

CITY OF DETROIT CITY ENGINEERING DEPARTMENT

IN CO-OPERATION WITH
MICHIGAN DEPARTMENT OF STATE HIGHWAYS AND TRANSPORTATION
AND
FEDERAL HIGHWAY ADMINISTRATION

PLAN AND PROFILE OF PROPOSED
FEDERAL AID URBAN PROJECT NO. MICHIGAN M5154(001)
CONTROL SECTION MU 82532 JOB NUMBER 05861A

B.P.R. DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	MICH.				
STREET	CITY	COUNTY	TWP.	SHEET NO.	TOTAL SHEETS
	DETROIT	WAYNE		1	

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

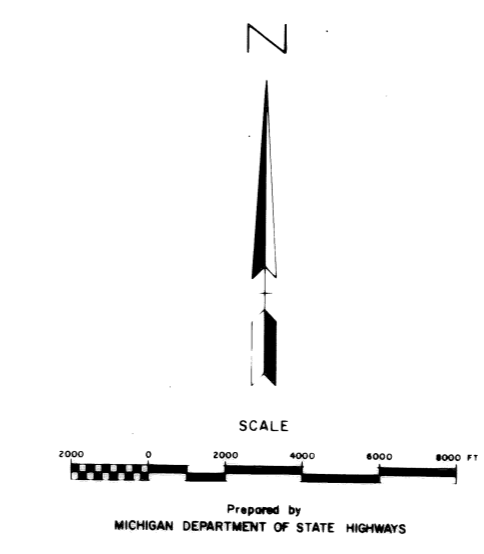
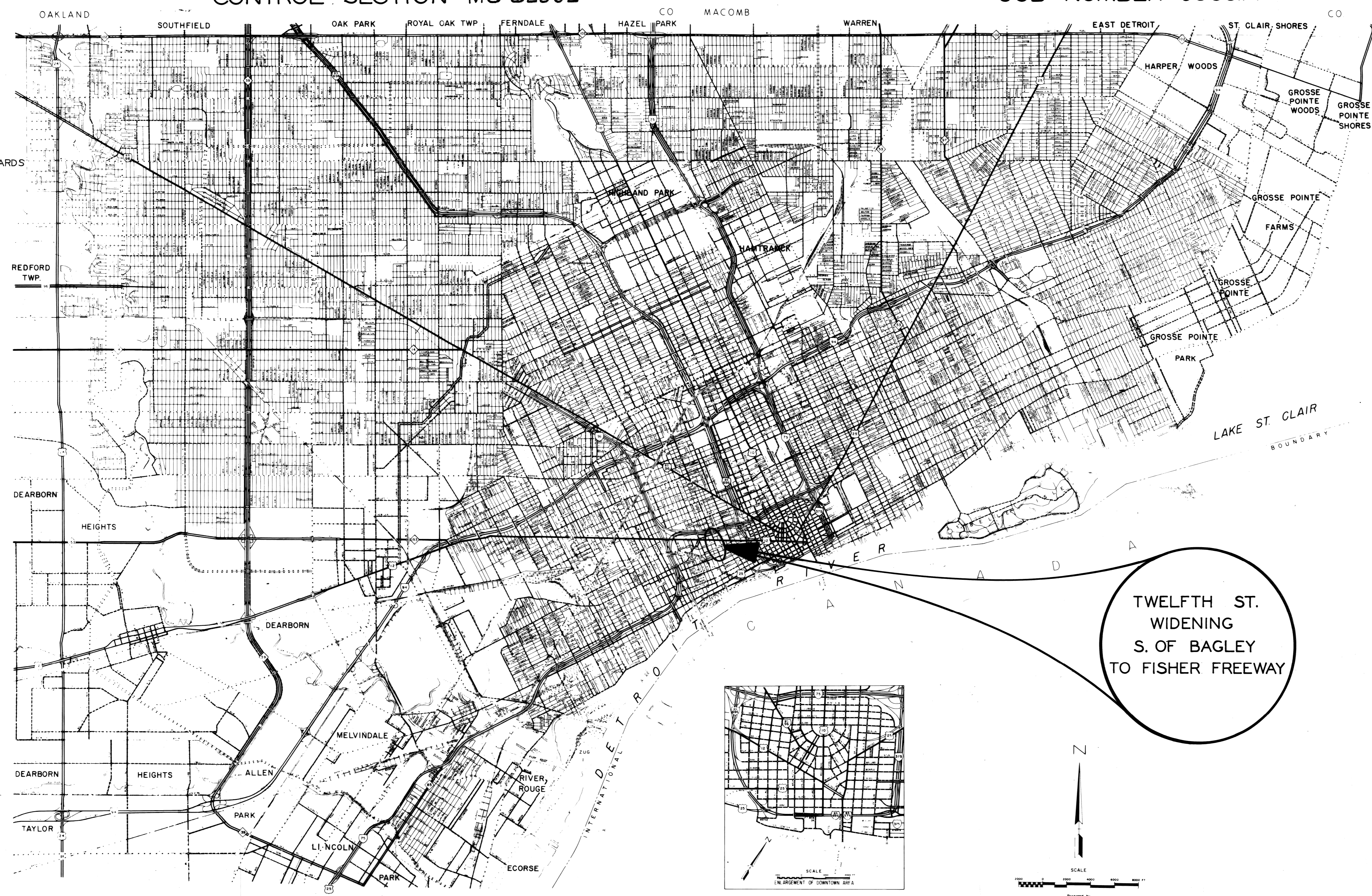
TRAFFIC COUNT		
	CURRENT (1-WAY)	1995 (2-WAY)
A.D.T. -----	9000	23000
D.H.V. -----	1100	2600

INDEX OF SHEETS

- 1. TITLE SHEET
- 2. TYPICAL CROSS SECTION
- 3-4. ALIGNMENT
- 5. CONSTRUCTION SEQUENCE
- 6-7. REMOVALS
- 8-12. PLAN AND PROFILES
- 13-15. DETAILED GRADES
- 16-17. UTILITIES
- 18-19. FIRE HYDRANT DETAILS
- 20-23. SPECIAL DETAILS AND STANDARDS
- 24. LAWN WATERING SYSTEM
- 25-26. LANDSCAPE DEVELOPMENT
- 27. QUANTITIES
- 28-40. PLD ALTERATIONS
- 41-65. PLD DETAILS
- 66-67. PLD QUANTITIES

STANDARD PLANS

- I — 7A
- II — 28F
- II — 39C
- II — 40A
- II — 42A
- II — 45B
- VI — 124B
- VI — 125C
- IV — 84B
- II — 43B



ITEM #11

CONTRACT FOR G.D.S. & P. 33' DUAL ROADWAY & UTILITIES.

LOCAL AUTHORITY APPROVAL
CITY OF DETROIT
CITY ENGINEERING DEPARTMENT
GOVERNMENTAL AGENCY

APPROVED BY W. P. [Signature] 4/13/76
DEPUTY DIRECTOR DATE

APPROVED BY A. J. [Signature] 4-13-76
DIRECTOR DATE

RECOMMENDED FOR APPROVAL
BY W. A. George [Signature] 3/17/76
F.A.U. ENGINEER DATE

PLANS CHECKED BY John D. Davis [Signature] 3-17-76
DATE

DEPARTMENT OF STATE HIGHWAYS APPROVAL
APPROVED FOR COMMISSION
BY Max R. Clyde [Signature] 2-17-76
DEPUTY DIRECTOR - HIGHWAYS DATE

PREPARED UNDER SUPERVISION OF
Allen E. Prager [Signature] 9261
REGISTERED PROFESSIONAL ENGINEER REGISTRATION NO.

CITY OF DETROIT
ORGANIZATION

DETROIT MICHIGAN
ADDRESS

(SEAL)

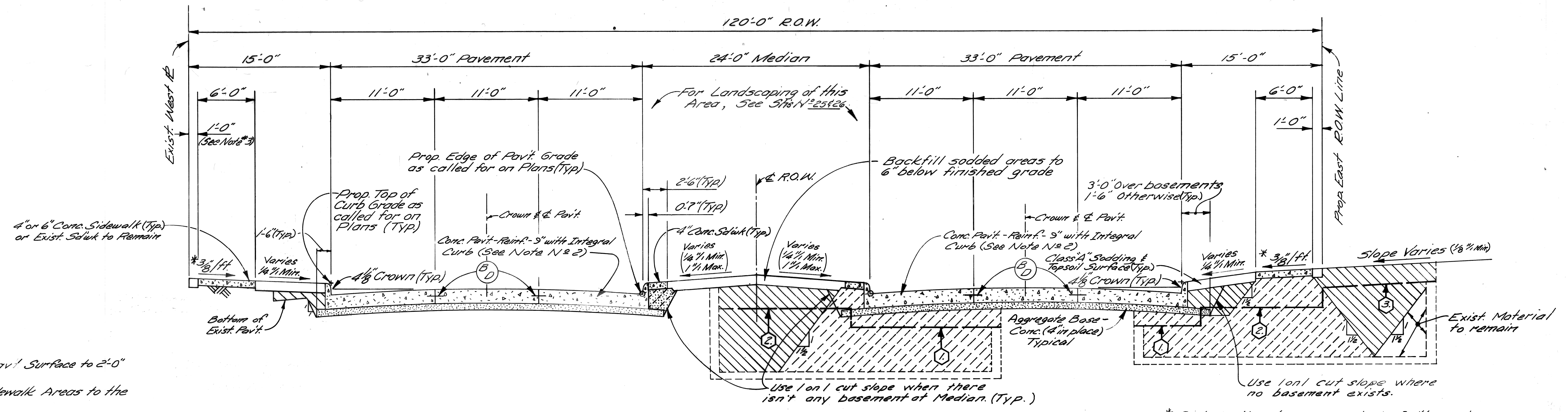
U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____
DISTRICT ENGINEER DATE

FILE NO.	STATE PROJECT	FEDERAL PROJECT	SHEET NO.

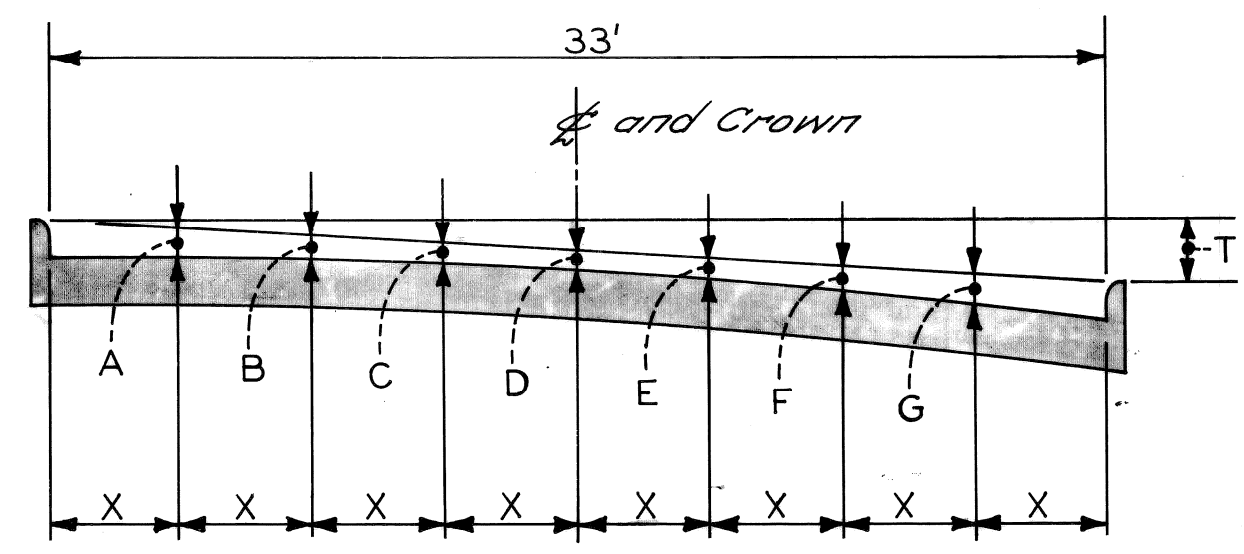
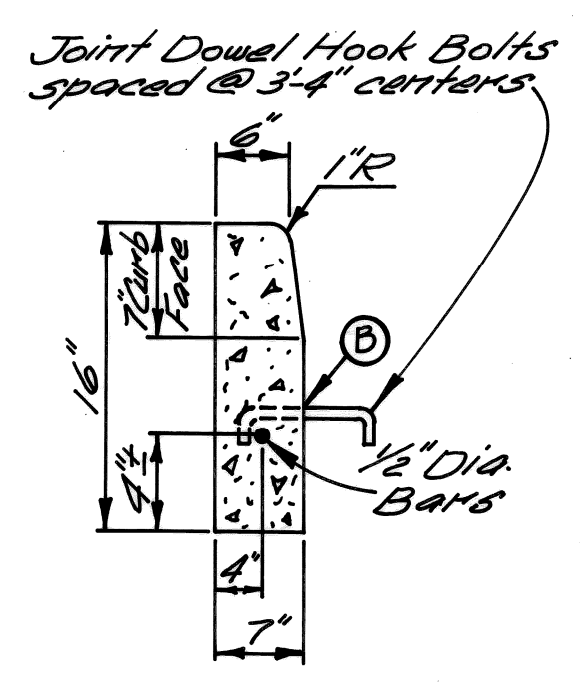
C-5522

C.S. MU 82532 JOB # 05861A M5154(001)



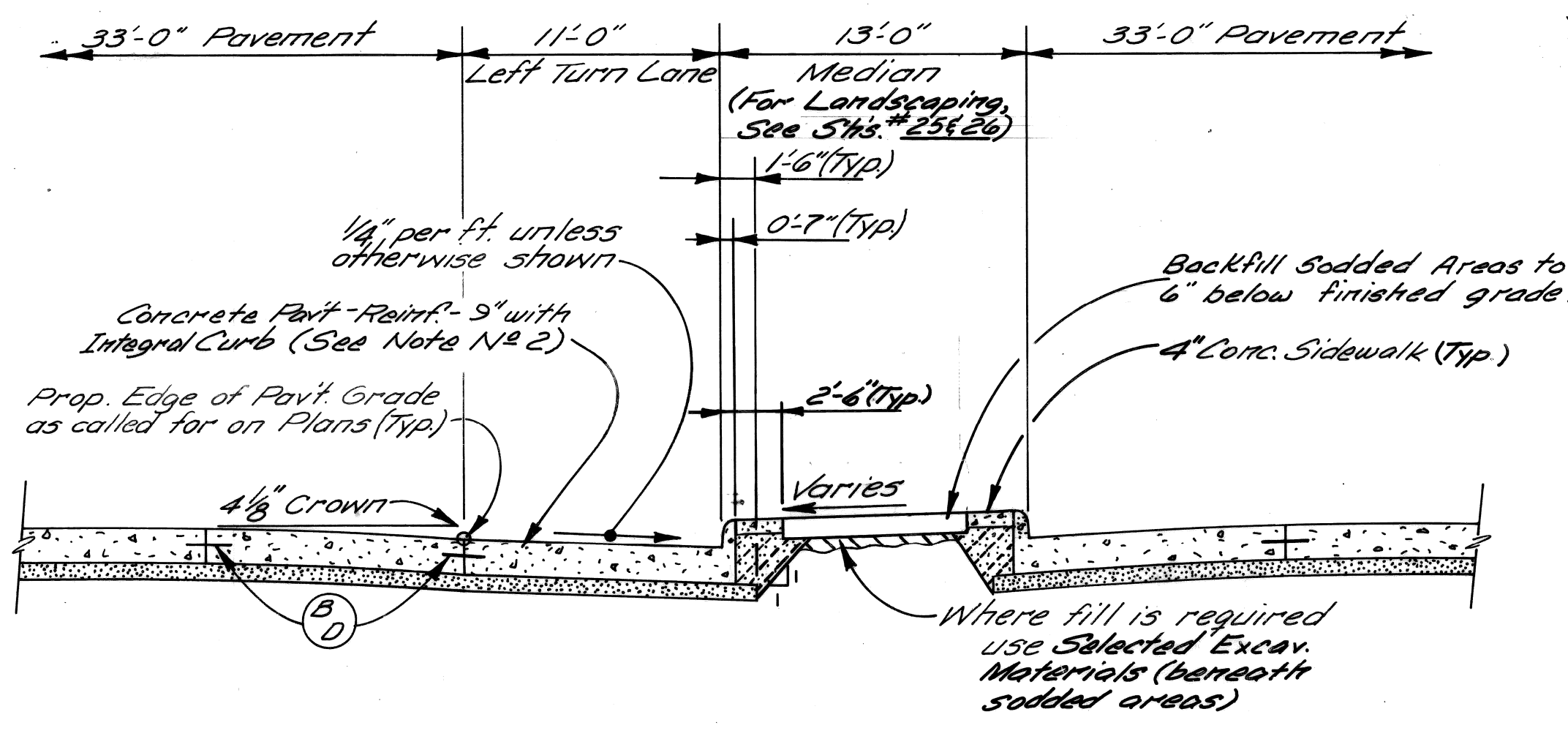
- BASEMENT WALL REMOVAL:**
- Remove walls 3'-0" below Prop. Pavt. Surface to 2'-0" behind Face of Curb.
 - Remove walls in Median and Sidewalk Areas to the bottom of the Prop. Pavt. Slab.
 - Remove walls in areas outside the 120' R.O.W. to 1'-0" below the Prop. Surface Elevations.

**TYPICAL CROSS-SECTION OF TWELFTH ST. RELOCATION
S. OF BAGLEY TO FISHER FWY.**
NO SCALE



PAV'T WIDTH	CURB HEIGHT	X	T	A	B	C	D	E	F	G
33'	7"	4 1/2"	0.0	5 1/4"	3 7/8"	3 3/8"	2 7/8"	3 3/8"	3 3/8"	5 1/4"

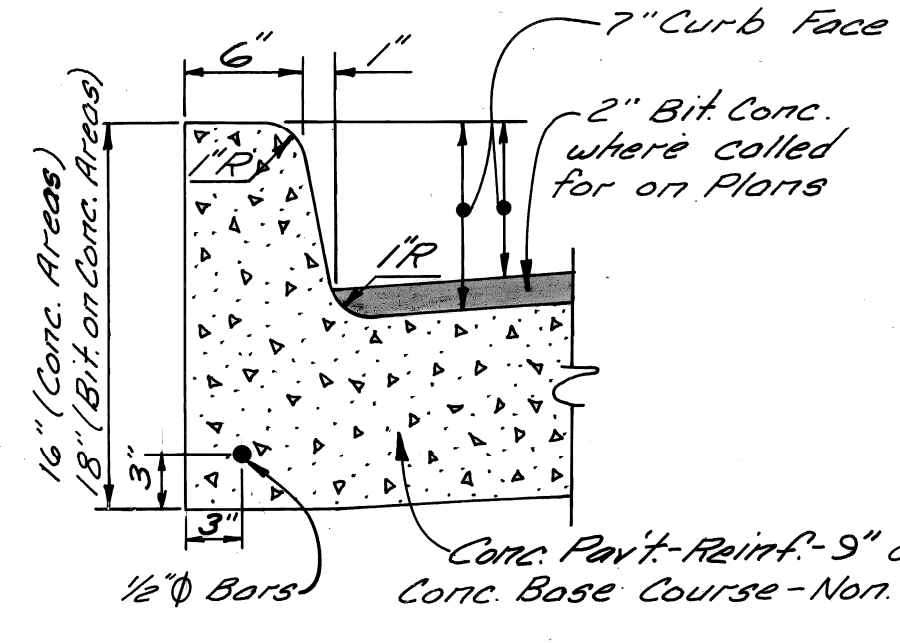
ELEMENTS OF 33' PAVEMENT



TYPICAL CROSS-SECTION OF LEFT TURN LANE
NO SCALE

The following estimated quantities have been provided to allow for work to be done but not shown on the plans:

4" Concrete Sidewalk	-----	921	Sq. Ft.
Removing Sidewalk	-----	102	Sq. Yds.
Basement Clearout	-----	684	Cu. Yds.



INTEGRAL CURB
NO SCALE

- EARTHWORK LEGEND**
- Granular Mat'l Class III (Incidental to Basement Clearout)
 - Aggregate Base - Conc. (4" in place)
 - Selected Excavated Materials (Incidental to Contract Cost)
 - Granular Material Class II (Beneath Sidewalks - Incidental)

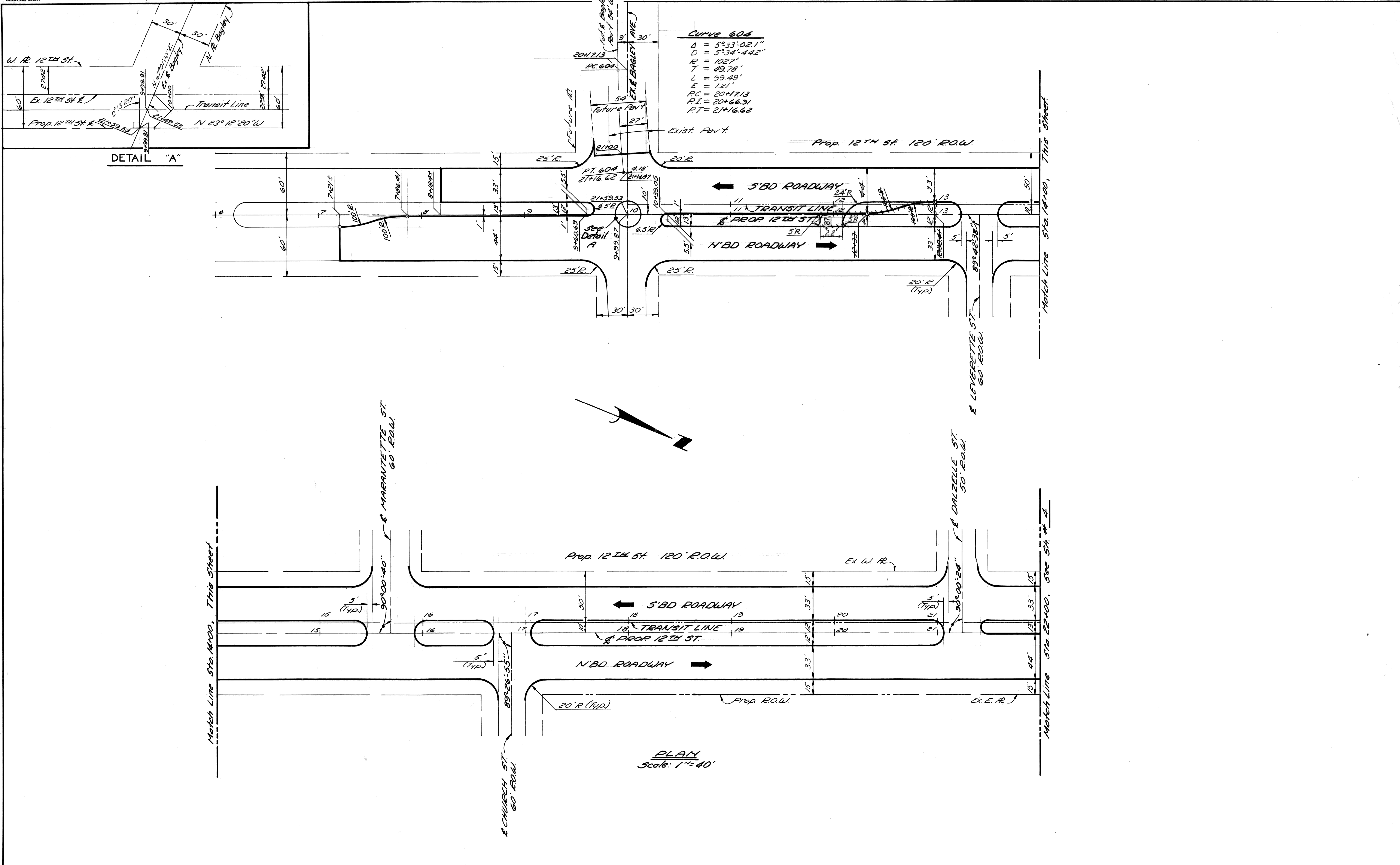
- JOINT LEGEND**
- Longitudinal Bulkhead Joint according to M.D.S.H. Std. Dwg. II-39C.
 - Longitudinal Lane Tie Joint with Tie Bars according to M.D.S.H. Std. Dwg. II-39C.
 - Optional, B or D

- NOTES:**
- It is estimated that approximately 1,000 Cu. Yds. of Subgrade Undercutting Type II will be required for this contract.
 - The proposed curb shall be Integral Curb (See Detail this sheet) with Conc. Curb Detail 'X' as an alternate.
 - Place 4" Conc. Sidewalk to face of Building where Building fronts on property line.

BITUMINOUS APPLICATION RATES			
ITEM	RATE OF APPLICATION	ESTIMATED THICKNESS	ASPHALT PENETRATION
Bit. Conc. Binder Course (9A)	170" to 250"	1 1/2 in. to 2 1/4 in.	85-100
Bit. Conc. Leveling Course (25A)	110" to 154" In.	1 In. to 1 1/2 in.	85-100
Bit. Conc. Wearing Course (31A) Type F	110" to 154"	1 In. to 1 1/2 in.	85-100

Bit. Bond Coat - 0.10 Gal./Sq. Yd. to rigid bases & 0.10 Gal./Sq. Yd. to hot bit. layers
 * Varies at areas to be resurfaced
 Bit. Bond Coat EC 70 may be used in lieu of MS-20 & SS-1H on this project where thru traffic is detoured from the construction area. The contractor however, is cautioned of the flammable characteristic of this mat'l. & shall take due precautions when using same.

DESIGNED BY		APPROVED:		CITY OF DETROIT CITY ENGINEERING DEPARTMENT		TWELFTH STREET WIDENING SOUTH OF BAGLEY TO FISHER FREEWAY		SHEET 2 OF 67 SHEETS	
DRAWN BY		ENGINEER OF EXPRESSWAYS						CONTRACT No. 05861A	
CHECKED BY						ASSIGNMENT No. 2237		DATE NOV 7 1975	
DESCRIPTION		DRN		CK'D		AP'VD		DATE	
REVISIONS									



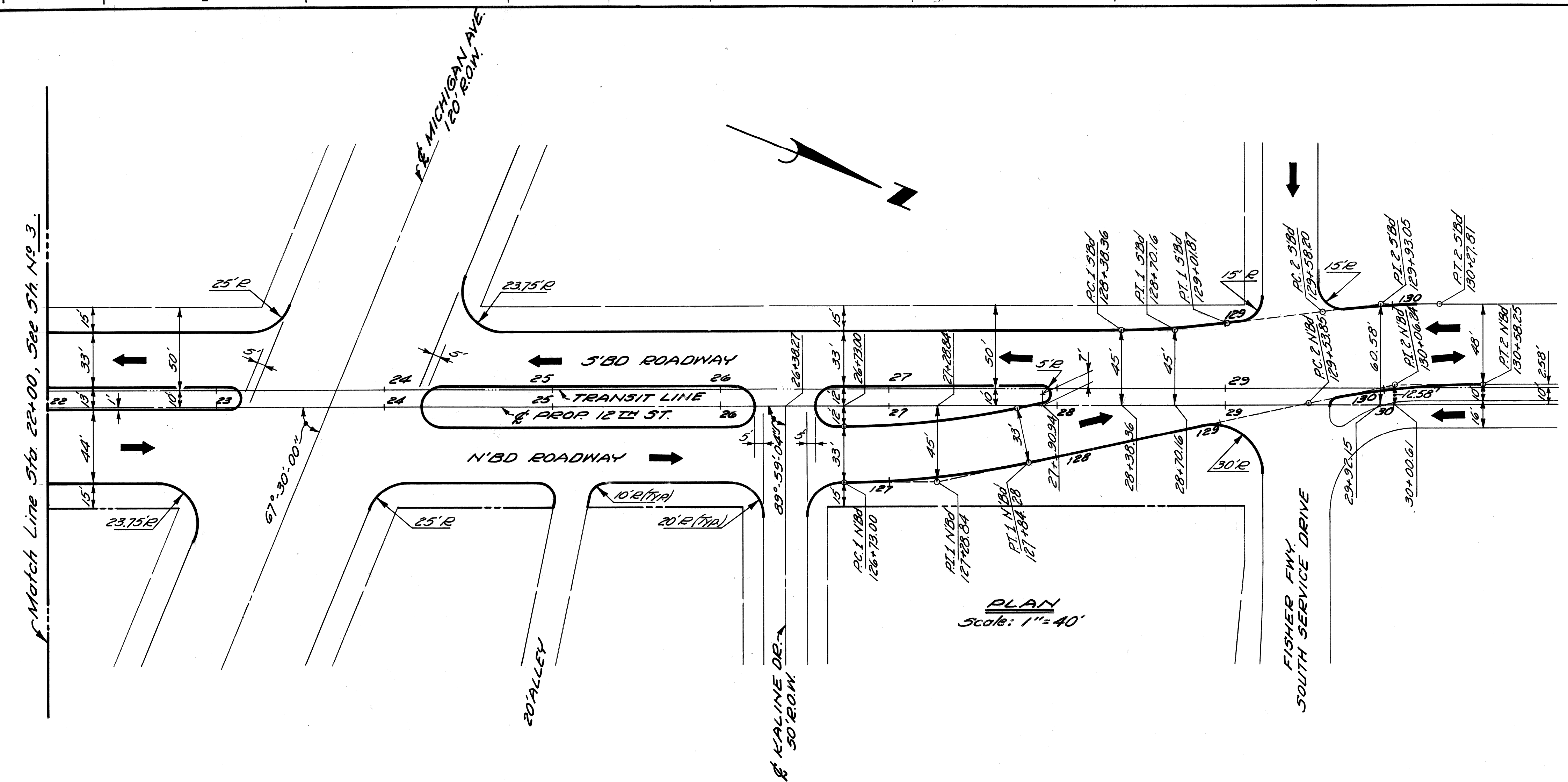
DETAIL "A"

PLAN
Scale: 1" = 40'

REVISIONS LOCATED BY COORDINATES ON SHEET B-7 Median Alignment Revision RP NB 11/7/77 COORD. DESCRIPTION DATE		DESIGNED BY DRAWN BY <i>M. Sucech</i> TRACED BY CHECKED BY <i>R. Plater</i>	APPROVED: <i>Alan E. Progen</i> ENGINEER OF EXPRESSWAYS	CITY OF DETROIT CITY ENGINEERING DEPARTMENT	TWELFTH STREET WIDENING S. OF BAGLEY AVENUE TO FISHER FREEWAY ALIGNMENT, S. OF BAGLEY AVE. TO STA. 22+00	SHEET 3 OF 67 SHEETS CONTRACT No. 05861A ASSIGNMENT No. 2237 DATE NOV 7 1975
---	--	--	---	--	--	---

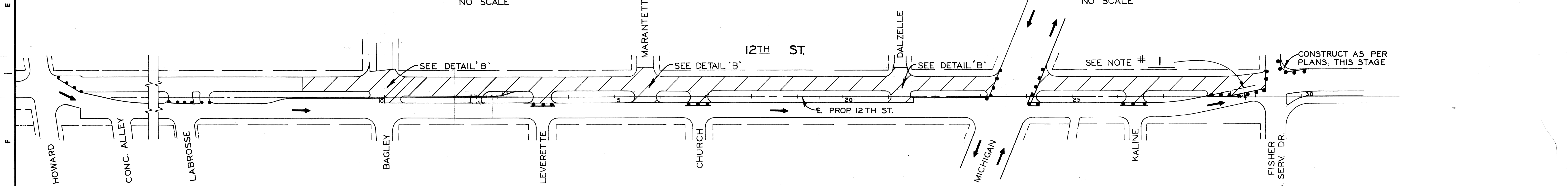
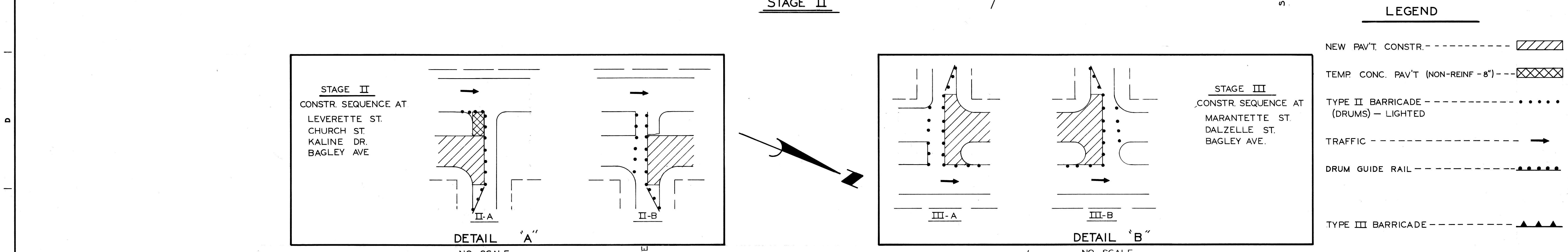
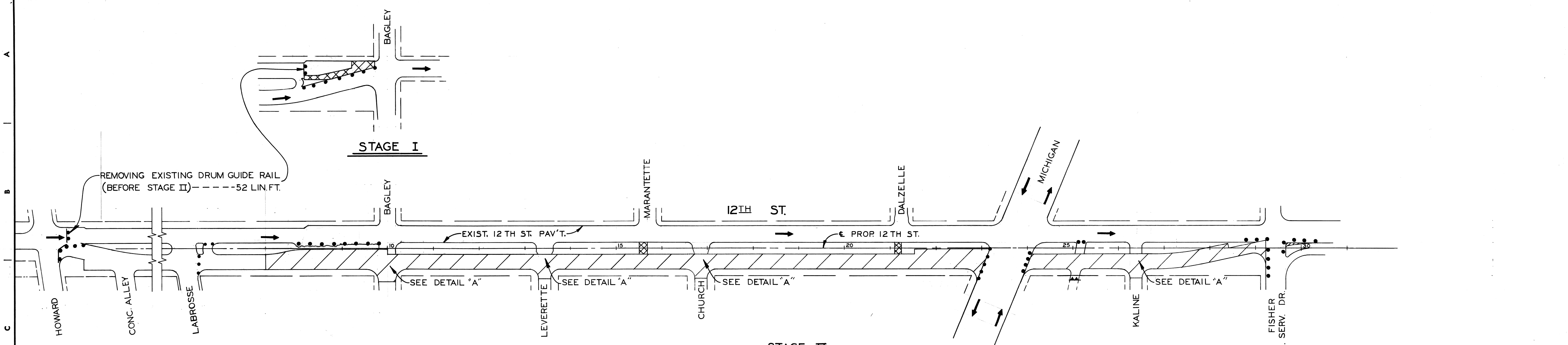
TWELFTH ST. CURVE DATA

NORTHBOUND ROADWAY		SOUTHBOUND ROADWAY	
CURVE 1	CURVE 2	CURVE 1	CURVE 2
$\Delta = 11^{\circ}57'44.4''$	$\Delta = 11^{\circ}57'44.4''$	$\Delta = 7^{\circ}16'41.3''$	$\Delta = 7^{\circ}16'41.3''$
$D = 10^{\circ}44'58.8''$	$D = 11^{\circ}27'33''$	$D = 11^{\circ}27'33''$	$D = 10^{\circ}27'19.6''$
$R = 533'$	$R = 500'$	$R = 500'$	$R = 548'$
$T = 55.84'$	$T = 52.39'$	$T = 31.80'$	$T = 34.85'$
$L = 111.28'$	$L = 104.39'$	$L = 63.51'$	$L = 69.61'$
$E = 2.92'$	$E = 2.74'$	$E = 1.01'$	$E = 1.11'$
$PC = 126+73.00$	$PC = 129+53.85$	$PC = 128+38.36$	$PC = 129+58.20$
$PI = 127+28.84$	$PI = 130+06.24$	$PI = 128+70.16$	$PI = 129+93.05$
$PT = 127+84.28$	$PT = 130+58.25$	$PT = 129+01.87$	$PT = 130+27.81$



PLAN
Scale: 1" = 40'

<table border="1"> <tr> <td>COORD</td> <td>DESCRIPTION</td> <td>DRN</td> <td>CKD</td> <td>APVD</td> <td>DATE</td> </tr> <tr> <td colspan="6">REVISIONS LOCATED BY COORDINATES ON SHEET</td> </tr> </table>		COORD	DESCRIPTION	DRN	CKD	APVD	DATE	REVISIONS LOCATED BY COORDINATES ON SHEET						REFERENCE DRAWINGS DESIGNED BY DRAWN BY <i>M. Polito</i> TRACED BY CHECKED BY <i>R. Plater</i>	APPROVED: <i>Allen E. Progne</i> ENGINEER OF EXPRESSWAYS	CITY OF DETROIT CITY ENGINEERING DEPARTMENT	TWELFTH STREET WIDENING S. OF BAGLEY AVENUE TO FISHER FREEWAY ALIGNMENT, STA. 22+00 TO FISHER FREEWAY	SHEET <u>4</u> OF <u>67</u> SHEETS CONTRACT No. 05861A ASSIGNMENT No. 2237 DATE NOV 7 1976
COORD	DESCRIPTION	DRN	CKD	APVD	DATE													
REVISIONS LOCATED BY COORDINATES ON SHEET																		



LEGEND

- NEW PAV'T. CONSTR. --- [diagonal hatching]
- TEMP. CONC. PAV'T (NON-REINF - 8") --- [cross-hatching]
- TYPE II BARRICADE (DRUMS) - LIGHTED --- [dotted line]
- TRAFFIC --- [arrow]
- DRUM GUIDE RAIL --- [dashed line with dots]
- TYPE III BARRICADE --- [triangular hatching]

NOTES:

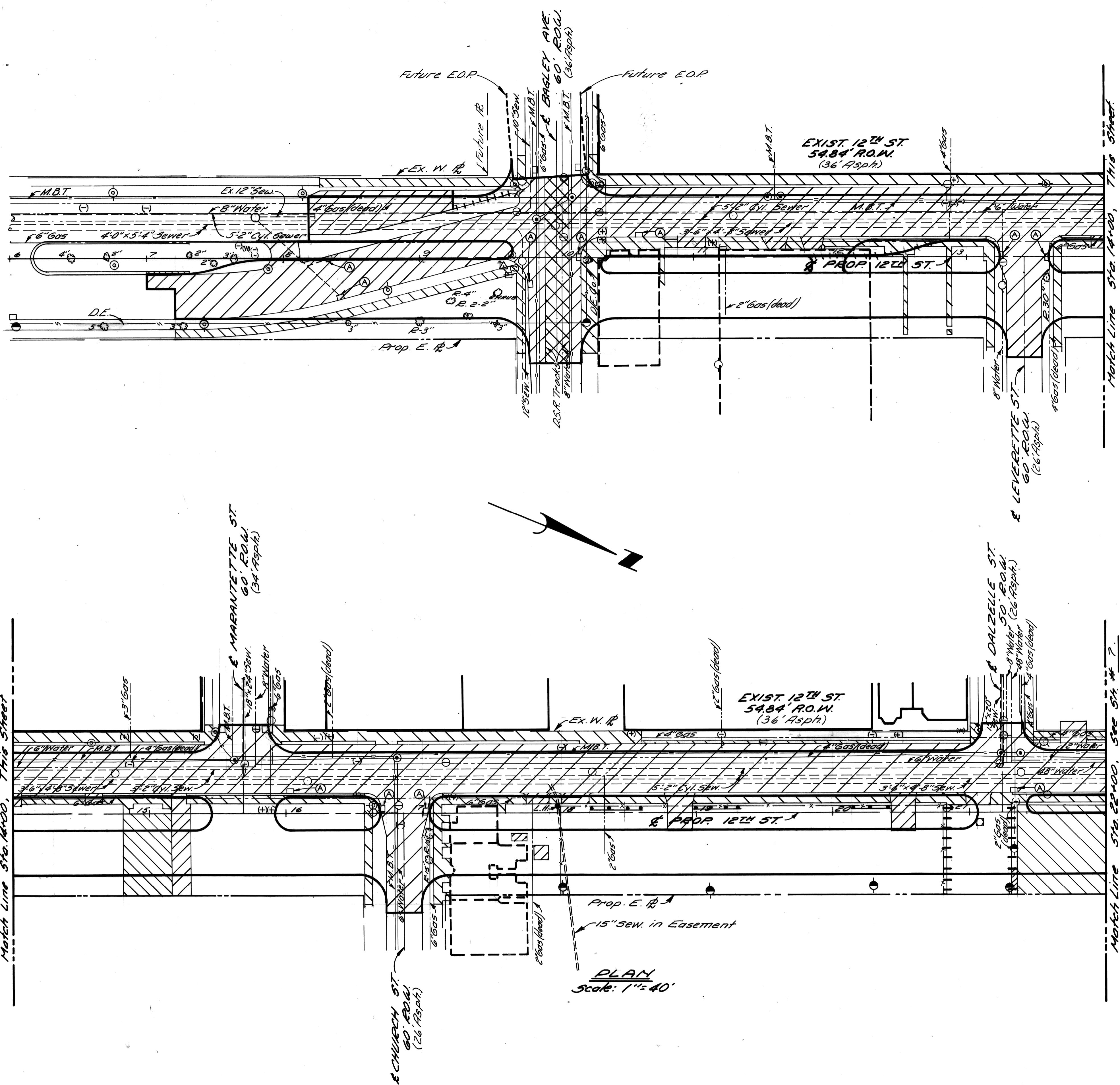
1. CONSTRUCT THIS LANE AS SOON AS POSSIBLE IN STAGE III IN ORDER TO OPEN 3 NORTHBOUND LANES TO TRAFFIC.
2. TEMP. CONC. PAV'T SHALL HAVE NO LANE TIE BARS, NO LOAD TRANSFER DEVICES AND NO SAWING OF LONGITUDINAL JOINTS. THE TRANSVERSE PLANE OF WEAKNESS JOINTS SHALL BE CONSTRUCTED AT 50 FOOT INTERVALS.
3. TRENCHING FOR UTILITY CONSTRUCTION AT VARIOUS LOCATIONS THROUGHOUT THIS PROJECT MAY BE NEEDED. THE FOLLOWING QUANTITIES HAVE BEEN ESTIMATED FOR THIS CONTINGENCY:
 REMOVING OLD PAV'T (PATCHING)----- 94 SQ.YD.
 CONC. PAV'T PATCHING - 9" NON REINF. --- 47 SQ.YD.
 PATCHING PAV'T WITH BIT. MAT'L.----- 7 TONS
 AGGREGATE-BASE PATCHING----- 25 TONS
 BIT. BOND COAT (NOT A PAY ITEM)----- 7 GALS.
4. THE END SECTION OF DRUM GUIDE RAIL TOWARD TRAFFIC FLOW SHALL BE LOWERED TO GROUND LEVEL.
5. IT IS ESTIMATED THAT APPROXIMATELY 39 CU.YDS. (C.I.R) OF CLASS AA APPROACHES MAY BE NEEDED TO KEEP DRIVEWAYS OPEN DURING STAGING OPERATIONS.

MISCELLANEOUS QUANTITIES

- MAINTAINING TRAFFIC ----- LUMP SUM
- FIELD LABORATORY CONC. PROPORTIONING --- 1 EA.
- REMOVING EXIST. DRUM GUIDE RAIL --- 52 LIN.FT.
- MOBILIZATION ----- LUMP SUM
- ON THE JOB TRAINING ----- 2 EA.

SCALE
1" = 100'

DESIGNED BY	APPROVED:	CITY OF DETROIT		TWELFTH STREET WIDENING S OF BAGLEY AVENUE TO FISHER FREEWAY			
DRAWN BY <i>M. Swack</i>	ENGINEER OF EXPRESSWAYS	CITY ENGINEERING DEPARTMENT					
TRACED BY		CONSTRUCTION SEQUENCE		SHEET <u>5</u> OF <u>67</u> SHEETS			
CHECKED BY <i>Plater</i>				CONTRACT No. <u>05861A</u>			
				ASSIGNMENT No. <u>2237</u>			
				DATE <u>NOV 7 1975</u>			
F-4 Median Alignment Revision RP No. 7227				C-5522			



REMOVAL LEGEND

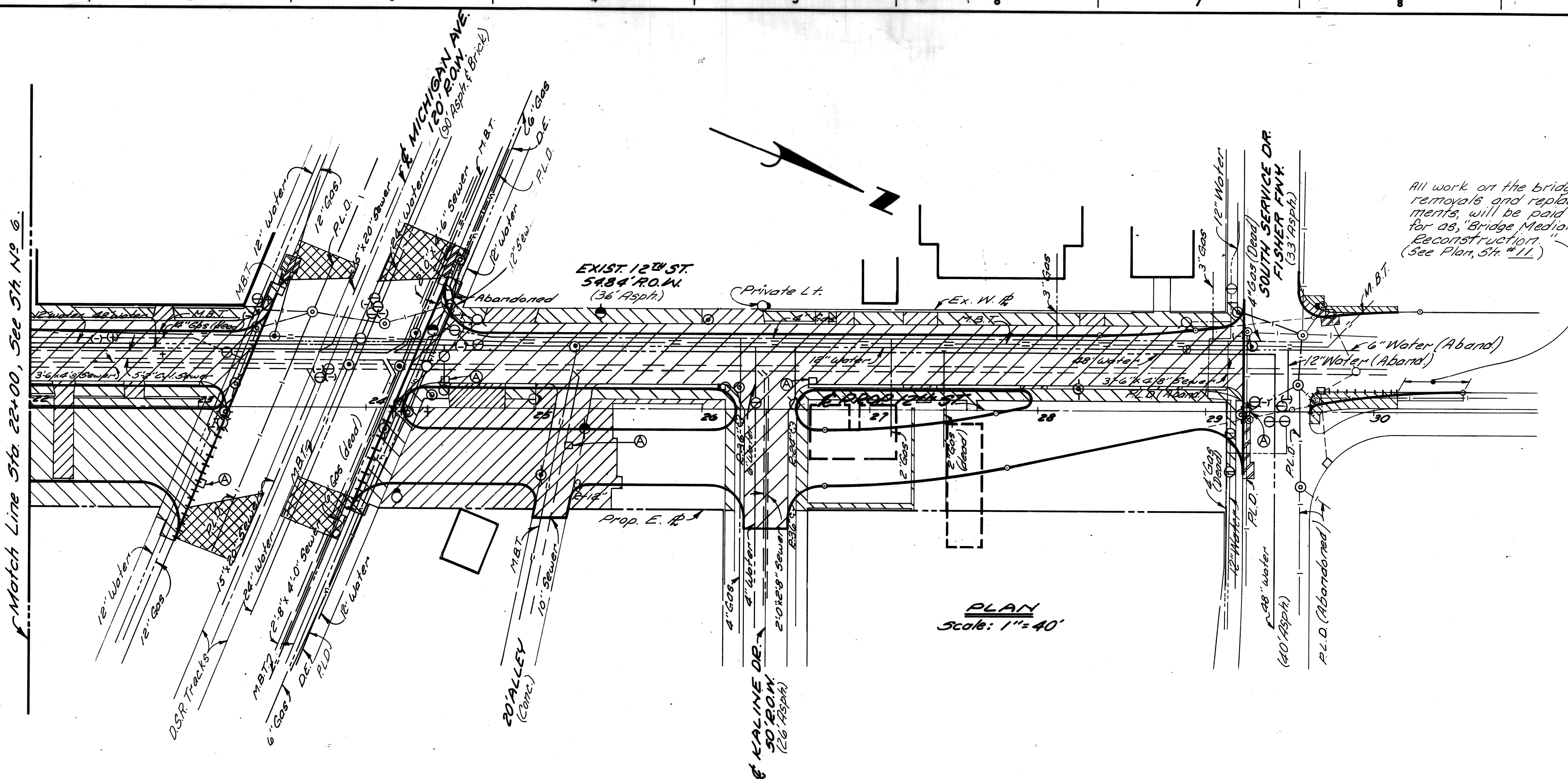
Removing Trees	R (Size) Ⓞ
Removing Pavement	▨
Removing Sidewalk	▧
Existing Basements	⋯
Existing Buildings to Remain	▭
Existing Steel Beam Guardrail	—•—•—•—
Cyclone Fence (See Note #3)	-x-x-x-
Removing Curb	++++
Removing Track Encasement	⊗
Abandoning Drainage Structures	Ⓐ

- NOTES:**
1. For Utility Legend, See Sh. No. 20.
 2. The removal of trees less than 8" in dia. is incidental to the contract.
 3. All fence removals are incidental to this contract.

PLAN
Scale: 1" = 40'

CALL MISS DIG
48 HOURS PRIOR TO
CONSTRUCTION 647-7344

DESIGNED BY: D.R.L. DRAWN BY: Sucech TRACED BY: CHECKED BY: I. H.K.		APPROVED: ENGINEER OF EXPRESSWAYS		CITY OF DETROIT CITY ENGINEERING DEPARTMENT		TWELFTH STREET WIDENING S. OF BAGLEY AVENUE TO FISHER FREEWAY REMOVALS, S. OF BAGLEY AVE. TO STA. 22+00		SHEET 6 OF 67 SHEETS CONTRACT NO. 05861A ASSIGNMENT No. 2237 DATE NOV 7 1975	
B-7 Median Alignment Revision RPWB 7-23-76 REVISIONS LOCATED BY COORDINATES ON SHEET									



PLAN
Scale: 1"=40'

REMOVAL LEGEND

- Removing Trees E (Size)
- Removing Pavement
- Removing Sidewalk
- Existing Basements
- Existing Buildings to Remain
- Abandoning Drainage Structures (A)
- Removing Curb
- Removing old pavt. (paving) & replace with 2" bit conc. on conc. pavt. patching - 9" non-reinf. (Integral curb, where needed, is incidental to this item)
- Removing sidewalk and replace with 4" Conc. Sidewalk
- Removing Brick
(Retain Exist. Conc. Base)

All work on the bridge, i.e., removals and replacements, will be paid for as "Bridge Median Reconstruction" (See Plan, Sh. 11)

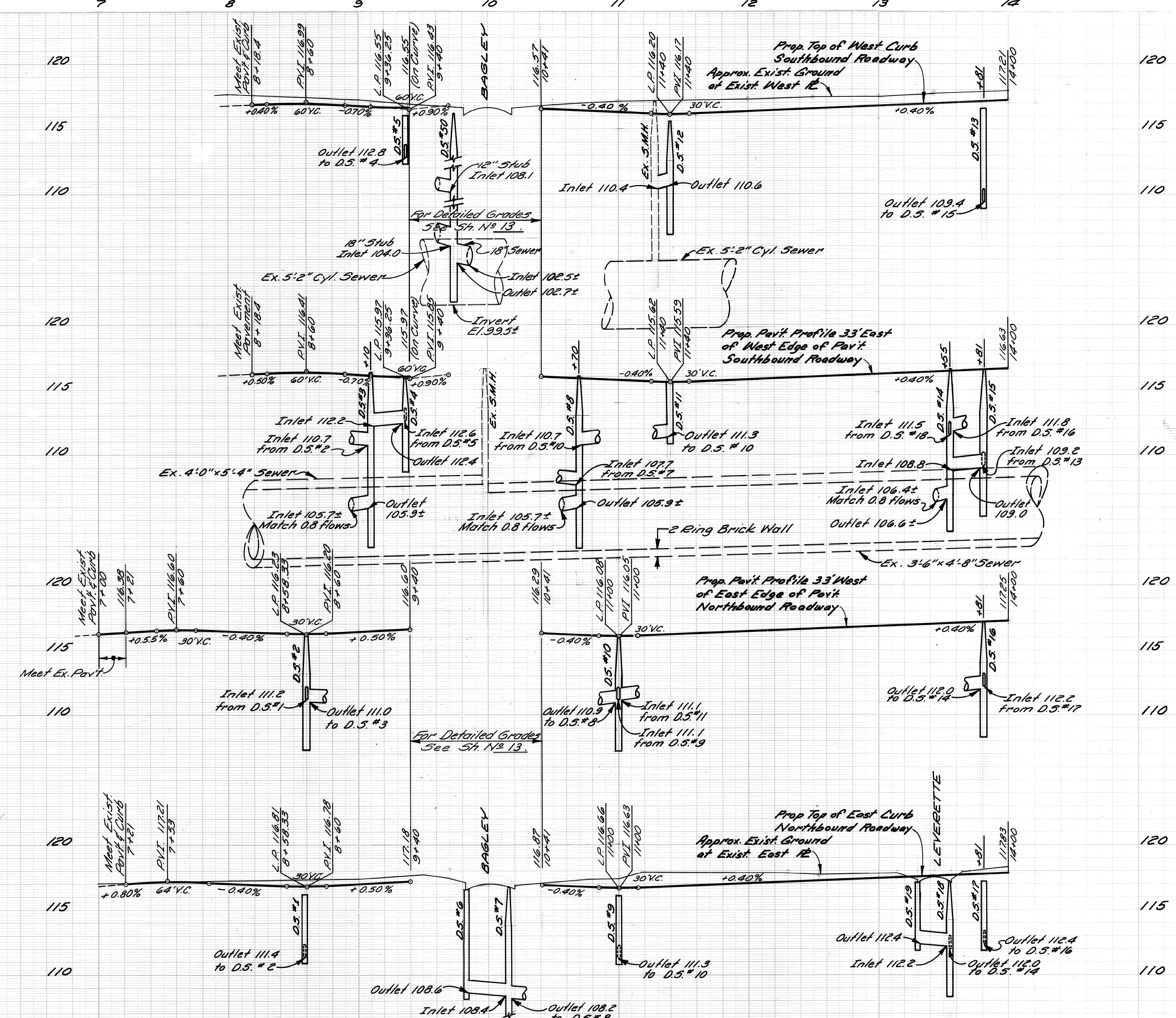
NOTES:

1. For Utility Legend, See Sh. No. 20.
2. The removal of trees less than 8" in dia. is incidental to the contract.

CALL MISS DIG
48 HOURS PRIOR TO
CONSTRUCTION 647-7344

REVISIONS LOCATED BY COORDINATES ON SHEET	REFERENCE DRAWINGS	DESIGNED BY	DRAWN BY	TRACED BY	CHECKED BY	APPROVED:	CITY OF DETROIT CITY ENGINEERING DEPARTMENT
			Succoch		R. Plater	<i>Allen E. Pogue</i> ENGINEER OF EXPRESSWAYS	TWELFTH STREET WIDENING S. OF BAGLEY AVENUE TO FISHER FREEWAY REMOVALS, STA. 22+00 TO FISHER FREEWAY
							SHEET 7 OF 67 SHEETS CONTRACT No. 05861A ASSIGNMENT No. 2237 DATE NOV 7 1975

FINAL R.O.W.



CALL MISS DIG
48 HOURS PRIOR TO
CONSTRUCTION 647-7344

PROFILES
Scale: Hor. 1" = 40'
Vert. 1" = 4'

DESIGNED BY	Comly	APPROVED:	<i>Allen S. Jones</i>
DRAWN BY	Poitto	ENGINEER OF EXPRESSWAYS	
CHECKED BY	Comly		
FINAL REVIEW			

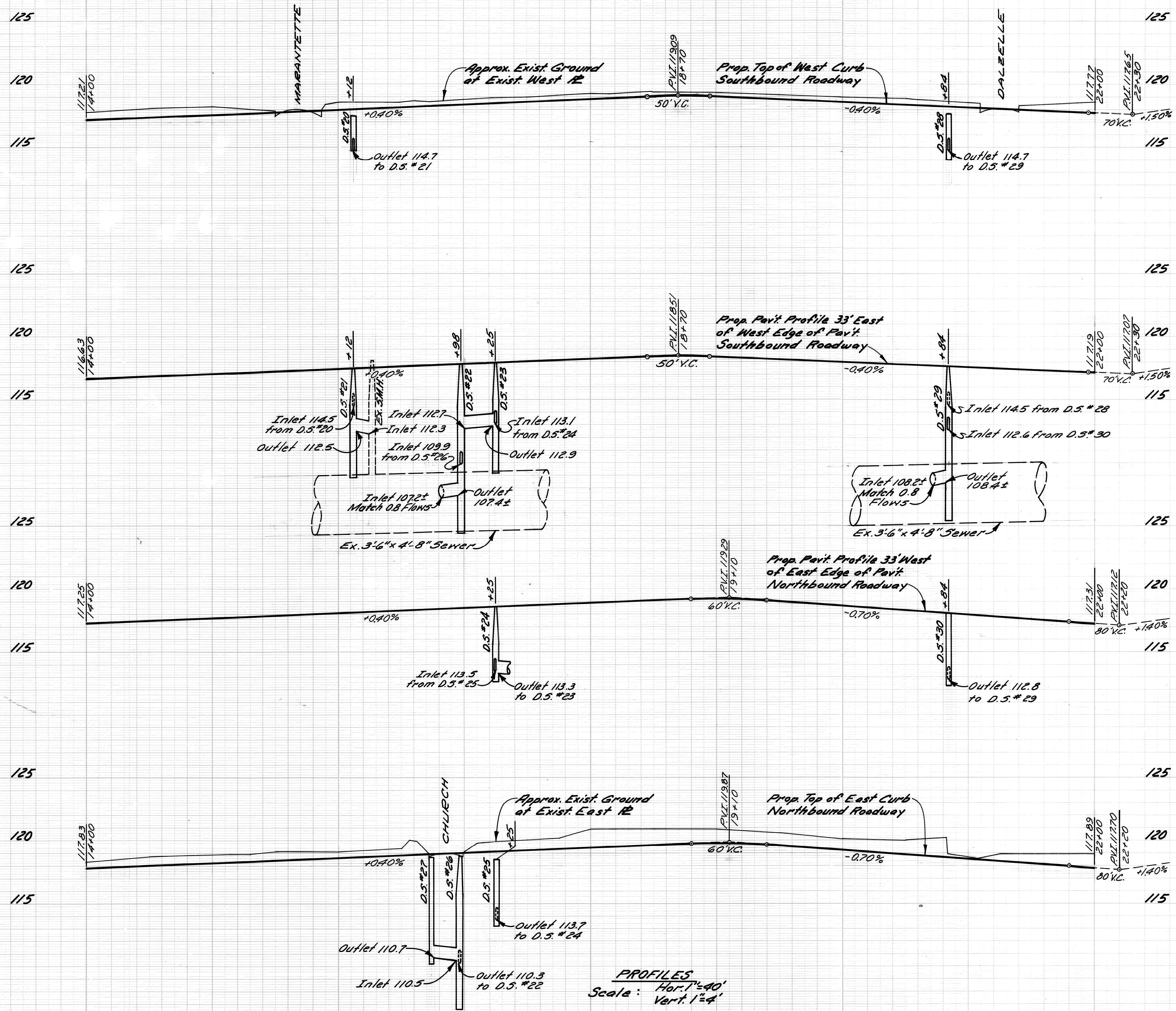
CITY OF DETROIT
CITY ENGINEERING DEPARTMENT

TWELFTH STREET WIDENING
S. OF BAGLEY AVENUE TO FISHER FREEWAY
PROFILES, S. OF BAGLEY AVE. TO STA. 14 + 00

SHEET 9 of 67 SHEETS
CONTRACT NO. 05861A
ASSIGNMENT NO. 2237
DATE NOV 7 1975

C-5522

FINAL R.O.W.



CALL MISS DIG
48 HOURS PRIOR TO
CONSTRUCTION 647-7344

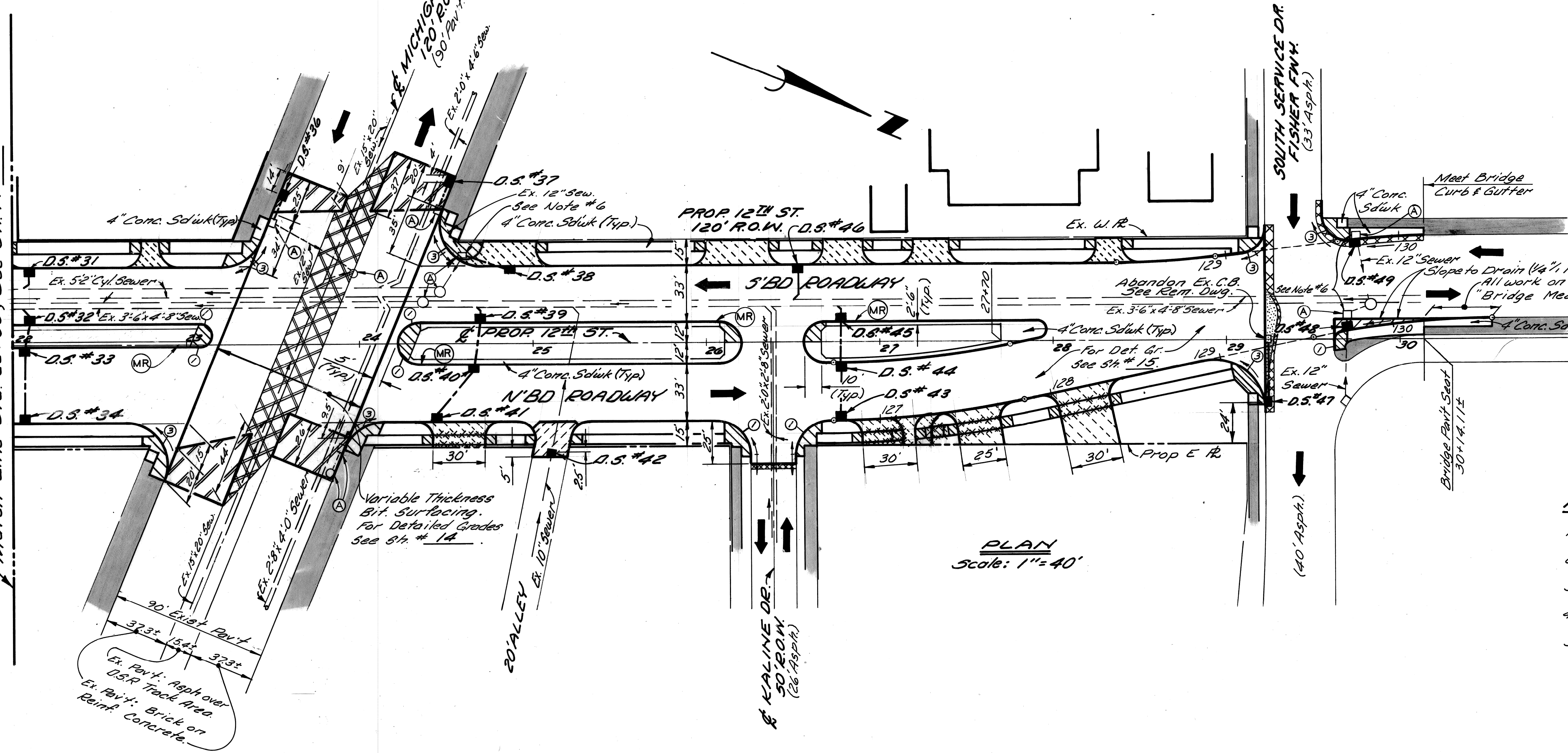
PROFILES
Hor. 1"=40'
Vert. 1"=4'

DESIGNED BY	Comly	APPROVED:	<i>Allen E. Piquero</i>	CITY OF DETROIT CITY ENGINEERING DEPARTMENT	TWELFTH STREET WIDENING S. OF BAGLEY AVENUE TO FISHER FREEWAY	SHEET 10 OF 67 SHEETS
DRAWN BY	Polito	ENGINEER OF EXPRESSWAYS				CONTRACT NO. 05861A
CHECKED BY	Comly					ASSIGNMENT NO. 2237
FINAL REVIEW						DATE NOV 7 1975
					PROFILES, STA. 14 + 00 TO STA. 22 + 00	C-5522

C.B.M. Elev. 122.46 Arrow on Hydrant
N.W. Corner of 12th St. & Michigan

C.B.M. Elev. 124.62 Arrow on Hydrant
S.W. Corner of 12th St. & Fisher Fwy.

Match Line Sta 22+00, See Sh. No. 8



PLAN
Scale: 1" = 40'

Variable Thickness
Bit. Surfacing.
For Detailed Grades
See Sh. # 14

NOTES:

1. For Alignment, See Sh. # 4.
2. For Utility Legend & Symbols, See Sh. # 20.
3. For Driveway Details, See Sh. # 20.
4. For Construction Sequence, See Sh. # 5.
5. For Landscaping, See Sh. # 26.
6. Remove existing catch basin covers (Incidental) and replace with drainage structure cover "A".
7. The work shall include the removal and replacement of the sidewalk slab, knocking down the existing slab keyway as necessary, re-arranging the structural tiles to conform to the new alignment, the cutting of any reinforcing bars which protrude above the bridge deck to a level of 1/2" below top of deck and filling this hole with a Hot-Poured Rubber Asphalt Type Filler (or Approved equal). The curb face shall be constructed integrally with the sidewalk slab and shall conform with the shape of the existing curb face on the bridge.

*D.S. refers to Drainage Structure with Sewer as shown in the table below.

D.S. NO.	TYPE OF STRUCT.	WITH TRAP (T)	SEWER LENGTH & TYPE LEAVING D. S.			TRENCH DETAIL		SEWER TAP SIZE (IN)	COMMENTS
			LENGTH (FT)	SIZE (IN)	CLASS	8 LIN. FT.	9 LIN. FT.		
31	C.B. "B"	T	6	12	C-76-III	6	12		
32	C.B. "B"	T	3	12	C-76-III	3	12		
33	C.B. "B"		11	12	C-76-III	9	2		
34	C.B. "A"		39	12	C-76-III	39			
36	C.B. "A"		14	12	C-76-III	14	12		
37	C.B. "A"		14	12	C-76-III	14	12		
38	C.B. "A"		25	12	C-76-III	25	12		
39	C.B. "B"	T	3	12	C-76-III	3	12		
40	C.B. "B"		22	12	C-76-III	20	2		
41	C.B. "A"		34	12	C-76-III	34			
42	C.B. "B" 10" 12" Spec. 4"		9	12*	B	9			
43	C.B. "A"		28	12	C-76-III	28			
44	C.B. "B"		22	12	C-76-III	20	2		
45	C.B. "B"	T	3	12	C-76-III	3	12		
46	C.B. "B"	T	14	12	C-76-III	14	12		
47	C.B. "B"	T	35	12	C-76-III	35		Connect to exist. outlet sew. (Traced)	
48	C.B. "L"		4	12	C-76-III	4	12		
49	C.B. "L"		2	12	C-76-III	2	12		

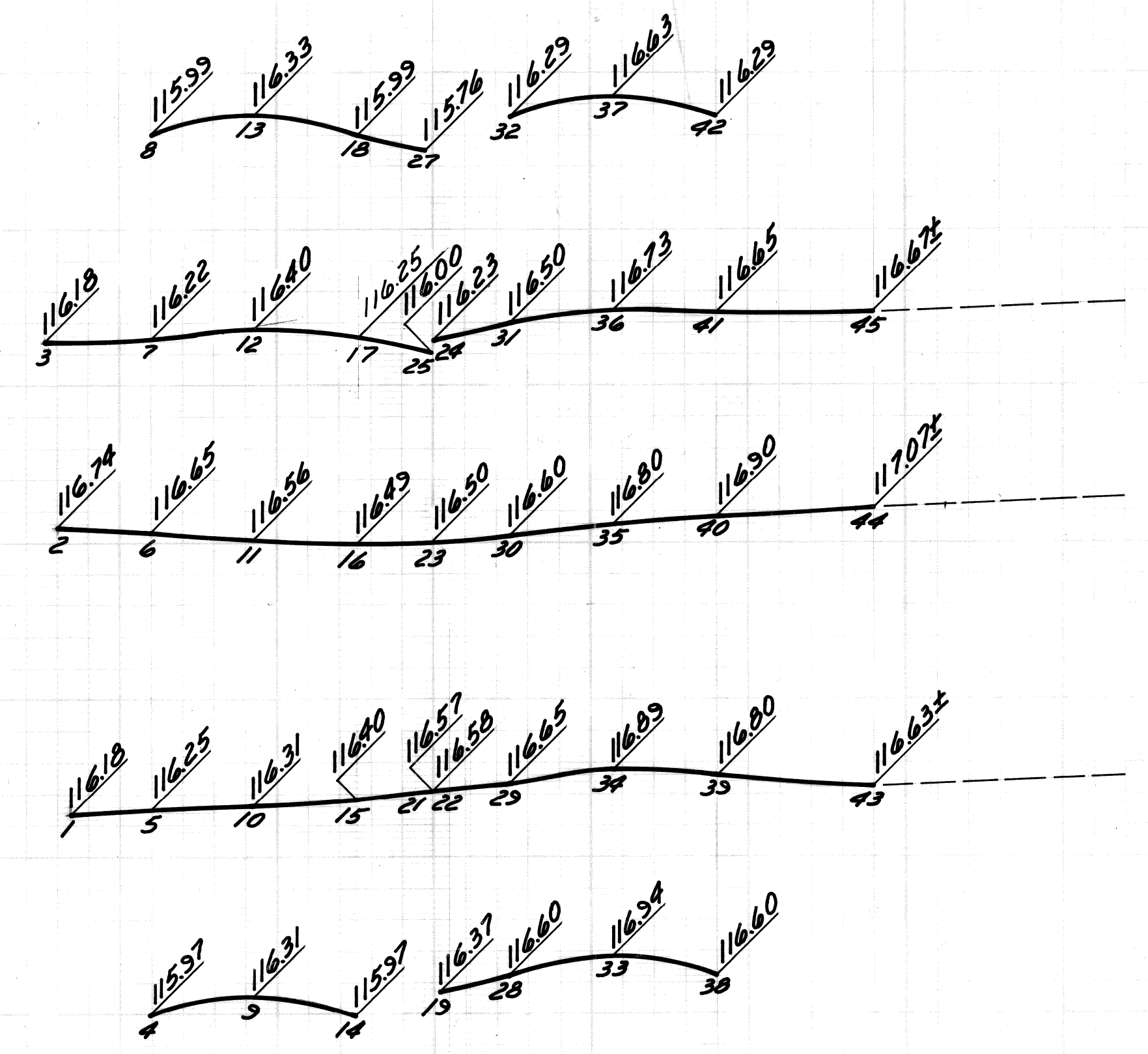
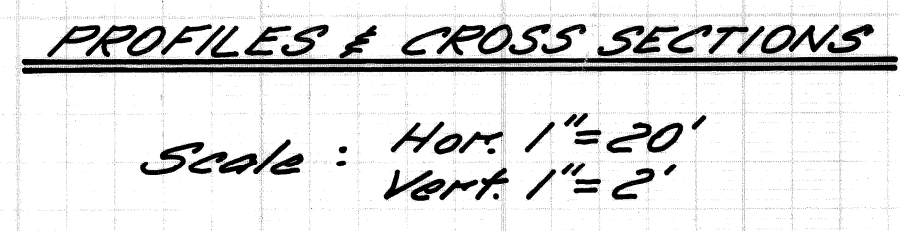
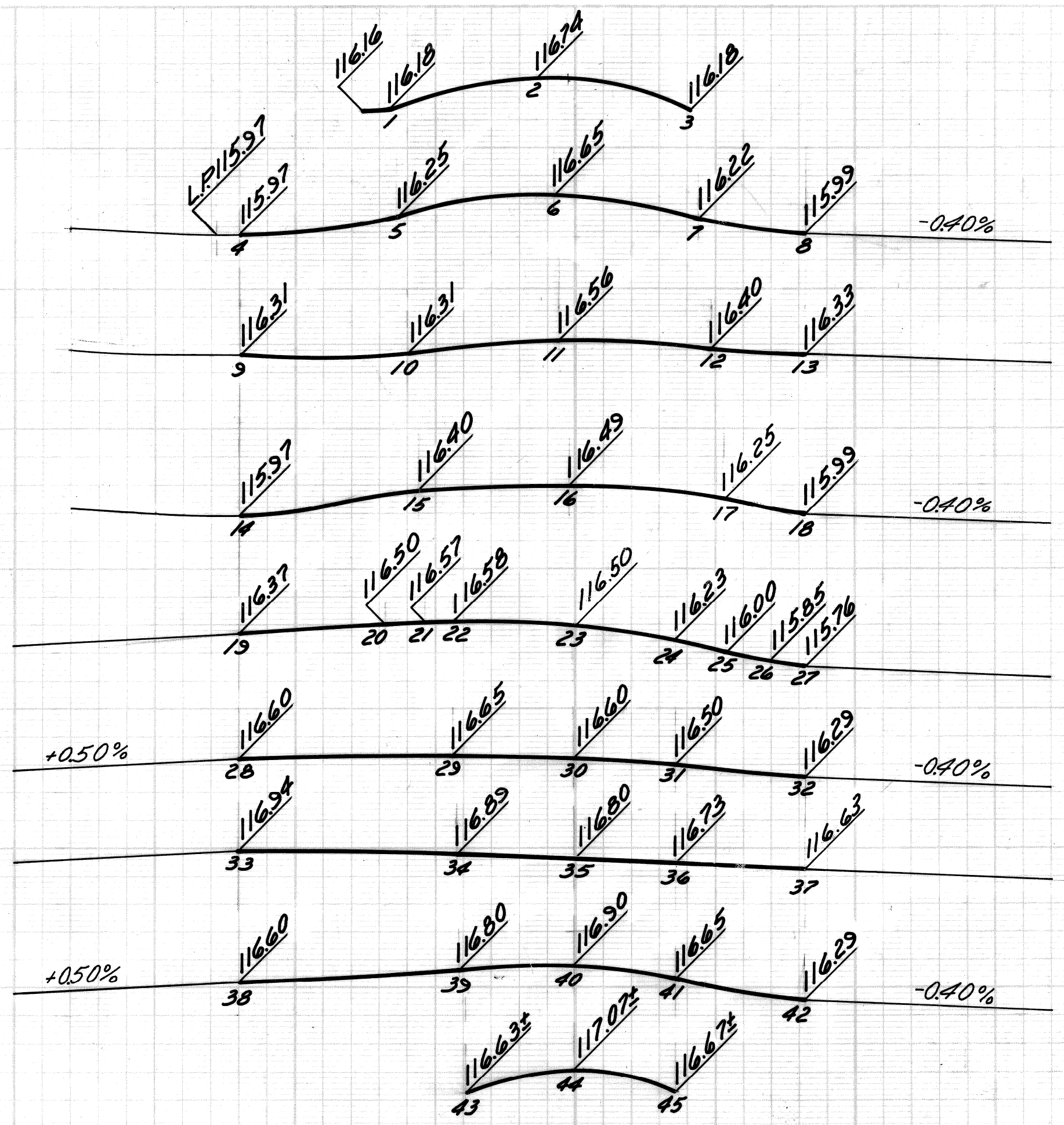
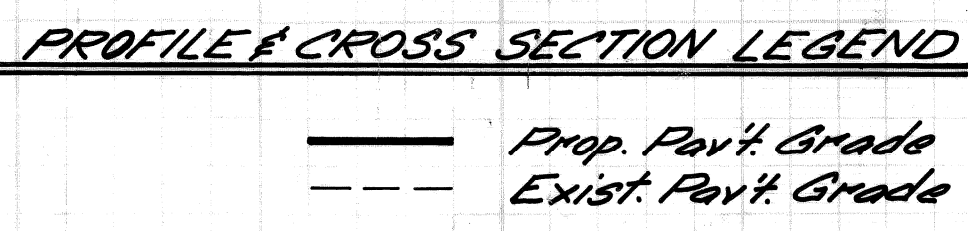
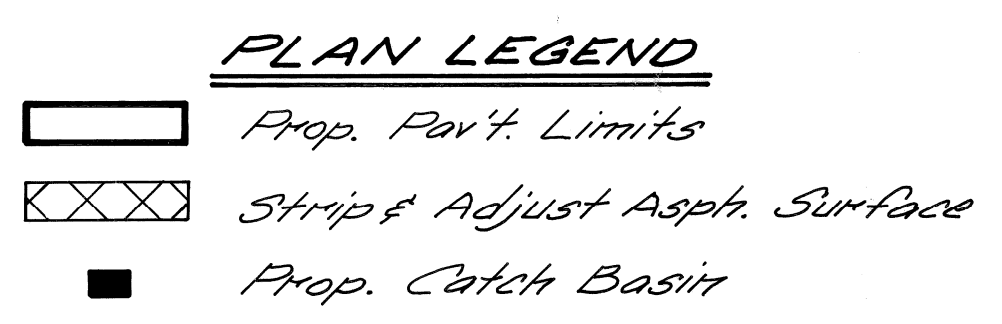
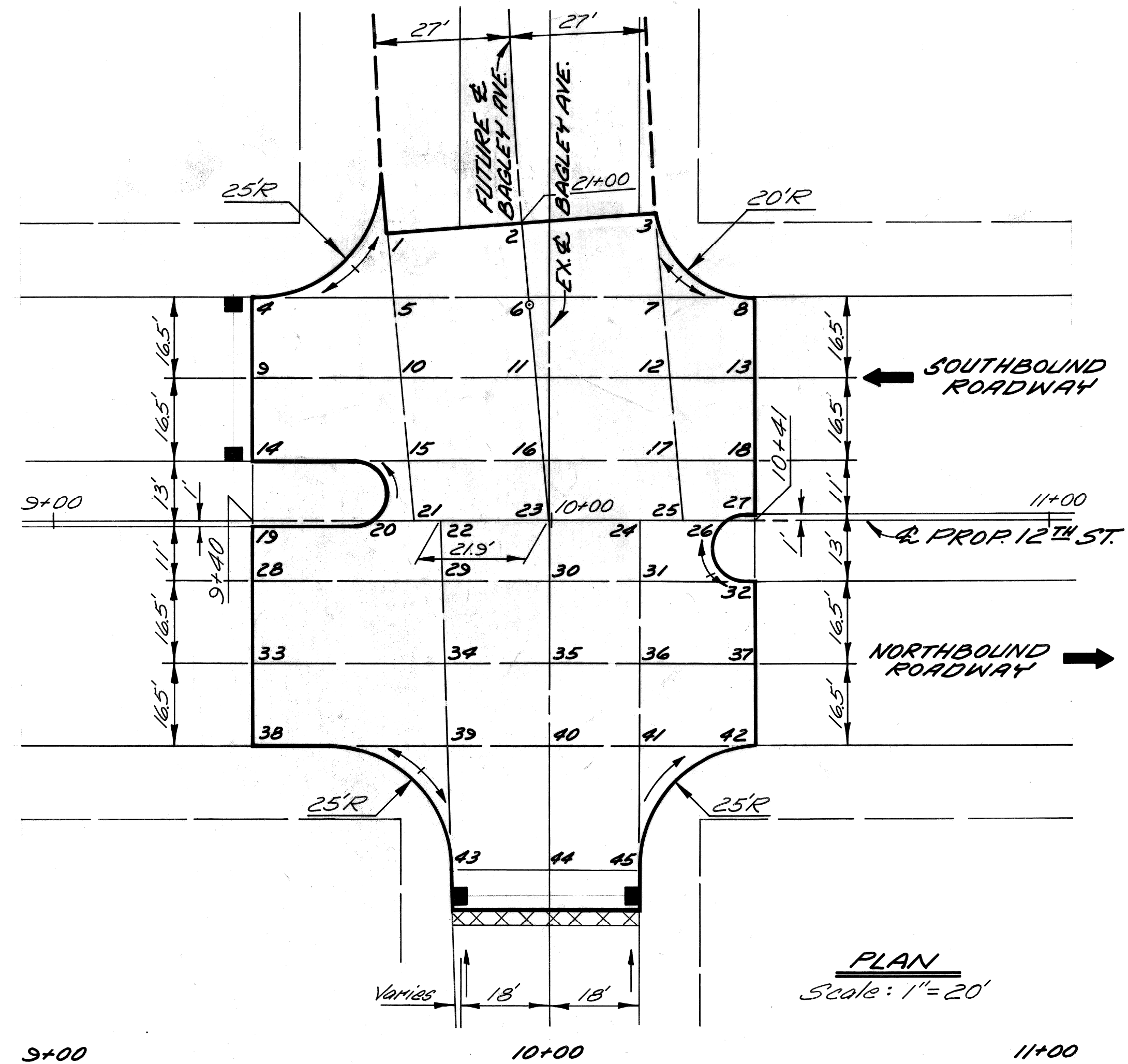
*10" sewer may be used instead of 12" sewer for this location.

LEGEND

- Conc. Pav't. Reinforced-9" with Integral Curb
- Conc. Pav't. Non-Reinf.-8" (Driveway)
- 6" Conc. Sid'k (Sid'k Ramp areas are paid for separately)
- Remove Bituminous Surface & Resurface
- Conc. Pav't. Non-Reinf.-9" (Alley)
- Exist Sidewalk to Remain
- Sidewalk Ramps (4' or 6'), Type 1 or 3
- Adjusting Drainage Structure Covers
- Area of Brick Removal & Surfacing with Bit. Conc. Binder, Levelling & Wearing Courses.
- Mower Ramp (Incidental to Contract Cost) For Construction Details, See Sh. # 23.
- Remove Bituminous Surface - Planer Method (Stripping Method Optional)
- Bituminous Surfacing (No Stripping)
- 2" Bit. Conc. on Conc. Base Course Non-reinf. 9" with Integral Curb.

DESIGNED BY <i>Comly</i>	APPROVED: <i>Alan E. Progn</i> ENGINEER OF EXPRESSWAYS	CITY OF DETROIT CITY ENGINEERING DEPARTMENT		TWELFTH STREET WIDENING S. OF BAGLEY AVENUE TO FISHER FREEWAY		PLAN, STA. 22+00 TO FISHER FREEWAY	
DRAWN BY <i>M. Succoch</i>						SHEET <u>11</u> OF <u>67</u> SHEETS	
TRACED BY						CONTRACT No. 05861A	
CHECKED BY <i>Comly</i>						ASSIGNMENT No. 2237	
						DATE NOV 7 1975	

SCALE	HORIZONTAL	VERTICAL	BOOK	NO.	PG.	LEVEL	DATE	BEFORE STARTING CONSTRUCTION CONTRACTOR MUST CHECK WITH UTILITIES FOR LOCATIONS OF EXISTING STRUCTURES WHETHER OR NOT INDICATED ON PLANS.	NOTE - FOR SYMBOLS (A) ETC. SEE STANDARD DETAIL DRAWING NO. C-477



BY	CHECKED BY	APPROVED:
J.R.D.	R.P.	<i>Allen Spurgeon</i>
PLAN	GRADE	ENGINEER OF EXPRESSWAYS
ESTIMATE	CHECK	REVIEW
FINAL		

CITY OF DETROIT
CITY ENGINEERING DEPARTMENT

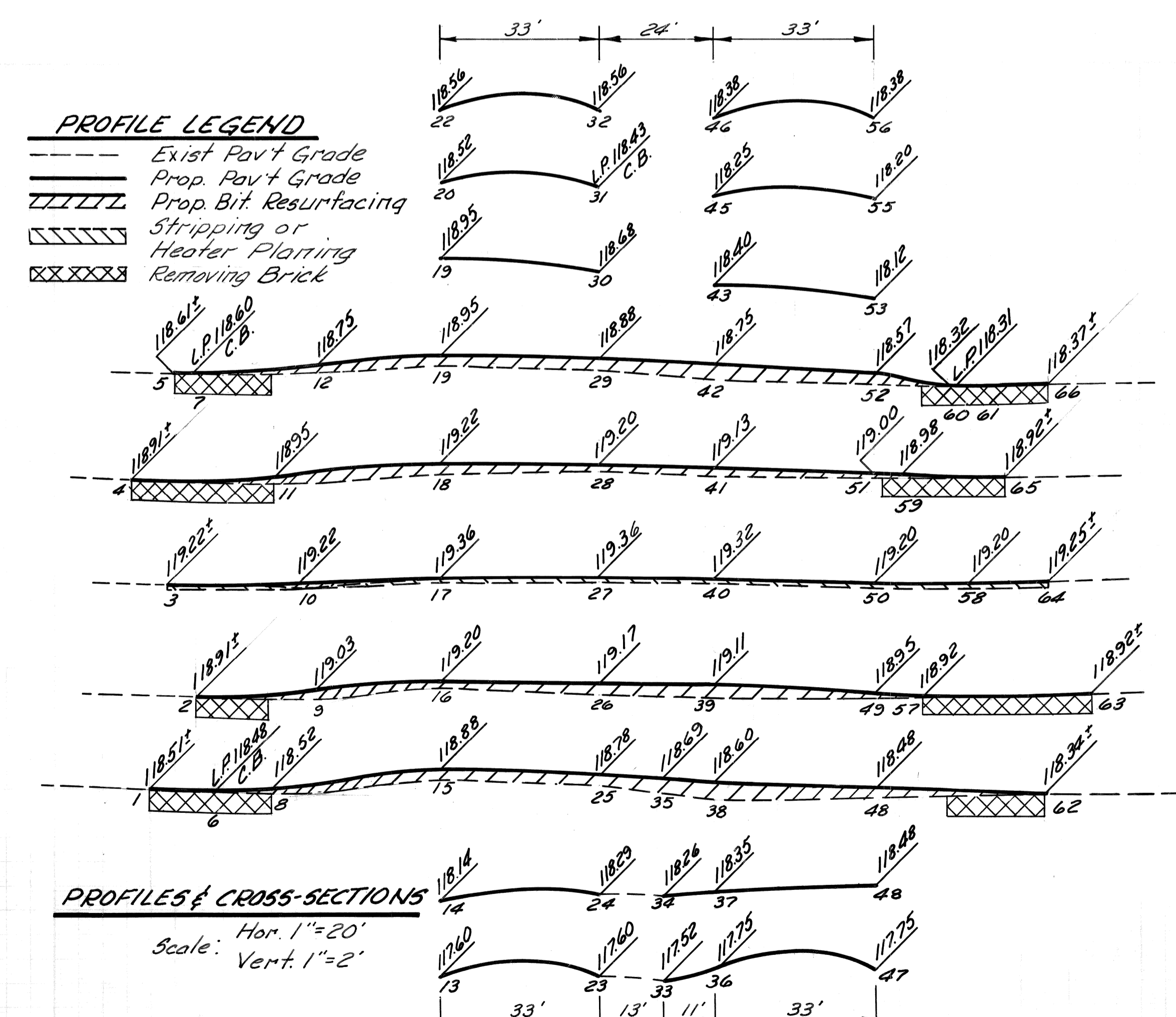
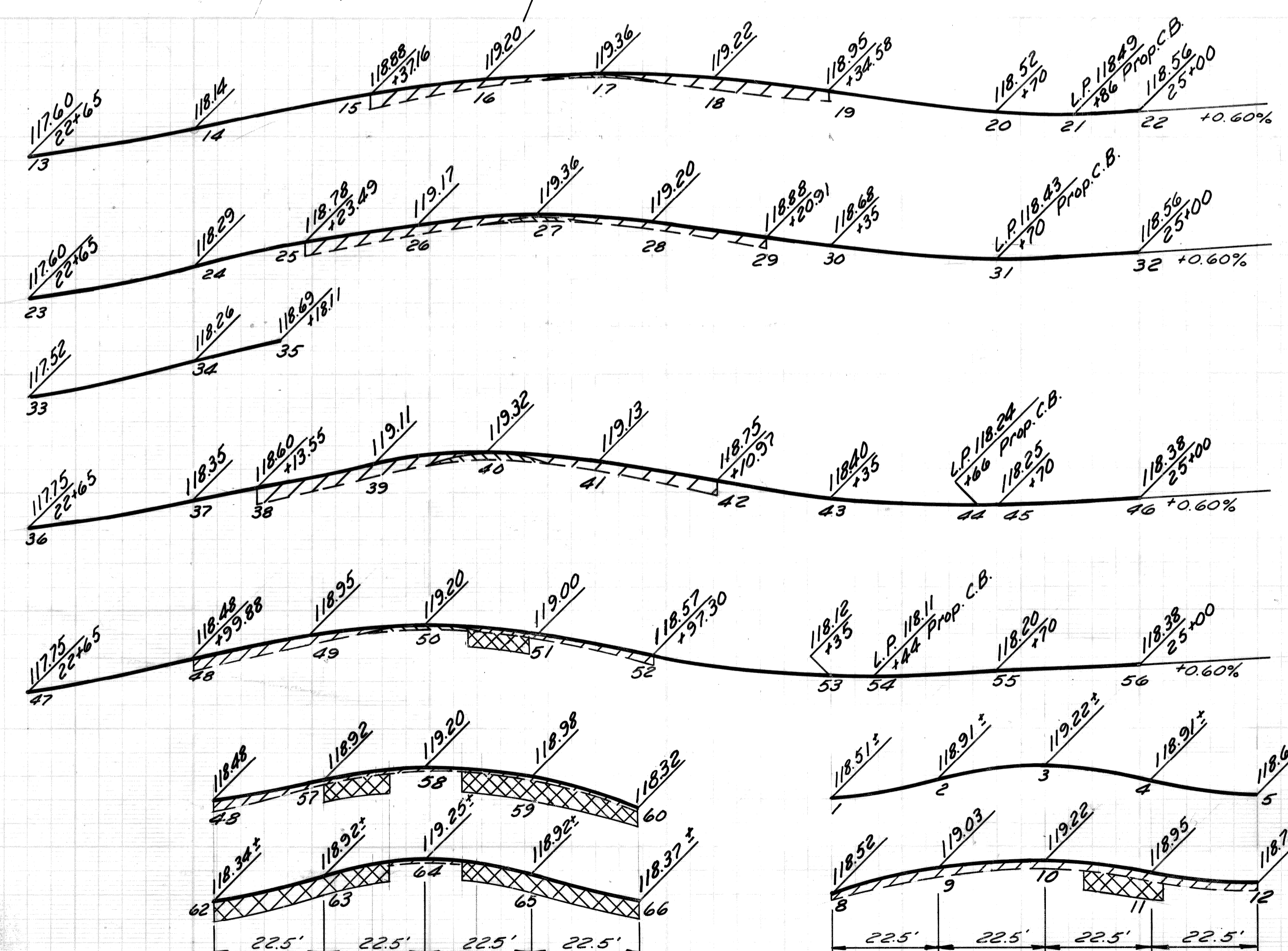
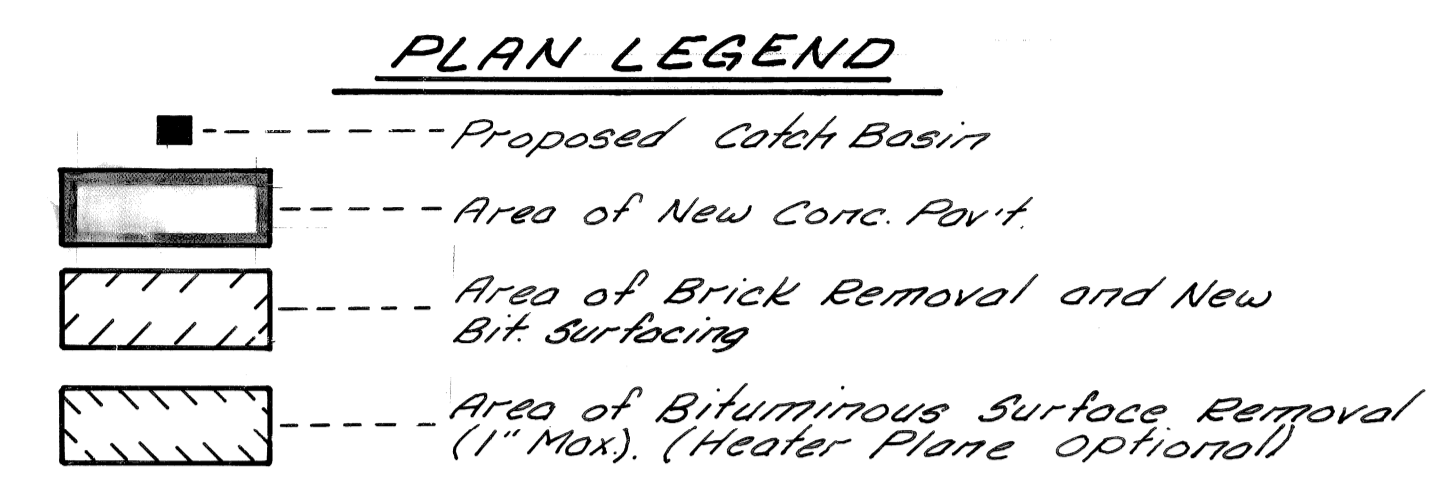
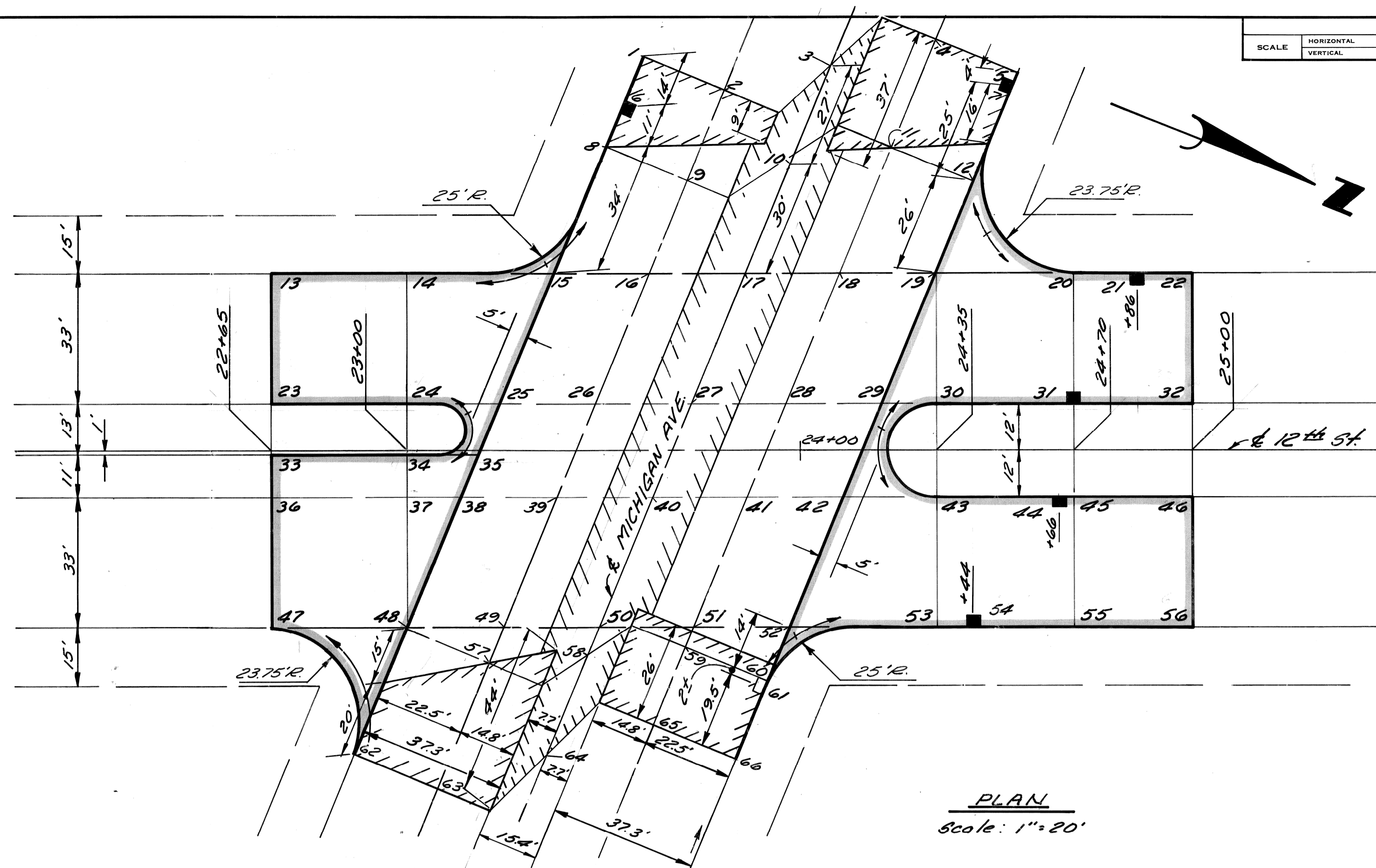
TWELFTH STREET WIDENING
S. OF BAGLEY AVENUE TO FISHER FREEWAY
DETAILED GRADES FOR TWELFTH ST. AT BAGLEY AVE.

INDEX NO.	SHEET 13 OF 67 SHEETS
CONTRACT NO.	05861A
ASSIGNMENT NO.	2237
DATE	NOV 7 1975

SCALE	HORIZONTAL	BOOK NO.	LEVEL
	VERTICAL	NO. PG.	DATE
		PAVING COMPLETED	

NOTE - FOR SYMBOLS (A) ETC. SEE STANDARD DETAIL DRAWING NO. C-477

BENCH MARKS ELEV.



BY	CHECKED BY	APPROVED:
PLAN	Sueech R.B.R.	<i>Man E. Piquet</i>
GRADE	R.B.R. D.R.L.	ENGINEER OF EXPRESSWAYS
ESTIMATE		
DESCRIPTION	DR N CK'D AP'VD DATE	FINAL CHECK REVIEW
REVISIONS		

CITY OF DETROIT
CITY ENGINEERING DEPARTMENT

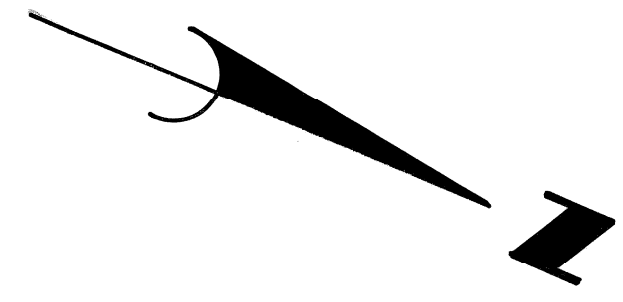
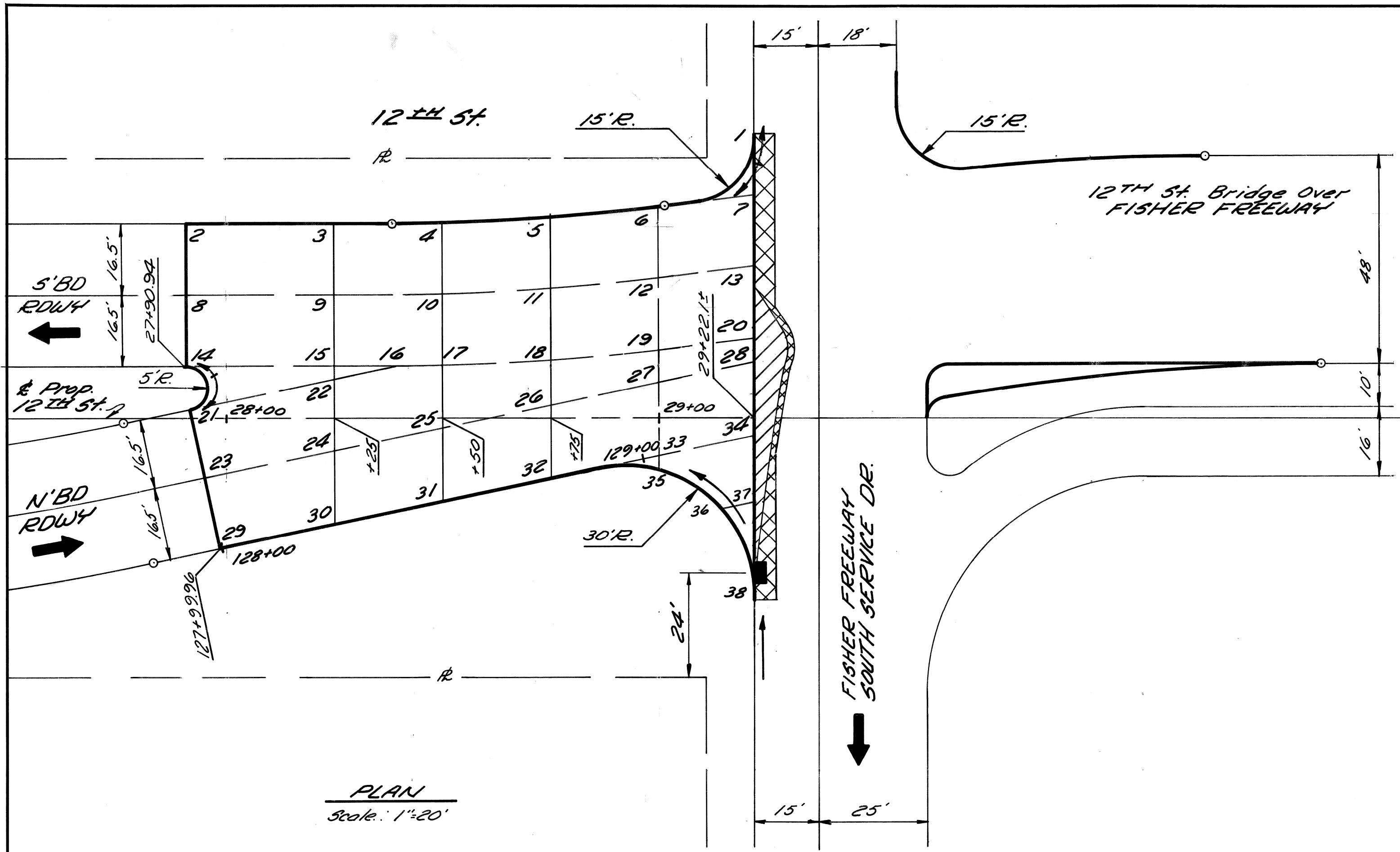
TWELFTH STREET WIDENING
S. OF BAGLEY AVENUE TO FISHER FREEWAY
DETAILED GRADES FOR TWELFTH ST. AT MICHIGAN AVE.

INDEX NO.	SHEET 14 OF 67 SHEETS
CONTRACT NO.	05861A
ASSIGNMENT NO.	2237
DATE	NOV 7 1975

SCALE	HORIZONTAL	BOOK NO.	LEVEL
	VERTICAL	NO. PG.	DATE
		PAVING COMPLETED	

NOTE - FOR SYMBOLS (A) ETC. SEE STANDARD DETAIL DRAWING NO. C-475

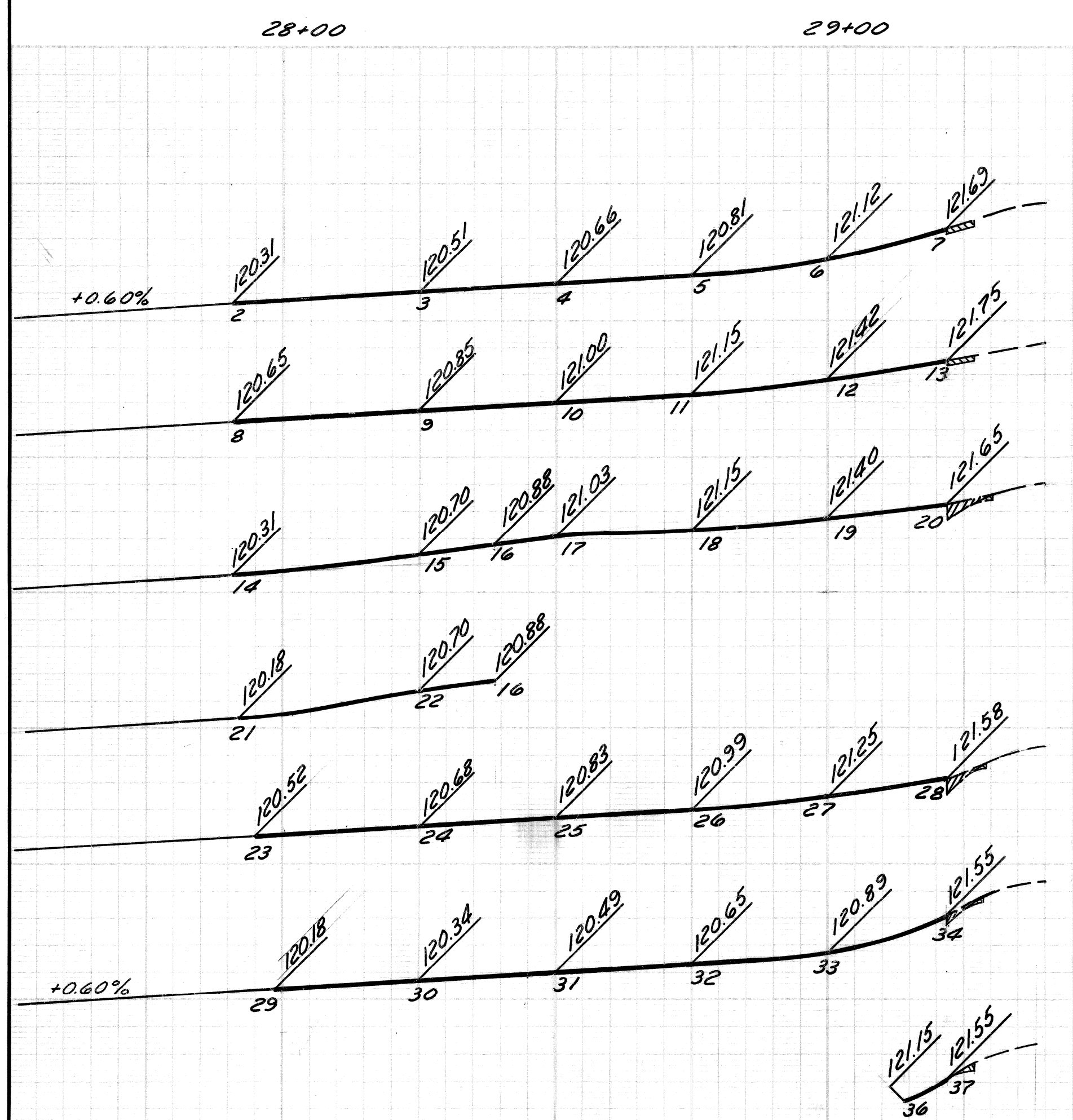
BENCH MARKS ELEV.



PLAN LEGEND

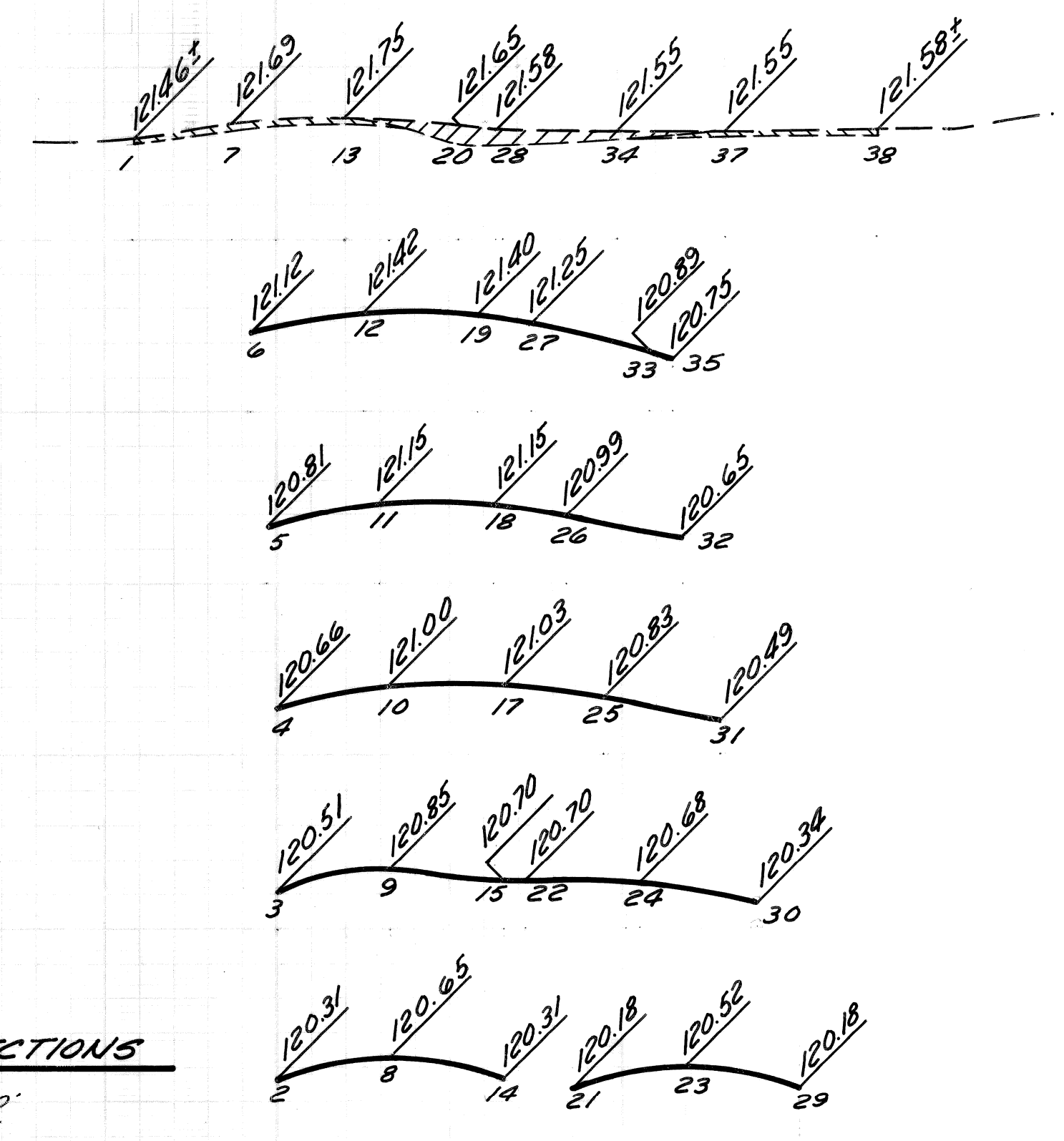
[Solid Line]	Limits of New Pav't
[Cross-hatched]	Remove Bit. Surface & Resurface
[Diagonal Lines]	Bituminous Resurfacing

PLAN
Scale: 1"=20'



PROFILE & CROSSSECTION LEGEND

[Dashed Line]	Exist. Pav't. Grade
[Solid Line]	Prop. Pav't. Grade
[Diagonal Lines]	Bit. Resurfacing
[Cross-hatched]	Removing Bit Surface & Resurfacing



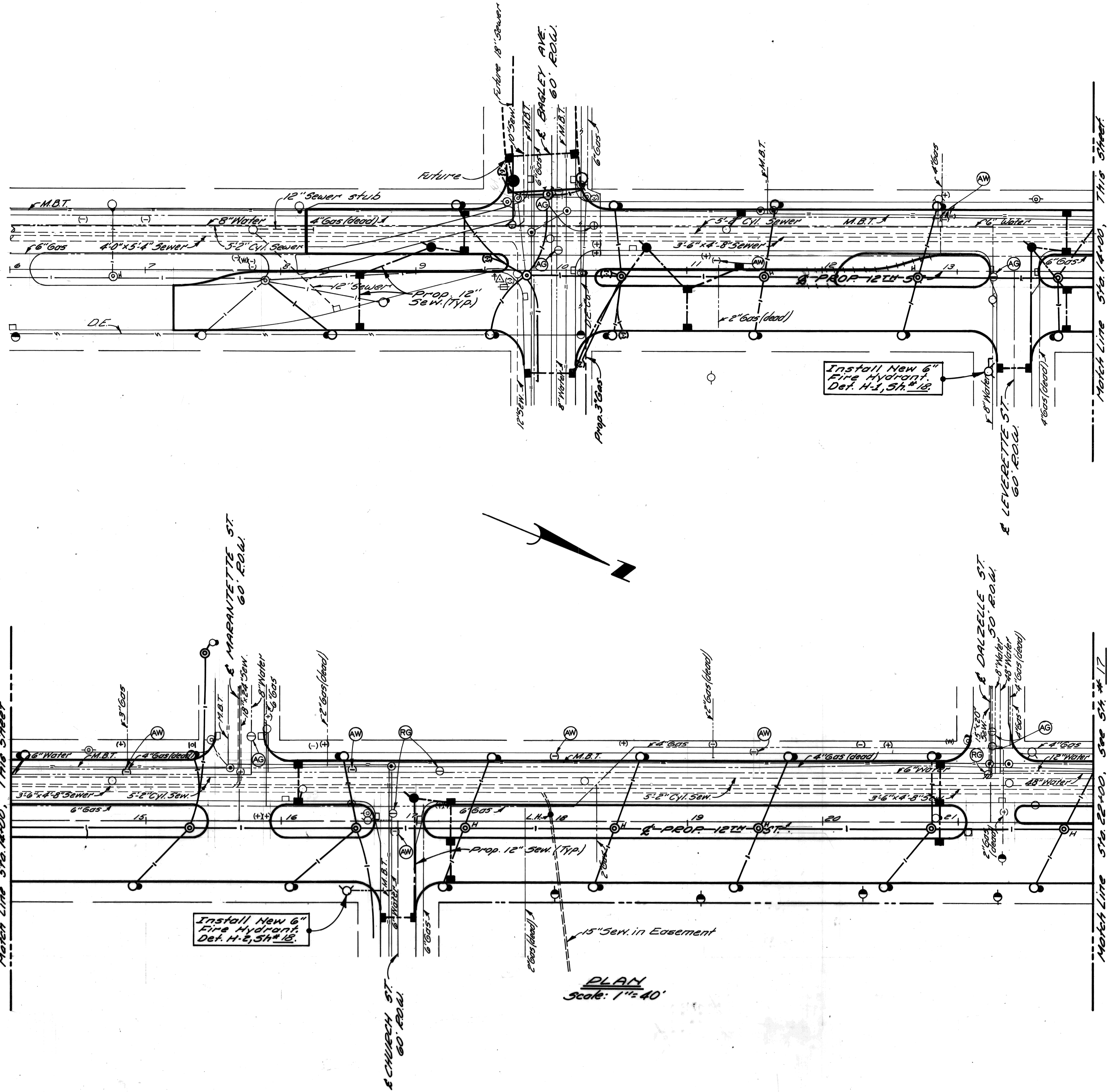
PROFILES & CROSS-SECTIONS
Scale: Hor. 1"=20'
Vert. 1"=2'

BY	CHECKED BY	APPROVED
J. D.	I. H. K.	<i>[Signature]</i>
GRADE	W. B.	ENGINEER OF EXPRESSWAYS
ESTIMATE	CHECK	REVIEW
DESCRIPTION	DRN	CK'D
REVISIONS	AP'VD	DATE
	FINAL	

CITY OF DETROIT
CITY ENGINEERING DEPARTMENT

TWELFTH STREET WIDENING
S. OF BAGLEY AVENUE TO FISHER FREEWAY
DETAILED GRADES FOR TWELFTH ST. AT FISHER FWY.

INDEX NO.	SHEET 15 OF 67 SHEETS
CONTRACT NO.	05861A
ASSIGNMENT NO.	2237
DATE	NOV 7 1975



NOTES:
 1. For Utility Legend, See Sh. No. 20.
 2. Locations of exist. utility lines are based on best available records & are not guaranteed for accuracy.

LEGEND

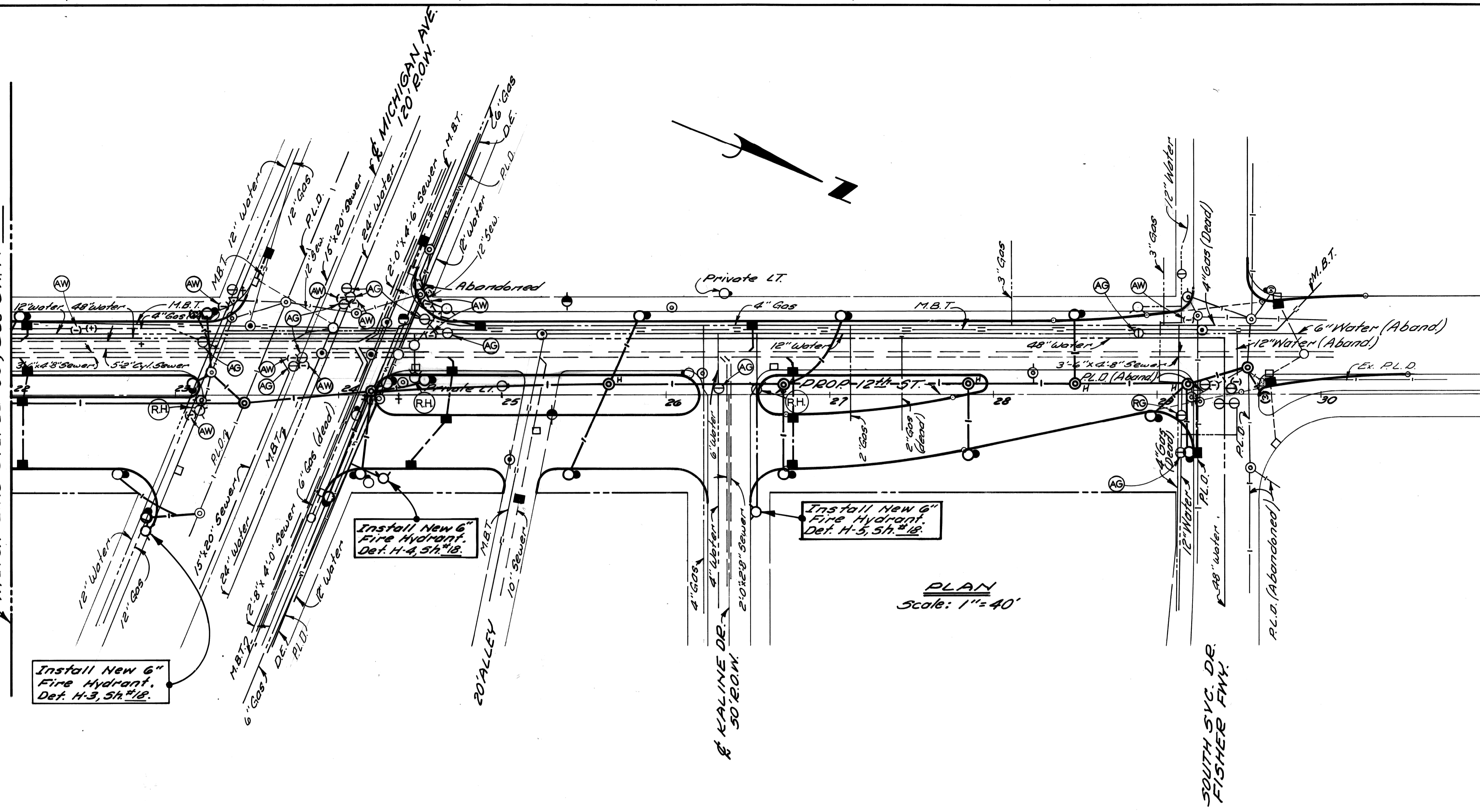
- (RH) Remove Fire Hydrant
- (AW) Adjusting Water Shutoffs
- (AG) Adjusting Gate Well Manhole Cover
- (RG) Reconstruct Gate well.

PLAN
 Scale: 1" = 40'

CALL MISS DIG
 48 HOURS PRIOR TO
 CONSTRUCTION 647-7344

REFERENCE DRAWINGS DESIGNED BY <i>D.B.L.</i> DRAWN BY <i>M. Polito</i> TRACED BY CHECKED BY <i>W.B.</i>		APPROVED <i>Allen E. Progan</i> ENGINEER OF EXPRESSWAYS		CITY OF DETROIT CITY ENGINEERING DEPARTMENT		TWELFTH STREET WIDENING S. OF BAGLEY AVENUE TO FISHER FREEWAY UTILITIES, S. OF BAGLEY AVE. TO STA. 22+00		SHEET 16 OF 67 SHEETS CONTRACT No. 05861A ASSIGNMENT No. 2237 DATE NOV 7 1975	
B-7 Median Alignment Revision RP WB 7/77 COORD. DESCRIPTION DATE REVISIONS LOCATED BY COORDINATES ON SHEET									

Match Line Sta 22+00, See Sh. No. 16.



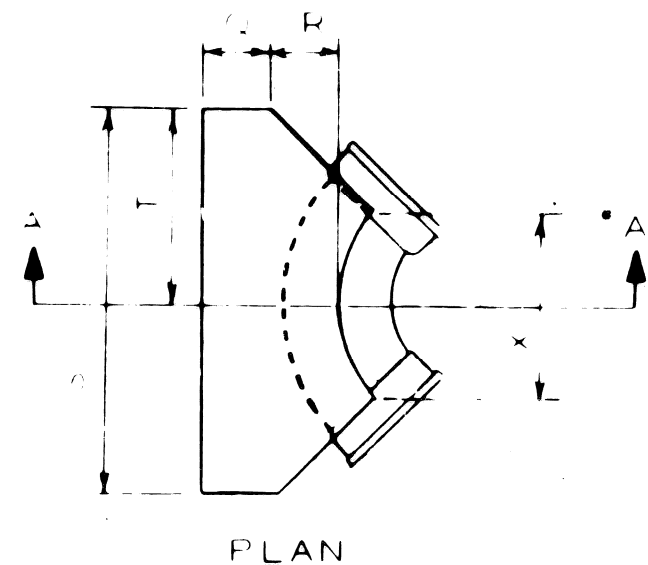
PLAN
Scale: 1" = 40'

NOTES:
 1. For Utility Legend, See Sh. No. ____
 2. Locations of exist. utility lines are based on best available records & are not guaranteed for accuracy.

LEGEND
 (RH) Remove Fire Hydrant
 (AW) Adjusting Water Shutoffs
 (AG) Adjusting Gate Well Manhole Cover
 (RG) Reconstruct Gatewell

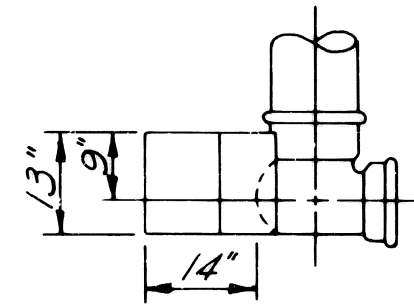
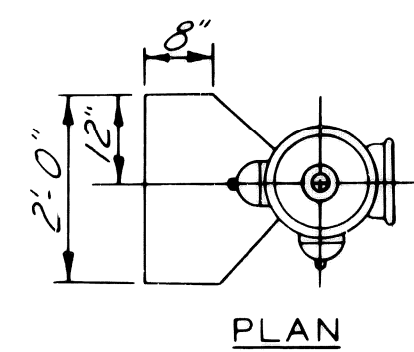
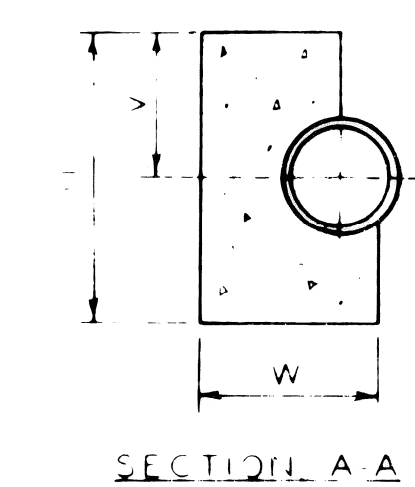
CALL MISS DIG
 48 HOURS PRIOR TO
 CONSTRUCTION 647-7344

REVISIONS LOCATED BY COORDINATES ON SHEET COORD. DESCRIPTION 1 2 3 4 5 6 7 8 9 10 11		DESIGNED BY D.R.L. DRAWN BY M. Sucech TRACED BY CHECKED BY W. B.	APPROVED: ENGINEER OF EXPRESSWAYS	CITY OF DETROIT CITY ENGINEERING DEPARTMENT	TWELFTH STREET WIDENING S. OF BAGLEY AVENUE TO FISHER FREEWAY UTILITIES, STA. 22+00 TO FISHER FREEWAY	SHEET 17 OF 67 SHEETS CONTRACT No. 05861A ASSIGNMENT No. 2237 DATE NOV 7 1975
--	--	--	--	--	---	--

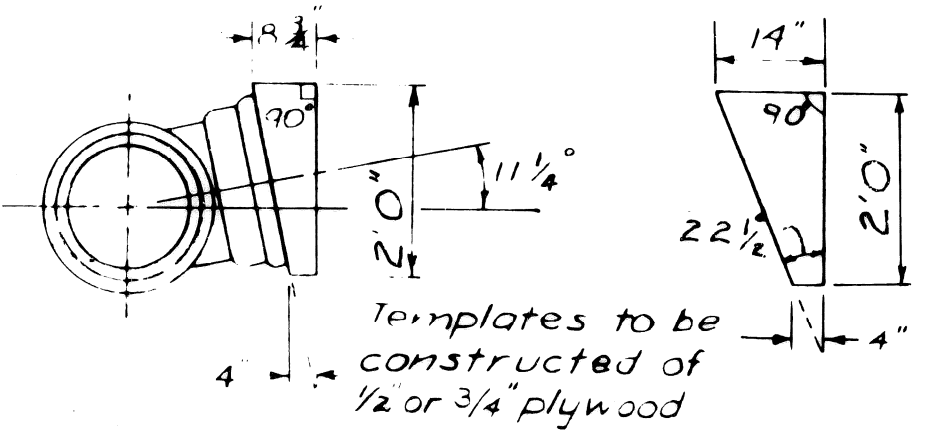


R/FND SIZE	CODE									
	G	R	S	T	U	V	W	X		
6" x 8" 90°	0' 9"	1' 0"	3' 4"	1' 8"	2' 6"	1' 3"	1' 11"	1' 2"		
12" 90°	0' 9"	1' 4"	5' 6"	2' 9"	3' 0"	1' 6"	2' 4"	1' 8"		
16" 90°	1' 0"	1' 8"	6' 0"	3' 0"	5' 0"	2' 6"	3' 0"	2' 8"		
6" x 8" 45°	0' 9"	1' 0"	2' 4"	1' 2"	2' 0"	1' 0"	1' 11"	1' 4"		
12" 45°	0' 9"	1' 4"	3' 6"	1' 9"	2' 6"	1' 3"	2' 4"	1' 4"		
16" 45°	1' 0"	1' 8"	5' 4"	2' 8"	3' 0"	1' 6"	3' 0"	2' 6"		
6" x 12" 22 1/2°	0' 9"	1' 0"	2' 6"	1' 3"	2' 0"	1' 0"	2' 0"	1' 4"		
16" 22 1/2°	1' 0"	1' 8"	3' 4"	1' 8"	2' 6"	1' 3"	3' 0"	1' 2"		

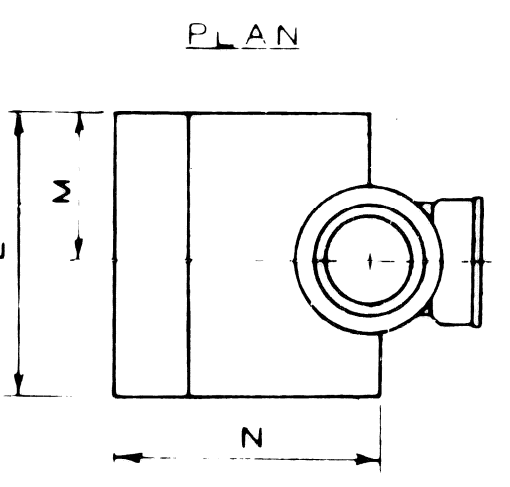
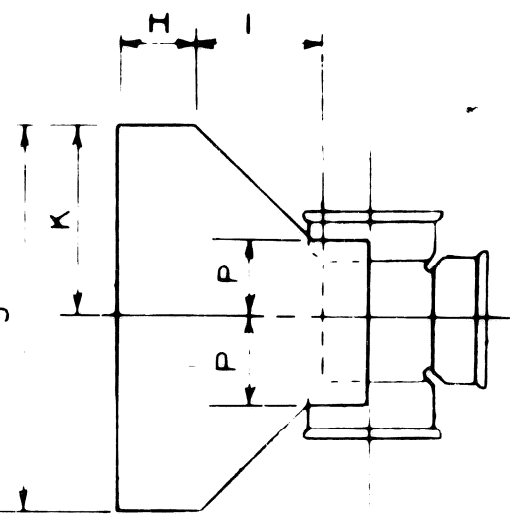
DETAIL OF STANDARD THRUST BLOCKS FOR BENDS
No Scale



THRUST BLOCK FOR 6" HYDRANT
No Scale



TEMPLATE FOR SETTING TEES
AT 11 1/4 & 22 1/2 ANGLES
No Scale

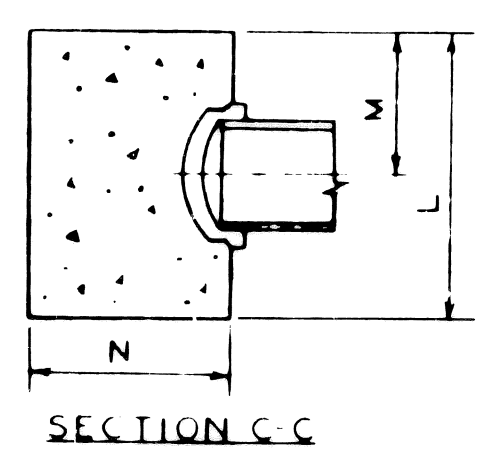
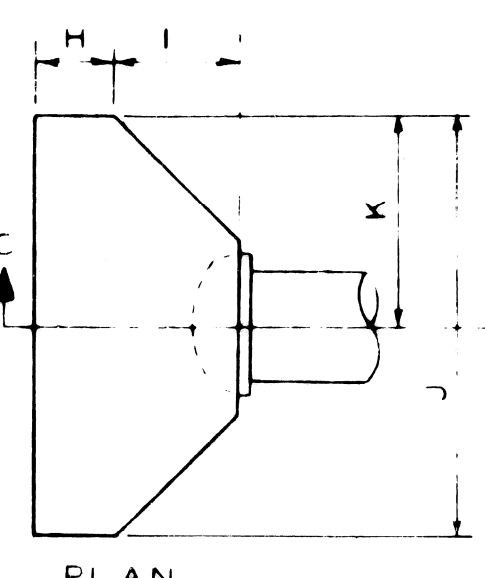
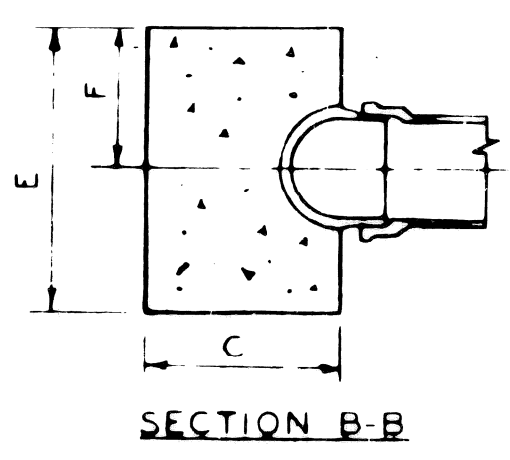
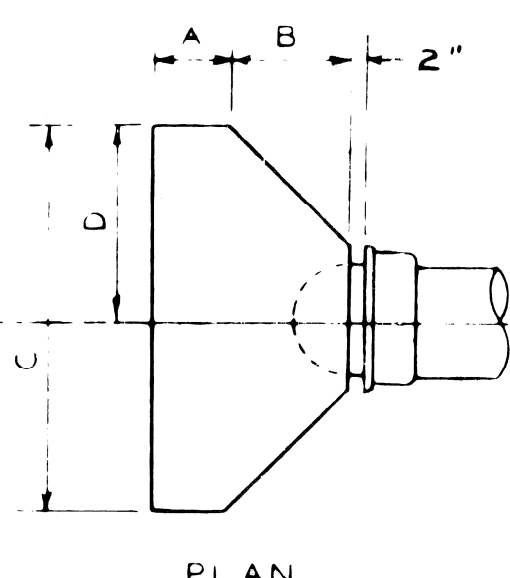


ELEVATION

TEF SIZE	CODE									
	H	I	J	K	L	M	N	P		
8" x 8"							8' 2 3/8"	8' 0 6/8"		
12" x 8"	0' 9"	1' 0"	3' 0"	1' 6"	2' 0"	1' 0"	12' 2 3/8"	12' 0 6/8"		
16" x 8"							16' 2 9/8"	16' 0 6/8"		
12" x 12"	0' 9"	1' 4"	4' 0"	2' 0"	3' 0"	1' 6"	12' 2 9/8"	8' 0 8/8"		
16" x 12"							16' 3 1/8"	16' 0 8/8"		
16" x 16"	1' 0"	1' 8"	5' 0"	2' 6"	4' 0"	2' 0"	16' 3 8/8"	16' 0 11/8"		

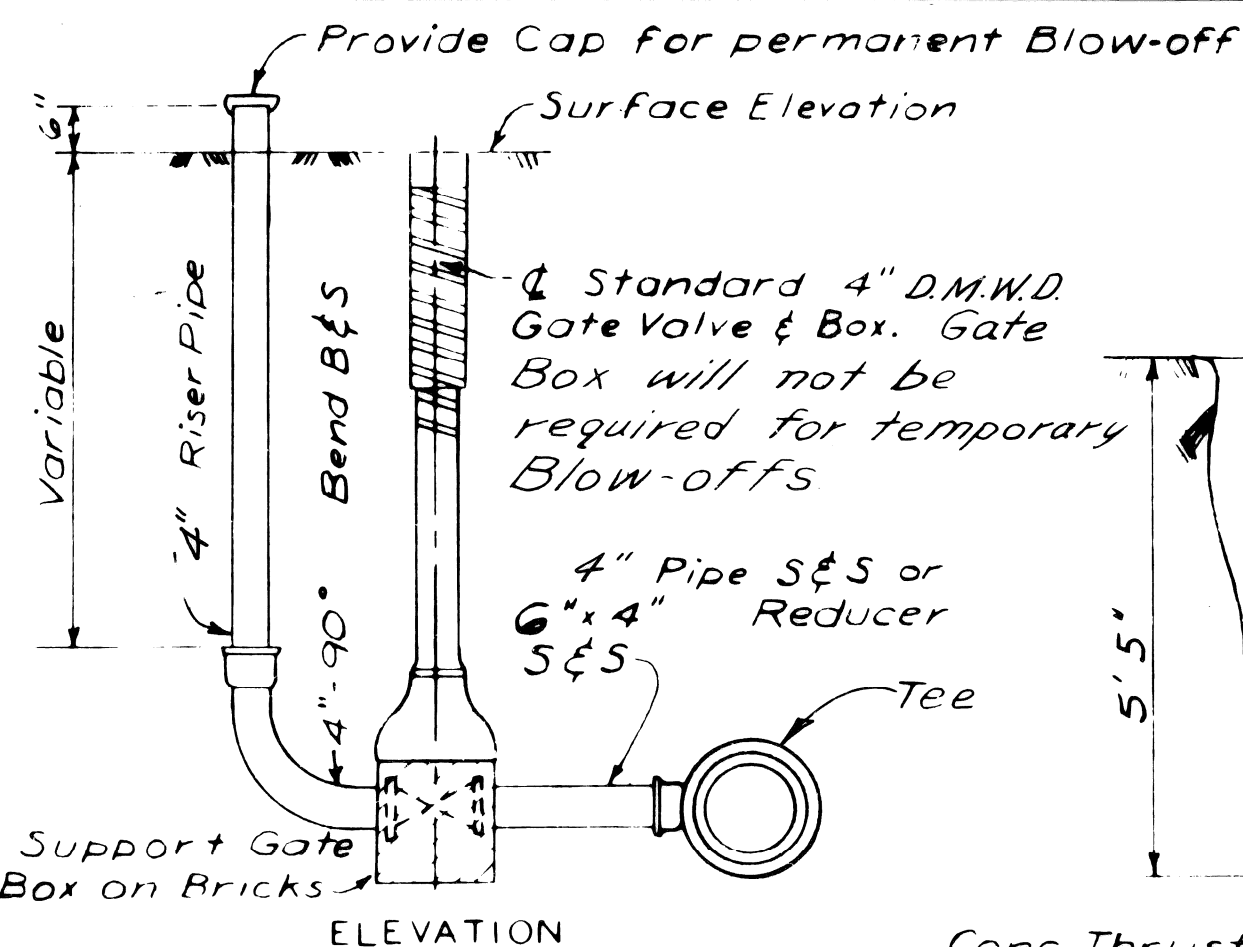
DETAIL OF STANDARD THRUST BLOCKS FOR TEES
No Scale

The bearing face of all thrust blocks shall be poured against undisturbed earth. Thrust Blocks will be required on all Bends 6 inches in Diameter or larger and greater than 11 1/4°.

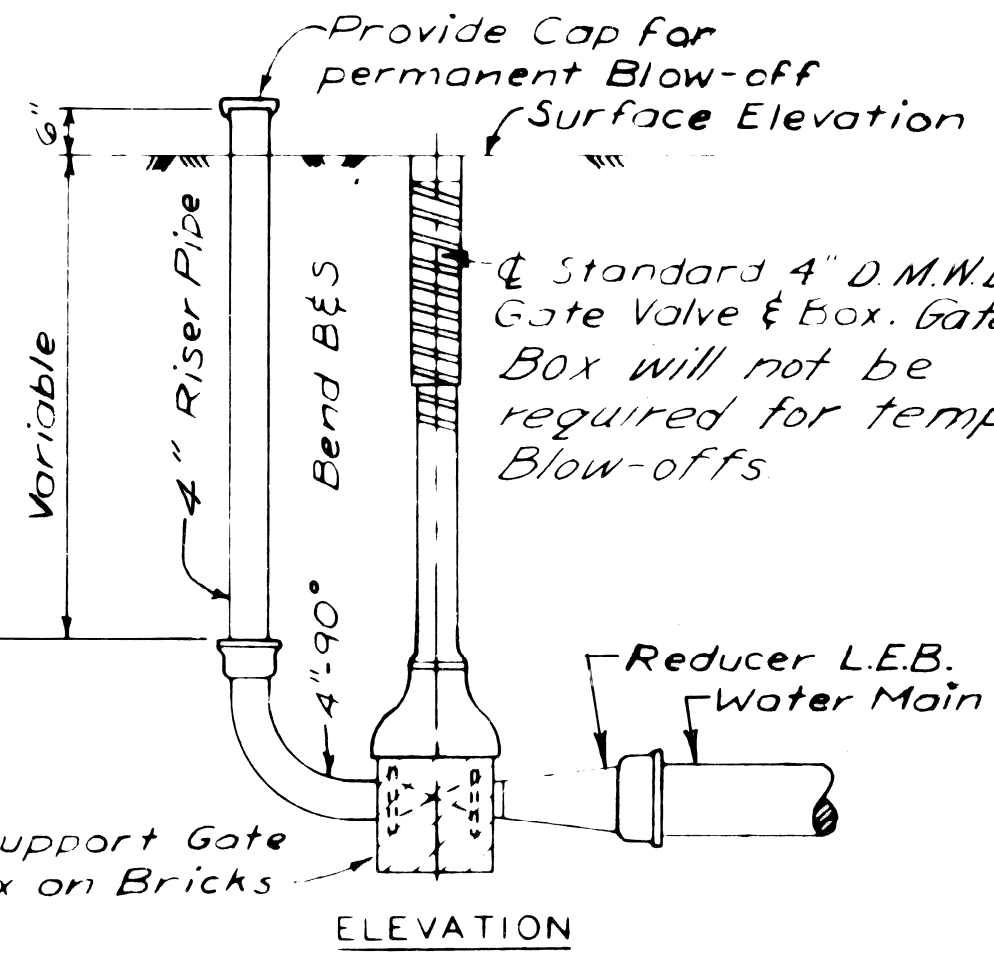


PLUG SIZE	CODE							
	A	B	C	D	E	F	G	
6" x 8"	0' 9"	1' 2"	3' 0"	1' 6"	2' 0"	1' 0"	1' 11"	
12"	0' 9"	1' 4"	4' 0"	2' 0"	3' 0"	1' 6"	2' 1"	
16"	1' 0"	1' 8"	5' 0"	2' 6"	4' 0"	2' 0"	2' 8"	
CAP SIZE	CODE							
6" x 8"	0' 9"	1' 2"	3' 0"	1' 6"	2' 0"	1' 0"	1' 11"	
12"	0' 9"	1' 4"	4' 0"	2' 0"	3' 0"	1' 6"	2' 1"	
16"	1' 0"	1' 8"	5' 0"	2' 6"	4' 0"	2' 0"	2' 8"	

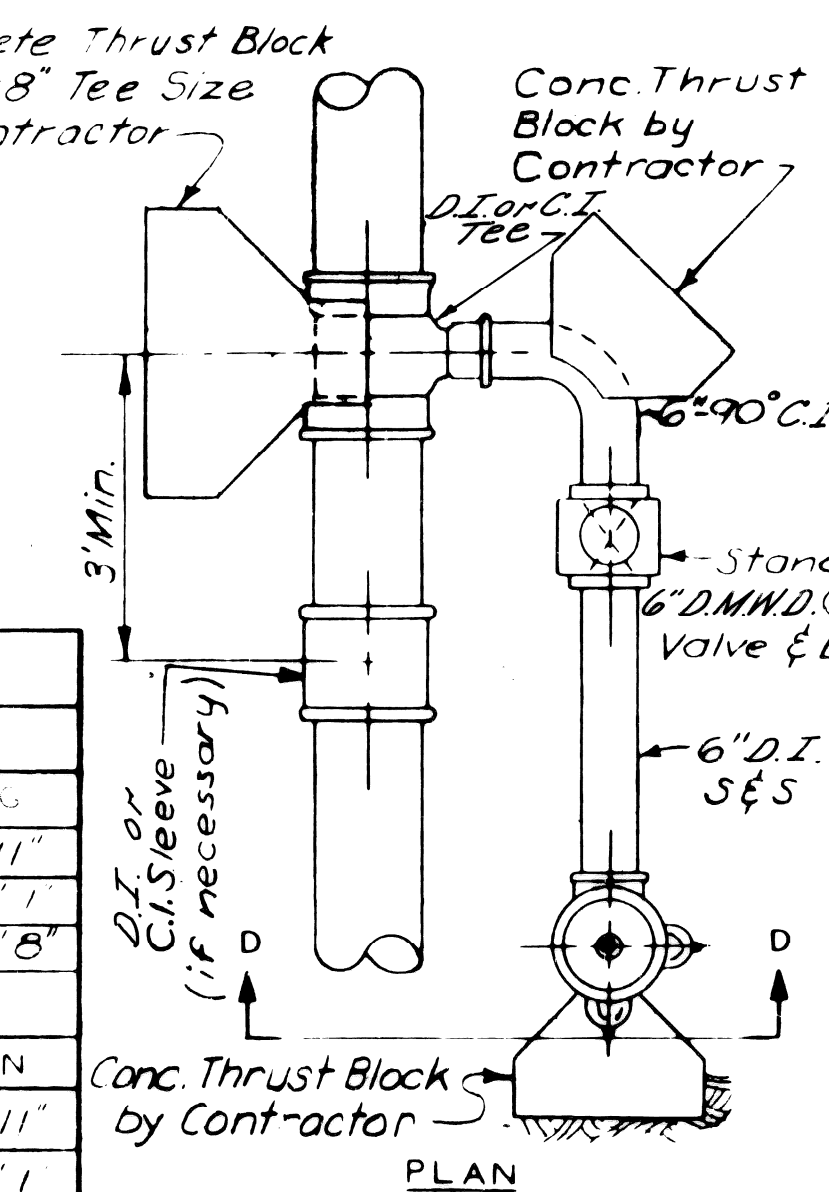
DETAIL OF STANDARD THRUST BLOCKS FOR PLUGS & CAPS
No Scale



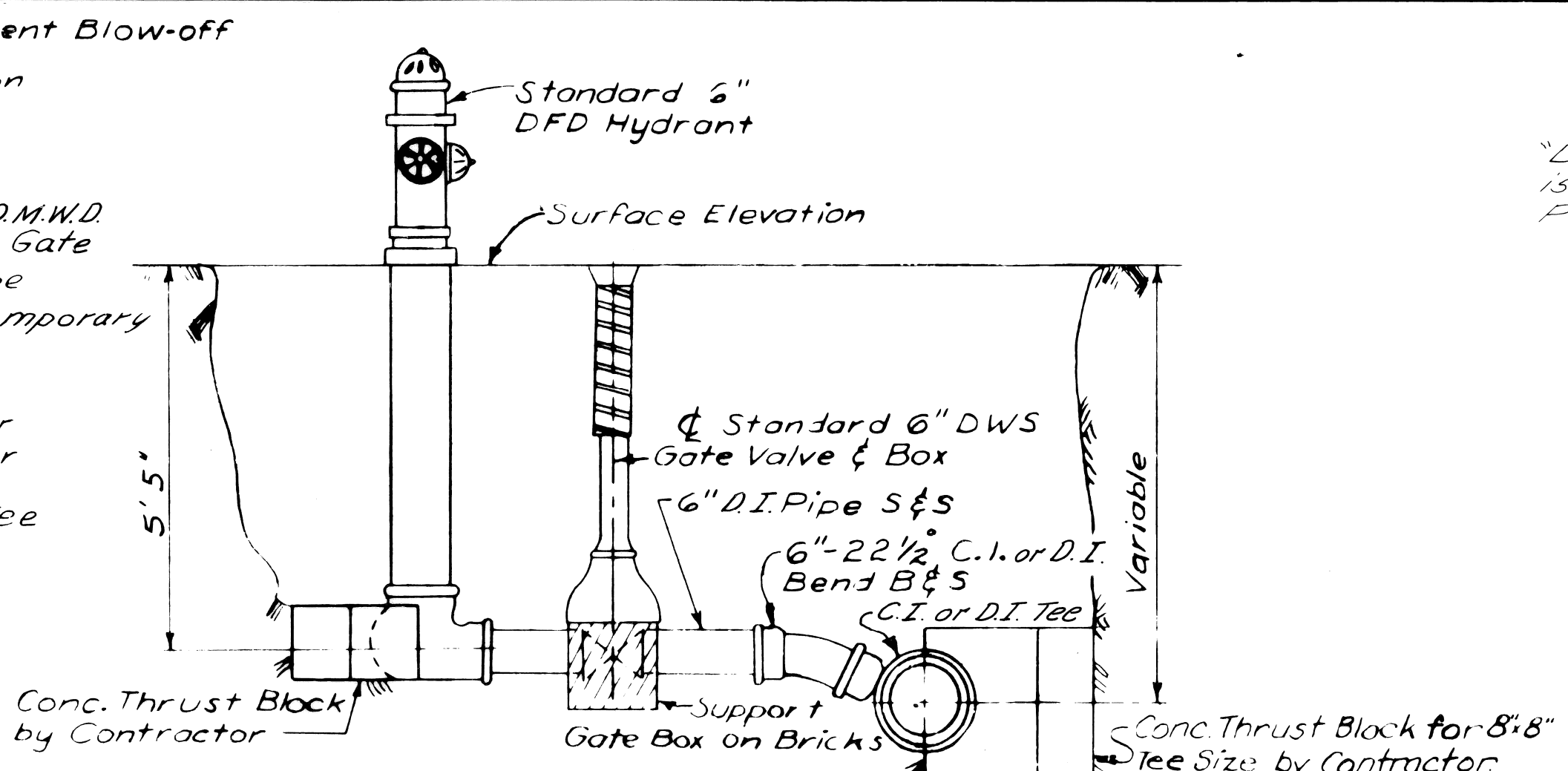
DETAIL OF 4" BLOW OFF
No Scale



DETAIL OF 4" BLOW-OFF
No Scale



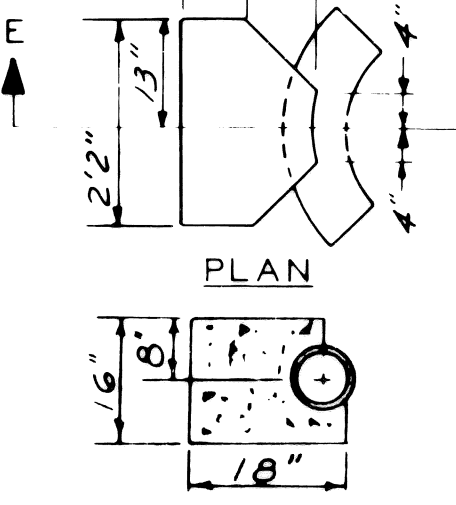
DETAIL OF 6" HYDRANT INSTALLATION
No Scale



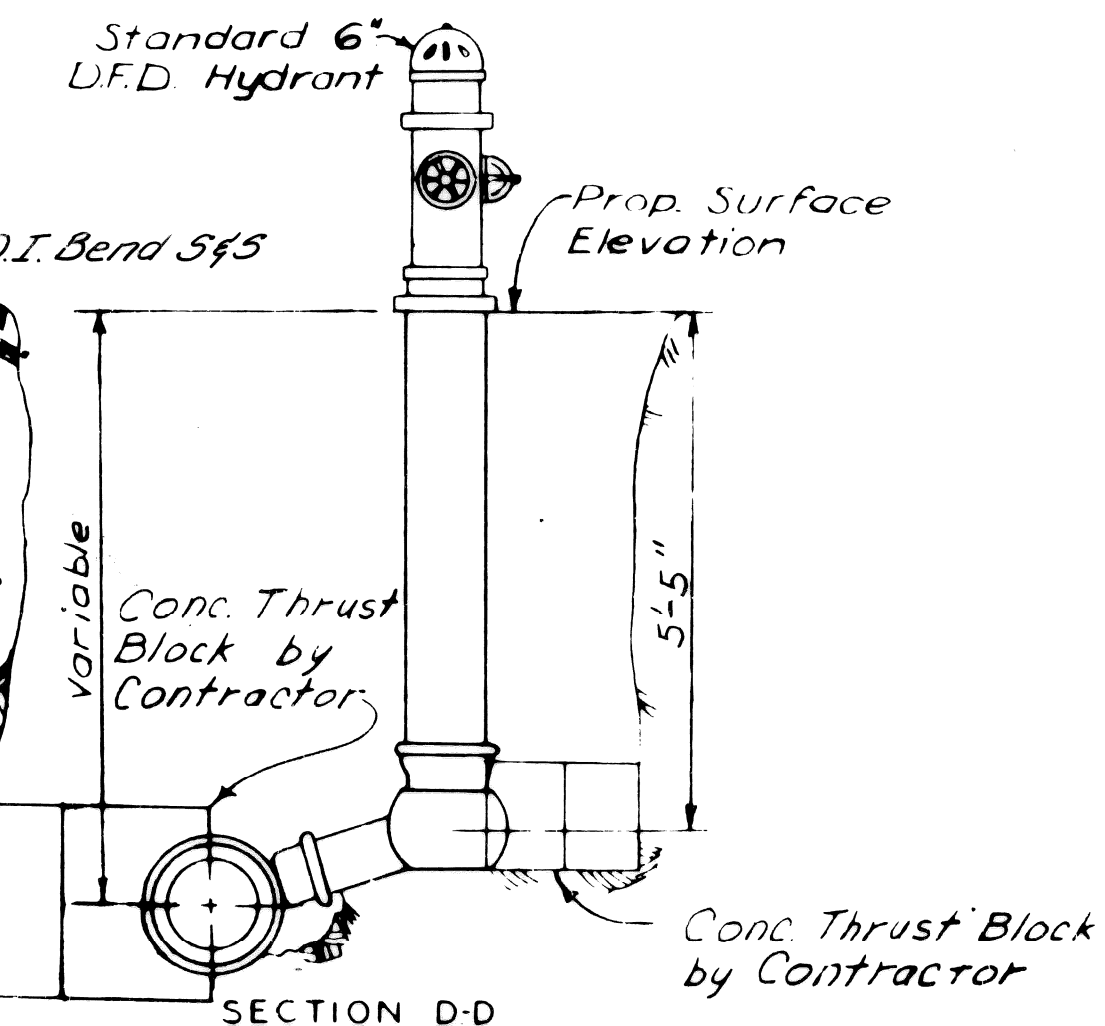
From the new main the Contractor shall install the Tee, 6" 22 1/2° Bend B&S, 6" Pipe, 6" D.M.W.D. Gate Valve & Box, 6" Pipe, Concrete Thrust Blocks, and Hydrant. From any existing main the complete Hydrant installation shall be done by the Contractor.

Hydrants to be a minimum of 6' behind Curb, unless otherwise noted on the drawings. Dimensions given from the Curb are from Pavement Joint line which is at face of Curb.

DETAIL OF 6" HYDRANT INSTALLATION
No Scale



THRUST BLOCK FOR 6" HYDRANT BEND
No Scale



GENERAL NOTES
"Ductile Iron Pipe in sizes 3" through 16" is permitted as a part of the Cast Iron Pipe Specifications."

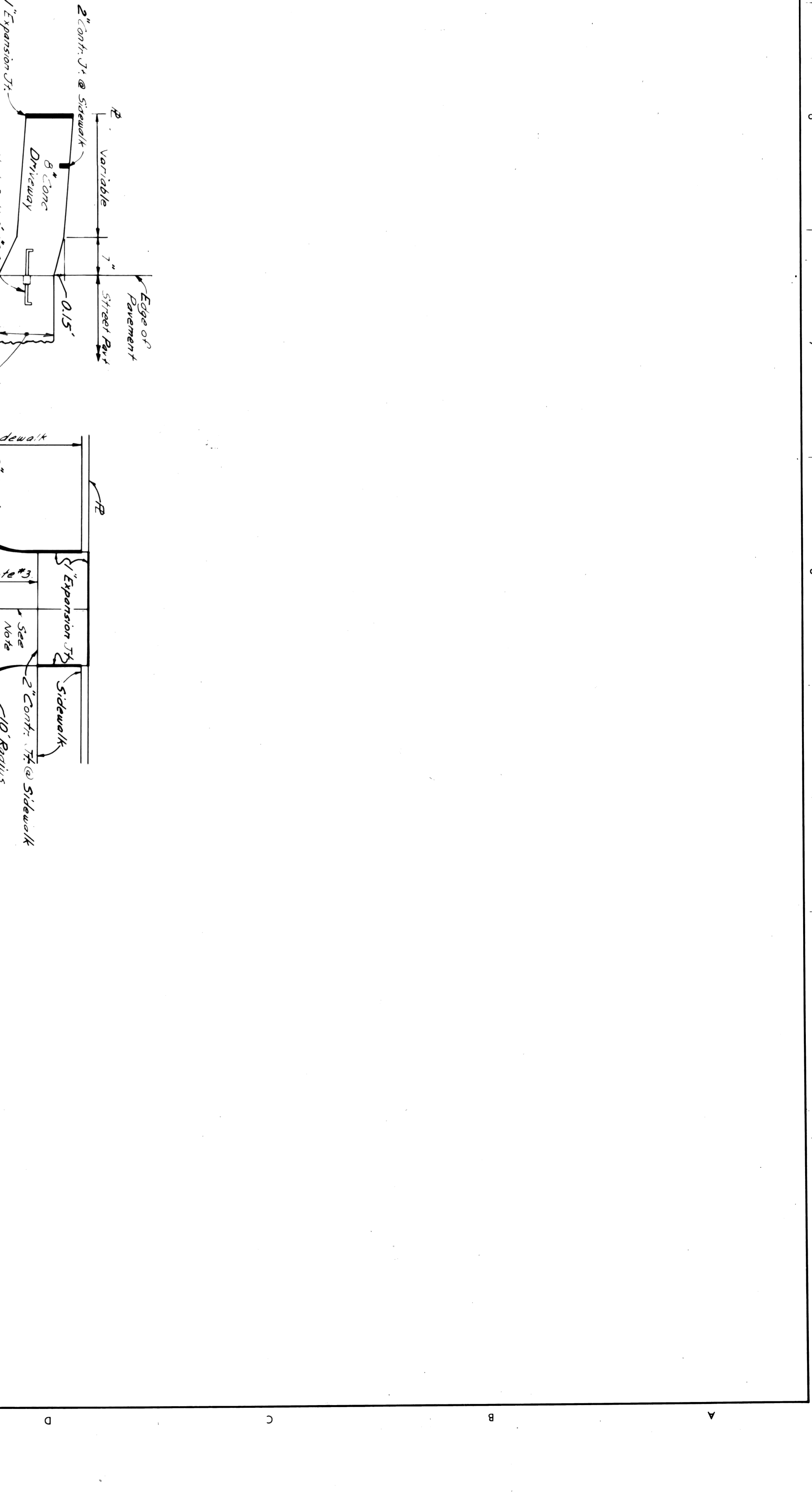
PROJECT NO. _____ ASSIGN No. _____

FIRE HYDRANT
MISCELLANEOUS DETAILS

NO.	REVISIONS	DATE	BY

DRAWN BY RBP
CHECKED BY JPC
A.O. 2237
CONT. 05861A

COLOR	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
BLACK	---	PROPERTY AND LOT LINES	○	SEWER MANHOLE	#	STREET SIGN POST
	---	PROPOSED CURB LINES AND HEADERS AT RETURNS	○	P.L.D. MANHOLE	□	CATCH BASIN
	---	EXISTING CURB LINES OR EDGE OF PAVEMENT	⊕	WATER MANHOLE OR GRATE	(M)	WATER METER
	---	PROPOSED CURB OR PAVING ON INTERSECTING STREET	⊖	GAS MANHOLE OR GRATE	(-)	WATER SHUT OFF
	---	PROPOSED SEWER TO CATCH BASINS	⊗	WESTERN TIRON MANHOLE	(+)	GAS SHUT OFF
	---	EXISTING LATERAL SEWERS	⊙	MICHIGAN BELL MANHOLE	⊞	GAS DRIP
	---	EXISTING PUBLIC SEWERS	⊚	EDISON STEAM MANHOLE	⊠	DRAIN OR VENT
	---	EXISTING GAS LINES	⊛	EDISON ELECTRIC MANHOLE	(H)	GOY POLE
	---	EXISTING WATER LINES	⊜	FIRE DEPT MANHOLE	⊞	AWELWAY OR COAL CHUTE
	---	EXISTING WATER LINES	⊝	POLICE DEPT MANHOLE	⊞	FLAG POLE
	---	EXISTING WATER LINES	⊞	D.S.R. MANHOLE	⊞	SPRINKLER BOX
	---	EXISTING WATER LINES	⊞	FIRE DEPT STANDARD HYDRANT	⊞	DEAD MANHOLE
	---	EXISTING WATER LINES	⊞	FIRE DEPT HIGH PRESSURE HYDRANT	⊞	TRAP
	---	EXISTING WATER LINES	⊞	FIRE DEPT CALL BOX	⊞	P.L.D. & F.O. MANHOLE FILLED WITH SAND
	---	EXISTING WATER LINES	⊞	FIRE DEPT HIGH PRESSURE MANHOLE	⊞	TRACK DRAIN
	---	EXISTING WATER LINES	⊞	P.L.D. LIGHT POLE	⊞	TRAFFIC SIGN POST
	---	EXISTING WATER LINES	⊞	P.L.D. POLE	(2)	TRAFFIC SIGNAL LIGHT
	---	EXISTING WATER LINES	⊞	TELEPHONE POLE	⊞	TRAFFIC SIGNAL ON LIGHT POST
	---	EXISTING WATER LINES	⊞	EDISON POLE	(D.S.R.)	DANGER PLATE
	---	EXISTING WATER LINES	⊞	TRAFFIC CONTROL BOX	⊞	R SIGNAL CONTROL BOX
	---	EXISTING WATER LINES	⊞	TRAFFIC CONTROL BOX SYMBOL		DESCRIPTION
	---	EXISTING WATER LINES	---	DETROIT EDISON ELECTRIC CONDUIT		
	---	EXISTING WATER LINES	---	DETROIT EDISON STEAM CONDUIT		
	---	EXISTING WATER LINES	---	WESTERN UNION DUCTS		
	---	EXISTING WATER LINES	---	MICHIGAN BELL TELEPHONE DUCTS		
	---	EXISTING WATER LINES	---	P.L.D. CONDUITS		
	---	EXISTING WATER LINES	---	DETROIT FIRE OR POLICE DEPT CONDUITS (P.D. COMMUNICATIONS)		



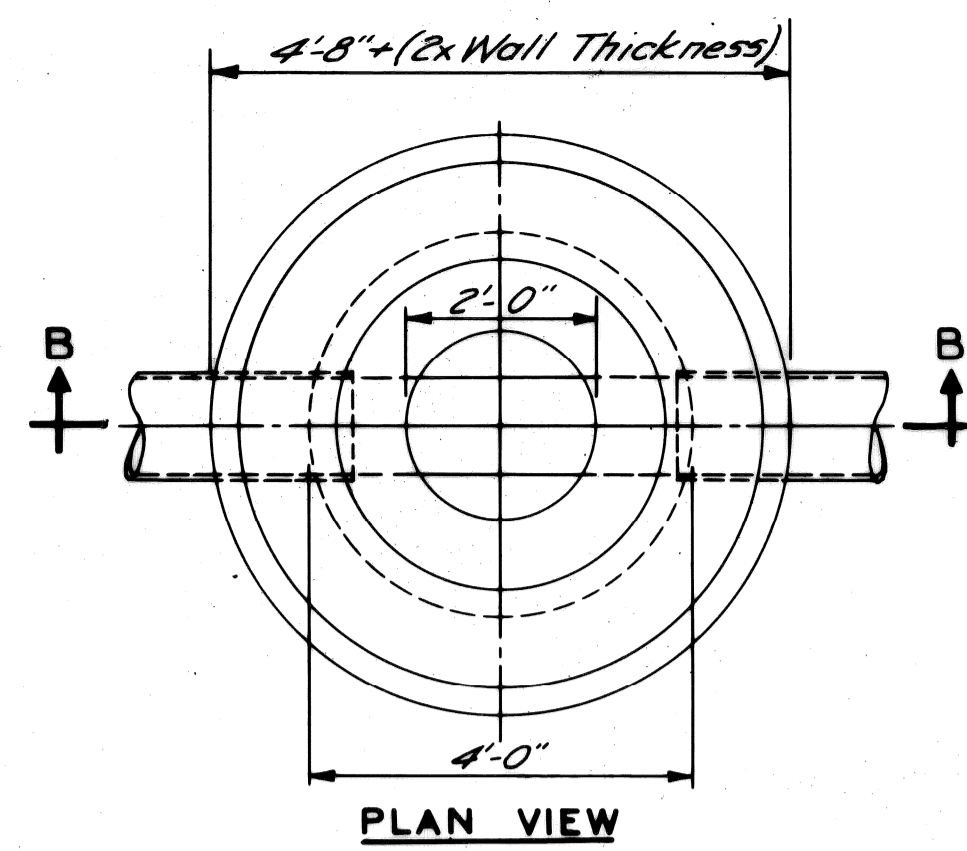
NOTES - COMMERCIAL DRIVEWAY

1. Transition edge on driveway from curb of the street to no curb at the end of the driveway radius.
2. Where driveway exceeds 15' in width, a contraction joint shall be placed longitudinally along &.
3. When distance exceeds 15', a transverse contraction joint will be required.
4. Radius 10' unless otherwise directed by the Engineer, or as shown on plans.
5. All work and materials required to construct the driveway between the end of returns will be paid for as "Driveway" of the specified thickness.

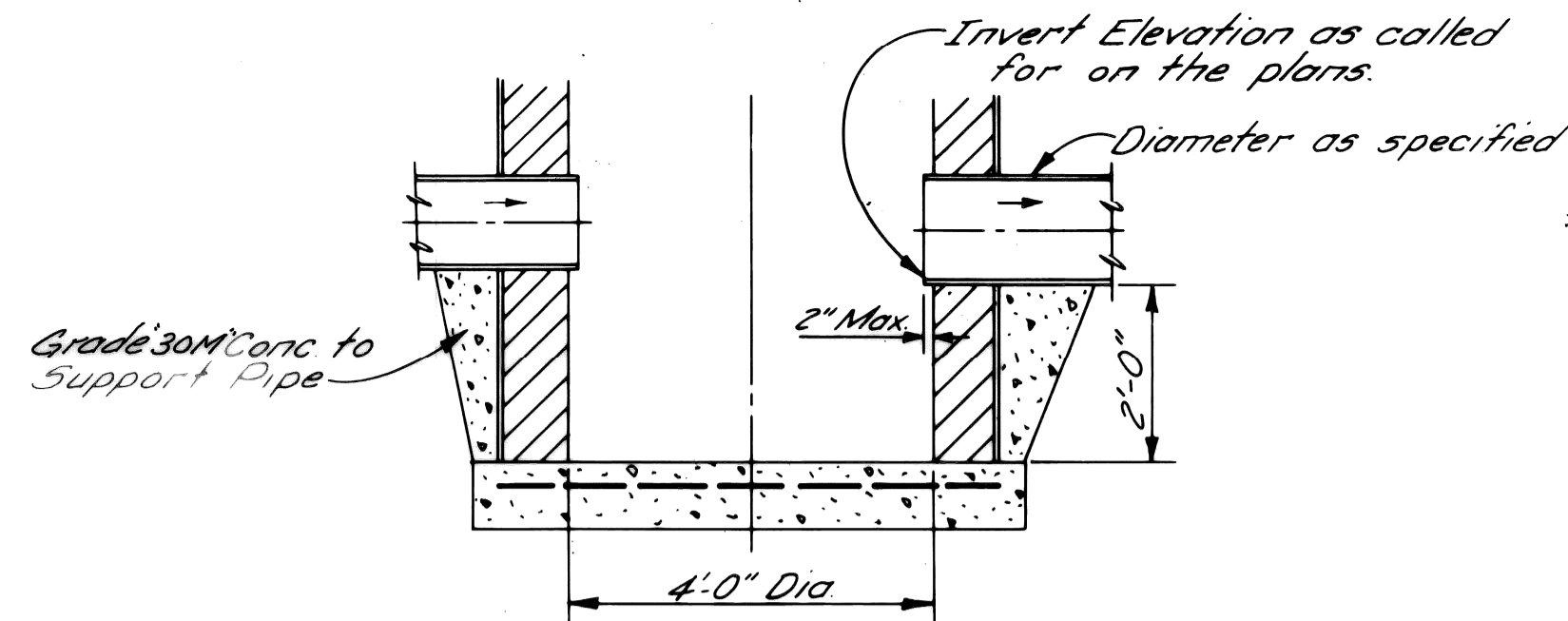
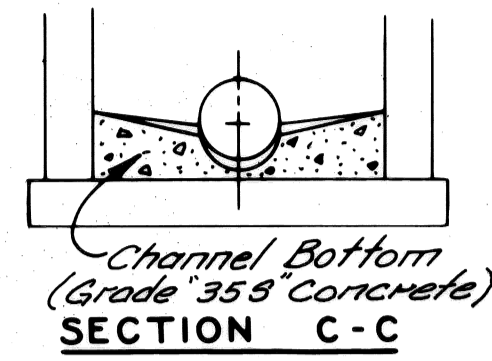
COMMERCIAL DRIVEWAY DETAIL
SCALE 1/10

RESIDENTIAL DRIVEWAY DETAIL
SCALE 1/10

CITY OF DETROIT CITY ENGINEERING DEPARTMENT		APPROVED: <i>[Signature]</i> ENGINEER OF EXPENSES	
SHEET 20 OF 67 SHEETS CONTRACT NO. 05861A ASSIGNMENT NO. 2237 DATE NOV 7 1975		TWELFTH STREET WIDENING S. OF BAGLEY AVENUE TO FISHER FREEWAY SPECIAL STANDARDS & SPECIAL DETAILS	

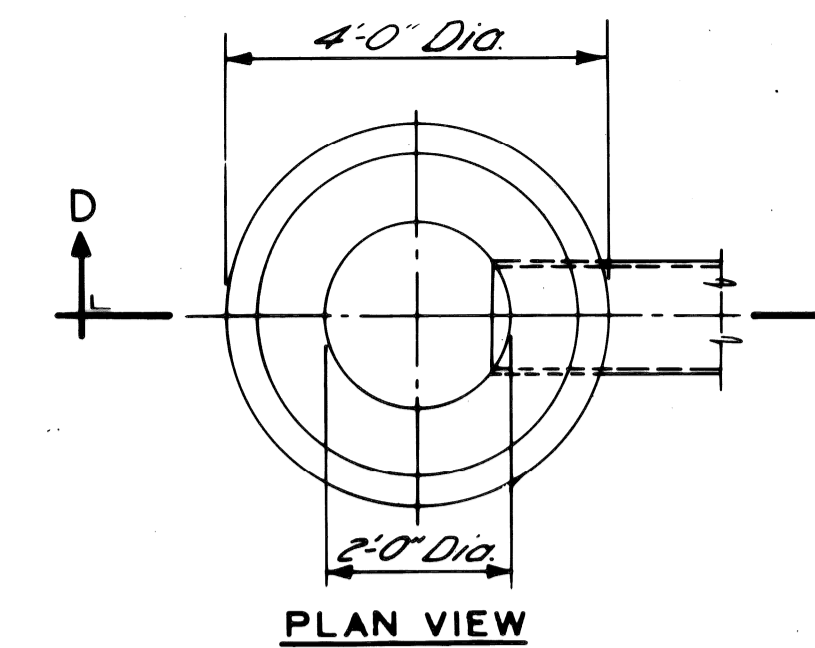


NOTE "A"
Wall thickness below a depth of 15 feet shall be 12 inches.

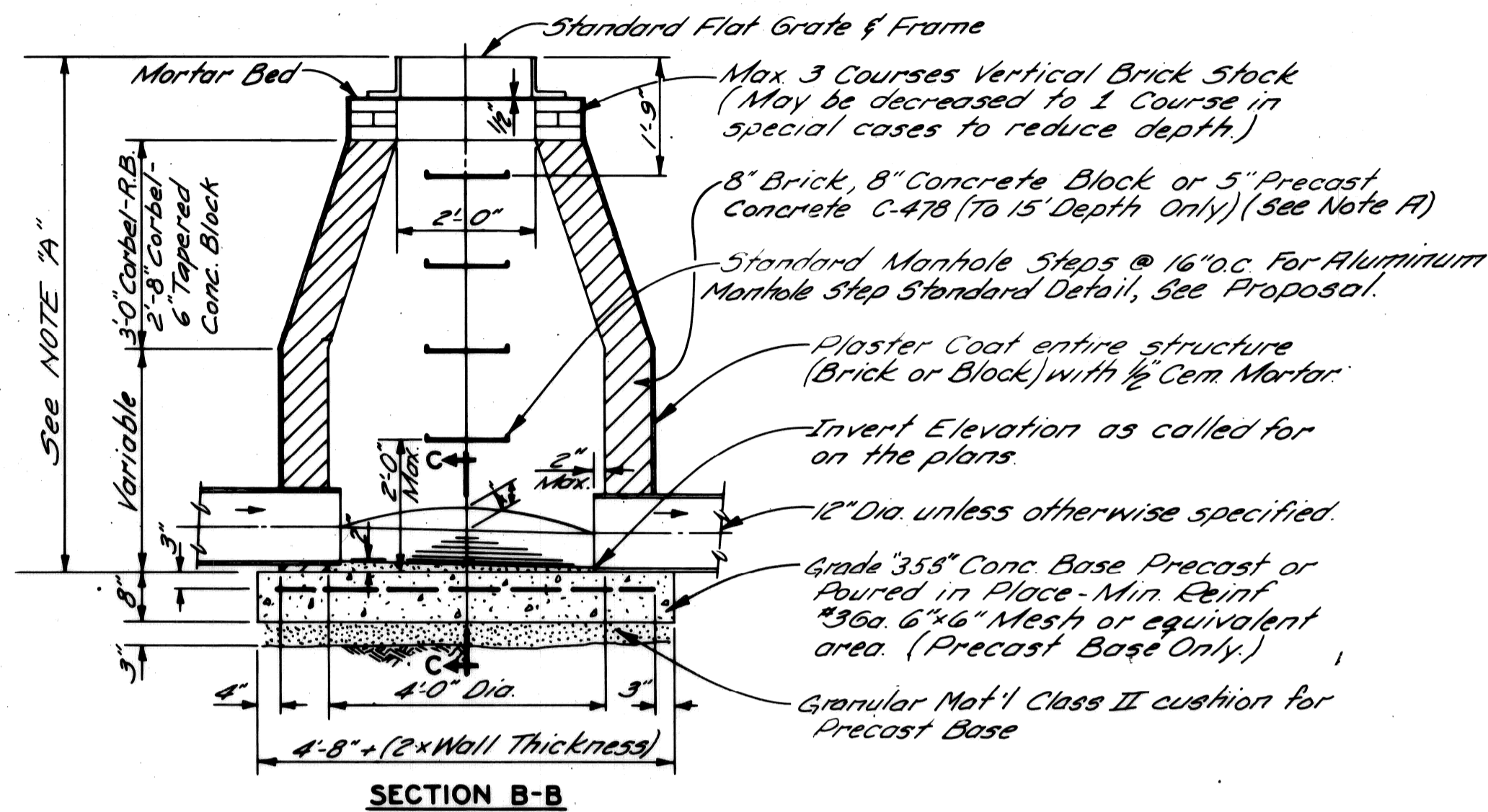


DETAIL OF SUMP FOR CATCH BASIN "B"

NO SCALE

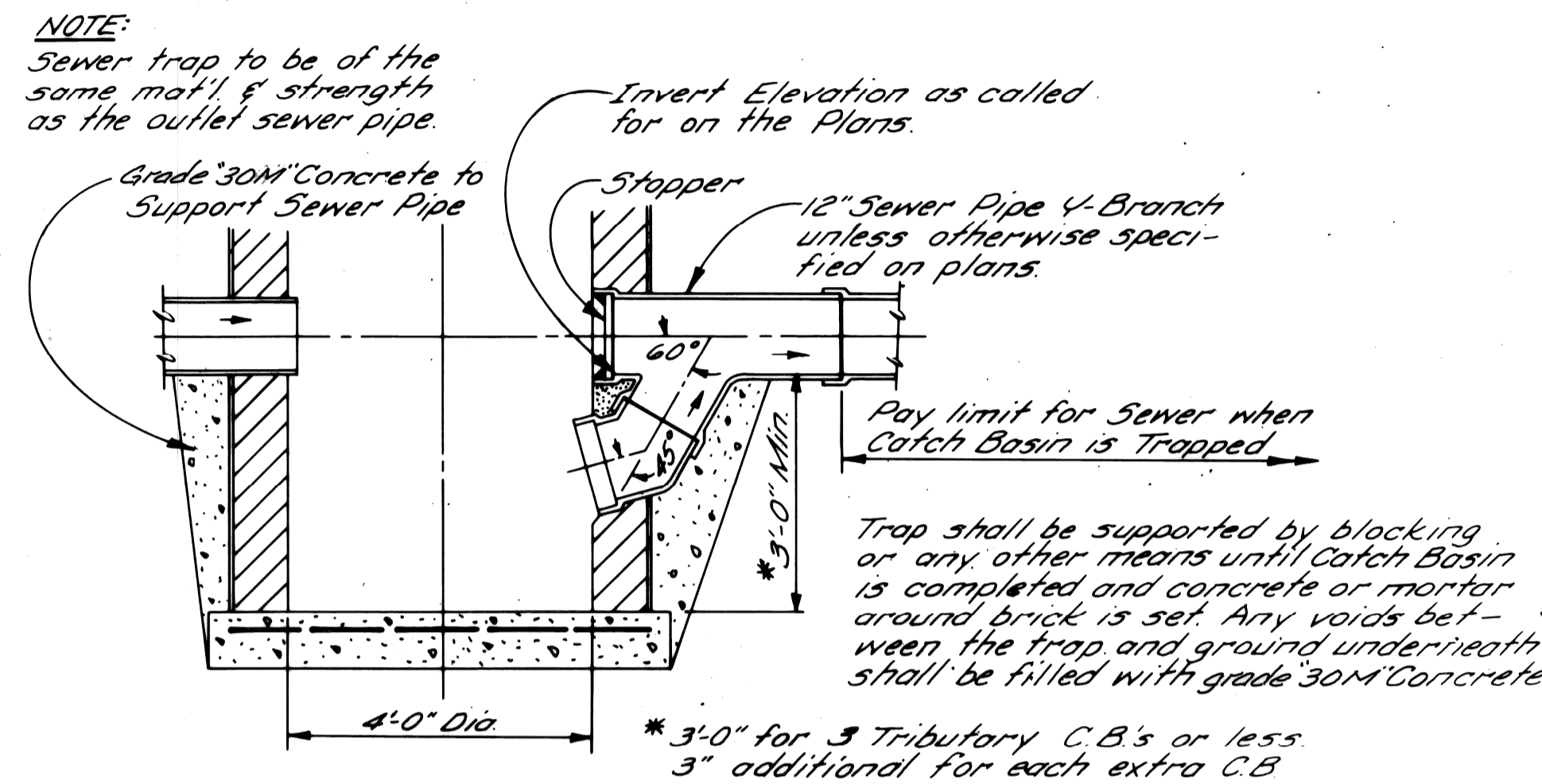


NOTE:
Catch Basin "A" will be used only when outletting to a Catch Basin "B"



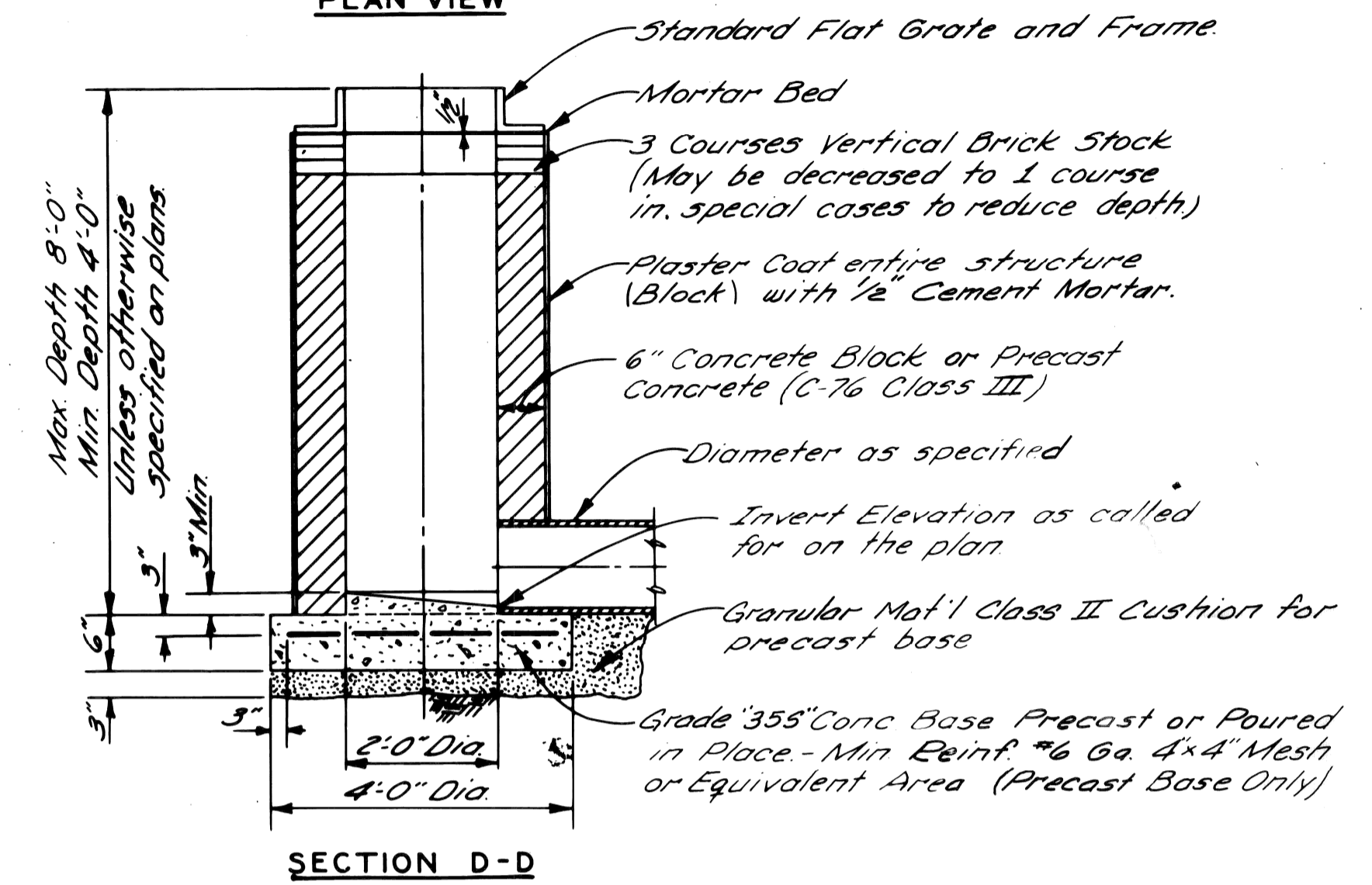
CATCH BASIN "B"

NO SCALE



DETAIL OF TRAP FOR CATCH BASIN "B"

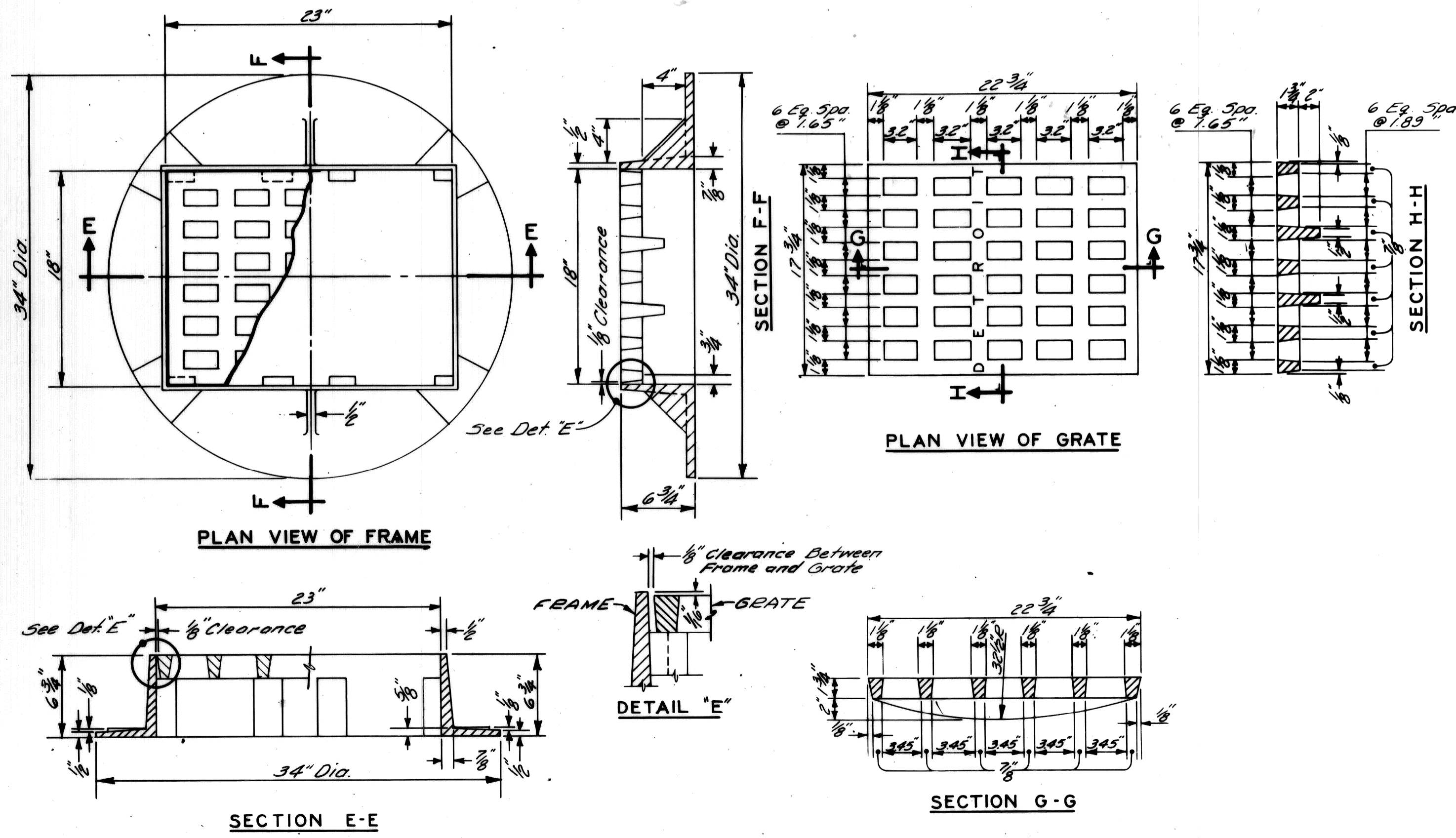
NO SCALE



SECTION D-D

CATCH BASIN "A"

NO SCALE



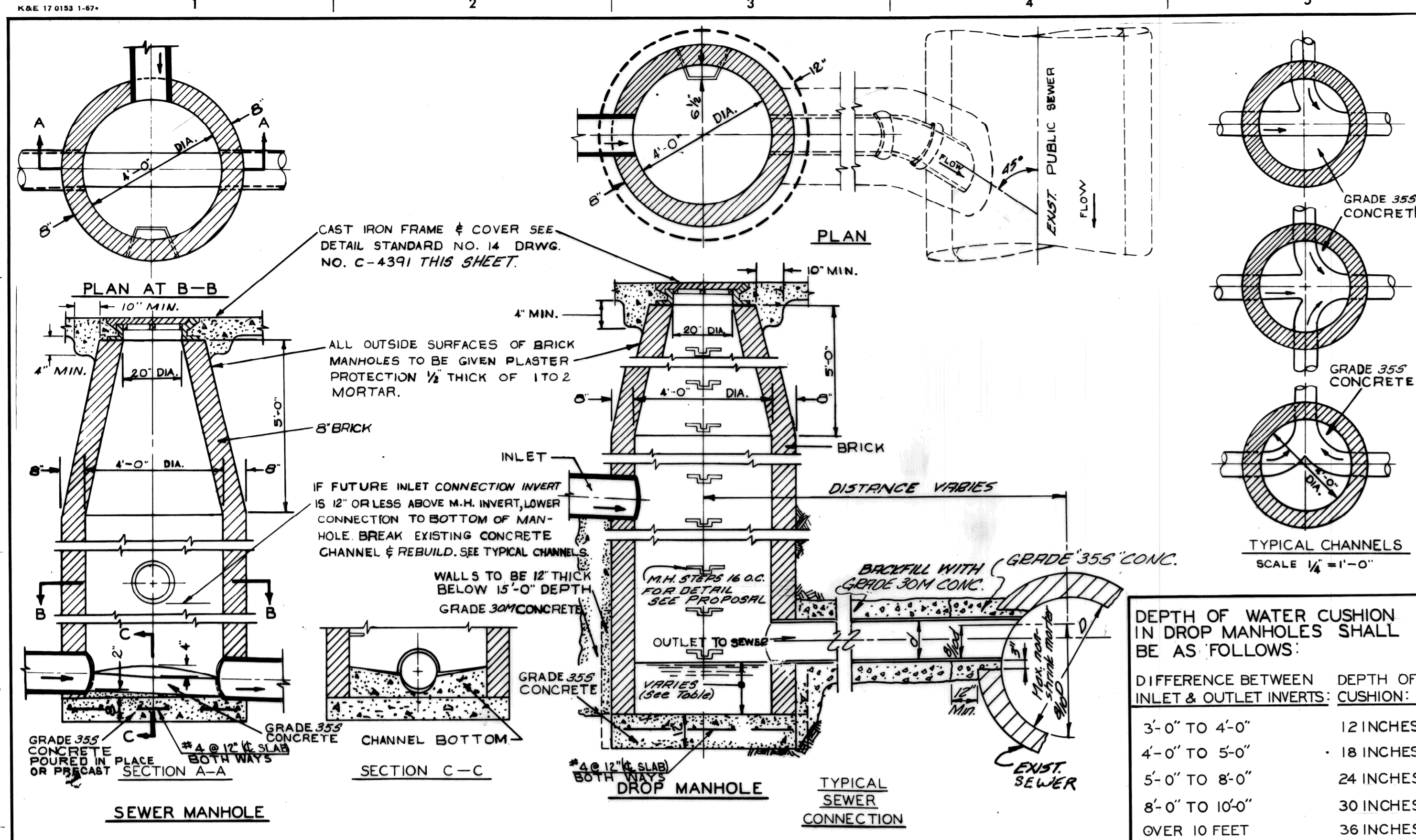
STANDARD FLAT GRATE AND FRAME

NO SCALE

GENERAL NOTES

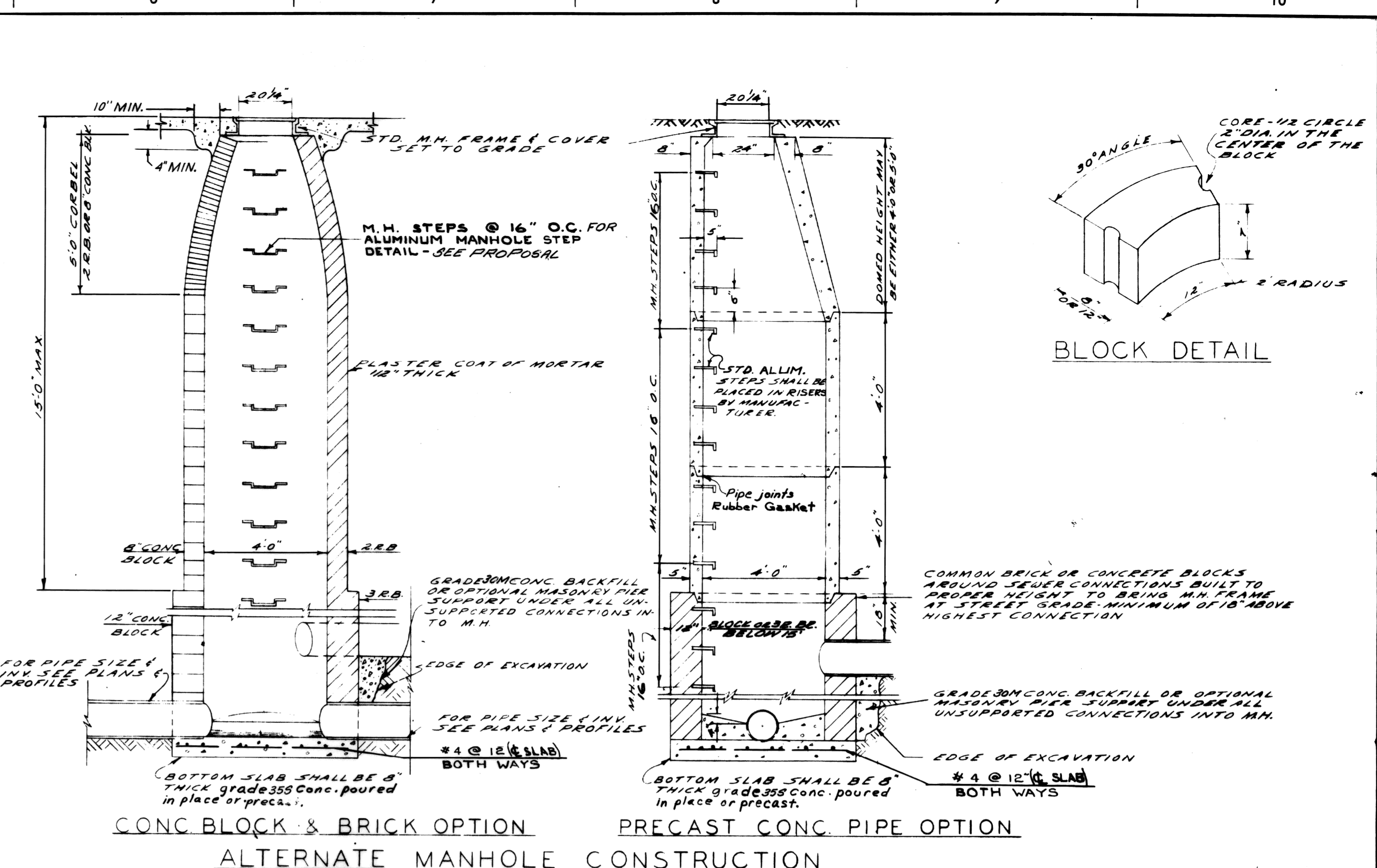
- The materials & workmanship shall be in accordance with the current Standard Specifications.
- Center of Catch Basin shall be 20 inches from back of curb.
- All sizes & flow lines of pipe, and elevations for top & bottom of structures shall be determined from the plans or construction requirements. The bell shall be removed from the first length of outlet pipe projecting through the wall of the structures. When any structure is constructed of precast concrete or concrete block, the top of the masonry shall be left sufficiently low to permit proper adjustment of cover to grade by the use of mortar or bricks as directed by the Engineer.
- A Trap, as detailed on this sheet, shall be placed where called for in the outlet sewer line of Catch Basins "B". This trap shall be set into the masonry wall as shown on the detail. The space between the faces of the wall & the trap shall be completely filled with cement, mortar or concrete, so as to hold trap securely in place. Tile Traps will be paid for separately at the Contract Unit Price each, which price shall include the extra catch basin construction required and for furnishing and installing the trap.
- A plaster coat of mortar 1/2 inch in thickness shall be applied to the outer surface of the structure as shown. A 1/2 inch cement plaster coat shall be placed on the inside of all sumps.
- Contractor shall verify elevations of existing utilities to enable construction to indicated elevations shown on drawings. If necessary, invert elevations shown on the drawings may be altered in the field to clear existing utilities. Such alterations, upward or downward, shall be at no charge in contract price.
- When precast concrete pipe sections are used for catch basins, either a section of the inlet and outlet pipes or an opening or eye for the inlet & outlet pipes shall be cast into the wall of the catch basin pipe when it is being manufactured. Eyes in precast pipe sections shall be furnished to accommodate a flexible joint connection such as Press-Wedge by Press Seal Gasket Corp or Res-Seal by Seales Mfg. Corp.
- Pay limit for sewers shall be inside faces of structures unless otherwise noted.

DESIGNED BY: M. POLITO DRAWN BY: TRACED BY: CHECKED BY: D. MILZ		APPROVED: <i>John Erickson</i> ENGINEER OF STREETS <i>Alan C. Pappas</i> ENGINEER OF EXPRESSWAYS <i>W. R. Bannard</i> HEAD CIVIL ENGINEER		CITY OF DETROIT CITY ENGINEERING DEPARTMENT		TWELFTH STREET WIDENING S. OF BAGLEY AVENUE TO FISHER FREEWAY		SHEET 21 of 67 SHEETS CONTRACT No. 05861 A ASSIG. NO. 2237 DATE NOV 7 1975	
SPECIAL DETAILS									



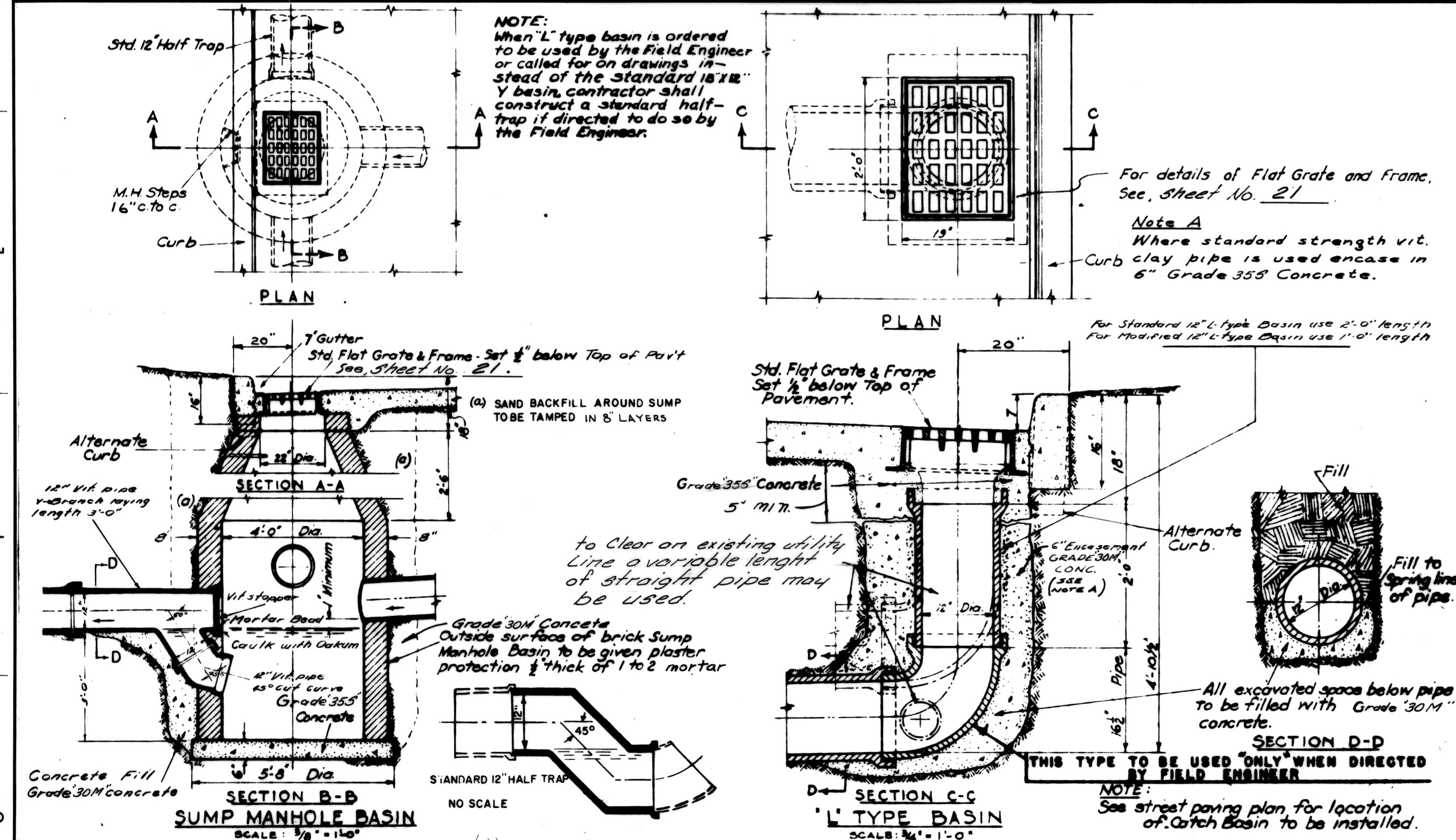
DEPTH OF WATER CUSHION IN DROP MANHOLES SHALL BE AS FOLLOWS:

DIFFERENCE BETWEEN DEPTH OF INLET & OUTLET INVERTS:	DEPTH OF CUSHION:
3'-0" TO 4'-0"	12 INCHES
4'-0" TO 5'-0"	18 INCHES
5'-0" TO 8'-0"	24 INCHES
8'-0" TO 10'-0"	30 INCHES
OVER 10 FEET	36 INCHES

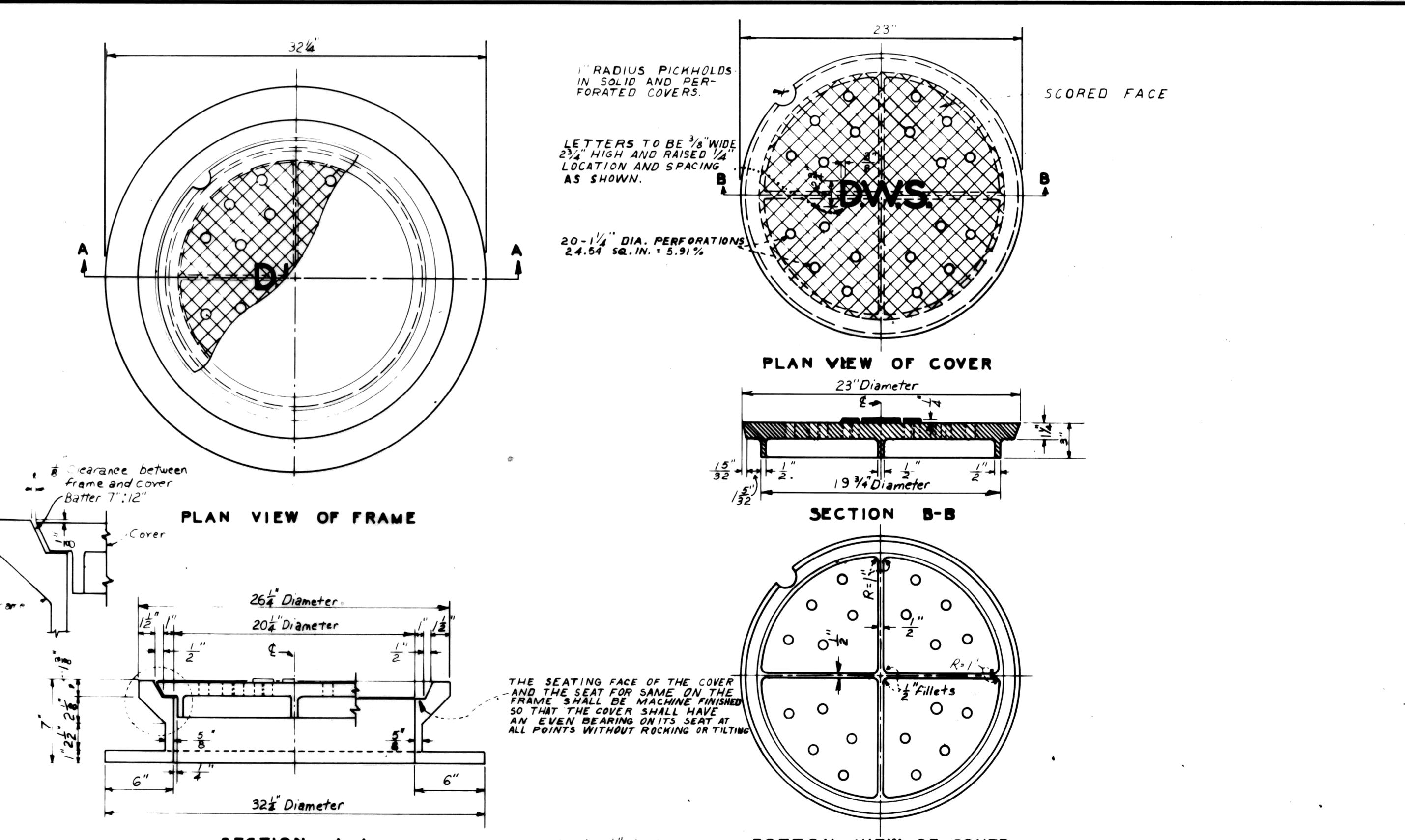


DESIGNED BY	APPROVED BY	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEER'S OFFICE BUREAU OF DESIGN
DRAWN BY	ENGINEER OF STREETS	
TRACED BY	ASST. CITY ENGINEER	DETAILS OF STANDARD SEWER & DROP MANHOLES
CHECKED BY	CITY ENGINEER	
REVISIONS	BOOK NO.	PG. SCALE 3/8" = 1'-0" DATE: 8-27-66
		DETAIL STANDARD NO. 10 DWG. NO. C-4387
		1971 1970 1969 1968 1967

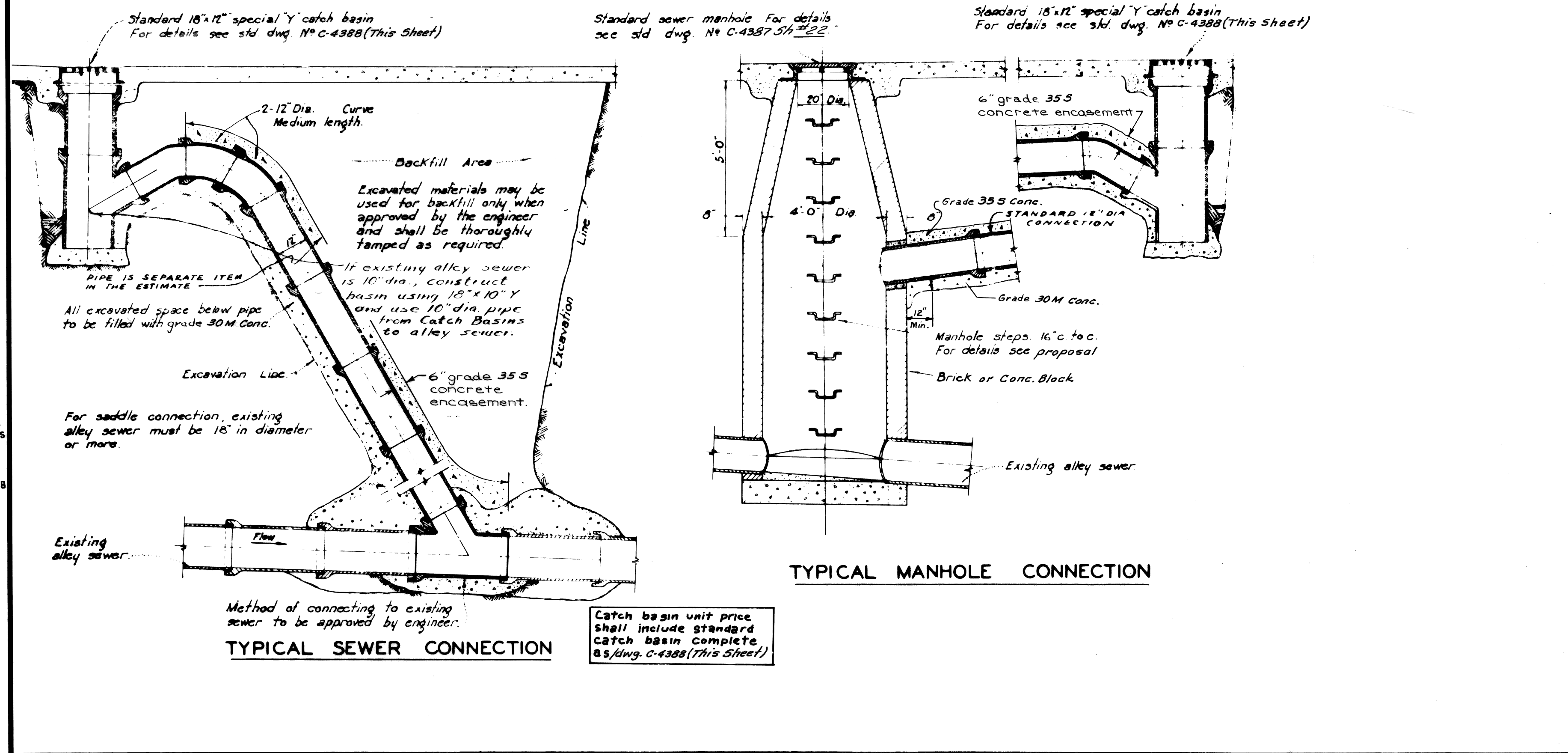
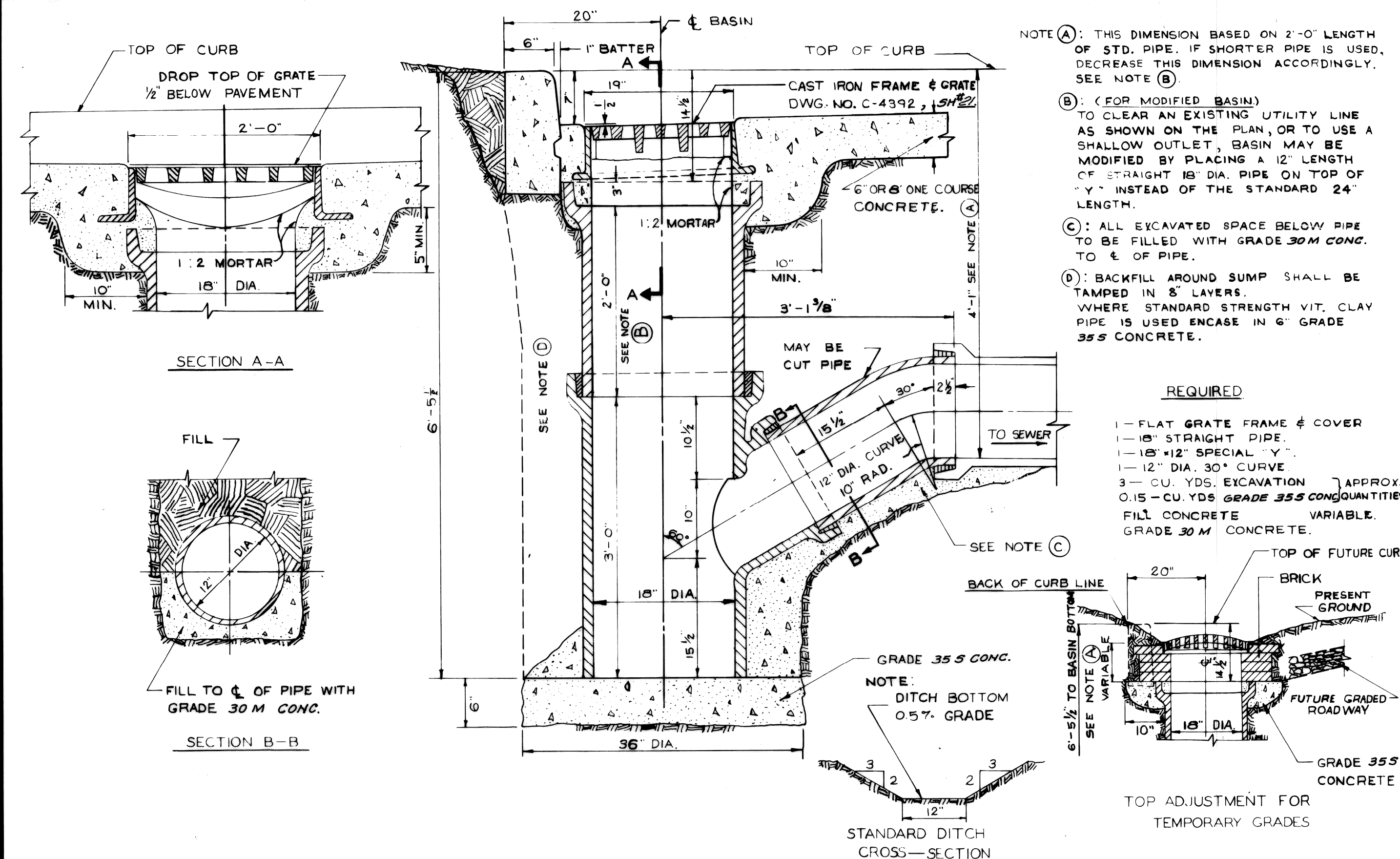
DESIGNED BY	APPROVED BY	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEER'S OFFICE BUREAU OF DESIGN
DRAWN BY	ENGINEER OF STREETS	
TRACED BY	ASST. CITY ENGINEER	STD SEWER MANHOLES CONSTRUCTION ALTERNATES
CHECKED BY	CITY ENGINEER	
REVISIONS	BOOK NO.	SCALE NONE
		DATE 8-23-63
		DWG. NO. C-4393A



DESIGNED BY	APPROVED BY	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEER'S OFFICE BUREAU OF DESIGN
DRAWN BY	ENGINEER OF STREETS	
TRACED BY	ASST. CITY ENGINEER	TYPICAL SUMP MANHOLE & 'L' TYPE CATCH BASINS
CHECKED BY	CITY ENGINEER	
REVISIONS	BOOK NO.	SCALE AS SHOWN DATE MAR. 2, 1965
		DETAIL STANDARD NO. 12 DWG. NO. C-4390
		1971 1970 1969 1968 1967 1966 1965 1964 1963 1962 1961 1960

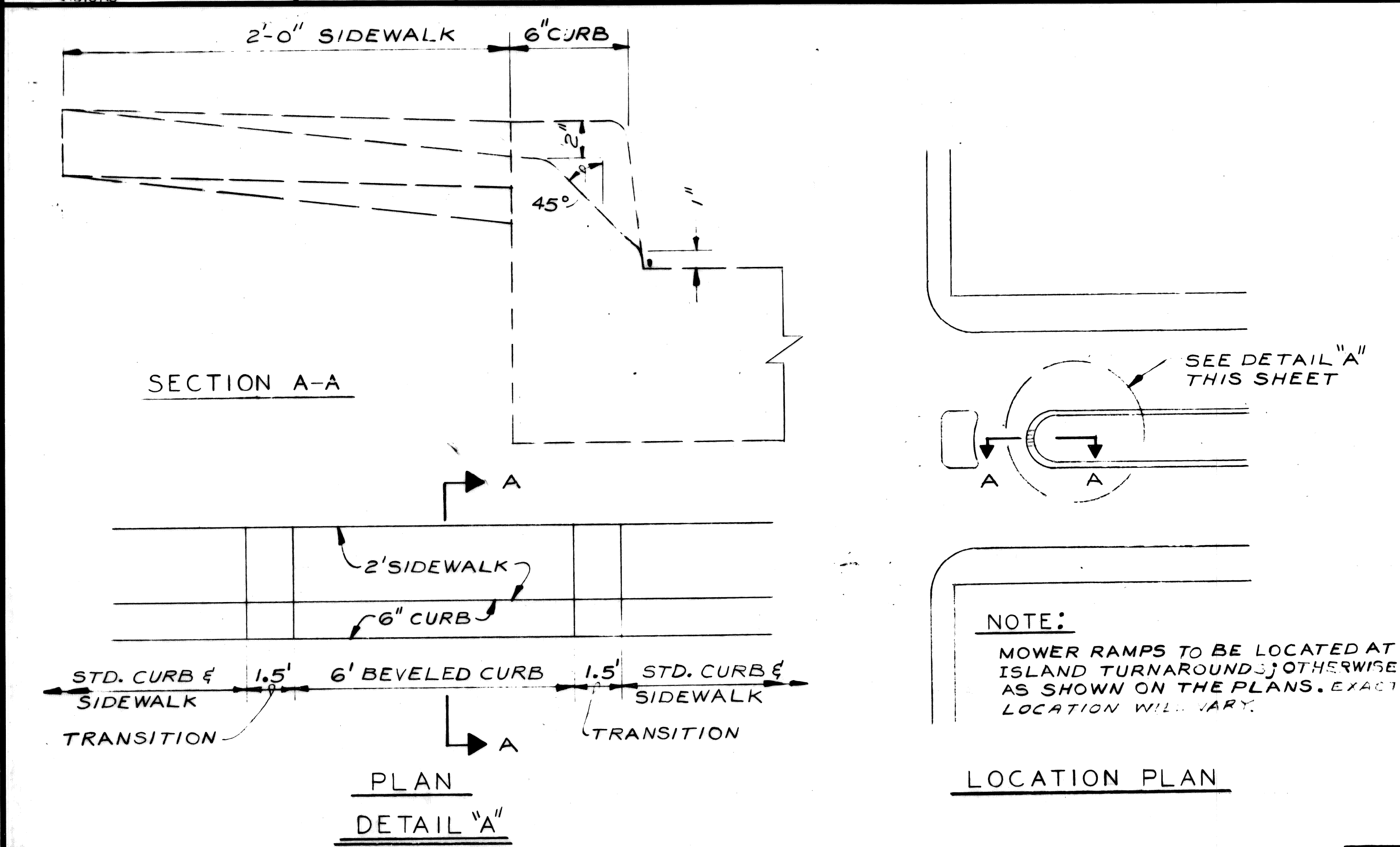


DESIGNED BY	APPROVED BY	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEER'S OFFICE BUREAU OF DESIGN
DRAWN BY	ENGINEER OF STREETS	
TRACED BY	ASST. CITY ENGINEER	DETAILS OF STANDARD MANHOLE FRAME AND COVER
CHECKED BY	CITY ENGINEER	
REVISIONS	BOOK NO.	SCALE AS SHOWN DATE: OCTOBER 4, 1966
		DETAIL STANDARD NO. 13 DWG. NO. C-4391



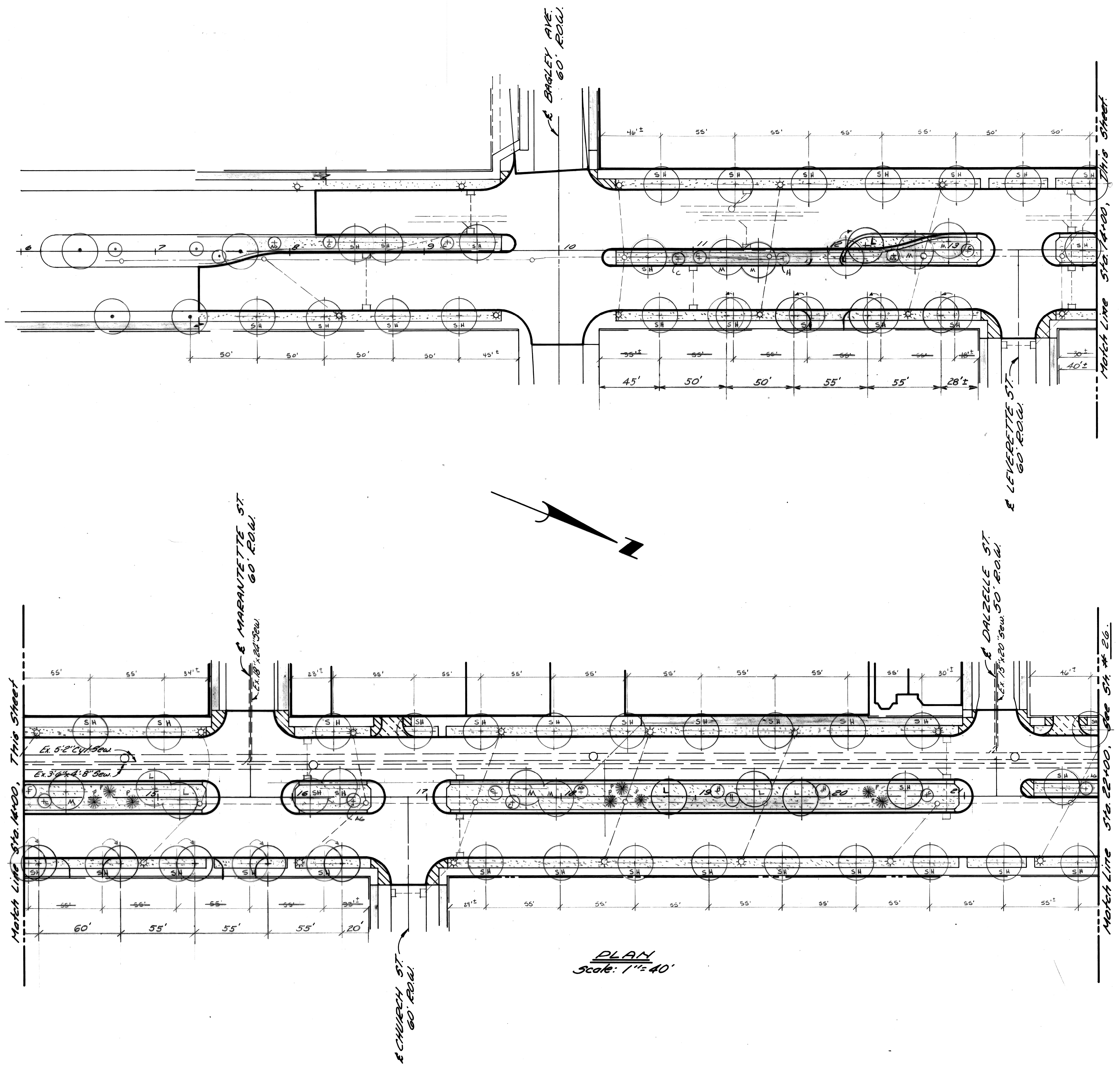
DESIGNED BY	APPROVED	CITY OF DETROIT	STANDARD DESIGN
DRAWN BY <i>J. Clark</i>	ENGINEER OF STREETS	DEPARTMENT OF PUBLIC WORKS	18" x 12" SPECIAL 'Y' CATCH BASIN
TRACED BY <i>W. Hawas</i>	ASST. CITY ENGINEER	CITY ENGINEER'S OFFICE	TO BE USED UNLESS DIRECTED OTHERWISE BY FIELD ENGINEER
CHECKED BY	CITY ENGINEER	BUREAU OF DESIGN	BOOK NO. SCALE 1/4"=1'-0" DWG. NO. C-4388

DESIGNED BY	APPROVED	CITY OF DETROIT	ALLEY INSTALLATION
DRAWN BY <i>J. Clark</i>	ENGINEER OF STREETS	DEPARTMENT OF PUBLIC WORKS	STANDARD 18" x 12" SPECIAL 'Y' CATCH BASIN
TRACED BY <i>W. Hawas</i>	ASST. CITY ENGINEER	CITY ENGINEER'S OFFICE	BOOK NO. SCALE 3/8"=1'-0" DWG. NO. C-4399
CHECKED BY	CITY ENGINEER	BUREAU OF DESIGN	DETAIL STANDARD NO. 22



DESIGNED BY	APPROVED	CITY OF DETROIT	SPECIAL MOWER RAMP
DRAWN BY <i>JONES</i>	ENGINEER OF STREETS	CITY ENGINEERING DEPARTMENT	BOOK NO. SCALE NONE DWG. NO. C-5239
TRACED BY	DEPUTY DIRECTOR	DATE JULY 22, 1974	
CHECKED BY <i>TAILLY</i>	DIRECTOR		

CITY OF DETROIT CITY ENGINEERING DEPARTMENT		. TWELFTH STREET WIDENING S. OF BAGLEY AVENUE TO FISHER FREEWAY		SHEET 23 OF 67 SHEETS
SPECIAL DETAILS				CONTRACT No. 05861 A
				ASSIG. 2237
				DATE NOV 7 1975

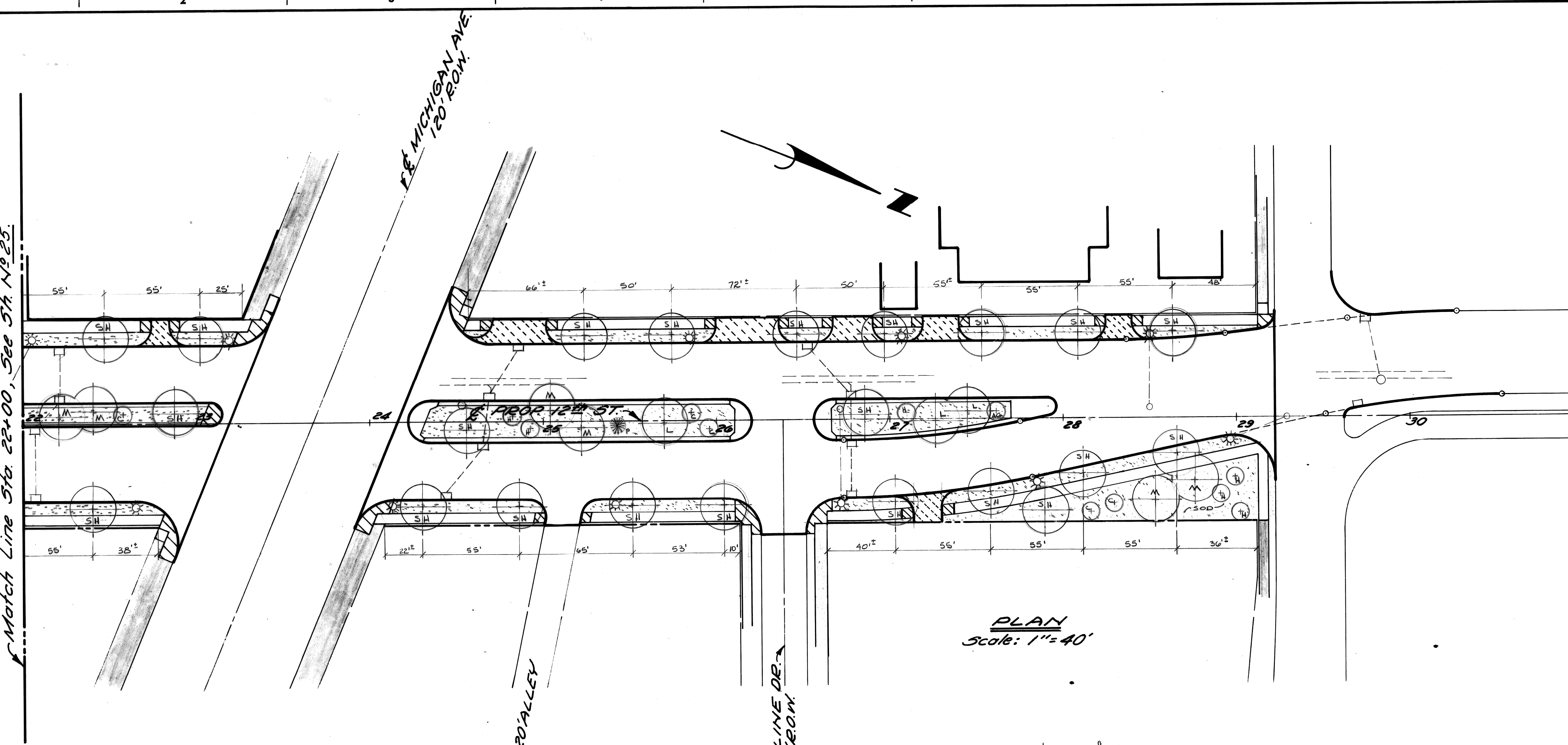


PLAN
Scale: 1" = 40'

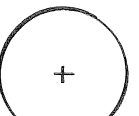
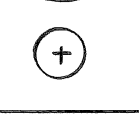


- PLANT REFERENCE KEY:
- SH SKYLINE HONEYLOCUST
 - L LITTLELEAF LINDEN
 - M NORWAY MAPLE
 - AG AMUR MAPLE
 - H LAVALLEI HAWTHORNE
 - C DOROTHEA FLOWERING CRAB
 - P AUSTRIAN PINE

REVISIONS LOCATED BY COORDINATES ON SHEET 065-8 Revised Tree Locations (C) due to F2-4 Revised Med. Align. & Add'l (3) Drives. RPWB 7/27/75		DESIGNED BY D. HAUTAU DRAWN BY TRACED BY CHECKED BY E.H. MALL	APPROVED: W. Emory Wellman CHIEF OF LANDSCAPE ARCHITECTURE CITY ENGINEER	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE FOR	TWELFTH STREET WIDENING S. OF BAGLEY AVENUE TO FISHER FREEWAY LANDSCAPE DEVELOPMENT PLAN	SHEET 25 OF 67 SHEETS CONTRACT No. 05861A ASSIG. NO. 2237 DATE NOV 7 1975
---	--	--	--	---	--	--

Match Line Sta 22+00, See 5th No. 25.



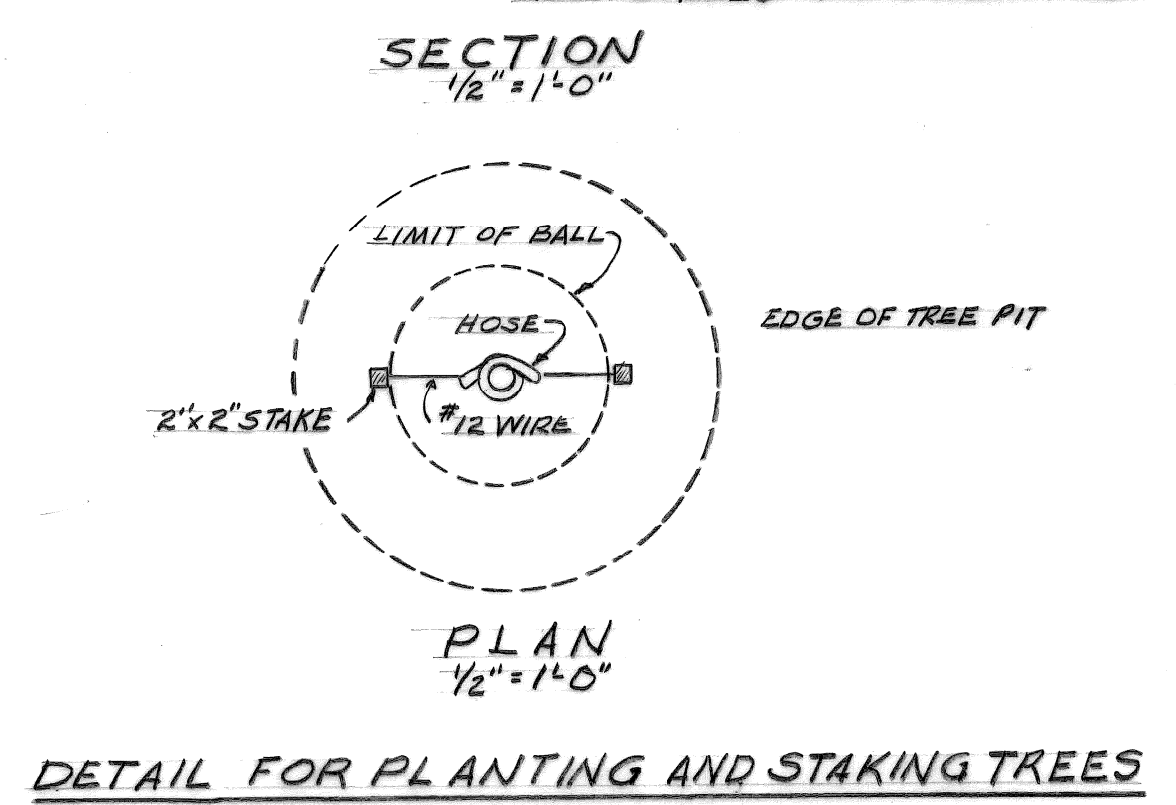
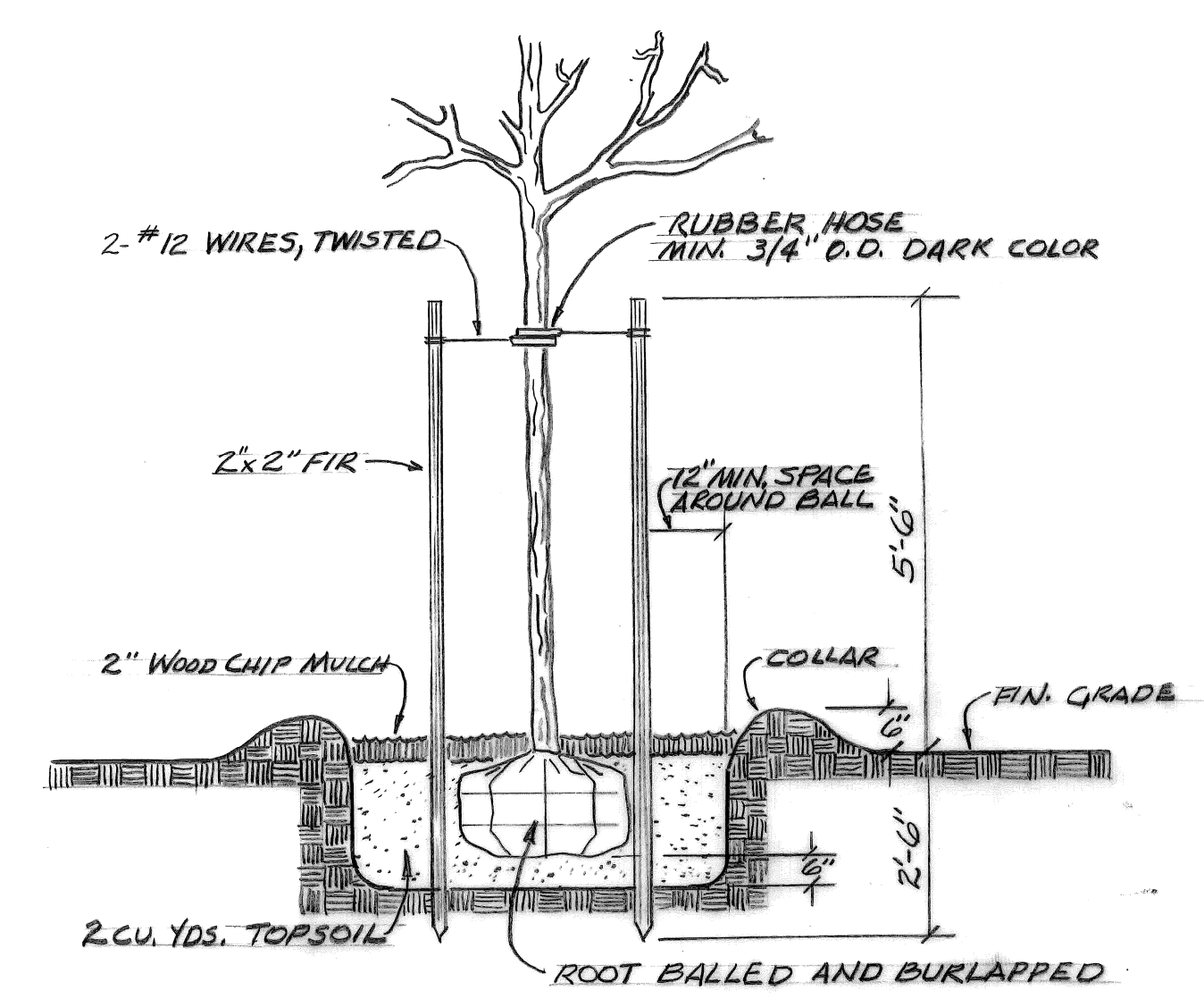
LANDSCAPE SYMBOLS

-  SHADE TREES
-  ORNAMENTAL TREES
-  LAWN AREAS-SOD
-  EVERGREEN TREES

NOTES

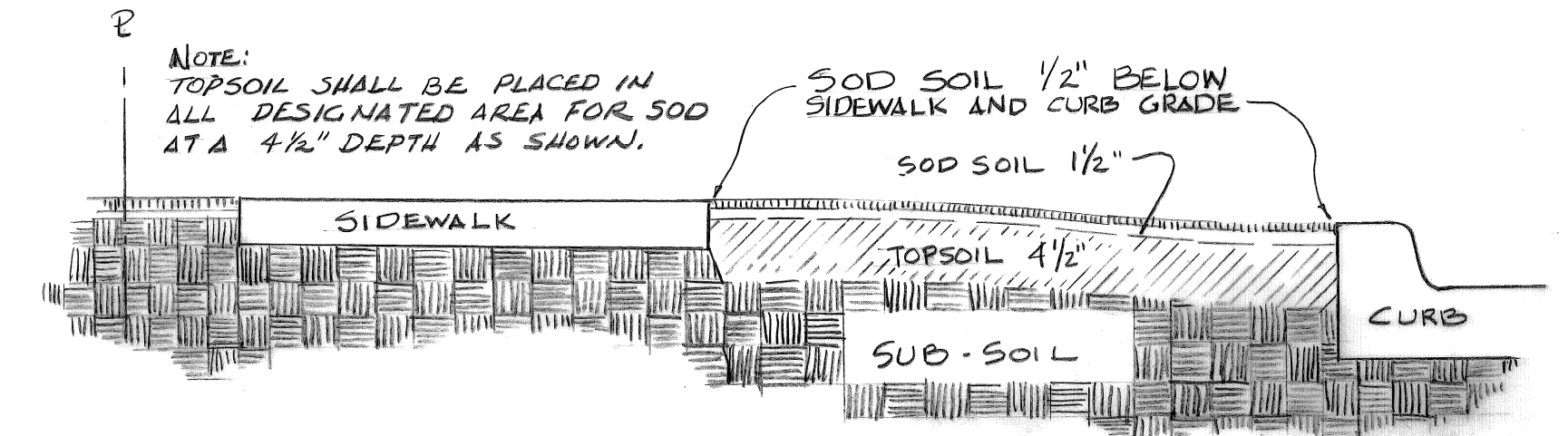
TOPSOIL TO BE APPROXIMATELY 4 1/2" DEEP IN ALL AREAS TO RECEIVE SOD.
 TOPSOIL FOR TREE PLANTING IS CALCULATED AT 2 CU. YDS. PER SHADE TREE AND 1 CU. YD. PER ORNAMENTAL TREE.
 FINISHED GRADE OF MEDIANS SHALL BE SHAPED TO PROVIDE A SLIGHT CROWN.
 SOD FOR LAWN AREAS IN MARGINS AND MEDIANS SHALL BE NURSERY GROWN KENTUCKY BLUEGRASS.
 ESTIMATED QUANTITIES:
 TOPSOIL REQUIRED 1125 CU. YDS.
 KENTUCKY BLUEGRASS SOD REQUIRED 5320 SQ. YDS.

PLAN
Scale: 1" = 40'



PLANT MATERIALS LIST

KEY	QUANTITY	PLANT NAME	SIZE	ROOT
SH	73	SKYLINE HONEYLOCUST	4"	B & B
L	1	LITTLELEAF LINDEN	3 1/2-4"	"
M	13	NORWAY MAPLE	3 1/2-4"	"
AG	5	AMUR MAPLE (GINNALA)	7-8'	"
H	10	LAYALLEI HAWTHORNE	7-8'	"
C	15	DOROTHEA FLOWERING CRAB	7-8'	"
P	9	AUSTRIAN PINE	6-7'	"



NO.	DESCRIPTION	DATE	DESIGNED BY	CHECKED BY	APPROVED
			D. HAUTAU	E.H. VIAL	W. Emory Wellman, CHIEF OF LANDSCAPE ARCHITECTURE

CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE

TWELFTH STREET WIDENING
 S. OF BAGLEY AVENUE TO FISHER FREEWAY
 LANDSCAPE DEVELOPMENT PLAN AND DETAILS

SHEET 26 OF 67 SHEETS
CONTRACT NO. 05861A
ASSIG. NO. 2237
DATE NOV 7 1975

