

CITY OF RAMSEY

CONSTRUCTION PLANS FOR

HY-10 RAMSEY IMPROVEMENTS

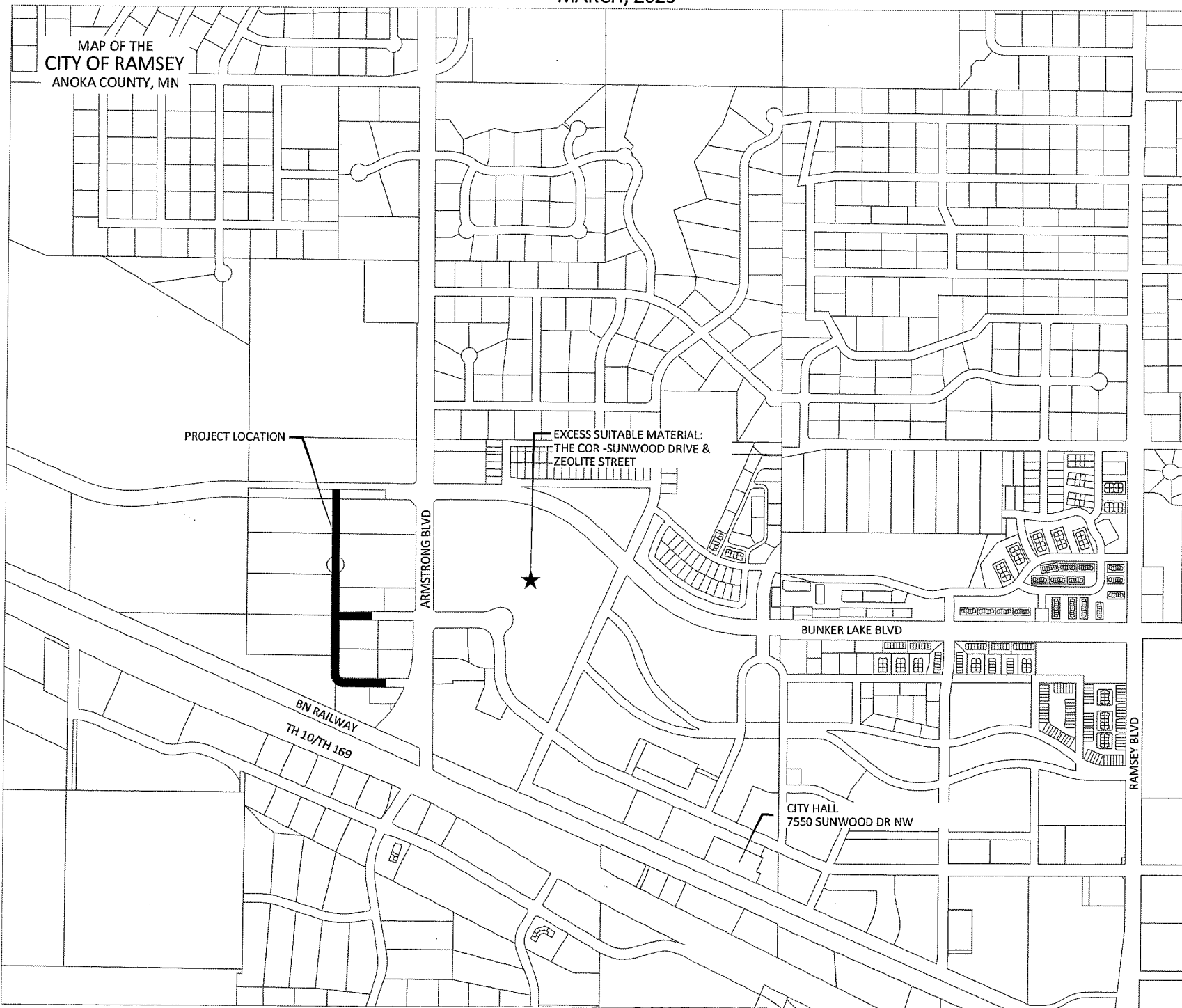
GRADING, AGGREGATE BASE, PLANT MIXED BITUMINOUS PAVEMENT, CONCRETE CURB & GUTTER, ADA IMPROVEMENTS, STORM SEWER,
 SANITARY SEWER, WATERMAIN, EROSION AND SEDIMENT CONTROL
 CITY IMPROVEMENT PROJECT 23-12
 MARCH, 2023

RESOURCE LIST

CITY OF RAMSEY

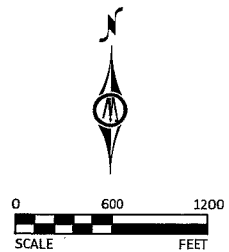
City Hall
 7550 Sunwood Drive NW.
 Ramsey, MN 55303

AGGREGATE STOCKPILE SITE:
 RAMSEY PUBLIC WORKS, 14199 JASPER STREET NE



SHEET NUMBER	SHEET TITLE
1 - 2	TITLE SHEET, LEGEND
3	STATEMENT OF ESTIMATED QUANTITIES
4	TYPICAL SECTIONS
5 - 9	CONSTRUCTION DETAILS
10 - 13	EXISTING CONDITIONS & REMOVALS
14 - 17	EROSION CONTROL & TURF RESTORATION
18 - 20	STORM WATER POLLUTION PREVENTION PLAN
21 - 25	WATERMAIN & SANITARY SEWER - PLAN & PROFILE
26 - 32	STORM SEWER & STREET - PLAN & PROFILE
33	STORM LEADS
34 - 35	INTERSECTION DETAILS
36 - 38	SIGNING & STRIPING
39 - 43	CROSS SECTIONS

THIS PLAN SET CONTAINS 43 SHEETS.



SCALES

PLAN	0'	50'
PROFILE	0'	50'
	HORIZ.	5'
	VERT.	600'



PROJECT LOCATION
 CITY OF RAMSEY
 ANOKA COUNTY, MN

NOTE: EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY GOPHER STATE ONE CALL, 1-800-252-1166 OR 651-454-0002.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D UNLESS OTHERWISE NOTED. THIS UTILITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

Zachary F. Lingl, P.E. REG. NO. 56344 DATE: 03/20/2023

REVIEWED & APPROVED Bruce Wenz CITY ENGINEER DATE: 3/21/23

+ BM=870.29 TNH STATION 702+96 - 872' LT FERRET STREET & BUNKER LAKE BLVD, SE DITCH	PROJECT DATUM: HORIZONTAL: ANOKA COUNTY COORDINATES (1996 ADJUSTMENT) VERTICAL: NGVD 88	RECORD DRAWING INFORMATION DESIGNED: ZFL DRAWN: TJH CHECKED: KPK CLIENT PROJ. NO.: 23-12	NO.: 1 ISSUED FOR: ADD 1 DATE: 04/07/2023
	CITY OF RAMSEY, MINNESOTA HY-10 RAMSEY IMPROVEMENTS TITLE SHEET	SHEET 1 OF 43	



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STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	MnDOT SPEC NO.	ITEM DESCRIPTION	NOTES	UNIT	TOTAL	CITY PROJECT 23-12				
						ROADWAY	STORM SEWER	SANITARY SEWER	WATERMAIN	
1	2021.501	MOBILIZATION		LUMP SUM	1		0.50			0.24
2	2101.502	CLEARING		EACH	43	43				
3	2101.502	GRUBBING		EACH	43	43				
4	2101.505	CLEARING		ACRE	0.10	0.10				
5	2101.505	GRUBBING		ACRE	0.10	0.10				
6	2102.503	PAVEMENT MARKING REMOVAL		LIN FT	1090	1090				
7	2104.502	SALVAGE MAIL BOX & SUPPORT		EACH	1	1				
8	2104.502	SALVAGE SIGN		EACH	3	3				
9	2104.502	REMOVE SIGN		EACH	1	1				
10	2104.502	REMOVE CASTING		EACH	2		2			
11	2104.502	REMOVE MISCELLANEOUS STRUCTURE (ABANDONED WELL)		EACH	8	8				
12	2104.502	REMOVE SEPTIC SYSTEM		EACH	1	1				
13	2104.502	REMOVE GATE VALVE & BOX		EACH	1					1
14	2104.503	REMOVE PIPE SEWERS		LIN FT	12		12			
15	2104.503	REMOVE FENCE		LIN FT	230	230				
16	2104.503	SAWING BIT PAVEMENT (FULL DEPTH)		LIN FT	940	940				
17	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)		LIN FT	390	390				
18	2104.503	REMOVE CURB AND GUTTER		LIN FT	900	900				
19	2104.504	REMOVE BITUMINOUS PAVEMENT		SQ YD	865	865				
20	2104.504	REMOVE CONCRETE PAVEMENT		SQ YD	840	840				
21	2105.601	DEWATERING		LUMP SUM	1					1
22	2106.507	EXCAVATION - COMMON (EV)	(P) (1)	CU YD	2625	2625				
23	2106.507	EXCAVATION - CHANNEL AND POND	(P) (1)	CU YD	4992		4992			
24	2106.507	EXCAVATION - SUBGRADE (EV)		CU YD	200	200				
25	2106.507	STABILIZING AGGREGATE (CV)		CU YD	200	200				
26	2106.507	COMMON EMBANKMENT (CV)	(P)	CU YD	3131	3131				
27	2106.607	HAUL AND STOCKPILE BITUMINOUS MATERIAL	(P) (2)	CU YD	2050	2050				
28	2112.519	SUBGRADE PREPARATION		ROAD ST	24	24				
29	2118.507	AGGREGATE SURFACING (CV) CLASS 2		CU YD	20	20				
30	2123.610	STREET SWEEPER (WITH PICKUP BROOM)		HOUR	20	20				
31	2211.507	AGGREGATE BASE (CV) CLASS 5 MODIFIED	(2)	CU YD	820	820				
32	2211.607	AGGREGATE BASE (CV) FROM STOCKPILE	(2)	CU YD	2050	2050				
33	2215.504	FULL DEPTH RECLAMATION (10")		SQ YD	7350	7350				
34	2231.604	BITUMINOUS PATCH SPECIAL (DRIVEWAY)		SQ YD	20	20				
35	2360.509	TYPE SP 9.5 WEARING COURSE MIX (3,C)		TON	1160	1160				
36	2360.509	TYPE SP 12.5 WEARING COURSE MIX (3,C)		TON	120	120				
37	2360.509	TYPE SP 12.5 NON WEARING COURSE MIX (3,C)		TON	1460	1460				
38	2501.502	22" SPAN RC PIPE-ARCH APRON		EACH	2		2			
39	2501.502	15" RC PIPE APRON		EACH	1		1			
40	2501.502	18" RC PIPE APRON		EACH	2		2			
41	2501.502	27" RC PIPE APRON		EACH	1		1			
42	2501.602	TRASH GUARD FOR 15" PIPE APRON		EACH	1		1			
43	2501.602	TRASH GUARD FOR 18" PIPE APRON		EACH	2		2			
44	2501.602	TRASH GUARD FOR 27" PIPE APRON		EACH	1		1			
45	2501.602	TRASH GUARD FOR 22" SPAN PIPE APRON		EACH	2		2			
46	2503.503	22" SPAN RC PIPE-ARCH CULV CL IVA		LIN FT	83		83			
47	2503.503	15" RC PIPE SEWER DESIGN 3006 CLASS V		LIN FT	610		610			
48	2503.503	18" RC PIPE SEWER DESIGN 3006 CLASS V		LIN FT	50		50			
49	2503.503	24" RC PIPE SEWER DESIGN 3006 CLASS III		LIN FT	750		750			
50	2503.503	27" RC PIPE SEWER DESIGN 3006 CLASS III		LIN FT	165		165			
51	2503.503	8" PVC PIPE SEWER		LIN FT	1831		1831			
52	2503.602	8" PIPE PLUG		EACH	12		12			
53	2503.602	CONNECT TO EXISTING SANITARY SEWER (CORE & BOOT)		EACH	1		1			
54	2504.602	CLEAN & TELEVIEW PIPE SEWER		LIN FT	1831		1831			
55	2504.602	4" INSULATION		SQ YD	385		385			
56	2504.602	CONNECT TO EXISTING WATER MAIN		EACH	3					3
57	2504.602	6" GATE VALVE & BOX		EACH	6					6
58	2504.602	8" GATE VALVE & BOX		EACH	11					11
59	2504.602	12" GATE VALVE & BOX		EACH	5					5
60	2504.602	16"x12" WET TAP	1	EACH	1					1
61	2504.602	HYDRANT		EACH	6					6
62	2504.602	RELOCATE HYDRANT		EACH	1					1
63	2504.603	6" WATERMAIN DUCTILE IRON CL 53		LIN FT	95					95
64	2504.603	8" WATERMAIN DUCTILE IRON CL 52		LIN FT	355					355
65	2504.603	12" WATERMAIN DUCTILE IRON CL 52		LIN FT	1865					1865
66	2504.608	WATERMAIN FITTINGS		POUND	2900					2900
67	2506.502	CASTING ASSEMBLY (SANITARY SEWER)		EACH	7			7		
68	2506.502	CASTING ASSEMBLY (STORM SEWER)		EACH	15		15			
69	2506.502	ADJUST FRAME & RING CASTING		EACH	1	1				
70	2506.503	CONSTRUCT SANITARY SEWER MANHOLE		LIN FT	62				62	
71	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPEC 1 (2'X3')		LIN FT	12		12			

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	MnDOT SPEC NO.	ITEM DESCRIPTION	NOTES	UNIT	TOTAL	CITY PROJECT 23-12				
						ROADWAY	STORM SEWER	SANITARY SEWER	WATERMAIN	
72	2506.503	CONSTRUCT DRAINAGE STRUCTURE DES 48-4020		LIN FT	19		19			
73	2506.503	CONSTRUCT DRAINAGE STRUCTURE DES 60-4020		LIN FT	29		29			
74	2511.507	RANDOM RIPRAP CL III		CU YD	40		40			
75	2506.602	SEAL MANHOLE	(4)	EACH	7				7	
76	2521.514	4" CONCRETE WALK		SQ FT	4450	4450				
77	2521.514	6" CONCRETE WALK		SQ FT	130	130				
78	2531.503	CONCRETE CURB AND GUTTER DESIGN B612		LIN FT	55	55				
79	2531.503	CONCRETE CURB AND GUTTER DESIGN B618		LIN FT	4230	4230				
80	2531.504	4" CONCRETE MEDIAN		SQ YD	180	180				
81	2531.504	8" CONCRETE DRIVEWAY PAVEMENT		SQ YD	390	390				
82	2531.602	CONCRETE MEDIAN NOSE-SPECIAL		EACH	1	1				
83	2531.618	TRUNCATED DOMES		SQ FT	30	30				
84	2540.602	INSTALL MAIL BOX & SUPPORT		EACH	1	1				
85	2563.601	TRAFFIC CONTROL		LUMP SUM	1	0.50	0.16	0.10		0.24
86	2571.502	CONIFEROUS TREE 6' HT B&B		EACH	9	9				
87	2572.503	TEMPORARY FENCE		LIN FT	1900	1900				
88	2573.501	STABILIZED CONSTRUCTION EXIT		LUMP SUM	1	1				
89	2573.502	STORM DRAIN INLET PROTECTION		EACH	12	12				
90	2573.503	SEDIMENT CONTROL LOG TYPE WOOD FIBER		LIN FT	1000	1000				
91	2574.505	FERTILIZER TYPE 3		POUND	1080	1080				
92	2574.507	COMMON TOPSOIL BORROW		CU YD	500	500				
93	2575.504	ROLLED EROSION PREVENTION CATEGORY 20		SQ YD	6890	6890				
94	2575.505	SEEDING		ACRE	3.6	3.6				
95	2575.508	RAPID STABILIZATION METHOD 2		ACRE	1	1				
96	2575.508	SEED MIXTURE 25-121		POUND	340	340				
97	2575.508	SEED MIXTURE 35-241		POUND	200	200				
98	2575.508	HYDRAULIC BONDED FIBER MATRIX		POUND	12600	12600				
99	2582.503	4" SOLID LINE MULTI COMP		LIN FT	2440	2440				
100	2582.503	4" DOUBLE SOLID LINE MULTI COMP		LIN FT	2190	2190				
101	2582.503	24" SOLID LINE MULTI COMP		LIN FT	200	200				
102	2582.518	CROSSWALK MULTI COMP		SQ FT	130	130				
103	2582.518	PAVEMENT MESSAGE MULTI COMP		SQ FT	220	220				

NOTES:

- INCLUDES TOPSOIL STRIPPING AND STOCKPILING
- STOCKPILE LOCATION: PUBLIC WORKS, 14199 JASPER STREET NW. CONTRACTOR SHALL USE ALL AVAILABLE STOCKPILE MATERIAL BEFORE IMPORTING AGGREGATE
- BUNKER LAKE BOULEVARD PAVEMENT

EARTHWORK SUMMARY - HY-10 RAMSEY

NOTES	ITEMS	UNIT	PROJECT TOTAL	FERRET STREET NW	STORMWATER POND	SWALE
UNADJUSTED VOLUMES BASED ON CROSS SECTIONS						
1	TOPSOIL STRIPPING (EV)	CU YD	3336	1035	1737	564
2	EXCAVATION (EV)	CU YD	4281	1590	2420	271
3	EMBANKMENT MATERIAL REQUIRED (CV)	CU YD	3131	3131		
4,10	TOPSOIL REQUIRED (CV)	CU YD	1196	711	251	234
EARTHWORK BALANCE						
TOPSOIL BALANCE						
5,8	TOPSOIL REQUIRED (LV)	CU YD	1794	1066	376	351
6	TOPSOIL GENERATED (LV)	CU YD	3670	1139	1911	620
9,10	EXCESS TOPSOIL	CU YD	1876	73	1535	269
GRADING MATERIAL BALANCE						
6,8	GRADING MATERIAL GENERATED (LV)	CU YD	4709	1749	2662	298
7	EMBANKMENT MATERIAL REQUIRED (LV)	CU YD	3757	3757		
9	EXCESS GRADING MATERIAL (LV)	CU YD	952	-2008	2662	298
EARTHWORK QUANTITIES TO SEQ						
8,9	COMMON EXCAVATION (P) (EV)	CU YD	2625	2625		
8	POND EXCAVATION (EV)	CU YD	4992		4157	835
8	COMMON EMBANKMENT (P) (CV)	CU YD	3131	3131		
11	SUBGRADE EXCAVATION (EV)	CU YD	200	200		

NOTES:

- FROM CROSS SECTIONS, ASSUMES AN AVERAGE OF 1 FT OF TOPSOIL THICKNESS
- EXCAVATION REQUIRED BELOW EXISTING PAVEMENT & TOPSOIL, FROM CROSS SECTIONS.
- FILL VOLUMES FROM CROSS SECTIONS.
- MINIMUM 4 INCHES OF TOPSOIL PLACED IN ALL SEEDED AREAS DISTURBED DURING CONSTRUCTION. TOPSOIL SHALL BE STOCKPILED IN A LOCATION APPROVED BY THE ENGINEER UNTIL THE ROADWAY IMPROVEMENTS ARE CONSTRUCTED.
- SHRINKAGE FACTOR OF 1.5 APPLIED FROM CV TO LV
- SWELL FACTOR OF 1.1 APPLIED FROM EV TO LV
- SHRINKAGE FACTOR OF 1.2 APPLIED FROM CV TO LV
- CONTRACTOR SHALL SEPARATE TOPSOIL, GRANULAR MATERIAL AND SELECT GRADING MATERIAL. SELECT GRADING MATERIAL TO BE USED UNDER IMPERVIOUS SURFACE. GRANULAR MATERIAL TO BE USED IN BOULEVARD AREAS DESIGNATED BY THE ENGINEER.
- EXCESS SUITABLE MATERIAL SHALL BE USED AS SOIL CORRECTION AS DIRECTED BY THE ENGINEER. ONCE THE PROJECT EARTHWORK IS BALANCED, ALL EXCESS SUITABLE MATERIAL SHALL REMAIN THE PROPERTY OF THE OWNER AND CONTRACTOR SHALL HAUL MATERIAL TO "THE COR" IN THE CITY OF RAMSEY. EXCESS TOPSOIL MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
- TOPSOIL DESIGNATED FOR FUTURE CONSTRUCTION SHALL BE STOCKPILED AND STABILIZED AT A LOCATION ONSITE APPROVED BY THE ENGINEER
- ADDITIONAL QUANTITY TO BE USED AS DETERMINED BY THE ENGINEER IN THE FIELD.

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

ZACHARY F. LINGL
LIC. NO. 56344 DATE 03/20/2023

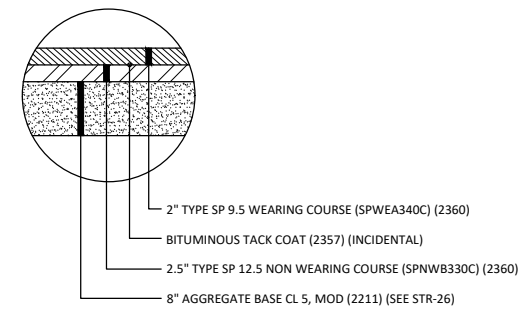
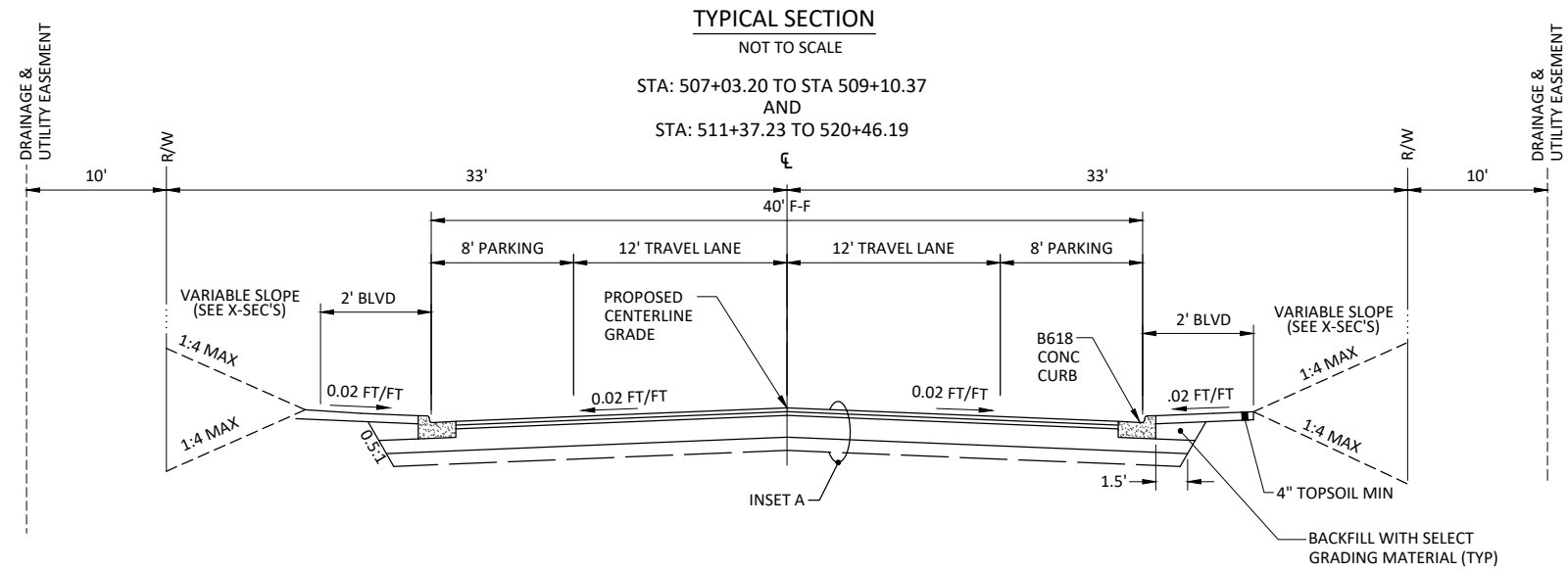


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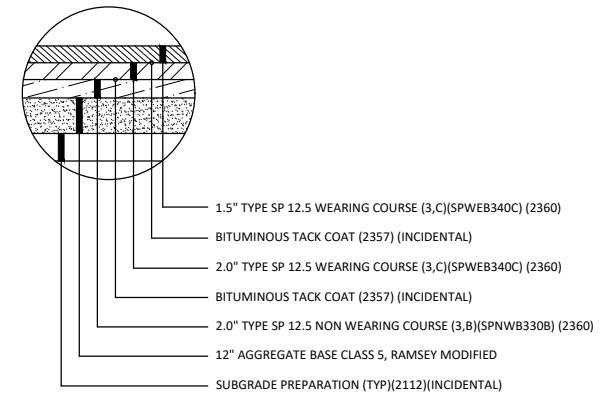
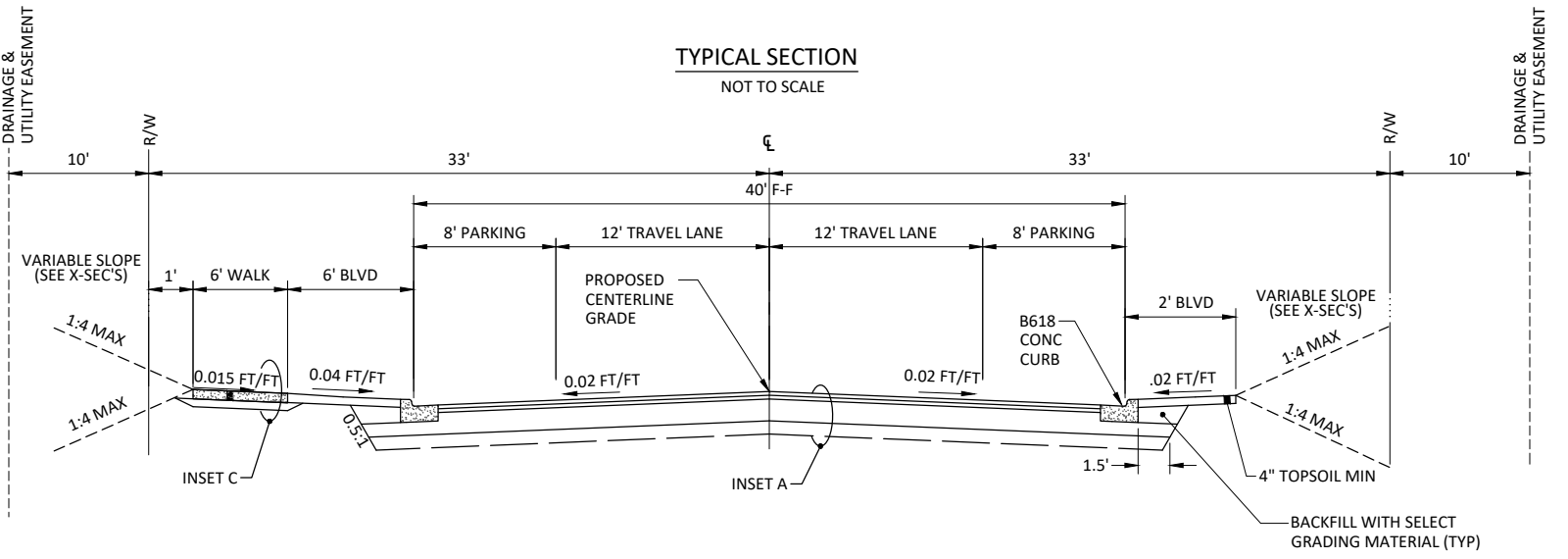


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CLIENT PROJ. NO.			

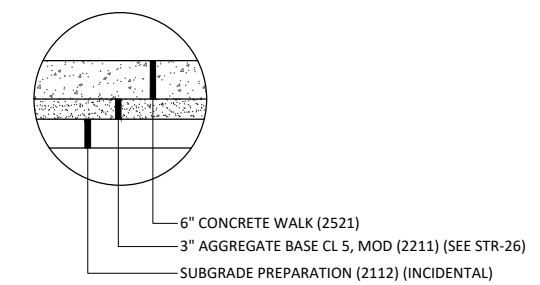
CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
STATEMENT OF ESTIMATED QUANTITIES



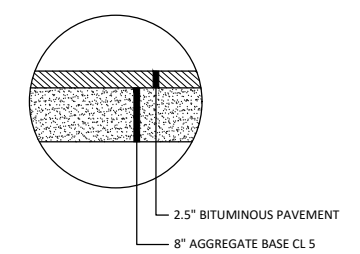
INSET A - BITUMINOUS ROADWAY
NOT TO SCALE



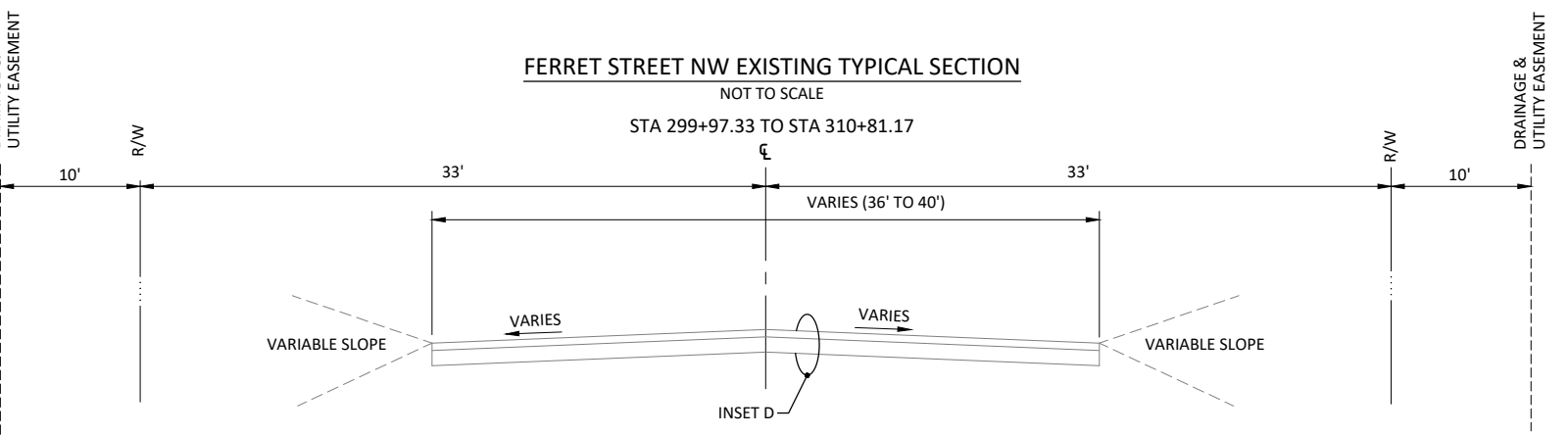
INSET B - BUNKER LAKE BLVD
NOT TO SCALE



INSET C - CONCRETE WALK / PEDESTRIAN RAMP
NOT TO SCALE



INSET D - EXISTING BITUMINOUS ROADWAY
NOT TO SCALE



NOTES:

1. CONTRACTOR SHALL VERIFY EXISTING PAVEMENT SECTION PRIOR TO RECLAMATION. RECLAMATION PROCEDURES SHALL NOT START WITHOUT APPROVAL FROM THE ENGINEER.
2. TYPICAL SECTION DOES NOT REPRESENT DIMENSIONS AT INTERSECTIONS. SEE PLAN SHEETS FOR INTERSECTION LAYOUT.

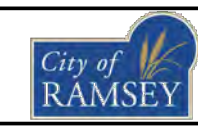
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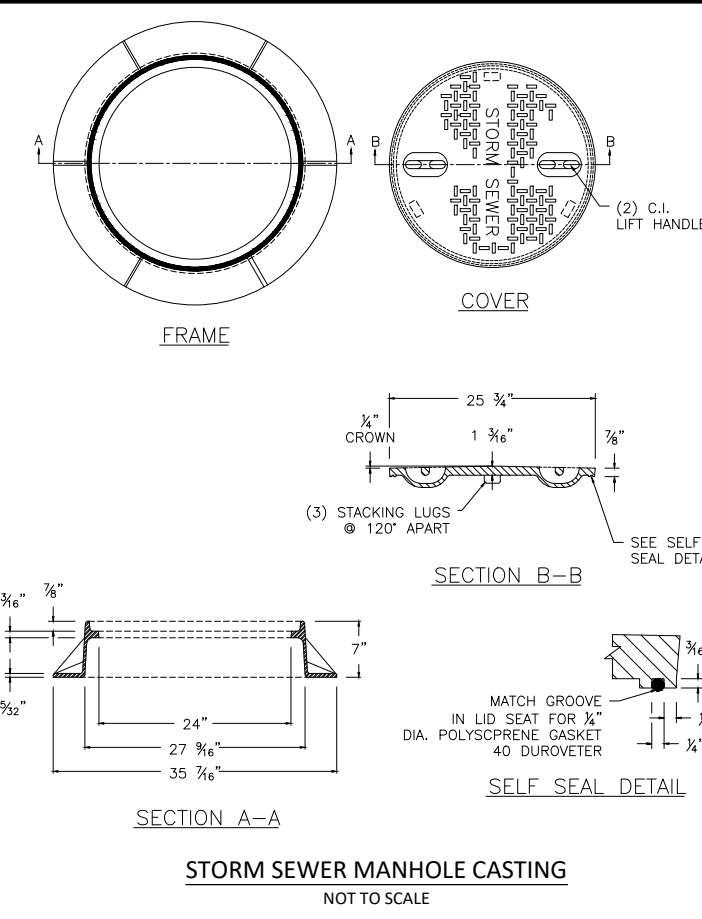
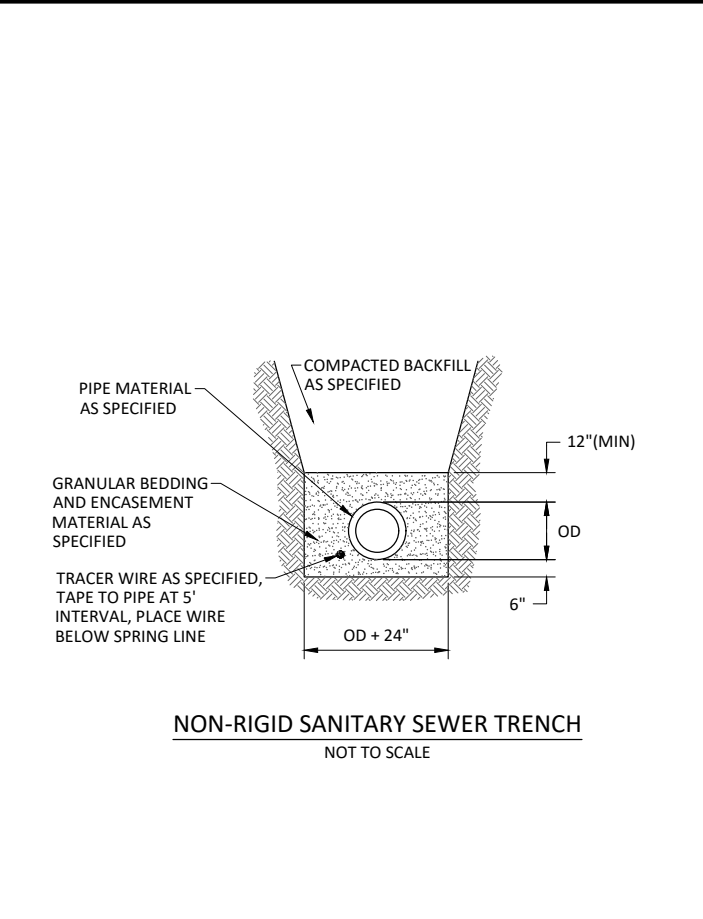
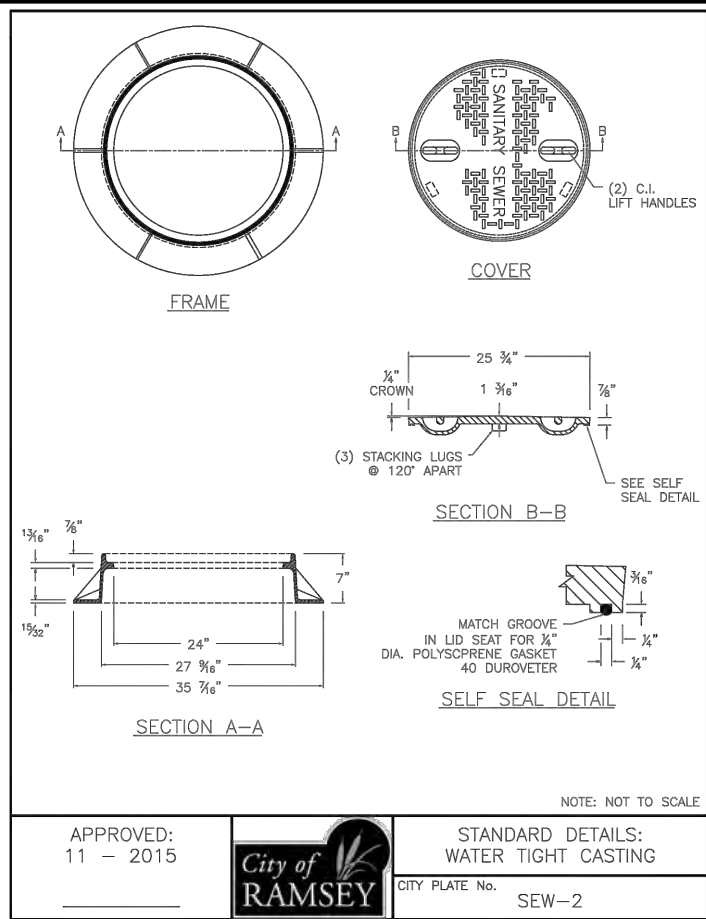
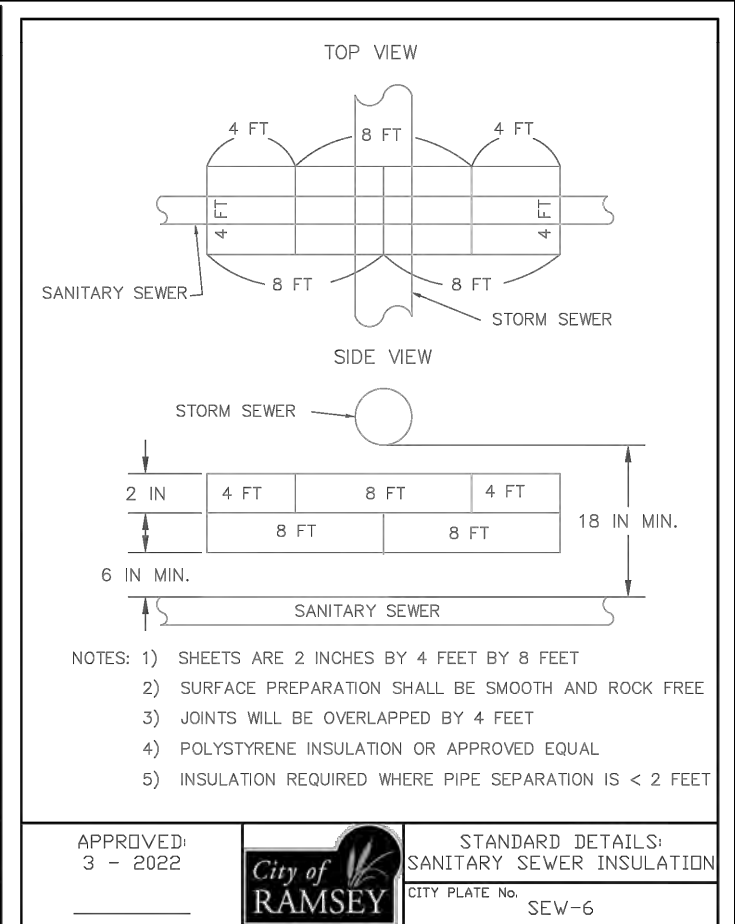
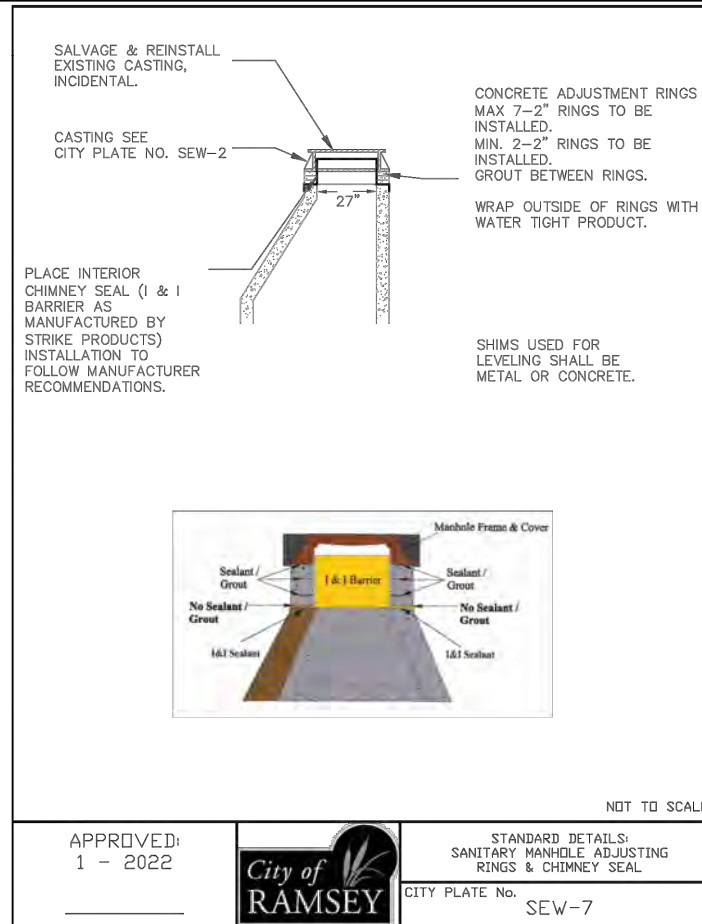
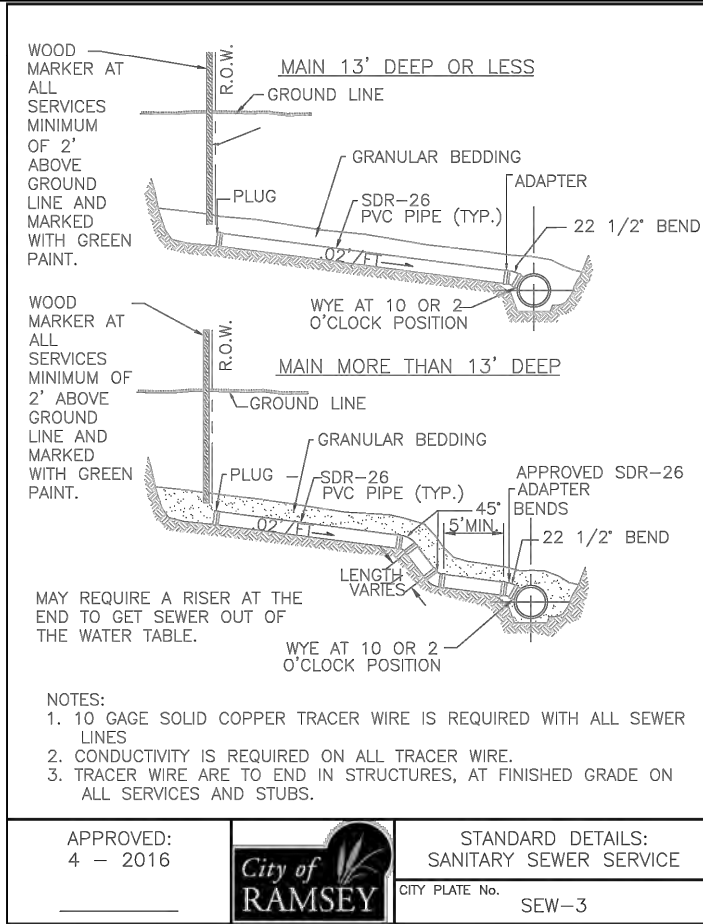
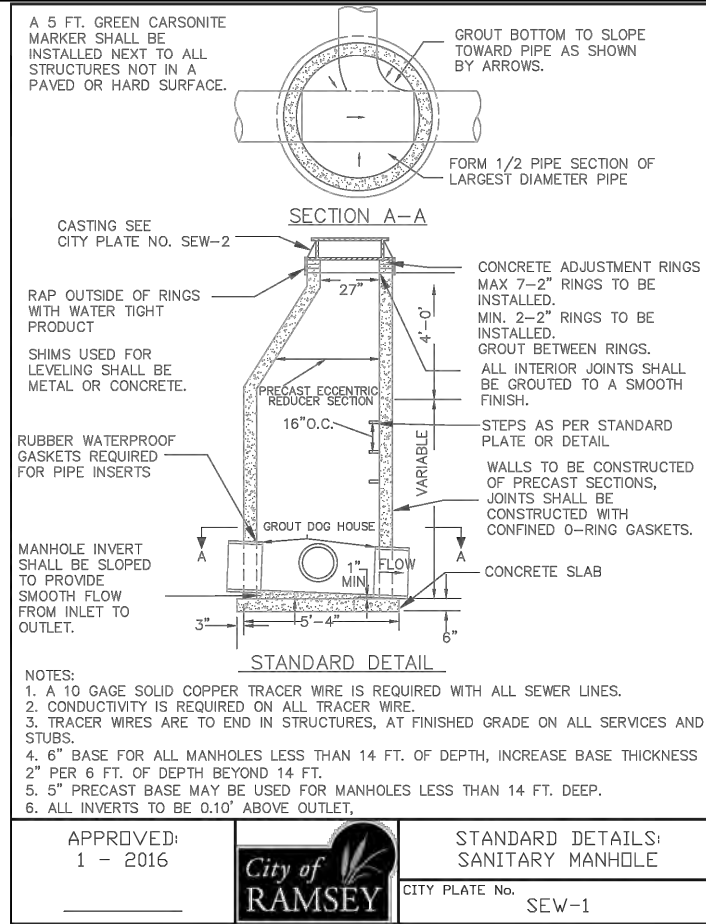


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CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
TYPICAL SECTIONS



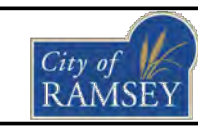
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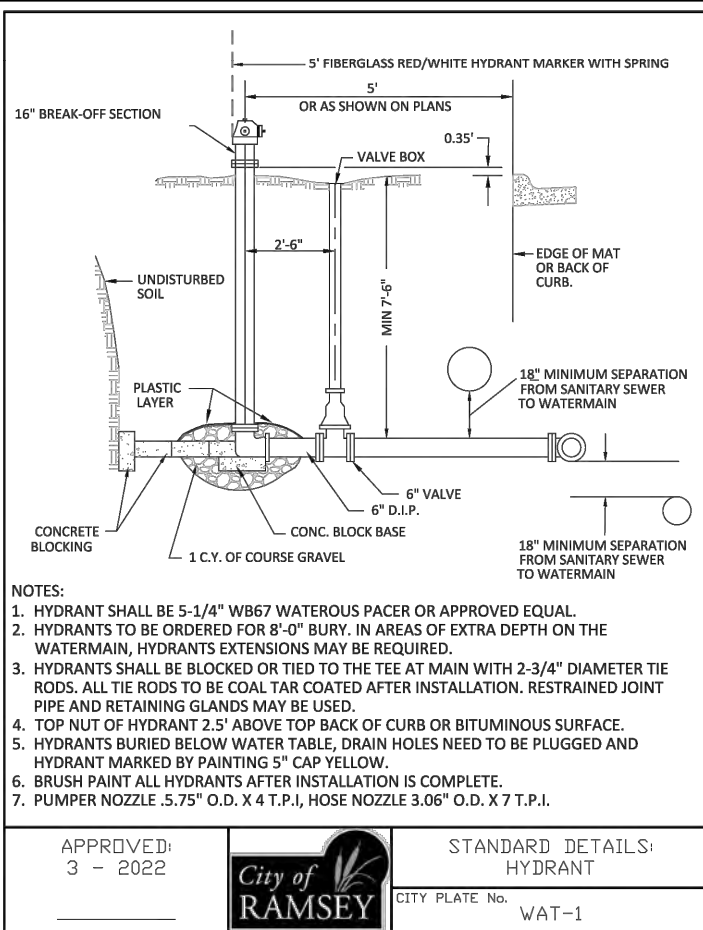
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CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
SANITARY SEWER DETAILS

SHEET 5 OF 43

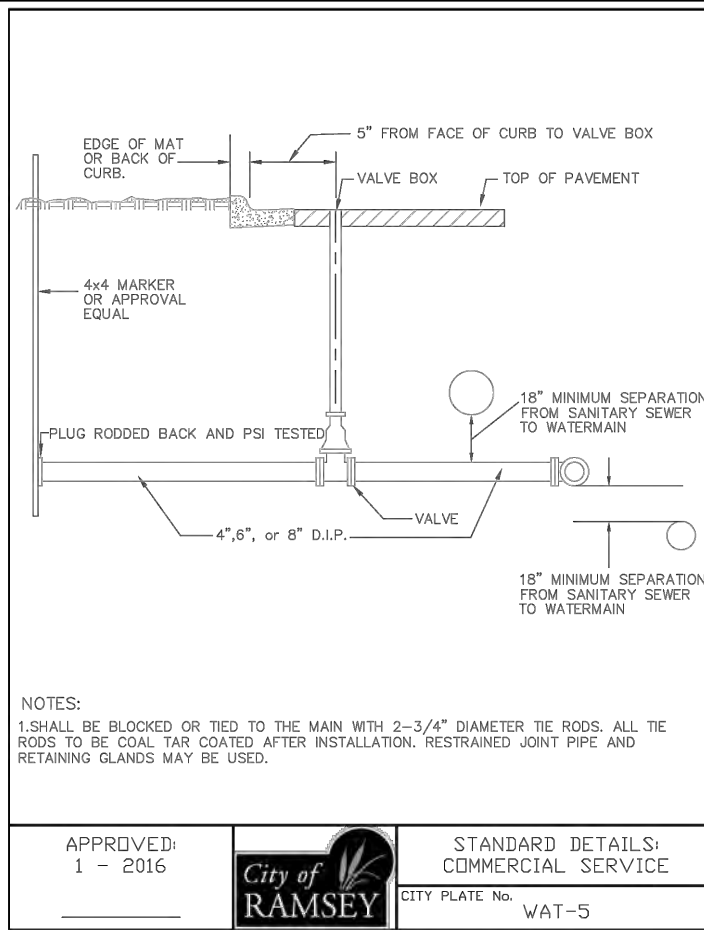


APPROVED: 3 - 2022

City of RAMSEY

STANDARD DETAILS: HYDRANT

CITY PLATE No. WAT-1

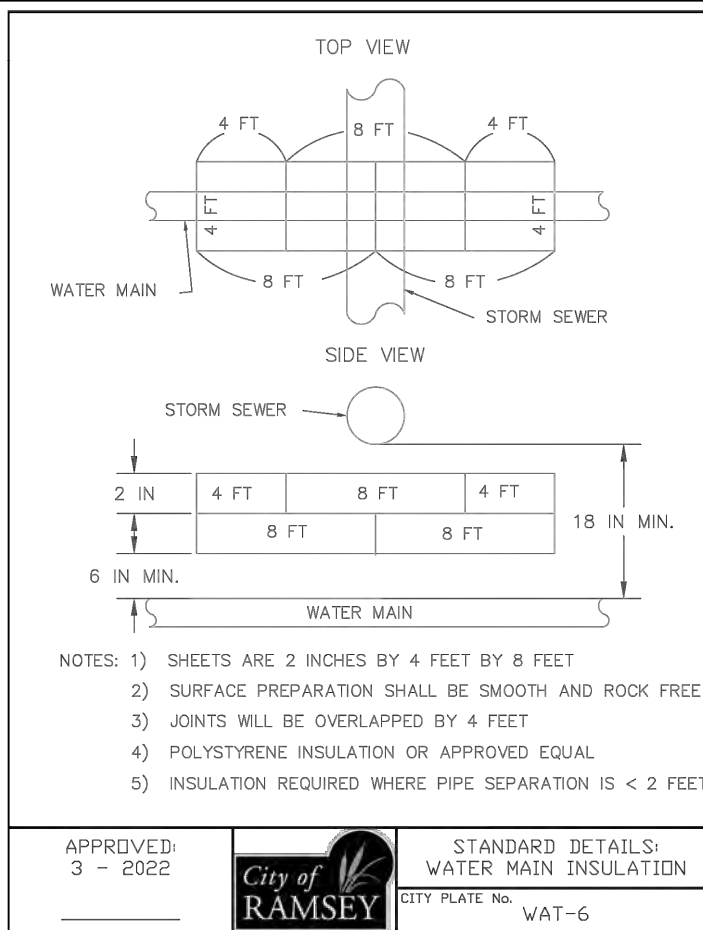


APPROVED: 1 - 2016

City of RAMSEY

STANDARD DETAILS: COMMERCIAL SERVICE

CITY PLATE No. WAT-5

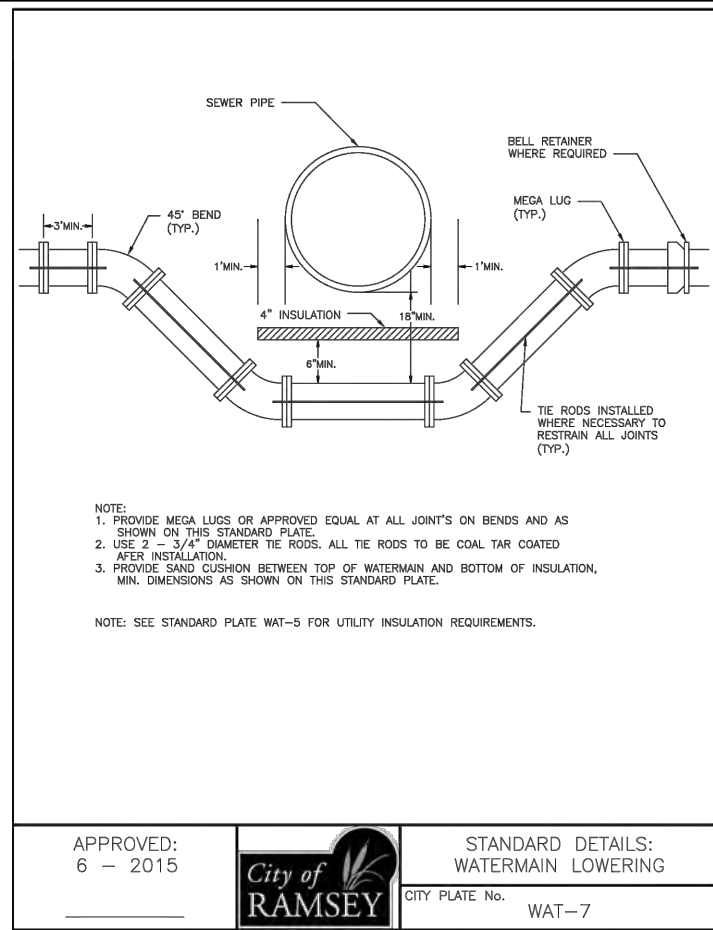


APPROVED: 3 - 2022

City of RAMSEY

STANDARD DETAILS: WATER MAIN INSULATION

CITY PLATE No. WAT-6

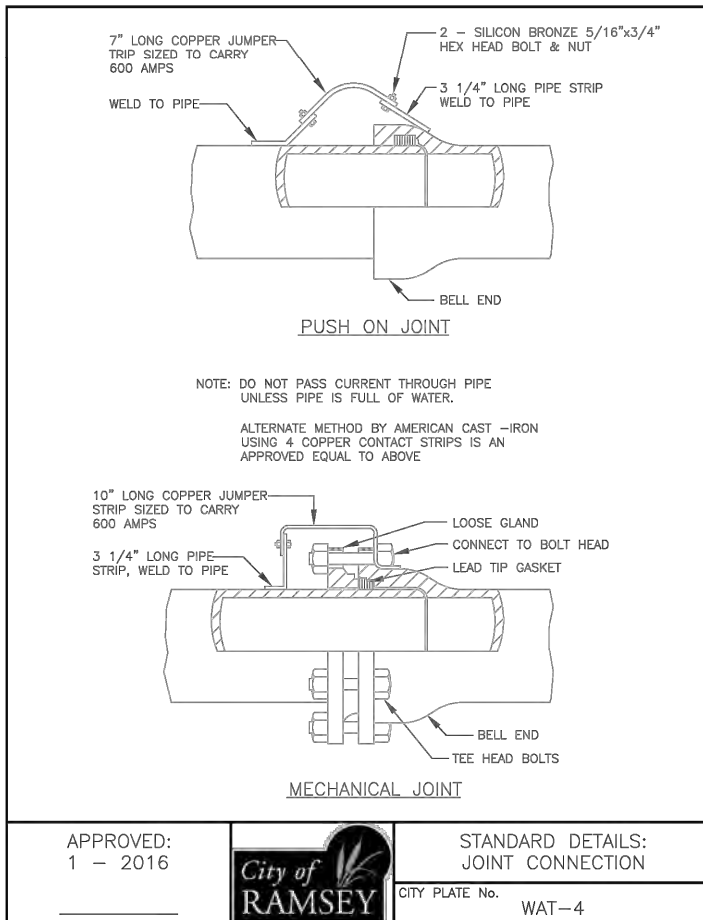


APPROVED: 6 - 2015

City of RAMSEY

STANDARD DETAILS: WATERMAIN LOWERING

CITY PLATE No. WAT-7

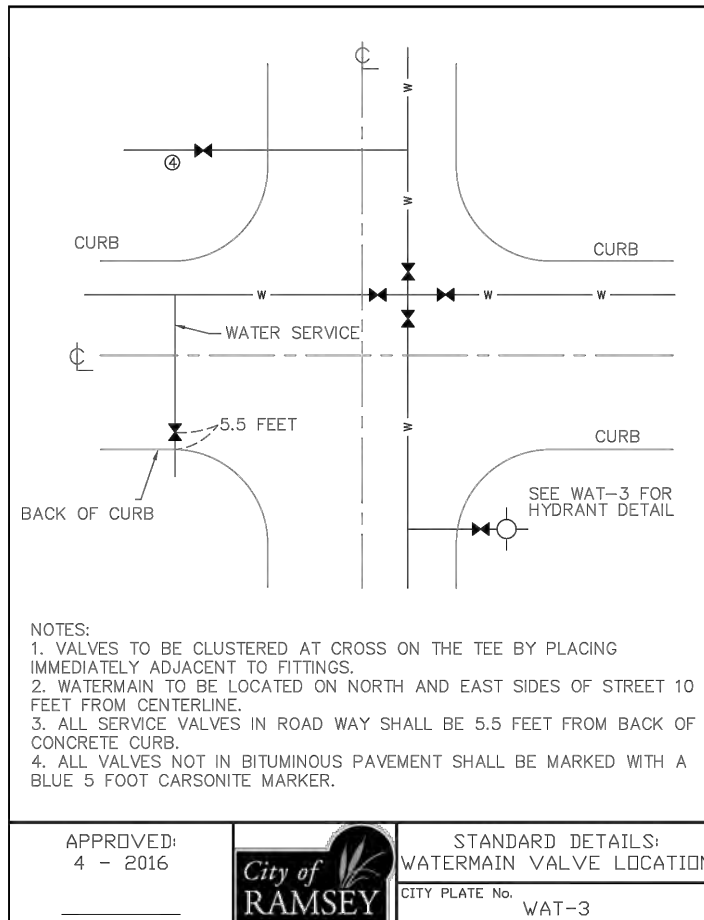


APPROVED: 1 - 2016

City of RAMSEY

STANDARD DETAILS: JOINT CONNECTION

CITY PLATE No. WAT-4



APPROVED: 4 - 2016

City of RAMSEY

STANDARD DETAILS: WATERMAIN VALVE LOCATION

CITY PLATE No. WAT-3

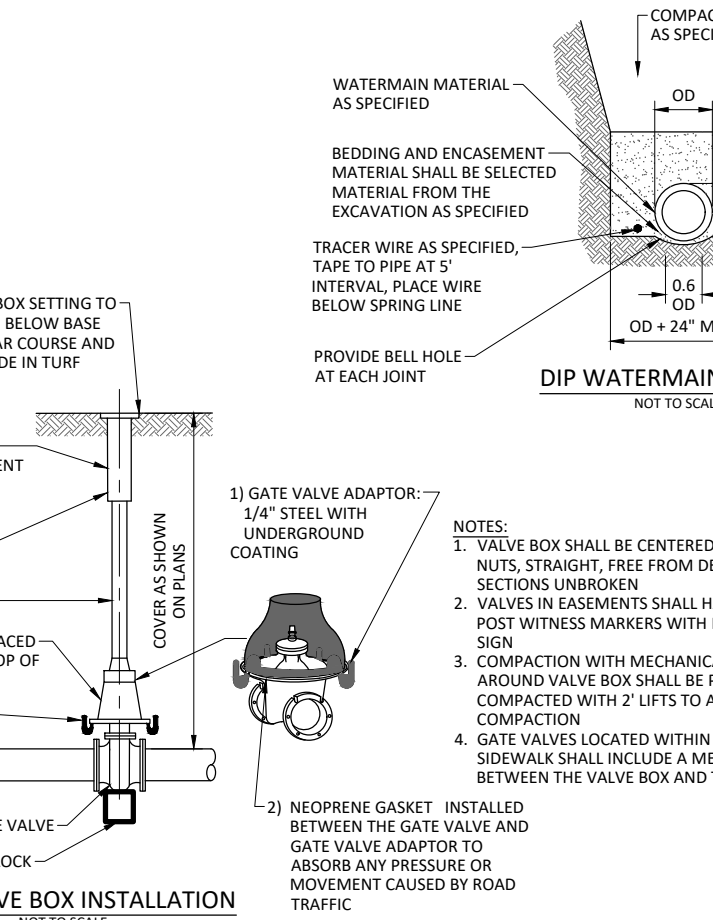
CONCRETE THRUST BLOCKS
NOT TO SCALE

NOTES:

- FIGURE (100%) AT THRUST BLOCK INDICATES PER CENT OF TOTAL THRUST TO BE APPLIED FOR BEARING AREA.
- CONCRETE FOR THRUST BLOCKS TO BE 2000 PSI.
- RESTRAINING RODS ARE REQUIRED AT ALL TEES AND AT BENDS DEFLECTING 22-1/2 OR MORE.
- WRAP THE PIPE WITH POLYETHYLENE WRAPPING PRIOR TO POURING THE THRUST BLOCK.
- SEE SOILS REPORT FOR BEARING STRENGTH OF SOIL. IN ABSENCE OF A SOILS REPORT, AN AVERAGE SOIL (SPADABLE MEDIUM CLAY) CAN BE ASSUMED TO HAVE A BEARING STRENGTH OF 2000 PSI.
- THRUST BLOCKS ARE NOT REQUIRED ON PVC WITH SOLVENT WELDED JOINTS.
- BEARING AREAS ARE BASED ON 250 LB MAXIMUM PRESSURE AND SOIL BEARING STRENGTH OF 2000 LB/SQ FT.
- MULTIPLY THRUST BY DEGREE OF DEFLECTION TO OBTAIN TOTAL THRUST.

PIPE SIZE	DEAD END OR TEE	90° ELBOW	45° ELBOW	22 1/2° ELBOW
4	2.4	3.4	1.9	0.9
6	4.9	6.9	3.8	1.9
8	8.4	11.8	6.4	3.4
10	13.7	19.3	10.5	5.4
12	19.4	27.3	14.9	7.7
14	26.3	37.0	20.1	10.3
16	34.0	47.9	26.2	13.3
18	43.9	61.8	33.7	17.2
20	54.3	76.4	41.7	21.2
24	77.9	109.8	59.8	30.5

PIPE SIZE	SIDE THRUST-LB	PIPE SIZE	SIDE THRUST-LB
4	35	14	377
6	72	16	486
8	122	18	665
10	197	20	790
12	278	24	1150



APPROVED: 1 - 2016

City of RAMSEY

STANDARD DETAILS: GATE VALVE BOX INSTALLATION

CITY PLATE No. WAT-2

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ZACHARY F. LINGL
LIC. NO. 56344 DATE 03/20/2023

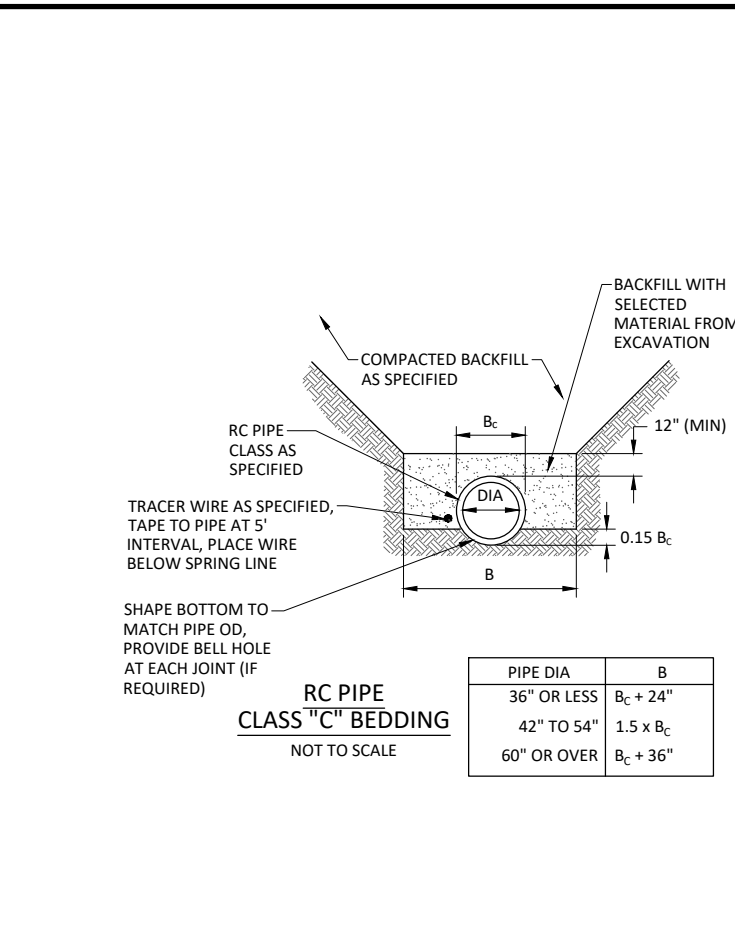
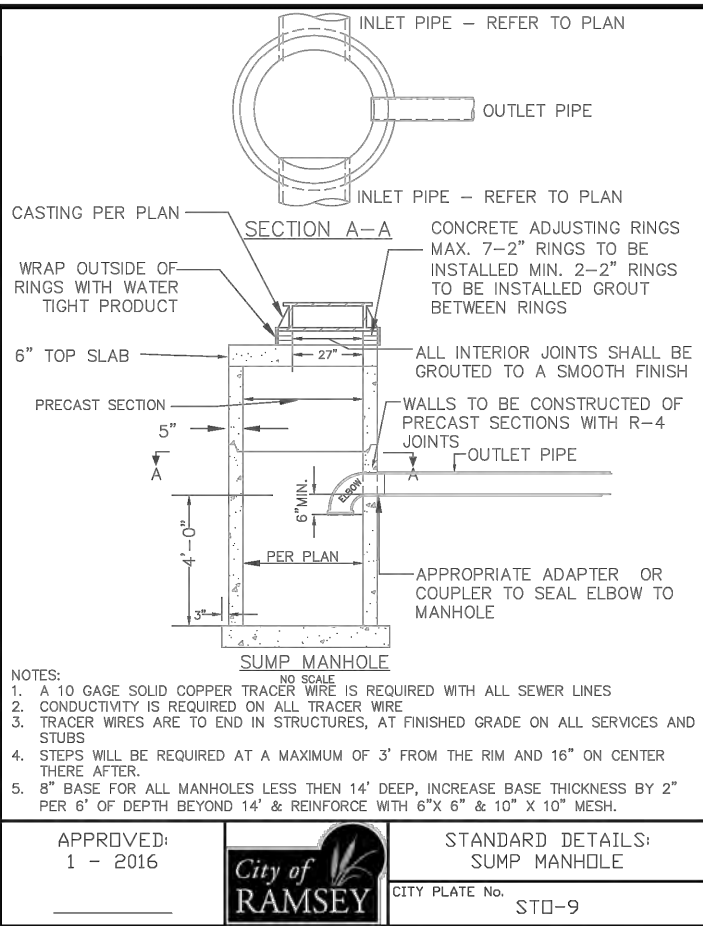
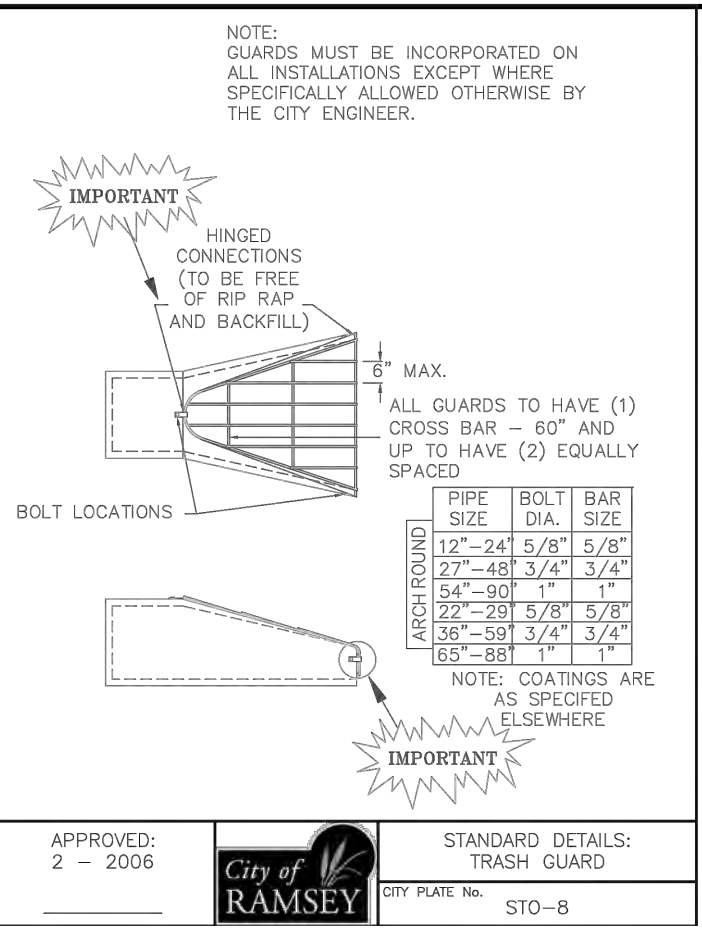
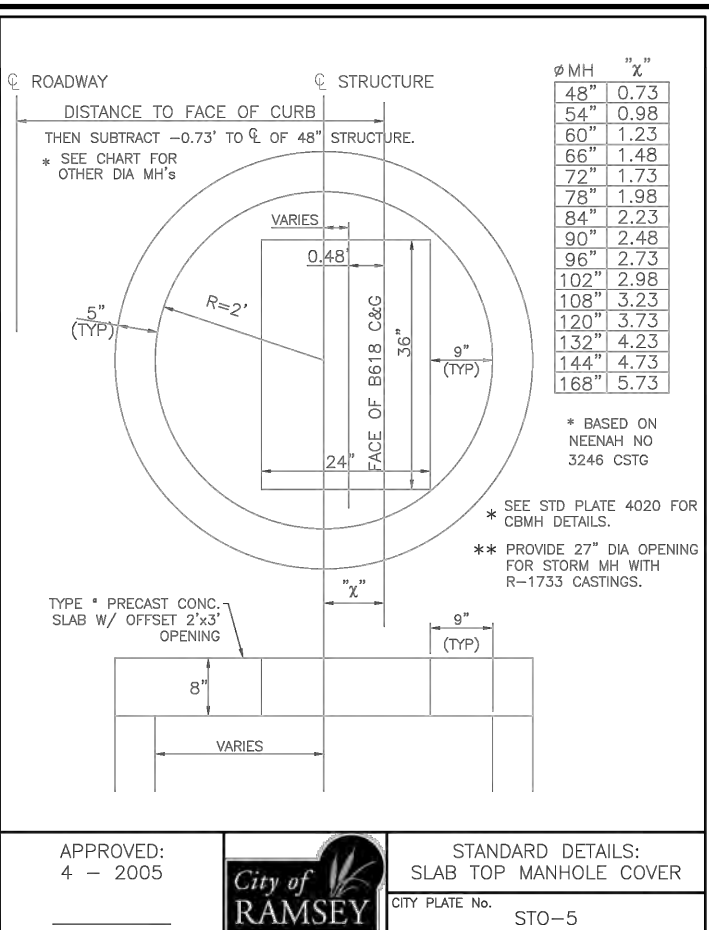
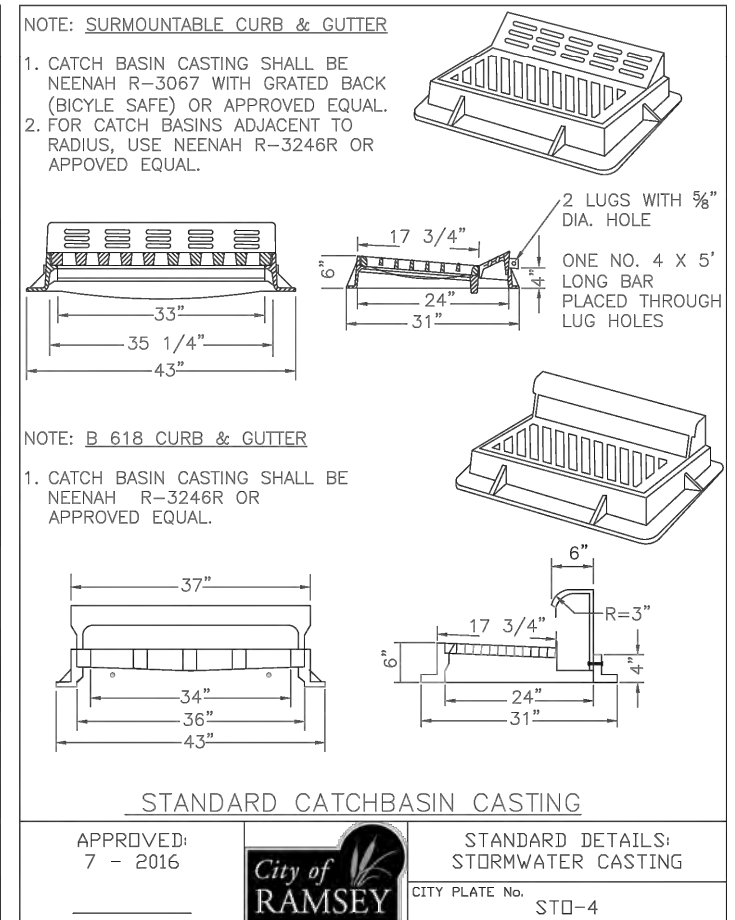
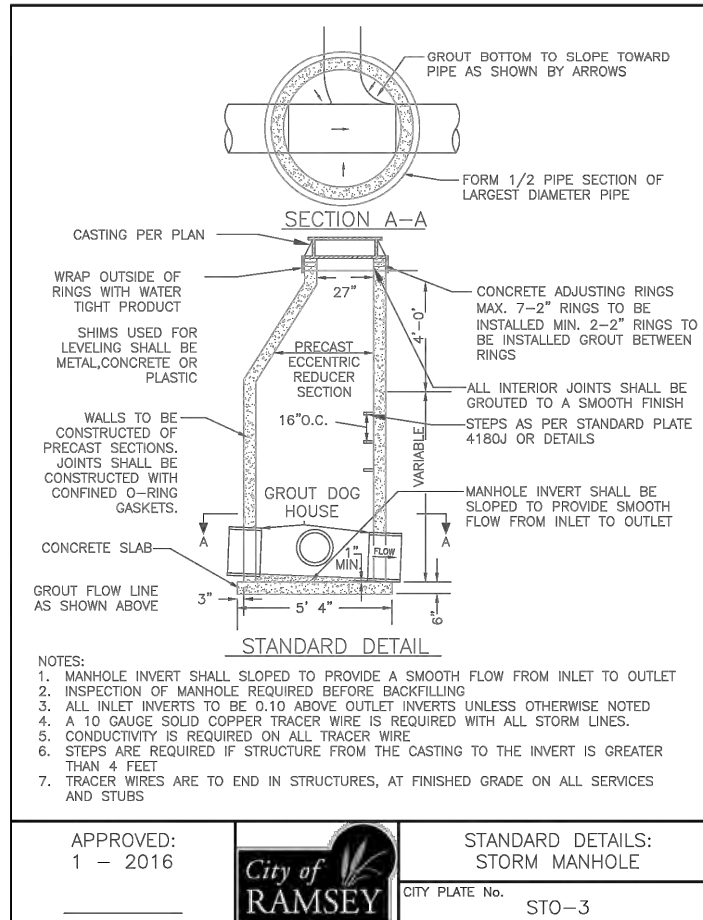
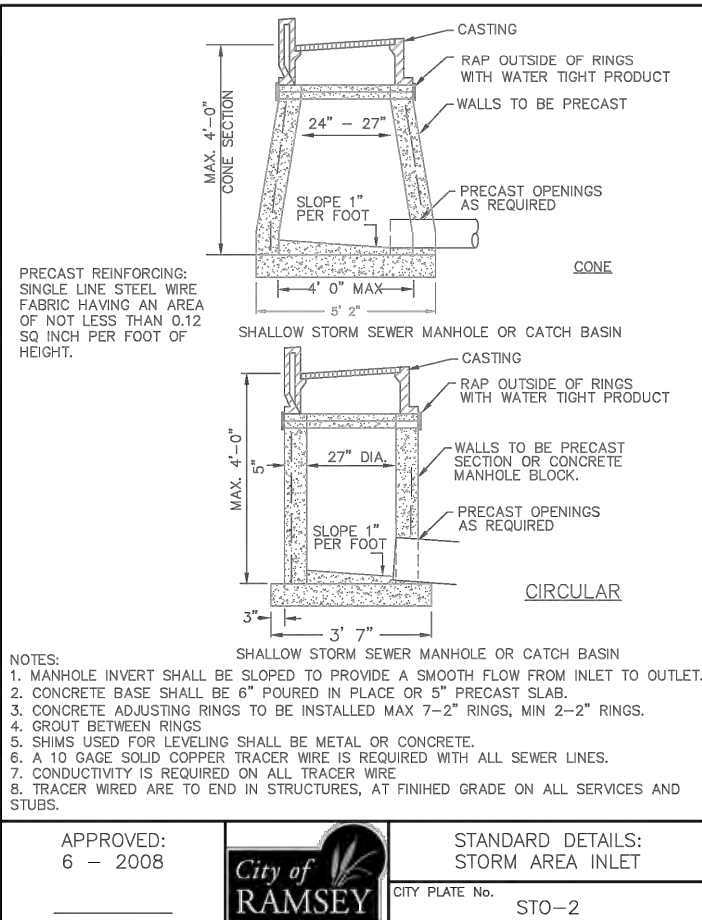
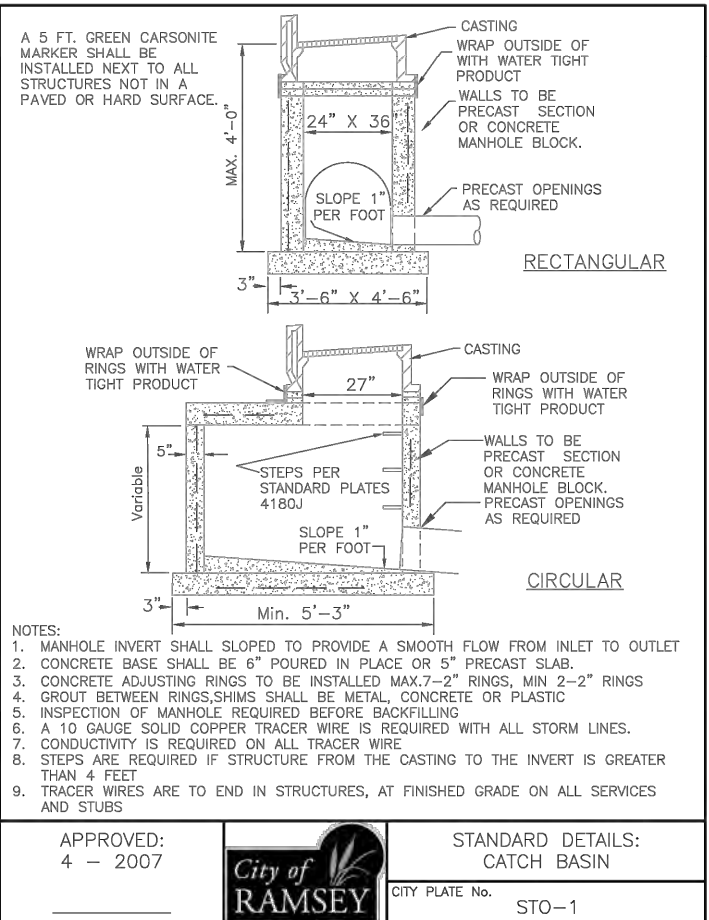


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www.bolton-menk.com



DESIGNED	DRAWN	CHECKED	CLIENT PROJ. NO.
ZFL	TJH	KPK	23-12

CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
WATERMAIN DETAILS



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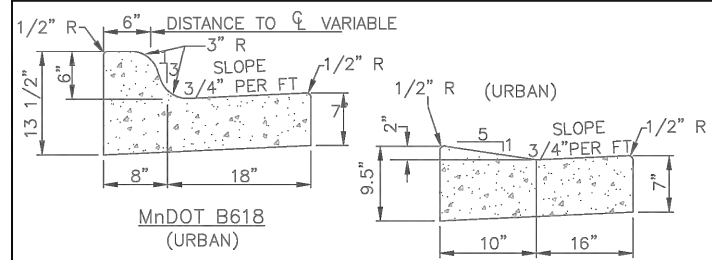


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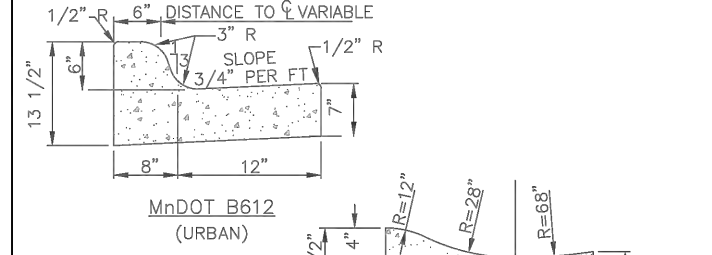


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TJH			
KPK			
CLIENT PROJ. NO. 23-12			

CITY OF RAMSEY, MINNESOTA
 HY-10 RAMSEY IMPROVEMENTS
 STORM SEWER DETAILS




DRIVEWAY FOR B618



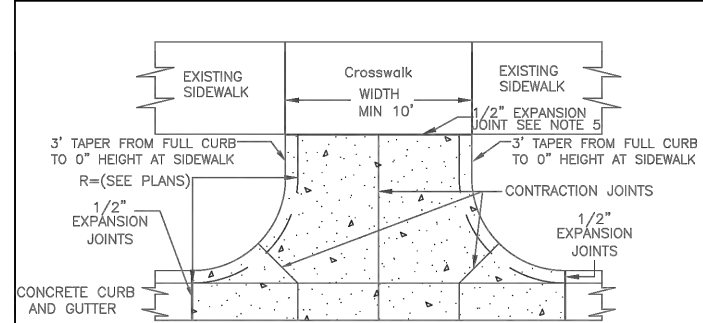
SURMOUNTABLE

NOTES:
 1. ON WEAR COURSE MILL THE EXISTING BITUMINOUS 1.5" BY 24" IN FRONT OF THE REPLACEMENT CURB.
 2. ON BASE COURSE SAW CUT AND REMOVE EXISTING BITUMINOUS 18" IN FRONT OF THE REPLACEMENT CURB.

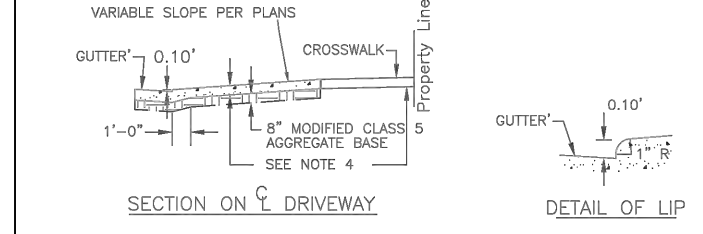
APPROVED: 1 - 2016



STANDARD DETAILS:
CURB AND GUTTER
CITY PLATE No. STR-1




PLAN



NOTES:
 1. PANEL WIDTH SHALL NOT EXCEED 10 FT. WITHOUT A CENTERLINE CONSTRUCTION JOINT.
 2. DRIVEWAY TO BE ONE COURSE CONCRETE PAVEMENT. (SEE SPECIAL PROVISIONS FOR CLASS OF CONCRETE.)
 3. GUTTER TO BE PAVED INTEGRAL WITH DRIVEWAY.
 4. 8" THICK FOR COMMERCIAL DRIVEWAYS.
 5. 1/2" EXPANSION JOINT, 1/2" PREFORMED JOINT FILLER MATERIAL, AASHTO M 213 (REQUIRED WHEN 2 CONCRETE AREAS ARE POURED SEPARATELY.)

APPROVED: 4 - 2016



STANDARD DETAILS:
COMMERCIAL DRIVEWAY CURB CUT
CITY PLATE No. STR-14


TABLE A MODIFIED CLASS 5 SPECIFICATIONS

% PASSING

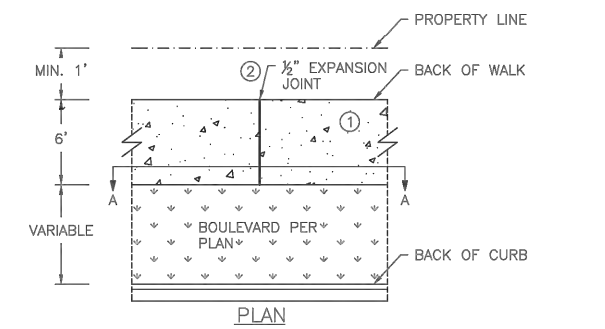
1"	100
3/4"	90 - 100
3/8"	50 - 80
No.4	35 - 70
No.10	20 - 60
No.40	10 - 35
No.200	5 - 10

NOTES:
 1. THE AGGREGATE BASE CONSTRUCTION WILL BE ACCEPTED FOR PAYMENT IN ACCORDANCE WITH THE PROVISIONS IN TABLE A.
 2. IF THE AGGREGATE BASE FAILS TO MEET THE REQUIREMENTS OF TABLE A THE MATERIAL CAN BE CORRECTED IN PLACE OR REMOVED AND REPLACED WITH MATERIAL THAT MEET THE REQUIREMENTS OF TABLE A.
 3. IN THE EVENT THAT RECYCLED MATERIAL IS USE IT MUST MEET MNDOT REQUIREMENTS FOR RECYCLED BASE.

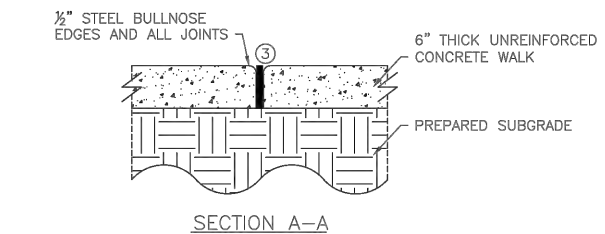
APPROVED: 2 - 2003



STANDARD DETAILS:
MODIFIED CLASS 5 SPECIFICATIONS
CITY PLATE No. STR-26



PLAN




SECTION A-A

NOTE:
 ① BROOM FINISH CONCRETE WALK SURFACE
 ② MAXIMUM 100 FOOT SPACING BETWEEN EXPANSION JOINTS
 ③ 1/2" EXPANSION JOINT MEETING MNDOT SPEC 3702. PROVIDE ONE PIECE OF FILLER FOR THE ENTIRE DEPTH AND WIDTH OF THE JOINT

NOT TO SCALE

APPROVED: 10 - 2015



STANDARD DETAILS:
CONCRETE SIDEWALK
CITY PLATE No. STR-3

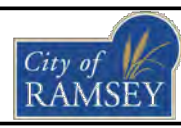
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ZACHARY F. LINGL
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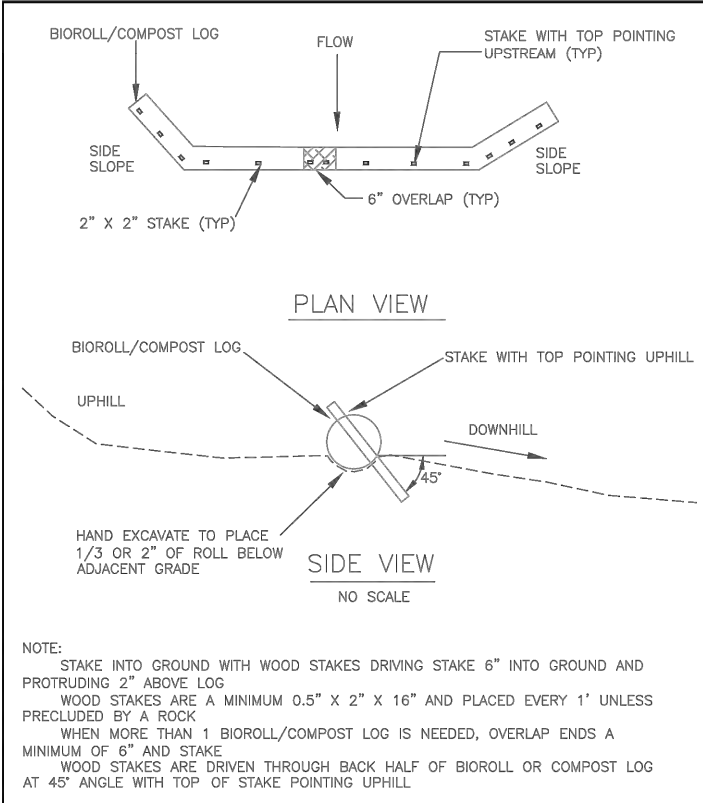


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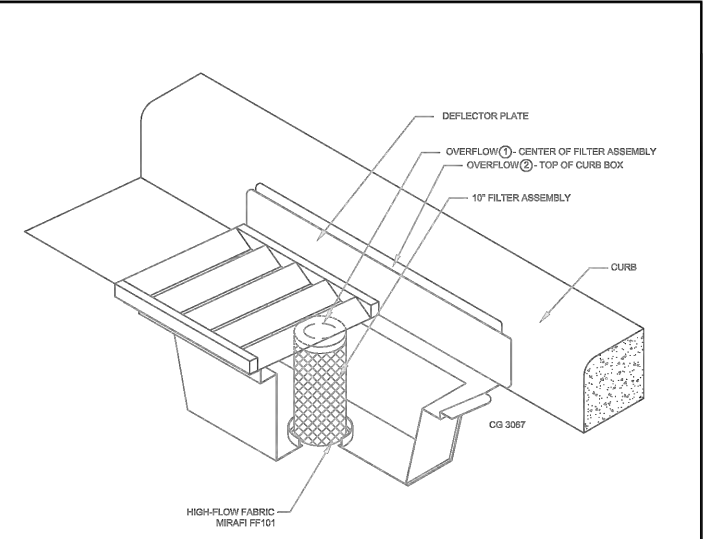
CITY OF RAMSEY, MINNESOTA
 HY-10 RAMSEY IMPROVEMENTS
 STREET DETAILS



APPROVED: 3 - 2016

City of RAMSEY

STANDARD DETAILS:
BIO ROLL (COMPOST LOG)
CITY PLATE No. ERO-4



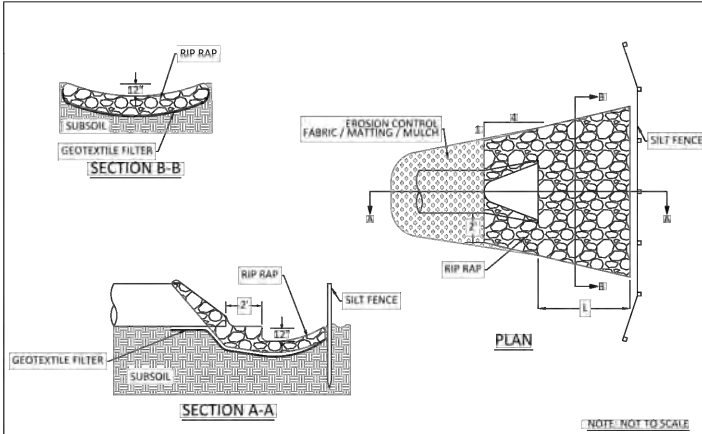
INLET PROTECTION - WIMCO OR EQUAL
N.T.S.

NOTE:
THIS INLET PROTECTION SHALL BE USED IMMEDIATELY FOLLOWING CURB & GUTTER CONSTRUCTION. INLET PROTECTION SHALL REMAIN INSTALLED AND MAINTAINED UNTIL ALL HOME CONSTRUCTION IS COMPLETE.

APPROVED: 1 - 2016

City of RAMSEY

STANDARD DETAILS:
INLET PROTECTION
CITY PLATE No. ERO-2



NOTES:
1. ON SLOPES 4:1 OR GREATER, ANCHOR OR STRAIGHT DISKED STRAW MULCH, SEEDING NETTING, FABRIC, OR MATTING SUCH AS EXCEL-DOR SHALL BE USED TO STABILIZE DISTURBED SOILS. THESE EXPOSED SOILS MUST BE STABILIZED IMMEDIATELY AFTER GRADING OF SOIL IS COMPLETE.
2. A SKIRTING OF EROSION CONTROL FABRIC OR MULCH MUST BE USED TO PROTECT OUTLETS AS ILLUSTRATED REGARDLESS OF SLOPE.
3. RIP RAP IS CLASS III PLACED 18" THICK.
4. FOR PIPE GREATER THAN 48" DIAMETER OR 50" SPAN, QUANTITY OF GEOTEXTILE FABRIC AND RIP RAP WILL BE HANDLED IN A CASE BY CASE MANNER.
5. GEOTEXTILE FABRIC SHALL COVER THE BOTTOM AND SIDES OF THE AREA EXCAVATED FOR THE RIP RAP MATERIAL.

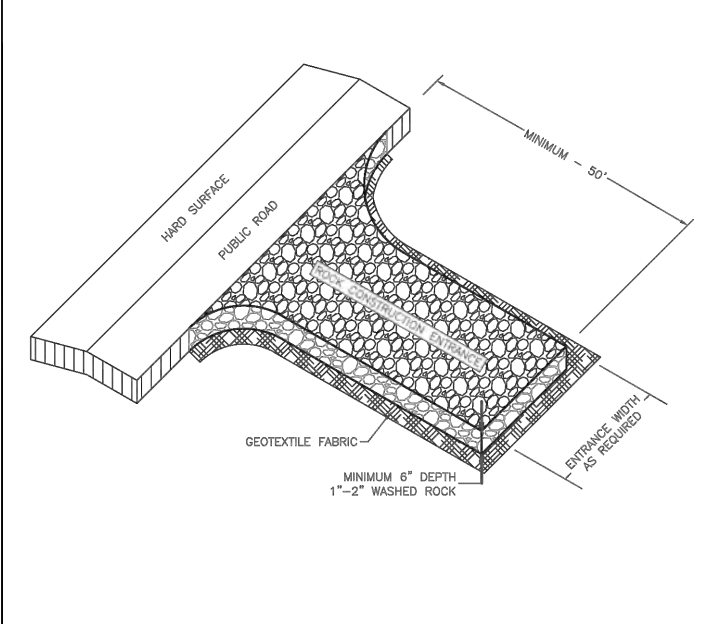
RIP RAP AT RCP OUTLETS			
DIA. OF PIPE (IN.)	L (FT.)	GEOTEXTILE 18" DEPTH FABRIC (SQ. YD.)	RIP RAP (CU. YD.)
12	8	19.5	4.4
15	8	20.8	4.8
18	10	25.6	6.4
21	10	27.4	7.1
24	12	33.4	9.2
27	12	35.2	9.9
30	14	41.6	12.3
36	16	50.5	15.8
42	18	57.8	18.7
48	20	66.5	22.2

RIP RAP AT RCP-A OUTLETS			
SPAN OF PIPE (IN.)	L (FT.)	GEOTEXTILE 18" DEPTH FABRIC (SQ. YD.)	RIP RAP (CU. YD.)
22	10	25.6	6.1
28	12	33.2	8.5
36	14	41.5	11.2
43	16	50.5	14.3
51	18	57.5	16.9
58	20	65.2	19.8

APPROVED: 9 - 2016

City of RAMSEY

STANDARD DETAILS:
RIP-RAP
CITY PLATE No. ERO-3



NOTE:
1. MINIMUM CONSTRUCTION ENTRANCE WIDTH EQUAL TO PROPOSED ROADWAY WIDTH.
2. WIDTH OF RADIUS AS REQUIRED TO ENSURE VEHICLES DO NOT TRACK ONTO PUBLIC ROAD.
3. MAINTENANCE AS REQUIRED TO PREVENT TRACKING ONTO PUBLIC ROADS. THIS MAY REQUIRE TOP DRESSING WITH ADDITIONAL ROCK OR REMOVAL AND REINSTALLATION OF THE ENTRANCE AS NEEDED.

APPROVED: 1 - 2016

City of RAMSEY

STANDARD DETAILS:
ROCK CONSTRUCTION ENTRANCE
CITY PLATE No. ERO-5

Notes:
1. INSTALLATION OF 4" OF TOPSOIL REQUIRED ACROSS ALL DISTURBED AREAS.
2. TOPSOIL IS DEFINED AS BLACK DIRT COMPOSED OF UNCONSOLIDATED MATERIAL, LARGELY UNDECOMPOSED ORGANIC MATTER WHICH IS SUITABLE FOUNDATION FOR VEGETATIVE GROWTH.
3. THE COMPOSITION OF TOPSOIL SHOULD CONTAIN NO MORE THAN THIRTY-FIVE PERCENT (35%) SAND CONTENT.

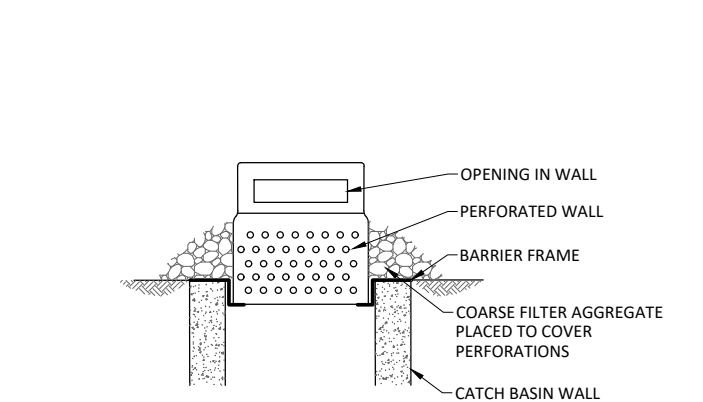


INLET PROTECTION BEFORE CURB INSTALLATION
PERFORATED WALL
NOT TO SCALE

APPROVED: 7 - 2019

City of RAMSEY

STANDARD DETAILS:
TOPSOIL REQUIREMENTS
CITY PLATE No. ERO-6



TREE PRESERVATION FENCE
NOT TO SCALE

APPROVED: 1 - 2016

City of RAMSEY

STANDARD DETAILS:
ROCK CONSTRUCTION ENTRANCE
CITY PLATE No. ERO-5

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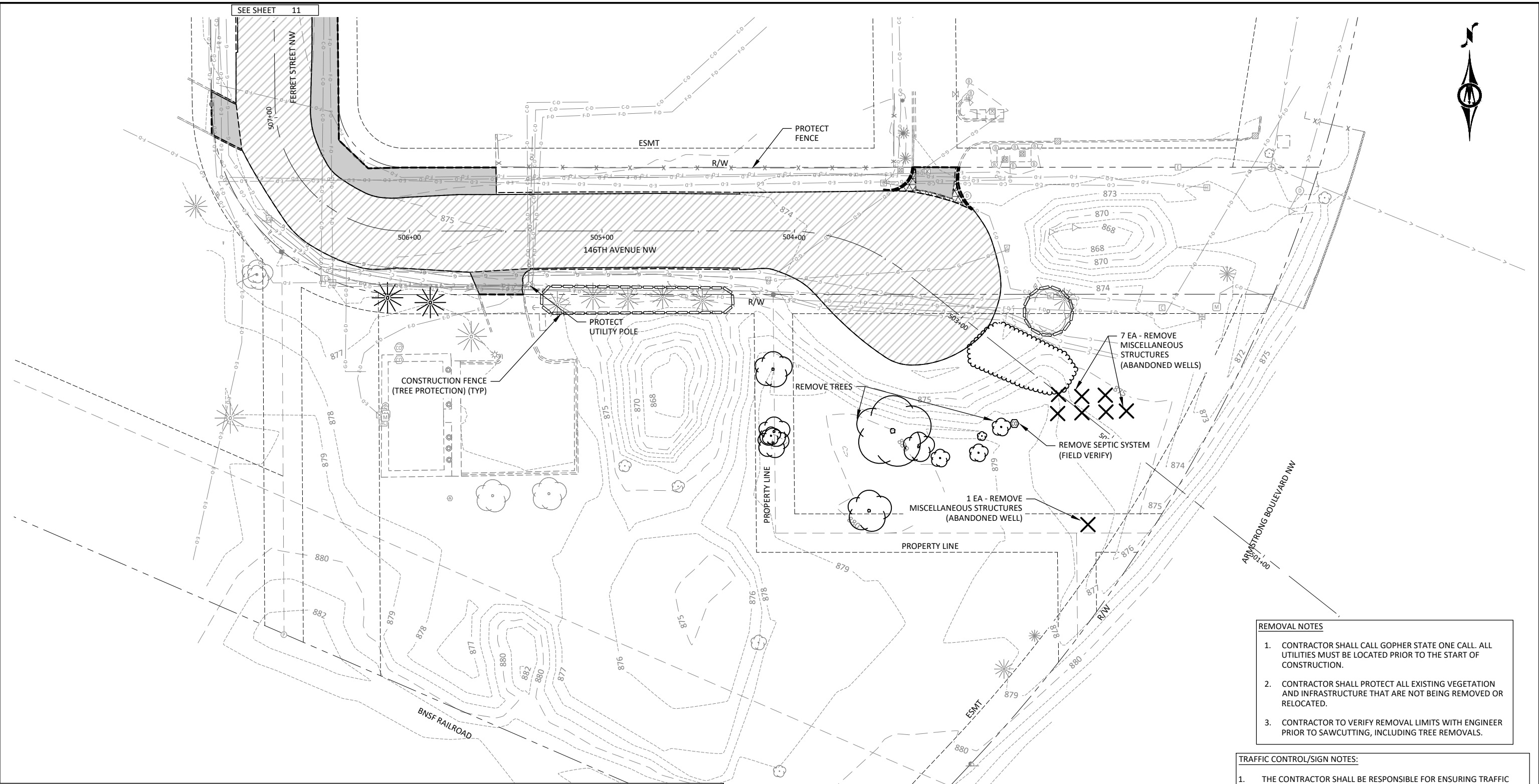
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CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
EROSION CONTROL DETAILS

SHEET 9 OF 43



SEE SHEET 11



- REMOVAL NOTES**
1. CONTRACTOR SHALL CALL GOPHER STATE ONE CALL. ALL UTILITIES MUST BE LOCATED PRIOR TO THE START OF CONSTRUCTION.
 2. CONTRACTOR SHALL PROTECT ALL EXISTING VEGETATION AND INFRASTRUCTURE THAT ARE NOT BEING REMOVED OR RELOCATED.
 3. CONTRACTOR TO VERIFY REMOVAL LIMITS WITH ENGINEER PRIOR TO SAWCUTTING, INCLUDING TREE REMOVALS.

- TRAFFIC CONTROL/SIGN NOTES:**
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING TRAFFIC CONTROL SIGNS AND DEVICES COMPLY WITH THE REQUIREMENTS OF THE MN MUTCD AT ALL TIMES DURING CONSTRUCTION.
 2. THE CONTRACTOR SHALL SALVAGE EXISTING SIGNS AND SECURE IN A PROTECTED AREA. THE CITY OF RAMSEY WILL HAUL SIGNS OFF SITE THAT WILL NOT BE REINSTALLED.
 3. THE CONTRACTOR SHALL CONTACT THE CITY 48 HOURS IN ADVANCE OF WHEN SIGNS NEED TO BE SALVAGED.
 3. THE CITY OF RAMSEY SHALL FURNISH & INSTALL ALL NEW SIGNS.
 4. THE CONTRACTOR SHALL PROVIDE 2 WEEKS NOTICE TO THE CITY OF RAMSEY PRIOR TO THE PERMANENT SIGNS BEING REQUIRED TO BE INSTALLED/REINSTALLED.

LEGEND	
	CONSTRUCTION FENCE (ORANGE)
	SAWCUT PAVEMENT (FULL DEPTH)
	REMOVE PAVEMENT MARKING
	REMOVE CURB & GUTTER
	REMOVE FENCE
	REMOVE MAILBOX & SUPPORT
	REMOVE DRAINAGE STRUCTURE
	REMOVE EXISTING SIGN
	SALVAGE EXISTING SIGN
	REMOVE BITUMINOUS PAVEMENT
	REMOVE CONCRETE PAVEMENT
	FULL DEPTH RECLAMATION
	CLEAR & GRUB TREES
	CLEAR & GRUB BRUSH
	TREE-CONIFEROUS
	TREE-DECIDUOUS
	CLEANOUT
	SANITARY MANHOLE
	SANITARY MANHOLE
	STORM CATCH BASIN
	FLARED END SECTION
	CURB & GUTTER
	EXISTING EASEMENT LINE
	EXISTING RIGHT-OF-WAY
	FENCE
	UNDERGROUND GAS
	UNDERGROUND COMM
	OVERHEAD UTILITY
	FIBER OPTIC LINE
	WATERMAIN
	SANITARY SEWER
	STORM SEWER
	BOLLARD POST
	UTILITY MARKER - GAS
	TRANSFORMER-ELECTRIC
	PEDESTAL-COMMUNICATION
	PEDESTAL-ELECTRIC
	HANDHOLE
	POLE-UTILITY
	GUY WIRE ANCHOR
	EXISTING TRAFFIC SIGN
	FIRE HYDRANT
	VALVE

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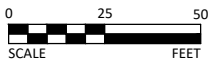


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CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
EXISTING CONDITIONS & REMOVALS
146TH AVENUE NW

SHEET
10
OF
43

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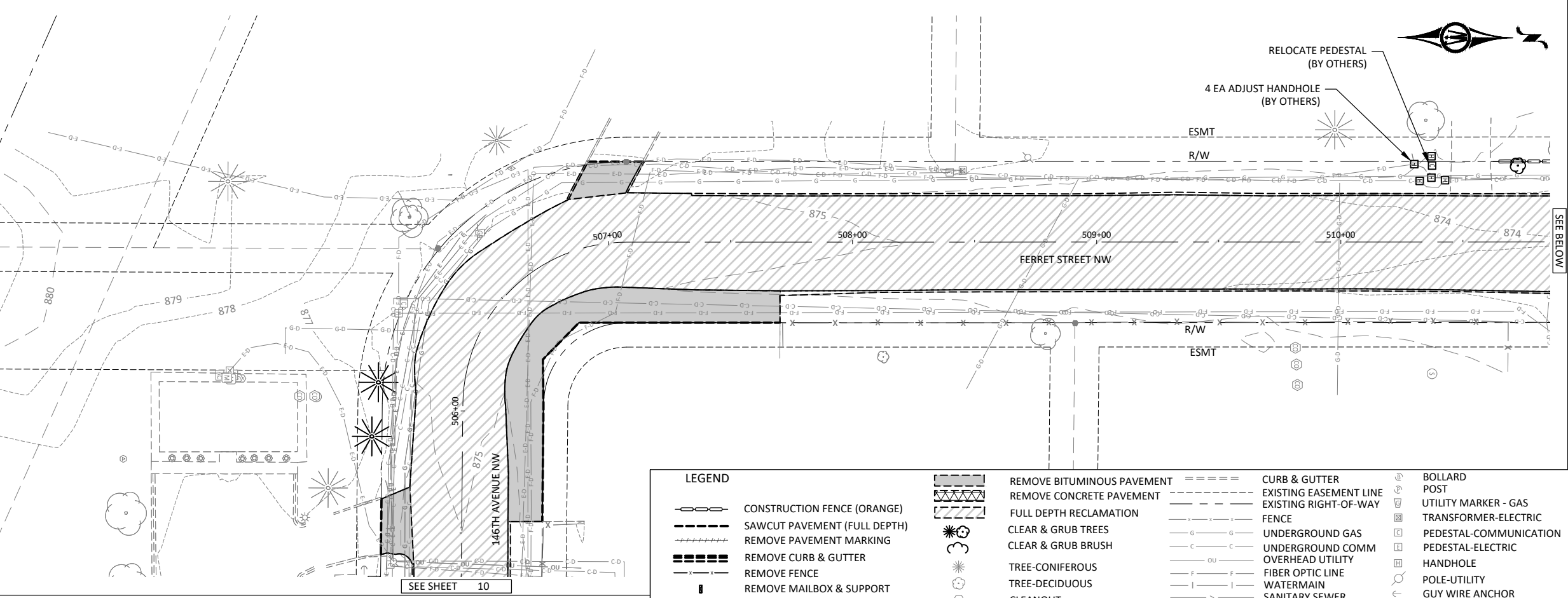


TRAFFIC CONTROL/SIGN NOTES:

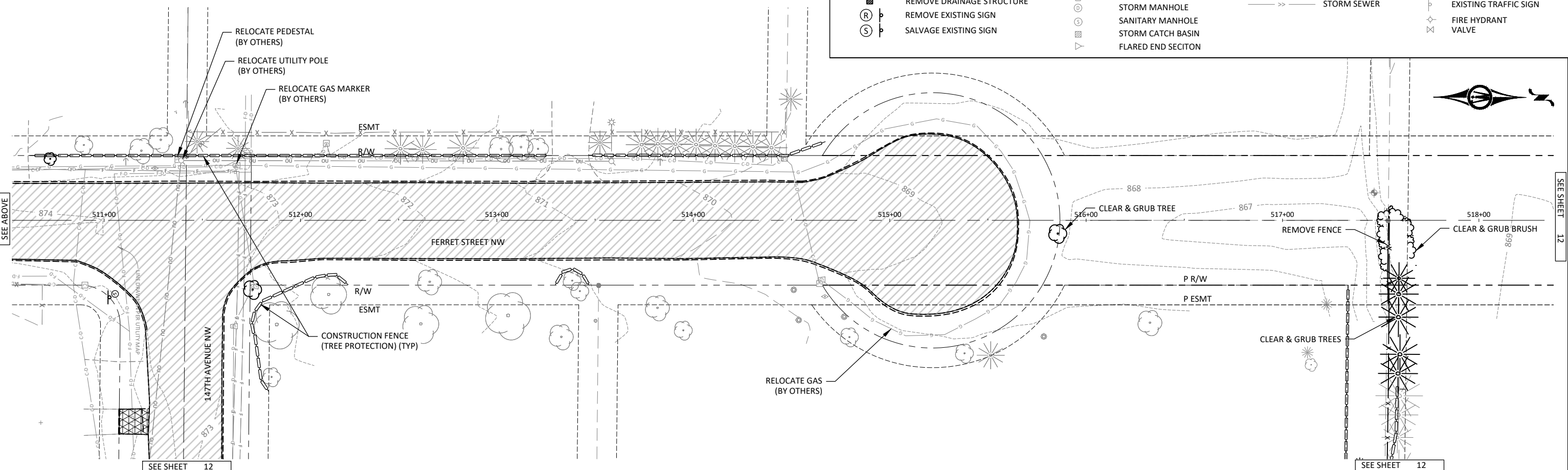
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REMOVAL NOTES

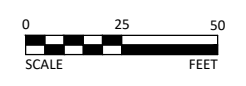
1. CONTRACTOR SHALL CALL GOPHER STATE ONE CALL. ALL UTILITIES MUST BE LOCATED PRIOR TO THE START OF CONSTRUCTION.
2. CONTRACTOR SHALL PROTECT ALL EXISTING VEGETATION AND INFRASTRUCTURE THAT ARE NOT BEING REMOVED OR RELOCATED.
3. CONTRACTOR TO VERIFY REMOVAL LIMITS WITH ENGINEER PRIOR TO SAWCUTTING, INCLUDING TREE REMOVALS.



LEGEND	
	CONSTRUCTION FENCE (ORANGE)
	SAWCUT PAVEMENT (FULL DEPTH)
	REMOVE PAVEMENT MARKING
	REMOVE CURB & GUTTER
	REMOVE FENCE
	REMOVE MAILBOX & SUPPORT
	REMOVE DRAINAGE STRUCTURE
	REMOVE EXISTING SIGN
	SALVAGE EXISTING SIGN
	REMOVE BITUMINOUS PAVEMENT
	REMOVE CONCRETE PAVEMENT
	FULL DEPTH RECLAMATION
	CLEAR & GRUB TREES
	CLEAR & GRUB BRUSH
	TREE-CONIFEROUS
	TREE-DECIDUOUS
	CLEANOUT
	STORM MANHOLE
	SANITARY MANHOLE
	STORM CATCH BASIN
	FLARED END SECTION
	CURB & GUTTER
	EXISTING EASEMENT LINE
	EXISTING RIGHT-OF-WAY
	FENCE
	UNDERGROUND GAS
	UNDERGROUND COMM
	OVERHEAD UTILITY
	FIBER OPTIC LINE
	WATERMAIN
	SANITARY SEWER
	STORM SEWER
	BOLLARD POST
	UTILITY MARKER - GAS
	PEDESTAL-COMMUNICATION
	PEDESTAL-ELECTRIC
	HANDHOLE
	POLE-UTILITY
	GUY WIRE ANCHOR
	EXISTING TRAFFIC SIGN
	FIRE HYDRANT VALVE



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ZACHARY F. LINGL
 LIC. NO. 56344 DATE 03/20/2023



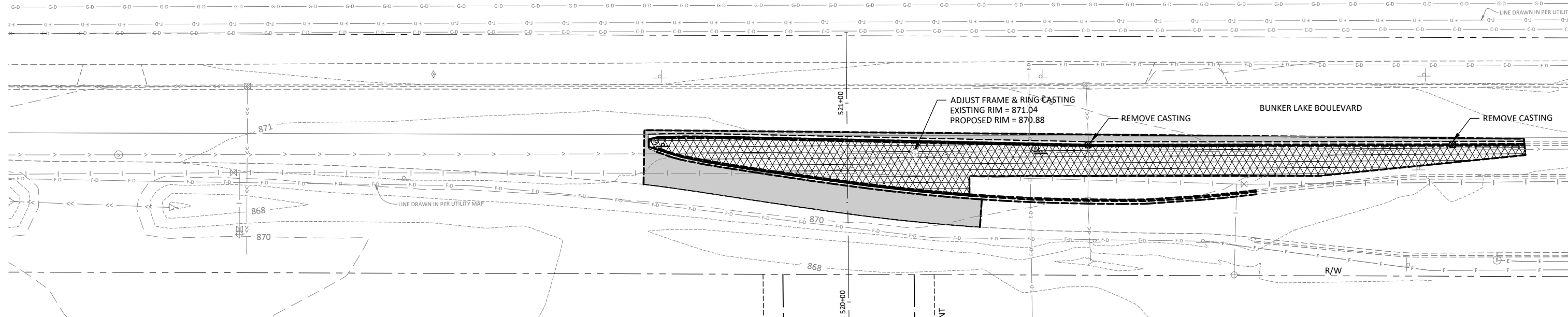
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 Phone: (763) 433-2851
 Email: Ramsey@bolton-menk.com
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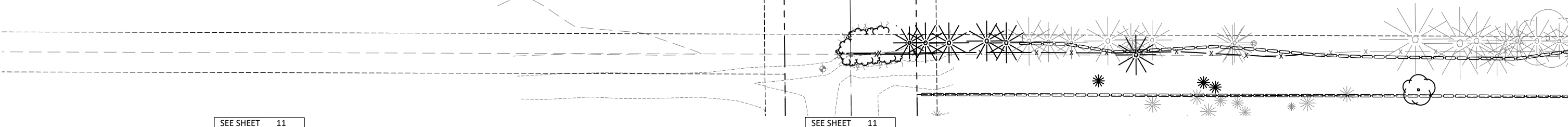
CITY OF RAMSEY, MINNESOTA
 HY-10 RAMSEY IMPROVEMENTS
 EXISTING CONDITIONS & REMOVALS
 FERRET STREET NW

SHEET 11 OF 43



- REMOVAL NOTES**
1. CONTRACTOR SHALL CALL GOPHER STATE ONE CALL. ALL UTILITIES MUST BE LOCATED PRIOR TO THE START OF CONSTRUCTION.
 2. CONTRACTOR SHALL PROTECT ALL EXISTING VEGETATION AND INFRASTRUCTURE THAT ARE NOT BEING REMOVED OR RELOCATED.
 3. CONTRACTOR TO VERIFY REMOVAL LIMITS WITH ENGINEER PRIOR TO SAWCUTTING, INCLUDING TREE REMOVALS.

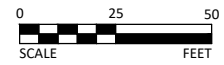
LEGEND	
	CONSTRUCTION FENCE (ORANGE)
	SAWCUT PAVEMENT (FULL DEPTH)
	REMOVE PAVEMENT MARKING
	REMOVE CURB & GUTTER
	REMOVE FENCE
	REMOVE MAILBOX & SUPPORT
	REMOVE DRAINAGE STRUCTURE
	REMOVE EXISTING SIGN
	SALVAGE EXISTING SIGN
	REMOVE BITUMINOUS PAVEMENT
	REMOVE CONCRETE PAVEMENT
	FULL DEPTH RECLAMATION
	CLEAR & GRUB TREES
	CLEAR & GRUB BRUSH
	TREE-CONIFEROUS
	TREE-DECIDUOUS
	CLEANOUT
	STORM MANHOLE
	SANITARY MANHOLE
	STORM CATCH BASIN
	FLARED END SECTION
	CURB & GUTTER
	EXISTING EASEMENT LINE
	EXISTING RIGHT-OF-WAY
	FENCE
	UNDERGROUND GAS
	UNDERGROUND COMM
	OVERHEAD UTILITY
	FIBER OPTIC LINE
	WATERMAIN
	SANITARY SEWER
	STORM SEWER
	BOLLARD POST
	UTILITY MARKER - GAS
	TRANSFORMER-ELECTRIC
	PEDESTAL-COMMUNICATION
	PEDESTAL-ELECTRIC
	HANDHOLE
	POLE-UTILITY
	GUY WIRE ANCHOR
	EXISTING TRAFFIC SIGN
	FIRE HYDRANT
	VALVE



SEE SHEET 11

SEE SHEET 11

SEE SHEET 13



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CLIENT PROJ. NO.	23-12		

CITY OF RAMSEY, MINNESOTA
 HY-10 RAMSEY IMPROVEMENTS
 EXISTING CONDITIONS & REMOVALS
 FERRET STREET NW & BUNKER LAKE BOULEVARD

SHEET 12 OF 43

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SEE SHEET 12



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517+00

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869

517+00

867

D & U EASEMENT

REMOVE FENCE

CLEAR & GRUB TREES

CLEAR BRUSH

D & U EASEMENT

INSTALL CONSTRUCTION FENCE ON DRAINAGE AND UTILITY EASEMENT LINE

CONSTRUCTION FENCE (TREE PROTECTION) (TYP)

ARMSTRONG BOULEVARD NW

SEE SHEET 11



512+00

873

511+00

874

510+00

874

511+00

874

510+00

FERRET STREET NW

ESMT

R/W

RELOCATE HYDRANT

LINE DRAWN IN PER UTILITY MAP

147TH AVENUE NW

R/W

ESMT

LINE DRAWN IN PER UTILITY MAP

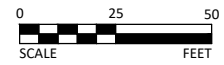
LINE DRAWN IN PER UTILITY MAP

ARMSTRONG BOULEVARD NW

- REMOVAL NOTES**
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 3. CONTRACTOR TO VERIFY REMOVAL LIMITS WITH ENGINEER PRIOR TO SAWCUTTING, INCLUDING TREE REMOVALS.

LEGEND

	CONSTRUCTION FENCE (ORANGE)		REMOVE BITUMINOUS PAVEMENT		CURB & GUTTER		BOLLARD POST
	SAWCUT PAVEMENT (FULL DEPTH)		REMOVE CONCRETE PAVEMENT		EXISTING EASEMENT LINE		UTILITY MARKER - GAS
	REMOVE PAVEMENT MARKING		FULL DEPTH RECLAMATION		EXISTING RIGHT-OF-WAY		TRANSFORMER-ELECTRIC
	REMOVE CURB & GUTTER		CLEAR & GRUB TREES		FENCE		PEDESTAL-COMMUNICATION
	REMOVE FENCE		CLEAR & GRUB BRUSH		UNDERGROUND GAS		PEDESTAL-ELECTRIC
	REMOVE MAILBOX & SUPPORT		TREE-CONIFEROUS		UNDERGROUND COMM		HANDHOLE
	REMOVE DRAINAGE STRUCTURE		TREE-DECIDUOUS		OVERHEAD UTILITY		POLE-UTILITY
	REMOVE EXISTING SIGN		CLEANOUT		FIBER OPTIC LINE		GUY WIRE ANCHOR
	SALVAGE EXISTING SIGN		STORM MANHOLE		WATERMAIN		EXISTING TRAFFIC SIGN
			SANITARY MANHOLE		SANITARY SEWER		FIRE HYDRANT VALVE
			STORM CATCH BASIN		STORM SEWER		
			FLARED END SECTION				



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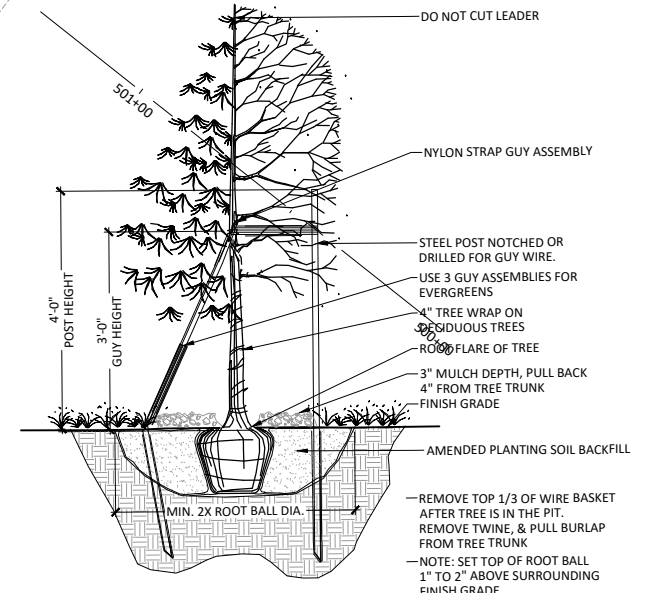
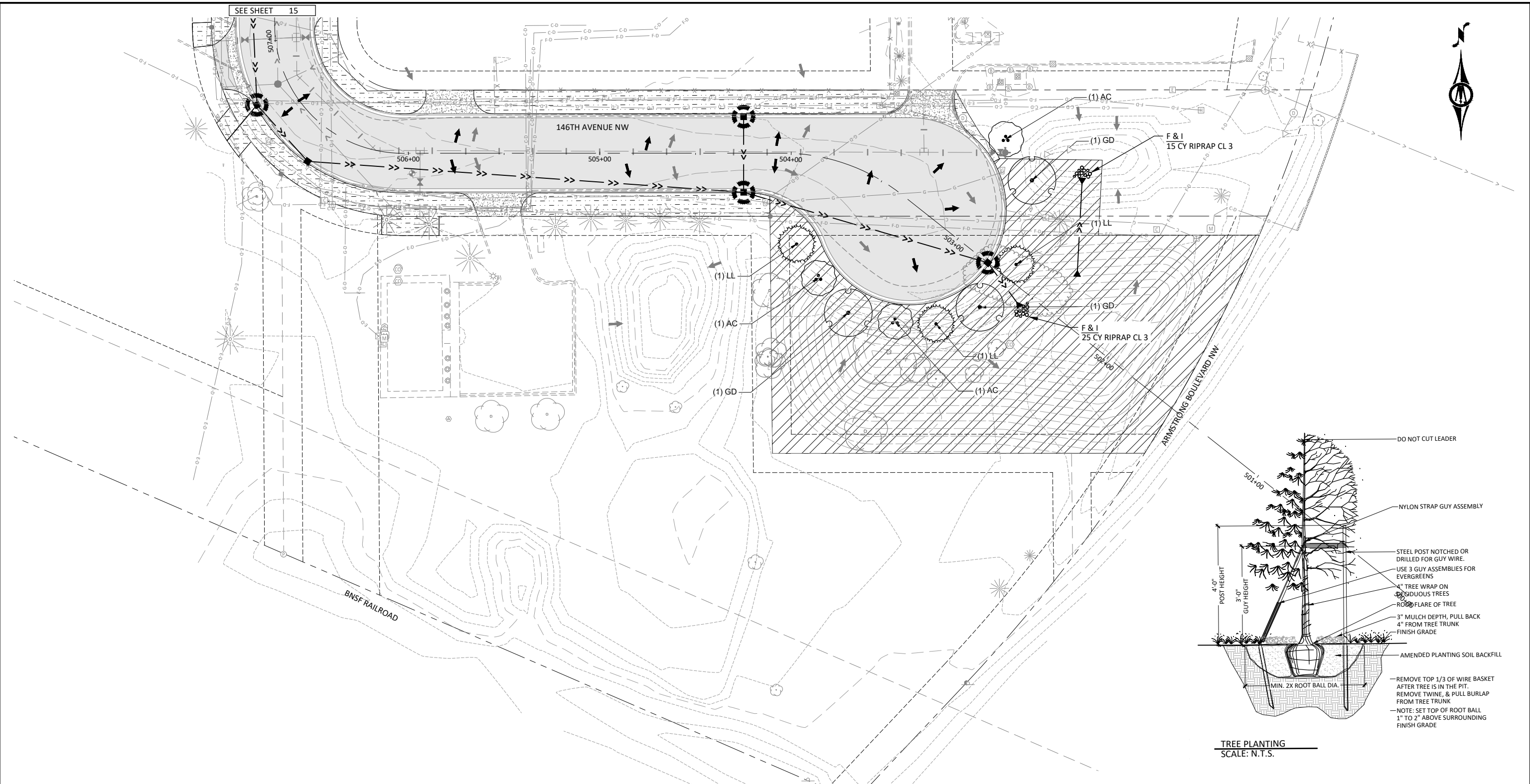


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CLIENT PROJ. NO.	23-12					

CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
EXISTING CONDITIONS & REMOVALS
FERRET STREET NW & 147TH AVENUE NW

SHEET 13 OF 43

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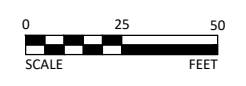


TREE PLANTING
SCALE: N.T.S.

LEGEND		EXISTING CONTOUR MINOR		EXISTING TRAFFIC SIGN		CLEANOUT	
	INLET PROTECTION		SILT FENCE, TYPE MS		FIRE HYDRANT		STORM MANHOLE
	HYDRAULIC BONDED FIBER MATRIX, SEED MIX 25-121, FERTILIZER TYPE 3		PROPOSED CONTOUR MAJOR		VALVE		SANITARY MANHOLE
	ROLLED EROSION CAT 20, SEED MIX 35-241, FERTILIZER TYPE 3		PROPOSED CONTOUR MINOR		UTILITY MARKER - GAS		STORM CATCH BASIN
	STABILIZED CONSTRUCTION EXIT		PROPOSED BIT PAVEMENT		TRANSFORMER-ELECTRIC		FLARED END SECTION
	SEDIMENT CONTROL LOG		PROPOSED CURB & GUTTER		PEDESTAL-COMMUNICATION		WATERMAIN
	MS		EXISTING EASEMENT LINE		PEDESTAL-ELECTRIC		SANITARY SEWER
	EXISTING/PROPOSED DRAINAGE FLOW		EXISTING RIGHT-OF-WAY		HANDHOLE		STORM SEWER
	PROPOSED BIT PAVEMENT		TREE-CONIFEROUS		POLE-UTILITY		FENCE
	PROPOSED CURB & GUTTER		TREE-DECIDUOUS		GUY WIRE ANCHOR		BOLLARD
	EXISTING EASEMENT LINE						POST
	EXISTING RIGHT-OF-WAY						

PLANT SCHEDULE					
TREE TYPE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
EVERGREEN TREES	3	LARIX LARICINA	TAMARACK	6' HT.	B&B
OVERSTORY TREES	3	GYMNOCLADUS DIOICA 'ESPRESSO'	KENTUCKY COFFEETREE	2" CAL.	B&B
UNDERSTORY TREES	3	AMELANCHIER CANADENSIS	CANADIAN SERVICEBERRY MULTI-TRUNK	6' HT.	B&B

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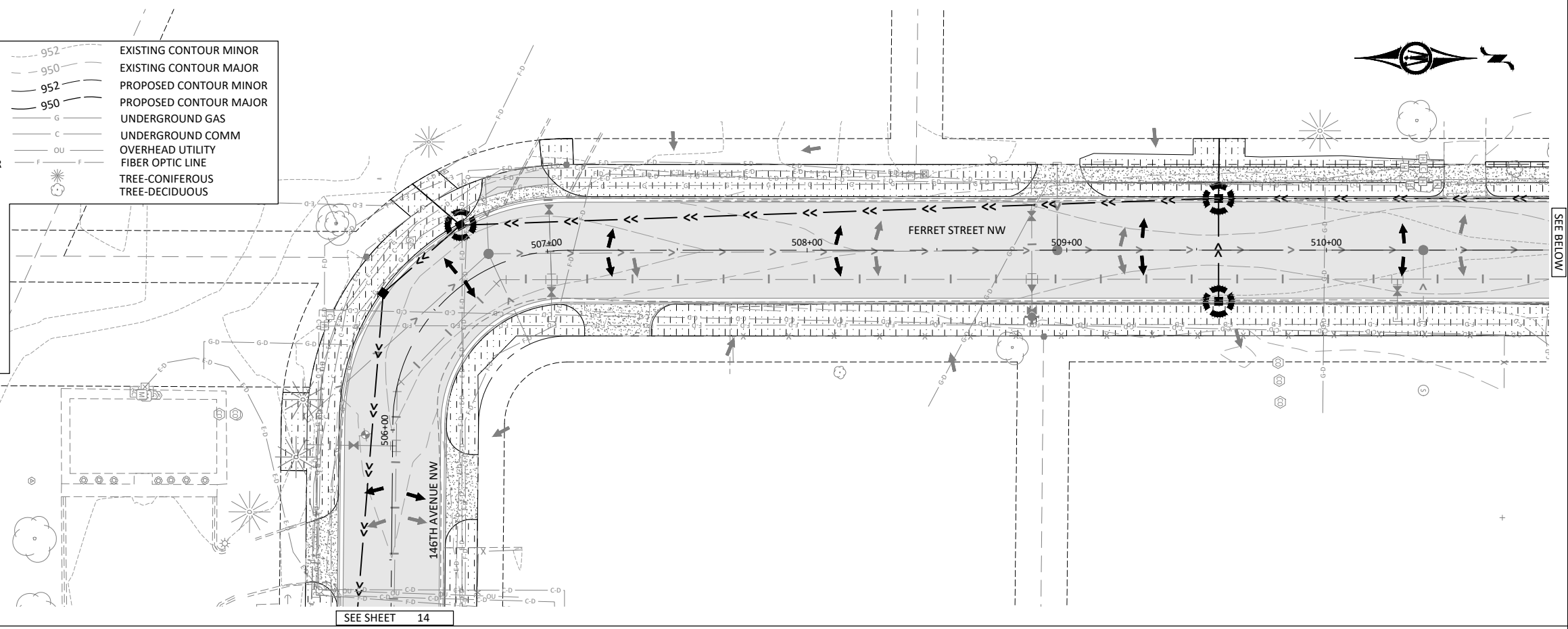
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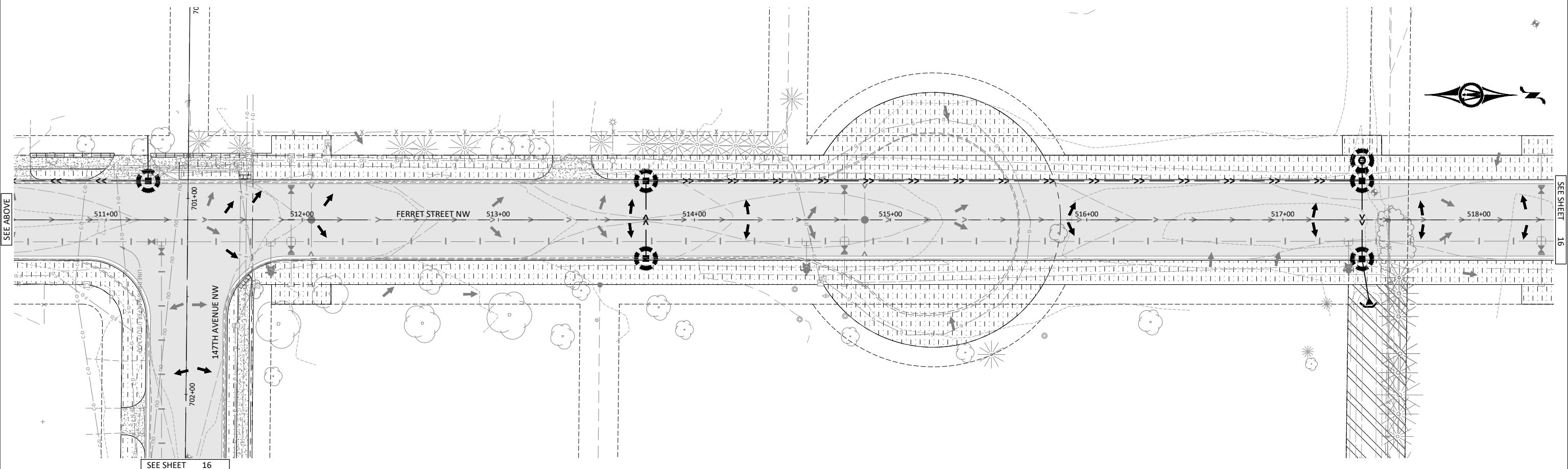
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CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
EROSION CONTROL & TURF RESTORATION
146TH AVENUE NW

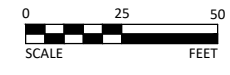
- LEGEND**
- INLET PROTECTION
 - HYDRAULIC BONDED FIBER MATRIX, SEED MIX 25-121, FERTILIZER TYPE 3
 - ROLLED EROSION CAT 20, SEED MIX 35-241, FERTILIZER TYPE 3
 - STABILIZED CONSTRUCTION EXIT
 - SEDIMENT CONTROL LOG
 - SILT FENCE, TYPE MS
 - CONSTRUCTION LIMITS
 - EXISTING/PROPOSED DRAINAGE FLOW
 - PROPOSED BIT PAVEMENT
 - PROPOSED CURB & GUTTER
 - EXISTING EASEMENT LINE
 - EXISTING RIGHT-OF-WAY
 - CLEANOUT
 - STORM MANHOLE
 - SANITARY MANHOLE
 - STORM CATCH BASIN
 - FLARED END SECTION
 - WATERMAIN
 - SANITARY SEWER
 - STORM SEWER
 - FENCE
 - BOLLARD
 - POST
 - EXISTING CONTOUR MINOR
 - EXISTING CONTOUR MAJOR
 - PROPOSED CONTOUR MINOR
 - PROPOSED CONTOUR MAJOR
 - UNDERGROUND GAS
 - UNDERGROUND COMM
 - OVERHEAD UTILITY
 - FIBER OPTIC LINE
 - TREE-CONIFEROUS
 - TREE-DECIDUOUS
 - EXISTING TRAFFIC SIGN
 - FIRE HYDRANT
 - VALVE
 - UTILITY MARKER - GAS
 - TRANSFORMER-ELECTRIC
 - PEDESTAL-COMMUNICATION
 - PEDESTAL-ELECTRIC
 - HANDHOLE
 - POLE-UTILITY
 - GUY WIRE ANCHOR



SEE SHEET 14



SEE SHEET 16



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Zachary F. Lingl
 ZACHARY F. LINGL
 LIC. NO. 56344 DATE 03/20/2023



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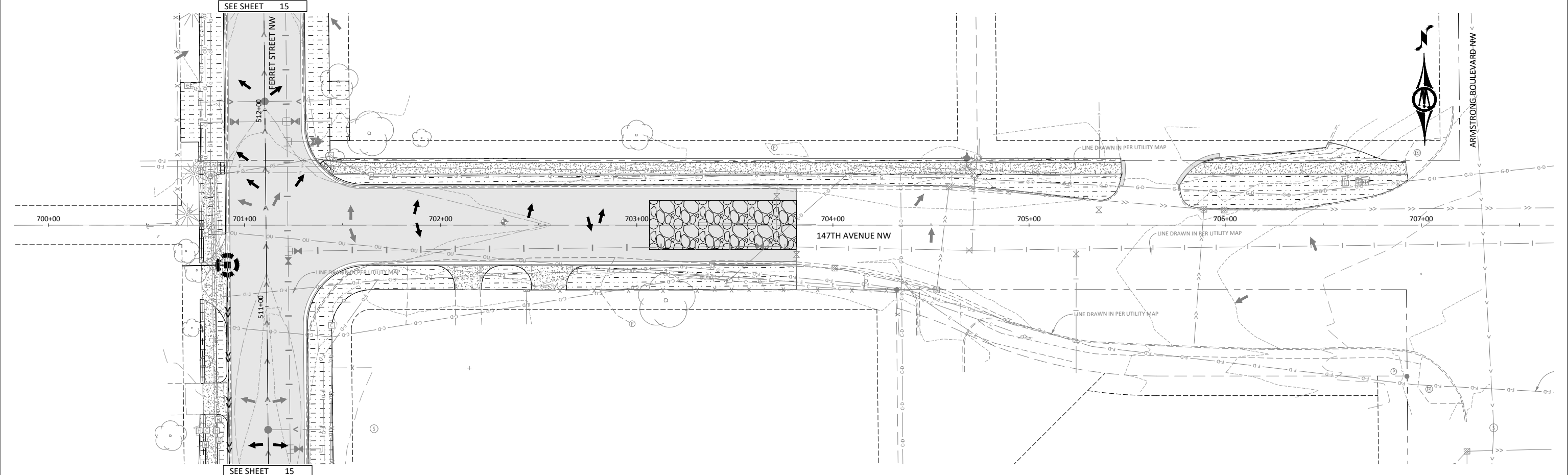
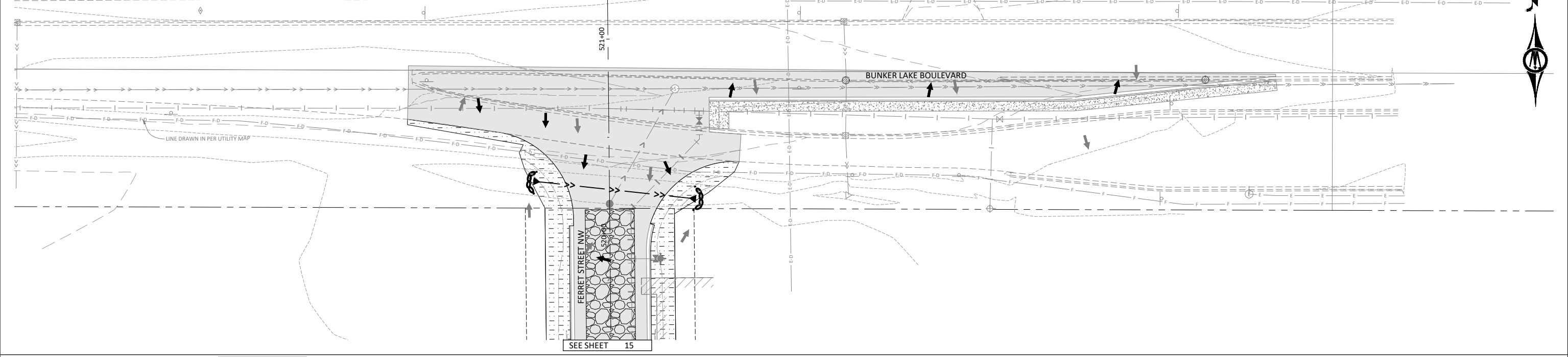
CITY OF RAMSEY, MINNESOTA
 HY-10 RAMSEY IMPROVEMENTS
 EROSION CONTROL & TURF RESTORATION
 FERRET STREET NW

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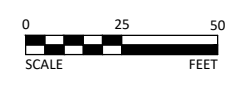
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LEGEND

	INLET PROTECTION		SILT FENCE, TYPE MS		EXISTING CONTOUR MINOR		EXISTING TRAFFIC SIGN		CLEANOUT
	HYDRAULIC BONDED FIBER MATRIX, SEED MIX 25-121, FERTILIZER TYPE 3		EXISTING/PROPOSED DRAINAGE FLOW		EXISTING CONTOUR MAJOR		FIRE HYDRANT		SANITARY MANHOLE
	ROLLED EROSION CAT 20, SEED MIX 35-241, FERTILIZER TYPE 3		PROPOSED BIT PAVEMENT		PROPOSED CONTOUR MINOR		VALVE		STORM CATCH BASIN
	STABILIZED CONSTRUCTION EXIT		PROPOSED CURB & GUTTER		PROPOSED CONTOUR MAJOR		UTILITY MARKER - GAS		FLARED END SECTION
			EXISTING EASEMENT LINE		UNDERGROUND GAS		TRANSFORMER-ELECTRIC		WATERMAIN
			EXISTING RIGHT-OF-WAY		UNDERGROUND COMM		PEDESTAL-COMMUNICATION		SANITARY SEWER
					OVERHEAD UTILITY		HANDHOLE		STORM SEWER
					TREE-CONIFEROUS		FENCE		BOLLARD
					TREE-DECIDUOUS		POST		



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Zachary F. Lingl
 ZACHARY F. LINGL
 LIC. NO. 56344 DATE 03/20/2023



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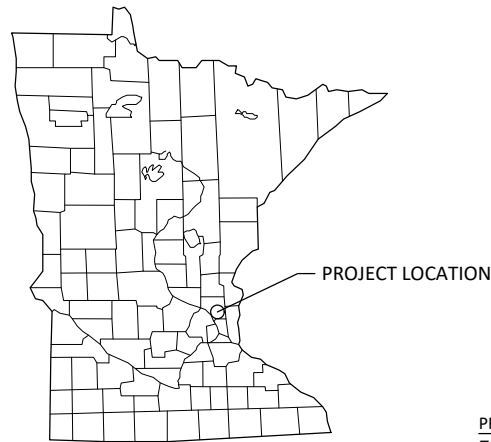
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CITY OF RAMSEY, MINNESOTA
 HY-10 RAMSEY IMPROVEMENTS
 EROSION CONTROL & TURF RESTORATION
 FERRET STREET NW, BUNKER LAKE BOULEVARD, & 147TH AVENUE NW

SHEET 16 OF 43

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

H-10 RAMSEY IMPROVEMENTS -2023
CITY OF RAMSEY
ANOKA COUNTY, MINNESOTA



LEGEND

- 1-MILE BOUNDARY
- PROJECT BOUNDARY
- IMPAIRED, SPECIAL OR PROTECTED WATERS
- NATIONAL WETLANDS INVENTORY
- SOIL TYPE
- STEEP SLOPES (>33.3%)

PROJECT AREAS:

Total Project Size (disturbed area) =	5.75	ACRES
Existing area of impervious surface =	1.82	ACRES
Post construction area of impervious surface =	2.55	ACRES
Total new impervious surface area created =	.73	ACRES

Planned Construction Start Date:	05/01/2023
Estimated Construction Completion Date:	09/15/2023

PERMANENT STORMWATER MANAGEMENT SYSTEM:

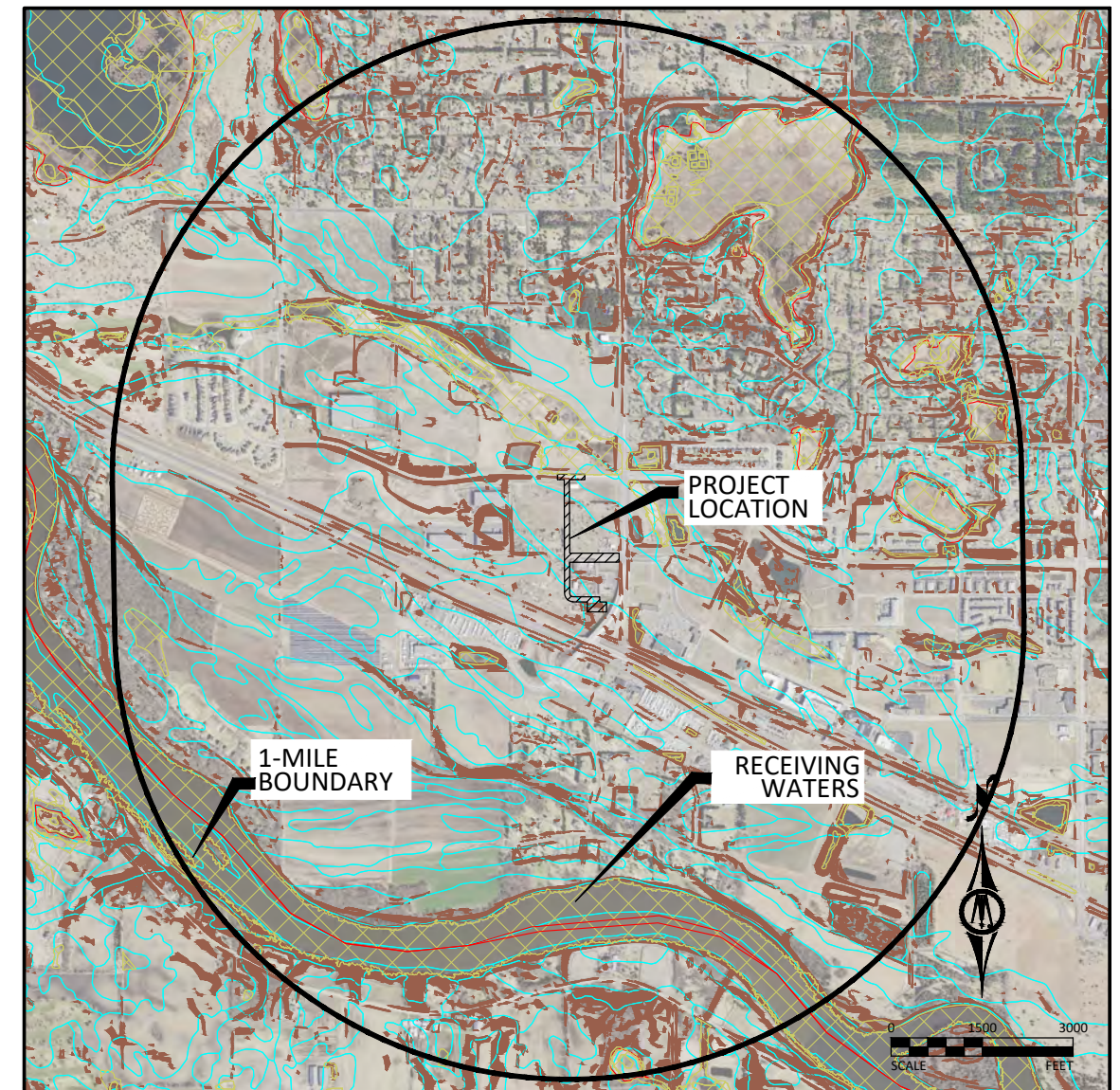
Type of storm water management used if more than 1 acre of new impervious surface is created:

<input checked="" type="checkbox"/>	Wet Sedimentation Basin
<input checked="" type="checkbox"/>	Infiltration/Filtration
<input checked="" type="checkbox"/>	Regional Pond
<input type="checkbox"/>	Permanent Stormwater Management Not Required

PROJECT LOCATION:

COUNTY	TOWNSHIP	RANGE	SECTION	LATITUDE	LONGITUDE
ANOKA	T32N	R25W	29	45.2375°	-93.4728°

BMP SUMMARY	QUANTITY	UNIT
Stabilized Construction Exit	1	LUMP SUM
Storm Drain Inlet Protection	12	EACH
Seed Mixture 35-241	200	POUND
Seed Mixture 25-121	340	POUND
Hydraulic Bonded Fiber Matrix	12600	POUND



RECEIVING WATERS: Receiving waters, including surface water, wetlands, Public Waters, and stormwater ponds, within 1-mile of the project boundary are identified on the USGS 7.5 min quad map above. Receiving waters that are impaired, the impairment, and WLA are listed as follows. All specific BMPs relative to construction activities listed in the permit for special, prohibited, restricted, or impaired have been incorporated into this plan. All specific BMPs listed in approved TMDLs and those BMPs listed for construction related waste load allocations have also been incorporated.

NAME OF WATER BODY	TYPE (ditch, pond, wetland, lake, etc.)	Special, Prohibited, Restricted Water ¹	Flows to Impaired Water Within 1-Mile ²	USEPA Approved Construction Related TMDL ³
Mississippi River	River	Restricted	Yes	Fecal coliform; Mercury in fish tissue; Nutrients; PCBs in fish tissue.

¹ Special, prohibited, and restricted waters are listed in Section 23 of the MN Construction Stormwater General Permit (MNR100001).
² Identified as impaired under section 303 (d) of the federal Clean Water Act for phosphorus, turbidity, TSS, dissolved oxygen, and/or aquatic biota.
³ Construction Related TMDLs include those related to: phosphorus, turbidity, TSS, dissolved oxygen, and/or aquatic biota.

IMPLEMENTATION SCHEDULE AND PHASING: The Contractor is required to provide an updated schedule and site management plan meeting the minimum requirements of Section 1717 of the Minnesota Standard Specifications for Construction.

- Submit SWPPP Updates to Engineer. Submittal shall include any requested changes to the SWPPP, including but not limited to: Trained Personnel, Locations for Stockpiles, Concrete Washout, Sanitation Facilities, Types and Locations of Erosion & Sediment Control. Failure to submit updates shall be considered acceptance of the SWPPP as designed with no changes.
- Install perimeter sediment control, inlet protection, and construction exit.
- Add additional temporary BMPs as necessary during construction based on inspection reports.
- Ensure final stabilization measures are complete.
- Provide digital copy of all Field SWPPP Documentation including Inspection Reports and SWPPP Revisions to the Owner.
- Submit Notice of Termination (NOT) to MPCA. NOTE: The NOT must be submitted to MPCA before Final Stabilization is considered complete.

RESPONSIBLE PARTIES:

The Contractor and Owner will be joint applicants under the MPCA's General Stormwater Permit for Construction Activity as required by the National Pollutant Discharge Elimination System (NPDES) Phase II program.

The Contractor shall provide one or more trained Construction SWPPP Manager(s) knowledgeable and experienced in the application of erosion prevention and sediment control BMPs that will oversee the implementation of the SWPPP, and the installation, inspection and maintenance of the erosion prevention and sediment control BMPs.

A Construction SWPPP Manager must be available for an on-site inspection within 72 hours upon request by the MPCA.

	COMPANY	CONTACT PERSON	PHONE
OWNER:	City of Ramsey	Bruce Westby, PE	763-433-9825
SWPPP DESIGNER:	Bolton & Menk, Inc.	Zach Lingl	763-433-2851
CONTRACTOR:	TBD	TBD	TBD
CONSTRUCTION SWPPP MANAGER:	TBD	TBD	TBD
PARTY RESPONSIBLE FOR LONG TERM O&M:	City of Ramsey	Bruce Westby, PE	763-433-9825

The SWPPP Designer, Construction SWPPP Manager, and BMP Installer must have appropriate training. Documentation showing training commensurate with the job duties and responsibilities is required to be included in the SWPPP prior to any work beginning on the site. Training documentation for the SWPPP Designer is included on the Narrative sheet. The Contractor shall attach training documentation to this SWPPP for the Construction SWPPP Manager and BMP Installer prior to the start of construction. This information shall be kept up to date until the project NOT is filed.

ADDITIONAL COMPENSATION

Payment for all work associated with Erosion and Sediment Control shall be as described in the Project Manual. Unless otherwise authorized by the Owner no additional payment shall be made for any work required to administer and maintain the site erosion and sediment control in compliance with the Minnesota Pollution Control Agency (MPCA) - General Stormwater Permit for Construction Activity (MN R100001) including but not limited to inspection, maintenance, and removal of BMPs or addition of BMPs to accommodate Contractor phasing.

DOCUMENT RETENTION

Permittees must make the SWPPP, including all inspection reports, maintenance records, training records and other information required by this permit, available to federal, state, and local officials within three (3) days upon request for the duration of the permit and for three (3) years following the NOT.

GENERAL STORMWATER DISCHARGE REQUIREMENTS

All requirements listed in Section 5.1 of the Permit for the design of the permanent stormwater management system and discharge have been included in the preparation of this SWPPP. These include but are not limited to:

- The expected amount, frequency, intensity, and duration of precipitation.
- The nature of stormwater runoff and run-on at the site
- Peak flow rates and stormwater volumes to minimize erosion at outlets and downstream channel and stream bank erosion.
- The range of soil particle sizes expected to be present on the site.

Permanent stormwater treatment systems for this project have been designed in accordance with the guidance in the MN Stormwater Manual in place at the time of bidding. Copies of the design information and calculations are part of this SWPPP and will be provided in digital format upon written request to the Engineer.

DESCRIPTION OF CONSTRUCTION ACTIVITIES AND STORMWATER MANAGEMENT:

Construction activities include: Grading, aggregate base, plant mixed bituminous pavement, concrete curb and gutter, ADA improvements, storm sewer sanitary sewer, watermain, erosion and sediment control

Currently storm water on 147th Ave runs off to catch basins that drain to a regional pond across Armstrong Boulevard. For 146th Ave and Ferret Street, storm water currently drains off the two existing cul-de-sacs to low areas.

After construction is complete storm water on 147th Ave will maintain its current path by running into catch basins that drain to a regional pond across . On 146th Ave and the Southern half of Ferret Street, water runoff will be directed to curbing which will lead to catch basins draining to a wet sediment basin just SE of 146th Ave. Water runoff on the Northern half of Ferret Street will be directed to curbing which will lead to catch basins draining to a linear pond running perpendicular, and East of Ferret St.

This project includes the following stormwater management BMPs: Sediment Control Log, Silt Fence, Culvert/Curb Cut Protection, Rolled Erosion Prevention, Inlet Protection.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

ZACHARY F. LINGL
LIC. NO. 56344 DATE 03/20/2023



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23-12			

CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
SWPPP PLAN

SHEET
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Information contained in this SWPPP narrative sheet summarizes requirements of the GENERAL PERMIT AUTHORIZATION TO DISCHARGE STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM PROGRAM - Permit No: MN R100001 (Permit) as they apply to this project. All provisions of the Permit including those not specifically cited herein shall apply to this project. The Contractor is responsible to be familiar with and comply with all conditions of the permit. The full text of the Permit is available at: <https://www.pca.state.mn.us/sites/default/files/wq-strm2-80a.pdf>

SWPPP AMENDMENTS AND SUBMITTALS

Contractor must prepare and submit to the Engineer a SWPPP amendment as necessary to include additional Best Management Practices (BMPs) to correct problems identified or address the following situations.

1. Contact information and training documentation for Construction SWPPP Manager and BMP Installer,
2. There is a change in construction method of phasing, operation, maintenance, weather or seasonal conditions not anticipated during the design of the SWPPP including but not limited to:
 - a. Types and/or Locations of BMPs
 - b. Material Storage and Spill Response
 - c. Fueling Plans
 - d. Locations for Stockpiles, Concrete Washout, and Sanitation Facilities and
 - e. Project Phasing
3. It is determined that the SWPPP is not achieving objectives of minimizing pollutants in stormwater discharges associated with construction activity, or
4. The SWPPP is not consistent with the terms and conditions of the permit.

The Contractor may implement SWPPP amendments immediately and is not required to wait for Engineer review of the submittal. The responsibility for completeness of SWPPP amendments and compliance with the Permit lies with the Contractor. Review, comment, or lack of comment by the Engineer on a SWPPP amendment shall not absolve the responsibilities of the Contractor in any way.

If a change order is issued for a design change the SWPPP amendment will be prepared by the Engineer and included in the change order.

In addition to SWPPP amendments, the Contractor shall submit to the Engineer Weekly Erosion and Sediment Control Schedule meeting the requirements of MnDOT 1717.

The Contractor shall keep copies of all SWPPP amendments, Weekly Erosion and Sediment Control Schedules, inspection logs, and maintenance logs with the field copy of the SWPPP. A PDF copy of these documents will be provided along with a copy of the final Field Copy of the SWPPP to the Engineer along with the signed Notice of Termination when final stabilization is complete.

EROSION PREVENTION PRACTICES

Stormwater conveyance channels shall be routed around unstabilized areas. Erosion controls and velocity dissipation devices shall be used at outlets within and along the length of any constructed conveyance channel.

The normal wetted perimeter of all ditches or swales, including storm water management pond slopes, that drain waters from the site must be stabilized within 200' of any property edge or discharge point, including storm sewer inlets, within 24 hours of connection.

Temporary or permanent ditches or swales used as sediment containment during construction do not need to be stabilized during temporary period of use and shall be stabilized within 24 hours after no longer used as sediment containment.

Mulch, hydromulch, tackifier, or similar practice shall not be used in any portion of the wetted perimeter of a temporary or permanent drainage ditch or swale section with a continuous slope of greater than 2 percent.

Energy dissipation shall be installed at all temporary or permanent pipe outlets within 24 hours of connection to a surface water or permanent stormwater treatment system.

The Contractor shall phase construction and use construction methods to the extent practical to minimize exposed soils. The project phasing shall be documented in the Weekly Erosion and Sediment Control Schedule.

SEDIMENT CONTROL PRACTICES

Down gradient BMPs including perimeter BMPs must be in place before up gradient land- disturbing activities begin and shall remain in place until final stabilization.

All BMPs that have been adjusted or removed to accommodate short-term activities shall be re-installed or replaced the earlier of the end of the work day or before the next precipitation event even if the activity is not complete.

Inlet BMPs may be removed for specific safety concerns. The BMPs shall be replaced as soon as the safety concern is resolved. The removal shall be documented in the SWPPP as a SWPPP amendment.

Temporary stockpiles must have sediment control BMPs. The Contractor shall prepare and submit to the Engineer a SWPPP amendment showing the location of temporary stockpiles and the BMPs for each stockpile. The SWPPP amendment must meet the minimum requirements of Section 9 of the Permit.

Soil compaction shall be minimized and topsoil shall be preserved, unless infeasible or if construction activities dictate soil compaction or topsoil stripping.

The use of polymers, flocculants, or other sedimentation treatment chemicals are not proposed as part of this SWPPP as designed by the Engineer. If methods or phasing of construction require the use of any of these chemicals, the Contractor shall prepare and submit to the Engineer a SWPPP amendment that meets the minimum requirements of Section 9 of the Permit.

TEMPORARY SEDIMENTATION BASINS

A temporary sedimentation basin has not been included in this SWPPP as designed by the Engineer. If a basin is later determined to be desirable or necessary the Contractor shall prepare and submit to the Engineer a SWPPP amendment. Temporary sedimentation basins shall meet or exceed the minimum requirements of Section 14 of the Permit and shall include a basin draining plan meeting or exceeding the minimum requirements of Section 10 of the Permit. Where the site discharges to Special and/or Impaired Waters the SWPPP amendment shall also meet or exceed the minimum requirements of Section 23 of the permit.

DEWATERING

A dewatering plan has not been included in this SWPPP as designed by the Engineer. If dewatering is required for this project, the Contractor shall prepare and submit to the Engineer a SWPPP amendment. All dewatering shall meet or exceed the minimum requirements of Section 10 of the Permit.

POLLUTION PREVENTION

Products and materials that have the potential to leach pollutants that are stored on the site must be stored in a manner designed to minimize contact with stormwater. Materials that are not a source of potential contamination to stormwater or that are designed for exposure to stormwater are not required to be covered.

Hazardous materials including but not limited to pesticides, fertilizer, petroleum products, curing compounds and toxic waste must be properly stored and protected from stormwater exposure as recommended by the manufacturer in an access restricted area.

Solid waste must be stored, collected and disposed of in compliance with Minnesota Administrative Rules Chapter 7035.

Portable toilets must be positioned so that they are secure and will not be tipped or knocked over. Sanitary waste must be disposed of properly in accordance with Minn. R. CH 7041.

Exterior vehicle or equipment washing on the project site shall be limited to a defined area of the site. No engine degreasing is allowed on site. A sign must be installed adjacent to each washout facility that requires site personnel to utilize the proper facilities for disposal of concrete and other washout wastes.

The Contractor shall prepare and submit a SWPPP amendment detailing the location and BMPs proposed for storage of materials, solid waste, portable toilets, and exterior vehicle or equipment washing on the site. The SWPPP amendment shall include a spill prevention and response plan that is appropriate for the materials proposed to be on the site. The SWPPP amendment shall meet or exceed the minimum requirements of Section 12 of the Permit.

INSPECTION & MAINTENANCE

A trained person shall routinely inspect the entire construction site at the time interval indicated on this sheet of the SWPPP during active construction and within 24-hours after a rainfall event greater than 0.5 inches in 24 hours. Following an inspection that occurs within 24-hours after a rainfall event, the next inspection must be conducted at the time interval indicated in the Receiving Waters Table found on the SITE PLAN AND INFORMATION SHEET of the SWPPP.

All inspections and maintenance conducted during construction must be recorded on the day it is completed and must be retained with the SWPPP. Inspection report forms are available in the Project Specifications. Inspection report forms other than those provided shall be approved by the engineer.

The Contractor may request a change in inspection schedule for the following conditions:

- a. Inspections of areas with permanent cover to be reduced to once per month,
- b. Inspections of areas that have permanent cover and have had no construction activity for 12 months to be suspended until construction resumes,
- c. Inspections of areas where construction is suspended due to frozen ground conditions, inspections to be suspended until the earlier of within 24 hours of runoff occurring, or upon resuming construction.

No change in inspection schedule shall occur until authorized by the Engineer.

Inspections must include:

1. All erosion prevention and sediment control BMPs and Pollution Prevention Management Measures to ensure integrity and effectiveness.
2. Surface waters, including drainage ditches and conveyance systems for evidence of erosion and sediment deposition.
3. Construction site vehicle exit locations, streets and curb and gutter systems within and adjacent to the project for sedimentation from erosion or tracked sediment from vehicles.
4. Infiltration areas to ensure that no sediment from ongoing construction activity is reaching the infiltration area and that equipment is not being driven across the infiltration area.

All non-functioning BMPs and those BMPs where sediment reaches one-half (1/2) of the depth of the BMP, or in the case of sediment basins one-half (1/2) of the storage volume, must be repaired, replaced, or supplemented by the end of the next business day after discovery, or as soon as field conditions allow.

Permittees must repair, replace or supplement all nonfunctional BMPs with functional BMPs by the end of the next business day after discovery, or as soon as field conditions allow.

Any sediment that escapes the site must be removed and the area stabilized within 7 calendar days of discovery unless precluded by legal, regulatory, or physical access in which case the work shall be completed within 7 calendar days of authorization. Paved surfaces such as streets shall have any escaped or tracked sediment removed by the end of the day that it is discovered. Sediment release, other than paved surfaces that can be cleaned up with street sweeping shall be reported immediately upon discovery to the Engineer.

PUBLIC WATER RESTRICTIONS:

For public waters that have been promulgated "work in water restrictions" during fish spawning time frames, all exposed soil areas that are within 200 feet of the water's edge, and drain to these waters must complete stabilization within 24-hours during the time period. MN DNR permits are not valid for work in waters that are designated as infested waters unless accompanied by an Infested Waters Permit or written notification has been obtained from MN DNR stating that such permit is not required. There is no exception for pre-existing permits. If a MN DNR Permit has been issued for the project and the water is later designated as infested, the Contractor shall halt all work covered by the MN DNR Permit until an Infested Waters Permit is obtained or that written notification is obtained stating that such permit is not required.

FINAL STABILIZATION

Final Stabilization is not complete until all the following requirements have been met:

1. Substantial Completion has been reached and no ground disturbing activities are anticipated.
2. Permanent cover has been installed with an established minimum uniform perennial vegetation density of 70 percent of its expected final growth. Vegetation is not required in areas where no vegetation is proposed by this project such as impervious surfaces or the base of a sand filter.

3. Accumulated sediment has been removed from all permanent stormwater treatment systems as necessary to ensure the system is operating as designed.
4. All sediment has been removed from conveyance systems
5. All temporary synthetic erosion prevention and sediment control BMPs have been removed. BMPs designated on the SWPPP to remain to decompose on-site may remain.
6. For residential construction only, permit coverage terminates on individual lots if the structures are finished and temporary erosion prevention and downgradient perimeter control is complete, the residence sells to the homeowner, and the permittee distributes the MPCA's "Homeowner Fact Sheet" to the homeowner.
7. For agricultural land only (e.g., pipelines across cropland), the disturbed land must be returned to its preconstruction agricultural use prior to submitting the NOT.

SITE STABILIZATION COMPLETION:

Stabilization of exposed soils shall begin immediately and shall be completed after the construction activity has temporarily or permanently ceased no later than:	14 calendar days
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SITE INSPECTION INTERVAL:

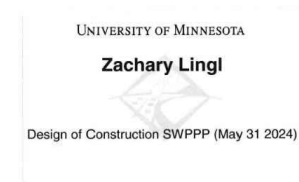
A trained person shall routinely inspect the entire construction site during active construction at an interval of no more than:	7 calendar days
--	-----------------

SPECIAL ENVIRONMENTAL CONSIDERATIONS AND PERMITS:

1) Was an environmental review required for this project or any part of a common plan of development or sale that includes all or any portion of this project?	NO
2) Does any portion of the site have the potential to affect threatened or endangered species or their critical habitat?	NO
3) Does any portion of this site discharge to a Calcareous fen.	NO
4) Will any portion of the site potentially affect properties listed on the National Register of Historic Places or a known or discovered archeological site?	NO
5) Have any Karst features have been identified in the project vicinity?	NO
6) Is compliance with temporary or permanent stormwater management design requirements infeasible for this project?	NO
7) Has the MN DNR promulgated "work in water restrictions" for any Public Water this site discharges to during fish spawning?	NO

TYPE OF PERMIT	PERMITTING AGENCY	PERMIT STATUS AND CONDITIONS
Construction Stormwater NPDES	MPCA	To be obtained by Contractor
Dewatering	MnDNR	To be obtained by Contractor if Required
Watershed	LRRWMO	Owner Obtained

SWPPP DESIGNER TRAINING DOCUMENTATION:



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CITY OF RAMSEY, MINNESOTA
 HY-10 RAMSEY IMPROVEMENTS
 SWPPP NARRATIVE






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 ZACHARY F. LINGL
 LIC. NO. 56344 DATE 03/20/2023



LEGEND

-  PROJECT BOUNDARY
-  IMPAIRED, SPECIAL OR PROTECTED WATERS
-  NATIONAL WETLANDS INVENTORY
-  STEEP SLOPES (>33.3%)
-  SOIL TYPE

0 100 200
SCALE FEET

SOIL TYPE SUMMARY

Map Unit Symbol	Soil Name	Hyd. Soil Group	Erodibility
Is	Isan sandy loam	A/D	NHEL
Dp	Duelm loamy coarse sand	A/D	NHEL
D67A	Hubbard loamy sand, Mississippi River Valley, 0 to 2 percent slopes	A	NHEL
D67B	Hubbard loamy sand, Mississippi River Valley, 2 to 6 percent slopes	A	NHEL
D67C	Hubbard loamy sand, Mississippi River Valley, 6 to 12 percent slopes	A	NHEL

NHEL - Not Highly Erodible Land
 PHEL - Potentially Highly Erodible Land
 HEL - Highly Erodible Land

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

DESCRIPTION	SHEET NO.
SITE MAP	18
DIRECTION OF FLOW	14-17
FINAL STABILIZATION	14-17
SOILS	20
DRAINAGE STRUCTURES	7
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EROSION & SEDIMENT CONTROL DETAILS	9
EROSION CONTROL TABULATION	3
TURF ESTABLISHMENT TABULATION	3
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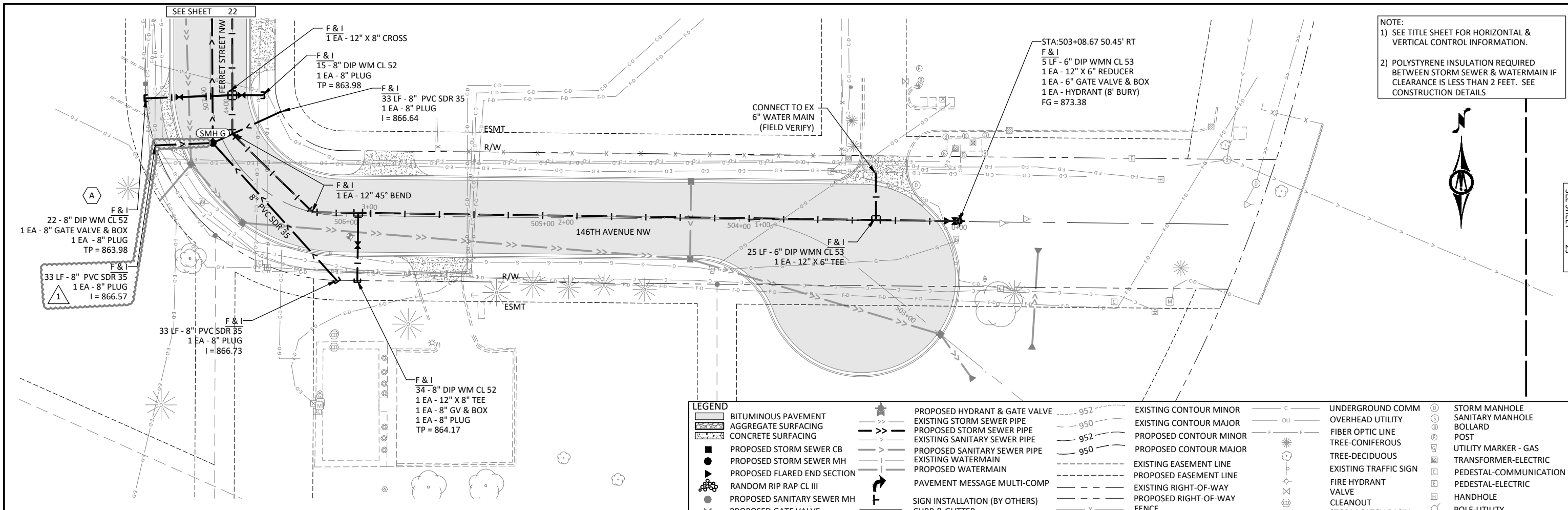
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CITY OF RAMSEY, MINNESOTA
 HY-10 RAMSEY IMPROVEMENTS
 SWPPP SOILS

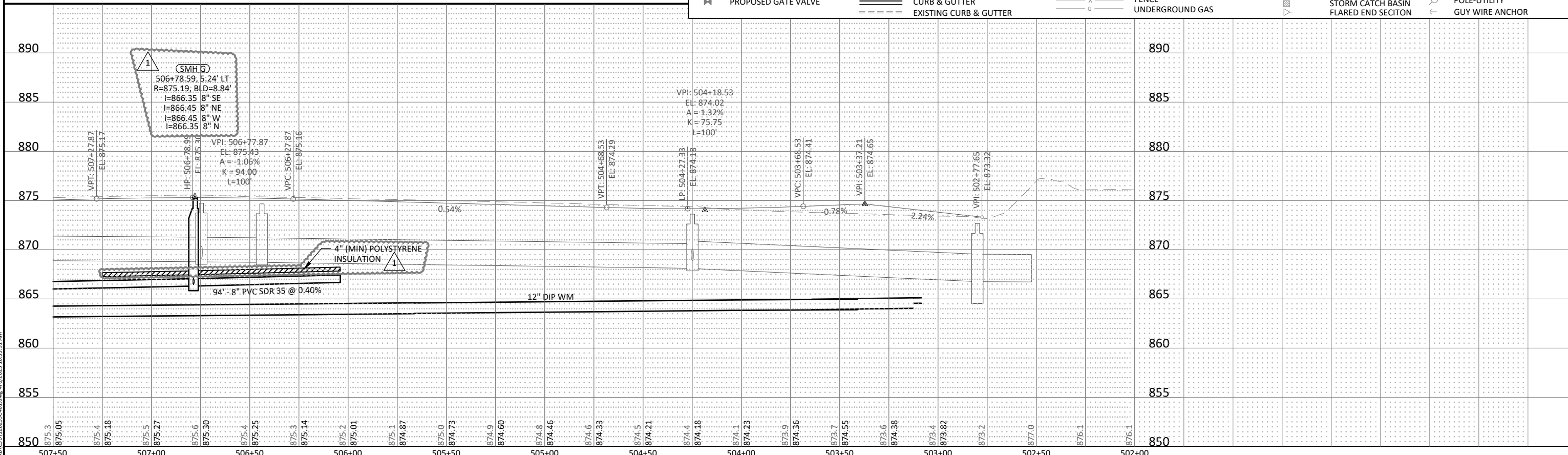
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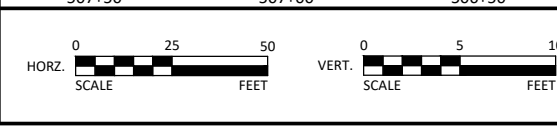
NOTE:
 1) SEE TITLE SHEET FOR HORIZONTAL & VERTICAL CONTROL INFORMATION.
 2) POLYSTYRENE INSULATION REQUIRED BETWEEN STORM SEWER & WATERMAIN IF CLEARANCE IS LESS THAN 2 FEET. SEE CONSTRUCTION DETAILS



LEGEND		SYMBOLS		SYMBOLS	
[Pattern]	BITUMINOUS PAVEMENT	[Symbol]	PROPOSED HYDRANT & GATE VALVE	[Symbol]	EXISTING CONTOUR MINOR
[Pattern]	AGGREGATE SURFACING	[Symbol]	EXISTING STORM SEWER PIPE	[Symbol]	EXISTING CONTOUR MAJOR
[Pattern]	CONCRETE SURFACING	[Symbol]	PROPOSED STORM SEWER PIPE	[Symbol]	PROPOSED CONTOUR MINOR
[Symbol]	PROPOSED STORM SEWER CB	[Symbol]	EXISTING SANITARY SEWER PIPE	[Symbol]	PROPOSED CONTOUR MAJOR
[Symbol]	PROPOSED STORM SEWER MH	[Symbol]	PROPOSED SANITARY SEWER PIPE	[Symbol]	EXISTING EASEMENT LINE
[Symbol]	PROPOSED FLARED END SECTION	[Symbol]	EXISTING WATERMAIN	[Symbol]	PROPOSED EASEMENT LINE
[Symbol]	RANDOM RIP RAP CL III	[Symbol]	PROPOSED WATERMAIN	[Symbol]	EXISTING RIGHT-OF-WAY
[Symbol]	PROPOSED SANITARY SEWER MH	[Symbol]	PAVEMENT MESSAGE MULTI-COMP	[Symbol]	PROPOSED RIGHT-OF-WAY
[Symbol]	PROPOSED GATE VALVE	[Symbol]	SIGN INSTALLATION (BY OTHERS)	[Symbol]	FENCE
[Symbol]		[Symbol]	CURB & GUTTER	[Symbol]	UNDERGROUND GAS
[Symbol]		[Symbol]	EXISTING CURB & GUTTER	[Symbol]	UNDERGROUND COMM
[Symbol]		[Symbol]		[Symbol]	OVERHEAD UTILITY
[Symbol]		[Symbol]		[Symbol]	FIBER OPTIC LINE
[Symbol]		[Symbol]		[Symbol]	TREE-CONIFEROUS
[Symbol]		[Symbol]		[Symbol]	TREE-DECIDUOUS
[Symbol]		[Symbol]		[Symbol]	EXISTING TRAFFIC SIGN
[Symbol]		[Symbol]		[Symbol]	FIRE HYDRANT VALVE
[Symbol]		[Symbol]		[Symbol]	CLEANOUT
[Symbol]		[Symbol]		[Symbol]	STORM CATCH BASIN
[Symbol]		[Symbol]		[Symbol]	FLARED END SECTION
[Symbol]		[Symbol]		[Symbol]	STORM MANHOLE
[Symbol]		[Symbol]		[Symbol]	SANITARY MANHOLE
[Symbol]		[Symbol]		[Symbol]	BOLLARD
[Symbol]		[Symbol]		[Symbol]	POST
[Symbol]		[Symbol]		[Symbol]	UTILITY MARKER - GAS
[Symbol]		[Symbol]		[Symbol]	TRANSFORMER-ELECTRIC
[Symbol]		[Symbol]		[Symbol]	PEDESTAL-COMMUNICATION
[Symbol]		[Symbol]		[Symbol]	PEDESTAL-ELECTRIC
[Symbol]		[Symbol]		[Symbol]	HANDHOLE
[Symbol]		[Symbol]		[Symbol]	POLE-UTILITY
[Symbol]		[Symbol]		[Symbol]	GUY WIRE ANCHOR



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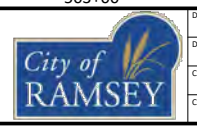


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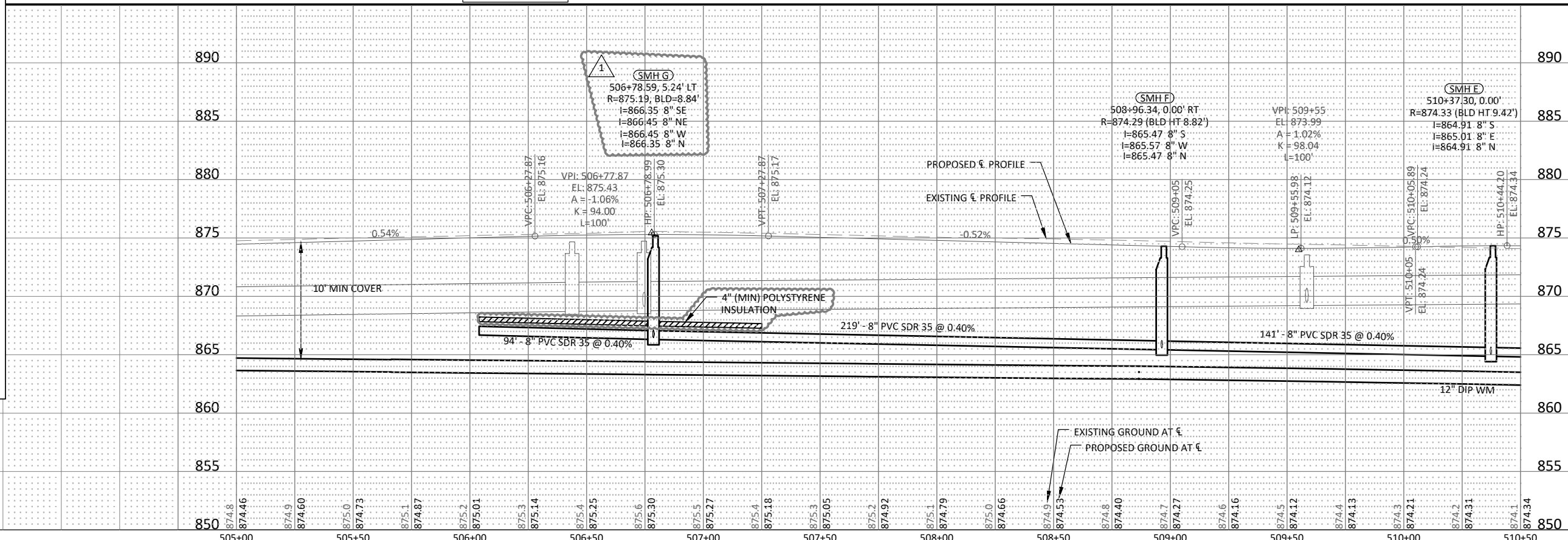
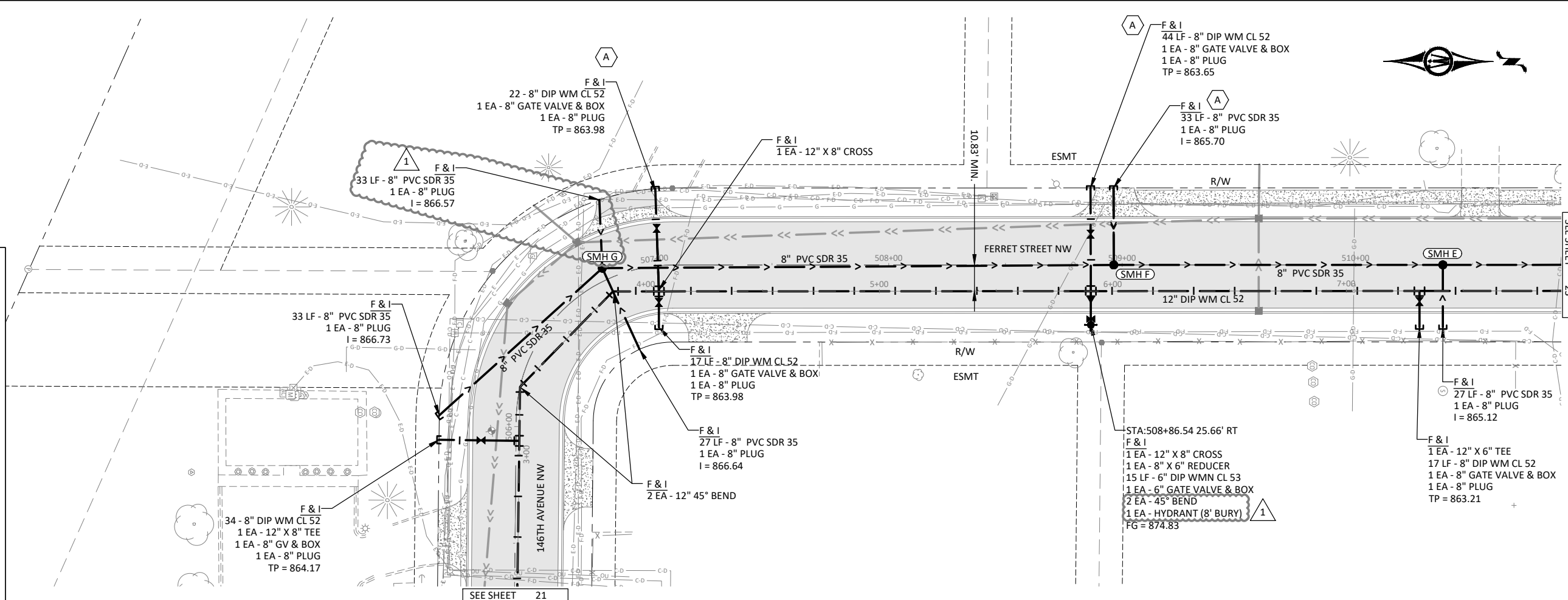
CITY OF RAMSEY, MINNESOTA
 HY-10 RAMSEY IMPROVEMENTS
 WATERMAIN & SANITARY SEWER - PLAN & PROFILE
 146TH AVENUE NW

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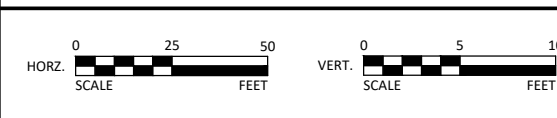
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 2) POLYSTYRENE INSULATION REQUIRED BETWEEN STORM SEWER & WATERMAIN IF CLEARANCE IS LESS THAN 2 FEET. SEE CONSTRUCTION DETAILS

A COORDINATE UTILITY CONNECTIONS WITH ANOKA RAMSEY ATHLETIC ASSOCIATION SITE PLANS PRIOR TO CONSTRUCTION

- LEGEND**
- BITUMINOUS PAVEMENT
 - AGGREGATE SURFACING
 - CONCRETE SURFACING
 - PROPOSED STORM SEWER CB
 - PROPOSED STORM SEWER MH
 - PROPOSED FLARED END SECTION
 - RANDOM RIP RAP CL III
 - PROPOSED SANITARY SEWER MH
 - PROPOSED GATE VALVE
 - PROPOSED HYDRANT & GATE VALVE
 - EXISTING STORM SEWER PIPE
 - PROPOSED STORM SEWER PIPE
 - EXISTING SANITARY SEWER PIPE
 - PROPOSED SANITARY SEWER PIPE
 - EXISTING WATERMAIN
 - PROPOSED WATERMAIN
 - PAVEMENT MESSAGE MULTI-COMP
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 - CURB & GUTTER
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 - EXISTING CONTOUR MAJOR
 - PROPOSED CONTOUR MINOR
 - PROPOSED CONTOUR MAJOR
 - EXISTING EASEMENT LINE
 - PROPOSED EASEMENT LINE
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 - OVERHEAD UTILITY
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 - TREE-DECIDUOUS
 - EXISTING TRAFFIC SIGN
 - FIRE HYDRANT
 - VALVE
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 - STORM CATCH BASIN
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 - STORM MANHOLE
 - SANITARY MANHOLE
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 - UTILITY MARKER - GAS
 - TRANSFORMER-ELECTRIC
 - PEDESTAL-COMMUNICATION
 - PEDESTAL-ELECTRIC
 - HANDHOLE
 - POLE-UTILITY
 - GUY WIRE ANCHOR



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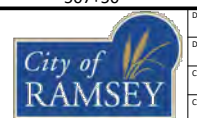


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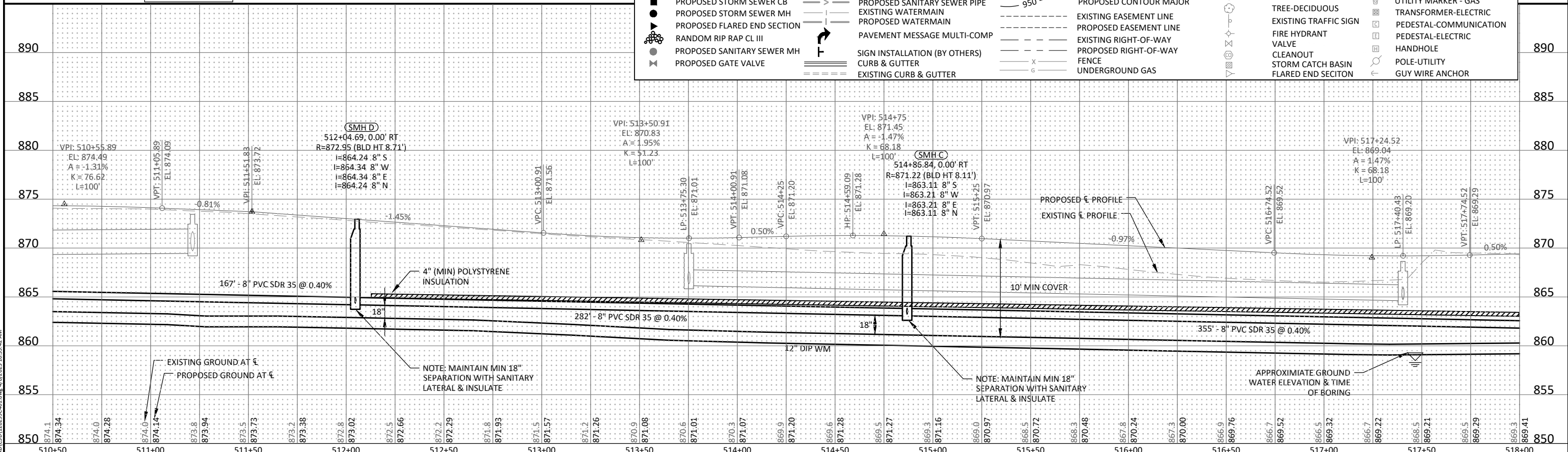
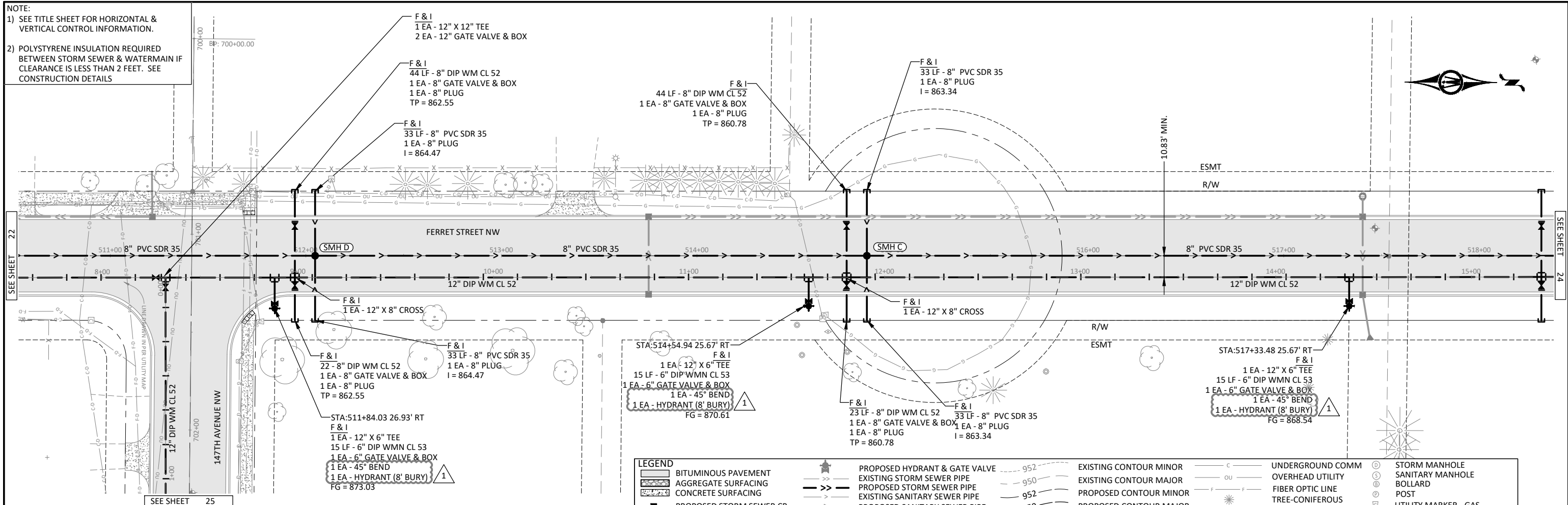


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 WATERMAIN & SANITARY SEWER - PLAN & PROFILE
 FERRET STREET NW

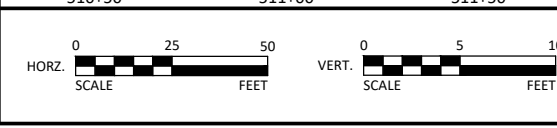
SHEET 22 OF 43

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 1) SEE TITLE SHEET FOR HORIZONTAL & VERTICAL CONTROL INFORMATION.
 2) POLYSTYRENE INSULATION REQUIRED BETWEEN STORM SEWER & WATERMAIN IF CLEARANCE IS LESS THAN 2 FEET. SEE CONSTRUCTION DETAILS



LEGEND			
	BITUMINOUS PAVEMENT		PROPOSED HYDRANT & GATE VALVE
	AGGREGATE SURFACING		EXISTING STORM SEWER PIPE
	CONCRETE SURFACING		PROPOSED STORM SEWER PIPE
	PROPOSED STORM SEWER CB		EXISTING SANITARY SEWER PIPE
	PROPOSED STORM SEWER MH		PROPOSED SANITARY SEWER PIPE
	RANDOM RIP RAP CL III		EXISTING WATERMAIN
	PROPOSED SANITARY SEWER MH		PROPOSED WATERMAIN
	PROPOSED GATE VALVE		PAVEMENT MESSAGE MULTI-COMP
			SIGN INSTALLATION (BY OTHERS)
			CURB & GUTTER
			EXISTING CURB & GUTTER
			EXISTING CONTOUR MINOR
			EXISTING CONTOUR MAJOR
			PROPOSED CONTOUR MINOR
			PROPOSED CONTOUR MAJOR
			EXISTING EASEMENT LINE
			PROPOSED EASEMENT LINE
			EXISTING RIGHT-OF-WAY
			PROPOSED RIGHT-OF-WAY
			FENCE
			UNDERGROUND GAS
	UNDERGROUND COMM		STORM MANHOLE
	OVERHEAD UTILITY		SANITARY MANHOLE
	FIBER OPTIC LINE		BOLLARD
	TREE-CONIFEROUS		POST
	TREE-DECIDUOUS		UTILITY MARKER - GAS
	EXISTING TRAFFIC SIGN		TRANSFORMER-ELECTRIC
	FIRE HYDRANT VALVE		PEDESTAL-COMMUNICATION
	CLEANOUT		PEDESTAL-ELECTRIC
	STORM CATCH BASIN		HANDHOLE
	FLARED END SECTION		POLE-UTILITY
			GUY WIRE ANCHOR

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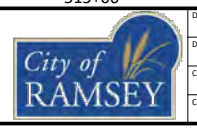


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 LIC. NO. 56344 DATE 03/20/2023



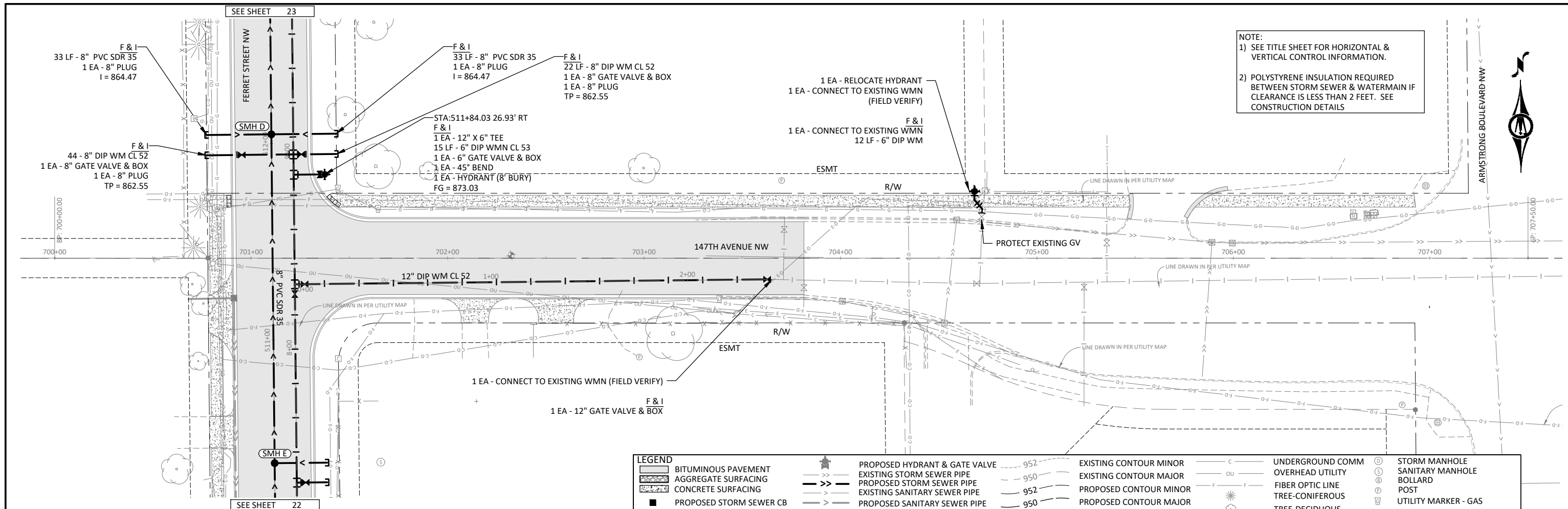
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 RAMSEY, MINNESOTA 55303
 Phone: (763) 433-2851
 Email: Ramsey@bolton-menk.com
 www.bolton-menk.com



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CHECKED	KPK			
CLIENT PROJ. NO.	23-12			

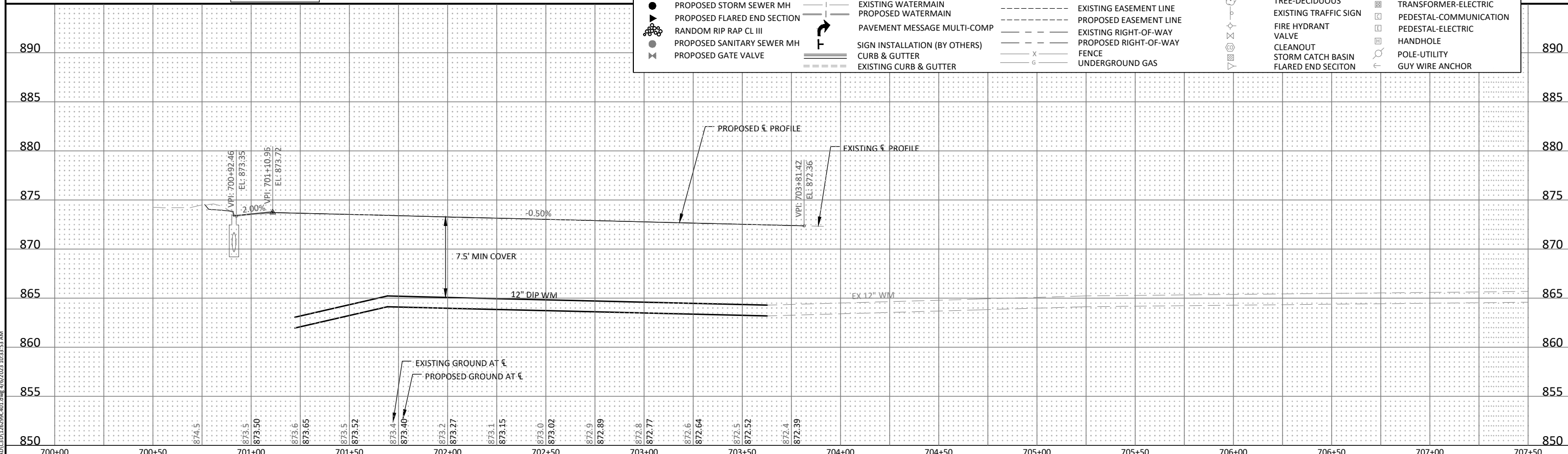
CITY OF RAMSEY, MINNESOTA
 HY-10 RAMSEY IMPROVEMENTS
 WATERMAIN & SANITARY SEWER - PLAN & PROFILE
 FERRET STREET NW

SHEET 23 OF 43

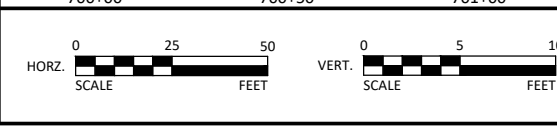


NOTE:
 1) SEE TITLE SHEET FOR HORIZONTAL & VERTICAL CONTROL INFORMATION.
 2) POLYSTYRENE INSULATION REQUIRED BETWEEN STORM SEWER & WATERMAIN IF CLEARANCE IS LESS THAN 2 FEET. SEE CONSTRUCTION DETAILS

LEGEND	
	BITUMINOUS PAVEMENT
	AGGREGATE SURFACING
	CONCRETE SURFACING
	PROPOSED STORM SEWER CB
	PROPOSED STORM SEWER MH
	PROPOSED FLARED END SECTION
	RANDOM RIP RAP CL III
	PROPOSED SANITARY SEWER MH
	PROPOSED GATE VALVE
	PROPOSED HYDRANT & GATE VALVE
	EXISTING STORM SEWER PIPE
	PROPOSED STORM SEWER PIPE
	EXISTING SANITARY SEWER PIPE
	PROPOSED SANITARY SEWER PIPE
	EXISTING WATERMAIN
	PROPOSED WATERMAIN
	PAVEMENT MESSAGE MULTI-COMP
	SIGN INSTALLATION (BY OTHERS)
	CURB & GUTTER
	EXISTING CURB & GUTTER
	EXISTING CONTOUR MINOR
	EXISTING CONTOUR MAJOR
	PROPOSED CONTOUR MINOR
	PROPOSED CONTOUR MAJOR
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	EXISTING RIGHT-OF-WAY
	PROPOSED RIGHT-OF-WAY
	FENCE
	UNDERGROUND GAS
	UNDERGROUND COMM
	OVERHEAD UTILITY
	FIBER OPTIC LINE
	TREE-CONIFEROUS
	TREE-DECIDUOUS
	EXISTING TRAFFIC SIGN
	FIRE HYDRANT VALVE
	CLEANOUT
	STORM CATCH BASIN
	FLARED END SECTION
	STORM MANHOLE
	SANITARY MANHOLE
	BOLLARD
	POST
	UTILITY MARKER - GAS
	TRANSFORMER-ELECTRIC
	PEDESTAL-COMMUNICATION
	PEDESTAL-ELECTRIC
	HANDHOLE
	POLE-UTILITY
	GUY WIRE ANCHOR



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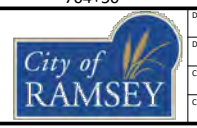


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CLIENT PROJ. NO.	23-12			

CITY OF RAMSEY, MINNESOTA
 HY-10 RAMSEY IMPROVEMENTS
 WATERMAIN & SANITARY SEWER - PLAN & PROFILE
 147TH AVENUE NW

SHEET 25 OF 43

COORDINATE UTILITY CONNECTIONS WITH ANOKA RAMSEY ATHLETIC ASSOCIATION SITE PLANS PRIOR TO CONSTRUCTION

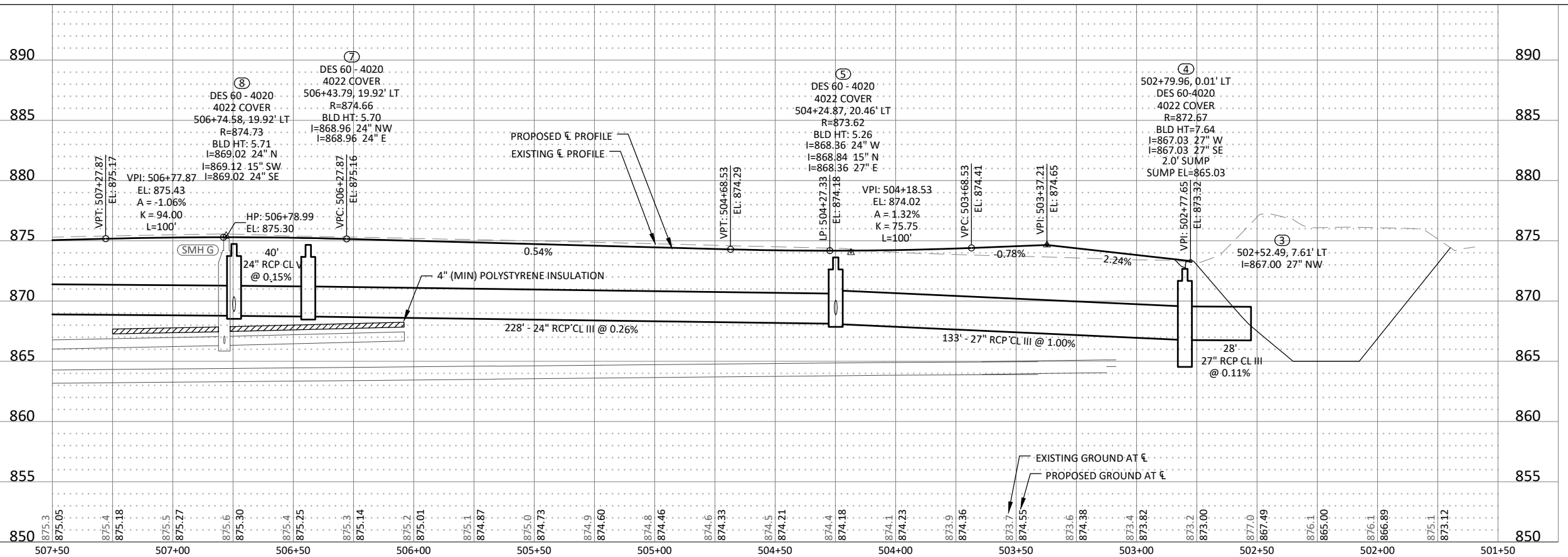
SEE SHEET 27

SEE SHEET 33 FOR CROSSING PIPE PROFILES



- SIGN NOTES:**
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- LEGEND**
- [Symbol] BITUMINOUS PAVEMENT
 - [Symbol] CONCRETE SURFACING
 - [Symbol] PROPOSED STORM SEWER CB
 - [Symbol] PROPOSED STORM SEWER MH
 - [Symbol] PROPOSED FLARED END SECTION
 - [Symbol] PROPOSED SANITARY SEWER MH
 - [Symbol] PROPOSED GATE VALVE
 - [Symbol] PROPOSED HYDRANT & GATE VALVE
 - [Symbol] EXISTING STORM SEWER PIPE
 - [Symbol] PROPOSED STORM SEWER PIPE
 - [Symbol] EXISTING SANITARY SEWER PIPE
 - [Symbol] PROPOSED SANITARY SEWER PIPE
 - [Symbol] EXISTING WATERMAIN
 - [Symbol] PROPOSED WATERMAIN
 - [Symbol] EXISTING CURB & GUTTER
 - [Symbol] EXISTING CURB & GUTTER
 - [Symbol] EXISTING CONTOUR MINOR
 - [Symbol] EXISTING CONTOUR MAJOR
 - [Symbol] PROPOSED CONTOUR MINOR
 - [Symbol] PROPOSED CONTOUR MAJOR
 - [Symbol] EXISTING EASEMENT LINE
 - [Symbol] PROPOSED EASEMENT LINE
 - [Symbol] EXISTING RIGHT-OF-WAY
 - [Symbol] PROPOSED RIGHT-OF-WAY
 - [Symbol] FENCE
 - [Symbol] UNDERGROUND GAS
 - [Symbol] UNDERGROUND COMM
 - [Symbol] OVERHEAD UTILITY
 - [Symbol] FIBER OPTIC LINE
 - [Symbol] TREE-CONIFEROUS
 - [Symbol] TREE-DECIDUOUS
 - [Symbol] EXISTING TRAFFIC SIGN
 - [Symbol] FIRE HYDRANT
 - [Symbol] VALVE
 - [Symbol] CLEANOUT
 - [Symbol] STORM CATCH BASIN
 - [Symbol] FLARED END SECTION
 - [Symbol] STORM MANHOLE
 - [Symbol] SANITARY MANHOLE
 - [Symbol] BOLLARD
 - [Symbol] POST
 - [Symbol] UTILITY MARKER - GAS
 - [Symbol] TRANSFORMER-ELECTRIC
 - [Symbol] PEDESTAL-COMMUNICATION
 - [Symbol] PEDESTAL-ELECTRIC
 - [Symbol] HANDHOLE
 - [Symbol] POLE-UTILITY
 - [Symbol] GUY WIRE ANCHOR



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ZACHARY F. LINGL
LIC. NO. 56344 DATE 03/20/2023



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Email: Ramsey@bolton-menk.com
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ZFL	1	ADD 1	04/07/2023
DRAWN			
TJH			
CHECKED			
KPK			
CLIENT PROJ. NO.			
23-12			

CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
STORM SEWER & STREET - PLAN & PROFILE
146TH AVENUE NW & WET SEDIMENTATION BASIN

SHEET 26 OF 43

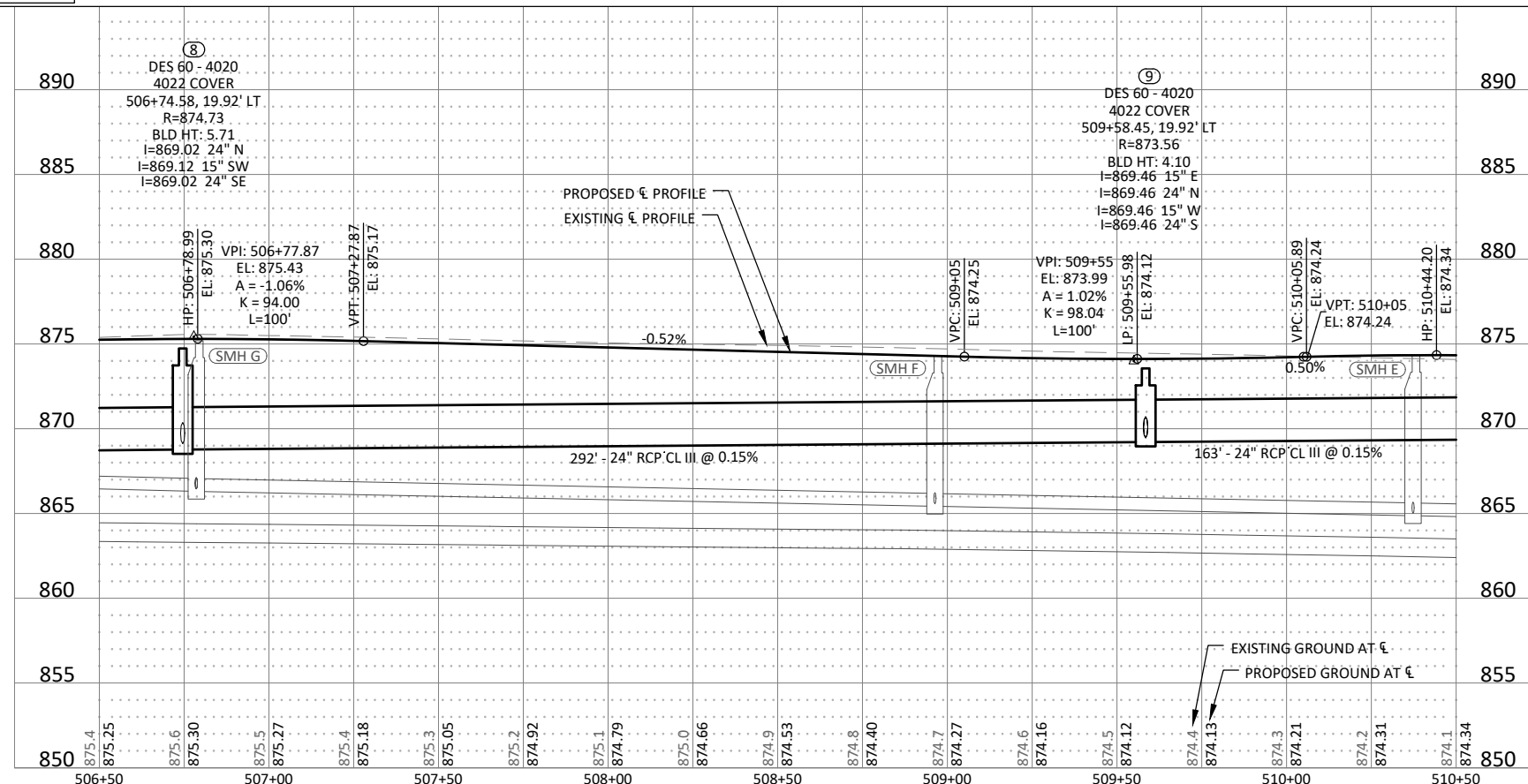
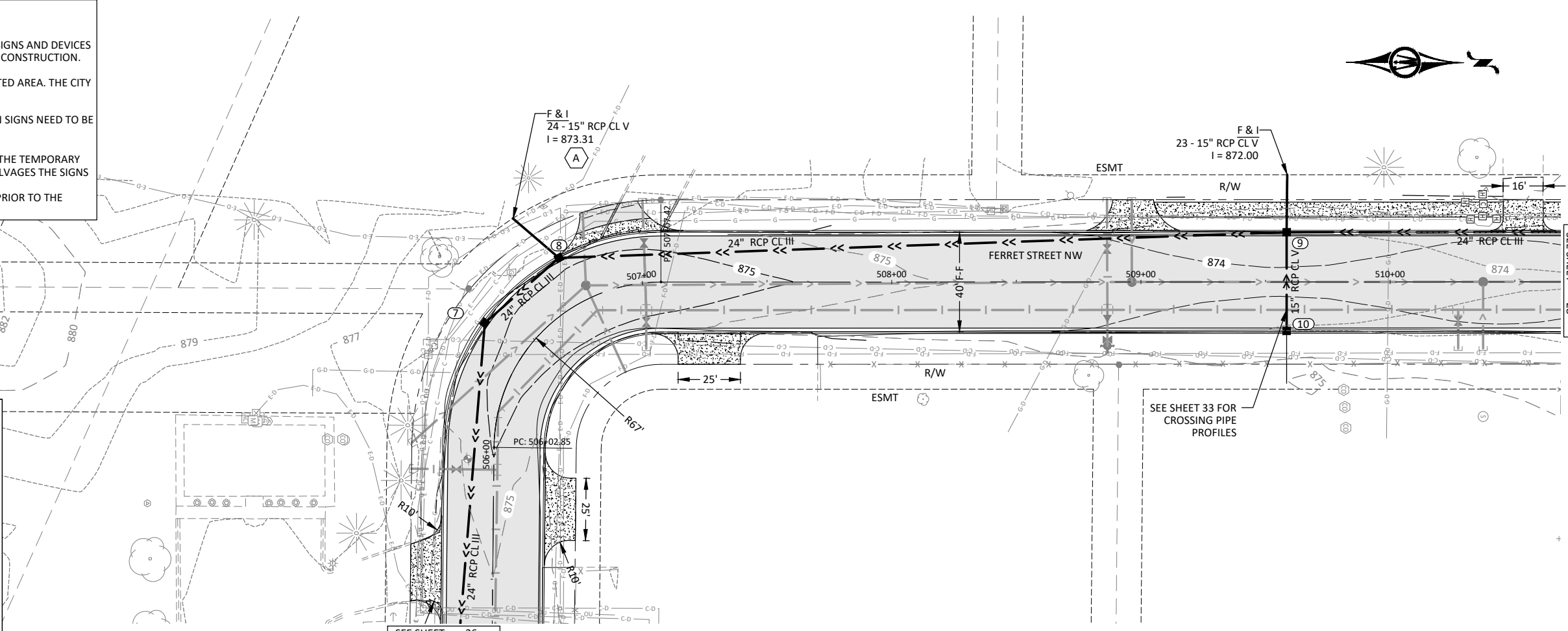
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A COORDINATE UTILITY CONNECTIONS WITH ANOKA RAMSEY ATHLETIC ASSOCIATION SITE PLANS PRIOR TO CONSTRUCTION

LEGEND

- BITUMINOUS PAVEMENT
- CONCRETE SURFACING
- PROPOSED STORM SEWER CB
- PROPOSED STORM SEWER MH
- PROPOSED FLARED END SECTION
- PROPOSED SANITARY SEWER MH
- PROPOSED GATE VALVE
- PROPOSED HYDRANT & GATE VALVE
- EXISTING STORM SEWER PIPE
- PROPOSED STORM SEWER PIPE
- EXISTING SANITARY SEWER PIPE
- PROPOSED SANITARY SEWER PIPE
- EXISTING WATERMAIN
- PROPOSED WATERMAIN
- CURB & GUTTER
- EXISTING CURB & GUTTER
- EXISTING CONTOUR MINOR
- EXISTING CONTOUR MAJOR
- PROPOSED CONTOUR MINOR
- PROPOSED CONTOUR MAJOR
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- FENCE
- UNDERGROUND GAS
- UNDERGROUND COMM
- OVERHEAD UTILITY
- FIBER OPTIC LINE
- TREE-CONIFEROUS
- TREE-DECIDUOUS
- EXISTING TRAFFIC SIGN
- FIRE HYDRANT
- VALVE
- CLEANOUT
- STORM CATCH BASIN
- FLARED END SECTION
- STORM MANHOLE
- SANITARY MANHOLE
- BOLLARD
- POST
- UTILITY MARKER - GAS
- TRANSFORMER-ELECTRIC
- PEDESTAL-COMMUNICATION
- PEDESTAL-ELECTRIC
- HANDHOLE
- POLE-UTILITY
- GUY WIRE ANCHOR



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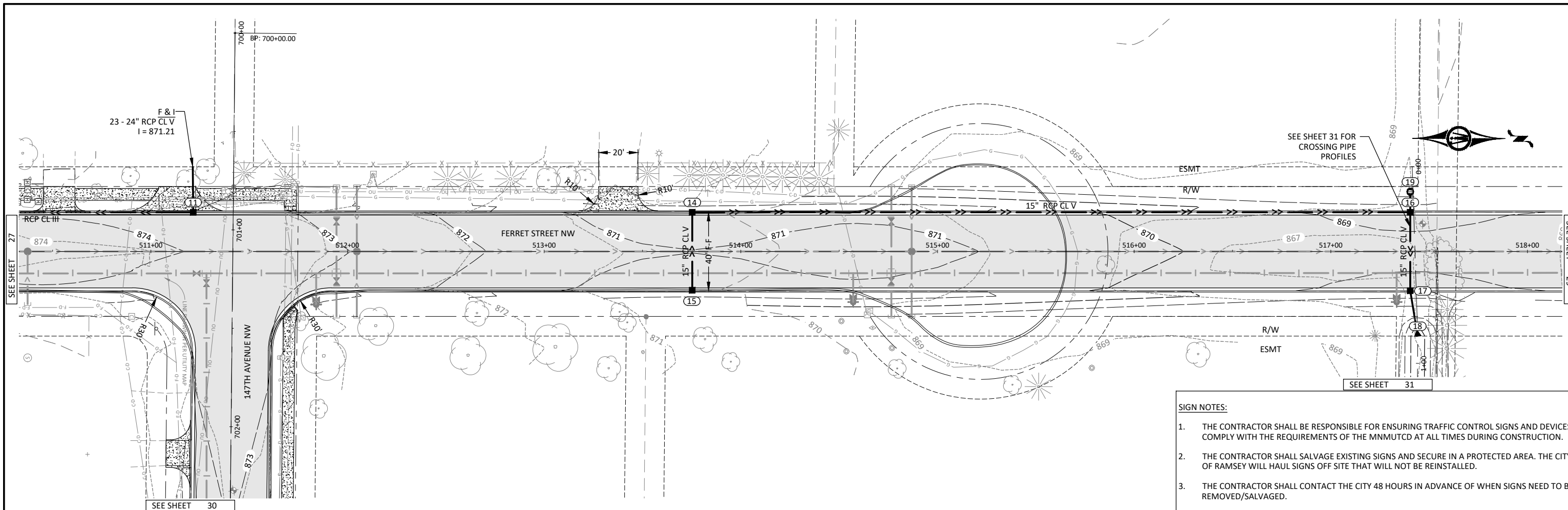
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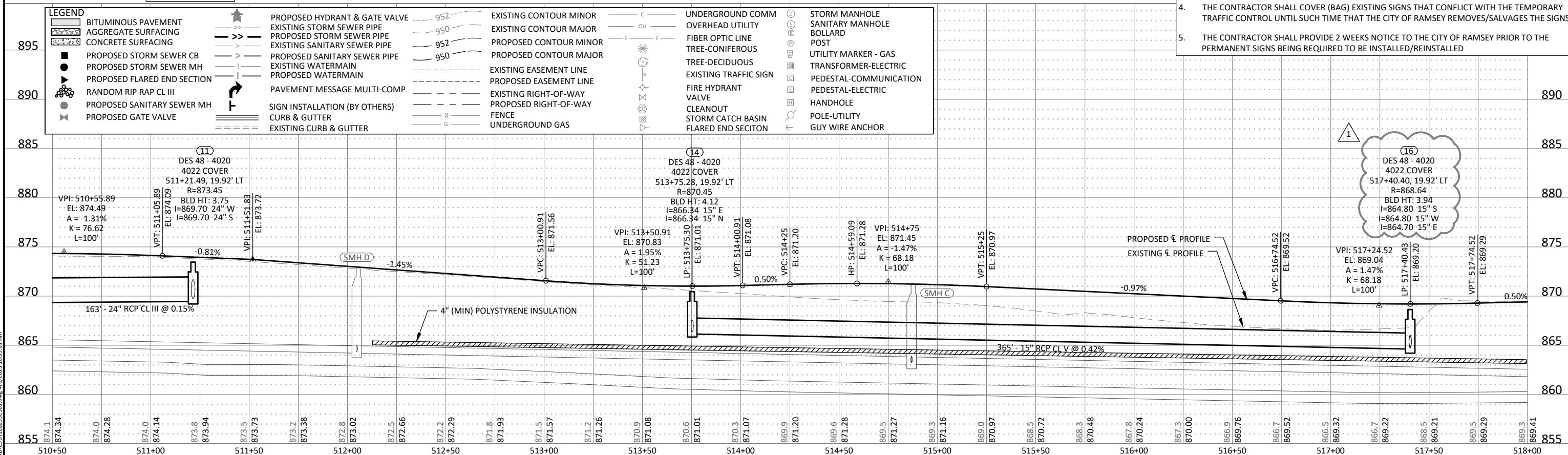
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ZFL	TJH	KPK	23-12

CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
STORM SEWER & STREET - PLAN & PROFILE
FERRET STREET NW

SHEET 27 OF 43

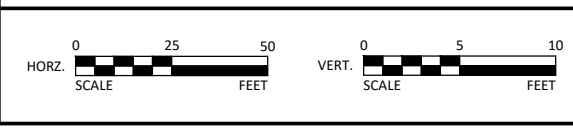


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LEGEND	
[Symbol]	BITUMINOUS PAVEMENT
[Symbol]	AGGREGATE SURFACING
[Symbol]	CONCRETE SURFACING
[Symbol]	PROPOSED STORM SEWER CB
[Symbol]	PROPOSED STORM SEWER MH
[Symbol]	PROPOSED FLARED END SECTION
[Symbol]	RANDOM RIP RAP CL III
[Symbol]	PROPOSED SANITARY SEWER MH
[Symbol]	PROPOSED GATE VALVE
[Symbol]	PROPOSED HYDRANT & GATE VALVE
[Symbol]	EXISTING STORM SEWER PIPE
[Symbol]	PROPOSED STORM SEWER PIPE
[Symbol]	EXISTING SANITARY SEWER PIPE
[Symbol]	PROPOSED SANITARY SEWER PIPE
[Symbol]	EXISTING WATERMAIN
[Symbol]	PROPOSED WATERMAIN
[Symbol]	PAVEMENT MESSAGE MULTI-COMP
[Symbol]	SIGN INSTALLATION (BY OTHERS)
[Symbol]	CURB & GUTTER
[Symbol]	EXISTING CURB & GUTTER
[Symbol]	EXISTING CONTOUR MINOR
[Symbol]	EXISTING CONTOUR MAJOR
[Symbol]	PROPOSED CONTOUR MINOR
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[Symbol]	EXISTING EASEMENT LINE
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[Symbol]	PROPOSED RIGHT-OF-WAY
[Symbol]	FENCE
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[Symbol]	UNDERGROUND COMM
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[Symbol]	TREE-CONIFEROUS
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[Symbol]	CLEANOUT
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[Symbol]	FLARED END SECTION
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[Symbol]	SANITARY MANHOLE
[Symbol]	BOLLARD
[Symbol]	POST
[Symbol]	UTILITY MARKER - GAS
[Symbol]	TRANSFORMER-ELECTRIC
[Symbol]	PEDESTAL-COMMUNICATION
[Symbol]	PEDESTAL-ELECTRIC
[Symbol]	HANDHOLE
[Symbol]	POLE-UTILITY
[Symbol]	GUY WIRE ANCHOR

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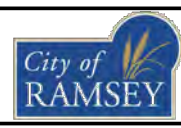


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ZFL	TJH	KPK	23-12

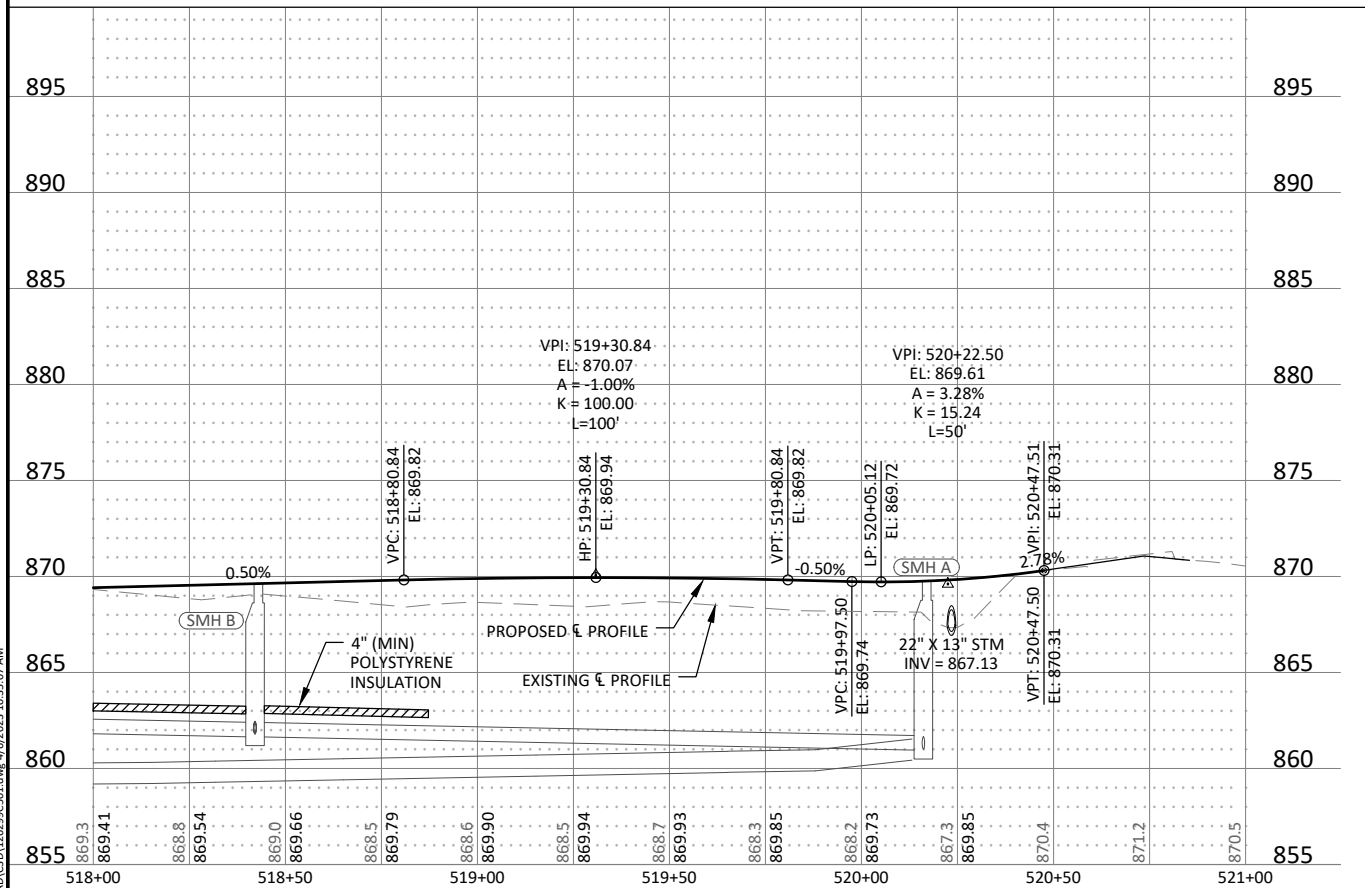
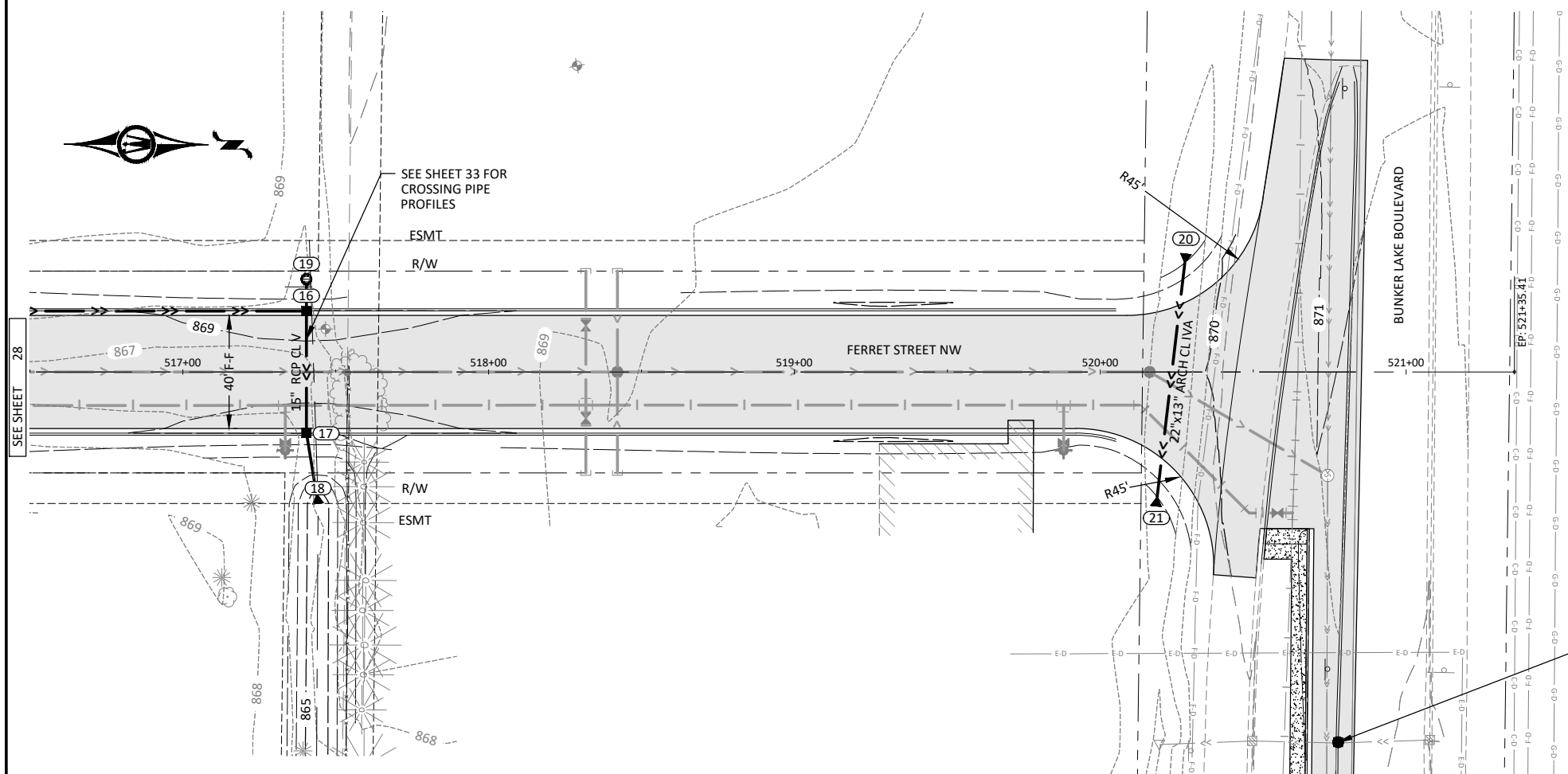
CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
STORM SEWER & STREET - PLAN & PROFILE
FERRET STREET NW

SHEET 28 OF 43



SEE SHEET 28

SEE SHEET 33 FOR CROSSING PIPE PROFILES



LEGEND

	BITUMINOUS PAVEMENT
	CONCRETE SURFACING
	PROPOSED STORM SEWER CB
	PROPOSED STORM SEWER MH
	PROPOSED FLARED END SECTION
	PROPOSED SANITARY SEWER MH
	PROPOSED GATE VALVE
	PROPOSED HYDRANT & GATE VALVE
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	EXISTING WATERMAIN
	PROPOSED WATERMAIN
	CURB & GUTTER
	EXISTING CURB & GUTTER
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	EXISTING CONTOUR MINOR
	PROPOSED CONTOUR MINOR
	PROPOSED CONTOUR MAJOR
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	EXISTING RIGHT-OF-WAY
	PROPOSED RIGHT-OF-WAY
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	POLE-UTILITY
	GUY WIRE ANCHOR

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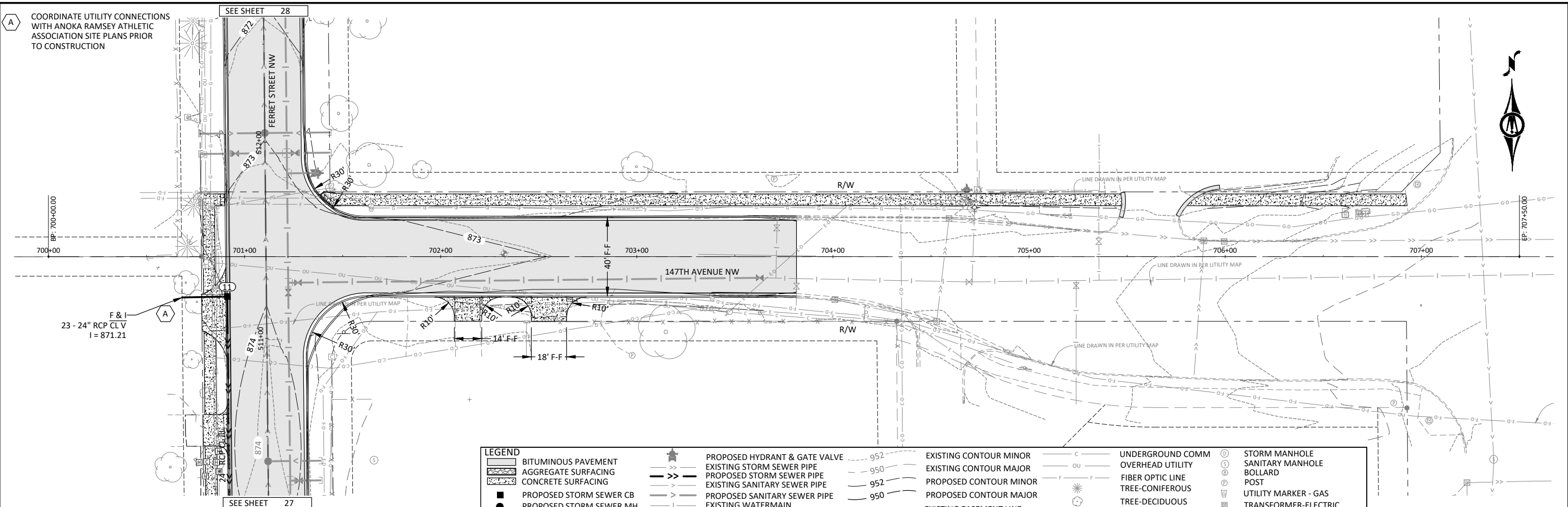
CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
STORM SEWER & STREET - PLAN & PROFILE
FERRET STREET NW & BUNKER LAKE BOULEVARD

SHEET
29
OF
43

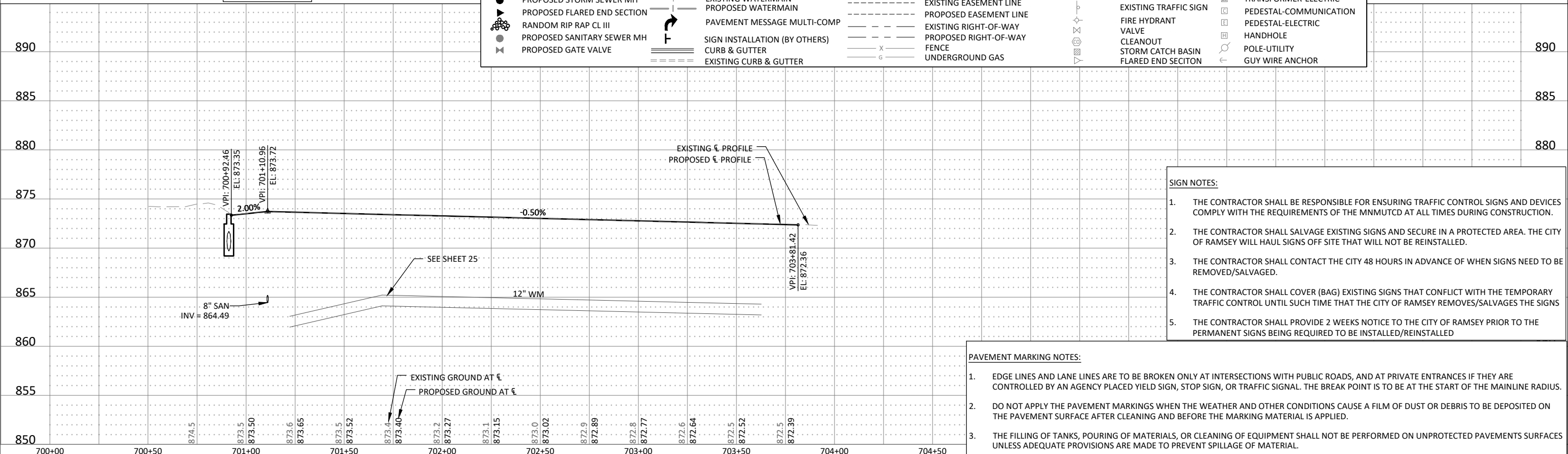
A COORDINATE UTILITY CONNECTIONS WITH ANOKA RAMSEY ATHLETIC ASSOCIATION SITE PLANS PRIOR TO CONSTRUCTION

SEE SHEET 28

SEE SHEET 27



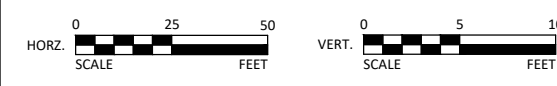
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	CONCRETE SURFACING
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	UNDERGROUND GAS
	UNDERGROUND COMM
	OVERHEAD UTILITY
	FIBER OPTIC LINE
	TREE-CONIFEROUS
	TREE-DECIDUOUS
	EXISTING TRAFFIC SIGN
	FIRE HYDRANT
	VALVE
	CLEANOUT
	STORM CATCH BASIN
	FLARED END SECTION
	STORM MANHOLE
	SANITARY MANHOLE
	BOLLARD
	POST
	UTILITY MARKER - GAS
	TRANSFORMER-ELECTRIC
	PEDESTAL-COMMUNICATION
	PEDESTAL-ELECTRIC
	HANDHOLE
	POLE-UTILITY
	GUY WIRE ANCHOR



- SIGN NOTES:**
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING TRAFFIC CONTROL SIGNS AND DEVICES COMPLY WITH THE REQUIREMENTS OF THE MNMUTCD AT ALL TIMES DURING CONSTRUCTION.
 2. THE CONTRACTOR SHALL SALVAGE EXISTING SIGNS AND SECURE IN A PROTECTED AREA. THE CITY OF RAMSEY WILL HAUL SIGNS OFF SITE THAT WILL NOT BE REINSTALLED.
 3. THE CONTRACTOR SHALL CONTACT THE CITY 48 HOURS IN ADVANCE OF WHEN SIGNS NEED TO BE REMOVED/SALVAGED.
 4. THE CONTRACTOR SHALL COVER (BAG) EXISTING SIGNS THAT CONFLICT WITH THE TEMPORARY TRAFFIC CONTROL UNTIL SUCH TIME THAT THE CITY OF RAMSEY REMOVES/SALVAGES THE SIGNS
 5. THE CONTRACTOR SHALL PROVIDE 2 WEEKS NOTICE TO THE CITY OF RAMSEY PRIOR TO THE PERMANENT SIGNS BEING REQUIRED TO BE INSTALLED/REINSTALLED

- PAVEMENT MARKING NOTES:**
1. EDGE LINES AND LANE LINES ARE TO BE BROKEN ONLY AT INTERSECTIONS WITH PUBLIC ROADS, AND AT PRIVATE ENTRANCES IF THEY ARE CONTROLLED BY AN AGENCY PLACED YIELD SIGN, STOP SIGN, OR TRAFFIC SIGNAL. THE BREAK POINT IS TO BE AT THE START OF THE MAINLINE RADIUS.
 2. DO NOT APPLY THE PAVEMENT MARKINGS WHEN THE WEATHER AND OTHER CONDITIONS CAUSE A FILM OF DUST OR DEBRIS TO BE DEPOSITED ON THE PAVEMENT SURFACE AFTER CLEANING AND BEFORE THE MARKING MATERIAL IS APPLIED.
 3. THE FILLING OF TANKS, POURING OF MATERIALS, OR CLEANING OF EQUIPMENT SHALL NOT BE PERFORMED ON UNPROTECTED PAVEMENTS SURFACES UNLESS ADEQUATE PROVISIONS ARE MADE TO PREVENT SPILLAGE OF MATERIAL.

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ZACHARY F. LINGL
LIC. NO. 56344 DATE 03/20/2023



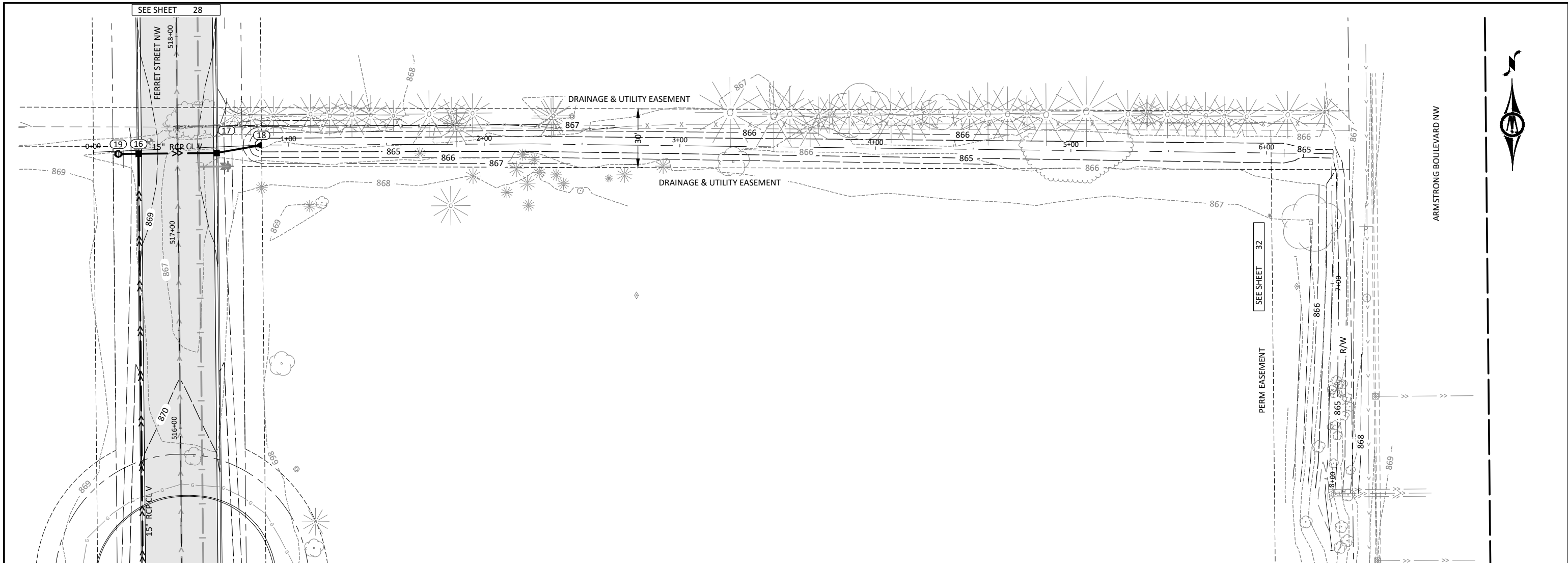
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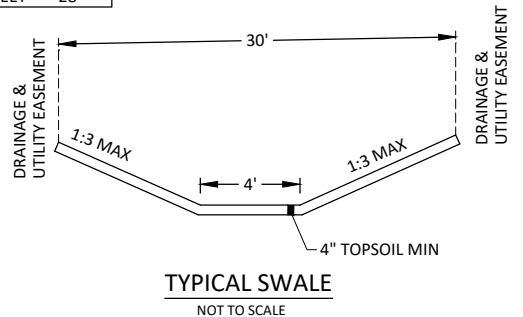
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CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
STORM SEWER & STREET - PLAN & PROFILE
147TH AVENUE NW

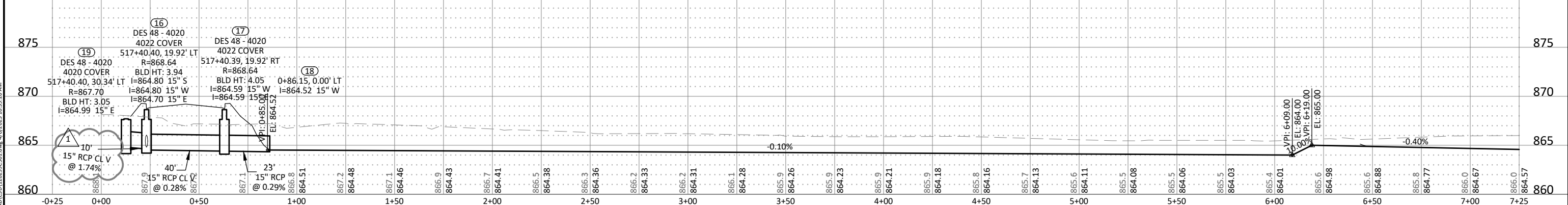
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30
OF
43



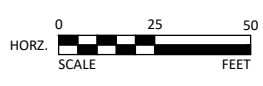
SEE SHEET 28



LEGEND	
	BITUMINOUS PAVEMENT
	AGGREGATE SURFACING
	CONCRETE SURFACING
	PROPOSED STORM SEWER CB
	PROPOSED STORM SEWER MH
	PROPOSED FLARED END SECTION
	RANDOM RIP RAP CL III
	PROPOSED SANITARY SEWER MH
	PROPOSED GATE VALVE
	PROPOSED HYDRANT & GATE VALVE
	EXISTING STORM SEWER PIPE
	EXISTING SANITARY SEWER PIPE
	PROPOSED SANITARY SEWER PIPE
	EXISTING WATERMAIN
	PROPOSED WATERMAIN
	PAVEMENT MESSAGE MULTI-COMP
	SIGN INSTALLATION (BY OTHERS)
	CURB & GUTTER
	EXISTING CURB & GUTTER
	EXISTING CONTOUR MINOR
	EXISTING CONTOUR MAJOR
	PROPOSED CONTOUR MINOR
	PROPOSED CONTOUR MAJOR
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	EXISTING RIGHT-OF-WAY
	PROPOSED RIGHT-OF-WAY
	FENCE
	UNDERGROUND GAS
	UNDERGROUND COMM
	OVERHEAD UTILITY
	FIBER OPTIC LINE
	TREE-CONIFEROUS
	TREE-DECIDUOUS
	EXISTING TRAFFIC SIGN
	FIRE HYDRANT
	VALVE
	CLEANOUT
	STORM CATCH BASIN
	FLARED END SECTION
	STORM MANHOLE
	SANITARY MANHOLE
	BOLLARD
	POST
	UTILITY MARKER - GAS
	TRANSFORMER-ELECTRIC
	PEDESTAL-COMMUNICATION
	PEDESTAL-ELECTRIC
	HANDHOLE
	POLE-UTILITY
	GUY WIRE ANCHOR



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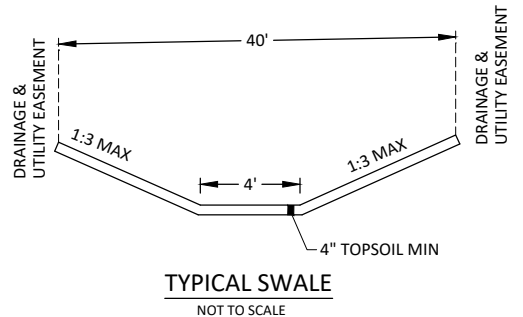
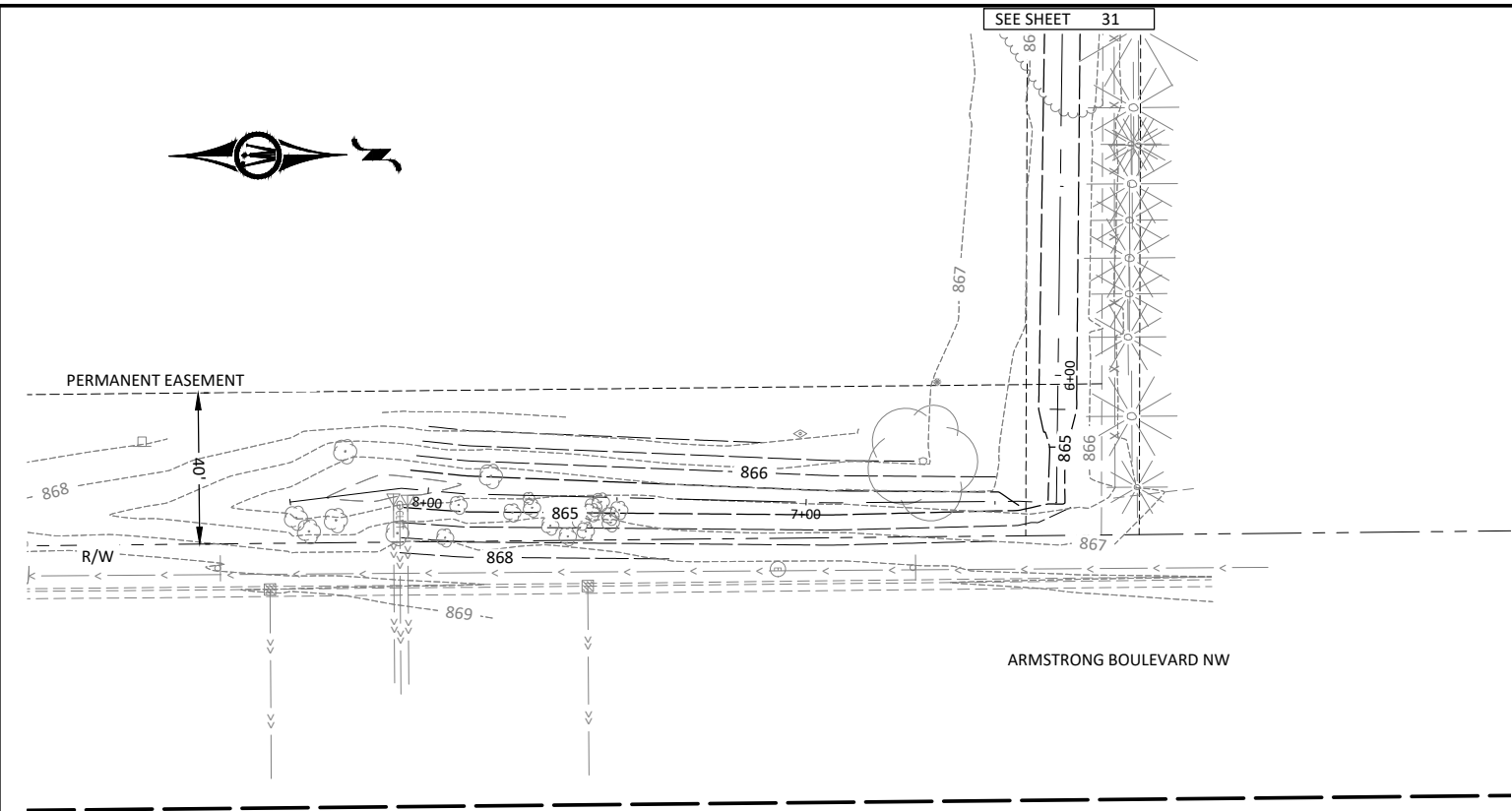
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CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
STORM SEWER & STREET - PLAN & PROFILE
EAST OF FERRET STREET DRAINAGE

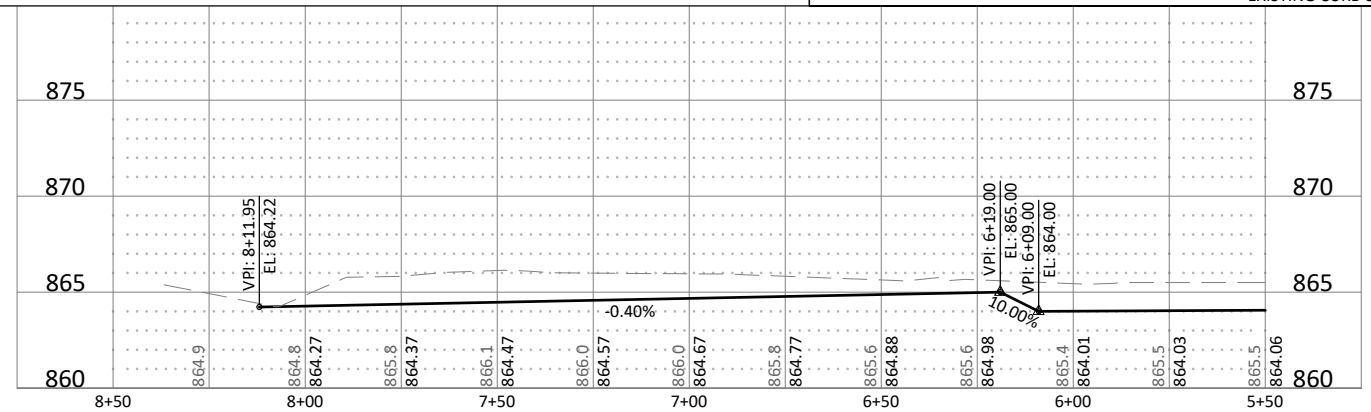
SHEET 31 OF 43



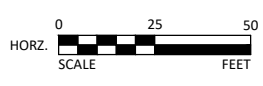
SEE SHEET 31



LEGEND	
	BITUMINOUS PAVEMENT
	AGGREGATE SURFACING
	CONCRETE SURFACING
	PROPOSED STORM SEWER CB
	PROPOSED STORM SEWER MH
	PROPOSED FLARED END SECTION
	RANDOM RIP RAP CL III
	PROPOSED SANITARY SEWER MH
	PROPOSED GATE VALVE
	PROPOSED HYDRANT & GATE VALVE
	EXISTING STORM SEWER PIPE
	PROPOSED STORM SEWER PIPE
	EXISTING SANITARY SEWER PIPE
	PROPOSED SANITARY SEWER PIPE
	EXISTING WATERMAIN
	PROPOSED WATERMAIN
	PAVEMENT MESSAGE MULTI-COMP
	SIGN INSTALLATION (BY OTHERS)
	CURB & GUTTER
	EXISTING CURB & GUTTER
	EXISTING CONTOUR MINOR
	EXISTING CONTOUR MAJOR
	PROPOSED CONTOUR MINOR
	PROPOSED CONTOUR MAJOR
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	EXISTING RIGHT-OF-WAY
	PROPOSED RIGHT-OF-WAY
	FENCE
	UNDERGROUND GAS
	UNDERGROUND COMM
	OVERHEAD UTILITY
	FIBER OPTIC LINE
	TREE-CONIFEROUS
	TREE-DECIDUOUS
	EXISTING TRAFFIC SIGN
	FIRE HYDRANT
	VALVE
	CLEANOUT
	STORM CATCH BASIN
	FLARED END SECTION
	STORM MANHOLE
	SANITARY MANHOLE
	BOLLARD
	POST
	UTILITY MARKER - GAS
	TRANSFORMER-ELECTRIC
	PEDESTAL-COMMUNICATION
	PEDESTAL-ELECTRIC
	HANDHOLE
	POLE-UTILITY
	GUY WIRE ANCHOR



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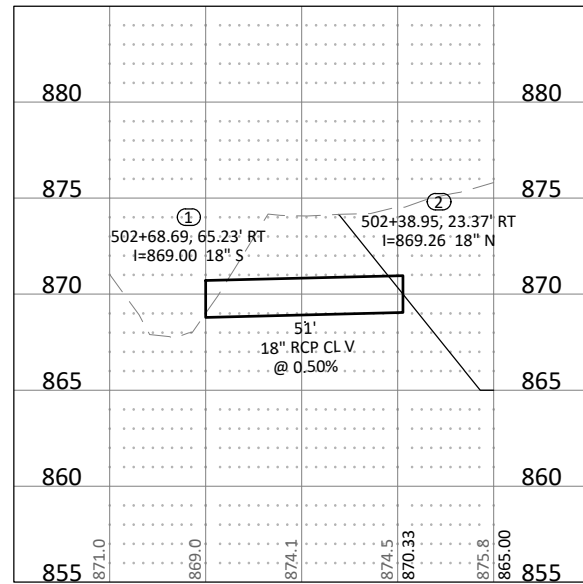
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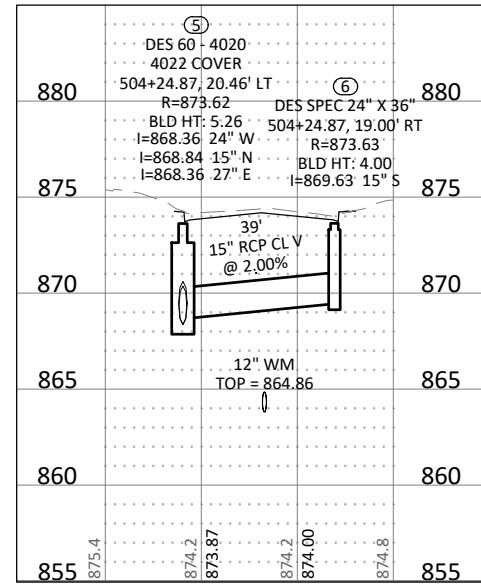
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CITY OF RAMSEY, MINNESOTA
 HY-10 RAMSEY IMPROVEMENTS
 STORM SEWER & STREET - PLAN & PROFILE
 EAST OF ARMSTRONG DRAINAGE

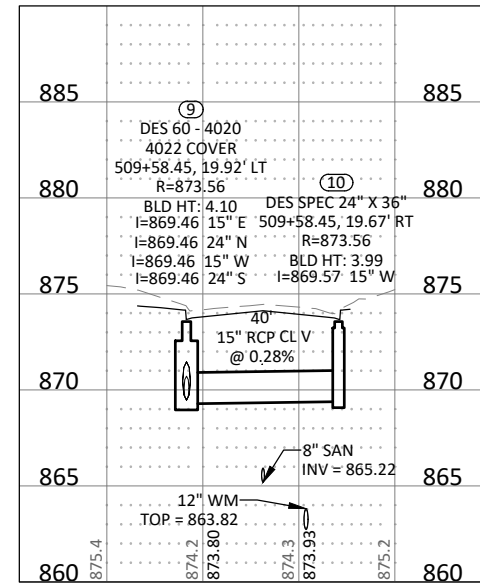
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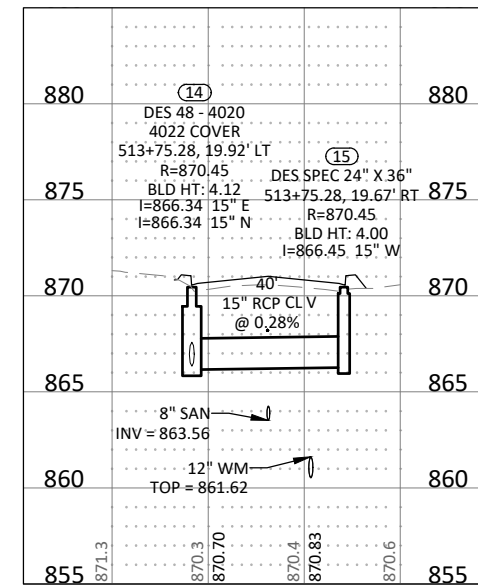
POND OUTLET 502+39 TO 502+69
SEE SHEET 26



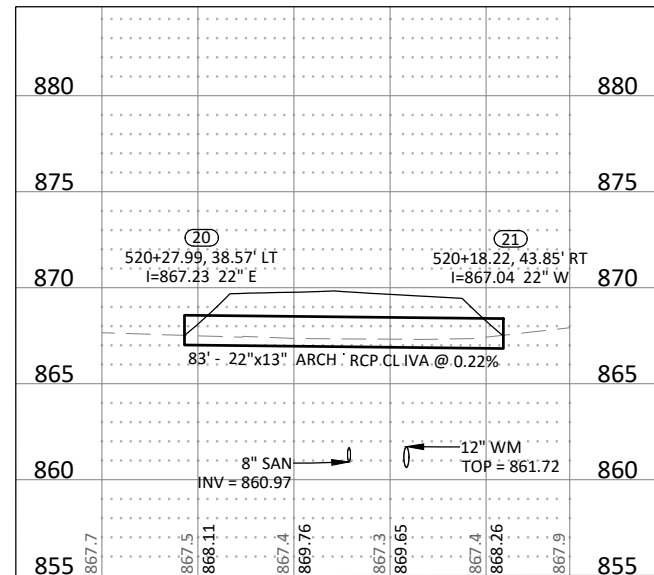
146TH STREET NW STA: 504+25
SEE SHEET 26



FERRET STREET NW STA: 509+48
SEE SHEET 27

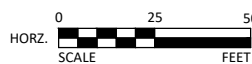


FERRET STREET NW STA: 514+47
SEE SHEET 28



FERRET STREET & BUNKER LAKE
BOULEVARD CULVERT
520+28 TO 520+18
SEE SHEET 29

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Zachary F. Lingl
ZACHARY F. LINGL
LIC. NO. 56344 DATE 03/20/2023



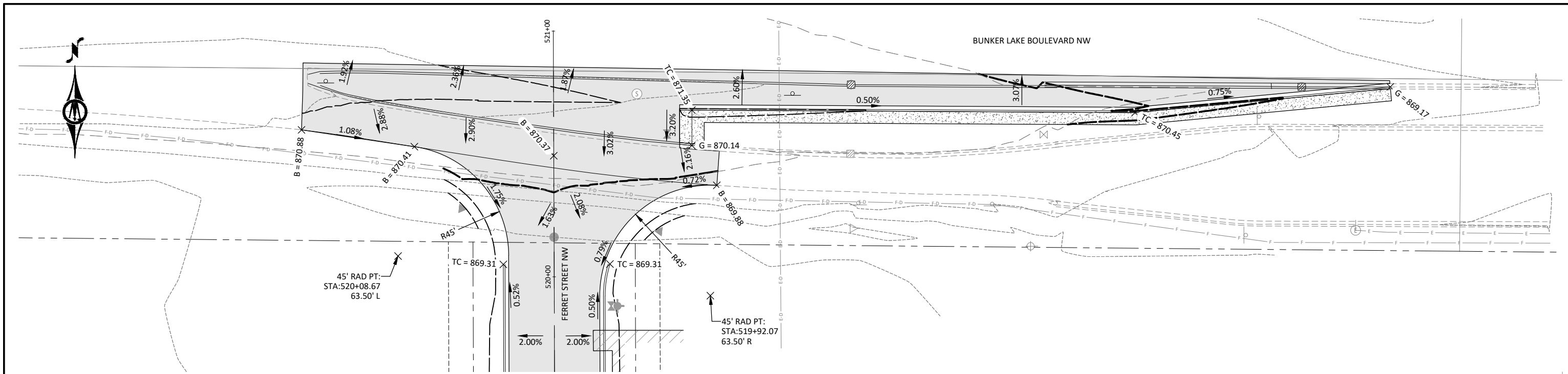
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CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
STORM SEWER & STREET - PLAN & PROFILE
STORM LEADS

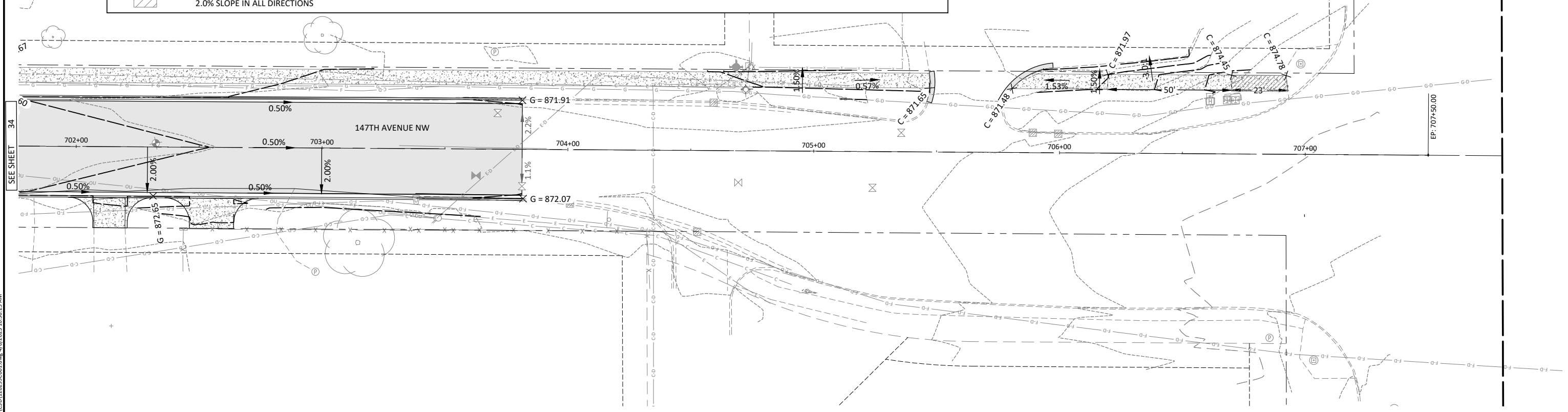
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33
OF
43



LEGEND

	EXISTING CURB & GUTTER		2.0%	SURFACE FLOW DIRECTION		CURB HEIGHT
	B618 CONCRETE CURB & GUTTER		TC=XXX.XX	PROPOSED TOP OF CURB		INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
	PROPOSED BITUMINOUS PAVEMENT		G=XXX.XX	PROPOSED GUTTER		INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
	6" CONCRETE PAVEMENT		C=XXX.XX	PROPOSED TOP OF CONCRETE		
	LANDING AREA - 4'X4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS		B=XXX.XX	PROPOSED TOP OF BITUMINOUS		
				TRUNCATED DOMES (SEE STANDARD PLATE 7038)		

- NOTES:**
1. MATCH PROPOSED GUTTER WITH EXISTING GUTTER
 2. STREET RADII AND RADIUS POINTS ARE TO BACK OF CURB



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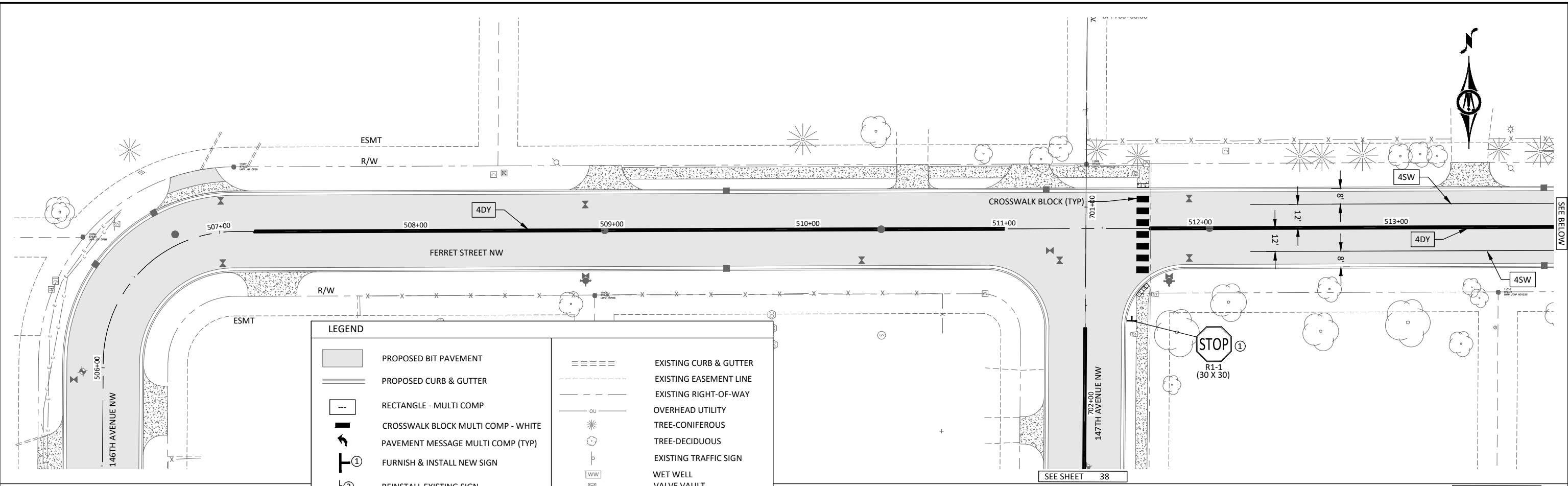
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CITY OF RAMSEY, MINNESOTA
 HY-10 RAMSEY IMPROVEMENTS
 INTERSECTION DETAILS
 FERRET STREET NW, BUNKER LAKE BOULEVARD, & 147TH AVENUE NW

SHEET 35 OF 43

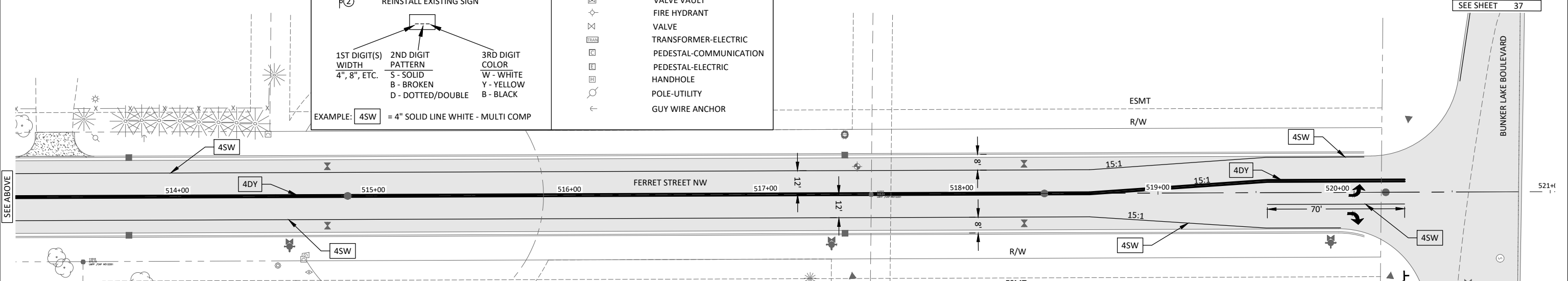


LEGEND

	PROPOSED BIT PAVEMENT		EXISTING CURB & GUTTER
	PROPOSED CURB & GUTTER		EXISTING EASEMENT LINE
	RECTANGLE - MULTI COMP		EXISTING RIGHT-OF-WAY
	CROSSWALK BLOCK MULTI COMP - WHITE		OVERHEAD UTILITY
	PAVEMENT MESSAGE MULTI COMP (TYP)		TREE-CONIFEROUS
	FURNISH & INSTALL NEW SIGN		TREE-DECIDUOUS
	REINSTALL EXISTING SIGN		EXISTING TRAFFIC SIGN
			WET WELL
			VALVE VAULT
			FIRE HYDRANT
			VALVE
			TRANSFORMER-ELECTRIC
			PEDESTAL-COMMUNICATION
			PEDESTAL-ELECTRIC
			HANDHOLE
			POLE-UTILITY
			GUY WIRE ANCHOR

1ST DIGIT(S) WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
---------------------------------------	--	--

EXAMPLE: 4SW = 4" SOLID LINE WHITE - MULTI COMP



- PAVEMENT MARKING NOTES:**
- EDGE LINES AND LANE LINES ARE TO BE BROKEN ONLY AT INTERSECTIONS WITH PUBLIC ROADS, AND AT PRIVATE ENTRANCES IF THEY ARE CONTROLLED BY AN AGENCY PLACED YIELD SIGN, STOP SIGN, OR TRAFFIC SIGNAL. THE BREAK POINT IS TO BE AT THE START OF THE MAINLINE RADIUS.
 - DO NOT APPLY THE PAVEMENT MARKINGS WHEN THE WEATHER AND OTHER CONDITIONS CAUSE A FILM OF DUST OR DEBRIS TO BE DEPOSITED ON THE PAVEMENT SURFACE AFTER CLEANING AND BEFORE THE MARKING MATERIAL IS APPLIED.
 - THE FILLING OF TANKS, POURING OF MATERIALS, OR CLEANING OF EQUIPMENT SHALL NOT BE PERFORMED ON UNPROTECTED PAVEMENTS SURFACES UNLESS ADEQUATE PROVISIONS ARE MADE TO PREVENT SPILLAGE OF MATERIAL.

- TRAFFIC CONTROL/SIGN NOTES:**
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING TRAFFIC CONTROL SIGNS AND DEVICES COMPLY WITH THE REQUIREMENTS OF THE MNMUTCD AT ALL TIMES DURING CONSTRUCTION.
 - THE CONTRACTOR SHALL SALVAGE EXISTING SIGNS AND SECURE IN A PROTECTED AREA. THE CITY OF RAMSEY WILL HAUL SIGNS OFF SITE THAT WILL NOT BE REINSTALLED.
 - THE CONTRACTOR SHALL CONTACT THE CITY 48 HOURS IN ADVANCE OF WHEN SIGNS NEED TO BE SALVAGED.
 - THE CITY OF RAMSEY SHALL FURNISH & INSTALL ALL NEW SIGNS.
 - THE CONTRACTOR SHALL PROVIDE 2 WEEKS NOTICE TO THE CITY OF RAMSEY PRIOR TO THE PERMANENT SIGNS BEING REQUIRED TO BE INSTALLED/REINSTALLED.

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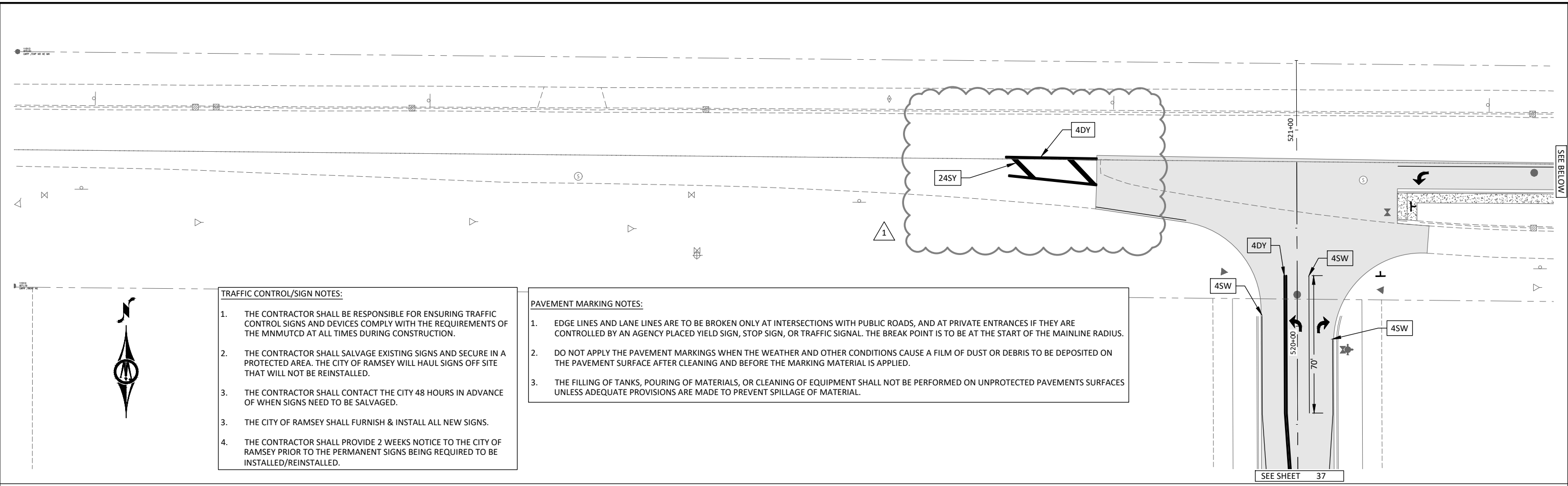
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CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
SIGNING & STRIPING
SIGNING AND STRIPING

SHEET 36 OF 43



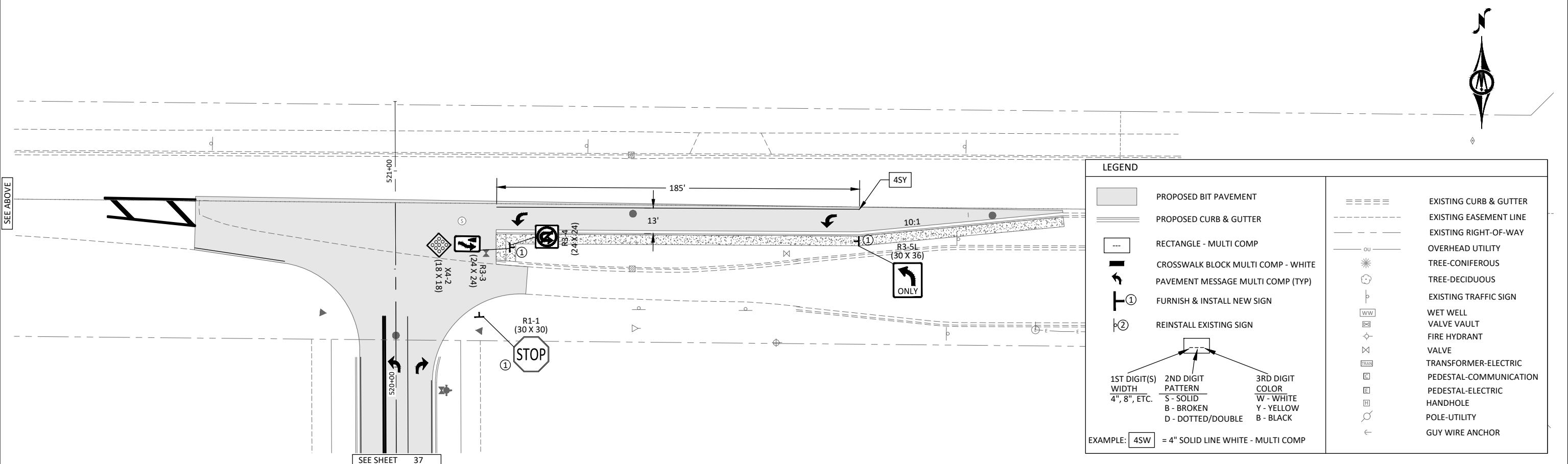
TRAFFIC CONTROL/SIGN NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING TRAFFIC CONTROL SIGNS AND DEVICES COMPLY WITH THE REQUIREMENTS OF THE MNMUTCD AT ALL TIMES DURING CONSTRUCTION.
2. THE CONTRACTOR SHALL SALVAGE EXISTING SIGNS AND SECURE IN A PROTECTED AREA. THE CITY OF RAMSEY WILL HAUL SIGNS OFF SITE THAT WILL NOT BE REINSTALLED.
3. THE CONTRACTOR SHALL CONTACT THE CITY 48 HOURS IN ADVANCE OF WHEN SIGNS NEED TO BE SALVAGED.
3. THE CITY OF RAMSEY SHALL FURNISH & INSTALL ALL NEW SIGNS.
4. THE CONTRACTOR SHALL PROVIDE 2 WEEKS NOTICE TO THE CITY OF RAMSEY PRIOR TO THE PERMANENT SIGNS BEING REQUIRED TO BE INSTALLED/REINSTALLED.

PAVEMENT MARKING NOTES:

1. EDGE LINES AND LANE LINES ARE TO BE BROKEN ONLY AT INTERSECTIONS WITH PUBLIC ROADS, AND AT PRIVATE ENTRANCES IF THEY ARE CONTROLLED BY AN AGENCY PLACED YIELD SIGN, STOP SIGN, OR TRAFFIC SIGNAL. THE BREAK POINT IS TO BE AT THE START OF THE MAINLINE RADIUS.
2. DO NOT APPLY THE PAVEMENT MARKINGS WHEN THE WEATHER AND OTHER CONDITIONS CAUSE A FILM OF DUST OR DEBRIS TO BE DEPOSITED ON THE PAVEMENT SURFACE AFTER CLEANING AND BEFORE THE MARKING MATERIAL IS APPLIED.
3. THE FILLING OF TANKS, POURING OF MATERIALS, OR CLEANING OF EQUIPMENT SHALL NOT BE PERFORMED ON UNPROTECTED PAVEMENTS SURFACES UNLESS ADEQUATE PROVISIONS ARE MADE TO PREVENT SPILLAGE OF MATERIAL.

SEE SHEET 37



LEGEND	
	PROPOSED BIT PAVEMENT
	PROPOSED CURB & GUTTER
	RECTANGLE - MULTI COMP
	CROSSWALK BLOCK MULTI COMP - WHITE
	PAVEMENT MESSAGE MULTI COMP (TYP)
	FURNISH & INSTALL NEW SIGN
	REINSTALL EXISTING SIGN
	EXISTING CURB & GUTTER
	EXISTING EASEMENT LINE
	EXISTING RIGHT-OF-WAY
	OVERHEAD UTILITY
	TREE-CONIFEROUS
	TREE-DECIDUOUS
	EXISTING TRAFFIC SIGN
	WET WELL
	VALVE VAULT
	FIRE HYDRANT
	VALVE
	TRANSFORMER-ELECTRIC
	PEDESTAL-COMMUNICATION
	PEDESTAL-ELECTRIC
	HANDHOLE
	POLE-UTILITY
	GUY WIRE ANCHOR

EXAMPLE: 4SW = 4" SOLID LINE WHITE - MULTI COMP

1ST DIGIT(S) WIDTH
4", 8", ETC.

2ND DIGIT PATTERN
S - SOLID
B - BROKEN
D - DOTTED/DOUBLE

3RD DIGIT COLOR
W - WHITE
Y - YELLOW
B - BLACK

SEE SHEET 37



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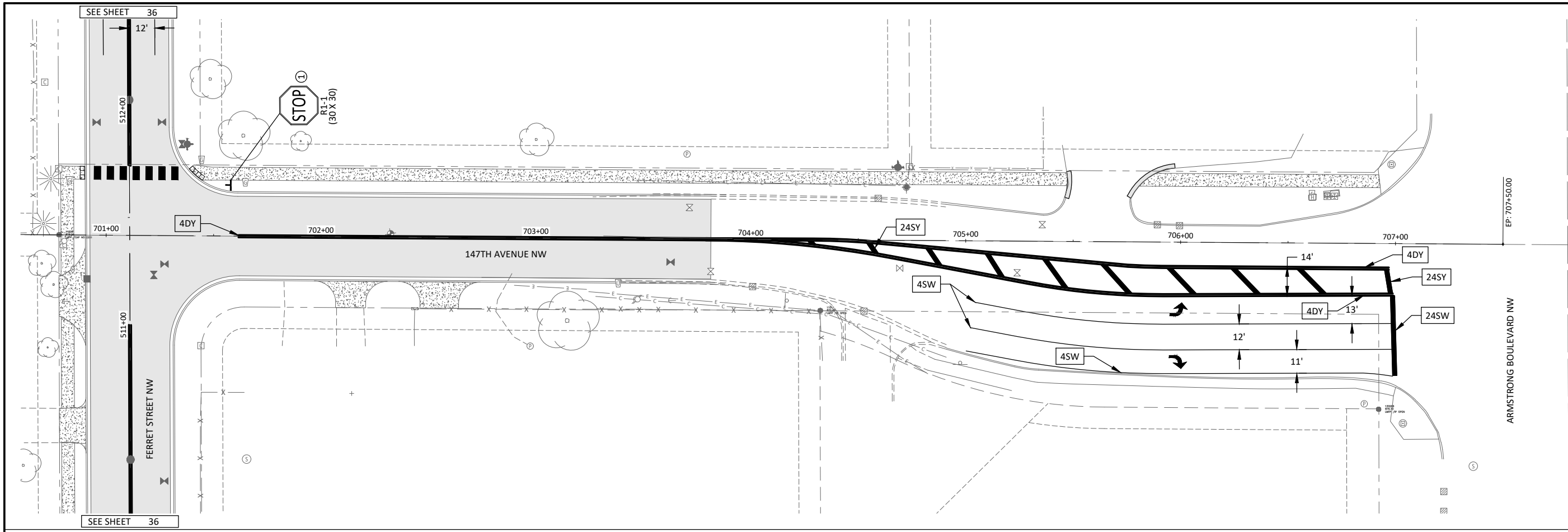


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CITY OF RAMSEY, MINNESOTA
HY-10 RAMSEY IMPROVEMENTS
SIGNING & STRIPING
SIGNING AND STRIPING

SHEET 37 OF 43

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LEGEND				
	PROPOSED BIT PAVEMENT			
	PROPOSED CURB & GUTTER			
	RECTANGLE - MULTI COMP			
	CROSSWALK BLOCK MULTI COMP - WHITE			
	PAVEMENT MESSAGE MULTI COMP (TYP)			
	FURNISH & INSTALL NEW SIGN			
	REINSTALL EXISTING SIGN			
<table border="0"> <tr> <td>1ST DIGIT(S) WIDTH 4", 8", ETC.</td> <td>2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE</td> <td>3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK</td> </tr> </table>		1ST DIGIT(S) WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
1ST DIGIT(S) WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK		
EXAMPLE: 4SW = 4" SOLID LINE WHITE - MULTI COMP				
	EXISTING CURB & GUTTER			
	EXISTING EASEMENT LINE			
	EXISTING RIGHT-OF-WAY			
	OVERHEAD UTILITY			
	TREE-CONIFEROUS			
	TREE-DECIDUOUS			
	EXISTING TRAFFIC SIGN			
	WET WELL			
	VALVE VAULT			
	FIRE HYDRANT			
	VALVE			
	TRANSFORMER-ELECTRIC			
	PEDESTAL-COMMUNICATION			
	PEDESTAL-ELECTRIC			
	HANDHOLE			
	POLE-UTILITY			
	GUY WIRE ANCHOR			

PAVEMENT MARKING NOTES:

- EDGE LINES AND LANE LINES ARE TO BE BROKEN ONLY AT INTERSECTIONS WITH PUBLIC ROADS, AND AT PRIVATE ENTRANCES IF THEY ARE CONTROLLED BY AN AGENCY PLACED YIELD SIGN, STOP SIGN, OR TRAFFIC SIGNAL. THE BREAK POINT IS TO BE AT THE START OF THE MAINLINE RADIUS.
- DO NOT APPLY THE PAVEMENT MARKINGS WHEN THE WEATHER AND OTHER CONDITIONS CAUSE A FILM OF DUST OR DEBRIS TO BE DEPOSITED ON THE PAVEMENT SURFACE AFTER CLEANING AND BEFORE THE MARKING MATERIAL IS APPLIED.
- THE FILLING OF TANKS, POURING OF MATERIALS, OR CLEANING OF EQUIPMENT SHALL NOT BE PERFORMED ON UNPROTECTED PAVEMENTS SURFACES UNLESS ADEQUATE PROVISIONS ARE MADE TO PREVENT SPILLAGE OF MATERIAL.

TRAFFIC CONTROL/SIGN NOTES:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING TRAFFIC CONTROL SIGNS AND DEVICES COMPLY WITH THE REQUIREMENTS OF THE MNMUTCD AT ALL TIMES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL SALVAGE EXISTING SIGNS AND SECURE IN A PROTECTED AREA. THE CITY OF RAMSEY WILL HAUL SIGNS OFF SITE THAT WILL NOT BE REINSTALLED.
- THE CONTRACTOR SHALL CONTACT THE CITY 48 HOURS IN ADVANCE OF WHEN SIGNS NEED TO BE SALVAGED.
- THE CITY OF RAMSEY SHALL FURNISH & INSTALL ALL NEW SIGNS.
- THE CONTRACTOR SHALL PROVIDE 2 WEEKS NOTICE TO THE CITY OF RAMSEY PRIOR TO THE PERMANENT SIGNS BEING REQUIRED TO BE INSTALLED/REINSTALLED.

SEE ABOVE



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Zachary F. Lingl
 ZACHARY F. LINGL
 LIC. NO. 56344 DATE 03/20/2023



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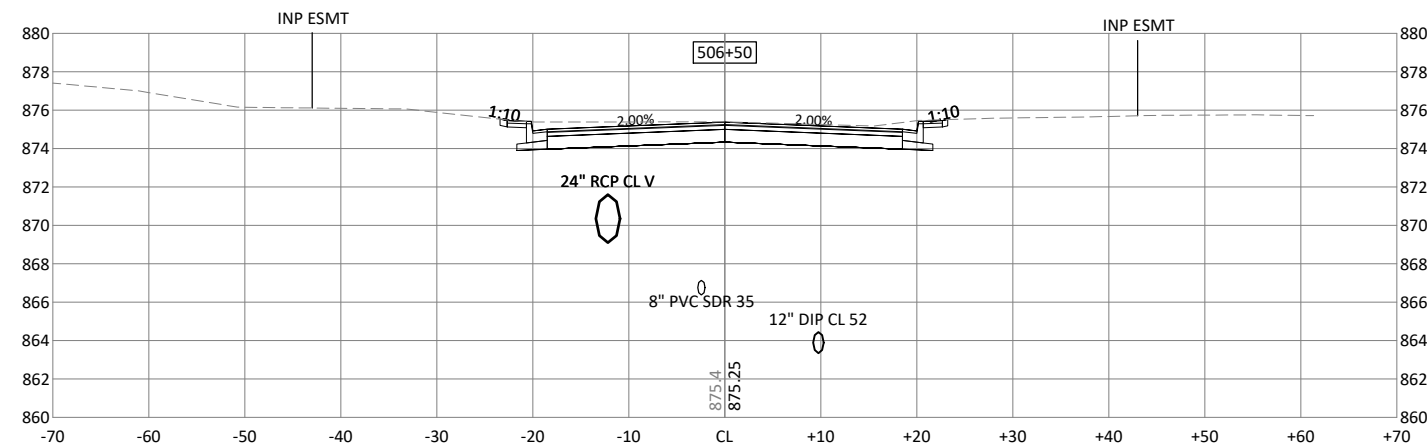
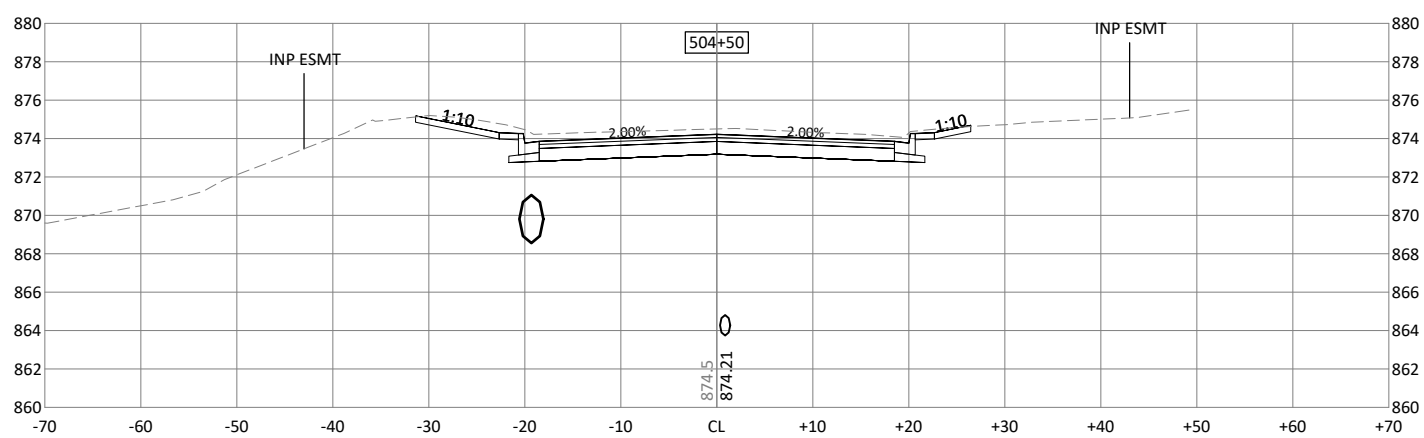
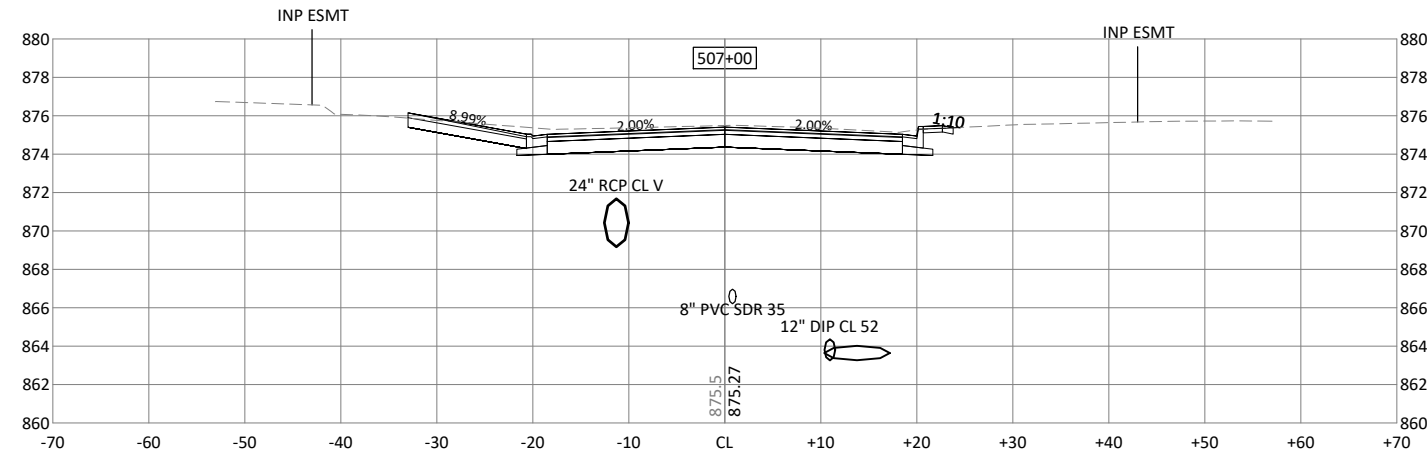
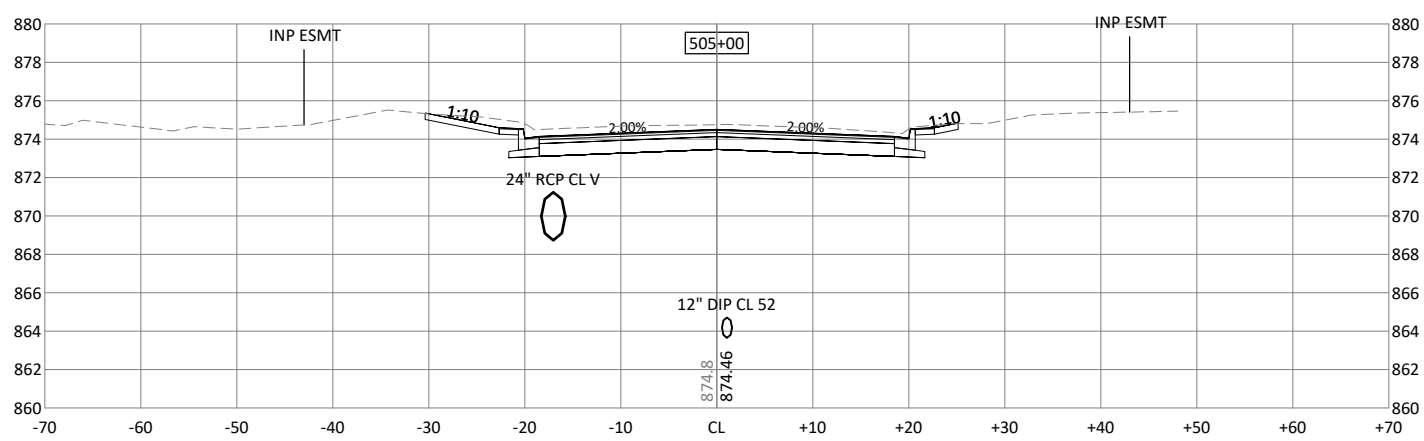
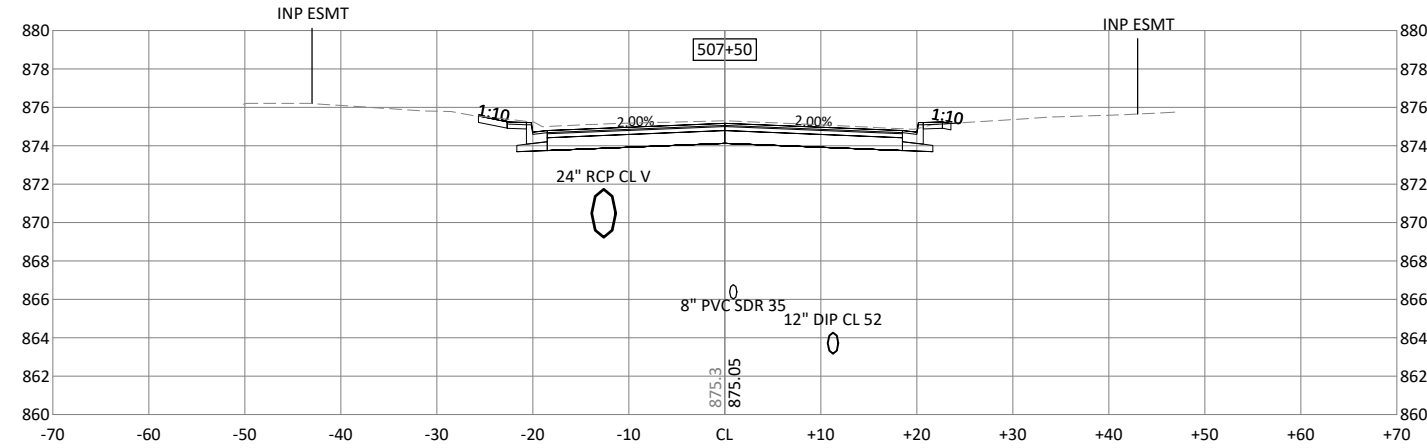
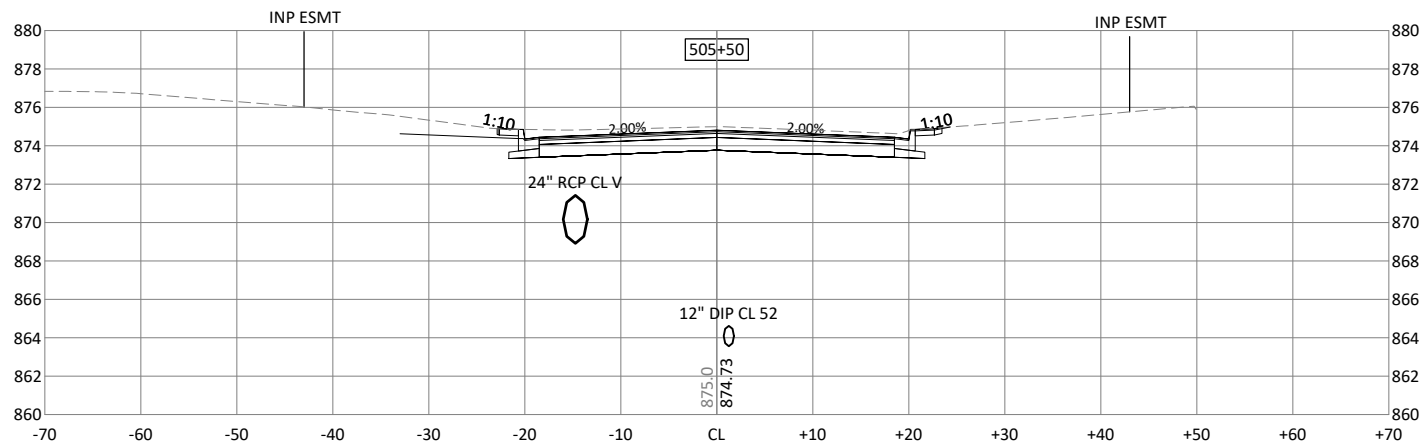
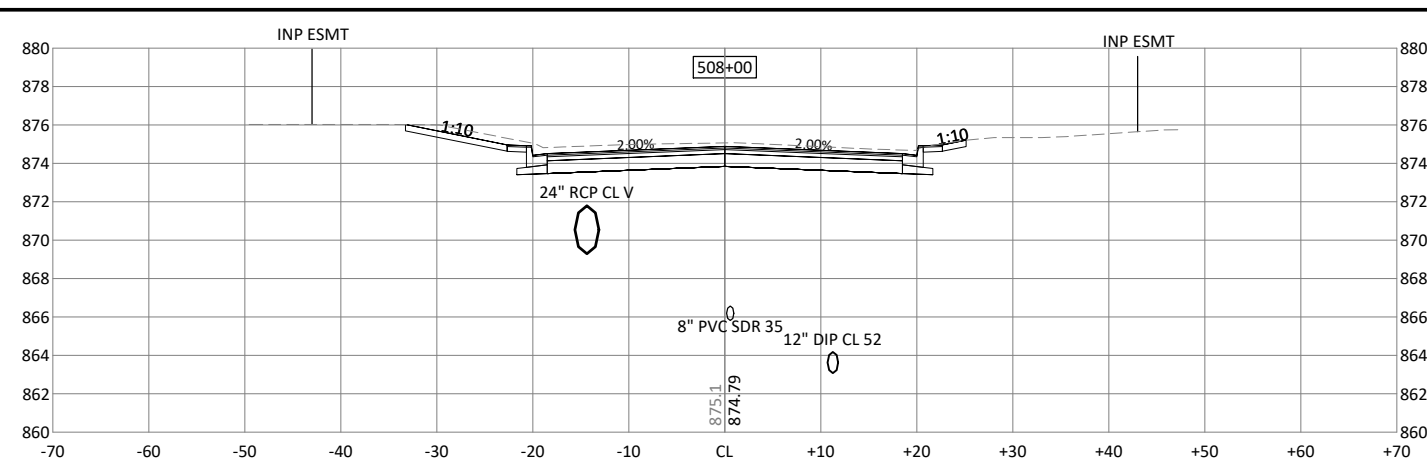
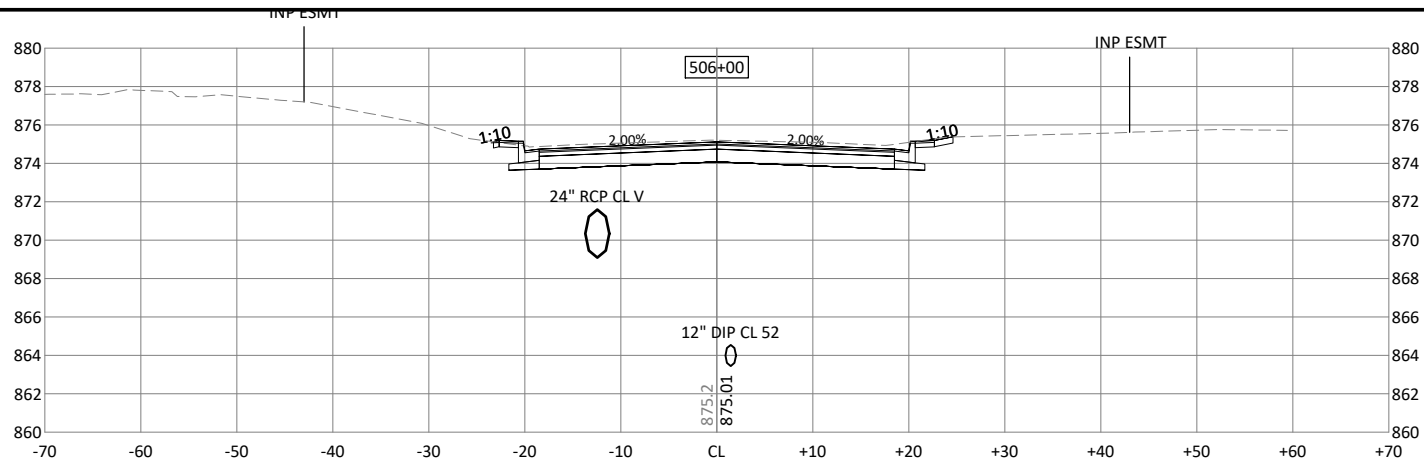


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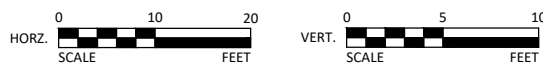
CITY OF RAMSEY, MINNESOTA
 HY-10 RAMSEY IMPROVEMENTS
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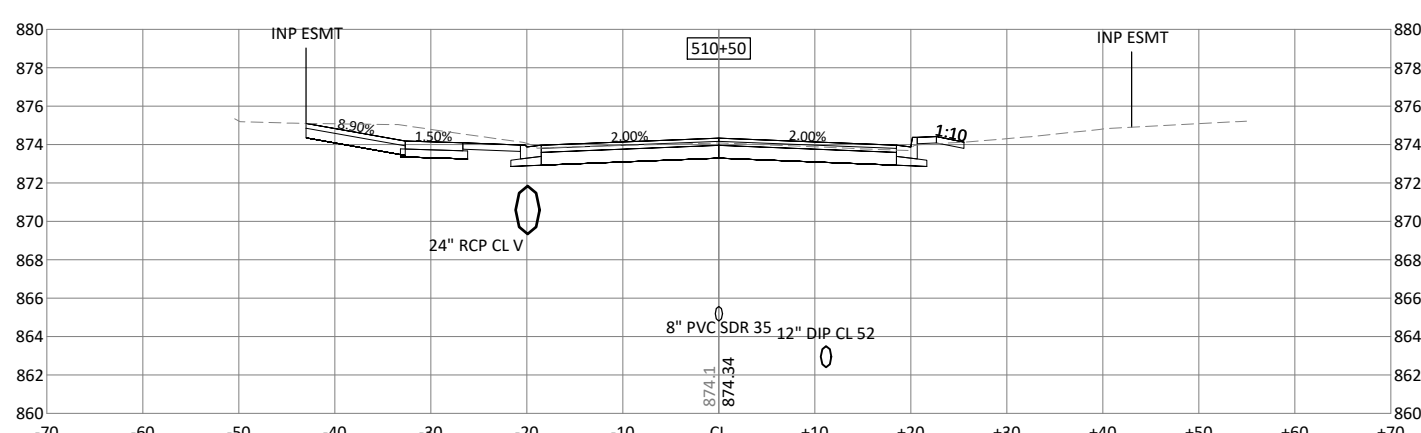
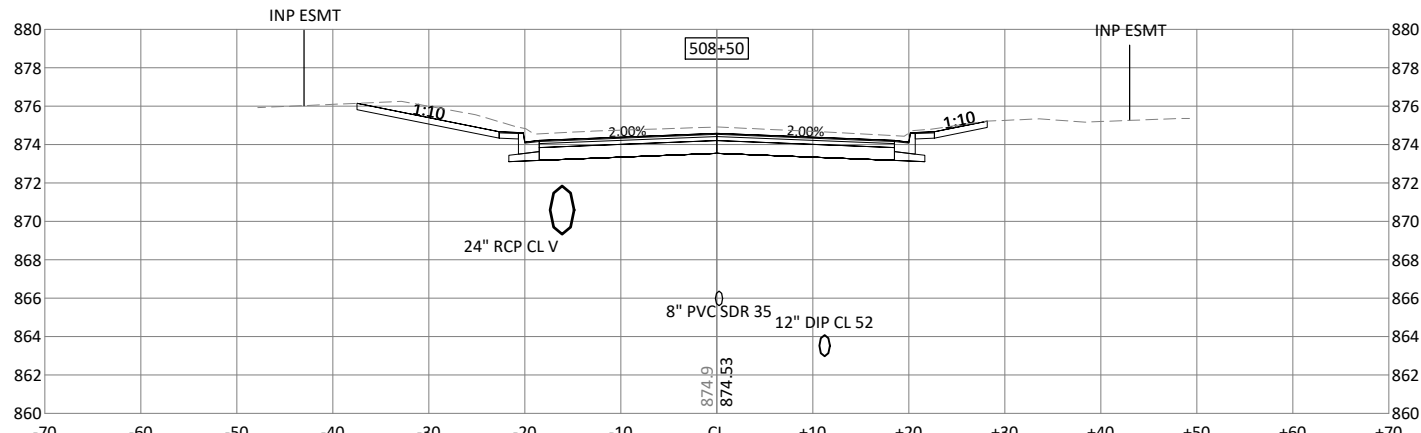
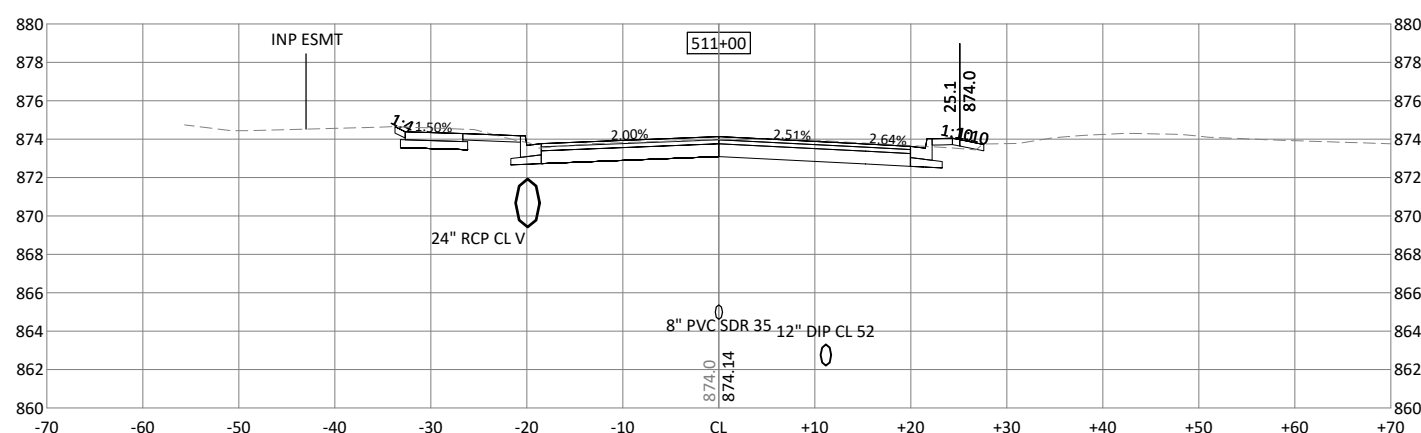
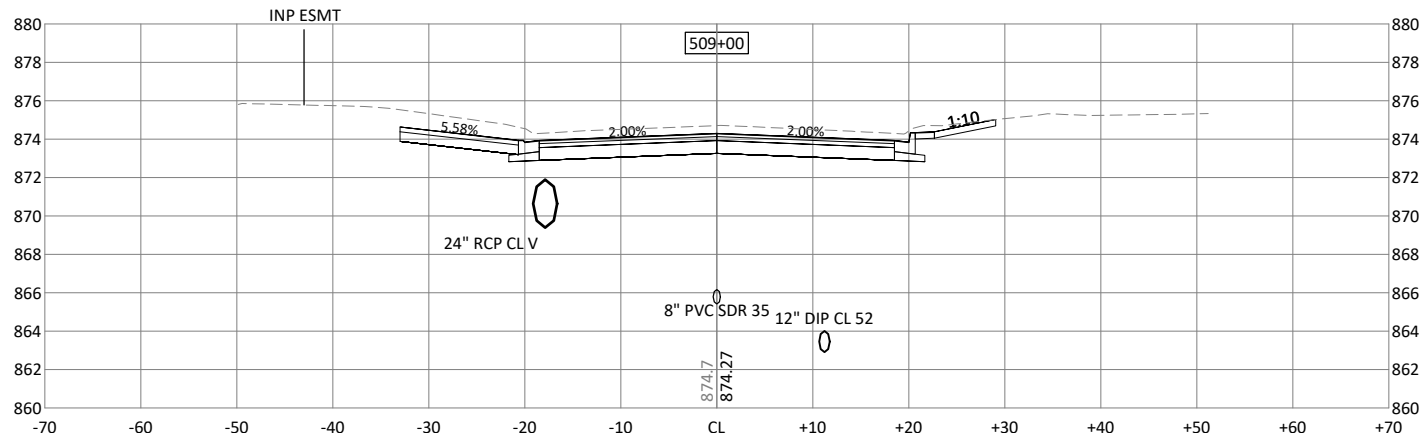
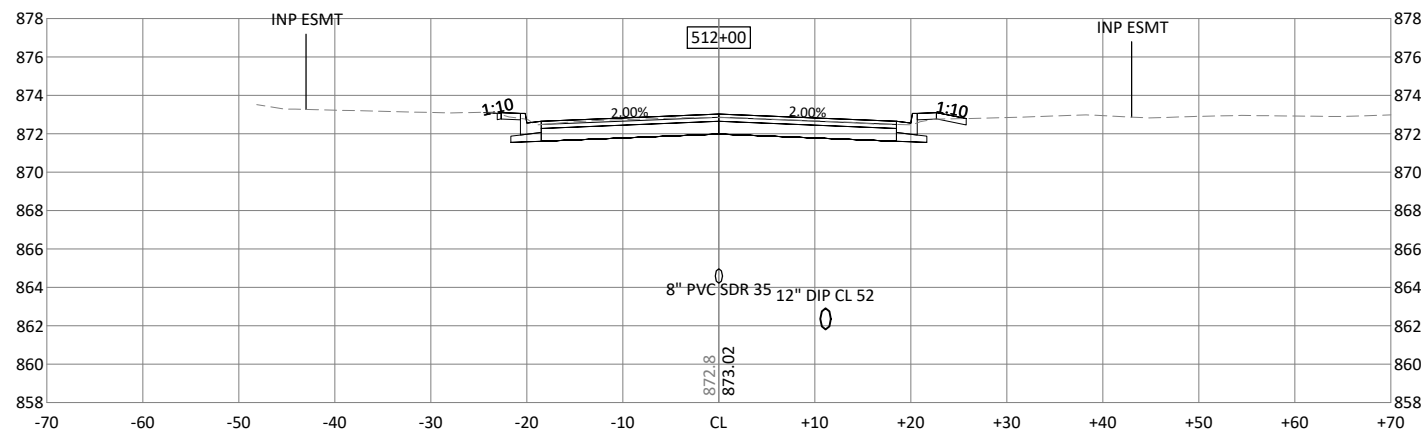
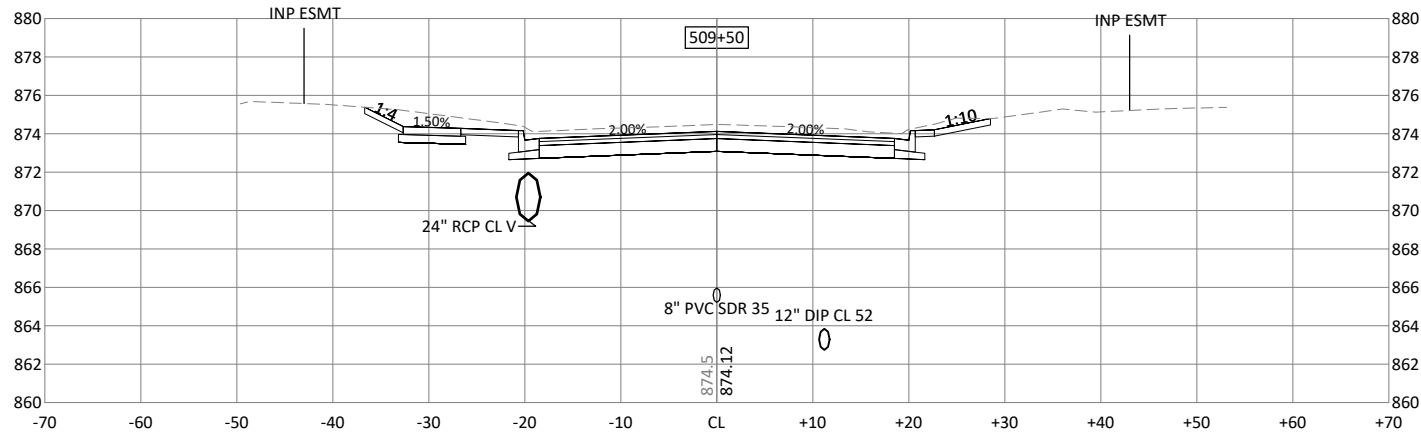
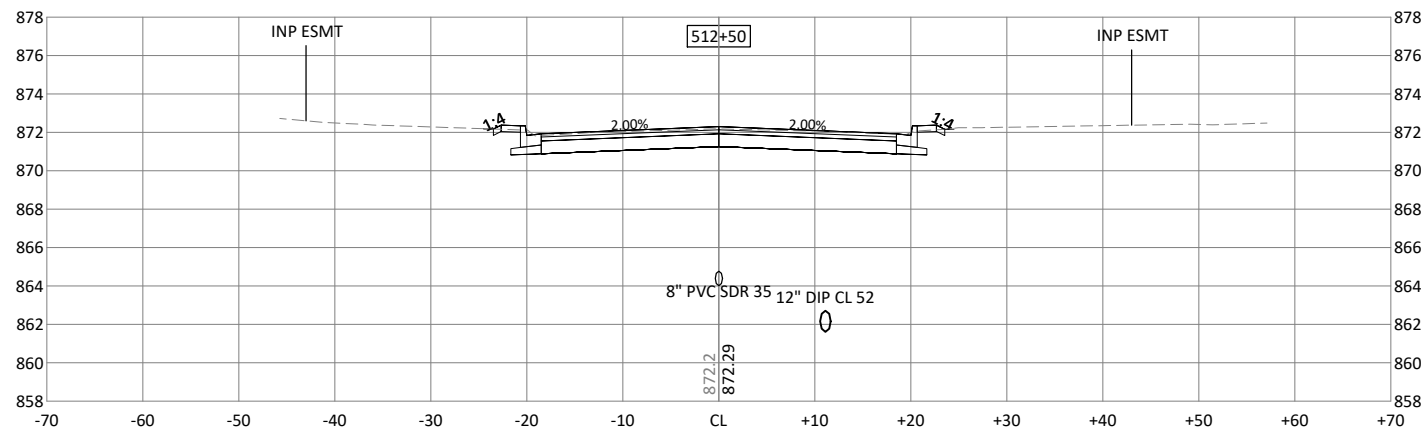
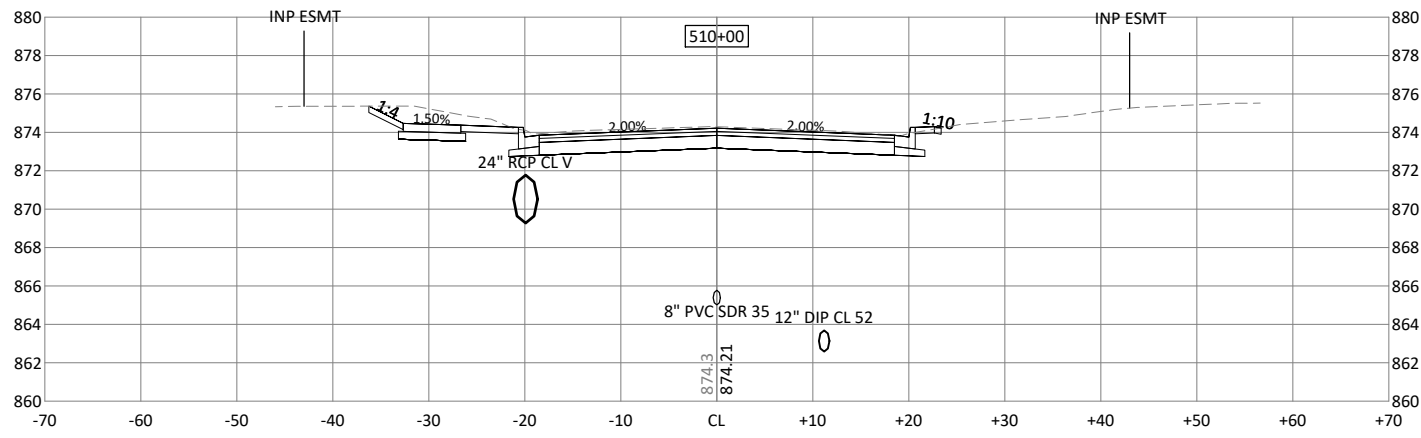
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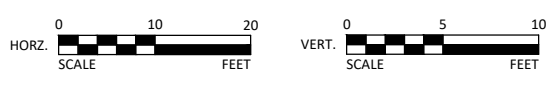
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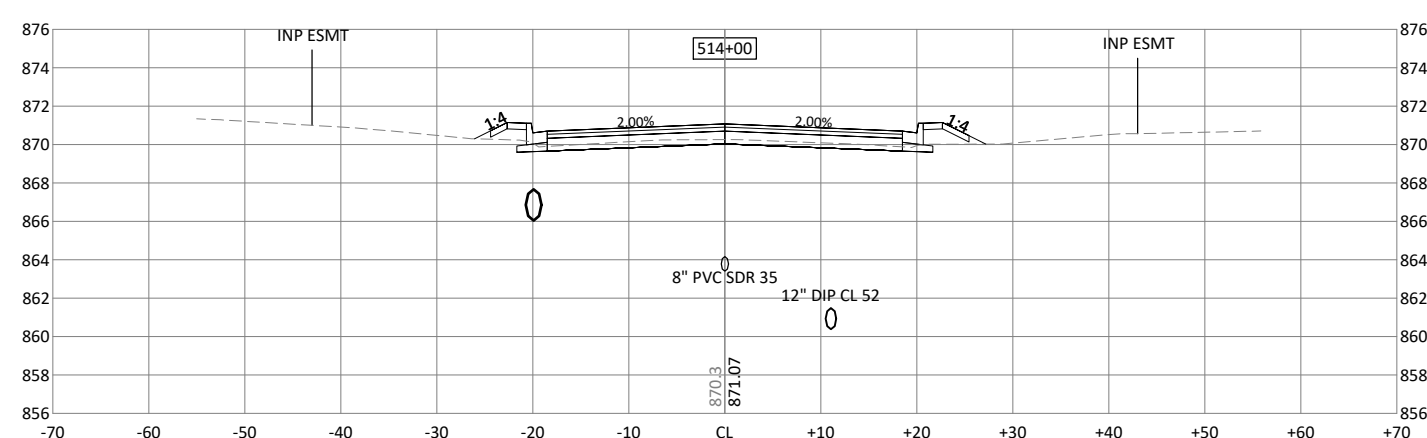
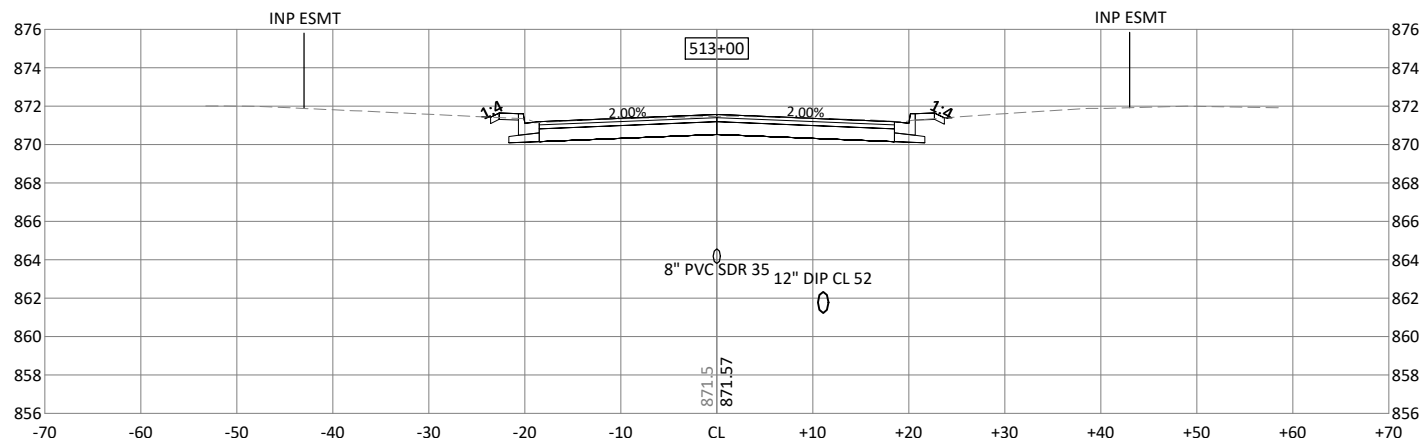
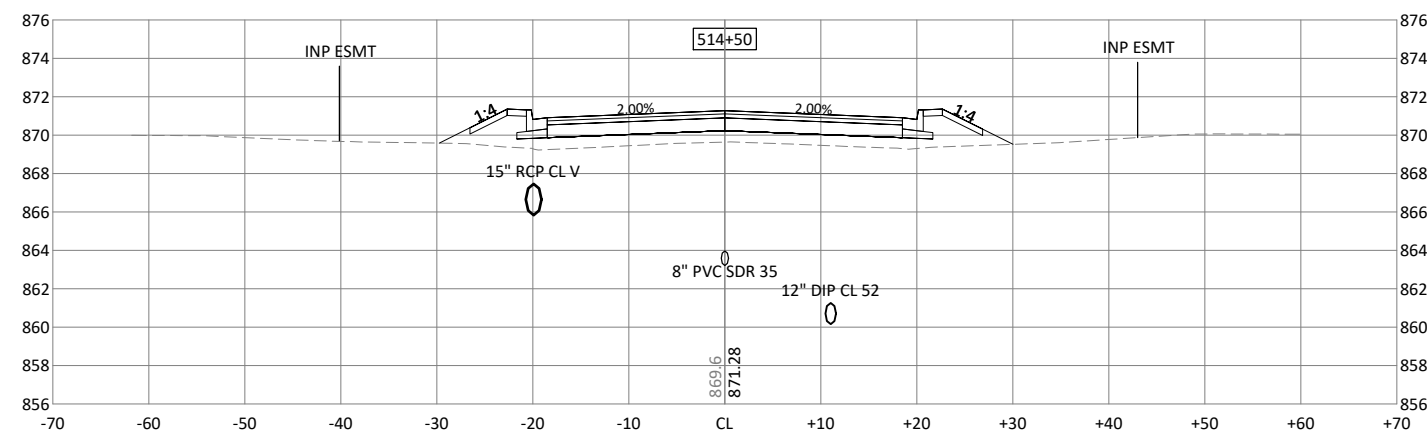
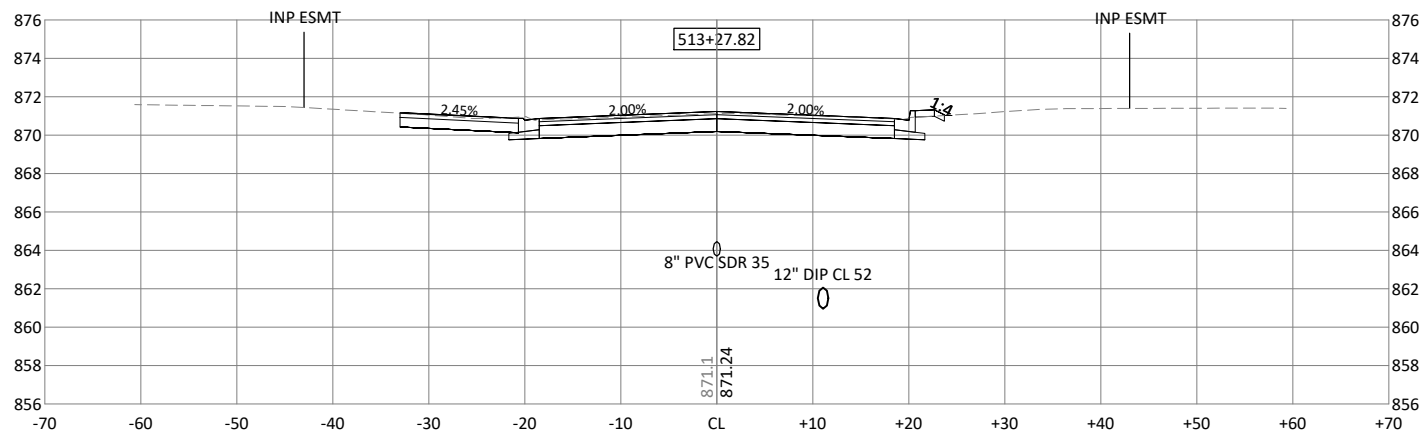
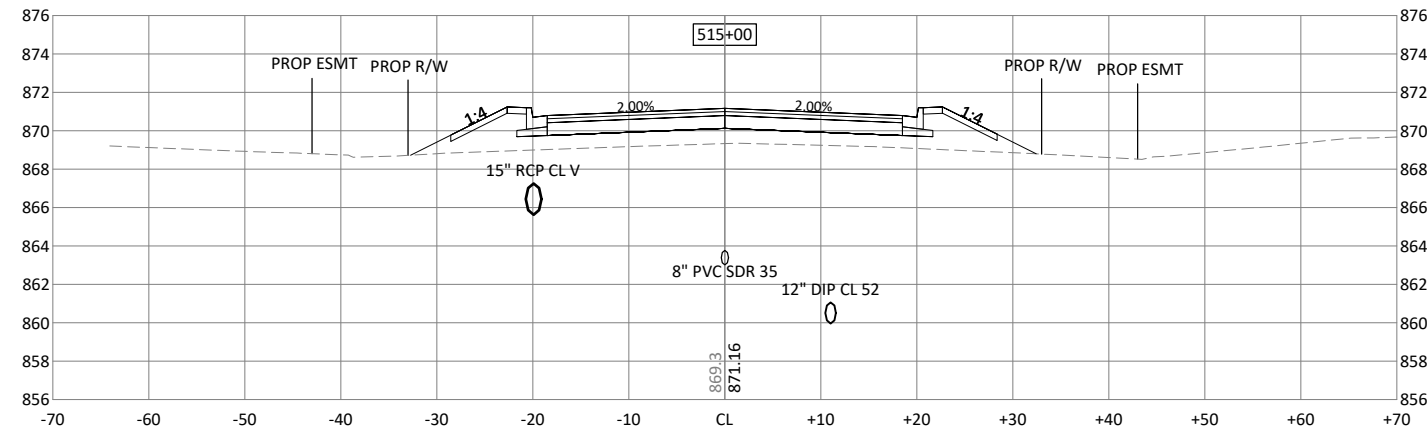
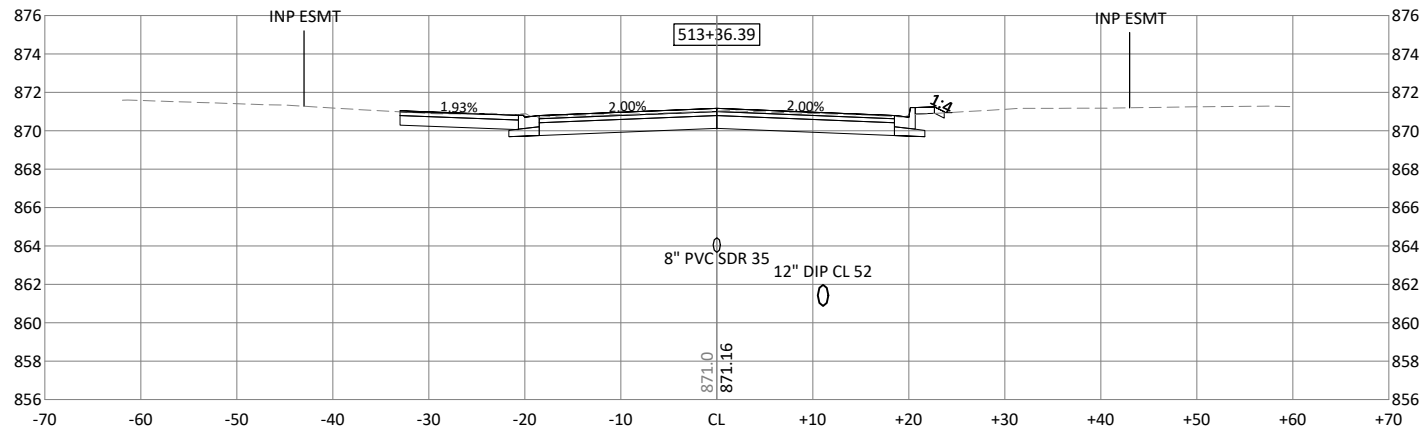
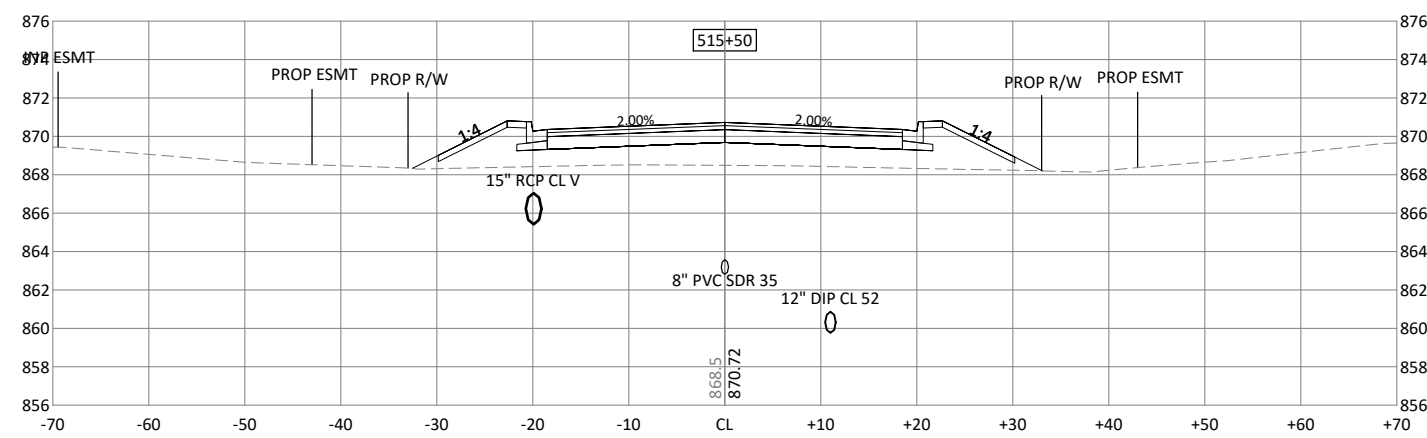
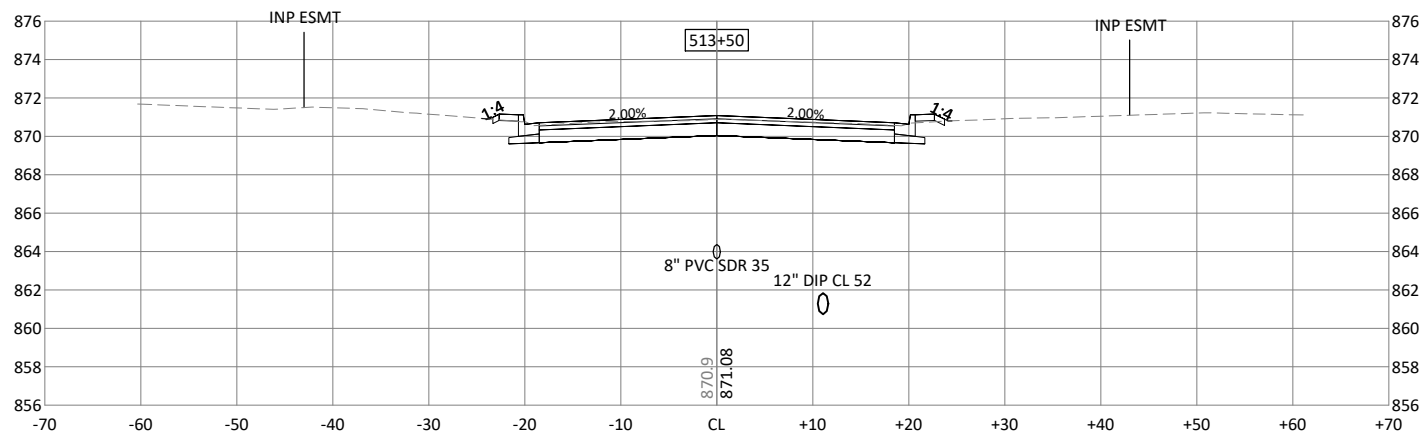
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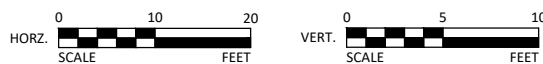
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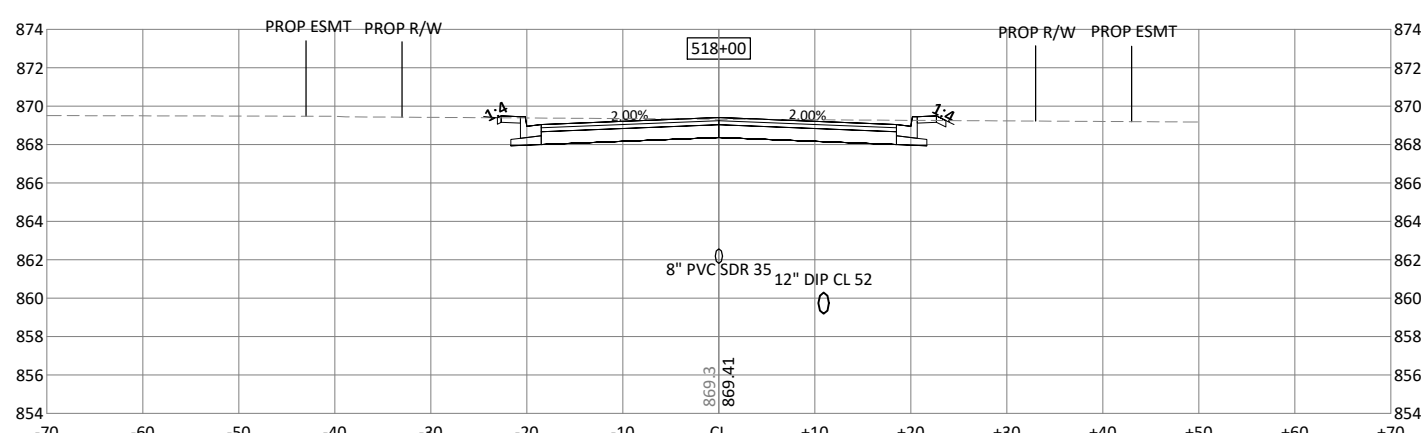
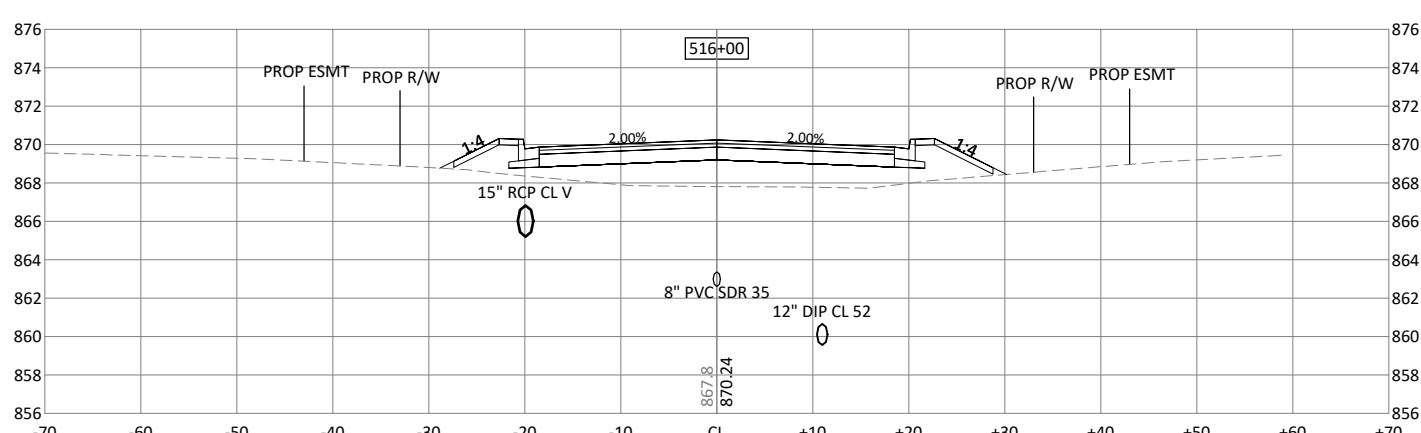
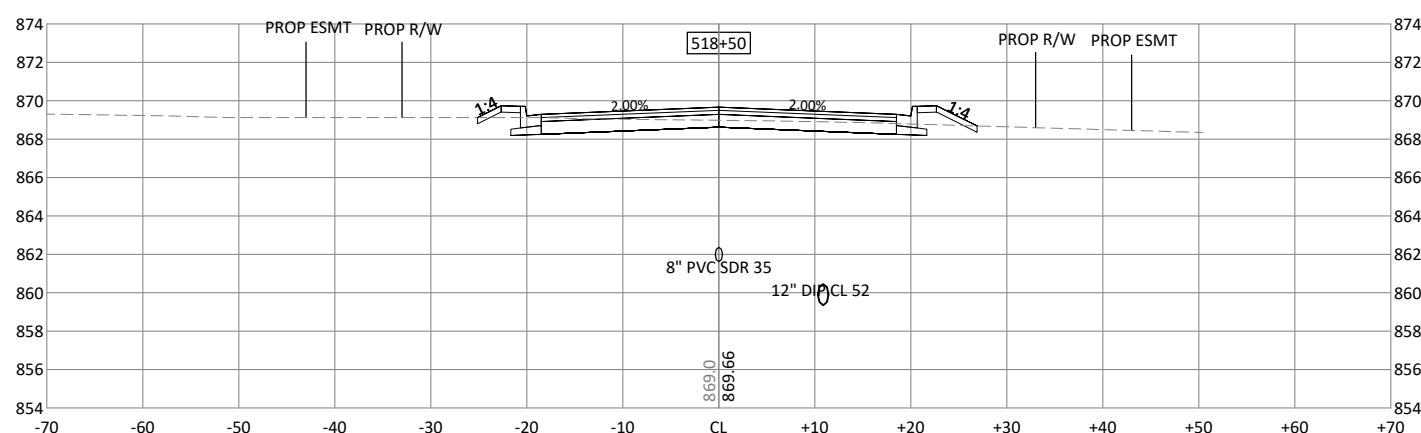
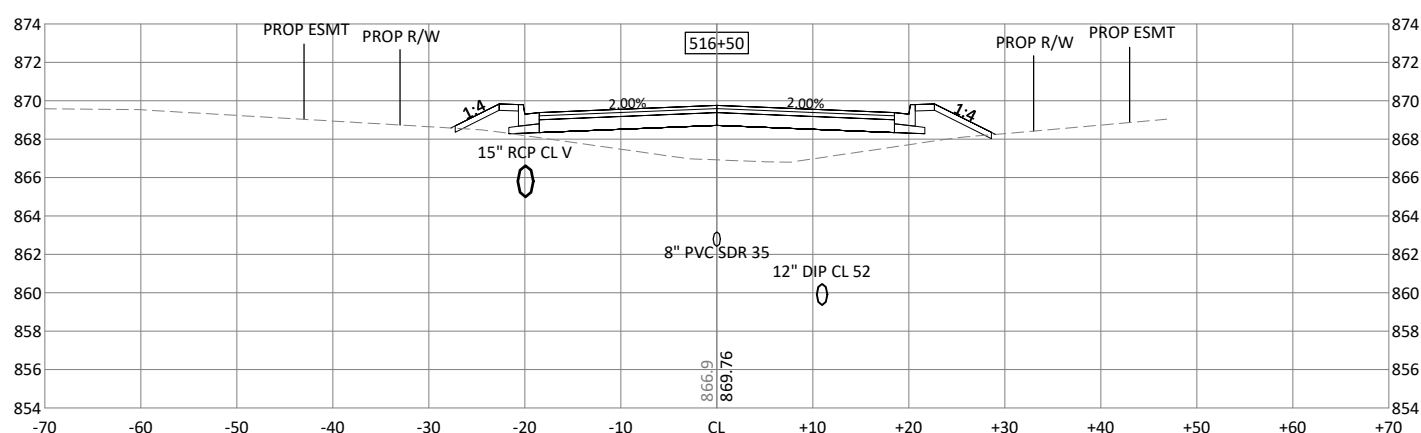
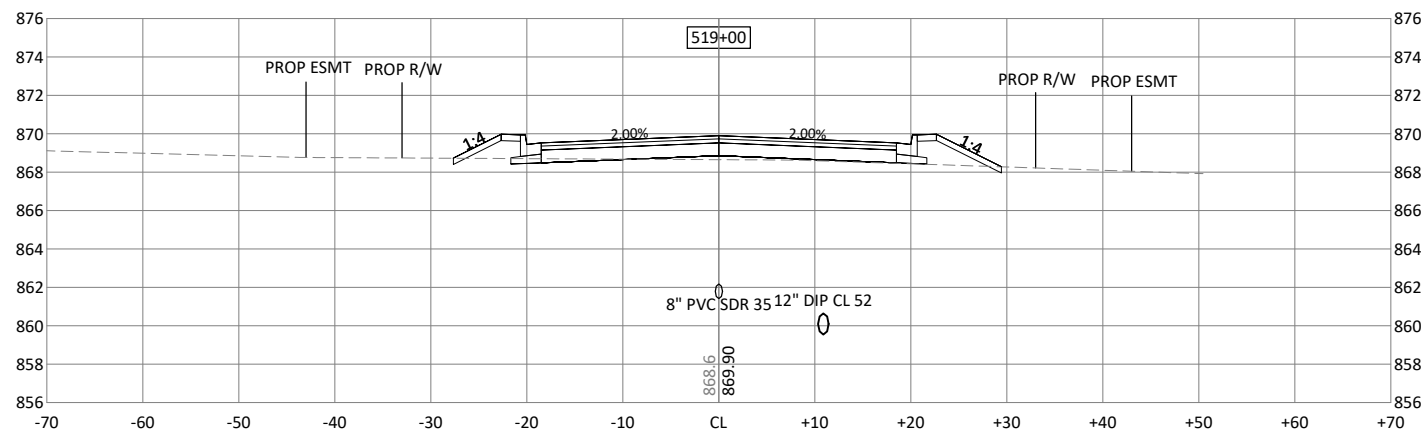
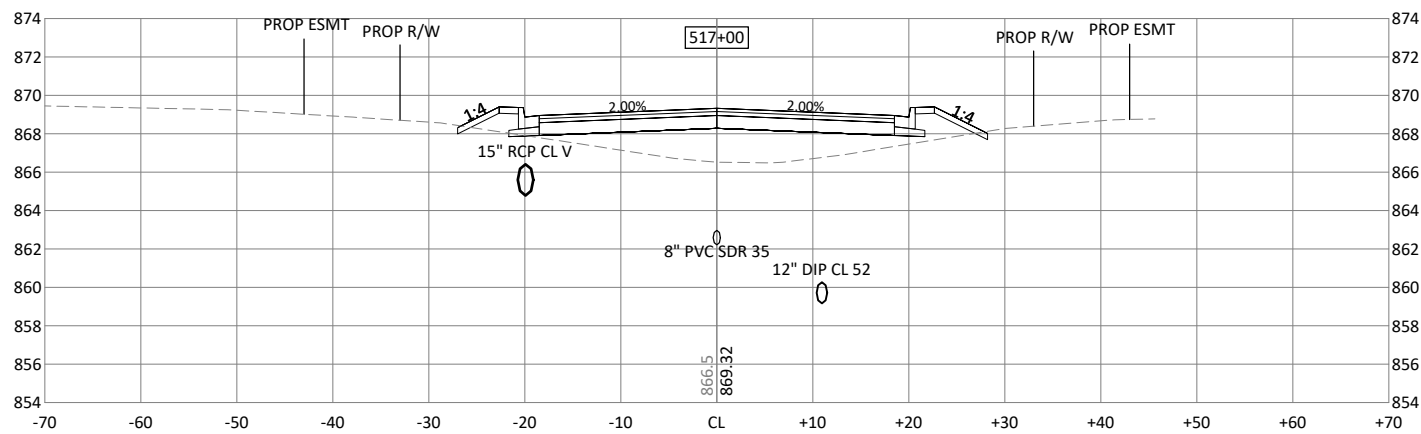
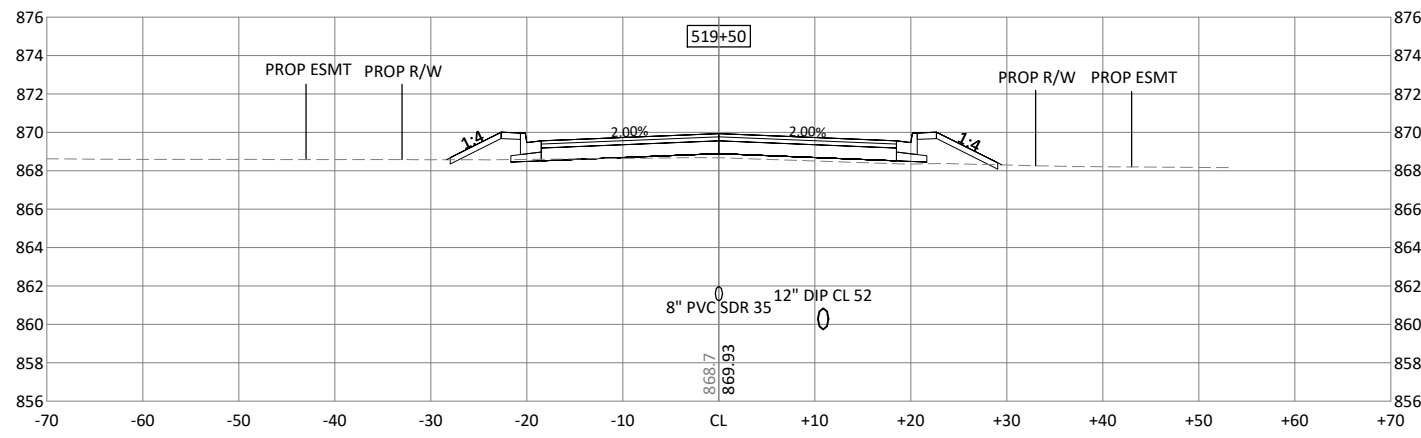
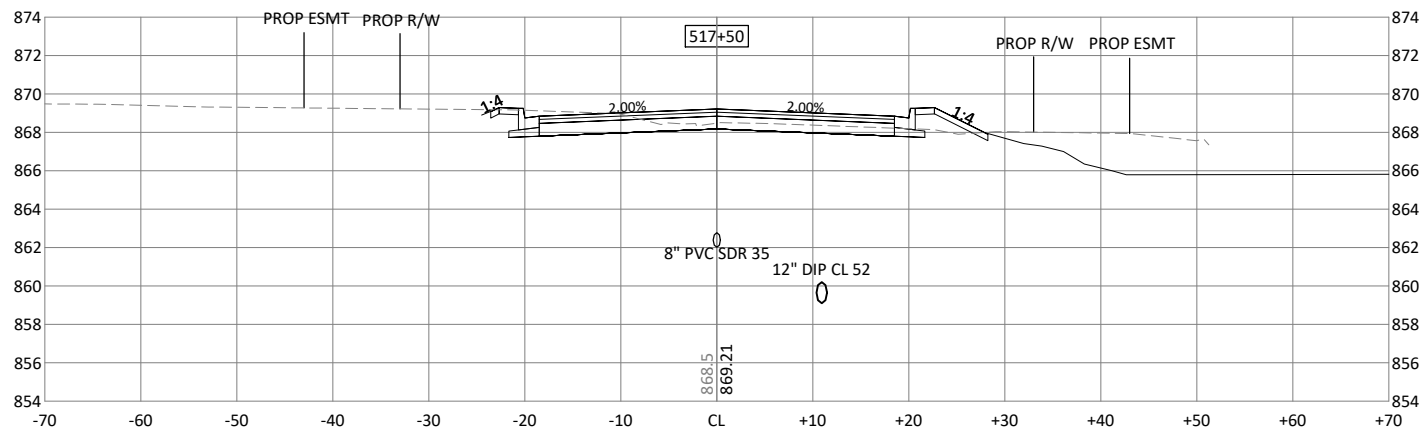
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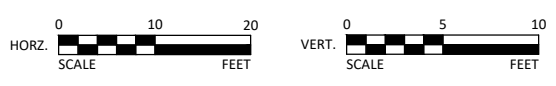
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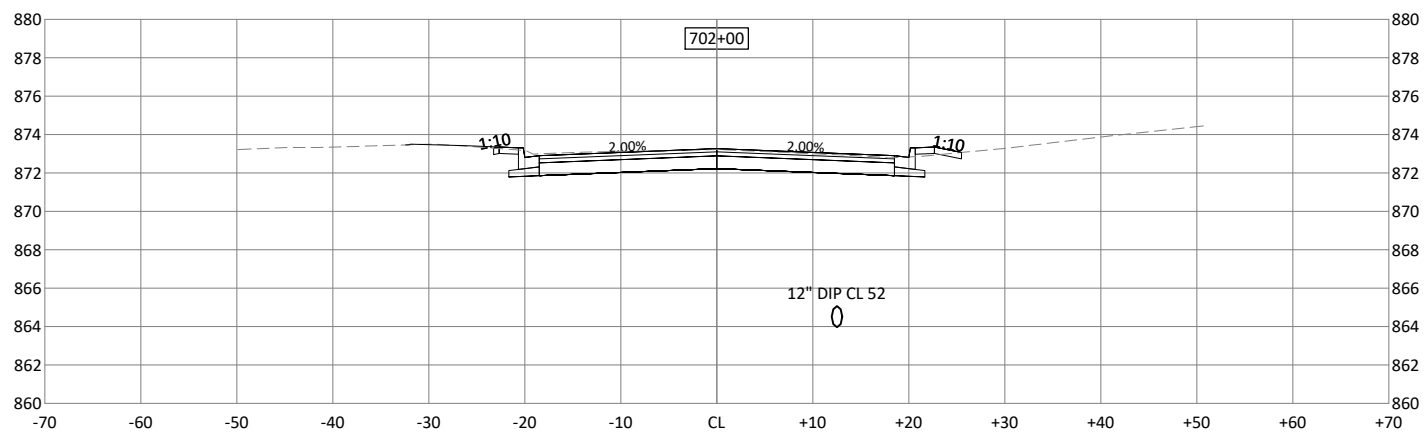
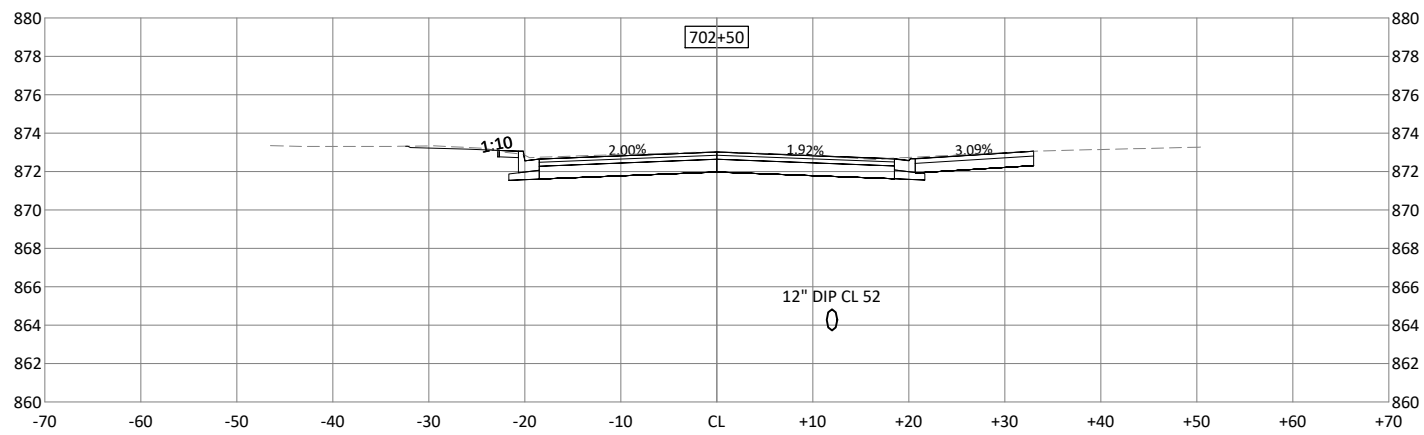
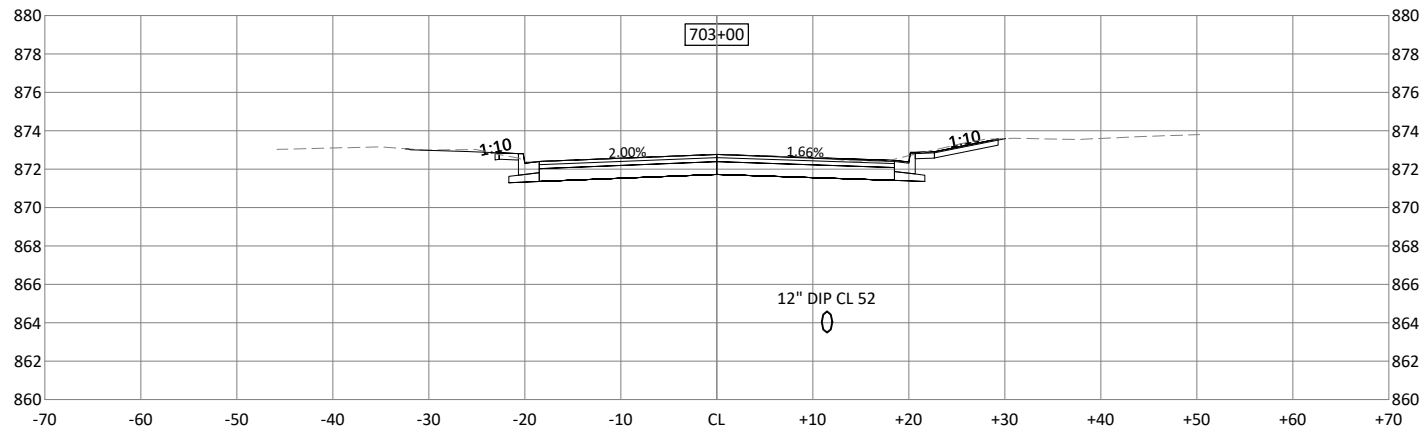
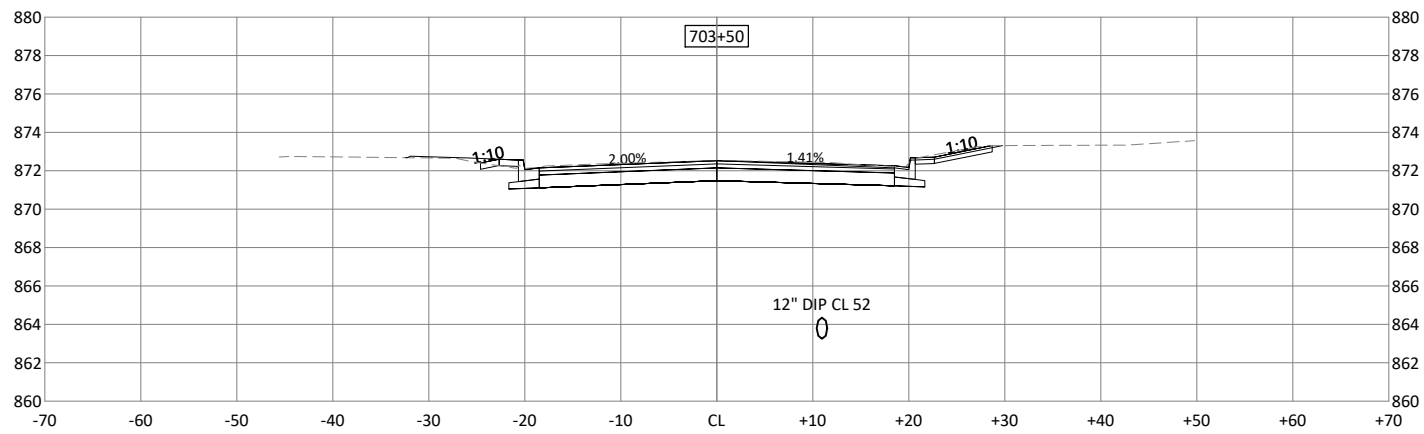
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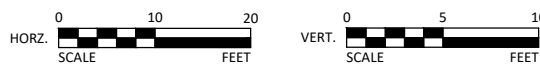
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