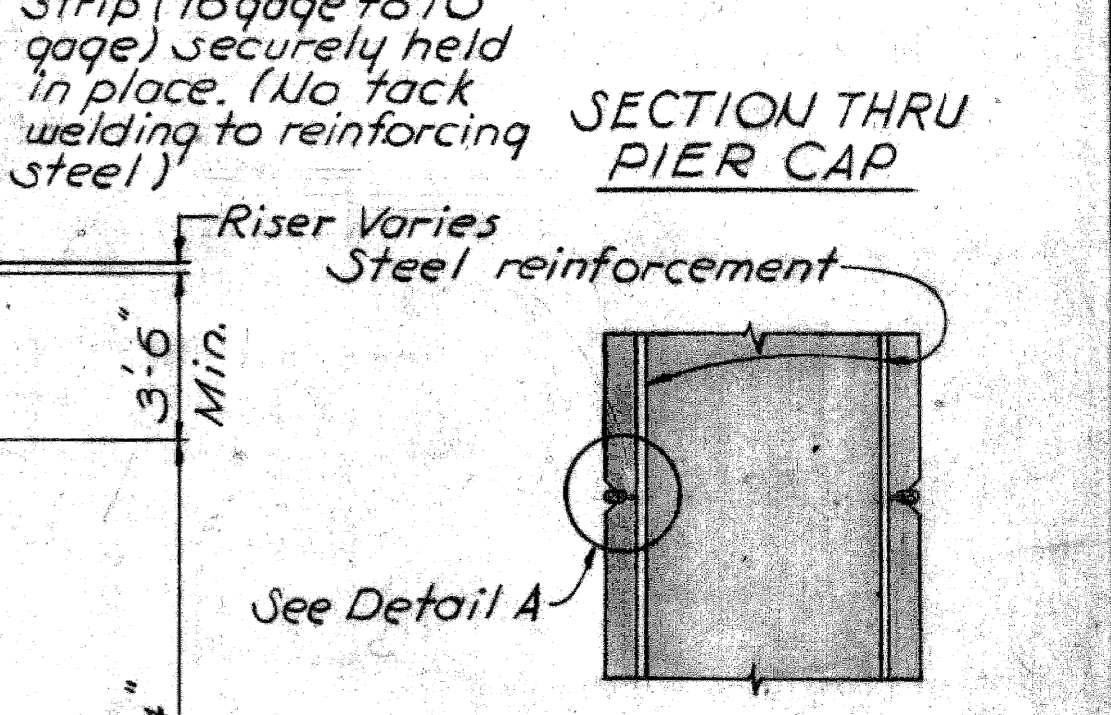
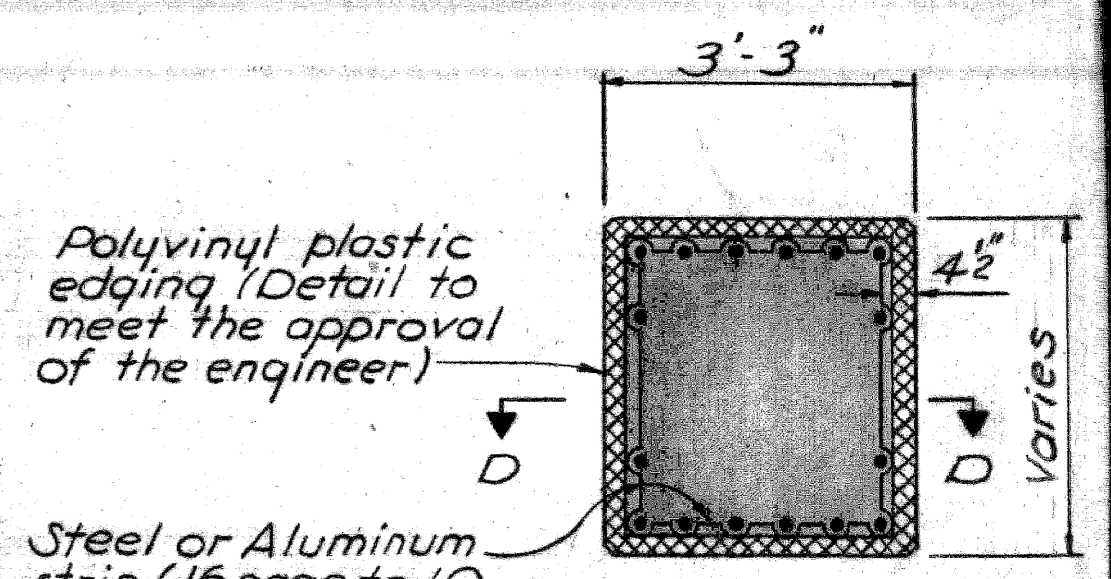
APPROVED: *[Signature]*
CITY ENGINEER

JOB No. PW 990(1)

CITY OF DETROIT
SQUAD BOSS: A. Frick 6-67
DRAWN BY: S. Mahan 8/66
TRACED BY: Robert 8/66
CHECKED BY: DJR/AE 6-67
SHEET 12 OF 24
502 of 82124A



Pour	Location	AGA			AGAA		
		Pier#1	Pier#2	Pier#3	Pier#1	Pier#2	Pier#3
B	Pile Cap	55.9	48.1	41.6	-	-	-
C	Pile Cap	18.3	26.0	32.7	-	-	-
D	Grade Beam	-	-	-	31.5	69.9	31.5
E	Columns *	-	-	-	16.3	12.4	21.3
F	Pier Cap	-	-	-	10.2	10.3	10.1
G	Pier Cap	-	-	-	17.6	17.5	17.5
H	Filler Wall	-	-	-	5.7	-	5.7
Total (Cu. Yds.)		74.2	74.1	74.3	81.3	110.1	86.1



NOTES

Partial metal bulkhead may be used as alternate construction joint @ contractors expense.

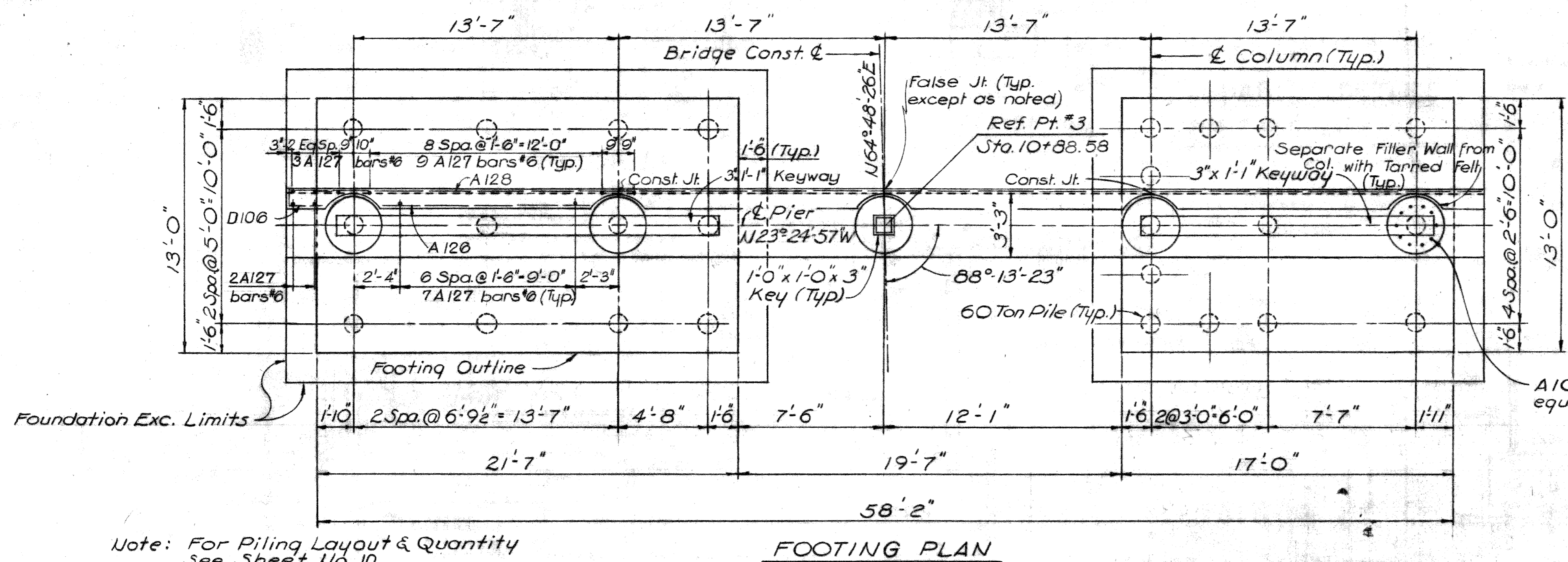
Care is to be used in casting concrete around bulkhead to prevent dislocation or mis-alignment of the bulkhead.

Notch metal strip to fit around reinforcing steel.

Item	Pier#1	Pier#2	Pier#3	Total	Unit
Unclassified Excavation	219	157	219	595	Cu.Yds.
Low Temperature Prot. Substructure Concrete	156	184	161	501	Cu.Yds.
Protective Sealant Coating	1606	1682	1794	5082	Sq.Ft.
Foundation Drain *	58	-	58	116	Lin. Ft.

* Perforated Pipe

Work this sheet with sheets No. 10 thru 12.



Note: For Piling Layout & Quantity See Sheet No. 10

PLANS PREPARED BY
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 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED: *[Signature]*
 STRUCTURAL ENGINEER

JOB No. PW 990(1)

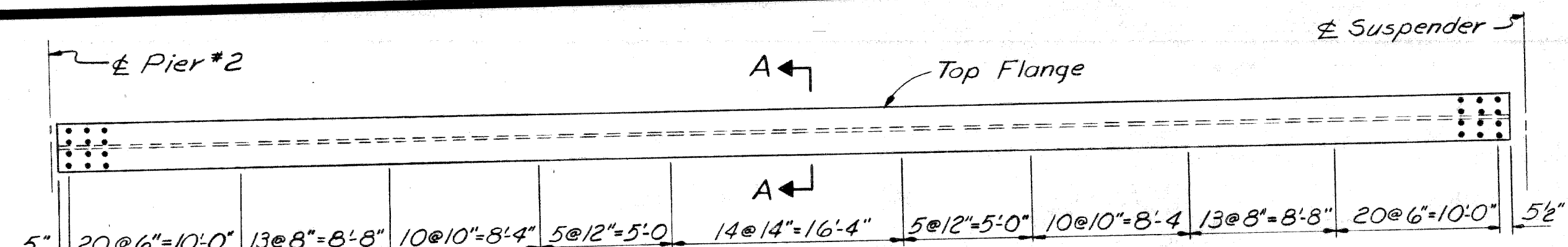
MICHIGAN STATE HIGHWAY DEPARTMENT
 BUCHANAN ST. CROSSING JEFFRIES FREEWAY IN DETROIT

PIER NO. 3

NO.	DESCRIPTION	DATE	BY

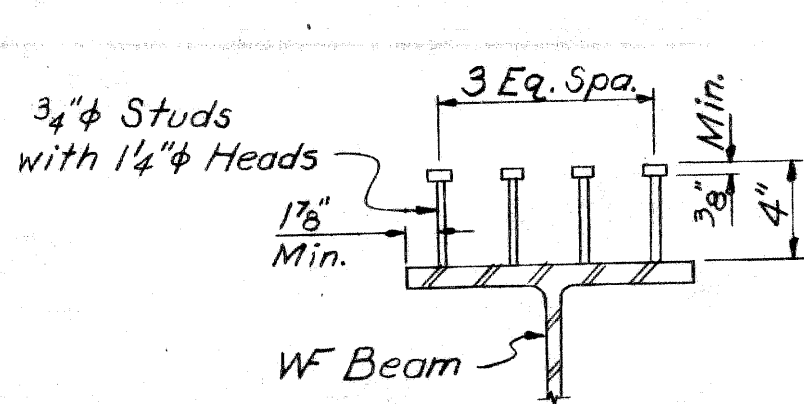
CITY OF DETROIT
 SQUAD BOSS: *[Signature]*
 DRAWN BY: *[Signature]*
 TRACED BY: *[Signature]*
 CHECKED BY: *[Signature]*
 SHEET 13 OF 24

S02 of 82124A

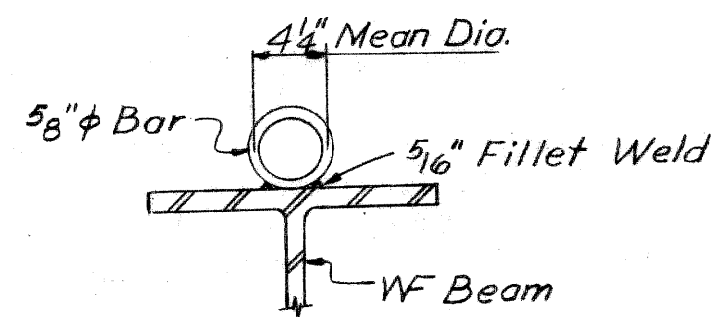


STUD SHEAR CONNECTORS
(Typ. Span#2 & #3, All Beams)
(Span#3 shown, Span#2 Opp. Hand)

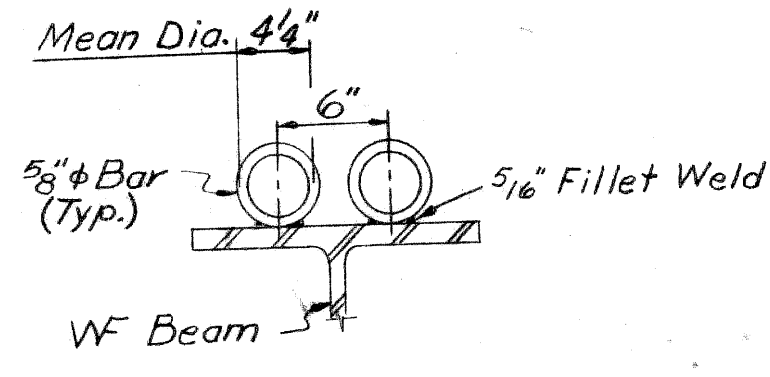
Note: Rows of studs shall be set parallel to the transverse reinforcement.



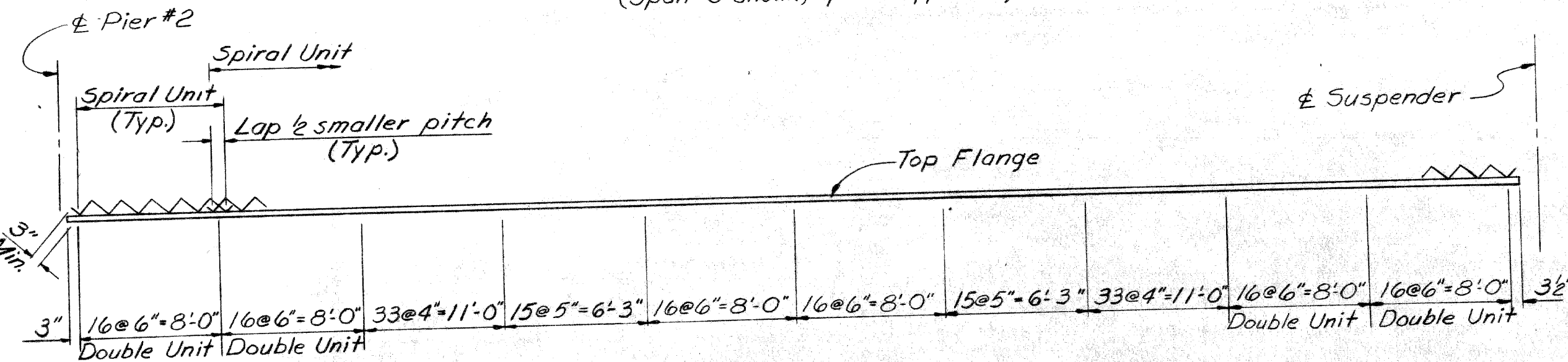
SECTION AA



SECTION BB

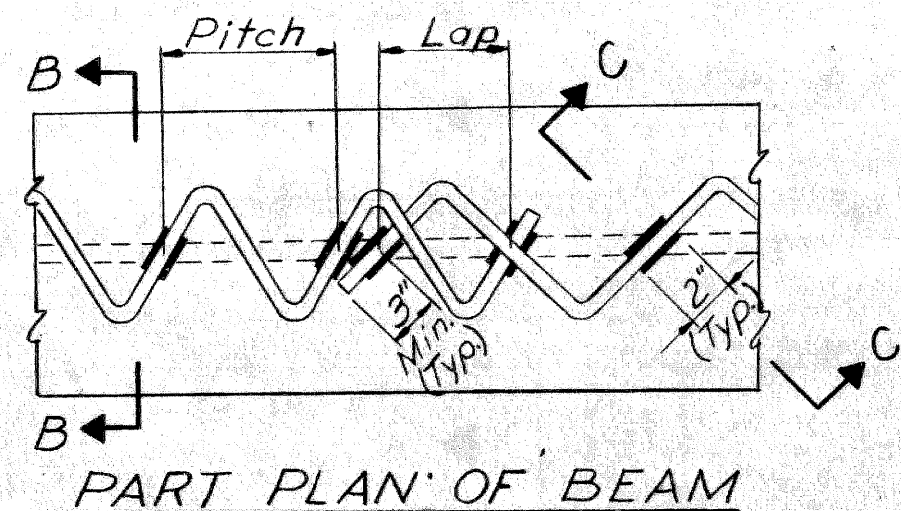


SECTION AT
DOUBLE SPIRAL

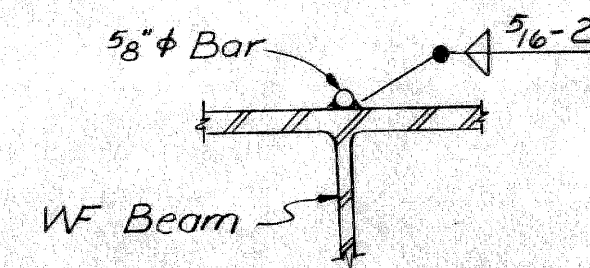


SPIRAL SHEAR DEVELOPERS
(Typ. Spans#2 & #3, All Beams)
(Span#3 shown, Span#2 Opp. Hand)

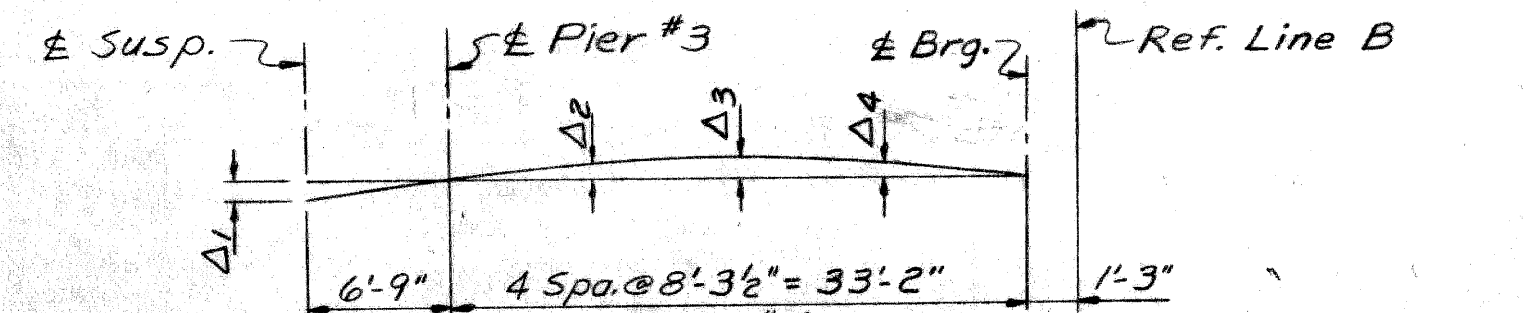
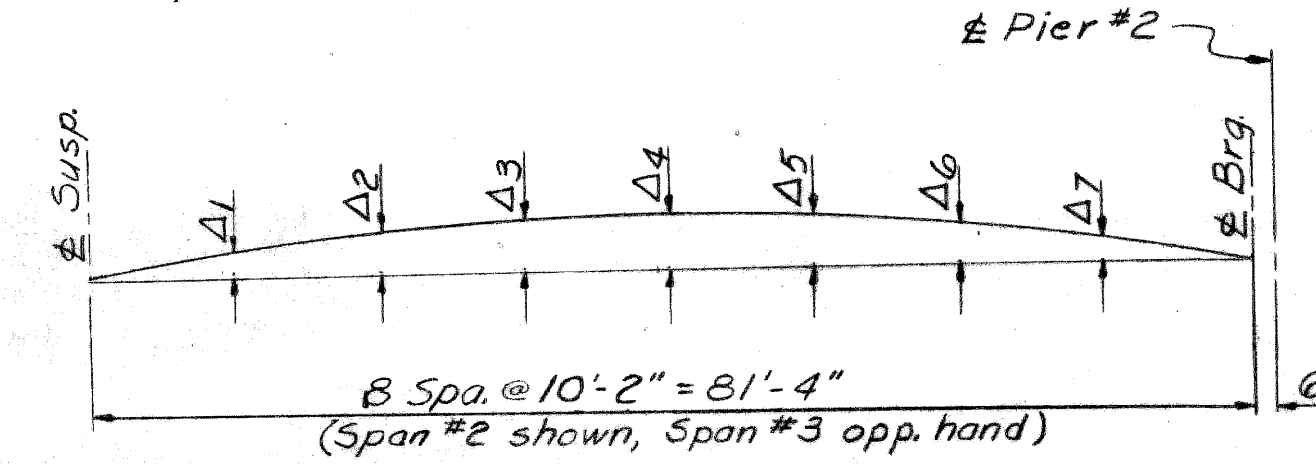
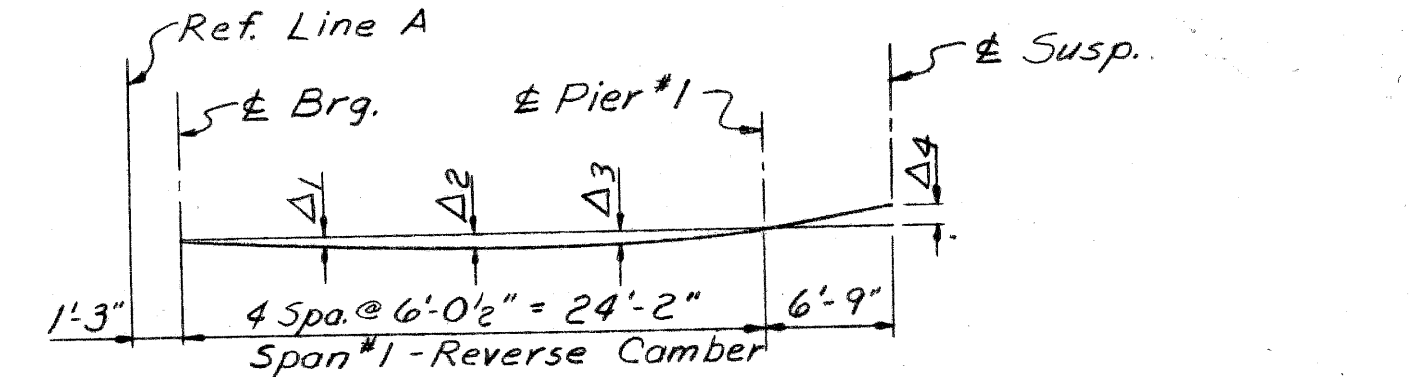
Notes:
Either Spiral Shear Developers or Stud Shear Connectors may be used at the option of the contractor.
The weight of Shear Developers is not included in the weight of Structural Steel.
Welding of Shear Developers is incidental to "Shear Developers".



PART PLAN OF BEAM



SECTION CC



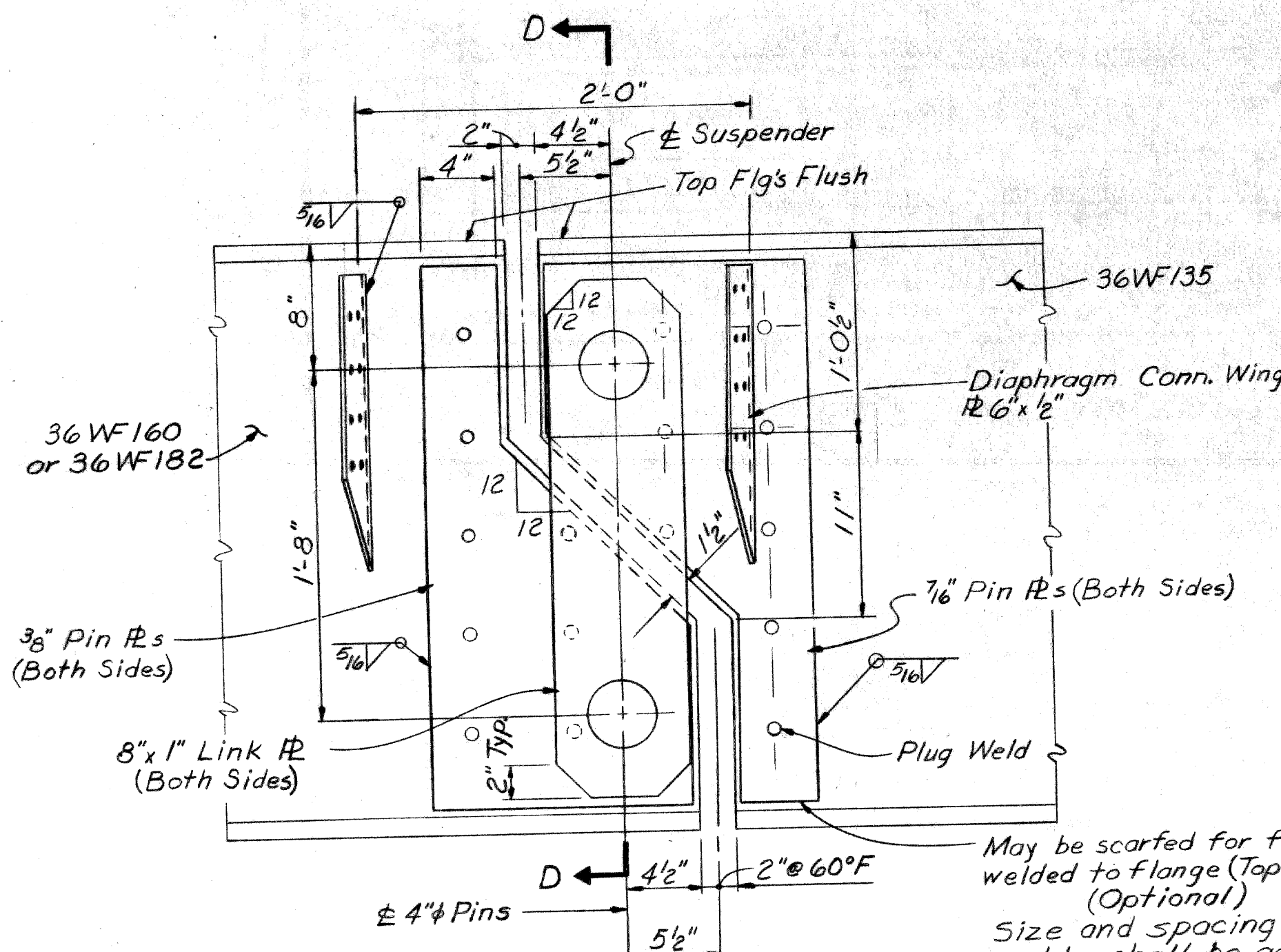
CAMBER DIAGRAMS

Span	Beams	Δ1	Δ2	Δ3	Δ4	Δ5	Δ6	Δ7
1	A # K	0"	0"	0"	* 4"	-	-	-
	B thru J	No Camber	-	-	-	-	-	-
2	A # K	1 1/2"	2 7/8"	3 5/8"	4"	3 5/8"	2 7/8"	1 1/2"
	B	1 3/8"	2 1/2"	3 3/8"	3 3/4"	3 3/8"	2 1/2"	1 3/8"
	C # D	1 1/4"	2 1/4"	2 7/8"	3 3/8"	2 7/8"	2 1/4"	1 1/4"
	E # F	1 1/8"	2"	2 5/8"	2 7/8"	2 5/8"	2"	1 1/8"
	G # H	1 1/4"	2 1/4"	2 7/8"	3 1/4"	2 7/8"	2 1/4"	1 1/4"
3	A # K	2 3/8"	4 3/8"	5 3/8"	6 3/8"	5 3/8"	4 3/8"	2 3/8"
	B	2 1/8"	4"	5 1/4"	5 3/8"	5 3/8"	4"	2 3/8"
	C # D	2"	3 3/4"	5"	5 1/2"	5"	4"	2 1/4"
	E # F	1 7/8"	3 3/4"	4 3/8"	5 1/4"	4 3/8"	3 3/4"	2 1/8"
	G # H	2"	3 3/4"	5"	5 1/2"	5 1/8"	4"	2 1/4"
4	A # K	6"	4"	3 3/8"	4"	-	-	-
	B thru J	1/4"	1/4"	3/8"	1/4"	-	-	-

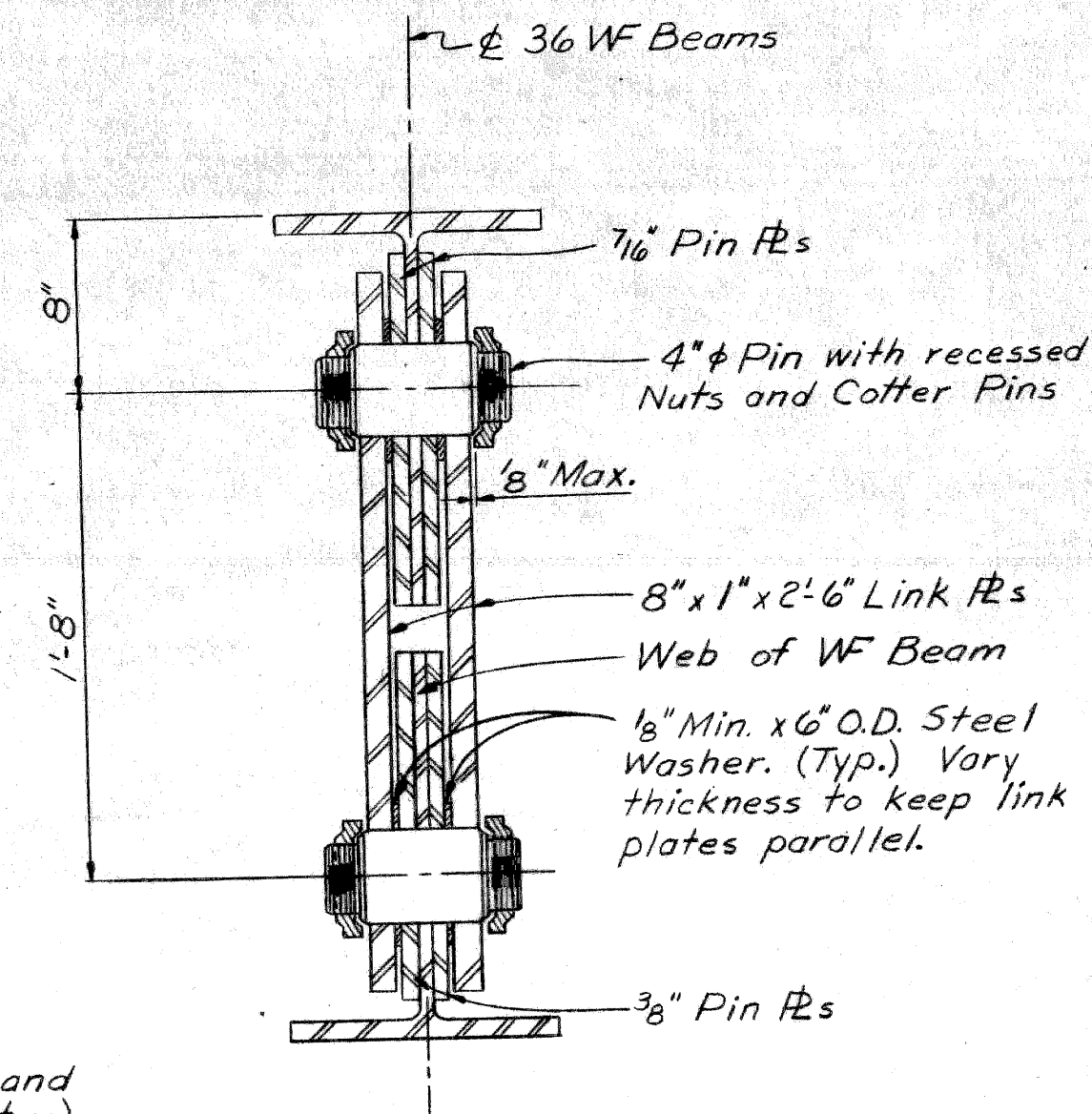
* Reverse Camber, See Diagram.

Beam	Abut. A	Pier 1	Pier 2	Pier 3	Abut. B
A	2"	3 1/2"	2 1/2"	4"	2"
B	2"	3 1/2"	2 1/2"	4"	2"
C	3 1/2"	5"	3 3/4"	5 1/2"	3 1/2"
D	2 1/2"	3 3/4"	3"	4 1/4"	2 1/2"
E	3"	4 1/2"	3 3/4"	5 1/4"	3 1/4"
F	3"	4 1/2"	3 3/4"	5 1/4"	3 1/4"
G	2"	3 1/2"	2 1/2"	4 1/4"	2 1/2"
H	3 3/4"	5 1/4"	3 3/4"	5 1/2"	3 1/2"
J	2 1/4"	3 3/4"	2 1/2"	4"	2"
K	2"	3 1/2"	2 1/2"	4"	2"

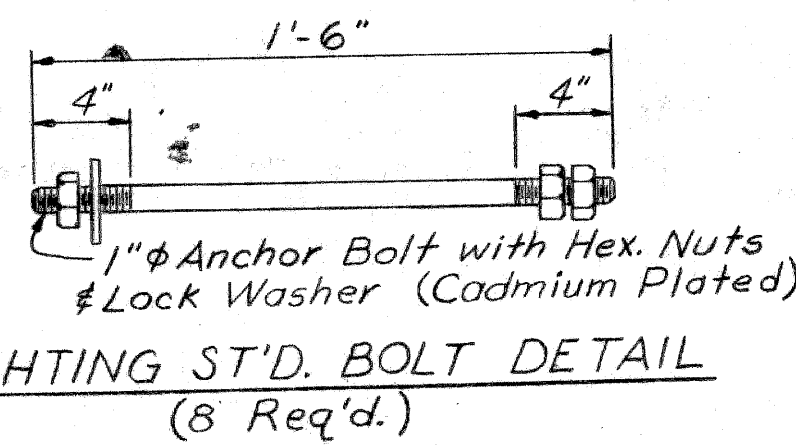
Note: Sole plate thicknesses given at bearing. Bevel sole plates for cap plates where slope is more than 1/8" ft.



SUSPENDER DETAILS

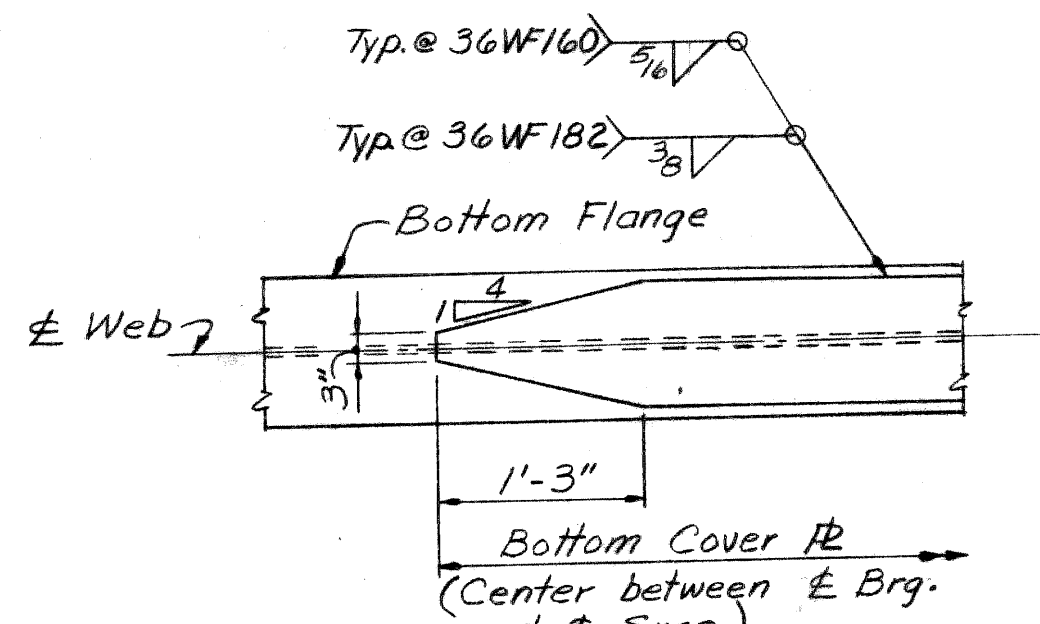


SECTION DD

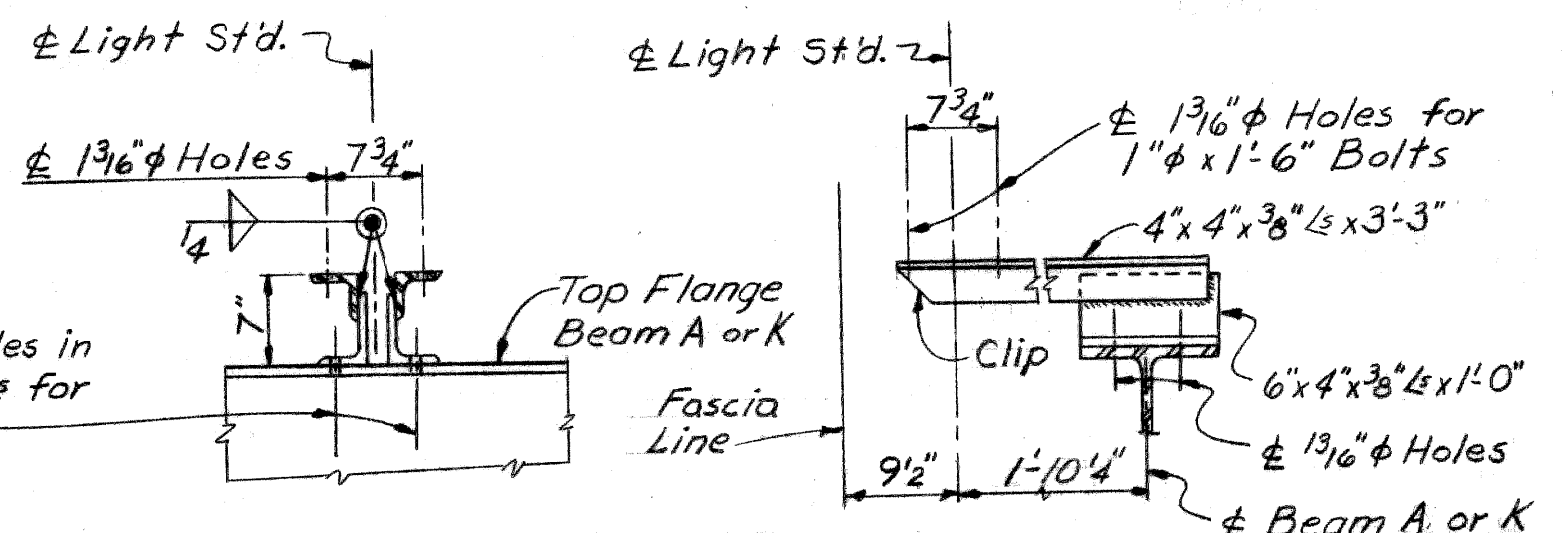


LIGHTING ST'D. BOLT DETAIL (8 Req'd.)

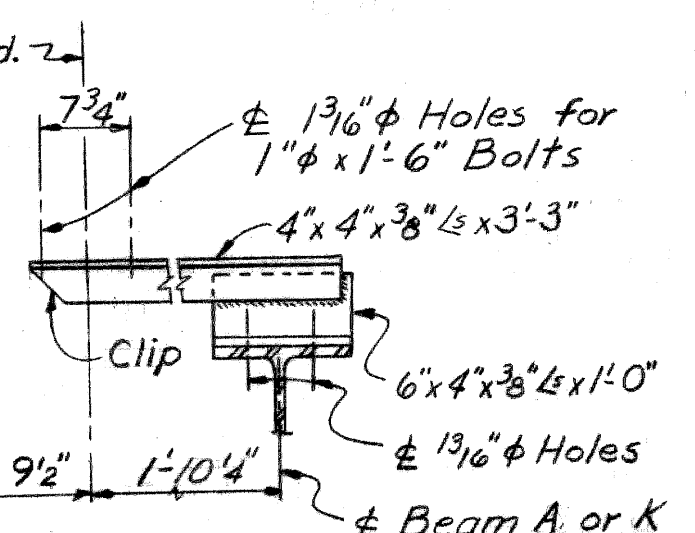
Beam	€ Brg. Abut. A	Midpt. c/c Brg.	€ Brg. Pier #1	€ Susp.	Midpt. c/c Brg.	€ Brg. Pier #2	€ Brg. Pier #2	Midpt. c/c Brg.	€ Susp.	€ Brg. Pier #3	Midpt. c/c Brg.	€ Brg. Abut. B
A	122.52	122.82	123.12	123.31	124.62	125.34	125.34	126.59	126.86	126.89	126.97	126.99
B	122.52	122.82	123.12	123.29	124.56	125.34	125.34	126.53	126.85	126.89	126.97	126.99
C	122.64	122.94	123.24	123.41	124.65	125.47	125.47	126.64	126.98	127.02	127.10	127.11
D	122.74	123.04	123.34	123.51	124.75	125.56	125.56	126.73	127.08	127.12	127.20	127.22
E	122.80	123.10	123.40	123.57	124.79	125.63	125.63	126.79	127.17	127.21	127.29	127.30
F	122.80	123.10	123.40	123.57	124.79	125.63	125.63	126.79	127.17	127.21	127.29	127.30
G	122.72	123.02	123.32	123.49	124.75	125.55	125.55	126.73	127.08	127.12	127.20	127.22
H	122.61	122.91	123.22	123.39	124.65	125.45	125.45	126.63	126.98	127.02	127.10	127.11
J	122.49	122.79	123.09	123.26	124.54	125.31	125.31	126.51	126.85	126.89	126.97	126.99
K	122.47	122.77	123.07	123.26	124.57	125.29	125.29	126.57	126.86	126.89	126.97	126.99



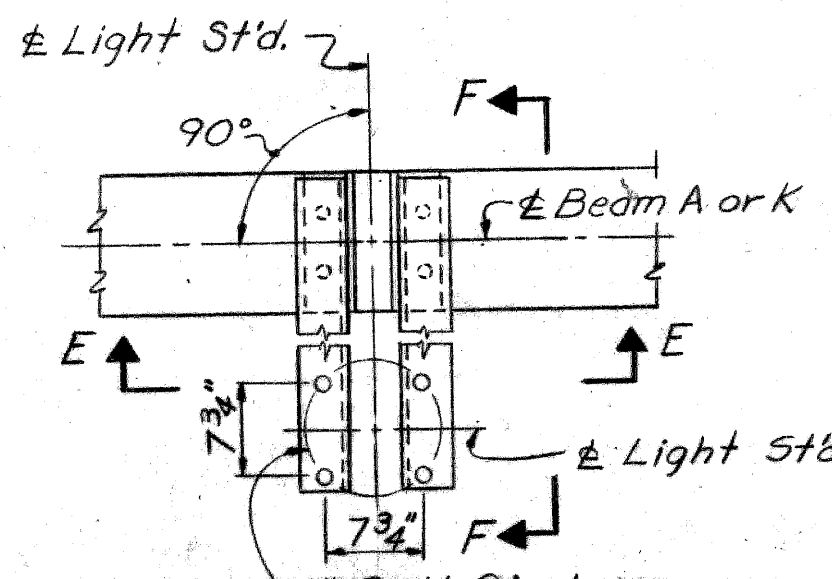
BOTTOM COVER PLATE DETAIL



SECTION E-E



SECTION F-F



PLAN

P.L.C. LIGHTING ST'D. SUPPORT DETAILS

Note: For location of Light Standard on Beams A # K, see Framing Plan, Sh. # 14.

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(1)

Work this sheet with sheet nos. 14 thru 23.

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

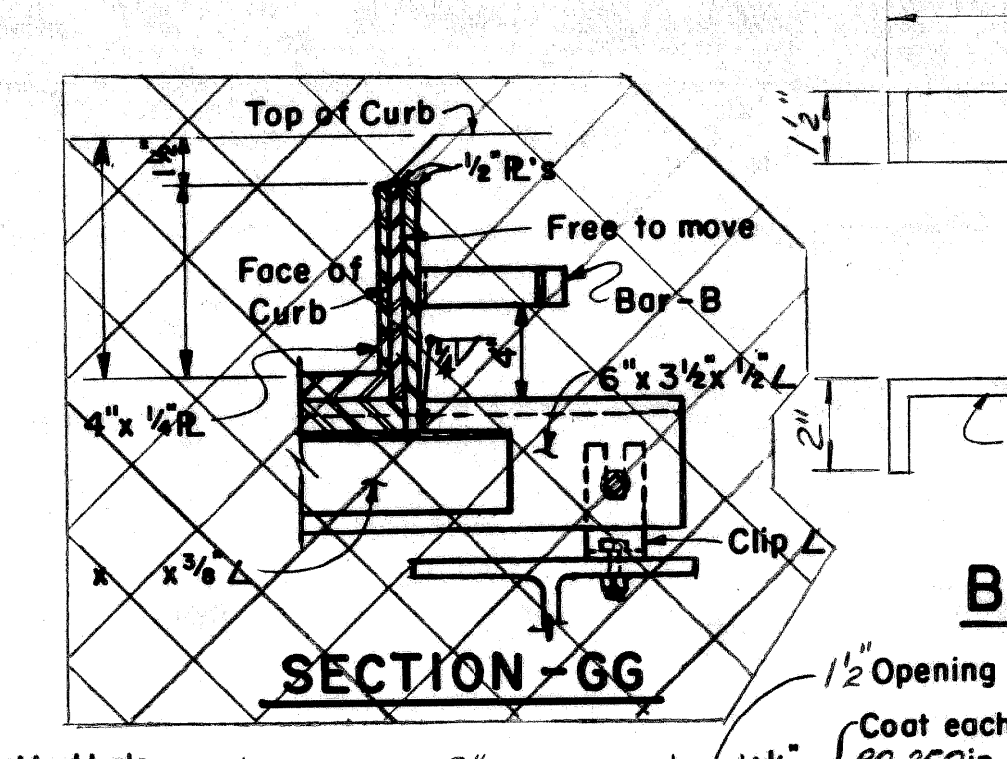
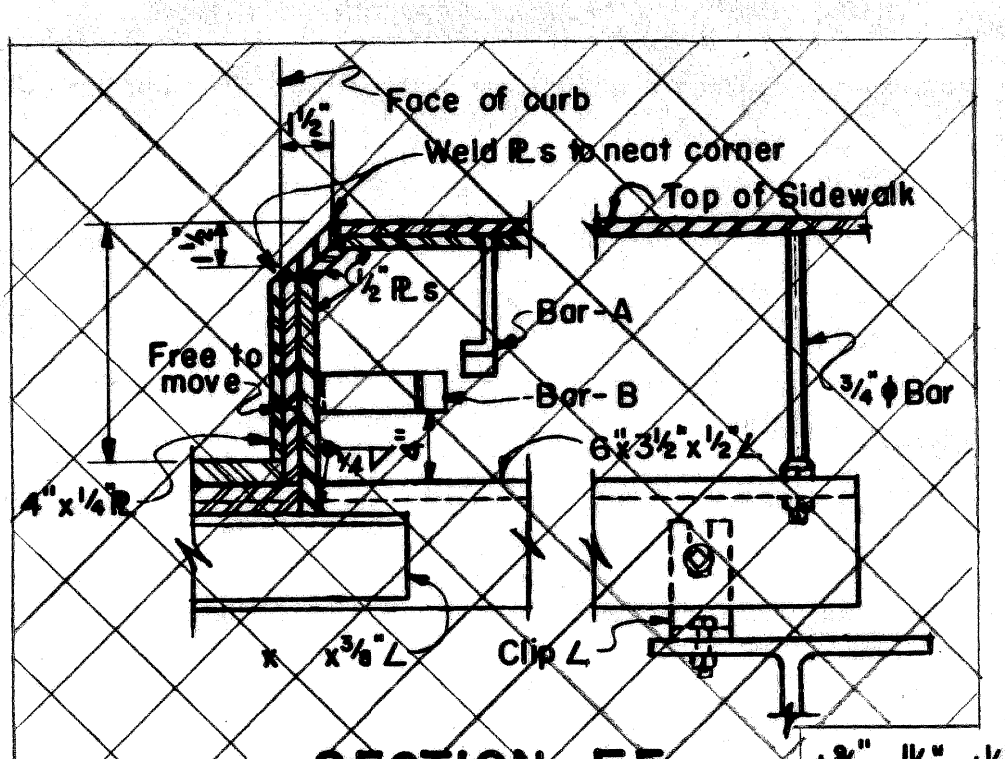
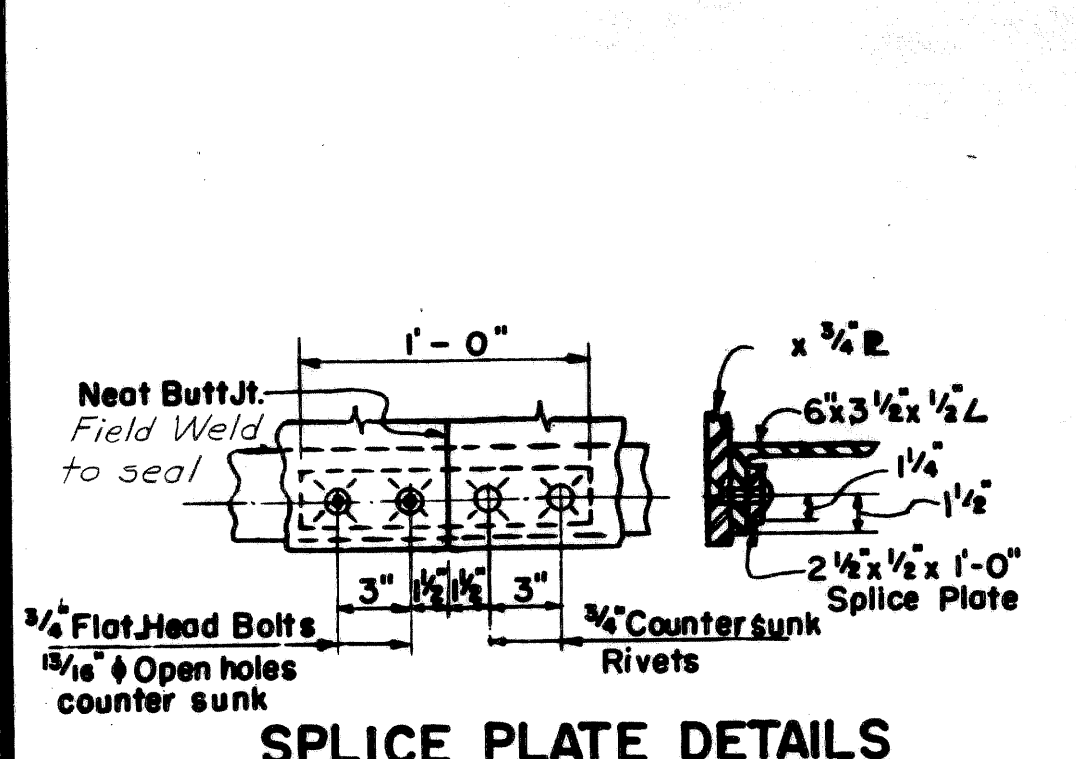
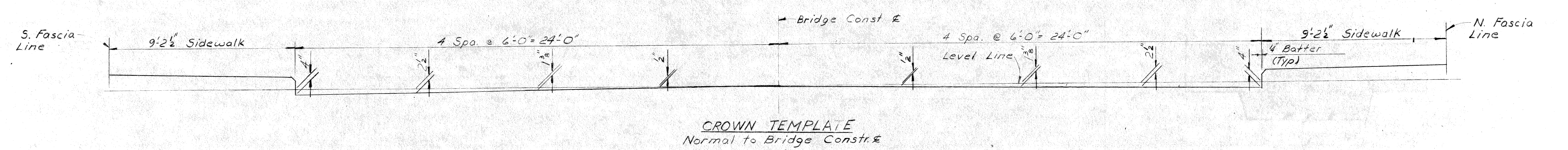
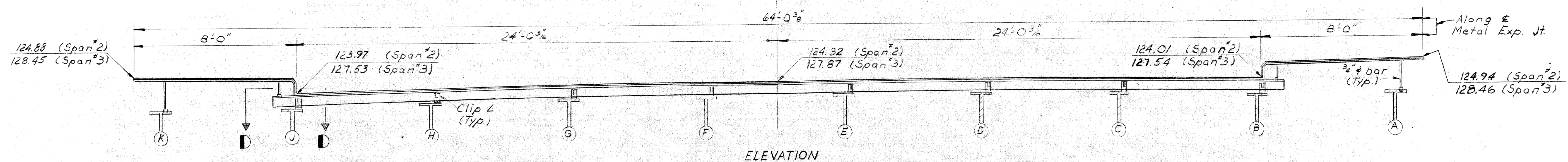
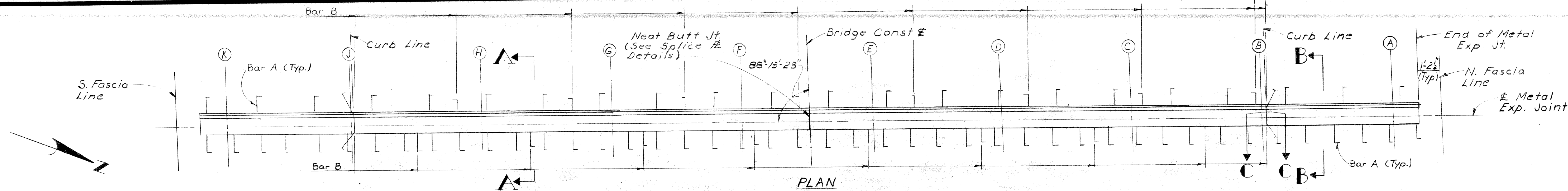
BUCHANAN ST. CROSSING JEFFRIES FREEWAY IN DETROIT

STRUCTURAL STEEL DETAILS

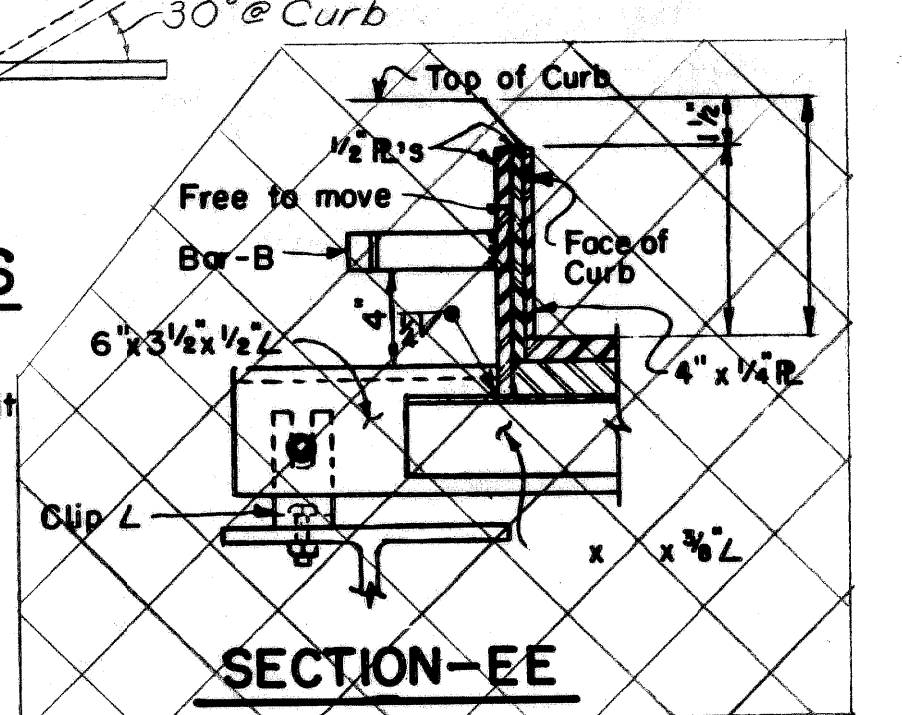
CITY OF DETROIT

SQUAD BOSS: A. Freiberg 6-67
DRAWN BY: D. Romo 7-66
CHECKED BY: A. Freiberg 6-67
SHEET 16 of 24

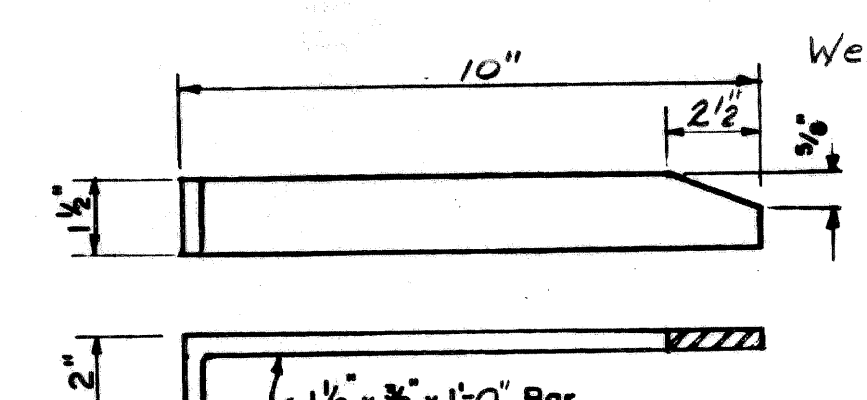
902 of 82124A



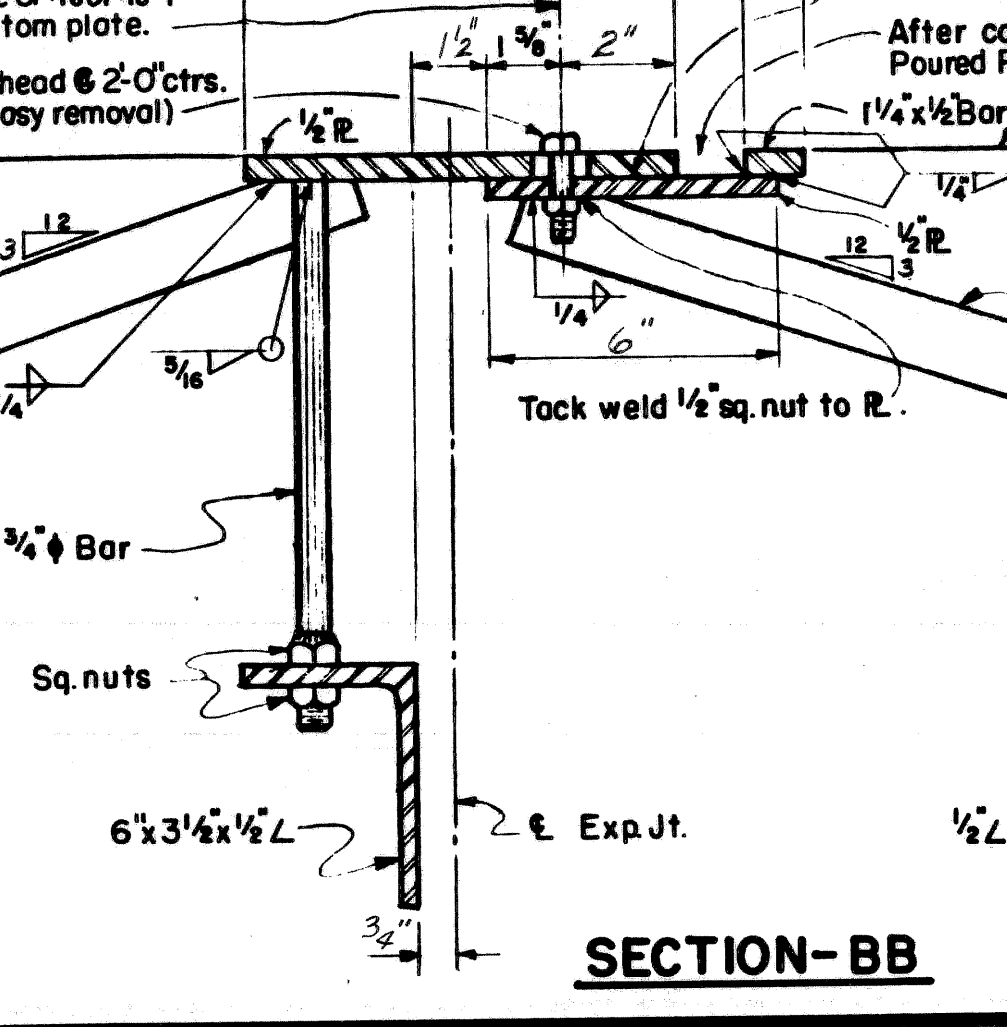
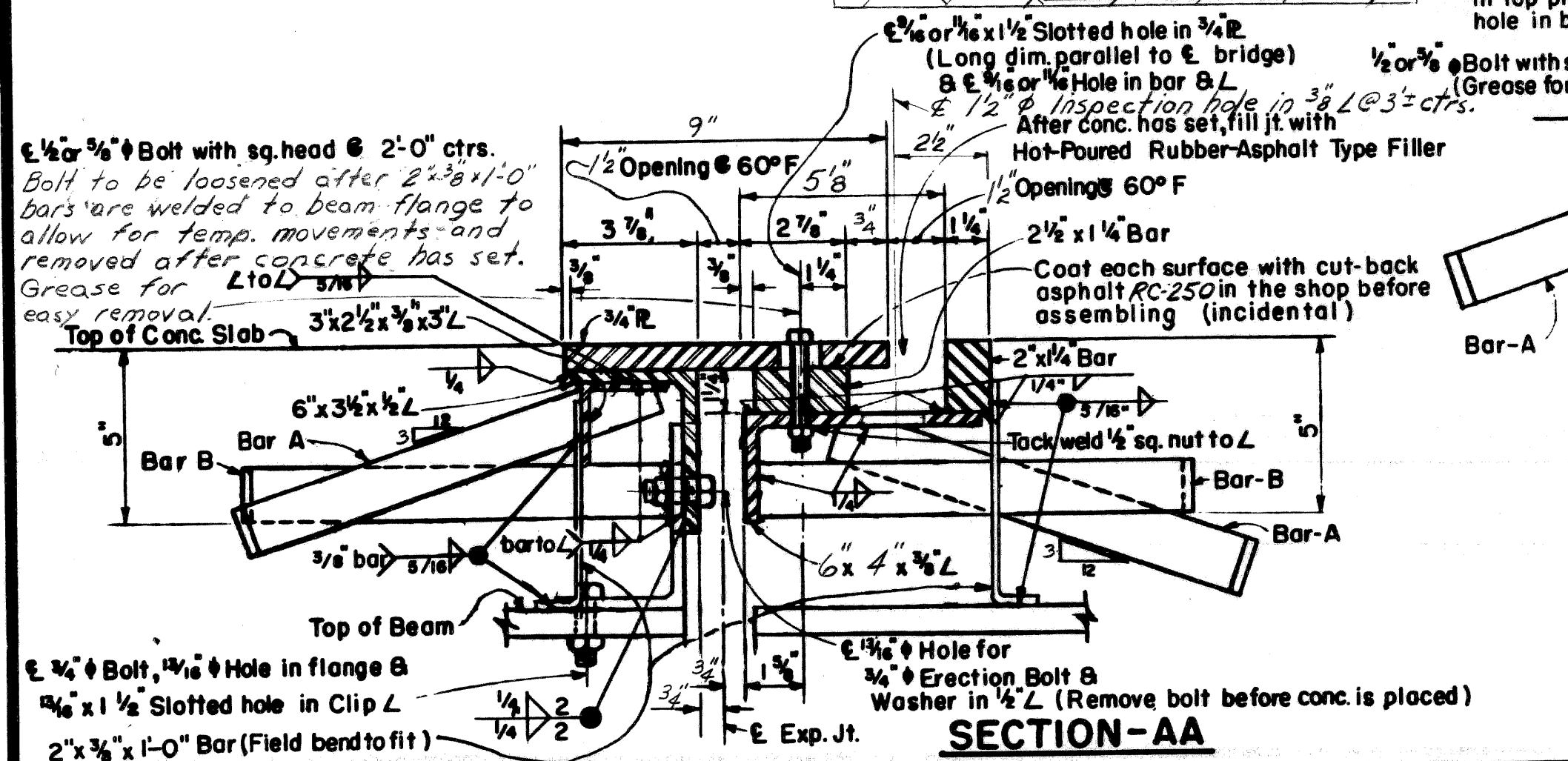
BAR "B" DETAILS



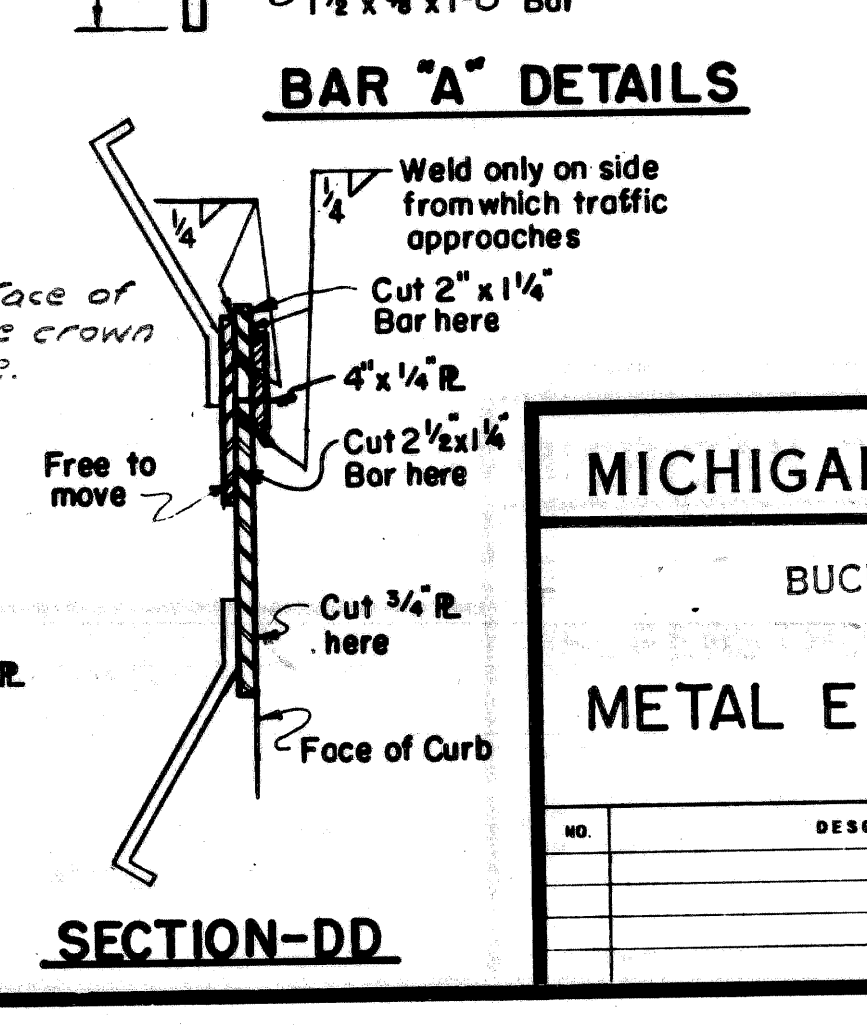
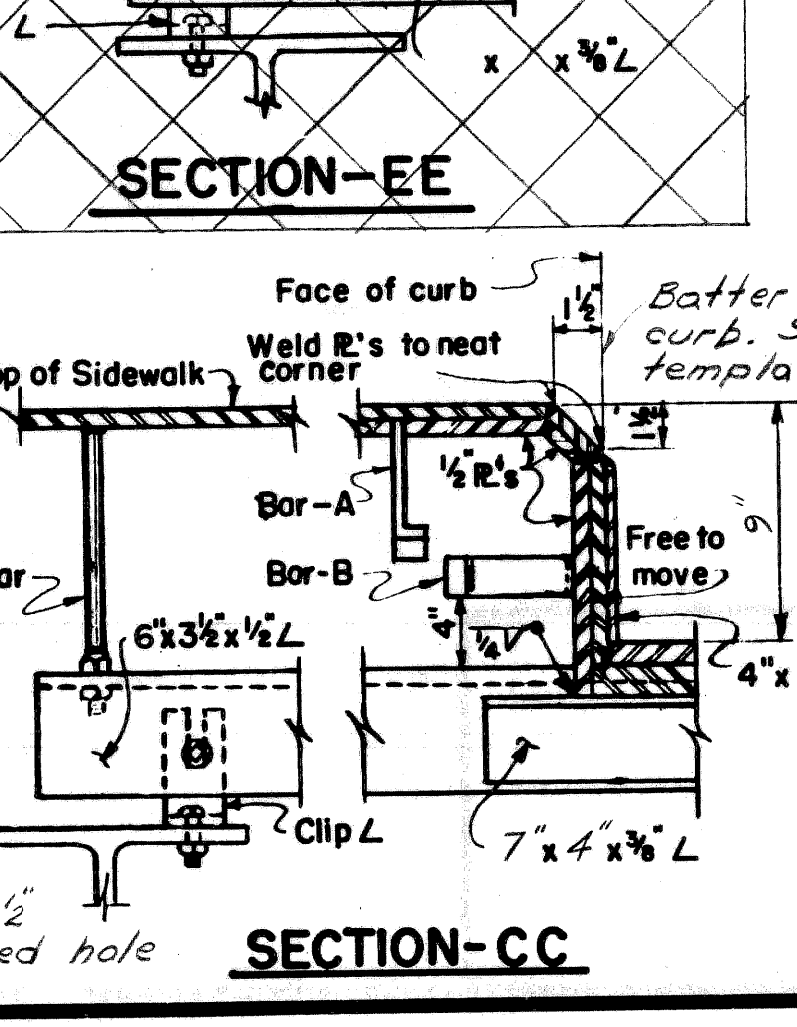
NOTES:
 The Metal Expansion Joint shall be bent in the shop to conform with the *four* of the top of roadway slab.
 Hot-Poured Rubber-Asphalt Type Filler is included in the Superstructure Quantities on sheet # 18.
 Weight of Metal Expansion Joint is included in the Structural Steel weight of sheet # 14.



Work this sheet with sheets # 14-23



CLIP L DETAIL



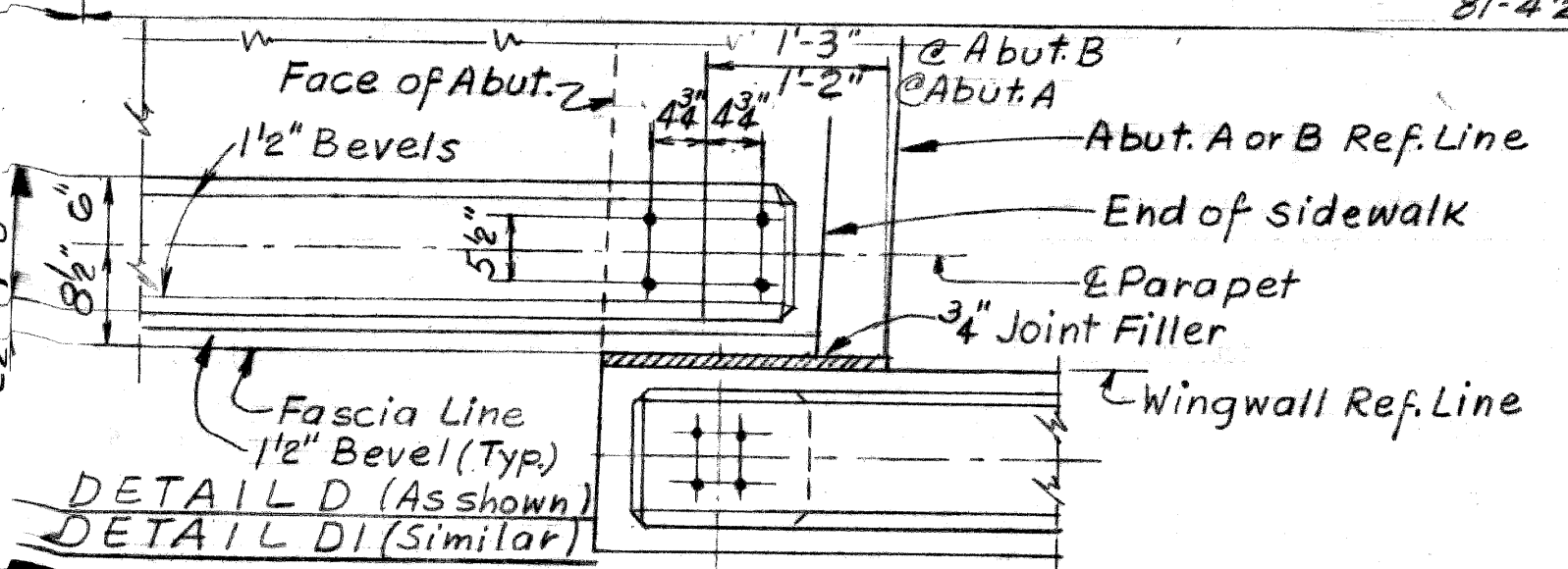
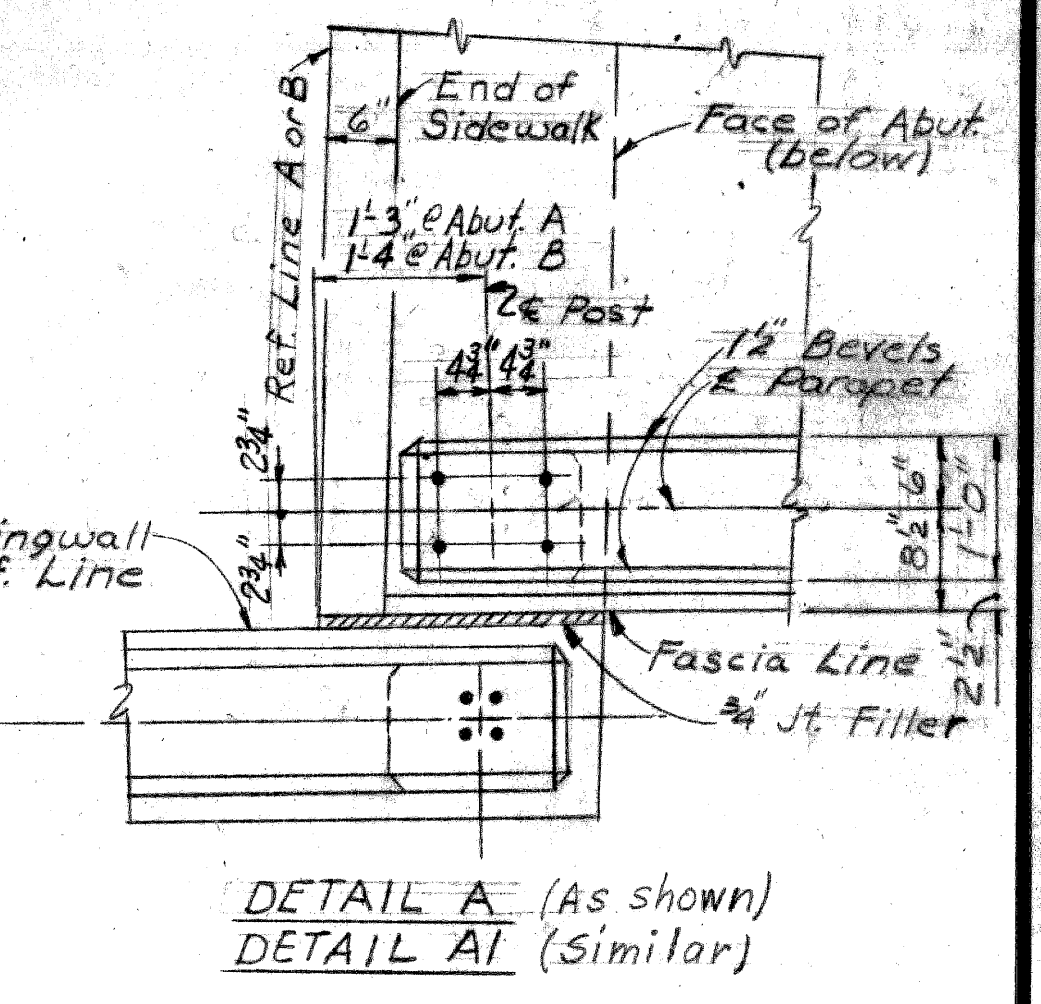
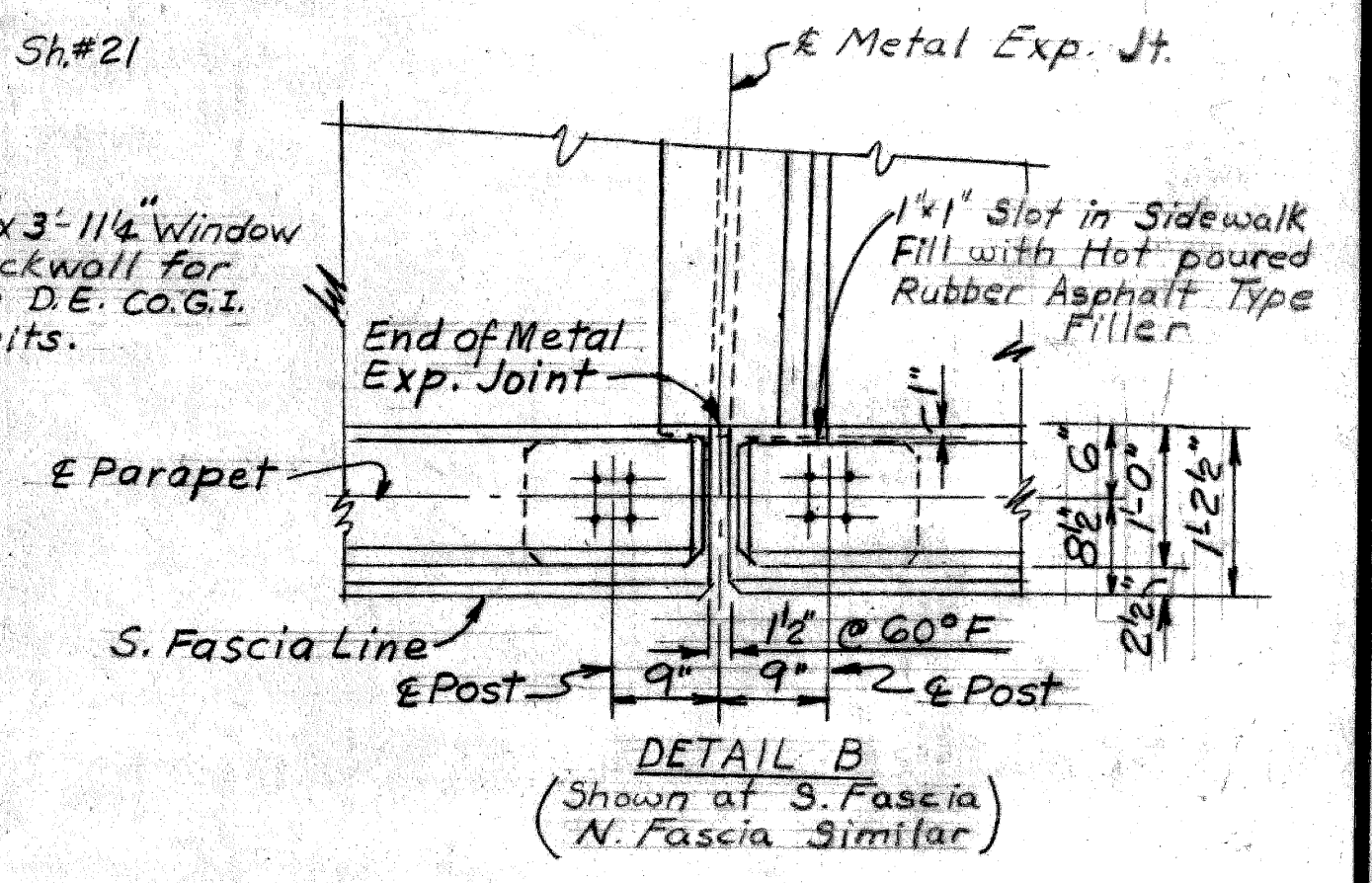
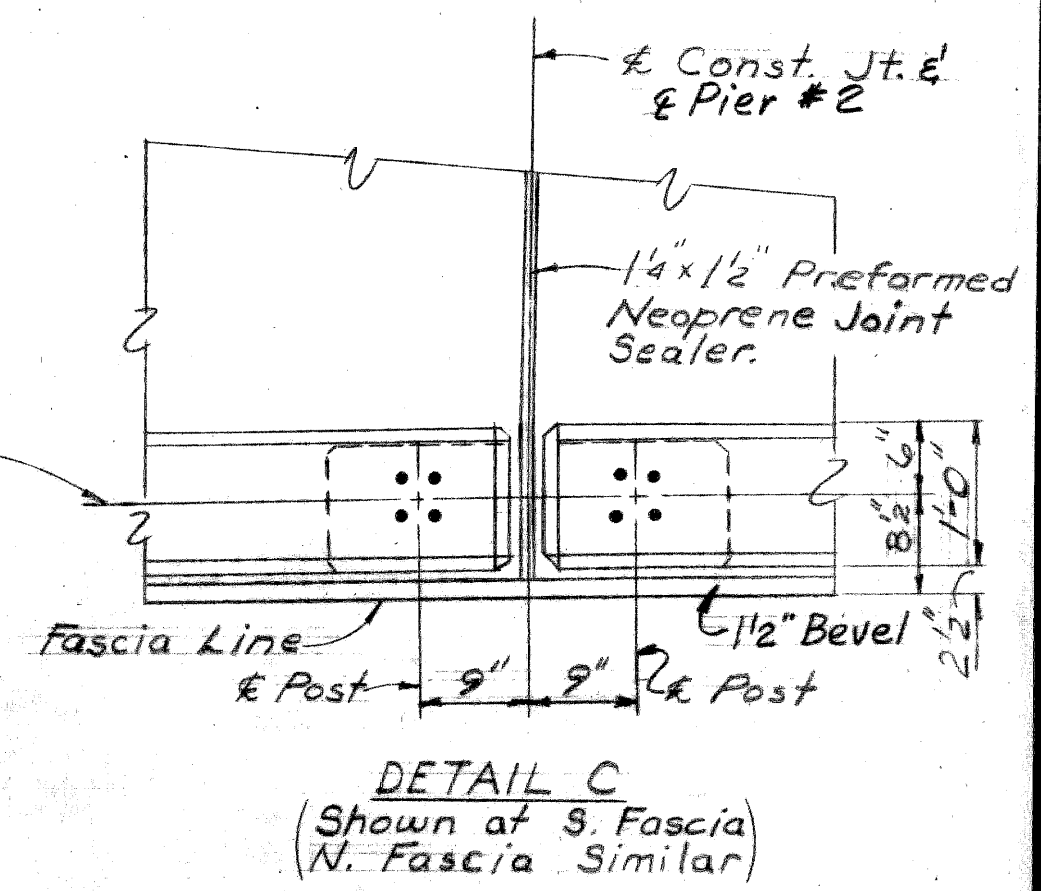
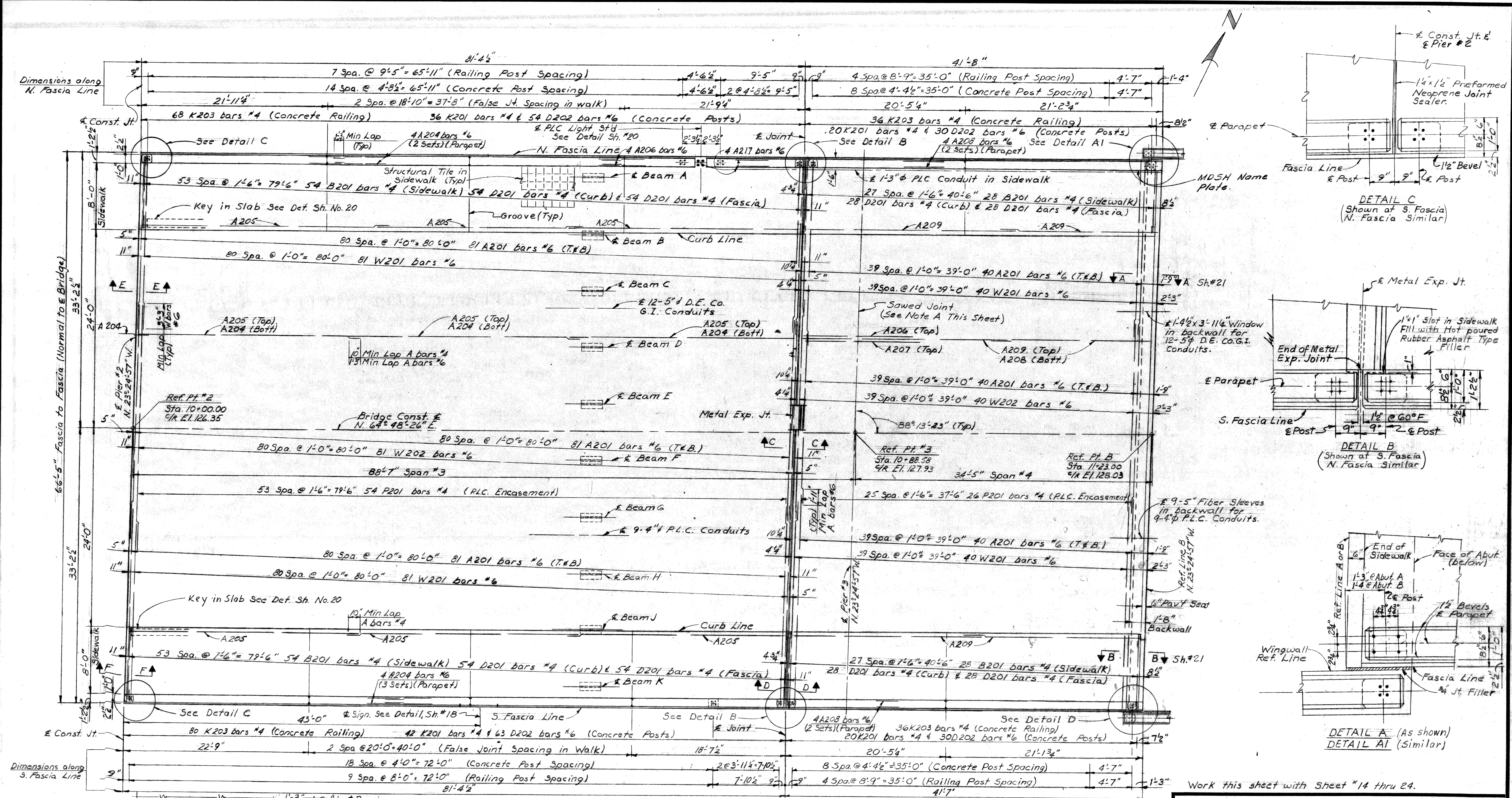
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 CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEER'S OFFICE
 BUREAU OF HIGHWAY AND EXISTING
 APPROVED: [Signature]
 PW 050(1)

MICHIGAN STATE HIGHWAY DEPARTMENT

BUCHANAN ST. CROSSING JEFFRIES FREEWAY
 IN DETROIT

METAL EXPANSION JOINT

NO.	DESCRIPTION	DATE	BY



DECK PLAN SPANS 3 & 4

Note A:
The contractor is to provide a sawed joint 1/2" deep by 1/8" wide (min) in the top of slab over and parallel to the centerline of piers #1 & #3. The joint is to be sawed before casting of sidewalks and is to be filled with Hot-poured Rubber Asphalt Type Filler (Incidental).

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

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STRUCTURAL ENGINEER

JOB No.
PW 990(1)

Work this sheet with Sheet #14 thru 24.

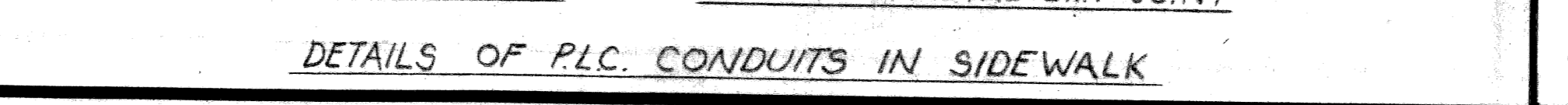
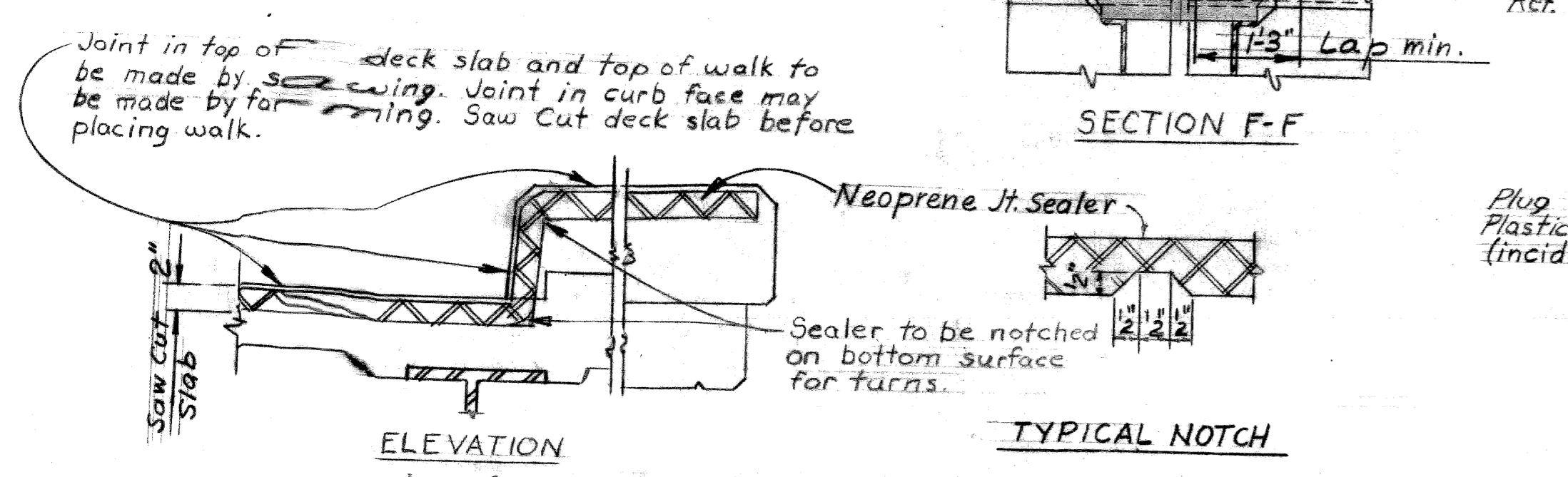
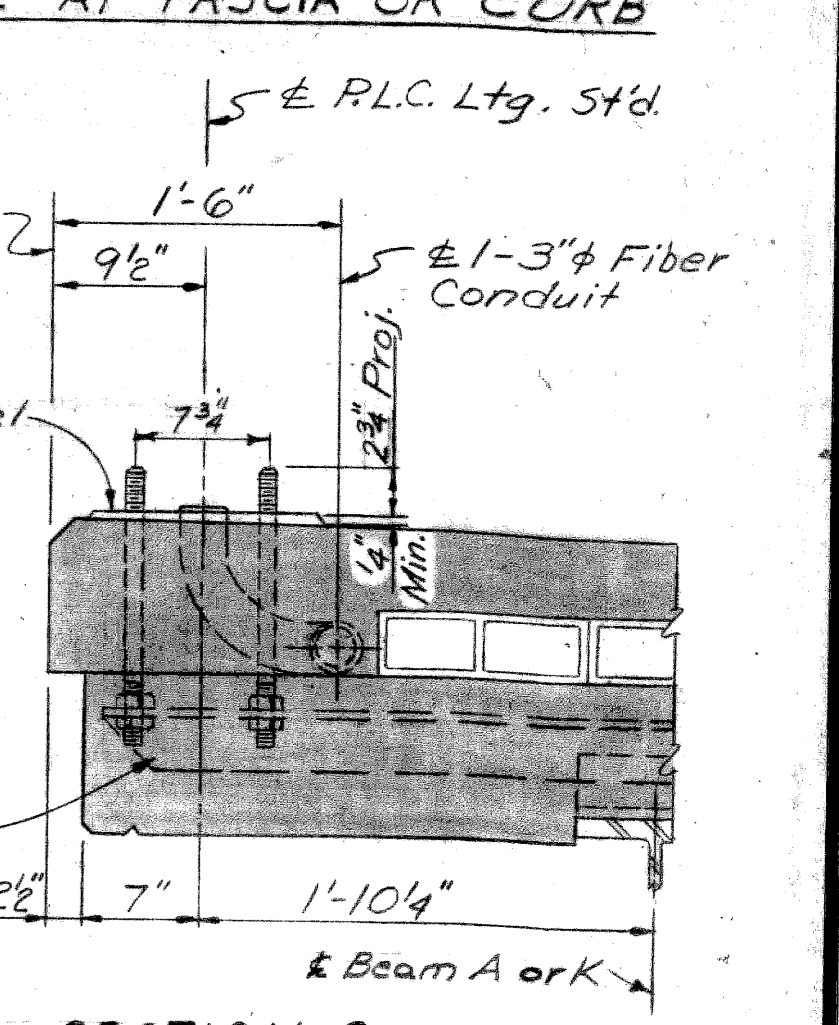
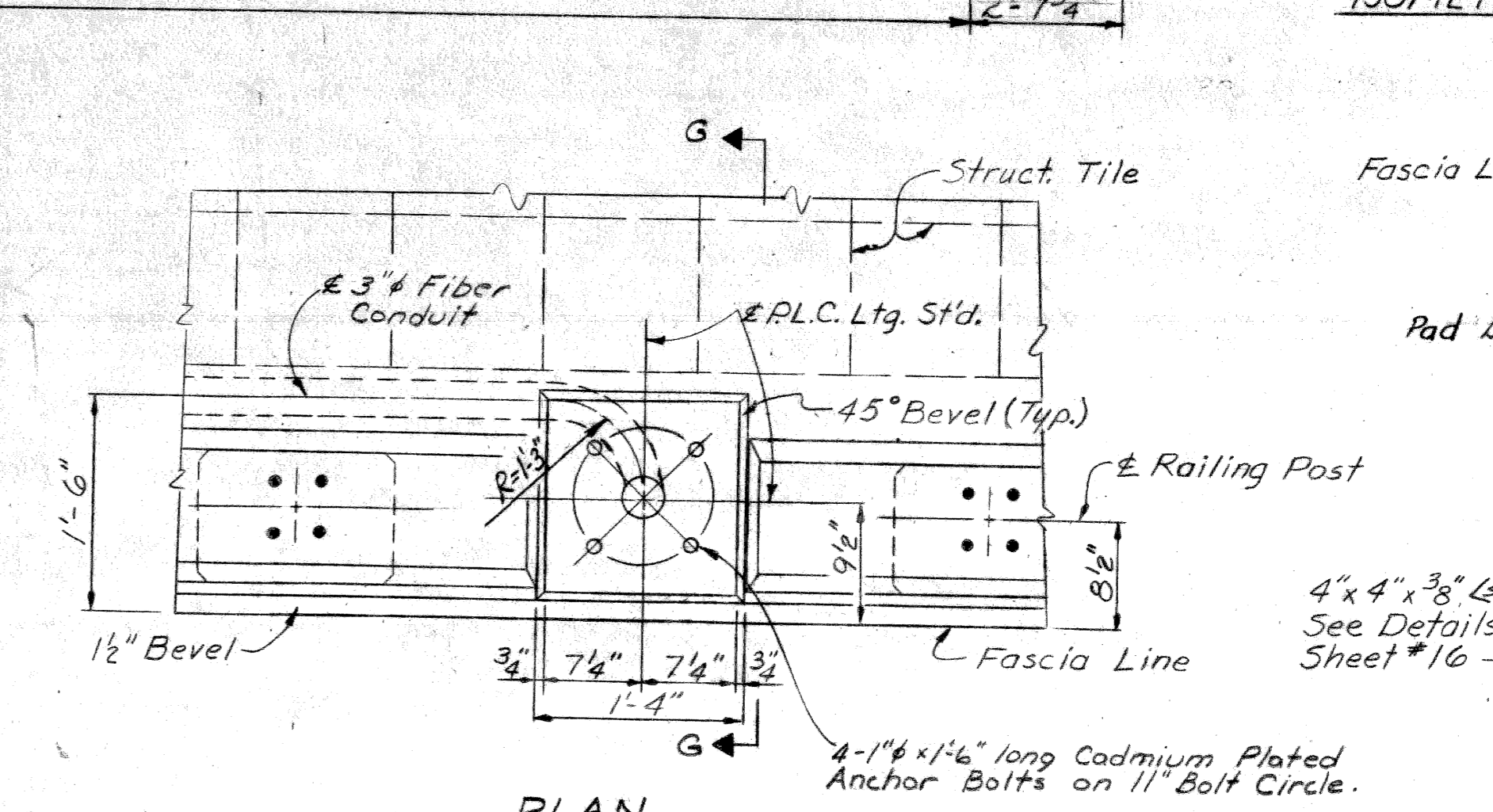
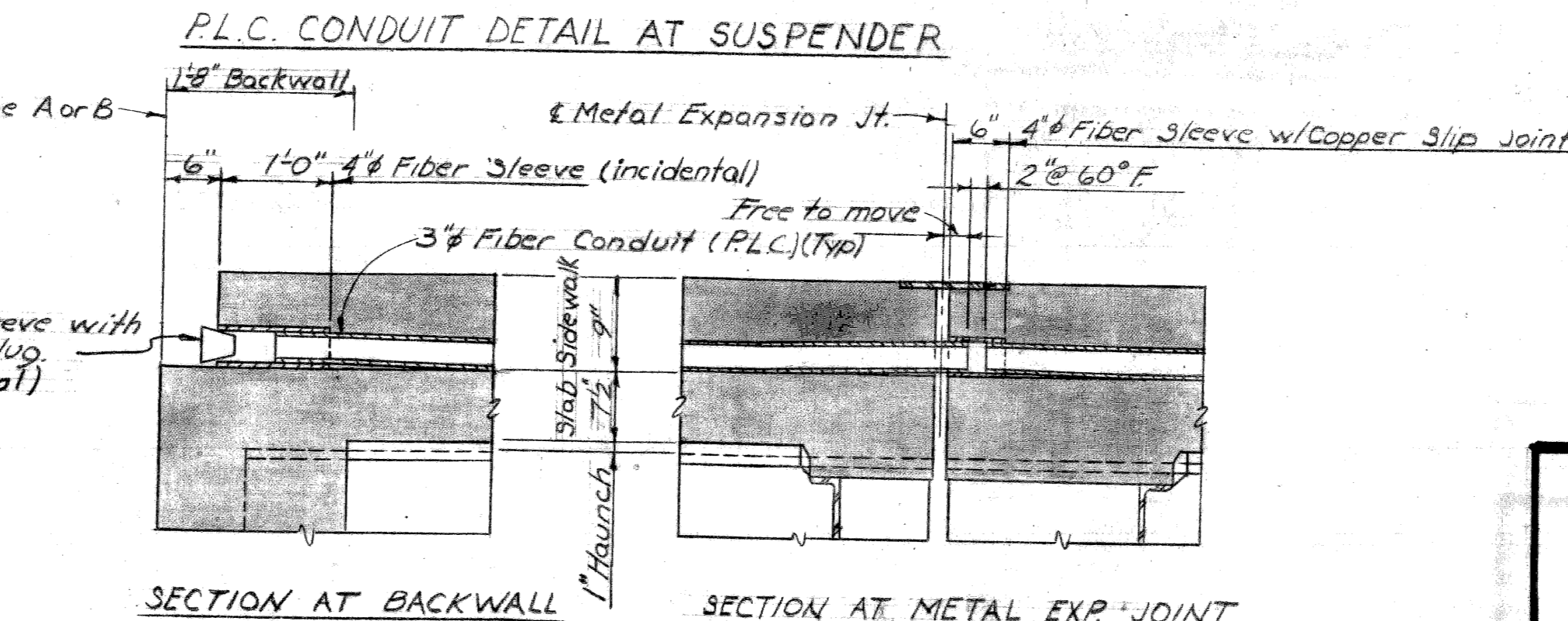
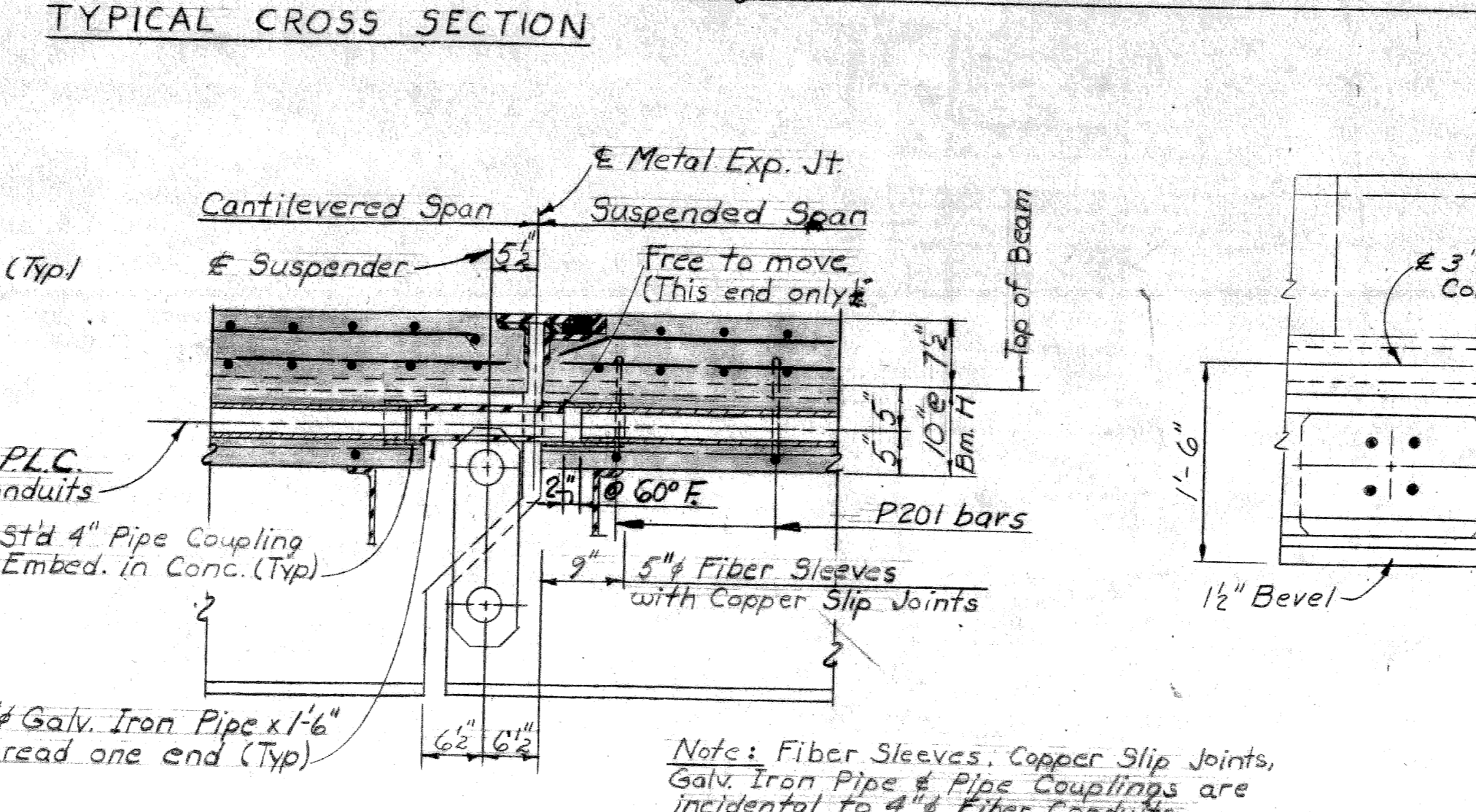
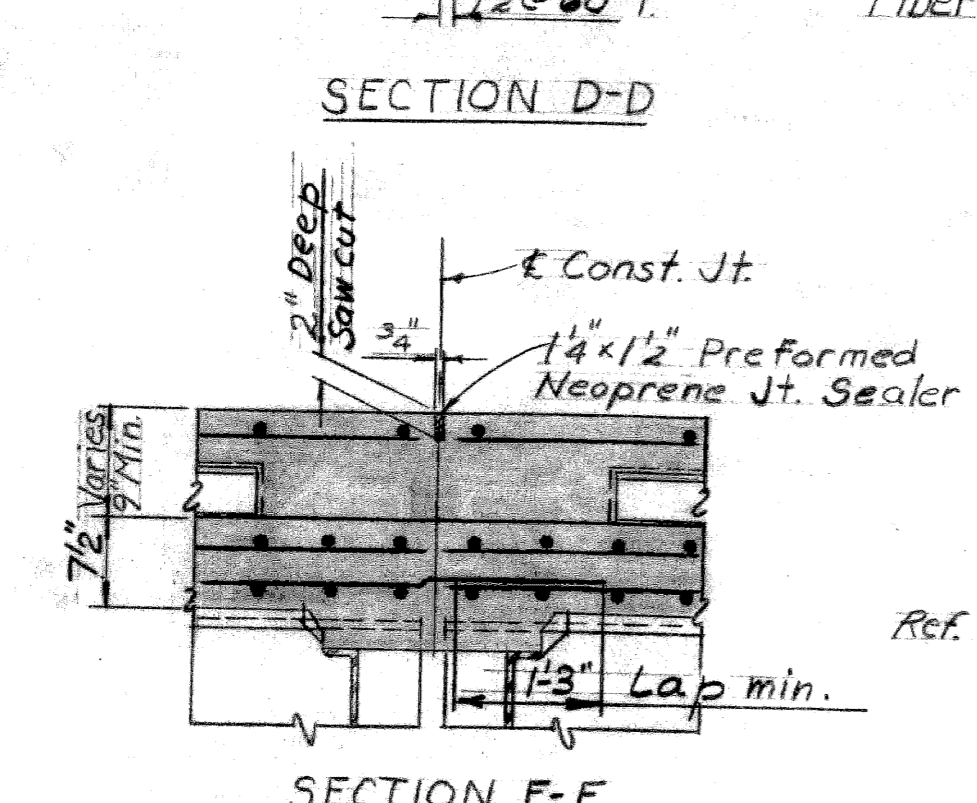
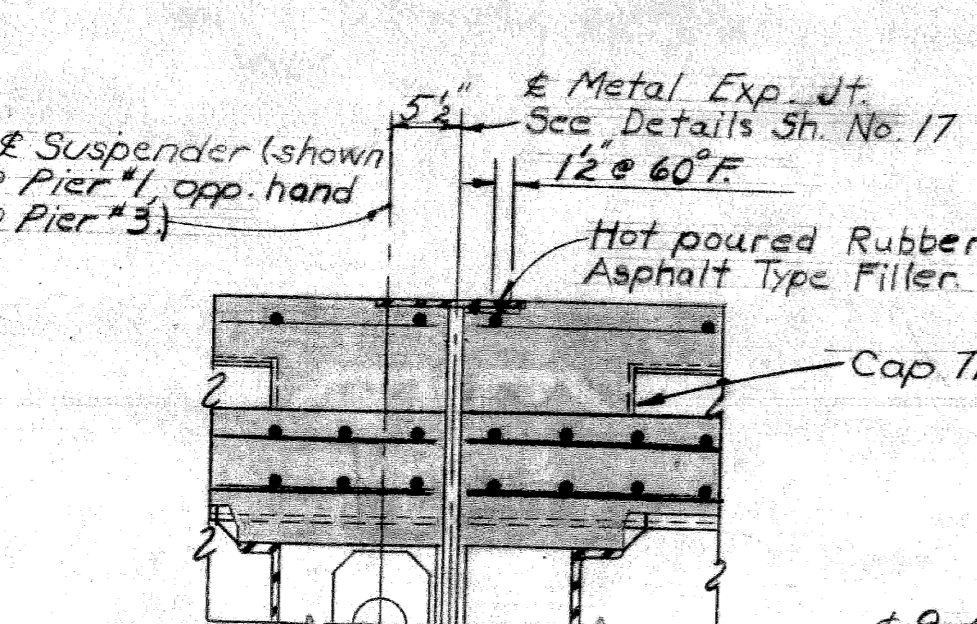
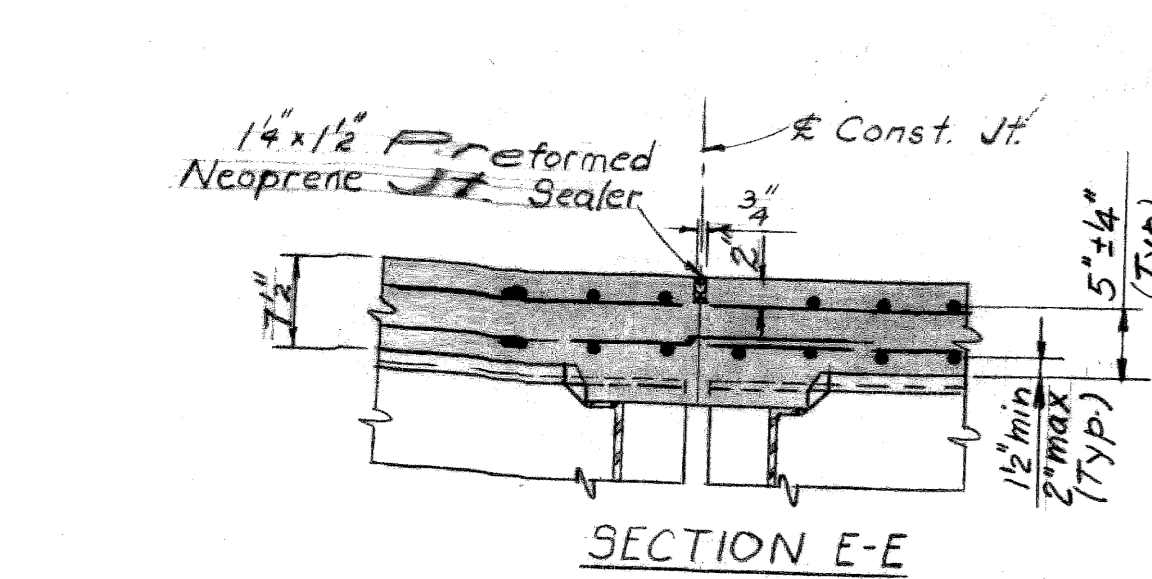
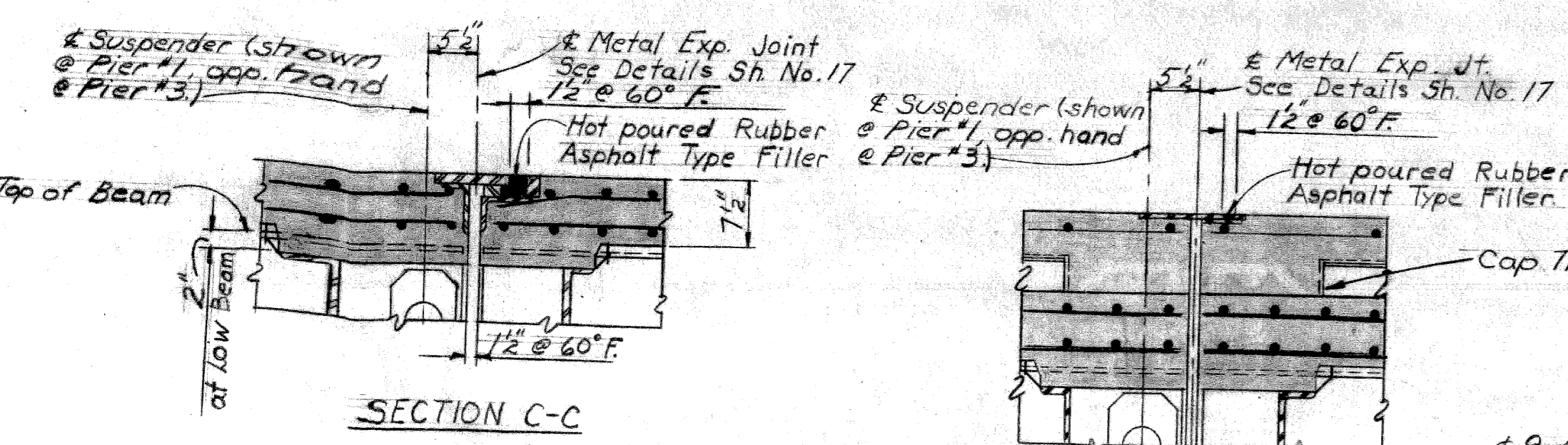
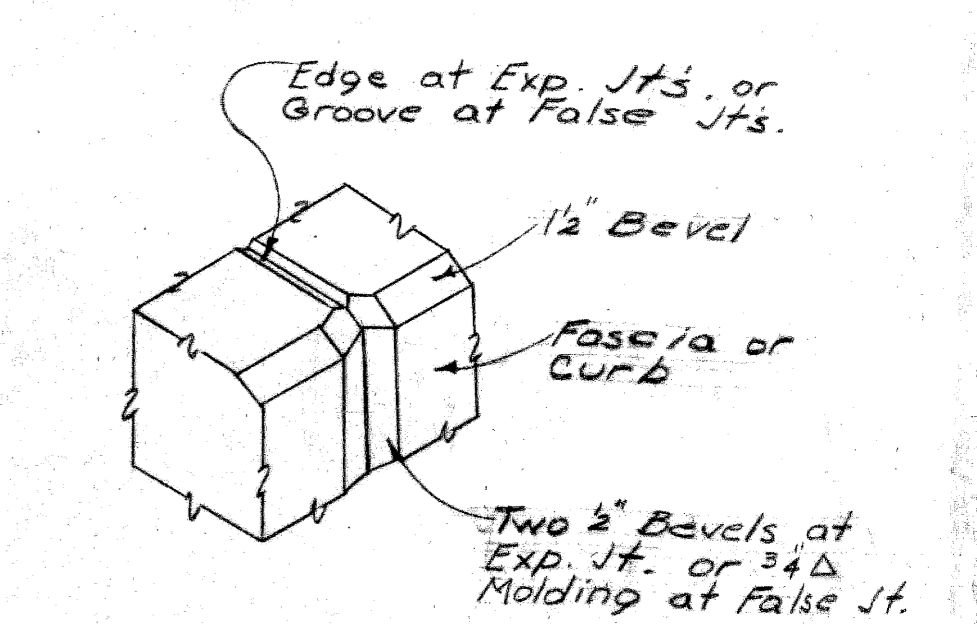
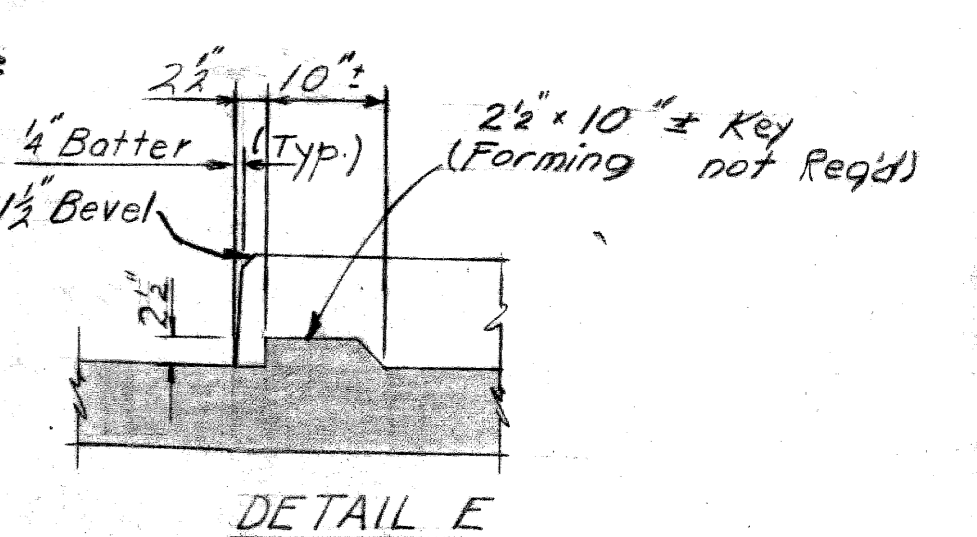
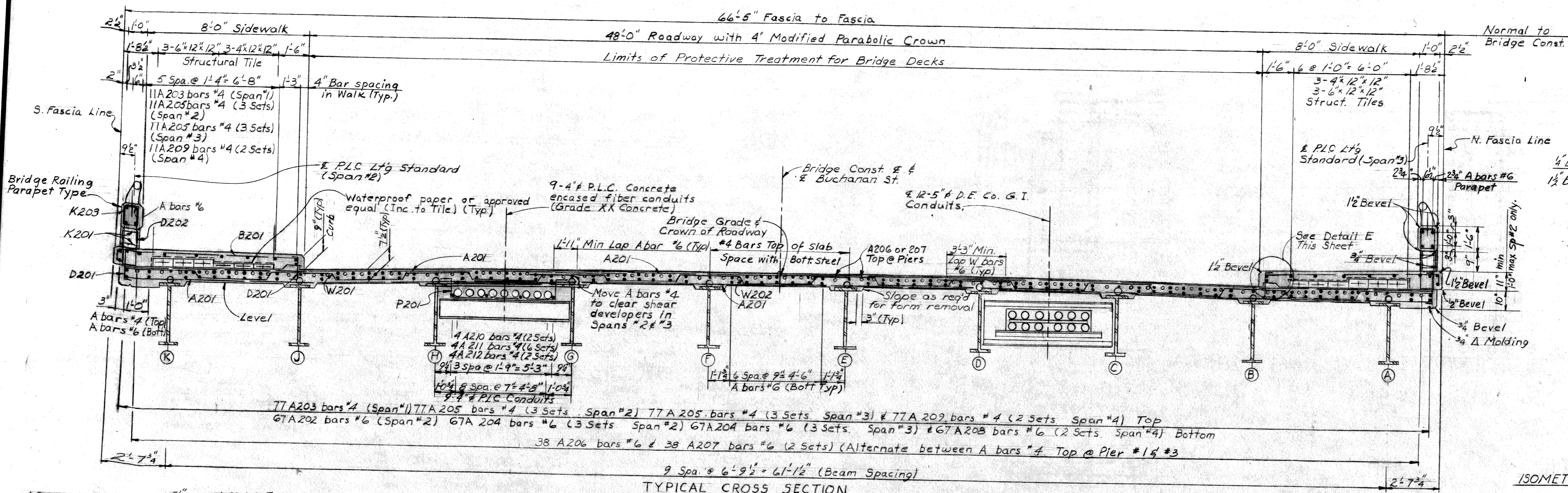
MICHIGAN DEPARTMENT OF STATE HIGHWAYS
BUCHANAN ST. CROSSING JEFFRIES FREEWAY
IN DETROIT

SUPERSTRUCTURE DETAILS

REVISIONS		DATE	BY
NO.	DESCRIPTION		

CITY OF DETROIT
SQUAD BOSS: A. Freiberg 4-67
DRAWN BY: D.V.R. 7-66
TRACED BY: A.G. 7-66
CHECKED BY: C.K.A. 4-67
SHEET 19 OF 24

502 of 82124A



Work this sheet with sheet nos. 14 thru. 24.

MICHIGAN DEPARTMENT OF STATE HIGHWAYS
 BUCHANAN ST. CROSSING JEFFRIES FREEWAY
 IN DETROIT
SUPERSTRUCTURE DETAILS

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

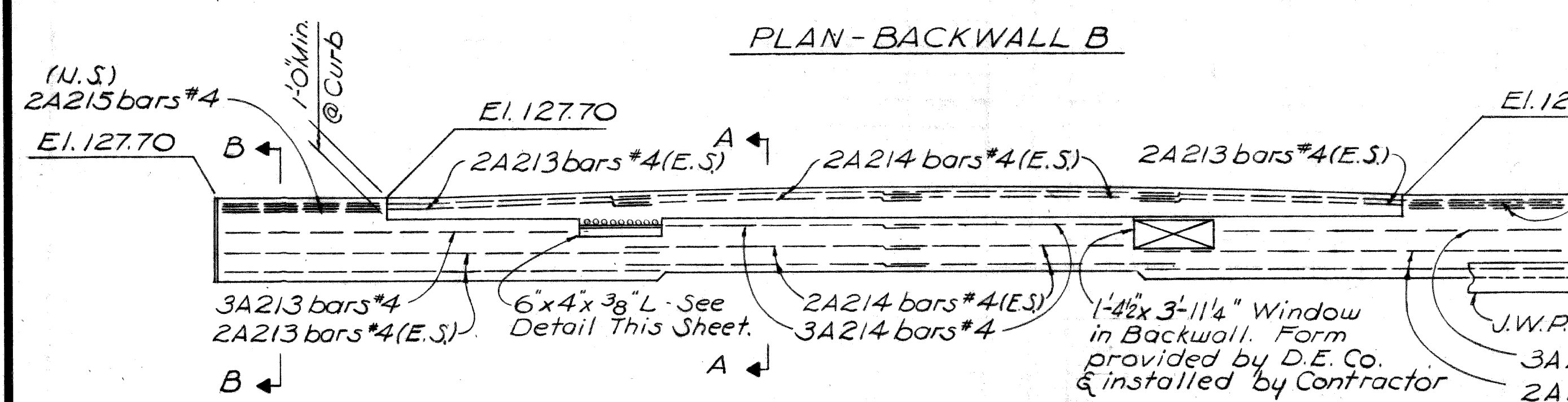
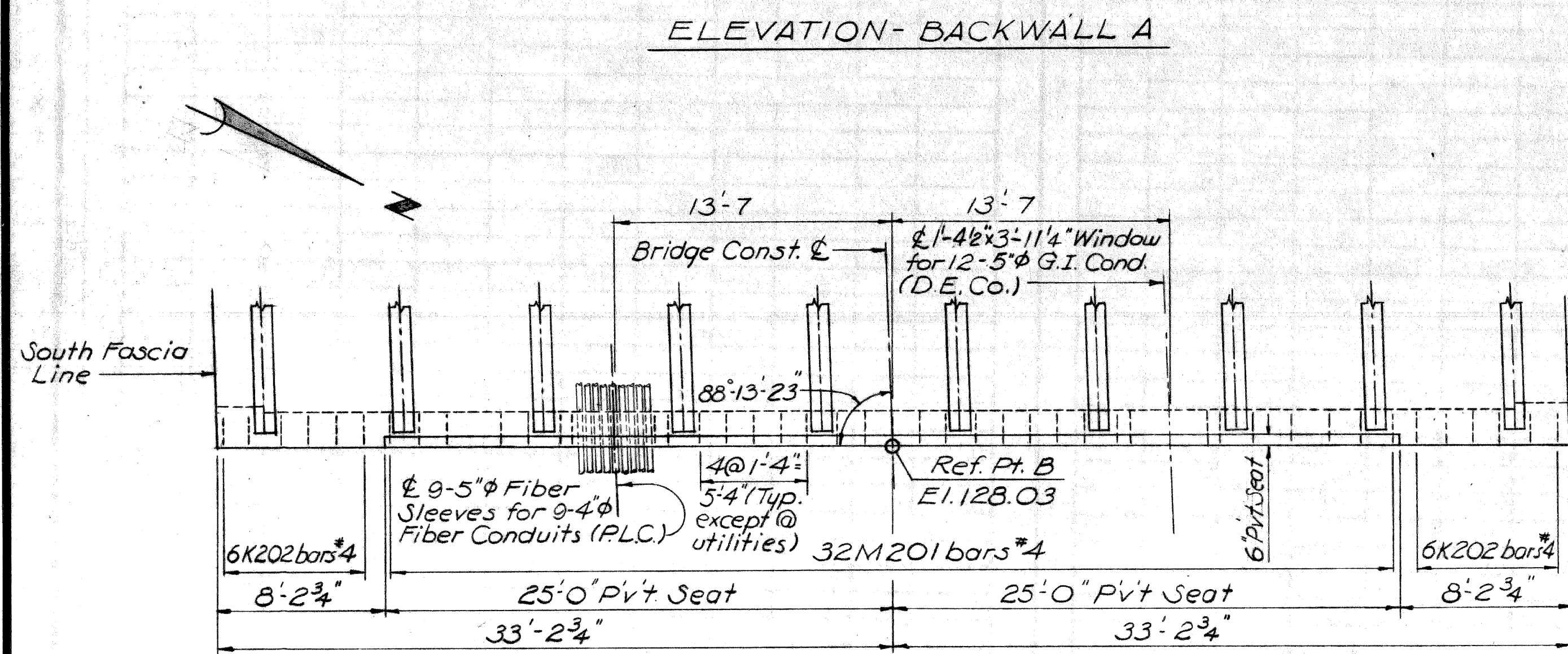
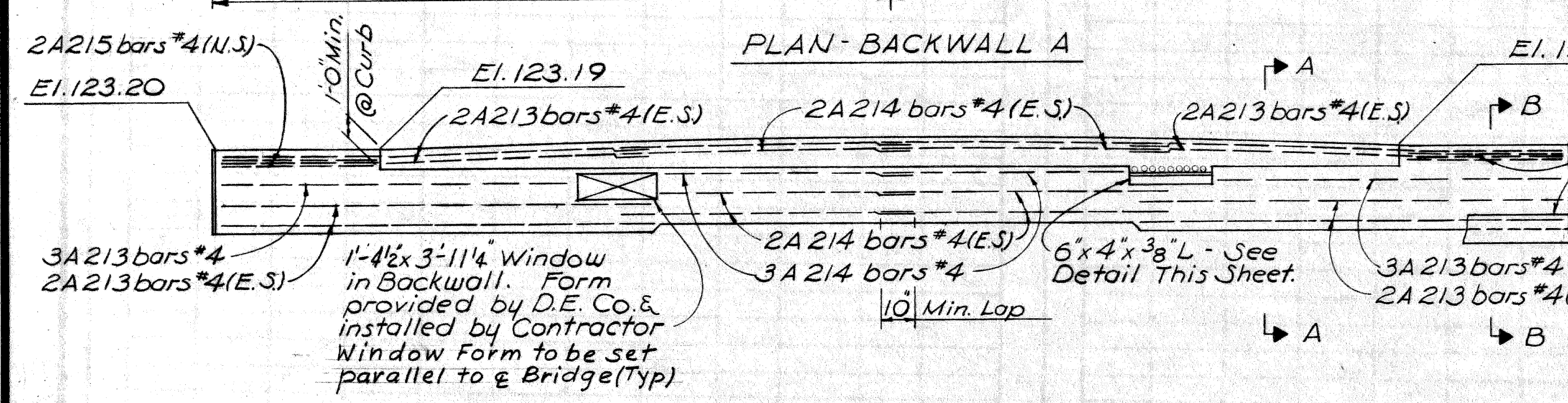
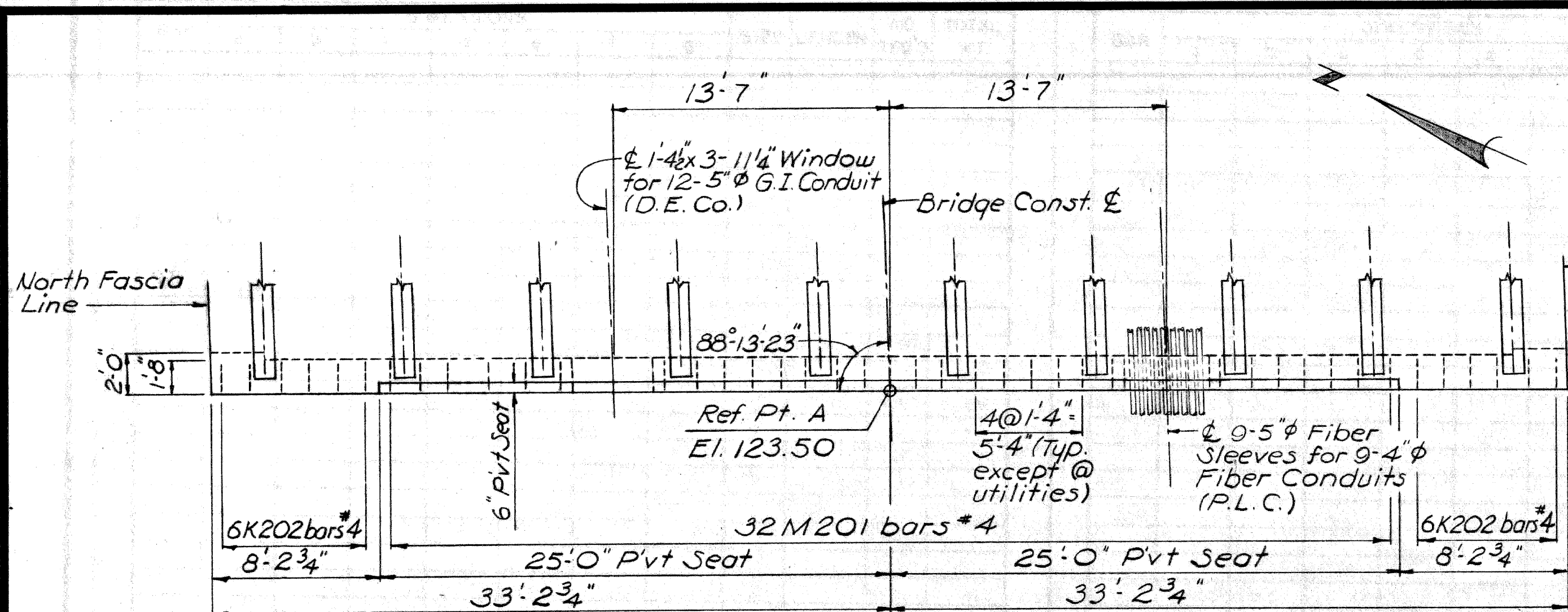
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 STRUCTURAL ENGINEER

JOB No.
 PW 990(1)

REVISIONS			
NO.	DESCRIPTION	DATE	BY

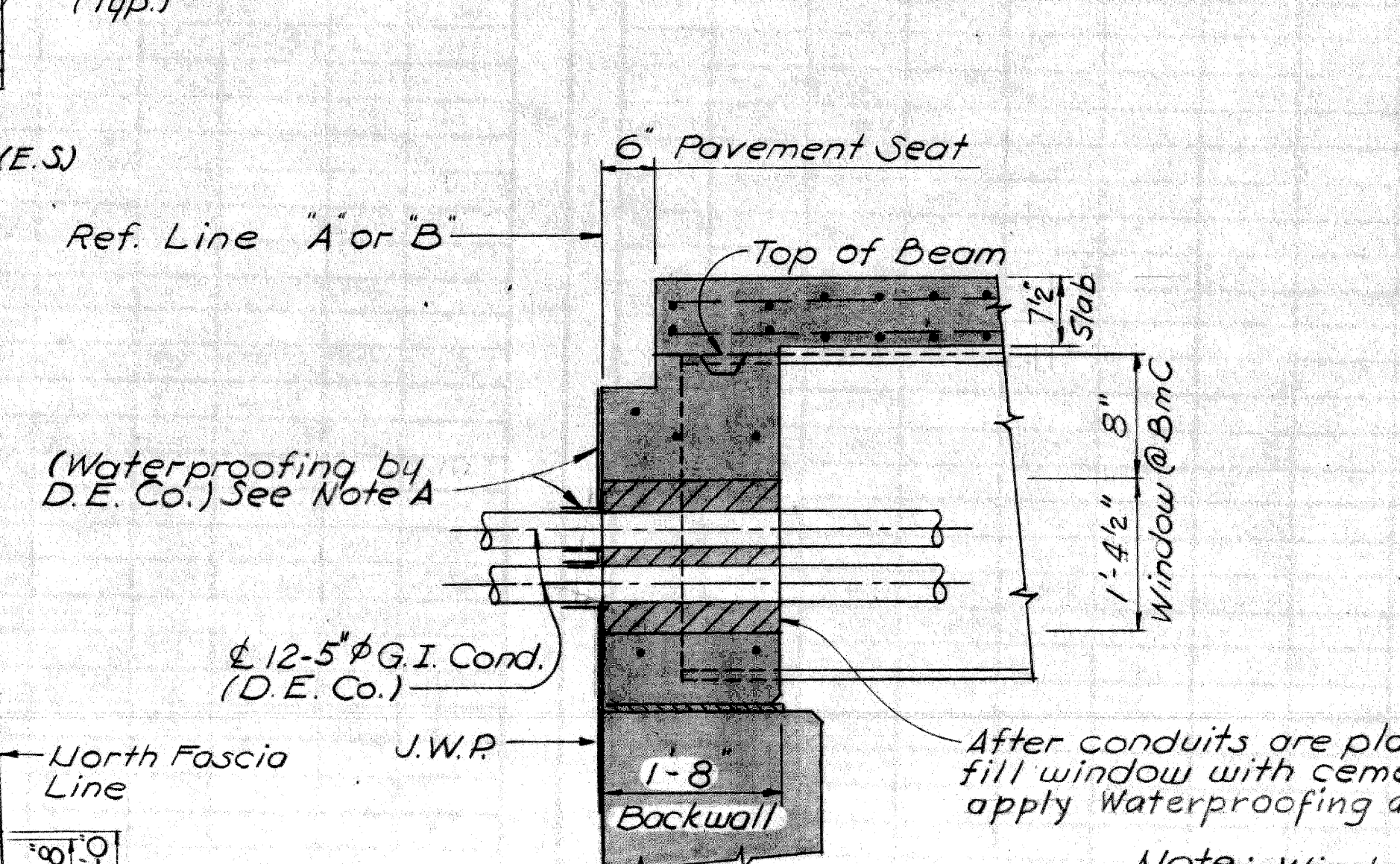
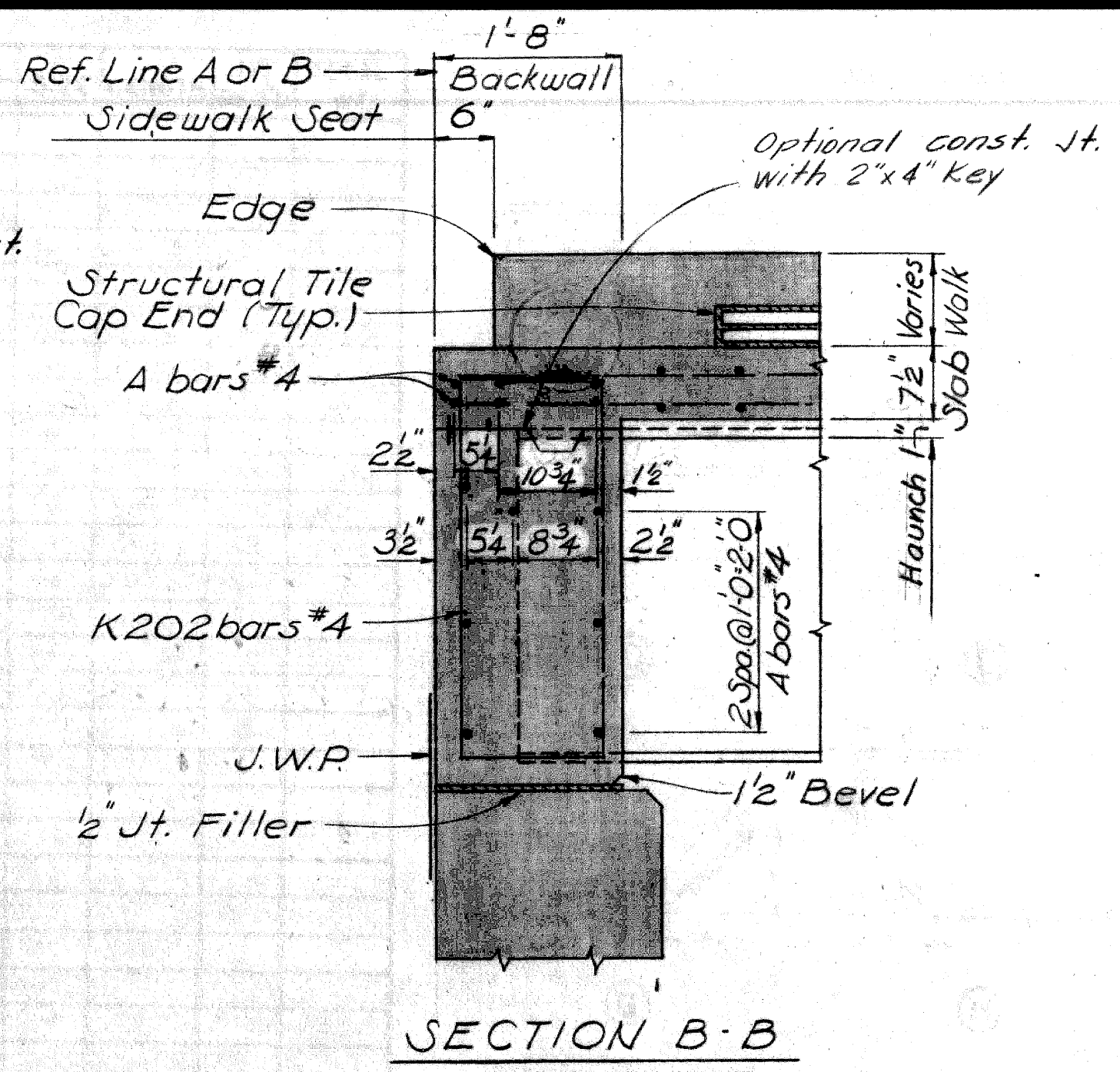
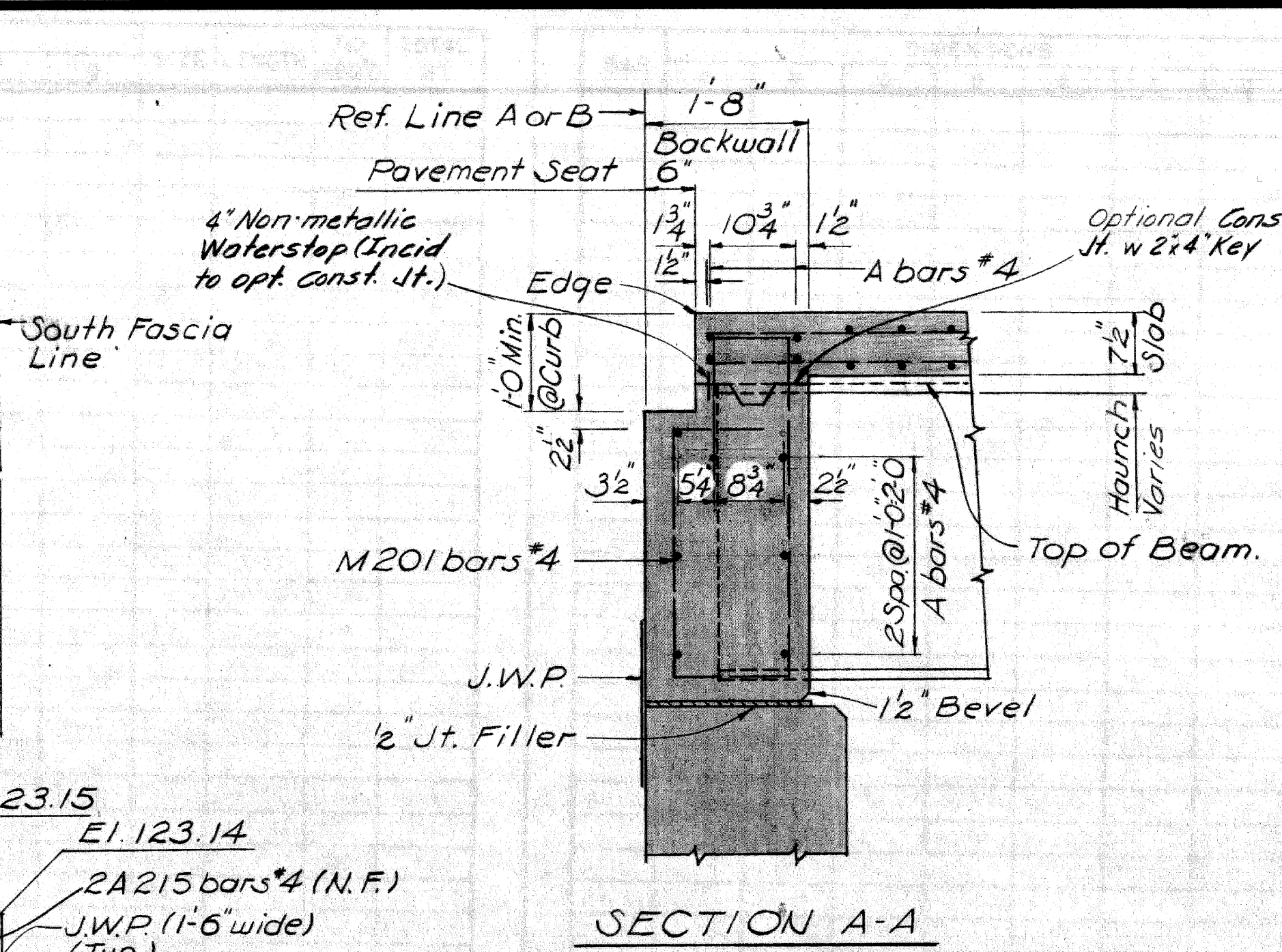
CITY OF DETROIT
 SQUAD BOSS: *[Signature]* 4-67
 DRAWN BY: *[Signature]* 2-66
 CHECKED BY: *[Signature]* 4-67
 SHEET 20 OF 24

S02 of 82124A

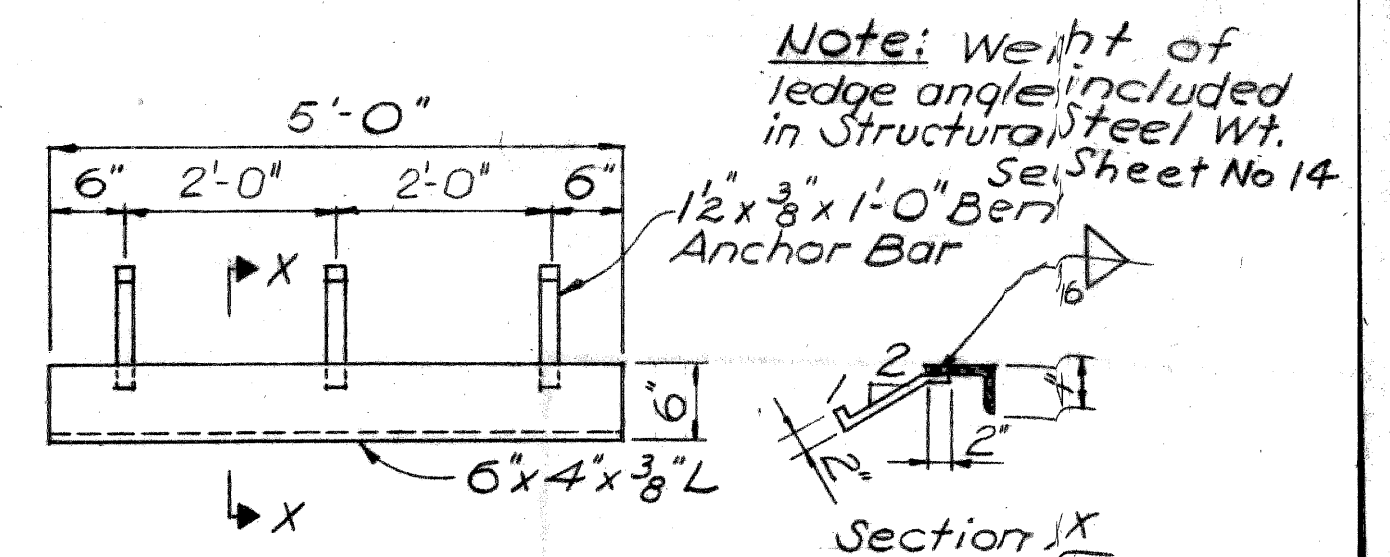
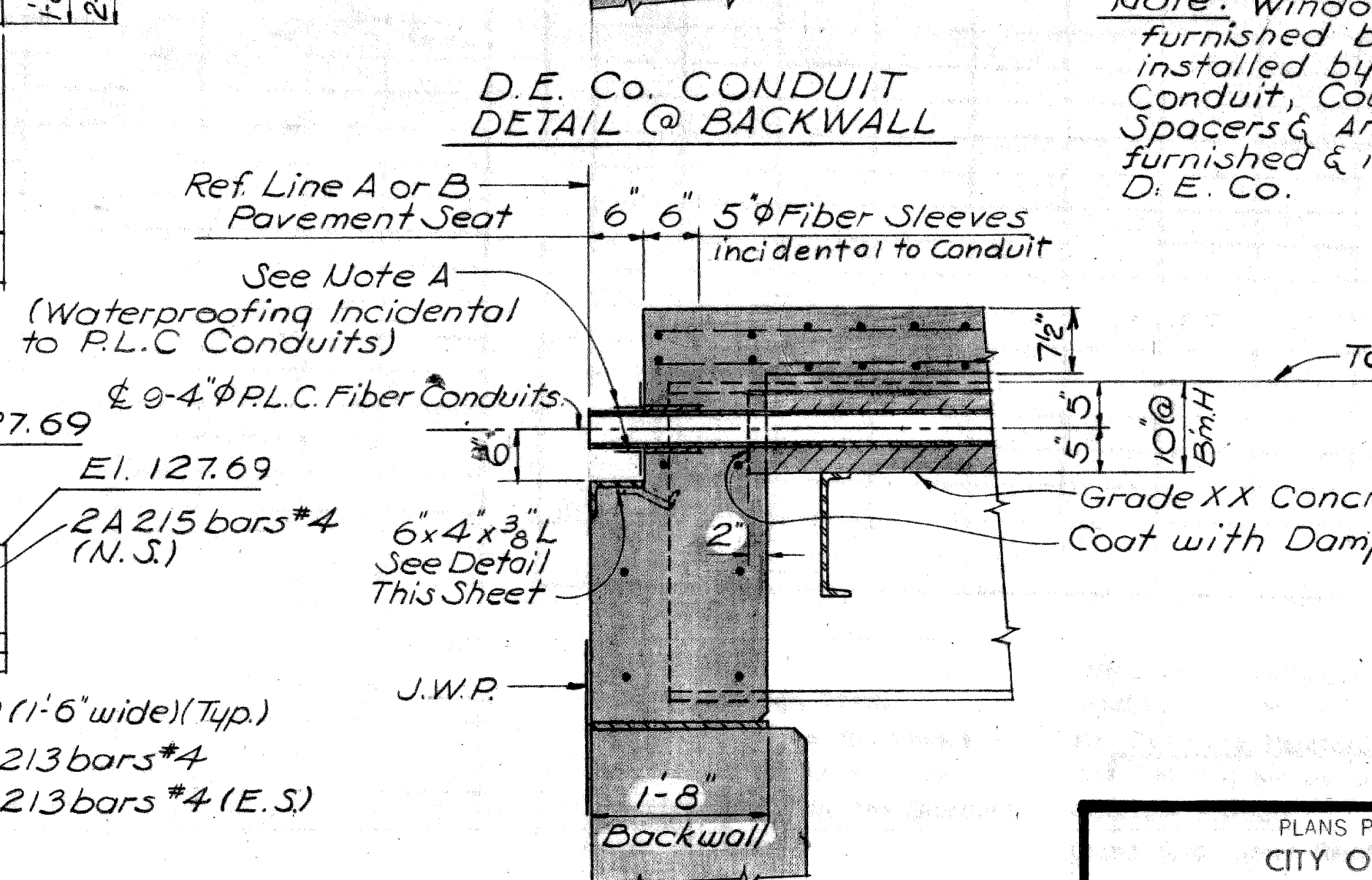


Note: Field bend or Cut A bars #4 @ utilities where required.

Note A
Waterproof with four moppings of Asphalt Roofing Cement containing not more than 2.5% by weight of short fiber asbestos.



Note: Window Form to be furnished by D.E. Co. & installed by Bridge Contractor. Conduit, Couplings, Bolts, Spacers & Angles to be furnished & installed by the D.E. Co.



MICHIGAN STATE HIGHWAY DEPARTMENT
BUCHANAN ST. CROSSING JEFFRIES FREEWAY
IN DETROIT

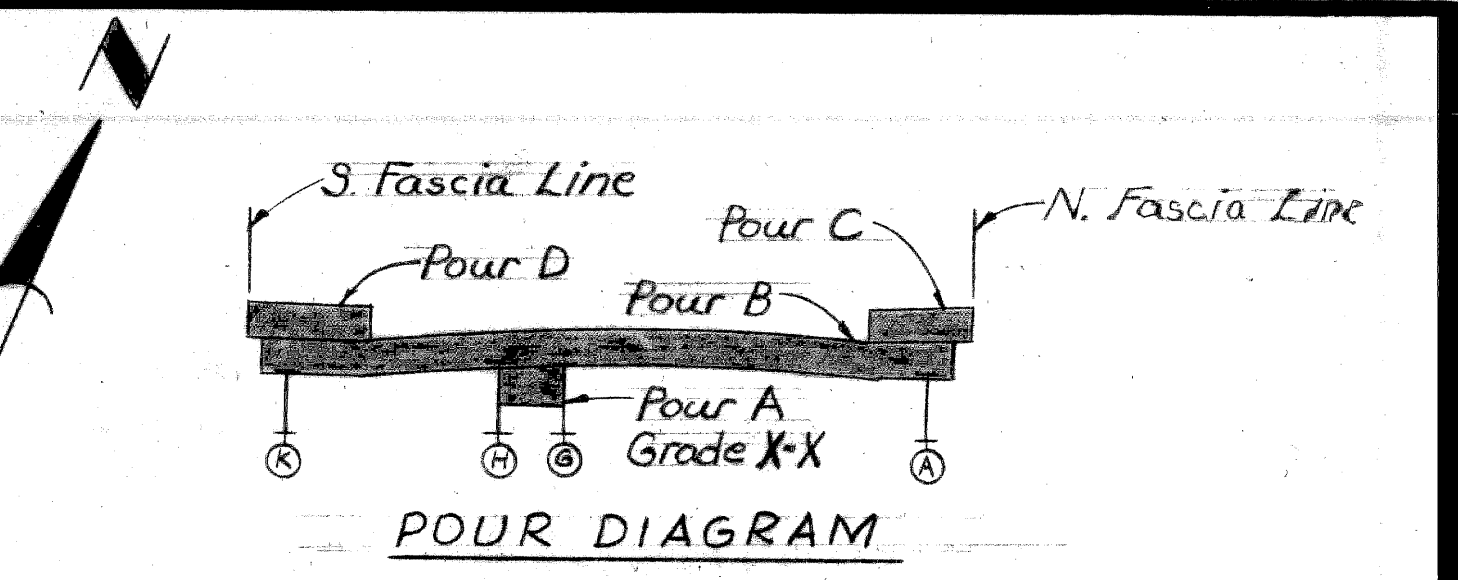
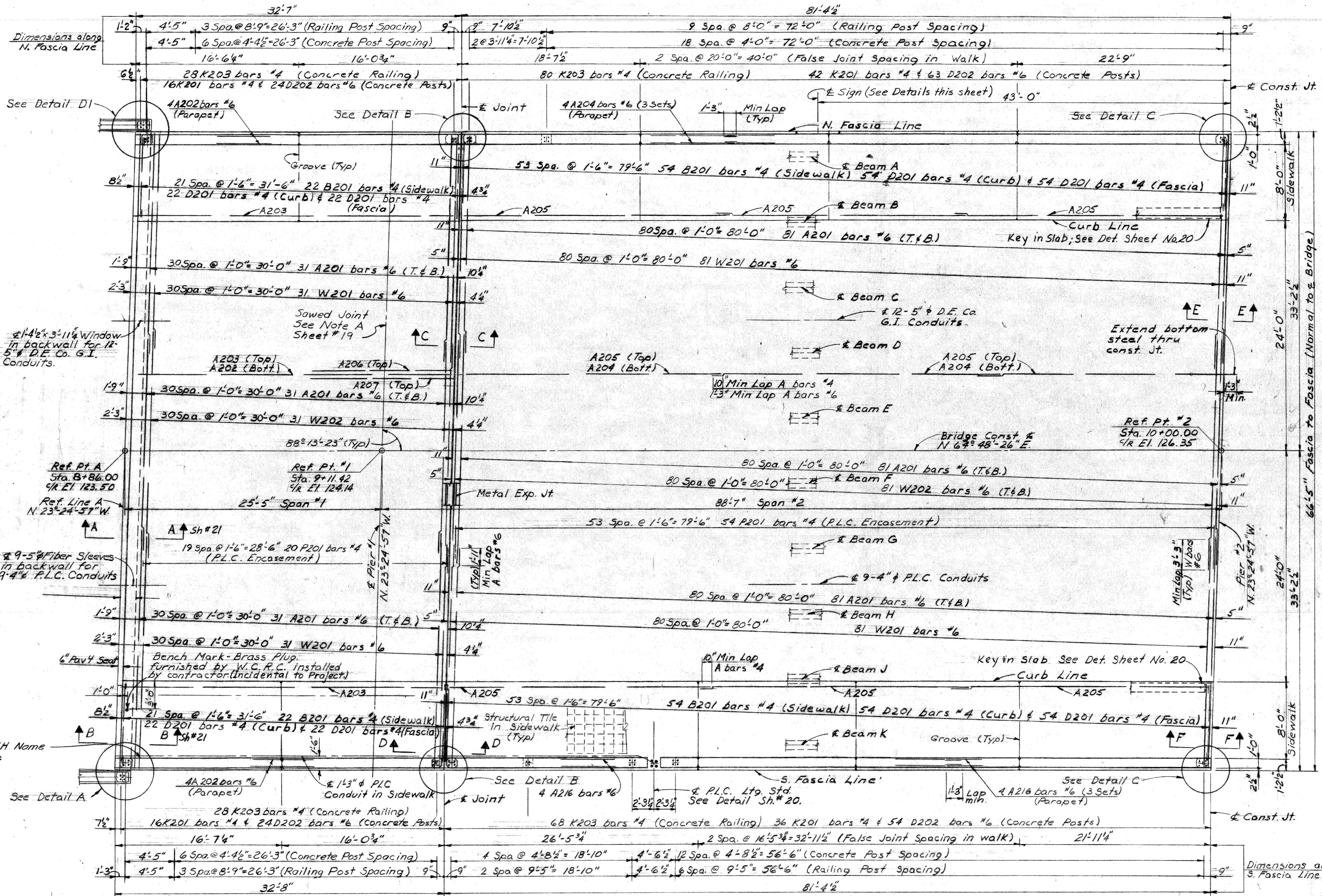
PLANS PREPARED BY
CITY OF DETROIT
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BUREAU OF HIGHWAYS AND EXPRESSWAYS

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STRUCTURAL ENGINEER

SUPERSTRUCTURE DETAILS			
REVISIONS			
NO.	DESCRIPTION	DATE	BY

JOB No. PW 990(1)

CITY OF DETROIT
DRAWN BY: Freiberg 4/67
TRACED BY: Roberts 7/66
CHECKED BY: Freiberg 4/67
S.M. 21 of 24



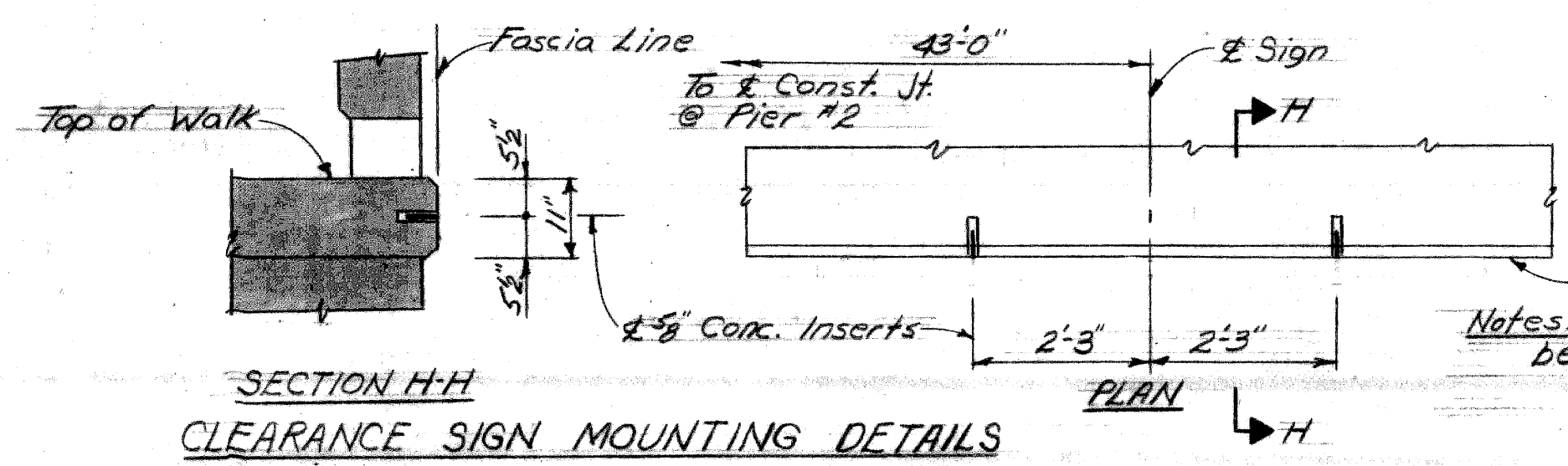
Pour	Location	Grade	Span #1	Span #2	Span #3	Span #4
A	PLC Encasement	X-X	5.8	14.8	14.8	7.7
B	Deck Slab	A(6AA)	68.0	130.6	130.6	82.7
C	Sidewalk	A(6AA)	6.4	15.0	15.0	8.1
D	Sidewalk	A(6AA)	6.4	15.0	15.0	8.1
Total Grade X-X Concrete - Superstructure =			42.8 Cu Yds			
Total Grade A(6AA) Concrete - Superstructure =			300.8 Cu Yds			

Parapet Concrete = 26.7 Cu Yds. Grade A6AA. Incidental to Bridge Railing-Parapet Type and not a pay item.
 Alphabetical designation of pours is not to be construed as a pour sequence.
 Sidewalk pours shall not be cast until slab concrete has attained at least 50% of its design strength as determined by section 5.01.05 of the Standard Specifications.
 Longitudinal strike-off finishing machine is to be used in placing deck concrete.
 Backwall concrete is included in Pour B.

ITEM	Amount	Unit
Water Reducing Retarding Admixture	59	Gal.
Structural Tile - 4'x12'x12"	1370	Ea.
Structural Tile - 6'x12'x12"	1370	Ea.
Hot Poured Rubber Asphalt-type Filler	132	L.Ft.
1/4" x 1/2" Preformed Neoprene Joint Sealer	68	L.Ft.
Joint Waterproofing	200	S.Ft.
Bridge Railing-Parapet Type	467.1	L.Ft.
3" Fiber Conduit	107	L.Ft.
4" Fiber Conduit	1416	L.Ft.
Protective Treatment for Bridge Decks	11,376	Sq.Ft.

GENERAL NOTES:
 Bridge Railing is to be either aluminum or steel tubular railing on concrete parapet.
 For details of bevels, moldings and Bridge Railing, see Standard Sheet DR11 or DR12.
 Edge or groove denote edging or grooving with an approved tool.
 A permanent camber extending over span #2 with a middle ordinate of 1", shall be placed in the tops of sidewalks.
 J.W.P. denotes Joint Waterproofing.
 N.S., F.S., and B.S. denote Near Side, Far Side and Both Sides, respectively.
 P.L.C. denotes Public Lighting Commission.
 D.E. Co. denotes Detroit Edison Company.
 For name plate mounting details see Std. Sh. DR11 & DR12. For location of name plates see sheets No. 4, 18 & 19.
 Protective Treatment for Bridge Decks is to be applied to entire deck surface between curbs. (See Supplemental Specifications)

Work this sheet with Sheet #14 thru 24.



DECK PLAN SPANS 1 & 2

Note: For Details A1B, C, #D1 See Sheet No. 19.

Notes: Inserts are to be 5/8 Truscon threaded inserts or approved equal and are to be provided with a suitable setting plug. Furnishing & Placing Concrete Inserts is incidental to Superstructure Concrete. Clearance Signs and Mounting Brackets are to be furnished and installed by others.

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 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED: [Signature] STRUCTURAL ENGINEER

JOB No. PW 990(1)

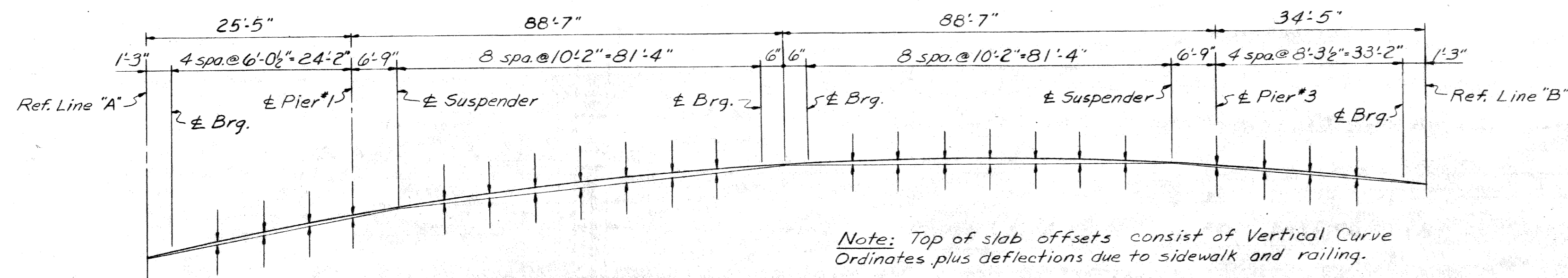
MICHIGAN DEPARTMENT OF STATE HIGHWAYS
 BUCHANAN ST. CROSSING JEFFRIES FREEWAY
 IN DETROIT

SUPERSTRUCTURE DETAILS

NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT
 DRAWN BY: A. Freilberg 4-67
 CHECKED BY: A.J.G. 7-66
 SHEET 18 OF 24

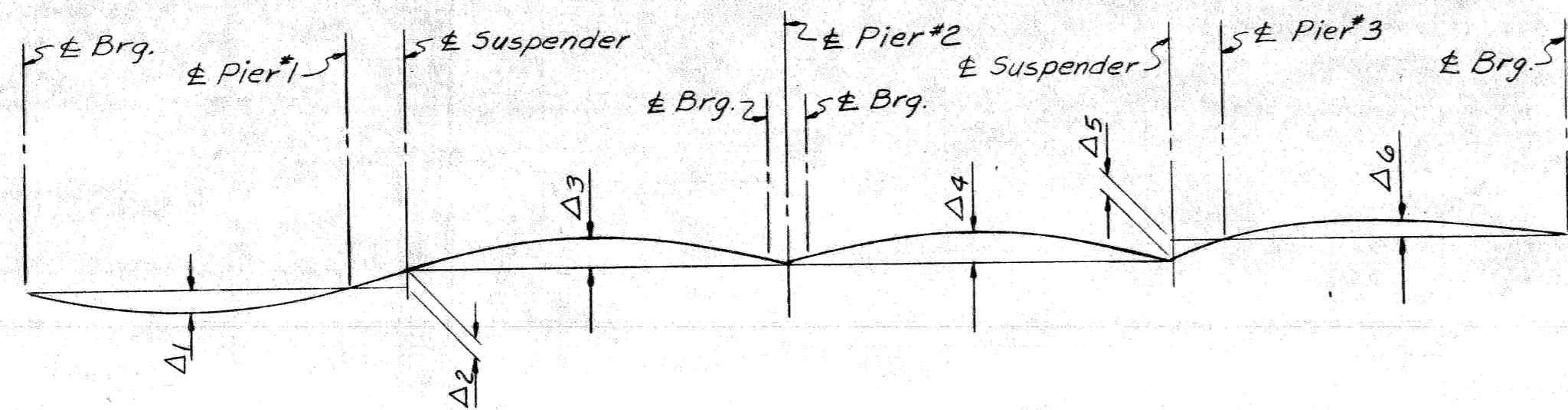
502 of 82124A



Note: Top of slab offsets consist of Vertical Curve Ordinates plus deflections due to sidewalk and railing.

TOP OF SLAB OFFSETS

Beam	R.L.A	1/4	1/2	3/4	1.0	1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0	3.25	3.5	3.75	4.0	4.25	4.5	4.75	5.0	5.25	5.5	5.75	6.0	6.25	6.5	6.75	7.0	7.25	7.5	7.75	8.0	8.25	8.5	8.75	9.0	R.L.B	
A#K	.00	.00	.00	.00	.00	.04	.08	.10	.11	.10	.08	.04	.00	.11	.21	.27	.30	.28	.23	.13	.00	.04	.06	.05	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
B#J	.00	.00	.00	.00	.00	.02	.03	.04	.05	.04	.03	.02	.00	.08	.16	.21	.24	.22	.18	.11	.00	.03	.05	.05	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C#H	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.13	.17	.19	.18	.15	.09	.00	.03	.05	.05	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00



CAMBER ORDINATES

Beam	Structural Steel Erected (No other loads applied)						Forms, shear developers and reinf. steel in place.						Deck Concrete Cast (All spans complete)					
	Δ1	Δ2	Δ3	Δ4	Δ5	Δ6	Δ1	Δ2	Δ3	Δ4	Δ5	Δ6	Δ1	Δ2	Δ3	Δ4	Δ5	Δ6
A#K	.00	.02	.29	.49	.01	.03	.00	.02	.23	.43	.01	.03	.00	.01	.11	.31	.02	.03
B	.00	.00	.24	.43	.02	.03	.00	.00	.18	.37	.02	.03	.00	.00	.05	.23	.03	.03
C#D	.00	.00	.21	.41	.02	.03	.00	.00	.13	.33	.03	.03	.00	.00	.00	.19	.03	.03
E#F	.00	.00	.19	.39	.02	.03	.00	.00	.13	.33	.03	.03	.00	.00	.00	.20	.03	.03
G#H	.00	.00	.23	.41	.02	.03	.00	.00	.12	.31	.03	.03	.00	.00	.00	.19	.03	.03
J	.00	.00	.25	.43	.02	.03	.00	.00	.19	.37	.02	.03	.00	.00	.05	.24	.03	.03

Work this sheet with sheet nos. 14 thru 22.

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

BUCHANAN ST. CROSSING JEFFRIES FREEWAY
IN DETROIT

SUPERSTRUCTURE DETAILS

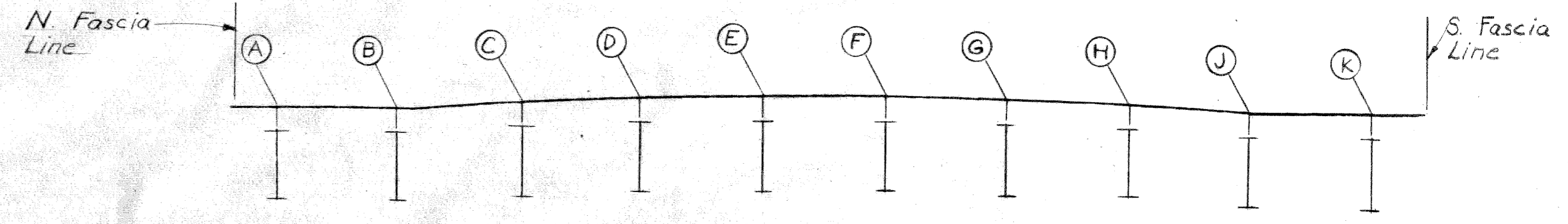
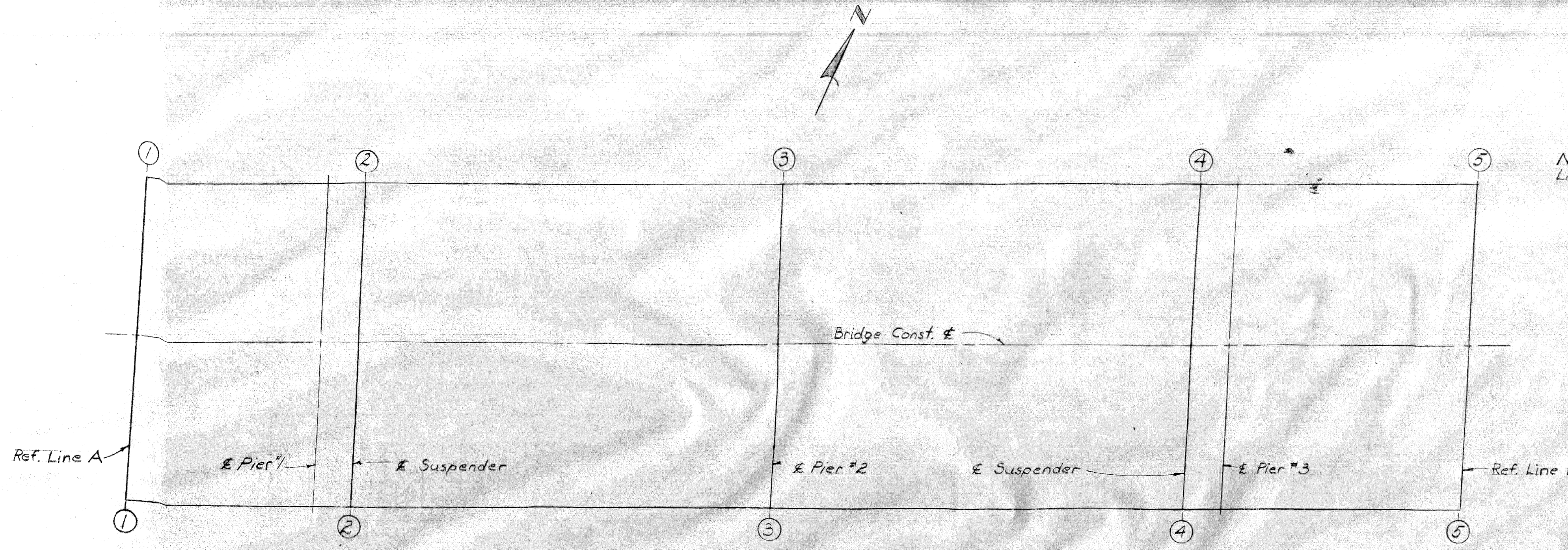
PLANS PREPARED BY
CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEERS OFFICE
BUREAU OF HIGHWAYS AND EXPRESSWAYS
APPROVED: *[Signature]*
STRUCTURAL ENGINEER

JOB No.
PW 990(1)

NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT
SQUAD BOSS: A. Freiberg C-67
DRAWN BY: D. Roman B-66
CHECKED BY: A. Freiberg C-67
SHEET 23 of 24

S02 of 82124A

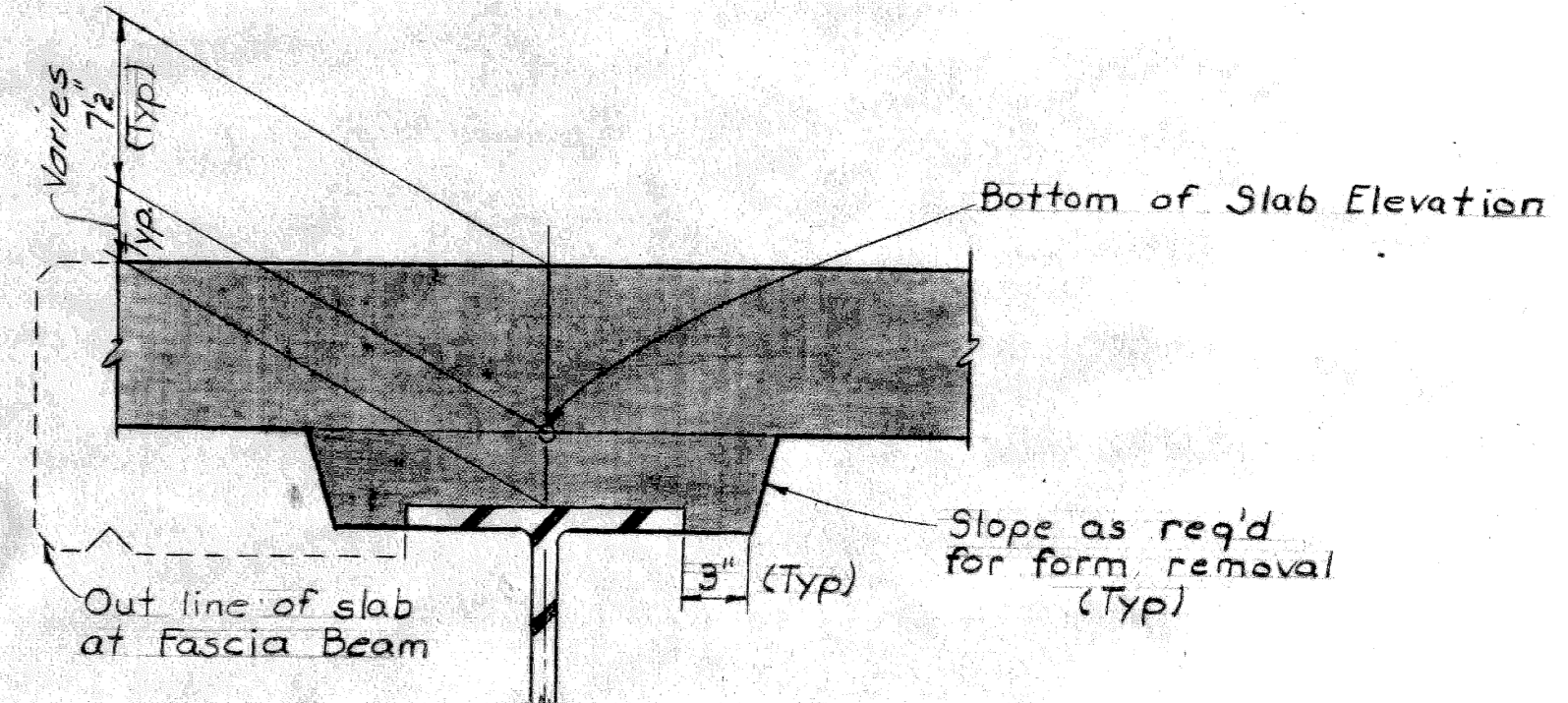


SCREED TEMPLATE ELEVATIONS										
Line	A	B	C	D	E	F	G	H	J	K
1-1	123.20	123.20	123.32	123.42	123.49	123.49	123.41	123.30	123.16	123.15
2-2	124.02	124.01	124.13	124.23	124.30	124.30	124.22	124.11	123.98	123.97
3-3	126.05	126.05	126.17	126.27	126.34	126.33	126.26	126.15	126.01	126.00
4-4	127.57	127.57	127.69	127.79	127.87	127.86	127.79	127.68	127.55	127.55
5-5	127.70	127.70	127.83	127.93	128.01	128.01	127.93	127.83	127.70	127.70

PLAN OF SLAB

BOTTOM OF SLAB ELEVATIONS										
Line	A	B	C	D	E	F	G	H	J	K
1-1	122.61	122.76	122.91	123.06	123.21	123.36	123.51	123.66	123.81	123.96
2-2	123.61	123.76	123.91	124.06	124.21	124.36	124.51	124.66	124.81	124.96
3-3	124.61	124.76	124.91	125.06	125.21	125.36	125.51	125.66	125.81	125.96
4-4	125.61	125.76	125.91	126.06	126.21	126.36	126.51	126.66	126.81	126.96
5-5	126.61	126.76	126.91	127.06	127.21	127.36	127.51	127.66	127.81	127.96

BOTTOM OF SLAB ELEVATIONS
(See "Section at Beam")



TYPICAL SECTION AT EACH BEAM

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

Work this sheet with sheets nos. 14 thru 23.
MICHIGAN DEPARTMENT OF STATE HIGHWAYS
 BUCHANAN ST. CROSSING JEFFRIES FREEWAY
 IN DETROIT
SUPERSTRUCTURE DETAILS

PLANS PREPARED BY
CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS
 APPROVED: *[Signature]*
 STRUCTURAL ENGINEER

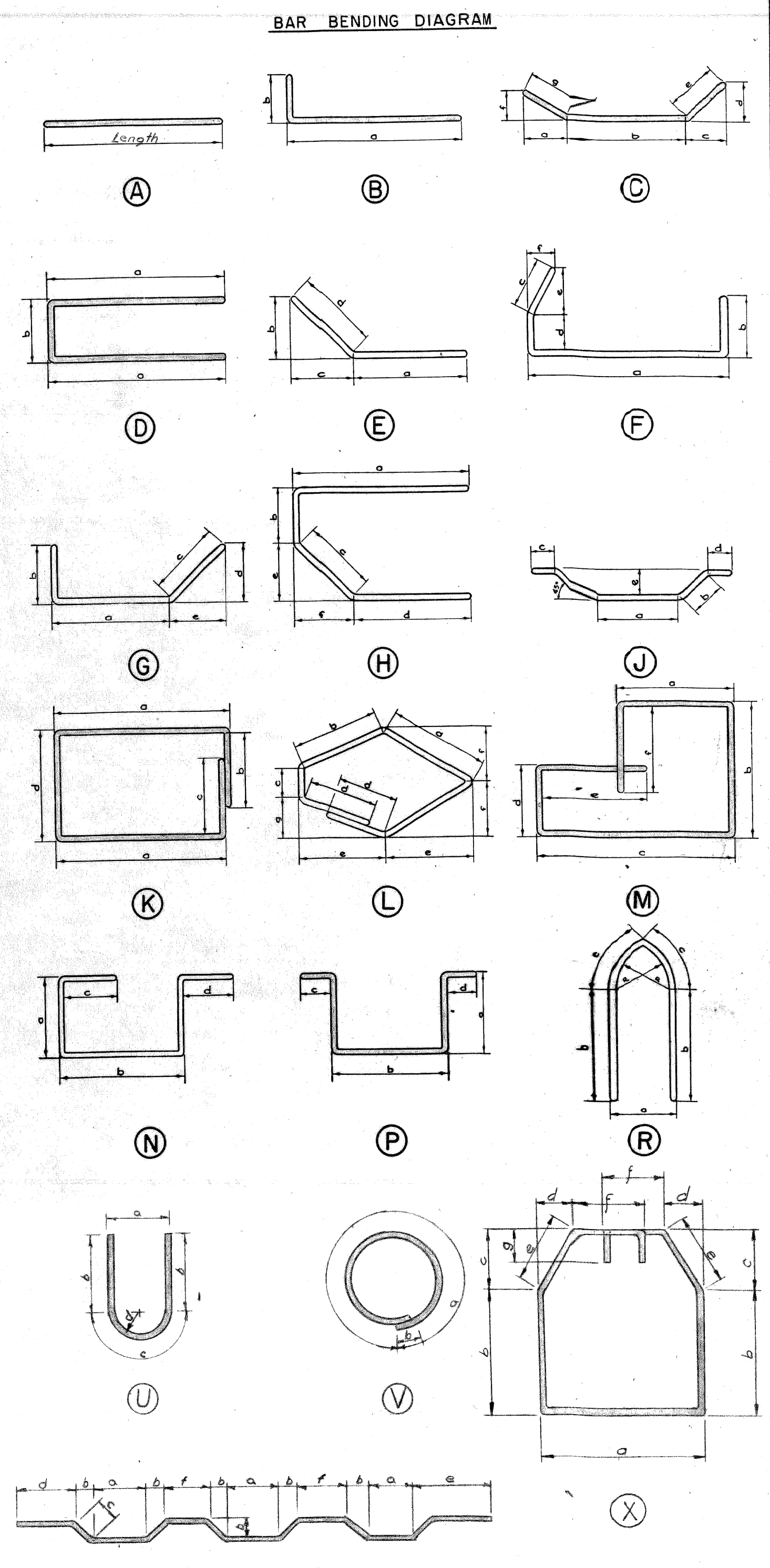
REVISIONS			
NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT
 SOIAD BOSS: A. Freiberg 6-6
 DRAWN BY: G. V. V. 6-6
 CHECKED BY: D. J. A. 6-6
 SHEET 22 OF 24

BAR	DIMENSIONS							SIZE	LENGTH	NO. REQ'D	TOTAL WT.
	a	b	c	d	e	f	g				
A1								#6	4'-6"	90	608
A2								#6	6'-6"	90	879
A3								#6	25'-6"	48	1838
A4								#7	8'-9"	90	1610
A5								#6	8'-9"	90	1183
A6								#4	22'-6"	60	902
A7								#8	6'-0"	44	705
A8								#7	8'-0"	44	719
A9								#6	17'-6"	27	710
A10								#7	7'-6"	36	552
A11								#6	10'-6"	53	836
A12								#6	13'-0"	48	937
A13								#6	4'-0"	48	288
A14								#4	13'-6"	72	649
A15								#6	15'-0"	16	360
A16								#6	8'-6"	9	115
B1	3'-0"	3'-0 1/2"						#6	6'-0"	20	180
C1	1'-0 3/4"	3'-6"	1'-0 3/4"	1'-0 3/4"	1'-6"	1'-0 3/4"	1'-6"	#6	6'-6"	20	125
D1	2'-0"	1'-7"						#4	5'-6"	90	331
D2	3'-0"	10"						#4	6'-9"	64	289
D3	3'-0"	6 3/4"						#6	6'-6"	48	469
K1	10 3/4"	5 3/4"	6"	7 3/4"				#4	3'-4"	32	71
K2	1'-13 3/4"	6 1/4"	6"	8 1/4"				#4	3'-11"	48	126
Abutment Total - 14,552#											

BAR	DIMENSIONS							SIZE	LENGTH	NO. REQ'D	TOTAL WT.
	a	b	c	d	e	f	g				
A101								#6	28'-6"	18	771
A102								#6	9'-0"	18	243
A103								#11	12'-6"	117	7773
A104								#6	12'-6"	80	1502
A105								#11	25'-3"	25	3,752
A106								#11	36'-0"	37	7,077
A107								#6	31'-3"	28	1,314
A108								#11	8'-6"	30	1,355
A109								#11	12'-3"	70	4,556
A110								#11	11'-9"	50	3,121
A111								#11	27'-3"	60	7,239
A112								#11	17'-0"	18	1,626
A113								#11	30'-9"	18	2,943
A114								#11	23'-6"	50	6,243
A115								#6	33'-0"	24	1,190
A116								#6	24'-6"	18	662
A117								#6	13'-0"	18	351
A118								#11	12'-0"	50	3,188
A119								#6	21'-0"	18	568
A120								#6	16'-6"	18	446
A121								#11	15'-0"	50	3,985
A122								#5	24'-6"	9	231
A123								#11	40'-0"	14	2,975
A124								#11	10'-8"	50	2,723
A125								#4	5'-0"	2	7
A126								#4	10'-6"	24	168
A127								#6	6'-0"	148	1,334
A128								#4	31'-0"	12	248
A129								#4	2'-8"	20	30
B101	3'-3"	6 5/8"						#5	3'-9"	10	39
B102	2'-3"	1'-9 3/4"						#6	4'-0"	4	24
D101	8'-0 1/4"	2'-9"						#6	18'-8"	53	1,486
D102	2'-6"	2'-11 1/4"						#5	7'-10"	36	294
D103	1'-6"	2'-9"						#4	5'-8"	51	193
D104	10'-6"	3'-3 1/4"						#6	24'-2"	26	814
D105	2'-2"	8"						#4	4'-11"	64	210
D106	1'-6"	8"						#4	3'-7"	12	29
K101	4'-1"	1'-6"	1'-6 1/4"	1'-9"				#5	12'-10"	88	1,178
K102	3'-1"	1'-6"	1'-6 1/4"	1'-9"				#5	10'-10"	300	3,389
K103	5'-8 3/4"	2'-6"	2'-6"	3'-3"				#5	19'-7"	20	408
U101	2'-9"	1'-6"	4'-3"	1'-3 3/8"				#5	7'-3"	24	181
V101	7'-11"	10"						#4	8'-9"	150	877
X101	4'-11"	3'-6 3/4"	2'-2"	1'-4"	2'-6 1/2"	1'-10 1/2"	6"	#5	21'-9"	46	1,044
Pier Total 77,917#											

BAR	DIMENSIONS							SIZE	LENGTH	NO. REQ'D	TOTAL WT.
	a	b	c	d	e	f	g				
A201								#6	23'-3"	1398	48,820
A202								#6	31'-9"	75	3,577
A203								#4	31'-9"	99	2,100
A204								#6	28'-3"	434	18,415
A205								#4	27'-6"	594	10,912
A206								#6	14'-0"	80	1,682
A207								#6	15'-6"	76	1,769
A208								#6	21'-3"	150	4,788
A209								#4	21'-0"	198	2,778
A210								#4	15'-3"	8	81
A211								#4	27'-3"	24	437
A212								#4	20'-3"	8	108
A213								#4	20'-6"	44	603
A214								#4	14'-6"	22	213
A215								#4	7'-9"	8	41
A216								#6	20'-9"	16	499
A217								#6	11'-3"	4	68
B201	8'-9 1/2"	8"						#4	9'-5"	316	1,988
D201	6"	1'-2"						#4	2'-1"	632	879
D202	2'-10 3/8"	6 3/4"						#6	6'-3"	342	3,211
K201	10 3/4"	5 3/4"	6"	7 3/4"				#4	3'-4"	228	508
K202	3'-4"	1'-0 1/2"	1'-0"	1'-3 1/2"				#4	9'-11"	24	159
K203	1'-13 3/4"	6 1/4"	6"	8 1/4"				#4	3'-11"	424	1,109
M201	10'8"	3'-4"	1'-3 1/2"	2'-5"	11 3/4"	1'-5"		#4	10'-2"	64	435
P201	1'-0"	5'-4 1/2"	9'4"	9'4"				#4	8'-10"	154	909
W201	3'-4 1/2"	4"	5'-3 1/4"	3'-11"	3'-4"	2'-9"		#6	25'-11"	466	17,556
W202	3'-4 1/2"	4"	5'-3 1/4"	3'-4"	3'-4"	2'-9"		#6	24'-6"	233	8,574
Superstructure Total - 132,219#											



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 S02.
 Steel for reinforcement shall be intermediate or hard grade only.

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 224,688 #

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 BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED: *[Signature]*
 MUNICIPAL ENGINEER

JOB NO. P.W. 29001

MICHIGAN STATE HIGHWAY DEPARTMENT
 BUCHANAN ST. CROSSING JEFFRIES FREEWAY
 IN DETROIT

STEEL REINFORCEMENT DETAILS

SQUAD BOSS: *A. Freiberg* G-67
 DRAWN BY: *A.J.G.* 10-66
 TRACED BY: *D.J.R./H.E.* G-67
 CHECKED BY: *[Signature]*
 SHEET 24 OF 22

NO. DESCRIPTION DATE BY

S02 of 82124A