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STANDARD DETAIL PLATES

CITY OF ROCHESTER

NO.	DETAIL PLATE
1-01	Structure Type 1
1-03	Structure Types 3 and 3A
1-04	Structure Type 4 (XXin.)
1-07	Manhole Waterproofing
1-08	Subsurface Drains
1-10	Curb Box Cover
1-11	Casting Schedule
1-12	Structure Adjusting Rings
1-13	Blind-Tie Field Connection for R.C.P. Storm Sewer
2-01	Concrete Curb & Gutter
2-02	Concrete Sill
2-04	Bituminous Curb
2-06	Curb & Gutter Reinforcement at Catch Basins
2-07	Concrete Drive Approach Type A
2-13	Pedestrian Curb Ramp
2-14	Sidewalk Details
3-02	Typical Section Off-Road Bikeway
4-01	Service Connections Stubbed into Boulevard
4-02	Standard 4in. Riser
4-03	Street Crossings for Utility Conduits
6-04	Hydrant Branch Detail
6-05	Restrained Joint Detail
6-06	Polyethylene Encasement
6-07	Alignment of Watermain at Sewer Manhole in Common Trench
6-08	Electrical Continuity
6-09	Installation Detail
6-10	Fire Hydrant Thread Pattern (4in. Nozzle)
6-11	Water Service and Meter Setting Details
6-13	Alternate Service Layout for Multiple-Unit Buildings
6-15	Typical Fitting Cut-in and Removal Details
7-01	Silt Fence Details
7-02	Flotation Silt Curtains
7-05	Inlet Protection
7-06	Temporary Rock Construction Entrance
7-07	Turf Reinforcement Mat for Channel
7-08	Sediment Mat
7-09	Sediment Trap Detail

STATE OF MINNESOTA

NO.	DETAIL PLATE
1103J	Typical Dowel Bar Assembly
1150Q	Construction of Header Joints
3000L1	Reinforced Concrete Pipe (1 of 5 Sheets)
3000L2	Reinforced Concrete Pipe (2 of 5 Sheets)
3000L3	Reinforced Concrete Pipe (3 of 5 Sheets)
3000L4	Reinforced Concrete Pipe (4 of 5 Sheets)
3000L5	Reinforced Concrete Pipe (5 of 5 Sheets)
3006G1	Gasket Joint for R.C. Pipe (1 of 2 Sheets)
3006G2	Gasket Joint for R.C. Pipe (2 of 2 Sheets)
5010A	Reinforced Concrete Pipe Energy Dissipater
7000E	Integrant Curbs (Design B, Design V and Design D)
8000I	Standard Barricades
8002G	Permanent Barricade

CONTROL & TRAVERSE POINTS

NODE ID	STATION	OFFSET	NORTHING	EASTING	DESCRIPTION
SOLDIERS FIELD PARK					
10	26+16.25	37.50 L	167062.63	618543.22	BLK_COR
13	24+27.21	37.16 L	166873.60	618545.02	PC
15	17+94.63	25.13 R	166291.89	618635.29	TRAV_STA
101	N/A	N/A	165613.38	618994.69	TRAV_STA
1st Ave SW					
1	76+17.22	42.90 R	167139.54	618996.49	BLK_COR
3	80+71.58	40.09 R	167593.68	618991.94	FS
3	82+88.62	48.12 L	167810.59	618902.9	PROP_COR
4	81+56.15	47.00 L	167678.12	618904.53	PROP_COR
6	79+13.02	47.54 R	167435.35	618999.99	BLK_COR
7	76+18.03	47.42 R	167140.36	619001.01	BLK_COR
8	76+18.23	42.87 R	167140.55	618996.46	TRAV_STA
9	76+44.51	33.47 R	167166.79	618986.95	TRAV_STA
14	76+17.78	43.42 R	167140.1	618997.01	BLK_COR
4th St SW					
1	95+66.39	45.01 L	167966.86	618902.26	PROP_COR
5	99+54.65	44.59 R	167879.01	619290.92	TRAV_STA
11	95+66.39	45.01 L	167966.86	618902.26	BLK_COR
536	100+49.78	44.50 R	167879.52	619386.05	PROP_COR
East of Zumbro River					
16	207+12.88	24.75 L	165082.15	619460.8	TRAV_STA
31	201+42.98	46.16 L	165456.47	619260.83	TRAV_STA
32	207+12.88	24.75 L	165082.15	619460.8	TRAV_STA
33	211+00.72	11.11 R	165045.98	619848.6	BLK_COR
101	198+37.50	0.02 L	165613.38	618994.69	TRAV_STA

SALVAGE AND INSTALL (A)

LOCATION	CHAIN LINK (LF)	GUARD RAIL (LF)	PARK SWING (1)
9-1/2 ST SE			
200+08.96			1
209+45.25 - 12.4 R TO 210+45.25 - 20.7 R	90.0		
207+74.37 - 7.2 R TO 207+85.73 - 15.9 L		26.0	
SOLDIERS FIELD AREA			
15+45-172' RT		40.0	
TOTAL	90	66	1

(1) PARK SWING TO BE SALVAGED AND INSTALLED BY ROCHESTER PARK DEPARTMENT

REMOVE PAVEMENT AND CONCRETE (D)

STATION LOCATION	PAVEMENT (SY)	SAW CUT (LF)	SIDEWALK (SY)	CURB (LF)	DRIVE (SQ YD)
9-1/2 ST SE					
208+08.46 TO 208+30.00			15.06	21.54	
209+96.5 TO 210+20.5			7.46	24.00	
SOLDIERS FIELD PARK					
				565.35	
12+23.7 TO 18+55.4				192.42	
12+50			5.06		
15+75-250' RT	86.11				
21+67.58 TO 23+81.11			168.69		
22+83.24 TO 24+74.72				194.46	
1ST AVE SW					
76+35.7 LT TO 79+63.6 LT			514.78		
76+35.7 TO 83+99.9 (1) (2)	5241.56				
80+09.1 T LT O 83+69.4 LT			541.03		
76+35.7 RT TO 83+69.1 RT			910.87		
76+35.2 LT TO 79+65.7 LT				345.76	
80+07.2 LT TO 83+70.0 LT				403.20	
76+35.7 RT TO 80+76.4 RT				440.66	
83+27.0 RT TO 83+69.9 RT				56.64	
76+64.2 LT					36.40
77+36.0 RT					21.67
79+02.0 RT					21.09
79+53.4 RT					25.41
83+07 LT					12.60
4TH ST SW					
95+68.3 TO 100+25.7 (3)	1364.89	22.00			
NW CORNER OF 1ST AND 4TH ST SW			416.92		
NE CORNER OF 1ST AND 4TH ST SW			493.47		
TOTAL	6,693	22	3,074	2,245	118

(1) APPROXIMATE BIT. DEPTH 4" - CONC. BASE DEPTH 8"
(2) BRICK PAVER BASE UNDER 4" BIT SURFACE ON TOP OF CONCRETE BASE (SEE SOIL BORINGS)
(3) APPROXIMATE CONCRETE DEPTH 8"

SALVAGE AND INSTALL SIGNS AND PARKING METERS (E)

LOCATION FROM	LOCATION TO	SIDE	SIGNS SALVAGE (EACH)	SIGNS INSTALL (EACH)	METERS SALVAGE (EACH) (1)
EAST OF ZUMBRO RIVER					
207+78	207+86		3	3	
208+09		RT	1	1	
SOLDIERS FIELD AREA					
12+00	13+00	RT	1	1	
14+00	15+00	RT	1	1	
15+00	16+00	RT	2	2	
17+00	18+00	RT	1	1	
1ST AVE SW					
6TH ST SW	5TH ST SW	LT	1		12
6TH ST SW	5TH ST SW	RT	1		11
5TH ST SW	4TH ST SW	LT	1		8
5TH ST SW	4TH ST SW	RT	1		9
		TOTALS	8	4	40

(1) SALVAGE SIGNS BY OTHERS

REMOVE BITUMINOUS (B)

LOCATION	SURFACING (SY) (1) (2)	SAW CUT (LF)	NOTES
9-1/2 ST SE			
207+70.35 TO 208+30	189.06	126.00	ROADWAY
209+95.5 TO 210+19.6	64.83	72.74	ROADWAY
BIKE PATH ALIGNMENT			
10+12.7 TO 15+82 (1)	1286.68		BIKEPATH
SOLDIERS FIELD PARK AREA			
12+08.85 - 18' LT TO 12+78.87 - 19.7' RT	79.25	51.70	PATH
12+24.96 TO 18+55.43	1364.06	624.72	ROADWAY
15+46-172' RT	30.89	137.00	PATH & ROADWAY
14+46.34 - 22' RT TO 14+64.17 - 21.7 RT	31.20	17.00	PATH
15+75-250' RT	745.00		ROADWAY
22+84.01 - 31.6 LT TO 25+84.79	870.74	155.36	ROADWAY
1ST AVE SW			
76+35.7 RT TO 77+40 RT	49.41	104.20	PARKING LOT
79+38.37 - 47.5 RT TO 79+68.84 - 47.5 RT		28.50	
80+84.65 - 47.5 RT TO 81+15.32- 47.5 RT		30.70	
79+86 - 83.6 LT		43.00	
TOTAL	4,712	1,391	

(1)INCLUDES ROADWAY AND BIT PATHS
(2) INCLUDES REMOVAL OF BASE MATERIAL

REMOVE TREES (C)

LOCATION		EACH	NOTES
9-1/2 ST SE			
200+34.24	28.49 L	1	
200+22.29	3.83 L	1	
200+33.53	6.30 R	1	
200+73.18	14.38 R	1	
200+91.33	7.49 R	1	
201+47.71	39.24 L	1	
201+51.26	15.75 L	1	
201+83.01	2.09 R	1	
202+00.58	9.58 L	1	
202+15.82	12.61 R	1	
202+28.70	6.89 L	1	
202+55.87	5.85 R	1	
202+57.97	13.15 L	1	
202+77.93	29.72 L	1	
202+80.94	9.23 L	1	
203+24.48	18.77 R	1	
203+41.68	12.45 R	1	
203+59.50	8.69 R	1	
203+80.91	2.21 R	1	
203+99.89	7.24 R	1	
204+26.63	16.16 R	1	
204+41.87	1.60 R	1	
205+42.09	13.15 L	1	
205+41.40	12.85 L	1	
SOLDIERS FIELD PARK			
9+97.32	11.66 L	1	
10+24.60	16.38 L	1	
10+41.50	15.55 R	1	
12+26.86	8.54 R	1	
15+58.24	3.97 R	1	
16+26.93	20.55 R	1	
16+42.50	10.17 R	1	
16+75.67	10.04 R	1	
17+42.21	9.37 R	1	
21+88.84	12.76 L	1	
22+67.07	4.49 L	1	
23+56.02	3.44 R	1	
1ST AVE SW			
76+91.62	34.63 L	1	
78+22.51	33.29 L	1	
78+69.49	34.30 L	1	
79+18.06	34.88 L	1	
80+68.20	38.16 L	1	
80+91.77	37.40 L	1	
TOTAL		42	

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Revision comment: –
Revised: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
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Title: REMOVAL TABULATIONS

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-1 of 62 Sheets

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EXISTING UTILITIES
CHARTER COMMUNICATIONS

STATION LOCATION	INPLACE UTILITY	LEAVE AS IS	*RELOCATE*
SOLDIERS FIELD PARK			
12+23.31 - CL	UG CABLE		*X*
1ST AVE SW			
76+94.28-36.17 RT	UNDERGROUND	X	
79+32-32.5' RT	HAND HOLE	X	
80+13.8-54.4' LT	HAND HOLE		*X*

NOTES
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UTILITIES ARE SHOWN AT APPROXIMATE LOCATIONS. THE CONTRATOR SHALL DETERMINE THE ACTUAL LOCATION OF ALL UTILITIES IN THE FIELD.

ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS UNLESS NOTED.

4TH ST SW ALIGNMENT

CONTROL POINT	STATION	NORTHING	EASTING	DIRECTION	DISTANCE
BOP	95+00.00	167921.5502	618836.0773	N 89°44'32" E	114.51
PI	96+14.51	167922.0654	618950.5862	N 89°44'32" E	485.49
EOP	101+00.00	167924.2494	619436.0687		

1ST AVE SW ALIGNMENT

CONTROL POINT	STATION	NORTHING	EASTING	DIRECTION	DISTANCE
BOP	75+00.00	167022.1520	618954.0426	N 00°13'13" W	80.28
PI	75+80.28	167102.4359	618953.7341	N 00°13'12" W	406.02
PI	79+86.30	167508.4498	618952.1753	N 00°13'12" W	413.62
PI	83+99.92	167922.0654	618950.5862	N 00°13'12" W	79.93
EOP	84+79.85	168001.9925	618950.2791		

SOLDIERS FIELD PARK ALIGNMENT

CONTROL POINT	STATION	NORTHING	EASTING	DIRECTION	DISTANCE
BOP	9+77.02	165613.3729	618994.6552	N 45°47'03" W	184.10
PI	11+61.12	165741.7580	618862.7069	N 00°44'26" W	295.72
PI	14+56.84	166037.4500	618858.8846	N 45°33'48" W	381.43
PI	18+38.27	166304.4967	618586.5338	N 11°02'10" W	355.60
PI	21+93.87	166653.5192	618518.4631	N 22°50'58" E	165.41
PI	23+59.28	166805.9502	618582.6938	N 00°26'20" W	294.20
EOP	26+53.48	167100.1453	618580.4409		

EAST OF RIVER TO 9-1/2 ST SE ALIGNMENT

CONTROL POINT	STATION	NORTHING	EASTING	DIRECTION	DISTANCE
BOP	198+37.47	165613.3729	618994.6552	S 50°53'25" E	356.43
PI	201+93.90	165388.5373	619271.2198	S 00°16'10" E	330.99
PI	205+24.88	165057.5550	619272.7782	S 89°57'06" E	579.22
EOP	211+04.10	165057.0721	619851.9987		

BIKE PATH ALIGNMENT - SOLDIERS FIELD PARK

CONTROL POINT	STATION	NORTHING	EASTING	DIRECTION	DISTANCE	DEFLECTION ANGLE	DELTA ANGLE	TANGENT	RADIUS	ARC LENGTH
BOP	10+00.00	165577.2763	619184.2217	S 11°34'04" W	11.66					
PC	10+11.66	165565.8578	619181.8845							
RADIUS	N/A	165538.7866	619314.1424				23°03'58"	27.55	135.00	54.35
PI	10+39.20	165538.8702	619176.3606			23°03'58"				
PI	10+66.00	165511.8759	619181.8517	N/A	0.00	N/A				
PI	10+68.00	165511.8759	619181.8517	S 12°09'48" E	23.21	N/A				
PI	10+89.22	165489.1844	619186.7426	S 24°19'08" E	97.87	12°05'20"				
PI	11+86.89	165400.1309	619226.8625	S 21°30'14" E	152.27	-02°44'54"				
PI	13+39.16	165258.4623	619282.6782	S 21°32'19" E	0.01	00°02'05"				
PI	13+39.16	165258.4567	619282.6804	S 21°34'24" E	0.00	N/A				
PC	13+39.16	165258.4567	619282.6804							
RADIUS	N/A	165173.8881	619068.7922				21°01'31"	42.68	230.00	84.40
PI	13+81.84	165218.7663	619298.3735			21°01'31"				
PI	14+23.56	165176.0880	619298.7817	N/A	0.00	N/A				
PI	14+23.56	165176.0880	619298.7817	S 00°34'39" E	115.00	N/A				
PI	15+38.57	165061.0922	619299.9410	S 00°24'16" W	57.97	-00°58'55"				
EOP	15+96.53	165003.1270	619299.5320							

EXISTING UTILITIES - ROCHESTER PUBLIC UTILITIES

STATION LOCATION		INPLACE UTILITY	LEAVE AS IS	*RELOCATE OR REINSTALL*	*REMOVE*	*ADJUST*	*ELEV*
EAST OF ZUMBRO RIVER							
200+13.66	43.4 R	LIGHT POLE	X				
203+53.37	50.8 L	LIGHT POLE	X				
204+68.19	39.4 L	ELEC MH	X				
205+64.20	28.3 R	LIGHT POLE	X				
206+66.38	68.3 L	LIGHT POLE	X				
207+30.43	10.1 R	POWER POLE	X				
208+10.49	10.2 R	LIGHT POLE		*X*			
SOLDIERS FIELD PARK							
15+81.47	4.5 R	LIGHT POLE		*X*			
23+94.63	8.0 R	LIGHT POLE		*X*			
1ST AVE SW							
76+94.43	36.5 R	POWER POLE			*X*		
76+35.23	44.8 R	BEGIN DUCT	X				
76+35.3	36.0 L	BEGIN CONDUIT	X				
77+30.18	32.4 L	LIGHT POLE			*X*		
77+82.83	39.5 R	MANHOLE				*X*	*1001.35*
78+22.32	31.5 R	LIGHT POLE			*X*		
79+30.08	32.3 L	LIGHT POLE			*X*		
79+49.69	40.2 R	MANHOLE				*X*	*1006.57*
80+10.29	54.0 L	LIGHT POLE	X				
80+31.94	32.3 R	LIGHT POLE			*X*		
81+58.67	37.3 L	LIGHT POLE			*X*		
82+43.61	38.8 R	LIGHT POLE			*X*		
83+48.19	40.6 R	MANHOLE				*X*	*1003.88*
83+52.73	40.0 R	END DUCT	X				
83+57.32	40.5 R	MANHOLE				*X*	*1003.18*
83+62.7	36.7 L	END CONDUIT	X				
79+86.36	39.1 R	ELEC BOX			*X*		
79+80.79	56.4 L	ELEC BOX			*X*		
80+10.75	56.4 L	ELEC BOX			*X*		
81+60.50	39.7 R	ELEC BOX			*X*		
4TH ST SW							
96+56.33 - CL		DUCT CROSSING		*X*			
97+97.74 - CL		DUCT CROSSING		*X*			
99+55.74 - CL		CROSSING		*X*			
9-1/2 ST SE							
209+26.38	9.3 R			*X*			
208+76.22	14.7 R			*X*			
208+10.49	10.2 R			*X*			

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EXISTING UTILITIES - QWEST COMMUNICATIONS

STATION LOCATION		INPLACE UTILITY	LEAVE AS IS	*RELOCATE*	*ADJUST*	*ELEV*	*NOTES*
9-1/2 STREET SE							
206+25.81	0.12 L	UG CROSSING	X				
206+79.48	0.11 R	UG CROSSING					
208+84.39	8.92 R	UG		*X*			
SOLDIERS FIELD SE							
12+25.40	0.04 R	UG CROSSING		*X*			
15+71.49	15.1 R	TELE MH		*X*	*X*	*993.94*	

NOTES
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EXISTING UTILITIES - MINNESOTA ENERGY RESOURCES

STATION LOCATION		INPLACE UTILITY	LEAVE AS IS	*RELOCATE*	*NOTES*
9-1/2 ST SE					
205+55.48 - CL		GAS MAIN CROSSING		*X*	
208+14.07 - 8.0 R		BEGIN GAS MAIN		*X*	
208+27.62 - CL				*X*	
SOLDIERS FIELD PARK					
23+93.51 - CL		GAS CROSSING		*X*	
1ST AVE SW					
76+35.23	29.50 R	BEGIN MAIN			
83+54.95	29.50 R	END MAIN			
83+54.95	CL	GAS CROSSING		*X*	
83+84.92	CL	GAS CROSSING			
4TH ST SW					
95+97.21	15.1 R	BEGIN MAIN		*X*	
96+58.30	15.0 R	END MAIN		*X*	
97+97.98		GAS CROSSING		*X*	

NOTES
THE "LEAVE AS IS" AND "RELOCATE" COLUMNS ARE BASED UPON THE BEST INFORMATION AVAILABLE AND MAY NOT REFLECT THE ACTUAL EFFECTS ON THE UTILITIES CONSTRUCTION. ACTUAL DETERMINATION WILL BE MADE IN THE FIELD DURING CONSTRUCTION.

UTILITIES ARE SHOWN AT APPROXIMATE LOCATIONS. THE CONTRATOR SHALL DETERMINE THE ACTUAL LOCATION OF ALL UTILITIES IN THE FIELD.

ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS UNLESS NOTED.

Revision comment: —
Revised: —

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 06/15/12 Reg. No. 24687

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
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TITLE: UTILITIES TABULATIONS

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-2 of 62 Sheets

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CONSTRUCT CONCRETE DRIVEWAYS (E)

LOCATION	WIDTH (FT)	TYPE	(7") COMMERCIAL (SY) (1)
SOLDIERS FIELD AREA			
17+32.0	24'	TEMP AGGREGATE	
1ST AVE SW			
77+35.18 RT	24.9'	A	48.83
79+01.05 RT	23.6'	A	46.57
79+52.72 RT	28'	A	54.90
81+01.21 RT	34'	A	65.37
81+37.80 LT	29.2'	A	57.24
83+06.77 LT	27.9'	A	54.69
		TOTALS	328

(1) INCLUDES 4" AGGREGATE BASE (CL 5)

CONSTRUCT CONCRETE WALK (F)

LOCATION	5" (SF) (1)	5" EXPOSED AGGREGATE (SF)	7" (SF) (2)	TRUNCATED DOMES
SOLDIERS FIELD PARK				
12+50.23	74.15			18.27
21+68.08 TO 23+81.09	1,512.12			
1ST AVE SW				
76+35.23 TO 4TH ST SW - RT SIDE	6,149.61	3,984.06		
76+35.23 TO 5TH ST SW - LT SIDE	9,441.82	691.85		
5TH ST SW TO 4TH ST SW - LT SIDE	7,597.50	2,536.17		
77+35.18 RT			394.36	
79+01.05 RT			373.47	
79+52.72 RT			440.05	
81+01.21 RT			580.83	
81+37.78 LT			472.04	
83+06.73 LT			440.71	
79+70.67 LT				20.19
80+05.11 LT				20.54
80+19.06 RT				12.00
80+19.06 LT				20.32
83+61.63 LT				10.00
83+62.67 RT				10.00
4TH ST SW - LT				10.00
5th ST SW - RT				10.00
1ST AVE SW				
NW CORNER OF 4TH ST SW	416.92			16.00
NE CORNER OF 4TH ST SW	493.47			16.00
TOTALS	25,686	7,213	2,702	164

(1) INCLUDES 4" AGGREGATE BASE (CL CA-3)
(2) INCLUDES 4" AGGREGATE BASE (CL 5)

CONSTRUCT CURB AND GUTTER (G)

LOCATION	TYPE B624 (LF)	TYPE B624 MODIFIED (LF)	INTEGRANT CURB B6 (LF)	INTEGRANT CURB B6 MODIIED (LF)
EAST OF ZUMBRO RIVER				
208+08.46 TO 208+30.00	22.54			
209+96.5 TO 210+20.5	24.00			
SOLDIERS FIELD PARK				
12+20.53 - 18.54 LT TO 12+42.89 - 5.1 LT	98.73			
12+42.89 - 5.07 LT TO 12+61.08 - 3.8 RT		20.24		
12+61.06 - 3.74 RT TO 13+10.81 - 19.96 RT	52.40			
14+19.89 - 17.35 RT TO 18+59.68 - 18.68 LT	474.77			
22+83.24 - 29.73 LT TO 24+74.72 - 20.00 RT	194.53			
1ST AVE SW				
76+35.24 TO 5TH ST SW - LT SIDE	76.54	40.06	42.81	305.55
5TH ST SW TO 4TH ST SW - LT SIDE	64.20	104.83	61.52	303.77
76+35.23 RT TO 4TH ST SW - RT SIDE	150.15	79.72	107.94	358.76
TOTALS	1158	245	213	969

CONSTRUCT BITUMINOUS BIKEPATH (I)

LOCATION	LIN FT
EAST OF ZUMBRO RIVER	
200+00 TO 205+00	407
SOLDIERS FIELD PARK	
12+08.85 - 18 LT TO 12+68.48 - 19.5 RT	75
14+46.55 - 23 RT TO 14+64.17 - 22 RT	34
15+45-172' RT	33
TOTALS	549

EARTHWORK SUMMARY (I)

	1ST AVE SW
CROSS SECTION VOLUME (BM)	3,387
REMOVE BITUMINOUS PAVEMENT	1,602
COMMON EXCAVATION (BM)	1,785
MATERIAL AVAILABLE (CV) (1)	1,623
EMBANKMENT (CV)	
TOPSOIL REQUIRED (CV)	
TOPSOIL BORROW(LV) (1)	
EXCESS MATERIAL AVAILABLE (CV)	1,623
EXCESS MATERIAL AVAILABLE (LV) (2)	2,110

NOTES:
(1) 1.1 SHRINKAGE FACTOR FROM BANK MEASURE (BM) TO COMPACTED VOLUME (CV) AND LOOSE VOLUME (LV) TO COMPACTED VOLUME (CV)
(2) 1.3 SHRINKAGE FACTOR FROM COMPACTED VOLUME (CV) TO LOOSE VOLUME (LV)

TURF ESTABLISHMENT (K)

LOCATION	SODDING MINERAL	TOPSOIL BORROW	SELECT TOPSOIL BORROW
	SY	CY	CY
9+77.02 TO 20+00.00 - SOLDIERS FIELD AREA	2,443.61	270.83	
20+00 TO 6TH ST SW - SOLDIERS FIELD AREA	1,515.14	167.93	
4TH ST SW TO 6TH ST SW	98.10	43.49	281.37
200+00 TO 208+30 - EAST OF ZUMBRO RIVER	4,542.43	503.45	
TOTAL	8,600	986	282

EROSION CONTROL (L)

LOCATION	SILT FENCE TYPE MACHINE SLICED	SEDIMENT REMOVAL BACKHOE	TEMPORARY ROCK CONSTRUCTION ENTRANCE	INLET PROTECTION
	LIN FT	HOUR	EACH	EACH
9+77.02 TO 20+00.00 - SOLDIERS FIELD AREA	1,371.00	4.57	1	3.00
20+00 TO 6TH ST SW - SOLDIERS FIELD AREA	824.00	2.75	1	
1ST AVE SW - 4TH ST SW TO 6TH ST SW			2	6.00
4TH ST SW - 1ST AVE SW TO BROADWAY				2.00
200+00 TO 208+30 - EAST OF ZUMBRO RIVER	934.00	3.11	2	1.00
TOTAL	3,129	11	6	12

BASIS FOR QUANTITIES
SEDIMENT REMOVAL BACKHOE = 1 HOUR FOR EVERY 300 LIN. FT. OF SILT FENCE

PAVEMENT (M)

LOCATION	TEMP ENTRANCE	BITUMINOUS PAVEMENT			CONCRETE PAVEMENT						PAVEMENT REINFORCEMENT				BITUMINOUS PARKING LOT				
	6" AGGREGATE (CL 5)	8" AGG. BASE (CL 5) (BIT RDWY)	2-1/2" 2360 TYPE LV NON-WEAR (SPNWB230B) (1)	1-1/2" 2360 TYPE LV WEAR (SPWEA230B) (1)	5" AGG. BASE (CL 5)	12" GRANULAR BASE	8-1/2" CONCRETE PAVEMENT	STRUCTURAL CONCRETE	CONCRETE PAVEMENT (SPECIAL) (3)	STRUCTURAL CONCRETE (SPECIAL) (3)	REINF. #13 BARS (EXOPY COATED) (2)	1-1/4" DIA. DOWEL BARS	DRILL & GROUT 1-1/4 DOWEL BAR (EPOXY COATED)	DRILL & GROUT NO.13 REBAR (EPOXY COATED)	1-1/2" 2360 TYPE LV NON-WEAR (SPNWB230B) (1)	1-1/2" 2360 TYPE LV WEAR (SPWEA230B) (1)	6" AGG. BASE (CL 5)	SAW-CUT	NOTES
		(CY)	(TON)	(TON)	(CY)	(CY)	(SY)	(CU YD)	(SQ FT)	(CU YD)	(POUND)	(EACH)	(EACH)	(EACH)	(TON)	(TON)	(CU YD)	(LF)	
9-1/2 ST SE																			
207+81.91 TO 208+30		42.21	26.70	16.02														126.00	
209+95.6 TO 210+19.6		14.47	9.15	5.49														72.40	
201+00 100' LT															46.14	46.14	90.74		PARK PARKING LOT
SOLDIERS FIELD PARK																			
17+32.0 - TEMPORARY AGGREGATE DRIVE	55.29																		
12+57.53 TO 18+55.43 - 18 LT		304.65	192.68	115.61														624.72	SOLDIERS FIELD DRIVE
15+75-246' RT		18.25	11.54	6.92															
22+84.47 - 32.7 LT TO 25+84.79		194.47	123.00	73.80														153.21	SOLDIERS FIELD DRIVE
1ST AVE SW																			
76+35.84 - 47.5 RT TO 77+40.01 - 47.5 RT																		104.20	
76+35.23 TO 83+55.07					551.93	1314.11	3942.33	933.02	110.11	26.06	1992.64	2767							
79+38.37 - 47.5 RT TO 79+66.84 - 47.5 RT																		28.50	
80+84.65 - 47.5 RT TO 81+15.32- 47.5 RT																		30.70	
79+86 - 65 LT		27.97	17.69	10.61															5TH ST SW TRANSITION
79+86 - 83.6 LT																		43.00	
4TH ST SW																			
95+97.23 TO 100+25.65					187.02	445.30	1335.89	316.16			347.36	834	79.00	325.00				22.00	TRENCH LIMITS
TOTALS	56	603	381	229	739	1,760	5,279	1,250	111	27	2,341	3,601	79	325	47	47	91	1,079	

NOTES:
(1) QUANTITIES COMPUTED AT A RATE OF 113/LBS/SQ YD/INCH
(2) QUANTITIES COMPUTED AT A RATE OF 0.668LBS/LIN FT

Revision comment: –
Revised: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24682

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Title: GRADING, TURF ESTABLISHMENT, & EROSION CONTROL TABULATIONS

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-3 of 62 Sheets

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INPLACE STORM SEWER STRUCTURES (N)

LOCATION	STRUCT TYPE	INPLACE CASTING EL.	ADJ MH (1)	ADJ CB (2)	NEW CASTING EL.	NEW T.C. EL.	REMOVE MANHOLE	REMOVE CATCH BASIN	REMOVE PIPE (LF)	ABANDON PIPE (LF)	INL EL	INV EL	OUTL EL	REMARKS
9-1/2 ST SE														
205+71.46 -16.21 L	MANHOLE	999.91	1		999.91							985.63- N&E		
206+99.68 - 16.01 L	MANHOLE	996.30										986.14-90" N&S		
207+74.83- 0.70 L	CB DROP MH	999.46						1	34.8				995.62-12" E	
207+98.33 -13.1' LT									13.8					
208+01.15 - 13.1 RT									85.0					
208+02.61 - 0.08 R	CB DROP MH	1000.64						1				995.19-12" E&W		
208+30 TO 209+95										165.4				
210+07.3 - 0.3' LT	CB DROP MH							1	48.0	19.0				
SOLDIERS FIELD PARK														
1+33.16 - 12' LT	CB							1	6.6					
17+94.2 - 14' LT	MANHOLE	992.76							49.0			987.54-15" N,W- 24" E		
18+10.2 - 3.1' LT	CB	992.15						1	15.0				987.97 -15" S	
18+13.91 - 3.1' LT	CB	992.13						1	1.0				987.93-15" S	
22+23.40 - S.L.									63.6					
22+24.0-C.L.									60.0					
23+08.97 TO 25+99.82									291.5					
1ST AVE SW														
76+40.7-26.1 LT	CB DROP MH	998.55						1					994.06-SE	
79+60.4-36.3 LT	3' CB	1005.63						1	48.0				1004.27-10" N	
80+08.0-27 LT	CB DROP MH	1006.54						1	151.9			1002.22-10" N&S		
81+59.7-27 LT	STORM MH	1005.86					1		120.7			1001.46-10" N&S		
82+80.5-27 LT	STORM MH	1004.42	1		1004.93				7.0			998.61-10" N&S		
83+24.8-35.5 LT	CB	1003.80						1	7.0				999.56-12" E	
83+31.5-36.1 RT	CB	1003.38						1	61.0				999.98-12" W	
83+78.1-27.1 LT		1003.85	1		1003.85				96.3		996.41-15" S		995.78-44" SPAN ARCH	
		TOTALS	3		3009		1	11	1161.0	185.0				

(1) ADJUST FRAME AND RING CASTING (2506.522)
(2) ADJUST DRAINAGE STRUCTURE (2506.602)

SANITARY AND WATER SERVICES (O)

LOCATION	SAN SIZE & TYPE	WATER SIZE & TYPE	RECONST SANITARY SERVICE (1)	RECONST WATER SERVICE (1)	ABANDON (2)	REMARKS
SOLDIERS FIELD PARK						
10+90.3-C.L.			1			PARK PAVILION BUILDING
1ST AVE SW						
77+12.7-LT		NOT KNOWN			X	BY OTHERS
77+50-C.L.	NOT KNOWN				X	BY OTHERS
77+90.8-32.5 LT	NOT KNOWN				X	BY OTHERS
77+93.60-C.L.	NOT KNOWN				X	BY OTHERS
78+11.7-C.L.	4"		1			
78+42.6-C.L.	NOT KNOWN				X	
79+15.6-C.L.	4"		1			
79+27.6-11' LT		3/4" COPPER		1		
80+58.88-C.L.	4"					
80+60.0-8.2 RT	4"		1			
80+64.9-8.3 RT		3/4" LEAD			X	
80+71.6-C.L.	6" VCP				X	
81+08.75-C.L.					X	
81+65.7-LT		3/4" COPPER			X	
82+02.1-LT	NOT KNOWN				X	
83+08.7 - C.L.					X	
4TH ST SW						
97+02.0-C.L.	4" CIP		1			
97+60.7-C.L.	NOT KNOWN		1			
98+22.1-C.L.		3/4" COPPER		1		
98+56.7-C.L.	NOT KNOWN		1			
98+70.1-C.L.		1-1/2" COPPER		1		
99+20.5-13' LT		1" COPPER		1		
			7	4		

(1) INCLUDES REMOVAL OF EXISTING PIPE
(2) ABANDON ALL EXISTING WATER SERVICES INPLACE

INPLACE SANITARY SEWER (P)

LOCATION	STRUCT TYPE	INPLACE CASTING EL.	ADJ MH	REMOVE STRUCTURE	REMOVE PIPE	ABANDON PIPE	NEW CASTING EL.	INL EL	INL EL	INV EL	OUTL EL	OUTL EL	REMARKS
9-1/2 ST SE													
200+00.50 38.55 L	MH	994.69	1				994.69						
200+40.10 18.03 L	MH	994.45	1				994.45						
205+38.41 344.27 L	MH	996.73	1				996.73						
205+39.77 12.18 L	MH	995.75	1				995.75						
207+78.94 9.74 L	MH	1001.12		1	33.2								
SOLDIERS FIELD PARK													
EXISTING SIPHON				1		187.4							
200+00-38.10-LT	MH			1									
9+77.02-C.L.	MH			1									
10+05.6-42.2' LT	MH			1									
13+01.08-198.1' RT	MH			1									
22+92.9-LT TO 25+84.78					310.5								
23+22.34 - 14.8 RT	MH	1000.25		1						987.91-15" SW & N			
1ST AVE SW													
77+81.7-0.6 LT	MH	1001.27		1	146.4								
79+85.9-0.3 LT	MH	1006.76		1	204.2			999.32-8" W	99.32-8" W		995.27-8" S	997.18-N	
83+99.63-1.1 LT	MH	1003.58		1	414.3			979.93-8" W	979.93-8" N	979.88-24" S&E			
5TH ST SW- 1ST AVE TO WEST					66.7								
					764.7								
4TH ST SW													
99+25.5-1.2 LT	MH	1001.59		1									
99+74.43-0.9 RT	MH	1001.64		1						999.20-24" W&E			
100+10.1-C.L.	MH	1001.78		1						979.23-24" W&N			
1ST AVE TO BROADWAY					395.6								
TOTALS			4	13	2336	188							

INPLACE WATERMAIN (Q)

LOCATION	GATE VALVE	REMOVE GV & BOX	HYD	REMOVE HYD	CURB BOX	ADJUST CURB BOX	REMOVE CURB BOX	REMOVE PIPE (LF)	REMARKS
1ST AVE SW									
11+90.5 - C.L.								42.50	
76+30 TO 84+15								785.00	
76+30 TO 80+07.6								390.70	
83+17.9 TO 84+06.9								110.40	
77+12.70 31.52 L					X		X		BY OTHERS
77+90.69 32.32 L					X		X		BY OTHERS
78+04.42 39.71 L					X		X		BY OTHERS
78+06.57 3.96 R	X	1						12.80	6" FIRE LINE
78+39.82 31.26 L					X		X		BY OTHERS
78+41.92 31.19 L					X		X		BY OTHERS
78+69.38 31.05 L					X		X		BY OTHERS
79+27.66 31.51 L					X	X			
79+46.19 38.13 L			1	1					
79+46.30 35.63 L	X	1							
79+46.53 3.40 R	X	1							
79+77.20 8.99 L	X	1							
79+96.44 - 11.0 LT TO 76.3 LT								65.31	
79+99.18 76.44 L	X	1							
80+04.72 6.79 R	X	1							
80+07.57 4.90 R	X	1							
80+59.97 30.50 R	X	1							
81+48.73 13.17 R	X	1							
81+65.75 38.04 L					X		X		
82+66.19 12.96 R	X	1						25.00	
83+16.12 14.47 R	X	1							
83+21.75 14.49 R	X	1							
83+55.00 7.28 L	X	1							
83+54.94 15.43 R	X	1							
4TH ST SW									
96+03.5-7' LT TO 99+12.80-8.9 LT								301.00	
97+01.2 - 6.2 LT								15.00	6" FIRE LINE
97+65.4 - 6.0 LT								3.60	4" FIRE LINE
98+48.5 - 5.4 LT								14.00	6" FIRE LINE
TOTALS		14	1	1				1766	

Revision comment: –
Revised: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Reuben J. Klein Date: 05/15/12 Reg. No. 24567

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Title: EXISTING UNDERGROUND TABULATIONS

Designer: RJW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-4 of 62 Sheets

CONSTRUCT SANITARY SEWER (R)

NO.	STATION-LOCATION	TYPE 3		TYPE 5						TYPE 5A			CONNECT TO EXIST SAN	CAST. EL.	CAST ASSEM	C-INL EL	C-INL EL	C-INL EL	C-INL EL	C-OUTL EL	C-OUTL EL	C-INV EL	REMARKS
		10'-13'	15'-17'	10'-13'	10'-13'	13'-15'	15'-17'	17'-19'	21'-23'	19'-21'	21'-23'	23'-25'											
		(48")	(48")	(60")	(72")	(72")	(72")	(72")	(72")	(108")	(72")	(84")											
1	9+77.02-S.L.													994.73	1							981.63-42" NW	SIPHON MH (SEE SIPHON PLANS)
2	9+76.02-19.37 LT	1												994.00	1							983.65-15" NE	
3	9+95.35-S.L.				1									994.56	1	983.41-15" SE						981.61-42" W&E	
4	11+61.12-S.L.				1									994.33	1							981.49-42"	
5	14+56.84-S.L.					1								994.89	2A							981.26-42"	
6	18+38.27-S.L.				1									993.17	1							980.96-42"	
7	21+93.87-S.L.							1						998.56	1							980.68-42"	
8	23+59.28-S.L.									1				1000.33	1							980.55-42"	
9	22+92.93-20.04' LT				1									999.68	1							987.94-8"	
10	26+53.48-S.L.																					980.33-42"	SEE 6TH ST SW PLANS
11	75+80.44-S.L.																					980.04-42"	SEE 6TH ST SW PLANS
12	78+11.65-S.L	1												1001.38	1								
13	78+61.23-S.L.										1			1002.76	1	992.05-8" W	992.05-8" N			992.05-8" S			
14	79+86.30-S.L.	1												1006.77	1	997.48-8" W				997.18-8" N	995.34-8" S	979.72-42"	
15	79+86.30-67' LT												1									997.66-8" E&W	CONNECT TO EXIST 8" SAN
16	84+00.08-S.L.											1		1003.55	1	981.67-8" N	981.67-8" W	994.65-8" N & S	996.22-8" W			979.40-42"	
17	99+74.43-S.L.								1					1001.64	1							979.12-42"	
18	100+10.56-S.L.								1					1001.78	1							979.23-42"	
19	200+05.00-S.L.													994.89	1							982.75-36"	SIPHON MH (SEE SIPHON PLANS)
20	201+93.89-S.L.				1									995.43	1							982.96-36"	
21	205+24.88-S.L.			1										996.27	1	984.72-15" S	984.32-21" E			983.32-36" N			
22	205+27.86-25' RT				1									994.55	1							987.06-15"	
23	208+02.62-S.L.						1							1000.63	2A	984.57-15" NE						984.57-21"	
24	208+12.12-9.5' LT		1											1000.93	2A							984.50-15"	
	TOTALS	3	1	1	6	1	1	1	2	1	1	1	1										

CONSTRUCT SANITARY SEWER PIPE (S)

FROM	TO	PIPE SIZE (LIN. FT.)						SLOPE (%) C.C.	REMARKS
		8" ALT.	15" ALT.	21" ALT.	36" ALT.	42" ALT	36" STEEL CASING		
1	3					18.33		0.08%	
2	3					27.35		0.50%	
3	4					165.77		0.08%	
4	5					295.72		0.08%	
5	6					381.43		0.08%	
6	7					355.59		0.08%	
7	8					165.42		0.08%	
8	9	66.35						1.43%	
9	10					294.20		0.08%	
11	13					280.79		0.08%	
12	13	49.53						5.37%	
13	16					538.85		0.08%	
13	14	125.23						2.56%	
14	15	67.00						0.27%	
14	16	413.62						0.60%	
16	17					361.35		0.08%	
17	18					36.07		0.36%	
19	20				188.89			0.11%	
20	21				330.99			0.11%	
21	22		25.17					9.30%	
21	25			277.73				0.09%	
25	26		13.49				221.00	-0.50%	
TOTALS		722	39	278	520	2921	221		

STRIPING TABULATIONS (T)

LOCATION		STRIPING TYPE							
FROM	TO	4" SOLID LINE WHITE	6" SOLID LINE WHITE	4" BROKEN LINE WHITE	4" DOUBLE SOLID LINE YELLOW	24" STOP LINE WHITE	LEFT TURN ARROW	RIGHT TURN ARROW	CROSSWALK MARKING
		LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	EACH	EACH	SQ FT
1ST AVE SW									
76+35.23	79+86.30-5TH ST SW	720	48		342				225
79+86.30-5TH ST SW	84+00 - 4TH ST SW & 1ST AVE SW	626	151		324				113
4TH ST SW									
1ST AVE SW	SOUTH BROADWAY	516		38	288	87	2	1	
	TOTALS	1862	199	38	954	87	2	1	338

Revision comment: —

Revised: —

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

Russell A. Klein Date: 05/15/12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
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Title: CONSTRUCT UNDERGROUND TABULATIONS

Designer: RLW

Checker: RJK

Project No. 6301-3-97 J2170

Sheet S-5 of 62 Sheets

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CONSTRUCT STORM SEWER STRUCTURES (U)

NO.	STATION-LOCATION	TYPE 1 SPECIAL (1)	TYPE 4 SPECIAL (2)	CONNECT TO INPL. MH	CONNECT TO INPL. STORM SEWER	CAST. EL	CAST ASSEM	T.C. ELEV	DEPTH	C-INL EL	C-INL EL	C-OUTL EL	INV EL	C-INV EL	REMARKS
SOLDIERS FIELD AREA															
S-1	12+32.84-11.13' LT	1				995.20	B	995.85				991.58-12"			
S-2	17+24.93-13.98' LT			1		992.76				987.53-24"	987.90-15"				
S-3	17+71.0-12' RT				1								987.26-24"		
S-4	18+10.22-3.42' LT	1				992.15	B			987.97	987.97-15"				
S-5	18+37.87-3.42' LT	1				992.17	B					988.01-15"			
S-6	22+19.22-17.7' LT				1								991.64-36"		
S-7	22+34.74-43.9' RT			1						991.44-36"					
S-8	23+09.28-12' RT		1			1000.15	2			990.09-48" N		991.34-33" S			
S-119	6TH ST SW & 2ND AVE SW					1001.55						995.11-33" S			MH CONST WITH 6TH ST SW PROJECT
1ST AVE SW															
S-9	76+36.68-22.08' RT		1			999.22	2			994.49-12"		994.39 S			
S-10	76+36.68-13.67' RT	1				998.33	B	998.92					994.51-E&W		
S-11	76+36.68-13.67' LT	1				998.33	B	998.92		994.92-12" N		994.92-12" E			
S-11A	76+41.68-13.67' LT	1				998.37	B	998.96				994.97-12" S			
S-12	79+99.82-51.2' LT	1				1006.42	B	1007.07				1002.42-15" N&E			
S-13	80+26.44-27' LT		1			1007.23	2						1001.15-15" SW & N		
S-14	80+60.66-27' LT		1			1006.63	2						1000.88-15" N&S		
S-15	80+60.66-39.67' LT				1										
S-16	82+80.52-27' LT			1		1005.18							998.61-15" N,S&W		
S-17	83+41.18-27' LT		1			1004.25	2			997.50-12"			997.22-15" N&S		
S-18	83+41.18-13.67' LT	1				1003.34	B	1003.99					998.83-12" E&W		
S-19	83+41.18-13.67' RT	1				1003.10	B	1003.75				999.10-12" W			
S-20	83+78.5-27' LT			1		1003.82				996.40-15" E					
9-1/2 ST SE															
S-21	208+01.15-13.07' RT		1			1000.78	1							995.32-12" NW	
S-22	207+92.11				1					988.00-12"					
S-23	210+07.56-5.67' RT	1				999.55									
S-24	210+07.56-13.9' LT				1										
	TOTALS	8	6	4	5										

NOTES:
(1) SEE CITY OF ROCHESTER DETAIL PLATE 1-01
(2) SEE CITY OF ROCHESTER DETAIL PLATE 1-04 (48" DIA.)

CONSTRUCT STORM SEWER PIPE (V)

FROM	TO	8" ALT C.C. LENGTH (FT)	12" RCP C.C. LENGTH (FT)	15" HDPE C.C. LENGTH (FT)	15" RCP C.C. LENGTH (FT)	24" HDPE C.C. LENGTH (FT)	48" RCP C.C. LENGTH (FT)	INSTALL 36" RCP C.C. LENGTH (FT)	SLOPE (%) C. TO C.	REMARKS
SOLDIERS FIELD AREA										
S-1			8.00						0.85%	
S-2	S-3					35.00			0.77%	
S-2	S-4			19.21					3.70%	
S-4	S-5			1.00					1.00%	
S-6	S-7							60.00	0.63%	
S-8	S-119						294.18		1.03%	
S-9	S-10		8.41						1.48%	
S-10	S-11		27.34						1.48%	
S-11	S-11A		5.00						0.70%	
S-12	S-13				35.90				3.54%	
S-13	S-14				34.22				0.79%	
S-14	S-15	12.70								
S-14	S-16				280.52				0.81%	
S-16										
S-16	S-17		7.00		60.51				2.29%	
S-17	S-18		13.33						1.21%	
S-18	S-19		27.34						1.00%	
S-17	S-20				37.28				2.20%	
9-1/2 ST SE										
S-21	S-22		30.00						24.40%	
S-23	S-24		19.41						39.50%	
TOTALS		13	146	21	449	35	295	60		

CONSTRUCT WATERMAIN PIPE (W)

FITTING NO.	STATION-LOCATION	DESCRIPTION	WGT (LBS)	HYDRANT 6"	HYDRANT B.O. EL.	GATE VALVE 6"	GATE VALVE 8"	GATE VALVE 12"	PIPE SIZE & TYPE 6" DIP (L.F.)	PIPE SIZE & TYPE 8" DIP (L.F.)	PIPE SIZE & TYPE 12" DIP (L.F.)	TO	REMARKS
W-1	11+72.84-18' LT	RECONNECT								42.53		W-2	
W-2	12+08.64-18.6' LT	RECONNECT											
	76+35.23-11' LT	MATCHLINE - 12" DIP								171.34		W-1	
W-3	78+06.57-11' LT	8"X6" TEE	72							44.56		W-4	
	78+06.57-8' LT	6" GATEVALVE & BOX				1			3.00				
	78+06.57-4' RT	6" SLEEVE							12.00				
W-4	78+51.1-11' LT	8"X8" TEE	86							91.80		W-5	
	78+51.1-14' LT	8" GV & BOX					1			3.00			
	78+51.1-42.5' LT	8" PLUG	45							28.50			
W-5	79+42.90-11' LT	8" GV & BOX					1			3.00		W-6	
W-6	79+45.90-11' LT	8"X6" TEE	72							50.51		W-7	
	79+45.90-16.75 LT	6" GATEVALVE & BOX				1			5.75				
	79+45.90-19.75' LT	6" HYDRANT		1	1006.19				3.00				
W-7	79+96.44-11' LT	8"X8" TEE	86							152.29		W-9	
	79+96.44-73' LT	8" GATEVALVE & BOX					1			3.00			
W-8	79+96.25-76.31' LT	8"X6" TEE	72							62.31			
	79+96.25-79.31' LT	8" x 6" REDUCER	36										
W-9	81+48.74-11' LT	8X6" TEE	72							40.21		W-10	
	81+48.74-8' LT	6" GATEVALVE & BOX				1	1		3.00				
	81+48.74-13.2' RT	6" SLEEVE	36						21.20				
W-10	81+88.90-11.0' LT	8"X6" TEE	72						3.00	66.31		W-11	
	81+88.90-14.0' LT	6" GV & BOX				1			28.50				
	81+88.90-42.5.0' LT	6" PLUG	25										
W-11	82+55.20-11' LT	8"X6" TEE	72						3.00	99.63		W-12	
	82+55.20-14' LT	6" GV & BOX				1			28.50				
	82+55.20-42.5' LT	6" PLUG	25										
W-12	83+54.89-11' LT	8" GV & BOX					1			51.75		W-11	
W-13	84+06.63-11' LT	12"X8" TEE	125								30.44	W-12	
W-14	96+33.88-6.6' LT	12"X8" TEE	125								28.00	W-13	
W-15	96+61.86-6.4' LT	12" GATEVALVE & BOX						1			39.30	W-14	
W-16	97+01.17-8.2' LT	12"X6" TEE	110						15.10			W-15	
	97+01.17-8.9' RT	6" SLEEVE	36								54.16		
W-17	97+65.36-5.6' LT	12"X6" TEE	110								83.17	W-16	
	97+65.36-9.6' LT	6" SLEEVE	36						3.80				
W-18	98+48.54-5.4' LT	12"X6" TEE	110								58.30	W-17	
	98+48.54-8.7' RT	6" SLEEVE	36						14.00				
W-19	99+06.79-5' LT	45D BEND -12"	86								6.00	W-18	
W-20	99+11.86-8.2 LT	12" SLEEVE	76										
W-21	15+34.63-161.02' RT	REMOVE PLUG								15.60		W-22	
W-22	15+45.60-172.12 RT	45D BEND - 8"	46							43.43		W-23	
W-23	15+45.17-215.55' RT	45D BEND - 8"	46							43.72		W-24	
W-24	15+75.92-246.62' RT	REMOVE PLUG											
			1621	1		5	6	1	144	911	310		

Revision comment: —
Reissued: —

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Ronald J. Klu Date: 05/15/12 Reg. No. 24997

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Title: CONSTRUCT UNDERGROUND TABULATIONS

Designer: RJW Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-6 of 62 Sheets

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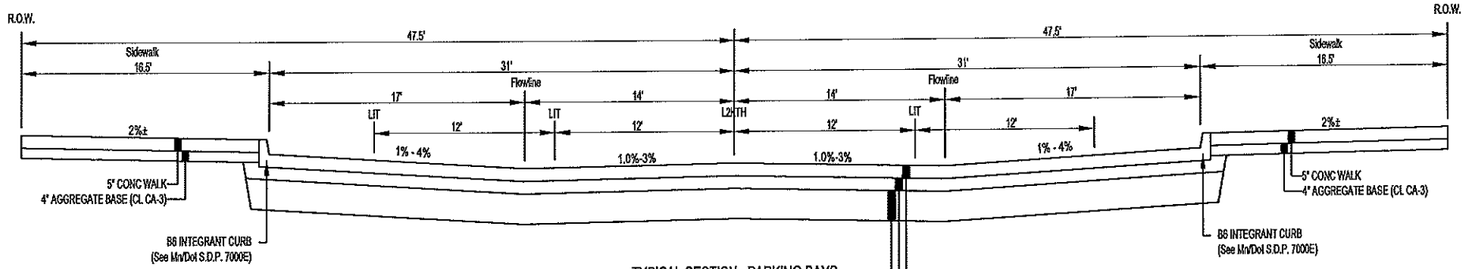
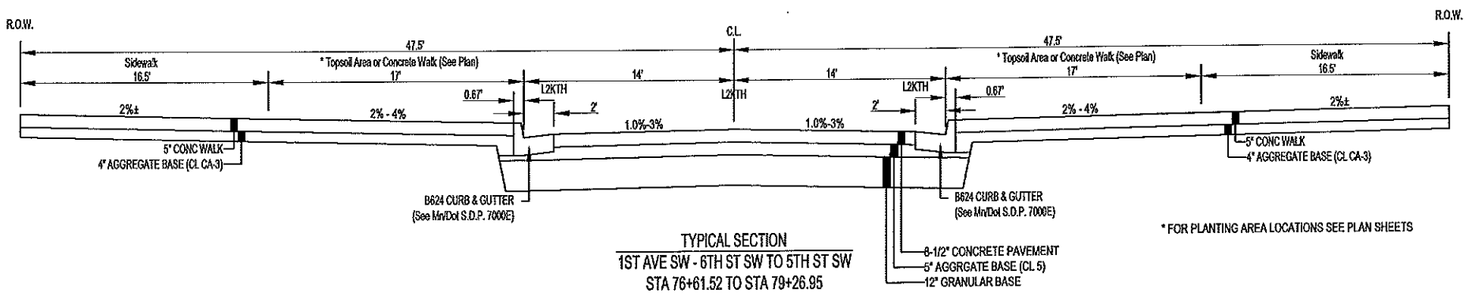
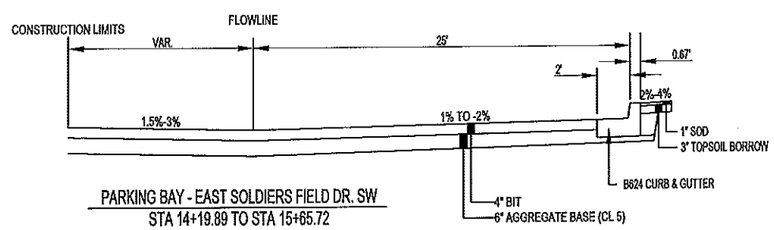


TYPICAL SECTION - PARKING BAYS
1ST AVE SW - 6TH ST SW TO 4TH ST SW
STA 76+61.52 TO STA 79+26.95

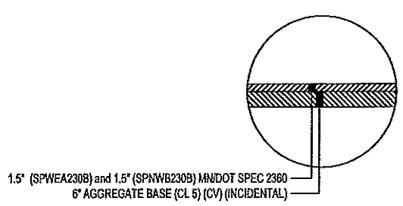


TYPICAL SECTION
1ST AVE SW - 6TH ST SW TO 5TH ST SW
STA 76+61.52 TO STA 79+26.95

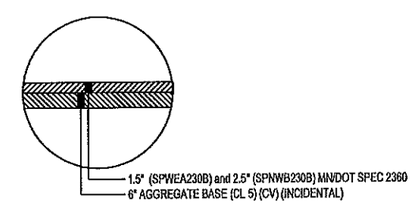
* FOR PLANTING AREA LOCATIONS SEE PLAN SHEETS



PARKING BAY - EAST SOLDIERS FIELD DR. SW
STA 14+19.89 TO STA 15+65.72



TYPICAL SECTION
BITUMINOUS BIKEWAY REPLACEMENT
(See City detail plate 3-02)



TYPICAL SECTION
BITUMINOUS STREET RESTORATION AND PARKING LOTS

Revision comment: —
Revised: —

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Ronald J. Kilen Date: 05/15/12 Reg. No. 24667

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Title: TYPICAL SECTIONS ON 1ST AVE SW & SOLDIERS FIELD DR SW

Designer: RJW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-7 of 62 Sheets

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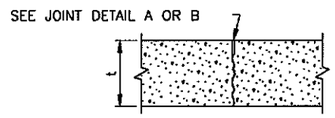
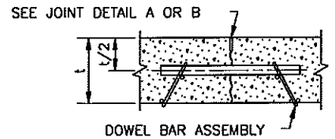
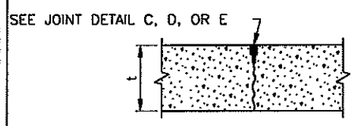


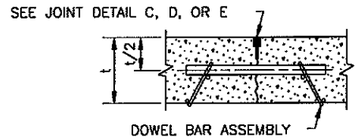
C1U & C2H



C1U–D & C2H–D



C3P, C4S, C5H



C3P–D, C4S–D, C5H–D

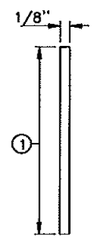
CONTRACTION JOINT REFERENCE, DETAIL & SEALER SPEC. TABLE

JOINT REFERENCE		JOINT DETAIL	JOINT SEALER SPEC.	JOINT WIDTH
WITHOUT DOWELS	WITH DOWELS			
C1U	C1U–D	A	UNSEALED	1/8"
C2H	C2H–D	B	3725	1/8"
C3P	C3P–D	C	3721	3/8"
C4S	C4S–D	D	3722	3/8"
C5H	C5H–D	E	3725	3/8"

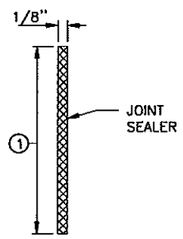
LEGEND — EXAMPLE (C2H–D)
- C = CONTRACTION JOINT
- NO. = JOINT REFERENCE
- U = UNSEALED
- H = HOT POURED
- P = PREFORMED
- S = SILICONE
- –D = DOWEL BARS

DOWEL BAR DIAMETER TABLE

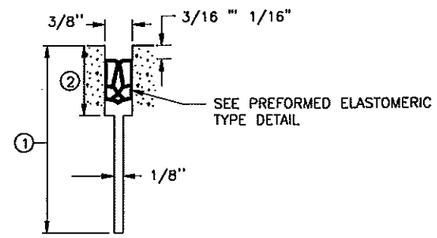
PAVEMENT THICKNESS t	DOWEL BAR DIAMETER
LESS THAN 6"	NONE
6" – 6 1/2"	1"
7" – 10"	1 1/4"
10 1/2" – 14"	1 1/2"



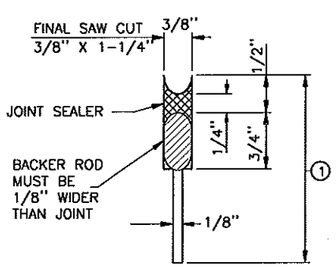
JOINT DETAIL A
SAWED & UNSEALED



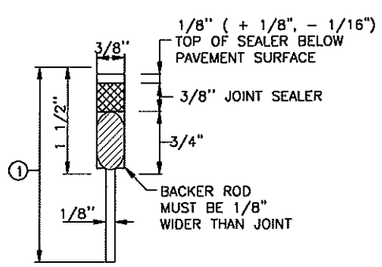
JOINT DETAIL B ③
SAWED & SEALED



JOINT DETAIL C ③
SAWED AND SEALED



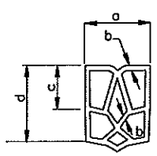
JOINT DETAIL D ③④
SAWED AND SEALED



JOINT DETAIL E ③⑤
SAWED AND SEALED

REQUIRED DIMENSIONS

JOINT TYPE	TRANSVERSE
NOMINAL SEALER SIZE USE IN ALL 3/8" JOINTS	11/16"
a 0.69"	+ 0.13" – 0.05"
b	0.08" ± 0.02"
c	0.25" MIN.
d	0.63" MIN.



SPEC. REFERENCE 3721

TYPICAL SHAPE FOR SATISFACTORY INSTALLATION IN JOINT (5 CELL MIN.)

PREFORMED ELASTOMERIC TYPE DETAIL

CONTRACTION JOINTS
DESIGN C

NOTES:

SEE STANDARD PLATE 1103 FOR DOWEL BAR ASSEMBLY.

SEE STANDARD PLATE 1150 FOR CONSTRUCTION OF HEADER JOINTS.

JOINT WIDTH TOLERANCE IS + 1/16" TO – 1/32"

FURNISH AND INSTALL ALL JOINT SEALER IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

SEE STANDARD PLANS 5–297.217 AND 5–297.219, FOR CONCRETE MAINLINE/RAMP PAVEMENT.

SEE PAVING LAYOUTS IN THE PLANS FOR JOINT CLASS DESIGNATION TO BE USED AND SPECIAL REINFORCEMENT REQUIRED.

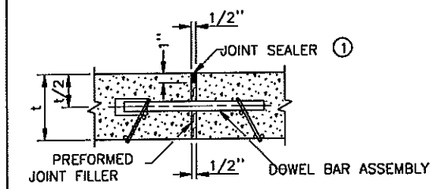
① JOINT DEPTH SHALL BE:
FOR CONCRETE OVERLAYS – 1/3 THE PAVEMENT THICKNESS
FOR CONCRETE PAVEMENT – 1/4 THE PAVEMENT THICKNESS

② SEE CONTRACTION JOINT SEALER DETAIL. WHEN USING PREFORMED JOINT SEALER, THE DEPTH SHALL BE 1/4" MORE THAN THE PREFORMED SEALER, WHEN COMPRESSED, TO FIT THE JOINT DESIGN WIDTH. "a" DIMENSION SHALL APPLY AT ANY POINT THROUGHOUT "c" DEPTH. SHARP INTERNAL CORNERS WILL NOT BE PERMITTED. ALL CORNERS SHALL BE PROVIDED WITH SUITABLE FILLET.

③ WHEN SEALING, THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING.

④ PRIOR TO SEALING THE JOINT, A 1/2" DIA. CLOSED CELL BACKER ROD SHALL BE PLACED SUCH THAT THE TOP OF THE BACKER ROD IS 1/2"BELOW THE SURFACE OF THE PAVEMENT. NON SELF–LEVELING SILICONE SHALL BE TOOLED INTO THE JOINT MAINTAINING A SEAL AND BEAD THICKNESS OF 1/4".

⑤ PRIOR TO SEALING THE JOINT, A 1/2" DIA. CLOSED CELL BACKER ROD CAPABLE OF WITHSTANDING SEALANT TEMPERATURES OF 400 DEGREES F. SHALL BE PLACED 1/2" BELOW THE TOP OF PAVEMENT.

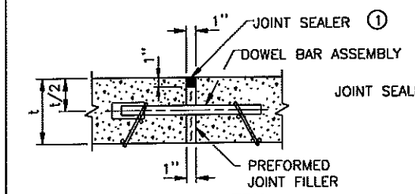


E1H–D (W/DOWELS) E1H (W/O DOWELS)
JOINT DETAIL A

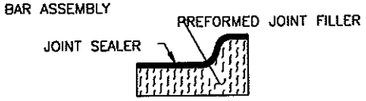
EXPANSION JOINT REFERENCE, DETAIL & SEALER SPEC. TABLE

JOINT REFERENCE		JOINT DETAIL	JOINT SEALER SPEC.	JOINT WIDTH
WITHOUT DOWELS	WITH DOWELS			
E1H	E1H–D	A	3725	1/2"
E2H	E2H–D	B	3725	1"
E4H		C	3725	2"
	E4H–D	D	3725	2"
E8H		STANDARD PLAN 5–297.229	3725	4"

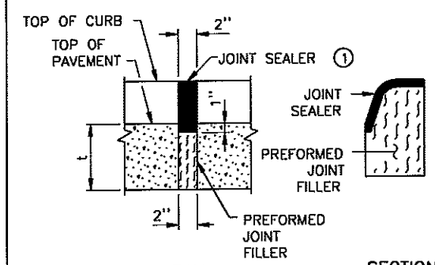
LEGEND — EXAMPLE (E4H–D)
- E = EXPANSION JOINT
- NO. = JOINT REFERENCE
- H = HOT POURED
- –D = DOWEL BARS



E2H–D (W/DOWELS) E2H (W/O DOWELS)
JOINT DETAIL B

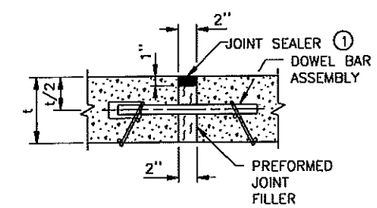


SECTION THRU CURB

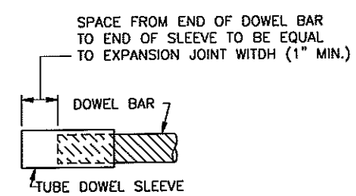


E4H (W/O DOWELS)
JOINT DETAIL C

SECTION THRU CURB



E4H–D (W/DOWELS)
JOINT DETAIL D



DOWEL BAR SLEEVE DETAIL

NOTES:

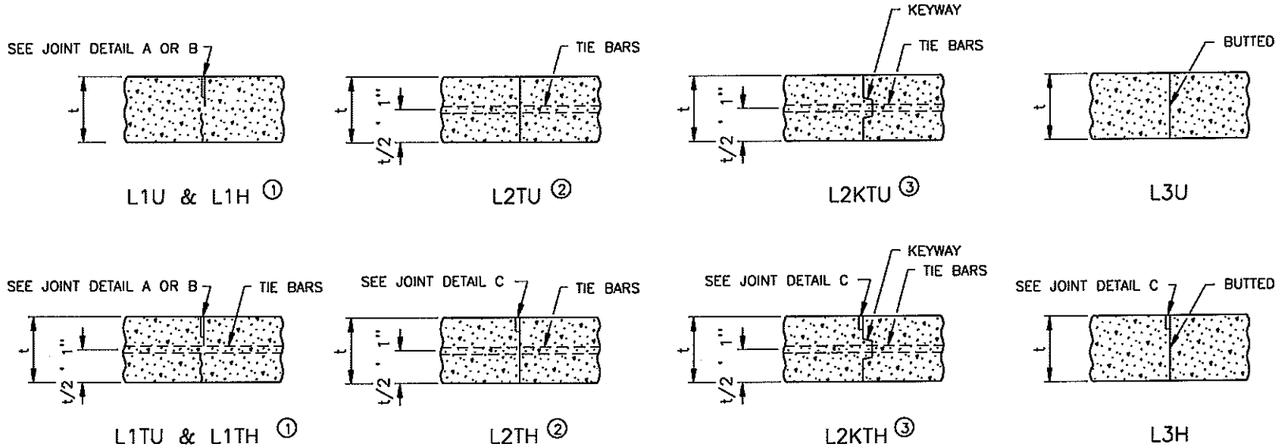
PREFORMED JOINT FILLER MATERIAL, SPEC. 3702.

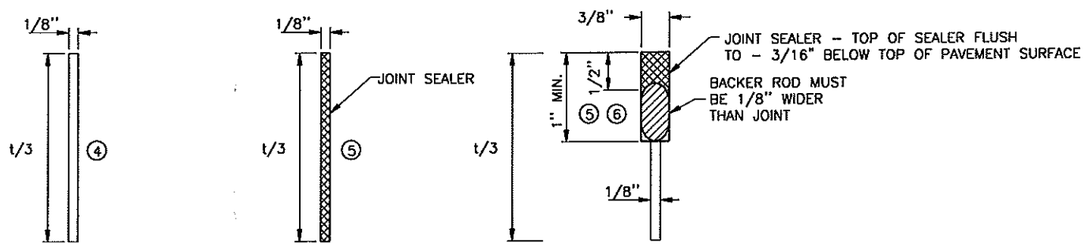
FOR DOWEL BAR ASSEMBLY, SEE STANDARD PLATE 1103.

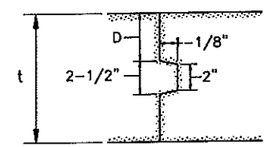
① JOINT SEALER SPEC. 3725. THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING. TOP OF SEALER, FLUSH TO 1/8" BELOW TOP OF PAVEMENT SURFACE. MAKE TOP OF SEALER FOR CURB SECTION D JOINTS FLUSH WITH SURFACE '1/8".

EXPANSION JOINTS
DESIGN E

STANDARD SHEET NO.	TITLE:
5–297.221 (1 OF 2)	PAVEMENT JOINTS CONTRACTION (DESIGN C) AND EXPANSION (DESIGN E)
STANDARD APPROVED: APRIL 14, 2010	







PAVEMENT KEYWAY DETAIL
(USE CITY KEYWAY DETAIL)

TIEBAR TABLE

PAVEMENT THICKNESS	TIEBAR SIZE	LENGTH
< 10-1/2"	NO. 13	30"
≥ 10-1/2"	NO. 16	36"
ALL THICKNESS WHEN TYING TO CURB AND GUTTER	NO. 13	30"

ALL REBARS ARE IN METRIC DESIGNATIONS

THE TIE BAR SPACING FOR ALL L2T AND L2KT JOINTS SHALL BE 3'-0" CENTER TO CENTER AND BENT 60° AS SHOWN, EXCEPT WHEN NOTED OTHERWISE IN THE PLANS.

TIE BARS IN THE L2T AND L2KT JOINTS SHALL BE THE SAME SIZE AND LENGTH AS USED FOR THE L1T JOINTS, WHEN TYING PAVEMENT TO PAVEMENT. TIE BARS IN THE L2KT JOINTS SHALL BE NO. 13 X 2' – 6", WHEN TYING CURB & GUTTER TO PAVEMENT.

ALL TIE BARS SHALL BE EPOXY COATED AND COMPLY WITH SPEC. 3301.

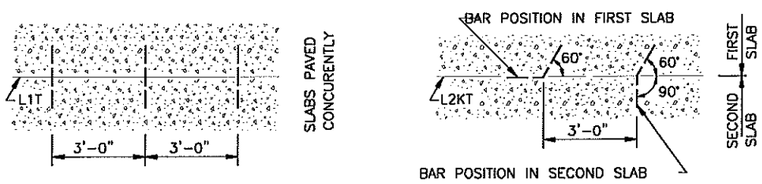
LONGITUDINAL JOINT REFERENCE, DETAIL & SEALER SPECIFICATION TABLE

JOINT REFERENCE			JOINT DETAIL	JOINT SEALER SPEC	JOINT WIDTH
WITHOUT TIE BARS	WITH TIE BARS	WITH KEYWAY & TIE BARS			
L1U	L1TU		A	UNSEALED	1/8"
L1H	L1TH		B	3725	1/8"
	L2TU	L2KTU	NONE	UNSEALED	
	L2TH	L2KTH	C	3725	3/8"
L3U			NONE	UNSEALED	
L3H			C	3725	3/8"

LEGEND

L = LONGITUDINAL JOINT
NO. = JOINT REFERENCE
1 = PAVED CONSTRUCTION JOINT
2 = TIED/KEYED CONSTRUCTION JOINT
3 = BUTTED CONSTRUCTION JOINT
K = KEYWAY
T = TIE BARS
U = UNSEALED
H = HOT POURED

EXAMPLE: L2KTH



KEYWAY DIMENSION TABLE

t PAVEMENT THICKNESS	D (TOLERANCE ' 1/4")
< 7"	NO KEYWAY
7"TO 7-1/2"	3"
8"TO 10"	4"
≥ 10-1/2"	5"

KEYWAY (1-1/8" x 2" x 2-1/2") MAY BE FORMED WITH MOLD OR METAL FORM. OTHER APPROVED KEYWAY SHAPES GIVING EQUIVALENT CONSTRUCTION FEATURES MAY BE USED WITH APPROVAL OF THE ENGINEER.

NOTES:

NORMALLY, TIED PAVEMENT WIDTHS SHALL NOT EXCEED FOUR LANES, EXCEPT BRIDGE APPROACH PANELS AND PAVEMENT TAPERS.

JOINT WIDTH TOLERANCE IS + 1/16 IN. TO – 1/32 IN.

FURNISH AND INSTALL ALL JOINT SEALER IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

TIED/KEYED AND BUTTED CONSTRUCTION JOINTS SHALL BE UNSEALED EXCEPT AS OTHERWISE NOTED IN THE PLAN OR REQUIRED BY THE ENGINEER.

SEE STANDARD PLANS 5-297.217 AND 5-297.219 FOR CONCRETE MAINLINE AND RAMP PAVEMENT.

SEE PAVING LAYOUTS IN THE PLANS FOR JOINT CLASS DESIGNATIONS TO BE USED AND SPECIAL REINFORCEMENT REQUIRED.

WHEN CURB AND GUTTER IS PLACED ADJACENT TO CONCRETE MAINLINE, THE TIEBARS SHALL BE PLACED A MINIMUM OF 2" ABOVE THE CURB AND GUTTER GRADE.

① SEE THE LONGITUDINAL JOINT REFERENCE, DETAIL & SEALER SPECIFICATION TABLE TO DETERMINE JOINT DETAIL.

② CONCRETE PAVEMENTS LESS THAN 7" SHALL USE L2TU AND L2TH JOINTS UNLESS OTHERWISE ALLOWED BY THE ENGINEER.

③ CONCRETE PAVEMENTS GREATER THAN OR EQUAL TO 7" SHALL USE L2KTU AND L2KTH JOINTS UNLESS OTHERWISE ALLOWED BY THE ENGINEER.

④ THE JOINT FACES SHALL BE CLEANED WITH WATER DURING THE SAW CUTTING OPERATION OR BY WATER BLASTING AFTER SAWING.

⑤ THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING.

⑥ PRIOR TO SEALING THE JOINT, A 1/2" DIAMETER CLOSED CELL BACKER ROD CAPABLE OF WITHSTANDING SEALANT TEMPERATURES OF 400 DEGREES F. SHALL BE PLACED 1/2" BELOW THE TOP OF THE PAVEMENT.

STANDARD SHEET NO.	TITLE:
5-297.221 (2 OF 2)	PAVEMENT JOINTS LONGITUDINAL (DESIGN L)
STANDARD APPROVED: APRIL 14, 2010	

Project No. 6301-3-97 | J2170 | Sheet S-9 of 62 Sheets

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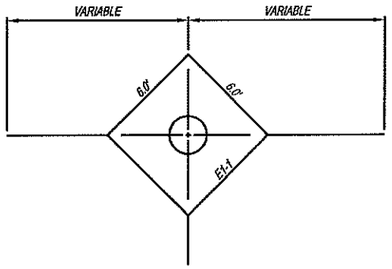
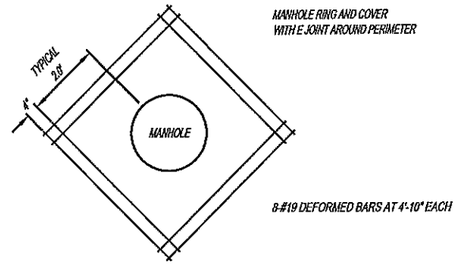


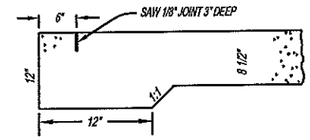
TYPICAL BOX OUT DETAIL AT MANHOLE

0 2 4 8



TYPICAL REINFORCEMENT AT MANHOLES

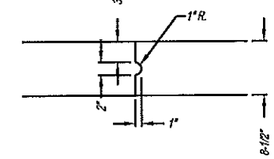
0 1 2 4



THICKENED EDGE WITH TEMPORARY HEADER

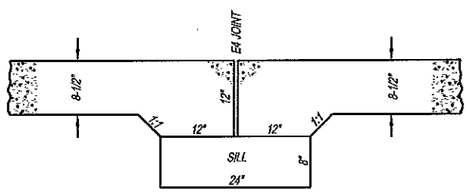
0 0.5 1 2

NOTE:
ALL L2K AND L2KT JOINTS SHALL BE CONSTRUCTED USING THIS KEYWAY.



PAVEMENT KEYWAY

0 0.5 1 2



E4-H JOINT WITH SILL

((REFER TO PAVEMENT JOINT DETAILS)

0 0.5 1 2

Revision comment: —
Reviewed: —

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 06/15/12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-2401

Title: MISC. DETAILS

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-10 of 62 Sheets

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STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

PROJECT DESCRIPTION/LOCATION

THE PROJECT SITE IS ALONG THE EXISTING 1ST AVE AND 6TH STREET SW URBAN ROADWAY BETWEEN 9 ½ STREET SE AND 4TH STREET SW.

UTILITY CONSTRUCTION INCLUDES THE INSTALLATION OF A 42" SANITARY SEWER TRUNKMAIN, WATERMAIN AND STORM SEWER. ROAD RECONSTRUCTION INCLUDES CONCRETE AND BITUMINOUS URBAN STREET SECTIONS WITH PEDESTRIAN FACILITIES.

THIS PROJECT WILL REPLACE THE EXISTING DEFICIENT SANITARY SEWER AND INCREASE THE LOAD RATING TO A 10-TON DESIGN. DRAINAGE DEFICIENCIES EXIST AND THIS PROJECT WILL CORRECT THESE EXISTING DEFICIENCIES.

THIS PROJECT INCLUDES A SANITARY SIPHON UNDER THE ZUMBRO RIVER.

SEE ALSO THE GRADING AND UNDERGROUND PLAN SHEETS FOR PROJECT FEATURES.

SPECIAL AND IMPAIRED RECEIVING WATERS

THERE ARE SPECIAL OR IMPAIRED WATERS LOCATED WITHIN ONE MILE OF THE PROJECT LIMITS AND RECEIVE RUNOFF FROM THE PROJECT SITE.

NAME OF WATER BODY	TYPE (DITCH,POND,WETLAND, LAKE,STREAM,RIVER)	SPECIAL WATER	IMPAIRED WATER
ZUMBRO RIVER	RIVER	NO	YES

SWPPP TRAINING III.A.2

THIS SWPPP WAS PREPARED BY CITY PERSONNEL THAT ARE CERTIFIED IN THE DESIGN OF CONSTRUCTION SWPPPS. COPIES OF THE CERTIFICATIONS ARE ON FILE WITH MN/DOT AND ARE AVAILABLE UPON REQUEST. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A CERTIFIED EROSION CONTROL SUPERVISOR THAT IS RESPONSIBLE FOR OVERSEEING THE IMPLEMENTATION OF TH SWPPP.

EROSION CONTROL SUPERVISOR

IN ACCORDANCE WITH SPEC. 2573.3 A1 THE CONTRACTOR WILL PROVIDE A CERTIFIED EROSION CONTROL SUPERVISOR IN GOOD STANDING WHO IS KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES. (THE EROSION CONTROL SUPERVISOR IS INCEDENTAL TO THE PROJECT)

THE EROSION CONTROL SUPERVISOR WILL WORK WITH THE PROJECT ENGINEER TO OVERSEE THE IMPLEMENTATION OF THE SWPPP AND THE INSTALLATION , INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMS BEFORE, DURING AND AFTER CONSTRUCTION UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA.

THE EROSION CONTROL SUPERVISOR IS RESPONSIBLE FOR COMPLYING WITH ALL THE INSPECTION AND MAINTENANCE REQUIREMENTS STATED IN THE NPDES PERMIT PART IV. F. INSPECTIONS OF THE ENTIRE CONSTRUCTION SITE WILL OCCUR A MINIMUM OF ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. THE EROSION CONTROL SUPERVISOR WILL THOROUGHLY INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS TO ENSURE INTEGRITY AND EFFECTIVENESS OF EACH BMP. ALL IN SPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION MUST BE RECORDED ON THE CITY OF ROCHESTER'S WEBSITE (PERMITRACK) AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP. INSPECTION REPORTS MUST BE SUBMITTED TO THE PROJECT ENGINEER IN A FORMAT THAT MEETS OR EXCEEDS THE PROJECT ENGINEERS EXPECTATIONS . RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE:

A. DATE AND TIME OF INSPECTIONS;
B. NAME OF PERSONS CONDUCTING INSPECTIONS;
C. FINDINGS OF INSPECTIONS, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS;
D. CORRECTIVE ACTIONS TAKEN INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES;
E. DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 0.5 INCHS IN 24 HOURS;
F. DOCUMENTS AND CHANGES MADE TO THE SWPPP.

SOIL TYPES

SOIL TYPES TYPICALLY FOUND ON THIS PROJECT ARE SANDY LOAM, LOAMY SAND, SILTY LOAM, LIMESTONE, BEDROCK

LAND FEATURE CHANGES

TOTAL DISTURBED AREA: 8.0 ACRES
TOTAL EXISTING IMPERVIOUS SURFACE AREA: 4.0 ACRES
TOTAL PROPOSED IMPERVIOUS SURFACE AREA: 4.0 ACRES
TOTAL PROPOSED NET CHANGE IN IMPERVIOUS SURFACE AREA: 0.0 ACRES

PROJECT CONTACTS INFORMATION

ORGANIZATION	CONTACT NAME	PHONE
MPCA	ROBERTA GETMAN	(507) 280-2996
ROCHESTER	DOUG NELSON	(507) 328-2423
CONTRACTOR	CONTRACTOR	(000) 000-0000
STATE DUTY OFFICER		(800) 422-0798

MPCA 24 HOUR EMERGENCY NOTIFICATION: 651-649-5451
800-422-0798

CREEK WORK EROSION AND SEDIMENTATION CONTROL

1. SLOPES WITHIN 200 FEET OF A SURFACE WATER REQUIRE RAPID STABILIZATION FOR CRITICAL AREAS AS PER MN/DOT SPEC. 2575.3N.
2. USE OF FLOATING SILT CURTAINS ARE REQUIRED DOWNSTREAM OF CREEK WORK.
3. TEMPORARY ROCK BERMS SHALL BE USED TO SEPARATE WORK AREAS FROM FLOWING WATER TO MINIMIZE FILL FROM WASHING DOWNSTREAM.
4. CONCRETE WASH AREAS WILL NOT BE ALLOWED WITHIN 200 FEET OF CRITICAL AREAS.

Revision comment: 1
Revised: —
Creation Date:

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24867

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2429
FAX: (507) 328-2401

Title: STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-11 of 62 Sheets

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STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE (CONTINUED)

GENERAL SWPPP NOTES FOR CONSTRUCTION ACTIVITY

1. THE CONTRACTOR WILL DEVELOP A CHAIN OF COMMAND WITH ALL OPERATORS ON THE SITE TO ENSURE THAT THE SWPPP WILL BE IMPLEMENTED AND STAY IN EFFECT UNTIL THE CONSTRUCTION PROJECT IS COMPLETE. THE ENTIRE SITE HAS UNDERGONE FINAL STABILIZATION, AND A NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED TO THE MPCA.

2. THE CONTRACTOR WILL PREPARE WEEKLY AND EVENT DRIVEN EROSION INSPECTION ON A WEBSITE PROVIDED BY THE CITY (PERMITRACK) FOR DOCUMENTATION OF THE CONDITION OF THE ACTIVITIES AND NOTE ANY REPAIRS NEEDED AND ACTIONS TAKEN.

3. THE CONTRACTOR WILL COMPLY WITH THE REQUIREMENTS REGARDING POLLUTION PREVENTION MANAGEMENT DURING CONSTRUCTION, WHICH WILL INCLUDE, BUT NOT LIMITED TO, PROVIDING:
   A. CONCRETE WASHOUT AREAS FOR USE BY ALL SUBCONTRACTORS AND MN/DOT PERSONNEL. LOCATION OF WASHOUT AREAS MUST BE IDENTIFIED BY SIGNAGE AND MUST BE AT LEAST 200' FROM SITE PLAN REQUIREMENT AREAS OR ENVIRONMENTALLY SENSITIVE AREAS, AND UTILIZE A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER THAT PREVENTS RUNOFF ONTO ADJACENT SOILS. AN ENGINEERED COLLECTION SYSTEM CAN ALSO BE USED IF IT IS APPROVED BY THE PROJECT ENGINEER.
   B. SOLID WASTE COLLECTION AND REMOVAL
   C. SECONDARY CONTAINMENT
   D. SECURED HAZARDOUS WASTE STORAGE CONTAINERS
   E. CHEMICAL SPILL KITS
   F. PORTABLE RESTROOM FACILITIES THAT ARE ANCHORED TO PREVENT TIPPING

4. CHEMICALS MUST BE KEPT IN A SECURE STORAGE AREA WHEN NOT IN USE. CHEMICAL STORAGE CONTAINERS MUST HAVE SECONDARY CONTAINMENT WHEN BEING USED OR STORED ON THE PROJECT SITE. CHEMICAL SPILLS OF ANY KIND (OIL, FUEL, FERTILIZER, ETC.) MUST BE CLEANED UP AND REMOVED FROM THE SITE IMMEDIATELY. THE CONTRACTOR MUST HAVE A SPILL KIT ON SITE AT ALL TIMES.

5. BURNING OF ANY MATERIAL IS NOT ALLOWED WITHIN THE CITY OF ROCHESTER.

6. THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS SHALL BE INSTALLED AS NECESSARY TO MINIMIZE EROSION FROM DISTURBED SURFACES AND CAPTURE SEDIMENT ON SITE. ALL EROSION CONTROL MEASURES SHALL BE INPLACE PRIOR TO ANY REMOVAL WORK AND/OR GROUND DISTURBING ACTIVITIES COMMENCE AND SHALL BE MAINTAINED UNTIL THE POTENTIAL FOR EROSION HAS BEEN ELIMINATED.

7. SEDIMENT CONTROL DEVICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITIES BEGIN. SEDIMENT CONTROL DEVICES INCLUDE, BUT ARE NOT LIMITED TO:
   A. PERIMETER CONTROL SHALL BE LOCATED ON THE CONTOUR TO CAPTURE OVERLAND, LOW-VELOCITY SHEET FLOWS DOWN GRADIENT OF ALL EXPOSED SOILS AND PRIOR TO DISCHARGING TO SURFACE WATERS WITH THE BMP J-HOOKED AT A MAXIMUM OF 100 FOOT INTERVALS AND SHALL CONTAIN NO MORE THAN 1/4 ACRE OF DRAINAGE AREA.
   B. DITCH CHECKS WILL BE PLACED AS INDICATED ON THE PLANS DURING ALL PHASES OF CONSTRUCTION. TEMPORARY DITCH CHECKS WILL CONSIST OF USING ROCK DITCH CHECKS, BIOLOGS AND ROCK WEEPERS IN FRONT OF CULVERT INLETS.
      2. FILTER LOGS WILL BE PLACED DURING PERMANENT TURF ESTABLISHMENT AT THE INTERVALS IDENTIFIED IN THE PLAN.
   C. SEDIMENT DAMAGE FROM STOCKPILES WILL BE MINIMIZED BY PLACING A ROW OF SILT FENCE A MINIMUM 5 FEET FROM THE TOE.

8. STORM SEWER INLETS WILL BE PROTECTED AT ALL TIMES WITH THE APPROPRIATE INLET PROTECTION FOR EACH SPECIFIC PHASE OF CONSTRUCTION. INLET PROTECTION DEVICES MAY NEED TO BE PLACED MULTIPLE TIMES IN THE SAME LOCATION OVER THE LIFE OF THE CONTRACT. INLET PROTECTION DEVICES WILL BE PAID FOR ONCE PER INLET REGARDLESS OF THE NUMBER OF TIMES THE BMP IS PLACED. ALL STORM SEWER INLET PROTECTION DEVICES WILL BE KEPT IN GOOD FUNCTIONAL CONDITION AT ALL TIMES. IF THE PROJECT ENGINEER DEEMS AN INLET PROTECTION DEVICE TO BE NONFUNCTIONAL, IN POOR CONDITION, INEFFECTIVE OR NOT APPROPRIATE FOR THE CURRENT CONSTRUCTION ACTIVITIES IT WILL BE REPLACED WITH A SUITABLE ALTERNATIVE AT NO COST TO THE CITY OF ROCHESTER.

9. OUTLETS INTO SURFACE WATERS SHALL BE STABILIZED WITH ENERGY DISSIPATION PRIOR TO BEING CONSTRUCTED.

10. THE CONTRACTOR WILL PLACE CONSTRUCTION EXITS, AS NECESSARY, TO PREVENT TRACKING OF SEDIMENT ONTO PAVED SURFACES AND IN COMPLIANCE WITH PART IV OF THE NPDES PERMIT. CONSTRUCTION EXITS WILL BE SUFFICIENTLY SIZED AND MAINTAINED TO PREVENT TRACK OUT.

11. THE CONTRACTOR SHALL CLEAN ALL TRACKED MATERIALS ON ADJACENT ROADWAYS ON A DAILY BASIS AND AS NEEDED AT THE DISCRETION OF THE CITY ENGINEER AND/OR HIS DESIGNATED REPRESENTATIVES.

12. THE CONTRACTOR MUST USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT CONCRETE DUST, PARTICLES, SAW CUT SLURRY, PLANING WASTE AND OTHER OR FUTURE VEGETATED AREAS OR ENTERING STORMWATER CONVEYANCE SYSTEM INCLUDING INLETS AND CURB FLOW LINES.

13. ALL EXPOSED SOIL AREAS MUST BE TEMPORARILY OR PERMANENTLY STABILIZED NO MORE THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

14. THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS:
   A. SILT FENCE MUST BE REPAIRED, REPLACED OR SUPPLEMENTED WHEN IT BECOMES NON-FUNCTIONAL OR SEDIMENT REACHES 1/3 THE HEIGHT OF THE SILT FENCE. REPAIRS MUST BE MADE WITHIN 24 HOURS OF DISCOVERY.
   B. INLET PROTECTION DEVICES SHOULD BE REPAIRED WHEN THEY BECOME NON-FUNCTIONAL OR SEDIMENT REACHES 1/3 THE HEIGHT AND/OR THE DEPTH OF THE DEVICE.
   C. TEMPORARY SEDIMENT BASIN MUST HAVE THE SEDIMENT REMOVED ONCE THE SEDIMENT HAS REACHED 1/2 THE STORAGE VOLUME WITHIN 72 HOURS OF DISCOVERY.
   D. TRACKED SEDIMENT MUST BE REMOVED WITHIN 24 HOURS OF DISCOVERY OF TRACKING ONTO PAVED SURFACES.
   E. ALL OTHER NON-FUNCTIONAL BMPS MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WITHIN 24 HOURS OF DISCOVERY.
   F. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL BMPS UNTIL WORK HAS BEEN COMPLETED, SITE HAS GONE UNDER FINAL STABILIZATION, AND THE NOTICE OF TERMINATION HAS BEEN SUBMITTED TO THE MPCA IN ACCORDANCE WITH PART II.B.5 OF THE CONSTRUCTION GENERAL PERMIT.

15. TEMPORARY DEWATERING ACTIVITIES MAY BE REQUIRED FOR THE UTILITY WORK. THEREFORE, IT IS POSSIBLE THAT A PERMIT FOR THE TEMPORARY APPROPRIATION OF WATERS OF THE STATE, NON-IRRIGATION FROM MN/DNR WILL BE REQUIRED FOR THIS PROJECT. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING THIS PERMIT. ALL TEMPORARY DEWATERING SHALL BE DISCHARGED TO AN APPROVED LOCATION FOR TREATMENT PRIOR TO DISCHARGE TO THE RECEIVING WATER. THE CONTRACTOR IS REQUIRED TO SUBMIT SITE PLANS TO ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK ACCORDING TO SPEC. 1717.2E.

POLLUTION PREVENTION

16. IF A SPILL OCCURS, OBSERVE THE SAFETY PRECAUTIONS ASSOCIATED WITH THE SPILLED MATERIAL. STOP THE SOURCE OF THE SPILL, IF POSSIBLE. CALL THE LOCAL FIRE AND/OR POLICE DEPARTMENTS IF FIRE OR PUBLIC SAFETY HAZARDS ARE CREATED. CONTAIN THE SPILLED MATERIAL. DIRT, SAND, OR ANY SEMI IMPERMEABLE MATERIAL MAY BE USED TO CREATE A CONTAINMENT STRUCTURE TO PREVENT THE MATERIAL FROM FLOWING. REPORT THE SPILL TO THE MINNESOTA POLLUTION CONTROL AGENCY (MPCA) THROUGH THE STATE DUTY OFFICER. 24 HOUR TELEPHONE NUMBERS ARE: 651/649-5451 OR 800/422-0798. CLEANUP THE SPILLED MATERIAL AND DISPOSE OF THE WASTES PROPERLY. WITH THE EXCEPTION OF USED OIL, WASTES GENERATED FROM PETROLEUM SPILLS THAT HAVE BEEN REPORTED AND CLEANED UP IMMEDIATELY ARE EXEMPT FROM MINNESOTA'S HAZARDOUS WASTE RULES. WASTE GENERATED FROM USED OIL SPILLS MUST BE SENT TO A FACILITY FOR ENERGY RECOVERY.

17. IF CONTAMINATED SOILS ARE DISCOVERED DURING THE COURSE OF THE PROJECT, THE STATE DUTY OFFICER SHALL IMMEDIATELY BE CALLED AT THE NUMBER(S) STATED ABOVE AND EMERGENCY CONTAINMENT ACTIONS TAKEN. THE CITY SHALL ALSO BE NOTIFIED IMMEDIATELY.

18. TRASH AND CONSTRUCTION DEBRIS SHALL BE DISPOSED OF PROPERLY. PROPER MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO KEEP DEBRIS FROM SURFACE WATERS DURING BRIDGE CONSTRUCTION.

Revision comment:
Revised: 1
Creation Date: 1

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24997

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-12 of 62 Sheets

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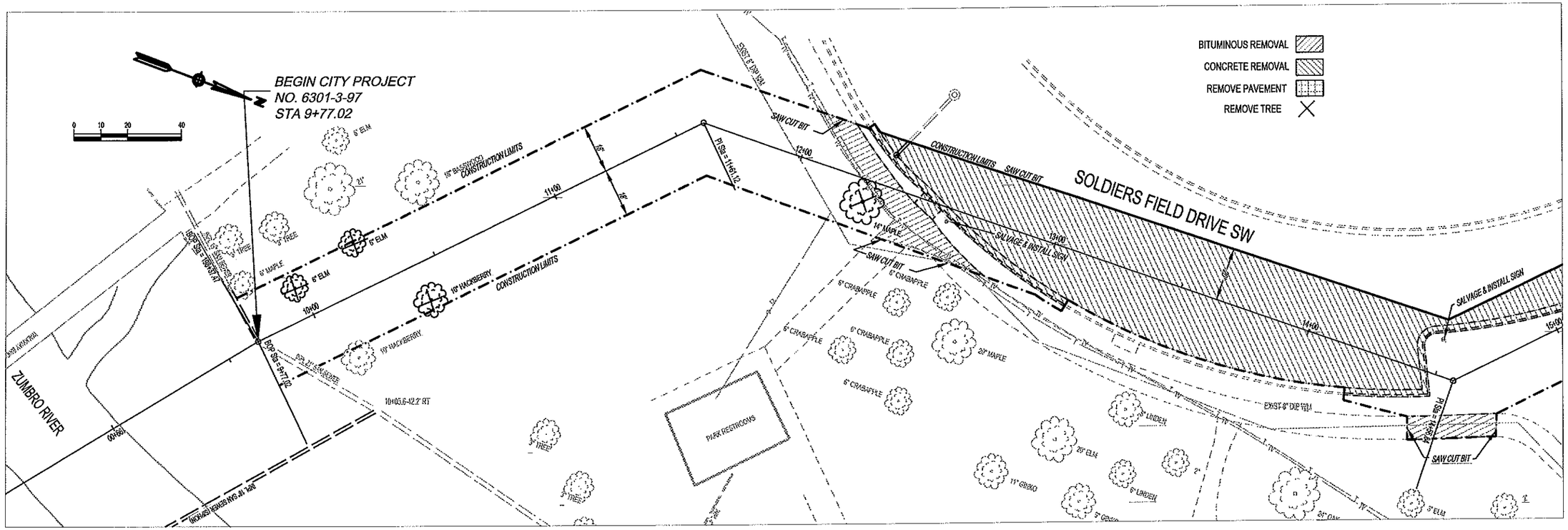
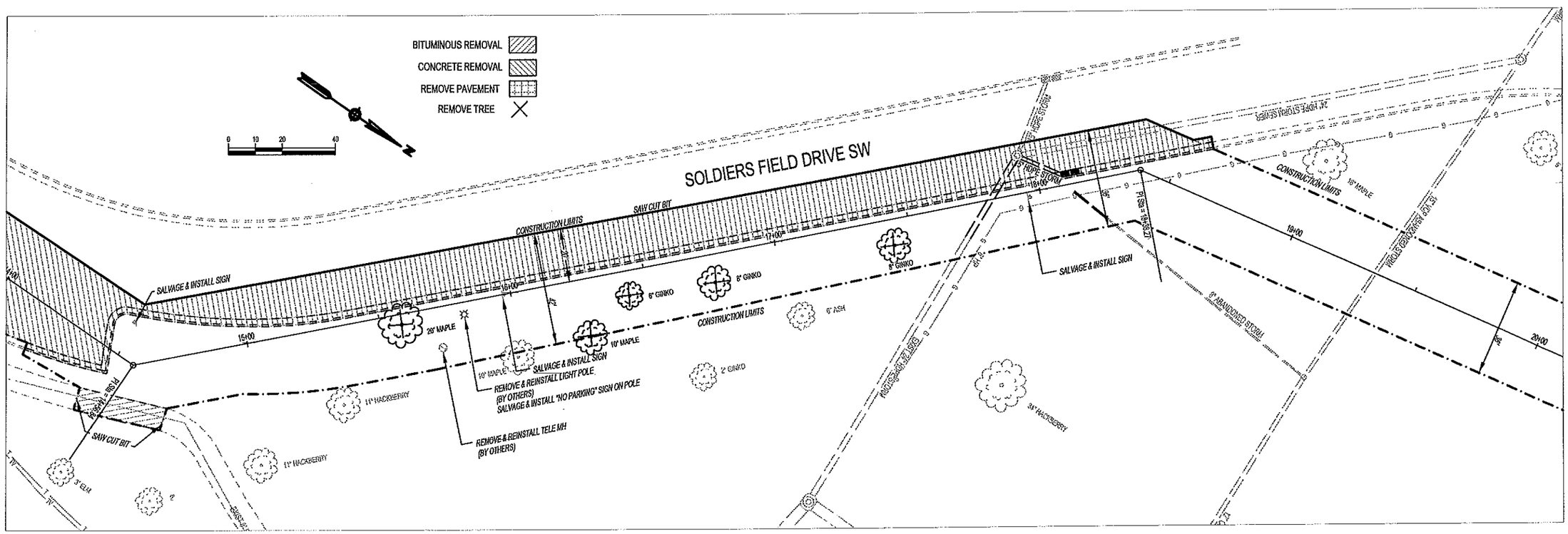




Revision comment: –

Reissued: –

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

Russell A. Kilen Date: 05/15/12 Reg. No. 24067

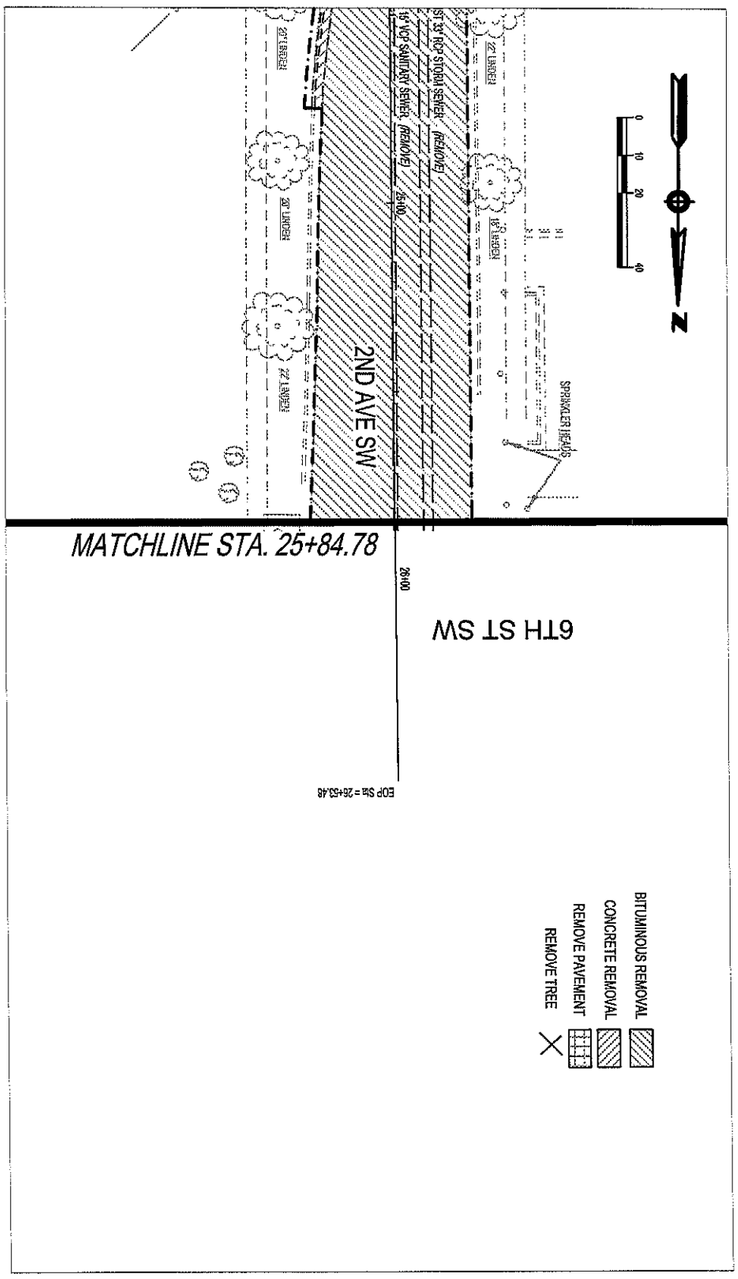
City of Rochester, Minnesota
Department Of Public Works

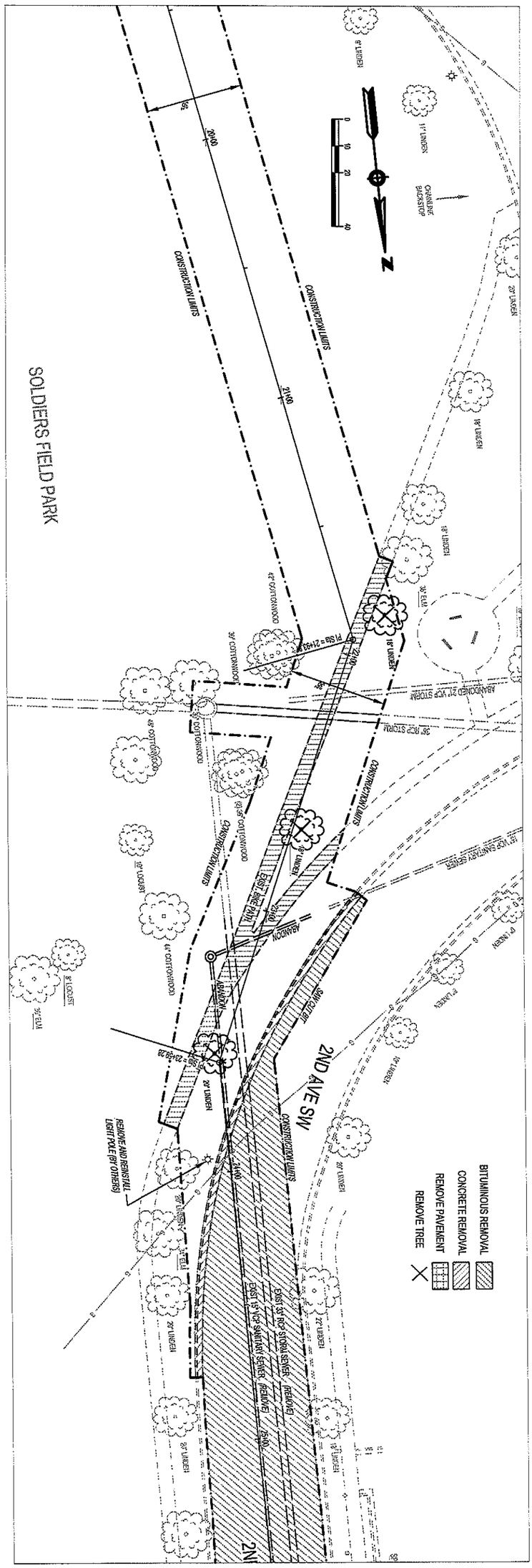
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2439
FAX: (507) 328-2401

Title: REMOVALS - SOLDIERS FIELD AREA

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-13 of 62 Sheets





Project No. 6301-3-97 J2170 Sheet S-14 of 62 Sheets	Designer: RLW Checker: RJK	Title: REMOVALS - SOLDIERS FIELD AREA	City of Rochester, Minnesota Department Of Public Works 201 4th Street S.E. Rochester, MN 55904 Phone: (507) 328-2450 FAX: (507) 328-2401

Revision comment: —

Revised: —

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

Russell J. Klun Date: 05/15/12 Reg. No. 24667

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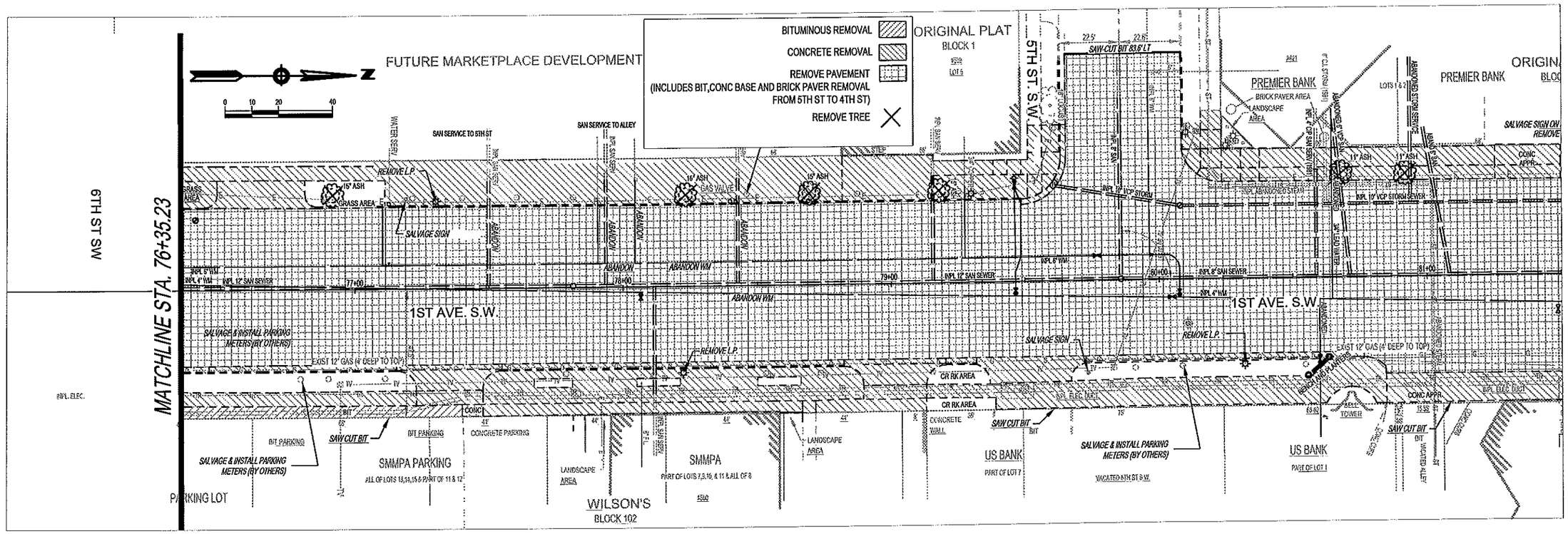


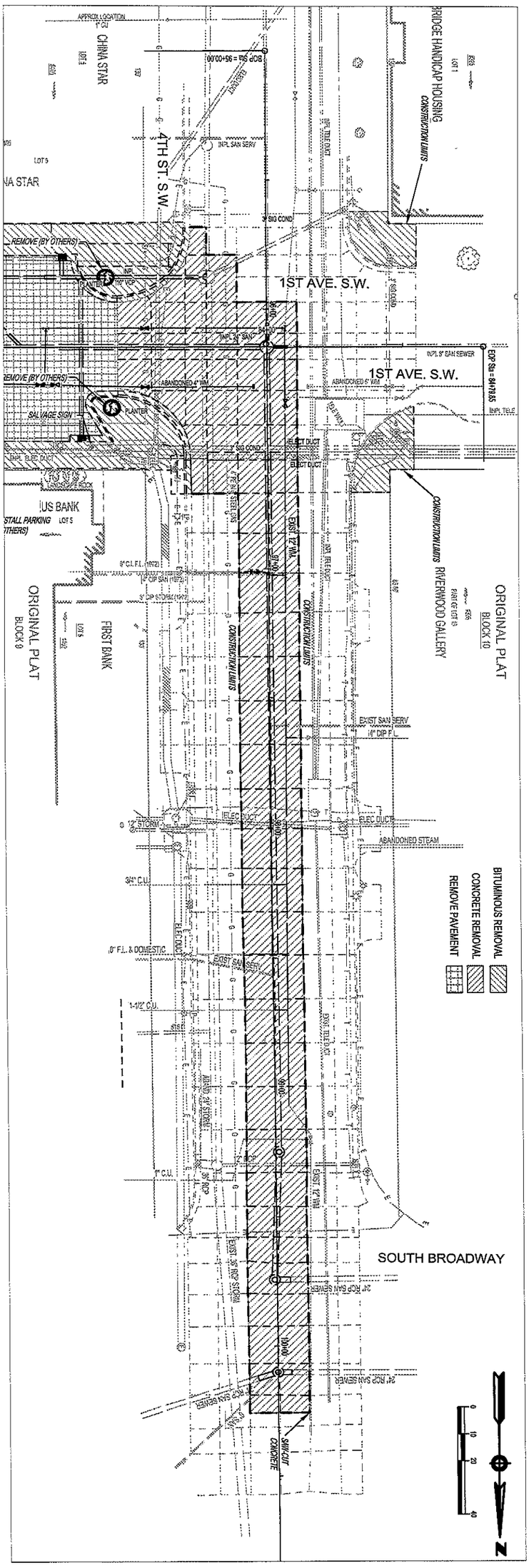
Revision comment: –
Revised: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24687

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2420
FAX: (507) 328-2401

Title: REMOVALS - 1ST AVE SW
Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-15 of 62 Sheets



Project No. 6301-3-97 J 2170 Sheet S-16 of 62 Sheets	Designer: RLW Checker: RJK	Title: REMOVALS - 4TH ST SW	City of Rochester, Minnesota Department Of Public Works 201 4th Street S.E. Rochester, MN 55904 Phone: (507) 328-2450 FAX: (507) 328-2401

Revision comment: —
Revised: —

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

Russell J. Klun Date: 05/15/12 Reg. No. 24667

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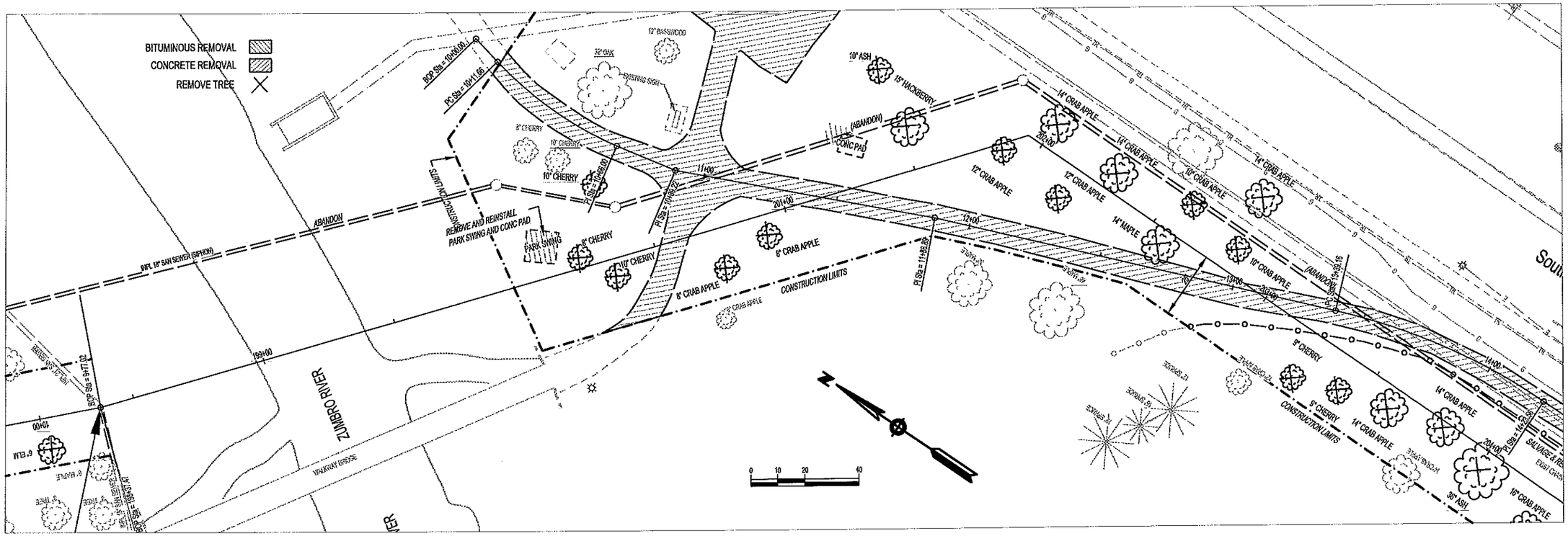

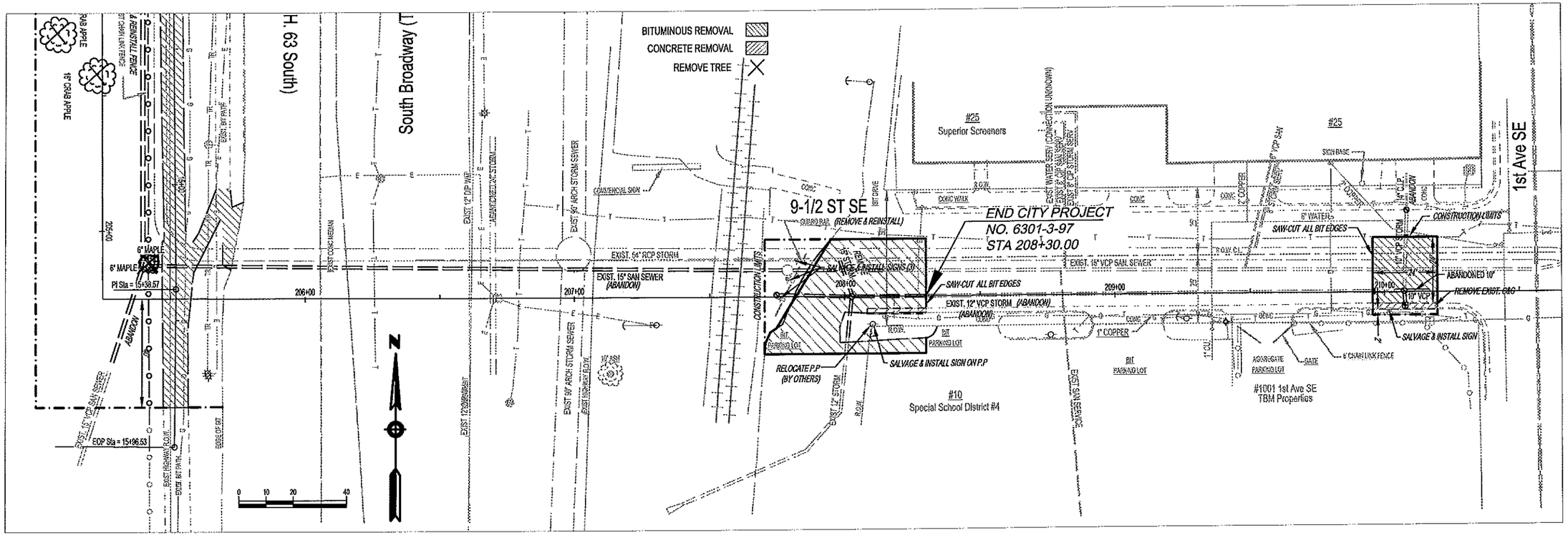

Revision comment: —
Revised: —

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24867

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: REMOVALS - EAST OF ZUMBRO RIVER

Designer: RJW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-17 of 62 Sheets

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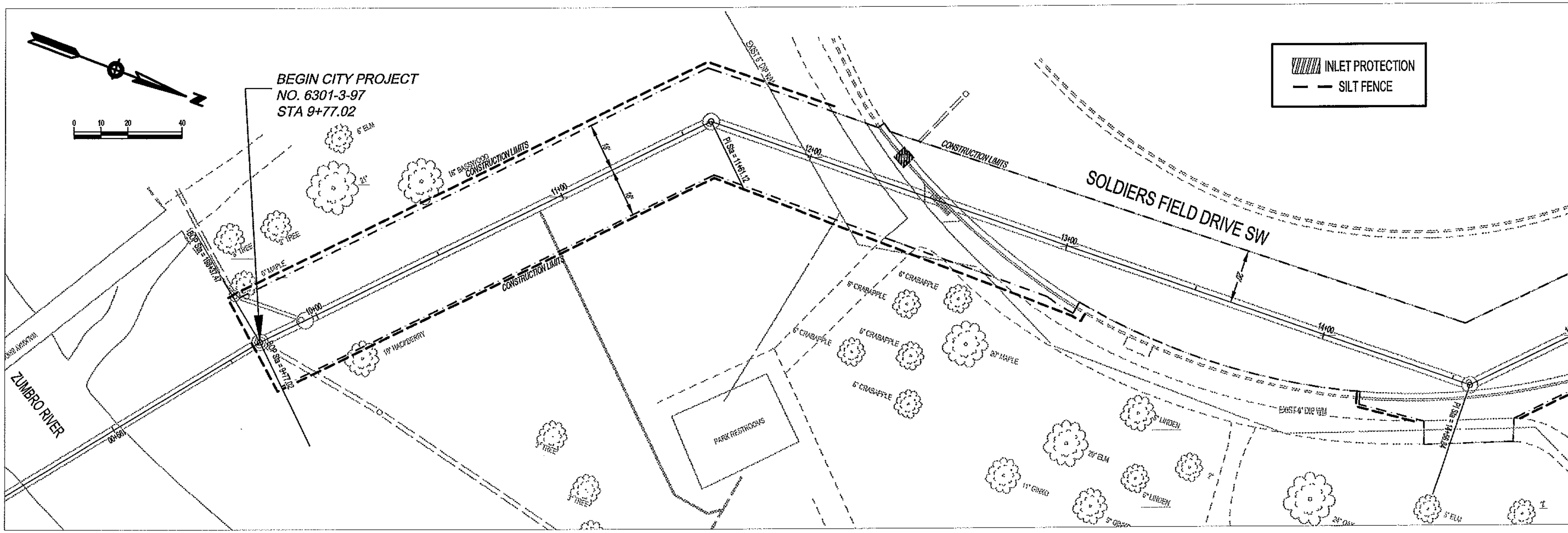
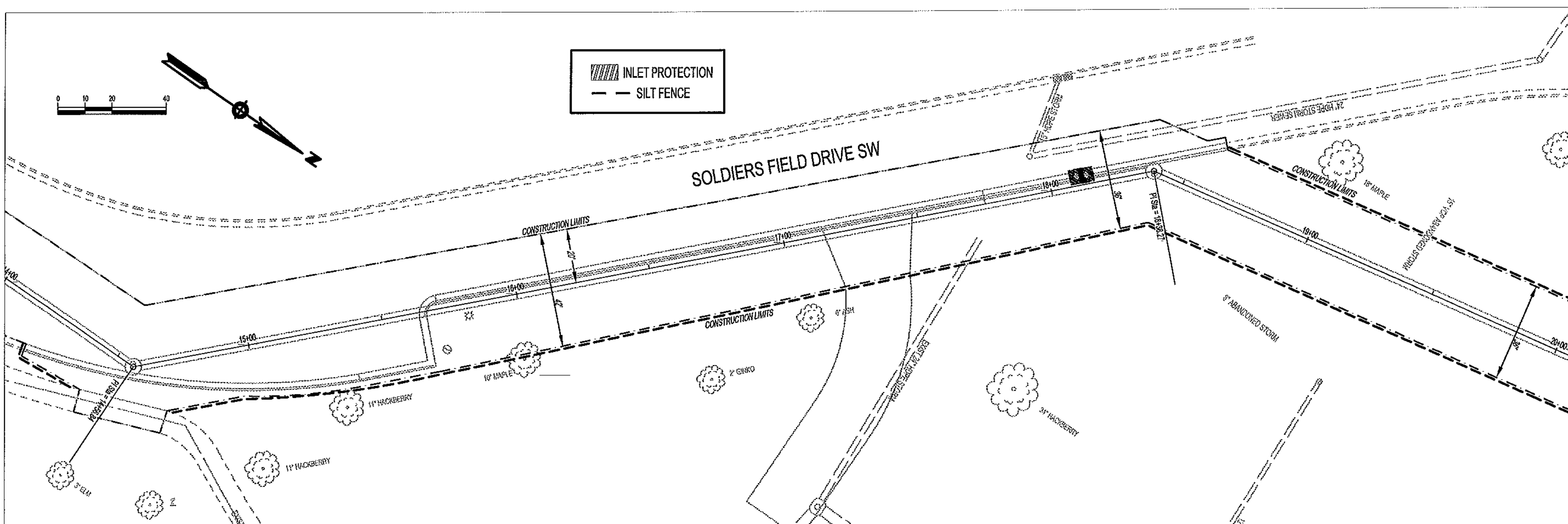




Revision comment: —
Revised: —

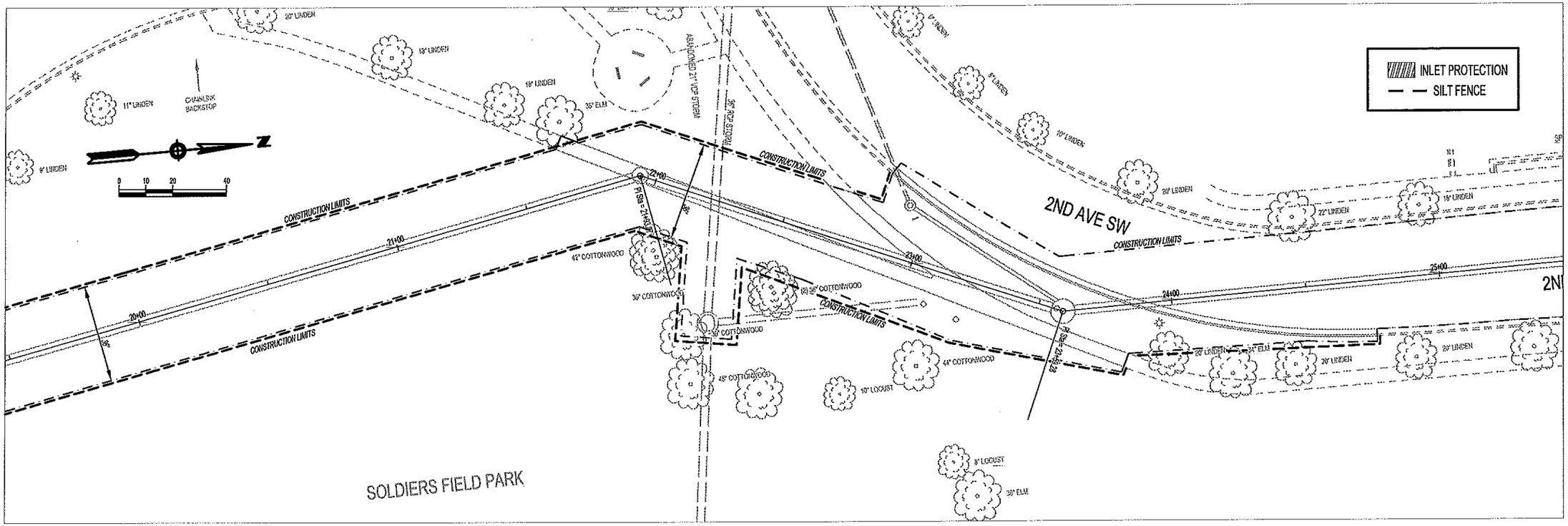
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24867

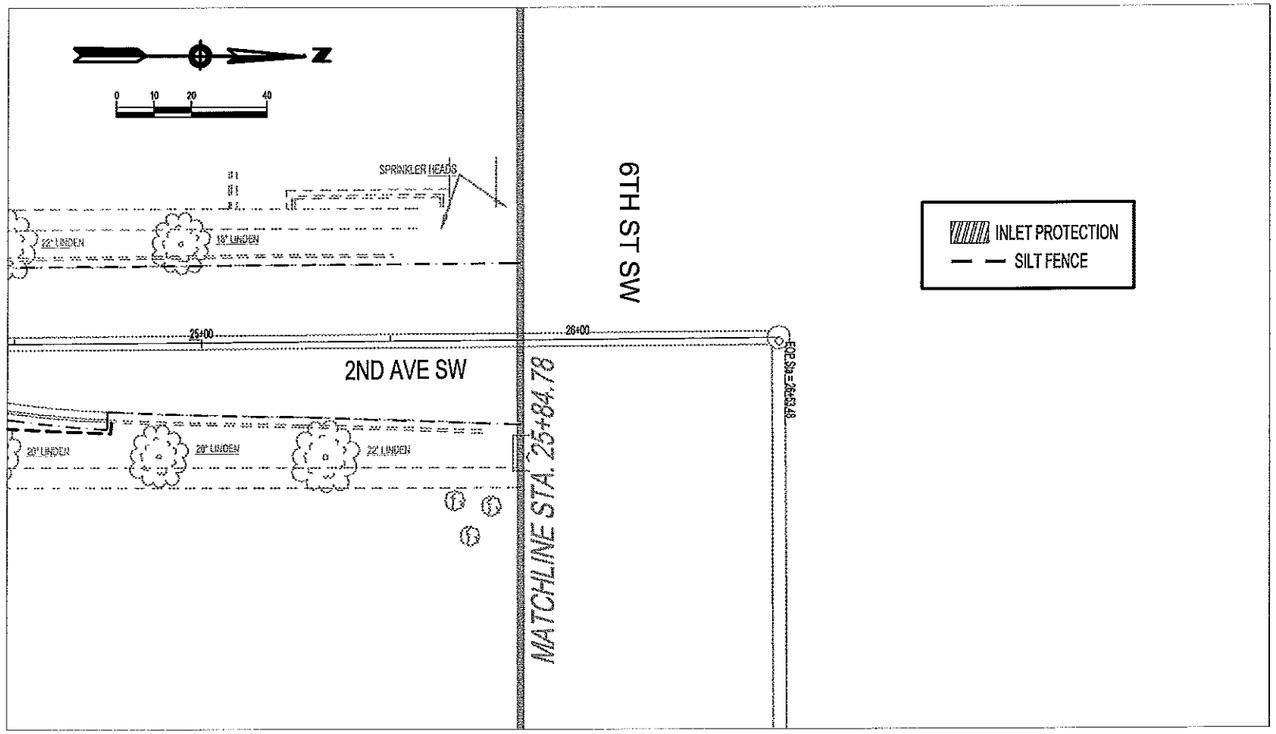
City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2400
FAX: (507) 328-2401

Title: EROSION CONTROL - SOLDIERS FIELD AREA

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-18 of 62 Sheets





Revision comment: –

Revised: –

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Date: 05/15/12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2400
FAX: (507) 328-2401

Title: EROSION CONTROL - SOLDIERS FIELD AREA

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-19 of 62 Sheets

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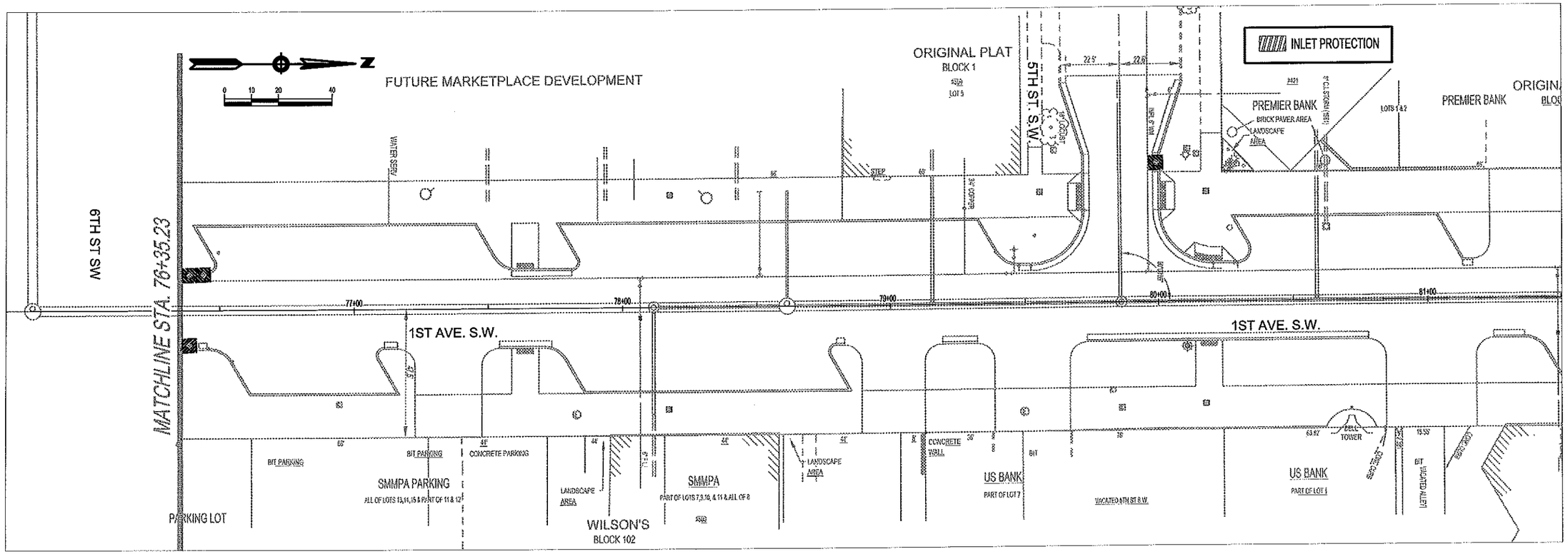

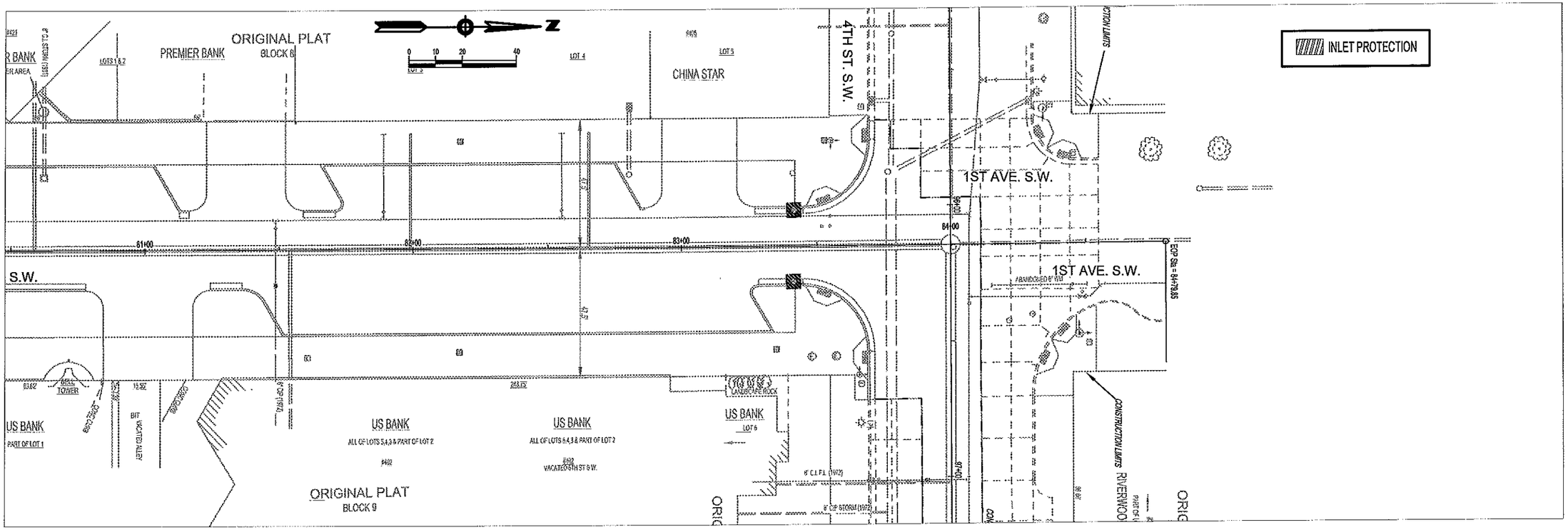

Revision comment: —
Revised: —

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Russell A. Klu Date: 05/15/12 Reg. No. 24867

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-2401

Title: EROSION CONTROL - 1ST AVE SW

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-20 of 62 Sheets

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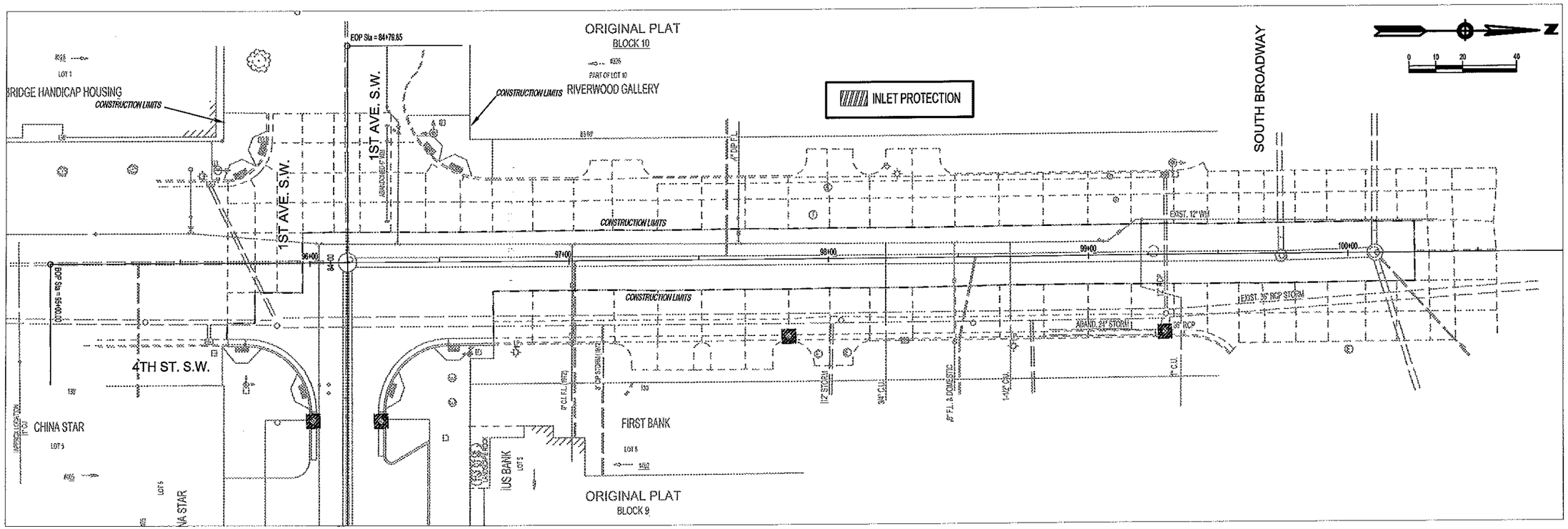

Revision comment: —

Revised: —

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Date: 05/15/12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works

201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: EROSION CONTROL - 4TH ST SW

Designer: RLW

Checker: RJK

Project No. 6301-3-97 J2170

Sheet S-21 of 62 Sheets

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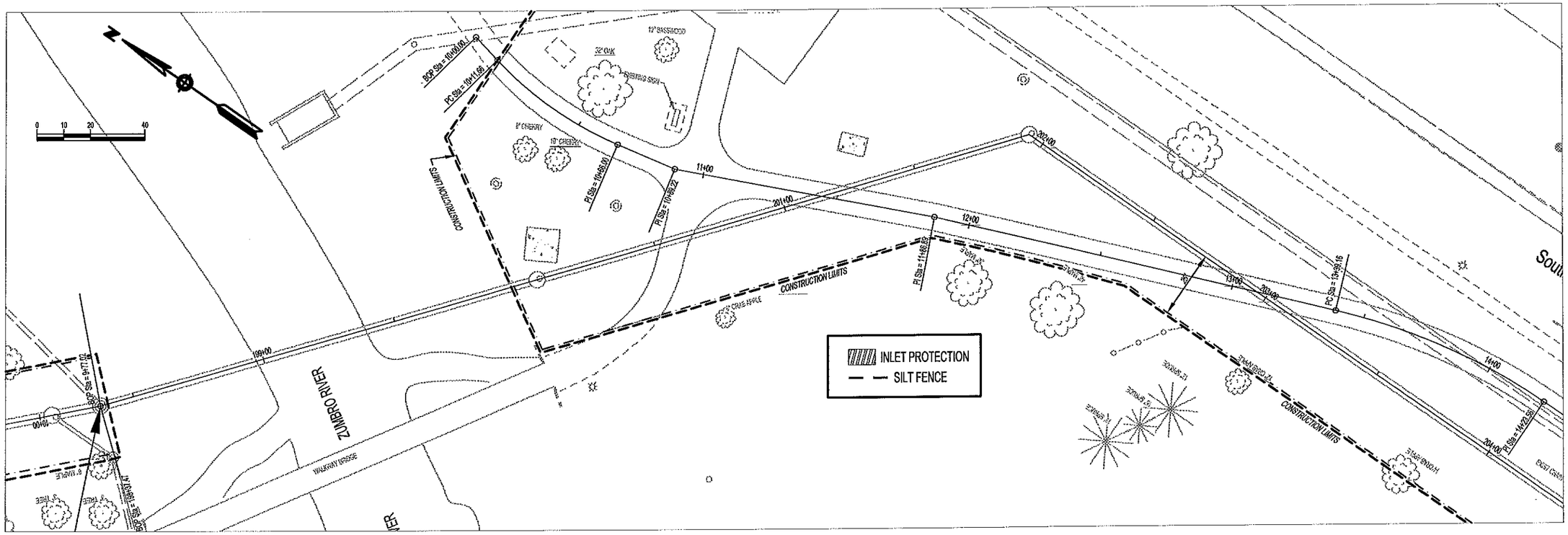
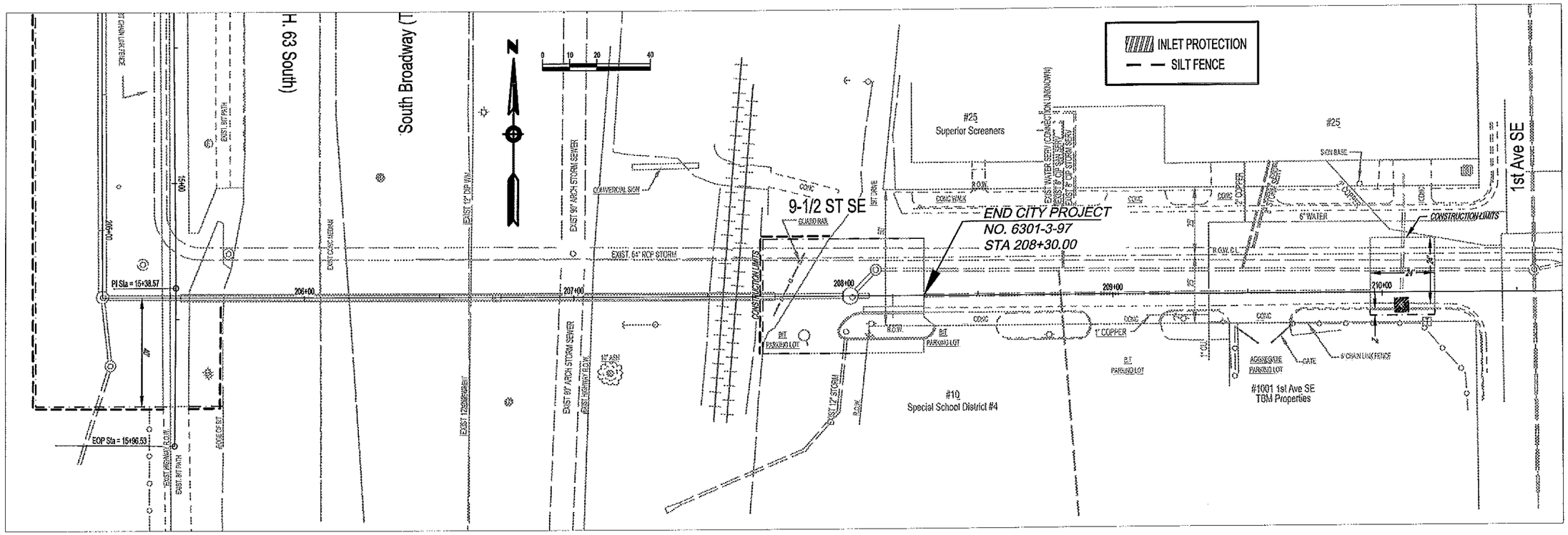




Revision comment: —
Revised: —

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

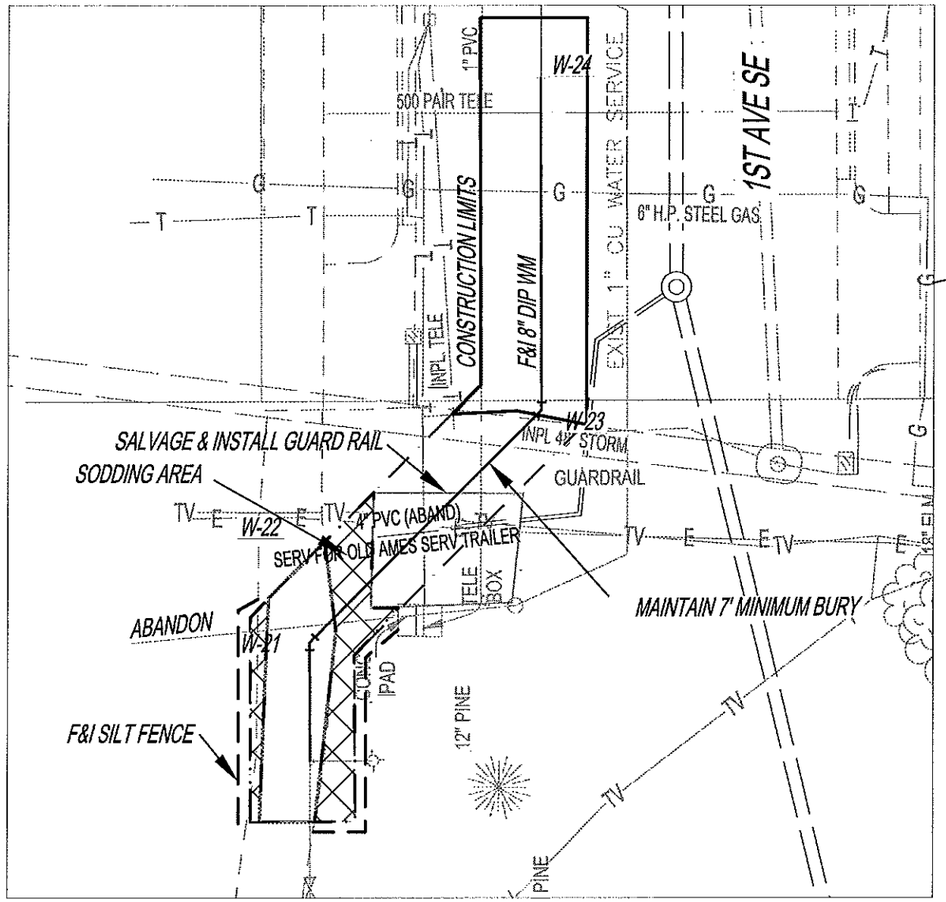
Date: 05/15/12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

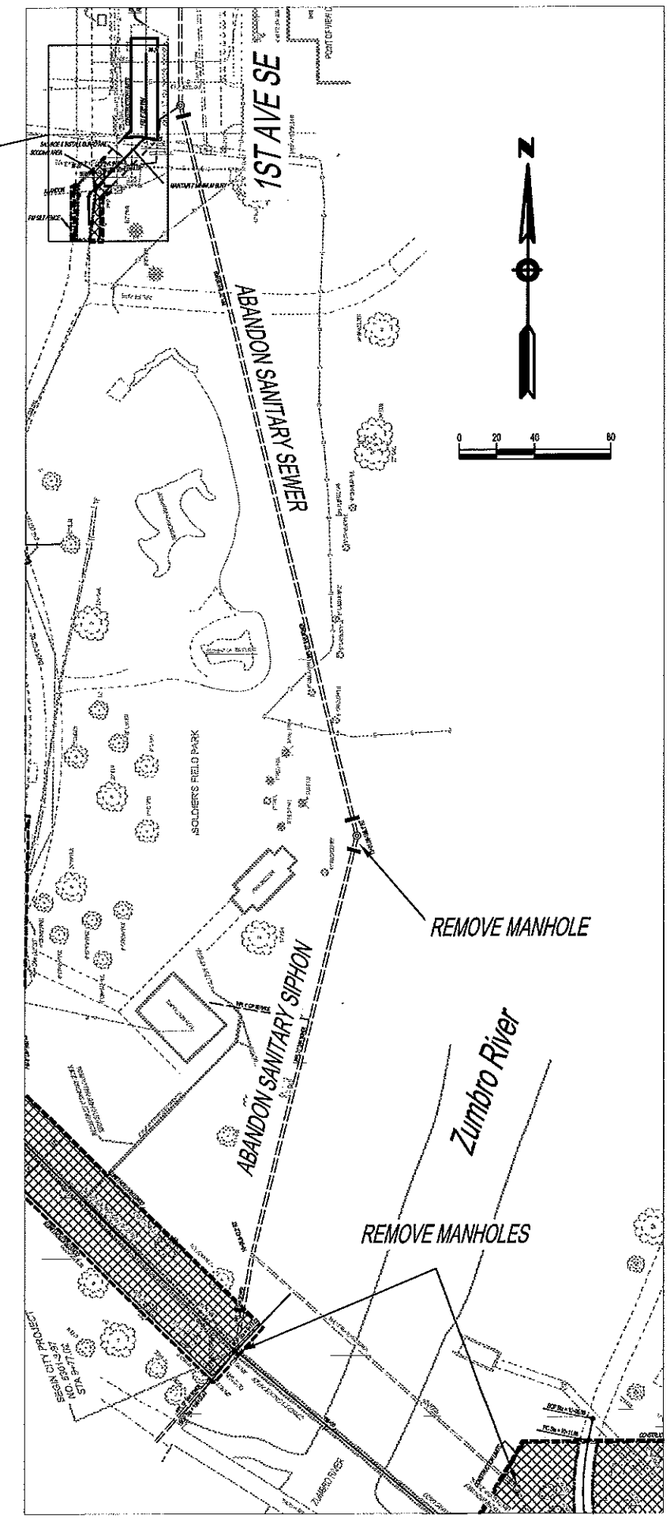
Title: EROSION CONTROL - EAST OF ZUMBRO RIVER

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-22 of 62 Sheets



SOUTH END OF 1ST AVE SW AT SOLDIERS FIELD PARK
WATERMAIN INSET



Revision comment: –
Revised: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 26567

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: UNDERGROUND - ABANDON SEWER SOLDIERS FIELD AREA

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-23 of 62 Sheets

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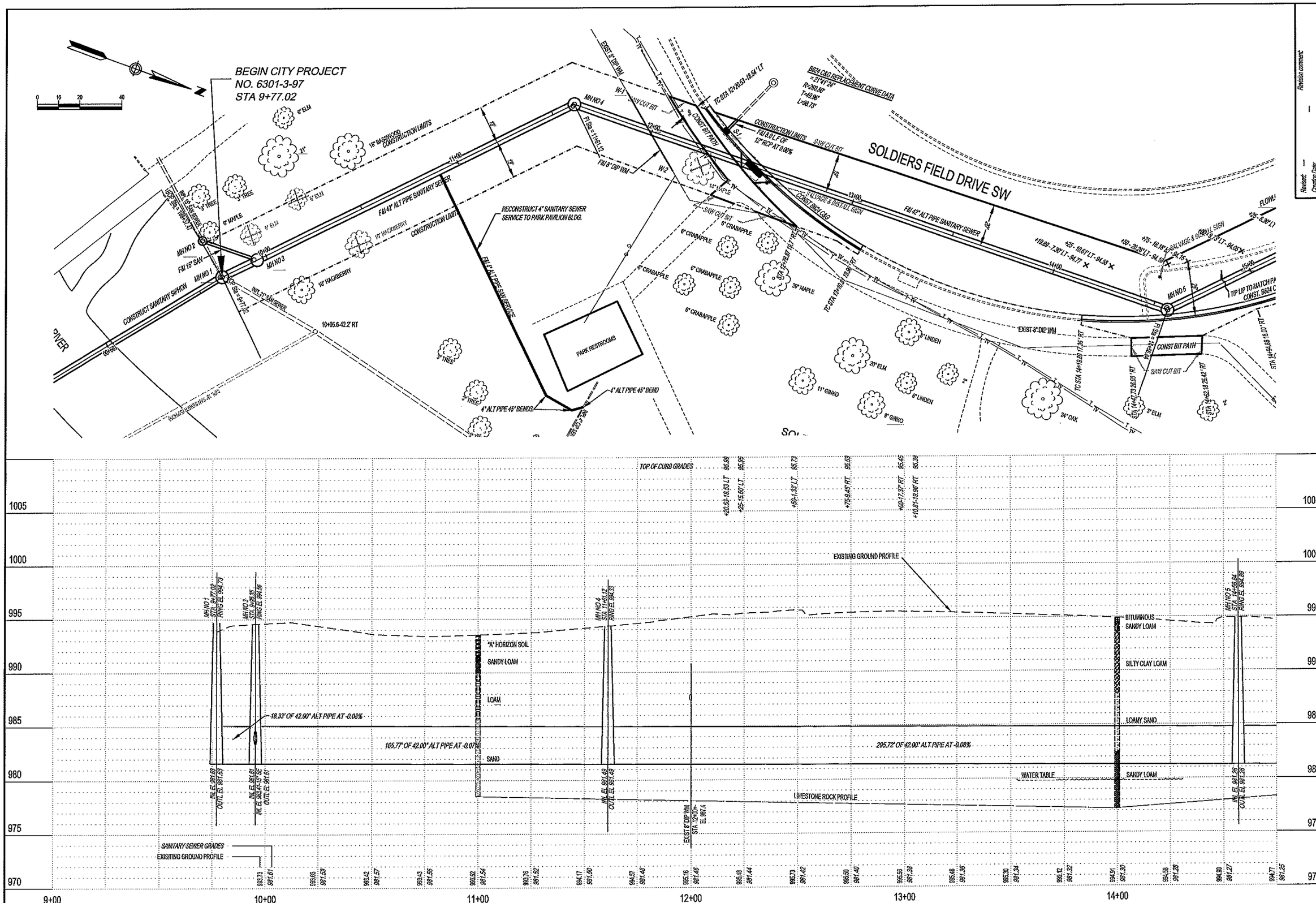

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24967

Revised: —
Creation Date: —
Revision comment: —

Title: UNDERGROUND - SOLDIERS FIELD AREA

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-24 of 62 Sheets

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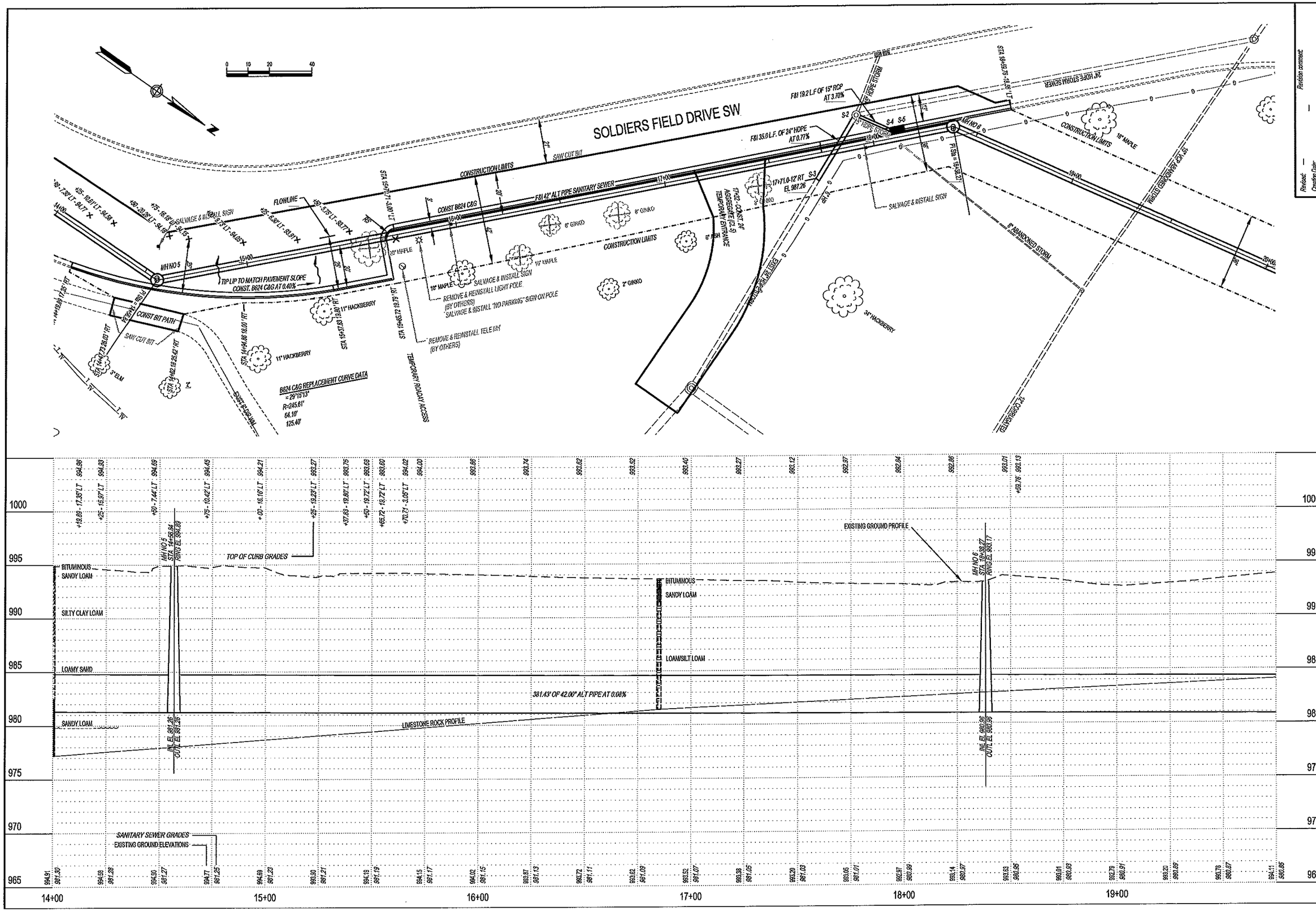

Revision comment: —
Revised: —
Creation Date:

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

UNDERGROUND - SOLDIERS FIELD AREA

Title:
Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-25 of 62 Sheets

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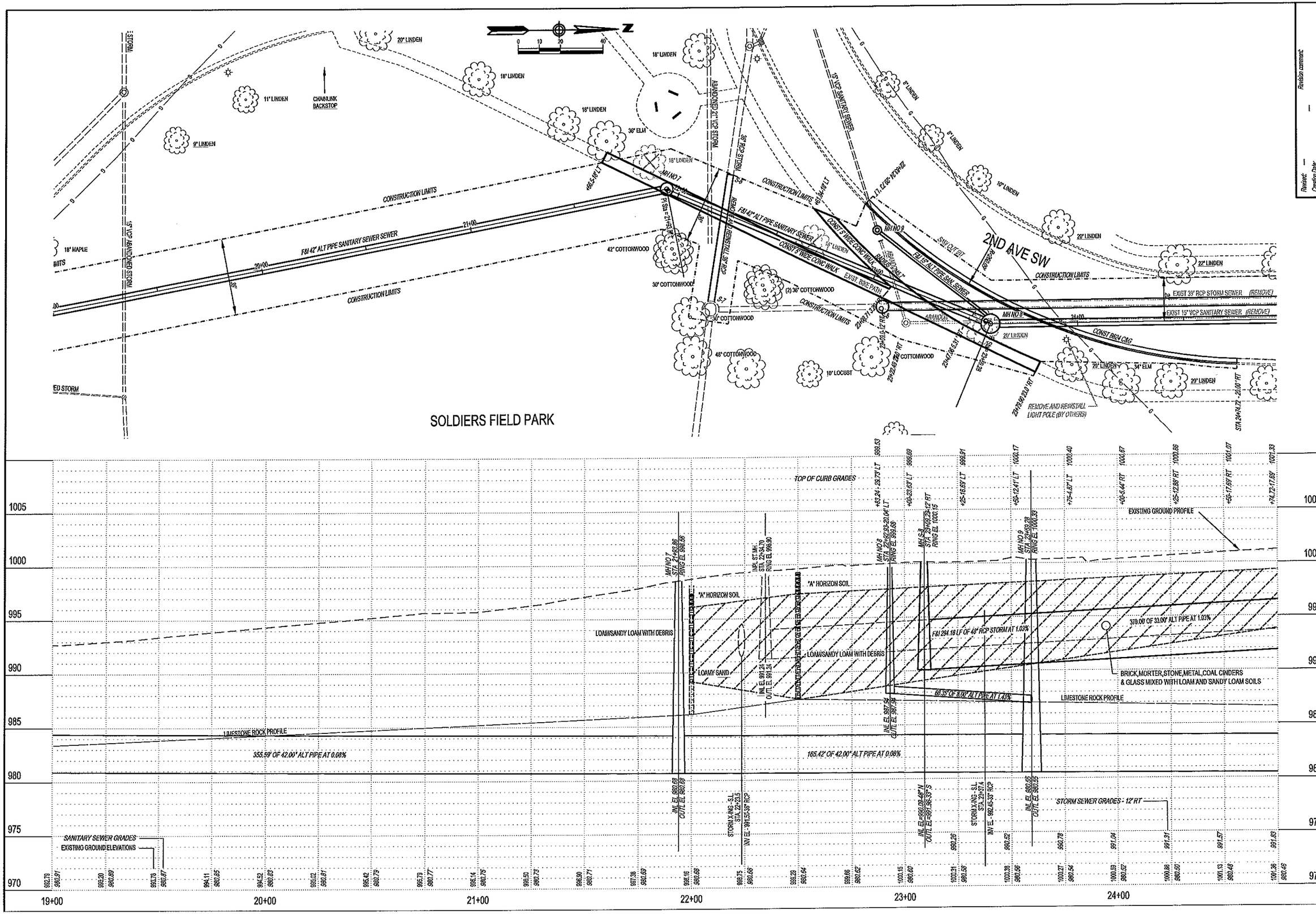


Revised: —
Creation Date: —
Revision comment: —

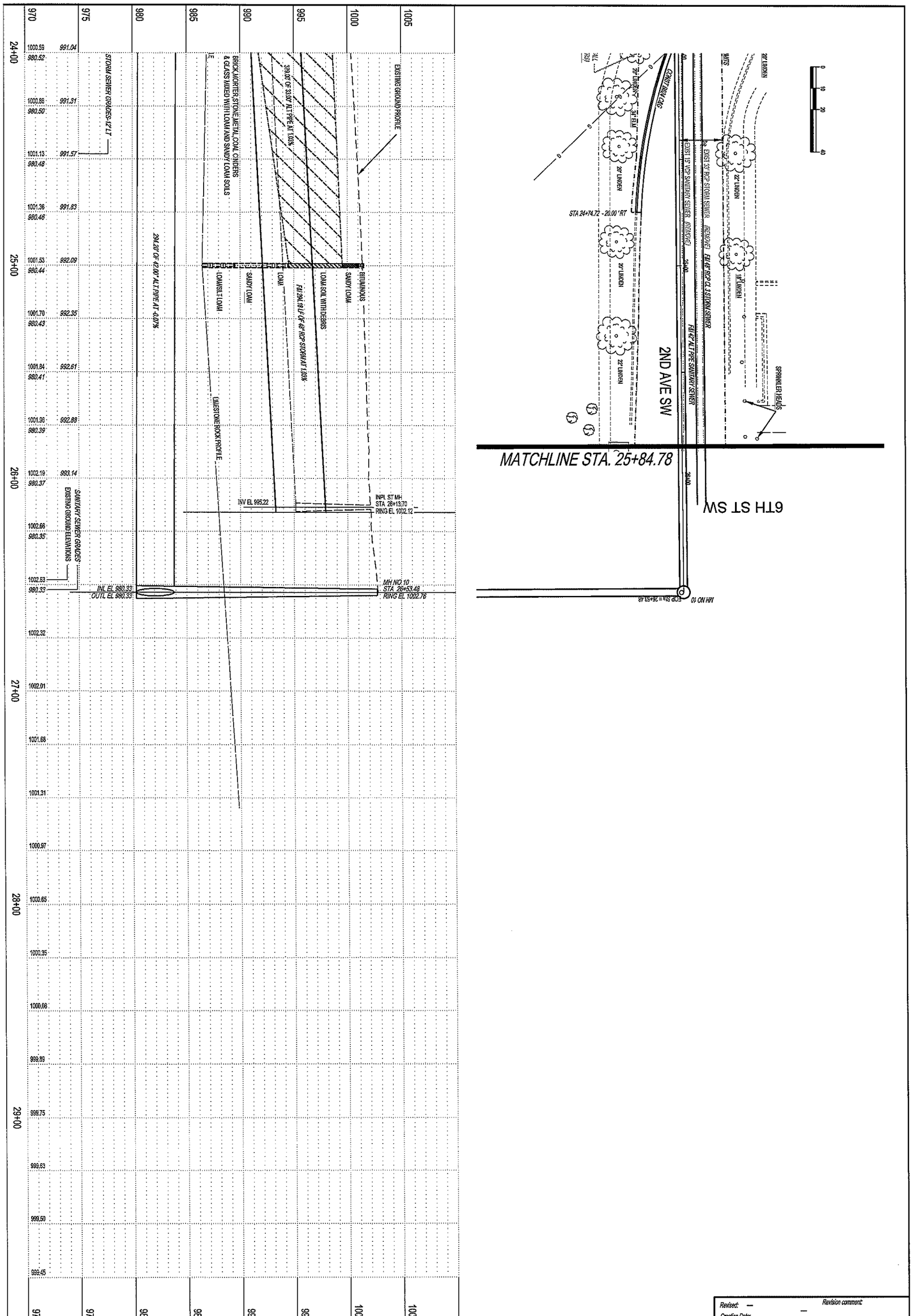
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24087

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: UNDERGROUND - SOLDIERS FIELD AREA

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-26 of 62 Sheets



Revised: —
Revision comment: —
Creation Date:

Project No. 6301-3-97 J2170
Sheet S-27 of 62 Sheets

Designer: RLW
Checker: RJK

Title: UNDERGROUND - SOLDIERS FIELD AREA

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

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

Russell J. Klun Date: 05/15/12 Reg. No. 24667

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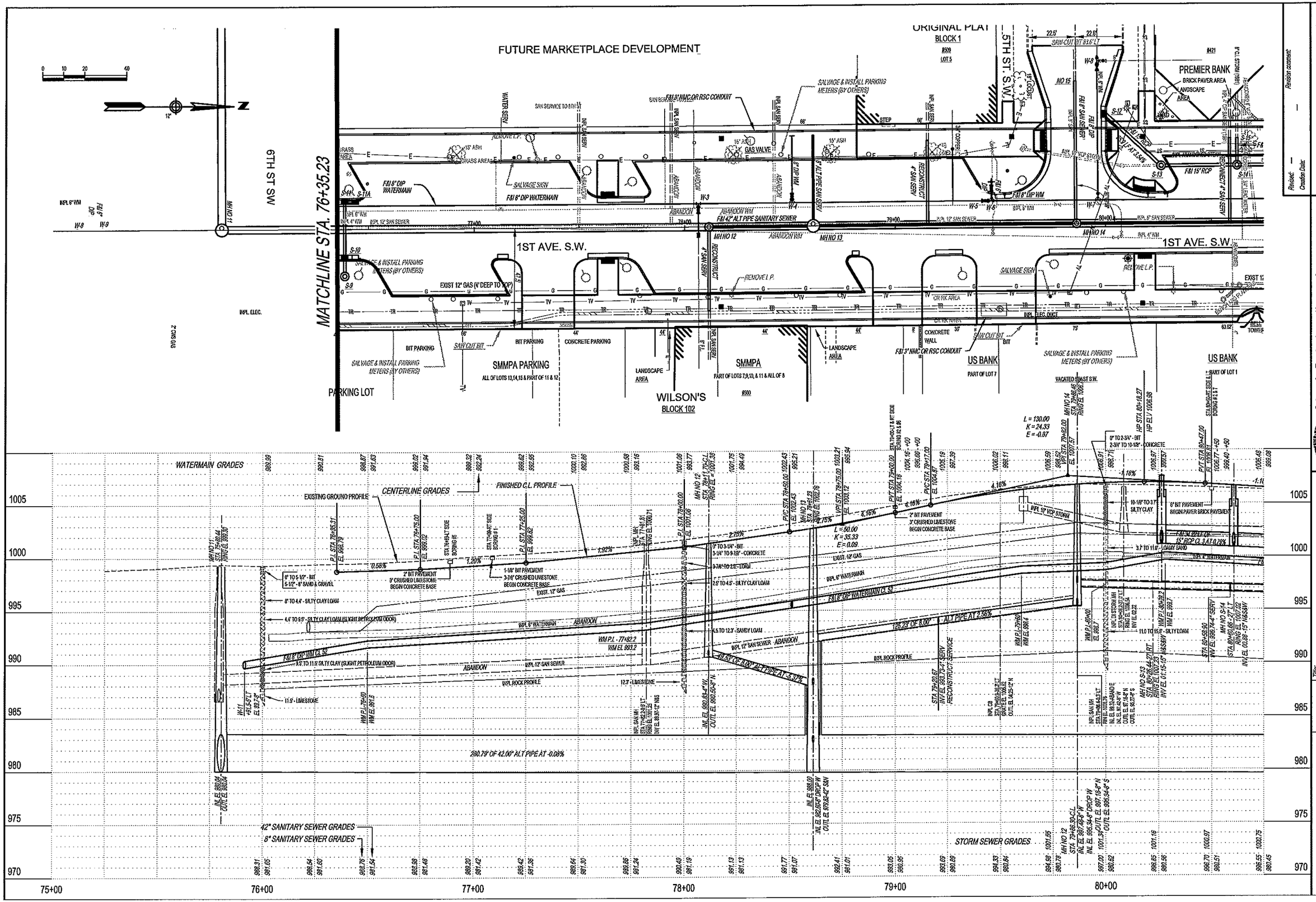

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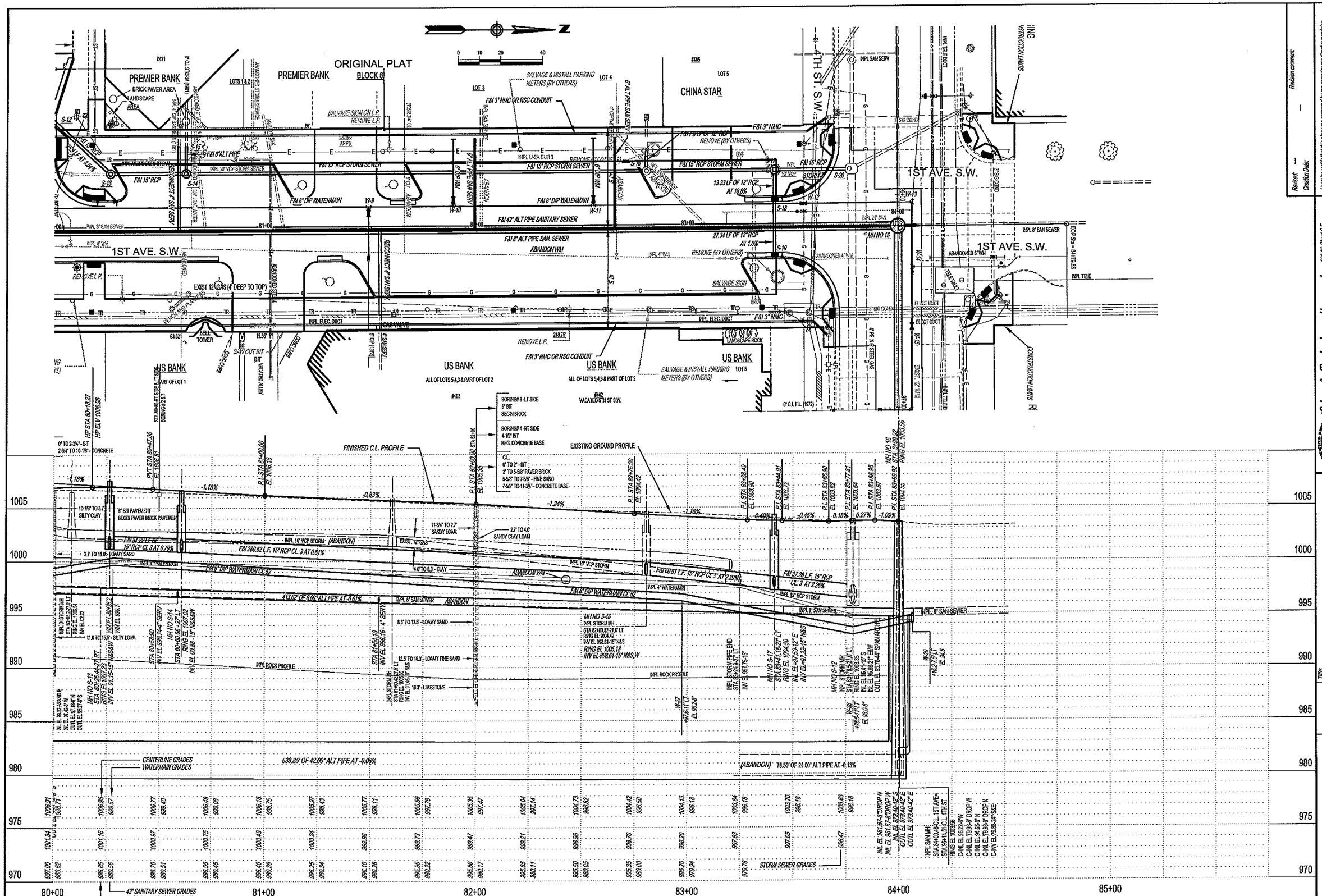

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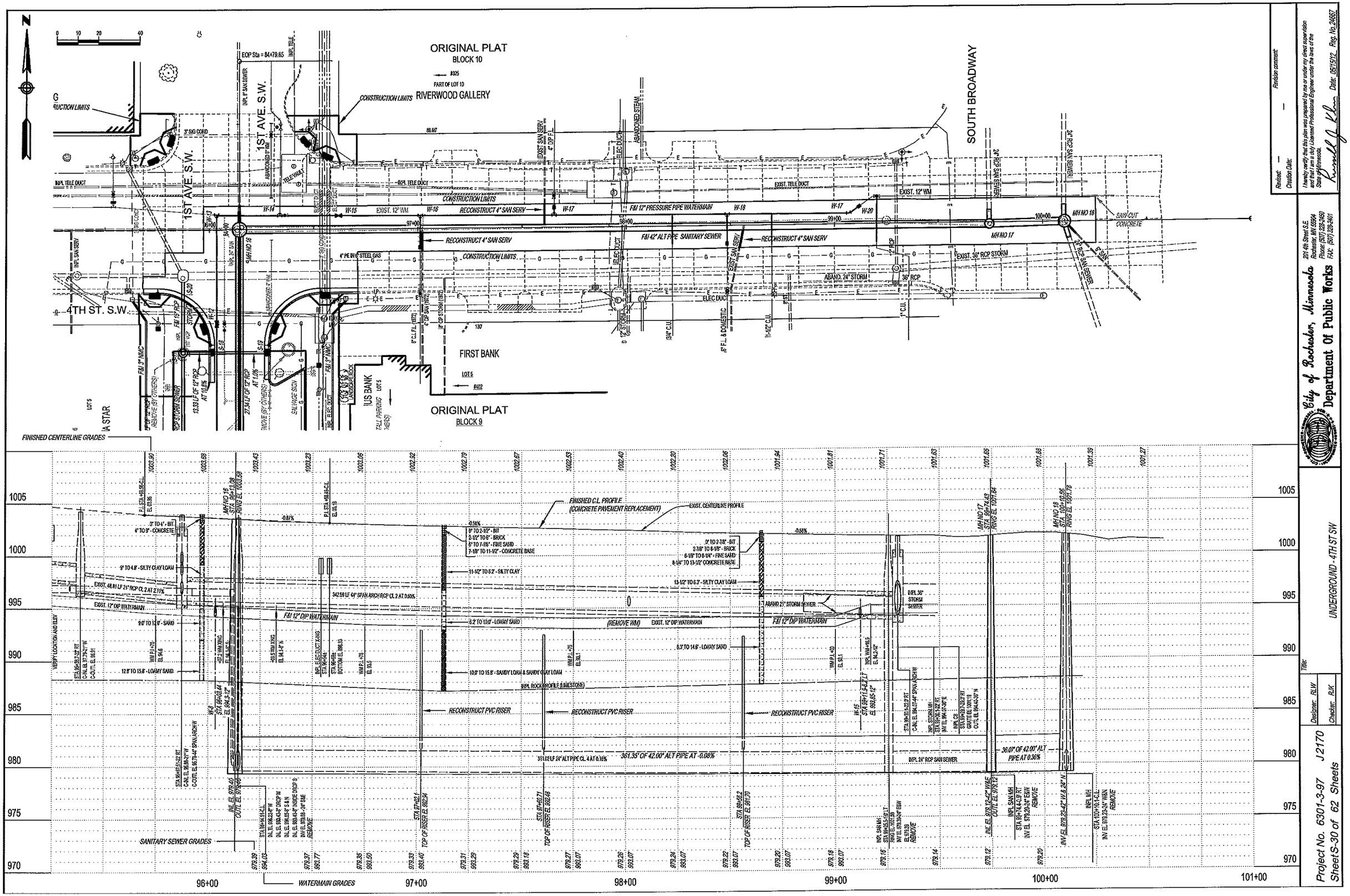


Revision comment: —
Revised: —
Creation Date:

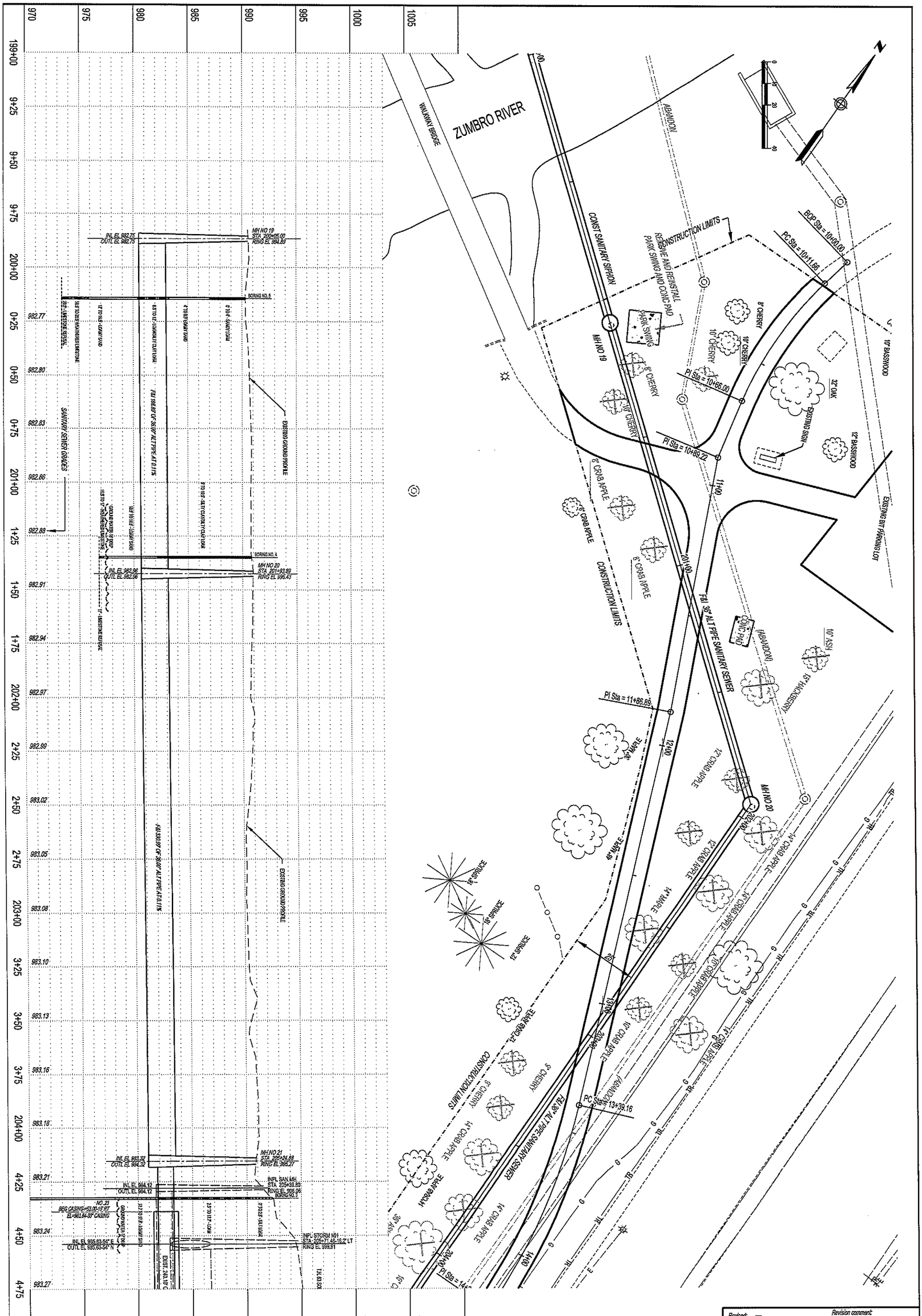
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2429
FAX: (507) 328-2401

Title: UNDERGROUND - 4TH ST SW

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-30 of 62 Sheets



Project No. 6301-3-97 J2170 Sheet S-31 of 62 Sheets	Designer: RLW Checker: RJK	Title: UNDERGROUND - EAST OF ZUMBRO RIVER	City of Rochester, Minnesota Department Of Public Works 201 4th Street S.E. Rochester, MN 55904 Phone: (507) 328-2450 FAX: (507) 328-2401

Revised: —
Revision comment: —
Creation Date:

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

Russell J. Klun Date: 05/15/12 Reg. No. 24667

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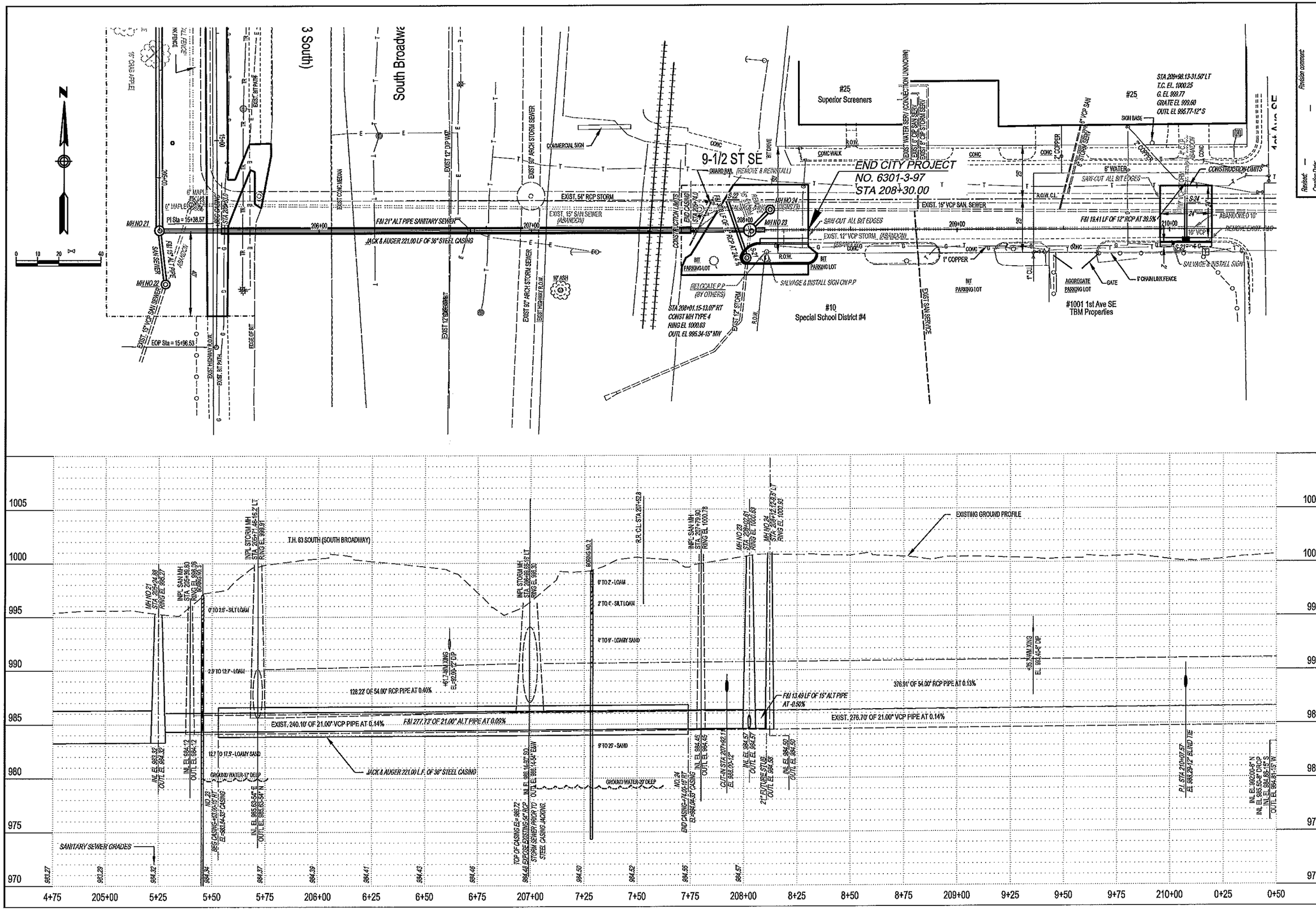


Revision comment: —
Revised: —
Creation Date: —

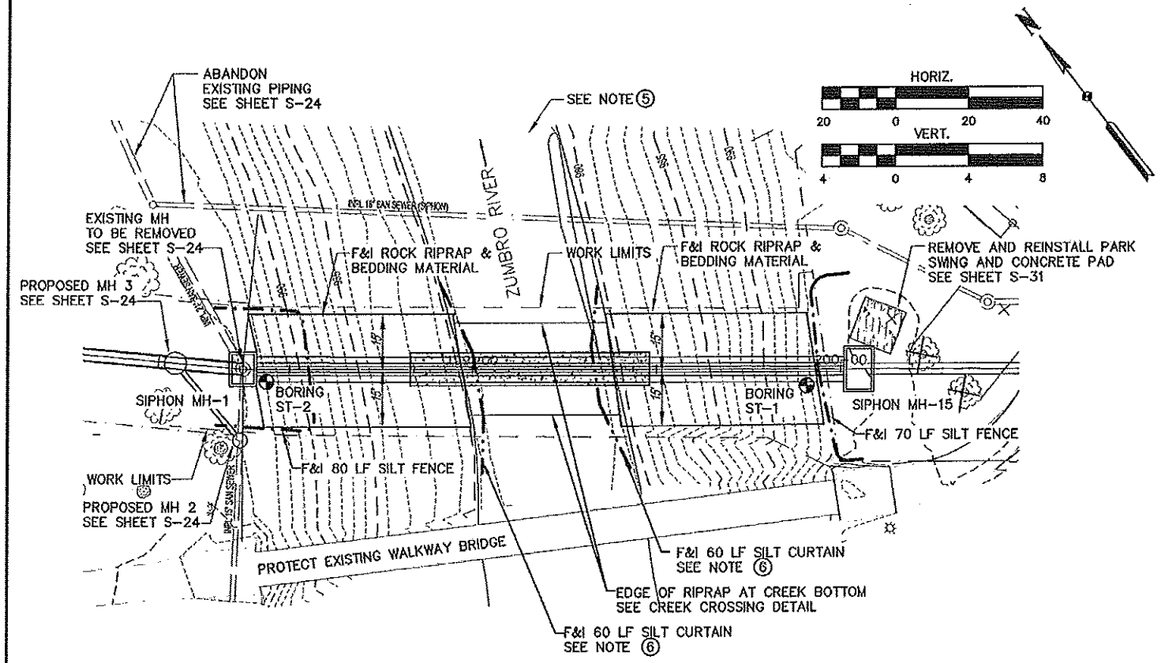
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24087

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-2401

Title: UNDERGROUND - EAST OF ZUMBRO RIVER

Designer: RLW
Checker: RJK

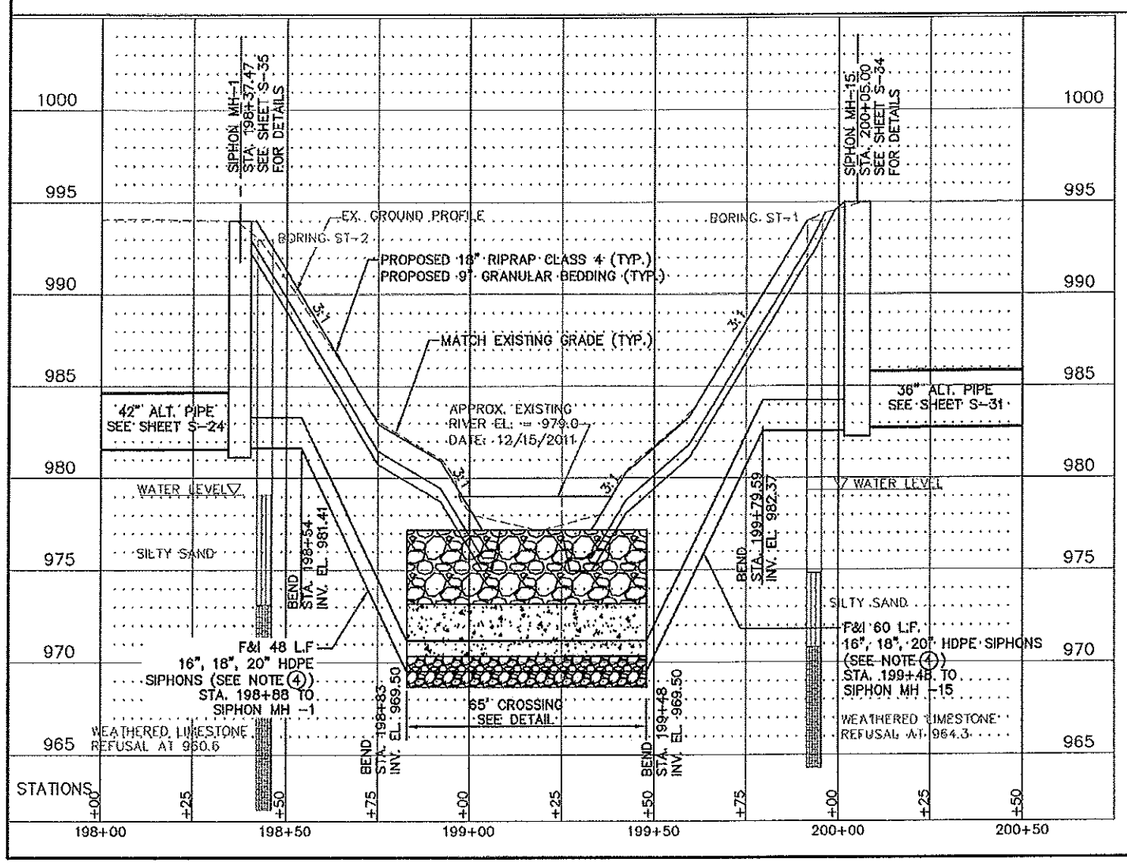
Project No. 6301-3-97 J2170
Sheet S-32 of 62 Sheets

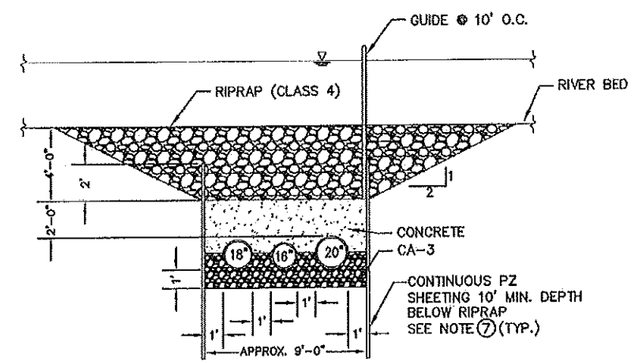


NOTES:

1. DEWATERING SHALL NOT BE DISCHARGED DIRECTLY IN TO RIVER WITHOUT SEDIMENT REMOVAL.
2. RAPID STABILIZATION METHOD 5 USING CLASS 4 RIPRAP IS REQUIRED IMMEDIATELY AFTER UTILITY WORK BETWEEN SIPHON MH-1 AND SIPHON MH-15.
3. BLEND ROCK RIPRAP & BEDDING MATERIAL FROM DESIGNED SLOPES TO MATCH EXISTING RIVER BANK SLOPE UPSTREAM & DOWNSTREAM ON EACH SIDE.
4. HDPE PIPING INCLUDES 2 – 22.5° BENDS AND A FLANGED CONNECTION LOCATED ON EACH PIPE BETWEEN STRUCTURE AND CROSSING. SEE SUPPLEMENTAL SPECIFICATION–SANITARY SEWER SIPHON.
5. INSTALL SILT CURTAIN DOWN RIVER PRIOR TO PERFORMING ANY WORK IN RIVER OR ALONG THE RIVER BANKS. SEE CITY STANDARD DETAIL PLATE NO. 7-02 SHEETS 4-6.
6. INSTALL SILT CURTAIN ALONG RIVER BANKS AS SHOWN IMMEDIATELY AFTER INSTALLATION OF HDPE SIPHON PIPES.
7. BRACE SHEETING WITH SPREADER AS REQUIRED. REMOVE ROCK AND POUR CONCRETE TO FILL VOID BETWEEN SHEETING AND ROCK.
8. CONTRACTOR SHALL PROTECT OR RELOCATE IF REQUIRED, ALL UTILITIES AS REQUIRED FOR INSTALLATION OF PROPOSED STRUCTURES AND PIPING. CONTRACTOR SHALL COORDINATE UTILITY RELOCATIONS WITH THE UTILITY COMPANIES, THIS SHALL BE INCIDENTAL TO THE PROJECT.

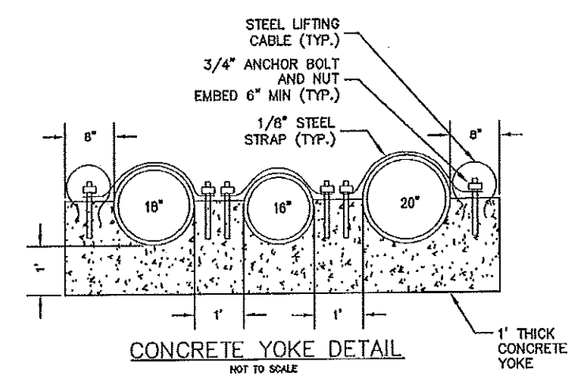
APPROXIMATE 100 YEAR FLOOD ELEVATION 995





CREEK CROSSING DETAIL

NOT TO SCALE



CONCRETE YOKE DETAIL

NOT TO SCALE

WHKS & CO.

ENGINEERS PLANNERS LAND SURVEYORS

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

William K. Angonian

Date 3/1/12 License No. 26435

REVISIONS

NO.	DATE	DESCRIPTION

PLAN AND PROFILE OF SIPHON ACROSS ZUMBRO RIVER SOLDIERS FIELD, ROCHESTER, MN 6301-3-97, J2170

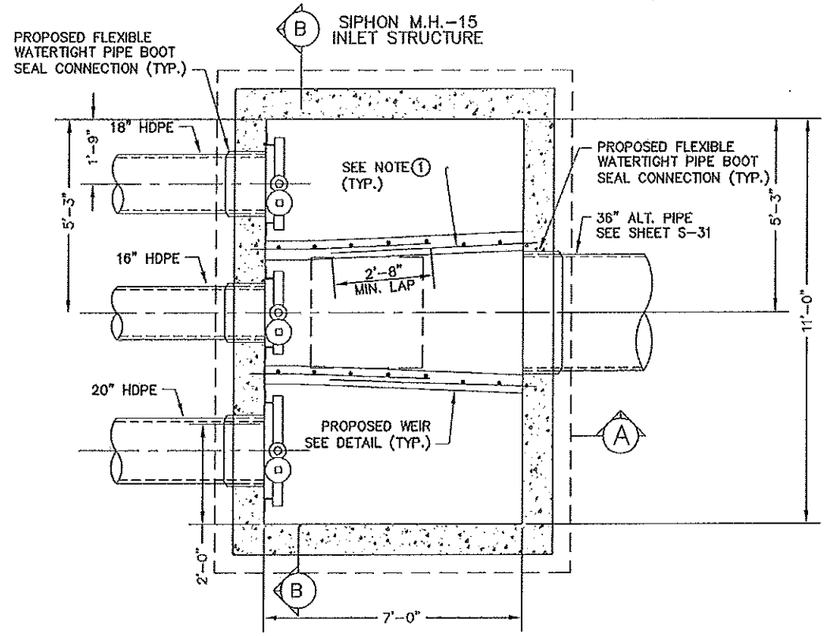
SCALE: AS SHOWN

WHKS PROJECT: 7651.0

DRAWN BY: DJO

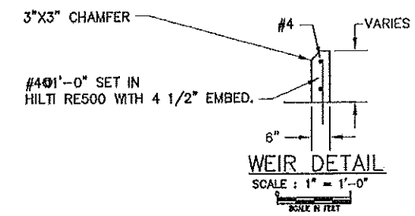
CHECKED BY:

SHEET S-33 OF 62

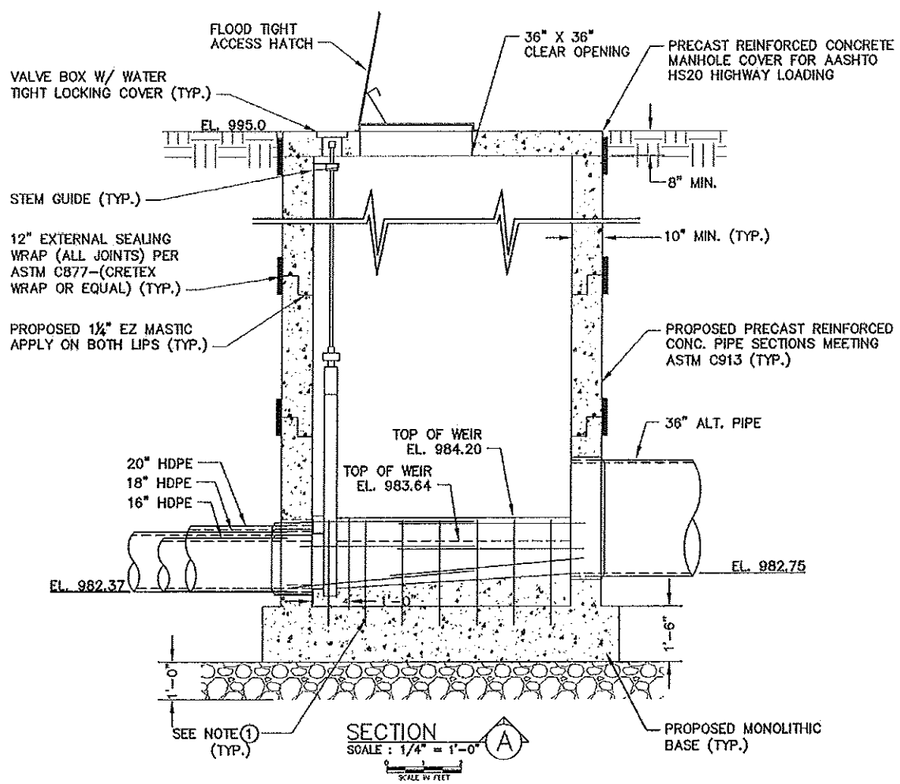


PLAN VIEW
SCALE : 1/4" = 1'-0"

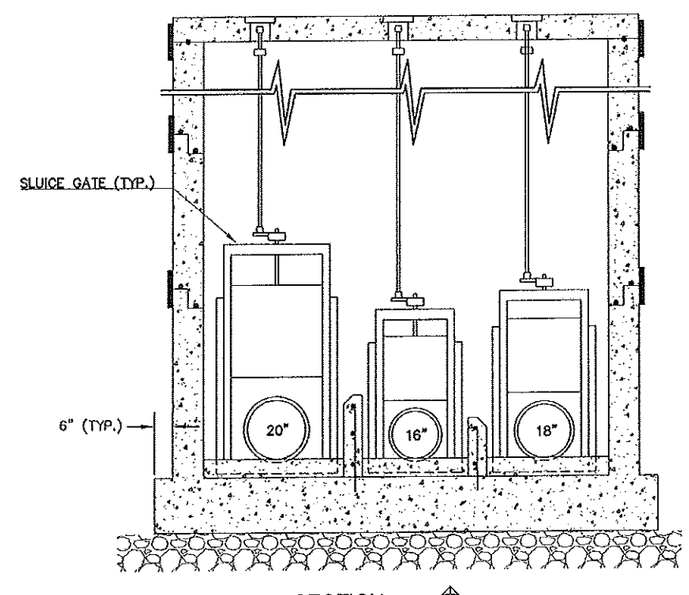
NOTE:
1. REINFORCING IN CONCRETE IN INTERIOR OF STRUCTURES SHALL BE AS SHOWN. ALL BARS TO BE #4. EMBED MIN. 4½". SET IN HILTI RE-500 OR EQUAL. MIN. 2" COVER (TYP.)



WEIR DETAIL
SCALE : 1" = 1'-0"



SECTION A
SCALE : 1/4" = 1'-0"



SECTION B
SCALE : 1/4" = 1'-0"

WHKS & CO.
PLANNERS — ENGINEERS — LAND SURVEYORS

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William K. Angermeier
Date 3/1/12 License No. 26538

REVISIONS
NO. DATE DESCRIPTION

SEWER SIPHON INLET DETAILS
SIPHON ACROSS ZUMBRO RIVER
SOLDIERS FIELD, ROCHESTER, MN
6301-3-97, J2170

SCALE: AS SHOWN
PROJECT NO. 7651.0
DRAWN BY: DJO
CHECKED BY: EAT, WKA
SHEET
S-34 OF 62

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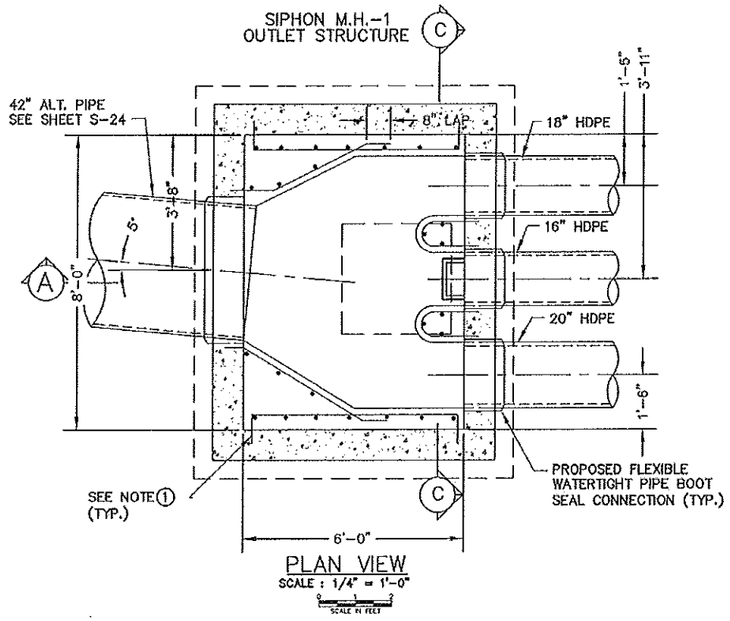
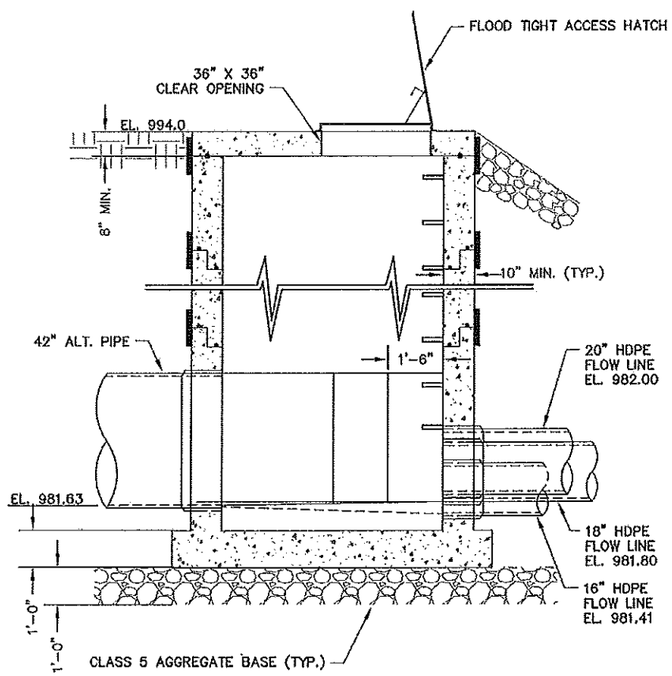


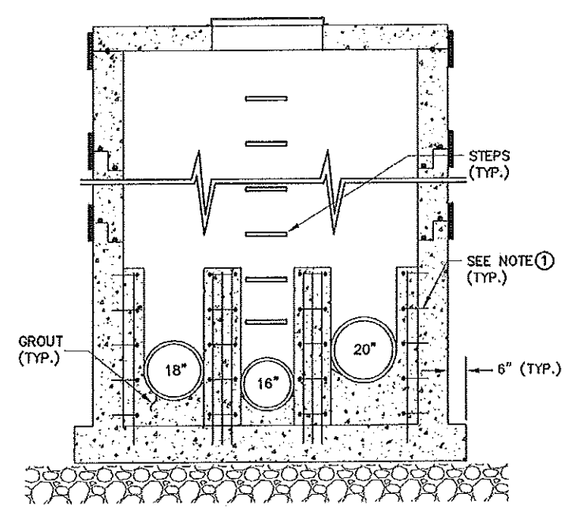
PLAN VIEW
SCALE : 1/4" = 1'-0"

NOTE:

1. REINFORCING IN CONCRETE IN INTERIOR OF STRUCTURES SHALL BE AS SHOWN. ALL BARS TO BE #4. EMBED MIN. 4½". SET IN HILTI RE-500 OR EQUAL. MIN. 2" COVER (TYP.)



SECTION A
SCALE : 1/4" = 1'-0"



SECTION C
SCALE : 1/4" = 1'-0"

WHKS & CO.
ENGINEERS — PLANNERS — LAND SURVEYORS

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William K. Ackerman
Date 5/11/12 License No. 26536

REVISIONS

NO.	DATE	DESCRIPTION

SEWER SIPHON OUTLET DETAILS
SIPHON ACROSS ZUMBRO RIVER
SOLDIERS FIELD, ROCHESTER, MN
6301-3-97, J2170

SCALE: AS SHOWN
PROJECT NO. 7651.0
DRAWN BY: DJO
CHECKED BY: EAT, WKA
SHEET S-35 OF 62

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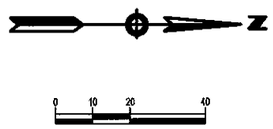
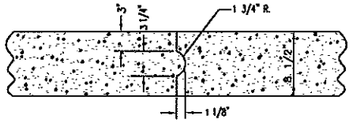


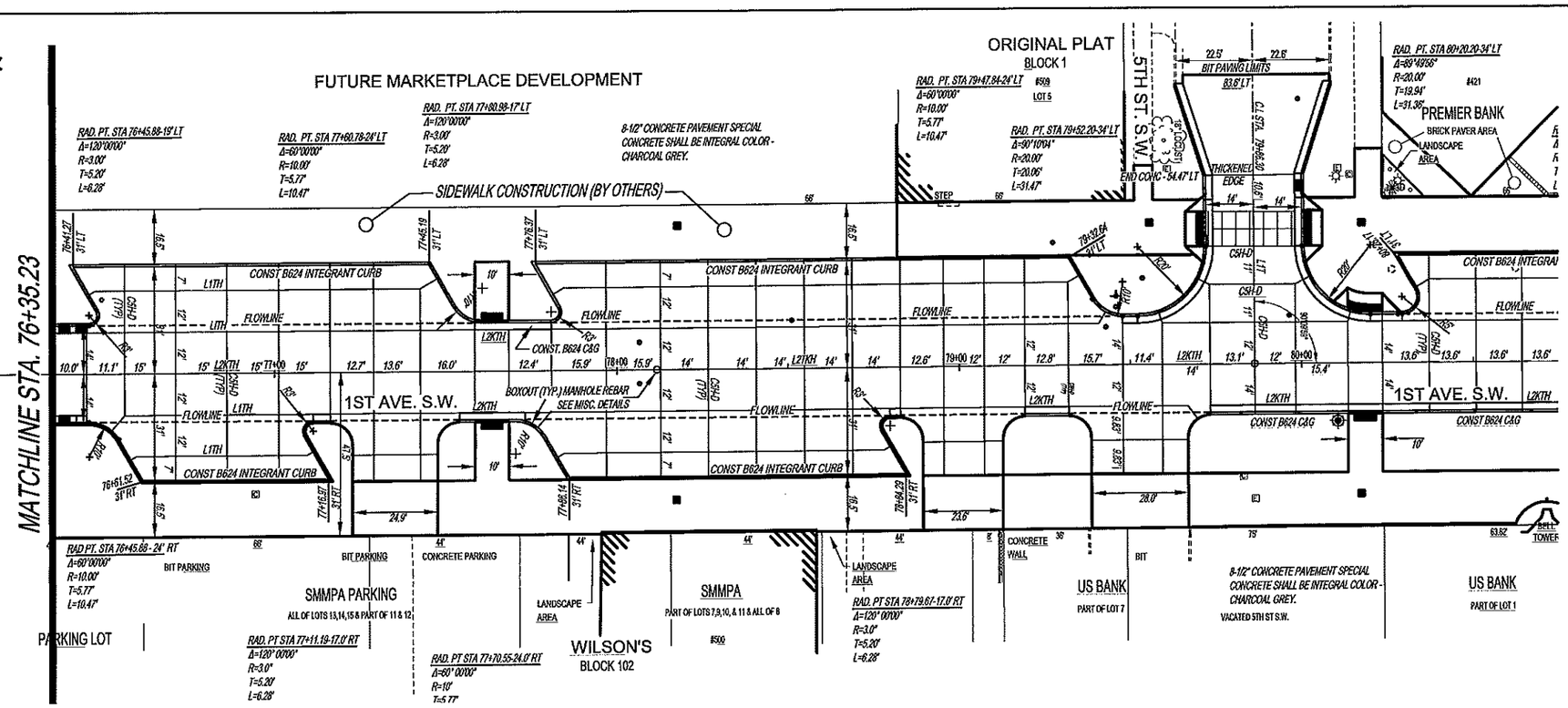
1.) DRILL & GROUT 1" EPOXY COATED DOWEL BARS INTO EXISTING CONCRETE.

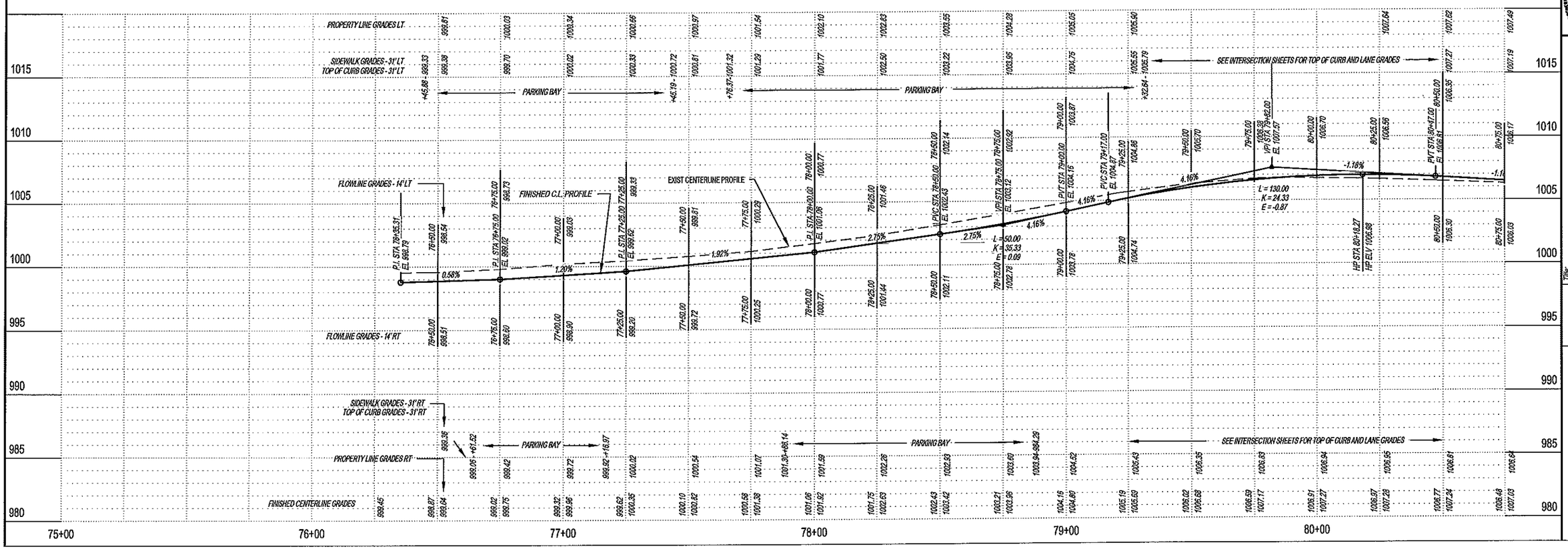
2.) DRILL & GROUT (2) - 1" EPOXY COATED DOWEL BARS AT C&G CONNECTIONS.

3.) PAVEMENT KEYWAYS SHALL BE CONSTRUCTED ACCORDING TO THE DETAIL ON THIS SHEET. MN/DOT STANDARD PLAN DETAIL SHALL NOT APPLY.



PAVEMENT KEYWAY
FOR KEYED JOINT CONSTRUCTION





Revision comment: —
Revised: —

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: GRADING - 1ST AVE SW

Designer: RJW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-36 of 62 Sheets

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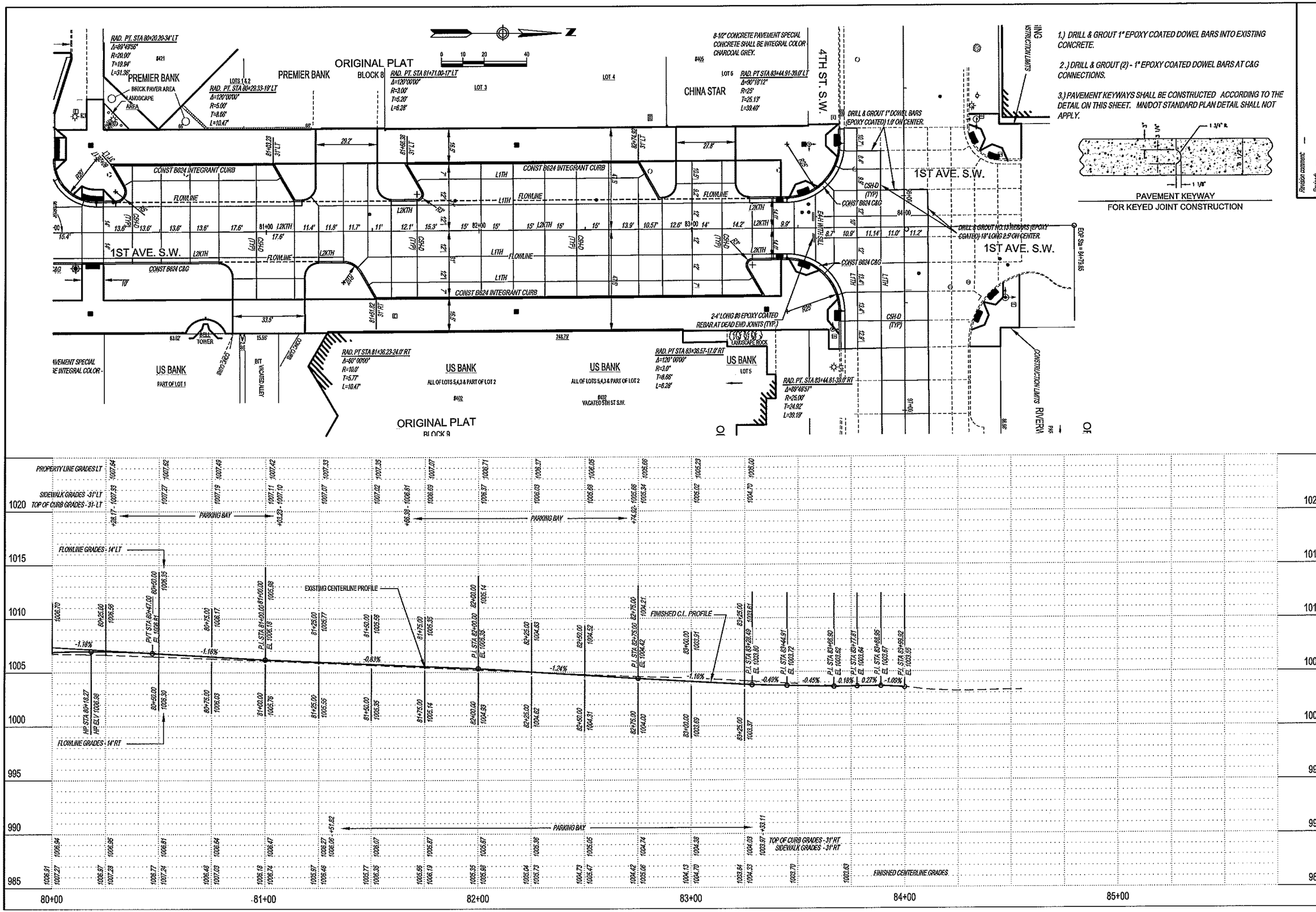

1.) DRILL & GROUT 1" EPOXY COATED DOWEL BARS INTO EXISTING CONCRETE.

2.) DRILL & GROUT (2) - 1" EPOXY COATED DOWEL BARS AT C&G CONNECTIONS.

3.) PAVEMENT KEYWAYS SHALL BE CONSTRUCTED ACCORDING TO THE DETAIL ON THIS SHEET. MN/DOT STANDARD PLAN DETAIL SHALL NOT APPLY.

PAVEMENT KEYWAY
FOR KEYED JOINT CONSTRUCTION

Revision comment: —
Revised: —

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Date: 05/15/12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-3401

Title: GRADING - 1ST AVE SW

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-37 of 62 Sheets

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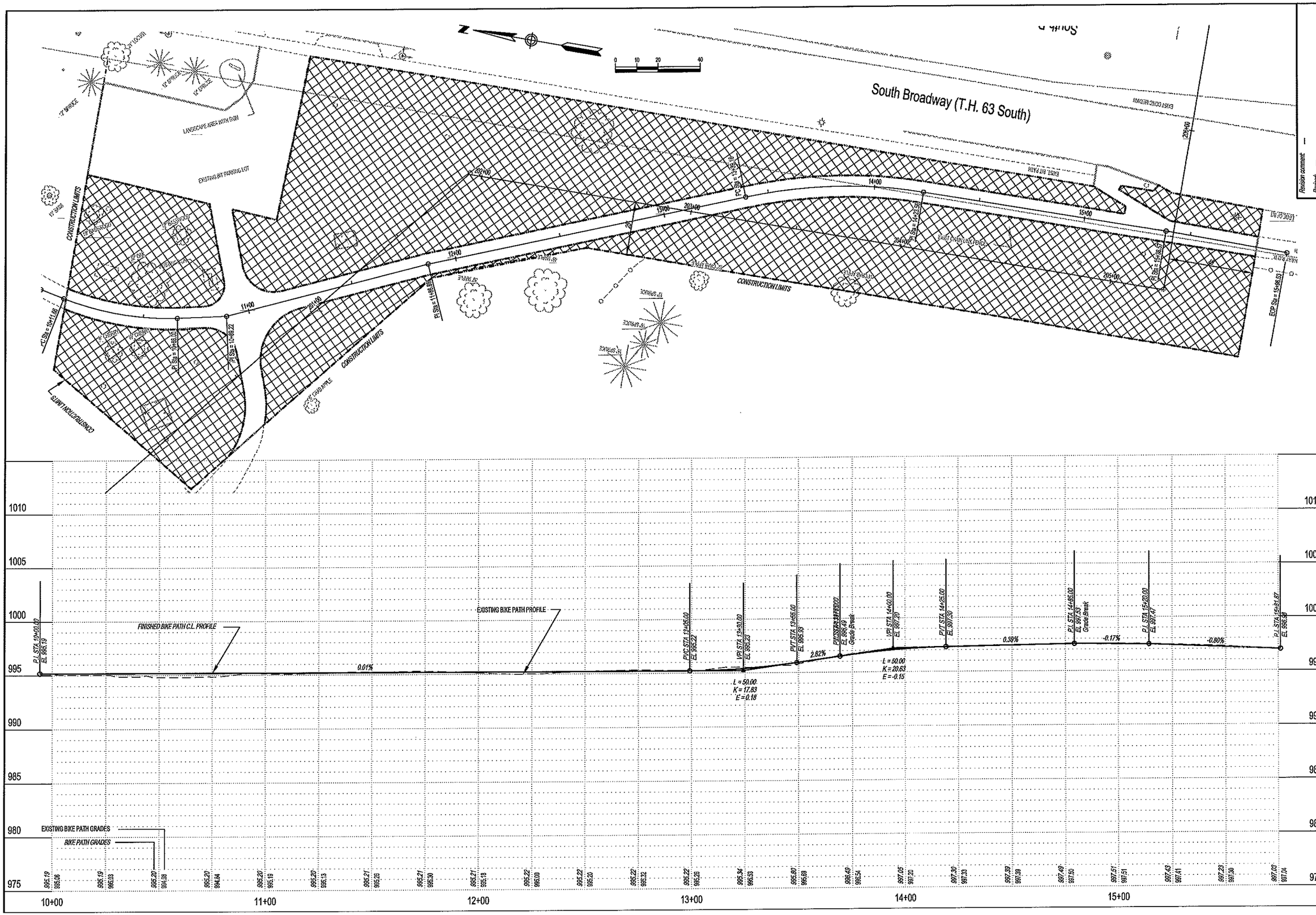

Revision comment: —
Revised: —

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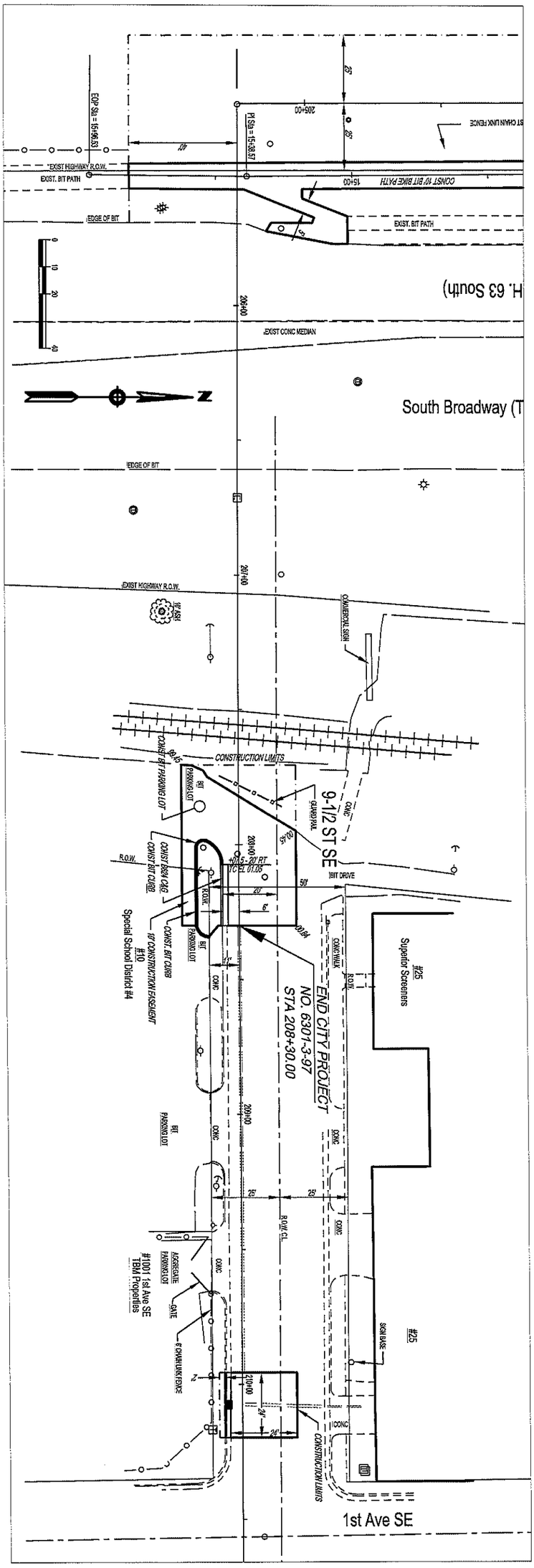
Date: 05/15/12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2409
FAX: (507) 328-2401

Title: GRADING - EAST OF ZUMBRO RIVER

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-38 of 62 Sheets



Project No. 6301-3-97 J2170 Sheet S-39 of 62 Sheets	Designer: RLW Checker: RJK	Title: GRADING - EAST OF ZUMBRO RIVER	City of Rochester, Minnesota Department Of Public Works 201 4th Street S.E. Rochester, MN 55904 Phone: (507) 328-2450 FAX: (507) 328-2401

Revision comment: —

Revised: —

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Russell J. Klun Date: 05/15/12 Reg. No. 24667

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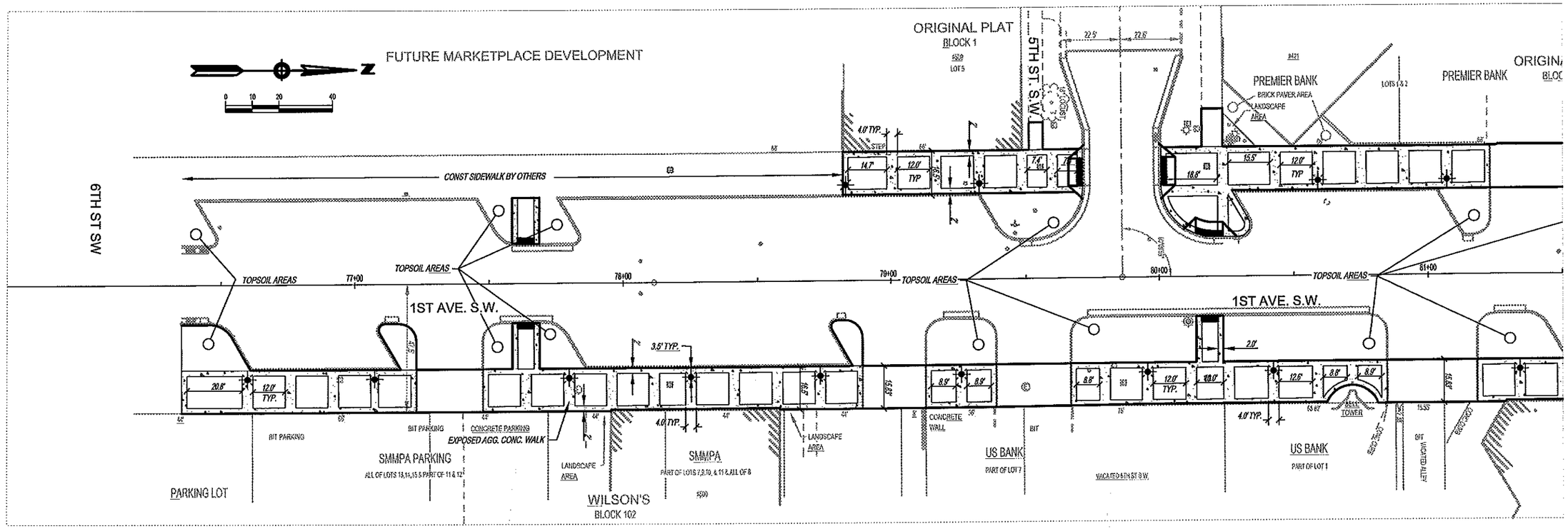

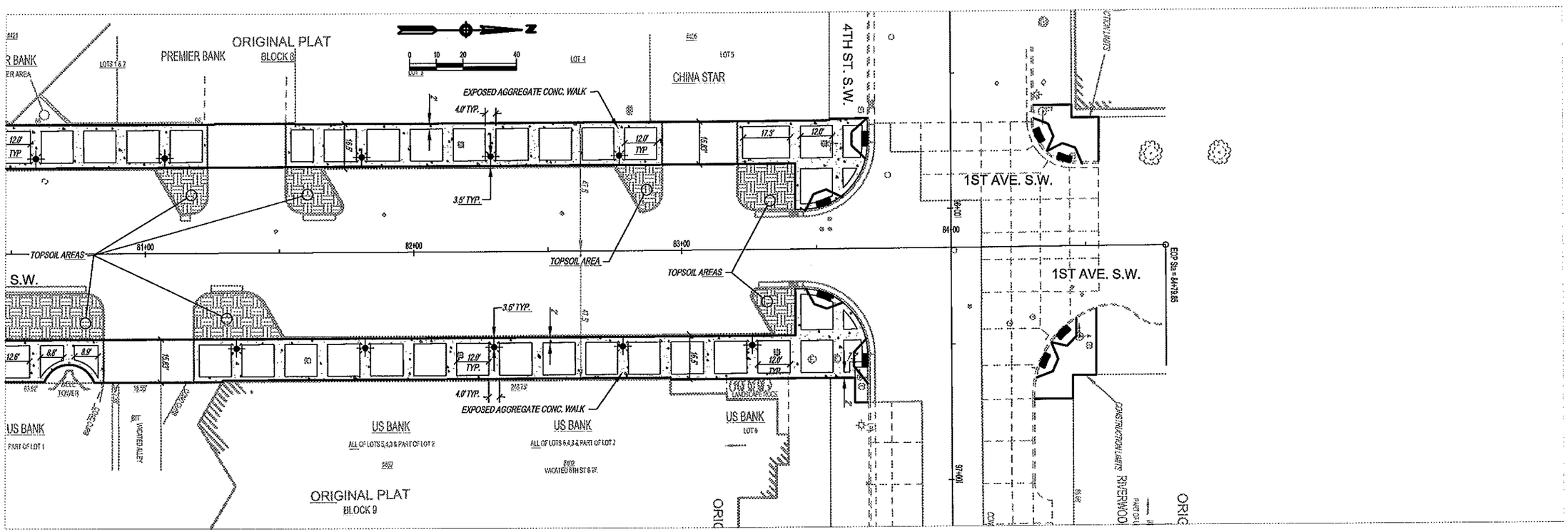

Revision comment: –
Reinsert: –

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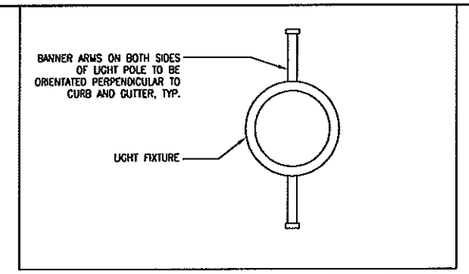
Date: 05/15/12 Reg. No. 24567

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-2401

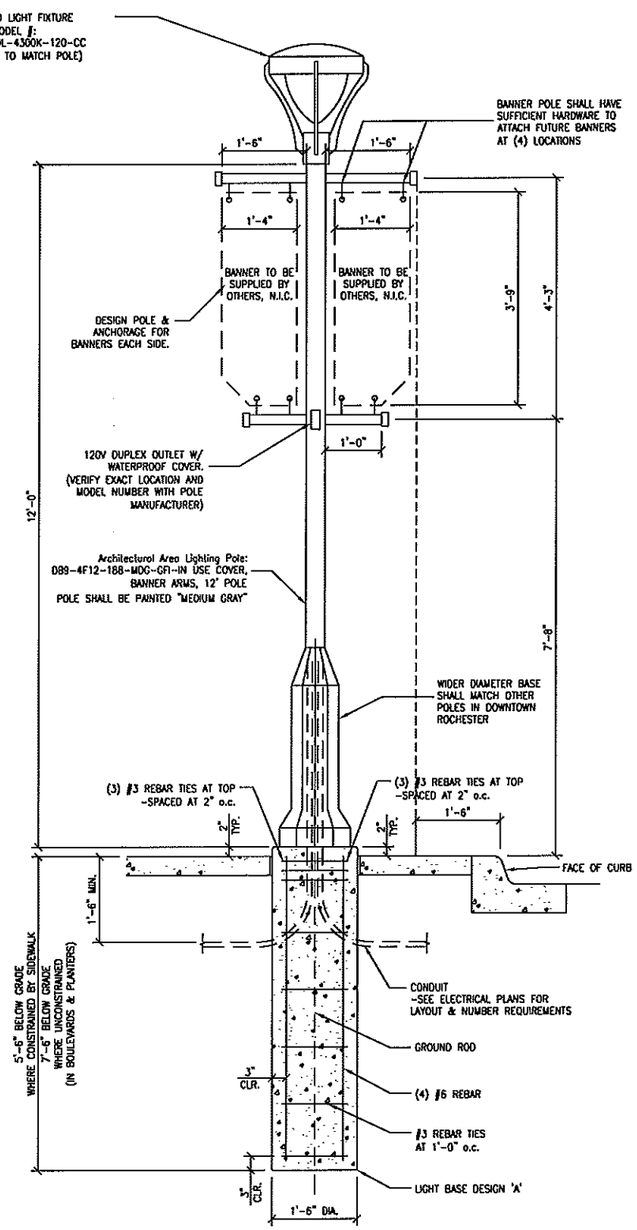
Title: LANDSCAPE PLANS - 1ST AVE SW SIDEWALK

Designer: RLW
Checker: RJK

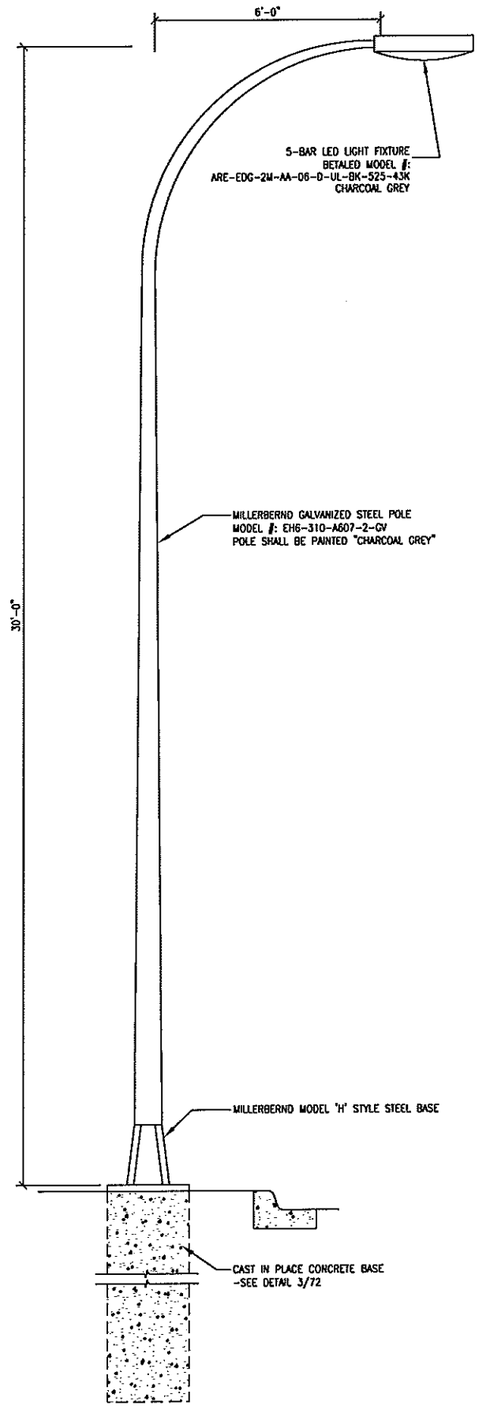
Project No. 6301-3-97 J2170
Sheet S-40 of 62 Sheets



LIGHT FIXTURE PLAN -TYPE '2'
ORIGINAL SCALE: 3/4"=1'-0" 0' 6" 1' 2'



LIGHT FIXTURE ELEVATION -TYPE '2'
LIGHT BASE DESIGN A
ORIGINAL SCALE: 3/4"=1'-0" 0' 6" 1' 2'

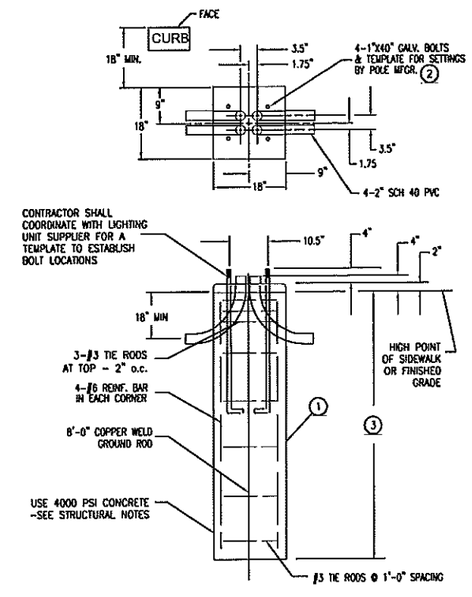


LIIGHTING UNIT TYPE SPECIAL 4
LIGHT BASE DESIGN D

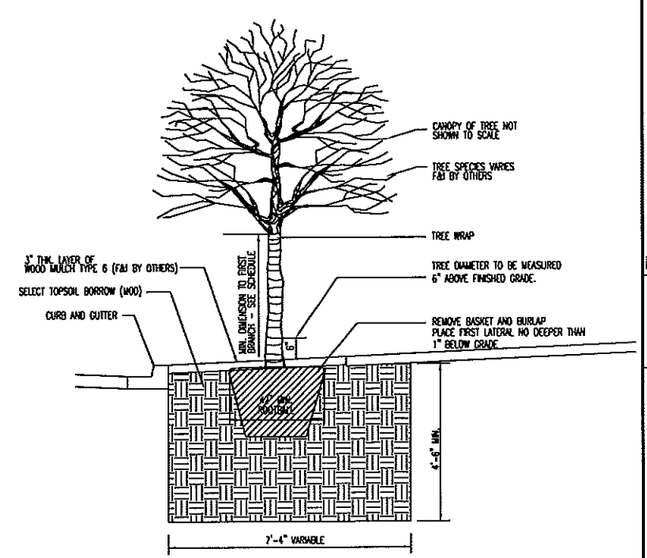
1. NEW C.I.P. CONCRETE LIGHT BASE EXCEPT AT (2) LIGHTS AT MAYO BUILDING, RE-USE EXISTING BASE.

2. AT EXISTING LIGHT BASE RE-USE EXISTING ANCHORS IF CONDITION IS ADEQUATE AND LAYOUT IS CORRECT FOR NEW BASE. OTHERWISE CUT ANCHORS FLUSH WITH CONCRETE AND COAT ANCHORS AND SURROUNDING CONCRETE WITH BRUSH APPLIED WATERPROOFING. INSTALL NEW STAINLESS STEEL ANCHOR RODS USING INJECTION ADHESIVE. EMBEDMENT DEPTH SHALL BE ADEQUATE TO DEVELOP THE FULL STRENGTH OF ANCHOR ROD, PER EPOXY MANUF. TABLES BUT NO LESS THAN 16". INSTALL NEW RODS A MINIMUM OF 4" FROM EXISTING ANCHOR LOCATIONS. CONTRACTOR SHALL COORDINATE ROTATED ANCHOR LAYOUT (IF REQUIRED) WITH LIGHTING SUPPLIER.

3. 5'-6" BELOW GRADE WHERE CONSTRAINED BY SIDEWALK
7'-6" BELOW GRADE WHERE UNCONSTRAINED (IN BOULEVARDS & PLANTERS)



3 LIGHT BASE DESIGN D
ORIGINAL SCALE: 3/4"=1'-0" 0' 6" 1' 2'



TREES - TOPSOIL - MULCH
NOT TO SCALE

Revision comment:
Revised: —
Creation Date: —

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Date: 06/15/12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-2401

Title: LANDSCAPE PLANS -1ST AVE SW DETAILS

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-41 of 62 Sheets

P:\PROJECTS\J-PROJ\J2170\Design\Dwgs\2170LS5.dwg, Layout1, 5/15/2012 1:25:00 PM, 1:2

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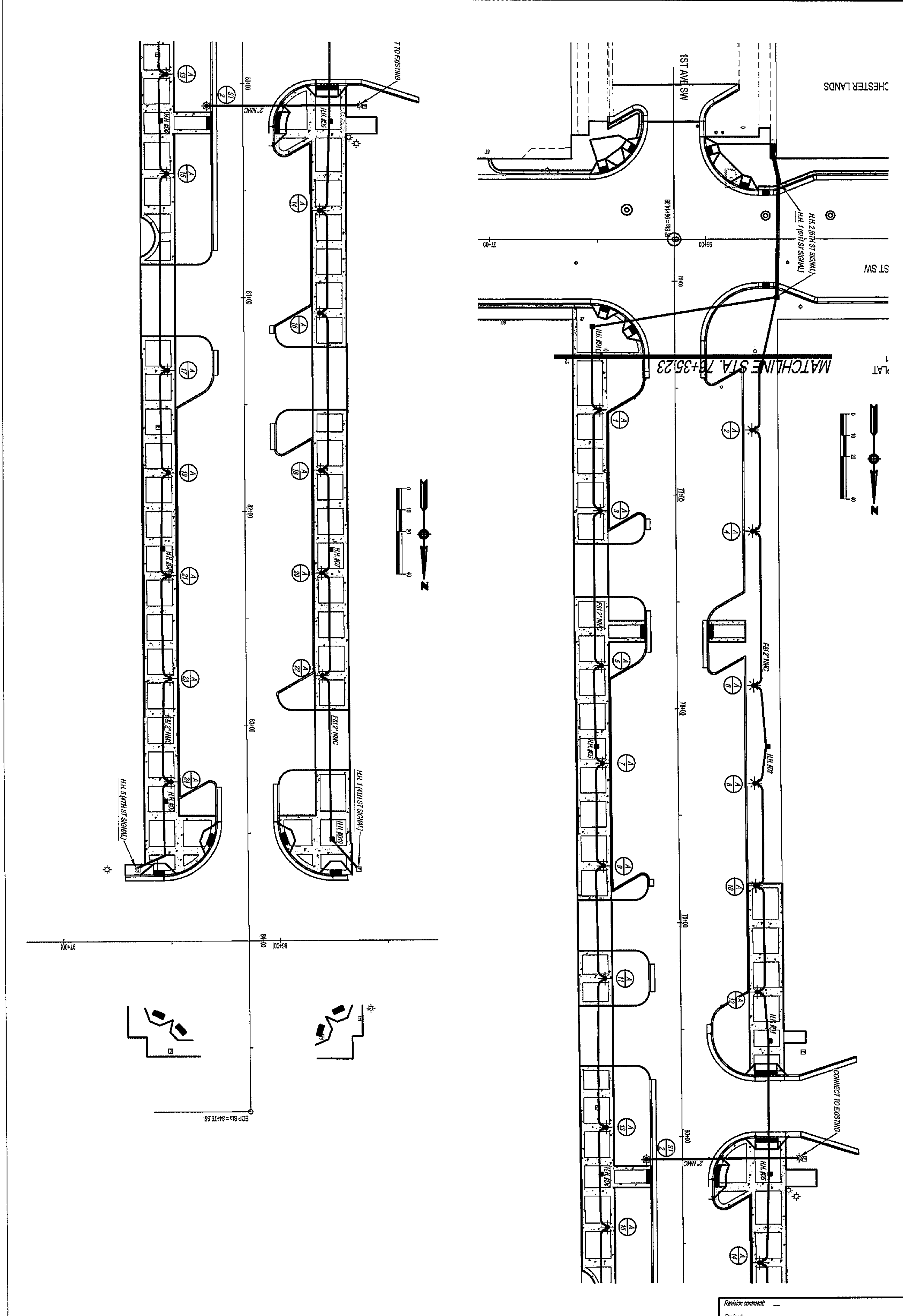
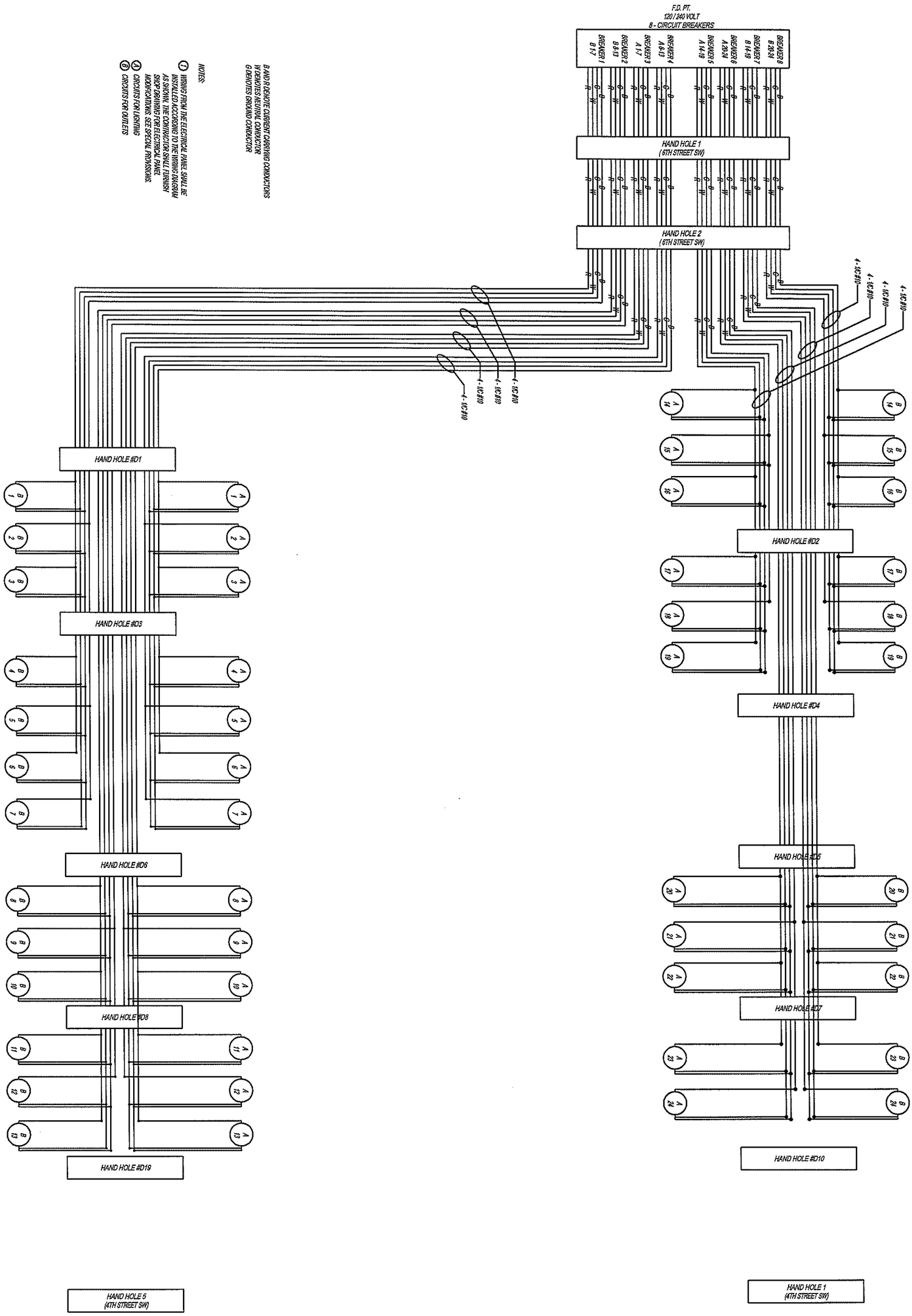


Project No. 6301-3-97 J2170	Designer: RLW	Title:	City of Rochester, Minnesota	201 4th Street S.E. Rochester, MN 55904 Phone: (507) 328-2450 FAX: (507) 328-2401	Revision comment: —
Sheet S-42 of 62 Sheets	Checker: RJK	LANDSCAPE PLANS - 1ST AVE SW ELECTRICAL	Department Of Public Works		Revised: —

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

Date: 05/15/12 Reg. No. 24667



B AND R DENOTE CURRENT CARRYING CONDUCTORS
W DENOTES NEUTRAL CONDUCTOR
G DENOTES GROUND CONDUCTOR

NOTES:

1. WIRING FROM THE ELECTRICAL PANEL SHALL BE INSTALLED ACCORDING TO THE WIRING DIAGRAM AS SHOWN. THE CONTRACTOR SHALL FURNISH SHOP DRAWINGS FOR ELECTRICAL PANEL MODIFICATIONS. SEE SPECIAL PROVISIONS.

A. CIRCUITS FOR LIGHTING
B. CIRCUITS FOR OUTLETS

Revision comment: —
Revised: —

Project No. 6301-3-97 J2170
Sheet S-43 of 62 Sheets

Designer: RLW
Checker: RJK

Title: LANDSCAPE PLANS - 1ST AVE SW WIRING

City of Rochester, Minnesota
Department Of Public Works

201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

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

Russell J. Klun Date: 05/15/12 Reg. No. 24667

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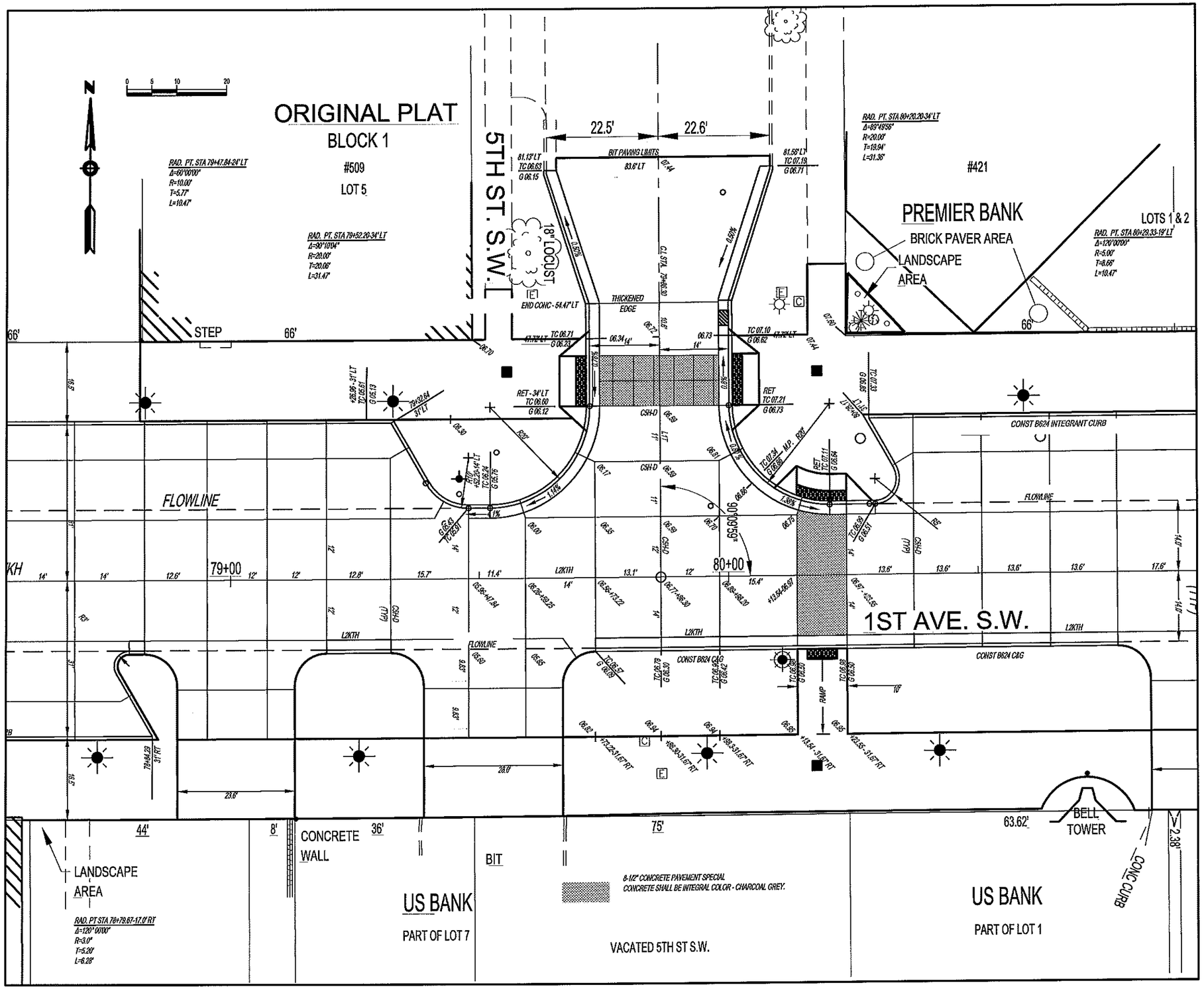


Revision comment: --
Reinstat: --

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24667

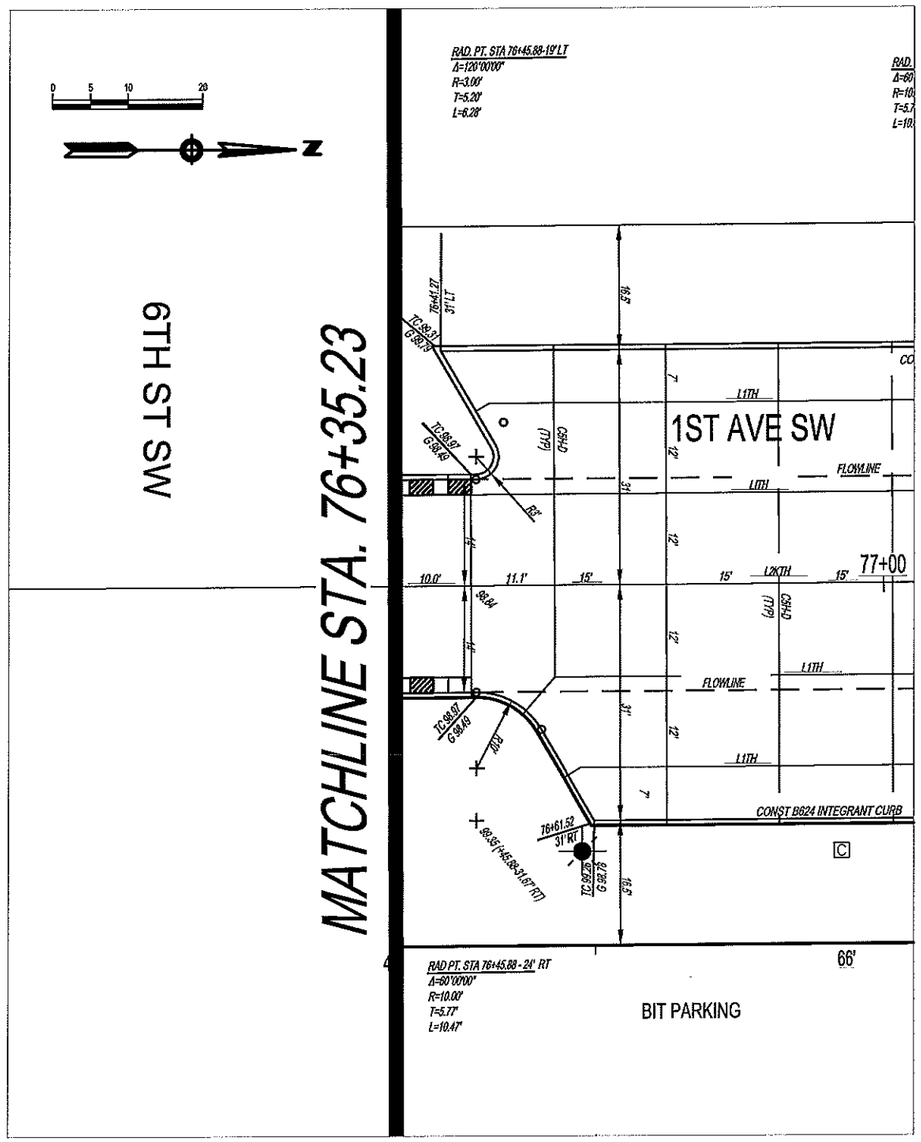
City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-2401

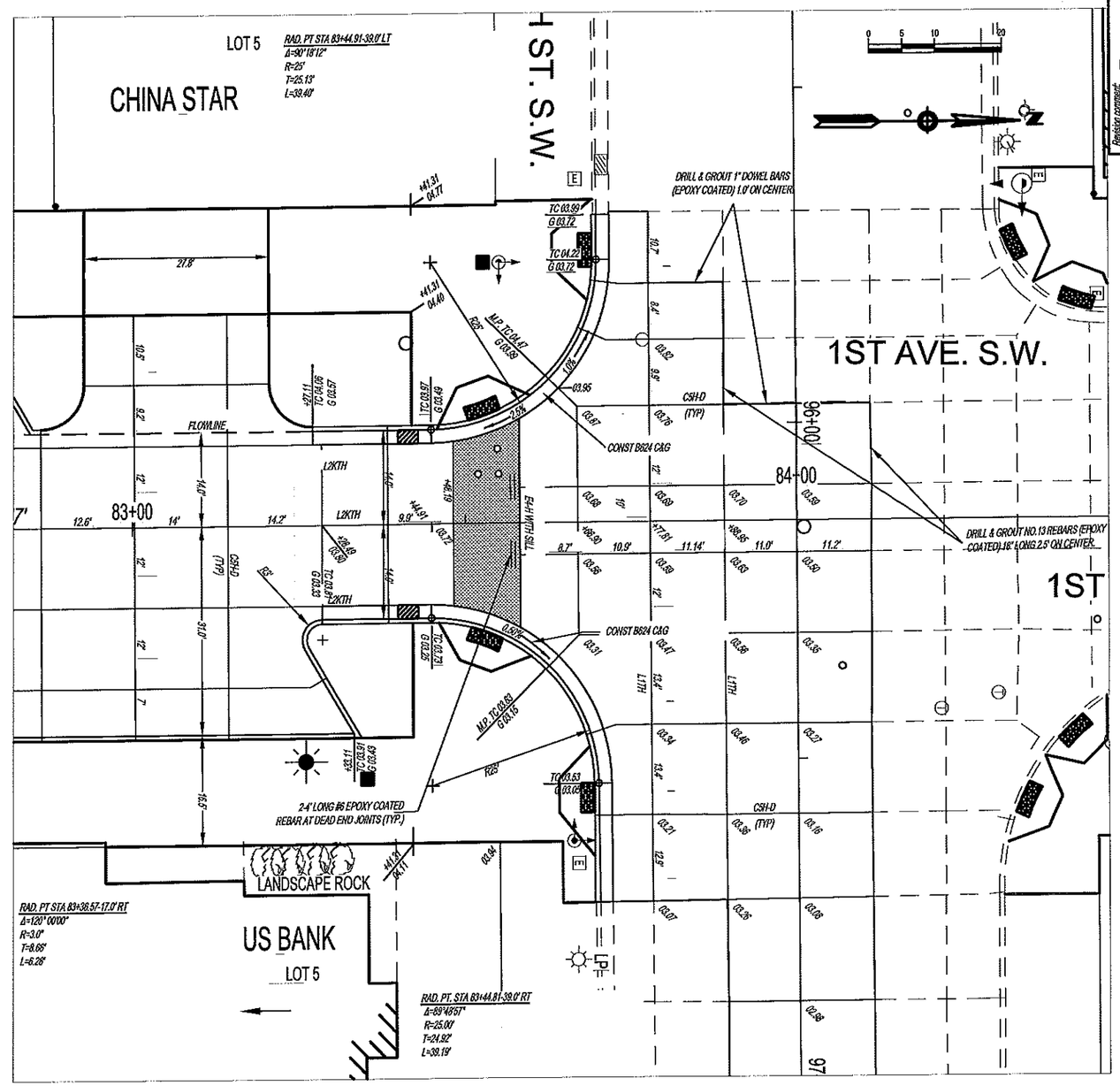
Title: INTERSECTION LAYOUT - 5TH ST SW & 1ST AVE SW

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-44 of 62 Sheets

P:\PROJECTS\J-PROJ\J2170\Design\Dwgs\2170I2.DWG, 2170I2 - 6th St SW & 4th St SW, 5/15/2012 1:26:11 PM, 1:2





Revision comment: –
Revised: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24957

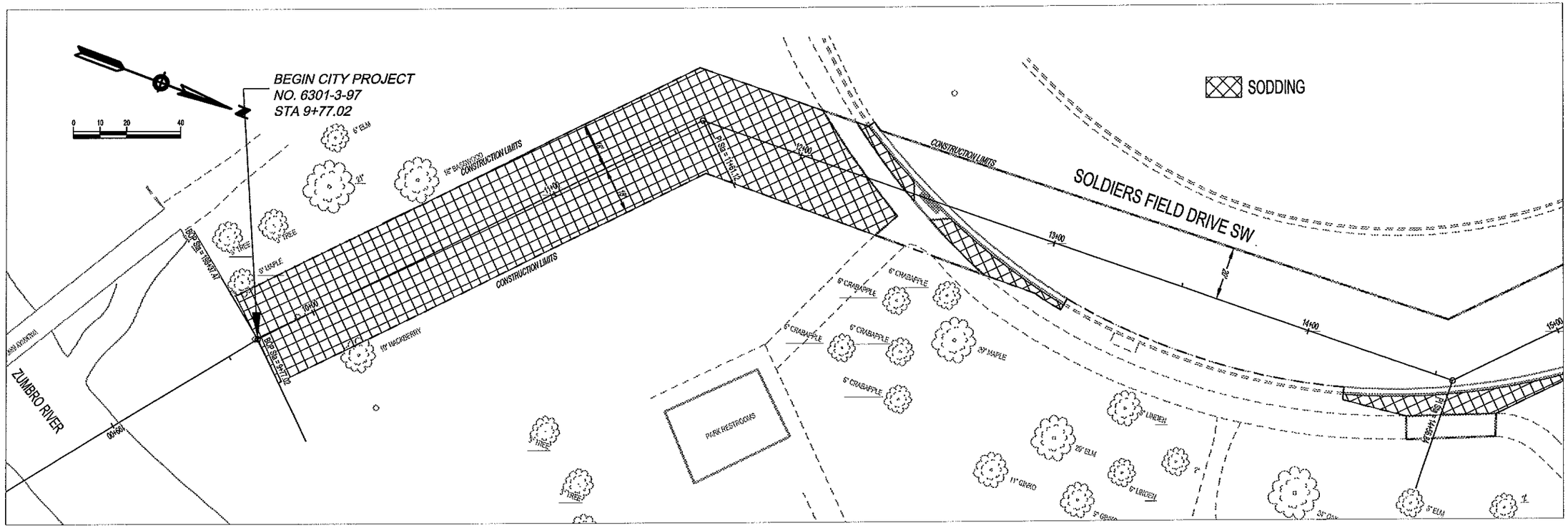
City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-2401

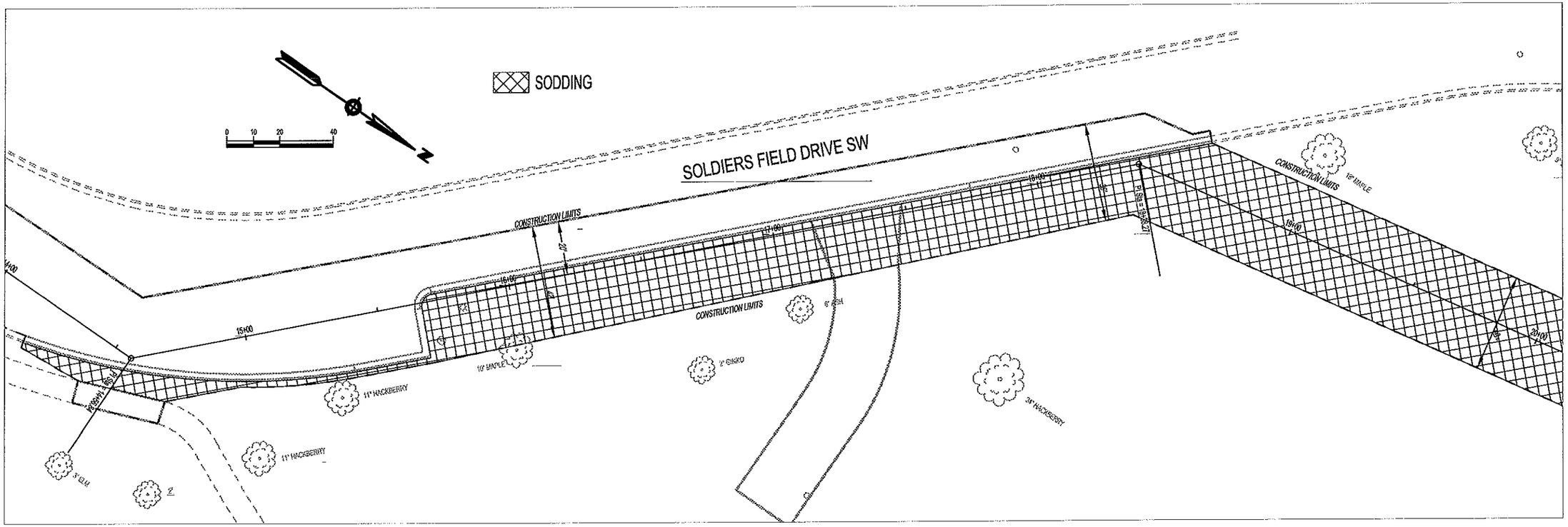
Title: INTERSECTION LAYOUTS - 6TH ST SW & 4TH ST SW

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-45 of 62 Sheets

P:\PROJECTS\J-PROJ\J2170\Design\Dwgs\2170F1.dwg, 2170F1 - Soldiers Field Area, 5/15/2012 1:26:18 PM, 1:2





Revision comment: —
Revised: —

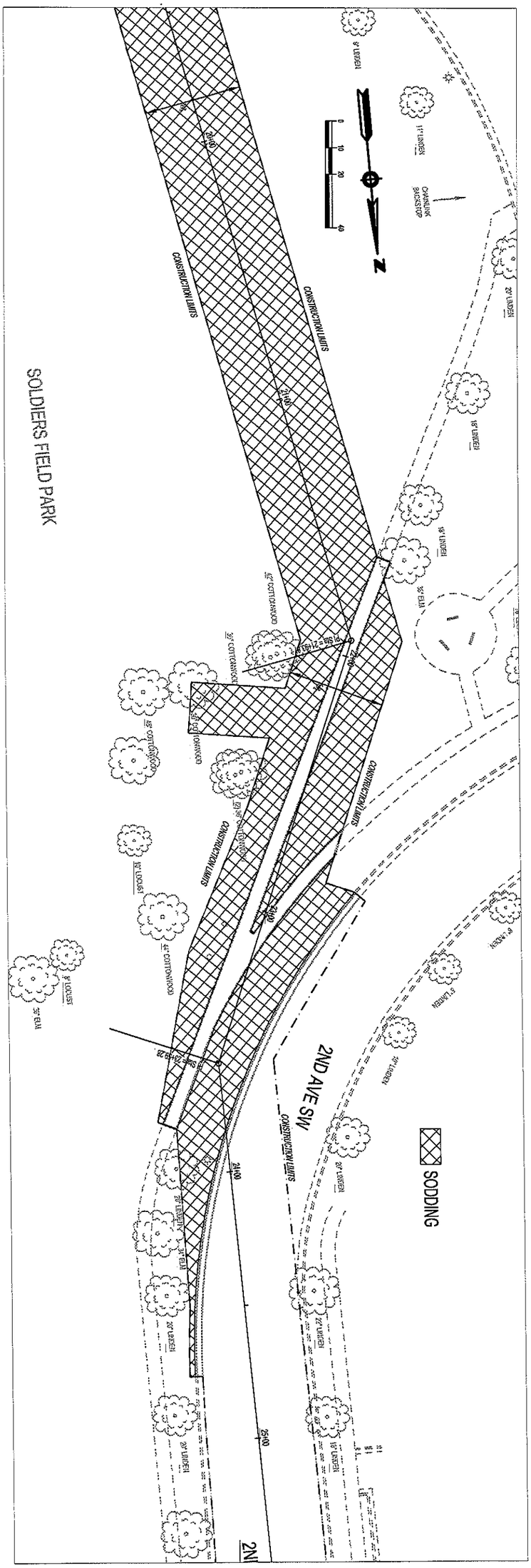
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-2401

Title: TURF ESTABLISHMENT - SOLDIERS FIELD AREA

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-46 of 62 Sheets



Project No. 6301-3-97 J2170 Sheet S-47 of 62 Sheets	Designer: RLW Checker: RJK	Title: TURF ESTABLISHMENT - SOLDIERS FIELD AREA	City of Rochester, Minnesota Department Of Public Works	201 4th Street S.E. Rochester, MN 55904 Phone: (507) 328-2450 FAX: (507) 328-2401	Revision comment: — Revised: — I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota. Russell J. Klun Date: 05/15/12 Reg. No. 24667

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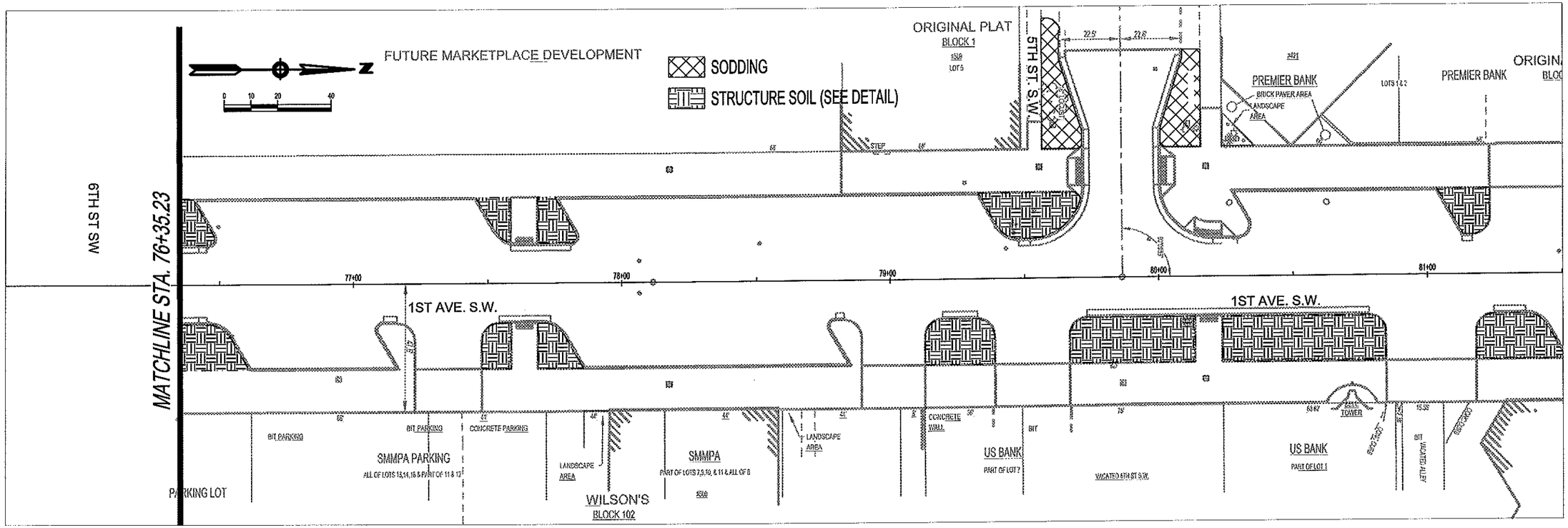
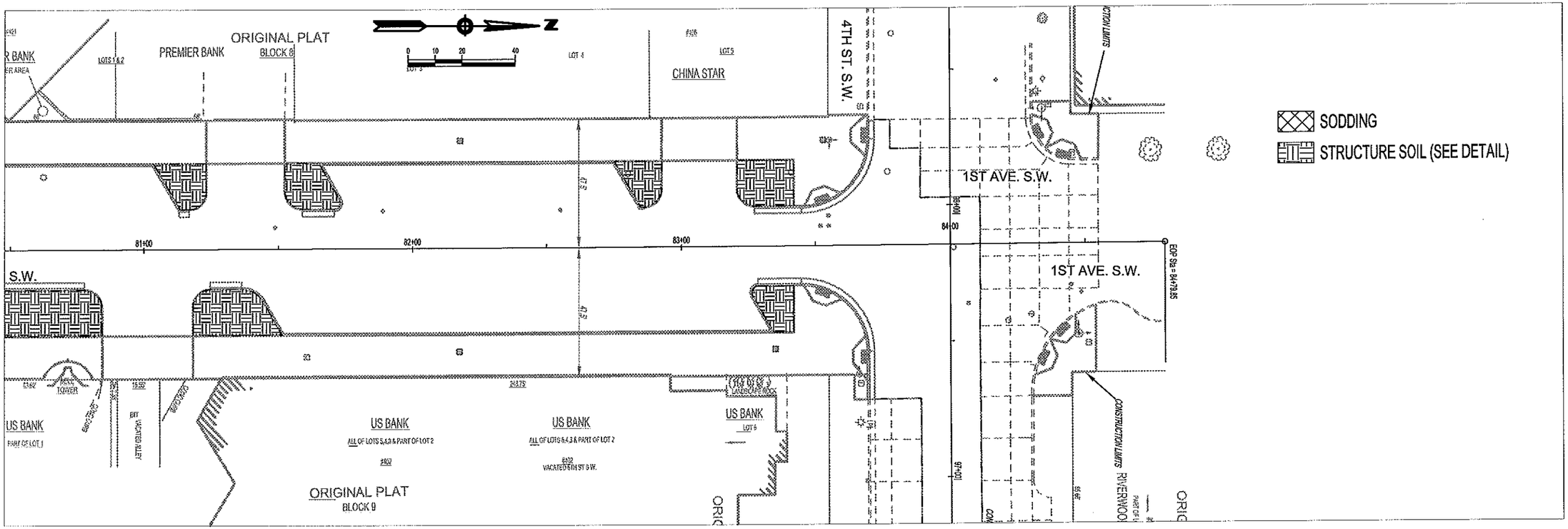




Revision comment: —

Revised: —

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

Ronald J. Klu Date: 05/15/12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works

201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-2401

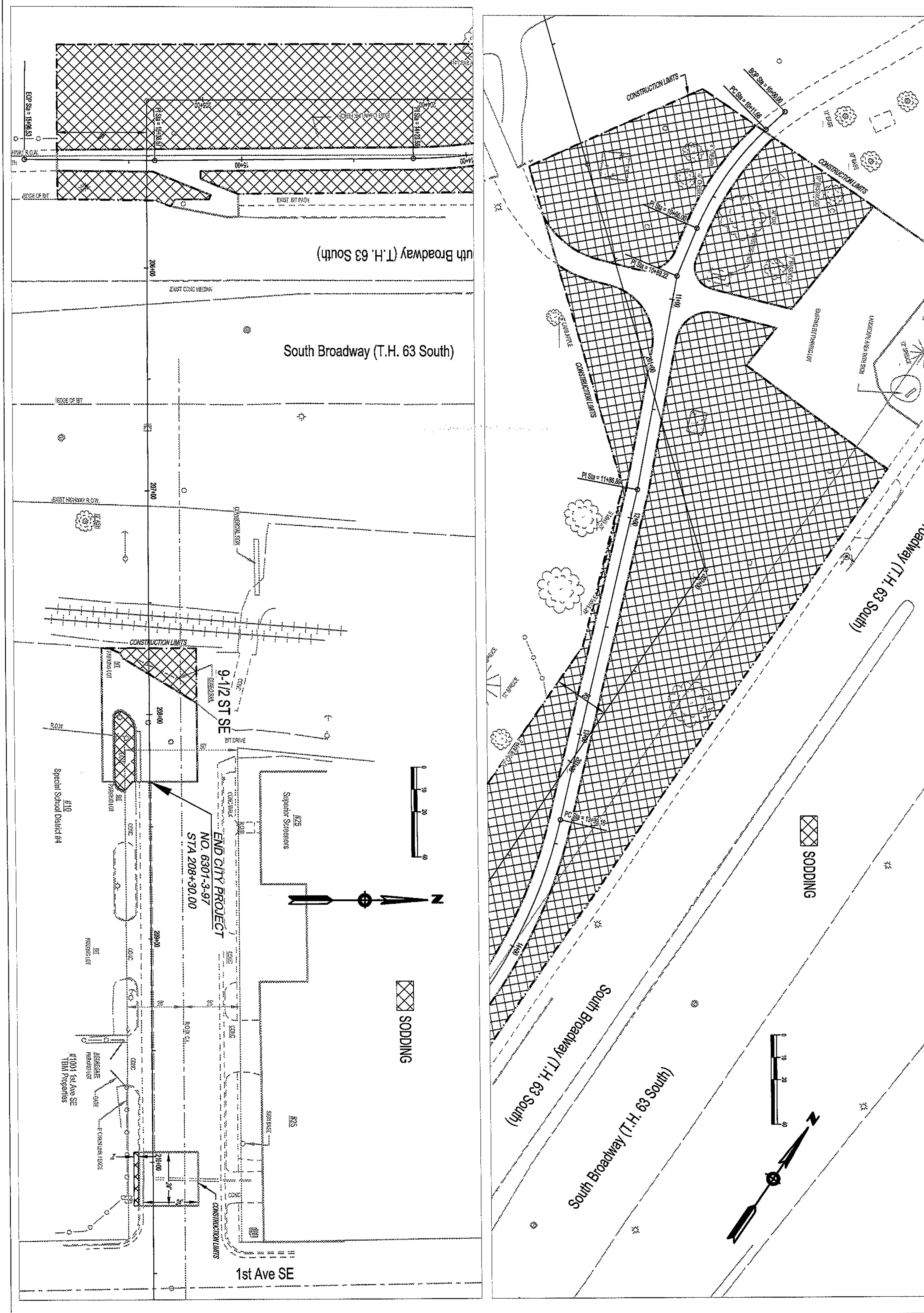
Title: TURF ESTABLISHMENT - 1ST AVE SW

Designer: RLW

Checker: RJK

Project No. 6301-3-97 J2170

Sheet S-48 of 62 Sheets



Project No. 6301-3-97 J2170 Sheet S-49 of 62 Sheets	Designer: RLW Checker: RJK	Title: TURF ESTABLISHMENT - EAST OF ZUMBRO RIVER	City of Rochester, Minnesota Department Of Public Works	201 4th Street S.E. Rochester, MN 55904 Phone: (507) 328-2450 FAX: (507) 328-2401	Revision comment: — Revised: — I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota. Date: 05/15/12 Reg. No. 24667

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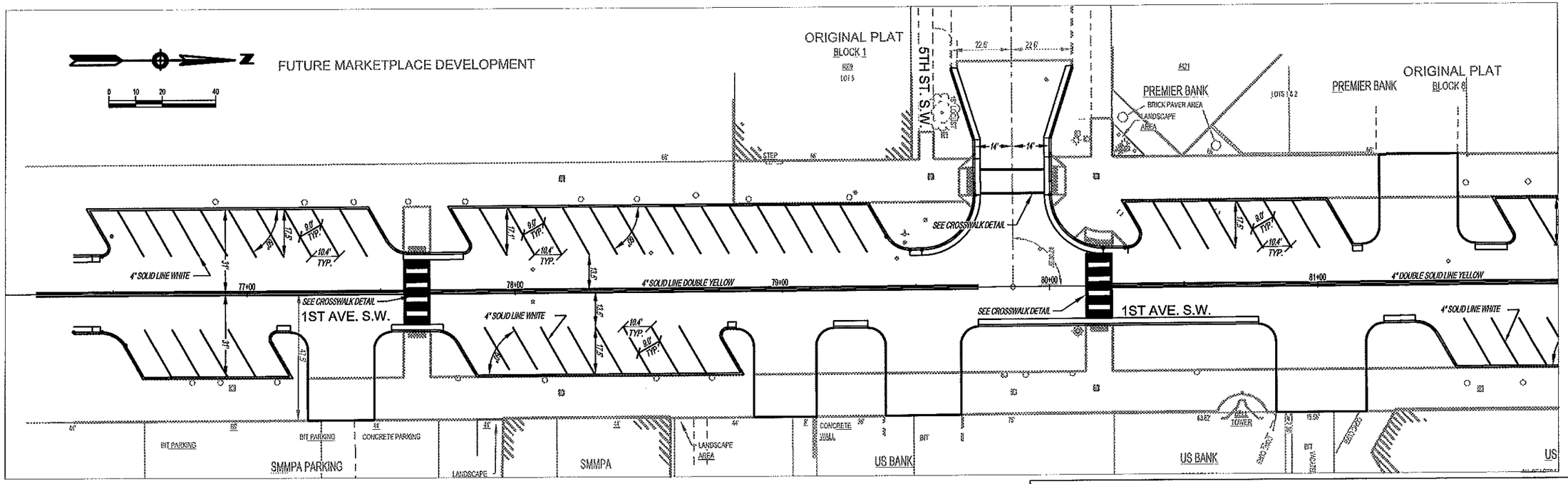
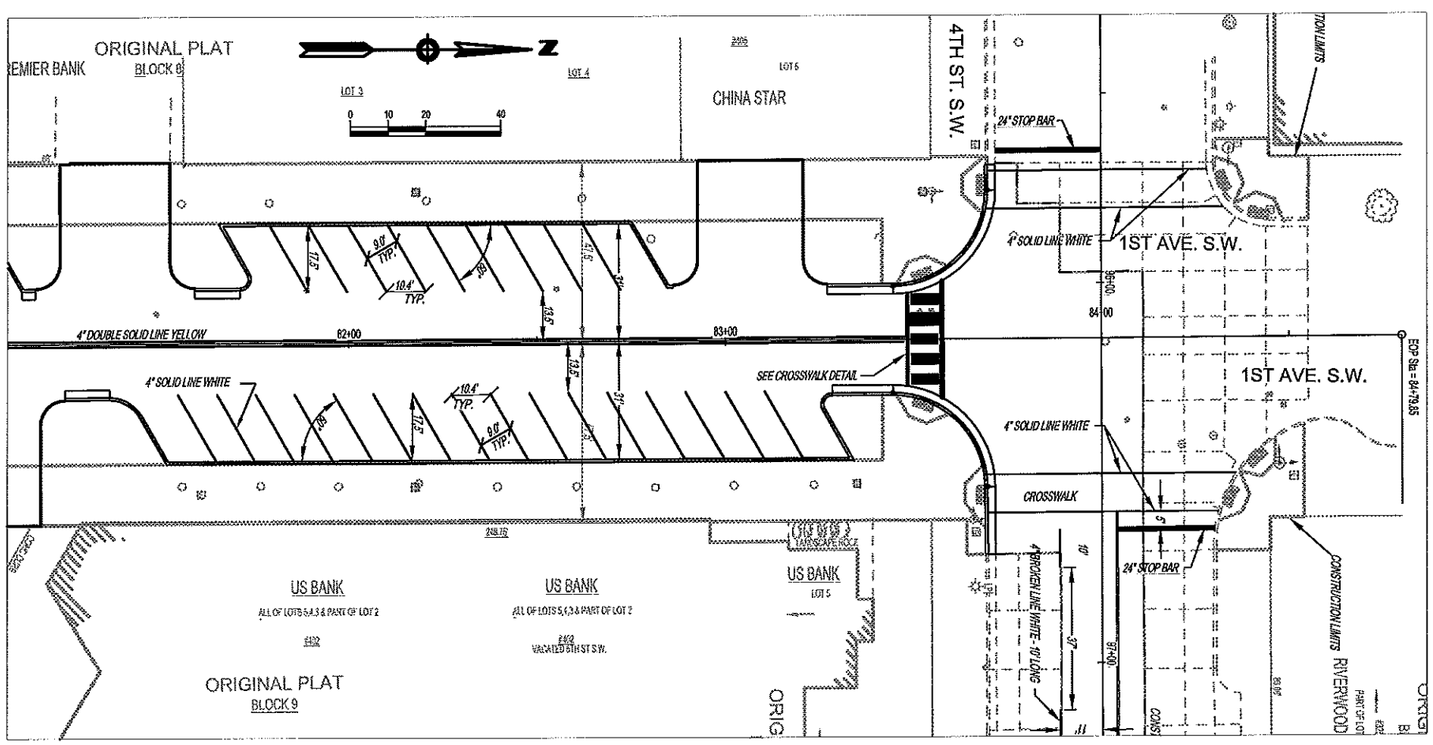
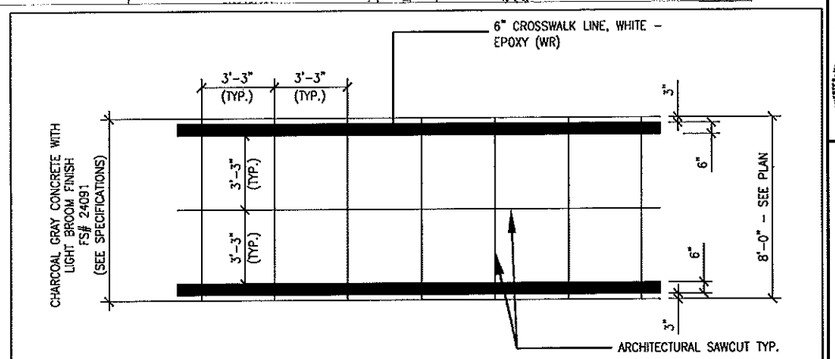
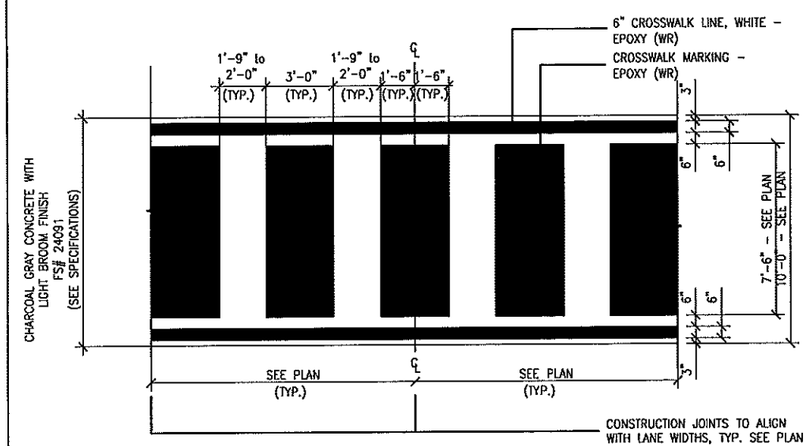






TYPICAL CROSSWALK DETAIL – 5TH ST SW



TYPICAL CROSSWALK DETAIL – 1ST AVE SW

Revision comment: –
Revision: –
Creation Date:

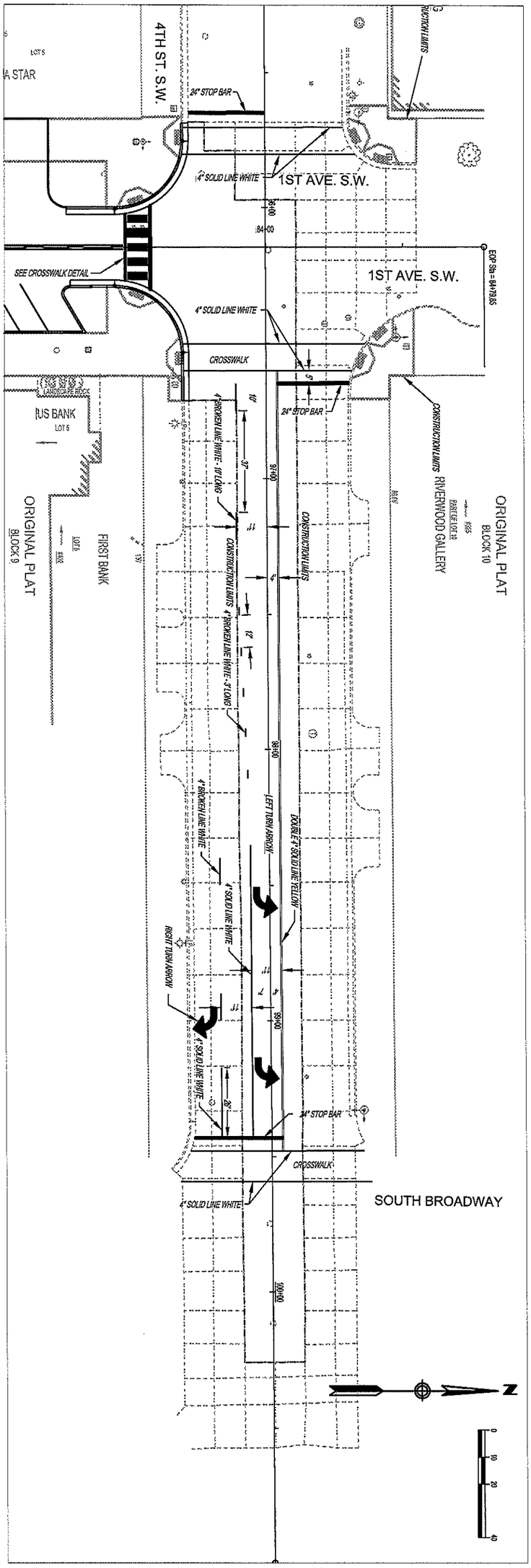
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

STRIPING PLANS - 1ST AVE SW

Title:
Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet 5-50 of 62 Sheets



Project No. 6301-3-97 J2170 Sheet S-51 of 62 Sheets	Designer: RLW Checker: RJK	Title: STRIPING PLANS - 4TH ST SW	City of Rochester, Minnesota Department Of Public Works	201 4th Street S.E. Rochester, MN 55904 Phone: (507) 328-2459 FAX: (507) 328-2401

Revised: —
Revision comment: —
Creation Date:

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

Russell J. Klun Date: 05/15/12 Reg. No. 24667

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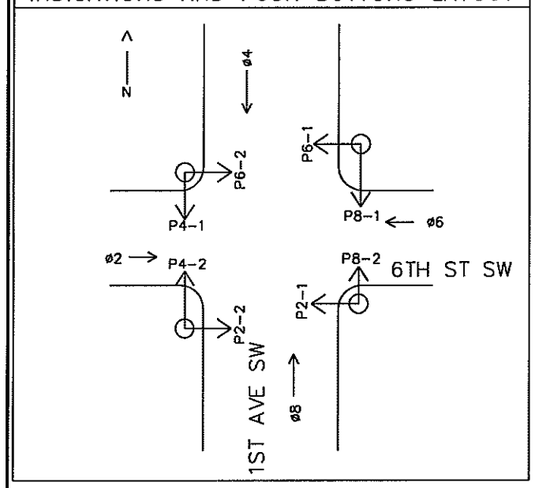
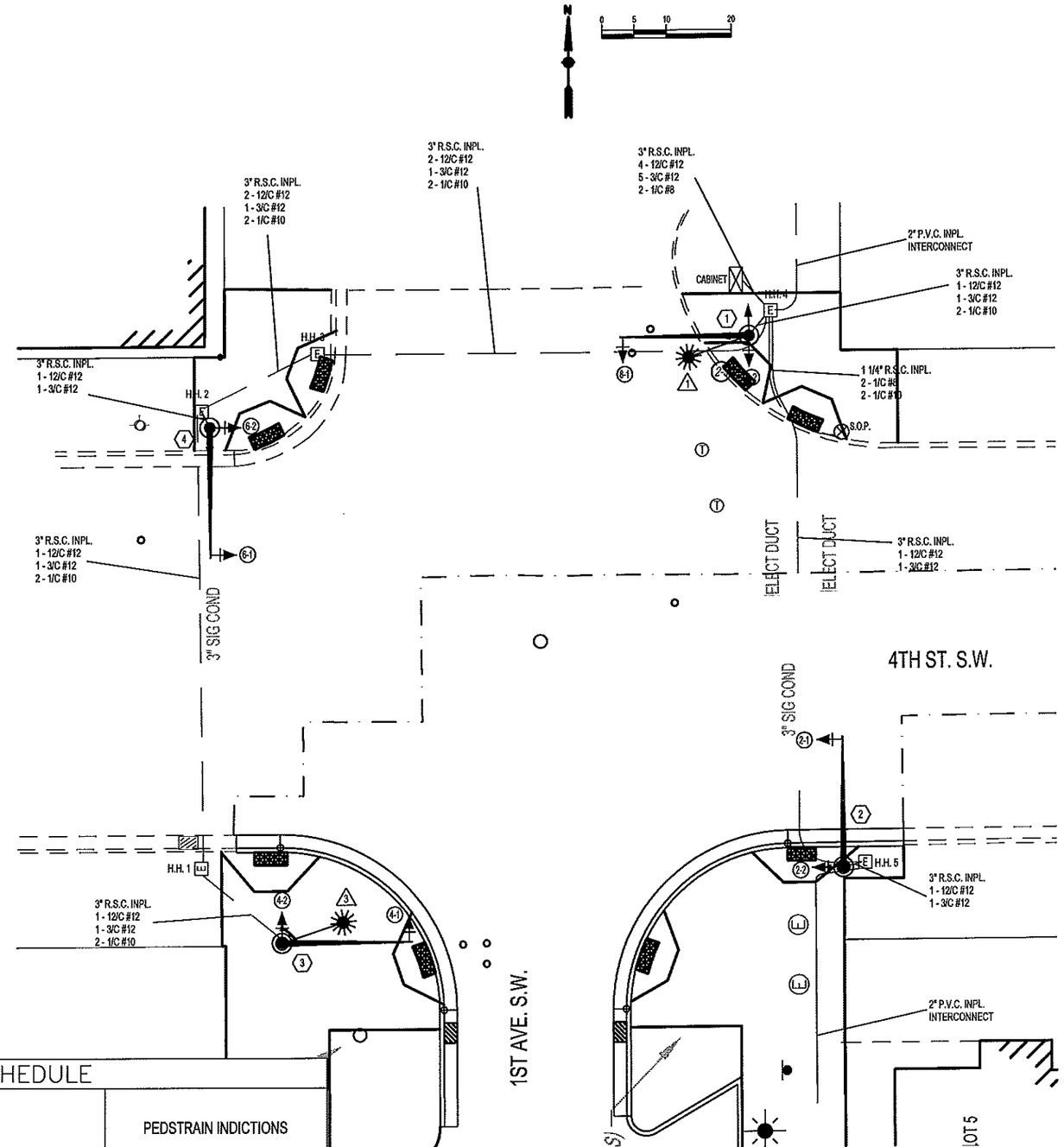
CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS LAYOUT



FACE	PHASE	FLASH	IND. SIZE R	IND. SIZE Y	IND. SIZE G
* 6-1	Ø6	R	12"	12"	12"
* 6-2	Ø6	R	12"	12"	12"
8-1	Ø8	R	12"	12"	12"
8-2	Ø8	R	12"	12"	12"
2-1	Ø2	R	12"	12"	12"
2-2	Ø2	R	12"	12"	12"
4-1	Ø4	R	12"	12"	12"
4-2	Ø4	R	12"	12"	12"

* SPECIAL SIGNAL FACE



POLE AND SIGNAL SCHEDULE

LOCATION	STANDARD	LUMINAIRE	SIGNALS	PEDSTRAIN INDICTIONS
1	A-25-D40-12	250 WATT H.P.S.	1 - ONE WAY OVERHEAD 1 - ONE WAY POLE MOUNTED	2-SET PED. INDICATIONS (12")
2	A-25		1 - ONE WAY OVERHEAD 1 - ONE WAY POLE MOUNTED	2-SET PED. INDICATIONS (12")
3	A-25-D40-12	250 WATT H.P.S.	1 - ONE WAY OVERHEAD 1 - ONE WAY POLE MOUNTED	2-SET PED. INDICATIONS (12")
4	A-25		1 - ONE WAY OVERHEAD (PROGRAMED) 1 - ONE WAY POLE MOUNTED (PROGRAMED)	2-SET PED. INDICATIONS (12")

Revision comment: –
Revised: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Ronald J. Klein Date: 05/15/12 Reg. No. 24867

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2453
FAX: (507) 328-3401

Title: INPLACE SIGNAL LAYOUT AT 4TH STREET SW AND 1ST AVENUE SW (FOR INFORMATION ONLY)

Designer: RJV
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-52 of 62 Sheets

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ABBREVIATIONS

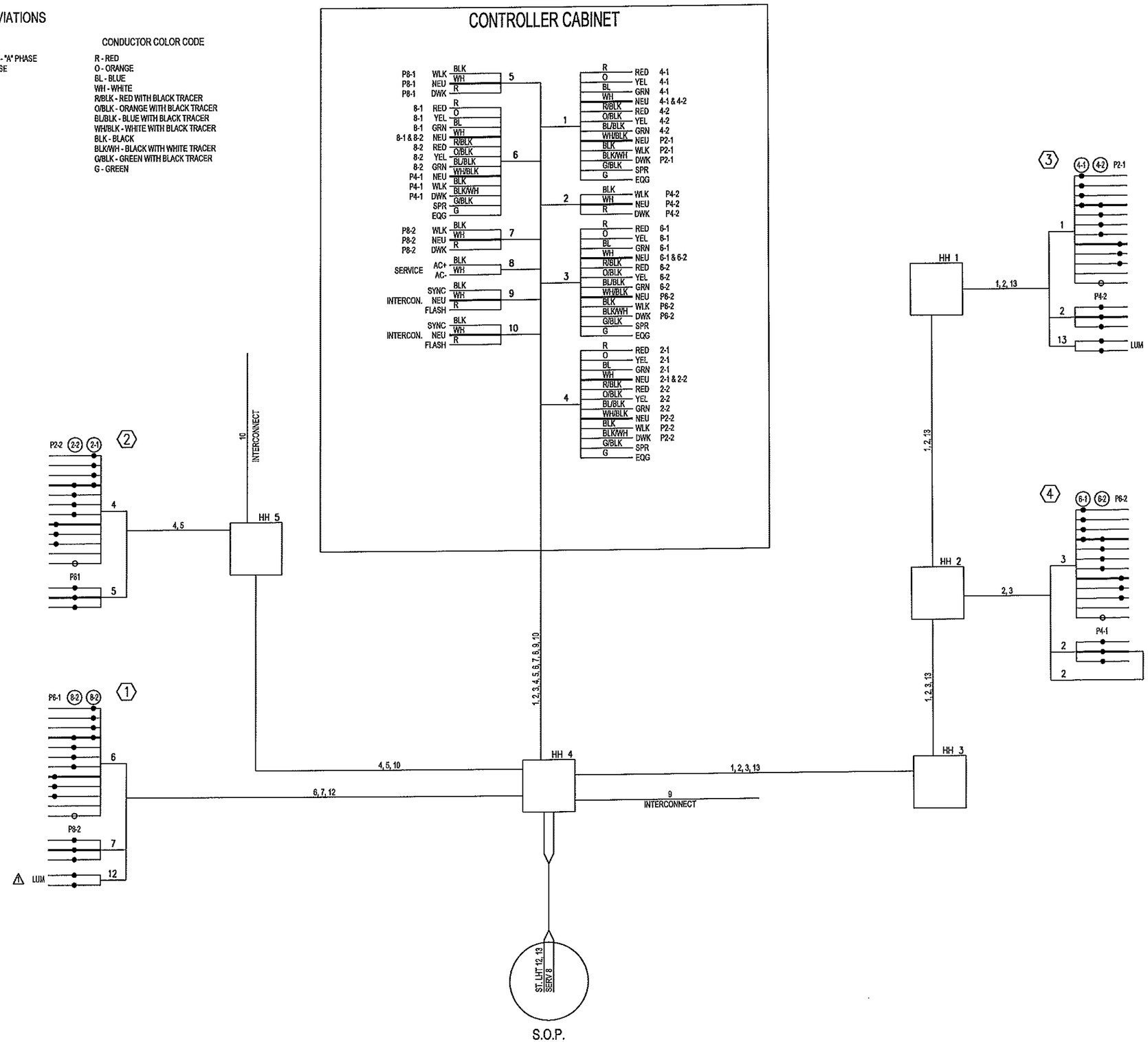
EQUIPMENT AND INDICATIONS

RED - RED
YEL - YELLOW
GRN - GREEN
LTA - LEFT TURN ARROW
THA - THRU ARROW
RTA - RIGHT TURN ARROW
TRA - THRU AND RIGHT ARROW
WLK - WALK
NEU - NEUTRAL
DWK - DON'T WALK
SW - SWITCHED
SWD - SWITCHED
LUM - LUMINAIRE
DNL - DOWNLIGHT
SHLD - SHIELDED CABLE

PA1 (eg) - PEDESTRIAN INDICATION - "A" PHASE
PBB2 (eg) - PUSH BUTTON - "B" PHASE
C3 (eg) - SIGNAL HEAD - "C" PHASE
DA-4 (eg) - DETECTOR - "A" PHASE
H.H. - HANDHOLE
DR.R. - GROUND ROD
SERV - SERVICE
PEC - PHOTOELECTRIC CELL
ST. LHT - STREET LIGHT
CH - CHECK
S.O.P. - SOURCE OF POWER
EQG - EQUIPMENT CONDUCTOR
SPR - SPARE CONDUCTOR
-●- - SPLICE
GRND - GROUND

CONDUCTOR COLOR CODE

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



Revision comment: –
Revised: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 06/13/12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

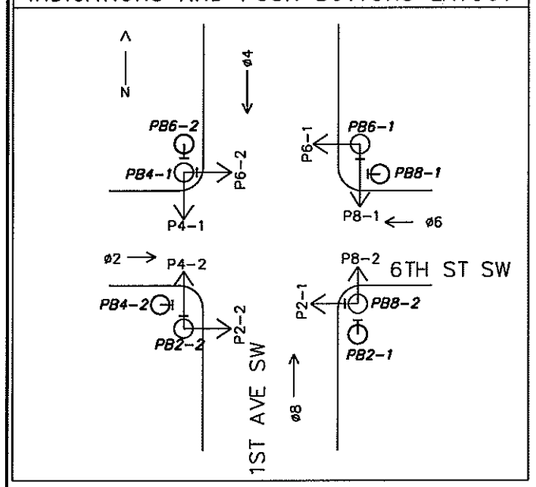
Title: INPLACE WIRING DIAGRAM AT 4TH STREET SW AND 1ST AVENUE SW (FOR INFORMATION ONLY)

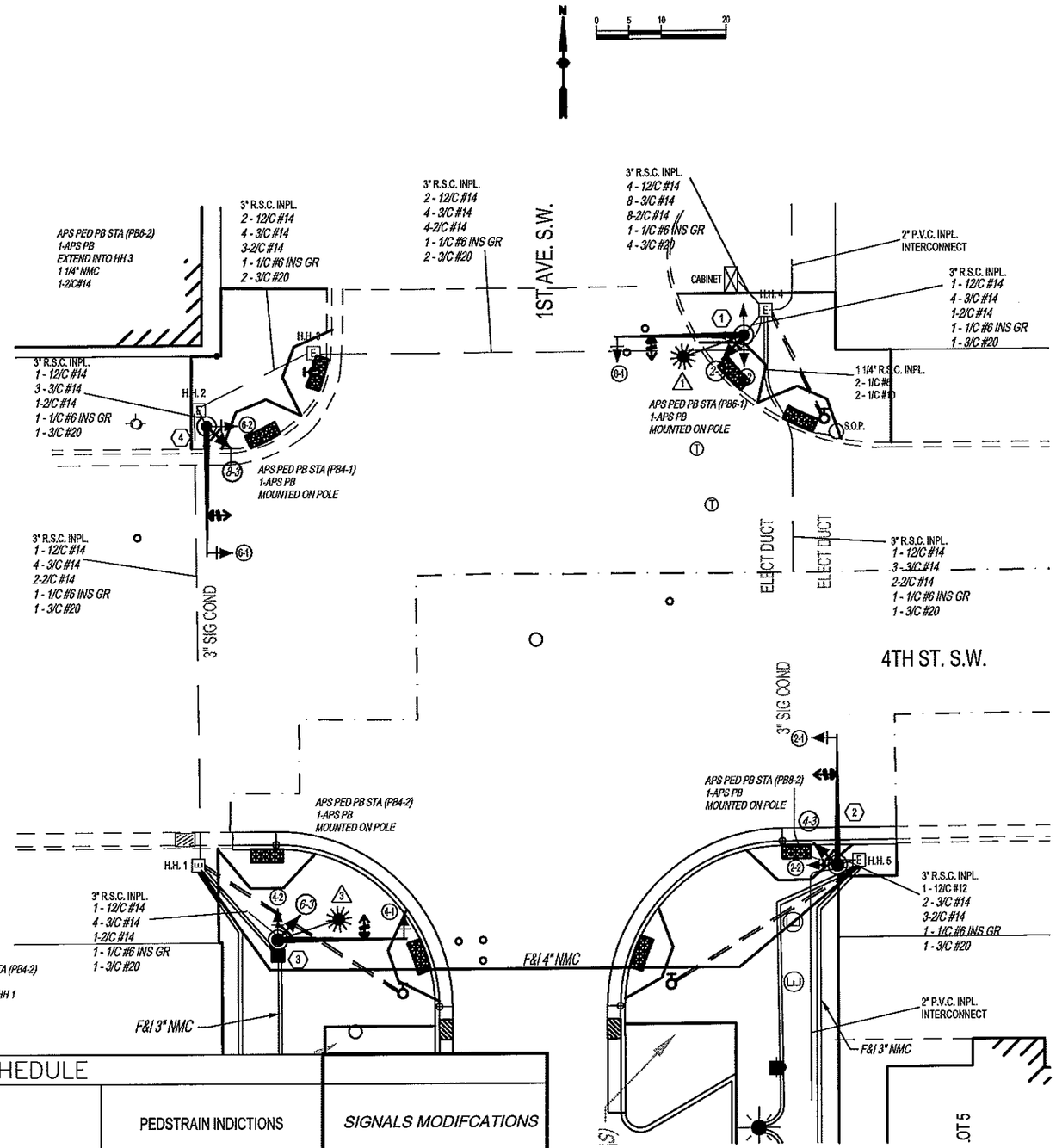
Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-53 of 62 Sheets

P:\PROJECTS\J-PROJ\J2170\Design\Dwgs\2170TRAFF1.DWG, 2170TRAFF1 - Layout1, 5/15/2012 1:28:11 PM, 1:2

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS LAYOUT





FACE	PHASE	FLASH	IND. SIZE R	IND. SIZE Y	IND. SIZE G
* 6-1	Ø6	R	12"	12"	12"
* 6-2	Ø6	R	12"	12"	12"
8-1	Ø8	R	12"	12"	12"
8-2	Ø8	R	12"	12"	12"
2-1	Ø2	R	12"	12"	12"
2-2	Ø2	R	12"	12"	12"
4-1	Ø4	R	12"	12"	12"
4-2	Ø4	R	12"	12"	12"

* SPECIAL SIGNAL FACE

ADDED HEADS

FACE	PHASE	FLASH	IND. SIZE R	IND. SIZE Y	IND. SIZE G
6-3	Ø6	R	12"	12"	12"
8-3	Ø8	R	12"	12"	12"
2-3	Ø2	R	12"	12"	12"
4-3	Ø4	R	12"	12"	12"

NOTES:

1. ALL CABLE TO BE REMOVED AND REPLACED WITH 14 GAUGE
2. HPS LUMINAIRE TO BE REPLACED WITH LED'S
3. REPLACE CABINET WITH CITY FURNISHED CABINET
4. PAINT INTERSECTION POLES WITH MEDIUM CHARCOAL GRAY SEE SPEC FOR DETAILS
5. FURNISH AND INSTALL ALL NEW TERMINAL BLOCKS IN POLE BASES

POLE AND SIGNAL SCHEDULE

LOCATION	STANDARD	LUMINAIRE	SIGNALS	PEDSTRAIN INDICTIONS	SIGNALS MODIFCATIONS
1	A-25-D40-12	250 WATT H.P.S. REPLACE WITH LED	1 - ONE WAY OVERHEAD 1 - ONE WAY POLE MOUNTED	2-SET PED. INDICATIONS (12")	ADD 1 - ONE WAY POLE MOUNTED
2	A-25		1 - ONE WAY OVERHEAD 1 - ONE WAY POLE MOUNTED	2-SET PED. INDICATIONS (12")	ADD 1 - ONE WAY POLE MOUNTED
3	A-25-D40-12	250 WATT H.P.S. REPLACE WITH LED	1 - ONE WAY OVERHEAD 1 - ONE WAY POLE MOUNTED	2-SET PED. INDICATIONS (12")	ADD 1 - ONE WAY POLE MOUNTED
4	A-25		1 - ONE WAY OVERHEAD (PROGRAMED) 1 - ONE WAY POLE MOUNTED (PROGRAMED)	2-SET PED. INDICATIONS (12")	ADD 1 - ONE WAY POLE MOUNTED

Revision comment: —
Reviewed: —

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Date: 05/15/12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: MODIFIED SIGNAL LAYOUT AT 4TH STREET SW AND 1ST AVENUE SW

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-54 of 62 Sheets

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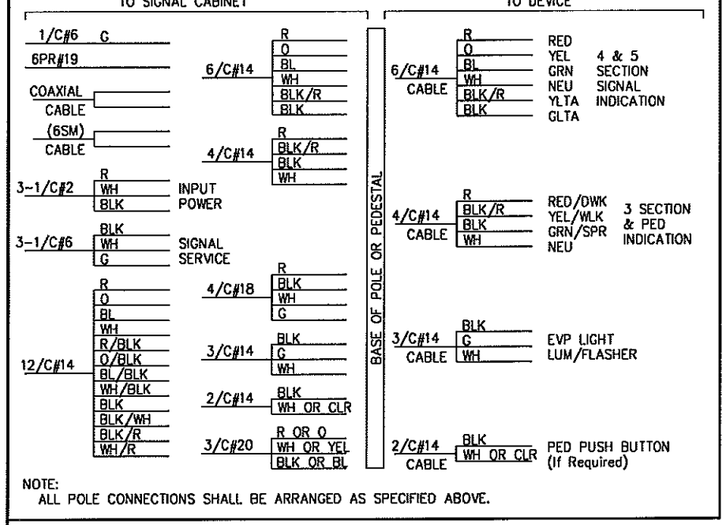
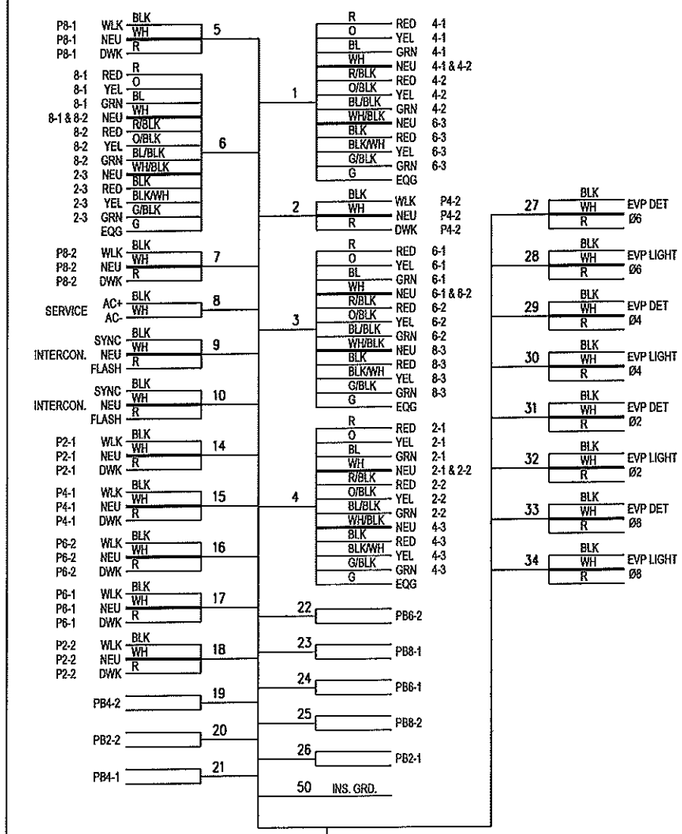
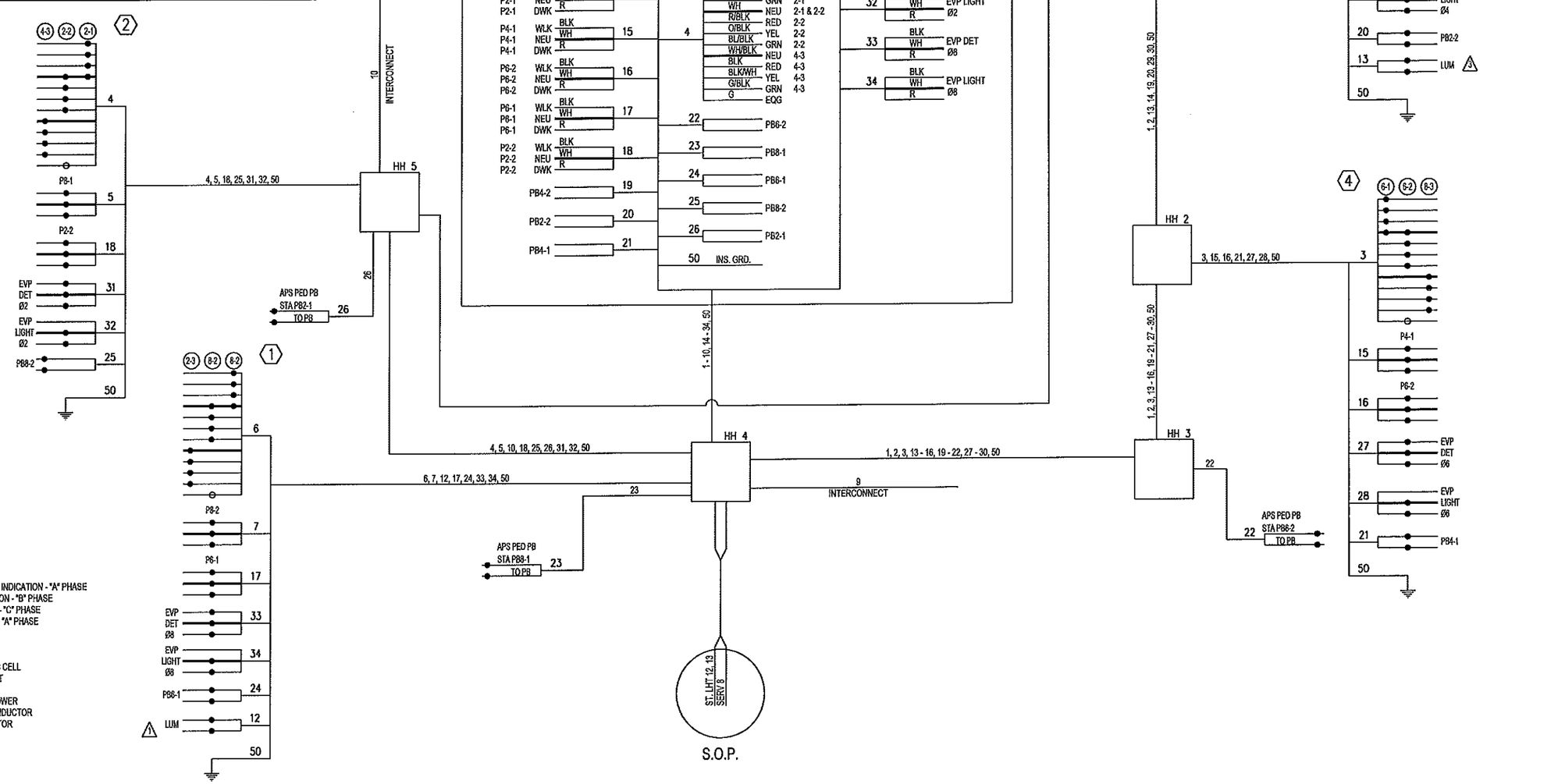
CONDUCTOR COLOR CODE (14 GAUGE)



NOTE:
ALL POLE CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE.

CONTROLLER CABINET





ABBREVIATIONS

EQUIPMENT AND INDICATIONS

RED - RED	PA1 (eg) - PEDESTRIAN INDICATION - "A" PHASE
YEL - YELLOW	PBB2 (eg) - PUSH BUTTON - "B" PHASE
GRN - GREEN	C3 (eg) - SIGNAL HEAD - "C" PHASE
LTA - LEFT TURN ARROW	DA-4 (eg) - DETECTOR - "A" PHASE
THA - THRU ARROW	H.H. - HANDHOLE
RTA - RIGHT TURN ARROW	DR.R. - GROUND ROD
TRA - THRU AND RIGHT ARROW	SERV - SERVICE
WLK - WALK	PEC - PHOTOELECTRIC CELL
NEU - NEUTRAL	ST. LHT - STREET LIGHT
DWK - DON'T WALK	CH - CHECK
SW - SWITCH	S.O.P. - SOURCE OF POWER
SWD - SWITCHED	EQG - EQUIPMENT CONDUCTOR
LUM - LUMINAIRE	SPR - SPARE CONDUCTOR
DNL - DOWNLIGHT	-●- - SPLICE
SHLD - SHIELDED CABLE	GRND - GROUND

Revision comment: –
Revised: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 05/15/12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: MODIFIED WIRING DIAGRAM AT 4TH STREET SW AND 1ST AVENUE SW

Designer: RLW
Checker: RJK

Project No. 6301-3-97 J2170
Sheet S-55 of 62 Sheets

Project No. 6301-3-97 J 2170
Sheet S-56 of 62 Sheets

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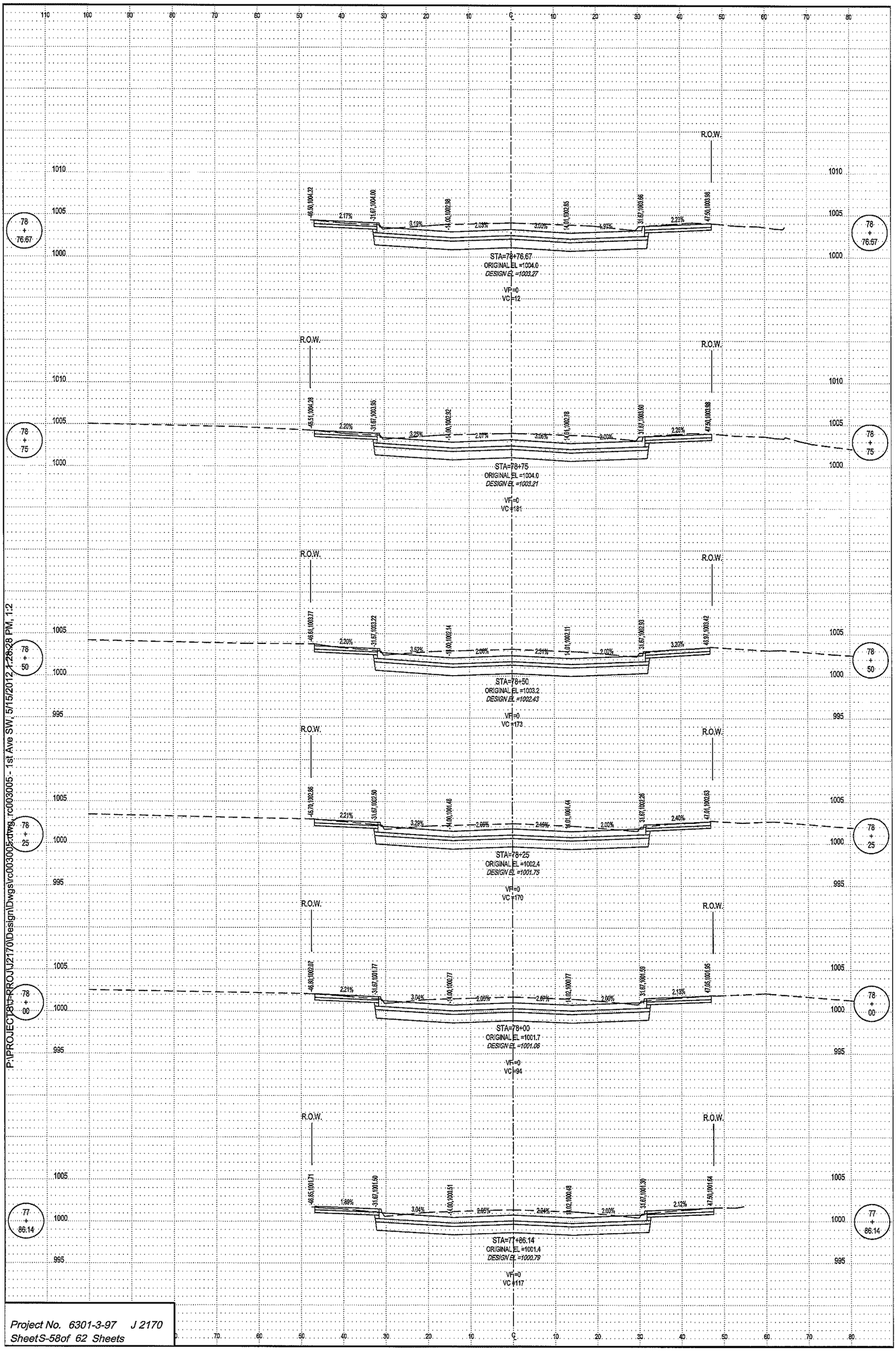
Project No. 6301-3-97 J 2170
Sheet S-57 of 62 Sheets



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Project No. 6301-3-97 J 2170
Sheet S-58 of 62 Sheets

Project No. 6301-3-97 J 2170
Sheet S-59 of 62 Sheets

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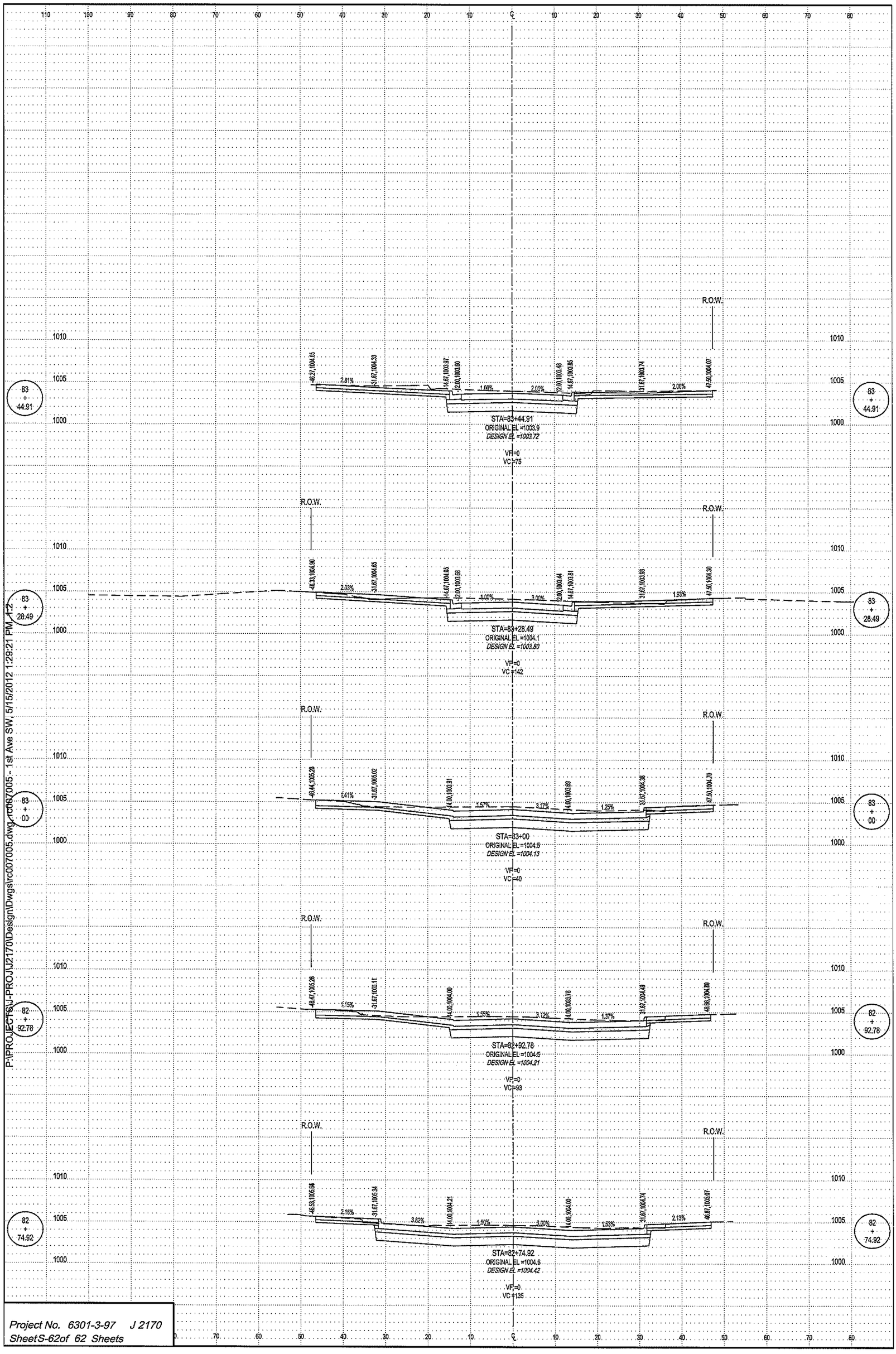
Project No. 6301-3-97 J 2170
Sheet S-60 of 62 Sheets

Project No. 6301-3-97 J 2170
Sheet S-61 of 62 Sheets



Project No. 6301-3-97 J 2170
Sheet S-62 of 62 Sheets