

MESENBRINK CONSTRUCTION

CONSTRUCTION PLANS FOR

HOFFMAN ROAD EXTENSION

MANKATO, MN

PAVEMENT AND SIDEWALK CONSTRUCTION, SITE GRADING
WATERMAIN, SANITARY SEWER, AND STORM SEWER INSTALLATION

OCTOBER 2024

RESOURCE LIST

CITY OF MANKATO, MN

City Hall
10 Civic Center Plaza
Mankato, MN 56001
507-387-8695

City Manager:
Susan Arntz

Mayor: Najwa Massad

City Council Members:
Mike Laven
Karen Foreman
Dennis Dieken
Bryan Schneider
Jenn Melby-Kelley
Jessica Hatanpa

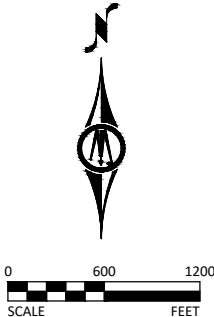
Public Works Director:
Jeffrey Johnson, P.E.

Infrastructure Superintendent:
Anthony Talamantez

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

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

MAP OF THE
CITY OF MANKATO
BLUE EARTH COUNTY, MN



SHEET NUMBER	SHEET TITLE
-----------------	-------------

GENERAL	
G0.01 - G0.02	TITLE SHEET & LEGEND
G1.01	STATEMENT OF ESTIMATED QUANTITIES
G1.02	CONSTRUCTION DETAIL TABLES
G2.01 - G2.03	PROJECT OVERVIEW

CIVIL	
C0.01 - C0.03	EXISTING CONDITIONS & REMOVAL PLAN
C1.01 - C1.02	TYPICAL SECTIONS & STANDARD PLATES

STORMWATER POLLUTION PREVENTION PLAN	
C2.01 - C2.04	GENERAL INFORMATION & DETAILS
C2.05 - C2.07	EROSION & SEDIMENT CONTROL PLAN

SECTION C3	[SECTION NOT USED]
------------	--------------------

SANITARY SEWER & WATERMAIN PLAN & PROFILE	
SECTION C4	[CITY OF MANKATO PUBLIC IMPROVEMENTS PROJECT]

STORM SEWER AND STORMWATER MANAGEMENT PLAN	
C5.01 - C5.05	STORM SEWER PLAN & PROFILE
C5.06 - C5.10	STORMWATER MANAGEMENT PLAN

STREET & SURFACE CONSTRUCTION	
C6.01 - C6.04	HOFFMAN ROAD PLAN & PROFILE
C6.05 - C6.06	CSAH 12 ROUNDABOUT - EAST LEG
C6.07	HOFFMAN ROAD CUL-DE-SAC

SIGNING & STRIPING PLAN	
C7.01 - C7.02	PAVEMENT MARKING PLAN
C7.03 - C7.04	SIGNAGE PLAN
C7.05 - C7.10	DETAILS

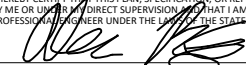
STREET LIGHTING PLAN	
E1.01 - E1.03	STREET LIGHTING PLAN AND DETAILS

TREE PLANTING PLAN	
L1.01 - L1.02	TREE PLANTING PLAN AND DETAILS

THIS PLAN SET CONTAINS 51 SHEETS.

ISSUE FOR PERMIT

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.


ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

⊕ BM=1012.33 TOP NUT HYDRANT SE QUADRANT OF HOFFMAN / CSAH 12 ROUNDABOUT	PROJECT DATUM: BLUE EARTH COUNTY HORIZONTAL: 2011 COUNTY COORDINATES VERTICAL: NAVD 1988	RECORD DRAWING INFORMATION	
		OBSERVER:	
		CONTRACTOR:	
		DATE:	
MESENBRINK CONSTRUCTION		SHEET	
HOFFMAN ROAD EXTENSION		G0.01	
TITLE SHEET			

© Bolton & Menk, Inc. 2024. All Rights Reserved.
A:\WESTA\01\1228460\CD\1 - Public Improvements Plans\1228460\002 - H1.dwg 10/6/2024 9:18:05 AM

EXISTING TOPOGRAPHIC SYMBOLS

	ACCESS GRATE		REGULATION STATION GAS
	AIR CONDITION UNIT		SATELLITE DISH
	ANTENNA		SIGN NON TRAFFIC
	AUTO SPRINKLER CONNECTION		SIGN TRAFFIC
	BARRICADE PERMANENT		SIGNAL CONTROL CABINET
	BASKETBALL POST		SOIL BORING
	BENCH		SIREN
	BIRD FEEDER		TELEPHONE BOOTH
	BOLLARD		TILE INLET
	BUSH		TILE OUTLET
	CATCH BASIN RECTANGULAR CASTING		TILE RISER
	CATCH BASIN CIRCULAR CASTING		TRANSFORMER-ELECTRIC
	CURB STOP		TREE-CONIFEROUS
	CLEAN OUT		TREE-DEAD
	CULVERT END		TREE-DECIDUOUS
	DRINKING FOUNTAIN		TREE STUMP
	DOWN SPOUT		TRAFFIC ARM BARRIER
	FILL PIPE		TRAFFIC SIGNAL
	FIRE HYDRANT		TRASH CAN
	FLAG POLE		UTILITY MARKER
	FLARED END / APRON		VALVE
	FUEL PUMP		VALVE POST INDICATOR
	GRILL		VALVE VAULT
	GUY WIRE ANCHOR		VAULT
	HANDHOLE		VENT PIPE
	HANDICAP SPACE		WATER SPIGOT
	IRRIGATION SPRINKLER HEAD		WELL
	IRRIGATION VALVE BOX		WETLAND DELINEATED MARKER
	LIFT STATION CONTROL PANEL		WETLAND
	LIFT STATION		WET WELL
	LIGHT ON POLE		YARD HYDRANT
	LIGHT-GROUND		
	MAILBOX		

PROPOSED TOPOGRAPHIC SYMBOLS

	CLEANOUT
	MANHOLE
	LIFT STATION
	STORM SEWER CIRCULAR CASTING
	STORM SEWER RECTANGULAR CASTING
	STORM SEWER FLARED END / APRON
	STORM SEWER OUTLET STRUCTURE
	STORM SEWER OVERFLOW STRUCTURE
	CURB BOX
	FIRE HYDRANT
	WATER VALVE
	WATER REDUCER
	WATER BEND
	WATER TEE
	WATER CROSS
	WATER SLEEVE
	WATER CAP / PLUG
	RIP RAP
	DRAINAGE FLOW
	TRAFFIC SIGNS

SURVEY SYMBOLS

	BENCHMARK LOCATION
	CONTROL POINT
	MONUMENT FOUND
	CAST IRON MONUMENT
	STONE MONUMENT

EXISTING TOPOGRAPHIC LINES

	RETAINING WALL
	FENCE
	FENCE-DECORATIVE
	GUARD RAIL
	TREE LINE
	BUSH LINE

SURVEY LINES

	CONTROLLED ACCESS
	BOUNDARY
	CENTERLINE
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	EXISTING LOT LINE
	PROPOSED LOT LINE
	EXISTING RIGHT-OF-WAY
	PROPOSED RIGHT-OF-WAY
	SETBACK LINE
	SECTION LINE
	QUARTER LINE
	SIXTEENTH LINE
	TEMPORARY EASEMENT

EXISTING UTILITY LINES

	FORCEMAIN
	SANITARY SEWER
	SANITARY SERVICE
	STORM SEWER
	STORM SEWER DRAIN TILE
	WATERMAIN
	WATER SERVICE

PROPOSED UTILITY LINES

	FORCEMAIN
	SANITARY SEWER
	SANITARY SERVICE
	STORM SEWER
	STORM SEWER DRAIN TILE
	WATERMAIN
	WATER SERVICE
	PIPE CASING

GRADING INFORMATION

	EXISTING CONTOUR MINOR
	EXISTING CONTOUR MAJOR
	PROPOSED CONTOUR MINOR
	PROPOSED CONTOUR MAJOR
	PROPOSED GRADING LIMITS / SLOPE LIMITS
	PROPOSED SPOT ELEVATION
	RISE:RUN (SLOPE)

HATCH PATTERNS

	BITUMINOUS		GRAVEL
	CONCRETE		

EXISTING PRIVATE UTILITY LINES

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

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

	UNDERGROUND FIBER OPTIC
	UNDERGROUND ELECTRIC
	UNDERGROUND GAS
	UNDERGROUND COMMUNICATION
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATION
	OVERHEAD UTILITY

UTILITIES IDENTIFIED WITH A QUALITY LEVEL :

LINE TYPES FOLLOW THE FORMAT: UTILITY TYPE - QUALITY LEVEL
EXAMPLE: G-A G-A UNDERGROUND GAS, QUALITY LEVEL A
UTILITY QUALITY LEVEL (A,B,C,D) DEFINITIONS CAN BE FOUND IN CI/ASCE 38-02.

UTILITY QUALITY LEVELS:

QUALITY LEVEL D: PROVIDES THE MOST BASIC LEVEL OF INFORMATION. IT INVOLVES COLLECTING DATA FROM EXISTING UTILITY RECORDS. RECORDS MAY INCLUDE AS-BUILT DRAWINGS, DISTRIBUTION AND SERVICES MAPS, EXISTING GEOGRAPHIC INFORMATION SYSTEM DATABASES, CONSTRUCTION PLANS, ETC.

QUALITY LEVEL C: INVOLVES SURVEYING VISIBLE SUBSURFACE UTILITY STRUCTURES SUCH AS MANHOLES, HAND-HOLES, UTILITY VALVES AND METERS, FIRE HYDRANTS, PEDESTALS AND UTILITY MARKERS, AND THEN CORRELATING THE INFORMATION WITH EXISTING UTILITY RECORDS TO CREATE COMPOSITE DRAWINGS. INCLUDES QUALITY LEVEL D ACTIVITIES.

QUALITY LEVEL B: INVOLVES DESIGNATING THE HORIZONTAL POSITION OF SUBSURFACE UTILITIES THROUGH SURFACE DETECTION METHODS AND COLLECTING THE INFORMATION THROUGH A SURVEY METHOD. INCLUDES QUALITY LEVEL C AND D TASKS.

QUALITY LEVEL A: PROVIDES THE HIGHEST LEVEL OF ACCURACY. IT INVOLVES LOCATING OR POTHOLING UTILITIES AS WELL AS ACTIVITIES IN QUALITY LEVELS B, C, AND D. THE LOCATED FACILITY INFORMATION IS SURVEYED AND MAPPED AND THE DATA PROVIDES PRECISE PLAN AND PROFILE INFORMATION.

ABBREVIATIONS

A	ALGEBRAIC DIFFERENCE	GRAV	GRAVEL	RSC	RIGID STEEL CONDUIT
ADJ	ADJUST	GU	GUTTER	RT	RIGHT
ALT	ALTERNATE	GV	GATE VALVE	SAN	SANITARY SEWER
B-B	BACK TO BACK	HDPE	HIGH DENSITY POLYETHYLENE	SCH	SCHEDULE
BIT	BITUMINOUS	HH	HANDHOLE	SERV	SERVICE
BLDG	BUILDING	HP	HIGH POINT	SHLD	SHOULDER
BMP	BEST MANAGEMENT PRACTICE	HWL	HIGH WATER LEVEL	STA	STATION
BR	BEGIN RADIUS	HYD	HYDRANT	STD	STANDARD
BV	BUTTERFLY VALVE	I	INVERT	STM	STORM SEWER
CB	CATCH BASIN	K	CURVE COEFFICIENT	TC	TOP OF CURB
C&G	CURB AND GUTTER	L	LENGTH	TE	TEMPORARY EASEMENT
CIP	CAST IRON PIPE	LO	LOWEST OPENING	TEMP	TEMPORARY
CIPP	CURED-IN-PLACE PIPE	LP	LOW POINT	TNH	TOP NUT HYDRANT
CL	CENTER LINE	LT	LEFT	TP	TOP OF PIPE
CL	CLASS	MAX	MAXIMUM	TYP	TYPICAL
CLVT	CULVERT	MH	MANHOLE	VCP	VITRIFIED CLAY PIPE
CMP	CORRUGATED METAL PIPE	MIN	MINIMUM	VERT	VERTICAL
C.O.	CHANGE ORDER	MR	MID RADIUS	VPC	VERTICAL POINT OF CURVE
COMM	COMMUNICATION	NIC	NOT IN CONTRACT	VPI	VERTICAL POINT OF INTERSECTION
CON	CONCRETE	NMC	NON-METALLIC CONDUIT	VPT	VERTICAL POINT OF TANGENT
CSP	CORRUGATED STEEL PIPE	NTS	NOT TO SCALE	WM	WATERMAIN
DIA	DIAMETER	NWL	NORMAL WATER LEVEL		
DIP	DUCTILE IRON PIPE	OHW	ORDINARY HIGH WATER LEVEL		
DWY	DRIVEWAY	PC	POINT OF CURVE	AC	ACRES
E	EXTERNAL CURVE DISTANCE	PCC	POINT OF COMPOUND CURVE	CF	CUBIC FEET
ELEC	ELECTRIC	PE	PERMANENT EASEMENT	CV	COMPACTED VOLUME
ELEV	ELEVATION	PED	PEDESTRIAN, PEDESTAL	CY	CUBIC YARD
EOF	EMERGENCY OVERFLOW	PERF	PERFORATED PIPE	EA	EACH
ER	END RADIUS	PERM	PERMANENT	EV	EXCAVATED VOLUME
ESMT	EASEMENT	PI	POINT OF INTERSECTION	LB	POUND
EX	EXISTING	PL	PROPERTY LINE	LF	LINEAR FEET
FES	FLARED END SECTION	PRC	POINT OF REVERSE CURVE	LS	LUMP SUM
F-F	FACE TO FACE	PT	POINT OF TANGENT	LV	LOOSE VOLUME
FF	FINISHED FLOOR	PVC	POLYVINYL CHLORIDE PIPE	SF	SQUARE FEET
F&I	FURNISH AND INSTALL	PVMT	PAVEMENT	SV	STOCKPILE VOLUME
FM	FORCEMAIN	R	RADIUS	SY	SQUARE YARD
FO	FIBER OPTIC	R/W	RIGHT-OF-WAY		
F.O.	FIELD ORDER	RCP	REINFORCED CONCRETE PIPE		
GRAN	GRANULAR	RET	RETAINING		

ISSUE FOR PERMIT

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.

ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION

HOFFMAN ROAD EXTENSION

LEGEND

SHEET

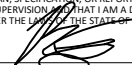
G0.02

© Bolton & Menk, Inc. 2024. All Rights Reserved.
M1284601.1284601 - Public Improvements Plans\1284601_01.dwg 10/6/2024 9:18:44 AM

STATEMENT OF ESTIMATED QUANTITIES					
ITEM NO.	MNDOT ITEM NO.	ITEM	NOTES	ESTIMATED QUANTITY	UNIT
1	2021.501	MOBILIZATION		1	LS
2	2104.503	REMOVE SEWER PIPE (STORM)		24	LF
3	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)		160	LF
4	2104.503	REMOVE CURB AND GUTTER		135	LF
5	2104.602	RELOCATE STREET LIGHT		1	EA
6	2104.504	REMOVE BITUMINOUS PAVEMENT		210	SY
7	2105.507	POND EXCAVATION (P)	(1) (5)	25300	CY
8	2105.507	TOPSOIL STRIP (EV) (P)	(2)	19550	CY
9	2105.507	COMMON EXCAVATION (EV) (P)	(3) (5)	1850	CY
10	2105.507	SELECT GRANULAR BORROW (CV) (P)		5525	CY
11	2105.604	GEOGRID		17450	SY
12	2106.507	COMMON EMBANKMENT (CV) (P)	(4)	21400	CY
13	2211.509	AGGREGATE BASE, CLASS 5 (CV) (P)		7500	CY
14	2360.504	TYPE SP 12.5 WEAR CRS MIX (3,C) 3.0" THICK (TEMPORARY CUL-DE-SAC)		875	SY
15	2360.504	TYPE SP 12.5 WEAR CRS MIX (3,C) 1.5" THICK (STREET WEAR COURSE)		11600	SY
16	2360.504	TYPE SP 12.5 NON WEAR CRS MIX (3,C) 1.5" THICK (2 LIFTS) (STANDARD DUTY SECTION)		11650	SY
17	2360.504	TYPE SP 12.5 NON WEAR CRS MIX (3,C) 2.0" THICK (2 LIFTS) (HEAVY DUTY SECTION)		11575	SY
18	2501.502	15" RC PIPE APRON		1	EA
19	2501.502	24" RC PIPE APRON		3	EA
20	2501.502	30" RC PIPE APRON		3	EA
21	2501.502	36" RC PIPE APRON		2	EA
22	2501.502	48" RC PIPE APRON		1	EA
23	2501.502	51" X 31" RC ARCH PIPE APRON		1	EA
24	2502.503	6" PERF PVC PIPE DRAIN, SDR 35		5225	LF
25	2502.602	6" PVC PIPE DRAIN CLEAN-OUT		18	EA
26	2503.503	15" RC PIPE SEWER DESIGN 3006		417	LF
27	2503.503	18" RC PIPE SEWER DESIGN 3006		12	LF
28	2503.503	24" RC PIPE SEWER DESIGN 3006		181	LF
29	2503.503	30" RC PIPE SEWER DESIGN 3006		888	LF
30	2503.503	36" RC PIPE SEWER DESIGN 3006		292	LF
31	2503.503	48" RC PIPE SEWER DESIGN 3006		136	LF
32	2503.503	51" X 31" RC ARCH PIPE		299	LF
33	2503.602	CONNECT TO EXISTING STORM SEWER		1	EA
34	2503.603	12" PIPE SEWER (STORM)		101	LF
35	2503.603	15" PIPE SEWER (STORM)		144	LF
36	2503.603	18" PIPE SEWER (STORM)		52	LF
37	2503.603	24" PIPE SEWER (STORM)		40	LF
38	2503.603	30" PIPE SEWER (STORM)		77	LF
39	2503.603	36" PIPE SEWER (STORM)		453	LF
40	2506.602	STORM SEWER CASTING ASSEMBLY		23	EA
41	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 48-4020		18.5	LF
42	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 60-4020		13.4	LF
43	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 72-4020		15.8	LF
44	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 84-4020		14.7	LF
45	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 48-4022		5.5	LF
46	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 60-4022		29.1	LF
47	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 72-4022		6.2	LF
48	2506.602	CONSTRUCT DRAINAGE STRUCTURE MANKATO STD. 3		7	EA
49	2506.602	CONSTRUCT DRAINAGE STRUCTURE SPECIAL 1		1	EA
50	2511.507	RANDOM RIPRAP CLASS III/A		378	CY

STATEMENT OF ESTIMATED QUANTITIES					
ITEM NO.	MNDOT ITEM NO.	ITEM	NOTES	ESTIMATED QUANTITY	UNIT
51	2521.518	3" BITUMINOUS WALK		20950	SF
52	2521.518	4" CONCRETE WALK		11850	SF
53	2521.518	6" CONCRETE WALK		775	SF
54	2531.503	CONCRETE CURB & GUTTER DESIGN B618		5460	LF
55	2531.503	CONCRETE CURB & GUTTER DESIGN B624		230	LF
56	2531.504	4" CONCRETE MEDIAN		215	SY
57	2531.504	8" CONCRETE DRIVEWAY		455	SY
58	2531.618	TRUNCATED DOMES		84	SF
59	2545.502	LIGHTING UNIT TYPE E		14	EA
60	2545.502	LIGHTING UNIT TYPE SPECIAL		1	EA
61	2545.502	LUMINAIRE (LED)		16	EA
62	2545.502	LIGHT FOUNDATION DESIGN STEEL E		15	EA
63	2545.502	INSTALL LIGHTING SERVICE CABINET (MANKATO 100 AMP)		1	EA
64	2545.502	EQUIPMENT PAD		1	EA
65	2545.503	2" NON-METALLIC CONDUIT		2400	LF
66	2545.503	UNDERGROUND WIRE 1/C #6 AWG		7200	LF
67	2545.503	GROUNDWIRE 1/C #8 INS. GR.		2400	LF
68	2557.502	ELECTRICAL GROUND		9	EA
69	2563.601	TRAFFIC CONTROL		1	LS
70	2564.502	OBJECT MARKER		1	EA
71	2564.518	SIGN PANELS TYPE C		71.4	SF
72	2564.518	SIGN PANELS TYPE SPECIAL		1	EA
73	2565.602	TRANSFORMER AND SERVICE EQUIPMENT (DESIGN BY OTHERS)		1	EA
74	2571.524	DECIDUOUS TREE 2" CAL B&B - BICOLOR OAK		28	TREE
75	2571.524	DECIDUOUS TREE 2" CAL B&B - DISCOVERY ELM		27	TREE
76	2571.524	DECIDUOUS TREE 2" CAL B&B - HACKBERRY		23	TREE
77	2571.524	DECIDUOUS TREE 2" CAL B&B - HONEY LOCUST		26	TREE
78	2573.501	STORM DRAIN INLET PROTECTION		21	EA
79	2573.501	STABILIZED CONSTRUCTION EXIT		1	EA
80	2573.503	SILT FENCE, TYPE MS		3100	LF
81	2574.508	FERTILIZER TYPE 3		2520	LB
82	2575.504	ROLLED EROSION PREVENTION CATEGORY 20		15000	SY
83	2575.505	SEEDING		8.4	AC
84	2575.508	SEED MIXTURE 25-141		160	LB
85	2575.508	SEED MIXTURE 33-261		100	LB
86	2575.508	SEED MIXTURE 35-221		265	LB
87	2575.508	HYDRAULIC MULCH MATRIX		18550	LB
88	2582.503	4" SOLID LINE PAINT (WR)		4710	LF
89	2582.503	6" SOLID LINE PAINT (WR)		800	LF
90	2582.503	24" SOLID LINE PAINT (WR)		62	LF
91	2582.503	4" BROKEN LINE PAINT (WR)		1150	LF
92	2582.503	4" DOUBLE SOLID LINE PAINT (WR)		400	LF
93	2582.503	12" DOTTED LINE PREFORM PAINT		27	LF
94	2582.518	PAVEMENT MESSAGE PREFORM PAINT		7	EA
95	2582.518	CROSSWALK PREFORM PAINT		144	SF

ISSUE FOR PERMIT

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.	
 	
ALEC W. PIETZ, P.E.	
LIC. NO. 59617	DATE 10/06/2024



**BOLTON
& MENK**

1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION

HOFFMAN ROAD EXTENSION

STATEMENT OF ESTIMATED QUANTITIES

SHEET

G1.01

© Bolton & Menk, Inc. 2024. All Rights Reserved.
A:\WESTA\DWG\1228460\CD\1 - Public Improvements_Plan\1228460\CD_1.dwg 10/6/2024 9:18:45 AM

STORM SEWER TABLE									
SERIES / ALIGNMENT	STRUCTURE NUMBER	STRUCTURE DESIGN	STATION	CASTING	RIM ELEV	LOW INVERT ELEV	DOWNSTREAM STRUCTURE	HEIGHT	NOTES
A-SERIES	A-1	24" RC APRON	N/A	N/A	N/A	1009.30	OUTFALL	N/A	
	A-2	24" RC APRON	N/A	N/A	N/A	1009.30	OUTFALL	N/A	
	A-3	24" RC APRON	N/A	N/A	N/A	1009.59	A-2	N/A	
	A-4	15" RC APRON	1+44.9	N/A	N/A	1009.52	OUTFALL	N/A	
	A-5	MKTO 2402C	0+71.3	C-3	1013.79	1009.89	A-4	3.90 LF	
	A-6	MKTO 2402C	0+25.0	C-3	1013.62	1010.12	A-5	3.50 LF	
B-SERIES (WEST)	B-1	36" RC APRON	2+43.2	N/A	N/A	1006.00	BASIN	N/A	
	B-2	60-4022	0+94.8	C-2	1012.26	1006.45	B-1	5.81 LF	
	B-2A	MKTO 2402C	0+94.8	C-2	1012.35	1008.35	B-2	4.00 LF	
	B-3	60-4022	0+50.0	C-2	1012.26	1006.58	B-2	5.68 LF	
	B-3A	MKTO 2402C	0+50.0	C-2	1012.34	1008.34	B-3	4.00 LF	
B-SERIES (EAST)	B-4	30" RC APRON	1+78.9	N/A	N/A	1006.00	BASIN	N/A	
	B-5	60-4022	0+91.8	C-3	1012.33	1006.26	B-4	6.07 LF	
	B-6	60-4022	0+50.0	C-3	1012.33	1006.39	B-5	5.94 LF	
C-SERIES	C-1	36" RC APRON	506+64.6	N/A	N/A	1005.50	BASIN	N/A	
	C-2	72-4020	505+97.1	C-1	1012.01	1005.62	C-1	6.39 LF	
	C-3	60-4022	501+44.4	C-3	1012.10	1006.53	C-2	5.57 LF	
	C-4	84-4020	501+13.5	C-1	1012.44	1006.59	C-3	5.85 LF	
	C-4A	48-4022	501+01.6	C-3	1012.14	1006.65	C-4	5.49 LF	
	C-4B	48-4020	500+50.0	C-4	1012.98	1006.91	C-4A	6.07 LF	
	C-5	60-4020	513+12.9	C-1	1013.50	1007.08	C-4	6.42 LF	
	C-6	60-4020	516+02.7	C-1	1014.60	1007.66	C-5	6.94 LF	
	C-7	72-4022	516+74.2	C-3	1013.93	1007.80	C-6	6.13 LF	
	C-7A	MKTO 2402C	516+72.1	C-3	1013.96	1009.50	C-7	4.46 LF	
	C-8	48-4020	517+63.5	C-1	1014.87	1008.07	C-7	6.80 LF	
	C-9	48-4020	520+17.3	C-1	1014.39	1008.83	C-8	5.56 LF	
	C-10	MKTO 2402C	520+73.0	C-3	1013.94	1009.51	C-9	4.43 LF	
P-SERIES (WEST)	C-10A	MKTO 2402C	520+66.6	C-3	1013.94	1009.94	C-10	4.00 LF	
	P-1	48" RC APRON	0+63.9	N/A	N/A	1002.00	P-2	N/A	
	P-2	72-4020	1+38.6	C-5	1011.00	1001.63	P-3	9.37 LF	
	P-3	84-4020	2+00.0	C-1	1008.80	1000.00	P-4	8.80 LF	
P-SERIES (EAST)	P-4	51"X31" ARCH APRON	4+99.4	N/A	N/A	1000.00	BASIN	N/A	
	P-5	30" RC APRON	0+54.0	N/A	N/A	1001.00	P-6	N/A	
	P-6	SPECIAL 1	1+00.0	N/A	1011.00	1001.00	P-7	10.00 LF	SEE SHEET C5.10
	P-7	30" RC APRON	2+38.5	N/A	N/A	1005.00	OUTFALL	N/A	

CASTING ASSEMBLY TABLE			
CASTING ID	CASTING DESIGNATION	CASTING TYPE	NUMBER REQ'D
C-1	NEENAH R-1733	PLATEN LID LETTERED "STORM SEWER" WITH TWO CONCEALED PICKHOLES	7
C-2	NEENAH R-3067-V	CURB INLET FRAME & CURB BOX WITH TYPE V-VANE GRATE	4
C-3	NEENAH R-3067-VB	CURB INLET FRAME & CURB BOX WITH BI-DIRECTIONAL TYPE V-VANE GRATE	10
C-4	NEENAH R-2573-C	INLET FRAME, TYPE C GRATE	1
C-5	SPECIAL 1	INLET GRATE SHALL BE SIMILAR CONSTRUCTION AS SHOWN ON DESIGN SPECIAL 1 (SEE SHEET C5.10)	1

ISSUE FOR PERMIT

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.


ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



**BOLTON
& MENK**

1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION

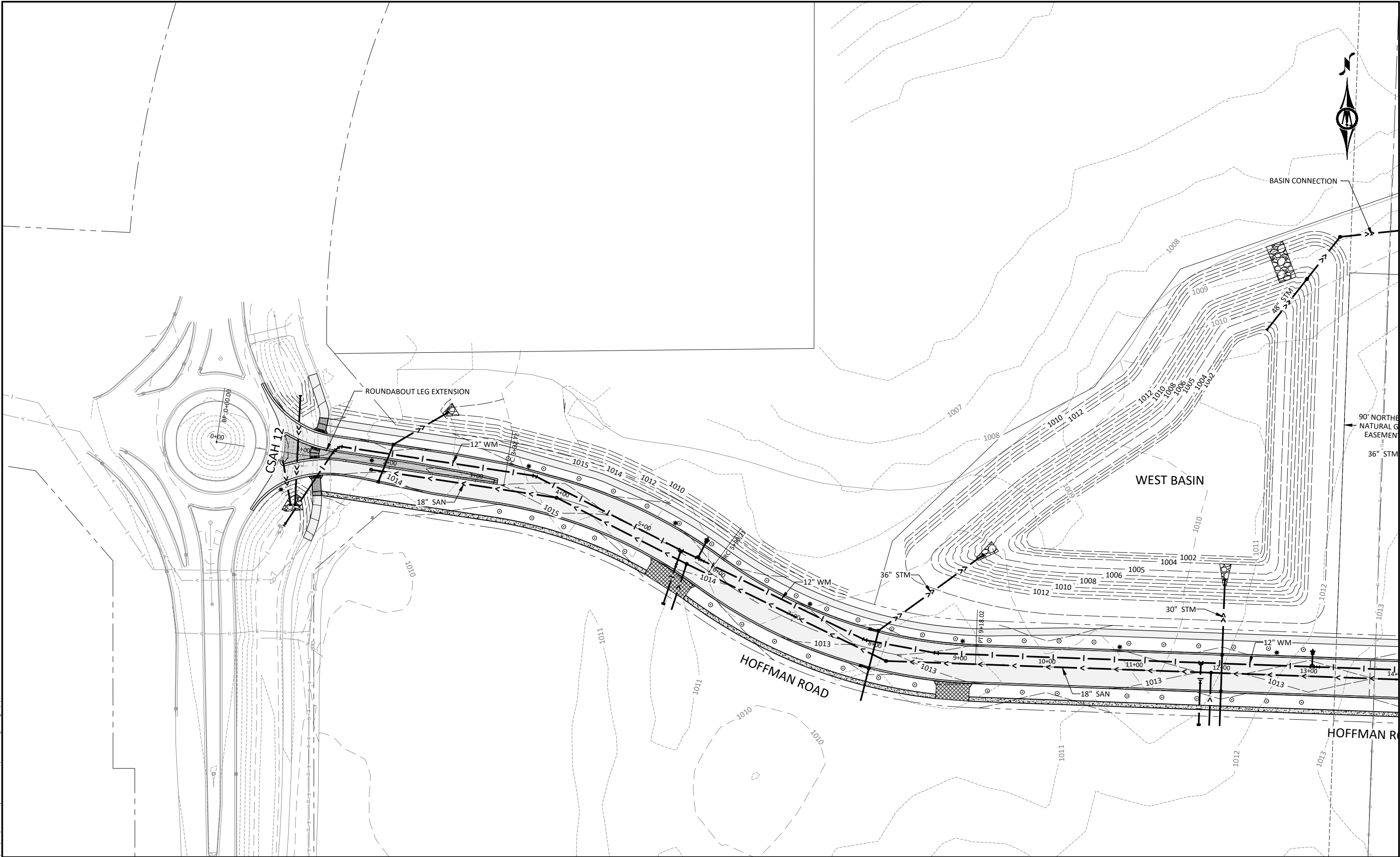
HOFFMAN ROAD EXTENSION

CONSTRUCTION DETAIL TABLES

SHEET

G1.02

© Bolton & Menk, Inc. 2024. All Rights Reserved.
A:\WESTA\01128460\CD\CD1 - Public Improvements Plans\128460\CD1 - PI.dwg 10/6/2024 9:19:07 AM



ISSUE FOR PERMIT

HORZ. SCALE 0 50 100 FEET

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.

Alec W. Pietz
ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



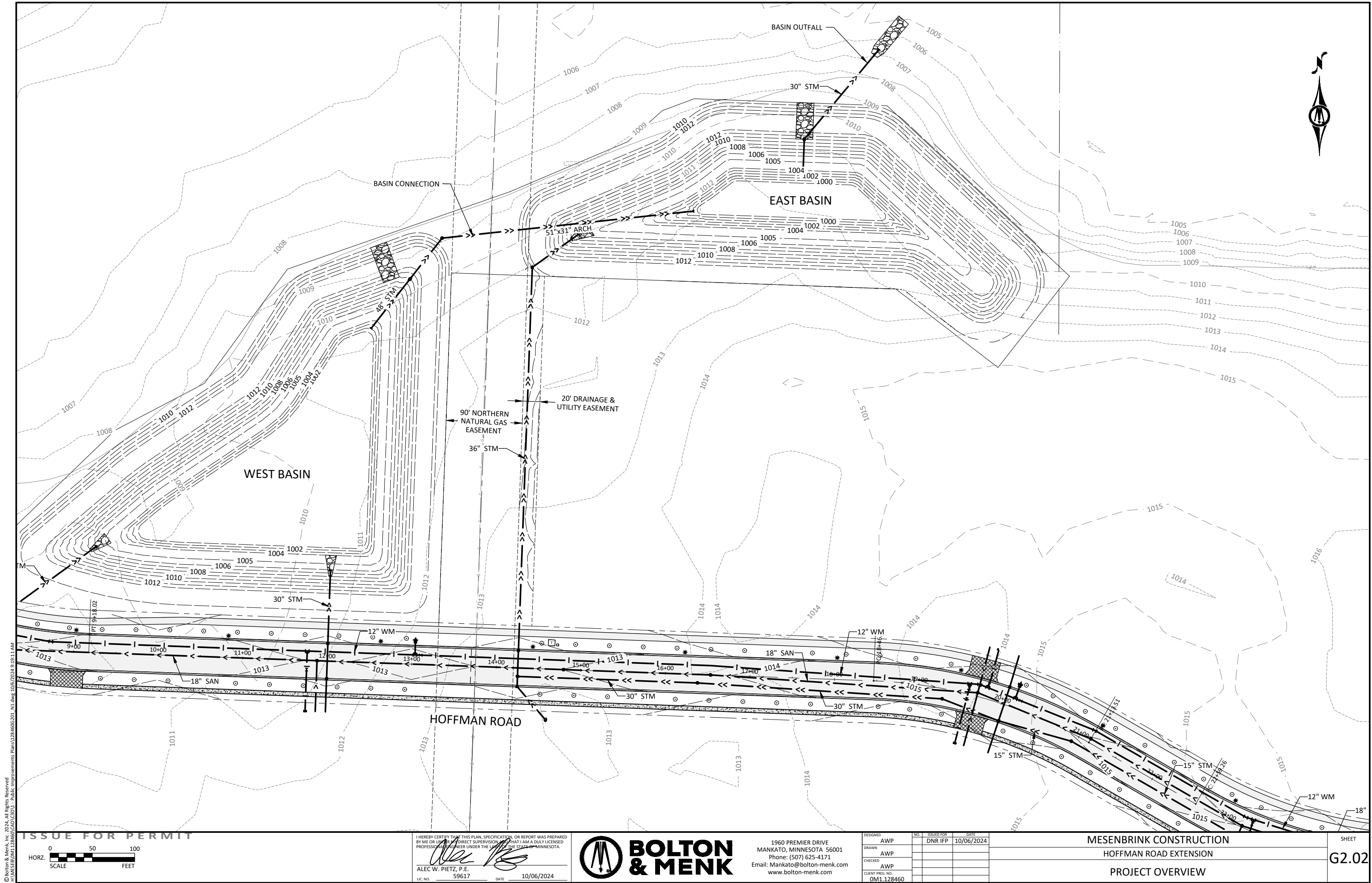
BOLTON & MENK

1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
PROJECT OVERVIEW

SHEET
G2.01



© Bolton & Menk, Inc. 2024. All Rights Reserved.
11/15/2024 12:29:45 PM - Public Improvements Plans 128460201 - 11/15/2024 9:19:11 AM

ISSUE FOR PERMIT

0 50 100
HORIZ. SCALE FEET

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.

ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024

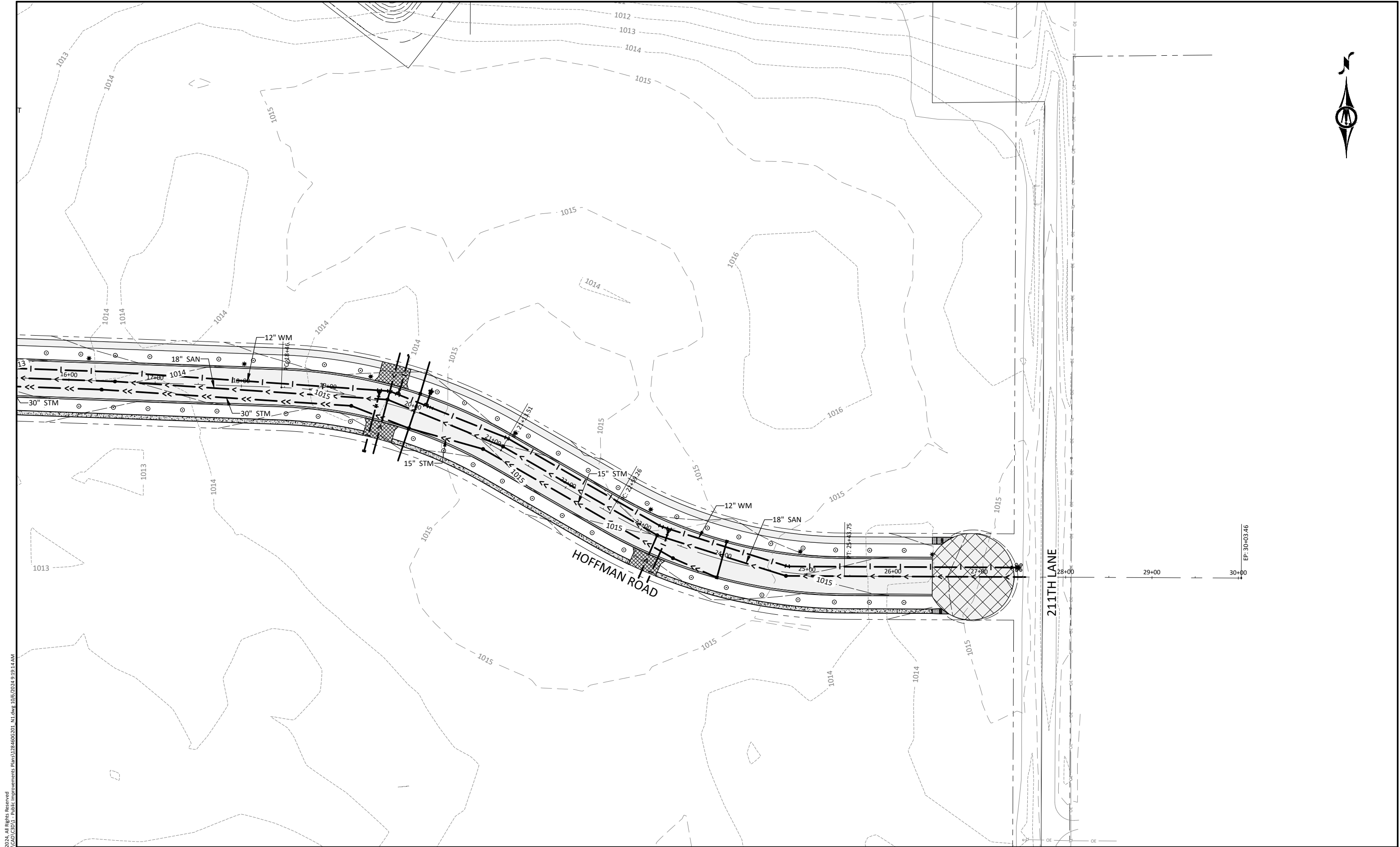


1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
PROJECT OVERVIEW

SHEET
G2.02



© Bolton & Menk, Inc. 2024. All Rights Reserved.
A:\WESTA\128460\128460-CD\1 - Public Improvements Plans\128460\201 - 10/06/2024 9:19:14 AM

ISSUE FOR PERMIT

HORZ. SCALE 0 50 100 FEET

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.

ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024

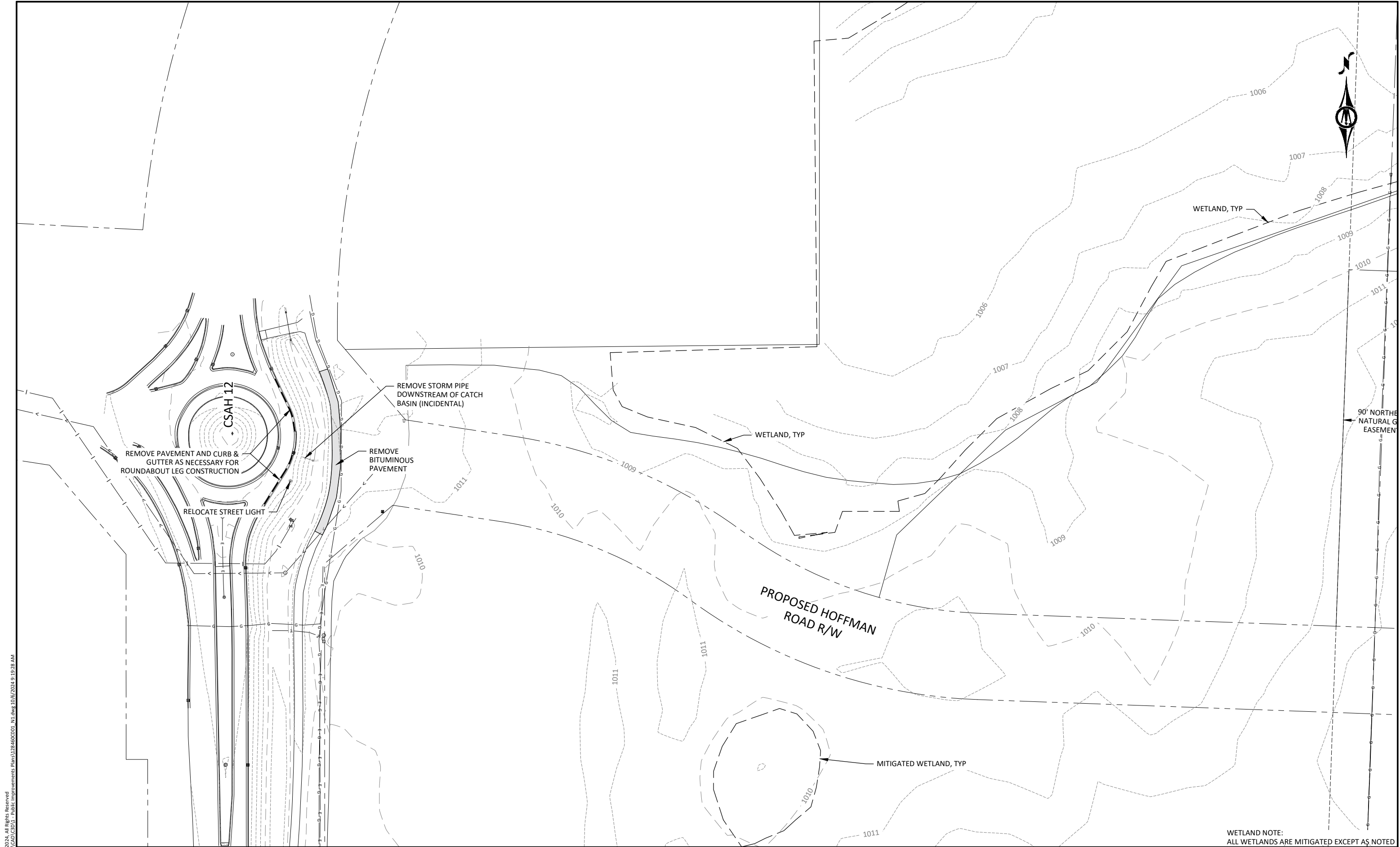
BOLTON & MENK

1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
PROJECT OVERVIEW

SHEET
G2.03



© Bolton & Menk, Inc. 2024. All Rights Reserved.
A:\WESTA\01128460\CD\1 - Public Improvements Plans\128460CD01_1.dwg, 10/6/2024 9:19:28 AM

ISSUE FOR PERMIT

HORZ. SCALE 0 50 100 FEET

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.

ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



BOLTON & MENK

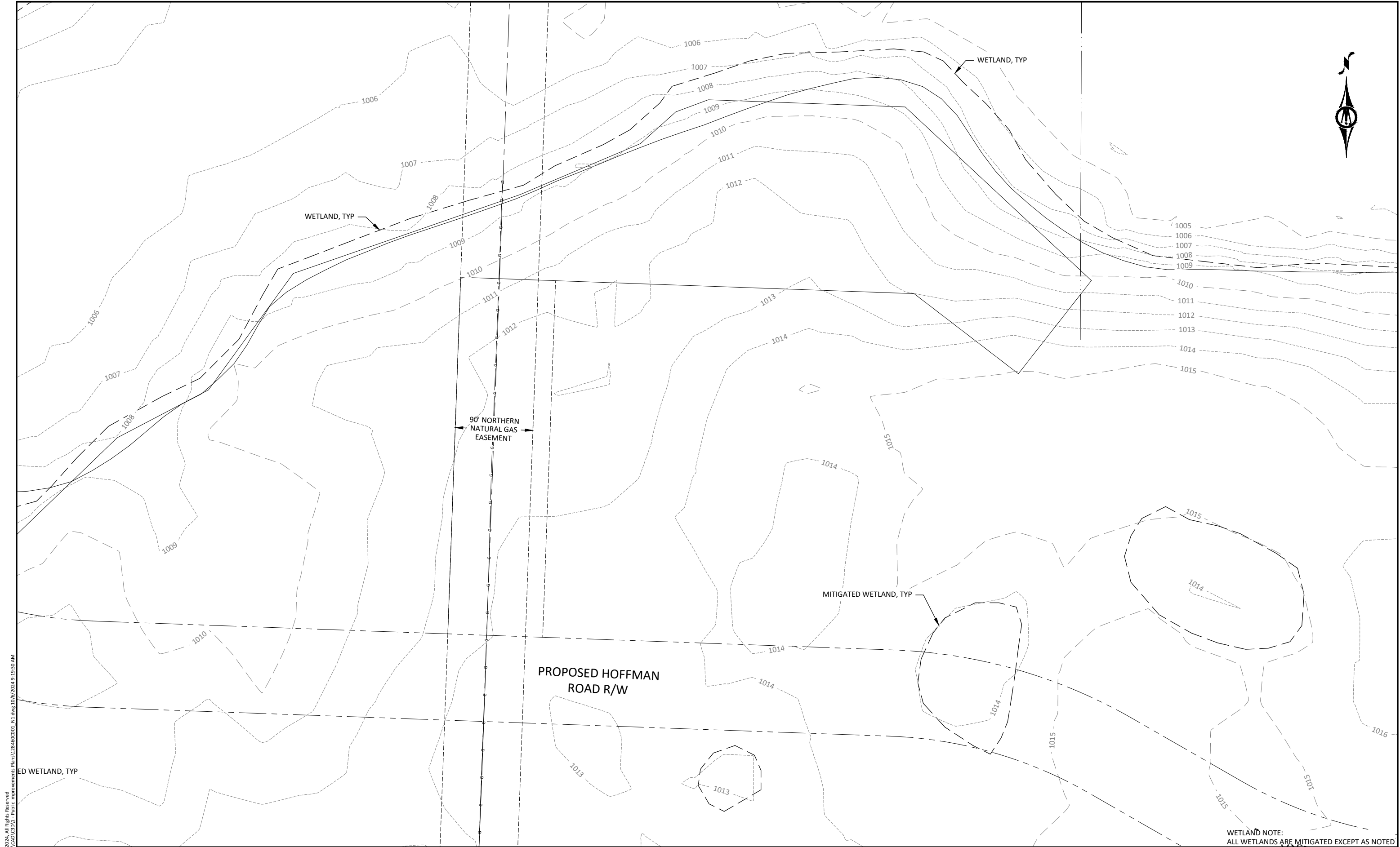
1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	AWP	NO.	ISSUED FOR	DATE
DRAWN	AWP		DNR IFP	10/06/2024
CHECKED	AWP			
CLIENT PROJ. NO.	0M1.128460			

MESENBRINK CONSTRUCTION	
HOFFMAN ROAD EXTENSION	
EXISTING CONDITIONS & REMOVAL PLAN	

SHEET
C0.01

WETLAND NOTE:
ALL WETLANDS ARE MITIGATED EXCEPT AS NOTED



© Bolton & Menk, Inc. 2024. All Rights Reserved.
11/15/2024 10:12:46 AM - Public Improvements: Plans\128460\CD01 - 11.dwg 10/6/2024 9:19:30 AM

ISSUE FOR PERMIT

HORZ. SCALE 0 50 100 FEET

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.

ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



BOLTON & MENK

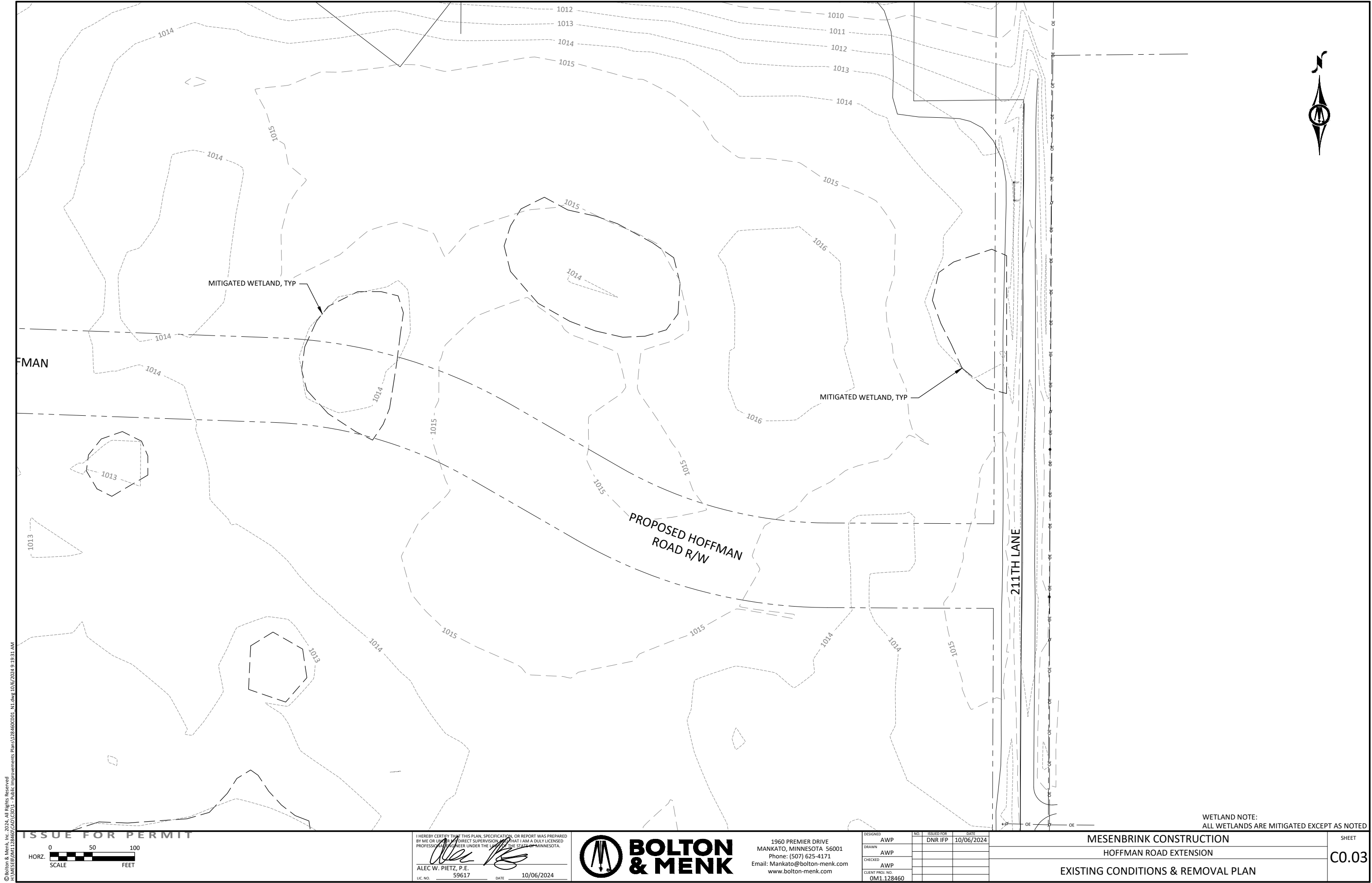
1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	AWP	NO.	ISSUED FOR	DATE
DRAWN	AWP		DNR IFP	10/06/2024
CHECKED	AWP			
CLIENT PROJ. NO.	0M1.128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
EXISTING CONDITIONS & REMOVAL PLAN

SHEET
C0.02

WETLAND NOTE:
ALL WETLANDS ARE MITIGATED EXCEPT AS NOTED



WETLAND NOTE:
ALL WETLANDS ARE MITIGATED EXCEPT AS NOTED



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.

Alec W. Pietz
ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



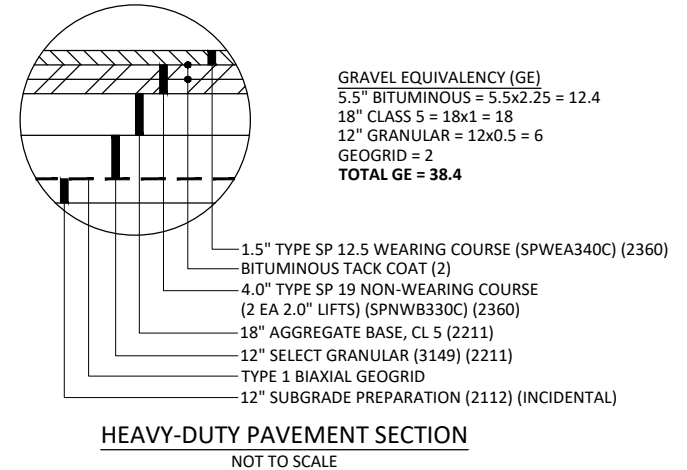
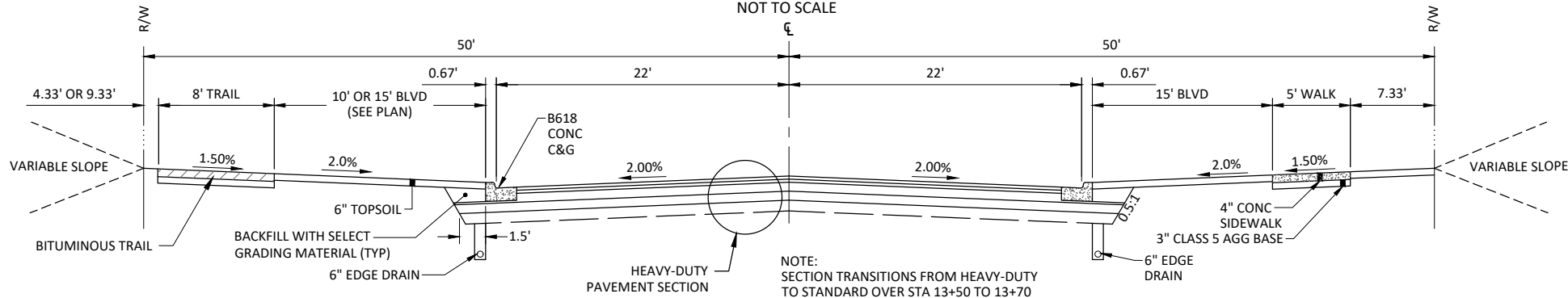
1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	AWP	NO.	ISSUED FOR	DATE
DRAWN	AWP		DNR IFP	10/06/2024
CHECKED	AWP			
CLIENT PROJ. NO.	0M1.128460			

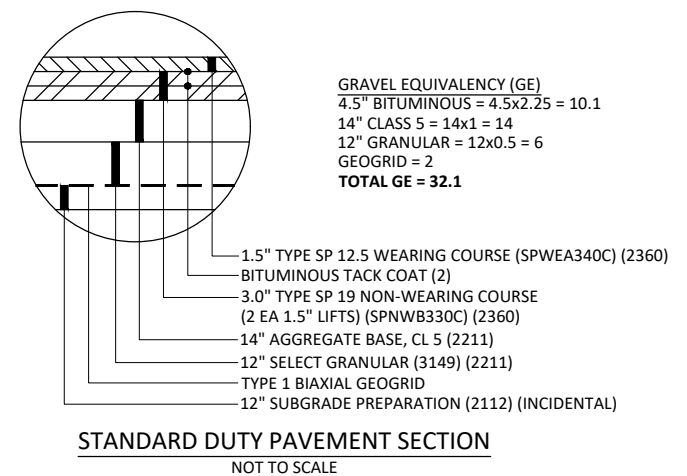
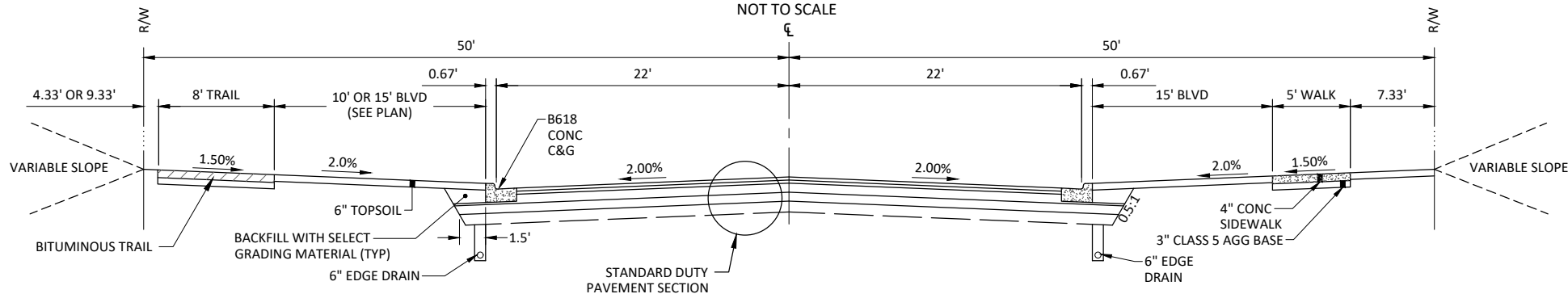
MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
EXISTING CONDITIONS & REMOVAL PLAN

SHEET
C0.03

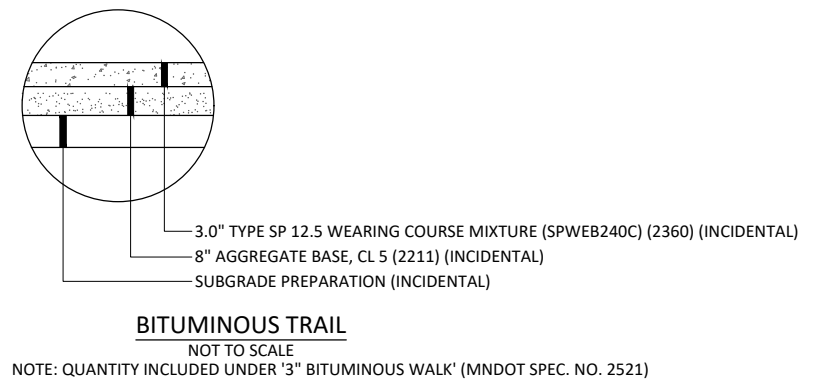
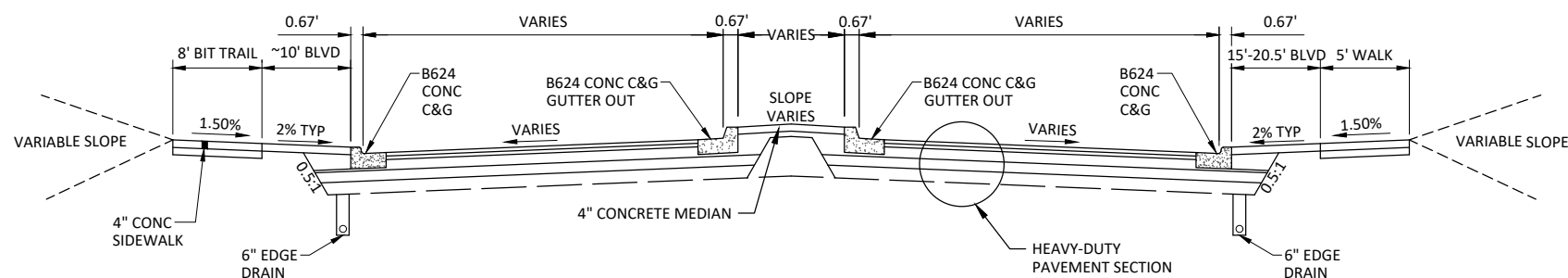
PROPOSED TYPICAL SECTION
HOFFMAN ROAD - STA 0+00 TO 13+50
NOT TO SCALE



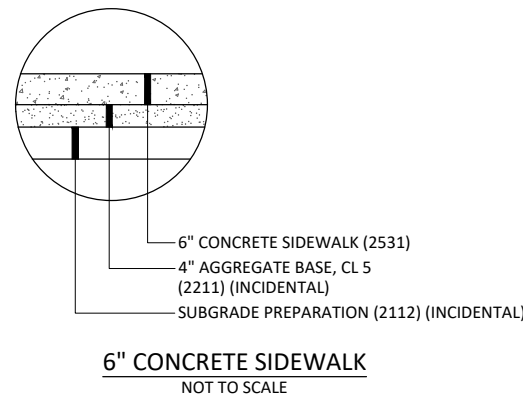
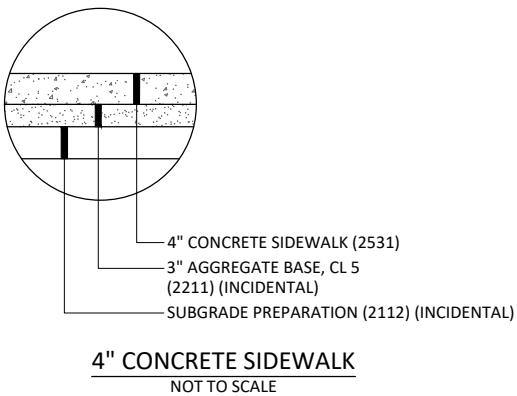
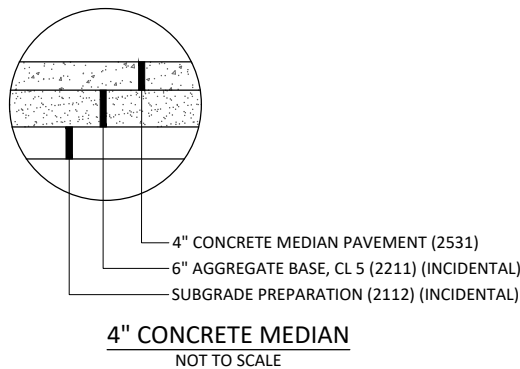
PROPOSED TYPICAL SECTION
HOFFMAN ROAD - STA 13+70 TO 26+45
NOT TO SCALE



TYPICAL SECTION - ROUNDABOUT APPROACH
HOFFMAN ROAD
NOT TO SCALE



GENERAL NOTE:
SEE ROUNDABOUT GRADING &
CONSTRUCTION SHEETS FOR CURB
AND GUTTER ELEVATIONS/TYPES,
SIDEWALK, AND VARIOUS SLOPES



ISSUE FOR PERMIT

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.

ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
TYPICAL SECTIONS

SHEET

C1.01

© Bolton & Menk, Inc. 2024. All Rights Reserved.
P:\Mesa\128460\128460-CDD1 - Public Improvements Plans\128460-CDD1.dwg 10/6/2024 9:19:42 AM

MANKATO STANDARD PLATES	
AVAILABLE ON CITY WEBSITE	
mankatomn.gov/your-government/departments/public-works/engineering	
PLATE NO.	DESCRIPTION
2002A	TEMPORARY MANHOLE INSERTS
2003A	STABILIZED CONSTRUCTION EXIT
2100A	GRANULAR BEDDING AND ENCASEMENT
2200A	SANITARY SEWER MANHOLE
2203A	INTERNAL CHIMNEY SEAL
2240A	STANDARD SANITARY SERVICE
2241A	DEEP SANITARY SERVICE
2320A	WATERMAIN CONSTRUCTION AROUND OBSTACLES
2321A	GATE VALVE ADAPTOR
2322A	HYDRANT DETAIL
2340B	WATER SERVICE
2402C	MANKATO STANDARD CATCH BASIN 3
2420B	DRAIN TILE TRENCH DETAIL
2421A	DRAIN TILE CLEANOUT END/THRU BOULEVARD
2540B	STANDARD DRIVEWAY APPROACH FOR ALL CURB TYPES
2640A	EQUIPMENT PAD
2650A	LIGHT BASE DESIGN STEEL (E)
2660A	100 AMP LIGHTING SERVICE

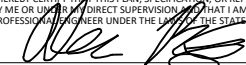
MNDOT STANDARD PLATES	
PLATE NO.	DESCRIPTION
3000L	REINFORCED CONCRETE PIPE (5 SHEETS)
3006G	GASKET JOINT FOR R.C. PIPE (2 SHEETS)
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3133D	RIPRAP AT RCP OUTLETS
4007C	PRECAST MECHANICAL JOINT SEWER MANHOLE
4011E	PRECAST CONCRETE BASE
4020J	MANHOLE OR CATCH BASIN (FOR USE WITH OR WITHOUT TRAFFIC LOADS) (2 SHEETS)
4022A	MANHOLE OR CATCH BASIN COVER (3 ft. X 2 ft. OPENING)
4026A	CONCRETE ENCASED CONCRETE ADJUSTING RINGS
4101D	RING CASTING FOR MANHOLE OR CATCH BASIN
4110F	COVER CASTING FOR MANHOLE (FOR USE IN ALL TRAFFIC AREAS) - CASTING NO. 715 AND 716
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, S AND R)
7111J	INSTALLATION OF CATCH BASIN CASTINGS (CONCRETE CURB AND GUTTER)

PEDESTRIAN RAMP NOTE:
REFER TO THE LATEST MNDOT STANDARD PLANS 5-297.250
FOR PROPER PEDESTRIAN RAMP INSTALLATION

TRACER WIRE NOTE:
REFER TO THE MINNESOTA RURAL WATER ASSOCIATION (MRWA) TRACER
WIRE SPECIFICATION GUIDE & DETAILS TO PROPERLY INSTALL TRACER WIRE
WITH WATERMAIN AND SANITARY SEWER. THE GUIDE CAN BE FOUND AT:
mrwa.com/tools.html - Tracer Wire Specification Guide & Details

ISSUE FOR PERMIT

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.


ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



**BOLTON
& MENK**

1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION

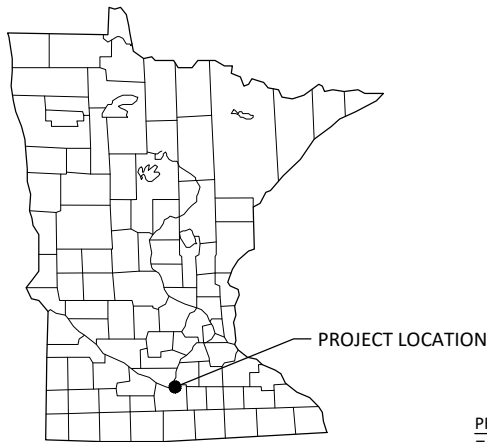
HOFFMAN ROAD EXTENSION

STANDARD PLATES AND DETAILS

SHEET

C1.02

HOFFMAN ROAD EXTENSION
CITY OF MANKATO
BLUE EARTH COUNTY, MINNESOTA



	1-MILE BOUNDARY
	PROJECT BOUNDARY
	PROTECTED AND/OR IMPAIRED WATERS
	NATIONAL WETLANDS INVENTORY

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

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

	COMPANY	CONTACT PERSON	PHONE
OWNER:	City of Mankato	Susan Arntz	507-387-8695
SWPPP DESIGNER:	Bolton & Menk, Inc.	Alec W. Pietz, P.E.	507-625-4171
CONTRACTOR:	TBD	TBD	TBD
CONSTRUCTION SWPPP MANAGER:	TBD	TBD	TBD
PARTY RESPONSIBLE FOR LONG TERM O&M:	City of Mankato	Susan Arntz	507-387-8695

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

1. The expected amount, frequency, intensity, and duration of precipitation.
2. The nature of stormwater runoff and run-on at the site
3. Peak flow rates and stormwater volumes to minimize erosion at outlets and downstream channel and stream bank erosion.

Total Project Size (disturbed area) =	12.1	ACRES
Existing area of impervious surface =	0.1	ACRES
Post construction area of impervious surface =	3.8	ACRES
Total new impervious surface area created =	3.7	ACRES

X	Wet Sedimentation Basin
	Infiltration/Filtration
	Regional Pond
	Permanent Stormwater Management Not Required

COUNTY	TOWNSHIP	RANGE	SECTION	LATITUDE	LONGITUDE
BLUE EARTH	T108N	R26W	15	44.1547° N	93.9340° W

BMP SUMMARY	QUANTITY	UNIT
STABILIZED CONSTRUCTION EXIT	1	EACH
STORM DRAIN INLET PROTECTION	21	EACH
SILT FENCE, TYPE MACHINE SLICED	3100	LIN FT
SEED MIX 25-141, FERTILIZE, & MULCH	1.8	ACRE
SEED MIX 33-261 & FERTILIZE	1.8	ACRE
SEED MIX 35-221, FERTILIZE & MULCH	3.5	ACRE
SEED MIX 35-221 & FERTILIZE	1.3	ACRE
RANDOM RIPRAP CLASS III/A	378	CU YD
ROLLED EROSION PREVENTION CATEGORY 20	15000	SQ YD
NOTE: QUANTITIES LISTED ACCOUNT FOR ONE INSTALLATION. ADDITIONAL INSTALLATIONS MAY BE NECESSARY AS A RESULT OF SCHEDULING AND MAINTENANCE.		

Construction activities include: Construction of public roadways and infrastructure in Mankato, Minnesota to provide service to mixed density housing and commercial development. Site improvements include pavements, storm sewer, watermain, sanitary sewer, water and sanitary services, and wet sedimentation basin construction.

After development, storm sewer and stormwater management systems will be installed to convey drainage of roadways and future site developments. Drainage district patterns were generally observed and a comprehensive drainage report was prepared detailing the stormwater design. The listed impervious area created with this project is based on the proposed public infrastructure, with the drainage report further elaborating on the full design.

1-MILE BOUNDARY

RECEIVING WATERS

PROJECT LOCATION

COUNTY DITCH

PIPELINE

Kato

Radio Towers (KTOE)

MANKATO

SCALE 0 1200 2400 FEET

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

NAME OF WATER BODY	TYPE (ditch, pond, wetland, lake, etc.)	Special, Prohibited, Restricted Water ¹	Flows to Impaired Water Within 1-Mile ²	USEPA Approved Construction Related TMDL ³
Unnamed Lake	Lake	Yes	Yes	N/A

³ Construction Related TMDLs include those related to: phosphorus, turbidity, TSS, dissolved oxygen, and/or aquatic biota.

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

- 1) Submit SWPPP Updates to Engineer. Submittal shall include any requested changes to the SWPPP, including but not limited to: Trained Personnel, Locations for Stockpiles, Concrete Washout, Sanitation Facilities, Types and Locations of Erosion & Sediment Control. Failure to submit updates shall be considered acceptance of the SWPPP as designed with no changes.
- 2) Install perimeter sediment control, inlet protection, and construction exit.
- 3) Remove existing surfaces as required.
- 4) Complete site and utility improvements.
- 5) Install additional inlet protection as needed.
- 6) Reestablish turf.
- 7) Repeat steps 2-6 as necessary throughout the project.
- 8) Add additional temporary BMPs as necessary during construction based on inspection reports.
- 9) Ensure final stabilization measures are complete.
- 10) Provide digital copy of all Field SWPPP Documentation including Inspection Reports and SWPPP Revisions to the Owner.
- 11) Submit Notice of Termination (NOT) to MPCA. NOTE: The NOT must be submitted to MPCA before Final Stabilization is considered complete.



1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1 128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
STORMWATER POLLUTION PREVENTION PLAN
PROJECT INFORMATION & LOCATION MAP

© Bolton & Menk, Inc. 2024. All Rights Reserved.
A:\WESTA\01128460\CD\1 - Public Improvements Plans\128460C201_01.dwg 10/06/2024 9:19:59 AM

Information contained in this SWPPP narrative sheet summarizes requirements of the GENERAL PERMIT AUTHORIZATION TO DISCHARGE STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM PROGRAM - Permit No: MN RI00001 (Permit) as they apply to this project. All provisions of the Permit including those not specifically cited herein shall apply to this project. The Contractor is responsible to be familiar with and comply with all conditions of the permit. The full text of the Permit is available at: <https://www.pca.state.mn.us/sites/default/files/wq-strm2-80a.pdf>

SWPPP AMENDMENTS AND SUBMITTALS

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

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

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

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

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

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

EROSION PREVENTION PRACTICES

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

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

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

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

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

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

SEDIMENT CONTROL PRACTICES

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

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

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

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

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

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

TEMPORARY SEDIMENTATION BASINS

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

DEWATERING

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

POLLUTION PREVENTION

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

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

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

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

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

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

INSPECTION & MAINTENANCE

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

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

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

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

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

Inspections must include:

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

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

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

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

PUBLIC WATER RESTRICTIONS:

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

FINAL STABILIZATION

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

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

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

SITE STABILIZATION COMPLETION:

Stabilization of exposed soils shall begin immediately and shall be completed after the construction activity has temporarily or permanently ceased no later than:	7 calendar days
--	-----------------

SITE INSPECTION INTERVAL:

A trained person shall routinely inspect the entire construction site during active construction at an interval of no less than:	3 calendar days
--	-----------------

SPECIAL ENVIRONMENTAL CONSIDERATIONS AND PERMITS:

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

SWPPP DESIGNER TRAINING DOCUMENTATION:

UNIVERSITY OF MINNESOTA
Alec W. Pietz
Design of Construction SWPPP (May 31 2027)

ISSUE FOR PERMIT

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.	
	
ALEC W. PIETZ, P.E.	
LIC. NO. 59617	DATE 10/06/2024

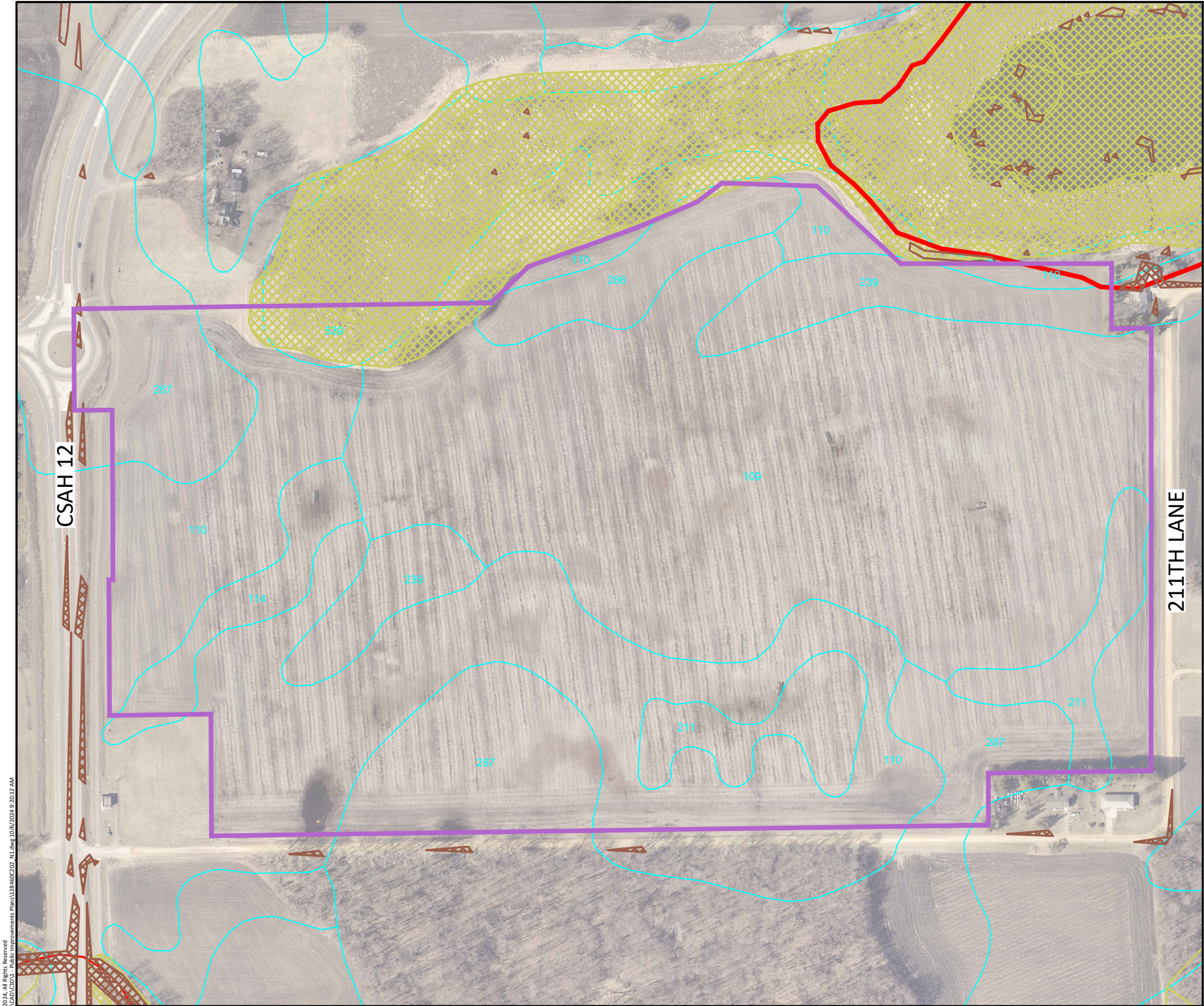


BOLTON & MENK

1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION		SHEET C2.02
HOFFMAN ROAD EXTENSION		
STORMWATER POLLUTION PREVENTION PLAN NARRATIVE		



LEGEND

- PROJECT BOUNDARY
- SOIL TYPE
- STEEP SLOPES (>33.3%)
- NATIONAL WETLANDS INVENTORY
- RECEIVING WATERS



SOIL TYPE SUMMARY

Map Unit Symbol	Soil Name	Hyd. Soil Group	Erodibility
109	Cordova clay loam	C/D	NHEL
110	Marna silty clay loam	C/D	NHEL
114	Glencoe silty clay loam	B/D	NHEL
211	Lura silty clay	C/D	NHEL
239	Le Sueur clay loam, 1 to 3 percent slopes	B/D	NHEL
286	Shorewood silty clay loam, 1 to 6 percent slopes	C/D	NHEL
287	Minnetonka silty clay loam	C/D	NHEL
539	Klossner muck, lake plain, depressional, 0 to 1 percent slopes	C/D	NHEL

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

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

DESCRIPTION	SHEET NO.
SITE MAP	C2.01
NARRATIVE & NOTES	C2.01 - C2.02
SOILS	C2.03
EROSION & SEDIMENT CONTROL DETAILS	C2.04
DIRECTION OF FLOW	C2.05 - C2.07
FINAL STABILIZATION	C2.05 - C2.07
STORM SEWER & STORMWATER MANAGEMENT	C5.01 - C5.10

© Bolton & Menk, Inc. 2024. All Rights Reserved.
M:\WESTA\01128460\CD\11 - Public Improvements Plans\128460C2.03 - H1.dwg, 10/6/2024 9:20:12 AM

ISSUE FOR PERMIT

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.

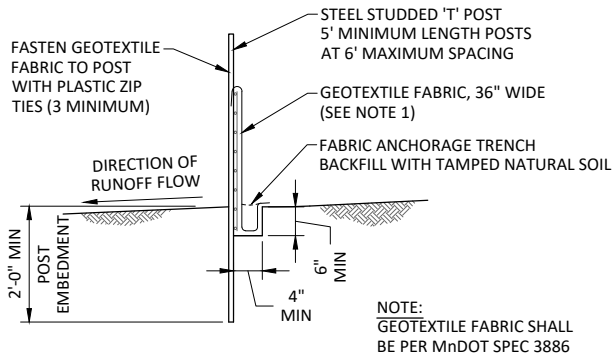
ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



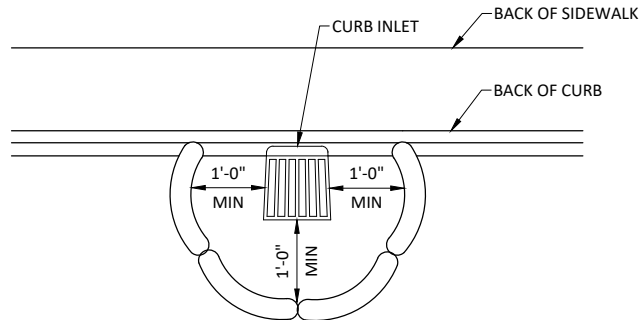
1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	AWP	NO.	ISSUED FOR	DATE
DRAWN	AWP		DNR IFP	10/06/2024
CHECKED	AWP			
CLIENT PROJ. NO.	0M1.128460			

MESENBRINK CONSTRUCTION	C2.03
HOFFMAN ROAD EXTENSION	
STORMWATER POLLUTION PREVENTION PLAN SITE & SOILS MAP	

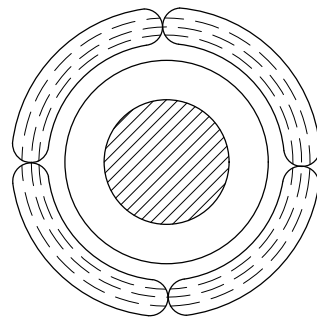


SILT FENCE - HEAVY DUTY
NOT TO SCALE

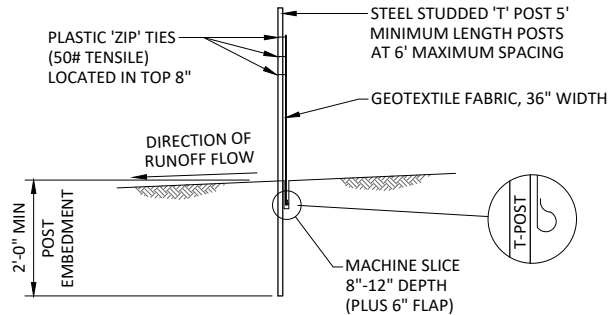


NOTE:
THIS INLET PROTECTION IS USED DURING
ROUGH GRADING ONLY, USE BEFORE ROAD
IS OPEN TO TRAFFIC OR IS PAVED

PAYMENT SHALL INCLUDE ALL MATERIALS,
FILLING OF LOG, PLACEMENT,
MAINTENANCE & REMOVAL;
80% OF BID PRICE SHALL BE PAID UPON
PROPER PLACEMENT WITH THE FINAL 20%
PAID UPON REMOVAL



**INLET PROTECTION
WITH ROCK LOG**

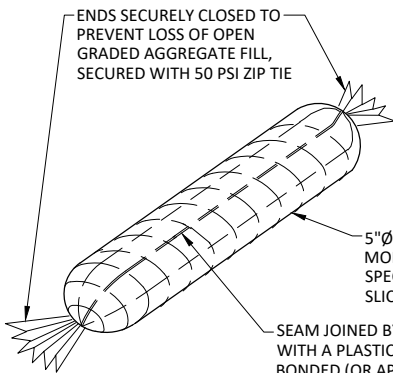


SILT FENCE - MACHINE SLICED
NOT TO SCALE

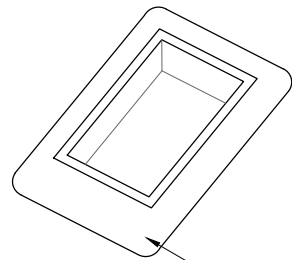
FILL ROCK LOG WITH 45 LBS. OF OPEN
GRADED AGGREGATE CONSISTING OF
SOUND, DURABLE PARTICLES OF CRUSHED
QUARRY ROCK OR GRAVEL CONFORMING
TO THE FOLLOWING GRADATION.

GRADATION	
SIEVE SIZE	PERCENT PASSING
1 1/2"	100
1"	95-100
3/4"	65-95
3/8"	30-65
NO 4	10-35
NO 10	3-20
NO 40	0-8
NO 200	0-3

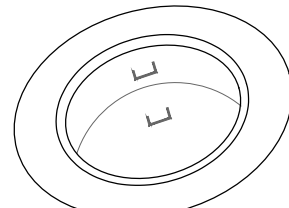
NOTE:
CRUSHED CONCRETE OR BITUMINOUS
SHALL NOT BE USED FOR OPEN
GRADED AGGREGATE.



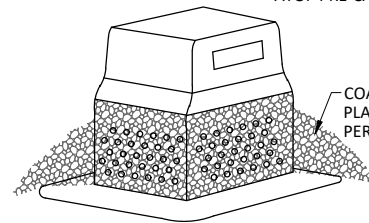
**INLET PROTECTION
ROCK BAG**
NOT TO SCALE



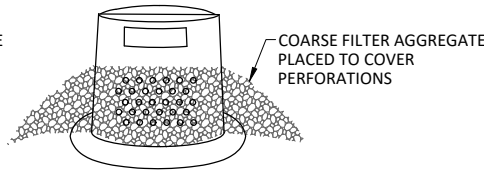
PLACE BARRIER FRAME
ATOP PRE-CAST TOP SLAB



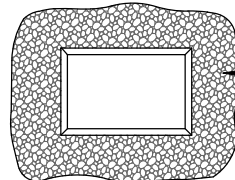
PLACE BARRIER FRAME
ATOP PRE-CAST TOP SLAB



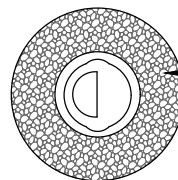
COARSE FILTER AGGREGATE
PLACED TO COVER
PERFORATIONS



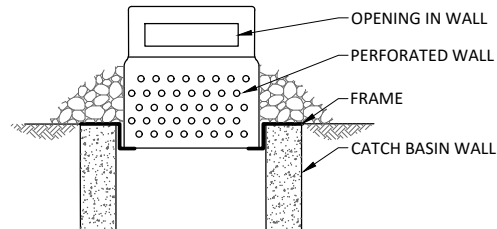
COARSE FILTER AGGREGATE
PLACED TO COVER
PERFORATIONS



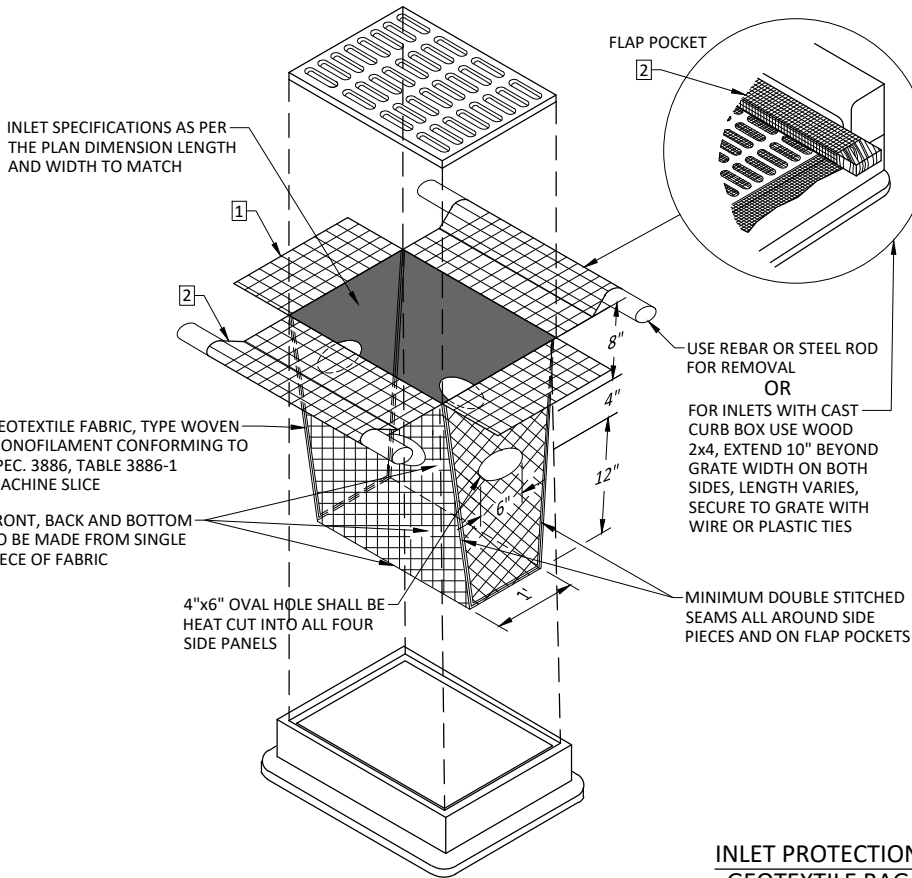
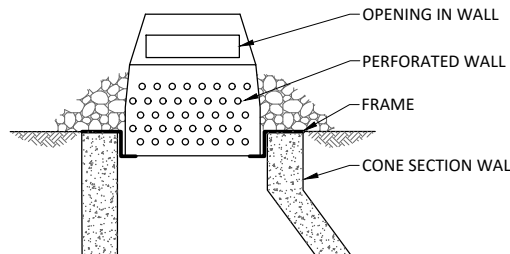
TOP VIEW



TOP VIEW



**INLET PROTECTION
PERFORATED WALL**
NOT TO SCALE



**INLET PROTECTION
GEOTEXTILE BAG**
NOT TO SCALE

NOTES:
1 INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE
DIRECTION OF THE ENGINEER. MANUFACTURED ALTERNATIVES APPROVED
AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT
ACCEPTABILITY LIST MAY BE SUBSTITUTED. WHEN REMOVING OR
MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE
SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL IN THE INLET.
ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

2 FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED, SHALL EXTEND A
MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR
REMOVAL.

FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2x4.

INSTALLATION NOTES:
DO NOT INSTALL PROTECTION IN INLETS SHALLOWER THAN 30", MEASURED
FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE
INLET AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES,
OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING
PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED
AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

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.

ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
STORMWATER POLLUTION PREVENTION PLAN
BEST MANAGEMENT PRACTICE DETAILS

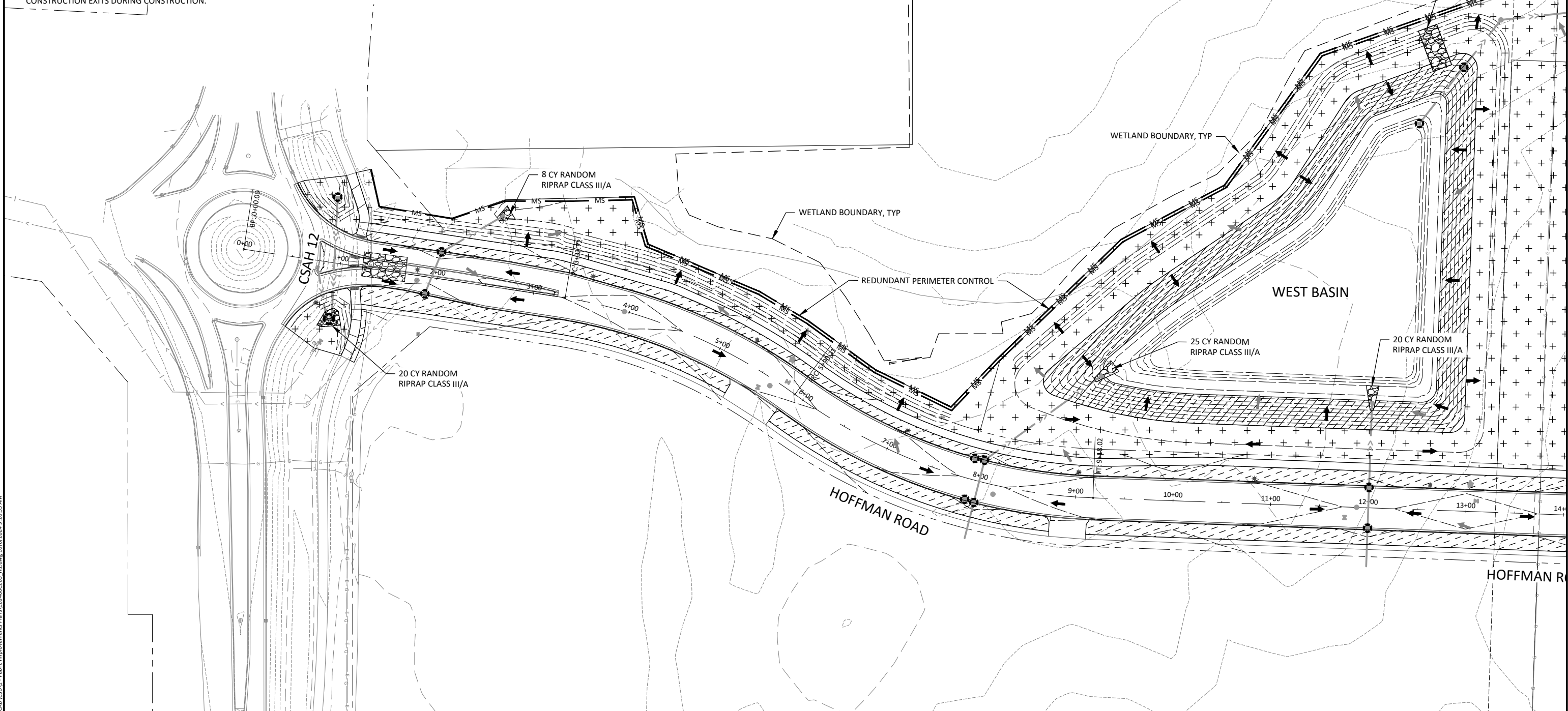
SHEET

C2.04

	EXISTING/PROPOSED DRAINAGE FLOW		SEED MIX 25-141 & FERTILIZE, & MULCH
	SILT FENCE, MACHINE SLICED OR APPROVED EQUAL		SEED MIX 33-261, FERTILIZE, & ROLLED EROSION PREVENTION CAT 20
	STABILIZED CONSTRUCTION EXIT		SEED MIX 35-221, FERTILIZE, & MULCH (ROLLED EROSION PREVENTION CAT 20 IN STEEP SLOPES)
	STORM DRAIN INLET PROTECTION		



1. ALL NECESSARY BMP'S SHALL BE IN PLACE PRIOR TO THE START OF CONSTRUCTION. ALL BMP'S SHALL BE INSPECTED EVERY 7 DAYS AND WITHIN 72 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN A 24 HOUR PERIOD. ALL NON FUNCTIONING BMP'S SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF DISCOVERY.
2. ALL STORM SEWER INLETS SHALL HAVE INLET PROTECTION IN PLACE AS NEEDED UNTIL DISTURBED TURF IS STABILIZED.
3. ALL PERIMETER CONTROL IS TO BE REMOVED UPON ESTABLISHED TURF RESTORATION.
4. CONTRACTOR TO COORDINATE THE REMOVAL AND REPLACEMENT OF TEMPORARY ROCK CONSTRUCTION EXITS DURING CONSTRUCTION.



A horizontal scale bar labeled "HORIZ." on the left. It has numerical markings at 0, 50, and 100. The bar is divided into alternating black and white segments, with the word "SCALE" below the 0 mark and "FEET" below the 100 mark.

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.

ALEC W. PIETZ, P.E.

LIC. NO. 59617 DATE 10/06/2024

**BOLTON
& MENK**

1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2022
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO. 0M1.128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
STORMWATER POLLUTION PREVENTION PLAN
EROSION & SEDIMENT CONTROL PLAN

SHEET

C2.05

→ →

EXISTING/PROPOSED DRAINAGE FLOW

— MS —

SILT FENCE, MACHINE SLICED OR APPROVED EQUAL

STABILIZED CONSTRUCTION EXIT

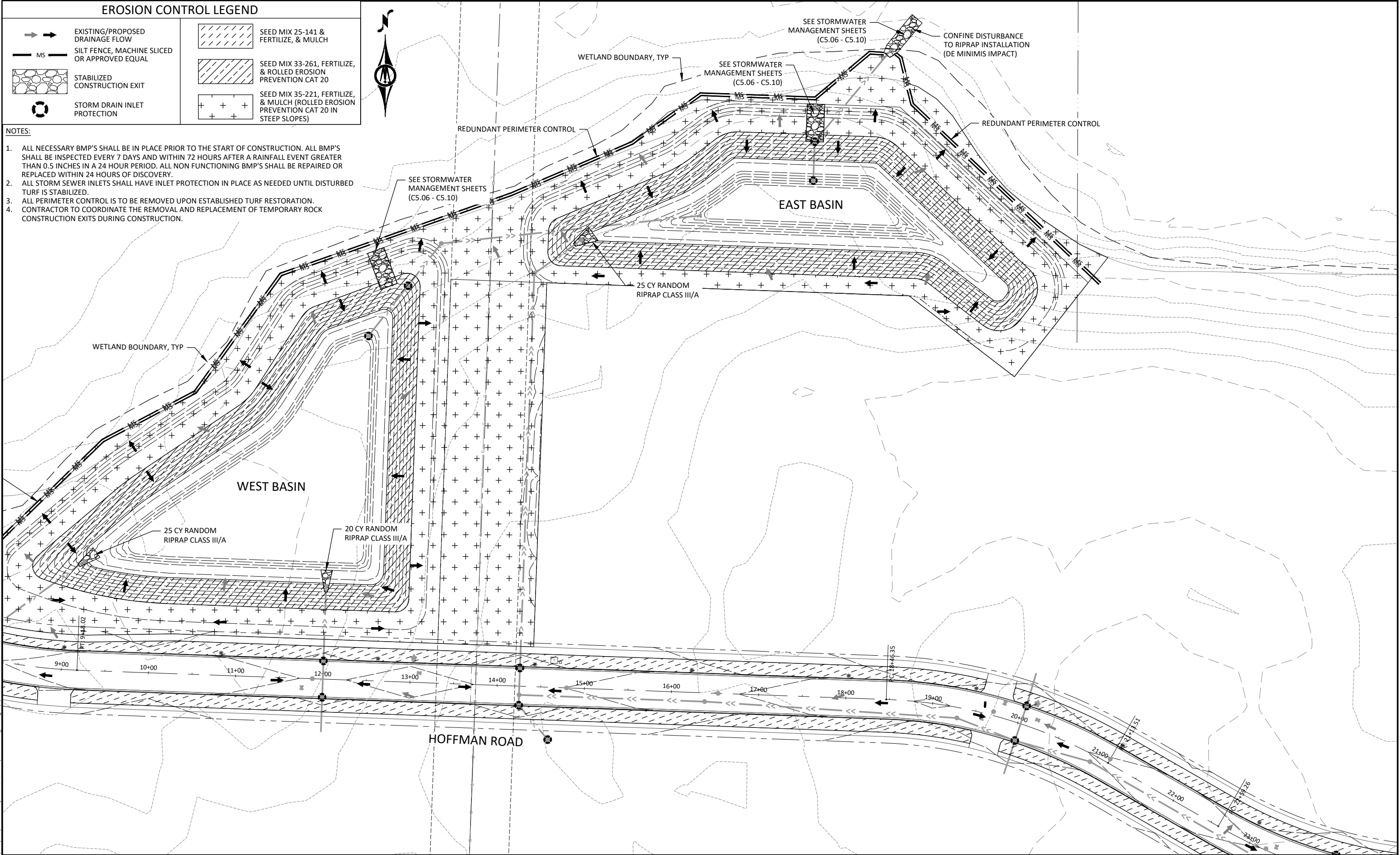
STORM DRAIN INLET PROTECTION

SEED MIX 25-141 & FERTILIZE, & MULCH

SEED MIX 33-261, FERTILIZE, & ROLLED EROSION PREVENTION CAT 20

SEED MIX 35-221, FERTILIZE, & MULCH (ROLLED EROSION PREVENTION CAT 20 IN STEEP SLOPES)

- NOTES:
- ALL NECESSARY BMP'S SHALL BE IN PLACE PRIOR TO THE START OF CONSTRUCTION. ALL BMP'S SHALL BE INSPECTED EVERY 7 DAYS AND WITHIN 72 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN A 24 HOUR PERIOD. ALL NON FUNCTIONING BMP'S SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF DISCOVERY.
 - ALL STORM SEWER INLETS SHALL HAVE INLET PROTECTION IN PLACE AS NEEDED UNTIL DISTURBED TURF IS STABILIZED.
 - ALL PERIMETER CONTROL IS TO BE REMOVED UPON ESTABLISHED TURF RESTORATION.
 - CONTRACTOR TO COORDINATE THE REMOVAL AND REPLACEMENT OF TEMPORARY ROCK CONSTRUCTION EXITS DURING CONSTRUCTION.



ISSUE FOR PERMIT

0 50 100

HORZ. SCALE FEET

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.

ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024

BOLTON & MENK

1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
CHECKED			
CLIENT PROJ. NO.			

MESENBRINK CONSTRUCTION

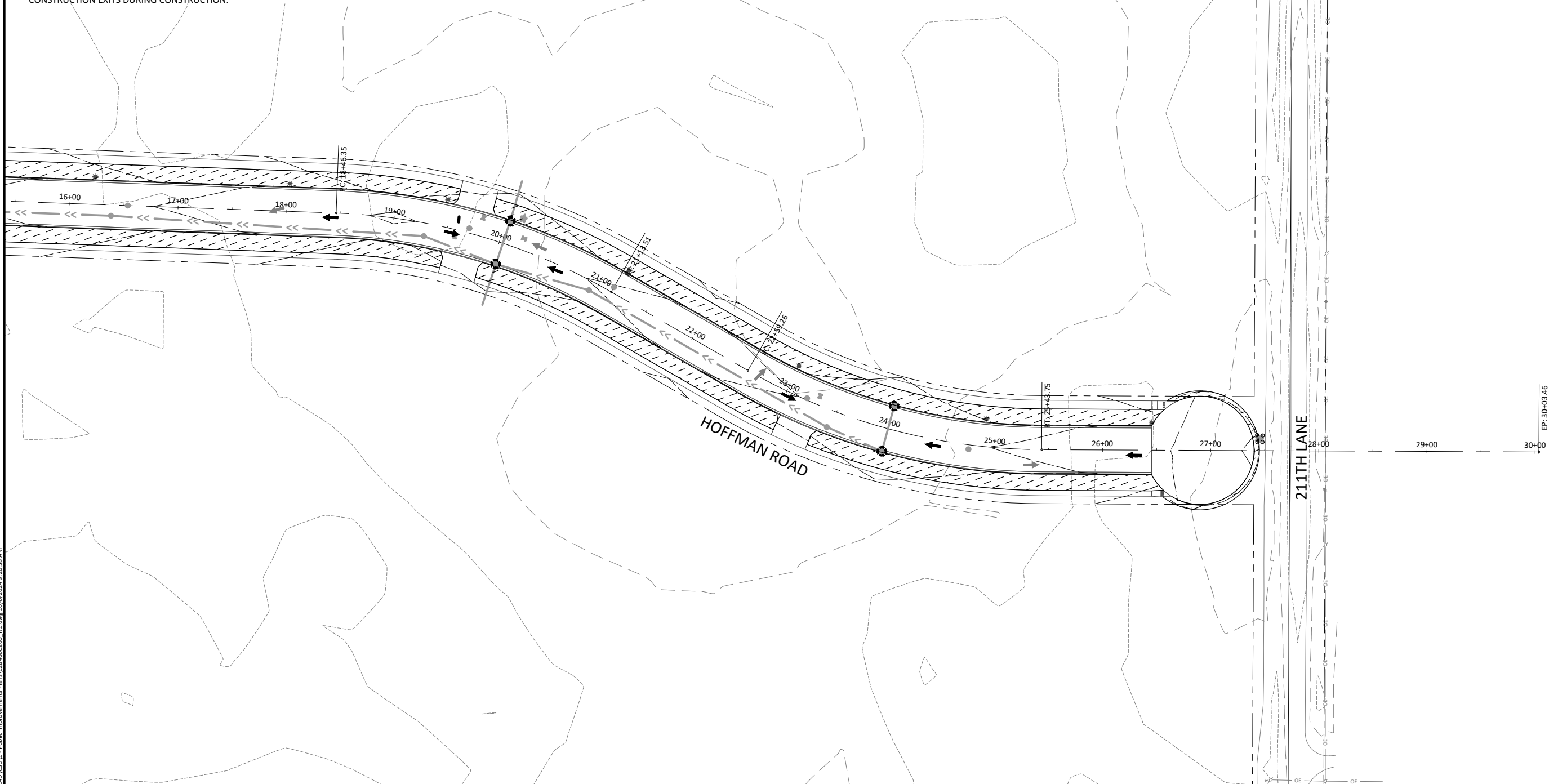
HOFFMAN ROAD EXTENSION

STORMWATER POLLUTION PREVENTION PLAN

EROSION & SEDIMENT CONTROL PLAN

	EXISTING/PROPOSED DRAINAGE FLOW		SEED MIX 25-141 & FERTILIZE, & MULCH
	SILT FENCE, MACHINE SLICED OR APPROVED EQUAL		SEED MIX 33-261, FERTILIZE, & ROLLED EROSION PREVENTION CAT 20
	STABILIZED CONSTRUCTION EXIT		SEED MIX 35-221, FERTILIZE, & MULCH (ROLLED EROSION PREVENTION CAT 20 IN STEEP SLOPES)
	STORM DRAIN INLET PROTECTION		

1. ALL NECESSARY BMP'S SHALL BE IN PLACE PRIOR TO THE START OF CONSTRUCTION. ALL BMP'S SHALL BE INSPECTED EVERY 7 DAYS AND WITHIN 72 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN A 24 HOUR PERIOD. ALL NON FUNCTIONING BMP'S SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF DISCOVERY.
2. ALL STORM SEWER INLETS SHALL HAVE INLET PROTECTION IN PLACE AS NEEDED UNTIL DISTURBED TURF IS STABILIZED.
3. ALL PERIMETER CONTROL IS TO BE REMOVED UPON ESTABLISHED TURF RESTORATION.
4. CONTRACTOR TO COORDINATE THE REMOVAL AND REPLACEMENT OF TEMPORARY ROCK CONSTRUCTION EXITS DURING CONSTRUCTION.



A horizontal scale bar labeled "HORIZ." on the left. It has numerical markings at 0, 50, and 100. The bar is divided into alternating black and white segments. The word "SCALE" is written below the 0 mark, and "FEET" is written below the 100 mark.

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.

ALEC W. PIETZ, P.E.

LIC. NO. 59617 DATE 10/06/2024



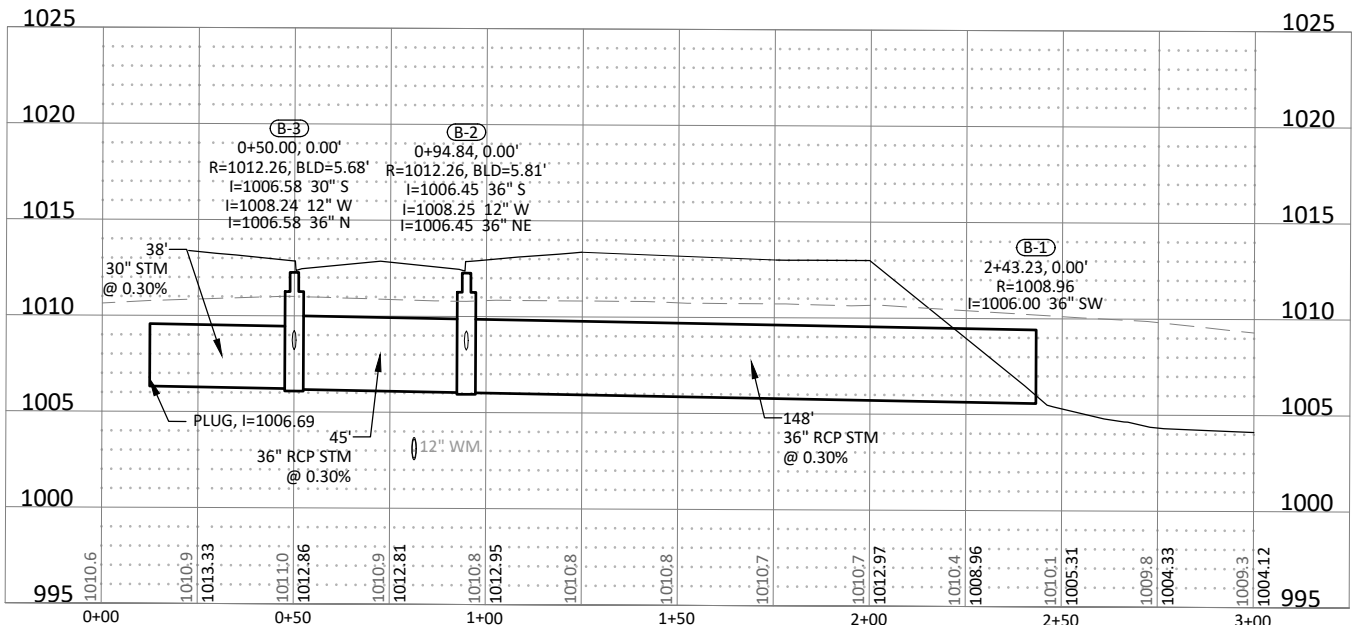
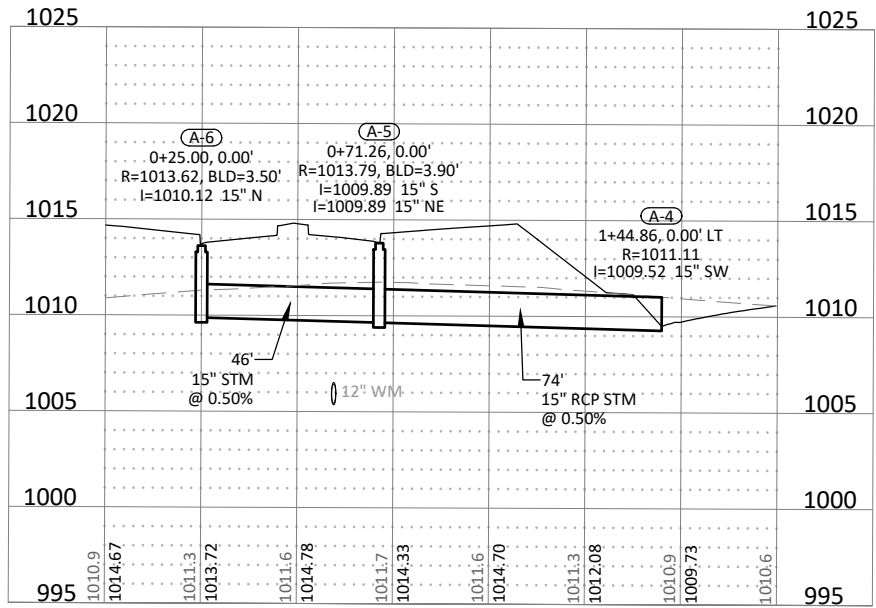
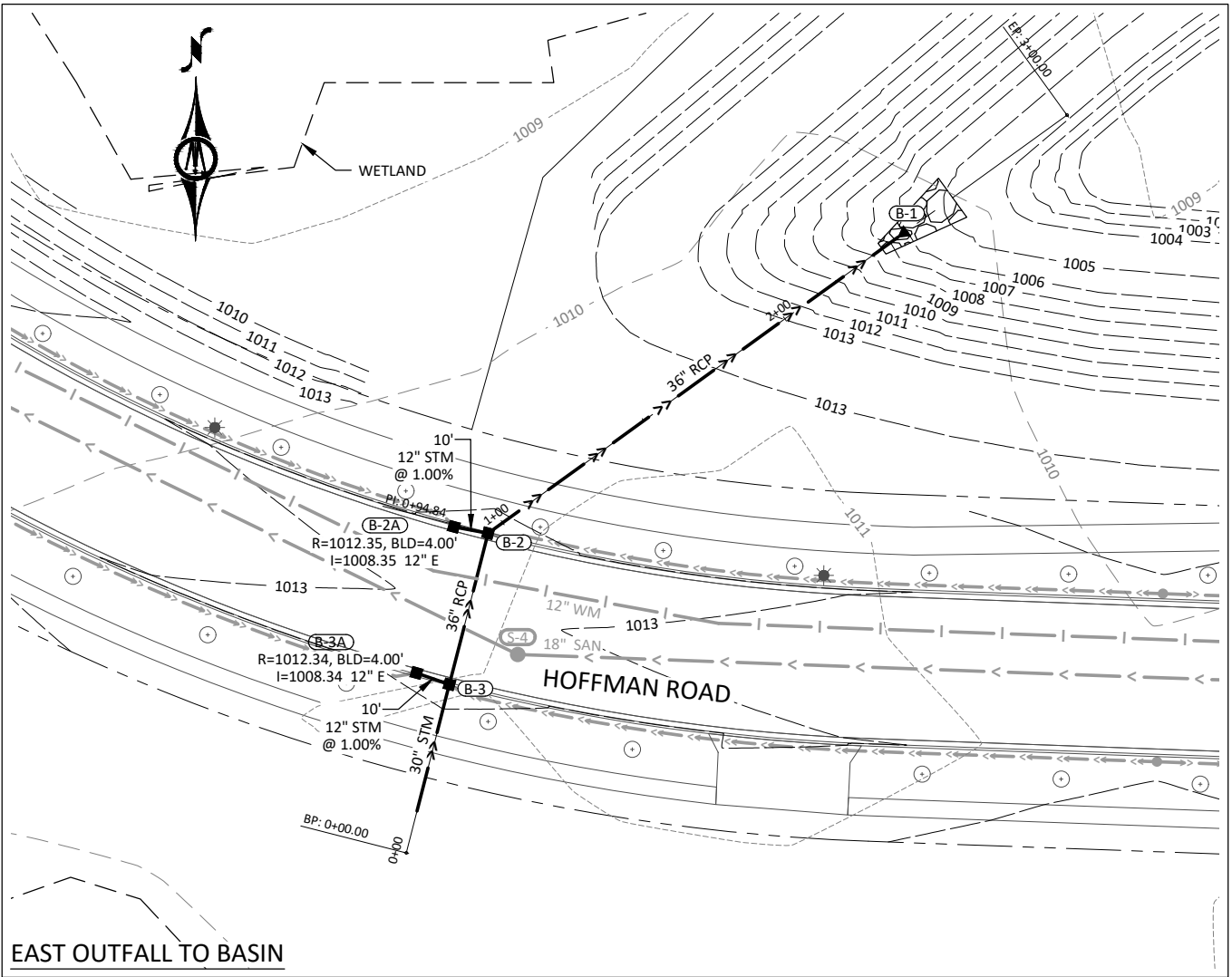
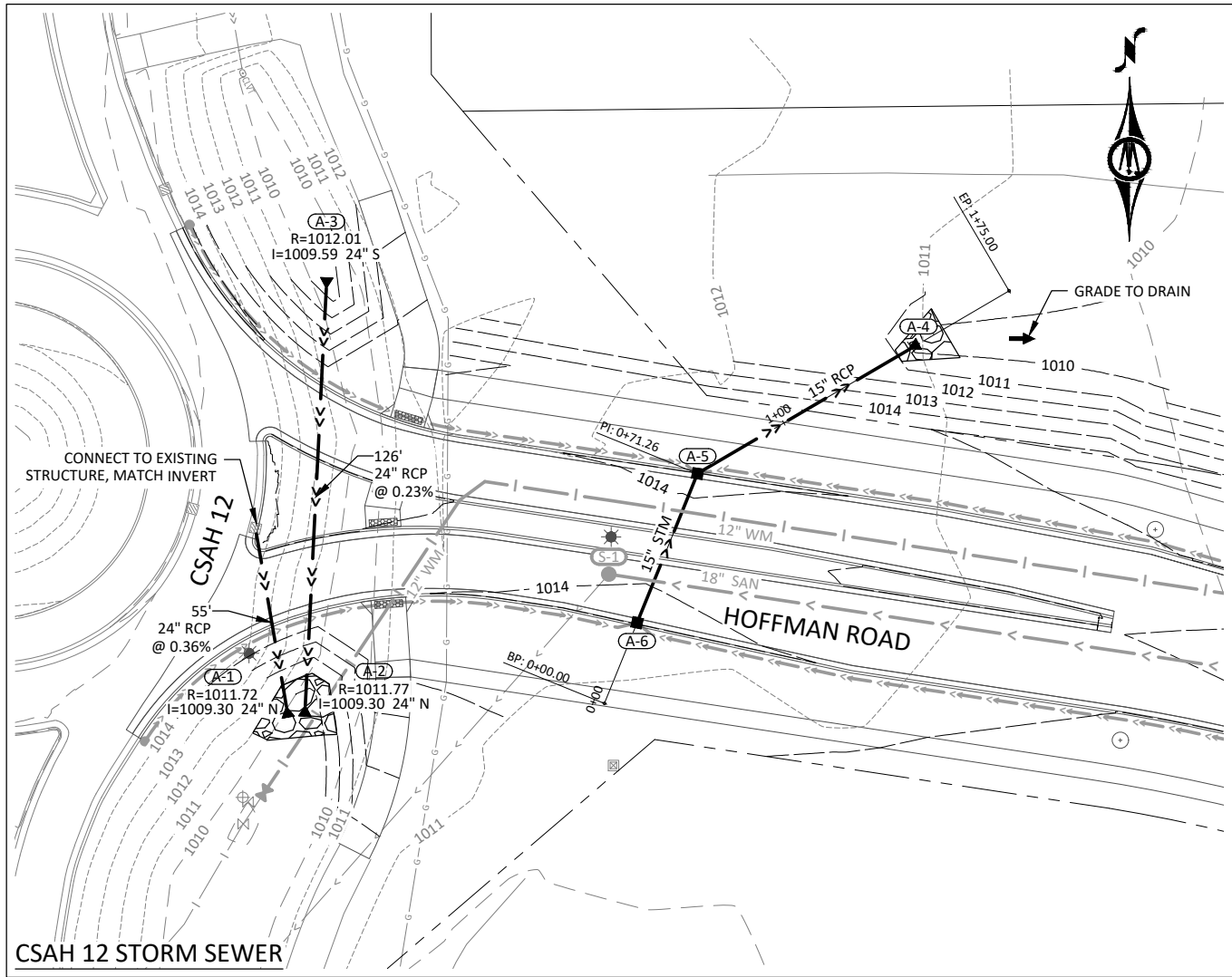
1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2021
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO. 0M1.128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
STORMWATER POLLUTION PREVENTION PLAN
EROSION & SEDIMENT CONTROL PLAN

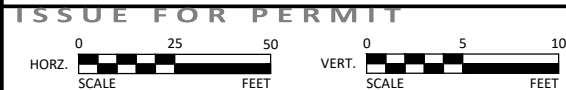
SHEET

C2.07



NOTE:
WATERMAIN AND SANITARY SEWER TO BE DONE AS A CITY
OF MANKATO PROJECT. FINAL DESIGN TO BE DETERMINED.

© Bolton & Menk, Inc. 2024. All Rights Reserved.
A:\WestArea\122460\CD\122460-CD-1 - Public Improvements Plans\122460-CD-1.dwg 10/6/2024 9:21:07 AM



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.

ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



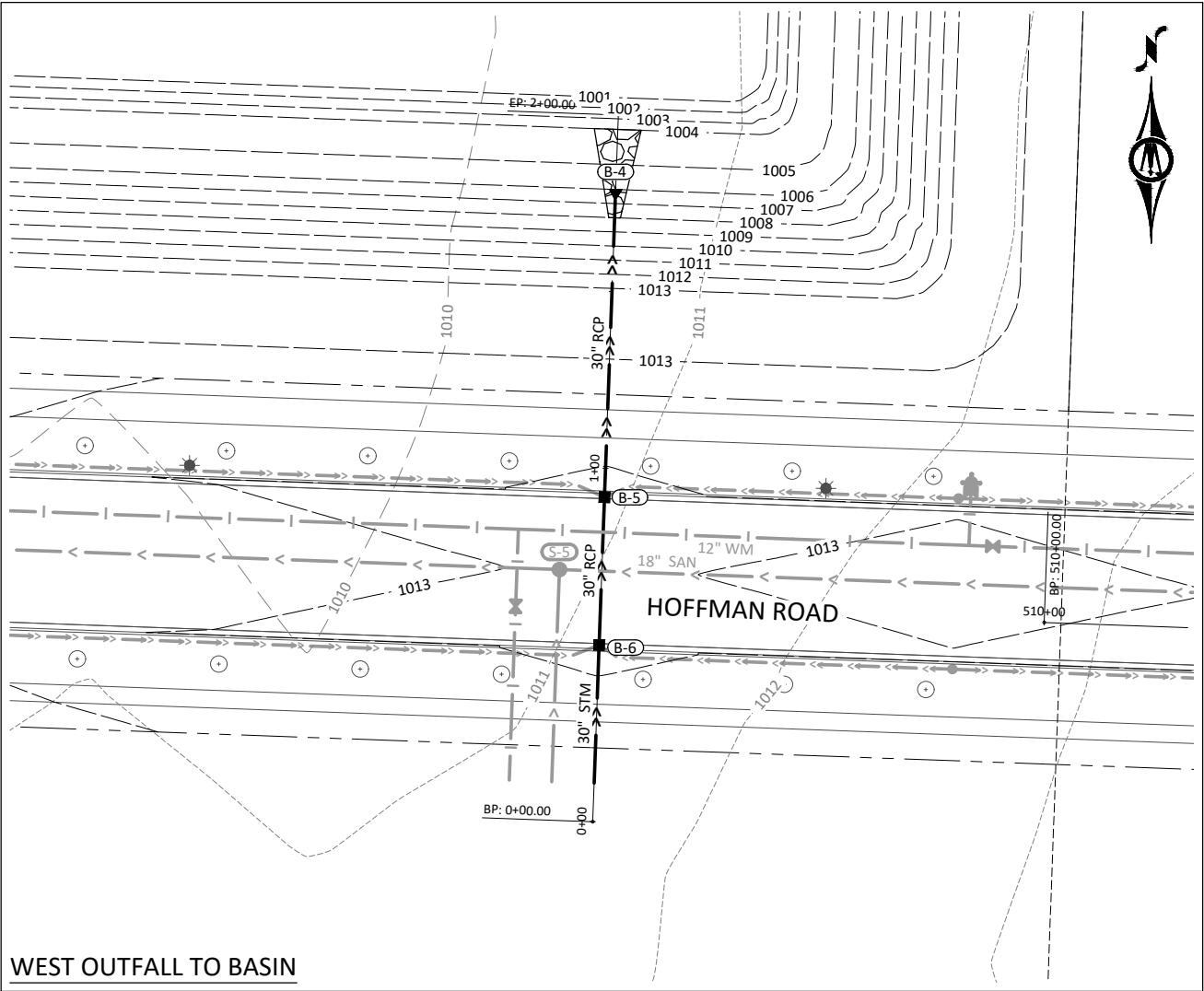
1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

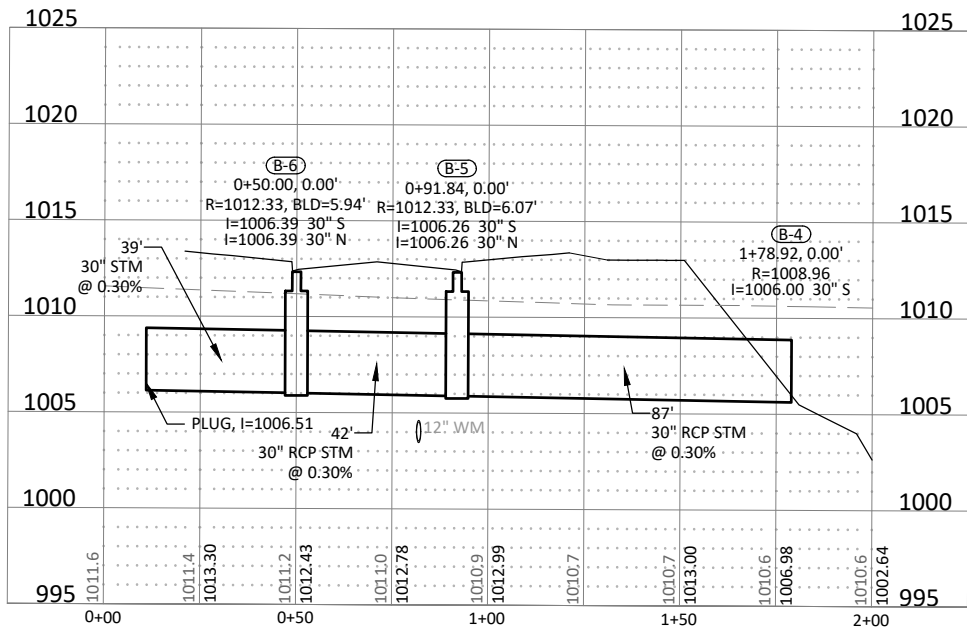
MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
STORM SEWER PLAN & PROFILE
CSAH 12 & EAST OUTFALL TO BASIN

SHEET

C5.01



WEST OUTFALL TO BASIN



NOTE:
WATERMAIN AND SANITARY SEWER TO BE DONE AS A CITY
OF MANKATO PROJECT. FINAL DESIGN TO BE DETERMINED.

ISSUE FOR PERMIT



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.
ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



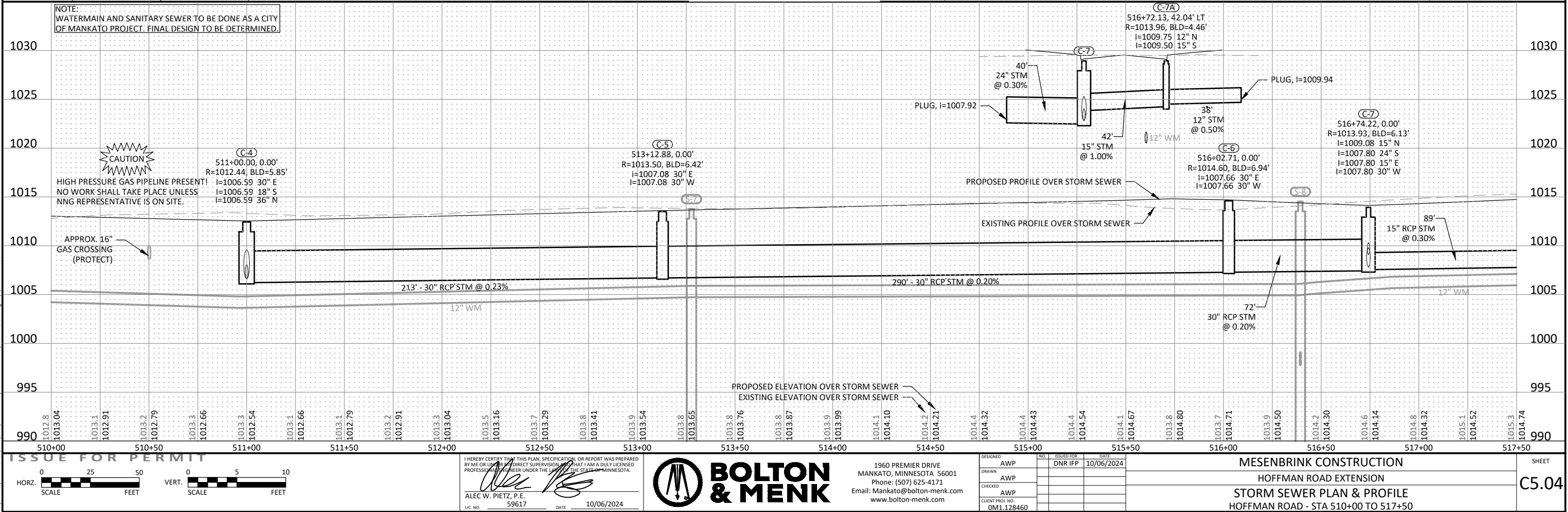
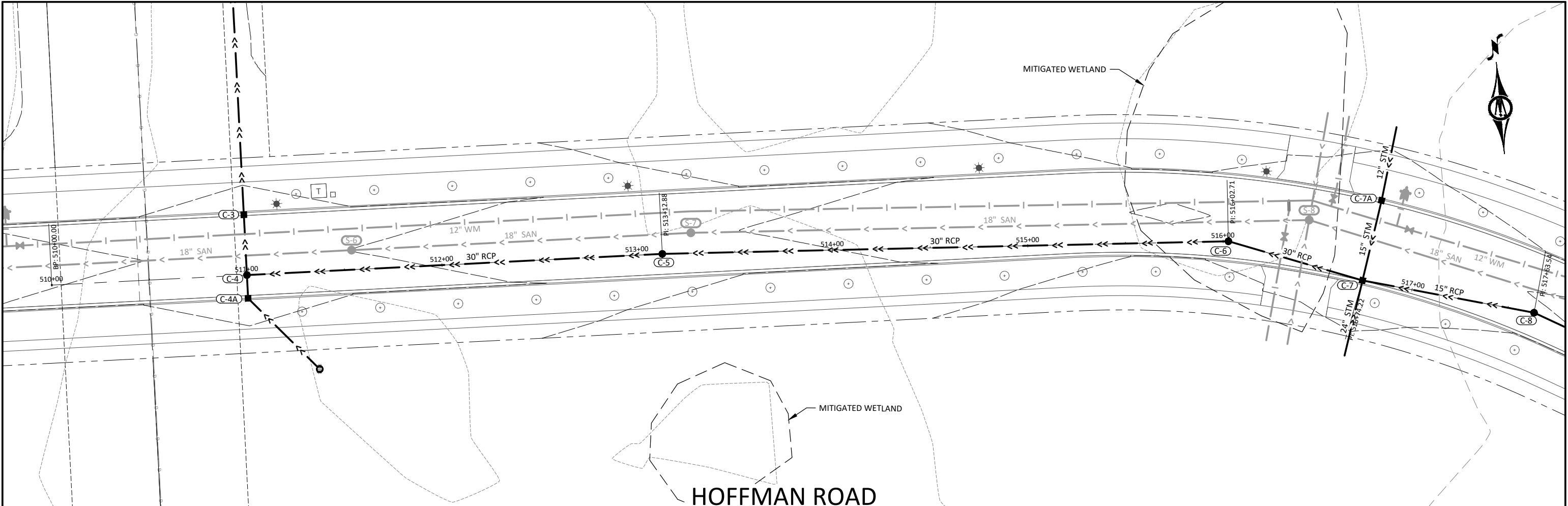
1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

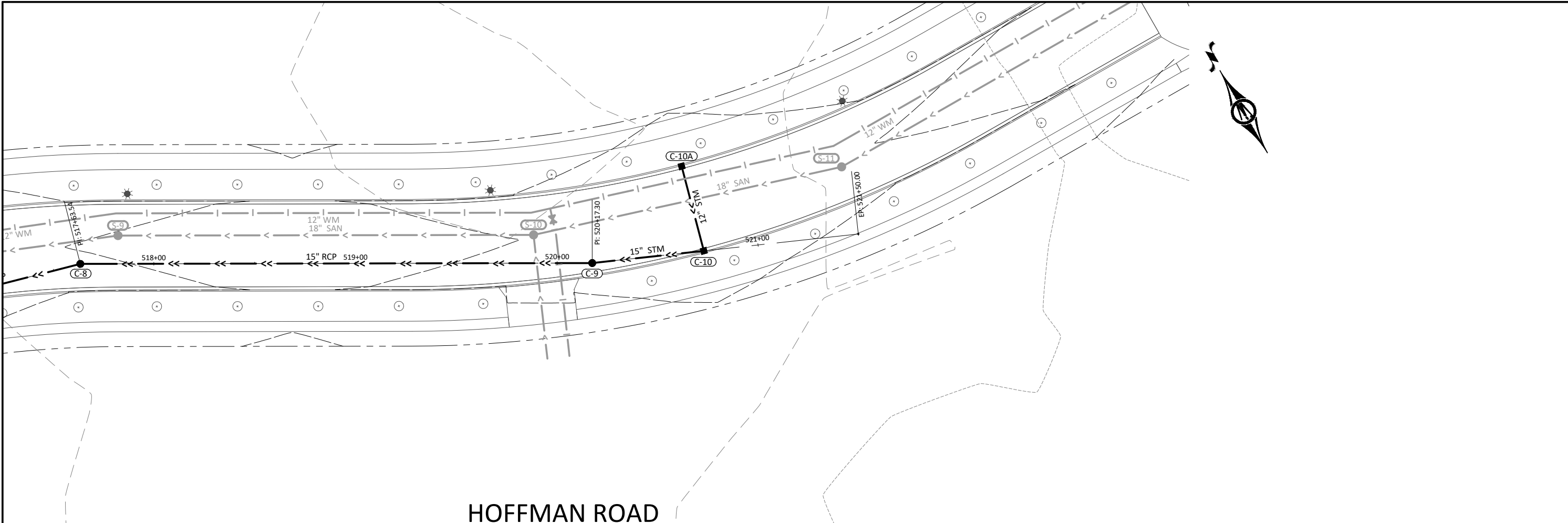
MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
STORM SEWER PLAN & PROFILE
WEST OUTFALL TO BASIN

SHEET

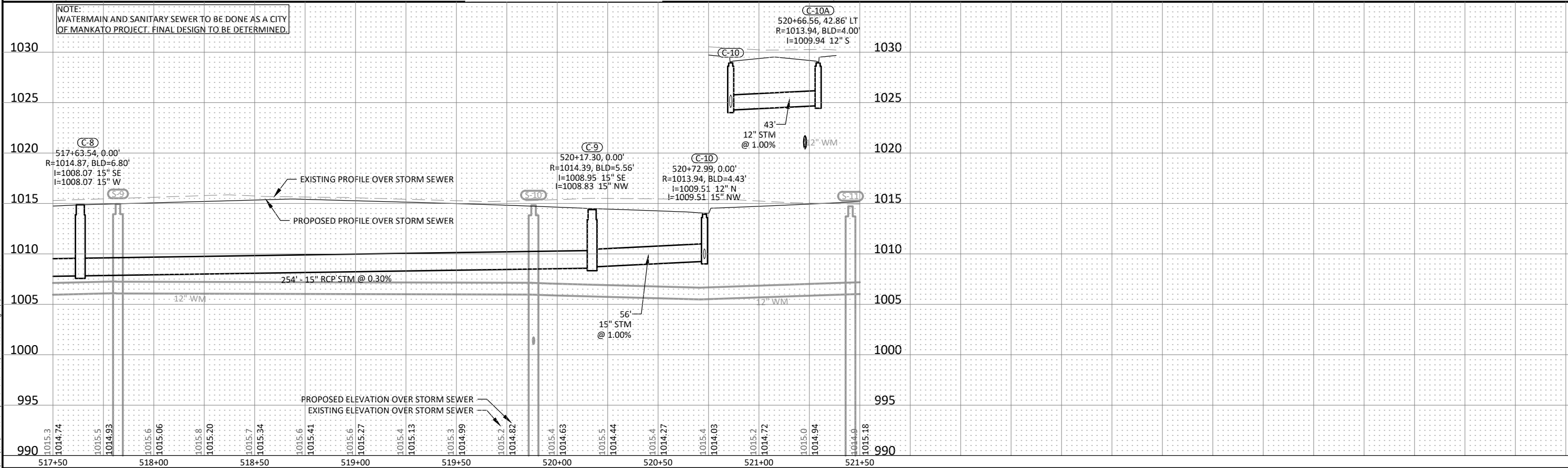
C5.02



© Bolton & Menk, Inc. 2024. All Rights Reserved.
A:\MANKATO\01.128460\CD\1 - Public Improvements Plans\128460C5.04.dwg 10/6/2024 9:21:55 AM



HOFFMAN ROAD



ISSUE FOR PERMIT

0 25 50

HORZ. SCALE FEET

0 5 10

VERT. SCALE FEET

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.

ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024

BOLTON & MENK

1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	AWP	NO.	ISSUED FOR	DATE
DRAWN	AWP		DNR IFP	10/06/2024
CHECKED	AWP			
CLIENT PROJ. NO.	0M1.128460			

MESENBRINK CONSTRUCTION

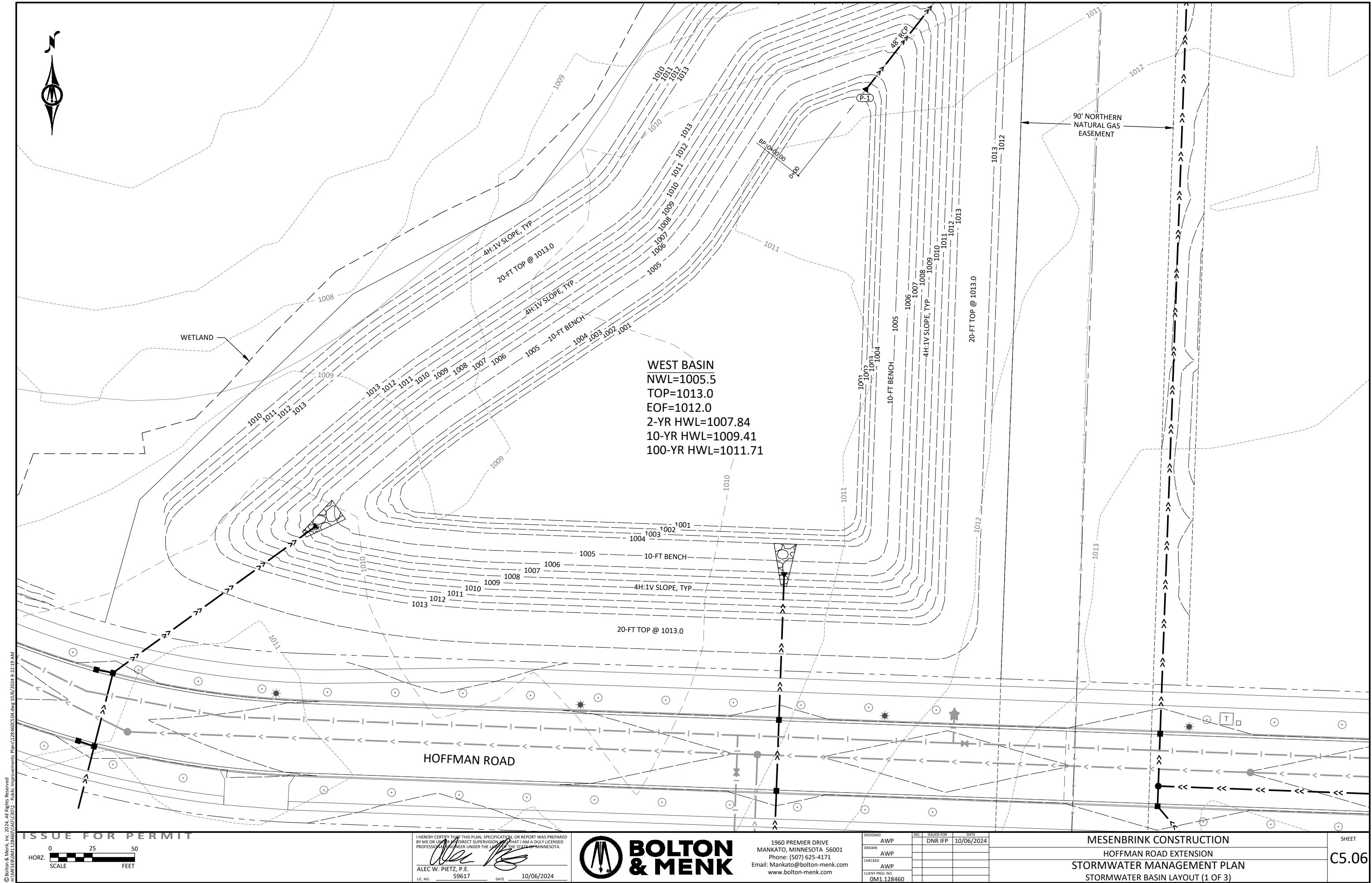
HOFFMAN ROAD EXTENSION

STORM SEWER PLAN & PROFILE

HOFFMAN ROAD - STA 517+50 TO 521+50

SHEET

C5.05



© Bolton & Menk, Inc. 2024. All Rights Reserved.
P:\128460\CD\128460-CD-01 - Public Improvements\Plan\128460-CD-01.dwg 10/6/2024 9:21:19 AM

ISSUE FOR PERMIT

0 25 50
HORIZ. SCALE FEET

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.

Alec W. Pietz
ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024

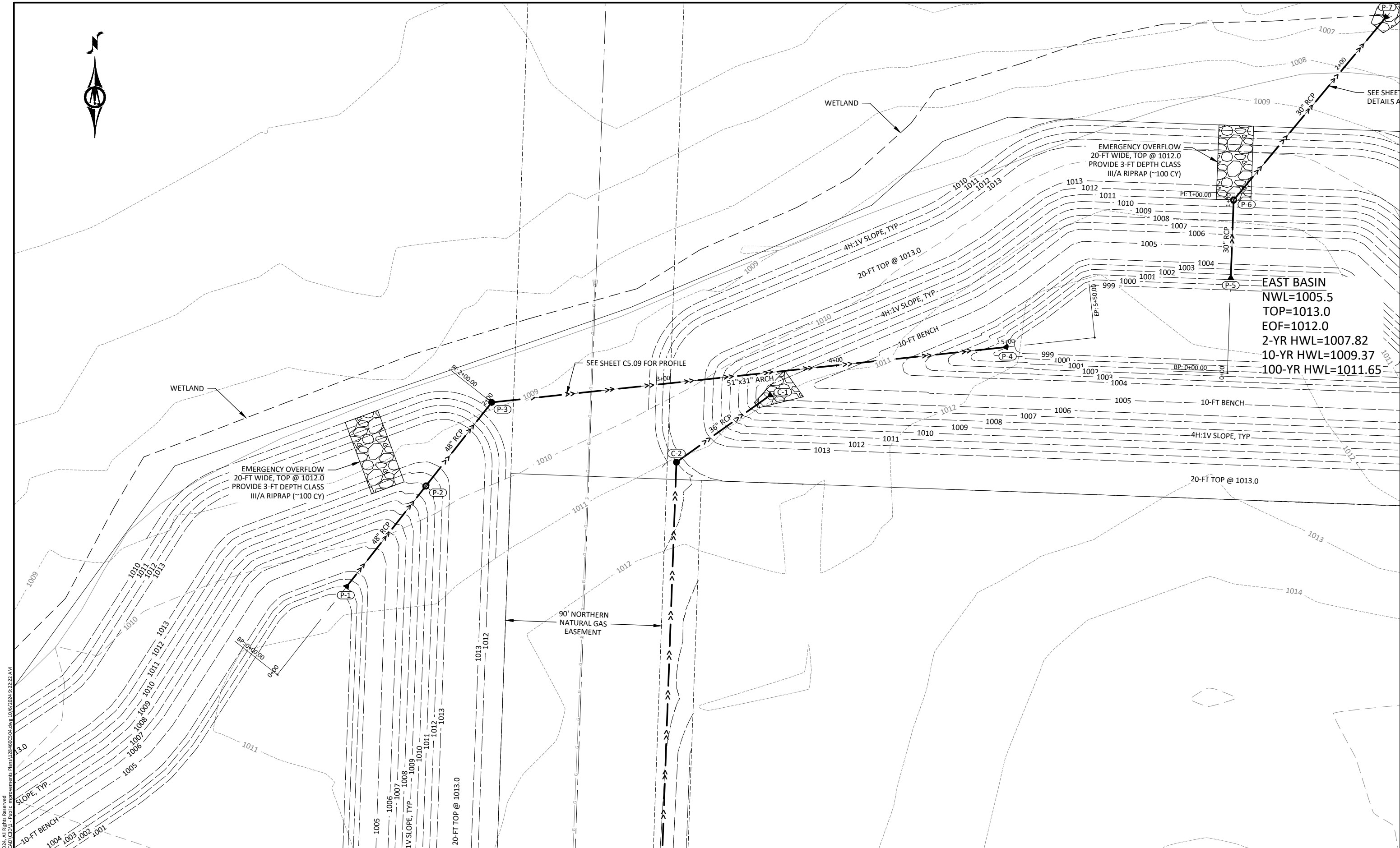
BOLTON & MENK

1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

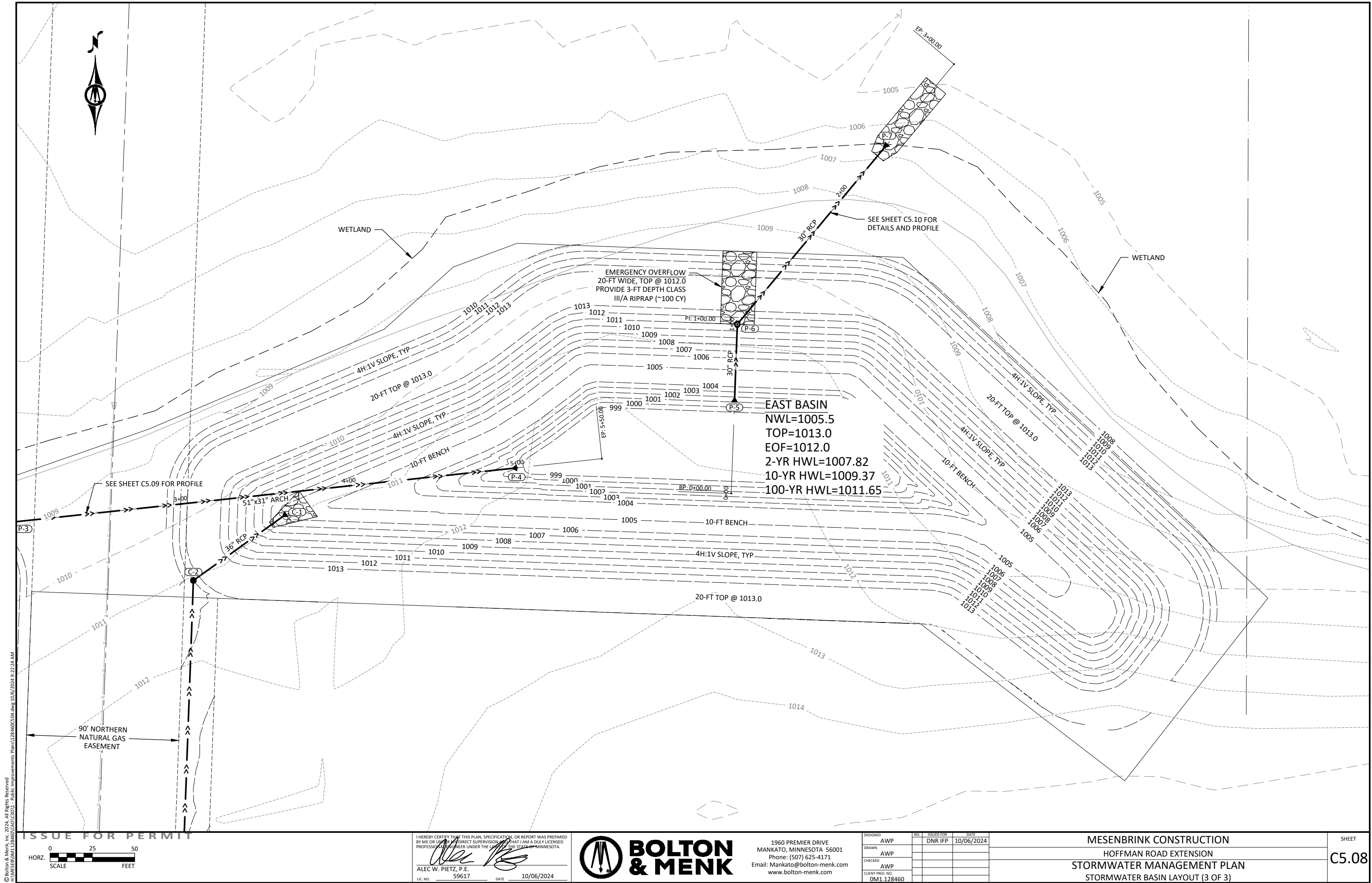
DESIGNED	AWP	NO.	ISSUED FOR	DATE
DRAWN	AWP		DNR IFP	10/06/2024
CHECKED	AWP			
CLIENT PROJ. NO.	0M1.128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
STORMWATER MANAGEMENT PLAN
STORMWATER BASIN LAYOUT (1 OF 3)

SHEET
C5.06



0.07



© Bolton & Menk, Inc. 2024. All Rights Reserved.
A:\WESTA\DWG\128460\CADD\CADD1 - Public Improvements Plans\128460\CADD.dwg 10/6/2024 9:22:24 AM

ISSUE FOR PERMIT

0 25 50
HORIZ. SCALE FEET

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.

Alec W. Pietz
ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024

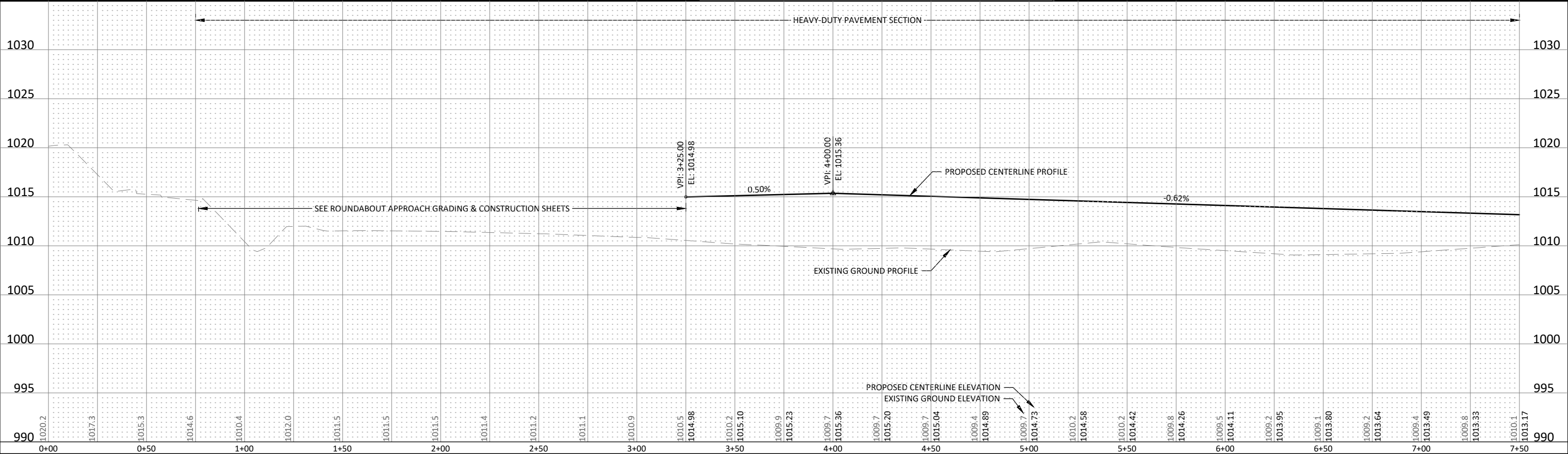
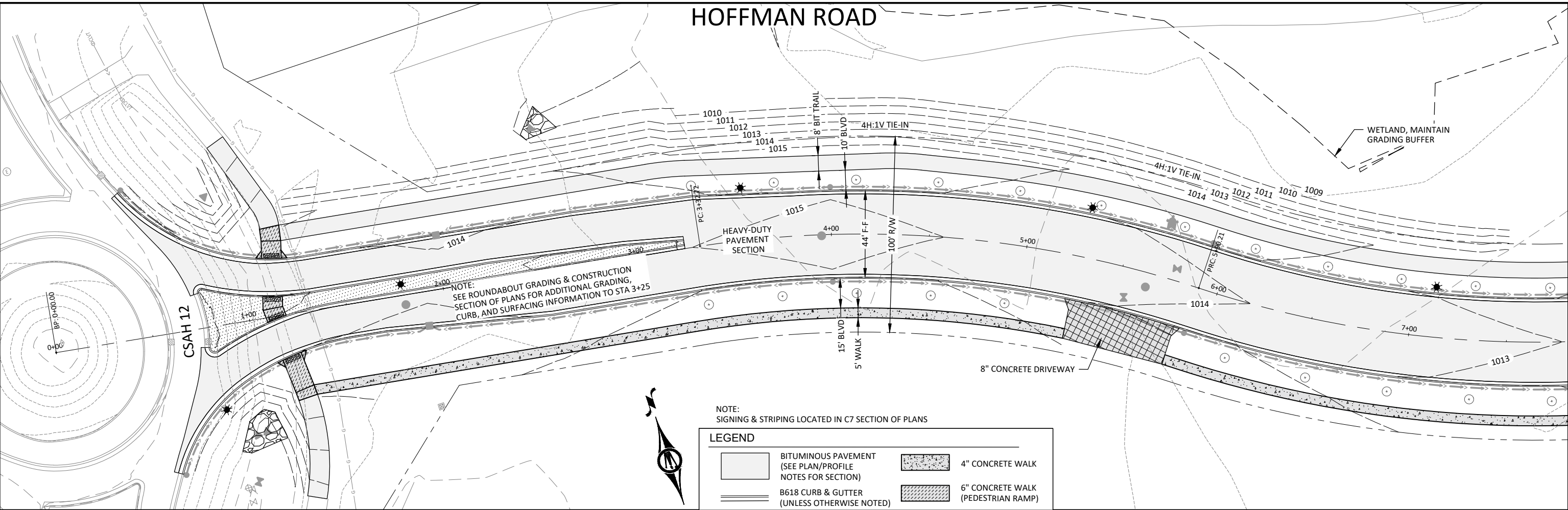


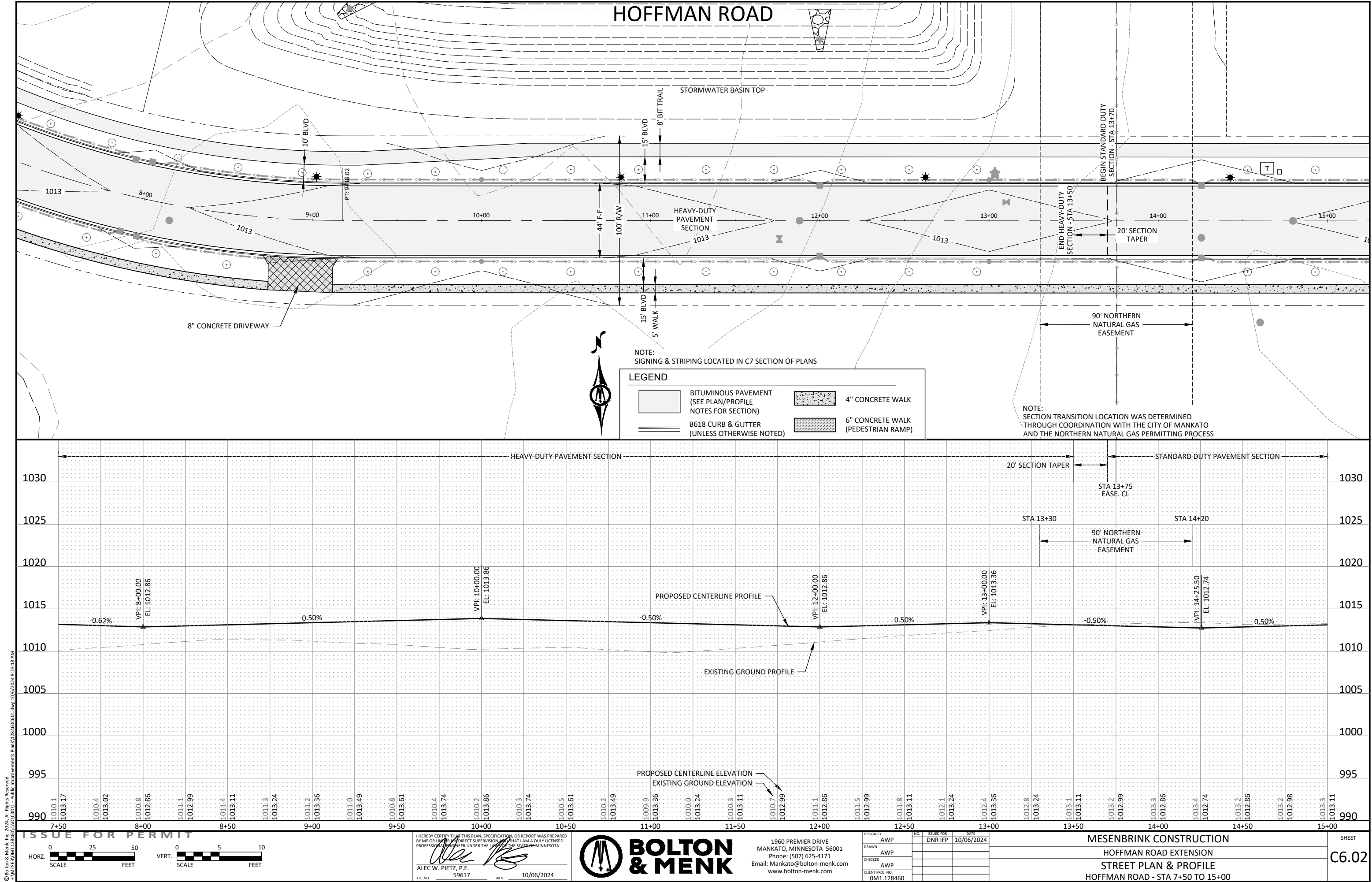
1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

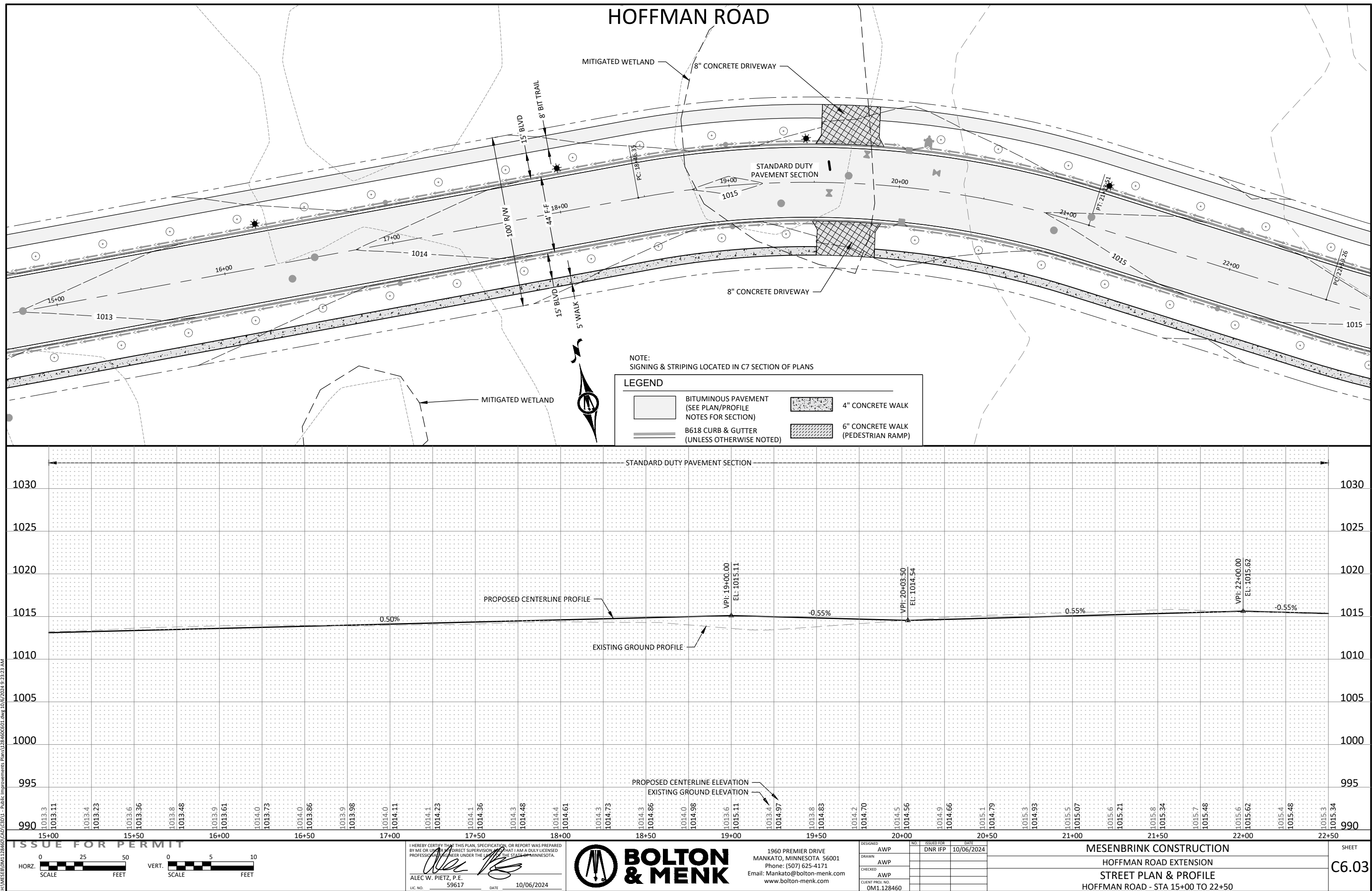
DESIGNED	AWP	NO.	ISSUED FOR	DATE
DRAWN	AWP		DNR IFP	10/06/2024
CHECKED	AWP			
CLIENT PROJ. NO.	0M1.128460			

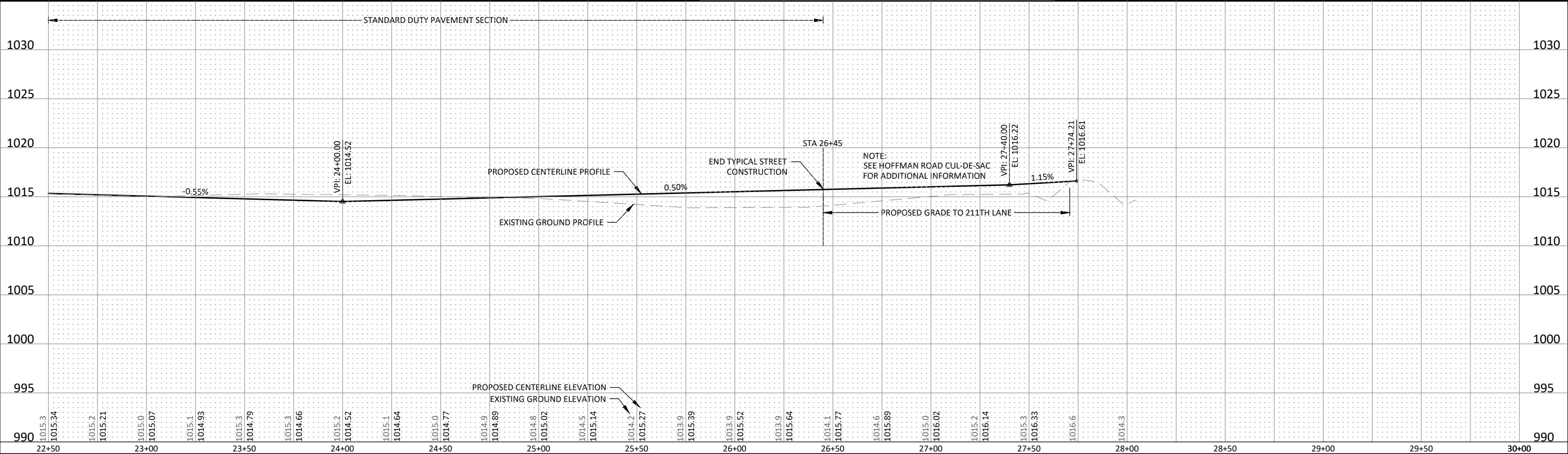
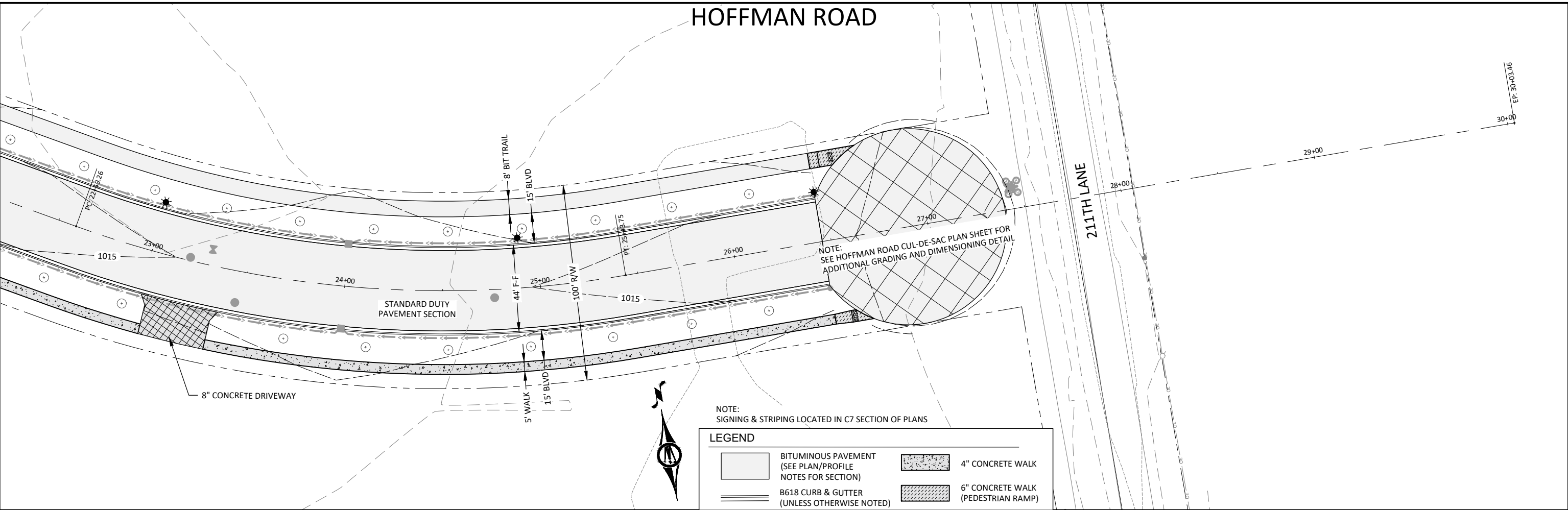
MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
STORMWATER MANAGEMENT PLAN
STORMWATER BASIN LAYOUT (3 OF 3)

SHEET
C5.08









ISSUE FOR PERMIT

0

25

50

HORIZ. SCALE FEET

0

5

10

VERT. SCALE FEET

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.

ALEC W. PIETZ, P.E.

LIC. NO. 59617

DATE 10/06/2024

1960 PREMIER DRIVE

MANKATO, MINNESOTA 56001

Phone: (507) 625-4171

Email: Mankato@bolton-menk.com

www.bolton-menk.com

DESIGNED	AWP	NO.	ISSUED FOR	DATE
DRAWN	AWP		DNR IFP	10/06/2024
CHECKED	AWP			
CLIENT PROJ. NO.	0M1.128460			

MESENBRINK CONSTRUCTION

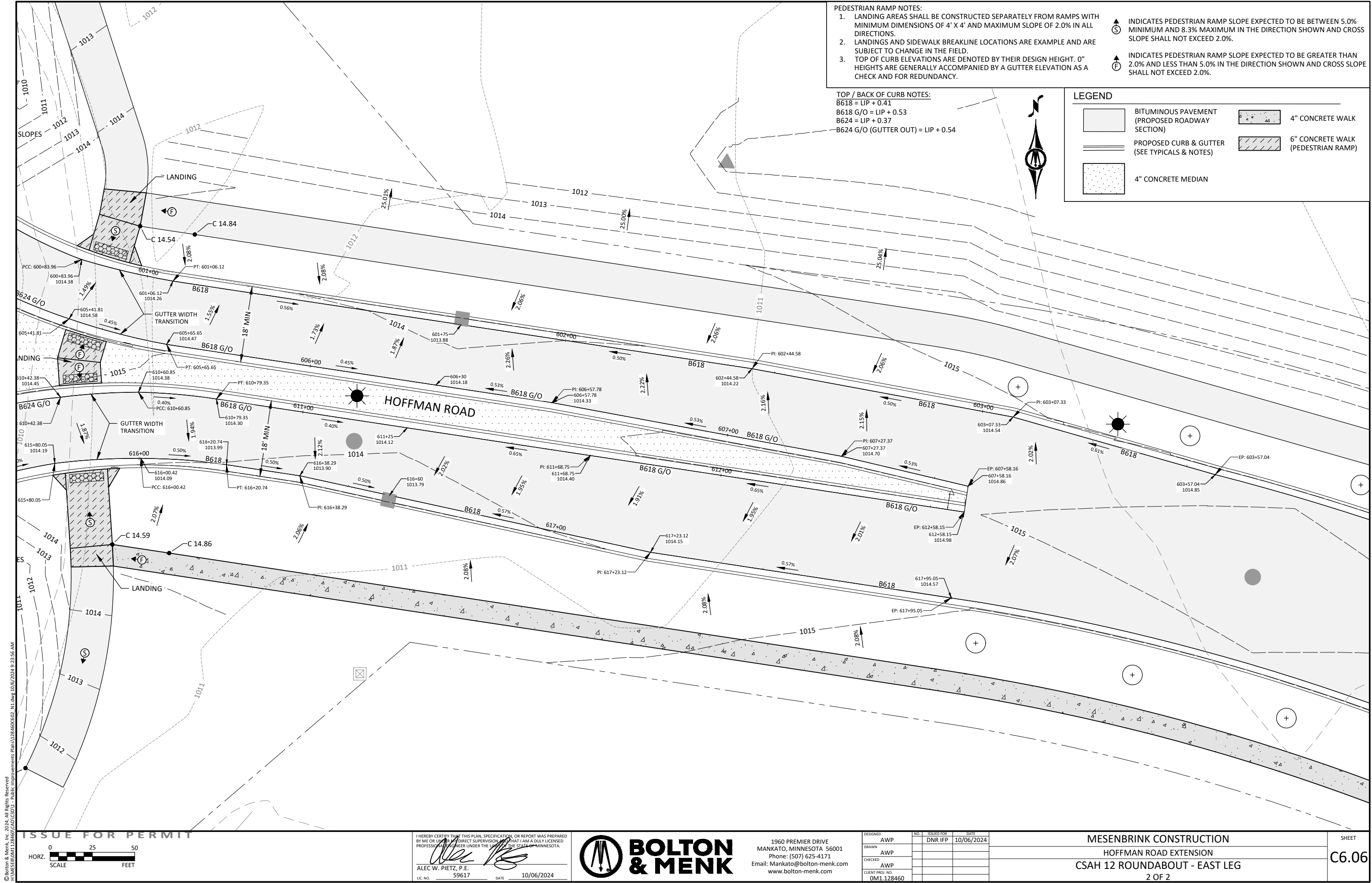
HOFFMAN ROAD EXTENSION

STREET PLAN & PROFILE

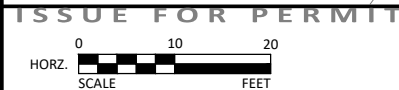
HOFFMAN ROAD - STA 22+50 TO 30+00

SHEET

C6.04



© Bolton & Menk, Inc. 2024. All Rights Reserved.
A:\WESTA\01\128460\CD\CD1 - Public Improvements Plans\128460\CD03 - H1.dwg 10/6/2024 9:24:19 AM



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.

ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024

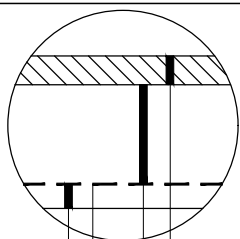


1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
HOFFMAN ROAD CUL-DE-SAC
GRADING DETAILS

SHEET
C6.07



TEMPORARY CUL-DE-SAC SECTION
NOT TO SCALE

SPOT ELEV. LEGEND

B= BITUMINOUS
C= CONCRETE
GU= GUTTER

PEDESTRIAN RAMP NOTES:

- LANDING AREAS SHALL BE CONSTRUCTED SEPARATELY FROM RAMPS WITH MINIMUM DIMENSIONS OF 4' X 4' AND MAXIMUM SLOPE OF 2.0% IN ALL DIRECTIONS.
- LANDINGS AND SIDEWALK BREAKLINE LOCATIONS ARE EXAMPLE AND ARE SUBJECT TO CHANGE IN THE FIELD.
- TOP OF CURB ELEVATIONS ARE DENOTED BY THEIR DESIGN HEIGHT. 0" HEIGHTS ARE GENERALLY ACCOMPANIED BY A GUTTER ELEVATION AS A CHECK AND FOR REDUNDANCY.



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



INDICATES PEDESTRIAN RAMP SLOPE EXPECTED TO BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

LEGEND



BITUMINOUS PAVEMENT
(PROPOSED ROADWAY
SECTION)



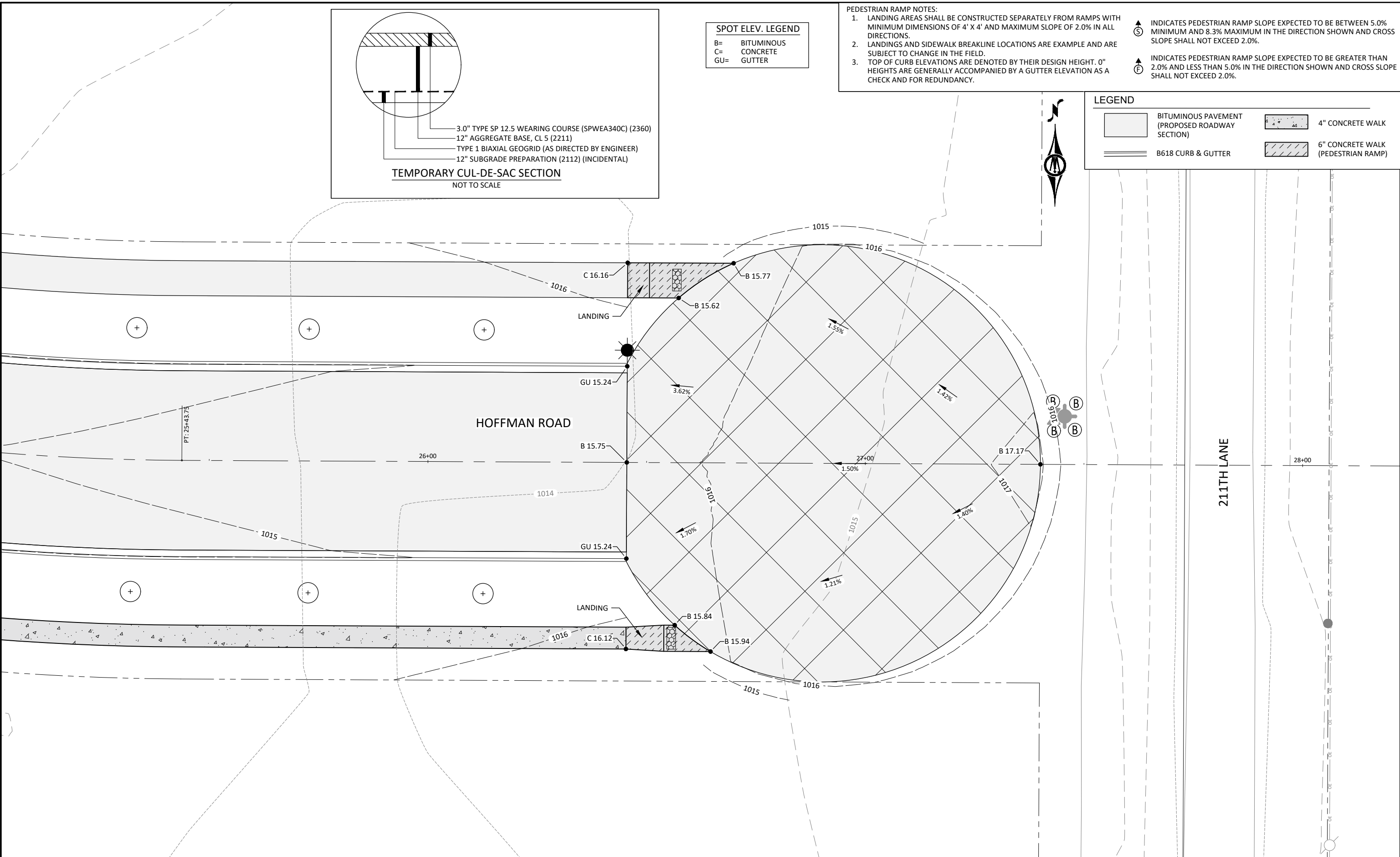
B618 CURB & GUTTER

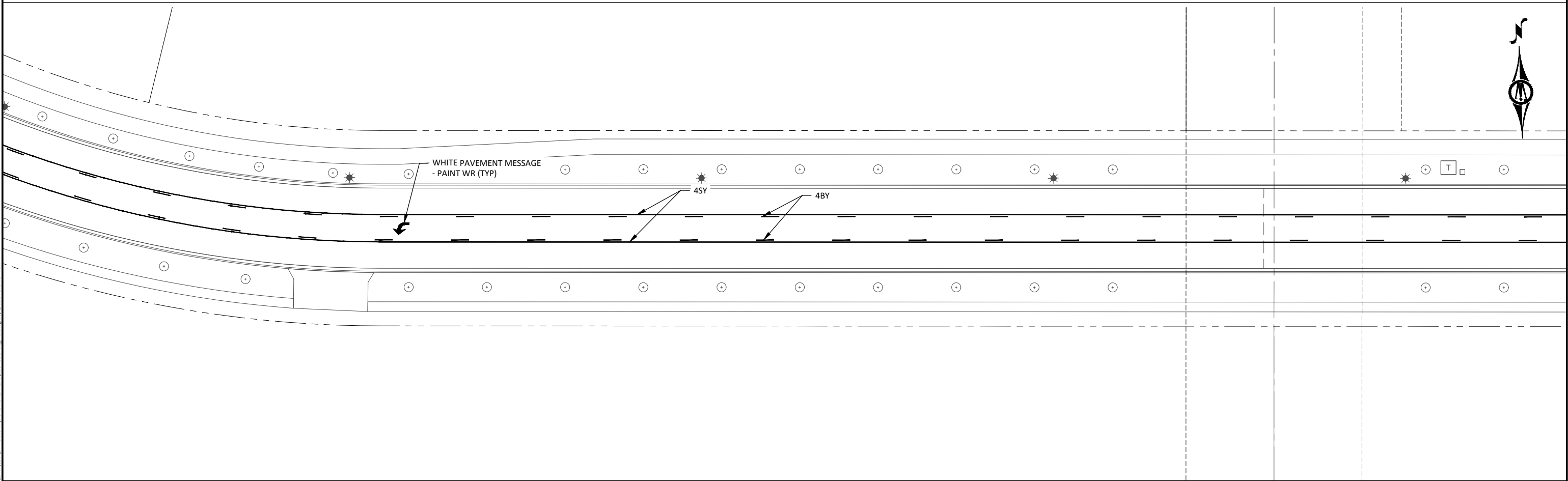
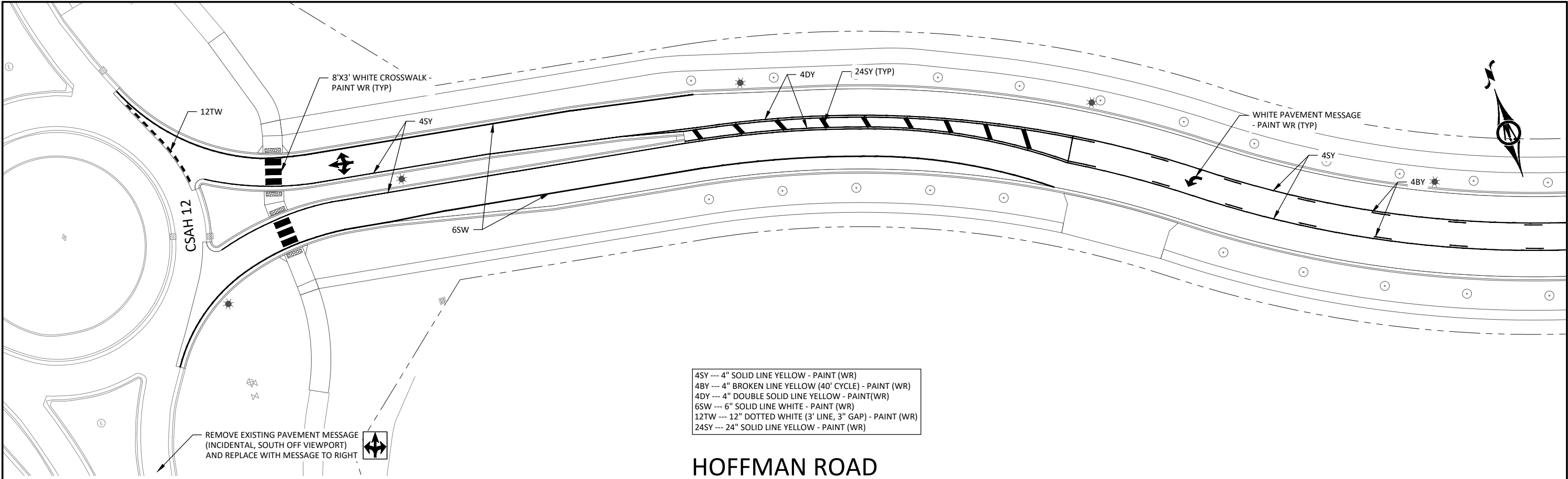


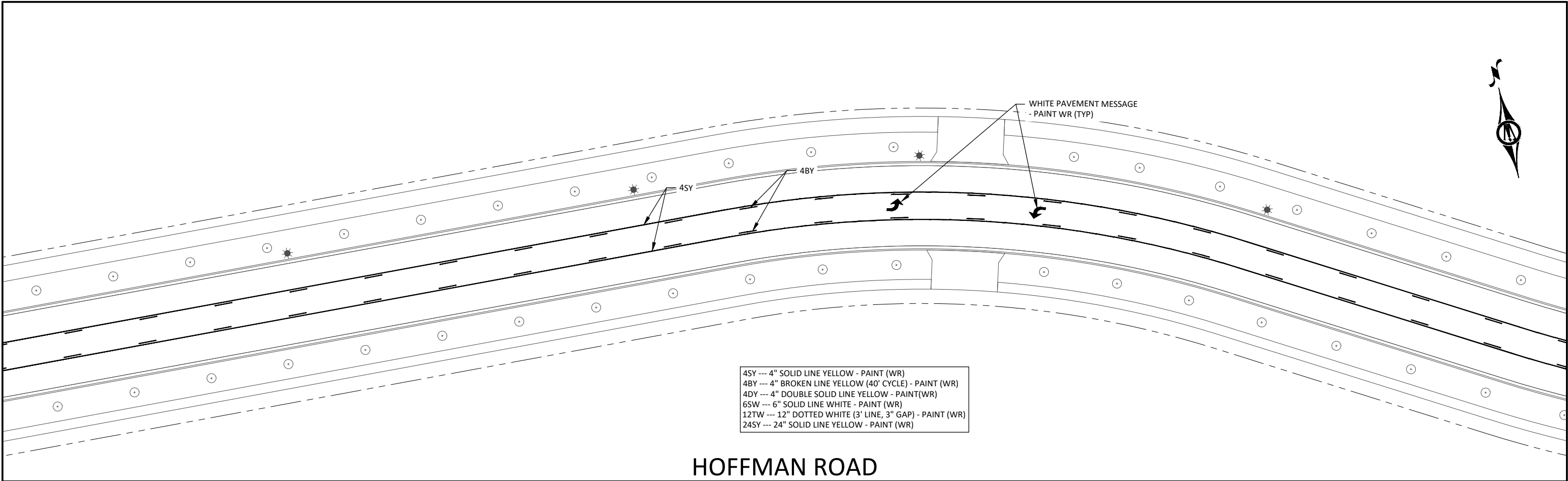
4" CONCRETE WALK



6" CONCRETE WALK
(PEDESTRIAN RAMP)

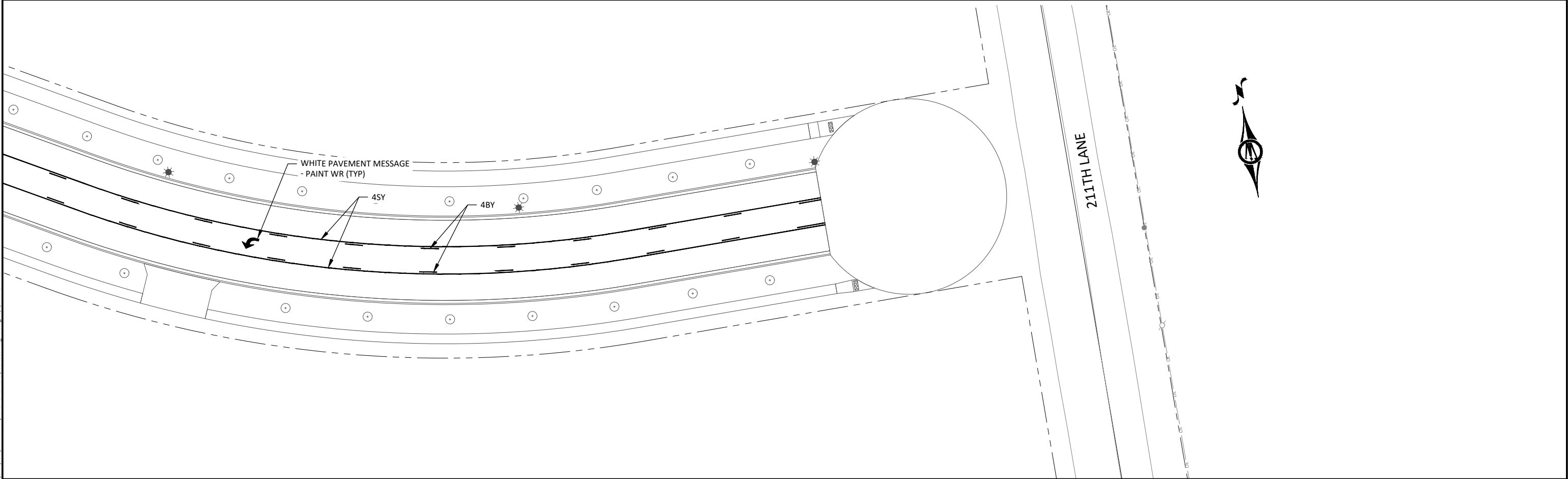






HOFFMAN ROAD

- 4SY --- 4" SOLID LINE YELLOW - PAINT (WR)
- 4BY --- 4" BROKEN LINE YELLOW (40' CYCLE) - PAINT (WR)
- 4DY --- 4" DOUBLE SOLID LINE YELLOW - PAINT(WR)
- 6SW --- 6" SOLID LINE WHITE - PAINT (WR)
- 12TW --- 12" DOTTED WHITE (3' LINE, 3" GAP) - PAINT (WR)
- 24SY --- 24" SOLID LINE YELLOW - PAINT (WR)



ISSUE FOR PERMIT



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.

ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024

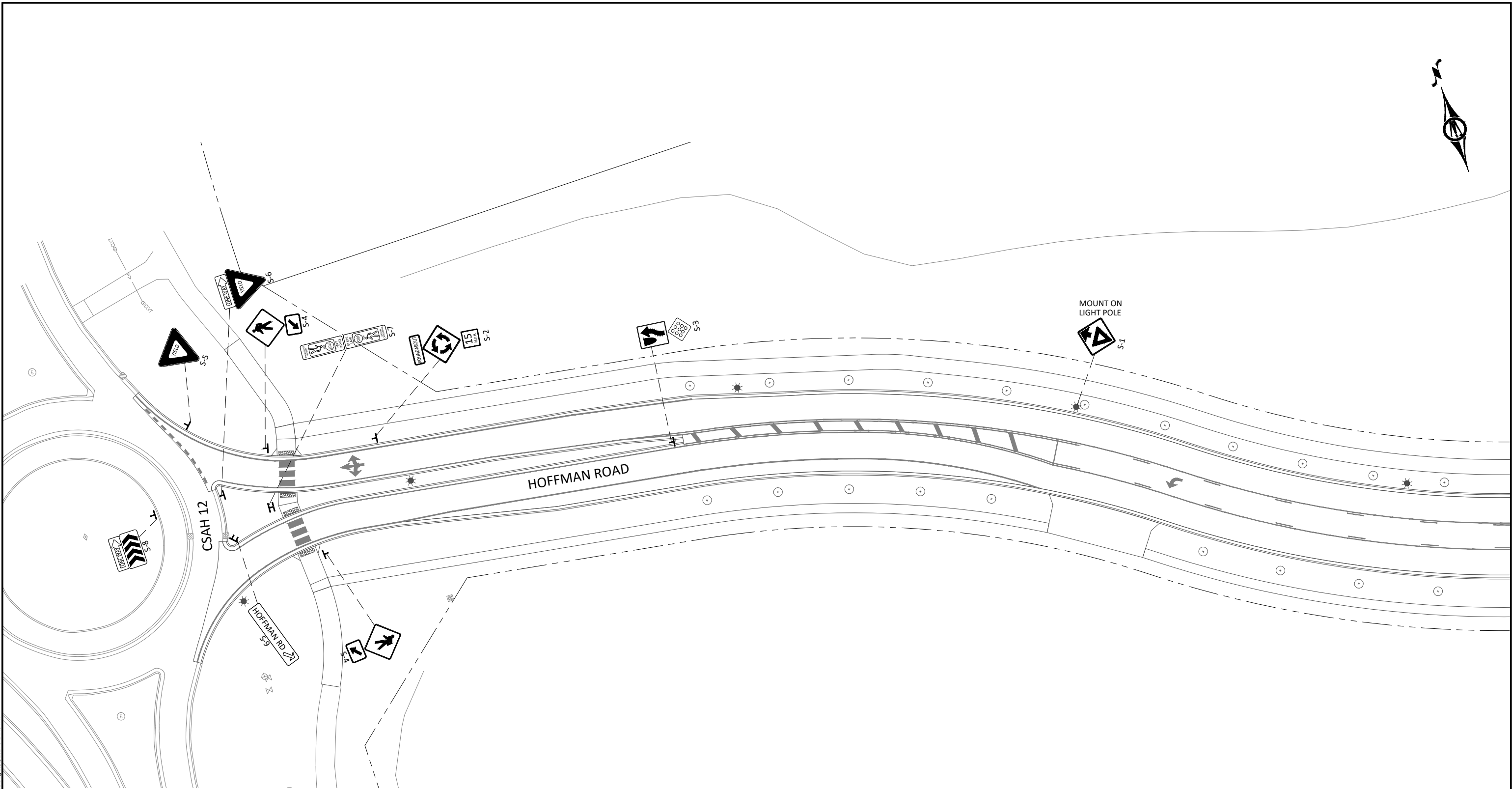


1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

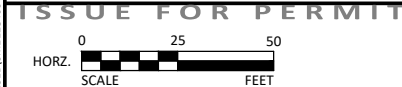
MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
SIGNING & STRIPING PLAN
PAVEMENT MARKING PLAN (2 OF 2)

SHEET
C7.02



TRAFFIC CONTROL NOTE:
CONTRACTOR TO PROVIDE TYPE III BARRICADES AT ROUNDABOUT OPENINGS AS NECESSARY
TO PREVENT TRAFFIC FROM ENTERING HOFFMAN ROAD DURING CONSTRUCTION. ALL DEVICES
SHALL CONFORM TO CURRENT MUTCD STANDARDS. CONTRACTOR SHALL COORDINATE WITH
BLUE EARTH COUNTY ON CLOSURE AND MAINTENANCE OF TRAFFIC CONTROL.

TRAFFIC CONTROL SHALL BE PAID AS 1 LUMP SUM.



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.

Alec W. Pietz
ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
CHECKED			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
SIGNING & STRIPING PLAN
SIGNAGE PLAN

SHEET
C7.03

© Bolton & Menk, Inc. 2024. All Rights Reserved
A:\WESTA\A\1228460\CD\1 - Public Improvements Plans\1228460\CD 1.dwg 10/6/2024 9:24:50 AM

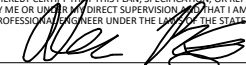
SIGN TABULATION													
SIGN ASSEMBLY NUMBER	QUANTITY	PANEL						OBJECT MARKER (EACH)	MOUNTING HEIGHT (1) (FEET)	POSTS / MOUNTING NUMBER OF POSTS	POST TYPE (2)	RISER POST SIZE (INCHES)	REMARKS
		CODE NUMBER	LEGEND	SIZE (INCHES)	AREA	SIGN PANELS TYPE C	SIGN PANELS TYPE SPECIAL						
					(SQ FT)	(SQ FT)	(EACH)						
S-1	1	W3-2	YIELD AHEAD	30 X 30	6.25	6.25			7	1	SQ	2	
S-2	1	W16-17P	ROUNDABOUT PLAQUE	36 X 12	3.00	3.00			7	1	SQ	2-1/2	
		W2-6	ROUNDABOUT	30 X 30	6.25	6.25							
S-3	1	W13-1P	15 MPH PLAQUE	18 X 18	2.25	2.25			4	1	SQ	2	
		R4-7	KEEP RIGHT	24 X 30	5.00	5.00							
		OM1-2	TYPE 1 OBJECT MARKER	18 X 18				1					
S-4	2	W11-2	PEDESTRIAN CROSSING	30 X 30	6.25	12.50			7	1	SQ	2	
		W16-7PL	DOWN ARROW LEFT PLAQUE	24 X 12	2.00	4.00							
S-5	1	R1-2	YIELD	36 X 36 X 36	3.90	3.90			7	1	SQ	2	
S-6	1	R1-2	YIELD	36 X 36 X 36	3.90	3.90			7	1	SQ	2-1/2	
		R6-1R	ONE WAY RIGHT	12 X 36	3.00	3.00							
S-7	1	R1-6a	STATE LAW STOP FOR PED W/I X-WALK	12 X 44	3.67	3.67			1	1	SQ	2	(3)
		R1-6a	STATE LAW STOP FOR PED W/I X-WALK	13 X 44	4.67	4.67							
S-8	1	R6-4b	ROUNDABOUT DIRECTIONAL (4 ARROWS)	60 X 24	10.00	10.00			7	1	SQ	2	
		R6-1R	ONE WAY RIGHT	12 X 36	3.00	3.00							
S-9	1	D1-1d	HOFFMAN RD RIGHT	SUBMITTAL			1		7	2	SQ	2-1/2	
					TOTALS	71.39	1	1					

NUMBERED NOTES:
(1) MOUNTING HEIGHT IS MINIMUM (WITH A +6 INCH TOLERANCE). SEE DETAILS FOR TYPICAL MOUNTING.
(2) POST TYPE ABBREVIATION "SQ" = SQUARE TUBE.
(3) SIGN ASSEMBLIES ARE MOUNTED BACK-TO-BACK. SEE PLANS FOR ORIENTATION.

- GENERAL NOTES:
- SEE THE CURRENT MnDOT STANDARD SIGNS AND MARKINGS MANUAL FOR STANDARD SIGN DESIGNS, SPLICE PLATES, STRINGERS, AND PUNCHING CODES.
 - SEE SQUARE TUBE SIGN MOUNTING DETAIL FOR ATTACHMENT.
 - SEE STANDARD PLAN 5-297-701 FOR PLACEMENT.
 - SEE SQUARE TUBE FIN BASE DETAIL FOR 2-INCH RISER POST IN SOIL.
 - SEE STANDARD PLAN 5-297-730 FOR SIGN MOUNTING TO ROUND POST.

ISSUE FOR PERMIT

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.


ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



**BOLTON
& MENK**

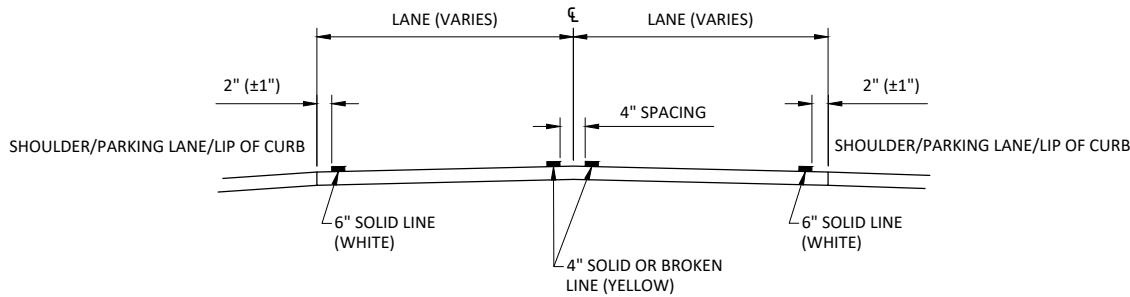
1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	AWP	NO.	ISSUED FOR	DATE
DRAWN	AWP		DNR IFP	10/06/2024
CHECKED	AWP			
CLIENT PROJ. NO.	0M1.128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
SIGNING & STRIPING PLAN
SIGNAGE TABULATION

SHEET

C7.04



STRIPING DETAIL

PAVEMENT MARKING NOTES & GUIDELINES:

- (1) EDGE LINES AND LANE LINES ARE TO BE BROKEN ONLY AT INTERSECTIONS WITH PUBLIC ROADS AND AT PRIVATE ENTRANCES IF THEY ARE CONTROLLED BY A YIELD SIGN, STOP SIGN, OR TRAFFIC SIGNAL (UNLESS SPECIFIED OTHERWISE IN THE PLANS). THE BREAK POINT IS TO BE AT THE START OF THE RADIUS FOR THE INTERSECTION OR AT MARKED STOP LINES OR CROSSWALKS.
- (2) GLASS BEADS SHALL BE APPLIED AT A RATE OF AT LEAST 8 LBS/GAL IMMEDIATELY AFTER APPLICATION OF THE PAINT LINE.
- (3) THE ENGINEER'S INVOLVEMENT IN THE APPLICATION OF THE MATERIAL SHALL BE LIMITED TO FIELD CONSULTATION AND INSPECTION. THE CONTRACTOR WILL PLACE NECESSARY "SPOTTING" AT APPROPRIATE POINTS TO PROVIDE HORIZONTAL CONTROL FOR STRIPING AND TO DETERMINE NECESSARY STARTING AND CUTOFF POINTS. LONGITUDINAL JOINTS, PAVEMENT EDGES AND EXISTING MARKINGS MAY SERVE AS HORIZONTAL CONTROL WHEN SO DIRECTED.
- (4) A TOLERANCE OF 1/4" UNDER OR 1/4" OVER THE SPECIFIED WIDTH WILL BE ALLOWED FOR STRIPING PROVIDED THE VARIATION IS GRADUAL AND DOES NOT DETRACT FROM THE GENERAL APPEARANCE. ALIGNMENT DEVIATION FOR THE CONTROL GUIDE SHALL NOT EXCEED 1". MATERIAL SHALL NOT BE APPLIED OVER LONGITUDINAL JOINTS. ESTABLISHMENT OF APPLICATION TOLERANCES SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COMPLY AS CLOSELY AS PRACTICABLE WITH THE PLANNED DIMENSIONS.
- (5) JUST PRIOR TO THE PLACEMENT OF PAVEMENT MARKINGS THE BITUMINOUS ROAD SURFACE SHALL BE CLEANED AND FREE OF CONTAMINATION AS RECOMMENDED BY THE MATERIAL MANUFACTURED AND ACCEPTABLE TO THE ENGINEER. CONCRETE SURFACES SHALL BE SANDBLAST-CLEANED TO REMOVE ANY SURFACE TREATMENTS AND/OR LAITANCE.
- (6) APPLY ALL PAVEMENT MARKINGS AS RECOMMENDED BY THE MATERIAL MANUFACTURER.
- (7) PERMANENT PAVEMENT MARKINGS SHALL NOT BE PLACED OVER TEMPORARY TAPE MARKINGS.
- (8) THE FILLING OF TANKS, POURING OF MATERIALS OR CLEANING OF EQUIPMENT SHALL NOT BE PERFORMED ON UNPROTECTED PAVEMENT SURFACES UNLESS ADEQUATE PROVISIONS ARE MADE TO PREVENT SPILLAGE OF MATERIAL.
- (9) PAVEMENT MARKINGS SHALL ONLY BE APPLIED IN SEASONABLE WEATHER WHEN AIR AND PAVEMENT SURFACE TEMPERATURES IS 50°F OR HIGHER AND SHALL NOT BE APPLIED WHEN THE WIND OR OTHER CONDITIONS CAUSE A FILM OF DUST TO BE DEPOSITED ON THE PAVEMENT SURFACE AFTER CLEANING AND BEFORE THE MARKING MATERIAL CAN BE APPLIED.
- (10) REFER TO THE MnDOT TRAFFIC ENGINEERING MANUAL.

© Bolton & Menk, Inc. 2024. All Rights Reserved.
A:\WESTA\001128460\CD\1 - Public Improvements Plans\128460C702_11.dwg, 10/06/2024 9:25:01 AM

ISSUE FOR PERMIT

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.

Alec W. Pietz
ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



**BOLTON
& MENK**

1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

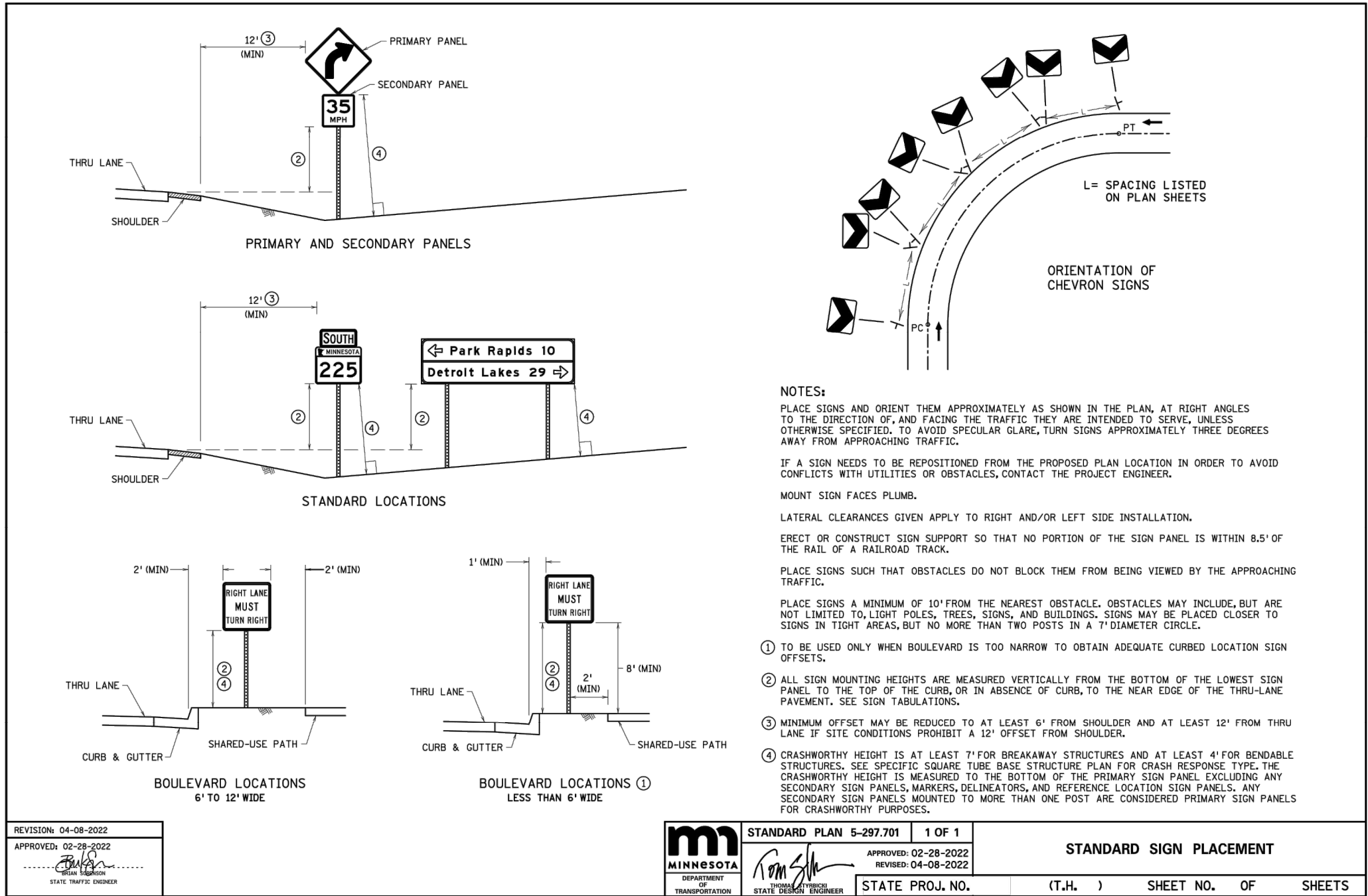
DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
SIGNING & STRIPING PLAN
DETAILS

SHEET

C7.05

© Bolton & Menk, Inc. 2024. All Rights Reserved.
A:\WESTA\001128460\CD\CD1 - Public Improvements Plans\128460\CD1.dwg, 10/6/2024 9:25:02 AM



ISSUE FOR PERMIT

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.

ALEC W. PIETZ, P.E.

LIC. NO. 59617 DATE 10/06/2024



1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	AWP	NO.	ISSUED FOR	DATE
DRAWN	AWP		DNR IFP	10/06/2024
CHECKED	AWP			
CLIENT PROJ. NO.	0M1.128460			

MESENBRINK CONSTRUCTION

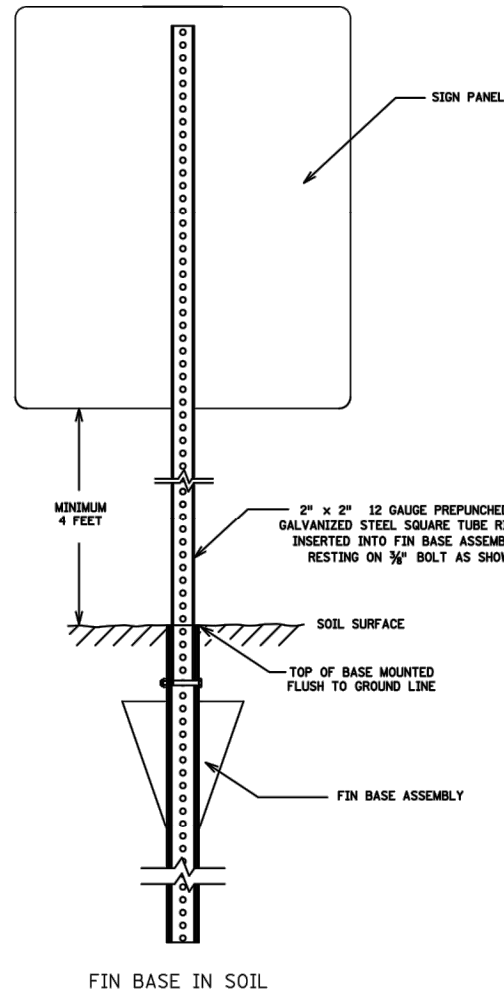
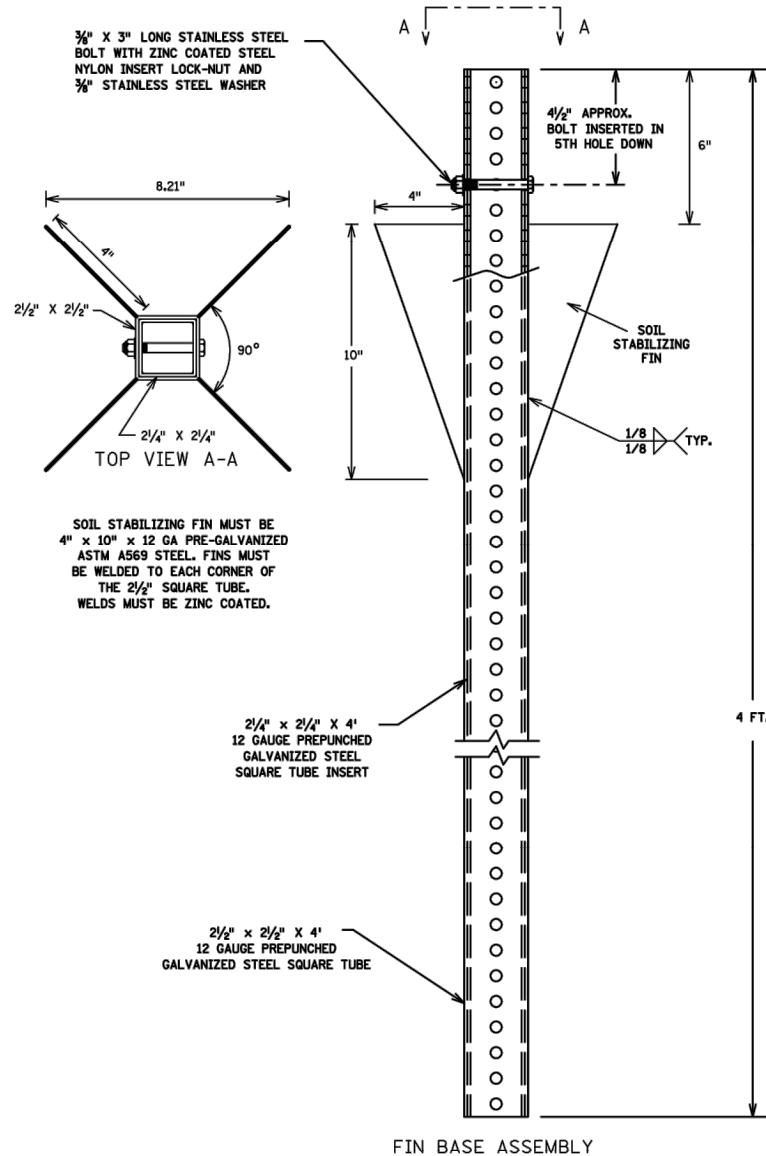
HOFFMAN ROAD EXTENSION

SIGNING & STRIPING PLAN

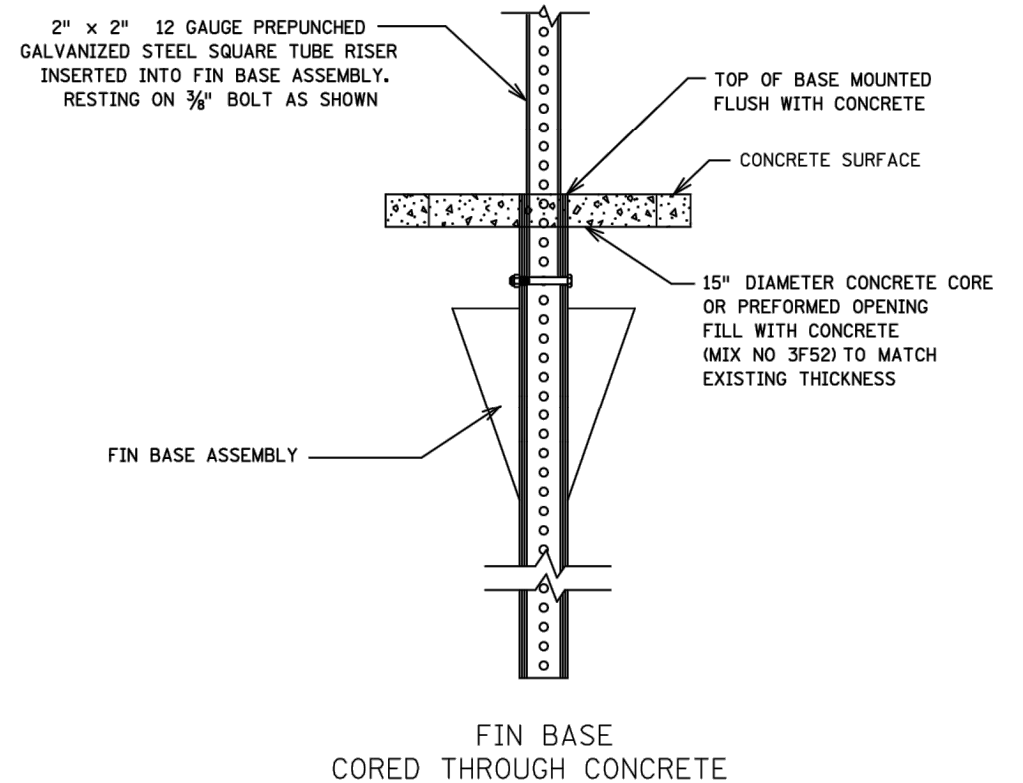
DETAILS

SHEET

C7.06



- NOTES:**
1. THE CRASH RESPONSE TYPE FOR THIS STRUCTURE IS BENDABLE.
 2. TO MEET CRASHWORTHY REQUIREMENTS THE DISTANCE BETWEEN THE BOTTOM OF THE SIGN PANEL AND THE GROUND SURFACE BELOW ANY PORTION OF THE SIGN PANEL MUST BE A MINIMUM OF 4 FEET. SEE TABULATIONS FOR MOUNTING HEIGHT.
 3. FOR SIGN PANEL MOUNTING DETAILS SEE SQUARE TUBE SIGN MOUNTING DETAILS.
 4. SQUARE TUBE SIGN POSTS PER MnDOT SPEC. 3402.



ISSUE FOR PERMIT

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.

ALEC W. PIETZ, P.E.

LIC. NO. **59617** DATE **10/06/2024**



1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION

HOFFMAN ROAD EXTENSION

SIGNING & STRIPING PLAN

DETAILS

SHEET

C7.07

© Bolton & Menk, Inc. 2024. All Rights Reserved.
A:\WESTA\001128460\CD\1 - Public Improvements Plans\128460\CD 1.dwg, 10/6/2024 9:25:06 AM

CLAMPING BUCKLES (STAGGERED)

3/4" STAINLESS STEEL BANDING, SINGLE-WRAPPED, DOUBLE-BANDED

POST

SINGLE SIGN PANEL

POST

SINGLE-BOLT STRAP BRACKET

5/16" NYLON WASHER

5/16" STAINLESS STEEL BOLT

5/16" STAINLESS STEEL WASHER

SIGN PANEL

NON-STIFFENER MOUNTING DETAILS
FOR SIGN PANELS UP TO 24" WIDE AND OVERHEAD SIGN IDENTIFICATION PLATES

CLAMPING BUCKLES (STAGGERED)

3/4" STAINLESS STEEL BANDING, SINGLE-WRAPPED, DOUBLE-BANDED

SIGN PANELS

BACK TO BACK SIGN PANELS

POST

SIGN PANEL

SINGLE-BOLT MOUNTING BRACKETS AND BANDING

NOTES:

TENSION THE BANDING IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION REQUIREMENTS.

DO NOT MOUNT SIGNS ON BREAKAWAY TRAFFIC SIGNALS AND LUMINAIRE SUPPORTS.

EXTRUDED STIFFENER

STAINLESS STEEL POP RIVET

SIGN PANEL

ATTACH 3/16" RIVETS AT 6" INTERVALS. ATTACH END RIVETS 3" FROM SIGN EDGE. USE 1/4" RIVETS FOR THE END RIVETS.

RIVET ATTACHMENT

3/16" ZINC-PLATED STEEL LOCK NUT WITH NYLON INSERT

5/16" NYLON WASHER

5/16" STAINLESS STEEL BOLT

5/16" STAINLESS STEEL WASHER

EXTRUDED STIFFENER

SIGN PANEL

ATTACH AT STANDARD PUNCH CODE LOCATIONS

BOLT ATTACHMENT

UNIVERSAL CHANNEL CLAMP

EXTRUDED STIFFENER

SIGN PANEL

7/8"

1 1/2"

CENTERLINE OF FASTENER ATTACHMENT

ATTACH SIGN PANEL TO STIFFENER WITH RIVETS OR BOLTS

1 1/2"

INSET A

POST

CLAMPING BUCKLES (STAGGERED)

3/4" STAINLESS STEEL BANDING, SINGLE-WRAPPED, DOUBLE-BANDED

SIGN PANEL

INSET A

INSET A (REVERSED)

CENTERLINE OF FASTENER ATTACHMENT (TYPICAL)

SIGN PANELS

BACK-TO-BACK SIGN PANELS

STIFFENER MOUNTING DETAILS
FOR SIGN PANELS 30" WIDE AND LARGER

EXTRUDED STIFFENER

POST

1"

		PANEL WIDTH					
		2'	3'	4'	5'	6'	
PANEL HEIGHT	2'	2	2	2	2	3	
	3'	2	2	2	2	3	
	4'	2	2	2	2	3	
	5'	3	3	3	3	3	
	6'	3	3	3	4	4	
7'	3	3	3	4	4		

PROVIDE VERTICAL SPACING OF NO MORE THAN 36" BETWEEN STIFFENERS.

PROVIDE A VERTICAL DISTANCE OF NO MORE THAN 12" FROM PANEL EDGE TO STIFFENER.

NOTES:

SPACE STIFFENERS IN ACCORDANCE WITH THE PUNCH CODES SHOWN IN THE MNDOT STANDARD SIGNS AND MARKINGS MANUAL.

ATTACH STIFFENERS TO SIGN PANELS USING FASTENERS. PLACE STIFFENERS AT THE VERTICAL LOCATIONS OF THE MOUNTING HOLES FOR EACH SIGN.

FURNISH AND INSTALL HARDWARE COMPATIBLE WITH STIFFENER MOUNTING SYSTEMS.

FURNISH TWO TYPE 201 STAINLESS STEEL 3/4" WIDE BY 1/2" THICK STRAPS, EACH WITH CLAMPING BUCKLES AND INSTALL SEPARATELY WITH A SINGLE WRAP AROUND THE MAST ARM CHORD. PLACE THE SECOND BANDING STRAP OVER THE FIRST STRAP AND STAGGER THE CLAMPING BUCKLES SO THE BUCKLES ARE NOT DIRECTLY OVER ONE ANOTHER.

REVISION:

APPROVED: OCTOBER 16, 2019

Brian Gibson

STATE TRAFFIC ENGINEER

STANDARD PLAN 5-297.730

1 OF 1

Peter A. Harff

APPROVED: 10-16-2019

REVISD:

PETER A. HARFF

STATE DESIGN ENGINEER

STATE PROJ. NO.

(T.H.)

SHEET NO. OF SHEETS

SIGN MOUNTING SYSTEMS FOR ROUND SUPPORTS

ISSUE FOR PERMIT

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.

ALEC W. PIETZ, P.E.

LIC. NO. 59617 DATE 10/06/2024



1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION

HOFFMAN ROAD EXTENSION

SIGNING & STRIPING PLAN

DETAILS

SHEET

C7.08

© Bolton & Menk, Inc. 2024. All Rights Reserved.
A:\WEST\BOLTON\128460\CD\1 - PUBLIC IMPROVEMENTS\Plans\128460\CD\1.dwg, 10/6/2024 9:25:07 AM

ISSUE FOR PERMIT

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.

ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

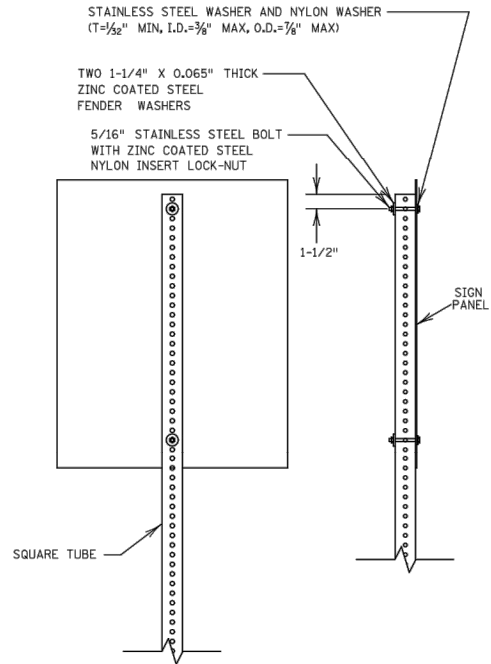
MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
SIGNING & STRIPING PLAN
DETAILS

SHEET

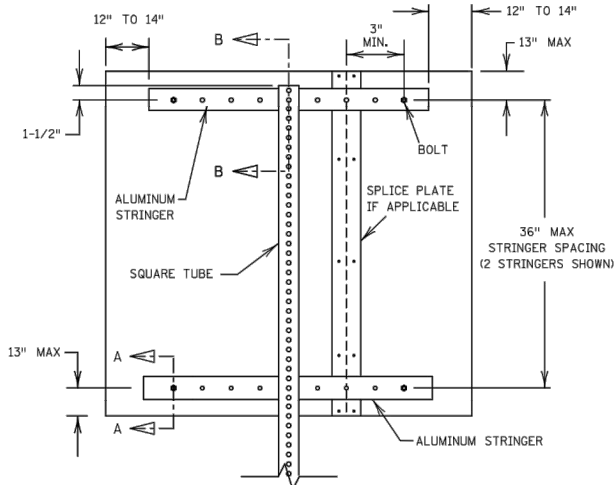
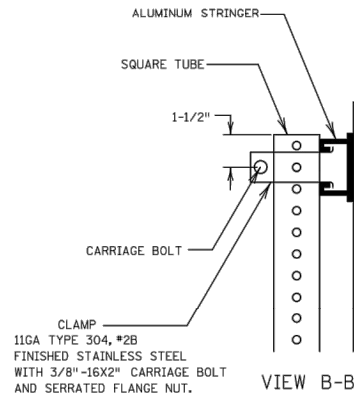
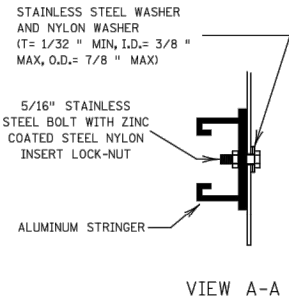
C7.09

PLOTTED/REVISED: 29-DEC-2021

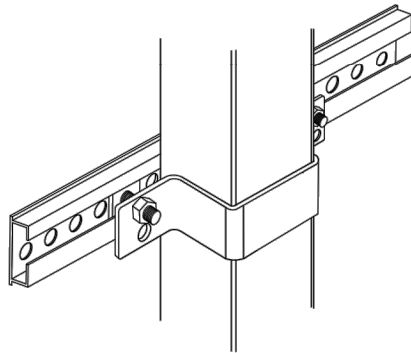
PLOT NAME: SQUARE TUBE SIGN MOUNTING DETAIL
PATH & FILENAME: 01ST\Sigling\Typicals\Standard Plans\DETAIL Versions\SQUARE TUBE SIGN MOUNTING DETAILS.dgn



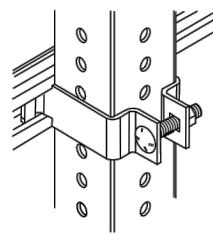
FOR SIGN PANELS UP TO 30" WIDE



FOR SIGN PANELS 36" WIDE OR GREATER ON ONE POST



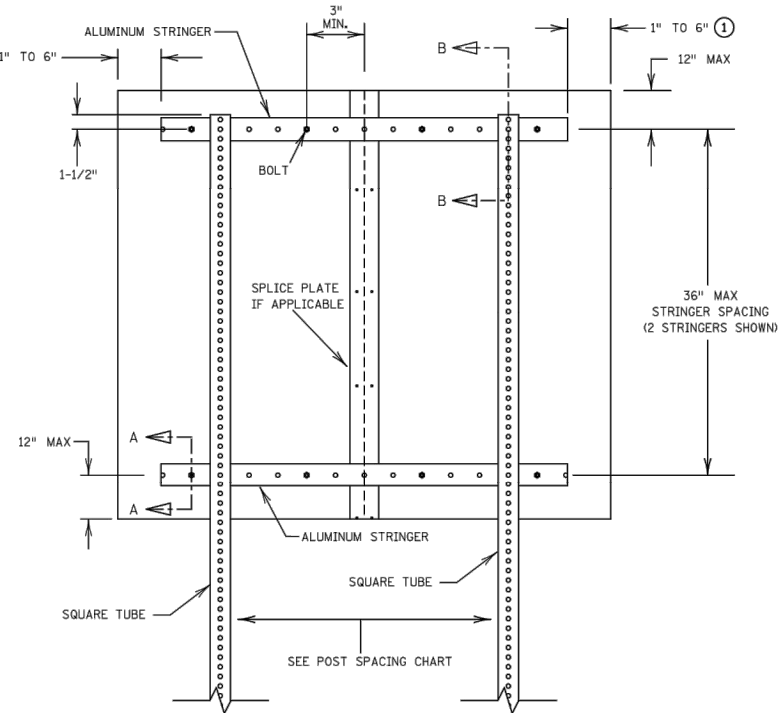
CLAMP DETAIL
4" SQUARE TUBE



CLAMP DETAIL
2" AND 2 1/2" SQUARE TUBE

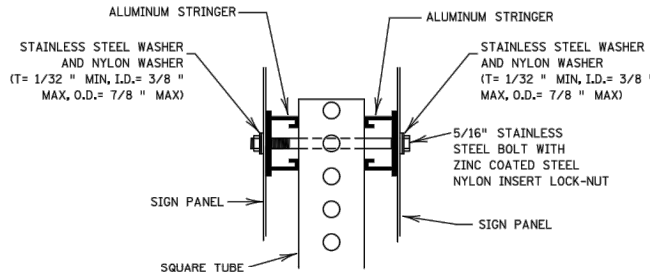
- NOTES:
1. BOLT SIGN PANELS TO STRINGERS OR RISER POSTS AT NO GREATER THAN 24 INCH SPACING OR ACCORDING TO THE MNDOT STANDARD SIGNS AND MARKINGS MANUAL FOR MOUNTING HOLES (PUNCH CODES) INFORMATION.
 2. STRINGERS SHALL BE CENTERED ON SIGN PANEL.

REV 7/01/21



FOR SIGN PANELS ON TWO OR MORE POSTS

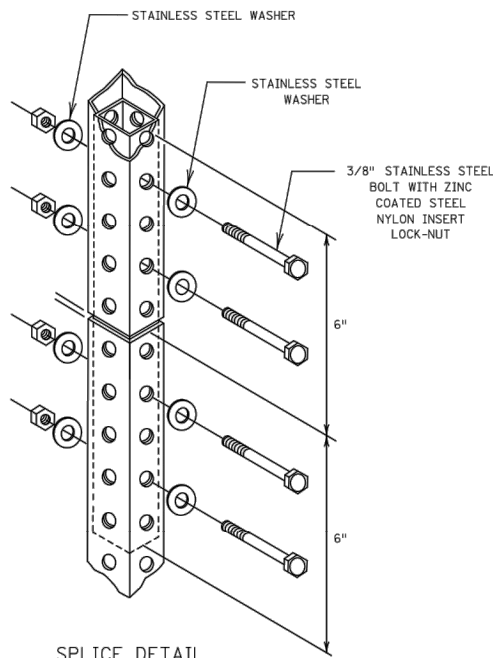
- ① IF POST SPACING REQUIRES PLACEMENT OF A POST WITHIN THIS AREA, EXTEND STRINGERS AS NEEDED TO ACCOMMODATE THE STRINGER TO POST CLAMP.



BACK TO BACK
SIGN MOUNTING WITH STRINGERS

DRAWN BY:				CHECKED BY:				CERTIFIED BY _____ LIC. NO. _____ DATE _____				STATE PROJ. NO. (T.H.) SHEET NO. OF SHEETS			
												1 OF 3 SQUARE TUBE SIGN MOUNTING DETAILS			

ISSUE FOR PERMIT



NO MORE THAN ONE SPLICE PER POST.

WHEN USED MUST BE PLACED AT LEAST 8 FEET ABOVE GROUND. THE PREFERRED PLACEMENT LOCATION IS BEHIND THE SIGN PANEL.

INTERIOR POST STUD SHALL BE ONE SIZE SMALLER FOR A TIGHT FIT. IF RISER POST IS 2-1/2", INTERIOR POST IS 2-3/16". IF RISER POST IS 2", INTERIOR POST IS 1-3/4".

PANEL WIDTH	SQUARE TUBE POST SPACING							
	2 POSTS	3 POSTS	4 POSTS	5 POSTS	6 POSTS	7 POSTS	8 POSTS	
	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	
42	15							
48	21							
54	30							
60	36							
66	36							
72	42							
78	42							
84	48							
90	48	42						
96	48	42						
102	54	42						
108	54	42						
114	60	42						
120	60	48						
126	66	48						
132	66	48	42					
138	72	48	42					
144	72	48	42					
150	78	54	42					
156	78	54	42					
162	84	54	42					
168	84	60	48					
174	90	60	48	42				
180	90	60	48	42				
186	96	66	48	42				
192	96	66	48	42				
198	102	66	54	42				
204	102	72	54	42				
210	108	72	54	42				
216	108	72	54	48	42			
222	114	78	60	48	42			
228	114	78	60	48	42			
234	120	78	60	48	42			
240	120	84	60	48	42			
246	84	66	54	42				
252	84	66	54	42				
258	90	66	54	42		42		
264	90	66	54	48	42	42		
270	90	72	54	48	42	42		
276	96	72	60	48	42	42		
282	96	72	60	48	42	42		
288	96	72	60	48	42	42		
294	102	78	60	54	42			
300	102	78	60	54	42	42	42	
306	102	78	66	54	42	42	42	
312	108	78	66	54	48	42		
318	108	84	66	54	48	42		
324	108	84	66	54	48	42		
330	114	84	66	60	48	42		
336	114	84	72	60	48	42		

DISTANCES ARE CENTER-TO-CENTER OF POSTS

[illegible]

NUMBER OF ALUMINUM STRINGERS FOR 2-1/2 INCH OR SMALLER POSTS

PANEL WIDTH (INCHES)

PANEL HEIGHT (INCHES)

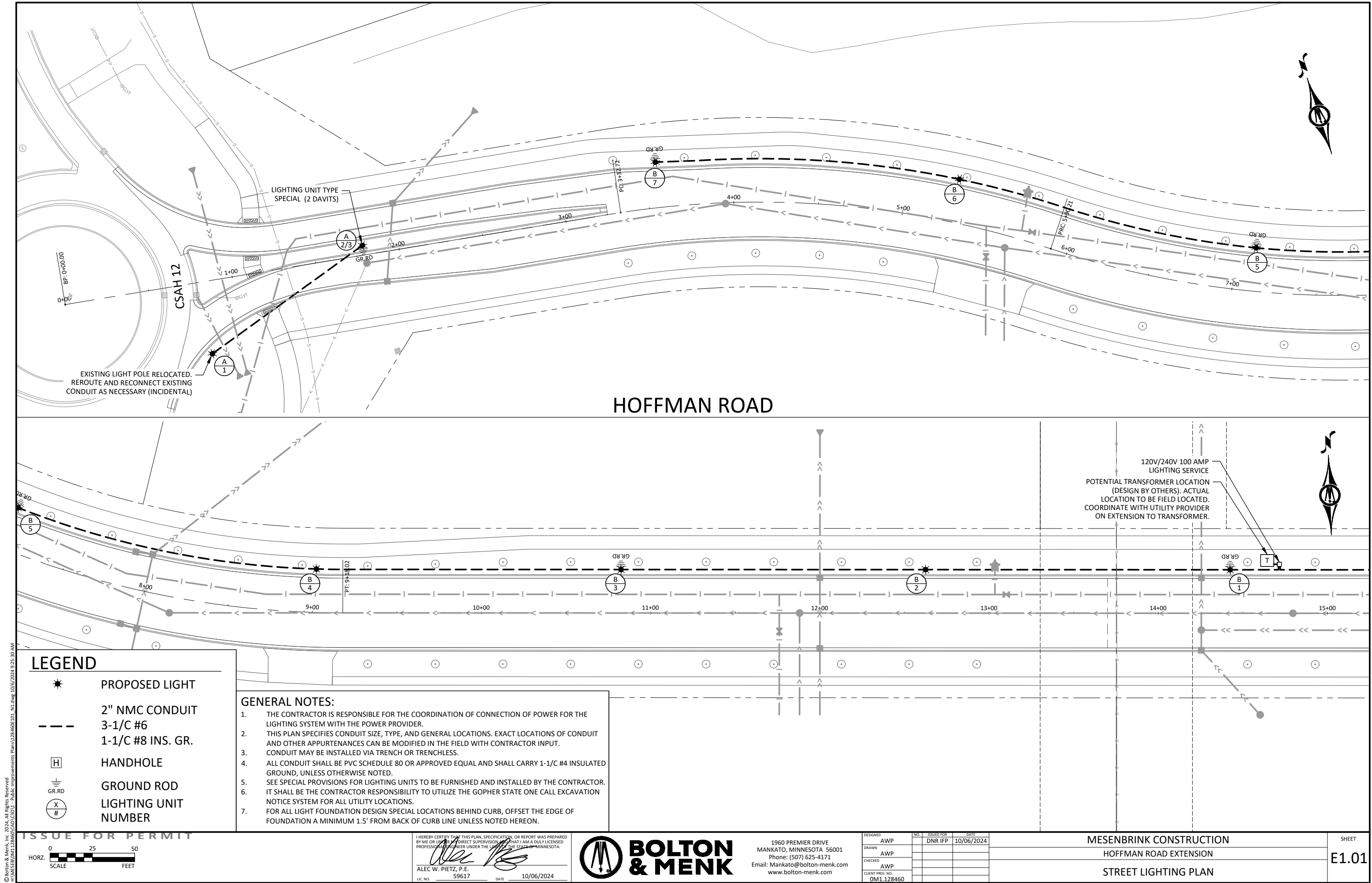


BOLTON & MENK

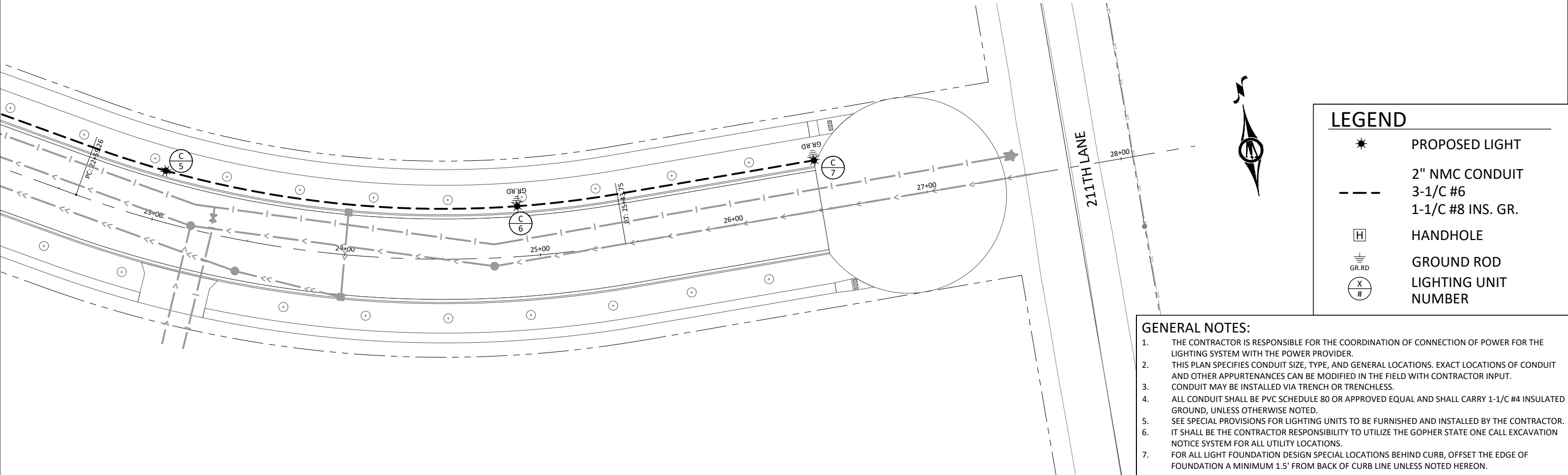
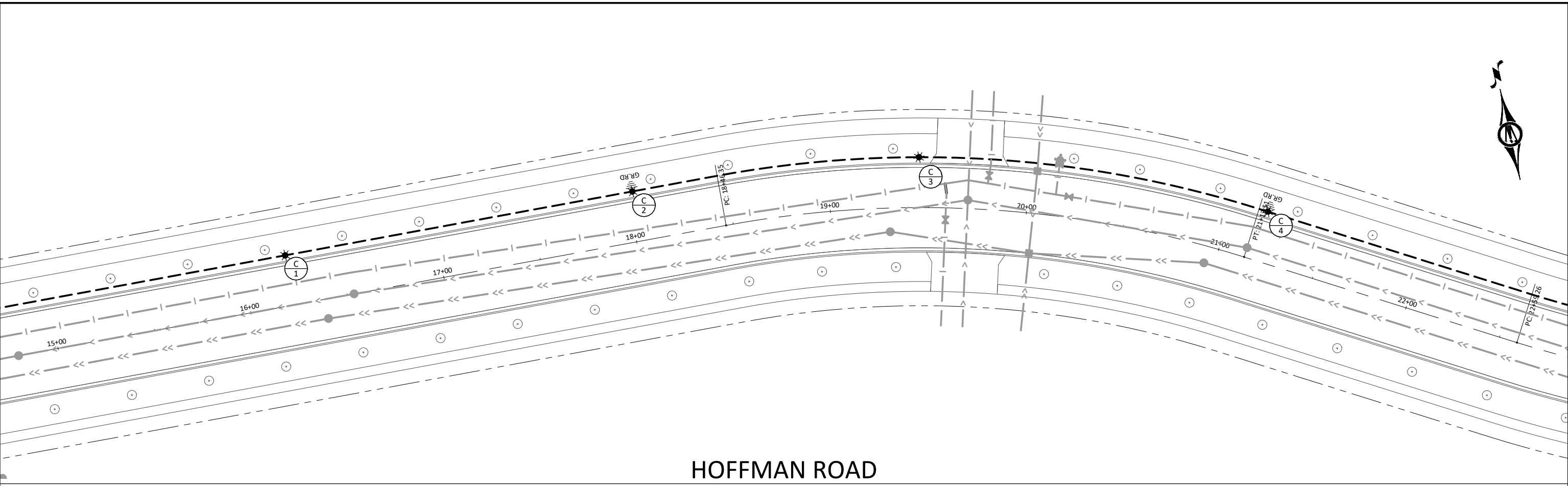
1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
SIGNING & STRIPING PLAN
DETAILS



© Bolton & Menk, Inc. 2024. All Rights Reserved.
A:\WESTA\0M1.128460\CD\CD - Public Improvements Plans\128460E1.01_11.dwg 10/6/2024 9:25:30 AM



LEGEND

PROPOSED LIGHT

2" NMC CONDUIT
3-1/C #6
1-1/C #8 INS. GR.

HANDHOLE

GROUND ROD

LIGHTING UNIT
NUMBER

- GENERAL NOTES:
1.

THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF CONNECTION OF POWER FOR THE LIGHTING SYSTEM WITH THE POWER PROVIDER.
2.
- THIS PLAN SPECIFIES CONDUIT SIZE, TYPE, AND GENERAL LOCATIONS. EXACT LOCATIONS OF CONDUIT AND OTHER APPURTENANCES CAN BE MODIFIED IN THE FIELD WITH CONTRACTOR INPUT.

3.

4.

5.

6.

7.

© Bolton & Menk, Inc. 2024. All Rights Reserved.
11/15/24/2024 12:29:46 PM 11/15/24/2024 12:29:46 PM 11/15/24/2024 12:29:46 PM 11/15/24/2024 12:29:46 PM

ISSUE FOR PERMIT

HORZ. SCALE

0 25 50
FEET

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.

ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024

BOLTON & MENK

1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED AWP

DRAWN AWP

CHECKED AWP

CLIENT PROJ. NO. 0M1.128460

NO. 1

ISSUED FOR DNR IFP

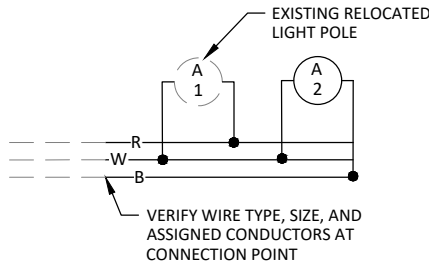
DATE 10/06/2024

MESENBRINK CONSTRUCTION

HOFFMAN ROAD EXTENSION

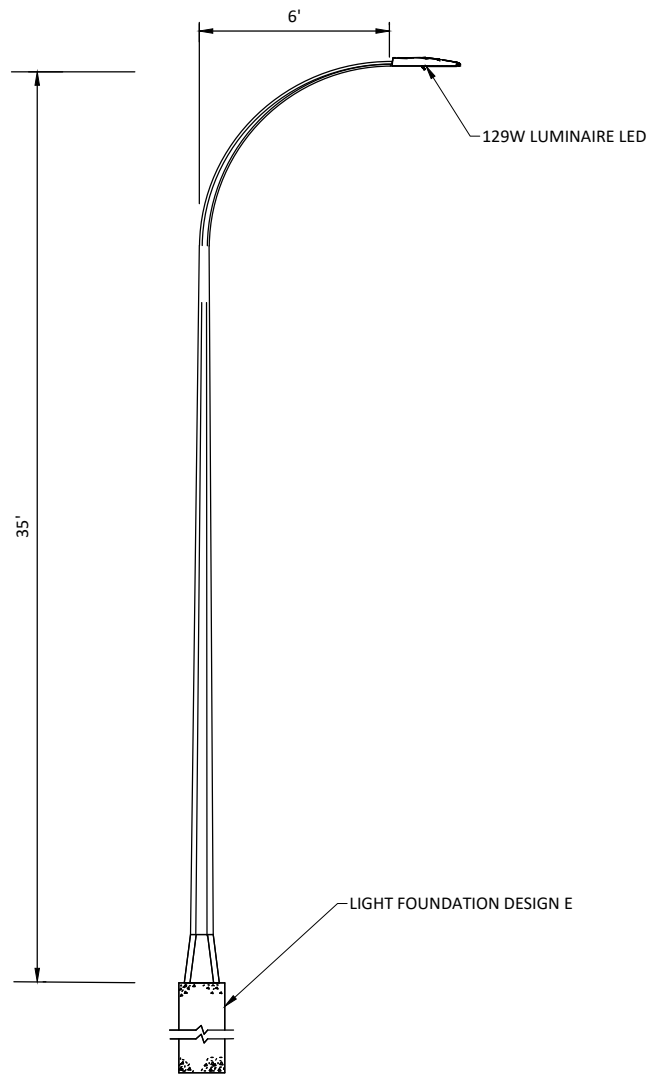
STREET LIGHTING PLAN

SHEET E1.02

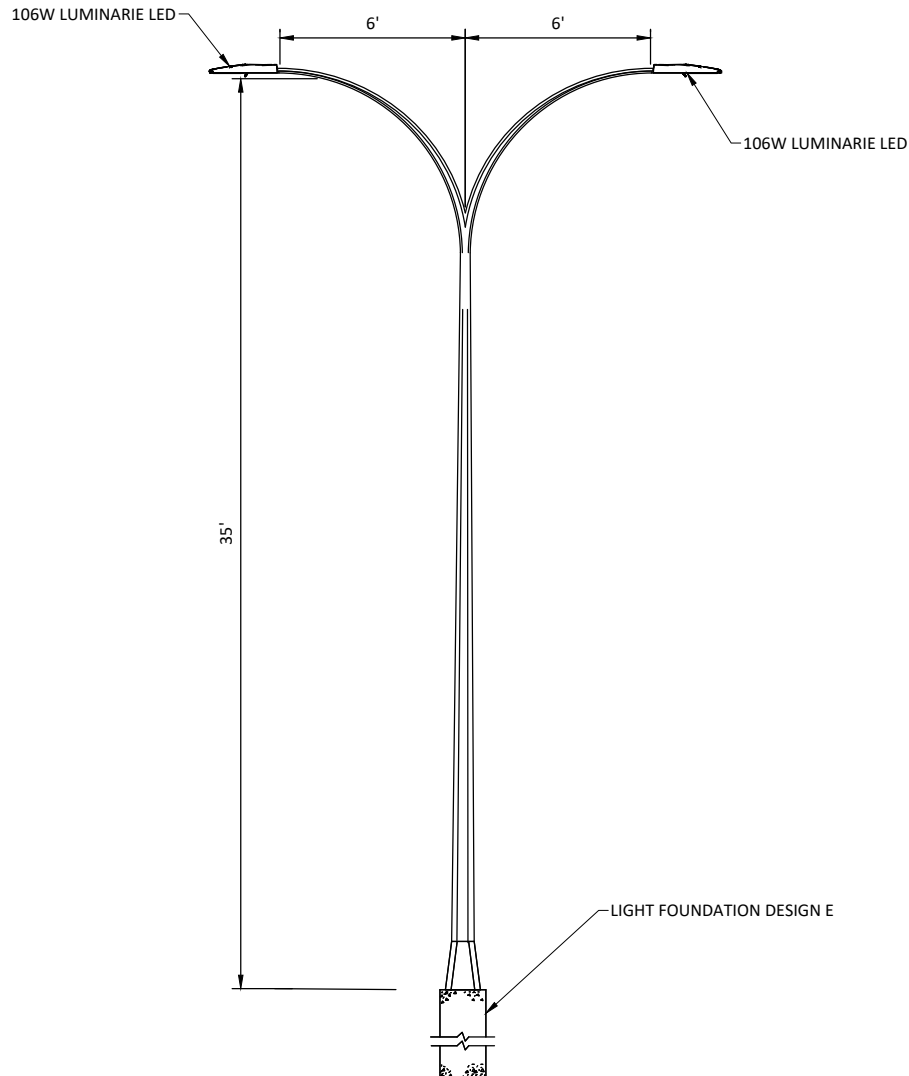


B AND R DENOTE CURRENT CARRYING CONDUCTORS
W DENOTES NEUTRAL CONDUCTOR

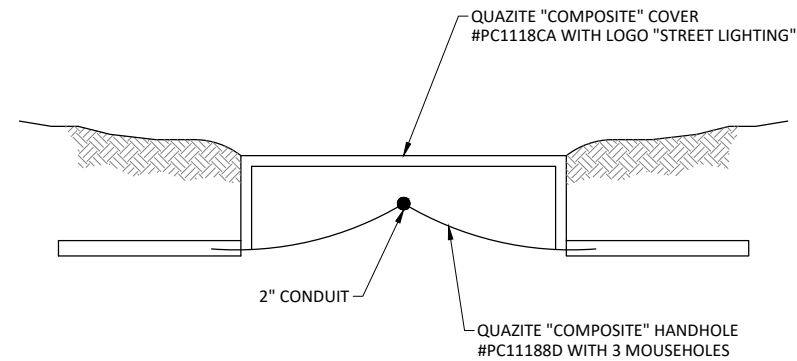
WIRING DIAGRAM A



LIGHTING UNIT TYPE E
NOT TO SCALE

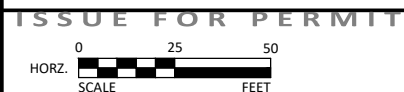


LIGHTING UNIT TYPE SPECIAL
NOT TO SCALE



HANDHOLE
NOT TO SCALE

© Bolton & Menk, Inc. 2024. All Rights Reserved.
A:\WESTA\101128460\128460-CD1 - Public Improvements Plans\128460E1.03_11.dwg 10/06/2024 9:25:34 AM



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.

ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024

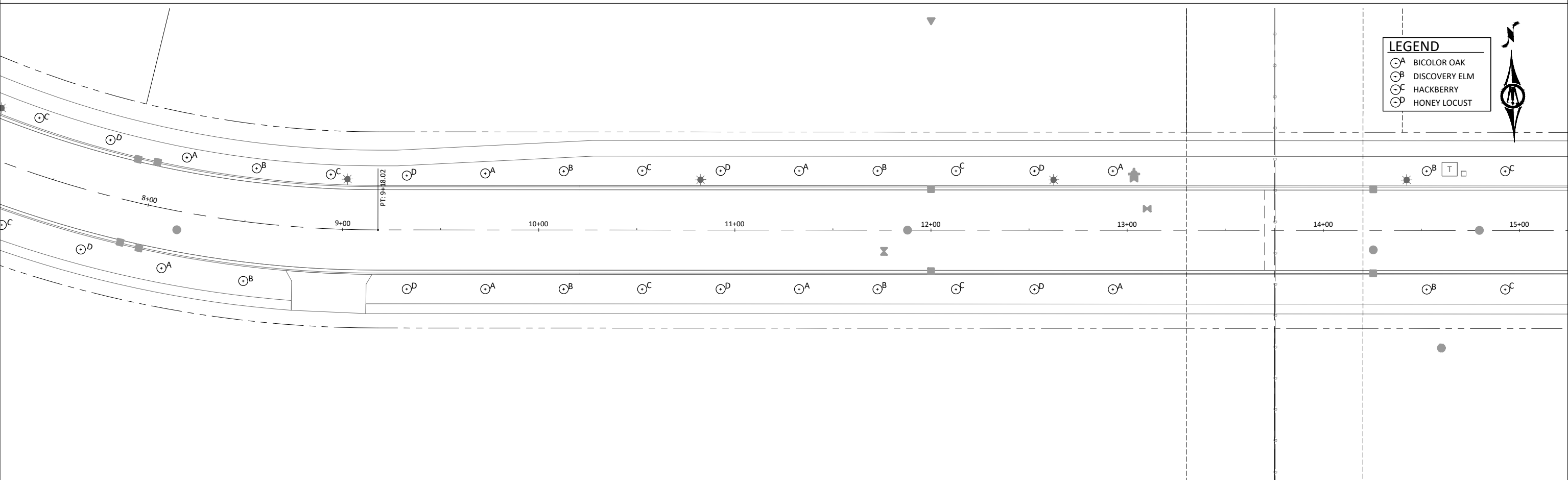
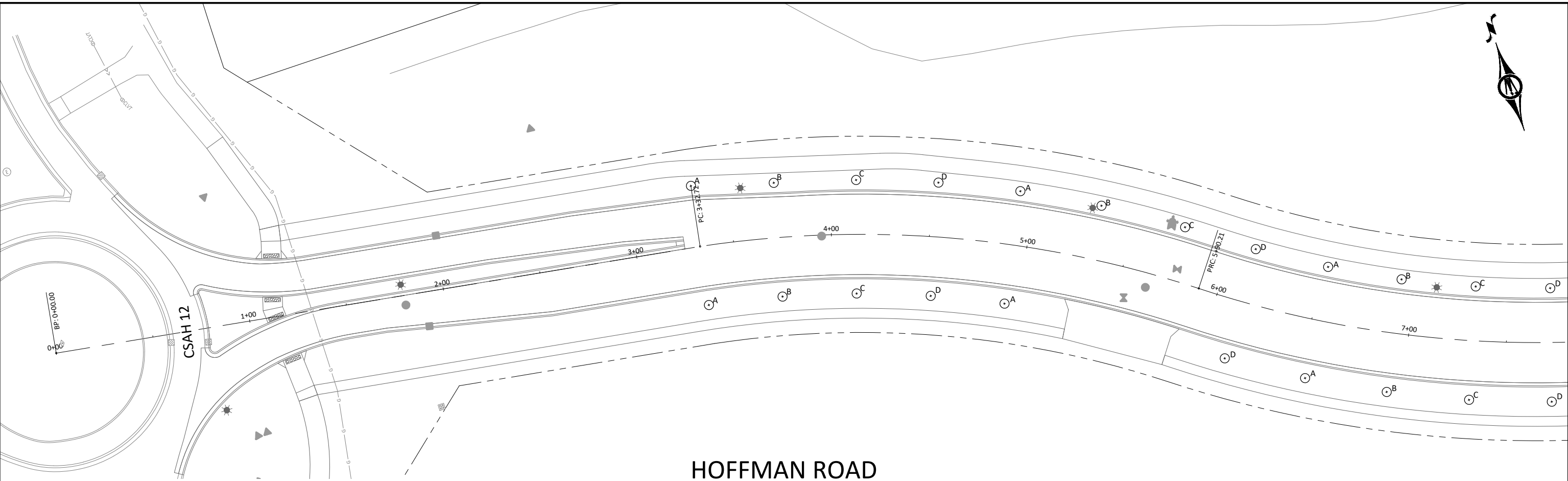


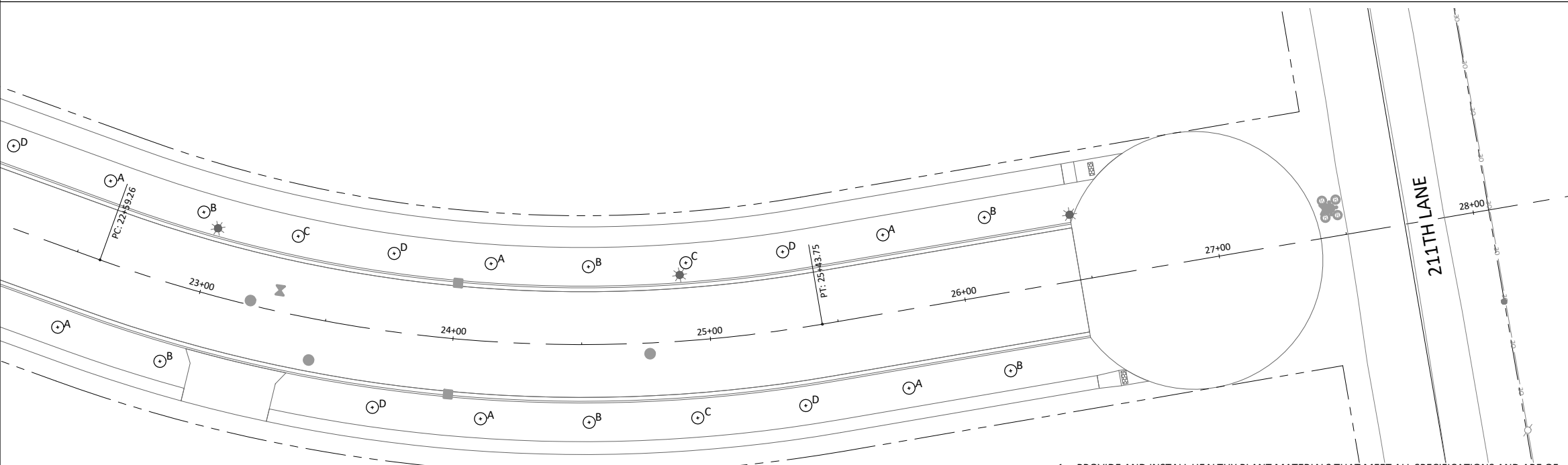
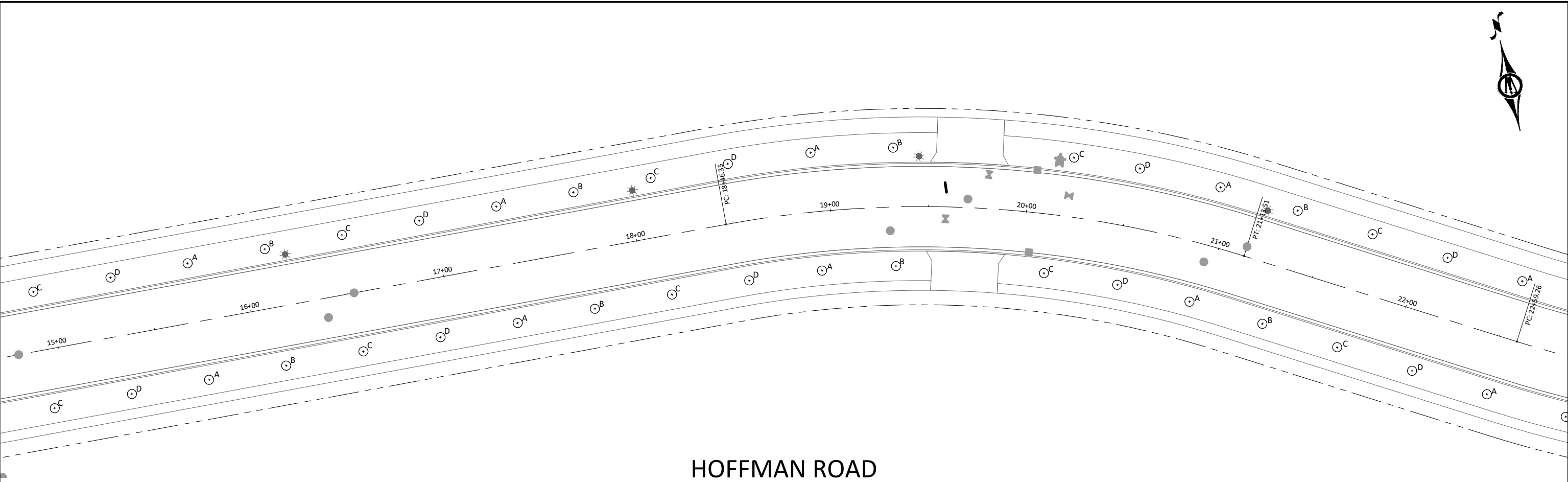
1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
LIGHTING DETAILS & WIRING DIAGRAMS

SHEET
E1.03

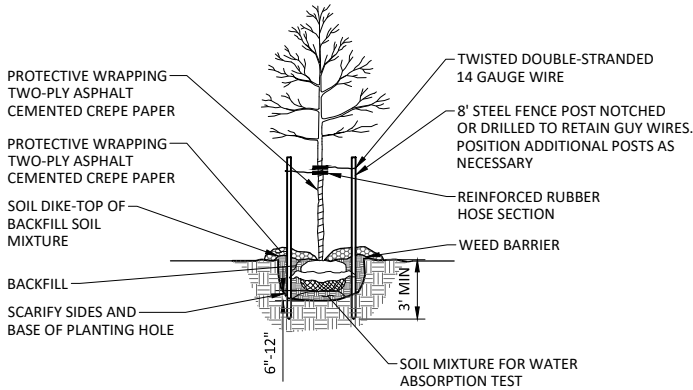




- LEGEND**
- ⊙A BICOLOR OAK
 - ⊙B DISCOVERY ELM
 - ⊙C HACKBERRY
 - ⊙D HONEY LOCUST

- BAG & BALL PLANTING NOTE:**
1. REMOVE WRAPPING AND ALL TIES OR STRAPS. IF ROOT BALL IS WRAPPED IN BURLAP THE LOWER 1/2 PORTION OF THE FABRIC MAY BE LEFT AT THE BOTTOM OF THE HOLE. SYNTHETIC WRAP MUST BE REMOVED AND PROPERLY DISPOSED.
 2. LOOSEN ROOTS TO ENSURE THEY ARE NOT GIRDLING THE ROOT BALL.
 3. SALVAGE AND REUSE ALL SOIL THAT CAME WITH THE ROOT BALL.
 4. IF ROOT BALL IS EXTREMELY DRY WATER IT PRIOR TO PLACING IT IN THE HOLE.
 5. IF TREE IS CONTAINER GROWN, SALVAGE ALL SOIL AND MIX WITH SUPPLEMENTED SOIL FOR BACK FILL.

1. PROVIDE AND INSTALL HEALTHY PLANT MATERIALS THAT MEET ALL SPECIFICATIONS AND ARE OF THE SIZE, TYPE AND SPECIES NAMED ON THE PLANT SCHEDULE AND SHOWN ON THE PLANS.
2. DIG PLANT HOLE 1'-0" MINIMUM LARGER ON ALL SIDES THAN ROOT BALL.
3. PRIOR TO PLACING TREE, SCARIFY BOTTOM AND SIDES OF THE PLANTING HOLE.
4. TEST SOIL ABSORPTION. FILL HOLE PARTIALLY WITH SUPPLEMENTED SOIL MIXTURE, ADD WATER AND ALLOW TO PUDDLE AND SETTLE PRIOR TO SETTING TREE.
5. AFTER PUDDLING HAS SETTLED, SET TREE AND BACK FILL WITH SUPPLEMENTED SOIL MIXTURE.
6. WATER THOROUGHLY AND ADD BACK FILL AS NEEDED AFTER MOISTURE IS ABSORBED.
7. BUILD SOIL DIKE AROUND PERIPHERY OF TREE TO HOLD WATER.
8. AFTER SETTLEMENT, MULCH WITH MINIMUM 4" LAYER SHREDDED BARK, WOOD CHIPS OR AS OTHERWISE SPECIFIED. DO NOT MULCH UP AGAINST THE TRUNK.
9. REMOVE DEAD OR DAMAGED BRANCHES. RETAIN THE NATURAL FORM OF THE TREE.



DECIDUOUS TREE PLANTING
NOT TO SCALE



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.

Alec W. Pietz
ALEC W. PIETZ, P.E.
LIC. NO. 59617 DATE 10/06/2024



1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
Phone: (507) 625-4171
Email: Mankato@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AWP		DNR IFP	10/06/2024
DRAWN			
AWP			
CHECKED			
AWP			
CLIENT PROJ. NO.			
0M1.128460			

MESENBRINK CONSTRUCTION
HOFFMAN ROAD EXTENSION
TREE PLANTING PLAN

SHEET
L1.02