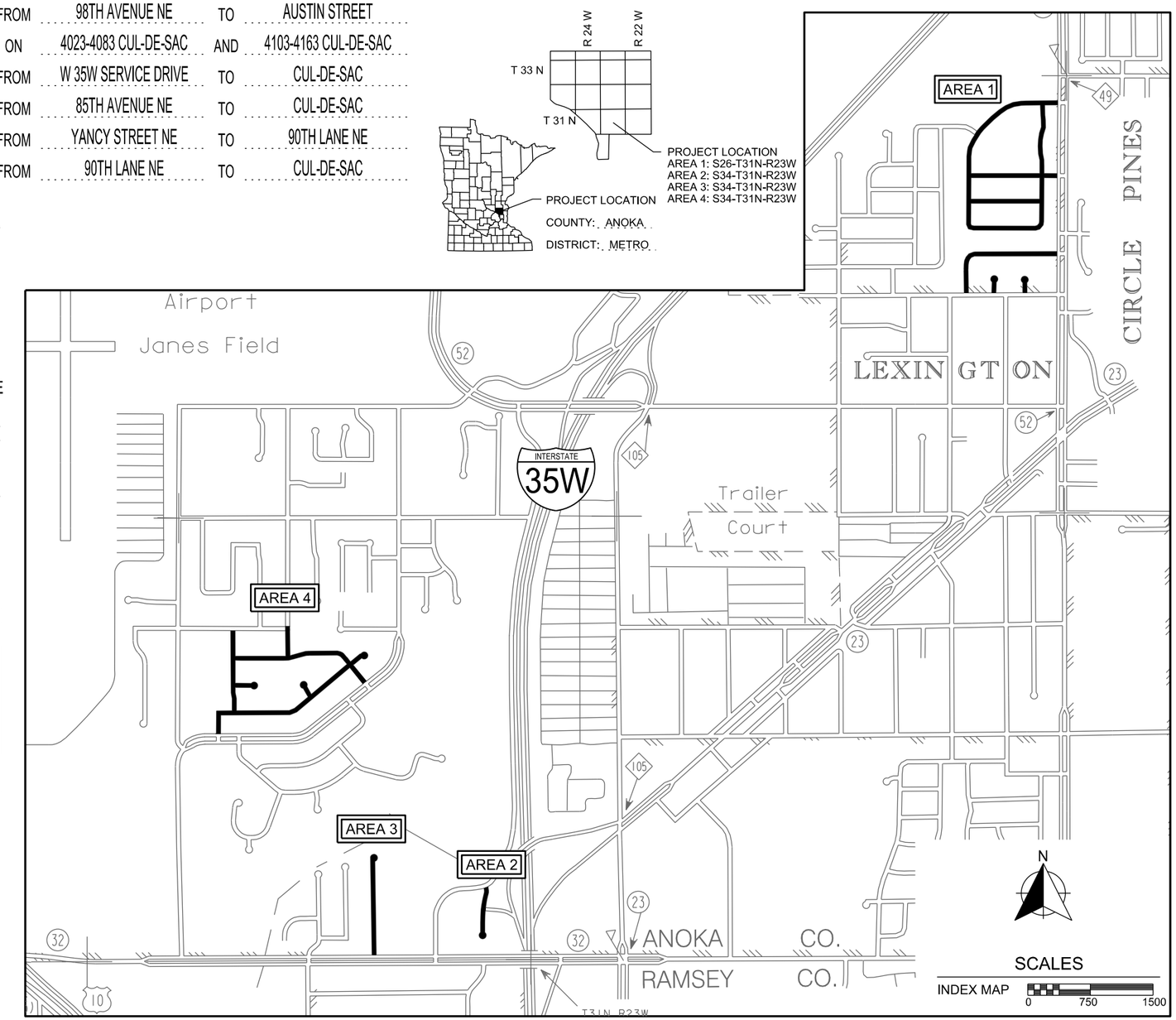
CITY OF BLAINE, MINNESOTA

CONSTRUCTION PLAN FOR GRADING, BITUMINOUS PAVING, CONCRETE CURB & GUTTER, ADA IMPROVEMENTS, WATER MAIN AND STORM WATER IMPROVEMENTS

AREA 1	LOCATED ON	97TH LANE NE	FROM	AUSTIN STREET NE	TO	CSAH 17
	LOCATED ON	98TH AVENUE NE	FROM	AUSTIN STREET NE	TO	CORD STREET NE
	LOCATED ON	98TH LANE NE	FROM	AUSTIN STREET NE	TO	CORD STREET NE
	LOCATED ON	99TH AVENUE NE	FROM	AUSTIN STREET NE	TO	CSAH 17
	LOCATED ON	AUSTIN STREET	FROM	EDGEWOOD ROAD NE	TO	97TH LANE
	LOCATED ON	AUSTIN STREET	FROM	98TH AVENUE NE	TO	CSAH 17
	LOCATED ON	CORD STREET	FROM	98TH AVENUE NE	TO	AUSTIN STREET
	LOCATED ON	EDGEWOOD ROAD	ON	4023-4083 CUL-DE-SAC	AND	4103-4163 CUL-DE-SAC
AREA 2	LOCATED ON	W 35W SERVICE DRIVE	FROM	W 35W SERVICE DRIVE	TO	CUL-DE-SAC
AREA 3	LOCATED ON	EDISON STREET NE	FROM	85TH AVENUE NE	TO	CUL-DE-SAC
AREA 4	LOCATED ON	89TH LANE NE	FROM	YANCY STREET NE	TO	90TH LANE NE
	LOCATED ON	89TH COURT NE	FROM	90TH LANE NE	TO	CUL-DE-SAC
AREA 4	LOCATED ON	90TH LANE NE	FROM	ZUMBROTA STREET NE	TO	RICE CREEK PARKWAY NE
	LOCATED ON	BATAAN STREET NE	FROM	90TH LANE NE	TO	91ST AVENUE NE
	LOCATED ON	YANCY STREET	FROM	RICE CREEK PARKWAY NE	TO	89TH LANE NE
	LOCATED ON	ZUMBROTA STREET NE	FROM	89TH LANE NE	TO	91ST AVENUE NE
	LOCATED ON	BATAAN COURT NE	FROM	89TH LANE NE	TO	CUL-DE-SAC
	LOCATED ON	ZUMBROTA CIRCLE NE	FROM	ZUMBROTA STREET NE	TO	CUL-DE-SAC

PROJECT LOCATION
AREA 1: S26-T31N-R23W
AREA 2: S34-T31N-R23W
AREA 3: S34-T31N-R23W
AREA 4: S34-T31N-R23W



DESIGN DESIGNATION

97TH LANE, 98TH AVENUE
98TH LANE, 99TH AVENUE
AUSTIN STREET, CORD STREET
EDGEWOOD ROAD, EDISON STREET
WEST 35W SERVICE DRIVE,
89TH LANE, 89TH COURT,
90TH LANE, BATAAN STEET
BATAAN COURT, YANCY STREET,
ZUMBROTA STEET, ZUMBROTA CIRCLE

R VALUE	50
CURRENT ADT (2022)	<500
FUTURE ADT (2042)	<500
D (DIRECTIONAL DISTR.)	50 / 50
HEAVY COMMERCIAL	NA
ESALS	57,000
DESIGN SPEED	30 MPH
BASED ON SIGHT DISTANCE	STOPPING
HEIGHT OF EYE / OBJECT	3.5' / 2.0'
FUNCTIONAL CLASS	LOCAL
NO. OF TRAFFIC LANES	2
NO. OF PARKING LANES	0
SHOULDER WIDTH	NA
TON DESIGN	10
DESIGN SPEED NOT ACHEIVED AT	NA

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

EXCAVATION NOTICE SYSTEM

A CALL TO GOPHER STATE ONE CALL (651-454-0002) IS REQUIRED A MINIMUM OF 48 HOURS PRIOR TO PERFORMING ANY EXCAVATION.

UTILITY INFORMATION

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

GOPHER ONE CALL TICKET NUMBER(S):
223131598, 223220924, 223220925, 223220926, 223220928, 223220929, 223220930, 223220932, 223220933, 223220934, 223220935, 223220936, 223220937, 223220952

UTILITY COORDINATION MEETING HELD: MARCH 9, 2023

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND THE "SUPPLEMENTAL SPECIFFICATIONS" DATED SEPTEMBER 2022 SHALL GOVERN.

THE CITY OF BLAINE STANDARD SPECIFICATIONS SHALL GOVERN.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST EDITION OF THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

PLAN SHEET INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2 - 3	GENERAL LAYOUT
4 - 5	STATEMENT OF ESTIMATED QUANTITIES
6 - 14	QUANTITY TABULATIONS
15 - 17	EARTHWORK SUMMARY
18 - 21	CONSTRUCTION NOTES & STANDARD PLATES
22 - 23	TYPICAL SECTIONS
24	MISCELLANEOUS DETAILS
25 - 36	STANDARD PLANS
37 - 40	CONSTRUCTION STAGING & TRAFFIC CONTROL PLAN
41 - 48	ALIGNMENT PLAN
49 - 71	INPLACE TOPOGRAPHY & UTILITIES
72 - 94	REMOVAL PLAN
95 - 135	STREET, WATERMAIN, AND SANITARY SEWER PLANS
136 - 143	CUL-DE-SAC DETAILS
144 - 161	INTERSECTION DETAILS
162 - 203	DRAINAGE PLAN & PROFILE
204 - 207	STORM WATER POLLUTION PREVENTION PLAN
208 - 230	TURF ESTABLISHMENT & EROSION CONTROL PLAN
X1 - X63	CROSS SECTIONS

THIS PLAN CONTAINS **293** SHEETS

THIS PLAN HAS BEEN PREPARED FOR:

CITY OF BLAINE

10801 TOWN SQUARE DRIVE NE
BLAINE, MN 55449

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

wsb

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

NICHOLAS E. HENTGES, PE
PRINTED NAME

44620
LICENSE NO.

APPROVED: CITY OF BLAINE ENGINEER

I HEREBY CERTIFY THAT THE FINAL FIELD REVISIONS, IF ANY, OF THE PLAN WERE MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINTED NAME

LICENSE NO.

CITY PROJECT 23-08

WSB PROJ. 022066-000

SHEET **1** OF **230** SHEETS

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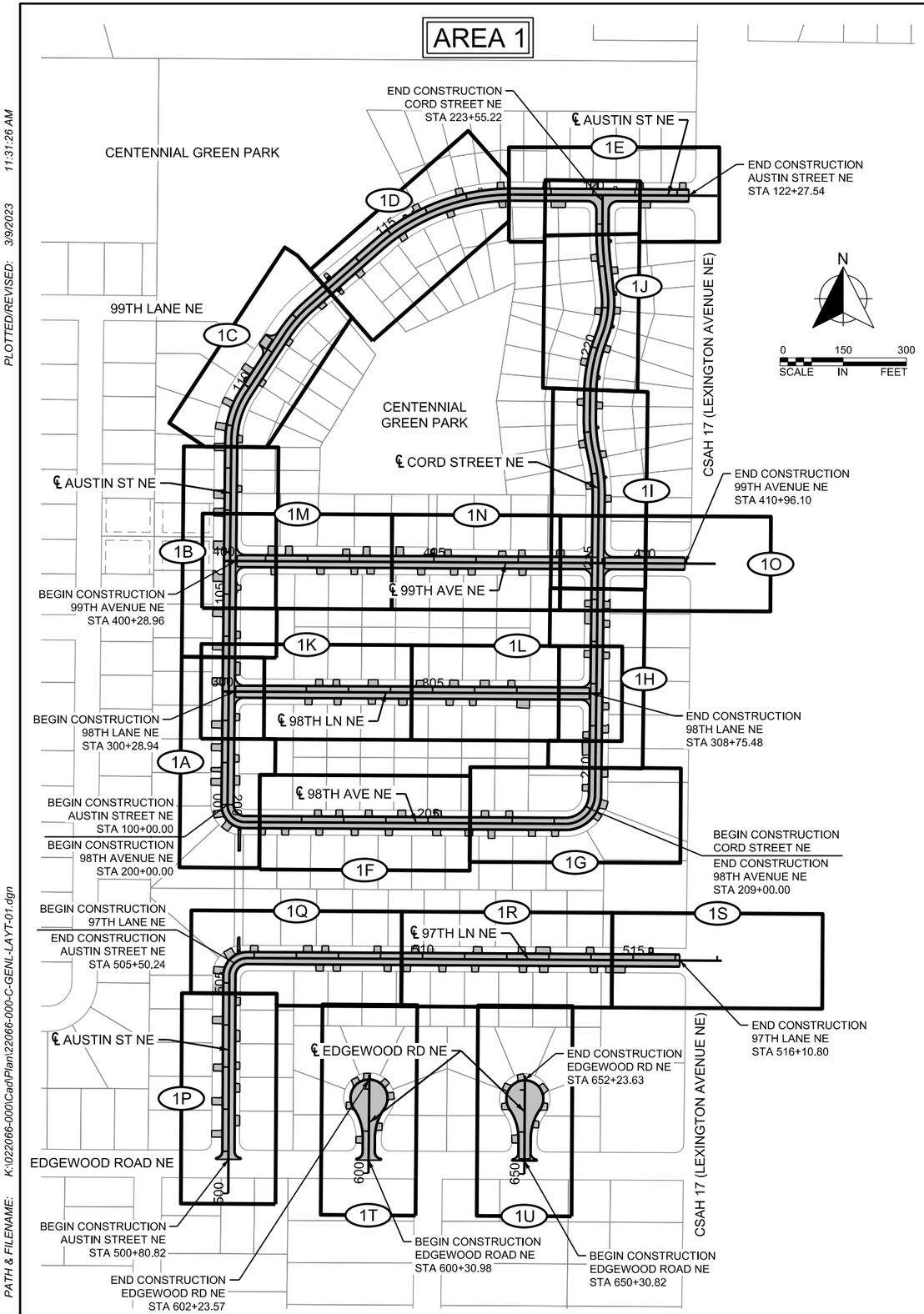

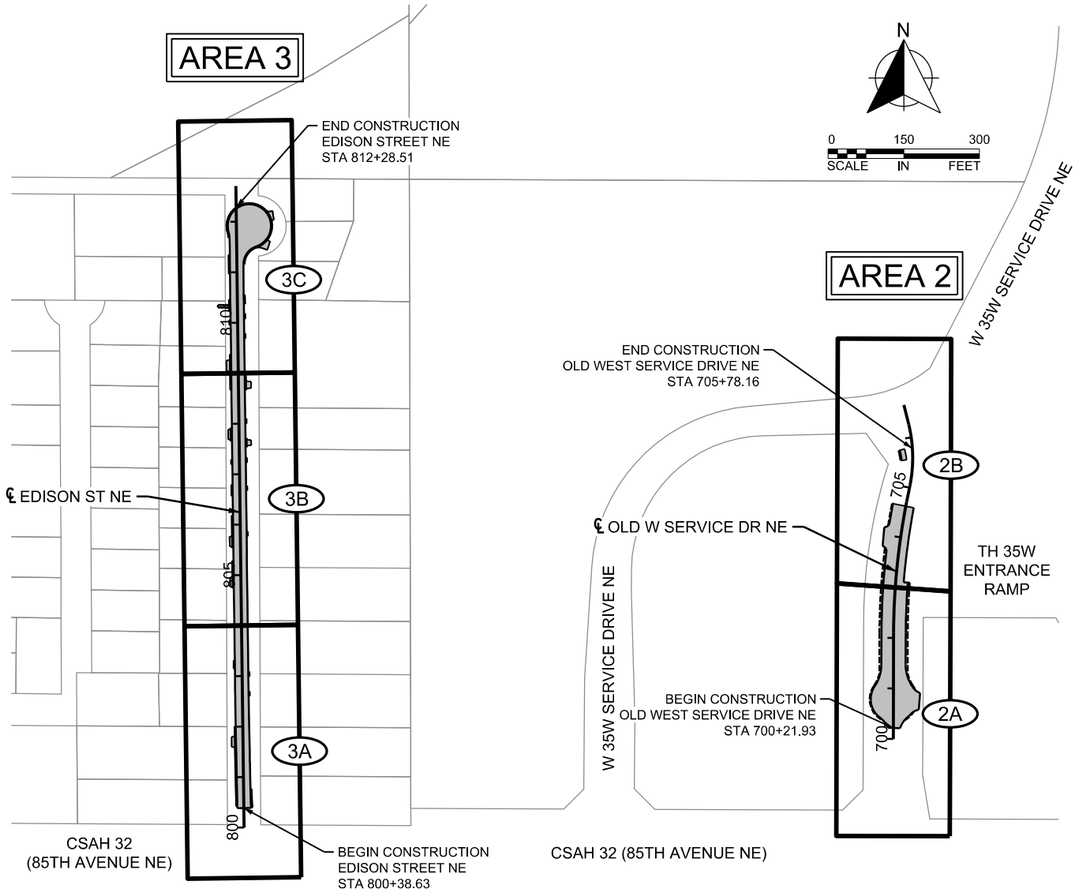

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SECTION		1A	1B	1C	1D	1E	1F	1G	1H	11	1J	1K	1L	1M	1N
		PLAN SHEET INDEX PER SECTION													
INPLACE TOPOGRAPHY & UTILITIES	AREA 1	49		50		51	52		53		54	55		56	
REMOVAL PLAN		72		73		74	75		76		77	78		79	
STREET, STORM & WATERMAIN PLAN		95	96	97	98	99	100	101	102	103	104	105	106	107	108
DRAIANGE PLAN		162	163	164	165	166	167	168	169	170	171	172	173	174	175
EROSION CONTROL & TURF ESTABLISHMENT		208		209		210	211		212		213	214		215	

LEGEND															
SECTION		1O	1P	1Q	1R	1S	1T	1U		2A	2B		3A	3B	3C
		PLAN SHEET INDEX PER SECTION													
INPLACE TOPOGRAPHY & UTILITIES	AREA 1 (CONTINUED)	57	58		59		60		AREA 2	61		AREA 3	62		63
REMOVAL PLAN		80	81		82		83			84			85		86
STREET, STORM & WATERMAIN PLAN		109	110	111	112	113	114	115		116	117		118	119	120
DRAIANGE PLAN		176	177	178	179	180	181	182		183	184		185	186	187
EROSION CONTROL & TURF ESTABLISHMENT		216	217		218		219			220			221		222

WSB PROJECT NO.: 022066-000

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AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

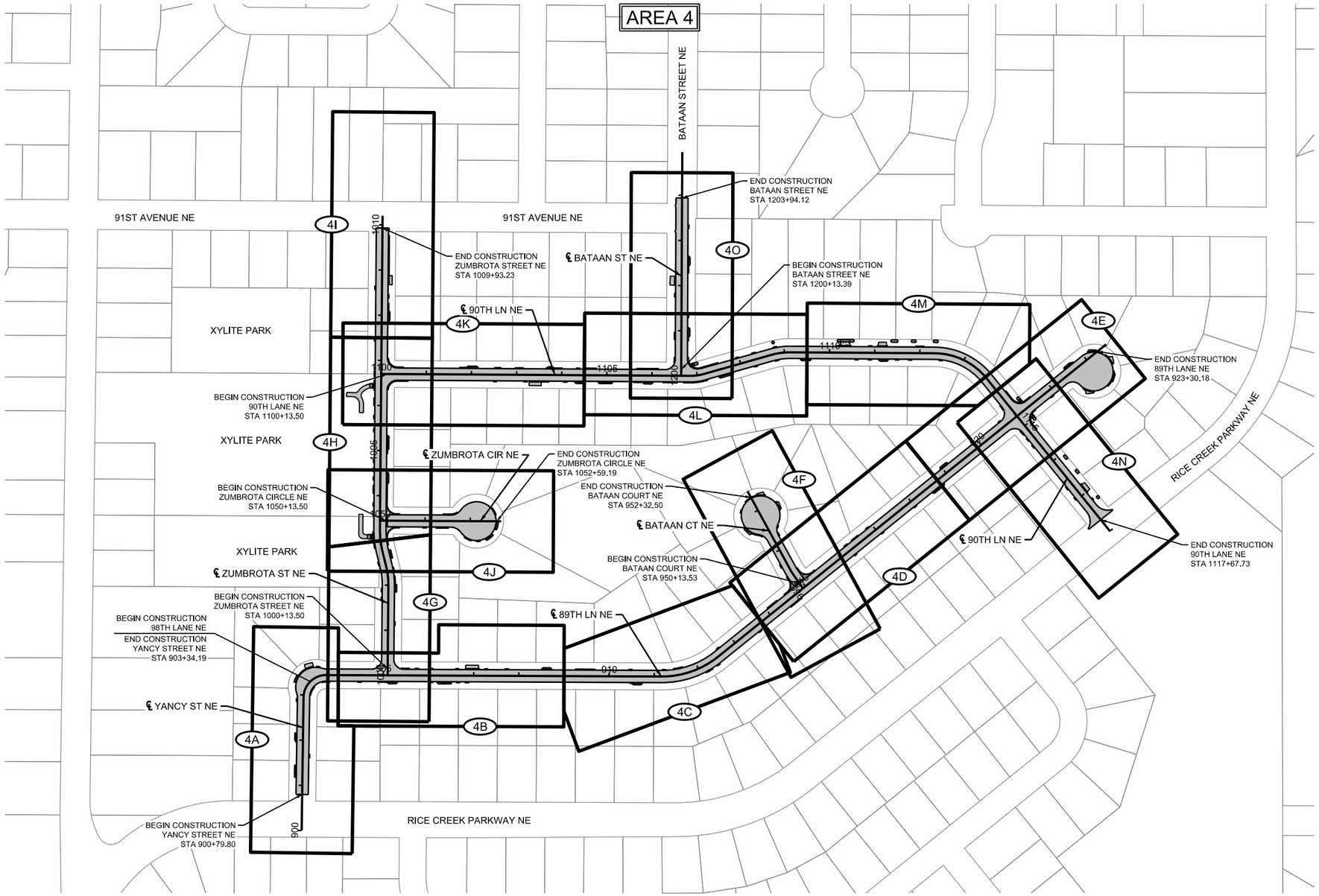
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

GENERAL LAYOUT

CITY PROJECT 23-08

SHEET **2** OF **230** SHEETS



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LEGEND															
SECTION		4A	4B	4C	4D	4E	4F	4G	4H	4I	4J	4K	4L	4M	4N	4O
		PLAN SHEET INDEX PER SECTION														
INPLACE TOPOGRAPHY & UTILITIES	AREA 4	64		65		66		67		68		69		70		71
REMOVAL PLAN		87		88		89		90		91		92		93		94
STREET, STORM & WATERMAIN PLAN		121	122	123	124	125	126	127	128	129	130	131	132	133	134	135
DRAINAGE PLAN		188	189	190	191	192	193	194	195	196	197	198	199	200	201	202
EROSION CONTROL & TURF ESTABLISHMENT		223		224		225		226		227		228		229		230

wsb

WSB PROJECT NO.: 022066-000

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AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

GENERAL LAYOUT

CITY PROJECT 23-08

SHEET **3** OF **230** SHEETS

STATEMENT OF ESTIMATED QUANTITIES

TAB ID	SHEET NO.	ITEM	DESCRIPTION	NOTES	UNIT	PROJECT TOTAL	AREA 1			AREA 2			AREA 3			AREA 4		
							ROAD	STORM	UTILITIES	ROAD	STORM	UTILITIES	ROAD	STORM	UTILITIES	ROAD	STORM	UTILITIES
							ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY
		2021.501	MOBILIZATION		LUMP SUM	1	0.62	0.03	0.03	0.03			0.05			0.23		0.01
A	6	2101.502	CLEARING		EACH	54	28						2			24		
A	6	2101.502	CLEARING (SHRUB)		EACH	12	12											
A	6	2101.502	GRUBBING		EACH	54	28						2			24		
A	6	2101.502	GRUBBING (SHRUB)		EACH	12	12											
A	6	2104.502	REMOVE CASTING (STORM)	(8)	EACH	15		15										
A	6	2104.502	REMOVE CASTING (SANITARY)		EACH	61			33						4			24
A	6	2104.502	REMOVE GATE VALVE & BOX	(8)	EACH	14			14									
A	6	2104.502	REMOVE DRAINAGE STRUCTURE		EACH	9		8			1							
F	11	2104.502	REMOVE DELINEATOR / MARKER		EACH	2							2					
F	11	2104.502	REMOVE SIGN		EACH	21	20						1					
G	11	2104.502	SALVAGE SIGN		EACH	22	22											
A	6	2104.502	SALVAGE MAIL BOX SUPPORT		EACH	167	111						17			39		
A	6	2104.503	REMOVE SEWER PIPE (STORM)		LIN FT	80		80										
A	6	2104.503	REMOVE CURB AND GUTTER		LIN FT	20556	16630			20			930			2976		
A	6	2104.504	REMOVE CONCRETE DRIVEWAY PAVEMENT		SQ YD	972	775						61			136		
A	6	2104.504	REMOVE CONCRETE PAVEMENT		SQ YD	277	243									34		
A	6	2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT		SQ YD	4550	4189						71			290		
A	6	2104.504	REMOVE BITUMINOUS PAVEMENT		SQ YD	37	13			24								
A	6	2104.518	REMOVE BITUMINOUS WALK		SQ FT	1791	207									1584		
A	6	2104.518	REMOVE CONCRETE WALK		SQ FT	1765	843						169			753		
I	15 - 17	2106.507	EXCAVATION - COMMON	(P)	CU YD	6324	3785			248			398			1893		
I	15 - 17	2106.507	COMMON EMBANKMENT (CV)	(P)	CU YD	4152	1613			248			398			1893		
		2106.601	DEWATERING		LUMP SUM	1	0.62	0.03	0.03	0.03			0.05			0.23		0.01
B	7	2112.604	SUBGRADE PREPARATION	(P)	SQ YD	56562	28490			2816			4389			20867		
		2123.610	STREET SWEEPER (WITH PICKUP BROOM)	(2)	HOUR	160	40			40			40			40		
		2123.610	TRACTOR MOUNTED BACKHOE	(4)	HOUR	20				20								
		2130.523	WATER	(1)	MGAL	200	50			50			50			50		
B	7	2211.509	AGGREGATE BASE CLASS 5		TON	1402	1191						34			177		
A	6	2215.504	FULL DEPTH RECLAMATION		SQ YD	50767	25379			2484			3977			18927		
B	7	2231.507	BITUMINOUS PATCHING MIXTURE		TON	12	6			6								
B	7	2357.506	BITUMINOUS MATERIAL FOR TACK COAT		GALLON	2894	1455			143			226			1070		
C	8	2301.602	DRILL & GROUT REINF BAR (EPOXY COATED)		EACH	71	27						6			38		
B	7	2360.504	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 3.0" THICK		SQ YD	5017	4614						79			324		
B	7	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)		TON	4804	2418			239			373			1774		
B	7	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C)		TON	6396	3218			318			497			2363		
H	14	2501.502	15" RC PIPE APRON		EACH	2					2							
		2502.601	REPAIR IRRIGATION SYSTEM (SINGLE FAMILY)		EACH	78	55						5			18		
		2502.601	REPAIR IRRIGATION SYSTEM (MULTI-FAMILY / COMMERCIAL / INDUSTRIAL)		EACH	26	25			1								
		2502.601	LANDSCAPE PROVISION		LUMP SUM	1	0.62	0.03	0.03	0.03			0.05			0.23		0.01
H	14	2503.503	12" RC PIPE SEWER DES 3006 CL V		LIN FT	15					15							
H	14	2503.503	15" RC PIPE SEWER DES 3006 CL V		LIN FT	814		718			49						47	
H	14	2503.503	36" RC PIPE SEWER DES 3006 CL III		LIN FT	74		74										
H	14	2503.602	CONNECT TO EXISTING STORM SEWER		EACH	18		14			2						2	
H	14	2503.602	CONNECT INTO EXISTING DRAINAGE STRUCTURE		EACH	7		3									4	
E	10	2504.602	ADJUST VALVE BOX		EACH	11			1			3						7
E	10	2504.602	6" GATE VALVE & BOX		EACH	9			9									
E	10	2504.602	16" GATE VALVE & BOX		EACH	5			5									
E	10	2504.602	ADJUST CURB BOX		EACH	8			8									
H	14	2506.502	CONST DRAINAGE STRUCTURE DESIGN SPEC 1	(5)	EACH	10		6									4	
H	13 - 14	2506.502	CASTING ASSEMBLY (STORM)		EACH	42		35			2							5
E	10	2506.502	CASTING ASSEMBLY (SANITARY)		EACH	61			33						4			24
H	14	2506.503	CONST DRAINAGE STRUCTURE DES H		LIN FT	4					4							
H	14	2506.503	CONST DRAINAGE STRUCTURE DES 48-4020		LIN FT	32.2		22.2			4.6						5.4	
H	14	2506.503	CONST DRAINAGE STRUCTURE DES 60-4020		LIN FT	12.9		12.9										
H	14	2506.503	CONST DRAINAGE STRUCTURE DES 72-4020		LIN FT	45.5		45.5										
H	14	2506.602	RECONSTRUCT DRAINAGE STRUCTURE 1	(6)	EACH	49		15						4			30	
H	14	2506.602	RECONSTRUCT DRAINAGE STRUCTURE 2	(7)	EACH	7		5						2				

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WSB PROJECT NO.: 022066-000

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PLAN BY: AJF
CHECK BY: NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HENTGES, PE
LIC. NO: 44620
DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STATEMENT OF ESTIMATED QUANTITIES

CITY PROJECT 23-08

SHEET **4** OF **230** SHEETS

STATEMENT OF ESTIMATED QUANTITIES

TAB ID	SHEET NO.	ITEM	DESCRIPTION	NOTES	UNIT	PROJECT TOTAL	AREA 1			AREA 2			AREA 3			AREA 4		
							ROAD	STORM	UTILITIES	ROAD	STORM	UTILITIES	ROAD	STORM	UTILITIES	ROAD	STORM	UTILITIES
							ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY	ESTIMATED QUANTITIY
C	8	2521.518	4" CONCRETE WALK		SQ FT	810	393						71			346		
C	8	2521.518	6" CONCRETE WALK		SQ FT	796	288						56			452		
B	7	2521.518	2" BITUMINOUS WALK		SQ FT	1898	287									1611		
C	8	2531.503	CONCRETE CURB & GUTTER DESIGN B418		LIN FT	17468	17468											
C	8	2531.503	CONCRETE CURB & GUTTER DESIGN B424	(10)	LIN FT	11				11								
C	8	2531.503	CONCRETE CURB & GUTTER DESIGN B618	(10)	LIN FT	1357				21			966			370		
C	8	2531.503	CONCRETE CURB & GUTTER DESIGN D312	(9)(10)	LIN FT	2762										2762		
C	8	2531.504	6" CONCRETE DRIVEWAY PAVEMENT		SQ YD	1029	818						65			146		
C	8	2531.604	8" CONCRETE VALLEY GUTTER		SQ YD	399	312									87		
C	8	2531.618	TRUNCATED DOMES		SQ FT	183	89						13			81		
A	6	2540.602	INSTALL MAIL BOX SUPPORT		EACH	167	111						17			39		
		2563.601	TRAFFIC CONTROL		LUMP SUM	1	0.62	0.03	0.03	0.03			0.05			0.23		0.01
G	11	2564.502	INSTALL SIGN		EACH	22	22											
F	11	2564.602	DELINEATOR / MARKER SIGN		EACH	2							2					
F	11	2564.618	SIGN		SQ FT	90	79						11					
		2571.502	CONIFEROUS TREE 6' HT B&B	(3)	EACH	9	5									4		
		2571.502	DECIDUOUS TREE 2.5" CAL B&B	(3)	EACH	48	26						2			20		
		2573.501	STABILIZED CONSTRUCTION EXIT		LUMP SUM	1	0.62	0.03	0.03	0.03			0.05			0.23		0.01
D	9	2573.502	STORM DRAIN INLET PROTECTION		EACH	108	51			8			7			42		
D	9	2573.502	CULVERT END CONTROLS		EACH	1				1								
D	9	2573.503	SILT FENCE, TYPE MS		LIN FT	625				325			300					
D	9	2573.503	SEDIMENT CONTROL LOG TYPE COMPOST		LIN FT	113				113								
D	9	2574.505	SOIL BED PREPARATION		ACRE	12.2	8.6			0.8			0.4			2.4		
D	9	2574.505	SEEDING		ACRE	0.8				0.8								
D	9	2574.507	COMMON TOPSOIL BORROW		CU YD	4607	3865			383			75			284		
D	9	2574.508	FERTILIZER TYPE 3		POUND	2760	2519						50			191		
D	9	2574.508	FERTILIZER TYPE 4		POUND	108				108								
D	9	2575.504	SODDING TYPE LAWN		SQ YD	37813	34670						664			2479		
D	9	2575.504	ROLLED EROSION PREVENTION PRODUCT CATEGORY 20		SQ YD	3443				3443								
D	9	2575.508	SEED MIXTURE 35-221		POUND	27				27								
D	9	2575.523	RAPID STABILIZATION METHOD 3		MGAL	102	68			6			4			24		

NOTES

(1) TO BE USED FOR DUST CONTROL AS DIRECTED BY THE ENGINEER.
(2) TO BE USED AS DIRECTED BY THE ENGINEER.
(3) TO BE PLANTED AT THE DIRECTION OF THE ENGINEER, INCLUDES QUANTITY FOR REPLACEMENT OR REMOVED ASH TREES.
(4) TO BE USED FOR MINOR DITCH CLEANING AND/OR AS DIRECTED BY THE ENGINEER.
(5) 2' X 3' BOX
(6) REPLACE GROUT IN EXISTING STRUCTURE
(7) REPLACE TOP SLAB OF EXISTING STRUCTURE
(8) LIDS AND/OR GRATES THAT ARE REMOVED WITH THE CASTINGS OR GATE VALVES ARE TO BECOME THE PROPERTY OF THE CITY OF BLAINE. SEE SPECIAL PROVISIONS.
(9) SEE CITY STANDARD PLATE ST-6 FOR DETAILS.
(10) SPOT REPLACEMENT, **EARTHWORK AND AGGREGATE PREPARATION FOR SPOT CURB & GUTTER REPLACEMENT IS INCIDENTAL.**
(P) PLAN QUANTITY

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NICHOLAS E. HENTGES. PE
LIC. NO: 44620
DATE: 4/22/2022

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

STATEMENT OF ESTIMATED QUANTITIES

CITY PROJECT 23-08

SHEET **5** OF **230** SHEETS

REMOVAL TABULATION

A

LOCATION	CLEARING	CLEARING (SHRUB)	GRUBBING	GRUBBING (SHRUB)	REMOVE												SALVAGE & INSTALL MAIL BOX SUPPORT	FULL DEPTH RECLAMATION
					SEWER PIPE (STORM)	CURB & GUTTER (1)(3)	CONCRETE DRIVEWAY PAVEMENT	CONCRETE PAVEMENT	BITUMINOUS DRIVEWAY PAVEMENT	BITUMINOUS PAVEMENT	BITUMINOUS WALK	CONCRETE WALK (2)	GATE VALVE & BOX	CASTING (SANITARY)	CASTING (STORM)	DRAINAGE STRUCTURE		
	EACH	EACH	EACH	EACH	LIN FT	LIN FT	SQ YD	SQ YD	SQ YD	SQ YD	SQ FT	SQ FT	EACH	EACH	EACH	EACH	EACH	SQ YD
AREA 1																		
AUSTIN STREET																		
STA 100+00.00 TO STA 108+00	1		1			1458	147		524				1	4	6	1	7	2311
STA 108+00 TO STA 116+00	3		3			1594	47	44	293		147	258		3	3	2	6	2381
STA 116+00 TO STA 122+27.54						1185			307			63	1	4			4	1830
98TH AVENUE																		
STA 200+00.00 TO STA 209+00.00	6	3	6	3		1800	37		541			259	2	4	2	1	13	2614
CORD STREET																		
STA 209+00.00 TO STA 216+00	7	2	7	2		1187	140		266				3	3			14	2033
STA 216+00 TO STA 223+55.22	2		2			1531			308			175	1	3	2		11	2218
98TH LANE																		
STA 300+28.94 TO STA 308+75.48	2	4	2	4		1735	130	66	316				1	2			8	2451
99TH AVENUE																		
STA 400+28.98 TO STA 409+00	5	3	5	3		1736	68	63	422		60	88	1	2			11	2461
STA 409+00 TO STA 410+98.10						407		36	40					1				557
AUSTIN STREET																		
STA 500+80.82 TO STA 505+50.24	1		1		48	953	123		234					1	1	2	13	1385
97TH LANE																		
STA 505+50.24 TO STA 516+10.80	1		1		32	2122	4		654				2	4		2	20	3090
EDGEWOOD ROAD CUL-DE-SAC (4023-4083)																		
STA 600+30.98 TO STA 602+23.57						461			178				1	1	1			1067
EDGEWOOD ROAD CUL-DE-SAC (4103-4163)																		
STA 650+30.82 TO STA 652+23.63						461	79	34	106	13			1	1			4	981
AREA 1 SUBTOTAL	**28**	**12**	**28**	**12**	**80**	**16630**	**775**	**243**	**4189**	**13**	**207**	**843**	**14**	**33**	**15**	**8**	**111**	**25379**
AREA 2																		
OLD W 35W SERVICE DRIVE																		
STA 700+21.93 TO STA 705+78.16						20				24						1		2484
AREA 2 SUBTOTAL						**20**				**24**						**1**		**2484**
AREA 3																		
EDISON STREET																		
STA 800+38.63 TO STA 806+00	2		2			330	16		22					2			6	1656
STA 806+00 TO STA 812+36.53						600	45		49			169		2			11	2321
AREA 3 SUBTOTAL	**2**		**2**			**930**	**61**		**71**			**169**		**4**			**17**	**3977**
AREA 4																		
YANCY STREET																		
STA 900+79.80 TO STA 903+34.19	4		4			85			17					2			1	812
98TH LANE																		
STA 903+34.19 TO STA 910+00	2		2			280	43		24					3			3	2045
STA 910+00 TO STA 917+00	5		5			240			7					3			4	2100
STA 917+00 TO STA 923.41.20	4		4			290			56					2			4	2326
BATAAN COURT																		
STA 950+13.53 TO STA 952+32.50						240		16	24					1			2	1040
ZUMBROTA STEET																		
STA 1000+13.50 TO STA 1005+00	1		1			270			20		636			2			2	1483
STA 1005+00 TO STA 1009+93.23	2		2			272	16		18		948			2			3	1482
ZUMBROTA CIRCLE																		
STA 1050+13.50 TO STA 1052+59.19						239		18	13					1				1135
90TH LANE																		
STA 1100+13.50 TO STA 1106+00	1		1			420	25		35					2			10	1783
STA 1106+00 TO STA 1112+00	3		3			330	29		44			422		2			6	1800
STA 1112+00 TO STA 1117+67.73						130			19			331		3			1	1751
BATAAN STREET																		
STA 1200+13.39 TO STA 1203+94.12	2		2			180	23		13					1			3	1170
AREA 4 SUBTOTAL	**24**		**24**			**2976**	**136**	**34**	**290**		**1584**	**753**		**24**			**39**	**18927**
PROJECT TOTAL	**54**	**12**	**54**	**12**	**80**	**20556**	**972**	**277**	**4550**	**37**	**1791**	**1765**	**14**	**61**	**15**	**9**	**167**	**50767**

NOTES:

- **SAW CUTTING IS INCIDENTAL TO THE PROJECT.**
- ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL.
- REMOVAL OF BITUMINOUS SPLASH PADS AT HYDRANTS ARE INCIDENTAL TO CURB & GUTTER REMOVAL.

(1) THE ENGINEER MAY, AFTER SITE INSPECTION, IDENTIFY ADDITIONAL CURB & GUTTER TO BE REMOVED AND REPLACED. QUANTITY BASED ON SEPTEMBER 2022 FIELD INSPECTION. **EARTHWORK AND AGGREGATE PREP FOR SPOT REPLACEMENT INCIDENTAL.**

(2) INCLUDES REMOVAL OF MULTI-UNIT CONCRETE MAIL BOX PADS.

(3) INCLUDES REMOVAL OF VALLEY GUTTERS

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NICHOLAS E. HENTGES, PE

LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

QUANTITY TABULATIONS

CITY PROJECT 23-08

SHEET **6** OF **230** SHEETS

BITUMINOUS & AGGREGATE TABULATION

B

LOCATION	SUBGRADE PREPARATION	AGGREGATE BASE CLASS 5 (4)	BITUMINOUS PATCHING MIXTURE	BITUMINOUS MATERIAL FOR TACK COAT	TYPE SP 9.5 WEAR CRS MIXTURE (3,C) 3.0" THICK	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)	TYPE SP 12.5 NON-WEAR COURSE MIXTURE (3,C)	2" BITUMINOUS WALK
	SQ YD	TON	TON	GALLON	SQ YD	TON	TON	SQ FT
AREA 1								
AUSTIN STREET								
STA 100+00.00 TO STA 108+00	2629	149		132	577	223	296	
STA 108+00 TO STA 116+00	2629	95		132	323	223	296	202
STA 116+00 TO STA 122+27.54	2057	71		105	338	175	233	
98TH AVENUE								
STA 200+00.00 TO STA 209+00.00	2948	129		149	596	250	334	
CORD STREET								
STA 209+00.00 TO STA 216+00	2299	90		116	293	195	260	
STA 216+00 TO STA 223+55.22	2508	73		127	339	213	283	
98TH LANE								
STA 300+28.94 TO STA 308+75.48	2761	118		143	348	234	312	
99TH AVENUE								
STA 400+28.98 TO STA 409+00	2761	131		143	465	235	312	85
STA 409+00 TO STA 410+98.10	627	19		33	44	53	71	
AUSTIN STREET								
STA 500+80.82 TO STA 505+50.24	1562	80		83	258	132	176	
97TH LANE								
STA 505+50.24 TO STA 516+10.80	3465	147		176	720	294	391	
EDGEWOOD ROAD CUL-DE-SAC (4023-4083)								
STA 600+30.98 TO STA 602+23.57	1144	40		61	196	97	129	
EDGEWOOD ROAD CUL-DE-SAC (4103-4163)								
STA 650+30.82 TO STA 652+23.63	1100	49	6	55	117	94	125	
AREA 1 SUBTOTAL	**28490**	**1191**	**6**	**1455**	**4614**	**2418**	**3218**	**287**
AREA 2								
OLD W 35W SERVICE DRIVE								
STA 700+21.93 TO STA 705+78.16	2816		6	143		239	318	
AREA 2 SUBTOTAL	**2816**		**6**	**143**		**239**	**318**	
AREA 3								
EDISON STREET								
STA 800+38.63 TO STA 806+00	1826	9		94	25	156	207	
STA 806+00 TO STA 812+36.53	2563	25		132	54	217	290	
AREA 3 SUBTOTAL	**4389**	**34**		**226**	**79**	**373**	**497**	
AREA 4								
YANCY STREET								
STA 900+79.80 TO STA 903+34.19	902	5		50	19	76	102	
98TH LANE								
STA 903+34.19 TO STA 910+00	2255	16		116	27	192	256	
STA 910+00 TO STA 917+00	2310	3		116	8	196	262	
STA 917+00 TO STA 923.41.20	2563	14		132	62	218	290	
BATAAN COURT								
STA 950+13.53 TO STA 952+32.50	1144	15		61	27	98	130	
ZUMBROTA STEET								
STA 1000+13.50 TO STA 1005+00	1639	22		83	22	139	185	629
STA 1005+00 TO STA 1009+93.23	1639	32		83	20	139	185	982
ZUMBROTA CIRCLE								
STA 1050+13.50 TO STA 1052+59.19	1243	13		66	15	105	140	
90TH LANE								
STA 1100+13.50 TO STA 1106+00	1969	14		99	39	168	223	
STA 1106+00 TO STA 1112+00	1980	22		99	49	169	225	
STA 1112+00 TO STA 1117+67.73	1936	13		99	21	164	218	
BATAAN STREET								
STA 1200+13.39 TO STA 1203+94.12	1287	8		66	15	110	147	
AREA 4 SUBTOTAL	**20867**	**177**		**1070**	**324**	**1774**	**2363**	**1611**
PROJECT TOTAL	**56562**	**1402**	**12**	**2894**	**5017**	**4804**	**6396**	**1898**

NOTES:

(4) INCLUDES AGGREGATE UNDER DRIVEWAYS, WALKS, AND TRAILS.

BASIS OF QUANTITIES:

- BITUMINOUS DENSITY: 113 LB/SY/IN
- TACK COAT BETWEEN BITUMINOUS LIFTS: 0.05 GAL/SY (INCIDENTAL)
- AGGREGATE BASE CLASS 5: 1.8 TON/CY (CV)

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

QUANTITY TABULATIONS

CITY PROJECT 23-08

SHEET **7** OF **230** SHEETS

CONCRETE TABULATION

C

LOCATION	DRILL & GROUT REINF BAR (EPOXY COATED)	4" CONCRETE WALK	6" CONCRETE WALK (8)	CONCRETE CURB & GUTTER DESIGN B418	CONCRETE CURB & GUTTER DESIGN B424 (6)	CONCRETE CURB & GUTTER DESIGN B618 (6)	CONCRETE CURB & GUTTER DESIGN D312 (6)	6" CONCRETE DRIVEWAY PAVEMENT (5)	8" CONCRETE VALLEY GUTTER (9)	TRUNCATED DOMES (7)
	EACH	SQ FT	SQ FT	LIN FT	LIN FT	LIN FT	LIN FT	SQ YD	SQ YD	SQ FT
AREA 1										
AUSTIN STREET										
STA 100+00.00 TO STA 108+00				1531				155		
STA 108+00 TO STA 116+00	10	104	126	1674				50	47	42
STA 116+00 TO STA 122+27.54		86		1245						
98TH AVENUE										
STA 200+00.00 TO STA 209+00.00	6		61	1890				39		13
CORD STREET										
STA 209+00.00 TO STA 216+00				1247				147		
STA 216+00 TO STA 223+55.22		203		1608						
98TH LANE										
STA 300+28.94 TO STA 308+75.48				1822				137	92	
99TH AVENUE										
STA 400+28.98 TO STA 409+00	5		63	1823				72	92	21
STA 409+00 TO STA 410+98.10				428					47	
AUSTIN STREET										
STA 500+80.82 TO STA 505+50.24				1001				130		
97TH LANE										
STA 505+50.24 TO STA 516+10.80	6		38	2229				5		13
EDGEWOOD ROAD CUL-DE-SAC (4023-4083)										
STA 600+30.98 TO STA 602+23.57				485						
EDGEWOOD ROAD CUL-DE-SAC (4103-4163)										
STA 650+30.82 TO STA 652+23.63				485				83	34	
AREA 1 SUBTOTAL	**27**	**393**	**288**	**17468**				**818**	**312**	**89**
AREA 2										
OLD W 35W SERVICE DRIVE										
STA 700+21.93 TO STA 705+78.16						21				
AREA 2 SUBTOTAL						**21**				
AREA 3										
EDISON STREET										
STA 800+38.63 TO STA 806+00					11	336		17		
STA 806+00 TO STA 812+36.53	6	71	56			630		48		13
AREA 3 SUBTOTAL	**6**	**71**	**56**		**11**	**966**		**65**		**13**
AREA 4										
YANCY STREET										
STA 900+79.80 TO STA 903+34.19							90			
98TH LANE										
STA 903+34.19 TO STA 910+00							294	46		
STA 910+00 TO STA 917+00							252			
STA 917+00 TO STA 923.41.20						84	221			
BATAAN COURT										
STA 950+13.53 TO STA 952+32.50						74	179		42	
ZUMBROTA STEET										
STA 1000+13.50 TO STA 1005+00	10		123			11	273			21
STA 1005+00 TO STA 1009+93.23	10		96				286	17		21
ZUMBROTA CIRCLE										
STA 1050+13.50 TO STA 1052+59.19						74	178		45	
90TH LANE										
STA 1100+13.50 TO STA 1106+00						74	368	27		
STA 1106+00 TO STA 1112+00	6	157	87				347	31		13
STA 1112+00 TO STA 1117+67.73	12	189	146				137			26
BATAAN STREET										
STA 1200+13.39 TO STA 1203+94.12						53	137	25		
AREA 4 SUBTOTAL	**38**	**346**	**452**			**370**	**2762**	**146**	**87**	**81**
PROJECT TOTAL	**71**	**810**	**796**	**17468**	**11**	**1357**	**2762**	**1029**	**399**	**183**

NOTES:

(5) IF THE CONTRACTOR CHOOSES TO CONSTRUCT DRIVEWAYS ONE HALF AT A TIME AS IDENTIFIED IN THE PLANS TO MAINTAIN ACCESS TO PROPERTIES, USE HIGH EARLY CONCRETE (INCIDENTAL)

(6) SPOT REPLACEMENT, **EARTHWORK AND AGGREGATE PREPARATION FOR SPOT CURB & GUTTER REPLACEMENT IS INCIDENTAL.**

(7) SHALL BE GRAY EPOXY COATED PER CURRENT MN/DOT APPROVED PRODUCTS LIST. THE PANELS SHALL BE INSTALLED IN WET MORTAR BASE OVER A 6" CONCRETE SLAB.

(8) TO BE USED IN PEDESTRIAN RAMP AND LANDINGS PER MN/DOT STANDARD PLAN 5-297.250 AND FOR SIDEWALK SPOT REPLACEMENT THROUGH DRIVEWAYS.

(9) HIGH EARLY CONCRETE

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WILLIAM C. ALMS, PE | LIC. NO: 54301

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

QUANTITY TABULATIONS

CITY PROJECT 23-08

SHEET **8** OF **230** SHEETS

TURF ESTABLISHMENT & EROSION CONTROL TABULATION

D

LOCATION	STORM DRAIN INLET PROTECTION	CULVERT END CONTROLS	SILT FENCE, TYPE MS	SEDIMENT CONTROL LOG TYPE COMPOST	SOIL BED PREPARATION	SEEDING	COMMON TOPSOIL BORROW	FERTILIZER TYPE 3	FERTILIZER TYPE 4	SODDING TYPE LAWN	ROLLED EROSION PREVENTION CATEGORY 20	SEED MIXTURE 35-221	RAPID STABILIZATION METHOD 3
	EACH	EACH	LIN FT	LIN FT	ACRE	ACRE	CU YD	POUND	POUND	SQ YD	SQ YD	POUND	MGAL
AREA 1													
AUSTIN STREET													
STA 100+00.00 TO STA 108+00	7				0.8		383	249		3437			6
STA 108+00 TO STA 116+00	7				0.9		428	279		3840			8
STA 116+00 TO STA 122+27.54	4				0.6		267	174		2403			4
98TH AVENUE													
STA 200+00.00 TO STA 209+00.00	3				0.9		410	267		3678			8
CORD STREET													
STA 209+00.00 TO STA 216+00	4				0.6		257	167		2298			4
STA 216+00 TO STA 223+55.22	4				0.8		351	228		3152			6
98TH LANE													
STA 300+28.94 TO STA 308+75.48					0.8		384	251		3453			6
99TH AVENUE													
STA 400+28.98 TO STA 409+00					0.9		419	273		3759			8
STA 409+00 TO STA 410+98.10	6				0.3		99	65		885			2
AUSTIN STREET													
STA 500+80.82 TO STA 505+50.24	4				0.5		221	144		1973			4
97TH LANE													
STA 505+50.24 TO STA 516+10.80	10				0.9		459	300		4131			8
EDGEWOOD ROAD CUL-DE-SAC (4023-4083)													
STA 600+30.98 TO STA 602+23.57	2				0.3		95	62		842			2
EDGEWOOD ROAD CUL-DE-SAC (4103-4163)													
STA 650+30.82 TO STA 652+23.63					0.3		92	60		819			2
AREA 1 SUBTOTAL	**51**				**8.6**		**3865**	**2519**		**34670**			**68**
AREA 2													
OLD W 35W SERVICE DRIVE													
STA 700+21.93 TO STA 705+78.16	8	1	325	113	0.8	0.8	383		108		3443	27	6
AREA 2 SUBTOTAL	**8**	**1**	**325**	**113**	**0.8**	**0.8**	**383**		**108**		**3443**	**27**	**6**
AREA 3													
EDISON STREET													
STA 800+38.63 TO STA 806+00	5				0.2		27	18		239			2
STA 806+00 TO STA 812+36.53	2		300		0.2		48	32		425			2
AREA 3 SUBTOTAL	**7**		**300**		**0.4**		**75**	**50**		**664**			**4**
AREA 4													
YANCY STREET													
STA 900+79.80 TO STA 903+34.19	7				0.2		8	5		59			2
98TH LANE													
STA 903+34.19 TO STA 910+00	3				0.2		18	12		162			2
STA 910+00 TO STA 917+00	6				0.2		17	11		143			2
STA 917+00 TO STA 923.41.20					0.2		18	12		152			2
BATAAN COURT													
STA 950+13.53 TO STA 952+32.50					0.2		18	12		158			2
ZUMBROTA STEET													
STA 1000+13.50 TO STA 1005+00	1				0.2		39	26		342			2
STA 1005+00 TO STA 1009+93.23	3				0.2		39	26		344			2
ZUMBROTA CIRCLE													
STA 1050+13.50 TO STA 1052+59.19	2				0.2		24	17		216			2
90TH LANE													
STA 1100+13.50 TO STA 1106+00	2				0.2		33	23		293			2
STA 1106+00 TO STA 1112+00	3				0.2		33	23		293			2
STA 1112+00 TO STA 1117+67.73	9				0.2		23	15		197			2
BATAAN STREET													
STA 1200+13.39 TO STA 1203+94.12	6				0.2		14	9		120			2
AREA 4 SUBTOTAL	**42**				**2.4**		**284**	**191**		**2479**			**24**
PROJECT TOTAL	**108**	**1**	**625**	**113**	**12.2**	**0.8**	**4607**	**2760**	**108**	**37813**	**3443**	**27**	**102**

BASIS OF QUANTITIES:

- FERTILIZER TYPE 3: 350 LBS/ACRE
- FERTILIZER TYPE 4: 150 LBS/ACRE
- SEED MIXTURE 35-221: 36.5 LBS/ACRE
- RAPID STABILIZATION METHOD 3: 6 MGAL/ACRE

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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.

NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

QUANTITY TABULATIONS

CITY PROJECT 23-08

SHEET **9** OF **230** SHEETS

WATERMAIN & SANITARY SEWER TABULATION

E

LOCATION	ADJUST VALVE BOX	6" GATE VALVE & BOX	16" GATE VALVE & BOX	ADJUST CURB BOX	CASTING ASSEMBLY (SANITARY) (10)
	EACH	EACH	EACH	EACH	EACH
AREA 1					
AUSTIN STREET					
STA 100+00.00 TO STA 108+00		1		2	4
STA 108+00 TO STA 116+00	1			1	3
STA 116+00 TO STA 122+27.54			1	2	4
98TH AVENUE					
STA 200+00.00 TO STA 209+00.00		1	1	1	4
CORD STREET					
STA 209+00.00 TO STA 216+00		2	1		3
STA 216+00 TO STA 223+55.22			1	2	3
98TH LANE					
STA 300+28.94 TO STA 308+75.48		1			2
99TH AVENUE					
STA 400+28.98 TO STA 409+00			1		2
STA 409+00 TO STA 410+98.10					1
AUSTIN STREET					
STA 500+80.82 TO STA 505+50.24					1
97TH LANE					
STA 505+50.24 TO STA 516+10.80		2			4
EDGEWOOD ROAD CUL-DE-SAC (4023-4083)					
STA 600+30.98 TO STA 602+23.57		1			1
EDGEWOOD ROAD CUL-DE-SAC (4103-4163)					
STA 650+30.82 TO STA 652+23.63		1			1
AREA 1 SUBTOTAL	**1**	**9**	**5**	**8**	**33**
AREA 2					
OLD W 35W SERVICE DRIVE					
STA 700+21.93 TO STA 705+78.16	3				
AREA 2 SUBTOTAL	**3**				
AREA 3					
EDISON STREET					
STA 800+38.63 TO STA 806+00					2
STA 806+00 TO STA 812+36.53					2
AREA 3 SUBTOTAL					**4**
AREA 4					
YANCY STREET					
STA 900+79.80 TO STA 903+34.19	1				2
98TH LANE					
STA 903+34.19 TO STA 910+00	1				3
STA 910+00 TO STA 917+00					3
STA 917+00 TO STA 923.41.20	1				2
BATAAN COURT					
STA 950+13.53 TO STA 952+32.50					1
ZUMBROTA STEET					
STA 1000+13.50 TO STA 1005+00	1				2
STA 1005+00 TO STA 1009+93.23					2
ZUMBROTA CIRCLE					
STA 1050+13.50 TO STA 1052+59.19					1
90TH LANE					
STA 1100+13.50 TO STA 1106+00	1				2
STA 1106+00 TO STA 1112+00					2
STA 1112+00 TO STA 1117+67.73	1				3
BATAAN STREET					
STA 1200+13.39 TO STA 1203+94.12	1				1
AREA 4 SUBTOTAL	**7**				**24**
PROJECT TOTAL	**11**	**9**	**5**	**8**	**61**

NOTES:
(10) SEE CITY TECHNICAL SPECIFICAITONS.

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NICHOLAS E. HENTGES, PE
DATE: 4/22/2022
LIC. NO: 44620

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

QUANTITY TABULATIONS

CITY PROJECT 23-08

SHEET **10** OF **230** SHEETS

SIGN AND DELINEATOR / MARKER — F

SIGN NUMBER	SIGN QUANTITIY	PANEL CODE	LEGEND	PANEL SIZE (W x H) INCH	PANEL SIGN AREA SQ FT	PANEL MOUNTING HEIGHT FEET	SUPPORT TYPE	SUPPORT NUMBER OF POSTS	REMOVE SIGN EACH	SIGN SQ FT	REMOVE DELINEATOR /MARKER EACH	DELINEATOR /MARKER SIGN EACH
S-1	3	W1-1L	SHARP CURVE LEFT	30 x 30	6.25	7	SOIL	1	3	18.75		
S-2	4	W11-1	BICYCLE CROSSING	30 x 30	6.25	7	SOIL	1	4	25.00		
S-3	4		NO PARKING ANY TIME	x					4			
S-4	4	R8-3	NO PARKING	12 x 12	1.00	7	SOIL	1	4	4.00		
S-5	2	W11-15	COMBINED BICYCLE/PEDESTRIAN CROSSING	30 x 30	6.25	7	SOIL	1	2	12.50		
S-6	3	W1-1R	SHARP CURVE RIGHT	30 x 30	6.25	7	SOIL	1	3	18.75		
								AREA 1 SUBTOTAL	**20**	**79**		
S-7	1	W14-1	DEAD END	30 x 30	6.25	7	SOIL	1	1	6.25		
S-8	2	OM4-1	END OF ROAD MARKER (RED ON RED)	18 x 18	2.25	4	SOIL	1		4.50	2	2
								AREA 3 SUBTOTAL	**1**	**11**	**2**	**2**
								TOTAL	**21**	**90**	**2**	**2**

GENERAL NOTE(S):
1. MOUNTING HEIGHT IS MINIMUM (WITH A +6 INCH TOLERANCE)
2. SEE THE CURRENT MnDOT STANDARD SIGNS AND MARKINGS MANUAL FOR STANDARD SIGN DESIGNS, SPLICE PLATES, STRINGERS AND PUNCHING CODES.
3. SEE CITY STANDARD PLATES FOR MOUNTING DETAILS UNLESS OTHERWISE NOTED.

SALVAGE & INSTALL SIGN TABULATION — G

ALIGNMENT	STATION	OFFSET	PANEL CODE	LEGEND	PANEL SIZE (W x H) INCH	PANEL SIGN AREA SQ FT	PANEL MOUNTING HEIGHT FEET	SUPPORT POST TYPE	SUPPORT SURFACE TYPE	SUPPORT NUMBER OF POSTS	SALVAGE SIGN EACH	INSTALL SIGN EACH
AUSTIN ST	102+47	25' RT	SPEC	98TH LN	36 x 9	2.25	7	R	SOIL	1	1	1
			SPEC	AUSTIN ST	42 x 9	2.63						
AUSTIN ST	105+55	22' RT	SPEC	99TH AVE	42 x 9	2.63	7	R	SOIL	1	1	1
			SPEC	AUSTIN ST	42 x 9	2.63						
AUSTIN ST	110+90	28' LT	R1-1	STOP	30 x 30	6.25	7	SQ	SOIL	1	1	1
AUSTIN ST	111+37	24' LT	SPEC	99TH LN	36 x 9	2.25	7	R	SOIL	1	1	1
			SPEC	AUSTIN ST	42 x 9	2.63						
AUSTIN ST	113+13	21' LT	D11-1	BIKE ROUTE	24 x 18	3.00	7	SQ	SOIL	1	1	1
			R5-3	NO MOTOR VEHICLES	24 x 24	4.00						
AUSTIN ST	113+29	22' RT	D11-1	BIKE ROUTE	24 x 18	3.00	7	SQ	SOIL	1	1	1
			R5-3	NO MOTOR VEHICLES	24 x 24	4.00						
AUSTIN ST	119+97	25' RT	SPEC	CORD ST	36 x 9	2.25	7	R	SOIL	1	1	1
			SPEC	AUSTIN ST	42 x 9	2.63						
AUSTIN ST	120+44	31' RT	R1-1	STOP	30 x 30	6.25	7	SQ	SOIL	1	1	1
AUSTIN ST	121+83	19' LT	SPEC	NO PARKING ON ANY BLAINE STREET …	24 x 30	5.00	7	SQ	SOIL	1	1	1
98TH AVE	200+36	21' LT	SPEC	98TH AVE	42 x 9	2.63	7	R	SOIL	1	1	1
			SPEC	AUSTIN ST	42 x 9	2.63						
98TH AVE	208+78	20' LT	SPEC	CORD ST	36 x 9	2.25	7	R	SOIL	1	1	1
			SPEC	98TH AVE	42 x 9	2.63						
CORD ST	211+52	22' LT	SPEC	CORD ST	36 x 9	2.25	7	R	SOIL	1	1	1
			SPEC	98TH LN	42 x 9	2.63						
CORD ST	214+58	23' RT	R1-1	STOP	30 x 30	6.25	7	SQ	SOIL	1	1	1
CORD ST	214+53	24' LT	SPEC	CORD ST	36 x 9	2.25	7	R	SOIL	1	1	1
			SPEC	99TH AVE	42 x 9	2.63						
CORD ST	215+13	24' LT	R1-1	STOP	30 x 30	6.25	7	SQ	SOIL	1	1	1
99TH AVE	409+75	21' LT	R2-1	SPEED LIMIT 30	24 x 30	5.00	7	SQ	SOIL	1	1	1
AUSTIN ST	500+92	28 ' LT	SPEC	AUSTIN ST	42 x 9	2.63	7	R	SOIL	1	1	1
			SPEC	EDGEWOOD RD	54 x 9	3.38						
AUSTIN ST	500+95	24' LT	R1-1	STOP	30 x 30	6.25	7	SQ	SOIL	1	1	1
AUSTIN ST	502+18	18' RT	R2-1	SPEED LIMIT 30	24 x 30	5.00	7	SQ	SOIL	1	1	1
97TH LN	505+56	20' RT	SPEC	97TH LN	36 x 9	2.25	7	R	SOIL	1	1	1
			SPEC	AUSTIN ST	42 x 9	2.63						
EDGEWOOD CT 1	600+41	24' RT	SPEC	4023-4083	42 x 9	2.63	7	R	SOIL	1	1	1
			SPEC	EDGEWOOD RD	54 x 9	3.38						
EDGEWOOD CT 2	650+44	22' RT	SPEC	4103-4163	42 x 9	2.63	7	R	SOIL	1	1	1
			SPEC	EDGEWOOD RD	54 x 9	3.38						
										TOTAL	**22**	**22**

GENERAL NOTE(S):
1. MOUNTING HEIGHT IS MINIMUM (WITH A +6 INCH TOLERANCE)
2. SEE THE CURRENT MnDOT STANDARD SIGNS AND MARKINGS MANUAL FOR STANDARD SIGN DESIGNS, SPLICE PLATES, STRINGERS AND PUNCHING CODES.
3. SEE CITY STANDARD PLATES FOR MOUNTING DETAILS UNLESS OTHERWISE NOTED.
4. INSTALLATION OF SALVAGED SIGNS SHALL INCLUDE FURNISHING AND INSTALLING NEW POSTS AND HARDWARE (INCIDENTAL.
5. POST TYPE ABBREVIATIONS (SQ = SQUARE, R = ROUND)

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NICHOLAS E. HENTGES, PE
DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

QUANTITY TABULATIONS

CITY PROJECT 23-08

SHEET **11** OF **230** SHEETS

EXISTING DRAINAGE TABULATION

H

STRUCTURE NO.		STRUCTURE LOCATION			COORDINATES		DRAINAGE STRUCTURES		TOP OF CASTING ELEV	OUTLET ELEV.	INLET ELEV.	REMARKS
FLOWS FROM	FLOWS TO	ALIGN.	STATION	OFFSET	X	Y	TYPE	CASTING ASSEMBLY TYPE				
4000	4100	AUSTIN_ST	113+43.29	15.0 LT	525726.88	142508.35	CB	R - 3067V	900.90	892.55	891.50	A,C
4001	4000	AUSTIN_ST	113+40.54	14.8 RT	525744.48	142484.22	CB	R - 3067V	901.04	892.66	892.55	A,C
4004	4003	CORD_ST	219+64.32	14.1 LT	526322.55	142297.23	CB	R - 3290-A	902.11	898.11	895.78	A,C
4005	4004	CORD_ST	219+64.27	14.3 RT	526350.25	142291.28	CB	R - 3067V	901.95	898.20	898.11	A,C
4008	5012	AUSTIN_ST	108+63.80	14.0 LT	525461.55	142108.75	CB	R - 3067V	902.11	897.91	897.77	A,C
4009	5012	AUSTIN_ST	106+11.85	14.0 RT	525486.88	141856.53	CB	R - 3067V	902.13	894.63	893.98	A,C
4010	4009	AUSTIN_ST	106+08.82	14.0 LT	525458.93	141853.79	CB	R - 3290-A	902.08	898.08	894.63	A,C
4011	4009	AUSTIN_ST	105+45.76	13.9 RT	525486.18	141790.44	CB	R - 3067V	902.39	894.89	894.63	A,C
4012	4011	AUSTIN_ST	103+00.07	14.0 RT	525483.69	141544.76	CB	R - 3067V	902.20	895.20	894.89	A,B,C
4013	4012	AUSTIN_ST	103+00.06	13.6 LT	525456.12	141545.04	CB	R - 3290-A	902.17	898.07	897.93	A,B,C
4015	5013	AUSTIN_ST	100+03.81	14.2 RT	525480.84	141248.52	CB	R - 3067V	902.64	895.63	895.28	A,B,C
4016	4015	CORD_ST	200+25.34	14.0 RT	525462.54	141213.05	CB	R - 3290-A	902.73	897.13	896.93	A,B,C
4017	4015	CORD_ST	200+52.82	14.1 LT	525499.88	141218.65	CB	R - 3067V	902.44	895.73	895.63	A,C
4025	5021	97TH_LN	501+01.71	15.2 LT	525453.61	140423.09	CB	R - 3067V	904.68	901.88	900.51	A,C
4027	4074	EDGEWOOD_CT_1	600+34.66	29.4 RT	525831.42	140403.72	CB	R - 3067V	907.04	902.60	901.09	A,B,C
4031	4030	89TH_LN	903+07.99	15.1 RT	516483.93	135435.91	CB	R - 3067V	910.62	905.80	904.21	A
4032	4031	89TH_LN	903+09.10	21.7 LT	516448.87	135447.28	CB	R - 3067V	910.75	907.46	906.80	A
4033	4031	89TH_LN	903+61.22	20.7 LT	516501.02	135495.37	CB	R - 3067V	911.03	906.46	905.80	A
4034	4033	89TH_LN	905+44.26	15.1 LT	516688.87	135490.86	CB	R - 3067V	912.51	908.02	907.06	A
4035	4034	89TH_LN	905+77.15	14.9 RT	516721.62	135460.79	CB	R - 3067V	912.46	908.64	908.02	A
4036	4036A	89TH_LN	911+51.34	14.8 LT	517293.11	135490.87	CB	R - 3067V	911.41	902.54	902.46	A
4036A	4073	89TH_LN	911+55.47	13.0 RT	517302.27	135464.34	CB	R - 3067V	911.67	907.66	906.88	A
4037	4036	89TH_LN	912+61.77	10.6 LT	517387.34	135531.89	MH	A - 7D	912.04	902.64	902.55	A
4038	5006	89TH_LN	914+58.38	15.0 LT	517537.69	135658.65	CB	R - 3067V	910.41	906.00	905.88	A
4039	4038	89TH_LN	914+72.35	14.7 RT	517567.18	135644.30	CB	R - 3067V	910.41	906.80	906.06	A
4040	4041	90TH_LN	1114+37.08	15.3 LT	518038.00	136087.64	CB	R - 3067V	911.55	907.67	907.50	A
4041	4042	90TH_LN	1114+36.69	15.1 RT	518014.17	136068.92	CB	R - 3067V	911.43	907.48	907.13	A
4042	4044	90TH_LN	1115+08.34	14.9 RT	518059.28	136013.25	CB	R - 3067V	911.37	907.01	906.99	A
4043	4042	90TH_LN	1115+08.35	14.9 LT	518082.49	136031.97	CB	R - 3067V	911.45	907.39	907.33	A
4044	4045	90TH_LN	1115+15.08	8.8 RT	518068.30	136011.87	MH	A - 7D	911.83	906.98	906.72	A
4045	4048	90TH_LN	1117+50.85	8.6 RT	518216.47	135828.47	MH	A - 7D	909.93	906.60	906.42	A
4046	4045	90TH_LN	1117+50.68	18.8 LT	518237.66	135845.79	CB	R - 3067V	910.25	906.69	906.63	A
4047	4048	90TH_LN	1117+56.42	23.3 RT	518208.49	135814.88	CB	R - 3067V	909.93	906.47	906.42	A
4049	4050	BATAAN_ST	1200+34.97	15.0 LT	517289.57	136174.93	CB	R - 3067V	911.23	908.81	908.58	A
4050	4051	BATAAN_ST	1200+34.67	15.2 RT	517319.75	136174.49	CB	R - 3067V	911.34	908.58	908.47	A
4051	4052	90TH_LN	1106+78.33	13.1 RT	517317.88	136126.76	MH	A - 7D	912.16	908.45	908.28	A
4052	4103	90TH_LN	1106+49.66	14.9 RT	517289.20	136125.05	CB	R - 3067V	911.79	908.28	907.71	A
4053	4054	90TH_LN	1100+34.71	15.1 RT	516674.25	136128.46	CB	R - 3067V	910.28	907.44	907.33	A
4054	4056	90TH_LN	1100+34.28	15.1 LT	516674.00	136158.58	CB	R - 3067V	910.14	907.33	907.19	A
4055	4056	ZUMBROTA_ST	1006+69.89	15.3 LT	516624.35	136144.15	CB	R - 3067V	910.93	907.45	907.19	A
4056	4057	ZUMBROTA_ST	1006+93.19	12.9 RT	516652.70	136167.21	MH	A - 7D	911.24	907.10	906.58	A
4057	4058	ZUMBROTA_ST	1008+42.70	12.7 RT	516653.74	136316.72	MH	A - 7D	912.29	906.52	906.08	A
4059	4060	ZUMBROTA_ST	1003+80.50	14.9 RT	516652.14	135854.51	CB	R - 3067V	910.17	907.37	907.26	A
4060	4061	ZUMBROTA_ST	1003+33.16	14.1 RT	516650.88	135807.19	MH	A - 7D	910.35	907.26	907.09	A
4061	4104	ZUMBROTA_CT	1051+47.93	14.9 RT	516784.77	135802.97	CB	R - 3067V	909.70	907.09	907.00	A
4062	4061	ZUMBROTA_CT	1051+48.94	15.1 LT	516785.92	135832.92	CB	R - 3067V	909.28	907.17	907.10	A
4064	4065	EDISON_ST	810+41.66	14.4 RT	518313.26	133581.33	CB	R - 3067V	904.96	902.59	902.13	A
4065	4065A	EDISON_ST	810+41.66	14.8 LT	518284.09	133580.96	CB	R - 3067V	905.06	902.13	900.63	A
4066	4067	EDISON_ST	800+47.88	14.4 LT	518296.96	132587.26	CB	R - 3067V	904.13	900.30	900.23	A,B
4067	4068	EDISON_ST	800+47.49	15.8 RT	518327.18	132587.25	CB	R - 3067V	904.31	900.21	900.10	A,B
				TOTAL								

GENERAL NOTES:

(-) STATIONS, OFFETS, AND ELEVATIONS ARE GIVEN TO CENTER OF CASTING FOR ALL STORM STRUCTURES.
(-) PAY HEIGHTS ARE FROM BOTTOM OF CASTING TO INVERT PLUS 0.7'.
(-) STEPS REQUIRED WHEN DEPTH FROM TOP OF CASTING TO STRUCTURE INVERT IS GREATER THAN 4.5'.
(-) FLOW LINE (F.L.) ELEVATIONS, INLET ELEVATIONS, AND OUTLET ELEVATIONS ARE AT CENTER OF STRUCTURE
(-) SUBSURFACE DRAINAGE CONNNECTIONS TO DRAINAGE STRUCTURES SHALL BE INCIDENTAL
(-) INSULATE WATERMAIN AS APPLICABLE FOR STORM CROSSINGS

REMARKS:

(A) - REPLACE GROUT IN STRUCTURE
(B) - REPLACE TOP SLAB WITH 4022 TOP SLAB
(C) - FURNISH AND INSTALL CASTING ASSEMBLY. SEE CASTING TAB FOR TOTAL.

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WILLIAM C. ALMS, PE
LIC. NO: 54301
DATE: 4/22/2022

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

QUANTITY TABULATIONS

CITY PROJECT 23-08

SHEET **12** OF **230** SHEETS

PROPOSED DRAINAGE TABULATION

STRUCTURE NO.		STRUCTURE LOCATION			COORDINATES		DRAINAGE STRUCTURES							CONNECT TO EXISTING	CONNECT INTO EXISTING	TOP OF	OUTLET	INLET	12" RCP	15" RCP	36" RCP	15" APRON		H
								PAY HEIGHT																
FLOWS FROM	FLOWS TO	ALIGN.	STATION	OFFSET	X	Y	TYPE	SPEC 1	H	48-4020	60-4020	72-4020	CASTING ASSEMBLY TYPE	STEPS REQ'D	STORM SEWER	DRAINAGE STRUCTURE	CASTING ELEV	ELEV.	ELEV.	CL V	CL V	CL III		APRON TYPE	REMARKS
								EACH	LIN FT	LIN FT	LIN FT	LIN FT			EACH	EACH				LIN FT	LIN FT	LIN FT	EACH		
5000	4000	AUSTIN_ST	113+63.17	14.1 LT	525742.35	142520.87	CB	1					R - 3067V			1	901.36	897.36	897.27		20				C
5001	4004	CORD_ST	219+45.52	14.2 LT	526318.87	142278.08	CB			4.6			R - 3067V	YES		1	902.55	898.20	898.12		20				
5003	5004	CORD_ST	215+23.00	15.1 LT	526331.92	141855.45	CB	1					R - 3067V				904.73	900.73	900.59		30				C
5004	5028	CORD_ST	215+23.00	15.2 RT	526362.26	141855.07	CB			4.5			R - 3067V	YES			904.76	900.58	899.70		174				
5005	4039	89TH_LN	914+58.00	14.3 RT	517555.78	135635.58	CB	1					R - 3067V			1	910.67	906.87	906.80		14				C
5006	4037	89TH_LN	914+17.66	14.9 LT	517506.04	135633.03	CB			5.4			R - 3067V	YES	2		910.98	905.86	905.33						
5007	4040	90TH_LN	1114+24.50	15.0 LT	518029.90	136097.27	CB	1					R - 3067V			1	911.70	907.74	907.69		13				C
5008	5009	SERVICE_DR	700+44.28	50.0 RT	519648.41	132759.17												904.22	904.00		49		1	RC APRON	
5009		SERVICE_DR	701+04.99	48.3 RT	519646.88	132819.88												904.00					1	RC APRON	
5010	5022	SERVICE_DR	705+50.21	31.9 LT	519604.75	133263.58	CB		4				R - 2577-C				906.69	902.76	902.71	15					
5011	4101	AUSTIN_ST	110+74.85	14.1 LT	525547.46	142305.99	CB					8.8	R - 3067V	YES	2		902.42	893.91	892.96						
5012	5011	AUSTIN_ST	108+65.09	14.0 RT	525489.55	142109.68	CB					8.5	R - 3290-A		3		902.79	893.98	893.92						
5013	4012	AUSTIN_ST	102+35.99	14.1 RT	525483.16	141480.69	CB					7.9	R - 3067V	YES	2		902.89	895.28	895.20						
5014	4017	98TH_AVE	200+58.84	13.9 RT	525499.67	141190.17	CB				7.3		R - 2569-Q	YES	2		902.81	895.80	895.74						
5016	5017	97TH_LN	505+85.00	14.0 LT	525515.16	140894.30	CB	1					R - 3067V				903.45	899.44	899.38		17				C
5017	5014	97TH_LN	505+72.21	14.8 LT	525498.65	140893.23	CB					6.8	R - 3067V	YES	1		903.41	896.94	895.82						C
5018	5019	97TH_LN	505+85.00	14.0 RT	525515.00	140866.30	CB	1					R - 3067V				903.45	899.44	899.38		16				
5019	5017	97TH_LN	505+60.58	14.7 RT	525499.20	140861.79	CB					6.7	R - 3067V	YES			903.41	897.00	896.96			31			
5020	5019	AUSTIN_ST	504+99.50	15.0 RT	525485.98	140820.71	CB					6.8	R - 3067V	YES	1		903.59	897.08	897.02			43			
5021	5020	AUSTIN_ST	501+01.73	14.5 RT	525483.36	140422.95	CB				5.6		R - 3067V	YES	3		904.97	899.61	897.11						
5022	4072	SERVICE_DR	705+64.64	25.1 LT	519611.57	133276.49	CB			4.6			R - 3067V	YES	2		907.00	902.69	902.20						
5023	4052	90TH_LN	1106+39.69	14.9 RT	517279.22	136125.10	CB	1					R - 3067V			1	912.04	908.33	908.28		10				
5024	4051	90TH_LN	1106+88.33	13.4 RT	517328.17	136126.38	CB	1					R-3290-A			1	912.11	908.51	908.47		10				
5025	5004	CORD_ST	214+48.00	14.0 RT	526360.14	141780.09	CB			4.4			R - 3067V				905.09	900.94	900.59		75				
5026	5025	CORD_ST	214+48.00	14.3 LT	526331.85	141780.44	CB	1					R - 3067V				905.09	901.09	900.96		28				
5027	5011	AUSTIN_ST	111+49.05	14.5 LT	525587.95	142368.17	CB	1					R - 3067V				902.26	898.26	897.91		74				
5028	5029	CORD_ST	216+95.52	14.3 RT	526360.19	142029.39	CB			4.4			R - 3067V				903.78	899.70	899.10		122				C
5029	4005	CORD_ST	218+18.74	14.0 RT	526341.50	142149.71	CB			4.3			R - 3067V			1	903.11	899.10	898.20		142				
				TOTAL				10	4	32.2	12.9	45.5			18	7				15	814	74	2		

GENERAL NOTES:

(-) STATIONS, OFFETS, AND ELEVATIONS ARE GIVEN TO CENTER OF CASTING FOR ALL STORM STRUCTURES.
(-) PAY HEIGHTS ARE FROM BOTTOM OF CASTING TO INVERT PLUS 0.7'.
(-) STEPS REQUIRED WHEN DEPTH FROM TOP OF CASTING TO STRUCTURE INVERT IS GREATER THAN 4.5'.
(-) FLOW LINE (F.L.) ELEVATIONS, INLET ELEVATIONS, AND OUTLET ELEVATIONS ARE AT CENTER OF STRUCTURE
(-) SUBSURFACE DRAINAGE CONNNECTIONS TO DRAINAGE STRUCTURES SHALL BE INCIDENTAL
(-) INSULATE WATERMAIN AS APPLICABLE FOR STORM CROSSINGS
(-) REMOVAL AND REPLACEMENT OF UP TO 8 FEET OF IN KIND PIPE IS INCIDENTAL TO THE CONNECT TO EXISTING STORM SEWER ITEM

REMARKS:
(A) - REPLACE GROUT IN STRUCTURE
(B) - REPLACE TOP SLAB WITH 4022 TOP SLAB
(C) - MONOLITHIC BASE REQUIRED (INCIDENTAL)

CASTING ASSEMBLY SUMMARY						H
ASSEMBLY	RING OR FRAME	COVER OR GRATE	CURB BOX	STANDARD PLATE NUMBER	USE	TOTALS
R - 3067V	NEENAH CASTING R - 3067 - V OR APPROVED EQUAL					38
R - 3290 - A	NEENAH CASTING R - 3290 - A OR APPROVED EQUAL					2
R - 2577 - C	NEENAH CASTING R - 2577 - C OR APPROVED EQUAL					1
R - 2569 - Q	NEENAH CASTING R - 2569 - Q OR APPROVED EQUAL					1
					TOTAL	42

CASTING ASSEMBLY NOTES:
(-) CASTINGS ARE INCIDENTAL TO ALL PROPOSED STRUCTURES.
(-) PAYMENT WILL ONLY BE MADE FOR REPLACEMENT CASTINGS ON EXISTING STRUCTURES WHERE NOTED ON THE PLANS.
(-) TOTALS IN THE CASTING TABLE ABOVE ARE FOR REFERENCE.

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WILLIAM C. ALMS, PE
LIC. NO: 54301
DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

QUANTITY TABULATIONS

CITY PROJECT 23-08

SHEET **13** OF **230** SHEETS

AREA 1 STORM SEWER SUMMARY

STORM SEWER SUMMARY		H
ITEM	UNIT	TOTALS
15" RC PIPE SEWER DESIGN 3006 CLASS V	LIN FT	718
36" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	74
CONNECT TO EXISTING STORM SEWER	EACH	14
CONNECT INTO EXISTING DRAINAGE STRUCTURE	EACH	3

DRAINAGE STRUCTURE SUMMARY		H
ITEM	UNIT	TOTALS
CONST DRAINAGE STRUCTURE DES 48-4020	LIN FT	22.2
CONST DRAINAGE STRUCTURE DES 60-4020	LIN FT	12.9
CONST DRAINAGE STRUCTURE DES 72-4020	LIN FT	45.5
CONST DRAINAGE STRUCTURE DESIGN SPEC 1	EACH	6
REPLACE GROUT ON EXISTING STRUCTURE	EACH	15
REPLACE TOP SLAB ON EXISTING STRUCTURE	EACH	5

CASTING ASSEMBLY SUMMARY						H
ASSEMBLY	RING OR FRAME	COVER OR GRATE	CURB BOX	STANDARD PLATE NUMBER	USE	TOTALS
R - 3067V	NEENAH CASTING R - 3067 - V OR APPROVED EQUAL					33
R - 3290 - A	NEENAH CASTING R - 3290 - A OR APPROVED EQUAL					1
R - 2569 - Q	NEENAH CASTING R - 2569 - Q OR APPROVED EQUAL					1
					TOTAL	35

AREA 2 STORM SEWER SUMMARY

STORM SEWER SUMMARY		H
ITEM	UNIT	TOTALS
12" RC PIPE SEWER DESIGN 3006 CLASS V	LIN FT	15
15" RC PIPE SEWER DESIGN 3006 CLASS V	LIN FT	49
15" RC PIPE APRON	EACH	2
CONNECT TO EXISTING STORM SEWER	EACH	2

DRAINAGE STRUCTURE SUMMARY		H
ITEM	UNIT	TOTALS
CONST DRAINAGE STRUCTURE DESIGN H	LIN FT	4
CONST DRAINAGE STRUCTURE DES 48-4020	LIN FT	4.6

CASTING ASSEMBLY SUMMARY						H
ASSEMBLY	RING OR FRAME	COVER OR GRATE	CURB BOX	STANDARD PLATE NUMBER	USE	TOTALS
R - 3067V	NEENAH CASTING R - 3067 - V OR APPROVED EQUAL					1
R - 2577 - C	NEENAH CASTING R - 2577 - C OR APPROVED EQUAL					1
					TOTAL	2

AREA 3 STORM SEWER SUMMARY

DRAINAGE STRUCTURE SUMMARY		H
ITEM	UNIT	TOTALS
REPLACE GROUT ON EXISTING STRUCTURE	EACH	4
REPLACE TOP SLAB ON EXISTING STRUCTURE	EACH	2

AREA 4 STORM SEWER SUMMARY

STORM SEWER SUMMARY		H
ITEM	UNIT	TOTALS
15" RC PIPE SEWER DESIGN 3006 CLASS V	LIN FT	47
CONNECT TO EXISTING STORM SEWER	EACH	2
CONNECT INTO EXISTING DRAINAGE STRUCTURE	EACH	4

DRAINAGE STRUCTURE SUMMARY		H
ITEM	UNIT	TOTALS
CONST DRAINAGE STRUCTURE DES 48-4020	LIN FT	5.4
CONST DRAINAGE STRUCTURE DESIGN SPEC 1	EACH	4
REPLACE GROUT ON EXISTING STRUCTURE	EACH	30

CASTING ASSEMBLY SUMMARY						H
ASSEMBLY	RING OR FRAME	COVER OR GRATE	CURB BOX	STANDARD PLATE NUMBER	USE	TOTALS
R - 3067V	NEENAH CASTING R - 3067 - V OR APPROVED EQUAL					4
R - 3290 - A	NEENAH CASTING R - 3290 - A OR APPROVED EQUAL					1
					TOTAL	5

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WILLIAM C. ALMS, PE
LIC. NO: 54301
DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

QUANTITY TABULATIONS

CITY PROJECT 23-08

SHEET **14** OF **230** SHEETS

EARTH WORK TABULATION		I
		EMBANKMENT
	COMMON	COMMON
STA. - STA.	CU YD (EV)	CU YD (CV)
AUSTIN STREET		
100+25 - 100+50	14	8
100+50 - 100+61	9	3
100+61 - 100+68	5	2
100+68 - 100+75	4	3
100+75 - 100+81	2	2
100+81 - 100+83	1	1
100+83 - 100+85	1	1
100+85 - 101+00	7	6
101+00 - 101+03	1	1
101+03 - 101+10	3	2
101+10 - 101+18	3	3
101+18 - 101+25	3	3
101+25 - 101+29	2	2
101+29 - 101+36	4	3
101+36 - 101+43	4	3
101+43 - 101+50	3	3
101+50 - 101+75	8	12
101+75 - 101+86	6	3
101+86 - 101+90	4	2
101+90 - 101+97	7	5
101+97 - 102+02	3	3
102+02 - 102+08	2	3
102+08 - 102+15	3	4
102+15 - 102+25	3	5
102+25 - 102+88	22	34
102+88 - 103+00	6	8
103+00 - 103+10	4	6
103+10 - 103+25	6	8
103+25 - 103+37	5	5
103+37 - 103+50	4	5
103+50 - 103+69	8	7
103+69 - 103+75	4	3
103+75 - 103+83	4	3
103+83 - 103+97	7	6
103+97 - 104+00	1	1
104+00 - 104+10	4	4
104+10 - 104+25	7	3
104+25 - 104+50	15	7
104+50 - 104+60	6	5
104+60 - 104+75	7	8
104+75 - 105+00	9	16
105+00 - 105+11	4	7
105+11 - 105+16	2	3
105+16 - 105+21	2	3
105+21 - 105+25	2	3
105+25 - 105+34	5	5
105+34 - 105+40	4	3
105+40 - 105+46	3	3
105+46 - 105+75	17	13
105+75 - 106+09	18	15
106+09 - 106+16	4	3
106+16 - 106+24	4	3
106+24 - 106+50	12	9
106+50 - 106+75	9	9
106+75 - 106+87	7	5
106+87 - 107+02	10	6
107+02 - 107+25	12	10
107+25 - 107+29	2	2
107+29 - 107+37	5	3
107+37 - 107+45	6	3
107+45 - 107+50	3	2
107+50 - 107+56	2	2
107+56 - 107+75	6	7
107+75 - 108+00	8	10
108+00 - 108+25	8	11
108+25 - 108+43	8	8
108+43 - 108+50	4	4
108+50 - 108+55	3	3
108+55 - 108+63	3	4

EARTH WORK TABULATION		I
		EMBANKMENT
	COMMON	COMMON
STA. - STA.	CU YD (EV)	CU YD (CV)
108+63 - 108+75	5	7
108+75 - 108+90	7	8
108+90 - 109+00	7	5
109+00 - 109+25	16	14
109+25 - 109+45	11	11
109+45 - 109+50	3	3
109+50 - 109+52	1	1
109+52 - 109+75	15	12
109+75 - 110+00	10	12
110+00 - 110+20	5	8
110+20 - 110+25	3	1
110+25 - 110+29	3	1
110+29 - 110+35	4	2
110+35 - 110+39	3	2
110+39 - 110+50	6	5
110+50 - 110+75	8	11
110+75 - 111+00	8	10
111+00 - 111+25	5	8
111+25 - 111+35	2	3
111+35 - 111+42	2	2
111+42 - 111+50	2	3
111+50 - 111+75	8	9
111+75 - 112+00	6	9
112+00 - 112+25	6	8
112+25 - 112+50	6	8
112+50 - 112+59	3	2
112+59 - 112+67	3	2
112+67 - 112+73	3	1
112+73 - 113+00	8	6
113+00 - 113+25	10	7
113+25 - 113+50	11	8
113+50 - 113+77	9	7
113+77 - 113+84	4	2
113+84 - 113+91	4	2
113+91 - 114+00	4	2
114+00 - 114+25	6	6
114+25 - 114+50	6	6
114+50 - 114+75	6	6
114+75 - 115+00	7	6
115+00 - 115+15	6	3
115+15 - 115+25	6	2
115+25 - 115+50	11	5
115+50 - 115+77	12	6
115+77 - 115+83	3	1
115+83 - 116+00	7	4
116+00 - 116+25	8	6
116+25 - 116+45	8	5
116+45 - 116+50	2	1
116+50 - 116+59	5	2
116+59 - 116+75	7	4
116+75 - 116+80	2	1
116+80 - 116+86	3	2
116+86 - 116+92	3	2
116+92 - 117+00	3	2
117+00 - 117+25	7	8
117+25 - 117+50	8	7
117+50 - 117+75	8	7
117+75 - 117+78	1	1
117+78 - 117+84	5	1
117+84 - 117+88	2	1
117+88 - 118+00	6	3
118+00 - 118+25	8	6
118+25 - 118+50	8	5
118+50 - 118+75	8	4
118+75 - 118+84	4	1
118+84 - 118+89	3	1
118+89 - 118+94	3	1
118+94 - 119+00	3	1
119+00 - 119+02	1	
119+02 - 119+25	14	3

EARTH WORK TABULATION		I
		EMBANKMENT
	COMMON	COMMON
STA. - STA.	CU YD (EV)	CU YD (CV)
119+25 - 119+33	4	1
119+33 - 119+50	8	2
119+50 - 119+75	9	3
119+75 - 120+00	9	2
120+00 - 120+08	6	
120+08 - 120+25	14	1
120+25 - 120+50	10	2
120+50 - 120+75	8	3
120+75 - 121+00	9	3
121+00 - 121+06	3	1
121+06 - 121+09	1	
121+09 - 121+16	5	1
121+16 - 121+25	7	1
121+25 - 121+34	5	1
121+34 - 121+50	7	2
121+50 - 121+75	8	2
121+75 - 122+00	6	4
122+00 - 122+08	2	2
122+08 - 122+13	2	1
122+13 - 122+18	2	2
122+18 - 122+25	2	2
98TH AVENUE		
200+00 - 200+10	6	1
200+10 - 200+13	2	
200+13 - 200+16	2	
200+16 - 200+25	5	1
200+25 - 200+32	4	1
200+32 - 200+36	3	1
200+36 - 200+41	3	1
200+41 - 200+50	5	2
200+50 - 200+75	9	4
200+75 - 200+99	13	2
200+99 - 201+06	5	
201+06 - 201+13	5	
201+13 - 201+25	6	
201+25 - 201+50	10	1
201+50 - 201+54	2	
201+54 - 201+62	5	
201+62 - 201+68	4	
201+68 - 201+75	4	
201+75 - 202+00	10	1
202+00 - 202+25	10	1
202+25 - 202+35	7	
202+35 - 202+41	5	
202+41 - 202+45	3	
202+45 - 202+50	3	
202+50 - 202+75	10	1
202+75 - 202+84	5	
202+84 - 202+90	4	
202+90 - 202+94	3	
202+94 - 203+00	3	
203+00 - 203+20	10	1
203+20 - 203+25	3	
203+25 - 203+33	5	
203+33 - 203+50	8	1
203+50 - 203+53	1	
203+53 - 203+59	4	
203+59 - 203+63	3	
203+63 - 203+75	5	1
203+75 - 204+01	13	1
204+01 - 204+07	4	
204+07 - 204+14	4	
204+14 - 204+25	5	1
204+25 - 204+31	3	
204+31 - 204+38	4	
204+38 - 204+45	4	
204+45 - 204+50	3	
204+50 - 204+75	10	2
204+75 - 205+00	9	2

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NICHOLAS E. HENTGES, PE
DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

EARTHWORK SUMMARY

CITY PROJECT 23-08

SHEET **15** OF **230** SHEETS

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EARTH WORK TABULATION		I
		EMBANKMENT
	COMMON	COMMON
STA. - STA.	CU YD (EV)	CU YD (CV)
205+00 - 205+18	10	1
205+18 - 205+25	7	
205+25 - 205+28	3	
205+28 - 205+50	13	2
205+50 - 205+75	9	2
205+75 - 205+90	7	1
205+90 - 206+00	7	
206+00 - 206+05	3	
206+05 - 206+25	9	1
206+25 - 206+29	1	
206+29 - 206+35	4	
206+35 - 206+42	4	
206+42 - 206+50	5	
206+50 - 206+75	14	2
206+75 - 206+86	5	1
206+86 - 206+92	4	1
206+92 - 207+00	4	1
207+00 - 207+25	12	2
207+25 - 207+41	8	1
207+41 - 207+50	5	1
207+50 - 207+54	2	
207+54 - 207+75	10	3
207+75 - 207+95	8	4
207+95 - 208+00	2	1
208+00 - 208+09	5	2
208+09 - 208+25	7	3
208+25 - 208+50	8	4
208+50 - 208+75	9	3
208+75 - 208+90	7	1
208+90 - 208+94	3	
208+94 - 209+00	3	
CORD STREET		
209+00 - 209+13	6	
209+13 - 209+18	3	
209+18 - 209+25	5	
209+25 - 209+47	17	
209+47 - 209+50	3	
209+50 - 209+58	5	
209+58 - 209+75	9	1
209+75 - 209+80	3	
209+80 - 209+87	4	
209+87 - 209+94	4	
209+94 - 210+00	3	
210+00 - 210+25	11	1
210+25 - 210+32	4	
210+32 - 210+50	15	
210+50 - 210+56	5	
210+56 - 210+73	13	
210+73 - 210+75	2	
210+75 - 210+85	8	
210+85 - 210+92	7	
210+92 - 211+00	5	
211+00 - 211+25	16	1
211+25 - 211+40	9	
211+40 - 211+50	8	
211+50 - 211+53	2	
211+53 - 211+75	16	1
211+75 - 212+00	16	1
212+00 - 212+25	12	1
212+25 - 212+50	13	1
212+50 - 212+65	12	
212+65 - 212+69	5	
212+69 - 212+74	5	
212+74 - 213+00	21	1
213+00 - 213+25	14	1
213+25 - 213+36	8	
213+36 - 213+40	4	
213+40 - 213+47	7	
213+47 - 213+59	11	

EARTH WORK TABULATION		I
		EMBANKMENT
	COMMON	COMMON
STA. - STA.	CU YD (EV)	CU YD (CV)
213+59 - 213+67	8	
213+67 - 213+75	6	
213+75 - 213+80	4	
213+80 - 213+89	9	
213+89 - 213+93	5	
213+93 - 214+00	6	
214+00 - 214+25	16	1
214+25 - 214+50	14	1
214+50 - 214+75	18	1
214+75 - 215+00	24	1
215+00 - 215+25	17	1
215+25 - 215+50	13	1
215+50 - 215+75	14	1
215+75 - 216+00	14	1
216+00 - 216+25	13	1
216+25 - 216+34	6	
216+34 - 216+41	5	
216+41 - 216+46	4	
216+46 - 216+50	2	
216+50 - 216+65	9	
216+65 - 216+75	8	
216+75 - 216+78	2	
216+78 - 217+00	15	1
217+00 - 217+25	12	1
217+25 - 217+35	6	
217+35 - 217+41	4	
217+41 - 217+50	5	
217+50 - 217+69	10	1
217+69 - 217+75	4	
217+75 - 217+80	3	
217+80 - 218+00	10	1
218+00 - 218+25	10	1
218+25 - 218+50	9	1
218+50 - 218+57	3	
218+57 - 218+66	7	
218+66 - 218+75	7	
218+75 - 219+00	12	1
219+00 - 219+25	9	2
219+25 - 219+50	9	3
219+50 - 219+58	4	1
219+58 - 219+63	3	1
219+63 - 219+69	4	1
219+69 - 219+75	3	1
219+75 - 220+05	13	3
220+05 - 220+25	9	2
220+25 - 220+50	10	2
220+50 - 220+75	10	3
220+75 - 220+84	4	1
220+84 - 220+92	6	
220+92 - 220+97	4	
220+97 - 221+25	19	1
221+25 - 221+50	11	1
221+50 - 221+75	12	1
221+75 - 221+81	4	
221+81 - 221+88	5	
221+88 - 221+93	4	
221+93 - 222+00	5	
222+00 - 222+16	10	1
222+16 - 222+25	7	
222+25 - 222+27	2	
222+27 - 222+50	14	1
222+50 - 222+75	13	1
222+75 - 223+00	13	1
223+00 - 223+25	12	1
98TH LANE		
300+75 - 301+00	8	5
301+00 - 301+25	8	5
301+25 - 301+50	8	5
301+50 - 301+75	8	5

EARTH WORK TABULATION		I
		EMBANKMENT
	COMMON	COMMON
STA. - STA.	CU YD (EV)	CU YD (CV)
301+75 - 302+00	11	4
302+00 - 302+12	7	2
302+12 - 302+25	7	2
302+25 - 302+36	6	1
302+36 - 302+50	7	2
302+50 - 302+65	7	2
302+65 - 302+68	2	
302+68 - 302+75	6	1
302+75 - 302+82	5	1
302+82 - 303+00	8	3
303+00 - 303+25	8	4
303+25 - 303+50	14	4
303+50 - 303+62	9	1
303+62 - 303+68	4	1
303+68 - 303+75	3	1
303+75 - 304+00	9	4
304+00 - 304+21	11	4
304+21 - 304+25	2	1
304+25 - 304+38	8	2
304+38 - 304+50	5	2
304+50 - 304+63	5	2
304+63 - 304+75	6	2
304+75 - 305+00	12	5
305+00 - 305+25	9	5
305+25 - 305+34	4	2
305+34 - 305+44	6	2
305+44 - 305+50	4	1
305+50 - 305+57	4	1
305+57 - 305+75	7	3
305+75 - 305+89	6	2
305+89 - 306+00	6	1
306+00 - 306+16	9	2
306+16 - 306+25	5	1
306+25 - 306+32	4	1
306+32 - 306+50	9	2
306+50 - 306+75	8	4
306+75 - 306+82	3	1
306+82 - 306+87	3	1
306+87 - 306+92	3	1
306+92 - 307+03	6	1
307+03 - 307+07	3	1
307+07 - 307+25	12	2
307+25 - 307+29	2	
307+29 - 307+50	10	3
307+50 - 307+75	8	4
307+75 - 308+00	9	4
308+00 - 308+25	8	4
308+25 - 308+50	8	4
99TH AVENUE		
400+75 - 401+00	9	6
401+00 - 401+09	5	2
401+09 - 401+15	4	1
401+15 - 401+18	3	1
401+18 - 401+21	3	1
401+21 - 401+36	9	3
401+36 - 401+50	6	3
401+50 - 401+60	6	2
401+60 - 401+75	6	3
401+75 - 402+00	8	6
402+00 - 402+25	10	6
402+25 - 402+38	7	3
402+38 - 402+50	5	3
402+50 - 402+75	8	6
402+75 - 402+85	4	2
402+85 - 402+90	2	1
402+90 - 402+98	5	2
402+98 - 403+04	4	1
403+04 - 403+11	4	2
403+11 - 403+18	4	2

WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN

DESIGN BY: AJF

PLAN BY: AJF

CHECK BY: NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

EARTHWORK SUMMARY

CITY PROJECT 23-08

SHEET **16** OF **230** SHEETS

EARTH WORK TABULATION		I
		EMBANKMENT
	COMMON	COMMON
STA. - STA.	CU YD (EV)	CU YD (CV)
403+18 - 403+25	3	2
403+25 - 403+38	6	3
403+38 - 403+42	4	1
403+42 - 403+47	4	1
403+47 - 403+50	2	1
403+50 - 403+57	5	2
403+57 - 403+75	6	4
403+75 - 404+00	10	6
404+00 - 404+14	8	3
404+14 - 404+20	5	1
404+20 - 404+25	4	1
404+25 - 404+50	13	4
404+50 - 404+62	5	2
404+62 - 404+75	8	2
404+75 - 405+00	12	4
405+00 - 405+20	8	3
405+20 - 405+28	4	1
405+28 - 405+30	1	
405+30 - 405+38	5	1
405+38 - 405+42	3	
405+42 - 405+50	5	1
405+50 - 405+55	3	1
405+55 - 405+75	11	1
405+75 - 405+83	5	1
405+83 - 405+90	5	1
405+90 - 405+97	4	1
405+97 - 406+00	1	
406+00 - 406+25	9	2
406+25 - 406+50	8	4
406+50 - 406+57	3	1
406+57 - 406+67	5	2
406+67 - 406+75	4	1
406+75 - 407+00	9	6
407+00 - 407+04	2	1
407+04 - 407+10	4	1
407+10 - 407+16	4	1
407+16 - 407+25	5	1
407+25 - 407+50	8	4
407+50 - 407+75	9	3
407+75 - 407+94	10	1
407+94 - 408+00	3	
408+00 - 408+06	3	
408+06 - 408+25	10	1
408+25 - 408+50	13	1
408+50 - 409+30	49	3
409+30 - 409+50	12	1
409+50 - 409+75	16	1
409+75 - 409+90	11	
409+90 - 410+00	10	
410+00 - 410+10	8	
410+10 - 410+25	11	
410+25 - 410+50	12	1
410+50 - 410+75	12	1
AUSTIN STREET		
501+05 - 501+25	6	6
501+25 - 501+45	11	5
501+45 - 501+55	5	2
501+55 - 501+75	8	5
501+75 - 502+00	9	8
502+00 - 502+25	13	9
502+25 - 502+50	14	8
502+50 - 502+75	9	8
502+75 - 503+00	14	6
503+00 - 503+25	14	6
503+25 - 503+50	8	6
503+50 - 503+75	9	6
503+75 - 504+00	9	5
504+00 - 504+25	8	5
504+25 - 504+50	10	4

EARTH WORK TABULATION		I
		EMBANKMENT
	COMMON	COMMON
STA. - STA.	CU YD (EV)	CU YD (CV)
504+50 - 504+75	9	4
504+75 - 504+90	8	3
504+90 - 505+00	5	2
505+00 - 505+25	12	5
505+25 - 505+50	10	7
97TH LANE		
505+50 - 505+56	2	2
505+56 - 505+75	9	10
505+75 - 506+00	10	12
506+00 - 506+25	10	9
506+25 - 506+50	8	9
506+50 - 506+75	8	8
506+75 - 507+00	8	8
507+00 - 507+25	10	7
507+25 - 507+50	14	6
507+50 - 507+75	15	5
507+75 - 507+89	8	3
507+89 - 508+00	6	2
508+00 - 508+04	1	1
508+04 - 508+25	6	4
508+25 - 508+50	8	4
508+50 - 508+75	8	4
508+75 - 508+87	5	2
508+87 - 508+95	5	1
508+95 - 508+99	2	1
508+99 - 509+10	6	2
509+10 - 509+20	5	2
509+20 - 509+24	2	1
509+24 - 509+45	9	4
509+45 - 509+57	5	2
509+57 - 509+60	1	1
509+60 - 509+70	6	2
509+70 - 509+77	3	2
509+77 - 509+80	1	1
509+80 - 509+90	5	2
509+90 - 510+00	4	3
510+00 - 510+25	10	10
510+25 - 510+40	6	7
510+40 - 510+50	4	4
510+50 - 510+54	2	2
510+54 - 510+75	9	10
510+75 - 511+00	9	13
511+00 - 511+25	12	11
511+25 - 511+32	4	3
511+32 - 511+38	3	3
511+38 - 511+50	4	5
511+50 - 511+75	7	12
511+75 - 512+00	8	12
512+00 - 512+25	11	12
512+25 - 512+28	2	2
512+28 - 512+35	4	3
512+35 - 512+42	4	2
512+42 - 512+50	4	3
512+50 - 512+75	10	9
512+75 - 512+87	7	4
512+87 - 513+00	8	4
513+00 - 513+25	10	8
513+25 - 513+50	8	8
513+50 - 513+75	8	8
513+75 - 513+91	7	5
513+91 - 514+00	6	2
514+00 - 514+14	8	4
514+14 - 514+25	5	3
514+25 - 514+37	5	3
514+37 - 514+50	7	3
514+50 - 514+75	13	6
514+75 - 514+80	2	1
514+80 - 515+00	8	5
515+00 - 515+25	8	8

EARTH WORK TABULATION		I
		EMBANKMENT
	COMMON	COMMON
STA. - STA.	CU YD (EV)	CU YD (CV)
515+25 - 515+40	6	5
515+40 - 515+42	1	
515+42 - 515+46	1	1
515+46 - 515+50	1	1
515+50 - 515+75	9	4
515+75 - 516+00	12	2
EDGEWOOD ROAD (4023-4083)		
600+55 - 600+73	2	3
600+73 - 600+75		
600+75 - 600+85	1	2
600+85 - 601+00	1	3
601+00 - 601+05		1
601+05 - 601+11	1	1
601+11 - 601+15		1
601+15 - 601+25	1	2
601+25 - 601+50	1	7
601+50 - 601+55		2
601+55 - 601+61	1	2
601+61 - 601+66	1	2
601+66 - 601+75	1	4
601+75 - 601+80	1	4
601+80 - 601+85	1	6
601+85 - 602+00	2	14
EDGEWOOD ROAD (4103-4163)		
650+55 - 650+76	5	1
650+76 - 650+80	1	
650+80 - 650+90	1	1
650+90 - 651+00	1	1
651+00 - 651+12	1	1
651+12 - 651+20	1	
651+20 - 651+50	4	2
651+50 - 651+54	1	
651+54 - 651+60	1	1
651+60 - 651+65	1	1
651+65 - 651+75	1	1
651+75 - 651+95	4	2
651+95 - 652+05	5	
AREA 1 TOTAL	**3785**	**1613**

NOTES

1. THE EXCAVATION-COMMON QUANTITY INCLUDES TOPSOIL STRIPPING.
2. SEE GEOTECHNICAL REPORT FOR INPLACE PAVEMENT DEPTHS.
3. PLACING, HAULING, AND DISPOSING OF EXCAVATED MATERIALS IS CONSIDERED INCIDENTAL.
4. ALL STOCKPILE AREAS SHALL BE APPROVED BY THE ENGINEER.
5. SOILS NOT USED ON THE PROJECT SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OUTSIDE OF THE RIGHT-OF-WAY. NO DIRECT COMPENSATION WILL BE PAID FOR THE PREPARATION OF AN ACCEPTABLE DISPOSAL PLAN OR FOR OFF-PROJECT DISPOSAL OF MATERIALS. DISPOSAL SITES SHALL BE LEFT IN A WELL GRADED CONDITION WITH ALL SOLID WASTES AND BOULDERS ADEQUATELY COVERED.
6. UNLESS DIRECTED OTHERWISE BY THE PROJECT ENGINEER, ANY MATERIAL THAT IS FOUND TO BE UNNECESSARY FOR THE CONSTRUCTION OF THE ROADWAY EMBANKMENT AND DISPOSAL OF THE SAME BECOMES NECESSARY, ON OR OFF THE PROJECT, THE DISPOSAL AND RELATED ITEMS WILL BE CONSIDERED INCIDENTAL.

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WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN
DESIGN BY: AJF
PLAN BY: AJF
CHECK BY: NEH

REVISIONS

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NICHOLAS E. HENTGES, PE
LIC. NO: 44620
DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

EARTHWORK SUMMARY

CITY PROJECT 23-08

SHEET **17** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:31:38 AM

SOILS & CONSTRUCTION NOTES

1. GRADING GRADE IS DEFINED AS THE BOTTOM OF THE PROPOSED AGGREGATE LAYER. SUITABLE GRADING MATERIAL IS DEFINED AS ANY ON SITE MINERAL SOIL NOT DEFINED AS UNSUITABLE.
2. SELECT GRADING MATERIAL SHALL CONSIST OF ALL MINERAL SOILS ENCOUNTERED WITH THE EXCEPTION OF TOPSOIL, DEBRIS, ORGANIC MATERIAL, AND OTHER UNSUITABLE SOILS.
3. SLOPE DRESSING ON THE PROJECT IS DEFINED AS THE TOPSOIL OR OTHER SOIL PLACED DURING CONSTRUCTION TO PROVIDE A MEDIUM FOR ESTABLISHING TURF. INPLACE SLOPE DRESSING GENERALLY CONSISTS OF SILTY SAND (SM) WHICH WAS DARK BROWN, MOIST, AND HAD TRACES OF GRAVEL.
4. STRIP ALL INPLACE SLOPE DRESSING (TOPSOIL) WHERE PRESENT IN AREAS TO BE DISTURBED BY CONSTRUCTION AND REUSE AS SLOPE DRESSING.
5. UNSUITABLE SOILS ARE DEFINED AS MARL, SILT, SILTY LOAM, PEAT, MUCK, TOPSOIL AND OTHER ORGANIC SOILS WHICH DO NOT MEET OR ARE NOT MANUFACTURED TO MEET ANY OF THE DEFINED CATEGORIES, AND ARE THEREFORE NOT REUSABLE. UNSUITABLE MATERIAL MAY NOT BE PLACED WITHIN A 1(V):1.5(H) SLOPE DOWNWARD AND OUTWARD FROM THE GRADING EMBANKMENT PI OR ABOVE THE ELEVATION OF THE BOTTOM OF THE SELECT GRANULAR SUBGRADE CORRECTION MATERIAL. ALL MATERIAL IS SUBJECT TO THE DISCRETION OF THE ENGINEER.
6. UNLESS OTHERWISE SPECIFICALLY ALLOWED OR REQUIRED BY THE CONTRACT, BITUMINOUS AND CONCRETE ITEMS DISTURBED BY CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE RECYCLED TO THE EXTENT ALLOWED IN BASE AND SURFACING ITEMS OR DISPOSED OF OUTSIDE OF THE RIGHT-OF-WAY IN ACCORDANCE WITH SPEC 2104.3D3.
7. OBTAIN COMPACTION ON PERMANENT GRADING PORTIONS OF CONSTRUCTION IN ACCORDANCE WITH THE "SPECIFIED DENSITY METHOD" REQUIREMENTS.
8. OBTAIN COMPACTION OF GRADING PORTIONS OF TEMPORARY CONSTRUCTION IN ACCORDANCE WITH THE "QUALITY COMPACTION METHOD" REQUIREMENTS.
9. NO FLY ASH, LIME, OR CEMENT STABILIZATION OF THE SUBGRADE SOILS WILL BE ALLOWED PER MNDOT.
10. COMPACTION OF THE AGGREGATE BASE LAYERS SHALL BE OBTAINED IN ACCORDANCE WITH THE PENETRATION INDEX COMPACTION METHOD.
11. ANY TRAFFIC LANES USED DURING CONSTRUCTION ADJACENT TO EXCAVATIONS MUST BE DELINEATED TO KEEP VEHICLES A SAFE DISTANCE AWAY FROM THE EXCAVATIONS, THE DELINEATION SHOULD COINCIDE WITH POINTS ESTABLISHED BY A 1(V):2(H) OR FLATTER SLOPE DETWEEN THE EDGE OF THE TRAFFIC SURFACE AND TEH NEAR EDGE OF THE EXCAVATION BOTTOM.
12. DISPOSITION OF EXCAVATED MATERIAL SHALL BE IN ACCORDANCE WITH SPEC 2106.
13. WHERE CONNECTING TO INPLACE ROADWAYS AT THE TERMINI OF THE PROPOSED NEW CONSTRUCTION, CUT VERTICALLY TO TEH BOTTOM OF THE INPLACE SURFACING OR TO THE BOTTOM OF THE NEW SURFACING DESIGN, WHICHEVER IS DEEPER; THAN AT A 1(V):20(H) TAPER TO THE BOTTOM OF THE SUBGRADE EXCAVATION.
14. PROVIDE A SAWCUT TO ENSURE A UNIFORM JOINT WHEN PLACING NEW PAVEMENT ADJACENT TO INPLACE PAVEMENT. SAWCUTTING OF CONCRETE WALK AND CURB & GUTTER IS INCIDENTAL.
15. THE BITUMINOUS TACK COAT MATERIAL SHALL CONSIST OF EMULSIFIED ASPHALT (CSS-1 OR CSS-AH) AND BE APPLIED BETWEEN COURSES AND TO MILLED SURFACES. THE TACK COAT SHALL HAVE WATER ADDED AT A RATE OF 30-40 PERCENT OF THE VOLUME OF THE EMULSION. THE TACK COAT MATERIAL SHALL BE APPLIED AT A UNIFORM RATE OF 0.03 TO 0.05 GAL PER SQUARE YARD BETWEEN NEW BITUMINOUS LAYERS AND AND AT A RATE OF 0.07 TO 0.09 GAL PER SQUARE YARD OVER A MILLED BITUMINOUS SURFACE. THESE APPLICATION RATES ARE FOR UNDILUTED EMULSION (AS SUPPLIED FROM THE REFINERY).
16. THE BITUMINOUS MIXTURE SHALL MEET THE REQUIREMENTS OF MNDOT SPECIFICATION 2360.
17. THE INFORMATION SHOWN ON THESE DRAWING CONCERNING TYPE AND LOCATION OF PRIVATE UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF PRIVATE UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR TO CALL GOPHER STATE ONE CALL A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION.
18. TEMPORARY EROSION CONTROL - TEMPORARY EROSION CONTROL DEVICES AND THEIR SUGGESTED LOCATIONS HAVE BEEN SHOWN IN THE PLANS ALONG WITH PAY ITEMS FOR THEIR USE. THIS DOES NOT HOWEVER RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY TO CONDUCT CONSTRUCTION IN A MANNER THAT WILL CONTROL EROSION. RESPONSIBILITY FOR CONTROLLING EROSION AND MAINTENANCE OF EROSION CONTROL AS SET IN MNDOT SPECIFICATIONS: 1717, 1803, 2101, 2106, 2575 AND IS AMEND BY THE SPECIAL PROVISIONS.
19. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE FIELD MANUAL.
20. THE CONSTRUCTION LIMITS SHOWN IN THE PLANS REPRESENT THE POINT OF INTERSECTION BETWEEN THE REQUIRED FILL OR CUT SLOPE AND THE EXISTING GROUND LINE AS DEPICTED ON THE CROSS SECTIONS. THE CONSTRUCTION LIMITS DO NOT INCLUDE AREAS REQUIRED FOR SLOPE ROUNDING.

UTILITY NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE UTILITY COMPANIES. CALL GOPHER STATE ONE CALL AT LEAST 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.
2. THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02 ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA.
3. ALL UTILITY WORK SHOWN IN THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE AND MAY NOT REFLECT THE ACTUAL EFFECTS ON THE UTILITIES BY CONSTRUCTION. ACTUAL DETERMINATIONS WILL BE MADE IN THE FIELD DURING CONSTRUCTION BY THE CONTRACTOR (INCIDENTAL).

THE FOLLOWING IS A LIST OF UTILITY COMPANIES INVOLVED IN THIS PROJECT:
CENTERPOINT ENERGY
ARVIG
AT&T
CENTERPOINT ENERGY
COMCAST CABLE
CONNEXUS ENERGY
LUMEN (LOCAL)
LUMEN (NATIONAL)
MAGELLAN MIDSTREAM PARTNERS
MCI-VERIZON
MNDOT
NORTHERN NATURAL GAS
RAMSEY COUNTY
XCEL ENERGY
ZAYO BANDWIDTH

REMOVAL NOTES

1. REMOVAL OF AGGREGATE SURFACING SHALL BE INCLUDED IN EXCAVATION-COMMON.
2. ALL REMOVAL ITEMS SHALL BE DISPOSED OF OFF THE PROJECT SITE, INCIDENTAL.
3. ALL SAW CUTTING IS INCIDENTAL TO THE PROJECT.
4. DRIVEWAY REMOVALS ARE SHOWN TO THE RIGHT OF WAY FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL EXTENT OF DRIVEWAY REMOVAL WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
5. REFER TO REMOVAL TABULATION FOR EXISTING PAVEMENT DEPTHS.
6. TREES TO BE CLEARED & GRUBBED WILL BE MARKED BY THE FIELD ENGINEER.
7. PRIOR TO LANDSCAPING REMOVAL, THE CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNERS, INCIDENTAL.
8. REMOVE ALL BITUMINOUS SPLASH PADS AT HYDRANTS, INCIDENTAL TO CURB REMOVAL.
9. ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL.
10. RECLAIM MATERIAL NOT NEEDED FOR PROPOSED CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF OFF OF THE PROJECT RIGHT OF WAY, INCIDENTAL.

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT

MNDOT STANDARD PLATES

PLATE NO.	DESCRIPTION
3000M	REINFORCED CONCRETE PIPE (6 SHEETS)
3006H	GASKET JOINT FOR R.C. PIPE (2 SHEETS)
3007F	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
3145G	CONCRETE PIPE OR PRECAST BOX CULVERT TIES
4011E	PRECAST CONCRETE BASE
4020J	MANHOLE OR CATCH BASIN (FOR USE WITH OR WITHOUT TRAFFIC LOADS) (2 SHEETS)
4022A	MANHOLE OR CATCH BASIN COVER (3 FT. X 2 FT. OPENING)
4024A	48" DIA. PRECAST SHALLOW DEPTH CATCH BASIN - DESIGN SD
4026B	CONCRETE ENCASED CONCRETE ADJUSTING RINGS
4108F	ADJUSTING RINGS FOR CATCH BASINS AND MANHOLES
4180J	MANHOLE OR CATCH BASIN STEP
7038A	DETECTABLE WARNING SURFACE TRUNCATED DOMES
7100H	CONCRETE CURB AND GUTTER (DESIGN B AND DESIGN V)
7102K	CONCRETE CURB AND GUTTER (DESIGN D, DESIGN S, AND DESIGN R)
7111J	INSTALLATION OF CATCH BASIN CASTINGS (CONCRETE CURB AND GUTTER)
8000K	TEMPORARY CHANNELIZERS (3 SHEETS)

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NICHOLAS E. HENTGES. PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

CONSTRUCTION NOTES & STANDARD PLATES

CITY PROJECT 23-08

SHEET **18** OF **230** SHEETS

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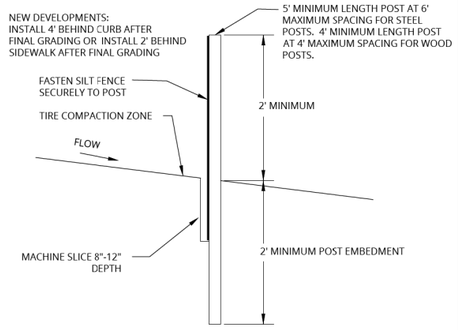
- USE PROPER EQUIPMENT SUCH THAT THE SOIL IS SLICED, NOT TURNED OVER.
- GEOTEXTILE FABRIC EMBEDDED 8" TO 12" IN THE SOIL SLIT, LEAVING ABOUT 2' OF FABRIC ABOVE GROUND.
- COMPACT THE SOIL IMMEDIATELY NEXT TO THE GEOTEXTILE BY DRIVING OVER IT WITH A TRACTOR TIRE AT LEAST TWICE.
- STEEL T-POSTS PLACED ON DOWNSTREAM SIDE OF WATER FLOW EMBEDDED AT LEAST 2' INTO THE GROUND. MAXIMUM SPACING 6'. NIPPLES ON POST FACE AWAY FROM THE GEOTEXTILE TO KEEP TIES FROM SLIPPING ON POST.
- FOR STEEL POSTS USE 3 PLASTIC ZIP TIES (50 LB TENSILE) AT LEAST 1" APART TO SECURE THE GEOTEXTILE TO EACH POST WITHIN THE TOP 8".
- FENCE SHALL BE HEAVY DUTY TYPE.
- USE WOOD LATHE AND STAPLES ON FACE OF SILT FENCE TO SECURE TO WOOD POSTS.
- CONTRACTOR SHALL REMOVE FENCE AND POSTS PER SPECIFICATIONS.



SILT FENCE MATERIALS SHALL MEET MNDOT SPECIFICATION 3886
CONTRACTOR SHALL REMOVE FENCE AND POSTS PER SPECIFICATIONS.

MACHINE SLICED SILT FENCE

Plate No. EC-1

2023 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
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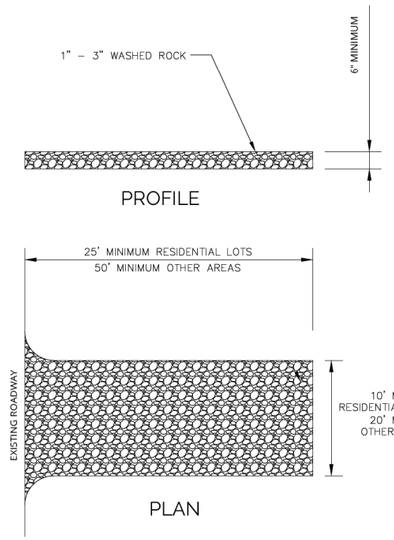

ROCK CONSTRUCTION ENTRANCE

Plate No. EC-3

2023 STANDARD DETAIL PLATE
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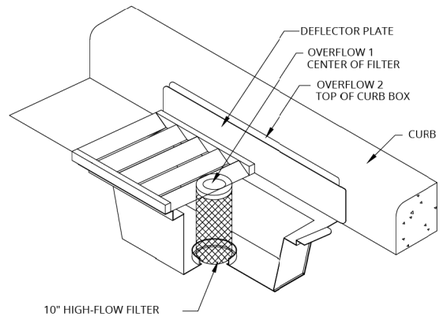

NOTES:
- WIMCO CG MODEL OR APPROVED EQUAL TO MATCH CASTING
- SILT FENCE/FABRIC NOT ALLOWED TO BE USED AS INLET PROTECTION

INLET PROTECTION FOR CURB AND GUTTER

Plate No. EC-4

2023 STANDARD DETAIL PLATE
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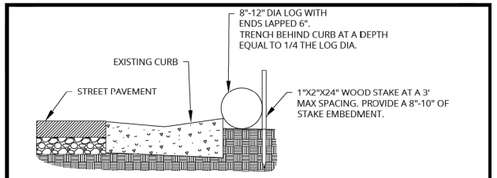
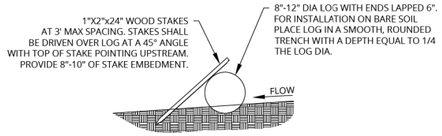
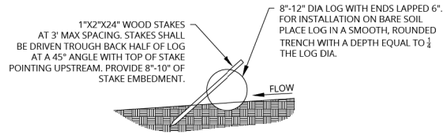


CURB INSTALLATION



FIELD INSTALLATION USING MULCH OR COMPOST



FIELD INSTALLATION USING STRAW OR WOOD FIBER

SEDIMENT CONTROL LOG INSTALLATION

Plate No. EC-8

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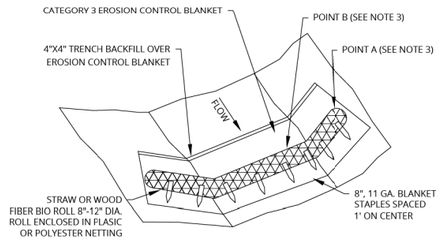

NOTES:
1. SEE DETAIL EC-8 FOR BIOROLL STAKE INSTALLATION.
2. APPROXIMATE SPACING OF DITCH CHECH $(FT) = \frac{\text{DITCH CHECK HEIGHT(FT)}}{\text{\% CHANNEL SLOPE}} \times 100$
3. POINT "A' MUST BE A MINIMUM OF 6 INCHES HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DITCH CHECK AND NOT AROUND THE ENDS..

BIOROLL BLANKET SYSTEM DITCH CHECK

Plate No. EC-9

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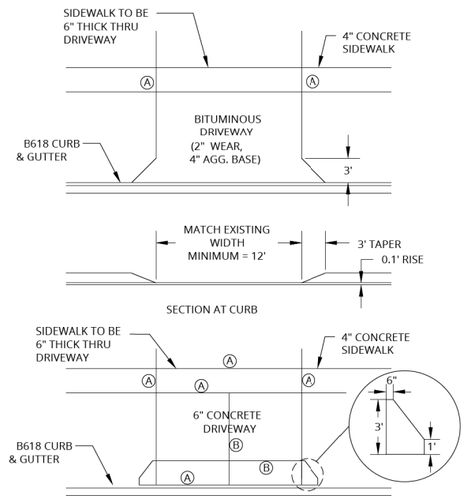

NOTES: MINIMUM 6" THICK CONCRETE OR MATCH EXISTING.
REFER TO MNDOT STANDARD PLATE 7035 FOR MORE INFORMATION REGARDING JOINT CONSTRUCTION.
(A) - EXPANSION JOINT (B) - CONTRACTION JOINT
SEE CS-4 & CS-5 FOR DRIVEWAY WIDTH.

RESIDENTIAL DRIVEWAYS

Plate No. MI-2

2023 STANDARD DETAIL PLATE
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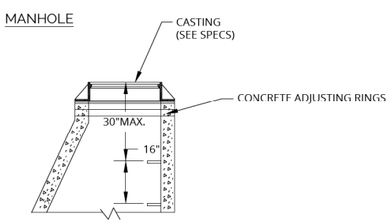

NOTES:
1. USE MINIMUM OF 2-0.2' ADJUSTING RINGS, MAXIMUM OF 5-0.2' ADJUSTING RINGS, ALL SET IN MORTAR.
2. MANHOLE STEPS SHALL BE PER MNDOT PLATE 4180, TYPE W. STEPS SHALL BE LOCATED ON UPSTREAM WALL FOR PIPE SIZES UP TO AND INCLUDING 15" AND ON SIDE WALL FOR GREATER THAN 15".
3. LIDS FOR SANITARY SEWER SHALL BE MARKED "SANITARY" AND LIDS FOR STORM SEWERS SHALL BE MARKED "STORM".
4. NO WOOD SHIMS WILL BE ALLOWED.

ADJUSTING RINGS & STEPS

Plate No. MI-3

2023 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
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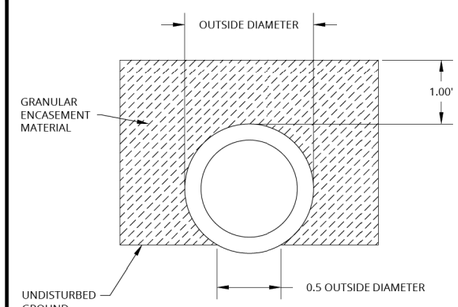

NOTES:
1. THIS IS THE STANDARD PIPE BEDDING APPLICATION UNLESS OTHER BEDDING IS SPECIFIED.
2. THE BOTTOM OF THE TRENCH SHALL BE SHAPED TO FIT THE BARREL OF THE PIPE FOR AT LEAST 50% OF THE OUTSIDE DIAMETER OF THE PIPE. THE REMAINDER OF THE PIPE IS TO BE SURROUNDED TO A HEIGHT OF AT LEAST 1' ABOVE ITS TOP.
3. GRANULAR ENCASEMENT MATERIAL SHALL MEET THE REQUIREMENTS OF THE SPECIFICATIONS.
4. NATIVE BLAINE GRANULAR MATERIAL IS CONSIDERED TO MEET THE INTENT OF THIS DETAIL.

CLASS C PIPE BEDDING

Plate No. MI-4

2023 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
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WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HENTGES, PE
DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CONSTRUCTION NOTES & STANDARD PLATES

CITY PROJECT 23-08

SHEET **19** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:31:45 AM

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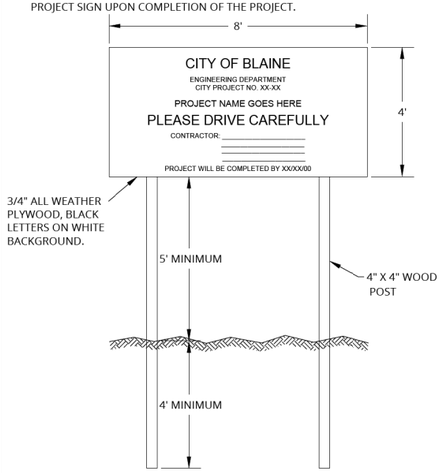
NOTES:
PROJECT SIGN SHALL BE LOCATED AS NOT TO IMPAIR THE VISION OF MOTORISTS. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE PROJECT SIGN UPON COMPLETION OF THE PROJECT.



PROJECT SIGN Plate No. MI-6

2023 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
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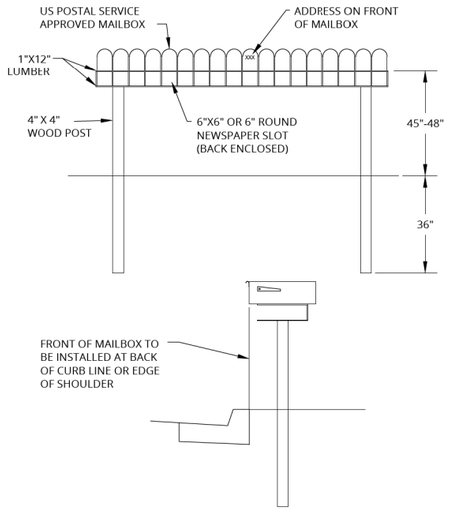

TEMPORARY MAILBOX Plate No. MI-7

2023 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
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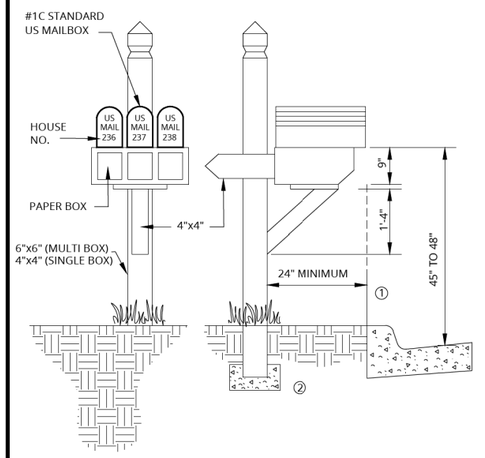
① FRONT OF MAILBOX SHALL BE PLACED EVEN WITH BACK OF CURB.

② BOX, POST, FOUNDATION AND LAYOUT DESIGN MUST BE SUBMITTED TO ENGINEERING DEPARTMENT FOR APPROVAL.



TYPICAL MAILBOX FOR NEW DEVELOPMENTS Plate No. MI-8

2023 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
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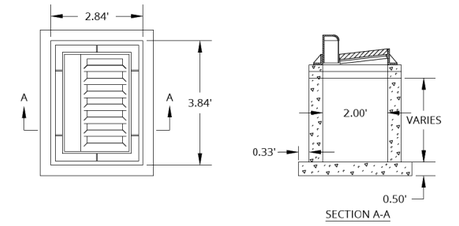

NOTES:
1. INSIDE DIMENSIONS 2.00' X 3.00'
2. BASE TO BE GROUTED TO FORM A SMOOTH INVERT TO OUTLET.
3. PIPE CUT OUTS TO BE LOCATED WHERE REQUIRED.
4. STRENGTH DESIGN OF BASE SLAB AND STRUCTURE PER MANUFACTURER.
5. SEE DETAIL MI-3 FOR ADJUSTING RING CONSTRUCTION
6. SEE SD-5 FOR CASTING SCHEDULE

24" x 36" CATCH BASIN Plate No. SD-1

2023 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
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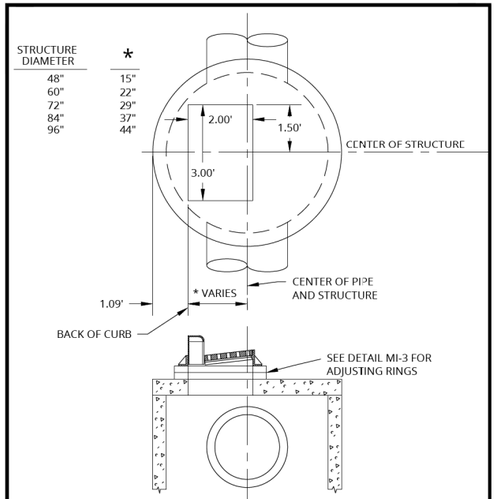

NOTES:
1. STRENGTH DESIGN OF COVER SHALL BE PER MNDOT STANDARD PLATE 4020.
2. SEE SD-5 FOR CASTING SCHEDULE

RECTANGULAR OPENING CB COVER Plate No. SD-2

2023 STANDARD DETAIL PLATE
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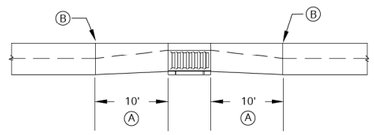

Ⓐ - 10' TRANSITION FROM CASTING OPENING TO D312 CURBING.
Ⓑ - EXPANSION JOINT.

CASTING SCHEDULE

STRUCTURE TYPE	NEENAH CASTING TYPE
MANHOLE (DIA. VARIES)	R-1733 W/ PLATEN LID
CATCH BASIN (DIA. VARIES)	R-3067-V (SEE BLAINE PLATE SD-2)
24" X 36"	R-3067-V (SEE BLAINE PLATE SD-1)
24" X 36"	R-3290-A (DRIVEWAYS)
MNDOT TYPE "H"	R-3250-1 (B STYLE CURBING)
MNDOT TYPE "H"	R-3508-A2 (D312 STYLE CURBING)
MNDOT TYPE "H"	R-2577-1 TYPE C GRATE (OPEN SPACES)

NOTES:
1. IF CATCHBASIN IS NOT LOCATED ON PROPERTY LINE, DO NOT USE 24" X 36" STRUCTURE.
2. CATCH BASIN CASTINGS SHALL BE R-3067-V VANE GRATE FOR FLOW THRU AND BI-DIRECTIONAL R-3067-VB VANE GRATE IN SAG LOCATIONS.

CATCH BASIN/CURBING & CASTING SCHEDULE Plate No. SD-5

2023 STANDARD DETAIL PLATE
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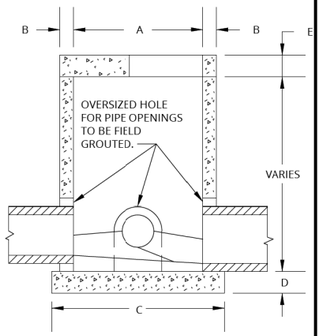
NOTES:
1. 54" THRU 120" DIA. STRUCTURES ARE MANUFACTURED WITH BELL END FACING DOWN.
2. STRUCTURES ARE MANUFACTURED IN ACCORDANCE WITH ASTM C-478 AND MNDOT STANDARD PLATE 4005 WITH RUBBER GASKET JOINTS.
3. REFER TO BLAINE DETAIL MI-3 FOR CASTING, ADJUSTING RINGS, AND STEPS.
4. PROVIDE MORTAR FILLETS TO FIT THE BOTTOM PORTION OF PIPE TO DIRECT FLOW TO OUTLET HALF-WAY UP PIPE MINIMUM.
5. COVER SLAB DESIGN VARIES WITH CASTING.
6. REINFORCING STEEL SHALL BE PER ASTM C-478 AND MNDOT PLATE 4005.



A	B	C	D	E
48"	5"	64"	6"	6"
54"	5.5"	72"	8"	8"
60"	6"	78"	8"	8"
66"	6.5"	85"	8"	8"
72"	7"	92"	8"	8"
78"	7.5"	100"	8"	8"
84"	8"	106"	8"	8"
90"	8.5"	114"	8"	8"
96"	9"	120"	8"	8"
102"	9.5"	127"	12"	8"
108"	10"	132"	12"	12"
120"	10"	146"	12"	12"

STANDARD STORM SEWER CATCH BASIN/MANHOLE & MANHOLE Plate No. SD-6

2023 STANDARD DETAIL PLATE
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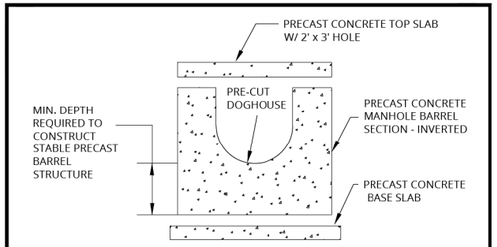
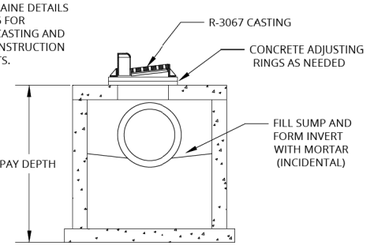


PRECAST COMPONENTS

REFERENCE BLAINE DETAILS MI-3 AND SD-6 FOR ADDITIONAL CASTING AND MANHOLE CONSTRUCTION REQUIREMENTS.



ASSEMBLED STRUCTURE

SHALLOW DEPTH BASIN MANHOLE Plate No. SD-7

2023 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
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wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HENTGES, PE
DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

CONSTRUCTION NOTES & STANDARD PLATES

CITY PROJECT 23-08

SHEET **20** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:31:51 AM

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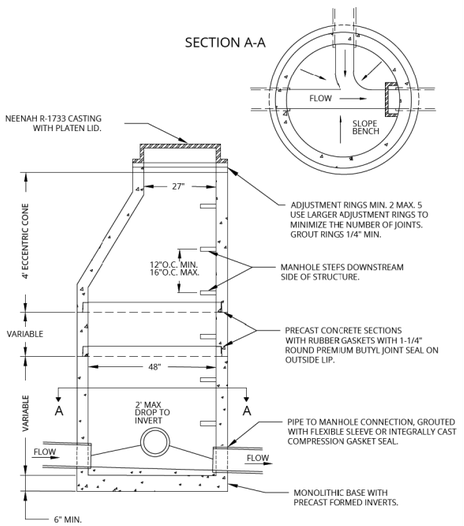

STANDARD SANITARY MANHOLE

Plate No. SSS-7

2023 STANDARD DETAIL PLATE

City of Blaine - Engineering Department

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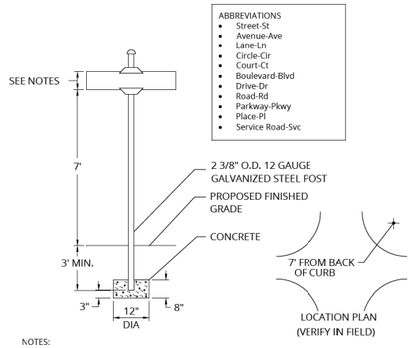

NOTES:

1. BLADE HEIGHT SHALL BE 9".
2. BLADE LENGTH SHALL BE AS NECESSARY.
3. LETTER SIZE - 40 MPH AND LESS: 6"UPPER CASE 4.5" LOWER CASE - 40 MPH AND GREATER: 8"UPPER CASE 6" LOWER CASE.
4. DIAMOND GRADE, WHITE ON MNDOT GREEN BACKGROUND FOR PUBLIC STREETS WHITE ON MNDOT BROWN BACKGROUND FOR PRIVATE STREETS, SEE CITY SPECIFICATIONS FOR MATERIALS.
5. STREET NAMES SHALL BE SPELLED COMPLETELY EXCEPT FOR SUFFIXES WHICH MAY BE ABBREVIATED ON LONGER STREET NAMES.
6. SIGNS SHALL NOT HAVE BORDERS.
7. SIGN BRACKETS SHALL BE "LYLE SIGNS" NO. E-450 OR APPROVED EQUAL.
8. A SIGN PLAN SHOWING SIGN COLORS, SIZES AND LETTERING MUST BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO SIGN INSTALLATION.
9. FIRST LETTER OF EACH WORD TO BE UPPER CASE; REMAINING LETTERS OF EACH WORD TO BE LOWER CASE

STREET SIGN INSTALLATION

Plate No. ST-1

2023 STANDARD DETAIL PLATE

City of Blaine - Engineering Department

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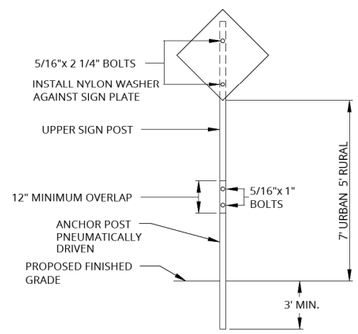

NOTES:

1. MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH CITY SPECIFICATIONS FOR MNDOT 2564 TYPE C TRAFFIC SIGNS.
2. SIGN PANELS-REFLECTIVE SHEETING, VIP DIAMOND GRADE.
3. BOLTS SHALL BE STAINLESS STEEL.
4. FLANGED CHANNEL SIGN POSTS SHALL BE GALVANIZED STEEL, 7' LONG 3LB/LF BOTTOM POST, AND 7'LONG 2LB/LF TOP POST.
5. SIGNS INSTALLED IN CONCRETE SHALL HAVE AN APPROVED BREAK-AWAY DEVICE. SEE DETAIL ST-18.
6. EDGE OF SIGN SHALL BE 2' FROM FACE OF CURB AND/OR 5' FROM EDGE OF SHOULDER.

TRAFFIC SIGN INSTALLATION

Plate No. ST-2

2023 STANDARD DETAIL PLATE

City of Blaine - Engineering Department

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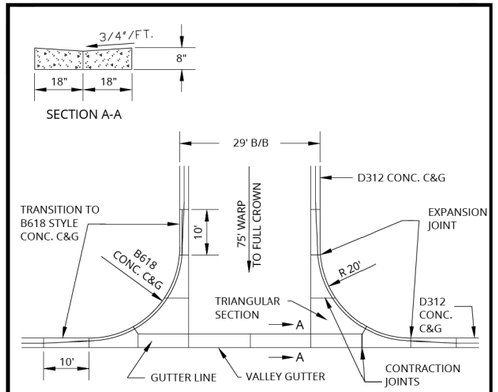

NOTE:

1. CURB IN RADIUS SHALL BE FORMED AND POURED AS ONE UNIT WITH TRIANGULAR SECTION AND VALLEY GUTTER. CURB IS CONSIDERED PART OF TRIANGULAR SECTION FOR PAYMENT PURPOSES.
2. SQUARE FOOT PAYMENT OF VALLEY GUTTER INCLUDES ALL CONCRETE SURFACE BETWEEN EXPANSION JOINTS.

CONCRETE VALLEY GUTTER

Plate No. ST-4

2023 STANDARD DETAIL PLATE

City of Blaine - Engineering Department

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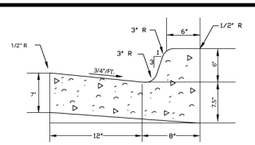
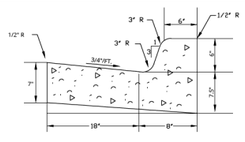


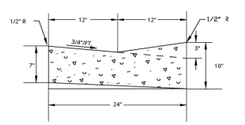
B-612 CONCRETE CURB & GUTTER

MNDOT Standard Plate 7100H



B-618 CONCRETE CURB & GUTTER

MNDOT Standard Plate 7100H



D-312 CONCRETE CURB & GUTTER

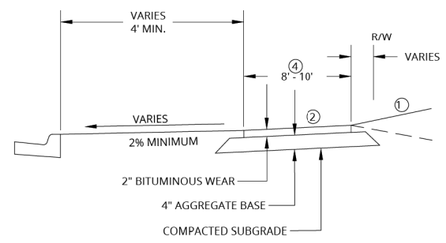
CONCRETE CURB & GUTTER

Plate No. ST-6

2023 STANDARD DETAIL PLATE

City of Blaine - Engineering Department

10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6135



NOTES:

① - SLOPE VARIES 1:2 TO 1:4

② - CROSS SLOPE 2%

③ - RESTORE ALL DISTURBED AREAS WITH 4" TOPSOIL AND SOD.

④ - CHECK WITH CITY ENGINEERING DEPARTMENT FOR REQUIRED WIDTH.

OFF ROAD TRAIL TYPICAL SECTION

Plate No. ST-13

2023 STANDARD DETAIL PLATE

City of Blaine - Engineering Department

10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6139

THE CITY OF BLAINE WILL USE MNDOT STANDARD PLAN SHEETS 5-297.250 (1-6) FOR THE CONSTRUCTION OF RAMPS, EXCEPT AS MODIFIED BELOW:

1. TRUNCATED DOME PANELS SHALL BE GRAY EPOXY COATED PER CURRENT MNDOT APPROVED PRODUCTS LIST.
2. THE PANELS SHALL BE INSTALLED IN WET MORTAR BASE OVER A 6" CONCRETE SLAB.

PEDESTRIAN RAMP REQUIREMENTS

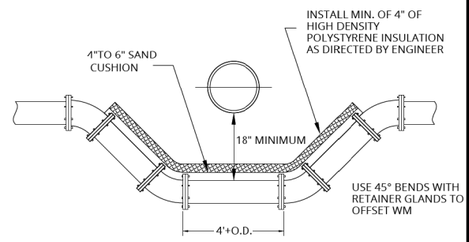
Plate No. ST-14

2023 STANDARD DETAIL PLATE

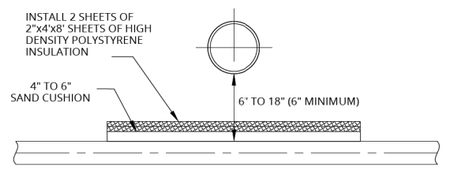
City of Blaine - Engineering Department

10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6139

WATERMAIN OFFSET DETAIL



WATERMAIN INSULATION DETAIL



WATERMAIN OFFSET AND INSULATION DETAIL

Plate No. WS-5

2023 STANDARD DETAIL PLATE

City of Blaine - Engineering Department

10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6139

WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN

DESIGN BY: AJF

PLAN BY: AJF

CHECK BY: NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HENTGES, PE

LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

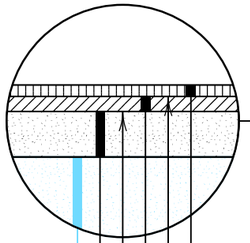
SOUTHEAST AREA RECONSTRUCTION

CONSTRUCTION NOTES & STANDARD PLATES

CITY PROJECT 23-08

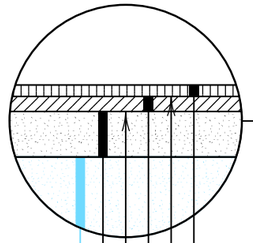
SHEET **21** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:31:58 AM



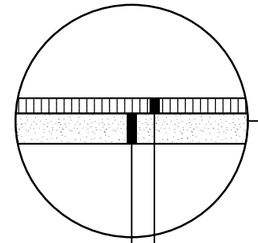
INSET A
URBAN RESIDENTIAL STREETS

- 1.5" TYPE SP 9.5 WEARING COURSE MIXTURE SPWEA340C
- BITUMINOUS TACK COAT (0.05 GAL/SQ YD)
- 2.0" TYPE SP 12.5 NON-WEARING COURSE MIXTURE SPNWB330C
- BASE PREPARATION
- 4.0" RECLAIM MATERIAL
- EXISTING AGGREGATE BASE



INSET B
OLD 35W SERVICE DRIVE

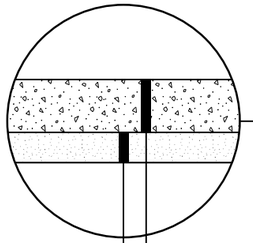
- 1.5" TYPE SP 9.5 WEARING COURSE MIXTURE SPWEA340C
- BITUMINOUS TACK COAT (0.05 GAL/SQ YD)
- 2.0" TYPE SP 12.5 NON-WEARING COURSE MIXTURE SPNWB330C
- BASE PREPARATION
- 4.0" RECLAIM MATERIAL
- EXISTING AGGREGATE BASE



INSET C
BITUMINOUS DRIVEWAY (RESIDENTIAL)

PAID AS TYPE SP 9.5 WEAR COURSE MIX (3,C) 3.0" THICK BY THE SQ YD

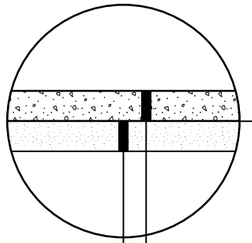
- SPEC 2360 3.0" TYPE SP 9.5 WEARING COURSE MIXTURE SPWEA340C
- 4.0" AGGREGATE BASE (CV) CLASS 5 (INCIDENTAL)



INSET D
CONCRETE DRIVEWAY

PAID AS 6" CONCRETE DRIVEWAY PAVEMENT BY THE SQ YD

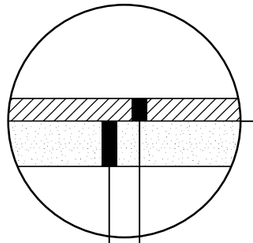
- 6" CONCRETE DRIVEWAY PAVEMENT
- 4.0" AGGREGATE BASE (CV) CLASS 5 (INCIDENTAL)



INSET E
CONCRETE WALK

PAID AS 4" OR 6" CONCRETE WALK BY THE SQ FT

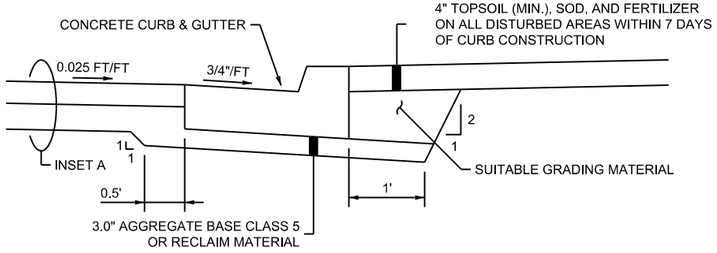
- 4" CONCRETE WALK
- 6" CONCRETE WALK (PEDESTRIAN RAMPS & LANDINGS)
- 4.0" AGGREGATE BASE (CV) CLASS 5



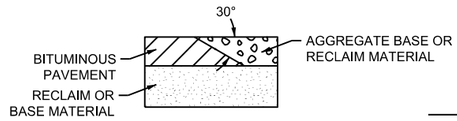
INSET F
BITUMINOUS TRAIL

PAID AS 2" BITUMINOUS WALK BY THE SQ FT

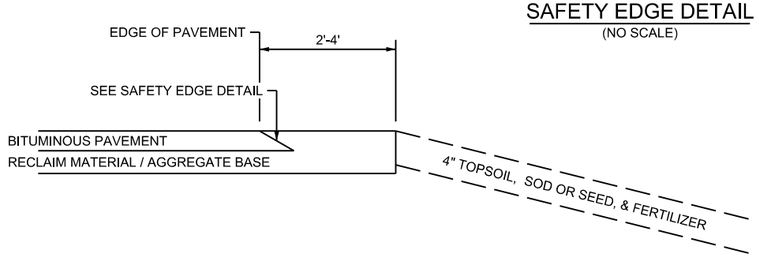
- 2.0" TYPE SP 9.5 WEARING COURSE MIXTURE SPWEA340C
- 4.0" AGGREGATE BASE (CV) CLASS 5



DETAIL A
CONCRETE CURB & GUTTER
(NO SCALE)



SAFETY EDGE DETAIL
(NO SCALE)



DETAIL B
RURAL AGGREGATE SHOULDER
(NO SCALE)

NOTES:

1. UNLESS OTHERWISE SPECIFIED, THE SUBGRADE AND/OR GRADING GRADE CROSS SLOPE WILL BE THE SAME AS THE FINISHED SLOPE.
2. ALL UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE ROADWAY.
3. ALL EDGE DIMENSIONS ARE BACK OF CURB OR TO THE EDGE OF THE PAVEMENT UNLESS OTHERWISE SPECIFIED.
4. COMMON TOPSOIL SHALL BE INCLUDED IN THE COMMON EMBANKMENT (CV).
5. ALL EMBANKMENT MATERIAL SHALL BE APPROVED BY THE ENGINEER. ALL CONCRETE AND BITUMINOUS REMOVAL MUST BE DISPOSED OF OFF-SITE. REMOVAL AND DISPOSAL OF EXCESS MATERIAL SHALL BE INCIDENTAL.
6. **EARTHWORK AND AGGREGATE PREPARATION FOR SPOT CURB & GUTTER REPLACEMENT IS INCIDENTAL.**
7. PREPARATION OF EXISTING AGGREGATE BASE TO RECEIVE RECLAIM MATERIAL AND BITUMINOUS PAVEMENT SHALL BE PAID AS SUBGRADE PREPARATION AND BE COMPLETED IN ACCORDANCE WITH MN/DOT SPECIFICATIONS.

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WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
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PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HENTGES, PE LIC. NO: 44620

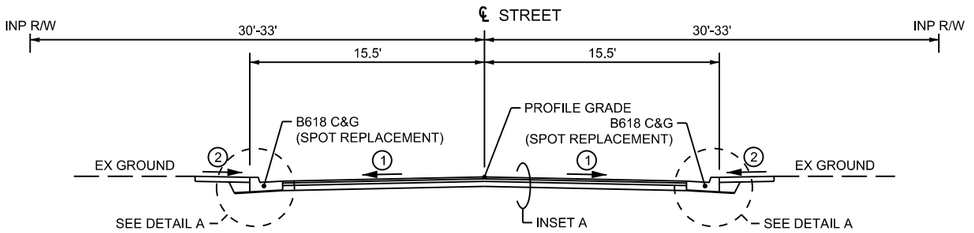
DATE: 4/22/2022

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

TYPICAL SECTIONS

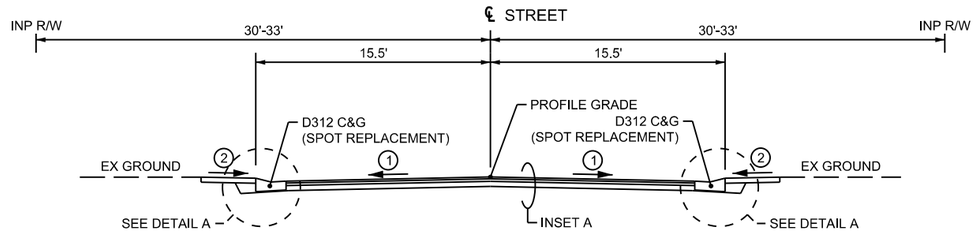
CITY PROJECT 23-08

SHEET **22** OF **230** SHEETS



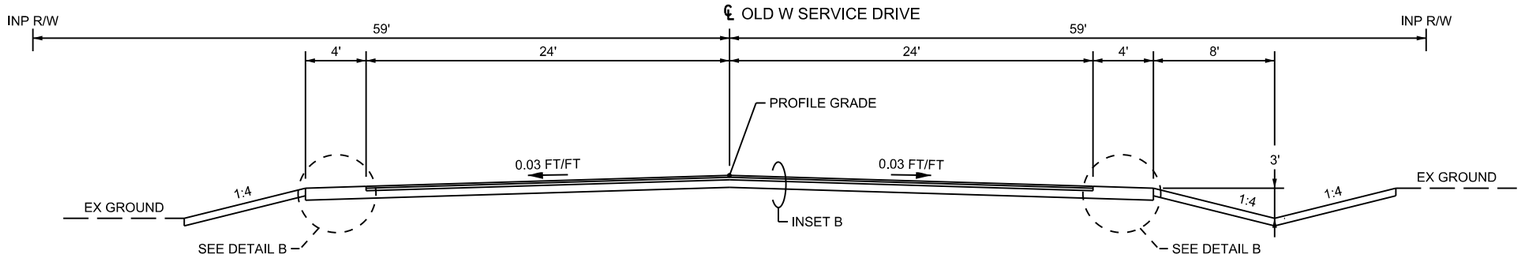
TYPICAL SECTION 3 - AREA 3

EDISON STREET



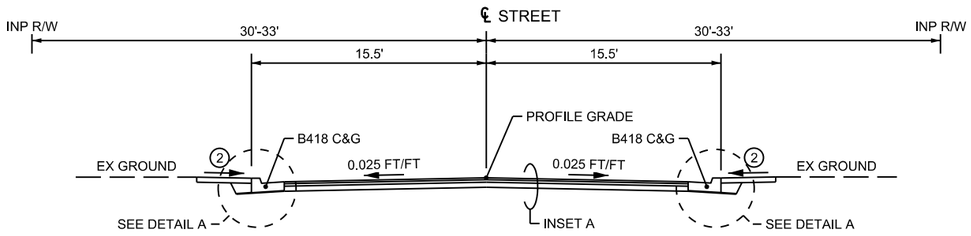
TYPICAL SECTION 4 - AREA 4

89TH LANE, 89TH COURT, 90TH LANE, BATAAN STREET, BATAAN COURT,
YANCY STREET, ZUMBROTA STREET, ZUMBROTA CIRCLE



TYPICAL SECTION 2 - AREA 2

OLD WEST SERVICE DRIVE



TYPICAL SECTION 1 - AREA 1 RESIDENTIAL STREETS

97TH LANE, 98TH AVENUE, 98TH LANE, 99TH AVENUE, AUSTIN STREET,
CORD STREET, EDGEWOOD ROAD CUL-DE-SACS

NOTES:

1. CROSS SLOPE VARIES 0.02 FT/FT TO 0.03 FT/FT
2. SLOPE VARIES 0.02 FT/FT TO 0.04 FT/FT

GENERAL NOTES:

- ALL SLOPES IN FOOT PER FOOT UNLESS OTHERWISE NOTED.
- SEE SHEET 22 FOR INSETS AND DETAILS.

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NICHOLAS E. HENTGES, PE
LIC. NO: 44620
DATE: 4/22/2022

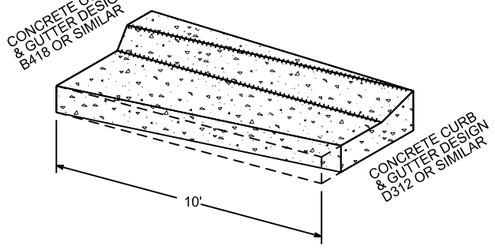
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

TYPICAL SECTIONS

CITY PROJECT 23-08

SHEET **23** OF **230** SHEETS

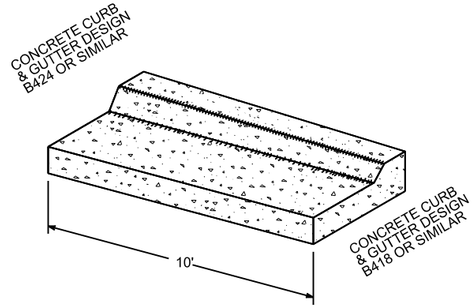


FOR OTHER DIMENSIONS SEE STANDARD PLATE NO. 7100

PAYMENT SHALL BE MADE AS THE CURB & GUTTER TYPE B418 BY THE FOOT

TRANSITION CURB TAPER

NO SCALE

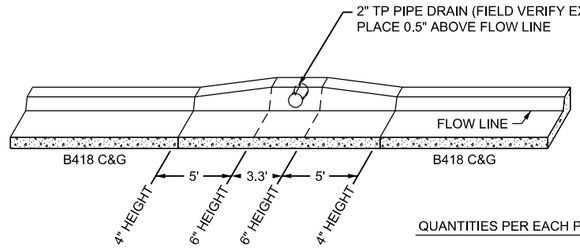


FOR OTHER DIMENSIONS SEE STANDARD PLATE NO. 7100

PAYMENT SHALL BE MADE AS THE CURB & GUTTER TYPE B418 BY THE FOOT

TRANSITION CURB TAPER

NO SCALE



QUANTITIES PER EACH PASS THROUGH:

2" TP PIPE DRAIN - 2 LIN FT
CONNECT TO EXISTING PIPE DRAIN - 1 EACH
CONCRETE CURB & GUTTER DESIGN B618 SPEC - 8 LIN FT

NOTES:
(1) TO BE PAID WITH LANDSCAPING PROVISION

DRAIN TILE CURB PASS THROUGH

NOT TO SCALE

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PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

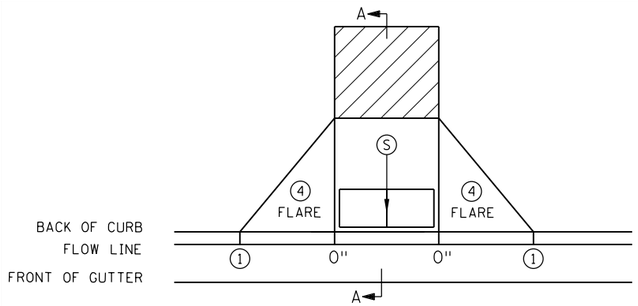
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

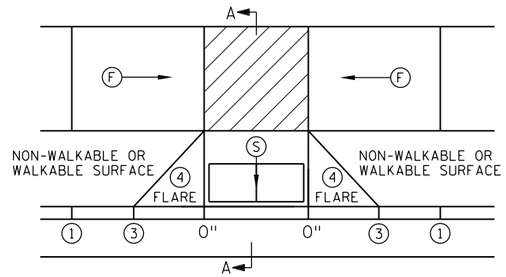
MISCELLANEOUS DETAILS

CITY PROJECT 23-08

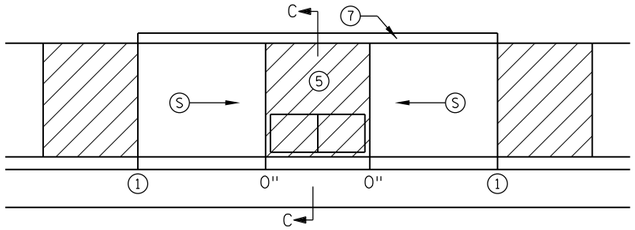
SHEET **24** OF **230** SHEETS



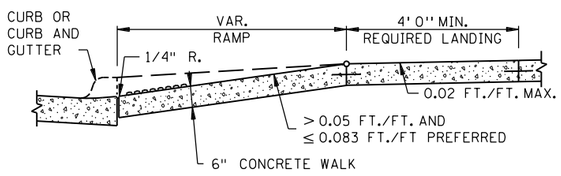
PERPENDICULAR



TIERED PERPENDICULAR

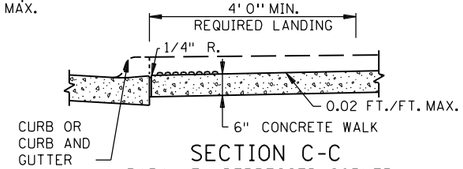


PARALLEL



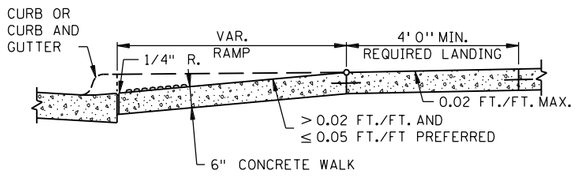
SECTION A-A

PERPENDICULAR/TIERED/DIAGONAL



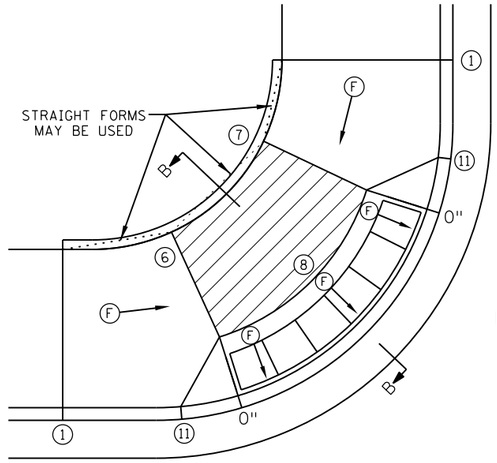
SECTION C-C

PARALLEL/DEPRESSED CORNER

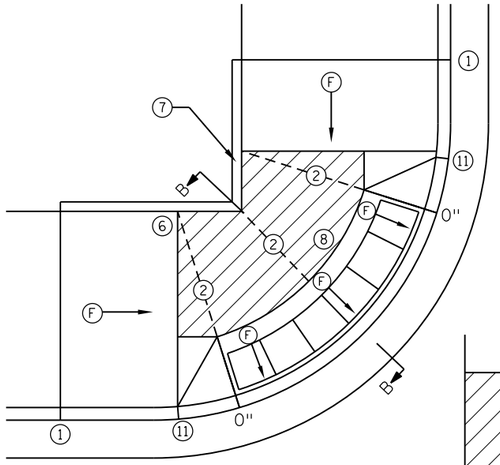


SECTION B-B

FAN

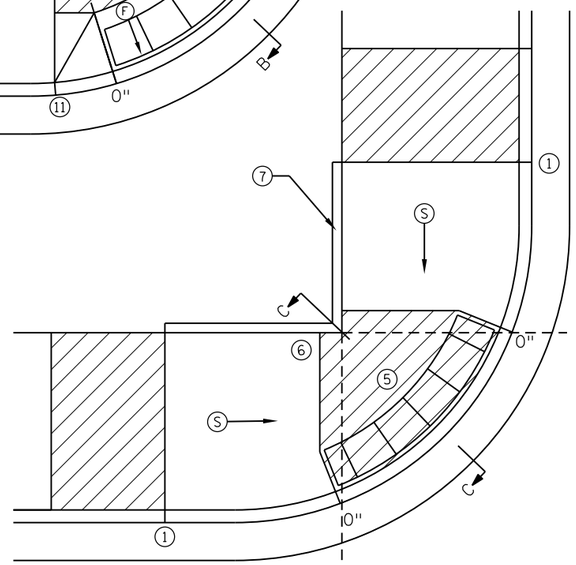


FAN (10)

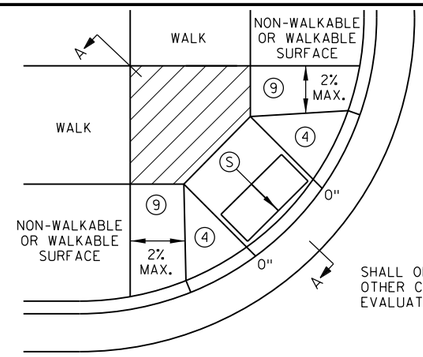


MODIFIED FAN (10)

USED WHEN RIGHT-OF-WAY IS CONSTRAINED



DEPRESSED CORNER



DIAGONAL

SHALL ONLY BE USED AFTER ALL OTHER CURB RAMP TYPES HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL RUNNING SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL, THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH. (EXCEPT AS STATED IN (6) BELOW.

TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 OF 6 FOR ALL SEPARATELY POURED INITIAL LANDINGS.

WHEN SIDEWALK IS AT BACK OF CURB, TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

MAINTAIN POSITIVE BOULEVARD DRAINAGE TO TOP OF CURB.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.

(1) MATCH FULL HEIGHT CURB.

(2) 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.

(3) 3" HIGH CURB WHEN USING A 3' LONG RAMP, 4" HIGH CURB WHEN USING A 4' LONG RAMP.

(4) SEE SHEET 4 OF 6, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS.

(5) DETECTABLE WARNINGS MAY BE PART OF THE 4' X 4' MIN. LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.

(6) THE GRADE BREAK SHALL BE PERPENDICULAR TO THE BACK OF WALK. THIS WILL ENSURE THAT THE GRADE BREAK IS PERPENDICULAR TO THE DIRECTION OF TRAVEL. (TYPICAL FOR ALL)

(7) WHEN ADJACENT TO GRASS, GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS LESS THAN 5% RUNNING SLOPE SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.

(8) A 7' MIN TOP RADIUS GRADE BREAK IS REQUIRED TO BE CONSTRUCTIBLE.

(9) PAVE FULL WALK WIDTH.

(10) "S" SLOPES ON FANS SHALL ONLY BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.

(11) INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3" CURB HEIGHT. REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

- (S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
- (F) 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%.
- LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.
- X" CURB HEIGHT

REVISION:

APPROVED: 11-04-2021

JOFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | **1 OF 6**

APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

CP 23-08

PLOTTED/REVISED: 3/9/2023 11:32:00 AM

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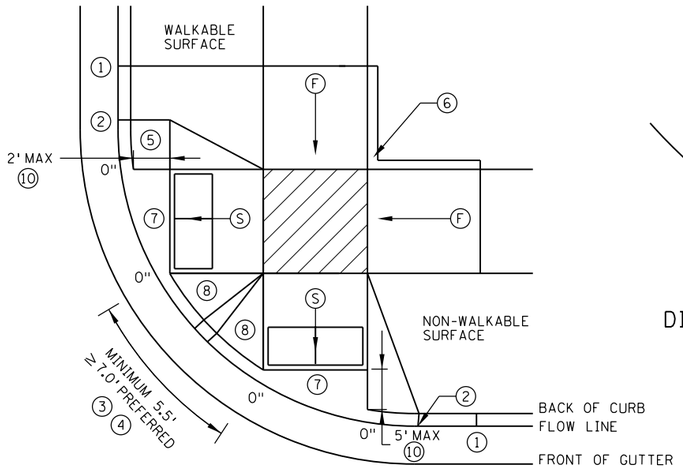
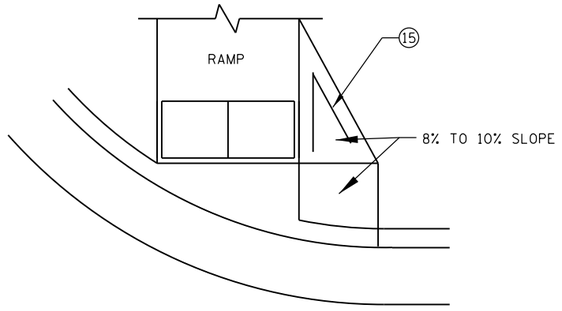
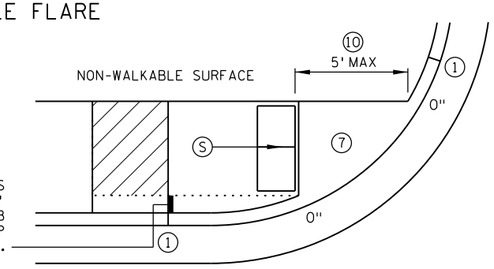


COMBINED DIRECTIONAL

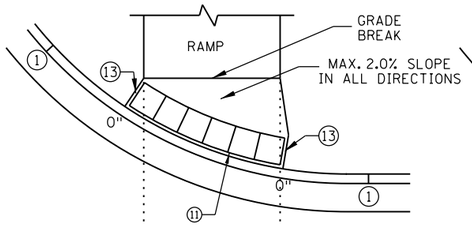


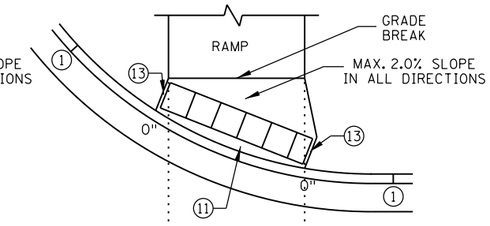
DIRECTIONAL RAMP WALKABLE FLARE

IF NON-CONCRETE BLVD. IS CONSTRUCTED AND IS LESS THAN 2' IN WIDTH AT TOP OF CURB TRANSITION, PAVE CONCRETE RAMP WIDTH TO ADJACENT BACK OF CURB.



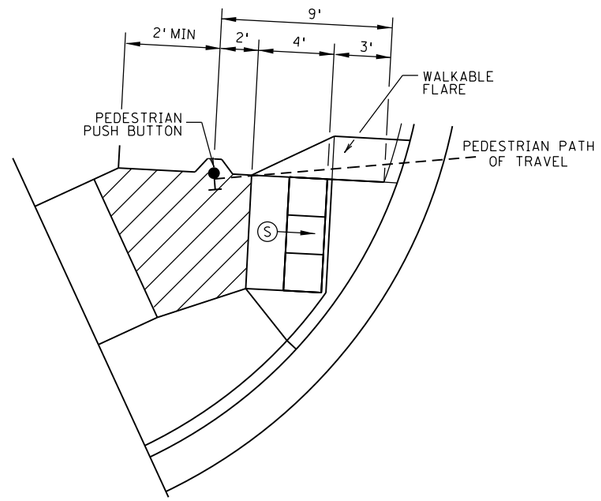
STANDARD ONE-WAY DIRECTIONAL ⑨





DETECTABLE WARNING PLACEMENT WHEN SETBACK CRITERIA IS EXCEEDED ⑫

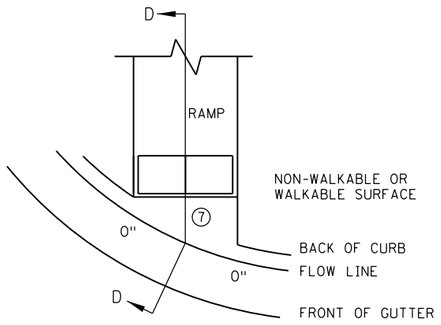
ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB

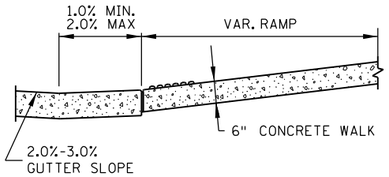


SEMI-DIRECTIONAL RAMP ③④⑨

3' DOME SETBACK, 4' LONG RAMP AND PUSH BUTTON 9' FROM THE BACK OF CURB

PRIMARILY USED FOR APS APPLICATIONS WHERE THE PAR DOES NOT CONTINUE PAST THE PUSH BUTTON (DEAD-END SIDEWALK)





SECTION D-D

CURB FOR DIRECTIONAL RAMPS ⑭

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOP GRADE BREAK OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISION (PROSECUTION OF WORK).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB. SEE NOTES ⑩ & ⑪ FOR INFORMATION REGARDING RECTANGULAR DETECTABLE WARNING PLACEMENT.

① MATCH FULL CURB HEIGHT.

② 3" HIGH CURB WHEN USING A 3' LONG RAMP
4" HIGH CURB WHEN USING A 4' LONG RAMP.

③ 3" MINIMUM CURB HEIGHT (5.5' MIN. DISTANCE REQUIRED BETWEEN DOMES)
4" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).

④ THE "BUMP" IN BETWEEN THE RAMPS SHOULD NOT BE IN THE PATH OF TRAVEL FOR COMBINED DIRECTIONAL RAMPS. IF THIS OCCURS MODIFY THE RAMP LOCATION OR SWITCH RAMP TO A FAN/DEPRESSED CORNER.

⑤ WHEN USING CONCRETE PAVED FLARES ON THE OUTSIDE OF DIRECTIONAL RAMPS, AND ADJACENT TO A WALKABLE SURFACE, DIRECTIONAL RAMP FLARES SHALL BE USED. SEE THE DETAIL ON THIS SHEET.

⑥ GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.

⑦ MAX. 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK AND DRAIN TO FLOW LINE. SHALL BE CONSTRUCTED INTEGRAL WITH CURB AND GUTTER.

⑧ 8% TO 10% WALKABLE FLARE.

⑨ PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.

⑩ FRONT EDGE OF DETECTABLE WARNING SHALL BE SET BACK 2' MAXIMUM WHEN ADJACENT TO WALKABLE SURFACE, AND 5' MAXIMUM WHEN ADJACENT TO NON-WALKABLE SURFACE WITH ONE CORNER SET 3" FROM BACK OF CURB. A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

⑪ RECTANGULAR DETECTABLE WARNINGS MAY BE SETBACK UP TO 9" FROM THE BACK OF CURB WITH CORNERS SET 3" FROM BACK OF CURB. IF 9" SETBACK IS EXCEEDED USE RADIAL DETECTABLE WARNINGS.

⑫ FOR DIRECTIONAL RAMPS WITH THE DETECTABLE WARNINGS PLACED AT THE BACK OF CURB, THE DETECTABLE WARNINGS SHALL COVER THE ENTIRE WIDTH OF THE WALK/PATH. THIS ENSURES A DETECTABLE EDGE AND HELPS ELIMINATE THE CURB TAPER OBSTRUCTING THE PATH OF PEDESTRIAN TRAVEL.

⑬ THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑭ TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.

⑮ PLACE 2 NO. 4 BARS 4 INCHES FROM SIDE OF FORMS WITH A MINIMUM 2 INCHES OF CONCRETE COVER ALONG EACH SIDE OF FLARE (INCIDENTAL).

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

(S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

(F) 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%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

X" CURB HEIGHT

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | **2 OF 6**

APPROVED: 11-04-2021
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THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

CP 23-08

PLOTTED/REVISED: 3/9/2023 11:32:00 AM

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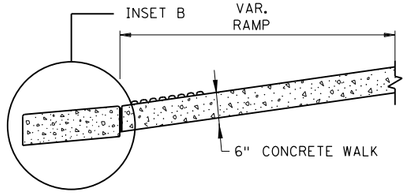
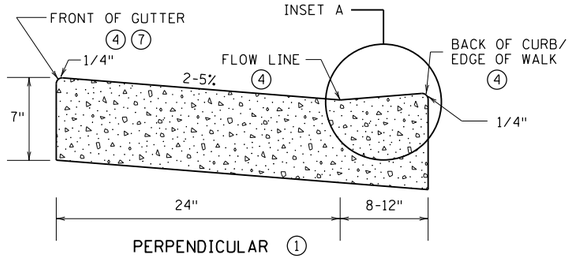
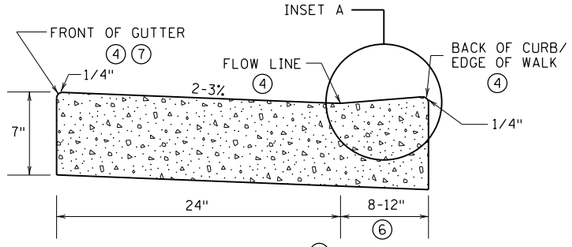
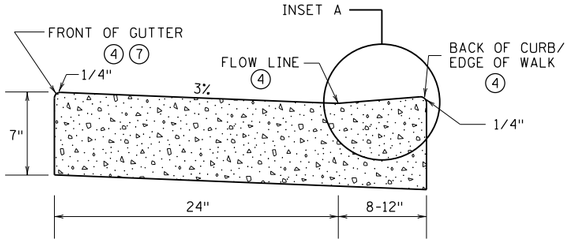




PERPENDICULAR (1)

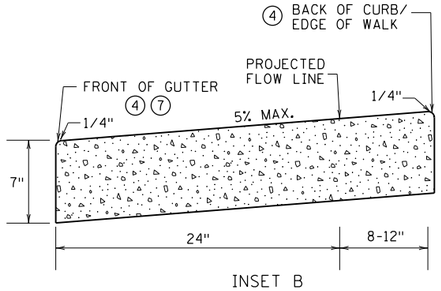


NON PERPENDICULAR (2)

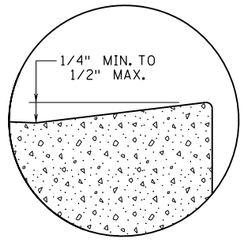


FOR CURB MACHINE PLACEMENT AROUND RADIUS (3)
(REGARDLESS OF RAMP TYPE)

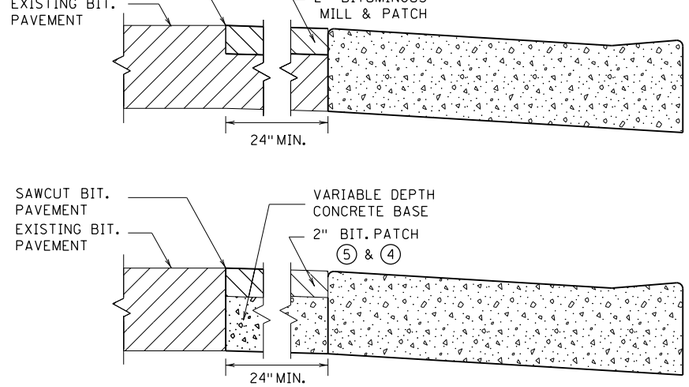
PEDESTRIAN ACCESS ROUTE CURB & GUTTER DETAIL



INSET B
OUTFLOW GUTTER (8)



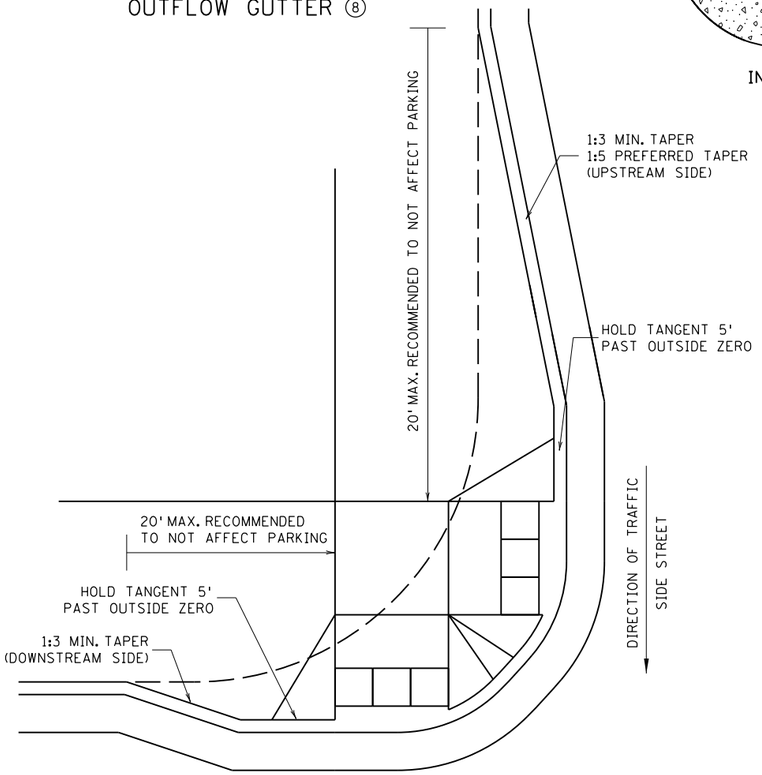
INSET A



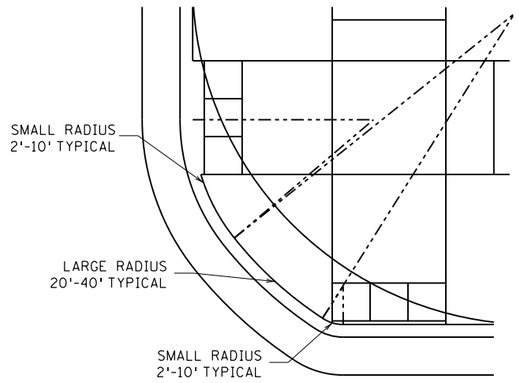
ONLY ALLOWED PER ENGINEER'S APPROVAL

PAVEMENT TREATMENT OPTIONS IN FRONT OF CURB & GUTTER

FOR USE ON CURB RAMP RETROFITS



ADA CURB EXTENSION WITH COMPOUND RADIUS (BUMP OUT) (11)



COMBINED DIRECTIONAL (10)
(COMPOUND RADIUS)

NOTES:

POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR) AT A 2% MAXIMUM.

NO PONDING SHALL BE PRESENT IN THE PAR.

ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN 1/4 INCH.

(1) FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: PERPENDICULAR, TIERED PERPENDICULAR, PARALLEL, AND DIAGONAL RAMPS.

(2) FOR USE AT CURB RAMPS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: FANS & DEPRESSED CORNERS.

(3) BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMPS.

(4) THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".

(5) ELEVATION CHANGE TAKES PLACE FROM THE EXISTING TO NEW FRONT OF GUTTER. PATCH IS USED TO MATCH THE NEW GUTTER FACE INTO THE EXISTING ROADWAY.

(6) VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS. SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.

(7) TOP FRONT OF GUTTER SHALL BE CONSTRUCTED FLUSH WITH PROPOSED ADJACENT PAVEMENT ELEVATION. TOP 1.5" OF THE GUTTER FACE MUST BE A FORMED EDGE. PAR GUTTER SHALL NOT BE OVERLAID.

(8) SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.

(9) DRILL AND GROUT NO. 4 EPOXY-COATED 18" LONG TIE BARS AT 30" CENTER TO CENTER INTO EXISTING CONCRETE PAVEMENT 1' MINIMUM FROM ALL JOINTS.

(10) HELPS PROVIDE TWO SEPARATE RAMPS, REDUCES THE DOME SETBACK LENGTH AND MINIMIZES DIRECTIONAL CURB. THIS RADIUS DESIGN CLOSELY FOLLOWS THE TURNING VEHICLE PATH WHILE OPTIMIZING CURB RAMP LENGTH.

(11) CURB EXTENSIONS SHOULD BE USED IN VERTICALLY CONSTRAINED AREAS, USUALLY IN DOWNTOWN ROADWAY SEGMENTS WHERE ON-STREET PARKING IS AVAILABLE. CURB EXTENSIONS SHOULD BE CONSIDERED FOR APS INTERSECTIONS WHERE SPACE IS LIMITED.
PUSH BUTTONS MUST MEET APS CRITERIA AS DESCRIBED IN THE PUSH BUTTON LOCATION DETAIL SHEET.

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 3 OF 6

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PEDESTRIAN CURB RAMP DETAILS

CP 23-08

PLOTTED/REVISED: 3/9/2023 11:32:01 AM
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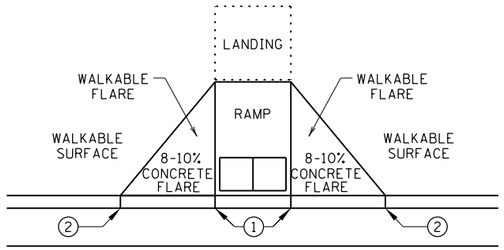
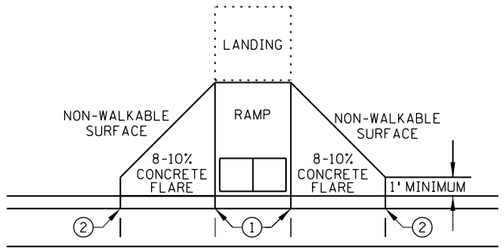
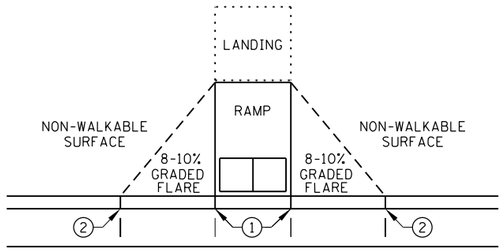


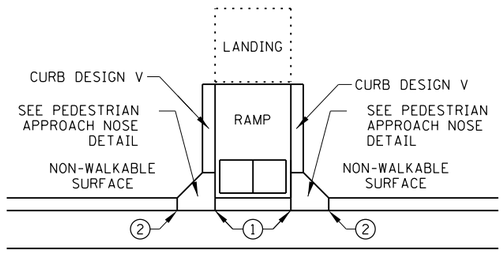
PAVED FLARES
ADJACENT TO WALKABLE SURFACE



PAVED FLARES
ADJACENT TO NON-WALKABLE SURFACE

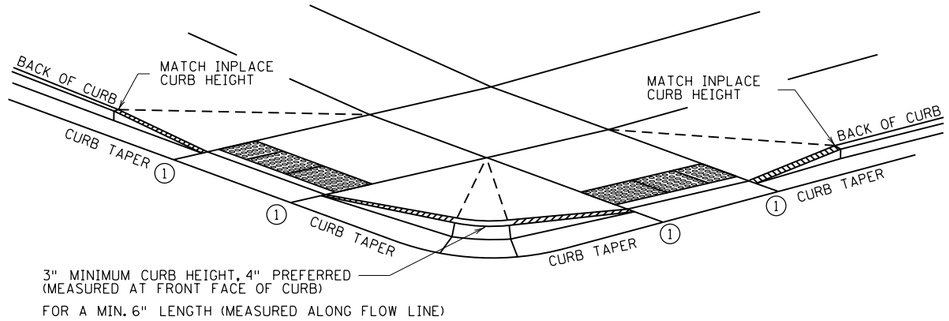


GRADED FLARES

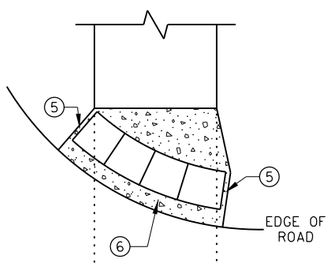


RETURNED CURB ④

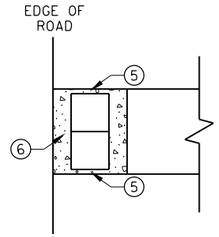
TYPICAL SIDE TREATMENT OPTIONS ③ ⑩



DETECTABLE EDGE WITH ⑦
CURB AND GUTTER

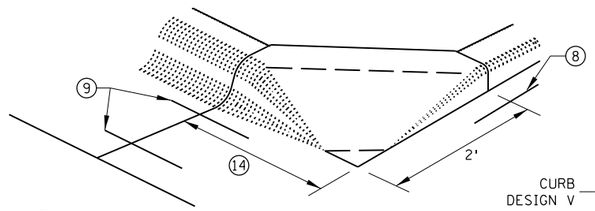


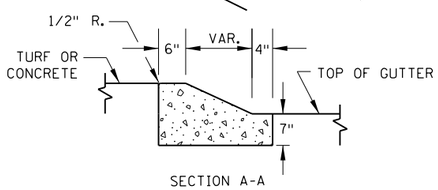
RADIAL DETECTABLE WARNING



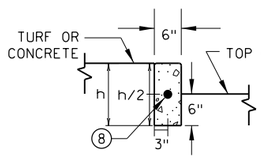
RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER

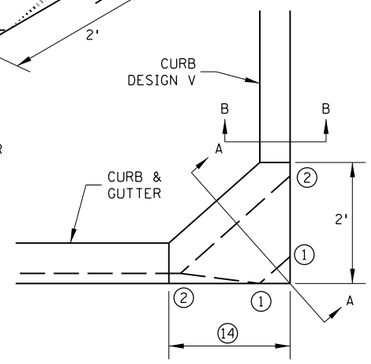




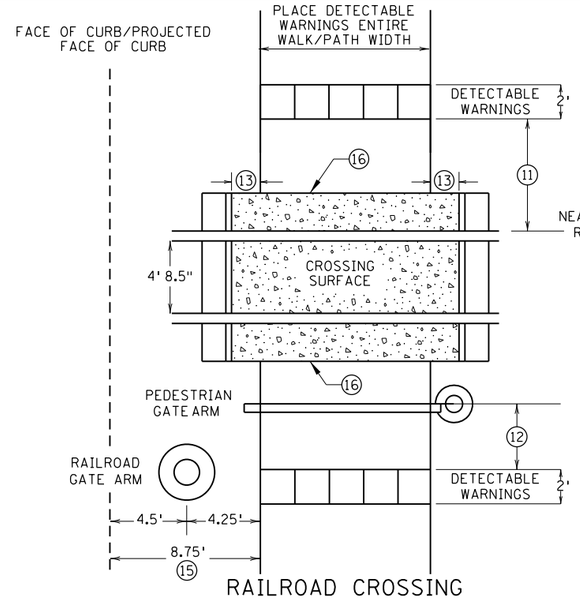
SECTION A-A



SECTION B-B



PEDESTRIAN APPROACH
NOSE DETAIL
(FOR RETURNED CURB
SIDE TREATMENT)



RAILROAD CROSSING
PLAN VIEW

NOTES:

INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3 INCH CURB HEIGHT. INCREASE CURB TAPER LENGTH AT LESS THAN 8% OR REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.

A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.

① 0" CURB HEIGHT. SEE INSET A ON SHEET 3 OF 6.

② FULL CURB HEIGHT.

③ SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED AS FIELD CONDITIONS DICTATE. THE ENGINEER SHALL DETERMINE THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.

④ TYPICALLY USED FOR MEDIANS AND ISLANDS.

⑤ WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" MAX. BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑥ IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF BITUMINOUS ROADWAY AND/OR BITUMINOUS SHARED-USE PATH TO PROVIDE VISUAL CONTRAST.

⑦ ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS. AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.

⑧ DRILL AND GROUT 1 - NO. 4 12" LONG REINFORCEMENT BAR (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE V CURB.

⑨ DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.

⑩ SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6' LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE. CONSTRUCT THESE TAPERS AT 0"-3" AT 8-10%, THEN LESS THAN 5% FROM 3" CURB TO FULL CURB HEIGHT.

⑪ NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12' MINIMUM TO 15' MAXIMUM FROM THE NEAREST RAIL. FOR SKEWED RAILWAYS IN NO INSTANCE SHALL THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.

⑫ WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 2' FROM THE APPROACHING SIDE OF THE GATE ARM. THIS CRITERIA GOVERNS OVER NOTE ⑪.

⑬ CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.

⑭ 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.

⑮ SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.

⑯ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 4 OF 6

APPROVED: 11-04-2021
REVISED:
THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

CP 23-08

PLOTTED/REVISED: 3/9/2023 11:32:01 AM
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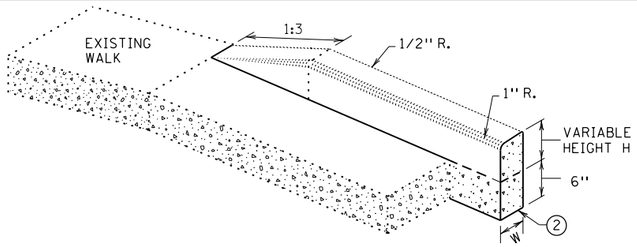
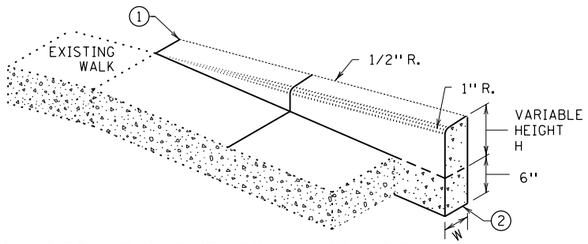


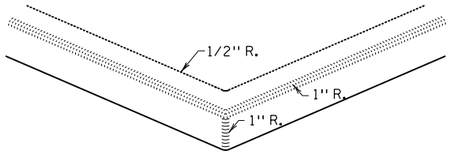
V CURB ADJACENT TO LANDSCAPE

CURB WITHIN SIDEWALK LIMITS

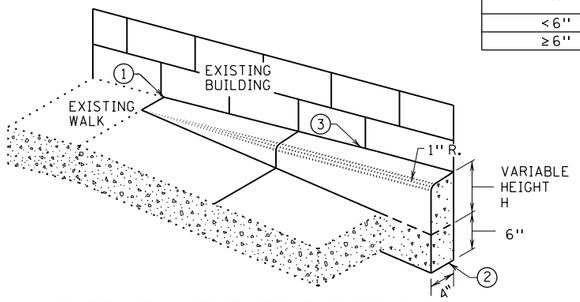


V CURB ADJACENT TO LANDSCAPE

CURB OUTSIDE SIDEWALK LIMITS

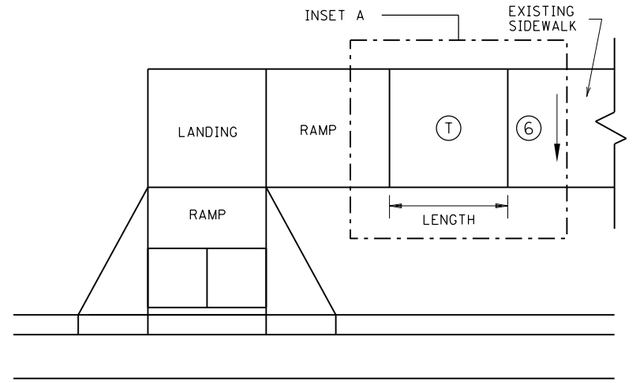


V CURB INTERSECTION

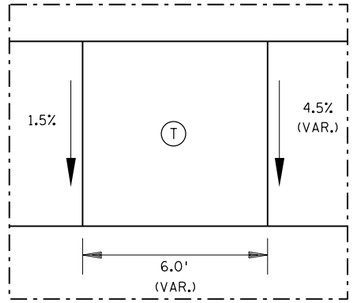


V CURB ADJACENT TO BUILDING OR BARRIER

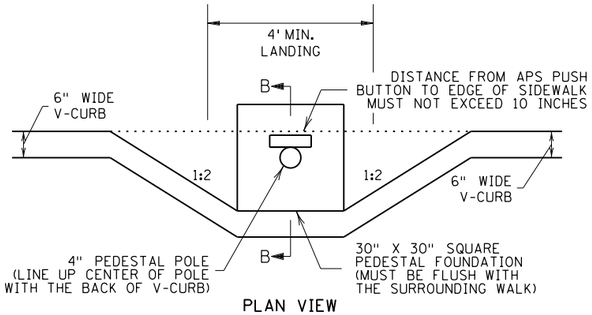
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
< 6"	4"
≥ 6"	6"



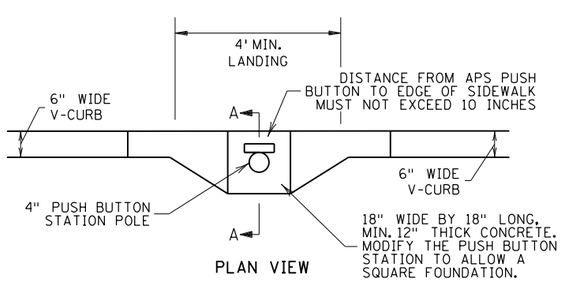
TRANSITION PANEL ④⑤



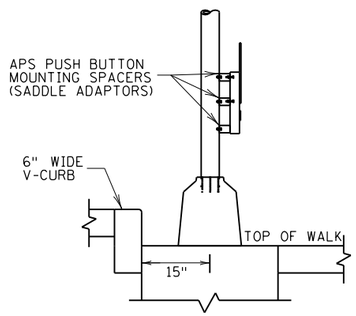
INSET A



PLAN VIEW

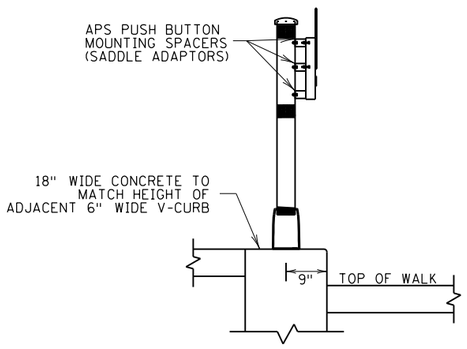


PLAN VIEW



SECTION B-B

SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)



SECTION A-A

PUSH BUTTON STATION (V-CURB)

NOTES:

A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.

ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.

WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.

V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.

V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.

① END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.

② ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.

③ CONSTRUCT USING APPROVED EXPANSION MATERIAL PER MNDOT TYPE A-E EXPANSION. LEAVE A MINIMUM ½" TOP GAP AND SEAL WITH MNDOT APPROVED SILICONE PER MNDOT SPEC 3722.

④ THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1' LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE. WHEN PAR WIDTH IS GREATER THAN 6' OR THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.

⑤ TRANSITION PANELS ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).

⑥ EXISTING CROSS SLOPE GREATER THAN 2.0%.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

Ⓢ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

Ⓣ TRANSITION PANEL(S) - TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1 LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

REVISION:

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JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 5 OF 6

APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

CP 23-08

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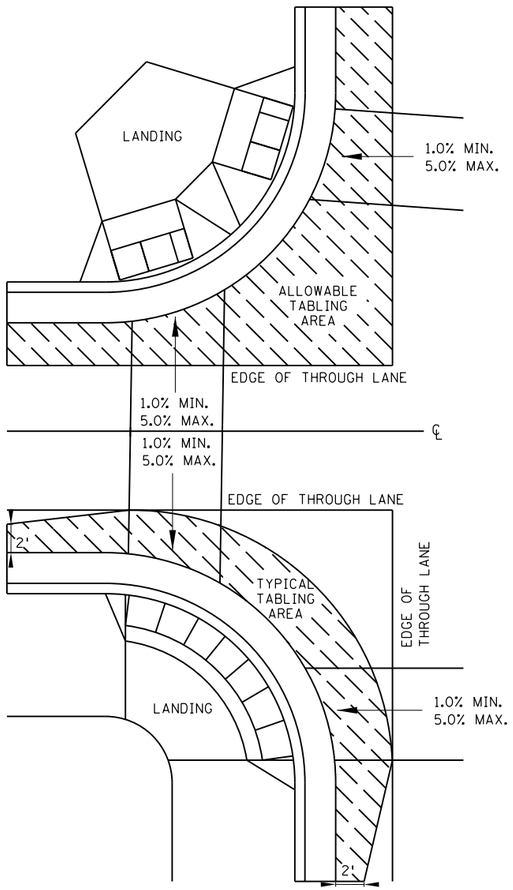
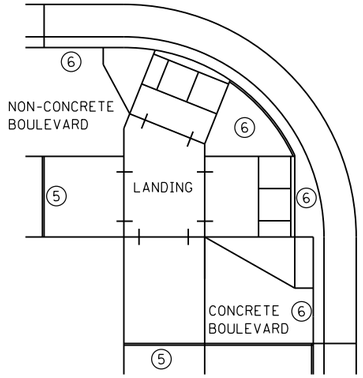
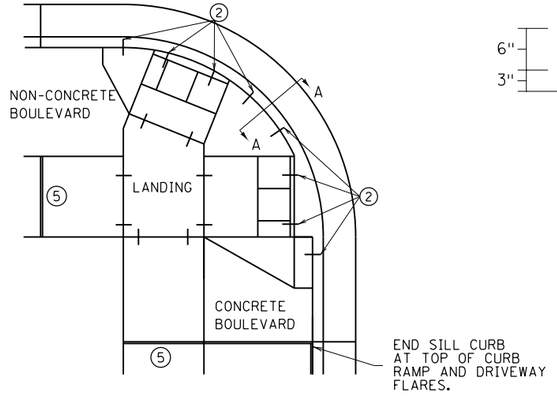


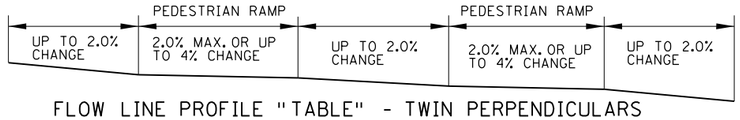
CURB LINE AND ROAD CROSSING ADJUSTMENTS



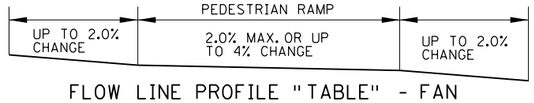
EXPANSION MATERIAL PLACEMENT
FOR CONCRETE ROADWAYS



CURB LINE REINFORCEMENT ④
PLACEMENT ON BITUMINOUS ROADWAYS



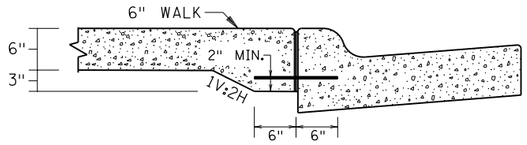
FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS



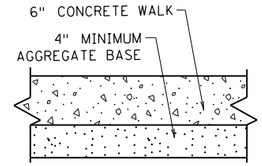
FLOW LINE PROFILE "TABLE" - FAN

FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS

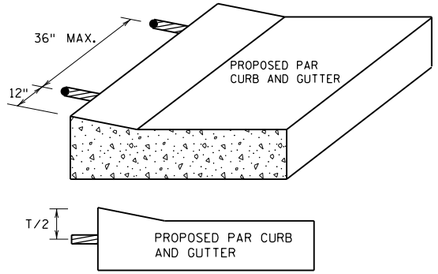
FLOW LINE PROFILE RAISE - FAN

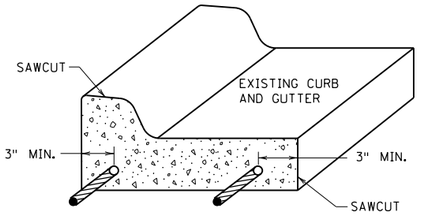


SECTION VIEW A-A
THICKENED SECTION
THROUGH CURB RAMP FLARES



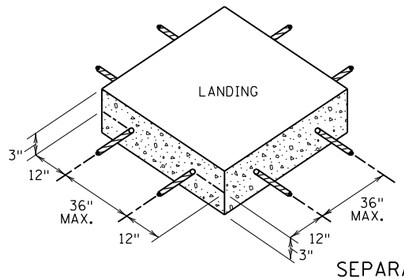
TYPICAL SIDEWALK SECTION
WITHIN INTERSECTION CORNER

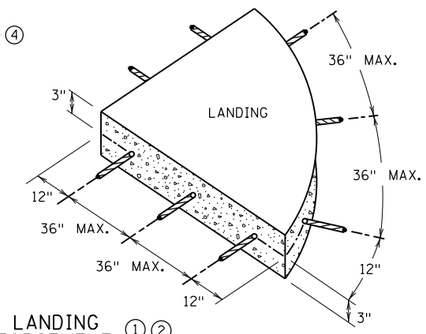




CURB AND GUTTER
REINFORCEMENT ③

CURB RAMP REINFORCEMENT DETAILS ②④





SEPARATE LANDING
POUR REINFORCEMENT ①②

GENERAL NOTES:

"TABLING" OF CROSSWALKS MEANS MAINTAINING LESS THAN 2% CROSS SLOPE WITHIN A CROSSWALK, IS REQUIRED WHEN A ROADWAY IS IN A STOP OR YIELD CONDITION AND THE PROJECT SCOPE ALLOWS.

RECONSTRUCTION PROJECTS: ON FULL PAVEMENT REPLACEMENT PROJECTS "TABLING" OF ENTIRE CROSSWALK SHALL OCCUR WHEN FEASIBLE.

MILL & OVERLAY PROJECTS: "TABLING" OF FLOW LINES, IN FRONT OF THE PEDESTRIAN RAMP, IS REQUIRED WHEN THE EXISTING FLOW LINE IS GREATER THAN 2%. WARPING OF THE BITUMINOUS PAVEMENT CAN NOT EXTEND INTO THE THROUGH LANE. TABLE THE FLOW LINE TO 2% OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA;

1) 1.0% MIN. CROSS-SLOPE OF THE ROAD
2) 5.0% MAX. CROSS-SLOPE OF THE ROAD
3) "TABLE" FLOW LINE UP TO 4% CHANGE FROM EXISTING SLOPE IN FRONT OF PEDESTRIAN RAMP
4) UP TO 2% CHANGE IN FLOW LINE FROM EXISTING SLOPE BEYOND THE PEDESTRIAN CURB RAMP

STAND-ALONE ADA RETROFITS: FOLLOW MILL & OVERLAY CRITERIA ABOVE HOWEVER ALL PAVEMENT WARPING IS DONE WITH BITUMINOUS PATCHING ON BITUMINOUS ROADWAYS AND FULL-DEPTH APRON REPLACEMENT ON CONCRETE ROADWAYS.

RAISING OF CURB LINES SHOULD OCCUR IN VERTICALLY CONSTRAINED AREAS. RAISE THE CURB LINES ENOUGH TO ALLOW COMPLIANT RAMPS OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA;

1) 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
2) 1.0% MIN. FLOW LINE (ON EITHER SIDE OF PEDESTRIAN RAMP) TO MAINTAIN POSITIVE DRAINAGE
3) 5.0% RECOMMENDED MAX. FLOW LINE
4) LONGITUDINAL THROUGH LANE ROADWAY TAPERS SHOULD BE 1" VERTICAL PER 15' HORIZONTAL

NOTES:

1. TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED. ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY POURED INITIAL LANDINGS.
2. DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) AT 36" MAXIMUM CENTER TO CENTER MINIMUM 12" SPACING FROM CONSTRUCTION JOINTS. BARS TO BE ADJUSTED TO MATCH RAMP GRADE. BARS TO BE PAID BY EACH.
3. DRILL AND GROUT 2 - NO. 4 X 12" LONG (6" EMBEDDED) REINFORCEMENT BARS (EPOXY COATED). REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS. BARS TO BE PAID BY EACH.
4. THIS CURB LINE REINFORCEMENT DETAIL SHALL BE USED ON BITUMINOUS ROADWAYS. FOR CONCRETE ROADWAYS, SEE NOTE 6.
5. CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.
6. USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.

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REVISION:

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JEFFREY J. PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 6 OF 6

APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

CP 23-08

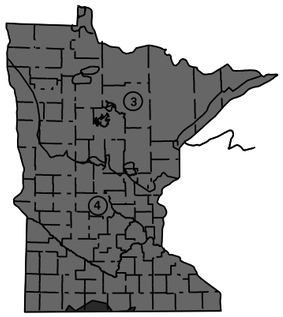
GENERAL NOTES

SEE SPECIAL PROVISIONS FOR SPECIFIC PROJECT REQUIREMENTS.	
REFER TO MnDOT SPECIFICATIONS 2571, 2572, 3861, FOR GENERAL REQUIREMENTS.	
COMPLETE PREPARATORY WORK BEFORE STARTING INITIAL PLANTING OPERATIONS.	
ACCEPT ALL PLANT STOCK IN ACCORDANCE WITH (MnDOT 3861) PRIOR TO PLANTING.	
THE CONTRACTOR WILL DEMONSTRATE COMPETENCY FOR SOIL CULTIVATION OPERATIONS IN ACCORDANCE WITH (MnDOT 2571.3D.2)	
THE CONTRACTOR WILL DEMONSTRATE COMPETENCY FOR ALL PLANT INSTALLATION OPERATIONS IN ACCORDANCE WITH (MnDOT 2571.3F1)	
RODENT PROTECTION	SEE SPECIAL PROVISIONS AND STANDARD PLANTING DETAILS (3 OF 3)
FERTILIZER	SEE SPECIAL PROVISIONS
COMPOST	MnDOT 3890 COMPOST GRADE 2 UNLESS OTHERWISE SPECIFIED.
MULCH MATERIAL	MnDOT 3882 MULCH MATERIAL TYPE 6 UNLESS OTHERWISE SPECIFIED.
MASS PLANTING BEDS	PREPARE MASS PLANTING BEDS FOR PLANTS PLACED AT 15' OR LESS, UNLESS OTHERWISE SPECIFIED ON SHEETS. PLANT BEDS IN STAGGERED ROWS ON THE PERIMETER FIRST, THEN UNIFORMLY FILL IN WITH REMAINING PLANTS. USE TRIANGULAR SPACING, UNLESS SPECIFIED OTHERWISE. PROVIDE 5' RADIUS CLEAR OF SHRUBS AROUND EACH DECIDUOUS TREE AND 8' CLEAR RADIUS AROUND EACH CONIFER TREE. RADIUS WILL BE MEASURED FROM THE CENTER OF THE TREE TO THE CENTER OF THE SHRUB. NOTIFY ENGINEER OF GROSS PLANT QUANTITY SURPLUS OR DEFICIENCY IMMEDIATELY. MULCH ENTIRE MASS PLANTING BED. SEE STANDARD PLANTING DETAILS (3 OF 3)
PLANTING PLAN DIMENSIONS	STATED DIMENSIONS SUPERCEDE SCALING FROM PLAN.

WATERING GUIDELINES (MnDOT 2571.3G)

PLANT TYPE	AVERAGE GALLONS OF WATER PER APPLICATION
MACHINE TRANSPLANTED TREES	50–100
BALLED AND BURLAPPED TREES	20
BARE ROOT AND CONTAINER TREES	15
BALLED AND BURLAPPED SHRUBS	10
BARE ROOT AND CONTAINER SHRUBS	7
WOODY SEEDLINGS	4
PERENNIALS AND VINES	3

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MONITOR AND MAINTAIN SOIL MOISTURE AT ADEQUATE BUT NOT EXCESSIVE LEVELS. THE AMOUNTS LISTED ABOVE ARE GUIDELINES, NOT REQUIREMENTS.

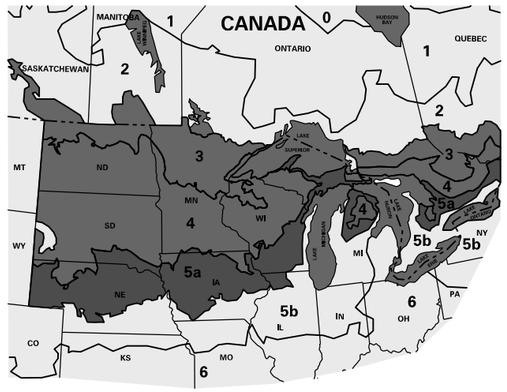


1. BARE ROOT PERENNIALS MUST BE PLACED IN THE SPRING NO LATER THAN JUNE 1ST OR FOLLOW THE FALL DECIDUOUS PLANTING DATES.
2. ACTUAL DATES MAY CHANGE DEPENDING UPON SEASONAL CONDITIONS, AS DETERMINED BY THE ENGINEER.
3. FALL PLANTING IS NOT ALLOWED FOR BARE ROOT FORM OF THE FOLLOWING SPECIES: HAWTHORN, DOGWOOD, POPLAR, HACKBERRY, LINDEN, IRONWOOD, HONEYLOCUST, BIRCH, MOUNTAIN ASH, MAPLE, WILLOW, CRABAPPLE, PLUM/CHERRY, OAKS, AND SUMAC.
4. ALL REPLACEMENT PLANTS MUST BE PLACED DURING THE MONTH OF MAY (SPRING PLANTING) AND SEPTEMBER (FALL PLANTING) DURING THE FIRST YEAR OF THE PLANT ESTABLISHMENT PERIOD.
5. MACHINE MOVED PLANTING DATES WILL BE SPECIFIED IN THE SPECIAL PROVISIONS.

PLANTING DATES BY ZONE

			③	④
SPRING	DECIDUOUS	BARE ROOT	APRIL 21 TO JUNE 1	APRIL 7 TO JUNE 1
		CONTAINER B&B	APRIL 21 TO JUNE 30	APRIL 7 TO JUNE 30
	CONIFEROUS		APRIL 21 TO JUNE 1	APRIL 7 TO MAY 17
	PERENNIALS		MAY 1 TO JUNE 30	MAY 1 TO JUNE 30
	SEEDLINGS		APRIL 21 TO JUNE 1	APRIL 7 TO JUNE 1
FALL	DECIDUOUS	BARE ROOT	OCT. 1 TO NOV. 1	OCT. 10 TO NOV. 15
		CONTAINER B&B	AUG. 25 TO OCT. 15	AUG. 25 TO NOV. 1
	CONIFEROUS		AUG. 25 TO SEPT. 15	AUG. 25 TO SEPT. 15
	PERENNIALS		AUG. 25 TO SEPT. 15	AUG. 25 TO SEPT. 15

PLANT INSTALLATION PERIOD



ACCEPTABLE ZONES		
ZONES	LEGEND	MIN. TEMP.
3		–34.4° TO –40° F
4		–28.9° TO –34.4° F
5a		–26.1° TO –28.9° F

UNACCEPTABLE ZONES	
ZONES	LEGEND
0, 1, 2, 5b and 6	

FOR ALL PLANT STOCK, DOCUMENT ACCEPTABILITY FOR HARDINESS IN THE MINNESOTA ZONE WHERE THE PROJECT SITE IS LOCATED, AS FOLLOWS:

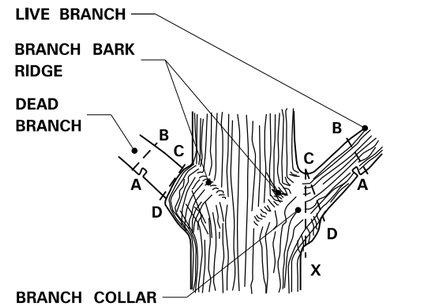
A. PLANT STOCK CONTINUOUSLY GROWN FOR AT LEAST THE LAST TWO YEARS WITHIN THE ACCEPTABLE LIMITS SHOWN.

OR

B. PLANT STOCK, GROWN OUTSIDE THE ACCEPTABLE GROWING RANGE LIMITS, HAVING SEED SOURCE OR ROOT AND GRAFT STOCK ORIGINATING FROM THE ACCEPTABLE LIMITS SHOWN.

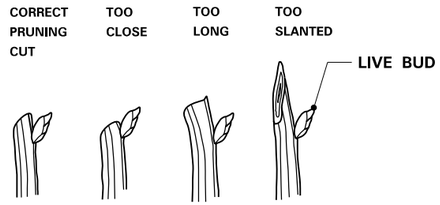
ACCEPTABLE PLANT STOCK GROWING RANGE LIMITS

SOURCE: USDA PLANT HARDINESS ZONE MAP (MnDOT 3861.2C)



BRANCHES PRUNED AT TRUNK

(SHIGO METHOD)



BRANCHES PRUNED TO LIVE BUD

PRUNING

(MnDOT 2571.3E.1 and 2571.3K.2.a(9))

STEPS TO PRUNING WITH PRUNING SAW:

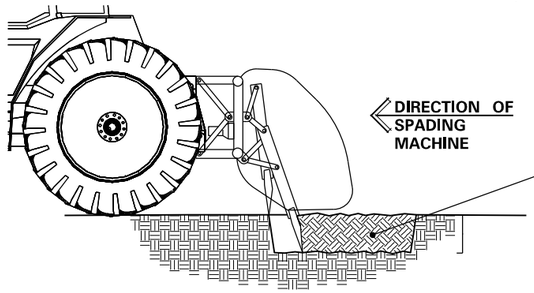
1. CUT PART WAY THROUGH THE BRANCH AT POINT A.
2. CUT COMPLETELY THROUGH BRANCH FROM POINT B TO A.
3. AT BRANCH COLLAR CUT FROM POINT C TO D.

INCORRECT CUT FROM POINT C TO X (TOO CLOSE) WILL RESULT IN DISCONTINUOUS CALLUS FORMATION AFTER ONE SEASON OF GROWTH.

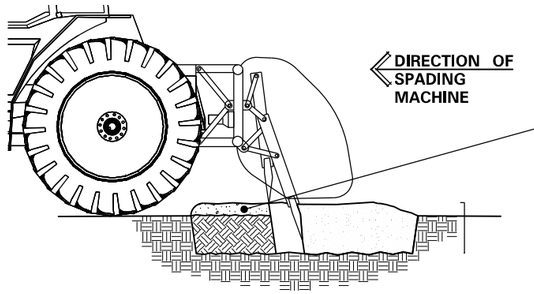
CORRECT CUT FROM POINT C TO D (LEAVING BRANCH COLLAR BUT NOT THE STUB FROM POINT B TO A) WILL RESULT IN CONTINUOUS DOUGHNUT SHAPED CALLUS FORMATION AFTER ONE SEASON OF GROWTH.

PRUNING NOTES:

1. PRUNE USING CLEAN AND SHARP SCISSOR-TYPE PRUNER OR PRUNING SAW.
2. THE BEST TIME TO PRUNE IS LATE DORMANT SEASON OR EARLY SPRING.
3. AVOID PRUNING OAKS IN APRIL, MAY, JUNE OR JULY.
4. IF PRUNING IS NECESSARY OR IF WOUNDS OCCUR TO OAK TREES IN APRIL, MAY, JUNE OR JULY, IMMEDIATELY PAINT CUT SURFACE OR WOUND WITH LATEX PAINT OR SHELLAC.



PRIMARY TILLAGE – PASS 1



INCORPORATION TILLAGE – PASS 2

PLANTING SOIL

(MnDOT 2571.3D)

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REVISION: 02-14-2019

APPROVED: DECEMBER 11, 2015

LYNN CLARKOWSKI
CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.301 | 1 OF 3

APPROVED: 12-11-2015
REVISED: 02-14-2019

THOMAS STYRBICKI
STATE DESIGN ENGINEER

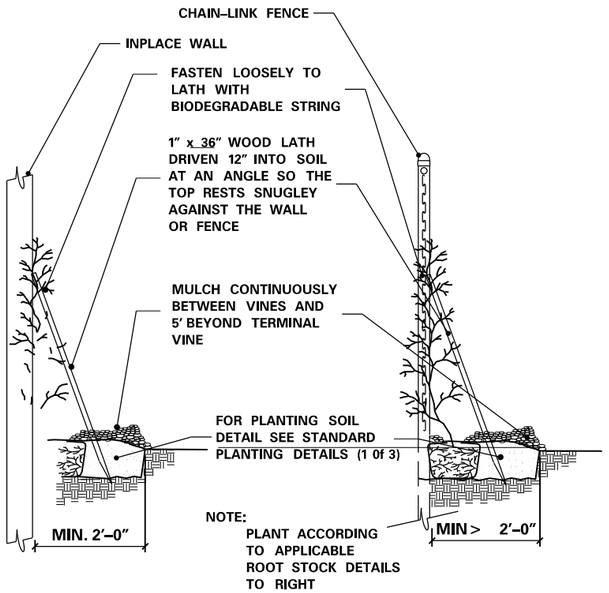
STANDARD PLANTING DETAILS

CP 23-08

PLANTING HOLE DIMENSIONS

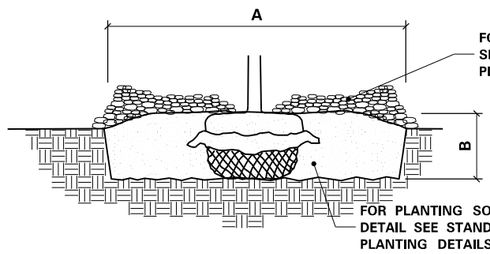
HOLE DEPTH FOR B&B AND CONTAINER PLANTS SHALL NOT EXCEED MEASUREMENT FROM ROOT FLARE TO BOTTOM OF SOIL BALL.

PLANT TYPE	PLANT SIZE UP TO AND INCLUDING	(A) MINIMUM HOLE WIDTH	(B) APPROXIMATE HOLE DEPTH
DECIDUOUS & ORNAMENTAL TREES	3' B.R.	46"	13"
	4' B.R	46"	14"
	5' B.R.	48"	14"
	6' B.R.	54"	15"
	7' B.R	60"	16"
	8' B.R.	66"	19"
	0.75" B.R.	48'	12"
	1" B.R.	54"	14"
	1.25" B.R.	60"	14"
	1.5 B.R.	66"	15"
	1.75" B.R	72"	16"
	2" B.R.	84"	19"
	4' B.B.	42"	11"
	5' B.B.	48"	12"
	6' B.B.	52"	14"
	8' B.B.	66"	16"
	10' B.B.	66"	16"
	12' B.B.	48"	16"
	1" B.B.	54"	14"
	1.25" B.B.	56"	15"
	1.5" B.B.	61"	15"
	1.75" B.B.	66"	16"
	2" B.B.	72"	16"
	2.5" B.B.	84"	19"
	3" B.B.	96"	20"
	3.5" B.B.	114"	23"
	4" B.B.	126"	25"
DECIDUOUS SHRUBS, ROSES AND PERENNIALS PERENNIAL HOLE DEPTH AND WIDTH SHALL BE BASED UPON ON-CENTER SPACING IN A CONTINUOUS TRENCH.	12" B.R.	24"	7"
	15" B.R.	28"	8"
	18" B.R.	30"	8"
	2' B.R.	33"	9"
	3' B.R.	42"	11"
	4' B.B.	48"	12"
	5' B.R.	54"	14"
	6' B.R.	60"	14"
	18" B.B.	27"	7"
	2' B.B.	30"	8"
	3' B.B.	36"	9"
	4' B.B.	42"	11"
	5' B.B.	48"	12"
	6' B.B.	54"	14"



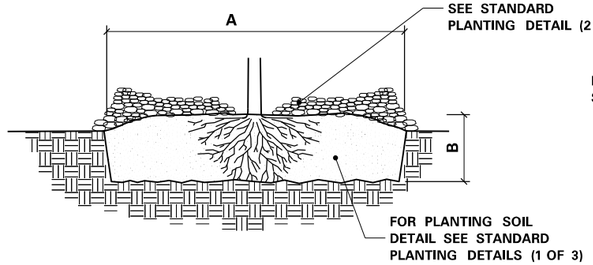
WALL INSTALLATION **FENCE INSTALLATION**

INSTALLATION OF VINES



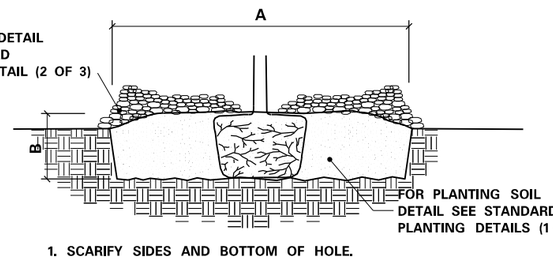
1. SCARIFY SIDES AND BOTTOM OF HOLE.
2. PROCEED WITH CORRECTIVE PRUNING.
3. SET PLANT ON UNDISTURBED NATIVE SOIL OR THOROUGHLY COMPACTED PLANTING SOIL. PLACE PLANT SO THE ROOT FLARE IS AT OR UP TO 2" ABOVE THE FINISHED GRADE WITH BURLAP AND WIRE BASKET, (IF USED), INTACT.
4. SLIT REMAINING TREATED BURLAP AT 6" INTERVALS.
5. BACKFILL TO WITHIN APPROXIMATELY 12" OF THE TOP OF THE ROOTBALL, THEN WATER PLANT.
6. REMOVE THE TOP 1/3 OF THE BASKET OR THE TOP TWO HORIZONTAL RINGS WHICHEVER IS GREATER. REMOVE ALL BURLAP AND NAILS FROM THE TOP 1/3 OF THE BALL. REMOVE ALL TWINE. REMOVE OR CORRECT STEM GIRDLING ROOTS.
7. PLUMB AND BACKFILL WITH PLANTING SOIL.
8. WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANTS AND FILL VOIDS.
9. BACK FILL VOIDS AND WATER A SECOND TIME.
10. PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.

BALLED & BURLAPPED STOCK



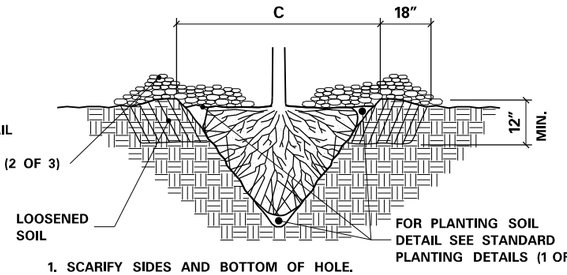
1. SOAK ROOTS IN WATER FOR AT LEAST ONE HOUR BUT NOT MORE THAN 24 HOURS PRIOR TO PLANTING.
2. SCARIFY SIDES AND BOTTOM OF HOLE.
3. PROCEED WITH CORRECTIVE PRUNING OF THE TOP AND ROOTS.
4. TRANSFER PLANT DIRECTLY FROM WATER TO HOLE. SET PLANT SO THE ROOT FLARE IS AT THE FINISHED SOIL ELEVATION. SPREAD ROOTS OUT EVENLY. PLUMB AND IMMEDIATELY BACKFILL WITH PLANTING SOIL.
5. WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANTS AND FILL VOIDS.
6. BACK FILL VOIDS AND WATER A SECOND TIME.
7. PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.

BARE ROOT STOCK



1. SCARIFY SIDES AND BOTTOM OF HOLE.
2. PROCEED WITH CORRECTIVE PRUNING OF TOP AND ROOT.
3. REMOVE CONTAINER AND SCORE OUTSIDE OF SOIL MASS TO REDIRECT AND PREVENT CIRCLING FIBROUS ROOTS. REMOVE OR CORRECT STEM GIRDLING ROOTS.
4. SET PLANT ON UNDISTURBED NATIVE SOIL OR THOROUGHLY COMPACTED PLANTING SOIL. INSTALL PLANT SO THE TOP OF THE ROOT FLARE IS AT OR UP TO 2" ABOVE THE FINISHED GRADE.
5. PLUMB AND BACKFILL WITH PLANTING SOIL.
6. WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANT AND FILL VOIDS.
7. BACK FILL VOIDS AND WATER A SECOND TIME.
8. PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.

CONTAINER STOCK



1. SCARIFY SIDES AND BOTTOM OF HOLE.
2. PROCEED WITH CORRECTIVE PRUNING.
3. SET PLANT ON NATIVE SOIL AT SAME DEPTH AS IT WAS PREVIOUSLY GROWN.
4. PLUMB AND BACKFILL WITH PLANTING SOIL.
5. AFTER PLANTING, LOOSEN THE SOIL IMMEDIATELY ADJACENT TO THE ROOT BALL TO A MINIMUM DISTANCE OF 18" AND A MINIMUM DEPTH OF 12".
6. WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANT AND FILL VOIDS.
7. BACK FILL VOIDS AND WATER A SECOND TIME.
8. PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.

MACHINE MOVED STOCK

MINIMUM TREE SPADE SIZE REQUIREMENTS			
(C) SPADE DIAMETER SIZE	OAK TREE, CALIPER	DECIDUOUS / ORNAMENTAL TREE,CALIPER	CONIFEROUS TREE, HEIGHT
42"	1" to 1.5"	2" to 3"	5' to 7'
60"	1.5" to 2.5"	3" to 4"	7' to 9'
78"	2.5" to 3.5"	4" to 6"	9' to 14'
85"	3.5" to 5"	6" to 8"	14' to 18'

INSTALLATION OF PLANTS

(MnDOT 2571.3F)

PLANTING HOLE DIMENSIONS

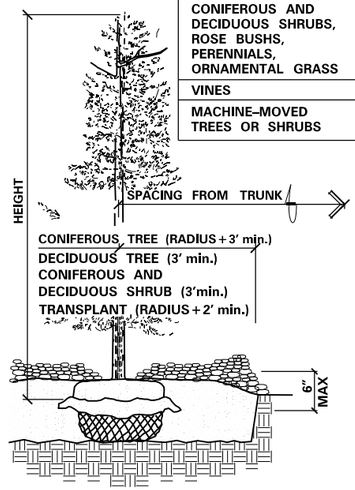
HOLE DEPTH FOR B&B AND CONTAINER PLANTS SHALL NOT EXCEED MEASUREMENT FROM ROOT FLARE TO BOTTOM OF SOIL BALL.

PLANT TYPE	PLANT SIZE UP TO AND INCLUDING	(A) MINIMUM HOLE WIDTH	(B) APPROXIMATE HOLE DEPTH
CONIFEROUS TREES AT LEAST 2/3 OF ALL CONIFER BRANCHES WILL CONTAIN TERMINAL BUDS	2' B.B	36"	10"
	3' B.B	42"	11"
	4' B.B	51"	13"
	5' B.B	60"	13"
	6' B.B	66"	15"
	7' B.B	72"	16"
	8' B.B	81"	18"
	9' B.B	90"	20"
	10' B.B	102"	21"
	12' B.B	114"	24"
CONIFEROUS SHRUBS (UPRIGHT)	18" B.B.	24"	7"
	3' B.B.	48"	12"
CONIFEROUS SHRUBS (SPREADING)	18" SPR B.B.	30"	8"
	2' SPR B.B.	36"	9"
CONTAINER GROWN PLANTS	CELLPACKS / PLUGS	6"	2.5"
	2.25" CONT.	7"	3"
	3.5" CONT.	10"	3"
	4" CONT.	11"	4"
	4.5" CONT.	13"	4"
	6"/1 QT CONT.	15"	5.5"
	1# CONT.	18"	6"
	2# CONT.	23"	7.5"
	3# CONT.	29"	8.5"
	5# CONT.	30"	11"
	7# CONT.	37"	11"
	15# CONT.	44"	14"
	10# CONT.	45"	15"
	20# CONT.	60"	16"
	25# CONT.	72"	17"
SEEDLINGS	6" SEEDLING	15"	14"
	9" SEEDLING	18"	14"
	12" SEEDLING	23"	16"
	18" SEEDLING	30"	16"
	2' SEEDLING	36"	18"
VINES	1 YR. MED B.R.	15"	11"
	1 YR. NO. 1 B.R.	17"	14'
	2 YR. MED. B.R.	33"	12"
	2 YR. NO. 1 B.R.	42"	15"

MULCH AREA CALCULATOR

TYPE OF PLANT	SQ. FT. PER PLANT
CONIFEROUS TREES	$\left[\left(\frac{3/5 \times \text{HEIGHT}}{2}\right)+3\right]^2 \times \pi$
DECIDUOUS AND ORNAMENTAL TREES	$3^2 \times \pi$
CONIFEROUS AND DECIDUOUS SHRUBS, ROSE BUSHS, PERENNIALS, ORNAMENTAL GRASS	SPACING x SPACING
VINES	SPACING x 2
MACHINE-MOVED TREES OR SHRUBS	$\left[\left(\frac{\text{SPADE DIAMETER}}{2}\right)+1\right]^2 \times \pi$

$\pi = 3.1416$



1. PULL MULCH BACK NO LESS THAN 3" AND NO MORE THAN 6" FROM TREES AND SHRUBS AT THE TRUNK OR MAIN STEM.
2. SUBSIDING OR DETERIORATING MULCH IS ACCEPTABLE THROUGHOUT THE ESTABLISHED PERIOD IF THE MULCH DEPTH IS MAINTAINED AT A MINIMUM 3" DEPTH.
3. ADD MULCH WHEN BELOW THE 3" MINIMUM DEPTH; DO NOT EXCEED THE 6" MAXIMUM DEPTH.
4. MULCH CONTAMINATED WITH SOIL MUST BE REMOVED AND REPLACED.

MULCH

(MnDOT 2571.3H)

REVISION:

APPROVED: DECEMBER 11, 2015

CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.301 | 2 OF 3

APPROVED: 12-11-2015

REVISED:

STATE DESIGN ENGINEER

STANDARD PLANTING DETAILS

CP 23-08

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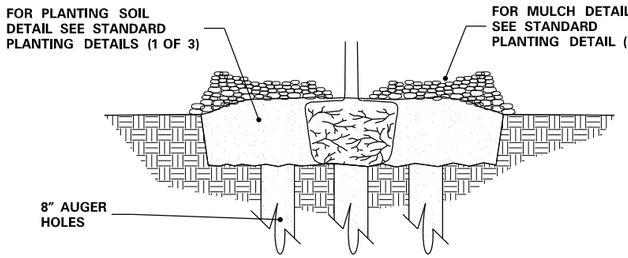
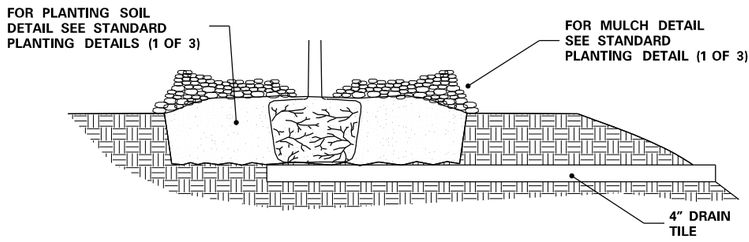


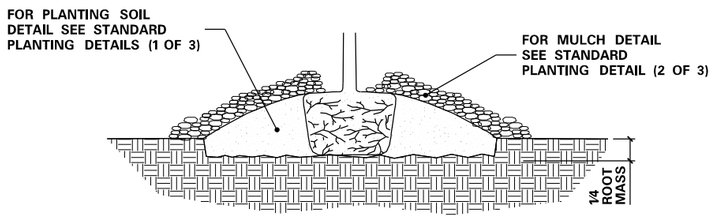
1. EXCAVATE HOLE OR BED TO ALLOW PLACING THE TOP OF ROOT MASS 1"–3" HIGHER THAN FINISHED GRADE.
2. AUGER 8" DIAMETER HOLES ENTIRELY THROUGH IMPERVIOUS OR POORLY DRAINED HARD PAN SOIL LAYER TO ADEQUATELY DRAIN SUBSOIL.
3. TEST FOR POSITIVE DRAINAGE. RE–AUGER AN ADDITIONAL 8" IF NECESSARY FOR POSITIVE DRAINAGE.
4. THOROUGHLY BACKFILL AUGER HOLES WITH A UNIFORM INCORPORATED MIXTURE OF 50% SAND AND 50% INPLACE SOIL.
5. COMPLETE PLANTING ACCORDING TO ROOT TYPE. SEE STANDARD PLANTING DETAILS (2 OF 3).

GRANULAR FILTER



1. EXCAVATE HOLE OR BED TO ALLOW PLACING THE TOP OF THE ROOT MASS 1"–3" HIGHER THAN FINISHED GRADE.
2. INSTALL 4" MINIMUM DIAMETER DRAIN TILE DAYLIGHTING AT A LOWER GRADE.
3. COMPLETE PLANTING ACCORDING TO ROOT TYPE. SEE STANDARD PLANTING DETAILS (2 OF 3).

TILE DRAINAGE



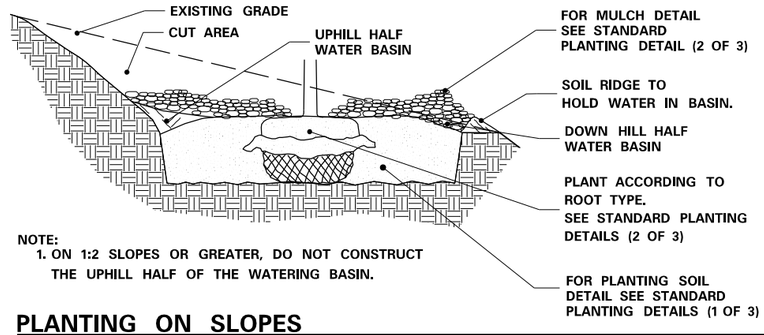
1. EXCAVATE HOLE OR BED 1/4 THE DEPTH OF THE ROOT MASS.
2. SET ROOT MASS IN HOLE.
3. CONSTRUCT BERM WITH PLANTING SOIL. EXTEND THE BERM BASE TO A WIDTH OF 3 TIMES THE BERM HEIGHT.
4. COMPLETE PLANTING ACCORDING ROOT TYPE. SEE STANDARD PLANTING DETAILS (2 OF 3).

MINI–BERM

NOTE:
1. THE NEED FOR USING PLANTING DETAILS FOR POORLY DRAINED SOILS AND WHICH TYPE TO USE ARE DETERMINED BY THE CONTRACTOR, SUBJECT TO ENGINEER APPROVAL.

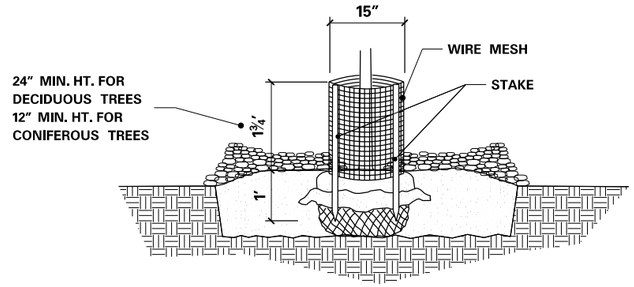
PLANTING DETAIL FOR POORLY DRAINED SOILS

(MnDOT 2571.3D.2(8))



NOTE:
1. ON 1:2 SLOPES OR GREATER, DO NOT CONSTRUCT THE UPHILL HALF OF THE WATERING BASIN.

PLANTING ON SLOPES

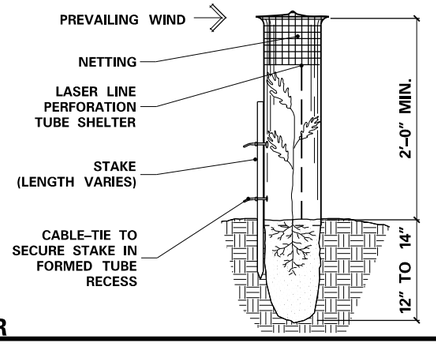


1. FORM A DOUBLE–LAYERED CYLINDER USING 0.25" GRID GALVANIZED WELDED WIRE MESH (HARDWARE CLOTH). OVERLAP THE CUT END 2".
2. DRIVE TWO 1" x 1" OPPOSING HEARTWOOD WHITE OAK STAKES INTO THE GROUND, 7" FROM THE CENTER OF THE TREE STEM.
3. SECURE THE MESH CYLINDER TO THE OUTSIDE OF THE STAKES USING EITHER, SCREWS AND WASHERS OR CABLE–TIES ALONG THE OVERLAP. SPACE APPROXIMATELY 4" ON CENTER ALONG THE OVERLAP.
   a. SCREWS SHALL BE ROUND HEAD GALVANIZED 1/8" DIA. x 3/4" LONG WITH WASHERS.
   OR
   b. CABLE–TIES SHALL BE NYLON, AT LEAST 8" LONG AND BETWEEN 75LB TO 120LB TENSILE STRENGTH.
4. EMBED THE LOWER EDGE OF THE MESH CYLINDER 1" BELOW THE SOIL SURFACE WITHOUT DISTURBING THE TREE ROOTS.
5. CUT EDGES WILL NOT BE PERMITTED AT THE TOP OF THE CYLINDER. STAKE WILL BE FLUSH WITH THE TOP OF THE CYLINDER.
6. MULCH WITHIN THE CYLINDER SHALL NOT EXCEED 3" DEPTH AND SHALL BE PULLED BACK FROM THE TRUNK AS SPECIFIED IN MULCH PLACEMENT DETAIL.
7. THE BOTTOM WHORL OF PINE AND LARCH BRANCHES MAY HAVE TO BE REMOVED TO PERMIT INSTALLATION OF 12" MIN. HEIGHT RODENT GUARDS.
8. INSTALL ON ALL DECIDUOUS, PINE AND LARCH TREES, DO NOT PLACE ON SPRUCE TREES.

RODENT PROTECTION

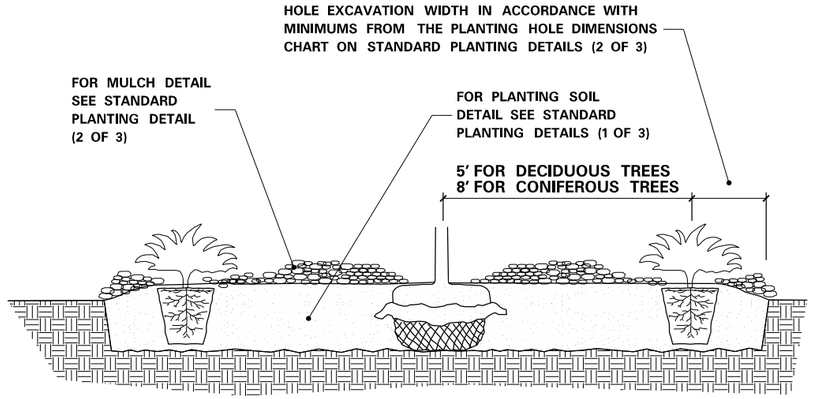
(MnDOT 2571.3I.2)

1. USE SEAMLESS, EXTRUDED, TWIN–WALL, RIGID AND SEMI TRANSLUCENT POLYPROPYLENE TUBES WITH A LASER LINE PERFORATION AND AN OUTWARD–FLARED TOP RIM.
2. SECURE SHELTER WITH NYLON CABLE–TIES ATTACHED TO A 1" x 1" WHITE OAK STAKE TO PREVENT DISLODGING OR TWISTING.
3. EMBED THE BOTTOM OF THE TUBE A MINIMUM OF 1" BELOW THE SOIL SURFACE WITHOUT DISTURBING THE TREE ROOTS.
4. PLACE A PLASTIC PHOTODEGRADABLE NETTING COVER AND SLEEVE OVER THE TOP OF THE TUBE. PULL NETTING DOWN AS SHOWN.

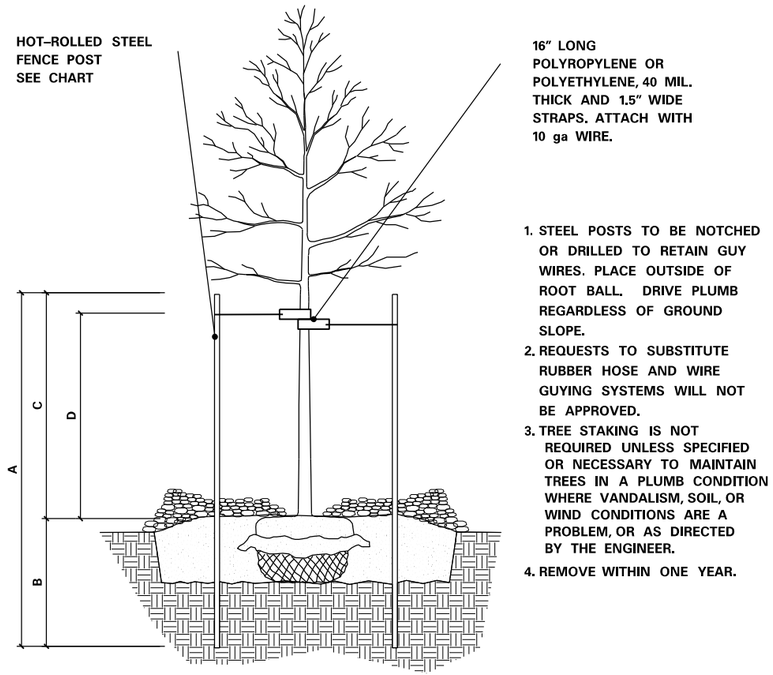


SEEDLING TREE SHELTER

(MnDOT 2571.3I.4)



PLANT SPACING IN MASS BEDS



1. STEEL POSTS TO BE NOTCHED OR DRILLED TO RETAIN GUY WIRES. PLACE OUTSIDE OF ROOT BALL. DRIVE PLUMB REGARDLESS OF GROUND SLOPE.
2. REQUESTS TO SUBSTITUTE RUBBER HOSE AND WIRE GUYING SYSTEMS WILL NOT BE APPROVED.
3. TREE STAKING IS NOT REQUIRED UNLESS SPECIFIED OR NECESSARY TO MAINTAIN TREES IN A PLUMB CONDITION WHERE VANDALISM, SOIL, OR WIND CONDITIONS ARE A PROBLEM, OR AS DIRECTED BY THE ENGINEER.
4. REMOVE WITHIN ONE YEAR.

STEEL POST SIZING

CALIPER	STEEL POST TYPE	A	B	C	D
LESS THAN 4 INCHES	HOT–ROLLED STEEL FENCE POST (MnDOT 3403) OR APPROVED EQUAL.	7'–0"	3'–0" MIN.	4'–0"	3'–0"
GREATER THAN 4 INCHES	10', 2.2 LB. FLANGED CHANNEL SIGN POST (MnDOT 3401) OR APPROVED EQUAL.	10'–0"	4'–0" MIN.	6'–0"	5'–0"

STAKING AND GUYING

(MnDOT 2571.3I.1)

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CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5–297.301 | 3 OF 3

APPROVED: 12-11-2015
REVISED:
STATE DESIGN ENGINEER

STANDARD PLANTING DETAILS

CP 23-08

PLOTTED/REVISED: 3/9/2023 11:32:08 AM
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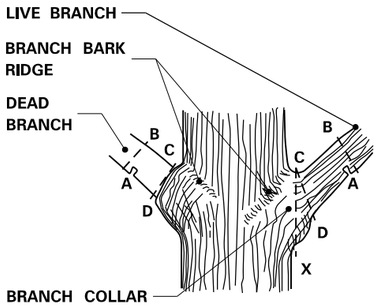


BRANCHES PRUNED AT TRUNK

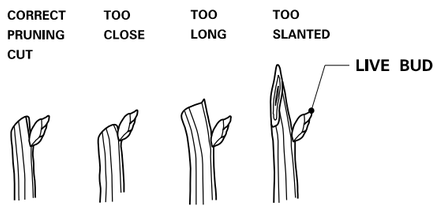
(SHIGO METHOD)

STEPS TO PRUNING WITH PRUNING SAW:

1. CUT PART WAY THROUGH THE BRANCH AT POINT A.
2. CUT COMPLETELY THROUGH BRANCH FROM POINT B TO A.
3. AT BRANCH COLLAR CUT FROM POINT C TO D.

INCORRECT CUT FROM POINT C TO X (TOO CLOSE) WILL RESULT IN DISCONTINUOUS CALLUS FORMATION AFTER ONE SEASON OF GROWTH.

CORRECT CUT FROM POINT C TO D (LEAVING BRANCH COLLAR BUT NOT THE STUB FROM POINT B TO A) WILL RESULT IN CONTINUOUS DOUGHNUT SHAPED CALLUS FORMATION AFTER ONE SEASON OF GROWTH.



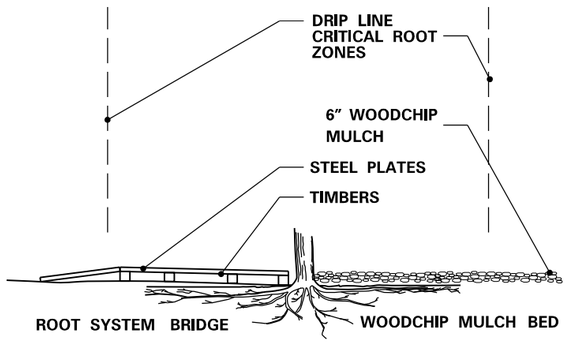
BRANCHES PRUNED TO LIVE BUD

PRUNING NOTES:

1. PRUNE USING CLEAN AND SHARP SCISSOR–TYPE PRUNER OR PRUNING SAW.
2. THE BEST TIME TO PRUNE IS LATE DORMANT SEASON OR EARLY SPRING.
3. AVOID PRUNING OAKS IN APRIL, MAY, JUNE OR JULY.
4. IF PRUNING IS NECESSARY OR IF WOUNDS OCCUR TO OAK TREES IN APRIL, MAY, JUNE OR JULY, IMMEDIATELY PAINT CUT SURFACE OR WOUND WITH LATEX PAINT OR SHELLAC.

PRUNING

(MnDOT 2571.3E.1 and 2571.3K.2.a(9))



IF CONSTRUCTION VEHICLES MUST PASS OVER ROOT ZONES, THE CONTRACTOR MUST EITHER:

1. CONSTRUCT ROOT SYSTEM BRIDGES WITH STEEL PLATE SUPPORTED ON WOOD TIMBERS PLACED RADIALLY TO THE TREE TRUNK.

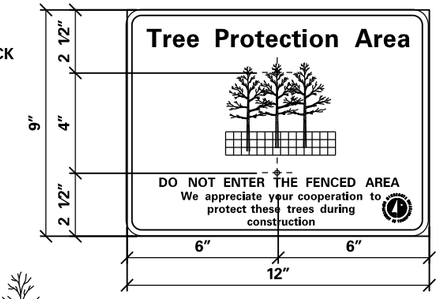
OR

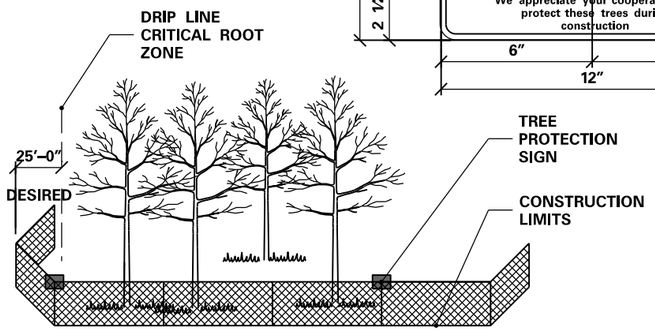
2. PLACE A 6 INCH LAYER OF WOODCHIP MULCH OVER A TYPE III GEOTEXTILE (MnDOT 3733).

OTHER VEGETATION PROTECTION MEASURES

(MnDOT 2572.3A.12)

1. FABRICATE 12" X 9" X 3⁄8" SIGN WITH 0.75" RADIUS CORNERS.
2. SIGN SHALL BE WHITE WITH BLACK LETTERING.
3. ATTACH SIGN TO POST USING 1" LENGTH WOOD SCREWS.

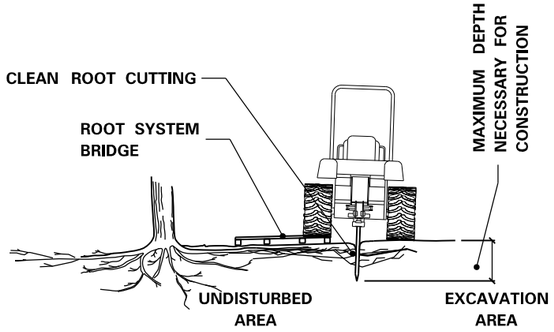




1. FURNISH AND INSTALL TEMPORARY FENCE AT THE TREE'S DRIPLINE OR CONSTRUCTION LIMITS AS SPECIFIED, PRIOR TO ANY CONSTRUCTION.
2. WHEN POSSIBLE PLACE FENCE 25 FEET BEYOND THE DRIP LINE.
3. PLACE TREE PROTECTION SIGNS ALONG FENCE AT 50' INTERVALS.

TEMPORARY FENCE

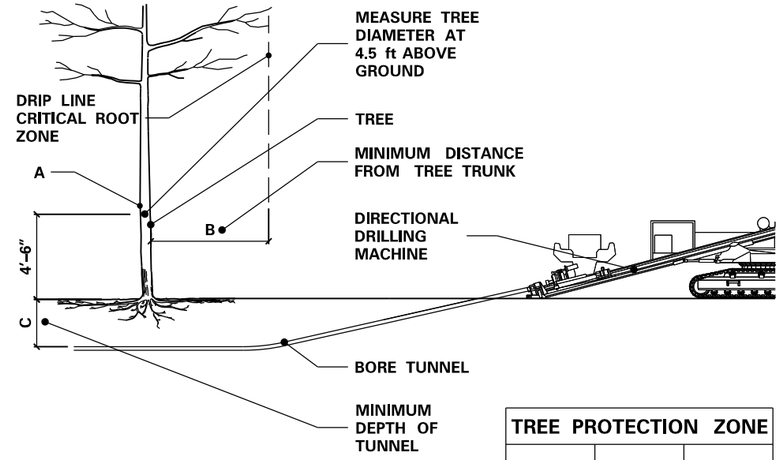
(MnDOT 2572.3A.1)



1. WHEN DESIGNATED IN THE PLAN OR DIRECTED BY THE ENGINEER, PRIOR TO EXCAVATION, ALL TREE ROOTS WILL BE CLEANLY CUT BY A VIBRATORY PLOW OR OTHER APPROVED ROOT CUTTER.
2. THE TREE ROOTS WILL BE CUT CLEANLY TO THE MINIMUM DEPTH NECESSARY FOR CONSTRUCTION.
3. IMMEDIATELY, AND CLEANLY CUT DAMAGED AND EXPOSED ROOTS.
4. ROOT ENDS EXPOSED BY EXCAVATION ACTIVITIES SHALL BE IMMEDIATELY COVERED WITH A 6" LAYER OF ADJACENT SOIL.
5. EXPOSED CUT OAK ROOTS SHALL BE IMMEDIATELY (WITHIN 5 MINUTES) TREATED WITH A WOUND DRESSING MATERIAL CONSISTING OF LATEX PAINT OR SHELLAC.

CLEAN ROOT CUTTING

(MnDOT 2572.3A.2)



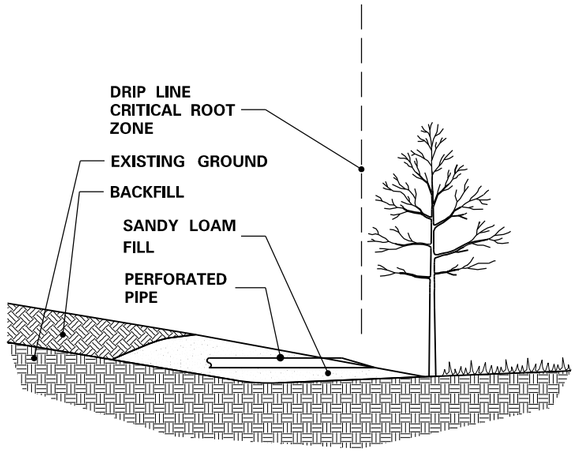
NOTE:

1. (A) IS THE DIAMETER OF TREES MEASURED 4'–6" FEET ABOVE THE GROUND AND IS TERMED THE "DIAMETER AT BREAST HEIGHT," (DBH).
2. USING A TREE DIAMETER TAPE, WRAP THE TAPE AROUND THE GIRTH OF THE TREE, AT THE DBH, BEING CAREFUL NOT TO TWIST THE TAPE.

TREE PROTECTION ZONE		
A	B	C
< 2"	2'	2'
2–4"	4'	2.5'
> 4–9"	6'	2.5'
> 9–14"	10'	3'
> 14–19"	12'	3.25'
> 19"	15'	4'

UTILITY CONSTRUCTION

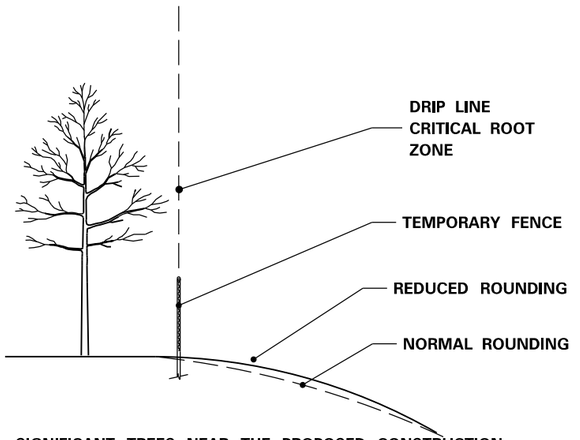
(MnDOT 2572.3A.5)



1. ANY FILL REQUIRED WITHIN THE DRIP LINE OF TREES, IS UNCOMPACTED ROOTING TOPSOIL BORROW.
2. EXCESSIVE FILL MAY REQUIRE PLACING PERFORATED PIPE WITH AT LEAST ONE DAYLIGHTED END OPENING AS AN AERATION SYSTEM.

ROOTING TOPSOIL BORROW

(MnDOT 2572.3A.4)



SIGNIFICANT TREES NEAR THE PROPOSED CONSTRUCTION LIMITS WILL BE IDENTIFIED IN THE PLAN OR BY THE ENGINEER AND WILL BE PRESERVED BY THE CONTRACTOR.

1. PLACE THE TEMPORARY FENCE.
2. REDUCE SLOPE ROUNDING WHERE ROOT ZONES ARE DISTURBED BY NORMAL SLOPE ROUNDING.
3. VARY BACKSLOPE STEEPNESS TO AVOID TREE LOSS OR UNNECESSARY ROOT DAMAGE.

SLOPE ROUNDING

REVISION:

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MINNESOTA DEPARTMENT OF TRANSPORTATION

STATE DESIGN ENGINEER

STANDARD PLAN 5–297.302 | 1 OF 1

APPROVED: 12-11-2015

REVISED:

PROTECTION AND RESTORATION OF VEGETATION

CP 23-08

SHEET 34 OF 230 SHEETS

PLOTTED/REVISED: 3/9/2023 11:32:08 AM

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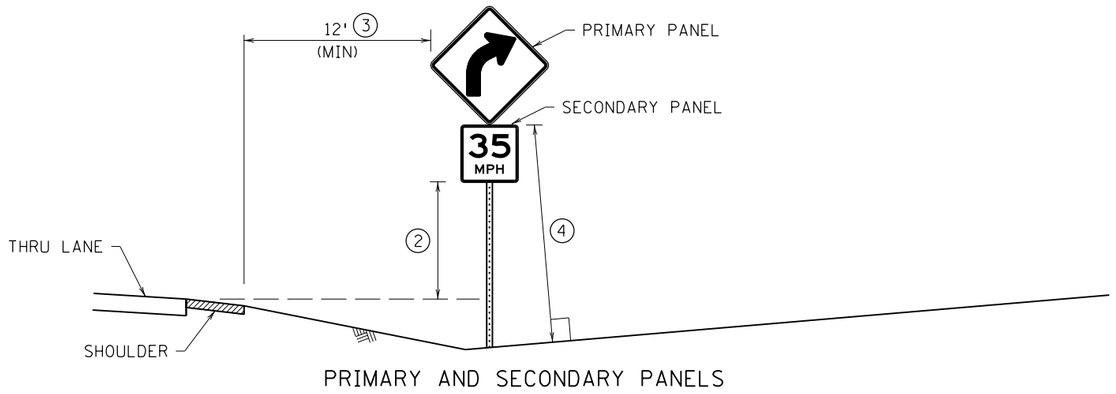
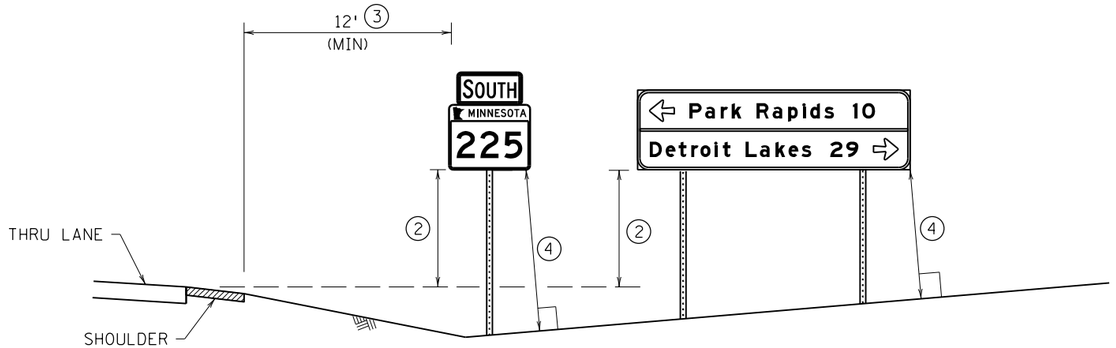
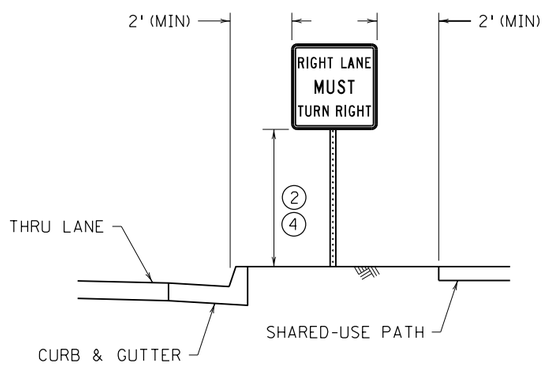


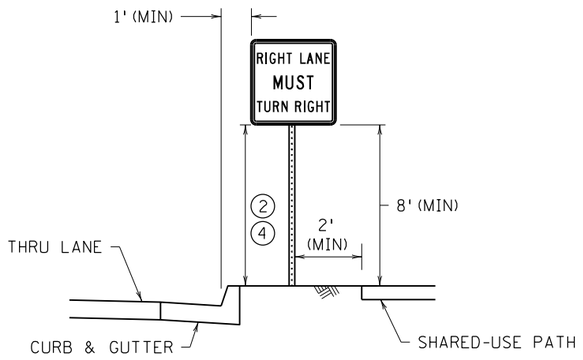
PRIMARY AND SECONDARY PANELS



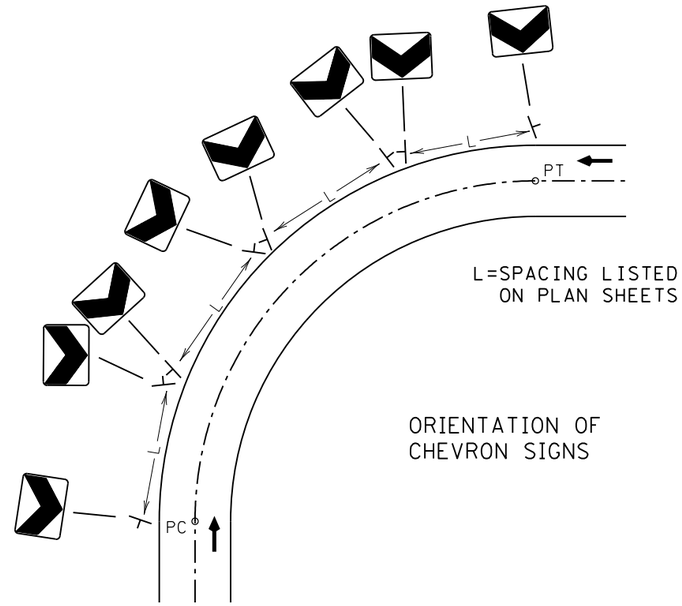
STANDARD LOCATIONS



BOULEVARD LOCATIONS
6' TO 12' WIDE



BOULEVARD LOCATIONS (1)
LESS THAN 6' WIDE



ORIENTATION OF
CHEVRON SIGNS

NOTES:

PLACE SIGNS AND ORIENT THEM APPROXIMATELY AS SHOWN IN THE PLAN, AT RIGHT ANGLES TO THE DIRECTION OF, AND FACING THE TRAFFIC THEY ARE INTENDED TO SERVE, UNLESS OTHERWISE SPECIFIED. TO AVOID SPECULAR GLARE, TURN SIGNS APPROXIMATELY THREE DEGREES AWAY FROM APPROACHING TRAFFIC.

IF A SIGN NEEDS TO BE REPOSITIONED FROM THE PROPOSED PLAN LOCATION IN ORDER TO AVOID CONFLICTS WITH UTILITIES OR OBSTACLES, CONTACT THE PROJECT ENGINEER.

MOUNT SIGN FACES PLUMB.

LATERAL CLEARANCES GIVEN APPLY TO RIGHT AND/OR LEFT SIDE INSTALLATION.

ERECT OR CONSTRUCT SIGN SUPPORT SO THAT NO PORTION OF THE SIGN PANEL IS WITHIN 8.5' OF THE RAIL OF A RAILROAD TRACK.

PLACE SIGNS SUCH THAT OBSTACLES DO NOT BLOCK THEM FROM BEING VIEWED BY THE APPROACHING TRAFFIC.

PLACE SIGNS A MINIMUM OF 10' FROM THE NEAREST OBSTACLE. OBSTACLES MAY INCLUDE, BUT ARE NOT LIMITED TO, LIGHT POLES, TREES, SIGNS, AND BUILDINGS. SIGNS MAY BE PLACED CLOSER TO SIGNS IN TIGHT AREAS, BUT NO MORE THAN TWO POSTS IN A 7' DIAMETER CIRCLE.

(1) TO BE USED ONLY WHEN BOULEVARD IS TOO NARROW TO OBTAIN ADEQUATE CURBED LOCATION SIGN OFFSETS.

(2) ALL SIGN MOUNTING HEIGHTS ARE MEASURED VERTICALLY FROM THE BOTTOM OF THE LOWEST SIGN PANEL TO THE TOP OF THE CURB, OR IN ABSENCE OF CURB, TO THE NEAR EDGE OF THE THRU-LANE PAVEMENT. SEE SIGN TABULATIONS.

(3) MINIMUM OFFSET MAY BE REDUCED TO AT LEAST 6' FROM SHOULDER AND AT LEAST 12' FROM THRU LANE IF SITE CONDITIONS PROHIBIT A 12' OFFSET FROM SHOULDER.

(4) CRASHWORTHY HEIGHT IS AT LEAST 7' FOR BREAKAWAY STRUCTURES AND AT LEAST 4' FOR BENDABLE STRUCTURES. SEE SPECIFIC SQUARE TUBE BASE STRUCTURE PLAN FOR CRASH RESPONSE TYPE. THE CRASHWORTHY HEIGHT IS MEASURED TO THE BOTTOM OF THE PRIMARY SIGN PANEL EXCLUDING ANY SECONDARY SIGN PANELS, MARKERS, DELINEATORS, AND REFERENCE LOCATION SIGN PANELS. ANY SECONDARY SIGN PANELS MOUNTED TO MORE THAN ONE POST ARE CONSIDERED PRIMARY SIGN PANELS FOR CRASHWORTHY PURPOSES.

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BRIAN SORENSON
STATE TRAFFIC ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.701 | 1 OF 1

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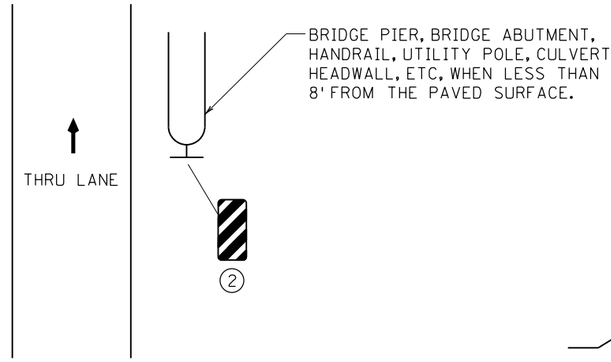
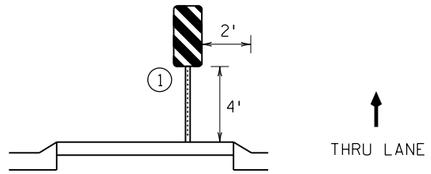
REVISED: 04-08-2022
THOMAS STYRBICKI
STATE DESIGN ENGINEER

STANDARD SIGN PLACEMENT

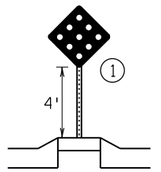
CP 23-08



OBSTRUCTION
TYPE 3 OBJECT MARKER

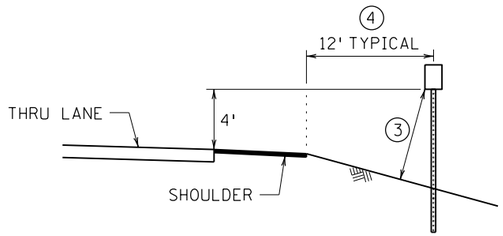


RAISED ISLAND
TYPE 3 OBJECT MARKER

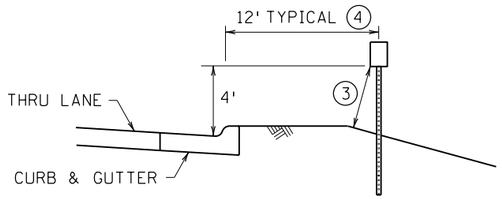


RAISED ISLAND
TYPE 1 OBJECT MARKER

MARKER TYPICAL PLACEMENT



LOCATIONS WITHOUT CURB



LOCATIONS WITH CURB

DELINEATOR TYPICAL PLACEMENT

NOTES:

FOR DELINEATOR OFFSETS AT RAMP GORES, SEE STANDARD PLAN 5-297.703.

(1) PLACE MARKER AS CLOSE TO THE BEGINNING OF MEDIAN AS POSSIBLE.

(2) PLACE THE EDGE OF THE OBJECT MARKER THAT IS CLOSEST TO THE ROAD USER IN LINE WITH THE CLOSEST EDGE OF THE OBSTRUCTION. ANGLE THE STRIPES DOWNWARD TOWARDS THE SIDE TRAFFIC IS TO PASS THE OBSTRUCTION.

(3) THE CRASHWORTHY HEIGHT FROM THE GROUND TO ANY PORTION OF THE SIGN PANEL IS AT LEAST 7' FOR BREAKAWAY STRUCTURES AND AT LEAST 4' FOR BENDABLE STRUCTURES. SEE SPECIFIC SQUARE TUBE BASE STRUCTURE PLAN FOR CRASH RESPONSE TYPE.

(4) ADJUST OFFSET TO MATCH OTHER SIGN OFFSETS ALONG ROADWAY CORRIDOR, BUT NOT MORE THAN 12' NOR LESS THAN 2'.

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BRIAN SORENSON
STATE TRAFFIC ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.702 | 1 OF 1

APPROVED: 02-28-2022
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

DELINEATOR AND MARKER PLACEMENT

CP 23-08

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NOTES & GUIDELINES

GENERAL INFORMATION:

1. ALL DISTANCES ARE APPROXIMATE.
2. THE CONTRACTOR SHALL MAINTAIN ACCESS TO GARAGES AT THE FOLLOWING ADDRESSES AT ALL TIMES DUE TO ELECTRIC VEHICLE CHARGING:
   - 2823 89TH LANE NE
   - 4110 99TH AVENUE NE
   - 8501 W. OLD 35W SERVICE DRIVE
   - 2899 89TH LANE NE

   MAINTAINING ACCESS TO GARAGES AT THESE PROPERTIES MAY REQUIRE CONSTRUCTION OF DRIVEWAYS HALF AT A TIME. IF THE CONTRACTOR CHOOSES TO CONSTRUCT DRIVEWAYS HALF AT A TIME, HIGH EARLY CONCRETE IS TO BE USED (INCIDENTAL).

SIGNING:

1. ALL TEMPORARY SIGNS ARE REQUIRED TO BE CRASHWORTHY PER THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE 2016 (MASH-2016). TEMPORARY SIGN STRUCTURES THAT ARE CRASHWORTHY UNDER THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM REPORT 350 (NCHRP-350) MAY BE USED PROVIDED THE DEVICES WERE ACQUIRED BY THE CONTRACTOR PRIOR TO DECEMBER 31ST, 2019. THE MINNESOTA TYPE "C" AND "D" BRACED LEG U-CHANNEL (KNEE BRACE) SIGN SUPPORT IS NOT ALLOWED.
2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE FINAL SIGNS TO ASSURE THAT THE FINAL SIGNS ARE PLACED AS NEEDED, OR PROVIDE TEMPORARY SIGNING UNTIL THE FINAL SIGNING IS PLACED.
3. WHEN MULTIPLE GROUND MOUNTED SIGN STRUCTURES ARE PLACED ADJACENT TO EACH OTHER THERE SHOULD BE NO MORE THAN 2 POSTS WITHIN 84" OF EACH OTHER. WHEN THIS SPACING CAN NOT BE MAINTAINED, THEN SIGN STRUCTURES SHALL BE OFFSET, AND STAGGERED WITH A MINIMUM OF 4' BETWEEN SIGN STRUCTURES BOTH LATERALLY AND LONGITUDINALLY. EXAMPLE SHOWS DETOUR SIGNAGE, BUT THIS REQUIREMENT APPLIES TO ALL SIGNAGE.
4. WHEN A SIGN OR BARRICADE IS ORIENTED SUCH THAT VISIBILITY TO ROAD USERS INCLUDING BIKES AND PEDESTRIANS IS REDUCED ENOUGH TO CAUSE A HAZARD, DELINEATE THE SIGN/BARRICADE WITH APPROPRIATE DEVICES.
5. TEMPORARY SIGNS SHALL BE PLACED SUCH THAT OBSTACLES DO NOT BLOCK THEM FROM BEING VIEWED BY APPROACHING ROAD USERS. OBSTACLES MAY INCLUDE, BUT ARE NOT LIMITED TO, LIGHT POLES, TREES, SIGNS, AND BUILDINGS.
6. TEMPORARY SIGNS SHALL BE PLACED AND ORIENTED APPROXIMATELY AS SHOWN IN THE PLAN, AT RIGHT ANGLES TO DIRECTION OF AND FACING THE TRAFFIC THEY ARE INTENDED TO SERVE, UNLESS OTHERWISE SPECIFIED.
7. LONGITUDINAL DROPOFFS SHALL BE SIGNED AS SHOWN IN THE "MINNESOTA TEMPORARY TRAFFIC CONTROL FIELD MANUAL" PAGES (6K-aj) THRU (6K-al) UNLESS OTHERWISE SPECIFIED IN THESE PLANS.
8. AFTER REMOVAL OF SIGN AND/OR SIGN BASE, BACK FILL, COMPACT, AND LEVEL SOIL TO MATCH SURROUNDING SOIL.

CONSTRUCTION INFORMATION SIGNING:

1. THE CONTRACTOR SHALL USE CONSTRUCTION INFORMATION SIGNING AS SHOWN IN THE PLAN WHICH ARE TO BE USED AS FOLLOWS:
2. IF CONSTRUCTION INFORMATION SIGNING IS NO LONGER VISIBLE TO THE MOTORING PUBLIC ONCE WORK BEGINS, MOVE SAID SIGNING TO A SITE IN ADVANCE OF THE WORK ZONE OR CLOSURE AS SHOWN IN THE PLAN OR APPROVED BY THE ENGINEER.

DEVICES & SYMBOLS LEGEND

SYMBOL	DESCRIPTION
	WORK AREA / CONSTRUCT UNDER TRAFFIC
⊢	TRAFFIC CONTROL SIGN
⌴	TYPE III BARRICADE =
Ⓕ	TYPE A FLASHING WARNING LIGHT

INDEX

TRAFFIC CONTROL

SHEET NO.	DESCRIPTIONS
37	TEMPORARY TRAFFIC CONTROL TITLE SHEET
38	AREA 1 TRAFFIC CONTROL
39	AREA 2 & 3 TRAFFIC CONTROL
40	AREA 4 TRAFFIC CONTROL

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UPDATED 12/20/2021

WSB PROJECT NO.: 022066-000

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PLAN BY: AJF | CHECK BY: NEH

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

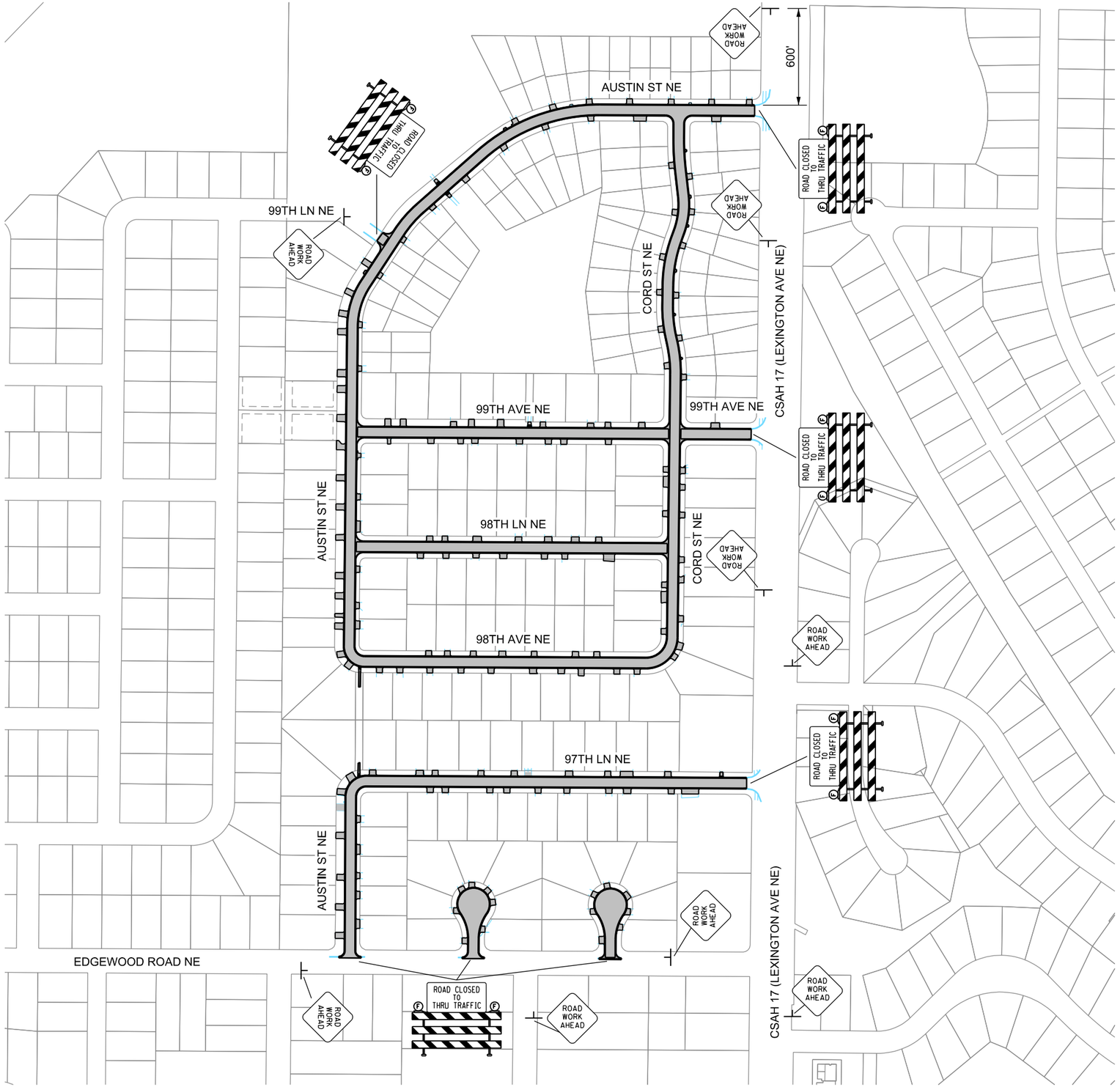
SOUTHEAST AREA RECONSTRUCTION

CONSTRUCTION STAGING & TRAFFIC CONTROL

CITY PROJECT 23-08

SHEET **37** OF **230** SHEETS

AREA 1



GENERAL NOTES

1. SEE SPECIFICATIONS FOR CONSTRUCTION STAGING REQUIREMENTS.
2. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENTIAL PROPERTIES AT ALL TIMES WITHIN THE CONSTRUCTION LIMITS.
3. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
4. ROAD CLOSURES AND ADDITIONAL TRAFFIC CONTROL MEASURES MAY BE REQUIRED DURING UTILITY CONSTRUCTION IN LOCALIZED AREAS. THESE MEASURES SHALL BE INCLUDED IN THE LUMP SUM UNIT PRICE FOR TRAFFIC CONTROL.
5. FINAL TRAFFIC CONTROL PLAN SUBMITTED BY THE CONTRACTOR SHALL REFLECT CONSTRUCTION STAGING.
6. EXISTING STOP AND YIELD SIGNS TO REMAIN IN PLACE UNTIL NEW SIGNS ARE INSTALLED.

N

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SOUTHEAST AREA RECONSTRUCTION

CONSTRUCTION STAGING & TRAFFIC CONTROL

CITY PROJECT 23-08

SHEET **38** OF **230** SHEETS

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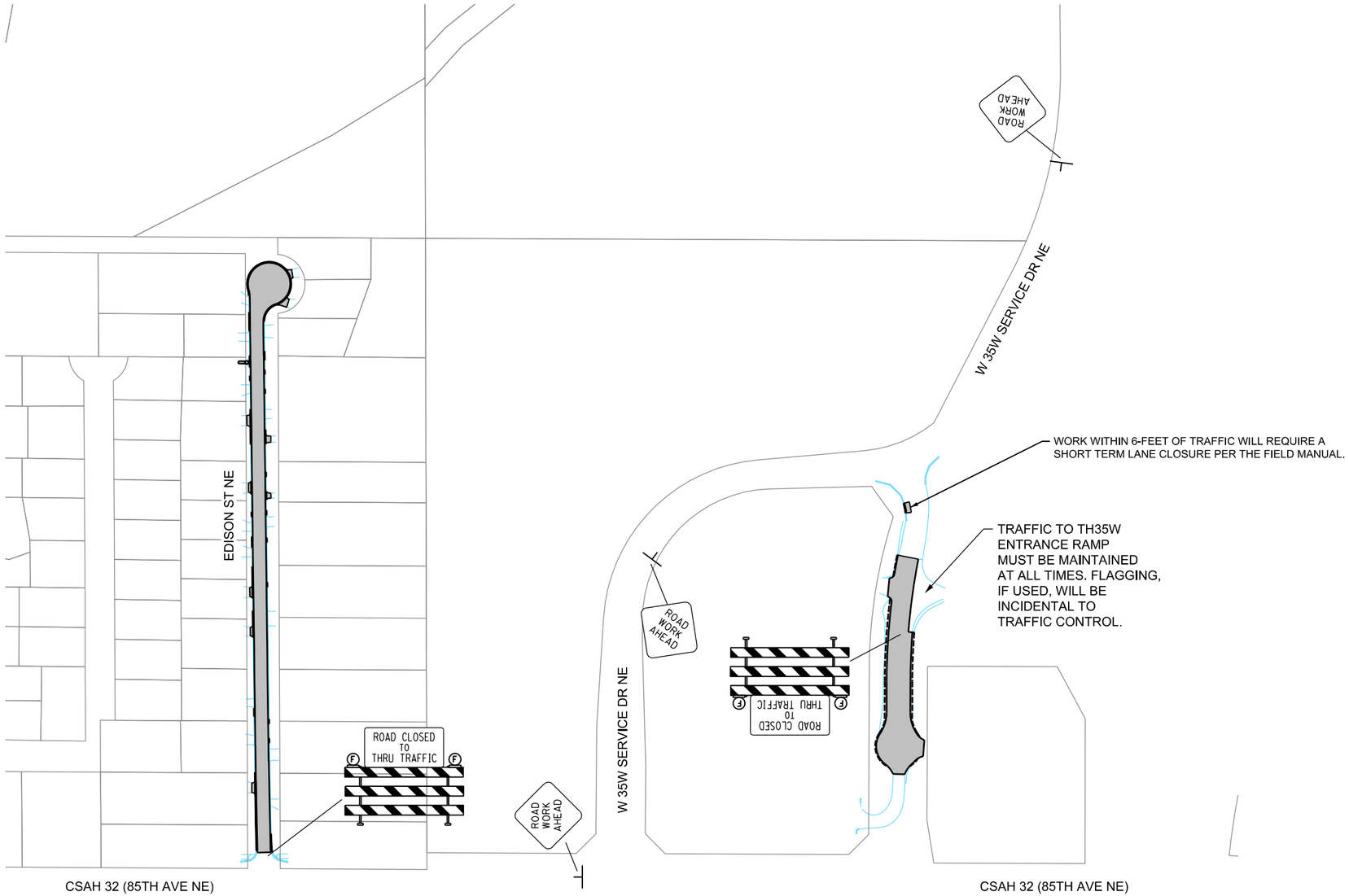
AREA 2 & AREA 3



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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CONSTRUCTION STAGING & TRAFFIC CONTROL

CITY PROJECT 23-08

SHEET **39** OF **230** SHEETS

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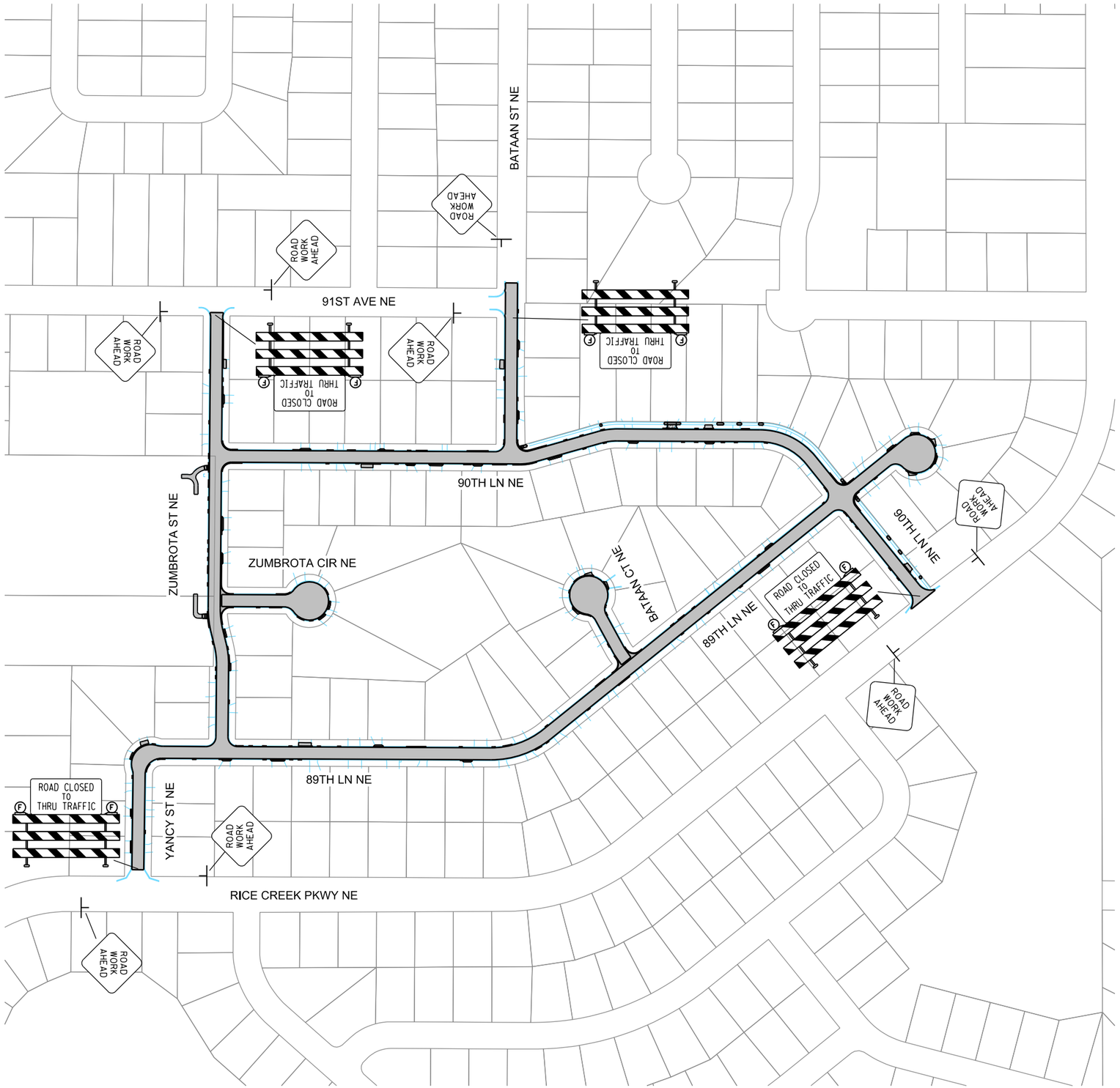
AREA 4



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NICHOLAS E. HENTGES, PE

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CONSTRUCTION STAGING & TRAFFIC CONTROL

CITY PROJECT 23-08

SHEET **40** OF **230** SHEETS

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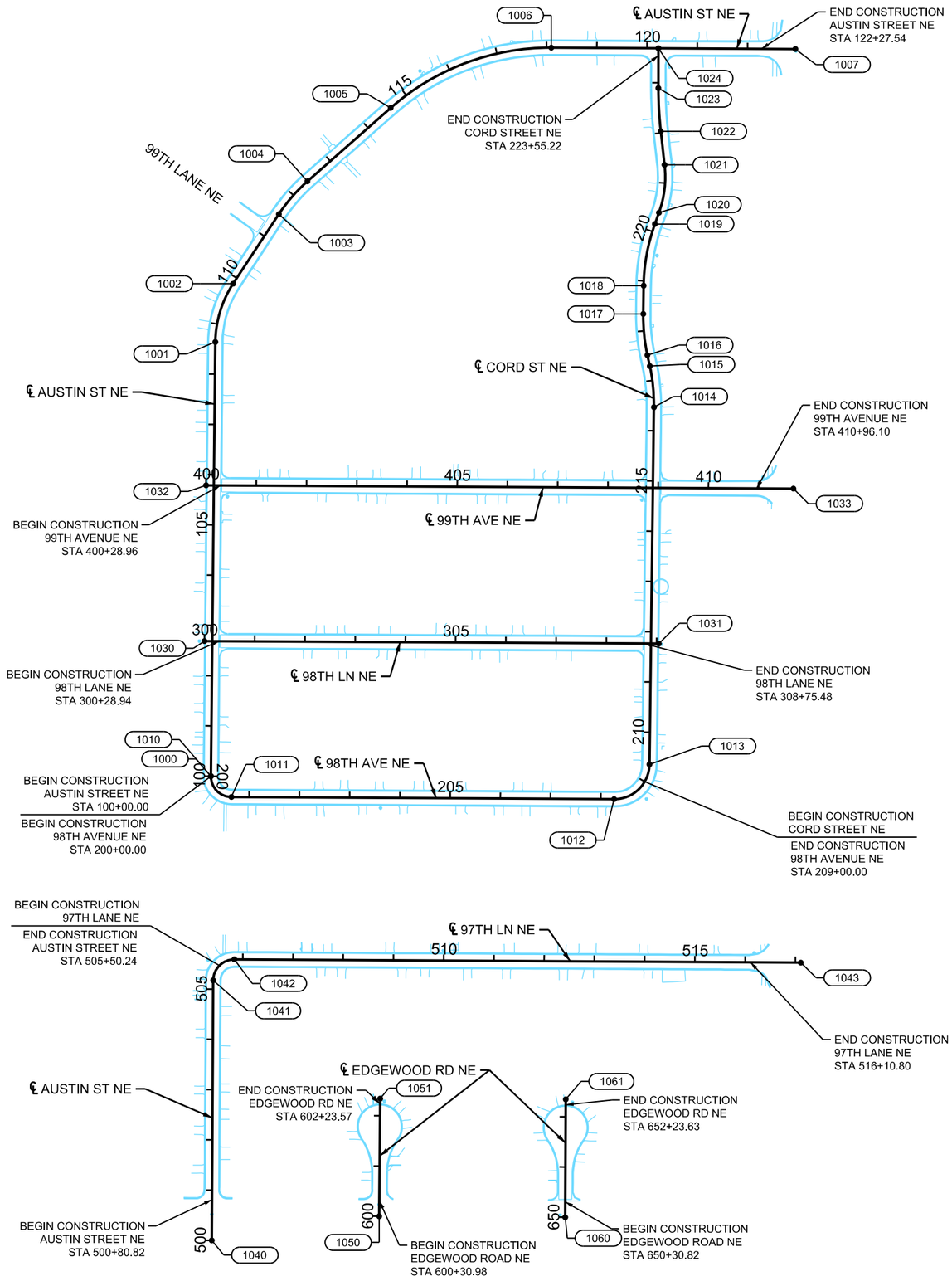
AREA 1



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HORIZONTAL CONTROL FOR THIS PLAN IS ANOKA COUNTY COORDINATE SYSTEM, NAD 83 (1996 ADJUSTMENT)

LEGEND

XXXX — POINT NUMBER (POINT DETAILS FOUND ON ALIGNMENT TABULATION SHEETS)

wsb

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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

ALIGNMENT PLAN

CITY PROJECT 23-08

SHEET **41** OF **230** SHEETS

AREA 1

ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	DELTA	DEGREE	RADIUS	TANGENT	LENGTH	COORDINATES X	COORDINATES Y	BEARING
		AUSTIN STREET NE <AUSTIN_ST>								
1000	POT	100+00.00						525,466.653	141,244.853	
1001	PC	108+63.901						525,475.503	142,108.708	N 0° 35' 13.0" E
		109+27.088	32° 45' 19.2" RT	26° 38' 57.1"	215.000'	63.187'	122.913'	525,476.150	142,171.892	PI
	CC							525,690.491	142,106.506	
1002	PT	109+86.814						525,510.880	142,224.678	N 33° 20' 32.2" E
1003	PC	111+52.482						525,601.937	142,363.077	N 33° 20' 32.2" E
		111+96.097	15° 17' 13.3" RT	17° 37' 46.1"	325.000'	43.615'	86.713'	525,625.910	142,399.514	PI
	CC							525,873.443	142,184.445	
1004	PT	112+39.195						525,658.641	142,428.341	N 48° 37' 45.4" E
1005	PC	114+60.180						525,824.480	142,574.396	N 48° 37' 45.4" E
		116+42.883	41° 40' 36.2" RT	11° 56' 11.8"	480.000'	182.703'	349.150'	525,961.589	142,695.150	PI
	CC							526,141.726	142,214.181	
1006	PT	118+09.331						526,144.289	142,694.174	S 89° 41' 38.3" E
1007	POT	122+95.36						526,630.314	142,691.578	
		98TH AVENUE NE & CORD STREET NE <CORD_ST>								
1010	PC	200+00.000						525,466.653	141,244.853	S 0° 35' 13.0" W
	PI	200+41.189	90° 15' 50.2" LT	139° 44' 44.9"	41.000'	41.189'	64.592'	525,466.231	141,203.665	PI
	CC							525,507.651	141,244.433	
1011	PT	200+64.592						525,507.420	141,203.433	S 89° 40' 37.2" E
1012	PC	208+26.484						526,269.300	141,199.138	S 89° 40' 37.2" E
	PI	208+96.002	89° 36' 13.4" LT	81° 51' 04.0"	70.000'	69.518'	109.472'	526,338.817	141,198.746	PI
	CC							526,269.695	141,269.137	
1013	PT	209+35.956						526,339.689	141,268.258	N 0° 43' 09.4" E
1014	PC	216+46.684						526,348.611	141,978.930	N 0° 43' 09.4" E
	PI	216+88.126	12° 57' 19.5" LT	15° 41' 50.9"	365.000'	41.443'	82.532'	526,349.131	142,020.370	PI
	CC							525,983.640	141,983.512	
1015	PT	217+29.216						526,340.348	142,060.871	N 12° 14' 10.1" W
1016	PC	217+51.397						526,335.647	142,082.549	N 12° 14' 10.1" W
	PI	217+92.855	12° 57' 36.6" RT	15° 41' 50.9"	365.000'	41.458'	82.562'	526,326.860	142,123.065	PI
	CC							526,692.355	142,159.908	
1017	PT	218+33.960						526,327.384	142,164.520	N 0° 43' 26.5" E
1018	PC	218+90.215						526,328.095	142,220.771	N 0° 43' 26.5" E
	PI	219+53.455	19° 08' 40.5" RT	15° 16' 43.9"	375.000'	63.240'	125.301'	526,328.894	142,284.006	PI
	CC							526,703.065	142,216.033	
1019	PT	220+15.516						526,350.387	142,343.482	N 19° 52' 06.9" E
1020	PC	220+39.585						526,358.567	142,366.118	N 19° 52' 06.9" E
	PI	220+88.697	26° 19' 34.0" LT	27° 17' 01.3"	210.000'	49.112'	96.490'	526,375.258	142,412.306	PI
	CC							526,161.067	142,437.489	
1021	PT	221+36.075						526,369.735	142,461.107	N 6° 27' 27.0" W
1022	PC	222+03.090						526,362.198	142,527.696	N 6° 27' 27.0" W
	PI	222+46.207	6° 34' 50.3" RT	7° 38' 22.0"	750.000'	43.118'	86.140'	526,357.349	142,570.540	PI
	CC							527,107.440	142,612.046	
1023	PT	222+89.230						526,357.442	142,613.658	N 0° 07' 23.3" E
1024	POT	223+68.61						526,357.612	142,693.035	

NOTES:

<XXXX> INDICATES GEOPAK ALIGNMENT NAMES.

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NICHOLAS E. HENTGES, PE | LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

ALIGNMENT PLAN

CITY PROJECT 23-08

SHEET **42** OF **230** SHEETS

AREA 1

ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	DELTA	DEGREE	RADIUS	TANGENT	LENGTH	COORDINATES X	COORDINATES Y	BEARING
		98TH LANE NE <98TH_LN>								
1030	POT	300+00.00						525,453.852	141,513.547	
1031	POT	309+04.58						526,358.416	141,508.627	
		99TH AVENUE NE <98TH_AVE>								
1032	POT	400+00.00						525,457.015	141,823.690	
1033	POT	411+69.22						526,626.215	141,816.979	
		AUSTIN STREET NE & 97TH LANE NE <97TH_LN>								
1040	POT	500+00.00						525,468.300	140,321.296	
1041	PC	505+17.247						525,471.073	140,838.537	N 0° 18' 25.7" E
	PI	505+59.262	90° 01' 11.2" RT	136° 25' 06.7"	42.000'	42.014'	65.988'	525,471.298	140,880.550	PI
	CC							525,513.072	140,838.311	
1042	PT	505+83.235						525,513.312	140,880.311	S 89° 40' 23.1" E
1043	POT	517+10.80						526,640.861	140,873.877	
		EDGEWOOD ROAD NE CUL-DE-SAC #4023-#4083 <EDGEWOOD_CT_1>								
1050	POT	600+00.00						525,801.718	140,369.303	
1051	POT	602+34.11						525,803.566	140,603.405	
		EDGEWOOD ROAD NE CUL-DE-SAC #4103-#4163 <EDGEWOOD_CT_2>								
1060	POT	650+00.00						526,171.887	140,367.287	
1061	POT	652+34.64						526,173.132	140,601.927	

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SOUTHEAST AREA RECONSTRUCTION

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CITY PROJECT 23-08

SHEET **43** OF **230** SHEETS

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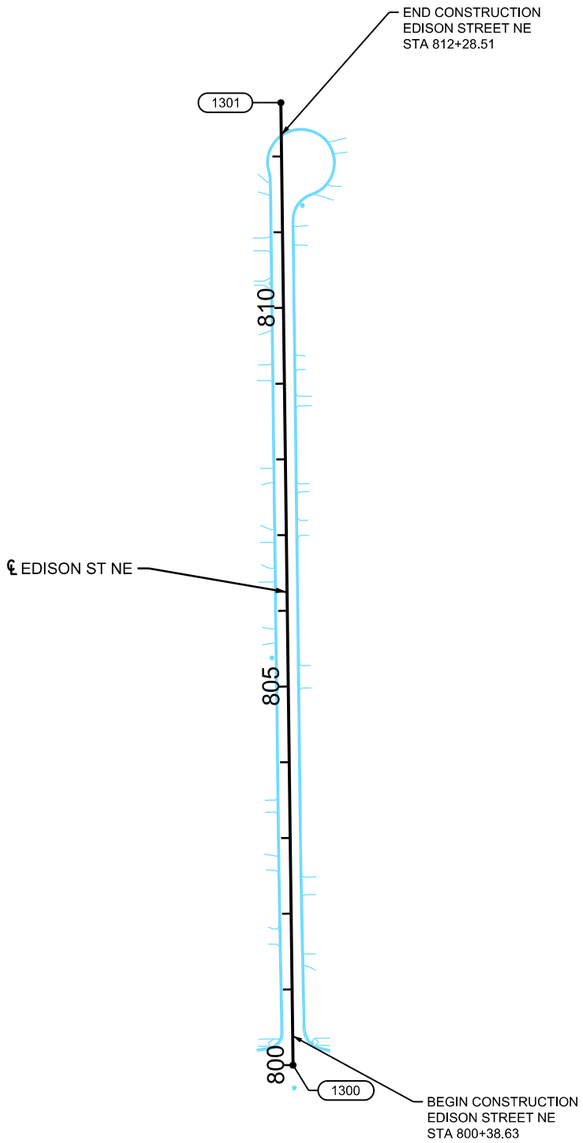
AREA 3



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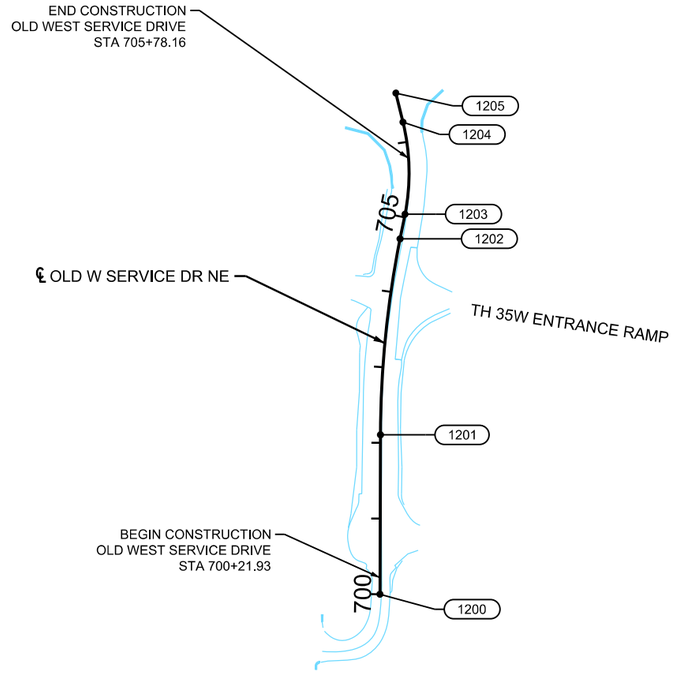

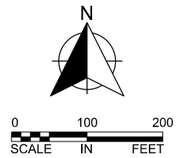

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NAD 83 (1996 ADJUSTMENT)

LEGEND

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CITY PROJECT 23-08

SHEET **44** OF **230** SHEETS

AREA 2 & AREA 3

ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	DELTA	DEGREE	RADIUS	TANGENT	LENGTH	COORDINATES X	COORDINATES Y	BEARING
OLD WEST SERVICE DRIVE <SERVICE_DR>										
1200	POT	700+00.00						519,598.306	132,715.033	
1201	PC	702+10.517						519,598.934	132,925.549	N 0° 10' 15.1" E
	PI	703+41.199	11° 05' 56.4" RT	4° 15' 35.7"	1,345.000'	130.682'	260.545'	519,599.324	133,056.230	PI
	CC							520,943.928	132,921.538	
1202	PT	704+71.062						519,624.863	133,184.392	N 11° 16' 11.5" E
1203	PC	705+04.237						519,631.346	133,216.927	N 11° 16' 11.5" E
	PI	705+66.498	25° 04' 21.1" LT	20° 27' 46.0"	280.000'	62.260'	122.527'	519,643.514	133,277.986	PI
	CC							519,356.745	133,271.647	
1204	PT	706+26.765						519,628.660	133,338.449	N 13° 48' 09.6" W
1205	POT	706+66.24						519,619.241	133,376.788	
EDISON STREET NE <EDISON_ST>										
1300	POT	800+00.00						518,311.989	132,539.568	
1301	POT	812+71.00						518,296.004	133,810.467	

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CITY OF BLAINE, MN

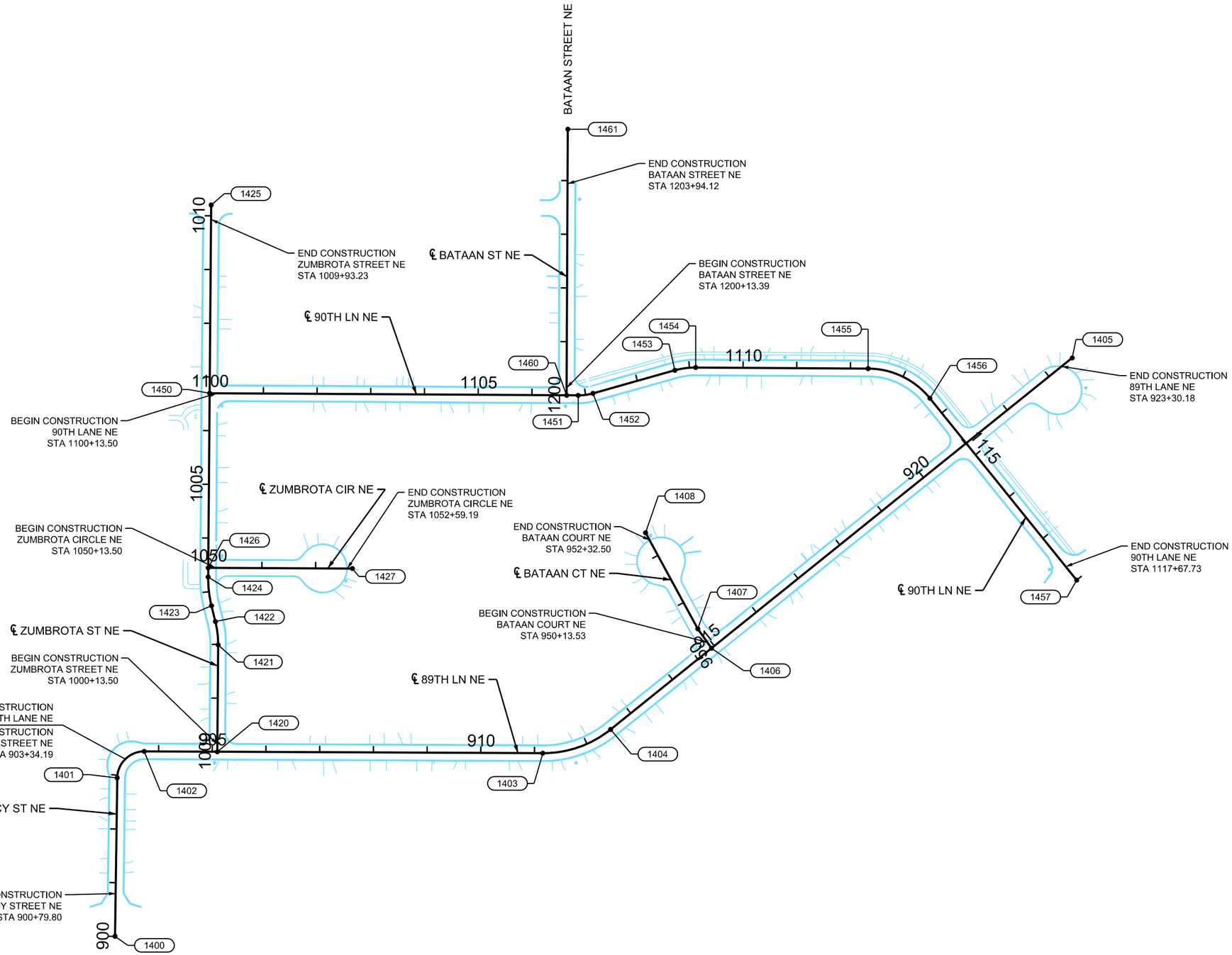
SOUTHEAST AREA RECONSTRUCTION

ALIGNMENT PLAN

CITY PROJECT 23-08

SHEET **45** OF **230** SHEETS

AREA 4



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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

ALIGNMENT PLAN

CITY PROJECT 23-08

SHEET **46** OF **230** SHEETS

AREA 4

ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	DELTA	DEGREE	RADIUS	TANGENT	LENGTH	COORDINATES X	COORDINATES Y	BEARING
		YANCY STREET NE, 89TH LANE NE, & 89TH COURT NE <89TH_LN>								
1400	POT	900+00.00						516,463.450	135,132.151	
1401	PC	902+95.151						516,467.541	135,427.273	N 0° 47' 39.1" E
	PI	903+44.686	89° 27' 52.2" RT	114° 35' 29.6"	50.000'	49.535'	78.073'	516,468.228	135,476.804	PI
	CC							516,517.536	135,426.580	
1402	PT	903+73.223						516,517.762	135,476.580	S 89° 44' 28.7" E
1403	PC	911+15.383						517,259.914	135,473.229	S 89° 44' 28.7" E
	PI	911+86.404	39° 06' 02.9" LT	28° 38' 52.4"	200.000'	71.022'	136.488'	517,330.935	135,472.908	PI
	CC							517,260.817	135,673.227	
1404	PT	912+51.870						517,386.252	135,517.452	N 51° 09' 28.4" E
1405	POT	923+55.40						518,245.766	136,209.560	
		BATAAN COURT NE <BATAAN_CT>								
1406	POT	950+00.00						517,574.134	135,668.740	
1407	POT	950+44.21						517,548.662	135,704.869	
1408	POT	952+48.01						517,451.244	135,883.879	
		ZUMBROTA STREET NE <ZUMBROTA_ST>								
1420	POT	1000+00.00						516,653.768	135,475.966	
1421	PC	1001+99.016						516,655.471	135,674.975	N 0° 29' 25.2" E
	PI	1002+21.110	14° 23' 27.1" LT	32° 44' 25.6"	175.000'	22.093'	43.954'	516,655.660	135,697.068	PI
	CC							516,480.478	135,676.473	
1422	PT	1002+42.971						516,650.353	135,718.514	N 13° 54' 01.9" W
1423	PC	1002+73.369						516,643.050	135,748.022	N 13° 54' 01.9" W
	PI	1003+00.495	14° 22' 52.6" RT	26° 38' 57.1"	215.000'	27.125'	53.965'	516,636.533	135,774.353	PI
	CC							516,851.753	135,799.673	
1424	PT	1003+27.335						516,636.761	135,801.477	N 0° 28' 50.7" E
1425	POT	1010+20.21						516,642.574	136,494.331	
		ZUMBROTA CIRCLE NE <ZUMBROTA_CT>								
1426	POT	1050+00.00						516,636.904	135,818.582	
1427	POT	1052+68.42						516,905.320	135,817.300	

NOTES:

<XXXX> INDICATES GEOPAK ALIGNMENT NAMES.

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WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN
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PLAN BY: AJF
CHECK BY: NEH

REVISIONS

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NICHOLAS E. HENTGES, PE
LIC. NO: 44620
DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

ALIGNMENT PLAN

CITY PROJECT 23-08

SHEET **47** OF **230** SHEETS

AREA 4

ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	DELTA	DEGREE	RADIUS	TANGENT	LENGTH	COORDINATES X	COORDINATES Y	BEARING
		90TH LANE NE <90TH_LN>								
1450	POT	1100+00.00						516,639.632	136,143.722	
1451	PC	1106+86.164						517,325.785	136,139.771	S 89° 40' 12.4" E
	PI	1107+00.281	16° 04' 13.9" LT	57° 17' 44.8"	100.000'	14.117'	28.048'	517,339.902	136,139.690	PI
	CC							517,326.361	136,239.770	
1452	PT	1107+14.213						517,353.489	136,143.520	N 74° 15' 33.7" E
1453	PC	1108+72.511						517,505.851	136,186.463	N 74° 15' 33.7" E
	PI	1108+92.307	16° 05' 49.3" RT	40° 55' 32.0"	140.000'	19.797'	39.332'	517,524.906	136,191.834	PI
	CC							517,543.831	136,051.713	
1454	PT	1109+11.843						517,544.702	136,191.711	S 89° 38' 37.0" E
1455	PC	1112+32.882						517,865.735	136,189.714	S 89° 38' 37.0" E
	PI	1113+03.547	50° 44' 46.3" RT	38° 27' 12.8"	149.000'	70.665'	131.968'	517,936.398	136,189.274	PI
	CC							517,864.808	136,040.717	
1456	PT	1113+64.850						517,980.770	136,134.278	S 38° 53' 50.7" E
1457	POT	1118+00.72						518,254.463	135,795.055	
		BATAAN STREET NE <BATAAN_ST>								
1460	POT	1200+00.00						517,304.367	136,139.895	
1461	POT	1204+95.66						517,306.598	136,635.548	

NOTES:

<XXXX> INDICATES GEOPAK ALIGNMENT NAMES.

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WSB PROJECT NO.: 022066-000

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

ALIGNMENT PLAN

CITY PROJECT 23-08

SHEET **48** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:32:23 AM

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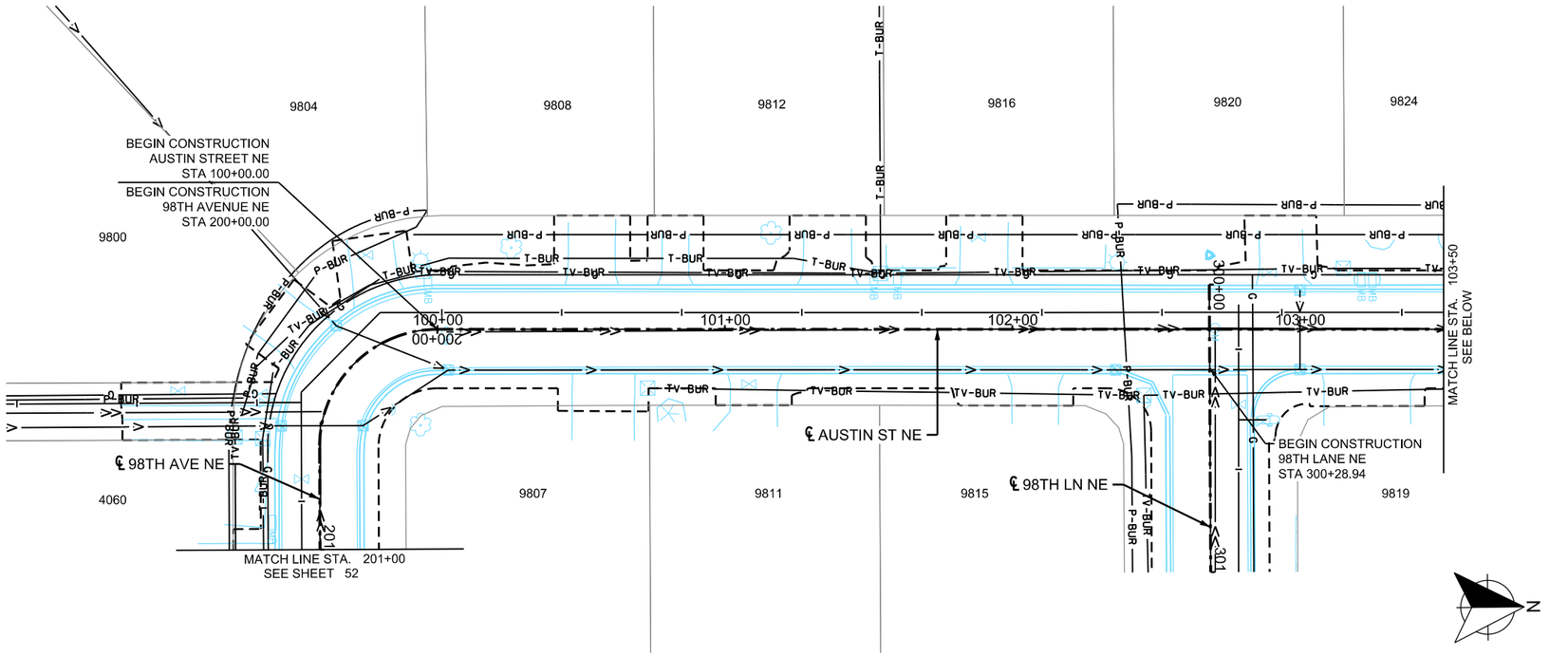
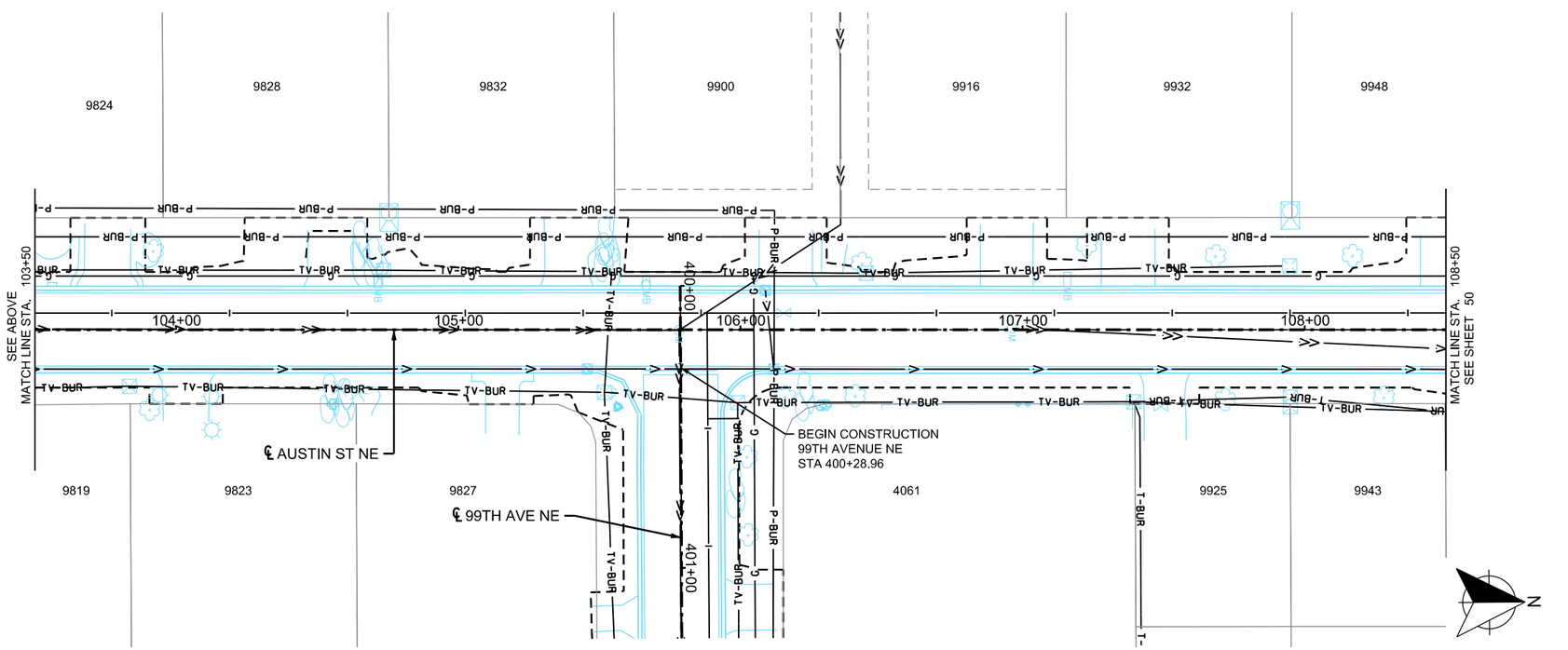
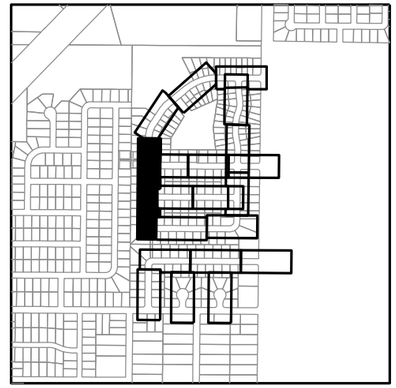
AUSTIN STREET NE





LOCATION MAP



LEGEND

- BURIED FIBER OPTIC LINE
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- BURIED SIGNAL LINE
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- GRADING LIMITS (APPROX)

GENERAL NOTES

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2. UTILITIES ARE SHOWN AT APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL DETERMINE THE ACTUAL LOCATION OF ALL BURIED UTILITIES IN THE FIELD.
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0 25 50
SCALE IN FEET

wsb

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PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HENTGES, PE
DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INPLACE TOPOGRAPHY & UTILITIES

CITY PROJECT 23-08

SHEET **49** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:32:23 AM

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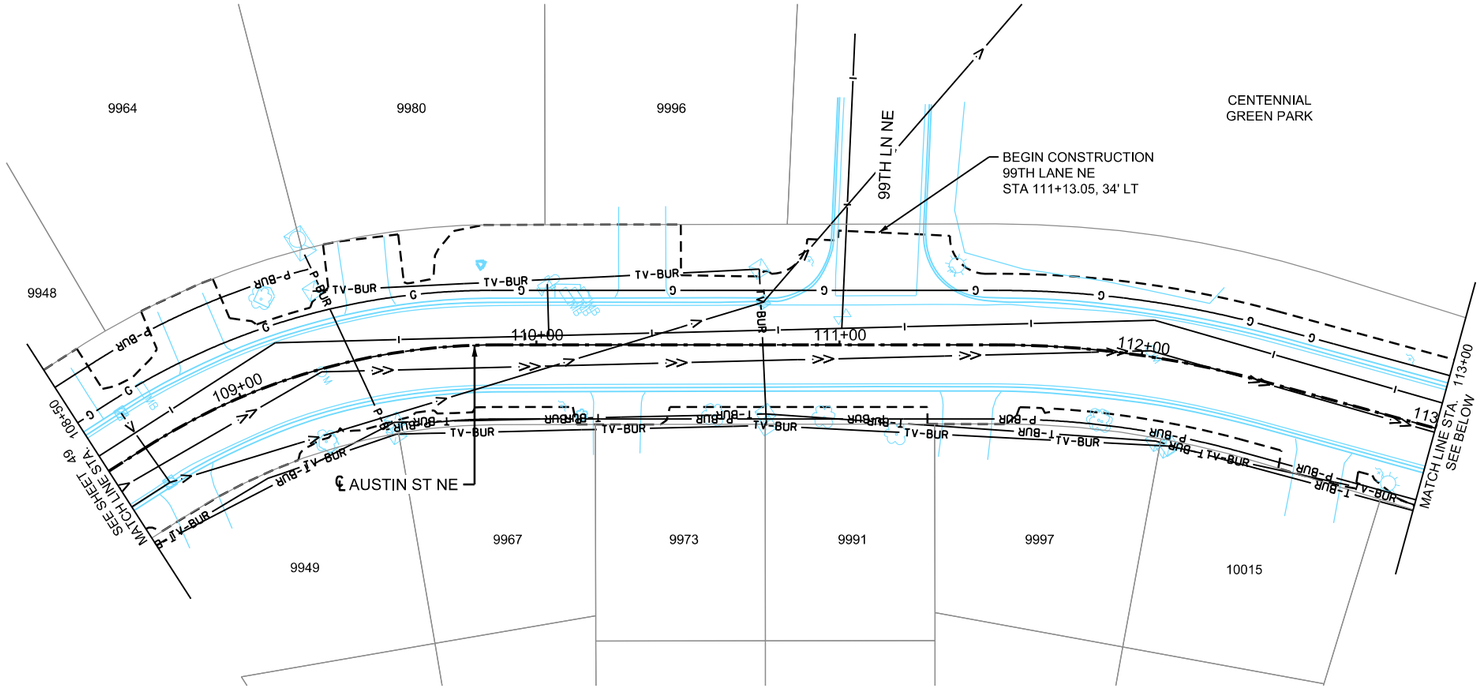
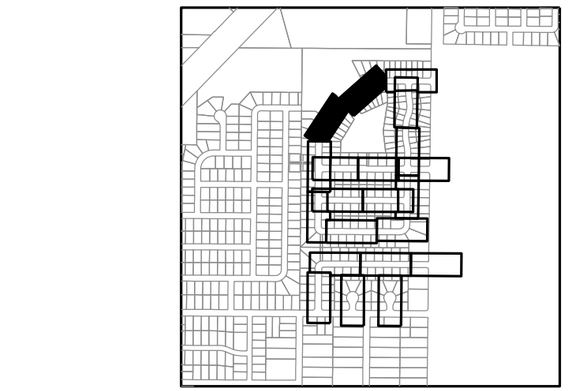
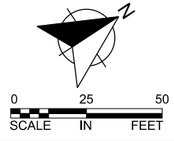
AUSTIN STREET NE







LEGEND

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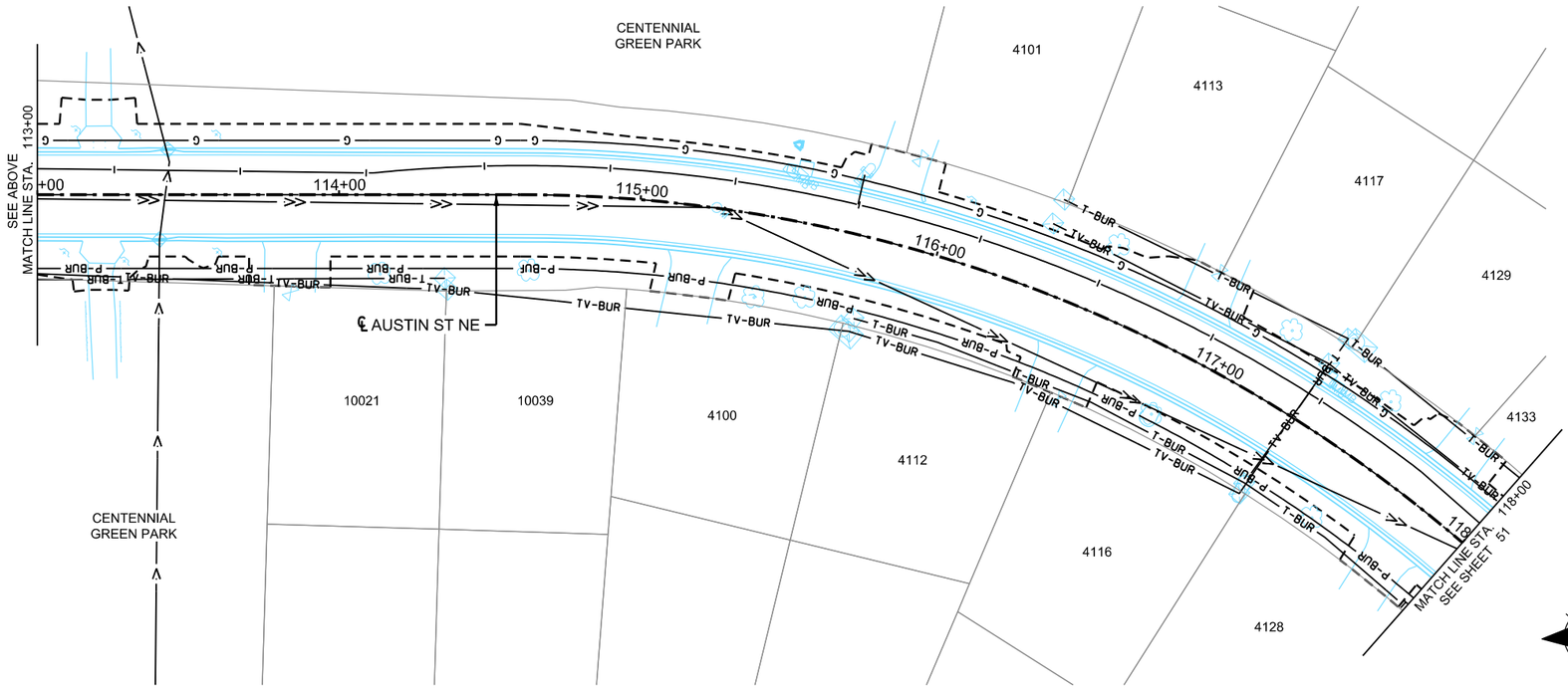
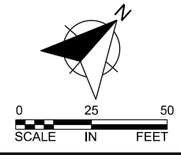
AUSTIN STREET NE





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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INPLACE TOPOGRAPHY & UTILITIES

CITY PROJECT 23-08

SHEET **50** OF **230** SHEETS

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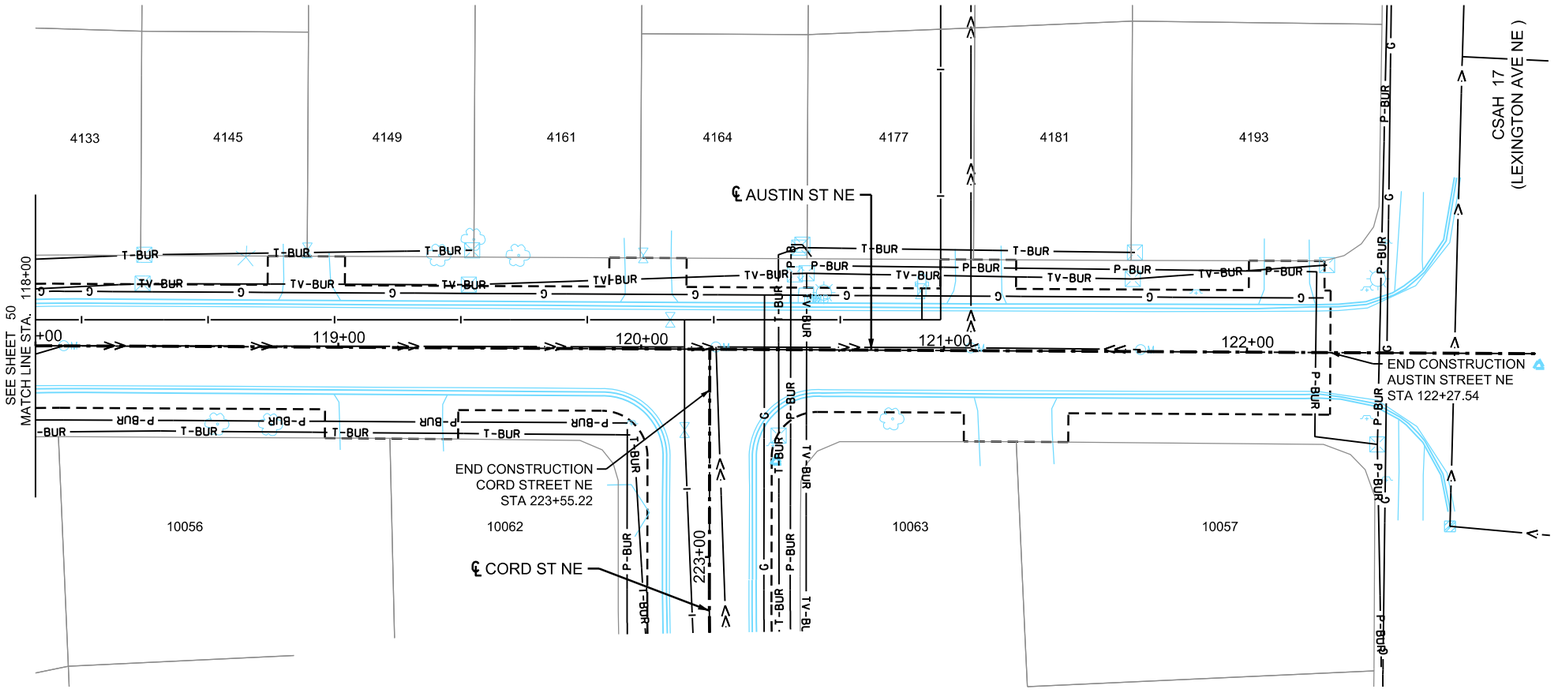
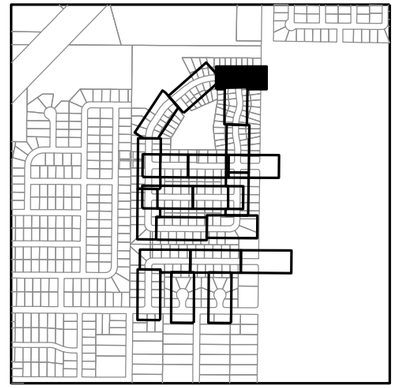
AUSTIN STREET NE



LOCATION MAP



LEGEND

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wsb

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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INPLACE TOPOGRAPHY & UTILITIES

CITY PROJECT 23-08

SHEET **51** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:32:25 AM

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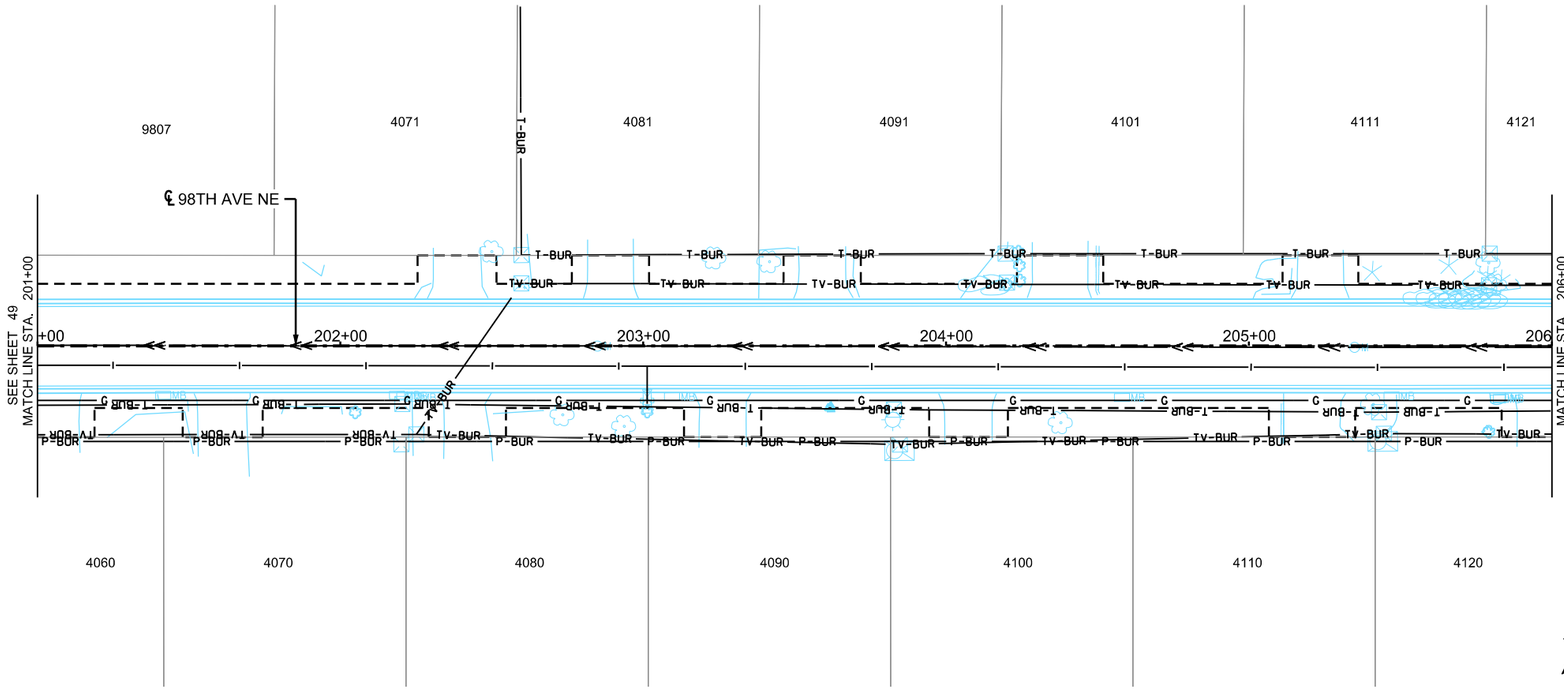
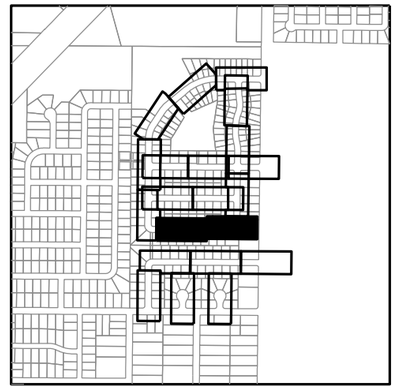
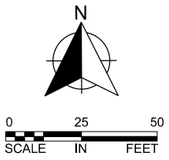
98TH AVENUE NE







LEGEND

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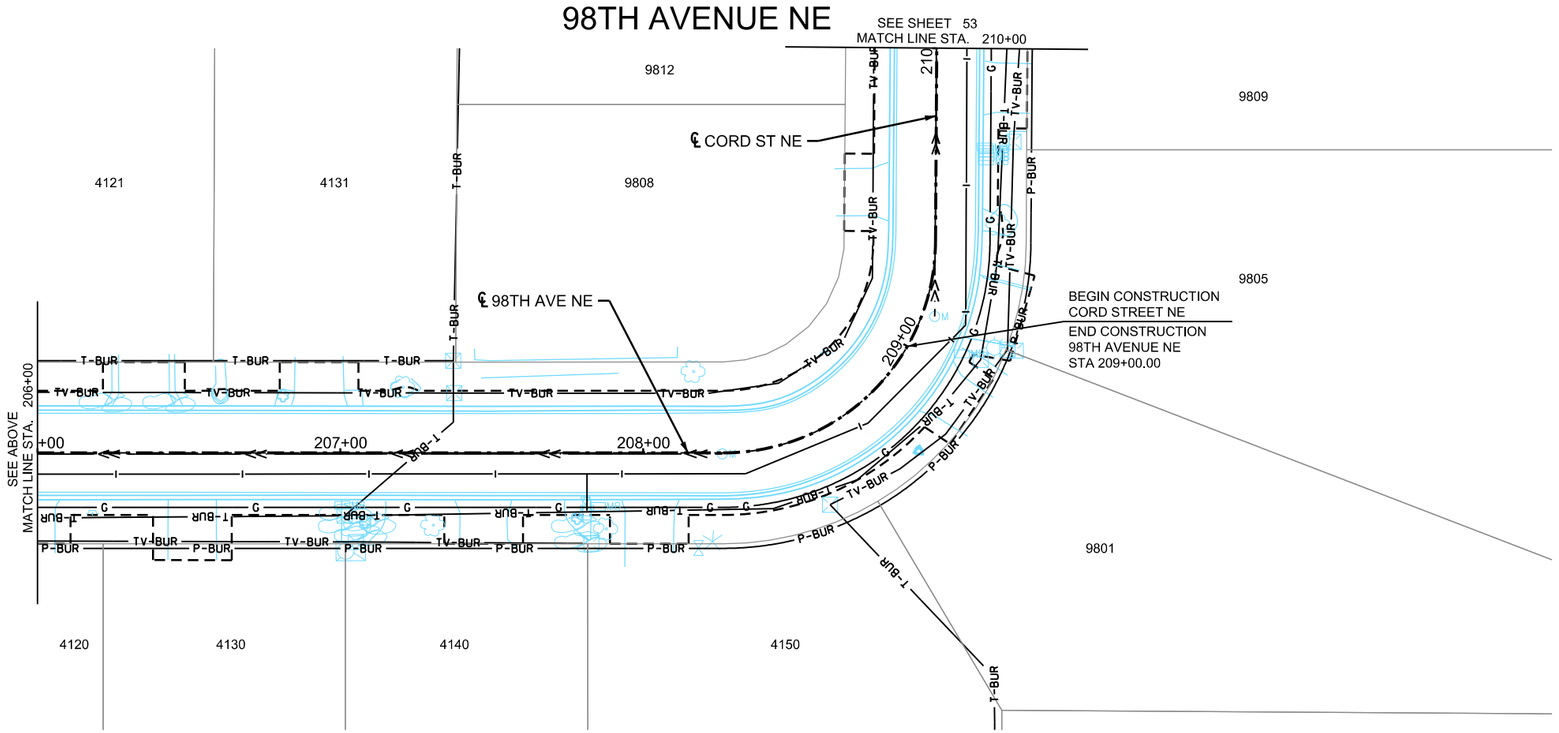
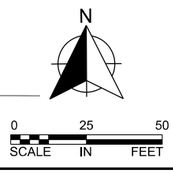
98TH AVENUE NE





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wsb

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INPLACE TOPOGRAPHY & UTILITIES

CITY PROJECT 23-08

SHEET **52** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:32:25 AM

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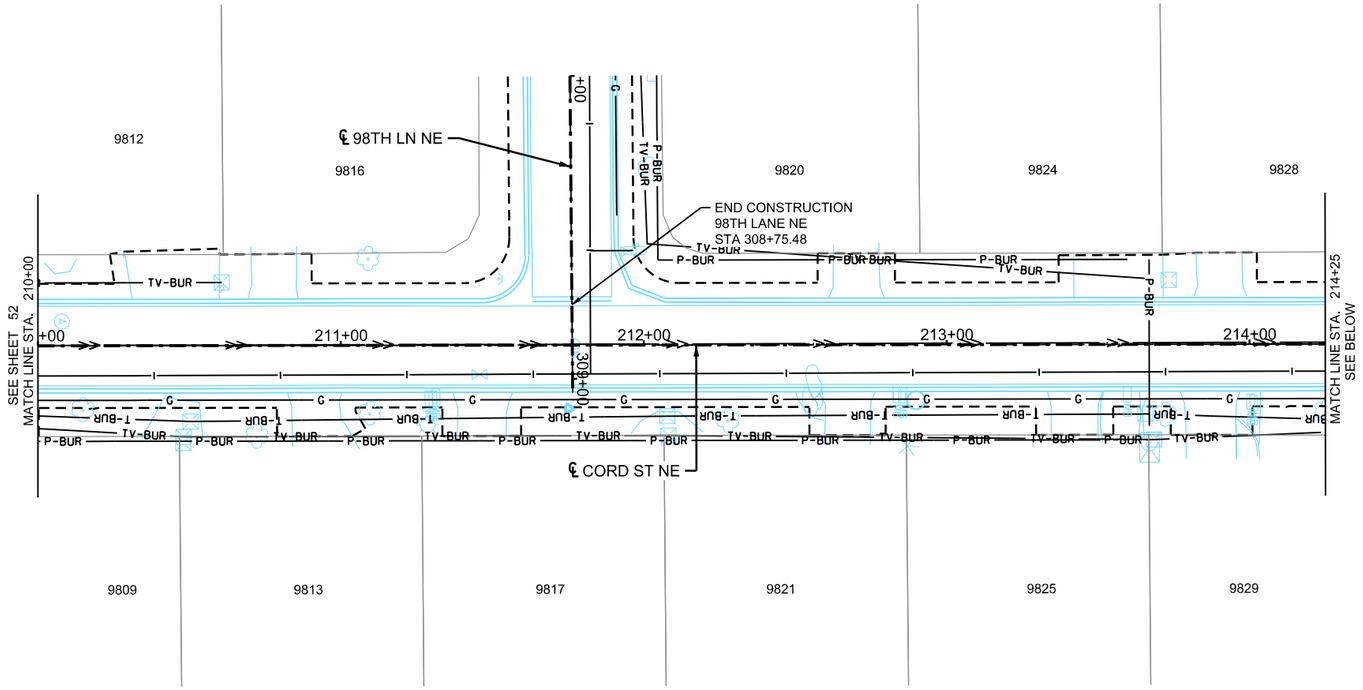
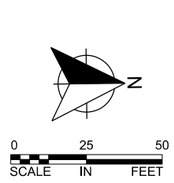
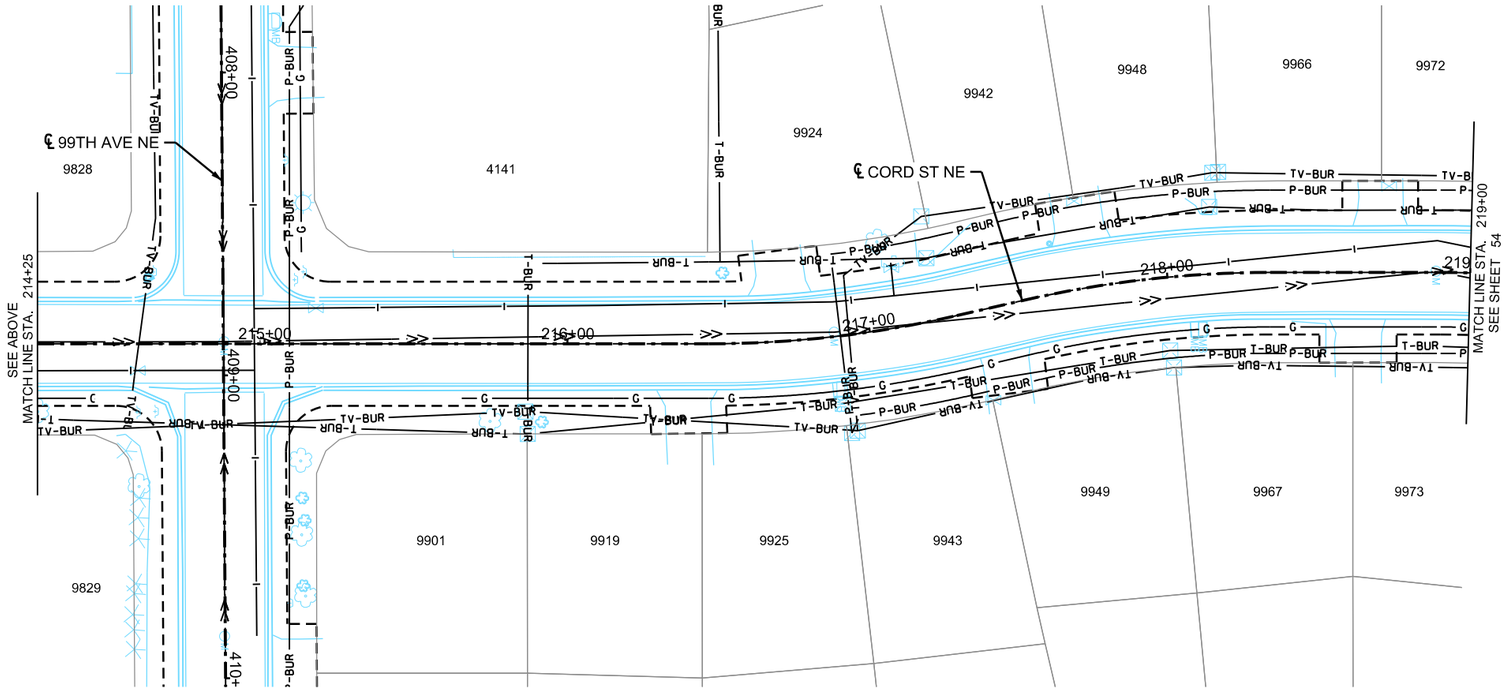
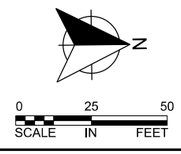
CORD STREET NE



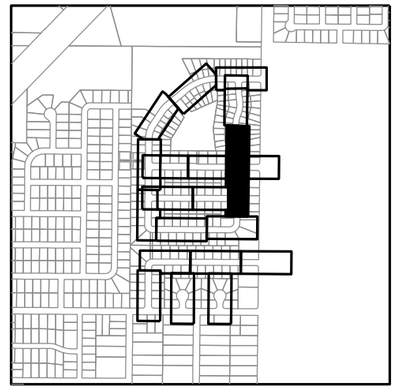


CORD STREET NE





LOCATION MAP



LEGEND

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wsb

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

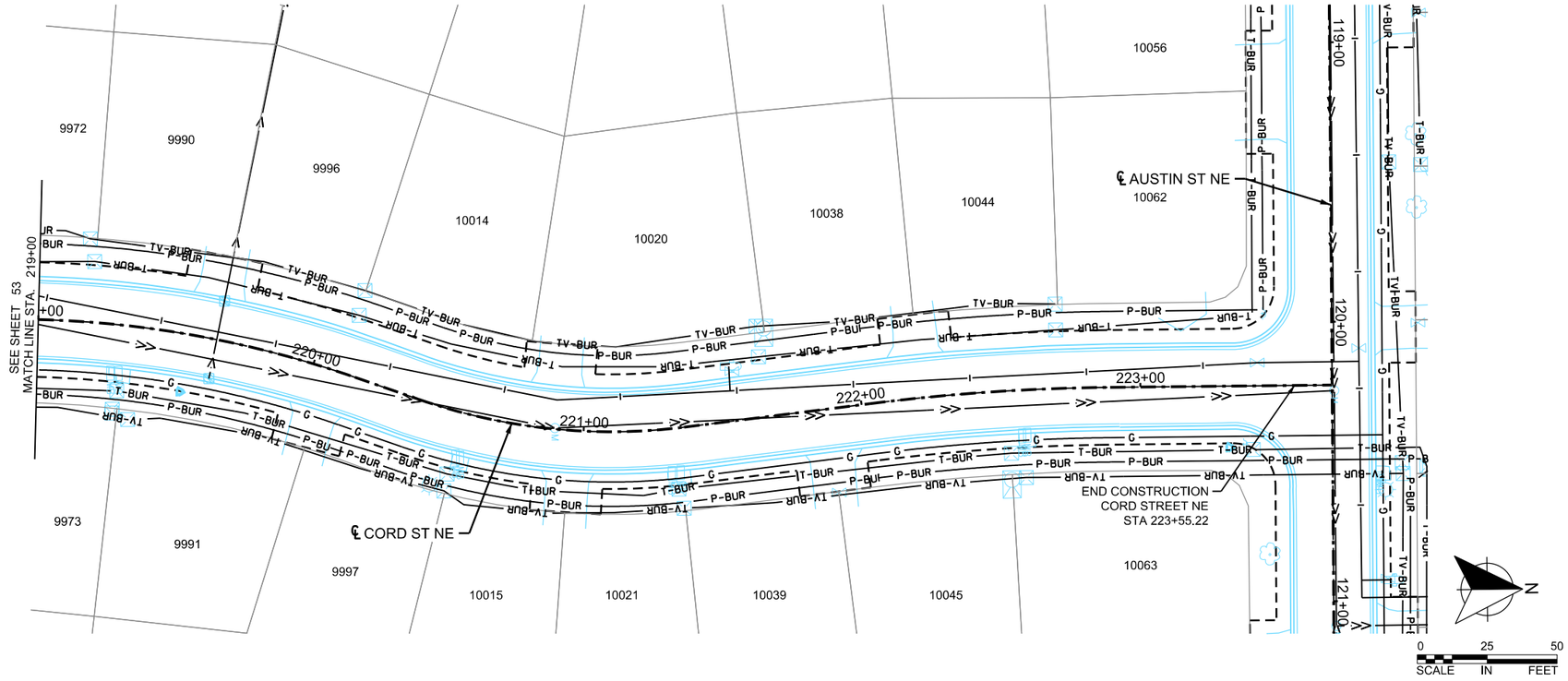
SOUTHEAST AREA RECONSTRUCTION

INPLACE TOPOGRAPHY & UTILITIES

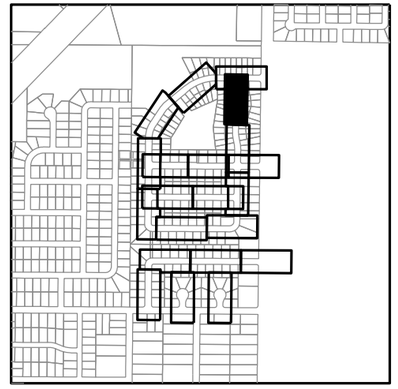
CITY PROJECT 23-08

SHEET **53** OF **230** SHEETS

CORD STREET NE



LOCATION MAP



LEGEND

- BURIED FIBER OPTIC LINE
- BURIED POWER LINE
- BURIED SIGNAL LINE
- BURIED TELEPHONE LINE
- BURIED TELEVISION LINE
- OVERHEAD POWER LINE
- OVERHEAD UTILITY LINE
- SANITARY SEWER
- STORM SEWER
- UNDERGROUND GAS MAIN / SERVICE UTILITY IN CONDUIT
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- CULVERT
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- HYDRANT
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- UTILITY PEDESTAL
- VALVE
- VEGITATION
- FENCE
- RETAINING WALL
- GRADING LIMITS (APPROX)

GENERAL NOTES

1. THE EXISTING SUBSURFACE UTILITY INFORMATION IS QUALITY LEVEL D IN ACCORDANCE WITH THE GUIDELINES OF CI/ASCE 38-02.
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wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INPLACE TOPOGRAPHY & UTILITIES

CITY PROJECT 23-08

SHEET **54** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:32:26 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-EXST-PLAN-06.dgn

PLOTTED/REVISED: 3/9/2023 11:32:27 AM

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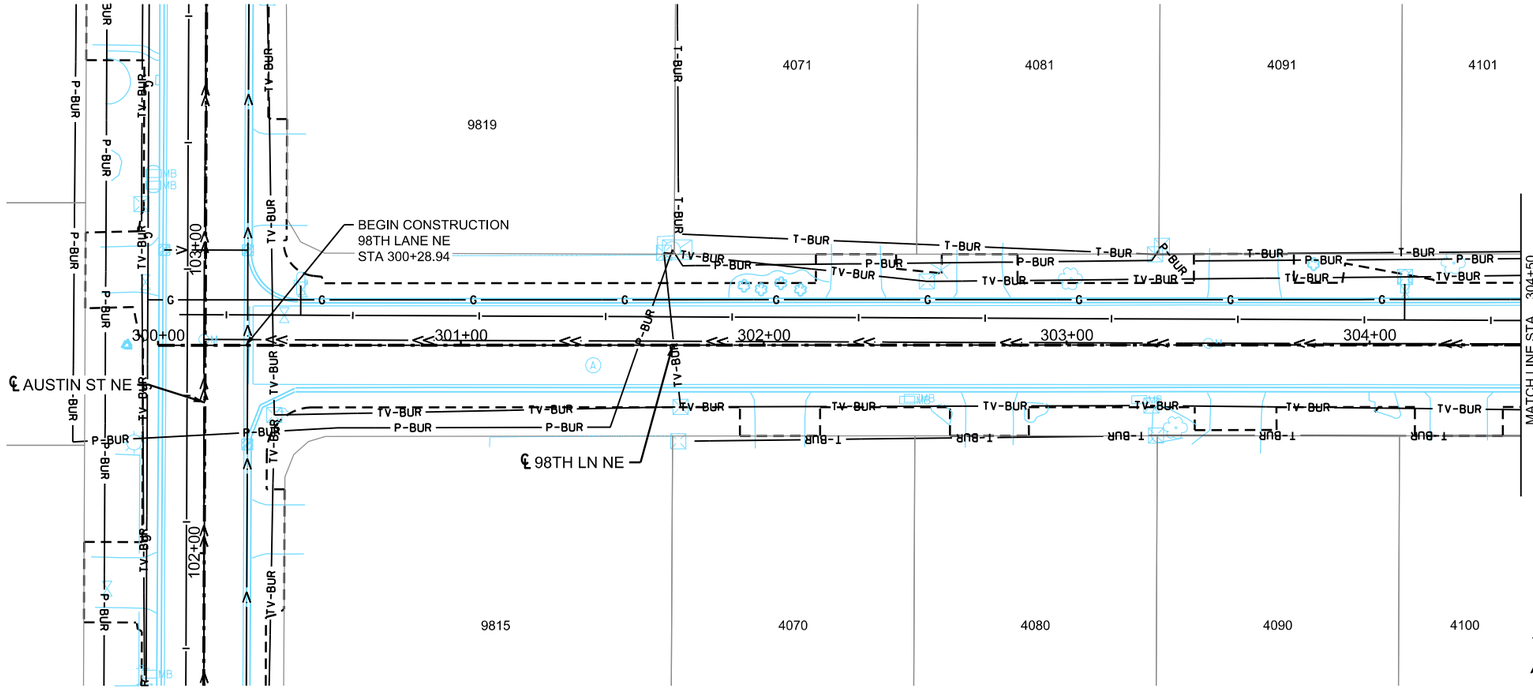
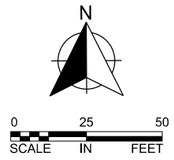
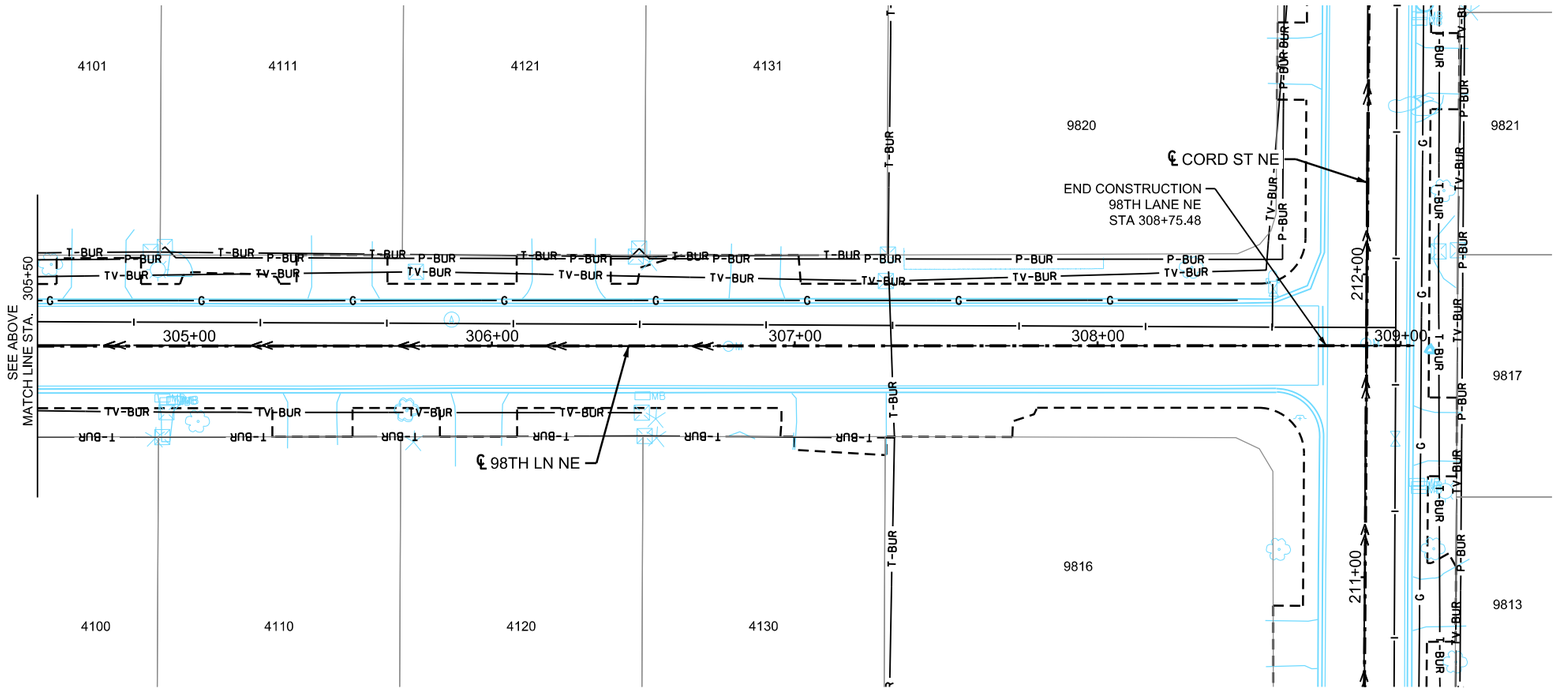
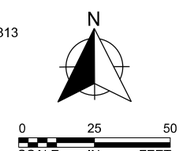
98TH LANE NE



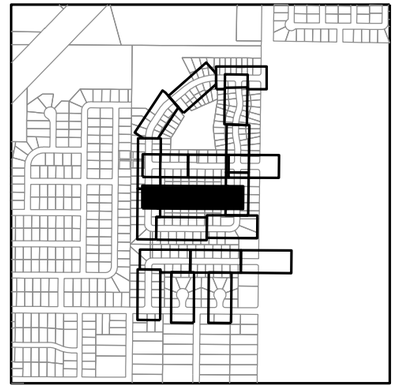


98TH LANE NE





LOCATION MAP



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wsb

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PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INPLACE TOPOGRAPHY & UTILITIES

CITY PROJECT 23-08

SHEET **55** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:32:27 AM

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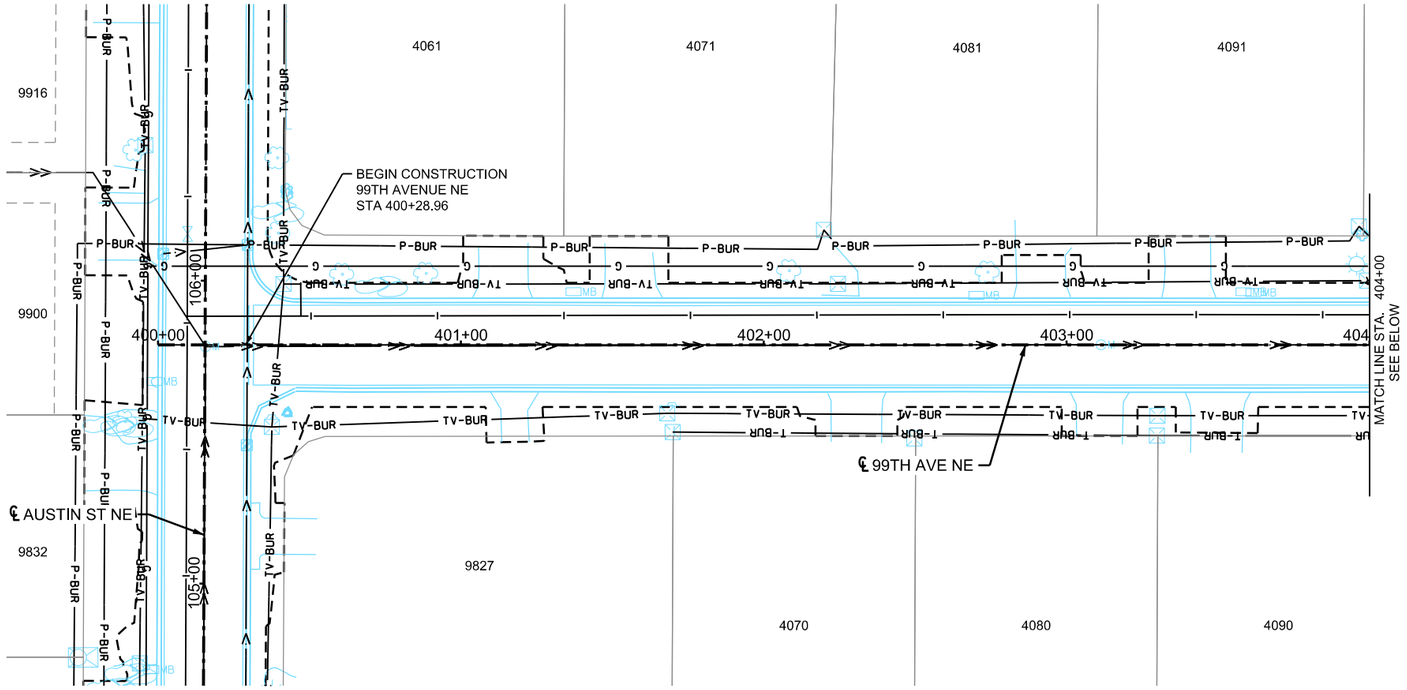
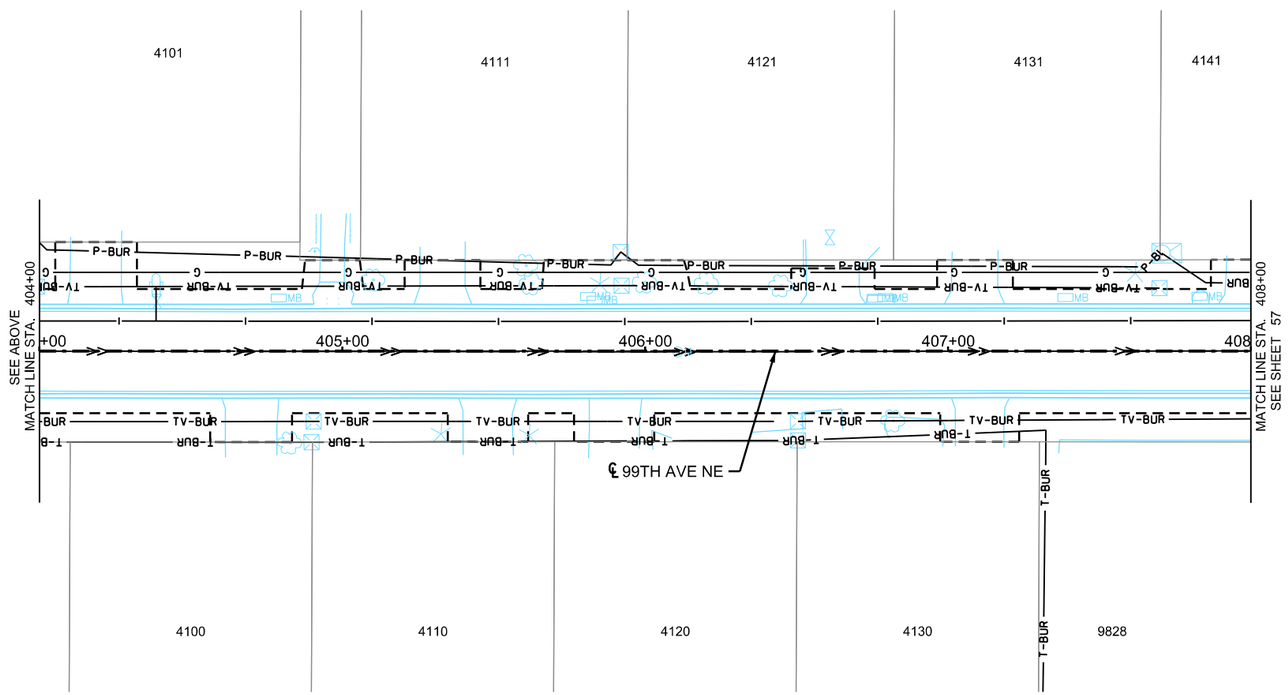
99TH AVENUE NE





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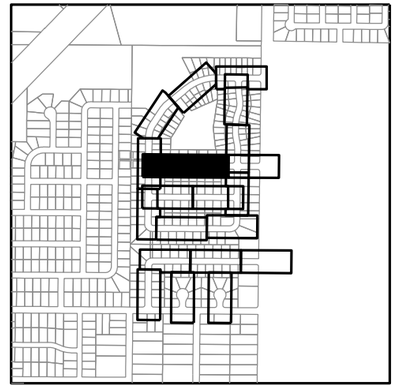
LOCATION MAP



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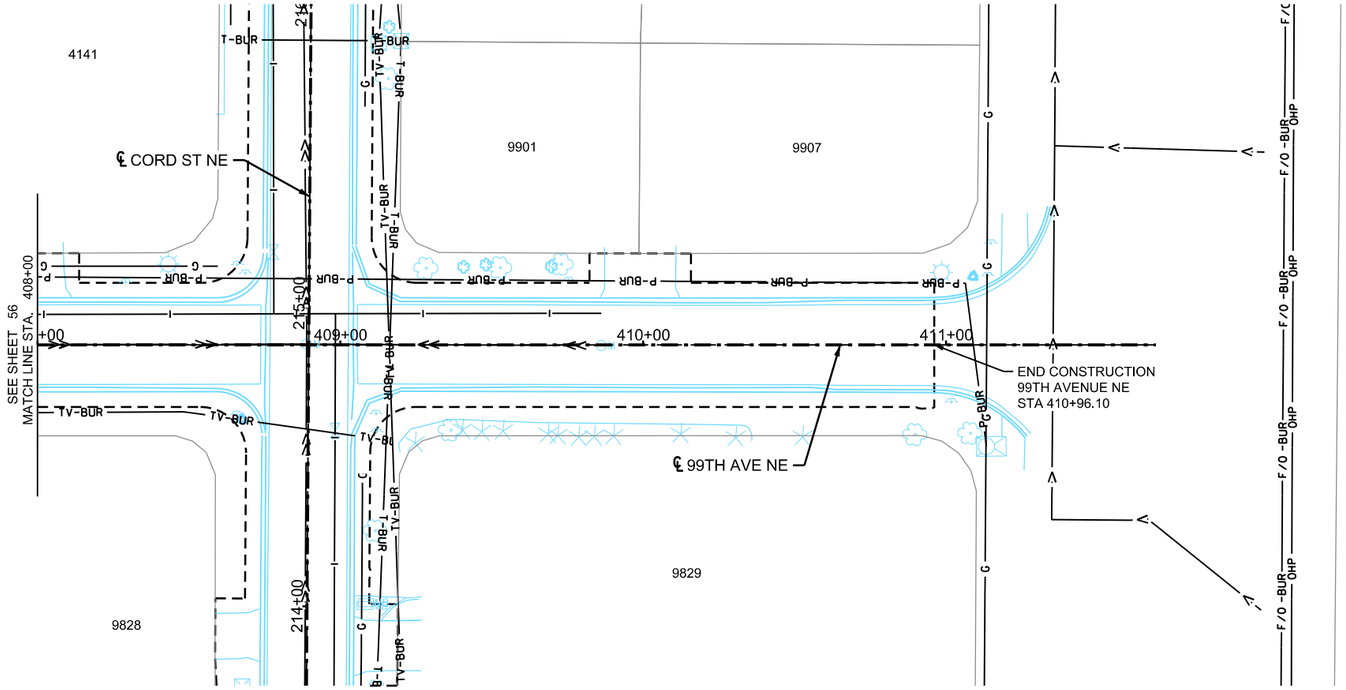
SOUTHEAST AREA RECONSTRUCTION

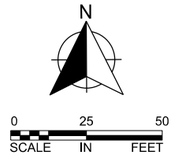
INPLACE TOPOGRAPHY & UTILITIES

CITY PROJECT 23-08

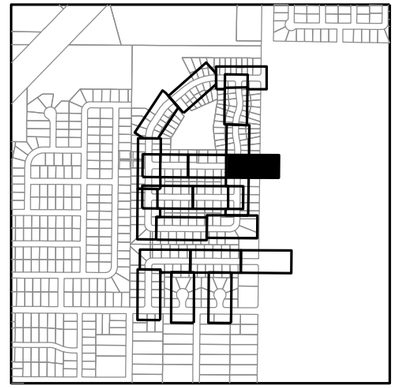
SHEET **56** OF **230** SHEETS

99TH AVENUE NE





LOCATION MAP



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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

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CITY PROJECT 23-08

SHEET **57** OF **230** SHEETS

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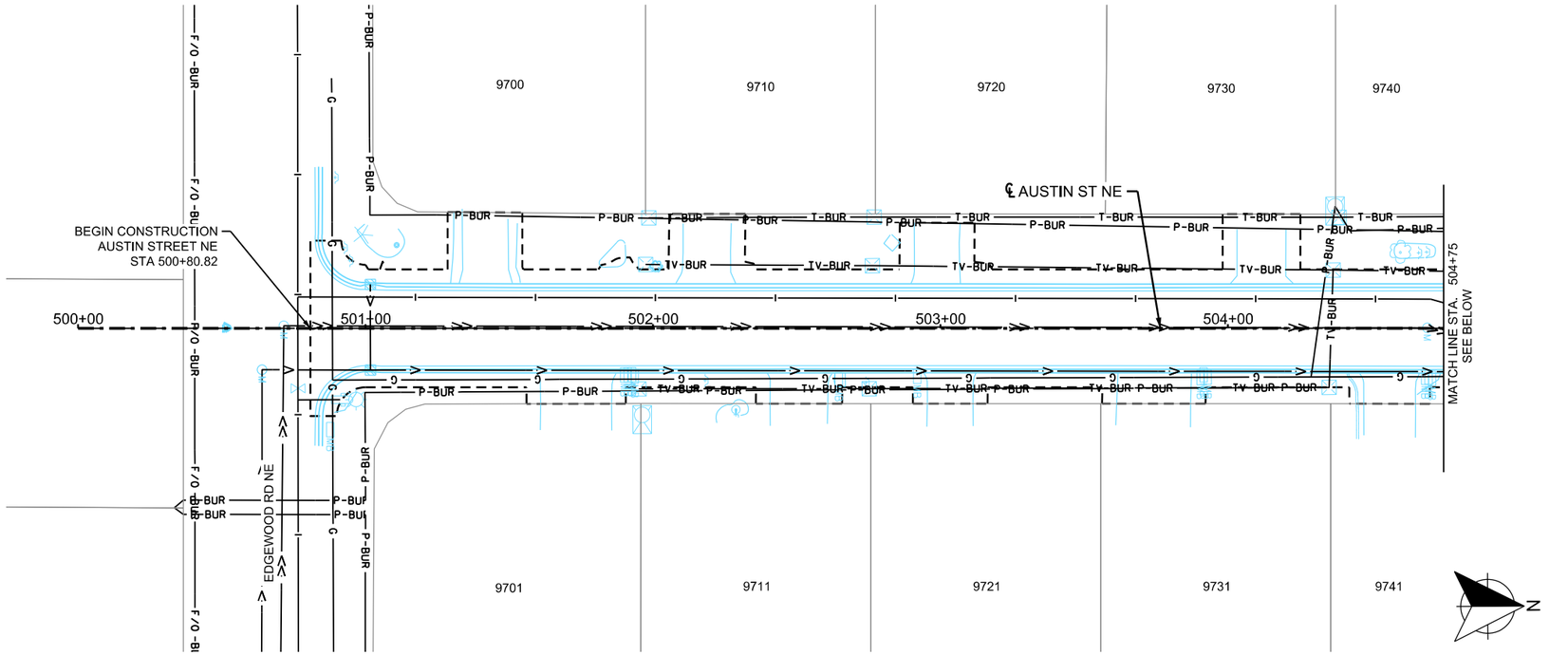
AUSTIN STREET NE



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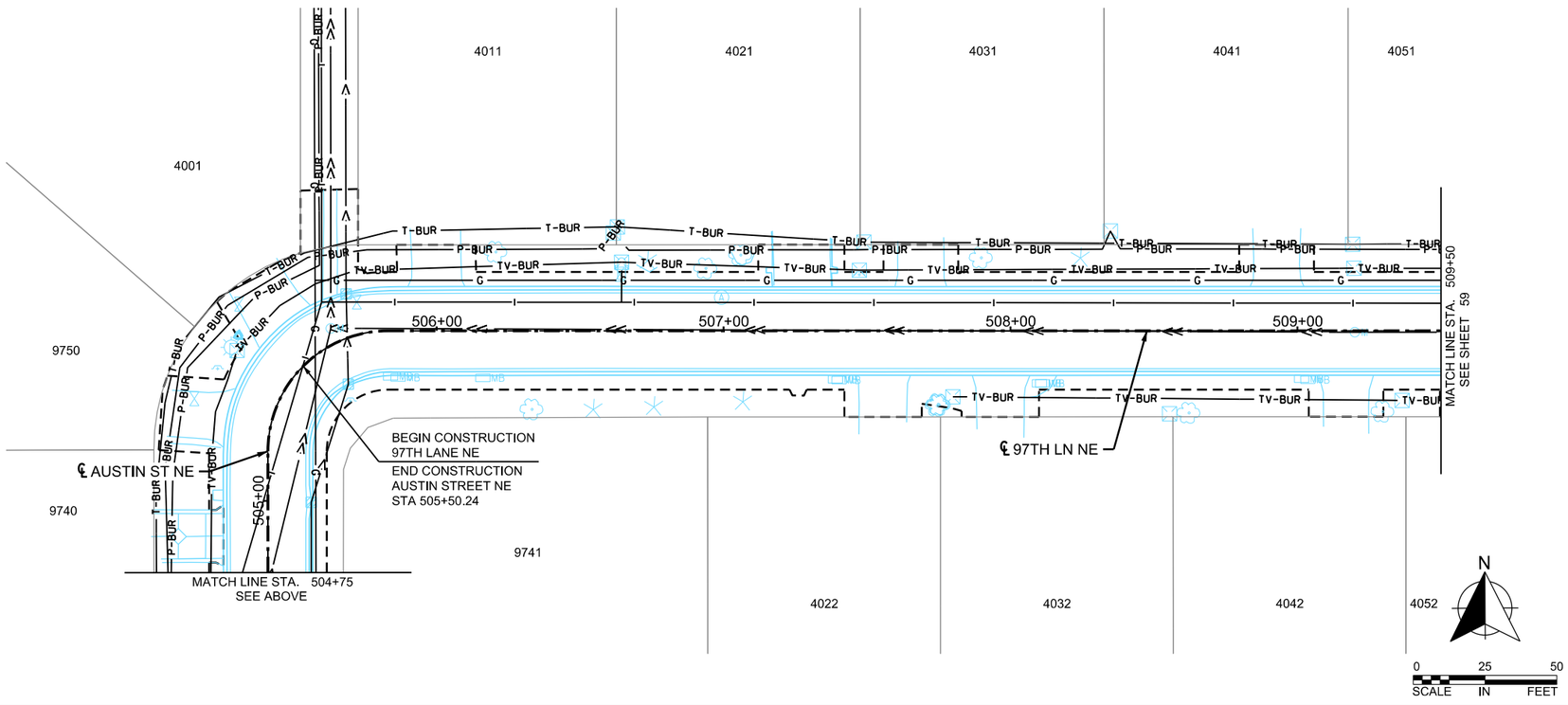
97TH LANE NE



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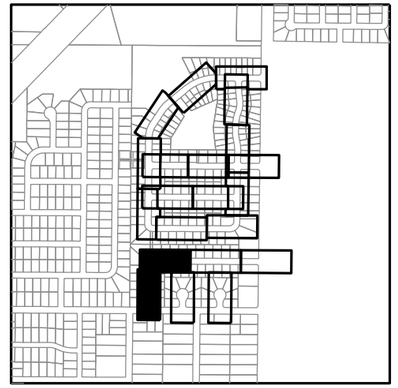
SCALE IN FEET

LOCATION MAP



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SHEET **58** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:32:30 AM

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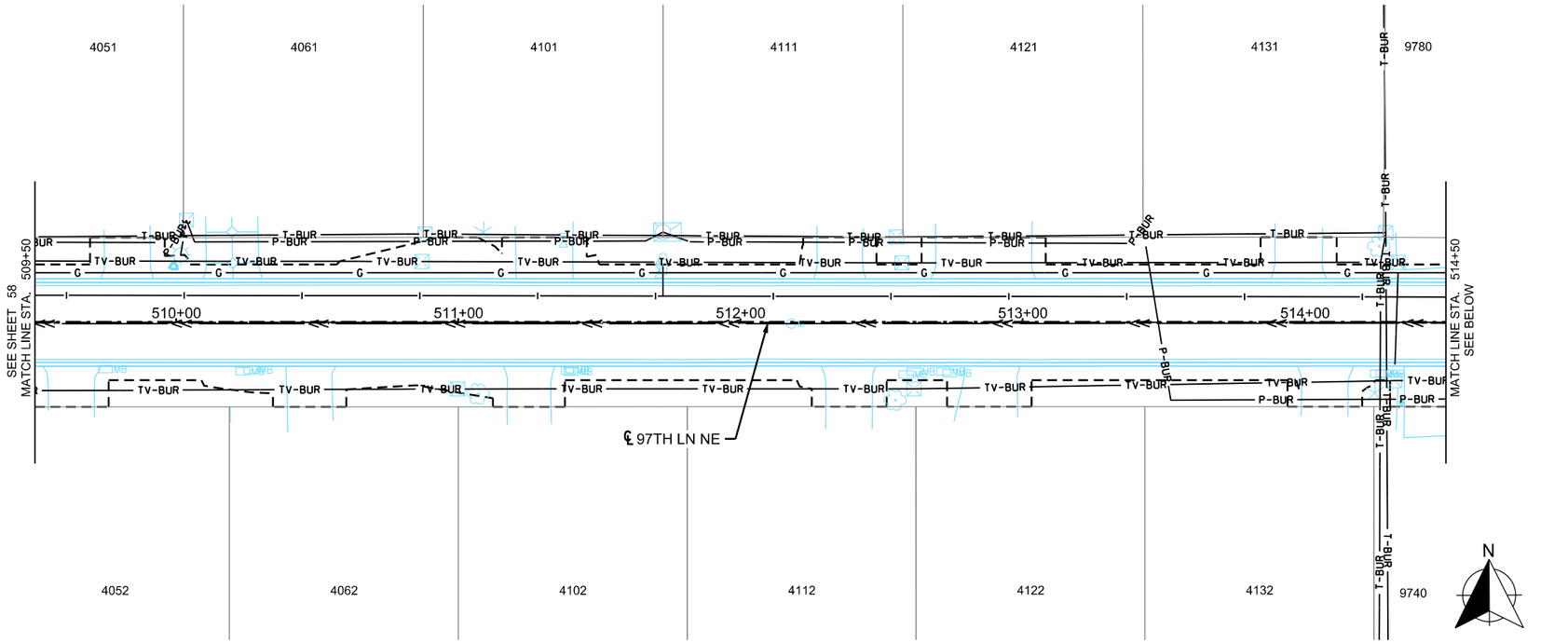
97TH LANE NE



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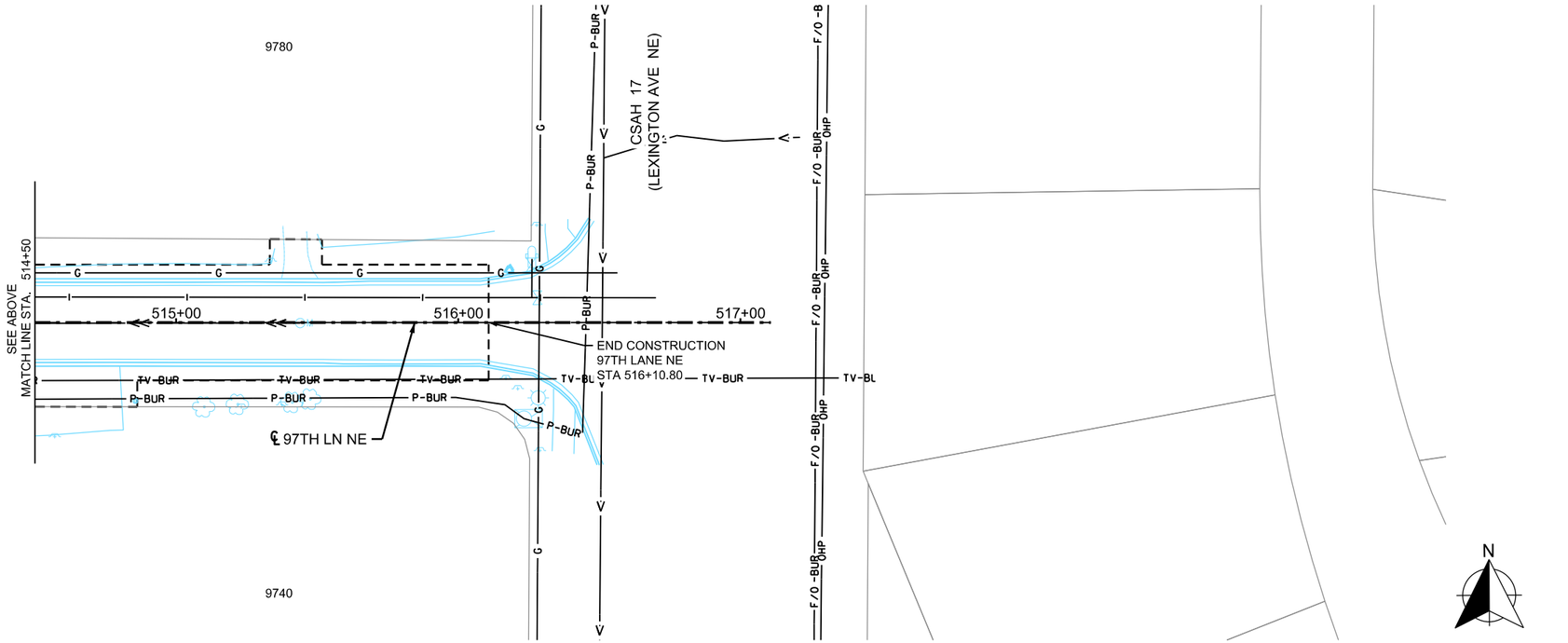
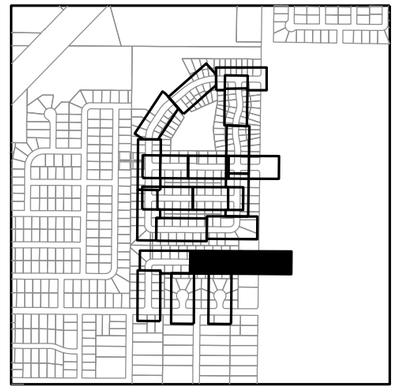


LOCATION MAP



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SHEET **59** OF **230** SHEETS

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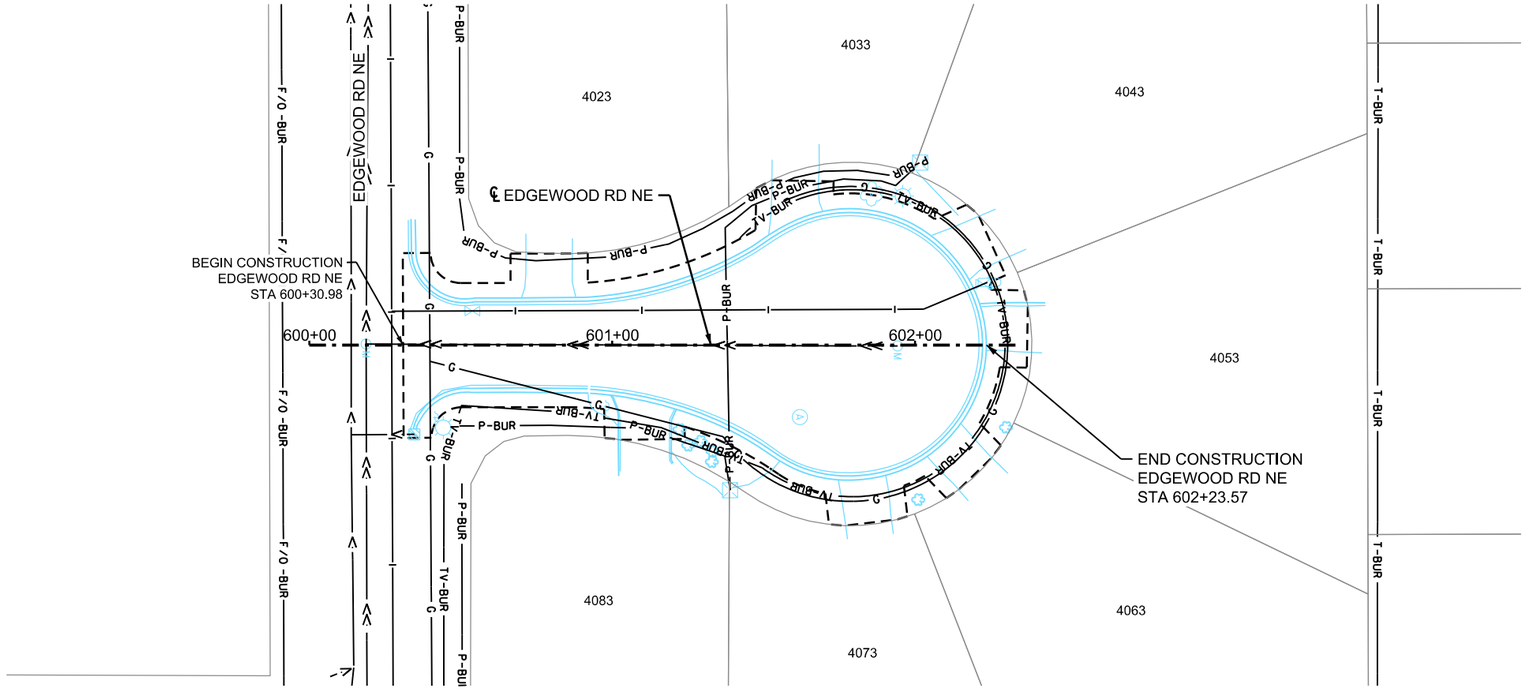
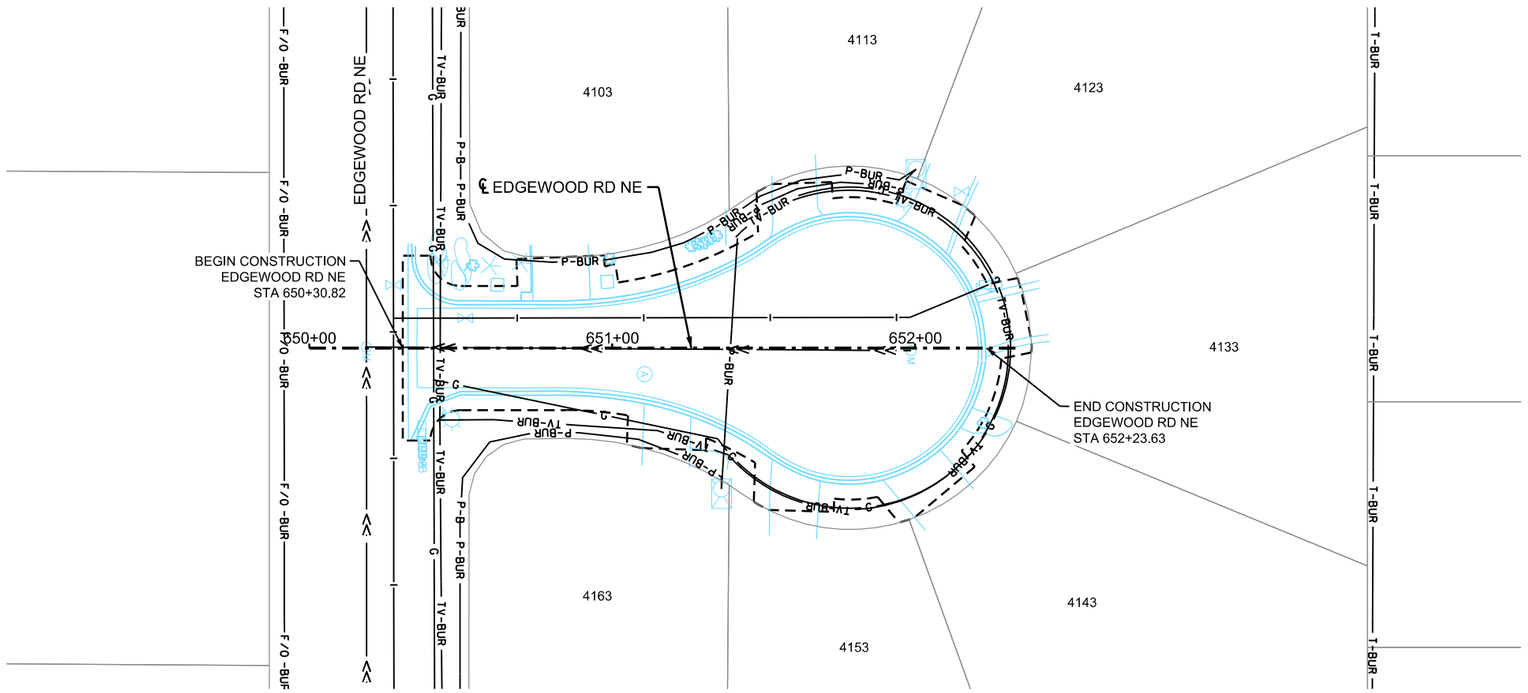
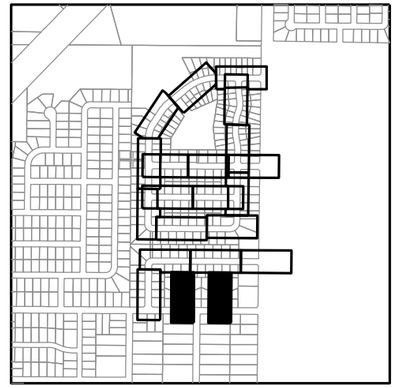
EDGEWOOD ROAD NE (4023 - 4083)



EDGEWOOD ROAD NE (4103 - 4163)



LOCATION MAP



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SHEET **60** OF **230** SHEETS

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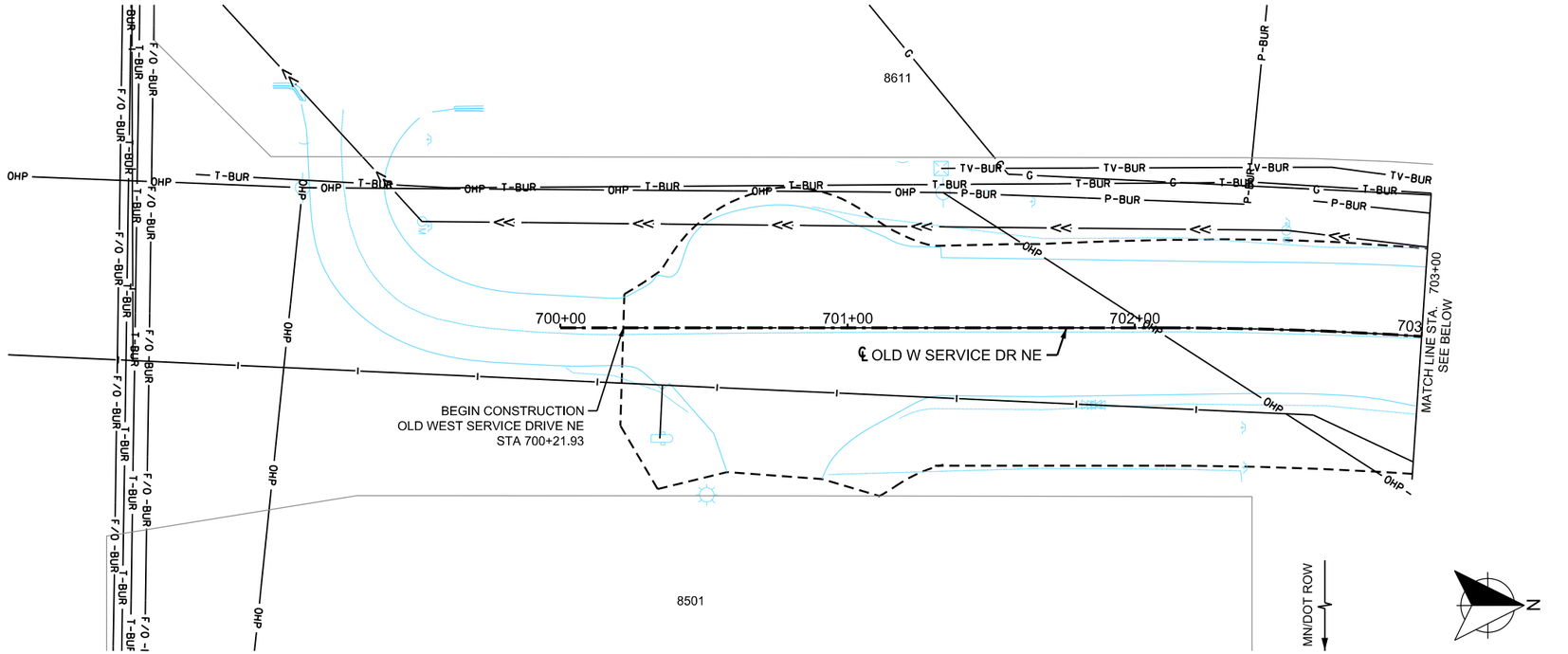
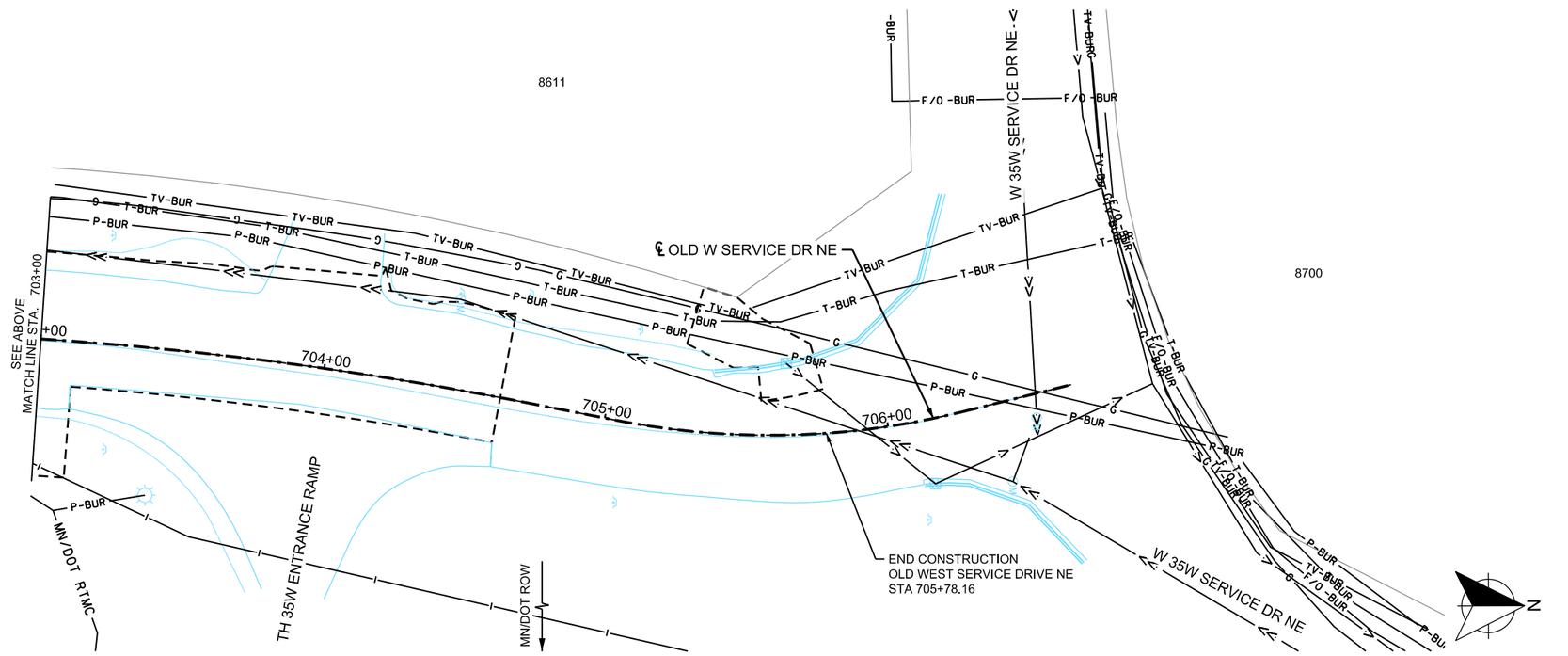
OLD WEST SERVICE DRIVE NE



OLD WEST SERVICE DRIVE NE



LOCATION MAP

LEGEND

- BURIED FIBER OPTIC LINE
- BURIED POWER LINE
- BURIED SIGNAL LINE
- BURIED TELEPHONE LINE
- BURIED TELEVISION LINE
- OVERHEAD POWER LINE
- OVERHEAD UTILITY LINE
- SANITARY SEWER
- STORM SEWER
- UNDERGROUND GAS MAIN / SERVICE UTILITY IN CONDUIT
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- CULVERT
- CABINET
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wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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NICHOLAS E. HENTGES, PE
DATE: 4/22/2022
LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INPLACE TOPOGRAPHY & UTILITIES

CITY PROJECT 23-08

SHEET **61** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:32:31 AM

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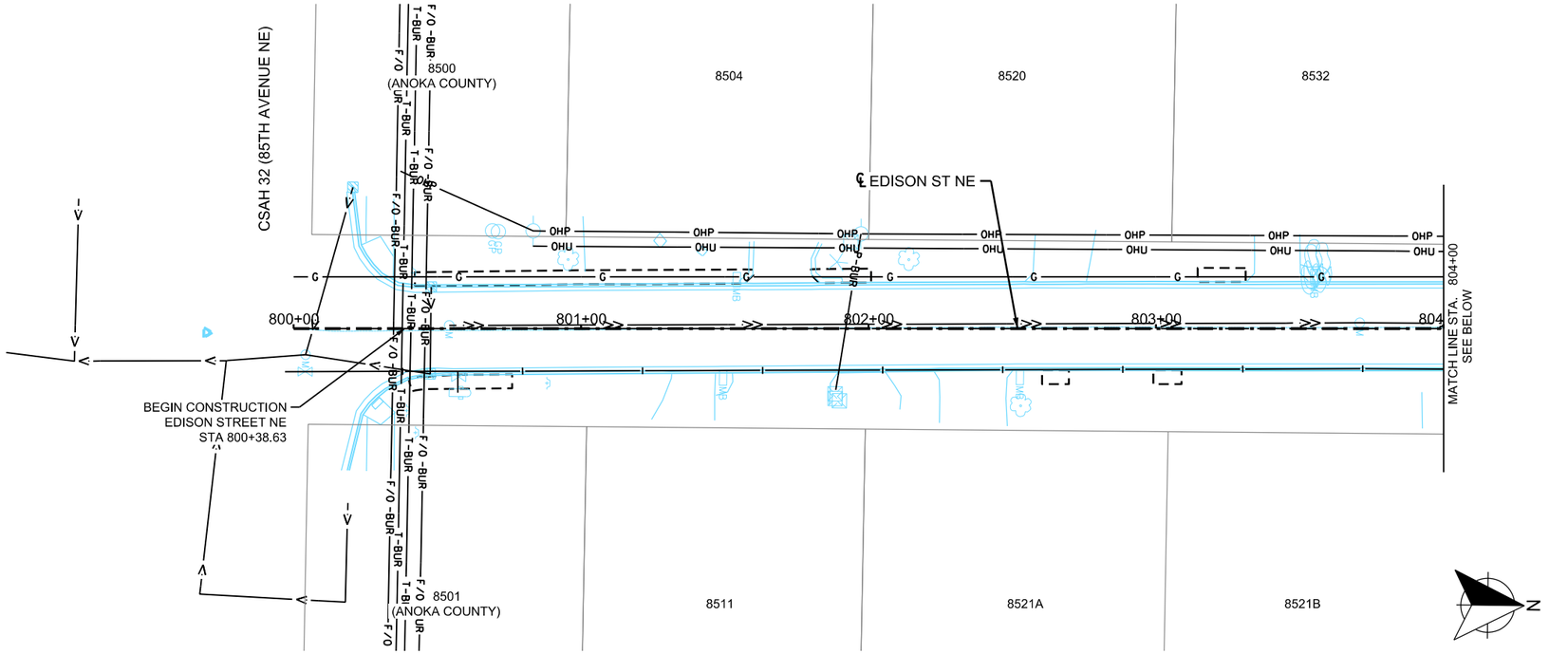
EDISON STREET NE



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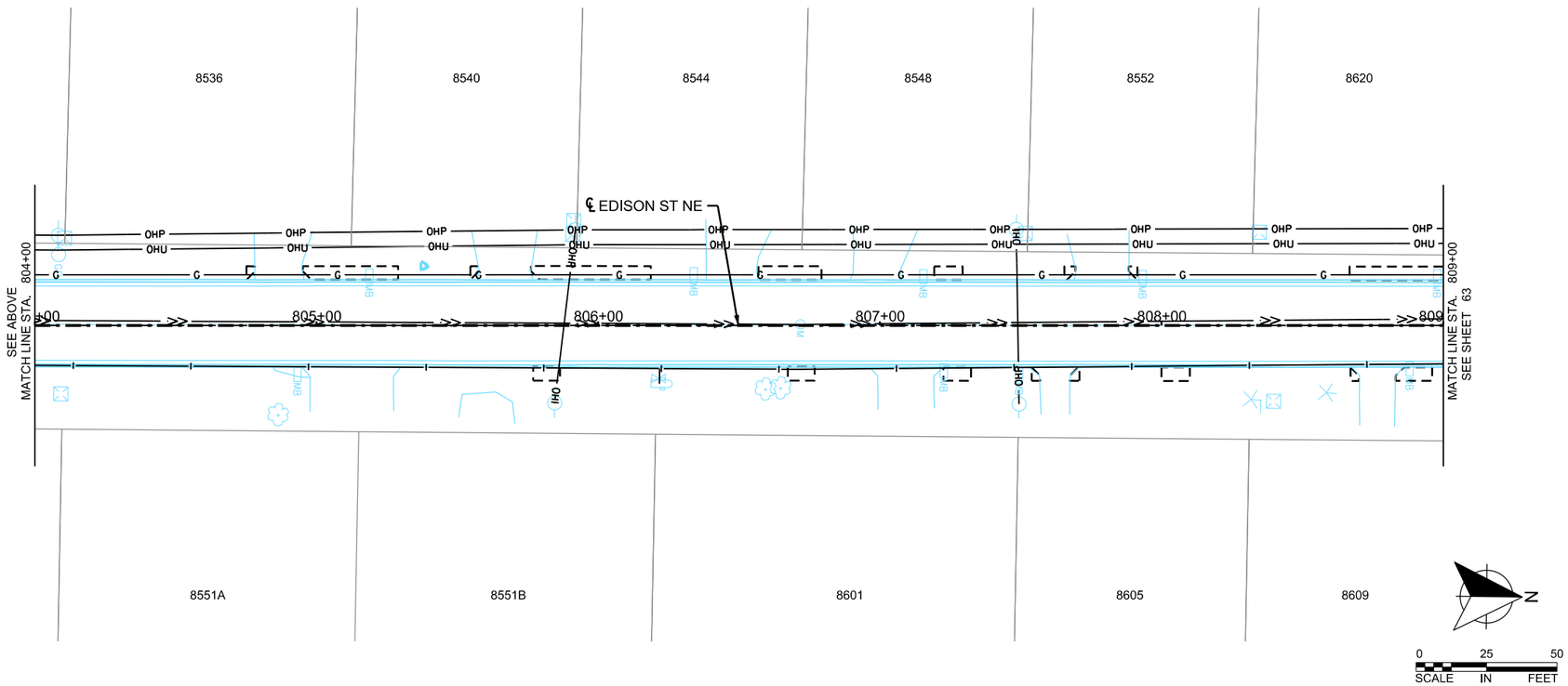
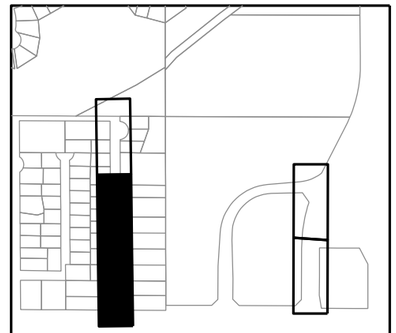


LOCATION MAP



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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

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CITY OF BLAINE, MN

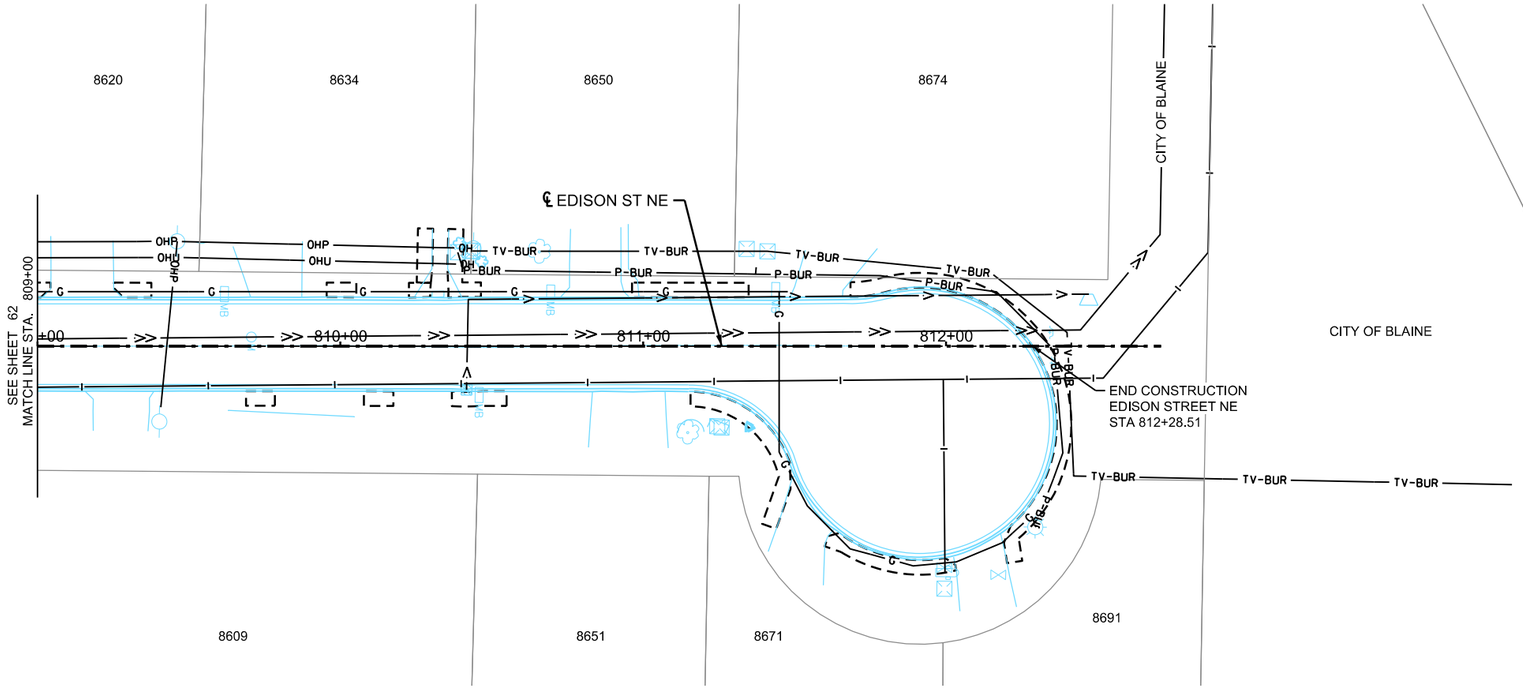
SOUTHEAST AREA RECONSTRUCTION

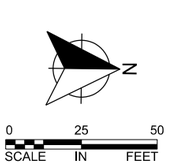
INPLACE TOPOGRAPHY & UTILITIES

CITY PROJECT 23-08

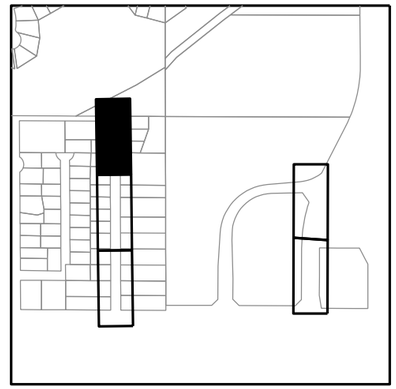
SHEET **62** OF **230** SHEETS

EDISON STREET NE





LOCATION MAP



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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INPLACE TOPOGRAPHY & UTILITIES

CITY PROJECT 23-08

SHEET **63** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:32:32 AM

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PLOTTED/REVISED: 3/9/2023 11:32:33 AM

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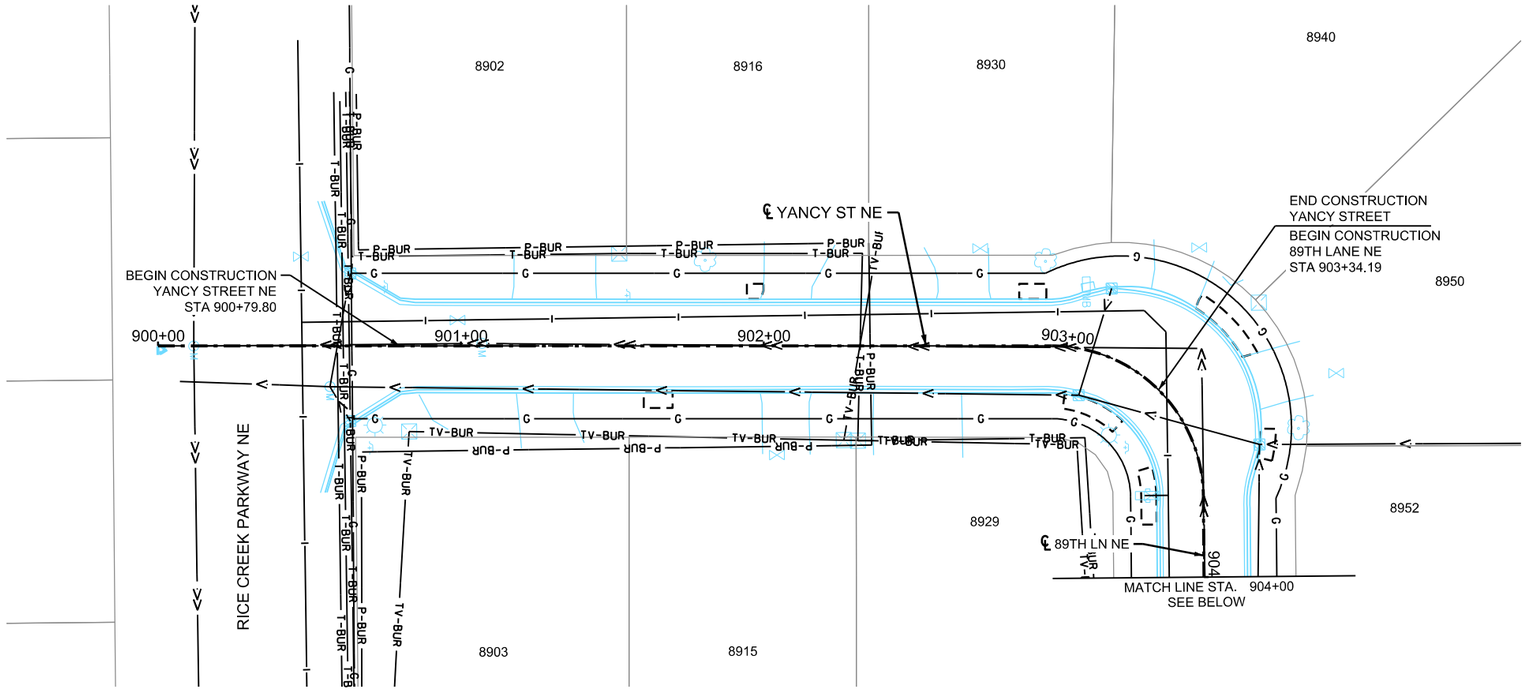
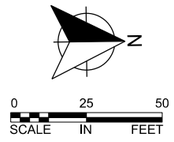
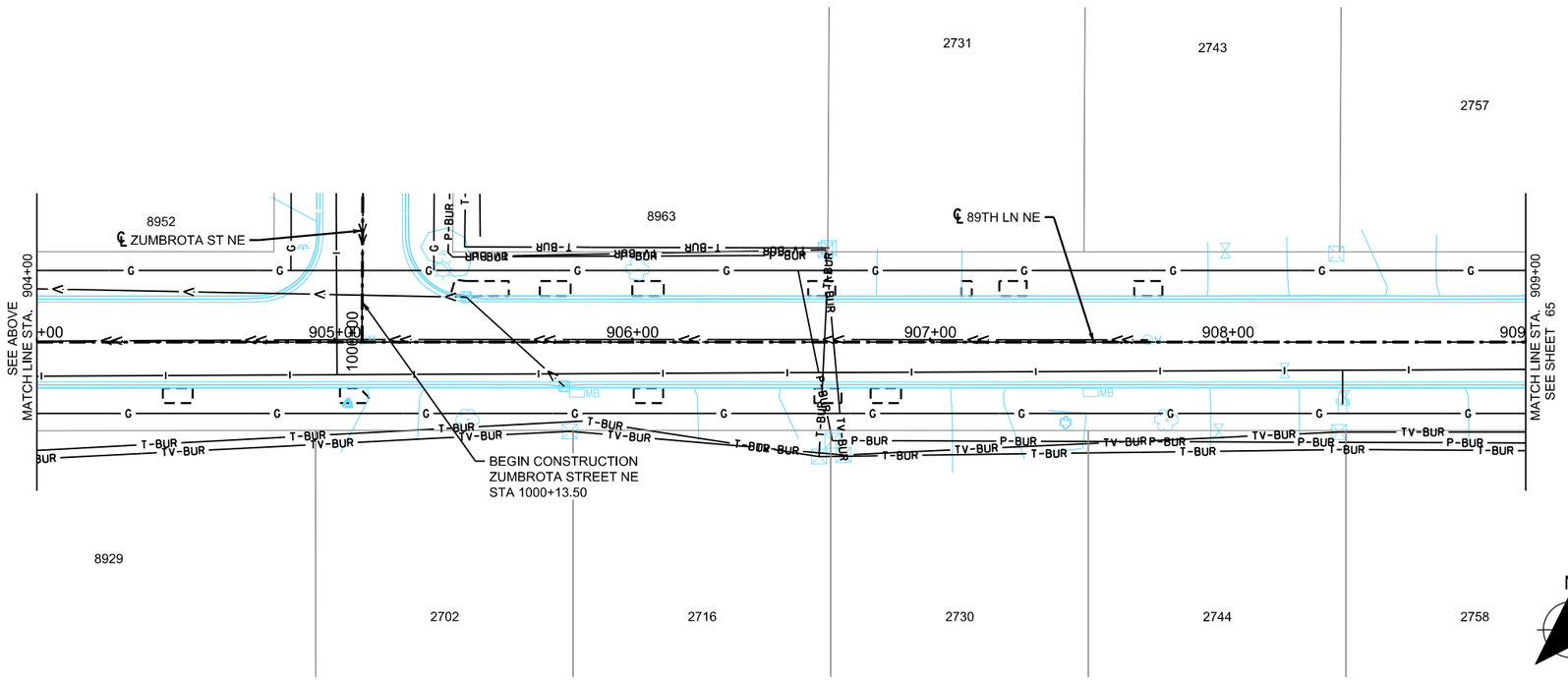
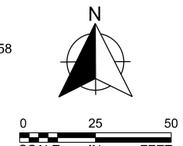
YANCY STREET NE



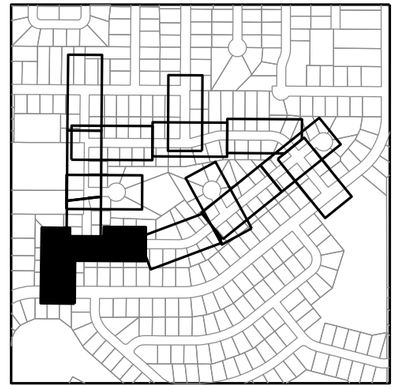


89TH LANE NE





LOCATION MAP



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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INPLACE TOPOGRAPHY & UTILITIES

CITY PROJECT 23-08

SHEET **64** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:32:33 AM

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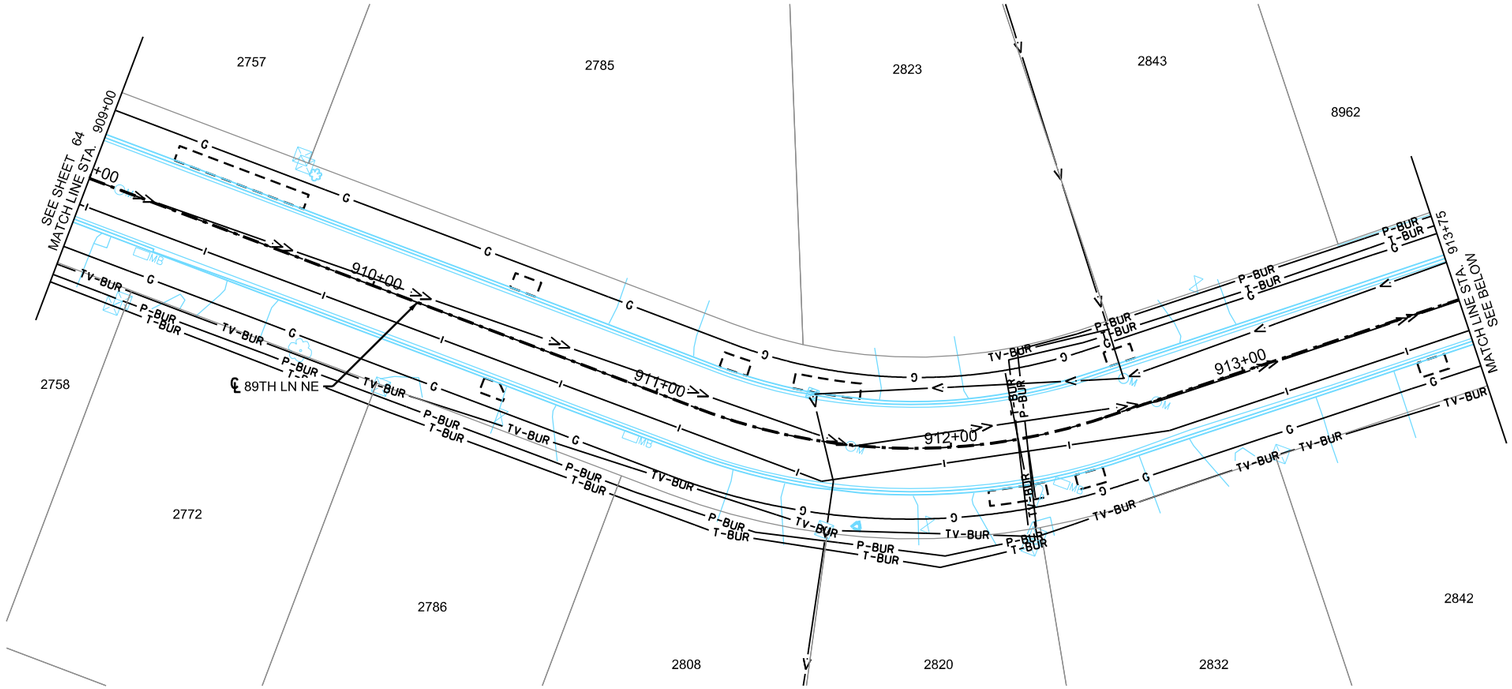
89TH LANE NE



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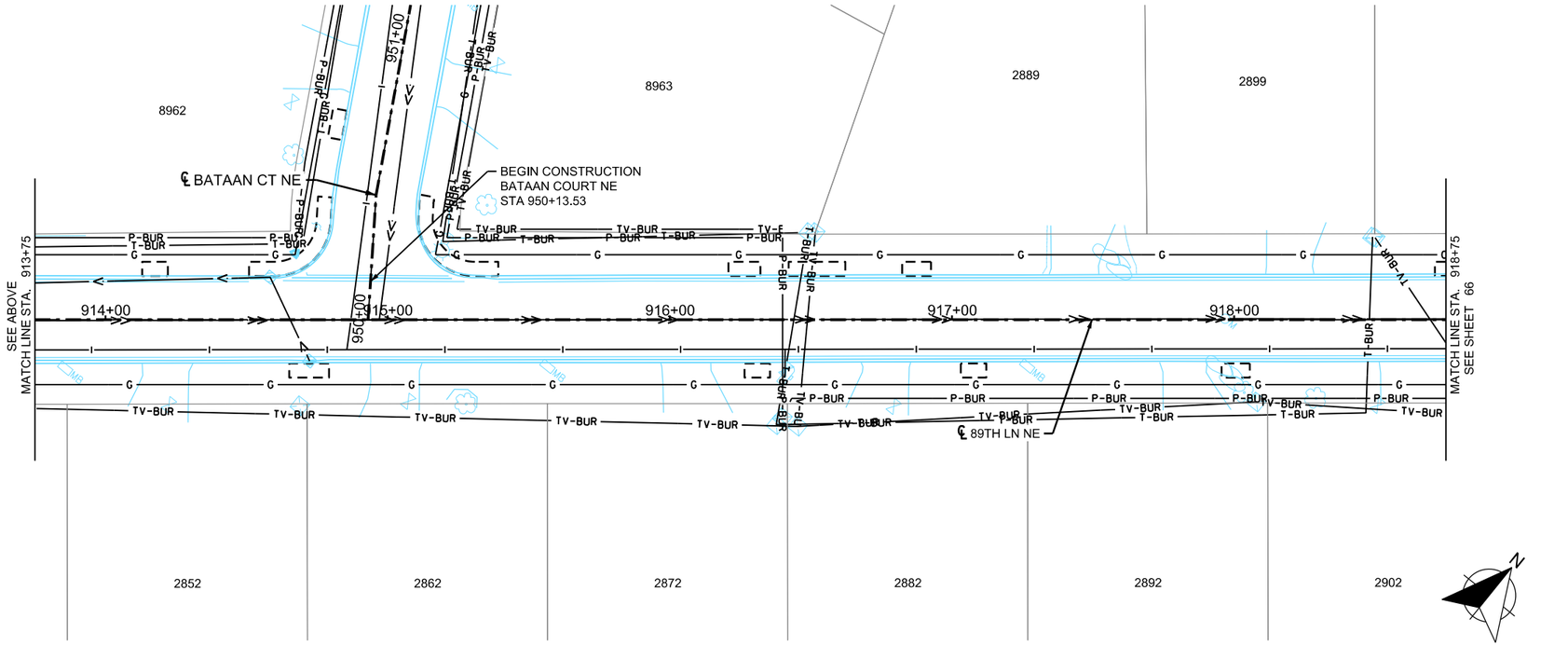
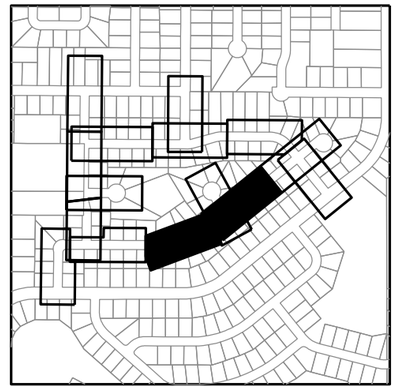


LOCATION MAP



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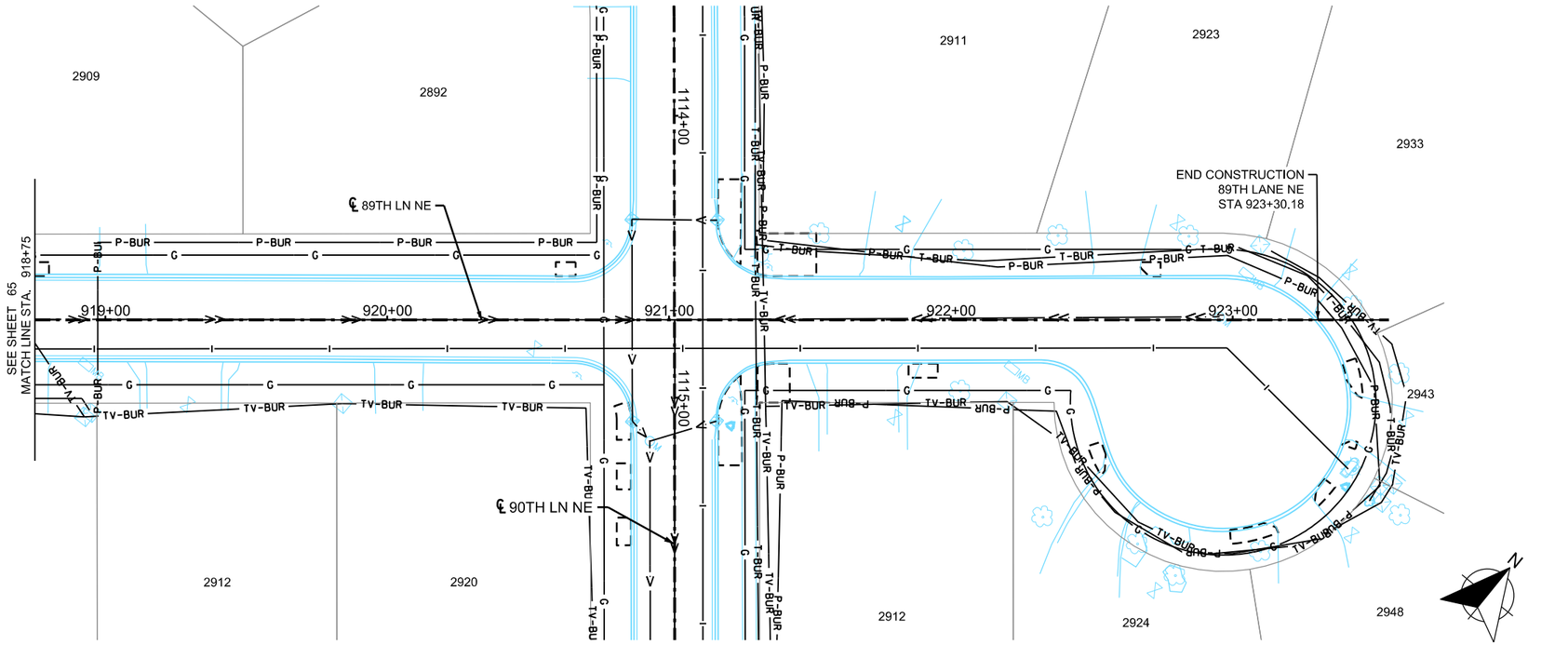
89TH LANE NE



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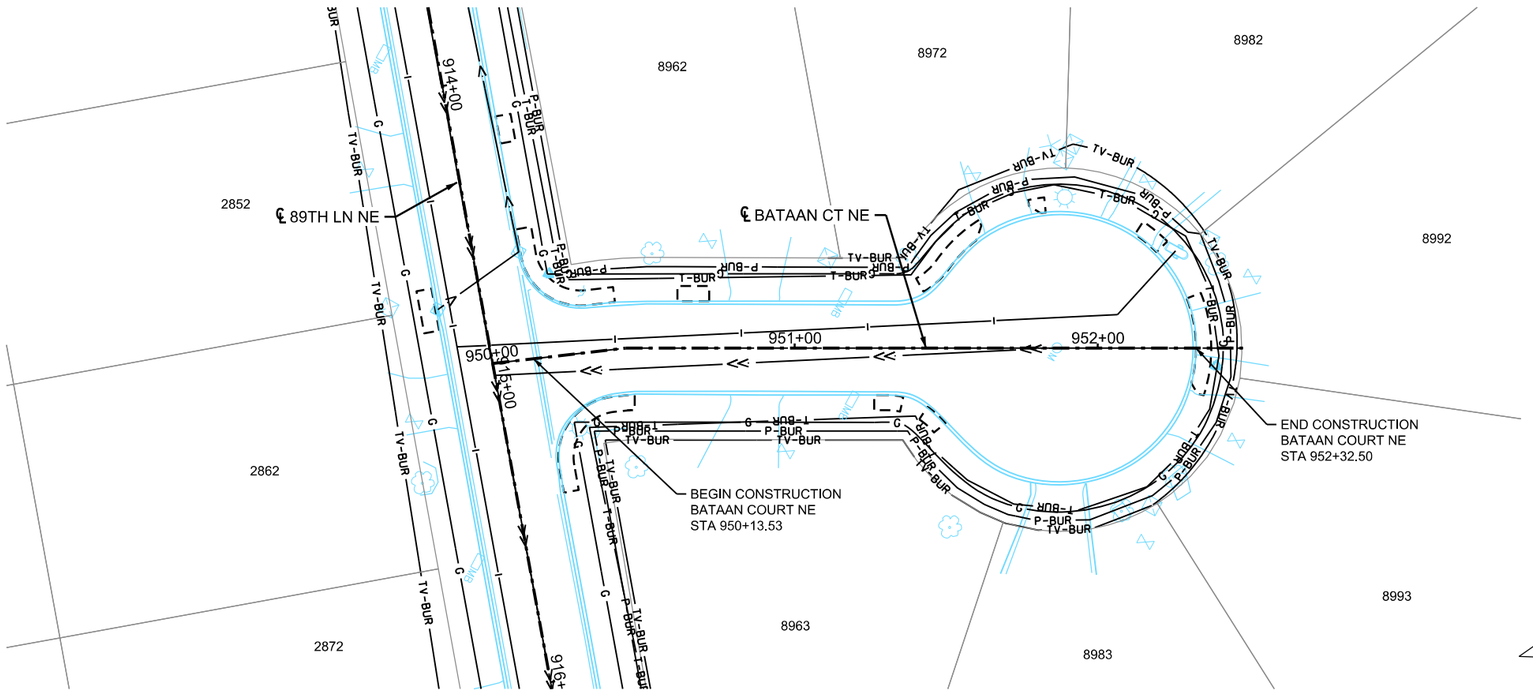
BATAAN COURT NE



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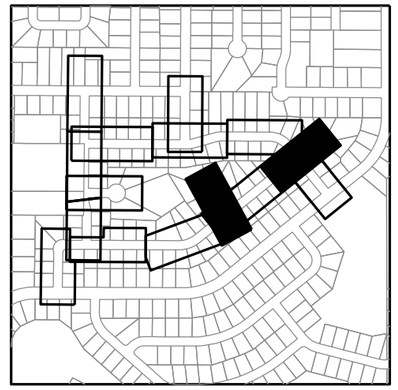
LOCATION MAP



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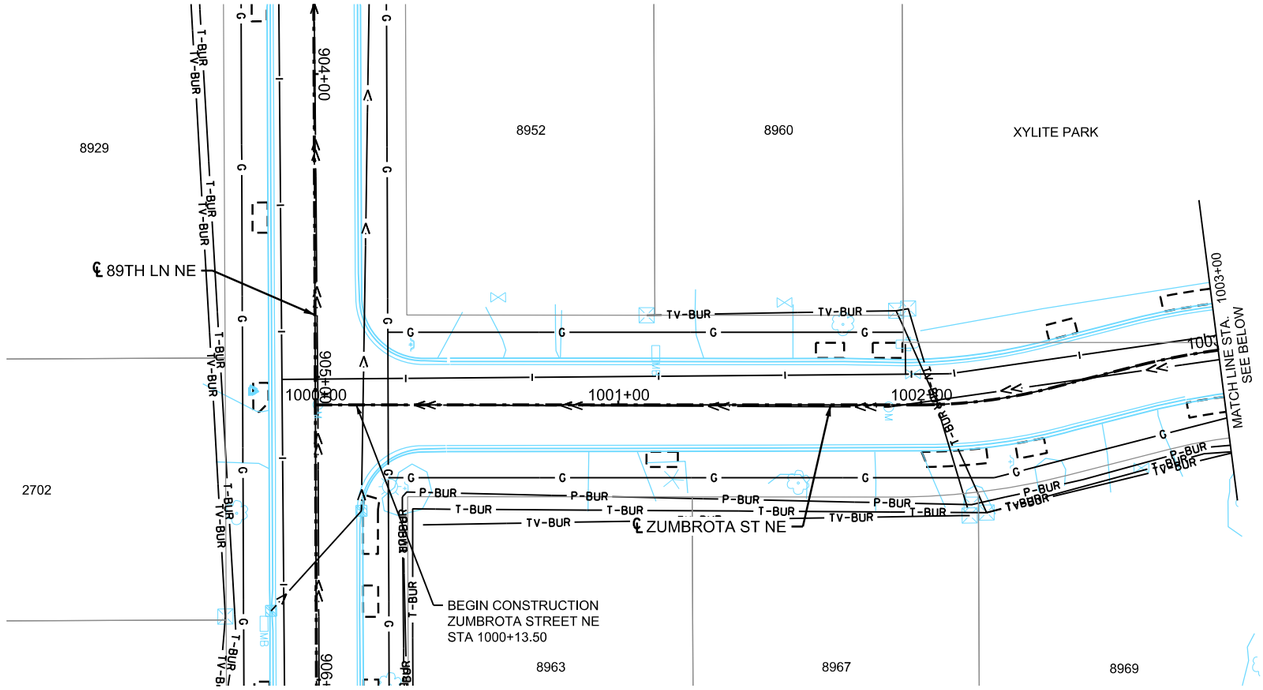
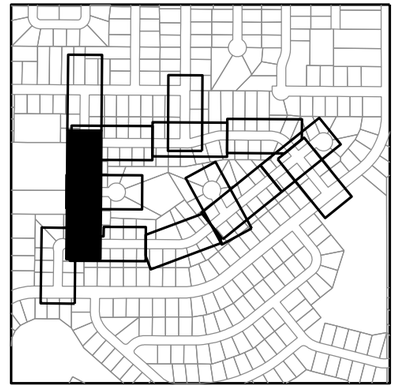
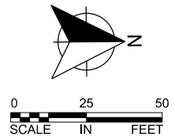
ZUMBROTA STREET NE



LOCATION MAP





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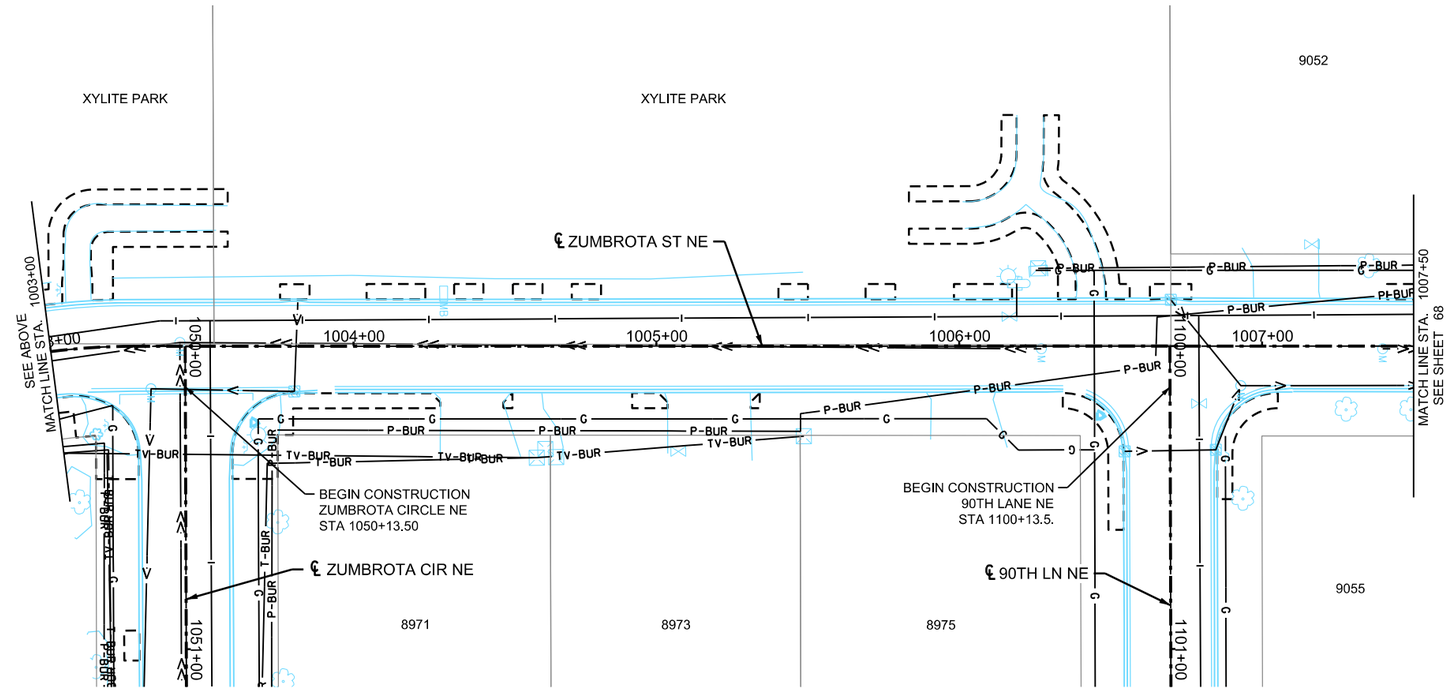

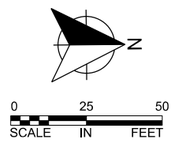

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INPLACE TOPOGRAPHY & UTILITIES

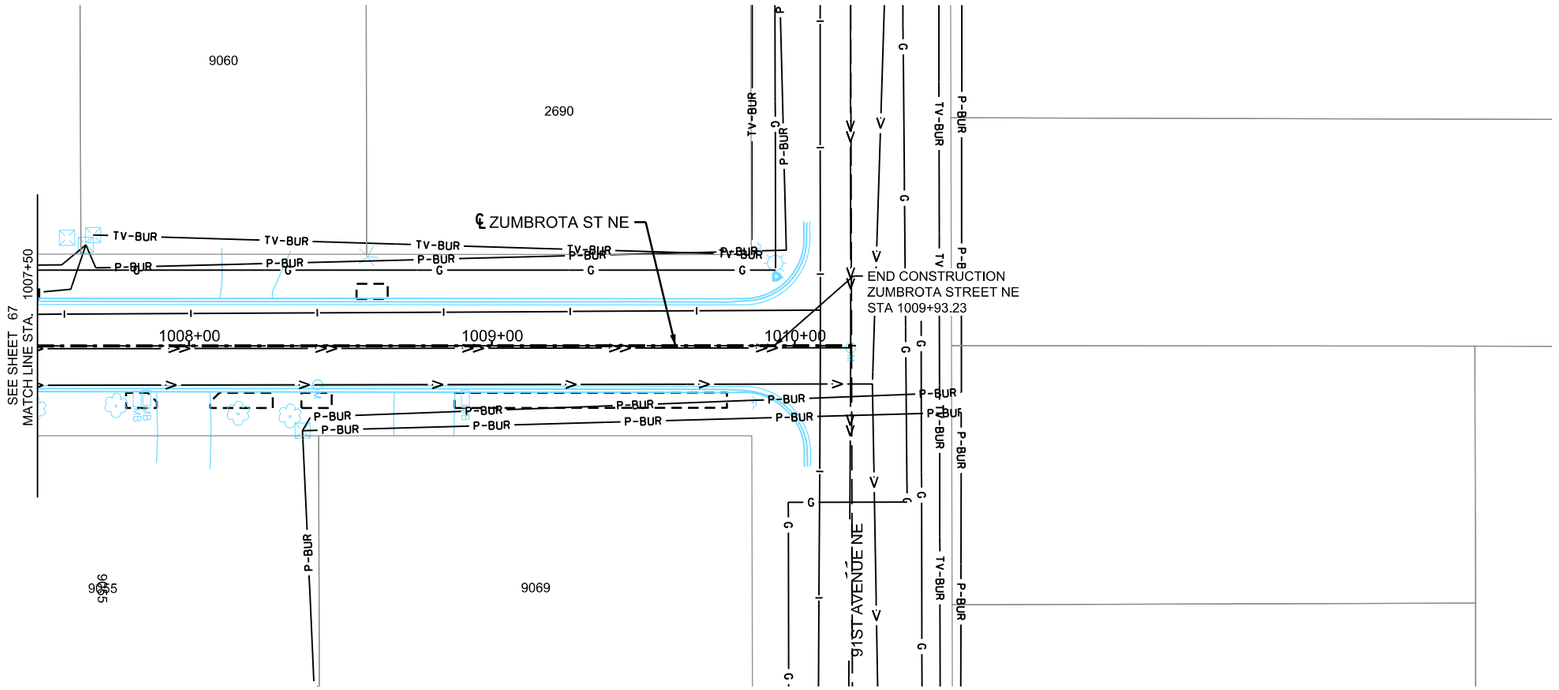
CITY PROJECT 23-08

SHEET **67** OF **230** SHEETS

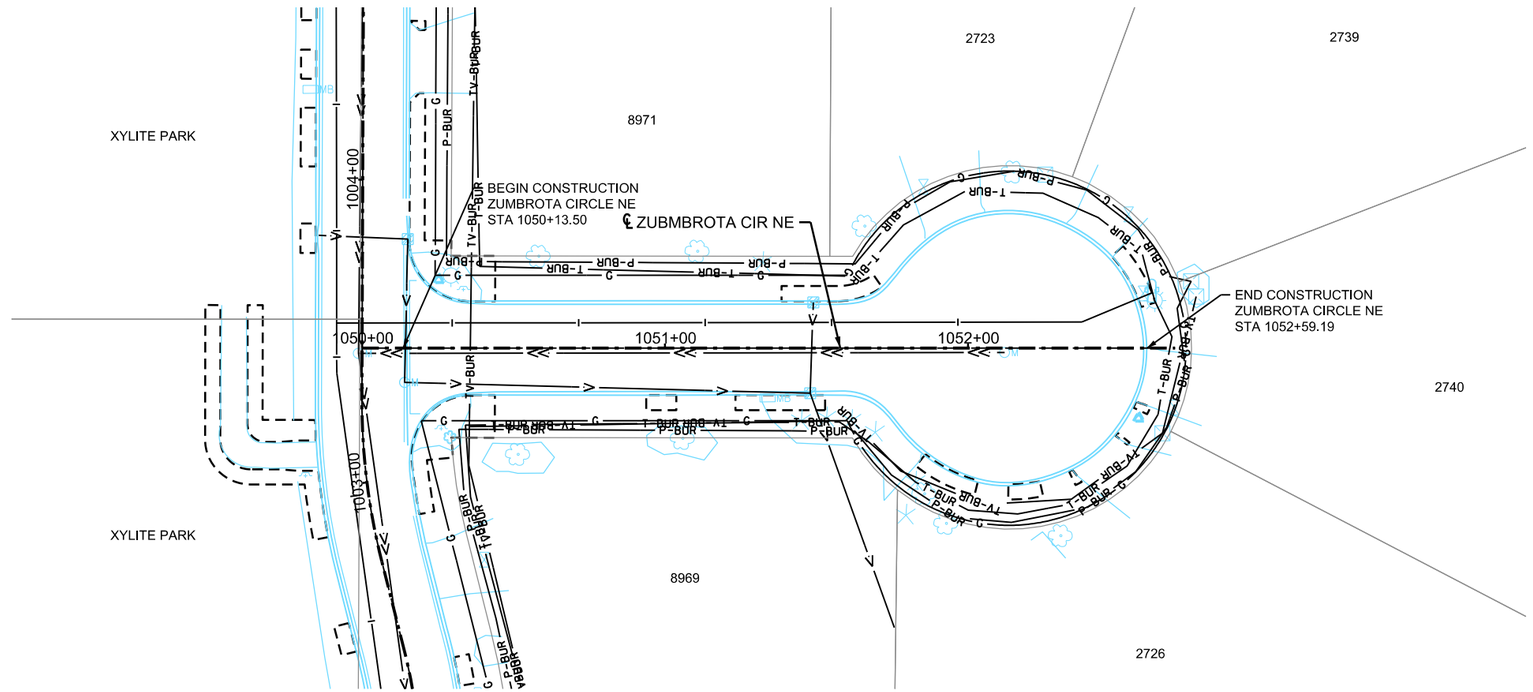
PLOTTED/REVISED: 3/9/2023 11:32:35 AM

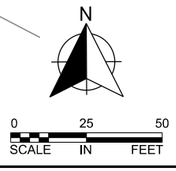
PATH & FILENAME: K:\022066-000\Cad\Plan\220066-000-C-EXST-PLAN-20.dgn

ZUMBROTA STREET NE

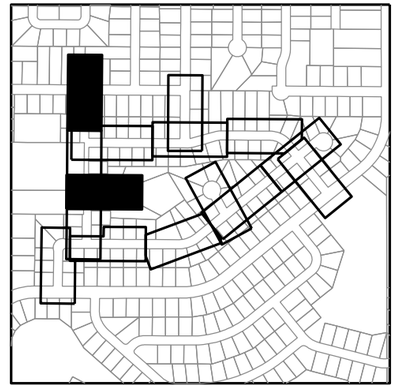


ZUMBROTA CIRCLE NE





LOCATION MAP



LEGEND

- BURIED FIBER OPTIC LINE
- BURIED POWER LINE
- BURIED SIGNAL LINE
- BURIED TELEPHONE LINE
- BURIED TELEVISION LINE
- OVERHEAD POWER LINE
- OVERHEAD UTILITY LINE
- SANITARY SEWER
- STORM SEWER
- UNDERGROUND GAS MAIN / SERVICE UTILITY IN CONDUIT
- WATER MAIN
- CULVERT
- CABINET
- CATCH BASIN
- HANDHOLE
- HYDRANT
- LIGHT POLE
- MANHOLE
- PIPE APRON
- POWER / UTILITY POLE
- SIGN STRUCTURE
- SIGNAL POLE
- UTILITY PEDESTAL
- VALVE
- VEGITATION
- FENCE
- RETAINING WALL
- GRADING LIMITS (APPROX)

GENERAL NOTES

1. THE EXISTING SUBSURFACE UTILITY INFORMATION IS QUALITY LEVEL D IN ACCORDANCE WITH THE GUIDELINES OF CI/ASCE 38-02.
2. UTILITIES ARE SHOWN AT APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL DETERMINE THE ACTUAL LOCATION OF ALL BURIED UTILITIES IN THE FIELD.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE RELOCATIONS AND LOCATES WITH THE UTILITY COMPANIES. CALL GOPHER STATE ONE CALL AT LEAST 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INPLACE TOPOGRAPHY & UTILITIES

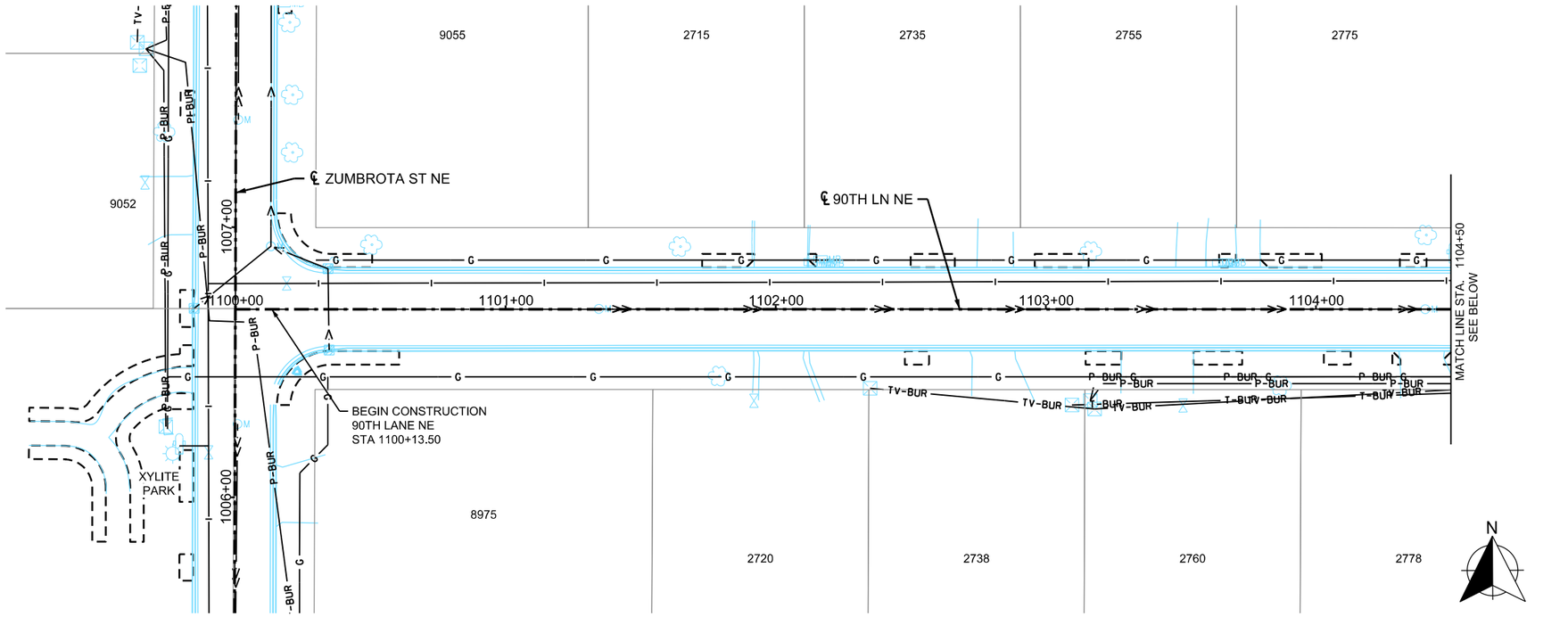
CITY PROJECT 23-08

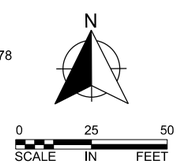
SHEET **68** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:32:36 AM

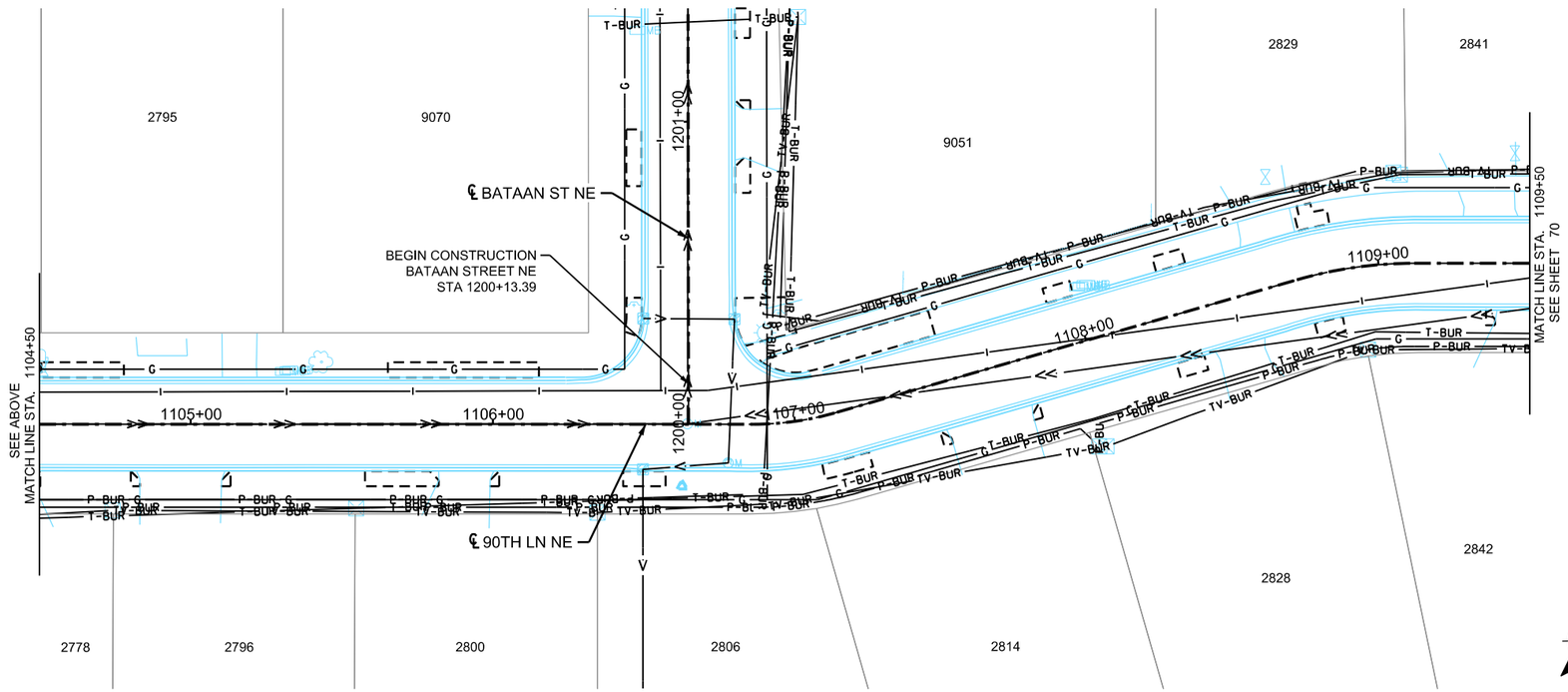
PATH & FILENAME: K:\022066-000\Cad\Plan\220066-000-C-EXST-PLAN-21.dgn

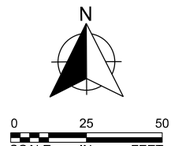
90TH LANE NE



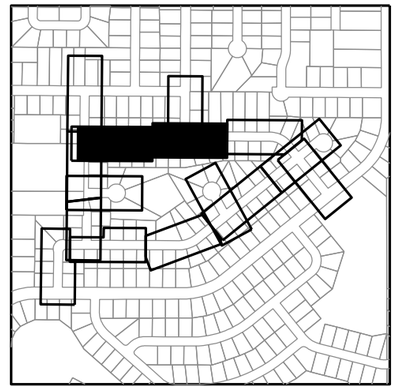


90TH LANE NE





LOCATION MAP



LEGEND

- BURIED FIBER OPTIC LINE
- BURIED POWER LINE
- BURIED SIGNAL LINE
- BURIED TELEPHONE LINE
- BURIED TELEVISION LINE
- OVERHEAD POWER LINE
- OVERHEAD UTILITY LINE
- SANITARY SEWER
- STORM SEWER
- UNDERGROUND GAS MAIN / SERVICE UTILITY IN CONDUIT
- WATER MAIN
- CULVERT
- CABINET
- CATCH BASIN
- HANDHOLE
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- LIGHT POLE
- MANHOLE
- PIPE APRON
- POWER / UTILITY POLE
- SIGN STRUCTURE
- SIGNAL POLE
- UTILITY PEDESTAL
- VALVE
- VEGITATION
- FENCE
- RETAINING WALL
- GRADING LIMITS (APPROX)

GENERAL NOTES

1. THE EXISTING SUBSURFACE UTILITY INFORMATION IS QUALITY LEVEL D IN ACCORDANCE WITH THE GUIDELINES OF CI/ASCE 38-02.
2. UTILITIES ARE SHOWN AT APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL DETERMINE THE ACTUAL LOCATION OF ALL BURIED UTILITIES IN THE FIELD.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE RELOCATIONS AND LOCATES WITH THE UTILITY COMPANIES. CALL GOPHER STATE ONE CALL AT LEAST 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INPLACE TOPOGRAPHY & UTILITIES

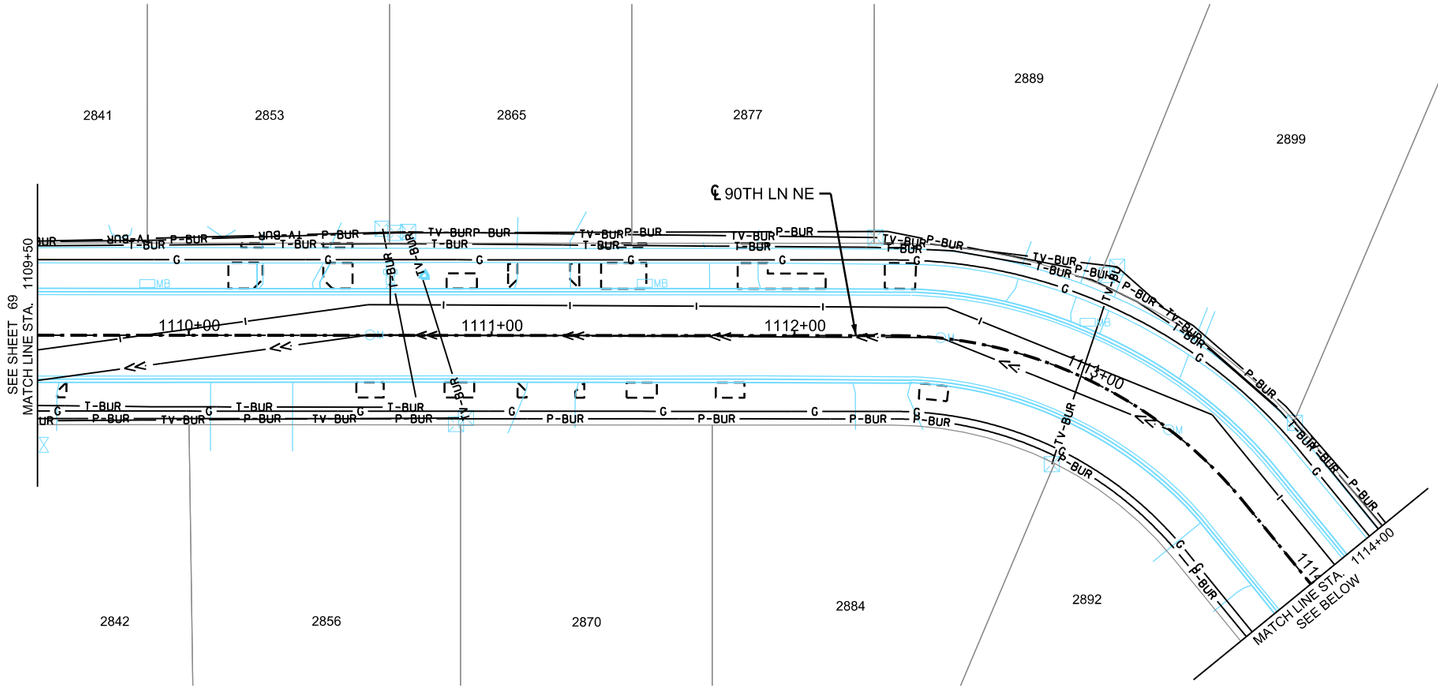
CITY PROJECT 23-08

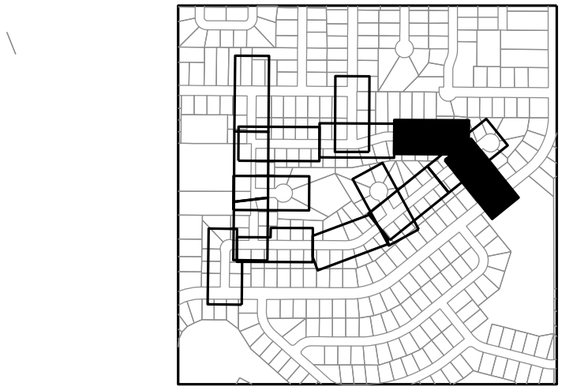
SHEET **69** OF **230** SHEETS

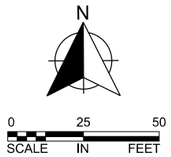
PLOTTED/REVISED: 3/9/2023 11:32:36 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\220066-000-C-EXST-PLAN-22.dgn

90TH LANE NE







LEGEND

- BURIED FIBER OPTIC LINE
- BURIED POWER LINE
- BURIED SIGNAL LINE
- BURIED TELEPHONE LINE
- BURIED TELEVISION LINE
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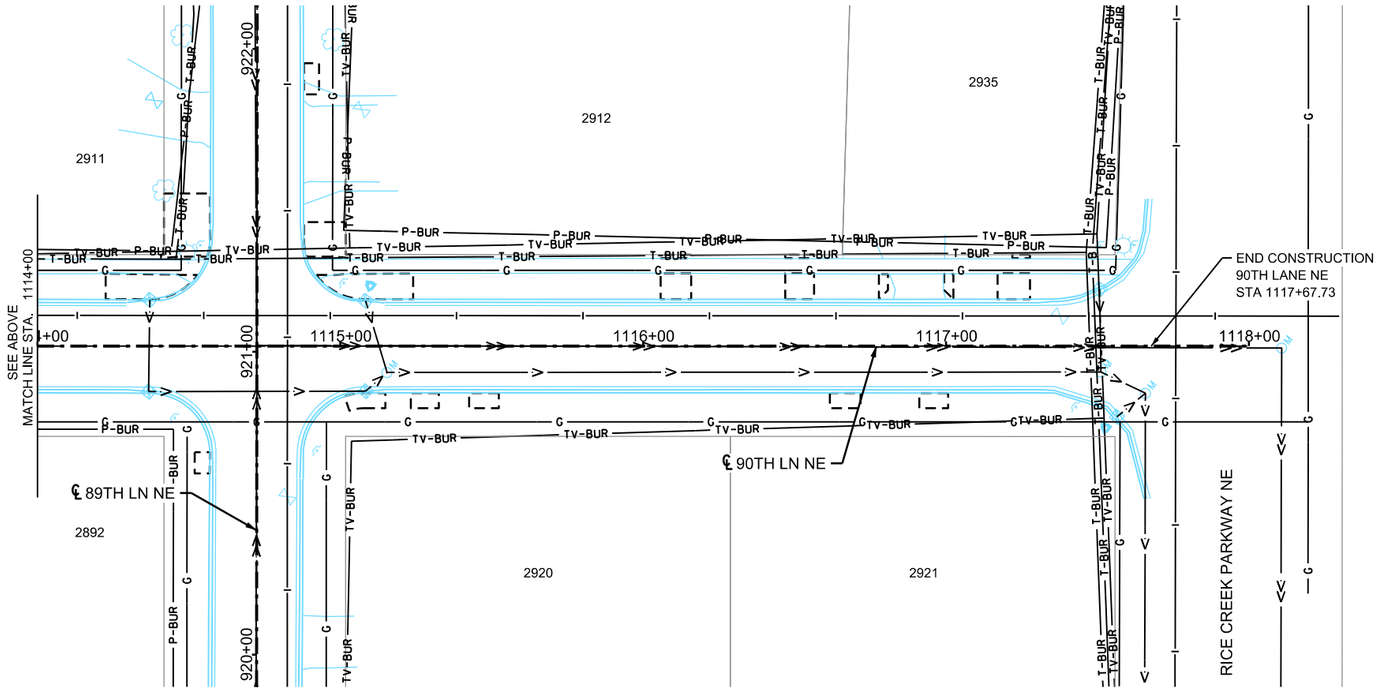
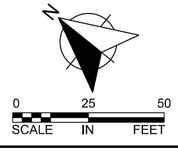
90TH LANE NE





WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN
DESIGN BY: AJF
PLAN BY: AJF
CHECK BY: NEH

REVISIONS

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NICHOLAS E. HENTGES, PE
LIC. NO: 44620
DATE: 4/22/2022

CITY OF BLAINE, MN

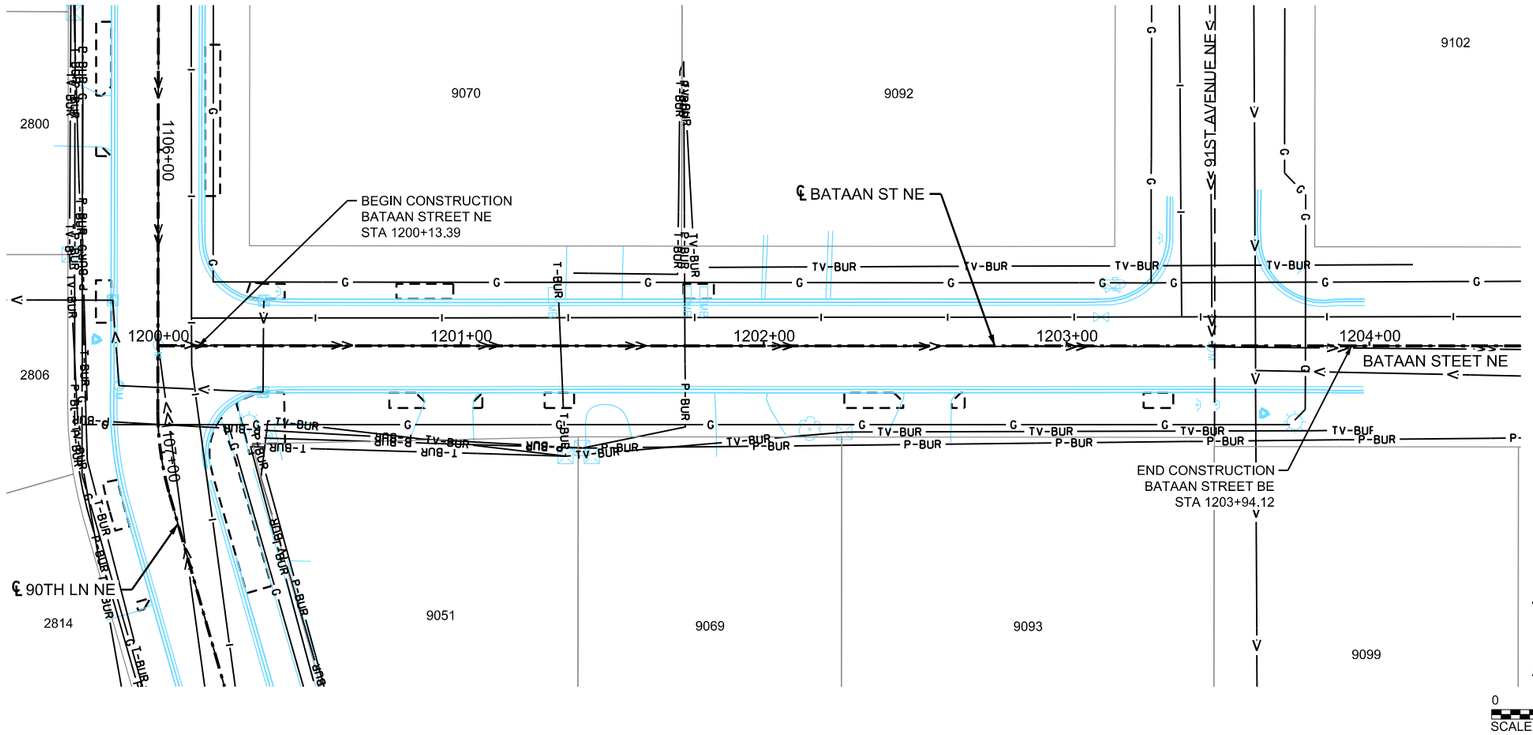
SOUTHEAST AREA RECONSTRUCTION

INPLACE TOPOGRAPHY & UTILITIES

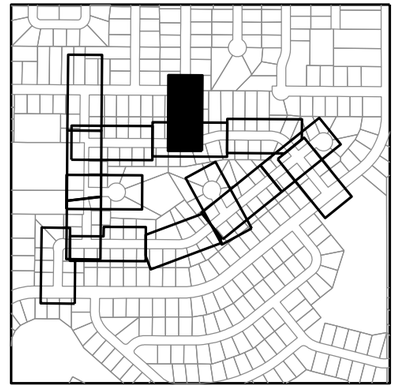
CITY PROJECT 23-08

SHEET **70** OF **230** SHEETS

BATAAN STREET NE



LOCATION MAP



LEGEND

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wsb

WSB PROJECT NO.: 022066-000

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PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INPLACE TOPOGRAPHY & UTILITIES

CITY PROJECT 23-08

SHEET **IU24** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:32:37 AM

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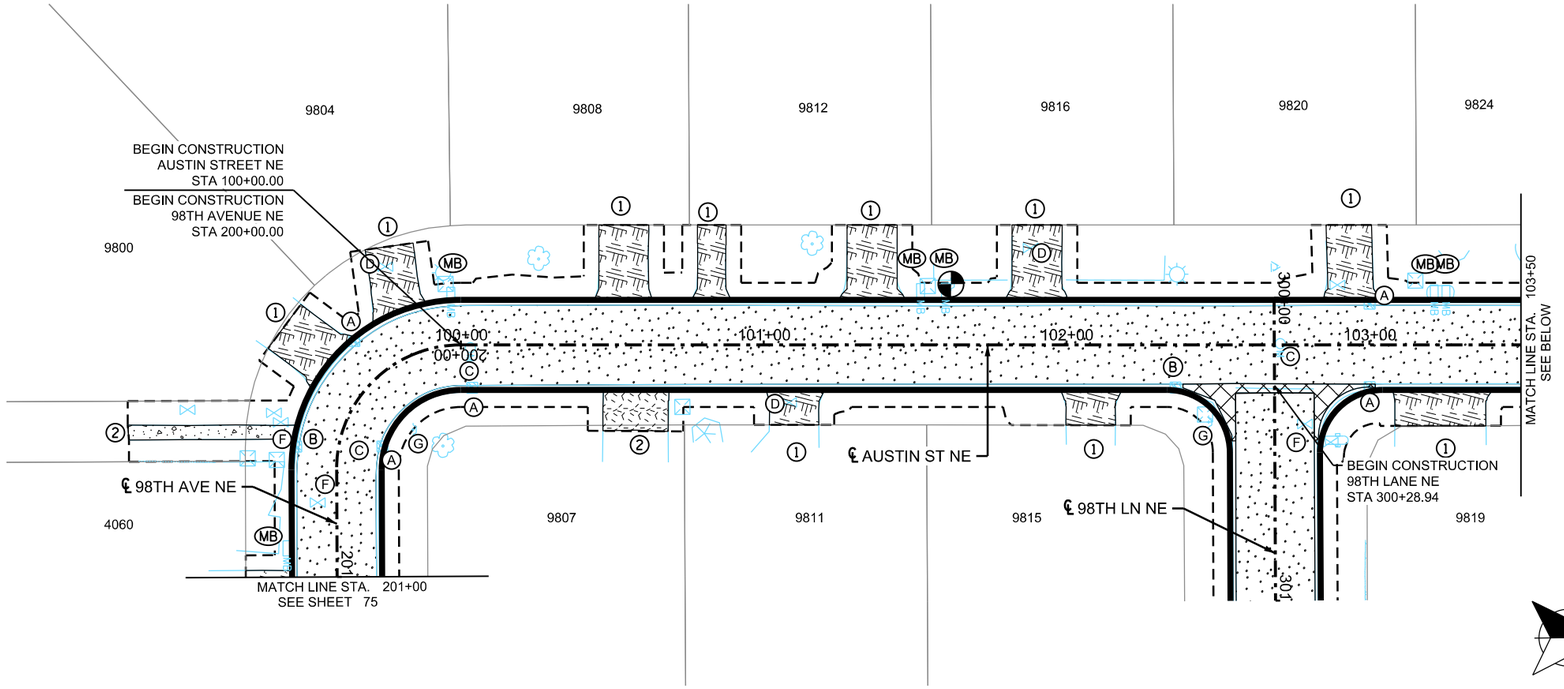
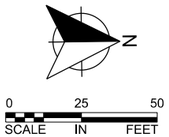
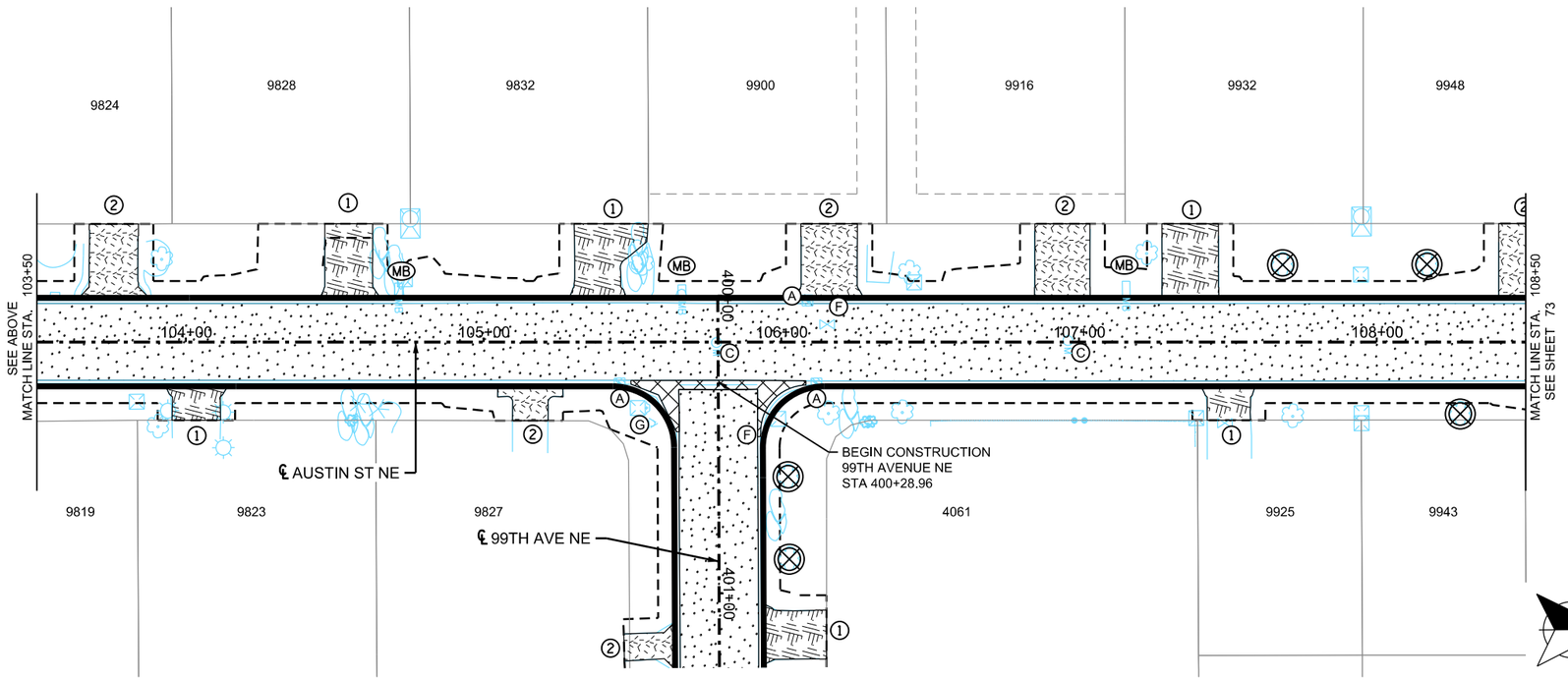
*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

AUSTIN STREET NE

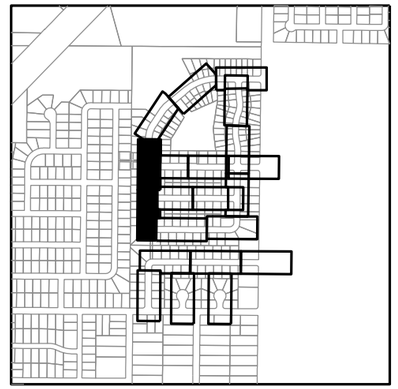




AUSTIN STREET NE



LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

SHEET **72** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:32:41 AM

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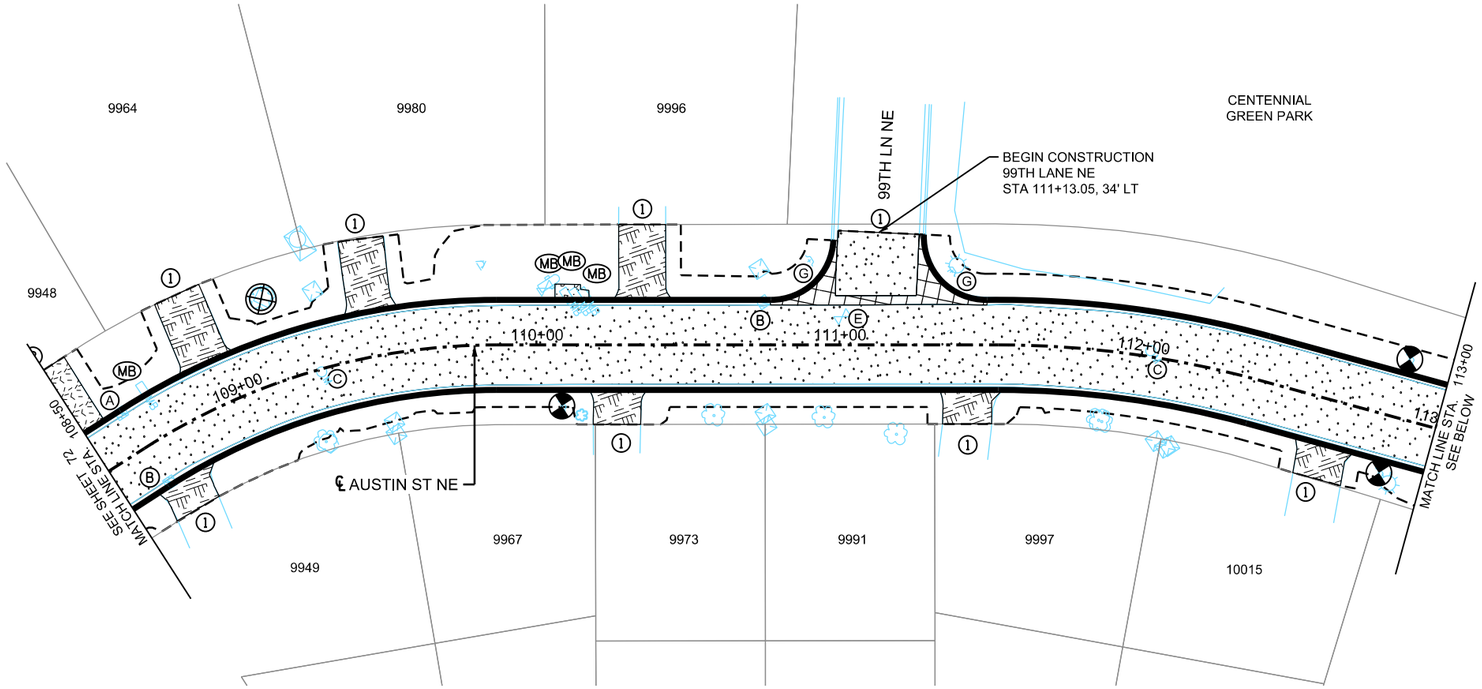
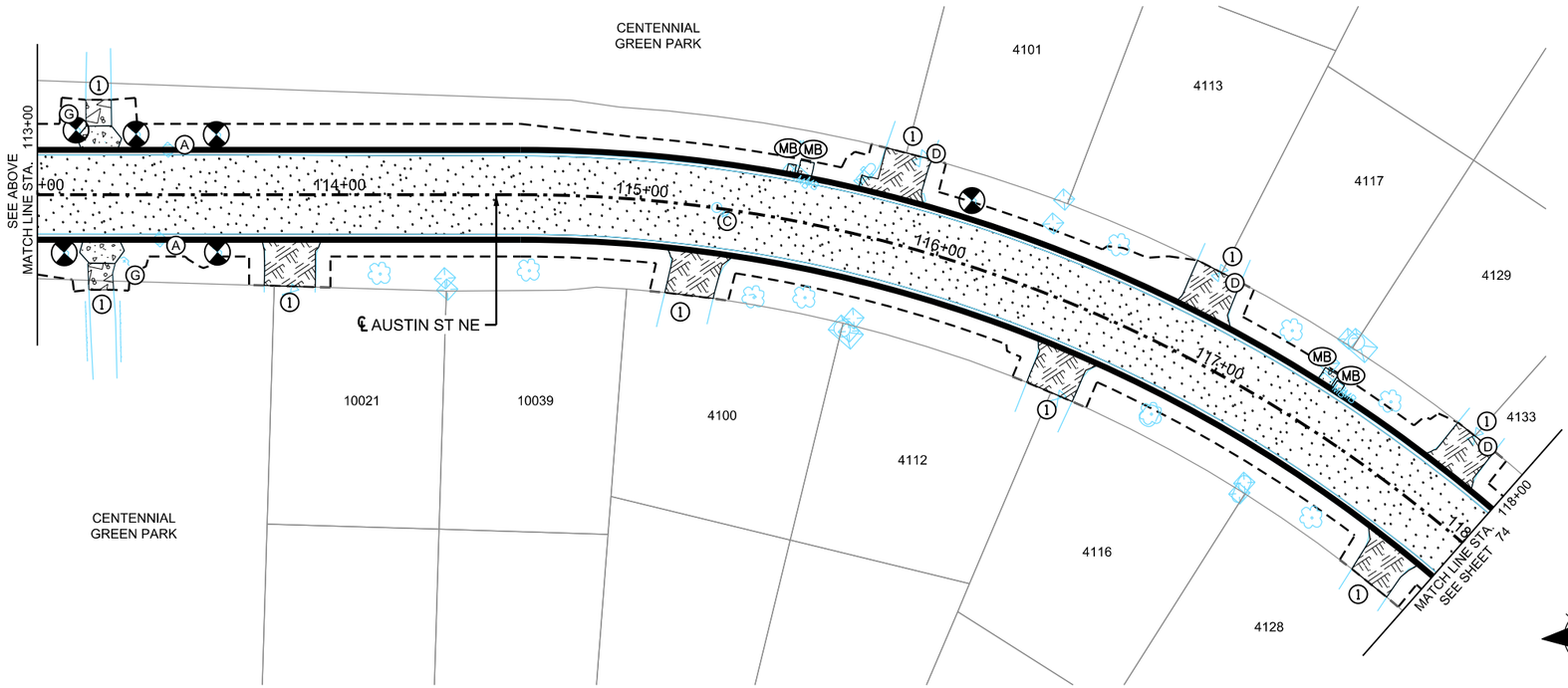
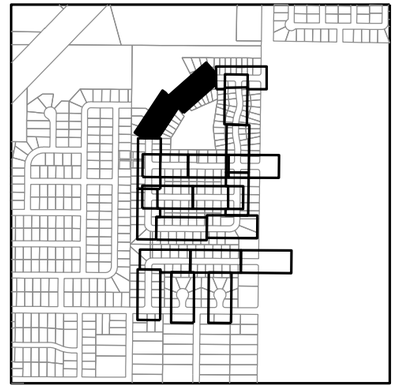
AUSTIN STREET NE



AUSTIN STREET NE



LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
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- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
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PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

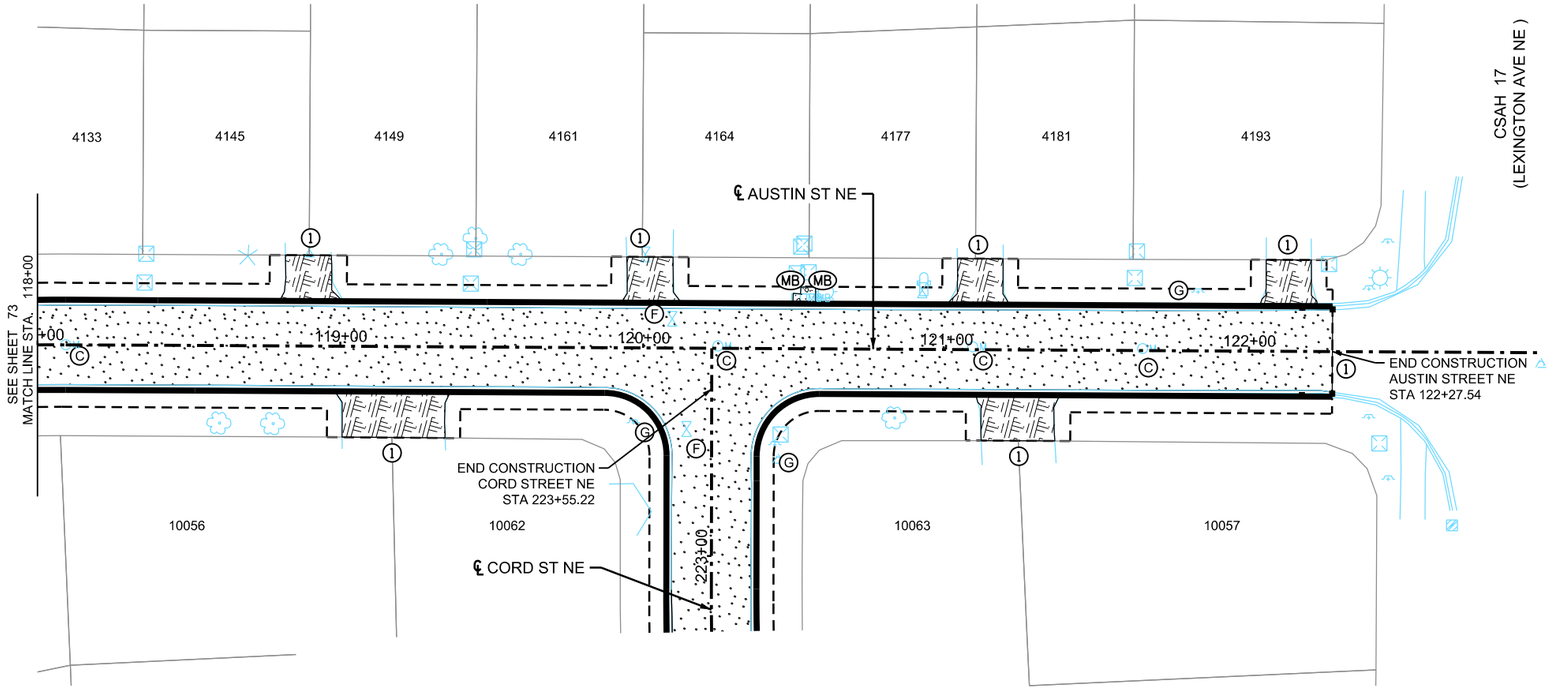
SHEET **73** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:32:44 AM

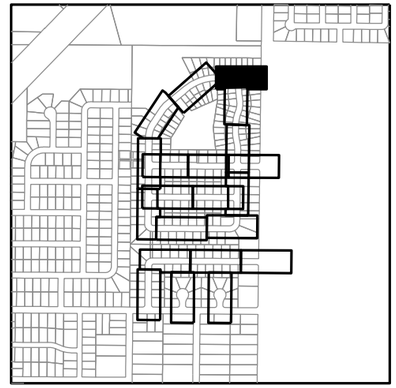
PATH & FILENAME: K:\022066-000\Cad\Plan\220066-000-C-DEMO-PLAN-02.dgn

*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

AUSTIN STREET NE



LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
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- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

WSB PROJECT NO.: 022066-000

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

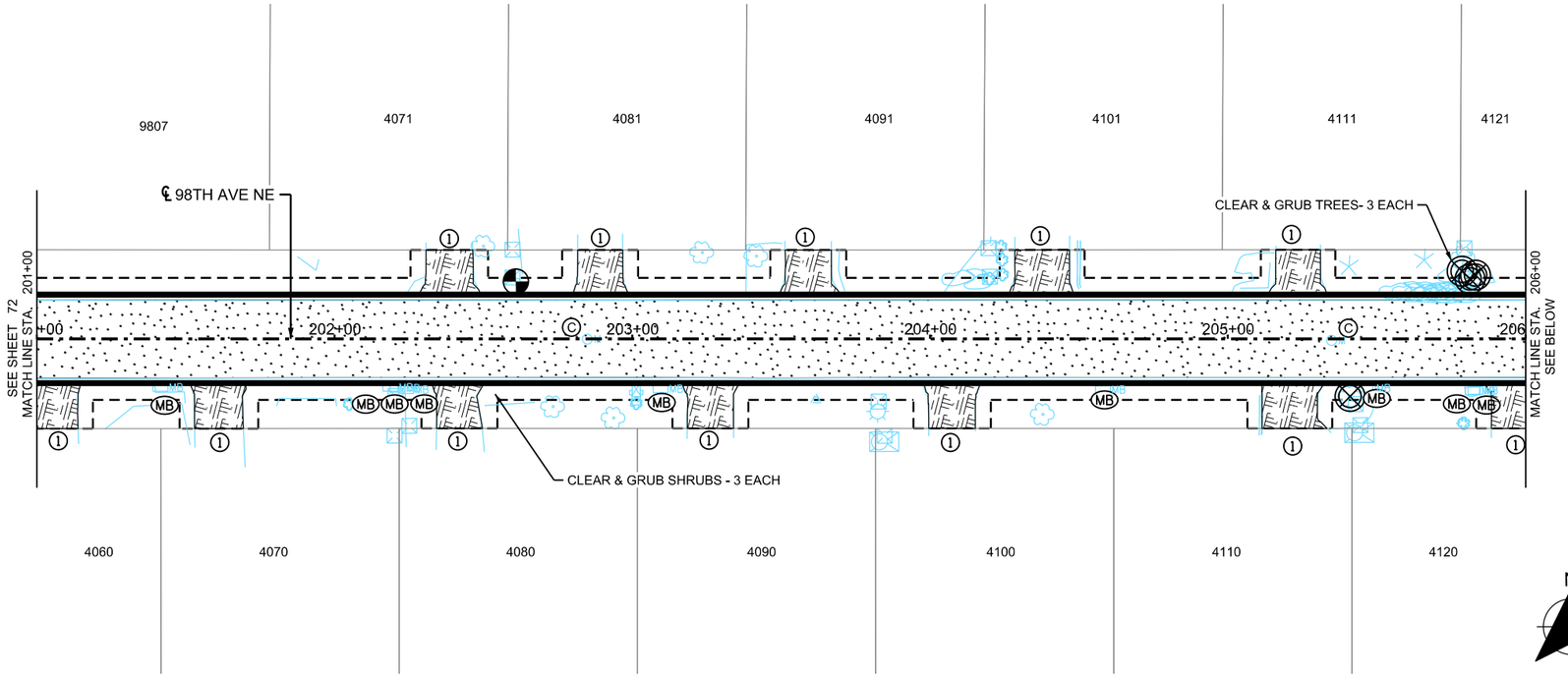
SHEET **74** OF **230** SHEETS

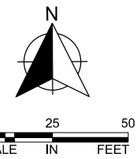
PLOTTED/REVISED: 3/9/2023 11:32:46 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\220066-000-C-DEMO-PLAN-03.dgn

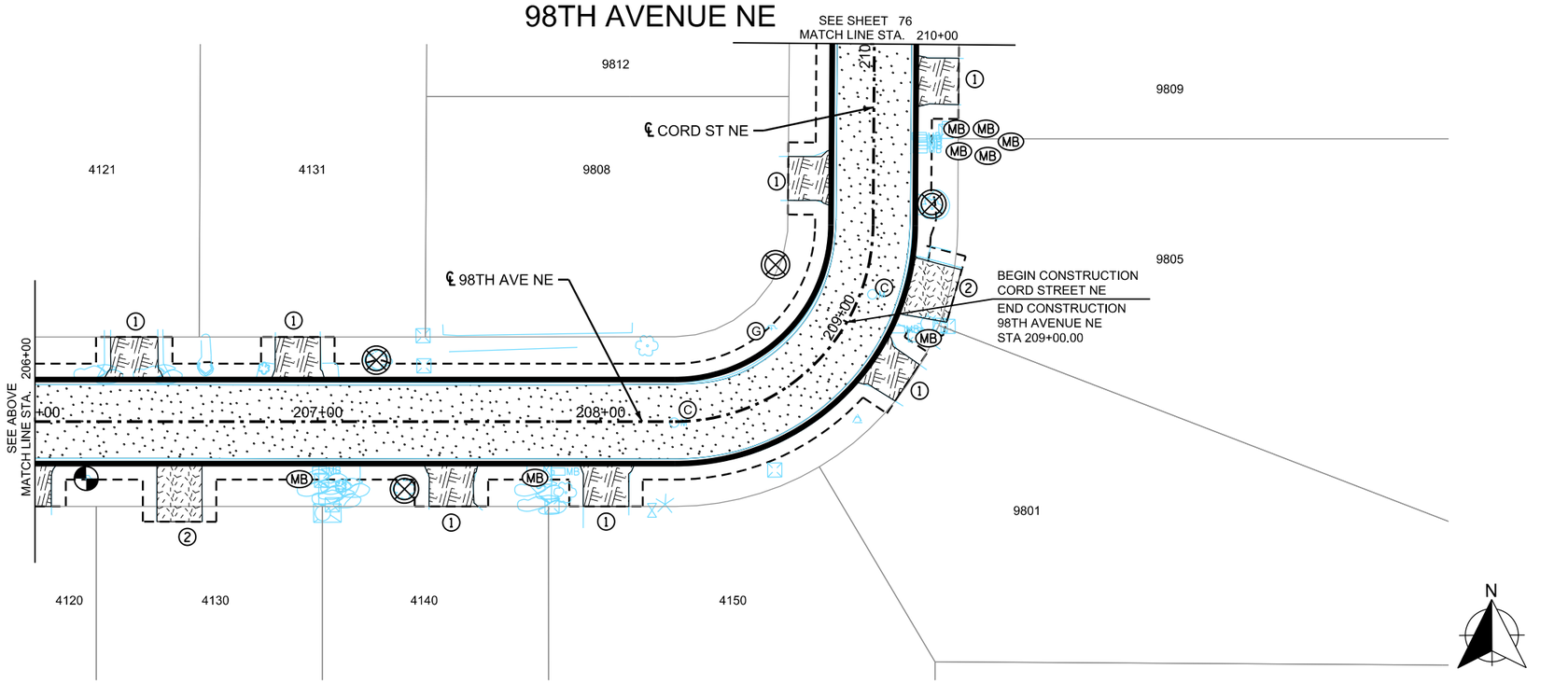
*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

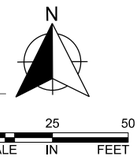
98TH AVENUE NE



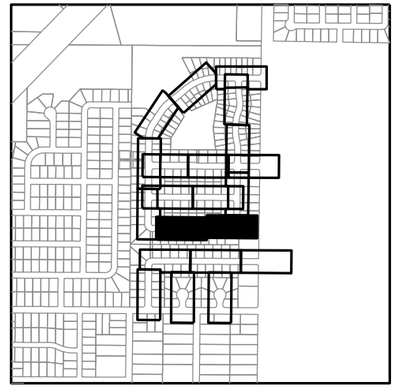


98TH AVENUE NE





LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

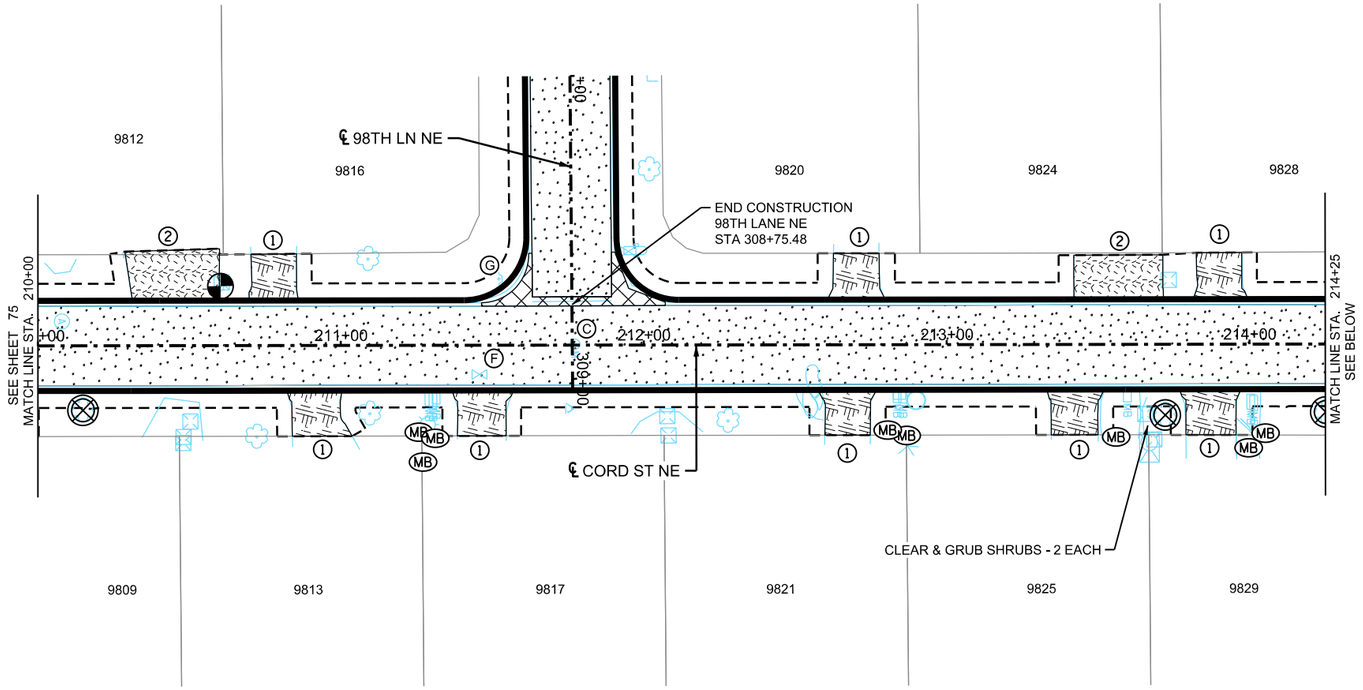
SHEET **75** OF **230** SHEETS

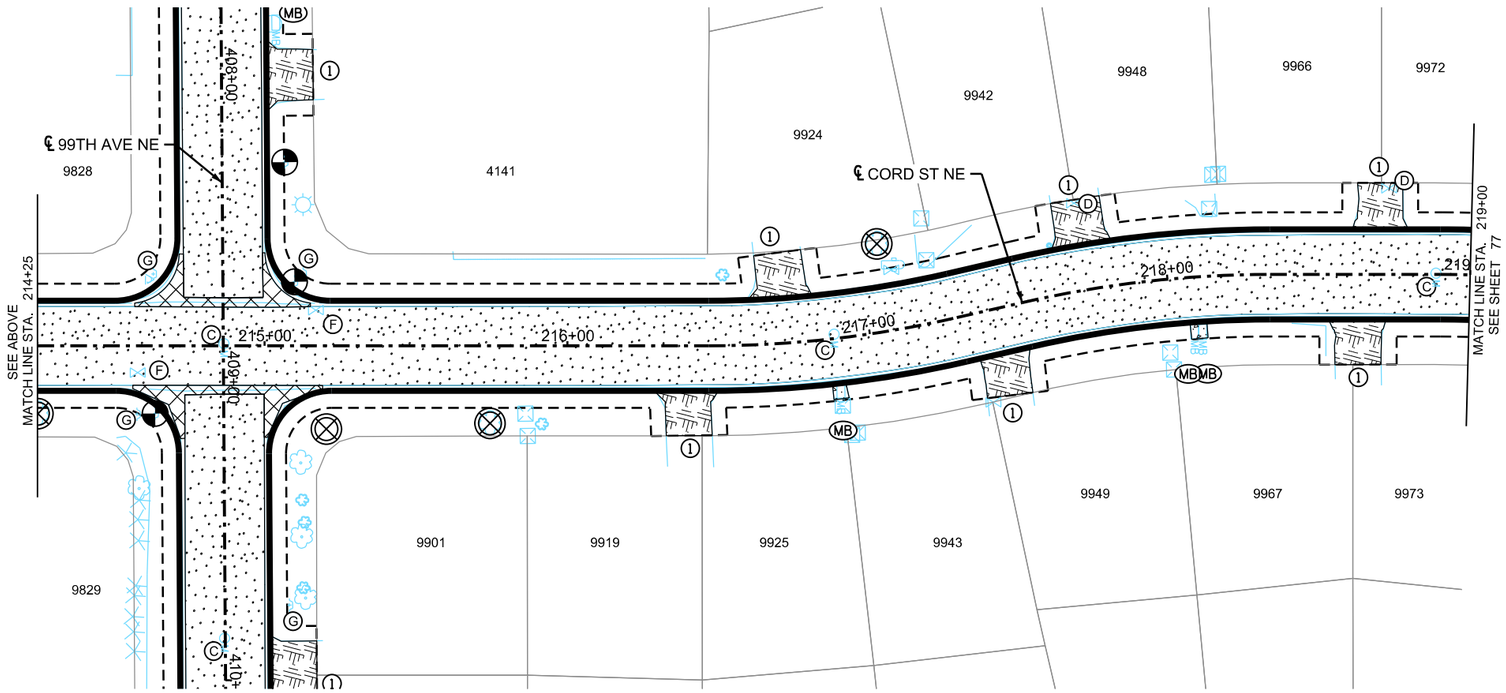
PLOTTED/REVISED: 3/9/2023 11:32:50 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-DEMO-PLAN-04.dgn

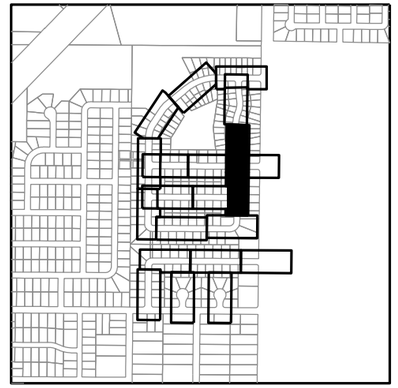
*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

CORD STREET NE





LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

N

0 25 50
SCALE IN FEET

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

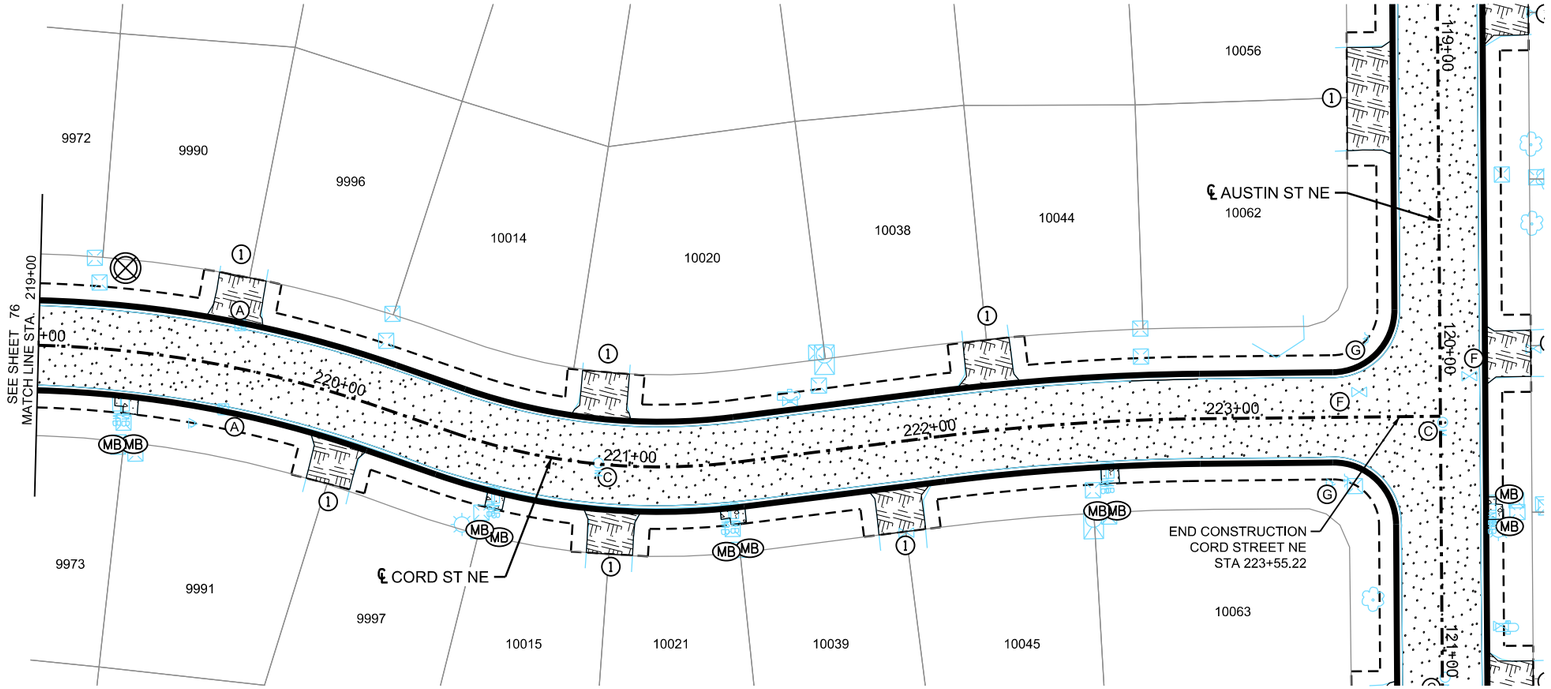
SHEET **76** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:32:53 AM

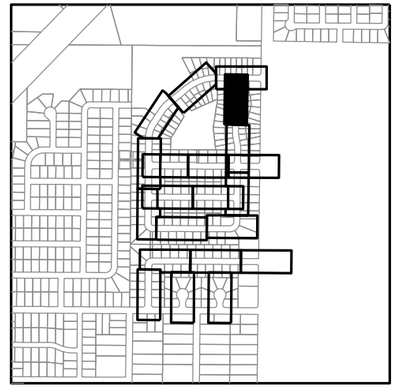
PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-DEMO-PLAN-05.dgn

*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

CORD STREET NE



LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

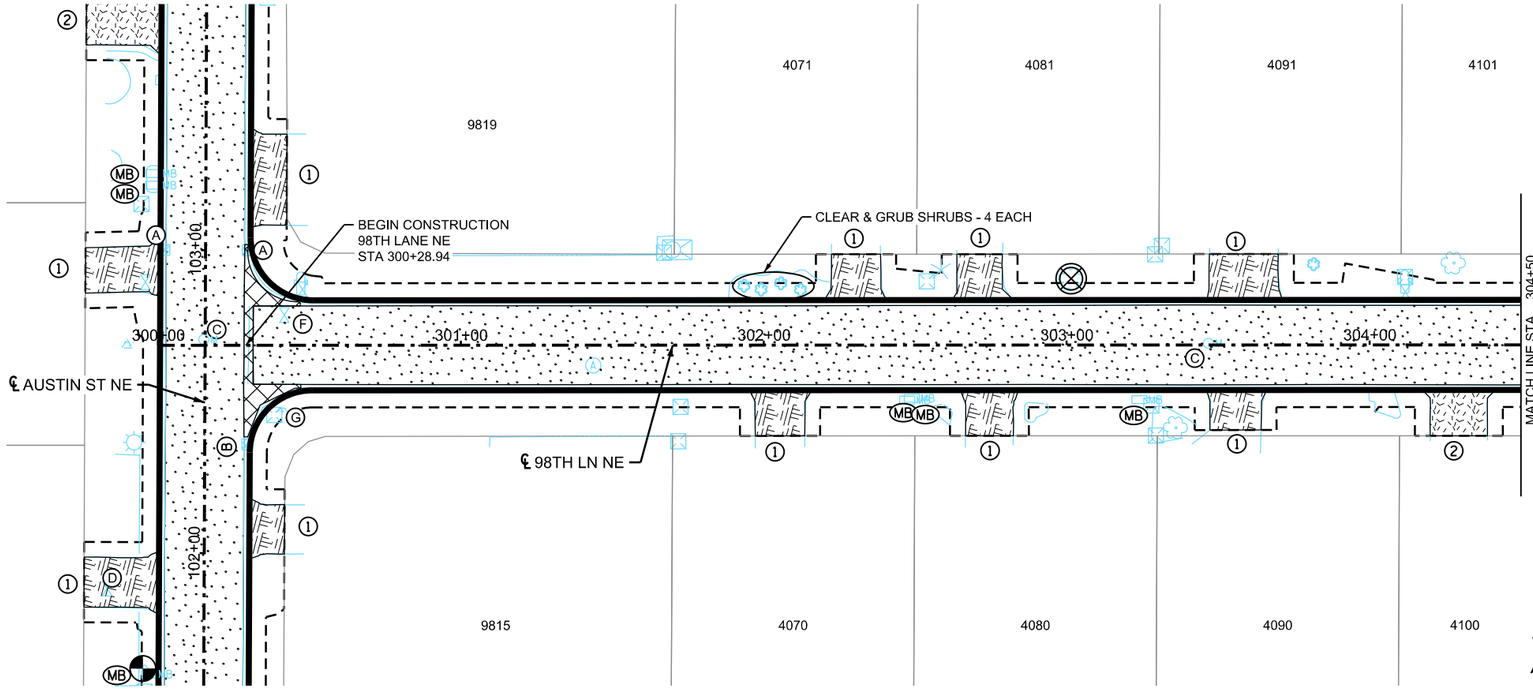
SHEET **77** OF **230** SHEETS

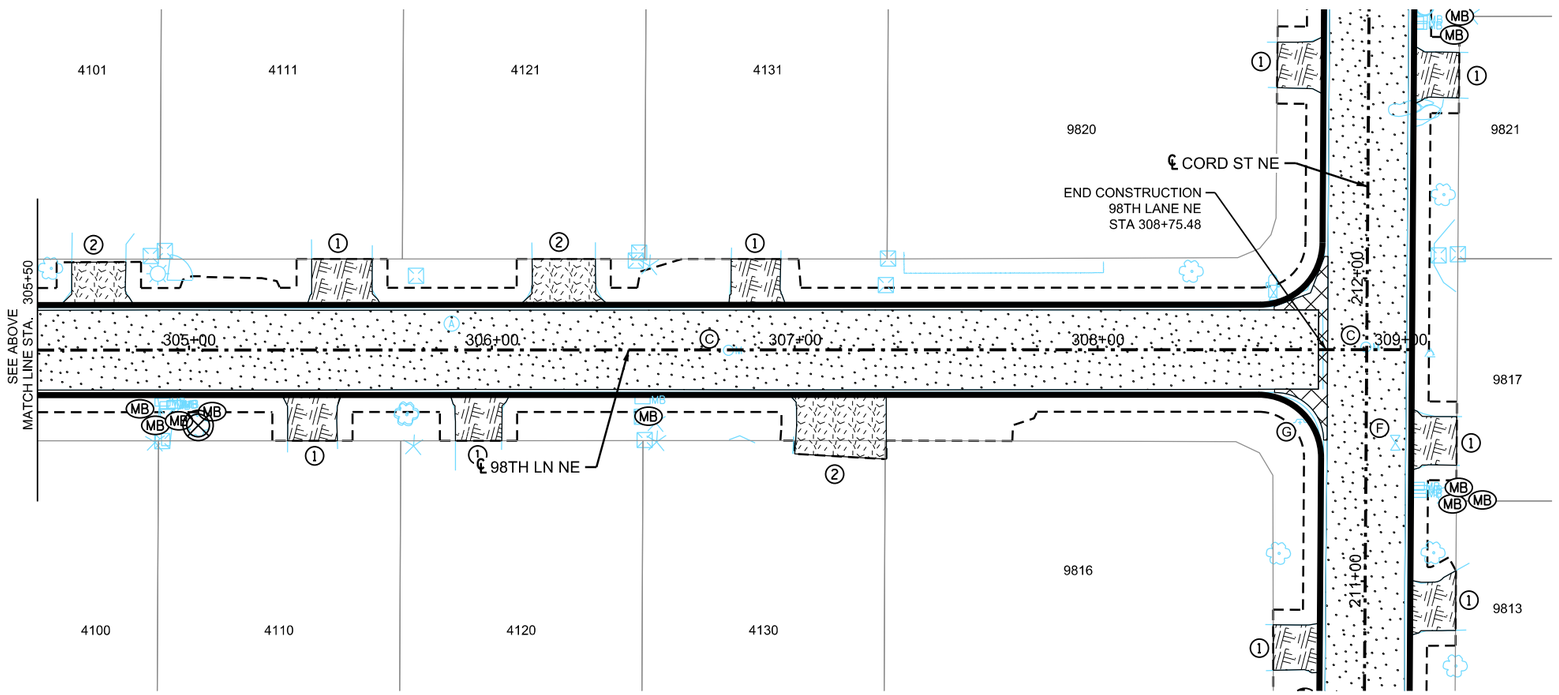
PLOTTED/REVISED: 3/9/2023 11:32:55 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-DEMO-PLAN-06.dgn

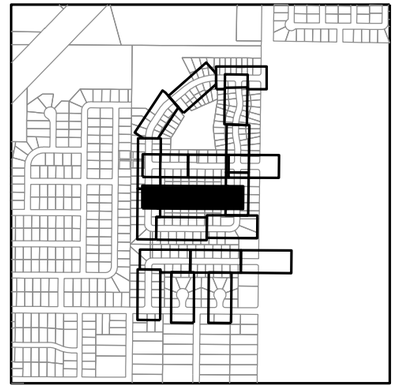
*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

98TH LANE NE





LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

SCALE 0 25 50 FEET

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

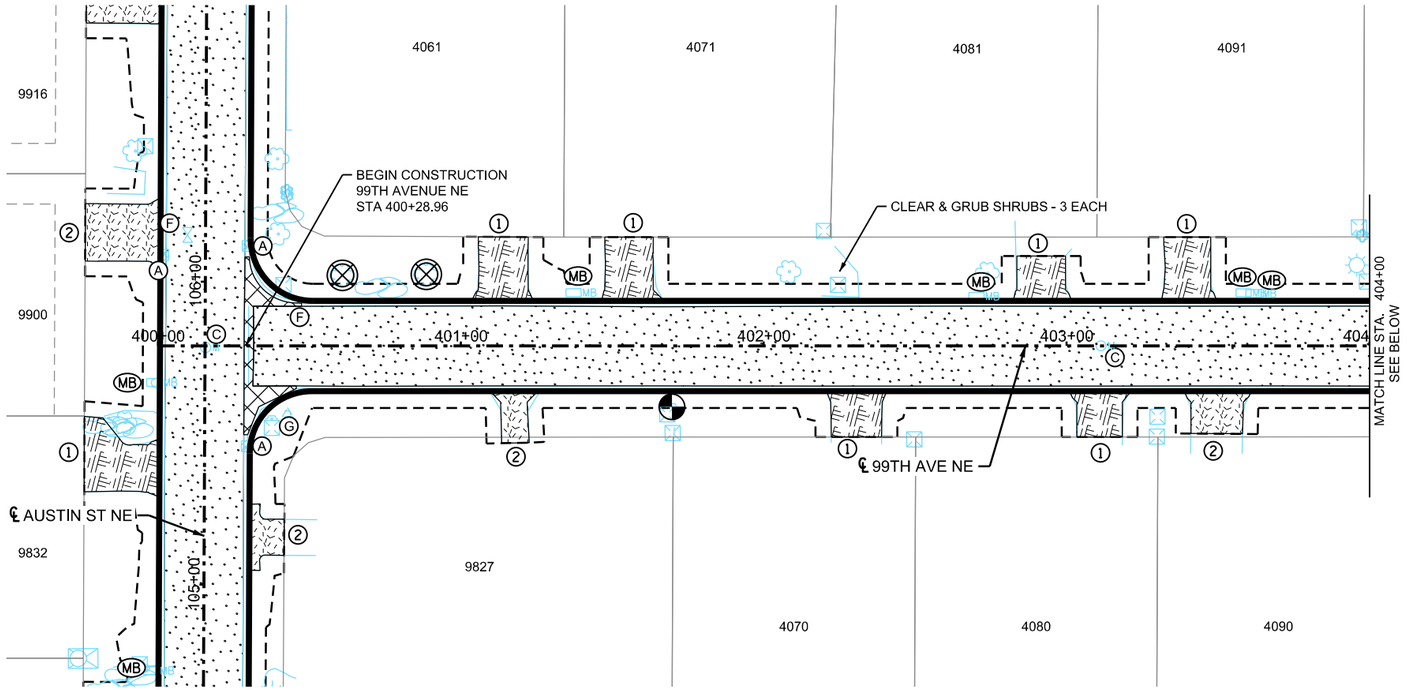
SHEET **78** OF **230** SHEETS

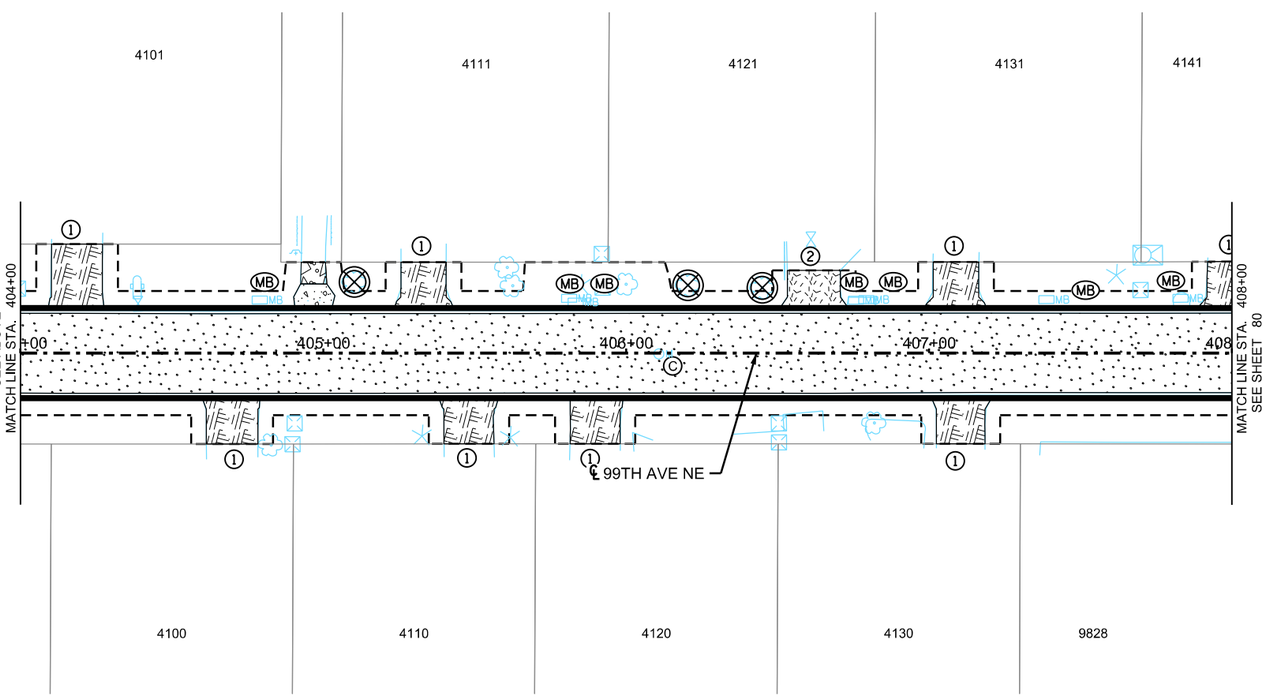
PLOTTED/REVISED: 3/9/2023 11:32:59 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-DEMO-PLAN-07.dgn

*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

99TH AVENUE NE

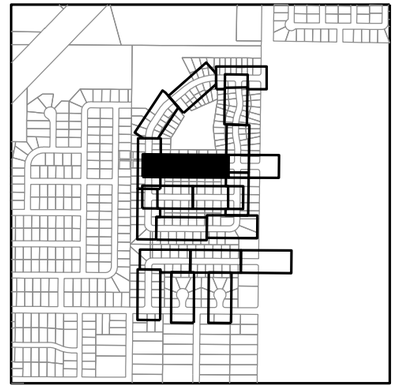




N

0 25 50
SCALE IN FEET

LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

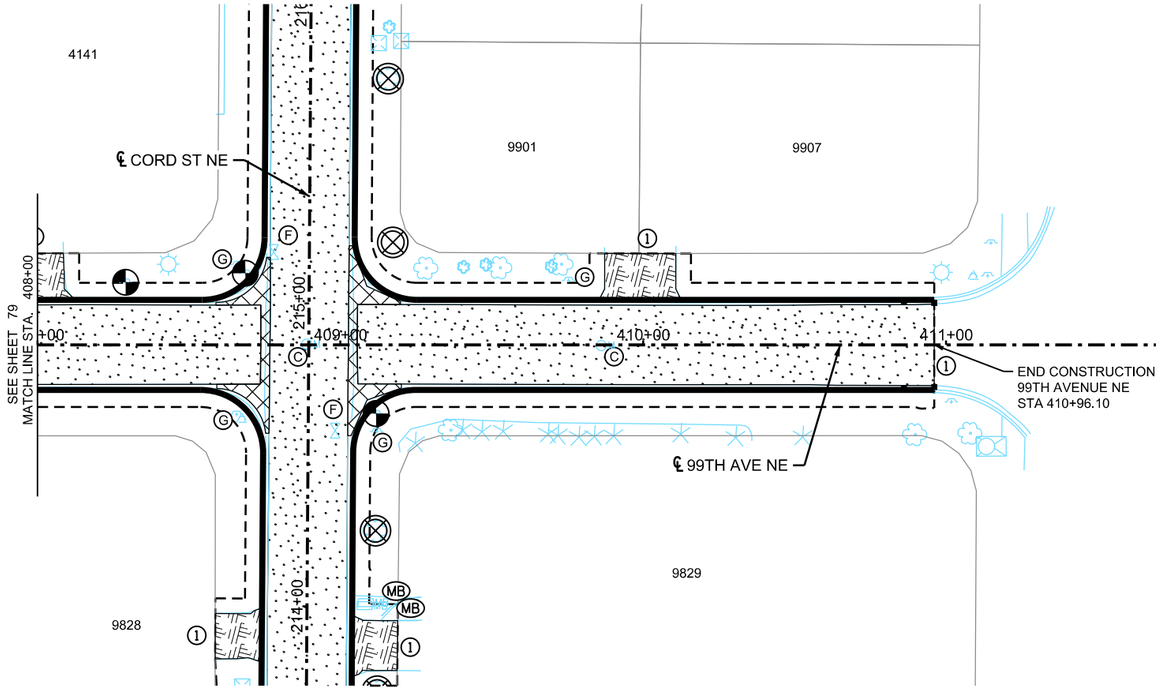
SHEET **79** OF **230** SHEETS

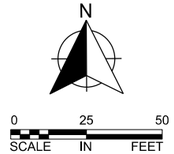
PLOTTED/REVISED: 3/9/2023 11:33:02 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-DEMO-PLAN-08.dgn

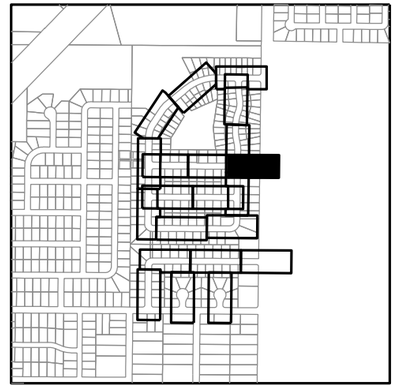
*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

99TH AVENUE NE





LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

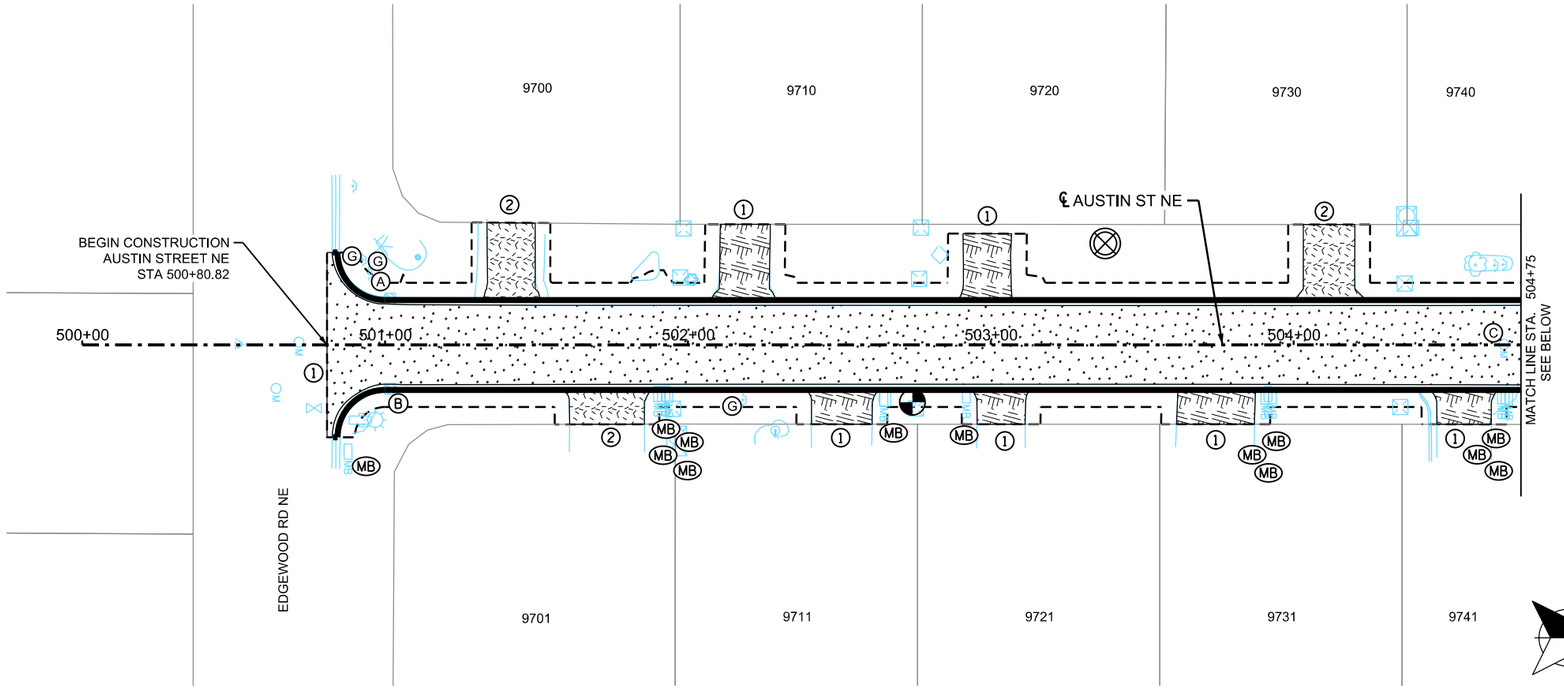
SHEET **80** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:33:04 AM

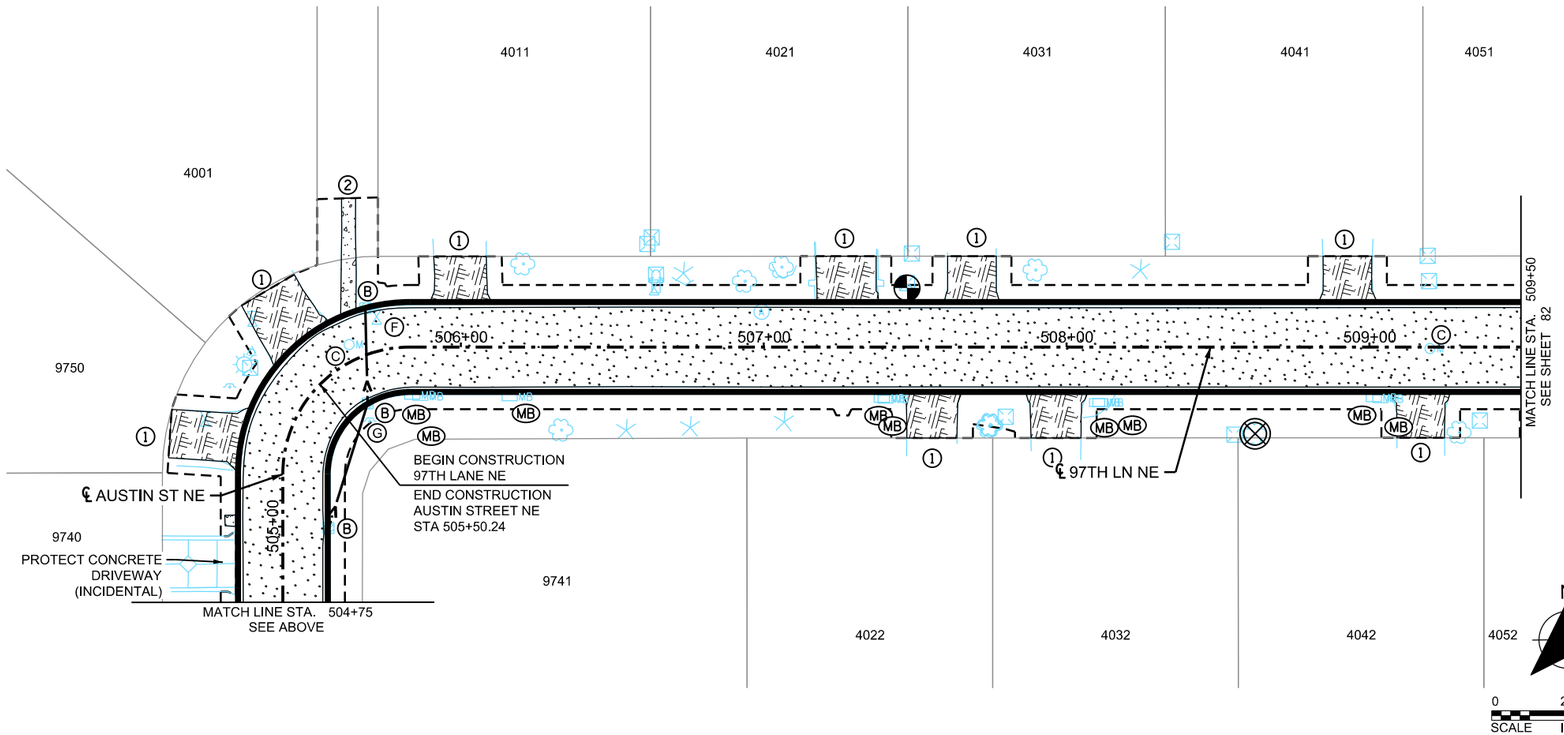
PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-DEMO-PLAN-09.dgn

*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

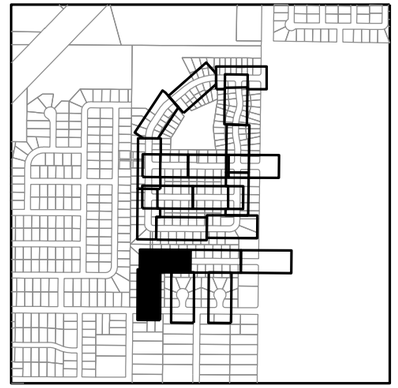
AUSTIN STREET NE



97TH LANE NE



LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

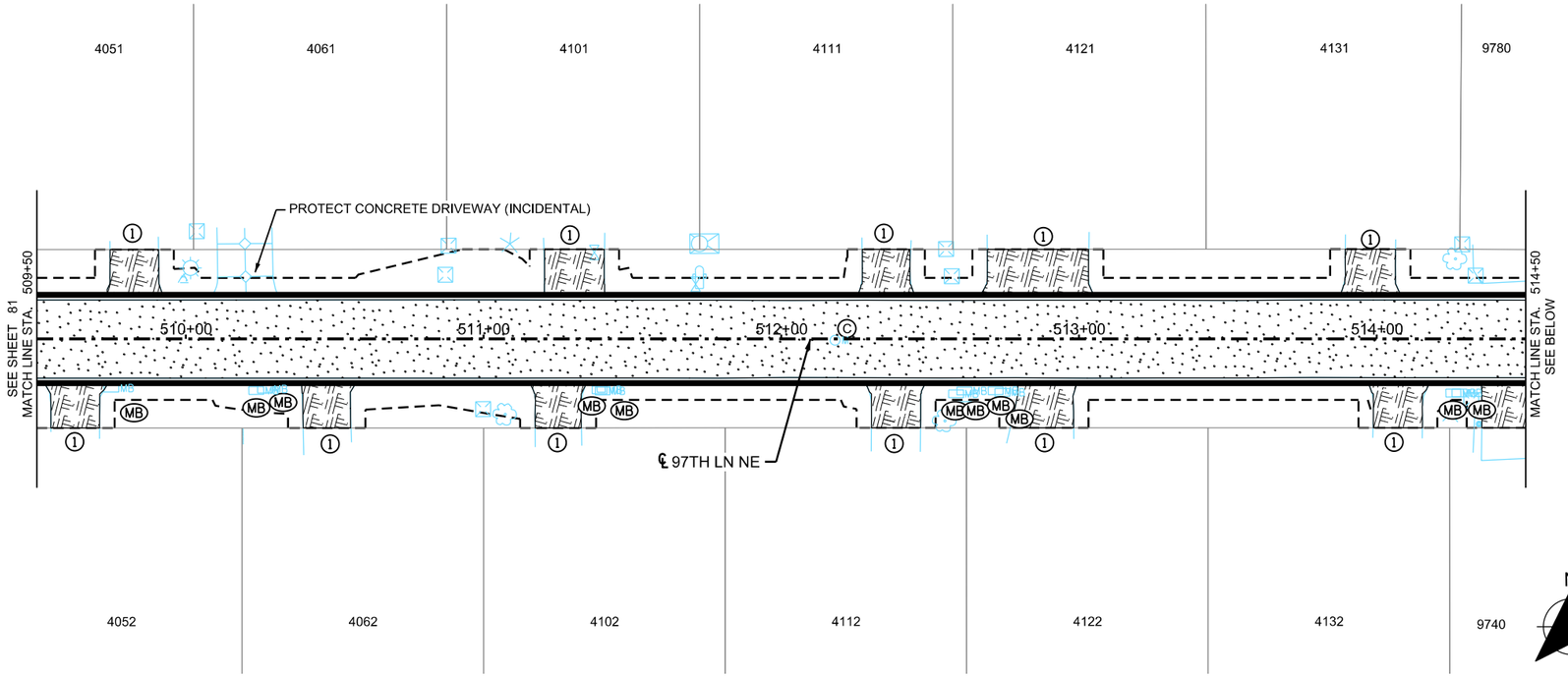
SHEET **81** OF **230** SHEETS

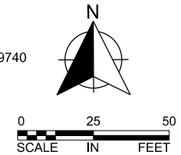
PLOTTED/REVISED: 3/9/2023 11:33:05 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-DEMO-PLAN-10.dgn

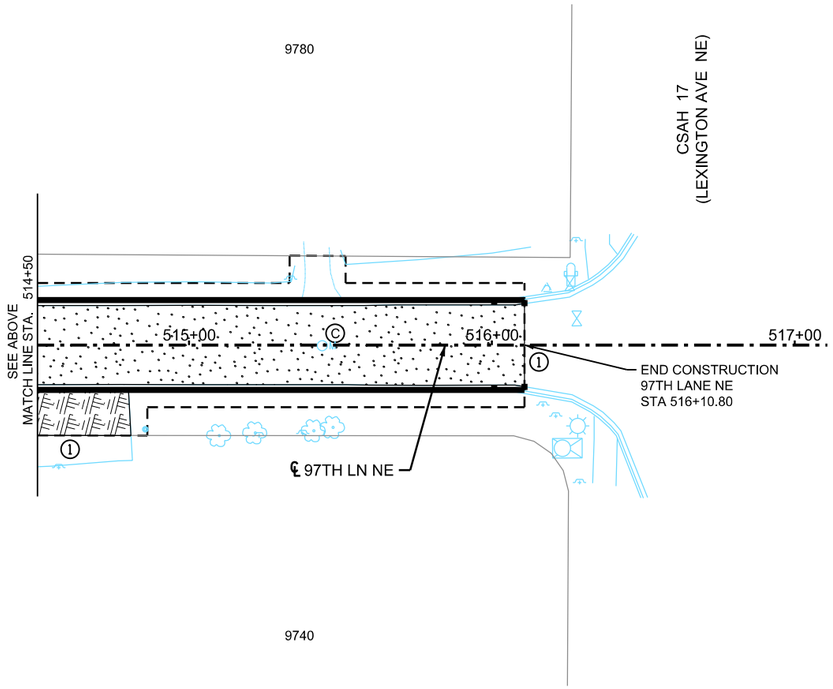
*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

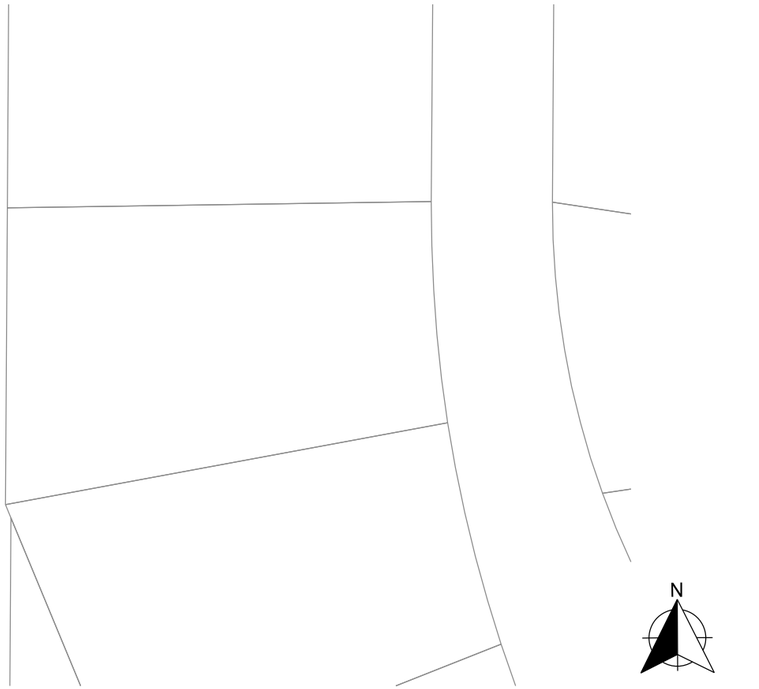
97TH LANE NE



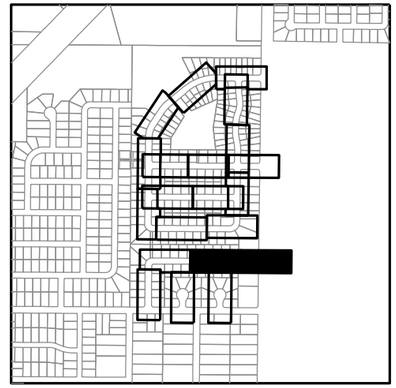


97TH LANE NE





LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

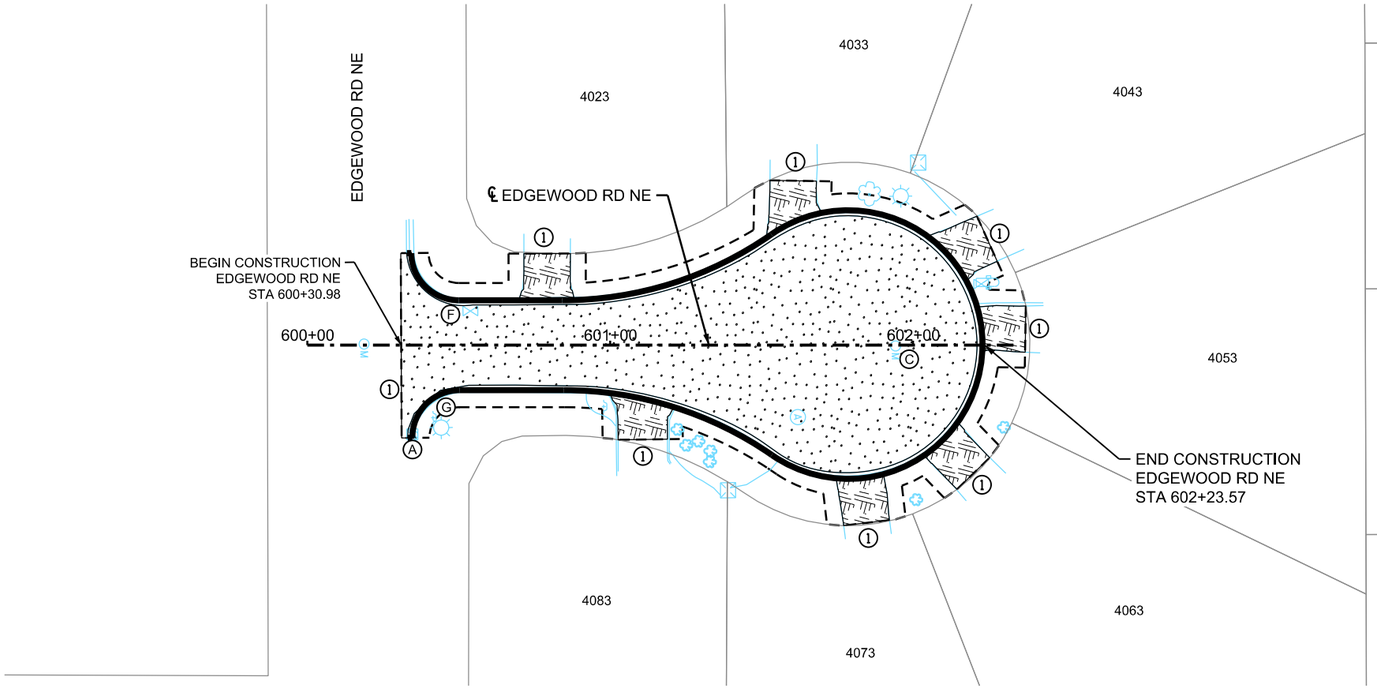
SHEET **82** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:33:06 AM

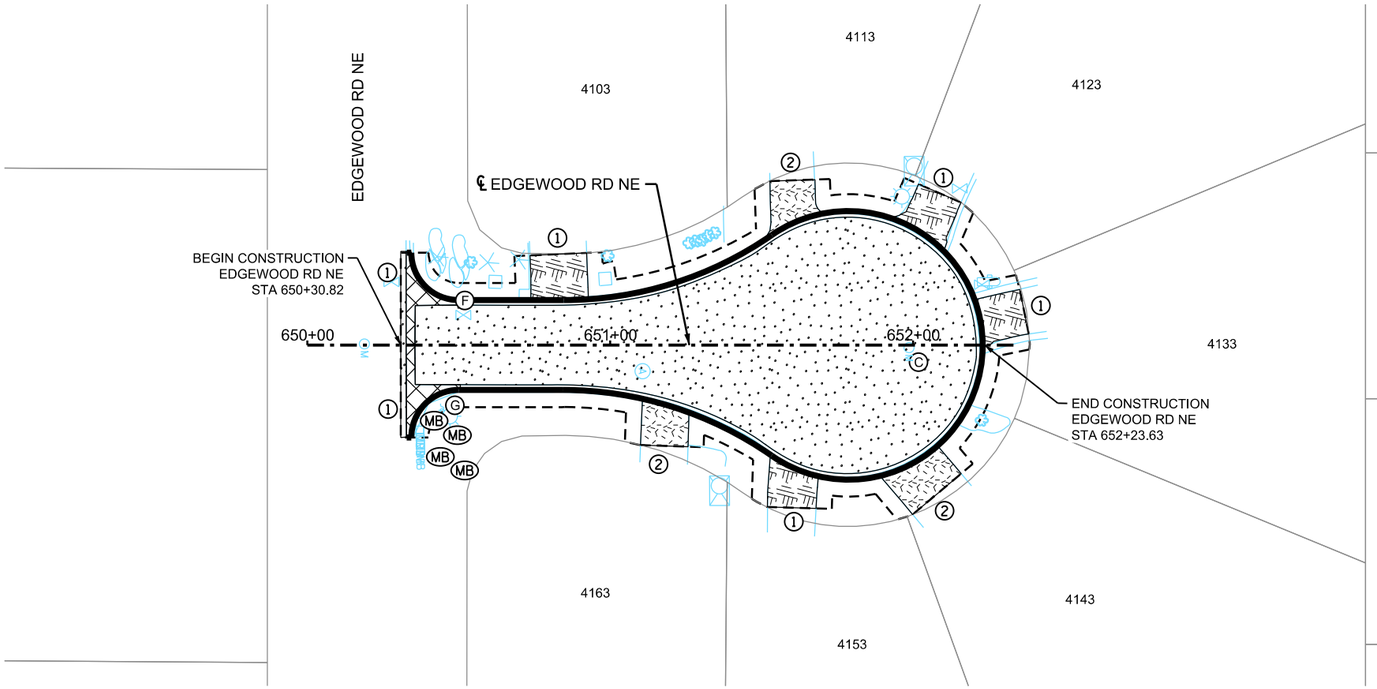
PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-DEMO-PLAN-11.dgn

*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

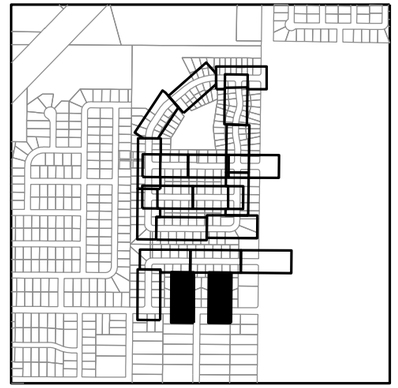
EDGEWOOD ROAD NE (4023 - 4083)



EDGEWOOD ROAD NE (4103 - 4163)



LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

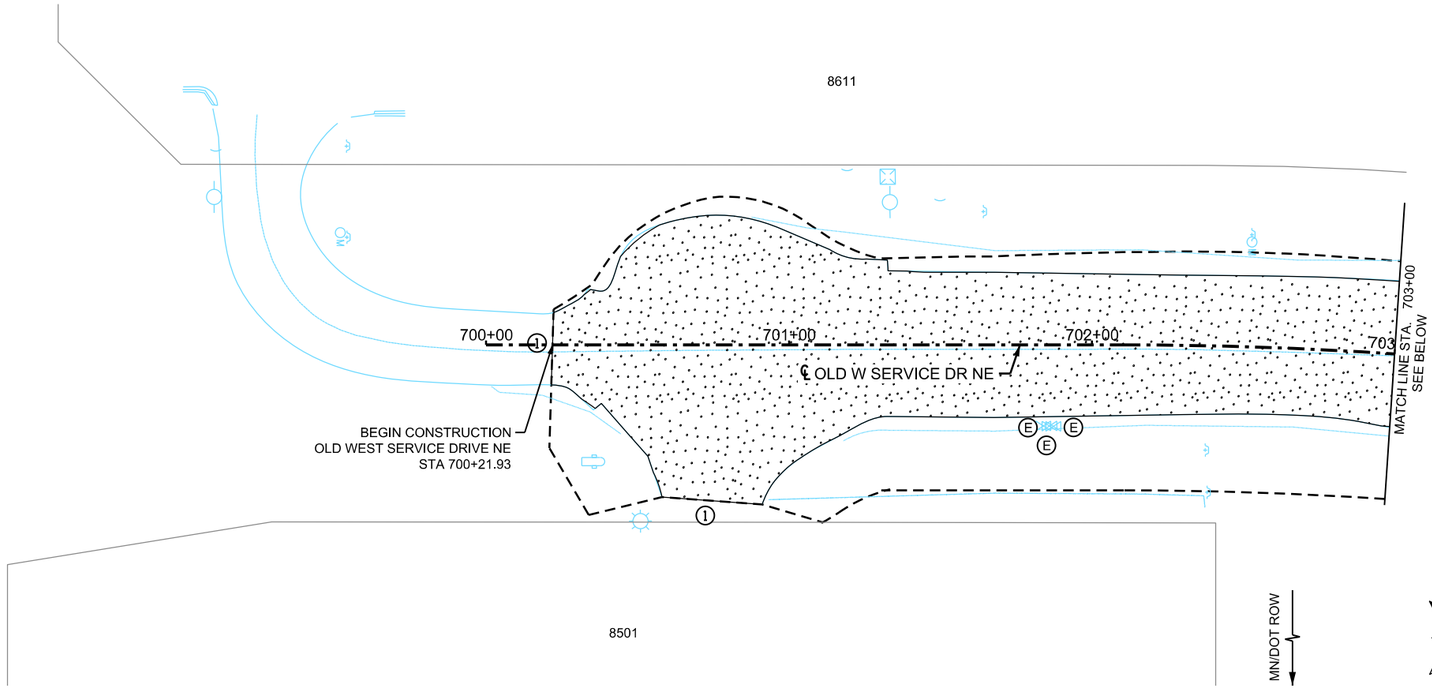
SHEET **83** OF **230** SHEETS

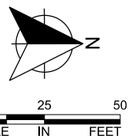
PLOTTED/REVISED: 3/9/2023 11:33:07 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\220066-000-C-DEMO-PLAN-12.dgn

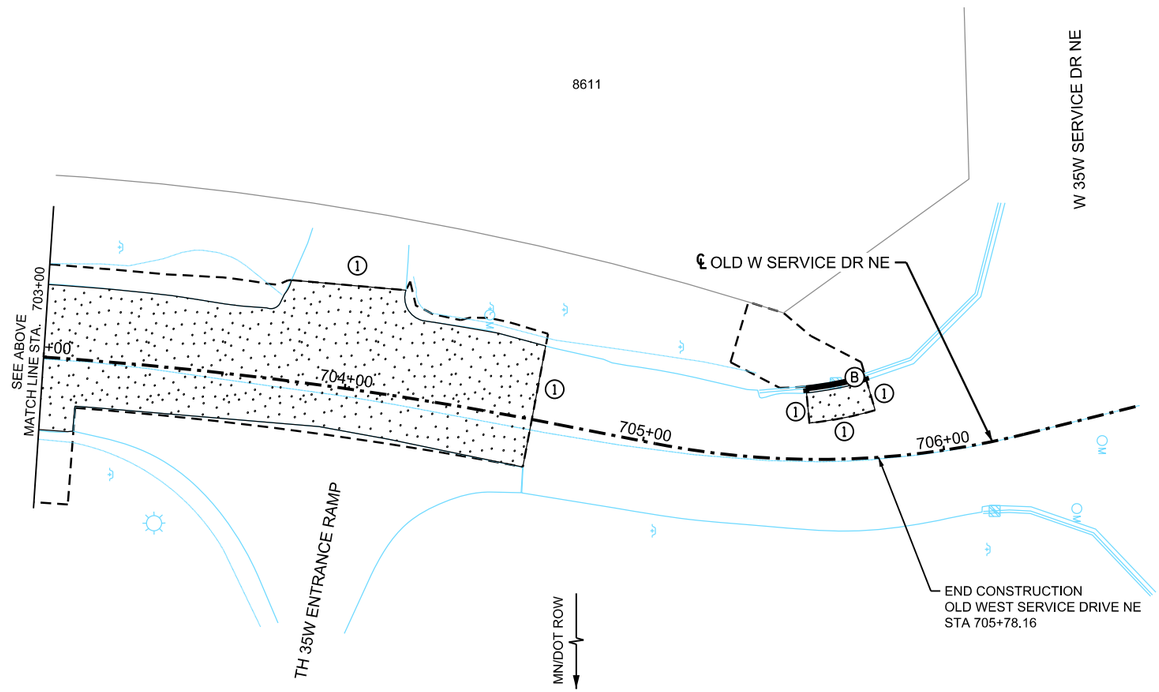
*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

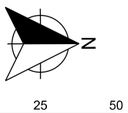
OLD WEST SERVICE DRIVE NE





OLD WEST SERVICE DRIVE NE





LOCATION MAP

LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
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- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

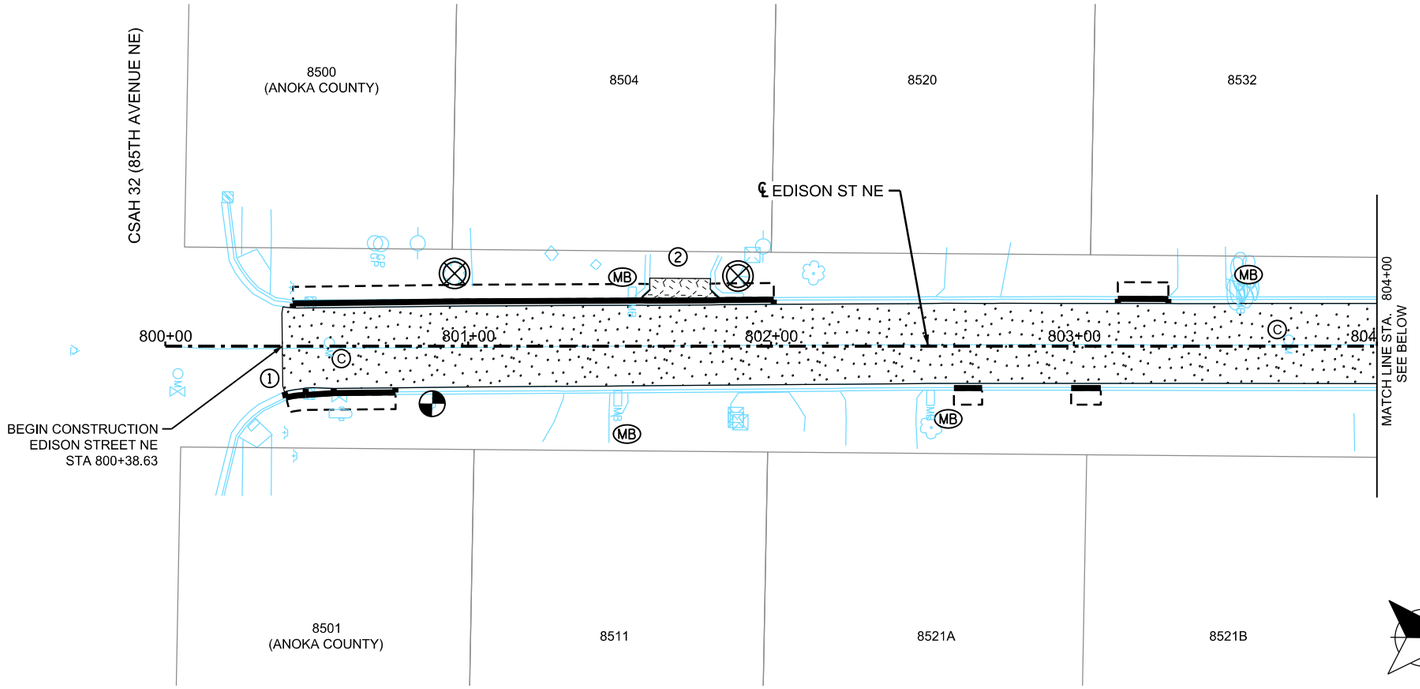
SHEET **84** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:33:08 AM

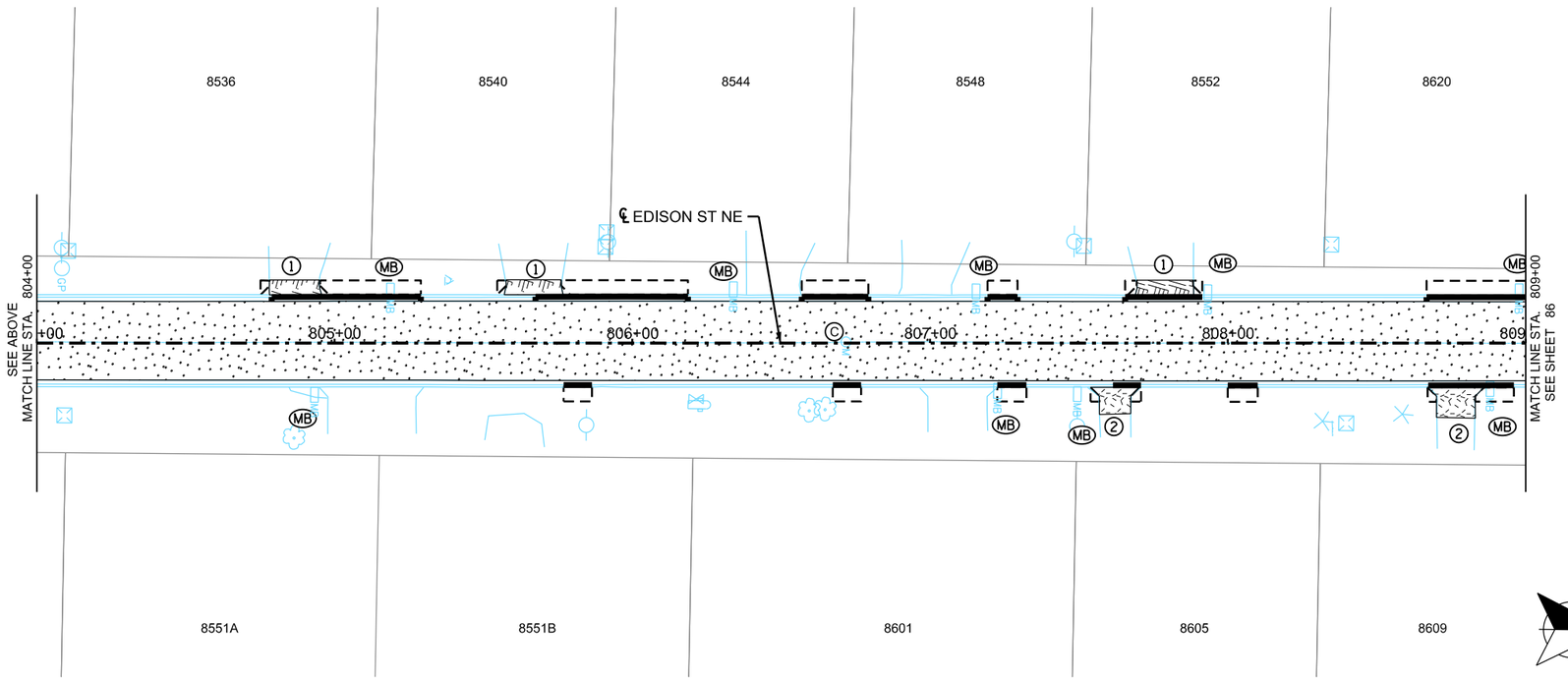
PATH & FILENAME: K:\022066-000\Cad\Plan\220066-000-C-DEMO-PLAN-13.dgn

*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

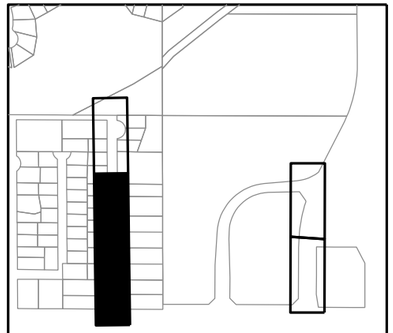
EDISON STREET NE



EDISON STREET NE



LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GUTTER TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

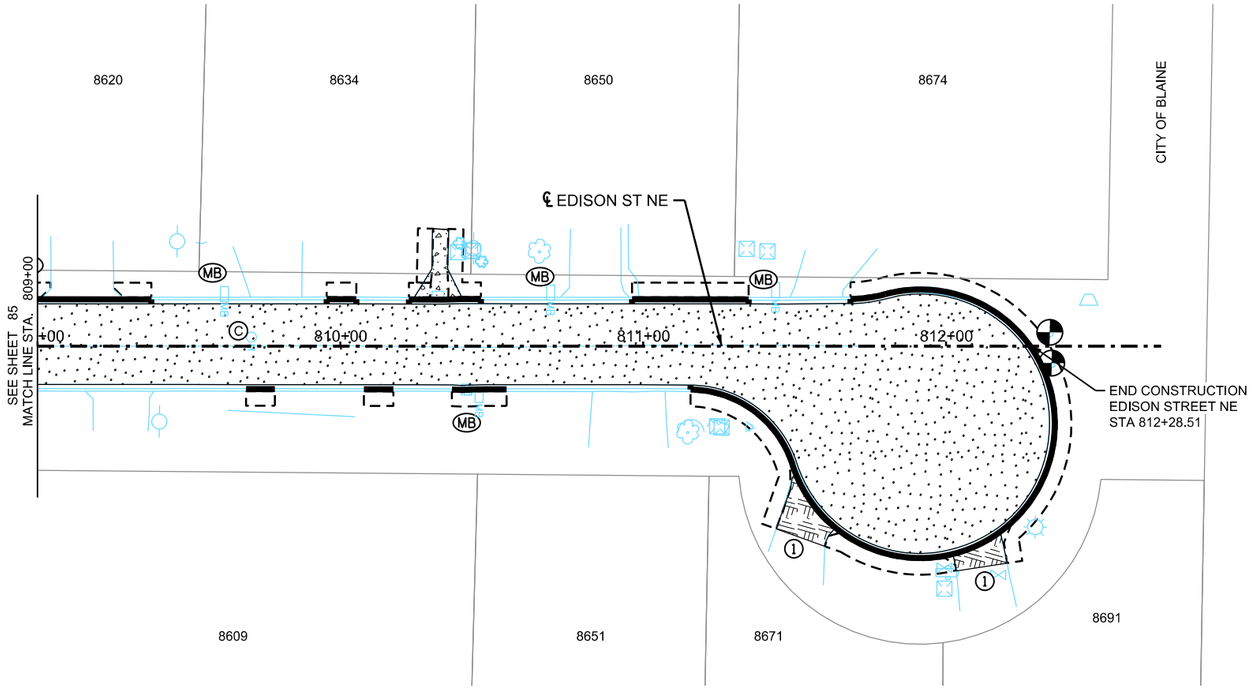
SHEET **85** OF **230** SHEETS

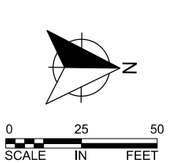
PLOTTED/REVISED: 3/9/2023 11:33:09 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-DEMO-PLAN-14.dgn

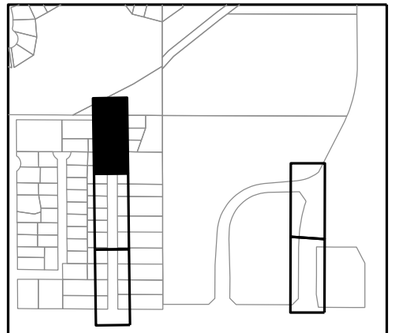
*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

EDISON STREET NE





LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

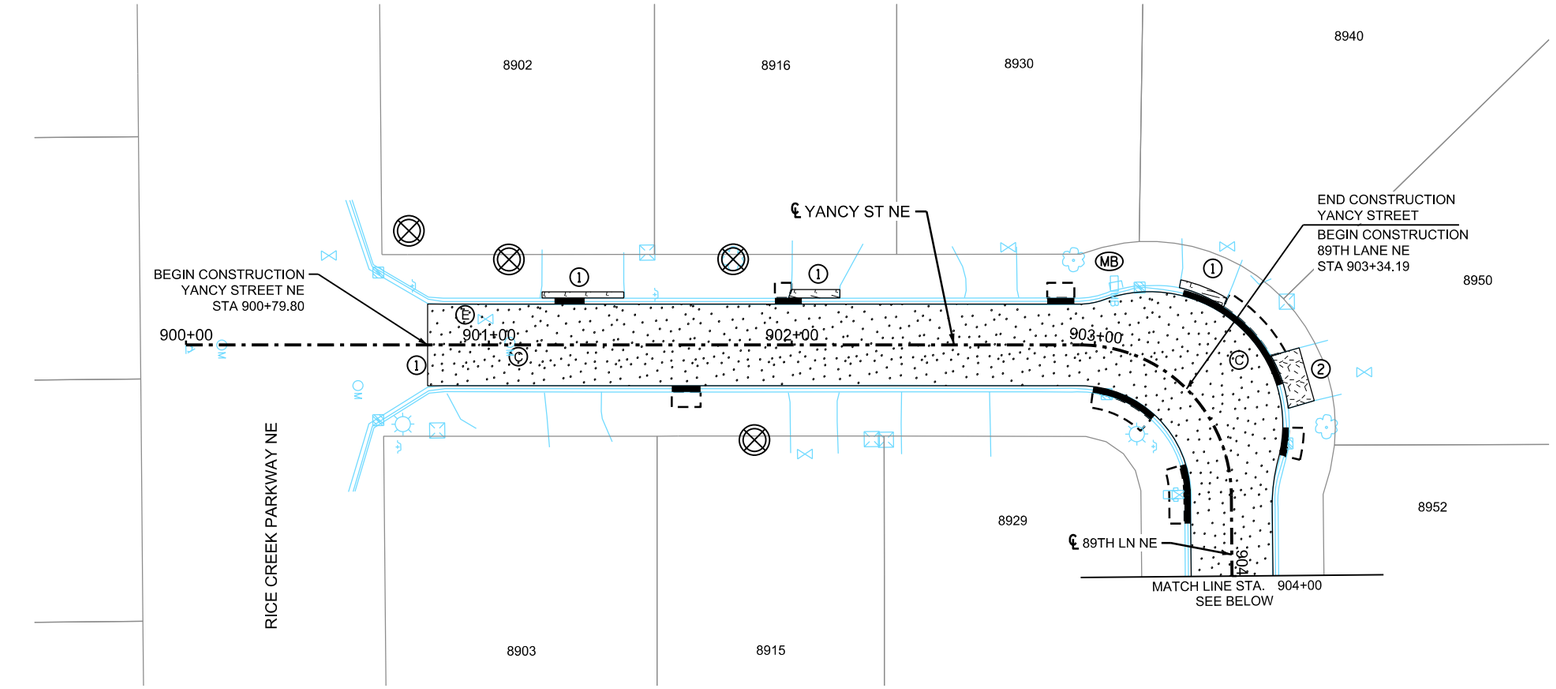
SHEET **86** OF **230** SHEETS

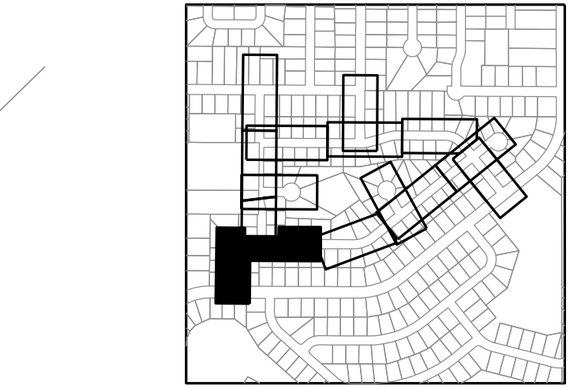
PLOTTED/REVISED: 3/9/2023 11:33:09 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\220066-000-C-DEMO-PLAN-15.dgn

*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

YANCY STREET NE





LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
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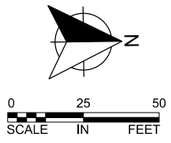
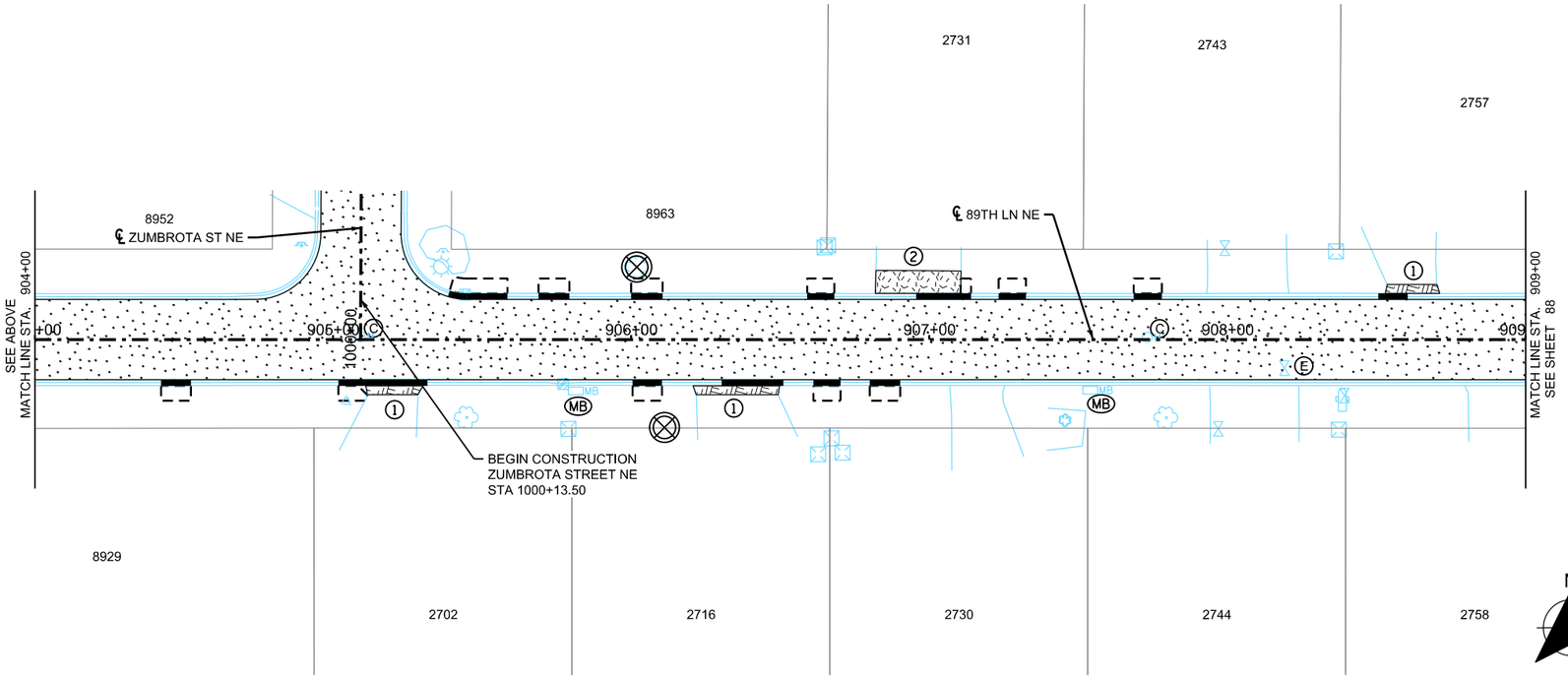
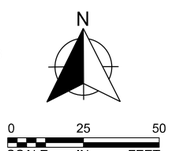
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY



89TH LANE NE





GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

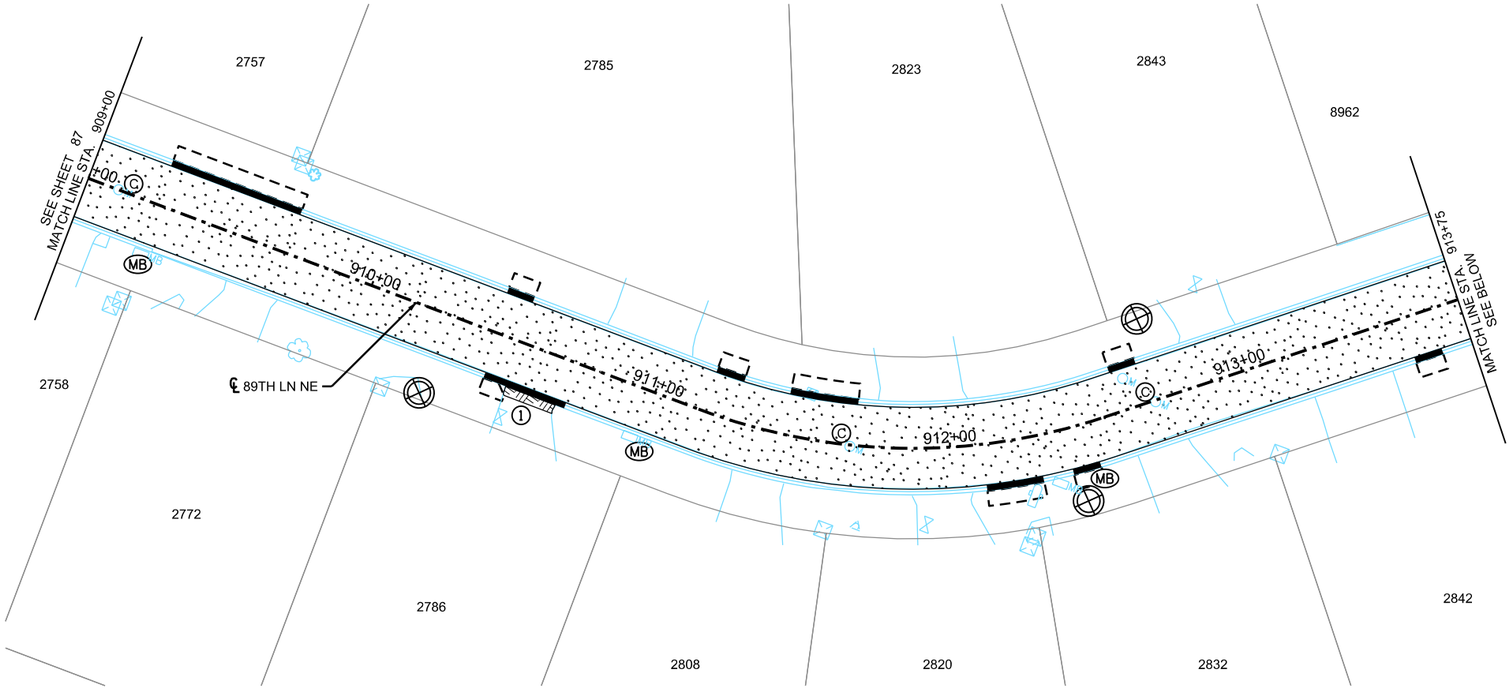
SHEET **87** OF **230** SHEETS

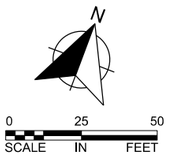
PLOTTED/REVISED: 3/9/2023 11:33:13 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-DEMO-PLAN-16.dgn

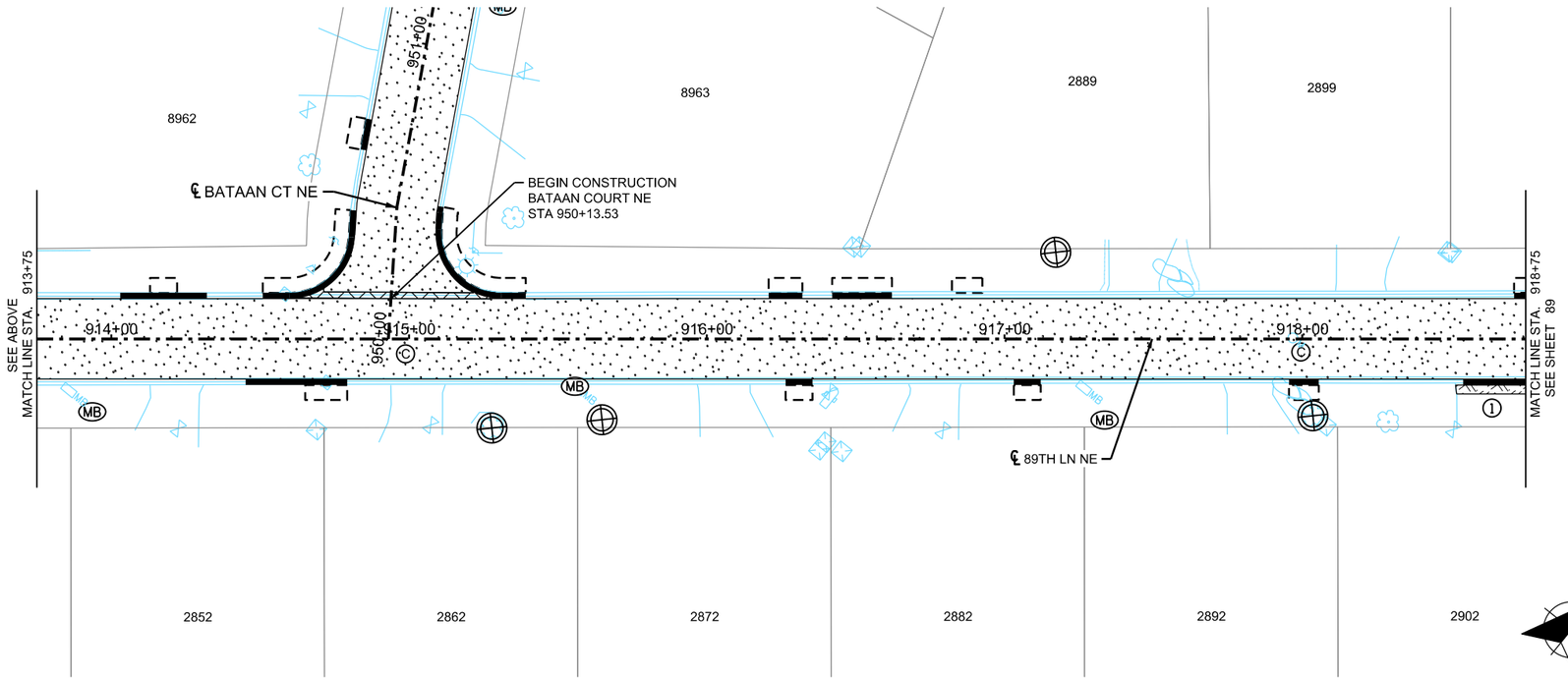
*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

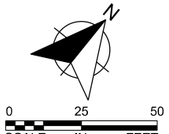
89TH LANE NE



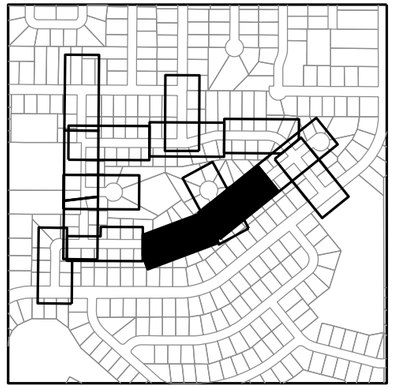


89TH LANE NE





LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
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- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

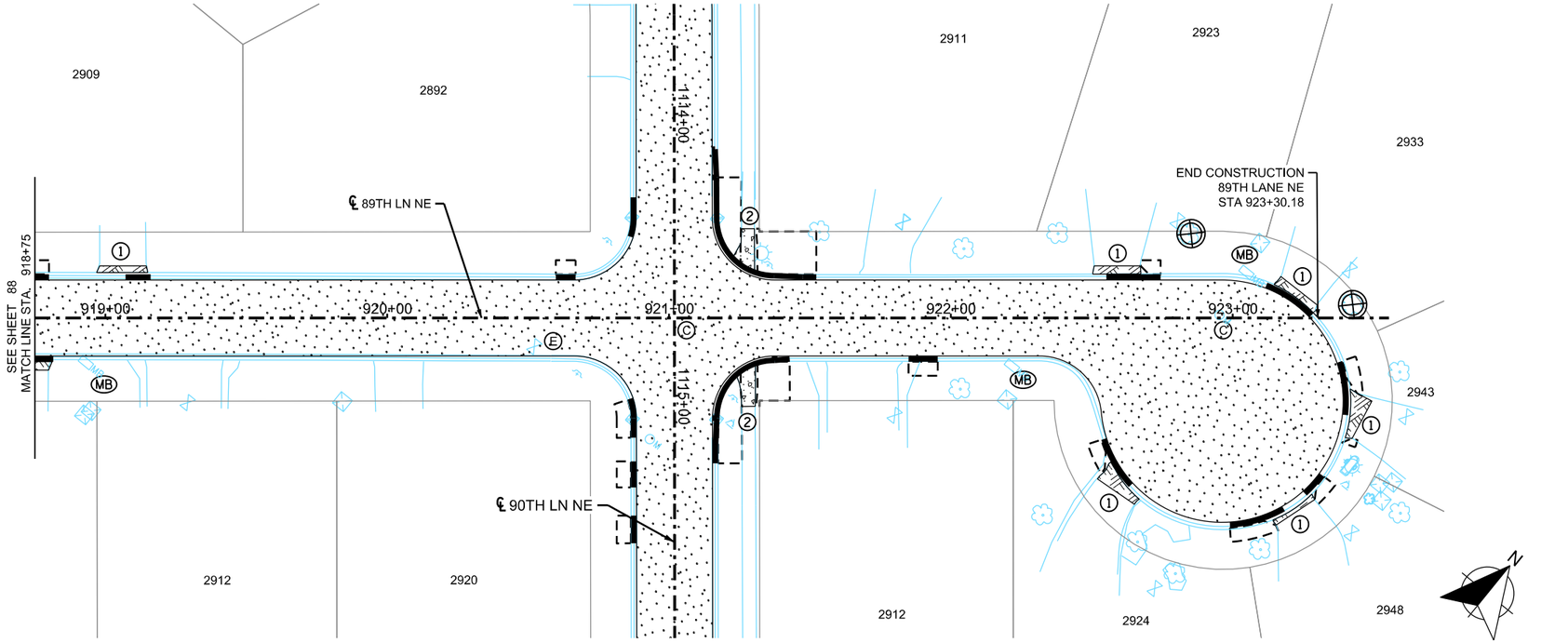
SHEET **88** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:33:17 AM

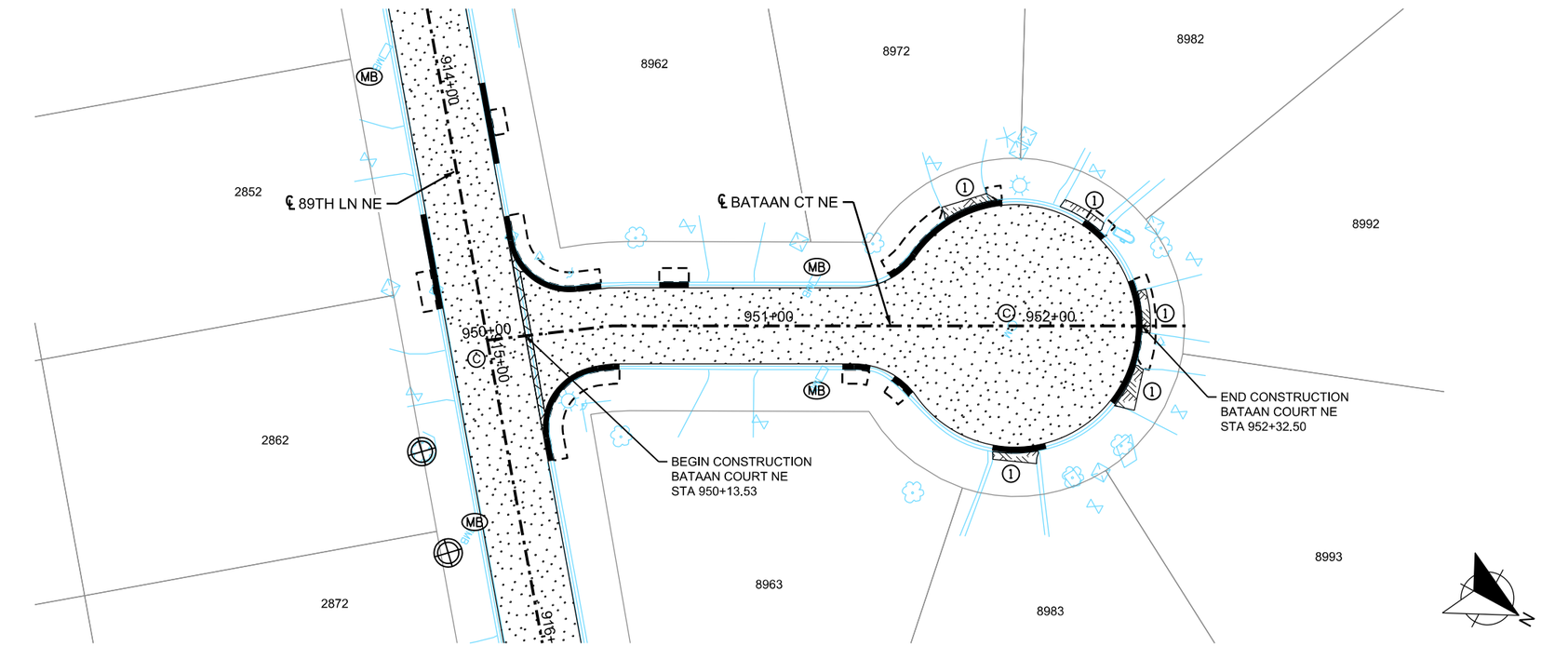
PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-DEMO-PLAN-17.dgn

*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

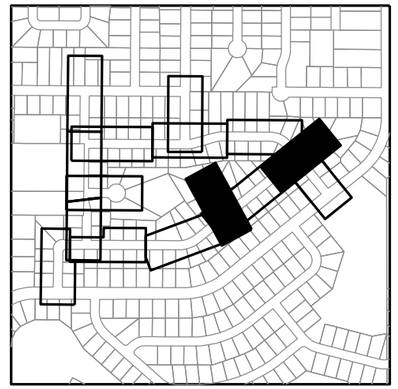
89TH LANE NE



BATAAN COURT NE



LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

PLOTTED/REVISED: 3/9/2023 11:33:21 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\220066-000-C-DEMO-PLAN-18.dgn

WSB PROJECT NO.: 022066-000

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AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

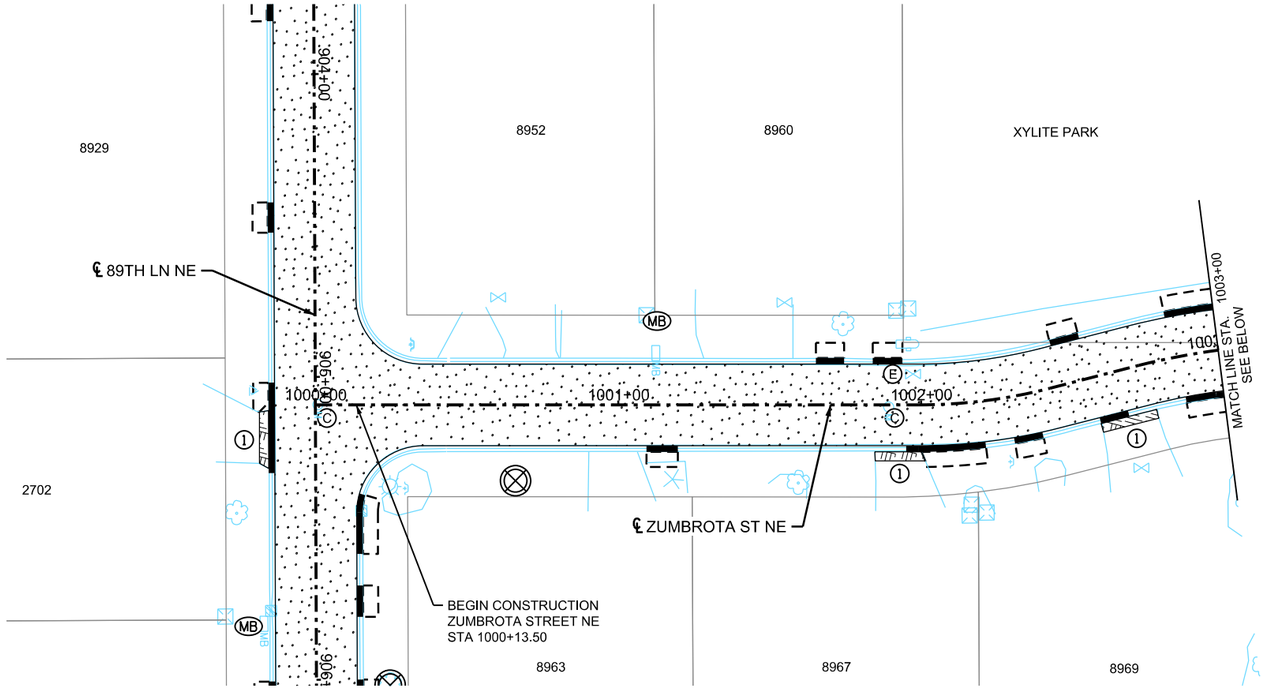
REMOVAL PLAN

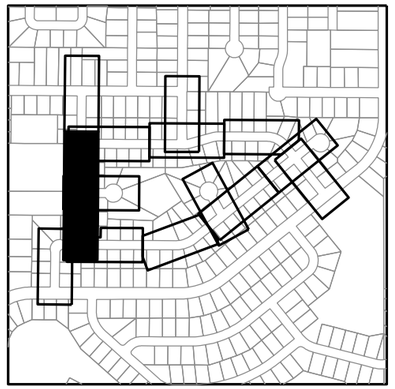
CITY PROJECT 23-08

SHEET **89** OF **230** SHEETS

*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

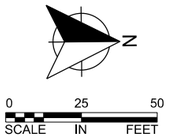
ZUMBROTA STREET NE





LEGEND

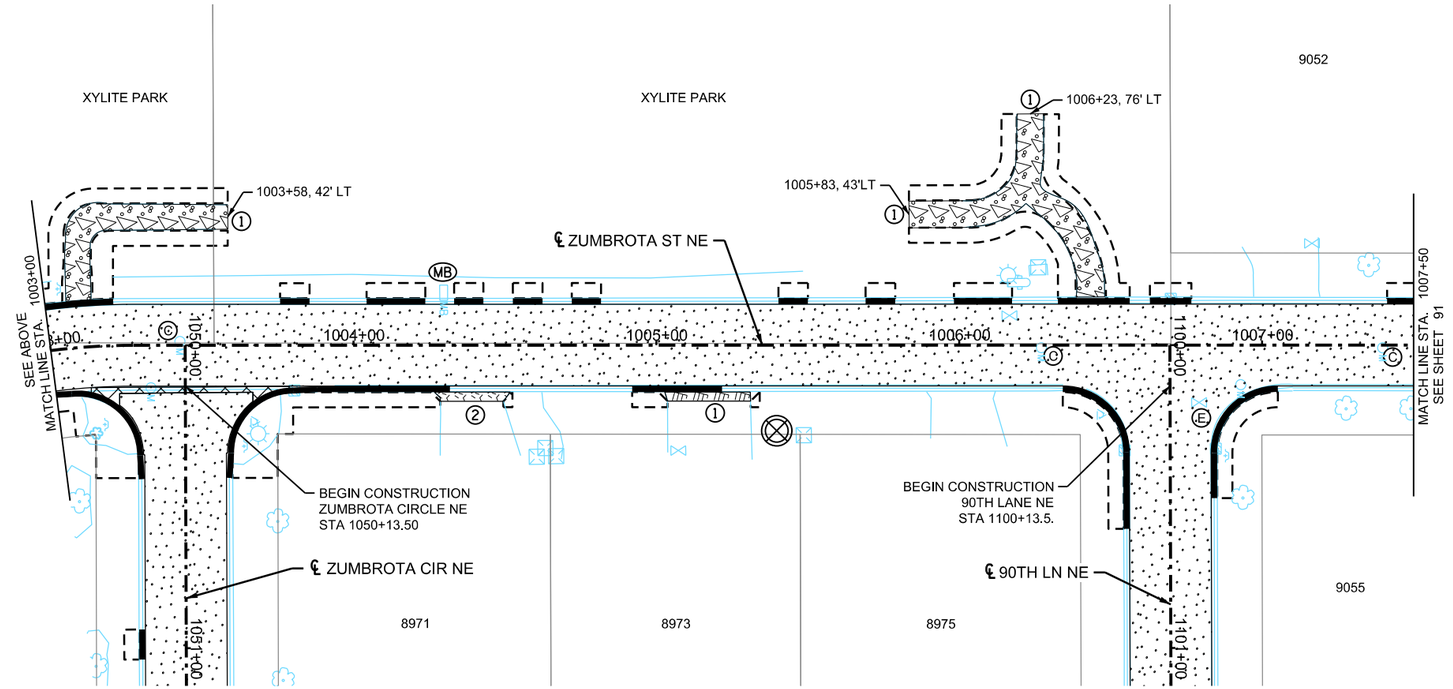
- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY



GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

ZUMBROTA STREET NE



WSB PROJECT NO.: 022066-000

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AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

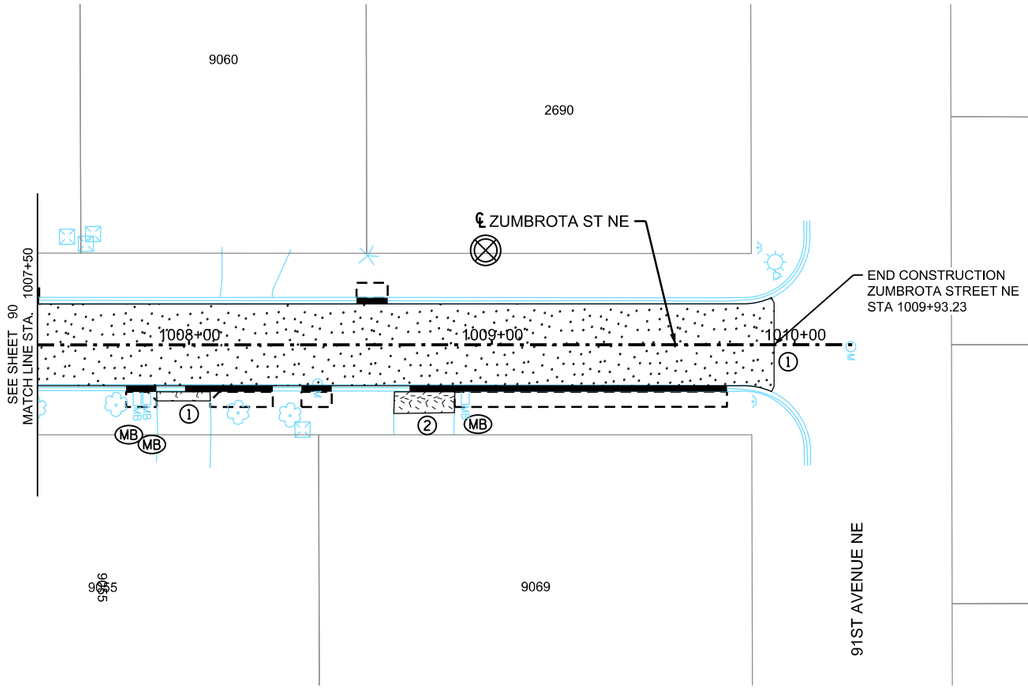
SHEET **90** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:33:25 AM

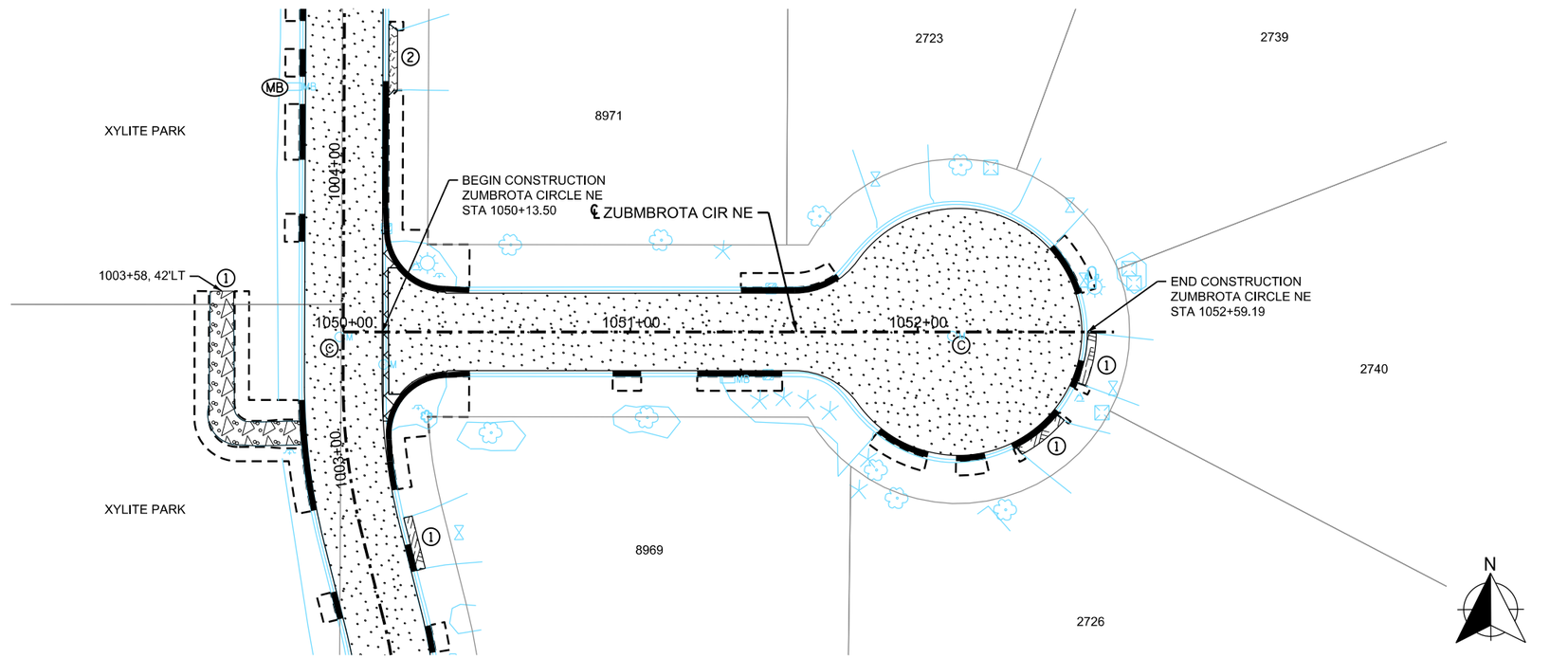
PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-DEMO-PLAN-19.dgn

*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

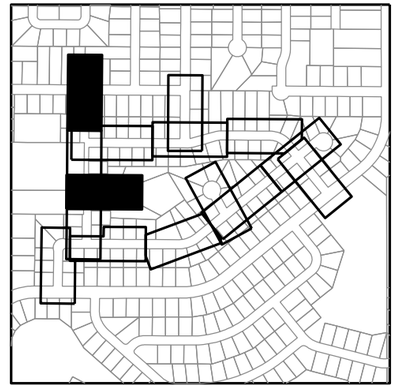
ZUMBROTA STREET NE



ZUMBROTA CIRCLE NE



LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

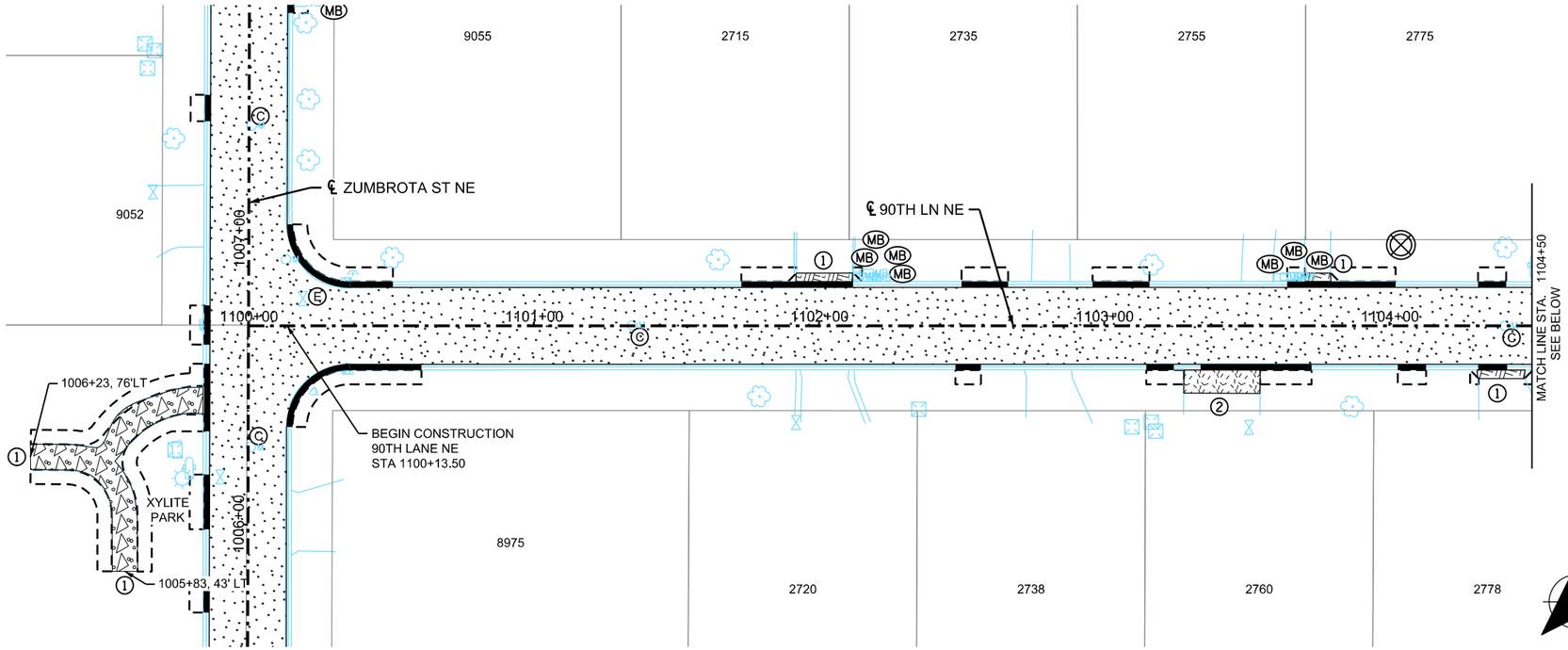
SHEET **91** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:33:29 AM

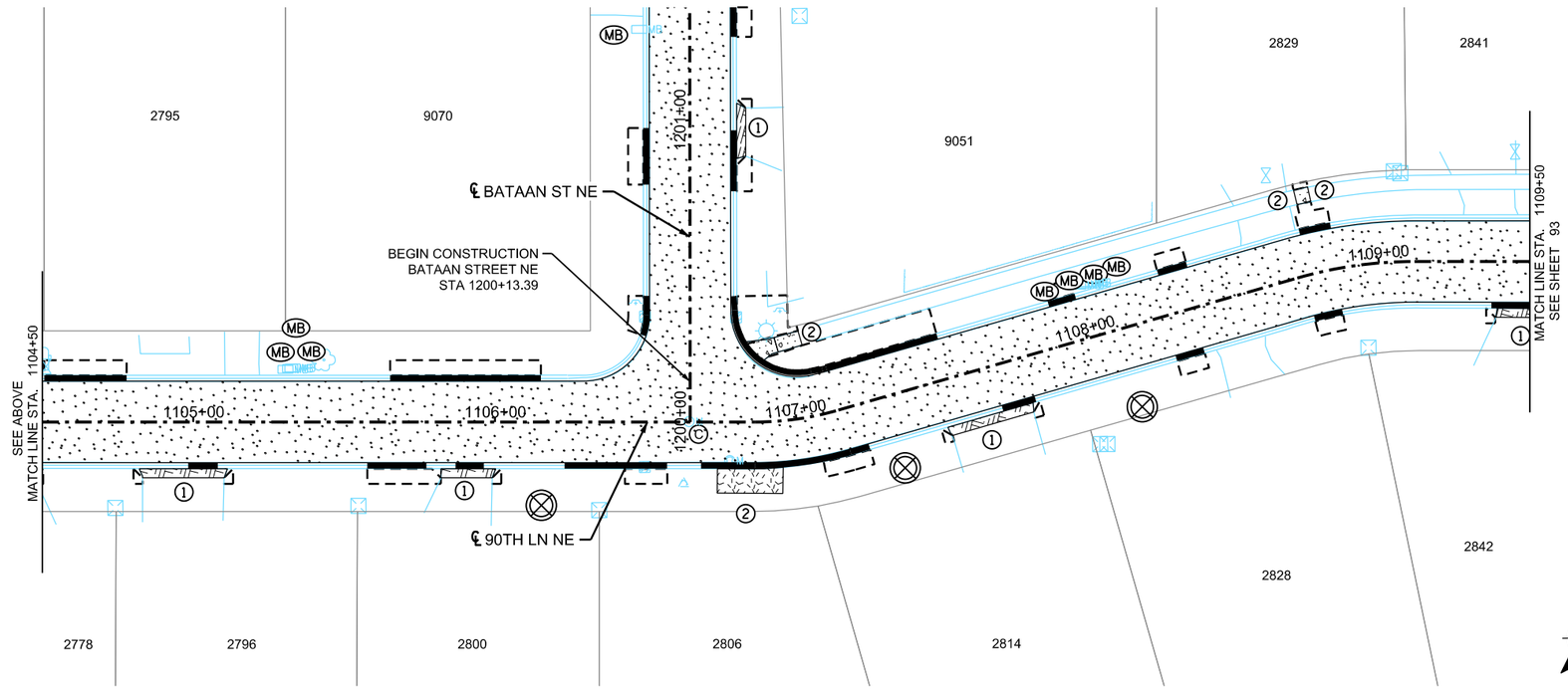
PATH & FILENAME: K:\022066-000\Cad\Plan\220066-000-C-DEMO-PLAN-20.dgn

*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

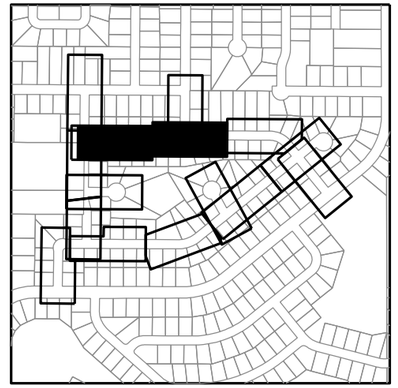
90TH LANE NE



90TH LANE NE



LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GUTB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

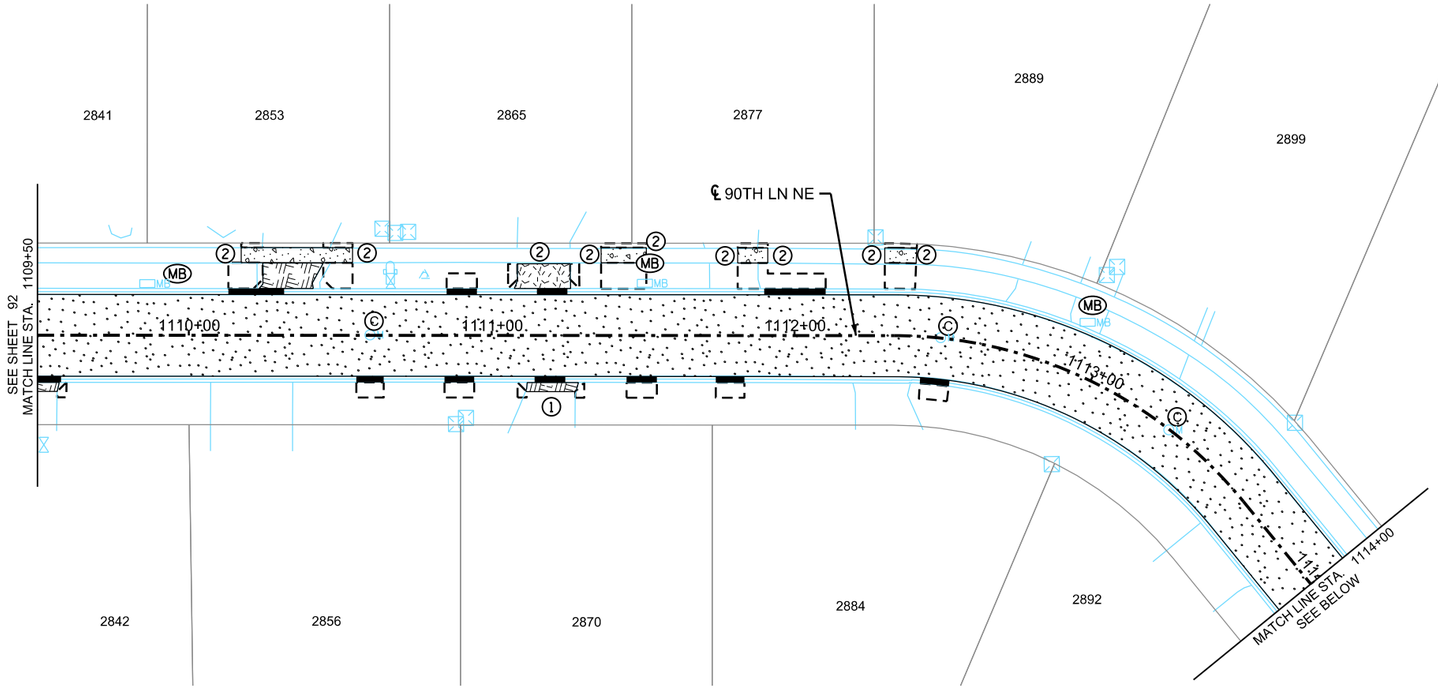
SHEET **92** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:33:34 AM

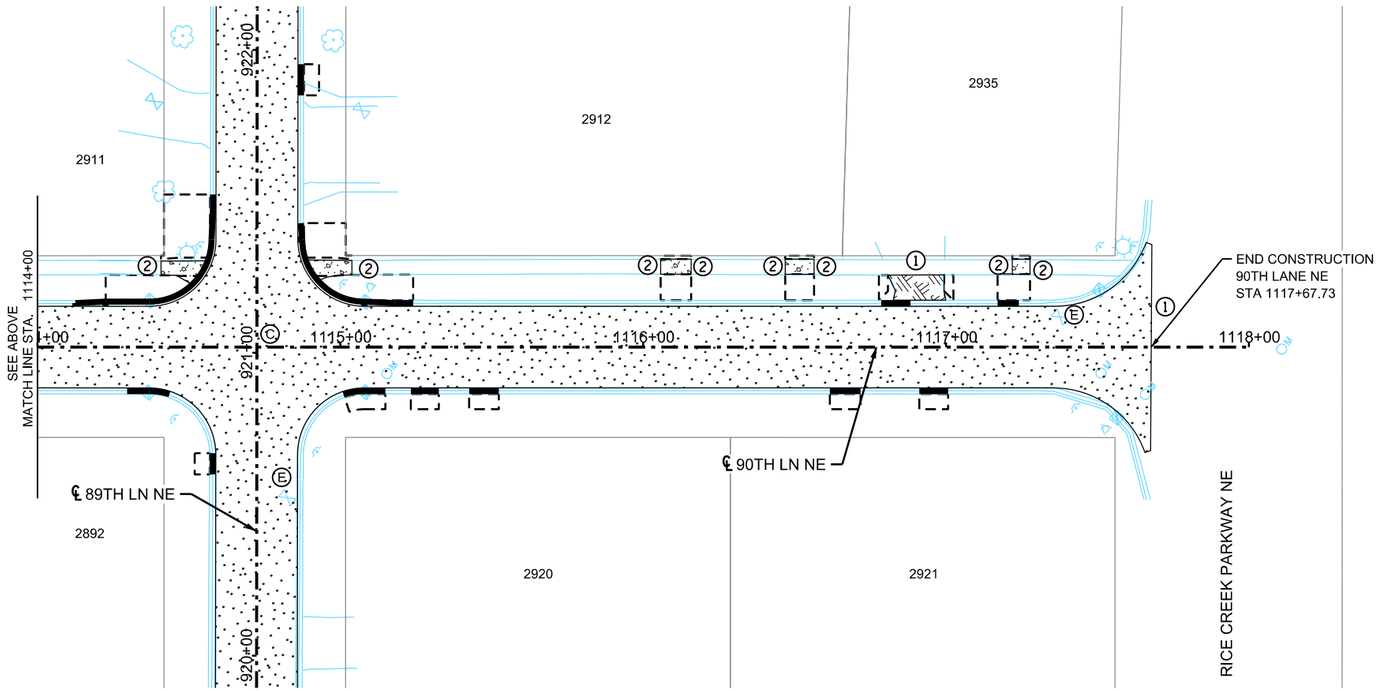
PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-DEMO-PLAN-21.dgn

*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

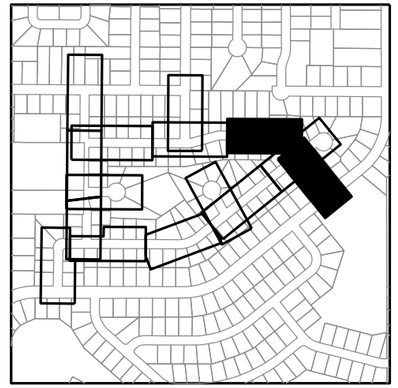
90TH LANE NE



90TH LANE NE



LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
- (2) SAWING CONCRETE PAVEMENT (FULL DEPTH), INCIDENTAL
- (A) REMOVE CASTING (STORM)
- (B) REMOVE DRAINAGE STRUCTURE
- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

PLOTTED/REVISED: 3/9/2023 11:33:38 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\220066-000-C-DEMO-PLAN-22.dgn

WSB PROJECT NO.: 022066-000

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PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

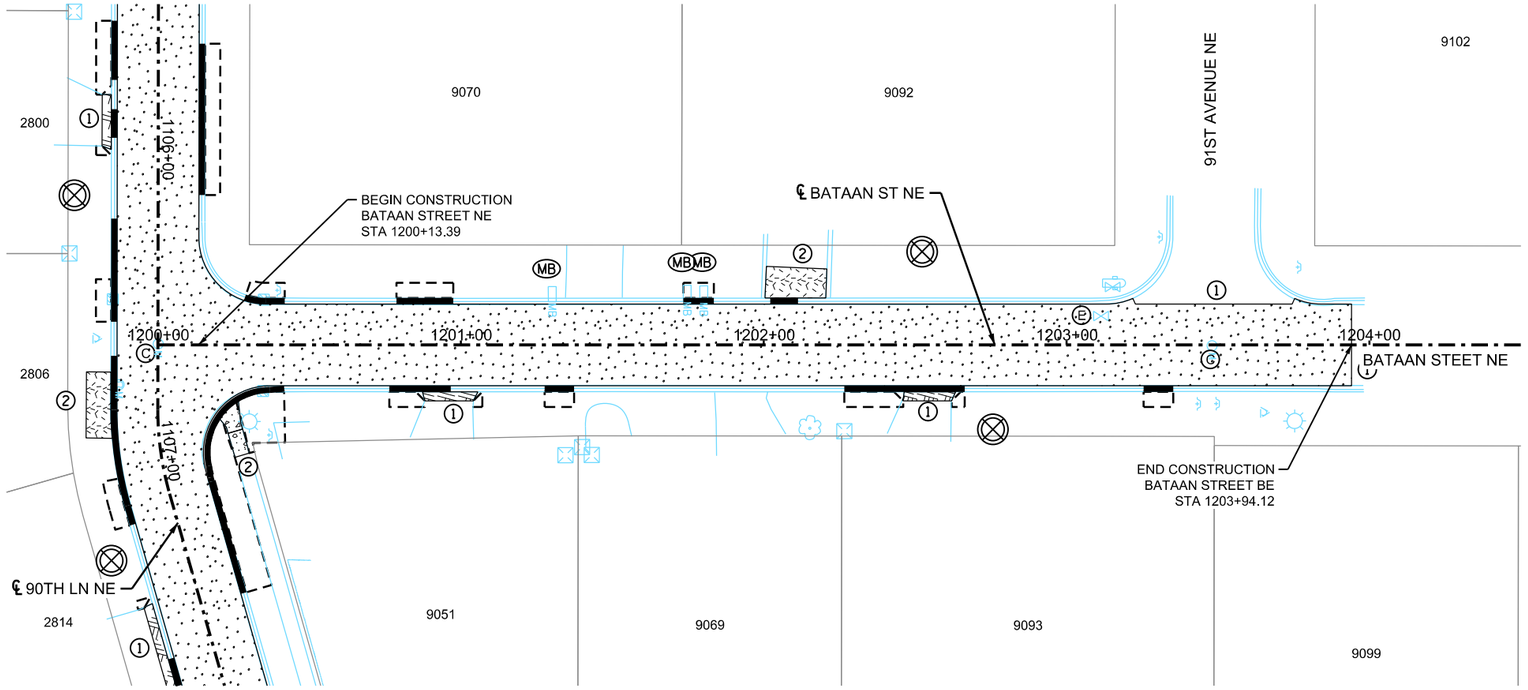
REMOVAL PLAN

CITY PROJECT 23-08

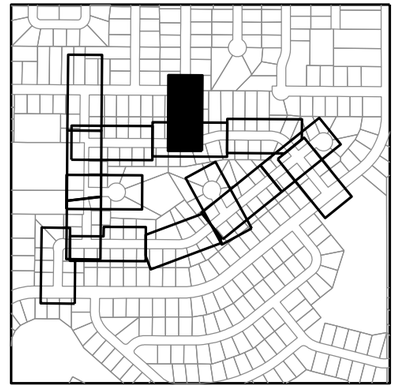
SHEET **93** OF **230** SHEETS

*** NOTE: ALL TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED, INCIDENTAL TO CURB REMOVAL ***

BATAAN STREET NE



LOCATION MAP



LEGEND

- FULL DEPTH RECLAMATION
- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE CURB & GUTTER
- REMOVE SEWER PIPE (STORM)
- (1) SAWING BIT PAVEMENT (FULL DEPTH), INCIDENTAL
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- (A) REMOVE CASTING (STORM)
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- (C) REMOVE CASTING (SANITARY)
- (D) ADJUST CURB BOX
- (E) ADJUST VALVE BOX
- (F) REMOVE GATE VALVE & BOX
- (G) SALVAGE SIGN
- REMOVE SIGN
- (MB) SALVAGE MAIL BOX SUPPORT
- CLEAR & GRUB TREE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

SEE SHEET 18 FOR REMOVAL NOTES.

WSB PROJECT NO.: 022066-000

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AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

REMOVAL PLAN

CITY PROJECT 23-08

SHEET **94** OF **230** SHEETS

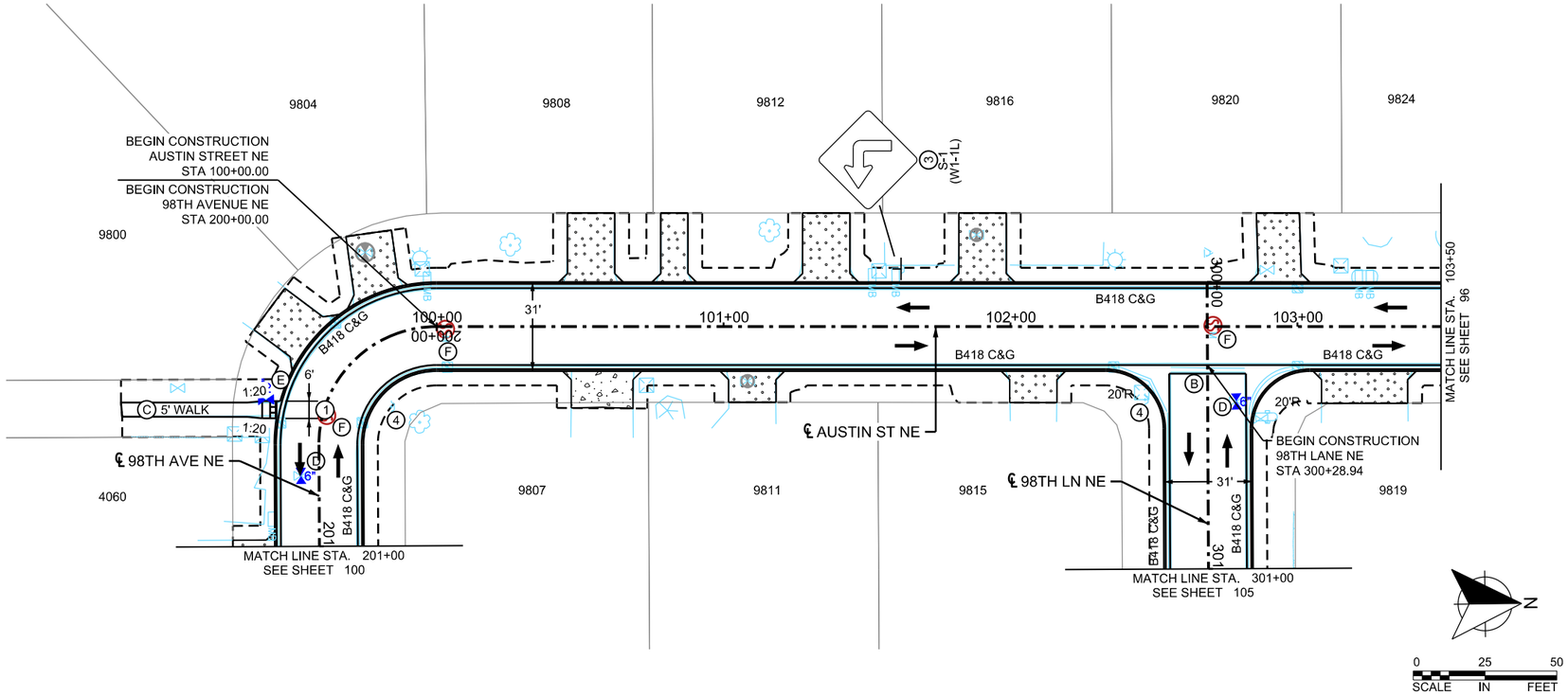
PLOTTED/REVISED: 3/9/2023 11:33:40 AM

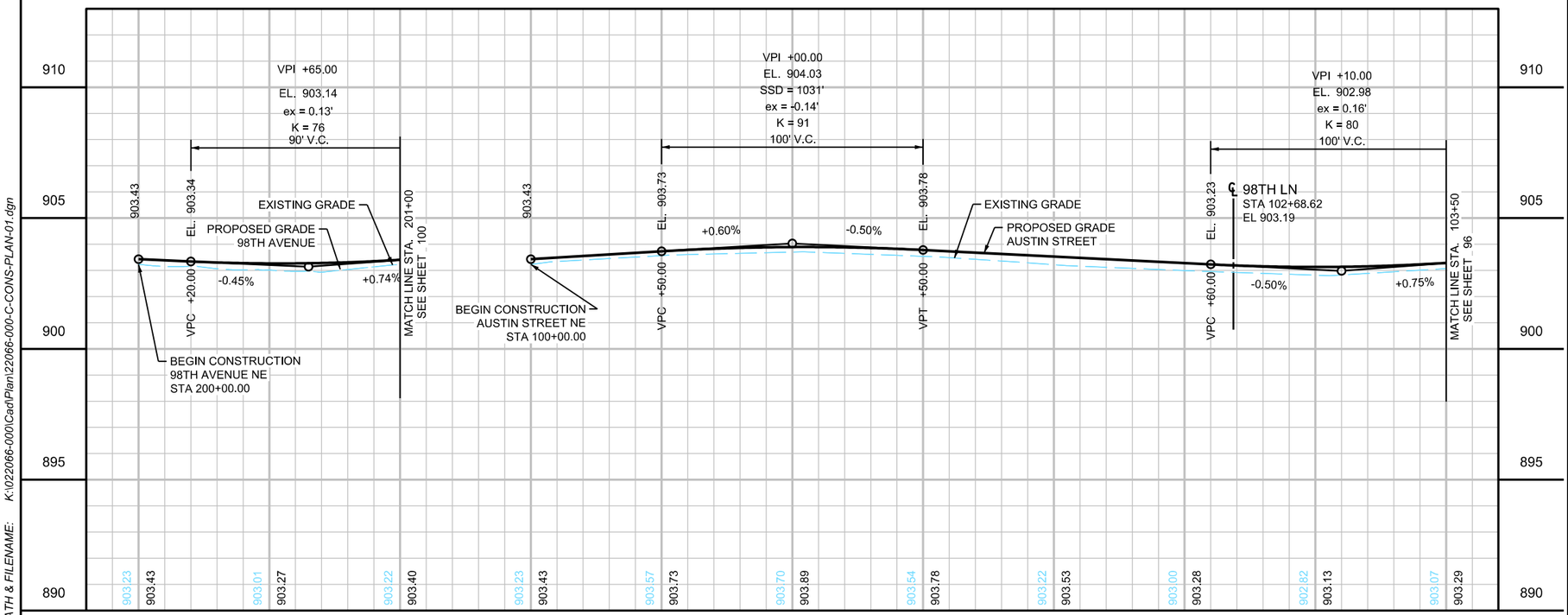
PATH & FILENAME: K:\022066-000\Cad\Plan\220066-000-C-DEMO-PLAN-23.dgn

PLOTTED/REVISED: 3/9/2023 11:33:42 AM

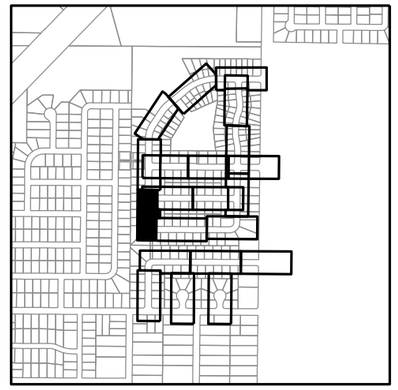
PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-CONS-PLAN-01.dgn

AUSTIN STREET NE





LOCATION MAP



LEGEND

- (1) CONSTRUCT CONCRETE PEDESTRIAN RAMP WITH TRUNCATED DOMES. SEE INTERSECTION DETAILS.
- (2) CURB TRANSITION, SEE MISCELLANEOUS DETAILS
- (3) FURNISH & INSTALL SIGN
- (4) INSTALL SIGN
- (A) 2" BITUMINOUS WALK
- (B) CONCRETE VALLEY GUTTER, SEE CITY DETAIL PLATE ST-4 HIGH EARLY CONCRETE (INCIDENTAL)
- (C) 4" CONCRETE WALK
- (D) F&I 6" GATE VALVE & BOX CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)
- (E) F&I 16" GATE VALVE & BOX CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)
- (F) F&I SANITARTY SEWER CASTING, SEE CITY TECHNICAL SPECIFICATIONS
- 2.0" BITUMINOUS DRIVEWAY
- 6.0" CONCRETE DRIVEWAY
- GRADING LIMITS (APPROX)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

1. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
2. SEE ALIGNMENT PLAN FOR CURVE DATA.
3. SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION AT ROADWAY INTERSECTIONS.
4. SEE CITY STANDARD PLATES DETAILS FOR RESIDENTIAL DRIVEWAY CONSTRUCTION DETAILS.
5. MAINTAINING ACCESS TO SPECIFIC GARAGES AS NOTED WILL BE INCIDENTAL. IF THE CONTRACTOR CHOOSES TO CONSTRUCT THESE DRIVEWAYS ONE HALF AT A TIME, USE HIGH EARLY CONCRETE, INCIDENTAL.
6. SEE SPECIAL PROVISIONS FOR PROPERTIES WITH IRRIGATION SYSTEMS AND INVISIBLE FENCING. PROPERTY LISTS ARE NOT ALL ENCOMPASSING. CONTRACTOR TO VERIFY IN FIELD. PAID UNDER IRRIGATION REPAIR AND LANDSCAPE ALLOWANCE.

VERTICAL CONTROL

ELEVATIONS FOR THIS PLAN ARE BASED ON NAVD 88 DATUM.

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

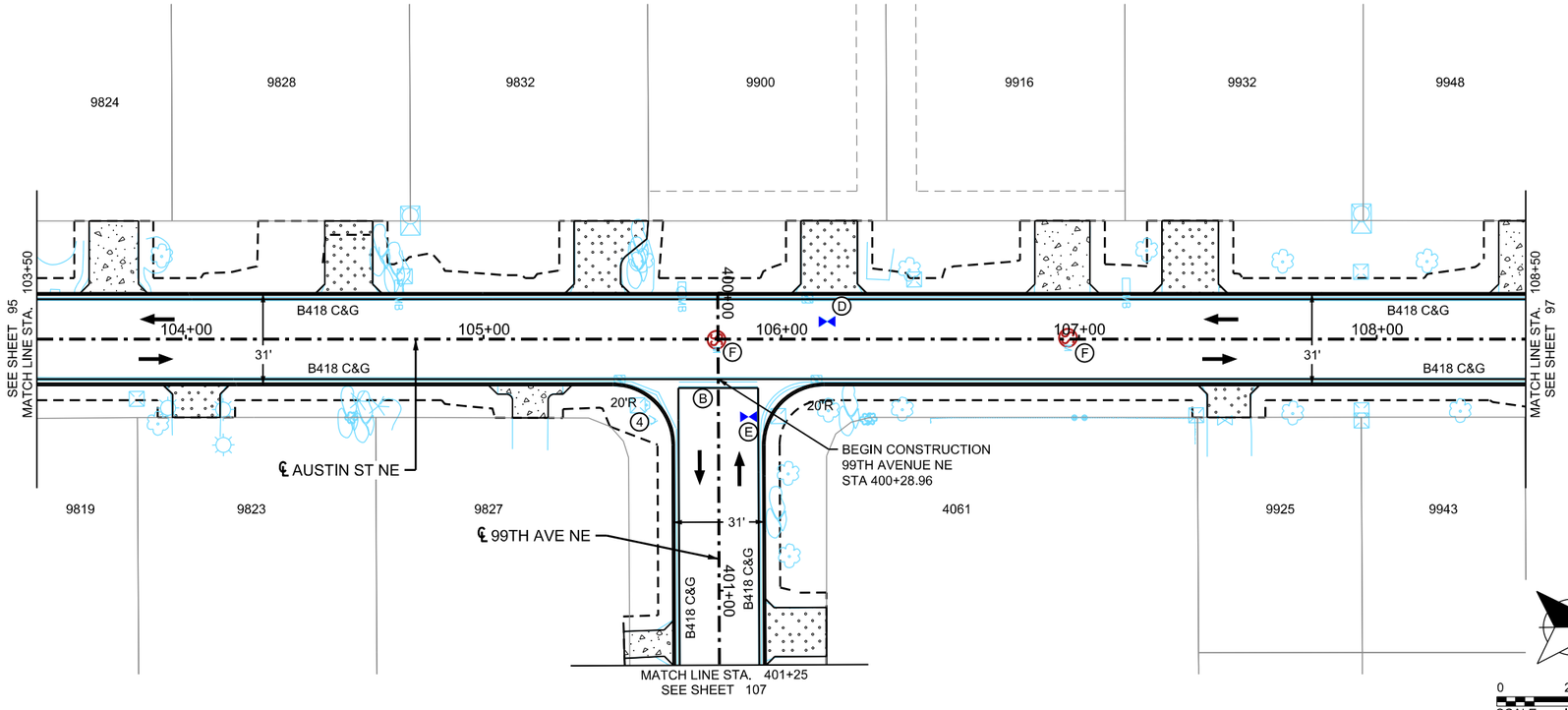
CITY PROJECT 23-08

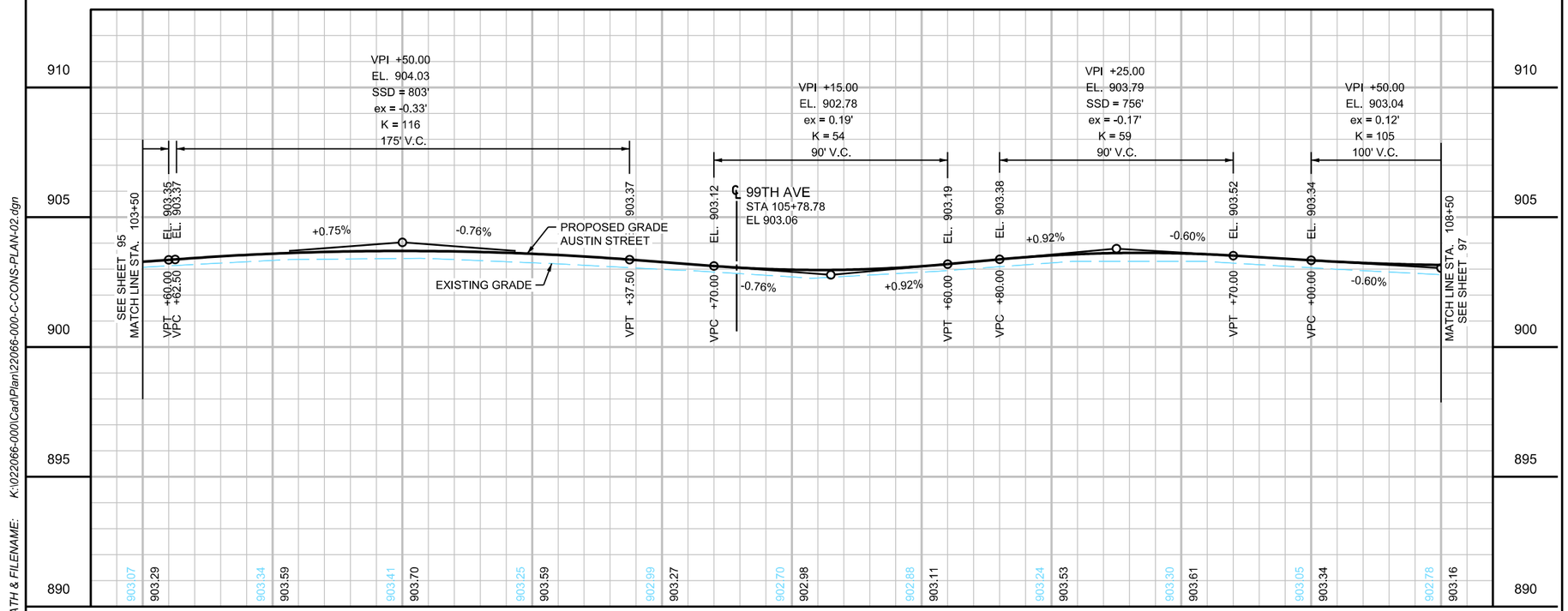
SHEET **95** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:33:42 AM

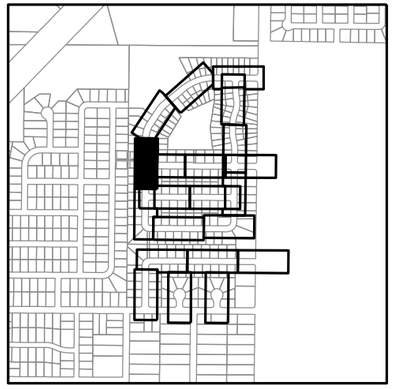
PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-CONS-PLAN-02.dgn

AUSTIN STREET NE





LOCATION MAP



LEGEND

1. CONSTRUCT CONCRETE PEDESTRIAN RAMP WITH TRUNCATED DOMES. SEE INTERSECTION DETAILS.
2. CURB TRANSITION, SEE MISCELLANEOUS DETAILS
3. FURNISH & INSTALL SIGN
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VERTICAL CONTROL

ELEVATIONS FOR THIS PLAN ARE BASED ON NAVD 88 DATUM.

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

CITY PROJECT 23-08

SHEET **96** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:33:43 AM

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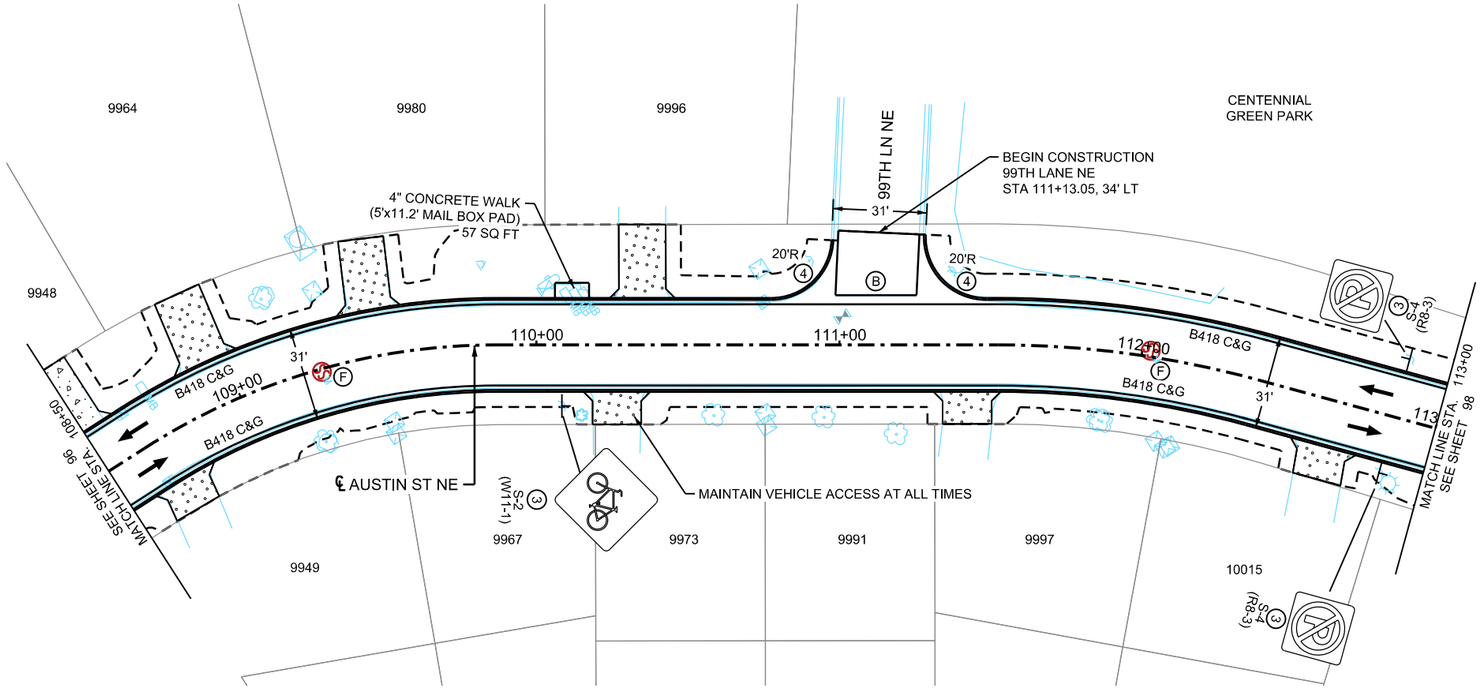
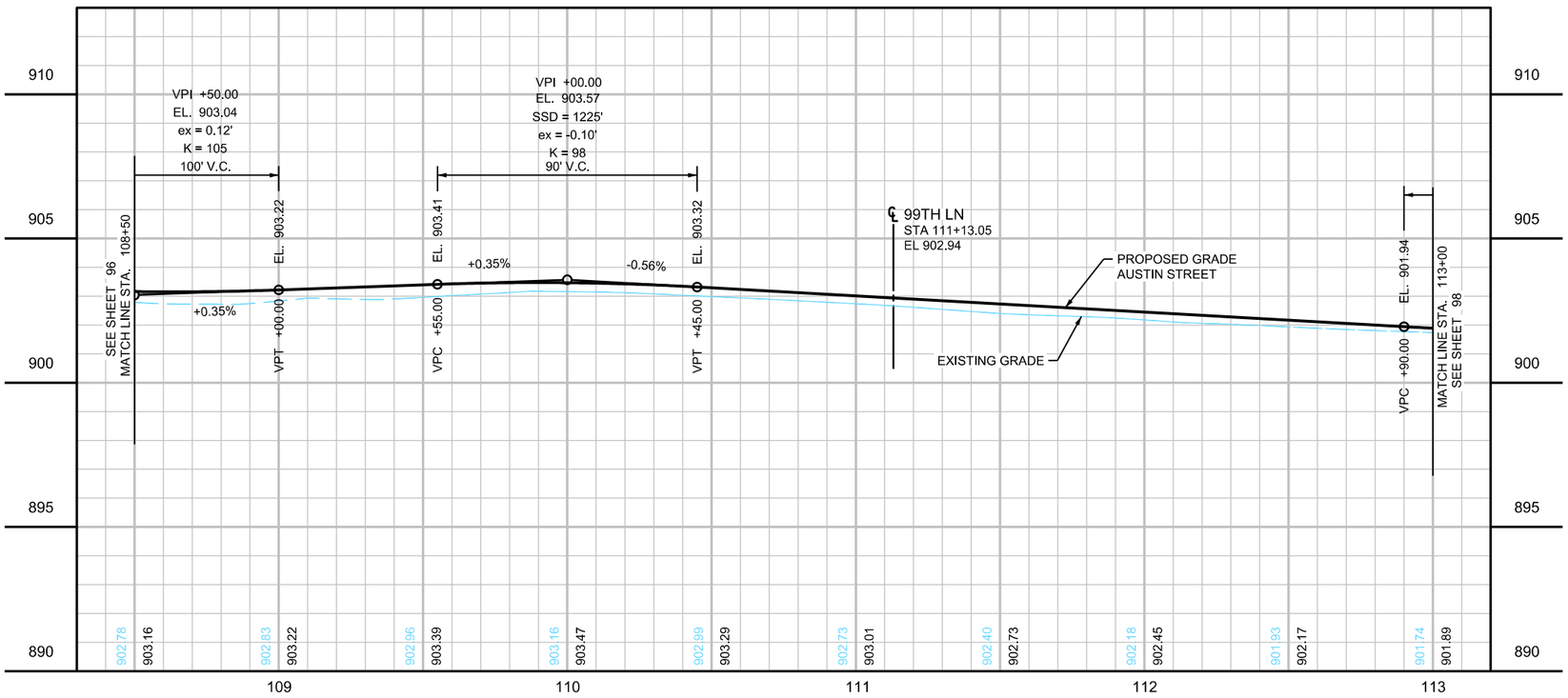
AUSTIN STREET NE





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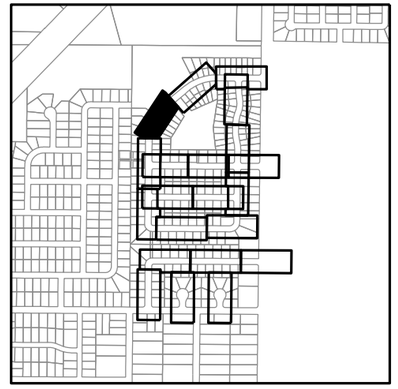

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SCALE IN FEET

wsb

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DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

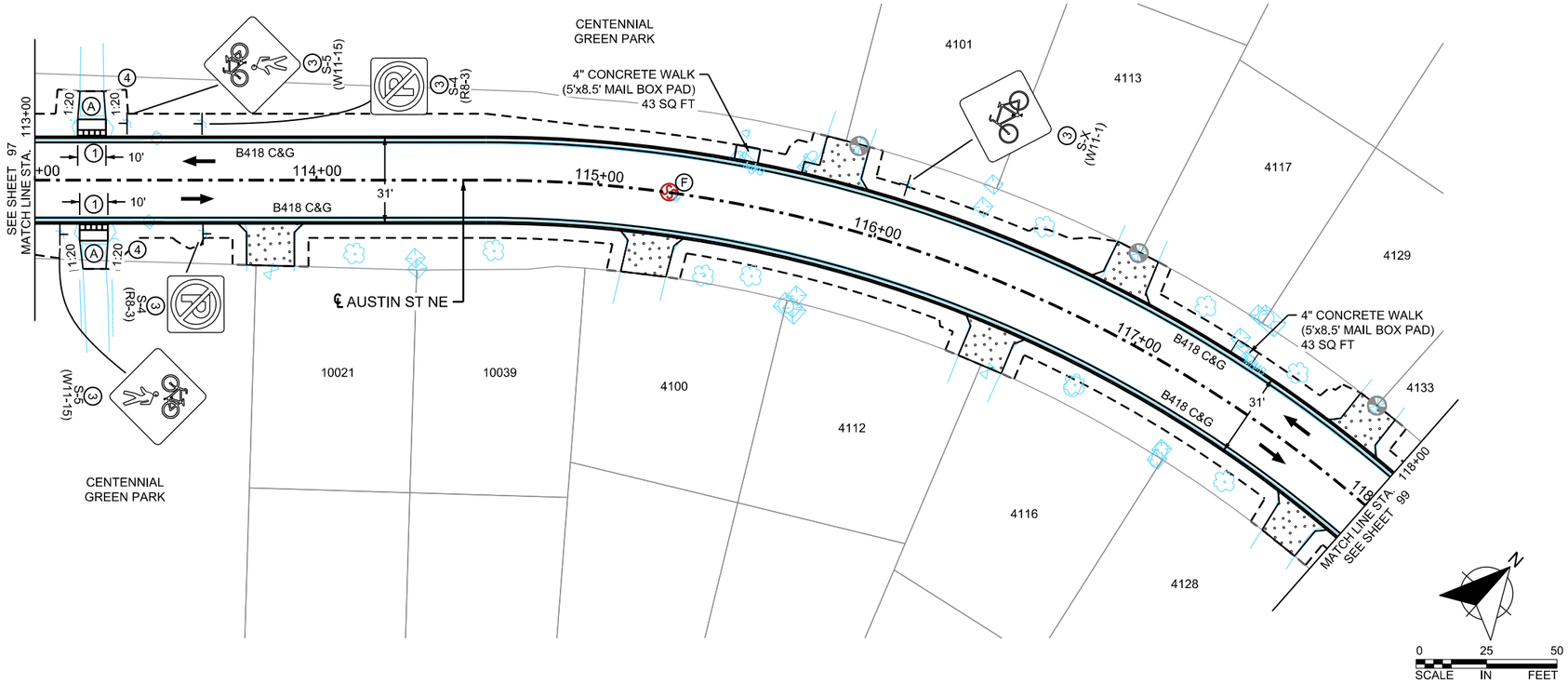
SOUTHEAST AREA RECONSTRUCTION

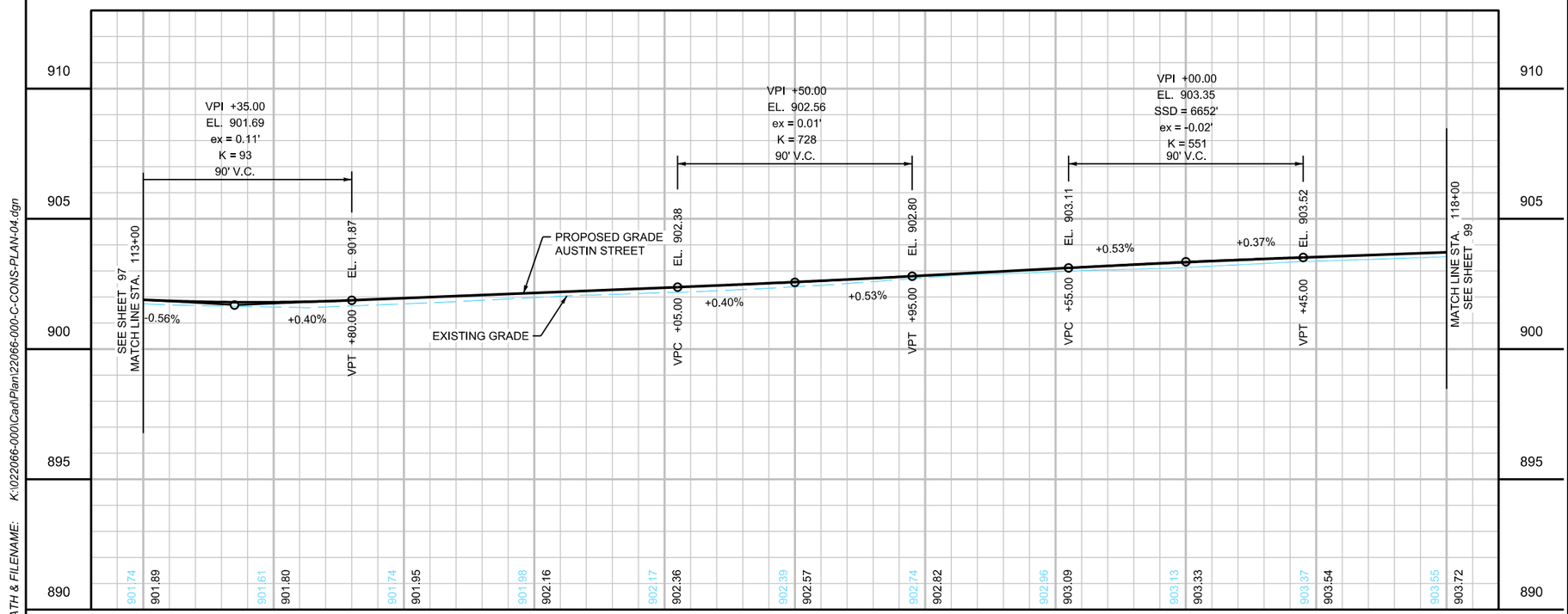
STREET, WATERMAIN, & SANITARY SEWER PLANS

CITY PROJECT 23-08

SHEET **97** OF **230** SHEETS

AUSTIN STREET NE





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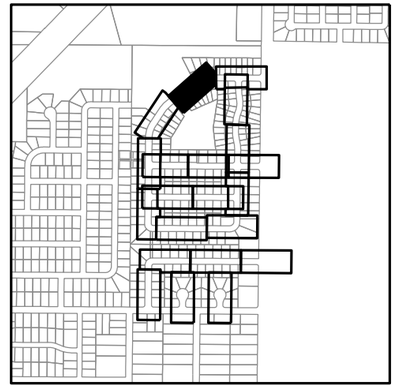

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wsb

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PLAN BY:	CHECK BY:
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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

CITY PROJECT 23-08

SHEET **98** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:33:44 AM

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PLOTTED/REVISED: 3/9/2023 11:33:45 AM

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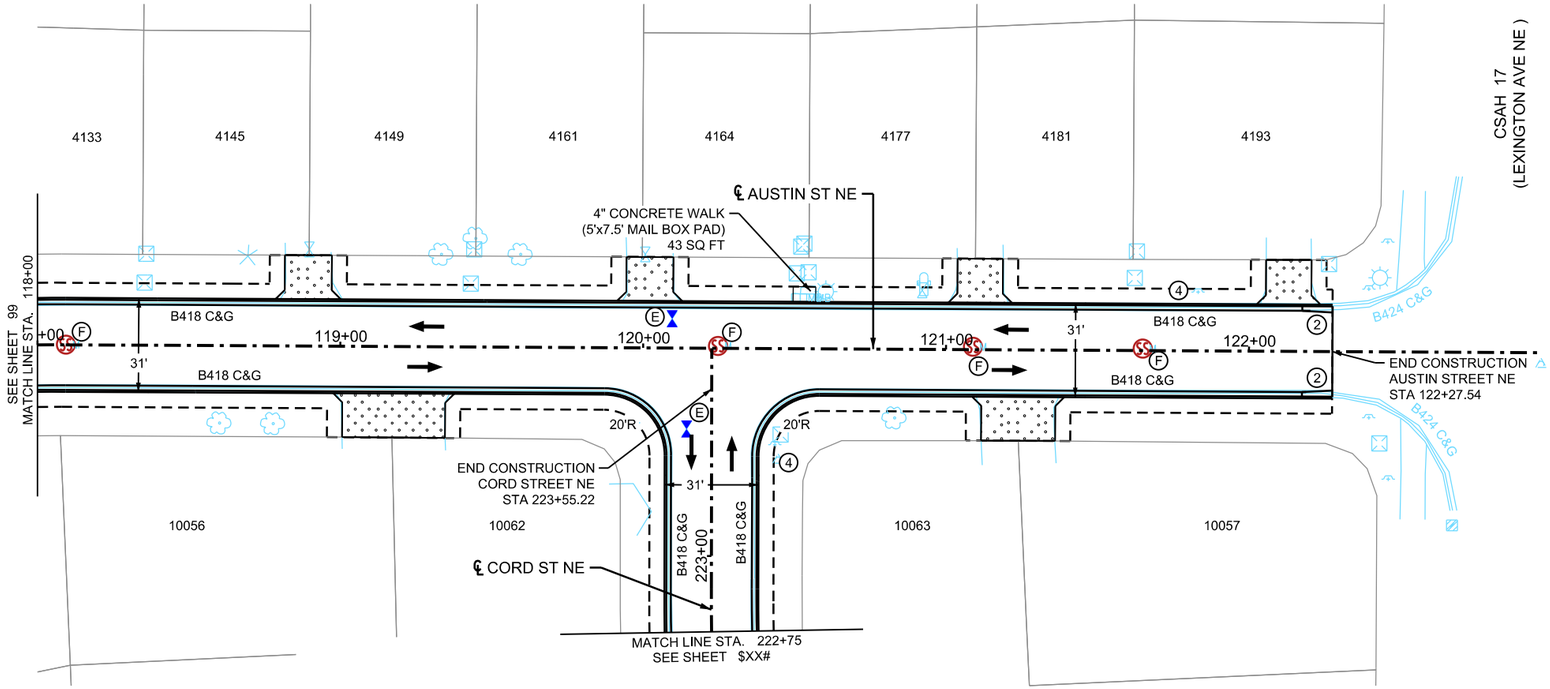
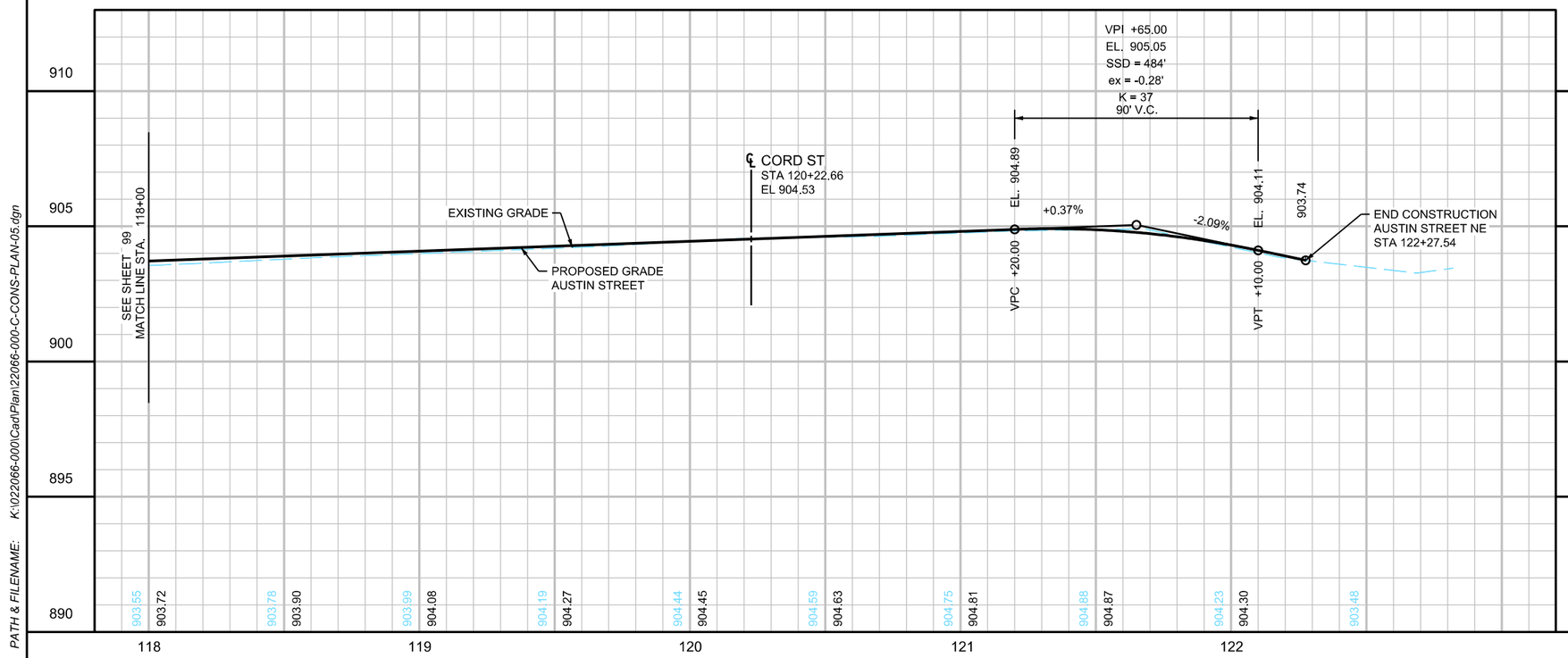
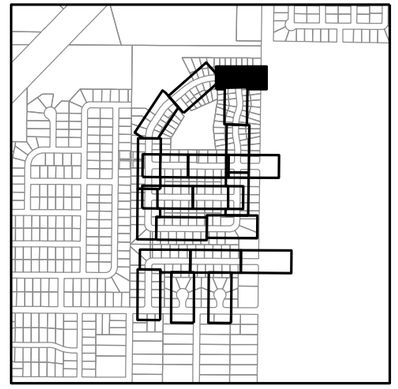
AUSTIN STREET NE





LOCATION MAP



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VERTICAL CONTROL

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N

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SCALE IN FEET

wsb

WSB PROJECT NO.: 022066-000

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

CITY PROJECT 23-08

SHEET **99** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:33:46 AM

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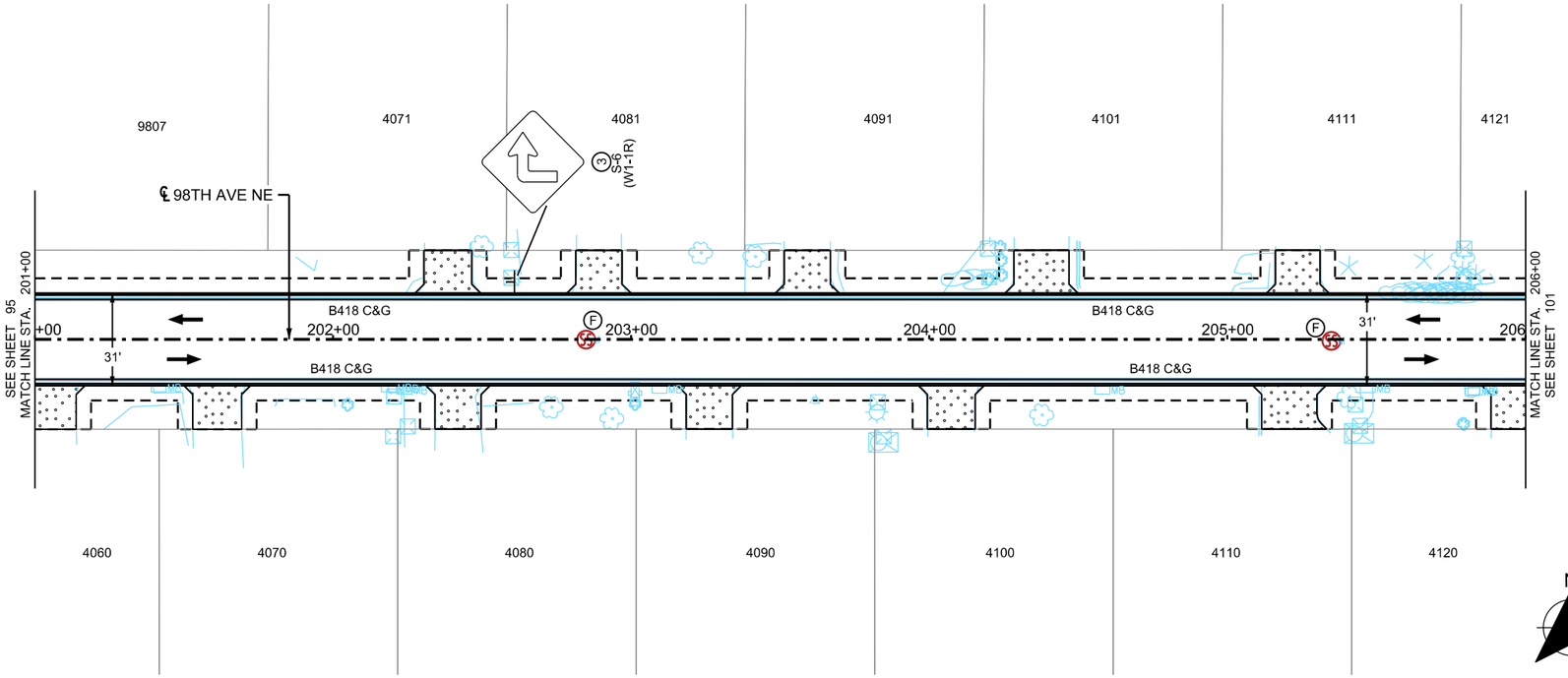
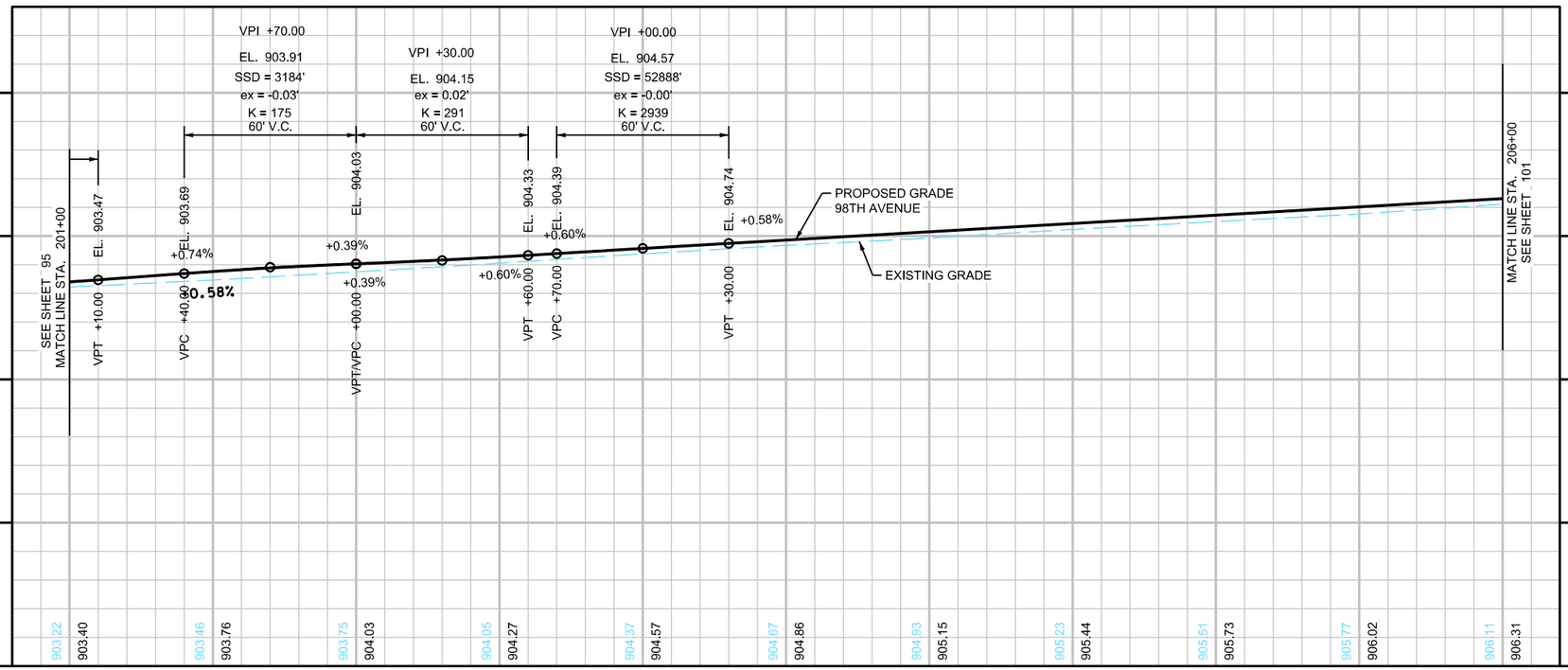
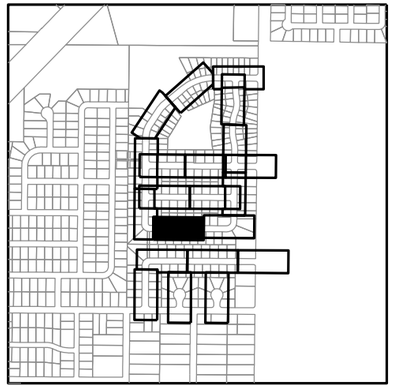
98TH AVENUE NE





LOCATION MAP



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SHEET **100** OF **230** SHEETS

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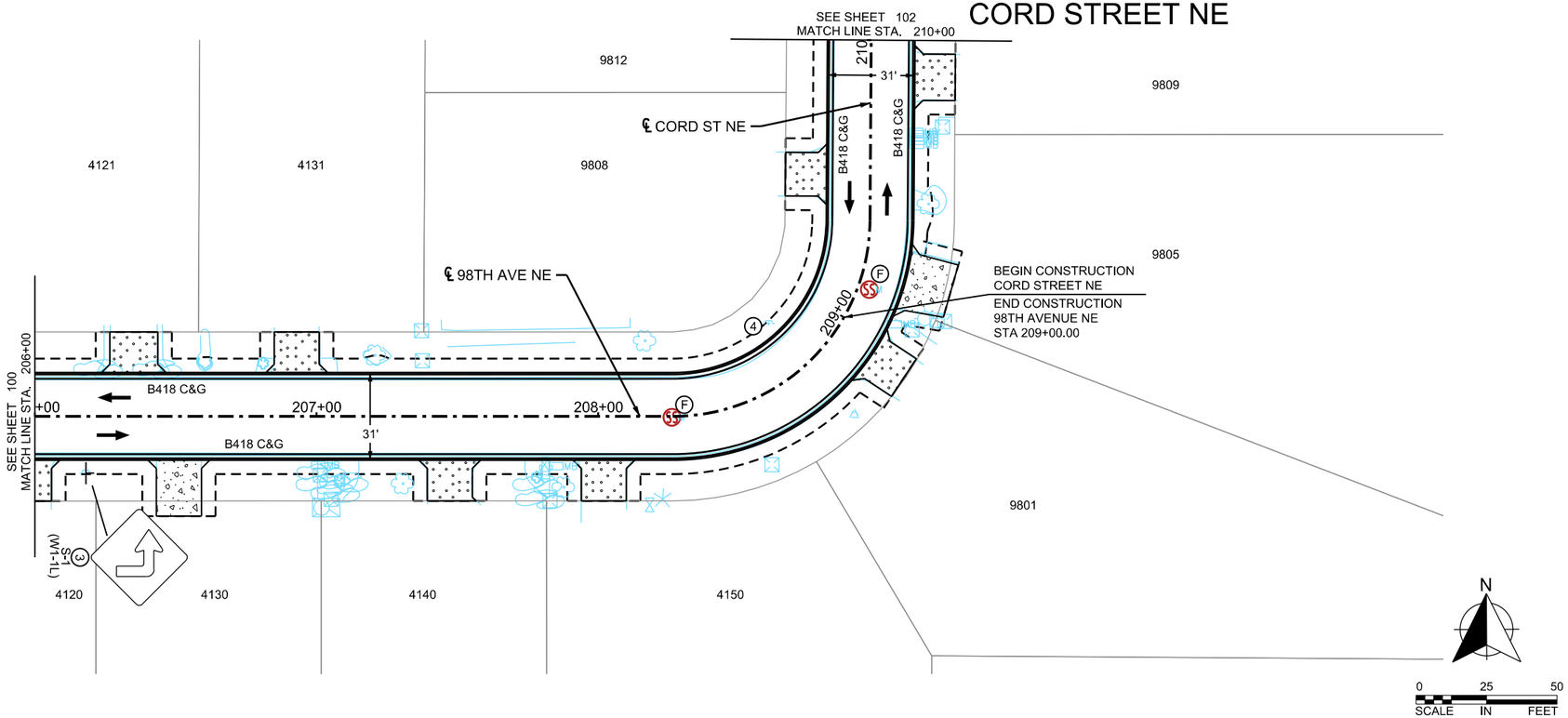
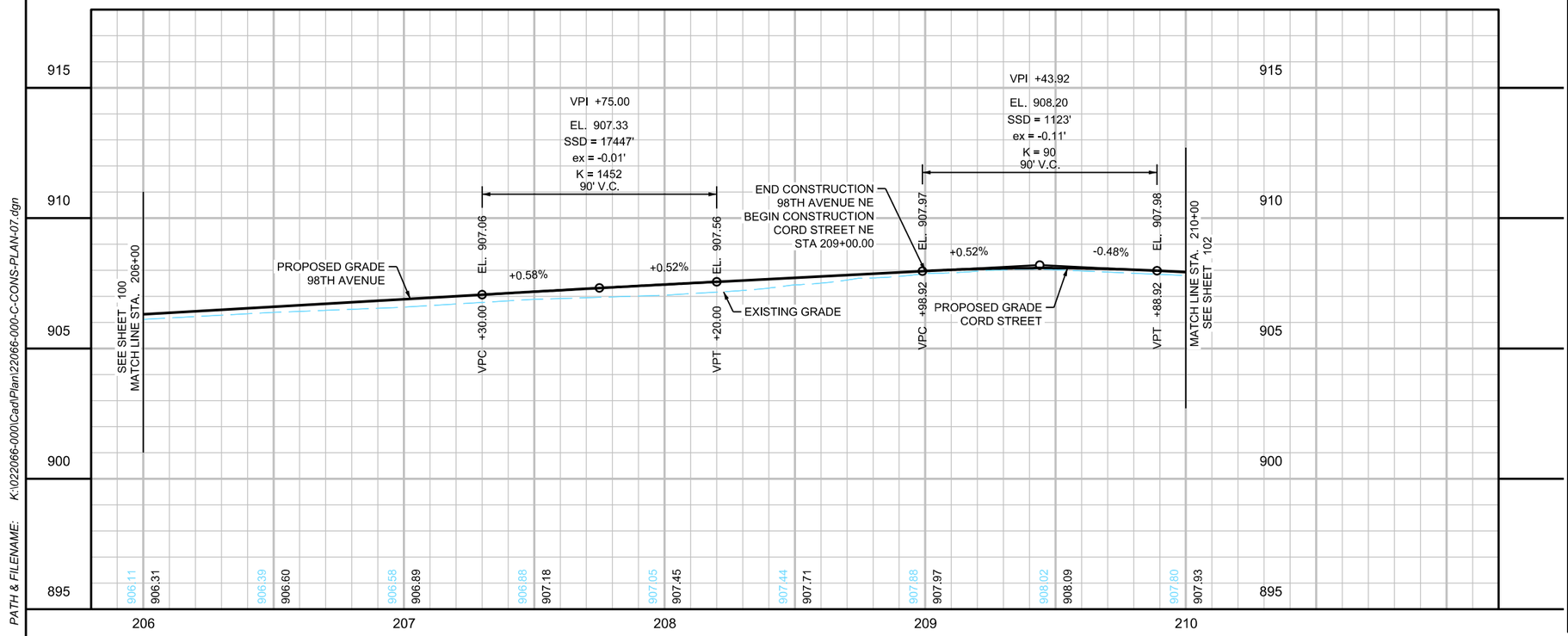
CORD STREET NE





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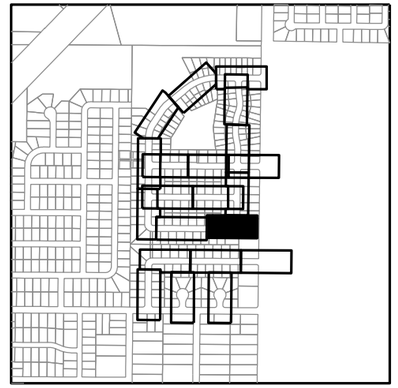

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SHEET **101** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:00 AM

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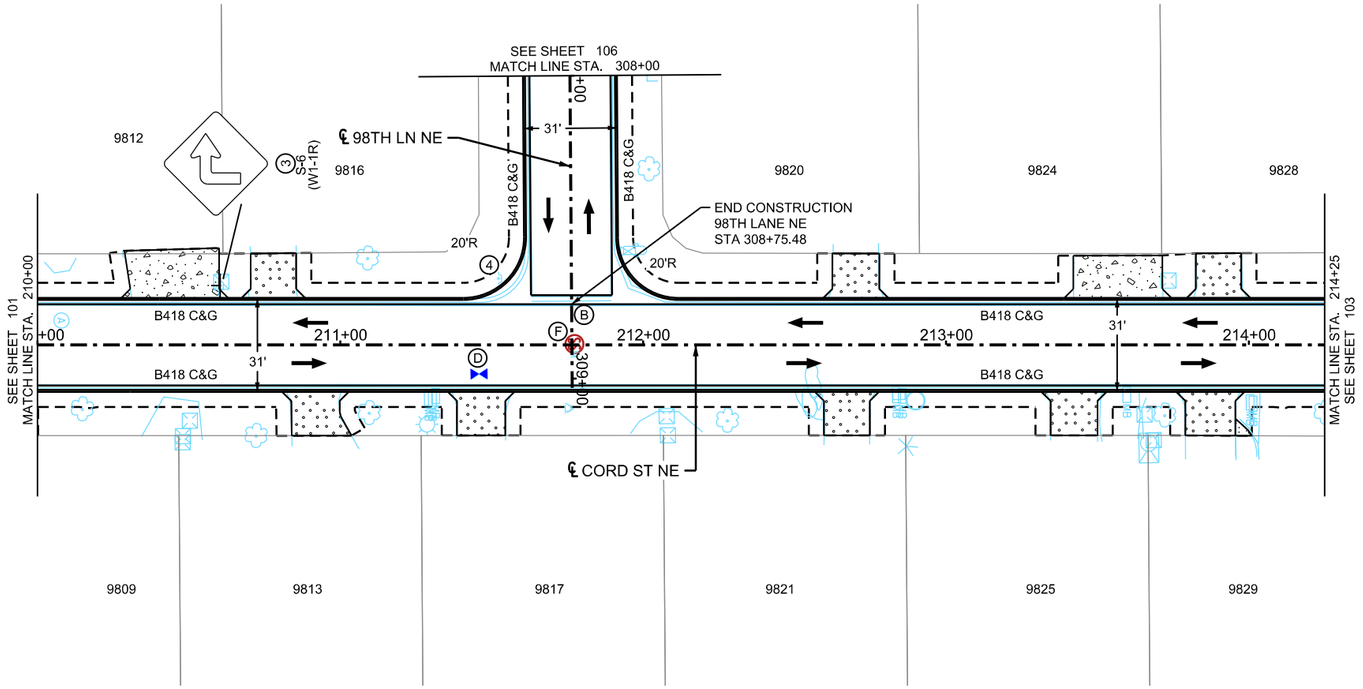
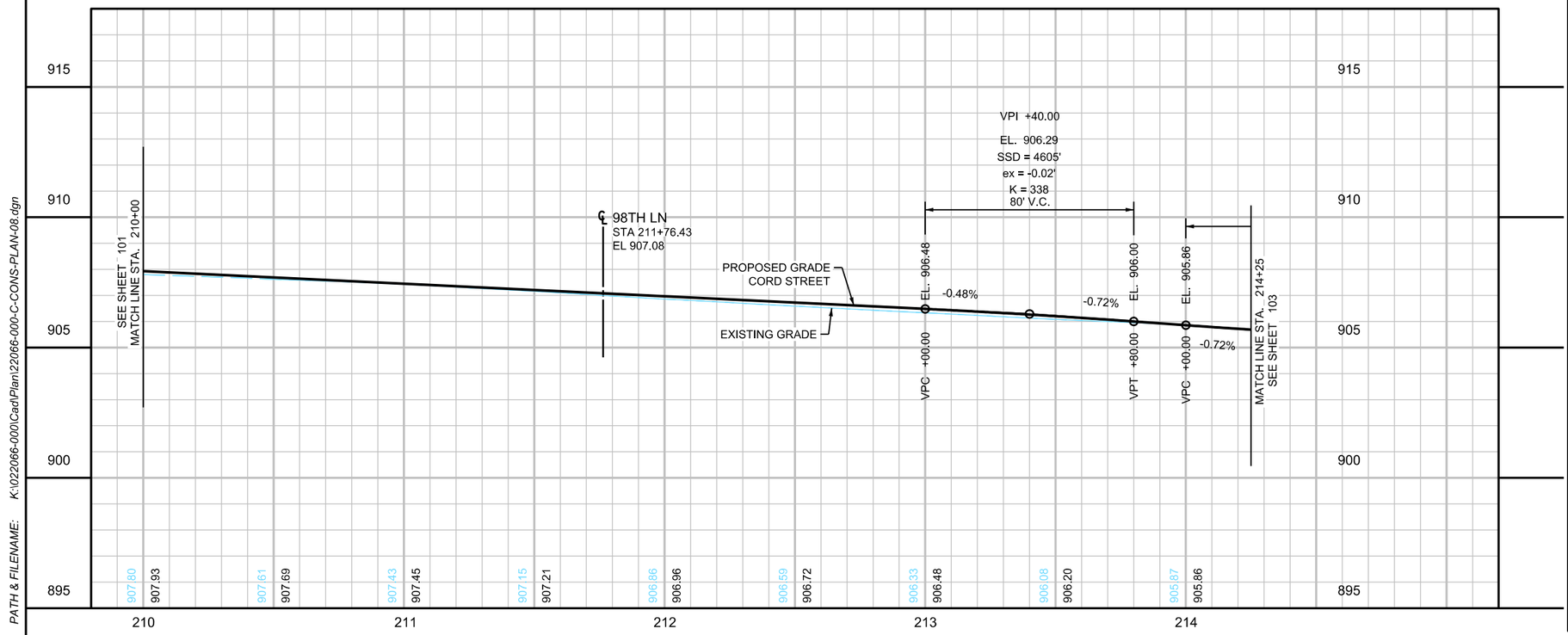
CORD STREET NE





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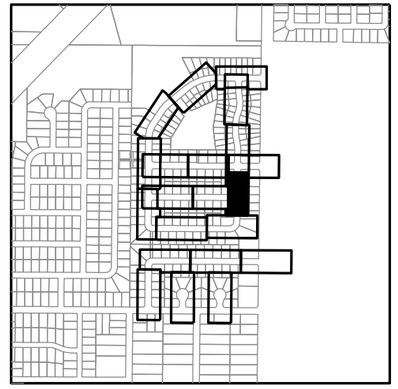

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4. INSTALL SIGN
- (A) 2" BITUMINOUS WALK
- (B) CONCRETE VALLEY GUTTER, SEE CITY DETAIL PLATE ST-4 HIGH EARLY CONCRETE (INCIDENTAL)
- (C) 4" CONCRETE WALK
- (D) F&I 6" GATE VALVE & BOX CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)
- (E) F&I 16" GATE VALVE & BOX CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)
- (F) F&I SANITARTY SEWER CASTING, SEE CITY TECHNICAL SPECIFICATIONS
- 2.0" BITUMINOUS DRIVEWAY
- 6.0" CONCRETE DRIVEWAY
- GRADING LIMITS (APPROX)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

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2. SEE ALIGNMENT PLAN FOR CURVE DATA.
3. SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION AT ROADWAY INTERSECTIONS.
4. SEE CITY STANDARD PLATES DETAILS FOR RESIDENTIAL DRIVEWAY CONSTRUCTION DETAILS.
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VERTICAL CONTROL

ELEVATIONS FOR THIS PLAN ARE BASED ON NAVD 88 DATUM.

0 25 50
SCALE IN FEET

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

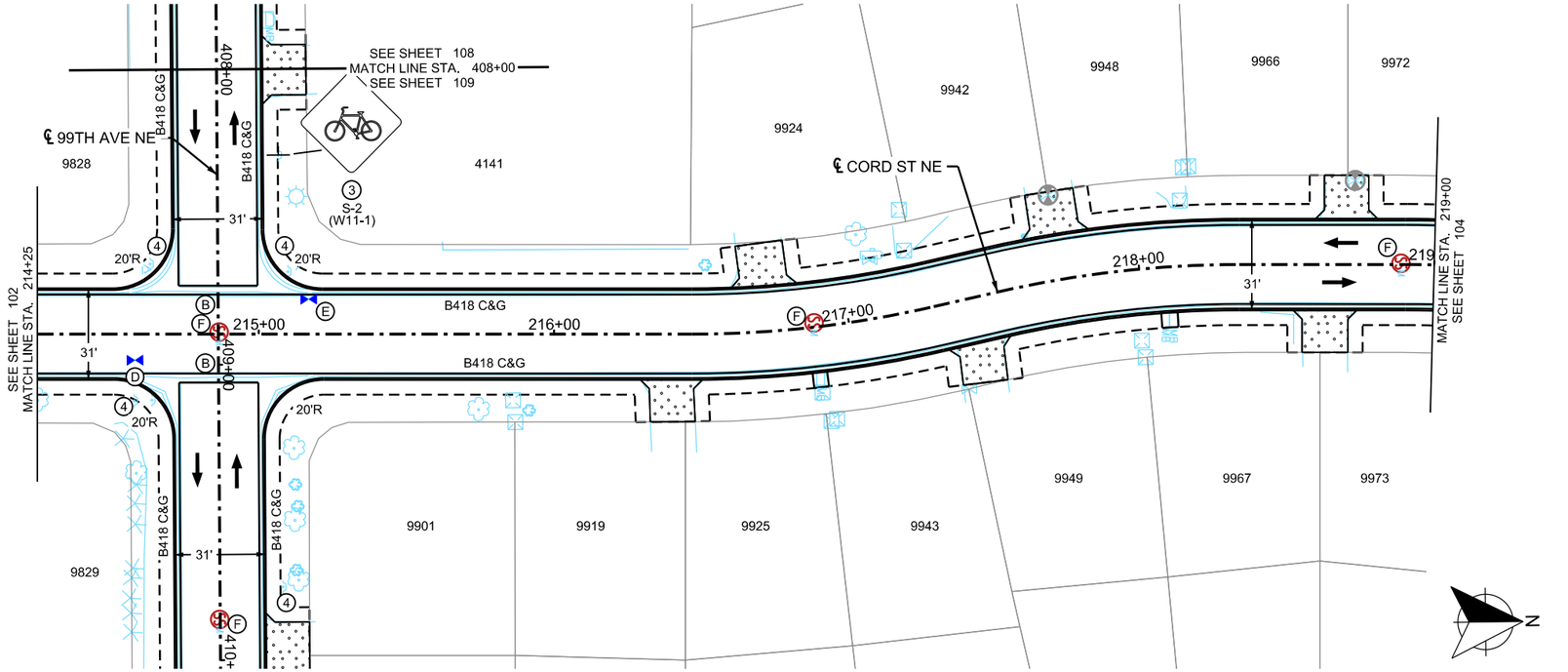
CITY PROJECT 23-08

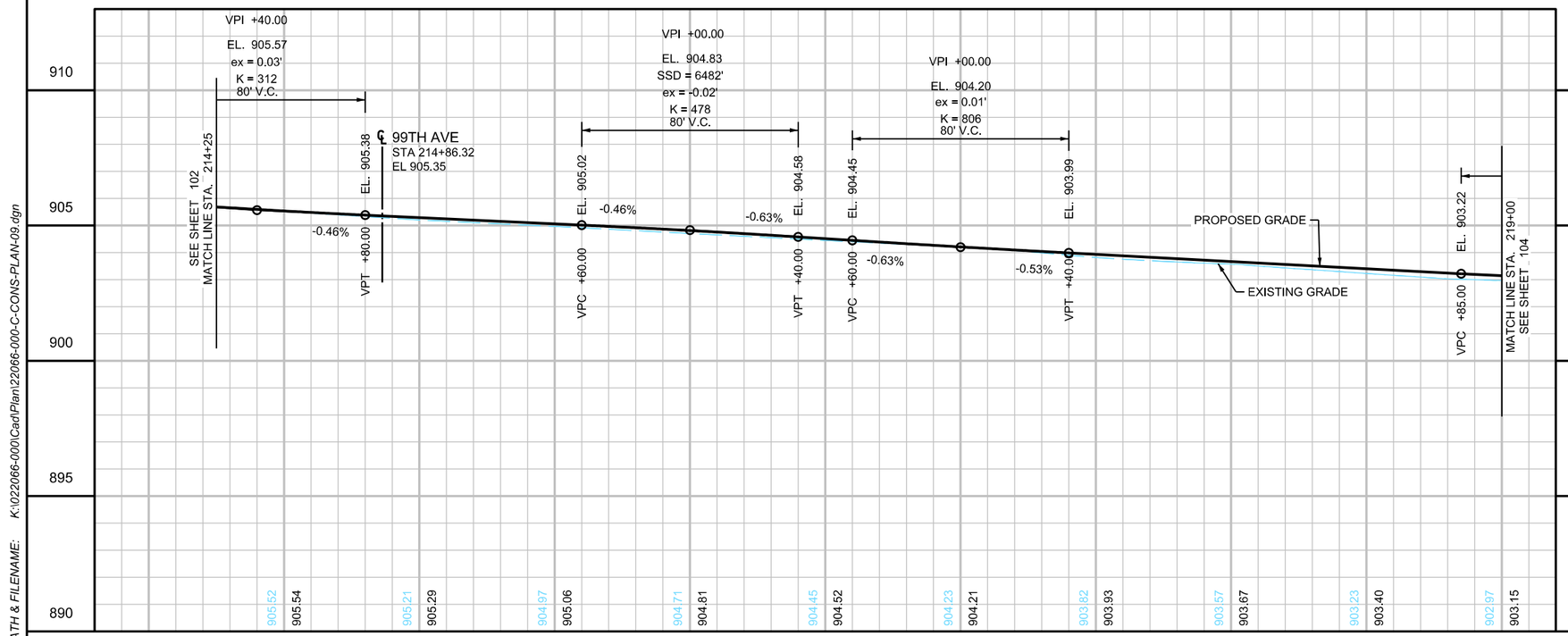
SHEET **102** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:01 AM

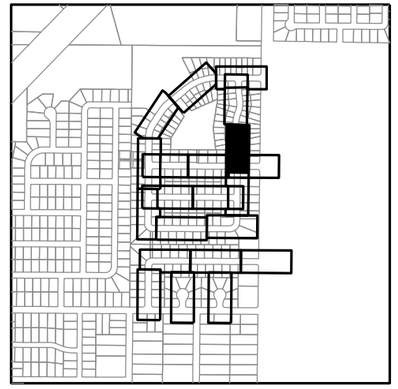
PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-CONS-PLAN-09.dgn

CORD STREET NE





LOCATION MAP



LEGEND

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2. CURB TRANSITION, SEE MISCELLANEOUS DETAILS
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wsb

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

CITY PROJECT 23-08

SHEET **103** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:02 AM

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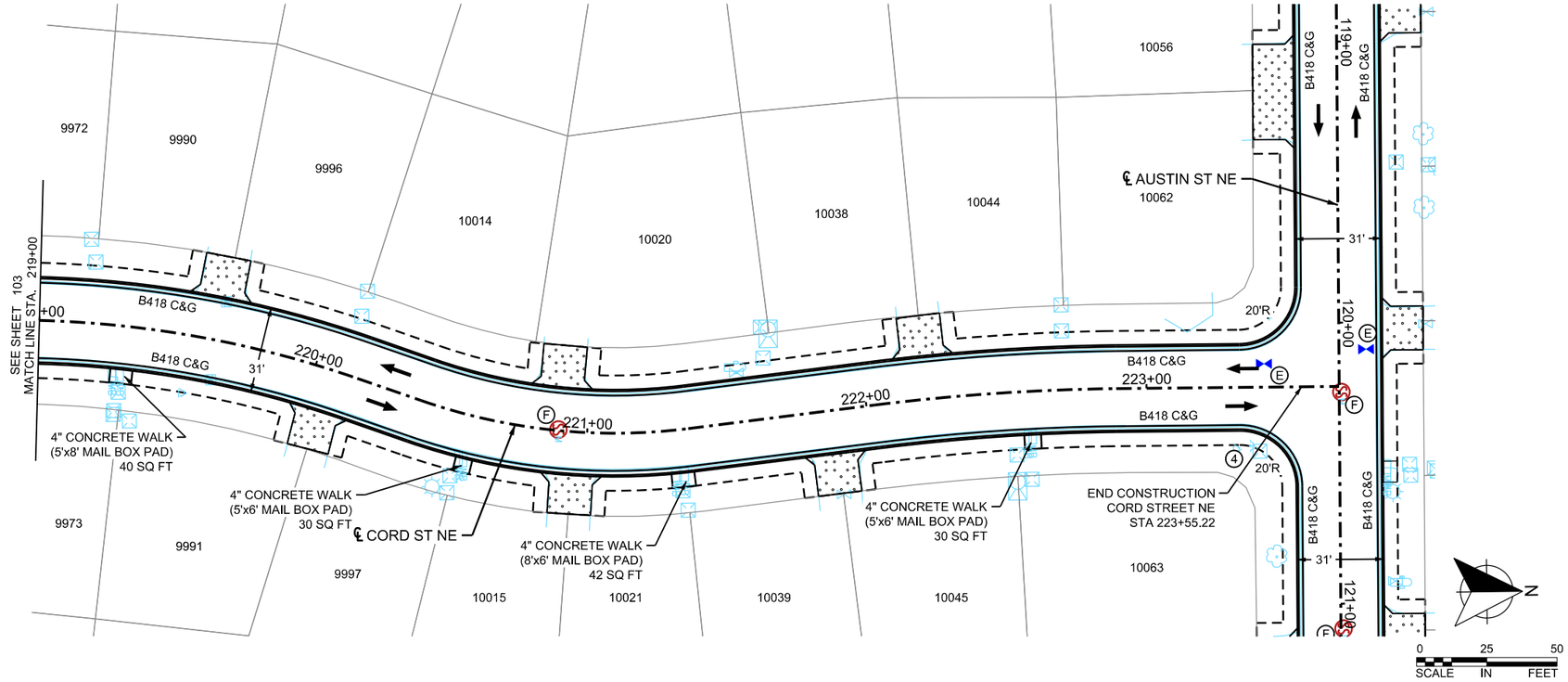
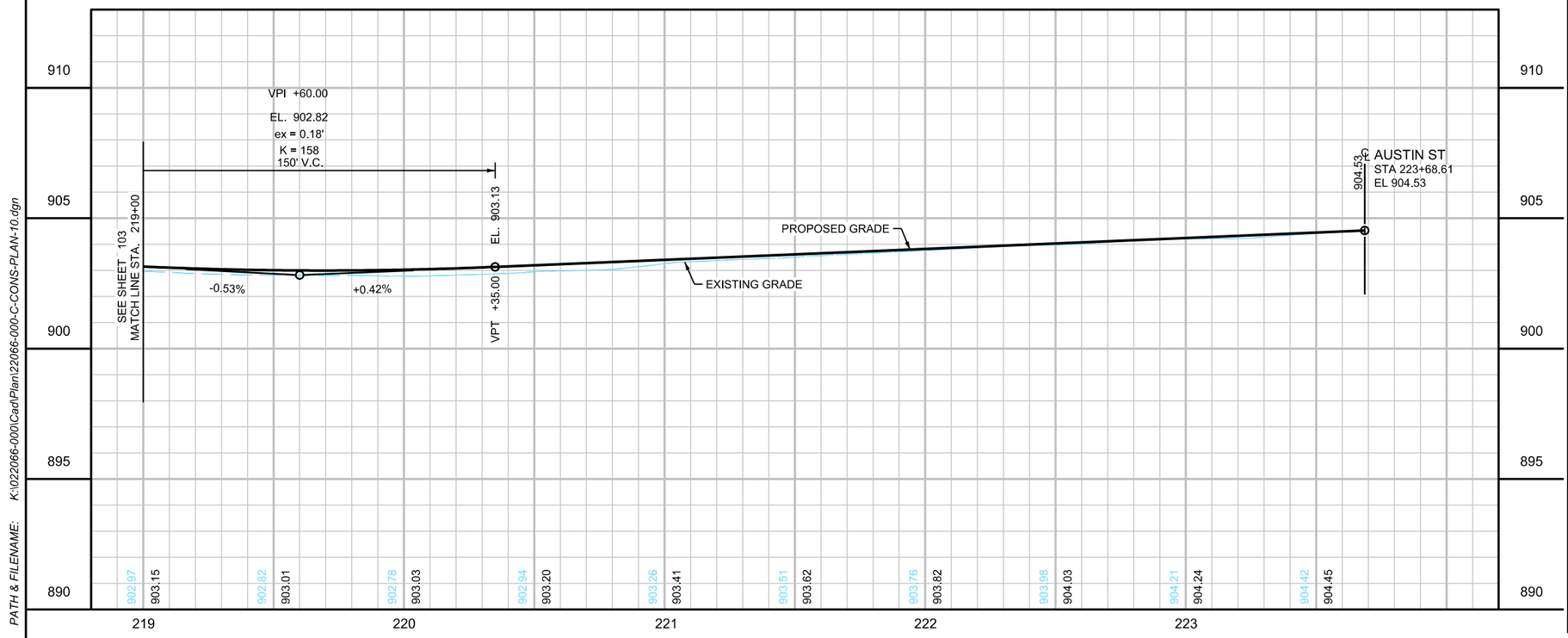
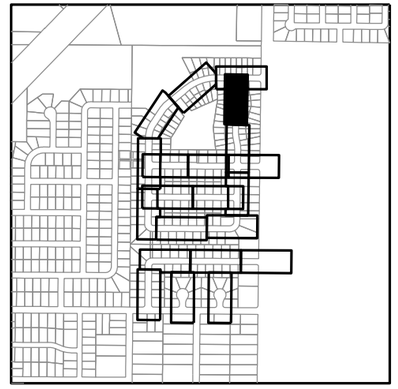
CORD STREET NE





LOCATION MAP



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NICHOLAS E. HENTGES, PE LIC. NO: 44620

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

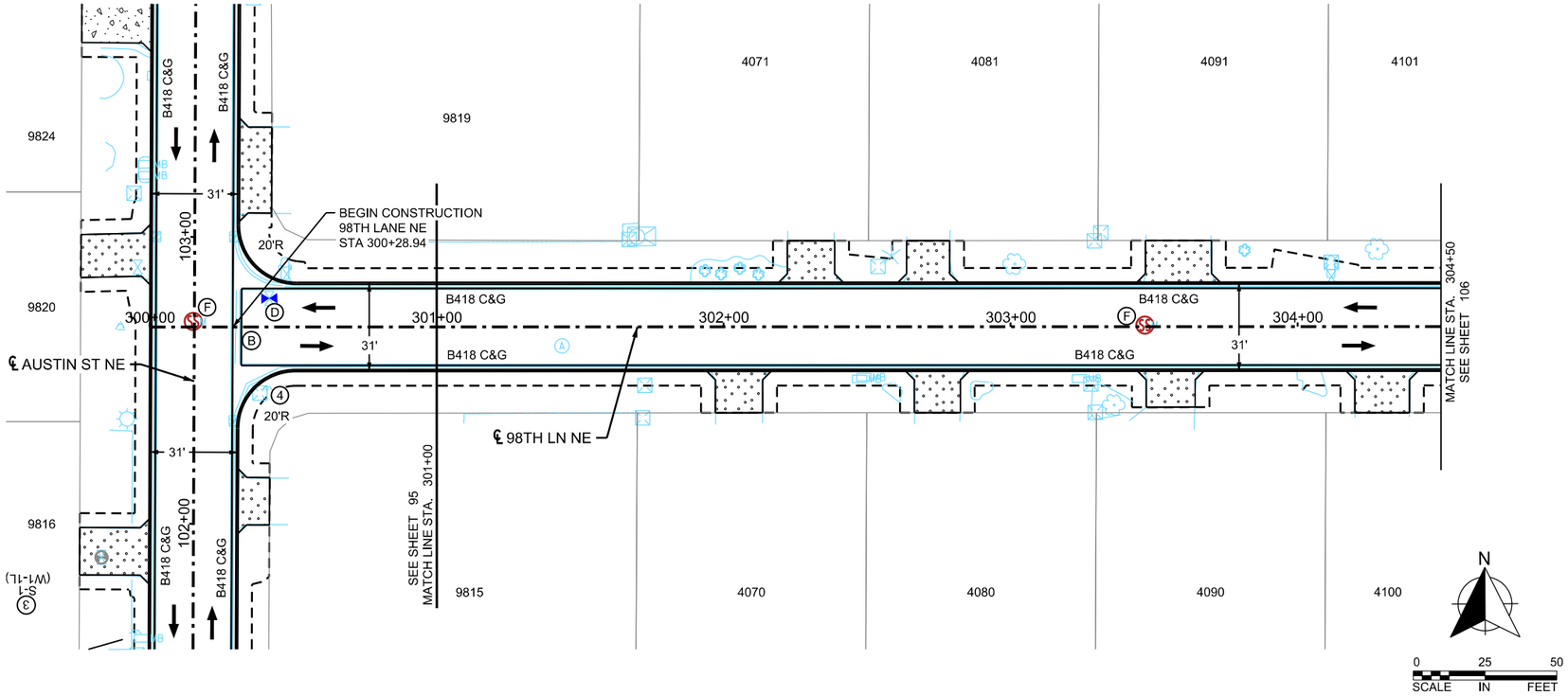
CITY PROJECT 23-08

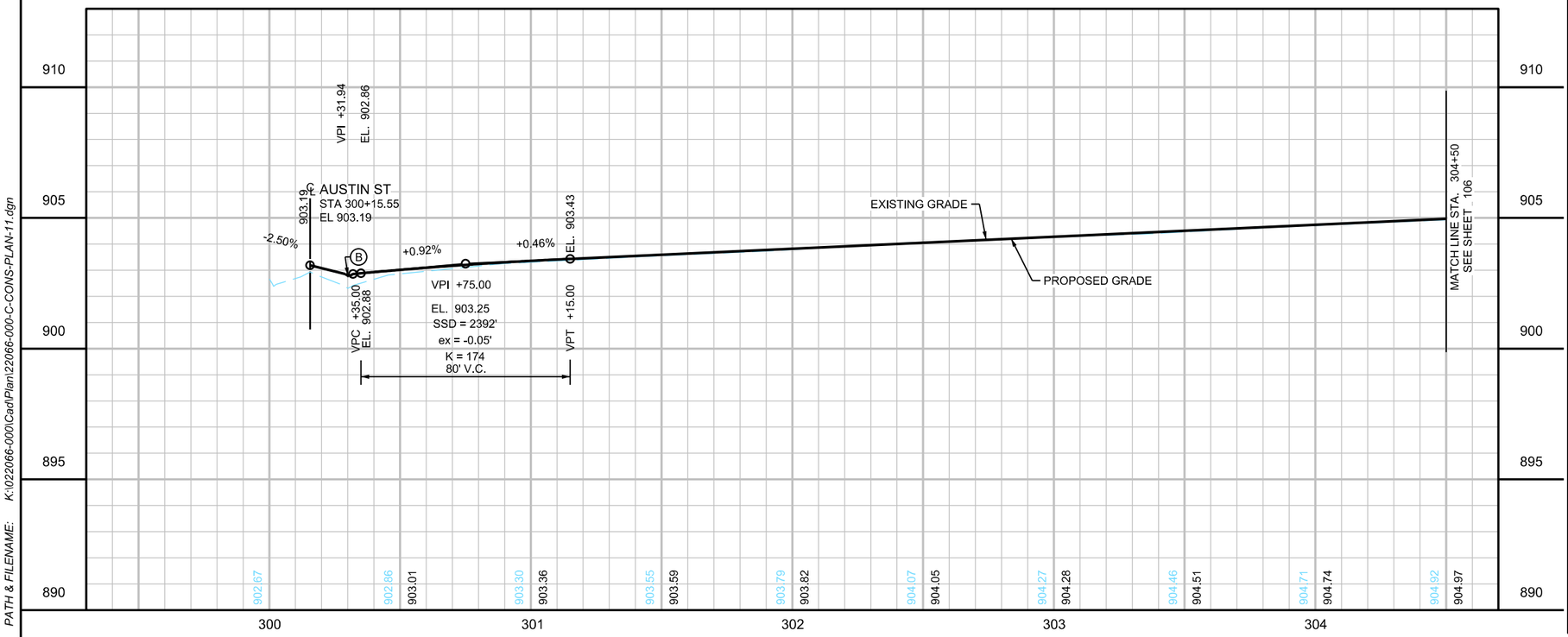
SHEET **104** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:03 AM

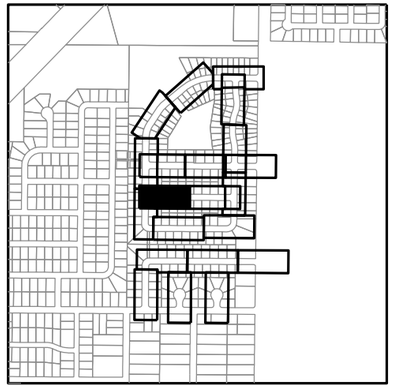
PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-CONS-PLAN-11.dgn

98TH LANE NE





LOCATION MAP



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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

CITY PROJECT 23-08

SHEET **105** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:04 AM

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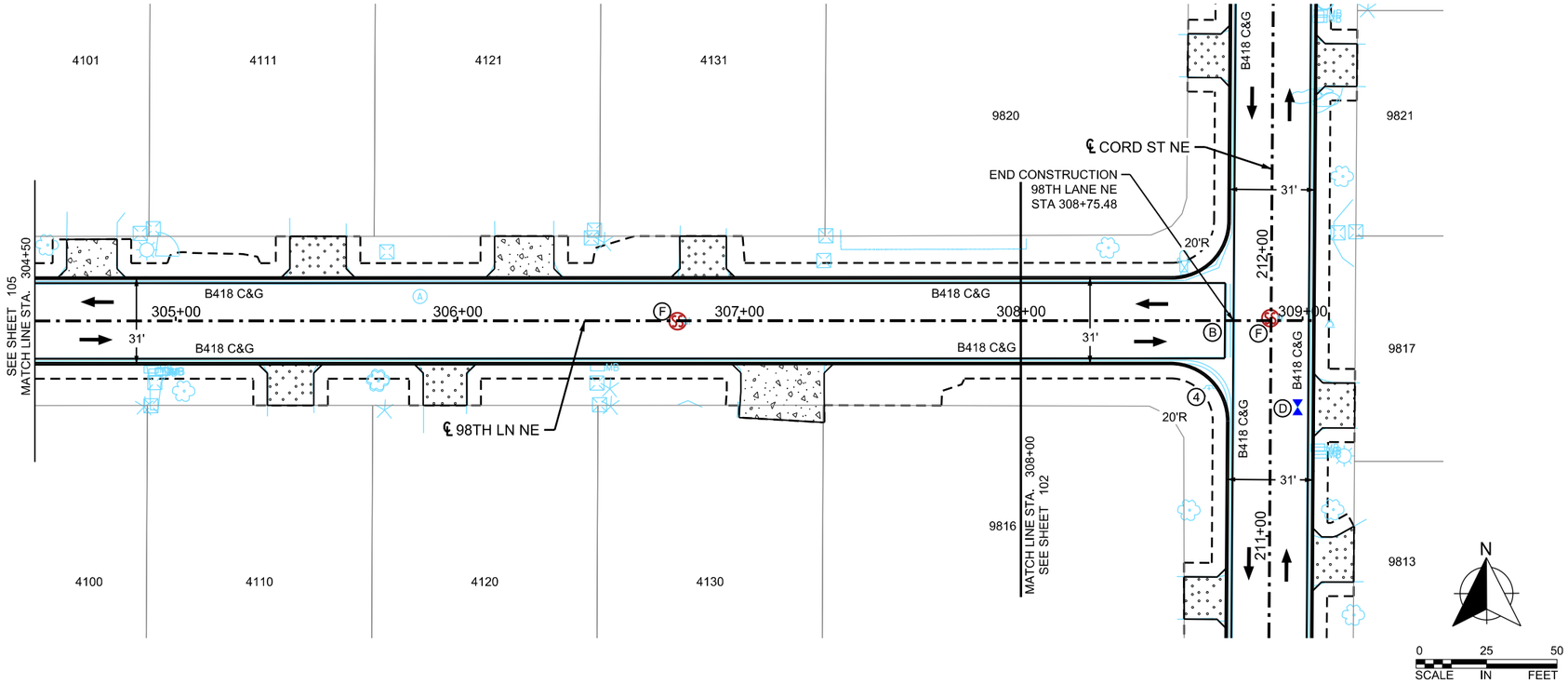
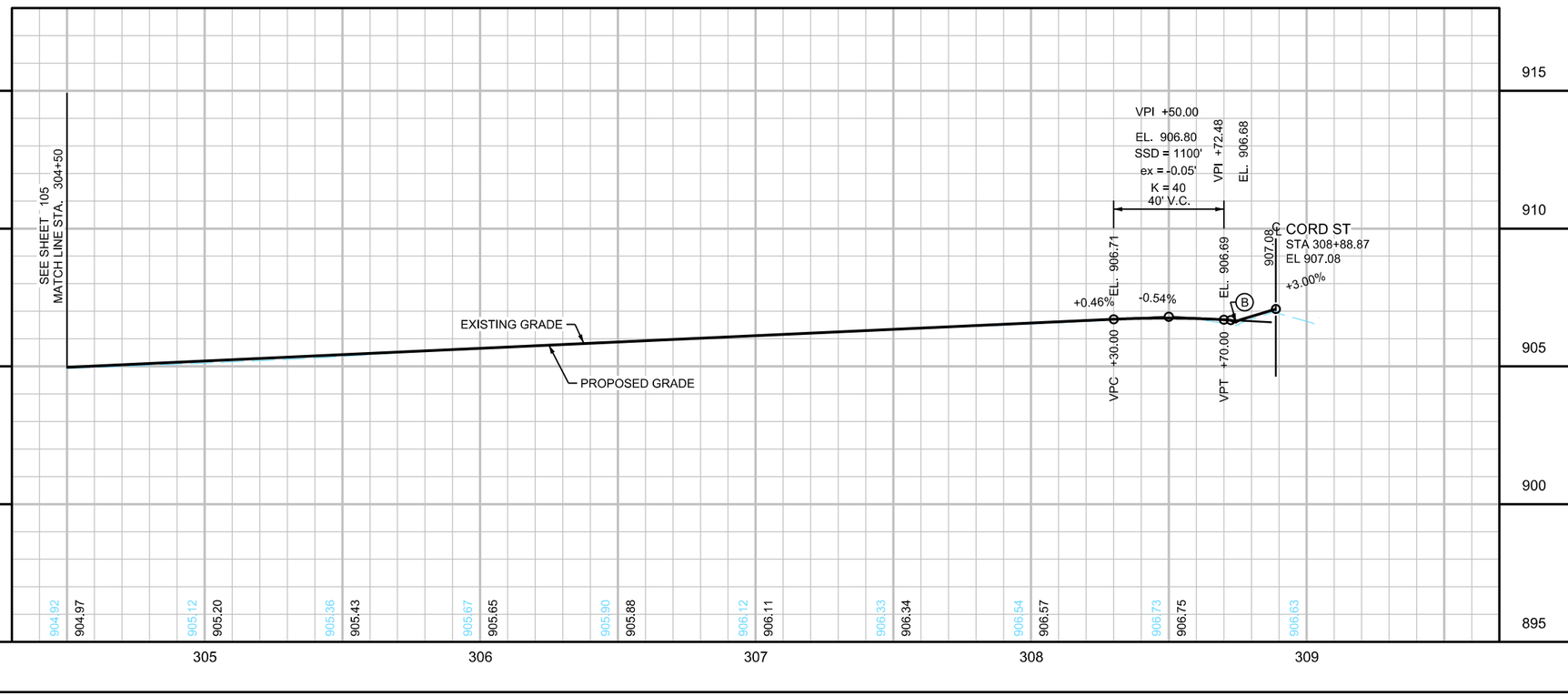
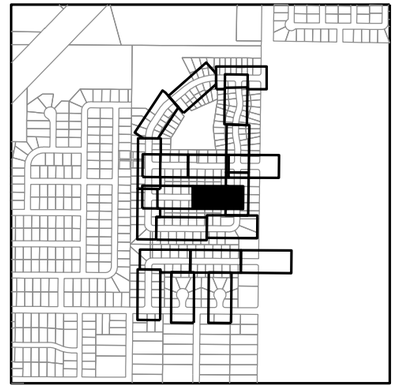
98TH LANE NE





LOCATION MAP



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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

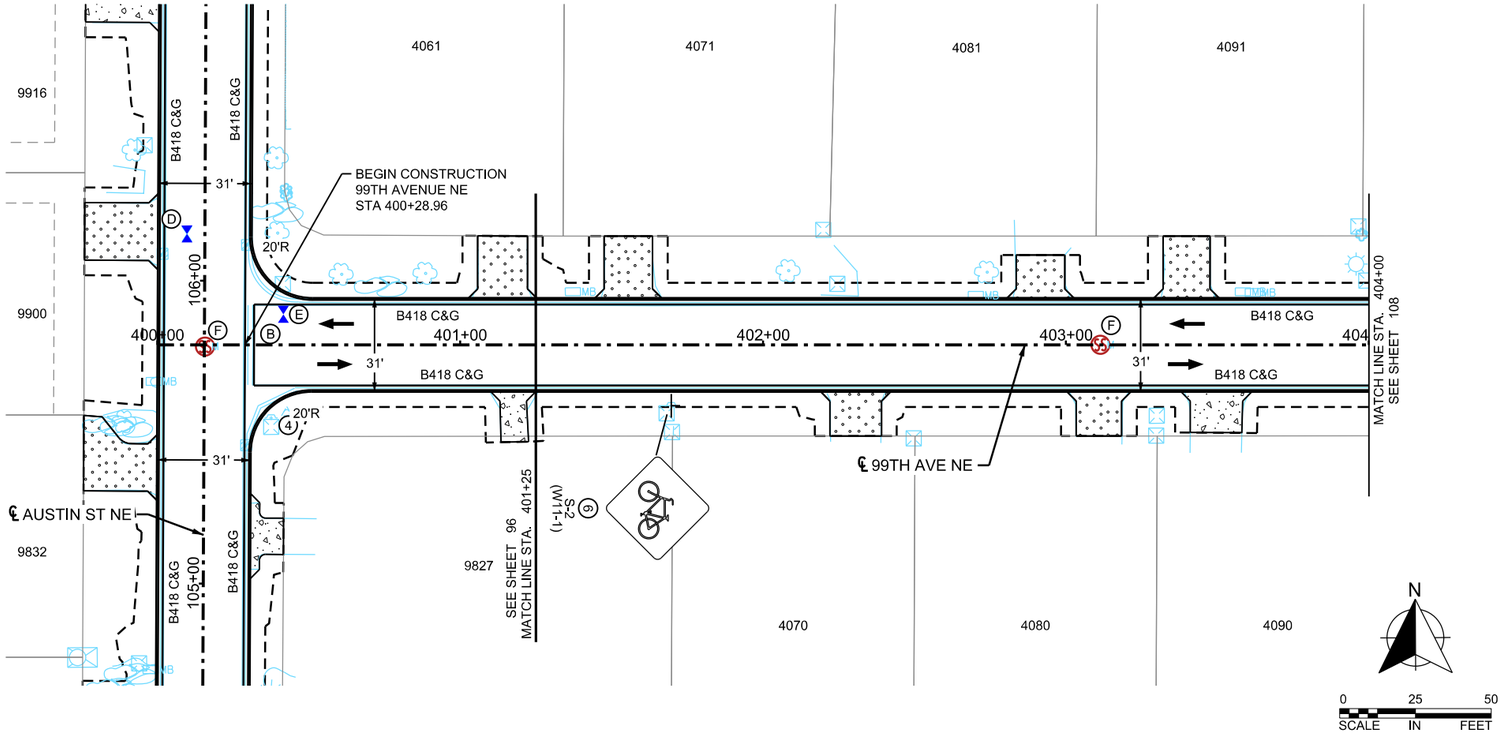
CITY PROJECT 23-08

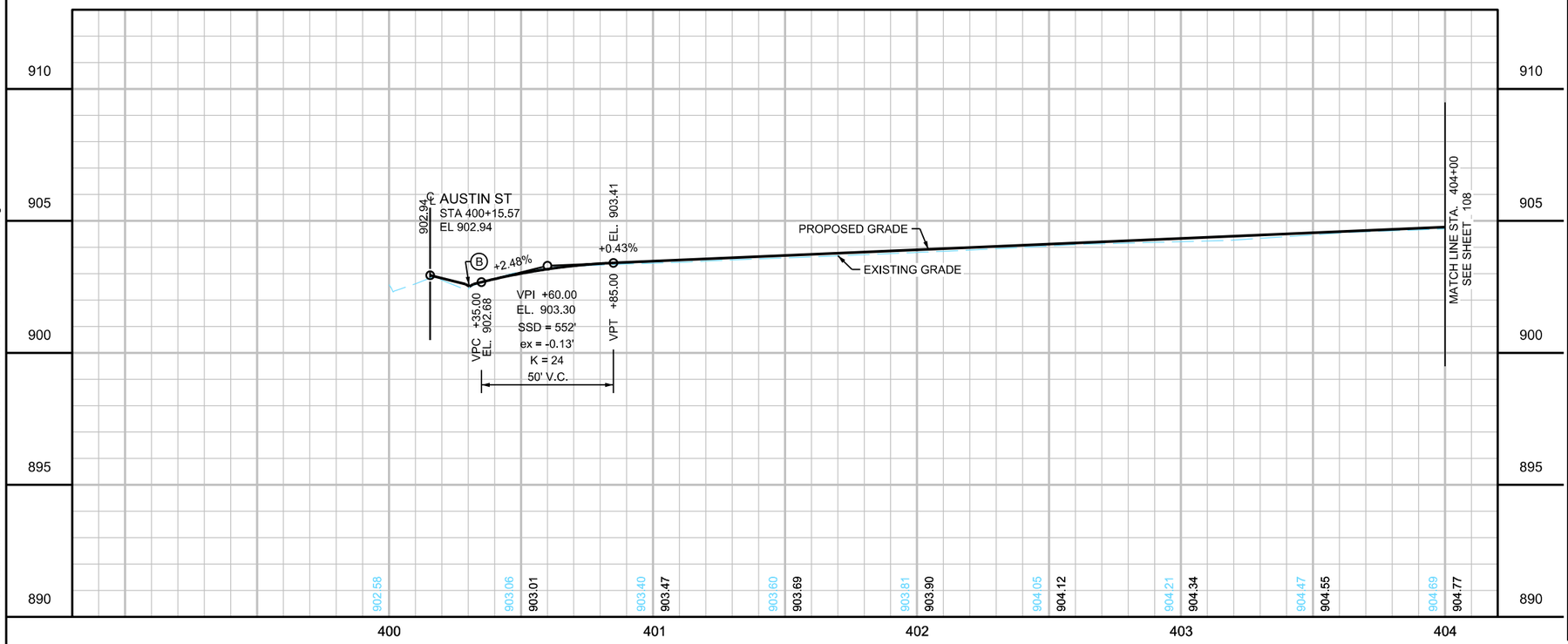
SHEET **106** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:05 AM

PATH & FILENAME: K:\022066-000\Cadl\Plan\22066-000-C-CONS-PLAN-13.dgn

99TH AVENUE NE





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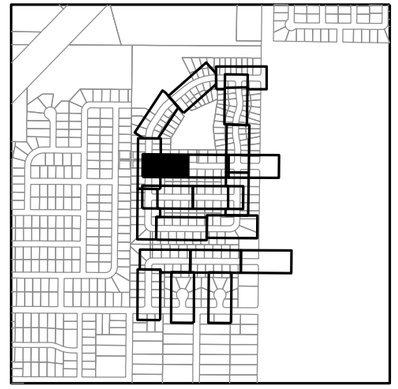

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SOUTHEAST AREA RECONSTRUCTION

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CITY PROJECT 23-08

SHEET **107** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:06 AM

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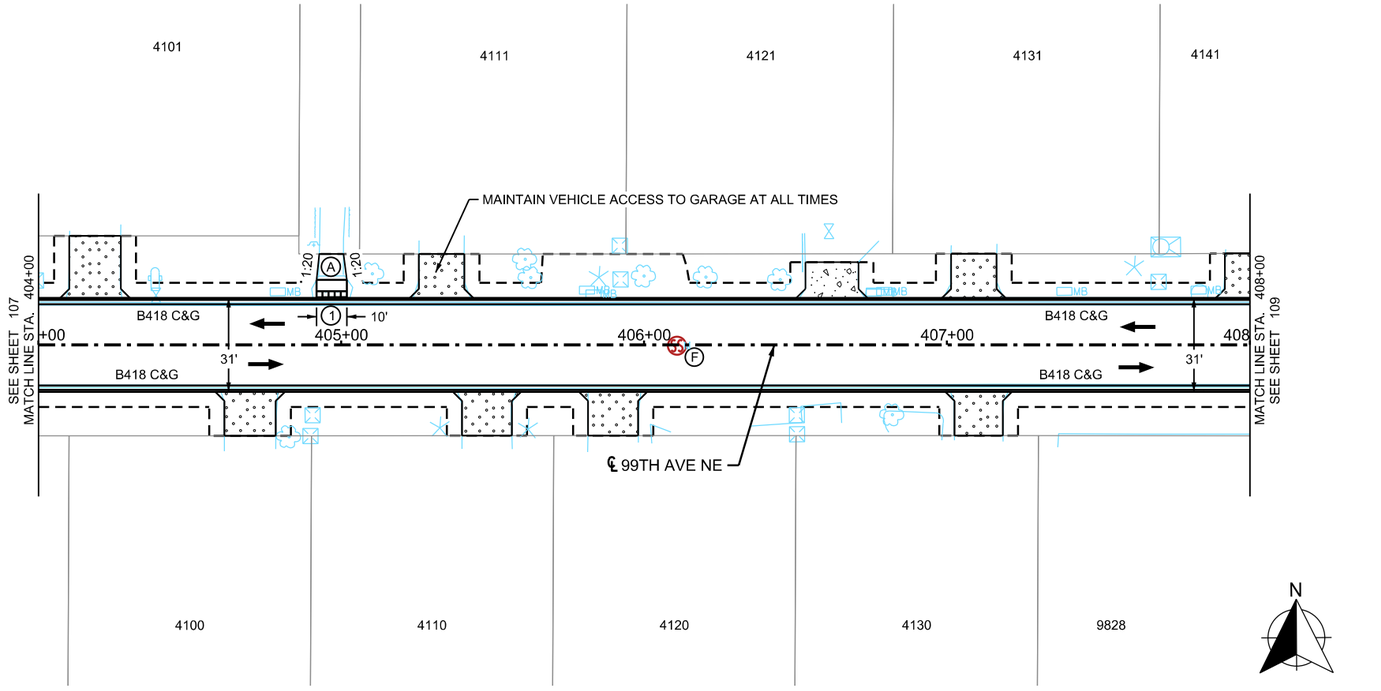
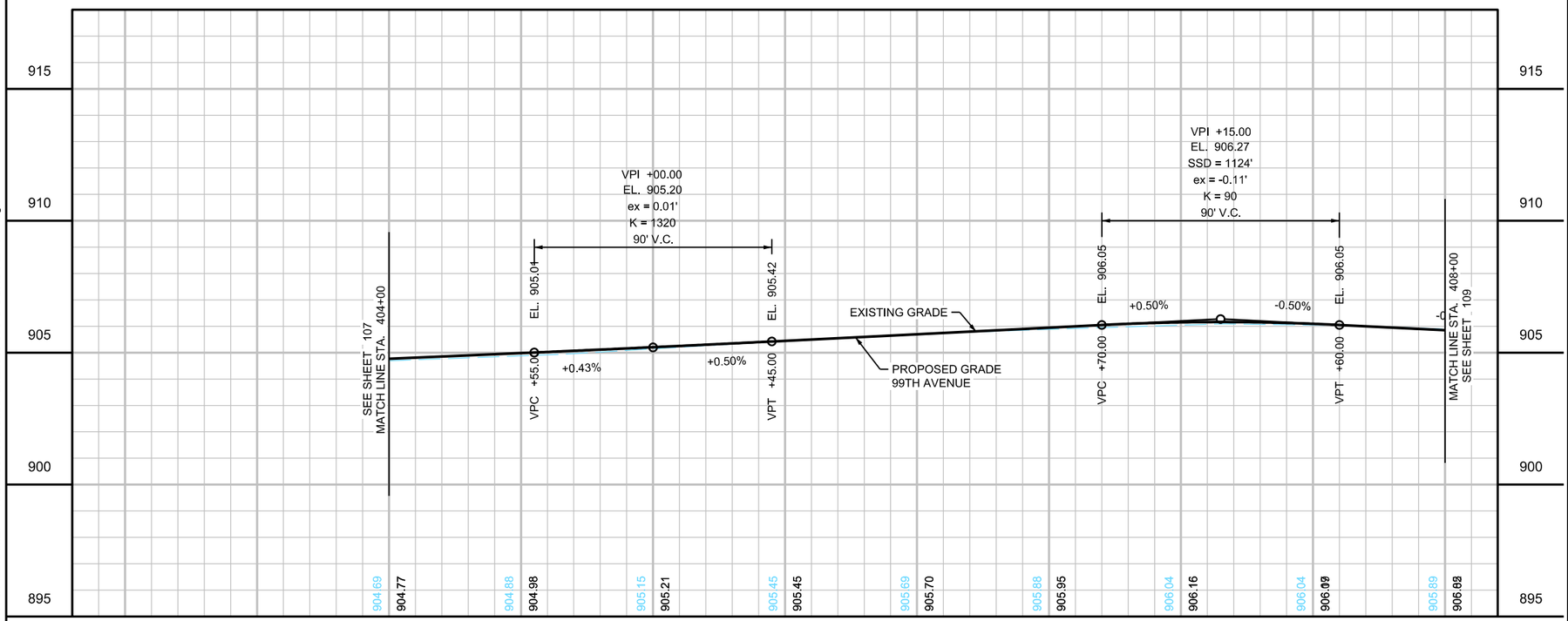
99TH AVENUE NE





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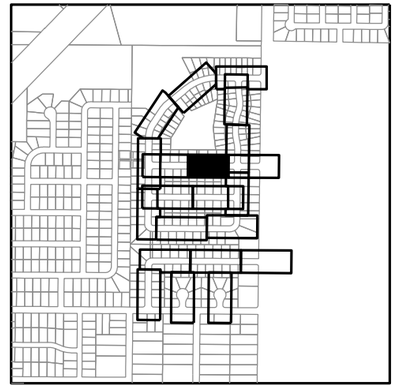

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ELEVATIONS FOR THIS PLAN ARE BASED ON NAVD 88 DATUM.

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

CITY PROJECT 23-08

SHEET **108** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:07 AM

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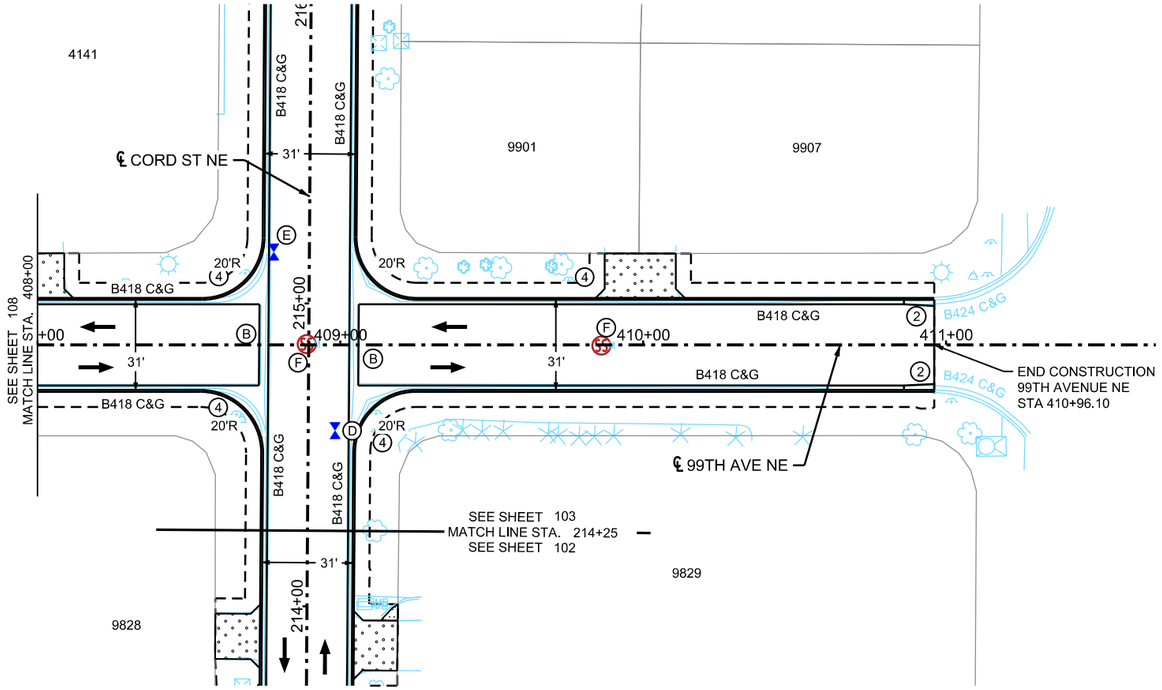
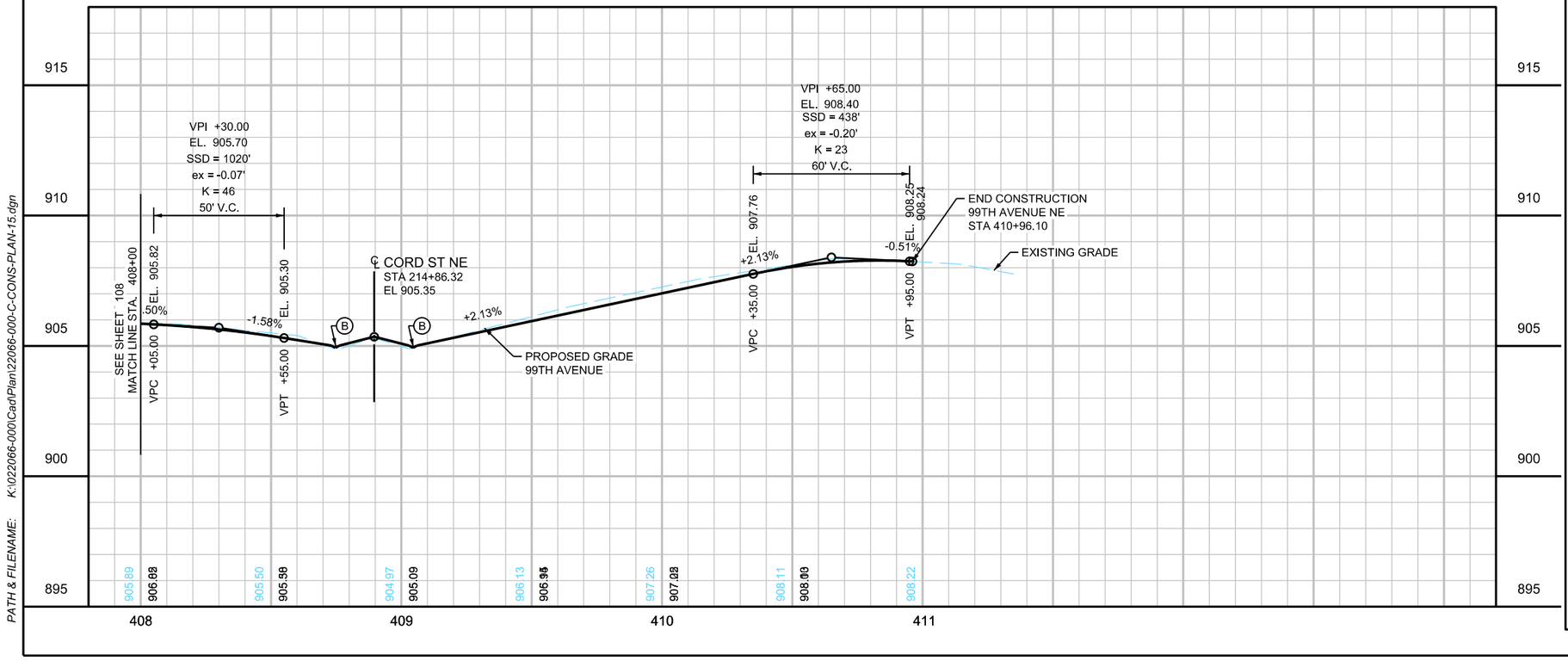
99TH AVENUE NE





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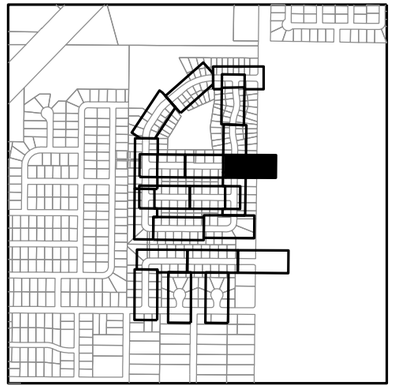

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SCALE IN FEET

LEGEND

1. CONSTRUCT CONCRETE PEDESTRIAN RAMP WITH TRUNCATED DOMES. SEE INTERSECTION DETAILS.
2. CURB TRANSITION, SEE MISCELLANEOUS DETAILS
3. FURNISH & INSTALL SIGN
4. INSTALL SIGN
- (A) 2" BITUMINOUS WALK
- (B) CONCRETE VALLEY GUTTER, SEE CITY DETAIL PLATE ST-4 HIGH EARLY CONCRETE (INCIDENTAL)
- (C) 4" CONCRETE WALK
- (D) F&I 6" GATE VALVE & BOX CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)
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- GRADING LIMITS (APPROX)
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SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

CITY PROJECT 23-08

SHEET **109** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:08 AM

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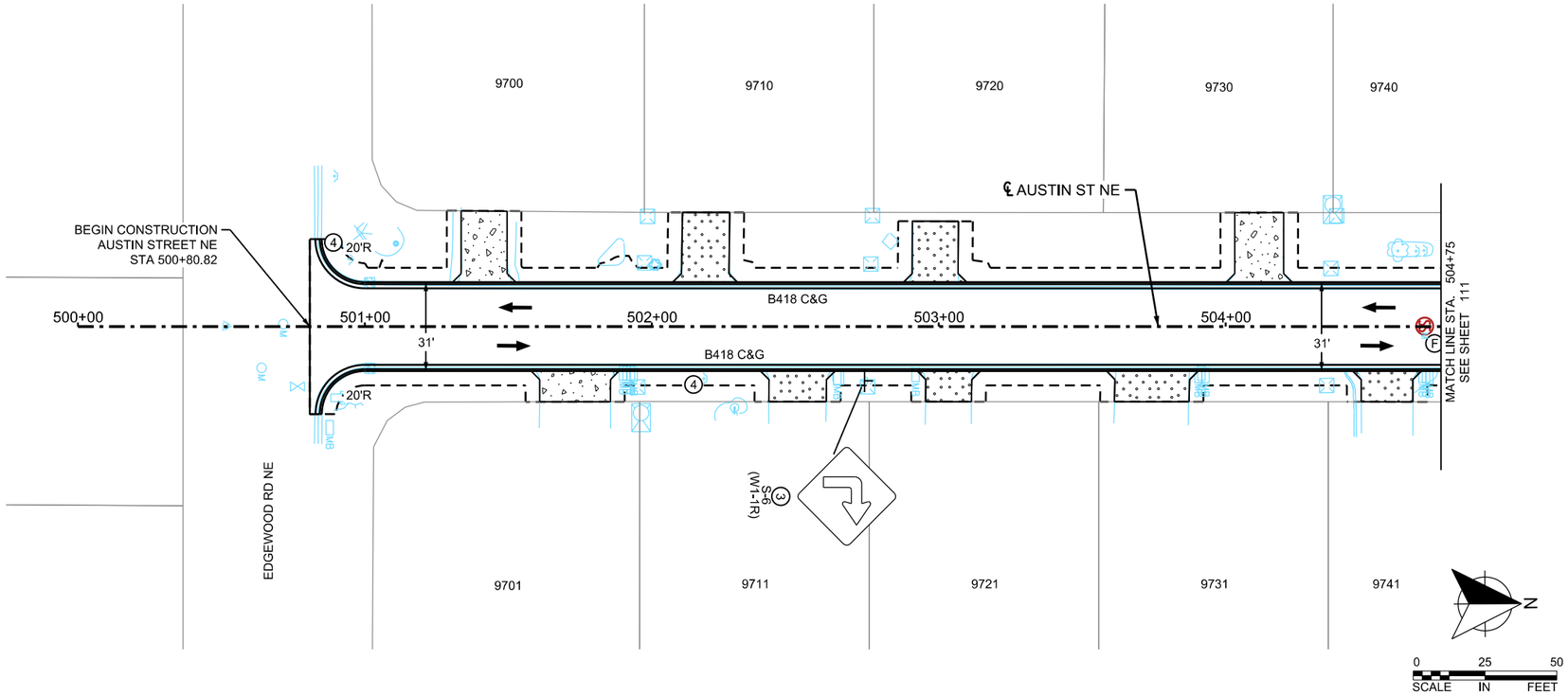
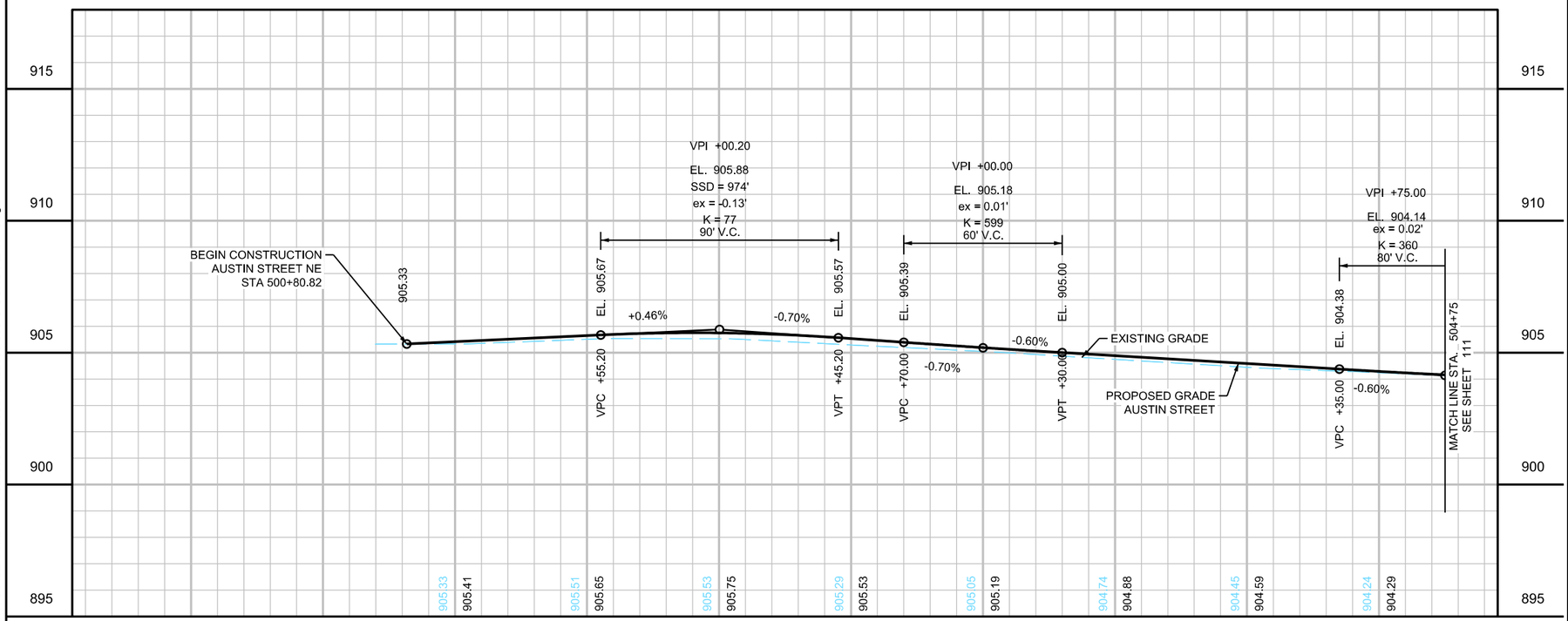
AUSTIN STREET NE





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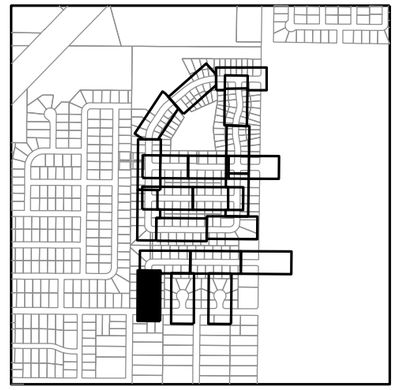

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CITY PROJECT 23-08

SHEET **110** OF **230** SHEETS

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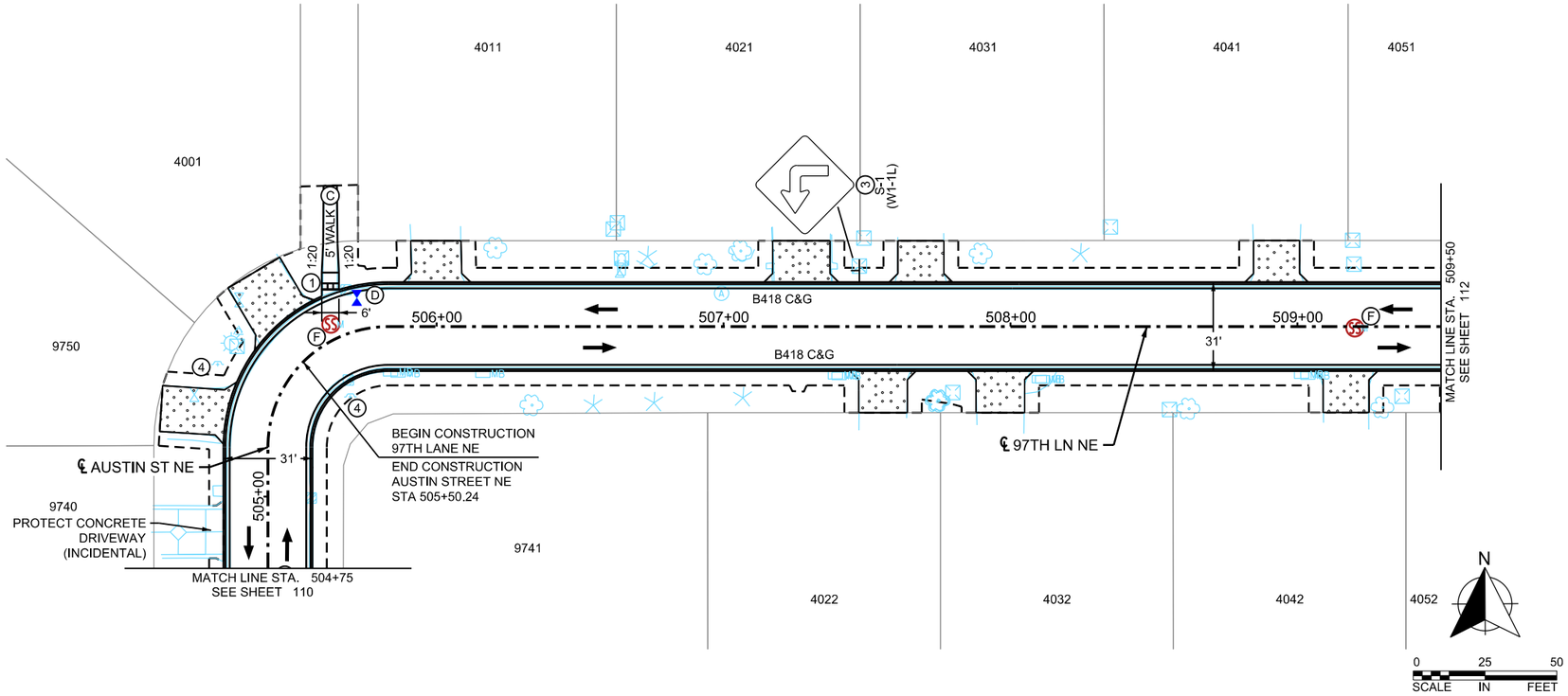
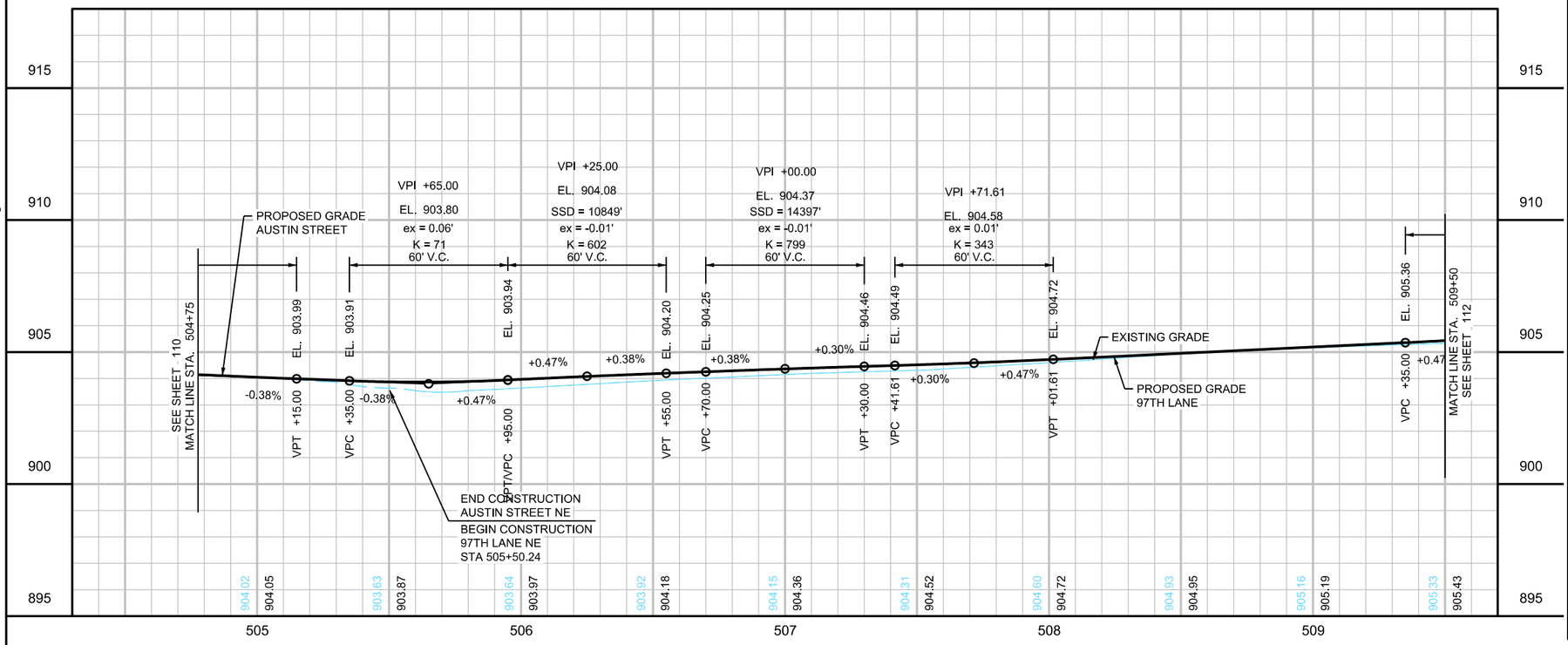
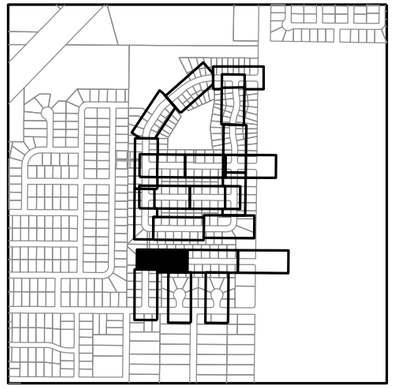
97TH LANE NE





LOCATION MAP



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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

CITY PROJECT 23-08

SHEET **111** OF **230** SHEETS

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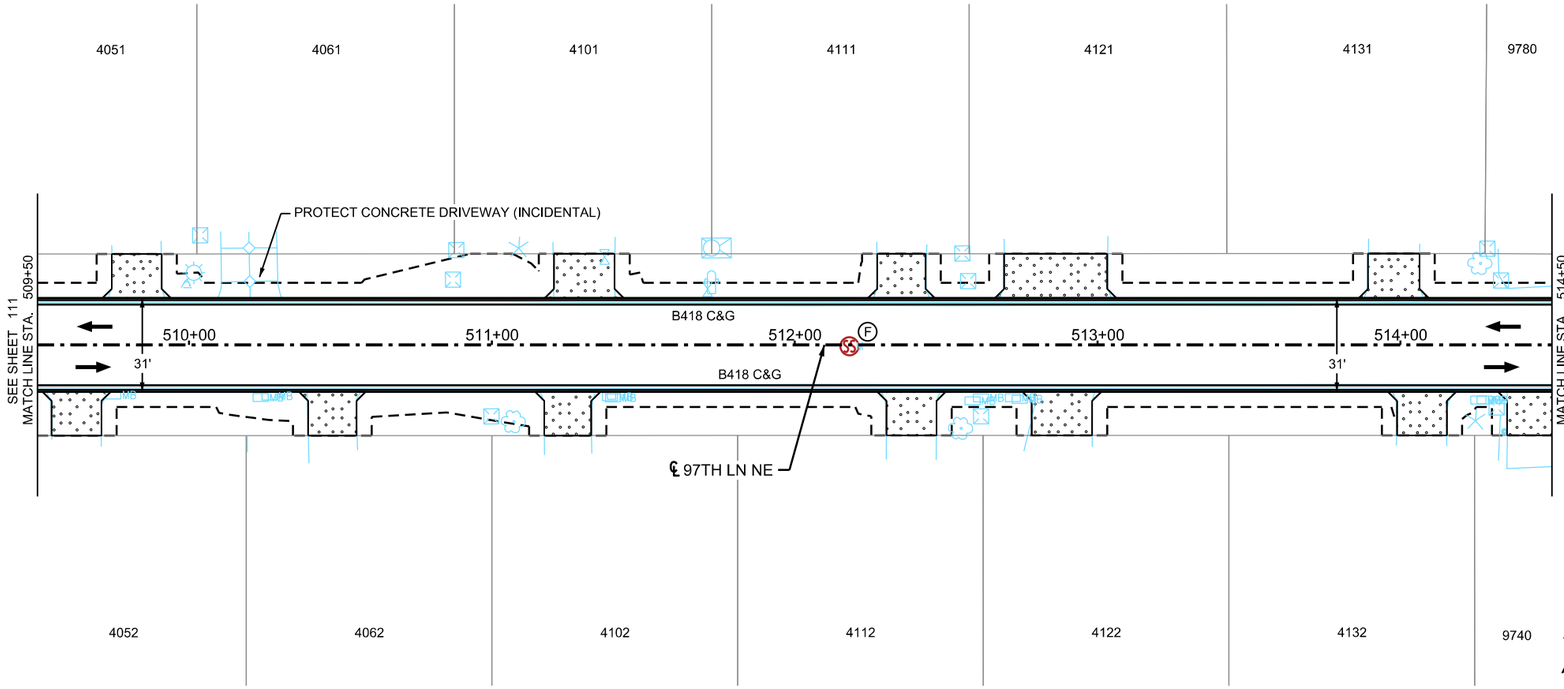
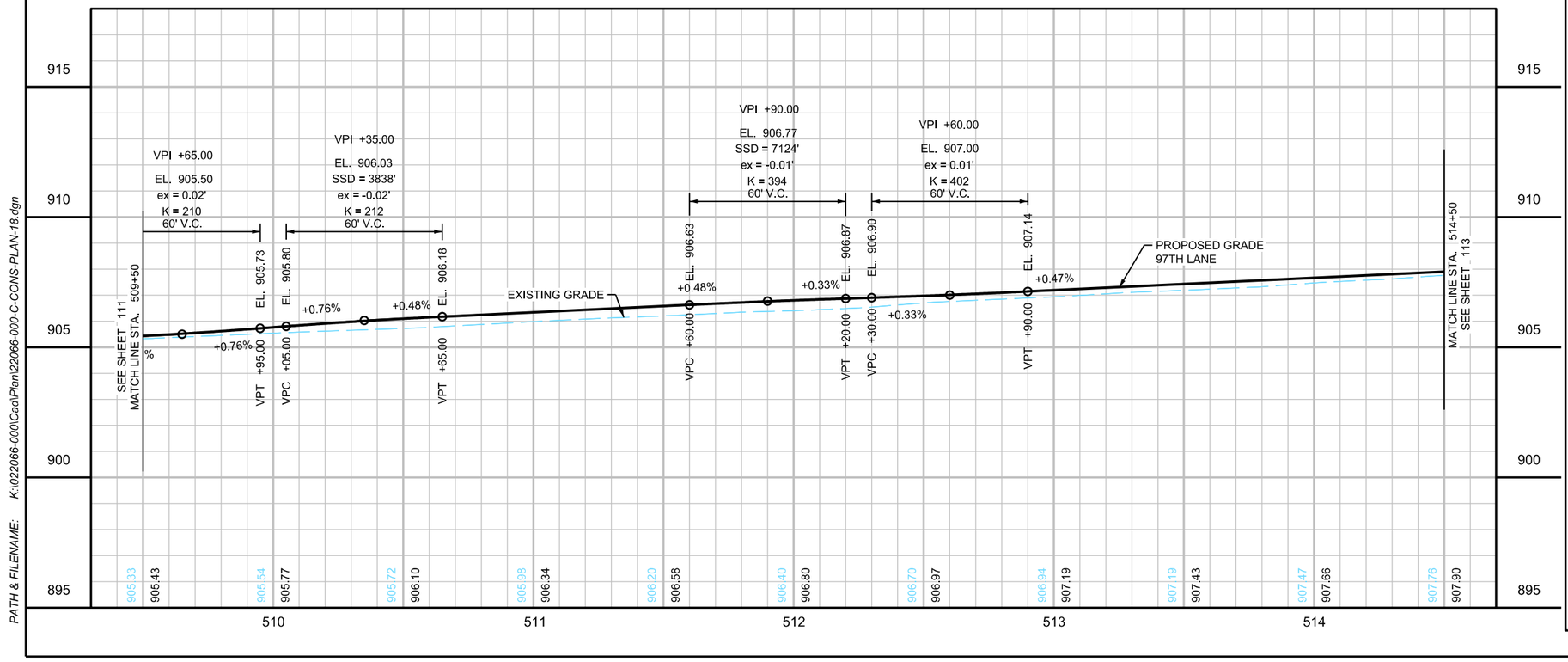
97TH LANE NE





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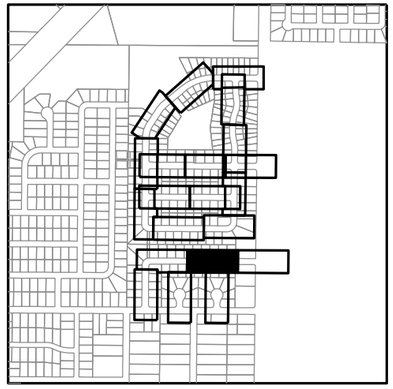

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CITY OF BLAINE, MN

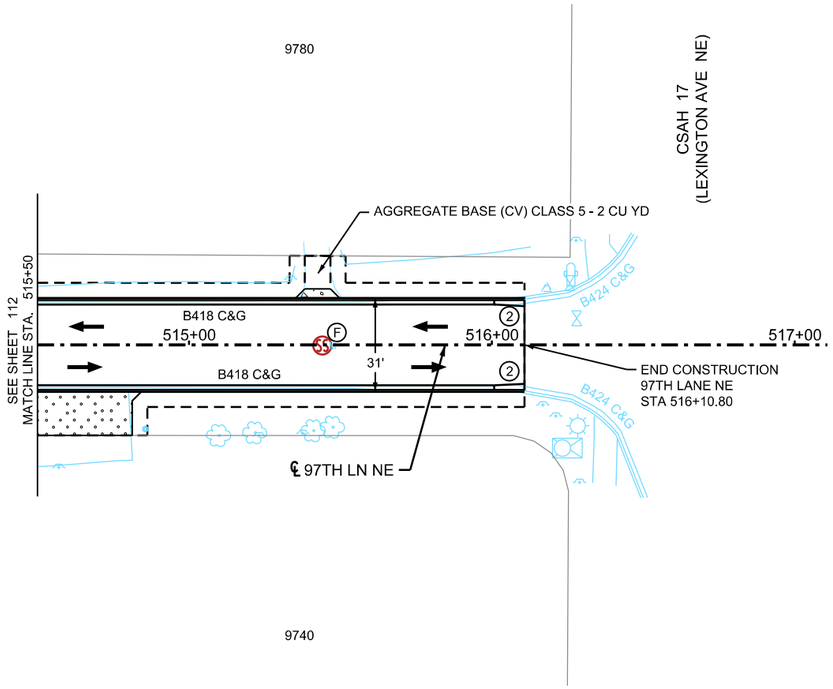
SOUTHEAST AREA RECONSTRUCTION

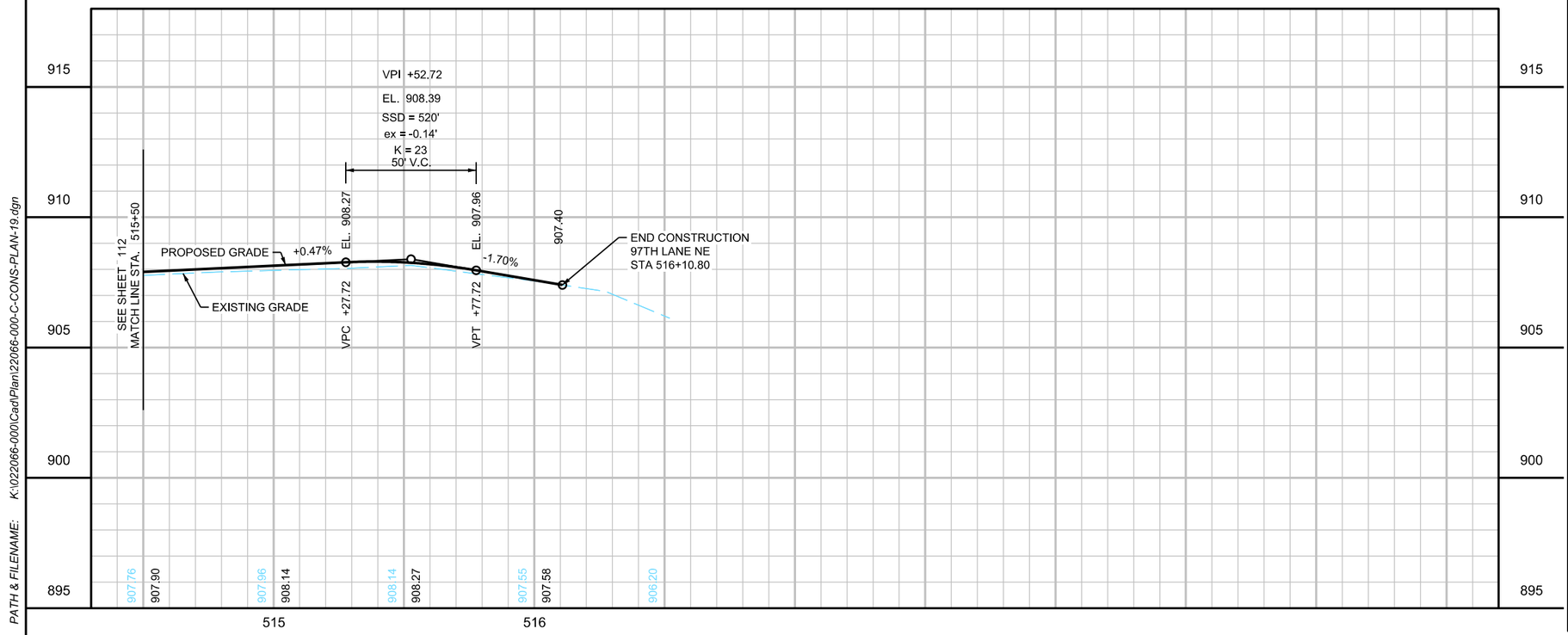
STREET, WATERMAIN, & SANITARY SEWER PLANS

CITY PROJECT 23-08

SHEET **112** OF **230** SHEETS

97TH LANE NE





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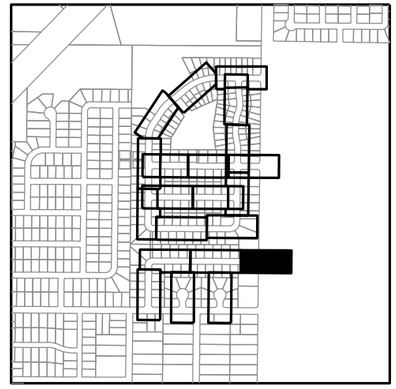

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SHEET **113** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:10 AM

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PLOTTED/REVISED: 3/9/2023 11:34:11 AM

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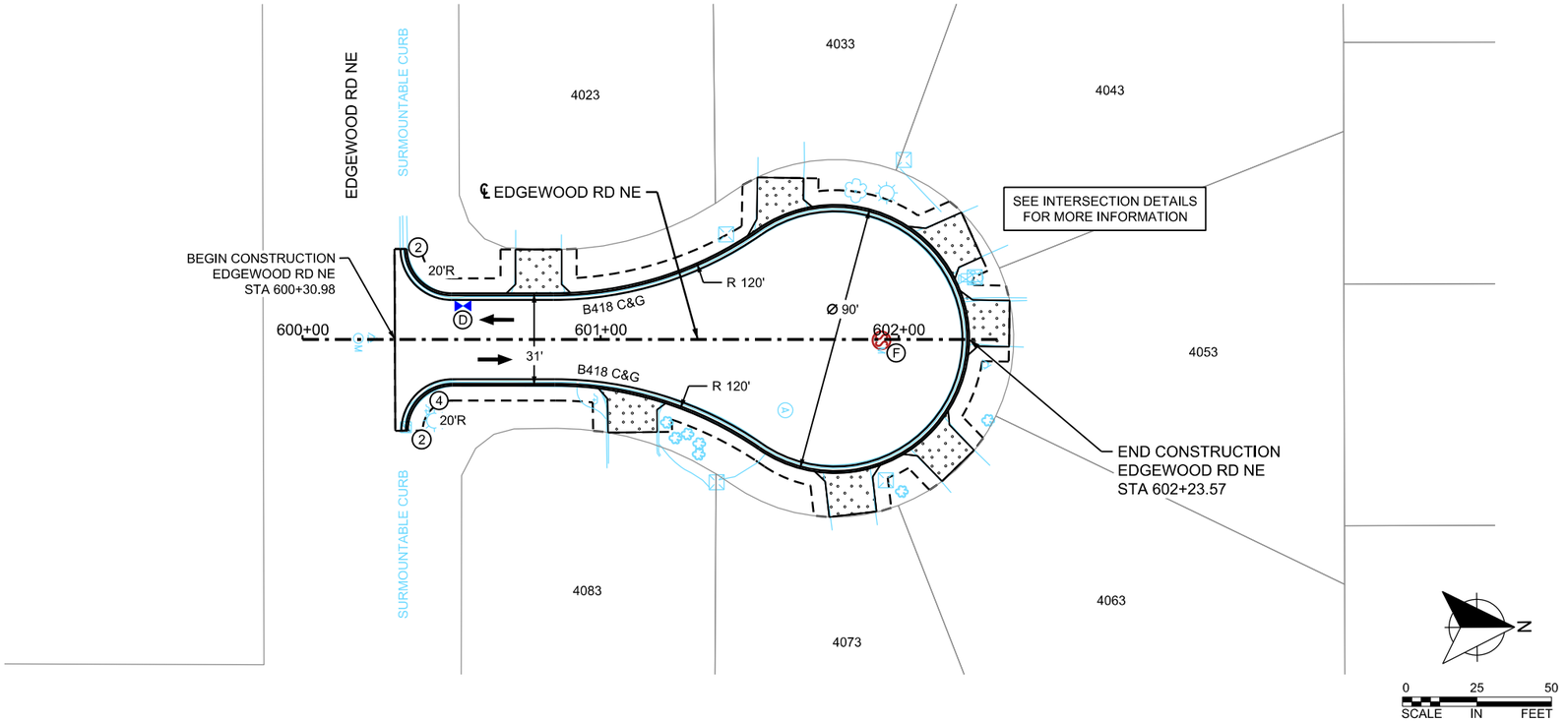
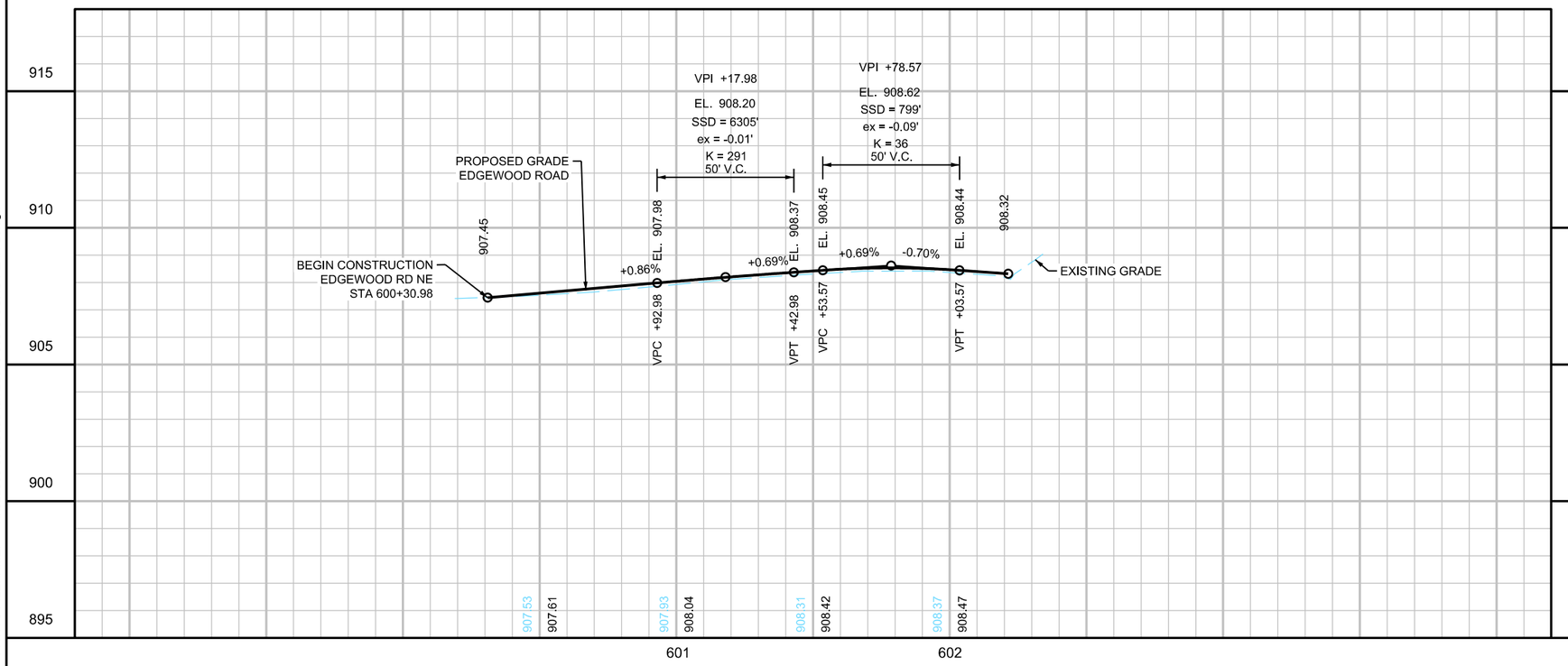
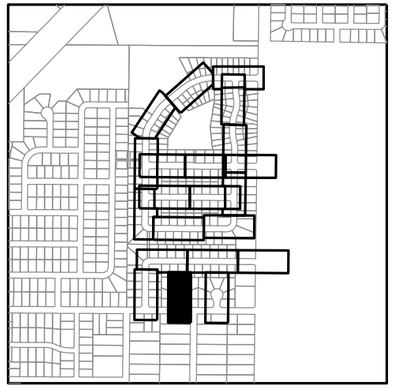
EDGEWOOD ROAD NE (4023 - 4083)





LOCATION MAP



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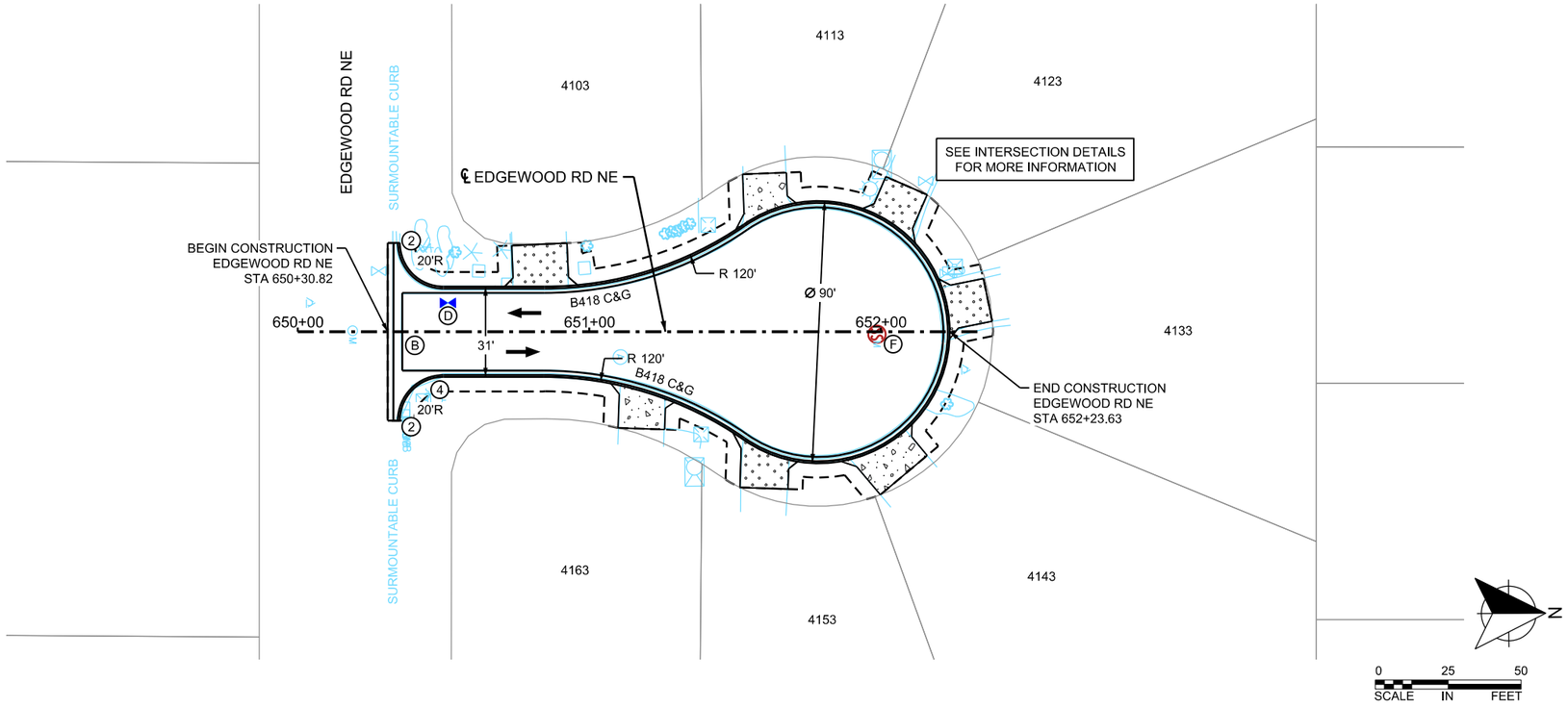
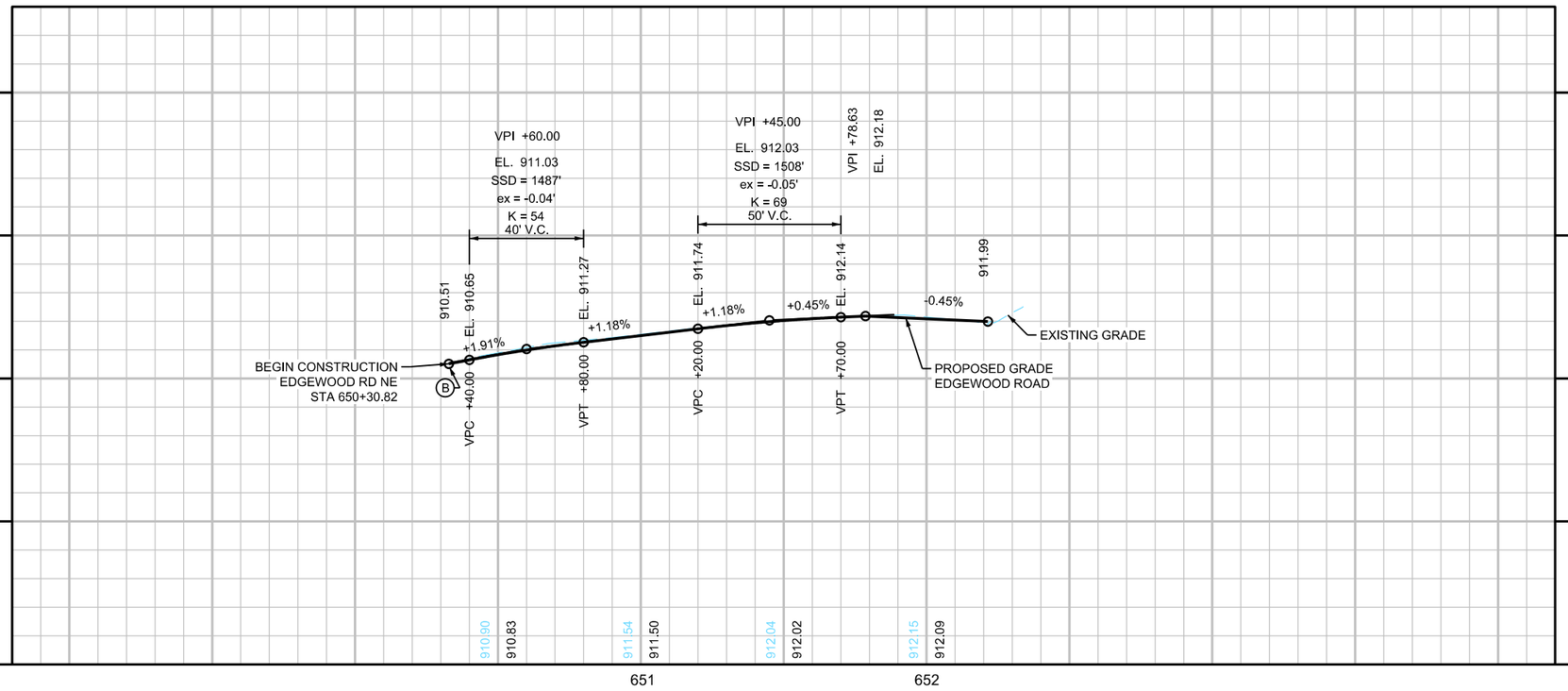
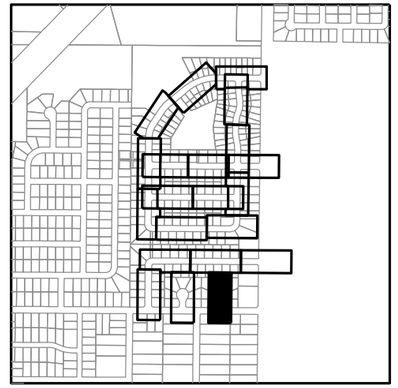
SHEET **114** OF **230** SHEETS

EDGEWOOD ROAD NE (4103 - 4163)





LOCATION MAP



LEGEND

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- (2) CURB TRANSITION, SEE MISCELLANEOUS DETAILS
- (3) FURNISH & INSTALL SIGN
- (4) INSTALL SIGN
- (A) 2" BITUMINOUS WALK
- (B) CONCRETE VALLEY GUTTER, SEE CITY DETAIL PLATE ST-4 HIGH EARLY CONCRETE (INCIDENTAL)
- (C) 4" CONCRETE WALK
- (D) F&I 6" GATE VALVE & BOX CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)
- (E) F&I 16" GATE VALVE & BOX CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)
- (F) F&I SANITARTY SEWER CASTING, SEE CITY TECHNICAL SPECIFICATIONS
- 2.0" BITUMINOUS DRIVEWAY
- 6.0" CONCRETE DRIVEWAY
- GRADING LIMITS (APPROX)
- INPLACE RIGHT-OF-WAY

GENERAL NOTES

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VERTICAL CONTROL

ELEVATIONS FOR THIS PLAN ARE BASED ON NAVD 88 DATUM.

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

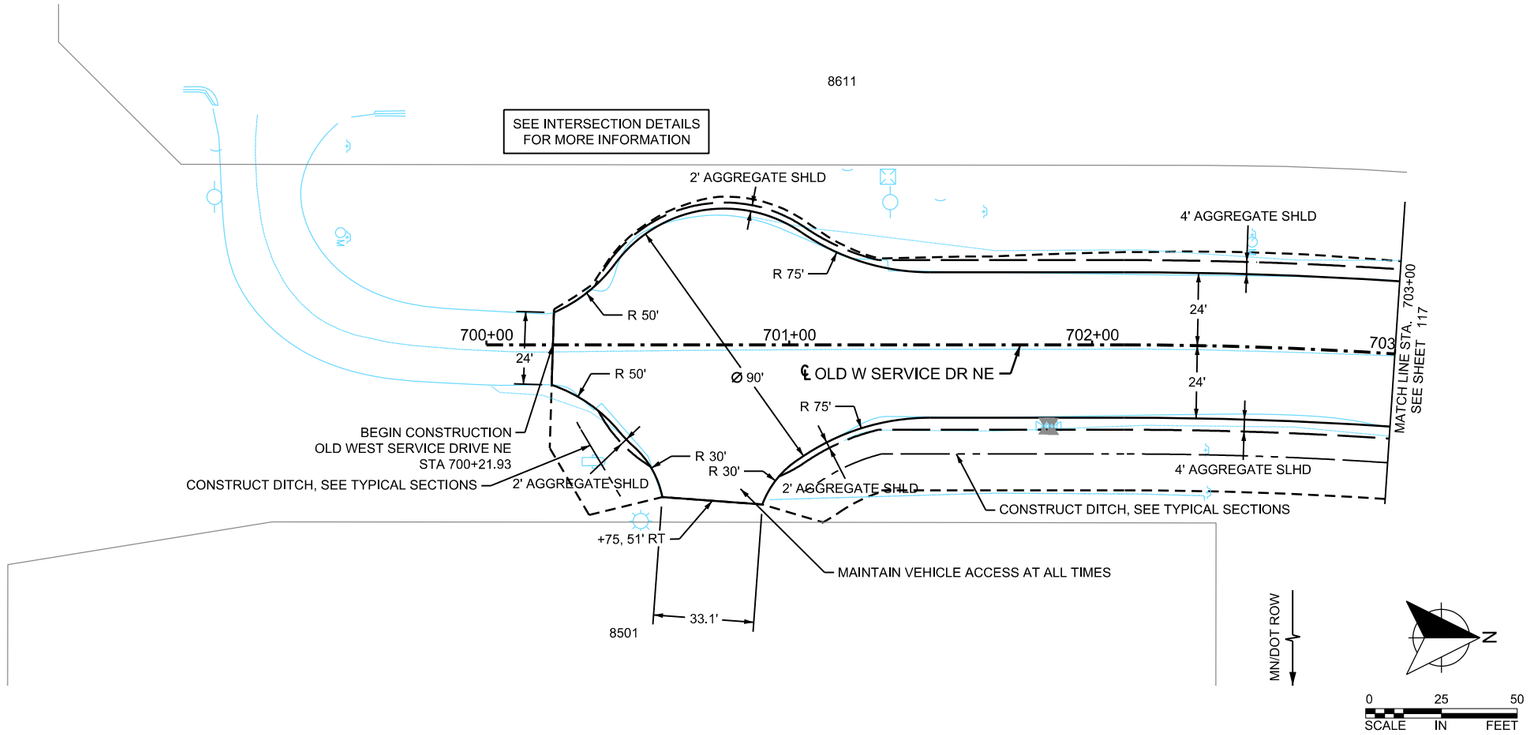
CITY PROJECT 23-08

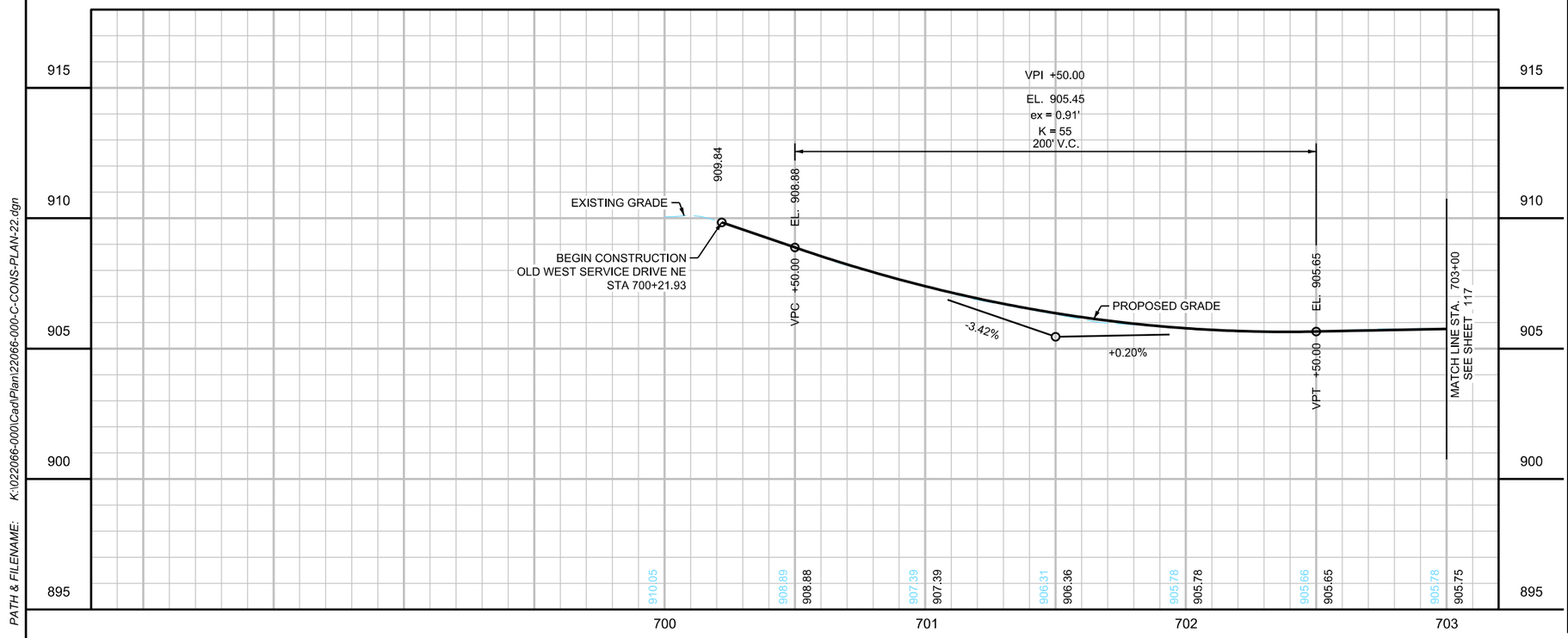
SHEET **115** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:11 AM

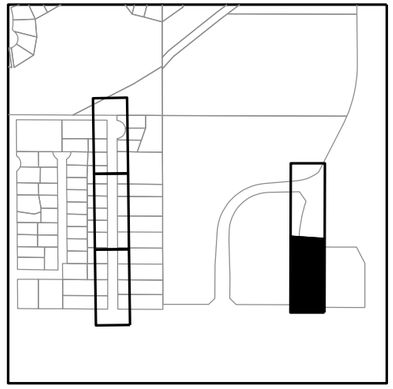
PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-CONS-PLAN-21.dgn

OLD WEST SERVICE DRIVE NE





LOCATION MAP



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C. 4" CONCRETE WALK

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CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)

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F. F&I SANITARTY SEWER CASTING, SEE CITY TECHNICAL SPECIFICATIONS

2.0" BITUMINOUS DRIVEWAY

6.0" CONCRETE DRIVEWAY

GRADING LIMITS (APPROX)

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

CITY PROJECT 23-08

SHEET **116** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:12 AM

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PLOTTED/REVISED: 3/9/2023 11:34:13 AM

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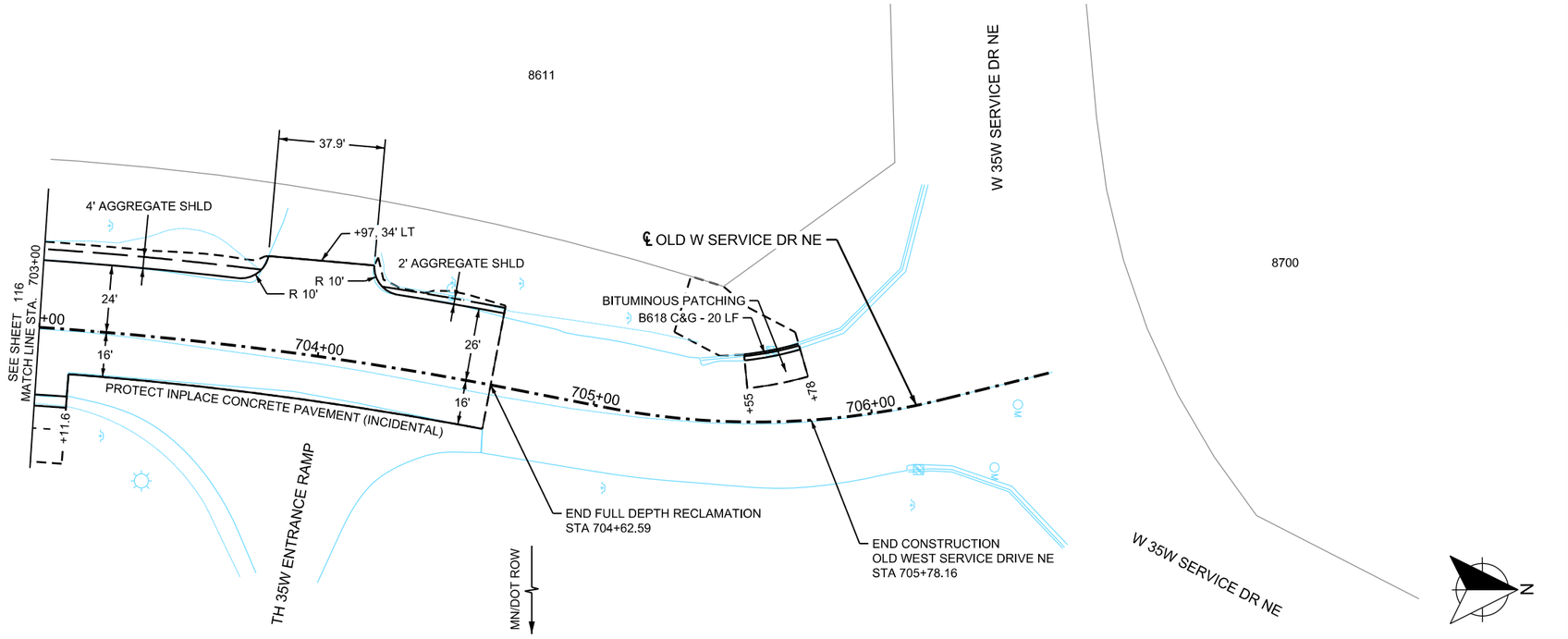
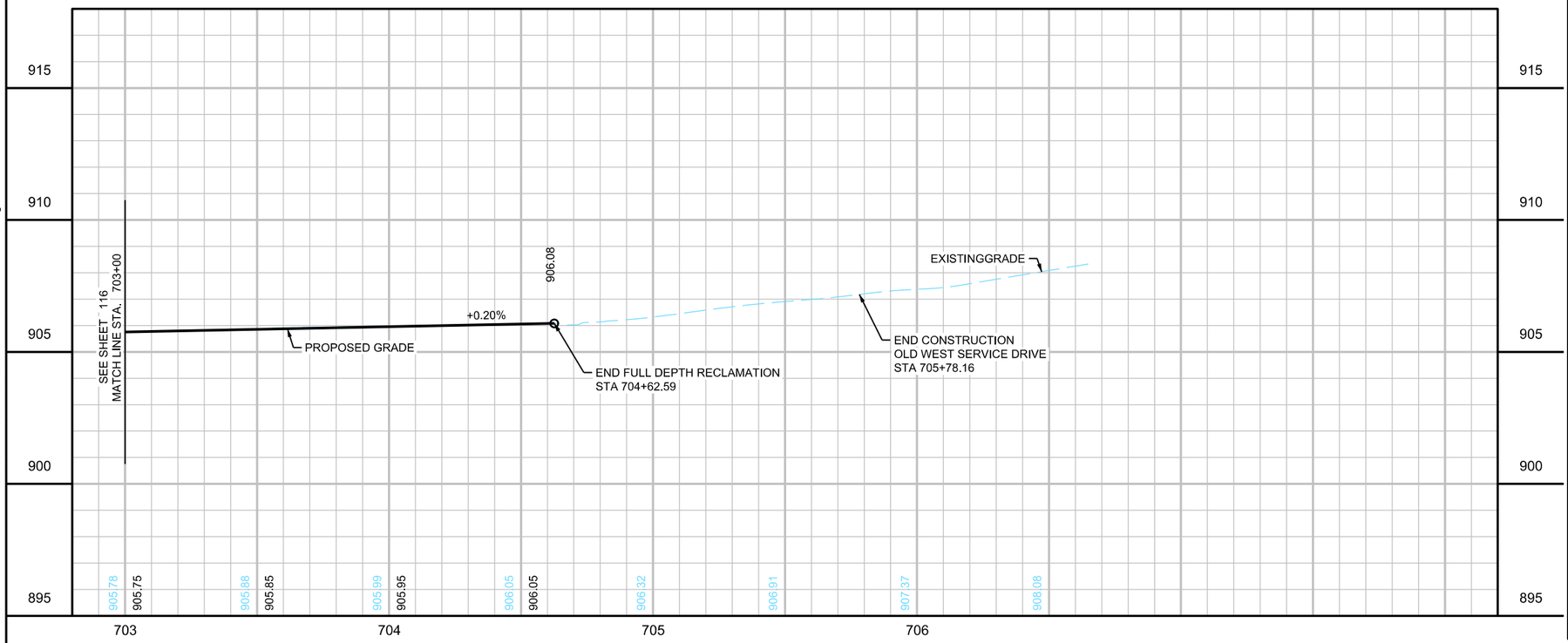
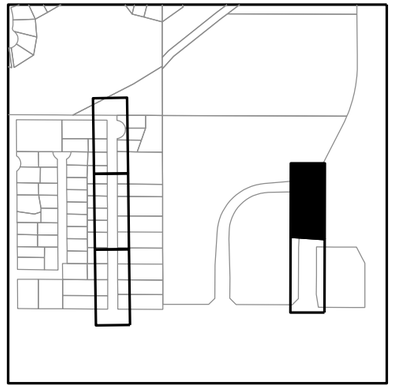
OLD WEST SERVICE DRIVE NE





LOCATION MAP



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VERTICAL CONTROL

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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

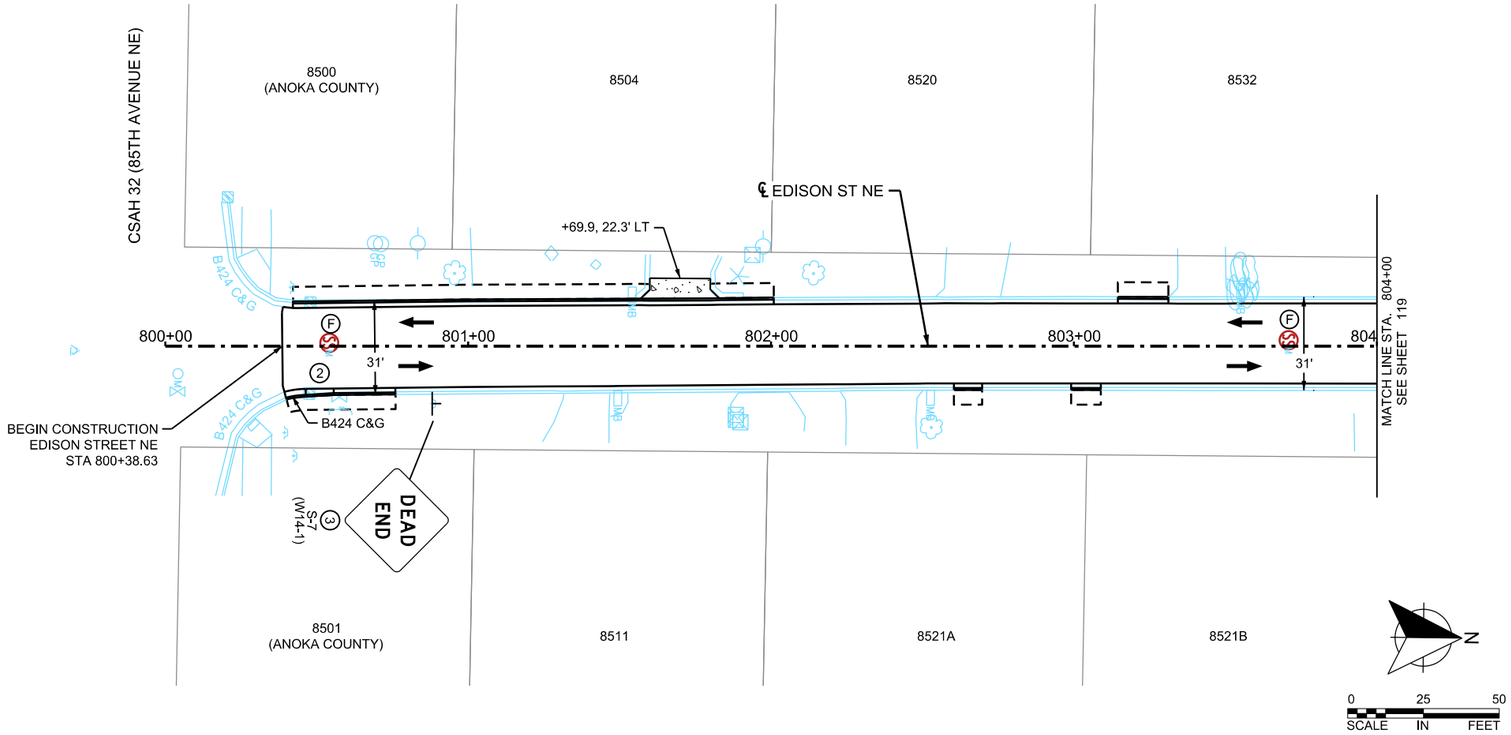
CITY PROJECT 23-08

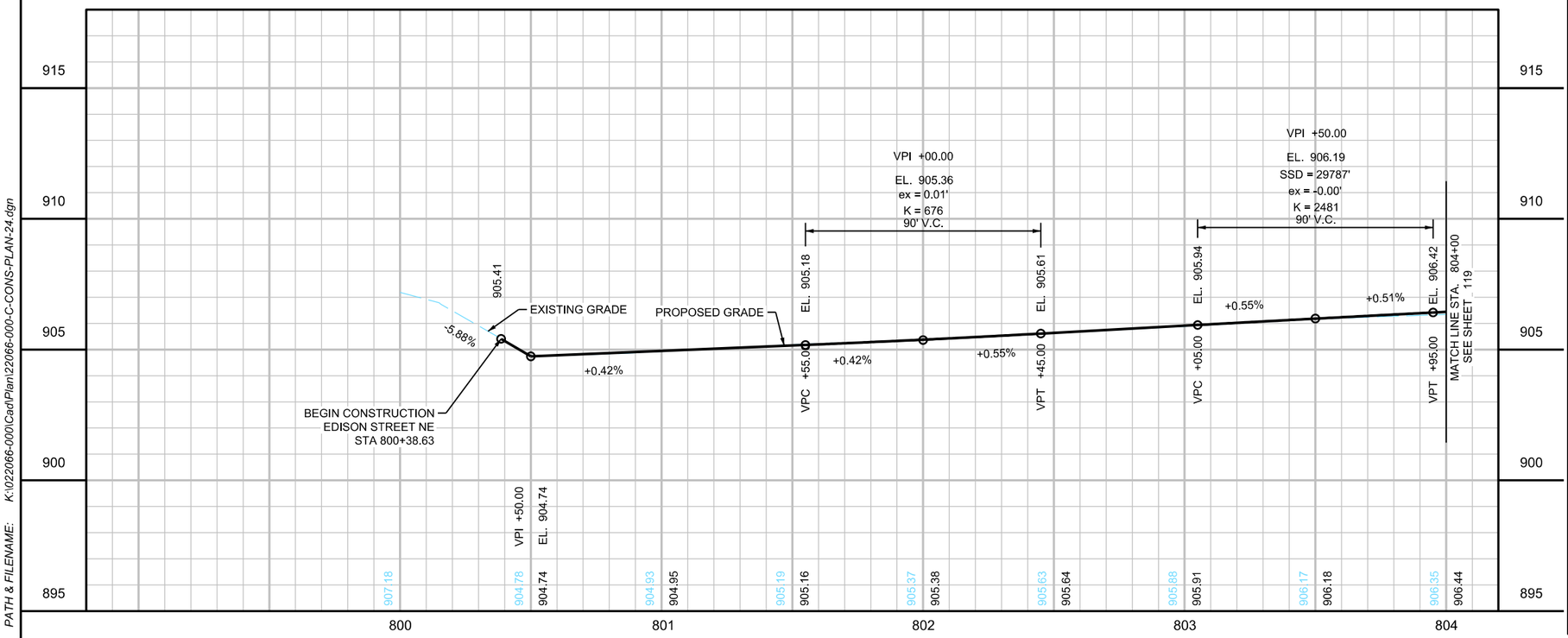
SHEET **117** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:14 AM

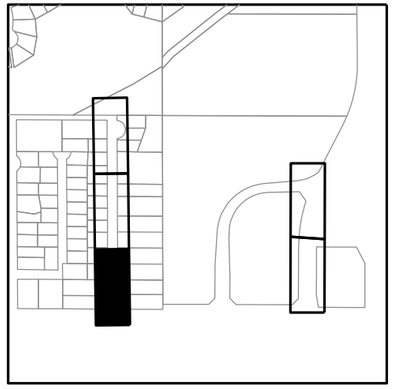
PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-CONS-PLAN-24.dgn

EDISON STREET NE





LOCATION MAP



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DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

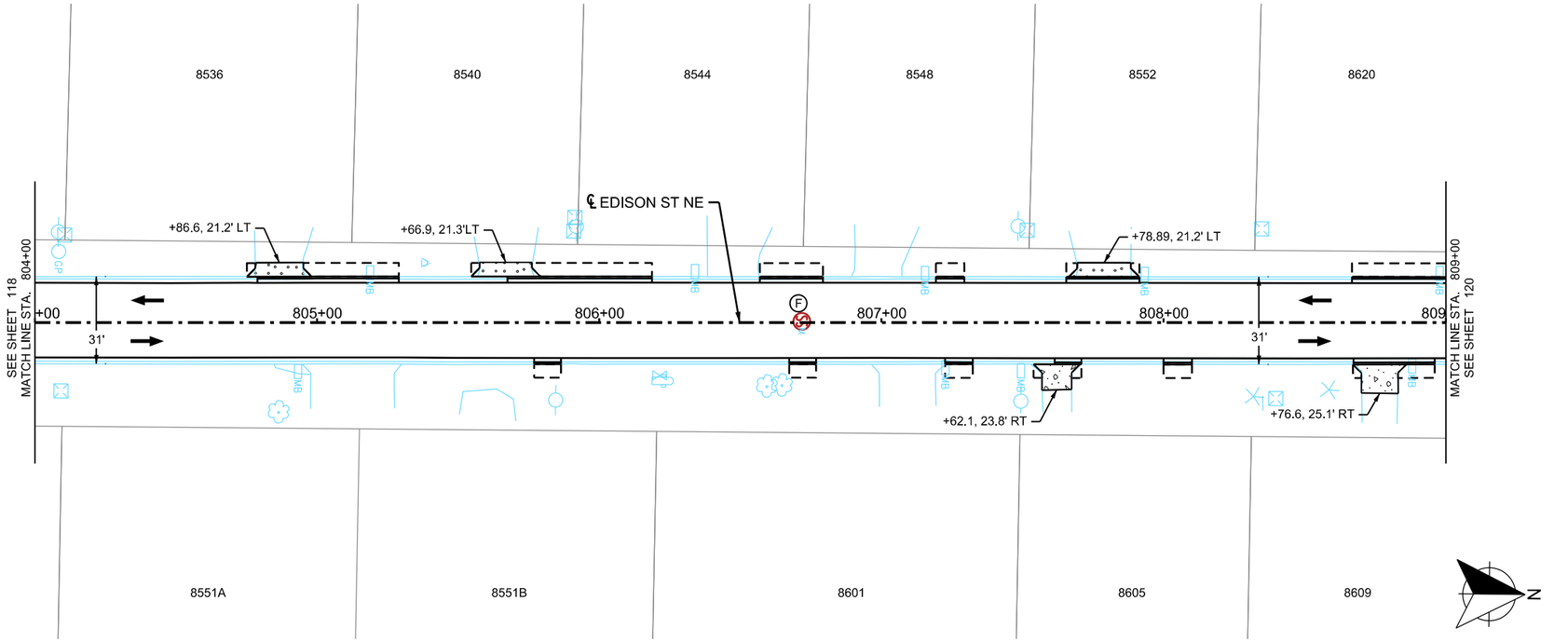
CITY PROJECT 23-08

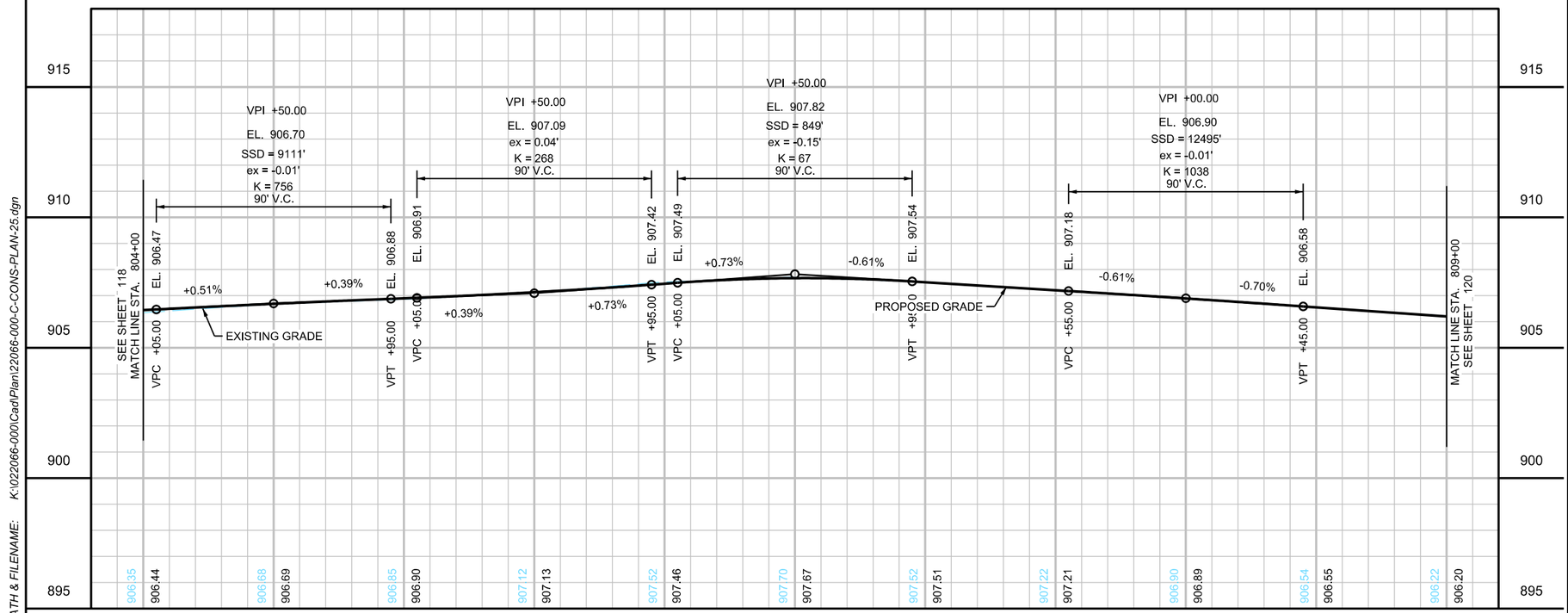
SHEET **118** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:14 AM

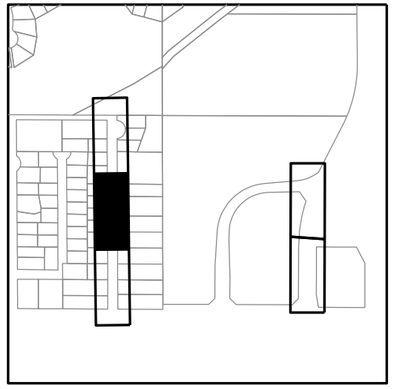
PATH & FILENAME: K:\022066-000\Cadl\Plan\22066-000-C-CONS-PLAN-25.dgn

EDISON STREET NE





LOCATION MAP



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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

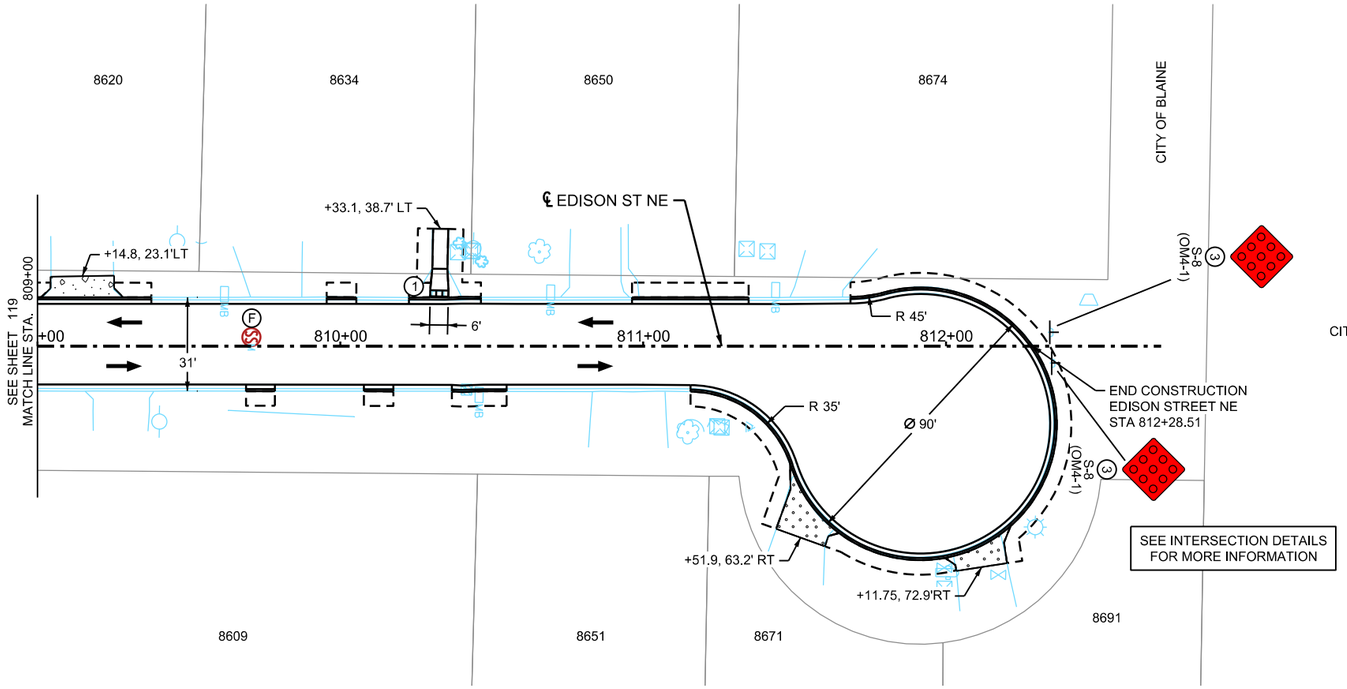
CITY PROJECT 23-08

SHEET **119** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:15 AM

PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-CONS-PLAN-26.dgn

EDISON STREET NE



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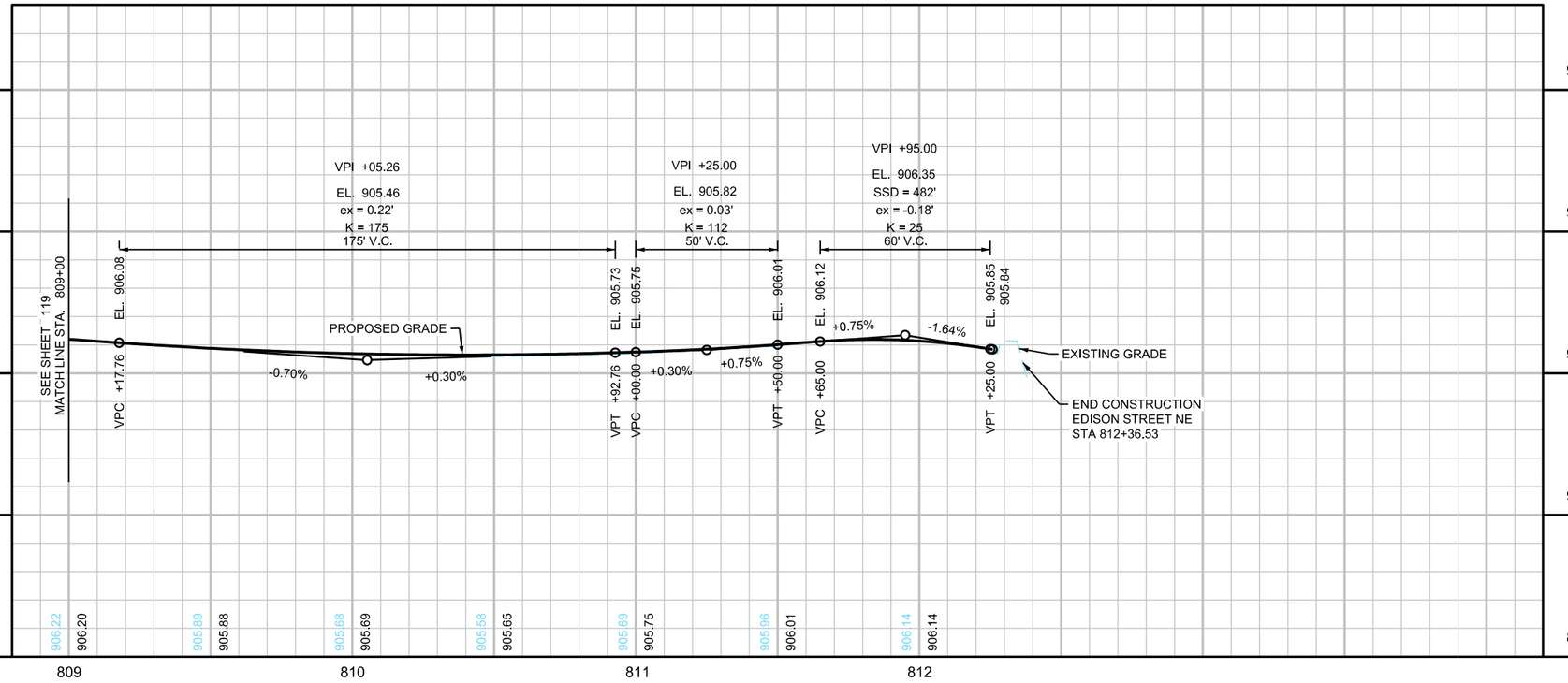
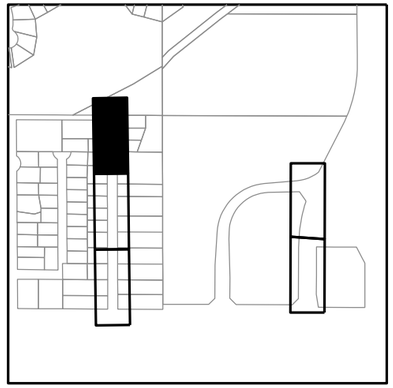


LOCATION MAP



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SOUTHEAST AREA RECONSTRUCTION

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SHEET **120** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:16 AM

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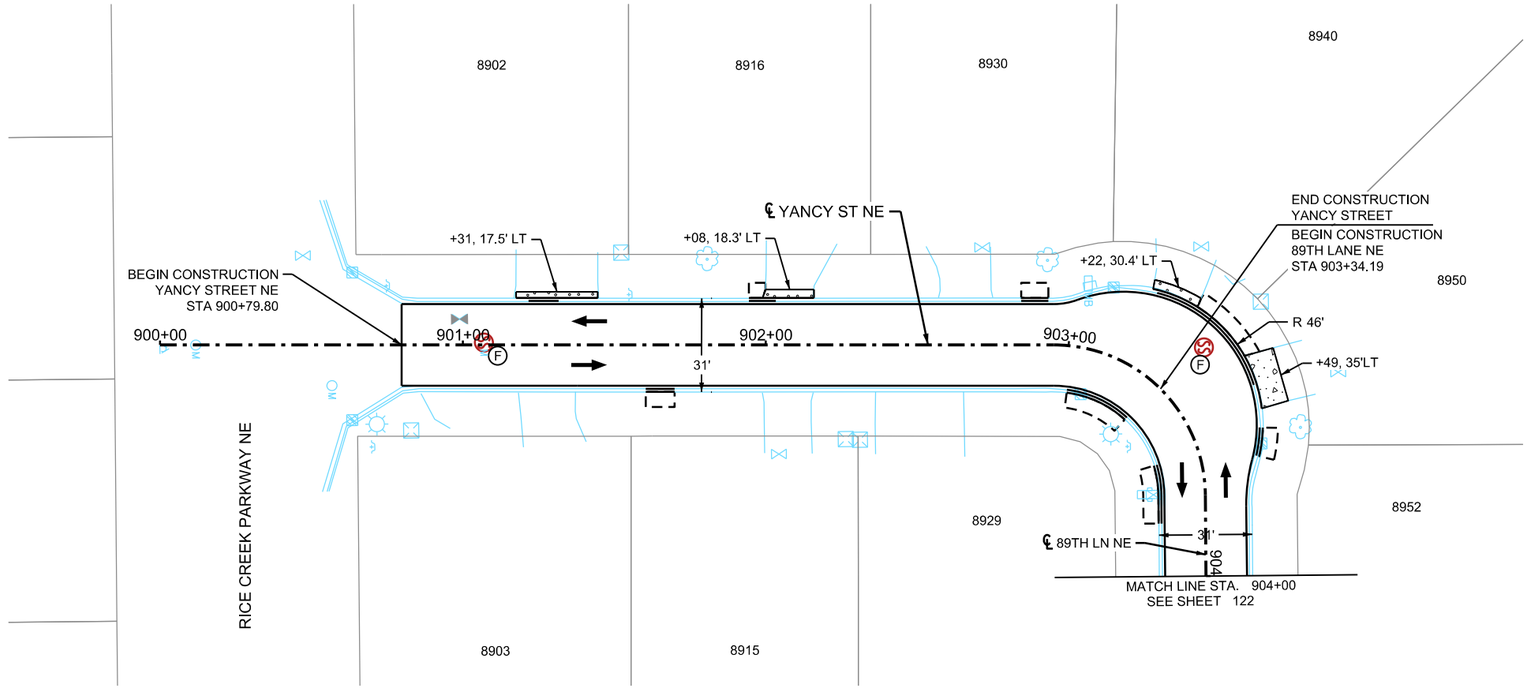
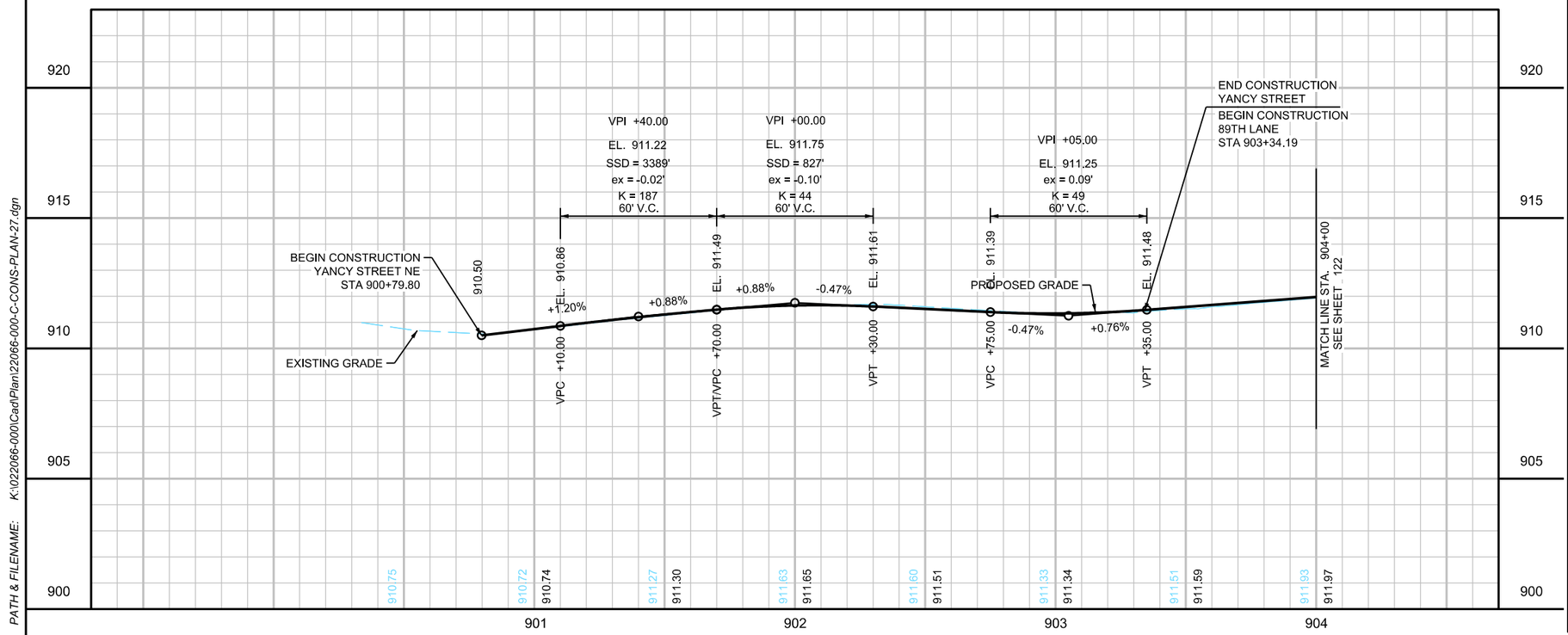
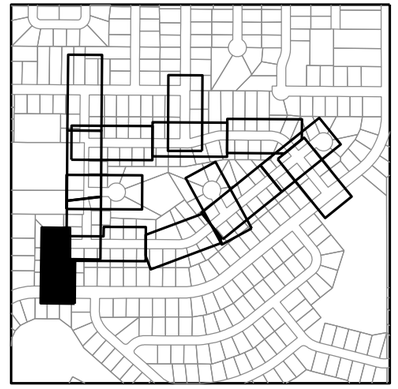
YANCY STREET NE





LOCATION MAP



LEGEND

1. CONSTRUCT CONCRETE PEDESTRIAN RAMP WITH TRUNCATED DOMES. SEE INTERSECTION DETAILS.
2. CURB TRANSITION, SEE MISCELLANEOUS DETAILS
3. FURNISH & INSTALL SIGN
4. INSTALL SIGN
- (A) 2" BITUMINOUS WALK
- (B) CONCRETE VALLEY GUTTER, SEE CITY DETAIL PLATE ST-4 HIGH EARLY CONCRETE (INCIDENTAL)
- (C) 4" CONCRETE WALK
- (D) F&I 6" GATE VALVE & BOX CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)
- (E) F&I 16" GATE VALVE & BOX CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)
- (F) F&I SANITARTY SEWER CASTING, SEE CITY TECHNICAL SPECIFICATIONS
- 2.0" BITUMINOUS DRIVEWAY
- 6.0" CONCRETE DRIVEWAY
- GRADING LIMITS (APPROX)
- INPLACE RIGHT-OF-WAY
- CONSTRUCT CURB & GUTTER DESIGN D312 AS MARKED IN THE FIELD BY THE ENGINEER (UNLESS NOTED OTHERWISE)

GENERAL NOTES

1. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
2. SEE ALIGNMENT PLAN FOR CURVE DATA.
3. SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION AT ROADWAY INTERSECTIONS.
4. SEE CITY STANDARD PLATES DETAILS FOR RESIDENTIAL DRIVEWAY CONSTRUCTION DETAILS.
5. MAINTAINING ACCESS TO SPECIFIC GARAGES AS NOTED WILL BE INCIDENTAL. IF THE CONTRACTOR CHOOSES TO CONSTRUCT THESE DRIVEWAYS ONE HALF AT A TIME, USE HIGH EARLY CONCRETE, INCIDENTAL.
6. SEE SPECIAL PROVISIONS FOR PROPERTIES WITH IRRIGATION SYSTEMS AND INVISIBLE FENCING. PROPERTY LISTS ARE NOT ALL ENCOMPASSING. CONTRACTOR TO VERIFY IN FIELD. PAID UNDER IRRIGATION REPAIR AND LANDSCAPE ALLOWANCE.

VERTICAL CONTROL

ELEVATIONS FOR THIS PLAN ARE BASED ON NAVD 88 DATUM.

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

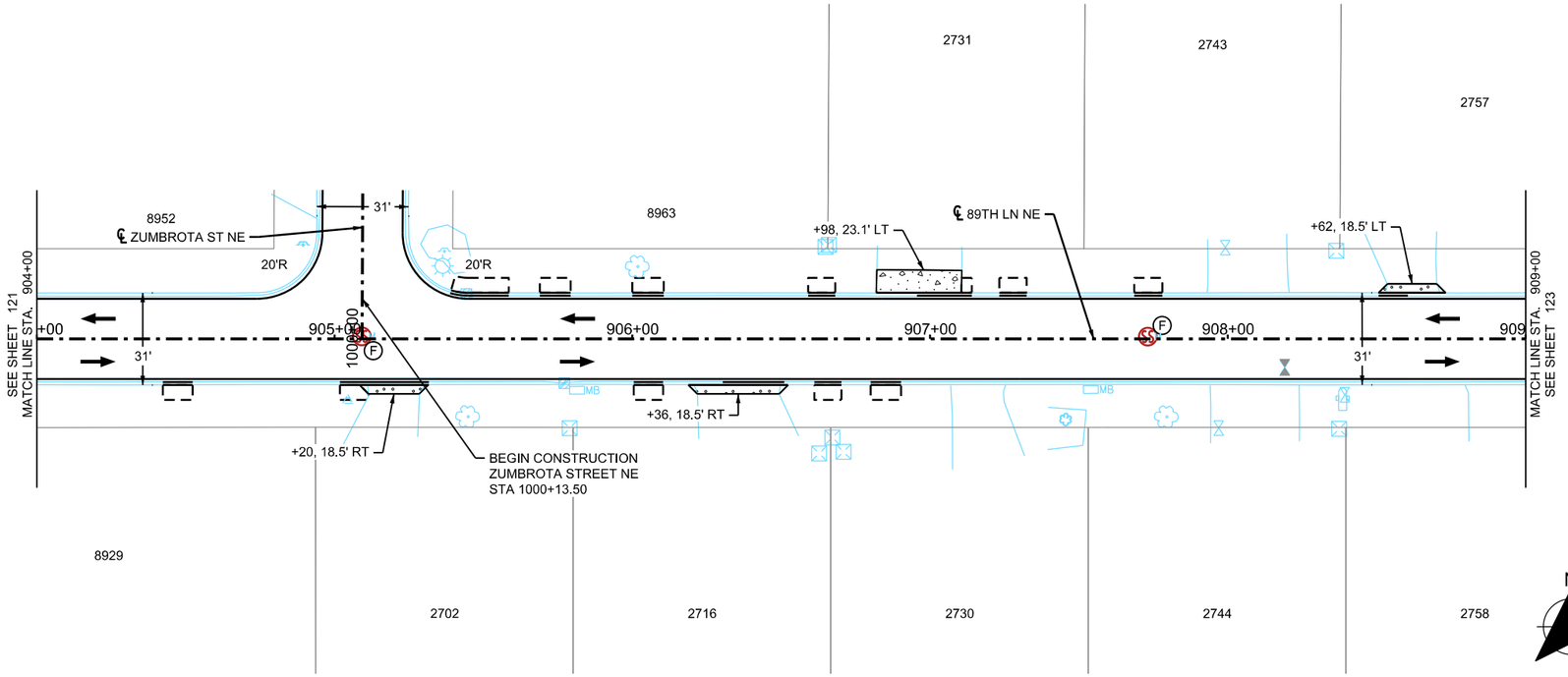
CITY PROJECT 23-08

SHEET **121** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:16 AM

PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-CONS-PLAN-28.dgn

89TH LANE NE



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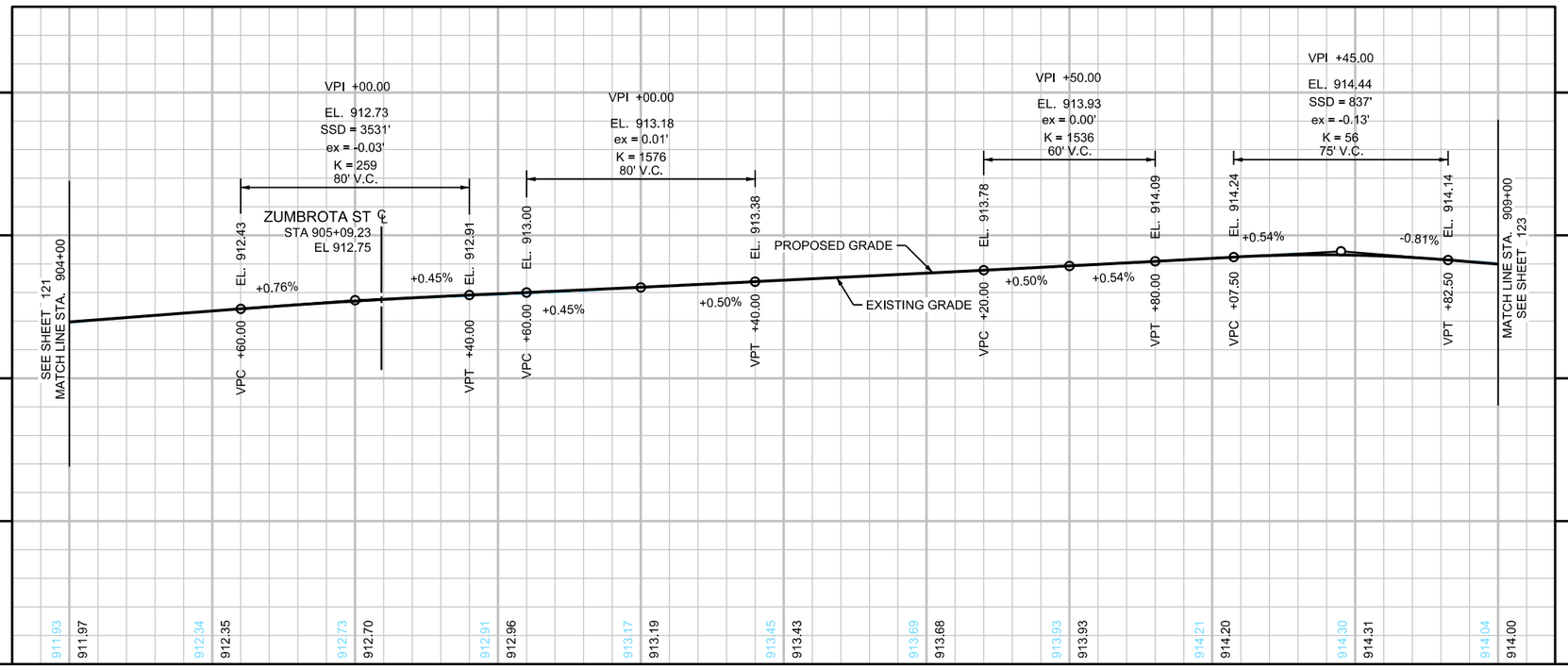
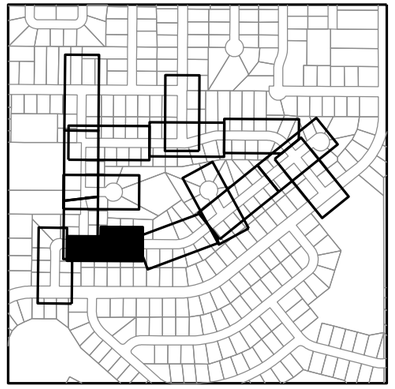


LOCATION MAP



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wsb

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AJF	NEH

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

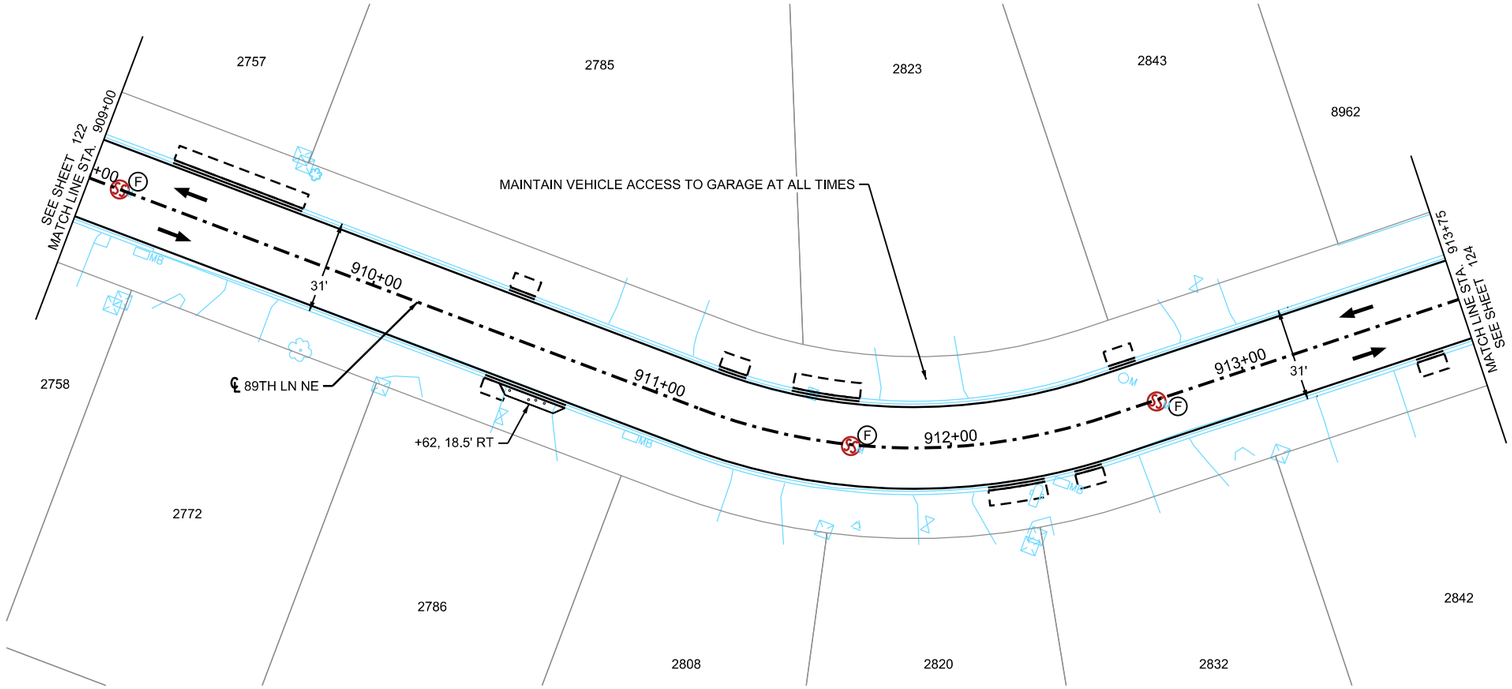
CITY PROJECT 23-08

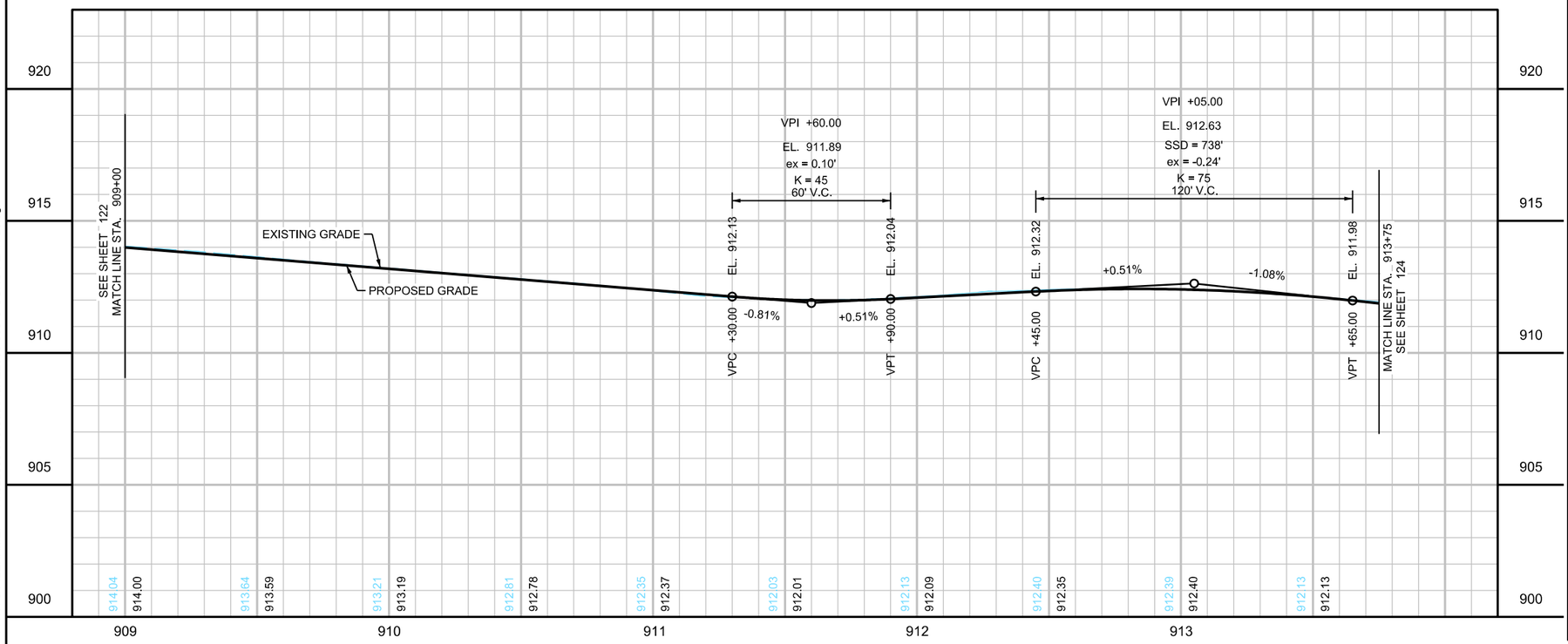
SHEET **122** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:17 AM

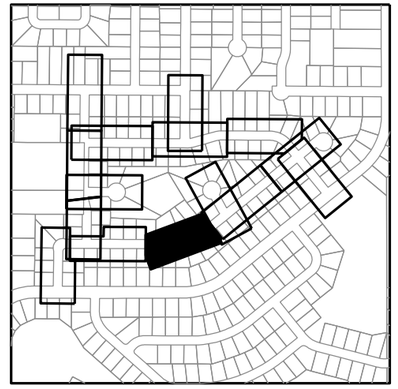
PATH & FILENAME: K:\022066-000\Cadl\Plan\22066-000-C-CONS-PLAN-29.dgn

89TH LANE NE





LOCATION MAP



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VERTICAL CONTROL

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WSB PROJECT NO.: 022066-000

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

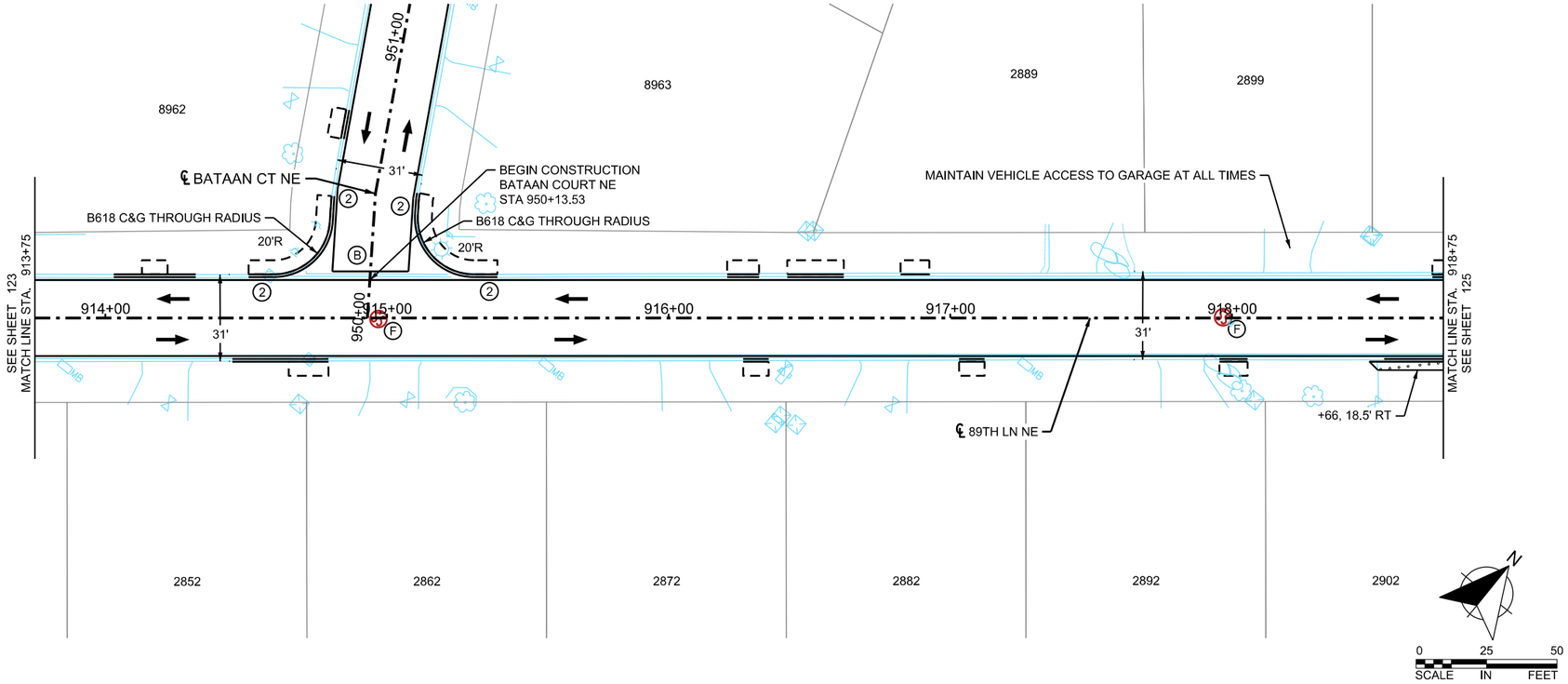
CITY PROJECT 23-08

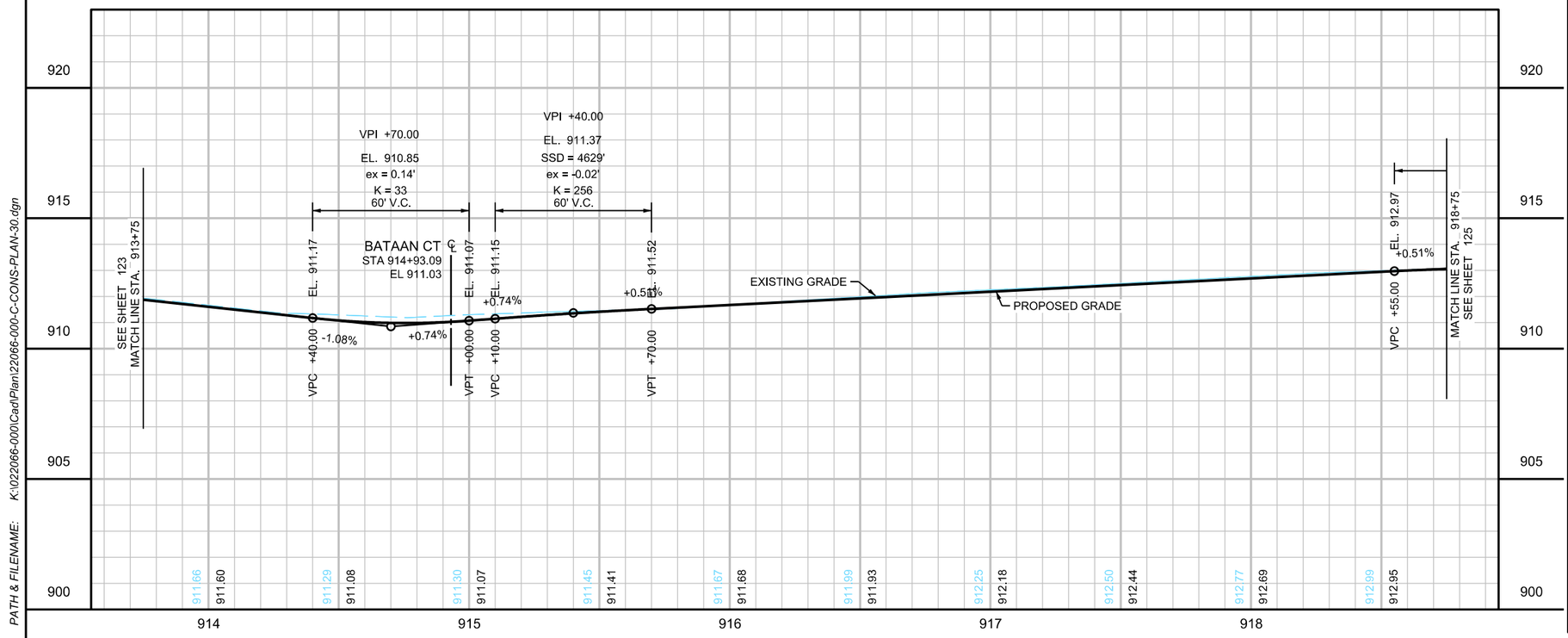
SHEET **123** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:18 AM

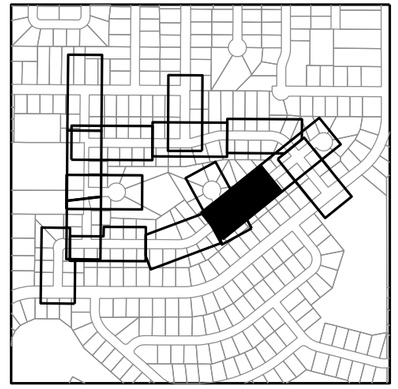
PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-CONS-PLAN-30.dgn

89TH LANE NE





LOCATION MAP



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- 6.0" CONCRETE DRIVEWAY
- GRADING LIMITS (APPROX)
- INPLACE RIGHT-OF-WAY
- CONSTRUCT CURB & GUTTER DESIGN D318 AS MARKED IN THE FIELD BY THE ENGINEER (UNLESS NOTED OTHERWISE)

GENERAL NOTES

1. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
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wsb

WSB PROJECT NO.: 022066-000

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AJF	NEH

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

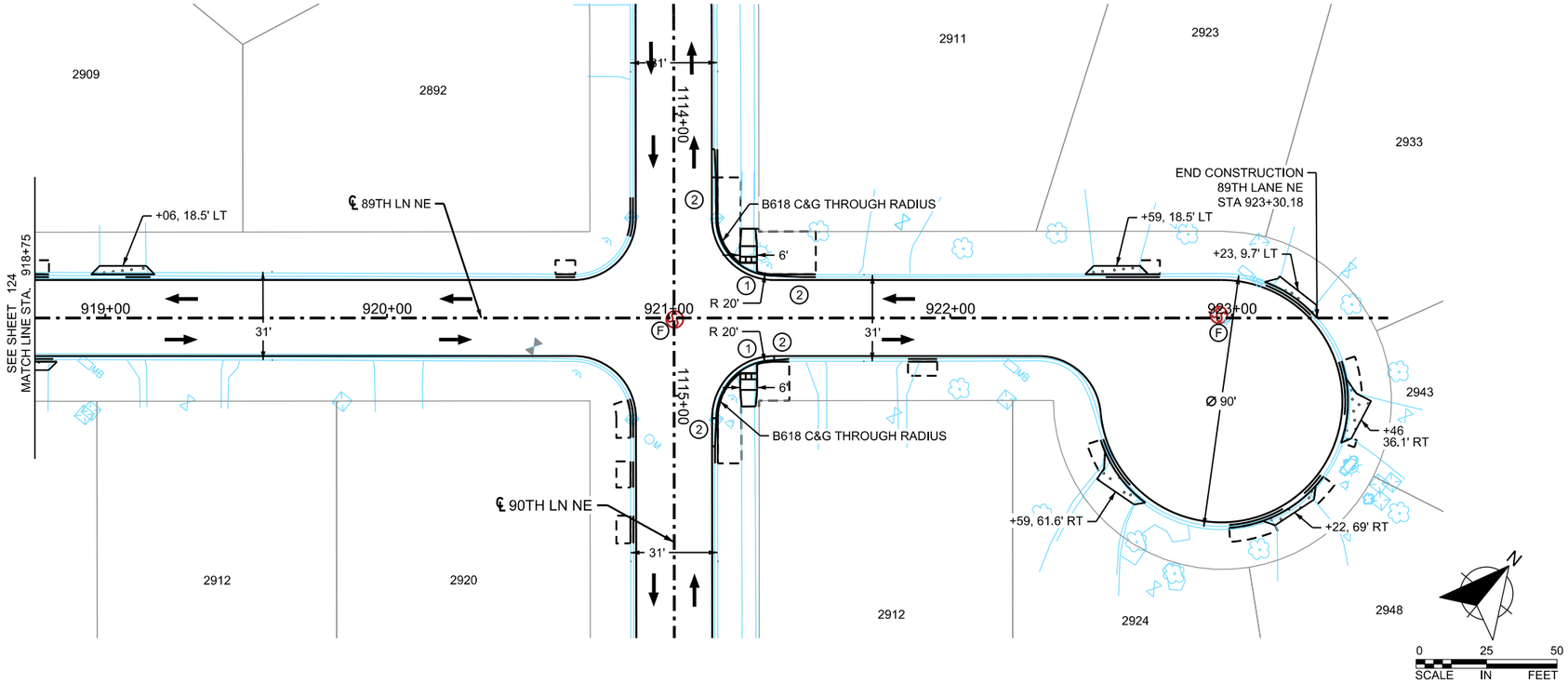
CITY PROJECT 23-08

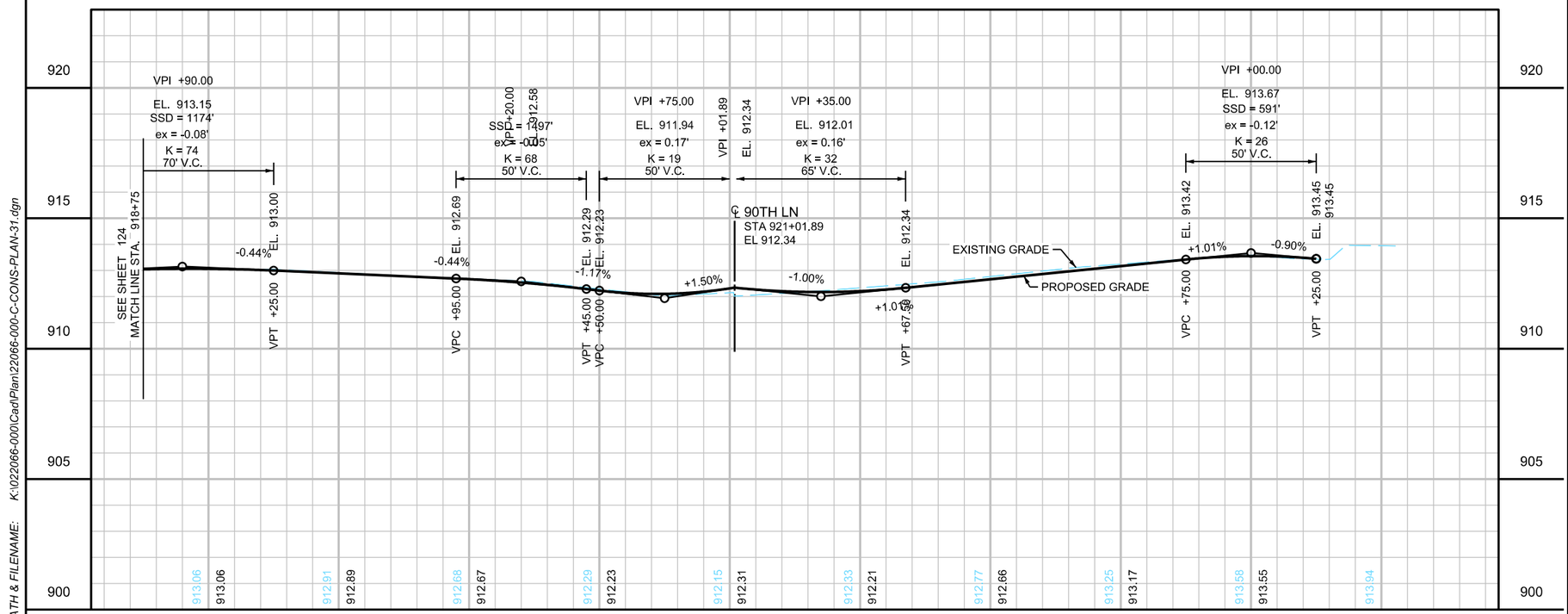
SHEET **124** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:18 AM

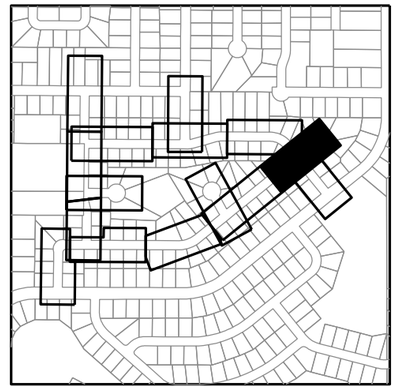
PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-CONS-PLAN-31.dgn

89TH LANE NE





LOCATION MAP



LEGEND

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2. CURB TRANSITION, SEE MISCELLANEOUS DETAILS
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DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

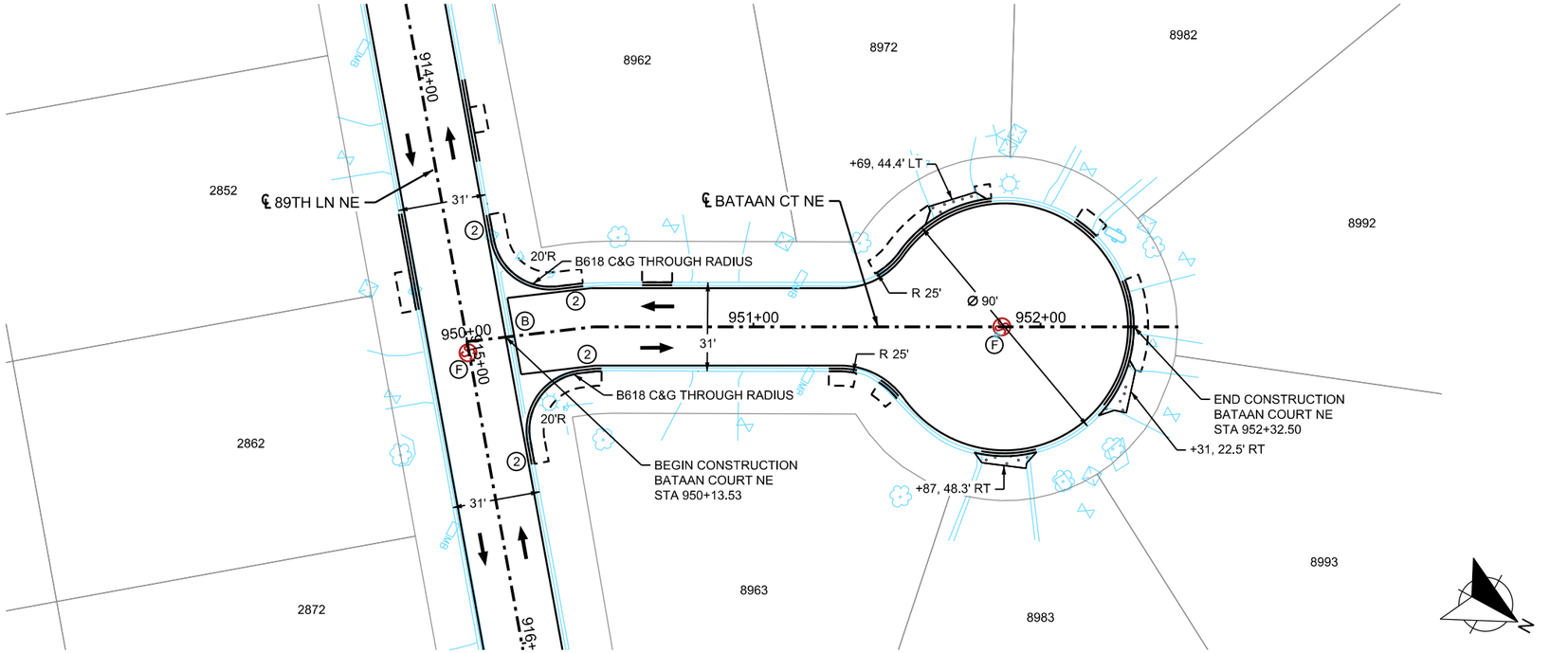
CITY PROJECT 23-08

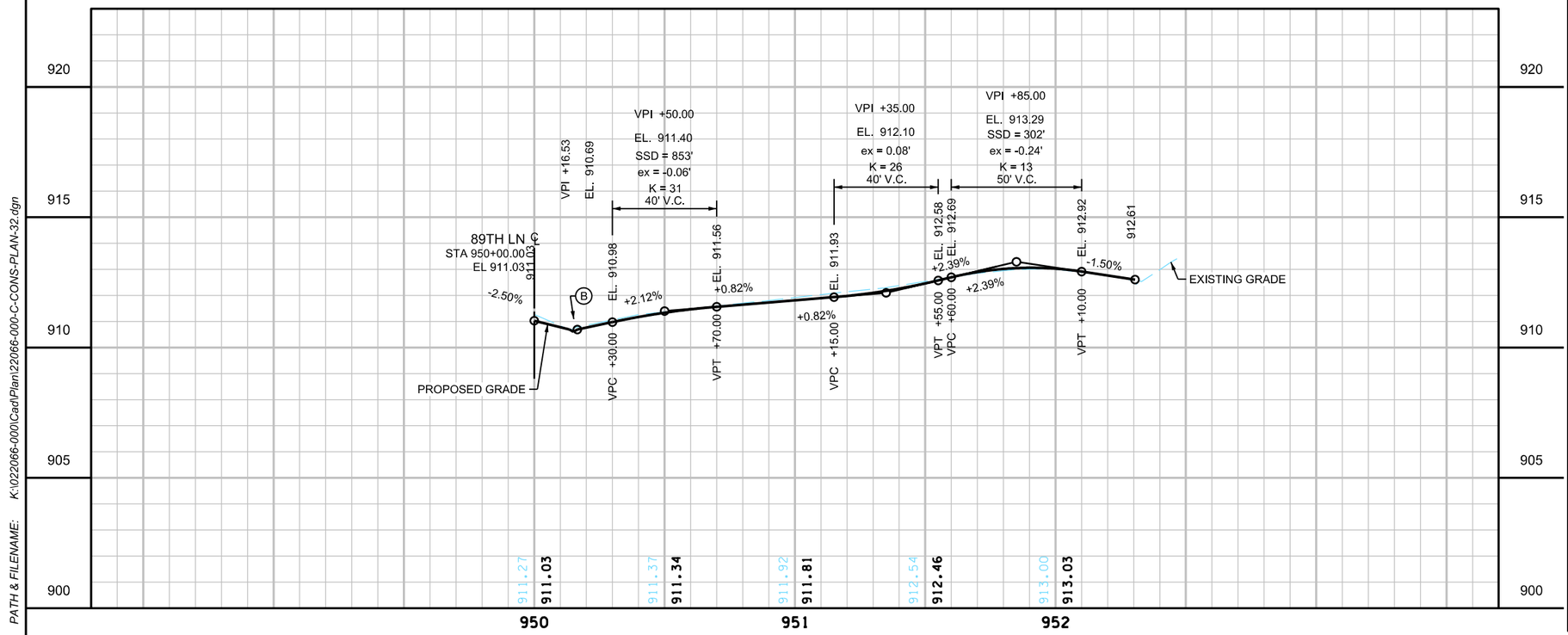
SHEET **125** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:19 AM

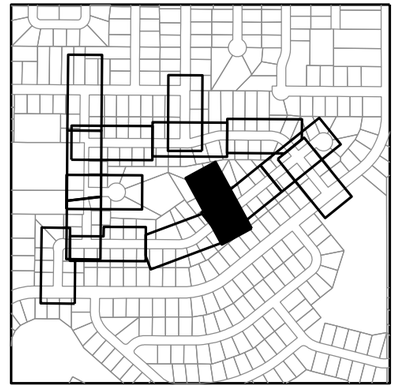
PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-CONS-PLAN-32.dgn

BATAAN COURT NE





LOCATION MAP



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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

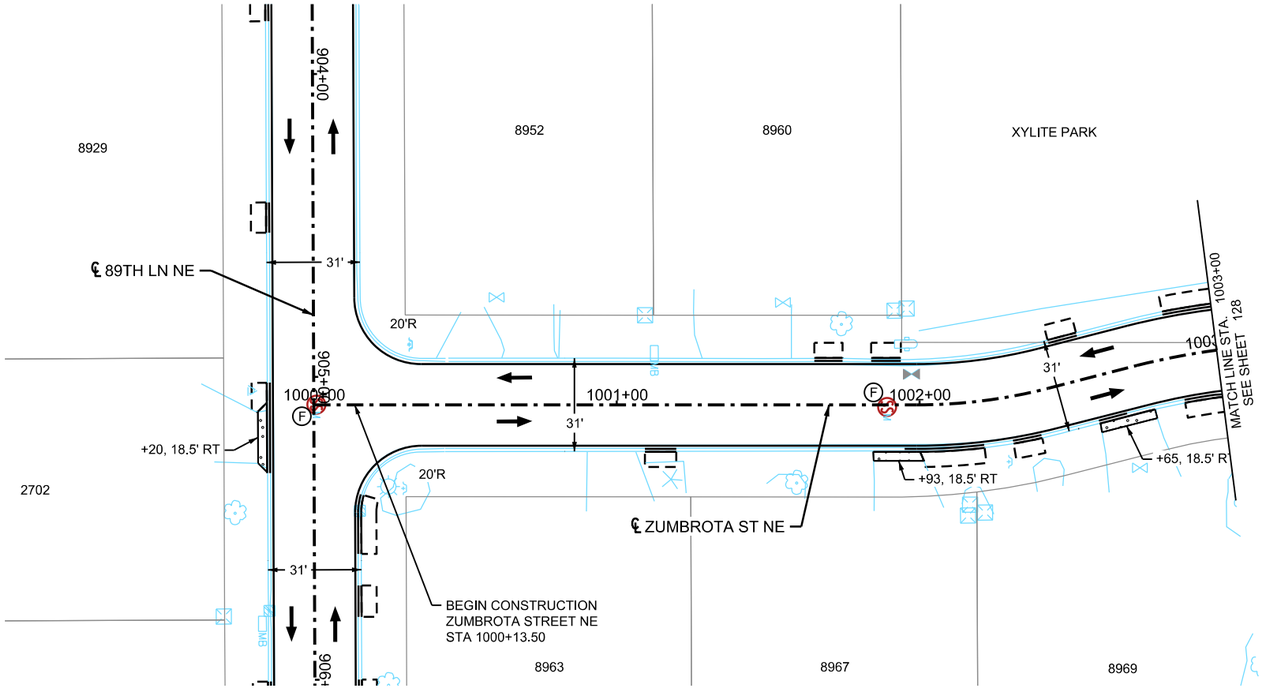
CITY PROJECT 23-08

SHEET **126** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:20 AM

PATH & FILENAME: K:\022066-000\Cadl\Plan\22066-000-C-CONS-PLAN-33.dgn

ZUMBROTA STREET NE



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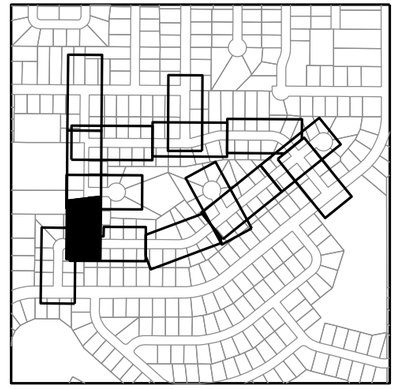

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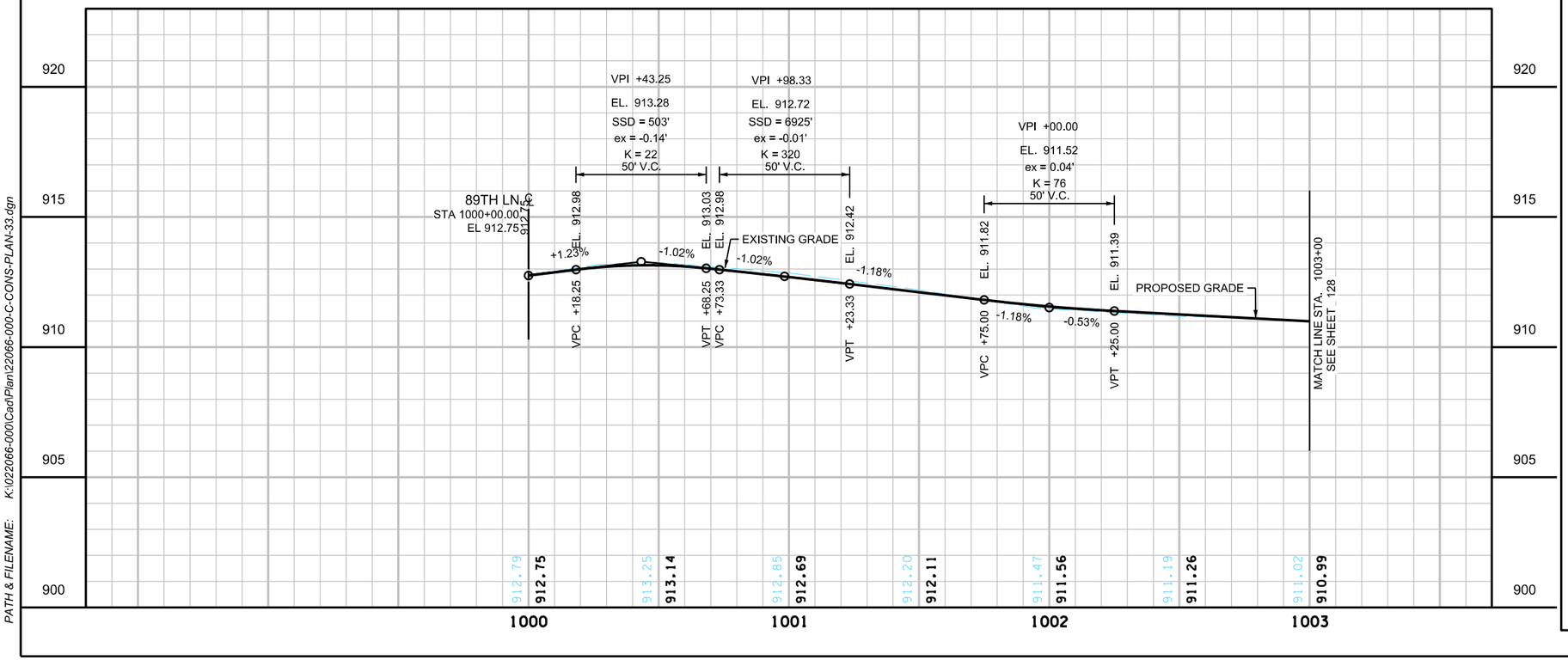

LEGEND

1. CONSTRUCT CONCRETE PEDESTRIAN RAMP WITH TRUNCATED DOMES. SEE INTERSECTION DETAILS.
2. CURB TRANSITION, SEE MISCELLANEOUS DETAILS
3. FURNISH & INSTALL SIGN
4. INSTALL SIGN

A. 2" BITUMINOUS WALK

B. CONCRETE VALLEY GUTTER, SEE CITY DETAIL PLATE ST-4 HIGH EARLY CONCRETE (INCIDENTAL)

C. 4" CONCRETE WALK

D. F&I 6" GATE VALVE & BOX
CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)

E. F&I 16" GATE VALVE & BOX
CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)

F. F&I SANITARTY SEWER CASTING, SEE CITY TECHNICAL SPECIFICATIONS

2.0" BITUMINOUS DRIVEWAY

6.0" CONCRETE DRIVEWAY

GRADING LIMITS (APPROX)

INPLACE RIGHT-OF-WAY

CONSTRUCT CURB & GUTTER DESIGN D312 AS MARKED IN THE FIELD BY THE ENGINEER (UNLESS NOTED OTHERWISE)

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2. SEE ALIGNMENT PLAN FOR CURVE DATA.
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VERTICAL CONTROL

ELEVATIONS FOR THIS PLAN ARE BASED ON NAVD 88 DATUM.

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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NICHOLAS E. HEINTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

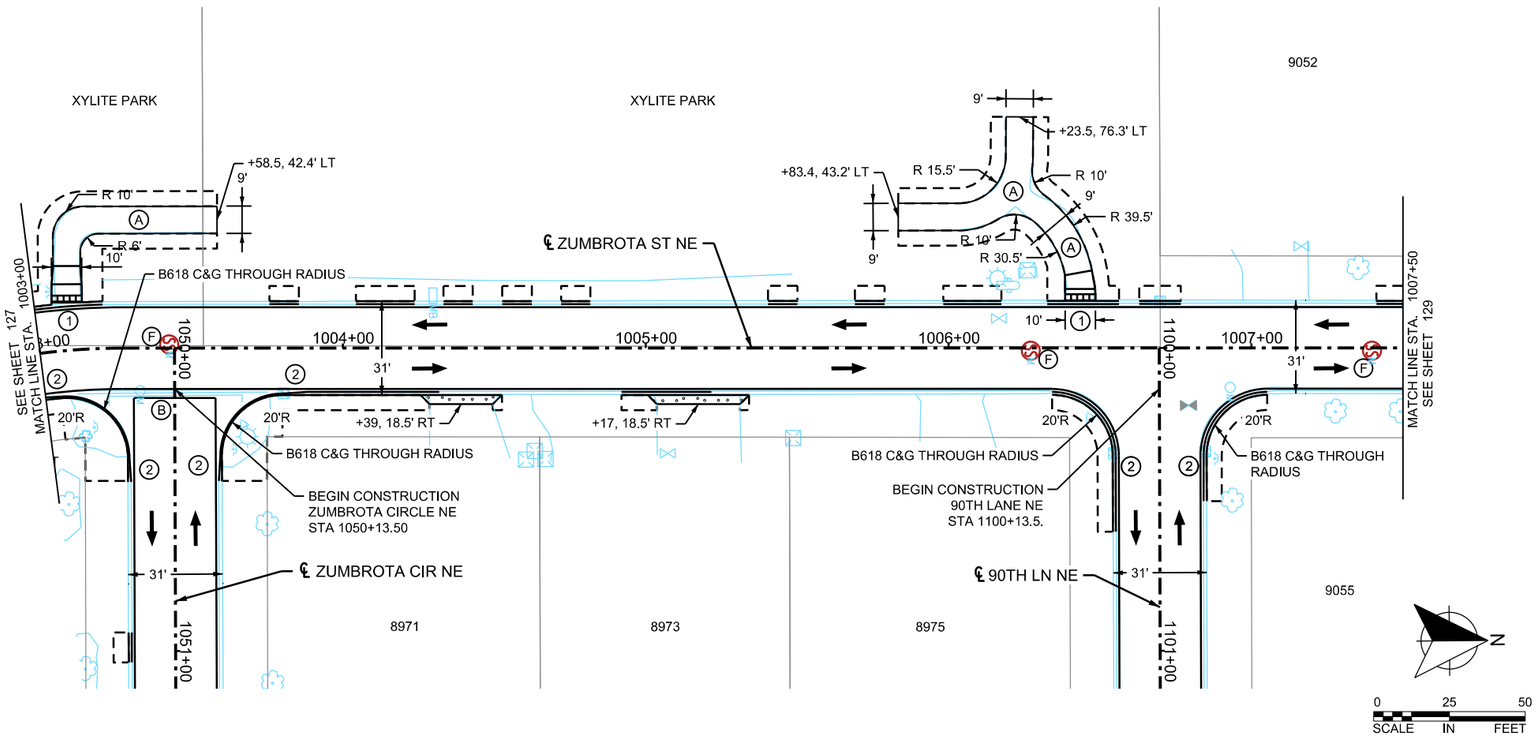
CITY PROJECT 23-08

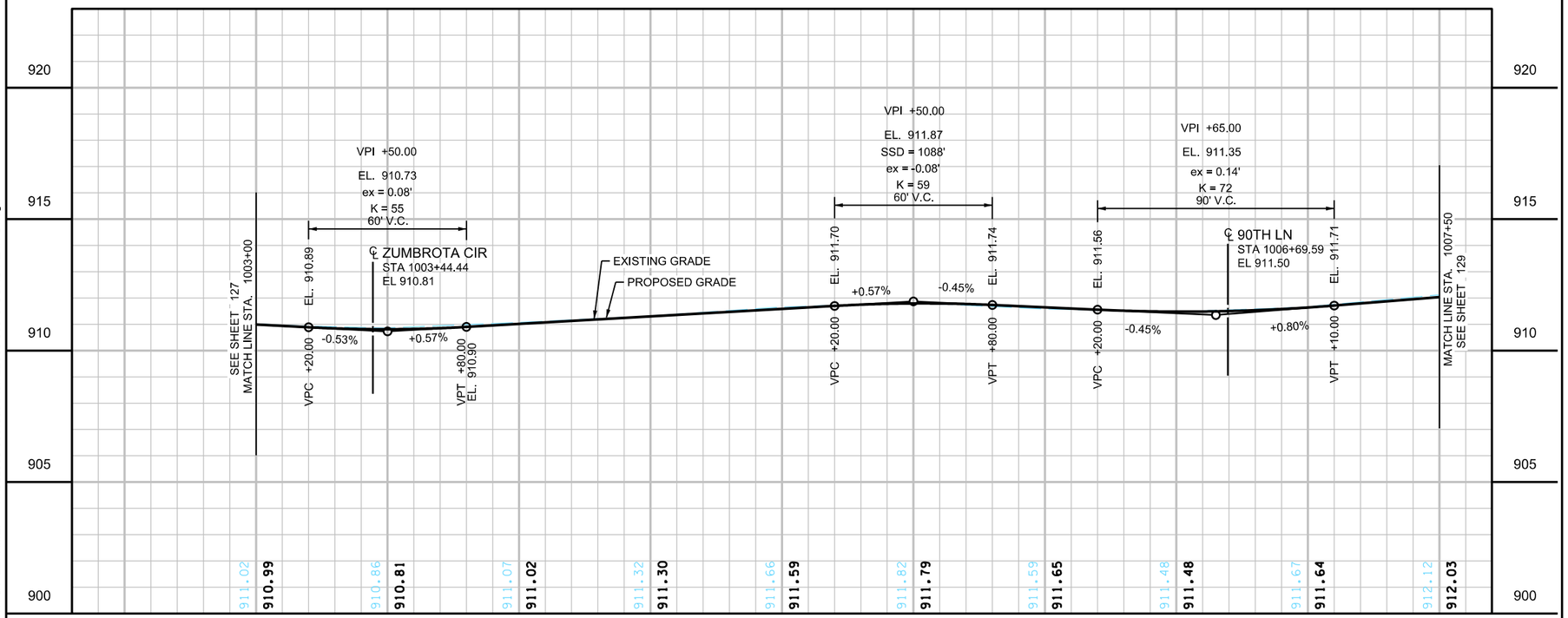
SHEET **127** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:20 AM

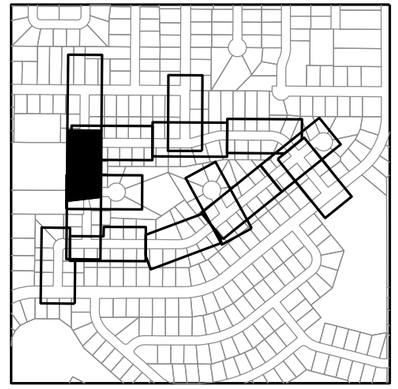
PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-CONS-PLAN-34.dgn

ZUMBROTA STREET NE





LOCATION MAP



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2. CURB TRANSITION, SEE MISCELLANEOUS DETAILS
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- (E) F&I 16" GATE VALVE & BOX CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)
- (F) F&I SANITARTY SEWER CASTING, SEE CITY TECHNICAL SPECIFICATIONS
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- GRADING LIMITS (APPROX)
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WSB PROJECT NO.: 022066-000

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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

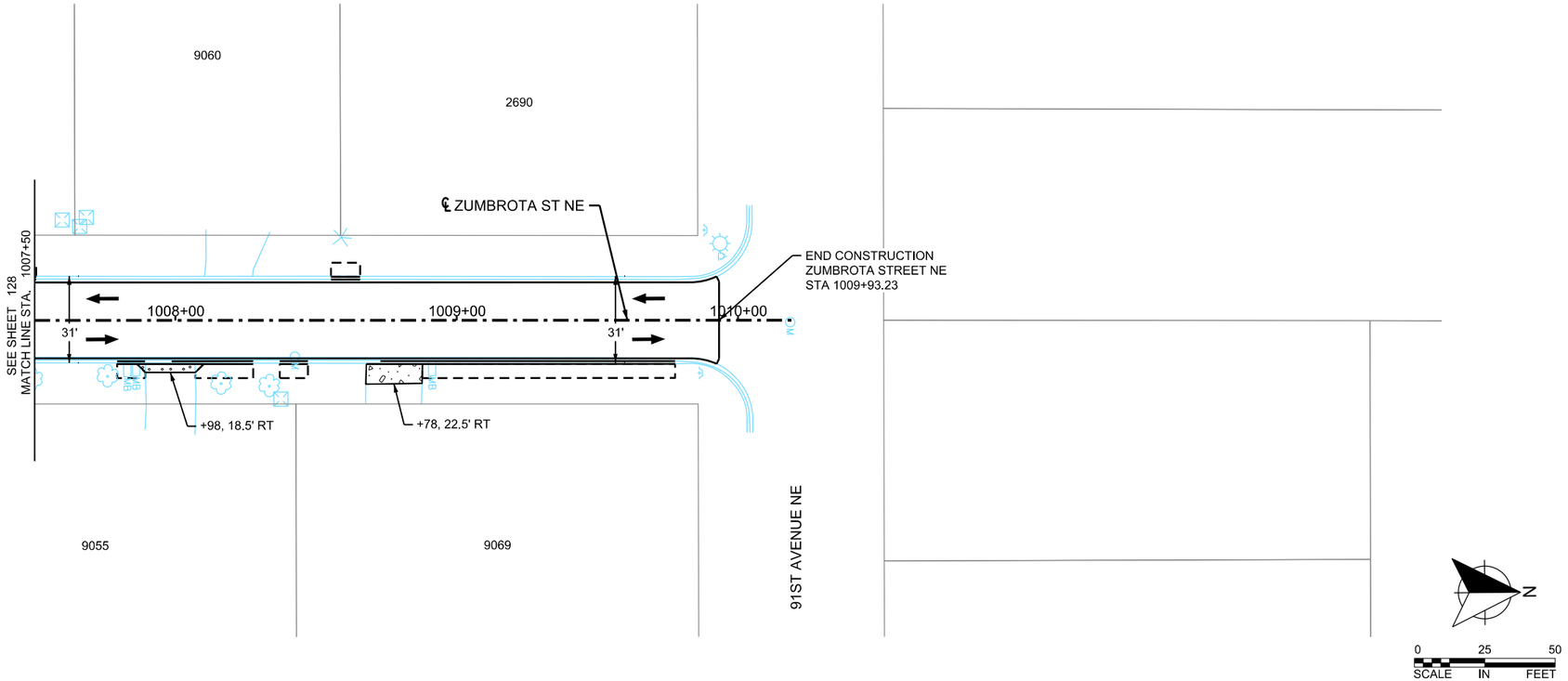
CITY PROJECT 23-08

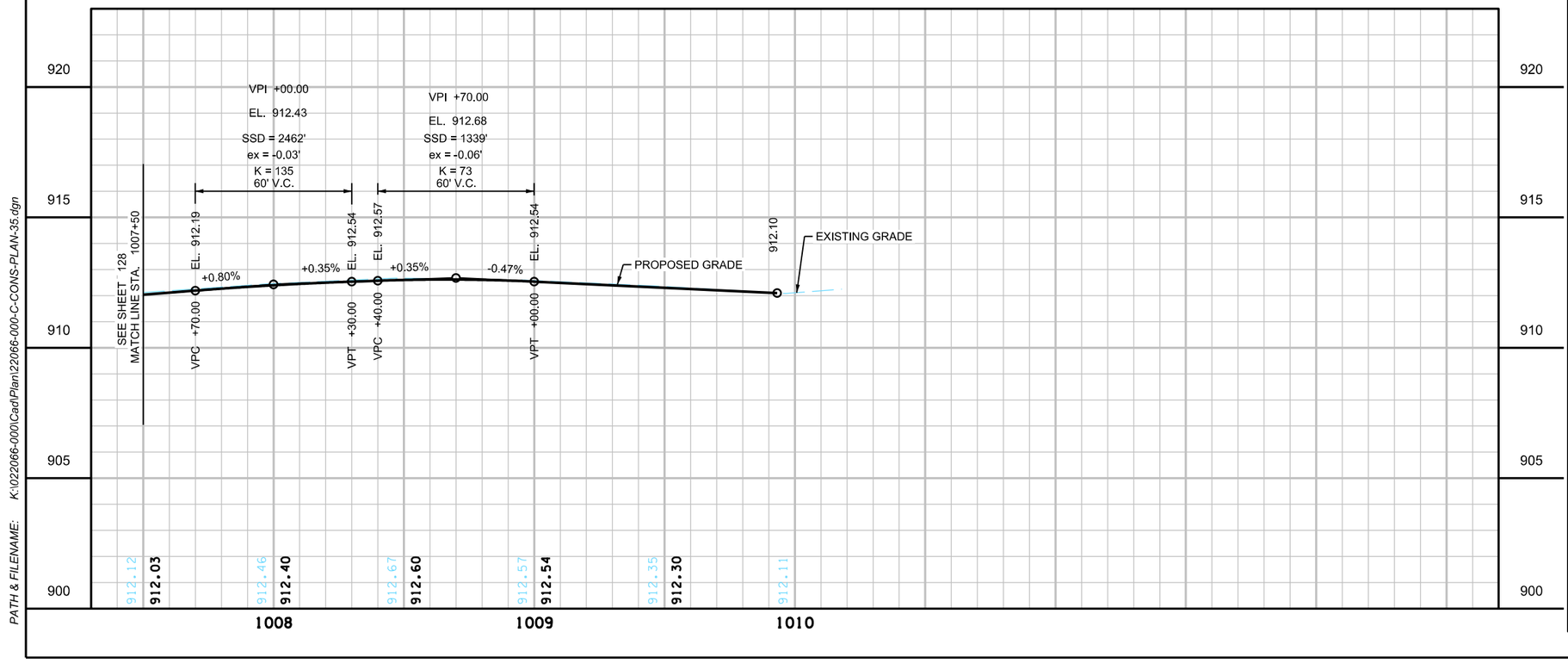
SHEET **128** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:21 AM

PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-CONS-PLAN-35.dgn

ZUMBROTA STREET NE





LOCATION MAP

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

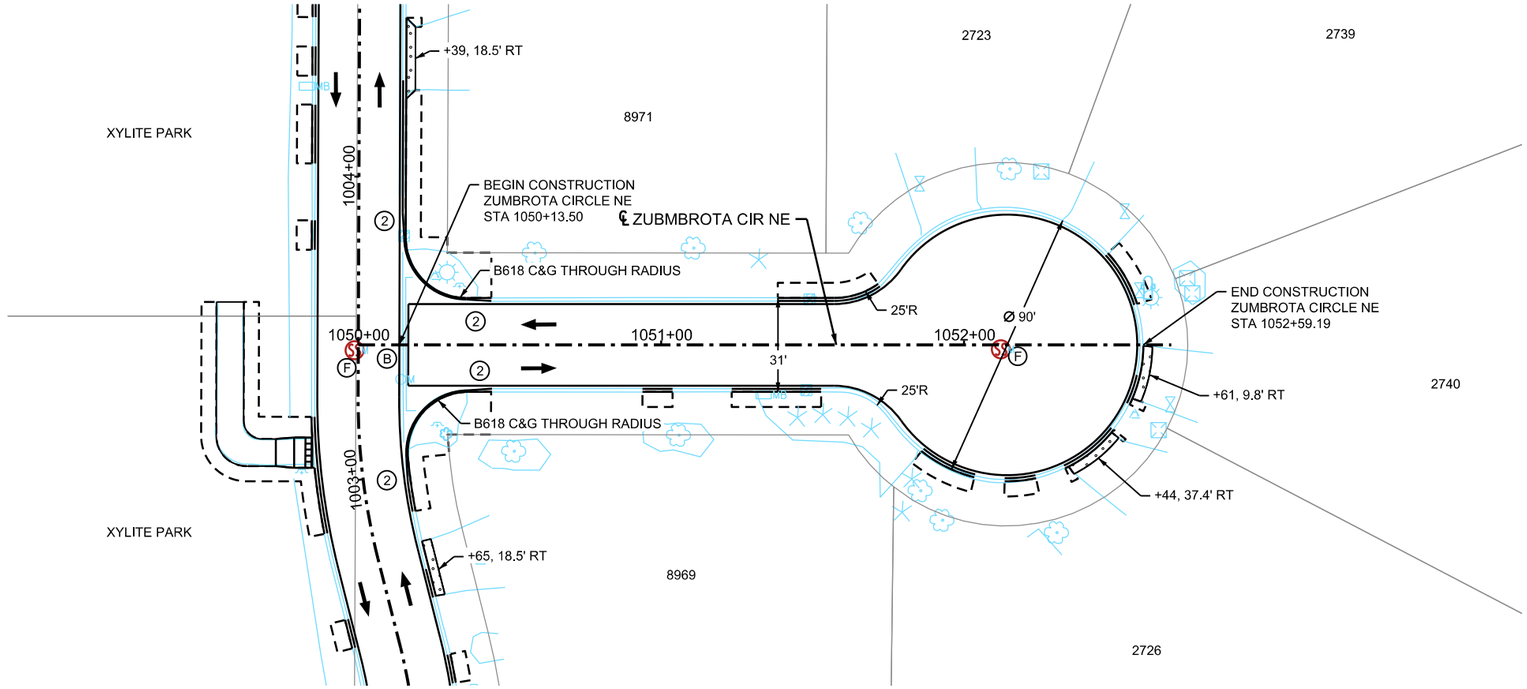
CITY PROJECT 23-08

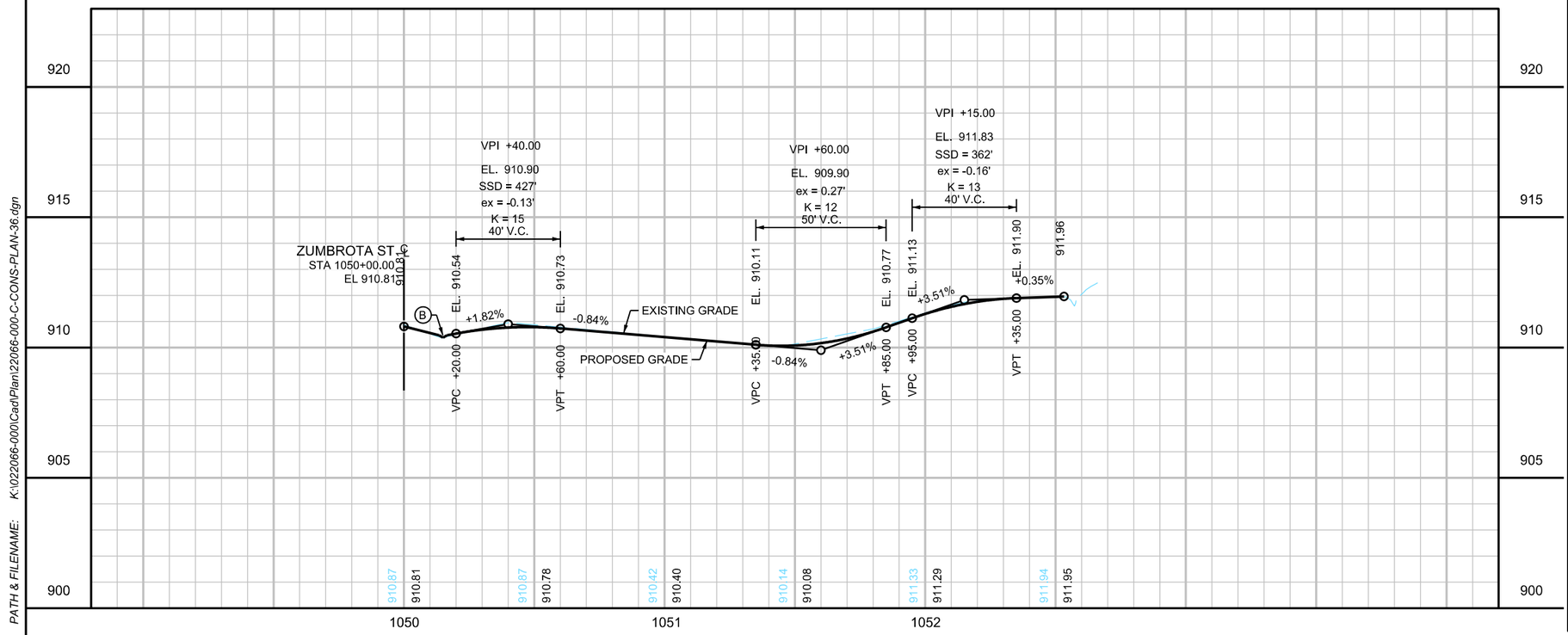
SHEET **129** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:22 AM

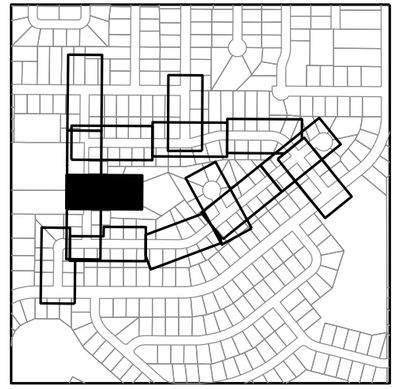
PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-CONS-PLAN-36.dgn

ZUMBROTA CIRCLE NE





LOCATION MAP



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VERTICAL CONTROL

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wsb

WSB PROJECT NO.: 022066-000

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AJF	NEH

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

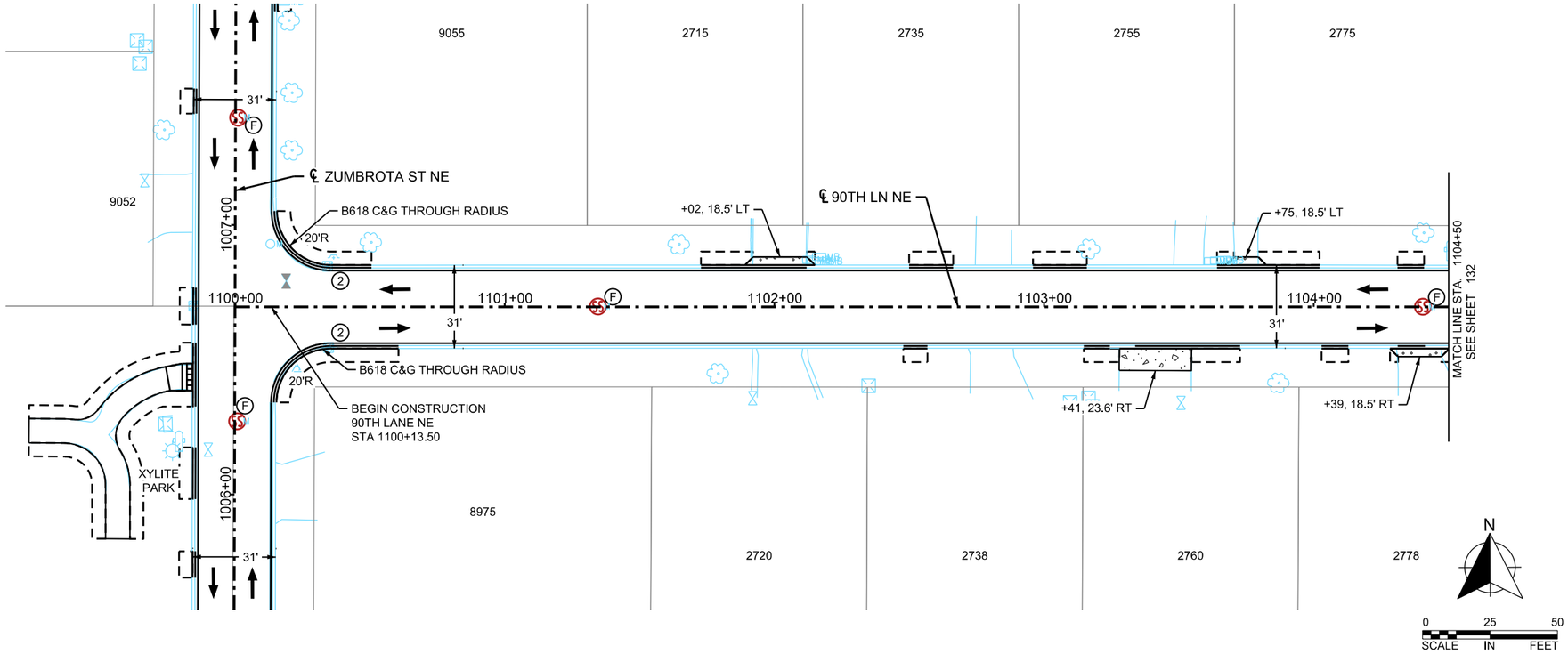
CITY PROJECT 23-08

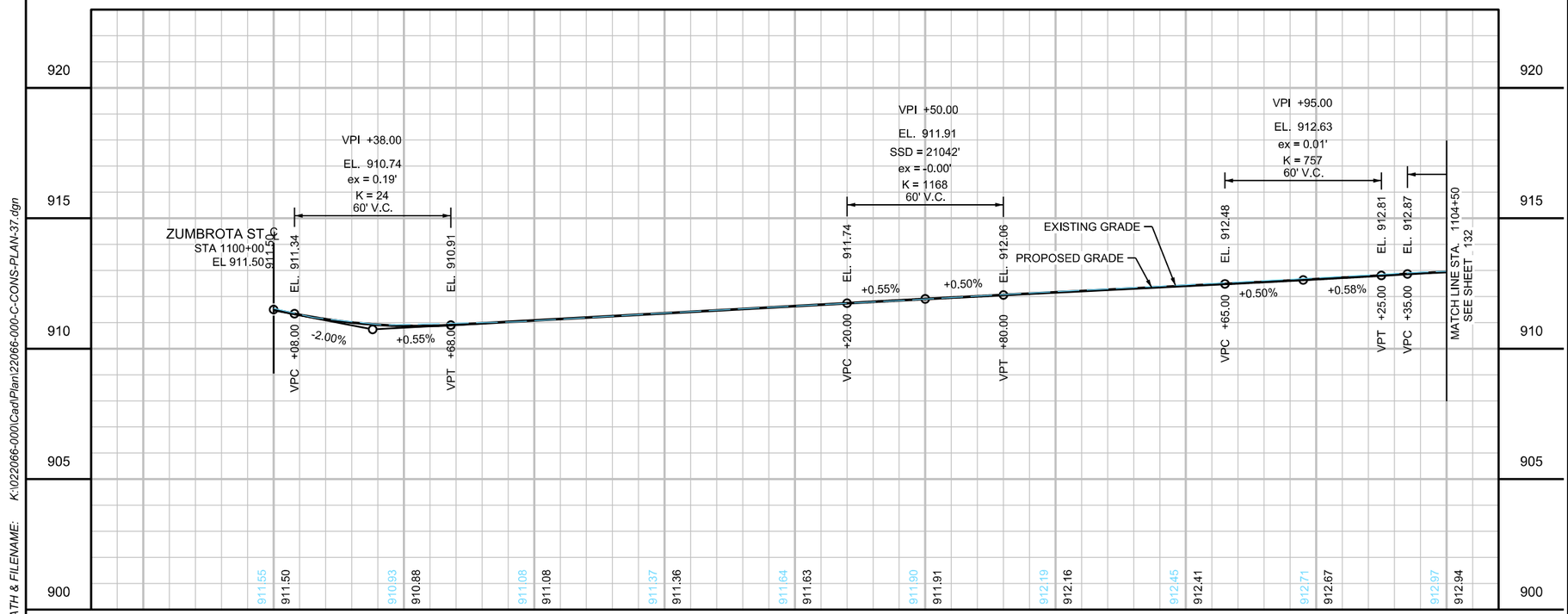
SHEET **130** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:22 AM

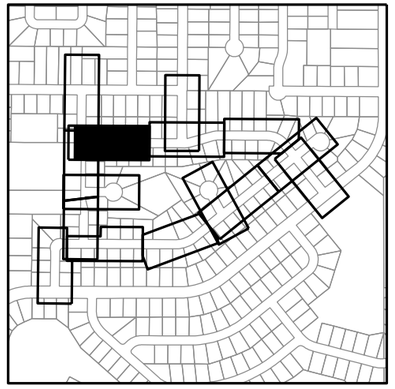
PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-CONS-PLAN-37.dgn

90TH LANE NE





LOCATION MAP



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wsb

WSB PROJECT NO.: 022066-000

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

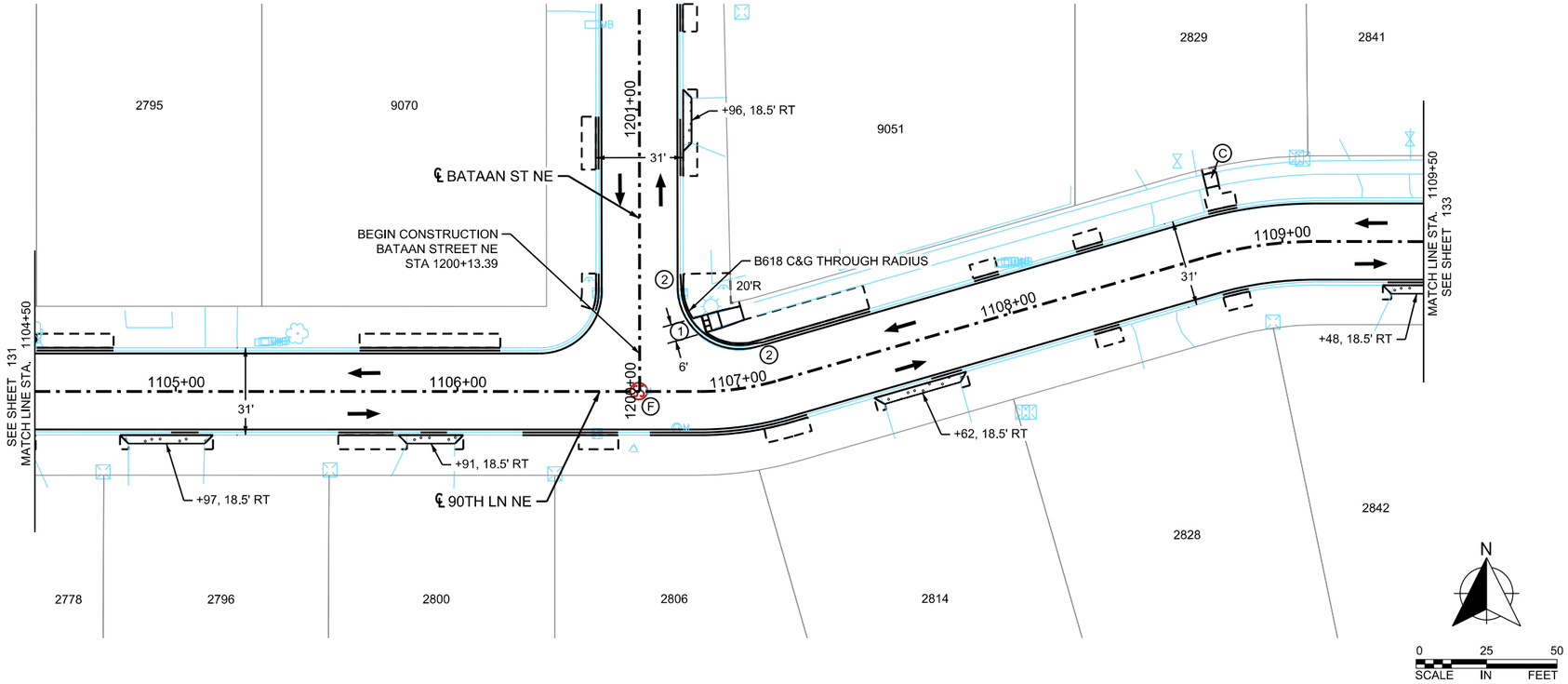
CITY PROJECT 23-08

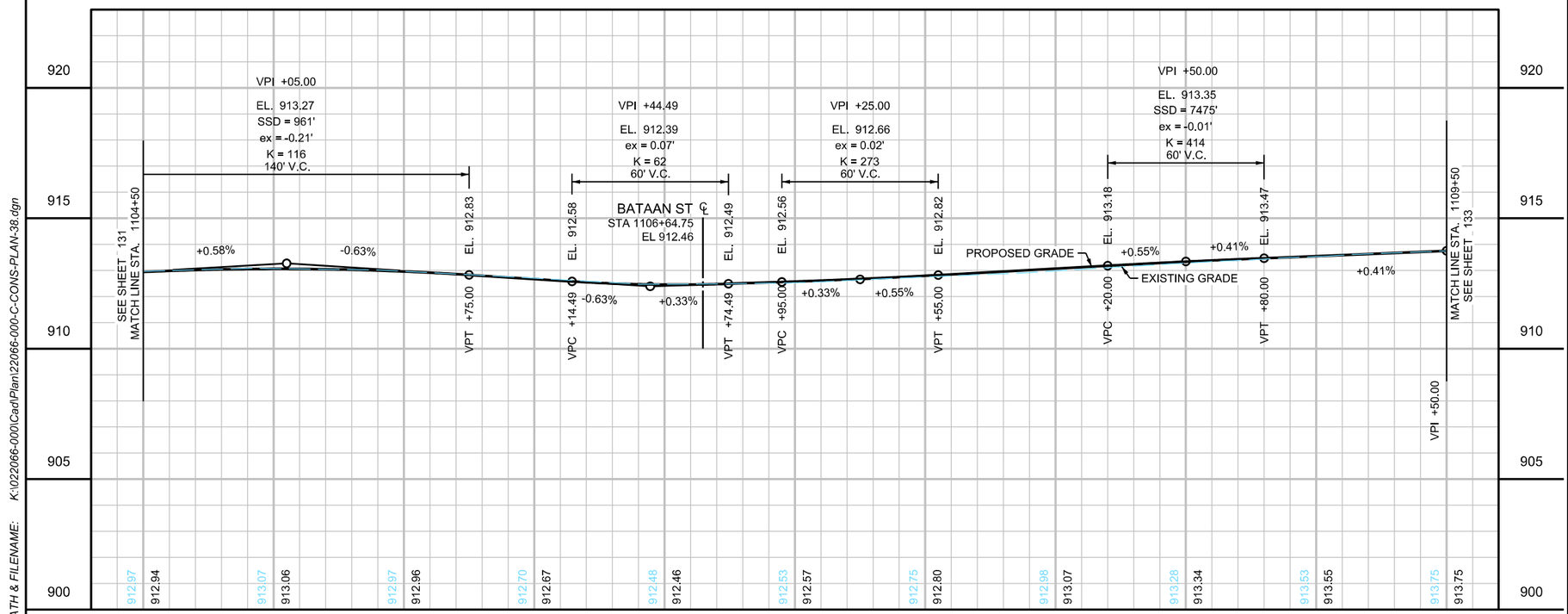
SHEET **131** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:23 AM

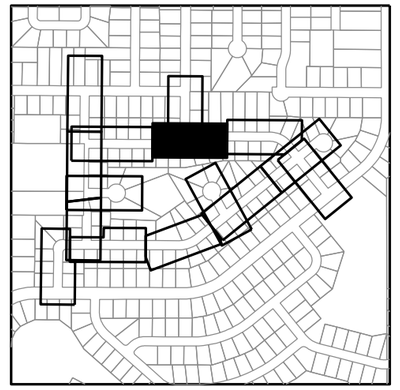
PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-CONS-PLAN-38.dgn

90TH LANE NE





LOCATION MAP



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CITY OF BLAINE, MN

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STREET, WATERMAIN, & SANITARY SEWER PLANS

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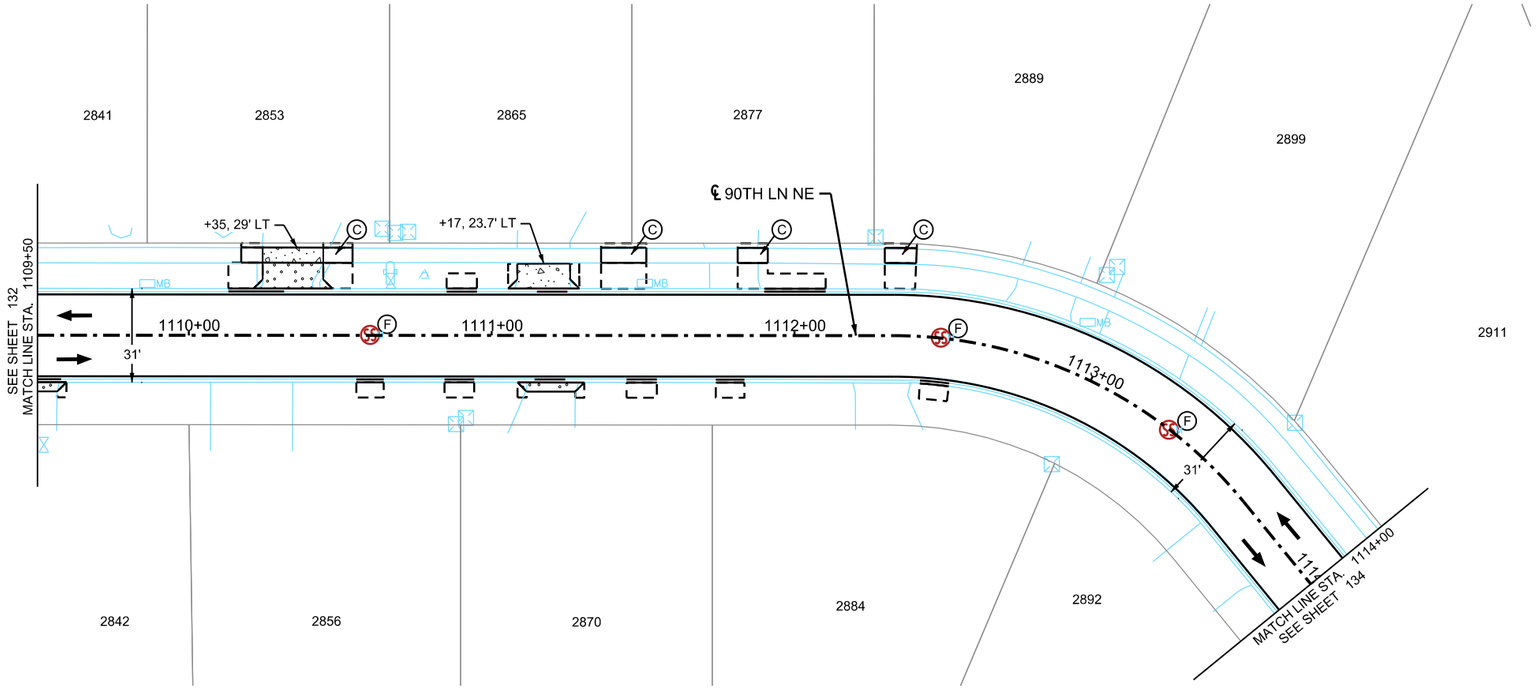
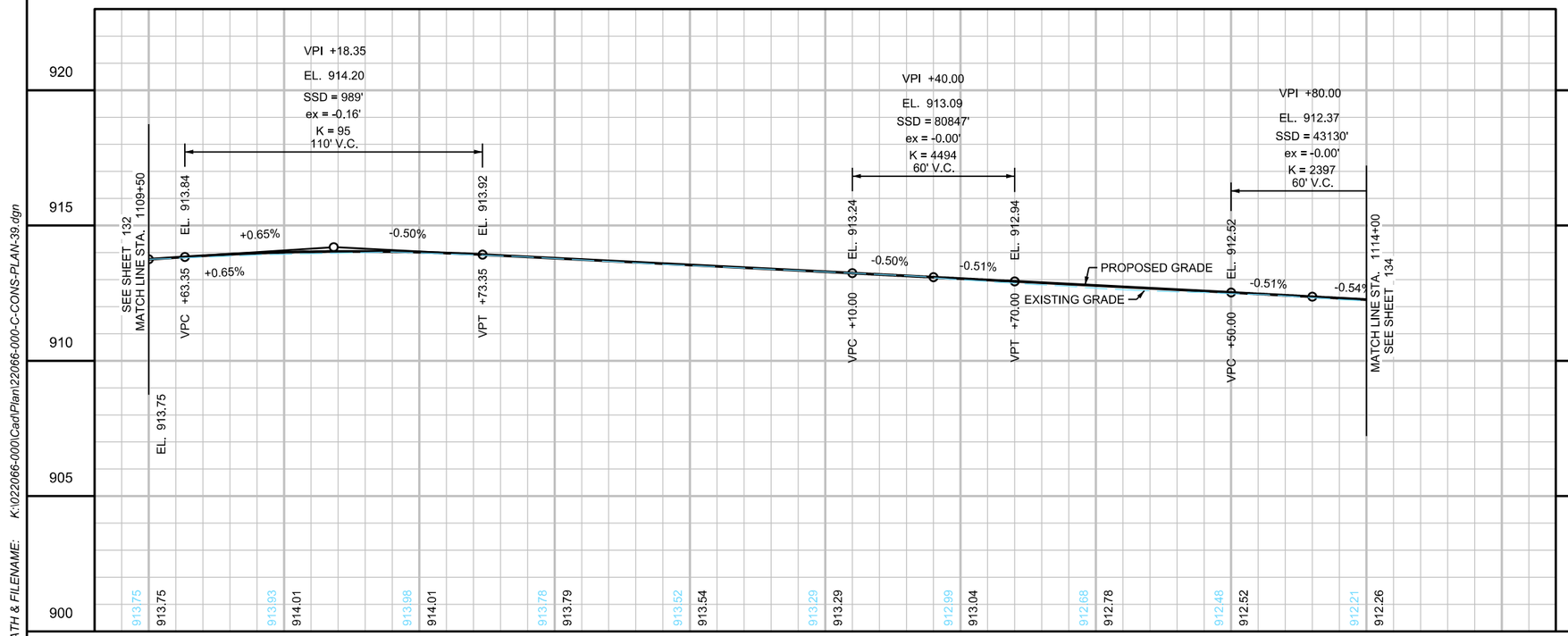
SHEET **132** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:24 AM

PATH & FILENAME: K:\022066-000\Cadl\Plan\22066-000-C-CONS-PLAN-39.dgn

90TH LANE NE





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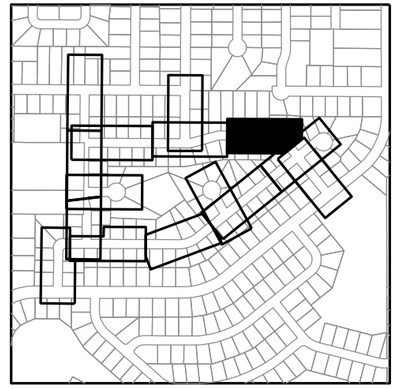

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- GRADING LIMITS (APPROX)
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- CONSTRUCT CURB & GUTTER DESIGN D312 AS MARKED IN THE FIELD BY THE ENGINEER (UNLESS NOTED OTHERWISE)

GENERAL NOTES

1. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
2. SEE ALIGNMENT PLAN FOR CURVE DATA.
3. SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION AT ROADWAY INTERSECTIONS.
4. SEE CITY STANDARD PLATES DETAILS FOR RESIDENTIAL DRIVEWAY CONSTRUCTION DETAILS.
5. MAINTAINING ACCESS TO SPECIFIC GARAGES AS NOTED WILL BE INCIDENTAL. IF THE CONTRACTOR CHOOSES TO CONSTRUCT THESE DRIVEWAYS ONE HALF AT A TIME, USE HIGH EARLY CONCRETE, INCIDENTAL.
6. SEE SPECIAL PROVISIONS FOR PROPERTIES WITH IRRIGATION SYSTEMS AND INVISIBLE FENCING. PROPERTY LISTS ARE NOT ALL ENCOMPASSING. CONTRACTOR TO VERIFY IN FIELD. PAID UNDER IRRIGATION REPAIR AND LANDSCAPE ALLOWANCE.

VERTICAL CONTROL

ELEVATIONS FOR THIS PLAN ARE BASED ON NAVD 88 DATUM.

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HEINTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

CITY PROJECT 23-08

SHEET **133** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:25 AM

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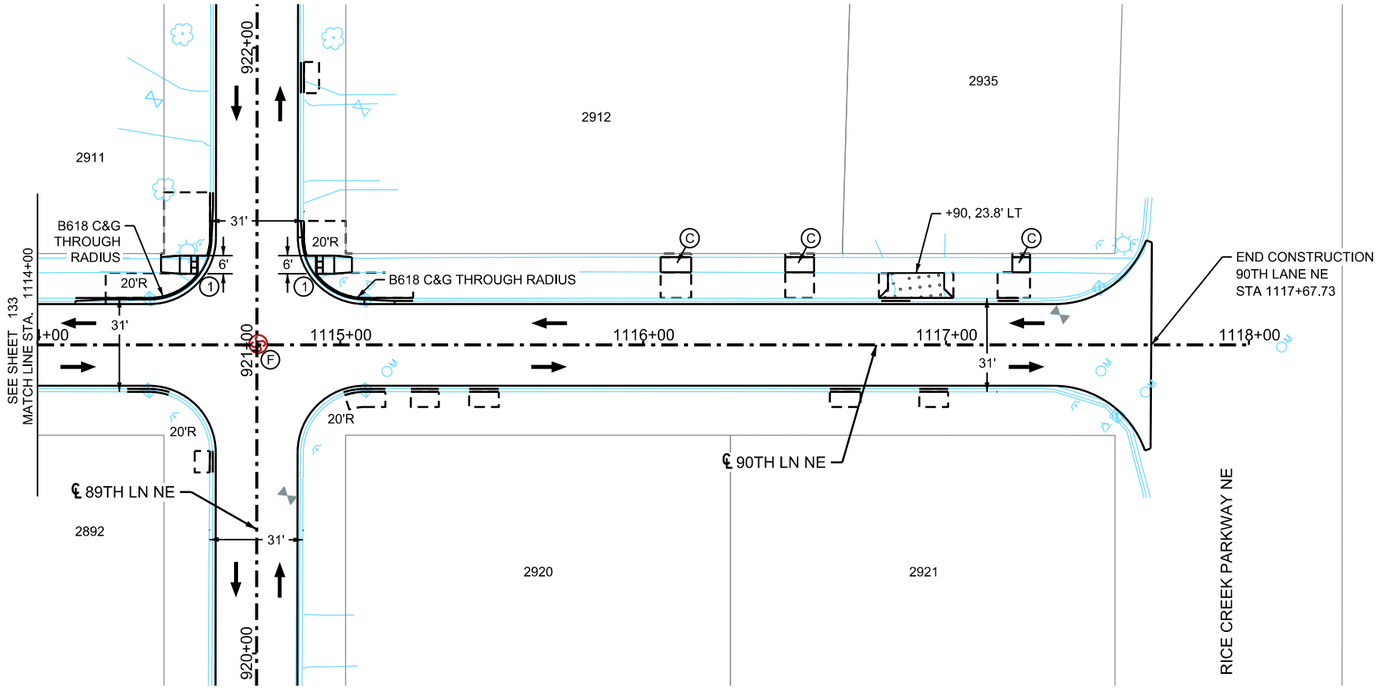
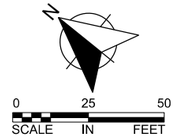
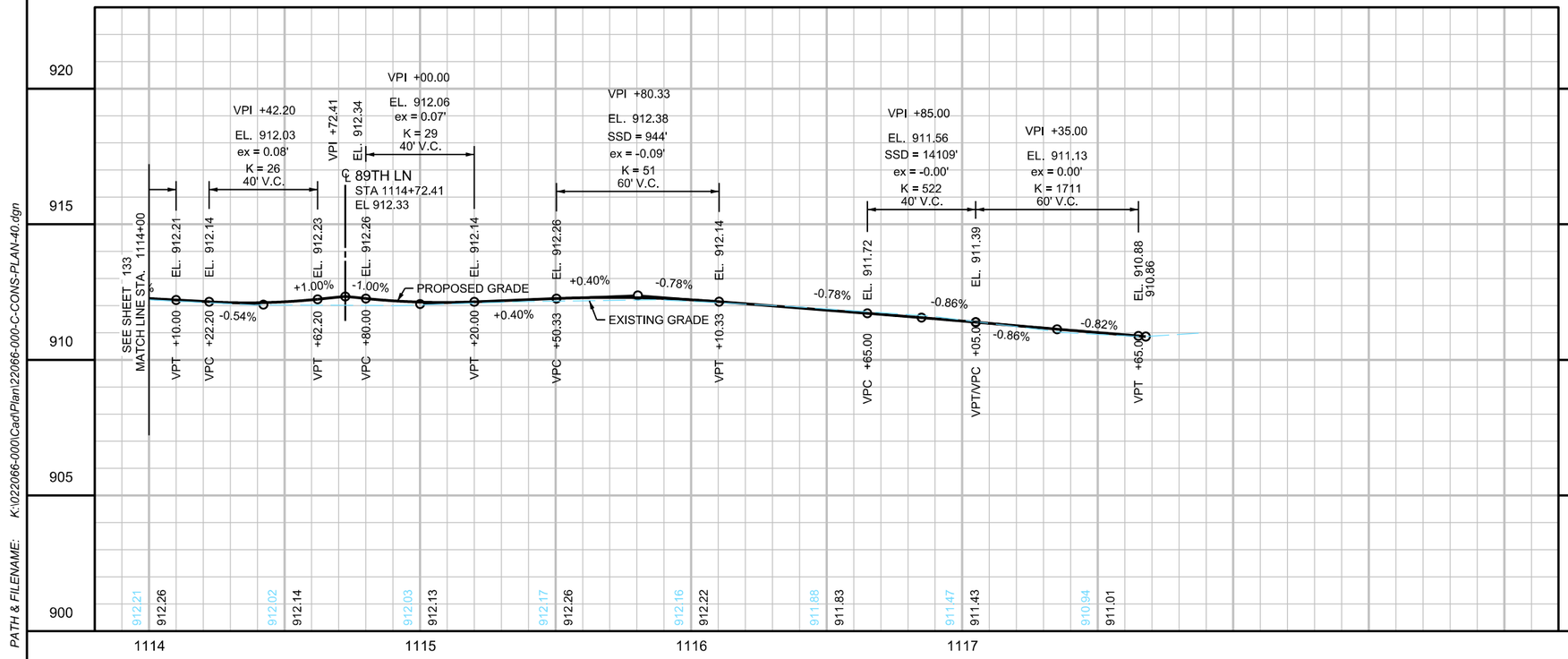
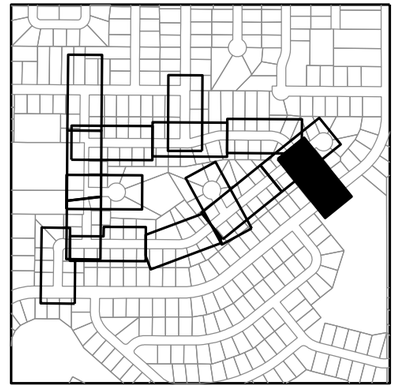
90TH LANE NE







LOCATION MAP



LEGEND

1. CONSTRUCT CONCRETE PEDESTRIAN RAMP WITH TRUNCATED DOMES. SEE INTERSECTION DETAILS.
2. CURB TRANSITION, SEE MISCELLANEOUS DETAILS
3. FURNISH & INSTALL SIGN
4. INSTALL SIGN
- A. 2" BITUMINOUS WALK
- B. CONCRETE VALLEY GUTTER, SEE CITY DETAIL PLATE ST-4 HIGH EARLY CONCRETE (INCIDENTAL)
- C. 4" CONCRETE WALK
- D. F&I 6" GATE VALVE & BOX CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)
- E. F&I 16" GATE VALVE & BOX CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)
- F. F&I SANITARTY SEWER CASTING, SEE CITY TECHNICAL SPECIFICATIONS

2.0" BITUMINOUS DRIVEWAY

6.0" CONCRETE DRIVEWAY

GRADING LIMITS (APPROX)

INPLACE RIGHT-OF-WAY

CONSTRUCT CURB & GUTTER DESIGN D312 AS MARKED IN THE FIELD BY THE ENGINEER (UNLESS NOTED OTHERWISE)

GENERAL NOTES

1. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
2. SEE ALIGNMENT PLAN FOR CURVE DATA.
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5. MAINTAINING ACCESS TO SPECIFIC GARAGES AS NOTED WILL BE INCIDENTAL. IF THE CONTRACTOR CHOOSES TO CONSTRUCT THESE DRIVEWAYS ONE HALF AT A TIME, USE HIGH EARLY CONCRETE, INCIDENTAL.
6. SEE SPECIAL PROVISIONS FOR PROPERTIES WITH IRRIGATION SYSTEMS AND INVISIBLE FENCING. PROPERTY LISTS ARE NOT ALL ENCOMPASSING. CONTRACTOR TO VERIFY IN FIELD. PAID UNDER IRRIGATION REPAIR AND LANDSCAPE ALLOWANCE.

VERTICAL CONTROL

ELEVATIONS FOR THIS PLAN ARE BASED ON NAVD 88 DATUM.

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

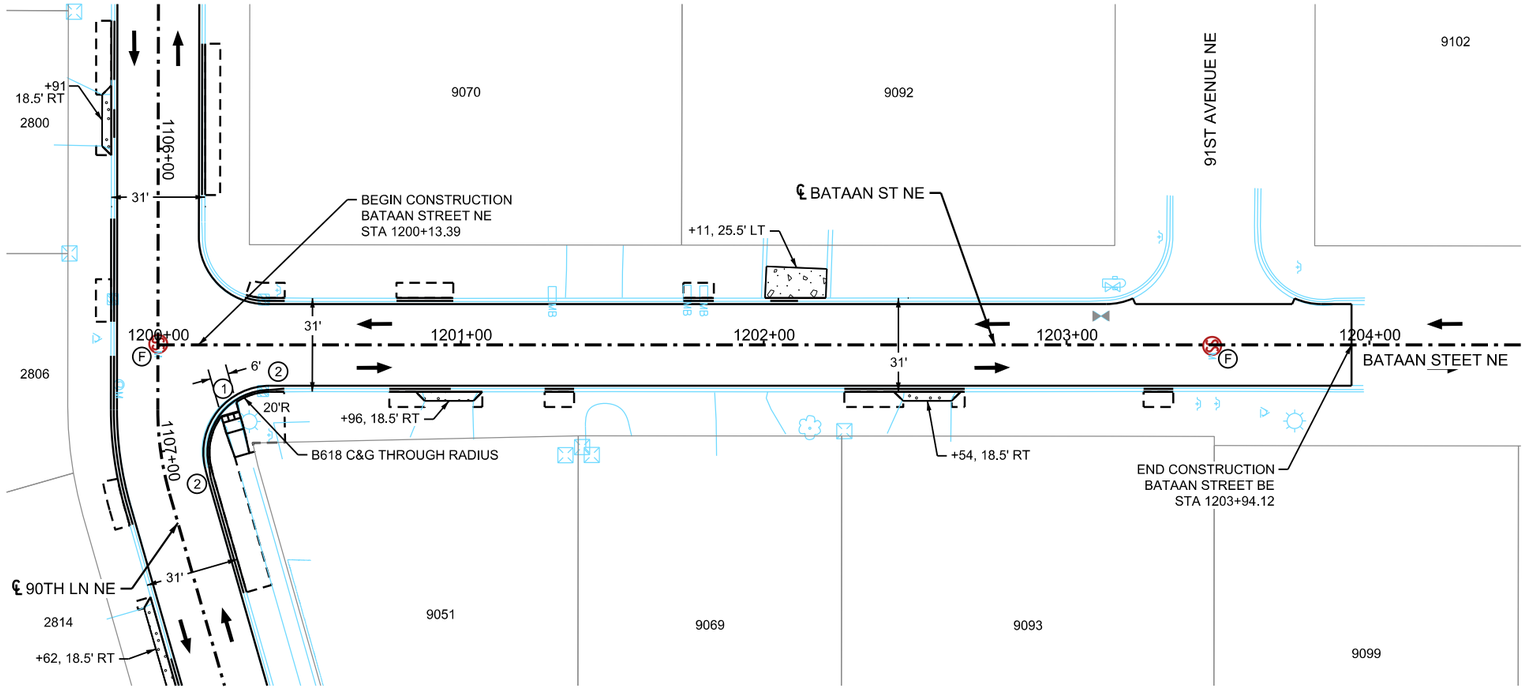
CITY PROJECT 23-08

SHEET **134** OF **230** SHEETS

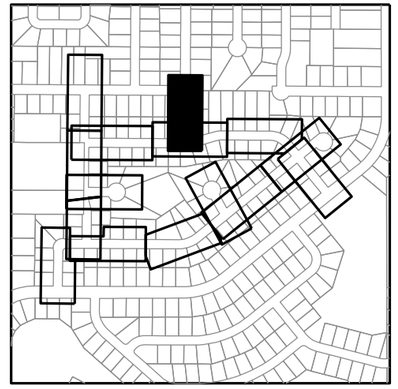
PLOTTED/REVISED: 3/9/2023 11:34:26 AM

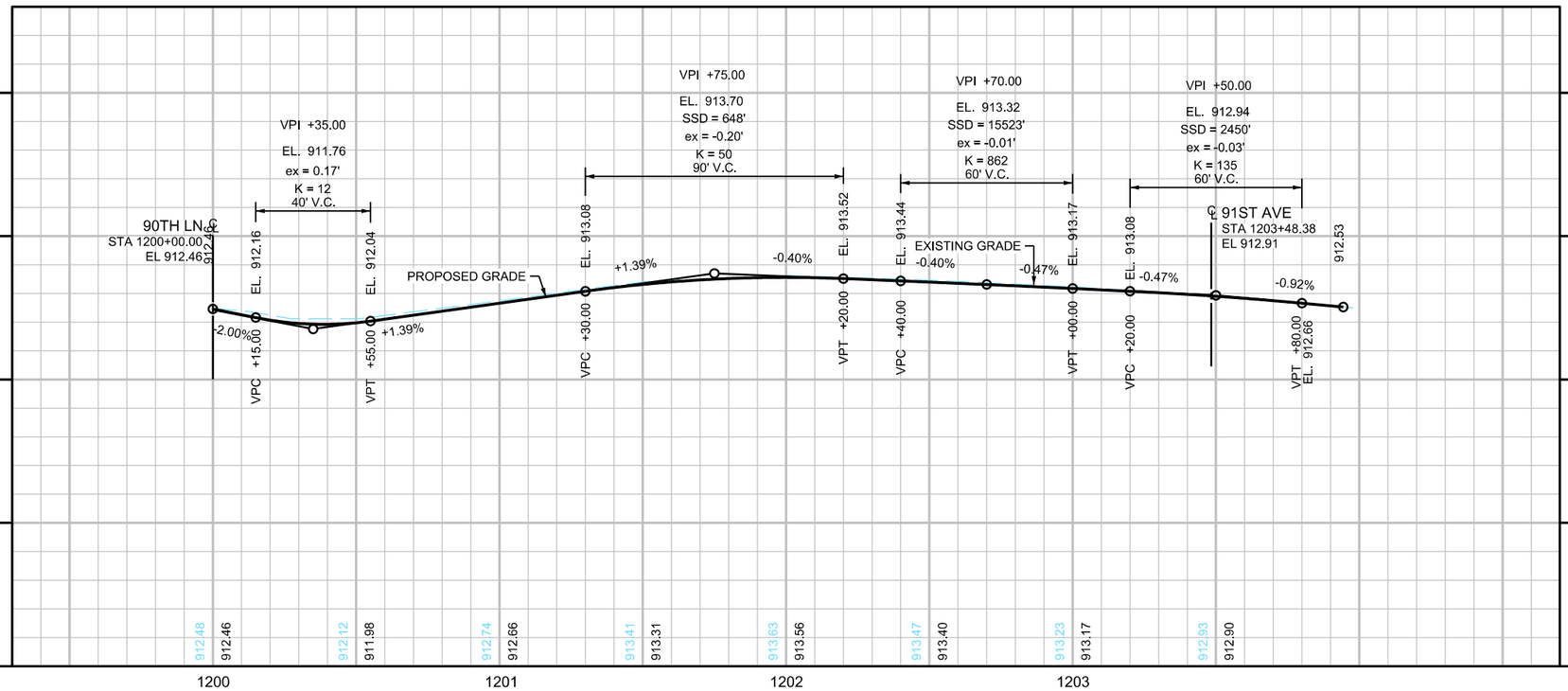
PATH & FILENAME: K:\022066-000\Cadl\Plan\22066-000-C-CONS-PLAN-41.dgn

BATAAN STREET NE



LOCATION MAP





LEGEND

- (1) CONSTRUCT CONCRETE PEDESTRIAN RAMP WITH TRUNCATED DOMES. SEE INTERSECTION DETAILS.
- (2) CURB TRANSITION, SEE MISCELLANEOUS DETAILS
- (3) FURNISH & INSTALL SIGN
- (4) INSTALL SIGN
- (A) 2" BITUMINOUS WALK
- (B) CONCRETE VALLEY GUTTER, SEE CITY DETAIL PLATE ST-4 HIGH EARLY CONCRETE (INCIDENTAL)
- (C) 4" CONCRETE WALK
- (D) F&I 6" GATE VALVE & BOX CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)
- (E) F&I 16" GATE VALVE & BOX CONNECT TO EXISTING WATER MAIN - 2 EA (INCIDENTAL)
- (F) F&I SANITARTY SEWER CASTING, SEE CITY TECHNICAL SPECIFICATIONS
- 2.0" BITUMINOUS DRIVEWAY
- 6.0" CONCRETE DRIVEWAY
- GRADING LIMITS (APPROX)
- INPLACE RIGHT-OF-WAY
- CONSTRUCT CURB & GUTTER DESIGN D312 AS MARKED IN THE FIELD BY THE ENGINEER (UNLESS NOTED OTHERWISE)

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VERTICAL CONTROL

ELEVATIONS FOR THIS PLAN ARE BASED ON NAVD 88 DATUM.

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

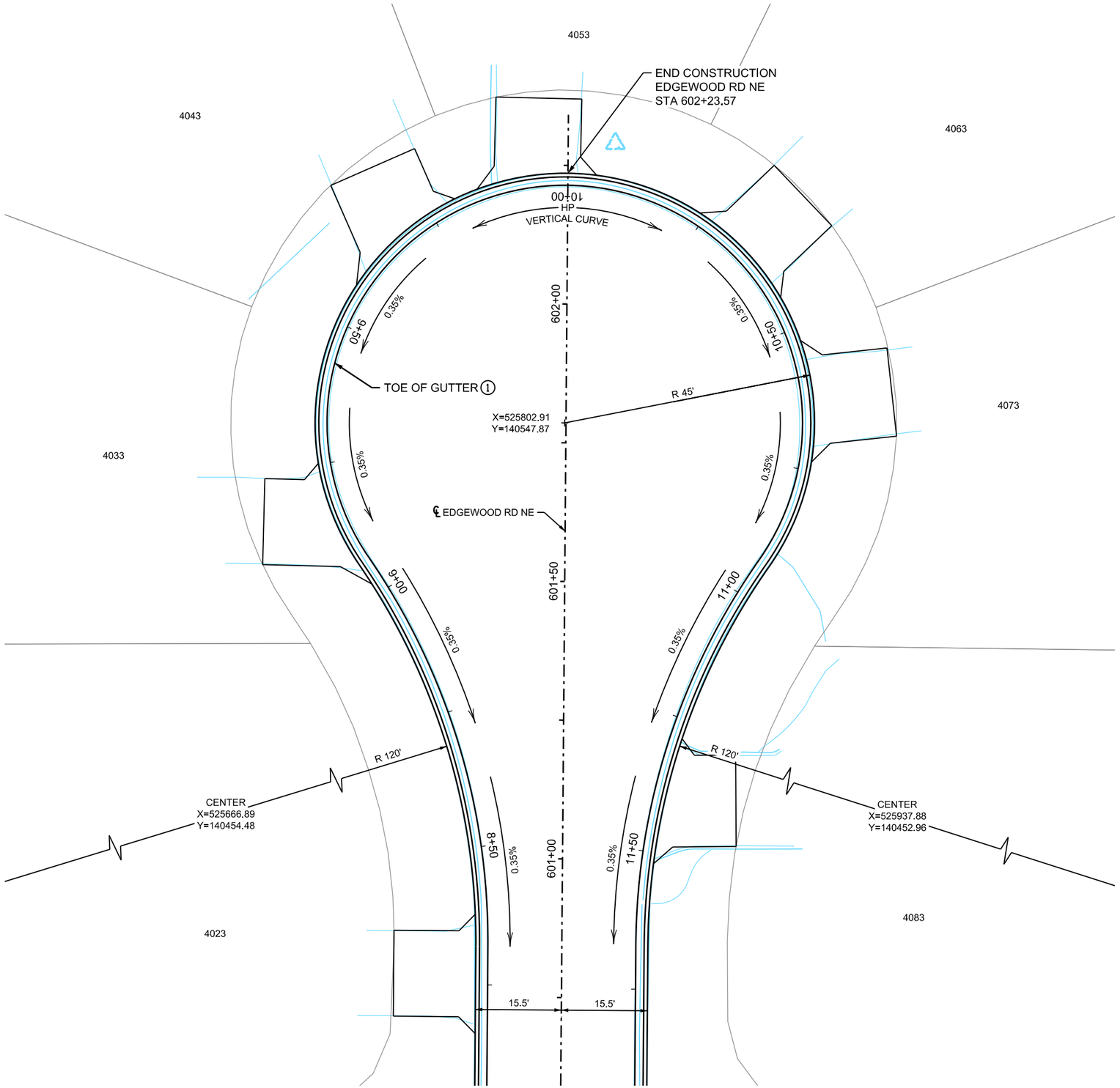
SOUTHEAST AREA RECONSTRUCTION

STREET, WATERMAIN, & SANITARY SEWER PLANS

CITY PROJECT 23-08

SHEET **135** OF **230** SHEETS

EDGEWOOD ROAD NE (4023-4083) CUL-DE-SAC



LOCATION MAP

LEGEND

X.XX% →	CURB LINE FLOW DIRECTION AND GRADE
═══	CONSTRUCT CONCRETE CURB & GUTTER SEE CONSTRUCTION PLAN AND TYPICAL SECTIONS FOR MORE INFORMATION.
①	QUADRANT ALIGNMENT AND PROFILE LOCATED ON TOE OF GUTTER
②	QUADRANT ALIGNMENT AND PROFILE LOCATED ON EDGE OF PAVEMENT
- - -	GRADING LIMITS (APPROX.)
———	INPLACE RIGHT OF WAY

wsb

WSB PROJECT NO.: 022066-000

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PLAN BY:	CHECK BY:
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NICHOLAS E. HEINTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CUL-DE-SAC DETAILS

CITY PROJECT 23-08

SHEET **136** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:27 AM

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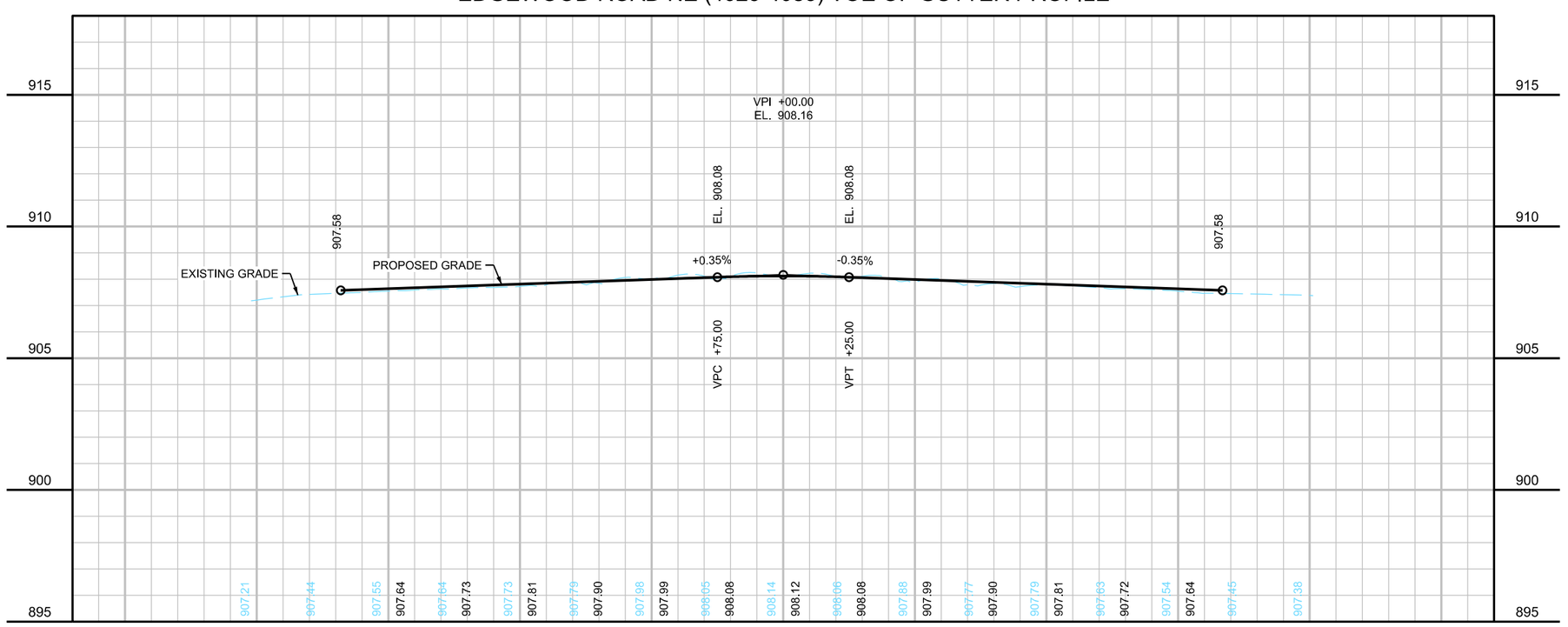
ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	DELTA	DEGREE	RADIUS	TANGENT	LENGTH	COORDINATES X	COORDINATES Y	BEARING
		EDGEWOOD ROAD NE (4023-4083) TOE OF GUTTER								
	POT	7+97.82						525,788.783	140,419.407	
	PC	8+31.931						525,789.052	140,453.515	N 0° 27' 08.8" E
	PI	8+70.363	34° 55' 29.0" LT	46° 53' 54.3"	122.170'	38.432'	74.469'	525,789.356	140,491.945	PI
	CC							525,666.886	140,454.479	
	PRC	9+06.400						525,767.603	140,523.628	N 34° 28' 20.1" W
	PRC	9+06.400						525,767.603	140,523.628	N 34° 28' 20.1" W
	PI	9+68.039	249° 35' 13.0" RT	133° 46' 29.6"	42.830'	61.639'	186.572'	525,802.491	140,472.813	PI
	CC							525,802.912	140,547.871	
	PRC	10+92.972						525,837.947	140,523.234	S 35° 06' 52.8" W
	PRC	10+92.972						525,837.947	140,523.234	S 35° 06' 52.8" W
	PI	11+31.097	34° 39' 44.0" LT	46° 53' 54.3"	122.170'	38.125'	73.909'	525,816.017	140,492.048	PI
	CC							525,937.882	140,452.960	
	PT	11+66.882						525,815.716	140,453.925	S 0° 27' 08.8" W
	POT	12+01.30						525,815.444	140,419.503	

NOTES:

<XXXX> INDICATES GEOPAK ALIGNMENT NAMES.

EDGEWOOD ROAD NE (4023-4083) TOE OF GUTTER PROFILE



WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN
DESIGN BY: AJF
PLAN BY: AJF
CHECK BY: NEH

REVISIONS

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NICHOLAS E. HEINTGES, PE
DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

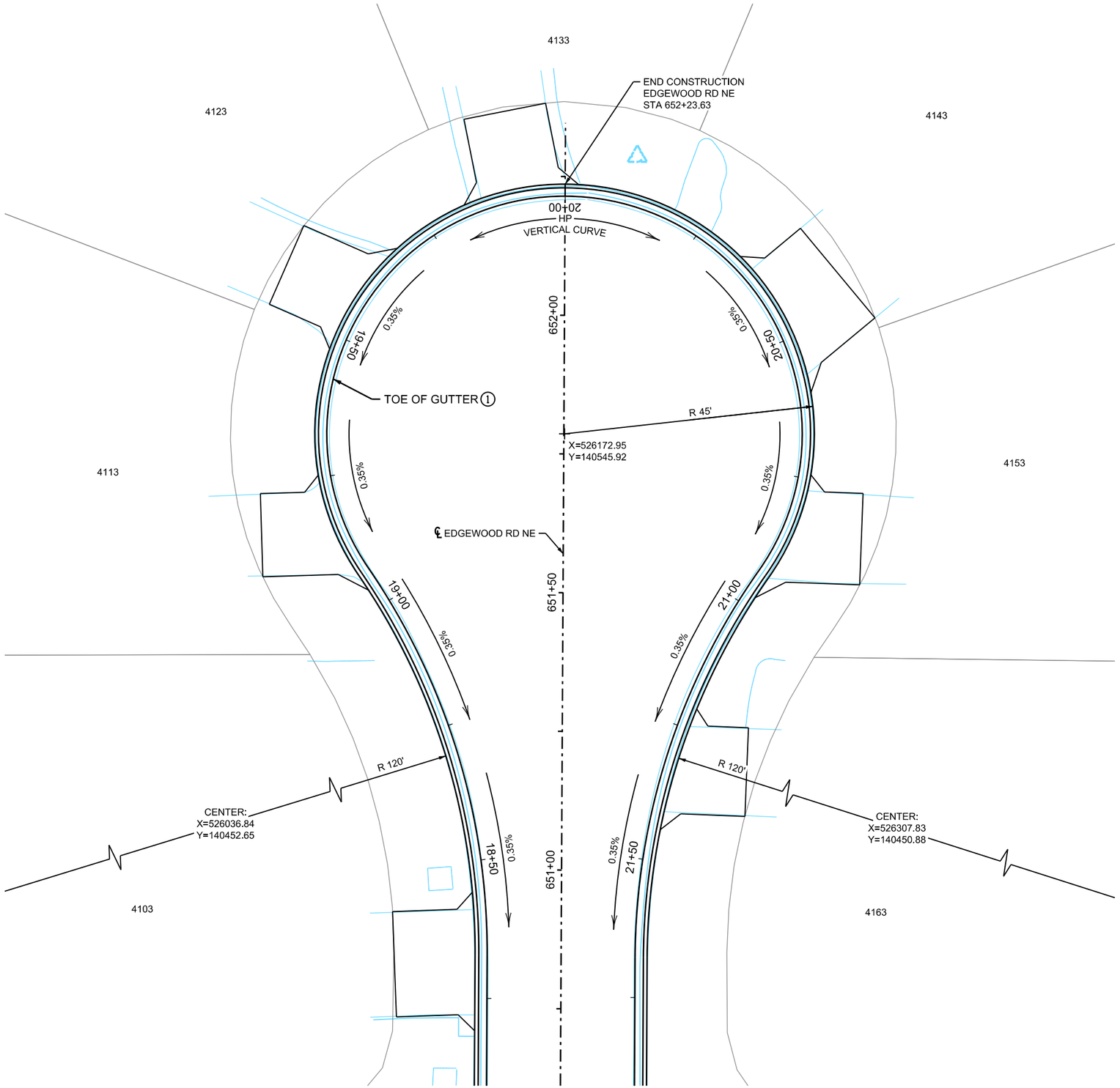
SOUTHEAST AREA RECONSTRUCTION

CUL-DE-SAC DETAILS

CITY PROJECT 23-08

SHEET **137** OF **230** SHEETS

EDGEWOOD ROAD NE (4103-4163) CUL-DE-SAC



LOCATION MAP

LEGEND

- X.XX% — CURB LINE FLOW DIRECTION AND GRADE
- CONSTRUCT CONCRETE CURB & GUTTER SEE CONSTRUCTION PLAN AND TYPICAL SECTIONS FOR MORE INFORMATION.
- ① QUADRANT ALIGNMENT AND PROFILE LOCATED ON TOE OF GUTTER
- ② QUADRANT ALIGNMENT AND PROFILE LOCATED ON EDGE OF PAVEMENT
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT OF WAY

wsb

WSB PROJECT NO.: 022066-000

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PLAN BY:	CHECK BY:
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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CUL-DE-SAC DETAILS

CITY PROJECT 23-08

SHEET **138** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:29 AM

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PLOTTED/REVISED: 3/9/2023 11:34:30 AM

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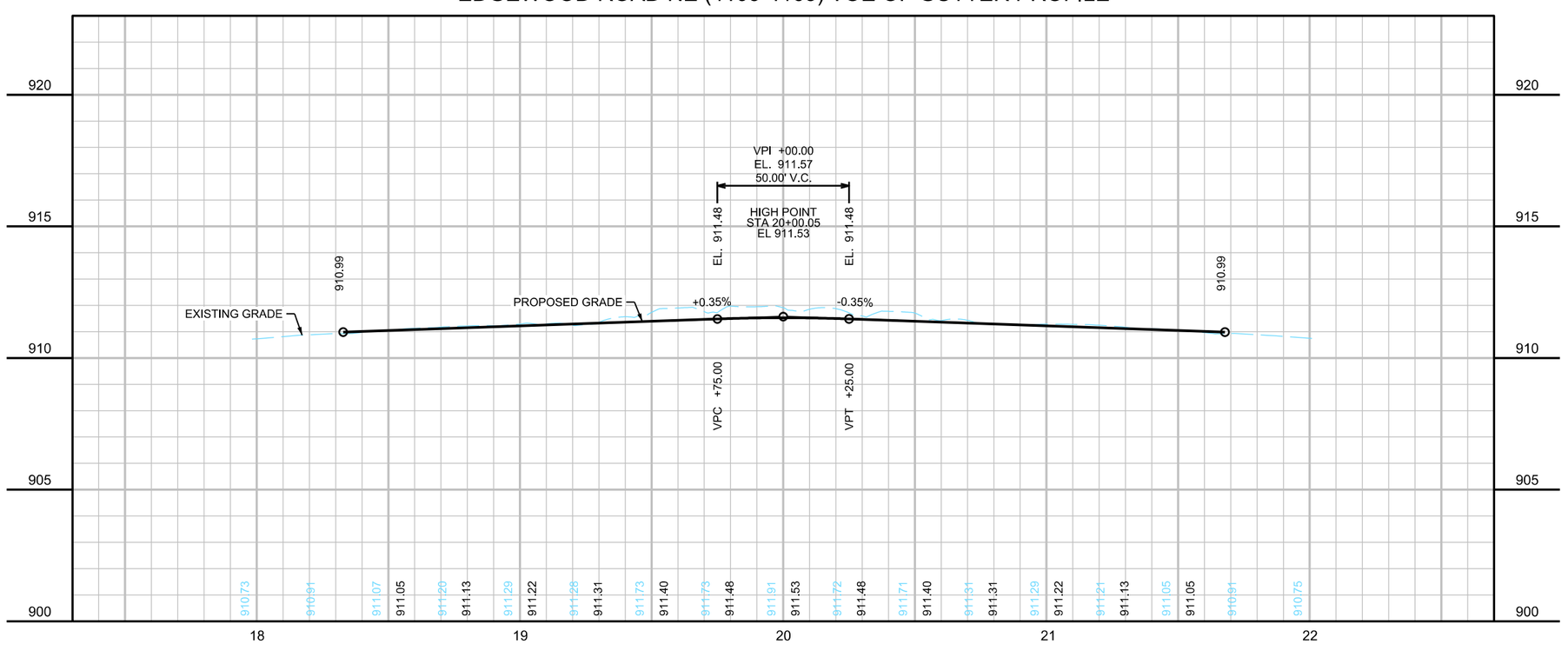
ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	DELTA	DEGREE	RADIUS	TANGENT	LENGTH	COORDINATES X	COORDINATES Y	BEARING
		EDGEWOOD ROAD NE (4103-4163) TOE OF GUTTER								
	POT	17+98.20						526,158.822	140,417.357	
	PC	18+32.839						526,159.006	140,452.000	N 0° 18' 14.8" E
	PI	18+71.036	34° 43' 26.5" LT	46° 53' 54.3"	122.170'	38.197'	74.041'	526,159.209	140,490.196	PI
	CC							526,036.838	140,452.649	
	PRC	19+06.880						526,137.618	140,521.706	N 34° 25' 11.7" W
	PRC	19+06.880						526,137.618	140,521.706	N 34° 25' 11.7" W
	PI	19+68.519	249° 35' 14.1" RT	133° 46' 29.6"	42.830'	61.639'	186.573'	526,172.460	140,470.859	PI
	CC							526,172.949	140,545.915	
	PRC	20+93.453						526,207.962	140,521.247	S 35° 10' 02.4" W
	PRC	20+93.453						526,207.962	140,521.247	S 35° 10' 02.4" W
	PI	21+31.812	34° 51' 47.6" LT	46° 53' 54.3"	122.170'	38.360'	74.338'	526,185.868	140,489.889	PI
	CC							526,307.833	140,450.881	
	PT	21+67.790						526,185.664	140,451.529	S 0° 18' 14.8" W
	POT	22+02.12						526,185.482	140,417.195	

NOTES:

<XXXX> INDICATES GEOPAK ALIGNMENT NAMES.

EDGEWOOD ROAD NE (4103-4163) TOE OF GUTTER PROFILE



WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN
DESIGN BY: AJF
PLAN BY: AJF
CHECK BY: NEH

REVISIONS

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NICHOLAS E. HEINTGES, PE
DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

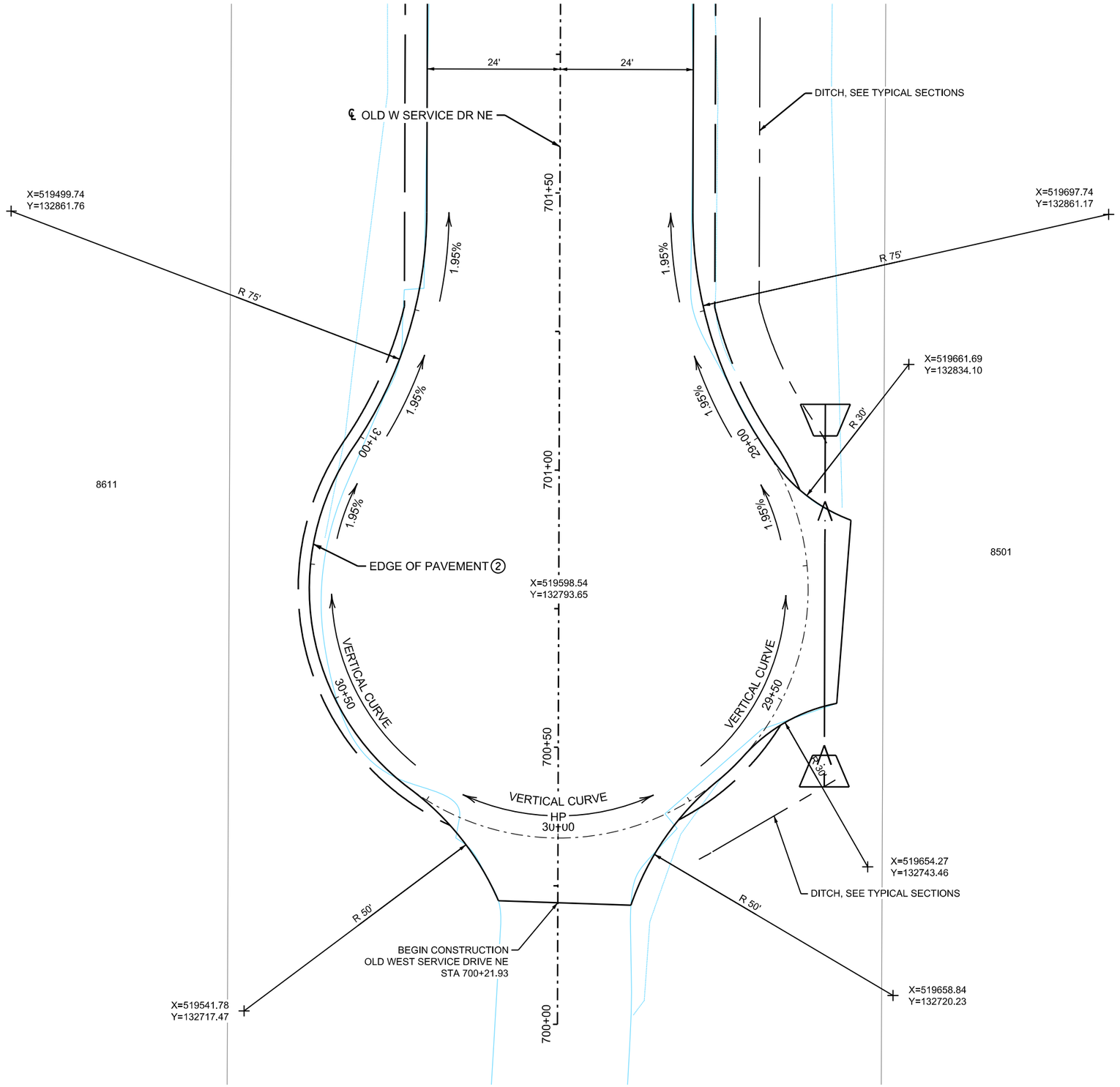
SOUTHEAST AREA RECONSTRUCTION

CUL-DE-SAC DETAILS

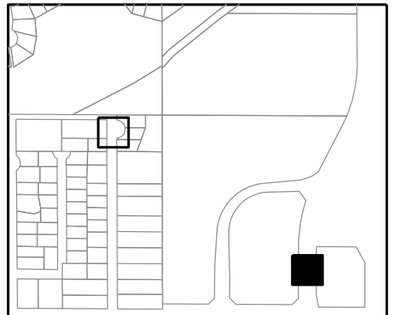
CITY PROJECT 23-08

SHEET **139** OF **230** SHEETS

OLD W SERVICE DRIVE NE CUL-DE-SAC



LOCATION MAP



LEGEND

- X.XX% — EDGE OF BITUMINOUS GRADE
- CONSTRUCT CONCRETE CURB & GUTTER SEE CONSTRUCTION PLAN AND TYPICAL SECTIONS FOR MORE INFORMATION.
- ① QUADRANT ALIGNMENT AND PROFILE LOCATED ON TOE OF GUTTER
- ② QUADRANT ALIGNMENT AND PROFILE LOCATED ON EDGE OF PAVEMENT
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT OF WAY

N

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SCALE IN FEET

wsb

WSB PROJECT NO.: 022066-000

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PLAN BY:	CHECK BY:
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NICHOLAS E. HEINTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CUL-DE-SAC DETAILS

CITY PROJECT 23-08

SHEET **140** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:32 AM

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PLOTTED/REVISED: 3/9/2023 11:34:33 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-CONS-DETL-CUL06.dgn

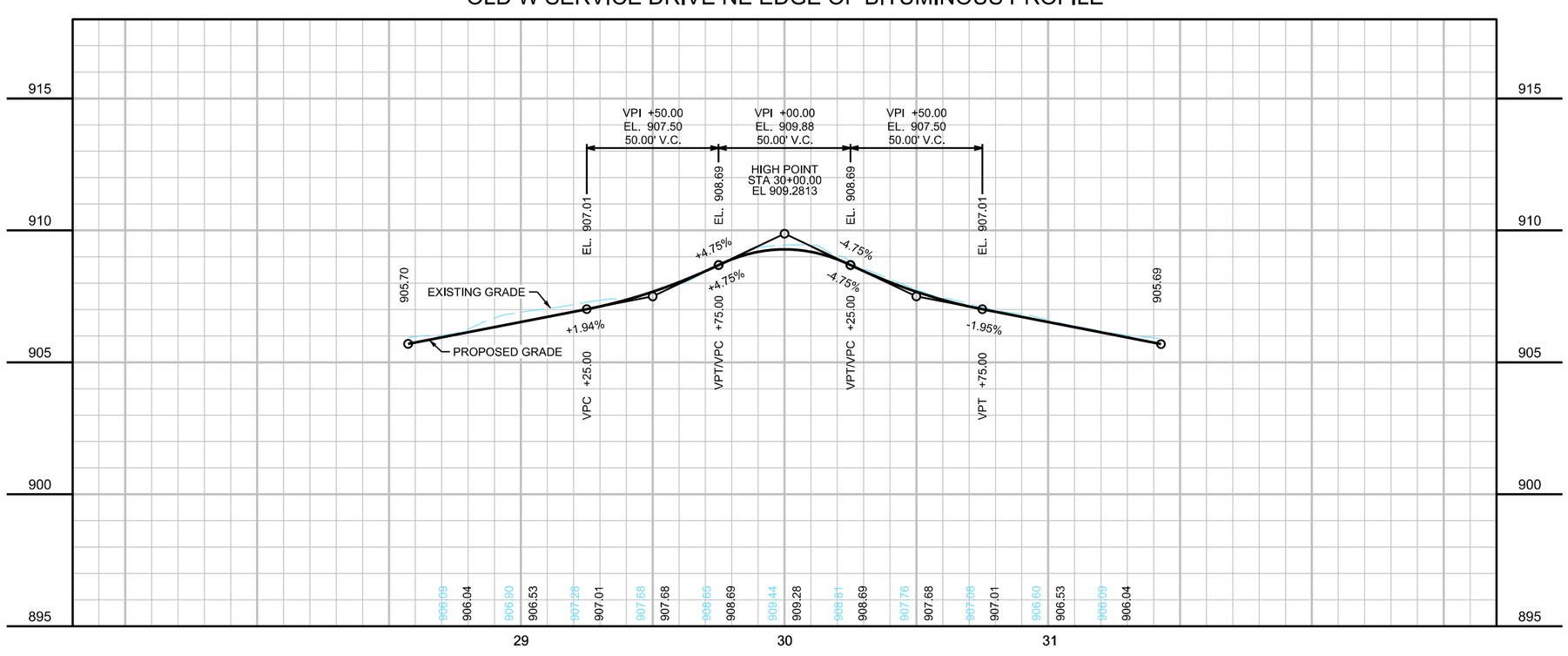
ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	DELTA	DEGREE	RADIUS	TANGENT	LENGTH	COORDINATES X	COORDINATES Y	BEARING
		OLD WEST SERVICE DRIVE NE EDGE OF BITUMINOUS								
	PC	28+57.243						519,622.743	132,861.392	S 0° 10' 15.1" W
	PI	28+80.468	34° 24' 41.4" LT	76° 23' 39.7"	75.000'	23.225'	45.045'	519,622.674	132,838.168	PI
	CC							519,697.743	132,861.168	
	PRC	29+02.287						519,635.741	132,818.968	S 34° 14' 26.3" E
	PRC	29+02.287						519,635.741	132,818.968	S 34° 14' 26.3" E
	PI	29+67.980	248° 49' 22.9" RT	127° 19' 26.2"	45.000'	65.693'	195.425'	519,598.778	132,873.275	PI
	CC							519,598.541	132,793.648	
	PRC	30+97.713						519,561.492	132,819.190	N 34° 34' 56.5" E
	PRC	30+97.713						519,561.492	132,819.190	N 34° 34' 56.5" E
	PI	31+20.937	34° 24' 41.4" LT	76° 23' 39.7"	75.000'	23.225'	45.045'	519,574.674	132,838.311	PI
	CC							519,499.743	132,861.759	
	PT	31+42.757						519,574.743	132,861.535	N 0° 10' 15.1" E

NOTES:

<XXXX> INDICATES GEOPAK ALIGNMENT NAMES.

OLD W SERVICE DRIVE NE EDGE OF BITUMINOUS PROFILE



WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN
DESIGN BY: AJF
PLAN BY: AJF
CHECK BY: NEH

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NICHOLAS E. HEINTGES, PE
DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

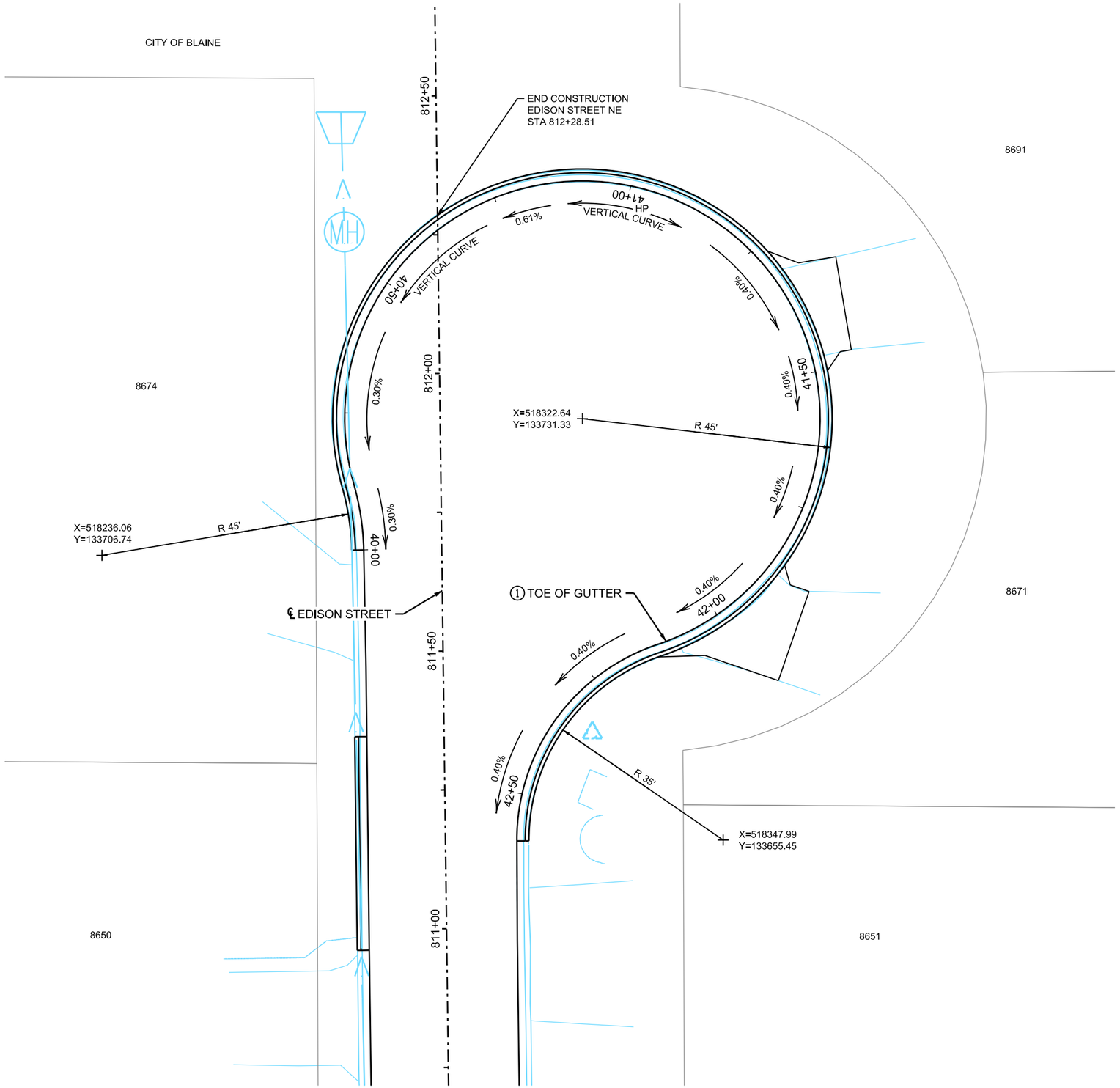
SOUTHEAST AREA RECONSTRUCTION

CUL-DE-SAC DETAILS

CITY PROJECT 23-08

SHEET **141** OF **230** SHEETS

EDISON STREET NE CUL-DE-SAC



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SCALE IN FEET

LOCATION MAP

LEGEND

- X.XX% — CURB LINE FLOW DIRECTION AND GRADE
- CONSTRUCT CONCRETE CURB & GUTTER SEE CONSTRUCTION PLAN AND TYPICAL SECTIONS FOR MORE INFORMATION.
- (1) QUADRANT ALIGNMENT AND PROFILE LOCATED ON TOE OF GUTTER
- (2) QUADRANT ALIGNMENT AND PROFILE LOCATED ON EDGE OF PAVEMENT
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT OF WAY

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HEINTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CUL-DE-SAC DETAILS

CITY PROJECT 23-08

SHEET **140** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:35 AM

PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-CONS-DETL-CUL07.dgn

PLOTTED/REVISED: 3/9/2023 11:34:36 AM

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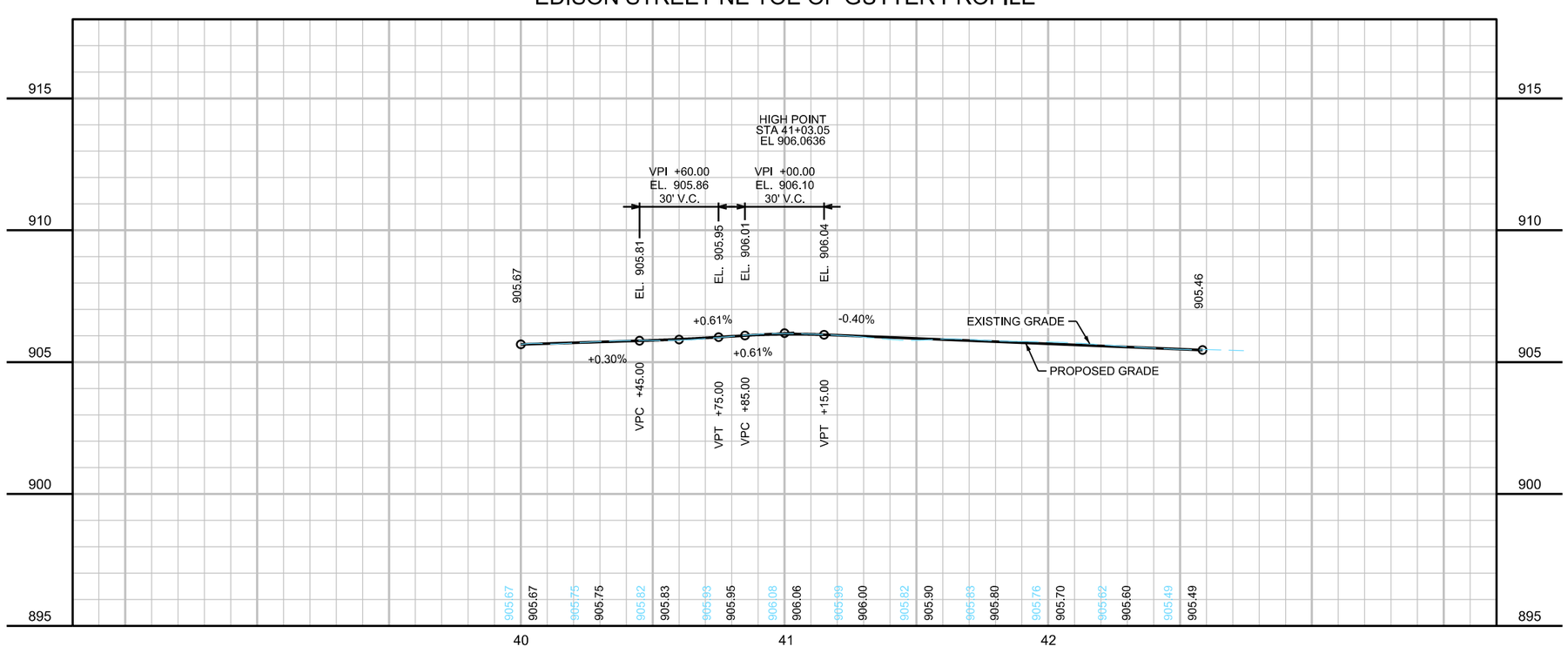
ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	DELTA	DEGREE	RADIUS	TANGENT	LENGTH	COORDINATES X	COORDINATES Y	BEARING
		EDISON STREET NE TOE OF GUTTER								
	PC	40+00.000						518,283.222	133,707.711	N 1° 10' 55.9" W
	PI	40+06.073	14° 40' 23.7" LT	121° 27' 59.6"	47.170'	6.073'	12.080'	518,283.097	133,713.783	PI
	CC							518,236.062	133,706.738	
	PT	40+12.080						518,281.438	133,719.625	N 15° 51' 19.6" W
	PC	40+12.092						518,281.441	133,719.613	N 15° 52' 19.0" W
	PI	40+56.916	267° 23' 37.3" RT	133° 46' 29.6"	42.830'	44.824'	199.883'	518,293.700	133,676.498	PI
	CC							518,322.638	133,731.327	
	PRC	42+11.976						518,336.213	133,690.705	S 71° 31' 18.4" W
	PRC	42+11.976						518,336.213	133,690.705	S 71° 31' 18.4" W
	PI	42+38.872	71° 46' 46.2" LT	154° 08' 42.8"	37.170'	26.896'	46.566'	518,310.703	133,682.180	PI
	CC							518,347.994	133,655.451	
	PT	42+58.542						518,310.824	133,655.284	S 0° 15' 27.8" E
	POT	42+74.19						518,310.895	133,639.641	

NOTES:

<XXXX> INDICATES GEOPAK ALIGNMENT NAMES.

EDISON STREET NE TOE OF GUTTER PROFILE



WSB PROJECT NO.: 022066-000

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PLAN BY: AJF
CHECK BY: NEH

REVISIONS

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NICHOLAS E. HEINTGES, PE
DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

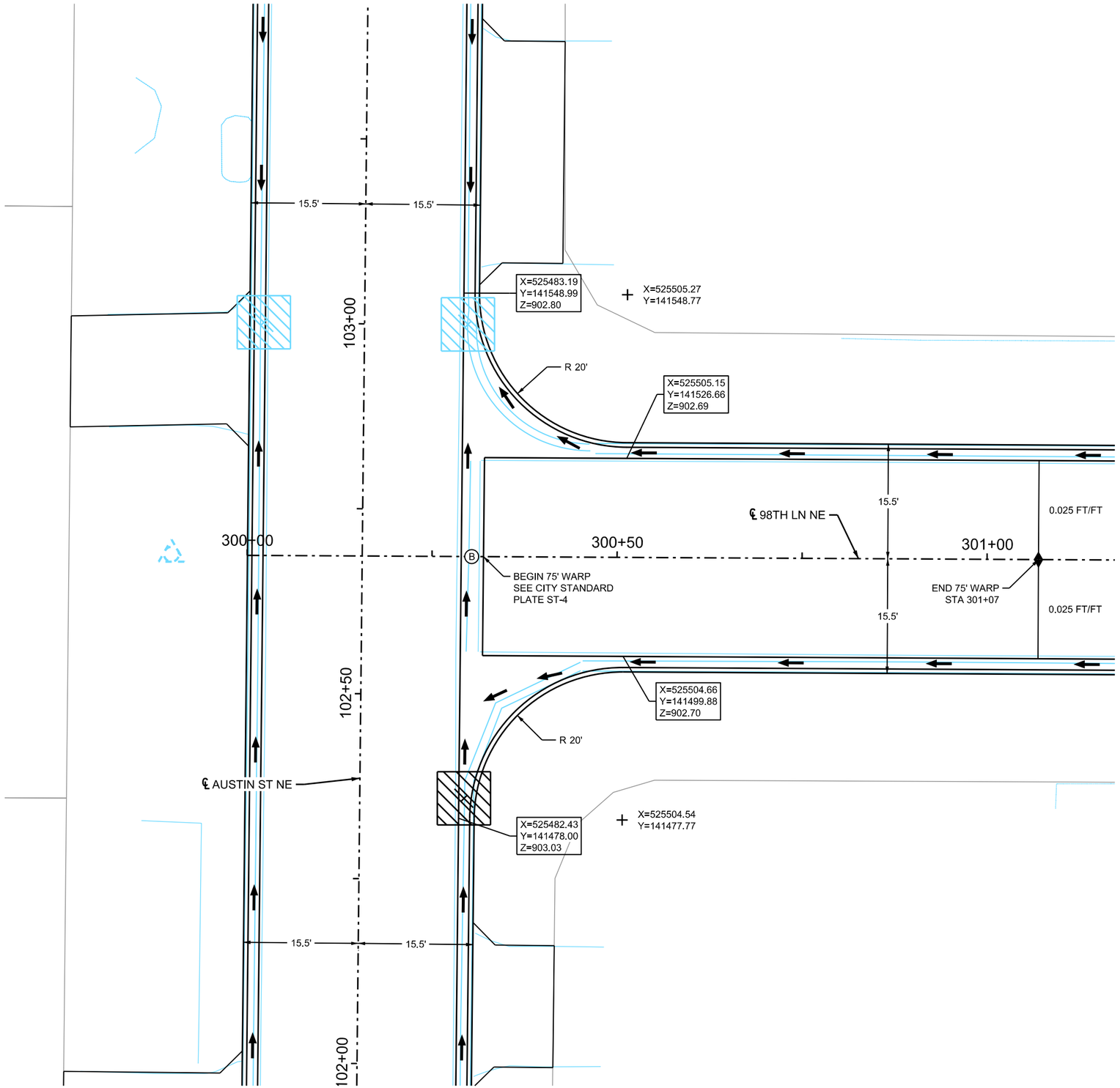
SOUTHEAST AREA RECONSTRUCTION

CUL-DE-SAC DETAILS

CITY PROJECT 23-08

SHEET **143** OF **230** SHEETS

AUSTIN STREET NE AT 98TH LANE NE



LOCATION MAP

LEGEND

X"	CURB HEIGHT
HP/LP	HIGH POINT / LOW POINT
XXXX	END RADIUS POINT AT TOE OF GUTTER
XXXX	FLOW LINE POINT AT PEDESTRIAN RAMP
	TRUNCATED DOMES, SEE STANDARD PLATE 7038
	CONSTRUCT CONCRETE CURB & GUTTER SEE CONSTRUCTION PLANS AND TYPICAL SECTIONS
(F)	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%
	DRAINAGE FLOW ARROW
X.XX%	CURB LINE FLOW DIRECTION AND GRADE
	CATCH BASIN
MH	MANHOLE
	LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS

wsb

WSB PROJECT NO.: 022066-000

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PLAN BY:	CHECK BY:
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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

CITY PROJECT 23-08

SHEET **144** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:39 AM

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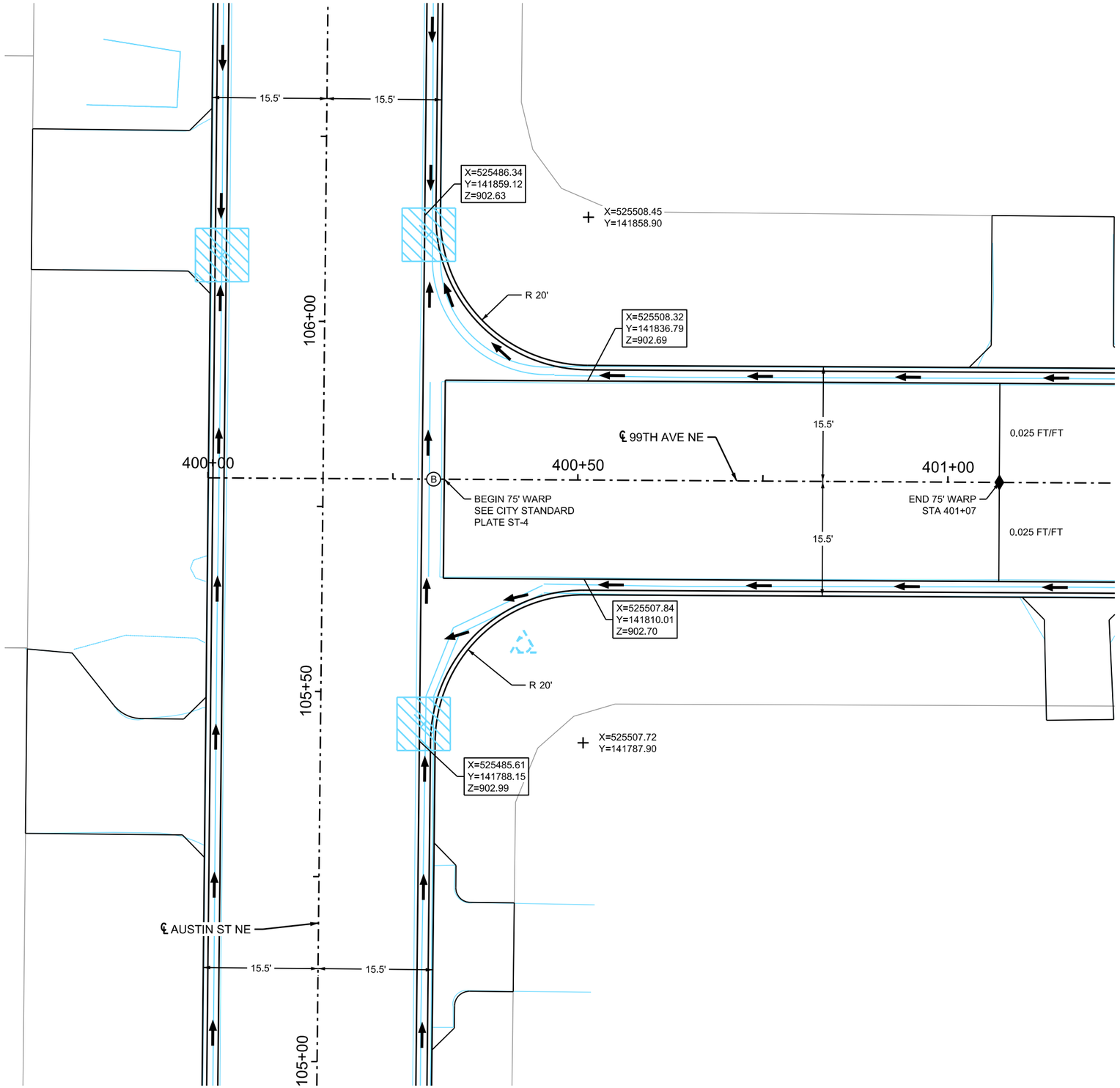
AUSTIN STREET NE AT 99TH AVENUE NE



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SCALE IN FEET

LOCATION MAP

LEGEND

X"	CURB HEIGHT
HP/LP	HIGH POINT / LOW POINT
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AJF	NEH

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NICHOLAS E. HEINTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

CITY PROJECT 23-08

SHEET **145** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:39 AM

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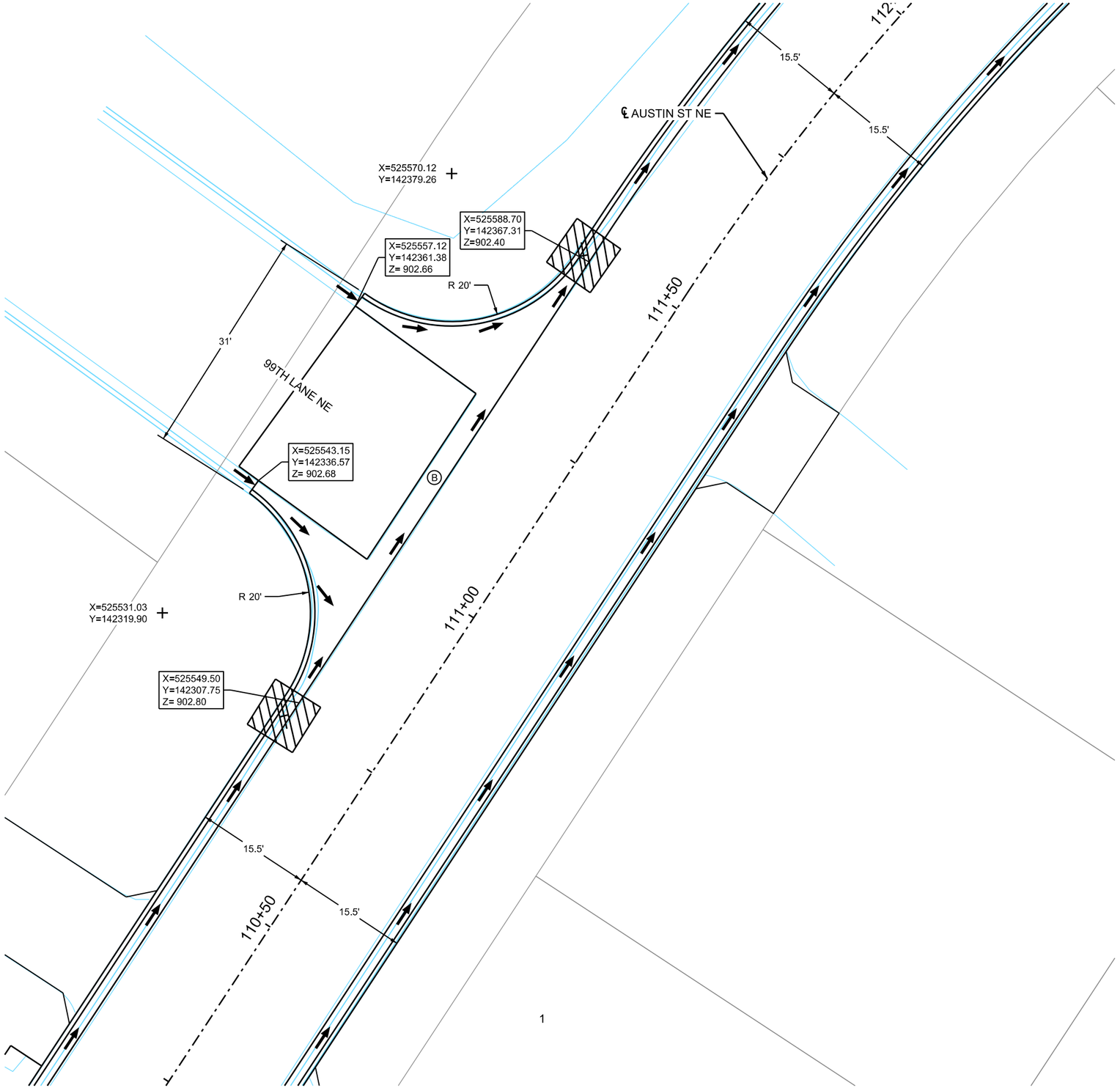
AUSTIN STREET NE AT 99TH LANE NE



LOCATION MAP

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N

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NICHOLAS E. HEINTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

CITY PROJECT 23-08

SHEET **146** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:40 AM

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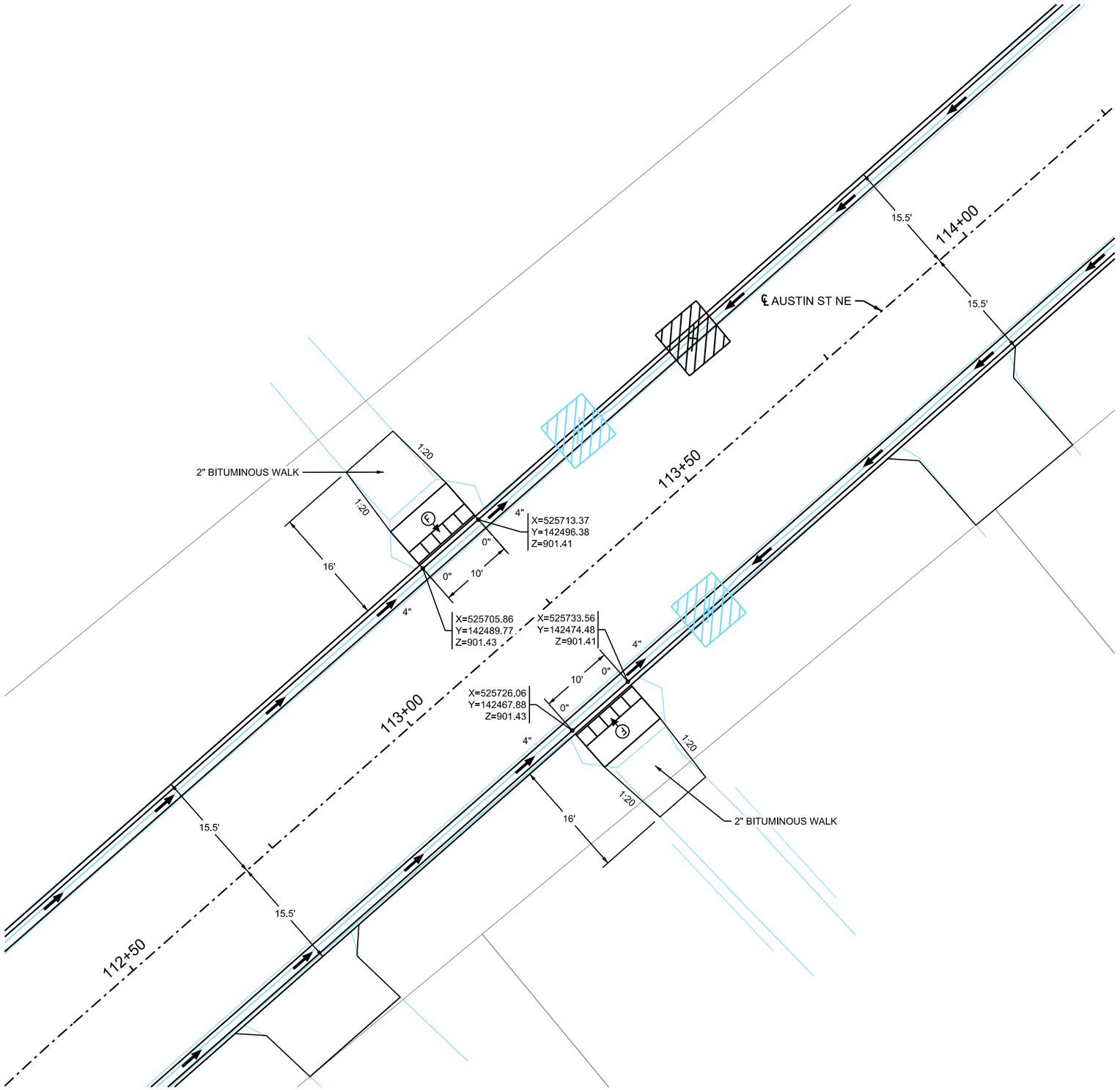
AUSTIN STREET NE CENTENNIAL GREEN PARK



LOCATION MAP

LEGEND

X"	CURB HEIGHT
HP/LP	HIGH POINT / LOW POINT
XXXX	END RADIUS POINT AT TOE OF GUTTER
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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

CITY PROJECT 23-08

SHEET **147** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:40 AM

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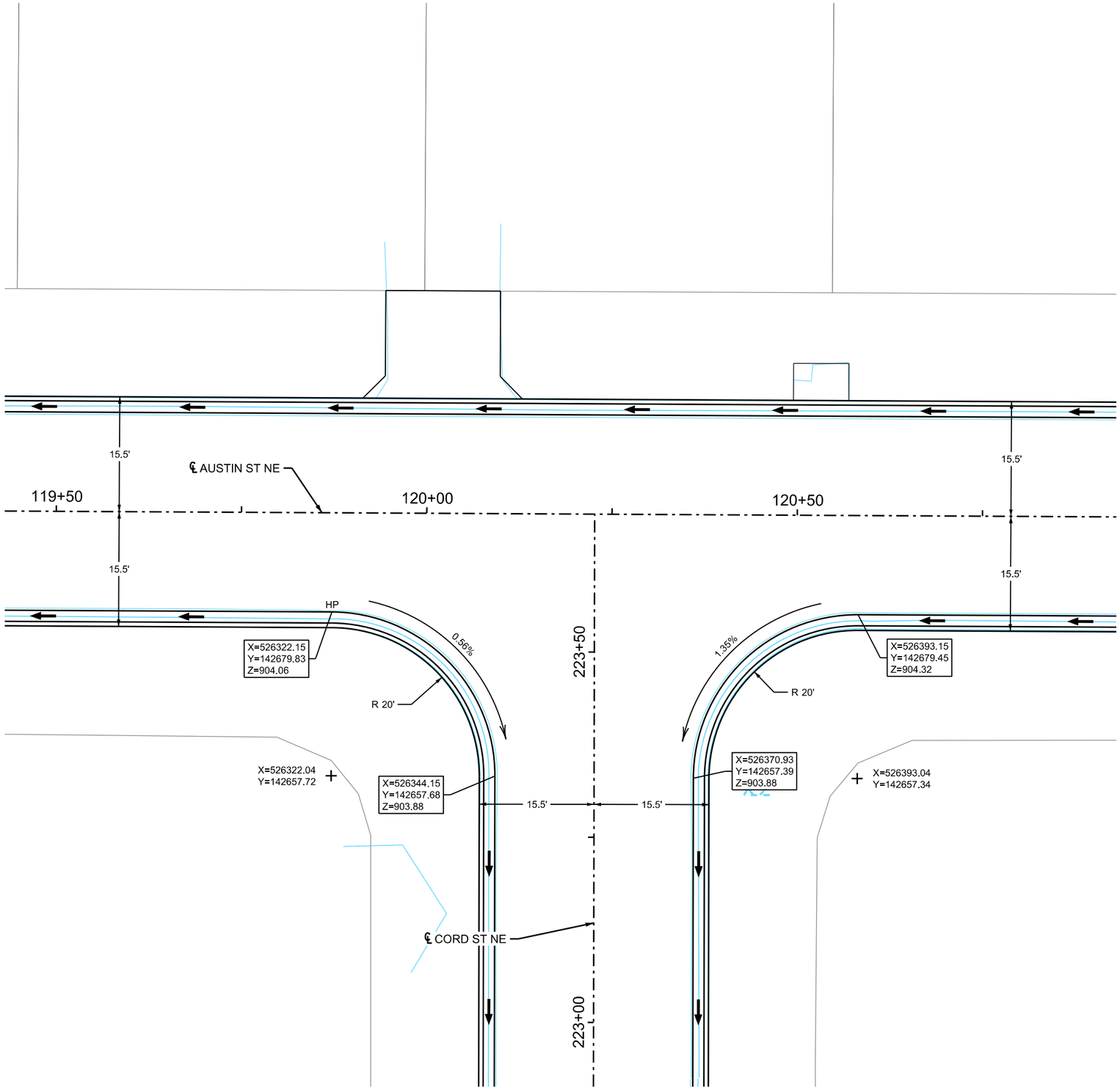
AUSTIN STREET NE AT CORD STREET NE



LOCATION MAP

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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

CITY PROJECT 23-08

SHEET **148** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:41 AM

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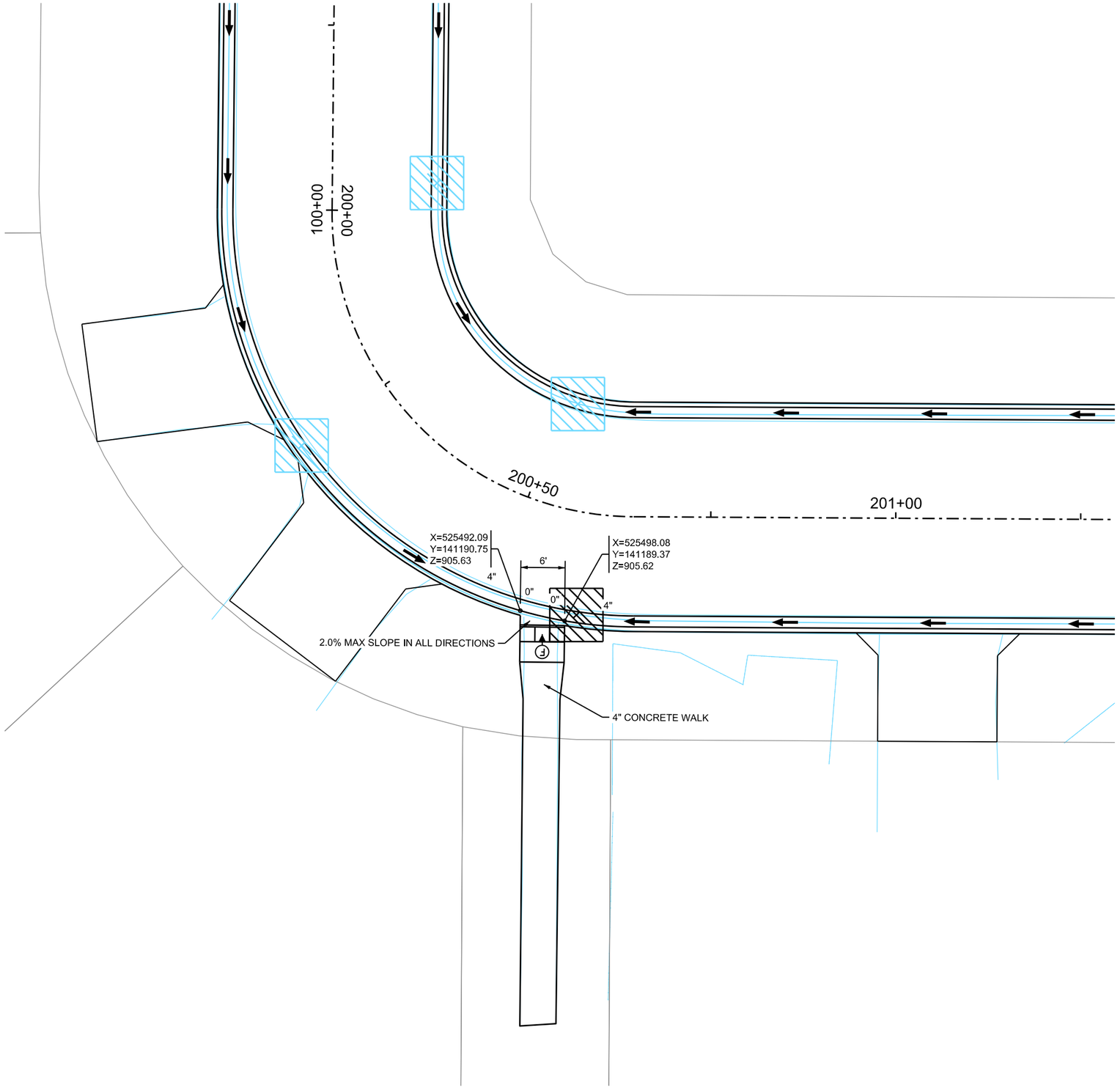
CORD STREET NE AT AUSTIN STREET NE



LOCATION MAP

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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

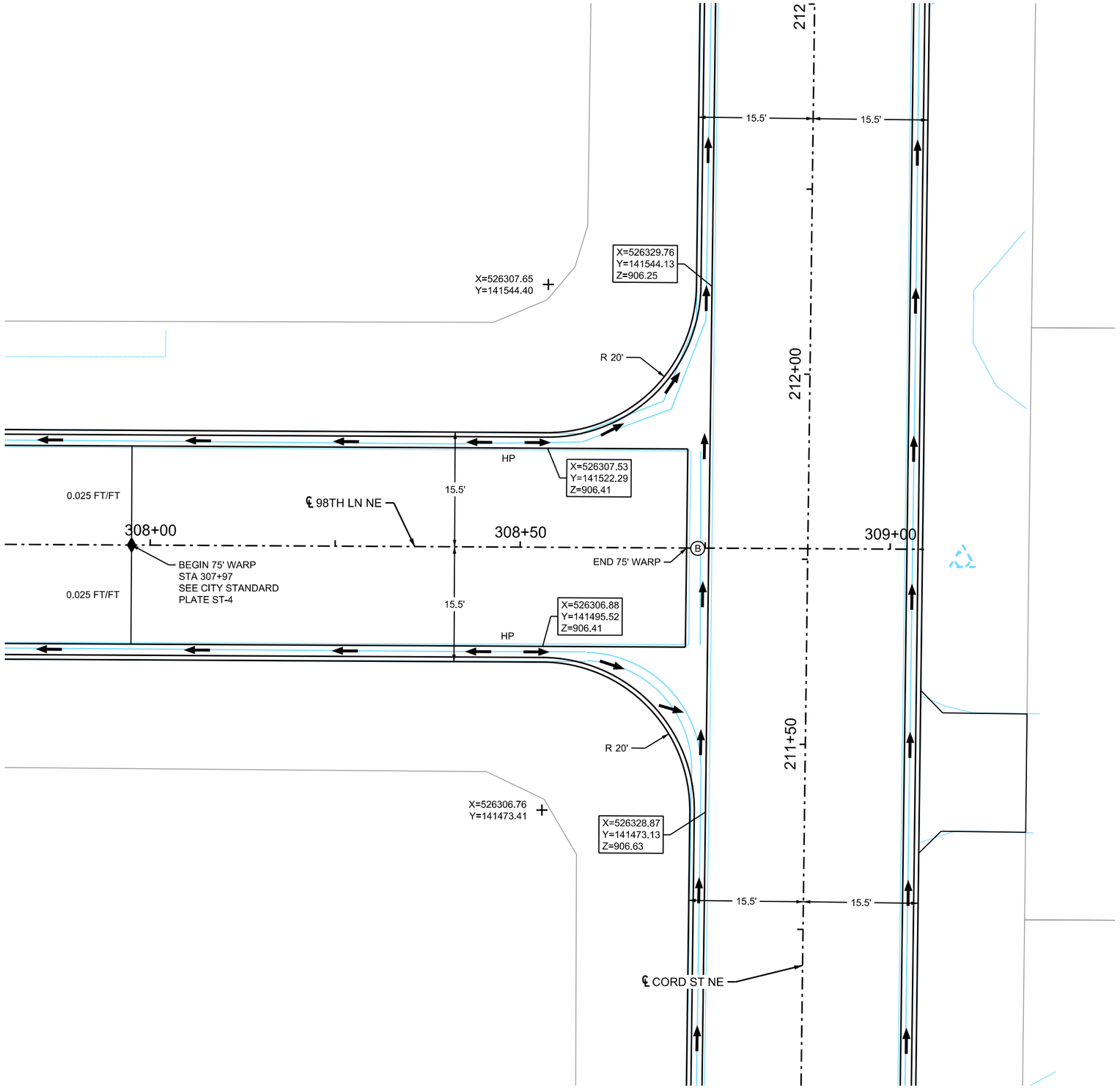
CITY PROJECT 23-08

SHEET **149** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:42 AM

PATH & FILENAME: K:\022066-000\Cadl\Plan\22066-000-C-INTS-DETL-06.dgn

CORD STREET NE AT 98TH LANE NE



LOCATION MAP

LEGEND

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HP/LP	HIGH POINT / LOW POINT
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DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

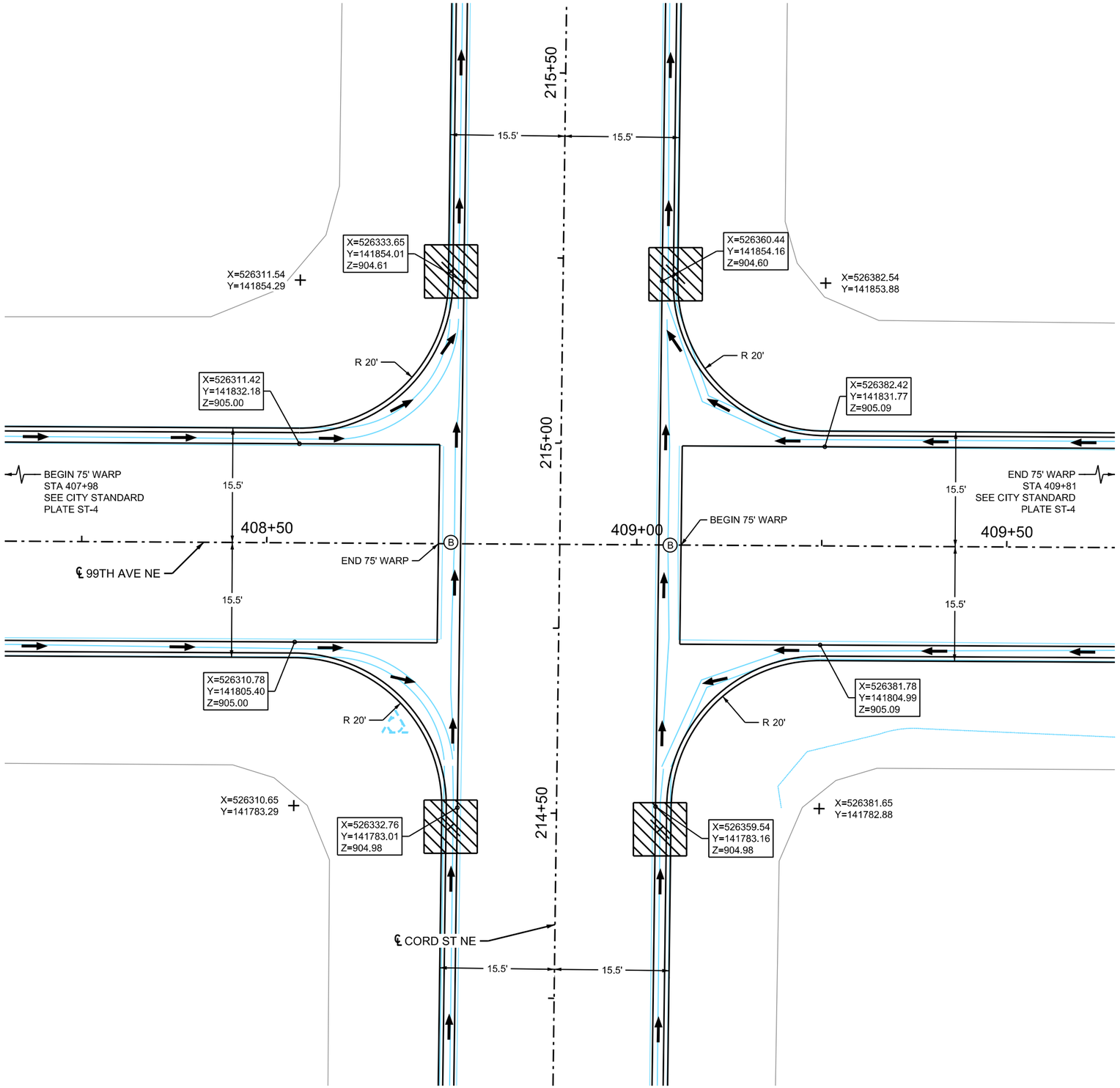
CITY PROJECT 23-08

SHEET **150** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:42 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-INTS-DETL-07.dgn

CORD STREET NE AT 99TH AVENUE NE



LOCATION MAP

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X"	CURB HEIGHT
HP/LP	HIGH POINT / LOW POINT
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NICHOLAS E. HENTGES, PE — LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

CITY PROJECT 23-08

SHEET **151** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:43 AM

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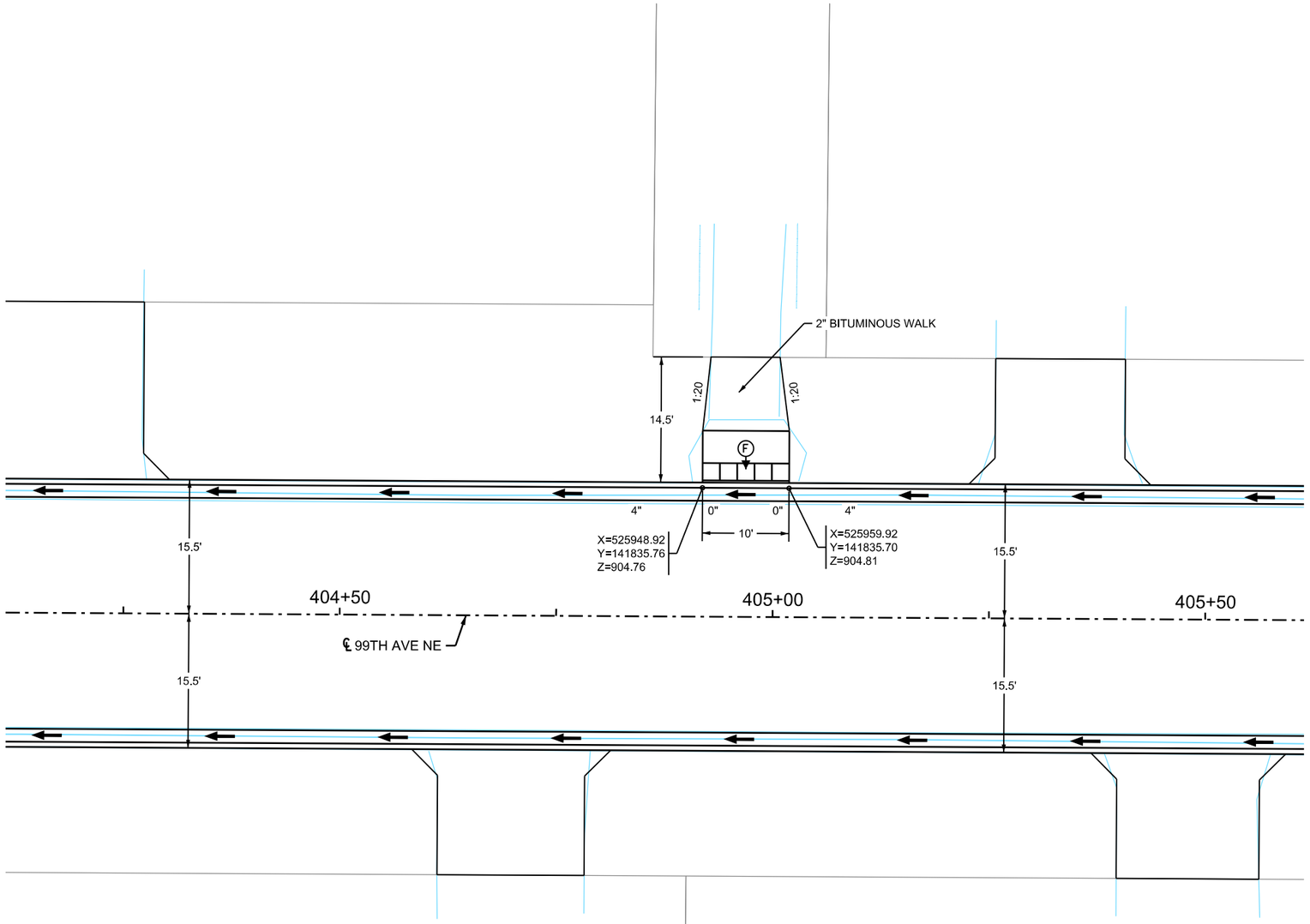
99TH AVENUE NE AT CENTENNIAL GREEN PARK



LOCATION MAP

LEGEND

X"	CURB HEIGHT
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SCALE IN FEET

wsb

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

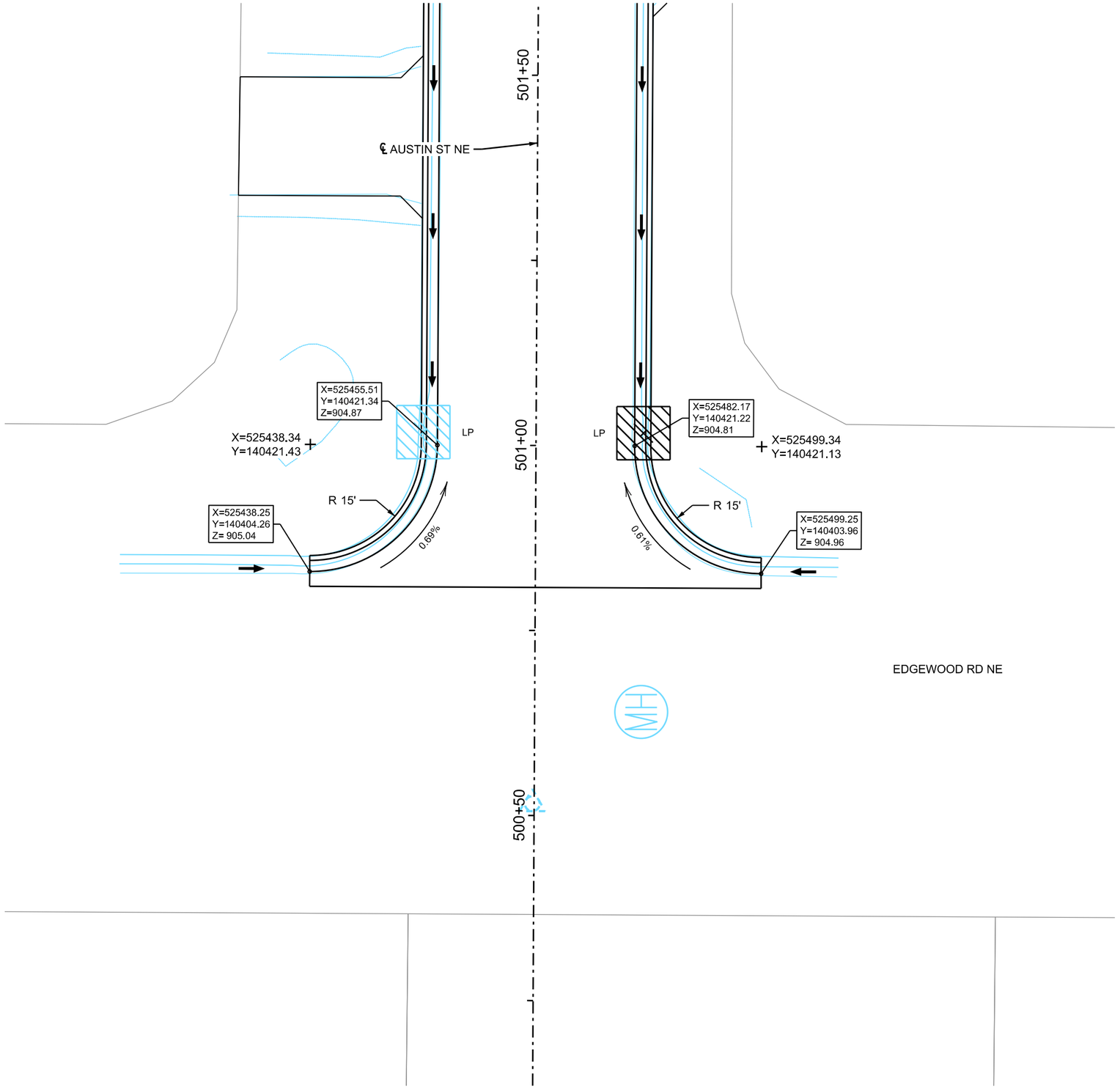
CITY PROJECT 23-08

SHEET **152** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:43 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-INTS-DETL-09.dgn

AUSTIN STREET NE AT EDGEWOOD STREET NE



LOCATION MAP

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	LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS

N

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SCALE IN FEET

wsb

WSB PROJECT NO.:
022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

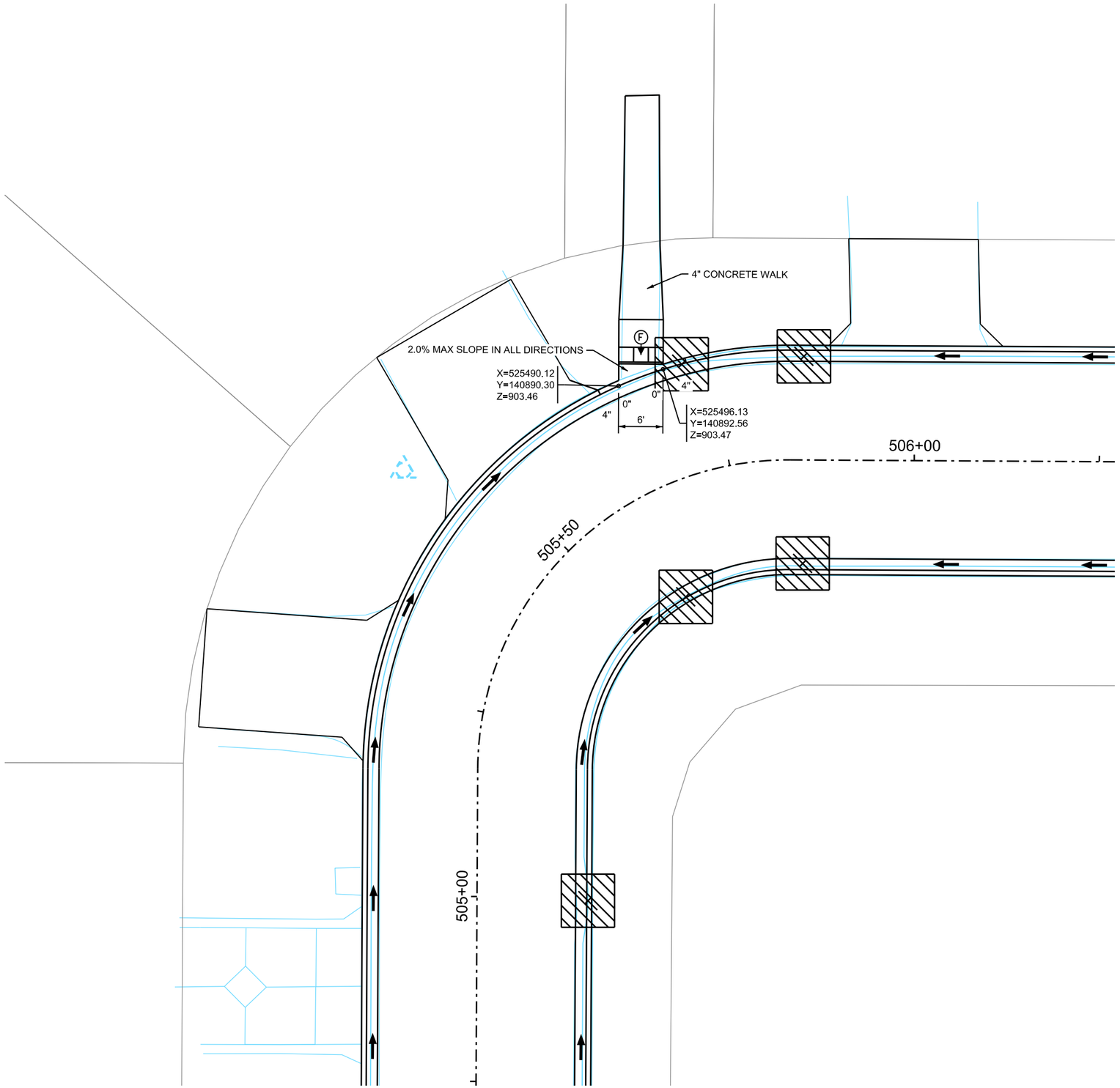
CITY PROJECT 23-08

SHEET **153** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:44 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-INTS-DETL-10.dgn

AUSTIN STREET NE AT 97TH LANE NE



LOCATION MAP

LEGEND

X"	CURB HEIGHT
HP/LP	HIGH POINT / LOW POINT
XXXX	END RADIUS POINT AT TOE OF GUTTER
XXXX	FLOW LINE POINT AT PEDESTRIAN RAMP
	TRUNCATED DOMES, SEE STANDARD PLATE 7038
	CONSTRUCT CONCRETE CURB & GUTTER SEE CONSTRUCTION PLANS AND TYPICAL SECTIONS
(F)	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%
	DRAINAGE FLOW ARROW
X.XX%	CURB LINE FLOW DIRECTION AND GRADE
	CATCH BASIN
MH	MANHOLE
	LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

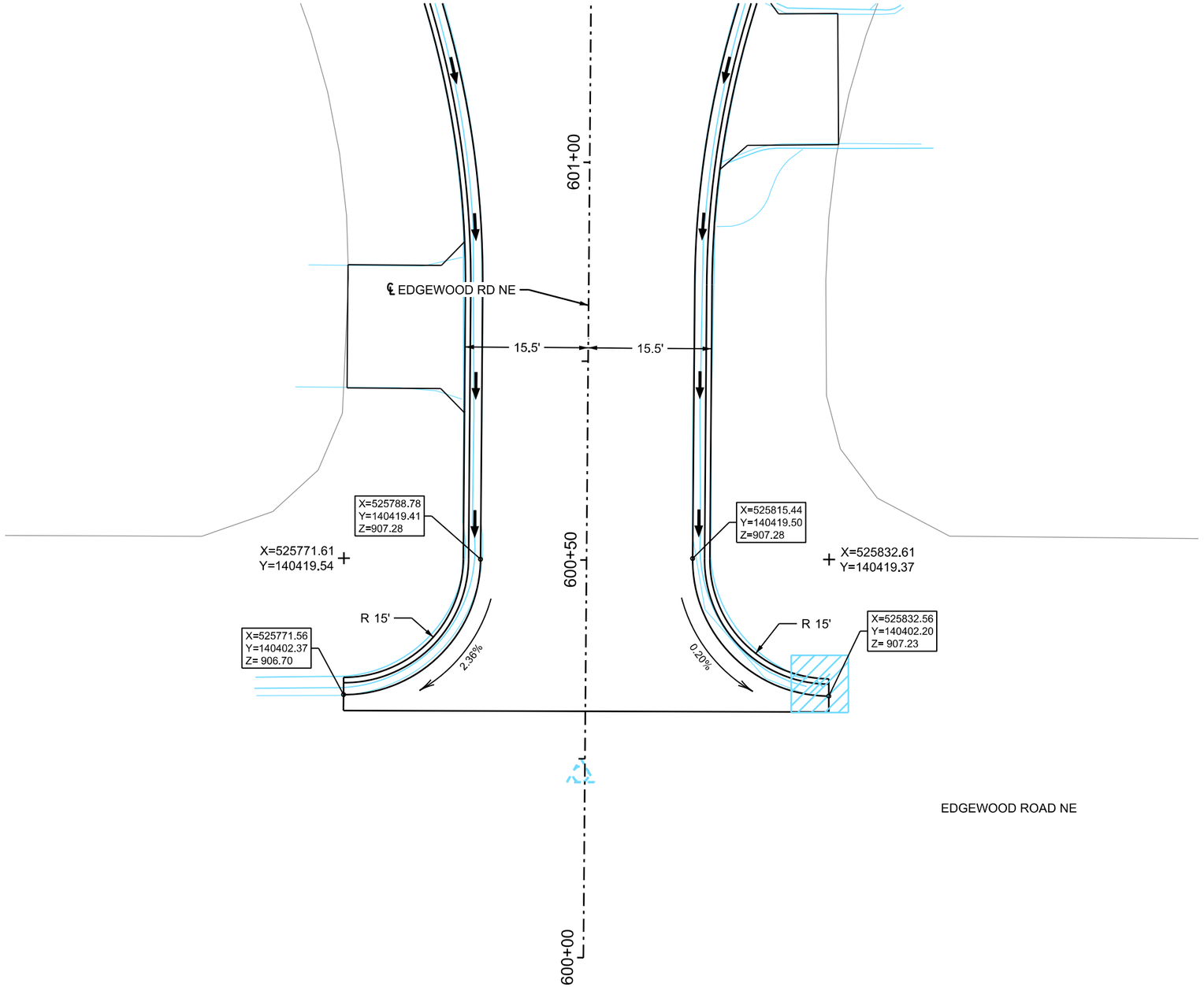
CITY PROJECT 23-08

SHEET **154** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:45 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-INTS-DETL-11.dgn

EDGEWOOD ROAD NE (4023-4083) AT EDGEWOOD ROAD NE



LOCATION MAP

LEGEND

X"	CURB HEIGHT
HP/LP	HIGH POINT / LOW POINT
XXXX	END RADIUS POINT AT TOE OF GUTTER
XXXX	FLOW LINE POINT AT PEDESTRIAN RAMP
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	DRAINAGE FLOW ARROW
X.XX%	CURB LINE FLOW DIRECTION AND GRADE
	CATCH BASIN
MH	MANHOLE
	LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS

N

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SCALE IN FEET

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WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

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NICHOLAS E. HENTGES, PE
DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

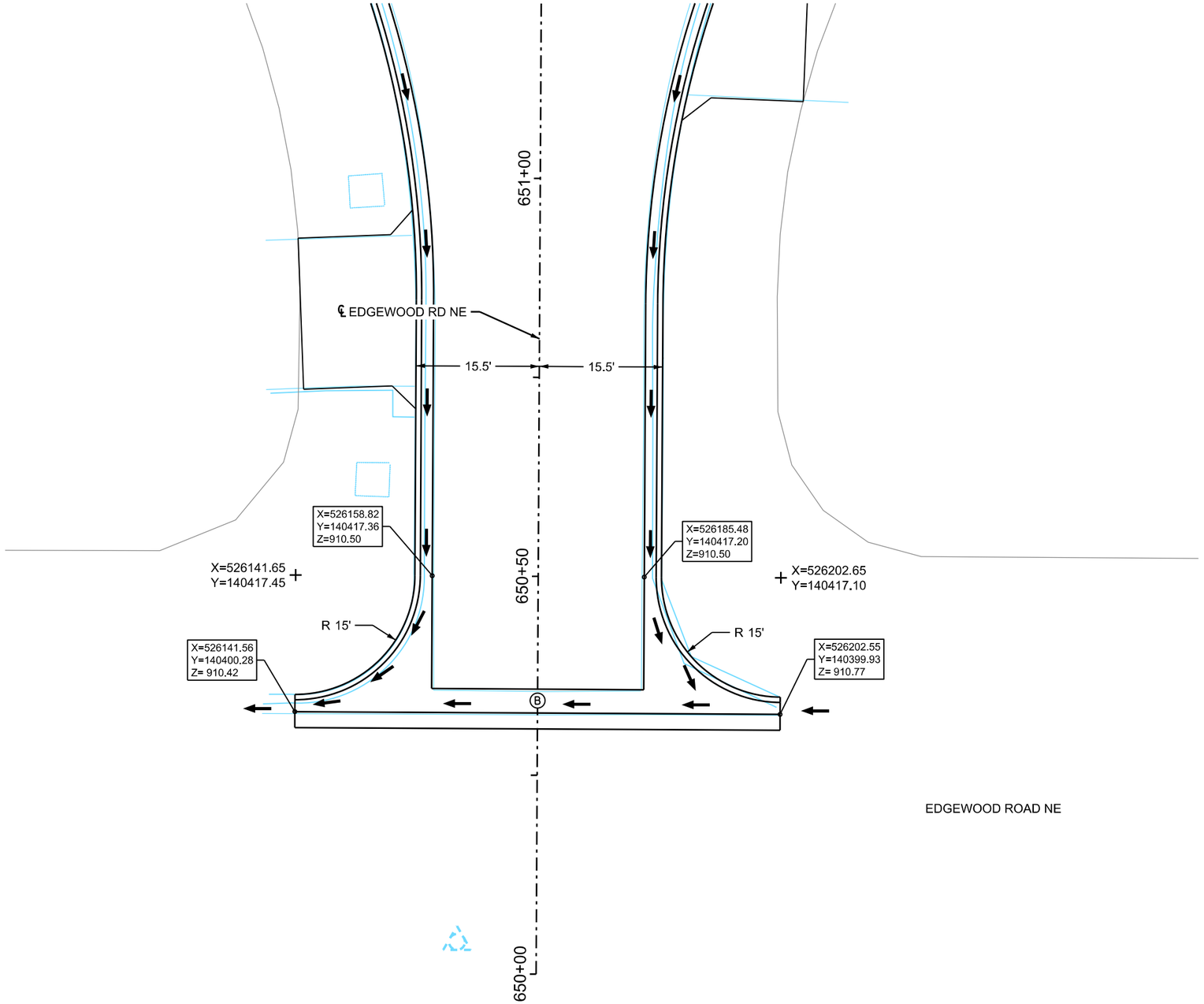
CITY PROJECT 23-08

SHEET **155** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:45 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-INTS-DETL-12.dgn

EDGEWOOD ROAD NE (4103-4163) AT EDGEWOOD ROAD NE



LOCATION MAP

LEGEND

X"	CURB HEIGHT
HP/LP	HIGH POINT / LOW POINT
XXXX	END RADIUS POINT AT TOE OF GUTTER
XXXX	FLOW LINE POINT AT PEDESTRIAN RAMP
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X.XX%	CURB LINE FLOW DIRECTION AND GRADE
	CATCH BASIN
MH	MANHOLE
	LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS

N

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PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

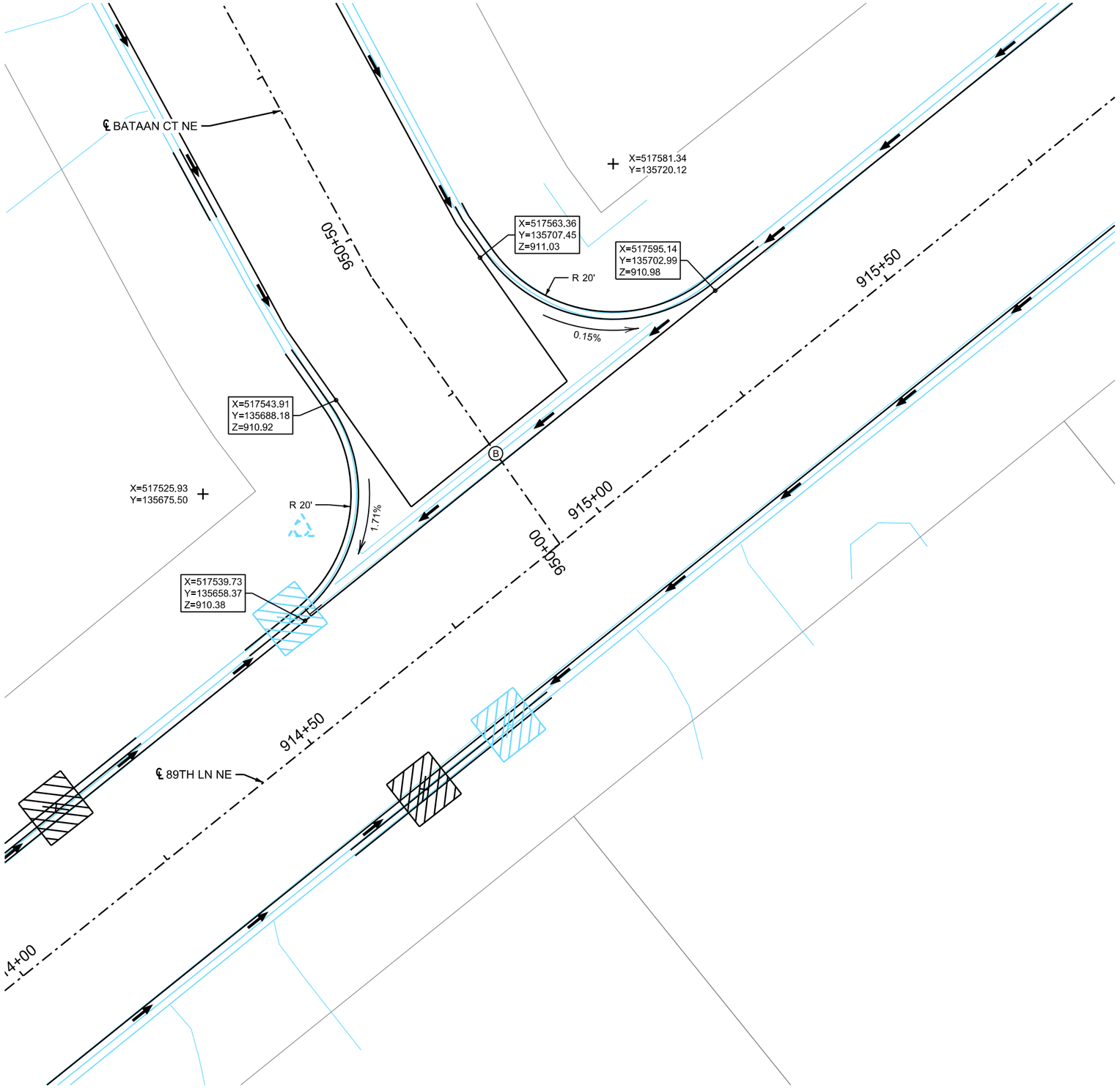
CITY PROJECT 23-08

SHEET **156** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:46 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-INTS-DETL-13.dgn

89TH LANE NE AT BATAAN COURT NE



LOCATION MAP

LEGEND

X"	CURB HEIGHT
HP/LP	HIGH POINT / LOW POINT
XXXX	END RADIUS POINT AT TOE OF GUTTER
XXXX	FLOW LINE POINT AT PEDESTRIAN RAMP
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	CATCH BASIN
MH	MANHOLE
	LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS

N

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WSB PROJECT NO.: 022066-000

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AJF	NEH

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NICHOLAS E. HEINTGES. PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

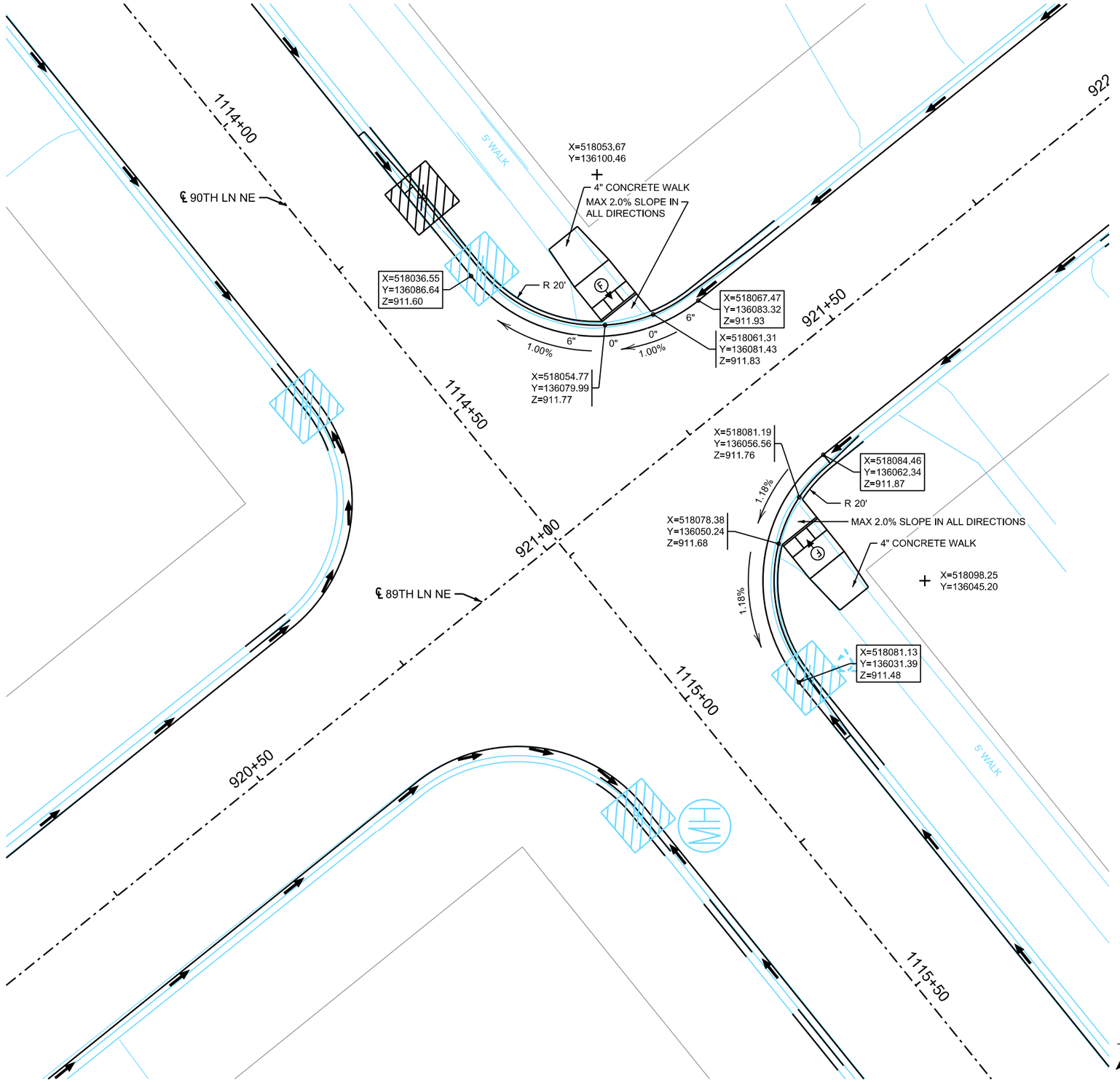
CITY PROJECT 23-08

SHEET **157** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:46 AM

PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-INTS-DETL-14.dgn

89TH LANE NE AT 90TH LANE NE



LOCATION MAP

LEGEND

X"	CURB HEIGHT
HP/LP	HIGH POINT / LOW POINT
XXXX	END RADIUS POINT AT TOE OF GUTTER
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AJF	NEH

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

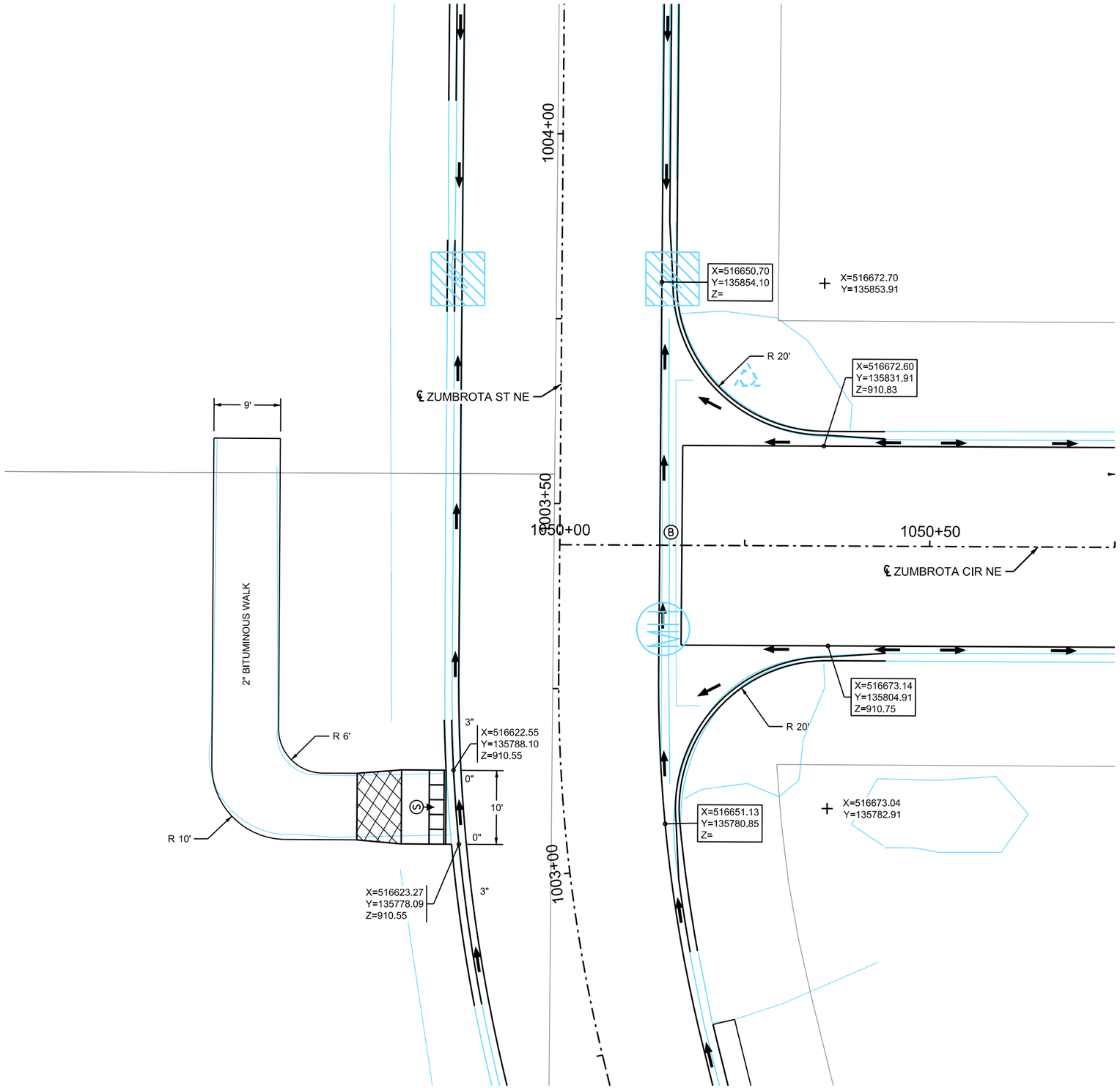
CITY PROJECT 23-08

SHEET **158** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:47 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-INTS-DETL-15.dgn

ZUMBROTA STREET NE AT ZUMBROTA CIRCLE NE



LOCATION MAP

LEGEND

X"	CURB HEIGHT
HP/LP	HIGH POINT / LOW POINT
XXXX	END RADIUS POINT AT TOE OF GUTTER
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MH	MANHOLE
	LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS

wsb

WSB PROJECT NO.: 022066-000

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PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

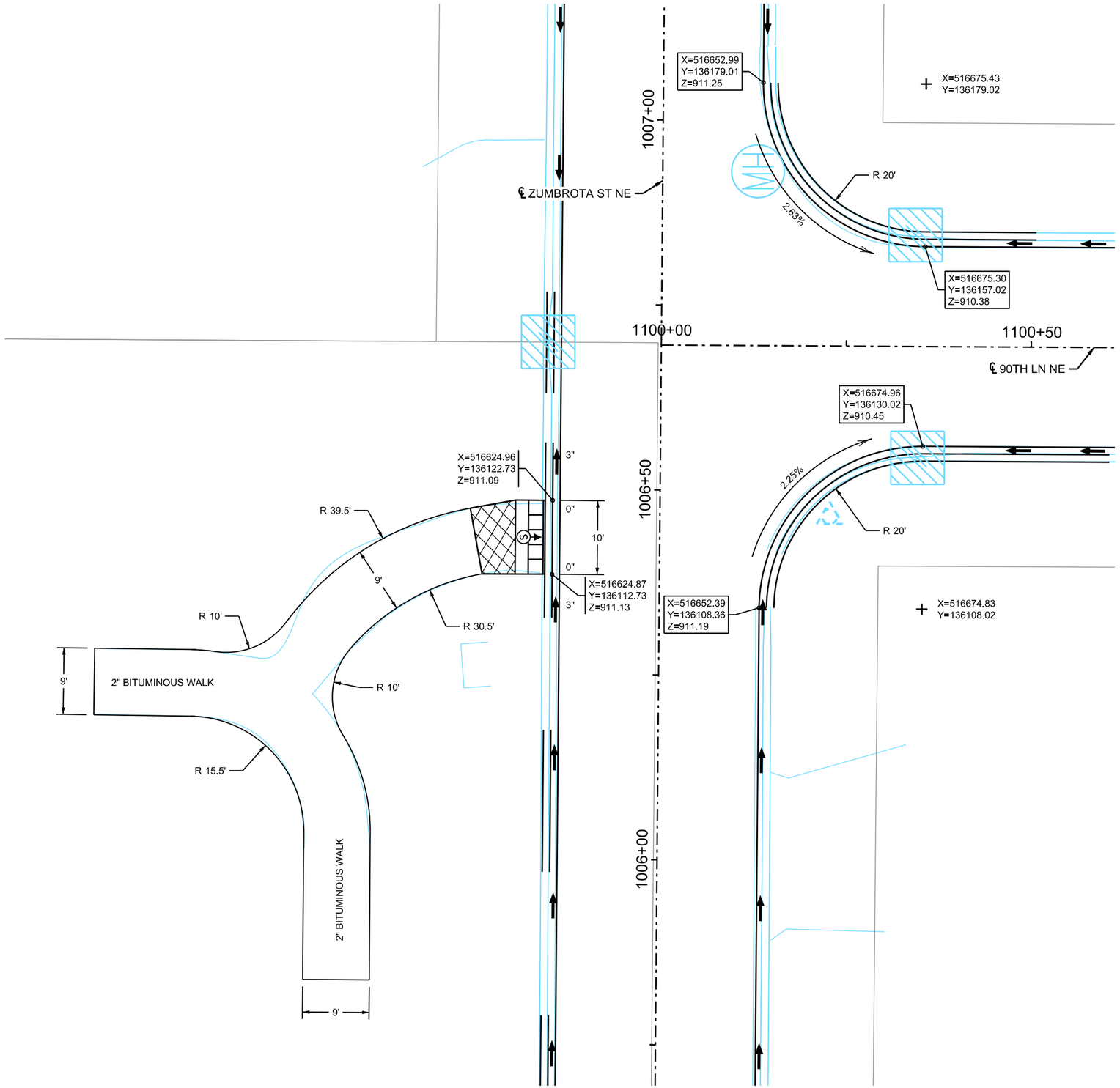
CITY PROJECT 23-08

SHEET **159** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:48 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-INTS-DETL-16.dgn

ZUMBROTA STREET NE AT 90TH LANE NE



LOCATION MAP

LEGEND

X"	CURB HEIGHT
HP/LP	HIGH POINT / LOW POINT
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MH	MANHOLE
	LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS

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AJF	NEH

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

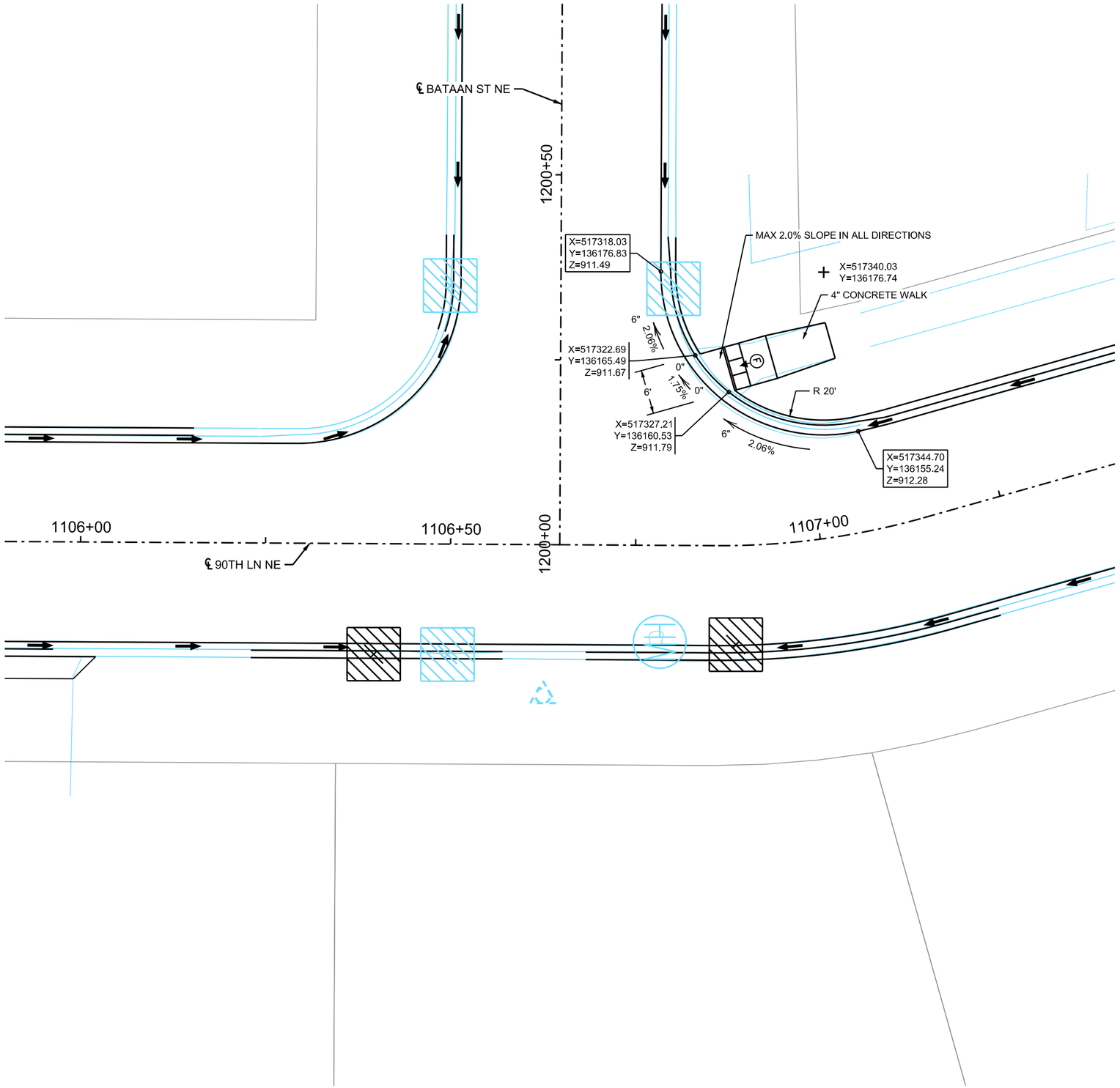
CITY PROJECT 23-08

SHEET **160** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:48 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-INTS-DETL-17.dgn

90TH LANE NE AT BATAAN STREET



LOCATION MAP

LEGEND

X"	CURB HEIGHT
HP/LP	HIGH POINT / LOW POINT
XXXX	END RADIUS POINT AT TOE OF GUTTER
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MH	MANHOLE
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SCALE IN FEET

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AJF	NEH

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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

INTERSECTION DETAILS

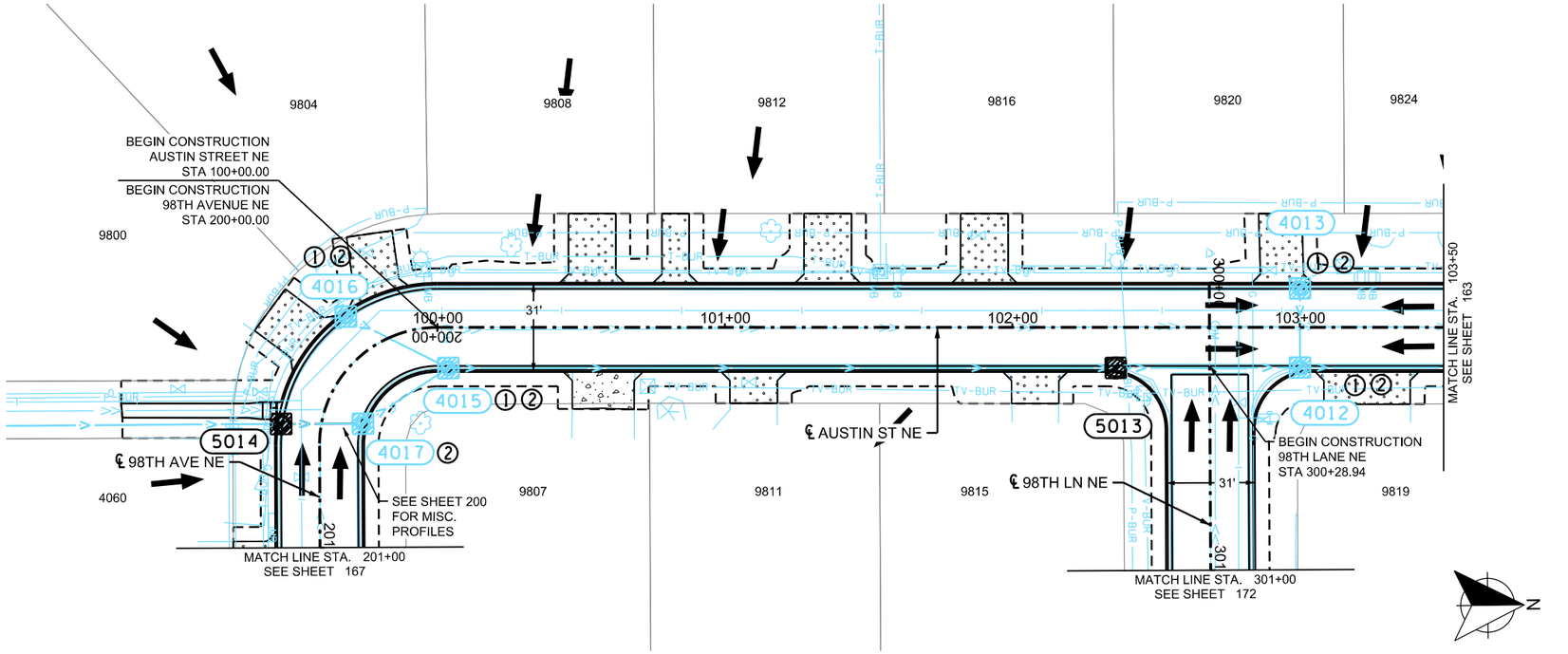
CITY PROJECT 23-08

SHEET **161** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:49 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-INTS-DETL-18.dgn

AUSTIN STREET NE



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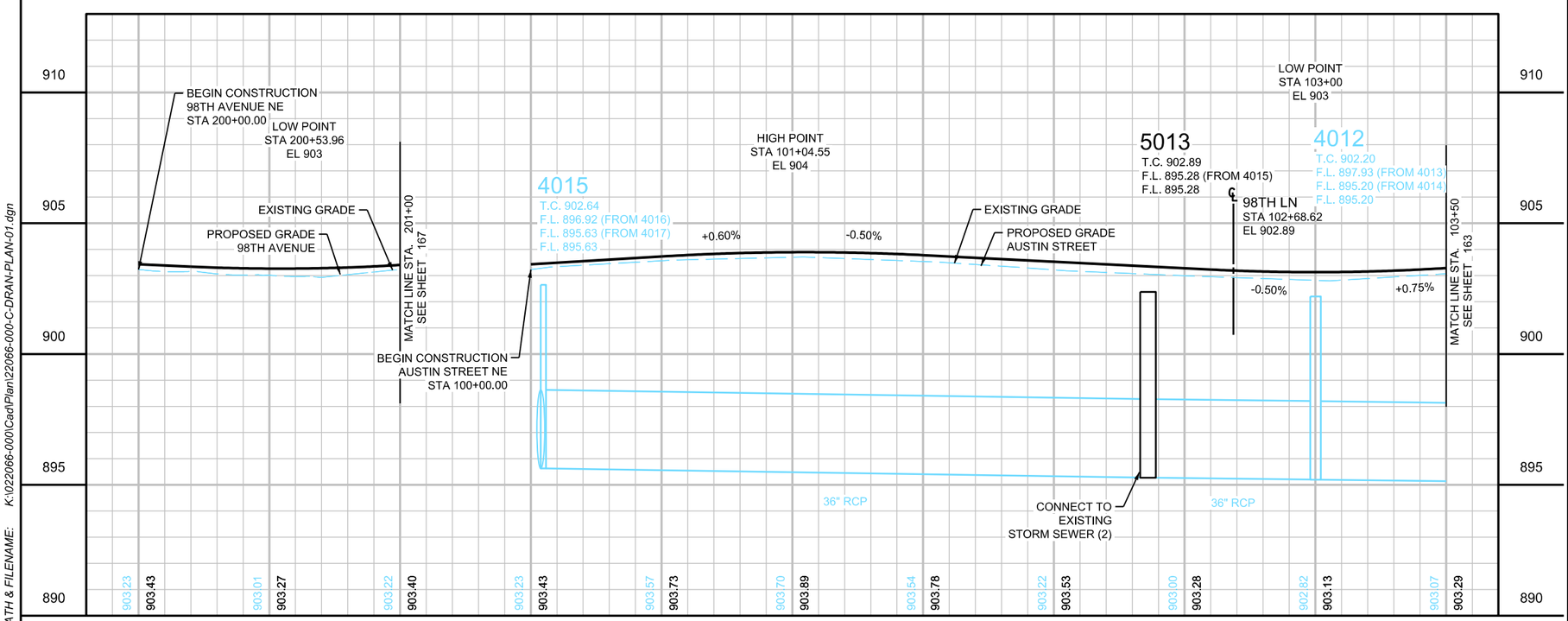
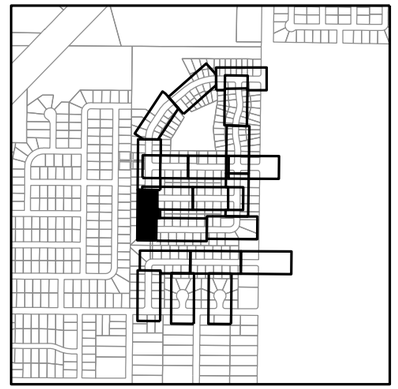
SCALE IN FEET



LOCATION MAP



LEGEND

- 5XXX — PROPOSED STRUCTURE NUMBER
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- PROPOSED DROP INLET
- PROPOSED APRON
- 4XXX — INPLACE STRUCTURE NUMBER
- INPLACE CATCH BASIN
- INPLACE MANHOLE
- INPLACE DROP INLET
- INPLACE APRON
- SURFACE FLOW DIRECTION
- ① REPLACE TOP SLAB WITH 4022 TOP SLAB
- ② REPLACE GROUT IN STRUCTURE
- ③ FIELD VERIFY EXISTENCE OF SUMP OR YARD DRAINTILE TO STREET THROUGH CURB PER THE MISC. DETAIL OR CONNECT TO STORM SEWER IF STORM SEWER IS LOCATED IN FRONT OF PROPERTY. PAID UNDER LANDSCAPE ALLOWANCE
- PROPOSED STORM SEWER PIPE
- INPLACE STORM SEWER PIPE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY
- T-BUR — BURIED FIBER OPTIC LINE
- P-BUR — BURIED POWER LINE
- SIG-BUR — BURIED SIGNAL LINE
- T-BUR — BURIED TELEPHONE LINE
- TV-BUR — BURIED TELEVISION LINE
- OHP — OVERHEAD POWER LINE
- OHU — OVERHEAD UTILITY LINE
- SANITARY SEWER
- G — UNDERGROUND GAS MAIN
- UTILITY IN CONDUIT
- W — WATER MAIN

wsb

WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN
DESIGN BY: KF
PLAN BY: GT
CHECK BY: WCA

REVISIONS

NO.	DESCRIPTION	DATE

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WILLIAM C. ALMS, PE
LIC. NO: 54301
DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **162** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:50 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-DRAN-PLAN-01.dgn

PLOTTED/REVISED: 3/9/2023 11:34:51 AM

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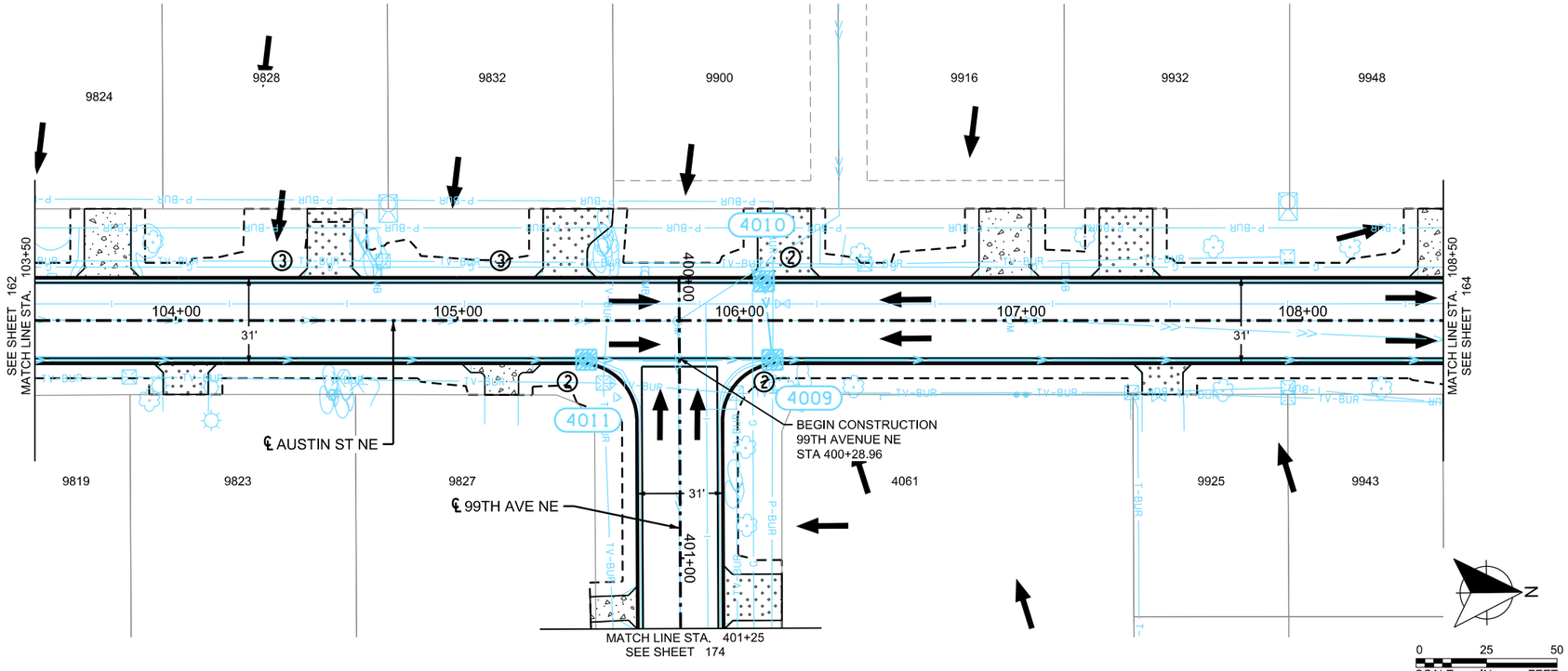
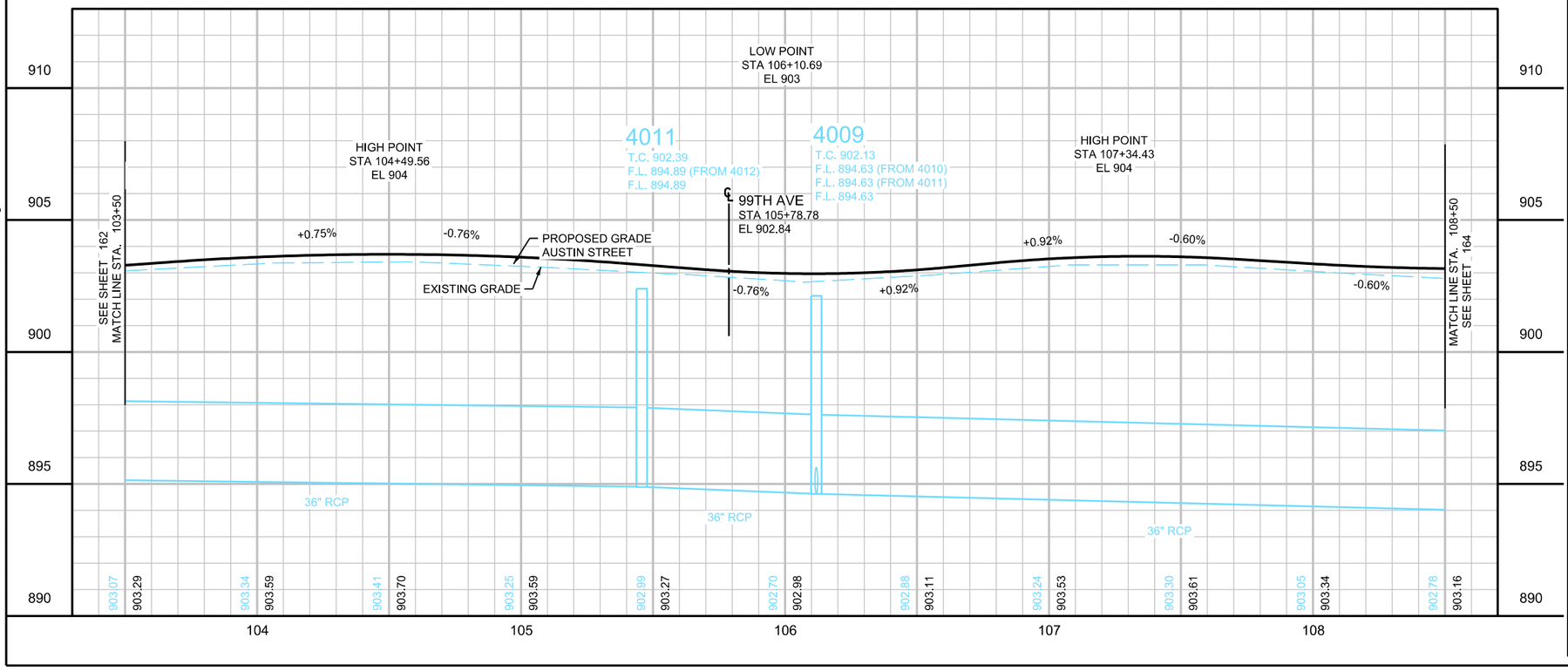
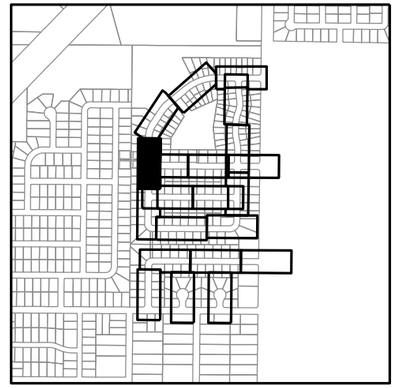
AUSTIN STREET NE





LOCATION MAP



LEGEND

- 5XXX — PROPOSED STRUCTURE NUMBER
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- PROPOSED DROP INLET
- PROPOSED APRON
- 4XXX — INPLACE STRUCTURE NUMBER
- INPLACE CATCH BASIN
- INPLACE MANHOLE
- INPLACE DROP INLET
- INPLACE APRON
- SURFACE FLOW DIRECTION
- ① REPLACE TOP SLAB WITH 4022 TOP SLAB
- ② REPLACE GROUT IN STRUCTURE
- ③ FIELD VERIFY EXISTENCE OF SUMP OR YARD DRAINTILE TO STREET THROUGH CURB PER THE MISC. DETAIL OR CONNECT TO STORM SEWER IF STORM SEWER IS LOCATED IN FRONT OF PROPERTY. PAID UNDER LANDSCAPE ALLOWANCE
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- SANITARY SEWER
- G — UNDERGROUND GAS MAIN
- UTILITY IN CONDUIT
- WATER MAIN

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	KF
PLAN BY:	CHECK BY:
GT	WCA

REVISIONS

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WILLIAM C. ALMS, PE

DATE: 4/22/2022 LIC. NO: 54301

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **163** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:52 AM

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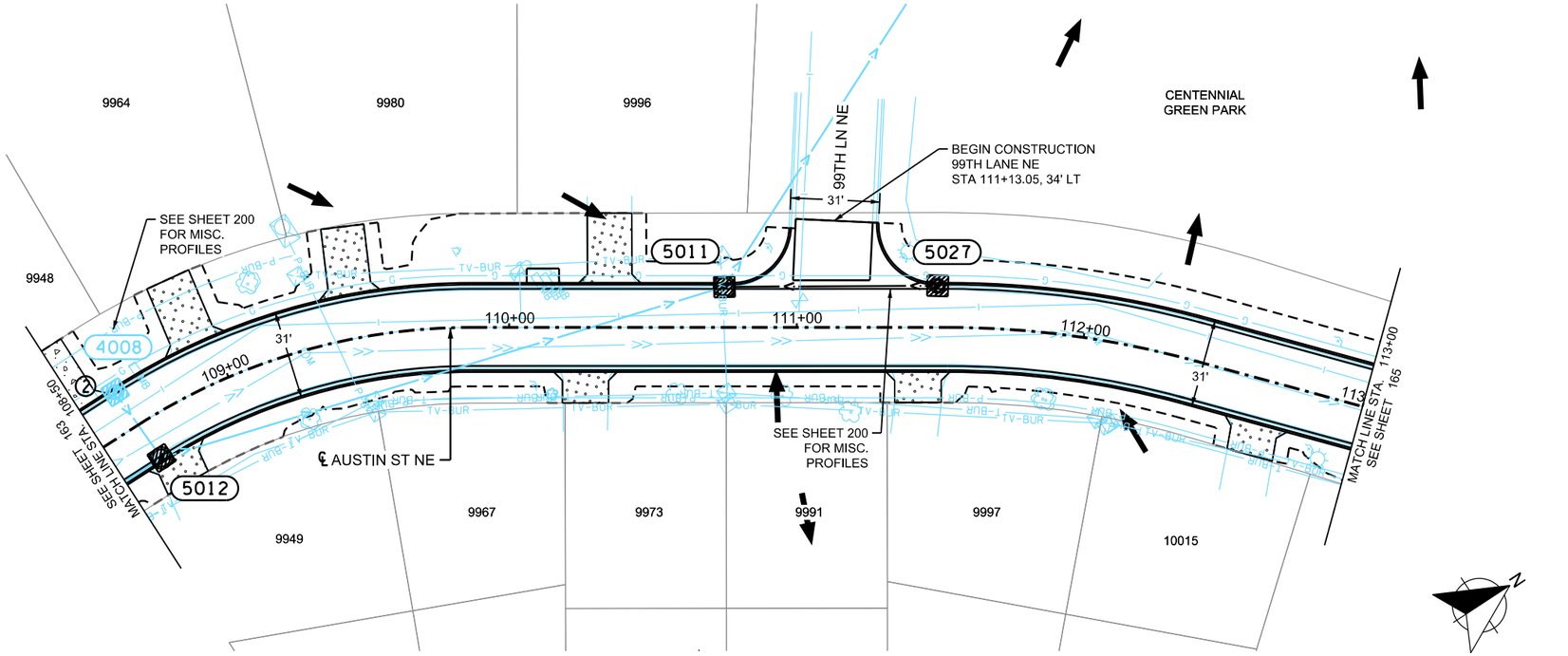
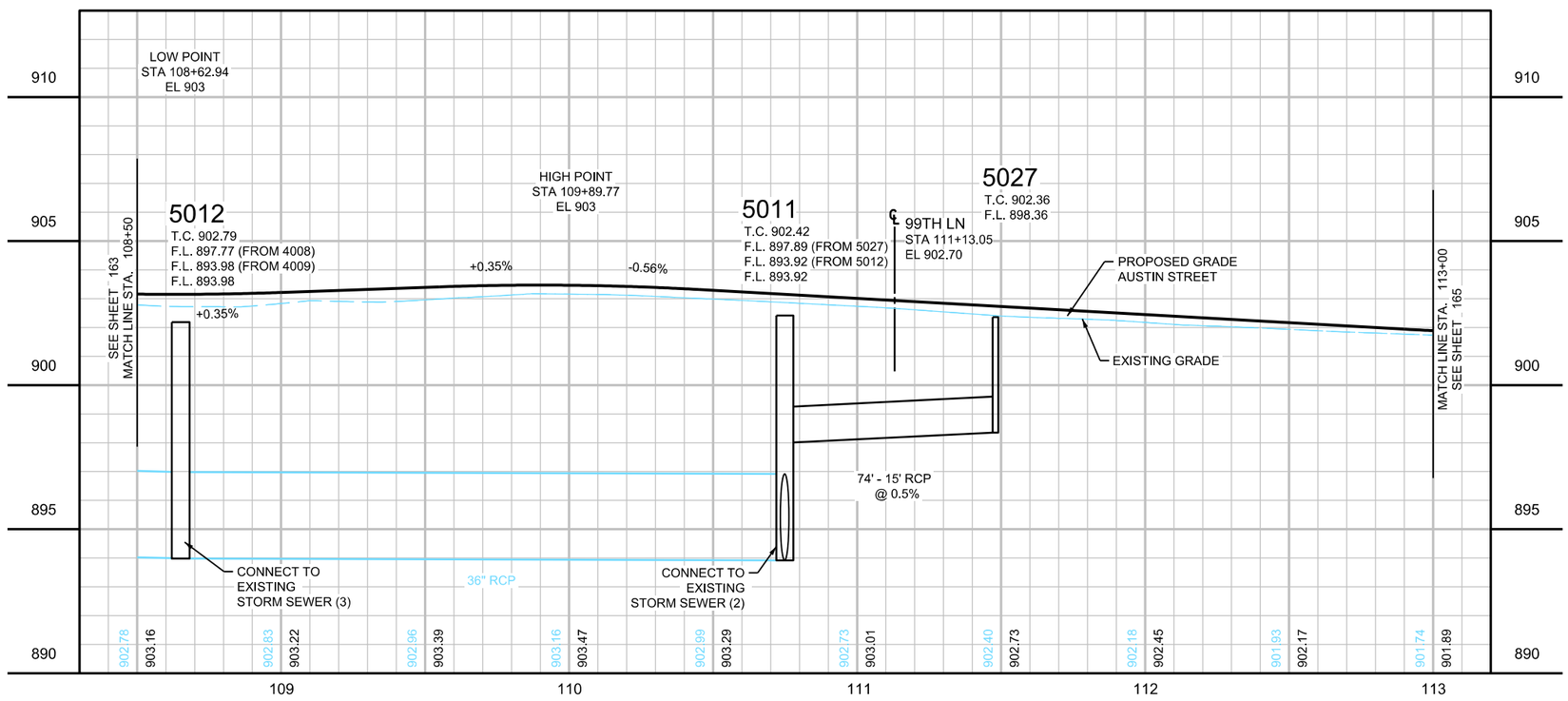
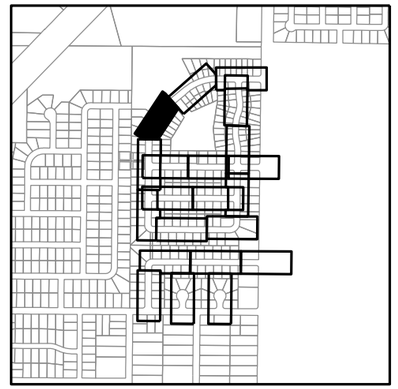
AUSTIN STREET NE





LOCATION MAP



LEGEND

- 5XXX — PROPOSED STRUCTURE NUMBER
- PROPOSED CATCH BASIN
- MH — PROPOSED MANHOLE
- PROPOSED DROP INLET
- PROPOSED APRON
- 4XXX — INPLACE STRUCTURE NUMBER
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- G — UNDERGROUND GAS MAIN
- UTILITY IN CONDUIT
- W — WATER MAIN

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AKF
PLAN BY:	CHECK BY:
AKF	WEA

REVISIONS

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NICHOLAS A. EICHMANN PE

DATE: 4/22/2022 LIC. NO: 44301

CITY OF BLAINE, MN

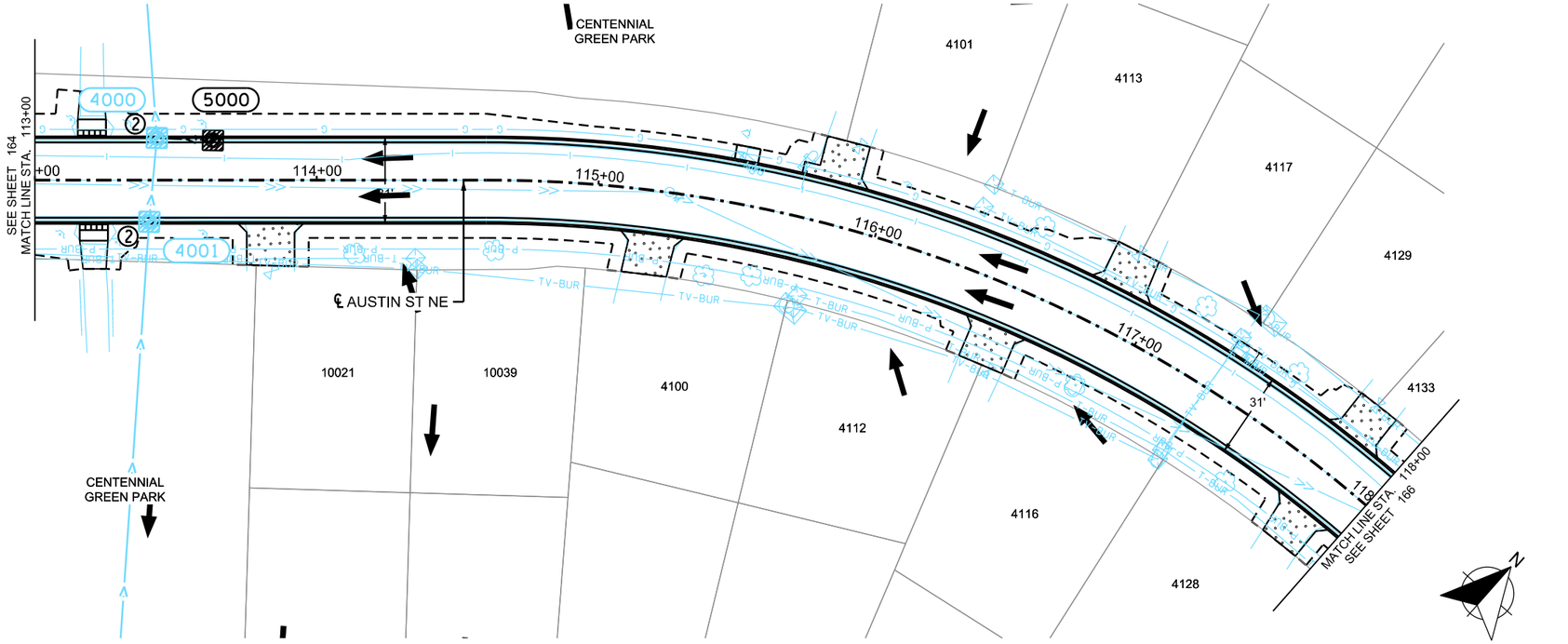
SOUTHEAST AREA RECONSTRUCTION

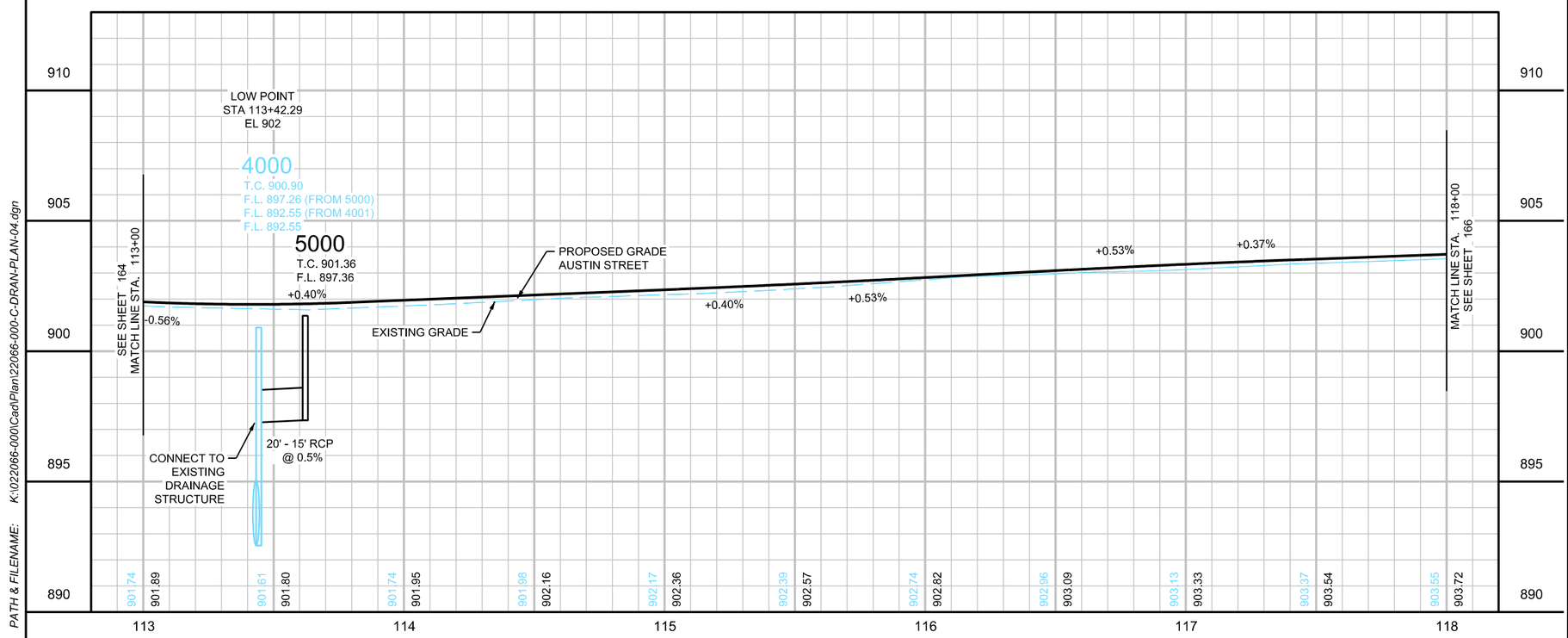
DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

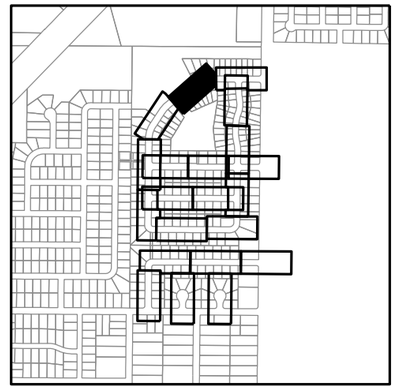
SHEET **164** OF **230** SHEETS

AUSTIN STREET NE





LOCATION MAP



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WSB PROJECT NO.: 022066-000

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PLAN BY:	CHECK BY:
GT	WCA

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WILLIAM C. ALMS, PE — LIC. NO: 54301

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **165** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:53 AM

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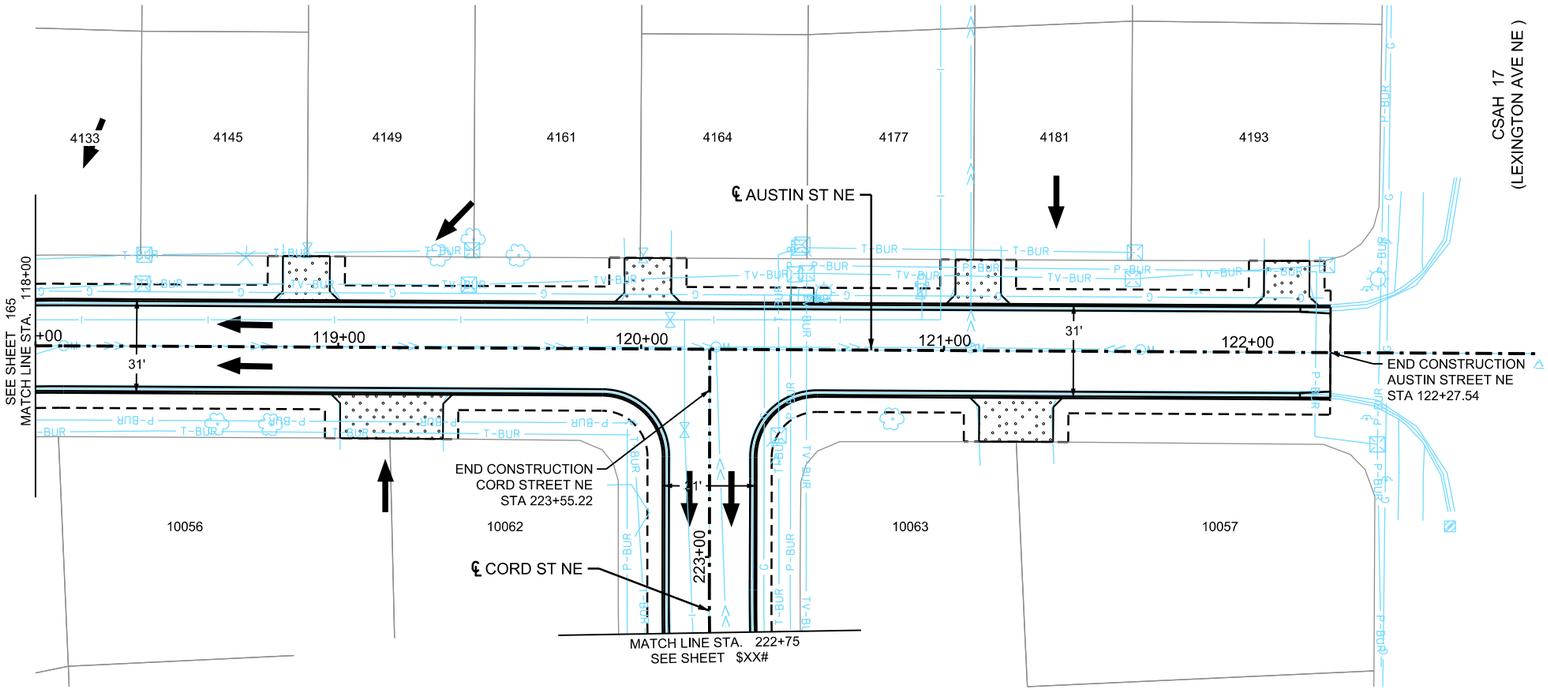
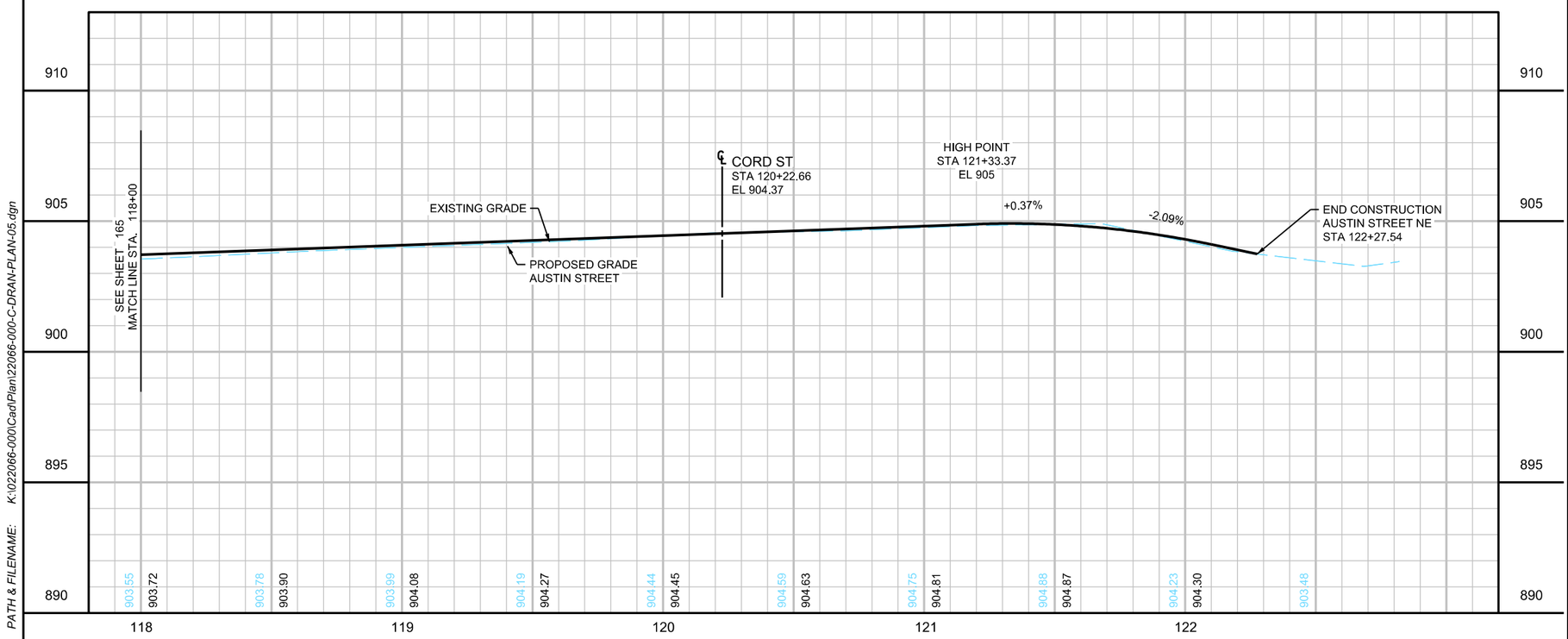
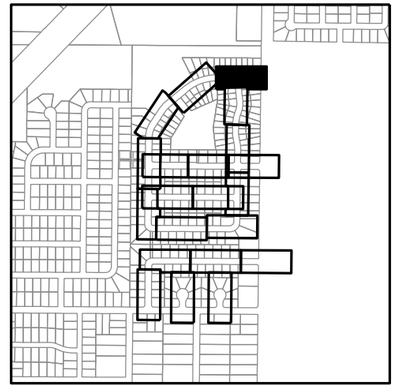
AUSTIN STREET NE





LOCATION MAP



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WSB PROJECT NO.: 022066-000

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WILLIAM C. ALMS, PE — LIC. NO: 54301

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **166** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:53 AM

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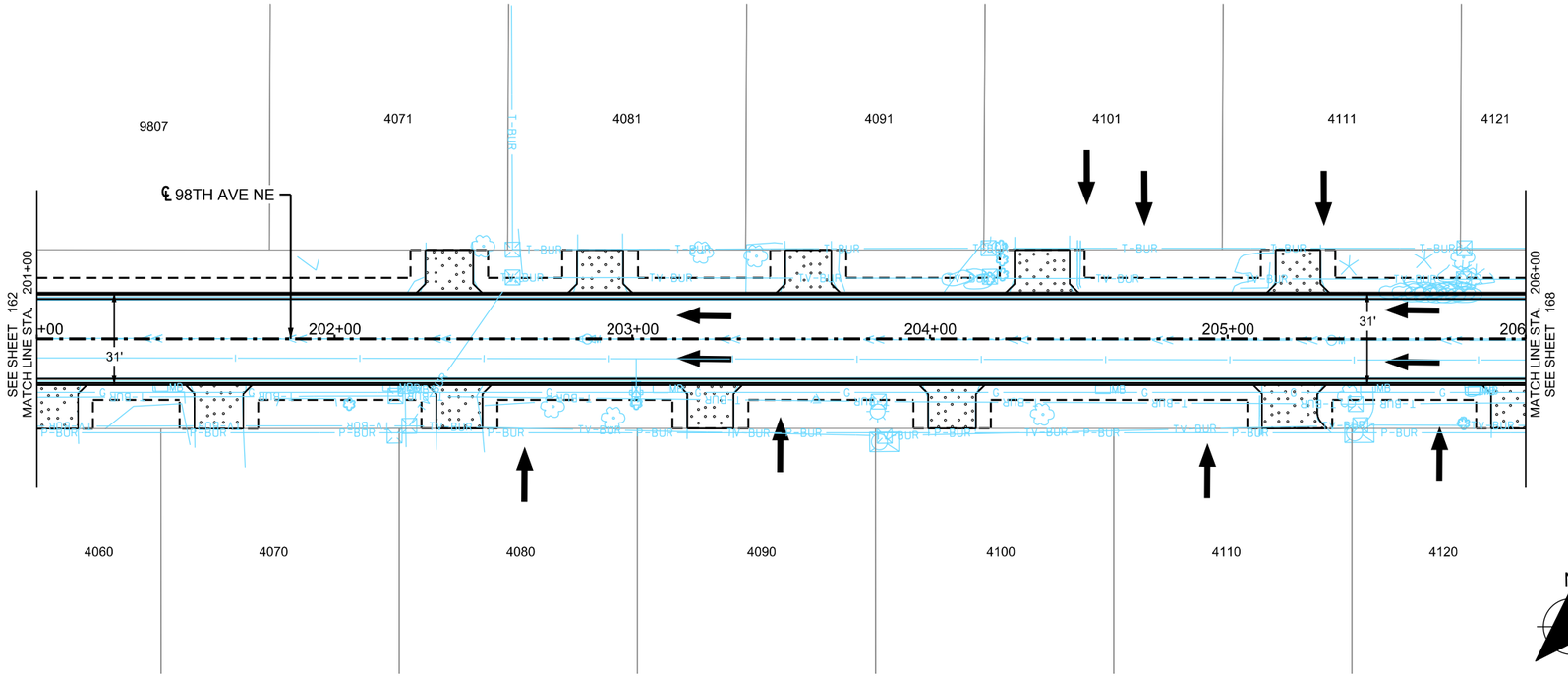
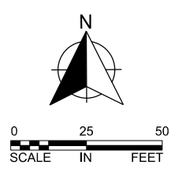
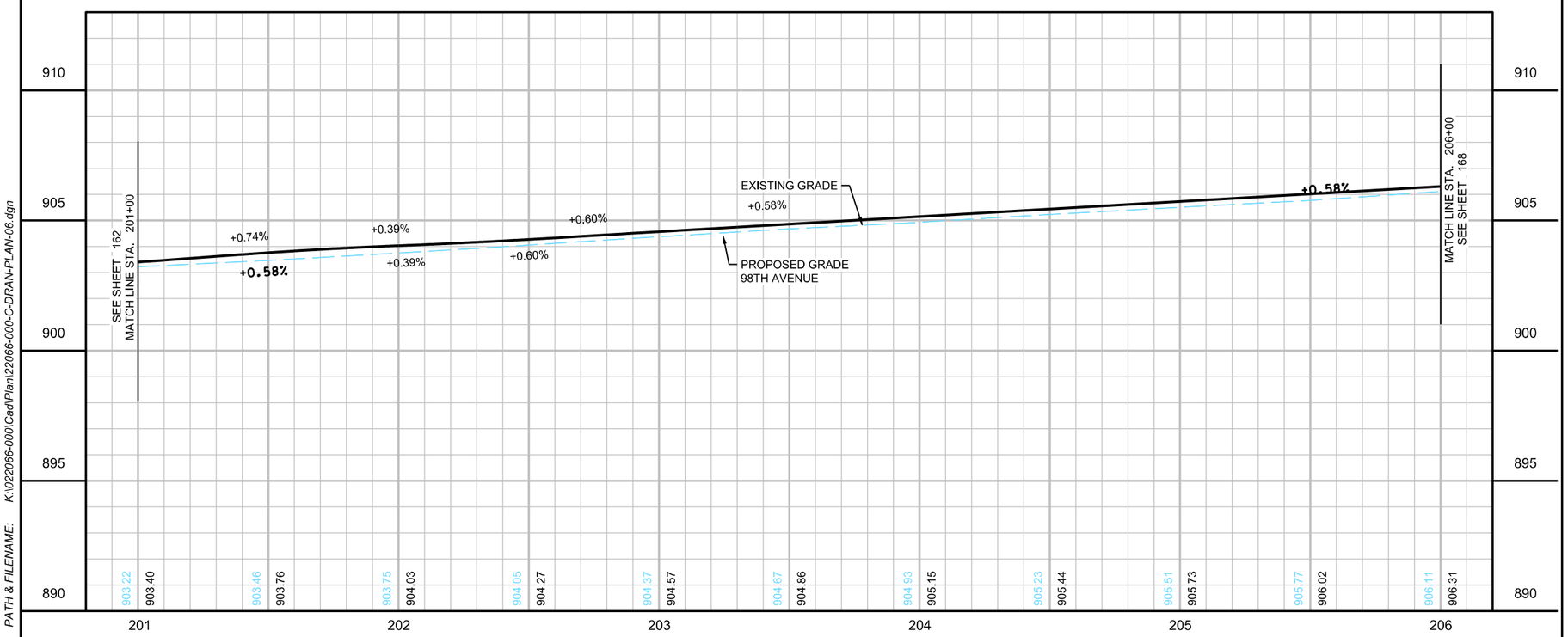
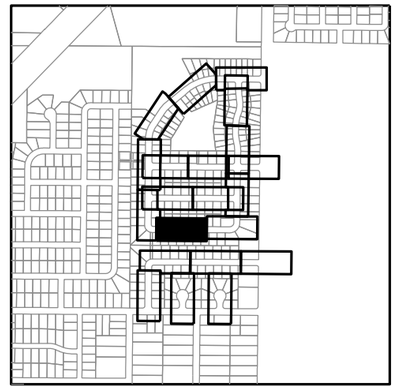
98TH AVENUE NE







LOCATION MAP



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WSB PROJECT NO.: 022066-000

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WILLIAM C. ALMS, PE — LIC. NO: 54301

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **167** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:55 AM

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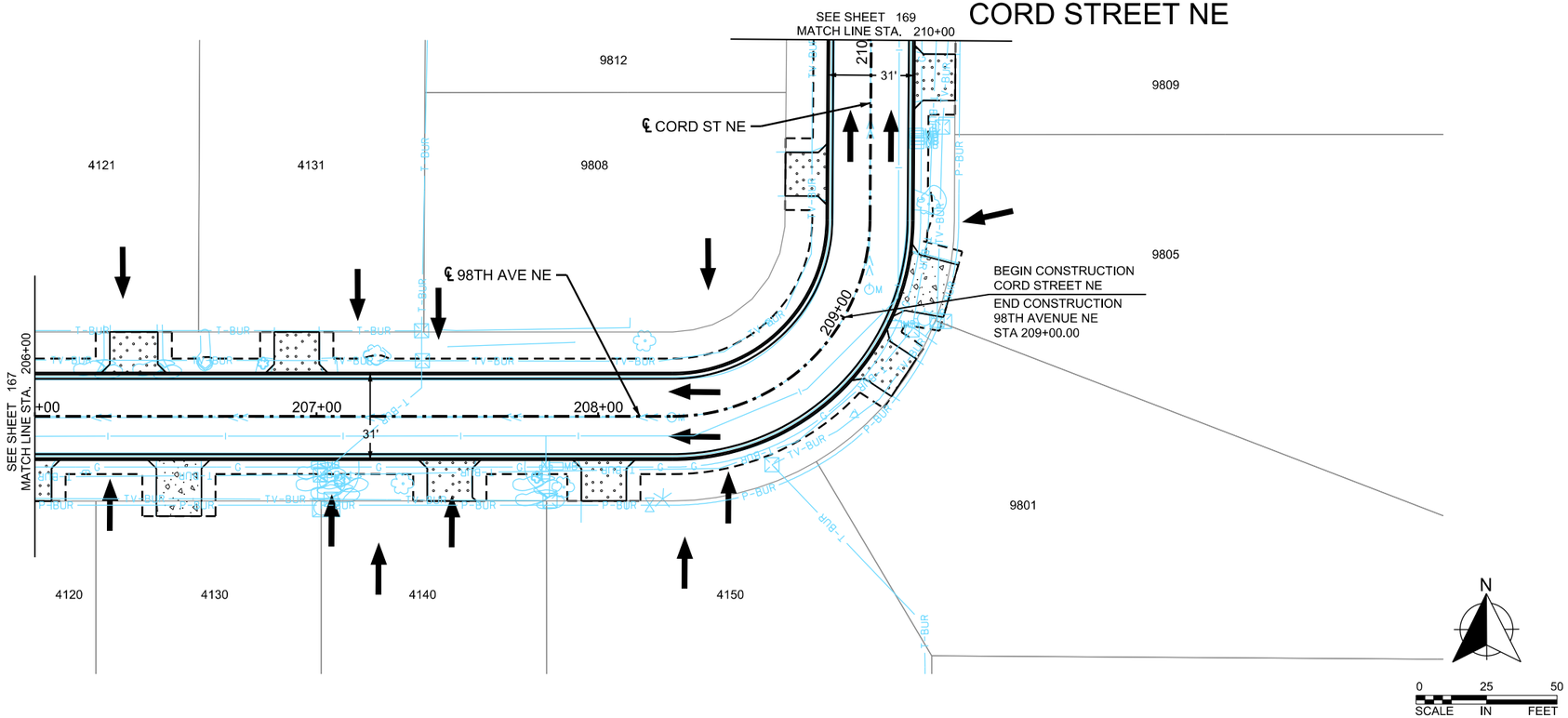
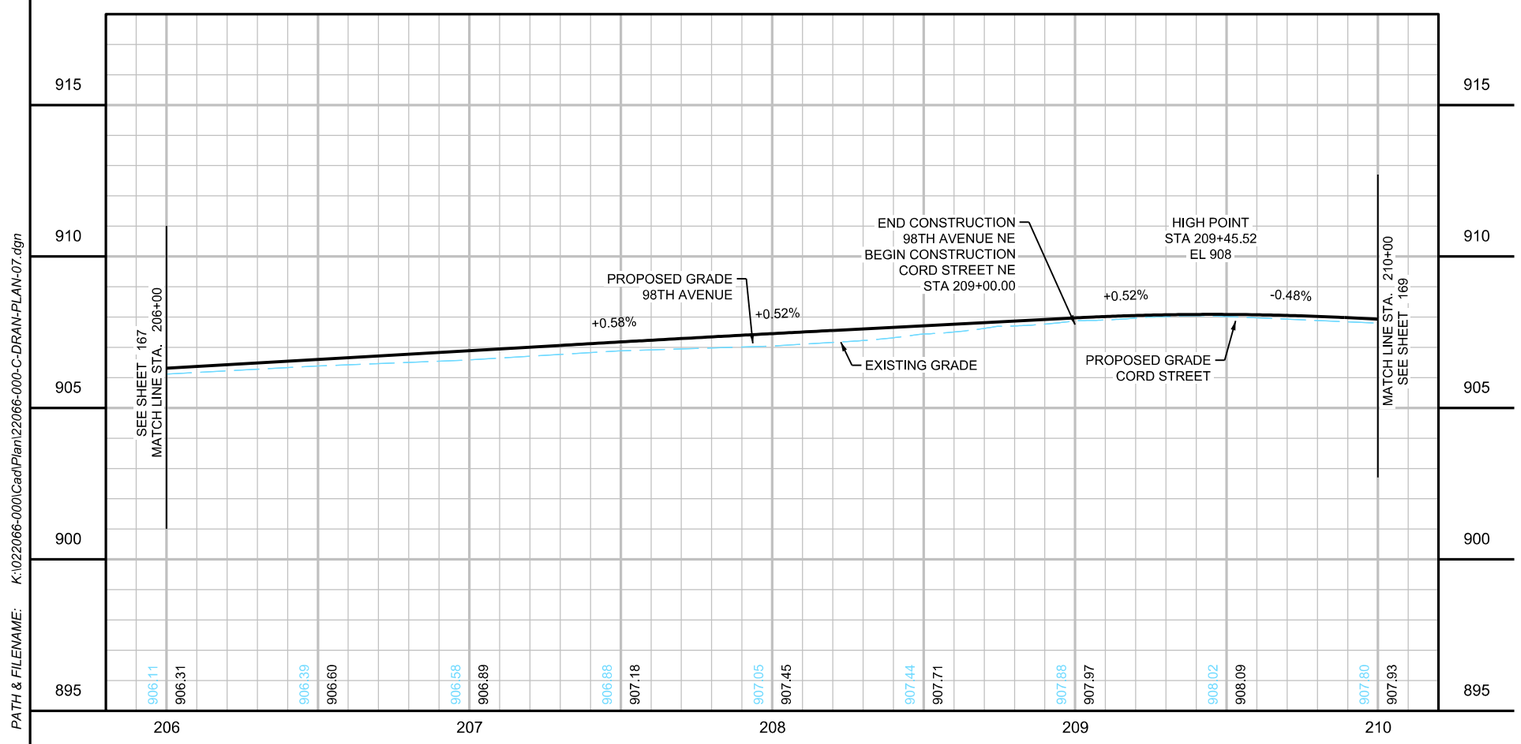
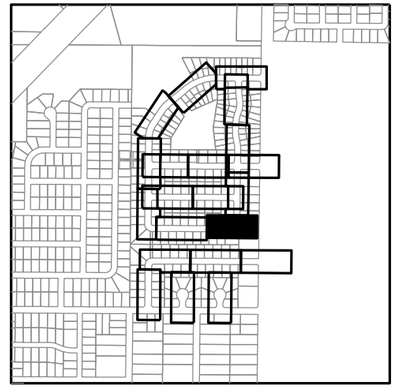
CORD STREET NE





LOCATION MAP



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CITY OF BLAINE, MN

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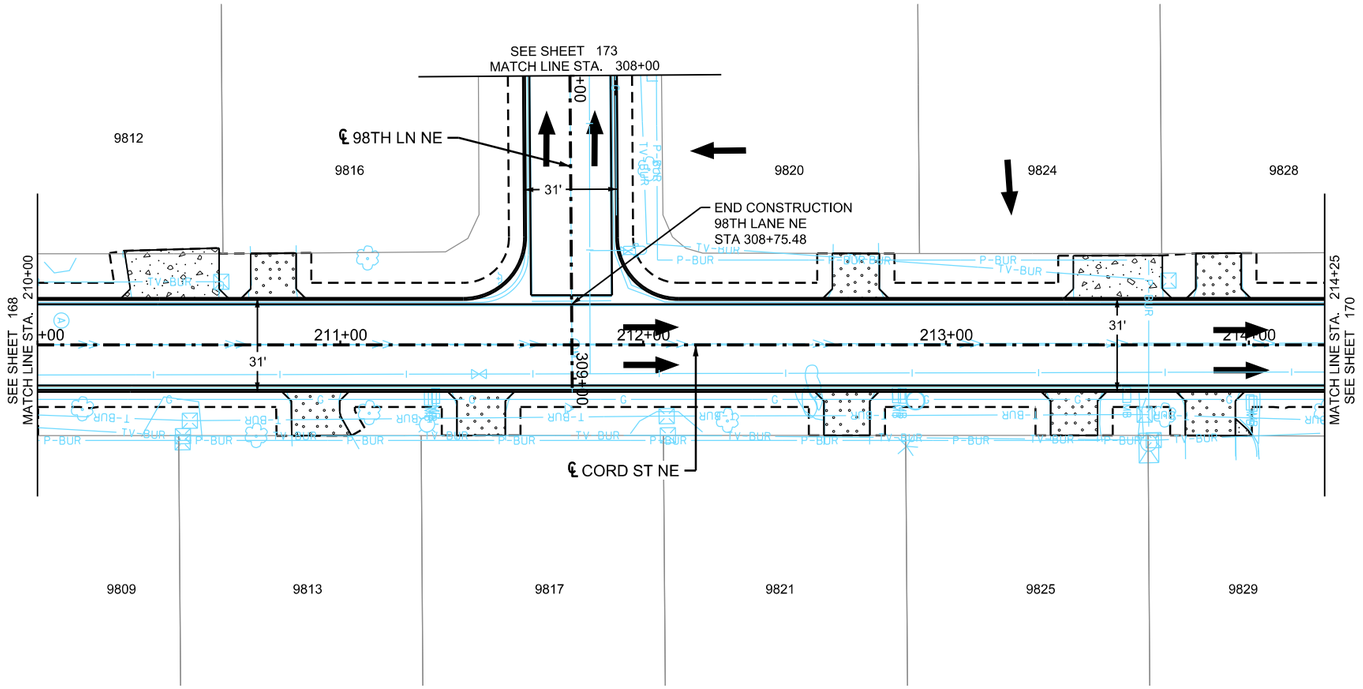
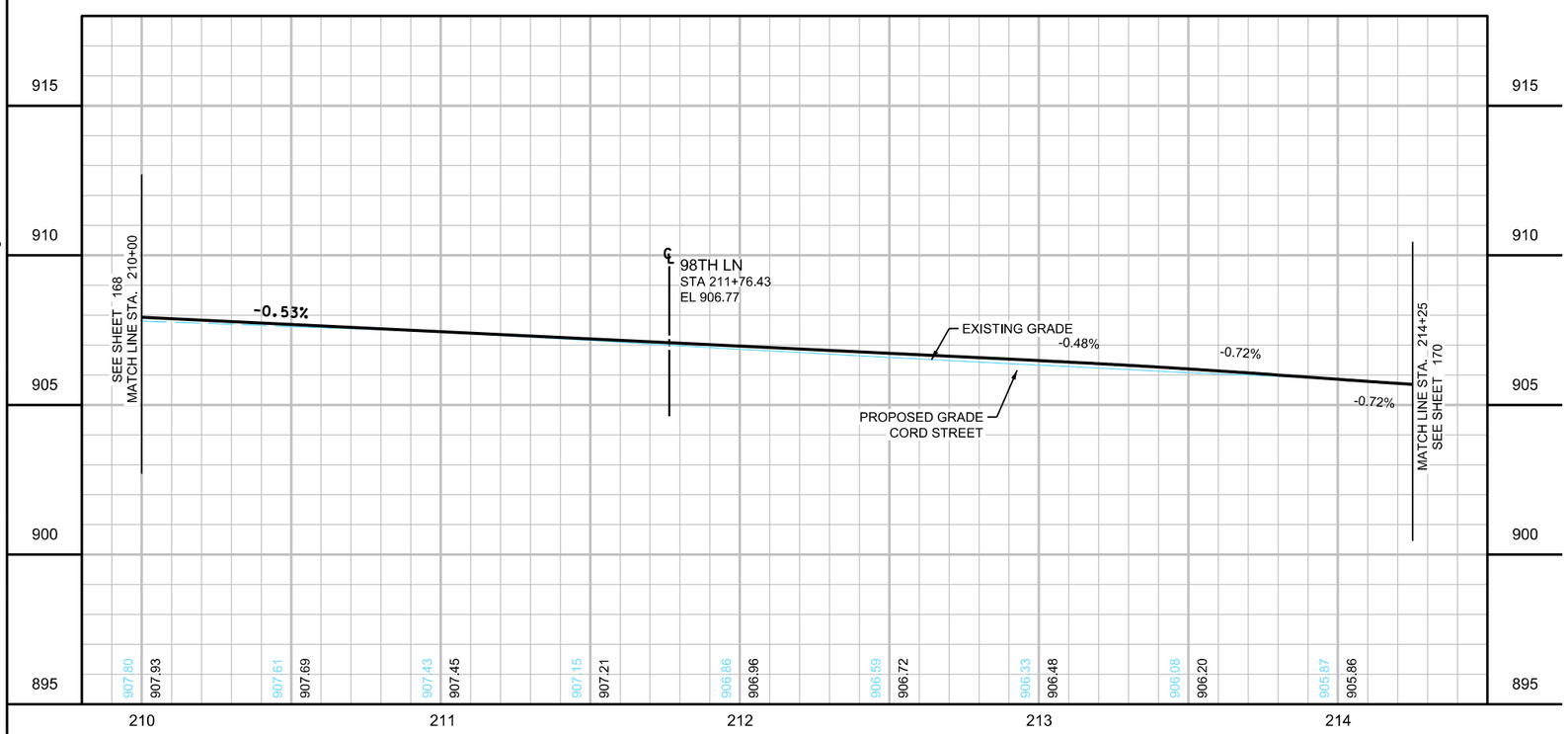
DRAINAGE PLAN & PROFILE

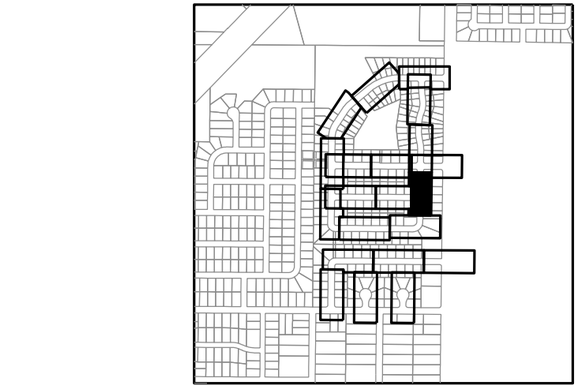
CITY PROJECT 23-08

SHEET **168** OF **230** SHEETS

CORD STREET NE







LOCATION MAP

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SCALE IN FEET

LEGEND

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wsb

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WILLIAM C. ALMS, PE — LIC. NO: 54301

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **169** OF **230** SHEETS

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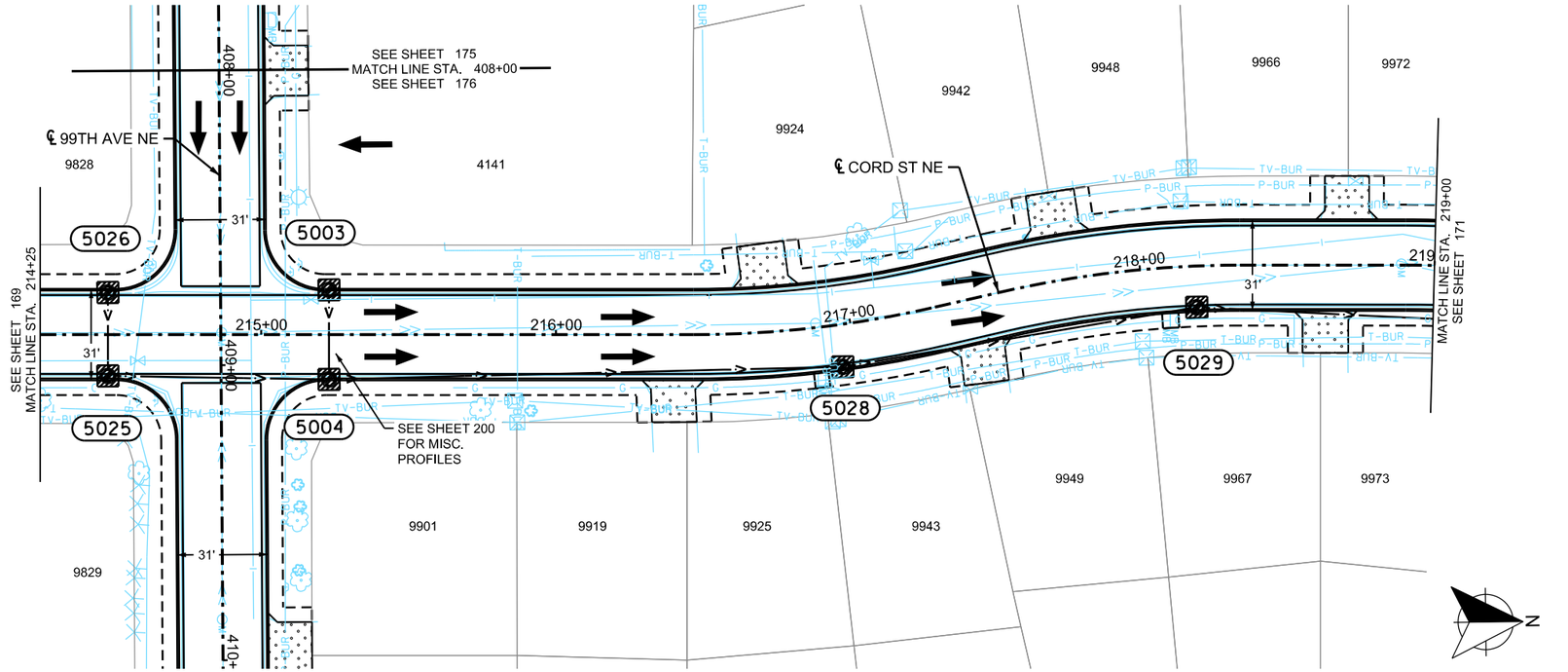
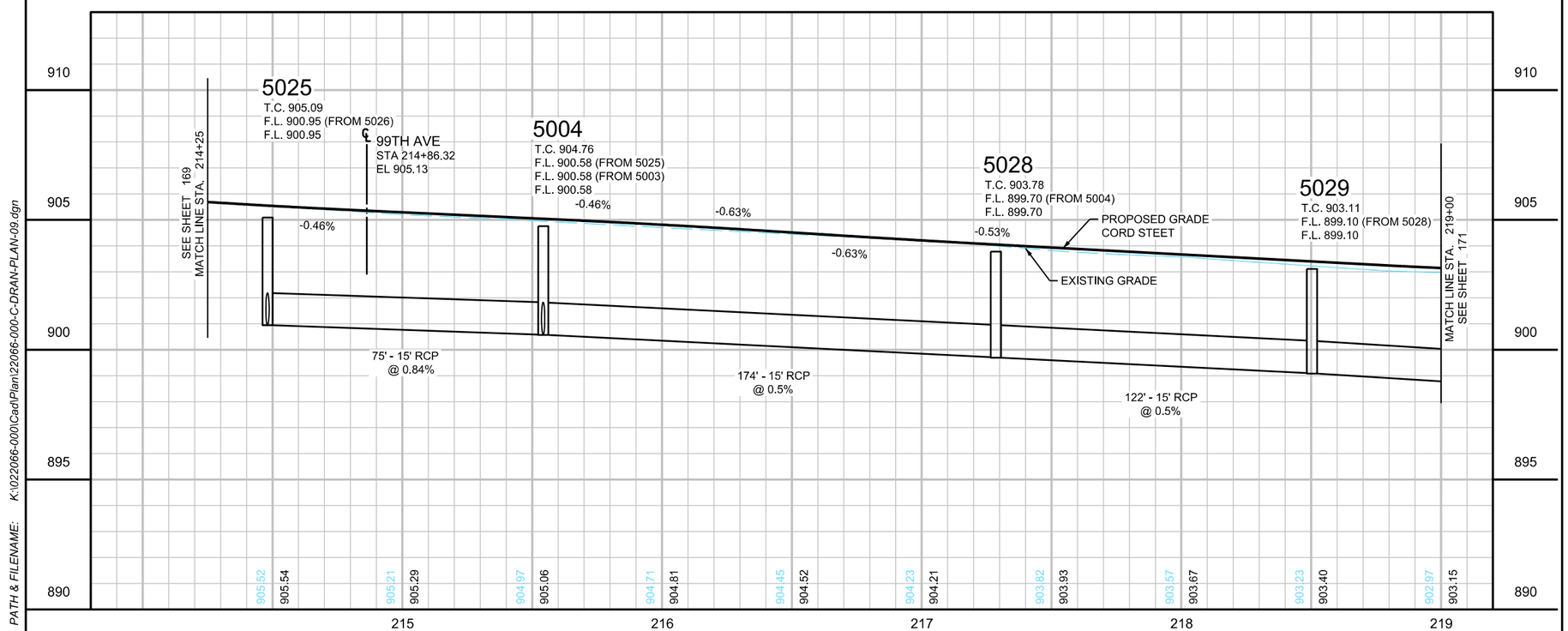
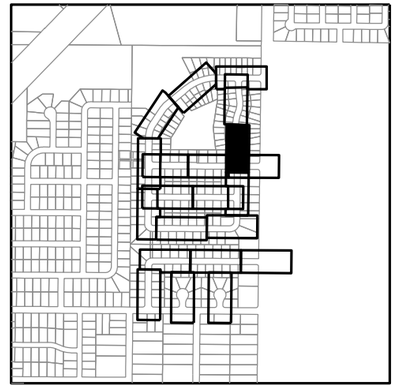




LOCATION MAP



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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **170** OF **230** SHEETS

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PLOTTED/REVISED: 3/9/2023 11:34:57 AM

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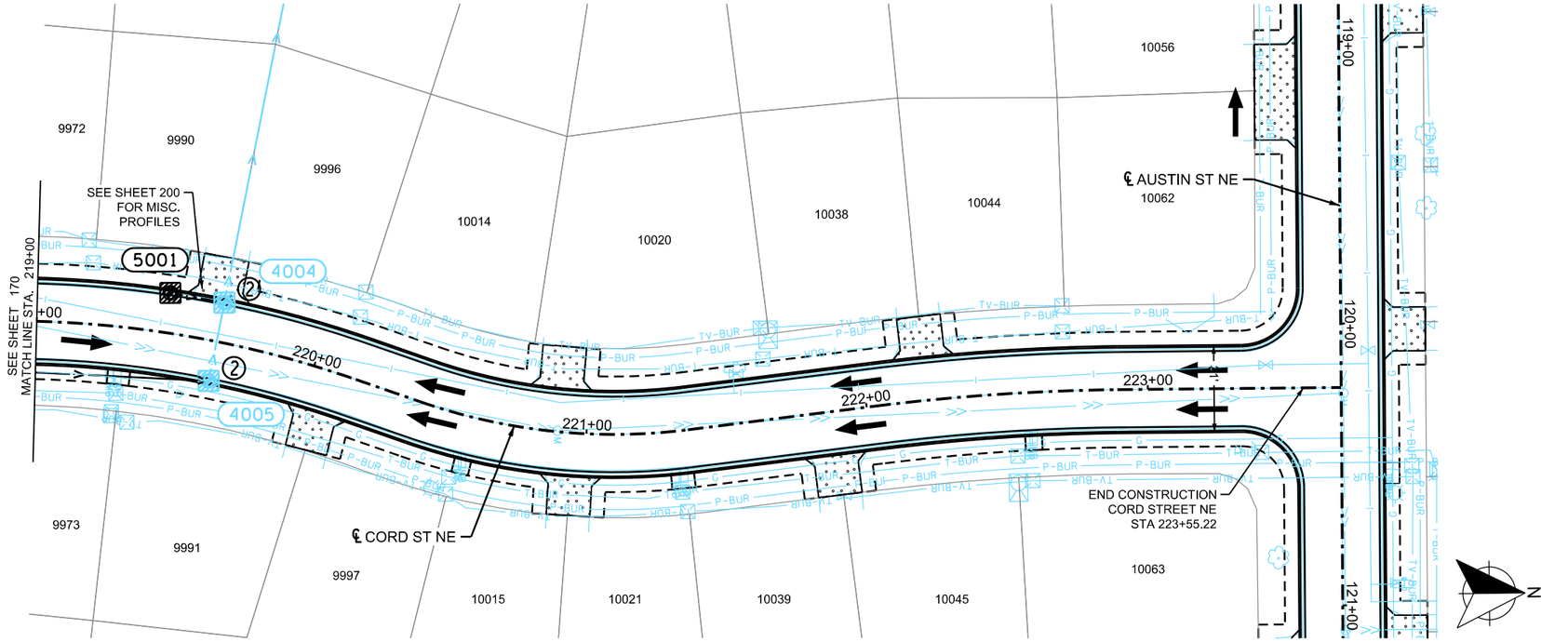
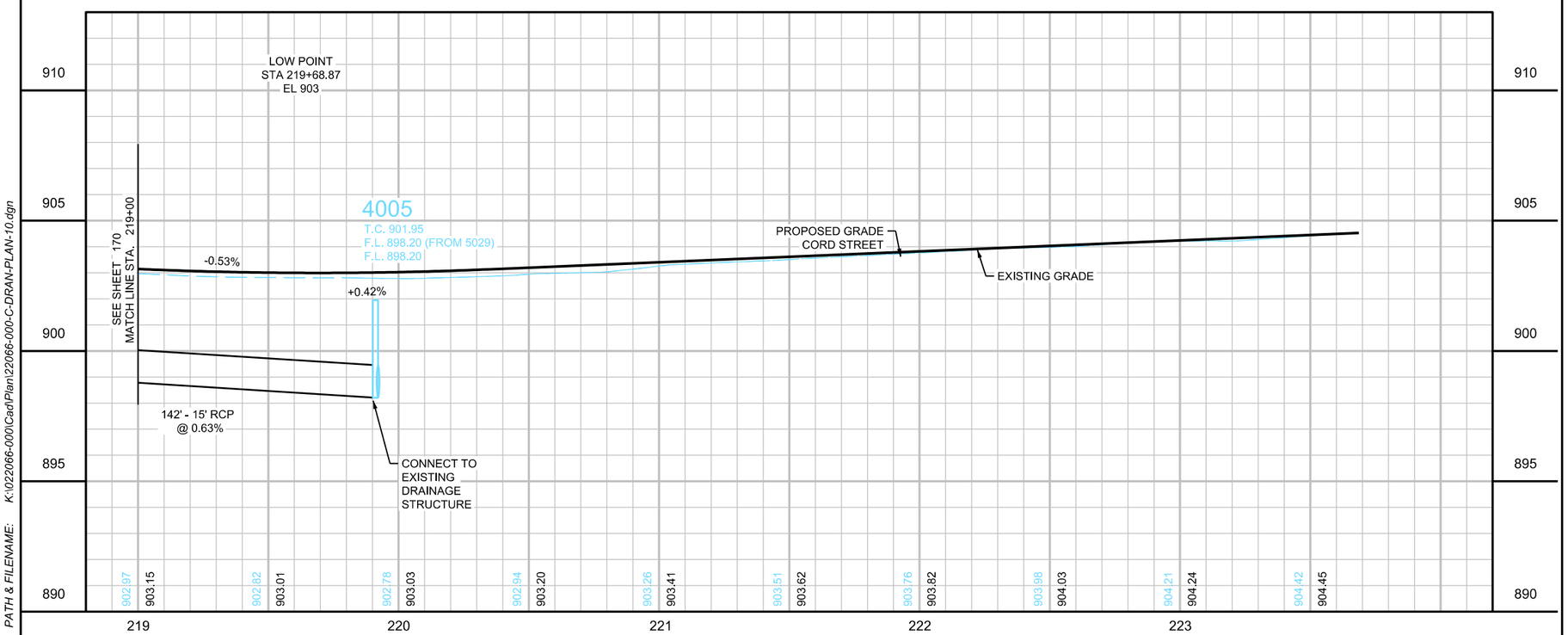
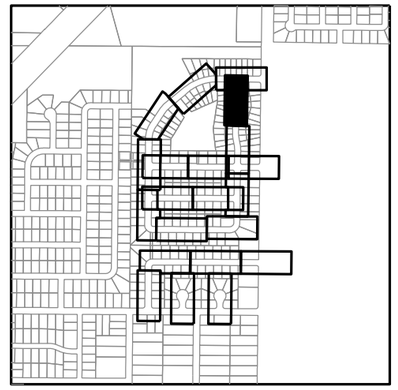
CORD STREET NE





LOCATION MAP



LEGEND

- 5XXX — PROPOSED STRUCTURE NUMBER
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- PROPOSED DROP INLET
- PROPOSED APRON
- 4XXX — INPLACE STRUCTURE NUMBER
- INPLACE CATCH BASIN
- INPLACE MANHOLE
- INPLACE DROP INLET
- INPLACE APRON
- SURFACE FLOW DIRECTION
- ① REPLACE TOP SLAB WITH 4022 TOP SLAB
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- SANITARY SEWER
- G — UNDERGROUND GAS MAIN
- UTILITY IN CONDUIT
- W — WATER MAIN

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	KF
PLAN BY:	CHECK BY:
GT	WCA

REVISIONS

NO.	DATE	DESCRIPTION

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WILLIAM C. ALMS, PE — LIC. NO: 54301

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **171** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:58 AM

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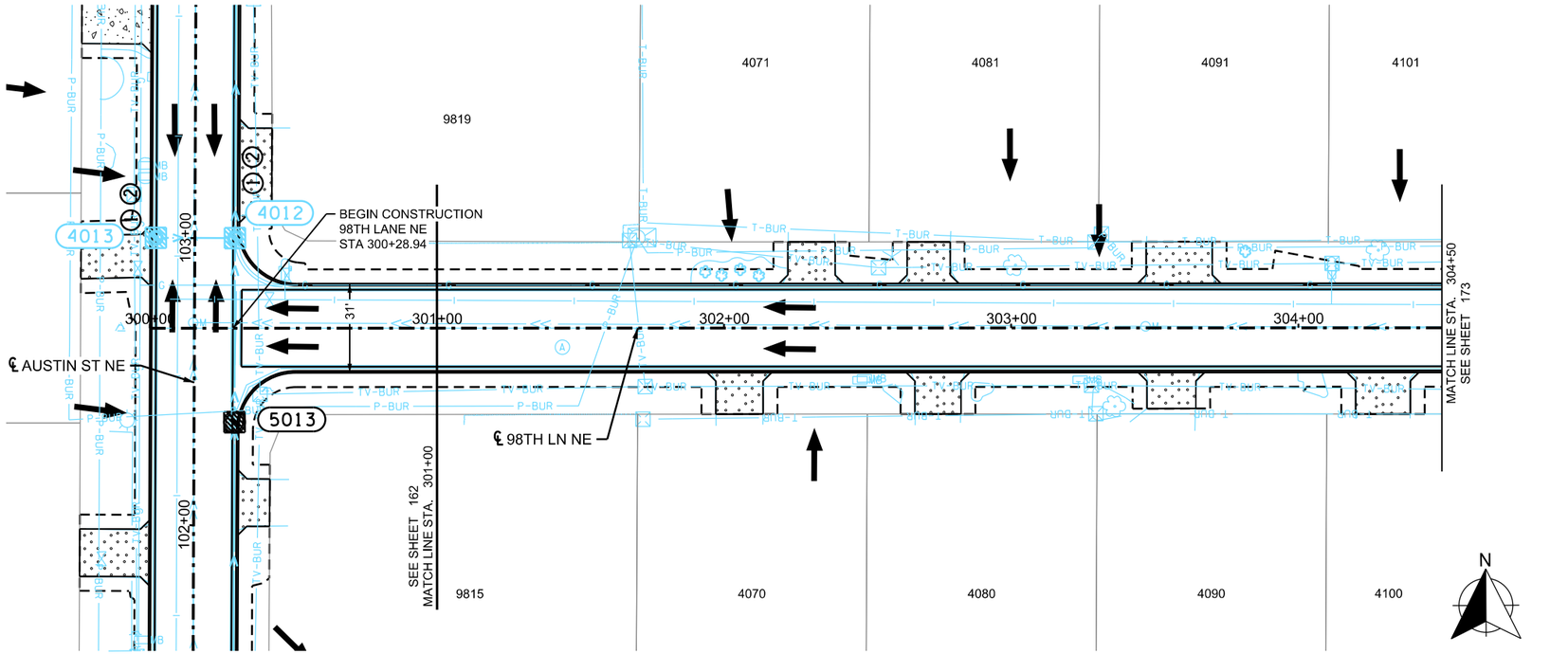
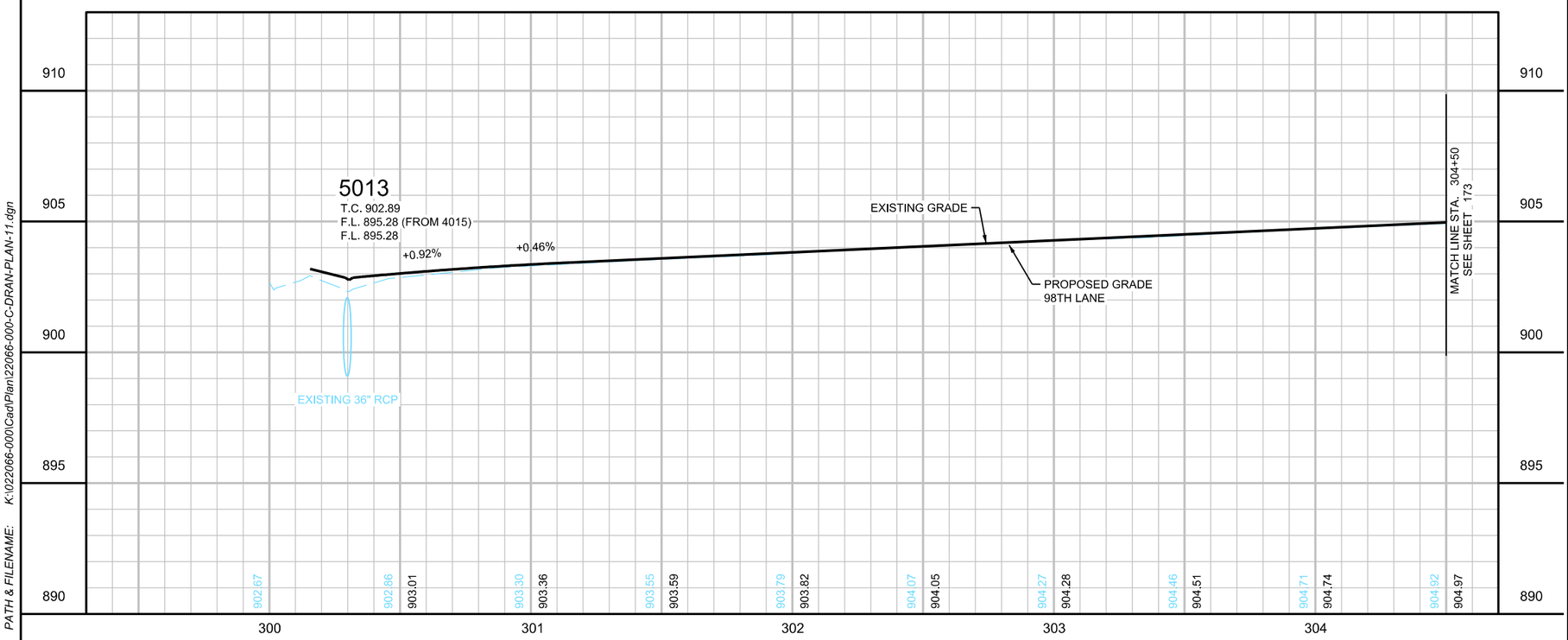
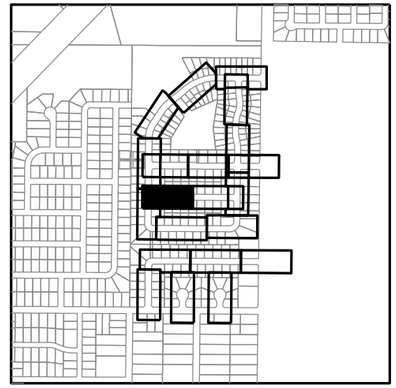
98TH LANE NE





LOCATION MAP



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PLAN BY:	CHECK BY:
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DATE: 4/22/2022

CITY OF BLAINE, MN

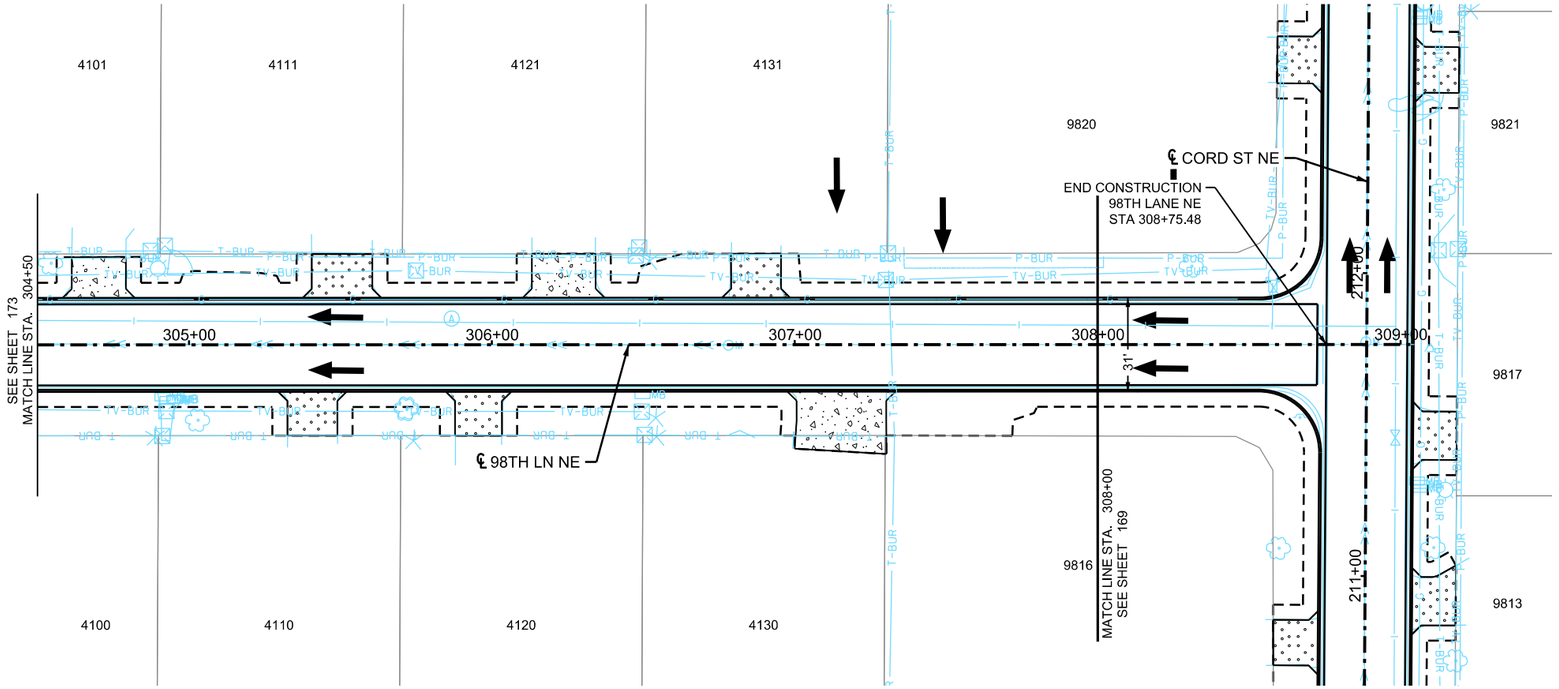
SOUTHEAST AREA RECONSTRUCTION

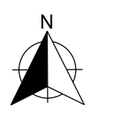
DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **172** OF **230** SHEETS

98TH LANE NE





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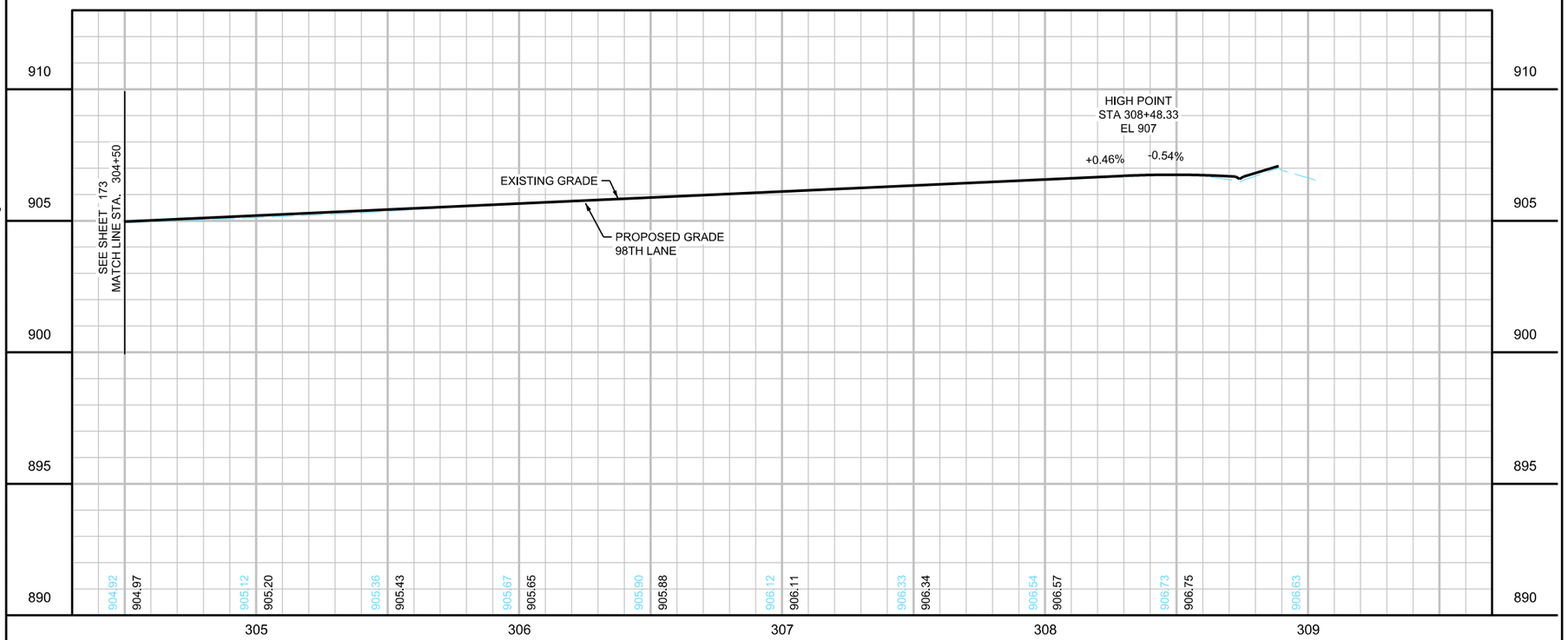
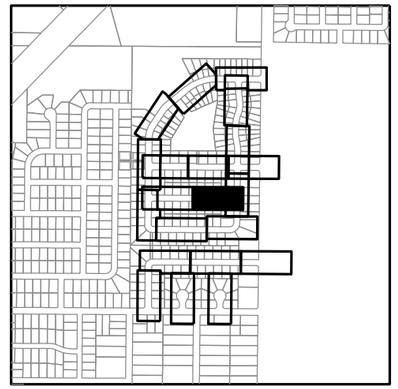


LOCATION MAP



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SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **173** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:34:58 AM

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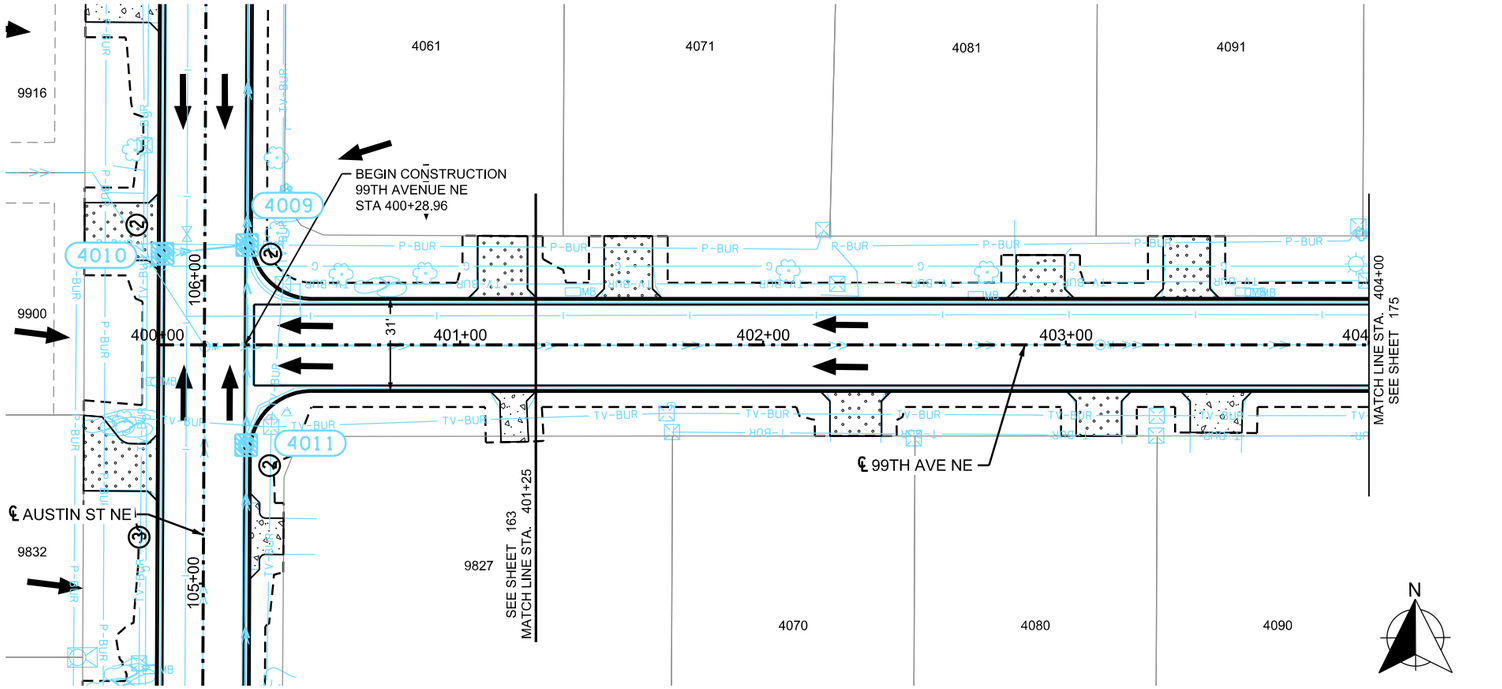
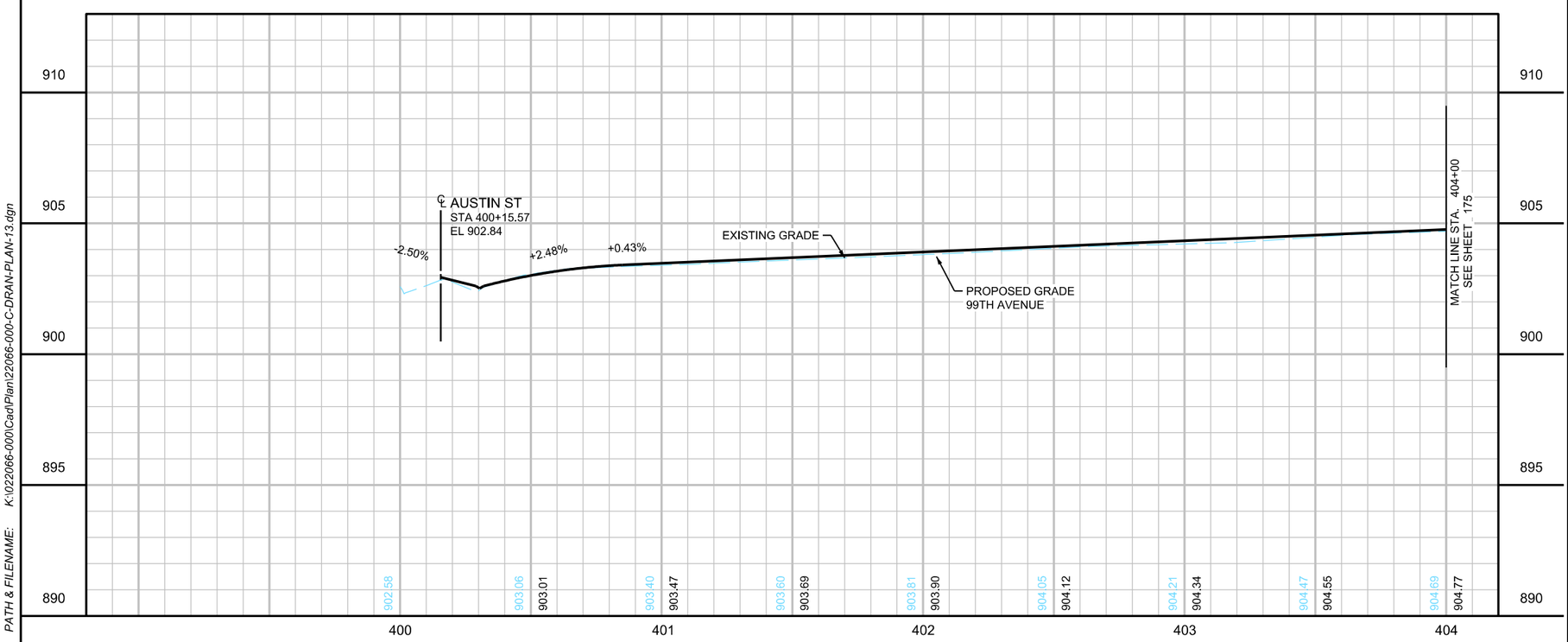
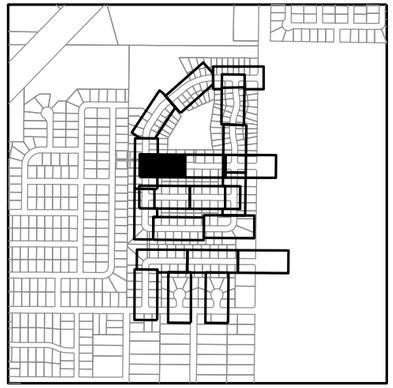
99TH AVENUE NE





LOCATION MAP



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wsb

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SHEET **174** OF **230** SHEETS

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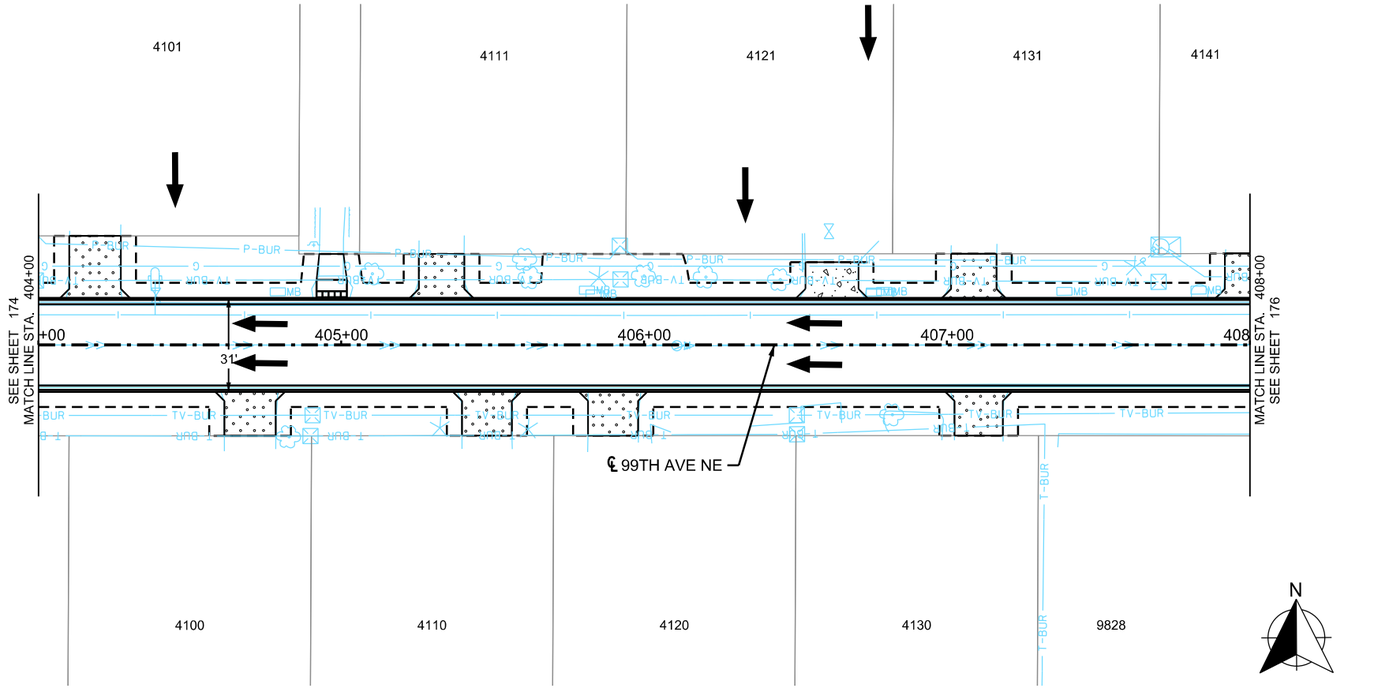
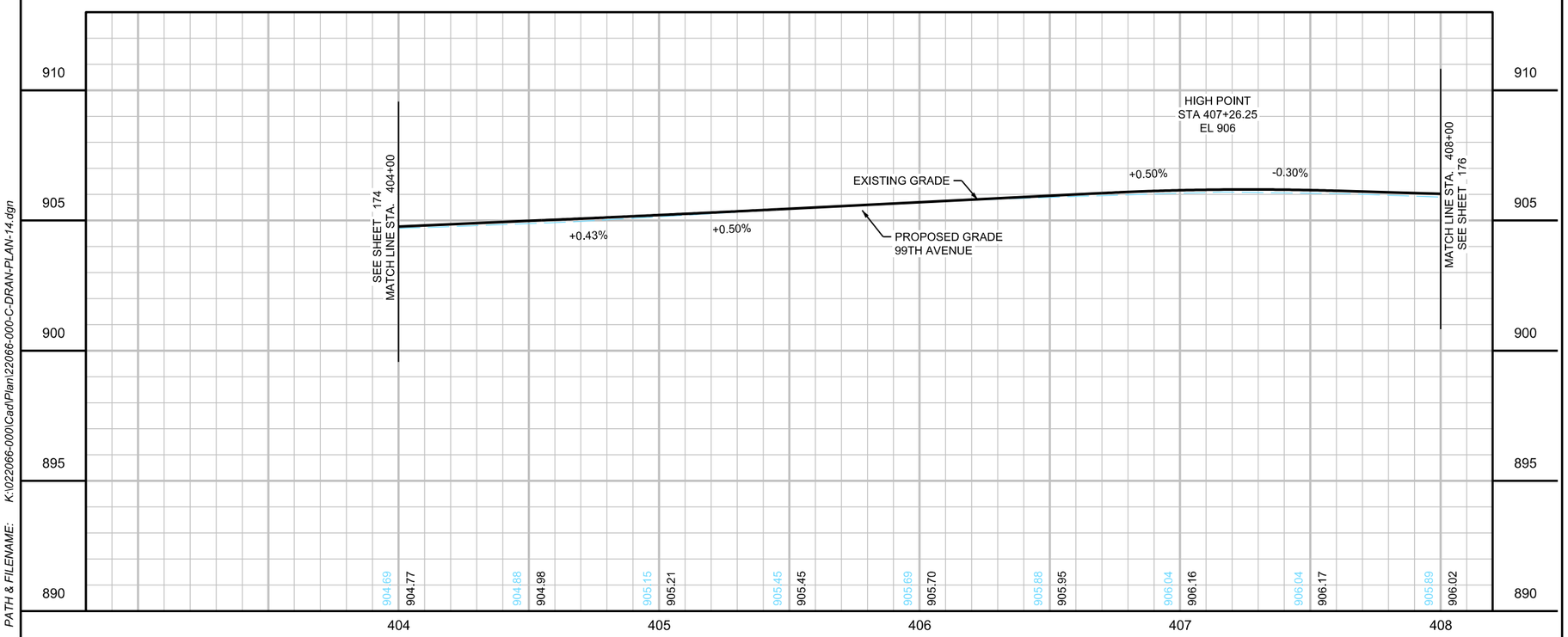
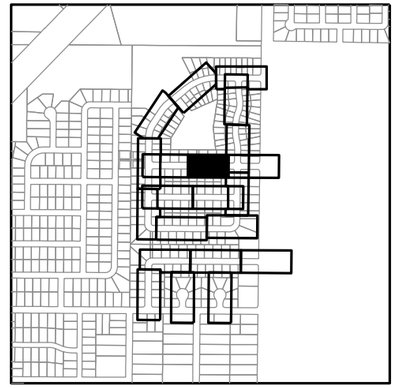
99TH AVENUE NE





LOCATION MAP



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wsb

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CITY OF BLAINE, MN

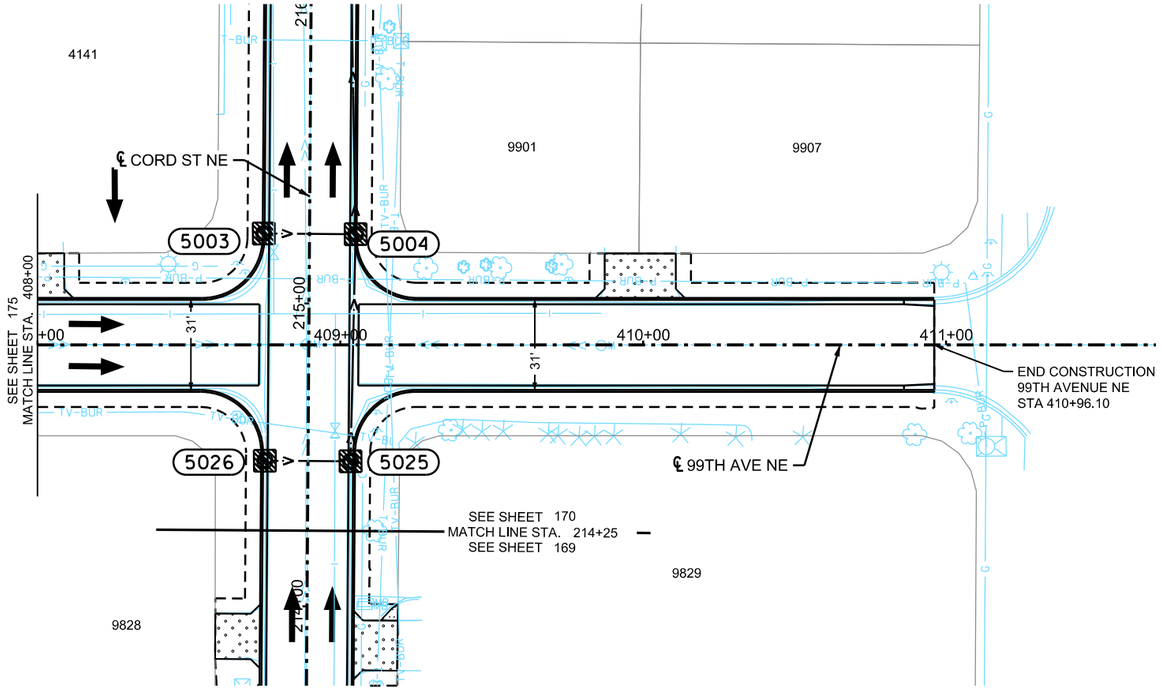
SOUTHEAST AREA RECONSTRUCTION

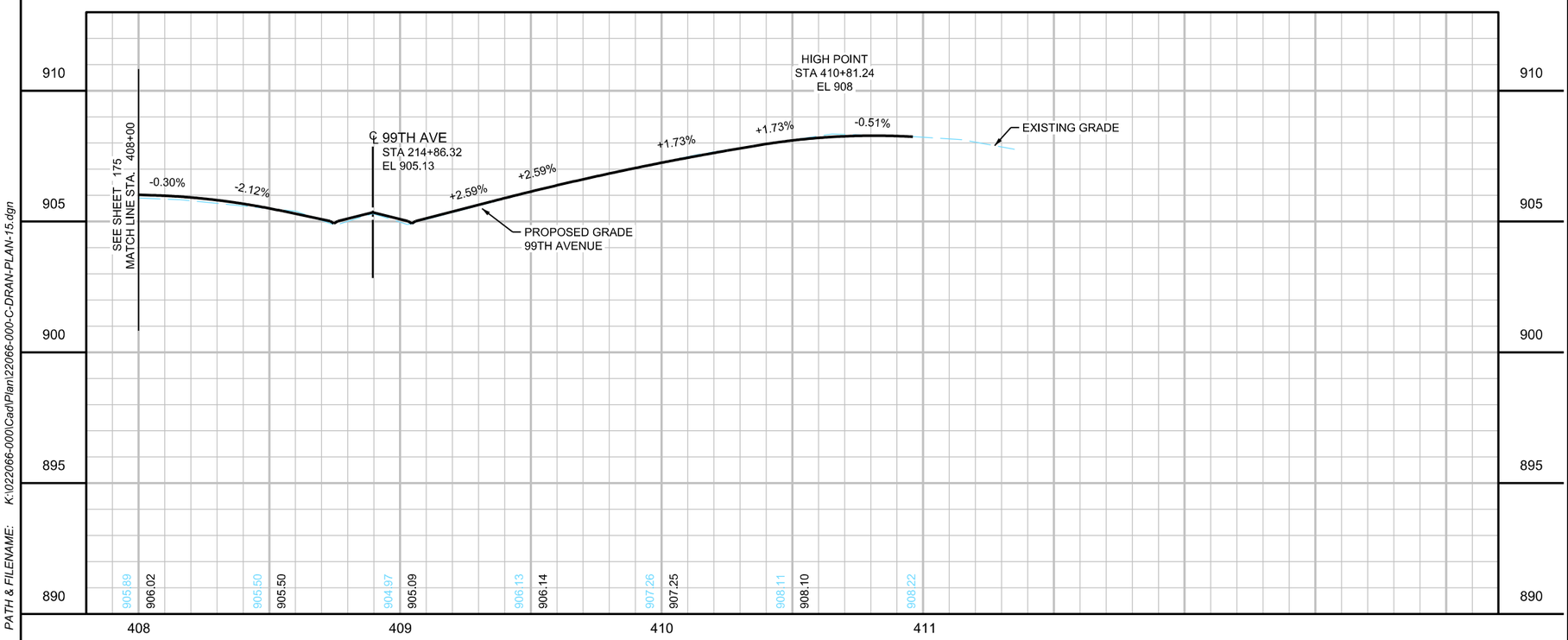
DRAINAGE PLAN & PROFILE

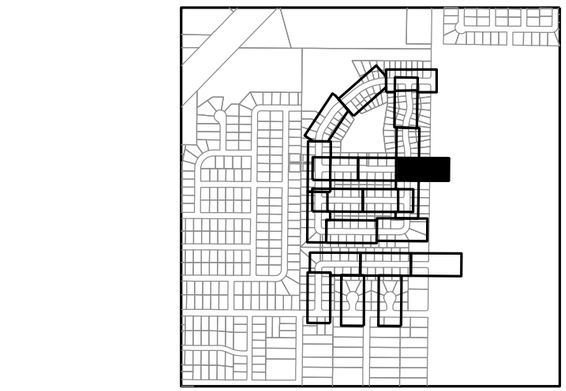
CITY PROJECT 23-08

SHEET **175** OF **230** SHEETS

99TH AVENUE NE







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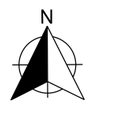

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SOUTHEAST AREA RECONSTRUCTION

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SHEET **176** OF **230** SHEETS

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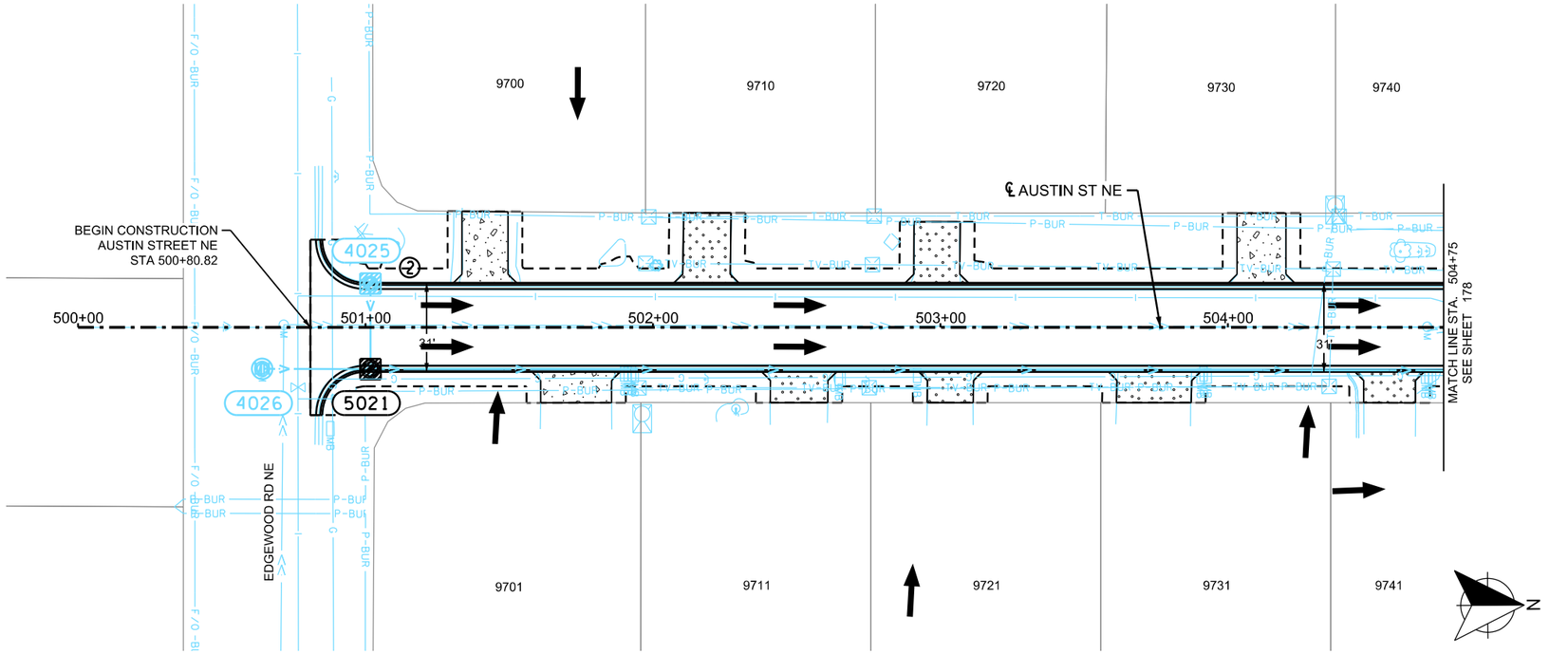
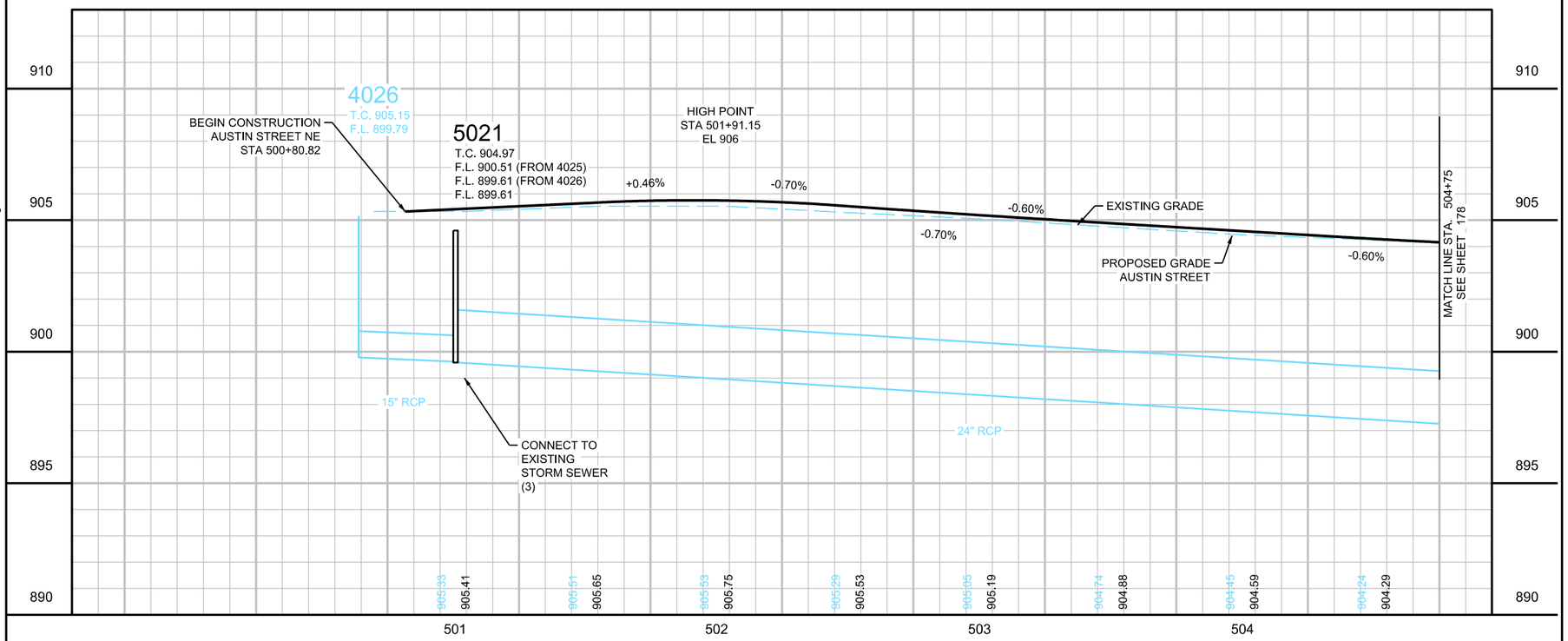
AUSTIN STREET NE





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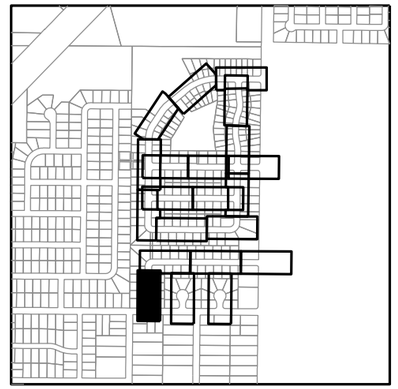

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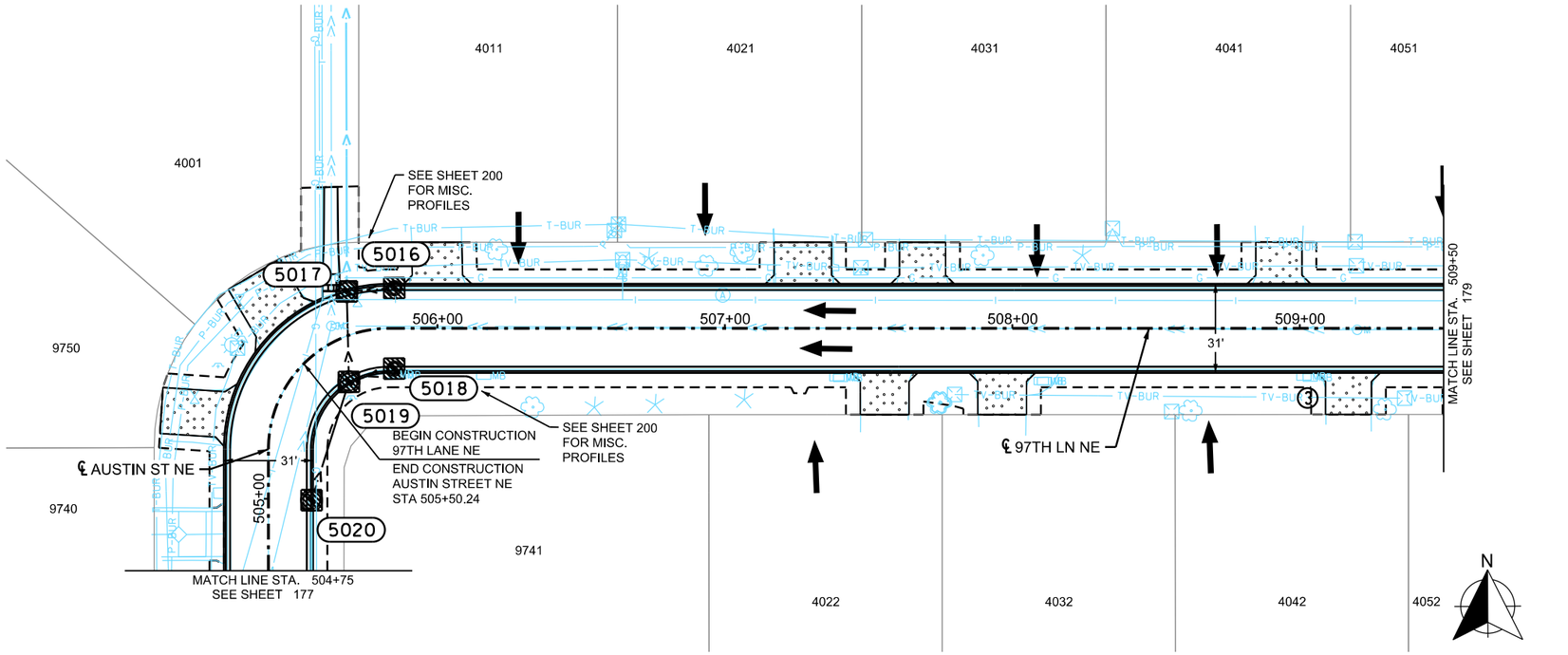
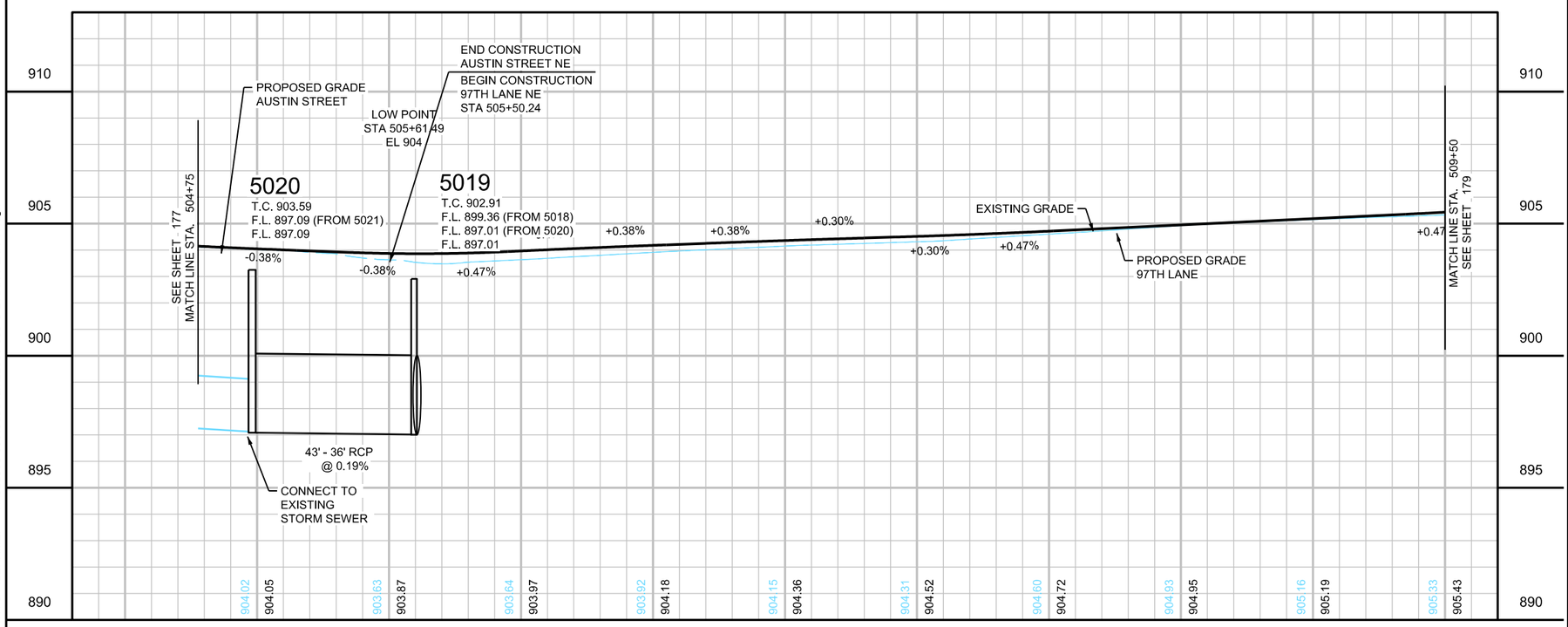
97TH LANE NE





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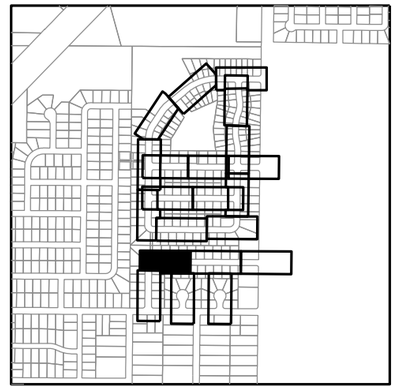
LOCATION MAP



LEGEND

- 5XXX — PROPOSED STRUCTURE NUMBER
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- PROPOSED DROP INLET
- PROPOSED APRON
- 4XXX — INPLACE STRUCTURE NUMBER
- INPLACE CATCH BASIN
- INPLACE MANHOLE
- INPLACE DROP INLET
- INPLACE APRON
- SURFACE FLOW DIRECTION
- ① REPLACE TOP SLAB WITH 4022 TOP SLAB
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- SANITARY SEWER
- G — UNDERGROUND GAS MAIN
- UTILITY IN CONDUIT
- W — WATER MAIN

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	KF
PLAN BY:	CHECK BY:
GT	WCA

REVISIONS

NO.	DATE	DESCRIPTION

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WILLIAM C. ALMS, PE — LIC. NO: 54301

DATE: 4/22/2022

CITY OF BLAINE, MN

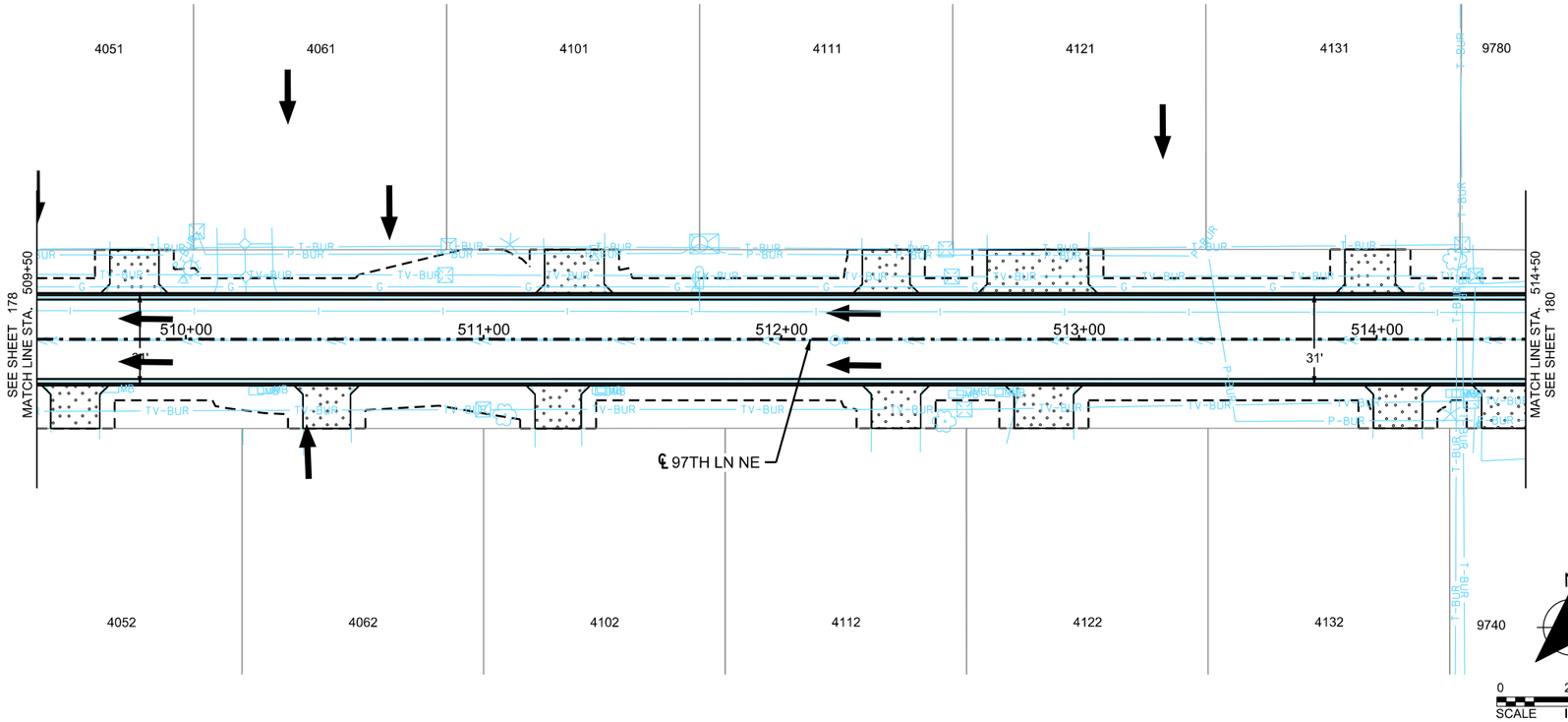
SOUTHEAST AREA RECONSTRUCTION

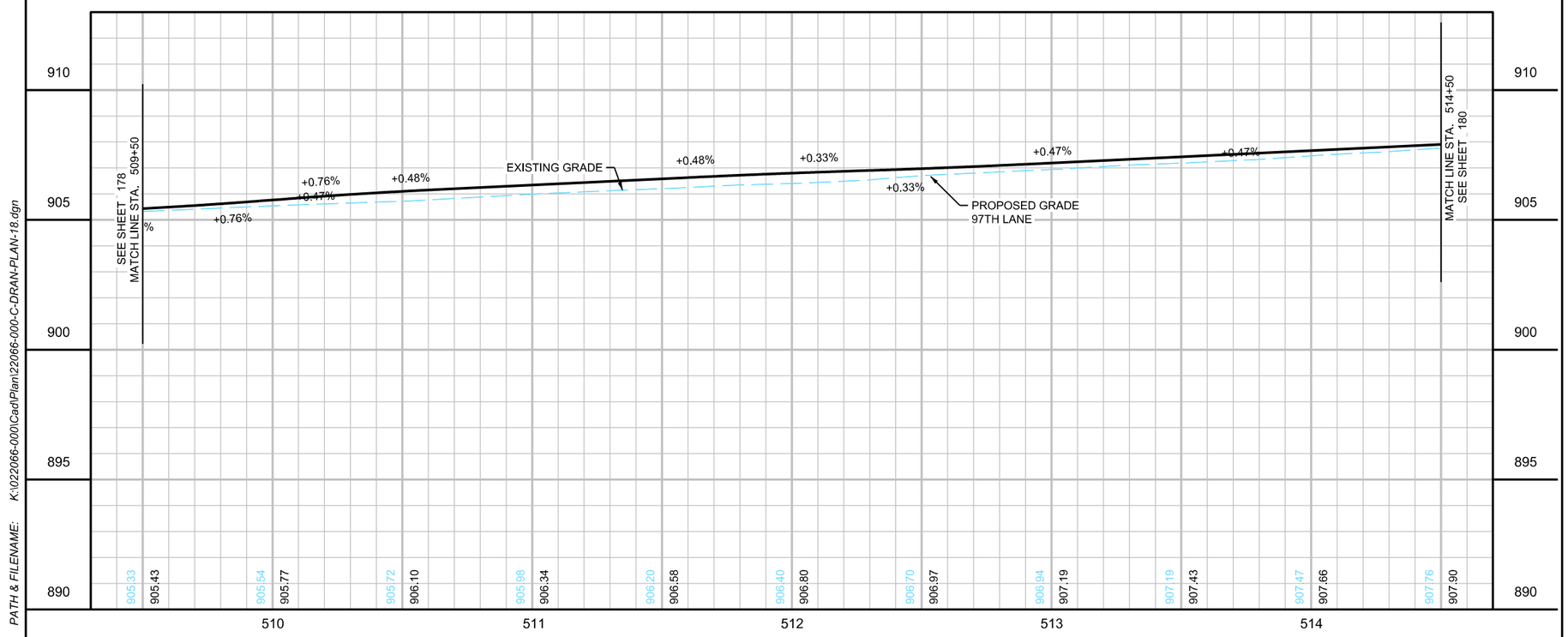
DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

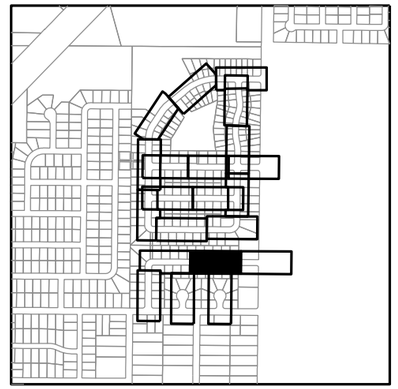
SHEET **178** OF **230** SHEETS

97TH LANE NE





LOCATION MAP



LEGEND

- 5XXX — PROPOSED STRUCTURE NUMBER
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- PROPOSED DROP INLET
- PROPOSED APRON
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WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	KF
PLAN BY:	CHECK BY:
GT	WCA

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WILLIAM C. ALMS, PE — LIC. NO: 54301

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **179** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:03 AM

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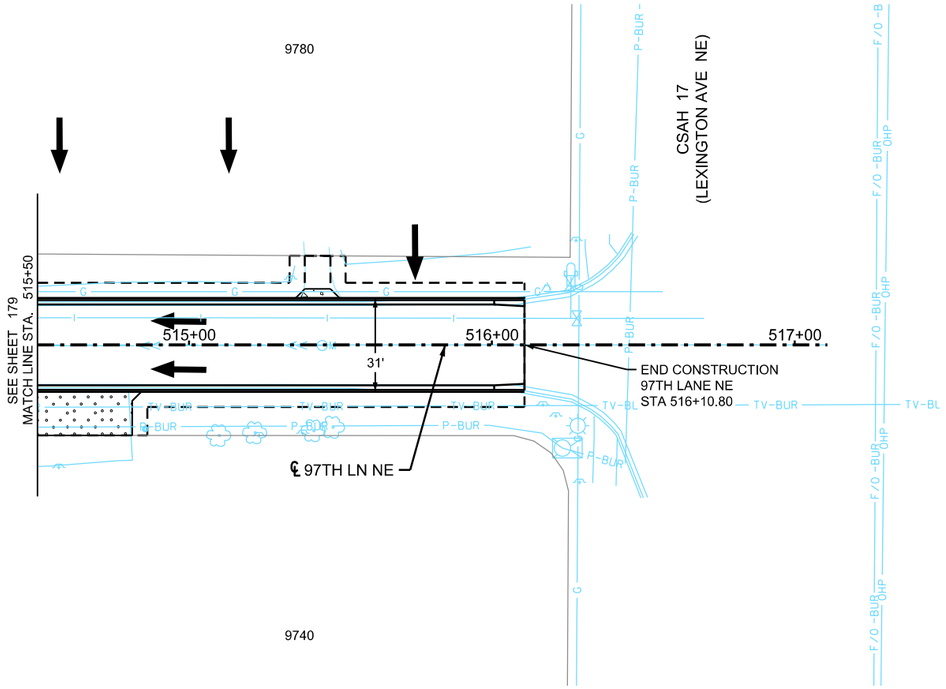
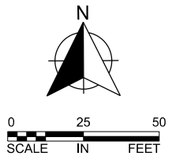
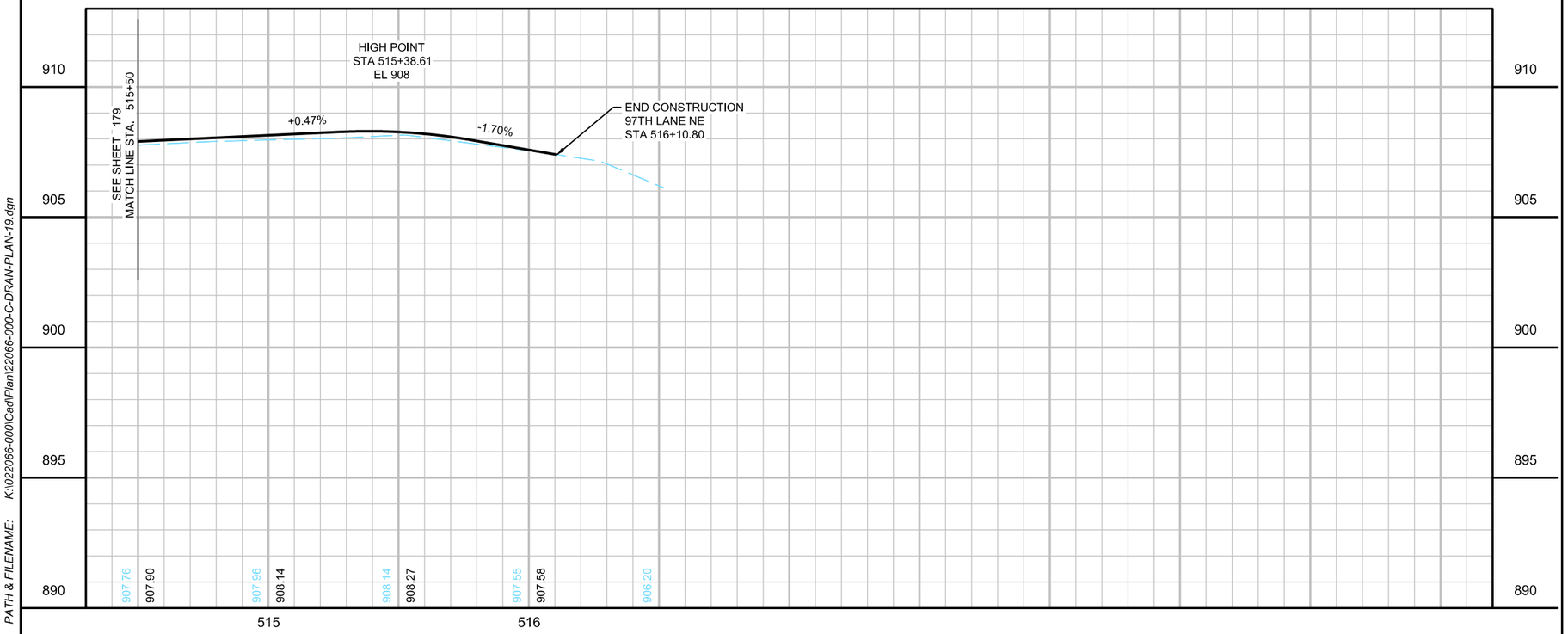
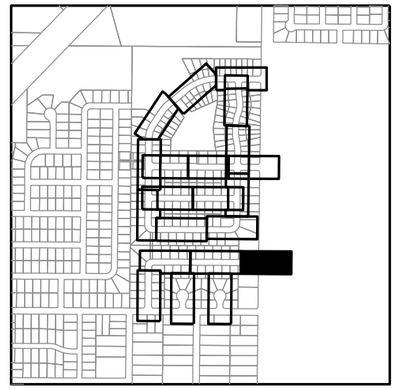
97TH LANE NE







LOCATION MAP



LEGEND

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- PROPOSED MANHOLE
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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **180** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:03 AM

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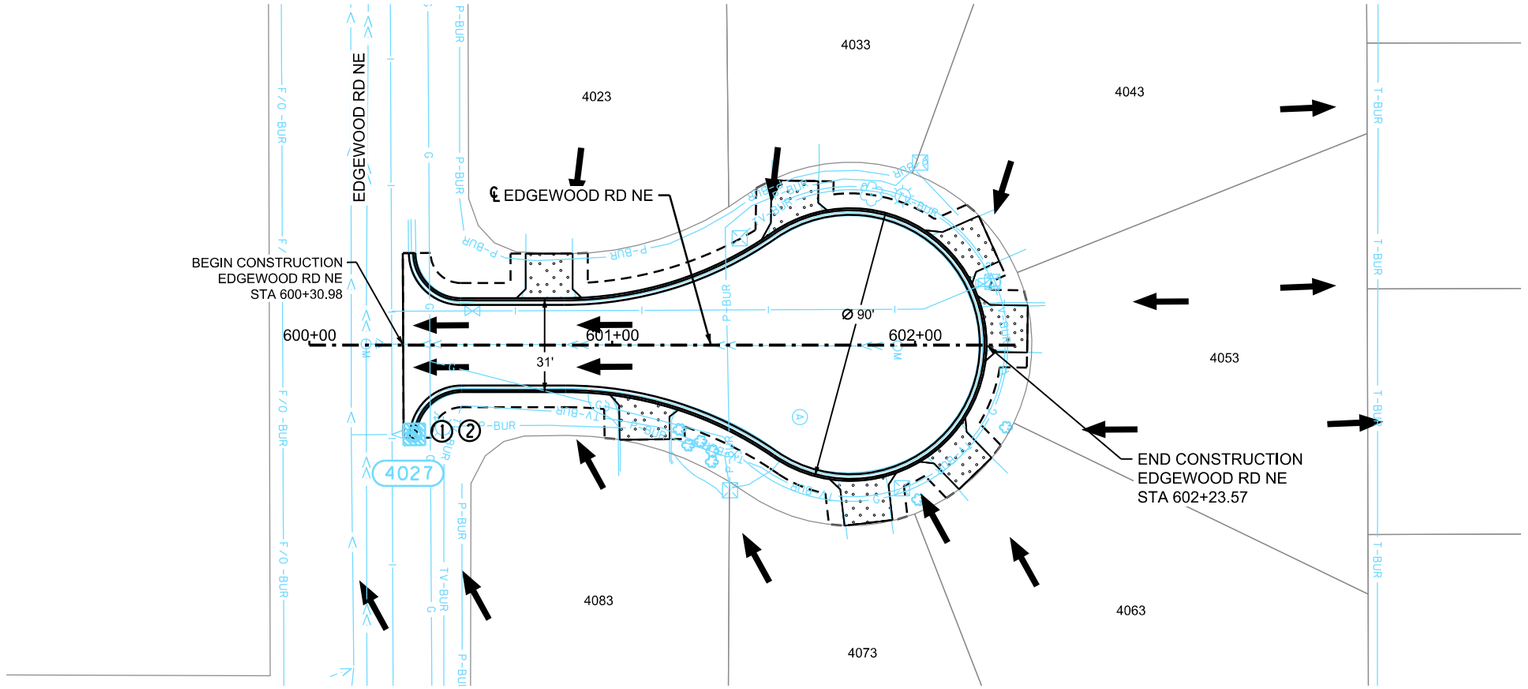
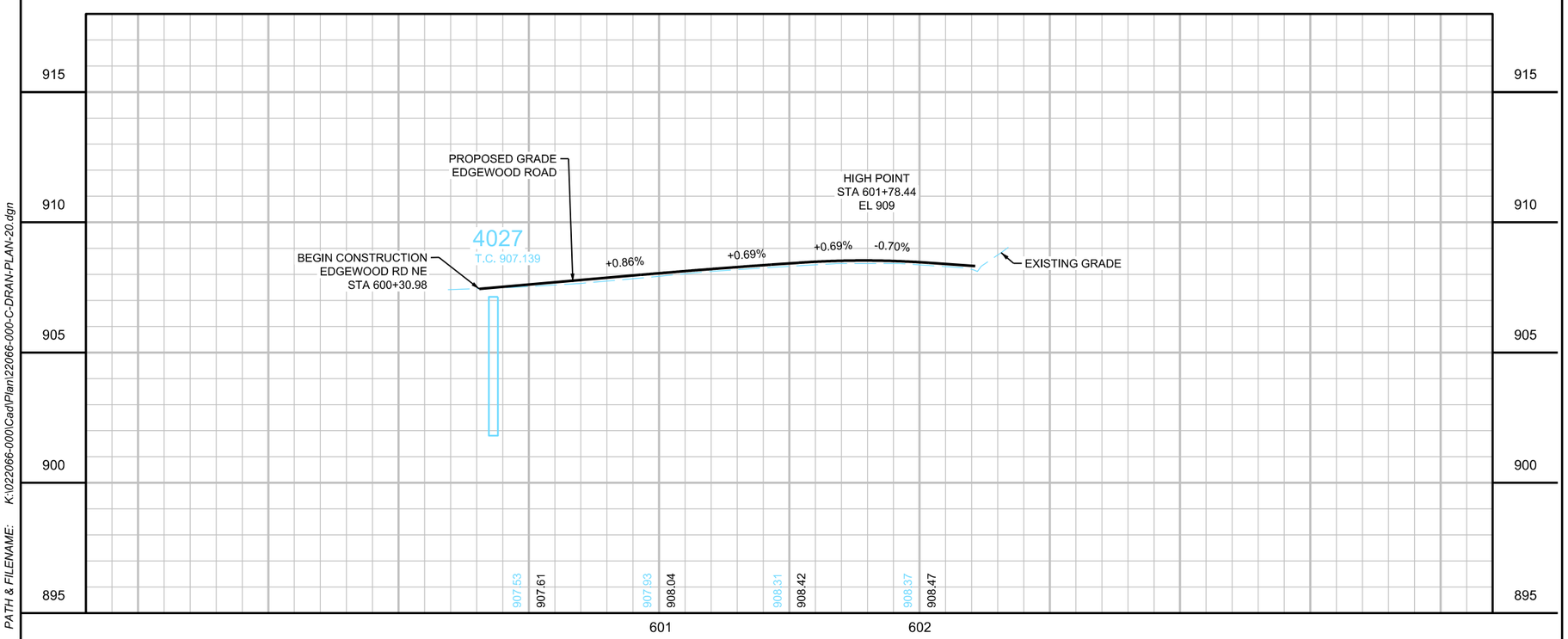
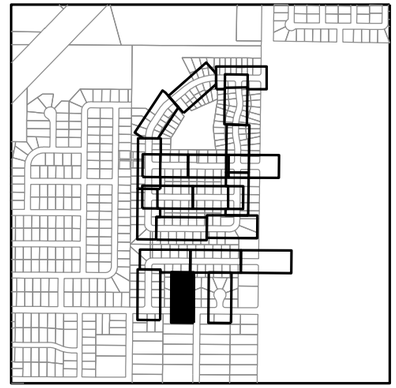
EDGEWOOD ROAD NE (4023 - 4083)





LOCATION MAP



LEGEND

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WSB PROJECT NO.: 022066-000

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **181** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:04 AM

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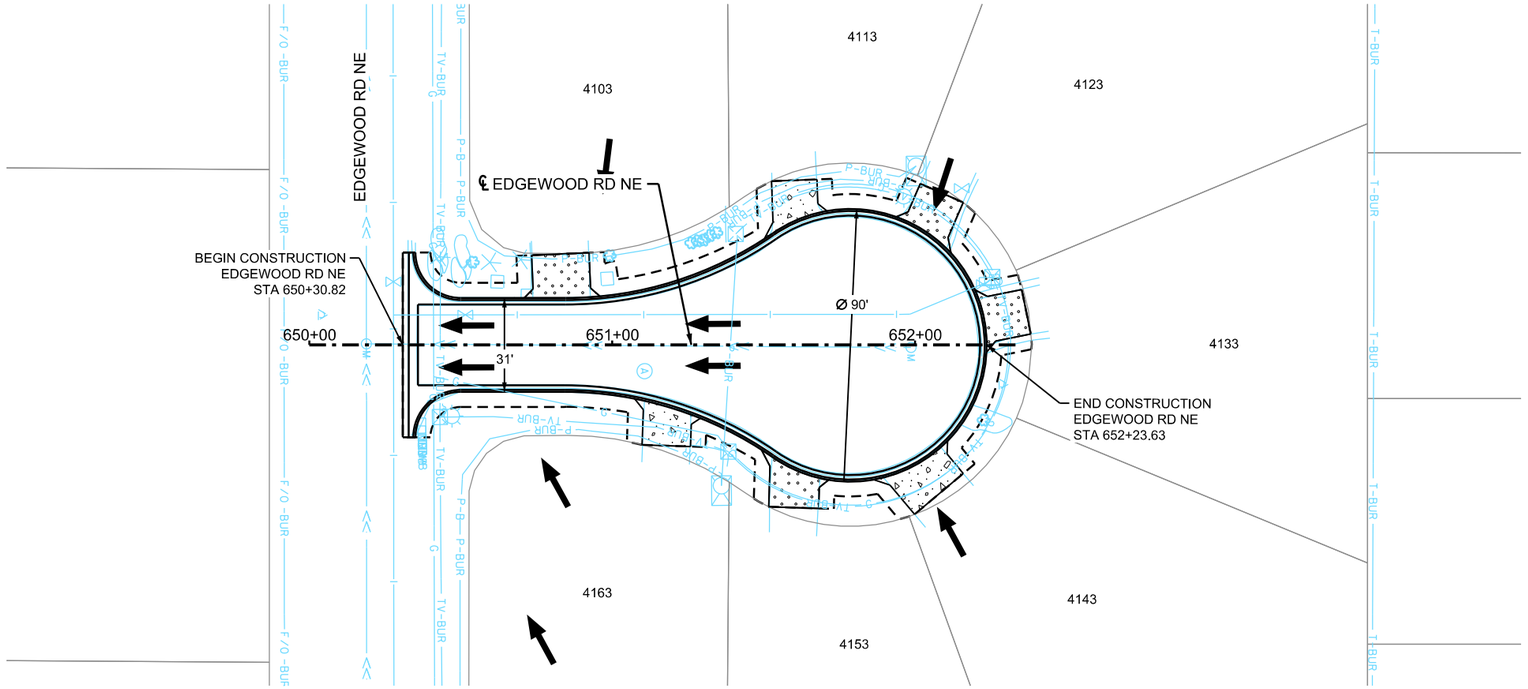
EDGEWOOD ROAD NE (4103 - 4163)



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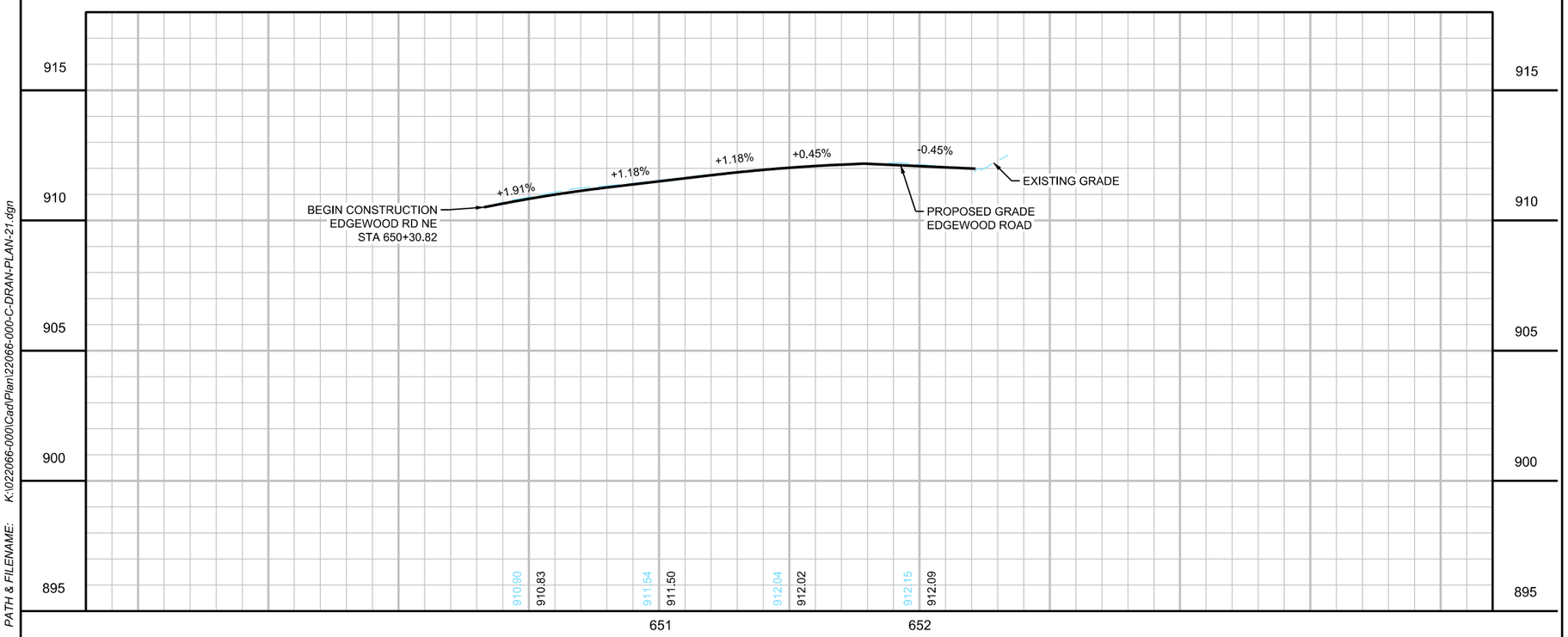
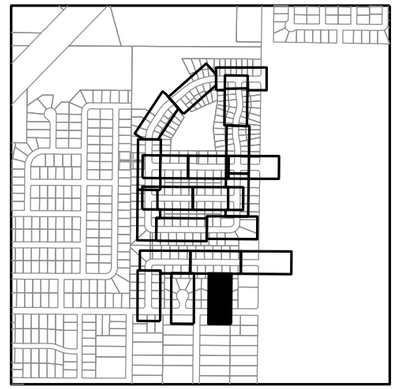


LOCATION MAP



LEGEND

- 5XXX — PROPOSED STRUCTURE NUMBER
- PROPOSED CATCH BASIN
- MH — PROPOSED MANHOLE
- PROPOSED DROP INLET
- PROPOSED APRON
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wsb

WSB PROJECT NO.: 022066-000

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **182** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:05 AM

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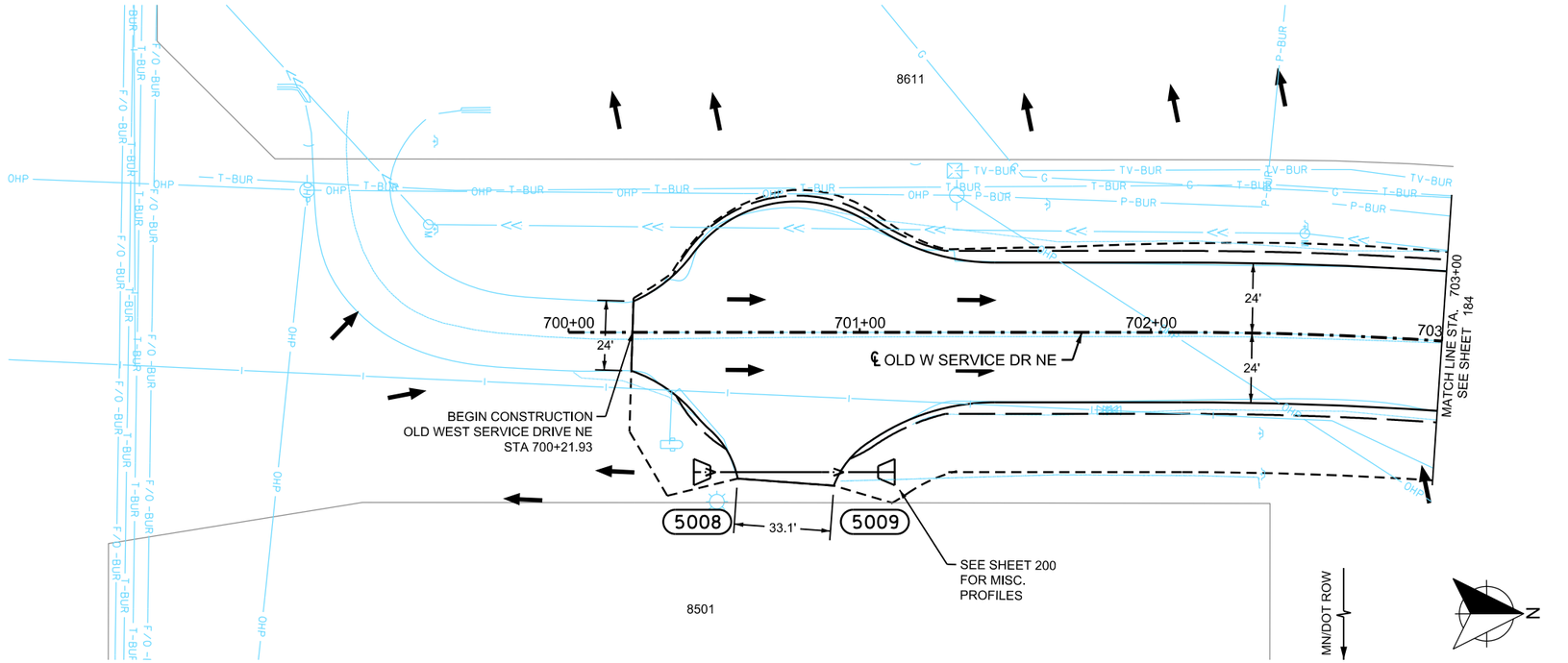
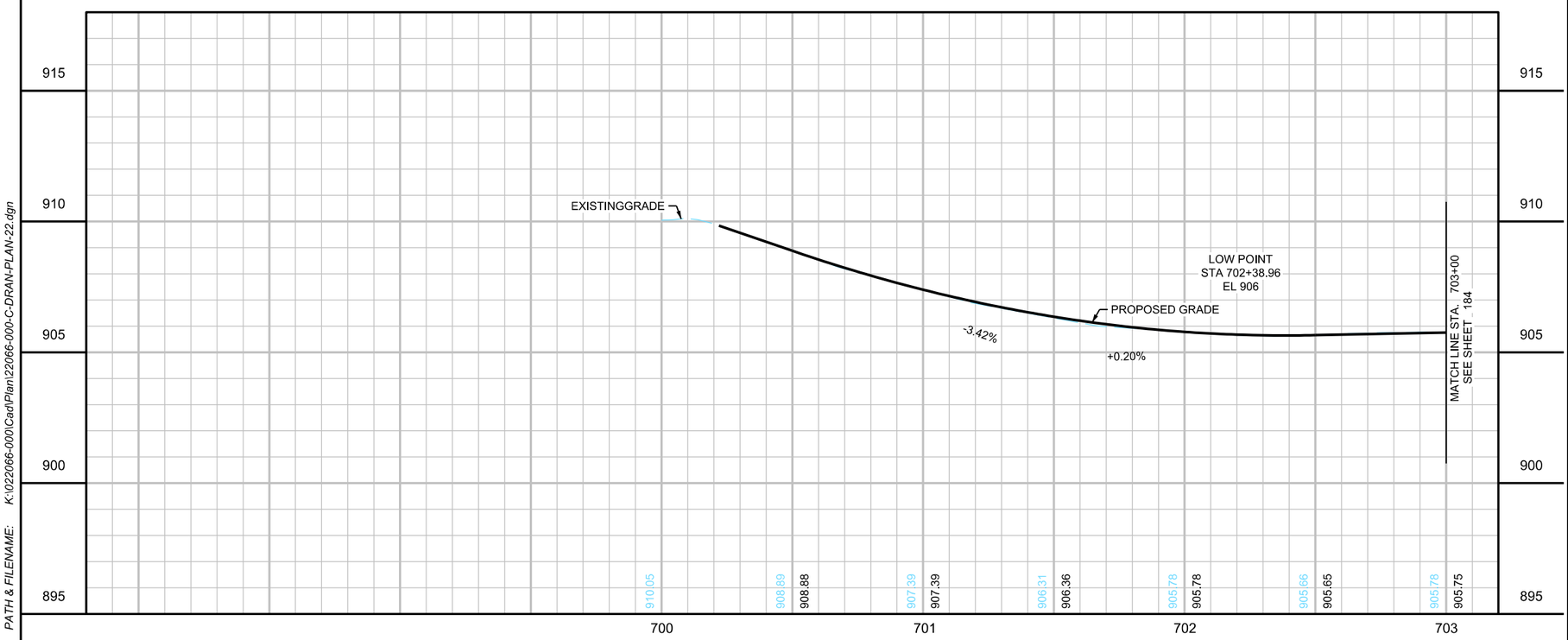
OLD WEST SERVICE DRIVE NE





LOCATION MAP

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **183** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:05 AM

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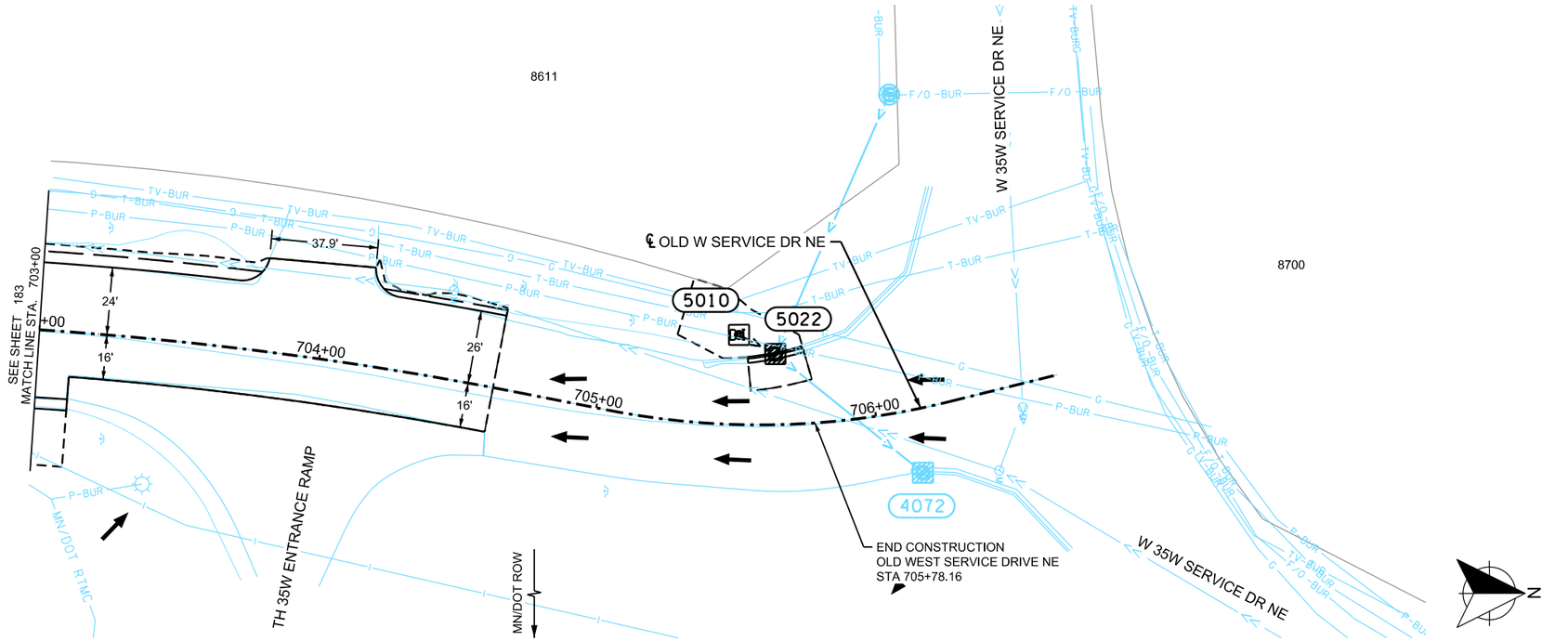
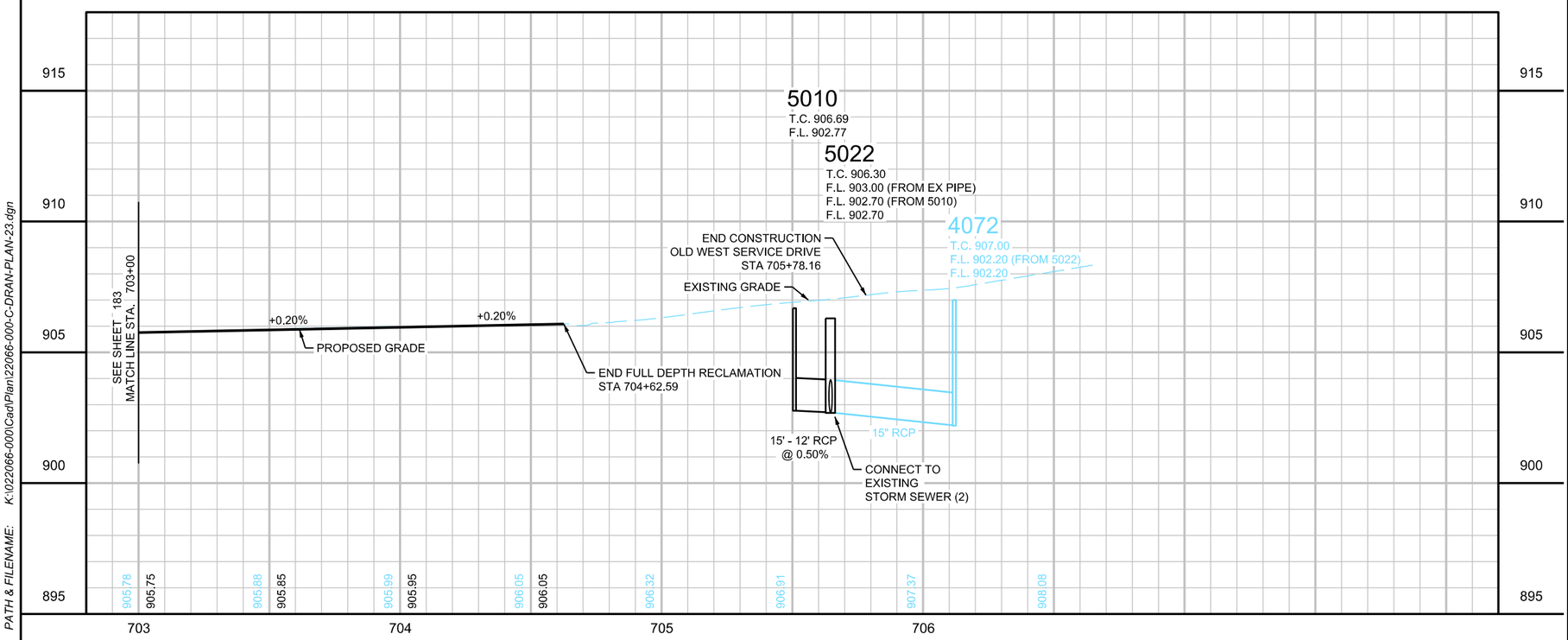
PLOTTED/REVISED: 3/9/2023 11:35:06 AM

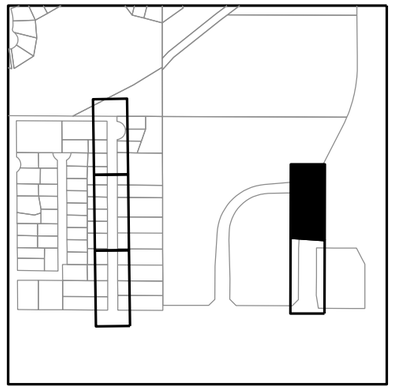
PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-DRAN-PLAN-23.dgn

OLD WEST SERVICE DRIVEN NE





LOCATION MAP



LEGEND

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wsb

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CITY OF BLAINE, MN

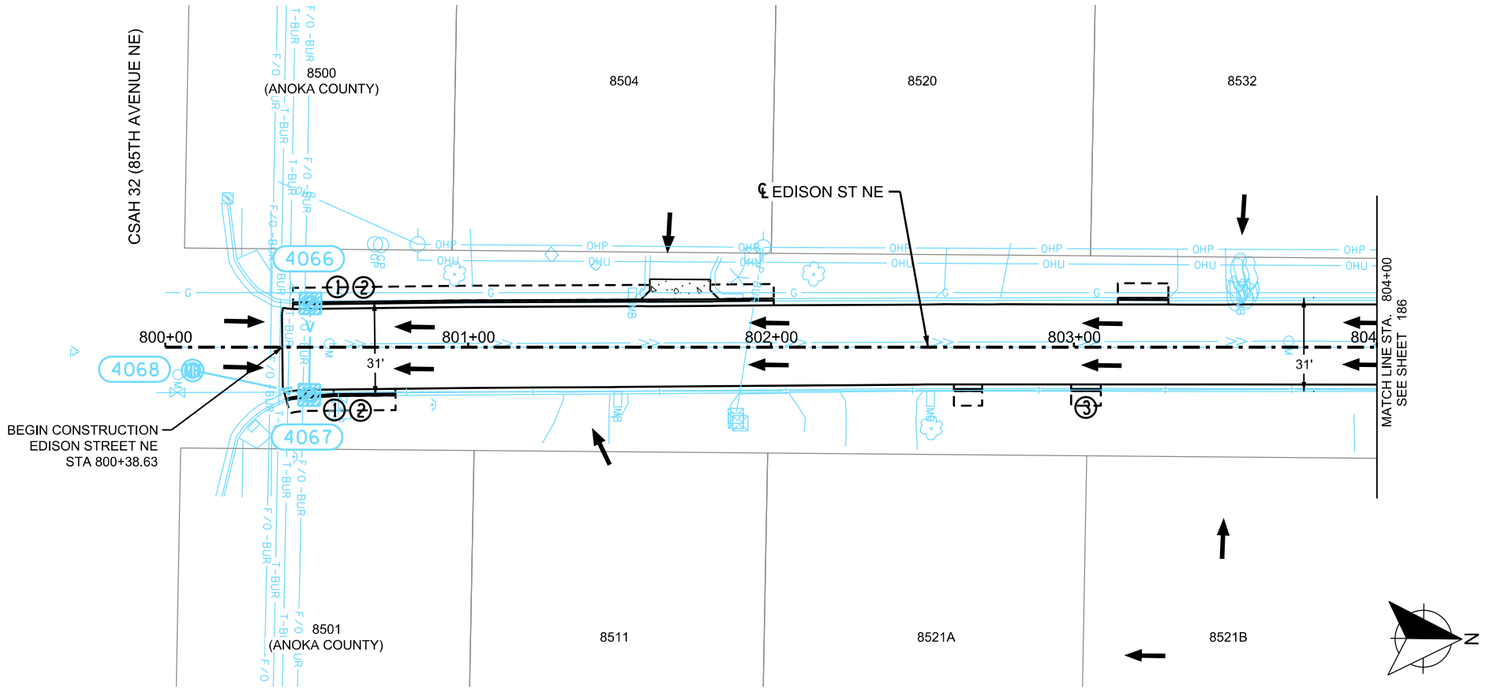
SOUTHEAST AREA RECONSTRUCTION

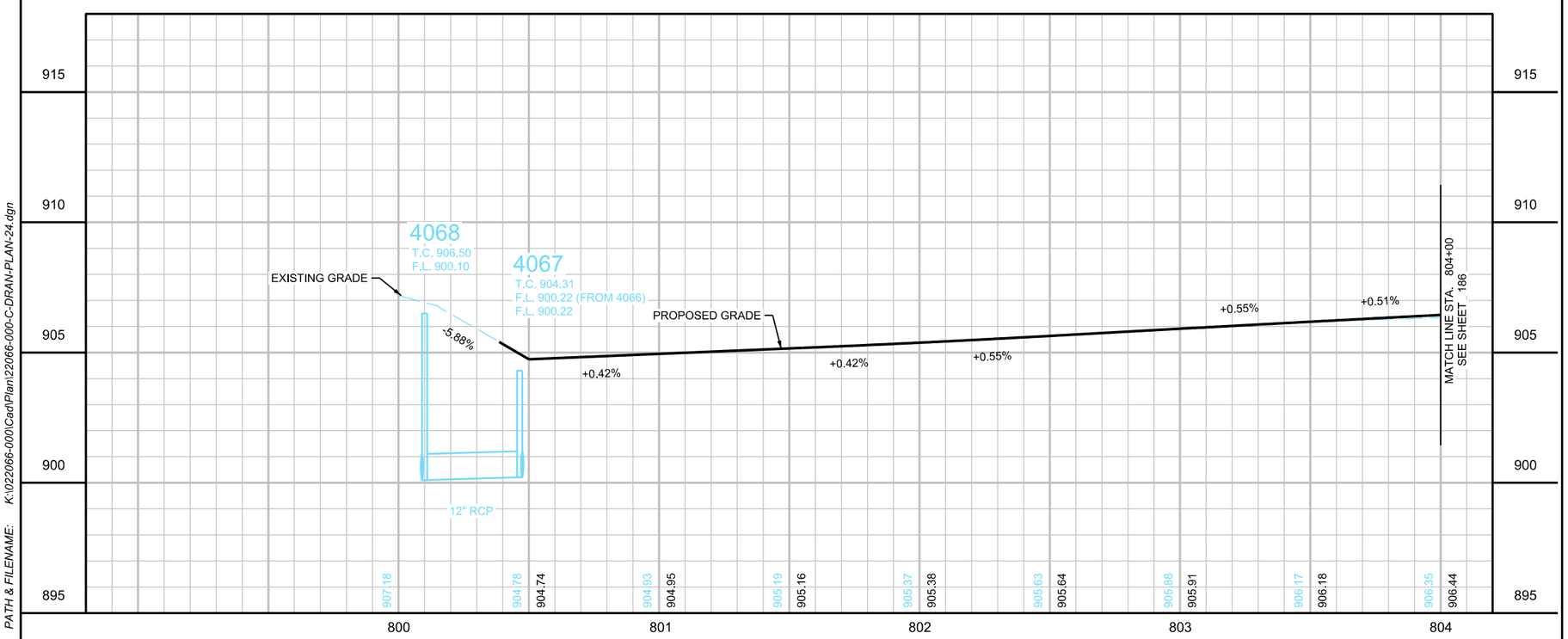
DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **184** OF **230** SHEETS

EDISON STREET NE





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- PROPOSED DROP INLET
- PROPOSED APRON
- 4XXX — INPLACE STRUCTURE NUMBER
- INPLACE CATCH BASIN
- INPLACE MANHOLE
- INPLACE DROP INLET
- INPLACE APRON
- SURFACE FLOW DIRECTION
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- OHP — OVERHEAD POWER LINE
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- SANITARY SEWER
- G — UNDERGROUND GAS MAIN
- UTILITY IN CONDUIT
- I — WATER MAIN

wsb

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	KF
PLAN BY:	CHECK BY:
GT	WCA

REVISIONS

NO.	DATE	DESCRIPTION

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WILLIAM C. ALMS, PE — LIC. NO: 54301

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **185** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:07 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\220066-000-C-DRAN-PLAN-24.dgn

PLOTTED/REVISED: 3/9/2023 11:35:08 AM

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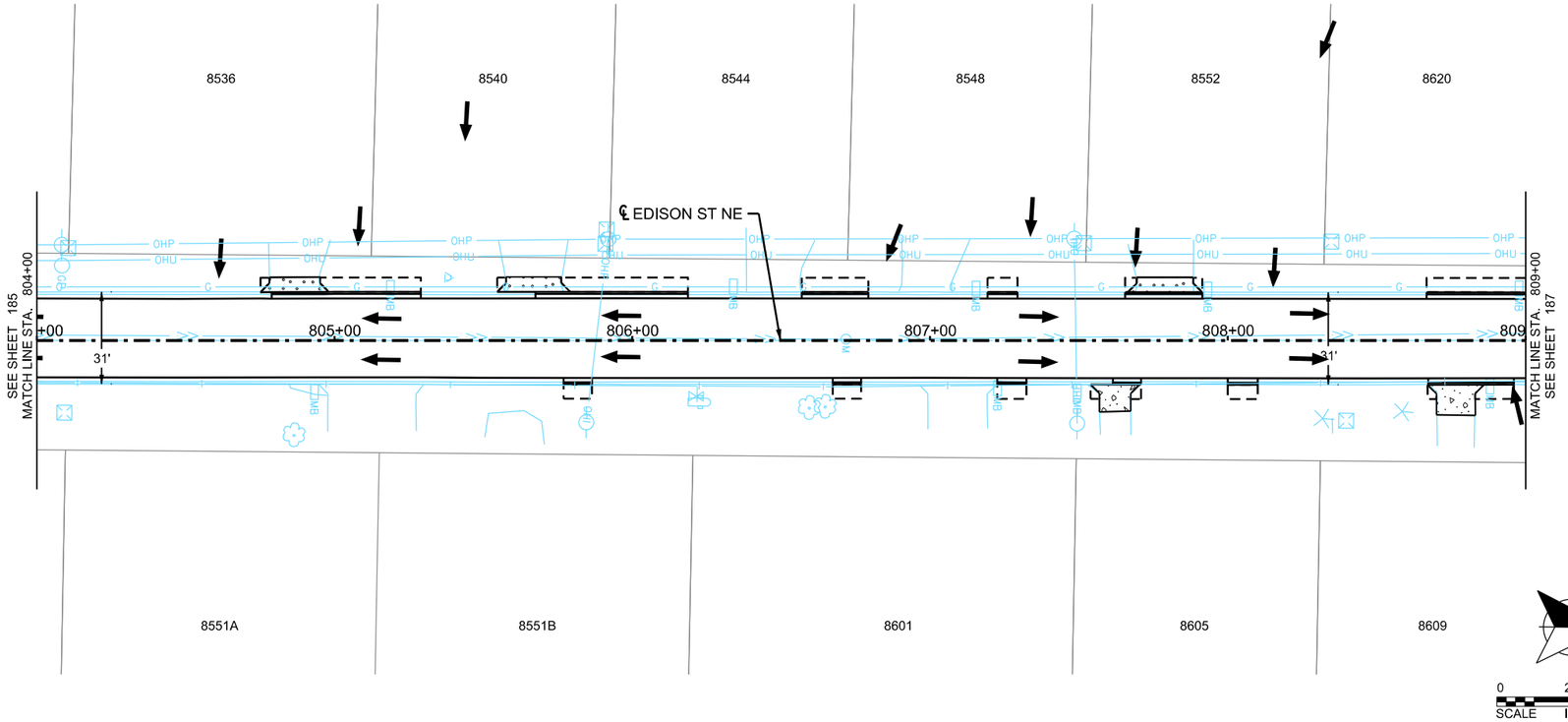
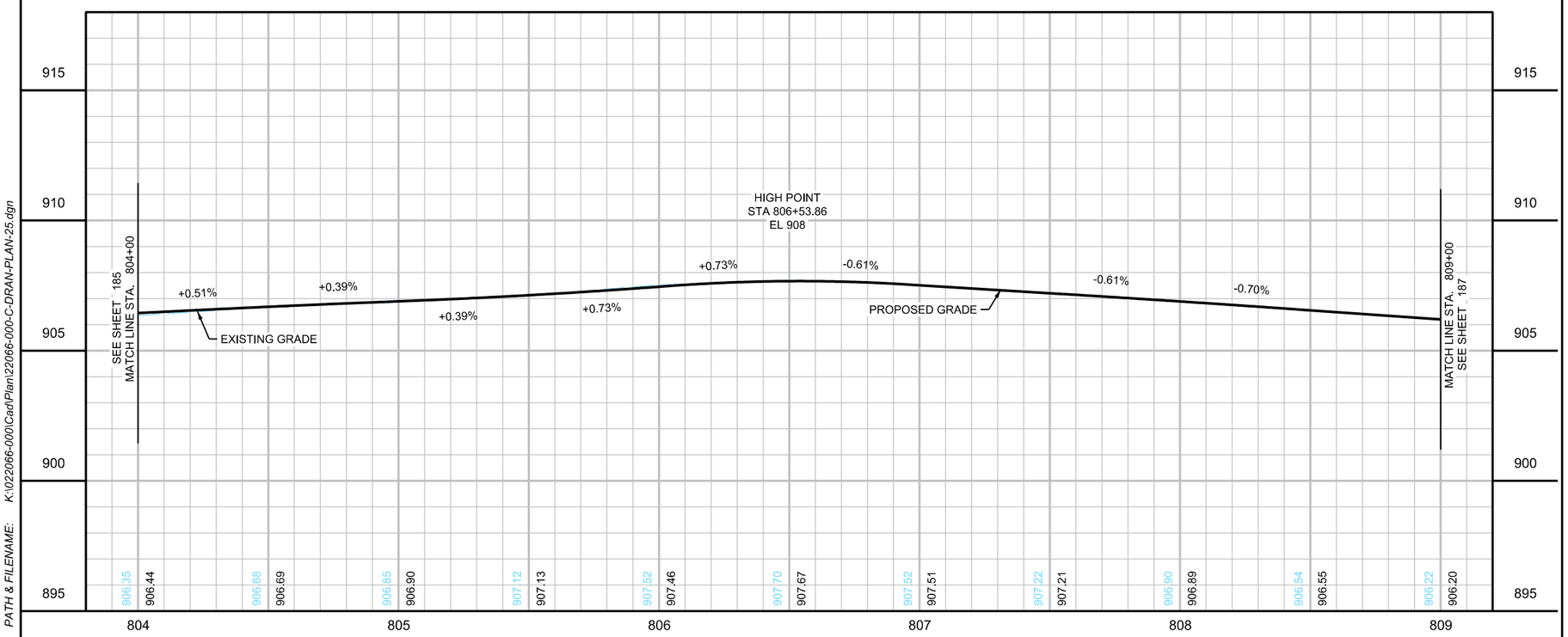
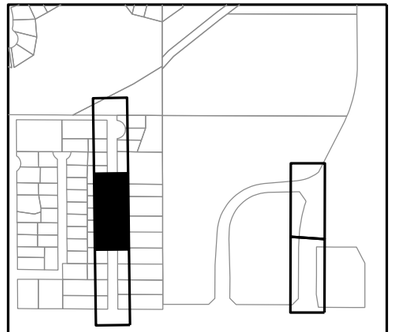
EDISON STREET NE





LOCATION MAP



LEGEND

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- MH — PROPOSED MANHOLE
- PROPOSED DROP INLET
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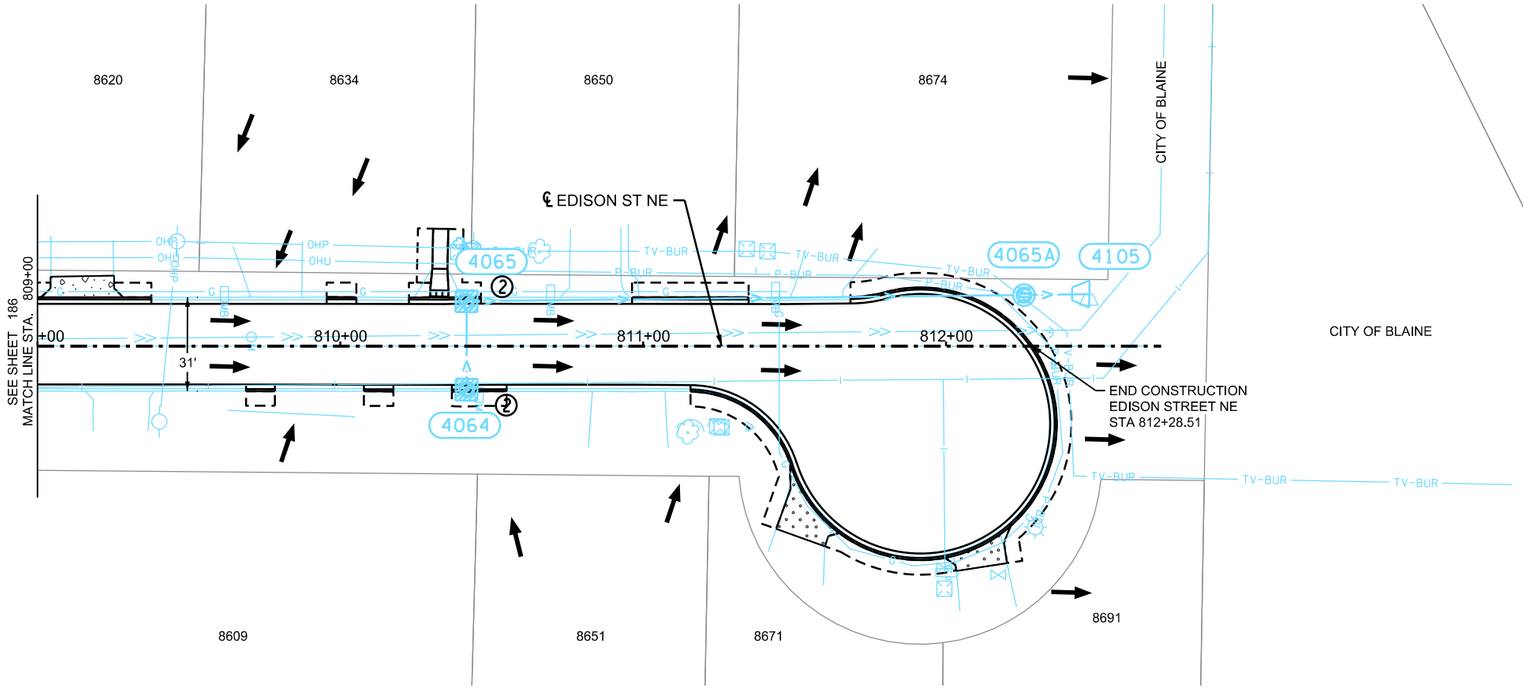
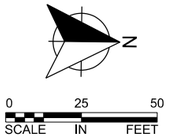
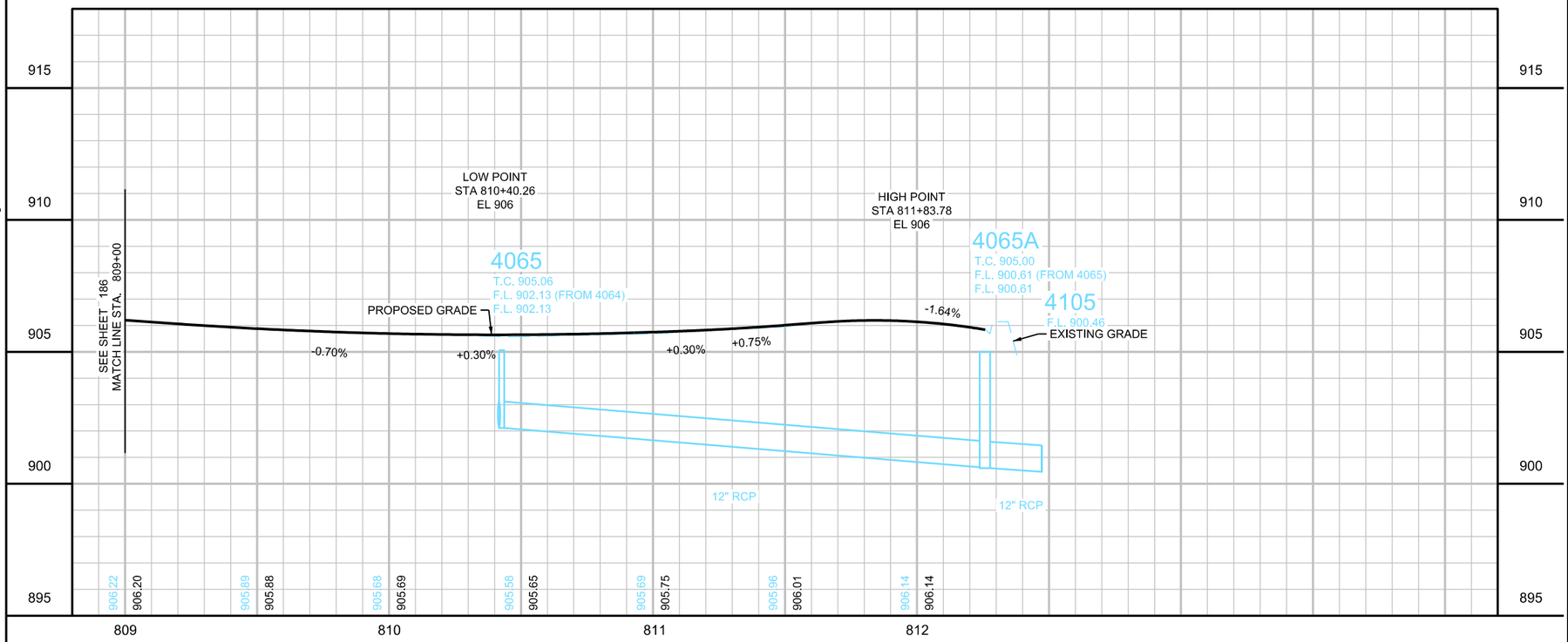
EDISON STREET NE







LOCATION MAP

LEGEND

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CITY PROJECT 23-08

SHEET **187** OF **230** SHEETS

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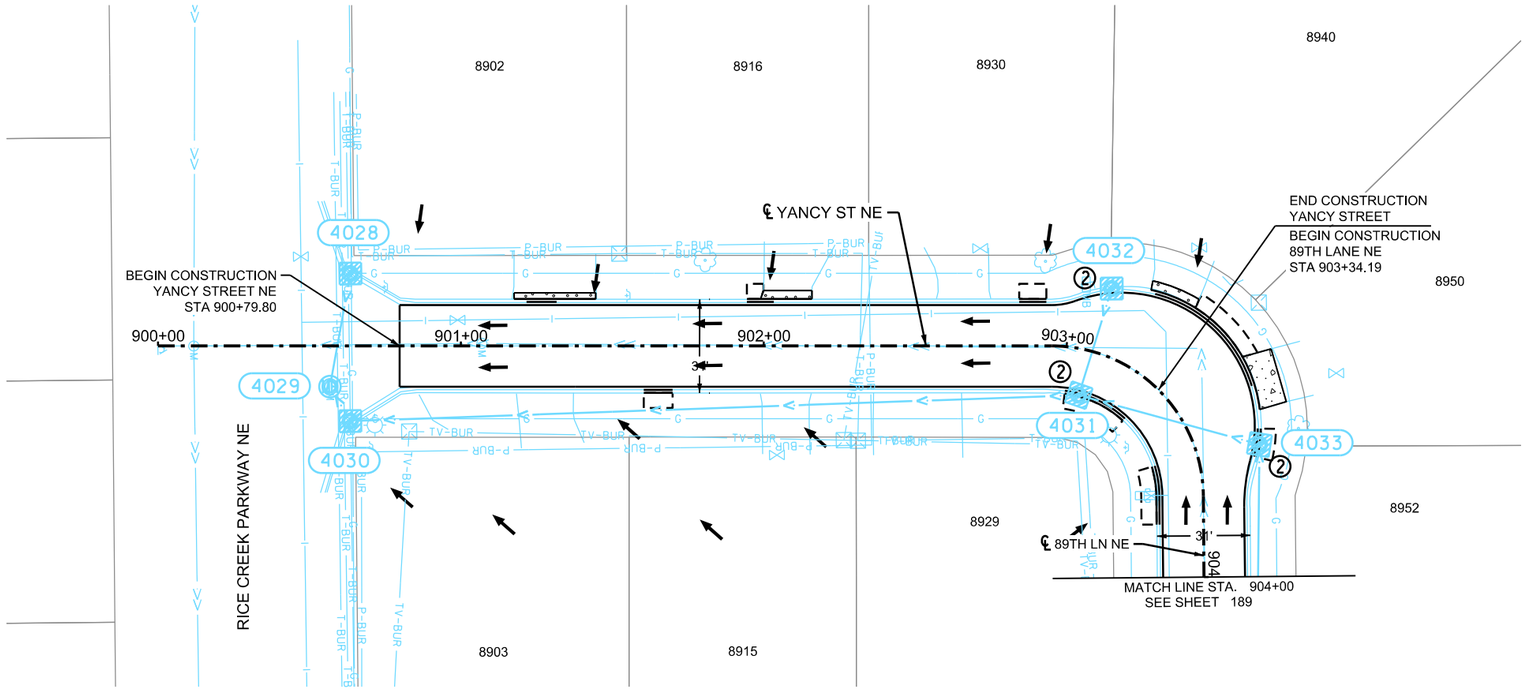
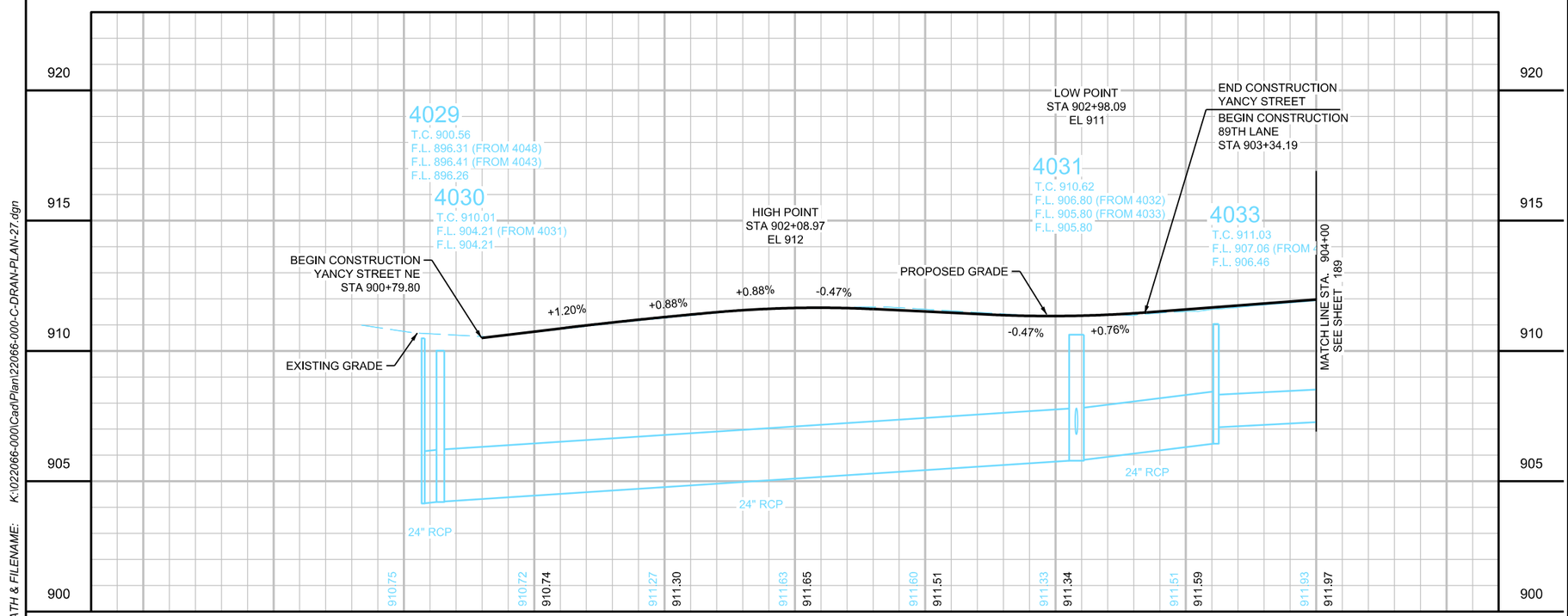
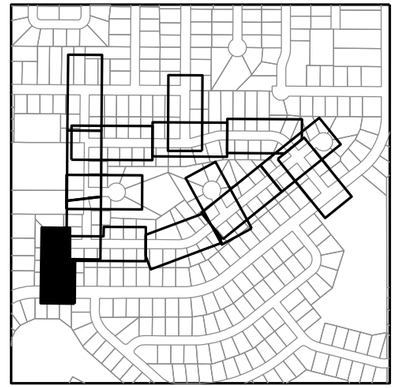
YANCY STREET NE





LOCATION MAP



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SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **188** OF **230** SHEETS

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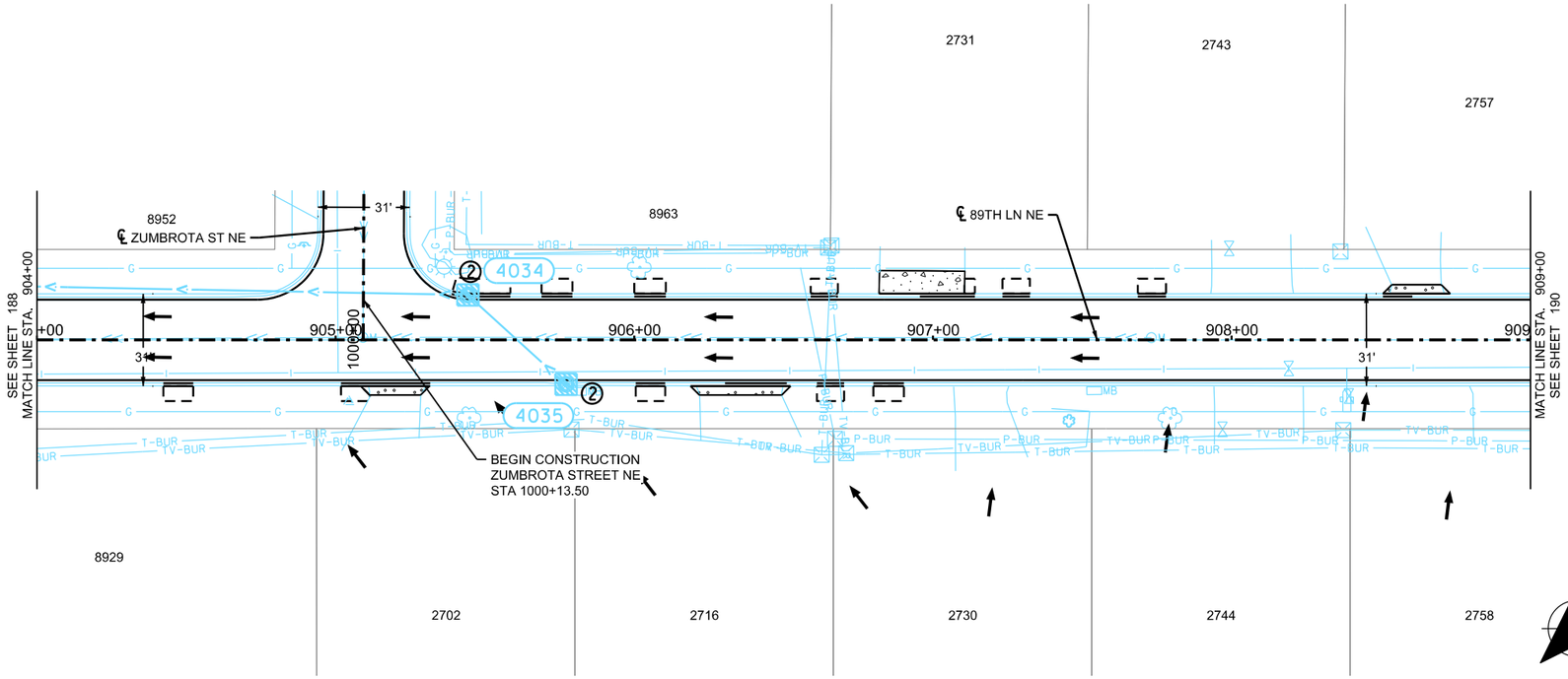
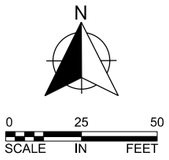
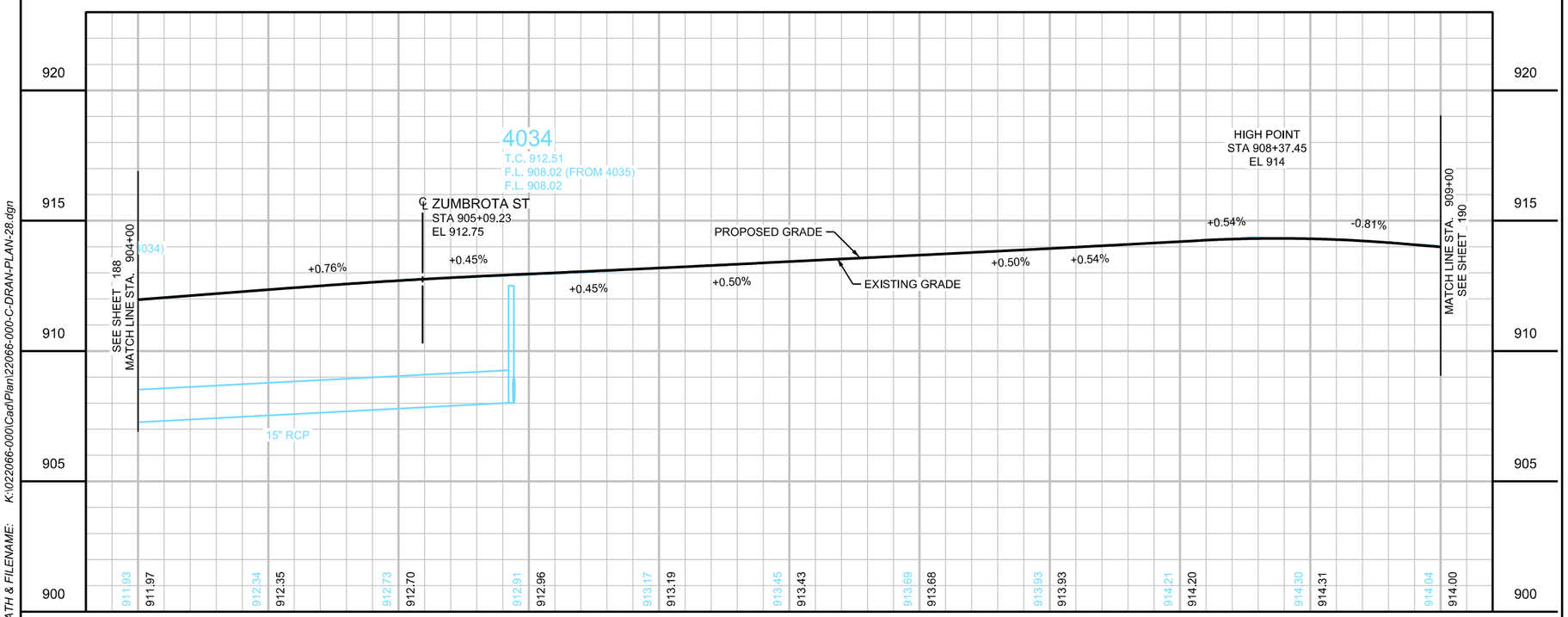
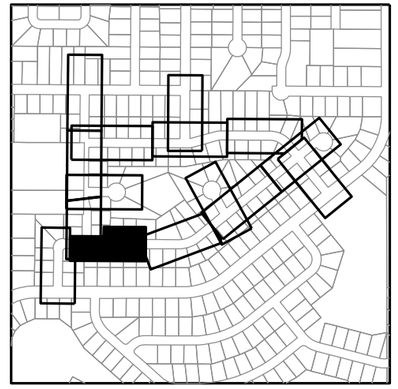
89TH LANE NE







LOCATION MAP



LEGEND

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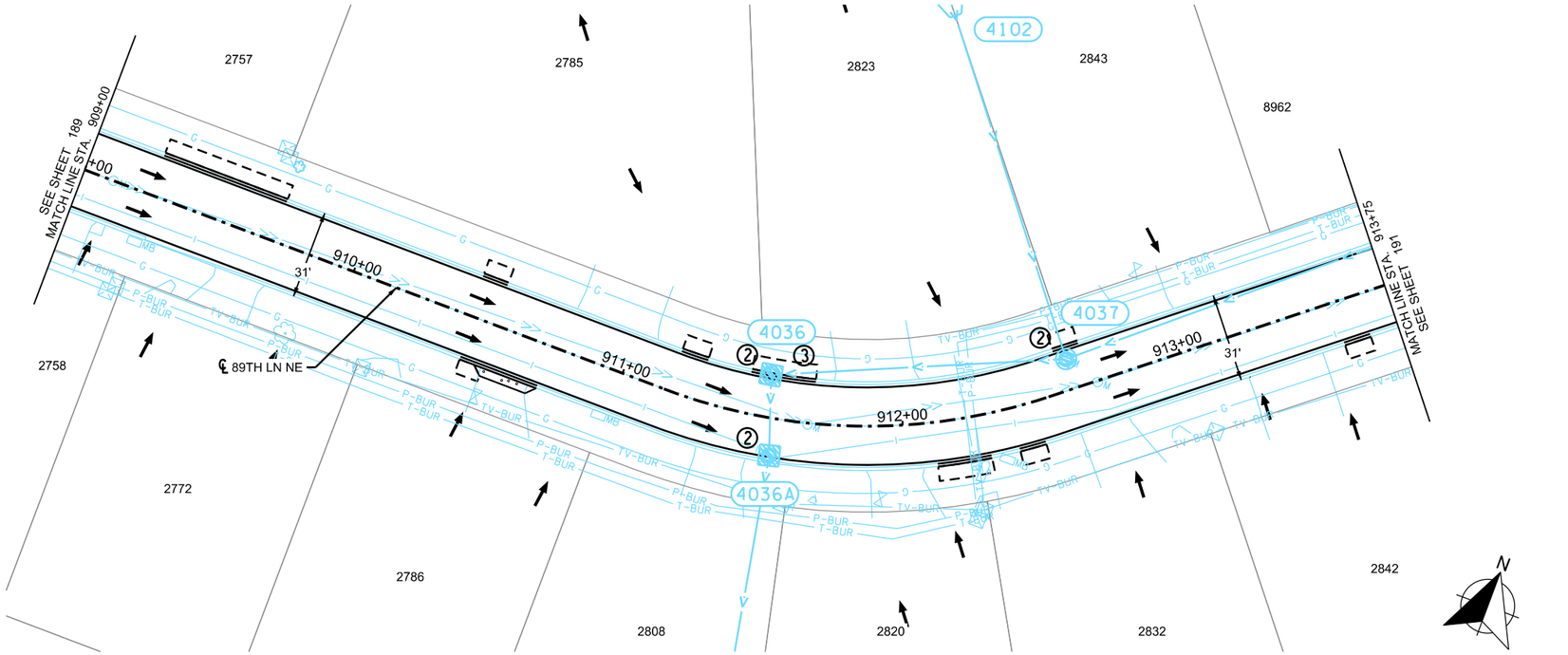
89TH LANE NE



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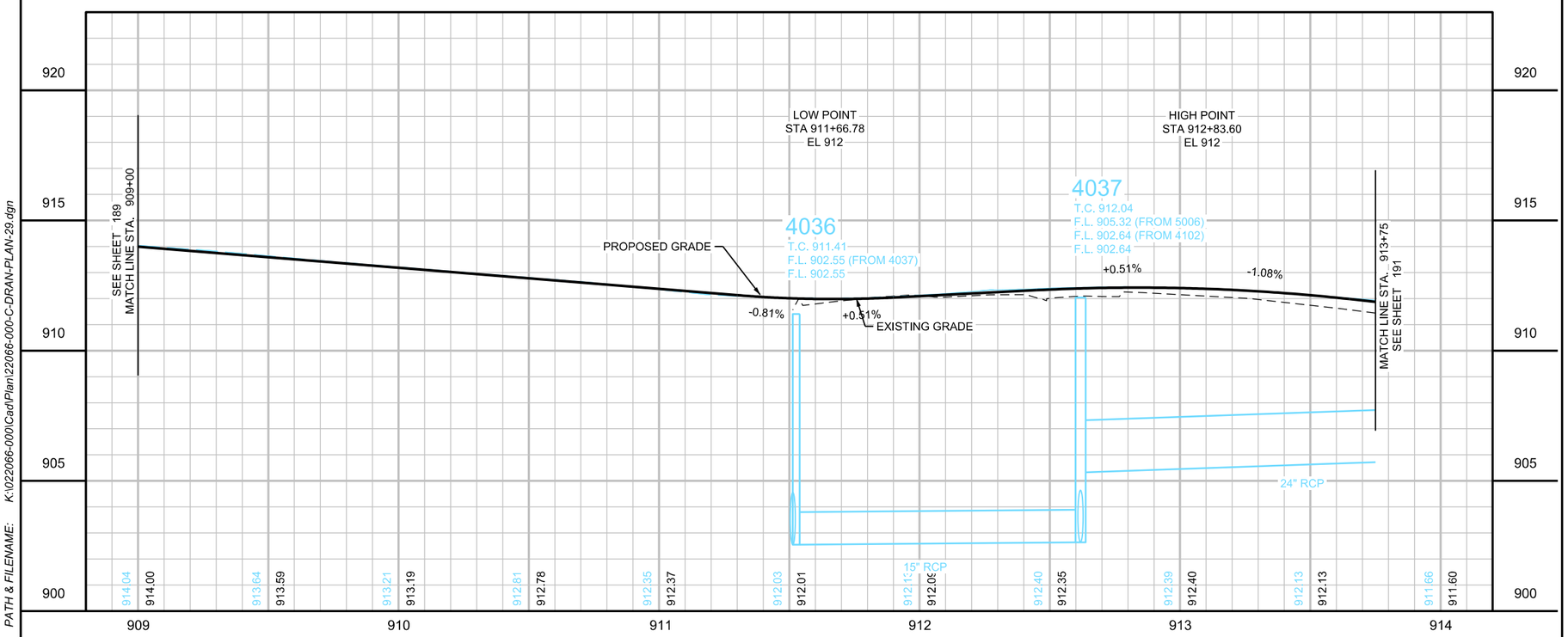

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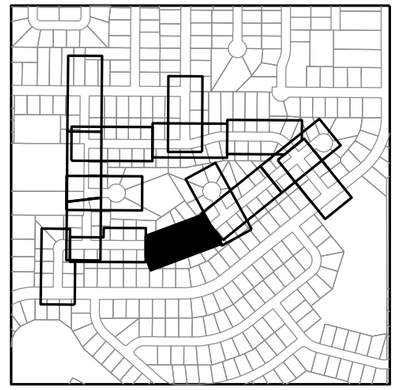

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SHEET **190** OF **230** SHEETS

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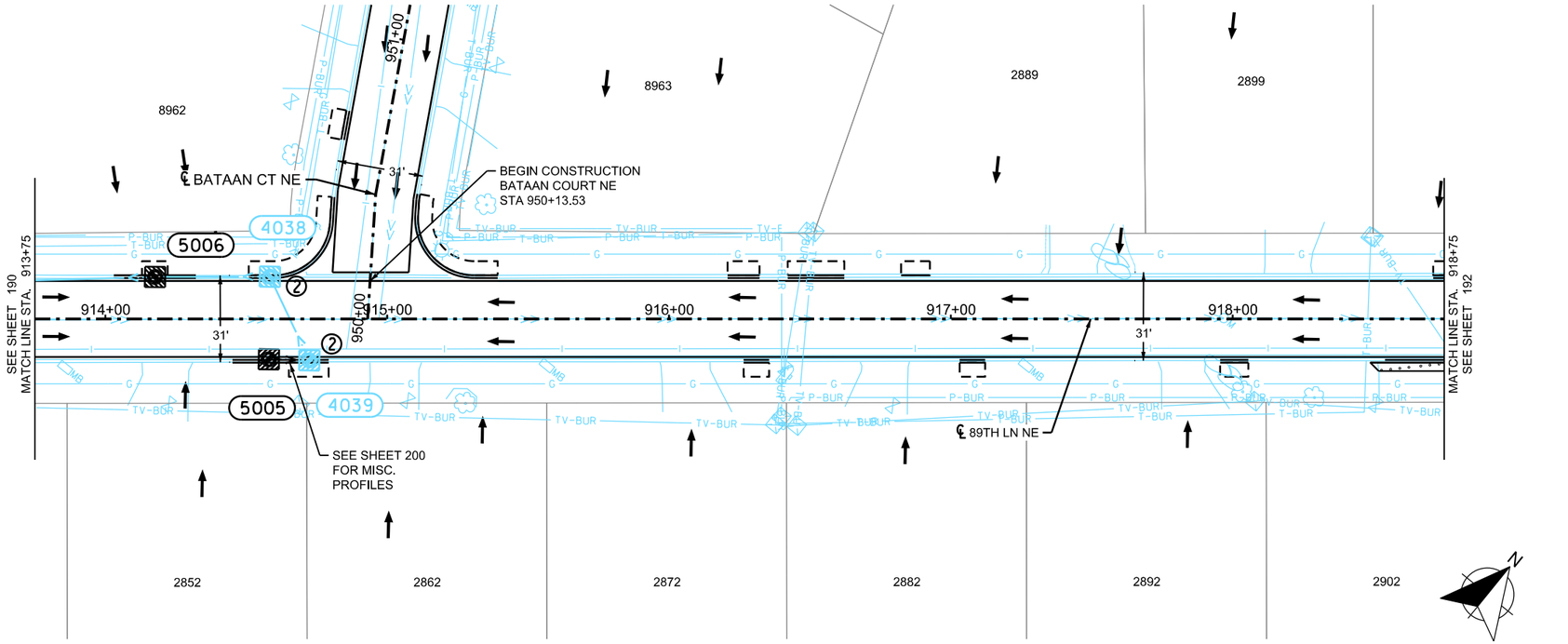

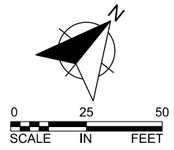

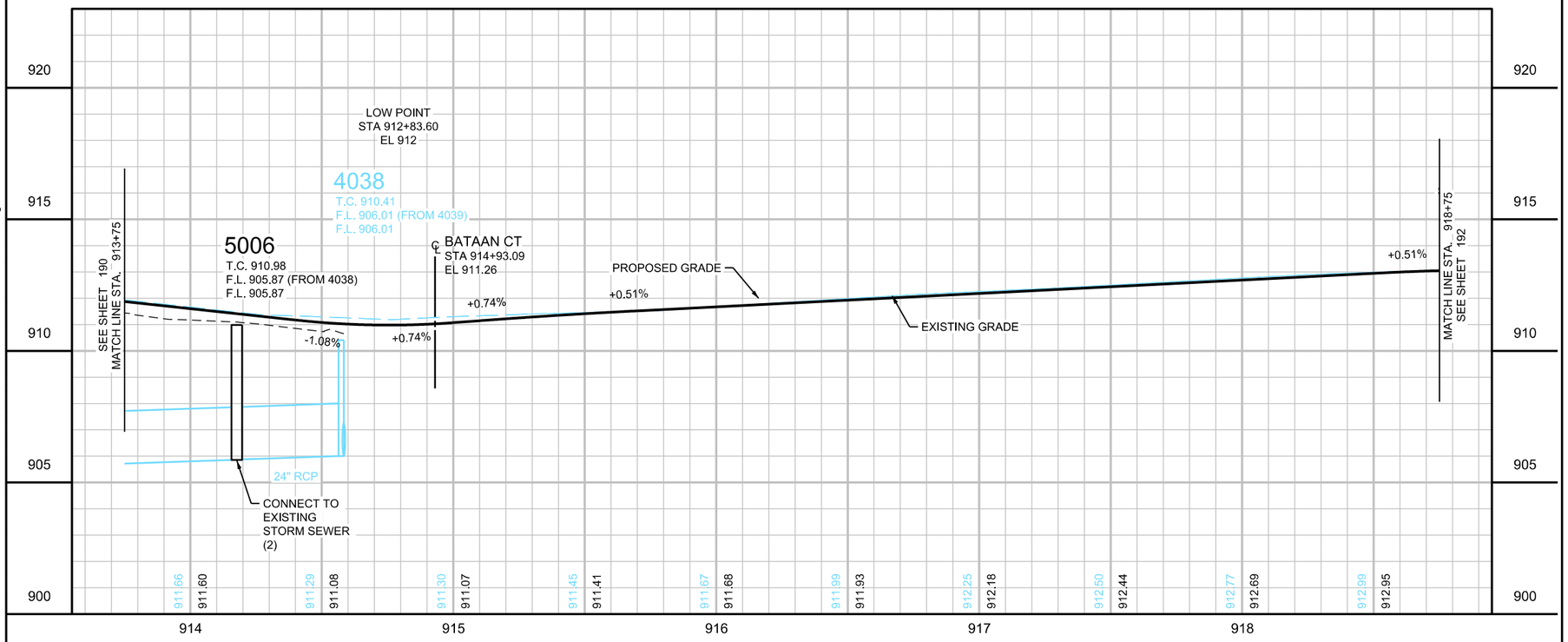

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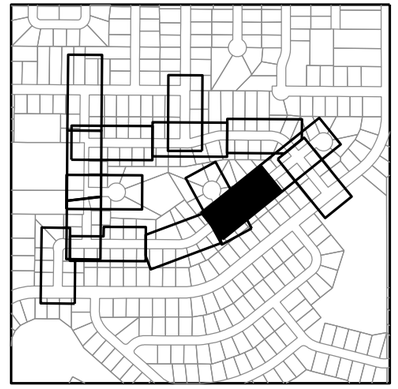

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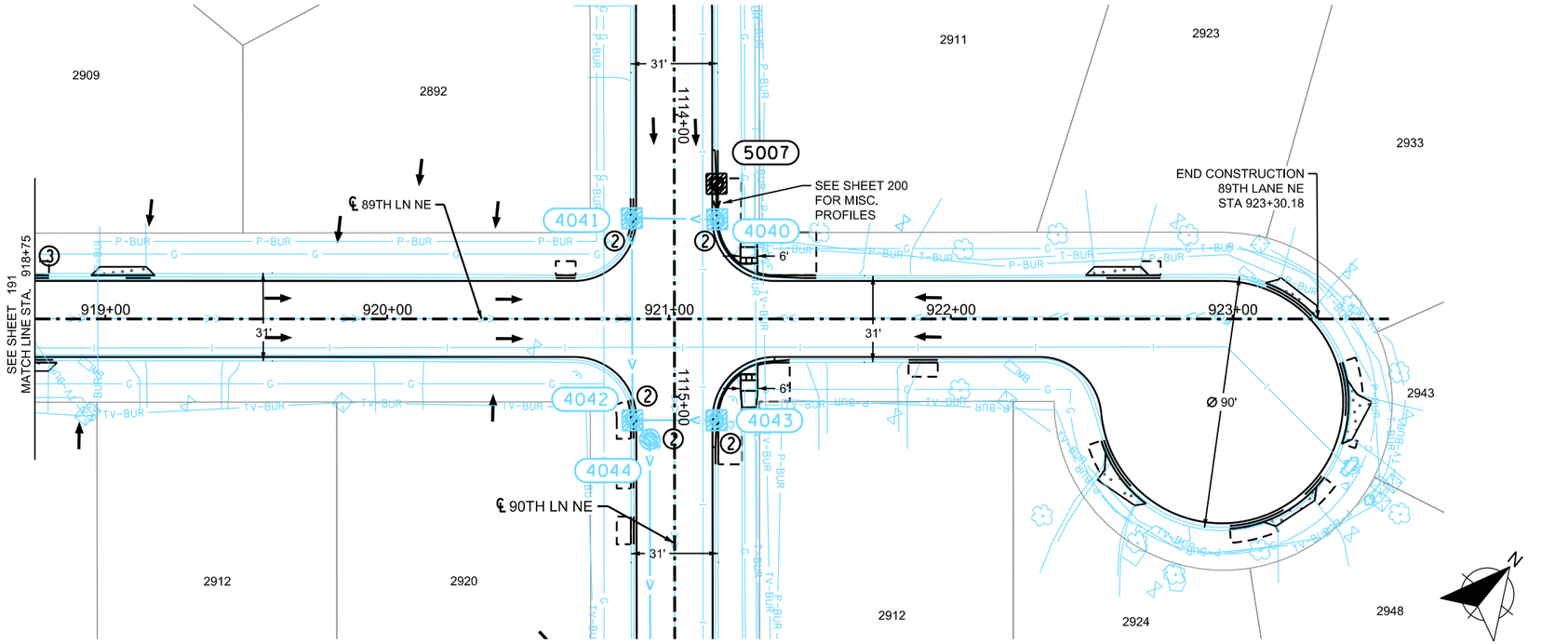

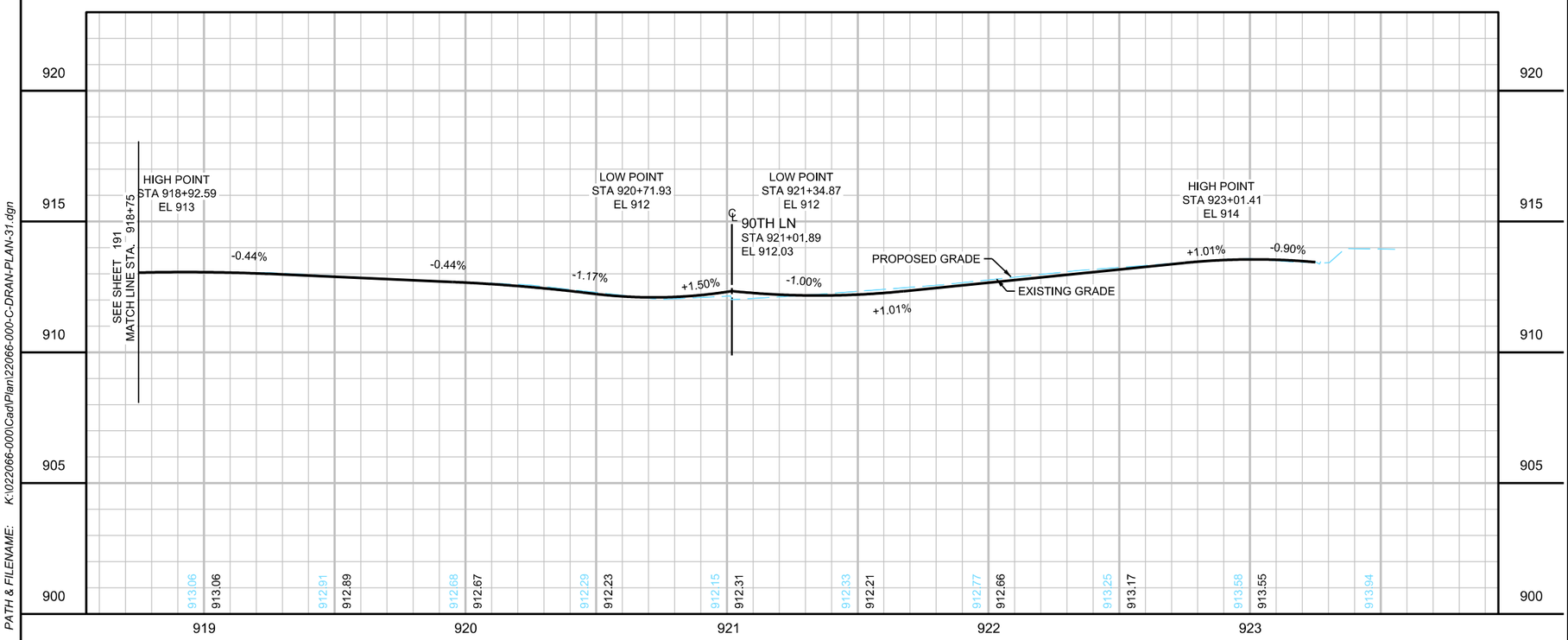

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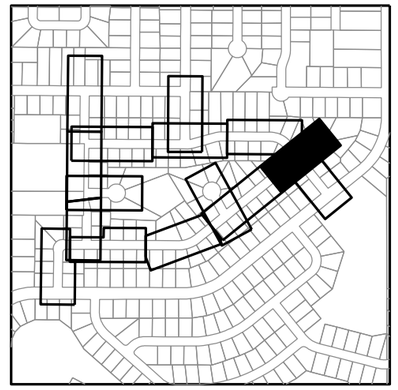

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- INPLACE MANHOLE
- INPLACE DROP INLET
- INPLACE APRON
- SURFACE FLOW DIRECTION
- ① REPLACE TOP SLAB WITH 4022 TOP SLAB
- ② REPLACE GROUT IN STRUCTURE
- ③ FIELD VERIFY EXISTENCE OF SUMP OR YARD DRAINTILE TO STREET THROUGH CURB PER THE MISC. DETAIL OR CONNECT TO STORM SEWER IF STORM SEWER IS LOCATED IN FRONT OF PROPERTY. PAID UNDER LANDSCAPE ALLOWANCE
- PROPOSED STORM SEWER PIPE
- INPLACE STORM SEWER PIPE
- GRADING LIMITS (APPROX.)
- INPLACE RIGHT-OF-WAY
- T-BUR — BURIED FIBER OPTIC LINE
- P-BUR — BURIED POWER LINE
- SIG-BUR — BURIED SIGNAL LINE
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- OHP — OVERHEAD POWER LINE
- OHU — OVERHEAD UTILITY LINE
- SANITARY SEWER
- G — UNDERGROUND GAS MAIN
- UTILITY IN CONDUIT
- W — WATER MAIN

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	KF
PLAN BY:	CHECK BY:
GT	WCA

REVISIONS

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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.

WILLIAM C. ALMS, PE — LIC. NO: 54301

DATE: 4/22/2022

CITY OF BLAINE, MN

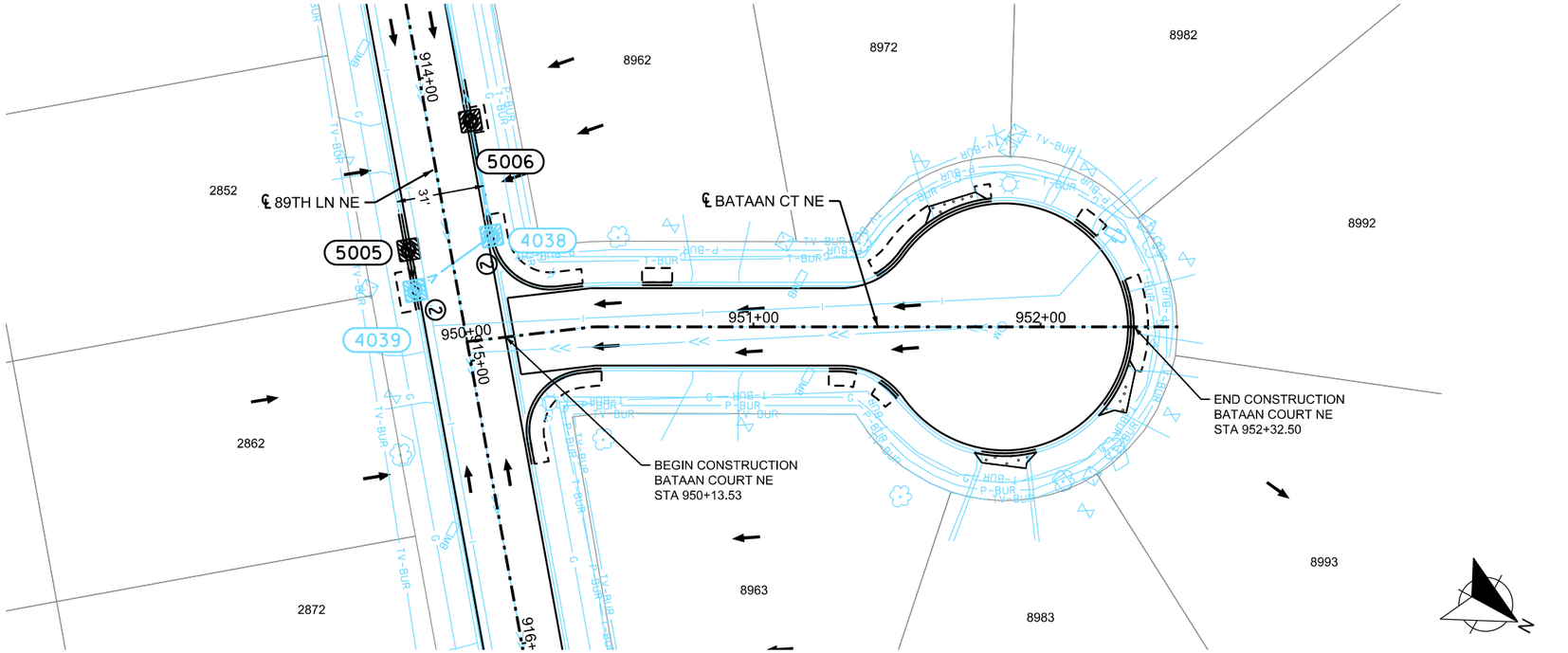
SOUTHEAST AREA RECONSTRUCTION

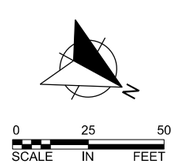
DRAINAGE PLAN & PROFILE

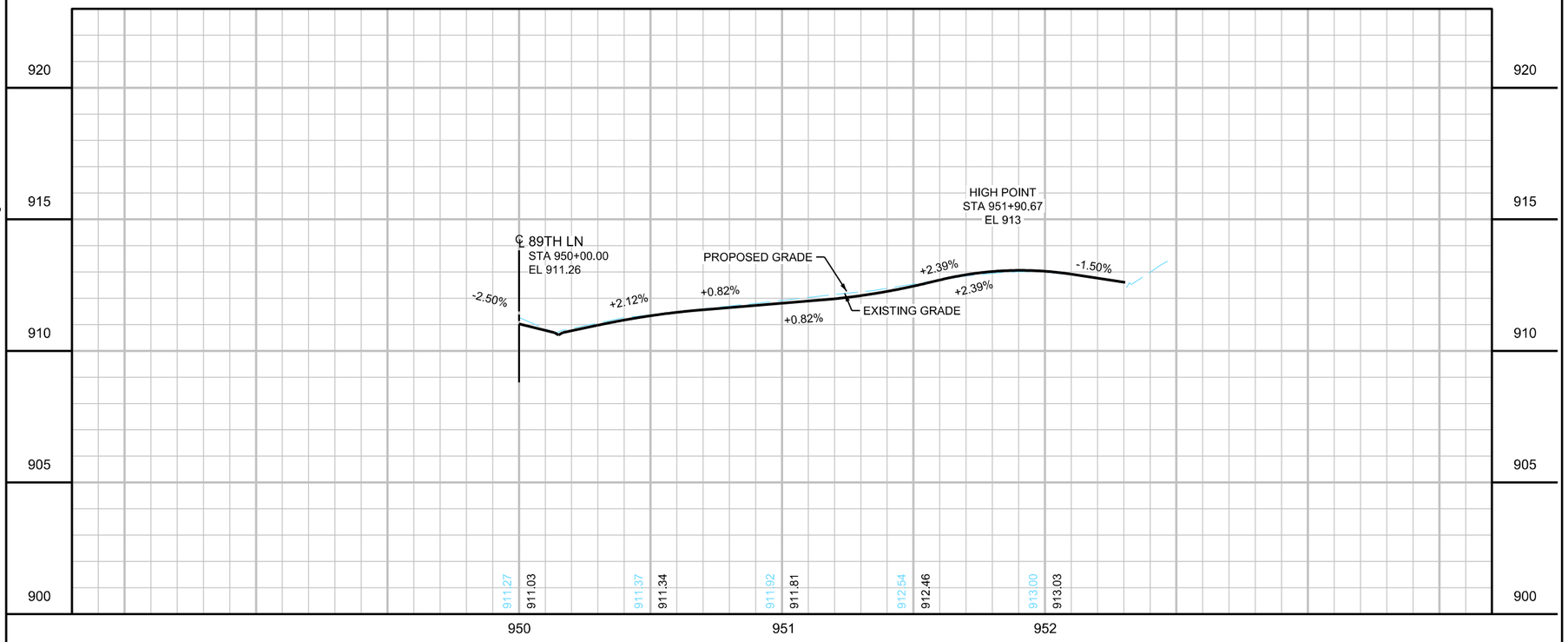
CITY PROJECT 23-08

SHEET **192** OF **230** SHEETS

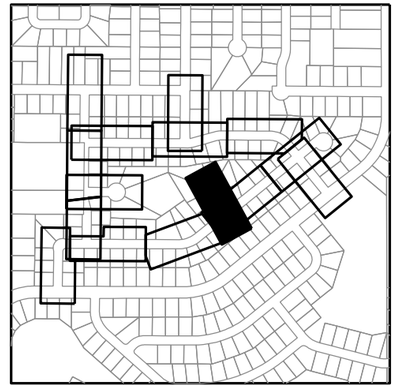
BATAAN COURT NE







LOCATION MAP



LEGEND

- 5XXX — PROPOSED STRUCTURE NUMBER
- PROPOSED CATCH BASIN
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DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **193** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:12 AM

PATH & FILENAME: K:\022066-000\Cad\Plan\220066-000-C-DRAN-PLAN-32.dgn

PLOTTED/REVISED: 3/9/2023 11:35:13 AM

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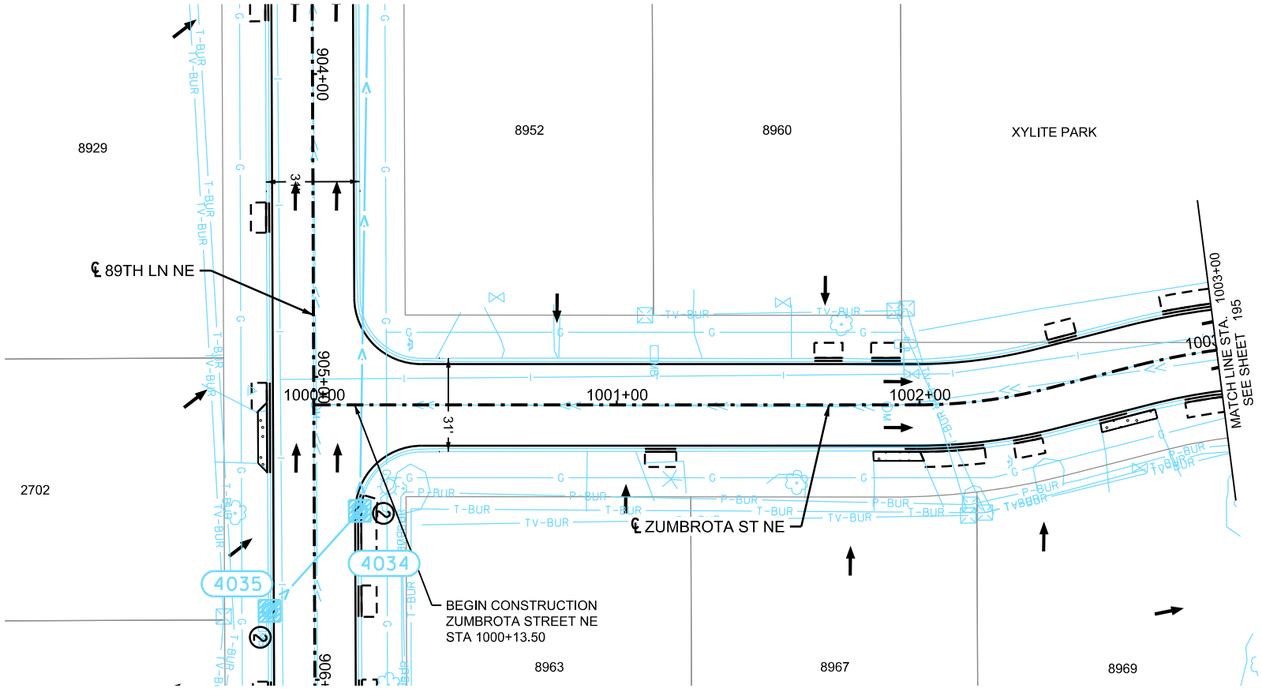
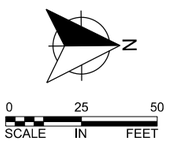
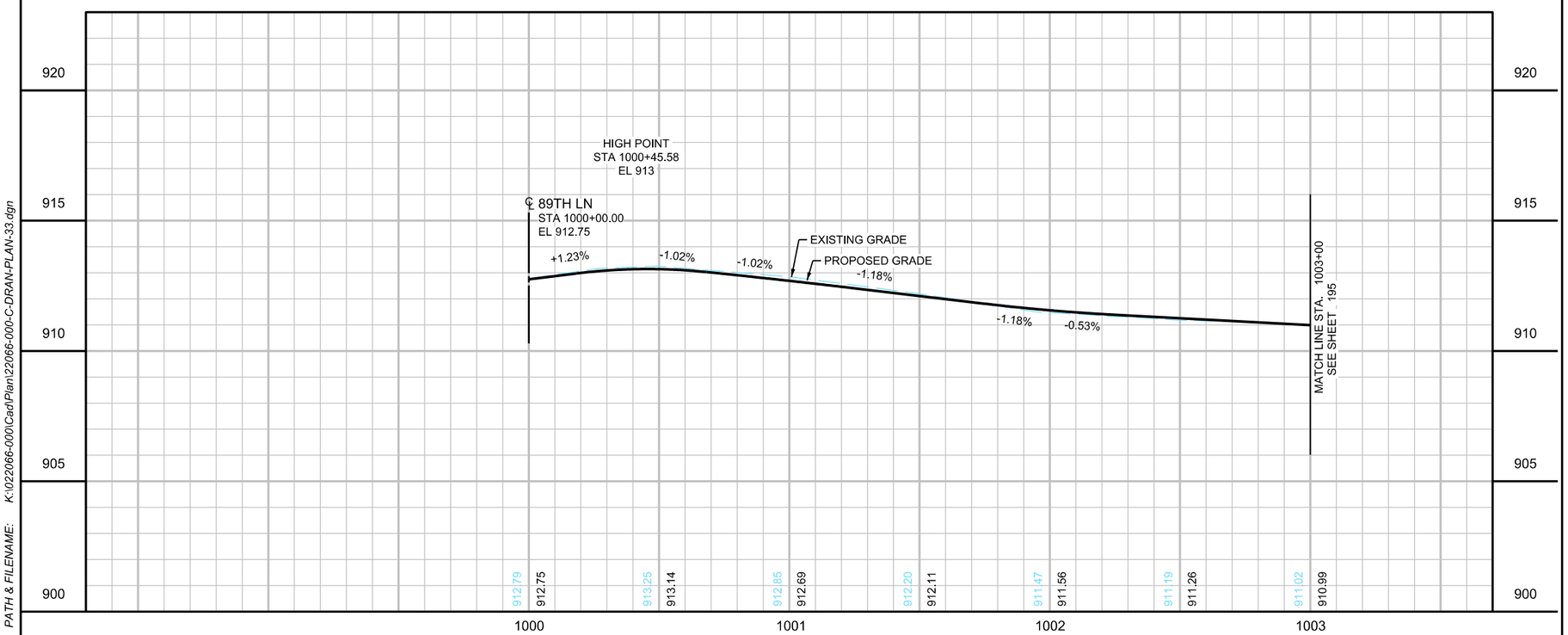
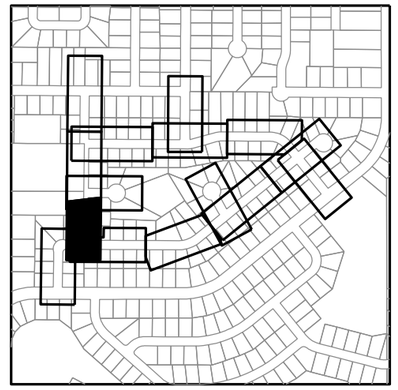
ZUMBROTA STREET NE







LOCATION MAP



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WSB PROJECT NO.: 022066-000

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PLAN BY:	CHECK BY:
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WILLIAM C. ALMS, PE — LIC. NO: 54301

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **194** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:14 AM

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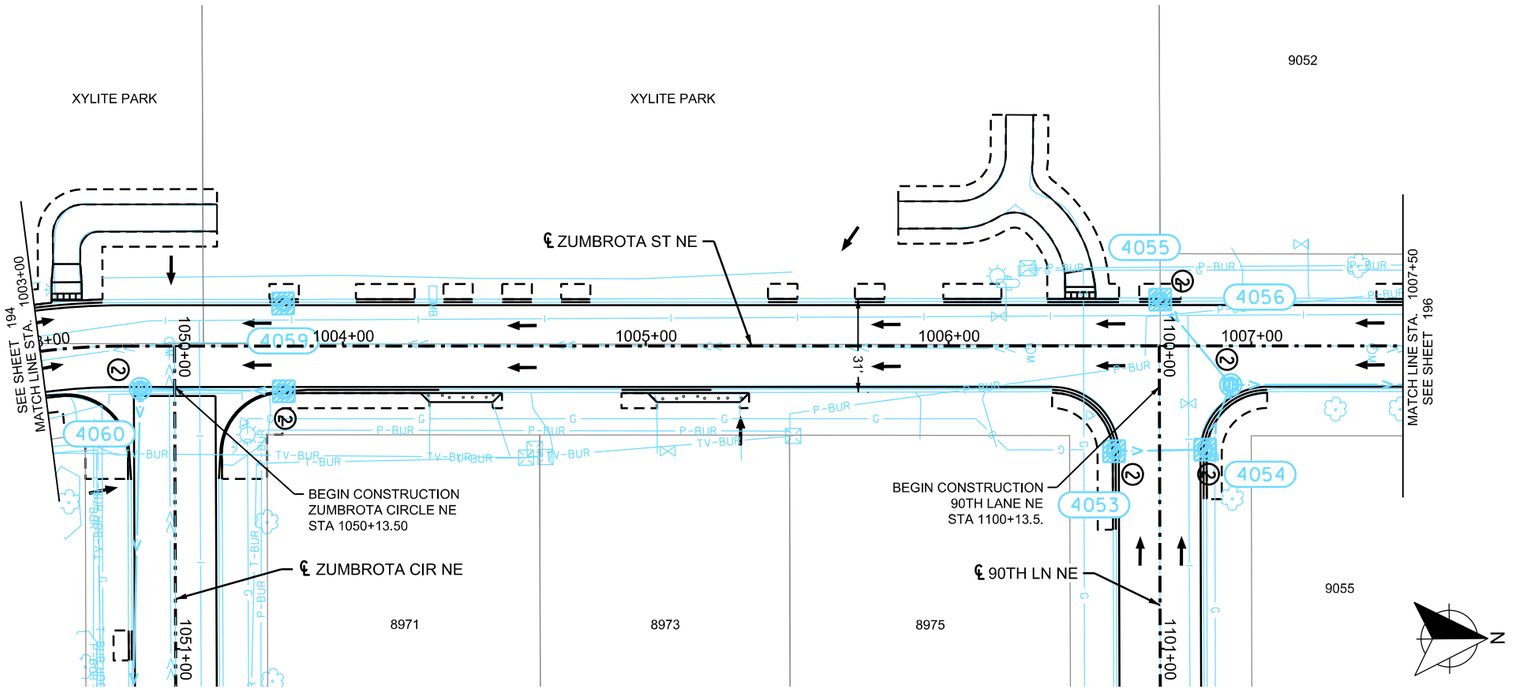
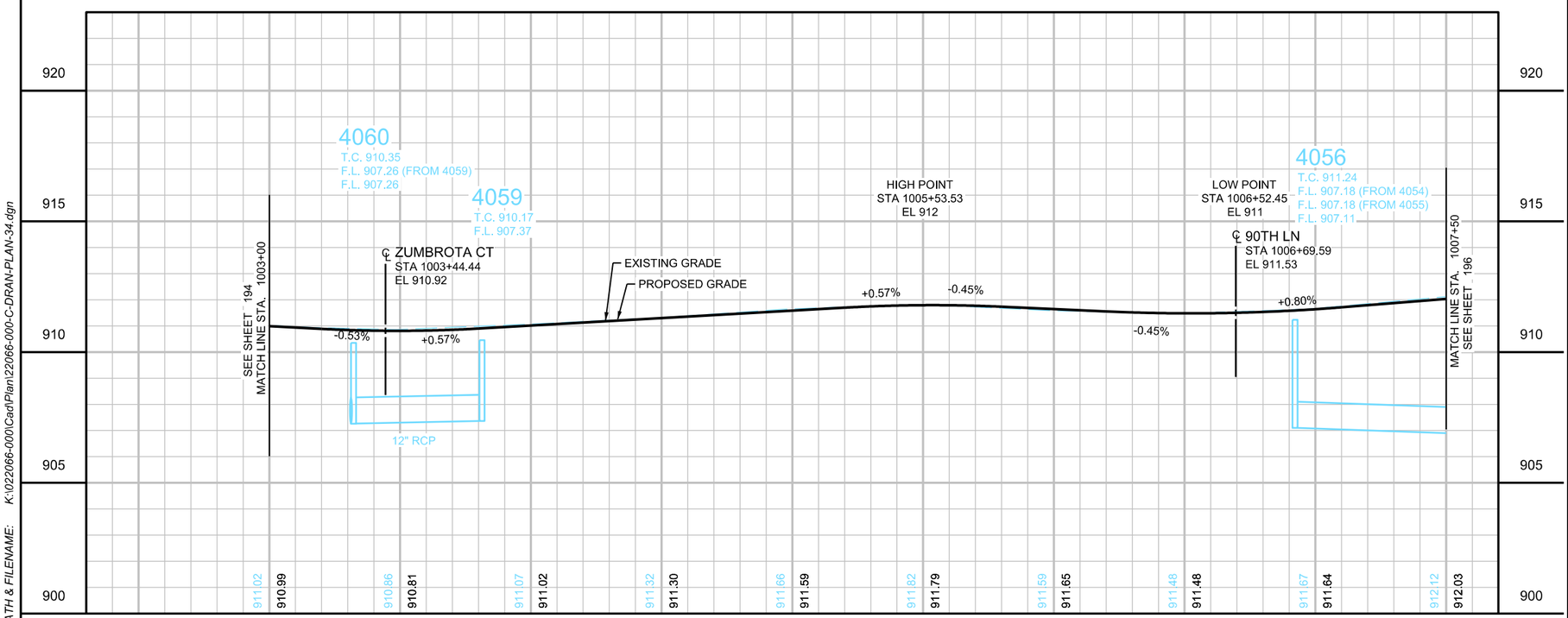
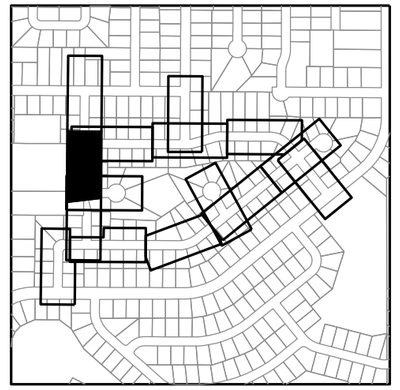
ZUMBROTA STREET NE





LOCATION MAP



LEGEND

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WSB PROJECT NO.: 022066-000

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **195** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:14 AM

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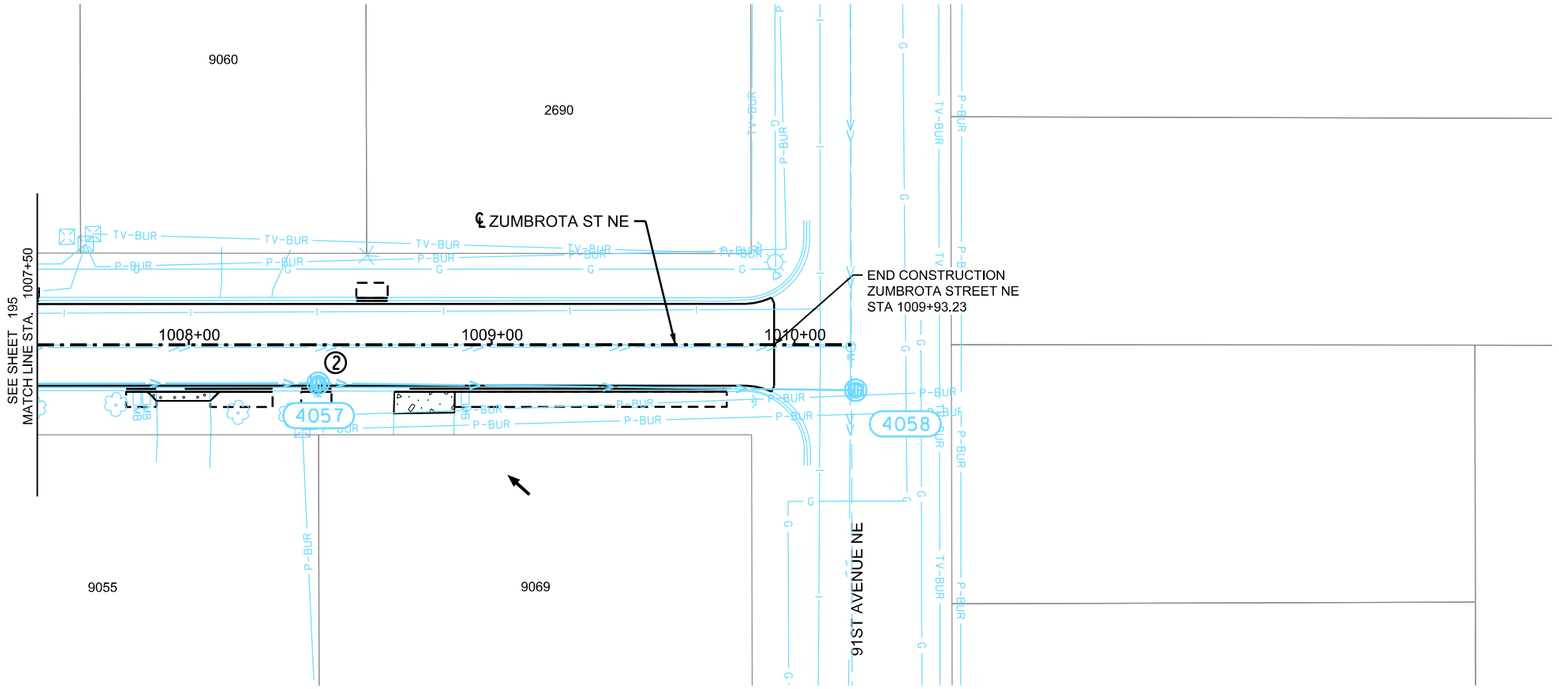
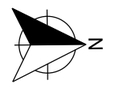
ZUMBROTA STREET NE





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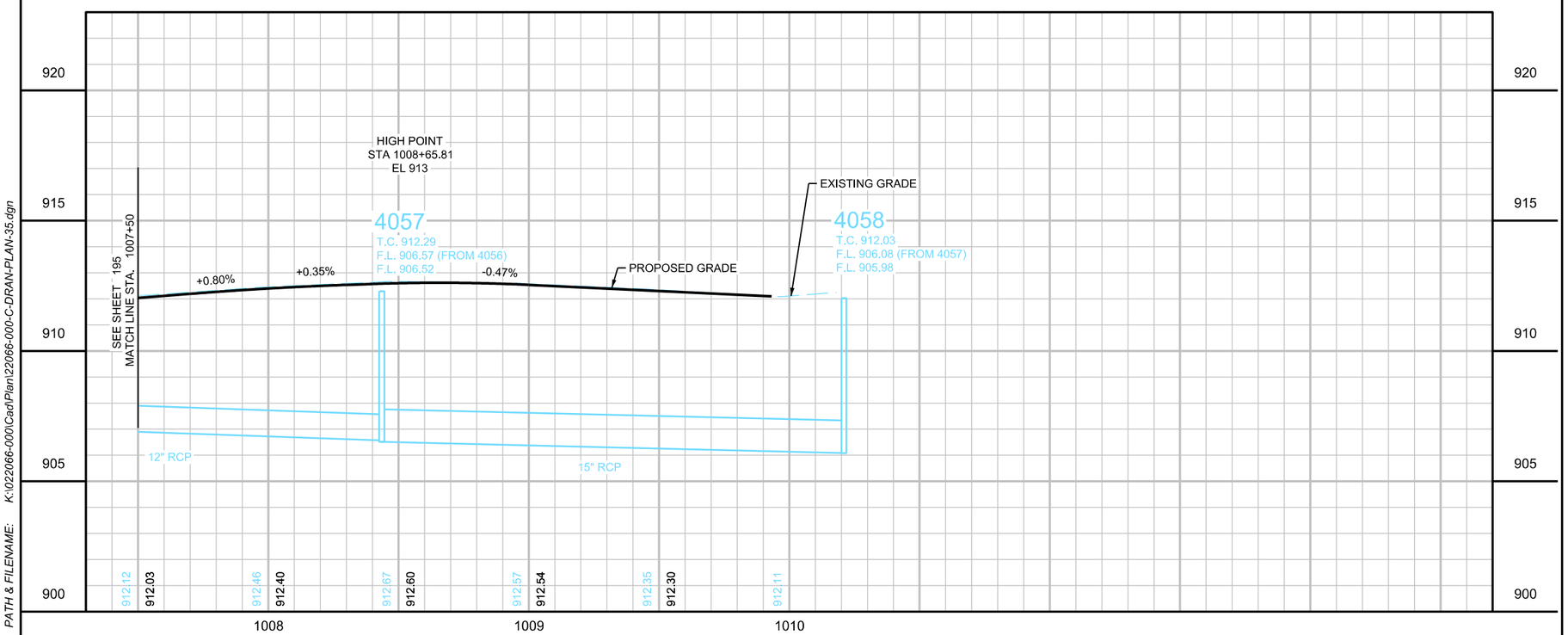

LOCATION MAP

LEGEND

- 5XXX — PROPOSED STRUCTURE NUMBER
- PROPOSED CATCH BASIN
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wsb

WSB PROJECT NO.: 022066-000

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **196** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:15 AM

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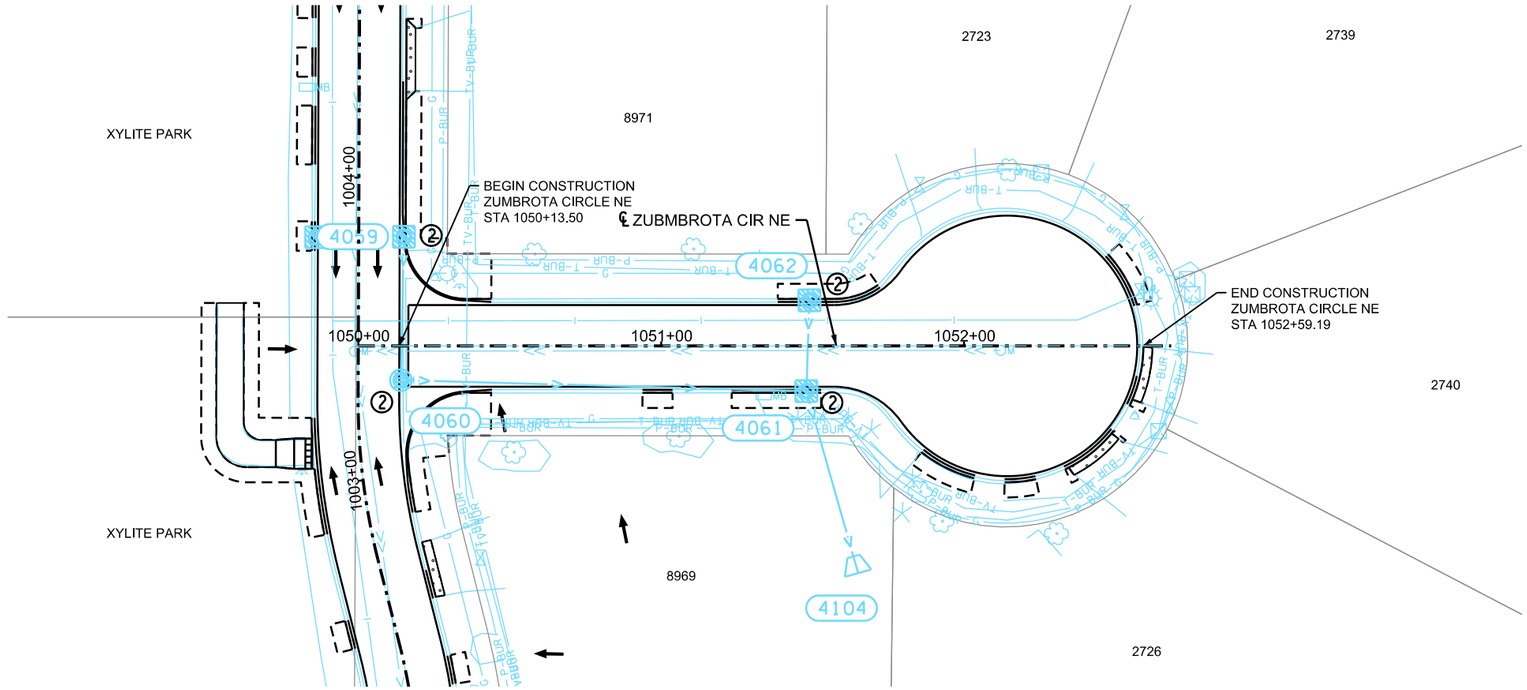
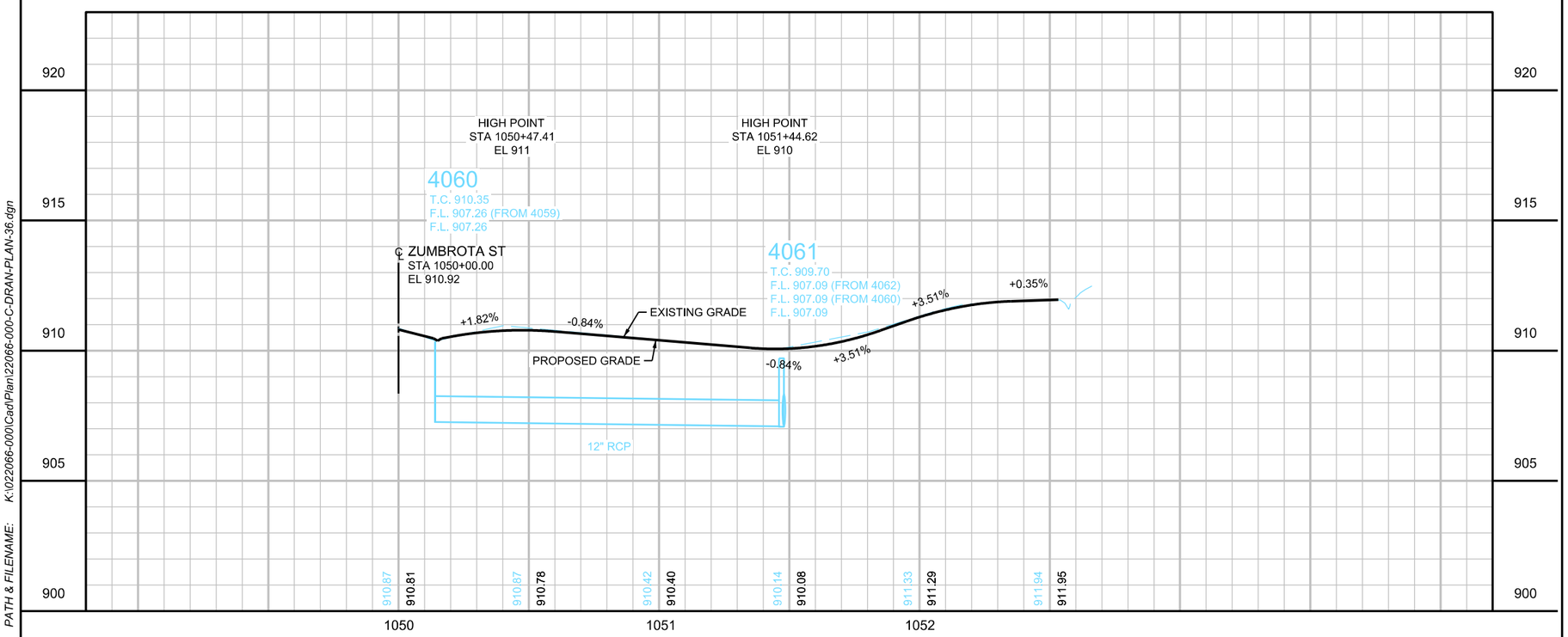
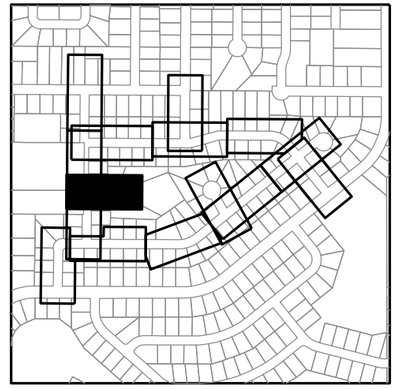
ZUMBROTA CIRCLE NE





LOCATION MAP



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CITY OF BLAINE, MN

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CITY PROJECT 23-08

SHEET **197** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:16 AM

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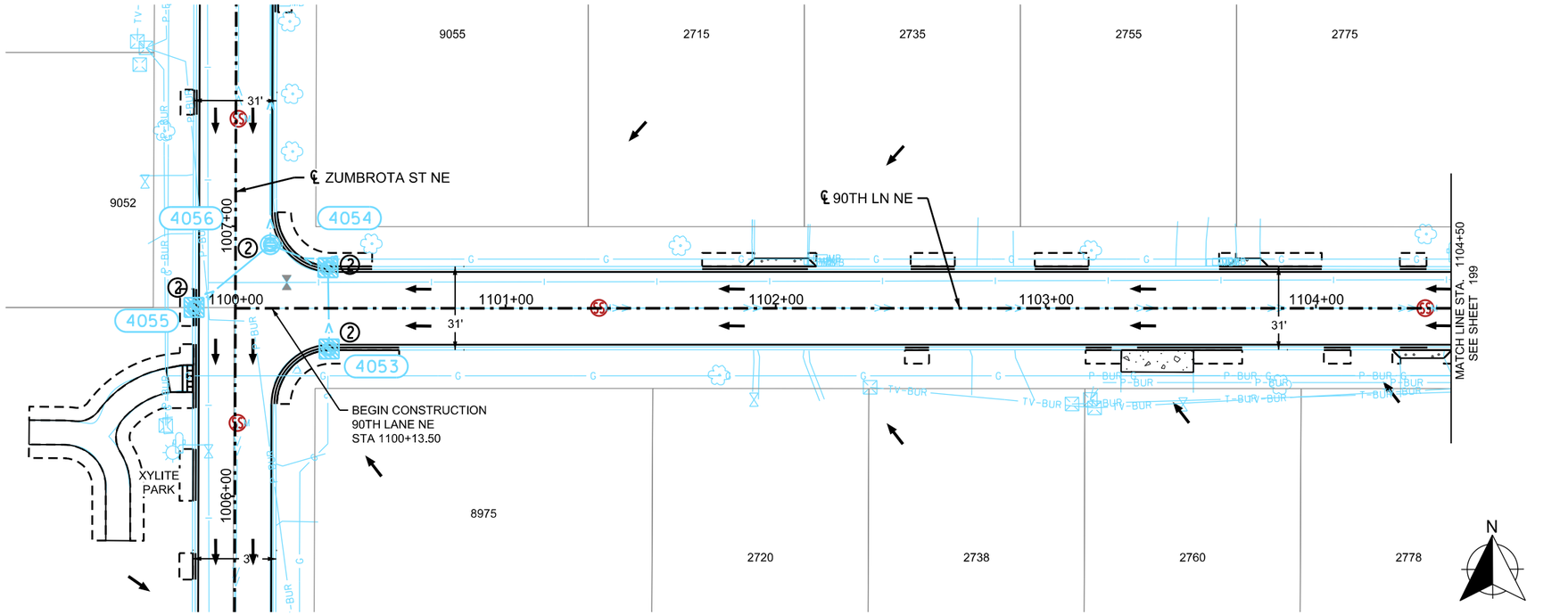
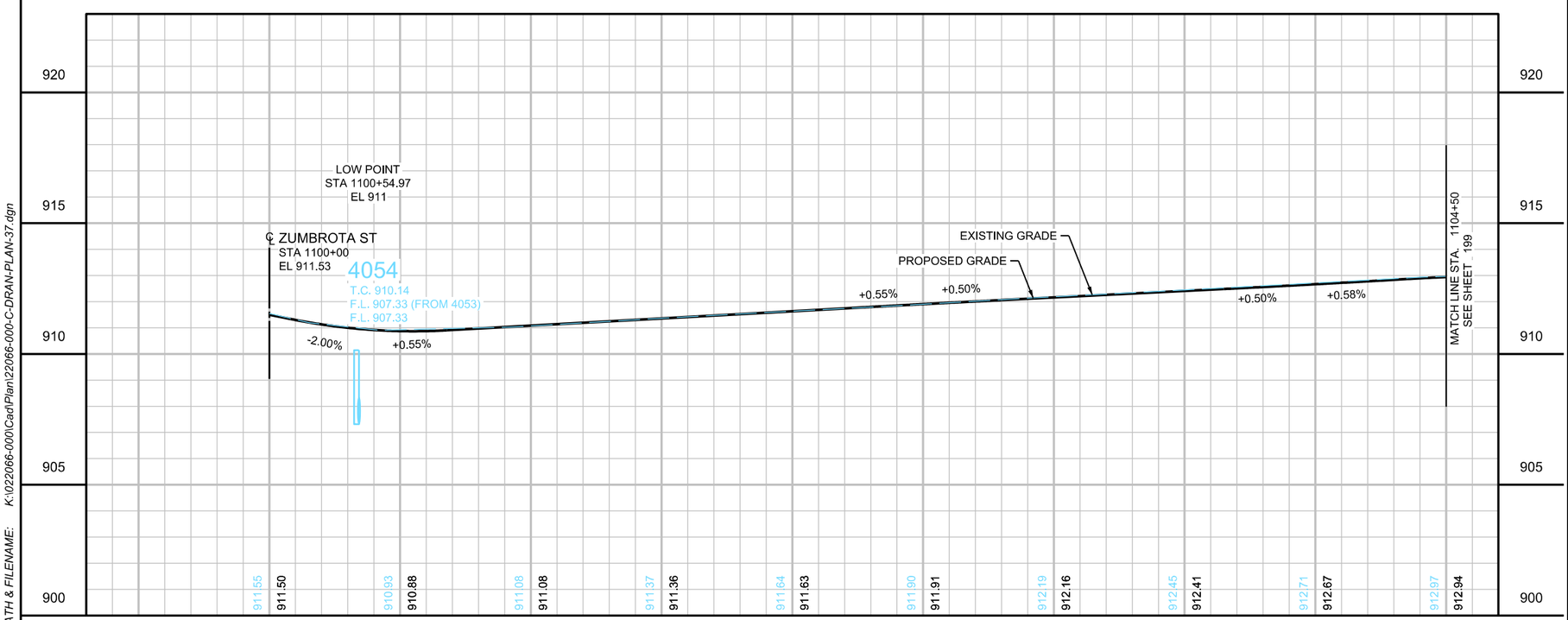
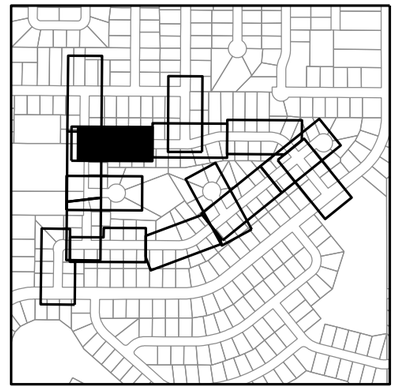
90TH LANE NE





LOCATION MAP



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SHEET **198** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:17 AM

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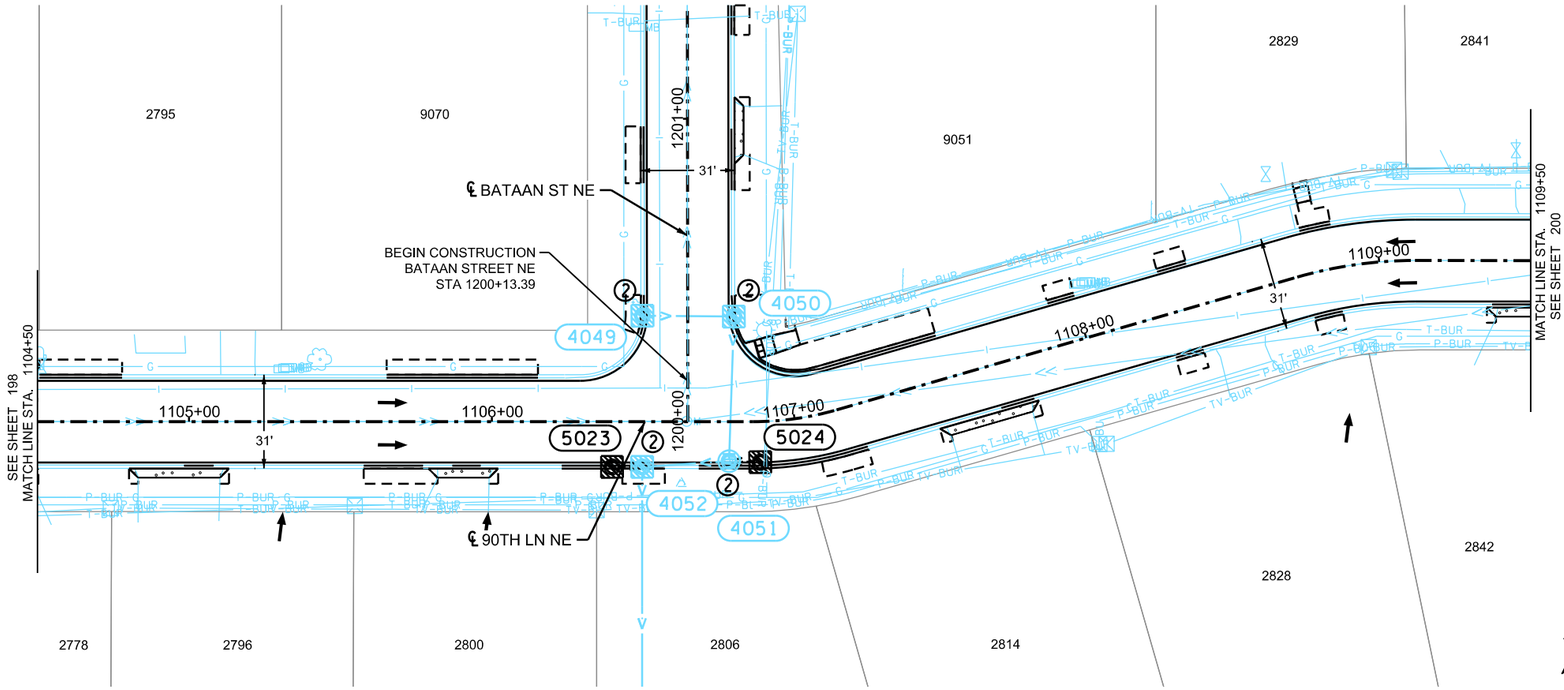
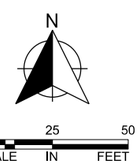
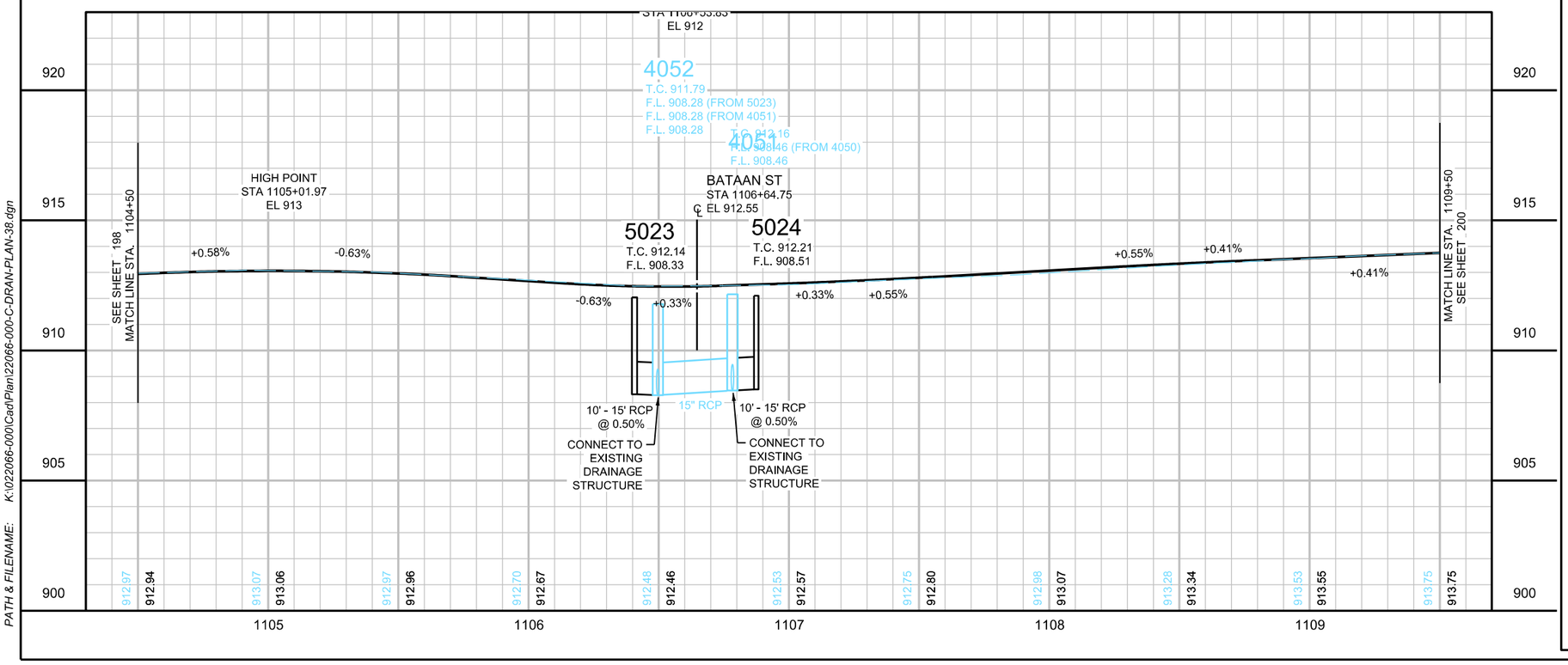
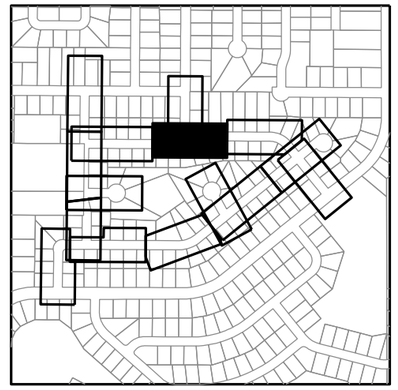
90TH LANE NE







LOCATION MAP



LEGEND

- 5XXX — PROPOSED STRUCTURE NUMBER
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- PROPOSED DROP INLET
- PROPOSED APRON
- 4XXX — INPLACE STRUCTURE NUMBER
- INPLACE CATCH BASIN
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- OHU — OVERHEAD UTILITY LINE
- SANITARY SEWER
- G — UNDERGROUND GAS MAIN
- UTILITY IN CONDUIT
- W — WATER MAIN

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
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PLAN BY:	CHECK BY:
GT	WCA

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NO.	DATE	DESCRIPTION

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WILLIAM C. ALMS, PE — LIC. NO: 54301

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **199** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:17 AM

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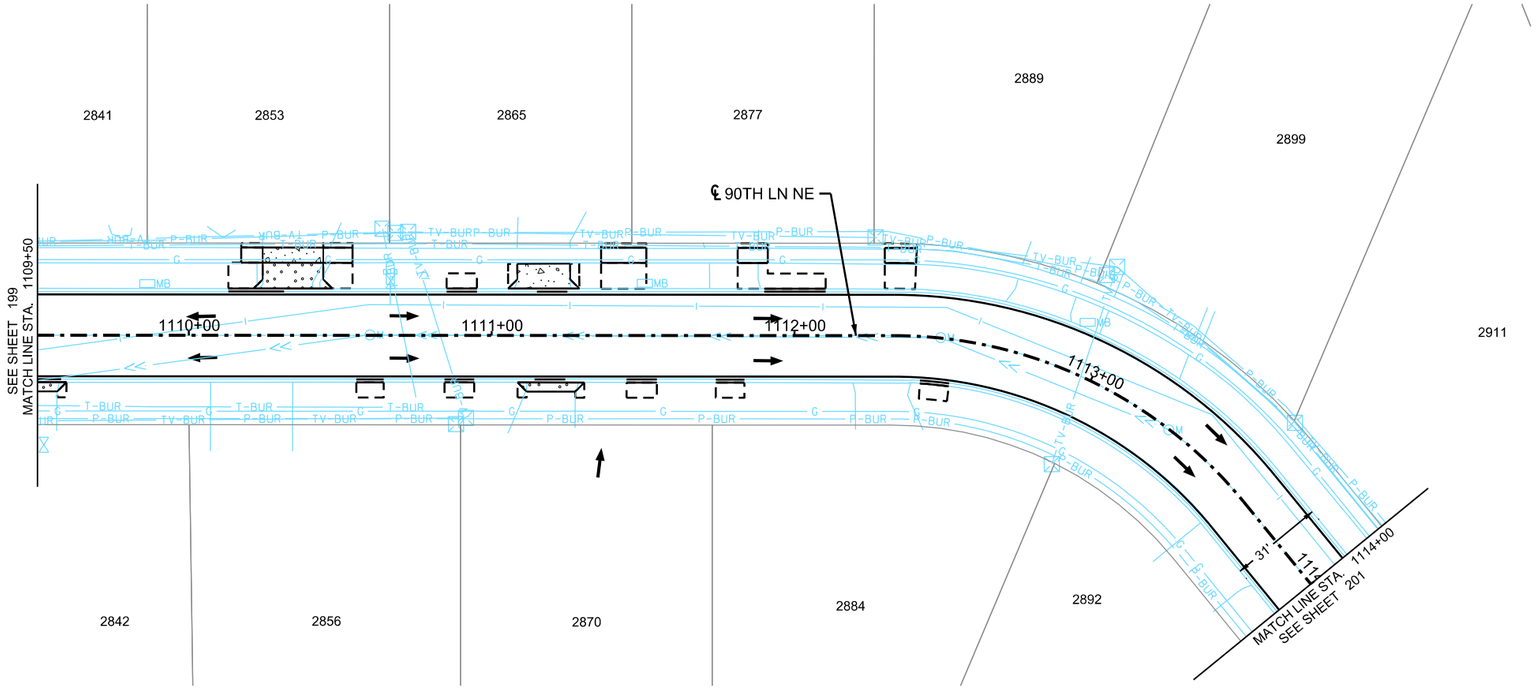
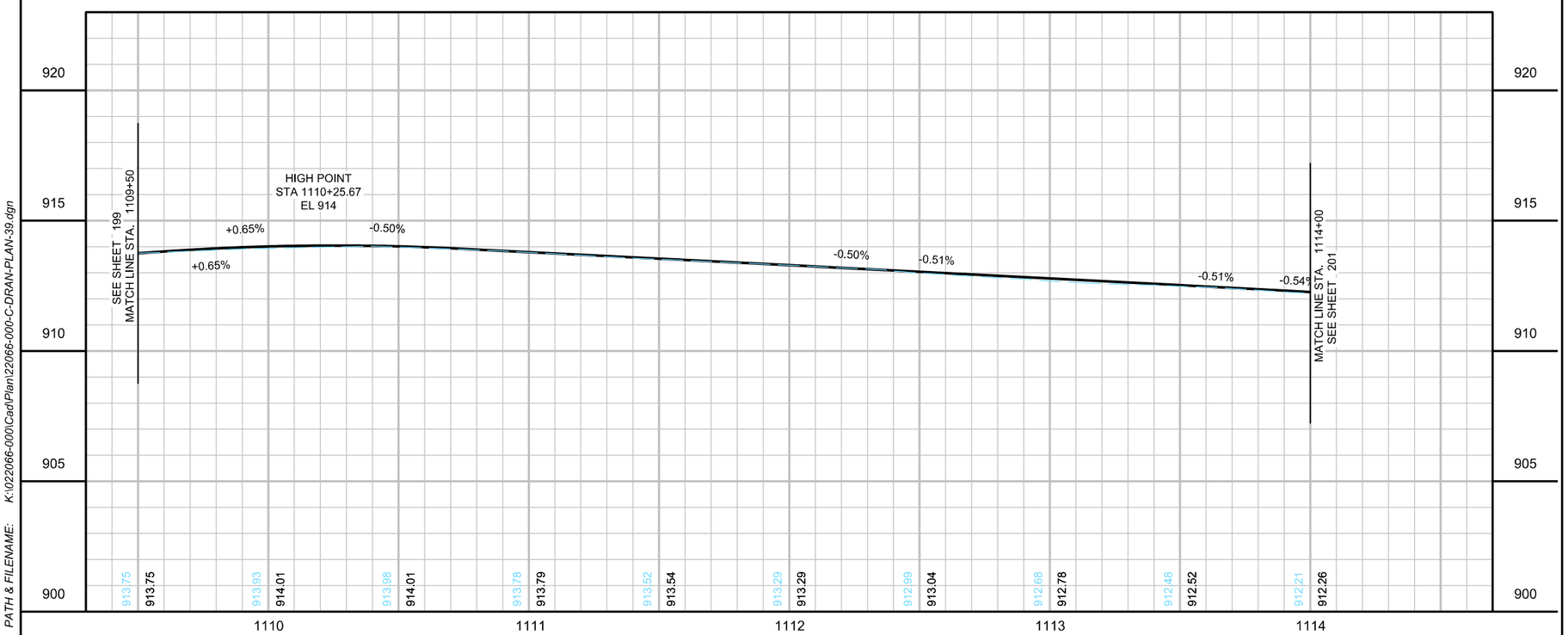
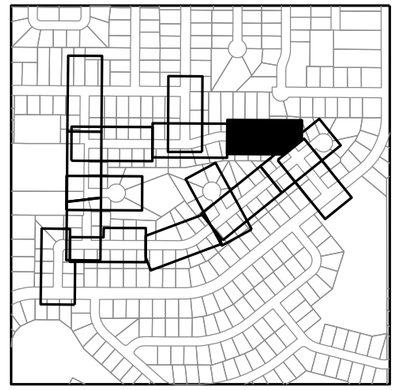
90TH LANE NE





LOCATION MAP



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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **200** OF **230** SHEETS

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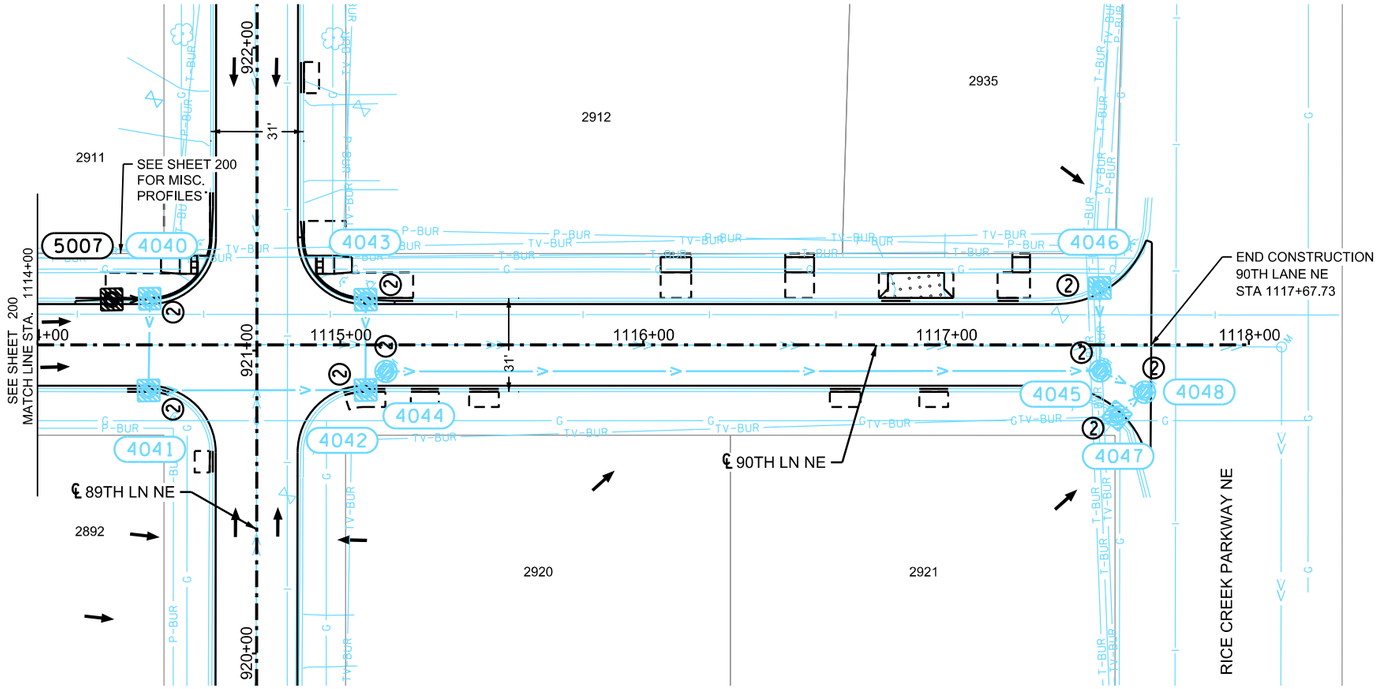
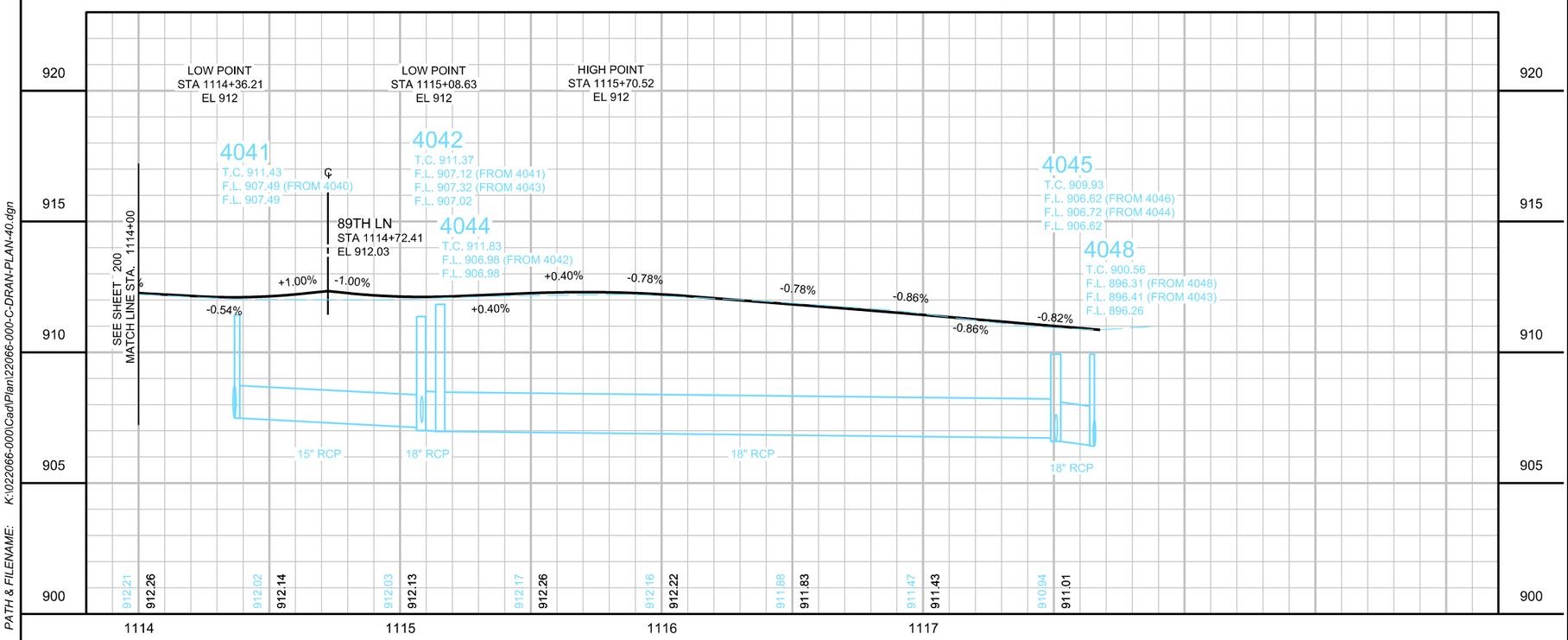
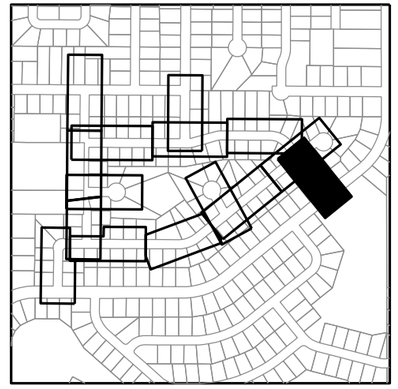
90TH LANE NE





LOCATION MAP



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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

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SHEET **201** OF **230** SHEETS

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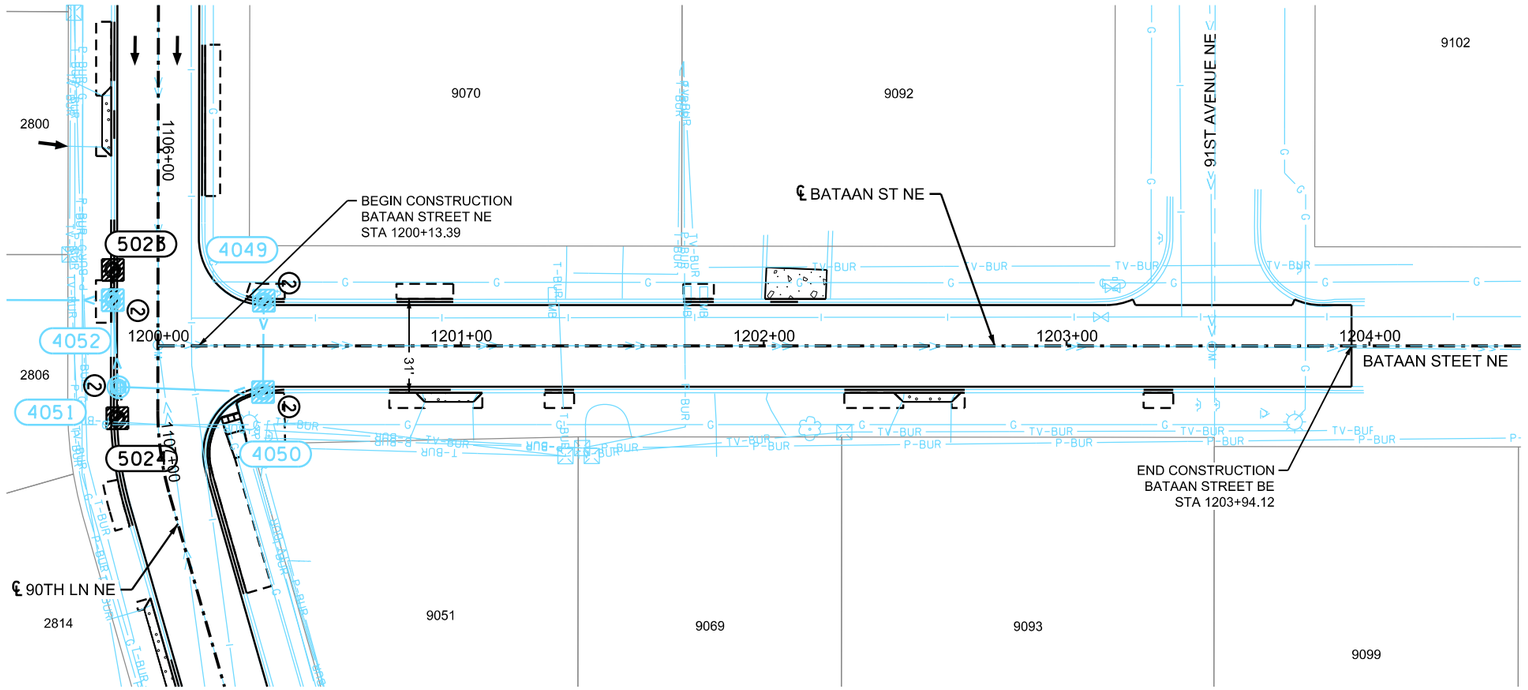
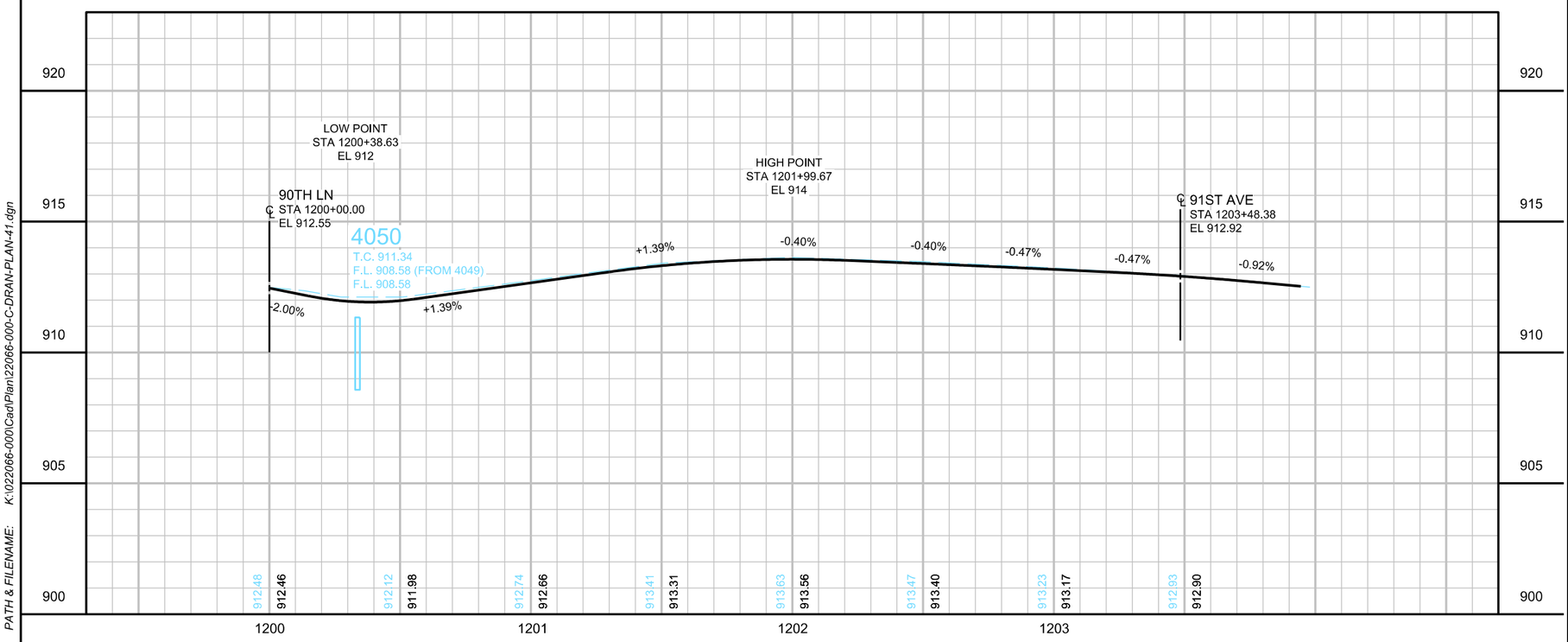
BATAAN STREET NE





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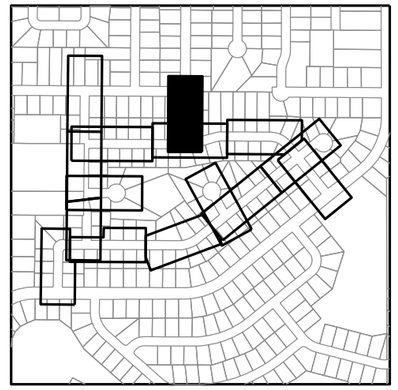

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CITY OF BLAINE, MN

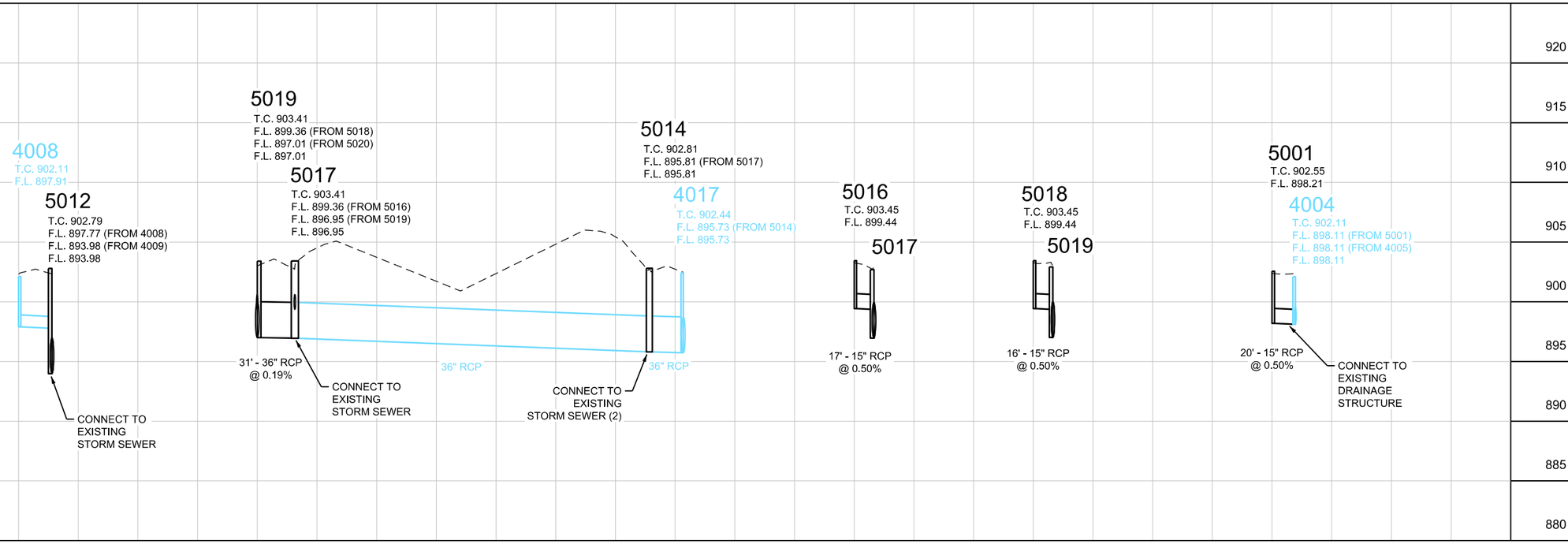
SOUTHEAST AREA RECONSTRUCTION

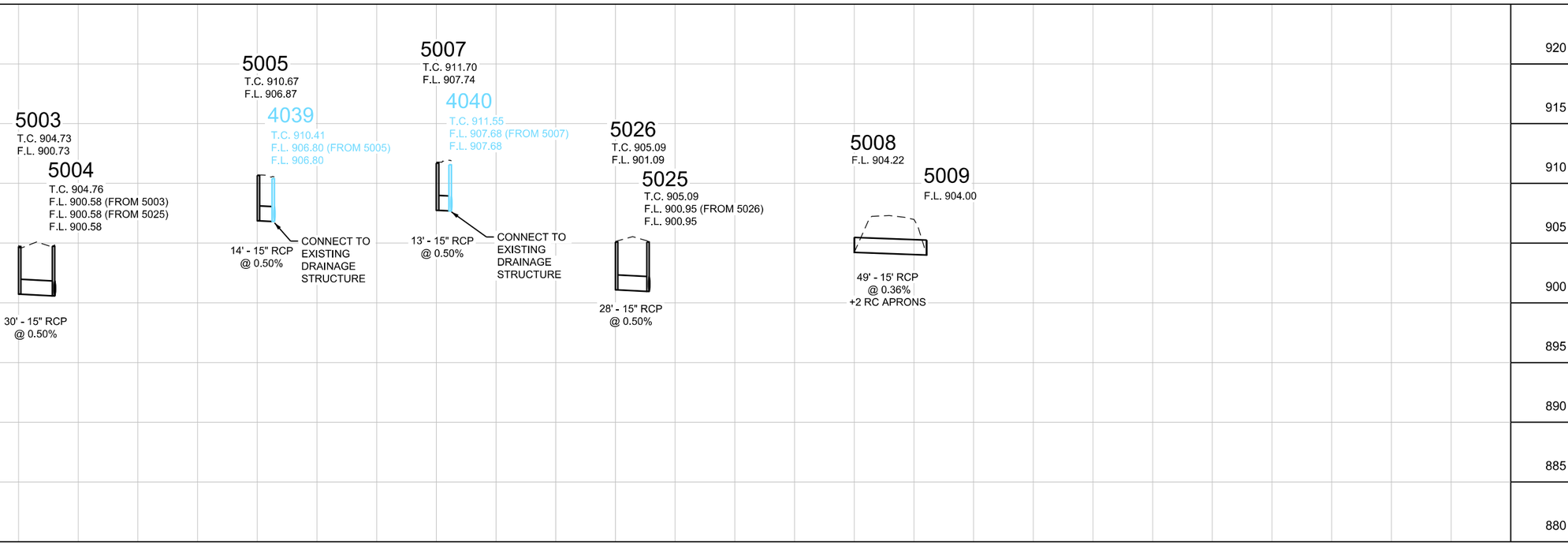
DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **202** OF **230** SHEETS

MISCELLANEOUS PROFILES





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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

DRAINAGE PLAN & PROFILE

CITY PROJECT 23-08

SHEET **203** OF **230** SHEETS

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

PROJECT NAME: CP 23-08 / SOUTHEAST AREA STREET RECONSTRUCTION
PROJECT LOCATION: STREET: 89TH LANE CITY: BLAINE
STATE: MINNESOTA ZIP: 55449

PROJECT NUMBER: SAP CP 23-08; WSB 022066-000
COUNTY: ANOKA
LATITUDE/LONGITUDE: 45.1235/-93.1999

THE PLANNED SCOPE OF THE PROJECT INCLUDES:
THE CITY OF BLAINE IS PROPOSING TO RECONSTRUCT MULTIPLE AREAS OF ROADWAY. CONSTRUCTION ACTIVITIES INCLUDE GRADING, BITUMINOUS PAVING, CONCRETE CURB & GUTTER, ADA IMPROVEMENTS, WATER MAIN AND STORM WATER IMPROVEMENTS TO THE FOLLOWING AREAS IN ANOKA COUNTY, MN.

AREA 2	AREA 3
LOCATED ON W 35W SERVICE DRIVE FROM W 35W SERVICE DRIVE TO CUL-DE-SAC.	LOCATED ON EDISON STREET NE FROM 85TH AVENUE NE TO CUL-DE-SAC.
AREA 1	AREA 4
LOCATED ON 97TH LANE NE FROM AUSTIN STREET NE TO CSAH 17.	LOCATED ON 89TH LANE NE FROM YANCY STREET NE TO 90TH LANE NE.
LOCATED ON 98TH AVENUE NE FROM AUSTIN STREET NE TO CORD STREET NE.	LOCATED ON 89TH COURT NE FROM 90TH LANE NE TO CUL-DE-SAC.
LOCATED ON 99TH AVENUE NE FROM AUSTIN STREET TO CSAH 17.	LOCATED ON 90TH LANE NE FROM ZUMBROTA STREET NE TO RICE CREEK PARKWAY NE.
LOCATED ON AUSTIN STREET FROM EDGEWOOD ROAD NE TO 97TH LANE.	LOCATED ON BATAAN STREET NE FROM 90TH LANE NE TO 91ST AVENUE NE.
LOCATED ON AUSTIN STREET FROM 98TH AVENUE NE TO CSAH 17.	LOCATED ON YANCY STREET FROM RICE CREEK PARKWAY NE TO 89TH LANE NE.
LOCATED ON CORD STREET FROM 98TH AVENUE NE TO AUSTIN STREET.	LOCATED ON ZUMBROTA STREET NE FROM 89TH LANE NE TO 91ST AVENUE NE.
LOCATED ON EDGEWOOD ROAD, 4023-4083 CUL-DE-SAC, AND 4103-4163 CUL-DE-SAC.	LOCATED ON BATAAN COURT NE FROM 89TH LANE NE TO CUL-DE-SAC.
	LOCATED ON ZUMBROTA CIRCLE NE FROM ZUMBROTA STREET NE TO CUL-DE-SAC.

TENTATIVE CONSTRUCTION SCHEDULE (OPERATOR SHOULD PROVIDE ESTIMATED CONSTRUCTION SCHEDULE TO THE ENGINEER)	
CONSTRUCTION ACTIVITIES:	ESTIMATED DATES OF SOIL DISTURBANCE ACTIVITIES:
TEMPORARY SEDIMENT CONTROL BMPS & REMOVALS	MAY 2023
GRADING & UTILITY WORK	MAY - JUNE 2023
CURB & PAVEMENT	JULY - SEPT 2023
FINAL STABILIZATION	OCT 2023

PROJECT PERSONNEL AND TRAINING

SWPPP DEVELOPER:
WSB (NIKLAS MARTENSSON)
701 XENIA AVE S, SUITE 300
GOLDEN VALLEY, MN 55416
612-271-4385/NMARTENSSON@WSBENG.COM

CONTRACTOR TO PROVIDE CERTIFICATION OF EROSION CONTROL OFFICER AND ANY OTHER CREW MEMBERS WHO WILL WORK ON THE IMPLEMENTATION OF THE SWPPP AND THE INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS BEFORE, DURING, AND AFTER CONSTRUCTION UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA. PROVIDE PROOF OF CERTIFICATION AT THE PRECONSTRUCTION MEETING. WORK WILL NOT BE ALLOWED TO COMMENCE UNTIL PROOF OF CERTIFICATION HAS BEEN PROVIDED TO THE PROJECT ENGINEER.

CHAIN OF RESPONSIBILITY

THE CITY OF BLAINE AND THE CONTRACTOR ARE CO-PERMITTEES FOR THE NPDES CONSTRUCTION GENERAL PERMIT. THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION PERMIT AT ALL TIMES UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA.

NAME	COMPANY	TITLE	PHONE
BRENT LARSON	CITY OF BLAINE	OWNER CONTACT	763-218-0204
	CONTRACTOR TO COMPLETE		

AGENCY CONTACTS

ORGANIZATION	CONTACT NAME	PHONE
MPCA (EMERGENCY) 24 HOUR	STATE DUTY OFFICER	1-800-422-0798
MPCA	SARAH KAMRATH	651-757-2855
RICE CREEK WATERSHED	PATRICK HUGHES	763-398-3080
RICE CREEK WATERSHED	NICK TOMCZIK	763-398-3079
ANOKA SWCD	CHRIS LORD	763-434-2030
MNDNR ECO/WATERS	LUCAS YOUNGSMA	651-259-5822

LOCATION OF SWPPP REQUIREMENTS

THE REQUIRED SWPPP ELEMENTS MAY BE LOCATED IN MANY PLACES WITHIN THE PLAN SET AS WELL AS IN THE SPECIAL PROVISIONS, PROJECT MANUAL, MNDOT SPEC BOOK, OR ON FILE WITH THE PROJECT OWNER.

DESCRIPTION	LOCATION
TEMPORARY/PERMANENT EROSION CONTROL MEASURES	PLAN SET
DIRECTION OF FLOW	PLAN SET
CONSTRUCTION NOTES & STANDARD PLATES	PLAN SET
DRAINAGE PLAN & CONSTRUCTION PLAN	PLAN SET
BMP TABULATION	PLAN SET
STORMWATER CALCULATIONS	DRAINAGE REPORT & HYDRAULIC REPORT. AVAILABLE UPON REQUEST

RECEIVING WATERS

A SPECIAL AND IMPAIRED WATERS SEARCH WAS COMPLETED USING THE MPCA SEARCH ENGINE ON 02/23/2023. BASED ON THIS REVIEW, THE FOLLOWING SPECIAL/IMPAIRED WATERS (WITH CONSTRUCTION RELATED IMPAIRMENTS) ARE LOCATED WITHIN ONE MILE OF, AND DOWNSTREAM OF, ANY PROJECT DISCHARGE POINTS. PARTS 23.9 & 23.10 OF THE NPDES PERMIT APPLY.

WATERBODY	IMPAIRMENT(S)
ANOKA COUNTY DITCH #62	BENTHIC MACROINVERTEBRATES BIOASSESSMENTS
RICE CREEK	BENTHIC MACROINVERTEBRATES BIOASSESSMENTS, FISH BIOASSESSMENTS
LAKE GOLDEN	MERCURY IN FISH TISSUE, NUTRIENTS
ANOKA CO. DITCH NO. 1	N/A
UNNAMED STORMWATER POND 1	N/A
UNNAMED STORMWATER POND 2	N/A
UNNAMED STORMWATER POND 3	N/A
UNNAMED STORMWATER POND 4	N/A
UNNAMED STORMWATER POND 5	N/A
UNNAMED WETLAND 1	N/A
UNNAMED WETLAND 2	N/A
UNNAMED WETLAND 3	N/A
UNNAMED WETLAND 4	N/A
UNNAMED WETLAND 5	N/A
UNNAMED WET DITCH 1	N/A

AREAS OF ENVIRONMENTAL SENSITIVITY (AES) AND INFESTED WATERS

IN ADDITION TO THE LIST OF SPECIAL AND IMPAIRED WATERS, THE CONTRACTOR SHALL BE AWARE THAT THERE ARE WETLANDS AND EXISTING STORMWATER FACILITIES WITHIN AND NEAR THE PROJECT BOUNDARY. THERE IS A MAP OF KNOWN NATURAL RESOURCES ON THE LAST PAGE OF THE SWPPP NARRATIVE. AREAS OF ENVIRONMENTAL SENSITIVITY ARE ALSO CALLED OUT ON THE PLAN SHEETS.

SOIL TYPES

A PROJECT WIDE REVIEW OF THE USDA'S WEB SOIL SURVEY WAS CONDUCTED ON 02/23/2023. GLACIAL OUTWASH IS PREDOMINATING ALONG MOST OF THE ALIGNMENT. THE OUTWASH CONSISTS OF A BLEND OF FINE SAND AND LOAMY FINE SAND. SOILS RANGE FROM SOMEWHAT POORLY DRAINING TO VERY POORLY DRAINING. ADDITIONAL SOIL INFORMATION CAN BE FOUND IN THE GEOTECHNICAL REPORT, LOCATED WITHIN THE PROJECT SPECIFICATIONS. SOIL CLASSIFICATIONS FOR HIGHLY ERODIBLE LAND (HEL), POTENTIALLY HIGHLY ERODIBLE LAND (PHEL), AND NCT HIGHLY ERODIBLE LAND (NHEL) SOILS CAN BE FOUND ON *FIGURE 1. SWPPP RESOURCE MAP.*

NATIVE TOPSOIL WILL BE STRIPPED; IF MATERIAL NEEDS TO BE STOCKPILED, APPROPRIATE ACTION WILL TAKE PLACE TO ENSURE THE STOCKPILES HAVE ALL PROPER BMPS IN PLACE ACCORDING TO THIS SWPPP AND THE NPDES PERMIT.

ENVIRONMENTAL REVIEW

NO FORMAL ENVIRONMENTAL REVIEW WAS REQUIRED FOR THIS PROJECT.

WETLANDS: A PROJECT WIDE REVIEW OF THE NATIONAL WETLANDS INVENTORY WAS CONDUCTED ON 02/23/2023. TEN (10) WETLANDS AND ONE (1) WET DITCH WERE IDENTIFIED AS RECEIVING WATERS OR NEARBY OR WITHIN THE PROJECT BOUNDARY. THROUGH FURTHER INVESTIGATION, IT WAS DETERMINED THAT THERE ARE FIVE (5) STORMWATER PONDS AND FIVE (5) WETLANDS THAT ARE RECEIVING WATERS FOR THE PROJECT. THERE ARE NO PROPOSED WETLAND IMPACTS WITH PROJECT ACTIVITIES. IF WORK SHOULD OCCUR NEAR WETLANDS, ALL WETLAND AREAS WILL BE PROTECTED WITH PERIMETER CONTROL AND A 50' NATURAL BUFFER (IF INFEASIBLE, REDUNDANT PERIMETER CONTROL MEASURES), INCLUDED AREAS THAT ARE PERMITTED TO BE FILLED AND/OR EXCAVATED UNTIL WORK IN THE PERMITTED AREAS ARE NECESSARY. REDUNDANT BMP MEASURES MUST BE PLACED 5' FROM THE INITIAL PERIMETER CONTROL MEASURE WITH A STABILIZED BUFFER STRIP BETWEEN THE BMPS.

THREATENED/ENDANGERED SPECIES: ANOKA COUNTY LISTS THE NORTHERN LONG-EARED BAT AND TRICOLORED BAT AS THREATENED/ENDANGERED SPECIES WITHIN THE COUNTY. THE MONARCH BUTTERFLY IS LISTED AS A CANDIDATE THREATENED/ENDANGERED SPECIES. BASED ON THE CONSTRUCTION ACTIVITIES, IT IS DETERMINED THAT THE PROJECT WILL HAVE NO EFFECT ON THESE SPECIES OR THEIR HABITATS. HOWEVER, IF THESE SPECIES ARE FOUND, CONTRACTOR TO STOP WORK IMMEDIATELY FOR FURTHER INVESTIGATION.

DRINKING WATER/WELLS: ACCORDING TO THE MDH, THE PROJECT IS NOT LOCATED WITHIN ANY DRINKING WATER SUPPLY MANAGEMENT AREA (DWSMA) OR NEAR ANY WELLHEAD PROTECTION AREAS. THE PROJECT IS LOCATED BETWEEN THE BLAINE, LEXINGTON, MOUNDS VIEW, CIRCLE PINES, AND LINO LAKES DWSMAS.

CONTAMINATED PROPERTIES: THE MPCA'S "WHAT'S IN MY NEIGHBORHOOD" DATABASE WAS REVIEWED ON 02/23/2023. THE RESULTS OF THIS REVIEW SHOW INACTIVE AND ACTIVE CONTAMINATED PROPERTIES WITHIN 300 FEET OF THE PROJECT AREA, BELOW. THE DEPTH OF THE FULL RECLAMATION IS NOT PROPOSED TO UNEARTH ANY CONTAMINATED SOIL, CONTAMINATED WATER, AND/OR REGULATED WASTE. REFER TO MNDOT SPEC 1717.1.A. FOR POTENTIAL INDICATORS OF CONTAMINATED MATERIALS AND REGULATED WASTE. IF CONTAMINATED MATERIAL, CONTAMINATED WATER, AND/CR REGULATED MATERIALS ARE FOUND, CREWS ARE TO STOP WORK IMMEDIATELY FOR FURTHER INVESTIGATION/TESTING.

MPCA ID	NAME	TYPE	LOCATION
5131	CSAH 17 (LEXINGTON AVE)	CONSTRUCTION STORMWATER PERMIT C00004309 - INACTIVE	45.1531/-93.1633
253552	ANOKA COUNTY DITCH 53-62 MAIN TRUNK REPAIR	CONSTRUCTION STORMWATER PERMIT C00065203 - ACTIVE	45.1495/-93.1621

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REVISIONS

NO.	DATE	DESCRIPTION

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.

DATE: 4/22/2022 LIC. NO:

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

STORMWATER POLLUTION PREVENTION PLAN

CITY PROJECT 23-08

SHEET **204** OF **230** SHEETS

251467	HIDDEN OAKS AREA RECONSTRUCTION	CONSTRUCTION STORMWATER PERMIT C00063608 - ACTIVE	45.1495/-93.1692
209401	BUILDING INSPECTION PROFESSIONALS INC.	SSTS - L2128 - LICENSED ORGANIZATION - ACTIVE	45.1472/-93.1692
7824	DAYTON ROGERS MANUFACTURING CO	CONSTRUCTION STORMWATER PERMIT C00003388 - INACTIVE	45.1248/-93.1900
116007	U OF M (FORMER AMER AVIATION AIRPORT)	UNDERGROUND TANKS - INACTIVE	45.1243/-93.1887
247498	JONCO DIE COMPANY	CONSTRUCTION STORMWATER; HAZARDOUS WASTE, VERY SMALL QUANTITY GENERATOR - ACTIVE	45.1255/-93.1916
193809	BLAINE OFFICE PARK SITE	BROWNFIELDS, VOLUNTARY INVESTIGATION AND CLEANUP; CERCLIS SITE - ACTIVE	45.1261/-93.1922
8474	MAXXUM, INC.	HAZARDOUS WASTE, MINIMAL QUANTITY GENERATOR - INACTIVE	45.1282/-93.1893
119855	WHITEWATER DEVELOPMENT - BLAINE	CONSTRUCTION STORMWATER PERMIT - C00026491 - INACTIVE	45.1283/-93.1895
57595	GRADIENT TECHNOLOGY - BLAINE	HAZARDOUS WASTE - INACTIVE	45.1284/-93.1895
248764	SPECTRUM SIGN SYSTEMS	HAZARDOUS WASTE, MINIMAL QUANTITY GENERATOR - ACTIVE	45.1289/-93.1902
21973	TWIN CITY FAB INC	HAZARDOUS WASTE, VERY SMALL QUANTITY GENERATOR - ACTIVE	45.1238/-93.1922
30279	GENERAL PATTERN	HAZARDOUS WASTE, SMALL QUANTITY GENERATOR - ACTIVE	45.1238/-93.1927
82761	DETAIL TOOL & ENGINEERING	HAZARDOUS WASTE - INACTIVE	45.1234/-93.1929
37562	GENERAL FOUNDRY PRODUCTS	HAZARDOUS WASTE - INACTIVE	45.1238/-93.1934
29134	RANGE PRECISION INC.	HAZARDOUS WASTE - INACTIVE	45.1239/-93.1938
37391	WATSON FORSBERG CO	HAZARDOUS WASTE, MINIMAL QUANTITY GENERATOR - ACTIVE	45.1244/-93.1965
96385	CORAL SEA PLACE	CONSTRUCTION STORMWATER PERMIT - C00014920 - ACTIVE	45.1246/-93.1980
94518	CORAL SEA PLACE 2	CONSTRUCTION STORMWATER PERMIT - C00015827 - ACTIVE	45.1249/-93.1975
5047	MEADOWS OF RICE CREEK	CONSTRUCTION STORMWATER PERMIT C00004129 - INACTIVE	45.1321/-93.1997
124737	TEN AIR AIRCRAFT CORP	HAZARDOUS WASTE, MINIMAL QUANTITY GENERATOR; INDUSTRIAL STORMWATER - ACTIVE	45.1352/-93.2019
21264	DAN'S COMPLETE AUTOMOTIVE CARE	HAZARDOUS WASTE, VERY SMALL QUANTITY GENERATOR - ACTIVE	45.1307/-93.2044
20216	RANGE PRECISION INC - XYLITE ST	HAZARDOUS WASTE, VERY SMALL QUANTITY GENERATOR - ACTIVE	45.1306/-93.2044
23390	CORVETTE SPECIALTIES	HAZARDOUS WASTE, VERY SMALL QUANTITY GENERATOR - ACTIVE	45.1306/-93.204
23462	UDOR USA	HAZARDOUS WASTE - INACTIVE	45.1303/-93.2044

FLOOD CONTINGENCY PLAN: PROJECT ACTIVITIES MAY OCCUR WITHIN THE 100-YEAR FLOODPLAIN OR FLOODWAY, THEREFORE, THE PROJECT ENGINEER (AT THEIR DISCRETION) MAY REQUIRE A PREVENTATIVE FLOOD CONTINGENCY PLAN FOR SPECIFIC PROJECT ACTIVITIES AND AREAS IF SEASONAL PRECIPITATION POSSES A POTENTIAL RISK OF FLOODING WORK AREAS WITHIN THE PROJECT LIMITS. THIS PLAN SHALL BE SUBMITTED BY THE OPERATOR TO THE PROJECT ENGINEER FOR APPROVAL A MINIMUM OF 72 HOURS PRIOR TO THE SCHEDULED WORK AND/OR DURING ACTIVE WORK WITHIN THE FLOODPLAIN. NO WORK WITHIN THE FLOODPLAIN CAN COMMENCE UNTIL WRITTEN APPROVAL HAS BEEN GRANTED BY THE PROJECT ENGINEER.

AQUATIC INVASIVE SPECIES: ALL DEWATERING EQUIPMENT SHALL BE DECONTAMINATED OF ALL AQUATIC PLANTS AND PROHIBITED INVASIVE SPECIES PRIOR TO USING WITHIN SURFACE WATERS ON-SITE AND TRANSPORTING OFF-SITE. ALL DECONTAMINATION ACTIVITIES SHALL MEET THE CHAPTER 1 STANDARDS OF THE MINNESOTA DNR'S BEST PRACTICES MANUAL FOR MEETING DNR GENERAL PUBLIC WATERS WORK PERMIT GP 2004-0001.

LAND FEATURE CHANGES

TOTAL AREA TO BE DISTURBED = 18.26 ACRES
IMPERVIOUS AREA: PRE-CONSTRUCTION = 12.58 ACRES/POST-CONSTRUCTION = 12.58 ACRES
NET INCREASE OF IMPERVIOUS AREA = 0.00 ACRES

LONG TERM MAINTENANCE AND OPERATION:
THE NPDES PERMANENT STORMWATER TREATMENT SYSTEM (PART 15.1) IS NOT REQUIRED BECAUSE THE NET NEW IMPERVIOUS AREA CREATED BY THE PROJECT IS LESS THAN ONE ACRE.

STABILIZATION TIME FRAMES

AREA	TIME FRAME	NOTES
EXPOSED AREAS	IMMEDIATELY AND NO LATER THAN 7 DAYS OF BEING UNWORKED	1, 4, 5
LAST 200 LINEAL FEET OF DRAINAGE DITCH/SWALE	WITHIN 24 HOURS OF CONNECTION TO SURFACE WATER/PROPERTY EDGE	1, 2, 3
REMAINING PORTIONS OF DRAINAGE DITCH OR SWALE	7 DAYS	1, 3
PIPE AND CULVERT OUTLETS	24 HOURS	
STOCKPILES	7 DAYS	1

1. INITIATE STABILIZATION IMMEDIATELY WHEN CONSTRUCTION HAS TEMPORARILY OR PERMANENTLY CEASED ON ANY PORTION OF THE SITE. COMPLETE STABILIZATION WITHIN THE TIME FRAME LISTED. IN MANY INSTANCES THIS WILL REQUIRE STABILIZATION TO OCCUR MORE THAN ONCE DURING THE COURSE OF THE PROJECT. TEMPORARY SOIL STOCKPILES WITHOUT SIGNIFICANT CLAY OR SILT AND STOCKPILED AND CONSTRUCTED ROAD BASE ARE EXEMPT FROM THE STABILIZATION REQUIREMENT.
2. STABILIZE WETTED PERIMETER OF DITCH (I.E. WHERE THE DITCH GETS WET).
3. APPLICATION OF MULCH, HYDROMULCH, TACKIFIER AND POLYACRYLAMIDE ARE NOT ACCEPTABLE STABILIZATION METHODS IN THESE AREAS.
4. STABILIZE ALL AREAS OF THE SITE PRIOR TO THE ONSET OF WINTER. ANY WORK STILL BEING PERFORMED WILL BE MULCHED OR BLANKETED WITHIN THE TIME FRAMES IN THE NPDES PERMIT.
5. KEEP DITCHES AND EXPOSED SOILS IN AN EVEN ROUGH GRADED CONDITION IN ORDER TO BE ABLE TO APPLY EROSION CONTROL MULCHES, HYDROMULCHES, AND BLANKETS.

SITE INSPECTION AND MAINTENANCE

THE EROSION CONTROL OFFICER IS TO INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. THE OPERATOR SHALL PROVIDE A RAINFALL GAUGE ON-SITE AT VARIOUS MILE INTERVALS ALONG THE ALIGNMENT. INSPECT ALL TEMPORARY AND PERMANENT PROJECT BMPS UNTIL THE SITE HAS UNDERGONE FINAL STABILIZATION AND THE NOT HAS BEEN SUBMITTED. INSPECT SURFACE WATER INCLUDING DRAINAGE DITCHES FOR SIGNS OF EROSION AND SEDIMENT DEPOSITION. INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS FOR EVIDENCE OF TRACKING ONTO PAVED SURFACES. INSPECT SURROUNDING PROPERTIES FOR EVIDENCE OF OFF-SITE SEDIMENT ACCUMULATION. INSPECT WETLAND OUTFALL AREAS FOR SIGN OF SEDIMENT DEPOSITION AND COMPACTIONS (TO ENSURE THAT SEDIMENT IS NOT BEING DEPOSITED IN THE WETLANDS). ALL INSPECTIONS AND MAINTENANCE CONDUCTED MUST BE RECORDED IN WRITING BY THE OPERATOR AND RETAINED WITH THE SWPPP. SUBMIT INSPECTION REPORTS IN A FORMAT THAT IS ACCEPTABLE TO THE PROJECT ENGINEER. RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE:
A. DATE, TIME, AND NAME OF PERSON(S) CONDUCTING INSPECTIONS;
B. FINDINGS OF INSPECTIONS, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS;
C. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); INCLUDING DOCUMENTATION/PHOTOS OF IMPLEMENTED BMPS INTENDED TO CORRECT A PROBLEM BUT FAILED.
D. DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 0.5 INCHES IN 24 HOURS;
E. DOCUMENTATION OF CHANGES MADE TO THE SWPPP.

REPLACE, REPAIR OR SUPPLEMENT ALL NONFUNCTIONAL BMPS BY THE END OF THE NEXT BUSINESS DAY FOLLOWING DISCOVERY UNLESS LISTED DIFFERENTLY BELOW:
A. REPAIR, REPLACE, OR SUPPLEMENT PERIMETER CONTROL DEVICES WHEN THEY BECOME NONFUNCTIONAL OR SEDIMENT REACHES 1/2 THE HEIGHT OF THE DEVICE. COMPLETE REPAIRS BY THE END OF THE NEXT BUSINESS DAY FOLLOWING DISCOVERY.
B. REPAIR OR REPLACE INLET PROTECTION DEVICES WHEN THEY BECOME NONFUNCTIONAL OR SEDIMENT REACHES 1/2 THE HEIGHT AND/OR DEPTH OF THE DEVICE.
C. DRAIN AND REMOVE SEDIMENT FROM TEMPORARY AND PERMANENT SEDIMENT BASINS ONCE THE SEDIMENT HAS REACHED 1/2 THE STORAGE VOLUME. COMPLETE WORK WITHIN 72 HOURS OF DISCOVERY.
D. REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS. STABILIZE ANY AREAS THAT ARE DISTURBED BY SEDIMENT REMOVAL OPERATIONS. SEDIMENT REMOVAL AND STABILIZATION MUST BE COMPLETED WITHIN 7 DAYS OF DISCOVERY.
E. REMOVE TRACKED SEDIMENT FROM PAVED SURFACES BOTH ON AND OFF SITE WITHIN ONE (1) CALENDAR DAY OF DISCOVERY. STREET SWEEPING MAY HAVE TO OCCUR MORE OFTEN TO MINIMIZE OFF SITE IMPACTS. LIGHTLY WET THE PAVEMENT PRIOR TO SWEEPING.
F. MAINTAIN ALL BMPS UNTIL WORK HAS BEEN COMPLETED, SITE HAS GONE UNDER FINAL STABILIZATION, AND THE NOT HAS BEEN SUBMITTED TO THE MPCA.

CONSTRUCTION ACTIVITY REQUIREMENTS: EROSION/SEDIMENT CONTROL, PROCEDURES, & MAINTENANCE STANDARDS

1. AMEND THE SWPPP AND DOCUMENT ALL CHANGES TO THE SWPPP AND ASSOCIATED PLAN SHEETS IN A TIMELY MANNER. SWPPP AMENDMENTS AND SITE PLANS WILL BE PREPARED BY THE OPERATOR AND SUBMITTED TO THE OWNER FOR REVIEW AND WRITTEN APPROVAL BY THE PROJECT OWNER (OR DESIGNATED REPRESENTATIVE). STORE THE SWPPP AND ALL AMENDMENTS ON SITE AT ALL TIMES.
2. PREPARE AND SUBMIT A SITE MANAGEMENT PLAN FOR THE ENGINEER'S ACCEPTANCE FOR STAGING/STOCKPILE MANAGEMENT AREAS, CONCRETE MANAGEMENT, CONCRETE SLURRY APPLICATION AREAS, FUGITIVE DUST CONTROL PLAN, SPILL CONTAINMENT PLAN, HAZARDOUS MATERIAL MANIFEST & MANAGEMENT PLAN, WETLAND MANAGEMENT PLAN, VEGETATION PRESERVATION & MAINTENANCE PLAN, WORK IN AND NEAR AREAS OF ENVIRONMENTAL SENSITIVITY, AREAS IDENTIFIED IN THE PLANS AS "SITE MANAGEMENT PLAN AREA", ANY WORK THAT WILL REQUIRE DEWATERING, ANY ADDITIONAL PLANS LISTED IN THE PROJECT SPECIFICATIONS, AND AS REQUIRED BY THE ENGINEER. SUBMIT ALL SITE MANAGEMENT PLANS TO THE ENGINEER IN WRITING. ALLOW A MINIMUM OF 7 DAYS FOR PROJECT ENGINEER TO REVIEW AND ACCEPT SITE MANAGEMENT PLAN SUBMITTALS. WORK WILL NOT BE ALLOWED TO COMMENCE IF A SITE MANAGEMENT PLAN IS REQUIRED UNTIL ACCEPTANCE HAS BEEN GRANTED BY THE ENGINEER. THERE WILL BE NO EXTRA TIME ADDED TO THE CONTRACT DUE TO THE UNTIMELY SUBMITTAL.
3. THE PROJECT'S CONSTRUCTION PHASING AND STAGING IS DEFINED BY THE "CONSTRUCTION STAGING & TRAFFIC CONTROL PLAN" AND PROJECT SPECIFICATIONS.
4. BURNING OF ANY MATERIAL IS NOT ALLOWED WITHIN PROJECT BOUNDARY.
5. DO NOT DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMITS. DELINEATE AREAS NOT TO BE DISTURBED AND WETLANDS (EVEN AREAS THAT ARE PERMITTED FOR CONSTRUCTION) PRIOR TO STARTING GROUND DISTURBING ACTIVITIES. IF IT BECOMES NECESSARY TO DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMITS, OBTAIN WRITTEN PERMISSION FROM THE PROJECT ENGINEER PRIOR TO PROCEEDING. PRESERVE ALL NATURAL BUFFERS SHOWN ON THE PLANS.
6. ROUTE STORMWATER AROUND UNSTABILIZED AREAS OF THE SITE WHENEVER FEASIBLE. PROVIDE EROSION CONTROL AND VELOCITY DISSIPATION DEVICES AS NEEDED TO KEEP CHANNELS FROM ERODING AND TO PREVENT NUISANCE CONDITIONS AT THE OUTLET.
7. DIRECT DISCHARGE FROM BMPS TO VEGETATED AREAS WHENEVER FEASIBLE. PROVIDE VELOCITY DISSIPATION DEVICES AS NEEDED TO PREVENT EROSION.
8. LOCATE PERIMETER CONTROL ON THE CONTOUR TO CAPTURE OVERLAND, LOW-VELOCITY SHEET FLOWS DOWN GRADIENT OF ALL EXPOSED SOILS AND PRIOR TO DISCHARGING TO SURFACE WATERS. PLACE J-HOOKS AT A MAXIMUM OF 100-FOOT INTERVALS.
9. ALL STOCKPILES MUST HAVE PERIMETER SEDIMENT CONTROLS IMPLEMENTED AND MAINTAINED AT ALL TIMES. PILES CANNOT BE PLACED IN BUFFER AREAS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES UNLESS THERE IS A BYPASS IN PLACE TO PREVENT STORMWATER RUN-ON INTO THE STOCKPILE.
10. STEEP SLOPES MAY BE TEMPORARILY CREATED DURING GRADING OPERATIONS. STABILIZATION OF STEEP SLOPES (3:1 OR GREATER) SHALL BE PROPERLY CAT-TRACKED AND STABILIZED PER THE EROSION CONTROL PLAN. LONG SLOPES CAN BE BROKEN UP WITH SEDIMENT CONTROL LOGS IF EROSION IS EVIDENT.
11. DITCH CHECKS WILL BE PLACED AS INDICATED ON THE PLANS DURING ALL PHASES OF CONSTRUCTION.

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WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN
DESIGN BY:
PLAN BY:
CHECK BY:

REVISIONS

NO.	DATE	DESCRIPTION

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.

DATE: 4/22/2022 LIC. NO:

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STORMWATER POLLUTION PREVENTION PLAN

CITY PROJECT 23-08

SHEET **205** OF **230** SHEETS

12. ALL STORM DRAIN INLETS, THAT RECEIVE PROJECT STORMWATER, MUST BE PROTECTED BY APPROPRIATE BMPS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. INLET PROTECTION MAY BE REMOVED FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (STREET FLOODING/FREEZING) HAS BEEN IDENTIFIED AND THE PERMITTEE(S) HAS RECEIVED WRITTEN CORRESPONDENCE FROM THE JURISDICTIONAL AUTHORITY VERIFYING THE NEED FOR REMOVAL. WRITTEN CORRESPONDENCE MUST BE DOCUMENTED IN THE SWPPP.
13. SILT FENCE IS NOT AN ACCEPTABLE CATCH BASIN INLET PROTECTION BMP. CONTACTOR SHALL CLEAN, REMOVE AND DISPOSE OF SEDIMENT, AND/OR REPLACE STORM DRAIN INLET PROTECTION ON A ROUTINE BASIS TO ENSURE THE DEVICE IS FULLY FUNCTIONAL PRIOR TO THE NEXT FORECASTED PRECIPITATION EVENT (30% OR GREATER).
14. DISCHARGE TURBID OR SEDIMENT LADEN WATER TO TEMPORARY SEDIMENT BASINS WHENEVER FEASIBLE. IN THE EVENT THAT IT IS NOT FEASIBLE TO DISCHARGE THE SEDIMENT LADEN WATER TO A TEMPORARY SEDIMENT BASIN, THE WATER MUST BE TREATED SO THAT IT DOES NOT CAUSE A NUISANCE CONDITION IN THE RECEIVING WATERS OR TO DOWNSTREAM LANDOWNERS. CLEAN OUT ALL PERMANENT STORMWATER BASINS REGARDLESS OF WHETHER USED AS TEMPORARY SEDIMENT BASINS/TRAPS TO THE DESIGN CAPACITY AFTER COMPLETING ALL UP-GRADIENT LAND DISTURBING ACTIVITY. USE A SKIMMER DEVICE FOR BASIN DRAINING.
15. PROVIDE STABILIZATION IN ANY TRENCHES CUT FOR DEWATERING OR SITE DRAINING PURPOSES.
16. THE CONTRACTOR SHALL SUBMIT A DEWATERING PLAN AND NARRATIVE TO THE PROJECT ENGINEER FOR APPROVAL 7 DAYS PRIOR TO UNDERTAKING THESE ACTIVITIES. DEWATERING PLAN MUST INCLUDE BMP'S TO PREVENT SEDIMENT TRANSPORT, EROSION, AND ADVERSE IMPACTS TO DOWNSTREAM RECEIVING WATERS. THE DEWATERING PLAN MUST ALSO INCLUDE ANY SPECIFIC CHEMICAL TREATMENTS (FLOC, POLYMERS, ETC.) THAT WILL BE USED. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ANY PERMIT NECESSARY FOR THESE ACTIVITIES; THE DEWATERING PLAN AND DNR APPROPRIATIONS PERMIT WILL BECOME PART OF THE SWPPP.

TEMPORARY & PERMANENT EROSION CONTROL BMPS

SEED MIX: SEED MIX SHALL BE USED IN CONSTRUCTION AND REVEGETATION PROJECTS IN ORDER TO ENHANCE SOIL NUTRIENT AVAILABILITY AND BIOLOGICAL SOIL STRUCTURE, ENCOURAGE NATIVE PLAN SUCCESSION, REDUCE EROSION, AND DISCOURAGE INVASIVE PLANT SPECIES. INOCULATION OF SOILS WITH MYCORRHIZAL FUNGI OR THE PRESENCE OF PRE-EXISTING SOIL MICROBES IS ESSENTIAL FOR THE STABILIZATION OF ADVERSE SOILS, ESTABLISHMENT OF NATIVE GRASSES, AND THE EXCLUSION OF NON-NATIVE "ANNUALS" AND NOXIOUS WEEDS.

EROSION CONTROL BLANKET: EROSION CONTROL BLANKETS (ECBS) ARE A SOIL STABILIZATION (EROSION CONTROL) BMP, INTENDED TO PROTECT DISTURBED SOIL SURFACES FROM RAINDROP IMPACT EROSION. ECBS ARE CARPET-LIKE MATS, INSTALLED OVER AND ANCHORED TO THE PROPERLY PREPARED SOIL SURFACES. PROPERLY SELECTED AND INSTALLED, ECBS CAN MIMIC THE BENEFICIAL EFFECTS OF VEGETATIVE COVER THEREBY REDUCING EROSION RATES BY OVER 90%. ECBS ALSO PROTECT SEEDS AND PROVIDE A BENEFICIAL ENVIRONMENT FOR VEGETATION TO BECOME ESTABLISHED. CONTRACTOR SHALL VERIFY DURING REGULAR INSPECTIONS THAT NO GULLIES, RILLS, OR SCOUR HOLES HAVE FORMED UNDER EROSION CONTROL BLANKETS AND MATS AND CORRECT ALL ERODED AREAS WITHIN 7 DAYS. ALL REPAIRS MUST BE COMPLETED WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.

HYDRAULIC MATRICES: HYDRAULIC MATRICES ARE EROSION CONTROL PRODUCTS THAT ARE USED TO STABILIZE EXPOSED SOILS. THESE MATRICES ARE APPLIED IN A SLURRY, PRODUCED BY MIXING FIBER, WATER AND A BINDING AGENT TOGETHER IN A MECHANICAL HYDRO-SEEDER. WOOD FIBER IS WIDELY USED BUT OTHER FIBERS CAN INCLUDE PAPER, STRAW, COIR, CORN, ETC. THE EFFECTIVENESS OF THESE HYDRAULIC MATRICES ARE DEPENDENT ON:

- PROPER SOIL PREPARATION
- APPLICATION RATES (DEPENDENT ON THE MANUFACTURERS RECOMMENDATIONS)
- THE TYPE OF FIBERS USED
- THE TYPE OF BOND AGENT(S) ADDED

THESE HYDRAULIC MATRICES ARE CLASSIFIED IN THE MNDOT SPEC BOOK AND APPROVED PRODUCTS LIST, DEPENDING ON THE PRODUCT CHARACTERISTICS, STRENGTH, AND LONGEVITY. HYDRAULIC MATRICES USED INCLUDE: ORGANIC FIBER MATRIX, HYDRAULIC MULCH MATRIX, STABILIZED FIBER MATRIX, BONDED FIBER MATRIX, AND FIBER REINFORCED MATRIX.

SOD TYPE LAWN: SOD IS A PERMANENT EROSION PREVENTION BMP THAT PROVIDES INSTANTANEOUS SOIL STABILIZATION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF SOD AS OUTLINED IN THE PROJECT SPECIFICATIONS.

RAPID STABILIZATION METHOD #2: THIS METHOD SHALL CONSIST OF TYPE 3 MULCH (1.5 TON PER ACRE) OR 3884 TYPE STABILIZED FIBER MATRIX (750 LBS PER ACRE) BE SPREAD IN AREAS THAT HAVE BEEN UNWORKED FOR 7 DAYS. THIS METHOD SHALL BE USED ON SLOPES LESS THAN 3:1.

RAPID STABILIZATION METHOD #3: THIS WORK SHALL CONSIST OF OPERATIONS NECESSARY TO RAPIDLY STABILIZE SMALL CRITICAL AREAS WITHIN 200 FEET OF SURFACE WATERS, TO PREVENT OFF SITE SEDIMENTATION AND OR TO COMPLY WITH PERMIT REQUIREMENTS. THIS FORM OF RAPID STABILIZATION EMPLOYS SFM, SEED MIX 22-111, AND FERTILIZER TYPE 3. THIS METHOD SHALL BE USED ON SLOPES LESS THAN 3:1. INSTALL PER MNDOT SPECIFICATION 2575.3.M.1.C.

RAPID STABILIZATION METHOD #4: THIS METHOD SHALL CONSIST OF CATEGORY 20/25 EROSION CONTROL BLANKET (NATURAL NET ONLY) IN COMBINATION WITH MNDOT SEED MIX 22-111 (2 LBS PER 100 SQ. YD.) AND TYPE 3 SLOW RELEASE FERTILIZER (8 LBS PER 100 SQ. YD.). THIS IS AN ACCEPTABLE BMP FOR DISTURBED AREAS ADJACENT TO ENVIRONMENTALLY SENSITIVE AREAS, SURFACE WATERS, AND WITHIN THE LAST 200 FEET OF DITCH BOTTOMS.

TEMPORARY & PERMANENT SEDIMENT CONTROL BMPS

SEDIMENT CONTROL LOGS: SEDIMENT CONTROL LOGS ARE MANUFACTURED FROM STRAW, WOOD EXCELSIOR, COCONUT FIBERS, AND/OR OTHER MATERIALS THAT ARE BOUND WITH POLYPROPYLENE OR BIODEGRADABLE NETTING INTO TIGHT TUBULAR ROLLS. FIBER ROLLS CONTROL THREE TYPES OF EROSIONAL PROCESSES; EROSION CONTROL, RUN OFF CONTROL, AND SEDIMENT CONTROL. SEDIMENT CONTROL LOGS CAN BE USED FOR THE FOLLOWING:

- SLOPE INTERRUPTERS TO REDUCE EROSION ON NEWLY CONSTRUCTED SLOPES
- TEMPORARY DITCH CHECKS TO REDUCE RUNOFF VELOCITIES IN DRAINAGE CHANNELS
- SEDIMENT CONTROL BARRIERS FOR SMALL DISTURBED SOIL AREAS SUCH AS STOCKPILES, DISCRETE SLOPES, OR INDIVIDUAL LOTS

MACHINE SLICED SILT FENCE: A SILT FENCE IS A TEMPORARY SEDIMENT BARRIER CONSISTING OF FILTER FABRIC ENTRENCHED INTO THE SOIL AND ATTACHED TO SUPPORTING POSTS. SILT FENCE IS INTENDED TO BE INSTALLED WHERE SEDIMENT-LADEN WATER CAN POND, THUS ALLOWING THE SEDIMENT TO FALL OUT OF SUSPENSION AND SEPARATE FROM THE RUNOFF. SILT FENCE INSTALLED WITH A TRENCHER OR BY SLICING IS THE MOST EFFECTIVE INSTALLATION METHOD TO ENSURE AGAINST COMMON SILT FENCE FAILURES. THE BMP WILL BE CLEANED OUT OR REPLACED WHEN THE SEDIMENT REACHES 1/2 THE HEIGHT OF THE FENCE.

STABILIZED CONSTRUCTION EXIT: TEMPORARY CONSTRUCTION EXITS ARE CONSTRUCTED AT THE EGRESS POINT FROM THE CONSTRUCTION AREA ONTO A PAVED ROAD. A STABILIZED CONSTRUCTION EXIT IS A TRACKING CONTROL BMP INTENDED TO PREVENT TRACKING OF SOIL FROM THE CONSTRUCTION SITE BY EQUIPMENT AND VEHICLES. THE EXITS ARE CONSTRUCTED OF LARGE ANGULAR ROCK, STEEL RIBS (RUMBLE STRIPS), OR TRACK PADS INTENDED TO KNOCK THE MUD OFF THE TIRES BEFORE TRAVELING ONTO THE ROADWAY.

CHEMICAL TREATMENTS: OPERATOR MUST AMEND THE SWPPP TO INCLUDE THE INTENDED USES AND LOCATIONS OF FLOCCULANTS, POLYMERS, AND OTHER SEDIMENTATION TREATMENT CHEMICALS. CHEMICAL TREATMENTS MUST BE IN COMPLIANCE WITH PART 9.18.

DUST CONTROL: OPERATOR WILL COMPLY WITH STATE RULE 7011.0150 ON DUST PREVENTION REQUIREMENTS. DUST FROM THE SITE WILL BE CONTROLLED BY INCREASED STREET SWEEPING AND/OR USING A MOBILE PRESSURE-TYPE DISTRIBUTOR TRUCK TO APPLY POTABLE WATER TO DISTURBED AREAS. THE MOBILE UNIT WILL APPLY WATER AT A RATE NECESSARY TO PREVENT RUNOFF AND PONDING.

POLLUTION PREVENTION MANAGEMENT

POTENTIAL SOURCES OF POLLUTANTS FROM CONSTRUCTION ACTIVITIES INCLUDE, BUT NOT LIMITED TO:

1. SEDIMENT AND FUGITIVE DUST GENERATED FROM CLEARING AND GRUBBING, IMPORT/EXPORT OPERATIONS, REMOVALS/COMPACTION, MASS/FINE GRADING, EXCAVATIONS, TRENCHING, TOPSOIL STRIPING STOCKPILING, WET/DRY PAVEMENT CUTTING, STREET CONSTRUCTION.
2. BASIC/ACIDIC PH LEVELS FROM CURB AND GUTTER, MANHOLE STRUCTURES, SIDEWALKS, DRIVEWAY APRONS, WET/DRY PAVEMENT CUTTING, MASONRY WASHOUT/CLEANOUT.
3. EXCESS NUTRIENTS FROM LANDSCAPING INSTALLATIONS, SOIL ADDITIVES, FERTILIZATION, MULCHING.
4. HYDROCARBONS FROM STREET CONSTRUCTION, DEMOLITION/REMOVALS, WET/DRY PAVEMENT CUTTING.

OPERATOR WILL COMPLY WITH ALL OF THE POLLUTION PREVENTION AND MANAGEMENT MEASURES IDENTIFIED IN THE NPDES-CSW PERMIT, PART 12.1. STORAGE AND DISPOSAL OF CONSTRUCTION AND HAZARDOUS WASTES MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.

A. POSITION AND STAKE DOWN ALL PORTABLE TOILETS SO THEY CANNOT BE TIPPED OR KNOCKED OVER. SUPPLY ADEQUATE SECONDARY CONTAINMENT.
B. SECONDARY CONTAINMENT IS NEEDED AROUND ALL STATIONARY EQUIPMENT (GENERATORS, PUMPS, LIGHT PLANTS, ETC.) PROVIDE CONTAINMENT FOR ALL HAZARDOUS MATERIALS AND TOXIC WASTE.
C. NO ENGINE DEGREASING IS ALLOWED ON SITE.
D. VEHICLE AND EQUIPMENT WASHING TO OCCUR IN DESIGNATED AREA AS DETERMINED BY THE CONTRACTOR SUBMITTAL OF A MANAGEMENT PLAN FOR THESE ACTIVITIES.
E. PROPERLY CLEAN UP AND REPORT ALL SPILLS AS REQUIRED BY THE MPCA AND MNDOT SPECIFICATIONS.
F. PROVIDE A SPILL KIT AT EACH WORK LOCATION ON THE SITE.
G. PROVIDE A SECURE STORAGE AREA WITH RESTRICTED ACCESS FOR ALL HAZARDOUS MATERIALS AND TOXIC WASTE. RETURN ALL HAZARDOUS MATERIALS AND TOXIC WASTE TO THE DESIGNATED STORAGE AREA AT THE END OF THE BUSINESS DAY UNLESS INFEASIBLE. STORE ALL HAZARDOUS MATERIALS AND TOXIC WASTE (INCLUDING BUT NOT LIMITED TO OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT, PETROLEUM BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS WITH SECONDARY CONTAINMENT. CLEAN UP SPILLS IMMEDIATELY. STORE, COLLECT AND DISPOSE OF ALL SOLID WASTE.
H. SLURRY FROM CONCRETE OPERATIONS MUST BE VACUUMED UP IMMEDIATELY. NO CONCRETE WASHOUT SHALL COME IN CONTACT WITH THE GROUND AND MUST BE PROPERLY DISPOSED OF.
I. A SIGN MUST BE INSTALLED ADJACENT TO EACH CONCRETE WASHOUT FACILITY.
J. CREATE AND FOLLOW A WRITTEN DISPOSAL PLAN FOR ALL WASTE MATERIALS. INCLUDE IN THE PLAN HOW THE MATERIAL WILL BE DISPOSED OF AND THE LOCATION OF THE DISPOSAL SITE. SUBMIT PLAN TO THE ENGINEER PRIOR TO CONSTRUCTION.
K. USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT DISCHARGE OR PLACEMENT OF BITUMINOUS GRINDINGS, CUTTINGS, MILLINGS, AND OTHER BITUMINOUS WASTES FROM AREAS OF EXISTING OR FUTURE VEGETATED SOILS AND FROM ALL WATER CONVEYANCE SYSTEMS, INCLUDING INLETS, DITCHES AND CURB FLOW LINES.

FINAL STABILIZATION

FINAL STABILIZATION IS ACHIEVED WHEN NPDES CGP PARTS 13.1-13.7 (AS APPLICABLE) ARE COMPLETED PRIOR TO SUBMISSION OF THE NOTICE OF TERMINATION (NOT) TO MPCA.

1. ALL AREAS MUST BE STABILIZED WITH A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70%.
2. ALL TEMPORARY SEDIMENT CONTROL BMP MEASURES MUST BE REMOVED PRIOR TO SUBMITTING PERMIT NOT.

PLOTTED/REVISED: 3/9/2023 11:35:36 AM

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WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN
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PLAN BY:
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REVISIONS

NO.	DATE	DESCRIPTION

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.

DATE: 4/22/2022 LIC. NO:

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

STORMWATER POLLUTION PREVENTION PLAN

CITY PROJECT 23-08

SHEET **206** OF **230** SHEETS

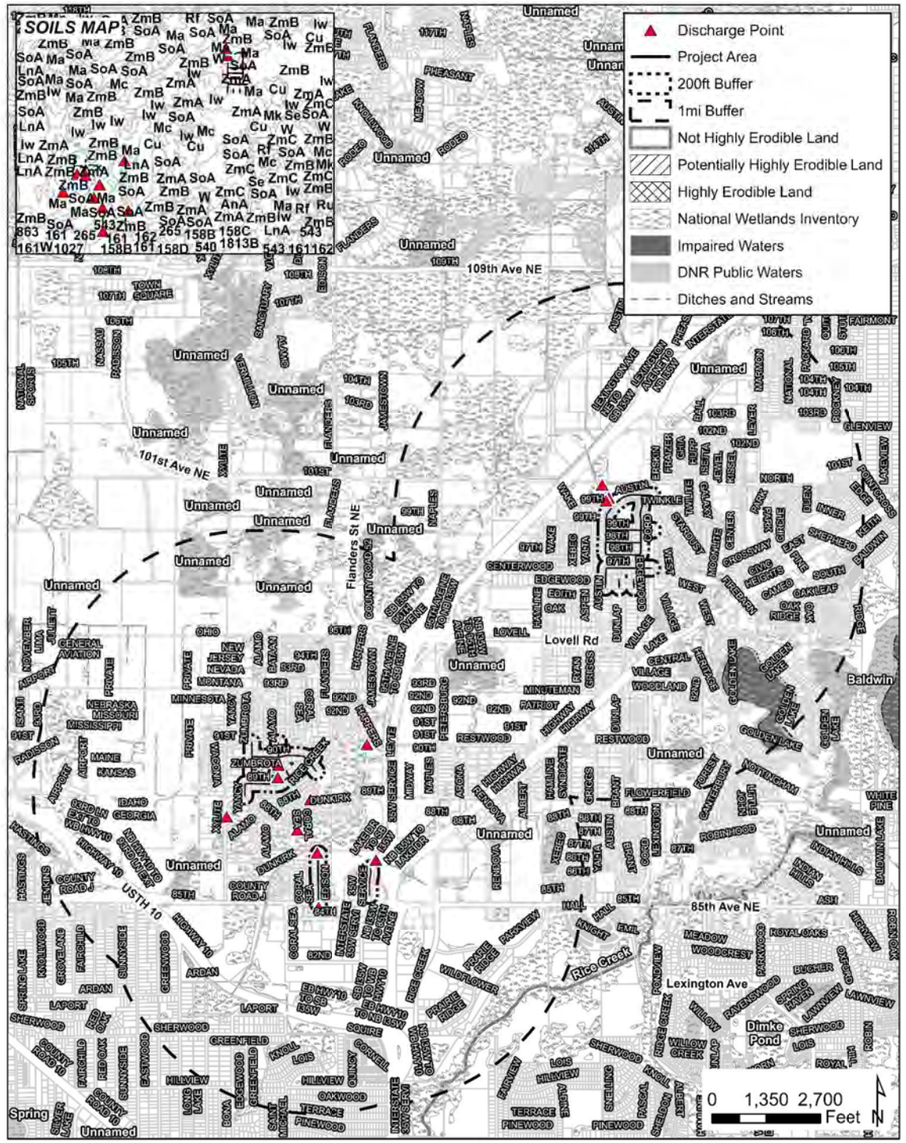

Figure 1. SWPPP Resource Map

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WSB PROJECT NO.: 022066-000

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DATE: 4/22/2022 LIC. NO:

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

STORMWATER POLLUTION PREVENTION PLAN

CITY PROJECT 23-08

SHEET **207** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:44 AM

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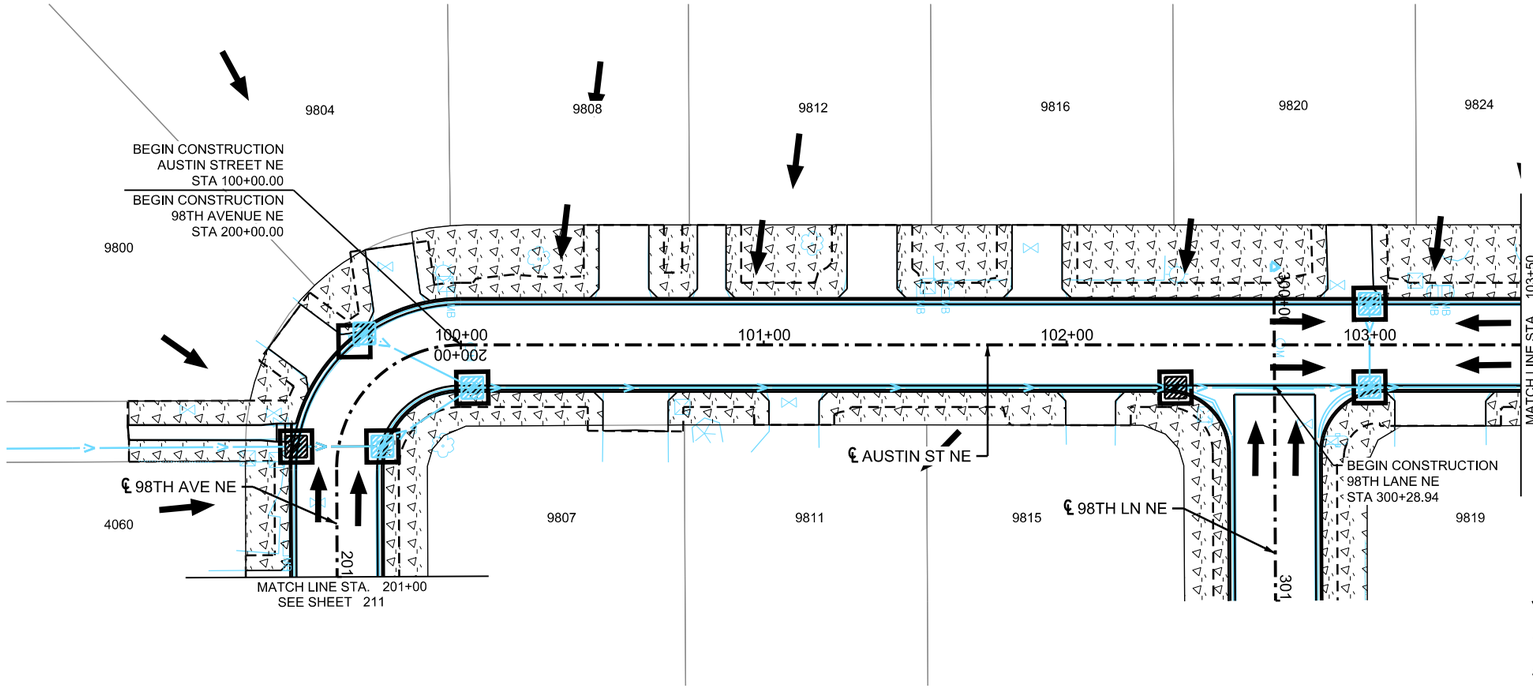
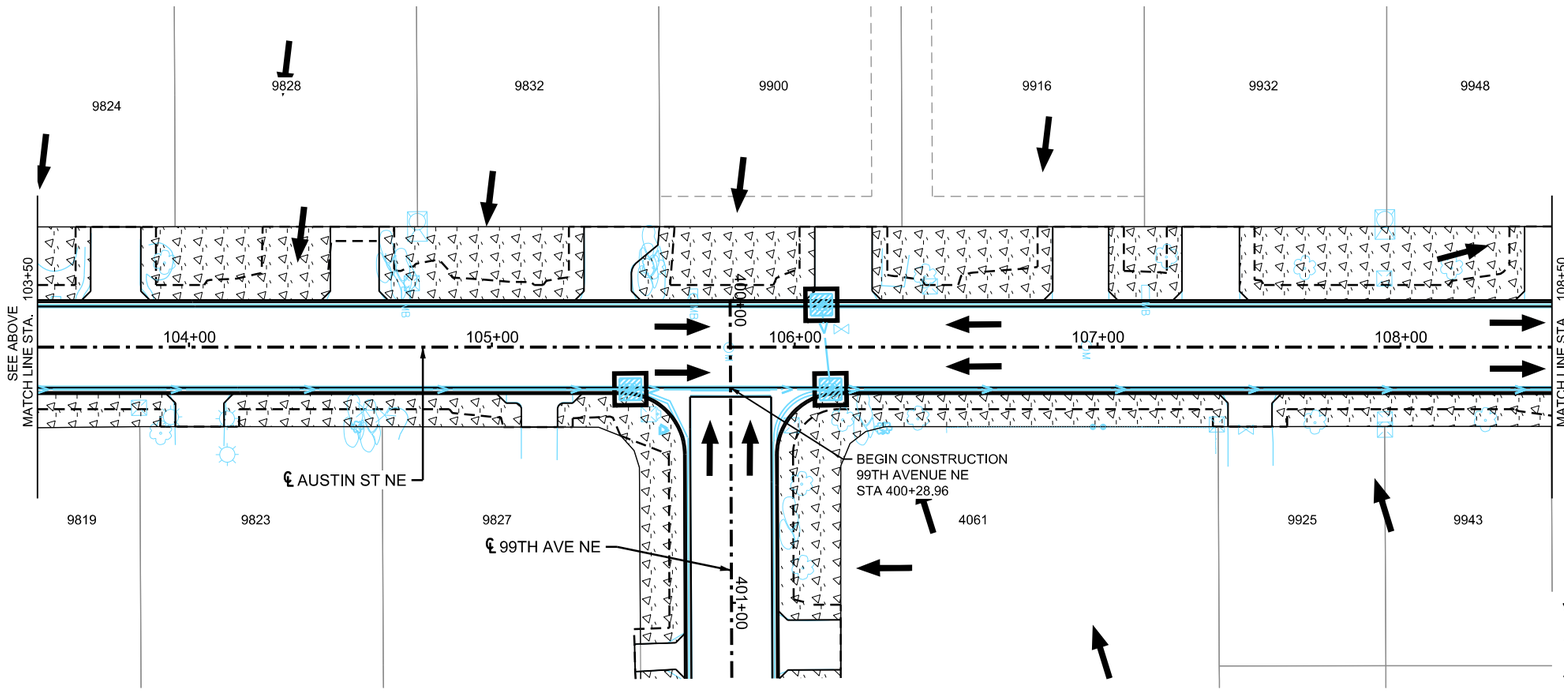
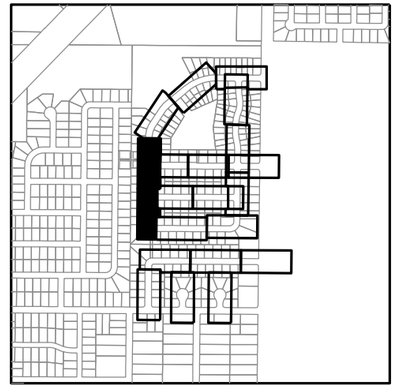
AUSTIN STREET NE



AUSTIN STREET NE



LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

- TEMPORARY BIOROLL DITCH CHECK
- SURFACE FLOW DIRECTION
- INLET PROTECTION
- CP CULVERT END CONTROLS
- STABILIZED CONSTRUCTION EXIT
- SILT FENCE TYPE MS
- CONSTRUCTION LIMITS
- INPLACE RIGHT OF WAY

GENERAL NOTES

1. SOILS SHALL RECEIVE TEMPORARY OR PERMANENT STABILIZATION MEASURES WITHIN 7 DAYS OF INACTIVITY.
2. THE CONTRACTOR SHALL AMEND THE SWPPP AND THE EROSION CONTROL PLAN SHEETS TO SHOW LOCATIONS INCLUDING BUT NOT LIMITED TO: STAGING AND MATERIAL STORAGE AREAS, STOCKPILE LOCATIONS, AND LOCATIONS OF POTENTIAL POLLUTANT GENERATING ACTIVITIES (I.E. FUELING LOCATIONS, DESIGNATED CONCRETE WASHOUT AREAS, ETC.)

wsb

WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN
DESIGN BY: AJF
PLAN BY: AJF
CHECK BY: NEH

REVISIONS

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NICHOLAS E. HENTGES, PE
DATE: 4/22/2022
LIC. NO: 44620

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

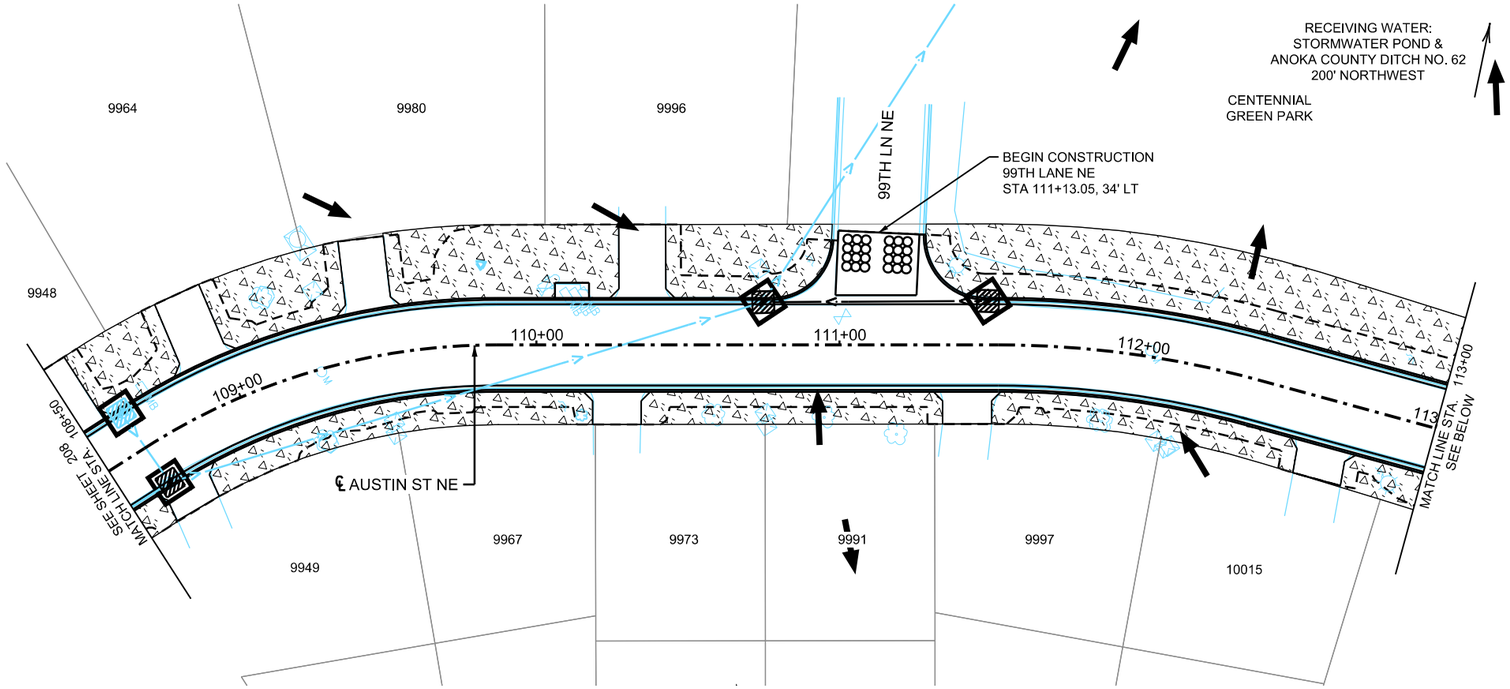
CITY PROJECT 23-08

SHEET **208** OF **230** SHEETS

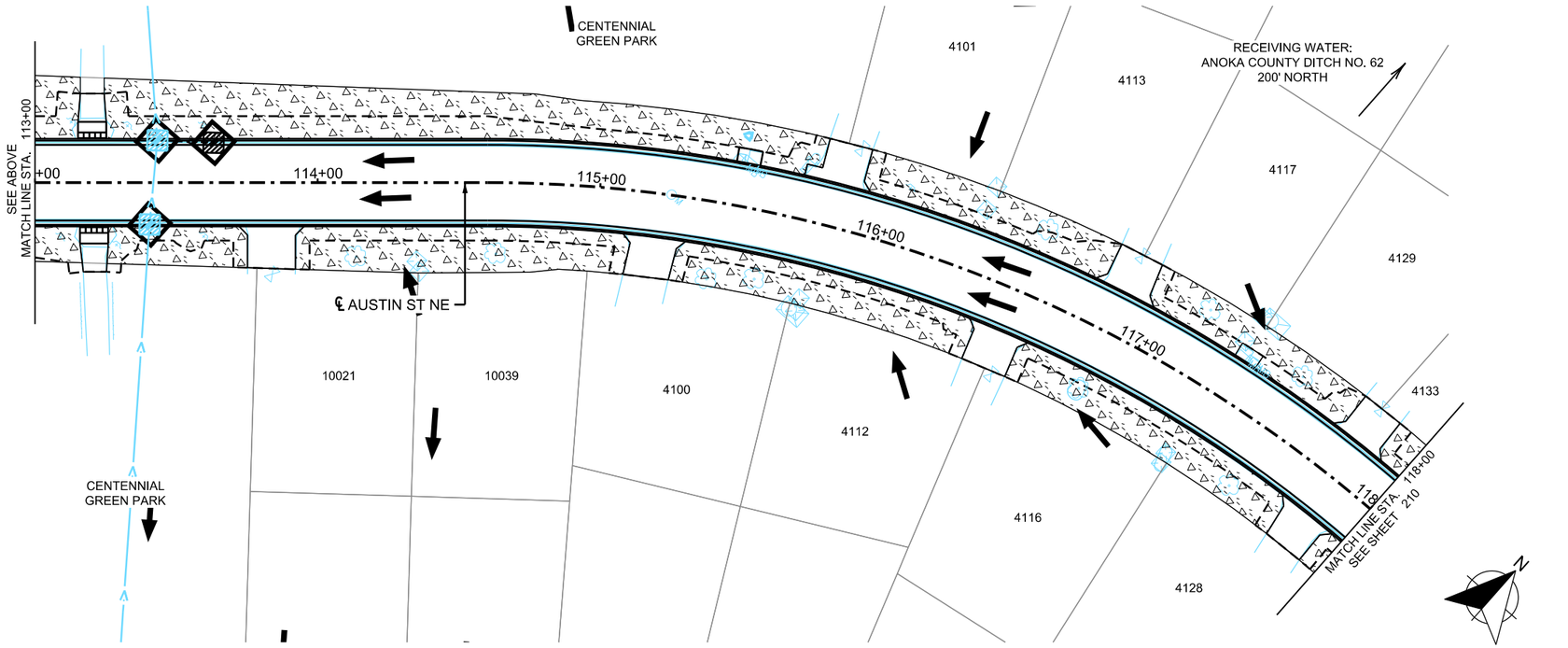
PLOTTED/REVISED: 3/9/2023 11:35:45 AM

PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-TURF-PLAN-02.dgn

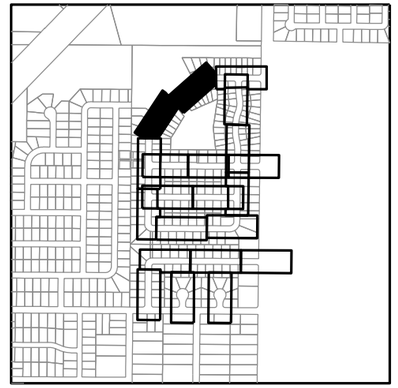
AUSTIN STREET NE



AUSTIN STREET NE



LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

- TEMPORARY BIOROLL DITCH CHECK
- SURFACE FLOW DIRECTION
- INLET PROTECTION
- CP CULVERT END CONTROLS
- STABILIZED CONSTRUCTION EXIT
- SILT FENCE TYPE MS
- CONSTRUCTION LIMITS
- INPLACE RIGHT OF WAY

GENERAL NOTES

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WSB PROJECT NO.: 022066-000

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PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

CITY PROJECT 23-08

SHEET **209** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:46 AM

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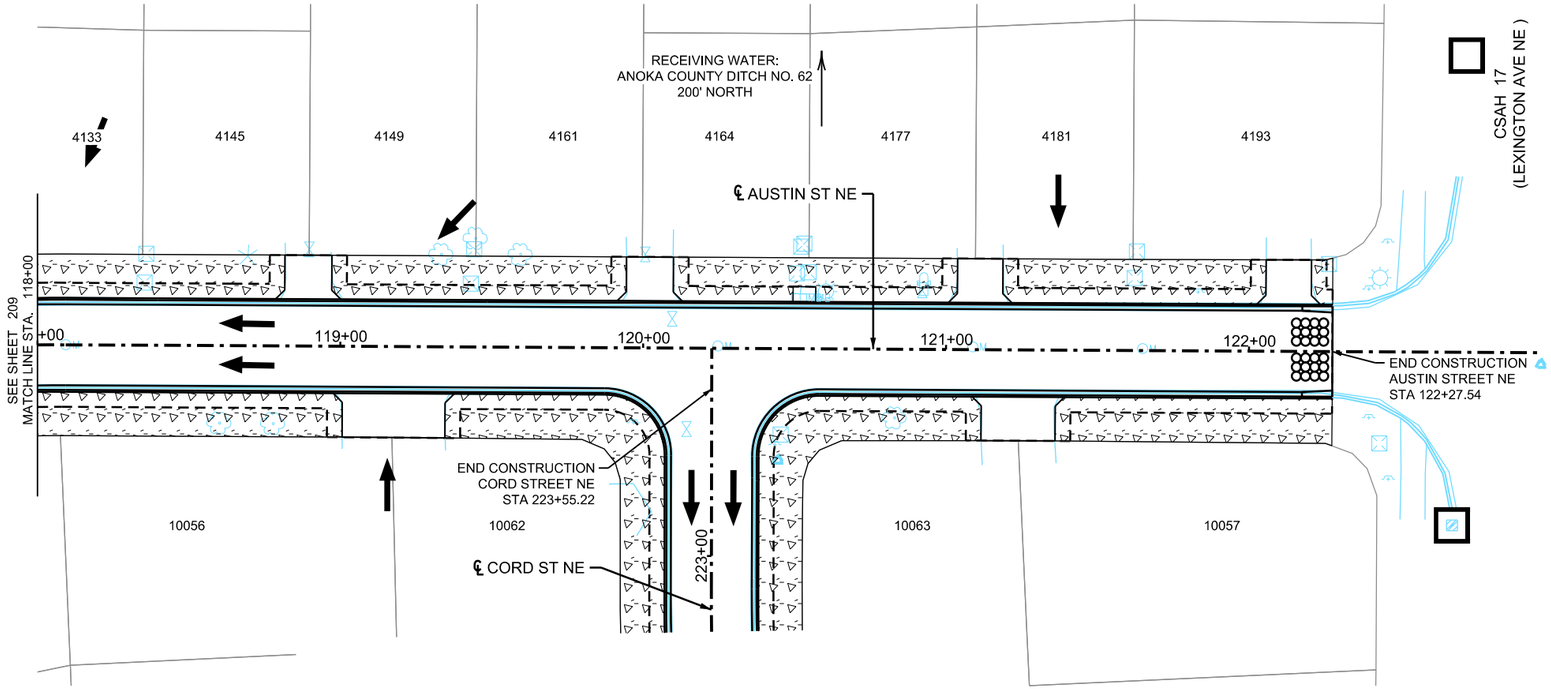
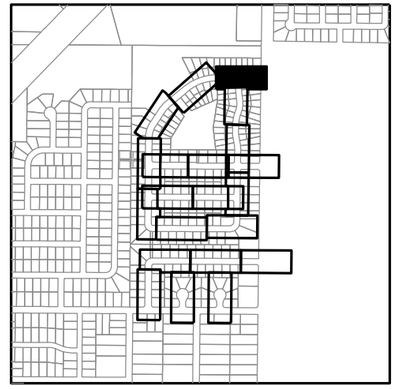
AUSTIN STREET NE



LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

- TEMPORARY BIOROLL DITCH CHECK
- SURFACE FLOW DIRECTION
- INLET PROTECTION
- CP CULVERT END CONTROLS
- STABILIZED CONSTRUCTION EXIT
- SILT FENCE TYPE MS
- CONSTRUCTION LIMITS
- INPLACE RIGHT OF WAY

GENERAL NOTES

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WSB PROJECT NO.: 022066-000

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PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HEINTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

CITY PROJECT 23-08

SHEET **210** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:47 AM

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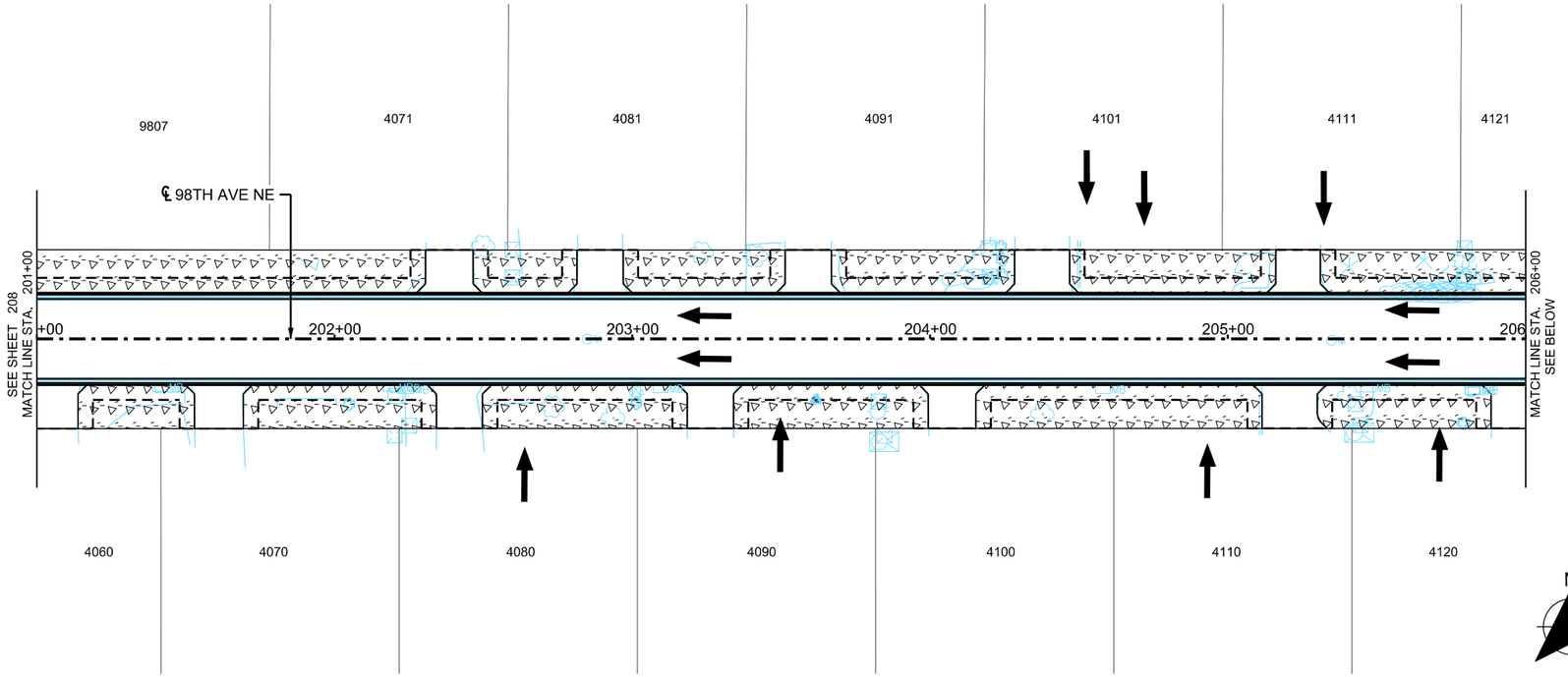
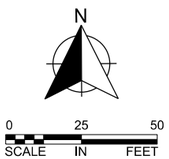
98TH AVENUE NE





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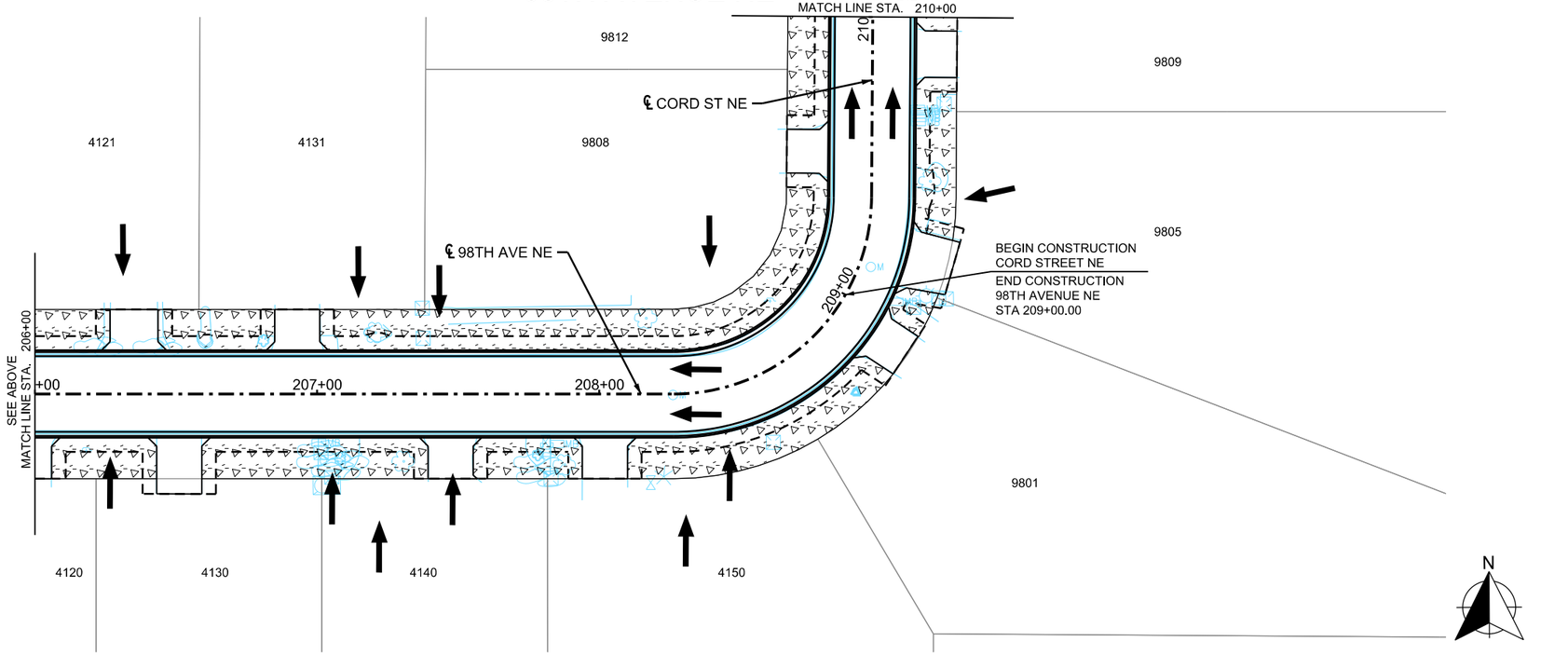
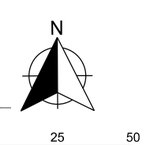
98TH AVENUE NE





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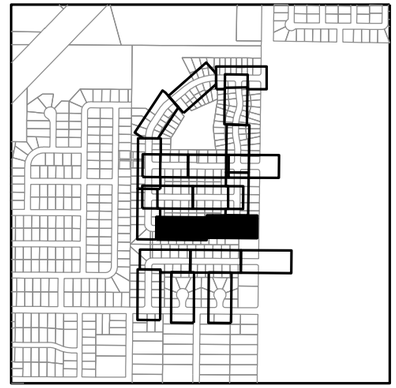
LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

- TEMPORARY BIOROLL DITCH CHECK
- SURFACE FLOW DIRECTION
- INLET PROTECTION
- CP CULVERT END CONTROLS
- STABILIZED CONSTRUCTION EXIT
- SILT FENCE TYPE MS
- CONSTRUCTION LIMITS
- INPLACE RIGHT OF WAY

GENERAL NOTES

1. SOILS SHALL RECEIVE TEMPORARY OR PERMANENT STABILIZATION MEASURES WITHIN 7 DAYS OF INACTIVITY.
2. THE CONTRACTOR SHALL AMEND THE SWPPP AND THE EROSION CONTROL PLAN SHEETS TO SHOW LOCATIONS INCLUDING BUT NOT LIMITED TO: STAGING AND MATERIAL STORAGE AREAS, STOCKPILE LOCATIONS, AND LOCATIONS OF POTENTIAL POLLUTANT GENERATING ACTIVITIES (I.E. FUELING LOCATIONS, DESIGNATED CONCRETE WASHOUT AREAS, ETC.)

WSB PROJECT NO.: 022066-000

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AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

CITY PROJECT 23-08

SHEET **211** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:47 AM

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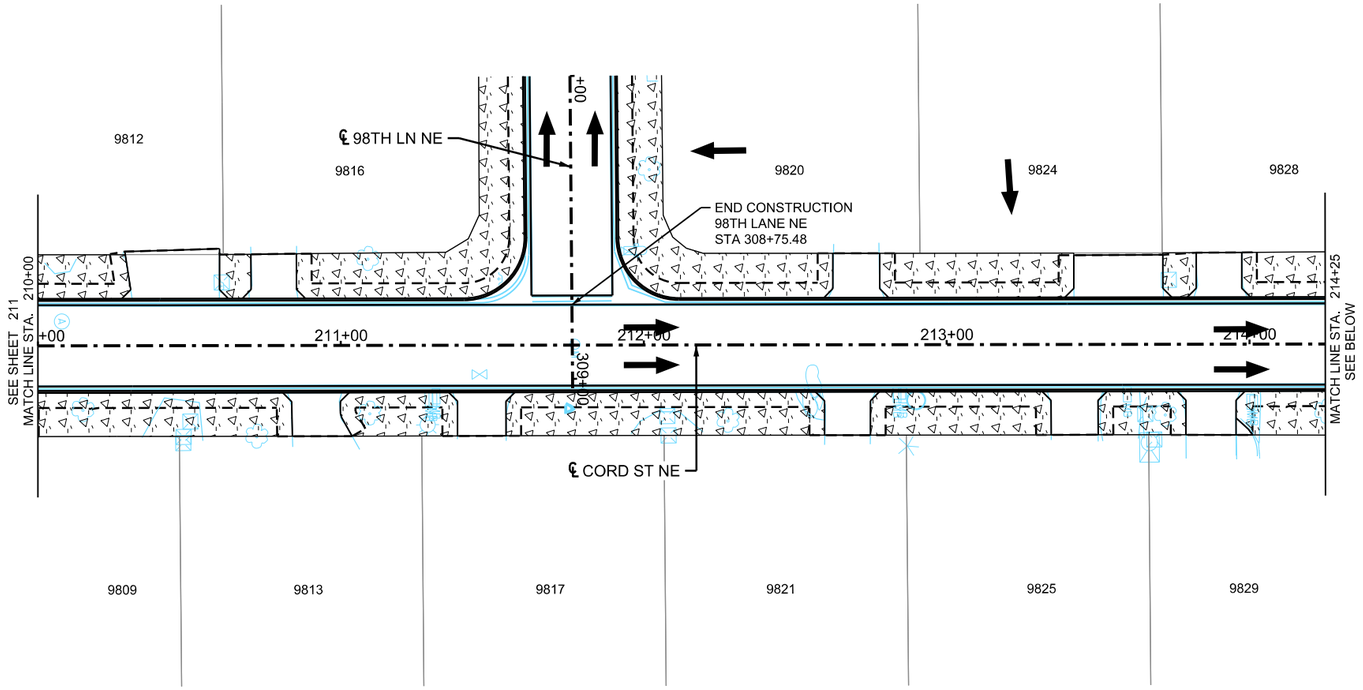
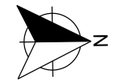
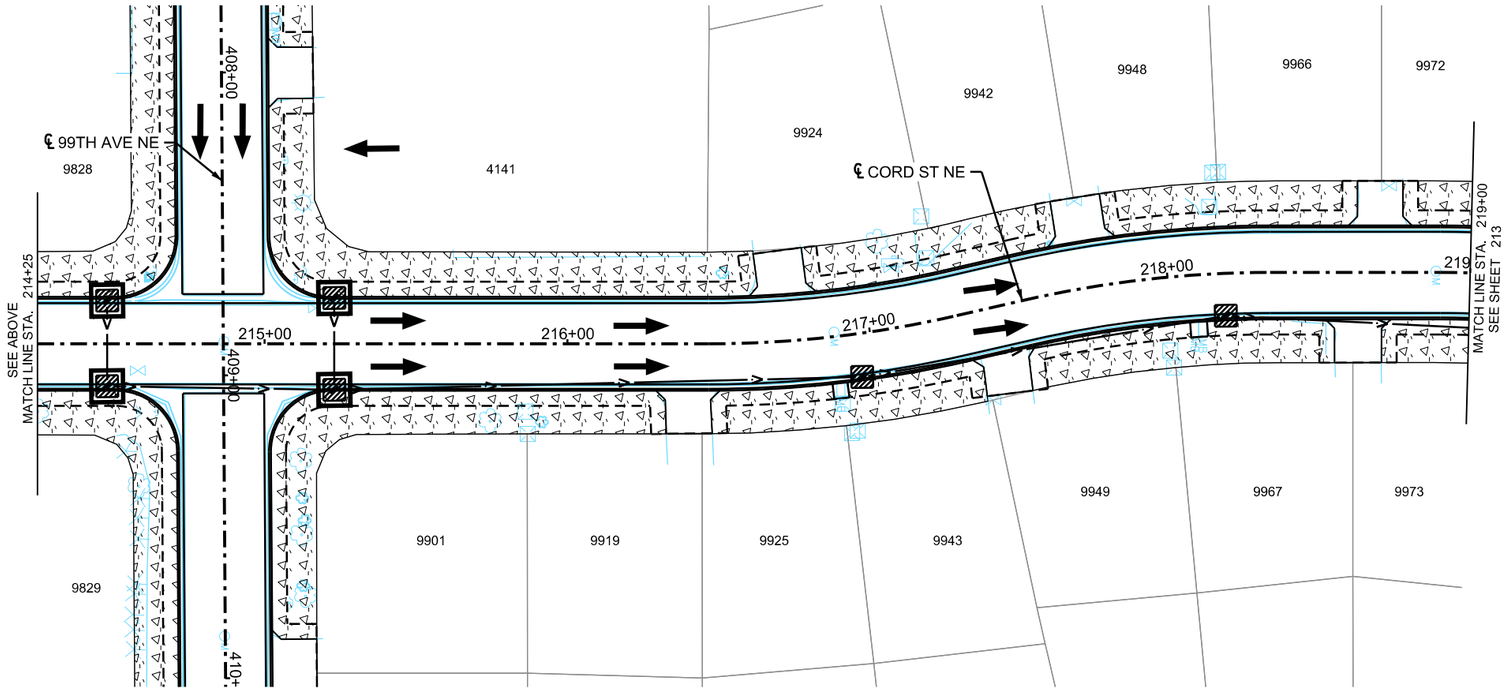
CORD STREET NE

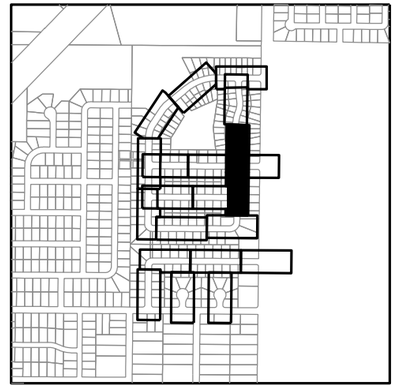




CORD STREET NE



LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

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wsb

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AJF	NEH

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NICHOLAS E. HEINTGES, PE
LIC. NO: 44620
DATE: 4/22/2022

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

CITY PROJECT 23-08

SHEET **212** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:48 AM

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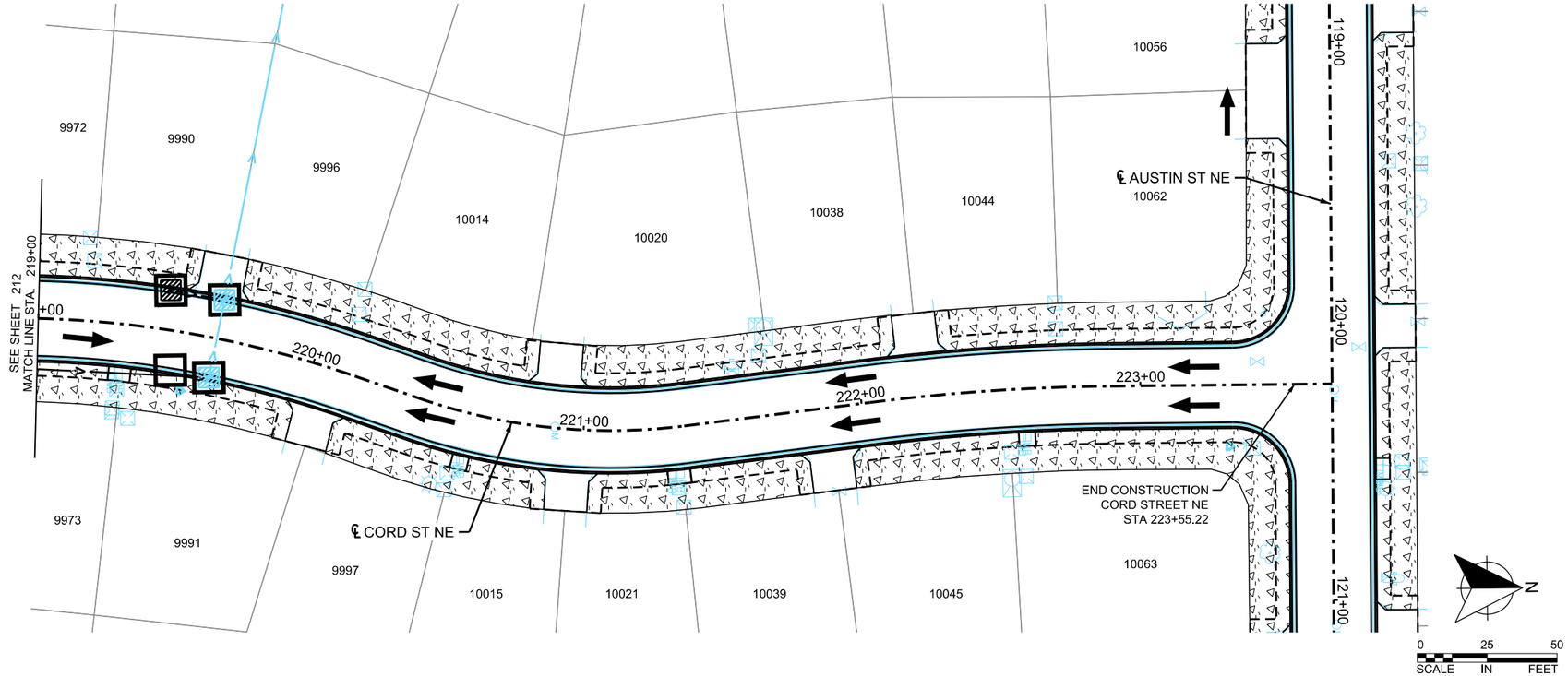
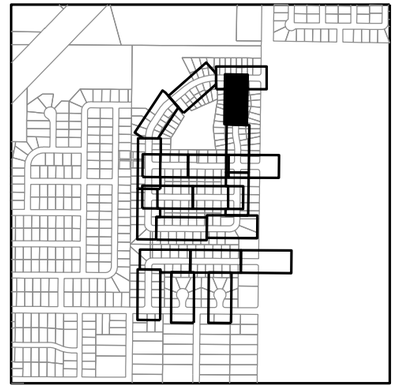
CORD STREET NE



LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

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- SURFACE FLOW DIRECTION
- INLET PROTECTION
- CP CULVERT END CONTROLS
- STABILIZED CONSTRUCTION EXIT
- SILT FENCE TYPE MS
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wsb

WSB PROJECT NO.: 022066-000

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AJF	NEH

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NICHOLAS E. HEINTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

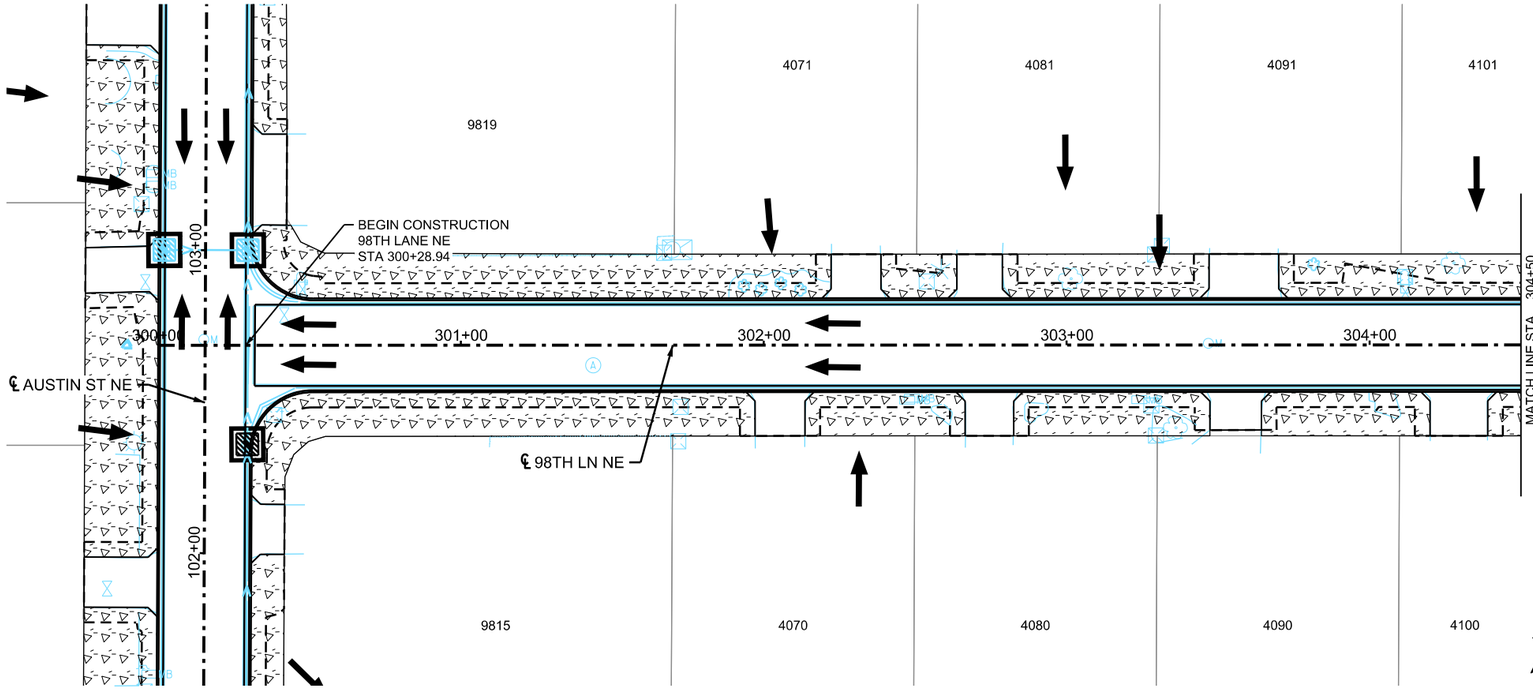
CITY PROJECT 23-08

SHEET **213** OF **230** SHEETS

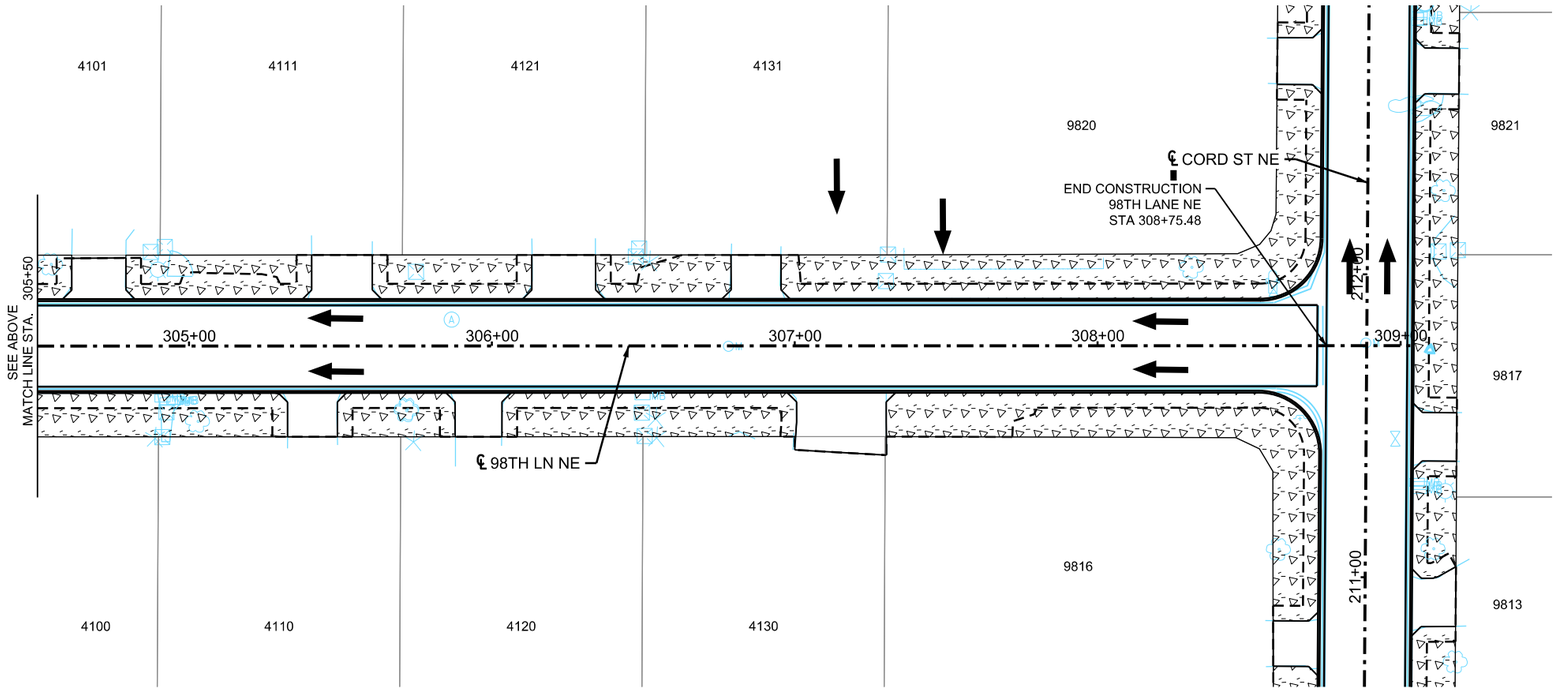
PLOTTED/REVISED: 3/9/2023 11:35:49 AM

PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-TURF-PLAN-07.dgn

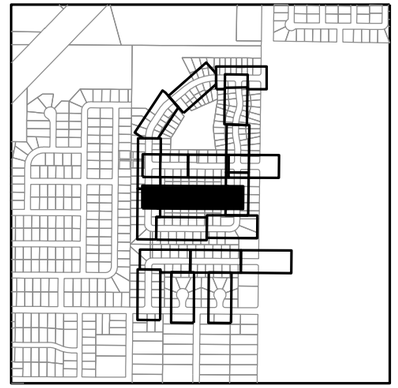
98TH LANE NE



98TH LANE NE



LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

- TEMPORARY BIOROLL DITCH CHECK
- SURFACE FLOW DIRECTION
- INLET PROTECTION
- CP CULVERT END CONTROLS
- STABILIZED CONSTRUCTION EXIT
- SILT FENCE TYPE MS
- CONSTRUCTION LIMITS
- INPLACE RIGHT OF WAY

GENERAL NOTES

1. SOILS SHALL RECEIVE TEMPORARY OR PERMANENT STABILIZATION MEASURES WITHIN 7 DAYS OF INACTIVITY.
2. THE CONTRACTOR SHALL AMEND THE SWPPP AND THE EROSION CONTROL PLAN SHEETS TO SHOW LOCATIONS INCLUDING BUT NOT LIMITED TO: STAGING AND MATERIAL STORAGE AREAS, STOCKPILE LOCATIONS, AND LOCATIONS OF POTENTIAL POLLUTANT GENERATING ACTIVITIES (I.E. FUELING LOCATIONS, DESIGNATED CONCRETE WASHOUT AREAS, ETC.)

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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NICHOLAS E. HENTGES, PE
LIC. NO: 44620
DATE: 4/22/2022

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

CITY PROJECT 23-08

SHEET **214** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:50 AM

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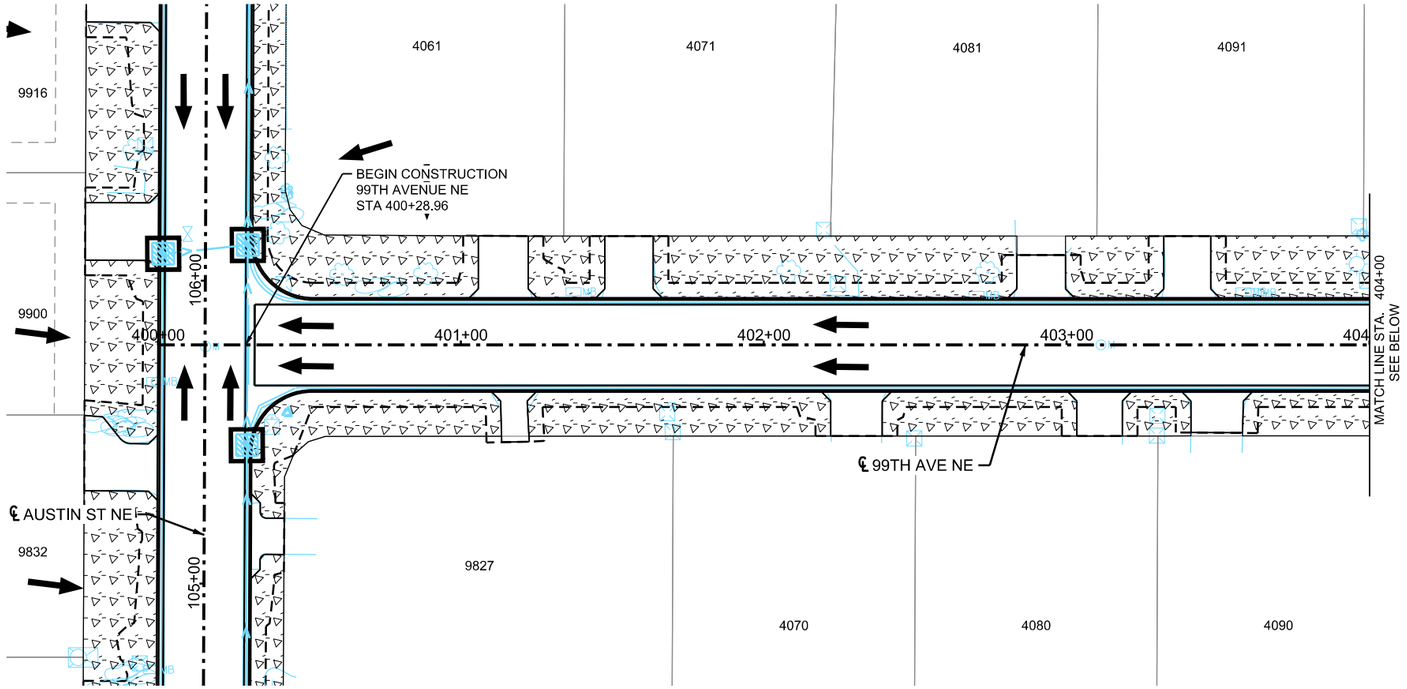
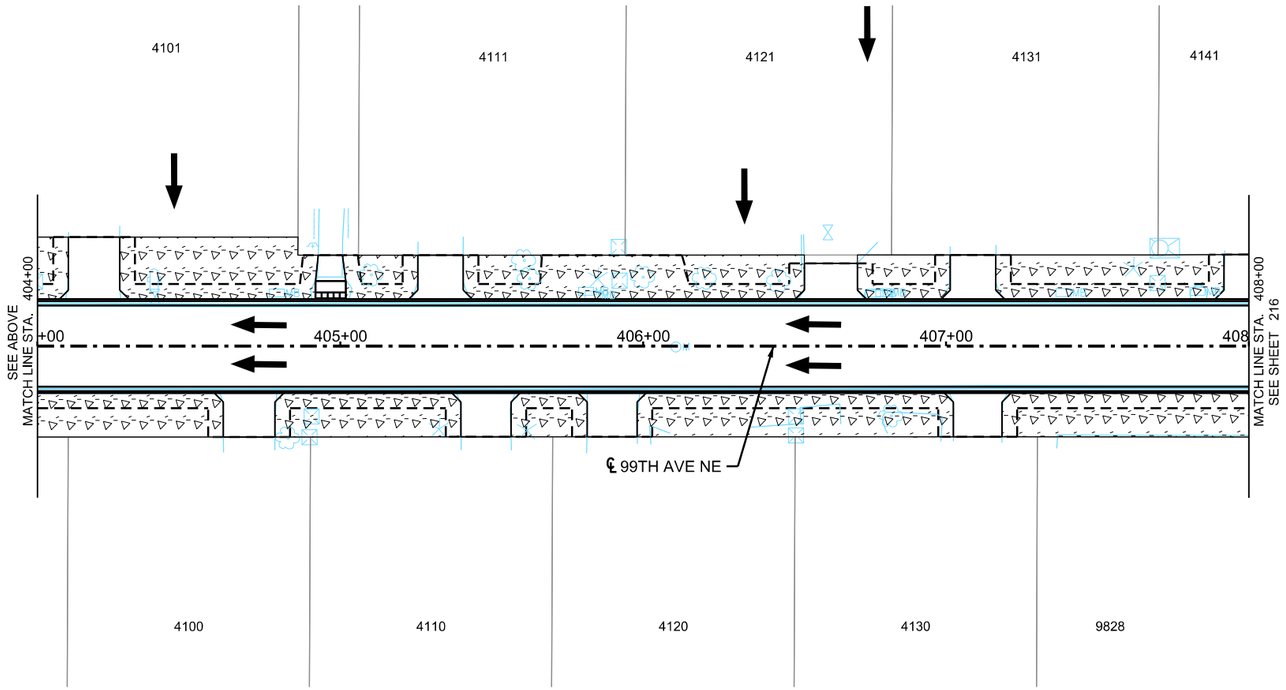
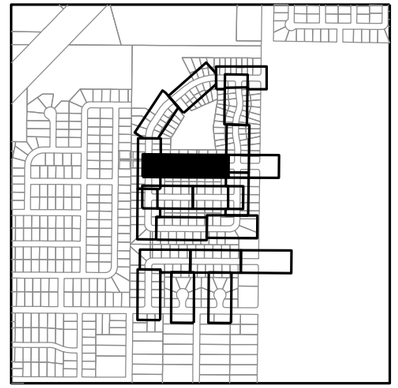
99TH AVENUE NE



99TH AVENUE NE



LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

- TEMPORARY BIOROLL DITCH CHECK
- SURFACE FLOW DIRECTION
- INLET PROTECTION
- CP CULVERT END CONTROLS
- STABILIZED CONSTRUCTION EXIT
- SILT FENCE TYPE MS
- CONSTRUCTION LIMITS
- INPLACE RIGHT OF WAY

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SCALE IN FEET

WSB PROJECT NO.: 022066-000

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AS SHOWN	AJF
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AJF	NEH

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NICHOLAS E. HEINTGES, PE LIC. NO: 44620

DATE: 4/22/2022

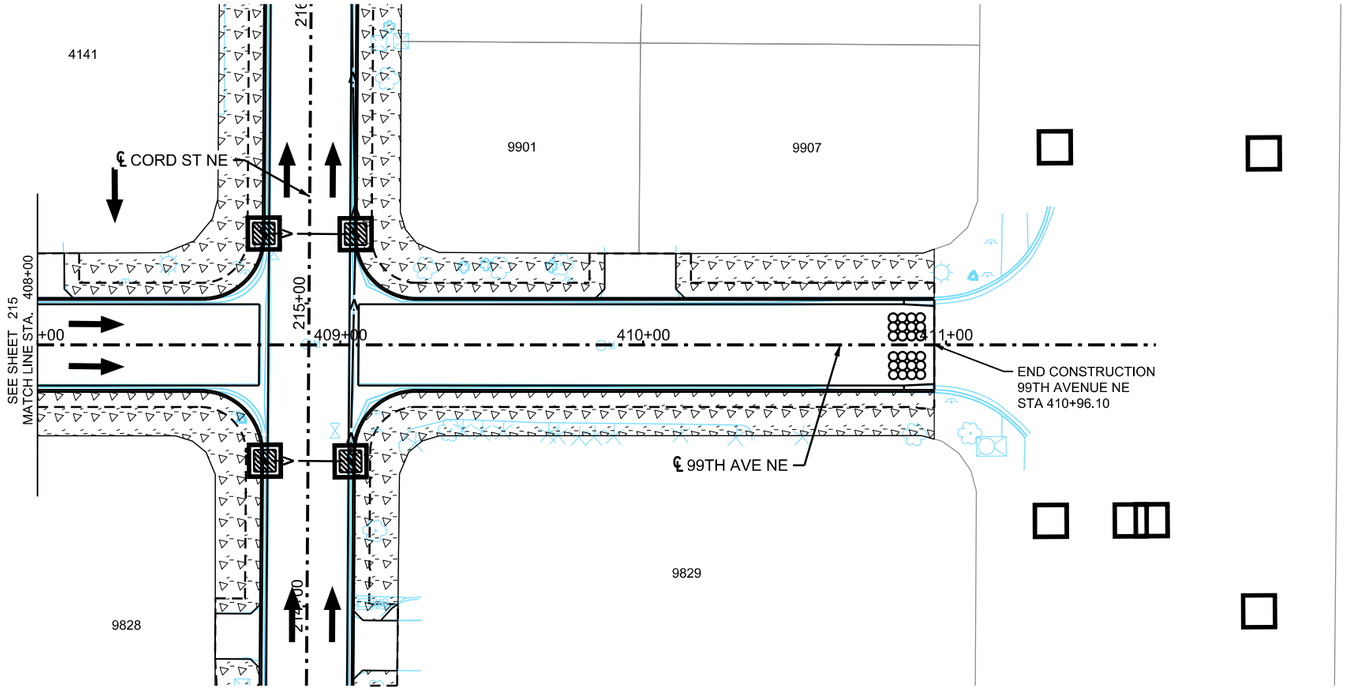
CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

CITY PROJECT 23-08

SHEET **215** OF **230** SHEETS

99TH AVENUE NE



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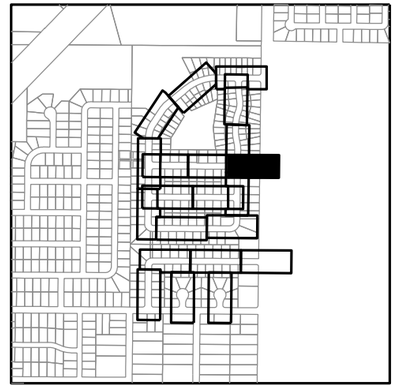
SCALE IN FEET

LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

- TEMPORARY BIOROLL DITCH CHECK
- SURFACE FLOW DIRECTION
- INLET PROTECTION
- CP CULVERT END CONTROLS
- STABILIZED CONSTRUCTION EXIT
- SILT FENCE TYPE MS
- CONSTRUCTION LIMITS
- INPLACE RIGHT OF WAY

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WSB PROJECT NO.:
022066-000

SCALE:	DESIGN BY:
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AJF	NEH

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NICHOLAS E. HEINTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

CITY PROJECT 23-08

SHEET **216** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:50 AM

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PLOTTED/REVISED: 3/9/2023 11:35:51 AM

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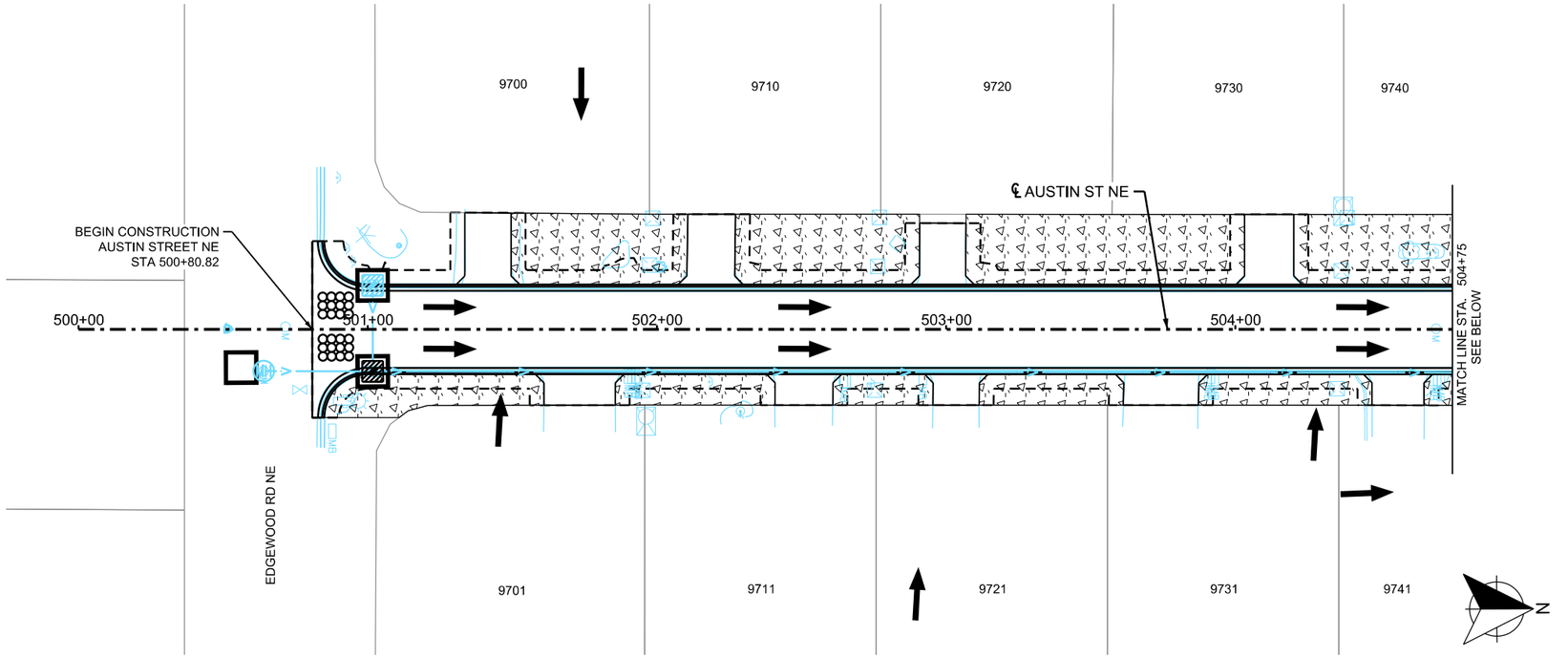
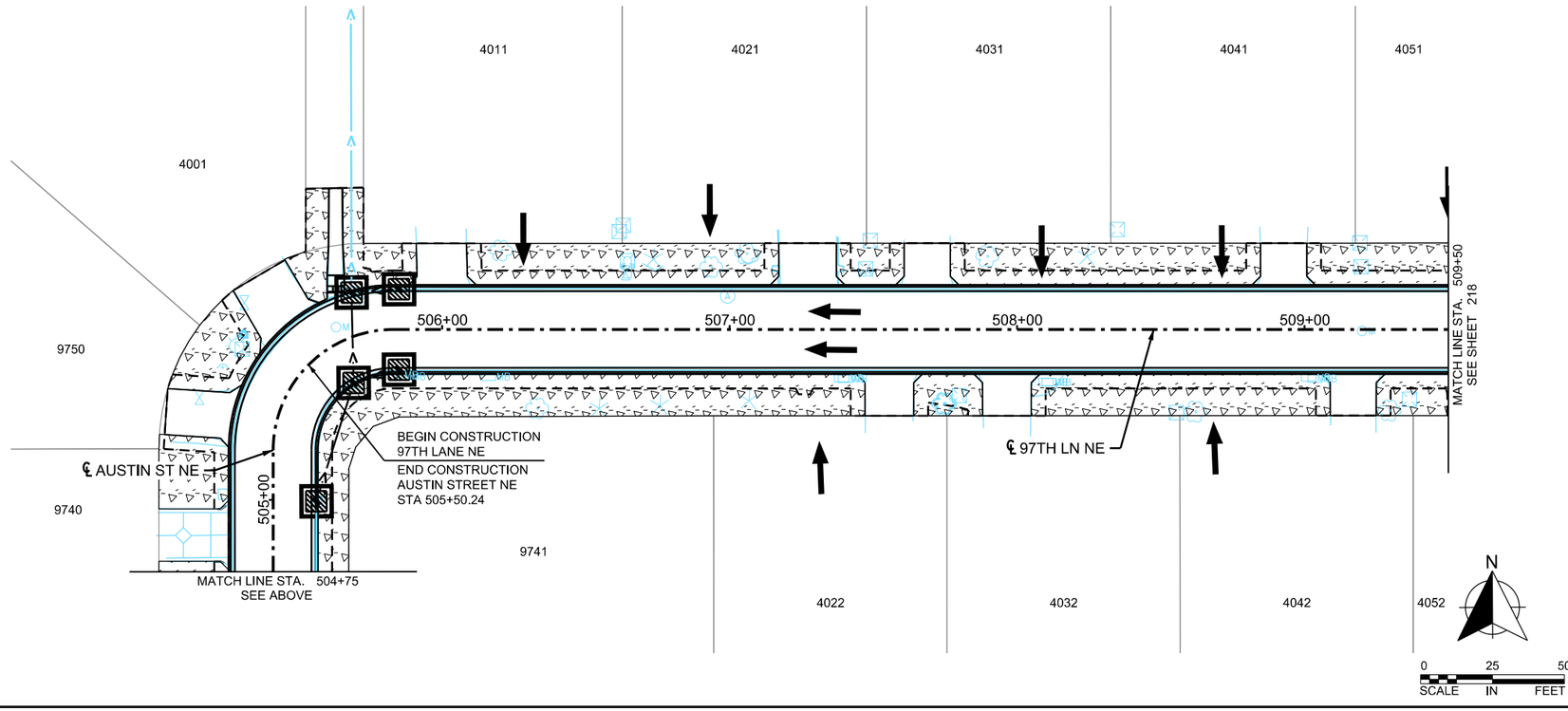
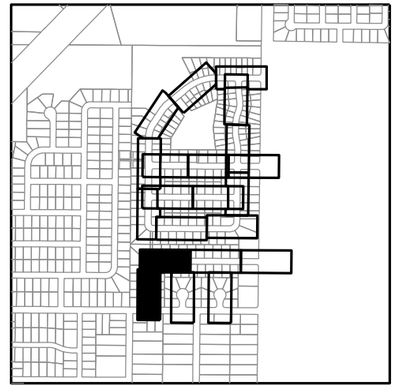
AUSTIN STREET NE



97TH LANE NE



LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
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FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

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AJF	NEH

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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

CITY PROJECT 23-08

SHEET **217** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:51 AM

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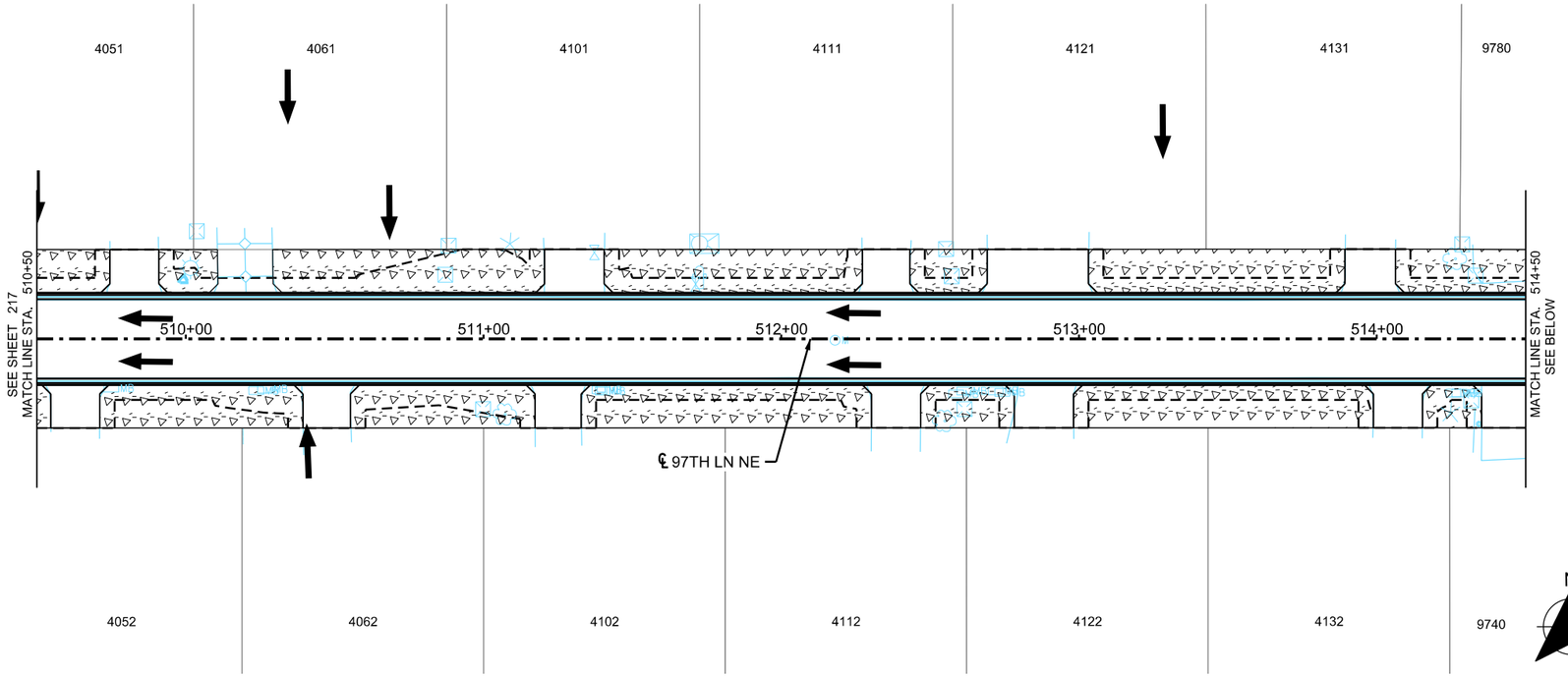
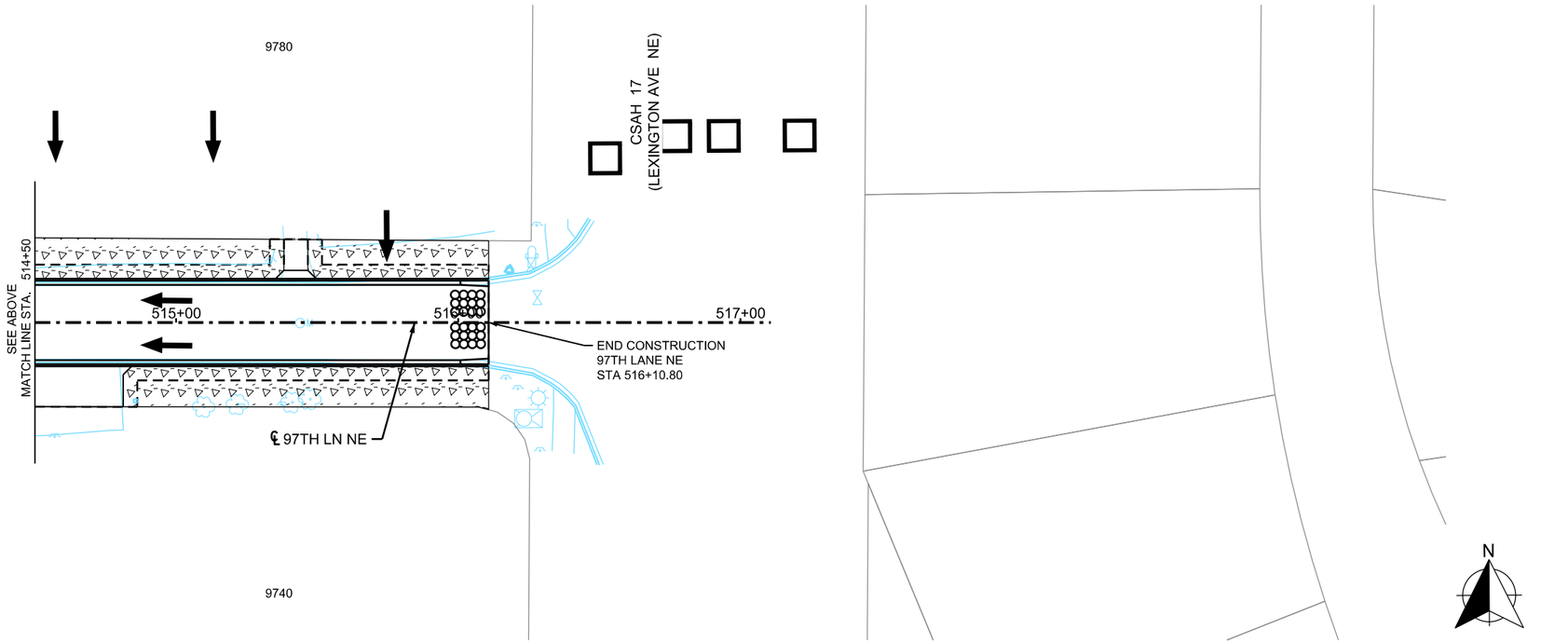
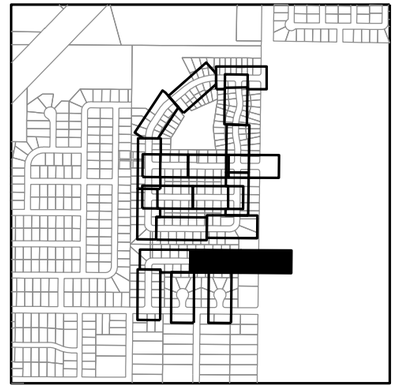
97TH LANE NE



97TH LANE NE



LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

- TEMPORARY BIOROLL DITCH CHECK
- SURFACE FLOW DIRECTION
- INLET PROTECTION
- CP CULVERT END CONTROLS
- STABILIZED CONSTRUCTION EXIT
- SILT FENCE TYPE MS
- CONSTRUCTION LIMITS
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wsb

WSB PROJECT NO.: 022066-000

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PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

CITY PROJECT 23-08

SHEET **218** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:52 AM

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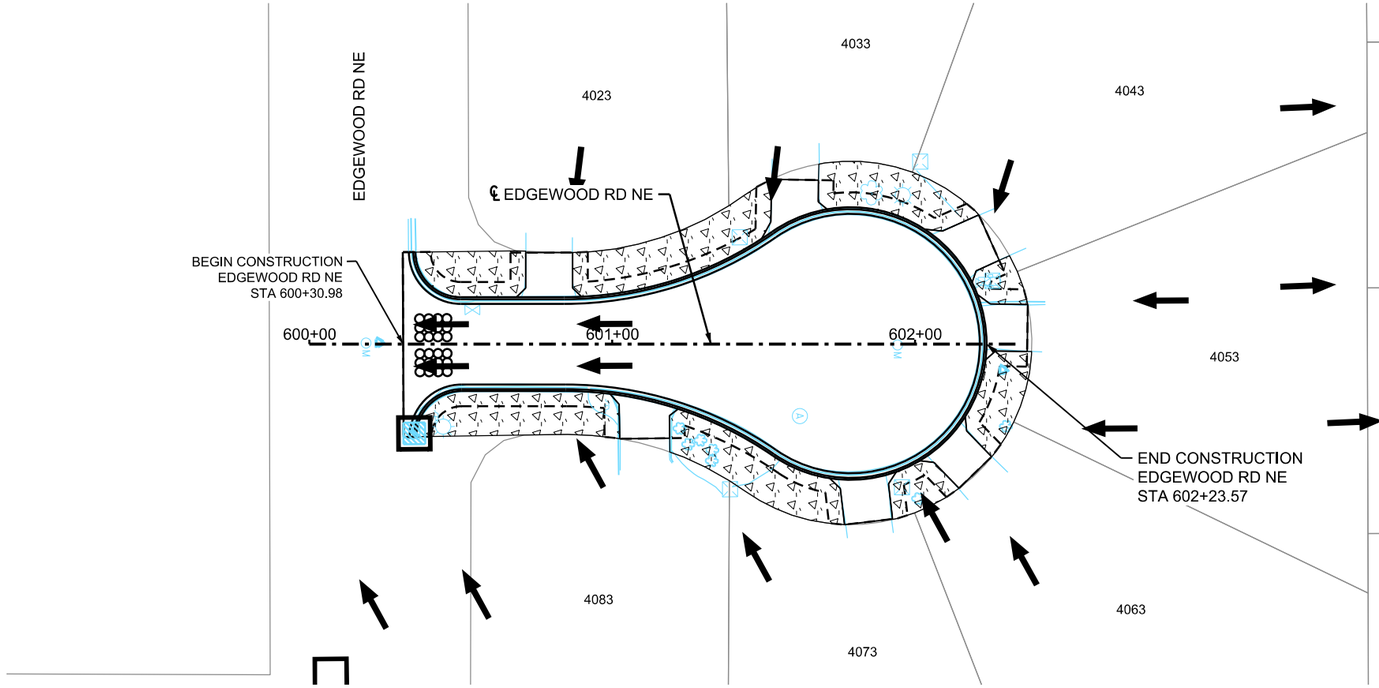
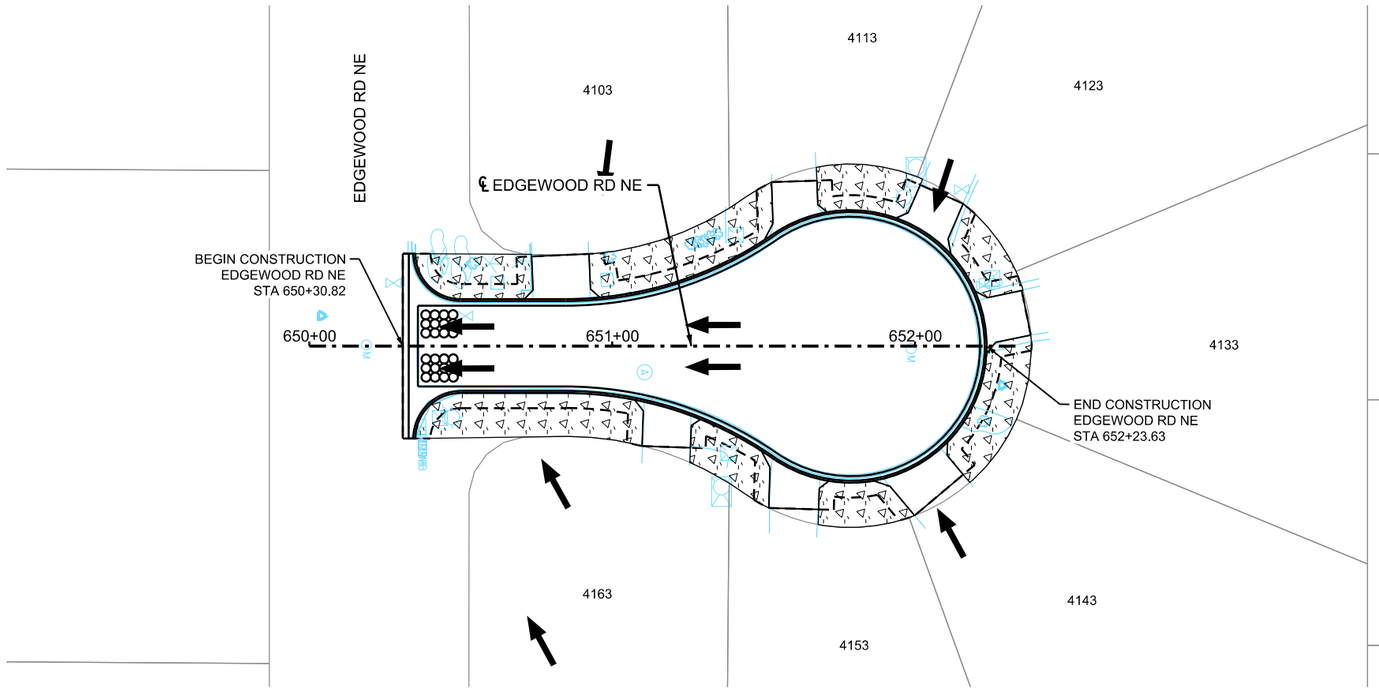
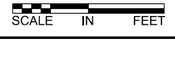
EDGEWOOD ROAD NE (4023 - 4083)

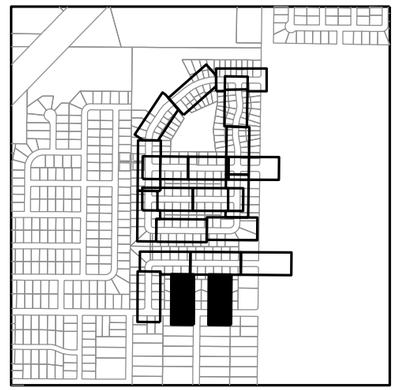


EDGEWOOD ROAD NE (4103 - 4163)





LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
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FERTILIZER TYPE 4 (150 LBS/ACRE)
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CATEGORY 20

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DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

CITY PROJECT 23-08

SHEET **219** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:53 AM

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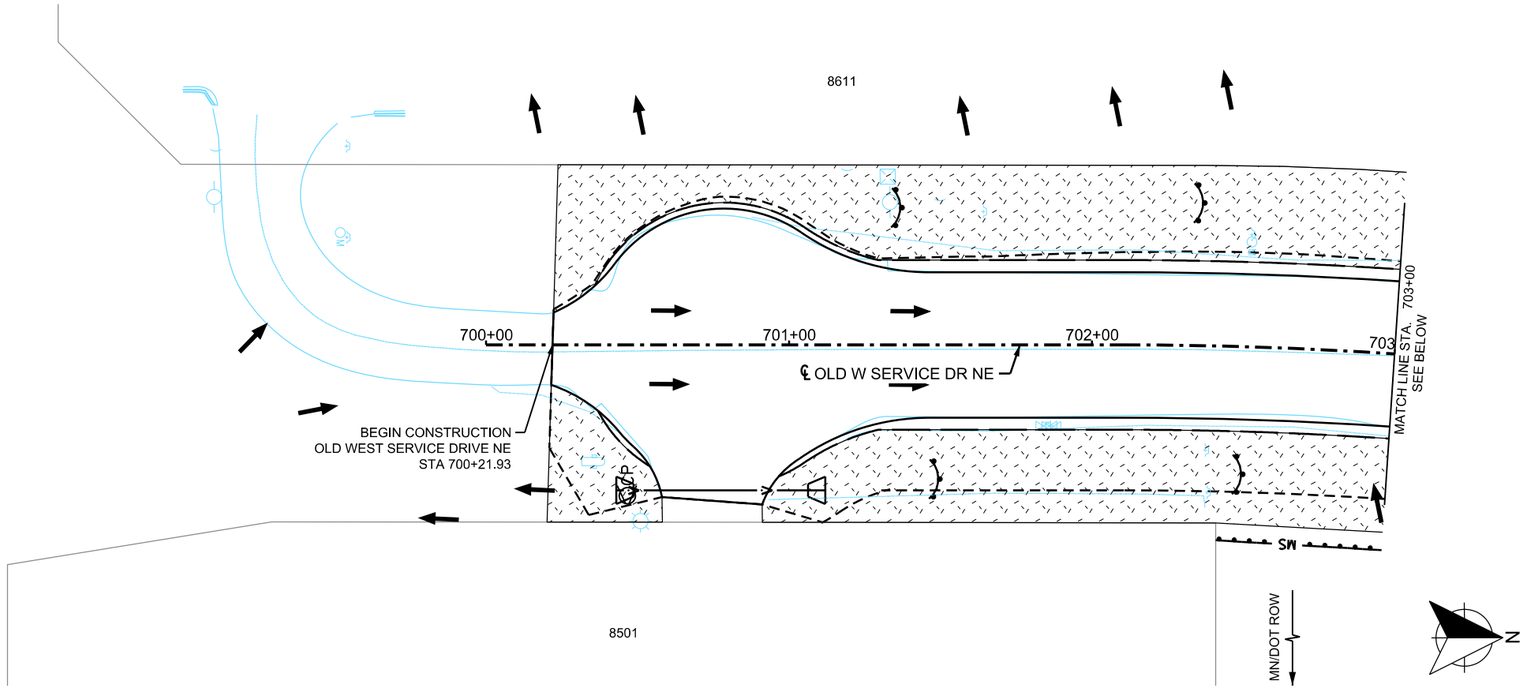
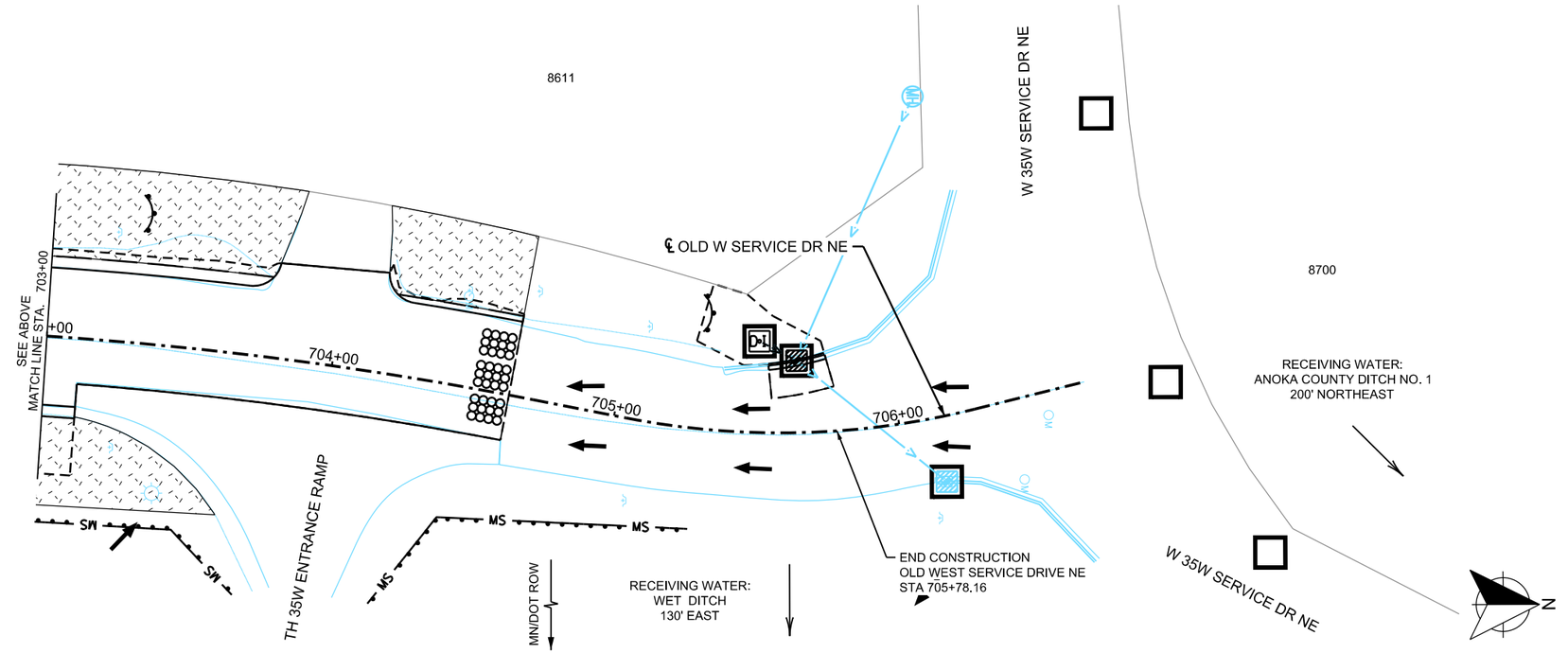
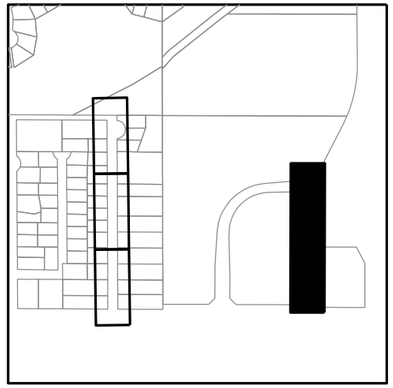
OLD WEST SERVICE DRIVE NE



OLD WEST SERVICE DRIVE NE



LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
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FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

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- STABILIZED CONSTRUCTION EXIT
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wsb

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DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

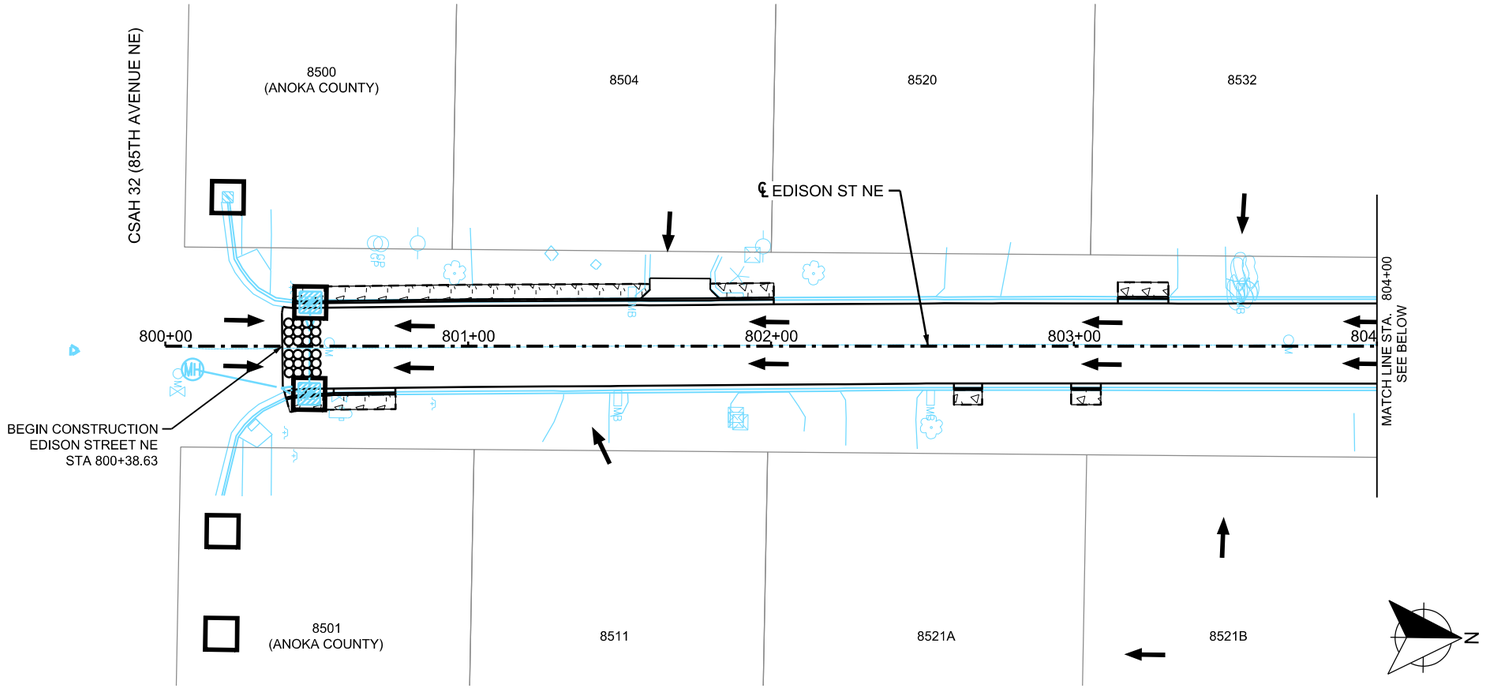
CITY PROJECT 23-08

SHEET **220** OF **230** SHEETS

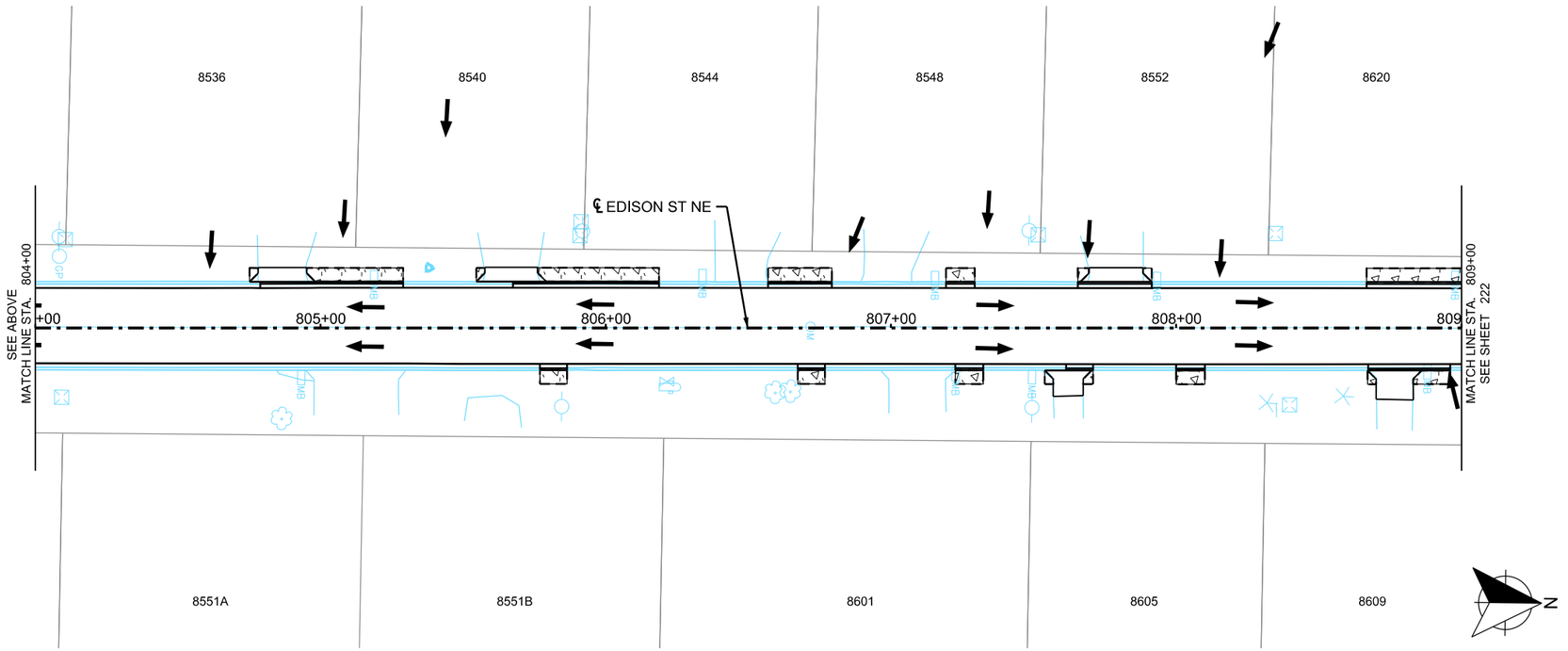
PLOTTED/REVISED: 3/9/2023 11:35:54 AM

PATH & FILENAME: K:\022066-000\Cadl\Plan\22066-000-C-TURF-PLAN-14.dgn

EDISON STREET NE



EDISON STREET NE



LOCATION MAP

LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

- TEMPORARY BIOROLL DITCH CHECK
- SURFACE FLOW DIRECTION
- INLET PROTECTION
- CULVERT END CONTROLS
- STABILIZED CONSTRUCTION EXIT
- SILT FENCE TYPE MS
- CONSTRUCTION LIMITS
- INPLACE RIGHT OF WAY

GENERAL NOTES

1. SOILS SHALL RECEIVE TEMPORARY OR PERMANENT STABILIZATION MEASURES WITHIN 7 DAYS OF INACTIVITY.
2. THE CONTRACTOR SHALL AMEND THE SWPPP AND THE EROSION CONTROL PLAN SHEETS TO SHOW LOCATIONS INCLUDING BUT NOT LIMITED TO: STAGING AND MATERIAL STORAGE AREAS, STOCKPILE LOCATIONS, AND LOCATIONS OF POTENTIAL POLLUTANT GENERATING ACTIVITIES (I.E. FUELING LOCATIONS, DESIGNATED CONCRETE WASHOUT AREAS, ETC.)

WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

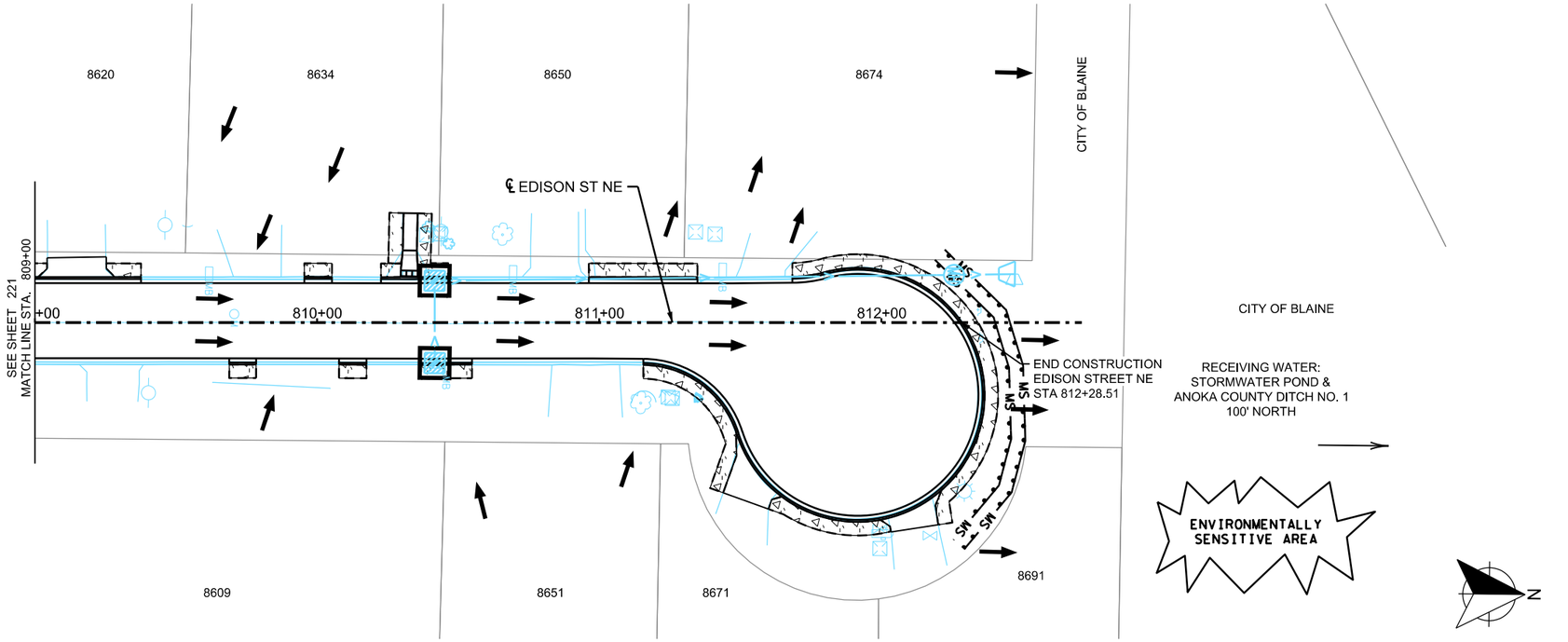
CITY PROJECT 23-08

SHEET **221** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:54 AM

PATH & FILENAME: K:\022066-000\Cadl\Plan\22066-000-C-TURF-PLAN-15.dgn

EDISON STREET NE



LOCATION MAP

LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

- TEMPORARY BIOROLL DITCH CHECK
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- INLET PROTECTION
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- SILT FENCE TYPE MS
- CONSTRUCTION LIMITS
- INPLACE RIGHT OF WAY

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WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
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AJF	NEH

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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

CITY PROJECT 23-08

SHEET **222** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:55 AM

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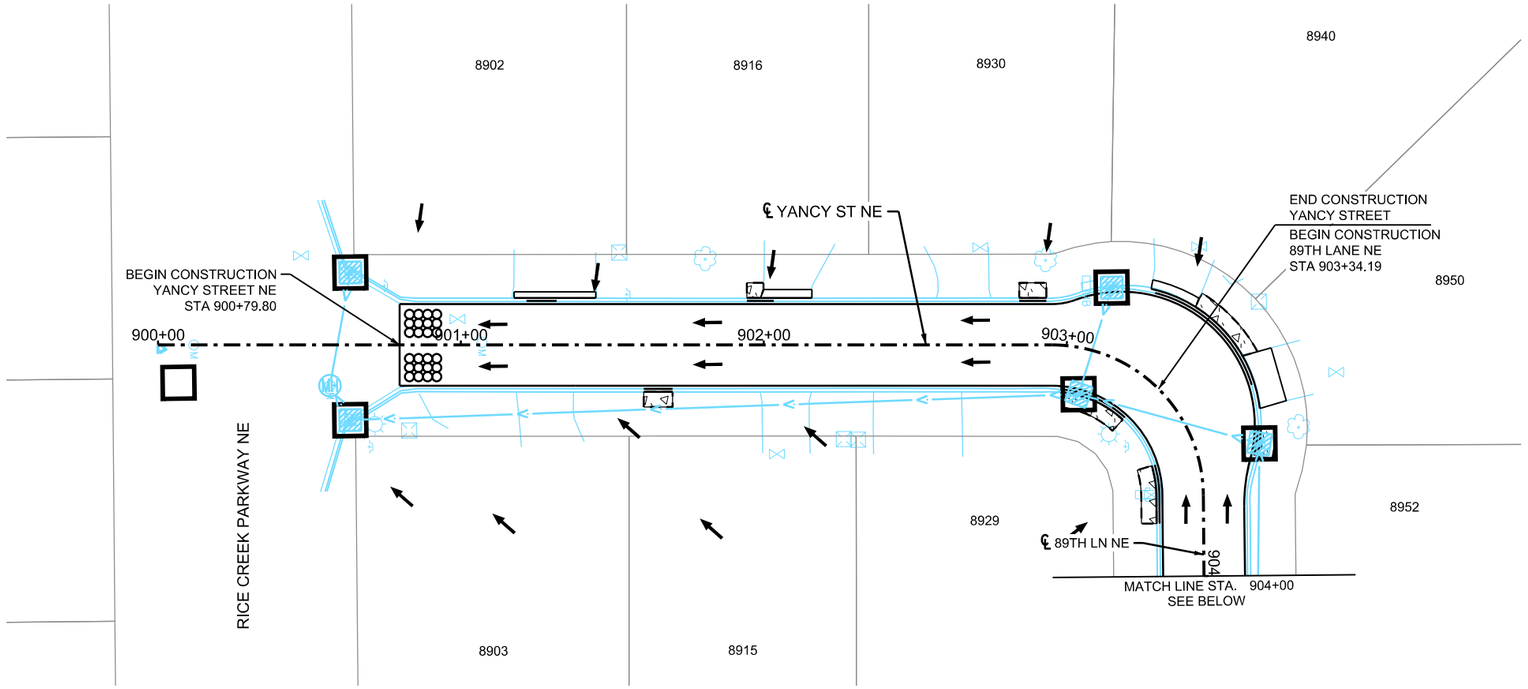
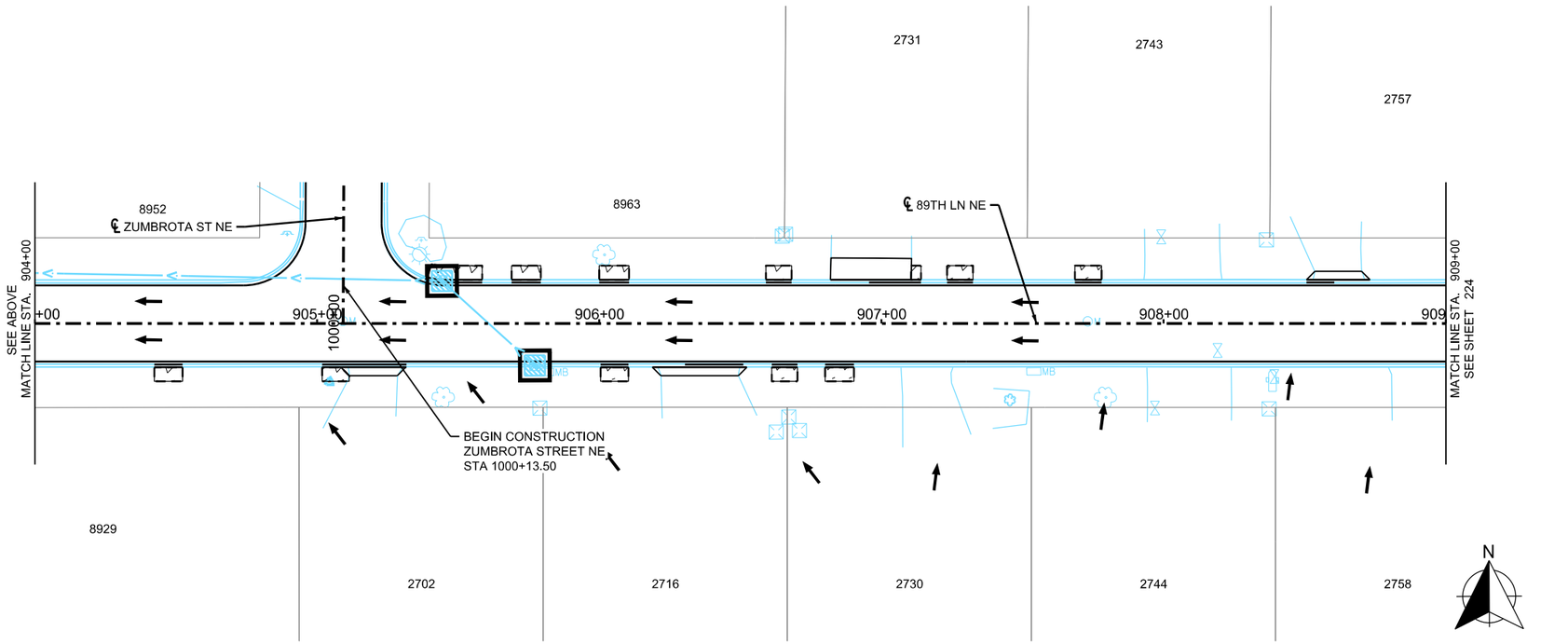
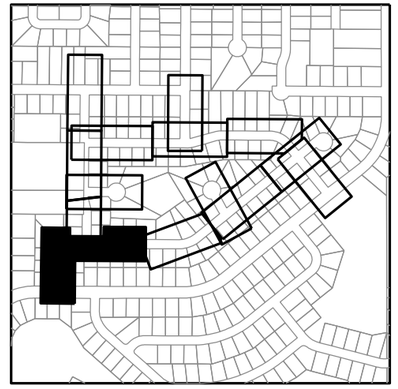
YANCY STREET NE



89TH LANE NE



LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

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- INLET PROTECTION
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- SILT FENCE TYPE MS
- CONSTRUCTION LIMITS
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SCALE IN FEET

WSB PROJECT NO.: 022066-000

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AJF	NEH

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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

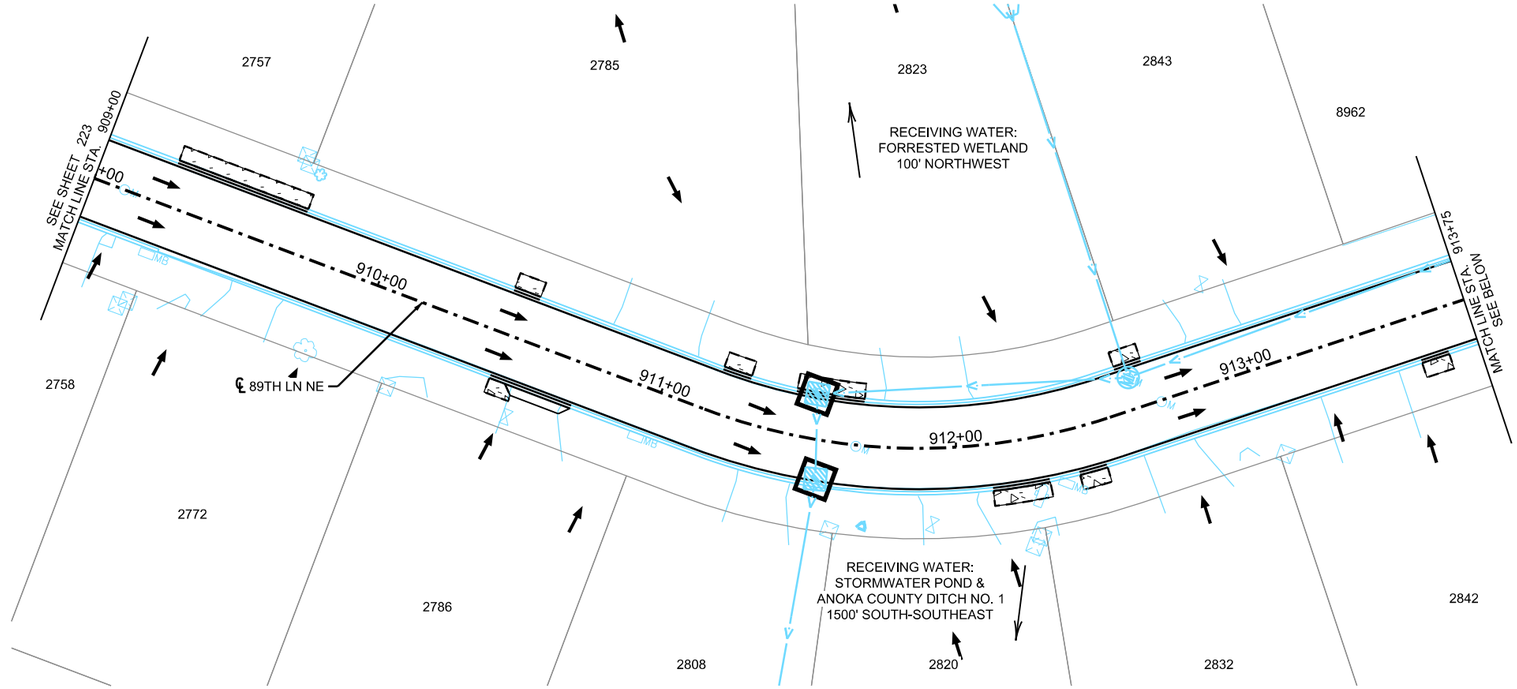
CITY PROJECT 23-08

SHEET **223** OF **230** SHEETS

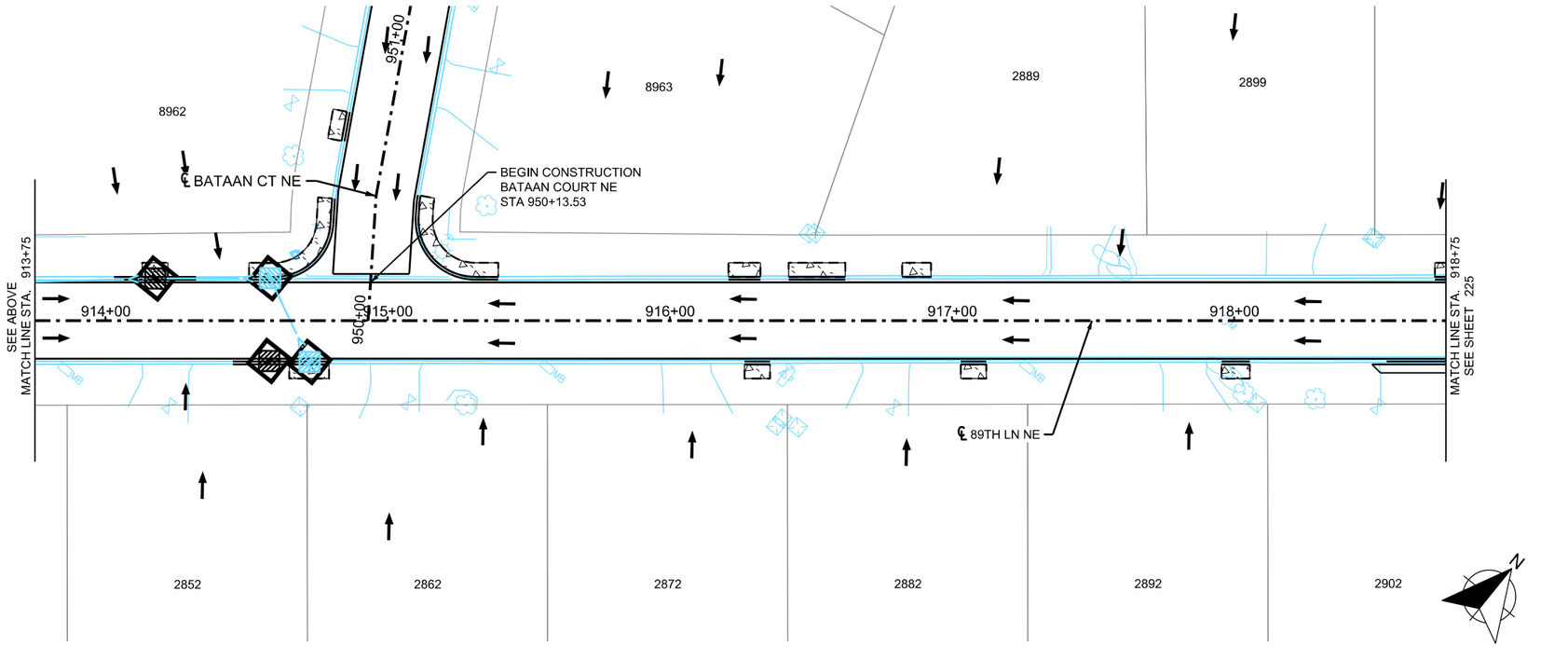
PLOTTED/REVISED: 3/9/2023 11:35:55 AM

PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-TURF-PLAN-17.dgn

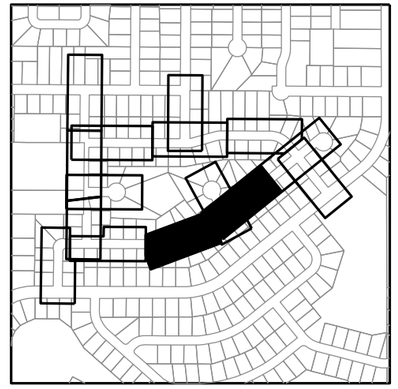
89TH LANE NE



89TH LANE NE



LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
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FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

- TEMPORARY BIOROLL DITCH CHECK
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- INLET PROTECTION
- CP CULVERT END CONTROLS
- STABILIZED CONSTRUCTION EXIT
- SILT FENCE TYPE MS
- CONSTRUCTION LIMITS
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NICHOLAS E. HENTGES, PE

DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

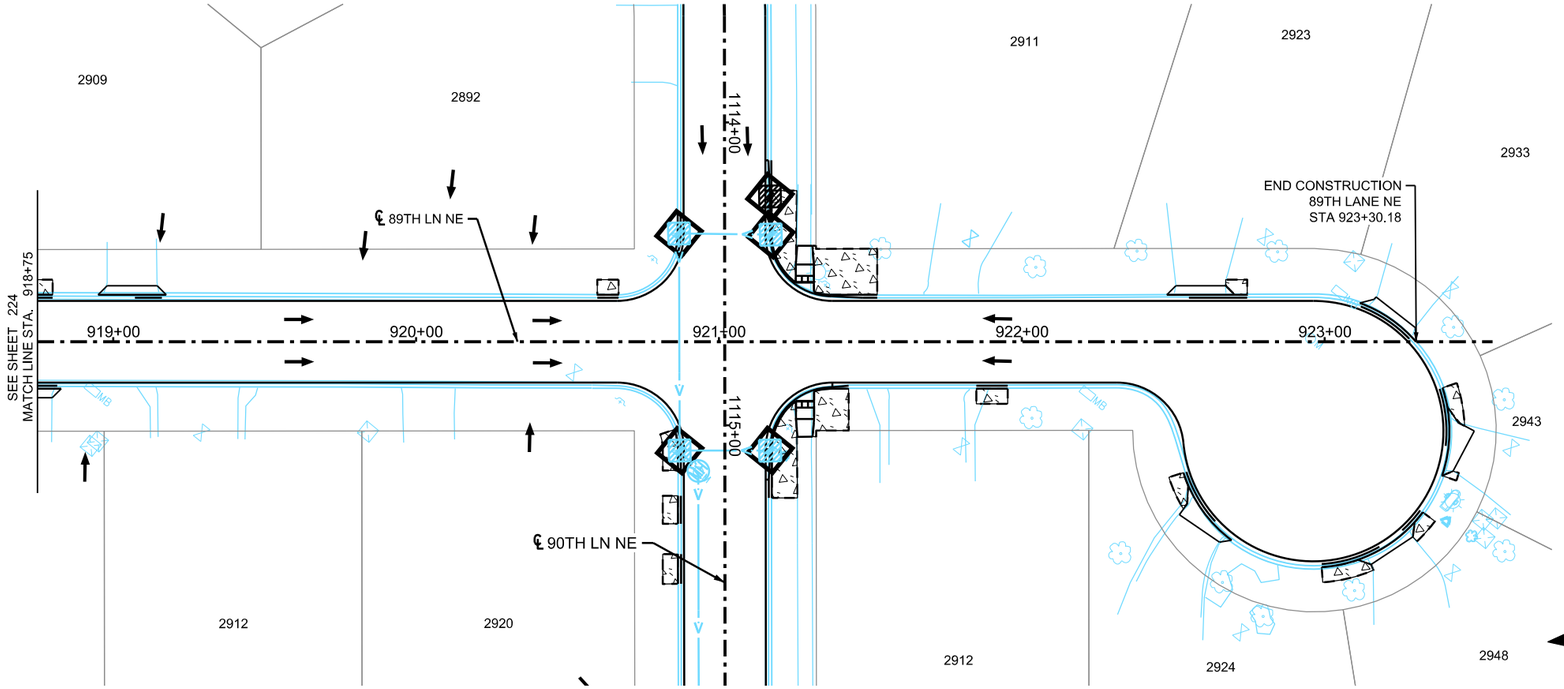
CITY PROJECT 23-08

SHEET **224** OF **230** SHEETS

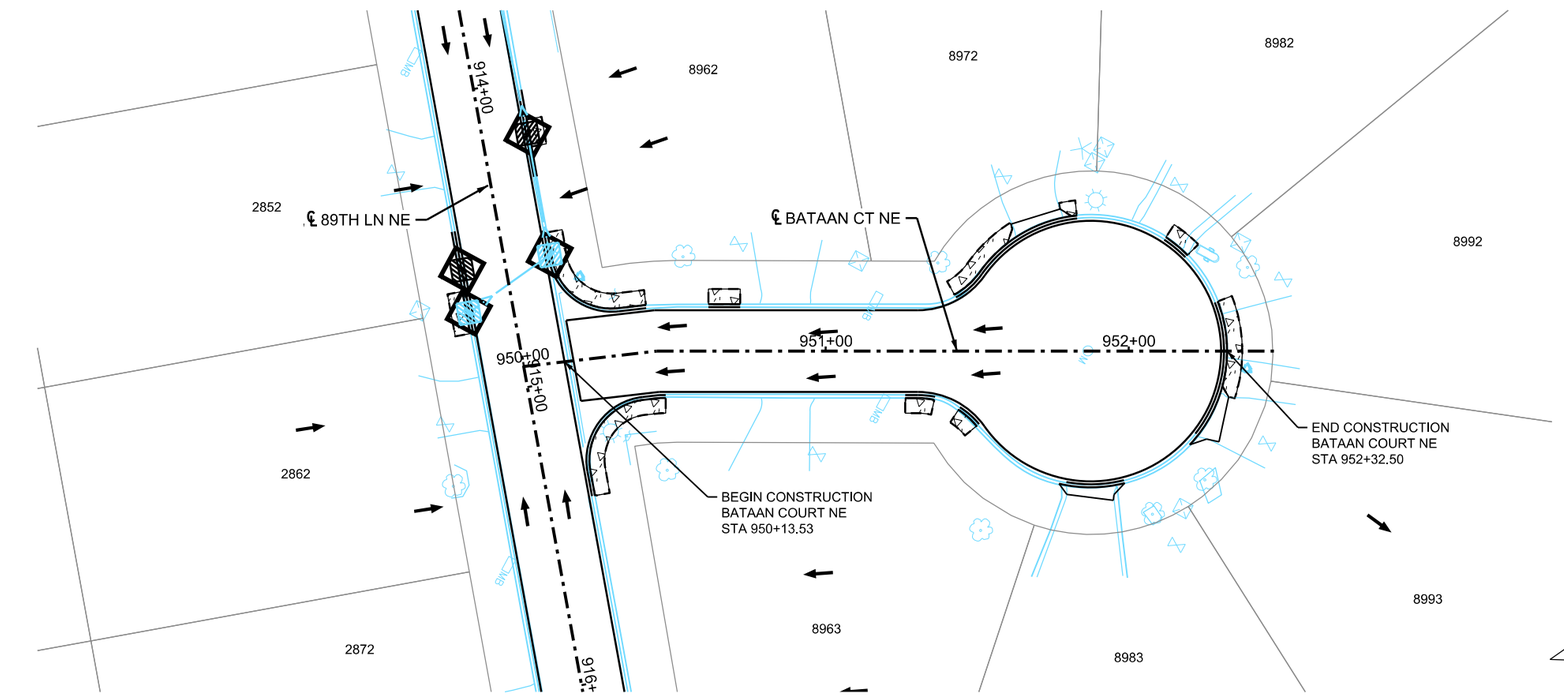
PLOTTED/REVISED: 3/9/2023 11:35:56 AM

PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-TURF-PLAN-18.dgn

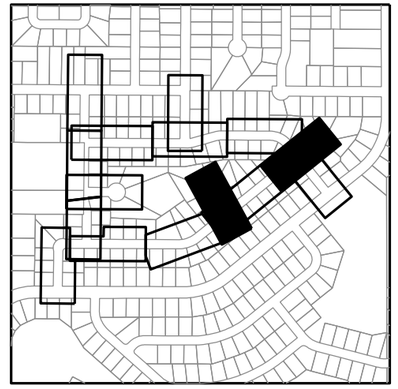
89TH LANE NE



BATAAN COURT NE



LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

- TEMPORARY BIOROLL DITCH CHECK
- SURFACE FLOW DIRECTION
- INLET PROTECTION
- CP CULVERT END CONTROLS
- STABILIZED CONSTRUCTION EXIT
- SILT FENCE TYPE MS
- CONSTRUCTION LIMITS
- INPLACE RIGHT OF WAY

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WSB PROJECT NO.: 022066-000

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PLAN BY:	CHECK BY:
AJF	NEH

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NICHOLAS E. HENTGES. PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

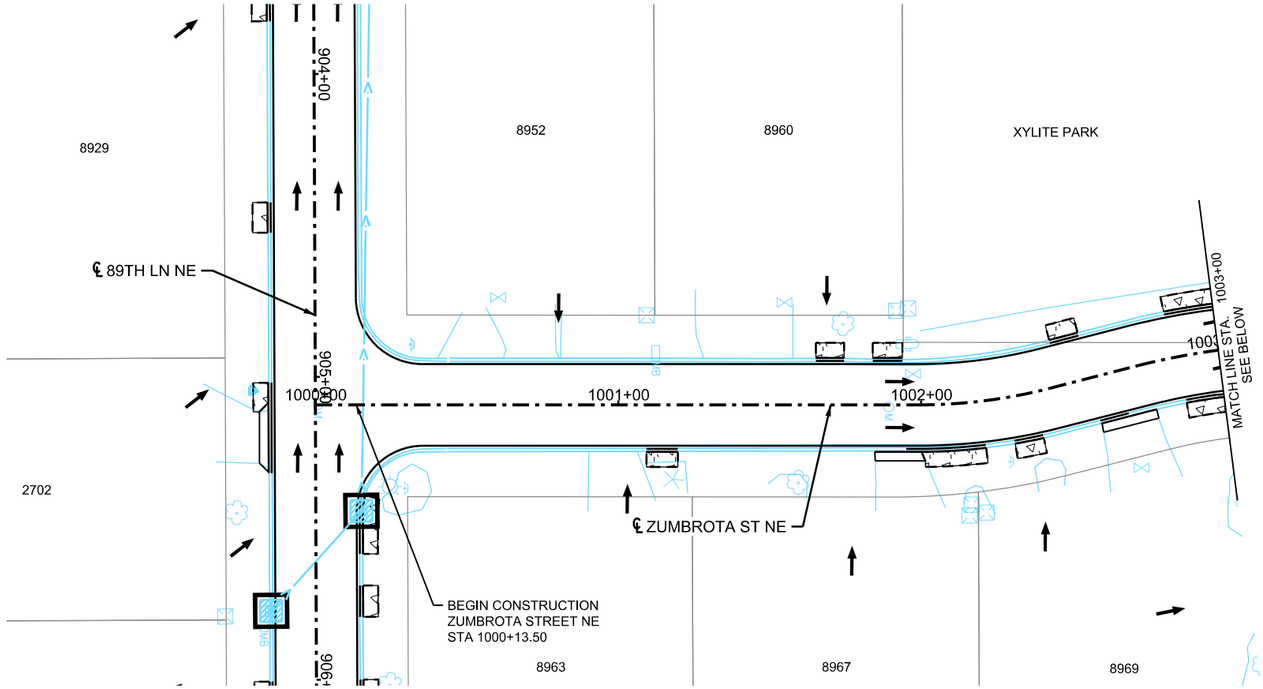
CITY PROJECT 23-08

SHEET **225** OF **230** SHEETS

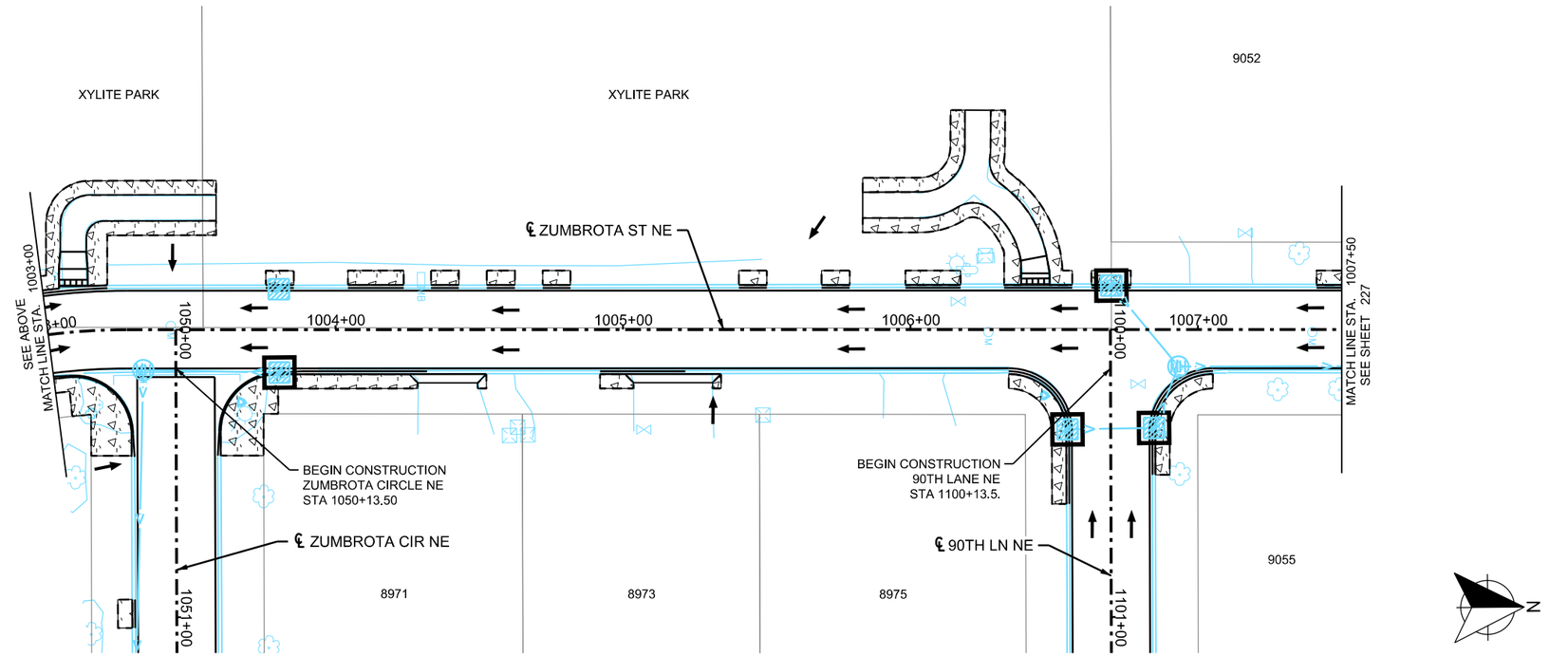
PLOTTED/REVISED: 3/9/2023 11:35:57 AM

PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-TURF-PLAN-19.dgn

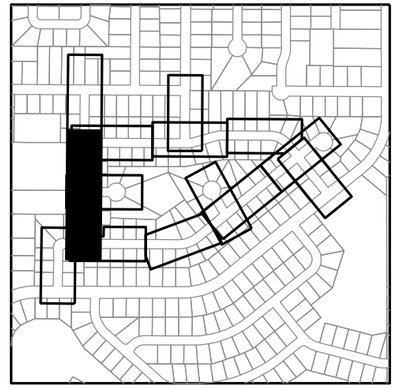
ZUMBROTA STREET NE



ZUMBROTA STREET NE



LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

- TEMPORARY BIOROLL DITCH CHECK
- SURFACE FLOW DIRECTION
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WSB PROJECT NO.: 022066-000

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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

CITY PROJECT 23-08

SHEET **226** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:57 AM

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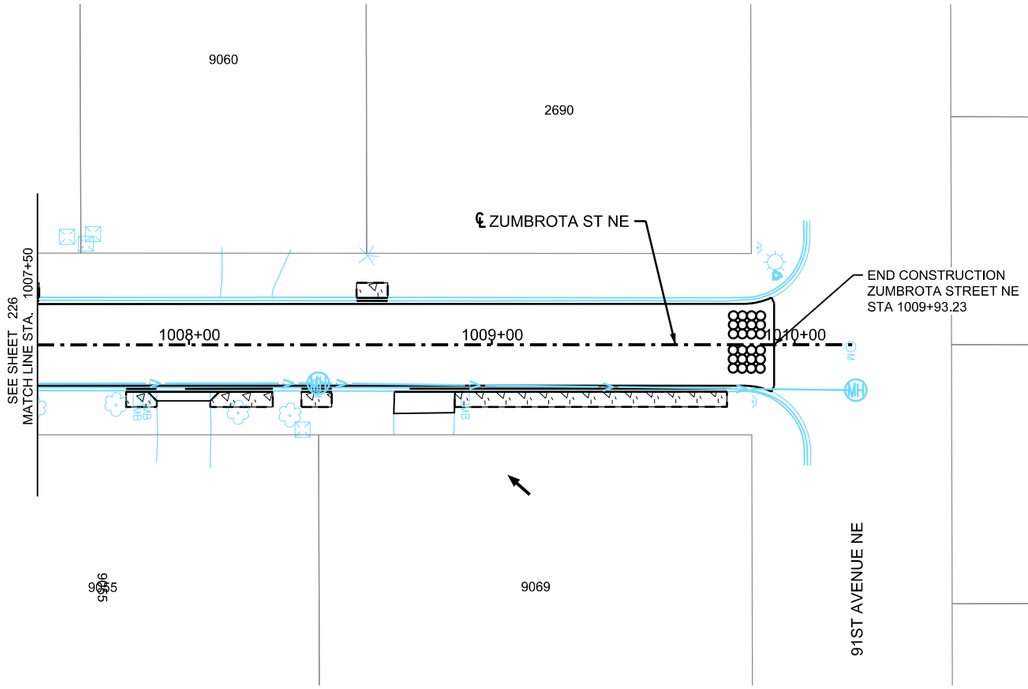
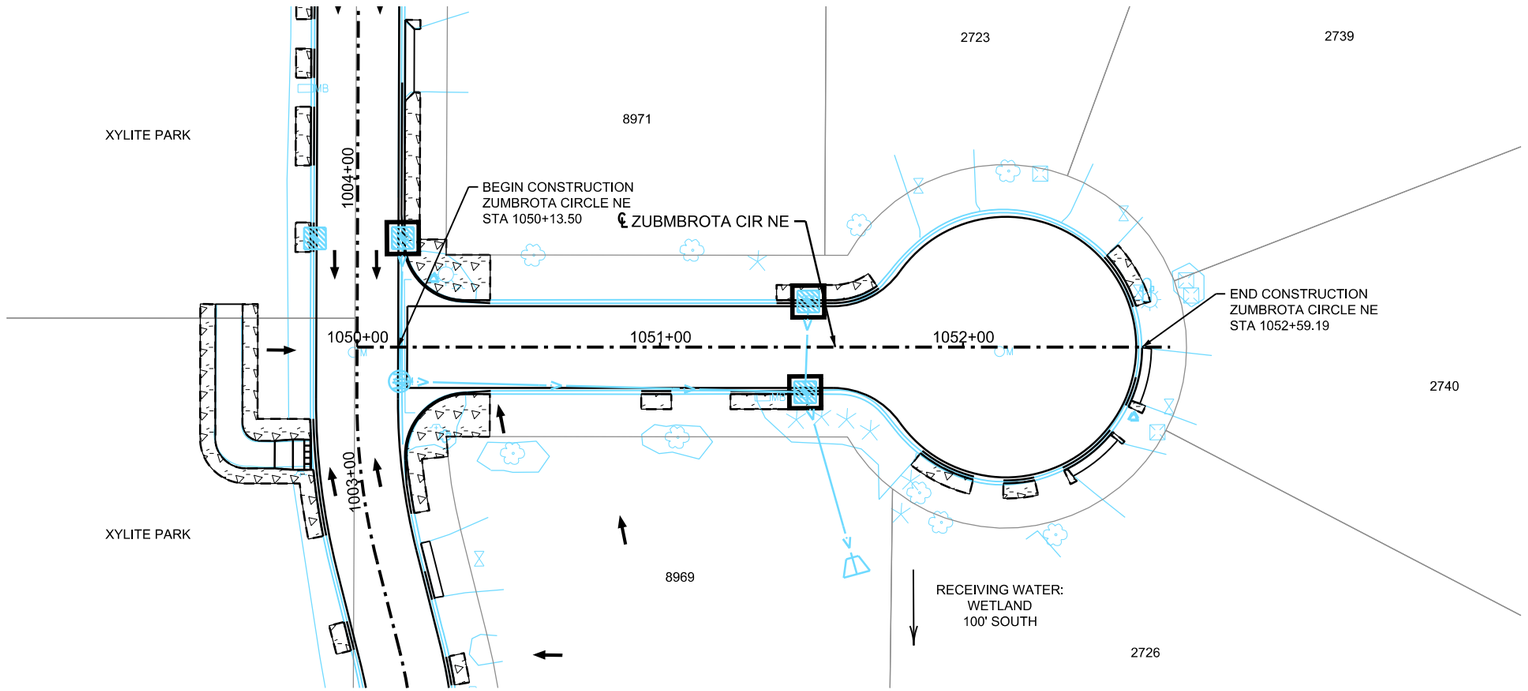
ZUMBROTA STREET NE



ZUMBROTA CIRCLE NE



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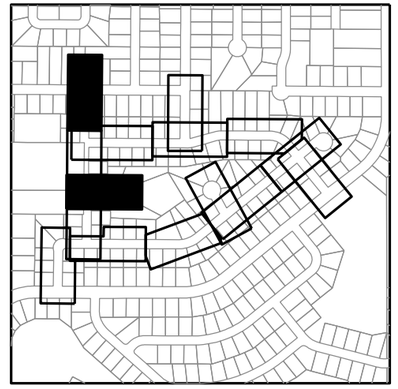
LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
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FERTILIZER TYPE 4 (150 LBS/ACRE)
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CATEGORY 20

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DATE: 4/22/2022 LIC. NO: 44620

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

CITY PROJECT 23-08

SHEET **227** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:58 AM

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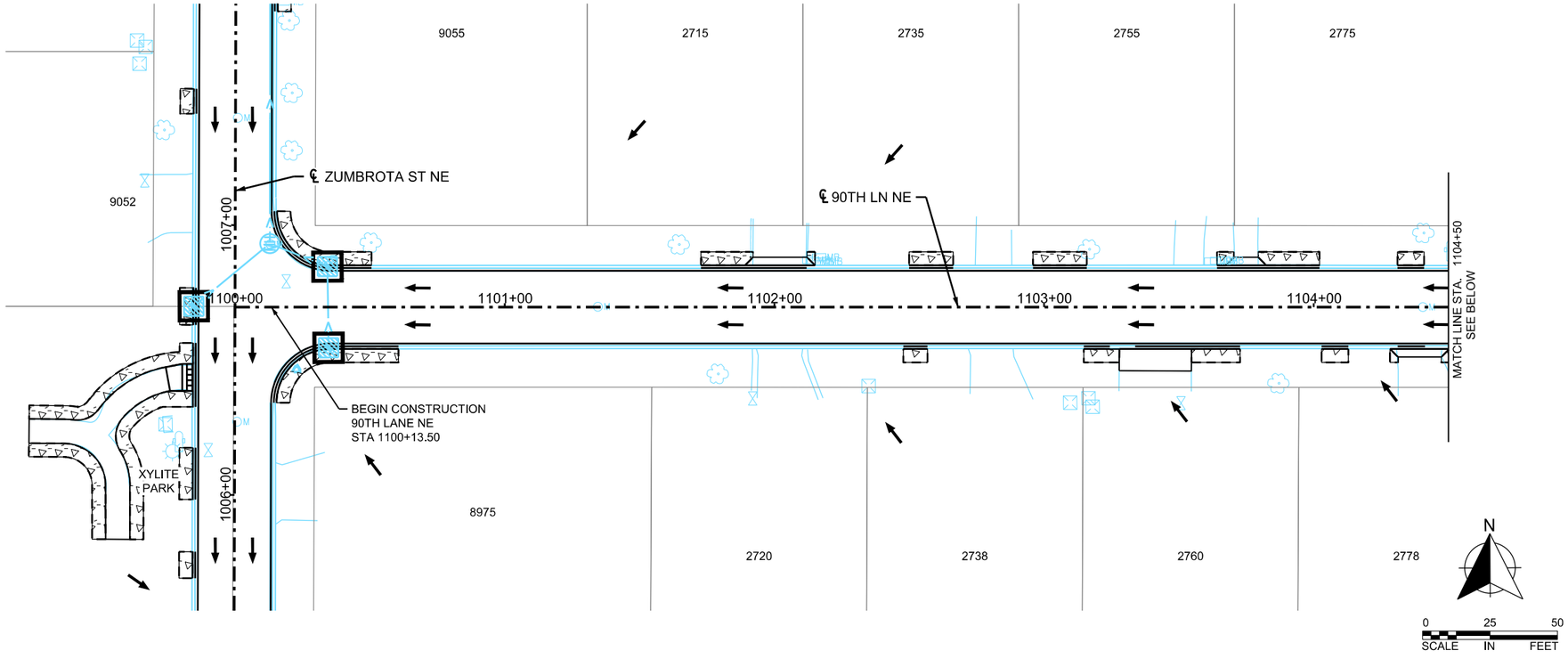
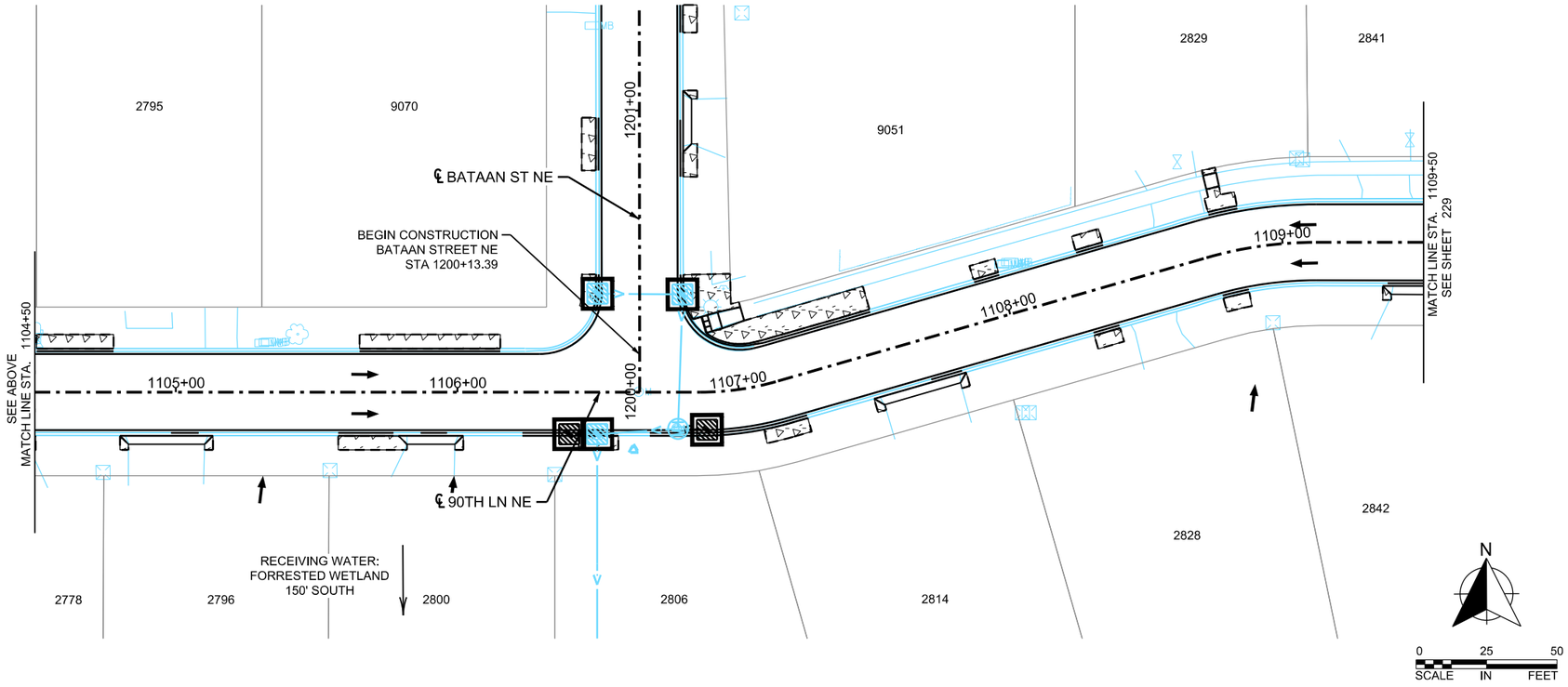
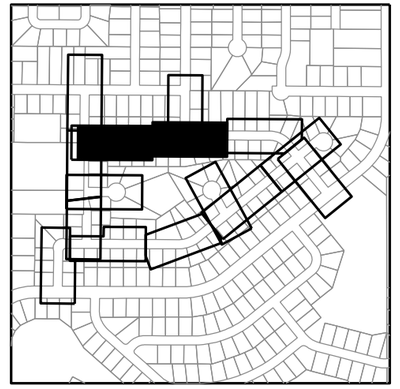
90TH LANE NE



90TH LANE NE



LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

- TEMPORARY BIOROLL DITCH CHECK
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NICHOLAS E. HENTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

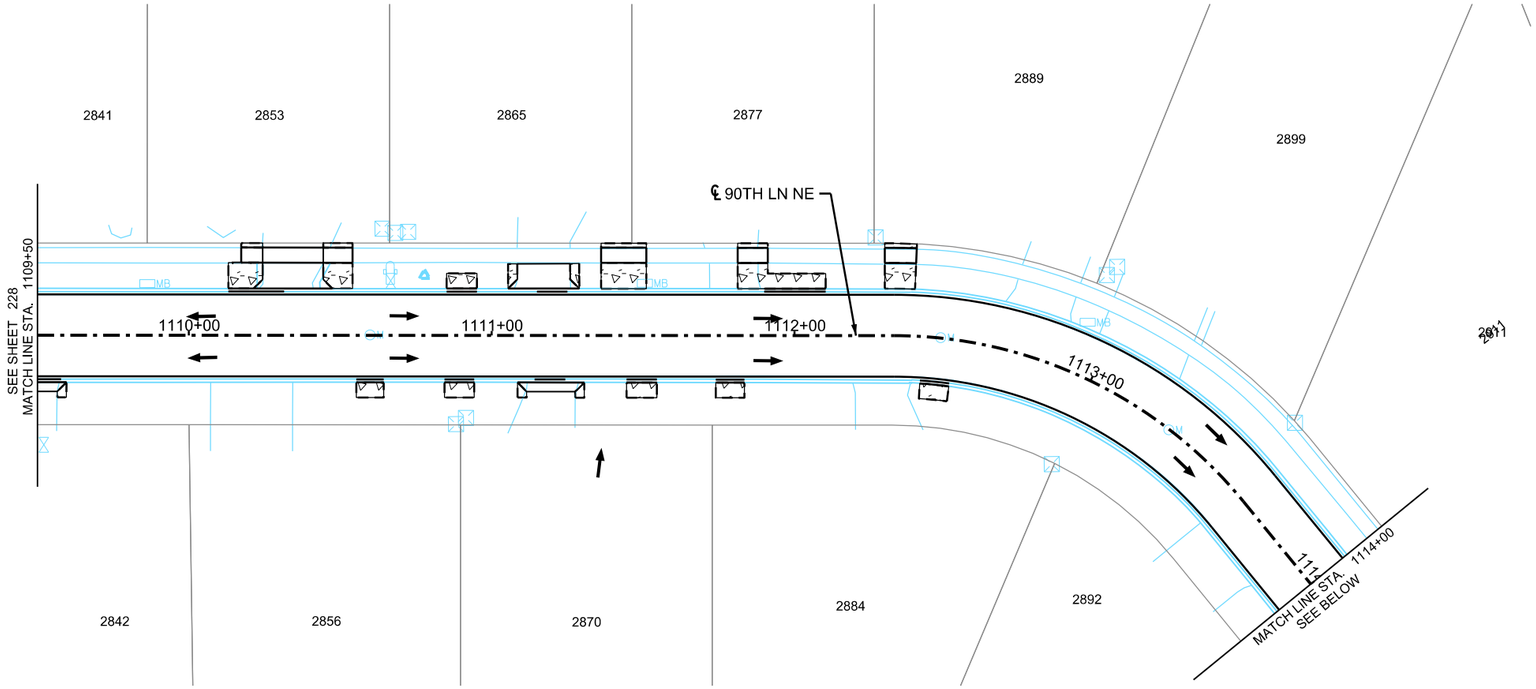
CITY PROJECT 23-08

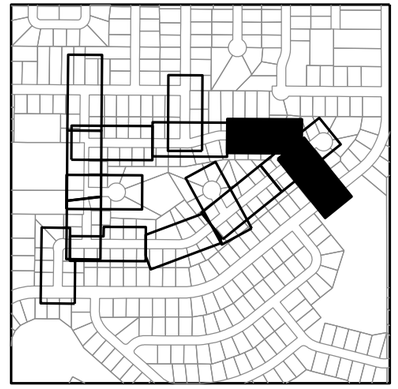
SHEET **228** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:59 AM

PATH & FILENAME: K:\022066-000\Cadl\Plan\22066-000-C-TURF-PLAN-22.dgn

90TH LANE NE





N

0 25 50
SCALE IN FEET

LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

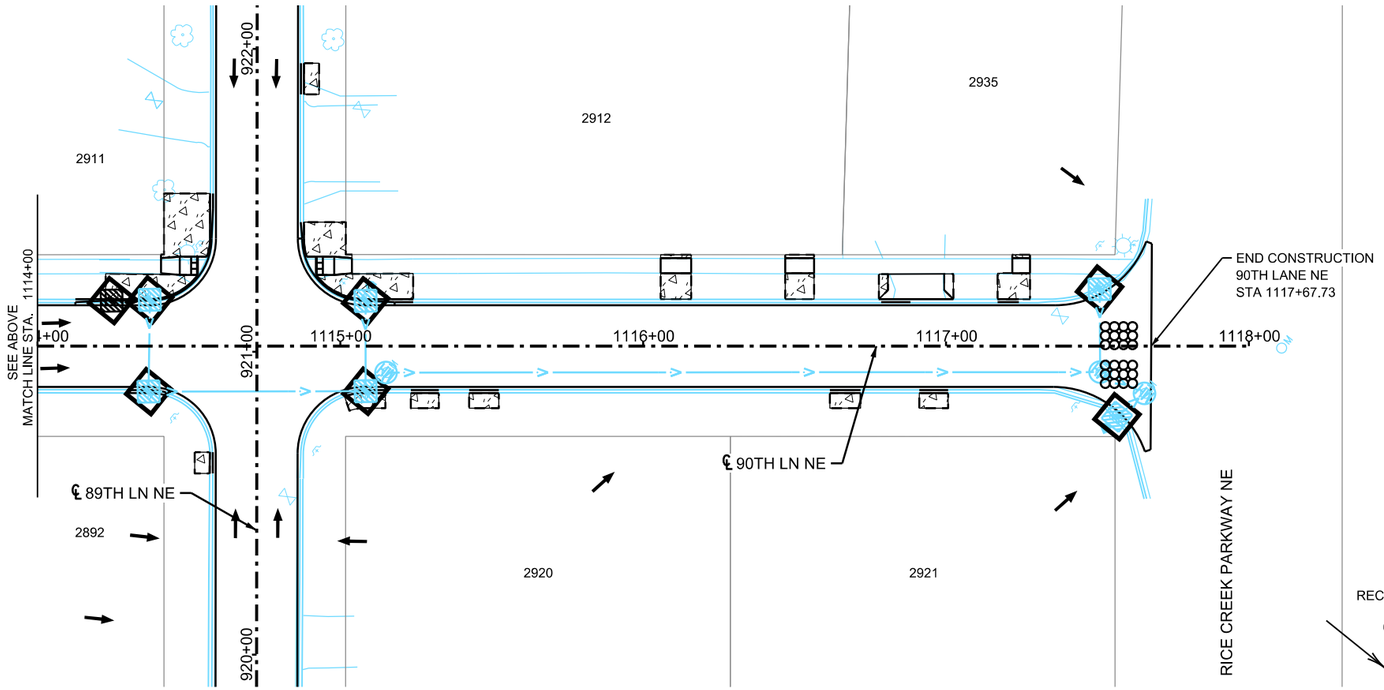
PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

- TEMPORARY BIOROLL DITCH CHECK
- SURFACE FLOW DIRECTION
- INLET PROTECTION
- CP CULVERT END CONTROLS
- STABILIZED CONSTRUCTION EXIT
- SILT FENCE TYPE MS
- CONSTRUCTION LIMITS
- INPLACE RIGHT OF WAY

GENERAL NOTES

1. SOILS SHALL RECEIVE TEMPORARY OR PERMANENT STABILIZATION MEASURES WITHIN 7 DAYS OF INACTIVITY.
2. THE CONTRACTOR SHALL AMEND THE SWPPP AND THE EROSION CONTROL PLAN SHEETS TO SHOW LOCATIONS INCLUDING BUT NOT LIMITED TO: STAGING AND MATERIAL STORAGE AREAS, STOCKPILE LOCATIONS, AND LOCATIONS OF POTENTIAL POLLUTANT GENERATING ACTIVITIES (I.E. FUELING LOCATIONS, DESIGNATED CONCRETE WASHOUT AREAS, ETC.)

90TH LANE NE



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WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN
DESIGN BY: AJF
PLAN BY: AJF
CHECK BY: NEH

REVISIONS

NO.	DATE	DESCRIPTION

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.

NICHOLAS E. HEINTGES, PE
LIC. NO: 44620
DATE: 4/22/2022

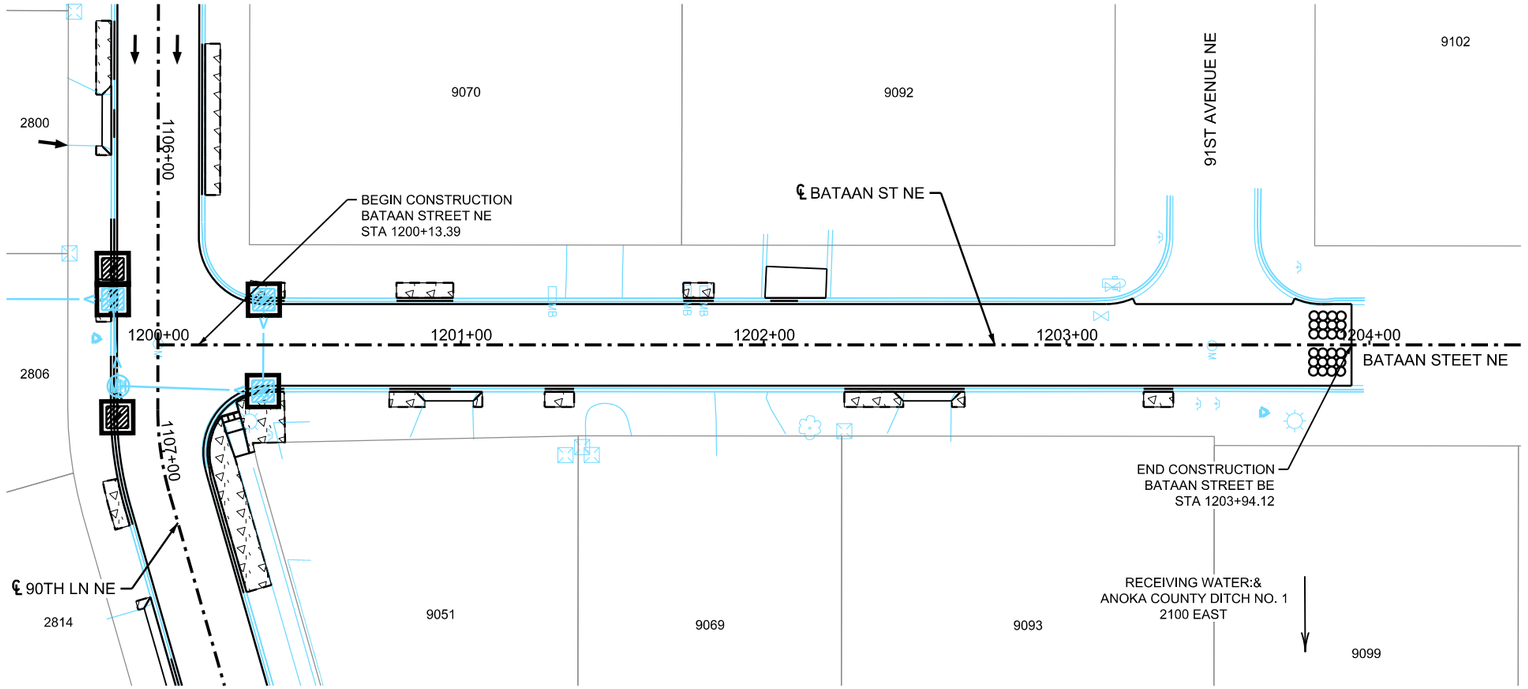
CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

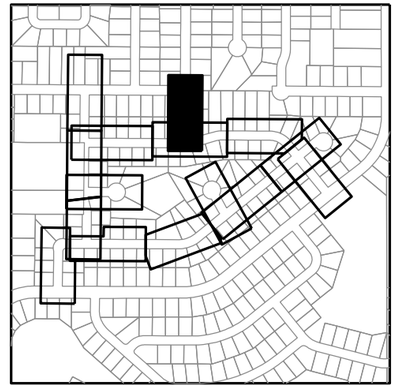
CITY PROJECT 23-08

SHEET **229** OF **230** SHEETS

BATAAN STREET NE



LOCATION MAP



LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SODDING TYPE LAWN
FERTILIZER TYPE 3 (350 LBS/ACRE)

TEMPORARY:
RAPID STABILIZATION METHOD 3 (6 MGAL/ACRE)

PERMANENT:
SEED MIXTURE 35-221 (36.5 LBS/ACRE)
FERTILIZER TYPE 4 (150 LBS/ACRE)
ROLLED EROSION PREVENTION PRODUCT
CATEGORY 20

- TEMPORARY BIOROLL DITCH CHECK
- SURFACE FLOW DIRECTION
- INLET PROTECTION
- CP CULVERT END CONTROLS
- STABILIZED CONSTRUCTION EXIT
- SILT FENCE TYPE MS
- CONSTRUCTION LIMITS
- INPLACE RIGHT OF WAY

GENERAL NOTES

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WSB PROJECT NO.: 022066-000

SCALE:	DESIGN BY:
AS SHOWN	AJF
PLAN BY:	CHECK BY:
AJF	NEH

REVISIONS

NO.	DATE	DESCRIPTION

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NICHOLAS E. HEINTGES, PE LIC. NO: 44620

DATE: 4/22/2022

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

TURF ESTABLISHMENT & EROSION CONTROL

CITY PROJECT 23-08

SHEET **230** OF **230** SHEETS

PLOTTED/REVISED: 3/9/2023 11:35:59 AM

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PLOTTED/REVISED: 3/9/2023 11:36:00 AM

PATH & FILENAME: K:\022066-000\Cadd\Plan\220066-000-C-XS00_INDEX.dgn

CROSS SECTION INDEX

AREA 1

X2	– X18	AUSTIN STREET NE
X19	– X36	98TH AVENUE NE & CORD STREET NE
X37	– X42	98TH LANE NE
X43	– X50	99TH AVENUE NE
X51	– X59	AUSTIN STREET NE & 97TH LANE NE
X60	– X61	EDGEWOOD ROAD NE (4023-4083)
X62	– X63	EDGEWOOD ROAD NE (4103-4163)

wsb

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022066-000

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PLAN BY:
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REVISIONS

NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS INDEX

CITY PROJECT 23-08

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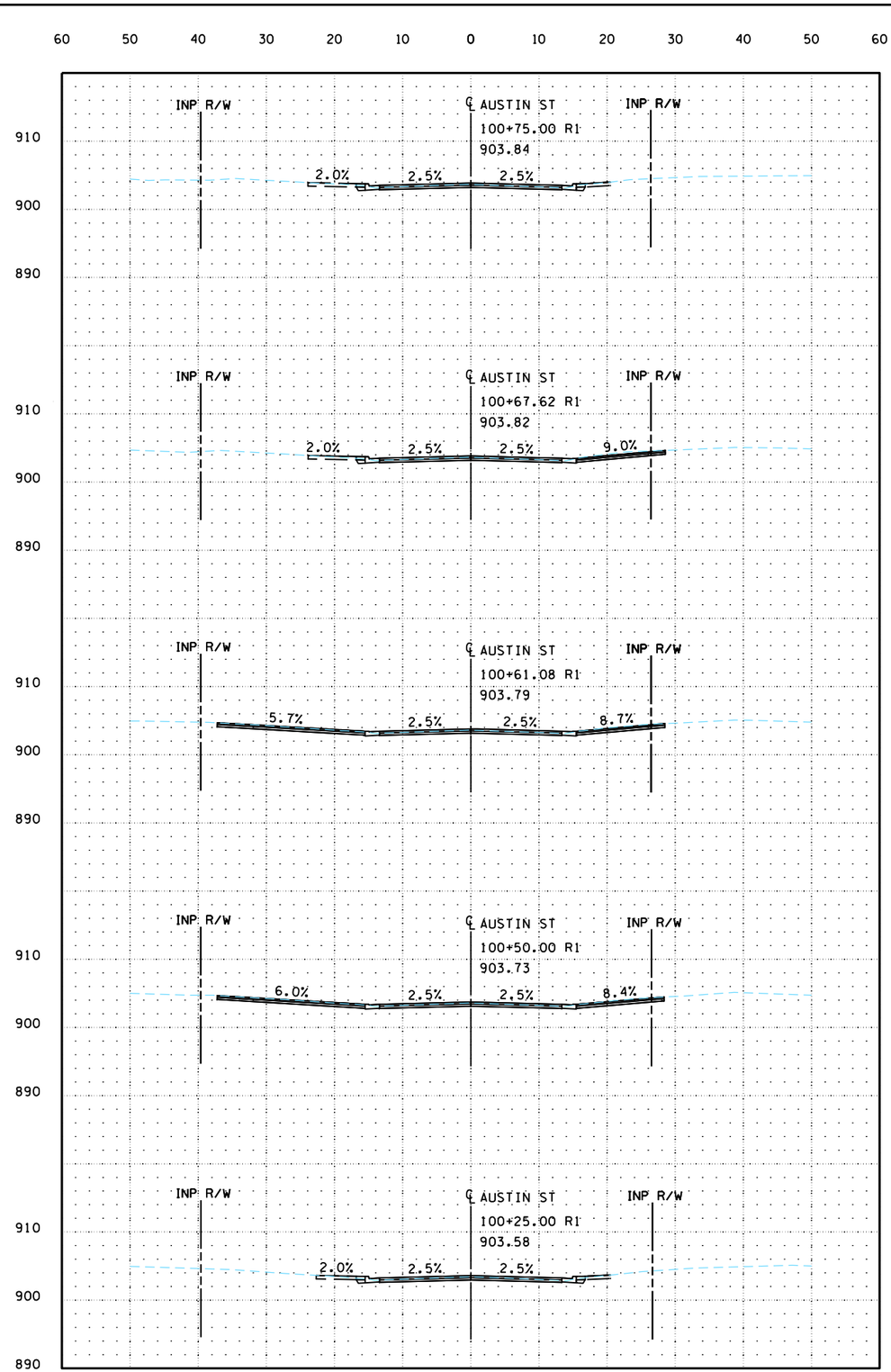

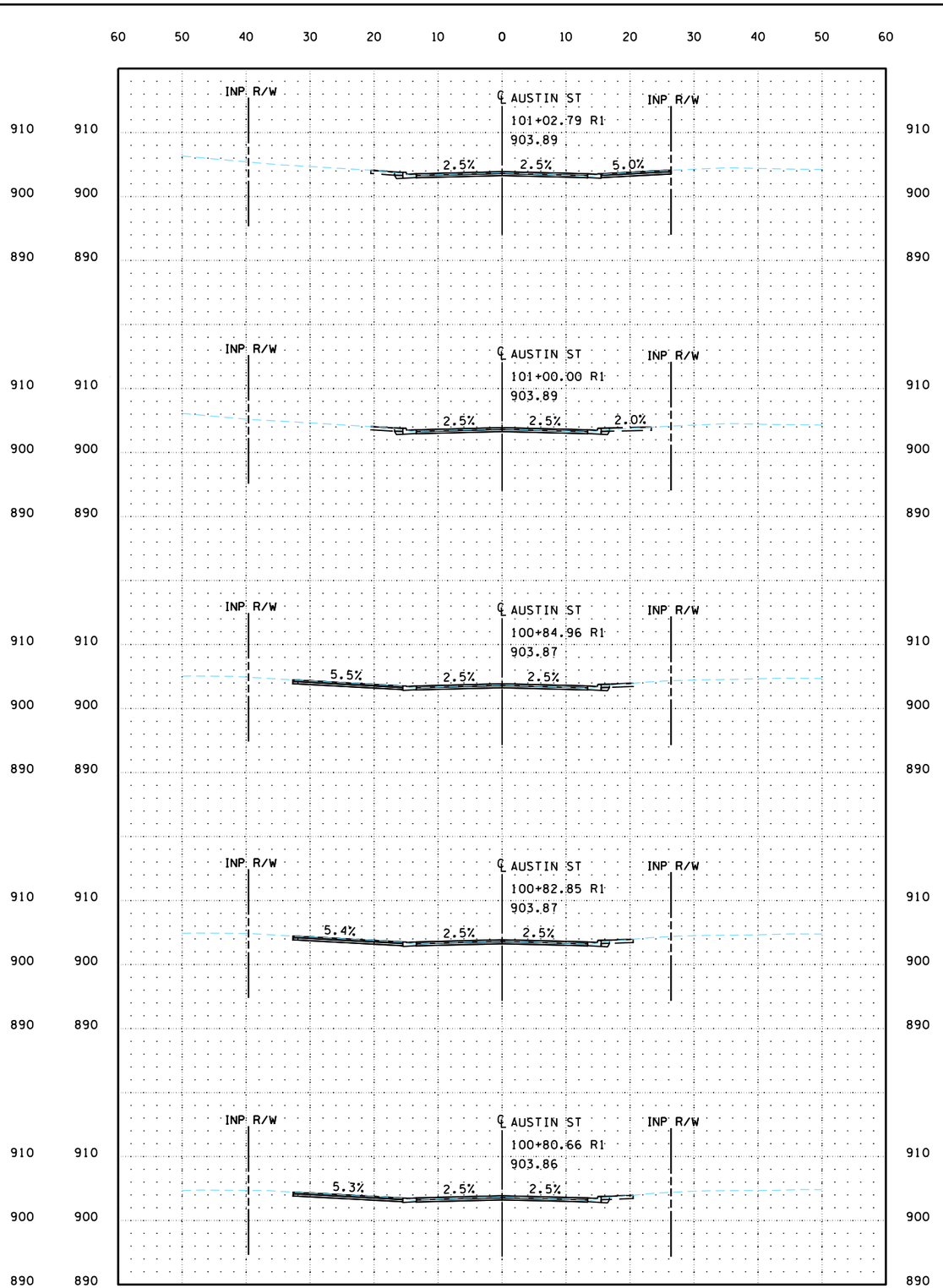

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WSB PROJECT NO.: 022066-000

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DESIGN BY:

PLAN BY:

CHECK BY:

REVISIONS

NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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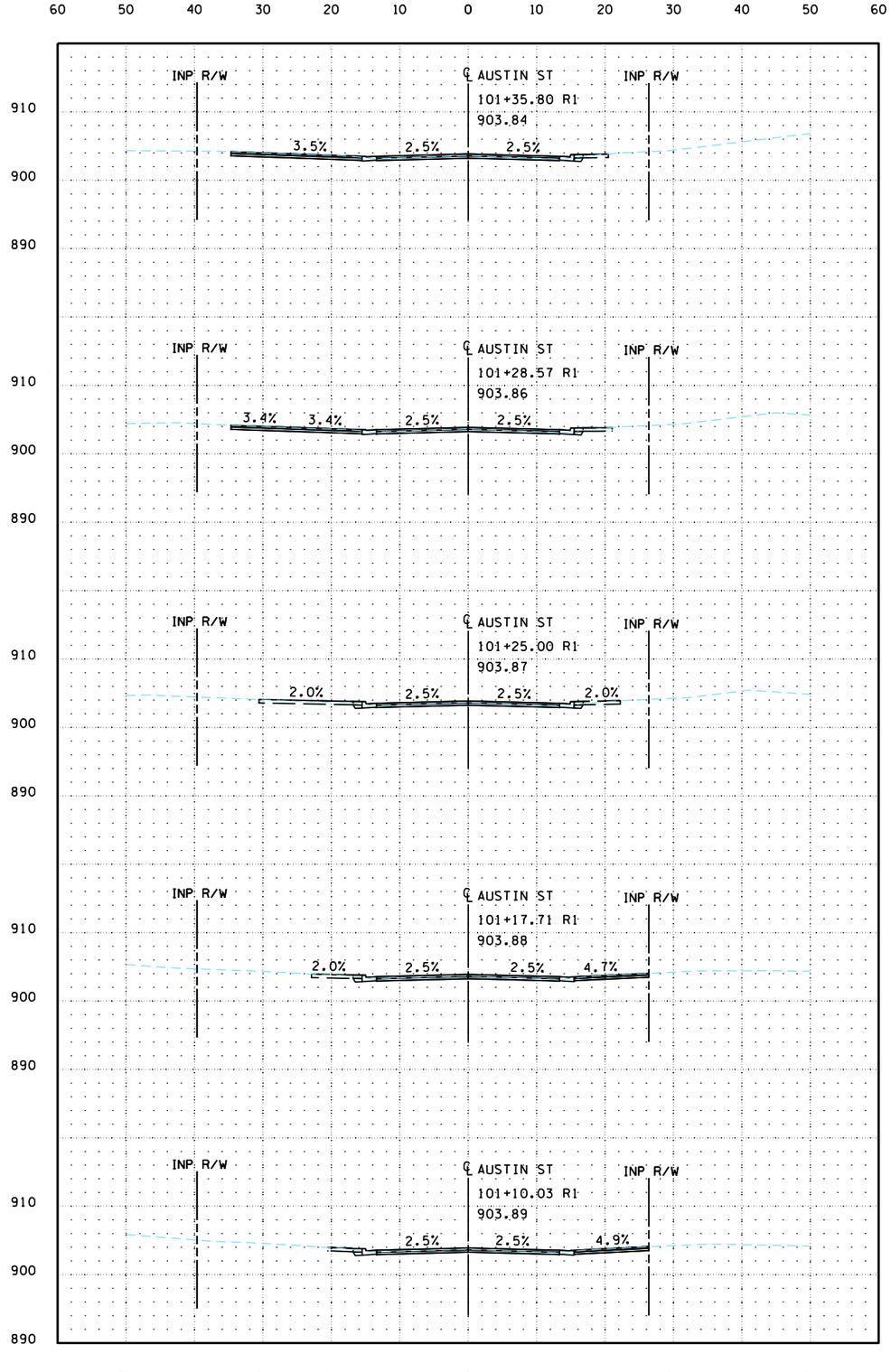

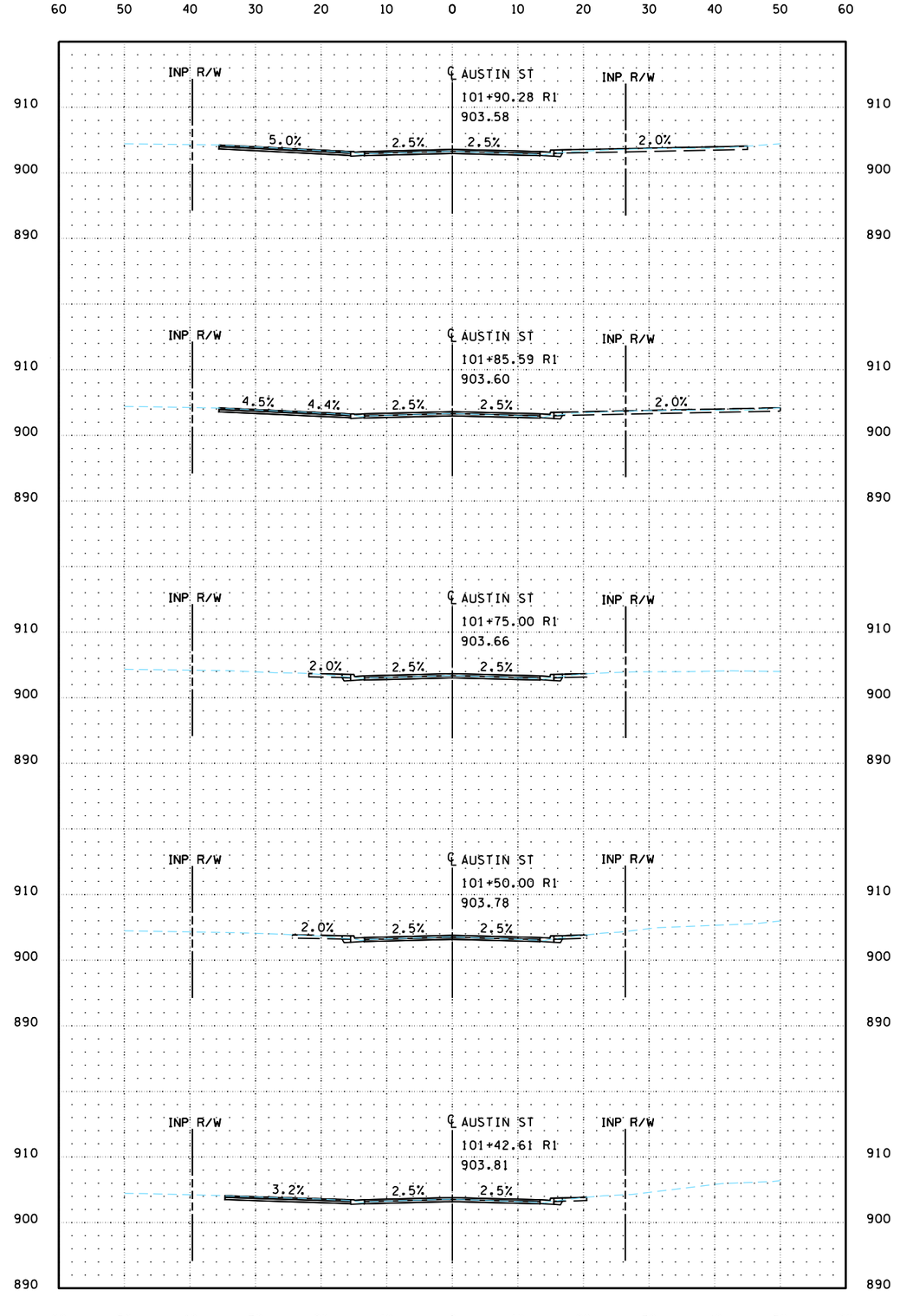

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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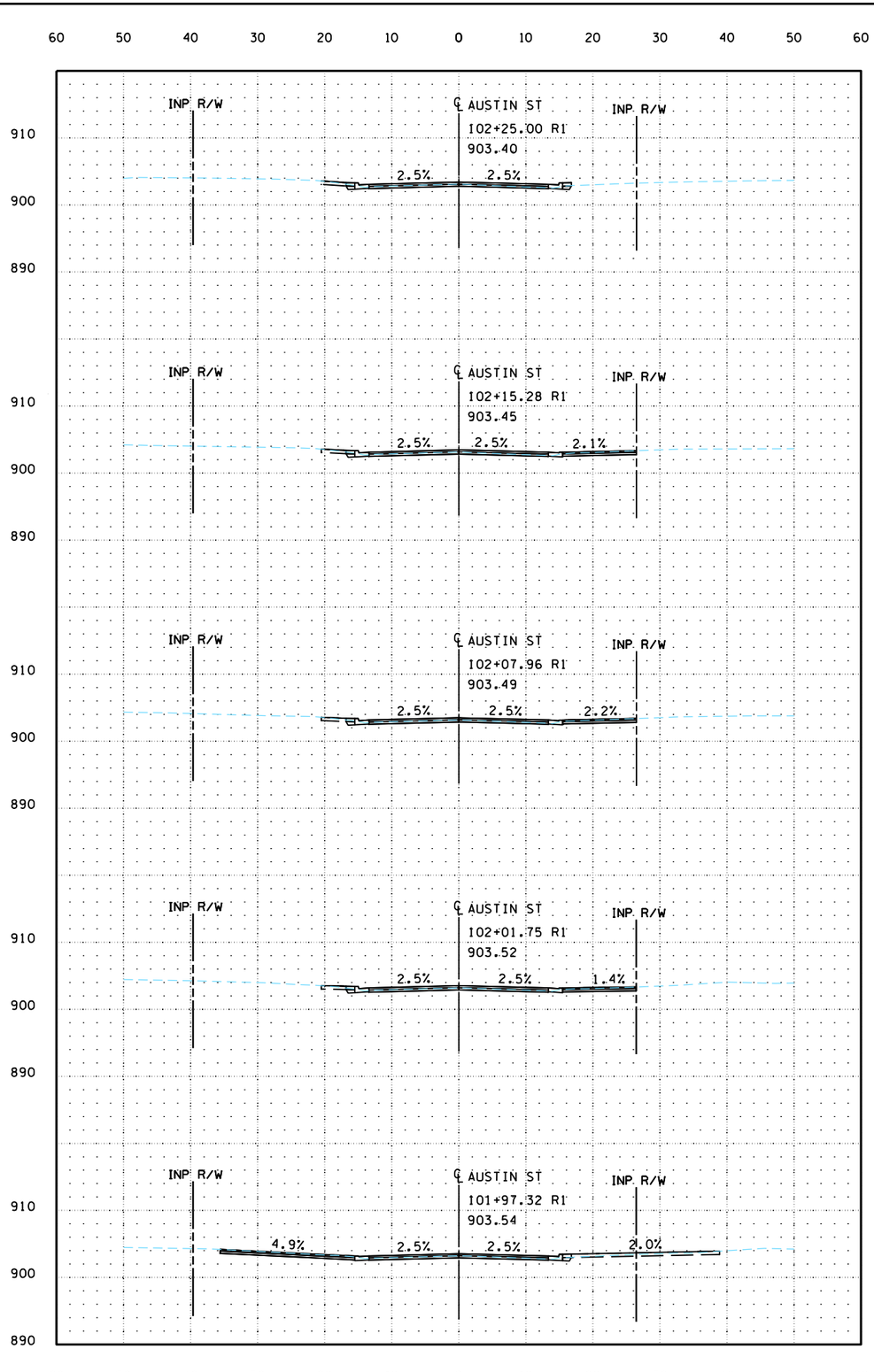

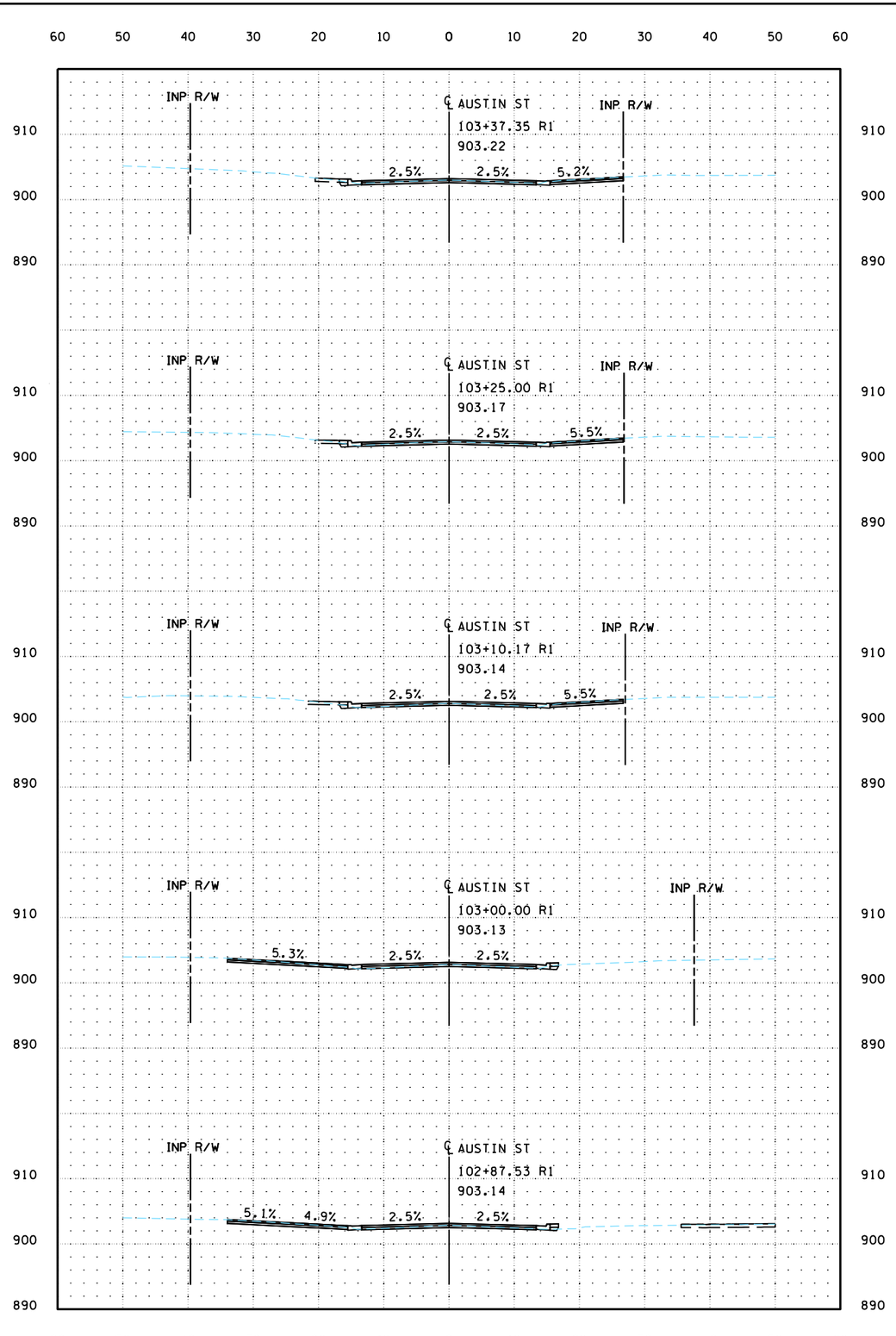

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WSB PROJECT NO.:
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REVISIONS

NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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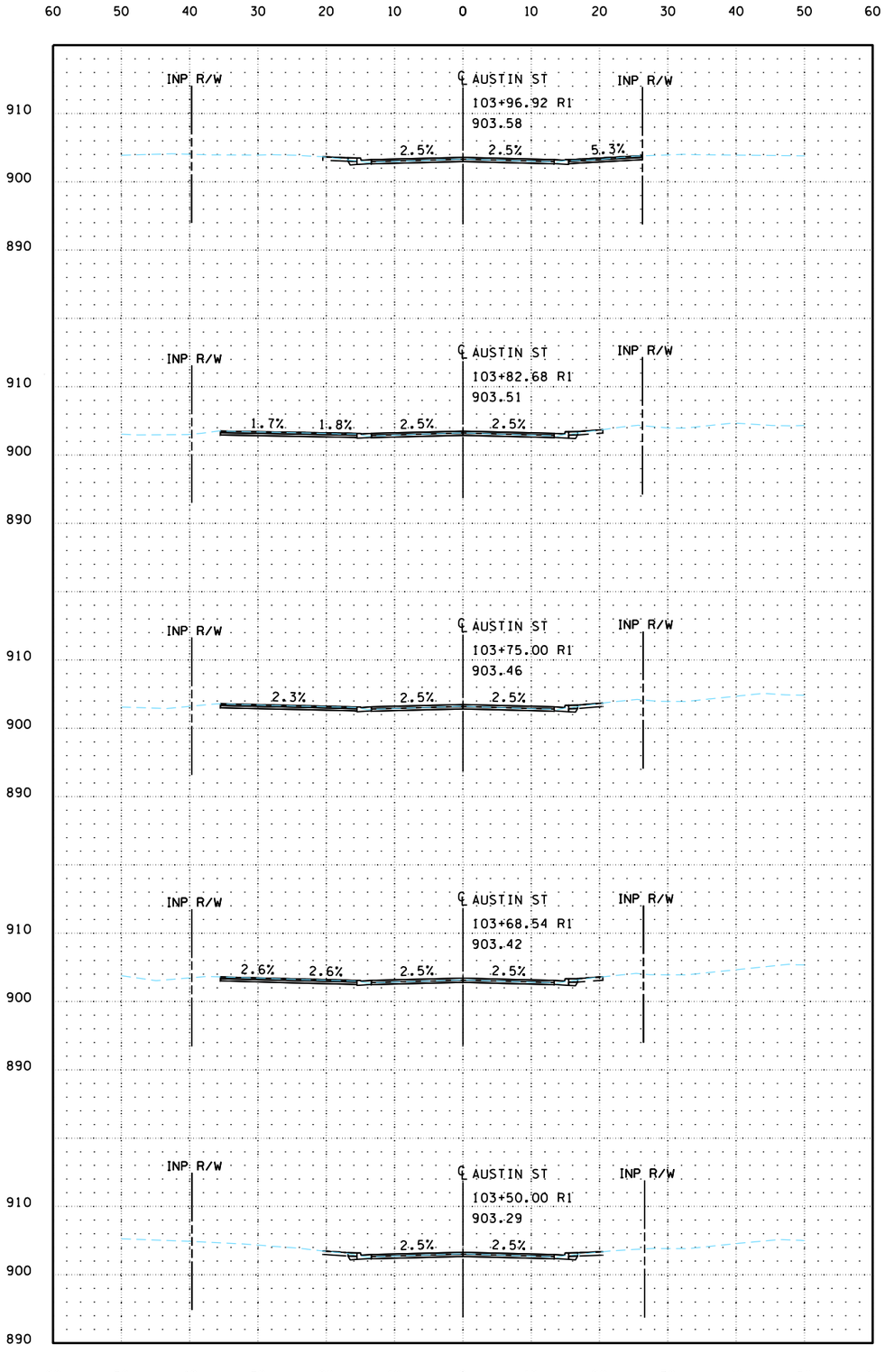

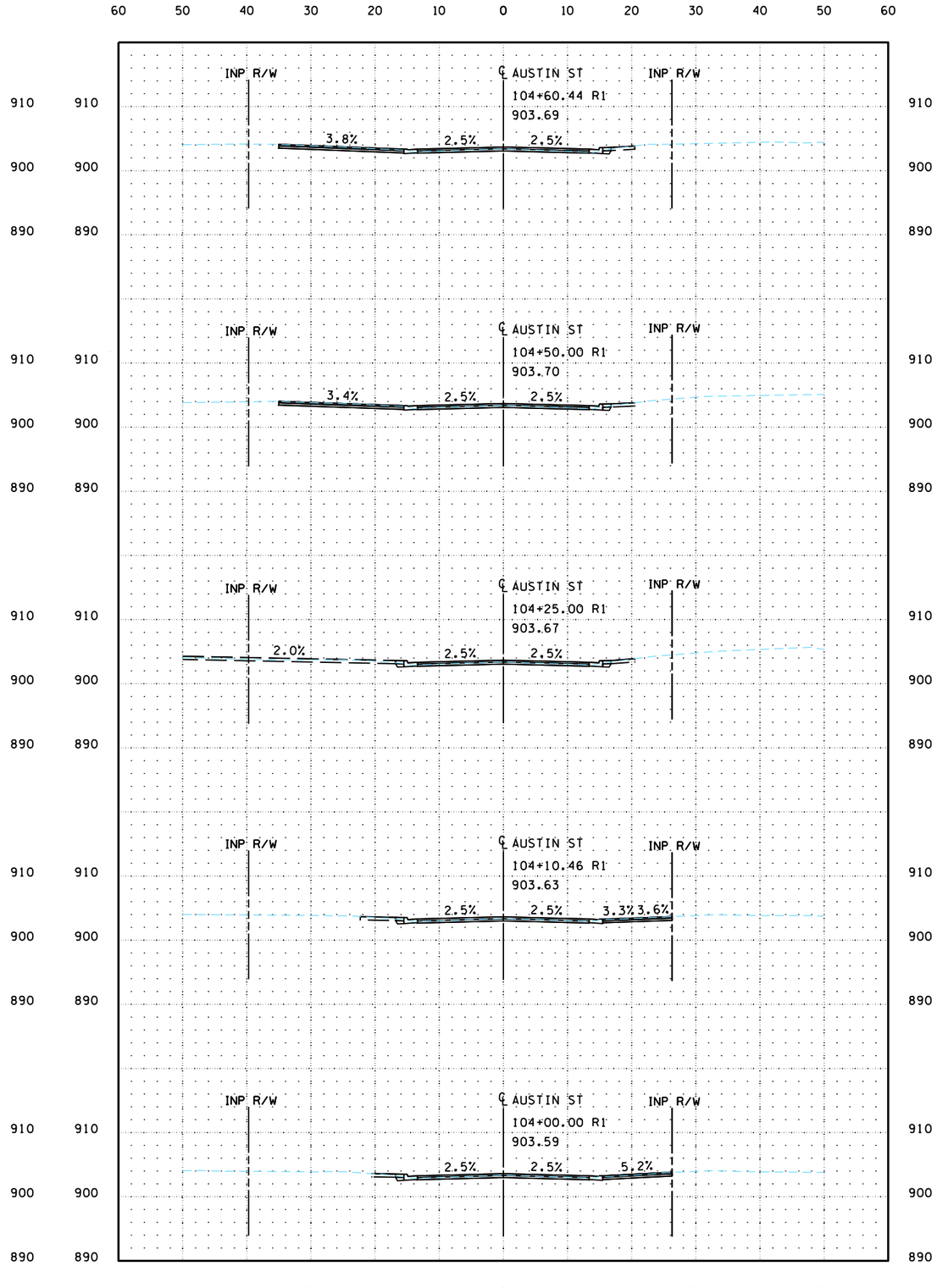

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PLAN BY:

CHECK BY:

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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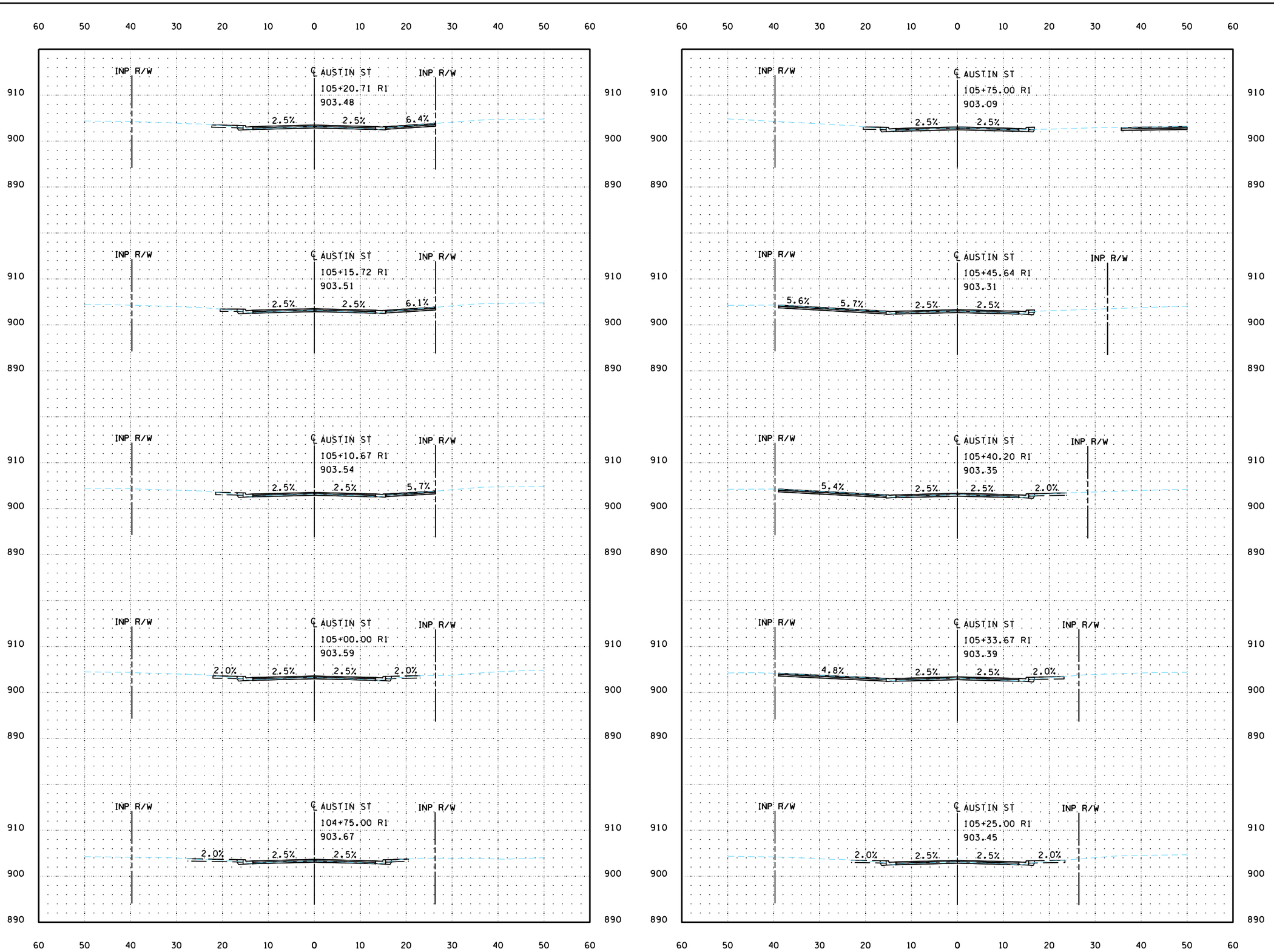

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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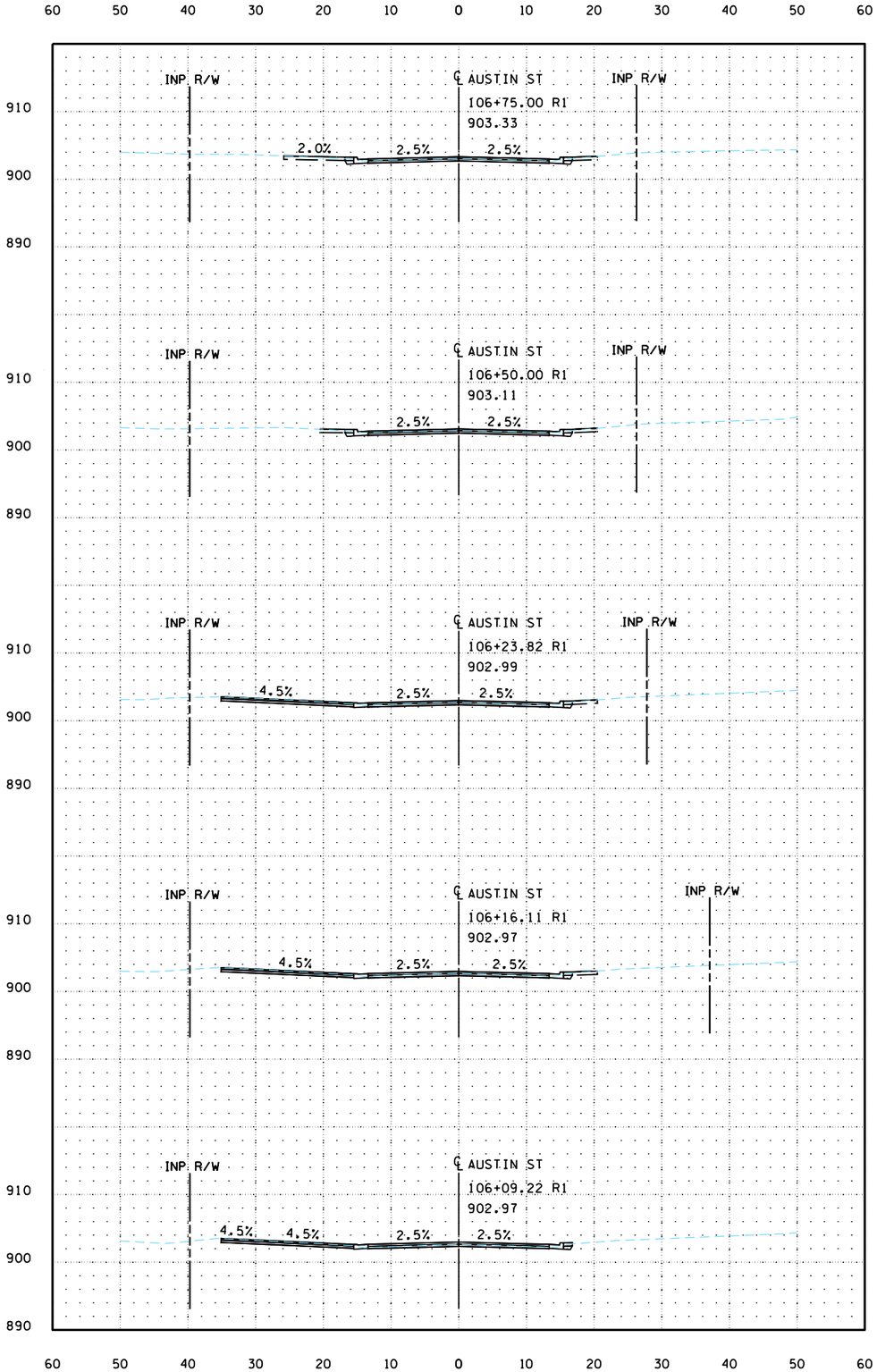

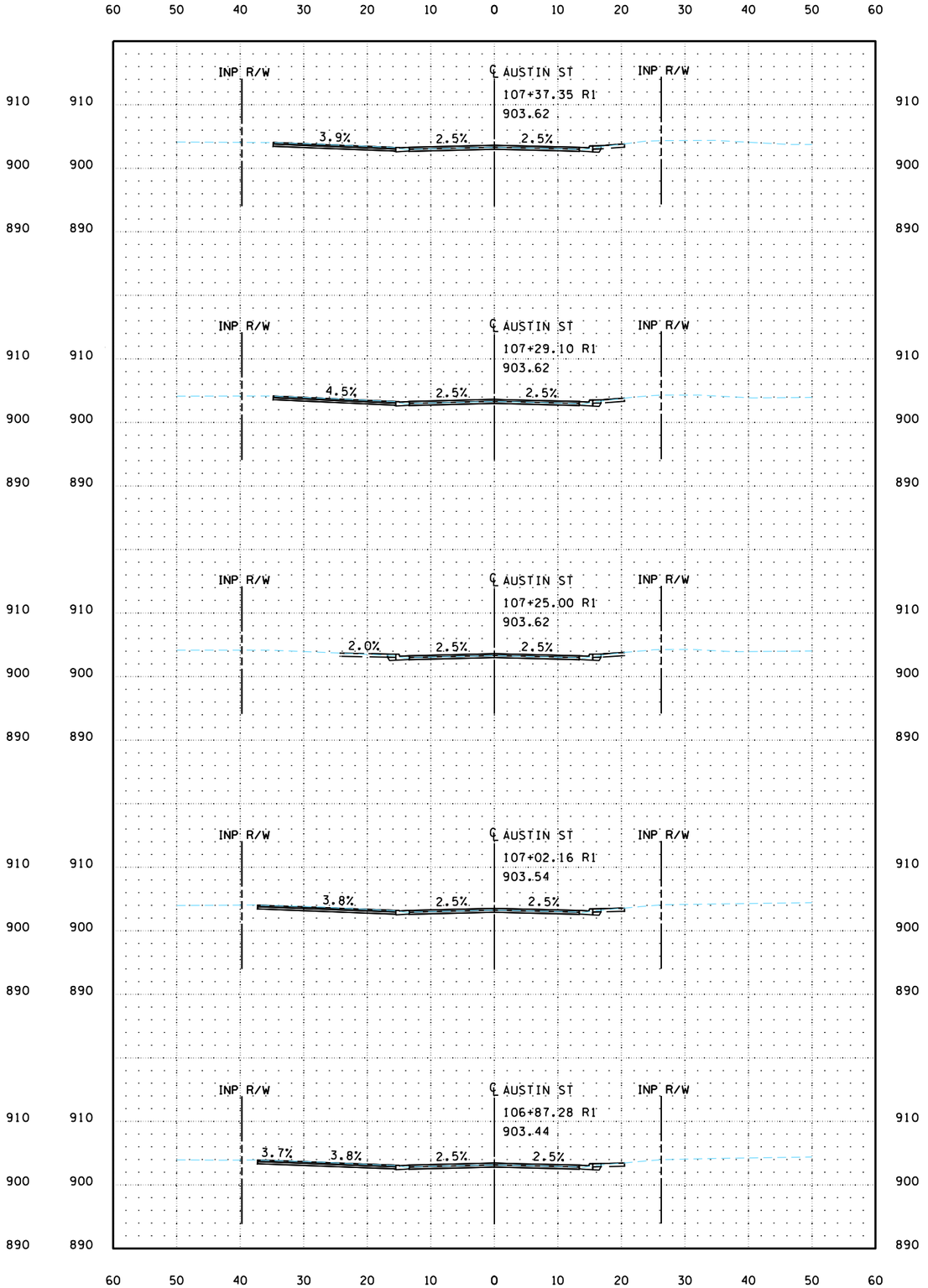

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REVISIONS

NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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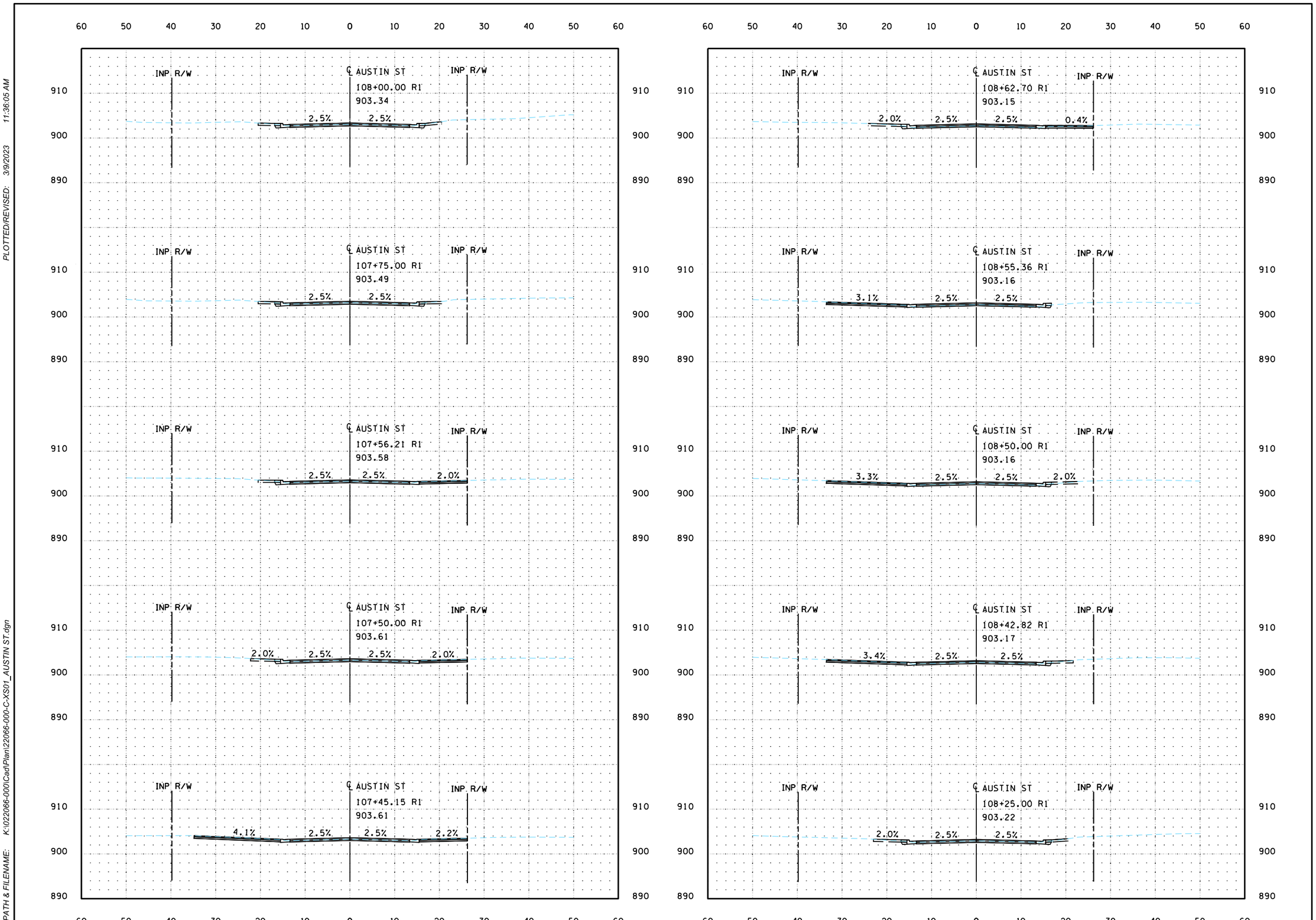

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WSB PROJECT NO.: 022066-000

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REVISIONS

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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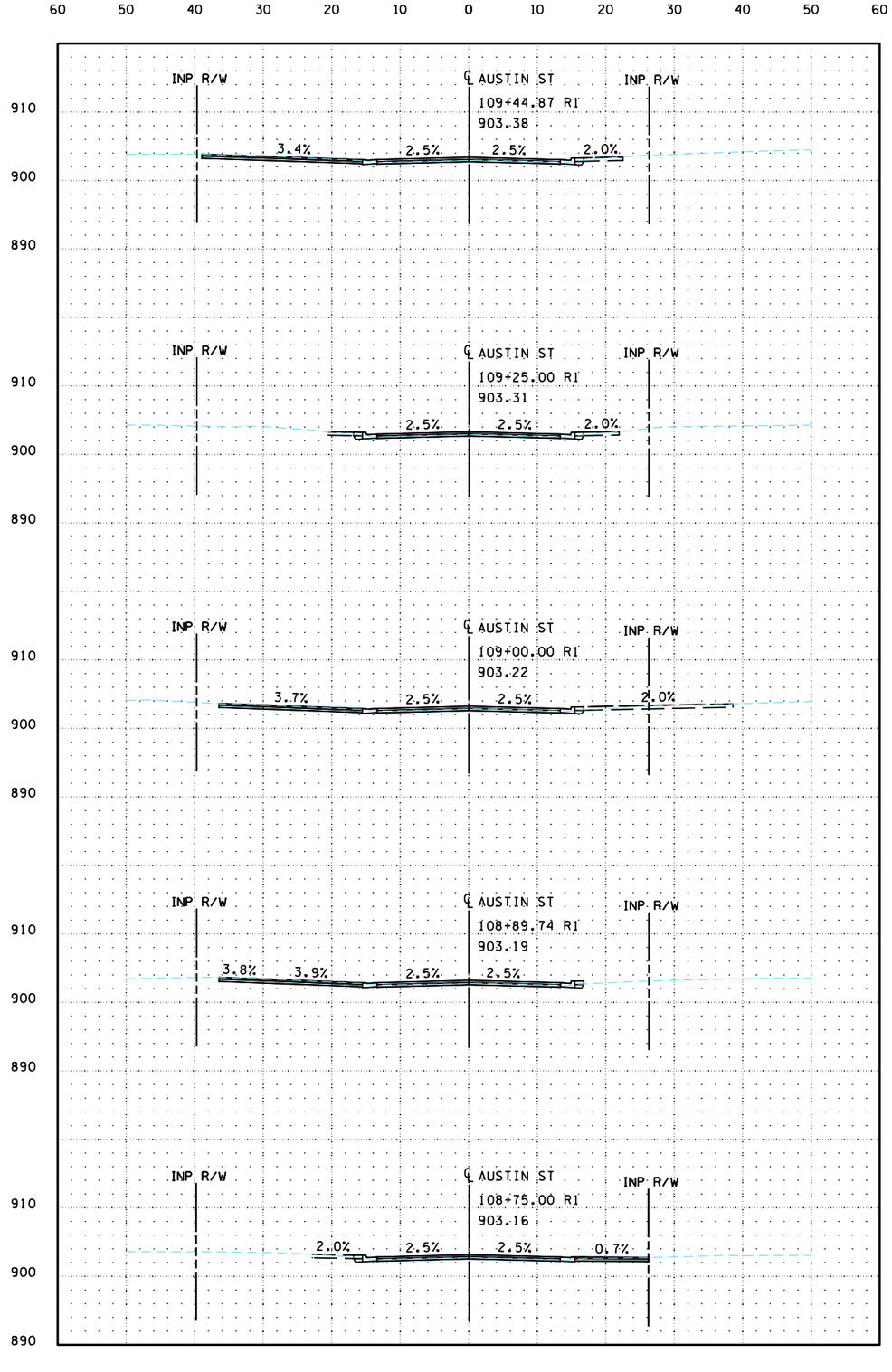

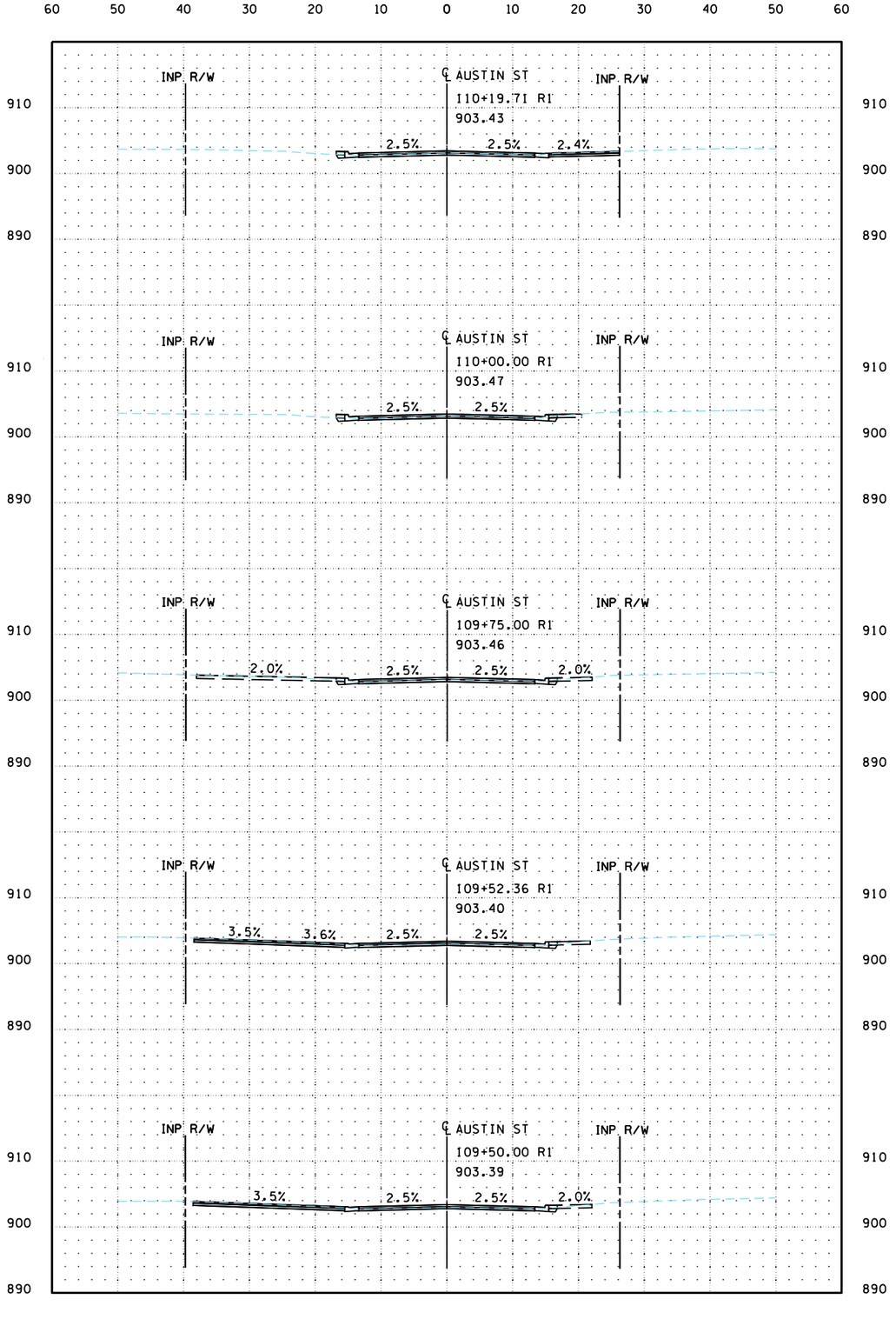

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WSB PROJECT NO.:
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PLAN BY:

CHECK BY:

REVISIONS

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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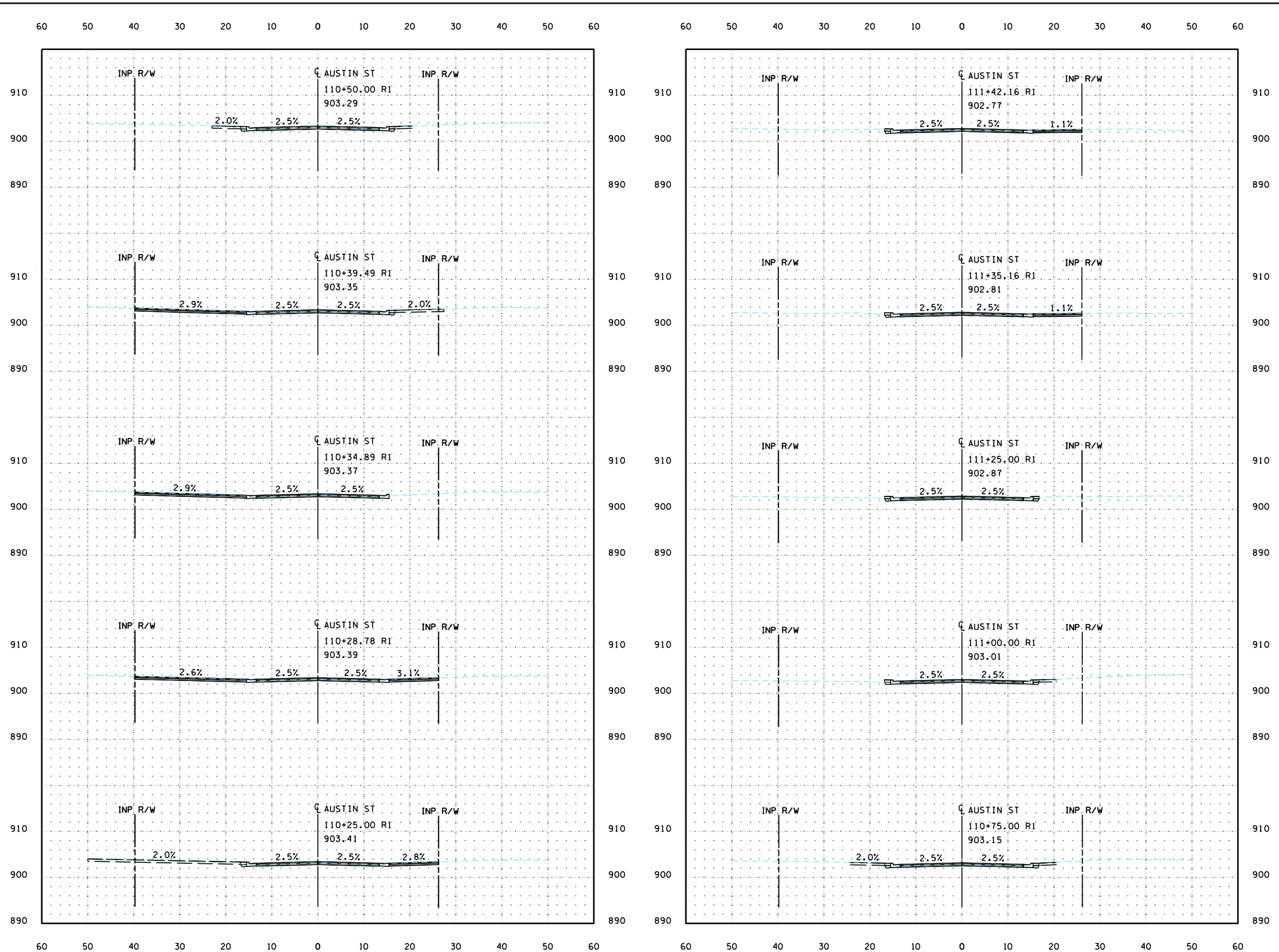

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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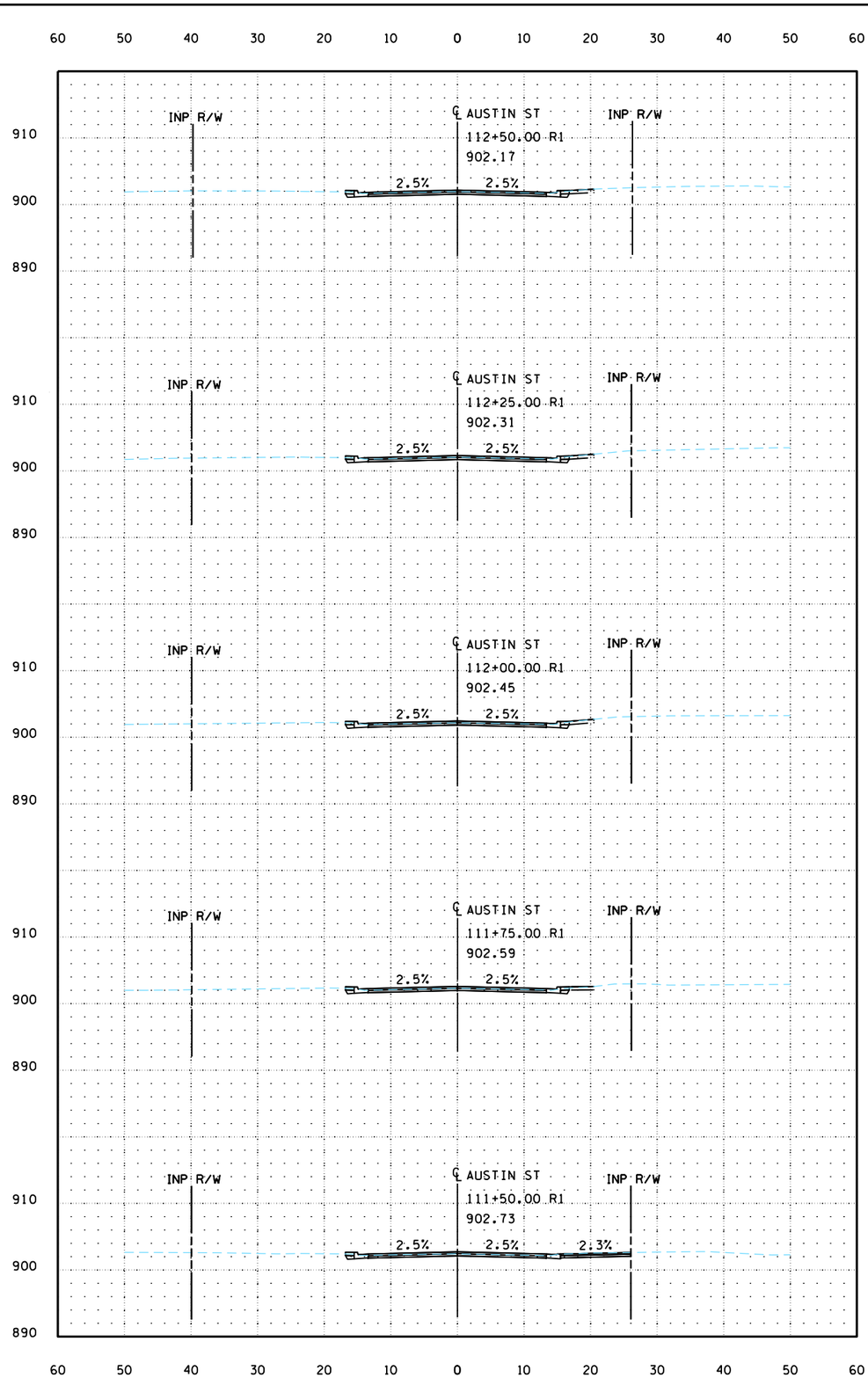

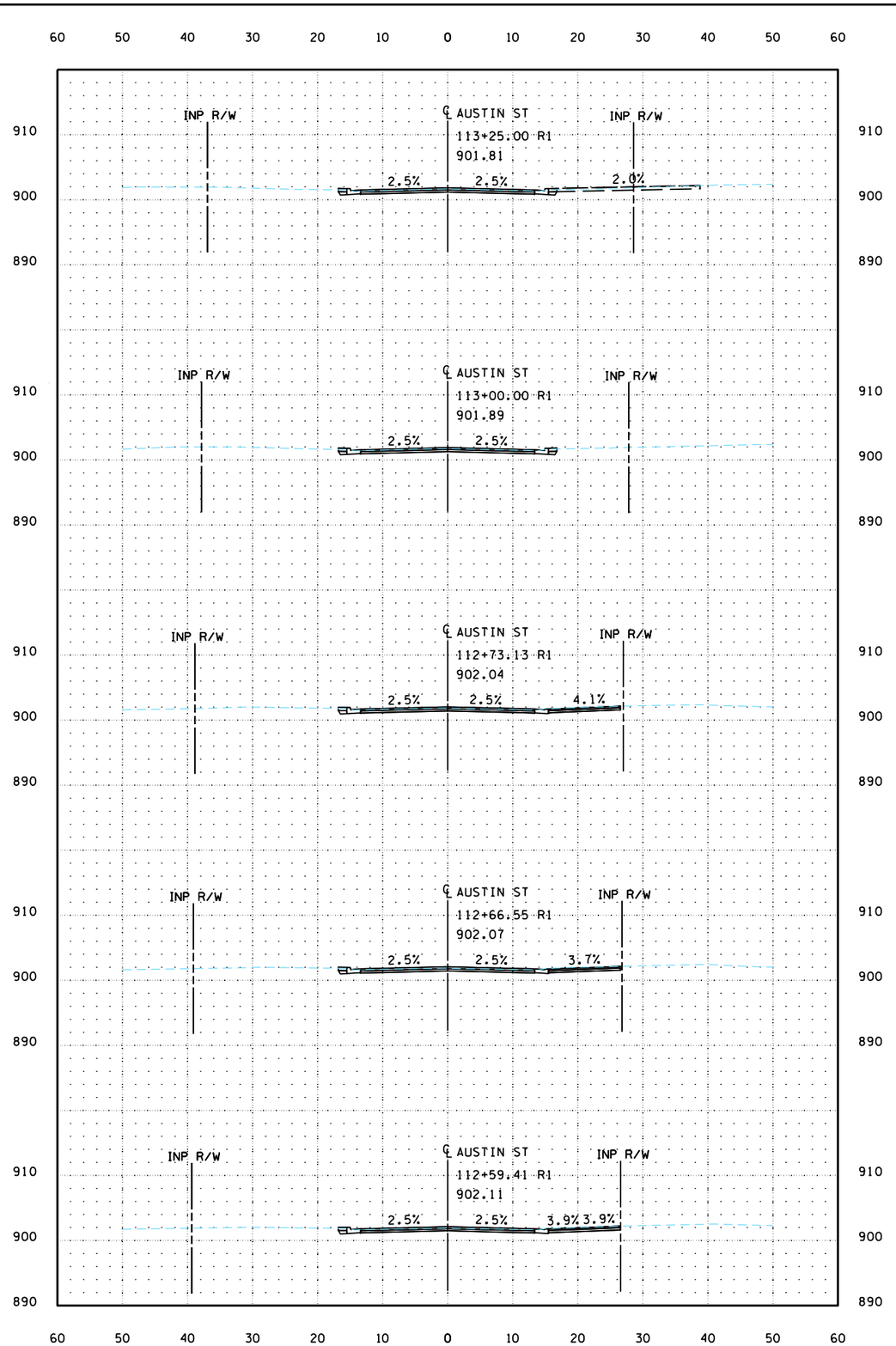

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REVISIONS

NO.	DATE	DESCRIPTION

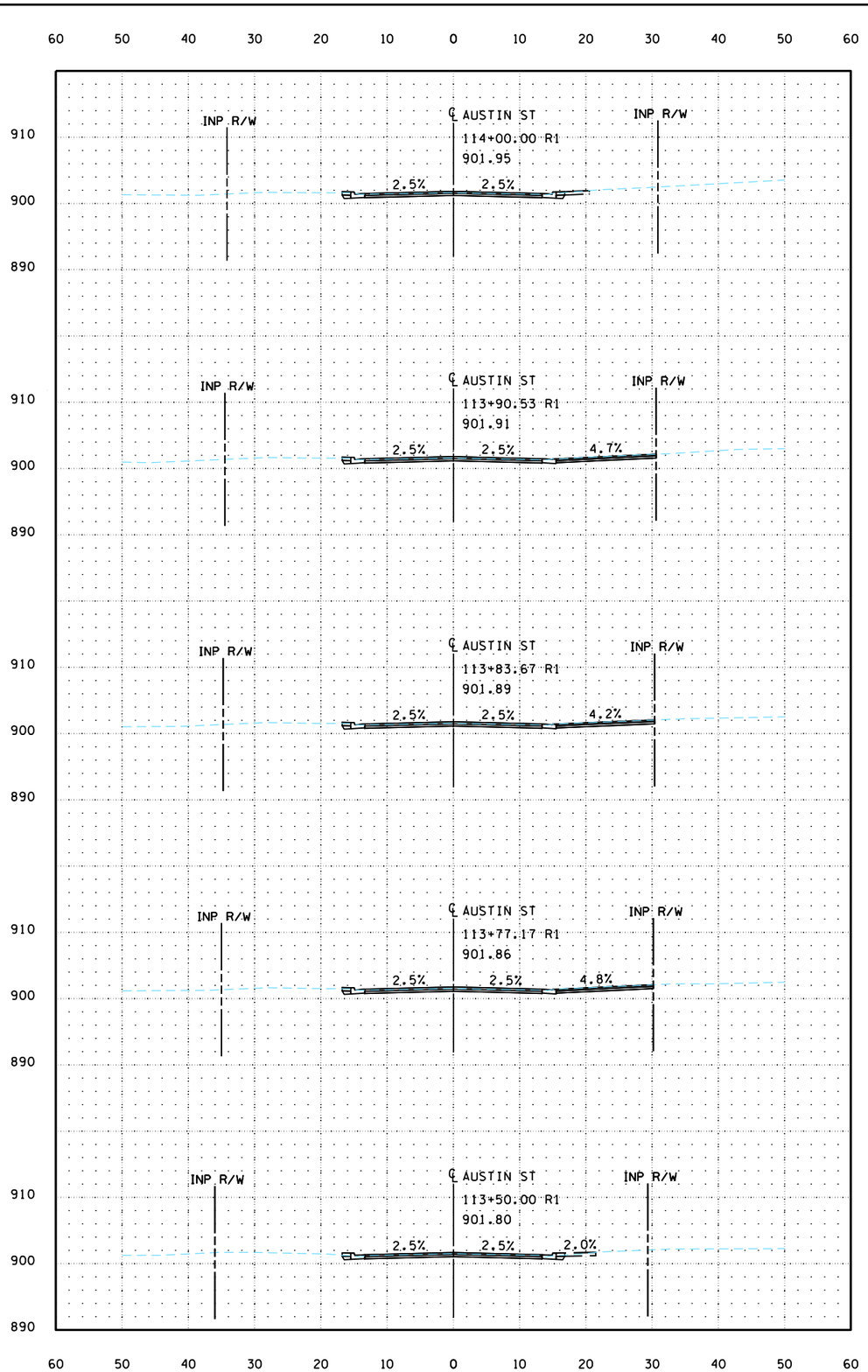
CITY OF BLAINE, MN

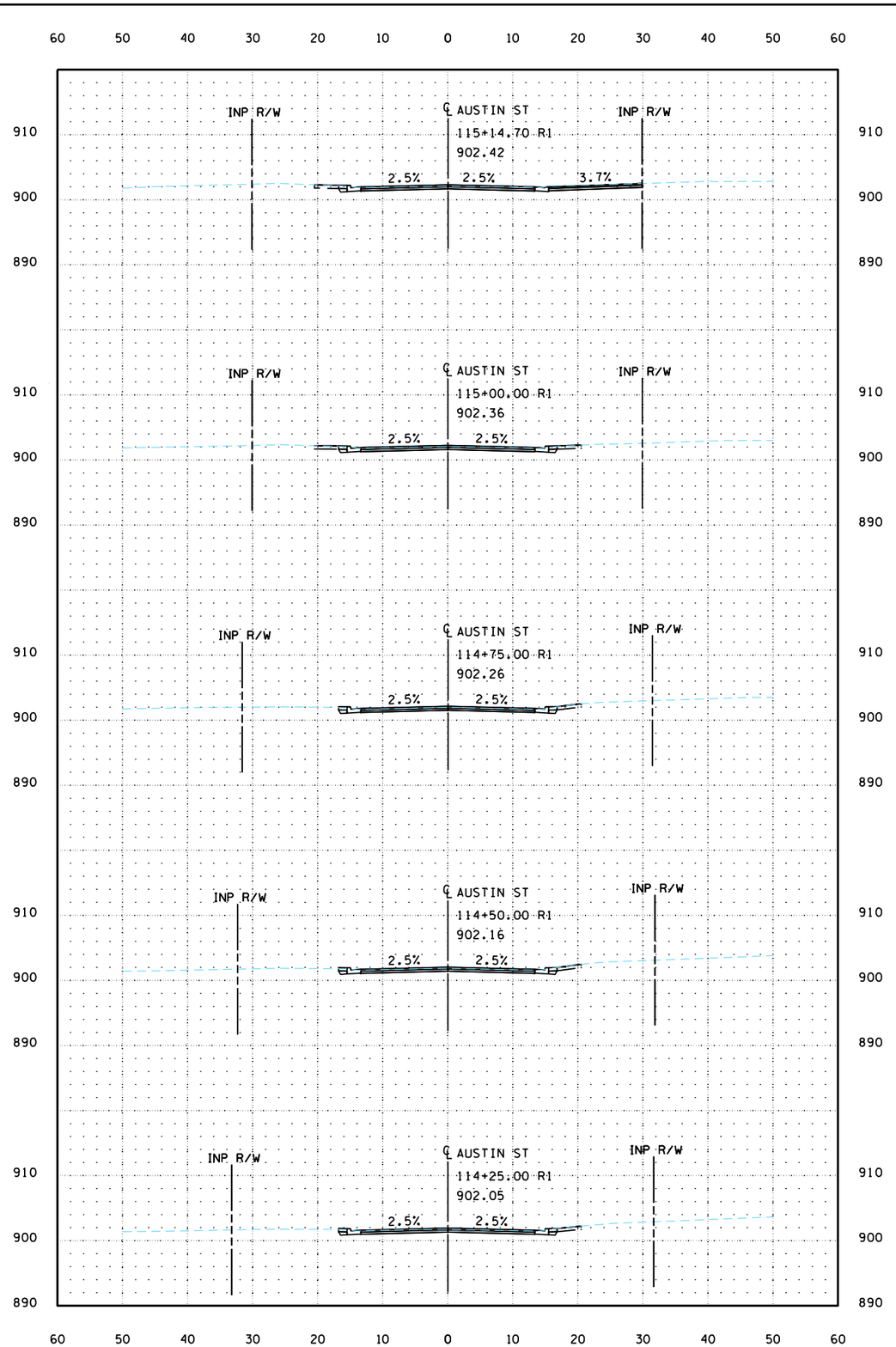
SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X11** OF **X63** SHEETS





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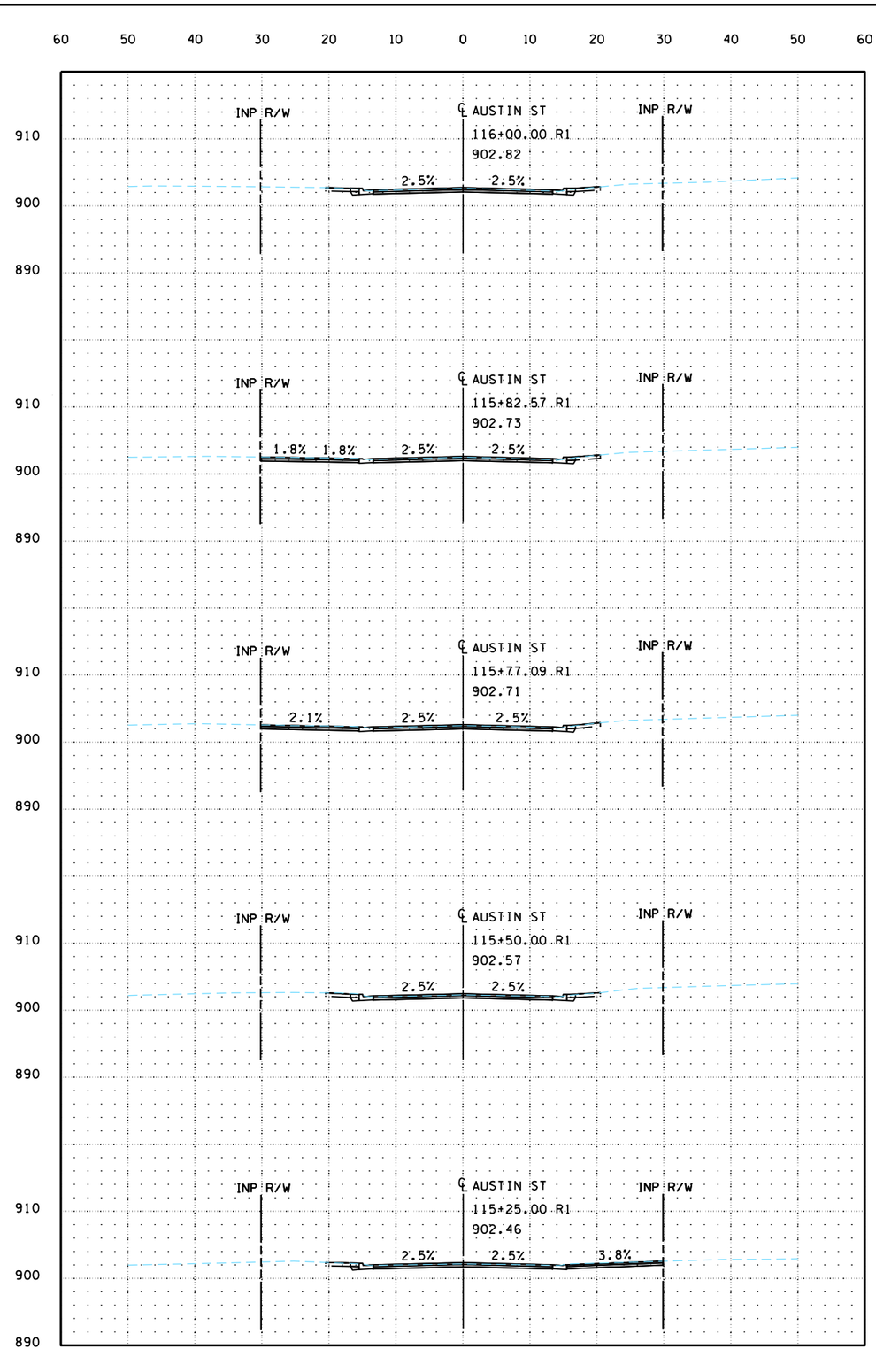
CITY OF BLAINE, MN

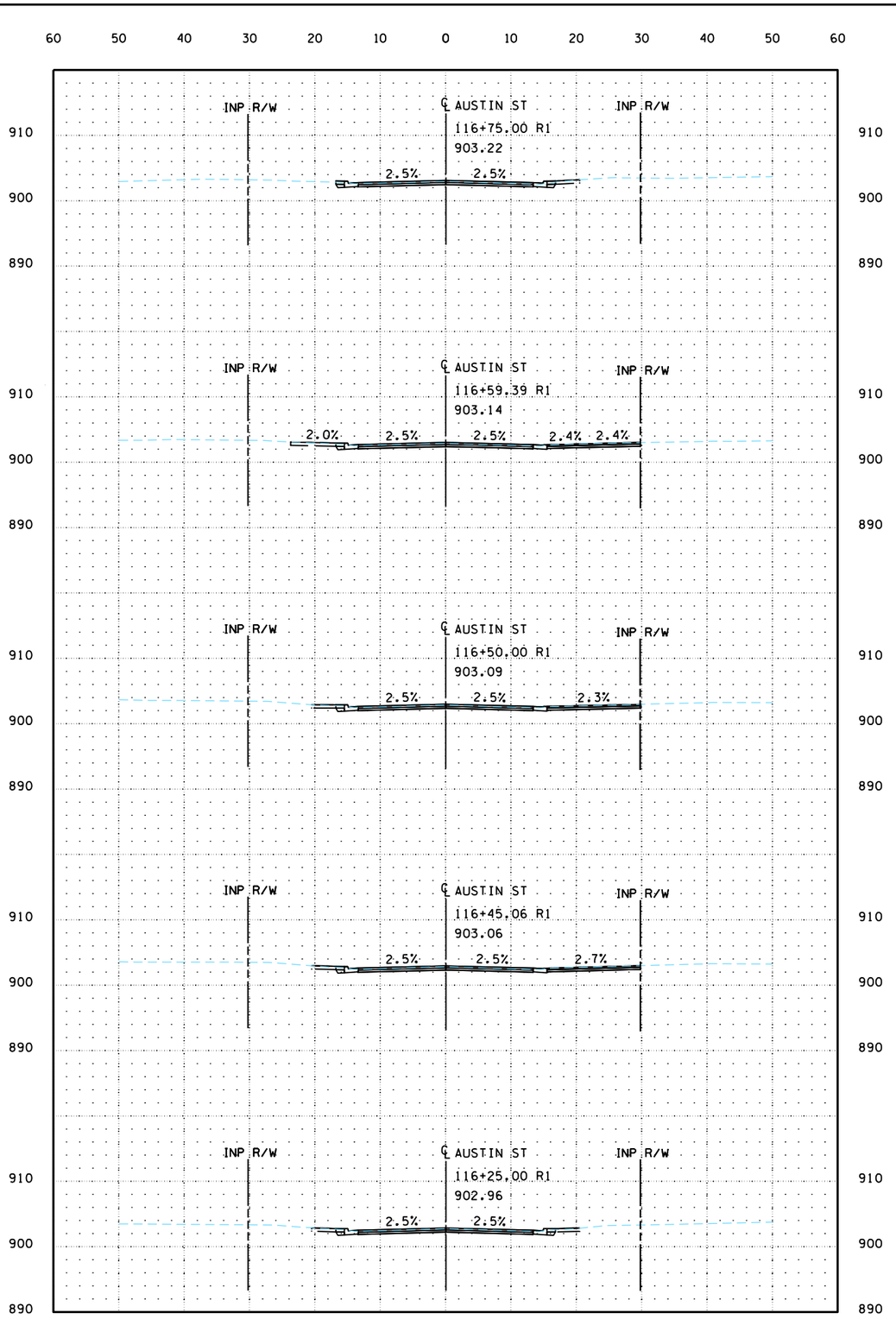
SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X12** OF **X63** SHEETS





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WSB PROJECT NO.: 022066-000

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CHECK BY:

REVISIONS

NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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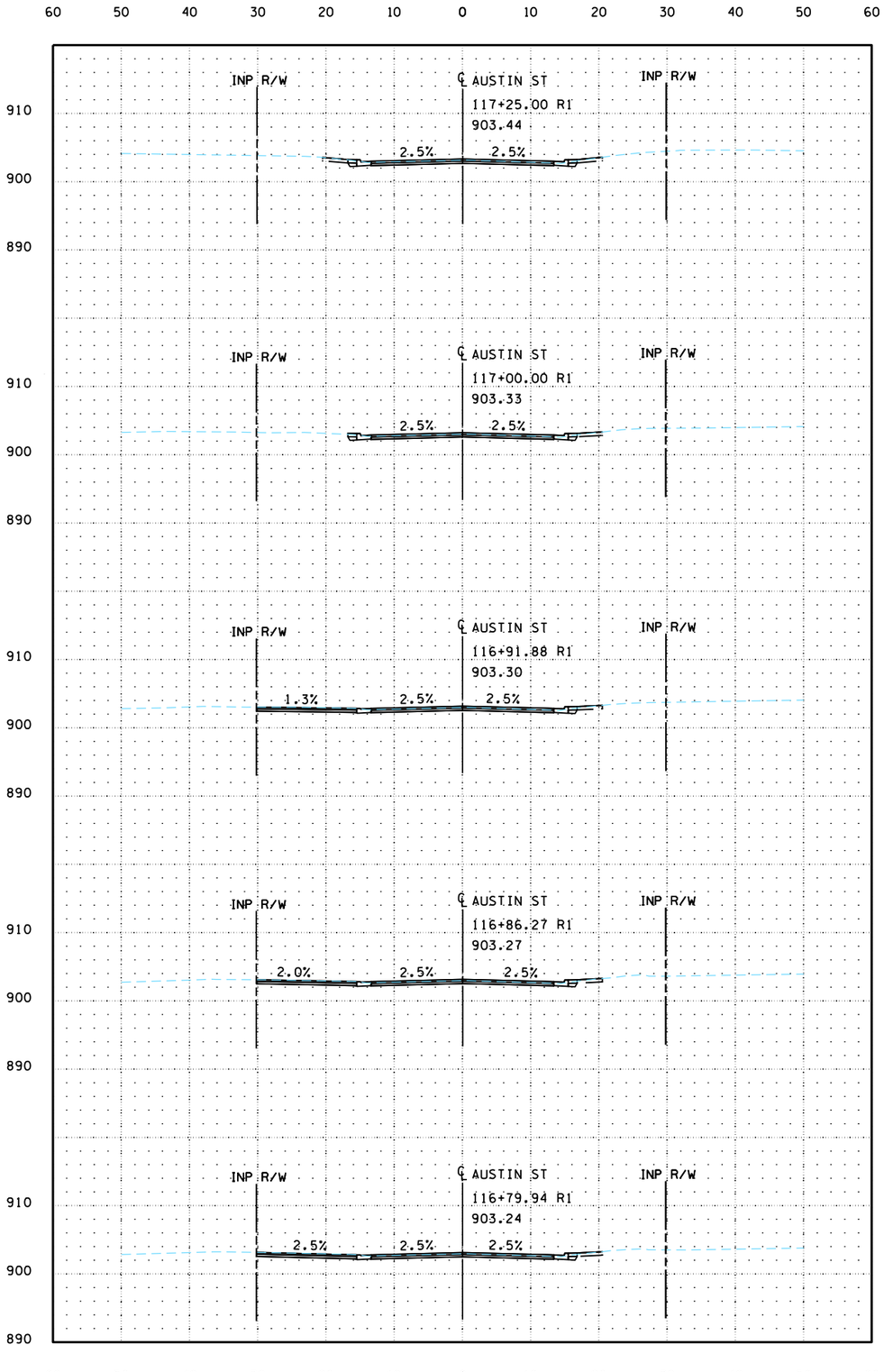

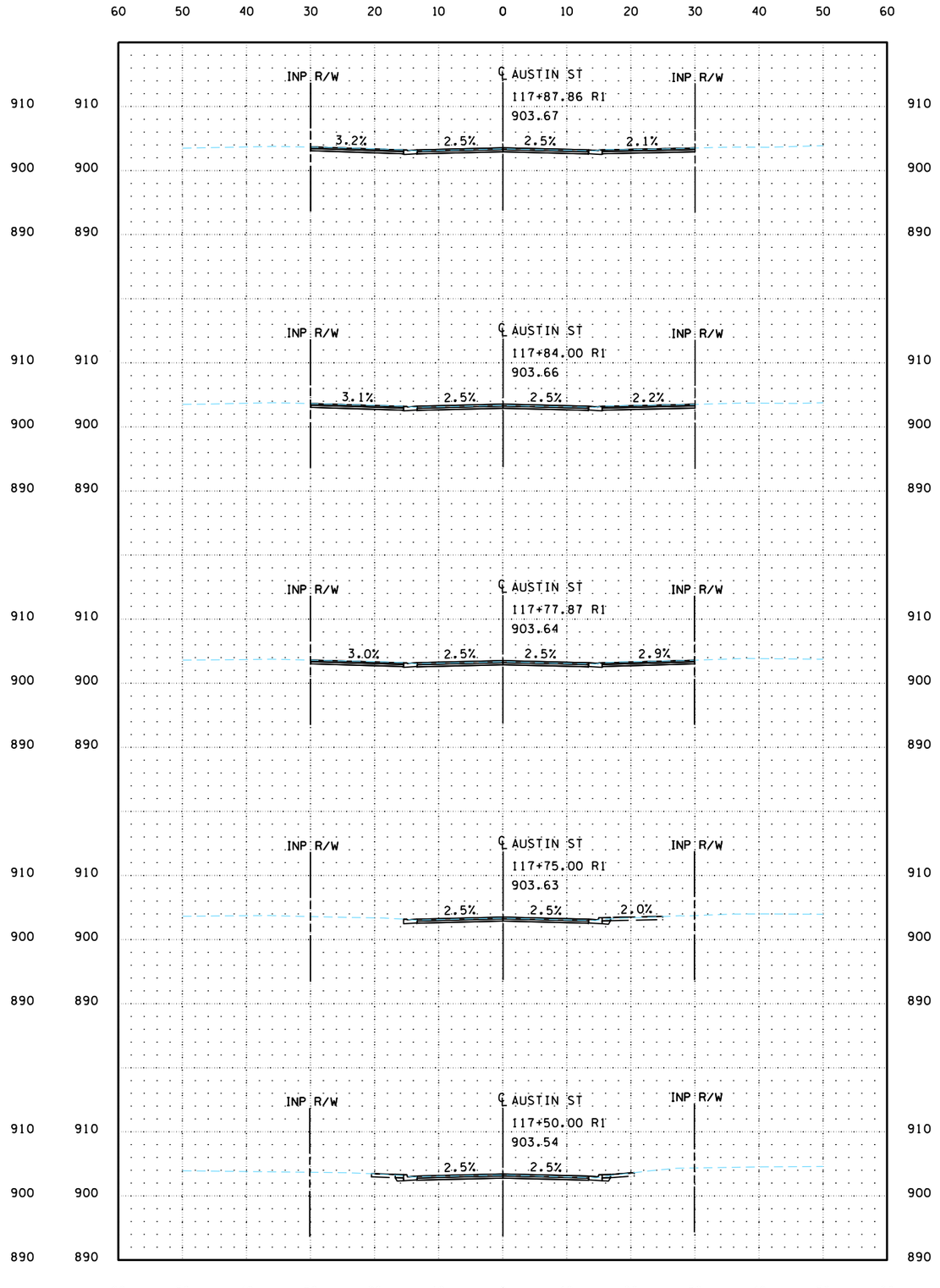

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WSB PROJECT NO.: 022066-000

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REVISIONS

NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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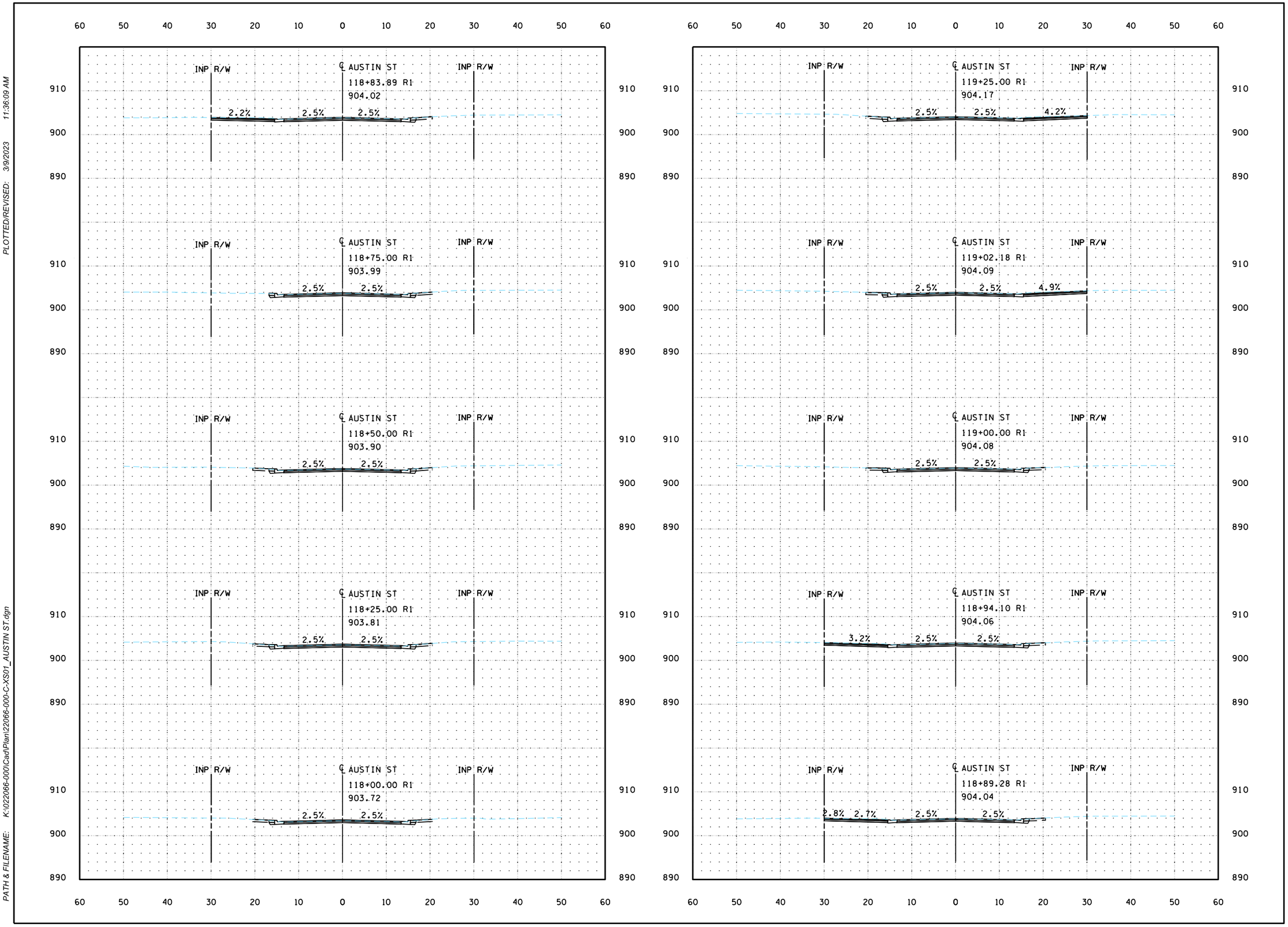

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PLAN BY:

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REVISIONS

NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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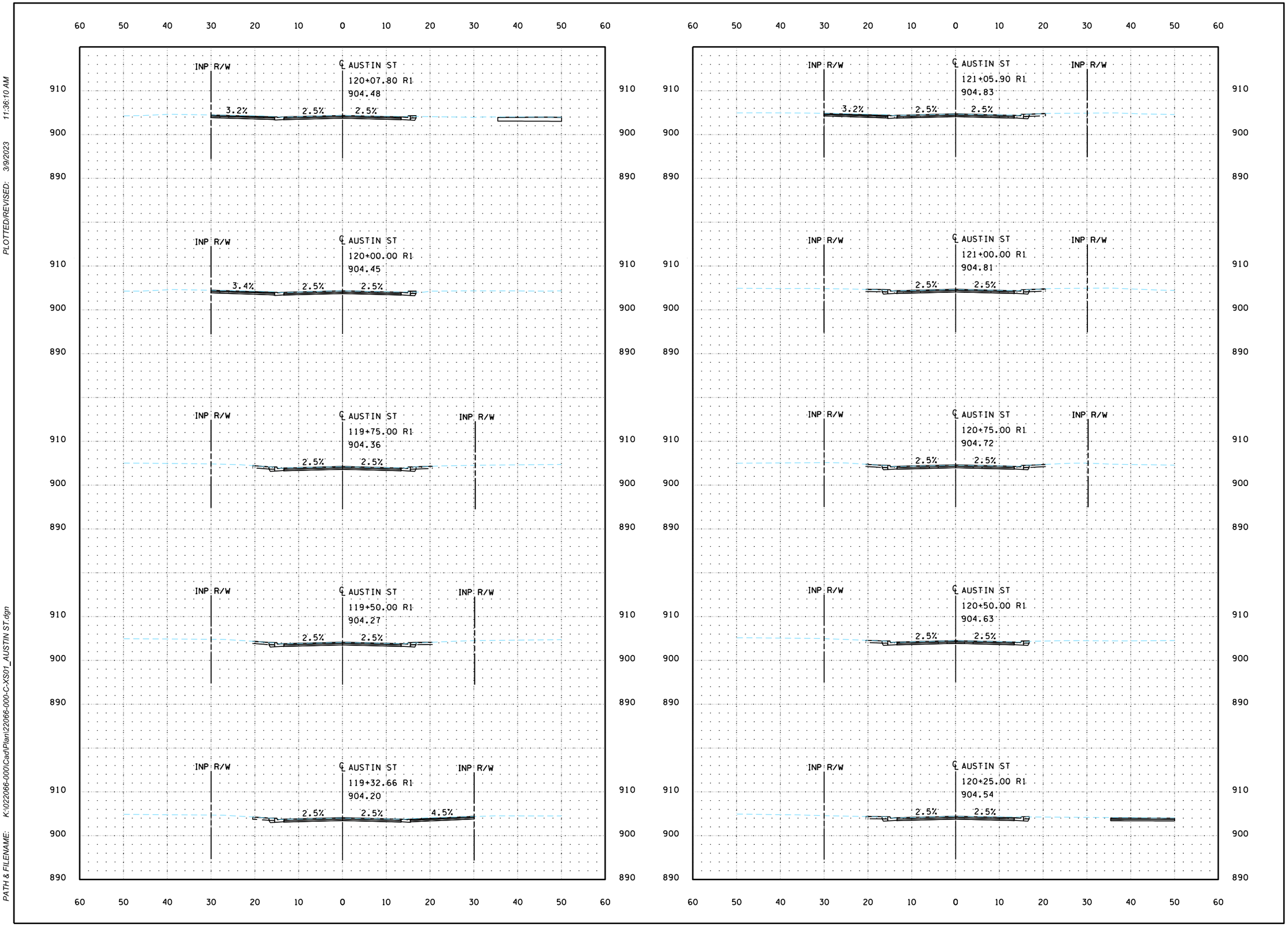

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WSB PROJECT NO.: 022066-000

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NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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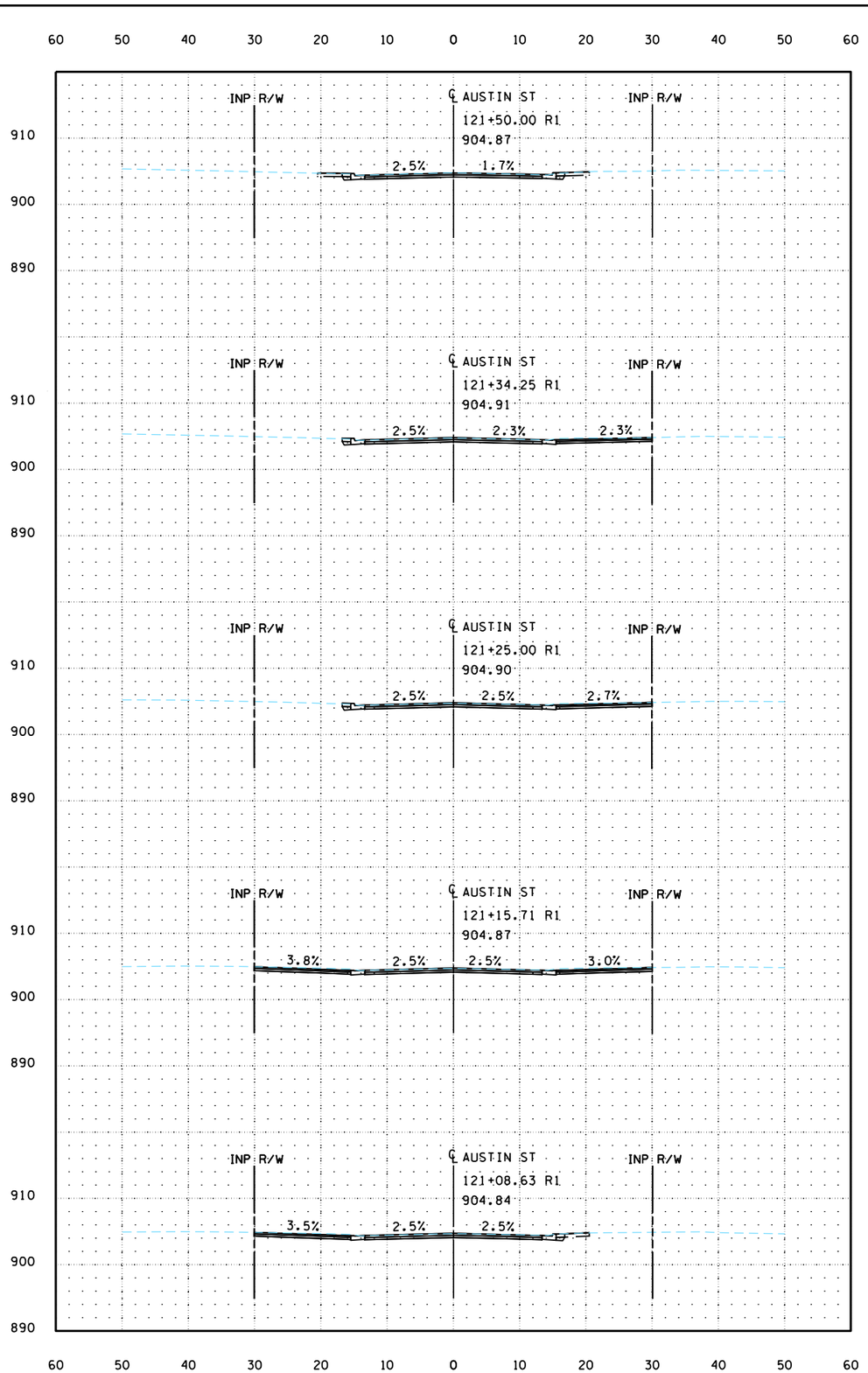

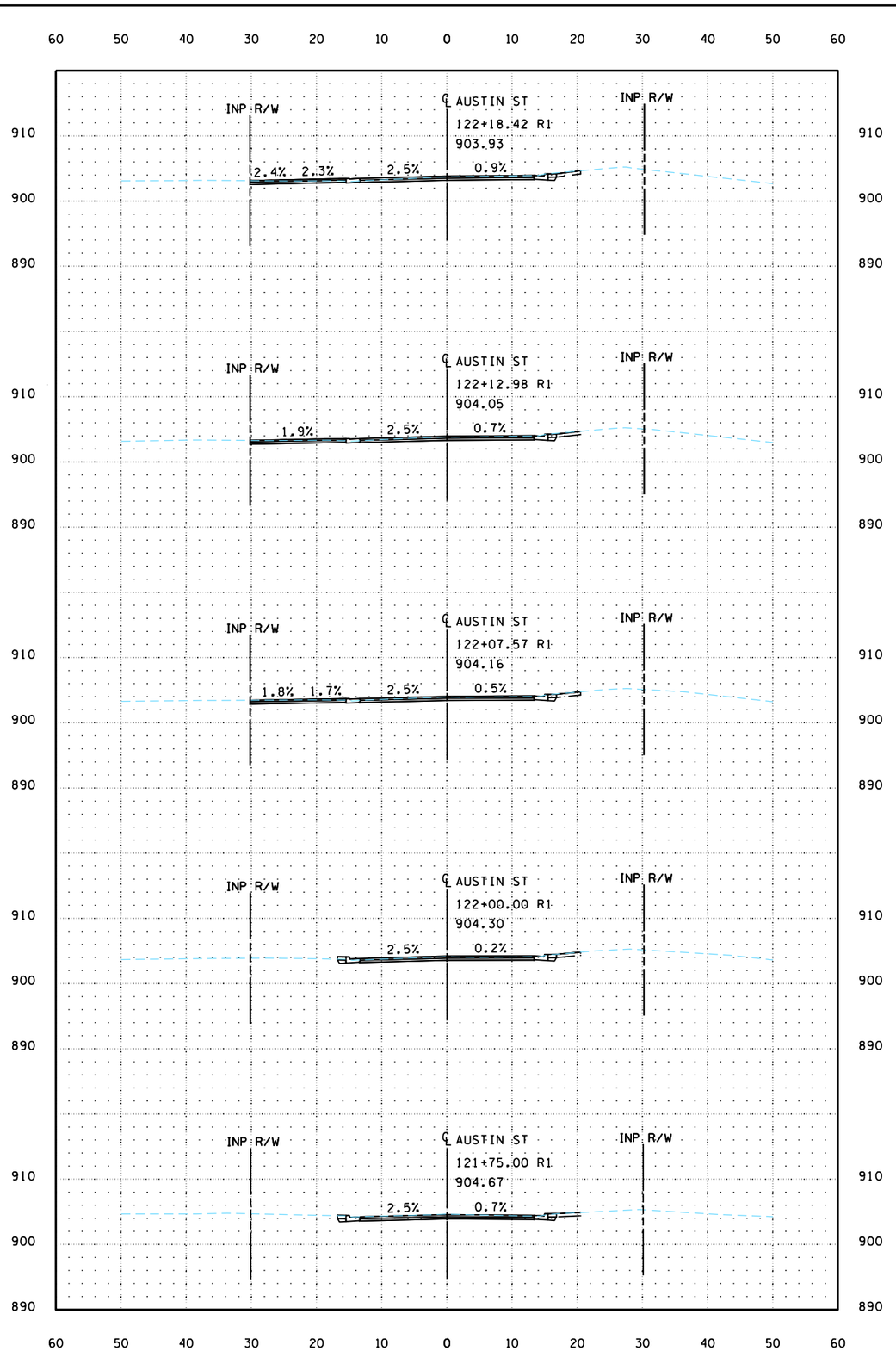

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WSB PROJECT NO.: 022066-000

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NO.	DATE	DESCRIPTION

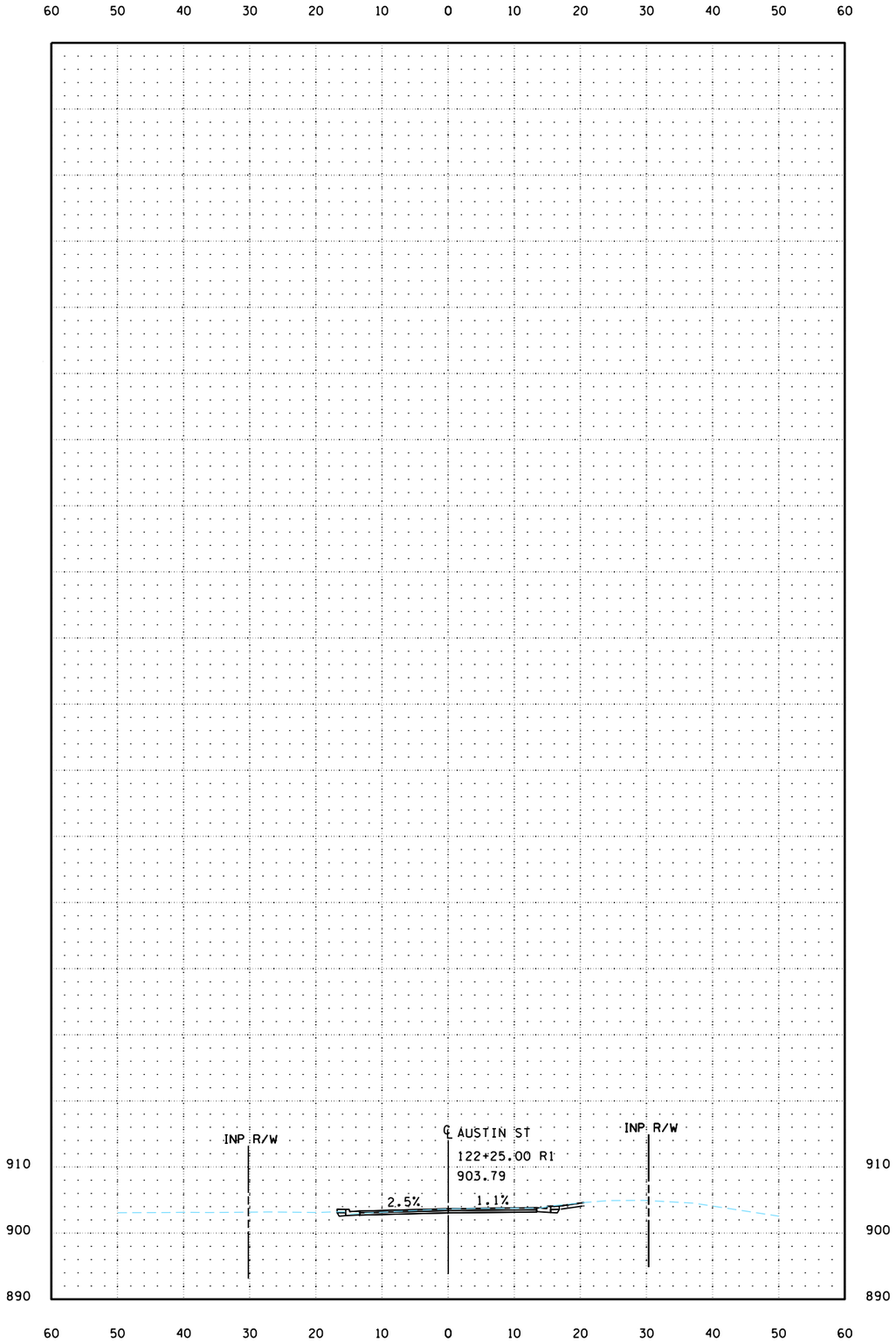
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X17** OF **X63** SHEETS



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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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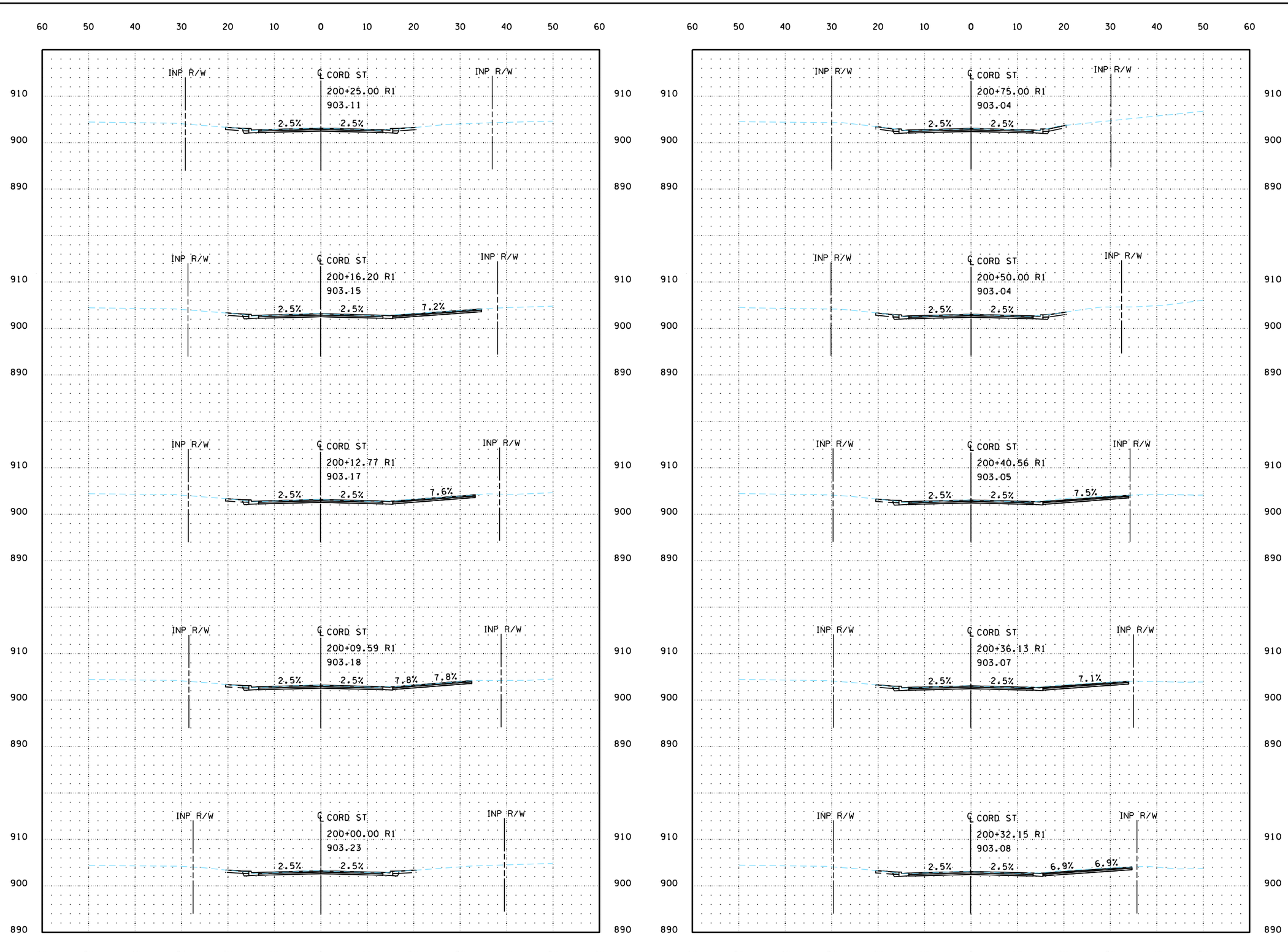

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WSB PROJECT NO.: 022066-000

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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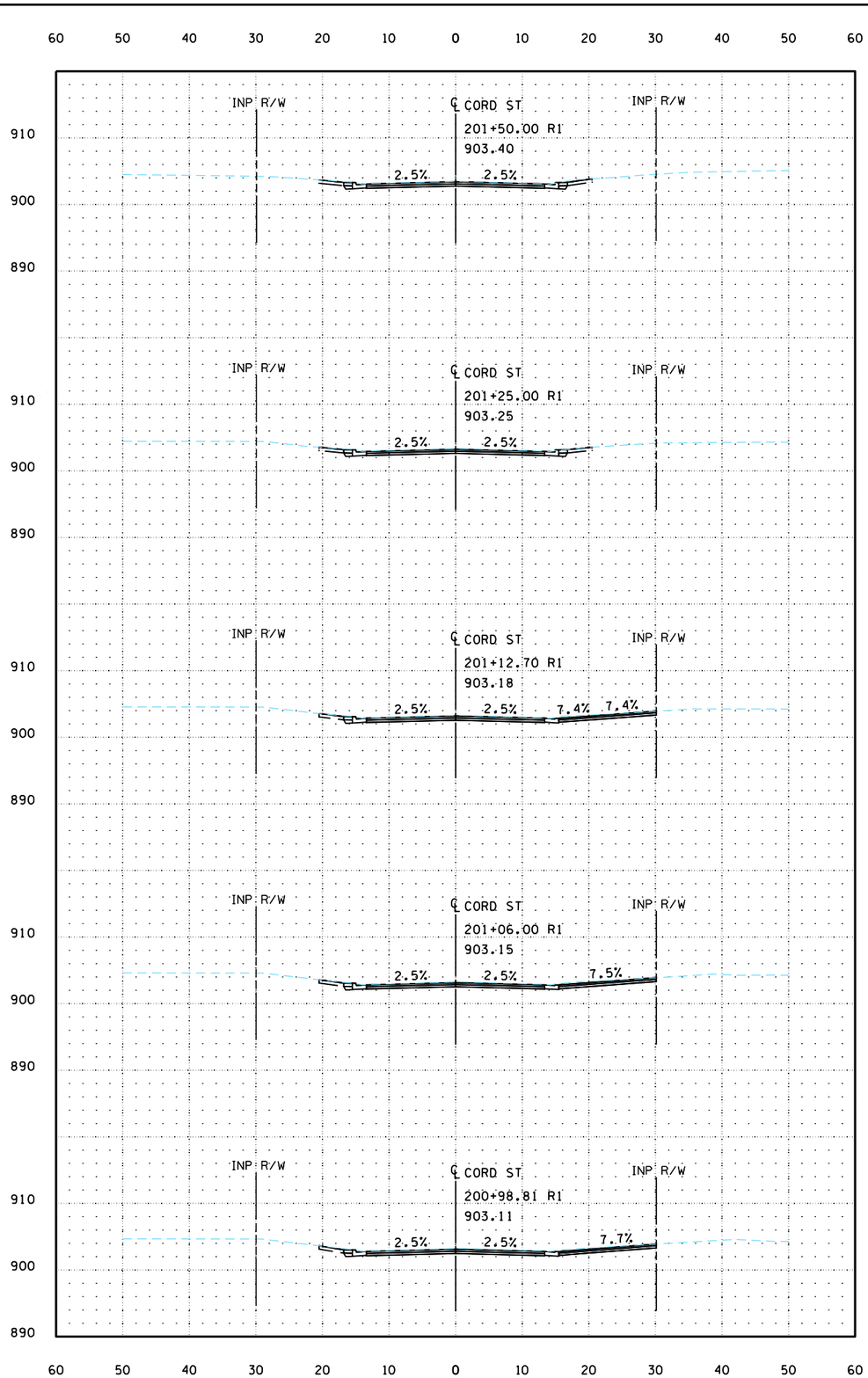

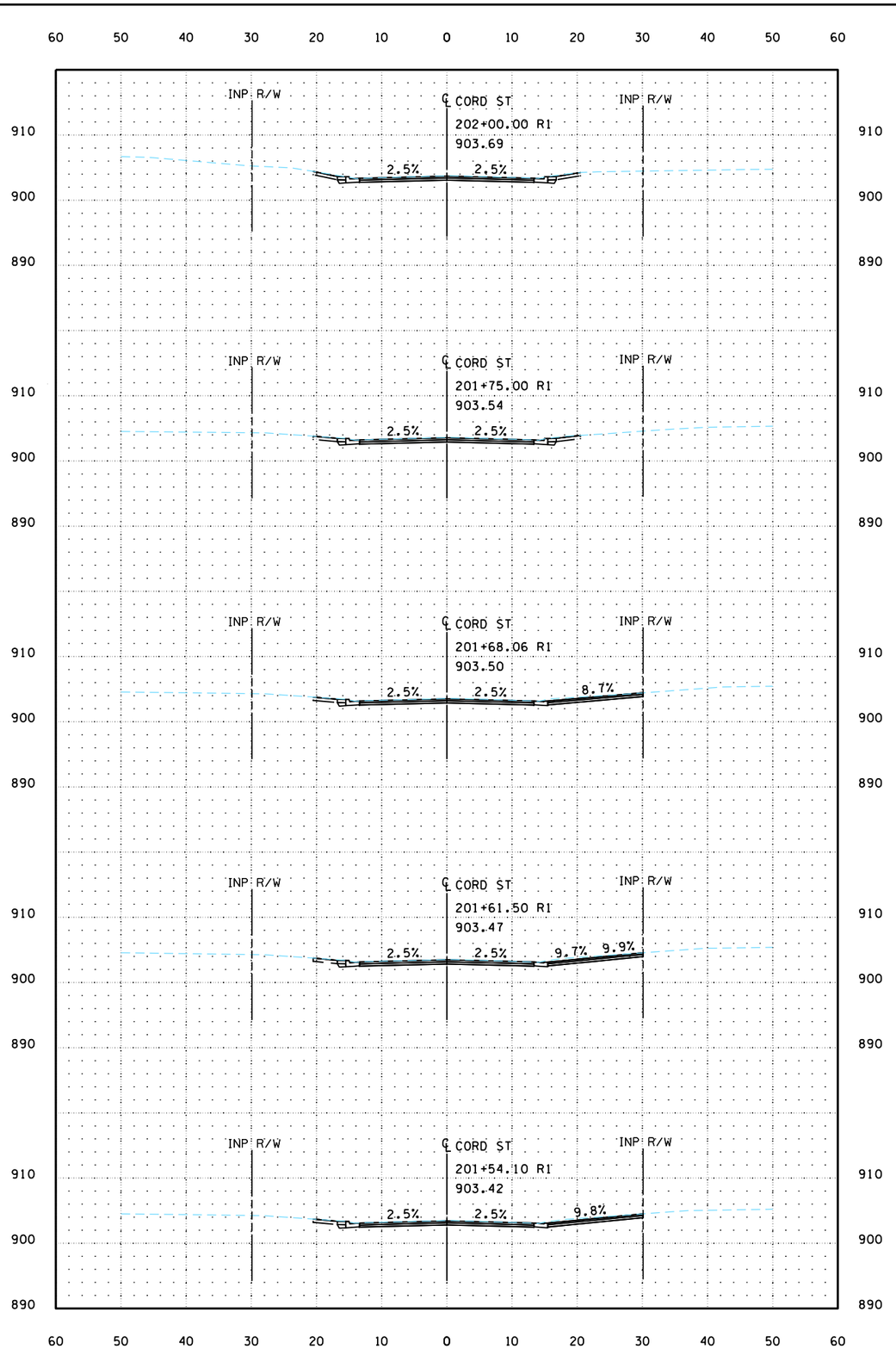

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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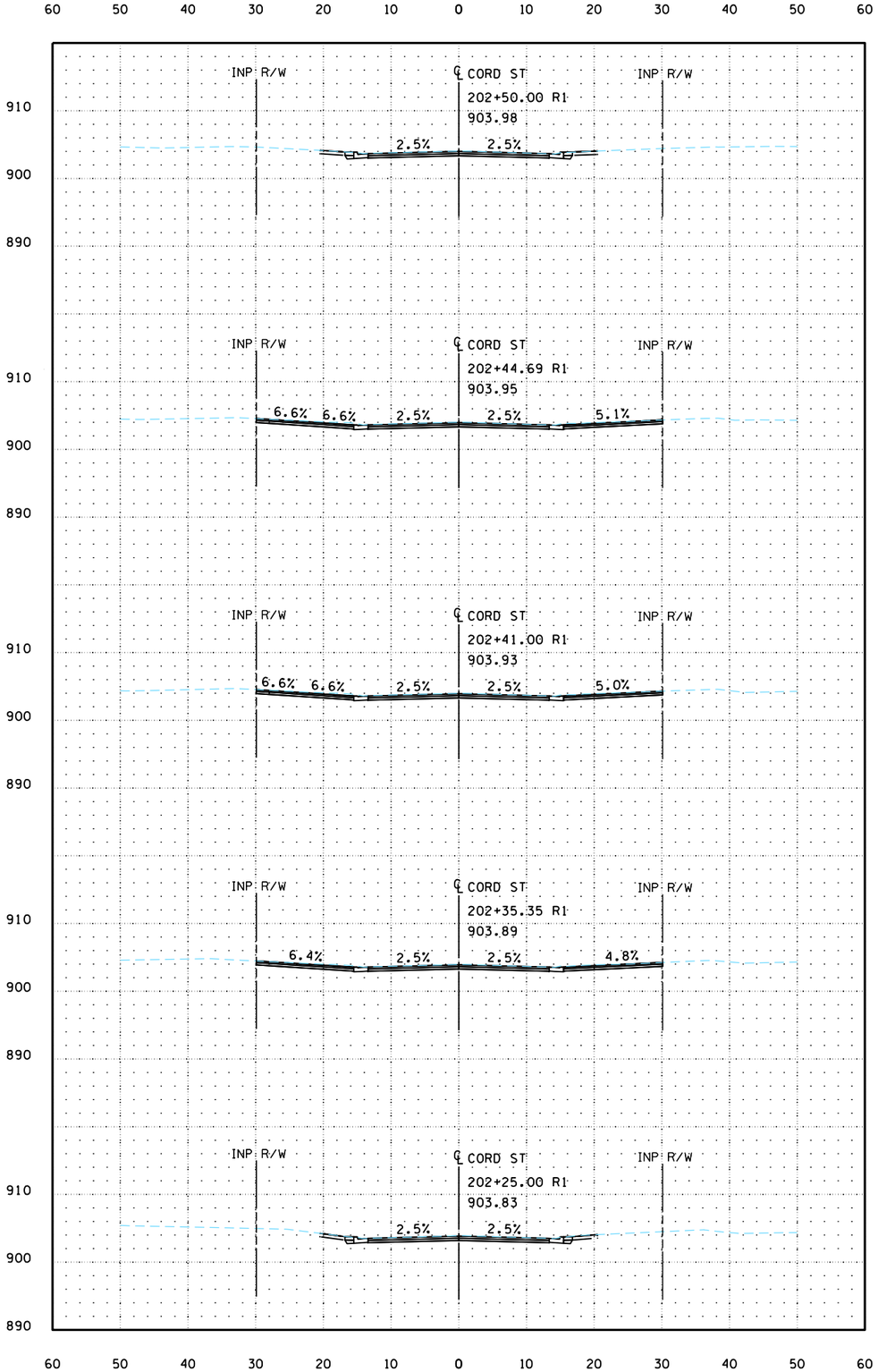

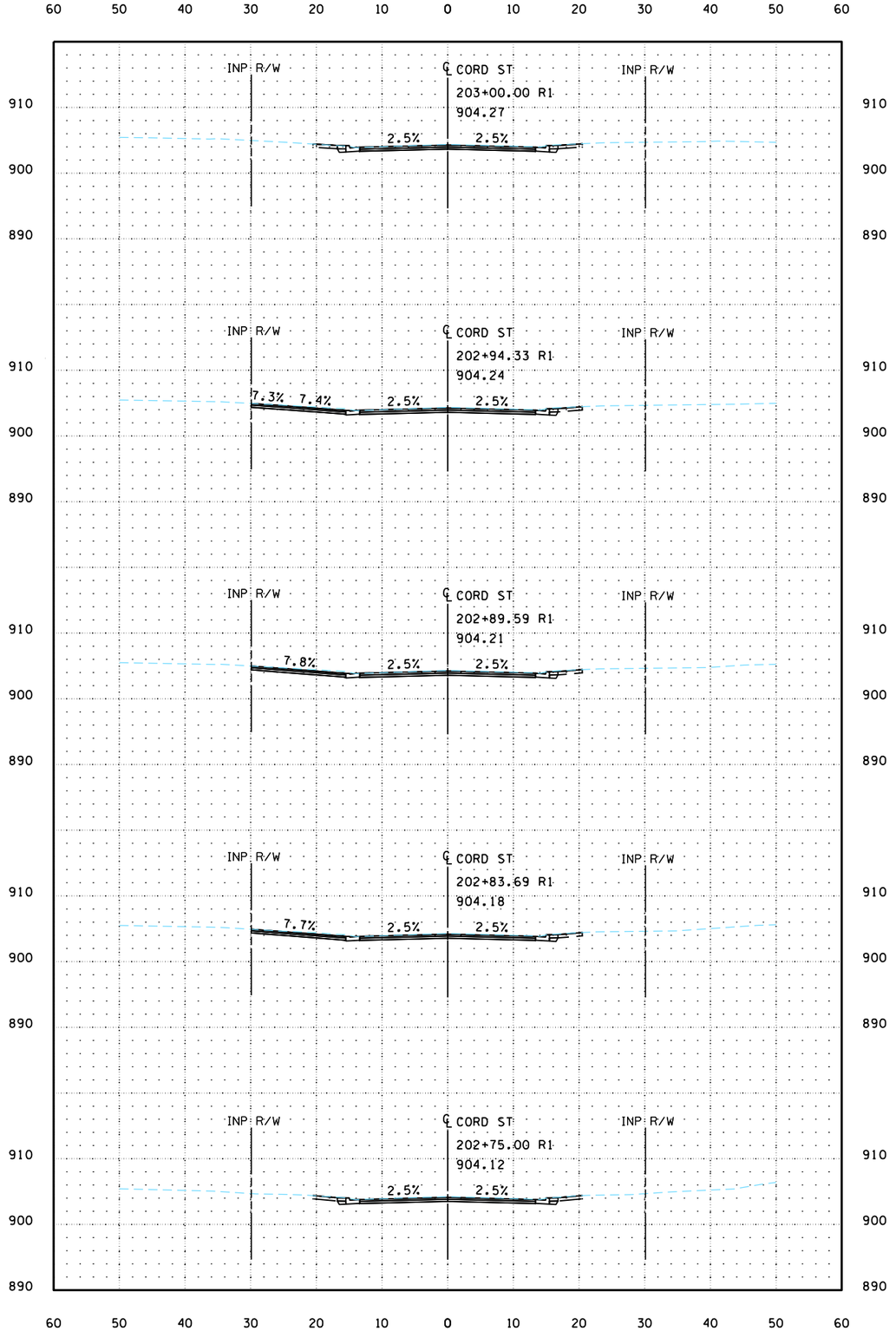

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NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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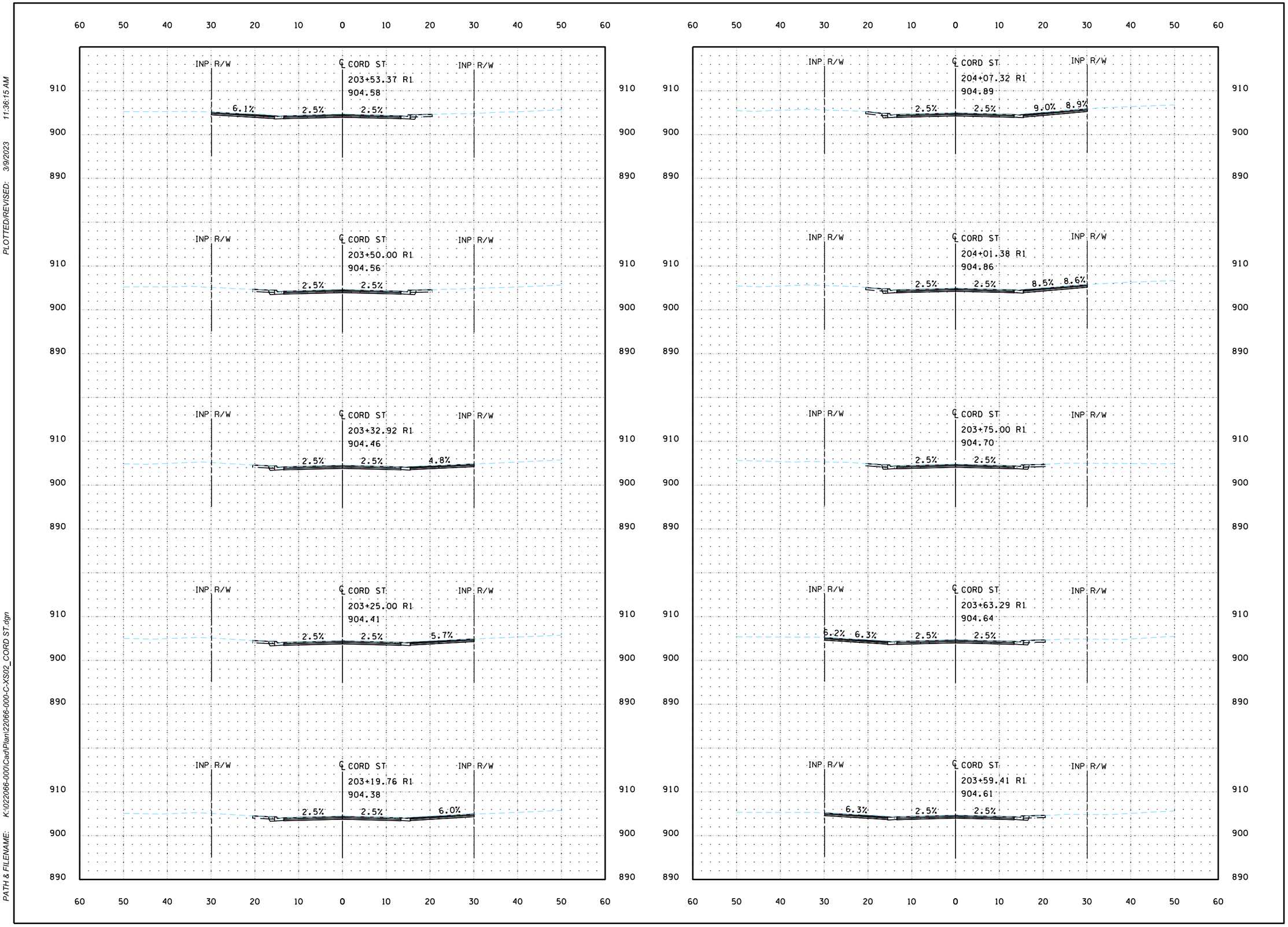

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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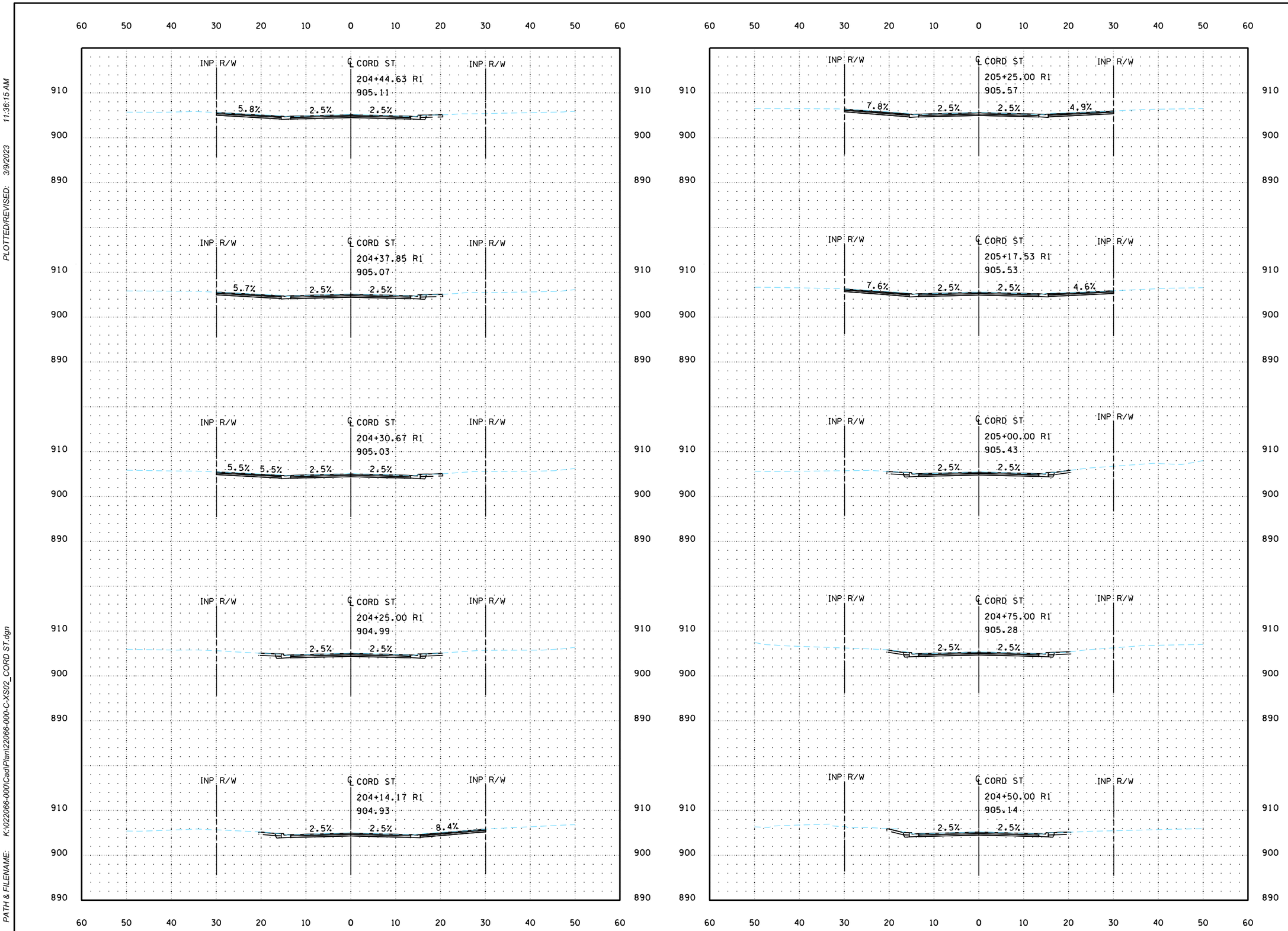

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WSB PROJECT NO.:
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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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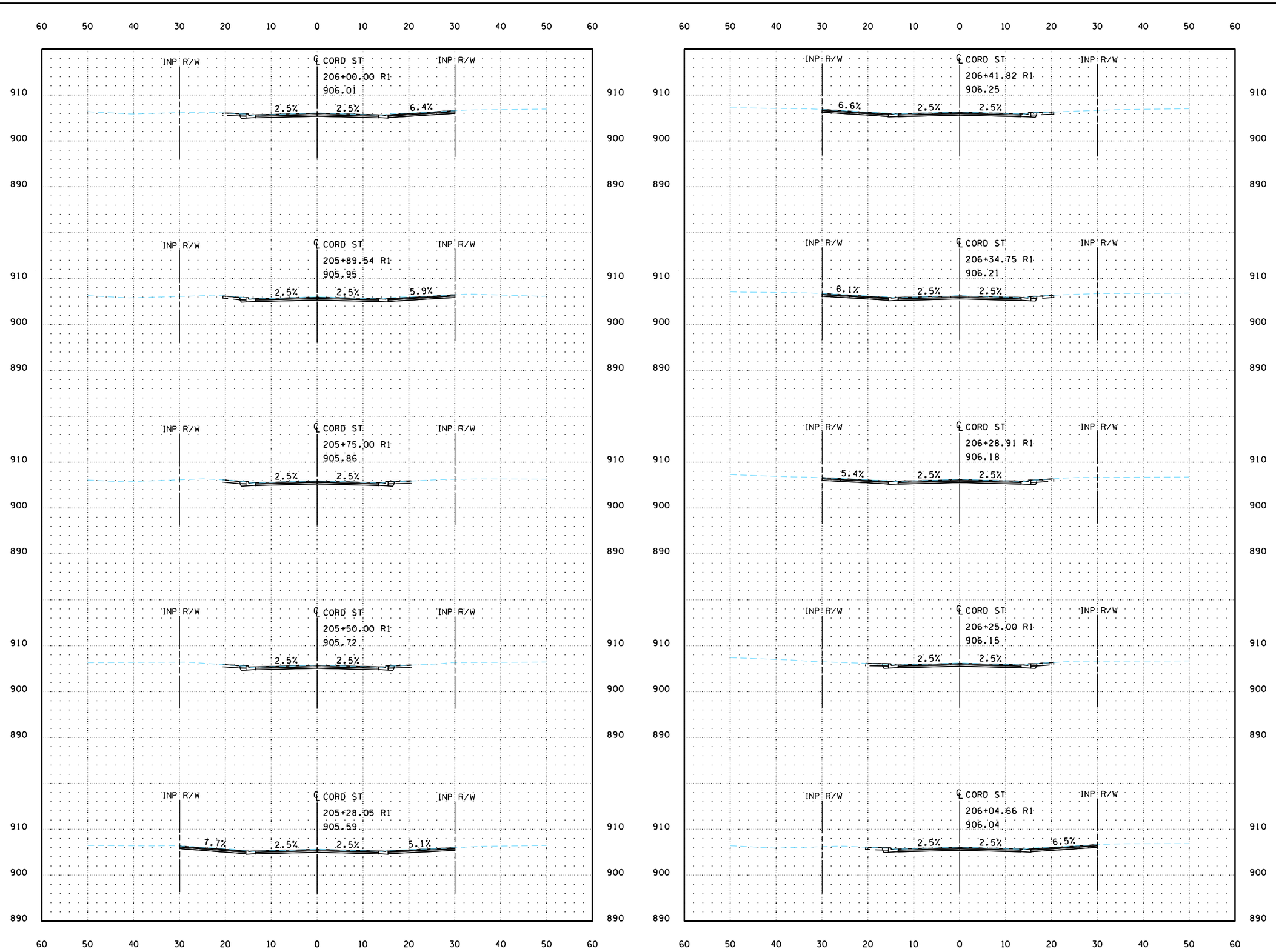

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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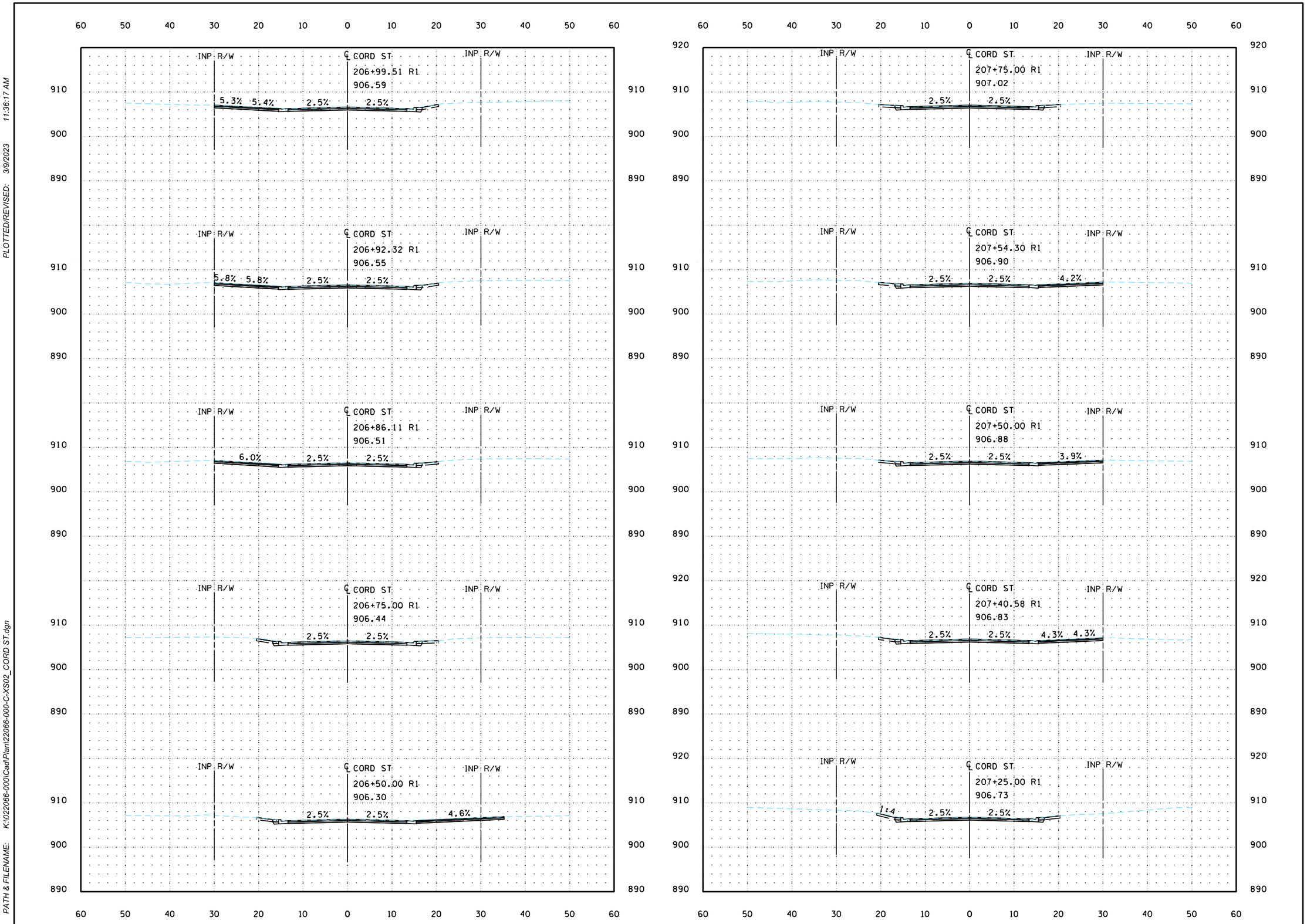

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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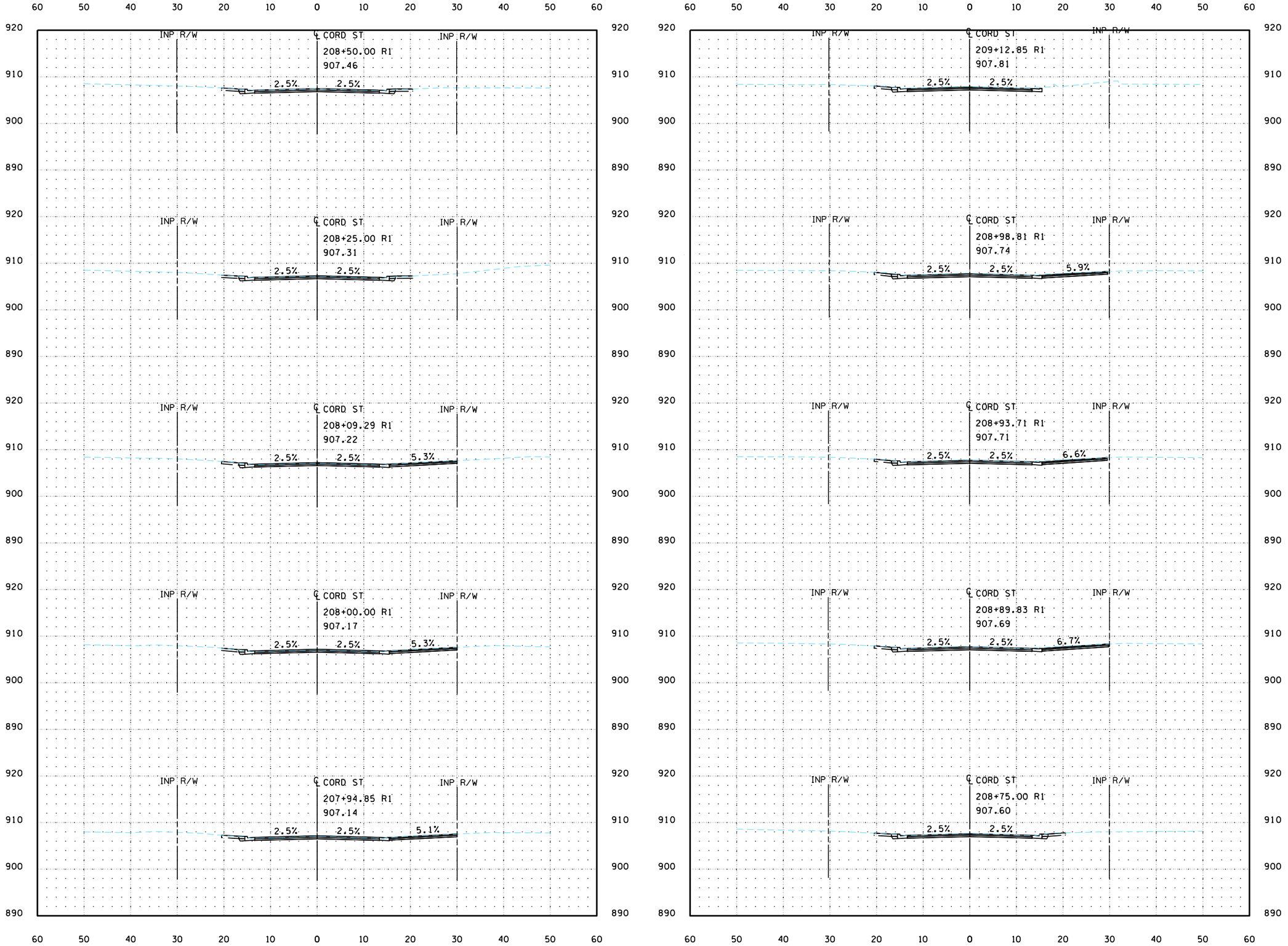

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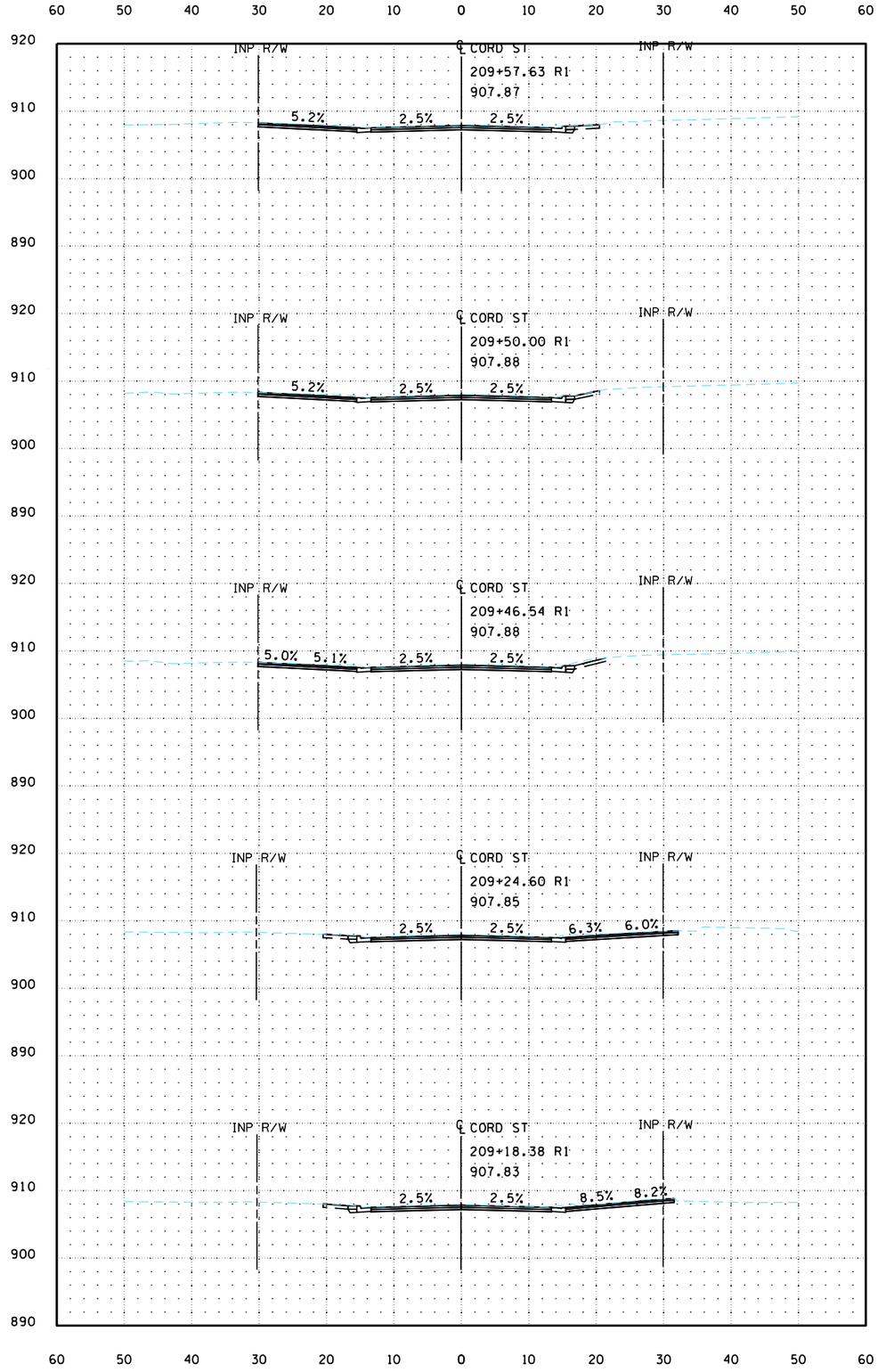
CITY OF BLAINE, MN

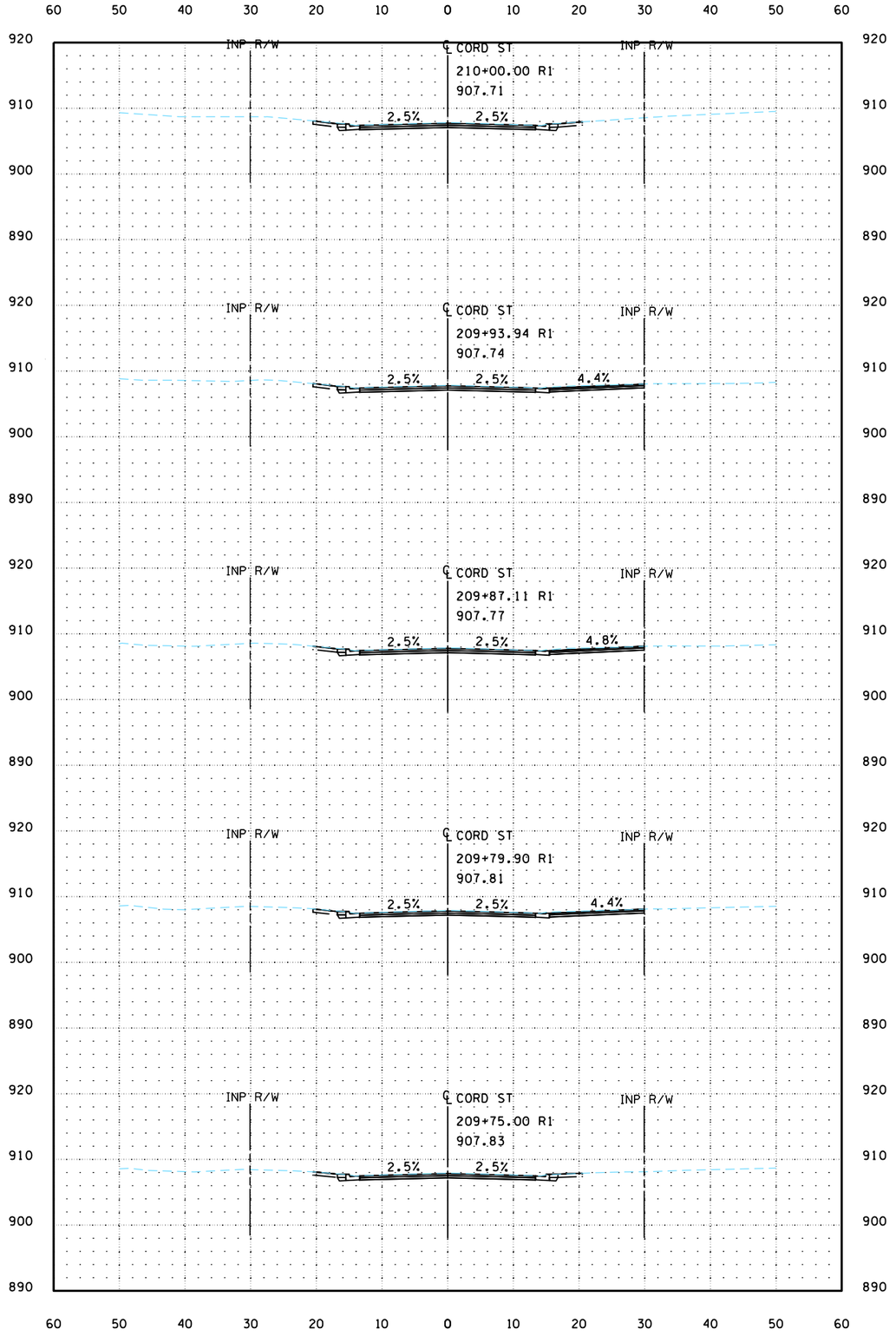
SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X26** OF **X63** SHEETS





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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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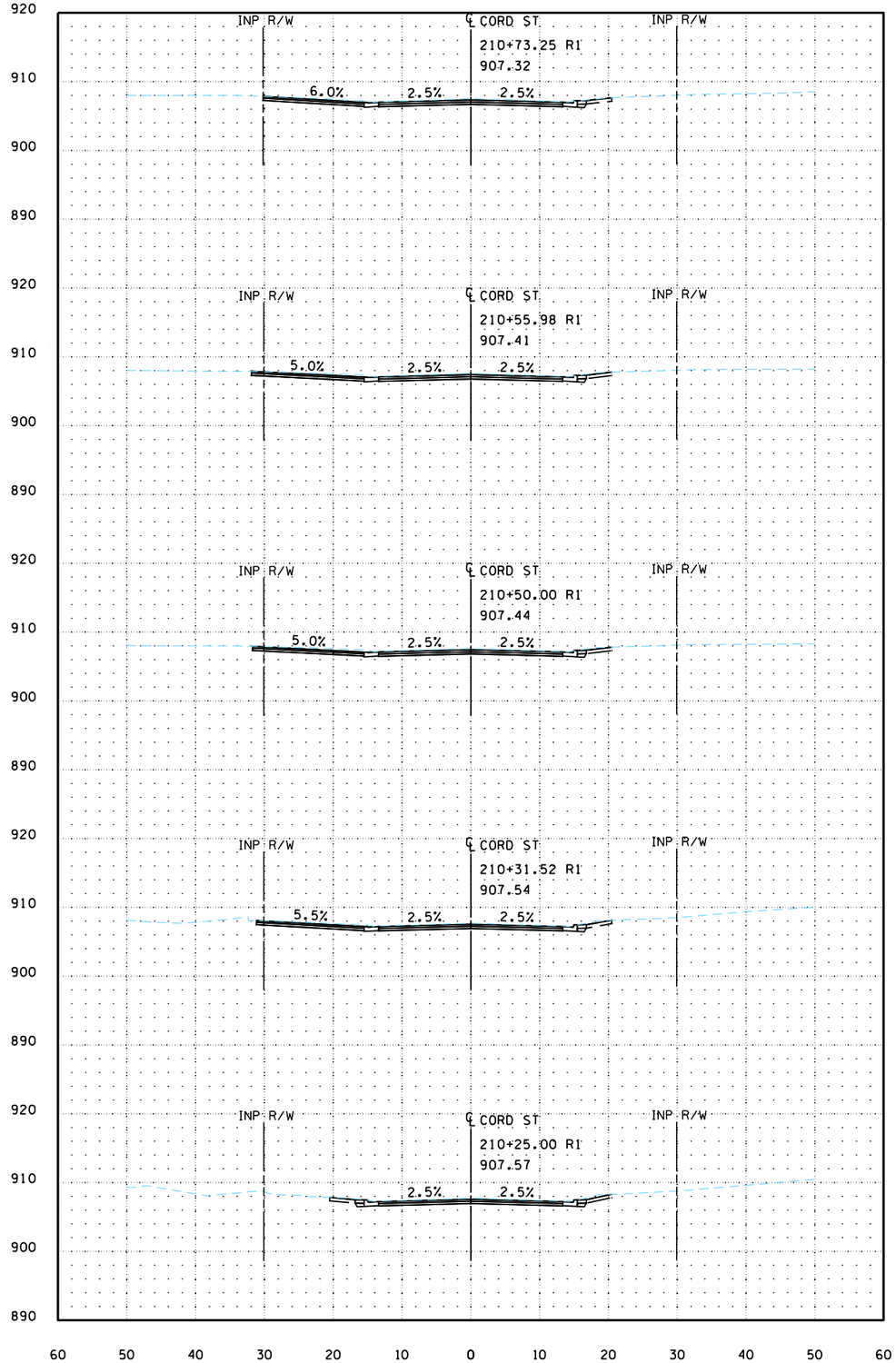

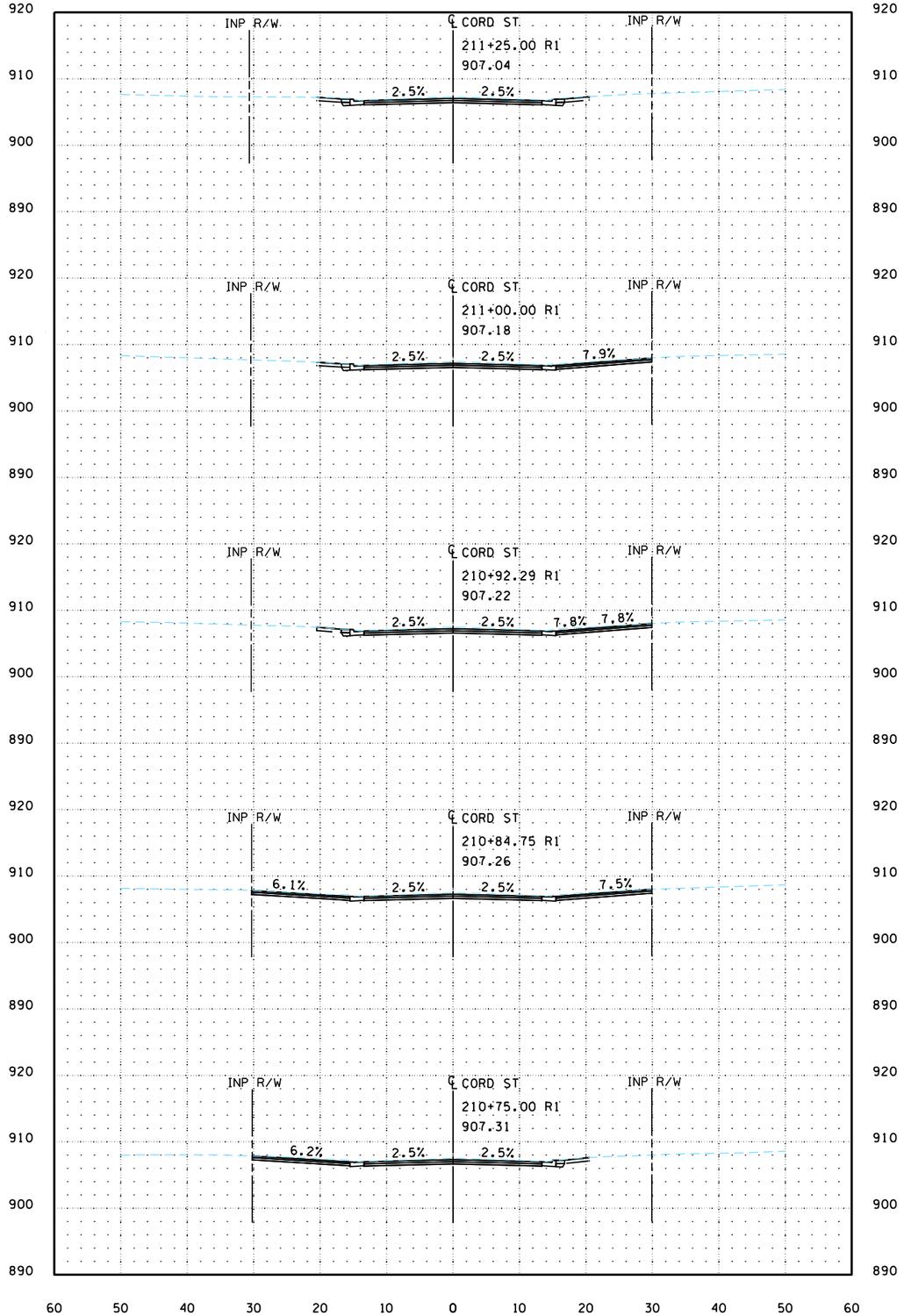

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NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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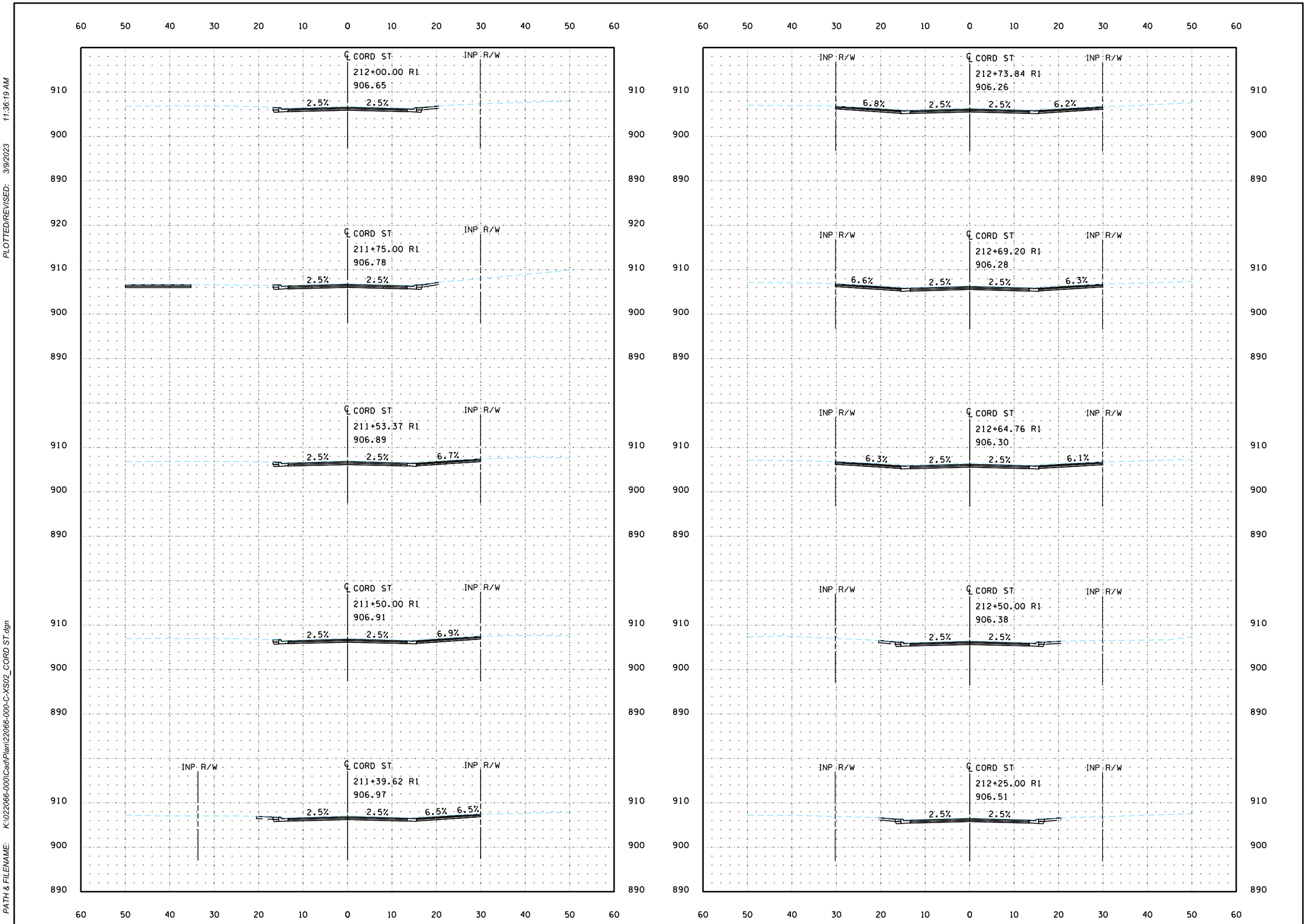

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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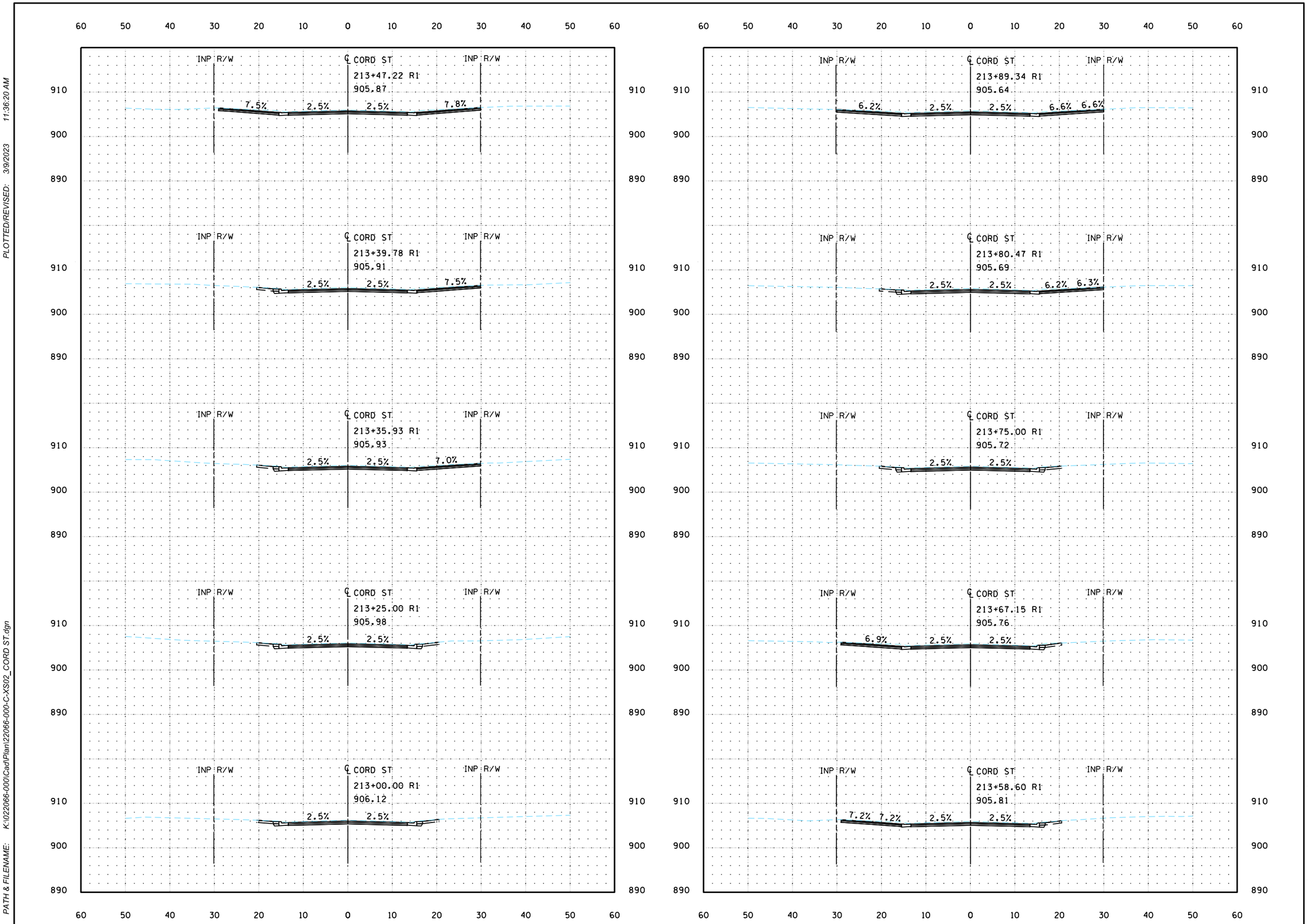

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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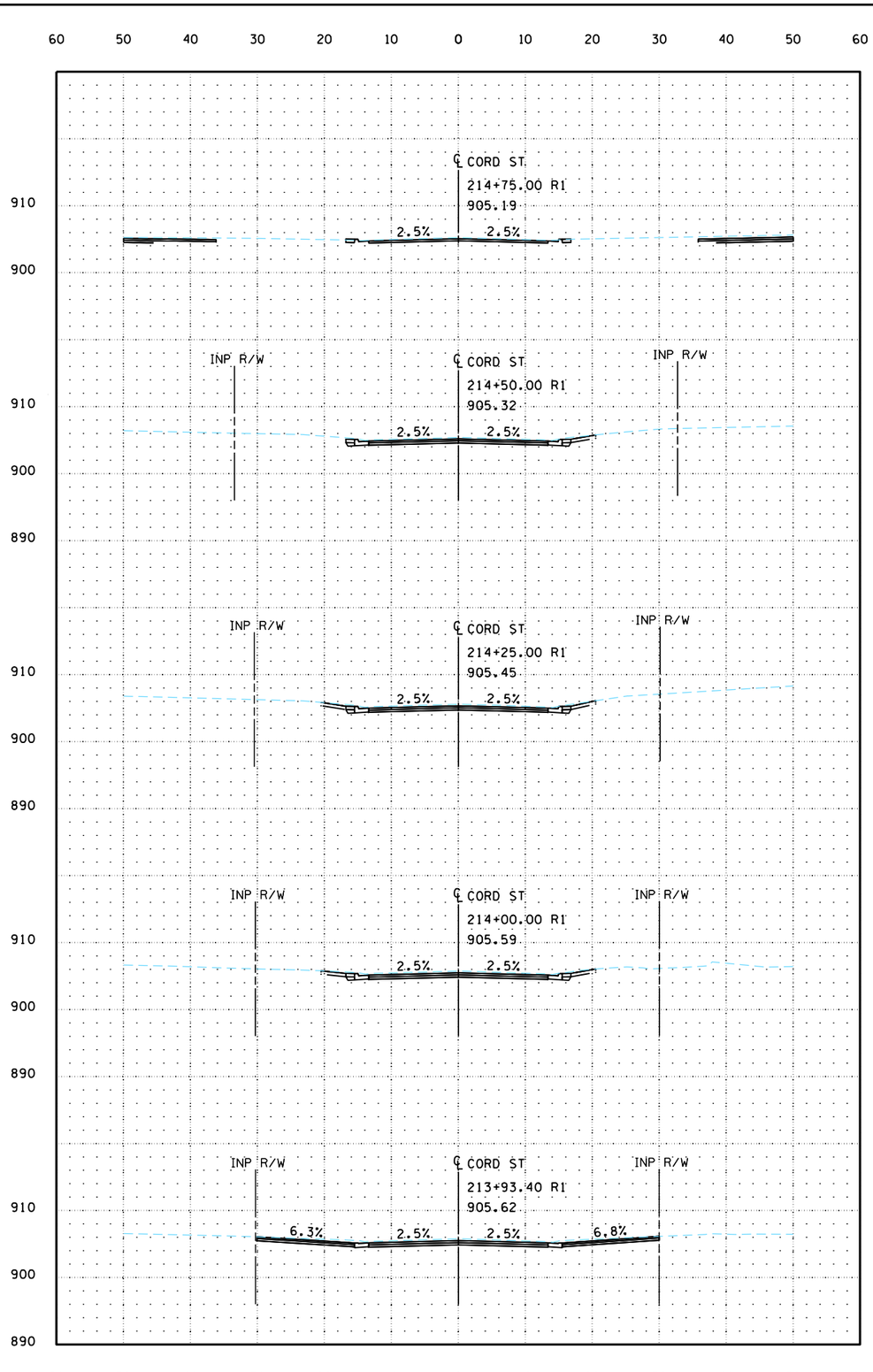

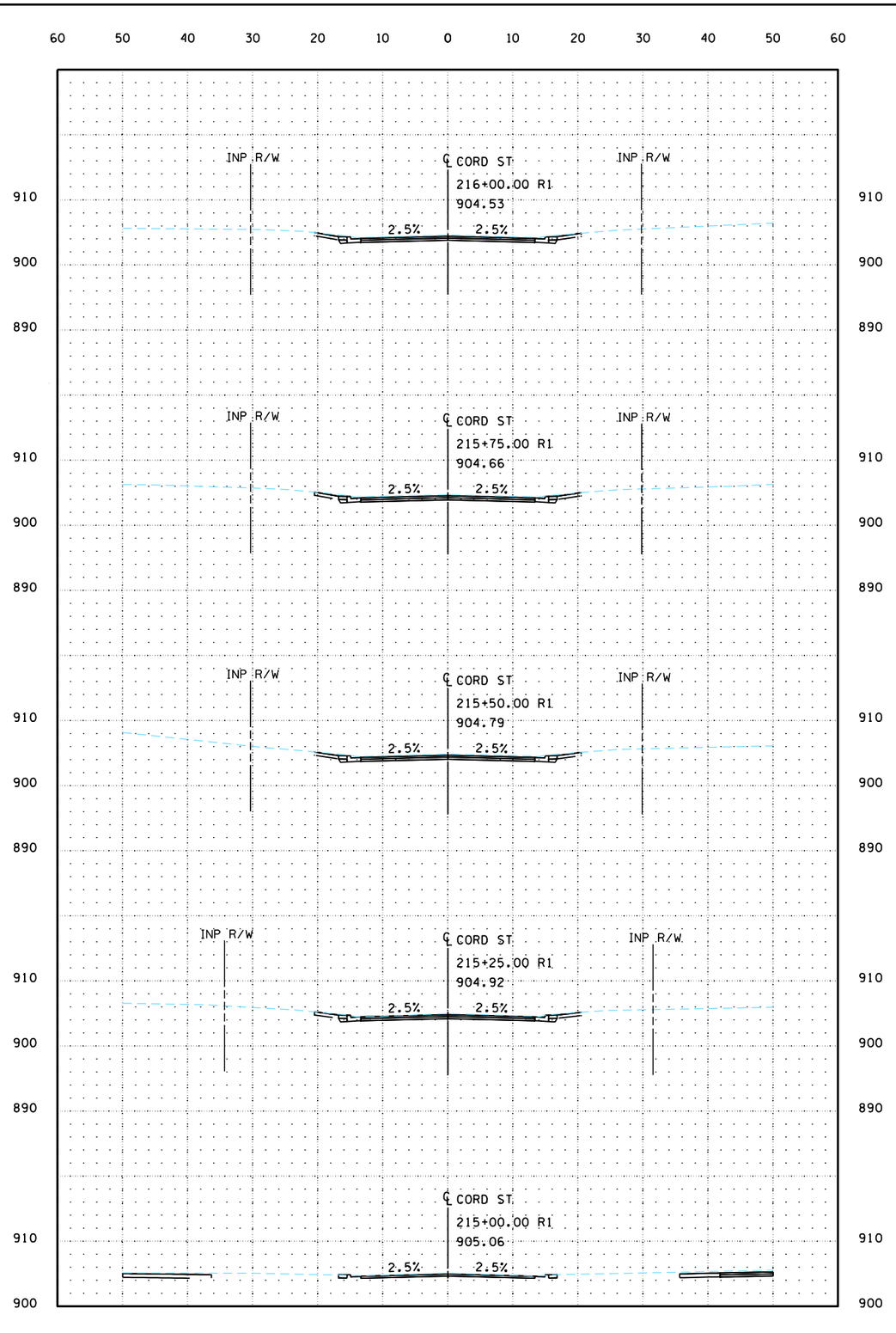

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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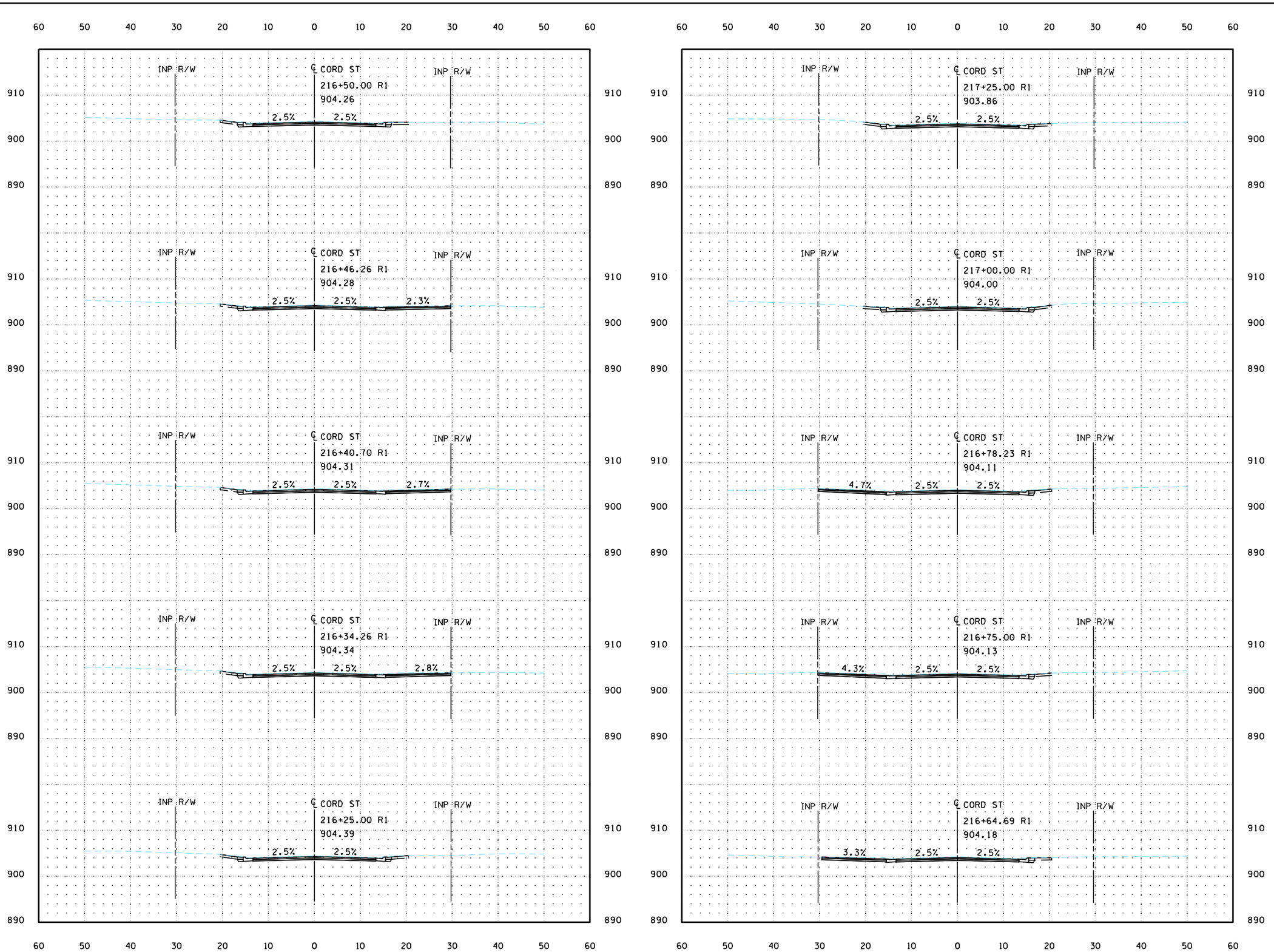

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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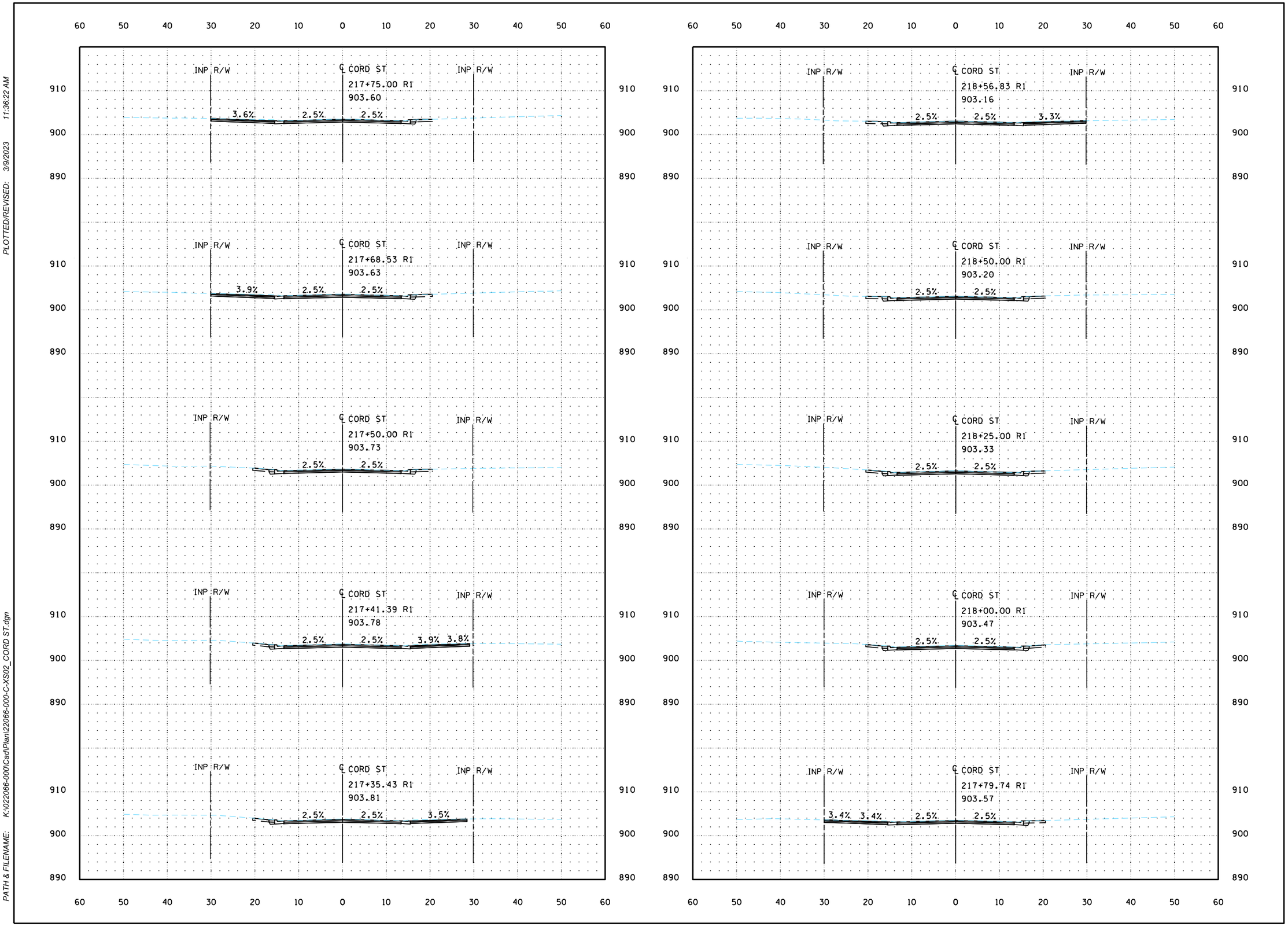

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REVISIONS

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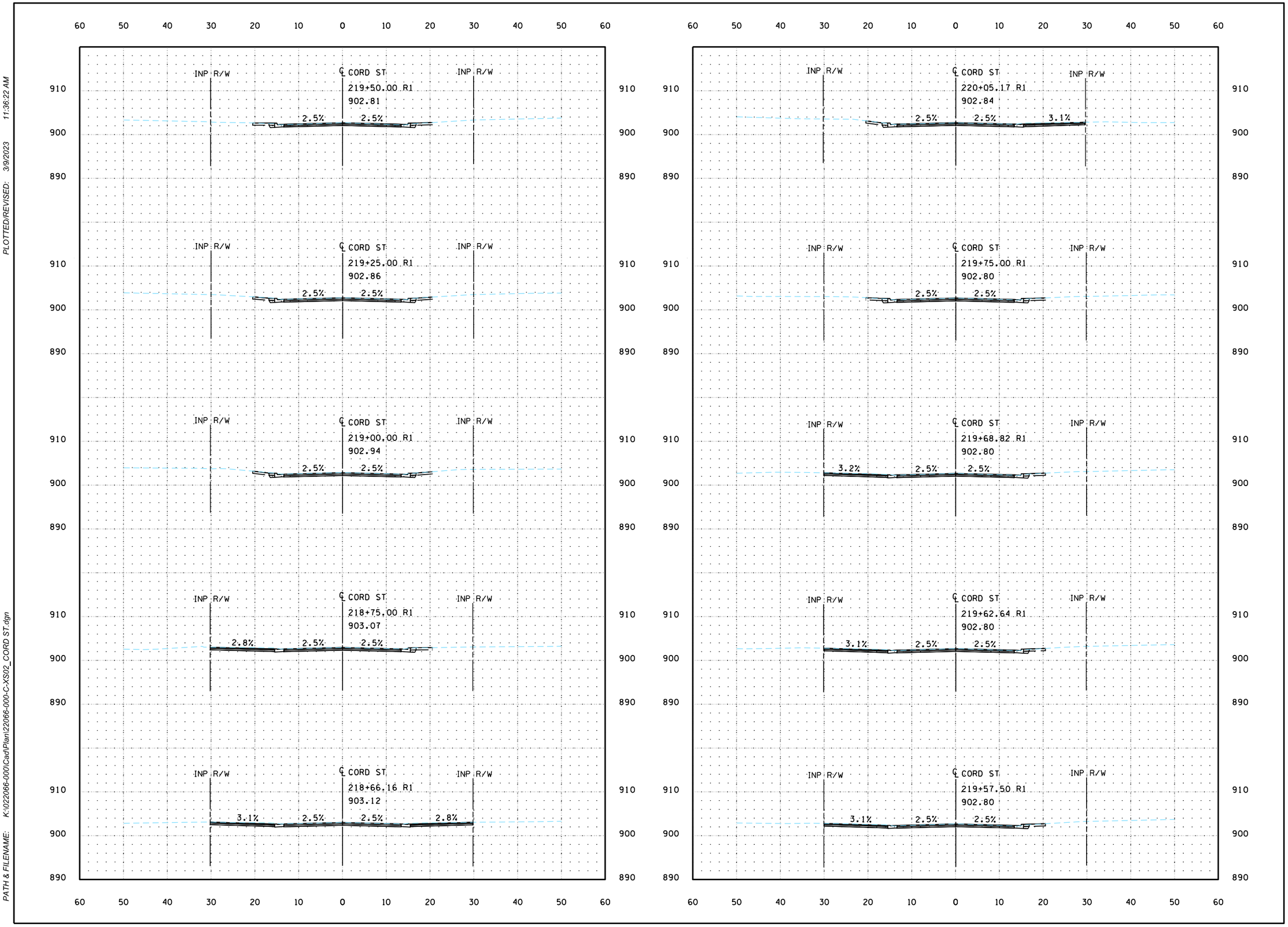
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X33** OF **X63** SHEETS



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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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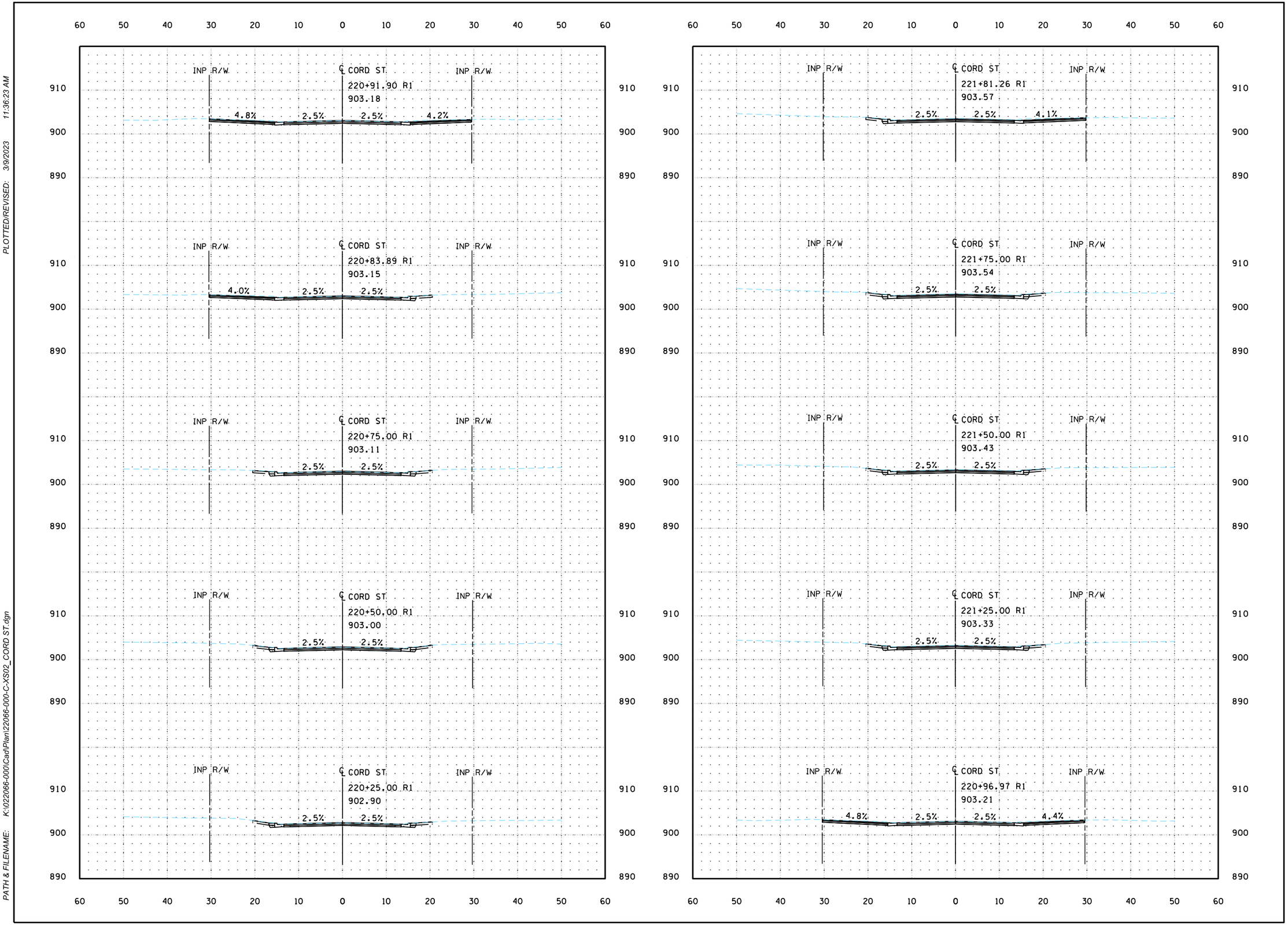

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SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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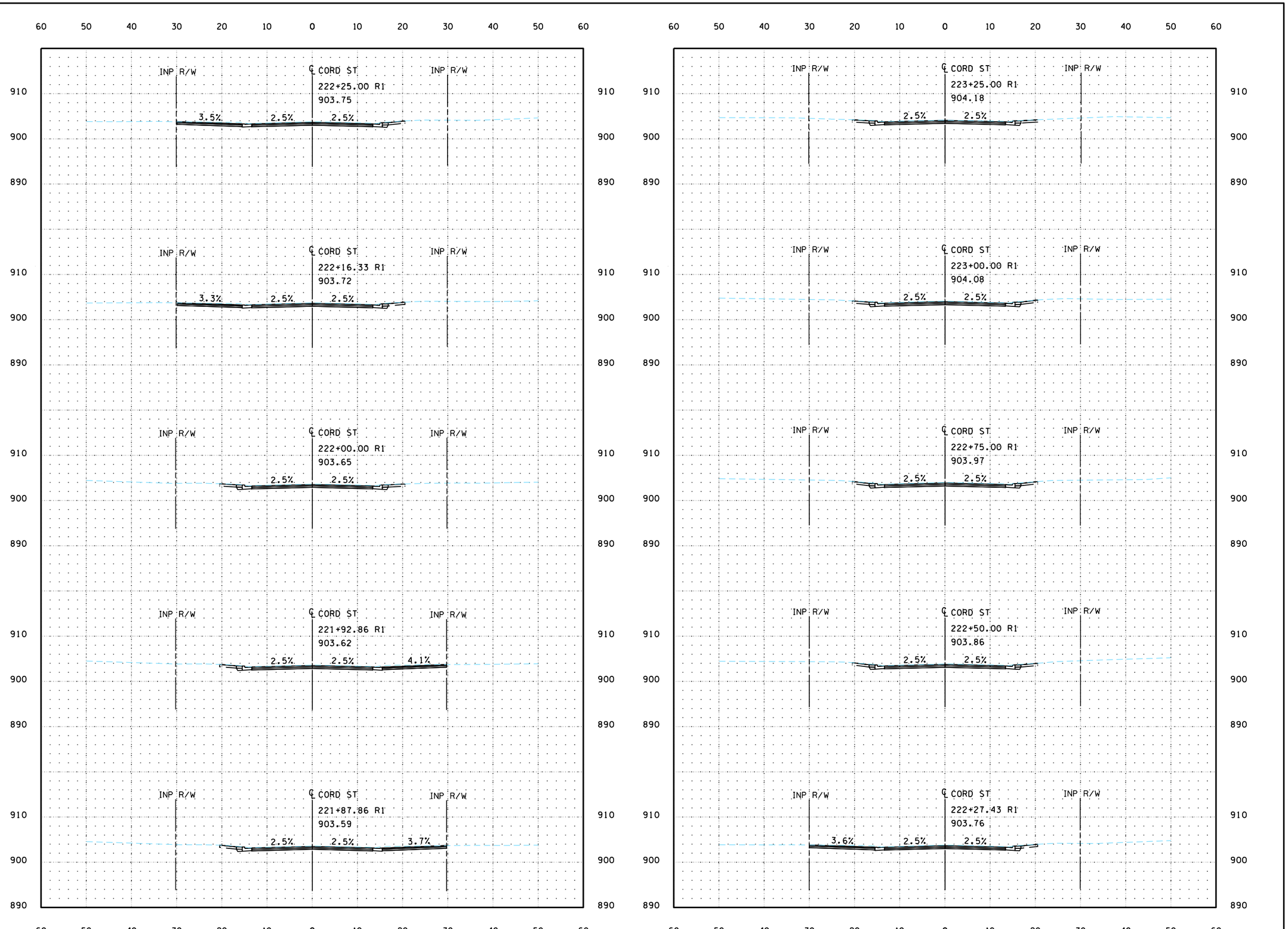

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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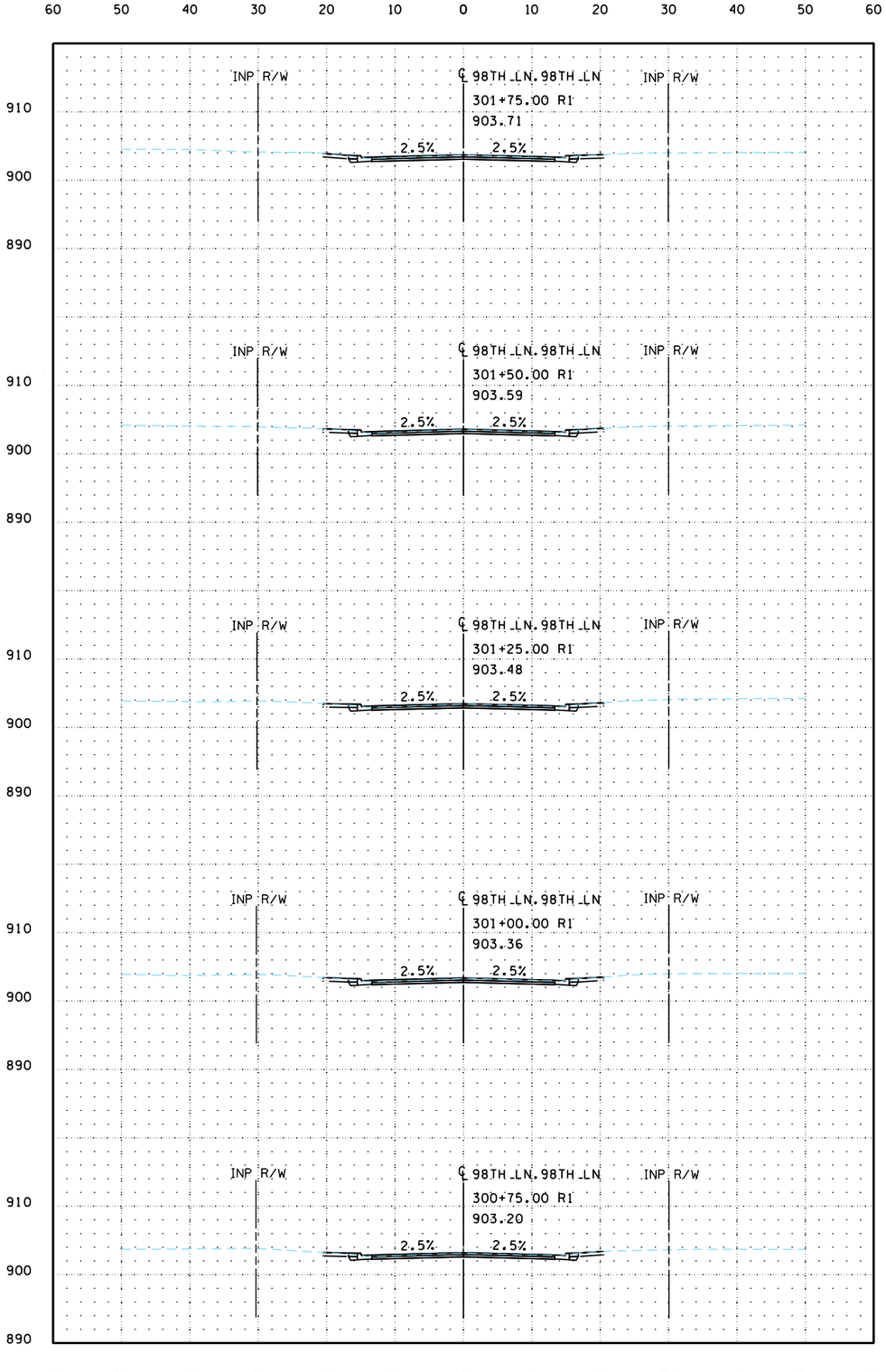

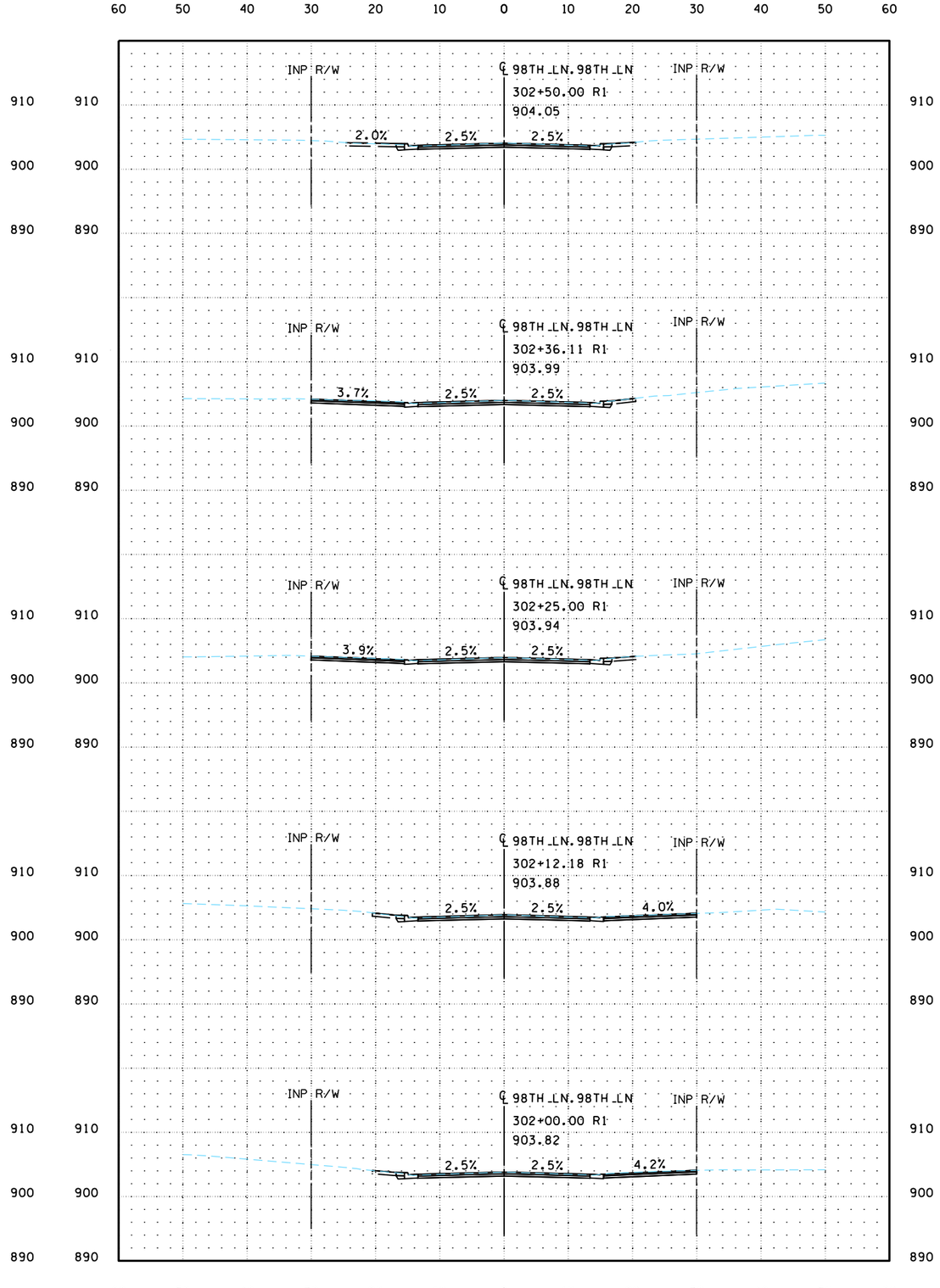

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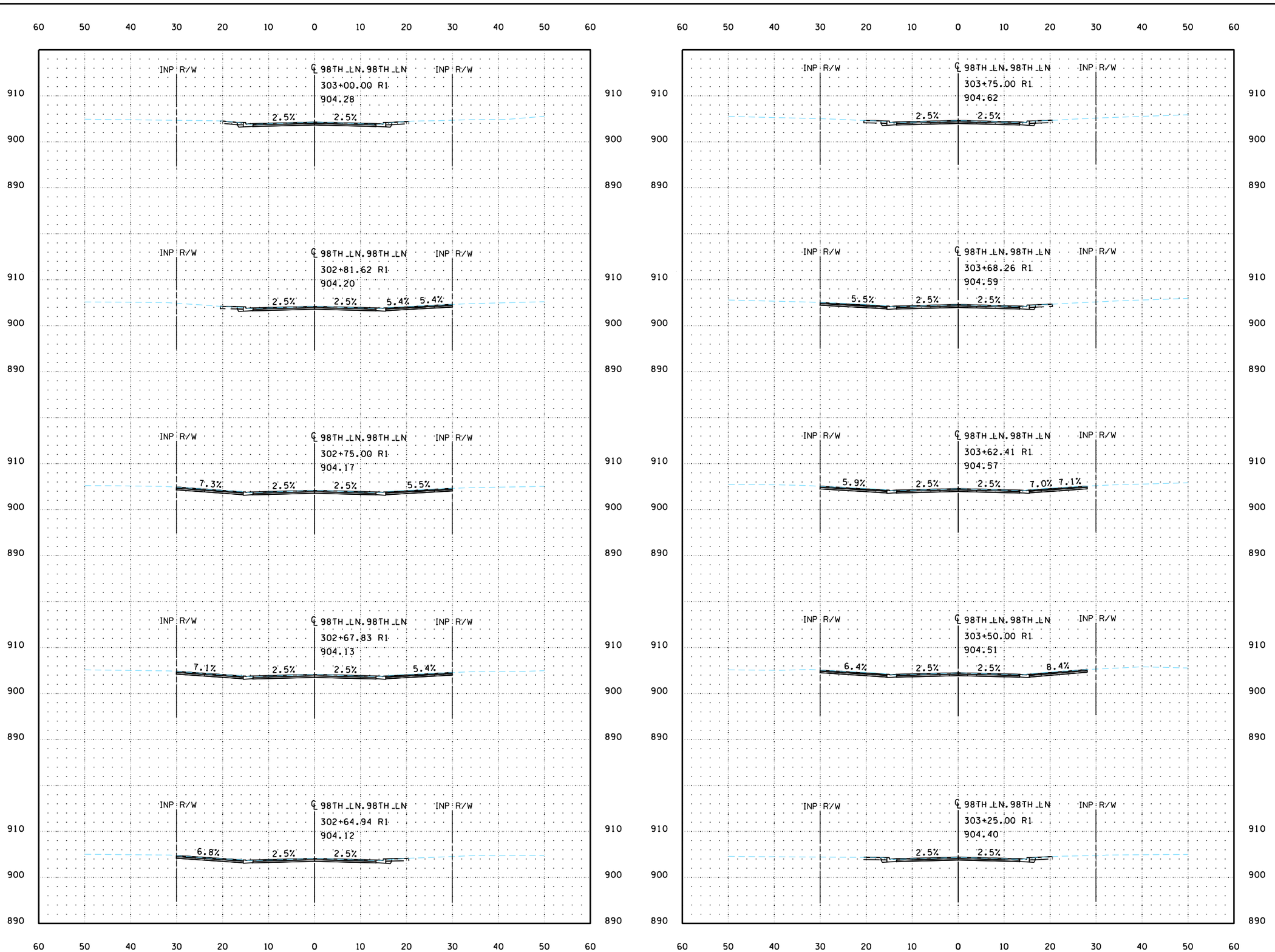
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X37** OF **X63** SHEETS



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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

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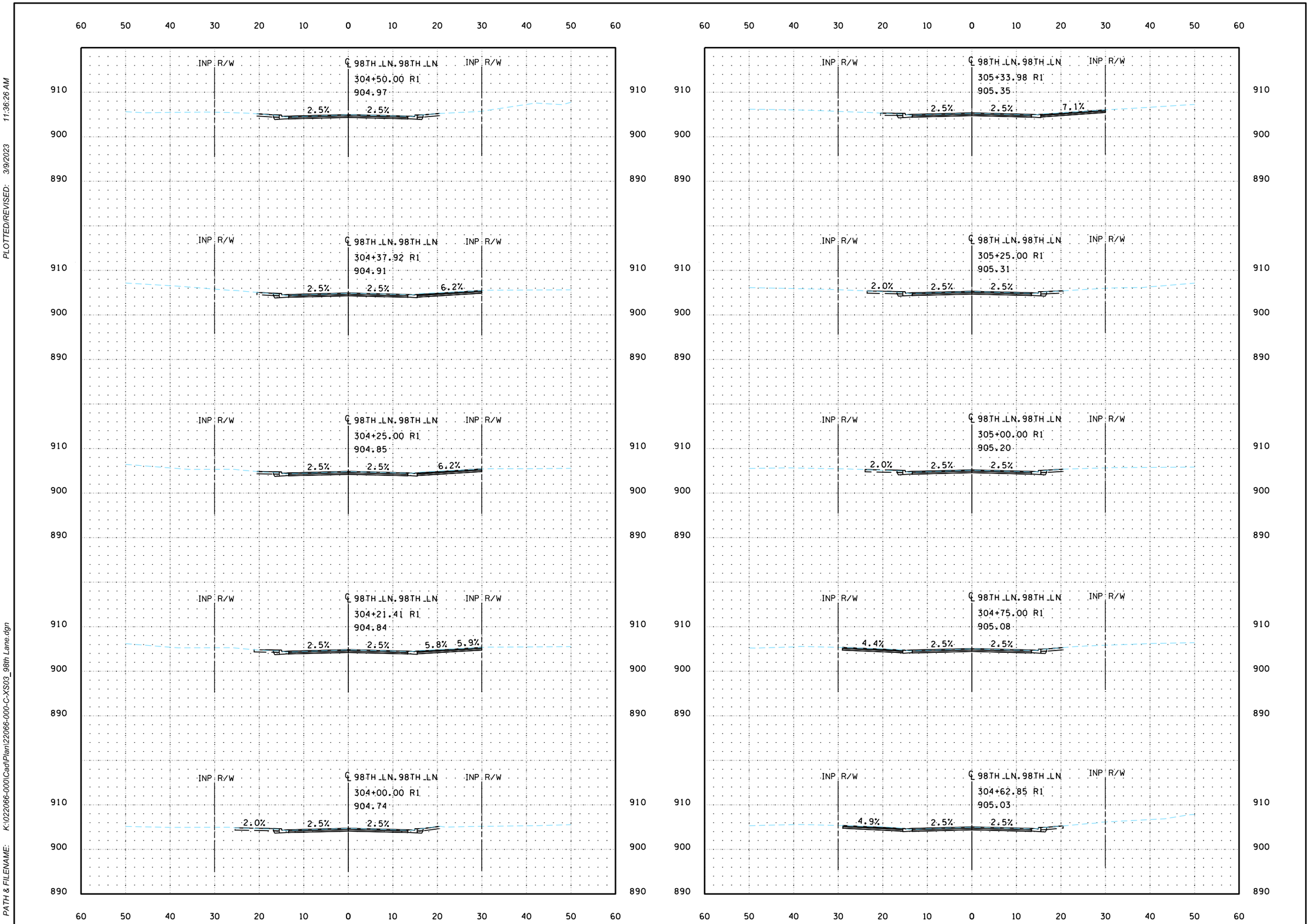
SHEET **X38** OF **X63** SHEETS



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WSB PROJECT NO.: 022066-000

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NO.	DATE	DESCRIPTION

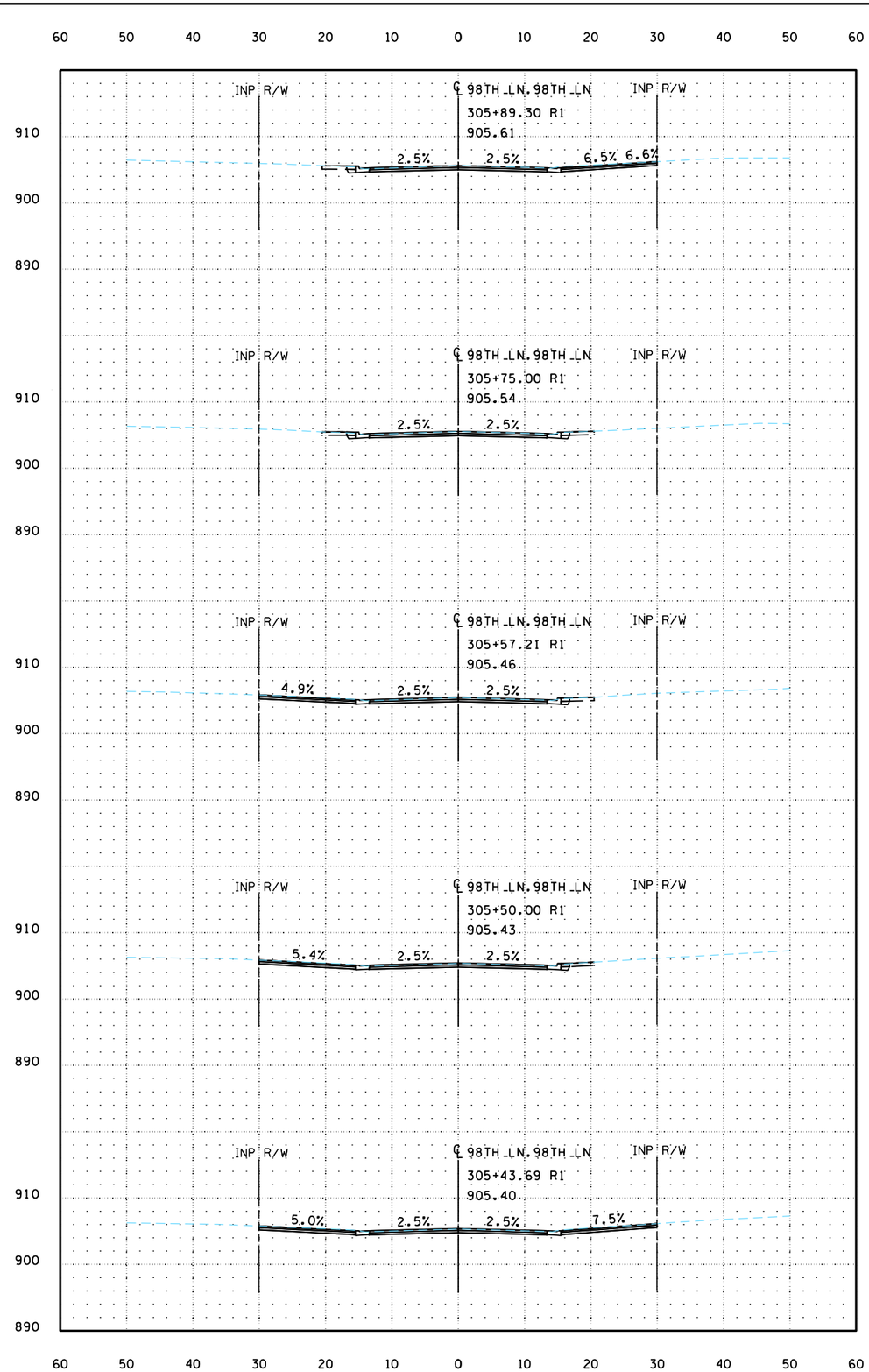
CITY OF BLAINE, MN

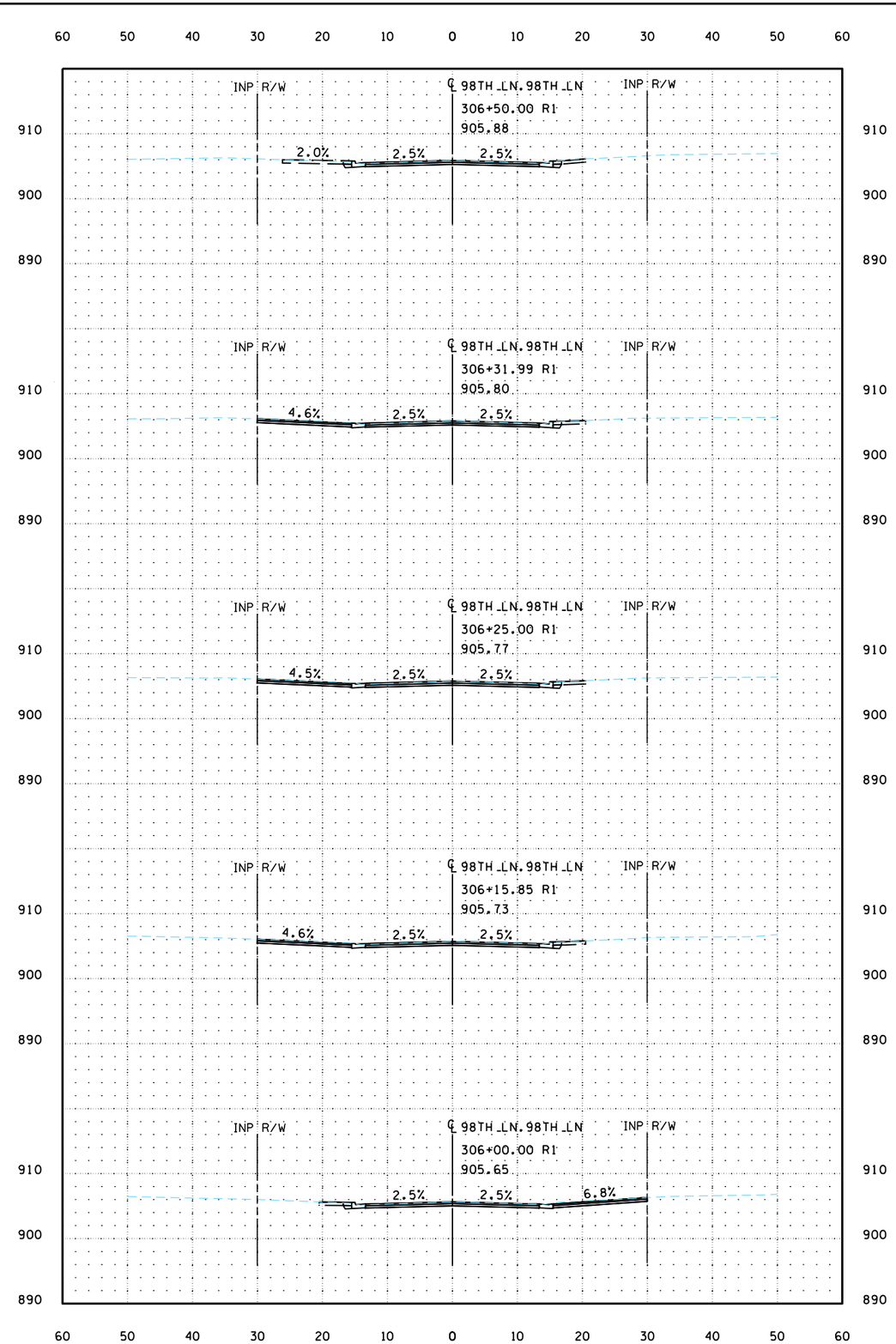
SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X39** OF **X63** SHEETS





PLOTTED/REVISED: 3/9/2023 11:36:26 AM

PATH & FILENAME: K:\022066-000\Cadd\Plan\22066-000-C-XS03_98th Lane.dgn

WSB PROJECT NO.: 022066-000

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NO.	DATE	DESCRIPTION

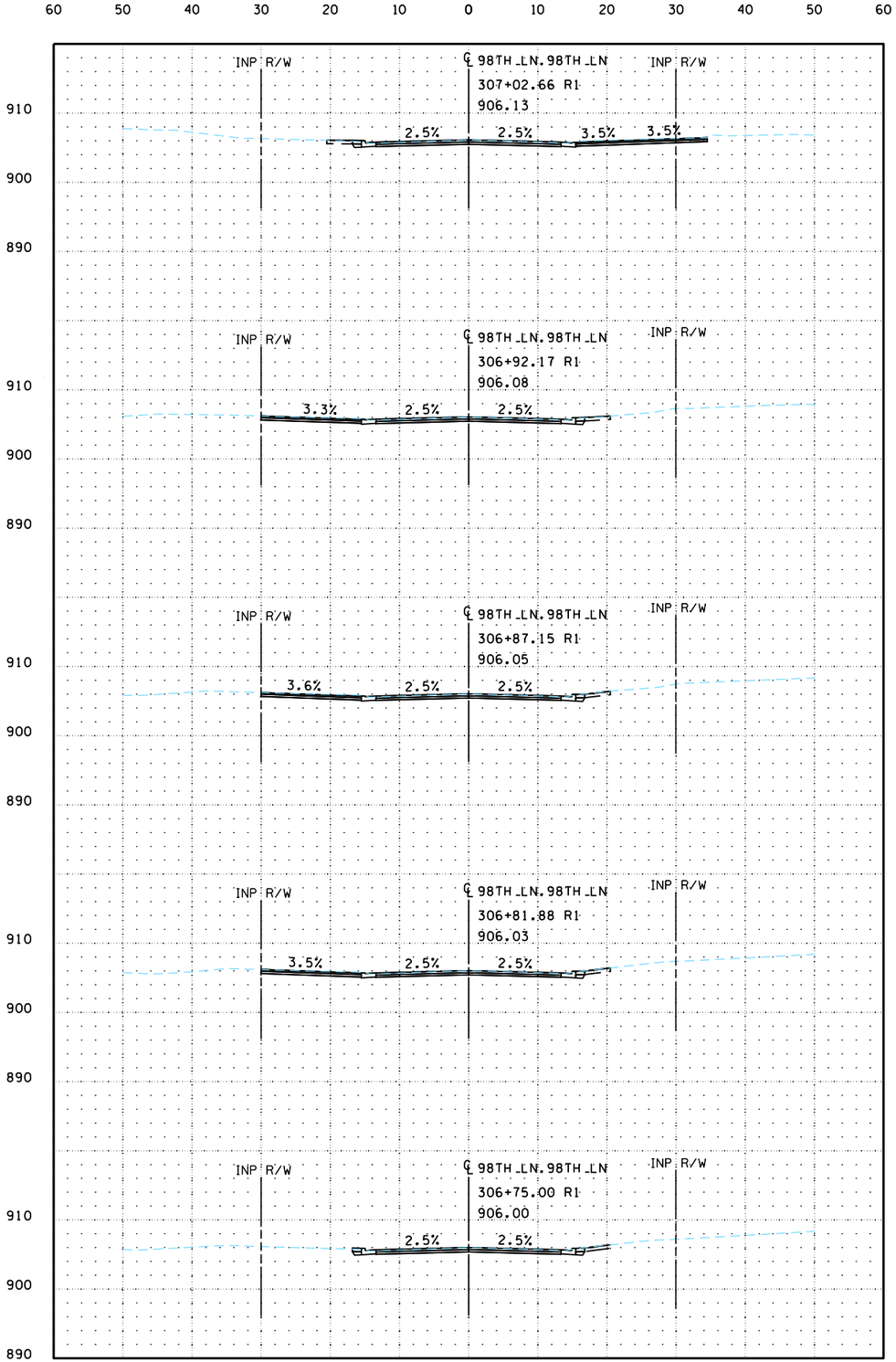
CITY OF BLAINE, MN

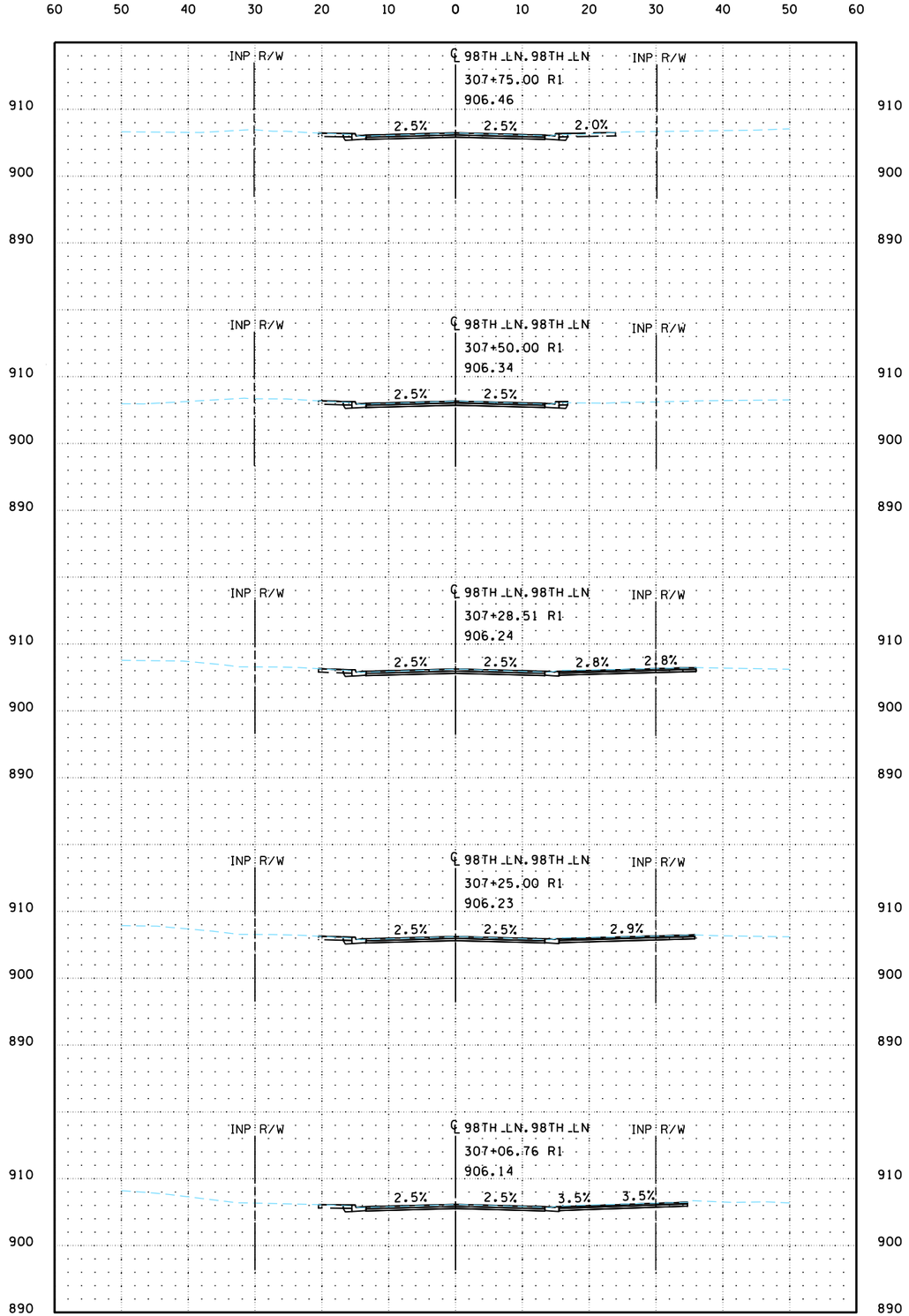
SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X40** OF **X63** SHEETS





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WSB PROJECT NO.:
022066-000

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REVISIONS

NO.	DATE	DESCRIPTION

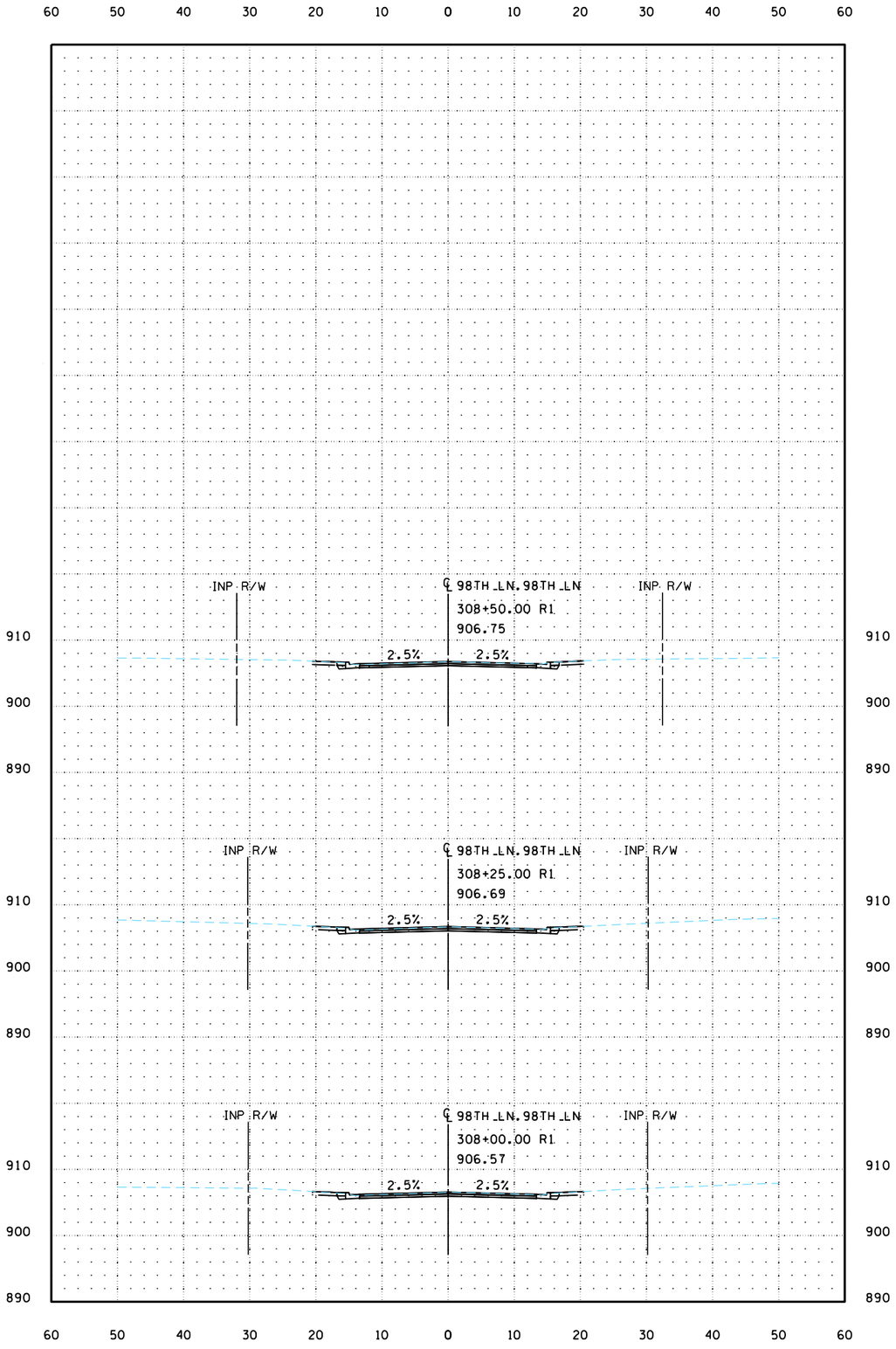
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X41** OF **X63** SHEETS



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wsb

WSB PROJECT NO.:
022066-000

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REVISIONS

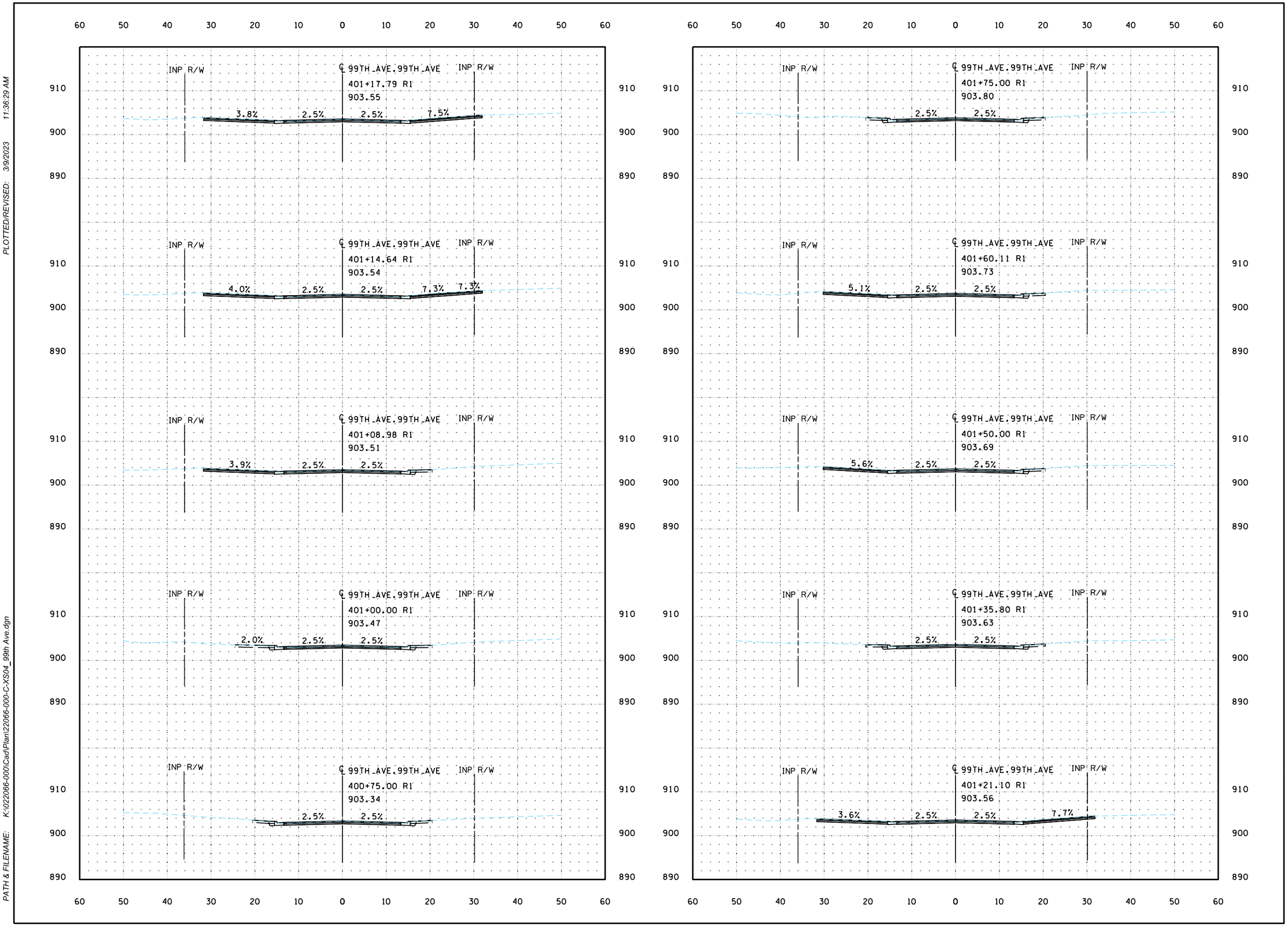
NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN
SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X42** OF **X63** SHEETS



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PATH & FILENAME: K:\022066-000\Cad\Plan\22066-000-C-XS04_99th Ave.dgn

WSB PROJECT NO.: 022066-000

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REVISIONS

NO.	DATE	DESCRIPTION

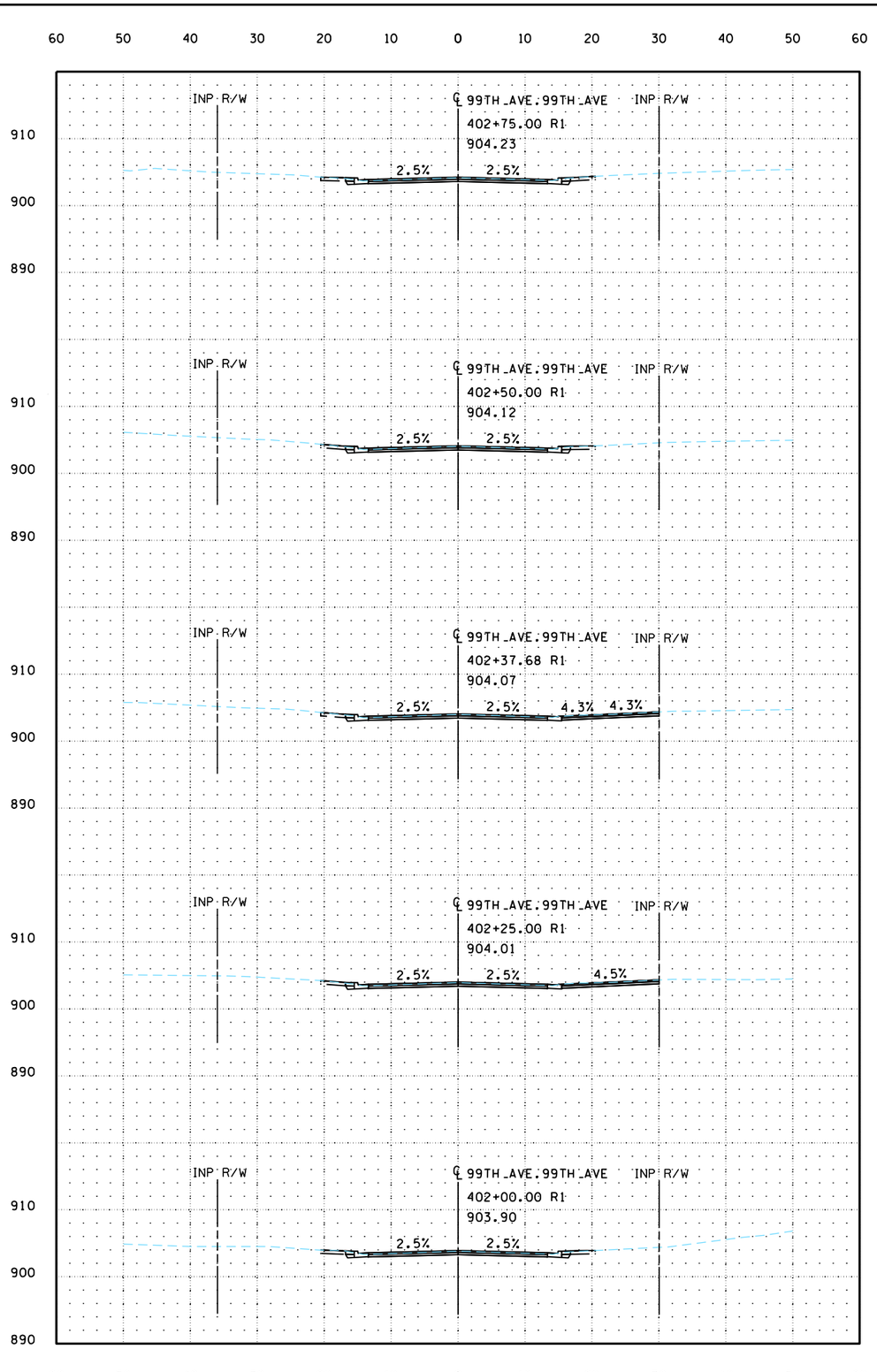
CITY OF BLAINE, MN

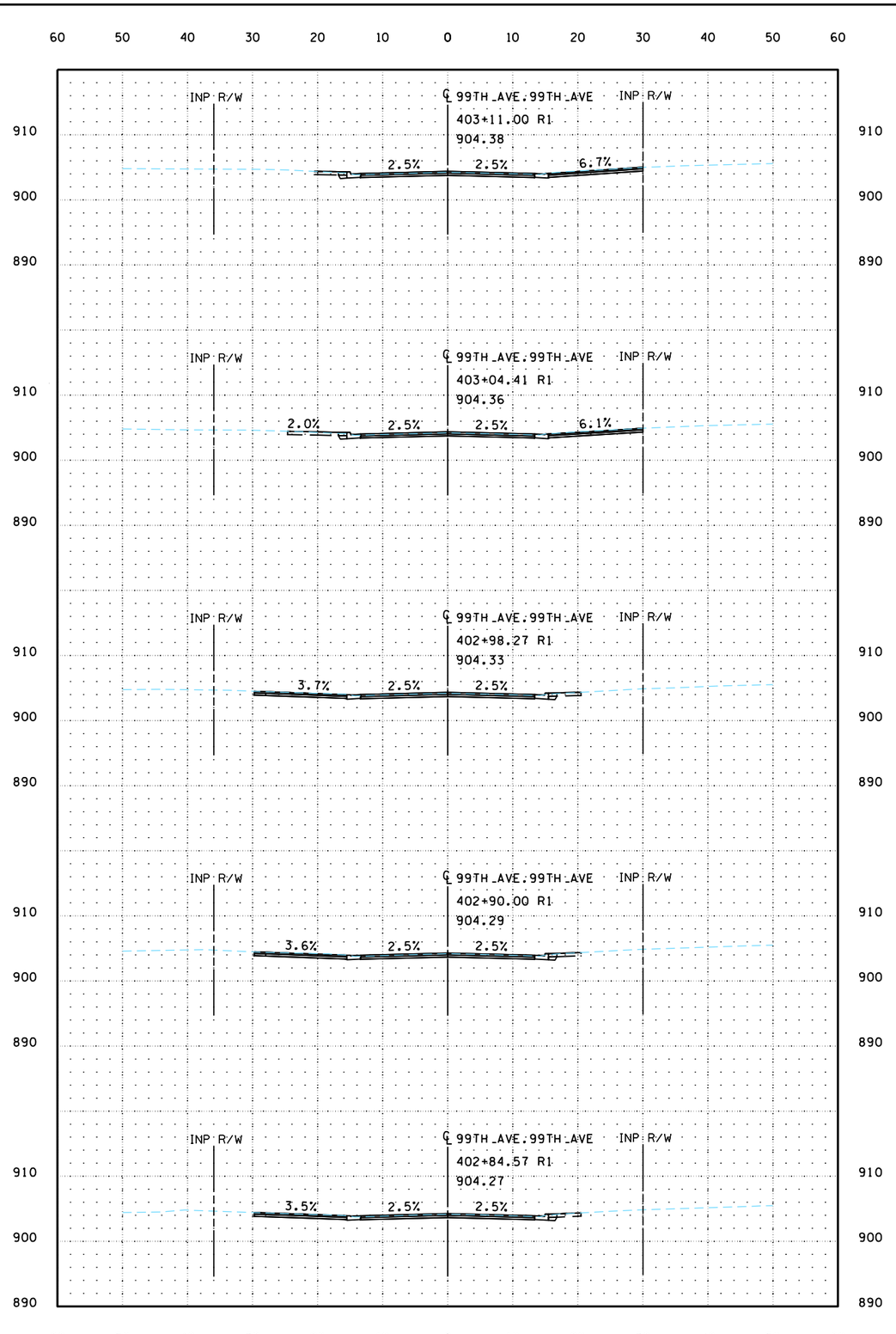
SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X43** OF **X63** SHEETS





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WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN

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PLAN BY:

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REVISIONS

NO.	DATE	DESCRIPTION

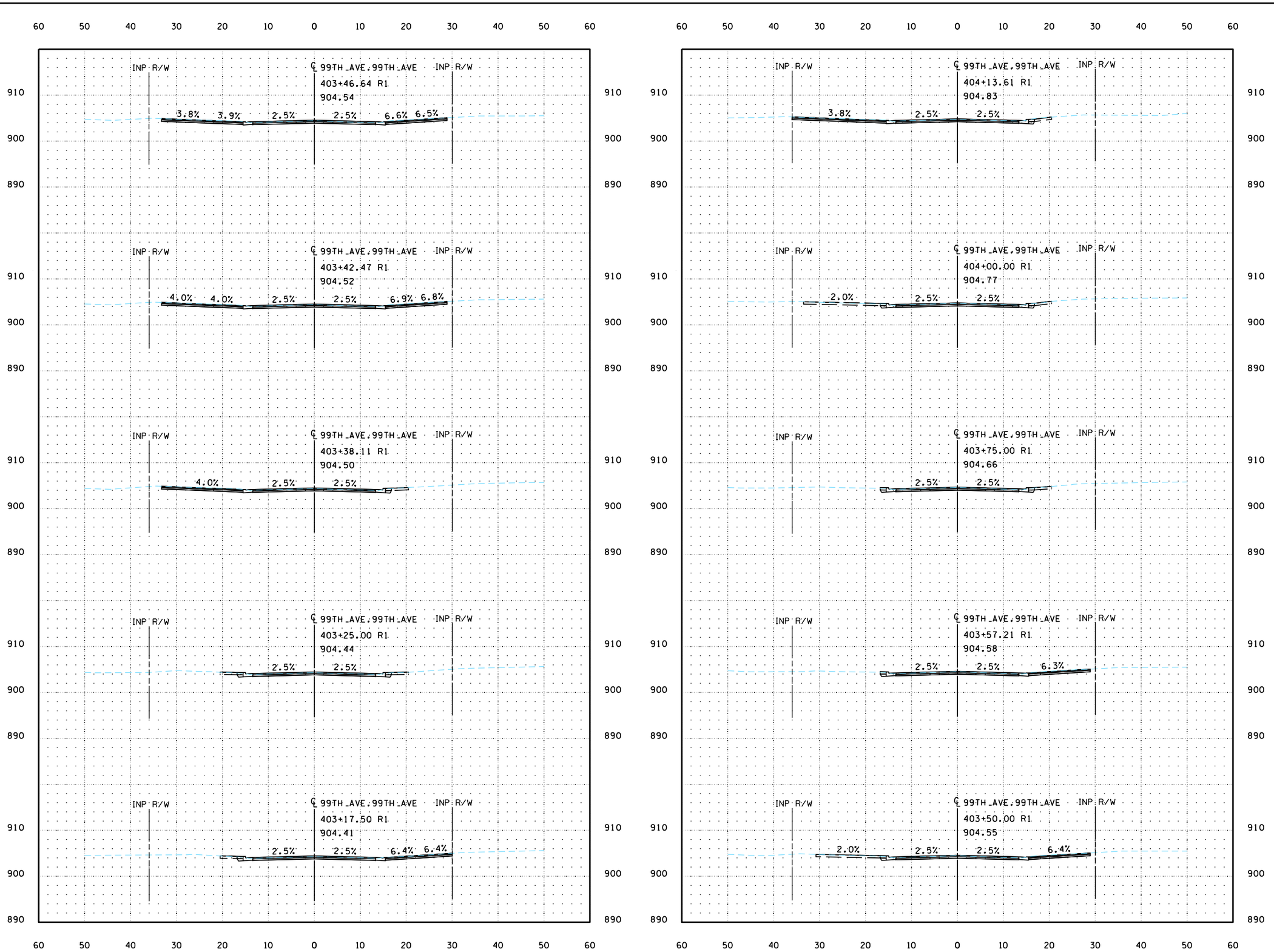
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X44** OF **X63** SHEETS



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WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN

DESIGN BY:

PLAN BY:

CHECK BY:

REVISIONS

NO.	DATE	DESCRIPTION

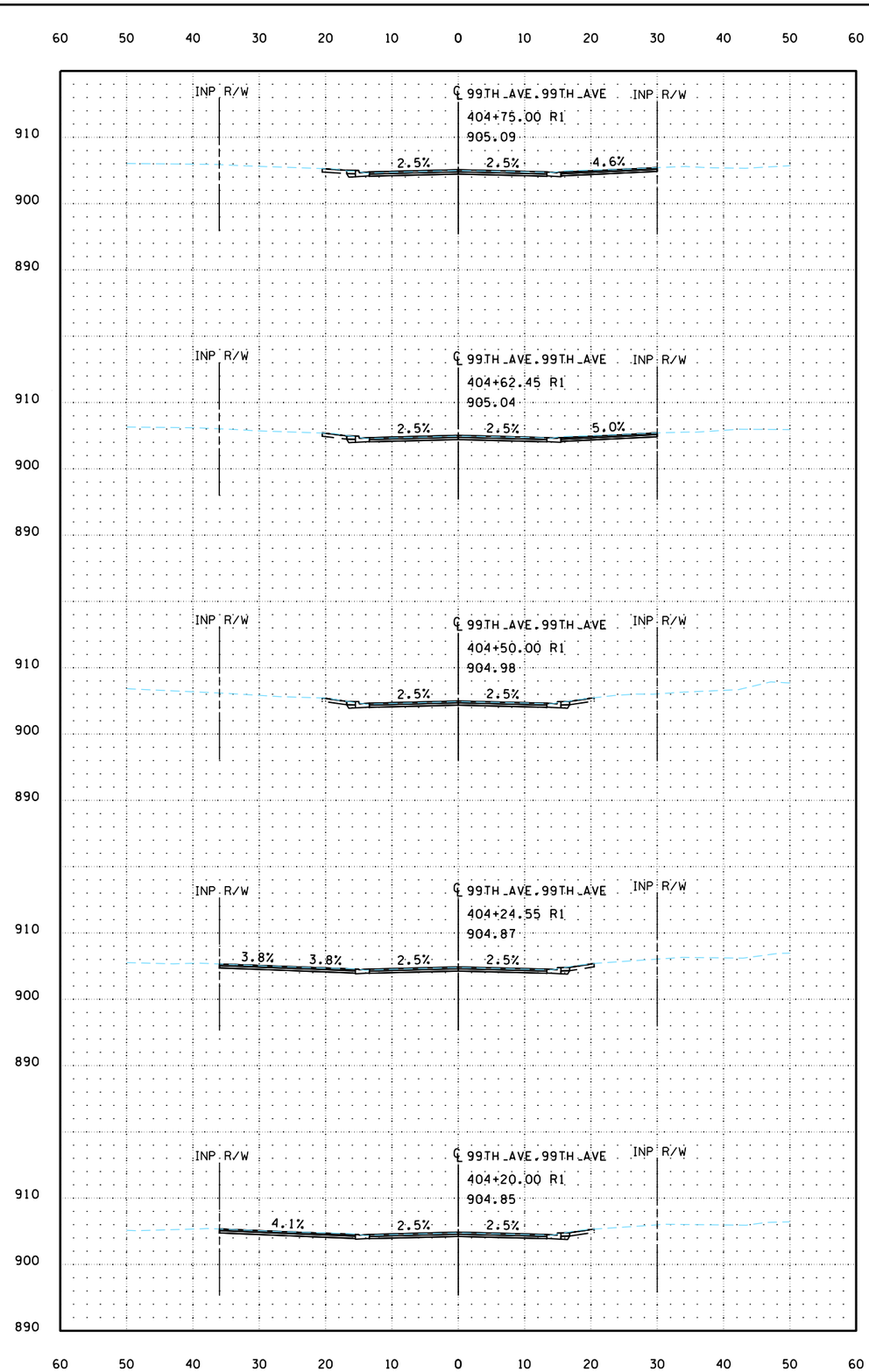
CITY OF BLAINE, MN

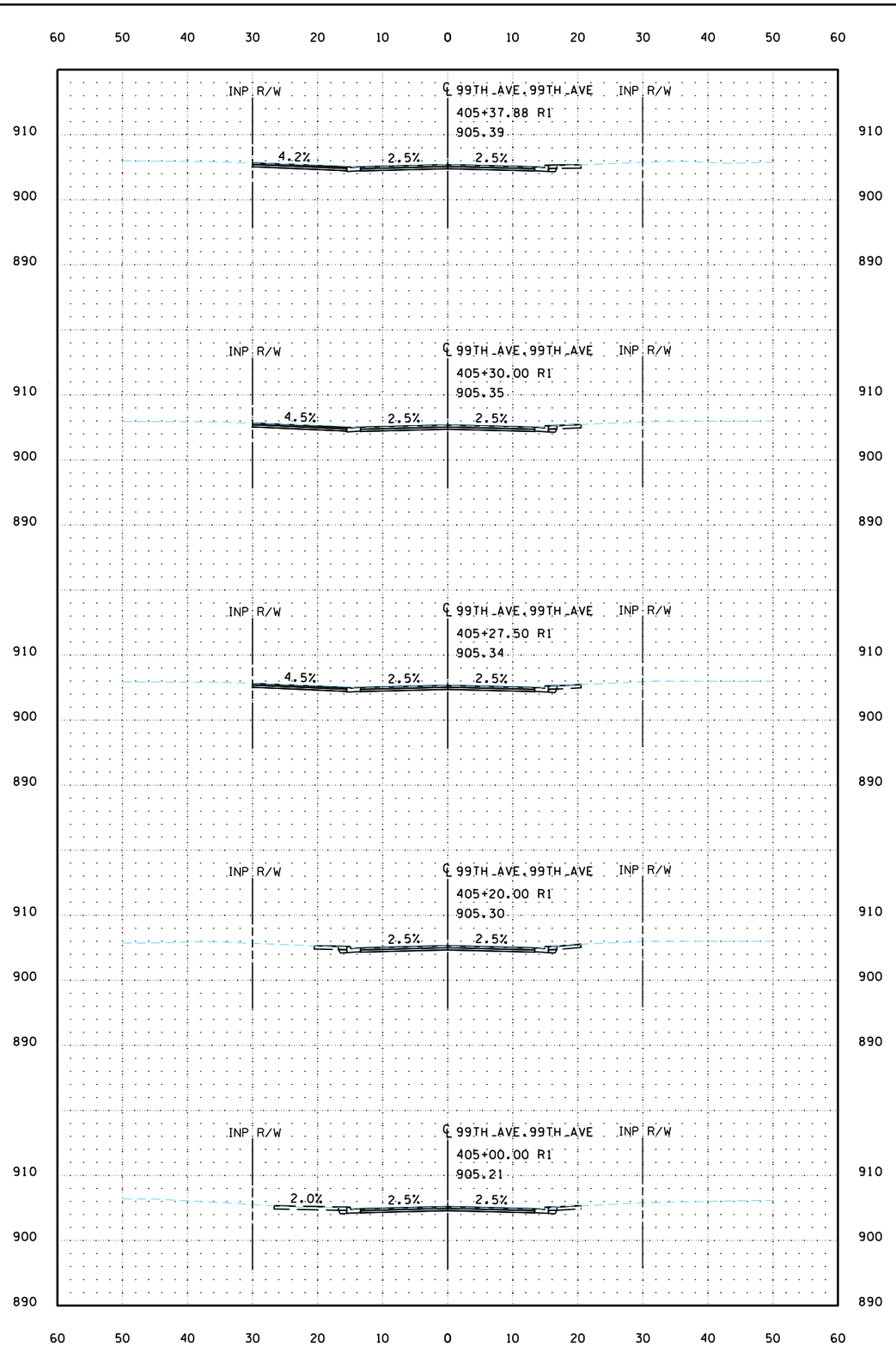
SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X45** OF **X63** SHEETS





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WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN

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PLAN BY:

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REVISIONS

NO.	DATE	DESCRIPTION

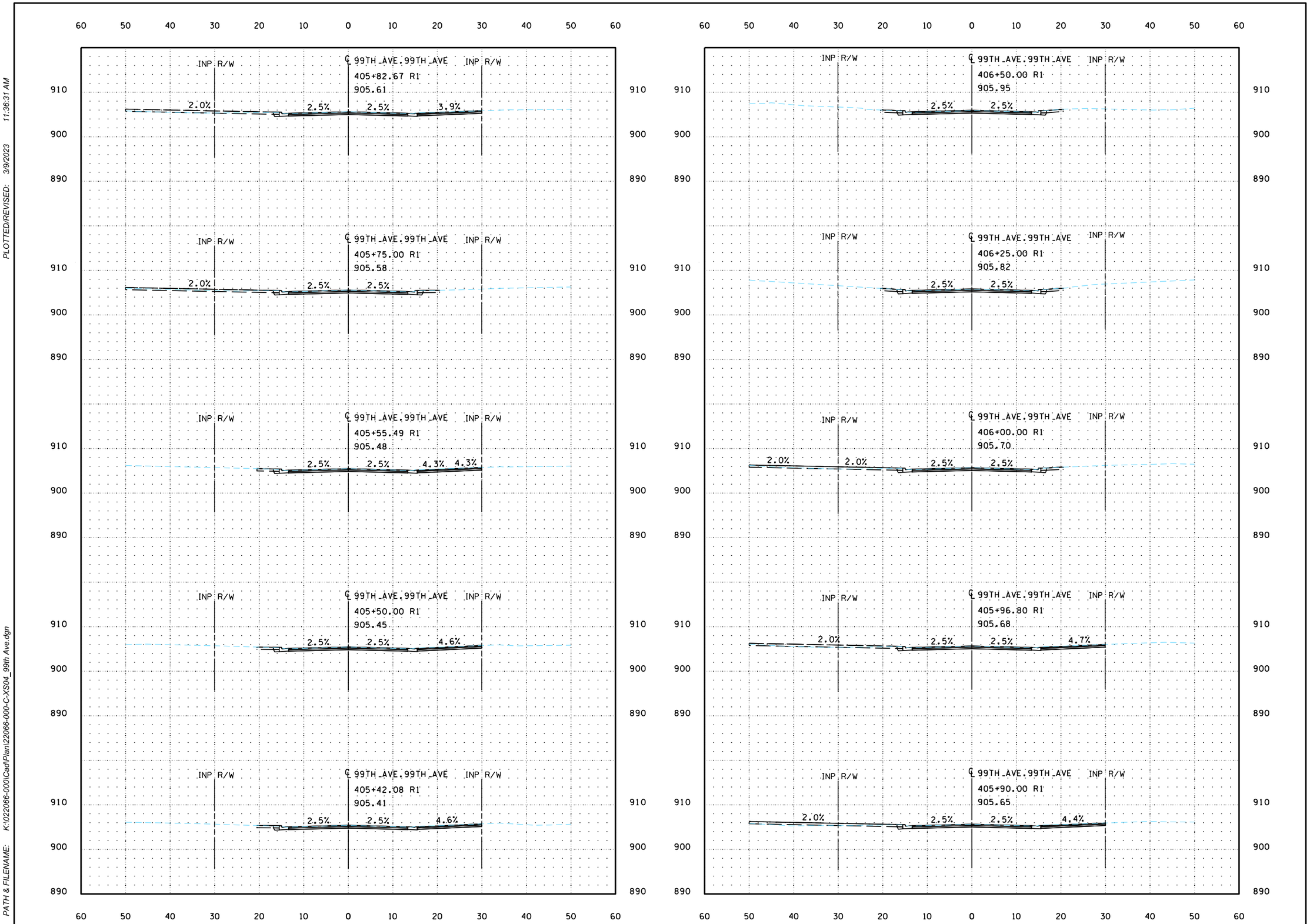
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X46** OF **X63** SHEETS



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WSB PROJECT NO.:
022066-000

SCALE: AS SHOWN

DESIGN BY:

PLAN BY:

CHECK BY:

REVISIONS

NO.	DATE	DESCRIPTION

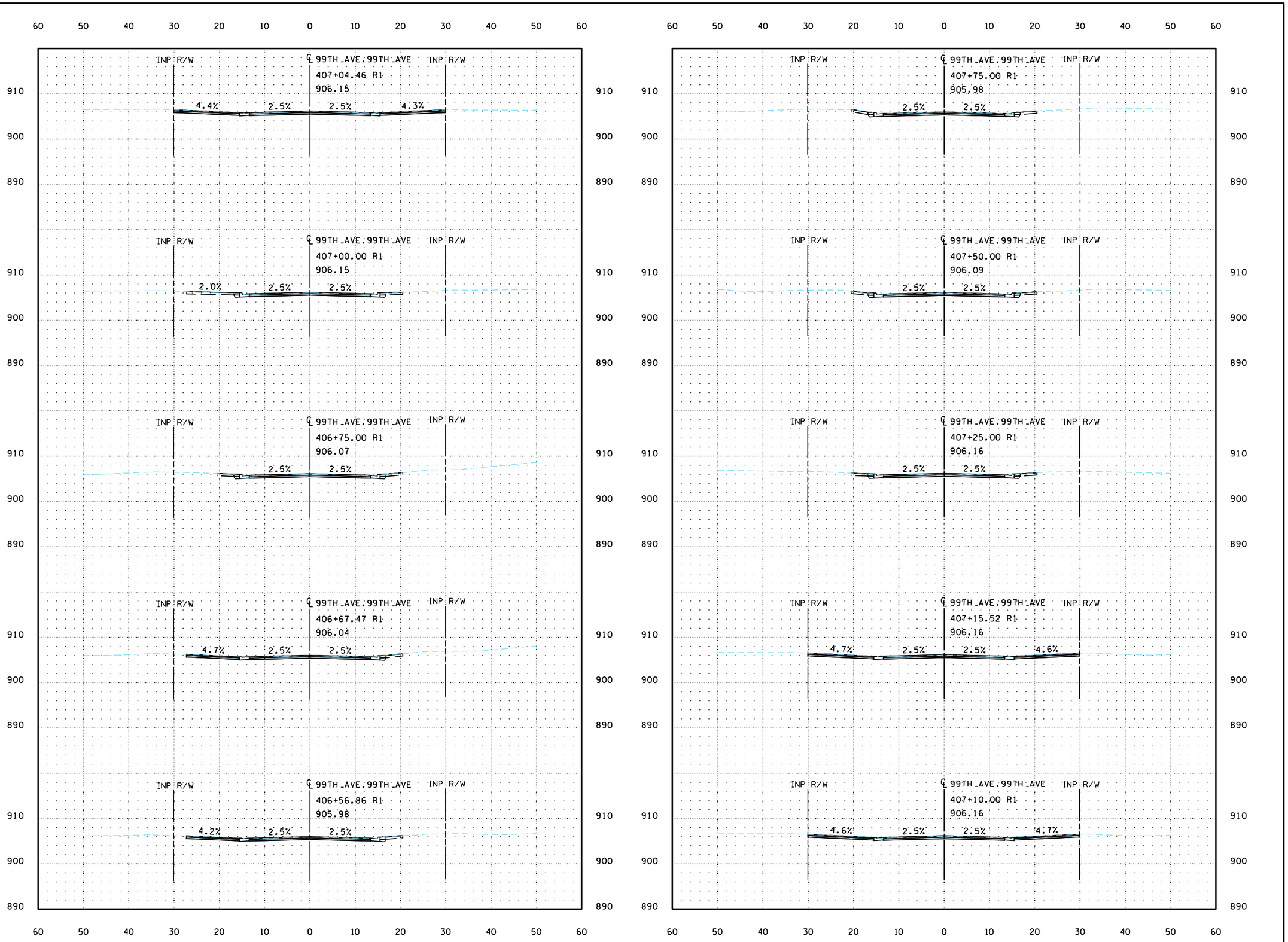
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X47** OF **X63** SHEETS



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wsb

WSB PROJECT NO.:
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REVISIONS

NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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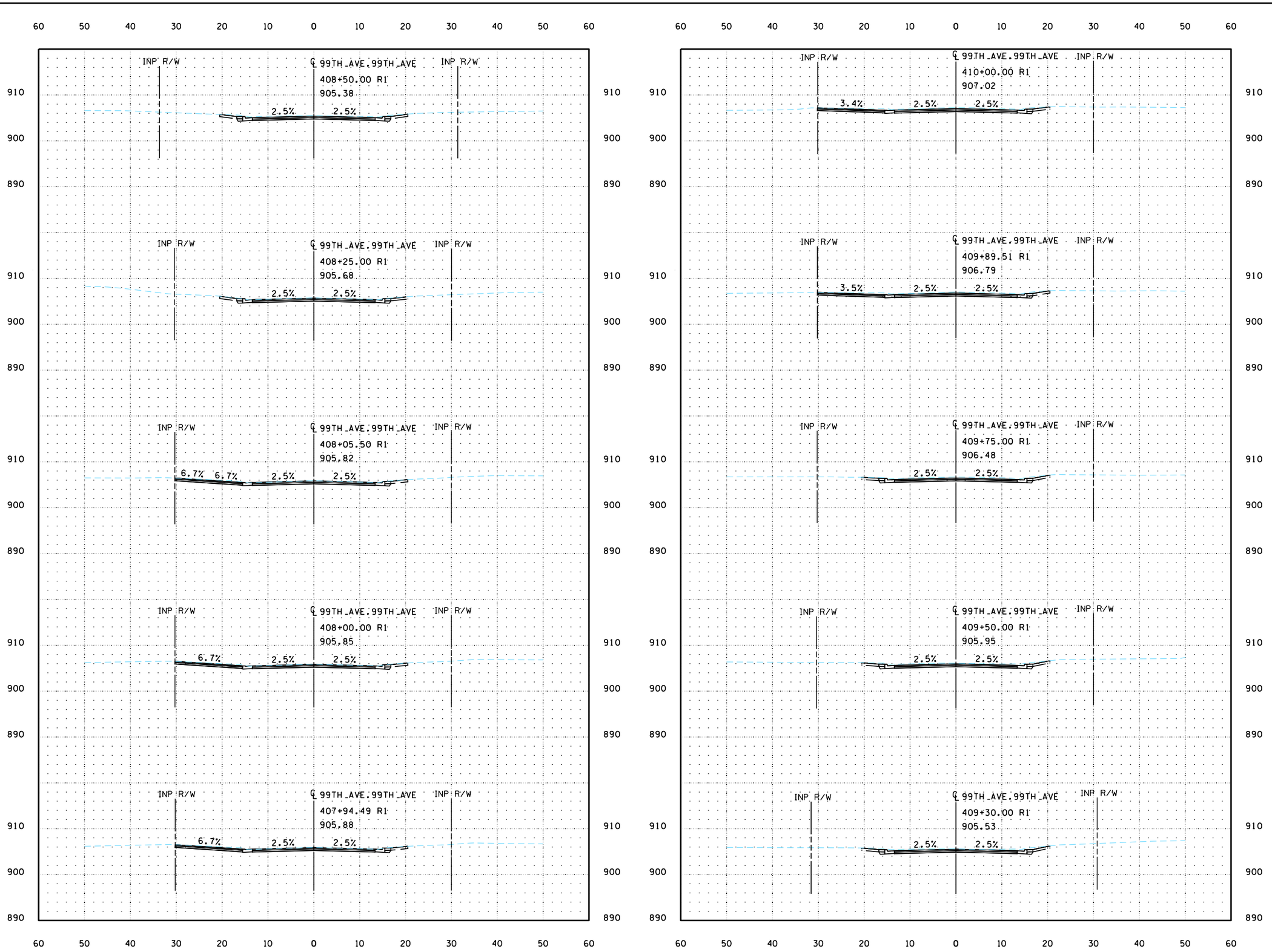

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WSB PROJECT NO.:
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REVISIONS

NO.	DATE	DESCRIPTION

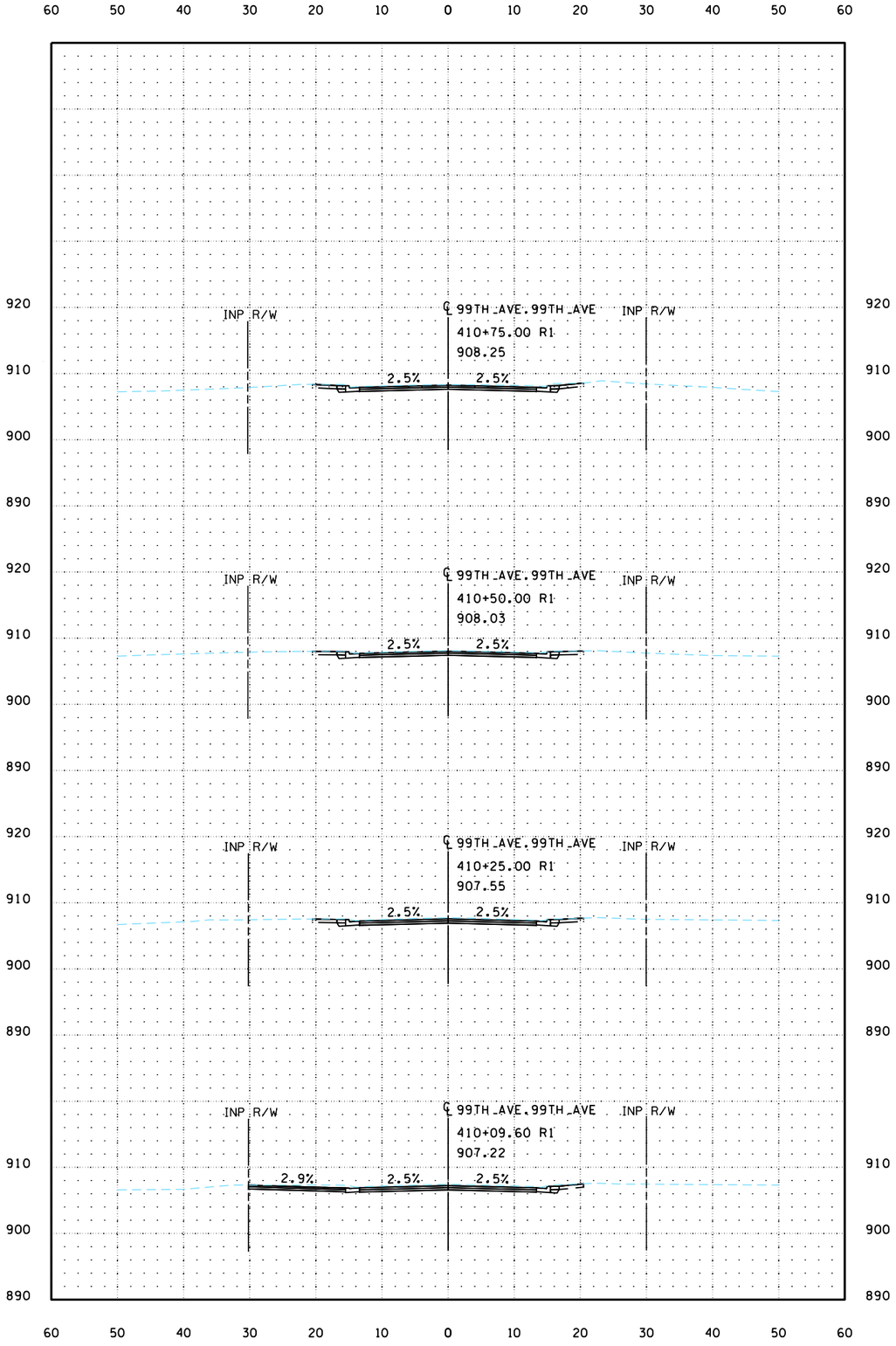
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X49** OF **X63** SHEETS



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wsb

WSB PROJECT NO.:
022066-000

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REVISIONS

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CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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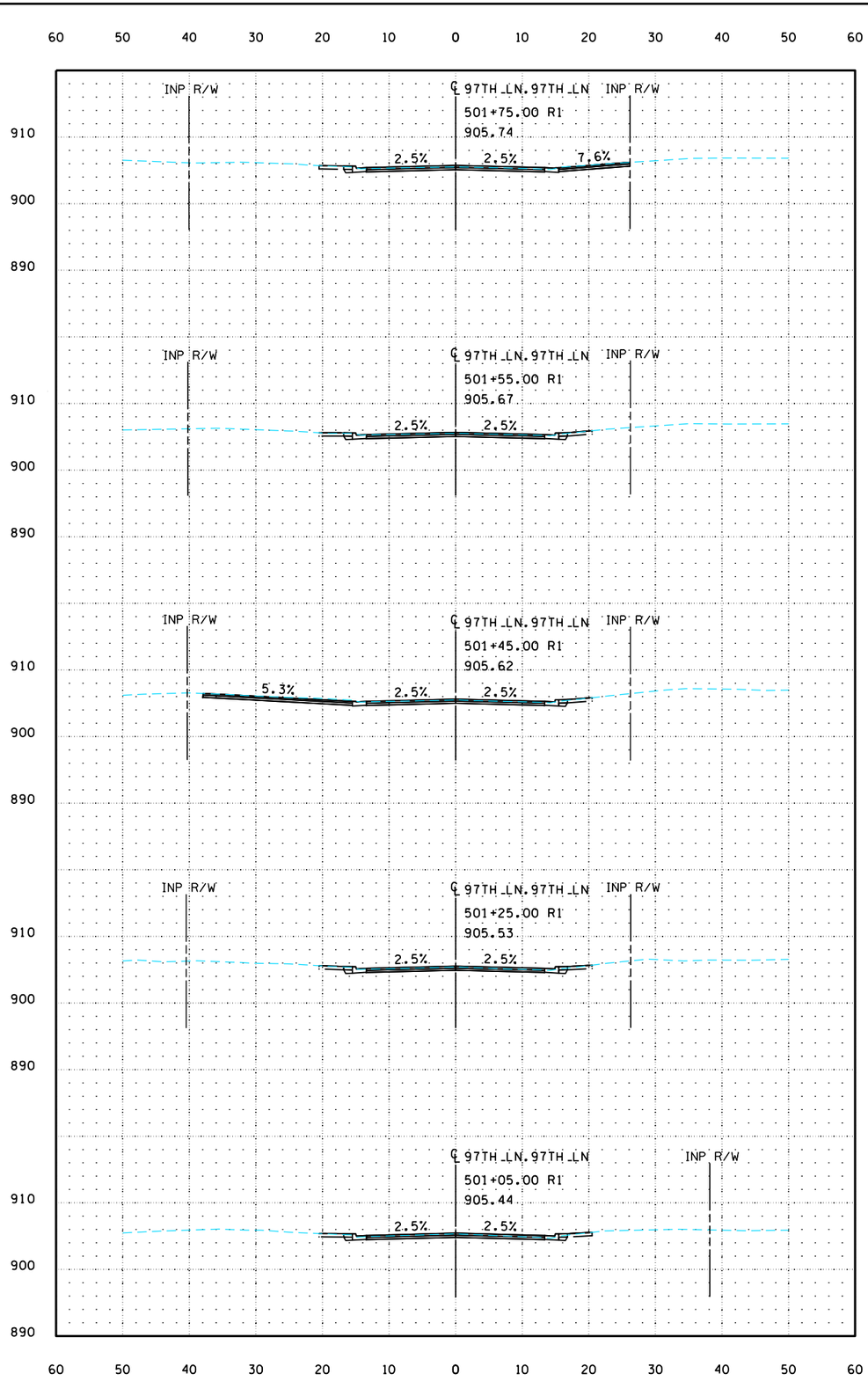

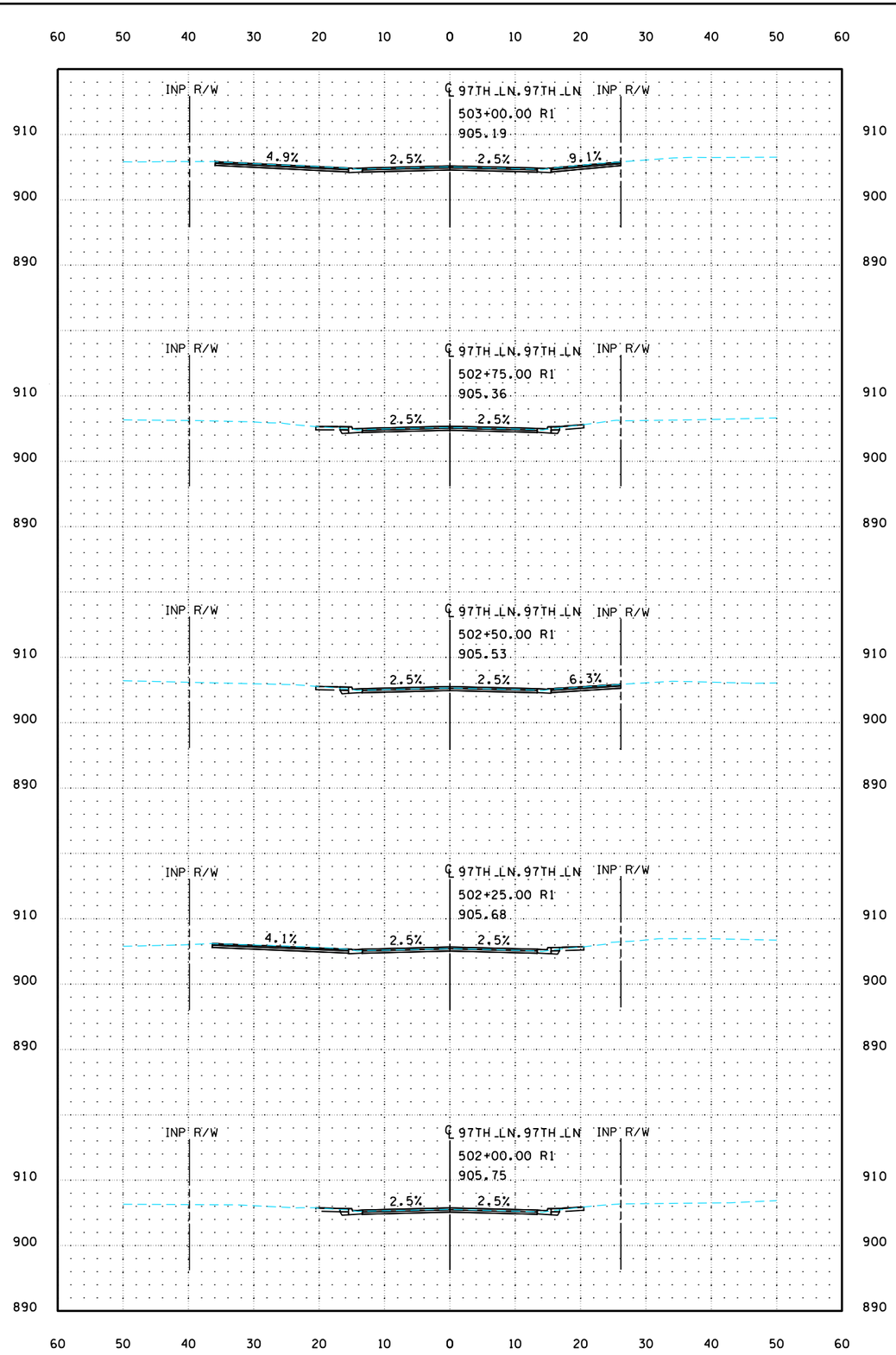

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WSB PROJECT NO.: 022066-000

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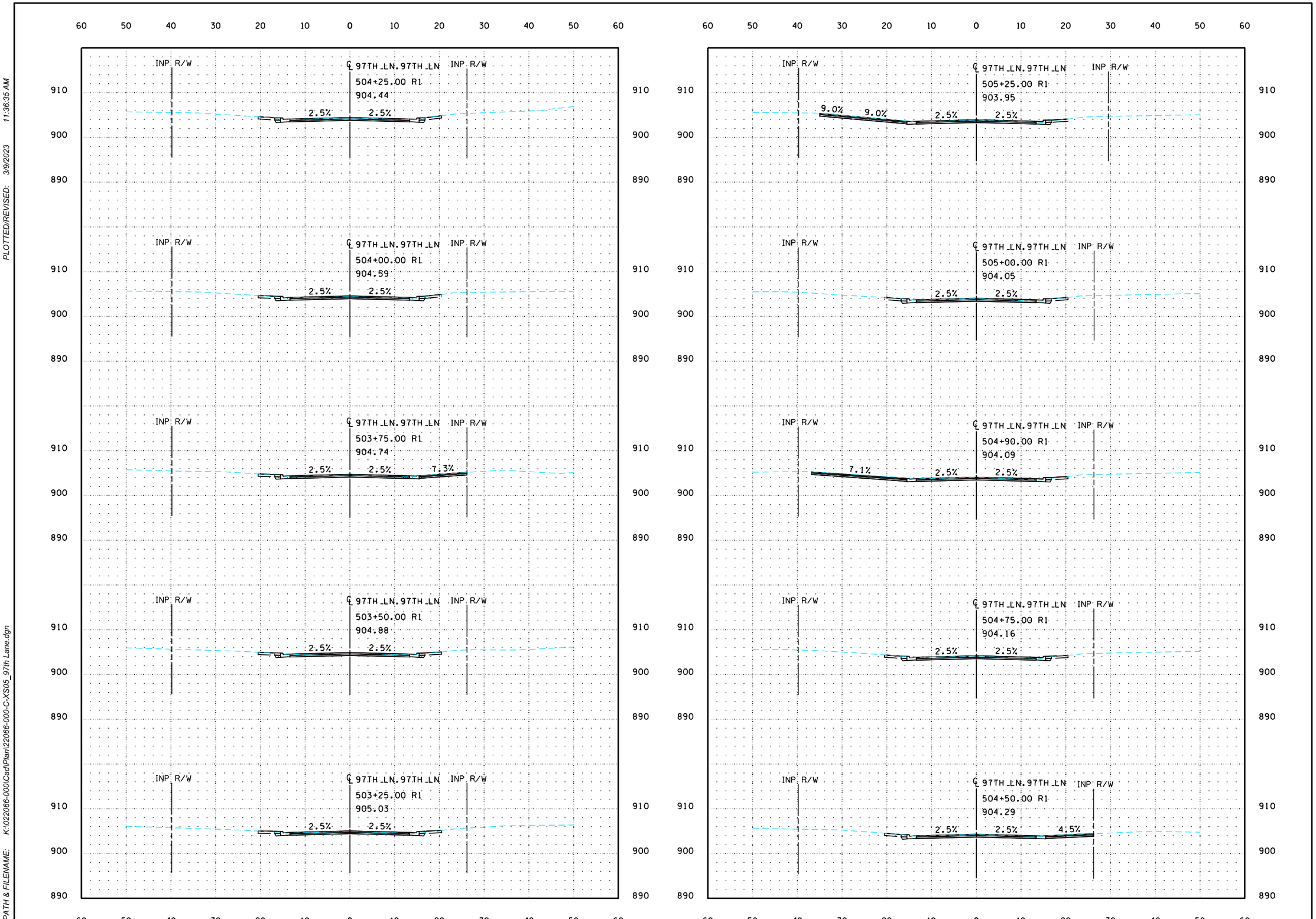
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X51** OF **X63** SHEETS



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WSB PROJECT NO.: 022066-000

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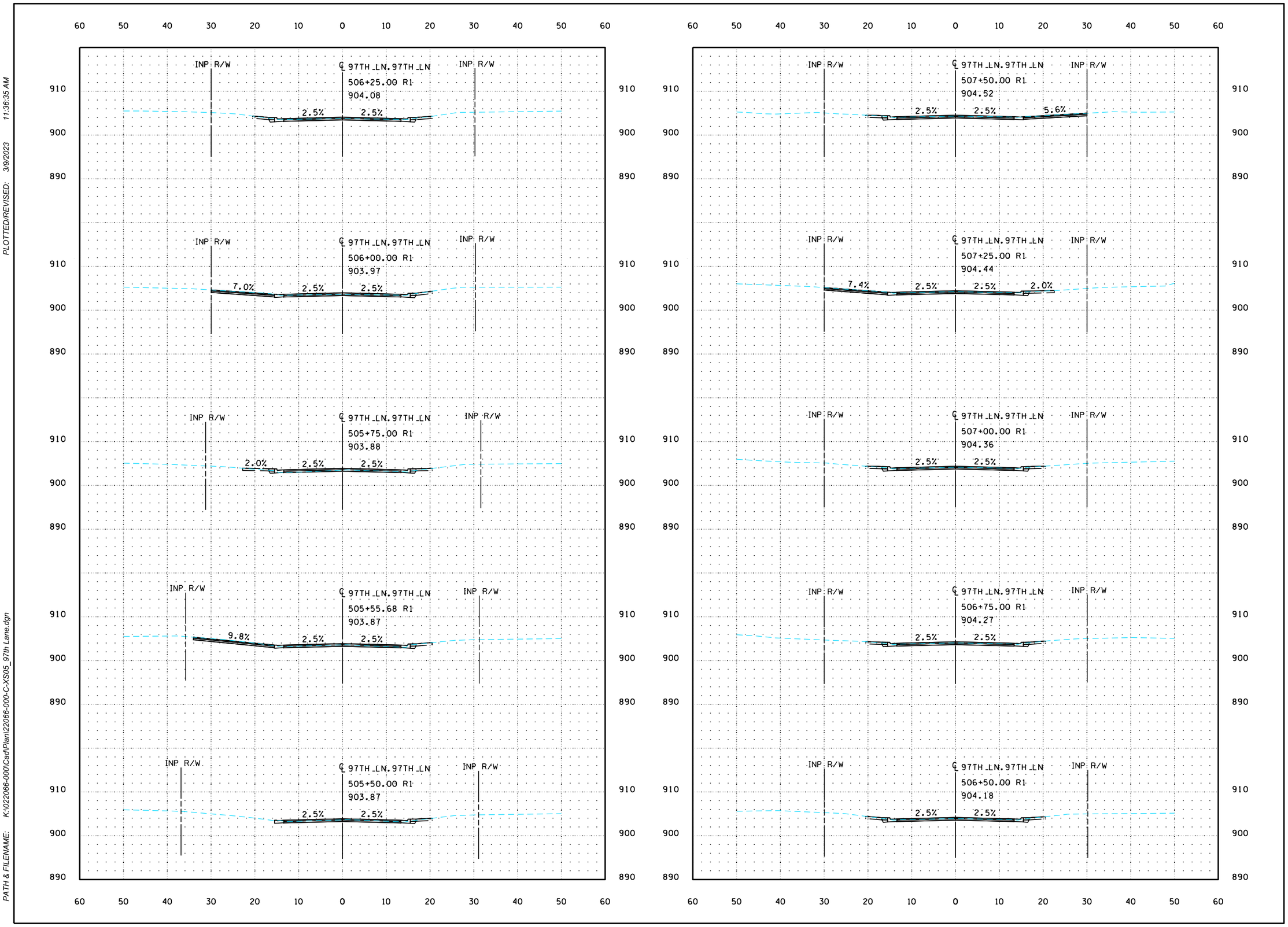
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X52** OF **X63** SHEETS



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WSB PROJECT NO.: 022066-000

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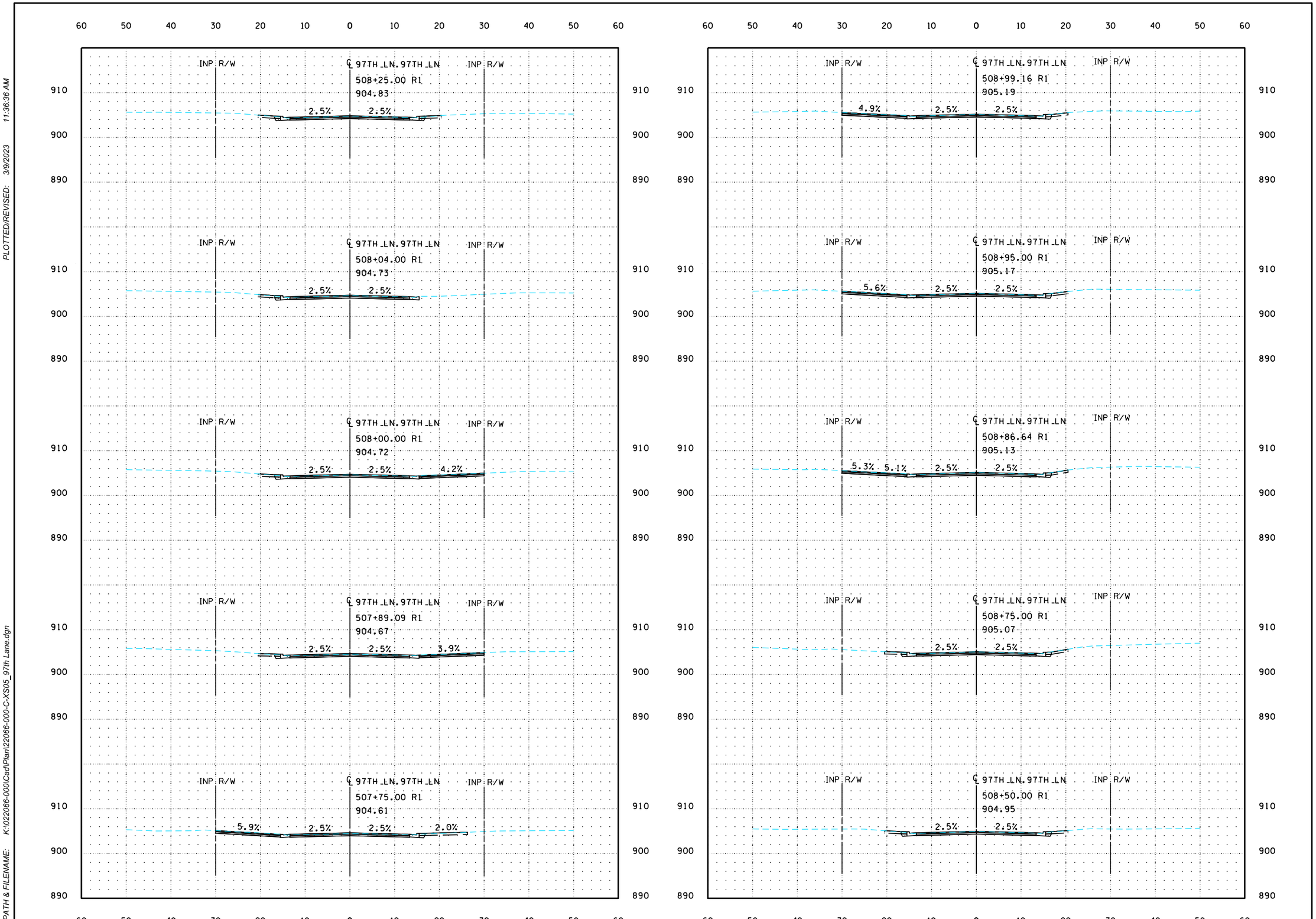
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X53** OF **X63** SHEETS



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wsb

WSB PROJECT NO.: 022066-000

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REVISIONS

NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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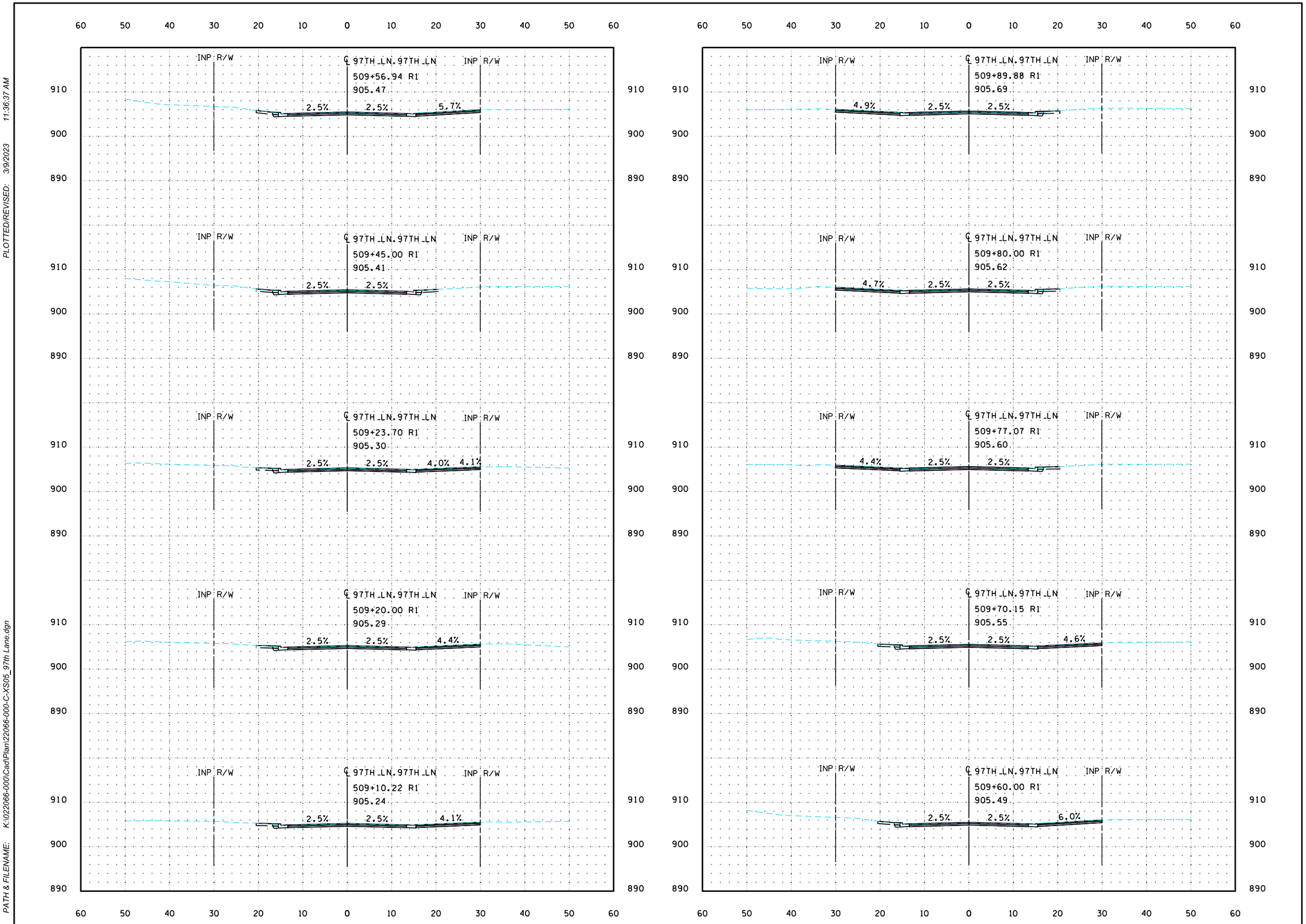

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WSB PROJECT NO.: 022066-000

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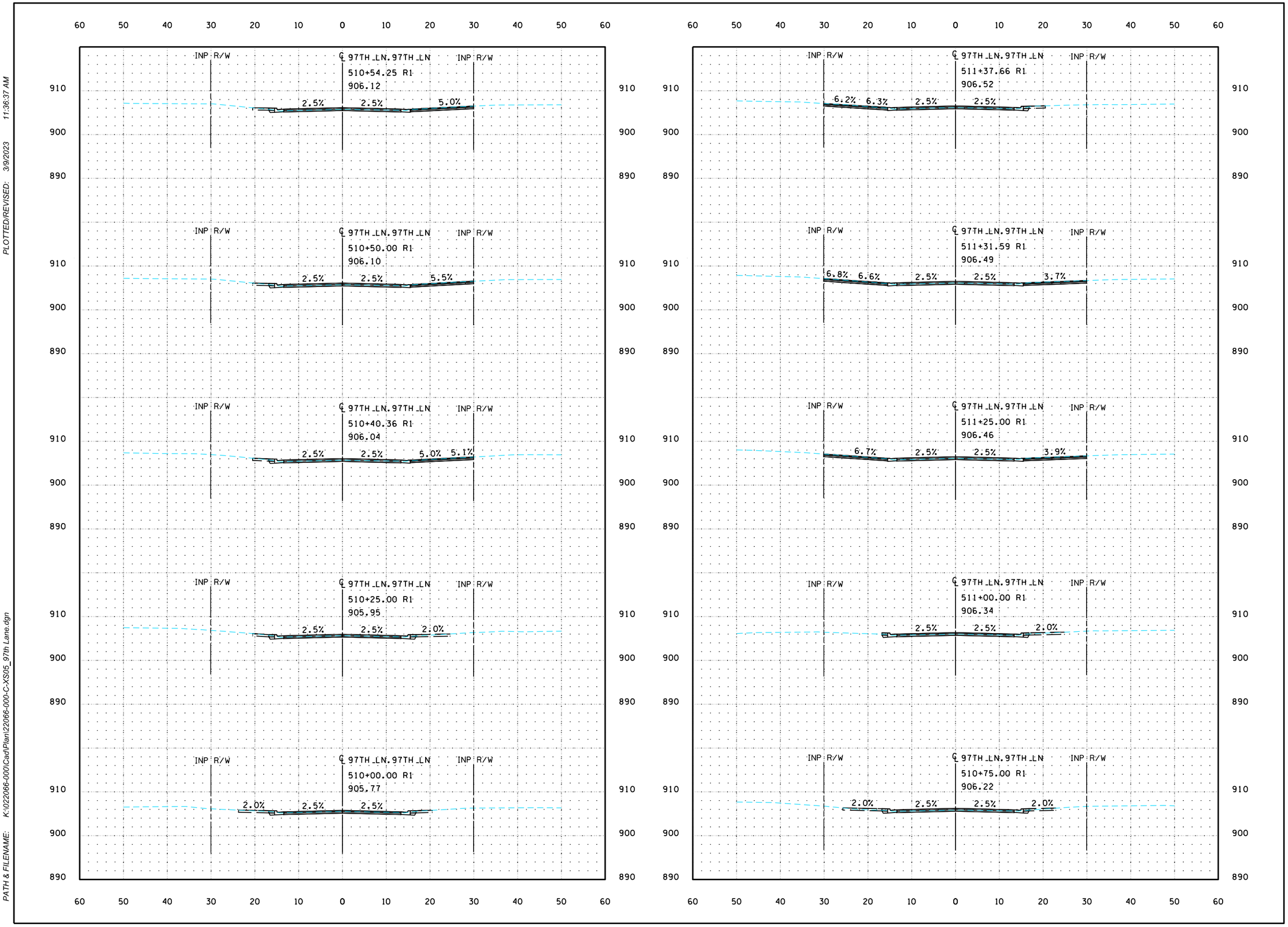
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X55** OF **X63** SHEETS



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WSB PROJECT NO.:
022066-000

SCALE: AS SHOWN

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REVISIONS

NO.	DATE	DESCRIPTION

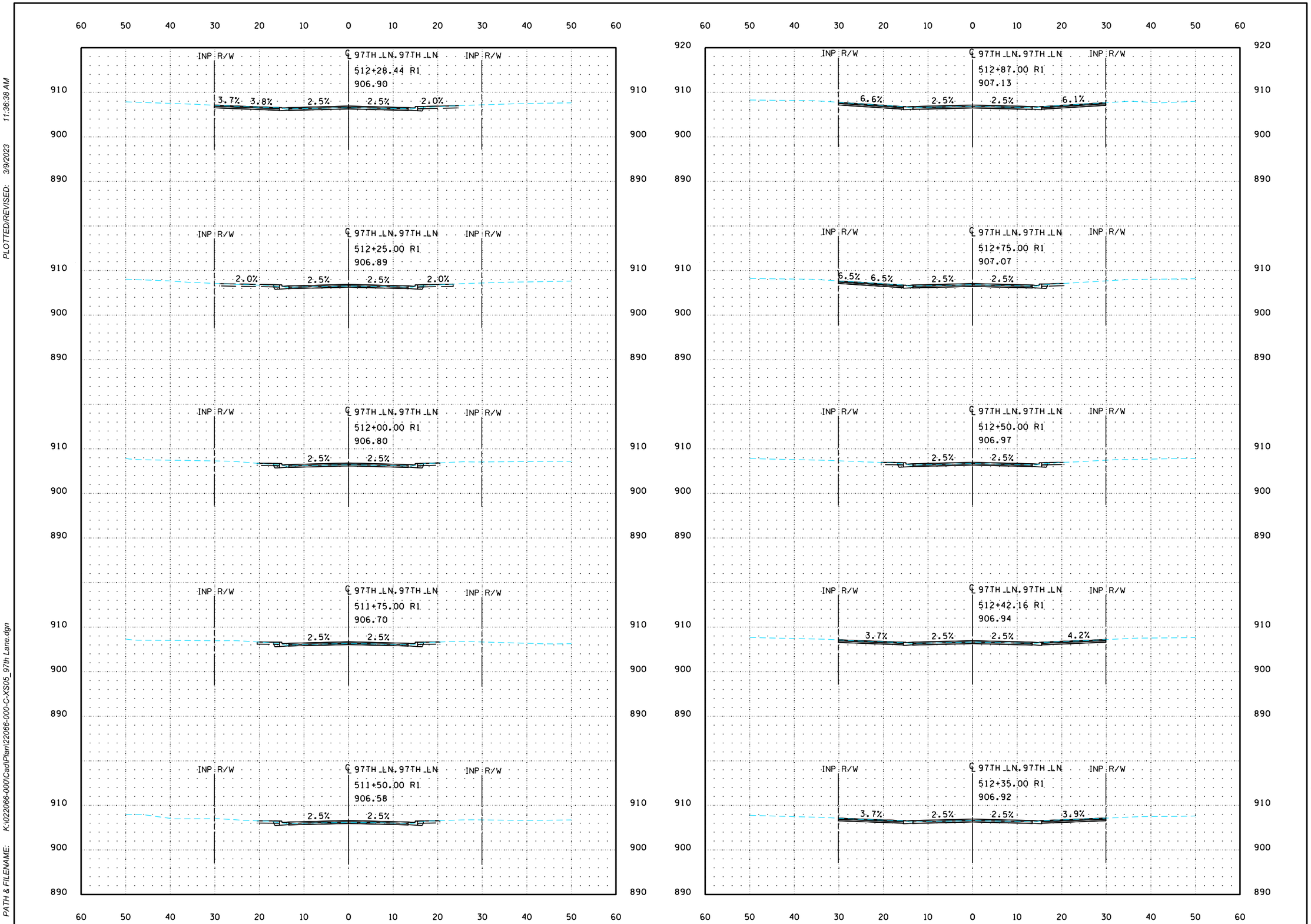
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X56** OF **X63** SHEETS



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WSB PROJECT NO.: 022066-000

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PLAN BY:

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REVISIONS

NO.	DATE	DESCRIPTION

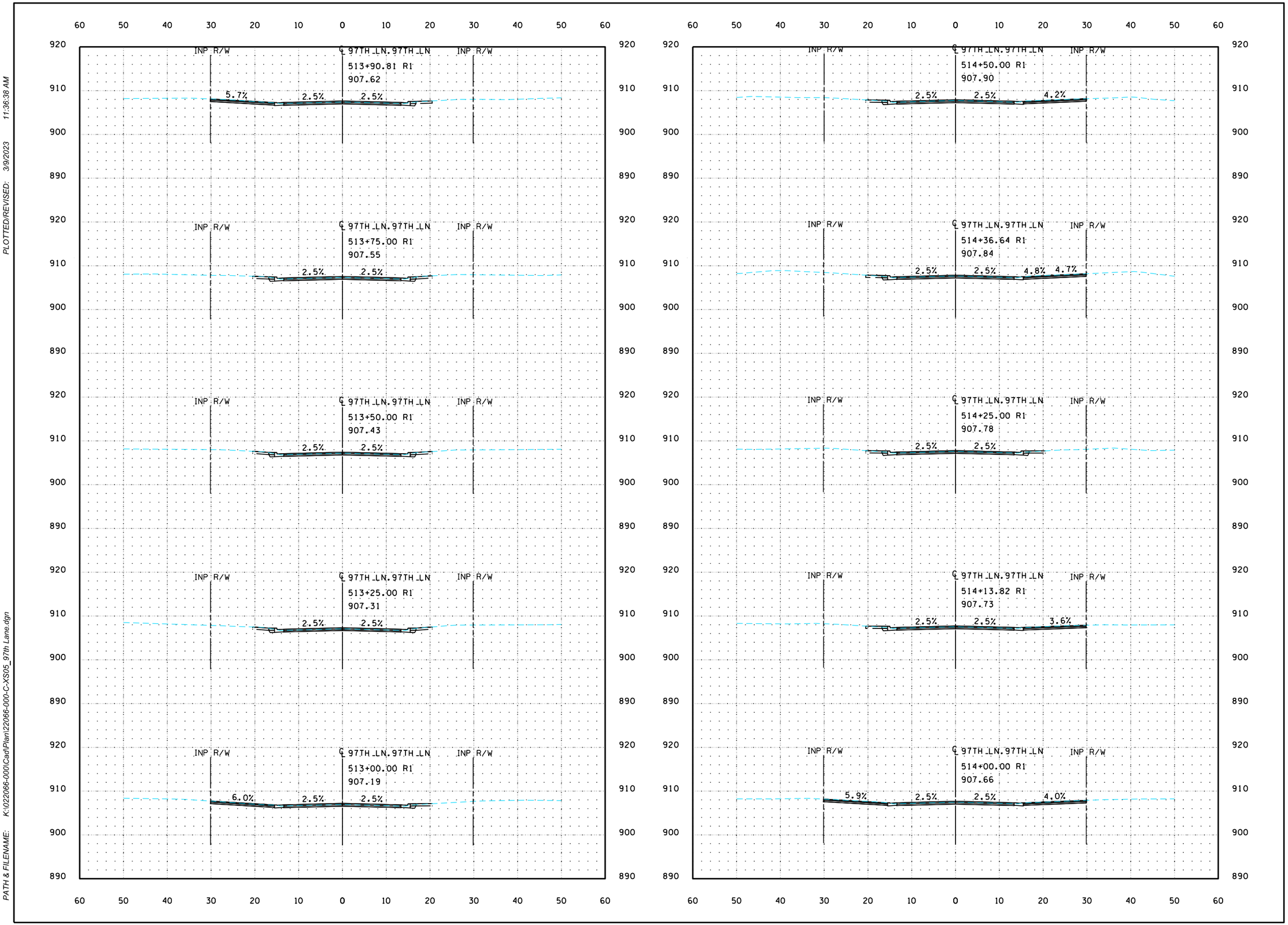
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X57** OF **X63** SHEETS



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WSB PROJECT NO.: 022066-000

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REVISIONS

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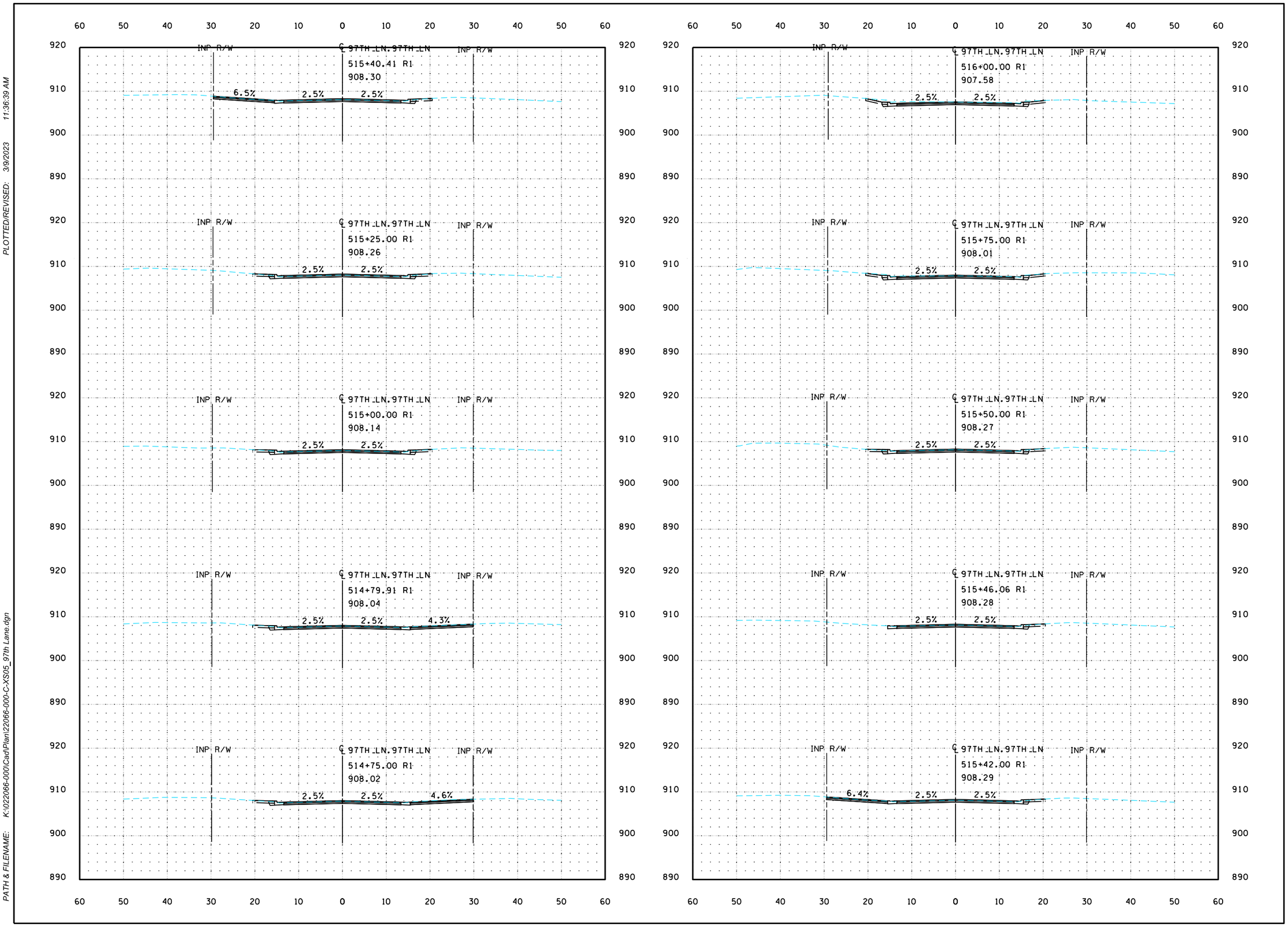
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X58** OF **X63** SHEETS



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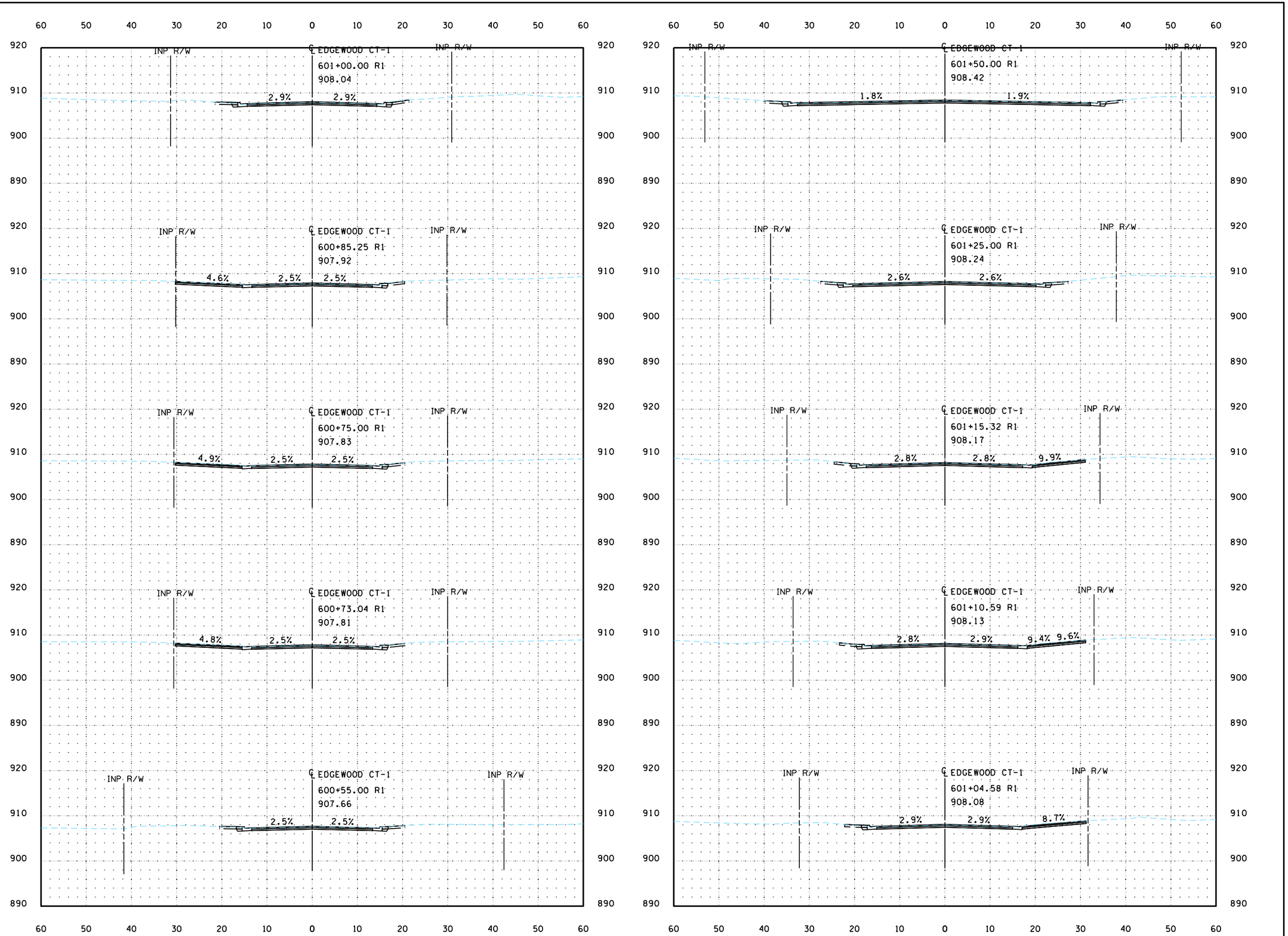
CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X59** OF **X63** SHEETS



PLOTTED/REVISED: 3/9/2023 11:36:40 AM

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WSB PROJECT NO.: 022066-000

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NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

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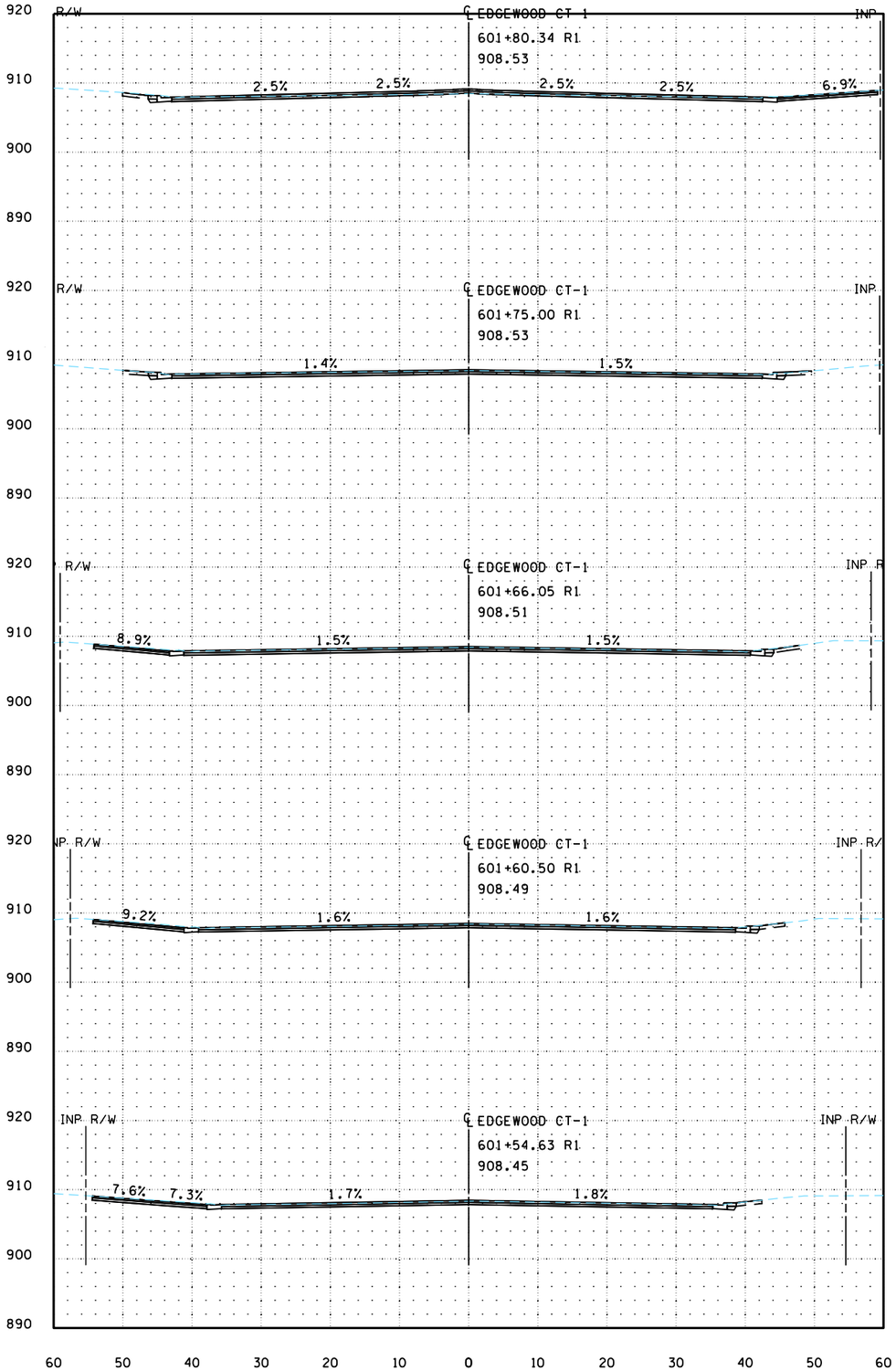

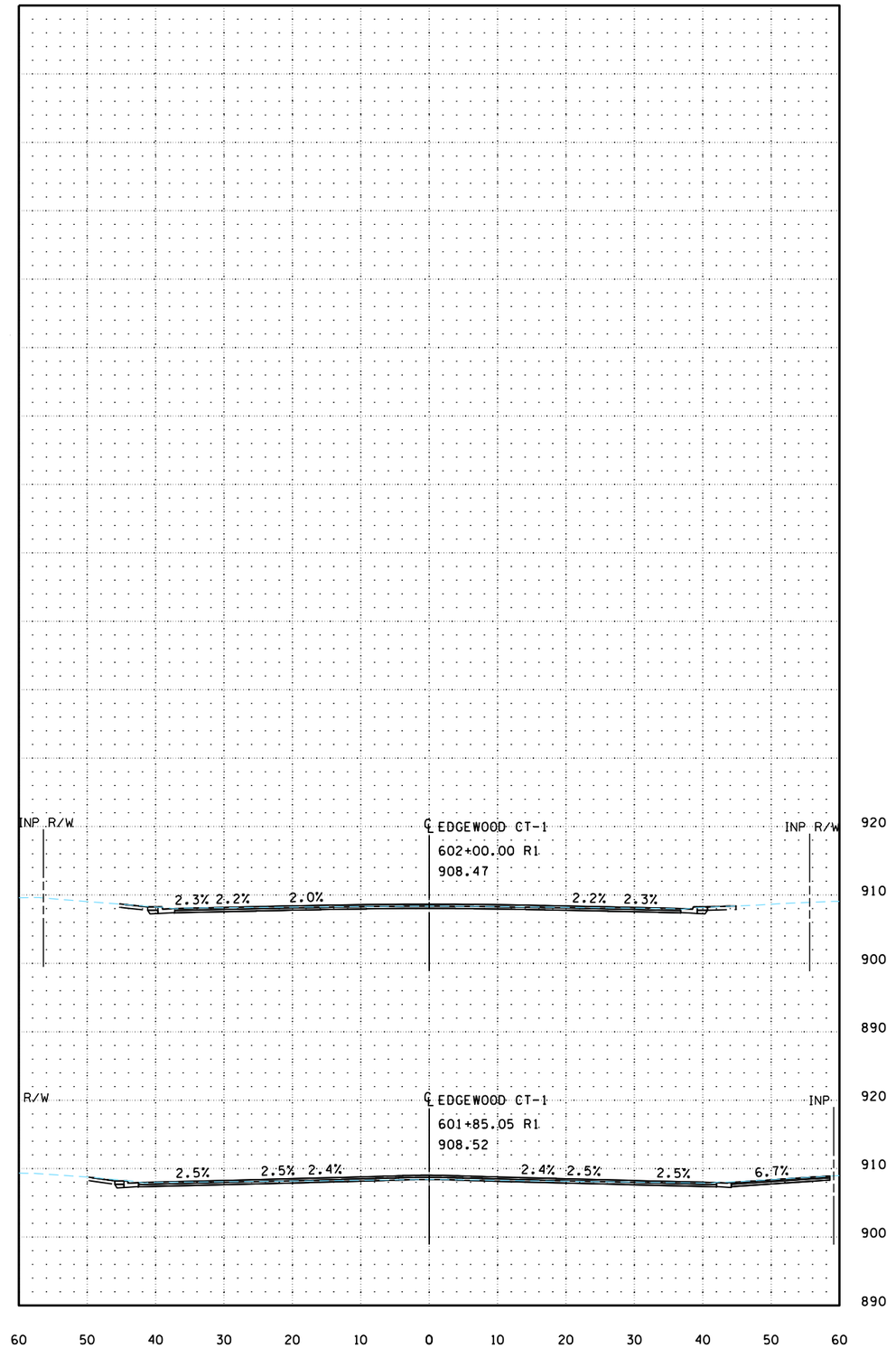

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WSB PROJECT NO.: 022066-000

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REVISIONS

NO.	DATE	DESCRIPTION

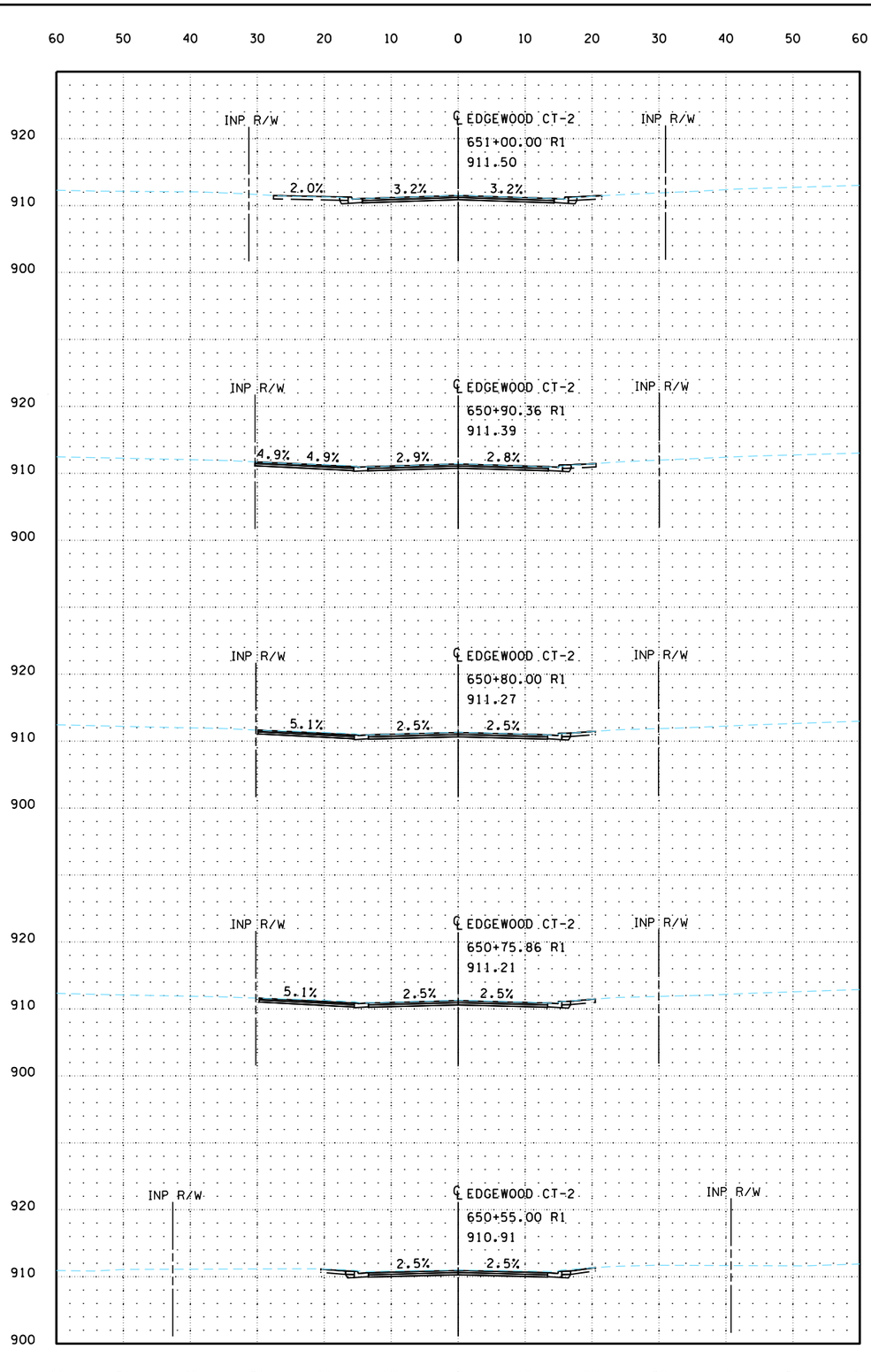
CITY OF BLAINE, MN

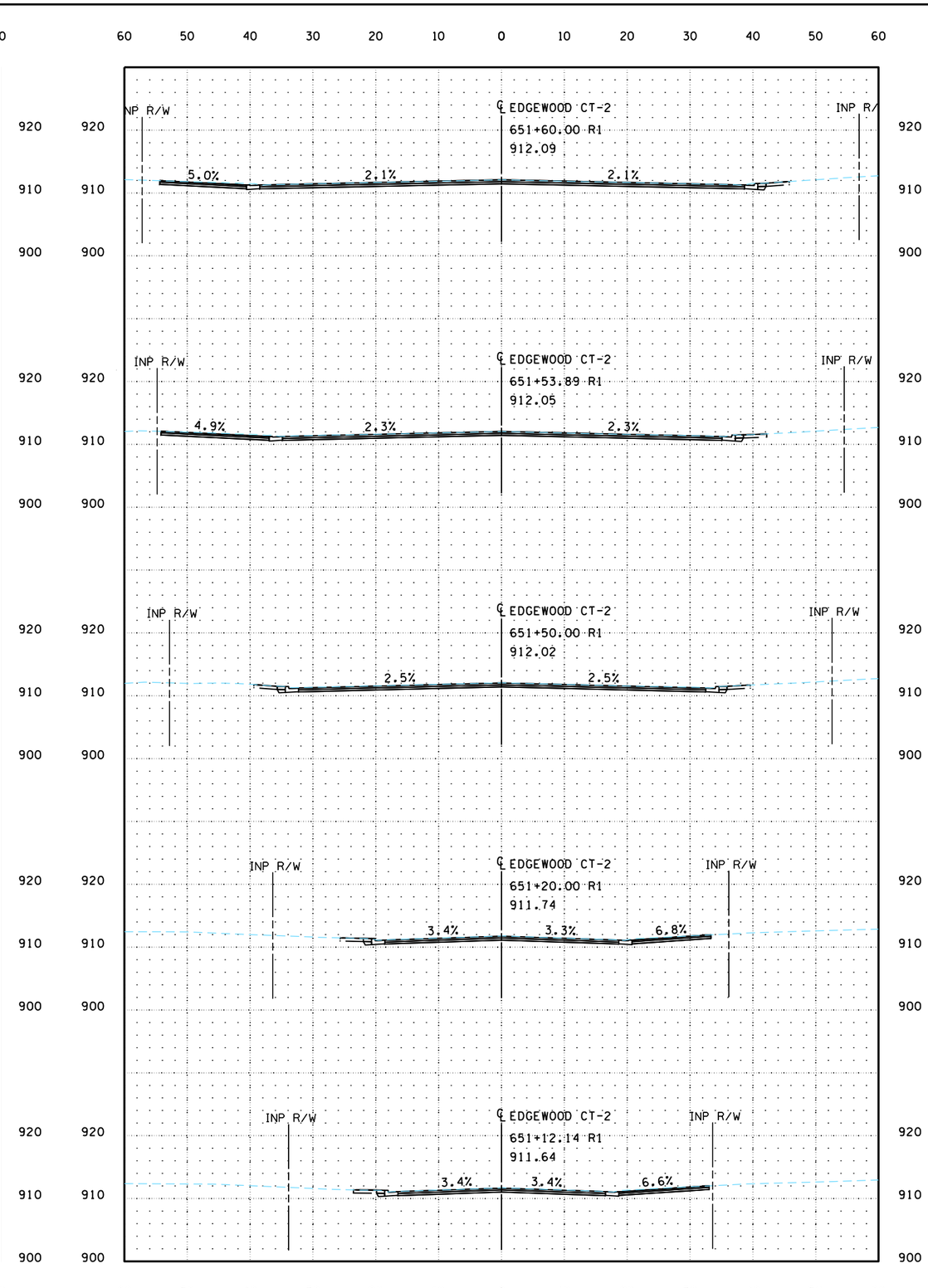
SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X61** OF **X63** SHEETS





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REVISIONS

NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

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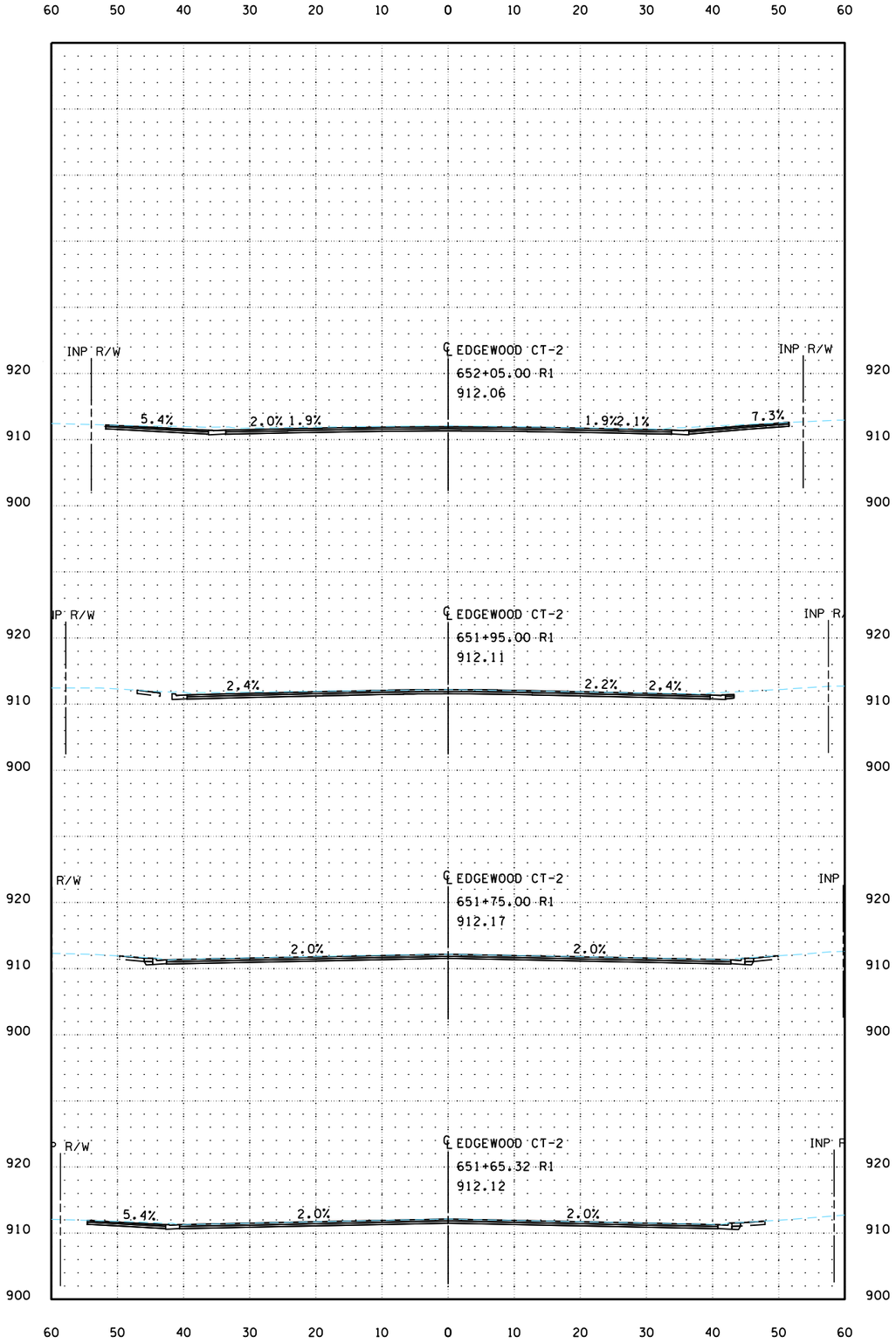
CITY PROJECT 23-08

SHEET **X62** OF **X63** SHEETS



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wsb

WSB PROJECT NO.: 022066-000

SCALE: AS SHOWN

DESIGN BY:

PLAN BY:

CHECK BY:

REVISIONS

NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN

SOUTHEAST AREA RECONSTRUCTION

CROSS SECTIONS

CITY PROJECT 23-08

SHEET **X63** OF **X63** SHEETS