

CONVENTIONAL SIGNS

STATE LINE	---
COUNTY LINE	---
TOWNSHIP OR RANGE LINE	---
SECTION LINE	---
QUARTER LINE	---
SIXTEENTH LINE	---
RIGHT OF WAY LINE	---
FREIGHT RIGHT OF WAY LINE	---
CONTROL OF ACCESS LINE	---
PROPERTY LINE (Except Land Under Planted Property)	---
CORPORATE OR CITY LIMITS	---
TRUNK HIGHWAY CENTER LINE	---
RESURVEY MARK	---
RAILROAD	---
RAILROAD RIGHT OF WAY LINE	---
RIVER OR CREEK	---
DRY RUN	---
DRAINAGE DITCH	---
ELECTRIC POWER LINE	---
TELEPHONE OR TELEGRAM LINE	---
JOINT TELEPHONE AND POWER	---
CONDUIT	---
TELEPHONE CABLE AERIAL	---
TELEPHONE CABLE UNDERGROUND	---
POWER CABLE UNDERGROUND	---
GAS MAIN	---
SEWER	---
DRAIN TILE	---
WATER PIPE	---
SEWER PIPE	---
DRAIN TILE	---
SPRINGS	---
MARSH	---
TIMBER	---
ORCHARD	---
BRUSH	---
MURKERS	---
CATCH BASIN	---
MANHOLE	---
FIRE HYDRANT	---
STREET LIGHT	---
RAILROAD CROSSING SIGN	---
ELECTRIC WARNING SIGN	---
CROSSING GATE	---
CATTLE GUARD	---
OVERPASS (Highway Over)	---
UNDERPASS (Highway Under)	---
BRIDGE	---
BUILDING (One Story Frame)	---
FRAME	---
STONE	---
BRICK	---
ST. STUCCO	---
IRON PIPE OR ROD	---
MONUMENT (STONE, CONCRETE, OR METAL)	---
WOODEN PILE	---
GRAVEL PIT	---
SAND PIT	---
BOGLOW PIT	---
ROCK QUARRY	---
MEANDER CORNER	---

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS
CONSTRUCTION PLAN FOR GRADING, AGGREGATE BASE, BITUMINOUS SURFACING,
CONC. CURB & GUTTER, SIDEWALK, STORM SEWER,
SIGNAL, REVISIONS, SANITARY SEWER AND WATERMAIN.

County State Aid Highway No. 14

Between C.S.A.H. NO. 1 (5TH AVENUE) And EAST ANOKA CITY LIMITS
From A POINT 1277.4 FEET WEST OF THE N. 1/4 CORNER OF SECT. 7, T.31N., R.24W. To A POINT 1033 FEET EAST OF THE N.E. CORNER OF SECT. 7, T.31N., R.24W.
Give proper reference to Sections, Township and Range

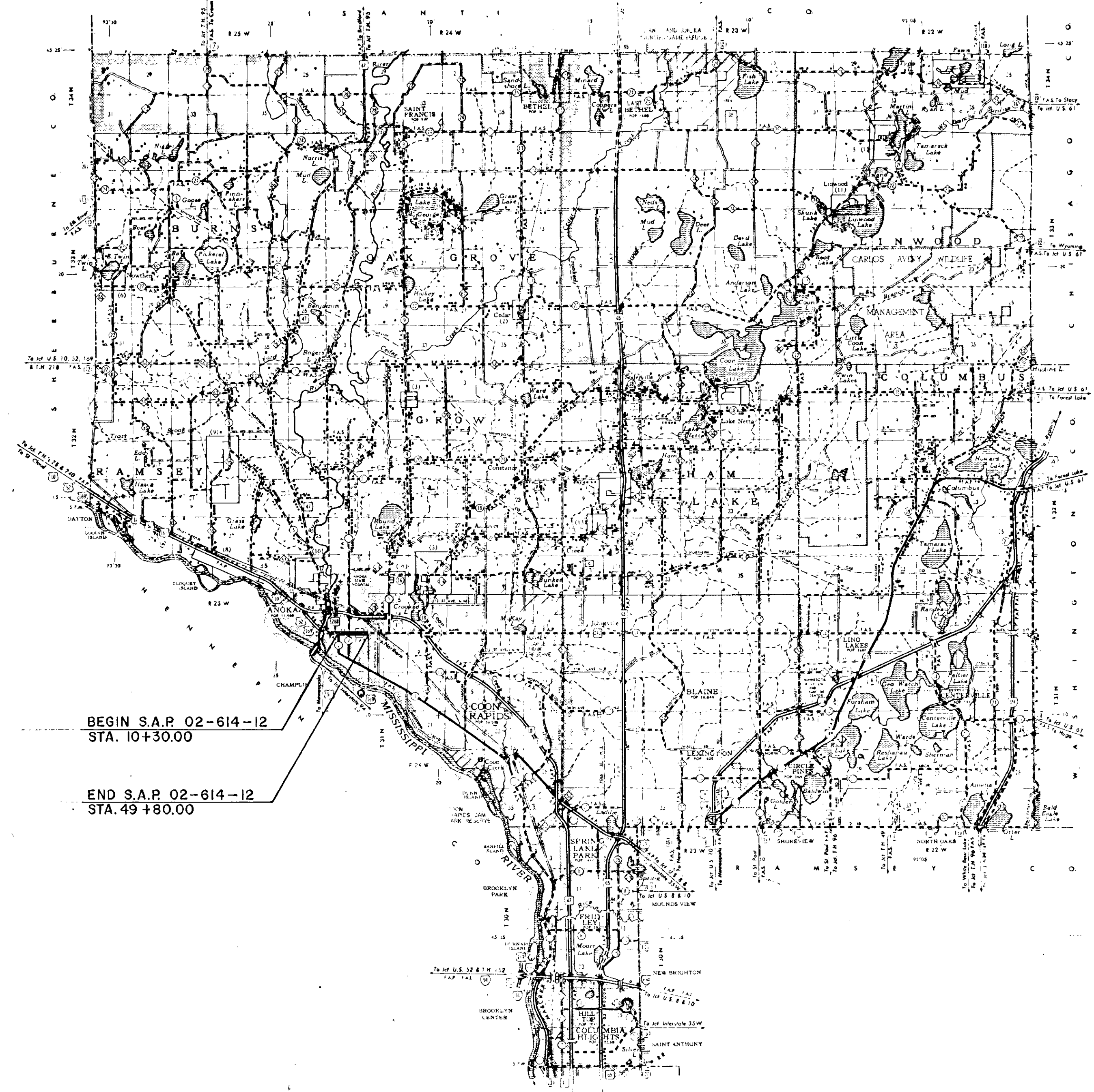
GROSS LENGTH	3950.0	FEET	0.743	MILES
BRIDGES LENGTH	0	FEET	0	MILES
EXCEPTIONS LENGTH	0	FEET	0	MILES
NET LENGTH	3950.0	FEET	0.743	MILES

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES
3-4	MISCELLANEOUS DETAILS
5	DETOUR PLAN
6	MISCELLANEOUS REMOVALS & CONSTRUCTION
7-9	PLAN & PROFILE - ROADWAY CONSTRUCTION
10-18	TRAFFIC SIGNALS
19	STREET LIGHTING
20	LANDSCAPING
21-23	PLAN & PROFILE - SANITARY SEWER, STORM SEWER & WATERMAIN CONSTRUCTION
23A	LIFT STATION DETAILS
24-36	CROSS-SECTIONS
1a-3a	LANDSCAPING-ADD ALTERNATE

SCALE

INDEX MAP	2 MI.
PLAN & PROFILE VERT.	5'
HORIZ.	50'
CROSS SECTIONS	10'
SIGNAL REVISION	



BEGIN S.A.P. 02-614-12
STA. 10+30.00

END S.A.P. 02-614-12
STA. 49+80.00

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

CIVIL
D. D. [Signature] DATE: 12/1/86 REG. NO. 14410
Alan Van Woerew DATE: 12/1/86 REG. NO. 9089
ELECTRICAL
Robert A. Ellen DATE: 12/1/86 REG. NO. 5859

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH, IN THE CONSTRUCTION OF THIS PROJECT.

APPROVED Perc K. Knud COUNTY ENGINEER DATE 1/3/87
APPROVED [Signature] CITY ENGINEER DATE 10/10/86
RECOMMENDED FOR APPROVAL C. E. [Signature] DISTRICT STATE AID ENGINEER
RECOMMENDED FOR APPROVAL [Signature] 3/5, 1987
APPROVED 3/5 1987 [Signature] STATE AID ENGINEER

DESIGN DESIGNATION
ADT (CURRENT YEAR) 14,500 (1987)
ADT (FUTURE YEAR) 17,500 (2007)
T (HEAVY COMMERCIAL) 5.9% (METRO DISTRIBUTION)
9 Ton Design ASSUMED R-VALUE OF 50
Design Speed 40 MPH SIGMA N18 1,589,000
Design Speed not achieved at:
STA. _____ TO STA. _____ MPH
STA. _____ MPH

SEH SHORT - ELLIOTT - HENDRICKSON, INC.
Saint Paul, Minnesota • Chippewa Falls, Wisconsin

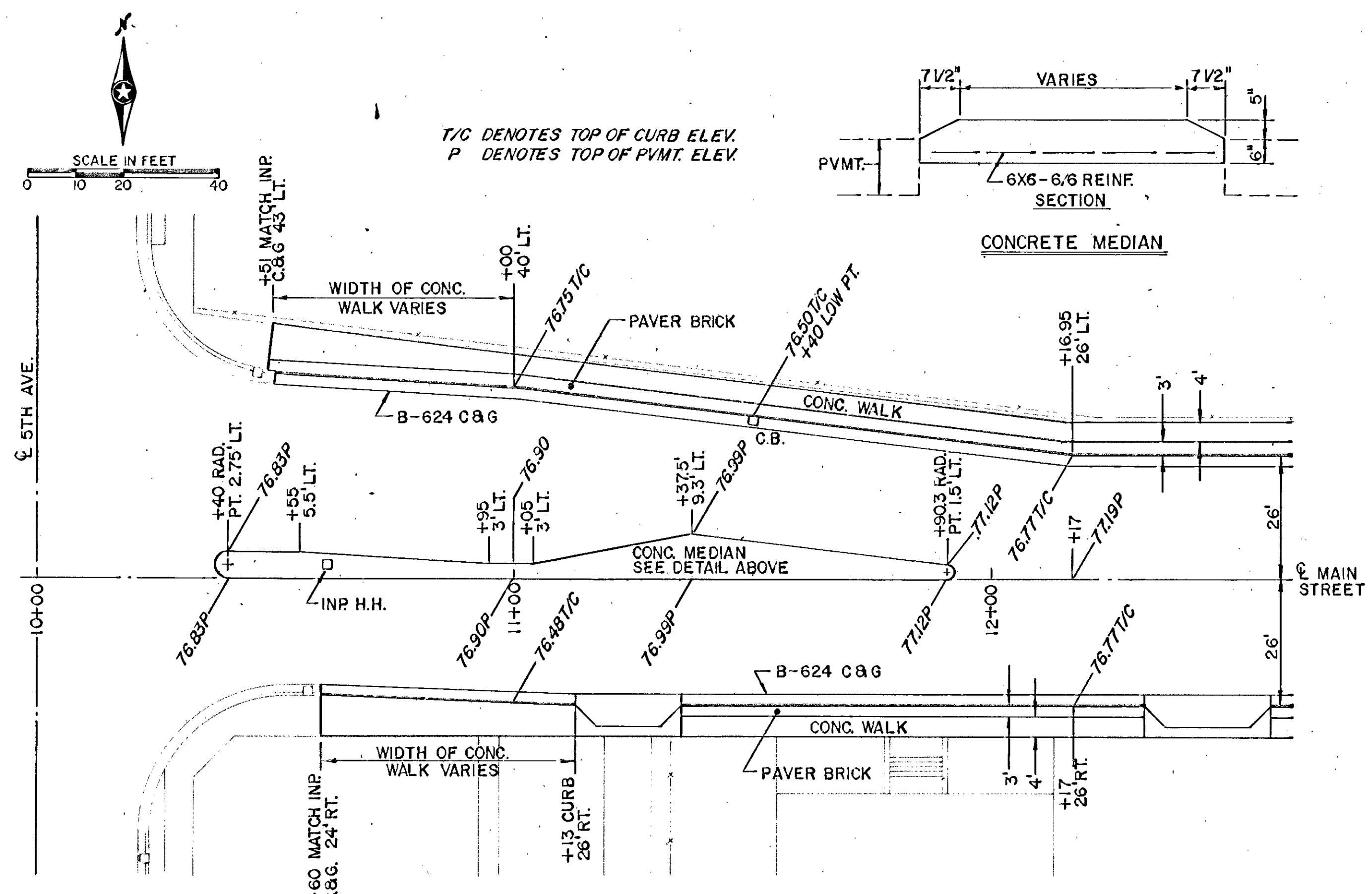
SPECIFICATIONS
THE "STANDARD" SPECIFICATIONS FOR CONSTRUCTION, 1983 EDITION AND SUPPLEMENTAL SPECIFICATIONS, DATED JUNE 10, 1986 SHALL GOVERN.

Minn. Proj. No. _____ County Proj. No. _____
City Proj. No. 541-1987 S.A.P. 02-614-12 C.T.B.

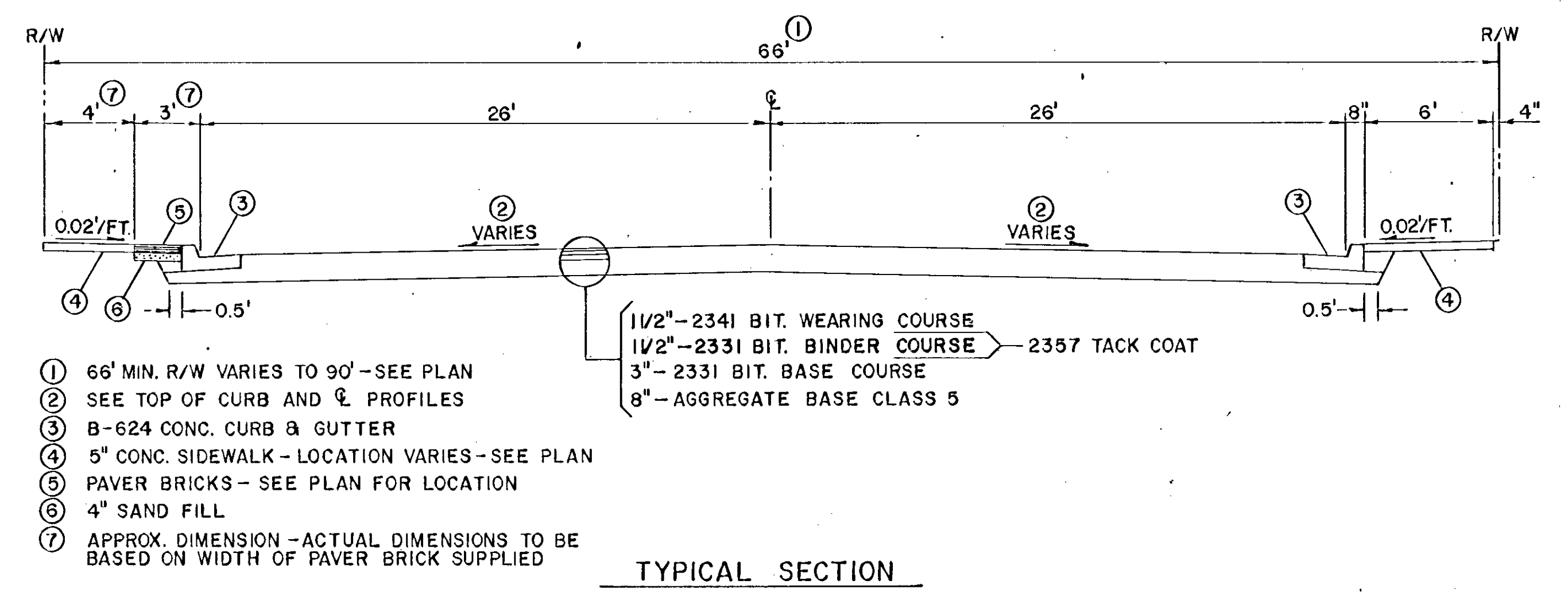
STATEMENT OF ESTIMATED QUANTITIES				TOTAL		S.A.P. 02-614-12 C.T.B. PARTICIPATING		C.P. 541-1987 NON-PARTICIPATING	
ITEM NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES	TOTAL FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL QUANTITIES	
DIVISION I - STREET, STORM SEWER AND APPURTENANCES									
2021.501	MOBILIZATION	L.S.	1		0.71		0.29		
2031.501	FIELD OFFICE, TYPE D	EACH	1		0.71		0.29		
2101.502	CLEARING	TREE	6		6				
2101.507	GRUBBING	TREE	6		6				
2104.501	REMOVE RC STORM SEWER PIPE	L.F.	1815		1815				
2104.501	REMOVE CONCRETE CURB & GUTTER	L.F.	7765		7765				
2104.503	REMOVE CONCRETE SIDEWALK & DRIVEWAY	S.F.	25500		25500				
2104.503	REMOVE ROADWAY PAVEMENT	S.Y.	20900		20900				
2104.509	REMOVE CATCH BASIN	EACH	19		19				
2104.509	REMOVE STORM MANHOLE	EACH	8		8				
2104.509	REMOVE SANITARY MANHOLE	EACH	13				13		
2104.523	SALVAGE CASTING ASSEMBLIES	EACH	40		40				
2104.523	SALVAGE HYDRANT ASSEMBLY	EACH	4		4				
2105.525	TOPSOIL BORROW (L.V.)	C.Y.	150		150				
2130.501	WATER, DUST CONTROL	(M)GAL.	50		50				
2211.501	AGG. BASE CL. 5 100% CRUSHED	TON	11620		11620				
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	293		293				
2331.510	BINDER COURSE MIXTURE	TON	2032		2032				
2331.514	BASE COURSE MIXTURE	TON	4065		4065				
2341.504	BITUMINOUS MATERIAL FOR MIXTURE (DRIVEWAYS)	TON	3		3				
2341.508	WEARING COURSE MIXTURE (DRIVEWAYS)	TON	50		50				
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	2460		2460				
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	130		130				
2341.508	WEARING COURSE MIXTURE	TON	2030		2030				
2431.511	COURSE FILTER AGGREGATE (C.V.)	C.Y.	50		50				
2503.541	12" RC PIPE SEWER, DES. 3006, CL V	* L.F.	733		733				
2503.541	15" RC PIPE SEWER, DES. 3006, CL III	* L.F.	1197		1197				
2503.541	18" RC PIPE SEWER, DES. 3006, CL III	* L.F.	202		202				
2503.541	21" RC PIPE SEWER, DES. 3006, CL III	* L.F.	394		394		295		
2503.541	27" RC PIPE SEWER, DES. 3006, CL III	* L.F.	216		216		162		
2503.541	33" RC PIPE SEWER, DES. 3006, CL III	* L.F.	366		366		274		
0504.602	ADJUST VALVE BOX	EACH	10		10				
2506.506	CONSTRUCT MANHOLE, DESIGN B	* L.F.	56		56		42		
2506.506	CONSTRUCT MANHOLE, DESIGN C	* L.F.	33		33		25		
2506.507	CONSTRUCT CATCH BASIN, DESIGN X	* L.F.	72		72				
2506.507	CONSTRUCT CATCH BASIN, DESIGN Y	* L.F.	19		19				
2506.516	CASTING ASSEMBLY TYPE R-1733	* EACH	16		16		12		
2506.516	CASTING ASSEMBLY TYPE R-3067	* EACH	24		24				
2506.522	ADJUST FRAME AND RING CASTING	EACH	13		13				
2521.501	DECORATIVE WALK	S.F.	4000		1500		2500		
2521.501	5" CONCRETE WALK	S.F.	24000		24000				
2531.501	CONCRETE CURB & GUTTER, DES B-624	L.F.	7950		7950				
2531.503	CONCRETE MEDIAN	S.Y.	92		92				
2531.507	6" CONCRETE DRIVEWAY PAVEMENT	S.Y.	440		440				
2531.507	8" CONCRETE DRIVEWAY PAVEMENT	S.Y.	495		495				
2545.511	LIGHTING UNITS - LESS STANDARDS AND LUMINAIRE MATERIAL COSTS	EACH	13		6		7		
2545.515	LIGHT BASES	EACH	13		6		7		
2545.523	1 1/2" PVC CONDUIT	L.F.	4595		2120		2475		
2545.531	UNDERGROUND WIRE (3-#2, 1-#6)	L.F.	4595		2120		2475		
2545.553	PULL BOXES	EACH	32		15		17		
0545.602	SERVICE POINTS	EACH	2		1		1		
2564.532	TRAFFIC CONTROL	L.S.	1		1				
2565.522	SEMI-ACTUATED TRAFFIC CONTROL								
	SIGNAL SYSTEM "A"	L.S.	1		1				
2565.511	FULL-ACTUATED TRAFFIC CONTROL								
	SIGNAL SYSTEM "B"	L.S.	1		1				
2565.511	FULL-ACTUATED TRAFFIC CONTROL								
	SIGNAL SYSTEM "C"	L.S.	1				1		
2571.501	FURNISH & PLANT EVERGREEN TREES, (SPRUCE, COLORADO, 8' B & B)	TREE	6				6		
2571.501	FURNISH & PLANT EVERGREEN TREES, (PINE, PONDEROSA, 8' B & B)	TREE	3				3		
2571.502	FURNISH & PLANT SHADE TREES, (ASH, MARSHALLS SEEDLESS, 3 1/2" B&B)	TREE	4		1		3		
2571.502	FURNISH & PLANT SHADE TREES, (HONEYLOCUST, SKYLINE, 3 1/2" B&B)	TREE	3				3		
2571.502	FURNISH & PLANT SHADE TREES, (LINDEN, AMERICAN, 3 1/2" B&B)	TREE	4				4		
2571.502	FURNISH & PLANT SHADE TREES, (HACKBERRY, 3 1/2" B&B)	TREE	2				2		
2571.503	FURNISH & PLANT FLOWERING TREES (CHERRY, CANADA RED, 2 1/2" B&B)	TREE	4				4		

STATEMENT OF ESTIMATED QUANTITIES				TOTAL		S.A.P. 02-614-12 C.T.B. PARTICIPATING		C.P. 541-1987 NON-PARTICIPATING	
ITEM NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES	TOTAL FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL QUANTITIES	
2571.503	FURNISH & PLANT FLOWERING TREES (CRABAPPLE, RADIANT, 2 1/2" B&B)	TREE	2					2	
2571.503	FURNISH & PLANT FLOWERING TREES (LILAC, JAPANESE TREE, 2 1/2" B&B)	TREE	4					4	
0571.550	48" x 48" TREE GRATE & FRAME	EACH	10					10	
0571.551	6" x 6" x 8' UNTREATED CEDAR TIMBER/PLANTER BOX	EACH	60					60	
0571.552	11" SPIKES FOR PLANTER BOX	EACH	90					90	
2575.505	SODDING	S.Y.	1500					1500	
2575.513	MULCH MATERIAL, TYPE 6	C.Y.	16					16	
DIVISION II - WATERMAIN									
0504.603	4" DIP WATERMAIN	L.F.	30					30	
0504.603	6" DIP WATERMAIN	L.F.	335					335	
0504.603	8" DIP WATERMAIN	L.F.	1310					1310	
0504.603	10" DIP WATERMAIN	L.F.	1280					1280	
0504.602	HYDRANT	EACH	8					8	
0504.602	4" M.J. GATE VALVE & BOX	EACH	1					1	
0504.602	6" M.J. GATE VALVE & BOX	EACH	12					12	
0504.602	8" M.J. GATE VALVE & BOX	EACH	2					2	
0504.602	10" M.J. GATE VALVE & BOX	EACH	3					3	
0504.602	3/4" CORPORATION	EACH	1					1	
0504.602	1" CORPORATION	EACH	38					38	
0504.602	1 1/2" CORPORATION	EACH	2					2	
0504.602	2" CORPORATION	EACH	1					1	
0504.602	1" CURB STOP & BOX	EACH	27					27	
0504.602	1 1/2" CURB STOP & BOX	EACH	1					1	
0504.602	2" CURB STOP & BOX	EACH	1					1	
0504.603	1" COPPER SERVICE	L.F.	1050					1050	
0504.603	1 1/2" COPPER SERVICE	L.F.	100					100	
0504.603	2" COPPER SERVICE	L.F.	50					50	
0504.602	RECONNECT EXISTING WATER SERVICE	EACH	29					29	
0504.602	PLUG & RESTRAIN INPLACE WATERMAIN	EACH	4					4	
0504.620	M.J. DIP FITTINGS	LB.	2280					2280	
DIVISION III - SANITARY SEWER									
0503.603	4" DIP FORCEMAIN	L.F.	535					535	
0503.603	8" V.C.P. SEWER, 0'-8' DEEP	L.F.	25					25	
0503.603	8" V.C.P. SEWER 10'-12' DEEP	L.F.	34					34	
0503.603	10" V.C.P. SEWER 0'-8' DEEP	L.F.	125					125	
0503.603	10" V.C.P. SEWER 8'-10' DEEP	L.F.	473					473	
0503.603	10" V.C.P. SEWER 10'-12' DEEP	L.F.	3284					3284	
0503.603	10" V.C.P. SEWER 12'-14' DEEP	L.F.	112					112	
0503.603	8" D.I.P. SEWER 10'-12' DEEP	L.F.	11					11	
0503.603	10" D.I.P. SEWER 10'-12' DEEP	L.F.	22					22	
0503.602	STANDARD MANHOLE (0'-8' DEEP)	EACH	16					16	
0503.603	EXCESS MANHOLE DEPTH	L.F.	14					14	
0503.603	OUTSIDE DROP FOR MANHOLE	L.F.	4					4	
0503.603	4" C.I.S.P. SERVICE	L.F.	560					560	
0503.603	6" C.I.S.P. SERVICE	L.F.	80					80	
0503.602	10" x 4" V.C.P. WYE	EACH	14					14	
0503.602	10" x 6" V.C.P. WYE	EACH	2					2	
0503.602	10" x 8" V.C.P. WYE	EACH	1					1	
0503.602	4" OR 6" CORE TAP	EACH	32					32	
0503.602	CONNECT TO EXISTING SERVICE	EACH	49					49	
0503.603	SERVICE LOCATION TRENCH	L.F.	1000					1000	
0503.611	CRUSHED ROCK PIPE SUBGRADE BACKFILL	TON	50					50	
0503.606	LIFT STATION	L.S.	1					1	
ADD ALTERNATE NO. 1 (SIDEWALK) 9TH AVENUE TO EAST CITY LIMITS									
2105.525	TOPSOIL BORROW (L.V.)	C.Y.	100					100	
2521.501	5" CONCRETE WALK	S.F.	4550					4550	
2531.507	6" CONCRETE DRIVEWAY PAVEMENT	S.Y.	72					72	
2575.505	SODDING	S.Y.	705					705	

* STORM SEWER 100% STATE PARTICIPATION



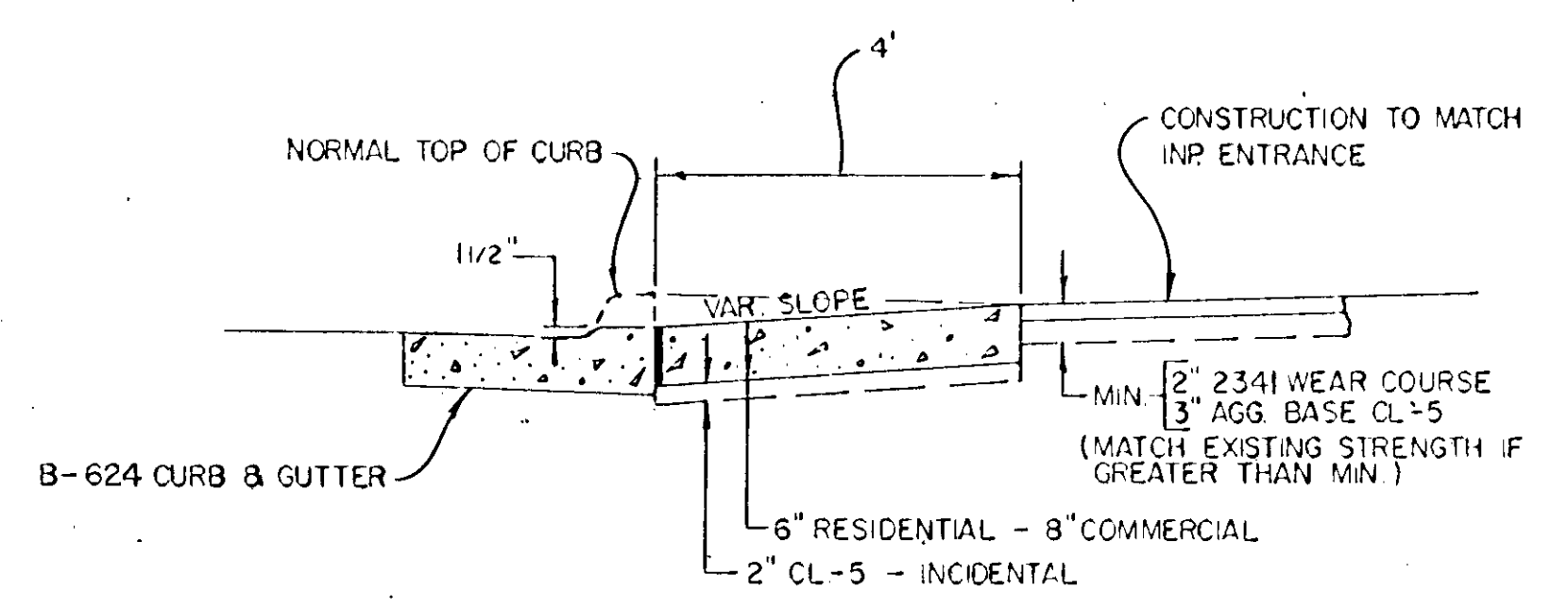
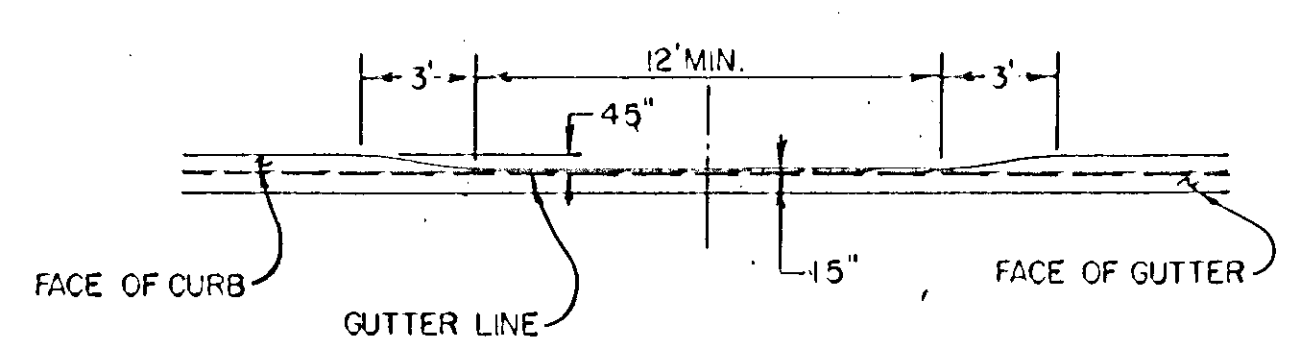
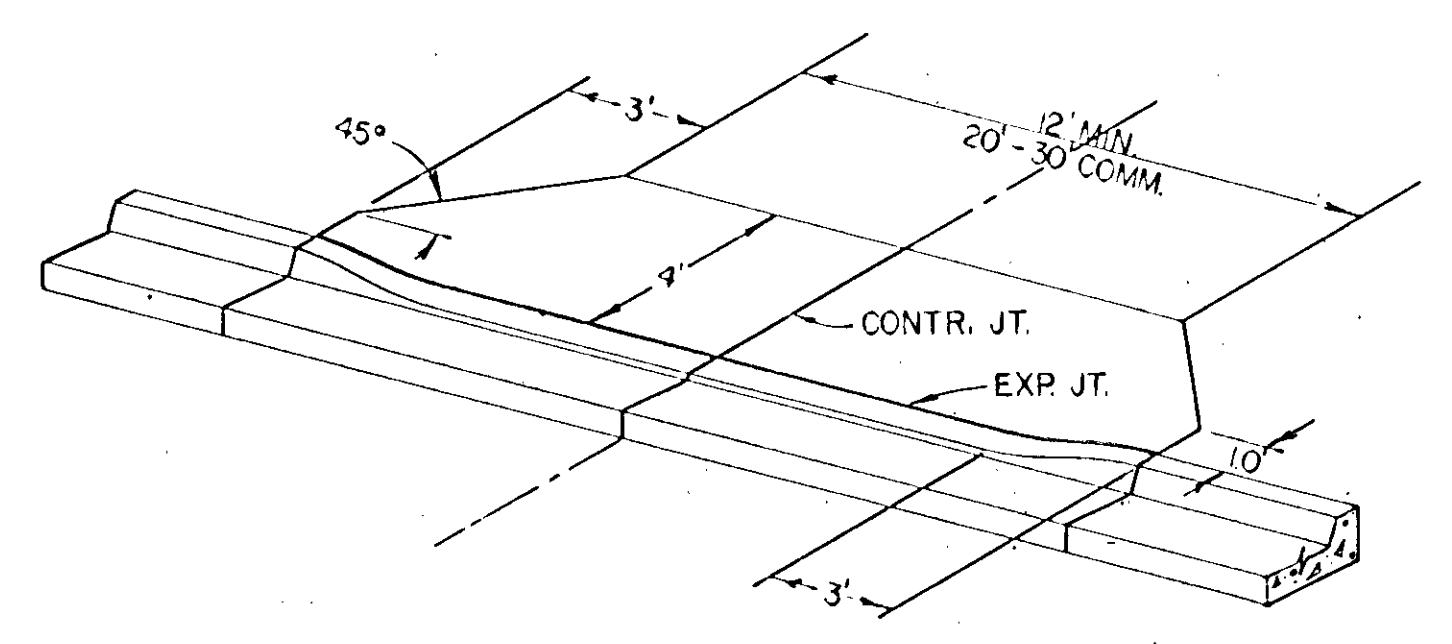
INTERSECTION DETAIL—MAIN ST. AT 5TH AVE.



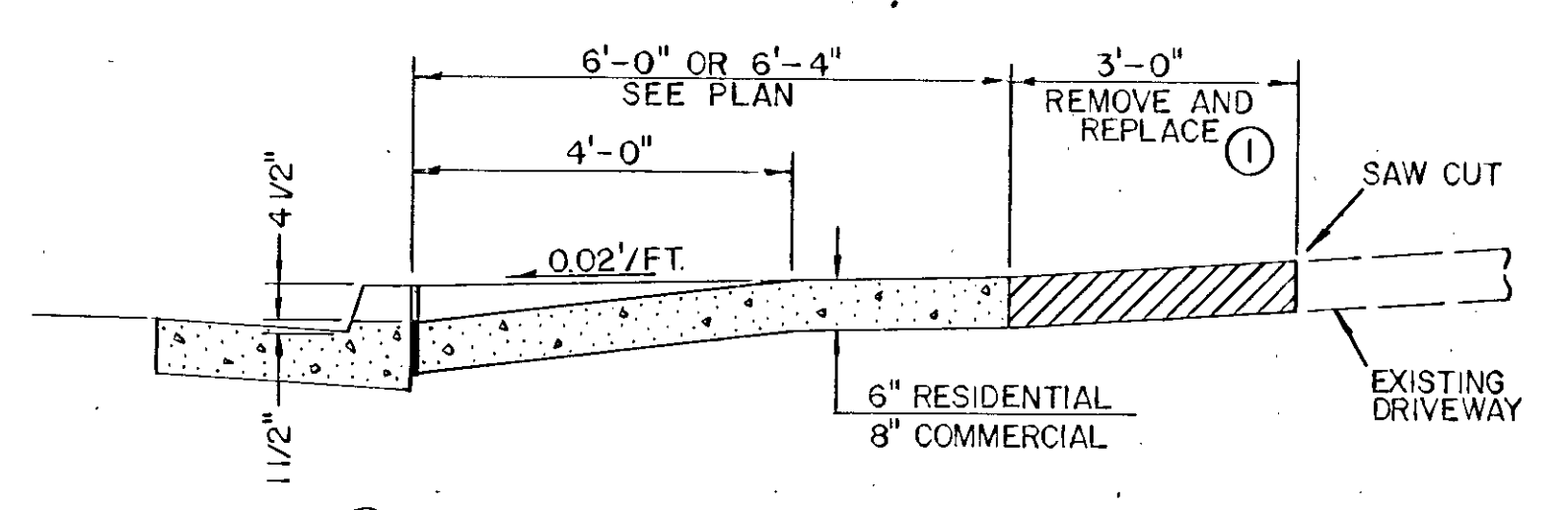
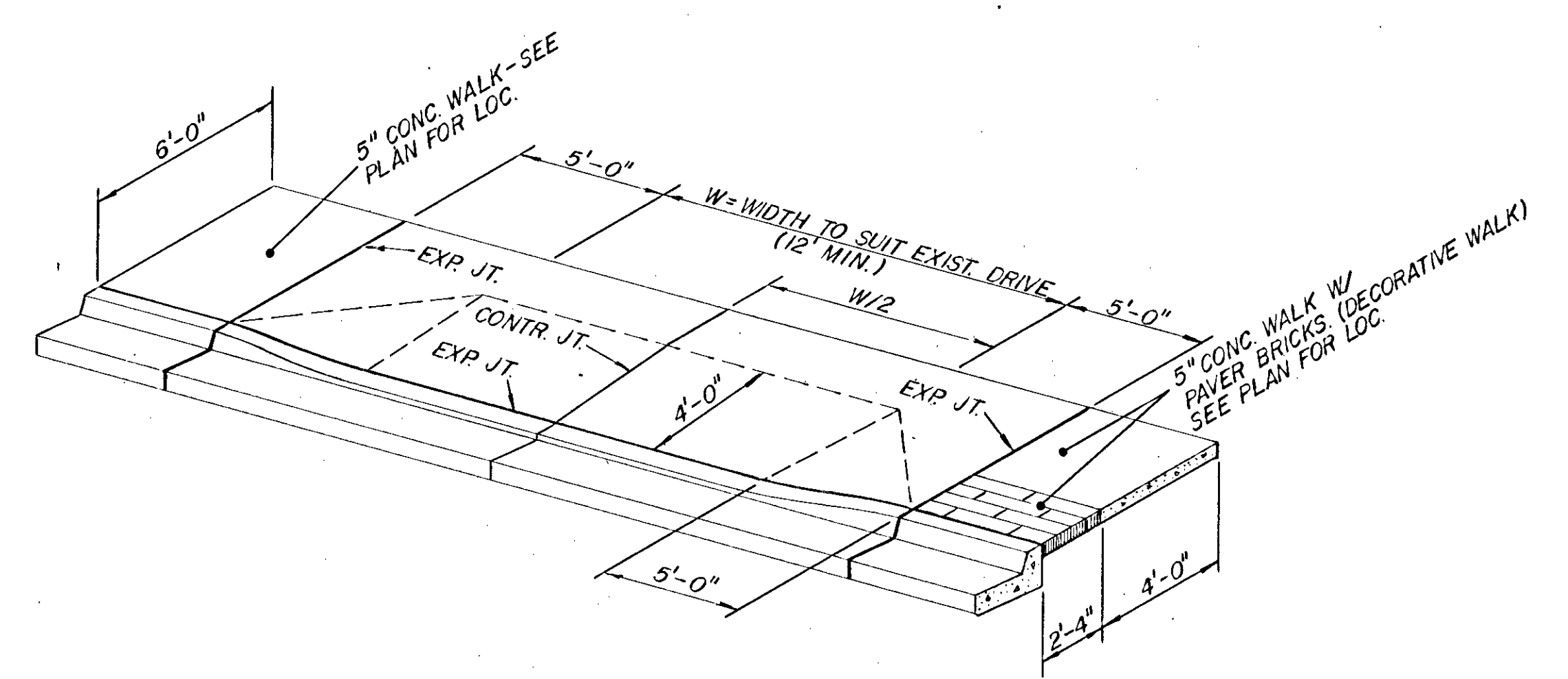
- ① 66' MIN. R/W VARIES TO 90'—SEE PLAN
- ② SEE TOP OF CURB AND ℓ PROFILES
- ③ B-624 CONC. CURB & GUTTER
- ④ 5" CONC. SIDEWALK—LOCATION VARIES—SEE PLAN
- ⑤ PAVER BRICKS—SEE PLAN FOR LOCATION
- ⑥ 4" SAND FILL
- ⑦ APPROX. DIMENSION—ACTUAL DIMENSIONS TO BE BASED ON WIDTH OF PAVER BRICK SUPPLIED

TYPICAL SECTION

1 1/2" - 2341 BIT. WEARING COURSE
 1 1/2" - 2331 BIT. BINDER COURSE - 2357 TACK COAT
 3" - 2331 BIT. BASE COURSE
 8" - AGGREGATE BASE CLASS 5



CONCRETE DRIVEWAY DETAIL
 9TH AVENUE TO EAST CITY LIMITS



- ① DRIVEWAY REPLACEMENT
 CONC. 6" RESIDENTIAL - 8" COMMERCIAL
 BIT. 2" - 2341 WEARING COURSE
 3" - AGGREGATE BASE CLASS 5

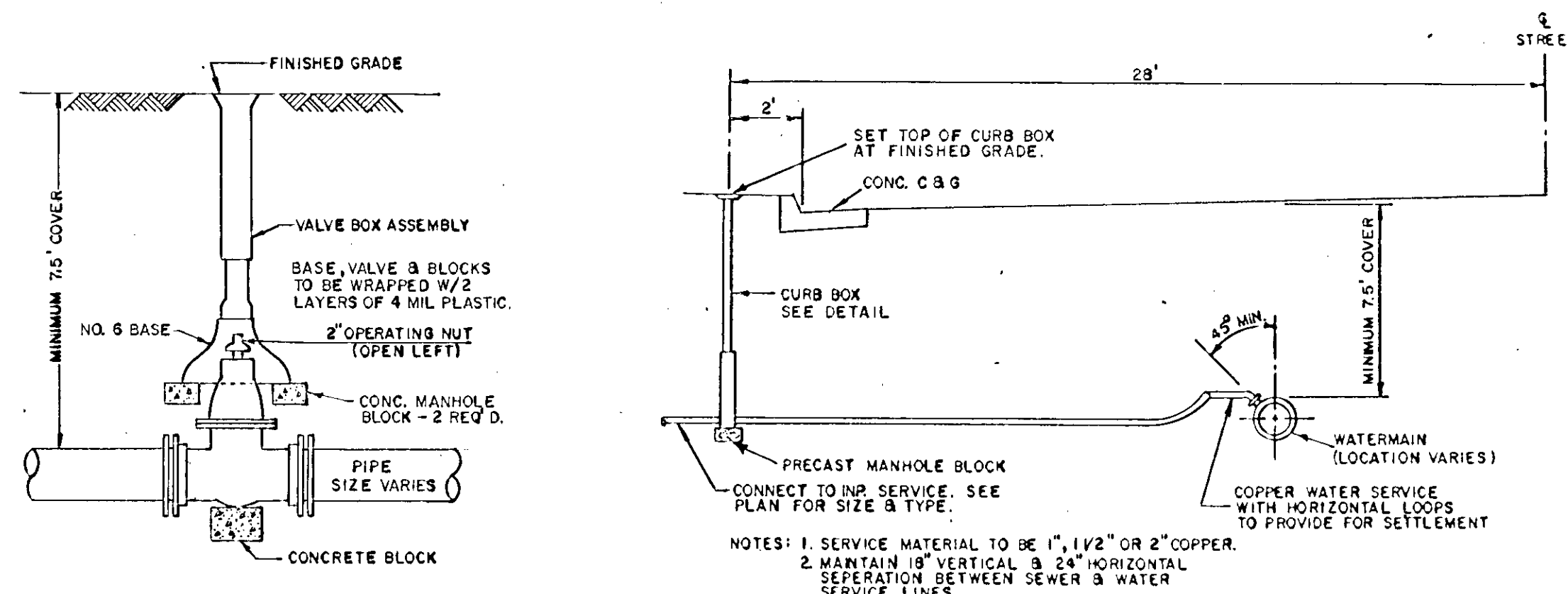
CONCRETE DRIVEWAY DETAIL
 5TH AVENUE TO 9TH AVENUE

The following Standard Plates, approved by the FEDERAL HIGHWAY ADMINISTRATION, shall apply on this project.

MN/DOT STANDARD PLATES	
PLATE NO.	DESCRIPTION
0004 A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000 K	REINFORCED CONCRETE PIPE
3006 D	GASKET JOINT FOR R.C. PIPE
4180 H	MANHOLE OR CATCH BASIN STEP
7036 C	PEDESTRIAN CURB RAMP
7100 F	CONCRETE CURB AND GUTTERS
8100 C	TRAFFIC SIGNAL BRACKETING - POLE MOUNTED
8115 C	PEDESTRIAN PUSH BUTTON INSTALLATION
8117 F	PRECAST CONCRETE HANDHOLE
8118 C	SERVICE EQUIPMENT AND POLE
8119 C	GROUND MOUNTED CABINET FOUNDATION
8120 H	P-80 AND P-90 POLE FOUNDATION
8121 B	TRANSFORMER BASE WITH POLE BASE PLATE
8123 B	POLE AND MAST ARM
8124 B	SIGNAL HEAD MOUNTS
8125 A	SWING-AWAY HINGE
8126 C	P-100 POLE FOUNDATION
8130 D	SAW CUT LOOP DETECTORS
0004 A	SPECIFICATION REFERENCE

MISCELLANEOUS DETAILS

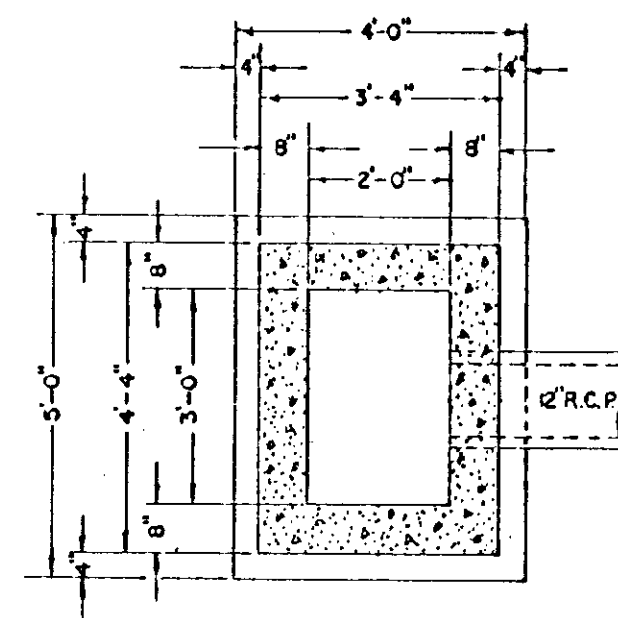
CITY PROJ. NO. 541-1987



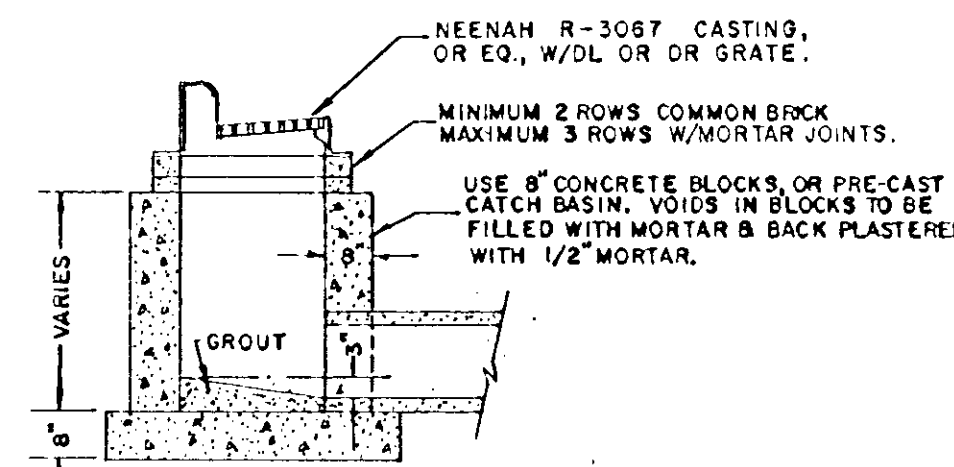
GATE VALVE & BOX INSTALLATION

WATER SERVICE DETAIL

NOTES: 1. SERVICE MATERIAL TO BE 1", 1 1/2" OR 2" COPPER.
2. MAINTAIN 18" VERTICAL & 24" HORIZONTAL SEPARATION BETWEEN SEWER & WATER SERVICE LINES.



PLAN VIEW

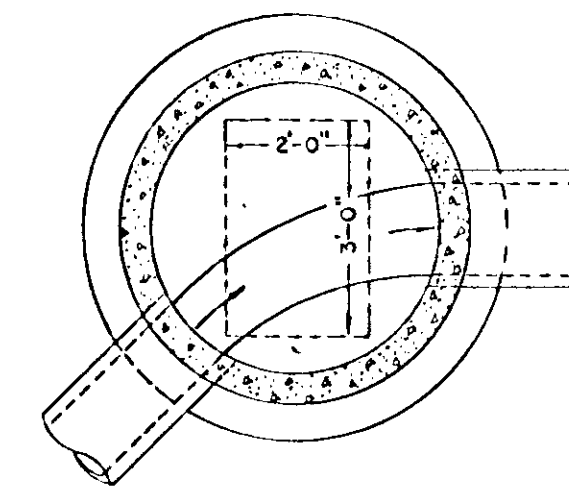


SECTION

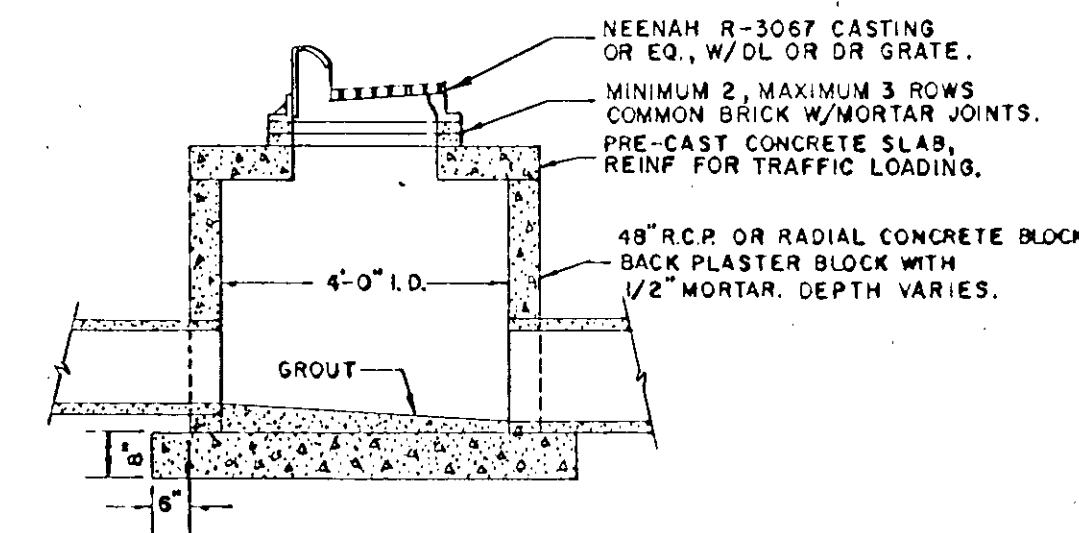
TYPE "X" CATCH BASIN

CATCH BASIN LOCATION NOTE

THE CENTER OF ALL CATCH BASINS, EXCEPT NOS. 59 & 60, SHALL BE LOCATED 4" FROM CURB FACE TOWARD STREET & 3'-0" FROM THE END OF THE CURB RETURN. CATCH BASINS NO. 59 & 60 SHALL ALSO BE LOCATED 4" FROM CURB FACE BUT 5'-0" FROM THE END OF THE CURB RETURN.



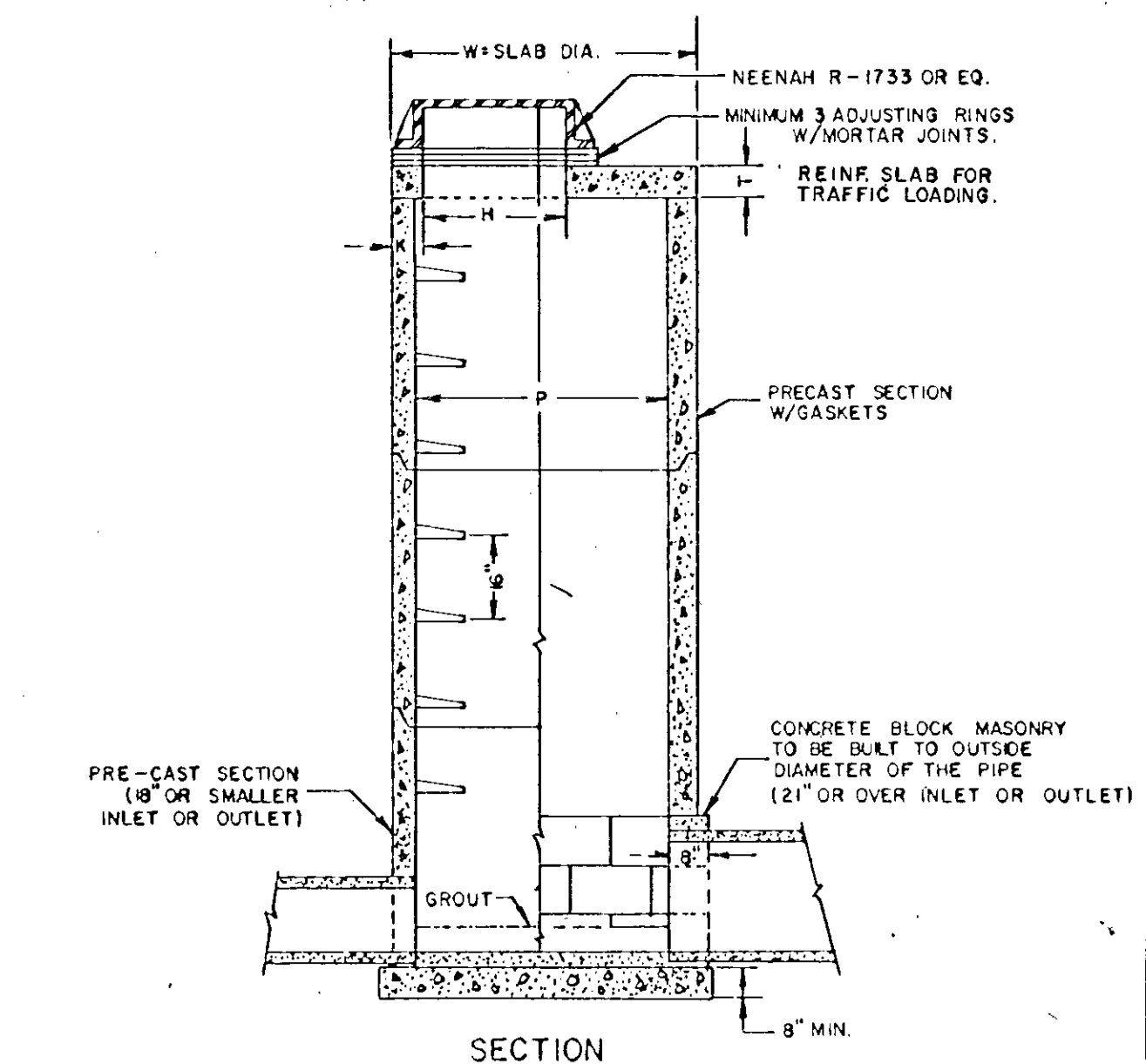
PLAN VIEW



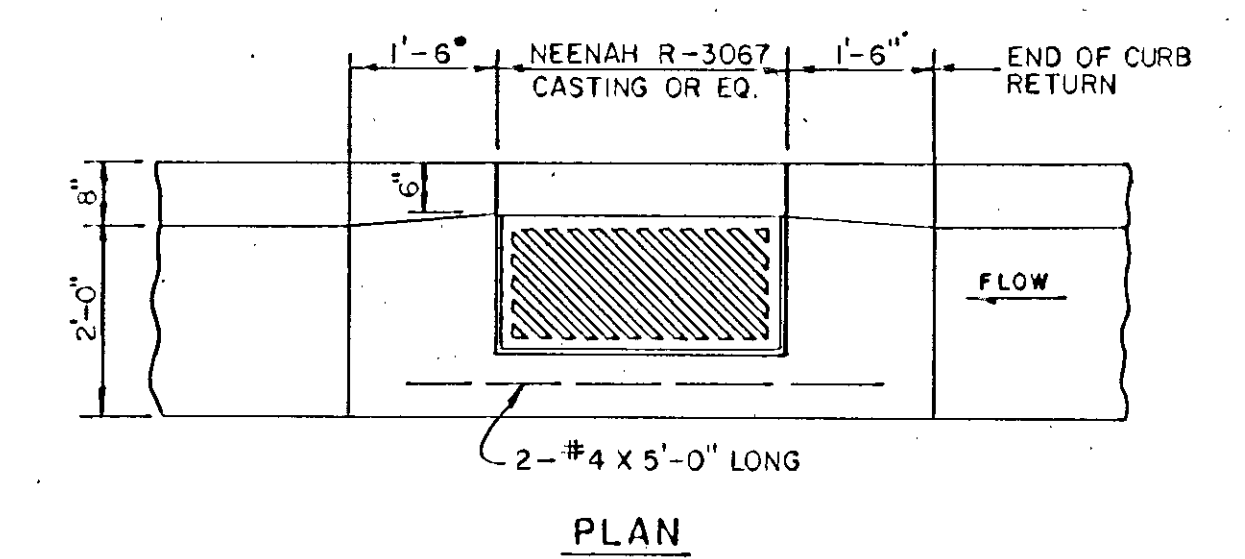
SECTION

TYPE "Y" CATCH BASIN

DIMENSIONS	MANHOLE TYPE											
	B	B-1	C	C-1	D	D-1	E	E-1	F	F-1	G	G-1
P	48"	48"	60"	60"	72"	72"	84"	84"	96"	96"	102"	102"
K	6"	11"	7"	18"	8"	25"	9"	32"	9"	38.5"	9"	41.5"
T	6"	5"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"
W	58"	58"	72"	72"	86"	86"	100"	100"	113"	113"	119"	119"
H	TO SUIT CASTING DIMENSIONS											
OPENING	ECC.	CON.	ECC.	CON.	ECC.	CON.	ECC.	CON.	ECC.	CON.	ECC.	CON.



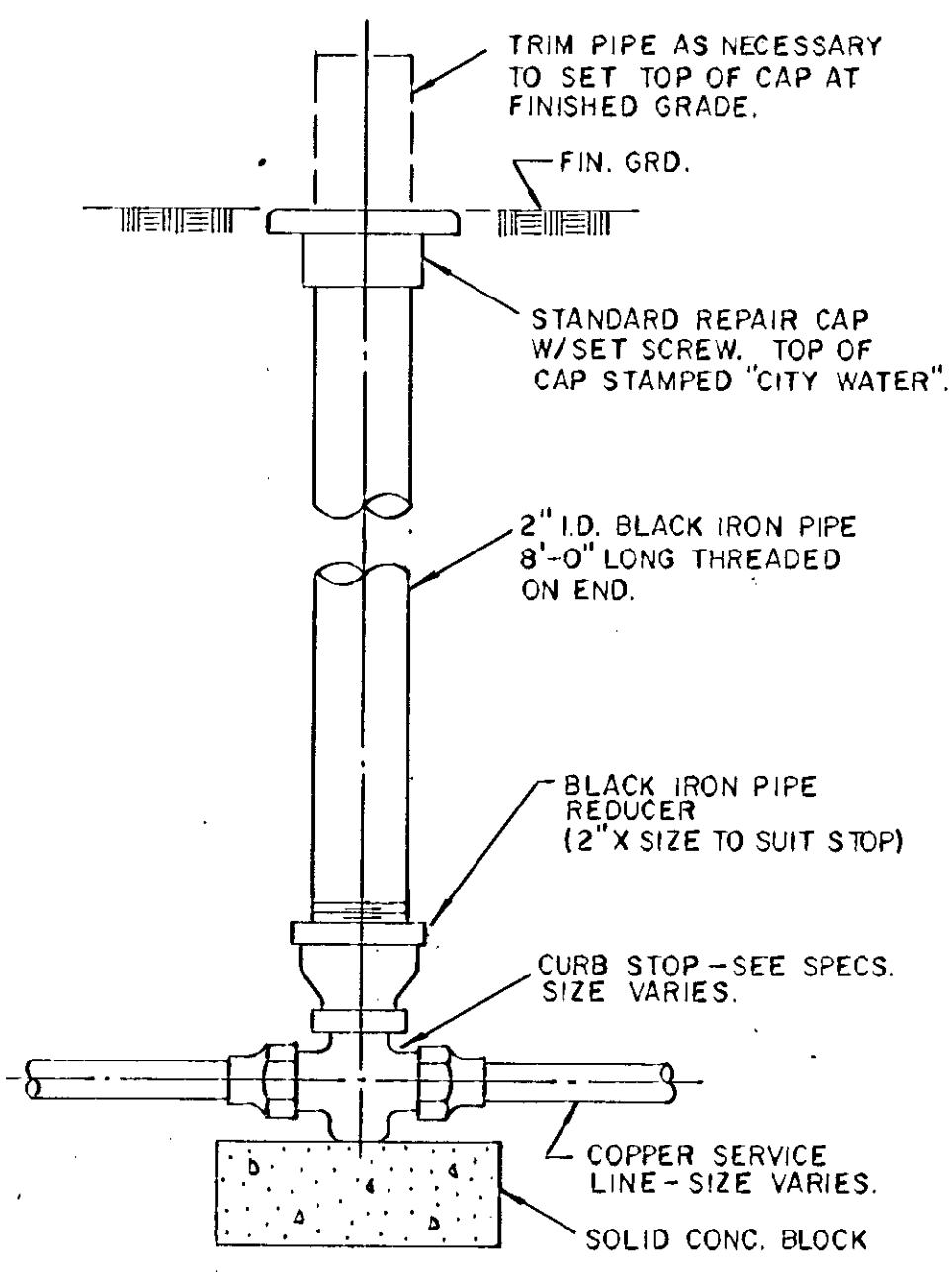
STORM SEWER M.H. TYPE "B"(B-1) THRU "G"(G-1)



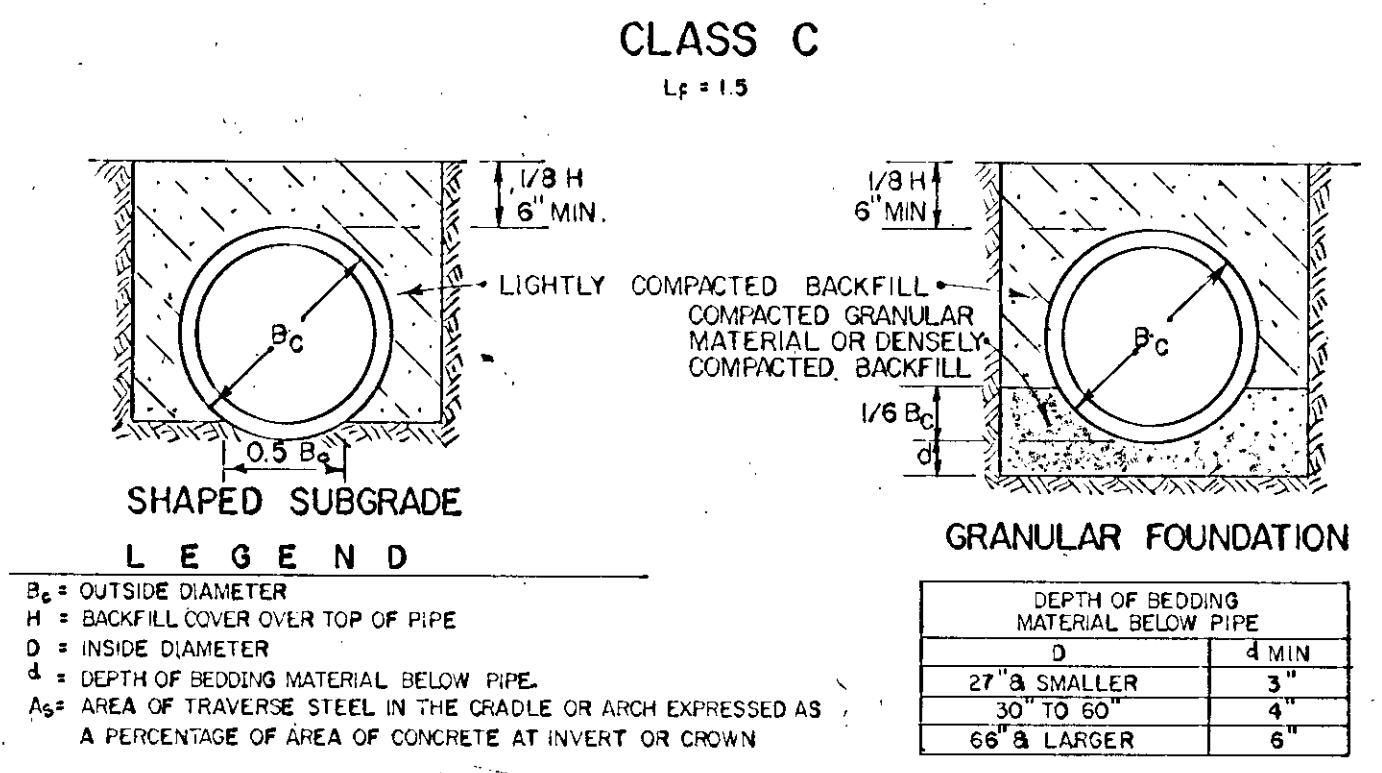
CURB & GUTTER DETAILS AT CATCH BASINS

CASTING SCHEDULE				
TYPE	NEENAH CASTING NO.	STORM SEWER	SANITARY SEWER	TOTAL REQUIRED
M.H.	R-1733	16	14	30
C.B.	R-3067	24		24

MISCELLANEOUS DETAILS. CITY PROJ. NO. 541-1987

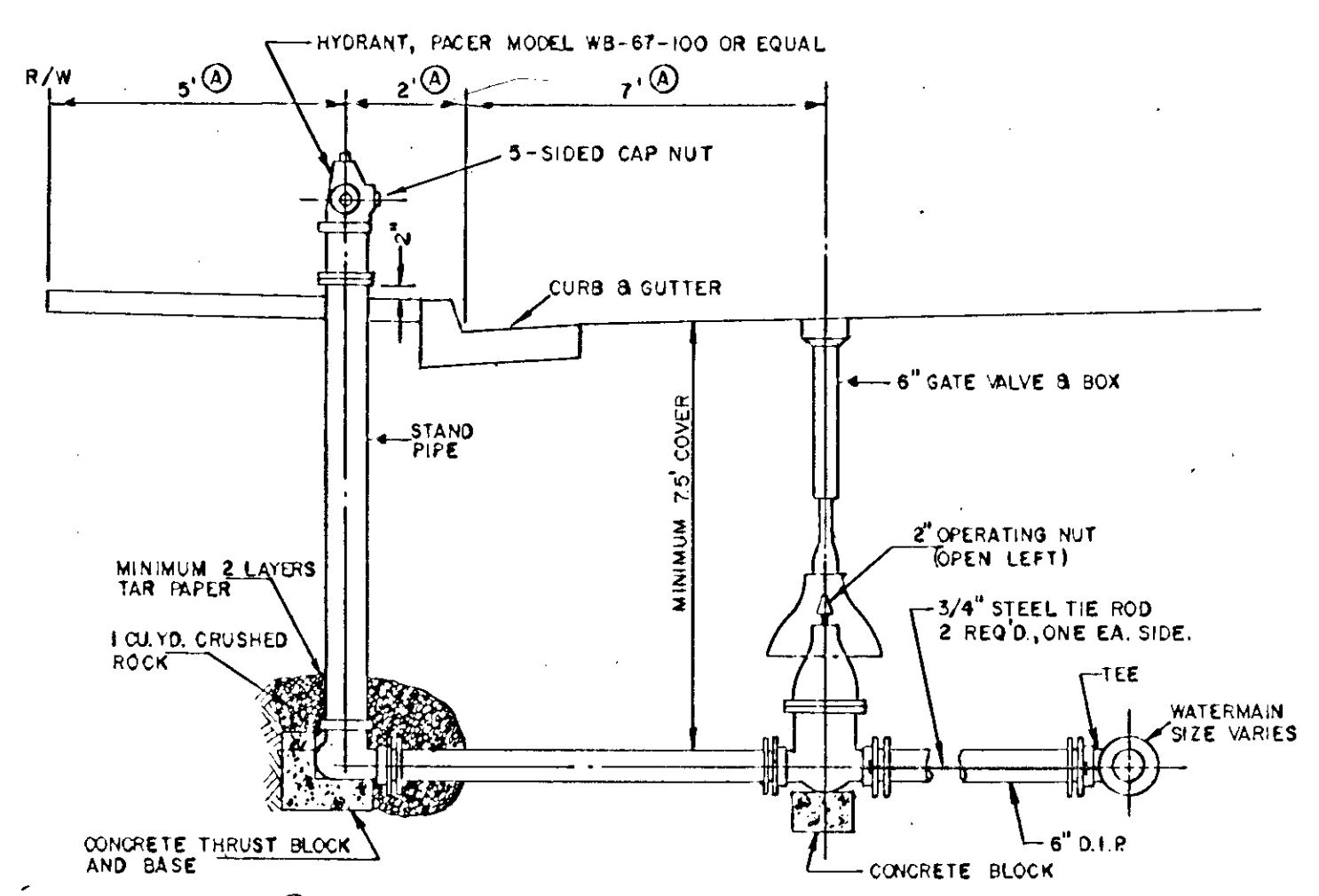


STOP BOX DETAIL

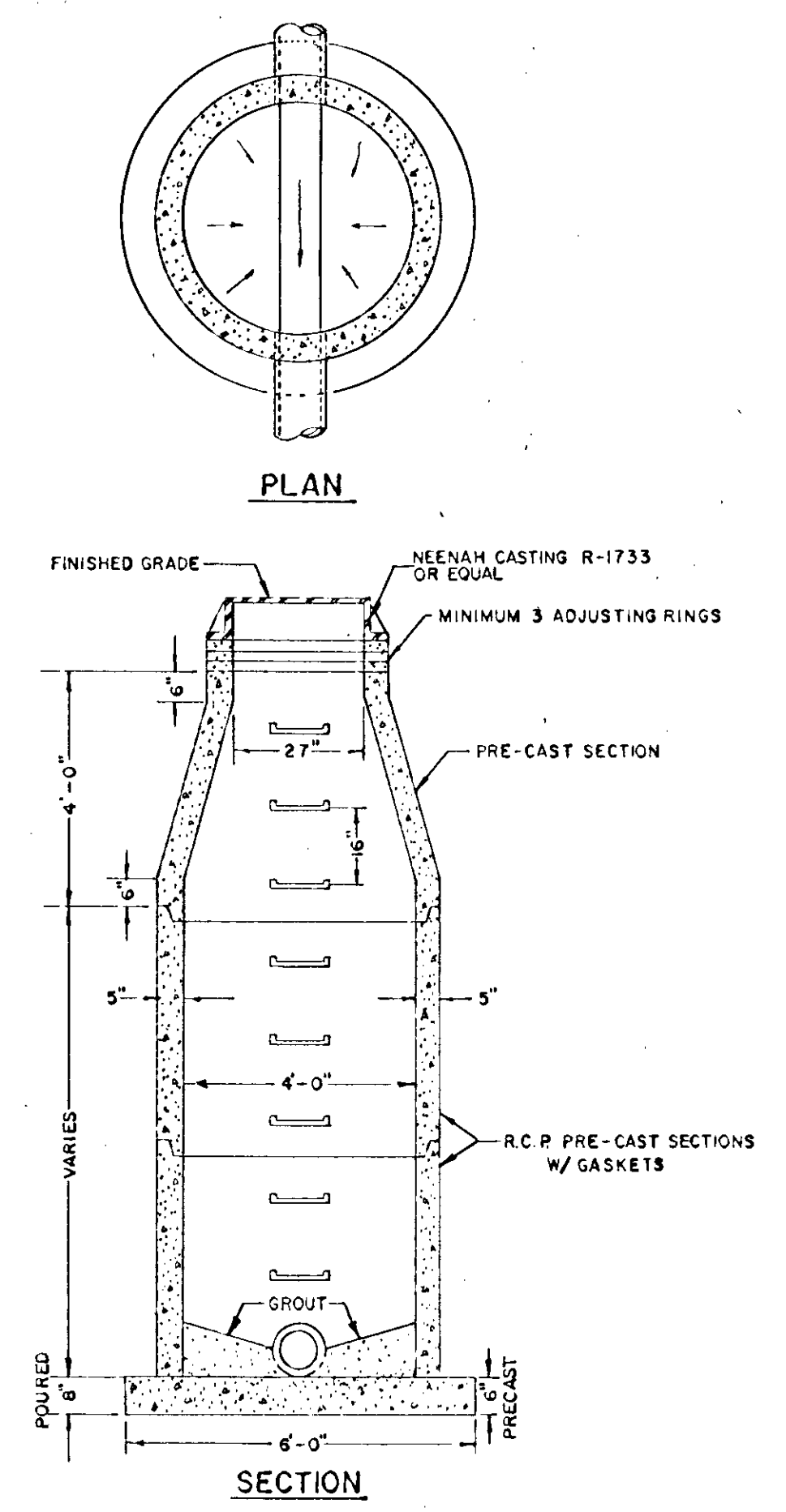


TRENCH BEDDING - CIRCULAR PIPE

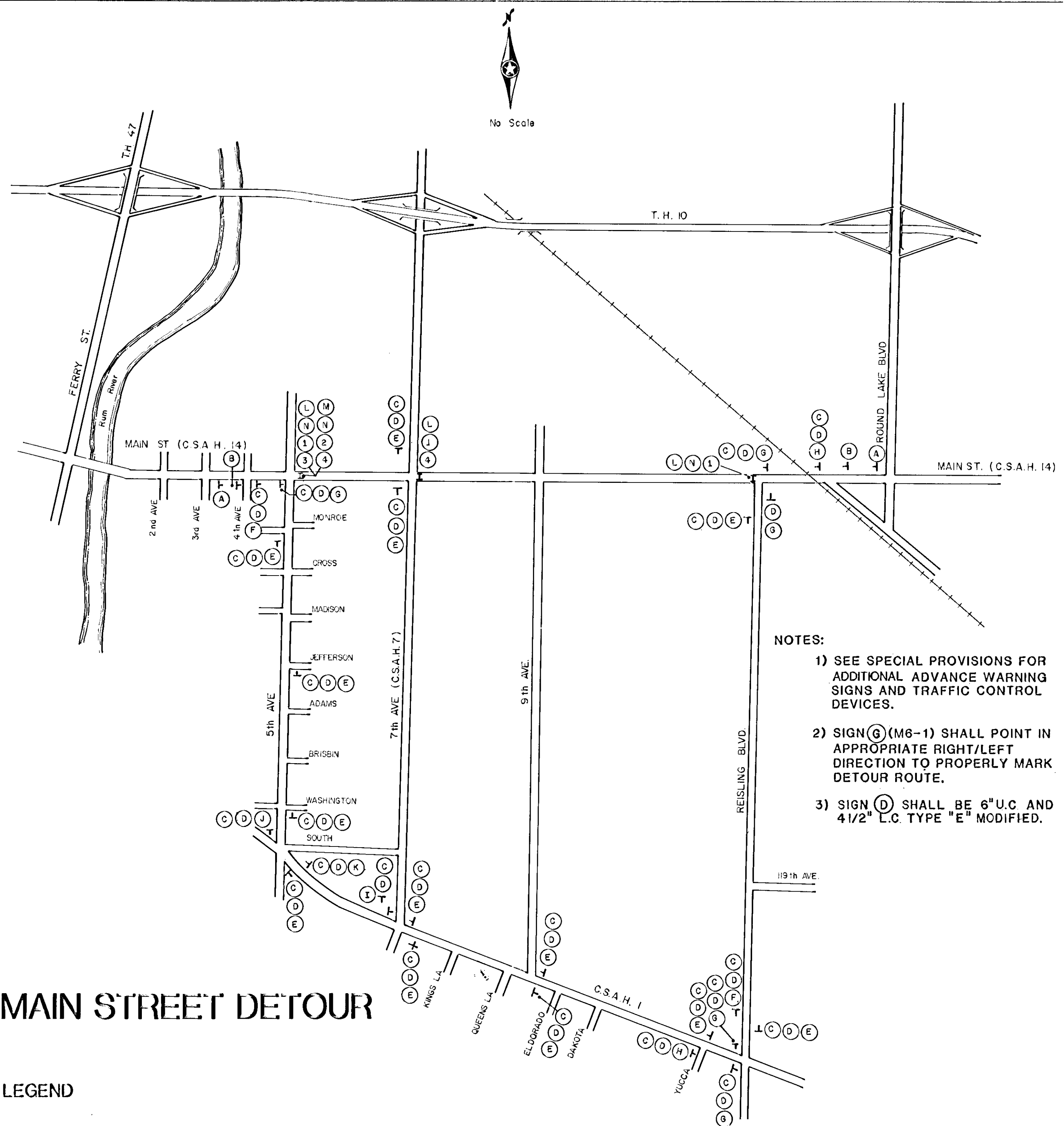
DEPTH OF BEDDING MATERIAL BELOW PIPE	
D	4 MIN
27" & SMALLER	3"
30" TO 60"	4"
66" & LARGER	6"



HYDRANT & GATE VALVE INSTALLATION



STANDARD SANITARY MANHOLE (CONCENTRIC)

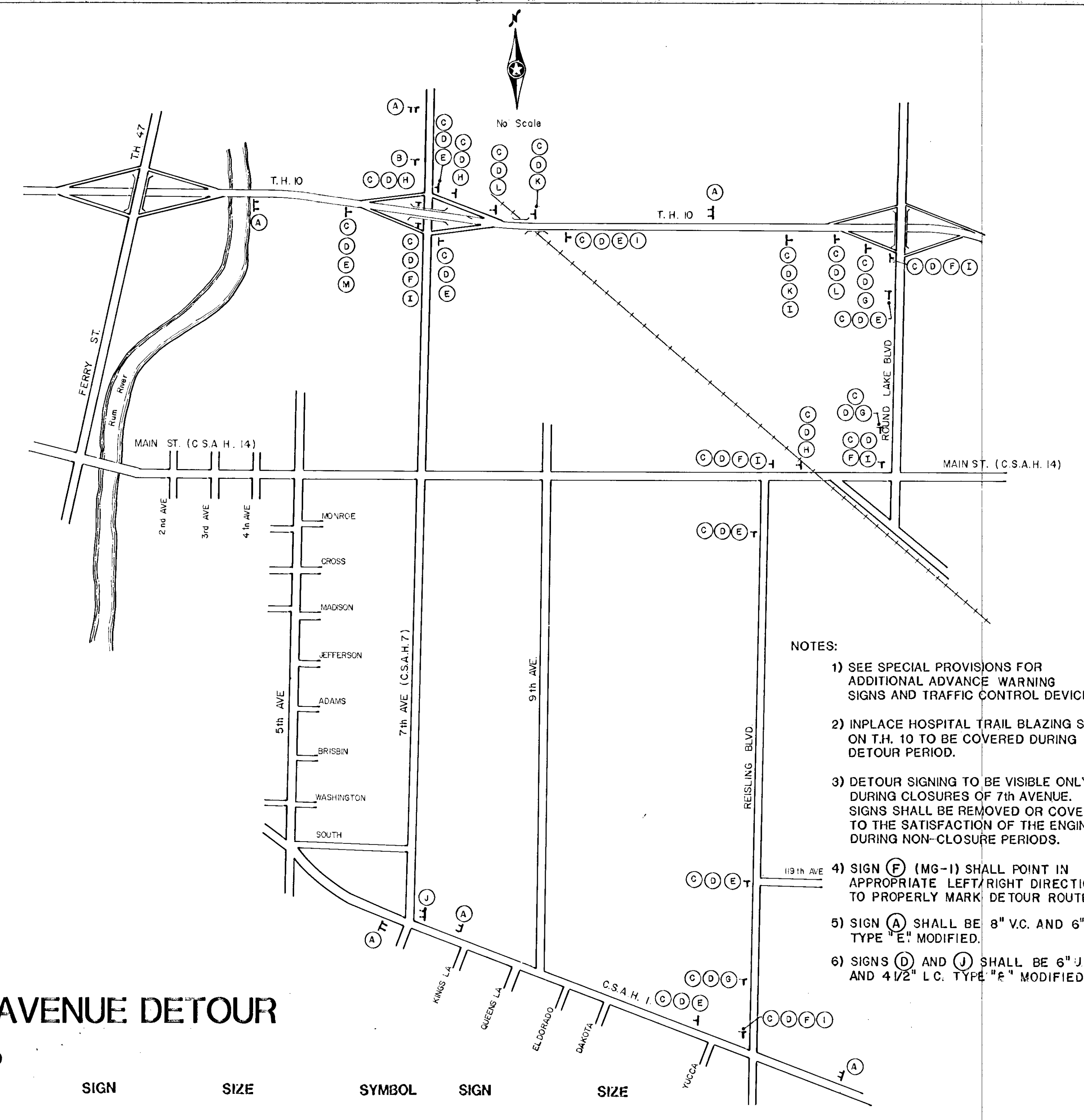


MAIN STREET DETOUR

LEGEND

SYMBOL	SIGN	SIZE	SYMBOL	SIGN	SIZE	SYMBOL	SIGN	SIZE		
(A)	ROAD CLOSED AHEAD	W20-3	36"x36"	(G)	M6-1	21"x15"	(L)	ROAD CLOSED	R11-2	48"x30"
(B)	DETOUR AHEAD	W20-2	36"x36"	(H)	M5-1L	21"x15"	(M)	ROAD CLOSED TO THRU TRAFFIC	R11-4	60"x30"
(C)	DETOUR	M4-8	24"x12"	(I)	M-G4	21"x15"	(N)	DETOUR	M4-10	48"x18"
(D)	MAIN STREET	M1-5	30"x24" 24"x24"	(J)	M6-2L	21"x15"	NOTES:			
(E)	M6-3	21"x15"	(K)	M5-2R	21"x15"	1) MOUNT ON CENTER OF 3-TYPE III BARRICADES.				
(F)	M6-1R	21"x15"				2) MOUNT ON SINGLE TYPE III BARRICADE.				
						3) USE DURING MAIN STREET CONSTRUCTION BETWEEN 5th AND 7th AVENUES				
						4) USE WHILE MAIN STREET IS OPEN TO TRAFFIC BETWEEN 5th AND 7th AVENUES.				

- NOTES:**
- 1) SEE SPECIAL PROVISIONS FOR ADDITIONAL ADVANCE WARNING SIGNS AND TRAFFIC CONTROL DEVICES.
 - 2) SIGN (G) (M6-1) SHALL POINT IN APPROPRIATE RIGHT/LEFT DIRECTION TO PROPERLY MARK DETOUR ROUTE.
 - 3) SIGN (D) SHALL BE 6" U.C AND 4 1/2" L.C. TYPE "E" MODIFIED.



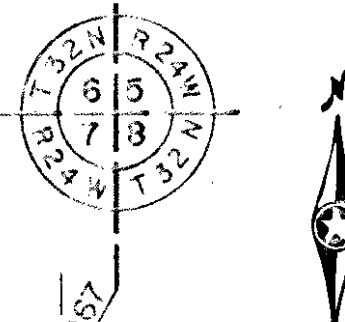
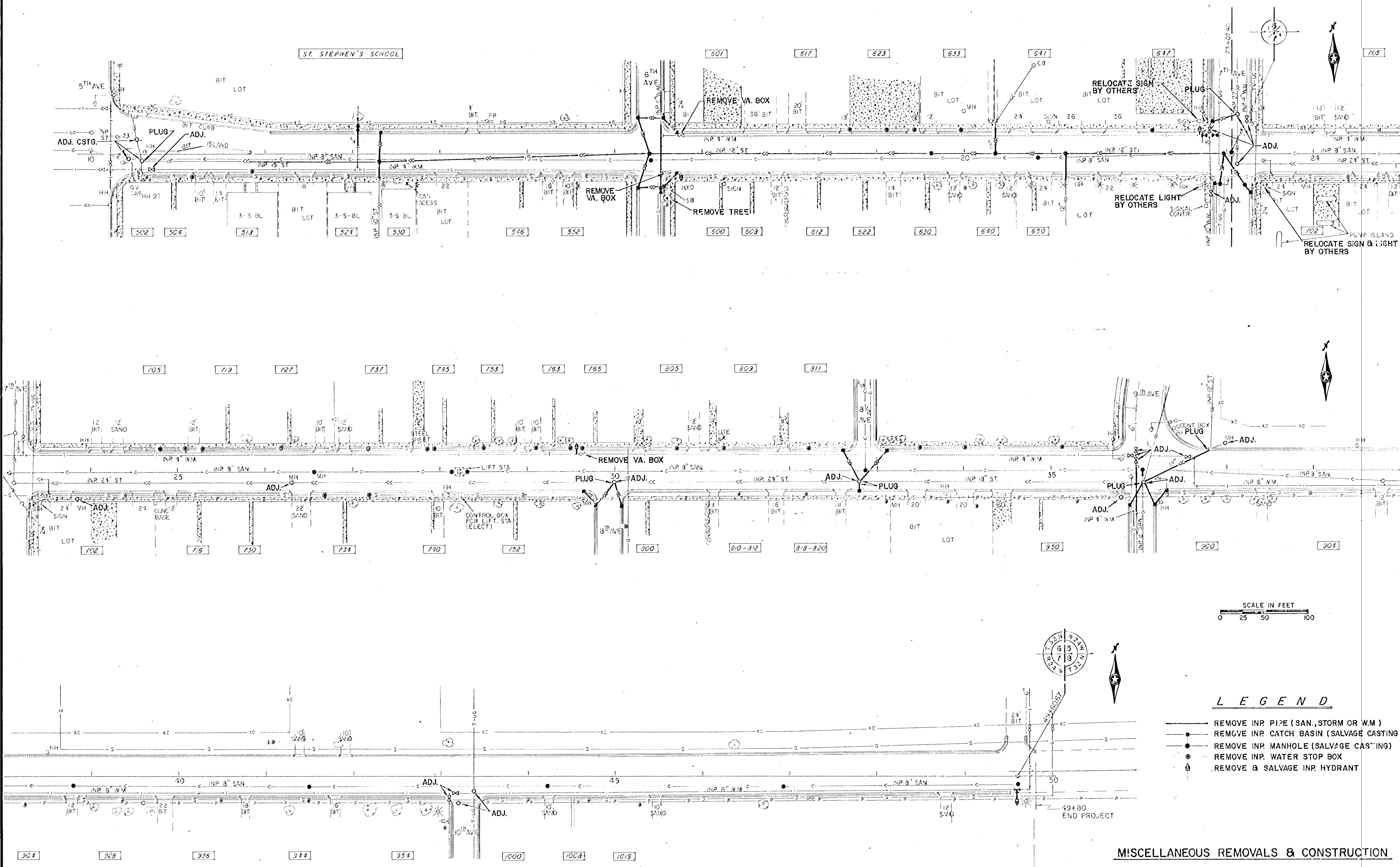
7TH AVENUE DETOUR

LEGEND

SYMBOL	SIGN	SIZE	SYMBOL	SIGN	SIZE	
(A)	7th AVENUE CLOSED at Main Street	96"x48"	(H)	M5-1L	21"x15"	
(B)	DETOUR AHEAD	36"x36"	(I)	D9-2A (WITH APPROPRIATE ARROW DIRECTION)	18"x36"	
(C)	DETOUR	M4-8	24"x12"	(J)	7th AVE	36"x30"
(D)	7th AVE	36"x18"	(K)	M5-2R	21"x15"	
(E)	M6-3	21"x15"	(L)	M6-2R	21"x15"	
(F)	M6-1	21"x15"				
(G)	M5-1R	21"x15"				

- NOTES:**
- 1) SEE SPECIAL PROVISIONS FOR ADDITIONAL ADVANCE WARNING SIGNS AND TRAFFIC CONTROL DEVICES.
 - 2) INPLACE HOSPITAL TRAIL BLAZING SIGN ON T.H. 10 TO BE COVERED DURING DETOUR PERIOD.
 - 3) DETOUR SIGNING TO BE VISIBLE ONLY DURING CLOSURES OF 7th AVENUE. SIGNS SHALL BE REMOVED OR COVERED TO THE SATISFACTION OF THE ENGINEER DURING NON-CLOSURE PERIODS.
 - 4) SIGN (F) (M6-1) SHALL POINT IN APPROPRIATE LEFT/RIGHT DIRECTION TO PROPERLY MARK DETOUR ROUTE.
 - 5) SIGN (A) SHALL BE 8" V.C. AND 6" L.C. TYPE "E" MODIFIED.
 - 6) SIGNS (D) AND (J) SHALL BE 6" U.C. AND 4 1/2" L.C. TYPE "E" MODIFIED.

DIVISION PROJ. NO. 541-1987



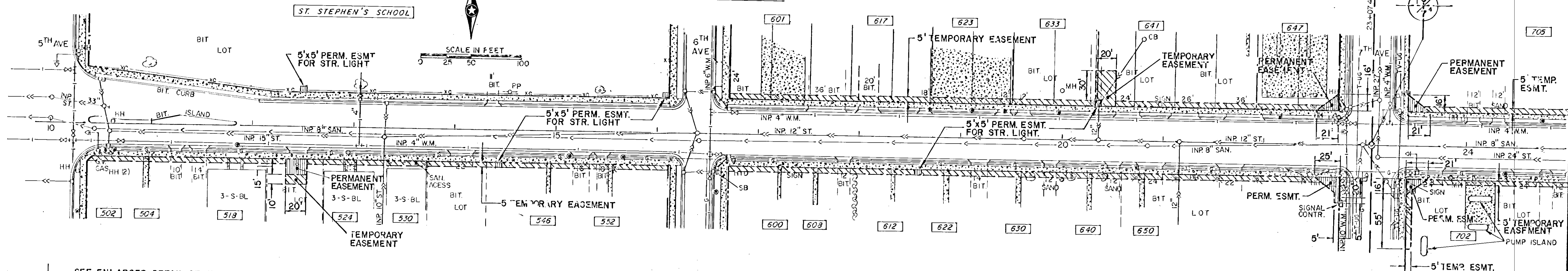
LEGEND

- REMOVE INP. PIPE (SAN., STORM OR W.M.)
- REMOVE INP. CATCH BASIN (SALVAGE CASTING)
- REMOVE INP. MANHOLE (SALVAGE CASTING)
- REMOVE INP. WATER STOP BOX
- ⊕ REMOVE & SALVAGE INP. HYDRANT

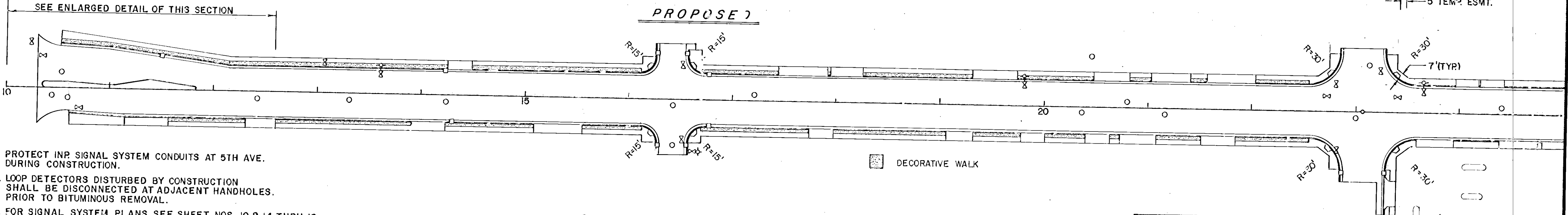
MISCELLANEOUS REMOVALS & CONSTRUCTION

U.S.G.S. B.M. ELEV. 877.35
BRASS MARKER
STA. 14+50 LT. 36'

EXISTING

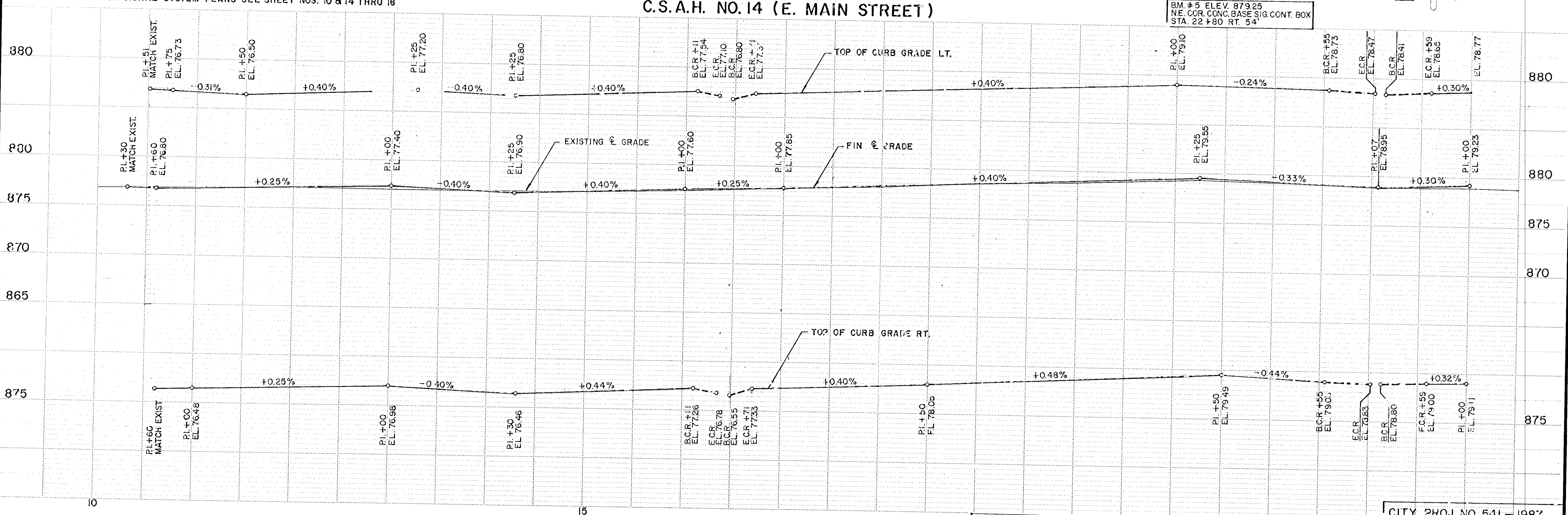


PROPOSED



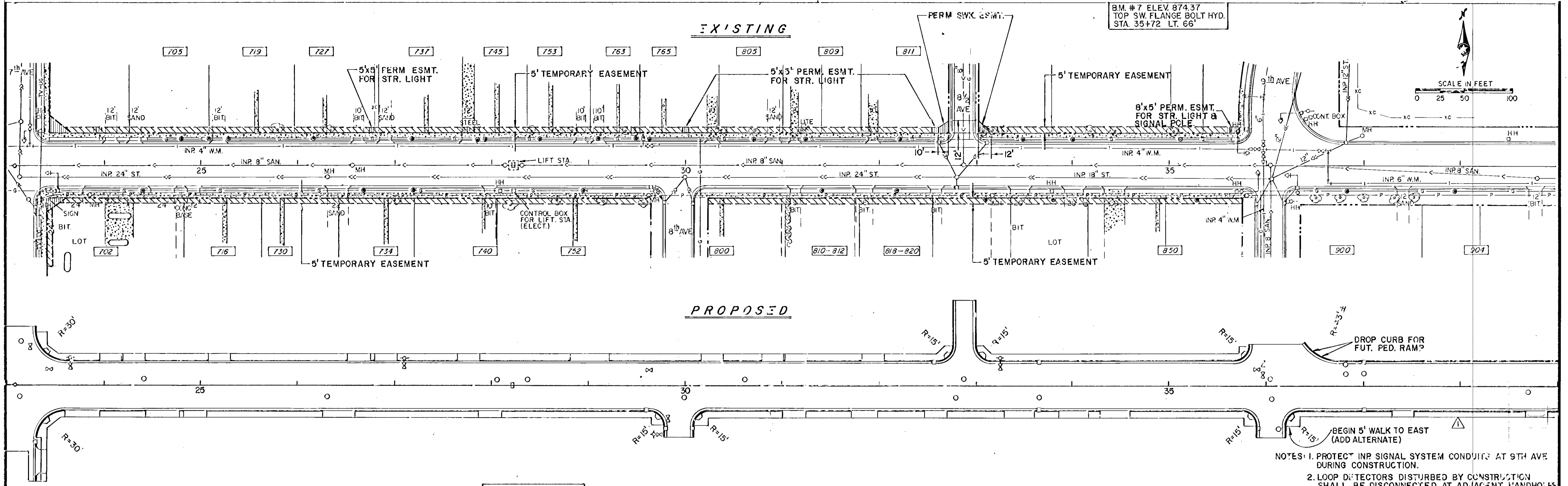
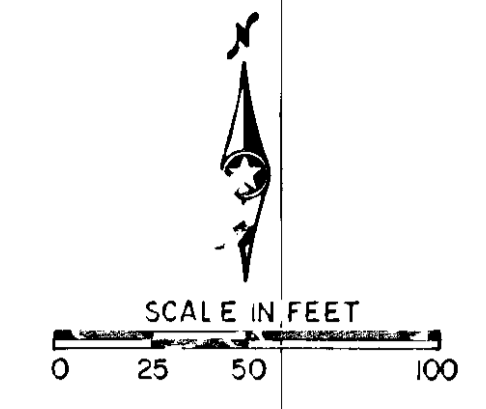
- NOTES:
1. PROTECT INP SIGNAL SYSTEM CONDUITS AT 5TH AVE. DURING CONSTRUCTION.
 2. LOOP DETECTORS DISTURBED BY CONSTRUCTION SHALL BE DISCONNECTED AT ADJACENT HANDHOLES. PRIOR TO BITUMINOUS REMOVAL.
 3. FOR SIGNAL SYSTEM PLANS SEE SHEET NOS. 10 & 14 THRU 16

C.S.A.H. NO. 14 (E. MAIN STREET)



BM # 5 ELEV. 879.25
NE. COR. CONC. BASE SIG. CONT. BOX
STA. 22+80 RT. 54'

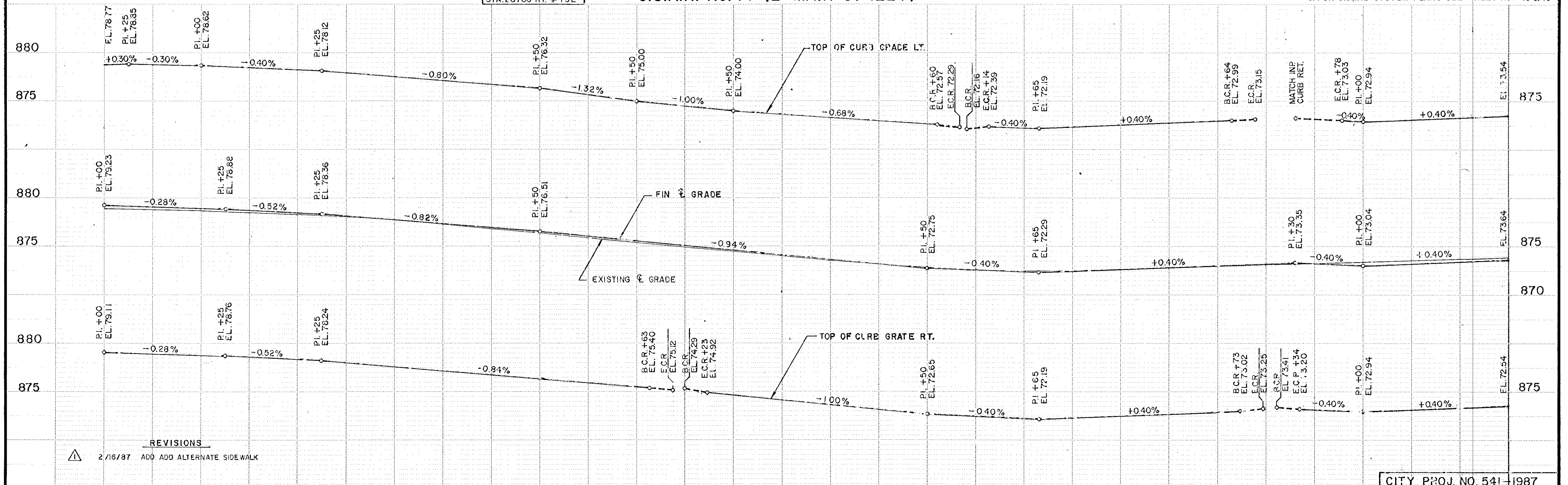
BM. #7 ELEV. 874.37
TOP SW. FLANGE BOLT HYD.
STA. 35+72 LT. 66'



BM. #6 ELEV. 878.19
TOP N.W. COR. BOT. STEP
STA. 28+86 RT. # 752

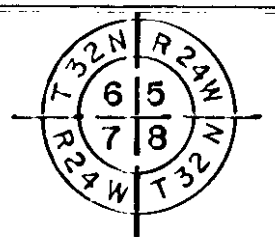
C.S.A.H. NO. 14 (E MAIN STREET)

- NOTES:
1. PROTECT INP SIGNAL SYSTEM CONDUITS AT 9TH AVE DURING CONSTRUCTION.
 2. LOOP DETECTORS DISTURBED BY CONSTRUCTION SHALL BE DISCONNECTED AT ADJACENT HANDHOLES PRIOR TO BITUMINOUS REMOVAL.
 3. FOR SIGNAL SYSTEM PLANS SEE SHEET NOS 10 & 13

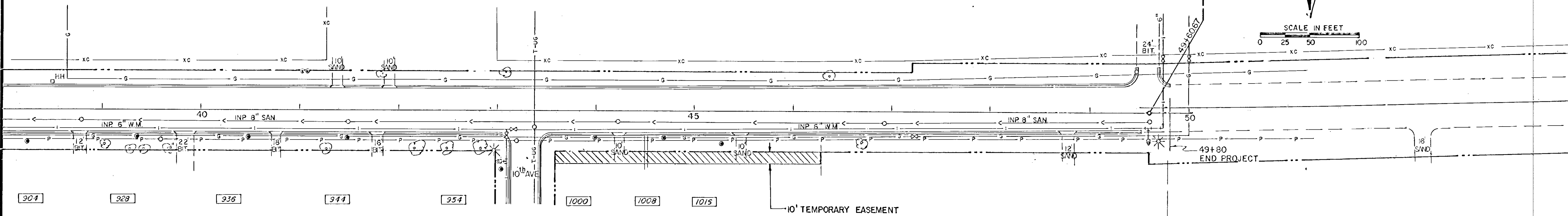


REVISIONS
2/16/97 ADD ALTERNATE SIDEWALK

EXISTING

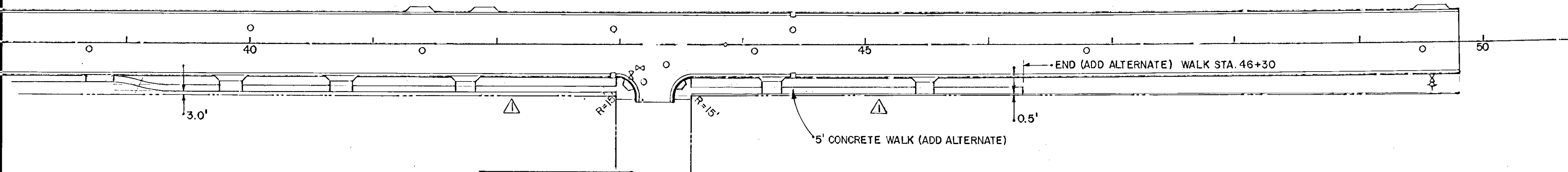


SCALE IN FEET
0 25 50 100



PROPOSED

☉ CURVE DATA
PI. = STA. 49+60.67
Δ = 1°55'
R = 34,377.47'
T = 575.05'
L = 1150.00'

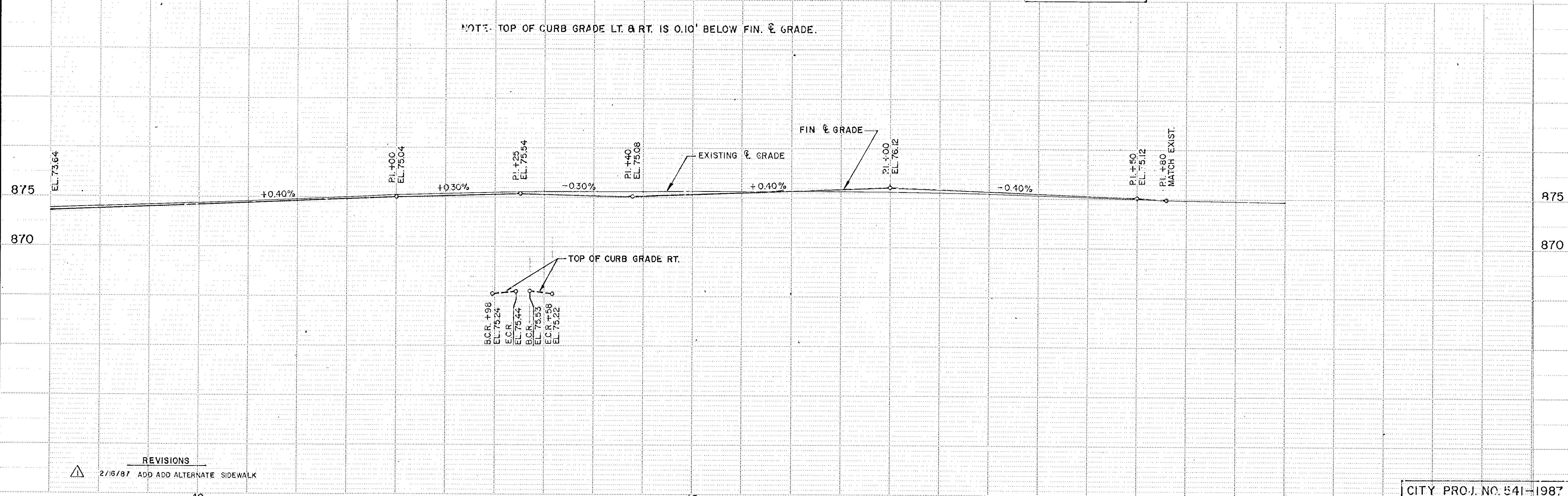


B.M. #8 ELEV. 878.20
TOP N.E. FLANGE BOLT HYD.
STA. 43+10 RT. 50'

C.S.A.H. NO. 14 (E. MAIN STREET)

B.M. #9 ELEV. 878.73
TOP N.W. FLANGE BOLT HYD.
STA. 49+60 RT. 33'

NOTE: TOP OF CURB GRADE LT. & RT. IS 0.10' BELOW FIN. ☉ GRADE.



REVISIONS
2/16/87 ADD ADD ALTERNATE SIDEWALK

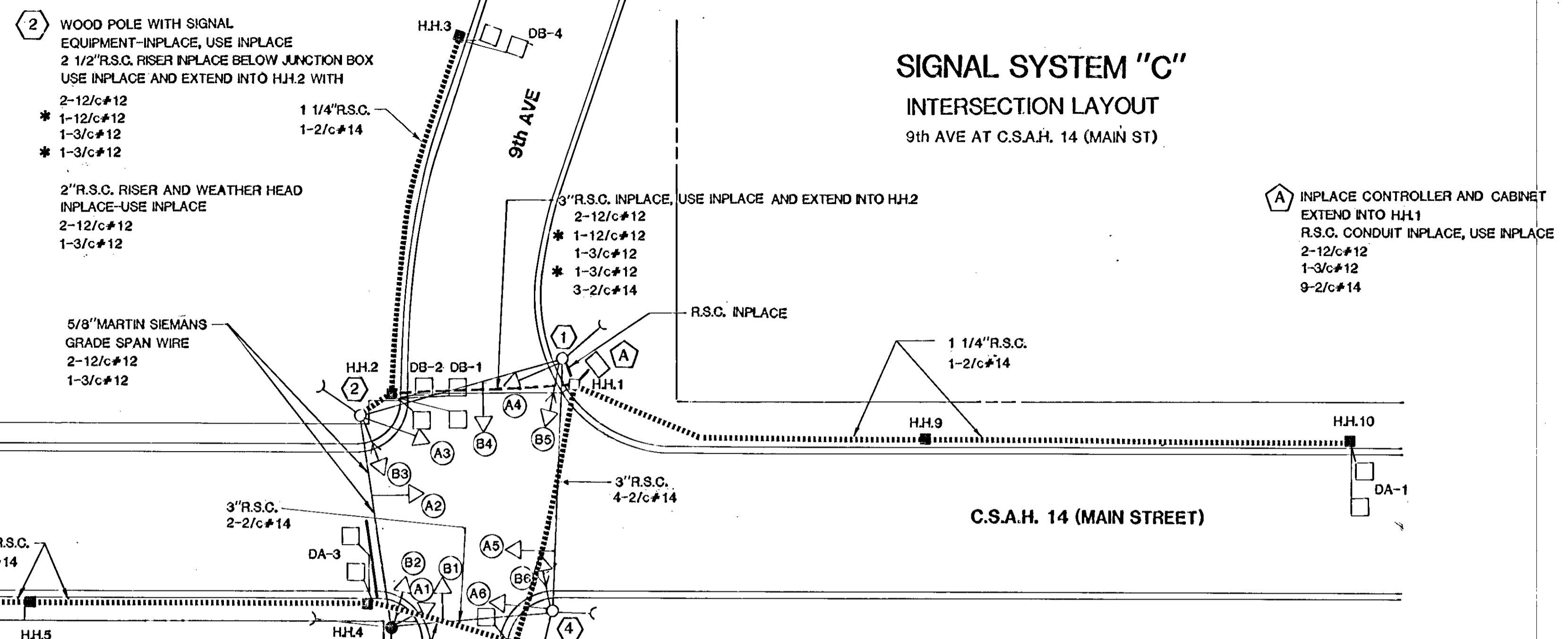
CITY PROJ. NO. 541-1987

State Proj. No. S.A.P. 02-614-12 C.T.B.

Sheet No. 9 of 36 Sheets

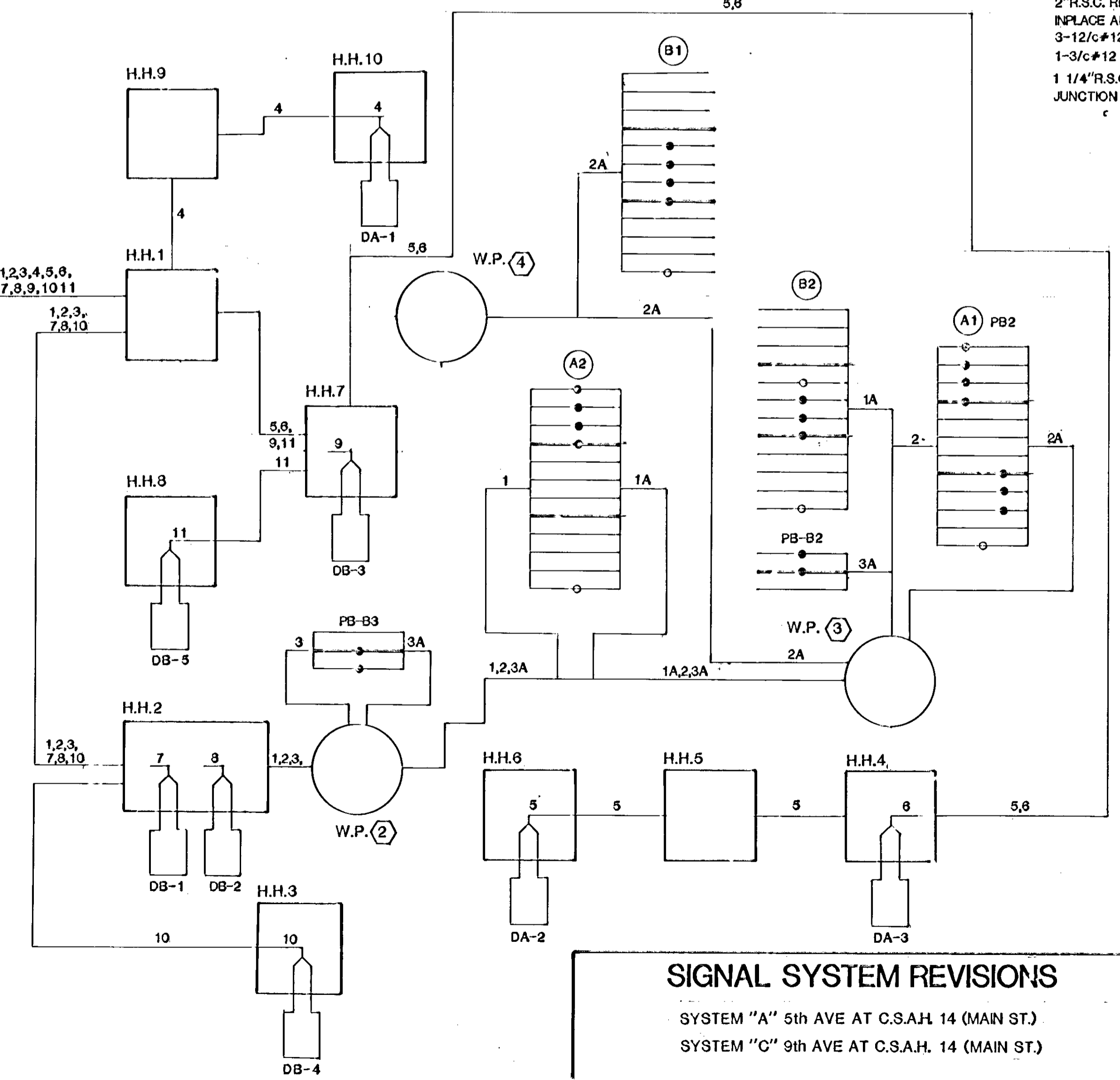
NOTES:

- 1) ALL INPLACE BELOW GROUND CONDUIT AND HAND HOLES, EXCEPT HANDHOLE 1, SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE INDICATED IN PLAN. SEE SPECIAL PROVISIONS.
- 2) ALL INPLACE LOOP DETECTOR CABLES, CABLES FOR SIGNAL INDICATIONS A1, A2, A3, B1, B2, B3, AND CABLES FOR PEDESTRIAN INDICATIONS AND PUSH BUTTONS ON POLES (2) AND (3) SHALL BE REMOVED AND SALVAGED UNLESS INDICATED BY A * IN THE PLANS. SEE SPECIAL PROVISIONS.
- 3) CABLES INDICATED BY A * IN THE PLAN ARE INPLACE AND SHALL BE PULLED BACK TO HANDHOLE 1, COILED, LABELED AND STORED TO THE SATISFACTION OF THE ENGINEER, SUCH THAT THEY MAY BE RECONNECTED TO THEIR ORIGINAL TERMINATION POINTS AT POLE (2) AS PART OF THE REVISED SYSTEM. THESE CABLES PROVIDE POWER TO SIGNAL INDICATIONS A3 AND B3 AND PEDESTRIAN INDICATION PB-3 AND SHALL NOT EXTEND PAST POLE (2) IN THE REVISED SYSTEM.
- 4) ALL CABLES INDICATED IN THE PLAN AND NOT PRECEDED BY A * ARE NEW CABLES AND SHALL BE INSTALLED AS NOTED IN THE PLAN AND WIRED ACCORDING TO THE FIELD WIRING DIAGRAM. THE FIELD WIRING DIAGRAM PROVIDES FOR NEW CABLES INSTALLED AS PART OF THE REVISED SYSTEM ONLY.
- 5) ALL OTHER EQUIPMENT IS INPLACE AND SHALL BE USED INPLACE AS PART OF THE REVISED SYSTEM.
- 6) LOOP DETECTORS SHALL BE CROSS LINKED POLYETHELENE (XLP). LOOP WIRES SHALL BE INSTALLED IN 1" PVC. SEE SPECIAL PROVISIONS AND DETAIL SHEET.
- 7) LOOP DETECTORS DA-1, DA-2, DB-1, DB-2 AND DB-3 SHALL BE CONNECTED TO INPLACE DETECTOR UNITS IN THE CONTROLLER CABINET. SEE SPECIAL PROVISIONS.
- 8) HANDHOLES 4,5, AND 6 SHALL BE TYPE LD.



SIGNAL SYSTEM "C"
FIELD WIRING DIAGRAM
9th AVE AT C.S.A.H. 14 (MAIN ST.)

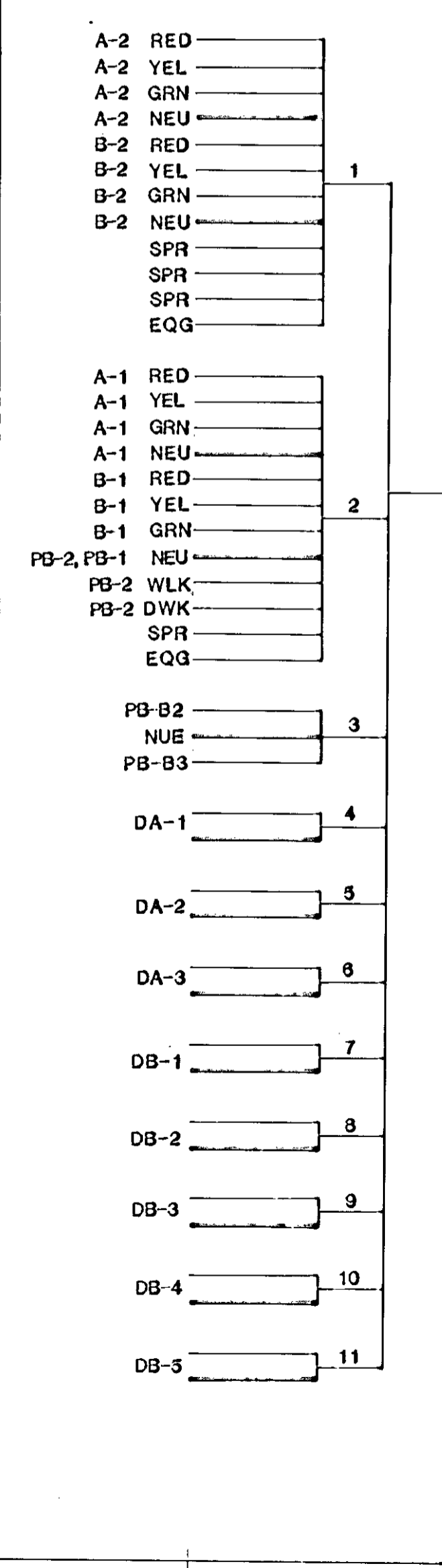
NOTE: WIRING DIAGRAM PERTAINS TO NEW CABLES ONLY.



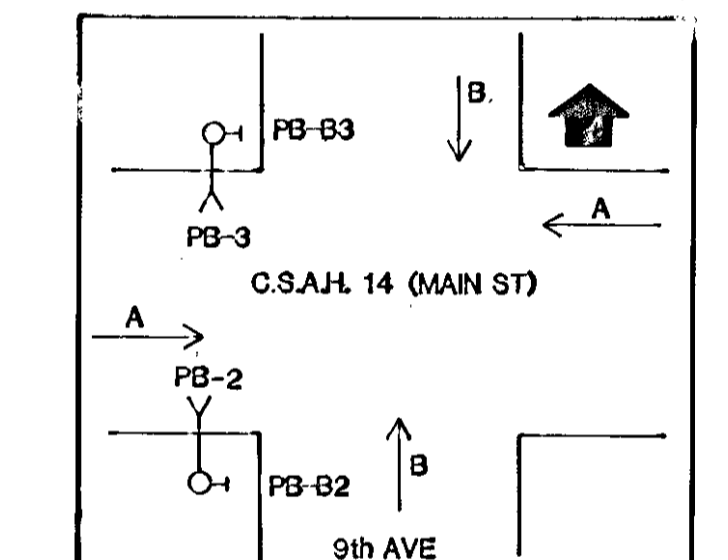
SIGNAL SYSTEM REVISIONS

SYSTEM "A" 5th AVE AT C.S.A.H. 14 (MAIN ST.)
SYSTEM "C" 9th AVE AT C.S.A.H. 14 (MAIN ST.)

CONTROLLER CABINET



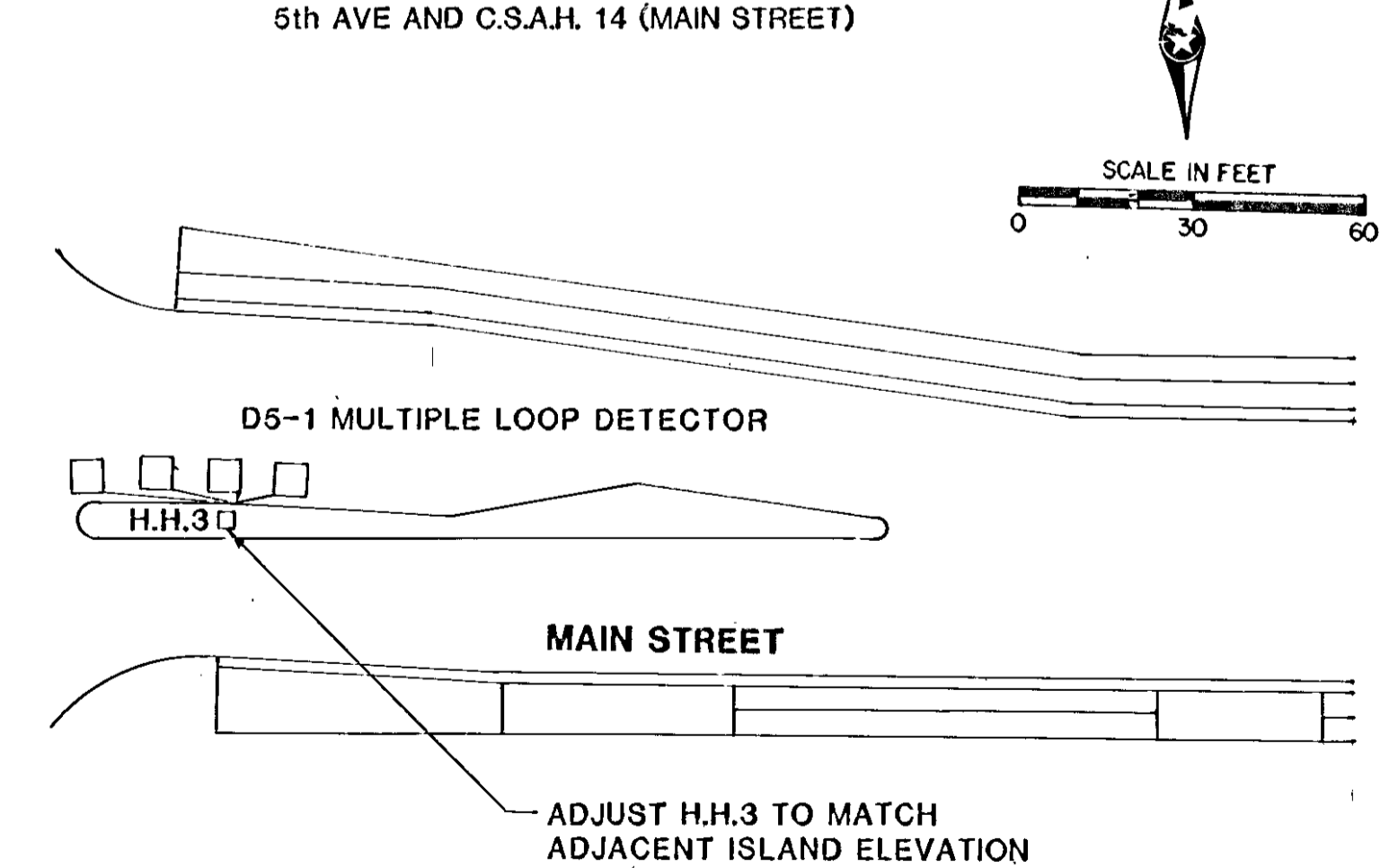
VEHICLE AND PEDESTRIAN PHASING



LOOP DETECTORS		
NUMBER	SIZE	LOCATION
DA-1	2-6'x6'	250'
DA-2	4-6'x6'	250'
DA-3	2-6'x6'	--
DB-1	2-6'x6'	--
DB-2	2-6'x6'	--
DB-3	2-6'x6'	--
DB-4	2-6'x8'	120'
DB-5	1-6'x6'	120'

NOTE: LOCATION=DISTANCE FROM DETECTOR TO STOP BAR

SIGNAL SYSTEM "A"
5th AVE AND C.S.A.H. 14 (MAIN STREET)

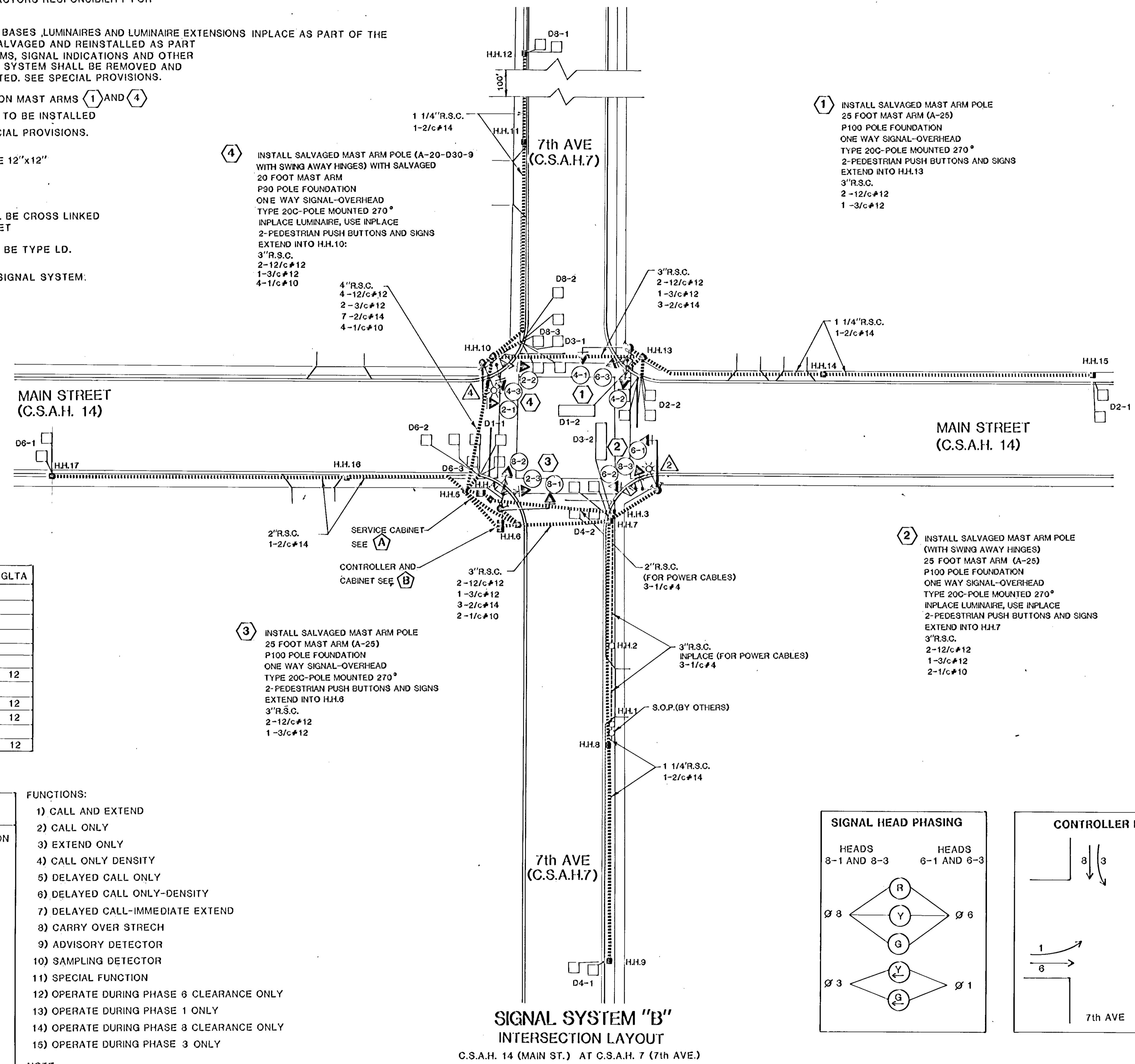
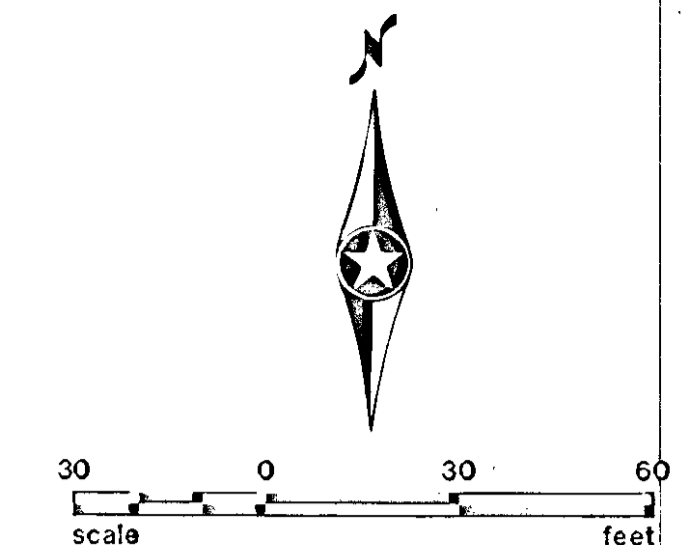


NOTES:

1. INPLACE LOOP DETECTOR D5-1 SHALL BE DISCONNECTED FROM THE SIGNAL SYSTEM AT H.H.3 PRIOR TO BITUMINOUS REMOVAL. THE INPLACE 2/c#14 CABLE SHALL BE COILED AND STORED IN H.H.3 DURING CONSTRUCTION.
2. NEW LOOP DETECTOR D5-1 SHALL BE CONNECTED TO THE INPLACE 2/c#14 IN H.H.3
3. ALL OTHER COMPONENTS OF THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE USED INPLACE AS PART OF THE REVISED SYSTEM AND PROTECTED DURING CONSTRUCTION.
4. SEE SHEETS 14,15 AND 16 FOR INFORMATION ON THE INPLACE SIGNAL SYSTEM.
5. SEE DETAIL SHEET FOR LOOP DETECTOR DETAILS.

NOTES:

- 1) SEE SPECIAL PROVISIONS FOR CONTRACTORS RESPONSIBILITY FOR LOCATION OF UTILITIES.
- 2) MAST ARM POLES AND TRANSFORMER BASES, LUMINAIRES AND LUMINAIRE EXTENSIONS INPLACE AS PART OF THE EXISTING SIGNAL SYSTEM SHALL BE SALVAGED AND REINSTALLED AS PART OF THE NEW SIGNAL SYSTEM. MAST ARMS, SIGNAL INDICATIONS AND OTHER COMPONENTS OF THE EXISTING SIGNAL SYSTEM SHALL BE REMOVED AND SALVAGED UNLESS OTHERWISE INDICATED. SEE SPECIAL PROVISIONS.
- 3) DIRECTIONAL SIGNS TO BE INSTALLED ON MAST ARMS (1) AND (4) DIRECTIONAL AND REGULATORY SIGNS TO BE INSTALLED ON MAST ARMS (2) AND (3). SEE SPECIAL PROVISIONS.
- 4) ALL PEDESTRIAN INDICATIONS SHALL BE 12"x12"
- 5) SIGNAL SYSTEM SHALL BE PAINTED. SEE SPECIAL PROVISIONS.
- 6) LOOP DETECTORS/CONDUCTORS SHALL BE CROSS LINKED POLYETHYLENE (XLP). SEE DETAIL SHEET
- 7) HANDHOLES 14, 15, 16, AND 17 SHALL BE TYPE LD.
- 8) SEE SHEETS 17 AND 18 FOR INPLACE SIGNAL SYSTEM.



SIGNAL INDICATIONS

FACE	PHASE	FLASH	R	Y	G	RLTA	YLTA	GLTA
2-1	2		R	12	12			
2-2	2		R	12	12			
2-3	2		R	12	12			
4-1	4		R	12	12			
4-2	4		R	12	12			
4-3	4		R	12	12			
6-1	6, 1		R	12	12		12	12
6-2	6		R	12	12			
6-3	6, 1		R	12	12		12	12
8-1	8, 3		R	12	12		12	12
8-2	8		R	12	12			
8-3	8, 3		R	12	12		12	12

NOTE: ALL DIMENSIONS SHOWN ARE IN INCHES

FUNCTIONS:

- 1) CALL AND EXTEND
- 2) CALL ONLY
- 3) EXTEND ONLY
- 4) CALL ONLY DENSITY
- 5) DELAYED CALL ONLY
- 6) DELAYED CALL ONLY-DENSITY
- 7) DELAYED CALL-IMMEDIATE EXTEND
- 8) CARRY OVER STRECH
- 9) ADVISORY DETECTOR
- 10) SAMPLING DETECTOR
- 11) SPECIAL FUNCTION
- 12) OPERATE DURING PHASE 6 CLEARANCE ONLY
- 13) OPERATE DURING PHASE 1 ONLY
- 14) OPERATE DURING PHASE 3 CLEARANCE ONLY
- 15) OPERATE DURING PHASE 3 ONLY

NOTE:
LOCATION=DISTANCE FROM STOP LINE TO DETECTOR.

LOOP DETECTOR			
NUMBER	SIZE	FUNCTION	LOCATION
D1-1	3-6'x6'	5, 12	—
D1-2	6'x20'	3, 13	—
D2-1	2-6'x6'	1	250'
D2-2	4-6'x6'	2	—
D3-1	3-6'x6'	5, 14	—
D3-2	6'x20'	3, 15	—
D4-1	2-6'x6'	1, 8	250'
D4-2	4-6'x6'	1	—
D6-1	2-6'x6'	1	250'
D6-2	1-6'x6'	2	—
D6-3	2-6'x6'	2	—
D8-1	2-6'x6'	1, 8	250'
D8-2	1-6'x6'	1	15'
D8-3	2-6'x6'	1	—

1) INSTALL SALVAGED MAST ARM POLE 25 FOOT MAST ARM (A-25) P100 POLE FOUNDATION ONE WAY SIGNAL-OVERHEAD TYPE 20C-POLE MOUNTED 270° 2-PEDESTRIAN PUSH BUTTONS AND SIGNS EXTEND INTO H.H.13 3"R.S.C. 2-12/c#12 1-3/c#12

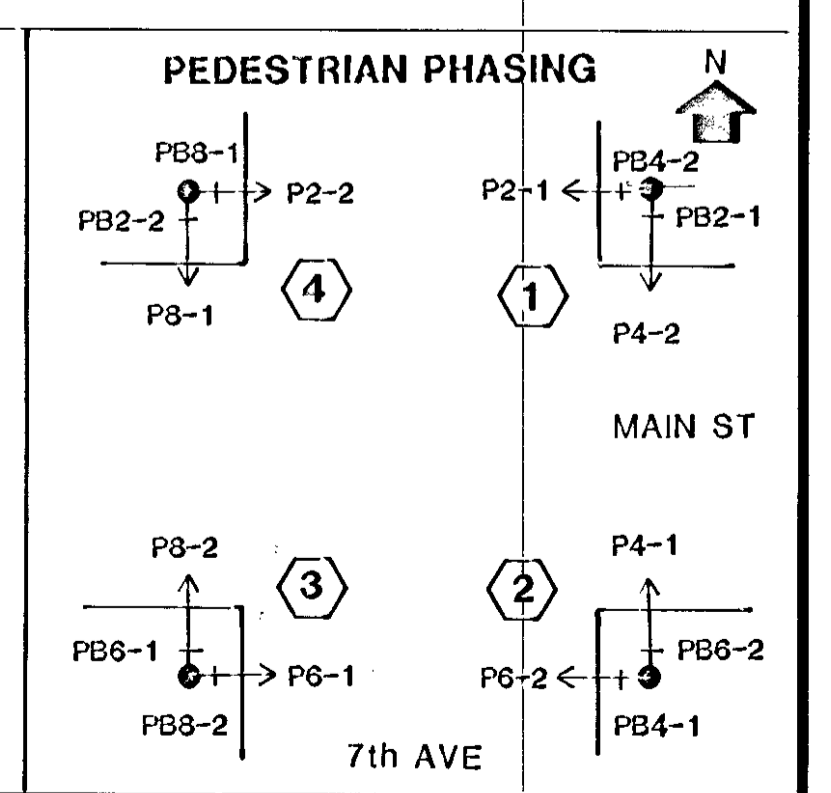
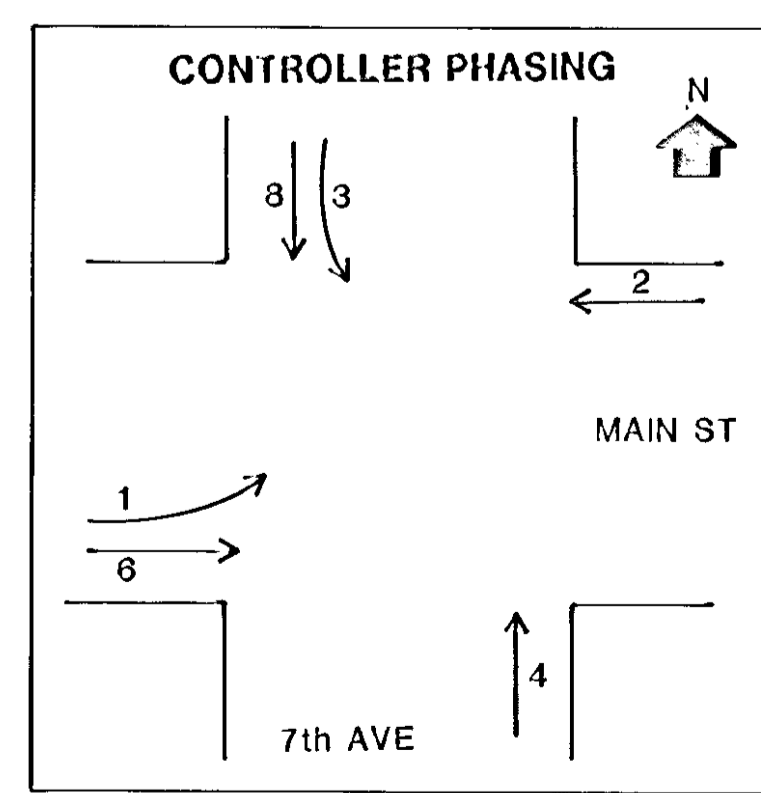
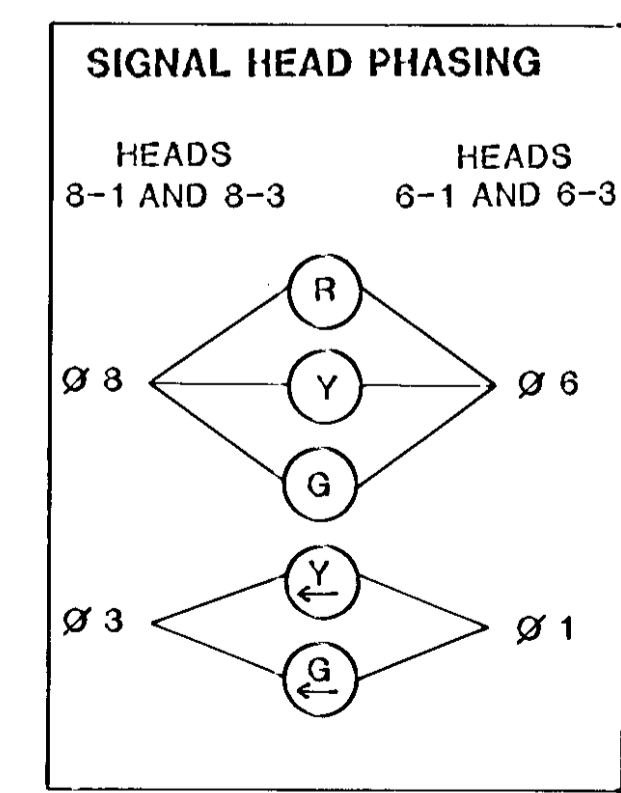
4) INSTALL SALVAGED MAST ARM POLE (A-20-D30-9 WITH SWING AWAY HINGES) WITH SALVAGED 20 FOOT MAST ARM P90 POLE FOUNDATION ONE WAY SIGNAL-OVERHEAD TYPE 20C-POLE MOUNTED 270° INPLACE LUMINAIRE, USE INPLACE 2-PEDESTRIAN PUSH BUTTONS AND SIGNS EXTEND INTO H.H.10: 3"R.S.C. 2-12/c#12 1-3/c#12 4-1/c#10

2) INSTALL SALVAGED MAST ARM POLE (WITH SWING AWAY HINGES) 25 FOOT MAST ARM (A-25) P100 POLE FOUNDATION ONE WAY SIGNAL-OVERHEAD TYPE 20C-POLE MOUNTED 270° INPLACE LUMINAIRE, USE INPLACE 2-PEDESTRIAN PUSH BUTTONS AND SIGNS EXTEND INTO H.H.7 3"R.S.C. 2-12/c#12 1-3/c#12 2-1/c#10

3) INSTALL SALVAGED MAST ARM POLE 25 FOOT MAST ARM (A-25) P100 POLE FOUNDATION ONE WAY SIGNAL-OVERHEAD TYPE 20C-POLE MOUNTED 270° 2-PEDESTRIAN PUSH BUTTONS AND SIGNS EXTEND INTO H.H.8 3"R.S.C. 2-12/c#12 1-3/c#12

A) SERVICE CABINET EXTEND INTO H.H.4 2"R.S.C. 3-1/c#4 EXTEND INTO H.H.5 METERED SIGNAL SERVICE 1 1/4"R.S.C. 3-1/c#8 UNMETERED STREET LIGHT SERVICE 1"R.S.C. 2-1/c#10

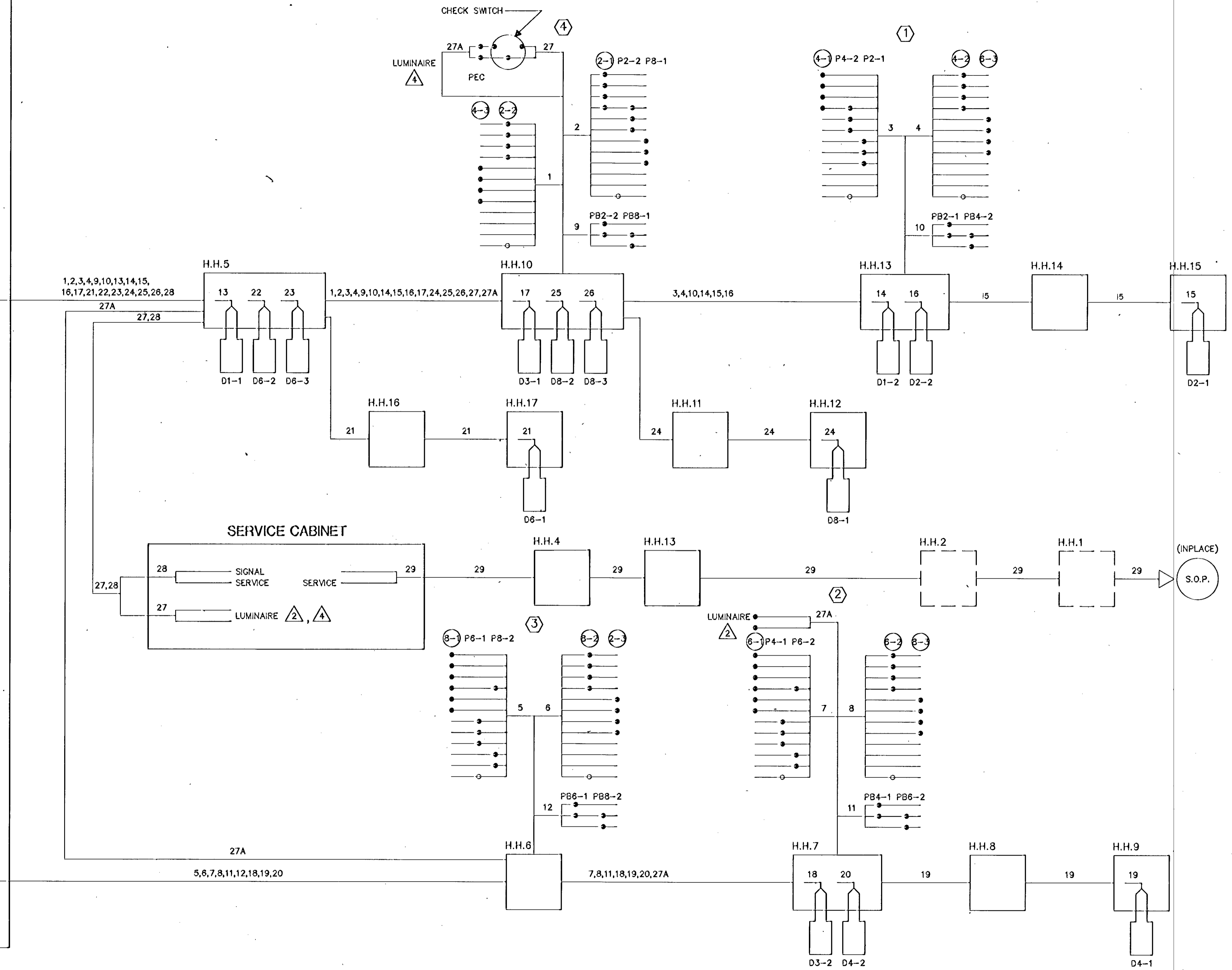
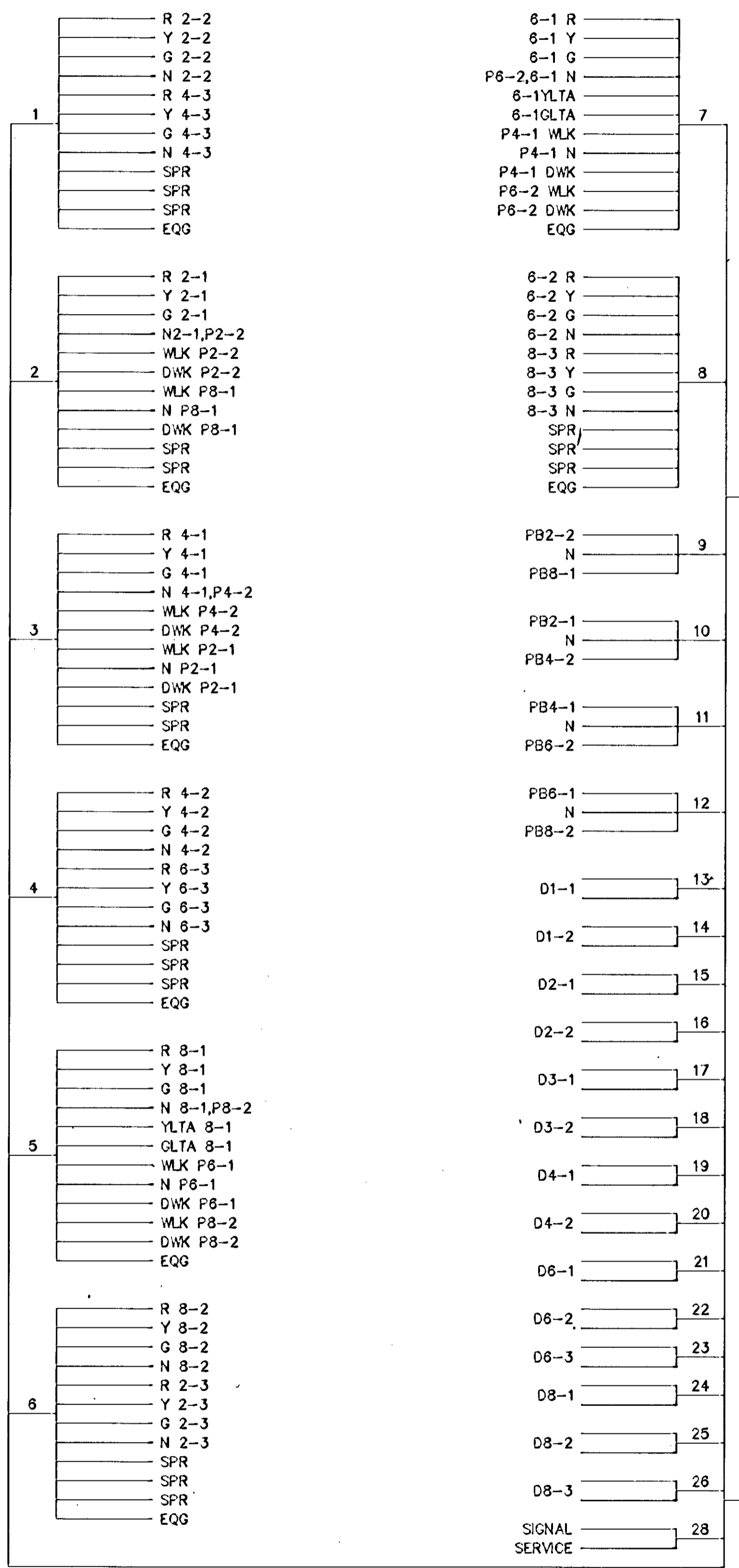
B) CONTROLLER AND CABINET CABINET FOUNDATION EXTEND INTO H.H.5 4"R.S.C. 4-12/c#12 2-3/c#12 11-2/c#14 3-1/c#8 EXTEND INTO H.H.6 4"R.S.C. 4-12/c#12 2-3/c#12 3-2/c#14 BETWEEN H.H.5 AND H.H.8 2"R.S.C. 2-1/c#10



SIGNAL SYSTEM "B" INTERSECTION LAYOUT

C.S.A.H. 14 (MAIN ST.) AT C.S.A.H. 7 (7th AVE.)

CONTROLLER CABINET



SIGNAL SYSTEM "B"
FIELD WIRING DIAGRAM
C.S.A.H. 14 (MAIN ST.) AT C.S.A.H. 7 (7th AVE.)

LEGEND OF SYMBOLS

CONTROLLER AND SERVICE EQPT. NO'S.	①
SIGNAL BASE NO.	②
SIGNAL FACE NO.	③
LUMINAIRE NO.	④
CONTROLLER AND CABINET	□
CONTROLLER AND CABINET-IN PLACE	□
HANDHOLE	■
HANDHOLE-IN PLACE	■
RIGID STEEL CONDUIT (R.S.C.)	-----
RIGID STEEL CONDUIT (R.S.C.)-IN PLACE	-----
SIGNAL FACE WITH BACKGROUND SHIELD	▶
SIGNAL FACE W/O BACKGROUND SHIELD	▶
SIGNAL FACE-IN PLACE	▶
PEDESTRIAN INDICATIONS	▶
PEDESTRIAN INDICATIONS-IN PLACE	▶
PEDESTRIAN PUSH BUTTON ON PEDESTAL OR POLE	□
PEDESTRIAN PUSH BUTTON STATION	□
TRAFFIC SIGNAL PEDESTAL	□
TRAFFIC SIGNAL PEDESTAL-IN PLACE	□
TRAFFIC SIGNAL POLE AND MAST ARM	○
TRAFFIC SIGNAL POLE AND MAST ARM-IN PLACE	○
STREET LIGHT POLE AND LUMINAIRE	○
STREET LIGHT POLE AND LUMINAIRE-IN PLACE	○
MAST ARM AND LUMINAIRE	○
MAST ARM AND LUMINAIRE-IN PLACE	○
WOOD POLE	○
WOOD POLE-IN PLACE	○
SOURCE OF POWER	○
RAILROAD SIGNAL-IN PLACE	⊞
RIGHT OF WAY LINE	-----
CENTER LINE	-----
EDGE OF ROADWAY	-----
SHOULDER LINE	-----
CURB LINE	-----
STOP BAR	-----
CROSSWALK	-----

ABBREVIATIONS

EQUIPMENT AND INDICATIONS

- R, -RED
- Y, -YELLOW
- G, -GREEN
- WLK-WALK
- NEU-NEUTRAL
- DWK-DON'T WALK
- LUM-LUMINAIRE
- DNL-DOWNLIGHT
- H.H.-HANDHOLE
- EQG-EQUIPMENT GROUND
- R.S.C.-RIGID STEEL CONDUIT
- GLTA-GREEN LEFT TURN ARROW
- YRTA-YELLOW RIGHT TURN ARROW
- D2-1(eg)-DETECTOR-PHASE '2'
- GR.R-GROUND ROD
- SER.-SERVICE
- P8-1(eg)-PEDESTRIAN INDICATIONS, PHASE 8
- 2-1(eg)-SIGNAL HEADS-PHASE '2'
- SPR.-SPARE CONDUCTORS
- N.M.C.-NON METALLIC CONDUIT
- E.V.P.-EMERGENCY VEHICLE PRE-EMPTION
- J.B.-JUNCTION BOX
- W.P.-WOOD POLE
- P.E.C.-PHOTOELECTRIC CELL
- P88-1(eg) - PUSH BUTTON PHASE 8

CONDUCTOR COLOR CODE

- R-RED
- O-ORANGE
- BL-BLUE
- WH-WHITE
- G-GREEN
- BLK-BLACK
- R/BLK-RED WITH BLACK TRACER
- O/BLK-ORANGE WITH BLACK TRACER
- BL/BLK-BLUE WITH BLACK TRACER
- WH/BLK-WHITE WITH BLACK TRACER
- BLK/WH-BLACK WITH WHITE TRACER
- G/BLK-GREEN WITH BLACK TRACER

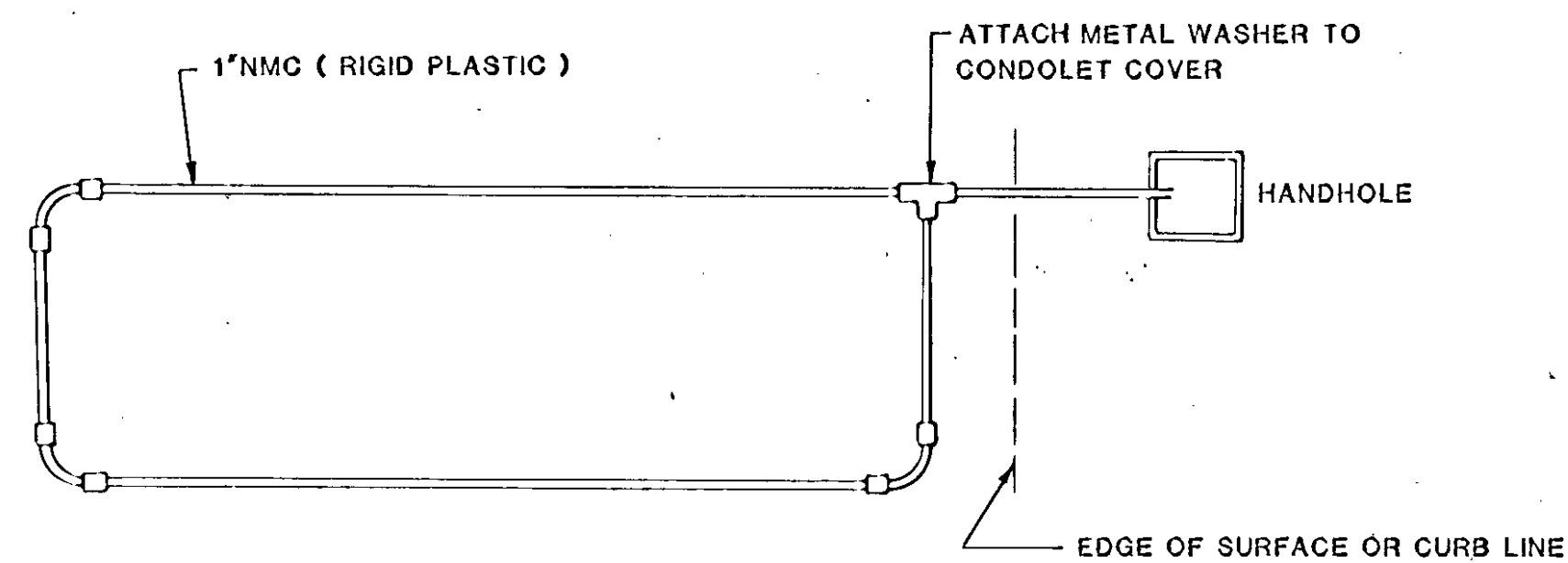
CONDUCTOR COLOR CODING

R	BLK	2-1/C#6
O	WH	2-1/C#10
BL	R	
WH	W	3/C#12
R/BLK	BLK	
O/BLK	BLK	
BL/BLK	CLEAR	2/C#14
WH/BLK		
BLK	R OR O	
BLK/WH	WH OR YEL	3/C#20
G/BLK	BLK OR BL	
G		

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE

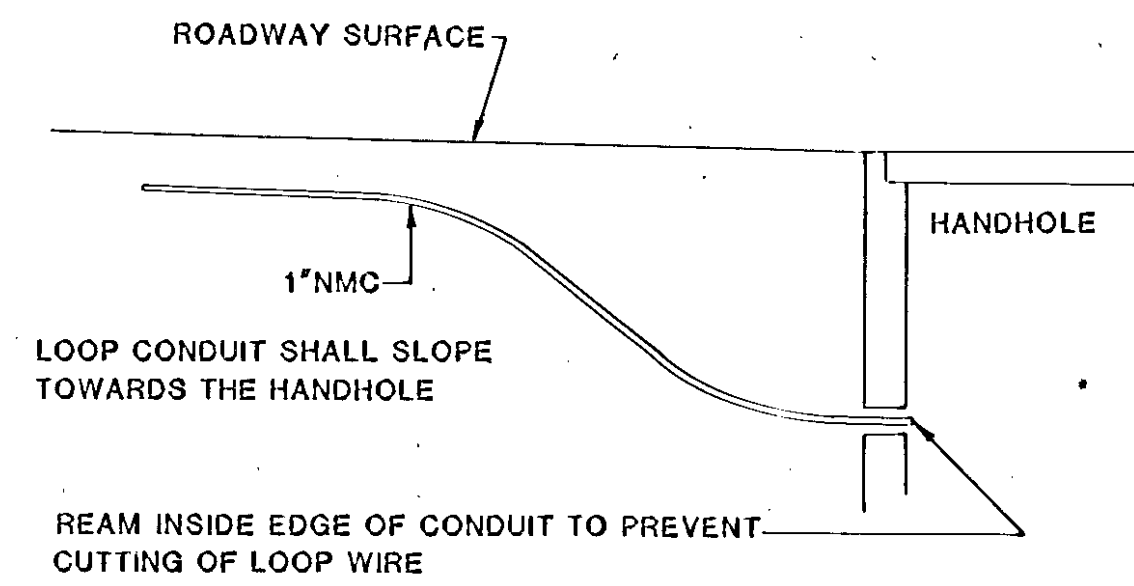
LOOP DETECTOR DETAIL "A"

PLAN VIEW
(NOT TO SCALE)



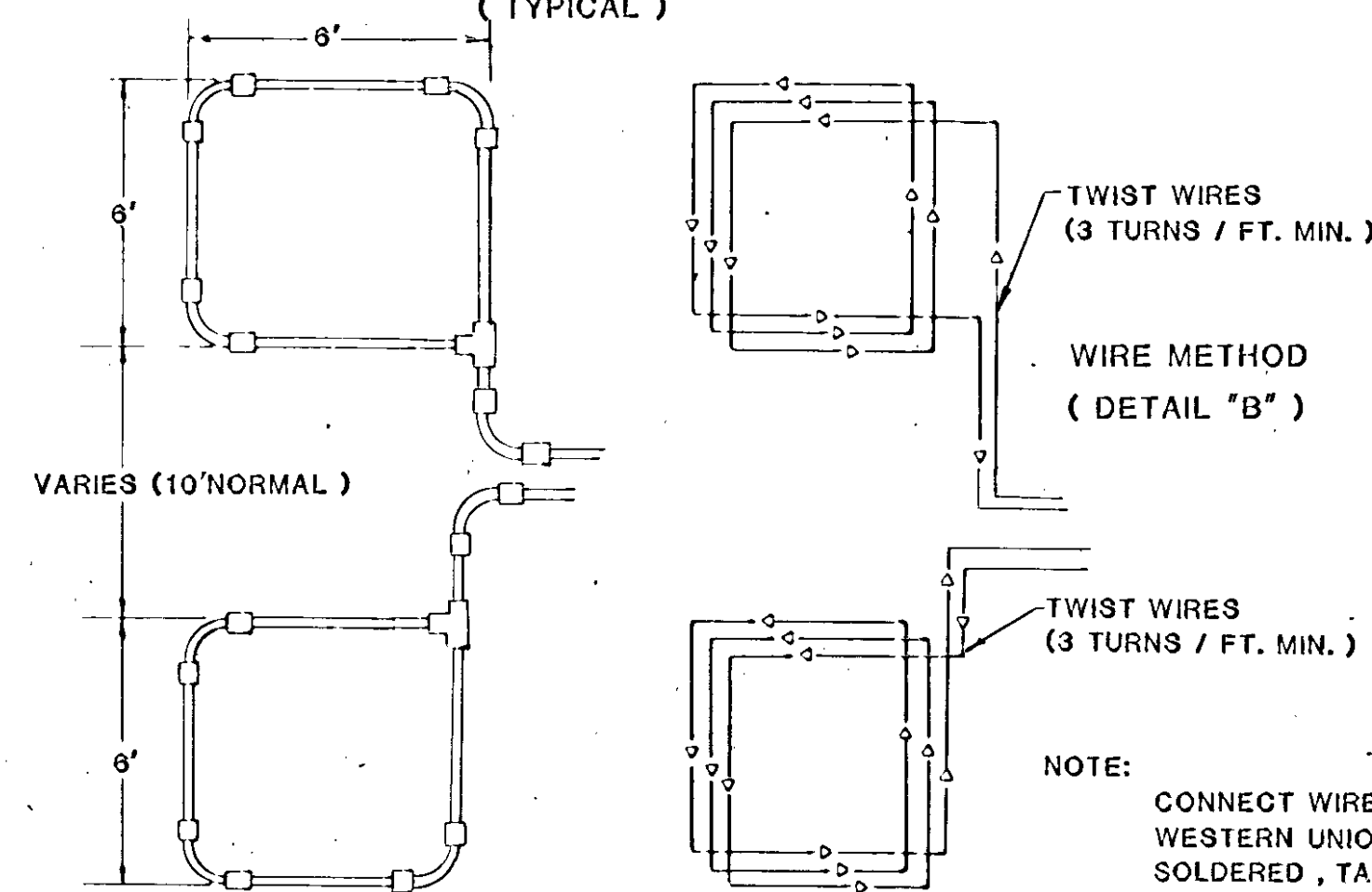
ALL CORNERS SHALL BE STANDARD 90° CONDUIT BENDS

DRAINAGE DETAILS



LOOP DETECTOR DETAIL "B"

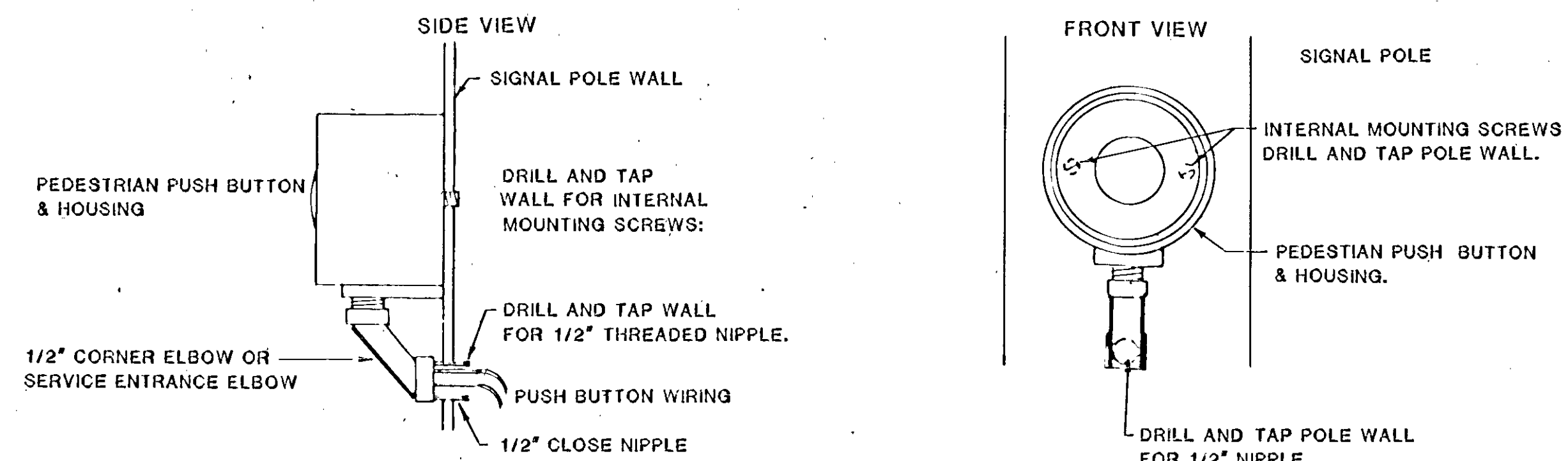
PLAN VIEW
(NOT TO SCALE)
(TYPICAL)



CONDUITS MAY BE PLACED IN COMMON TRENCH.

NOTE: CONNECT WIRES IN HANDHOLE USING WESTERN UNION SPLICE, SOLDERED, TAPED & WATERPROOFED.

PEDESTRIAN PUSH BUTTON MOUNTING DETAIL



NOTE: THESE DETAILS PERTAIN TO SHEETS AND ONLY.

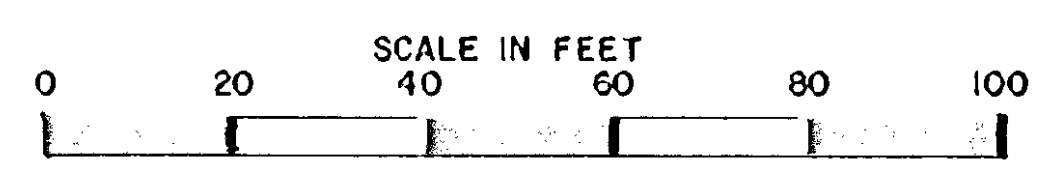
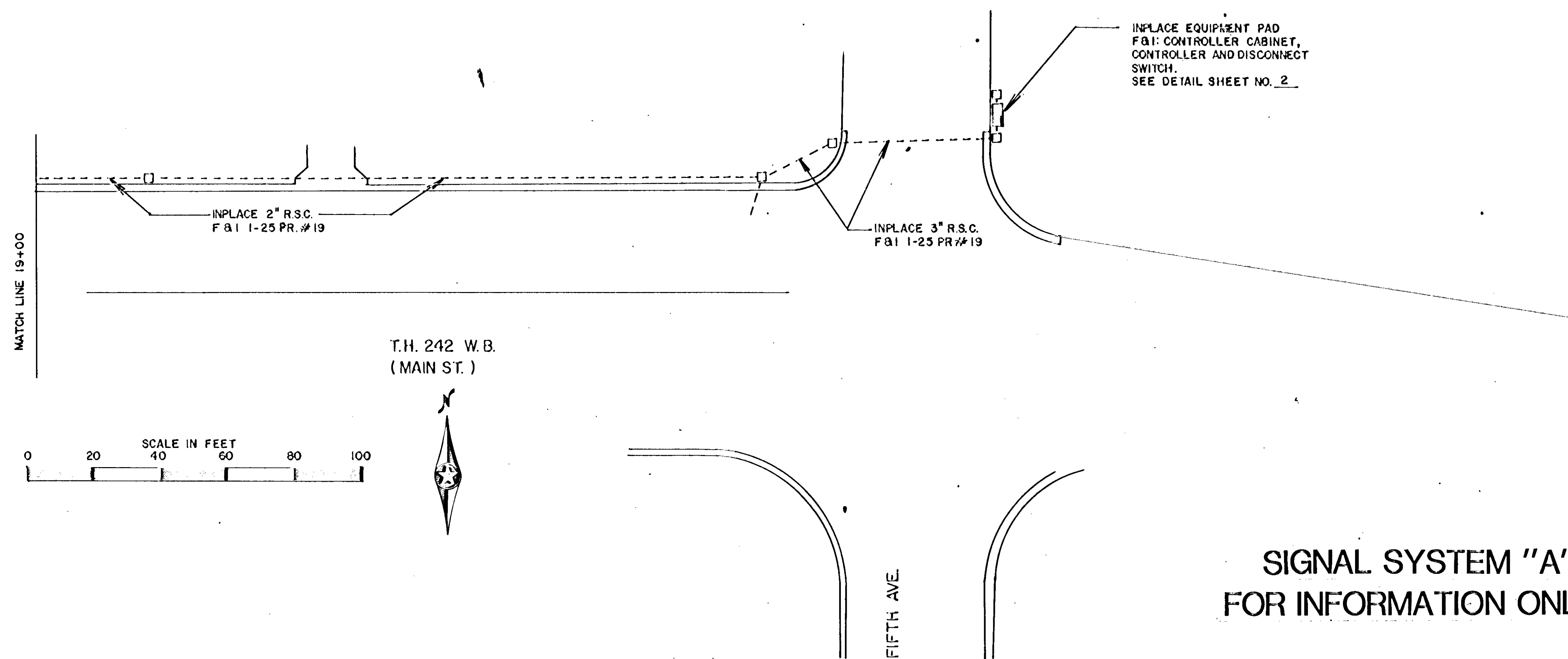
CONDUIT INSTALLATION DETAIL FOR LOOP DETECTOR

LOOP DETECTOR CONDUITS ARE TO BE INSTALLED IN 3" CUT TRENCHES AS SHOWN ON PLANS. INSTALL EACH COMPLETE DETECTOR ASSEMBLY WITH THE DETECTOR WIRE PULLED THROUGH THE COMPLETE ASSEMBLY TO HANDHOLE. WHERE APPROPRIATE, PLACE DETECTOR CONDUIT IN BITUMINOUS BINDER COURSE PRIOR TO PLACEMENT OF THE WEARING COURSE. THE DEPTH OF THE TRENCH AND THE RESULTANT PLACEMENT OF THE DETECTOR CONDUIT SHALL BE SUCH THAT THE ENTIRE DETECTOR ASSEMBLY DRAINS INTO THE HANDHOLE. BACKFILL AND COMPACT THE TRENCHES WITH MATERIAL EQUIVALENT TO THE MATERIAL REMOVED.

STANDARD PLATES

PLATE NO.	DESCRIPTION
8110 C	TRAFFIC SIGNAL BRACKETING - POLE MOUNTED
8111 B	TRAFFIC SIGNAL BRACKETING - PEDESTAL MOUNTED
8112 C	PEDESTAL FOUNDATION
8113 C	MAGNETIC VEHICLE DETECTOR INSTALLATION
8115 C	PEDESTRIAN PUSH BUTTON INSTALLATION
8116 C	STEEL GUARD POST
8117 E	PRECAST CONCRETE HANDHOLE
* 8118 C	SERVICE EQUIPMENT AND POLE
8119 C	GROUND MOUNTED CABINET FOUNDATION
8120 H	P-80 AND P-90 POLE FOUNDATION
8121 B	TRANSFORMER BASE WITH POLE BASE PLATE
8122 C	PEDESTAL AND PEDESTAL BASE
8123 B	POLE AND MAST ARM
8124 D	SIGNAL HEAD MOUNTS
* 8125 A	SWING-AWAY HINGE
8126 C	P-100 POLE FOUNDATION
8130 D	SAW CUT LOOP DETECTORS

* THESE STANDARD PLATES APPLY TO THIS PLAN



SIGNAL SYSTEM "A"
FOR INFORMATION ONLY

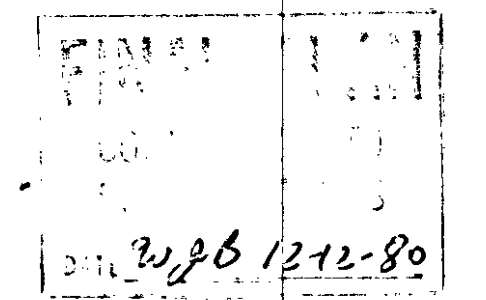
MICRO-FILMED

INTERSECTION LAYOUT

T.H. 242 AND FIFTH AVE.

ANOKA

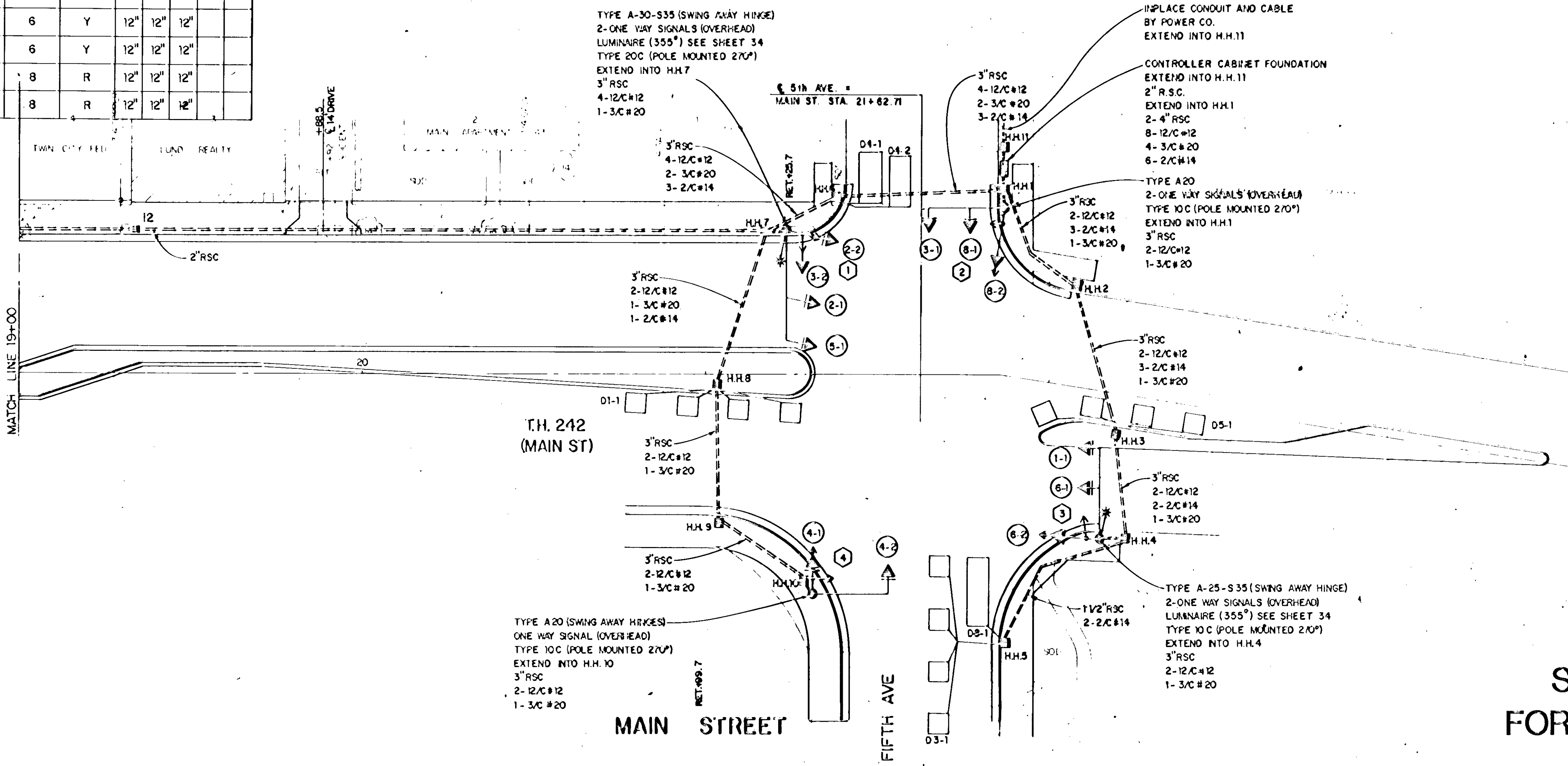
I.D. NO. 02030242 X000460X



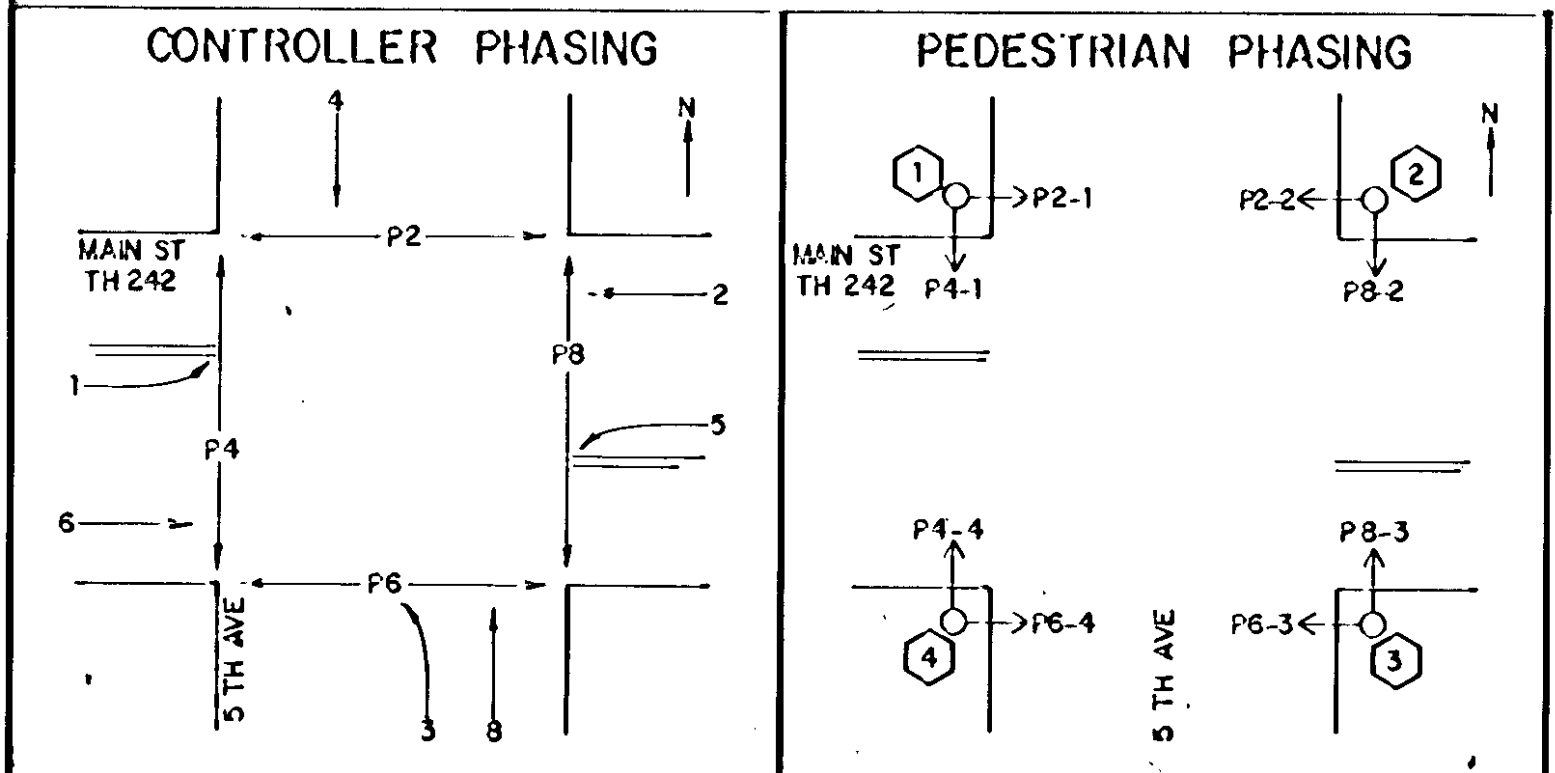
FACE	PHASE	FLASH	INDICATION SIZE				
			R	Y	G	←	→
1-1	1,6	Y	12"	12"	12"	12"	12"
2-1	2	Y	12"	12"	12"		
2-2	2	Y	12"	12"	12"		
3-1	3,8	R	12"	12"	12"	12"	12"
3-2	3,8	R	12"	12"	12"	12"	12"
4-1	4	R	12"	12"	12"		
4-2	4	R	12"	12"	12"		
5-1	2,5	Y	12"	12"	12"	12"	12"
6-1	6	Y	12"	12"	12"		
6-2	6	Y	12"	12"	12"		
8-1	8	R	12"	12"	12"		
8-2	8	R	12"	12"	12"		

LOOP DETECTORS	
NUMBER	SIZE
D1-1	MULTIPLE
D3-1	MULTIPLE
D4-1	6x15'
D4-2	6x15'
D5-1	MULTIPLE
D8-1	6' x 20'

SIGNAL HEAD PHASING			
HEADS	1-1	3-1 3-2	5-1
(R)			
(Y)	0 6	0 8	0 2
(G)			
(Y)			
(R)	0 1	0 3	0 5



**SIGNAL SYSTEM "A"
FOR INFORMATION ONLY**



SEE SHEET NO. 29 of 43
MAIN ST, FILE NO. 78023

MICRO-FILMED

S.A.P. 02-614-12 CITY PROJ. NO. 541-1987

FILE NO. 02030242 * 000460 * S.P. 0212-22 (T.H. 242-242) T.H. 242 (MAIN ST) AT FIFTH AVE
S.P. 02-614-07-CTB (CSAH 14), S.P. 02-631-01-CTB (CSAH 31), S.P. 103-134-02-MTB (MSAS-134)

SURVEY	SCALE	NO	DATE	REVISIONS
DESIGN				
DRAWN				

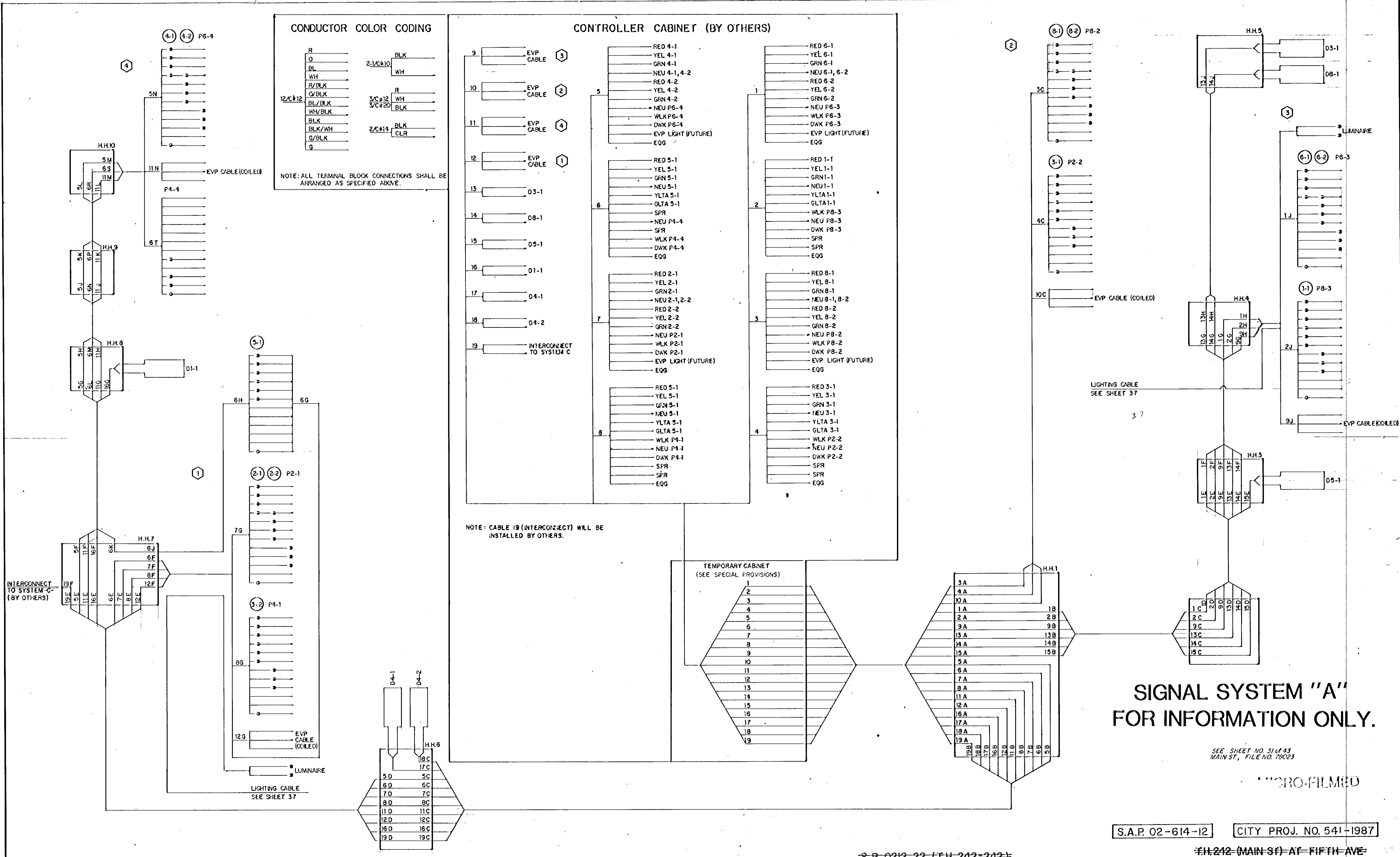
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Ellen VanWarmer
Date: 1-18-79 Reg. No. 9089

SHORT - ELLIOTT - HENDRICKSON, INC.
Saint Paul, Minnesota • Chippewa Falls, Wisconsin

ANOKA, MINNESOTA

TRAFFIC SIGNAL SYSTEM A.
INTERSECTION LAYOUT

FILE NO.	78023	15
DATE	1-18-79	36

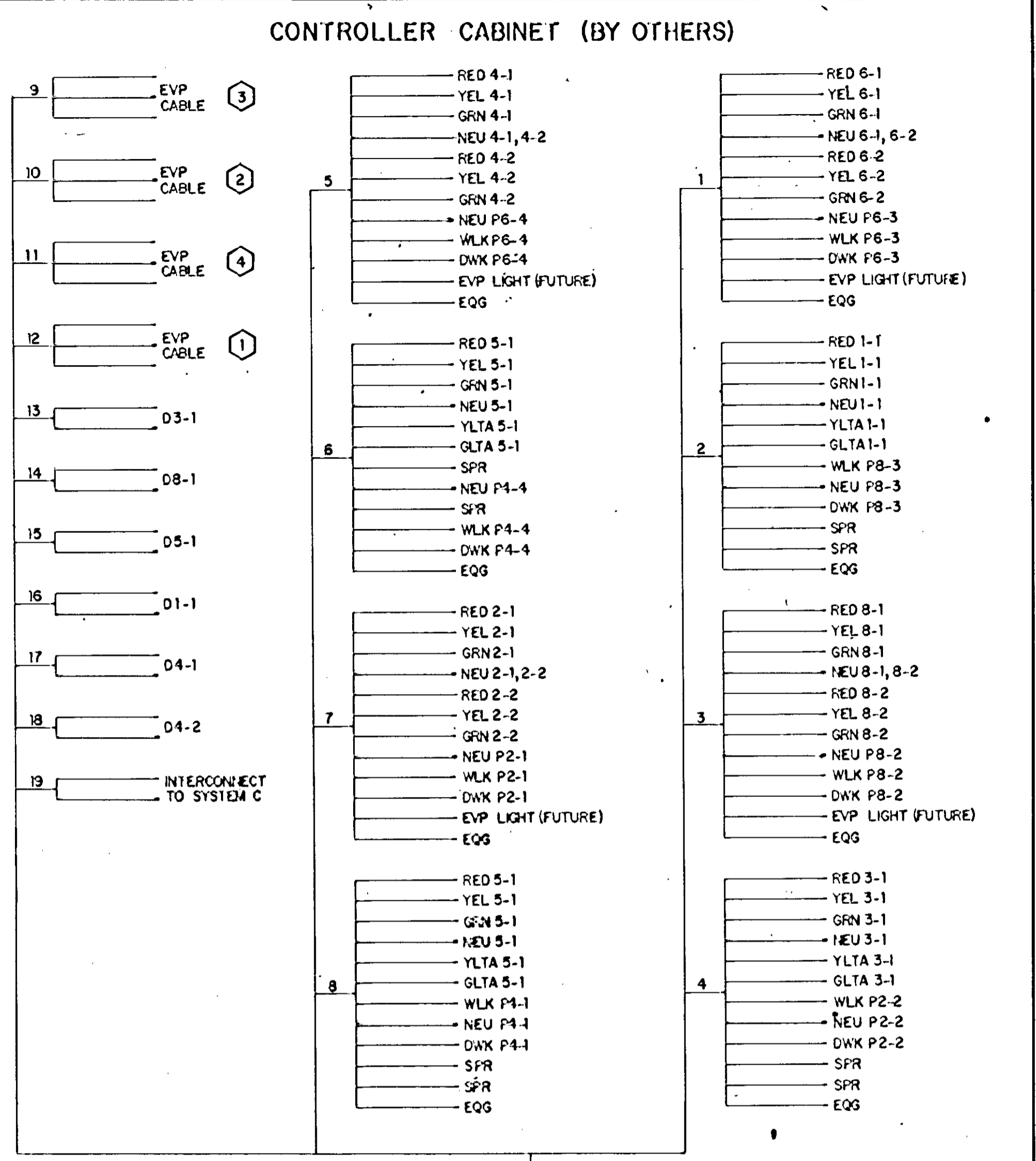


CONDUCTOR COLOR CODING

R	BLK
O	WH
BL	
WH	
R/BLK	
O/BLK	
BL/BLK	
WH/BLK	
BLK	
BLK/WH	
G/BLK	
G	

2-1/C#10: BLK, WH
 3/C#12: R, WH, BLK
 3/C#20: BLK
 2/C#14: BLK, CLR

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE.



NOTE: CABLE 19 (INTERCONNECT) WILL BE INSTALLED BY OTHERS.

**SIGNAL SYSTEM "A"
FOR INFORMATION ONLY.**

SEE SHEET NO. 31 of 43
MAIN ST., FILE NO. 78023

MICRO-FILMED

S.A.P. 02-614-12 CITY PROJ. NO. 541-1987

S.P. 02-12-22 (F.H. 242-242)
S.P. 02-614-07-6TB (CSAH 14), S.P. 02-631-01-CTB (CSAH 31), S.P. 103-134-02-MFD (MSAS 134)

SURVEY:	SCALE:	NO.	DATE	REVISIONS
DESIGN:	NONE			
DRAWN:				

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Ben VanWagoner
Date 1-18-79 Reg. No. 9082



SHORT - ELLIOTT - HENDRICKSON, INC.
Saint Paul, Minnesota • Chippewa Falls, Wisconsin

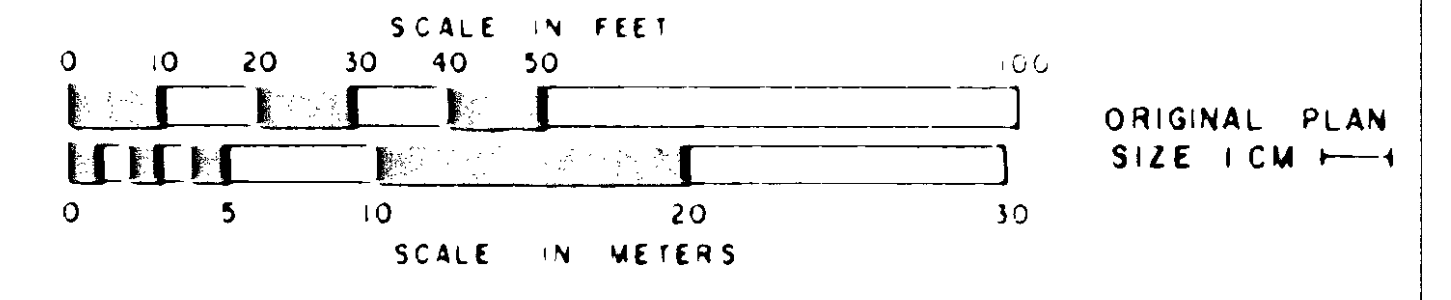
ANOKA, MINNESOTA

**TRAFFIC SIGNAL SYSTEM A
FIELD WIRING DIAGRAM**

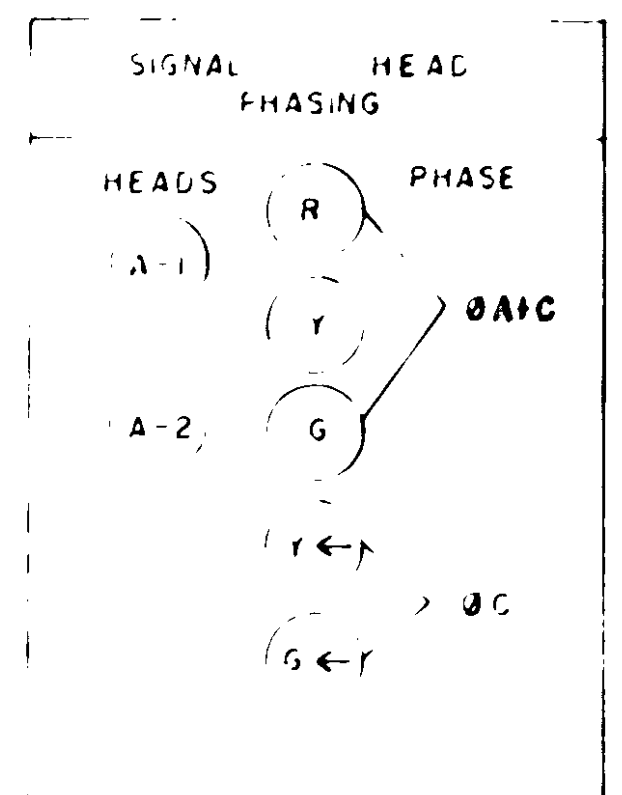
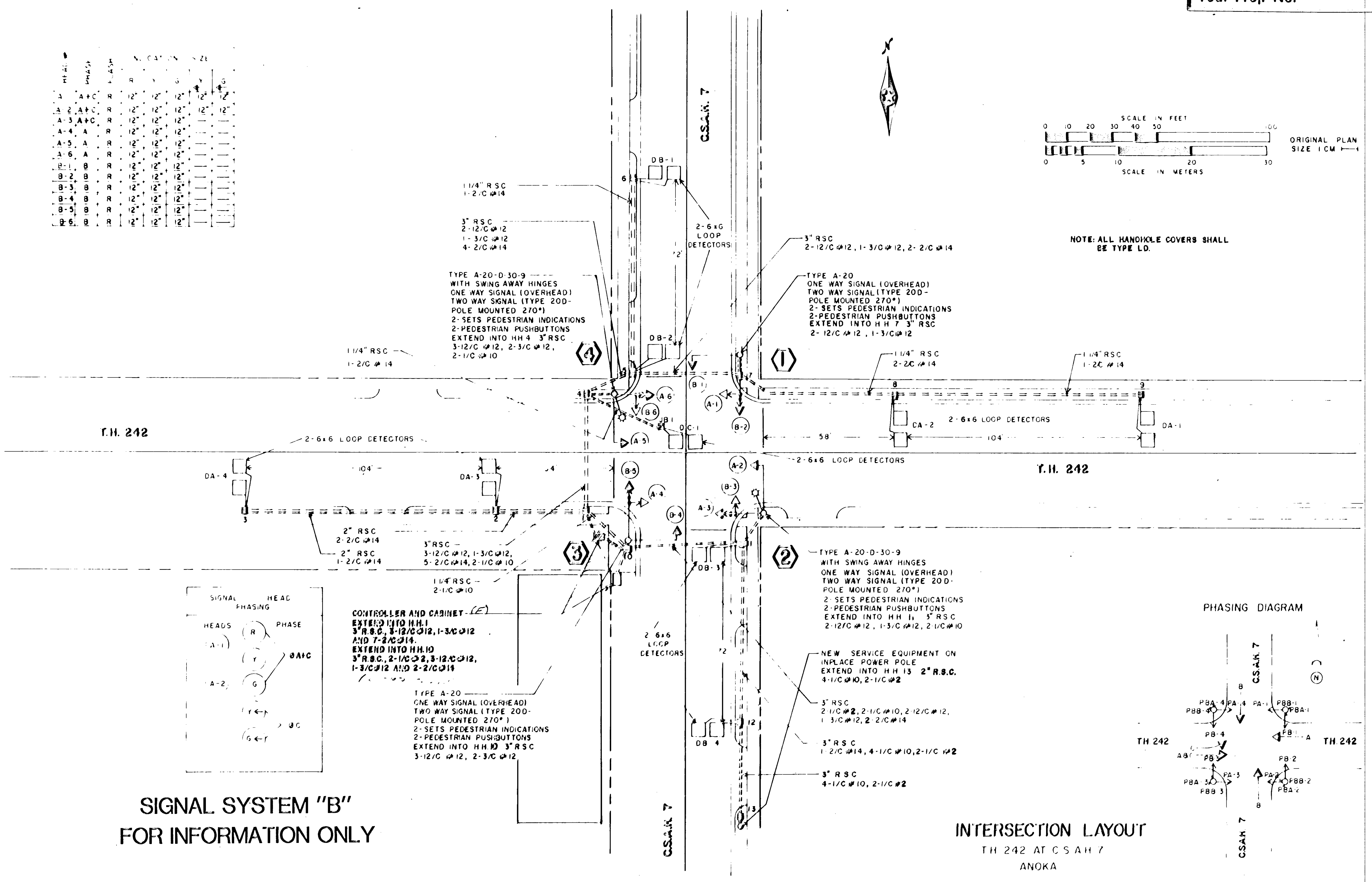
FILE NO.:	78023
DATE:	1-18-79
	36

SP103-134-01 M.T.B.

HEAD	PHASE	FLASH	W. CATION	SIZE
A-1	A+C	R	12"	12"
A-2	A+C	R	12"	12"
A-3	A+C	R	12"	12"
A-4	A	R	12"	12"
A-5	A	R	12"	12"
A-6	A	R	12"	12"
B-1	B	R	12"	12"
B-2	B	R	12"	12"
B-3	B	R	12"	12"
B-4	B	R	12"	12"
B-5	B	R	12"	12"
B-6	B	R	12"	12"



NOTE: ALL HANDHOLE COVERS SHALL BE TYPE LD.



CONTROLLER AND CABINET (E)
 EXTEND INTO H.H. 1
 3" R.S.C. 3-12/C #12, 1-3/C #12
 AND 7-2/C #14
 EXTEND INTO H.H. 10
 3" R.S.C. 2-1/C #2, 3-12/C #12,
 1-3/C #12 AND 2-2/C #14

TYPE A-20
 ONE WAY SIGNAL (OVERHEAD)
 TWO WAY SIGNAL (TYPE 200-
 POLE MOUNTED 270°)
 2-SETS PEDESTRIAN INDICATIONS
 2-PEDESTRIAN PUSHBUTTONS
 EXTEND INTO H.H. 10 3" R.S.C.
 3-12/C #12, 2-3/C #12

TYPE A-20-D-30-9
 WITH SWING AWAY HINGES
 ONE WAY SIGNAL (OVERHEAD)
 TWO WAY SIGNAL (TYPE 200-
 POLE MOUNTED 270°)
 2-SETS PEDESTRIAN INDICATIONS
 2-PEDESTRIAN PUSHBUTTONS
 EXTEND INTO H.H. 1, 3" R.S.C.
 2-12/C #12, 1-3/C #12, 2-1/C #10

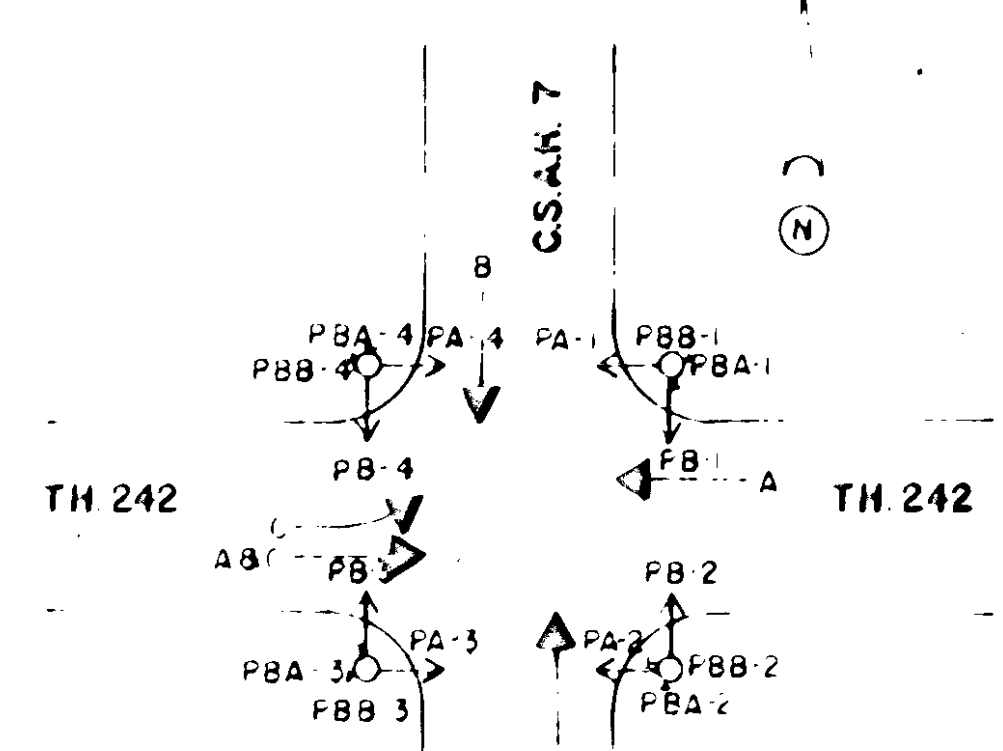
NEW SERVICE EQUIPMENT ON
 INPLACE POWER POLE
 EXTEND INTO H.H. 13 2" R.S.C.
 4-1/C #10, 2-1/C #2

3" R.S.C.
 2-1/C #2, 2-1/C #10, 2-12/C #12,
 1-3/C #12, 2-2/C #14

3" R.S.C.
 1-2/C #14, 4-1/C #10, 2-1/C #2

3" R.S.C.
 4-1/C #10, 2-1/C #2

PHASING DIAGRAM



SIGNAL SYSTEM "B"
 FOR INFORMATION ONLY

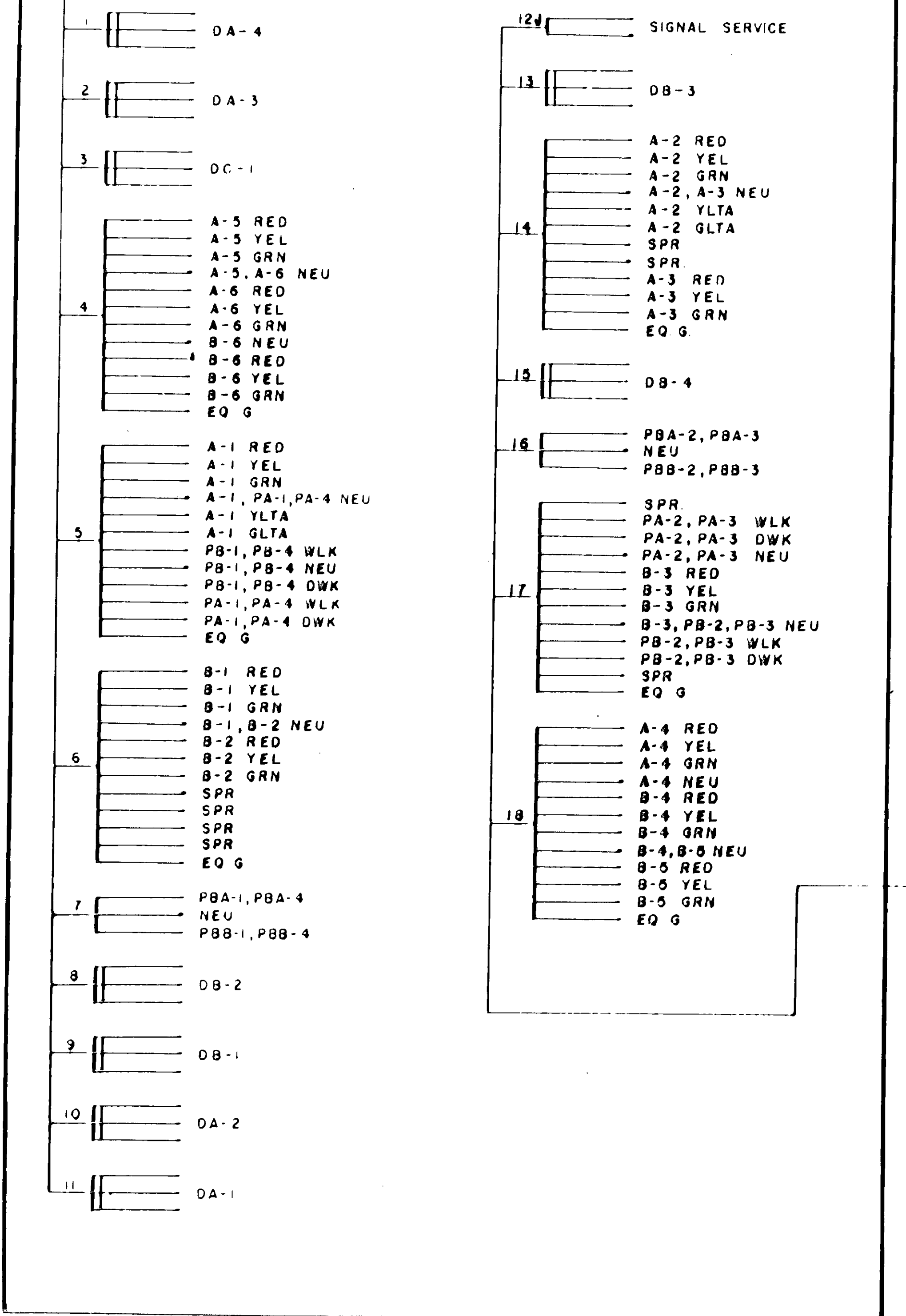
INTERSECTION LAYOUT
 TH 242 AT C.S.A.H. 7
 ANOKA

TYPICAL CONDUCTOR COLOR CODE

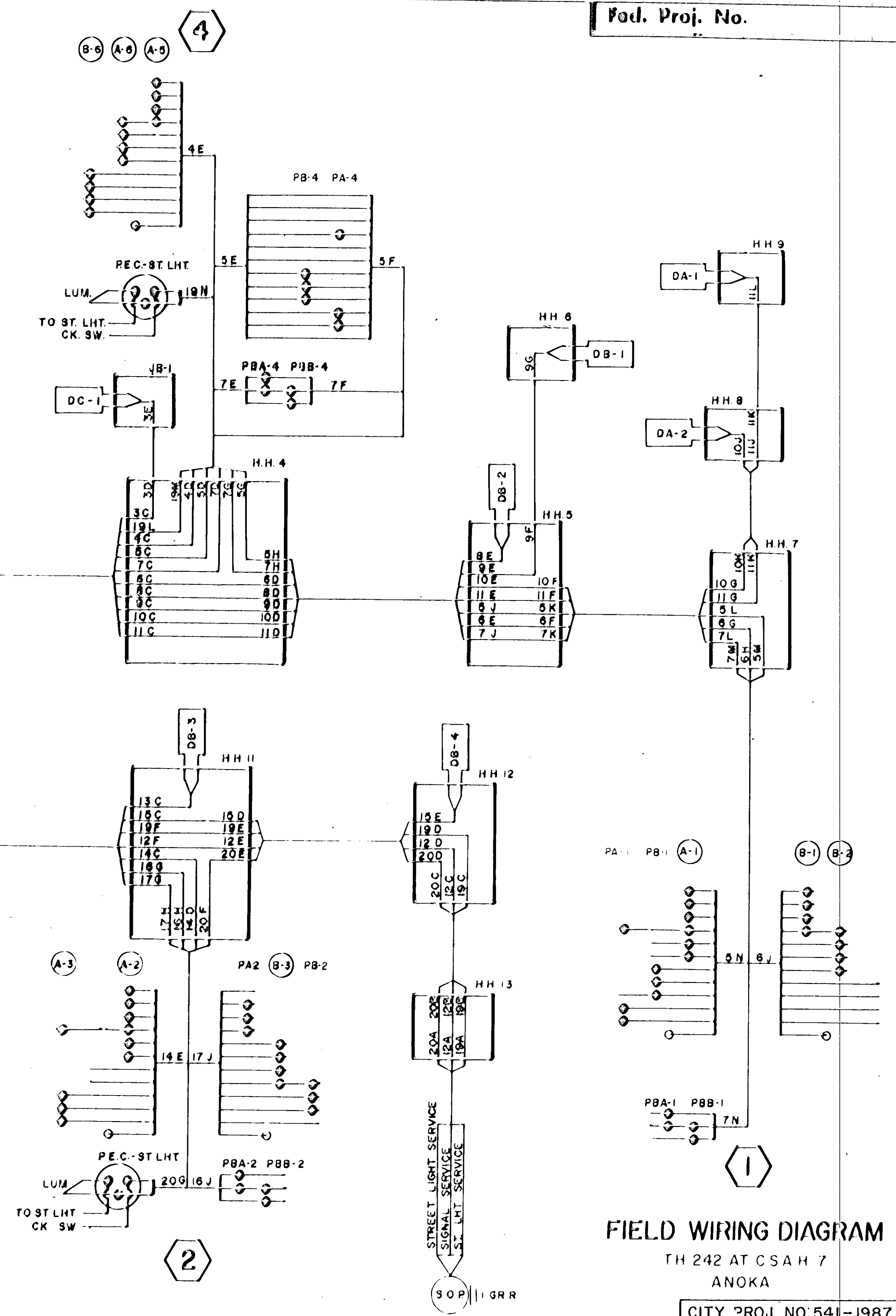
R	BLK
O	WH
BL	R
WH	CLR
R/BLK	BLK
O/BLK	SHIELDED EX. GRD
BL/BLK	CABLE
WH/BLK	BLK
BLK	WH
BLK/WH	R
G/BLK	WH
G	R

NOTE ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE

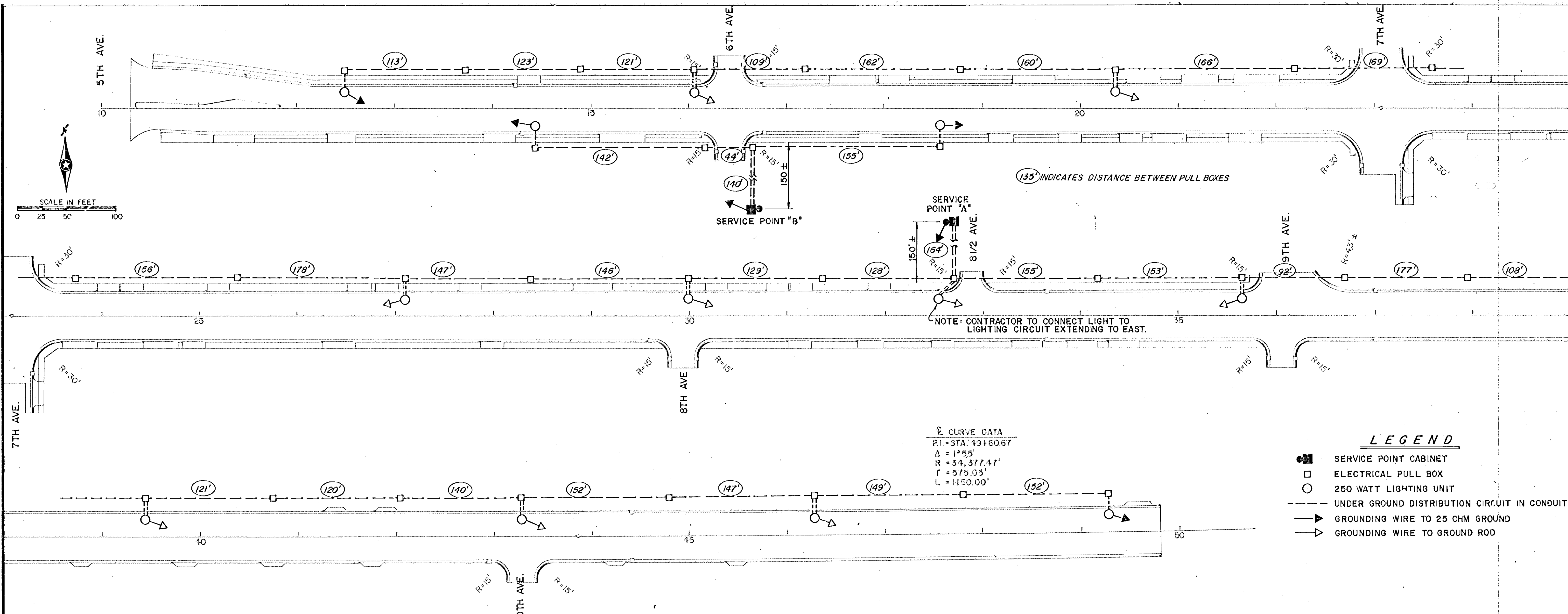
CONTROLLER & CABINET



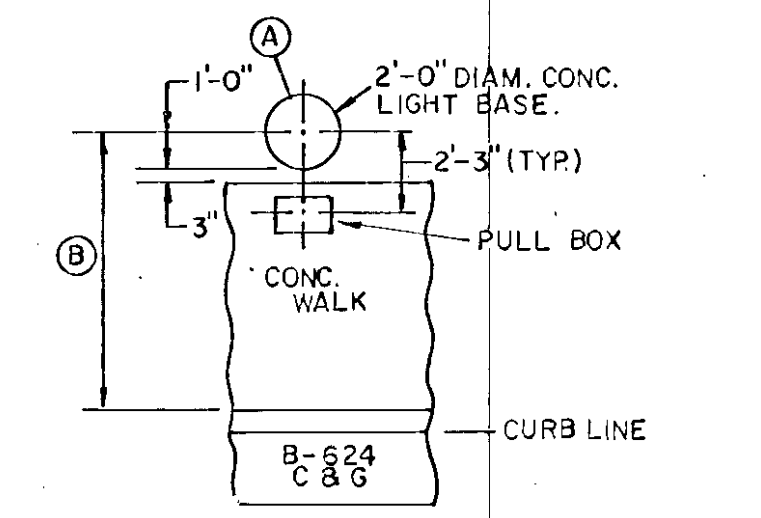
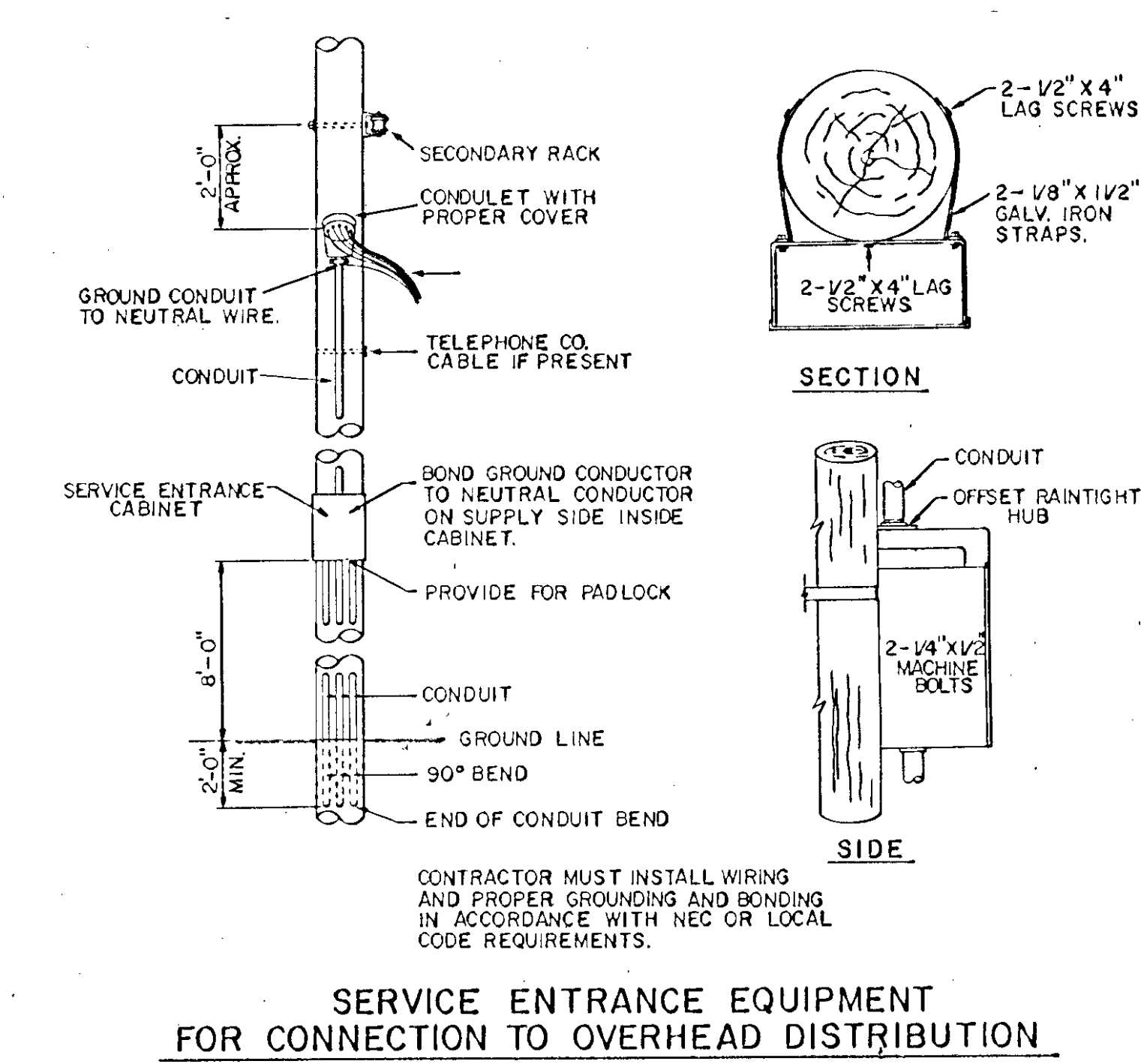
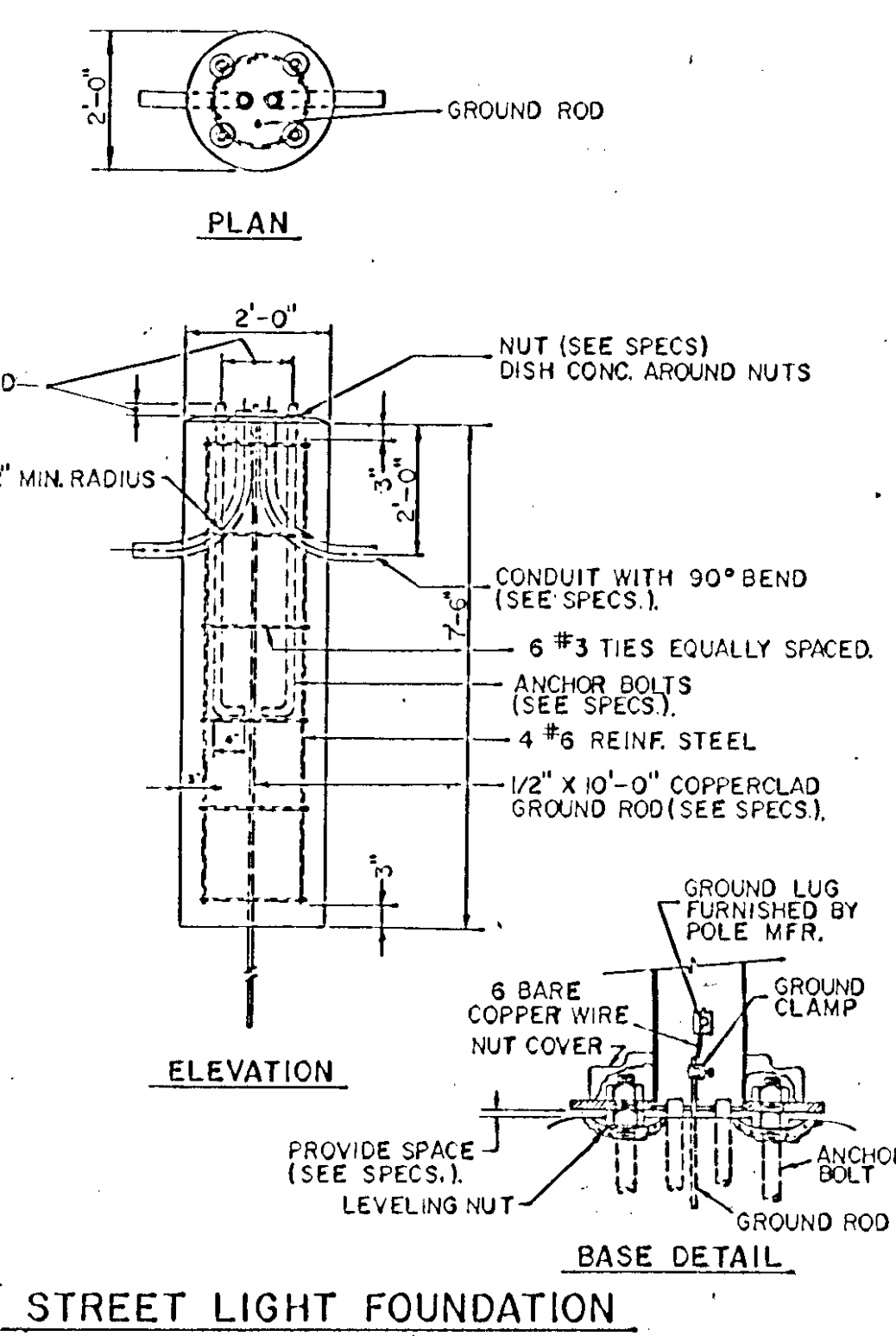
SIGNAL SYSTEM "B" FOR INFORMATION ONLY.



FIELD WIRING DIAGRAM TH 242 AT CSA H 7 ANOKA



C.S.A.H. NO. 14 (E. MAIN STREET)



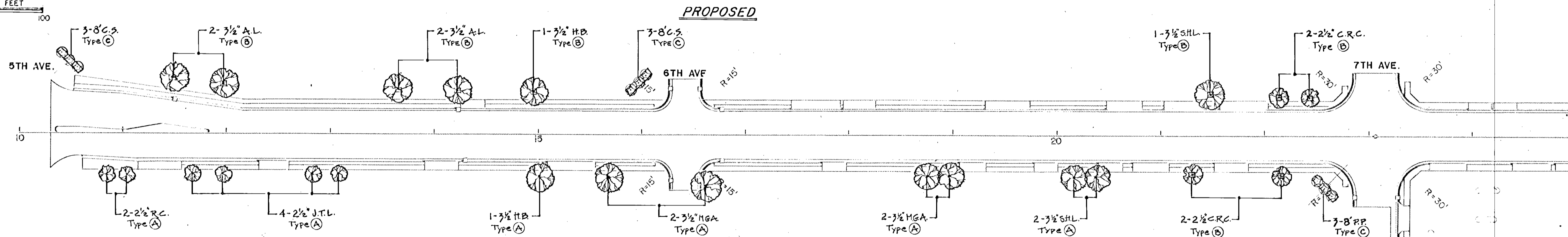
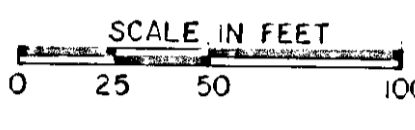
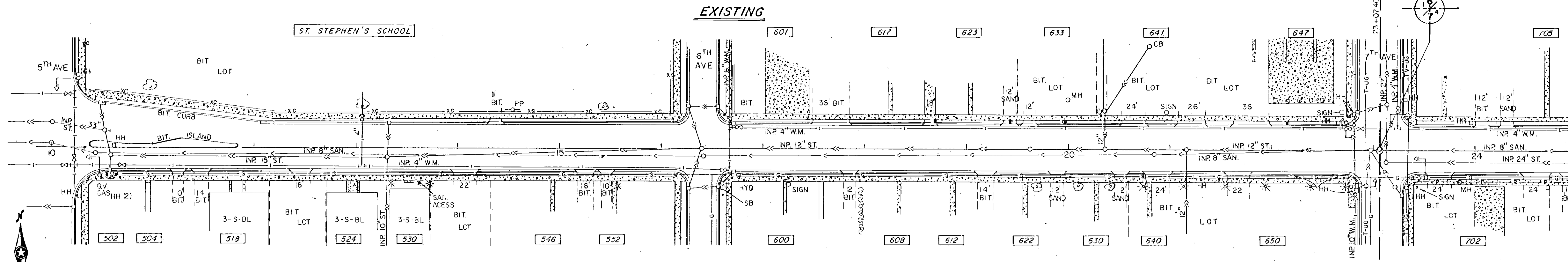
(A) LIGHT POLES ON THE N. SIDE OF MAIN ST. BETWEEN 5TH AVE. AND 6TH AVE. SHALL BE LOCATED IMMEDIATELY N. OF EXISTING SCHOOL FENCE.

(B) THIS DIMENSION SHALL BE 5'-4" FOR ALL LIGHT POLES E. OF 9TH AVE.

LIGHT POLE LOCATION DETAIL

FINAL PLAN
 CONFORMING TO
 CONST. RECORDS
 DATE 2-15-88 D.R.P.

STREET LIGHTING PLAN AND DETAILS



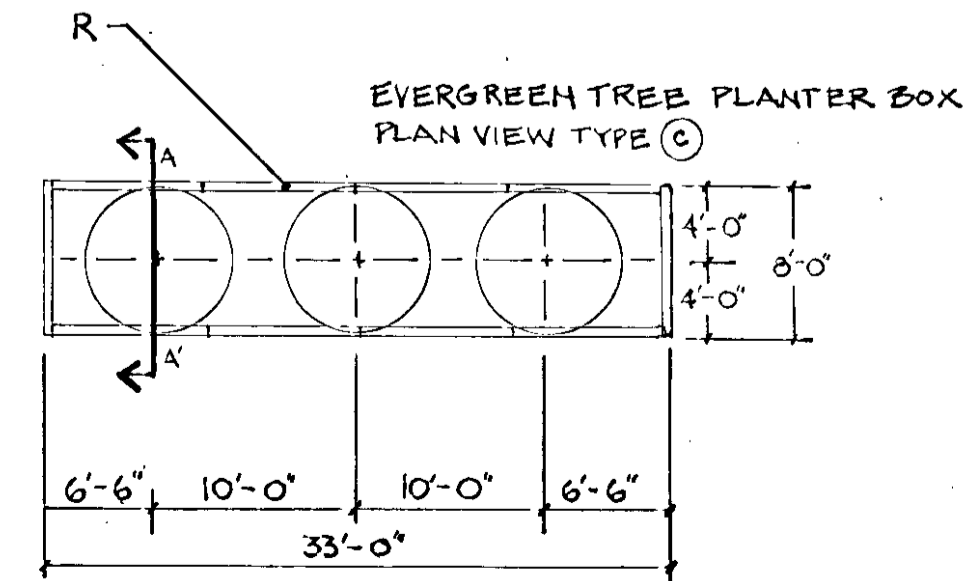
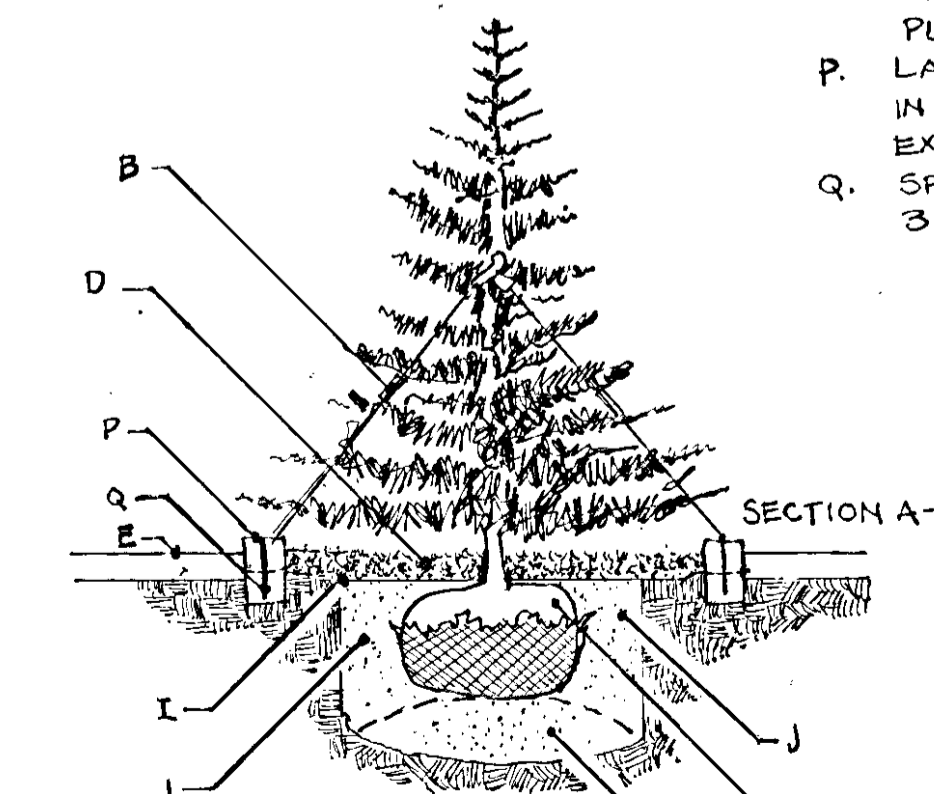
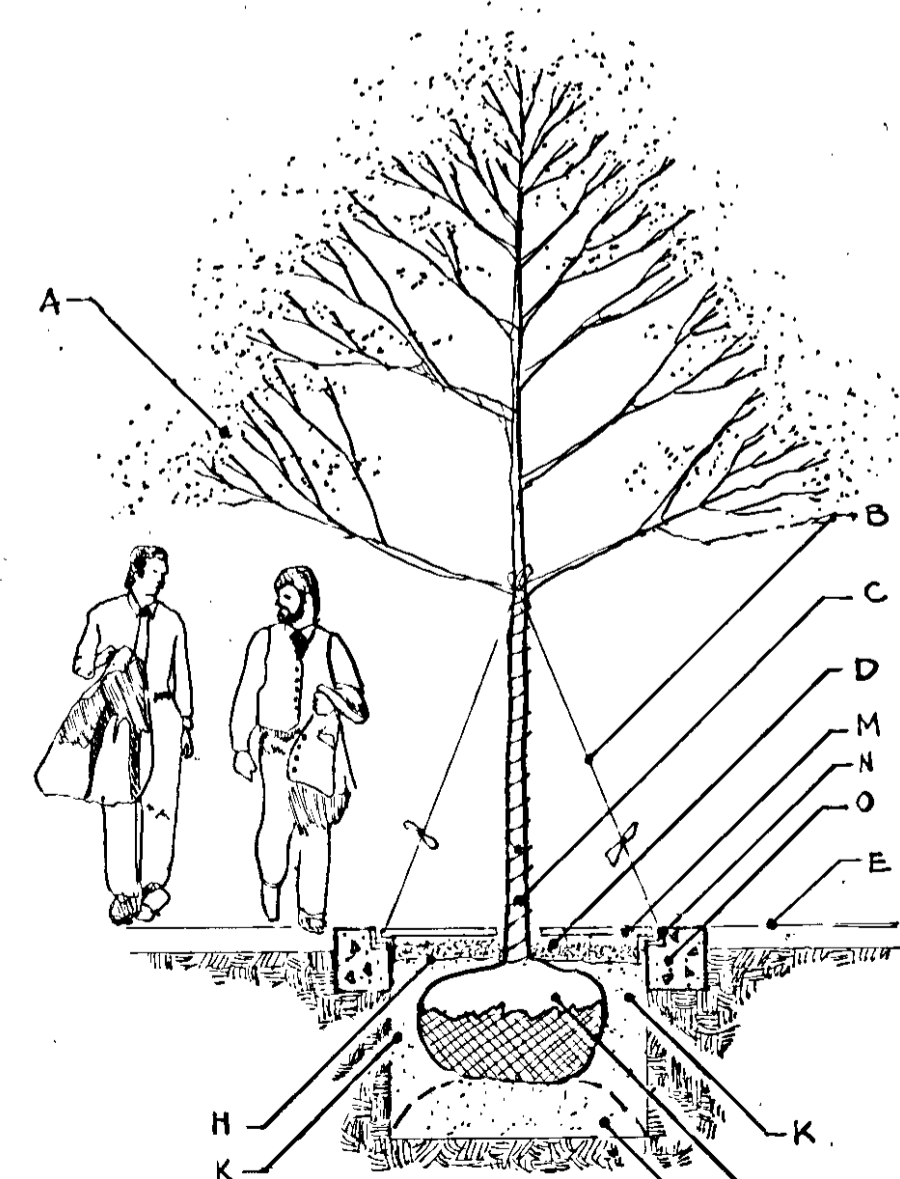
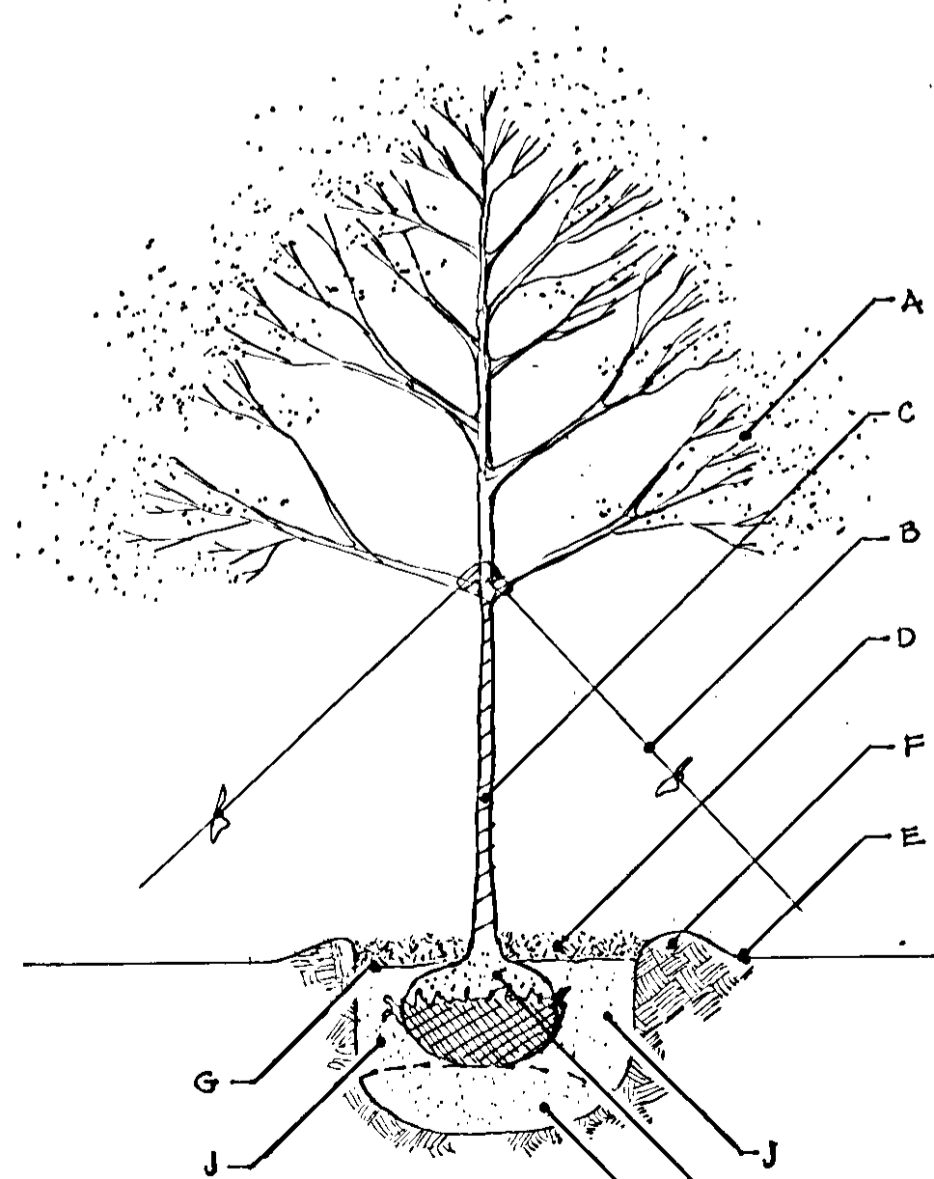
C.S.A.H. NO. 14 (E. MAIN STREET)

LANDSCAPE LEGEND

- A. PRUNING - REMOVE 1/3 OF LEAF AREA WHILE RETAINING NATURAL FORM.
- B. TREE GUYING - OPTIONAL
- C. TREE WRAP - FROM GROUND TO FIRST MAJOR LIMB, SECURE WITH TWINE
- D. MULCH - TYPE G, 4 INCHES OF HARDWOOD CHIPS.
- E. EXISTING GRADE
- F. LOAM SAUCER - 3 IN., ABOVE EXISTING GRADE.
- G. TREE PLANTED TO MATCH EXISTING GRADE, GROUND LINE SAME AS AT NURSERY.
- H. TREE PLANTED 8" BELOW TOP OF GRATE, GROUND LINE SAME AS AT NURSERY.
- I. TREE PLANTED 4" BELOW EXISTING GRADE, GROUND LINE SAME AS AT NURSERY.
- J. COMPACTED TOPSOIL - 12" MIN.
- K. COMPACTED TOPSOIL - 6" MIN. } INCIDENTAL TO PLANTINGS
- L. REMOVE BURLAP FROM TOP 1/3 OF ROOT BALL.
- M. TREE GRATE - NEENAH 8640, 4 FOOT SQUARE, CAST IRON GRATE
- N. ANGLE FRAME - TYPE L IRON FRAME BOLTED TOGETHER AND CAST INTO CONCRETE FOUNDATION.
- O. CONCRETE FOUNDATION - 12"x12" THICK CONCRETE FOUNDATION WITH 4 FT. SQUARE TREE GRATE FRAME. NOTE: SANDY SOIL IN ANCKA SHOULD BE SUFFICIENTLY DRAINED. HOWEVER, IF NOT PLACE 4" GRANULAR FILL UNDER CONCRETE FOUNDATION.
- P. LANDSCAPE TIMBERS - 6"x6" x 8'-0" UNTREATED CEDAR, TWO UNITS IN HEIGHT AS SHOWN. TOP OF UPPER TIMBER TO BE 3" ABOVE EXISTING GRADE.
- Q. SPIKES - SECURE UPPER TO LOWER TIMBER WITH 11" SPIKES, USE 3 SPIKES PER TIMBER.

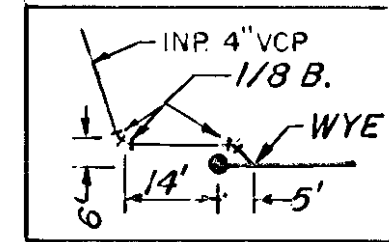
PLANT MATERIALS LIST

CODE	COMMON NAME	BOTANICAL NAME	SIZE	QTY.
C.S.	COLORADO SPRUCE	PICEA PUNGENS	8' TALL	6
P.P.	PONDEROSA PINE	PINUS PONDEROSA	8' TALL	3
M.G.A.	MARSHALLS ASH	FRAXINUS PENNSYLVANICA 'MARSHALLS SEEDLESS'	3 1/2" CAL	4
S.H.L.	SKYLINE HONEYLOCUST	GLEDITSIA TRICANTHOS 'SKYLINE'	3 1/2" CAL	3
A.L.	AMERICAN LINDEN	TILIA AMERICANA	3 1/2" CAL	4
H.B.	HACKBERRY	CELTIS OCCIDENTALIS	3 1/2" CAL	2
C.R.C.	CANADA RED CHERRY	PRUNUS VIRGINIANA 'CANADA RED'	2 1/2" CAL	4
R.C.	RADIANT CRABAPPLE	MALUS 'RADIANT'	2 1/2" CAL	2
J.T.L.	JAPANESE TREE LILAC	SYRINGA RETICULATA	2 1/2" CAL	4



1. TREE STAKING SHALL BE AT THE CONTRACTORS OPTION, HOWEVER, ALL TREES MUST BE UPRIGHT THROUGHOUT PLANTING SEASON.
2. REMOVE ANY DEBRIS (ROCKS, CONCRETE, METAL ETC.) FROM PLANTING PIT.
3. DEEP SOAK ALL TREES AFTER INSTALLATION, WATER AS NEEDED AFTERWARDS.
4. CONTRACTOR SHALL KEEP ALL PLANTS IN HEALTHY GROWING CONDITION THROUGHOUT GROWING SEASON. REPLACEMENTS SHALL BE MADE AS REQUIRED.
5. SQUARE TREE GRATES - NEENAH R-8640 SQ. TREE GRATES WITH SUPPORTING FRAME OR APPROVED EQUAL SHALL BE INSTALLED. ALL CONCRETE FOUNDATION WORK FOR GRATE AND FRAMES SHALL BE INCIDENTAL TO AND INCLUDED IN THE ITEM COST OF SQUARE TREE GRATES.

NOTE: 705 & 719 E. MAIN TEMPORARY WATER SERVICE FROM HARDEES WATER SERVICE, ABANDON BY OTHERS.

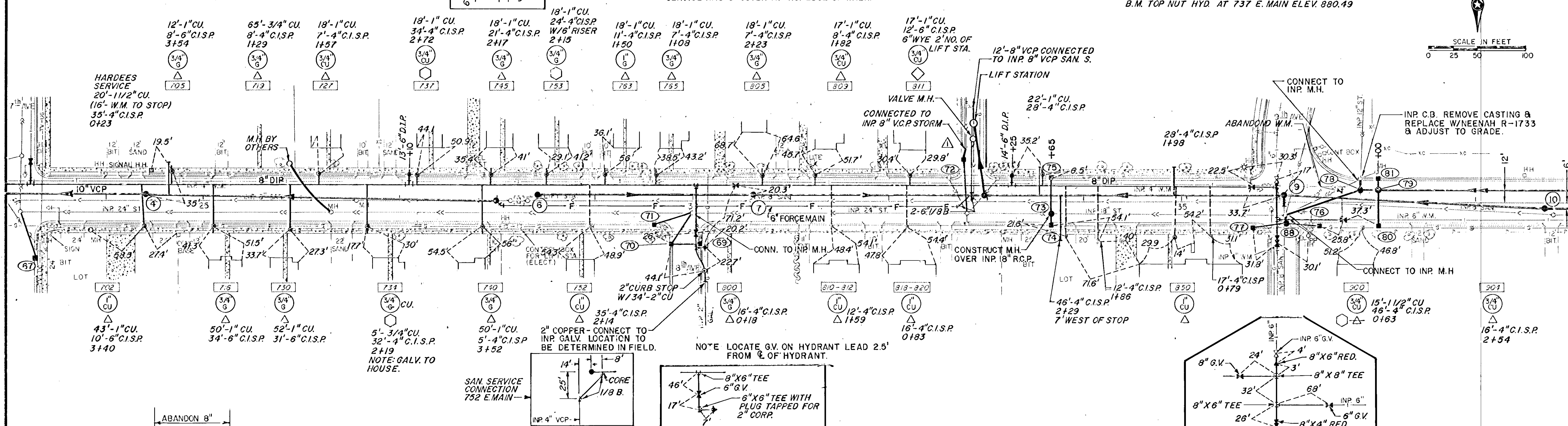
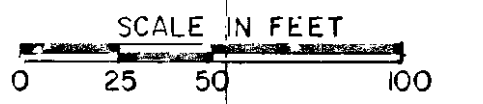


SAN SERVICE CONNECTION 745 E. MAIN

NOTE: 737 & 745 HAVE INSULATION OVER THE 1" COPPER IN THE SIDEWALK AREA. SERVICE HAS 5' COVER AT NO. EDGE OF WALK.

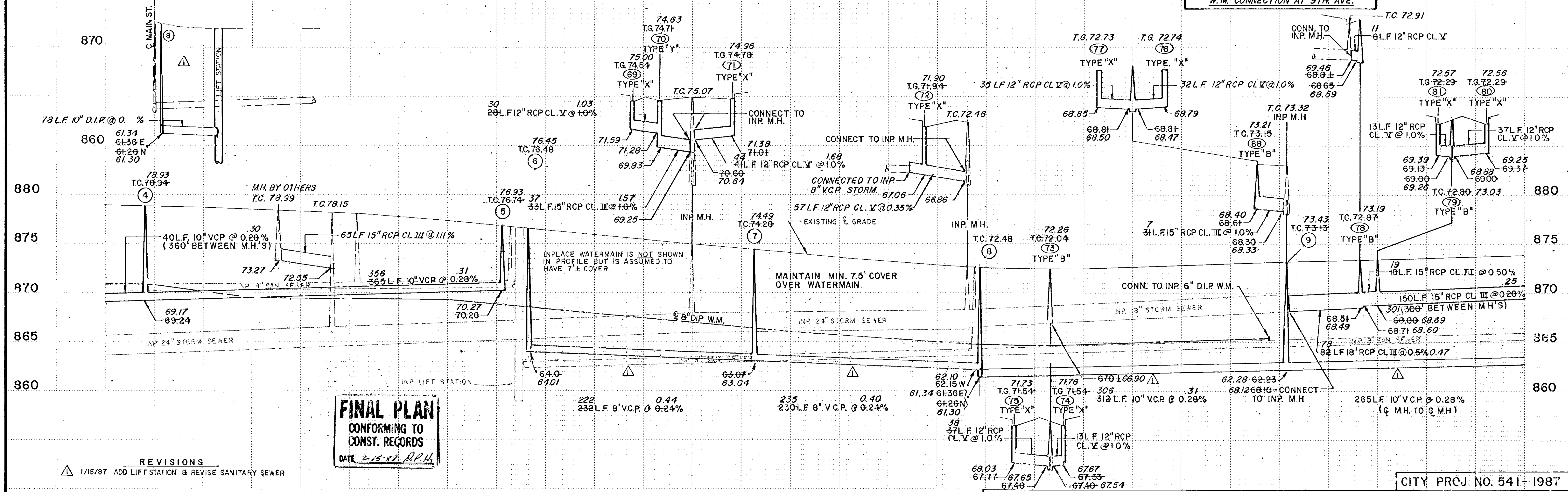
BM #7 ELEV. 874.37- TOP SW FLANGE BOLEF HYD. STA. 35+72- LF. 66'

B.M. TOP NUT HYD. N.E. COR. 8 1/2 AVE. ELEV. 875.44
 B.M. TOP NUT HYD. S.E. COR. 8TH AVE. ELEV. 878.82
 B.M. TOP NUT HYD. AT 737 E. MAIN ELEV. 880.49



C.S.A.H. NO. 14 (E. MAIN STREET)

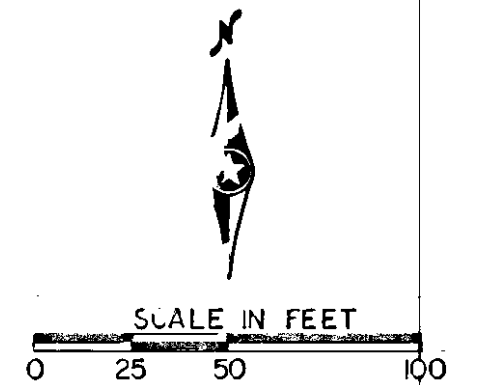
8 1/2 AVENUE



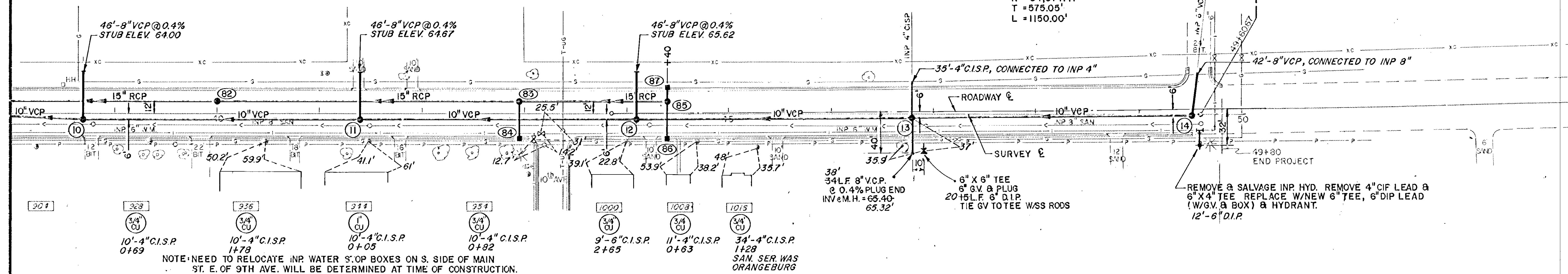
REVISIONS

1/16/87	ADD LIFT STATION & REVISE SANITARY SEWER
---------	--

FINAL PLAN
 CONFORMING TO
 CONST. RECORDS
 DATE 2-15-87 R.P.H.



CURVE DATA
 P.I. = STA. 49+60.67
 $\Delta = 1^\circ 55'$
 $R = 34,377.47'$
 $T = 575.05'$
 $L = 1150.00'$



NOTE: NEED TO RELOCATE INP WATER STOP BOXES ON S. SIDE OF MAIN ST. E. OF 9TH AVE. WILL BE DETERMINED AT TIME OF CONSTRUCTION. ANY NECESSARY RELOCATIONS SHALL REQUIRE REPLACEMENT OF SERVICE TO INP 6" W.M. (INCL. TAP) W/CURB BOX PLACED 28' S. OF ℓ . ALL MATERIALS SHALL BE 1" IN SIZE.
 NOTE: AT 904, 936, 944, 1000, & 1008 E. MAIN THE EXIST. STOP BOX WAS ABANDON. A NEW CURB STOP & BOX WAS CUT INTO THE EXISTING COPPER SERVICE.

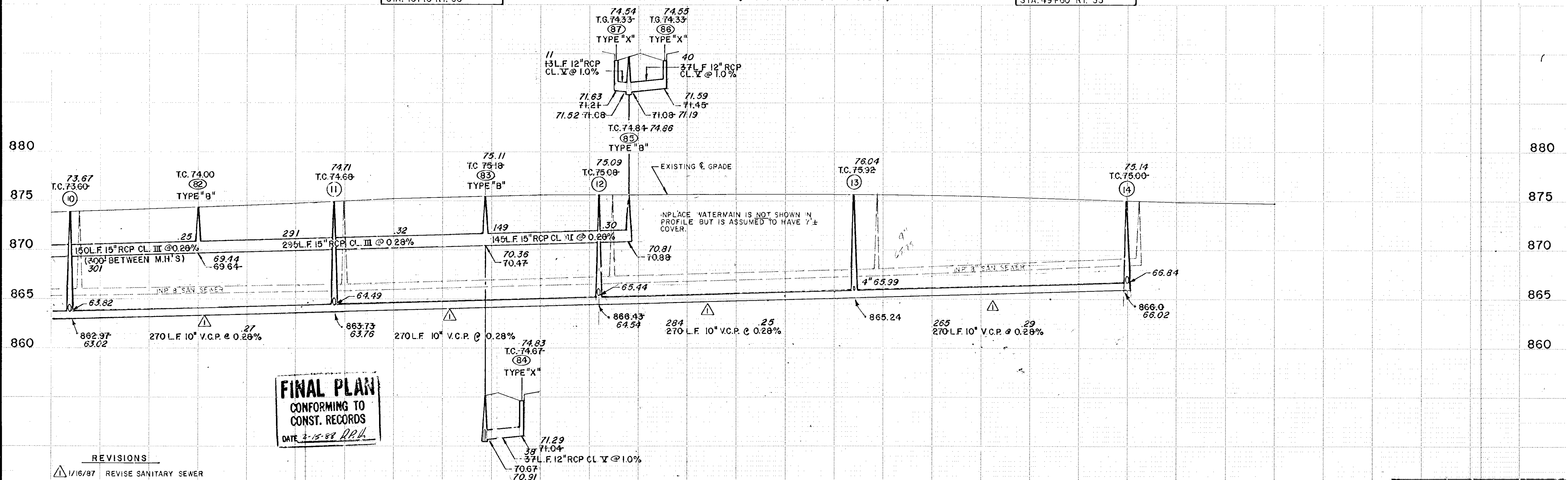
38' 34" L.F. 8" V.C.P. @ 0.4% PLUG END
 INV. & M.H. = 65.40-65.32'
 6" X 6" TEE
 6" G.V. & PLUG
 20' 15" L.F. 6" D.I.P.
 TIE G.V. TO TEE W/SS RODS

REMOVE & SALVAGE INP. HYD. REMOVE 4" C.I.F. LEAD & 6" X 4" TEE. REPLACE W/NEW 6" TEE, 6" DIP LEAD (W/G.V. & BOX) & HYDRANT.
 12'-6" D.I.P.

B.M. #8 ELEV. 878.20
 TOP N.E. FLANGE BOLT HYD.
 STA. 43+10 RT. 50'

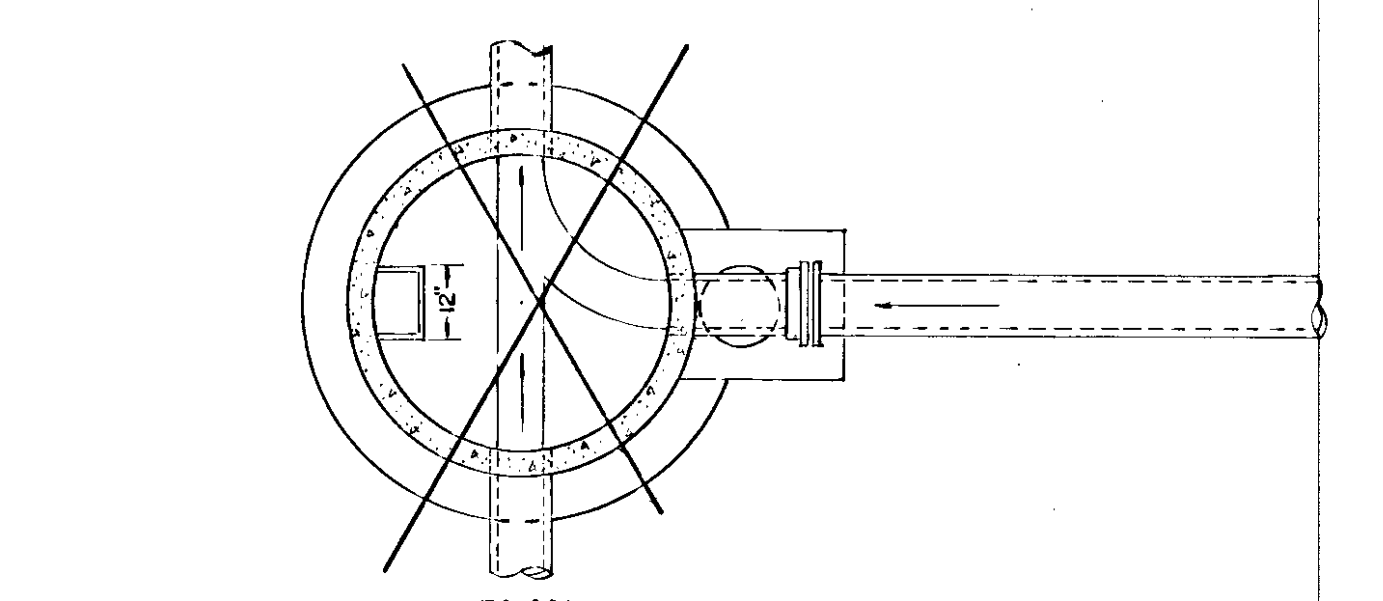
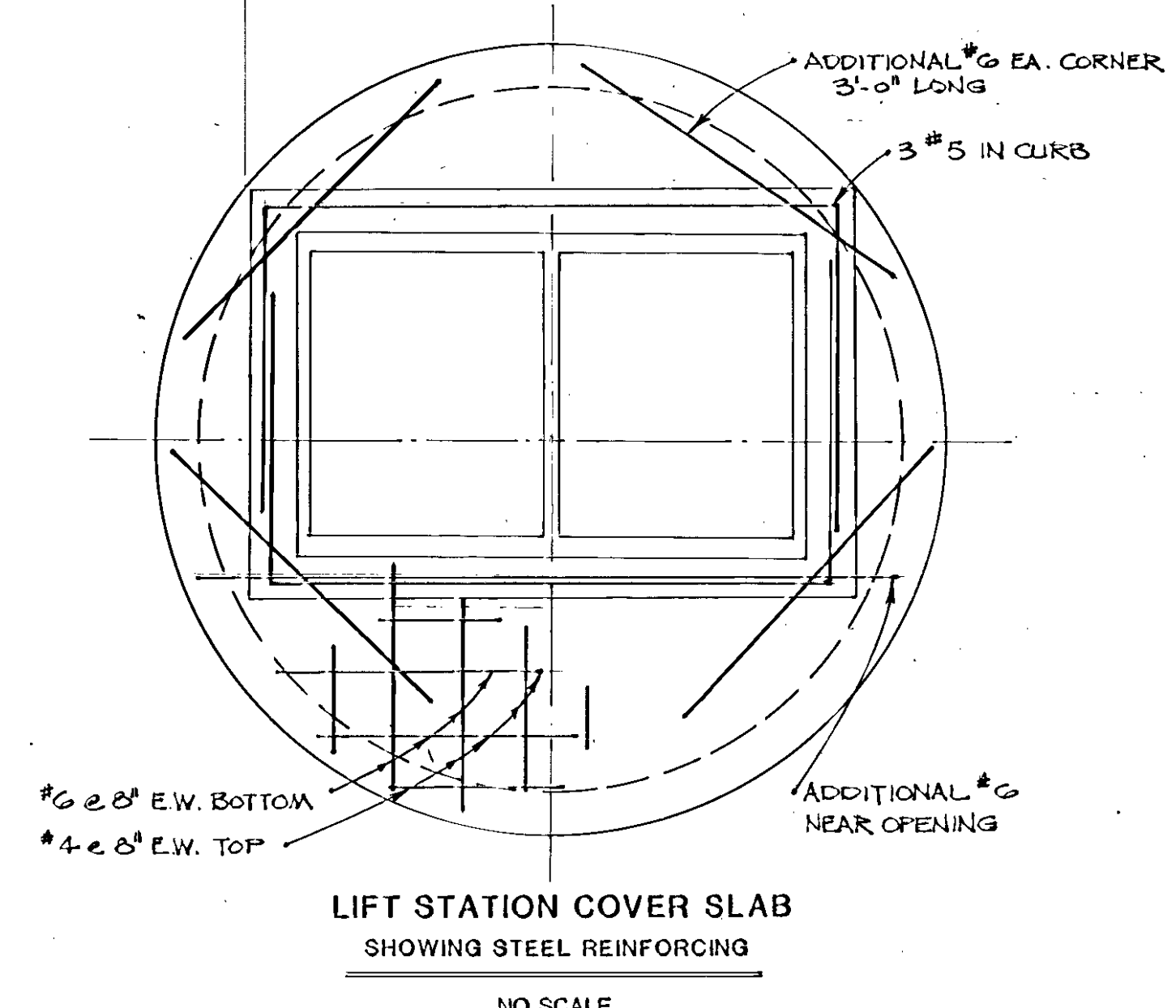
C.S.A.H. NO. 14 (E. MAIN STREET)

B.M. TOP NUT HYD. 49+60 RT 32' ELEV. 879.49
 B.M. #9 ELEV. 878.73
 TOP N.W. FLANGE BOLT HYD.
 STA. 49+60 RT. 33'

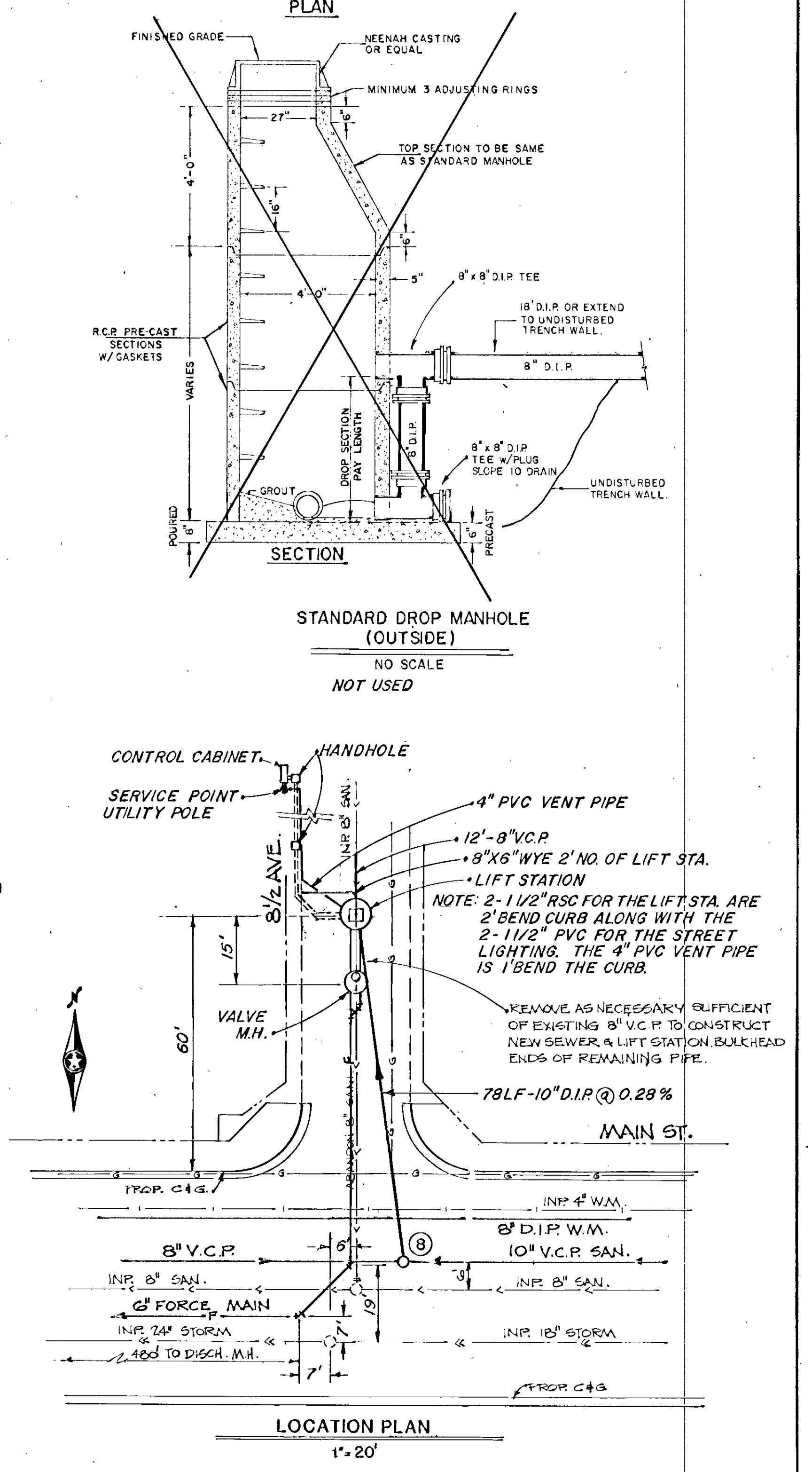
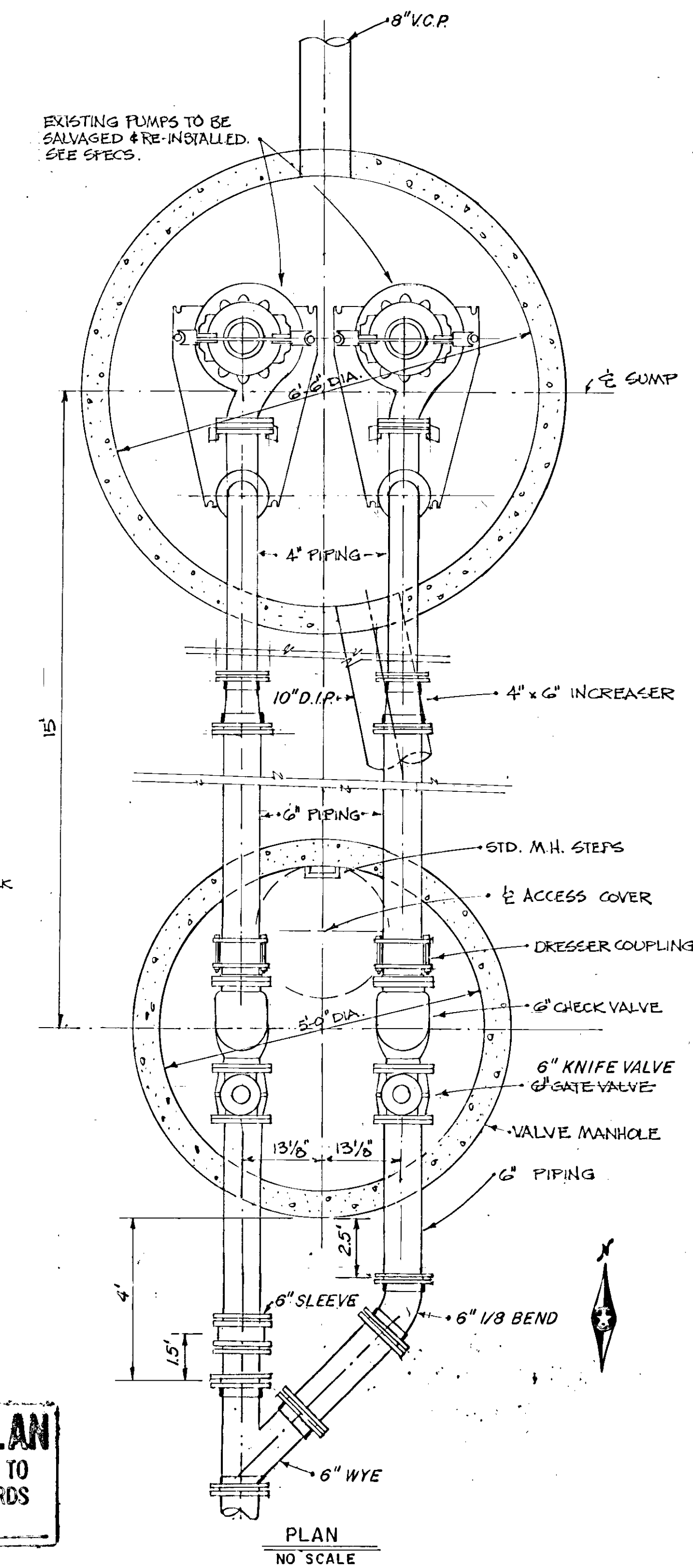
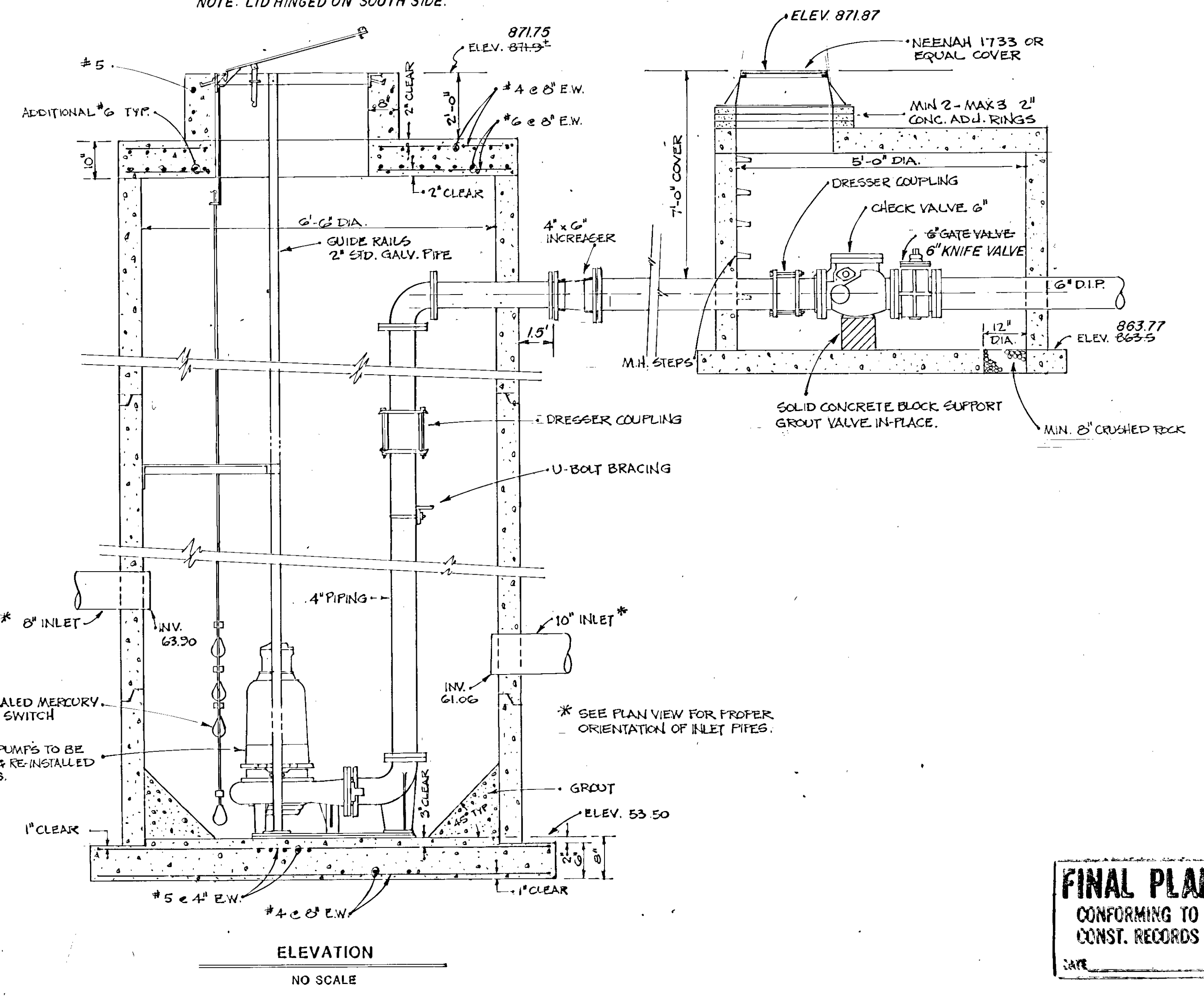


FINAL PLAN
 CONFORMING TO
 CONST. RECORDS
 DATE 2-15-88 R.R.B.

REVISIONS
 1/16/87 REVISE SANITARY SEWER



NOTE: LID HINGED ON SOUTH SIDE.



FINAL PLAN
CONFORMING TO
CONST. RECORDS

DESIGNED BY	CHECKED BY	NO.	DATE	REVISIONS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A duly REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
DATE: 1-12-87 REG. NO. 13412



SHORT - ELLIOTT - HENDRICKSON, INC.
Saint Paul, Minnesota • Chippewa Falls, Wisconsin

ANOKA, MINNESOTA

CONSTRUCT LIFT STATION

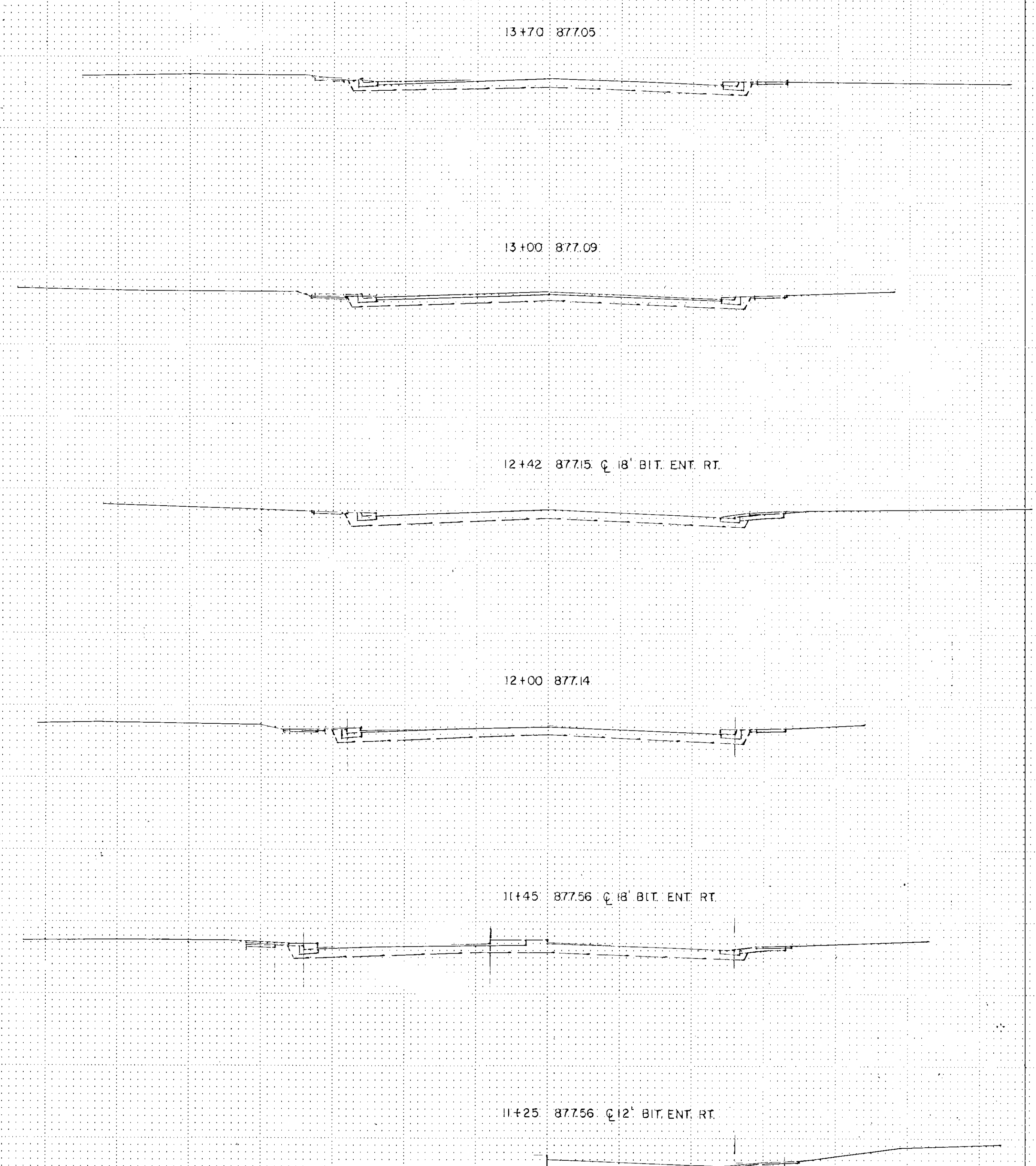
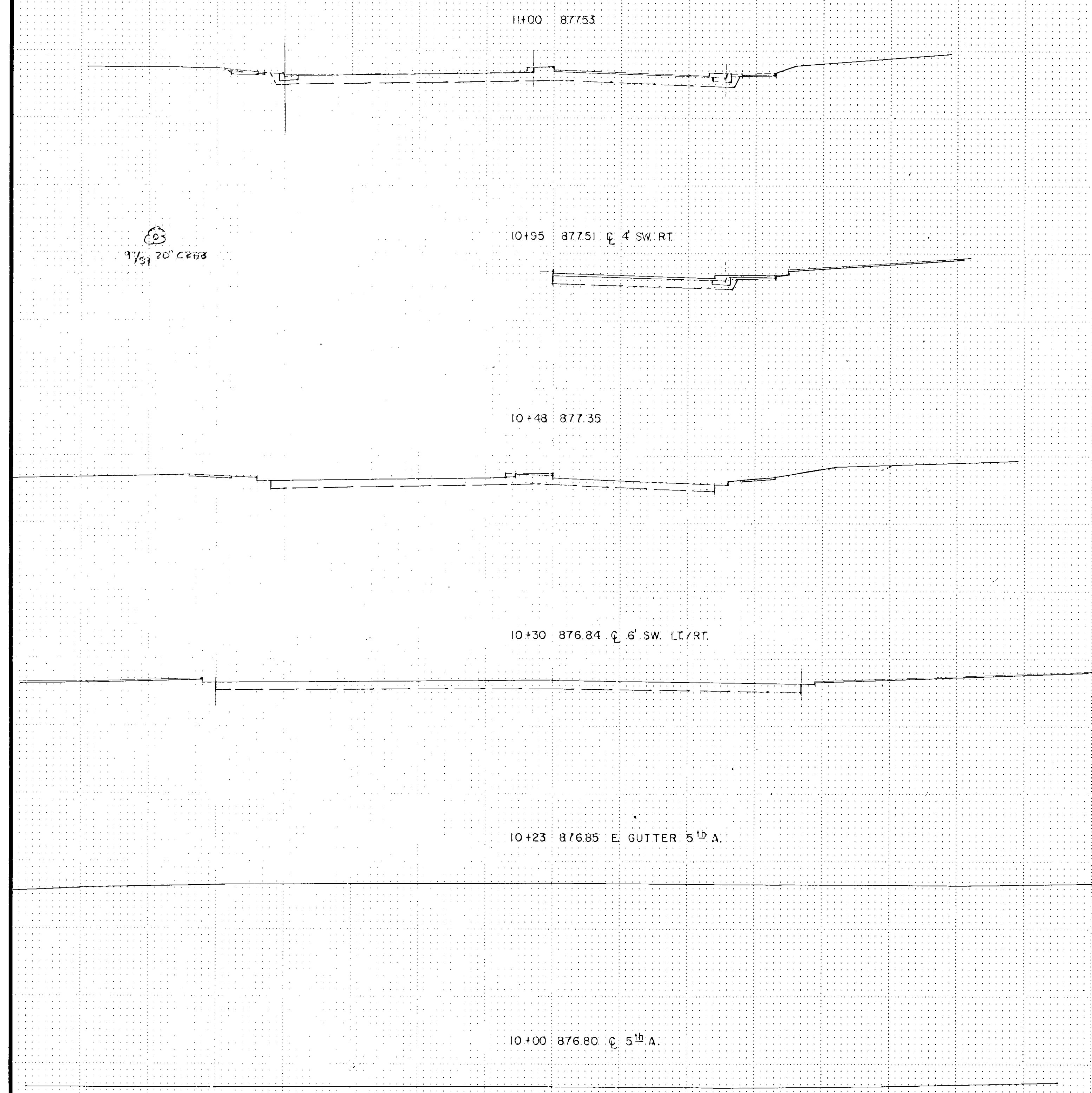
FILE NO:	87001	23A
DATE:	1-15-87	36

EXCAVATION EMBANKMENT

Sub-Totals Cu. Yds. Co. Yds. Sub-Totals

EXCAVATION EMBANKMENT

Sub-Totals Cu. Yds. Co. Yds. Sub-Totals



97/51 20' CROSS

STA. 10+00 TO STA. 13+70

PRINTED BY ENCLER
120 DRAFT 1-2-56

EXCAVATION EMBANKMENT
SERIES S. S. SUBSTATION

EXCAVATION EMBANKMENT
SERIES S. S. SUBSTATION

12" ELM
13/40

15+43 87730 Q 10' BIT ENT. RT.

16+56 87757 E. GUTTER 6" A.

15+22 87721 Q 15' BIT ENT. RT.

16+41 87752 Q 6" A.

15+00 87712

16+26 87741 W. GUTTER 6" A.

14+94 87712 Q 4' SW. 33' OUT

16+15 87744 C 6' SW. LT. / RT.

14+38 87706 Q 12' BIT ENT. LT.

16+00 87743

14+07 87707 Q 20' BIT ENT. RT.

15+52 87734

STA. 14+07 TO STA. 16+56

10/27/12
C.E.D. ORRILL

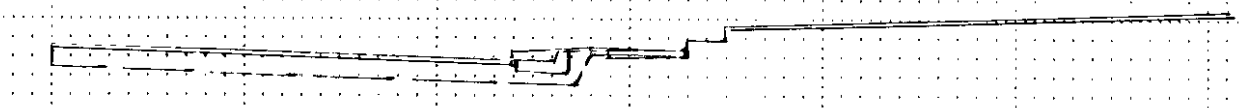
EXCAVATION EMBANKMENT
 Sub-Totals Cu. Yds. Cu. Yds. Sub-Totals

EXCAVATION EMBANKMENT
 Sub-Totals Cu. Yds. Cu. Yds. Sub-Totals

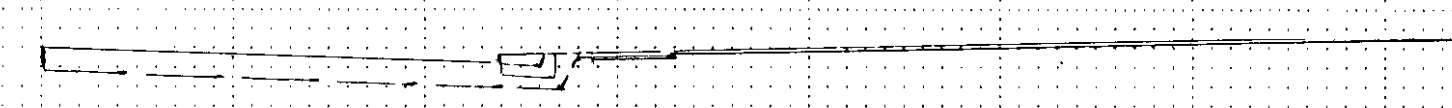
17+66 878.02 @ 35' CONC./BIT ENT. LT.



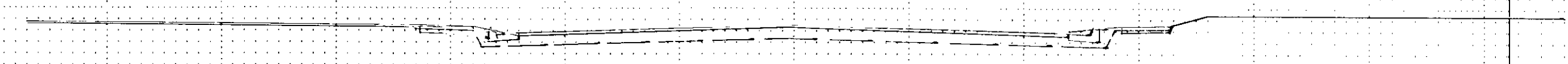
18+87 878.52 @ 4' SW. RT.



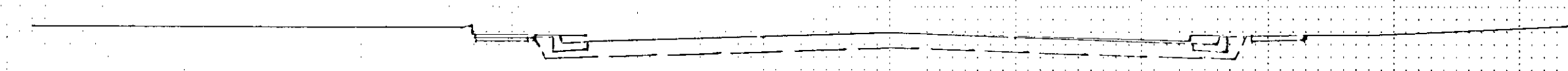
17+57 878.00 @ 4' SW. RT.



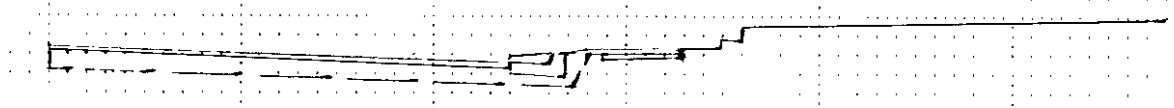
18+64 878.40 @ 12' CONC. ENT. LT.



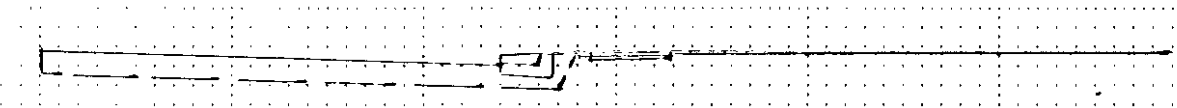
17+35 877.90



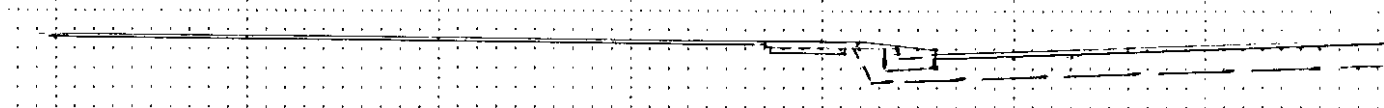
18+33 878.24



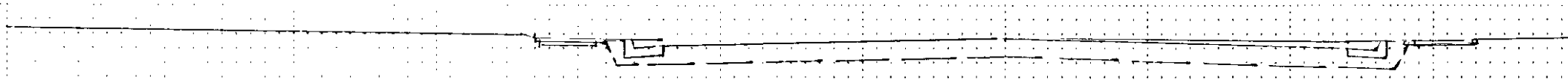
17+20 877.85 @ 3' SW. RT.



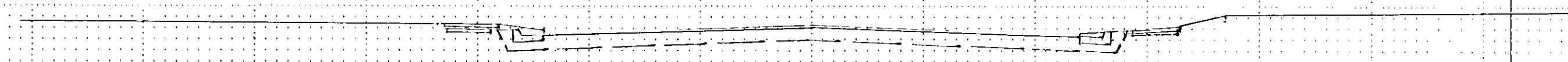
18+26 878.21 @ 4' SW. LT.



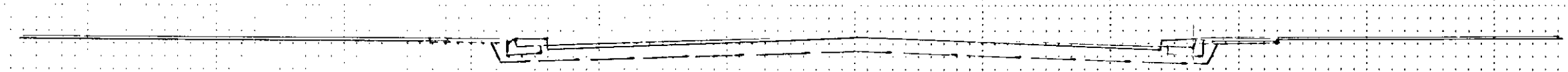
17+00 877.75



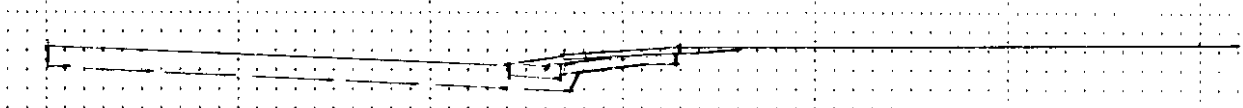
18+00 878.12



16+67 877.61 @ 5' SW. LT. @ 4' SW. RT.



17+83 878.10 @ 12' BIT ENT. RT.



STA. 16+67 TO STA. 18+87

REVISIONS: 1. 11/16/12 G. ELLIS
 2. 1/7/12 C.E. D. HANCOCK

EXCAVATION EMBANKMENT

Station	Exc. Vol. Yds.	Emb. Vol. Yds.	Sub-Totals
19+00			
19+04			
19+18			
19+42			
19+57			
19+61			
20+00			
20+04			
20+29			
20+53			
20+66			
20+89			

EXCAVATION EMBANKMENT

Station	Exc. Vol. Yds.	Emb. Vol. Yds.	Sub-Totals
19+00			
19+04			
19+18			
19+42			
19+57			
19+61			
20+00			
20+04			
20+29			
20+53			
20+66			
20+89			

19+61 878.77 @ 12' BIT. ENT. LT. (B) 25' ELM

20+89 871.19 @ 24' BIT. ENT. RT.

19+57 878.76 @ 5' SW. RT.

20+66 879.04 @ 24' BIT. ENT. LT.

19+42 878.71 @ 14' SAND ENT. LT.

20+53 878.97 @ 10' SAND ENT. RT.

19+18 878.62 @ 12' BIT. ENT. RT.

(B) 25' ELM

20+29 878.84 @ 4' SW. RT.

19+04 878.57 @ 3' SW. LT.

(B) 25' ELM

20+00 878.84

19+00 878.57

19+88 878.82 @ 12' SAND ENT. RT.

STA. 19+00 TO STA. 20+89

EXCAVATION EMBANKMENT

EXCAVATION EMBARKMENT

Exc. Yds. Emb. Yds. Sub-Totals

Exc. Yds. Emb. Yds. Sub-Totals

22+77 87890 Q 5' SW LT

24+00 87893

22+28 87913

23+67 87893 Q 25 CONC /BIT. ENT. RT.

21+80 87924

23+38 87893 Q 5' SW LT./RT.

21+67 87925 Q 24' BIT. ENT. RT.

23+29 87889 E. GUTTER 7th A.

21+27 87937 Q 24' BIT. ENT. LT.

23+07 87883 Q 7th A.

21+00 87924

22+85 87885 W. GUTTER 7th A.

STA. 21+00 TO STA. 24+00

Vertical Curve Data

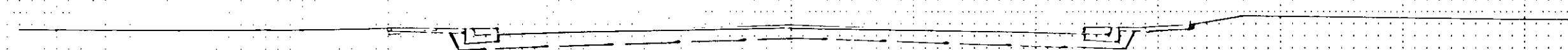
EXCAVATION EMBANKMENT:

Sub-Totals Cu. Yds. Cu. Yds. Sub-Totals

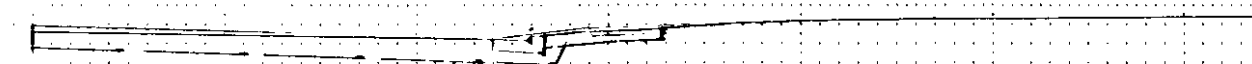
EXCAVATION EMBANKMENT

Sub-Totals Cu. Yds. Cu. Yds. Sub-Totals

25+00 878.70



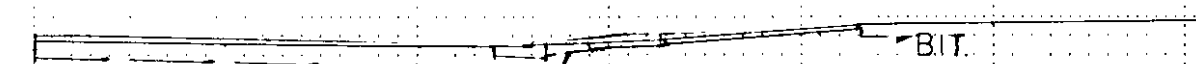
24+91 878.72 @ 12' BIT ENT. RT.



24+70 878.73 @ 4' SW. LT.



24+58 878.79 @ 24' CONC./BIT. RT.



24+29 878.83 @ 12' SAND ENT. LT.

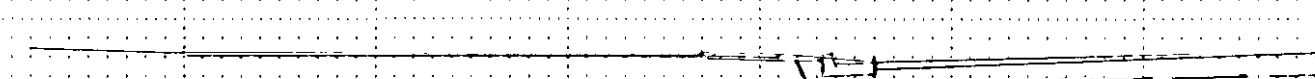


24+07 878.93 @ 12' BIT ENT. LT.

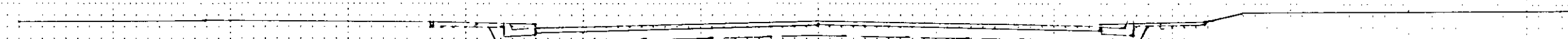


3 1/2 12' ELM

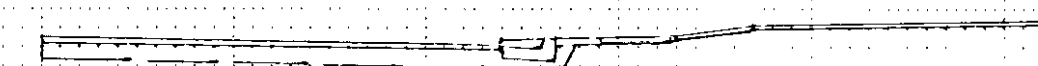
26+28 878.21 @ 4' SW. LT.



26+00 878.32

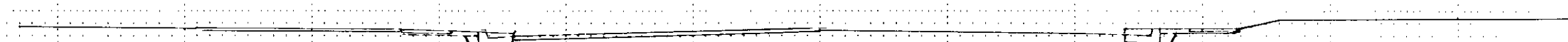


25+85 878.33 @ 4' SW. RT.

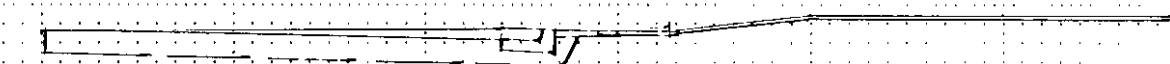


7 1/2 12' ELM

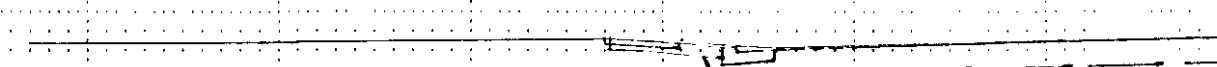
25+58 878.45 @ 4' SW. LT.



25+24 878.61 @ 4' SW. RT.



25+18 878.63 @ 12' BIT ENT. LT.



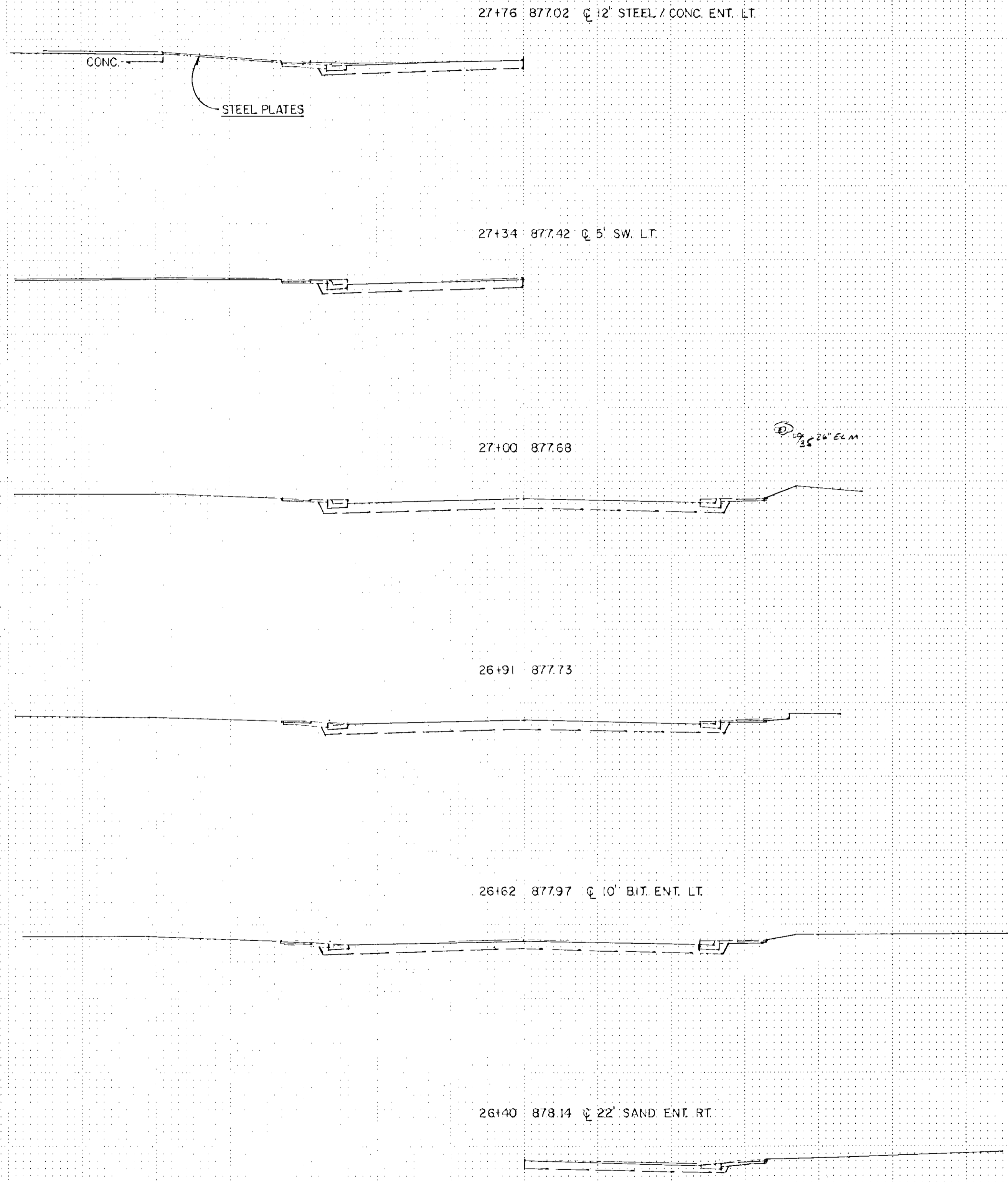
STA. 24+107 TO STA. 26+28

EXCAVATION EMBANKMENT

SUB-TABS CU. YDS. CU. YDS. SUB-TABS

EXCAVATION EMBANKMENT

SUB-TABS CU. YDS. CU. YDS. SUB-TABS



① 2 1/2" 20' ELM

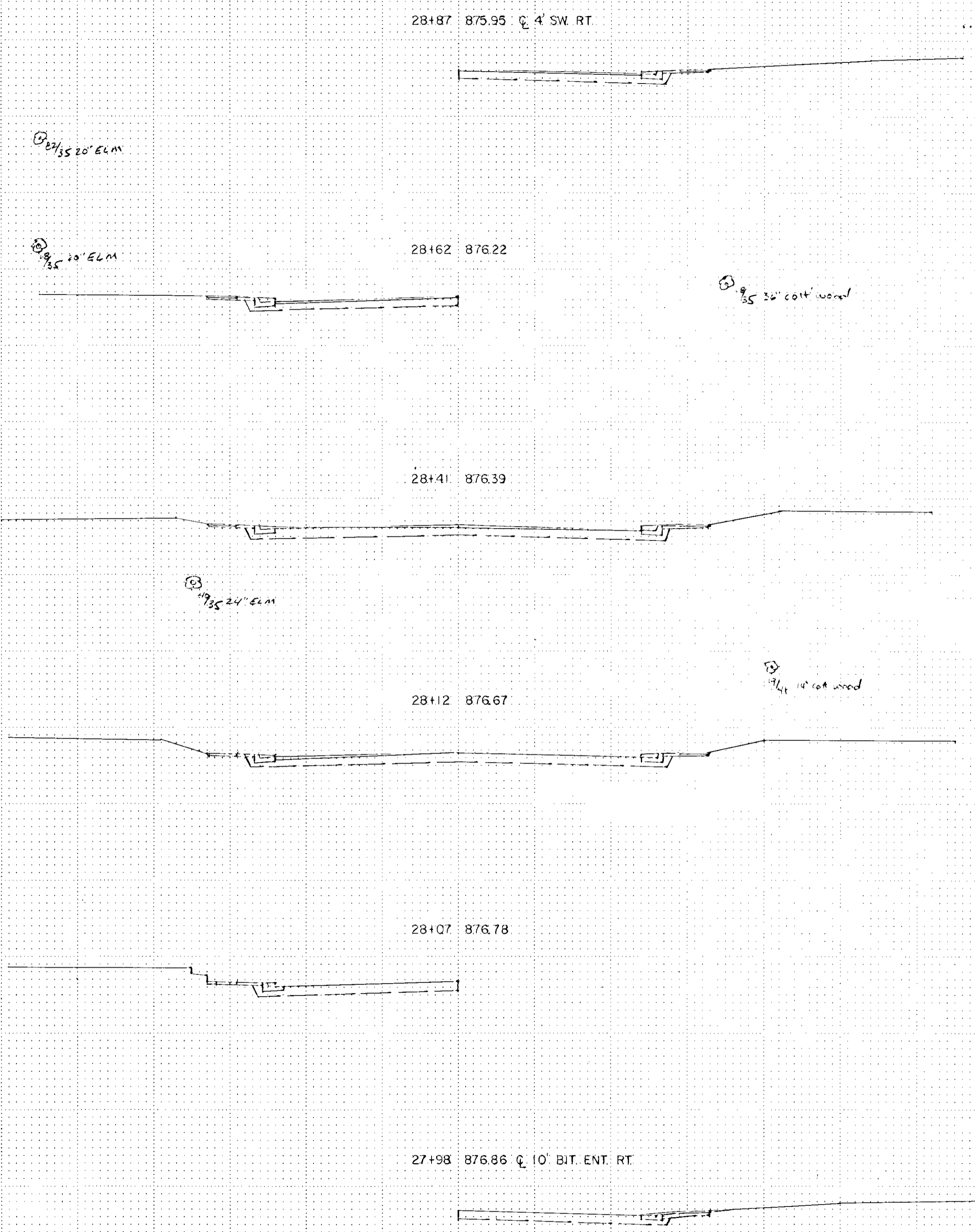
② 1 1/2" 10' ELM

③ 1 3/4" 20' ELM

④ 1 3/4" 24' ELM

⑤ 3/4" 30" cott wood

⑥ 1/2" 14" cott wood



STA. 26+40 TO STA. 28+87

11/11/12 5:28:05 PM
12/11/12 1:28:05 PM

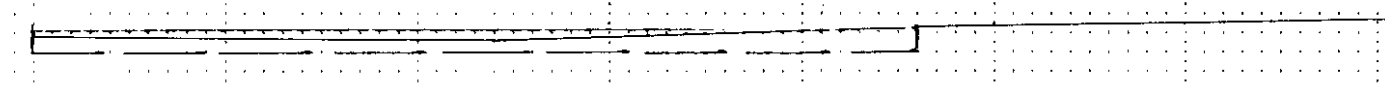
EXCAVATION EMBANKMENT

Sub-Totals Cu. Yds. Cu. Yds. Sub-Totals

EXCAVATION EMBANKMENT

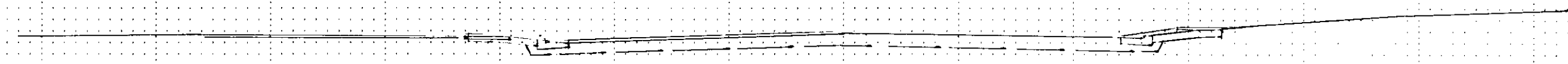
Sub-Totals Cu. Yds. Cu. Yds. Sub-Totals

29+93 874.97 @ 8th A.

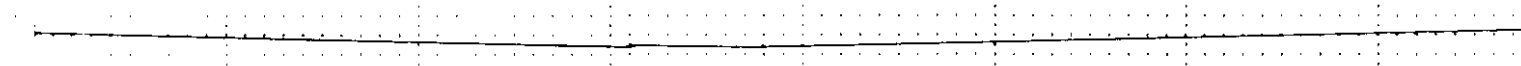


24' E.M.

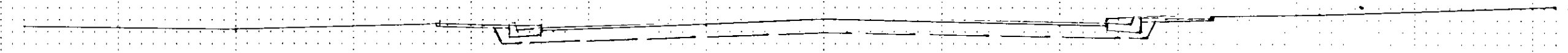
31+13 873.90 @ 8' CONC. LT. / 10' BIT. RT.



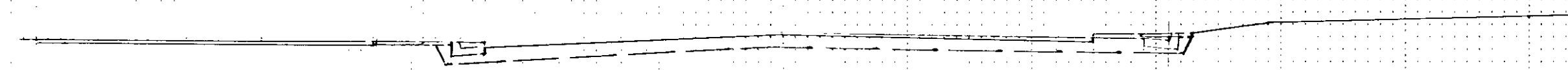
29+78 875.09 W. GUTTER 8th A.



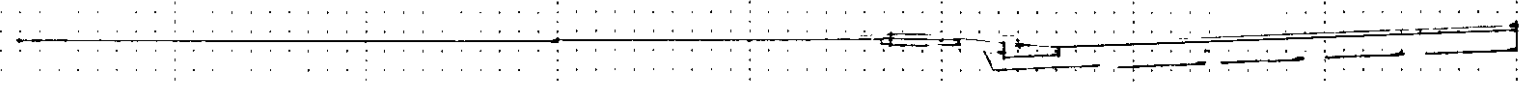
31+00 874.01



29+74 875.13 @ 4' SW. LT.

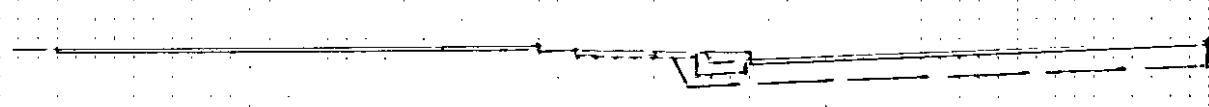


30+91 874.09 @ 12' SAND ENT. LT.



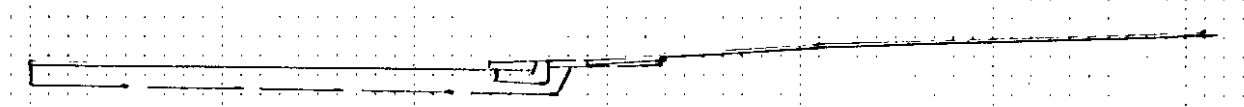
24' E.M.
24' E.M.

29+31 875.60 @ 4' SW. LT.



33' E.M.

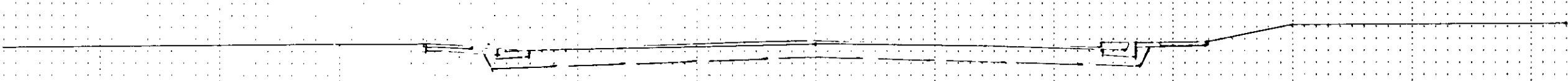
30+38 874.60 @ 3' SW. RT. (ON RA.)



30' E.M.

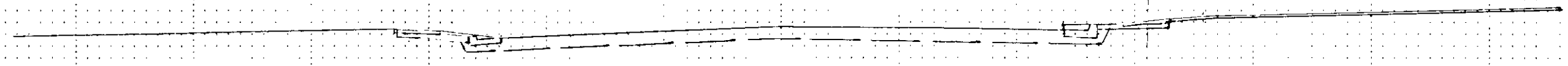
30' E.M.

29+10 875.77 @ 10' BIT. ENT. LT.

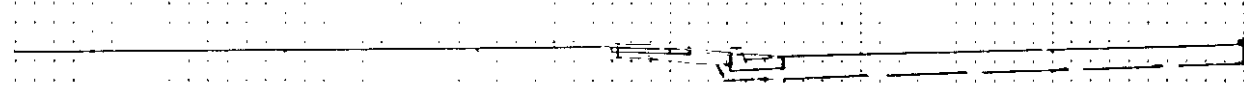


34' cut wood

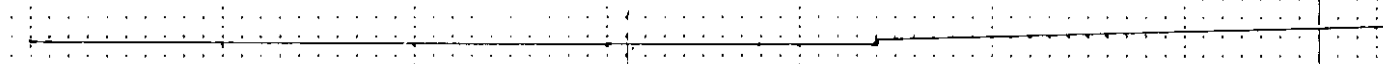
30+27 874.68 @ 10' CONC. ENT. LT.



28+94 875.90 @ 10' BIT. ENT. LT.



30+08 874.82 E. GUTTER 8th A.



STA. 28+94 TO STA. 31+13

PROJ. G. ENG. 1-8-73
REV. 1-8-73

EXCAVATION EMBANKMENT

Sub-Totals Cu. Yds. Cu. Yds. Sub-Totals

EXCAVATION EMBANKMENT

Sub-Totals Cu. Yds. Cu. Yds. Sub-Totals

32+75 872.69 W GUTTER 8 1/2 A

32+58 872.77 10' BIT ENT. RT.

32+24 872.99

31+95 873.20 10' CONC. ENT. LT.

31+85 873.31

31+50 873.56

10 1/2' ASH

34+05 872.51 20' CONC. ENT. RT.

33+70 872.49

33+45 872.52 20' BIT ENT. RT.

33+06 872.60

32+99 872.63 E. GUTTER 8 1/2 A

32+87 872.64 8 1/2 A

10 1/2' 12" ELM
10 1/2' 12" ELM
10 1/2' 20" ELM

10 1/2' 8" ELM

STA. 31+50 TO STA. 34+05

11/10/12 E.C. 11/10/12
DE 12 D.M. 1-2-25

VERTICAL POST - 1/4" DIA. X 1/4" HIGH - 1/4" DIA. X 1/4" HIGH

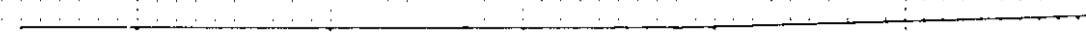
EXCAVATION EMBANKMENT

S-b-Totals Cu. Yds. Cu. Yds. Sub-Totals

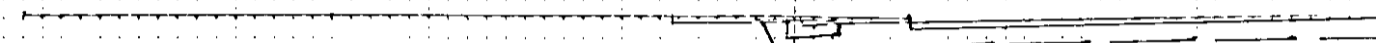
EXCAVATION EMBANKMENT

S-b-Totals Cu. Yds. Cu. Yds. Sub-Totals

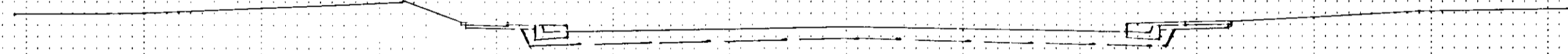
35+79 87307 W. GUTTER 9th A



35+74 87308 C 5' SW. LT.

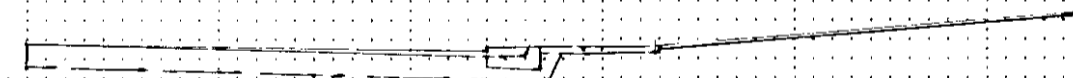


35+50 87296

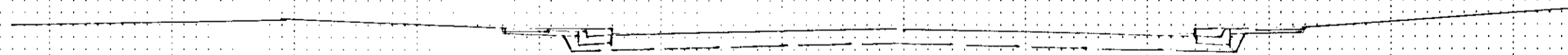


36' MARK

34+88 87277 C 3 SW. RT.

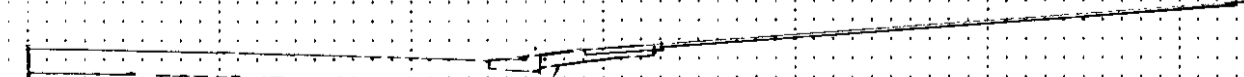


34+65 87269

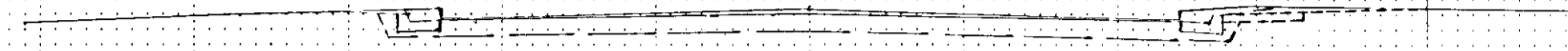


36' MARK

34+43 87266 C 20' CONC. ENT. RT.



37+00 87337

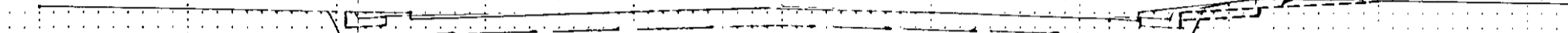


36' MARK

36' MARK

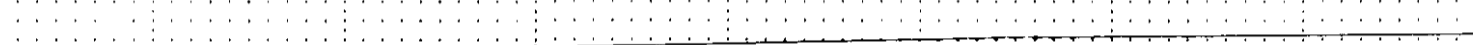
36' MARK

36+64 87336



5' SIDEWALK (ADD ALTERNATE) SHOWN DASHED

36+24 87321 E. GUTTER 9th A



36' MARK

36+19 87322 E GUTTER 9th A



36+04 87317 C 9th A



35+88 87310



STA. 34+43 TO STA. 37+00

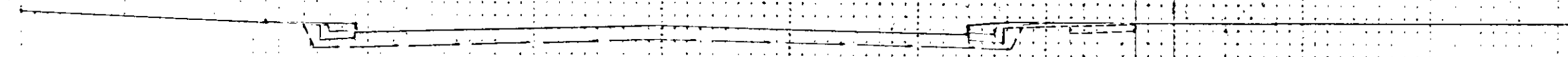
EXCAVATION EMBANKMENT

Sub-Totals Cu. Yds. C.I. Yds. Sub-Totals

EXCAVATION EMBANKMENT

Sub-Totals Cu. Yds. C.I. Yds. Sub-Totals

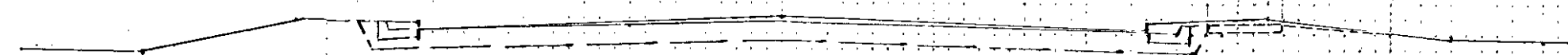
40+00 874.37



39+82 874.33 @ 22' BIT. ENT. RT.

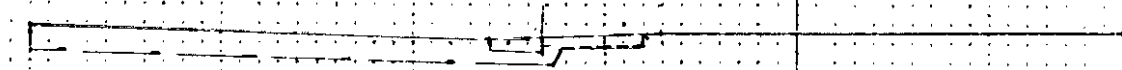


39+00 874.06

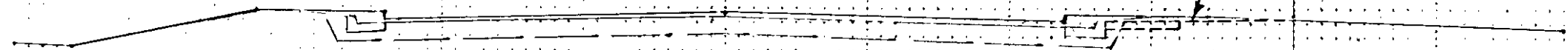


① +6.0 10' E.M.
② 1.0 10' E.M.
③ 2.0 20' E.M.
④ 1.0 10' E.M.

38+77 873.94 @ 12' BIT. ENT. RT.

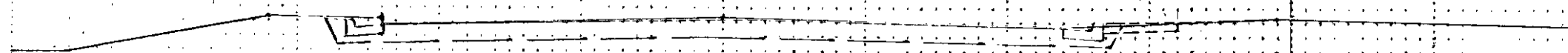


38+00 873.66



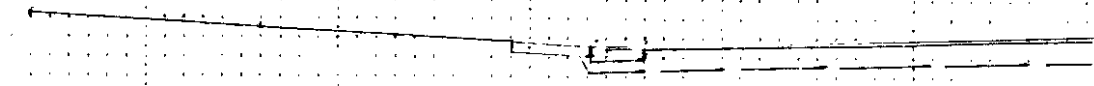
5' SIDEWALK (ADD ALTERNATE) SHOWN DASHED

37+40 873.46



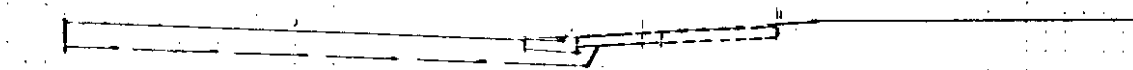
① 3.0 8' E.M.

41+91 875.20 @ 10' SAND ENT. LT.



① 12' E.M.

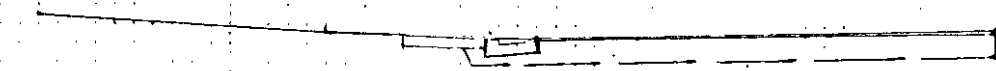
41+76 875.11 @ 16' BIT. ENT. RT.



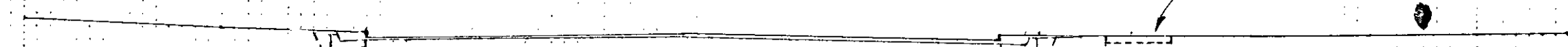
41+50 875.01



41+38 874.94



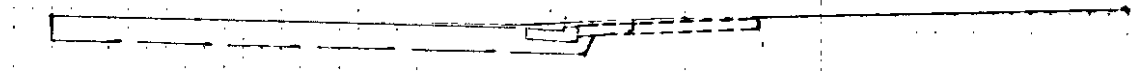
41+00 874.77



① 12' E.M.

5' SIDEWALK (ADD ALTERNATE) SHOWN DASHED

40+75 874.67 @ 18' BIT. ENT. RT.



STA. 37+40 TO STA. 41+91

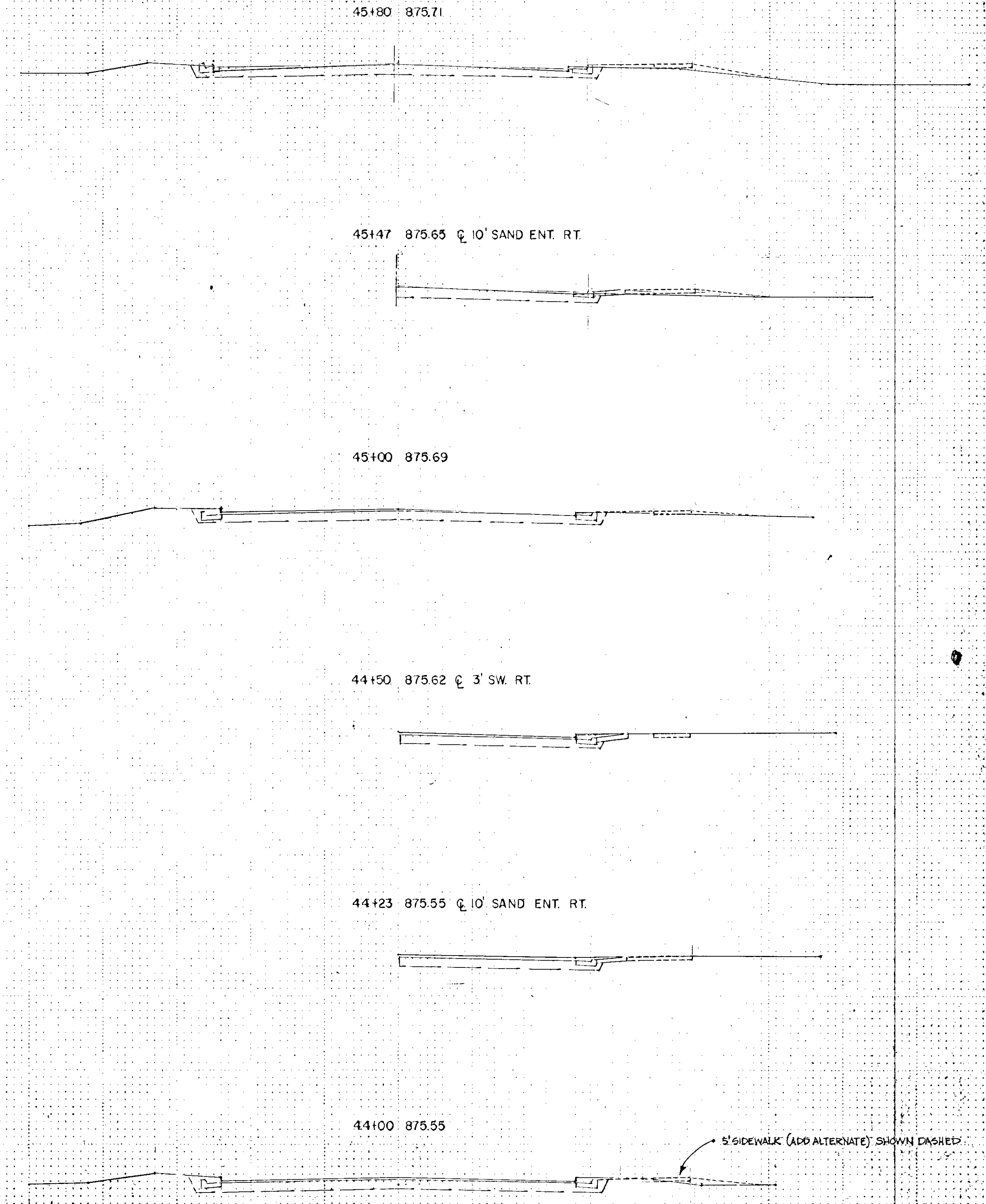
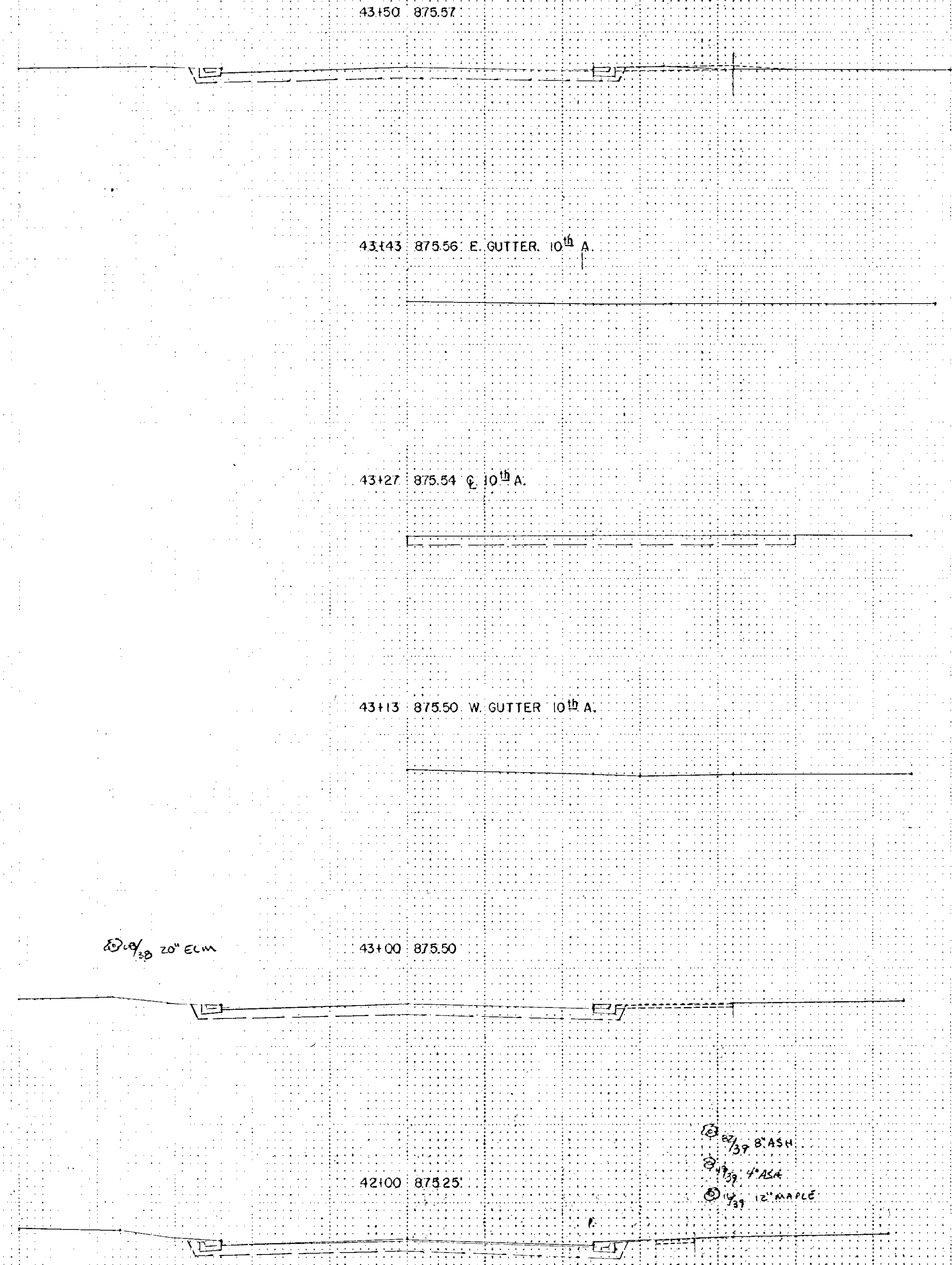
110420 8 57 32 20
C.E.A. 11/11/10 1-8-10

EXCAVATION EMBANKMENT

Sub-Totals Cu. Yds. Cu. Yds. Sub-Totals

EXCAVATION EMBANKMENT

Sub-Totals Cu. Yds. Cu. Yds. Sub-Totals



STA. 42+00 TO STA. 45+80.

NOTED & NOTED
C&G DIVISION

EXCAVATION EMBANKMENT

Sub-Totals Cu. Yds. Cu. Yds. Sub-Totals

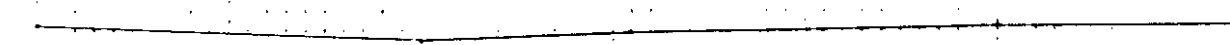
EXCAVATION EMBANKMENT

Sub-Totals Cu. Yds. Cu. Yds. Sub-Totals

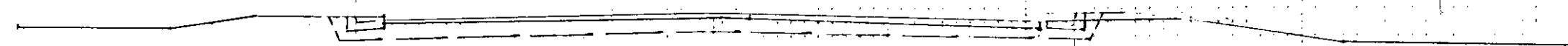
49+00 875.21



48+79 875.27 @ 12' SAND ENT. RT.



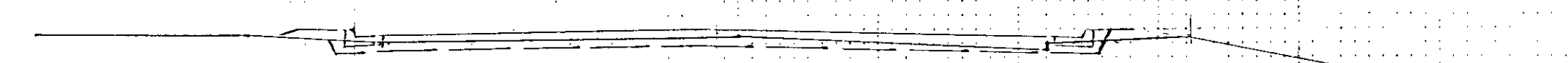
48+00 875.47



47+29 875.47



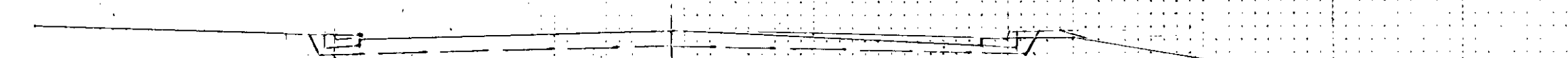
47+00 875.67



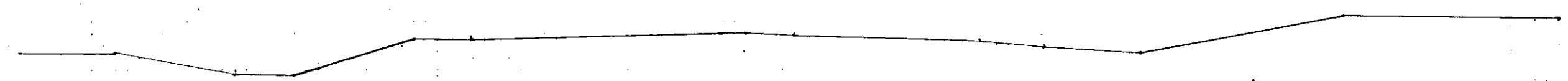
12' @ 30' 10' CRAB

46+32 875.85

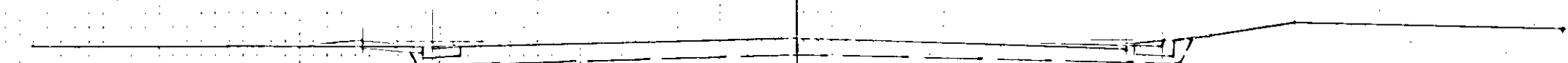
12' @ 30' 24' ELW



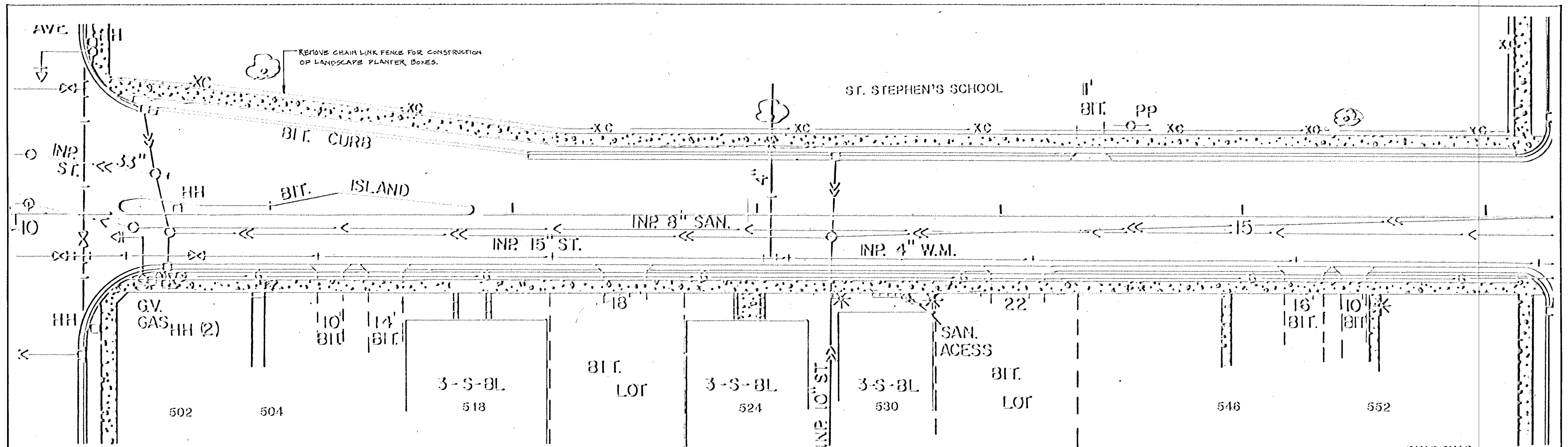
50+00 875.03 (OVERLAY ELEV.)



49+50 875.05 @ 16' BIT. ENT. LT.



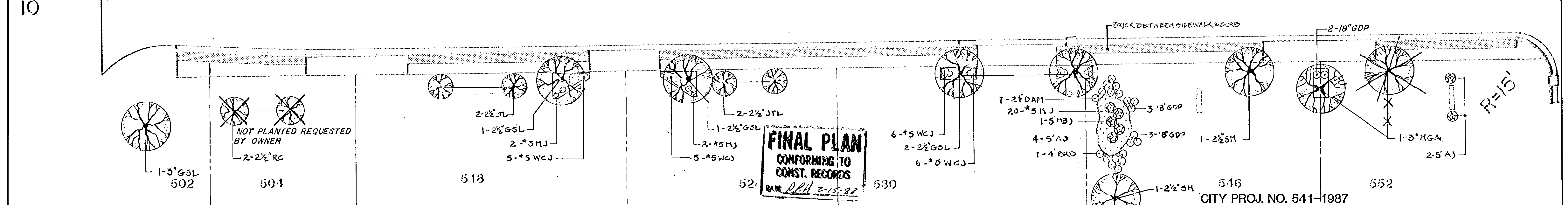
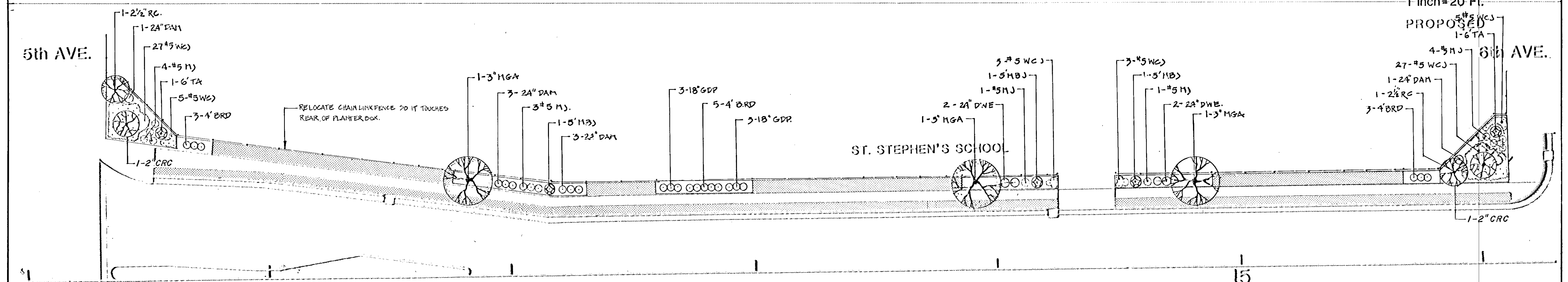
STA. 46+32 TO STA. 50+00



EXISTING

1 Inch = 20 Ft.

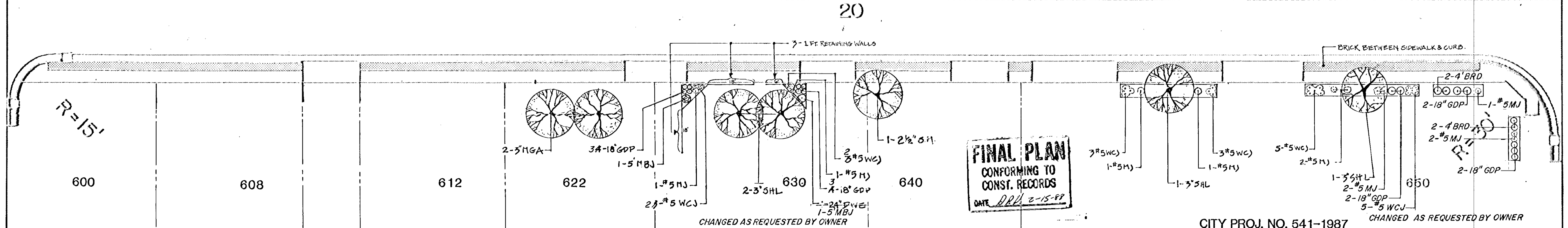
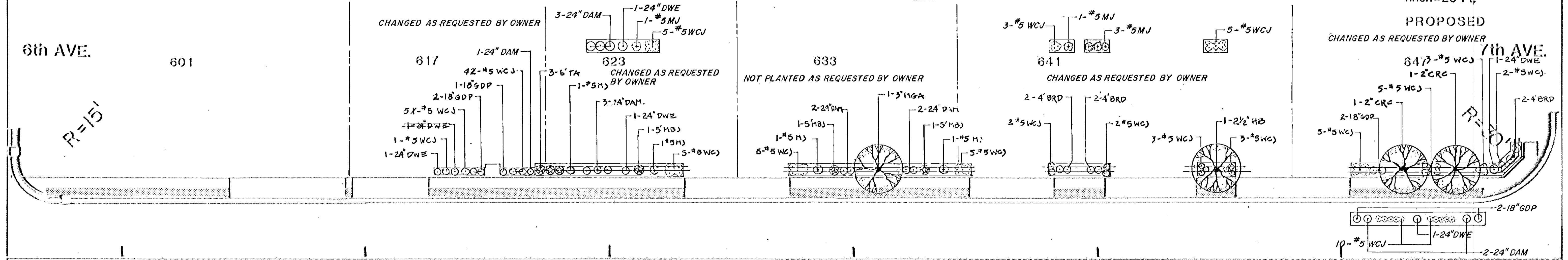
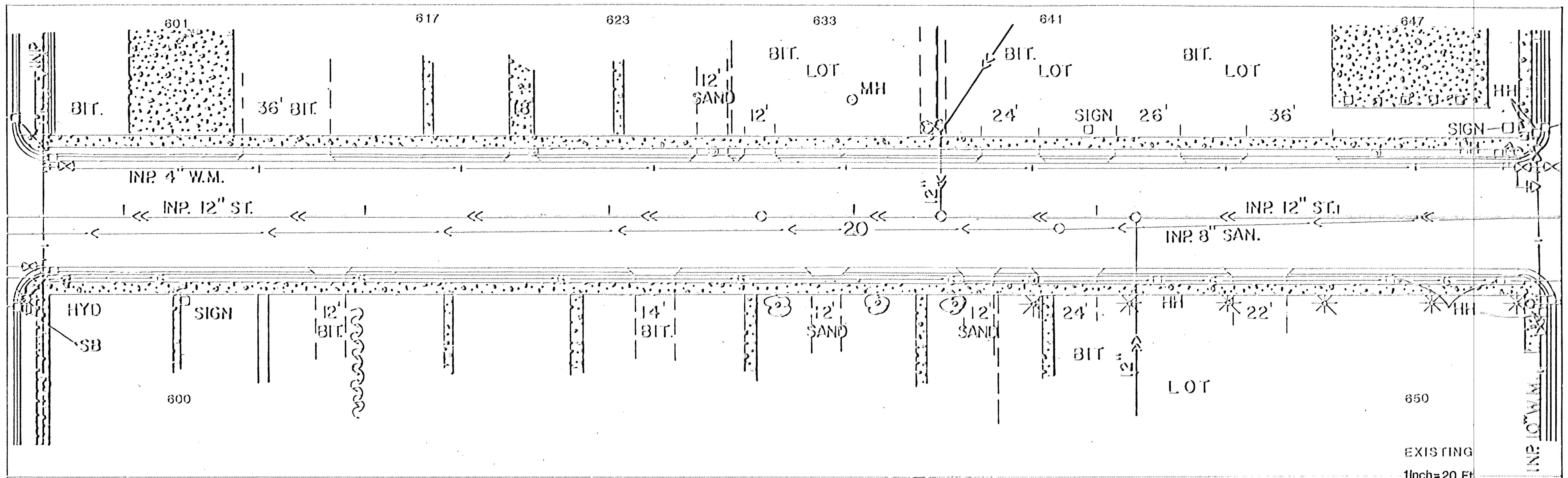
PROPOSED



FINAL PLAN
CONFORMING TO
CONST. RECORDS
DATE 01/11/87

CITY PROJ. NO. 541-1987

SURVEY: DESIGN: DRAWN:	CHECKED BY:	NO.	DATE	REVISIONS	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. DATE: 3-24-87 REG. NO. 13412		SHORT-ELLIOTT-HENDRICKSON, INC. Saint Paul, Minnesota • Chippewa Falls, Wisconsin	ANOKA MAIN STREET	LANDSCAPING 5th-6th. AVE. ADD ALTERNATE	FILE NO.:	1B
										87001	

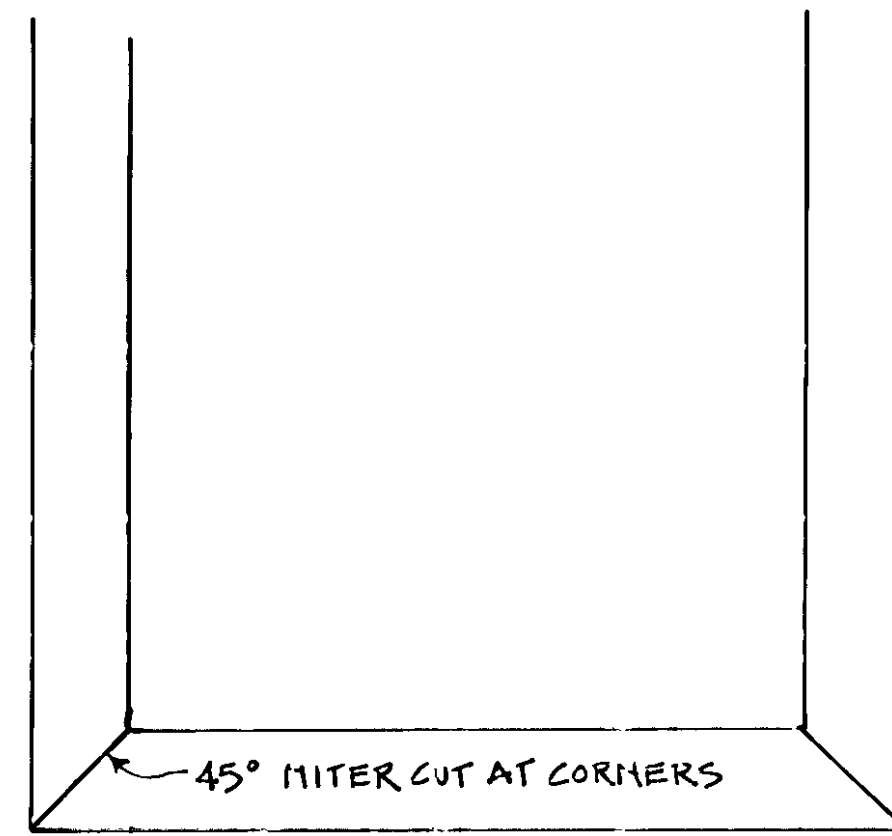


SURVEY:	CHECKED BY:	NO.	DATE	REVISIONS	DATE	REG. NO.	FILE NO.
DESIGN: C.J. Lilly					3-24-87	4412	97001
DRAWN:							DATE: MAR. 1987

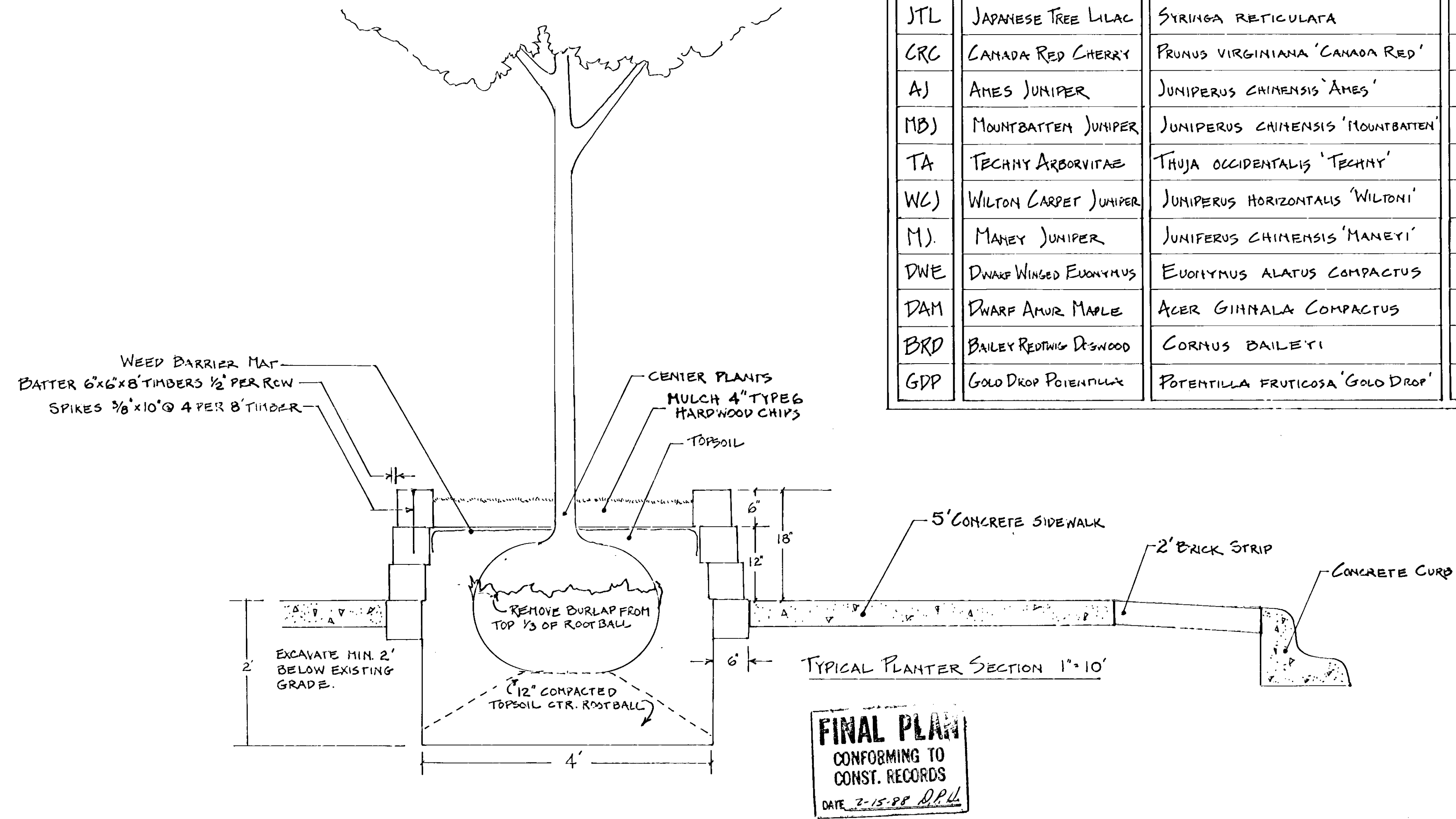
SHORT - ELLIOTT - HENDRICKSON, INC.
 Saint Paul, Minnesota • Chippewa Falls, Wisconsin

ANOKA MAIN STREET
LANDSCAPING 6th.-7th AVE.
 ADD ALTERNATE

CITY PROJ. NO. 541-1987
 2B
 3



PLANT MATERIALS LIST					
CODE	COMMON NAME	BOTANICAL NAME	SIZE	ROOT	QTY.
SM	SUGAR MAPLE	ACER SACCHARINUM	2½"	B&B	3
HB	HACKBERRY	CELTIS OCCIDENTALIS	2½"	B&B	1
GSL	GREENSPIRE LINDEN	TILIA CORDATA 'GREENSPIRE'	2½"	B&B	5
MGA	MARSAALLS GREEN ASH	FRAXINUS PENNSYLVANICA 'MARSAALLS SEEDLESS'	3"	B&B	7
SHL	SKYLINE HONEYLOCUST	GLEDISIA TRICANTHOS INERMIS 'SKYLINE'	3"	B&B	4
RC	RADIANT CRABAPPLE	MALUS 'RADIANT'	2½"	B&B	4
JTL	JAPANESE TREE LILAC	SYRINGA RETICULATA	2½"	B&B	4
CRC	CANADA RED CHERRY	PRUNUS VIRGINIANA 'CANADA RED'	2"	B&B	2
AJ	AMES JUNIPER	JUNIPERUS CHINENSIS 'AMES'	5'	B&B	6
MBJ	MOUNTBATTEN JUNIPER	JUNIPERUS CHINENSIS 'MOUNTBATTEN'	5'	B&B	8
TA	TECHNY ARBORVITAE	THUJA OCCIDENTALIS 'TECHNY'	6'	B&B	5
WLC	WILTON CARPET JUNIPER	JUNIPERUS HORIZONTALIS 'WILTONI'	#5	POT	166
MJ	MANEY JUNIPER	JUNIPERUS CHINENSIS 'MANEYI'	#5	POT	51
DWE	DWARF WINGED EUONYMUS	EUONYMUS ALATUS COMPACTUS	24"	POT	9
DAM	DWARF AMUR MAPLE	ACER GIHNALA COMPACTUS	24"	POT	23
BRD	BAILEY REDTIG DREWOOD	CORNUS BAILEYI	4'	B&B	24
GDP	GOLD DROP POTENTILLA	POTENTILLA FRUTICOSA 'GOLD DROP'	18"	POT	29



SURVEY:	CHECKED BY:	NO.	DATE	REVISIONS
DESIGN: C.J. Lilly				
DRAWN:				

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Date 3-24-87 Reg. No. 44-412



SHORT - ELLIOTT - HENDRICKSON, INC.
Saint Paul, Minnesota • Chippewa Falls, Wisconsin

ANOKA MAIN STREET

CITY PROJECT NO. 541-1987

LANDSCAPING 5th.-6th. AVE.
ADD ALTERNATE

FILE NO.:
87001
DATE:
MAR. 1987

3B
3