PLANS SYMBOLS

STATE LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
RIGHT OF WAY LINE
PRESENT RIGHT OF WAY LINE
CONTROL OF ACCESS LINE
PROPERTY LINE (Except Land Lines)
VACATED PLATTED PROPERTY
CORPORATE OR CITY LIMITS
TRUNK HIGHWAY CENTER LINE
RETAINING WALL
RAILROAD
RAILROAD RIGHT OF WAY LINE
RIVER OR CREEK
DRY RUN
DRAINAGE DITCH
DRAIN TILE
CULVERT
DROP INLET
GUARD RAIL
BARBED WIRE FENCE
WOVEN WIRE FENCE
CHAIN LINK FENCE
RAILROAD SNOW FENCE
STONE WALL OR FENCE
HEDGE
RAILROAD CROSSING SIGN
RAILROAD CROSSING BELL
ELECTRIC WARNING SIGN
CROSSING GATE
MEANDER CORNER
SLOPE EASEMENT (CONST. LIMITS)

SPRINGS
MARSH
TIMBER
ORCHARD
BRUSH
CONIFEROUS TREE
CATCH BASIN
FIRE HYDRANT
CATTLE GUARD
OVERPASS (Highway Over)
UNDERPASS (Highway Under)
BRIDGE
BUILDING (One Story Frame)
F FRAME C CONCRETE
S STONE T TILE
B BRICK ST STUCCO
IRON PIPE OR ROD
MONUMENT (STONE, CONCRETE, OR METAL)
WOODEN HUB
GRAVEL PIT
SAND PIT
BORROW PIT
ROCK QUARRY

UTILITIES SYMBOLS

POWER POLE LINE
TELEPHONE OR TELEGRAPH POLE LINE
JOINT TELEPHONE AND POWER ON POWER POLES
OR TELEPHONE POLES
ANCHOR
STEEL TOWER
STREET LIGHT
PEDESTAL (TELEPHONE CABLE TERMINAL)
GAS MAIN
WATER MAIN

CONDUIT
TELEPHONE CABLE IN CONDUIT
ELECTRIC CABLE IN CONDUIT
TELEPHONE MANHOLE
ELECTRIC MANHOLE
BURIED TELEPHONE CABLE
BURIED ELECTRIC CABLE
AERIAL TELEPHONE CABLE
SEWER, (SANITARY OR STORM)
SEWER MANHOLE

NOTE: SECTION NUMBERS SHOWN ARE FROM THE GOVT. SURVEY

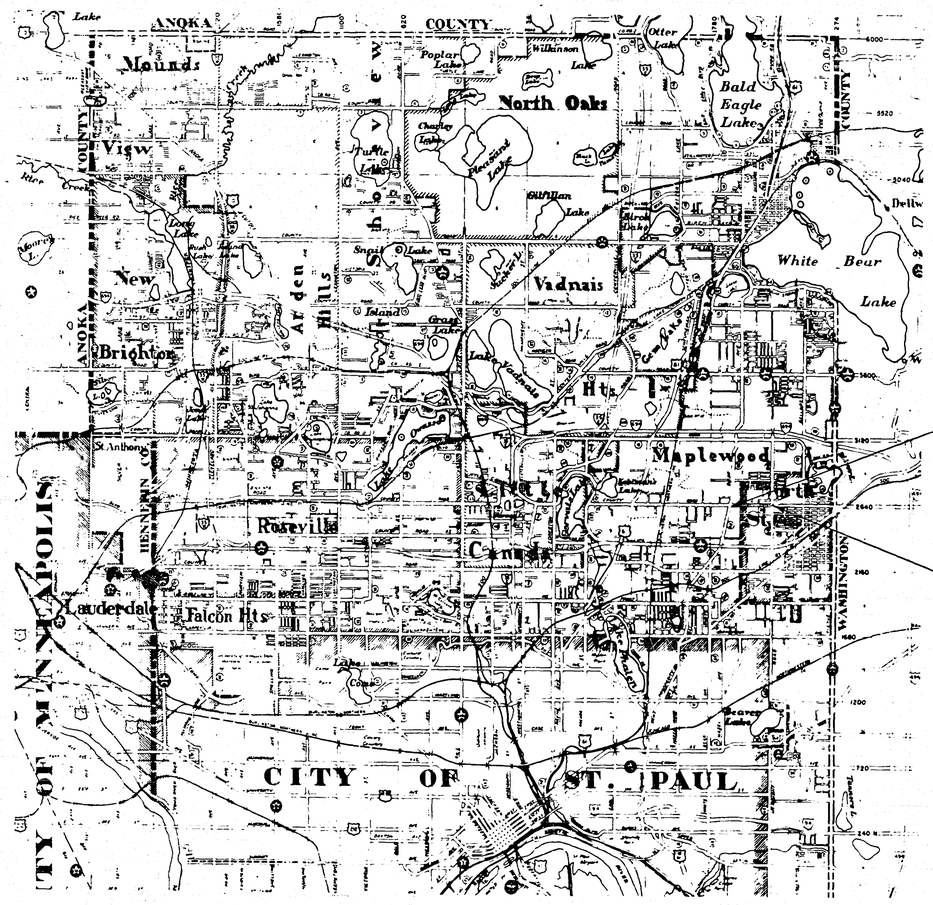
PIT DATA

_____ PIT NO. _____ Located in Dead Haul

_____ PIT NO. _____ Located in Dead Haul

	FEET		MILES
GROSS LENGTH	3330.0	=	0.6307
BRIDGE LENGTH	0.0	=	0.0
EXCEPTION	0.0	=	0.0
NET LENGTH	3330.0	=	0.6307

PLAN 10 30 50
PROFILE HORIZ. 10 20 30 40 50 / 20 40
PROFILE VERT. 5 10
CROSS SECTIONS 5 10
LAYOUT MAP 5,280'



RAMSEY COUNTY
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION PLAN: FOR GRADING, AGGREGATE BASE, BITUMINOUS BASE AND SURFACING, STORM SEWER, CONCRETE CURB & GUTTER, AND UTILITY IMPROVEMENTS.

COUNTY ROAD "C"

BETWEEN: WHITE BEAR AVENUE AND McKNIGHT ROAD

FROM: A POINT 756.29 FEET WEST OF THE NORTH QUARTER CORNER OF SECTION 11, TOWNSHIP 29 N, RANGE 22 W.

TO: A POINT 52.19 FEET WEST OF THE NORTHEAST CORNER OF SECTION 11, TOWNSHIP 29 N, RANGE 22 W.

S.A.P. 62-623-30
M.S.A.P. 151-020-06; WEST CITY LIMITS TO McKNIGHT ROAD
S.A.D. 8606
M.S.A.P. 138-020-06; WHITE BEAR AVE. TO EAST CITY LIMITS
PROJ. NO. 86-25

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-3	ESTIMATED QUANTITIES
4-4A	TYPICAL SECTIONS, CROWN ROTATION DETAILS
5-6	DETAILS — ENTRANCES AND CATCH BASINS
7	REMOVALS, WATER UTILITIES, CLEAR AND GRUB CHART, & STANDARD PLATES
8	EXISTING DRAINAGE CHART
9	PROPOSED DRAINAGE CHART
10-13	PLAN AND PROFILE SHEETS
14-39A	CROSS SECTIONS
40-45	UTILITIES

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: Brian K Roth
DATE: 2/28/90

DESIGN SQUAD DEM DATE 1/28/88
DRAWN BY _____ DATE _____
CHECKED BY _____ DATE _____

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 1-28-88 REG. NO 14257 ENGR. David L. Rholl

RECOMMENDED FOR APPROVAL DES TRAFFIC ENGR DATE 1/29/88
RECOMMENDED FOR APPROVAL _____ ENV. ENGR DATE 1/29/88
RECOMMENDED FOR APPROVAL DMS MAINT ENGR DATE 1/29/88
RECOMMENDED FOR APPROVAL RHP CONST ENGR DATE 1-27-88
RECOMMENDED FOR APPROVAL DLR DESIGN ENGR. DATE 1-28-88
RECOMMENDED FOR APPROVAL _____ R.O.W. ENGR. DATE 2-10-88
APPROVED _____ COORDINATING ENGR DATE 1-29-88

RECOMMENDED FOR APPROVAL _____ COUNTY ENGINEER DATE 2/18/88
APPROVED _____ CHAIR, OF THE RAMSEY COUNTY BOARD DATE 4/26/88
APPROVED _____ CITY ENGINEER, CITY OF NORTH SAINT PAUL DATE 2/23/88
APPROVED _____ CITY OF MAPLEWOOD DATE 2/23/88

MINNESOTA DEPARTMENT OF TRANSPORTATION
RECOMMENDED FOR APPROVAL _____ STATE AID PLANS AND SPECS. DATE 3/21/88
RECOMMENDED FOR APPROVAL _____ DISTRICT STATE AID ENGINEER DATE 3/7/88
APPROVAL _____ STATE AID DIRECTOR DATE 3/21/88

PLAN REVISIONS		
DATE	SHEET NO.	BY
6-20-88	2, 43A	B.J.

STOPPING SIGHT DISTANCE BASED ON 3.5' HEIGHT OF EYE — 0.5' HEIGHT OF OBJECT

THE 1983 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

DESIGN DESIGNATION
S.A.P. NO. 62-623-30
WHITE BEAR AVE. to McKNIGHT RD.

ADT (CURRENT YEAR) 1988	3400
ADT (FUTURE YEAR) 2002	6800
Σ, N 20 YEAR	481,000
DESIGN LOAD	9 TON
STABILOMETER "R" VALUE	11
DESIGN SPEED	30 MPH
HC ADT	370
FUNCTIONAL CLASSIFICATION	COLLECTOR - HIGH DENSITY
NO. OF TRAFFIC LANES	2
NO. OF PARKING LANES	2

27-116

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	CONTRACT ITEM	UNIT	RAMSEY CO. ① S.A.P. 62-623-30 ESTIMATED QUANTITIES	RAMSEY CO. ① S.A.P. 62-623-30 FINAL QUANTITIES	RAMSEY CO. S.A.P. 62-623-30 NORTH ST. PAUL M.S.A.P. 151-020-06 ② ESTIMATED QUANTITIES	RAMSEY CO. S.A.P. 62-623-30 NORTH ST. PAUL M.S.A.P. 151-020-06 ② FINAL QUANTITIES	RAMSEY CO. S.A.P. 62-623-30 MAPLEWOOD M.S.A.P. 138-020-06 ④ ESTIMATED QUANTITIES	RAMSEY CO. S.A.P. 62-623-30 MAPLEWOOD M.S.A.P. 138-020-06 ④ FINAL ESTIMATED	STORM SEWER ③ ESTIMATED QUANTITIES	STORM SEWER ③ FINAL QUANTITIES
2021.501	MOBILIZATION	LS	1	1	0.50	0.50	0.35	0.35	0.15	0.15		
2101.501	CLEARING	ACRE	1.14(P)	1.14			0.06	0.06	1.08	1.08		
2101.502	CLEARING	EACH	50	51			50	51				
2101.506	GRUBBING	ACRE	1.14(P)	1.14			0.06	0.06	1.08	1.08		
2101.507	GRUBBING	EACH	52	52			51	51	1	1		
2104.501	REMOVE SEWER PIPE	LF	756	805	48	48	708	757				
2104.501	REMOVE CURB & GUTTER	LF	26	83					26	83		
2104.501	REMOVE FLAGSTONE WALL	LF	51	51			51	51				
2104.503	REMOVE CONCRETE SIDEWALK	SF	77	77			27	27	50	50		
2104.505	REMOVE CONCRETE PAVEMENT	SY	124	124			124	124				
2104.509	REMOVE CATCH BASINS OR M.H.	EACH	7	7			7	7				
2104.511	SAWING CONCRETE PAVEMENT	LF	62	62			51	51	11	11		
2104.513	SAWING BITUMINOUS PAVEMENT	LF	687	667			581	561	106	106		
2104.521	SALVAGE WOVEN WIRE FENCE	LF	255	255			95	95	160	160		
2104.521	SALVAGE WOOD FENCE	LF	106	90			106	90				
2104.521	SALVAGE CHAIN LINK FENCE	LF	242	295			238	291	4	4		
2104.523	SALVAGE VEHICULAR GATE-SGL.	EACH	1	2			1	2				
2104.523	SALVAGE CASTINGS	EACH	8	8			8	8				
2105.501	COMMON EXCAVATION (P)	CY	21860 (P)	21860	10930	10930	8198	8198	2732	2732		
2105.522	SELECT GRANULAR BORROW (L.V.)	CY	17050	16703	~~7578~~ 9644	9448	~~4715~~ 5939	5877	~~1107~~ 1407	1378		
2105.525	TOPSOIL BORROW (L.V.)	CY	625	1826			481	1406	144	420		
2130.501	WATER	M GAL	50	12	25	12	19		6			
2211.503	AGG. BASE CL. 6 (CL.5 100% CR.) (CV)	CY	4500(P)	4500	1880	1880	2225 Ⓐ	2225	395 Ⓑ	395		
2331.508	WEARING COURSE MIXTURE	TON	151	127			142	119	9	8		
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	292	268	171	156.9	101	92.7	20	18.4		
2331.510	BINDER COURSE MIXTURE	TON	1476	1555	819	863	555	584	102	108		
2331.514	BASE COURSE MIXTURE	TON	3974	4115	2458	2545	1238	1282	278	288		
2357.502	BITUMINOUS MAT. FOR TACK COAT	GAL	2479	1670	1490	1004	814	548	175	118		
2361.504	ASPHALT CEMENT	TON	60	54.30	37	33.5	19	17.2	4	3.6		
2361.508	WEARING COURSE MIXTURE - MODIFIED	TON	883	988	546	611	275	307	62	70		
2501.515	24" R.C. PIPE APRONS	EACH	1	1							1	1
2502.541	4" PERFORATED PIPE DRAIN	LF	6089	6315	3045	3158	2309	2393	735	764		
2503.541	18" R.C.P. SEWER DES. 3006 CL. V	LF	986	981							986	981
2503.541	15" R.C.P. SEWER DES. 3006 CL. V	LF	1256	1262							1256	1262
2503.541	24" R.C.P. SEWER DES. 3006 CL. V	LF	753	744							753	744
2506.508	CONSTRUCT MANHOLES DESIGN A OR F	EACH	7	7							7	7
2502.602	4" DRAIN PIPE TEE	EACH	2	2			1	1	1	1		
2506.509	CONST. CATCH BASINS DESIGN LP 4-4	EACH	11	11							11	11
2506.509	CONST. CATCH BASINS DESIGN LP 4-5	EACH	6	6							6	6
2506.509	CONST. CATCH BASINS DESIGN LP 4-6	EACH	2	2							2	2
2506.509	CONST. CATCH BASINS DESIGN LP 4-7	EACH	2	2							2	2
2506.509	CONST. CATCH BASINS DESIGN SP-2	EACH	5	5							5	5
2506.509	CONST. MANHOLES OR SURFACE DRAINS DESIGN C	EACH	4	4							4	4
2506.511	RECONSTRUCT MANHOLES	LF	22	22			22	22				
2506.521	INSTALL CASTINGS	EACH	5	5			5	5				
2506.522	ADJUST FRAME AND RING CASTING	EACH	18	18	4	4	13	13	1	1		
2511.505	HANDPLACED RIPRAP CL. IV 18" THK.	CY	17	17							17	17
2511.511	GRANULAR FILTER TYPE 1 9" THICK	CY	9	9							9	9
2521.501	4" CONCRETE WALK	SF	14407				10890 Ⓒ		3517 Ⓓ			
2531.501	CONC. CURB & GUTTER DES. B624	LF	8459	7039			6914	5494	1545	1545		
2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SY	732	849			643	759	89	90		
2573.503	SILT FENCE PREASSEMBLED	LF	2067	1175			1274	724	793	451		
2511.515	GEOTEXTILE FILTER TYPE III	SY	53	53							53	53
2575.505	SODDING	SY	11240	12876			8652	9914	2588	2962		
2575.531	COMM. FERT. ANALYSIS 12-12-12	TON	0.42	0.42			0.32	0.32	0.10	0.10		
0412.604	CONST. FLAGSTONE WALL	SF	80				80	101				
0504.602	RELOCATE HYDRANT	EACH	5	6			5	6				
0504.602	ADJUST VALVE BOX	EACH	6	6			6	6				
0504.605	2" POLYSTYRENE INSULATION	SY	30	39			30	39				
0557.602	INSTALL VEHICULAR GATE-SGL.	EACH	1	2			1	2				
0557.603	INSTALL WOVEN WIRE FENCE	LF	255				95		160			
0557.603	INSTALL WOOD FENCE	LF	18	60			18	60				
0557.603	INSTALL CHAIN LINK FENCE	LF	145	295			141	286	4	9		

① CENTER 24' 100% S.A.P. FUNDED

② OUTSIDE CENTER 24'-NO. ST. PAUL
75% M.S.A.P. FUNDED
25% S.A.P. FUNDED

③ STORM SEWER
68.4% S.A.P. 62-623-30
26.5% M.S.A.P. 151-020-06
5.1% M.S.A.P. 138-020-06

④ OUTSIDE CENTER 24'-MAPLEWOOD
61.3% M.S.A.P. FUNDED
38.7% S.A.P. FUNDED

Ⓐ AGGREGATE BASE CL.6 FOR SIDEWALK CONSTRUCTION 615 C.Y.
100% M.S.A.P. 151-020-06
AGGREGATE BASE CL.6 FOR ROAD CONSTRUCTION 1610 C.Y.
75% M.S.A.P. 151-020-06
25% S.A.P. 62-623-30

Ⓑ AGGREGATE BASE CL.6 FOR SIDEWALK CONSTRUCTION 85 C.Y.
100% M.S.A.P. 138-020-06
AGGREGATE BASE CL.6 FOR ROAD CONSTRUCTION 310 C.Y.
75% M.S.A.P. 138-020-06
25% S.A.P. 62-623-30

Ⓒ NEW SIDEWALK 10863 S.F.
100% M.S.A.P. 151-020-06
REPLACEMENT SIDEWALK 27 S.F.
75% M.S.A.P. 151-020-06
25% S.A.P. 62-623-30

Ⓓ NEW SIDEWALK 3467 S.F.
100% M.S.A.P. 138-020-06
REPLACEMENT SIDEWALK 50 S.F.
61.3% M.S.A.P. 138-020-06
38.7% S.A.P. 62-623-30

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: Brad Kral
DATE: 2/28/90

REVISIONS	DATE	BY
COMMON EXC. (P) SELECT GRAN. BORROW	4/10/88	B.J.

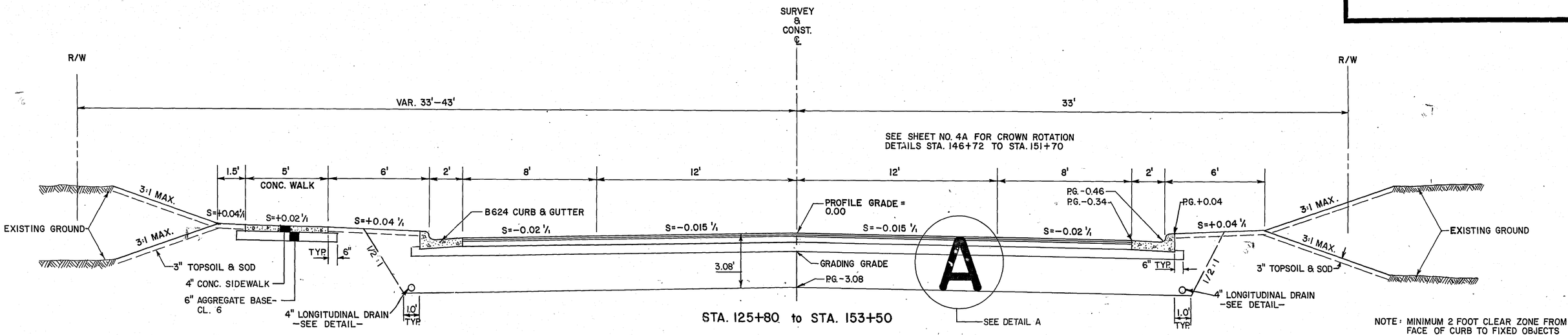
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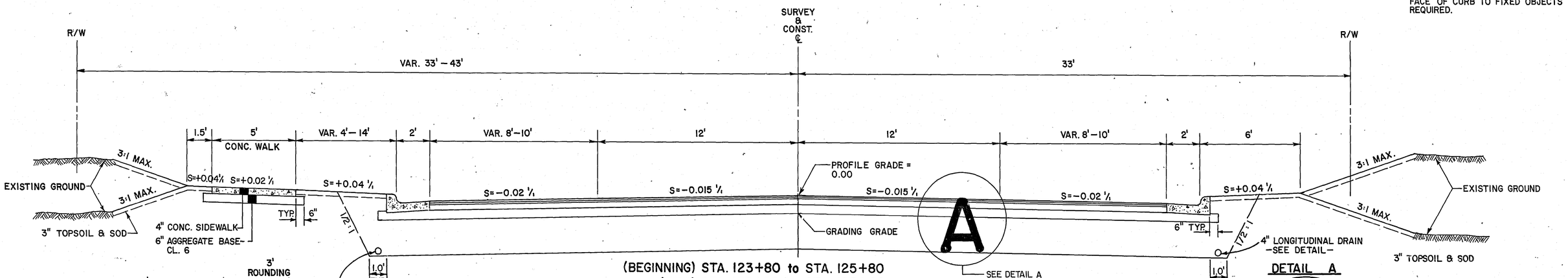
STATEMENT OF ESTIMATED QUANTITIES — UTILITIES

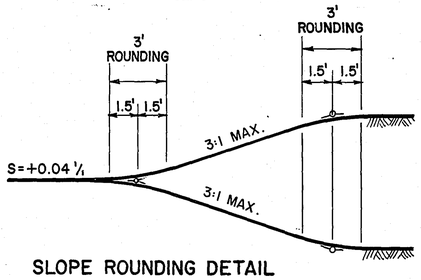
					NON PARTICIPATING							
					RAMSEY COUNTY		NORTH ST. PAUL		MAPLEWOOD			
					S.A.P. 62-623-30		S.A.D. 8606		PROJ. NO. 86-25		STORM SEWER	
ITEM NO.	CONTRACT ITEM	UNIT	ESTIMATED QUANTITIES	FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL ESTIMATED	ESTIMATED QUANTITIES	FINAL QUANTITIES
2104.509	REMOVE MANHOLE	EACH	9.00	9			9.00	9				
2104.509	REMOVE GATE VALVE	EACH	1.00	1					1.00	1		
2104.523	SALVAGE HYDRANTS	EACH	2.00	2					2.00	2		
2104.523	SALVAGE CASTINGS	EACH	9.00	9			9.00	9				
2104.523	SALVAGE GATE VALVE	EACH	9.00	1			9.00	1				
2451.507	GRANULAR BEDDING (L.V.)	CY	357.00	68			850.00	68	7.00			
2503.511	8" PVC SDR 35 SANITARY SEWER MAIN	LF	24.00	24					24.00	24		
2503.511	4" PVC SCHEDULE 40 SANITARY SEWER SERVICE	LF	66.00	68					66.00	68		
2531.501	CONCRETE CURB & GUTTER DESIGN B624	LF	20.00	20					20.00	20		
2531.502	CONCRETE CURB DESIGN B6	LF	60.00	60					60.00	60		
2571.505	REPLACE ORNAMENTAL BUSHES	EACH	3.00						3.00			
0504.620	DUCTILE IRON PIPE FITTINGS	LB	2884.00	3610			1720.00	2555	1164.00	1055		
0504.603	6" WATER MAIN DUCTILE IRON PIPE CL.52	LF	2810.00	2688			2810.00	2688				
0504.603	6" WATER MAIN DUCTILE IRON PIPE CL.53	LF	22.00	20					22.00	20		
0504.603	8" WATER MAIN DUCTILE IRON PIPE CL.52	LF	209.00	205					209.00	205		
0504.603	3/4" TYPE K COPPER WATER SERVICE	LF	86.00	206			86.00	206				
0504.603	1" TYPE K COPPER WATER SERVICE	LF	196.00	175			20.00		176.00	175		
0504.603	1 1/4" TYPE K COPPER WATER SERVICE	LF	400.00	371					400.00	371		
0504.602	AIR VENT TRENCHING	EACH	1.00	1					1.00	1		
0504.603	WATER SERVICE TRENCH EXCAVATION	LF	71.00	71					71.00	71		
0504.602	CONNECT TO INPLACE WATERMAIN	EACH	13.00	10			11.00	8	2.00	2		
0504.602	6" GATE VALVE AND BOX	EACH	3.00	3					3.00	3		
0504.602	6" GATE VALVE AND MANHOLE	EACH	9.00	9			9.00	9				
0504.602	INSTALL HYDRANTS	EACH	1.00	1					1.00	1		
0504.602	3/4" CURB STOP & BOX	EACH	3.00	7			3.00	7				
0504.602	1" CURB STOP & BOX	EACH	3.00	2			1.00		2.00	2		
0504.602	1 1/4" CURB STOP & BOX	EACH	2.00	2					2.00	2		
0504.602	HYDRANTS	EACH	1.00	1					1.00	1		
0504.602	RECONNECT WATER SERVICE	EACH	41.00	36			40.00	35	1.00	1		
0504.602	3/4" CORPORATION STOP	EACH	3.00	7			3.00	7				
0504.602	1" CORPORATION STOP	EACH	3.00	2			1.00		2.00	2		
0504.602	1 1/4" CORPORATION STOP	EACH	2.00	2					2.00	2		
0503.603	4" CAST IRON SOIL PIPE REPLACEMENT SERVICE	LF	190.00	179			190.00	179				
0503.602	8" X 4" WYE	EACH	4.00				4.00					
0503.602	CONNECT TO EXISTING SANITARY SEWER	EACH	2.00	2					2.00	2		
	SIDEWALK											
2521.501	REPLACEMENT SIDEWALK	SF	77	77			27	27	50	50		
2521.501	NEW SIDEWALK	SF	14330	13751			10370	10423	3311	3328		
	SUPPLEMENTAL AGREEMENT NO. 1											
2571.544	TRANSPLANT SHURBS	LS	1	1								
	SUPPLEMENT AGREEMENT NO. 2											
0331.601	TEMPORARY BIT SURFACING	TON	65.20	65.20			21.7	21.7	43.5	43.5		
	SUPPLEMENTAL AGREEMENT NO. 3											
0504.603	INSTALL WATER METER	LS	1	1								

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: Burk Enel
DATE: 2/28/90

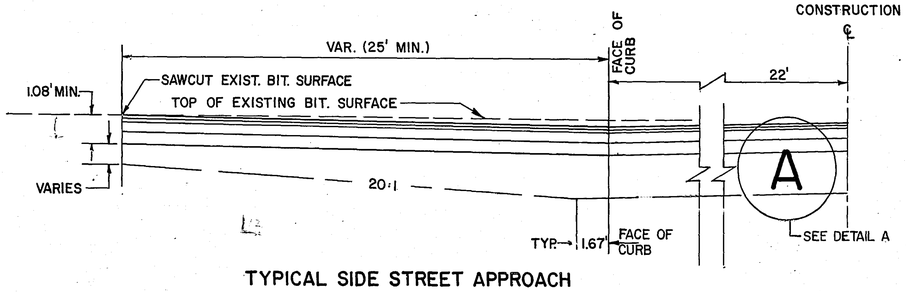
27-116



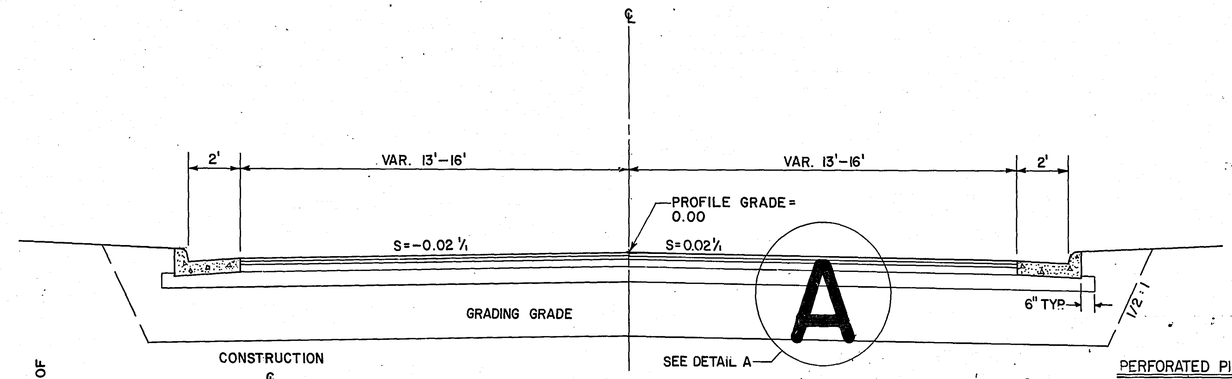




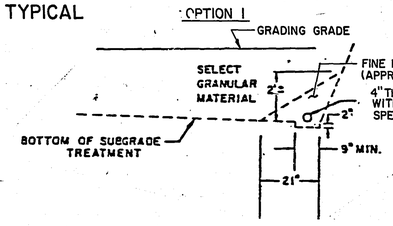
SLOPE ROUNDING DETAIL

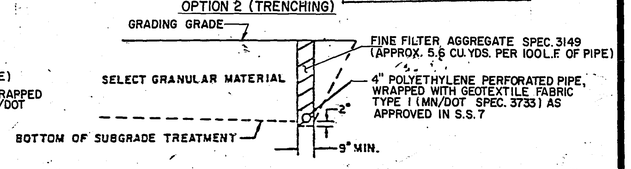


TYPICAL SIDE STREET APPROACH



SIDE STREET TYPICAL

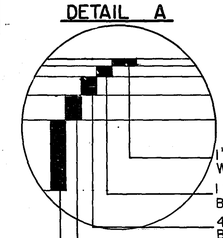




PERFORATED PIPE PLACEMENT DETAIL

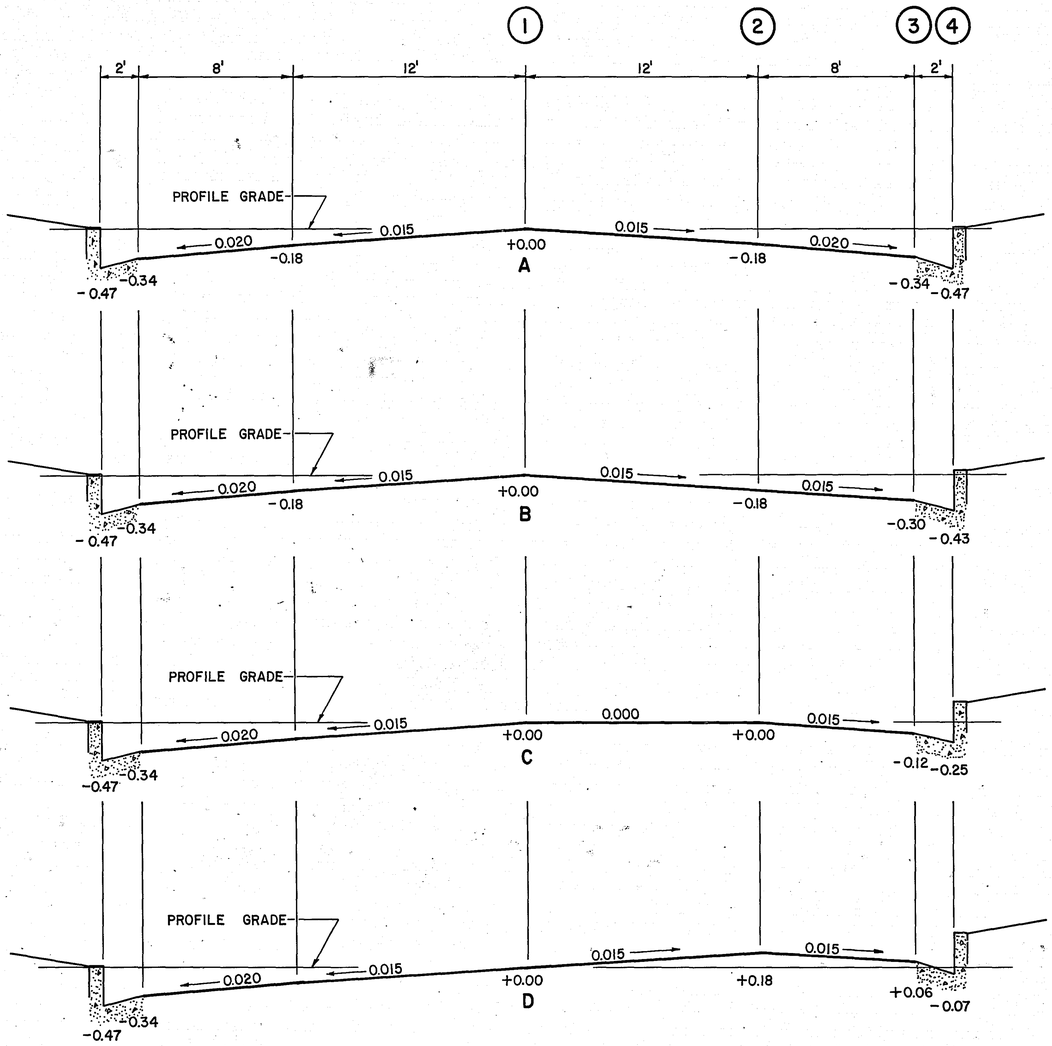
NOTE: PAYMENT OF 4" PERFORATED DRAIN PIPE SHALL INCLUDE FINE FILTER AGGREGATE & GEOTEXTILE FABRIC

DETAIL A

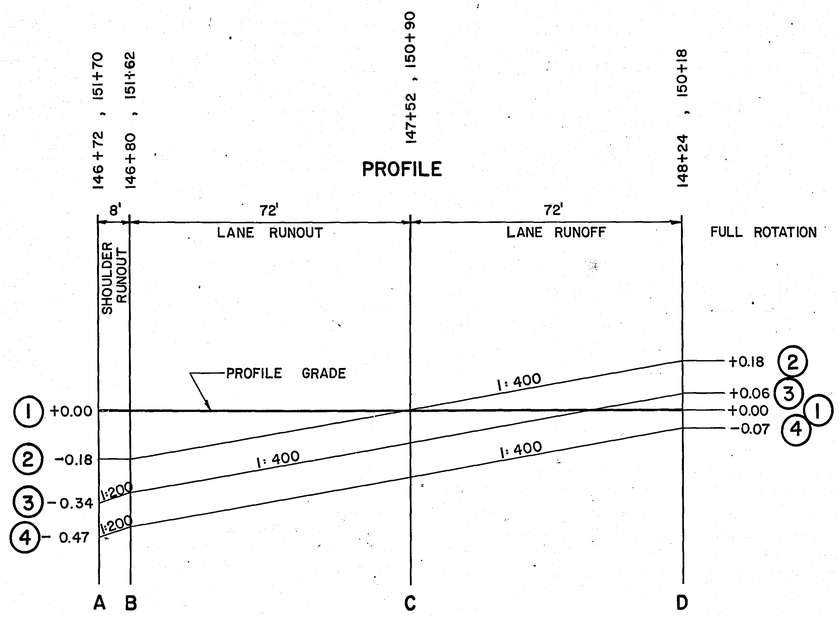


ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: Brian K Erdahl
DATE: 2/28/90

27-116



TYPICAL SECTION



CROWN ROTATION DETAILS

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: R.K Ed
DATE: 2/28/90

27-116

CLEAR & GRUB CHART

STATION	LOCATION LT.	LOCATION RT.	DESCRIPTION	STATION	LOCATION LT.	LOCATION RT.	DESCRIPTION
124+87		33-36	BEG. WOODS	146+10	36		TWIN 6" BIR.
125+40		30-36	END WOODS				
125+60		31-34	BEG. WOODS	146+53	30		TRI 6" BIR.
126+00		32-37	WOODS				
126+51		35-44	WOODS	147+51	33		STUMP
127+02		34-43	WOODS	147+62	28		6" ASH
127+51		34-50	WOODS				
128+15		33-54	WOODS	147+75		30-40	BEG. WOODS
128+35		34-62	WOODS	148+18		27-35	END WOODS
129+00		37-47	WOODS	148+38		46	10" OAK
129+57		27-39	END WOODS	149+00		38	4" OAK
				149+04		29-42	BEG. WOODS
130+14	36		STUMP	150+03		31-33	END WOODS
131+37	30		12" OAK	149+19	30		12" PINE
				149+32	30		6" MAPLE
				149+75	33		6" PINE
132+68	40		STUMP				
132+71	35		24" OAK				
				150+45	32		4" MAPLE
132+85	41		4" MAPLE				
133+35	41		20" OAK	150+77		36	4" OAK
				150+90		37	6" OAK
133+70	38		15" ASH	150+94		37-38	BEG. WOODS
133+95	36		8" ASH	151+05		37	END WOODS
				151+05	31		4" MAPLE
				151+44	32		4" MAPLE
				151+64	32		8" ASH
				154+06	34		6" MAPLE
				155+60		31	10" CEDAR
				156+21		46	10" PINE
				156+21		59	TRI. 4" PINE
136+08	33		30" COTTON.				
136+49		42	8" OAK				
136+60		39	4" MAPLE				
136+61		41	4" OAK				
136+63		40	5" MAPLE				
136+95	30		12" MAPLE				
137+14	30		10" ASH				
137+30	29		10" ASH				
137+53	29		18" ASH				
138+70	44		6" ASH				
141+40		30	QUAD 4" POP.				
141+51	46		10" PINE				
142+38	36		QUIN. 20" MAP				
142+54		28	4" OAK				
143+44	45		STUMP				
144+22		29	STUMP				
144+34		29	STUMP				
144+38		30	STUMP				
144+38		29	STUMP				
144+43		31	STUMP				
144+49		30	STUMP				
144+50		40	STUMP				
144+57		27-31	3 STUMPS				
144+59		30-50	BEG. WOODS				
145+49		29-37	WOODS				
145+70		29-42	WOODS				
145+92		29-103	WOODS				
145+94		29-103	END WOODS				

STANDARD DETAIL PLATES

0004 A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000 K	REINFORCED CONCRETE PIPE
3006 F	GASKET JOINT FOR R.C. PIPE
3100 G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3133 B	RIPRAP AT R.C.P OUTLETS
3145 E	CONCRETE PIPE TIES
4000 I	MANHOLE OR CATCH BASIN
4002 E	MANHOLE OR CATCH BASIN
4005 K	MANHOLE OR CATCH BASIN
4010 G	CONC. SHORT CONE & ADJUSTING RING
4011 D	PRECAST CONCRETE BASE
4021 C	PRECAST CURB OPENING CATCH BASIN
4101 C	RING CASTING FOR MANHOLE OR CATCH BASIN
4110 D	COVER CASTING FOR MANHOLE
4140 D	SPECIAL GRATE CASTINGS FOR CATCH BASIN
4180 H	MANHOLE OR CATCH BASIN STEP
7035 J	CONCRETE WALK & CURB RETURNS AT ENTRANCES
7036 C	PEDESTRIAN CURB RAMP
7100 F	CONCRETE CURB AND GUTTERS
9102 C	SODDING AT PIPE CULVERT ENDS

SILT FENCE INSTALLATION

STRUCT. NUMBER	STATION LOCATION	LOCATION	QUANTITY		STRUCT. NUMBER	STATION LOCATION	LOCATION	QUANTITY
CB 102	128+25	RT. 23.5'	18'		CB 132	151+55	LT. 23.5'	18'
CB 103	128+61	LT. 23.5'	18'		CB 134	151+70	RT. 23.5'	18'
CB 104	128+75	LT. 45'	18'		SD 136	153+17	RT. 38'	18'
SD 106	130+30	LT. 39'	18'		CB 137	155+41	LT. 23.5'	18'
CB 107	130+16	LT. 23.5'	18'		CB 139	155+67	RT. 23.5'	18'
CB 108	130+16	RT. 23.5'	18'		SD 141	156+27	RT. 65'	18'
CB 109	131+96	LT. 23.5'	18'					
CB 110	131+96	RT. 23.5'	18'					
CB 111	134+95	LT. 23.5'	18'		STATION LOCATION		LOCATION	QUANTITY
CB 112	134+95	RT. 23.5'	18'					
CB 114	138+06	RT. 23.5'	18'		124+10 – 125+42		RT.	150'
CB 115	138+75	LT. 23.5'	18'		125+58 – 130+00		RT.	460'
CB 118	141+60	LT. 23.5'	18'		130+50 – 131+15		RT.	75'
CB 120	141+64	RT. 23.5'	18'		134+55 – 138+25		LT.	450'
CB 121	141+37	RT. 38'	18'		138+50 – 141+00		LT.	260'
CB 122	141+07	RT. 38'	18'		141+30 – 142+65		LT.	150'
CB 123	144+14	LT. 23.5'	18'					
CB 124	143+88	LT. 52.5'	18'					
CB 125	143+55	LT. 52.5'	18'					
CB 127	146+07	RT. 49'	18'		ESTIMATED QUANTITY			2067 LF
CB 128	146+37	RT. 49'	18'					
CB 130	146+68	RT. 23.5'	18'					
CB 131	146+68	LT. 23.5'	18'					

REMOVALS & SALVAGES

STATION	LOCATION	SALVAGE CHAIN-LINK FENCE L.F.	SALVAGE WIRE FENCE L.F.	SALVAGE MISC. ITEMS EACH	SALVAGE WOOD RAIL FENCE L.F.	SALVAGE CASTING EACH	REMOVE FLAG STONE WALL L.F.	REMOVE CONC. S'WALK S.F.	REMOVE CONC. PVMT. S.Y.	REMOVE CONC. C. & G. L.F.	REMOVE 12" PIPE SEWER L.F.	REMOVE STRUCT. EACH
124+10-124+15	RT. 30							15				
126+10-126+17	LT. 33-37							35				
128+55-128+83	LT. 43-53									26		
129+32	LT. 33-NO.	4-NO.										
129+32-129+89	LT. 32-33		57									
130+07-131+10	LT. 33		103									
134+06-134+09	LT. 30-39							27				
134+79-136+10	LT. 31-40	178	95									
137+62-137+96	RT. 23-28					1					35	1-SD
139+51-139+62	RT. 32-44				23							
140+53-140+60	RT. 34-43				16							
140+78-140+83	RT. 34-43				14							
143+30-143+49	RT. 19-33								30			
147+20-147+36	LT. 17-43								46			
148+56-148+72	LT. 16-43								48			
148+61-148+73	RT. 29-40						25					
148+19-148+28	LT. 26-34				17							
148+92-149+00	RT. 30-47						26					
151+05-151+60	RT. 31-38	50		1 GATE								
151+08-157+41	LT. 20 TO RT. 20					2					721	2-CB
						2						2-SD
						2						2-MH
152+14	RT. 33-43	10										
152+27-152+35	RT. 32-44				20							
153+01-153+17	RT. 33				16							
	TOTALS	242	255	1	106	7	51	77	124	26	756	7

WATER UTILITIES

STATION	LOCATION	ITEM IN PLACE	REMARKS
123+94	LT. 41	HYDRANT	SALVAGE
130+88	LT. 19	MH-GATE VALVE	REMOVE
131+46	RT. 32	MH-GATE VALVE	ADJUST
131+84	LT. 24	HYDRANT	RELOCATE
136+29	LT. 27	HYDRANT	RELOCATE
136+62	LT. 15	MH-GATE VALVE	REMOVE
137+53	RT. 46	MH-GATE VALVE	ADJUST
140+25	LT. 30	HYDRANT	RELOCATE
141+34	LT. 26	MH-GATE VALVE	REMOVE
143+60	LT. 25	MH-GATE VALVE	REMOVE
143+82	LT. 43	MH-GATE VALVE	ADJUST
144+04	LT. 26	MH-GATE VALVE	REMOVE
144+09	LT. 30	HYDRANT	RELOCATE
146+13	RT. 33	MH-GATE VALVE	ADJUST
148+50	LT. 29	MH-GATE VALVE	REMOVE
148+54	LT. 33	HYDRANT	RELOCATE
155+03	LT. 29	MH-GATE VALVE	REMOVE
155+06	LT. 34	HYDRANT	OK
157+30	LT. 28	MH-GATE VALVE	REMOVE
131+59	LT. 18	MH-GATE VALVE	REMOVE
122+08.5	LT. 29	HYDRANT	SALVAGE
124+01	LT. 44	GATE VALVE	REMOVE

NOTE: CASTINGS & GATE VALVES SHALL BE SALVAGED WHEN REMOVAL OF WATER MANHOLE IS CALLED FOR.

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: B.M. & Ed
DATE: 2/28/90

27-116

DRAINAGE CHART

STATION	LOCATION	NO.	TYPE	DESIGN	CONST. HEIGHT LIN. FT.	CASTING ASSEMBLY	ELEVATION PROFILE	ELEVATION ORIGNAL GRATE OR RING	ELEVATION NEW GRATE OR RING	ELEVATION C.B. or M.H. INVERT	ADJUST CASTING ASSEMBLY	RECONSTRUCT CATCH BASIN OR MANHOLE LIN. FT.	INSTALL CASTING ASSEMBLY	FURNISH AND INSTALL PIPE SEWER: REINFORCED CONCRETE PIPE 12"	15"	18"	21"	24"			CORRUGATED STEEL PIPE 12"	15"	18"			APRON	CLASS	DRAINS TO: STRUCTURE NO.	INVERT EL.	REMARKS
								EXISTING STRUCTURES																					
123+16	LT. 69	1	MH																										
123+57	LT. 16	2	MH	TEL				930.50																					OK
125+00	℄	3	MH	SAN			930.30	930.34	930.28	913.24	1																	ADJUST
128+18	RT. 1	4	MH	SAN			928.64	928.59	928.60	913.99	1																	ADJUST
130+88	LT. 19	5	MH	WATER			928.34	928.62		920.92																		REMOVE Ⓑ
131+20	RT. 24	6	MH	SAN			928.70	928.30	928.25±	915.10	1																	ADJUST
131+21	RT. 1	7	MH	SAN			928.71	929.47	928.67	914.97	1																	ADJUST
131+46	RT. 32	8	MH	WATER			928.98	928.37	928.48±	921.87	1																	ADJUST
131+59	LT. 12	9	MH	TEL			929.12	929.45	928.92	921.35																		BY OTHERS
131+59	LT. 18	9A	MH	WATER																								REMOVE Ⓑ
134+66	RT. 24	10	MH	SAN			932.51	932.18	932.61±	920.68	1																	ADJUST
136+47	RT. 28	11	SD	STORM			936.45	934.10	936.71±	927.50		6.5	①															RECONSTRUCT TO MH Ⓐ
136+62	LT. 15	12	MH	WATER			936.81	935.49		927.99																		REMOVE Ⓑ
137+53	RT. 46	13	MH	WATER			939.02	937.51	937.50±	930.31	1																	ADJUST
137+62	RT. 28	14	MH	STORM			939.24	938.14	938.70±	928.44	1																	ADJUST
137+81	RT. 25	15	MH	SAN			939.70	938.37	939.10±	928.77	1																	ADJUST
137+96	RT. 23	16	SD	STORM			940.07	938.68	—	937.28																		REMOVE Ⓐ
139+06	RT. 23	17	MH	SAN			942.74	941.86	942.86±	932.92		5.0	①															RECONST. ECCENTRIC CONE
139+93	LT. 12	18	MH	TEL			944.85	944.29	944.65	935.29																		BY OTHERS
141+17	RT. 1	19	MH	SAN			947.87	947.65	947.83	940.65	1																	ADJUST
141+34	LT. 26	20	MH	WATER			948.28	947.14		939.74																		REMOVE Ⓑ
143+60	LT. 25	21	MH	WATER			953.77	953.26		945.96																		REMOVE Ⓑ
143+71	LT. 16	22	MH	SAN			954.04	953.88	953.76	949.08	1																	ADJUST
143+82	LT. 43	23	MH	WATER			954.30	953.97	953.90±	947.67	1																	ADJUST
144+04	LT. 26	24	MH	WATER			954.84	954.80		948.00																		REMOVE Ⓑ
146+13	RT. 33	25	MH	WATER			959.91	960.41	959.40±	952.91		3.0	①															RECONSTRUCT
146+23	LT. 18	26	MH	SAN			960.14	960.07	959.82	950.32	1																	ADJUST
148+05	LT. 18	27	MH	SAN			963.04	963.00	962.72	951.30	1																	ADJUST
148+50	LT. 29	28	MH	WATER			963.39	963.26		956.26																		REMOVE Ⓑ
148+60	RT. 18	29	MH	SAN			963.44	963.18	963.12	958.83	1																	ADJUST
149+19	LT. 17	30	MH	TEL			963.62	963.61	963.32	955.21																		BY OTHERS
150+54	RT. 21	31	MH	SAN			963.19	963.75	962.83	957.95		4.1	①															RECONST. ECCENTRIC CONE
151+08	RT. 22	32	SD	STORM			962.92	962.38	—	959.38																		REMOVE Ⓐ
151+08	LT. 20	33	CB	STORM			962.92	962.72	—	959.32																		REMOVE Ⓐ
151+10	RT. 18	34	MH	STORM			962.91	963.28	—	958.88																		REMOVE Ⓐ
152+05	RT. 22	35	MH	SAN			962.99	963.79	962.59	952.37		3.3	①															RECONST. ECCENTRIC CONE
152+23	LT. 20	36	MH	SAN			963.08	963.08	962.74	952.58	1																	ADJUST
154+16	RT. 22	37	SD	STORM			964.04	963.06	—	958.96																		REMOVE Ⓐ
154+17	LT. 22	38	CB	STORM			964.05	963.18	—	958.38																		REMOVE Ⓐ
154+19	RT. 18	39	MH	STORM			964.06	964.18	—	957.68																		REMOVE Ⓐ
154+92	LT. 21	40	MH	SAN			964.00	963.5±	963.58		1																	ADJUST
154+93	RT. 22	41	MH	SAN			964.00	963.92	963.62	951.12	1																	ADJUST
155+03	LT. 29	42	MH	WATER			963.95	964.19		956.39																		REMOVE Ⓑ
157+18	RT. 24	43	CB	STORM				963.95		959.95																		OK
157+20	LT. 30	44	CB	STORM				963.58		959.18																		OK
157+30	LT. 28	45	MH	WATER				964.21		957.21																		REMOVE Ⓑ
157+42	RT. 18	46	MH	STORM				964.24		955.14																		OK

① INSTALL SALVAGED MH. CASTING ASSEMBLY FROM JOB

Ⓐ SALVAGE CASTING ASSEMBLY

Ⓑ SALVAGE CASTING ASSEMBLY AND GATE VALVE

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: B. Kell
DATE: 2/28/90

NOTE: SEE PLAN SHEETS FOR ASBUILT

27-116

S.A.P. NO. 62-623-30

Sheet No. 8 of 45 Sheets

DRAINAGE CHART

PROPOSED STRUCTURES

STATION	LOCATION	NO.	TYPE	DESIGN	CONST. HEIGHT LIN. FT.	CASTING ASSEMBLY	ELEVATION: PROFILE	ELEVATION: ORIGNAL GRATE OR RING	ELEVATION: NEW GRATE OR RING	ELEVATION: C.B. or M.H. INVERT	ADJUST CASTING ASSEMBLY	RECONSTRUCT CATCH BASIN OR MANHOLE LIN. FT.	INSTALL CASTING ASSEMBLY	FURNISH AND INSTALL PIPE SEWER: REINFORCED CONCRETE PIPE 12"	15"	18"	21"	24"	CORRUGATED STEEL PIPE 12"	15"	18"	APRON	CLASS	DRAINS TO: STRUCTURE NO.	INVERT EL.	REMARKS
128+25	RT. 49	101	AP				928.60			921.50												24"				
128+25	RT. 23.5	102	CB	LP4-7		C	928.60		928.67	921.64								20						101	921.50	SUBSURFACE DRAIN
128+61	LT. 23.5	103	CB	LP4-5		C	928.42		928.49	923.30						62								102	923.00	SUBSURFACE DRAIN
128+75	LT. 45	104	CB	SP-2	4.0	B	928.34		928.4±	924.41					24									103	923.31	
130+30	LT. 39	106	SD	C	4.5	D	927.74		927.4 ±	922.98					20									107	922.90	
130+16	LT. 23.5	107	CB	LP4-4		C	927.68		927.75	922.88						51								108	922.60	SUBSURFACE DRAIN
130+16	RT. 23.5	108	CB	LP4-5		C	927.68		927.75	922.58						189								102	921.64	SUBSURFACE DRAIN
131+96	LT 23.5	109	CB	LP4-5		C	929.53		929.60	923.96					180									107	922.90	SUBSURFACE DRAIN
131+96	RT 23.5	110	CB	LP4-5		C	929.53		929.60	924.26					51									109	923.98	SUBSURFACE DRAIN
134+95	LT 23.5	111	CB	LP4-4		C	932.95		933.02	928.50					51									112	928.26	SUBSURFACE DRAIN
134+95	RT 23.5	112	CB	LP4-4		C	932.95		933.02	928.24					152									11	927.50	SUBSURFACE DRAIN
136+41	LT 37.5	113	MH	A OR F	9.2	A	936.30		936.0 ±	926.91														EX. OUTLET		BUILD OVER EX. 30" R.C.P
138+06	RT 23.5	114	CB	LP4-4		C	940.31		940.38	935.93					45									14	935.25	SUBSURFACE DRAIN
138+75	LT 23.5	115	CB	LP4-4		C	941.98		942.05	937.54					12									116	937.50	SUBSURFACE DRAIN
138+75	LT 37.5	116	MH	A OR F	7.3	A	941.98		941.9±	934.75								235						113	928.97	
141+60	LT 37.5	117	MH	A OR F	6.0	A	948.91		948.6 ±	942.72								285						116	934.85	
141+60	LT 23.5	118	CB	LP4-6		C	948.91		948.98	942.86								12						117	942.74	SUBSURFACE DRAIN
141+62	℄	119	MH	A OF F	5.9	A	948.96		948.94	943.12								25						118	942.91	
141+64	RT 23.5	120	CB	LP4-5		C	949.00		949.07	943.66						25								119	943.56	SUBSURFACE DRAIN
141+37	RT 38	121	CB	SP-2	3.3	B	948.35		947.1±	943.81					30									120	943.68	
141+07	RT 38	122	CB	SP-2	3.1	B	947.62		947.1±	943.96					30									121	943.83	
144+14	LT 23.5	123	CB	LP4-4		C	955.08		955.15	950.94					36									124	949.90	SUBSURFACE DRAIN
143+88	LT 52.5	124	CB	LP4-4		C	954.45		954.3±	949.77						37								125	948.70	
143+55	LT 52.5	125	CB	LP4-5		C	953.65		954.3±	948.57						54								126	946.95	
143+38	℄	126	MH	A OR F	6.5	A	953.23		953.21	946.85								176						119	943.22	
146+07	RT 49	127	CB	SP-2	3.9	B	959.77		959.3±	955.42					33									128	955.27	
146+37	RT 49	128	CB	SP-2	4.1	B	960.45		959.3±	955.22					53									129	954.12	
146+37	℄	129	MH	A OR F	6.5	A	960.45		960.43	954.02					299									126	946.94	
146+68	RT 23.5	130	CB	LP4-4		C	961.08		961.15	956.46					40									129	956.12	SUBSURFACE DRAIN
146+98	LT 23.5	131	CB	LP4-4		C	961.08		961.15	956.74					51									130	956.50	SUBSURFACE DRAIN
151+55	LT 23.5	132	CB	LP4-4		C	962.78		962.85	958.80					35									133	958.64	SUBSURFACE DRAIN
151+70	RT 6	133	MH	C	4.2	A	962.81		962.70	958.63						147								135	957.89	
151+70	RT 23.5	134	CB	LP4-4		C	962.81		962.88	958.79					18									133	958.65	SUBSURFACE DRAIN
153+17	RT 6	135	MH	C	5.7	A	963.54		963.43	957.88						250								138	956.67	
153+17	RT. 38	136	SD	C	4.6	D	963.54		962.5±	958.06					38									135	957.89	
155+41	LT 23.5	137	CB	LP4-6		C	963.78		963.85	956.85					40									138	956.67	SUBSURFACE DRAIN
155+67	RT 6	138	MH	A OR F	7.2	A	963.82		963.71	956.66						171								46	955.24	
155+67	RT 23.5	139	CB	LP4-7		C	963.82		963.89	956.82					18									138	956.68	SUBSURFACE DRAIN
							TOTALS								1256	986		753								

MANHOLES, CATCH BASINS & SURFACE DRAINS

DESIGN A OR F - SEE MN/DOT STD. PL. NO. 4000 OR 4005

DESIGN SPECIAL 2 - SEE DETAIL SHEET NO. 6

DESIGN LP-4-HT. - SEE MN/DOT STD. PL. NO. 4021 & DETAIL SHEET NO. 6

DESIGN C - SEE MN/DOT STD. PL. NO. 4002

CASTING ASSEMBLIES

A = { DESIGN A OR F, C (MANHOLE); RING CASTING - MN/DOT NO. 700-7 - SEE STD. PL. NO. 4101; COVER CASTING - MN/DOT NO. 712 - SEE STD. PL. NO. 4110

B = { DESIGN SPECIAL 2; FRAME, GRATE & CURB BOX SEE DETAIL SHEET NO. 6

C = { DESIGN LP-; RING CASTING - MN/DOT NO. 790-2 MODIFIED - SEE STD. PL. NO. 4108; COVER CASTING - MN/DOT NO. 712 SEE STD. PL. NO. 4110

D = { DESIGN C (SURFACE DRAIN); RING CASTING - MN/DOT NO. 700-7 SEE STD. PL. NO. 4101; COVER CASTING - MN/DOT NO. 720 - SEE STD. PL. NO. 4140

SUBSURFACE DRAINAGE			
LOCATION			4" PERFORATED PIPE L.F.
STATION to STATION		LT.-RT.	
123+80	CB 103	LT.	479
123+80	CB 102	RT.	443
128+68	CB 107	LT.	146
CB 102	130+09	RT.	182
CB 107	130+89	LT.	171
CB 108	130+95	RT.	77
131+76	CB 110	RT.	18
CB 109	134+87	LT.	290
CB 110	134+88	RT.	290
CB 111	138+67	LT.	371
CB 112	137+28	RT.	231
CB 114	140+90	RT.	282
CB 115	141+52	LT.	276
CB 118	143+38	LT.	176
CB 120	145+85	RT.	419
CB 123	146+60	LT.	245
CB 130	148+85	LT.	215
149+25	CB 132	LT.	231
CB 131	149+00	RT.	230
149+25	CB 134	RT.	240
151+58	CB 137	LT.	377
CB 134	CB 139	RT.	388
CB 137	CB 44	LT.	170
CB 139	CB 43	RT.	142
		TOTAL	6089

NOTE: 4" PERFORATED PIPE SHALL BE WRAPPED WITH GEOTEXTILE FABRIC TYPE I PER MN/DOT SPEC. 3733.

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: Brian K Erickson
DATE: 2/28/90

NOTE SEE PLAN SHEETS FOR ASBUILT

27-116

S.A.P. NO. 62-623-30

	PLOTTED BY	DATE	CHECKED BY	DATE
TOPOGRAPHY				
UTILITIES				
PROFILE				

MAPLEWOOD

NO. ST. PAUL

2027

N

0' 30' 100'
SCALE

BIT. PARKING LOT

REPLACE IN KIND C&G (SHALL BE PAYED FOR AS B624 C&G)

2005

4" DRAIN PIPE TEE SEE DETAIL, SHEET 6

BIT. PATCH (INCIDENTAL)

CB 104

SD 106

CONST. LIMITS

SAVE CONCRETE SIDEWALK

WOVEN WIRE FENCE

QUARTER LINE

STA. 131+36.47

RELOCATE HYDRANT

CB 109

STA. 121+32.10 ℄ WHITE BEAR AVE.

CONCRETE SIDEWALK

CONC. SIDEWALK

TELE BOX ABANDONED

ABANDON 6" CIP WATERMAIN

CB 103

M.H. 5

M.H. 9

M.H. 2

B624 C&G

123 BEGIN CONSTRUCTION STA. 123+80

124 125 126 127 128 129 130 131 132

M.H. 3

M.H. 4

M.H. 7

REMOVE

REMOVE

SAWCUT AS DIRECTED

B624 C&G

100:1 TAPER

CB 102

CB 108

GV

M.H. 6 M.H. 8

CB 110

APRON 101

123+80 BEGIN TAPER RT. & LT.

125+80 END TAPER RT. & LT.

CONST. LIMITS

25'R

36'

TAPER TO MATCH EXISTING 5:1

2026

ARIEL ST.

8" C.I.P. WATERMAIN

GRAV. ENT.

CONC. SIDEWALK

CLOSE GRAV. BIT.

WOODS

WOODS

1954

RAMSEY COUNTY OPEN SPACE

MAPLEWOOD

NO. ST. PAUL

① SAWCUT BIT. AS DIRECTED
② SAWCUT CONC. AS DIRECTED
③ REMOVE & CONSTRUCT CONC. SIDEWALK AS DIRECTED
⑤ SALVAGE & INSTALL FENCE AS DIRECTED

---- 4" PERFORATED DRAIN PIPE

CB 107 SD 106

CB 102 CB 103 CB 104 CB 108 CB 107 CB 109 CB 110

926.49 24 LF 15" RCP @ 0.50%

928.51 928.46 928.15

62 LF 18" RCP @ 0.50%

24 LF 15" RCP @ 0.50%

APRON 101

16 LF 24" R.C.P @ 0.50% + APRON

923.28 923.31 923.41

923.00 922.81

921.50 921.64 921.62

922.88 922.90 23.19 22.36

927.77 927.73 929.59 929.48

51 LF 18" RCP @ 0.60%

180 LF 15" RCP @ 0.60%

51 LF 15" RCP @ 0.60%

924.25 923.98 923.96 24.08

922.88 922.60 922.55 922.90 922.89

PVI 180+20 EL 927.59

PVC -85.00 EL 927.72

PVT +45.00 EL 927.67

50 FT VC M= 0.10

MH 5 MH 6

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: Lm McCue
DATE: 2/28/90

PVI +30.00 EL 931.18

+02.800%

BEGIN CONSTRUCTION 123+80

HIGH POINT +86.66 EL 930.74

PVT -30.00 EL 930.66

MH 3

3.08'

20:1

-00.520%

2' SUBCUT FOR SELECT GRANULAR BORROW

ABANDON 6" C.I.P. WATERMAIN

200 FT VC M= 0.83

+01.100%

CB 102

928.54

924.29

131 LF 18" RCP @ 0.52%

921.64 921.62

CB 108

927.17

922.58 922.60 927.88

LOW POINT +111.08 EL 927.08

EXIST 8" VCP

EXISTING 8" VCP SANITARY

913.24 913.99 915.10

940 935 930 925 920 915

123 124 125 126 127 128 129 130 131 132

27-116

S.A.P. No. 62-623-30

Sheet No. 10 of 45 Sheets

	PLOTTED BY	DATE	CHECKED BY	DATE
TOPOGRAPHY				
UTILITIES				
PROFILE				

NO. ST. PAUL

① SAWCUT BIT. AS DIRECTED
② SAWCUT CONC. AS DIRECTED
③ REMOVE & CONSTRUCT CONC. SIDEWALK AS DIRECTED
⑤ SALVAGE & INSTALL FENCE AS DIRECTED

2027 | 2045 | 2026 | 2032 | 2040 | 2054 | 2062 | 2070 | 2082 | 2096

QUARTER LINE STA. 131+36.47

RELOCATE HYDRANT

CONCRETE SIDEWALK

CONST. LIMITS

SAVE PUMP

RELOCATE HYDRANT

RIPRAP, FILTER BLANKET & GEOTEXTILE FABRIC, SEE DETAIL, SHEET 5

CASEY PARK

CONST. LIMITS

SAVE

SCALE 0' 30' 100'

MH 113 — DRAINAGE EASEMENT — 15'R — MH 116 CONCRETE SIDEWALK

CB 109 | CB 111 | CB 115

ABANDON 6" C.I.P. WATERMAIN

ABANDONED

131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140

M.H. 9 | M.H. 12 | M.H. 18

M.H. 7 | M.H. 6 | M.H. 8 | CB 110 | CB 112 | M.H. 10 | M.H. 14 | M.H. 15 | M.H. 13 | M.H. 17

GV

25'R | 36' | 5:1 TAPER

BIT. ENT. | GRAV. ENT.

SD 11 | 24" C.P. | SD 16 | CB 114

SAVE STONE PILLARS

WOODS

SAVE TIMBER WALL

SALVAGE & REPLACE AS DIRECTED

ARIEL ST. | DIANNE ST.

8" C.I.P. WATERMAIN | 18" R.C.P. | 8" V.C.P.

INSULATION

4" PERFORATED DRAIN PIPE

NO. ST. PAUL

CB 109 929.59 — 51 LF 15" RCP @ 0.60% — CB 110 929.46 — 923.96 — 924.26

CB 111 933.27 — 51 LF 15" RCP @ 0.50% — CB 112 933.19 — 928.50 — 928.26 — 928.24

SD 11 936.36 — MH 113 936.84 — APRON — EXISTING 30" R.C.P. — 927.49 — 928.97 — 927.50 — 926.94 — 926.91 — 926.59

MH 116 942.32 — CB 115 942.29 — 12 LF 15" RCP @ 0.50% — 937.64 — 937.60 — 934.75

PVI +50.00 EL 932.32 — 100 FT VC M= 0.17 — PVI +50.00 EL 934.00

+01.100% — +02.430% — 3.08

MH 10 — MH 12 — MH 13 — MH 14 — MH 15 — MH 16 — MH 17

SD 16 — CB 114

45 LF 15" RCP @ 1.67% — 939.68 — 940.72 — 937.50 — 935.93 — 935.28

285 LF 24" RCP @ 2.00% — 285

250 228 LF 24" RCP @ 2.50%

151 152 LF 15" RCP @ 0.50%

ABANDON 6" C.I.P. WATERMAIN

EXISTING 6" C.I.P. — EXISTING 24" R.C.P.

2'SUBCUT FOR SELECT GRANULAR BORROW

PVI 1+00.00 EL 932.87

920.68 — 928.77 — 924.87 — 915.10

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: B. K Eul
DATE: 2/28/90

27-110

S.A.P. No. 62-623-30

Sheet No. 11 of 45 Sheets

TOPOGRAPHY	PLOTTED BY	DATE	CHECKED BY	DATE
UTILITIES	PLOTTED BY	DATE	CHECKED BY	DATE
PROFILE	PLOTTED BY	DATE	CHECKED BY	DATE

NO. ST. PAUL

EQUATION
COUNTY RD 'C'
CONST. ℄
STA. 146+22± =

SPIRIT DRIVE
STA. 8+65±

0' 30' 100'
SCALE

N

CASEY PARK

MOHAWK RD.

2139 2149 2161 2165 2171 2177

CONST. LIMITS

CONCRETE SIDEWALK

ABANDON 6" CIP WATERMAIN

RELOCATE HYD.

RELOCATE HYDRANT

SALVAGE & INSTALL WOOD RAIL FENCE AS DIRECTED

SAVE

REMOVE

CB 118 CB 120 CB 121 CB 122 CB 123 CB 124 CB 125 CB 127 CB 128 CB 130 CB 131

MH 117 MH 119 MH 120 MH 123 MH 126 MH 129

M.H. 19 M.H. 21 M.H. 22 M.H. 24 M.H. 25 M.H. 26 M.H. 27 M.H. 28 M.H. 29

140 141 142 143 144 145 146 147 148 149

2104 2116 2122 2130 2166 2172

25'R

ELEC BOX

SALVAGE & INSTALL WOOD RAIL FENCE

REMOVE & REPLACE TIMBER WALL AS DIRECTED. (PAYMENT SHALL BE INCIDENTAL).

GRADE & REPLACE INKIND AS DIRECTED TAPER TO MATCH

SAVE HEDGE

WOODS

GAR.

SPIRIT DRIVE

① SAWCUT BIT. AS DIRECTED

② SAWCUT CONC. AS DIRECTED

④ MATCH B624 C & G TO EXISTING IN 10'

SALVAGE & RELOCATE LANDSCAPE ROCKS

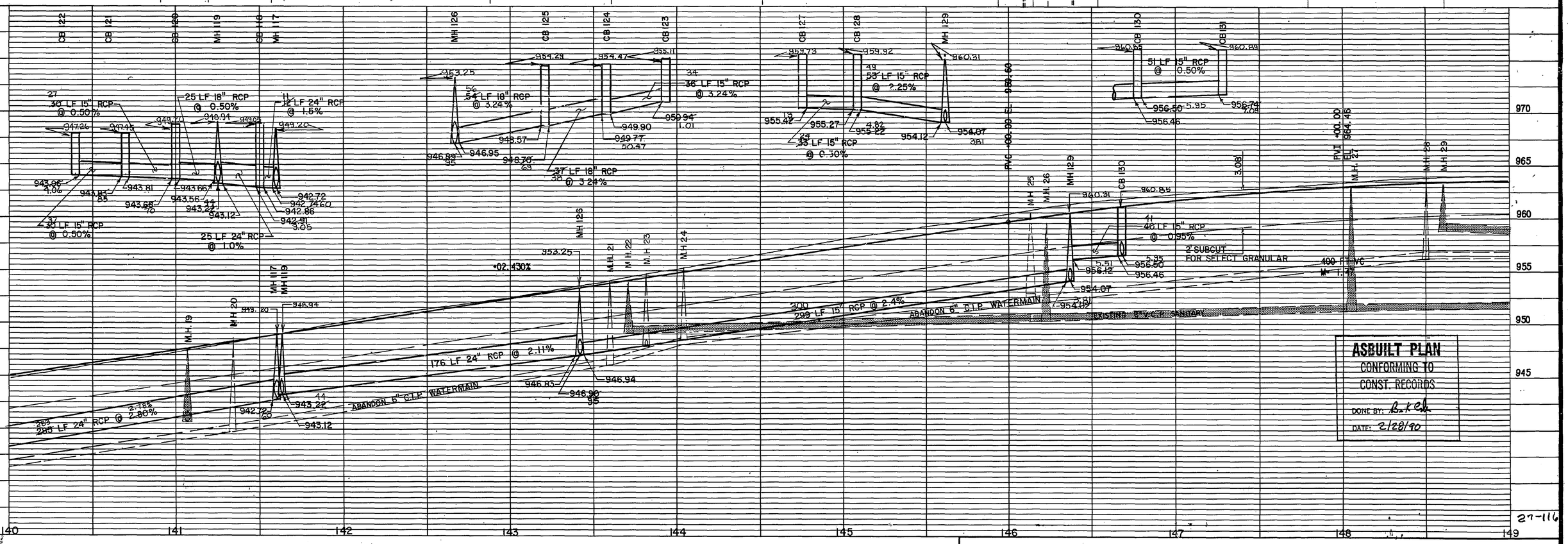
REMOVE & REPLACE TIMBER WALL AS DIRECTED. (PAYMENT SHALL BE INCIDENTAL).

REMOVE & CONSTRUCT FLAGSTONE WALL AS DIRECTED

MATCH EXISTING STONE IN RECONSTRUCTED WALLS

---- 4" PERFORATED DRAIN PIPE

NO. ST. PAUL



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: R.K.H.
DATE: 2/28/90

27-116

S.A.P. NO. 62-623-30

Sheet No. 12 of 45 Sheets

	PLOTTED BY	DATE	CHECKED BY	DATE
TOPOGRAPHY				
UTILITIES				
PROFILE				

NO. ST. PAUL

① SAWCUT BIT. AS DIRECTED

SCALE 0' 30' 100'

N

SALVAGE WOOD RAIL FENCE

CONCRETE SIDEWALK

CONC. SIDEWALK

SAVE

CONST. LIMITS

ABANDON 6" C.I.P WATERMAIN

ABANDONED

REMOVE

STA. 155+00 BEGIN TAPER LT. 22'

STA. 157+00 END TAPER LT. 24'

REMOVE & REPLACE CONC. SIDEWALK AS DIRECTED

STA. 157+62.19

END B624 C&G STA. 157+10 LT. 24'

END CONSTRUCTION 157+41

END B624 C&G STA. 157+08 RT. 24'

4" DRAIN PIPE TEE SEE DETAIL, SHEET 6

SALVAGE & REPLACE AS DIRECTED

CONSTRUCT FLAGSTONE WALL AS DIRECTED

STA. 153+50 BEGIN TAPER RT. 22'

STA. 154+50 END TAPER RT. 24'

WOODS

2177 2185 2193 2199 2205 2211 2219 2225 2233 2239 2245 2255

2172 2184 2204 2210 2222 2232 2631

149 150 151 152 153 154 155 156 157

M.H. 30 M.H. 31 M.H. 34 M.H. 35 M.H. 36 M.H. 39 M.H. 40 M.H. 41 M.H. 42 M.H. 45 M.H. 46 M.H. 47 M.H. 48

CB 132 CB 134 CB 137 CB 139 CB 43 CB 44

MH 133 MH 135 MH 138

SD 32 SD 136 SD 37

4" PERFORATED DRAIN PIPE

NO. ST. PAUL

962.92 962.81 962.91 18 LF 15" RCP @ 1.0%

958.80 958.64 958.63 958.79 958.65 36 LF 15" RCP @ 0.50%

963.42 962.59 957.88 957.69 958.05 18 LF 15" RCP @ 0.50%

963.91 963.80 963.88 956.65 956.67 956.66 956.82 956.68 40 LF 15" RCP @ 0.50% 18 LF 15" RCP @ 1.0%

PVT +99.90 EL 963.46

PVC +25.00 EL 962.84

PVI 1+50.00 EL 962.71

PVT +75.00 EL 962.84

LOW POINT +50.00 EL 962.71

50 FT VC M= 0.08

3.08'

+00.500%

144 147 LF 18" RCP @ 0.50%

EXISTING 12" R.C.P.

EXISTING 6" V.C.P. SANITARY

ABANDON 6" C.I.P. WATERMAIN

2' SUBCUT FOR SELECT GRANULAR BORROW

EXISTING 8" V.C.P. SANITARY

PVC +25.00 EL 964.09

HIGH POINT +30.00 EL 964.15

PVT +75.00 EL 964.09

251 250 LF 18" RCP @ 0.50%

50 FT VC M= 0.06

PVC +25.00 EL 963.84

PVI 1+50.00 EL 963.71

PVT +75.00 EL 963.86

LOW POINT +42.73 EL 963.78

50 FT VC M= 0.07

172 171 LF 18" RCP @ 0.85%

REVISED TO MATCH EXISTING CURB

REMOVE & REPLACE BIT. & BASE AS DIRECTED

PI +10.00 EL 964.57

+00.890%

+0.43%

20:1

964.57

955.22

970 965 960 955

149 150 151 152 153 154 155 156 157 158

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: B. H. P.
DATE: 2/28/90

27-116

S.A.P. No. 62-623-30

Sheet No. 13 of 45 Sheets

Fed. Proj. No.

R/W

C STA. 124+00.00 ℄ 930.75 DES3

G STA. 124+00.00 ℄ 930.77 OT1

R/W

GRAVEL ENTRANCE

5.2 % ±

L 925

EXISTING 6" C.I.P. WATERMAIN

BEGIN CONSTRUCTION STA. 123+80

G STA. 123+52.00 ℄ 930.65 OT1

L 925

G STA. 123+31.00 ℄ 930.40 OT1

L 925

G STA. 123+00.00 ℄ 929.90 OT1

L 925

STA. 123+00.00 TO 124+00.00 SCALE = 5 X 5

S.A.P. NO. 62-623-30

Sheet No. 14 of 45 Sheets

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

29-116

COPY EQUIPMENT FORM #1 30031

Fed. Proj. No.

R/W

C STA. 126+00.00 ℄ 929.78 DES3

G STA. 126+00.00 ℄ 929.91 OT1

R/W

3:1

L 920

R/W

C STA. 125+50.00 ℄ 930.04 DES3
G STA. 125+50.00 ℄ 930.17 OT1

R/W

GRAVEL (CLOSE) ENTRANCE

30.0 ft

3:1

L 925

R/W

C STA. 125+00.00 ℄ 930.30 DES3
G STA. 125+00.00 ℄ 930.34 OT1

R/W

3:1

L 925

R/W

C STA. 124+50.00 ℄ 930.56 DES3

G STA. 124+50.00 ℄ 930.55 OT1

R/W

L 925

EXISTING 6" C.I.P. WATERMAIN

STA. 124+50.00 TO 126+00.00 SCALE = 5 X 5

S.A.P. NO. 62-623-30

Sheet No. 15 of 45 Sheets

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

29-116

COPY EQUIPMENT FORM #1 90021

Fed. Proj. No.

R/W

C STA. 127+50.00 ℄ 929.00 DES3

G STA. 127+50.00 ℄ 928.86 OT1

29.7'

L 920

R/W

R/W

C STA. 127+00.00 ℄ 929.26 DES3

G STA. 127+00.00 ℄ 929.06 OT1

29.8'

L 920

R/W

R/W

C STA. 126+50.00 ℄ 929.52 DES3

G STA. 126+50.00 ℄ 929.49 OT1

30.0'

L 925

R/W

R/W

C STA. 126+28.00 ℄ 929.64 DES3

G STA. 126+28.00 ℄ 929.72 OT1

BIT. ENTRANCE

SAWCUT

L 925

EXISTING 6" C.I.P. WATERMAIN

STA. 126+28.00 TO 127+50.00 SCALE = 5 X 5

S.A.P. NO. 62-623-30

Sheet No. 16 of 45 Sheets

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

27-116

COPY EQUIPMENT FORM #: 90021

Fed. Proj. No.

HOUSE
#2005

R/W

C STA. 129+50.00 ℄ 927.96 DES3
G STA. 129+50.00 ℄ 928.21 OT1

SAND DRAIN

PROPOSED
18" RCP

L 920

BIT.
ENTRANCE

SAWCUT

C STA. 129+00.00 ℄ 928.22 DES3
G STA. 129+00.00 ℄ 928.30 OT1

CB 104
STA. 128+75
INVERT ELEV. 923.41

C STA. 128+50.00 ℄ 928.48 DES3
G STA. 128+50.00 ℄ 928.47 OT1

CB 103
STA. 128+61

CB 102
STA. 128+25

28.6±

VAR.

15" RCP
@ 0.50%

18" RCP @ 0.50 %

24" RCP @ 0.50%

GRADE
TO
DRAIN

APRON 101
STA. 128+25
INVERT ELEV. 921.50

C STA. 128+00.00 ℄ 928.74 DES3
G STA. 128+00.00 ℄ 928.71 OT1

27.0±

22.0±

EXISTING
6" C.I.P. WATERMAIN

STA. 128+00.00 TO 129+50.00 SCALE = 5 X 5

S.A.P. NO. 62-623-30

Sheet No. 17 of 45 Sheets

27-116

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

COPY EQUIPMENT FORM #1 59021

Fed. Proj. No.

R/W

C STA. 131+49.00 ℄ 929.02 DES3

G STA. 131+49.00 ℄ 929.65 OT1

EAST GUTTER LINE ARIEL ST.

BEGIN 25' RADIUS

L 925

GRAVEL ENTRANCE

C STA. 131+24.00 ℄ 928.74 DES3

G STA. 131+24.00 ℄ 929.46 OT1

WEST GUTTER LINE ARIEL ST.

END 25' RADIUS

L 925

2.6±

C STA. 131+00.00 ℄ 928.48 DES3

G STA. 131+00.00 ℄ 928.12 OT1

2.6±

L 925

LOW SPOT

2.7±

C STA. 130+50.00 ℄ 927.93 DES3

G STA. 130+50.00 ℄ 928.59 OT1

2.8±

L 925

SD 105 A

STA. 130+30

BIT. ENTRANCE

SAWCUT

C STA. 129+97.00 ℄ 927.72 DES3

G STA. 129+97.00 ℄ 928.24 OT1

2.7±

L 925

EXISTING 6" C.I.P. WATER MAIN

STA. 129+97.00 TO 131+49.00 SCALE = 5 X 5

S.A.P. NO. 62-623-30

Sheet No. 18 of 45 Sheets

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

27-116

COPY EQUIPMENT FORM #1 90021

Fed. Proj. No.

R/W

C STA. 133+50.00 ℄ 931.23 DES3

G STA. 133+50.00 ℄ 931.68 OT1

3:1

L 925

R/W

BIT. ENTRANCE

SAWCUT

C STA. 133+00.00 ℄ 930.68 DES3

G STA. 133+00.00 ℄ 931.18 OT1

930

R/W

C STA. 132+50.00 ℄ 930.13 DES3

G STA. 132+50.00 ℄ 930.57 OT1

L 925

R/W

C STA. 132+00.00 ℄ 929.58 DES3

G STA. 132+00.00 ℄ 930.06 OT1

L 925

EXISTING 6" C.I.P. WATERMAIN

STA. 132+00.00 TO 133+50.00 SCALE = 5 X 5

S.A.P. NO. 62-623-30

Sheet No. 19 of 45 Sheets

27-114

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

C - DT EQUIPMENT FORM # 90021

Fed. Proj. No.

C STA. 135+43.00 ℄ 933.93 DES3

G STA. 135+43.00 ℄ 933.90 OT1

R/W

R/W

BIT. ENTRANCE

SAWCUT

VAR.

32.0'

L 925

C STA. 135+00.00 ℄ 933.04 DES3

G STA. 135+00.00 ℄ 933.16 OT1

R/W

R/W

3:1

28.8'

33.6

L 925

R/W

R/W

BIT. ENTRANCE

SAWCUT

30.1'

7.1%

C STA. 134+50.00 ℄ 932.33 DES3

G STA. 134+50.00 ℄ 932.46 OT1

32.0'

L 925

R/W

R/W

C STA. 134+00.00 ℄ 931.78 DES3

G STA. 134+00.00 ℄ 932.18 OT1

GRAVEL ENTRANCE

L 930

EXISTING 6" C.I.P. WATERMAIN

STA. 134+00.00 TO 135+43.00 SCALE = 5 X 5

S.A.P. NO. 62-623-30

Sheet No. 20 of 45 Sheets

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

27-116

COPY EQUIPMENT FORM #1 - 5/2021

Fed. Proj. No.

R/W

C STA. 136+50.00 ℄ 936.52 DES3

G STA. 136+50.00 ℄ 935.70 OT1

VAR.

3:1

35.3'

L 925

R/W

R/W

C STA. 136+00.00 ℄ 935.31 DES3
G STA. 136+00.00 ℄ 934.70 OT1

30.5'

3:1

VAR

L 925

R/W

R/W

C STA. 135+85.00 ℄ 934.94 DES3
G STA. 135+85.00 ℄ 934.51 OT1

BIT.
ENTRANCE

SAWCUT

20.0'

31.2'

3:1

EXISTING
6" C.I.P. WATERMAIN

L 925

STA. 135+85.00 TO 136+50.00 SCALE = 5 X 5

S.A.P. NO. 62-623-30

Sheet No. 21 of 45 Sheets

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

27-116

COPY EQUIPMENT FORM #1 80021

Fed. Proj. No.

C STA. 138+00.00 ℄ 940.17 DES3
G STA. 138+00.00 L 940.24 OT1

R/W

R/W

VAR.

L 935

R/W

CB

EAST GUTTER LINE DIANNE ST.

BEGIN 25' RADIUS

C STA. 137+74.00 ℄ 939.54 DES3
G STA. 137+74.00 ℄ 939.45 OT1

L 930

R/W

R/W

WEST GUTTER LINE DIANNE ST.

41'

END 25' RADIUS

C STA. 137+50.00 ℄ 938.95 DES3
G STA. 137+50.00 ℄ 938.75 OT1

L 930

R/W

R/W

C STA. 136+93.00 ℄ 937.57 DES3
G STA. 136+93.00 ℄ 937.01 OT1

GRAVEL ENTRANCE

6.3%±

EXISTING 6" C.I.P. WATERMAIN

L 925

STA. 136+93.00 TO 138+00.00 SCALE = 5 X 5

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

S. A. P. NO. 62-623-30

Sheet No. 22 of 45 Sheets

27-116

COPY EQUIPMENT FORM #1 90021

Fed. Proj. No.

R/W

C STA. 139+00.00 ℄ 942.60 DES3

G STA. 139+00.00 ℄ 942.49 OT1

R/W

L 940

R/W

R/W

C STA. 138+86.00 ℄ 942.26 DES3

G STA. 138+86.00 ℄ 942.25 OT1

BIT. ENTRANCE

SAWCUT

10%±

L 940

R/W

R/W

C STA. 138+57.00 ℄ 941.55 DES3

G STA. 138+57.00 ℄ 941.64 OT1

BIT. ENTRANCE

SAWCUT

5.5%±

940

R/W

R/W

CASEY PARK

BIT. ENTRANCE

C STA. 138+24.00 ℄ 940.75 DES3

G STA. 138+24.00 ℄ 940.84 OT1

5%±

3:1

L 935

EXISTING 6" C.I.P. WATERMAIN

STA. 138+24.00 TO 139+00.00 SCALE = 5 X 5

S. A. P. NO. 62-623-30

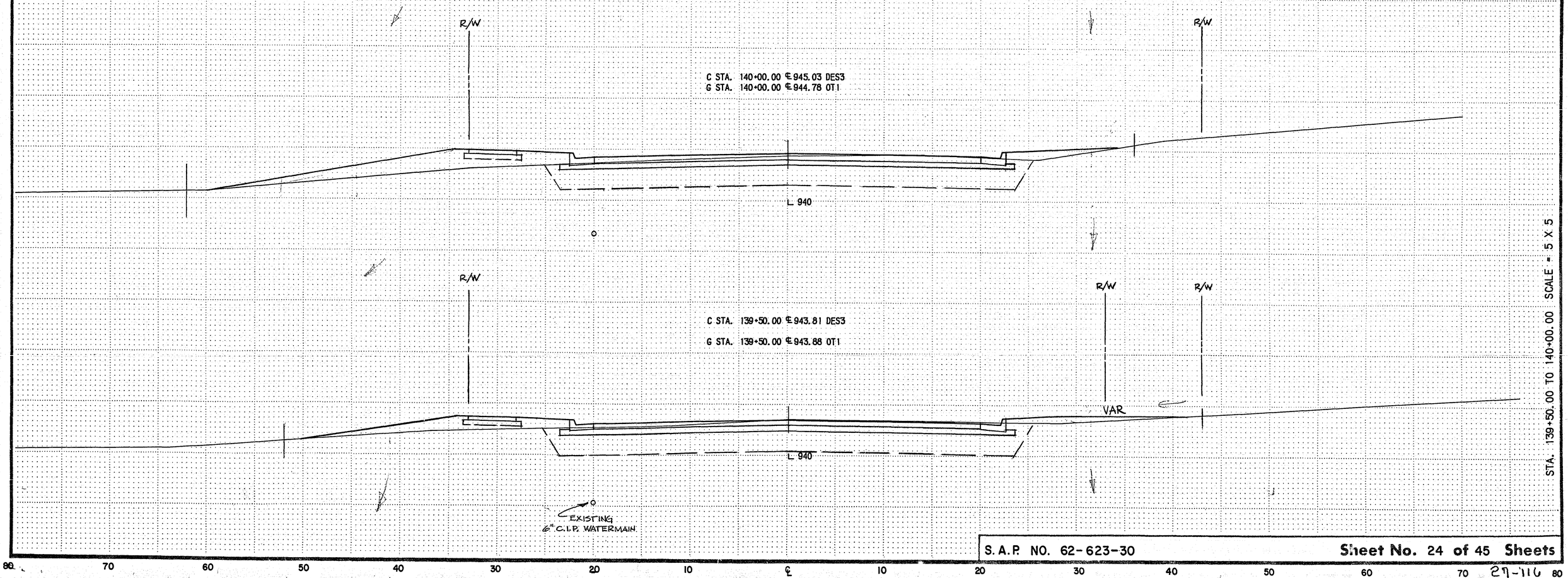
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27-116

COPY EQUIPMENT FORM #1 89021

Fed. Proj. No.



S.A.P. NO. 62-623-30

Sheet No. 24 of 45 Sheets

27-116

COPY EQUIPMENT FORM #1 90021

Fed. Proj. No.

CASEY PARK

BIT. ENTRANCE

R/W

C STA. 141+00.00 ℄ 947.46 DES3

G STA. 141+00.00 ℄ 947.22 OT1

6.6%±

L 940

R/W

C STA. 140+68.00 ℄ 946.68 DES3
G STA. 140+68.00 ℄ 946.42 OT1

L 940

R/W

GRAVEL ENTRANCE

R/W

C STA. 140+50.00 ℄ 946.24 DES3
G STA. 140+50.00 ℄ 946.02 OT1

L 940

R/W

C STA. 140+00.00 ℄ 945.03 DES3

G STA. 140+00.00 ℄ 944.72 OT1

L 940

R/W

EXISTING 6" C.I.P. WATERMAIN

140 + 00.00 TO 141+00.00 SCALE = 5 X 5

S.A.P. NO. 62-623-30

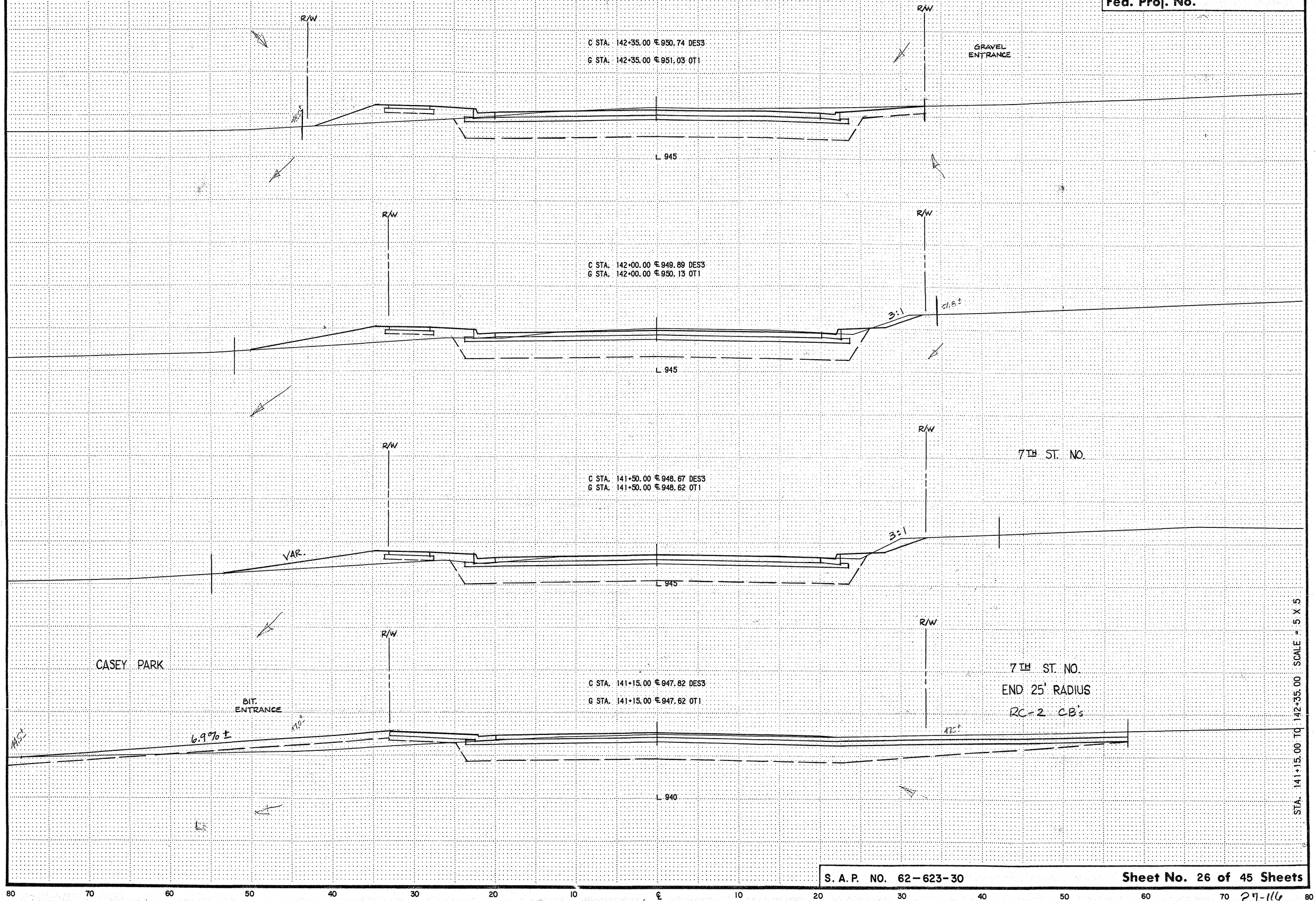
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27-116

COPY EQUIPMENT FORM #1 90021

Fed. Proj. No.



S. A. P. NO. 62-623-30

Sheet No. 26 of 45 Sheets

27-116

COPY EQUIPMENT FORM #1 80021

Fed. Proj. No.

WEST GUTTER LINE MOHAWK RD.

C STA. 143+57.00 ℄ 953.70 DES3
G STA. 143+57.00 ℄ 953.90 OT1

R/W

LP-4

959.3±

L 950

R/W

C STA. 143+40.00 ℄ 953.28 DES3
G STA. 143+40.00 ℄ 953.50 OT1

CONC. ENTRANCE
CONC. BEGINS 19' RT.

SAWCUT
.42±

VAR.

L 950

R/W

C STA. 143+00.00 ℄ 952.32 DES3
G STA. 143+00.00 ℄ 952.41 OT1

R/W

VAR.

L 950

R/W

BIT. ENTRANCE
CONC. BEGINS 43' LT.

C STA. 142+81.00 ℄ 951.86 DES3
G STA. 142+81.00 ℄ 952.01 OT1

R/W

.52±

VAR.

.94±

VAR.

L 950

STA. 142+81.00 TO 143+57.00 SCALE = 5 X 5

S.A.P. NO. 62-623-30

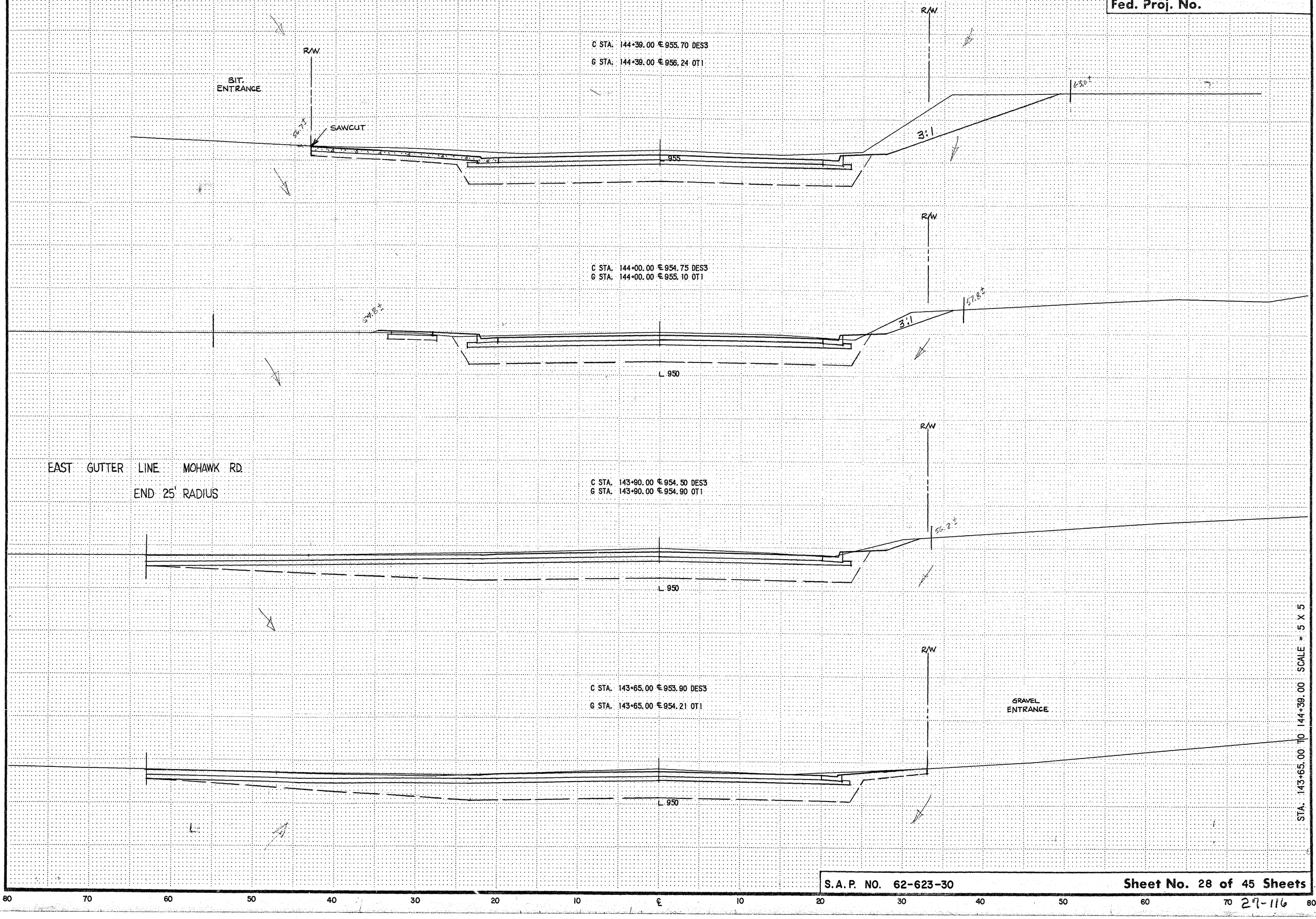
Sheet No. 27 of 45 Sheets

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

27-116

COPY EQUIPMENT FORM #1 80021

Fed. Proj. No.



STA. 143+65.00 TO 144+39.00 SCALE = 5 X 5

S.A.P. NO. 62-623-30

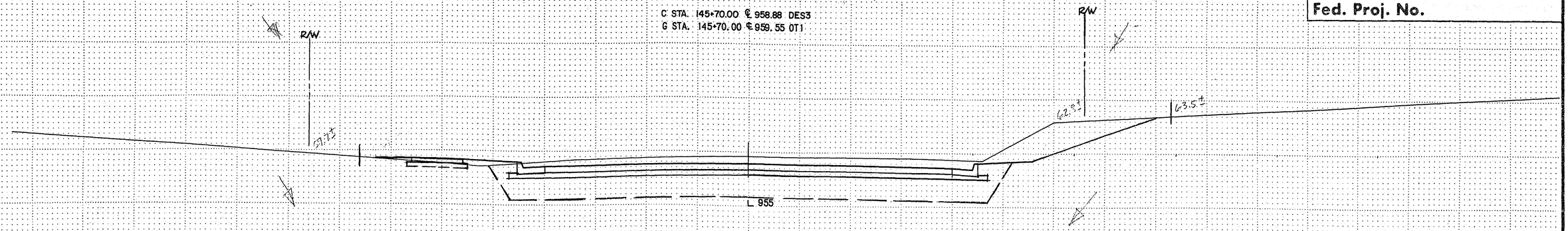
Sheet No. 28 of 45 Sheets

27-116

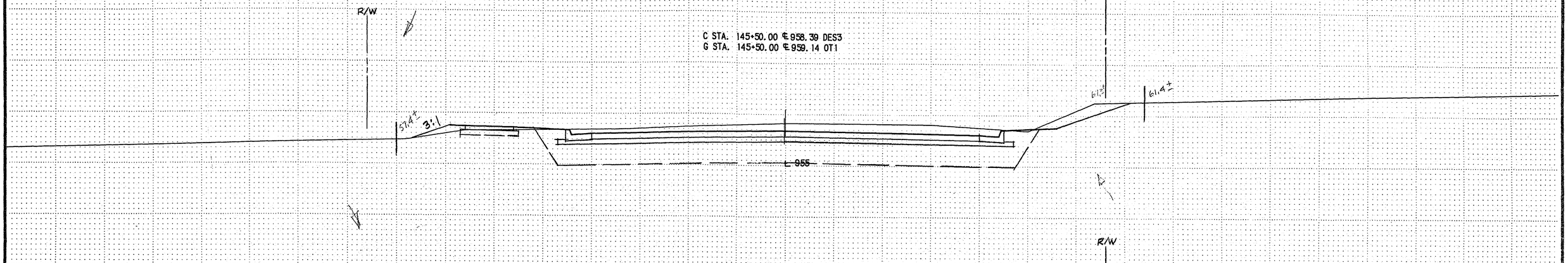
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Fed. Proj. No.

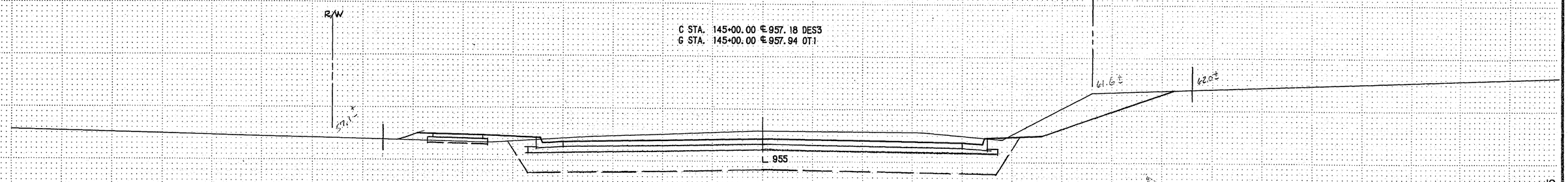
C STA. 145+70.00 ℄ 958.88 DES3
G STA. 145+70.00 ℄ 959.55 OT1



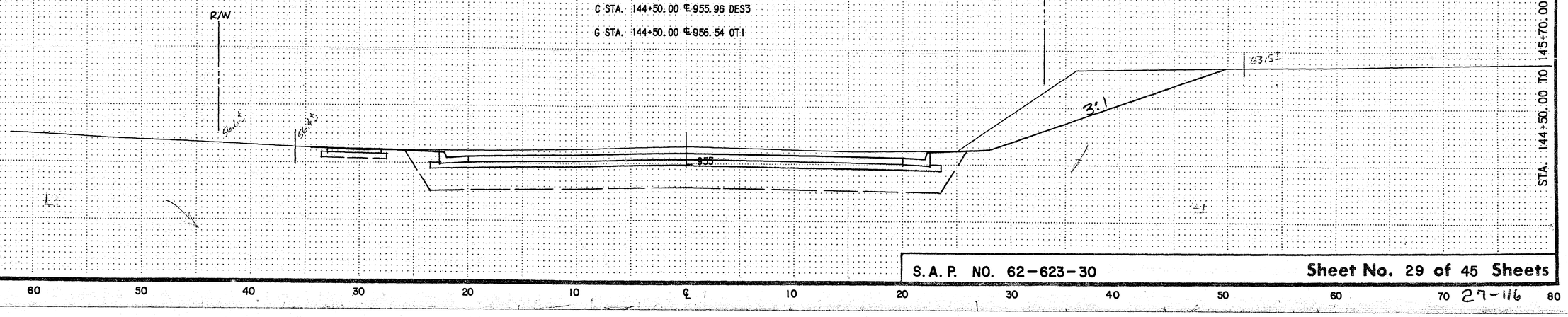
C STA. 145+50.00 ℄ 958.39 DES3
G STA. 145+50.00 ℄ 959.14 OT1



C STA. 145+00.00 ℄ 957.18 DES3
G STA. 145+00.00 ℄ 957.94 OT1



C STA. 144+50.00 ℄ 955.96 DES3
G STA. 144+50.00 ℄ 956.54 OT1



STA. 144+50.00 TO 145+70.00 SCALE = 5 X 5

S. A. P. NO. 62-623-30

Sheet No. 29 of 45 Sheets

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

27-116

COPY EQUIPMENT FORM #1 60021

Fed. Proj. No.

C STA. 147+00.00 ℄ 961.67 DES3
G STA. 147+00.00 ℄ 962.24 OT1

R/W

L 960

C STA. 146+50.00 ℄ 960.73 DES3
G STA. 146+50.00 ℄ 961.55 OT1

R/W

L 960

C STA. 146+25.00 ℄ 960.19 DES3
G STA. 146+25.00 ℄ 961.04 OT1
C STA. 146+24.00 ℄ 960.12 DES 3

℄ SPIRIT DR.
STA. 146+22 ±

R/W

GRAVEL
ENTRANCE

PVT
8+43
957.74

-1.60%

PVI
8+23

PVC
8+03

+3.84%

L 955

8+00

C STA. 146+00.00 ℄ 959.61 DES3
G STA. 146+00.00 ℄ 960.34 OT1

R/W

L 955

3:1

8+00

STA. 146+00.00 TO 147+00.00 SCALE = 5 X 5

S. A. P. NO. 62-623-30

Sheet No. 30 of 45 Sheets

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

27-116

COPY EQUIPMENT FORM #1 80021

Fed. Proj. No.

R/W

BIT. ENTRANCE

SAWCUT

C STA. 148+06.00 ℄ 963.06 DES3

G STA. 148+06.00 ℄ 963.46 OT1

65.7±

L 960

R/W

R/W

C STA. 147+53.00 ℄ 962.47 DES3

G STA. 147+53.00 ℄ 962.85 OT1

GRAVEL ENTRANCE

6.4%

L 960

R/W

CONC. ENTRANCE (DISTANCE 20½')

SAWCUT

C STA. 147+29.00 ℄ 962.13 DES3

G STA. 147+29.00 ℄ 962.65 OT1

L 960

R/W

R/W

BIT. ENTRANCE

SAWCUT

C STA. 147+07.00 ℄ 961.79 DES3

G STA. 147+07.00 ℄ 962.34 OT1

L 960

STA. 147+07.00 TO 148+06.00 SCALE = 5 X 5

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

COPY EQUIPMENT FORM #1 (0001)

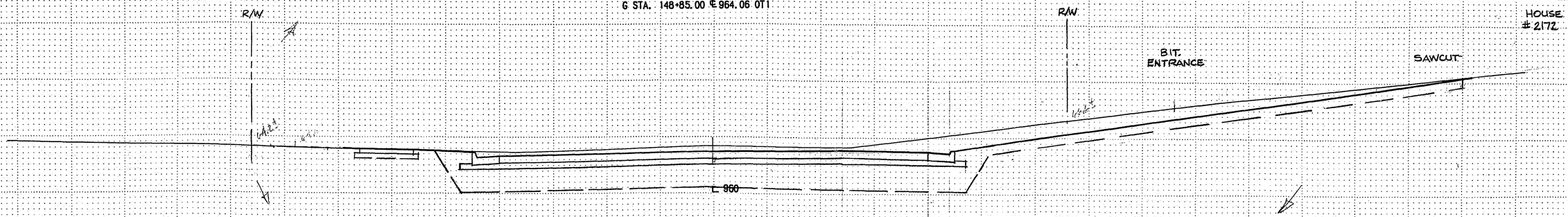
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Sheet No. 31 of 45 Sheets

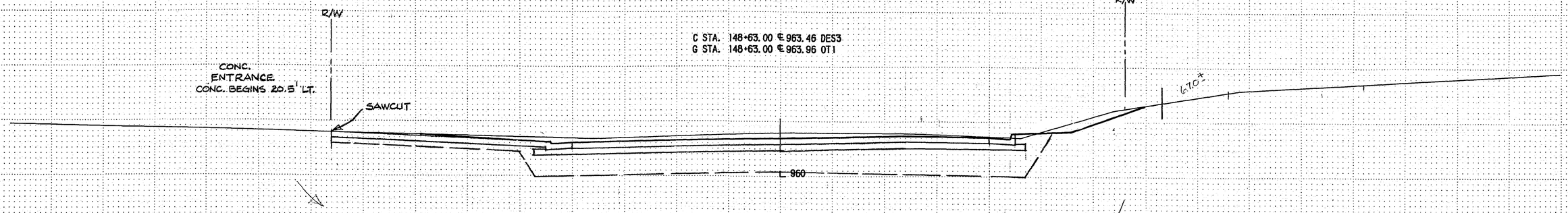
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Fed. Proj. No.

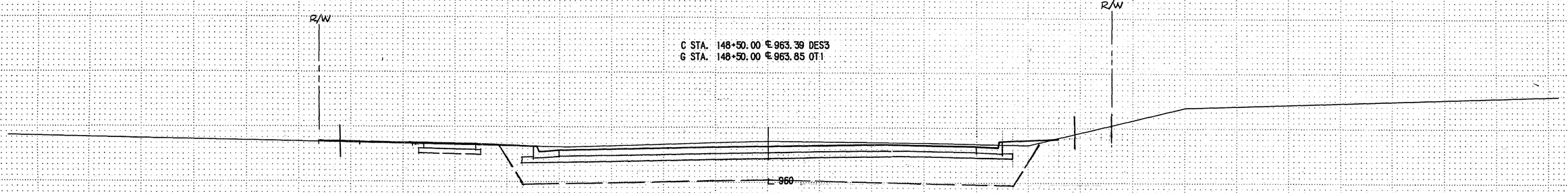
C STA. 148+85.00 ℄ 963.56 DES3
G STA. 148+85.00 ℄ 964.06 OT1



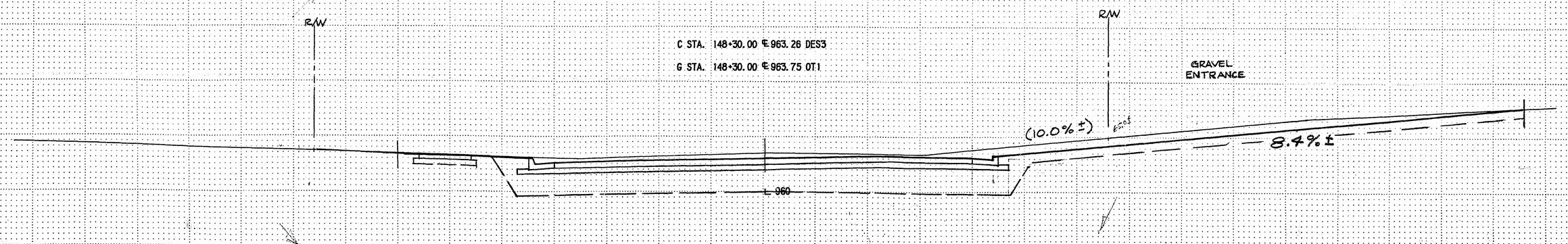
C STA. 148+63.00 ℄ 963.46 DES3
G STA. 148+63.00 ℄ 963.96 OT1



C STA. 148+50.00 ℄ 963.39 DES3
G STA. 148+50.00 ℄ 963.85 OT1



C STA. 148+30.00 ℄ 963.26 DES3
G STA. 148+30.00 ℄ 963.75 OT1



STA. 148+30.00 TO 148+85.00 SCALE = 5 X 5

S. A. P. NO. 62-623-30

Sheet No. 32 of 45 Sheets

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

27-116

Fed. Proj. No.

C STA. 150+18.00 ℄ 963.38 DES3
G STA. 150+18.00 ℄ 963.88 OT1

BIT. ENTRANCE

GRAVEL ENTRANCE

R/W

L 960

C STA. 150+00.00 ℄ 963.47 DES3
G STA. 150+00.00 ℄ 963.97 OT1

L 960

C STA. 149+48.00 ℄ 963.63 DES3
G STA. 149+48.00 ℄ 964.06 OT1

BIT. ENTRANCE CONC. BEGINS 43' LT.

L 960

C STA. 149+00.00 ℄ 963.60 DES3
G STA. 149+00.00 ℄ 964.06 OT1

6.2± 6.8±

L 960

STA. 149+00.00 TO 150+18.00 SCALE = 5 X 5

S.A.P. NO. 62-623-30

Sheet No. 33 of 45 Sheets

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

27-116

COPY EQUIPMENT FORM #1 98021

Fed. Proj. No.

R/W

BIT. ENTRANCE

C STA. 151+28.00 ℄ 962.83 DES3

G STA. 151+28.00 ℄ 964.17 OT1

L 960

R/W

R/W

C STA. 151+00.00 ℄ 962.97 DES3
G STA. 151+00.00 ℄ 964.07 OT1

L 960

R/W

R/W

C STA. 150+65.00 ℄ 963.14 DES3
G STA. 150+65.00 ℄ 963.87 OT1

L 960

10.0% ±

R/W

BIT. ENTRANCE

10.4% ±

2.7 %

11 FT.

R/W

C STA. 150+50.00 ℄ 963.22 DES3

G STA. 150+50.00 ℄ 963.88 OT1

L 960

R/W

2.5%

FLAGSTONE RETAINING WALL

STA. 150+50.00 TO 151+28.00 SCALE = 5 X 5

COPY EQUIPMENT FORM #1 80021

S. A. P. NO. 62-623-30

Sheet No. 34 of 45 Sheets

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 27-116 80

Fed. Proj. No.

C STA. 152+22.00 ℄ 963.08 DES3
G STA. 152+22.00 ℄ 964.17 OT1

R/W

GRAVEL ENTRANCE

10% ±

L 960

R/W

C STA. 152+15.00 ℄ 963.04 DES3
G STA. 152+15.00 ℄ 964.17 OT1

R/W

BIT. ENTRANCE

VAR.

L 960

R/W

C STA. 152+00.00 ℄ 962.97 DES3
G STA. 152+00.00 ℄ 964.17 OT1

R/W

10% ±

L 960

R/W

C STA. 151+50.00 ℄ 962.78 DES3
G STA. 151+50.00 ℄ 964.17 OT1

R/W

BIT. ENTRANCE

10% ±

12% ±

L 960

STA. 151+50.00 TO 152+22.00 SCALE = 5 X 5

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

S.A.P. NO. 62-623-30

Sheet No. 35 of 45 Sheets

27-116

COPY EQUIPMENT FORM #1 60021

Fed. Proj. No.

R/W

BIT. ENTRANCE

C STA. 153+58.00 ℄ 963.76 DES3

G STA. 153+58.00 ℄ 964.48 OT1

R/W

GRAVEL ENTRANCE

VAR.

L 960

STA. 153+50 BEGIN 100:1 TAPER RIGHT SIDE

STA. 153+21
RT. 40
SD 136

R/W

C STA. 153+00.00 ℄ 963.47 DES3
G STA. 153+00.00 ℄ 964.27 OT1

R/W

VAR. 5:1

L 960

R/W

BIT. ENTRANCE
CONC. BEGINS 55' LT.

C STA. 152+89.00 ℄ 963.41 DES3
G STA. 152+89.00 ℄ 964.28 OT1

R/W

5:1

L 960

R/W

C STA. 152+50.00 ℄ 963.22 DES3

G STA. 152+50.00 ℄ 964.17 OT1

R/W

L 960

STA. 152+50.00 TO 153+58.00 SCALE = 5 X 5

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

S.A.P. NO. 62-623-30

Sheet No. 36 of 45 Sheets

29-116

COPY EQUIPMENT FORM #1 90021

Fed. Proj. No.

R/W

C STA. 154+50.00 ℄ 964.15 DES3

G STA. 154+50.00 ℄ 964.64 OT1

R/W

L 960

R/W

C STA. 154+34.00 ℄ 964.13 DES3
G STA. 154+34.00 ℄ 964.64 OT1

R/W

BIT.
ENTRANCE

L 960

R/W

C STA. 154+00.00 ℄ 963.97 DES3
G STA. 154+00.00 ℄ 964.57 OT1

R/W

L 960

R/W

BIT.
ENTRANCE

C STA. 153+85.00 ℄ 963.89 DES3

G STA. 153+85.00 ℄ 964.48 OT1

R/W

L 960

STA. 153+85.00 TO 154+50.00 SCALE = 5 X 5

S.A.P. NO. 62-623-30

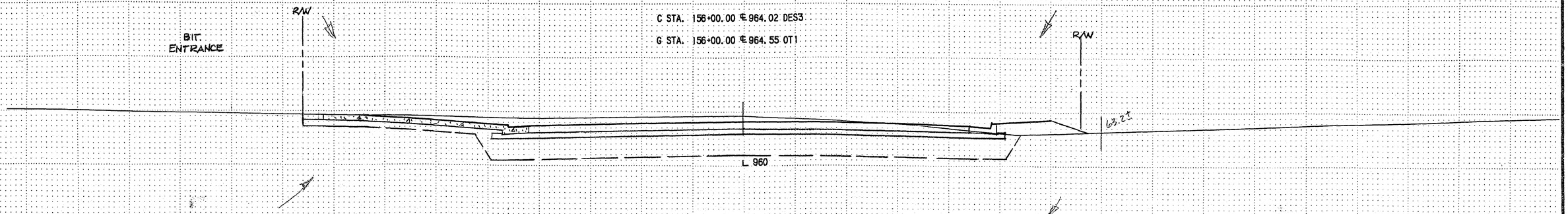
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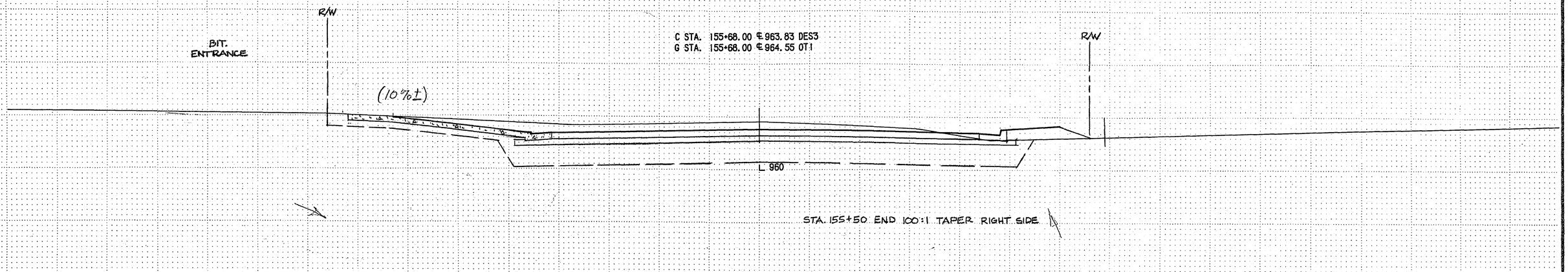
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27-116

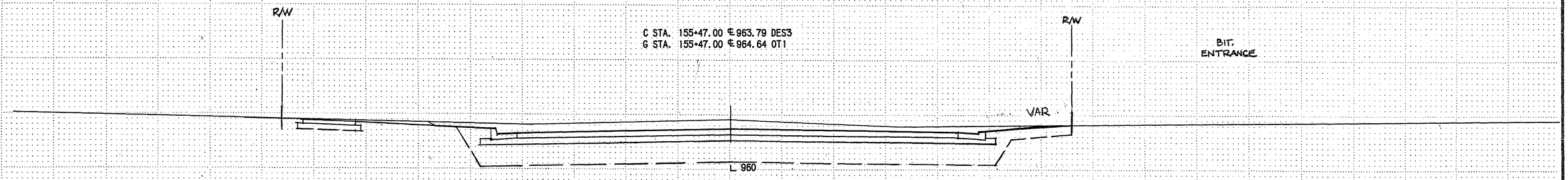
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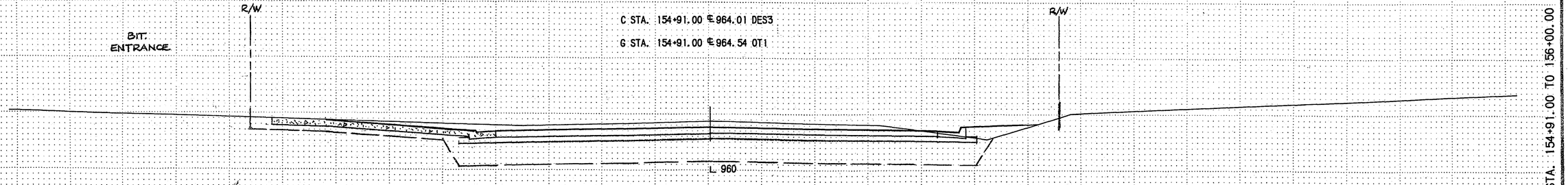




STA. 155+50 END 100:1 TAPER RIGHT SIDE



STA. 155+00 BEGIN 100:1 TAPER LEFT SIDE



STA. 154+91.00 TO 156+00.00 SCALE = 5 X 5

S.A.P. NO. 62-623-30

Sheet No. 38 of 45 Sheets

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

27-116

Fed. Proj. No.

WEST GUTTER LINE McKNIGHT RD.

WEST GUTTER LINE McKNIGHT RD.

R/W

R/W

G STA. 157+41.00 ℄ 964.74 OT1

L 960

END CONSTRUCTION
STA. 157+41

R/W

R/W

C STA. 157+00.00 ℄ 964.62 DES3
G STA. 157+00.00 ℄ 964.64 OT1

L 960

STA. 157+00 END 100:1 TAPER LEFT SIDE

R/W

BIT. ENTRANCE

R/W

C STA. 156+68.00 ℄ 964.43 DES3
G STA. 156+68.00 ℄ 964.64 OT1

L 960

R/W

R/W

C STA. 156+50.00 ℄ 964.32 DES3

G STA. 156+50.00 ℄ 964.55 OT1

L 960

STA. 156+50.00 TO 157+41.00 SCALE = 5 X 5

S.A.P. NO. 62-623-30

Sheet No. 39 of 45 Sheets

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

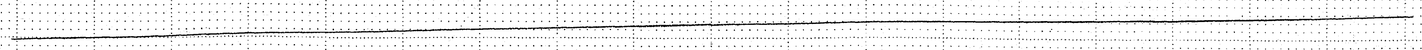
27-116

COPY EQUIPMENT FORM #1 80021

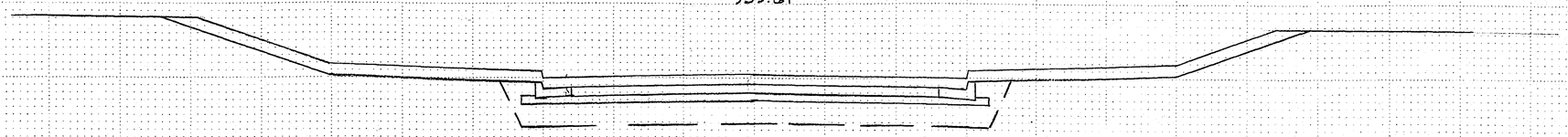
Fed. Proj. No.

℄

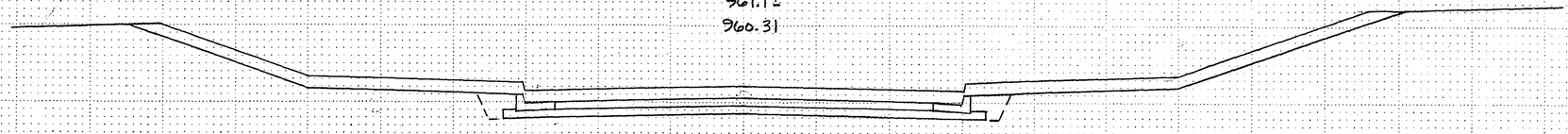
8+43.00
960.8±
See X-Section Sheets For
Co. Rd. C



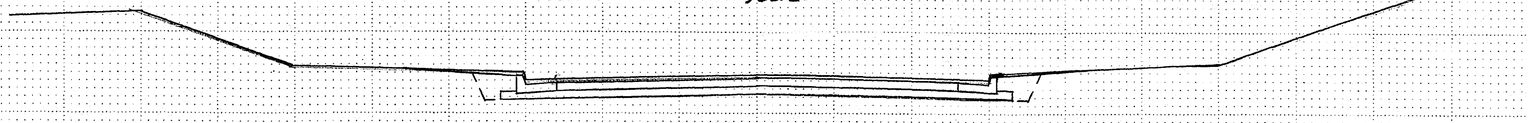
8+37.00
960.3±
959.61



8+00.00
961.1±
960.31



7+50.00
962.4±
962.23



Begin Const. @ Sta. 7+40
Match Existing

EARTHWORK SUMMARY

EXCAVATION	21,860	CY
EMBANKMENT 2,858 × 1.3 =	3,715	CY
EXCESS EXCAVATION	18,145	CY

SUBGRADE CORRECTION
SELECT GRANULAR BORROW
12,178 × 1.4 = 17,050 CY (LV)

REVISIONS	DATE	BY
EARTHWORK SUMMARY	6/20/88	B.J.

Spirit Drive

S.A.P. NO. 62-623-30

Sheet No. 39A of 45 Sheets

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

27-116

CDOT EQUIPMENT FORM # 90031

Sta. 122+08.5 29' Lt.
REMOVE & SALVAGE EXIST. HYDRANT ASS'Y.
FURNISH & INSTALL:
6" X 6" MJ TEE
5 LF 6" DIP HYDRANT LEAD
6" MJ GV WITH BOX
REINSTALL SALVAGED HYDRANT ASS'Y
6" X 8" MJ REDUCER
8" 22½° MJ BEND FOR VERT ALIGNMENT
9 LF 8" SJ DIP
8" 90° MJ BEND

Sta. 121+32.10 ℄
WHITE BEAR AVE.

Sta. 123+96.5 41' Lt.
SALVAGE EXISTING HYDRANT ASS'Y.
& DELIVER TO MAPLEWOOD
PUBLIC WORKS DEPT.

Sta. 124+01
DISCONNECT EXIST. 6" CIP & PLUG END RIGHT OF PROP MAIN
REMOVE EXIST 6" TEE, 6" GV, & 10 LF 6" CIP
SALVAGE EXIST. 6" X 4" REDUCER
FURNISH & INSTALL:
8" X 6" MJ TEE
6" GV WITH BOX
10 LF 6" DIP
CONNECT TO EXIST. 6" CIP SERVICE & REINSTALL SALVAGED 6" X 4" REDUCER

2650

SCHOOL

BIT. PARKING LOT

PERM. EASEMENT

20'

EXIST. WATER MAIN TO BE ABANDONED

12" CIP

6" CIP

8" VCP

NEW RESIDENTIAL WATER SERVICE BY ST. PAUL WATER UTILITY

MH 3

Sta. 123+00
AIR VENT TO BE INSTALLED BY ST. PAUL WATER UTILITY

SAWCUTTING & REMOVAL OF 20 LF OF CURB INCIDENTAL

BLDG.

GRAVEL DR.

CONC. SIDEWALK

1954

Sta. 124+08.5 38' Lt.
FURNISH & INSTALL:
8" X 6" MJ TEE & 2 LF 6" DIP W/ CAP
8" X 6" MJ REDUCER
5 LF 6" DIP SJ HYDRANT LEAD
6" GV WITH BOX
6" MJ HYDRANT ASS'Y.

WHITE BEAR AVE.

NOTE:
ALL NEWLY INSTALLED DIP WATER MAIN TO BE ENCASED WITH 8 MIL POLYETHYLENE (TUBE METHOD ENCASEMENT), INCIDENTAL TO PIPE INSTALLATION.

NOTE:
NEW SAN. SEWER SERVICE PIPE SHALL BE 4" PVC, SCHEDULE 40
INSTALLATION OF SERVICES AT THE MAIN SHALL BE BY CORE TAP
SERVICE STATIONS ARE MEASURED FROM NEAREST DOWNSTREAM MANHOLE

2005

℄ CONCEPTUAL LOT LINE

CITY OF MAPLEWOOD
CITY OF NORTH ST. PAUL

2+60

6" CIP

4"

129

130

8" VCP

131

MH 7

RECONSTRUCT 24 LF SAN. SEWER WITH 8" PVC

MH 6

8" San.

1+00

ARIEL ST.

8" VCP

-N-

SCALE: 1" = 30'

COUNTY ROAD "C"

PROPOSED GRADE OVER WATER MAIN

7.5'

TOP 6" CIP

8" DIP WATER MAIN

TOP 6" CIP

RECONSTRUCT TO EXIST. GRADE WITH 8" PVC

8" VCP

8" VCP

930 925 920 915 910 905

122 123 124 129 130 131

+21 MH 7 MH 6

DESIGNED BY JTG DATE 12-87
DRAWN BY JTG DATE 12-87
CHECKED BY DATE
CERTIFIED AS CONSTRUCTED BY
DATE
B.M. DATA :

NO.	DATE	BY	REVISIONS

I HEREBY CERTIFY THAT THESE PLANS WERE 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.

bruce A. Dual
ENGINEER

REG. NO. 14974 DATE 12-87

CITY of MAPLEWOOD
Department of Public Works
ENGINEERING DEPARTMENT
1830 EAST COUNTY ROAD "B"
MAPLEWOOD, MINNESOTA. 55109

UTILITY CONSTRUCTION
COUNTY ROAD "C"
MAPLEWOOD PROJ. 86-25
S.A.P. 62-623-30

SHEET 40 OF 45 SHEETS

27-116

Fed. Proj. No.

930

123+00

930

122+72.10

930

122+32.10

8" DIP

930

PERM. EASM'T.

R.O.W.

121+97.10

℄

6" CIP

930

124+50

930

124+00

930

123+52

930

PERM. EASM'T.

R.O.W.

123+31

℄

1" = 5' HORIZ.
1" = 5' VERT.

60 50 40 30 20 10

60 50 40 30 20 10

S.A.P. 62-623-30 MAPLEWOOD PROJ. 86-25 **Sheet No. 41 of 45 Sheets**

29-116

COPY EQUIPMENT FUND 11 8/87/4

TOPOGRAPHY	PLOTTED BY	DATE	CHECKED BY	DATE
UTILITIES	PLOTTED BY	DATE	CHECKED BY	DATE
PROFILE	PLOTTED BY	DATE	CHECKED BY	DATE

MAPLEWOOD

NO. ST. PAUL

STA. 130+87 67 LF
1" WATER SERVICE
(MAPLEWOOD)

STA. 130+77 34 LF
4" PVC SAN. SEWER SERVICE
(MAPLEWOOD)

STA. 131+36.47

STA. 131+65 57 LF
4" CISP SAN.
SEWER SERVICE
(NO. ST. PAUL)
STA. 131+67 17 LF
3/4" WATER SERVICE
(NO. ST. PAUL)

2027

SCALE 0' 30' 100'

BIT. PARKING LOT

REPLACE IN KIND C & G (SHALL BE PAYED FOR AS B624)

BIT. PATCH (INCIDENTAL)

CB 104

STA. 129+75 183 LF
1 1/4" WATER SERVICE
CONNECT TO INPLACE
WATER SERVICE
(5) (MAPLEWOOD)

2005

SD 106

CONST. LIMITS

CONCRETE SIDEWALK

WOVEN WIRE FENCE

1" CURB STOP & BOX

RELOCATE HYDRANT

STA. 121+32.10 ℄
WHITE BEAR AVE.

20' UTILITY EASEMENT

CONCRETE SIDEWALK

ABANDON INPLACE 6" C.I.P. WATERMAIN

CB 103

CB 107

CB 109

M.H. 2

B624 C & G

123 BEGIN CONSTRUCTION
STA. 123+80

124 125 126 127 128 129 130

M.H. 3

M.H. 4

M.H. 5

REMOVE

REMOVE MH, SALVAGE GATE VALVE & CASTING

1 1/4" CURB STOP & BOX

STA. 131+21 24 LF
8" PVC SDR 35 SAN. SEWER
RECONSTRUCT (MAPLEWOOD)

M.H. 7

GV

SAWCUT AS DIRECTED

B624 C & G

100:1 TAPER

CB 102

CB 108

M.H. 6 M.H. 8

CB 110

4" SEWER TAP

123+80 BEGIN TAPER RT. & LT.

125+80 END TAPER RT. & LT.

STA. 129+17 32 LF
4" PVC SAN. SEWER SERVICE

APRON 101

10' UTILITY EASEMENT

1" COPPER

1" CURB STOP & BOX

PROTECT SAN. SEWER

ARIEL ST.
8" C.I.P. WATERMAIN

TAPER TO MATCH EXISTING 15"

2026

1954

WOODS

WOODS

CONST. LIMITS

STA. 129+27 21.7 LF
1 1/4" WATER SERVICE
(MAPLEWOOD)

STA. 130+50.96 LF
1" WATER SERVICE
(MAPLEWOOD)

① SAWCUT BIT. AS DIRECTED
② SAWCUT CONC. AS DIRECTED
③ REMOVE & CONSTRUCT CONC SIDEWALK AS DIRECTED
⑤ SALVAGE & INSTALL FENCE AS DIRECTED

---- 4" PERFORATED DRAIN PIPE

FOR MAPLEWOOD UTILITIES
SEE SHEET NO. 40

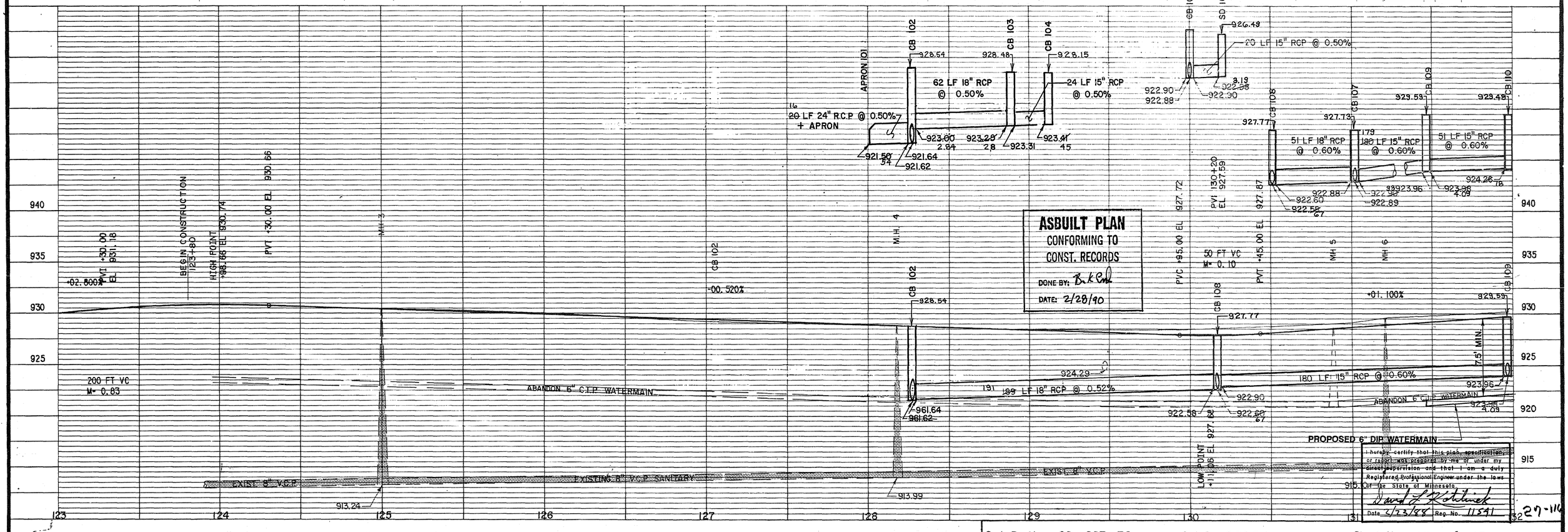
NOTE: WHERE CONFLICTS OCCUR WITH SEWER SERVICES THE WATERMAIN SHALL BE INSTALLED BELOW THEM.

NOTE: CONNECT WATER SERVICES TO NEW MAIN (SEE SPEC.'S)
EXACT LOCATION OF NEW WATER MAIN TO BE
DETERMINED IN THE FIELD

RAMSEY COUNTY OPEN SPACE

MAPLEWOOD

NO. ST PAUL



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: BKCnl
DATE: 2/28/90

I hereby certify that this plan, specification or report 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.
David L. Kohlnick
Date 2/23/88 Reg. No. 11541

27-116

S.A.P. No. 62-623-30 S.A.D. 8606 Sheet No. 42 of 45 Sheets

	PLOTTED BY	DATE	CHECKED BY	DATE
TOPOGRAPHY				
UTILITIES				
PROFILE				

NO. ST. PAUL

① SAWCUT BIT. AS DIRECTED
② SAWCUT CONC. AS DIRECTED
③ REMOVE & CONSTRUCT CONC. SIDEWALK AS DIRECTED
⑤ SALVAGE & INSTALL FENCE

STA. 133+25 57 LF
4" CISP SAN. SEWER SERVICE
(NO. ST. PAUL)
STA. 133+27 17 LF
3/4" WATER SERVICE
(NO. ST. PAUL) ⑤

STA. 134+88 57 LF
4" CISP SAN. SEWER SERVICE
(NO. ST. PAUL)
STA. 134+90 17 LF
3/4" WATER SERVICE
(NO. ST. PAUL) ⑤

STA. 134+28 9 LF
4" CISP SAN. SEWER SERVICE
(NO. ST. PAUL)
STA. 134+30 49 LF
3/4" WATER SERVICE
(NO. ST. PAUL)

2027 2045 2026 2032 2040 2054 2062 2070 2082 2096

STA. 131+36.47

REMOVE MH., SALVAGE GATE VALVE & CASTING
RELOCATE HYDRANT
6" TEE, 6" D.I.P LEAD & CONNECT TO HYDRANT LEAD
CONCRETE SIDEWALK
CONST. LIMITS
PROTECT STORM SEWER
ABANDON INPLACE 6" CIP WATERMAIN
6" D.I.P WATERMAIN
6" GATE VALVE & MANHOLE
6" 90° BEND & CONNECT TO WATERMAIN
4" SEWER TAP
PROTECT INPLACE 8"X6" REDUCER
REMOVE INPLACE 6" CROSS & PLUG WATERMAIN TO WEST
ARIEL ST. 8" C.I.P. WATERMAIN
15:1 TAPER
INSULATION
4" PERFORATED DRAIN PIPE
WOODS
NOTE: WHERE CONFLICTS OCCUR WITH SEWER SERVICES THE WATERMAIN SHALL BE INSTALLED BELOW THEM.

CASEY PARK
CONST. LIMITS
REMOVE MH., SALVAGE GATE VALVE & CASTING
6" GATE VALVE & MANHOLE
2 - 6" 22½° BENDS AT CROSSING OF TELEPHONE LINES
6" TEE, 6" D.I.P LEAD & CONNECT TO HYDRANT LEAD
6" TEE, CONNECT TO WATERMAIN
REMOVE & REPLACE TIMBER WALL AS DIRECTED. (PAYMENT SHALL BE INCIDENTAL).
DIANNE ST. 15:1 TAPER
NOTE: CONNECT WATER SERVICES TO NEW MAIN (SEE SPEC.'S) EXACT LOCATION OF NEW WATER MAIN TO BE DETERMINED IN THE FIELD

0' 30' 100'
SCALE

NO. ST. PAUL

CB 109 928.59 — 51 LF 15" RCP @ 0.60% — CB 110 929.48 — 923.96 — 923.88 — 924.28
CB 111 933.27 — CB 112 933.19 — 51 LF 15" RCP @ 0.50% — 928.50 — 928.26 — 928.24
SD 11 936.36 — MH 113 936.84 — 927.50 — 927.49 — 928.97 — 926.94 — 926.91 — 926.59
APRON
MH 116 942.32 — CB 115 942.29 — 12 LF 15" RCP @ 0.50% — 937.54 — 937.80 — 934.78
PVC 50.00 EL 932.32 — PVC 50.00 E 934.00
100 FT VC M= 0.17
+01.100%
+02.430%
MH 6 MH 7 MH 8 MH 9 MH 10 MH 12 MH 13 MH 14 MH 15 MH 16 MH 17
179 — 180 LF 15" RCP @ 0.60% — 923.88 — 915.10
152 LF 15" RCP @ 0.50% — 928.26 — 928.24 — 920.68
233 235 LF 24" RCP @ 2.50% — 928.50 — 928.77 — 924.81
CB 114 940.72 — 50 — 45 LF 15" RCP @ 1.67% — 935.93 — 935.48 — 937.50
283 285 LF 24" RCP @ 2.90% — 934.85 — 934.75 — 937.28
7.5' MIN.
ABANDON 6" CIP WATERMAIN
EXISTING 8" C.I.P. SANITARY
EXISTING 24" R.C.P.
PROPOSED 6" DIP WATERMAIN
233 235 LF 24" RCP @ 2.50% — 928.97

ASSUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: B.K.B.
DATE: 2/28/90

I hereby certify that this plan, specification, or report 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.
David L. Kotilnek
Date 2/23/88 Reg. No. 11591

27-116

131 132 133 134 135 136 137 138 139 140

S.A.P. No. 62-623-30 S.A.D. 8606 Sheet No. 43 of 45 Sheets

	PLOTTED BY	DATE	CHECKED BY	DATE
TOPOGRAPHY				
UTILITIES	PLOTTED BY	DATE	CHECKED BY	DATE
PROFILE	PLOTTED BY	DATE	CHECKED BY	DATE

NOTE: CONNECT WATER SERVICES TO NEW MAIN (SEE SPEC.'S)
EXACT LOCATION OF NEW WATER MAIN TO BE
DETERMINED IN THE FIELD

NO. ST. PAUL

EQUATION
COUNTY RD 'C'
CONST. ℄
STA. 146+22± =
SPIRIT DRIVE
STA. 8+65±

SCALE 0' 30' 100'

N

CASEY PARK

6" TEE, 6" D.I.P LEAD & CONNECT TO HYDRANT LEAD

CONST. LIMITS

REMOVE MH., SALVAGE GATE VALVE & CASTING

MOHAWK RD.

CONC. 2, 6" 45° BENDS AT TELEPHONE LINE CROSSING

CB 125 CB 124

REMOVE MH., SALVAGE GATE VALVE & CASTING

2139

2149

2161

2165

2171

2177

6" TEE, 6" D.I.P LEAD & CONNECT TO HYDRANT LEAD

SALVAGE & INSTALL WOOD RAIL FENCE

CONCRETE SIDEWALK

ABANDON INPLACE 6" CIP WATERMAIN

RELOCATE HYD.

PROTECT SAN. SEWER

6" GATE VALVE & MANHOLE

6" D.I.P. WATERMAIN

6" TEE, CONNECT TO WATERMAIN

REMOVE MH., SALVAGE GATE VALVE & CASTING

REMOVE

SAVE HEDGE

GRADE & REPLACE INKIND AS DIRECTED

6" PLUG

SALVAGE & INSTALL WOOD RAIL FENCE

REMOVE & REPLACE TIMBER WALL AS DIRECTED. (PAYMENT SHALL BE INCIDENTAL).

7TH ST. N.

2104 2116 2122 2130

GAR.

WOODS

NOTE: WHERE CONFLICTS OCCUR WITH SEWER SERVICES THE WATERMAIN SHALL BE INSTALLED BELOW THEM.

SPIRIT DRIVE

① SAWCUT BIT. AS DIRECTED
② SAWCUT CONC. AS DIRECTED
④ MATCH B624 C & G TO EXISTING IN 10'

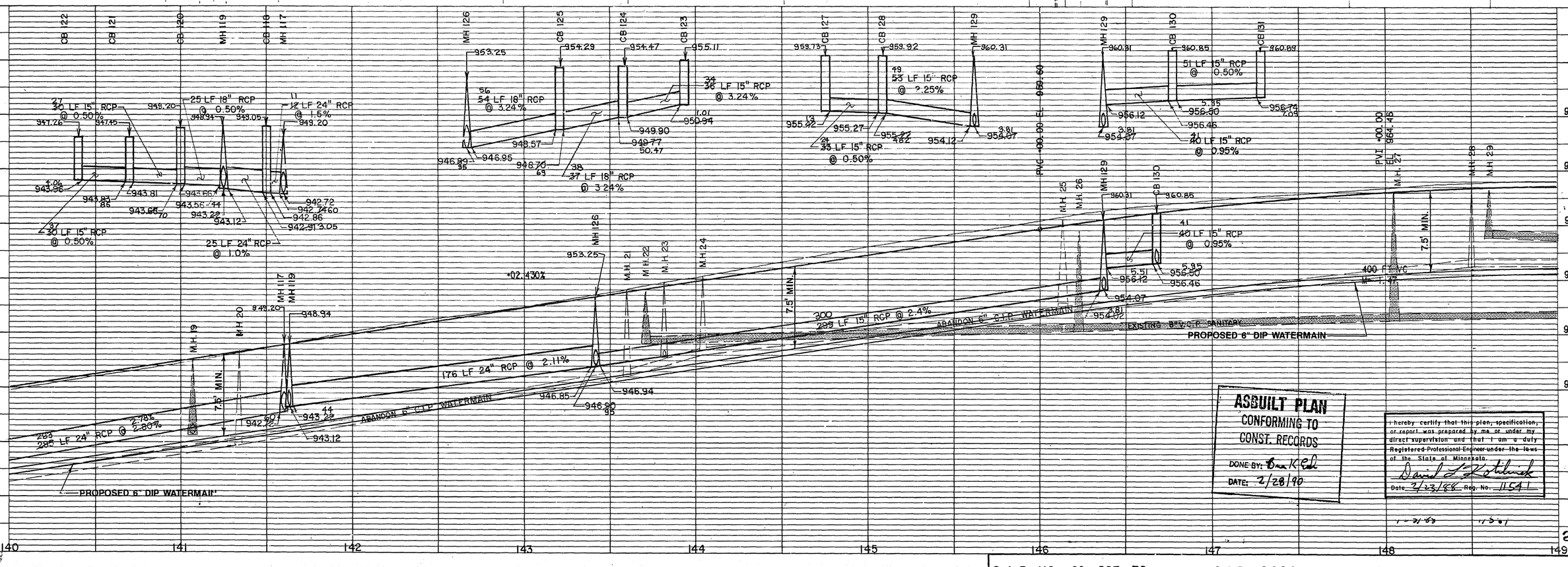
REMOVE & REPLACE TIMBER WALL AS DIRECTED. (PAYMENT SHALL BE INCIDENTAL).

REMOVE FLAGSTONE WALL

2166 2172

4" PERFORATED DRAIN PIPE

NO. ST. PAUL



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: Buck Ed
DATE: 2/28/90

I hereby certify that this plan, specification, or report 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.
David L. Kotlinek
Date 2/23/88 Reg. No. 11541

1-31-89 175-1

27-116

S.A.P. NO. 62-623-30 S.A.D. 8606 Sheet No. 44 of 45 Sheets

TOPOGRAPHY	PLOTTED BY	DATE	CHECKED BY	DATE
UTILITIES	PLOTTED BY	DATE	CHECKED BY	DATE
PROFILE	PLOTTED BY	DATE	CHECKED BY	DATE

NO. ST. PAUL

① SAWCUT BIT. AS DIRECTED

NOTE: CONNECT WATER SERVICES TO NEW MAIN (SEE SPEC.'S)
EXACT LOCATION OF NEW WATER MAIN TO BE DETERMINED IN THE FIELD

SCALE 0' 30' 100'

CONNECT TO INP. WATERMAIN
STA. 157+00 END
TAPER LT. 24'

STA. 155+00 BEGIN
TAPER LT. 22'

STA. 157+62.19

CONCRETE SIDEWALK

REMOVE MH., SALVAGE GATE VALVE & CASTING

6" TEE, 6" D.I.P LEAD & CONNECT TO HYDRANT LEAD

REMOVE MH., SALVAGE GATE VALVE & CASTING

ABANDON INPLACE 6" C.I.P. WATERMAIN

6" D.I.P. WATERMAIN

PROTECT SAN. SEWER

6" GATE VALVE & MANHOLE

6" GATE VALVE & MANHOLE

END CONSTRUCTION
157+41
2-6" 45° BENDS

REMOVE

REMOVE

REMOVE

CONST. LIMITS

CONST. LIMITS

CONST. LIMITS

CONC. SIDEWALK

CONC. SIDEWALK

WOODS

WOODS

2177 2185 2193 2199 2205 2211 2219 2225 2233 2239 2245 2255

2172 2184 2204 2210 2222 2232 2631

149 150 151 152 153 154 155 156 157 158

M.H. 30 C.B. 33 CB 132 M.H. 36 C.B. 38 M.H. 40 M.H. 42 CB 137 C.B. 44 M.H. 45 M.H. 47

M.H. 31 M.H. 34 S.D. 32 CB 134 M.H. 35 MH 133 MH 135 M.H. 39 S.D. 37 M.H. 41 MH 138 CB 139 C.B. 43 M.H. 45 M.H. 48

SD 136 SD 141

STA. 153+50 BEGIN
TAPER RT. 22'

STA. 154+50 END
TAPER RT. 24'

NOTE: WHERE CONFLICTS OCCUR WITH SEWER SERVICES, THE WATERMAIN SHALL BE INSTALLED BELOW THEM.

---- 4" PERFORATED DRAIN PIPE

NO. ST. PAUL

CB 132 MH 133 CB 134 MH 135 SD 136 CB 137 MH 138 CB 139

962.92 962.81 962.91 963.42 962.59 963.91 963.80 963.86

19 18 LF 15" RCP @ 1.0%

9.12 958.80 958.64 958.63 958.79 958.65

35 LF 15" RCP @ 0.50%

8.12 957.88 958.08

33 38 LF 15" RCP @ 0.50%

12 40 LF 15" RCP @ 0.50%

21 38 LF 15" RCP @ 1.0%

956.85 956.67 956.66 956.82 956.68

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: B.A.C.
DATE: 2/28/90

970 965 960 955

PVI +00.00 EL 963.46 PVC +25.00 EL 962.84 PVI +50.00 EL 962.71 PVT +75.00 EL 962.84 PVC +25.00 EL 964.09 HIGH POINT +30.00 EL 964.27 PVT +75.00 EL 964.09 PVC +25.00 EL 963.84 PVI +50.00 EL 963.78 PVT +75.00 EL 963.86 PVI +10.00 EL 964.67

50 FT VC M= 0.06 50 FT VC M= 0.07

REVISED TO MATCH EXISTING CURB

+00.500% +00.500% +00.500% +0.43% +00.600%

M.H. 34 CB 132 MH 133 M.H. 35 M.H. 36 MH 135 M.H. 39 M.H. 40 M.H. 41 M.H. 42 MH 138 M.H. 45 M.H. 46 M.H. 47

962.81 963.12 963.80 964.56

7.5' MIN. 7.5' MIN. 7.5' MIN.

144 147 LF 18" RCP @ 0.50%

251 260 LF 18" RCP @ 0.50%

172 178 LF 18" RCP @ 0.88%

EXISTING 12" R.C.P.

EXISTING 8" V.C.P. SANITARY

ABANDON 6" C.I.P. WATERMAIN

PROPOSED 6" DIP WATERMAIN

EXISTING 8" V.C.P. SANITARY

12" R.C.P.

EXISTING 8" V.C.P. SANITARY

ABANDON 6" C.I.P. WATERMAIN

EXISTING 12" R.C.P.

PROPOSED 6" DIP WATERMAIN

EXISTING 8" V.C.P. SANITARY

LOW POINT +50.00 EL 962.71

LOW POINT +47.78 EL 963.78

955.24 46

I hereby certify that this plan, specification, or report 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.
Daniel L. Richtsmeier
Date 2/23/88 Reg. No. 11541

29-116

S.A.P. No. 62-623-30 S.A.D. 8606 Sheet No. 45 of 45 Sheets