

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	<del>4</del>	<del>Right of Way Plat</del>
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	<del>7</del>	<del>Sign Plates</del>
Section No.	<del>8</del>	<del>Structure Plans</del>
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 40

41

DESIGN DESIGNATION 9954-00-02

A.A.D.T.	2024	=	330
A.A.D.T.	2044	=	340
D.H.V.		=	N/A
D.D.		=	50/50
T.		=	4%
DESIGN SPEED		=	40 MPH
ESALS		=	22,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	
EXISTING RIGHT OF WAY		GRADE ELEVATION	
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	
EXISTING CULVERT		FIBER OPTIC	
PROPOSED CULVERT (Box or Pipe)		GAS	
COMBUSTIBLE FLUIDS		SANITARY SEWER	
MARSH AREA		STORM SEWER	
WOODED OR SHRUB AREA		TELEPHONE	
		WATER	
		UTILITY PEDESTAL	
		POWER POLE	
		TELEPHONE POLE	

# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

## PLAN OF PROPOSED IMPROVEMENT

### T LA POINTE, HAGEN ROAD

BLACK SHANTY ROAD TO TERMINUS

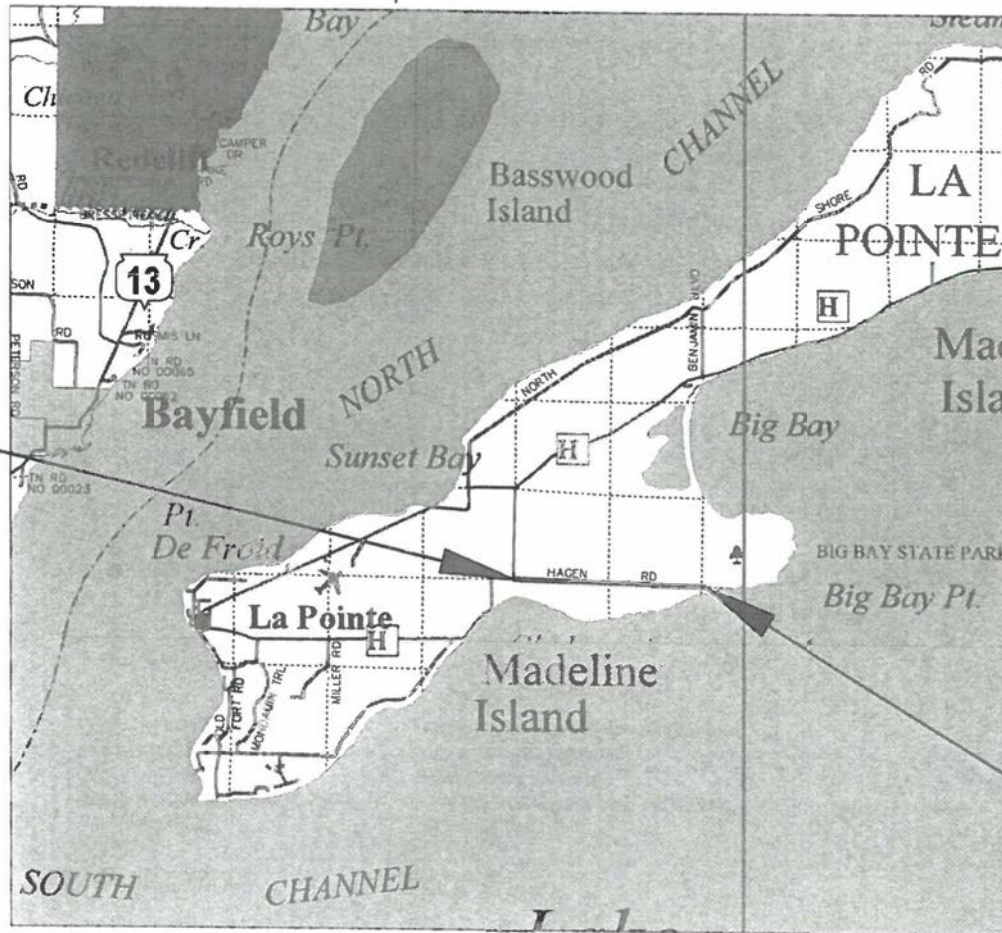
LOCAL STR

ASHLAND COUNTY

STATE PROJECT NUMBER

9954-00-72

BAYFIELD COUNTY ← ASHLAND COUNTY



BEGIN PROJECT  
STA 10+38.55  
Y = 394,727.18  
X = 543,508.10

END PROJECT  
STA 118+43.91  
Y = 394,525.24  
X = 554,309.30



TOTAL NET LENGTH OF CENTERLINE = 2.046 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), ASHLAND COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2010). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9954-00-72	WISC 2024346	1

ACCEPTED FOR

TOWN OF LA POINTE

Date: 1/31/24 *Michael Kuchta*  
(Signature and Title of Official)  
TOWN ADMINISTRATOR

ORIGINAL PLANS PREPARED BY

DATE: 1/31/24 *Jacob A. Friberg*  
(Professional Engineer Signature)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY  
Surveyor: COOPER ENGINEERING  
Designer: COOPER ENGINEERING  
Project Manager: PAULA GROOM, P.E.  
Regional Examiner: TOU YANG, P.E.  
Regional Supervisor: JEFFREY OLSON, P.E.

APPROVED FOR THE DEPARTMENT  
DATE: 01/31/2024 *Paula Groom*  
(Signature)

**LIST OF STANDARD ABBREVIATIONS**

ABUT	ABUTMENT	LT.	LEFT
AC	ACRES	LS	LUMP SUM
AGG	AGGREGATE	MH	MANHOLE
AH	AHEAD	N	NORTH
ADT	AVERAGE DAILY TRAFFIC	NC	NORMAL CROWN
AVG.	AVERAGE	PAVT	PAVEMENT
ASPH	ASPHALTIC	PC	POINT OF CURVATURE
BK.	BACK	PE	PRIVATE ENTRANCE
BM	BENCHMARK	PI	POINT OF INTERSECTION
Δ	CENTRAL ANGLE OR DELTA	PL	PROPERTY LINE
℄, C/L	CENTERLINE	PP	POWER POLE
C & G	CURB AND GUTTER	PT	POINT OF TANGENCY
CABC	CRUSHED AGGREGATE BASE COURSE	R	RANGE, RADIUS
CONC.	CONCRETE	RCCP	REINFORCED CONCRETE CULVERT PIPE
COR	CORNER	RD	ROAD
CORR	CORRUGATED	REBAR	REINFORCEMENT BAR
CSCP	CORRUGATED STEEL CULVERT PIPE	REQD	REQUIRED
CSPA	CORRUGATED STEEL PIPE ARCH	RDWY	ROADWAY
CTH	COUNTY TRUNK HIGHWAY	RHF	RIGHT HAND FORWARD
CP.	CULVERT PIPE	RL, R/L	REFERENCE LINE
CY	CUBIC YARD	RR	RAILROAD
CWT.	HUNDREDWEIGHT	RT.	RIGHT
DIA	DIAMETER	R/W	RIGHT-OF-WAY
D	DEGREE OF CURVE	S	SOUTH
DHV	DESIGN HOURLY VOLUME	SAN S	SANITARY SEWER
DWY	DRIVEWAY	SDD	STANDARD DETAIL DRAWING
EBS	EXC. BELOW SUB GRADE	SE	SUPER ELEVATION
ELEV., EL	ELEVATION	SF.	SQUARE FEET
ELEC.	ELECTRIC	SHLDR	SHOULDER
EXC	EXCAVATION	SPECS	SPECIFICATIONS
EXIST	EXISTING	SQ.	SQUARE
E	EAST	SS.	STORM SEWER
FE	FIELD ENTRANCE	SY.	SQUARE YARD
FF.	FACE TO FACE	STH	STATE TRUNK HIGHWAY
FL, F/L	FLOW LINE	ST.	STREET
FS	FULL SUPERELEVATION	STA.	STATION
G	GARAGE	SW	SIDEWALK
GN	GRID NORTH	T	TANGENT
H	HOUSE	TC	TOP OF CURB
		℄, T/L	TRANSIT LINE
		TEL	TELEPHONE
		TEMP	TEMPORARY
		TLE	TEMPORARY LIMITED EASEMENT
		TYP	TYPICAL
HYD	HYDRANT	USH	UNITED STATES HIGHWAY
I	INTERSECTION ANGLE	UG	UNDERGROUND
INTERS	INTERSECTION	V	DESIGN SPEED
INV.	INVERT	VAR.	VARIABLE
IP	IRON PIN OR PIPE	VERT	VERTICAL
LC	LONG CHORD OF CURVE	YD	YARD
LF	LINEAR FOOT		
LHF	LEFT HAND FORWARD		
L	LENGTH OF CURVE		

**UTILITY CONTACTS**

**COMMUNICATIONS**

NORVADO  
WILLIAM KURTZ  
43705 US HWY 63, PO BOX 67  
CABLE, WI 54821  
PHONE: (715) 798-7122  
EMAIL: wkurtz@norvado.com

**ELECTRIC**

XCEL ENERGY  
JOHN KELSNER  
1414 W. HAMILTON AVE, PO BOX 8  
EAU CLAIRE, WI 54702  
PHONE: (715) 737-6020  
EMAIL: john.kelsner@xcelenergy.com

ALL UTILITIES LISTED ARE MEMBERS OF DIGGERS HOTLINE



**OTHER CONTACTS**

**DESIGN CONSULTANT**

COOPER ENGINEERING  
JACOB FRIBERG  
2600 COLLEGE DRIVE  
RICE LAKE, WI 54868  
PHONE: (715) 234-7008  
EMAIL: jfriberg@cooperengineering.net

**TOWN OF LA POINTE**

PUBLIC WORKS DIRECTOR  
BEN SCHRAM  
240 BIG BAY ROAD / PO BOX 270  
LA POINTE, WI 54850  
PHONE: (715) 747-6855  
EMAIL: foreman@townoflapointewi.gov

**WDNR REGIONAL CONTACT**

WDNR/WISDOT LIAISON  
SHAWN HASELEU  
810 W. MAPLE STREET  
SPOONER, WI 54801  
PHONE: (715) 635-4228  
EMAIL: shawn.haseleu@wisconsin.gov

**GENERAL NOTES:**

NO TREES OR SHRUBS SHALL BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE BEEN DESIGNATED FOR REMOVAL BY THE ENGINEER.

ACCESS TO ALL RESIDENCES & SIDE ROADS SHALL BE MAINTAINED DURING CONSTRUCTION.

THE LOCATION OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

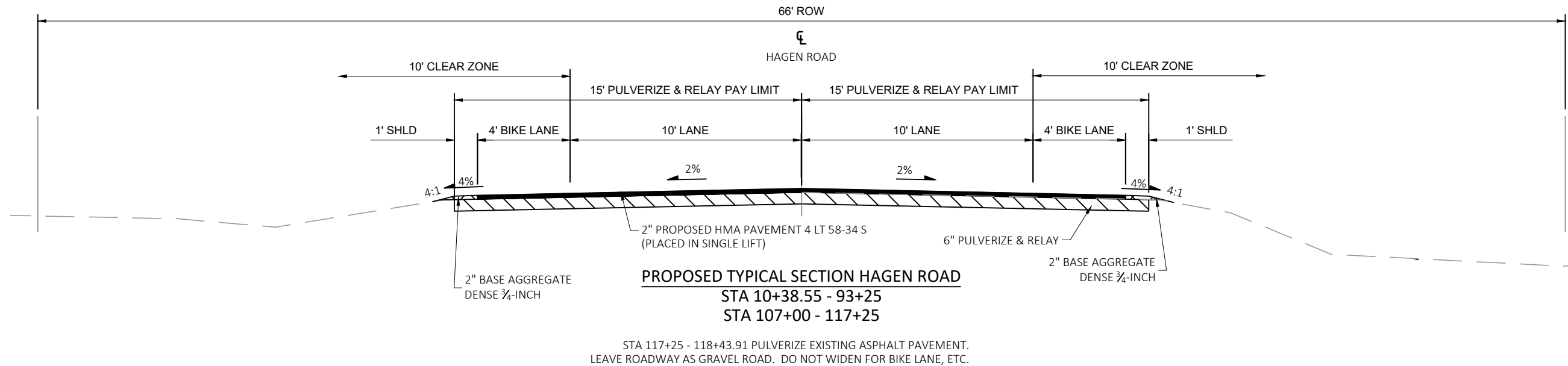
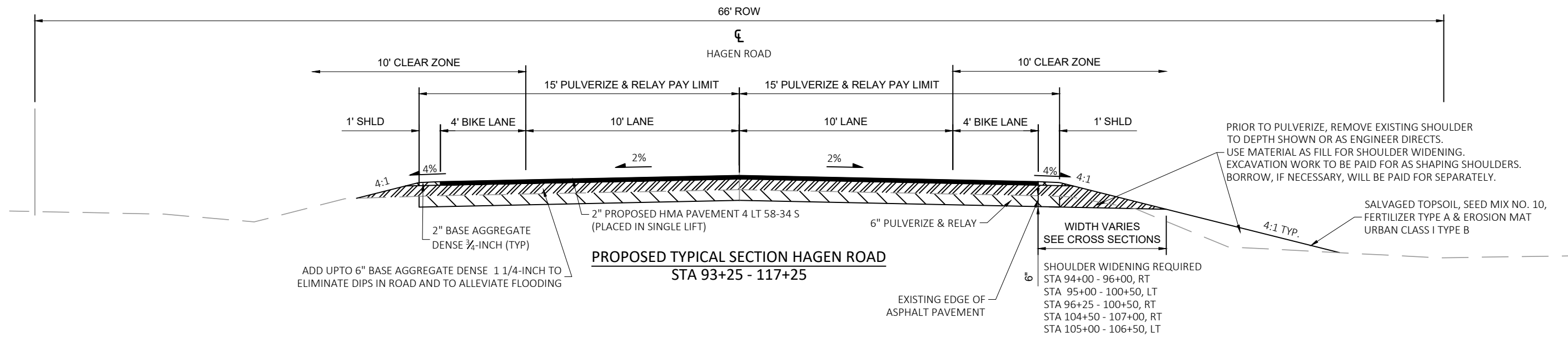
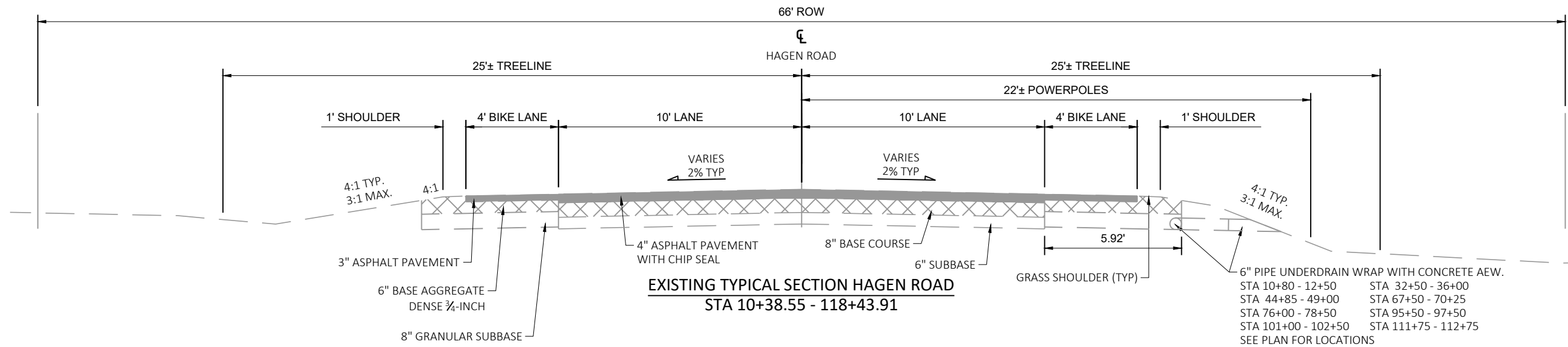
PAVEMENT MARKING SHALL MEET MUTCD STANDARDS.

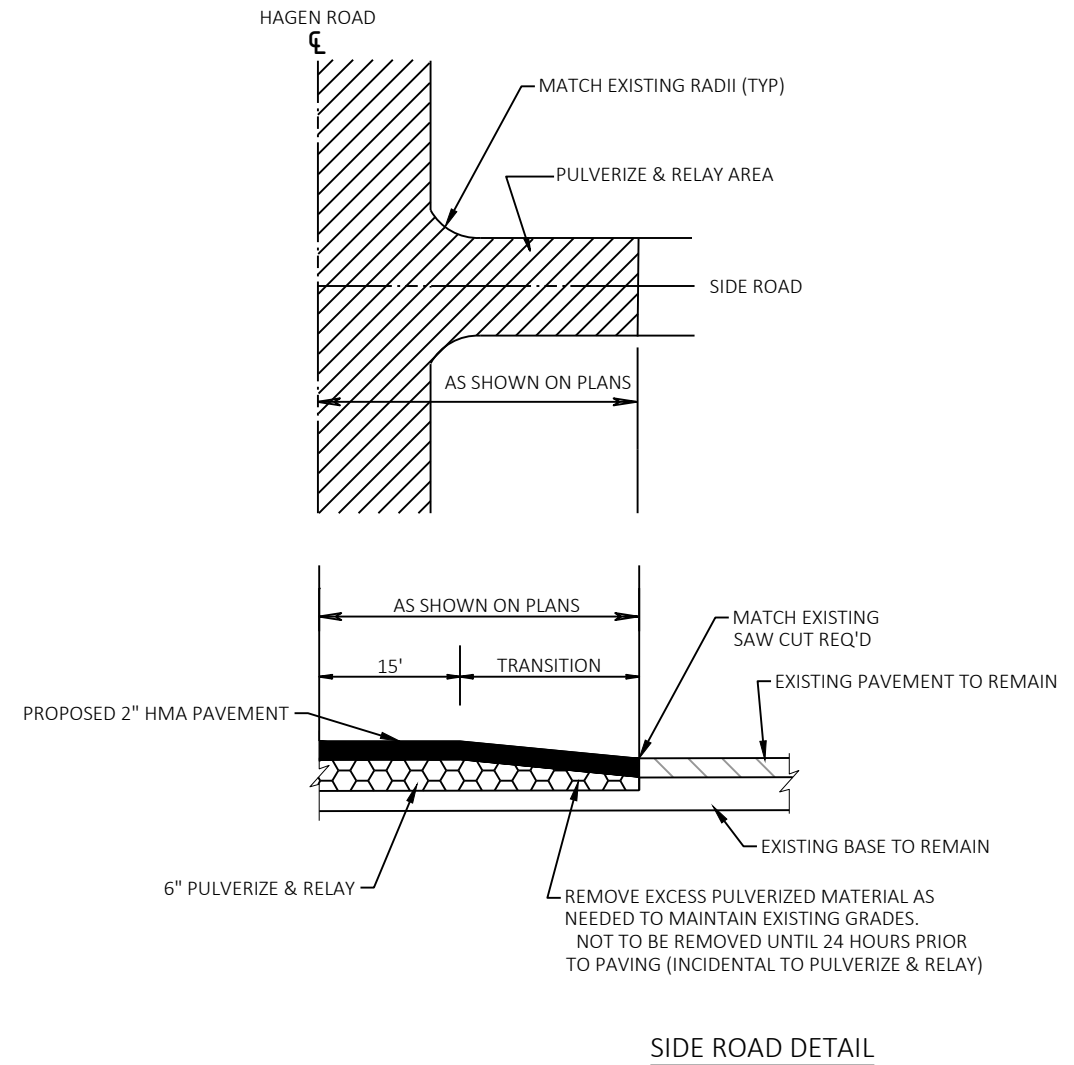
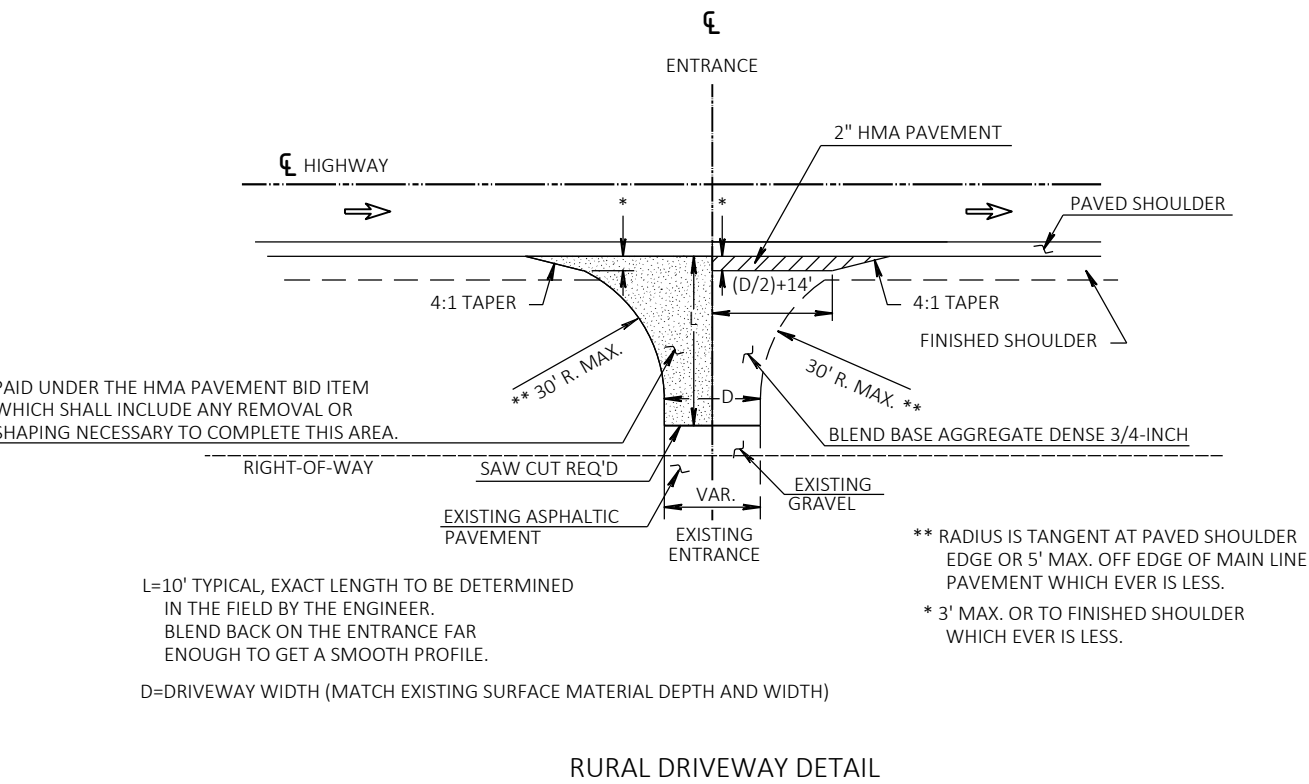
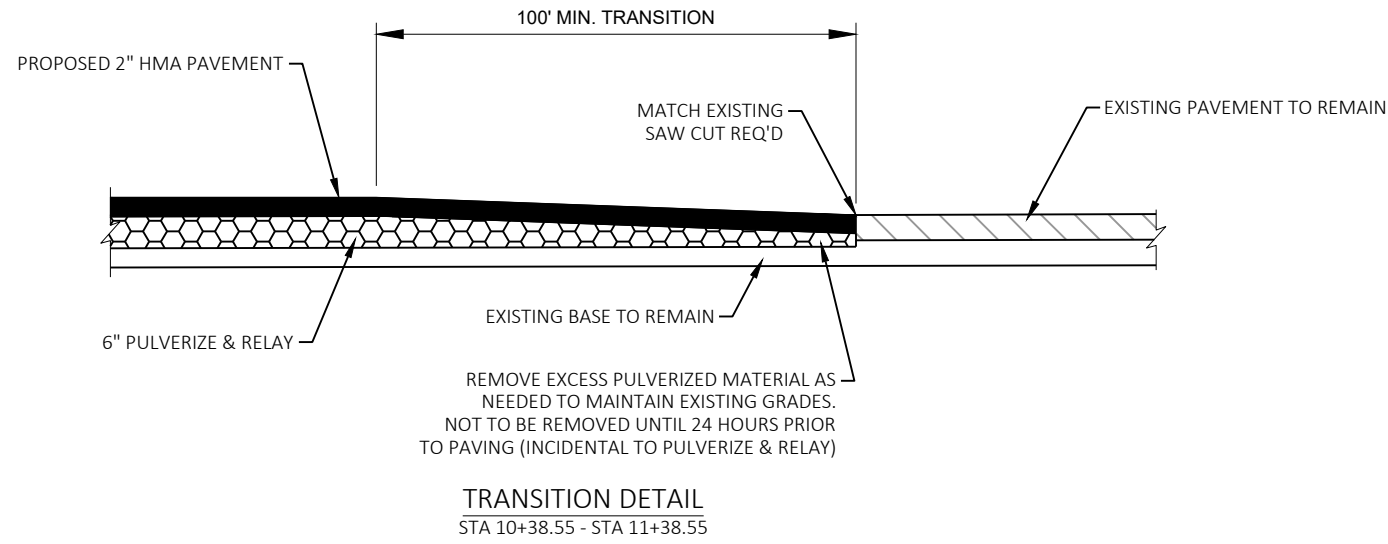
HAGEN ROAD WILL BE OPEN TO TRAFFIC DURING CONSTRUCTION. SHOULDER CLOSURE WILL BE ALLOWED. FLAGGERS REQUIRED DURING WORK OPERATIONS.

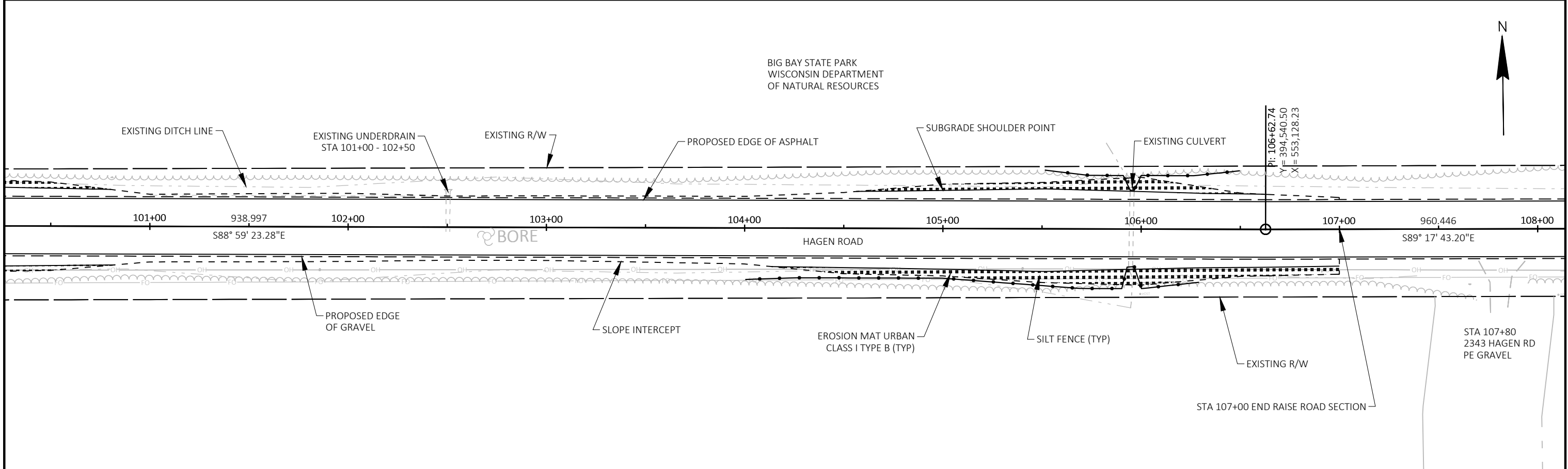
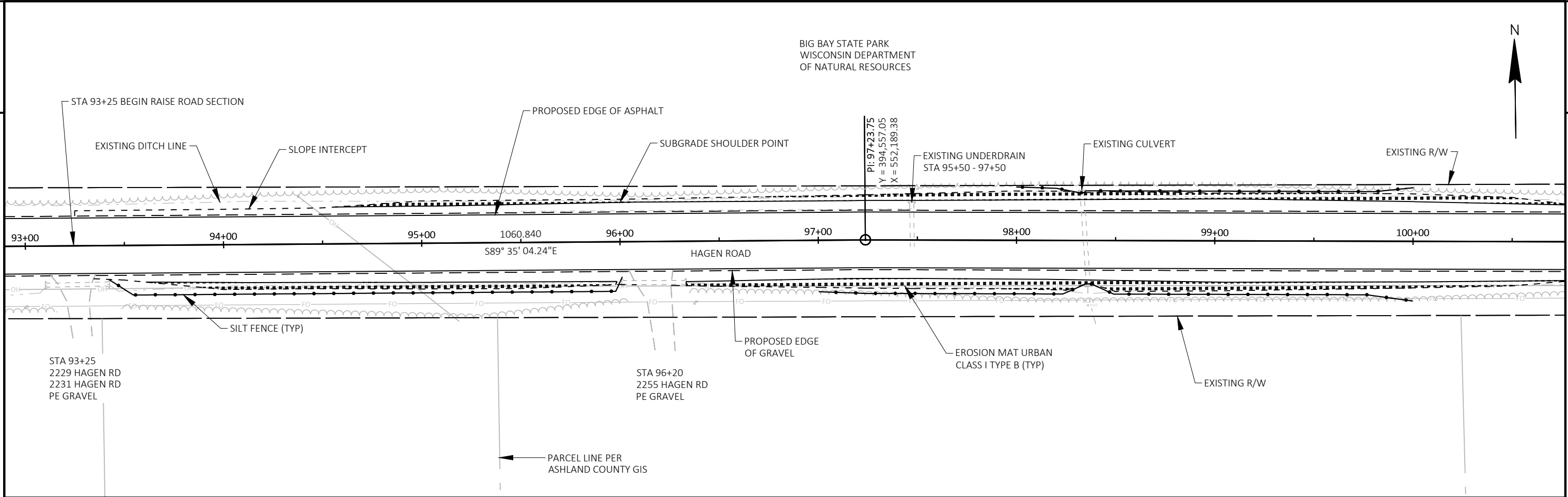
**RUNOFF COEFFICIENT TABLE**

	HYDROLOGIC SOIL GROUP								
	A			B			C		
	SLOPE RANGE (%)			SLOPE RANGE (%)			SLOPE RANGE (%)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36
PAVEMENT:									
ASPHALT	.70 - .95								
CONCRETE	.80 - .95								
BRICK	.70 - .80								
DRIVES, WALKS	.75 - .85								
ROOFS	.75 - .95								
GRAVEL ROADS, SHOULDERS	.40 - .60								

TOTAL PROJECT AREA = 16.4 ACRES  
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 10.5 ACRES

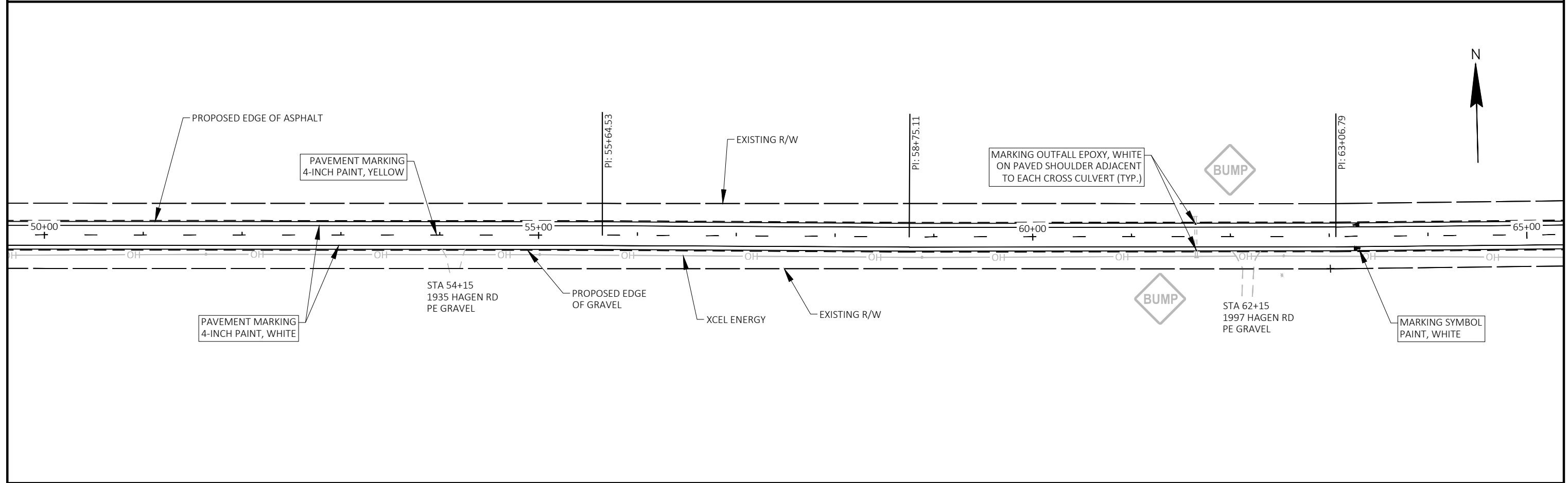
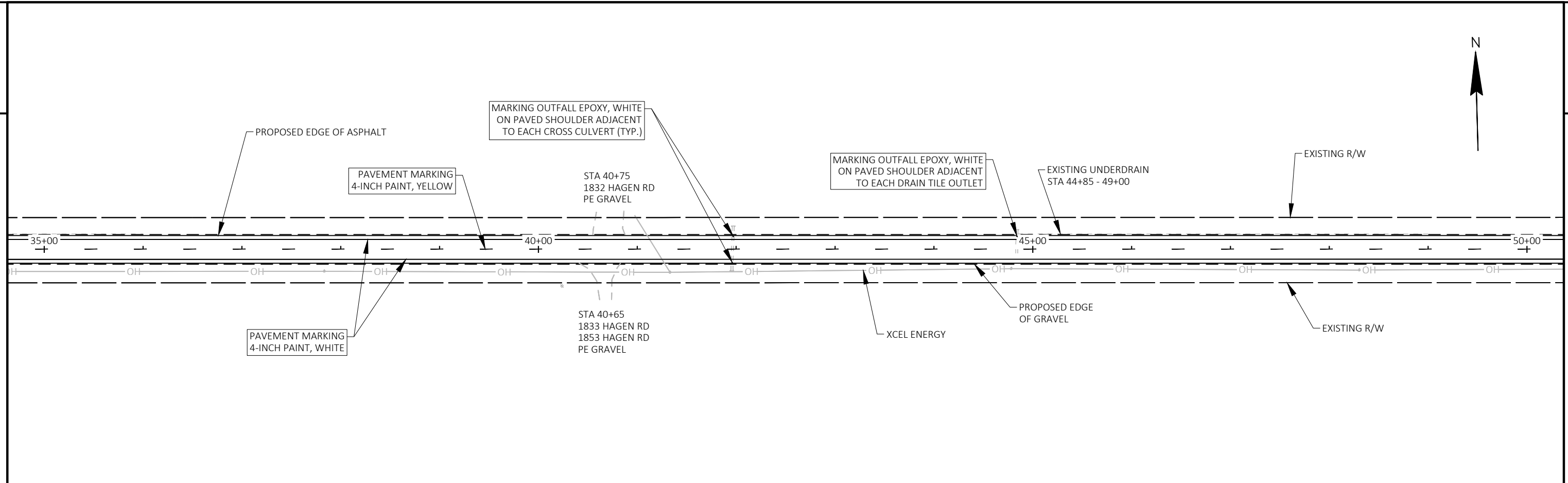




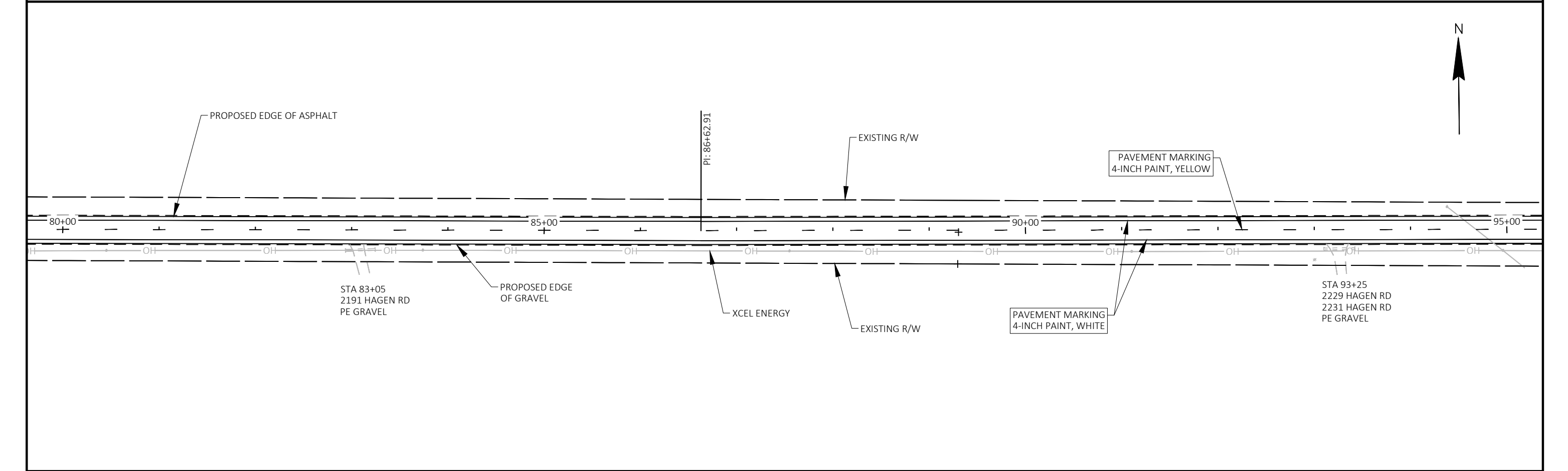
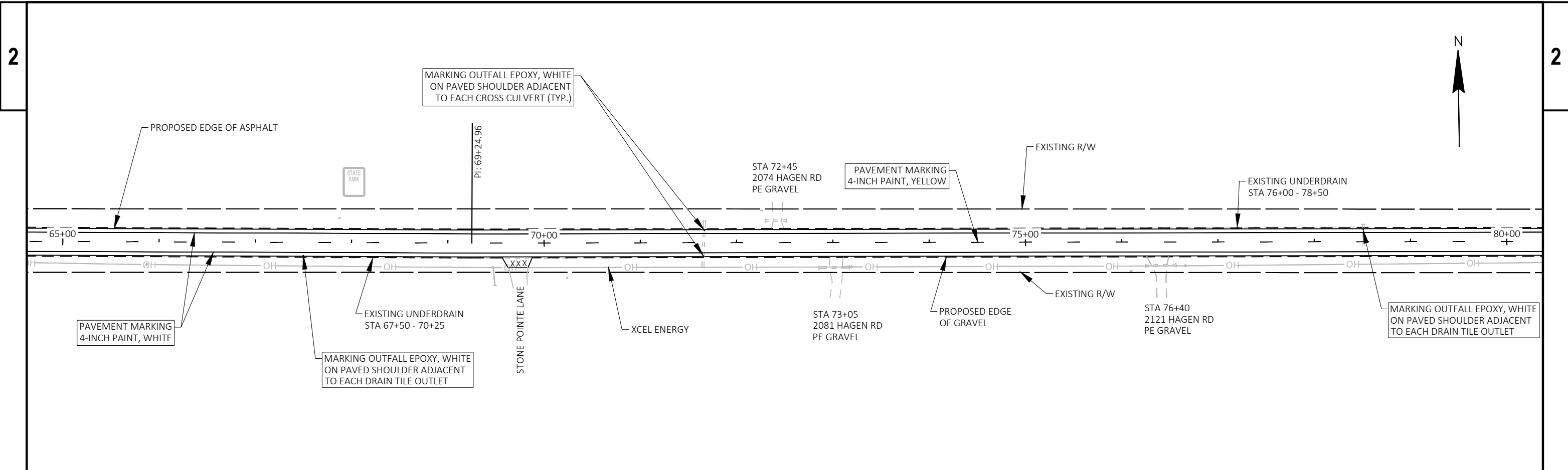


PROJECT NO: 9954-00-72	HWY: HAGEN ROAD	COUNTY: ASHLAND	EROSION CONTROL	SHEET	E
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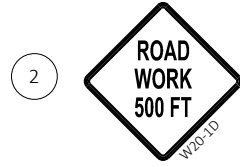
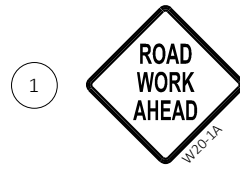
PROJECT NO: 9954-00-72	HWY: HAGEN ROAD	COUNTY: ASHLAND	PAVEMENT MARKING	SHEET	E
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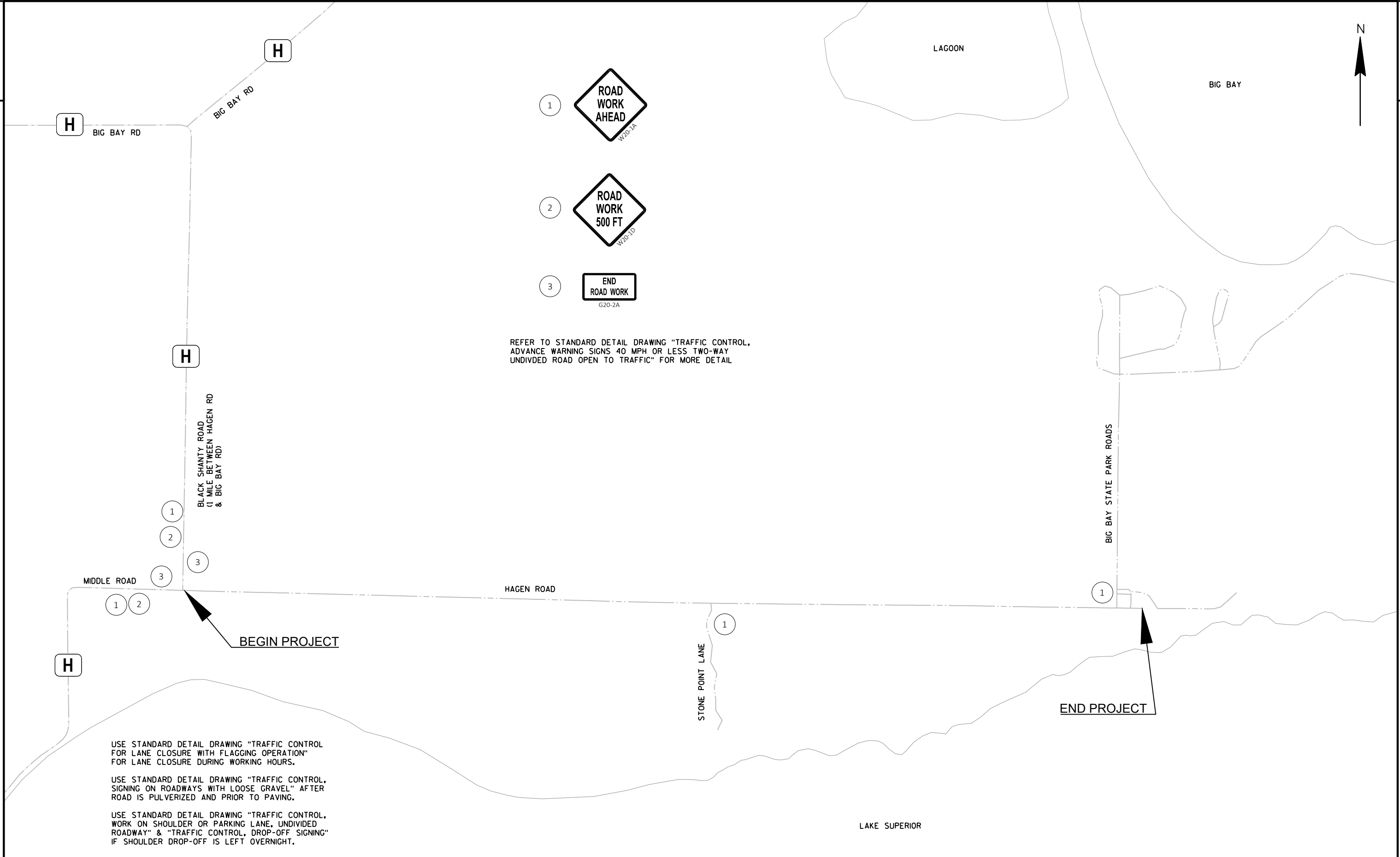
PROJECT NO: 9954-00-72	HWY: HAGEN ROAD	COUNTY: ASHLAND	PAVEMENT MARKING	SHEET	E
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REFER TO STANDARD DETAIL DRAWING "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR MORE DETAIL



USE STANDARD DETAIL DRAWING "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" FOR LANE CLOSURE DURING WORKING HOURS.

USE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL" AFTER ROAD IS PULVERIZED AND PRIOR TO PAVING.

USE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" & "TRAFFIC CONTROL, DROP-OFF SIGNING" IF SHOULDER DROP-OFF IS LEFT OVERNIGHT.

Estimate Of Quantities

9954-00-72

Line	Item	Item Description	Unit	Total	Qty
0002	208.0100	Borrow	CY	50.000	50.000
0004	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 9954-00-72	EACH	1.000	1.000
0006	213.0100	Finishing Roadway (project) 01. 9954-00-72	EACH	1.000	1.000
0008	305.0110	Base Aggregate Dense 3/4-Inch	TON	720.000	720.000
0010	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,300.000	1,300.000
0012	305.0500	Shaping Shoulders	STA	25.000	25.000
0014	325.0100	Pulverize and Relay	SY	36,000.000	36,000.000
0016	374.1020.S	QMP Pulverize and Relay Compaction	SY	36,000.000	36,000.000
0018	450.4000	HMA Cold Weather Paving	TON	936.000	936.000
0020	460.2000	Incentive Density HMA Pavement	DOL	3,750.000	3,750.000
0022	460.5244	HMA Pavement 4 LT 58-34 S	TON	3,750.000	3,750.000
0024	618.0100	Maintenance and Repair of Haul Roads (project) 01. 9954-00-72	EACH	1.000	1.000
0026	619.1000	Mobilization	EACH	1.000	1.000
0028	624.0100	Water	MGAL	150.000	150.000
0030	625.0500	Salvaged Topsoil	SY	875.000	875.000
0032	628.1504	Silt Fence	LF	1,350.000	1,350.000
0034	628.1520	Silt Fence Maintenance	LF	1,350.000	1,350.000
0036	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0038	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0040	628.2008	Erosion Mat Urban Class I Type B	SY	875.000	875.000
0042	629.0205	Fertilizer Type A	CWT	0.600	0.600
0044	630.0110	Seeding Mixture No. 10	LB	20.000	20.000
0046	630.0500	Seed Water	MGAL	25.000	25.000
0048	642.5001	Field Office Type B	EACH	1.000	1.000
0050	643.0300	Traffic Control Drums	DAY	1,600.000	1,600.000
0052	643.0900	Traffic Control Signs	DAY	1,300.000	1,300.000
0054	643.5000	Traffic Control	EACH	1.000	1.000
0056	646.1005	Marking Line Paint 4-Inch	LF	25,335.000	25,335.000
0058	646.5205	Marking Symbol Paint	EACH	6.000	6.000
0060	646.5520	Marking Outfall Epoxy	EACH	20.000	20.000
0062	648.0100	Locating No-Passing Zones	MI	2.020	2.020
0064	650.5000	Construction Staking Base	LF	1,375.000	1,375.000
0066	650.8000	Construction Staking Resurfacing Reference	LF	10,686.000	10,686.000
0068	650.9911	Construction Staking Supplemental Control (project) 01. 9954-00-72	EACH	1.000	1.000
0070	650.9920	Construction Staking Slope Stakes	LF	1,375.000	1,375.000
0072	690.0150	Sawing Asphalt	LF	103.000	103.000
0074	740.0440	Incentive IRI Ride	DOL	4,040.000	4,040.000
0076	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000
0078	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	300.000	300.000

3

CATEGORY	STATION TO STATION	SIDE	EXPANDED					REMARKS
			EXCAVATION COMMON	UNEXPANDED FILL	FILL (FACTOR = 1.25)	MASS ORDINATE +/-	BORROW 208.0100	
0010	93+50 - 107+00	LT	45	45	55	-10	10	SHOULDER WIDENING
0010	93+50 - 107+00	RT	50	70	90	-40	40	SHOULDER WIDENING
TOTAL 0010			95	115	145	-50	50	

\*\*ITEM TO BE PAID BY THE STA UNDER THE SHAPING SHOULDERS BID ITEM

3

CATEGORY	STATION TO STATION	SIDE	ASP-ALT THICKNESS (IN)	LAYERS	BASE		QMP		HMA		REMARKS	
					AGGREGATE	AGGREGATE	PULVERIZE	AND RELAY	WEATHER	PAVING		
					3/4-INCH 305.0110	1 1/4-INCH 305.0120	PULVERIZE AND RELAY 325.0100	COMPACTION 374.1020.S	450.4000	460.5244		HMA PAVEMENT 4 LT 58-34 S 624.0100
0010	10+39 - 11+00	LT/RT	2	1	5	-	210	210	7	25	-	INCLUDES INTERSECTION TAPERS
0010	11+00 - 93+25	LT/RT	2	1	460	-	27415	27415	718	2870	115	RAISE ROAD
0010	93+25 - 107+00	LT/RT	2	1	80	1,300	4580	4580	120	480	20	RAISE ROAD
0010	107+00 - 117+25	LT/RT	2	1	60	-	3415	3415	91	360	15	
0010	117+25 - 118+44	LT/RT	2	1	-	-	260	260	-	-	-	PULVERIZE ONLY
0010	69+75	RT	2	1	5	-	30	30	-	3	-	STONE POINTE LANE
0010	115+55	LT	2	1	5	-	45	45	-	6	-	BIG BAY STATE PARK EXIT
0010	117+10	LT	2	1	5	-	45	45	-	6	-	BIG BAY STATE PARK ENTER
0010	DRIVEWAYS				100	-	-	-	-	-	-	DRIVEWAYS
TOTAL 0010					720	1,300	36,000	36,000	936	3,750	150	

CATEGORY	STATION TO STATION	SIDE	EROSION MAT				SEEDING		REMARKS
			SHAPING SHOULDERS	SALVAGED TOPSOIL	URBAN CLASS I TYPE B	FERTILIZER TYPE A	MIX NO. 10	SEED WATER	
			305.0500	625.0500	628.2008	629.0205	630.0110	630.0500	
0010	94+00 - 96+00	RT	2	80	80	0.06	2	2	RAISE ROAD
0010	95+00 - 100+50	LT	6	200	200	0.13	3	5	RAISE ROAD
0010	96+25 - 100+50	RT	5	190	190	0.12	3	5	RAISE ROAD
0010	104+50 - 107+00	RT	3	150	150	0.10	3	4	RAISE ROAD
0010	105+00 - 106+50	LT	2	80	80	0.06	2	2	RAISE ROAD
0010	UNDISTRIBUTED		7	175	175	0.13	7	7	
TOTAL 0010			25	875	875	0.6	20	25	

CATEGORY	STATION TO STATION	SIDE	SILT FENCE		REMARKS
			SILT FENCE	MAINTENANCE	
			628.1504	628.1520	
0010	93+50 - 96+00	RT	250	250	25' RT
0010	97+00 - 100+00	RT	300	300	27' RT
0010	98+00 - 100+00	LT	200	200	25' LT
0010	104+00 - 106+25	RT	225	225	30' RT
0010	105+50 - 106+50	LI	100	100	2' LI
0010	UNDISTRIBUTED		275	275	
TOTAL 0010			1350	1350	

3

CATEGORY	LOCATION	MOBILIZATIONS		REMARKS
		EROSION CONTROL	EROSION CONTROL	
		628.1905	628.1910	
0010	PROJECT	1	-	SILT FENCE
0010	PROJECT	1	-	RESTORATION
0010	PROJECT	-	1	UNDISTRIBUTED
TOTAL 0010		2	1	

CATEGORY	DAYS	TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL SIGNS		REMARKS
		643.0300	643.0900	643.0300	643.0900	
		#	DAYS	#	DAYS	
0010	80	0	8	640		ADVANCE WARNING SIGNS
0010	20	40	800	1	80	SHOULDER CLOSURE LT
0010	20	40	800	1	80	SHOULDER CLOSURE RT
0010	50	0	10	500		LOOSE GRAVEL/DIP SIGNS
TOTAL 0010		1,600		1,300		

3

CATEGORY	STATION TO	STATION	SIDE	MARKING LINE	MARKING LINE	MARKING LINE	MARKING	MARKING	LOCATING	REMARKS
				PAINT	PAINT	PAINT	SYMBOL	OUTFALL	NO-PASSING	
				4-INCH	4-INCH, YELLOW	4-INCH, WHITE	PAINT	EPOXY**	ZONES	
				646.1005	*	†	646.5205	646.552	648.0100	
				LF	LF	LF	EACH	EACH	MI	
0010	10+39	- 116+82	CL	2663	2663	-	-	-	2.02	YELLOW CENTERLINE SKIPS
0010	10+39	- 17+25	CL	685	686	-	-	-	-	YELLOW CENTERLINE SOLID
0010	109+96	- 115+82	CL	685	686	-	-	-	-	YELLOW CENTERLINE SOLID
0010	10+39	- 115+29	LT	10490	-	10490	-	-	-	LT WHITE EDGELINE
0010	10+39	- 117+02	RT	10710	-	10710	-	-	-	RT WHITE EDGELINE
0010	115+82	- 116+82	LT	100	-	100	-	-	-	LT WHITE EDGELINE
0010	12+50		RT	-	-	-	-	1	-	UNDERDRAIN
0010	17+50		LT/RT	-	-	-	-	2	-	CULVERT
0010	32+50		LT	-	-	-	-	1	-	UNDERDRAIN
0010	42+00		LI/RI	-	-	-	-	2	-	CULVERT
0010	44+85		LI	-	-	-	-	1	-	UNDERDRAIN
0010	51+55		LI/RI	-	-	-	-	2	-	CULVERT
0010	57+50		RT	-	-	-	-	1	-	UNDERDRAIN
0010	71+65		LT/RT	-	-	-	-	2	-	CULVERT
0010	78+50		LT	-	-	-	-	1	-	UNDERDRAIN
0010	97+50		LT	-	-	-	-	1	-	UNDERDRAIN
0010	98+35		LT/RT	-	-	-	-	2	-	CULVERT
0010	102+50		LT	-	-	-	-	1	-	UNDERDRAIN
0010	106+00		LT/RT	-	-	-	-	2	-	CULVERT
0010	114+00		RT	-	-	-	-	1	-	UNDERDRAIN
0010	114+00		LT/RT	-	-	-	2	-	-	3'-3" X 6'-0" BIKELANE SYMBOL
0010	63+25		LT/RT	-	-	-	2	-	-	3'-3" X 6'-0" BIKELANE SYMBOL
0010	115+25		LT/RT	-	-	-	2	-	-	3'-3" X 6'-0" BIKELANE SYMBOL
TOTAL 0010				25335	4035	21300	6	20	2.02	

\*FOR INFORMATION ONLY  
 \*\*PAINT MAY BE USED INSTEAD OF EPOXY

CATEGORY	STATION TO	STATION	CONSTRUCTION				REMARKS
			CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	
			STAKING	STAKING	STAKING	STAKING	
			BASE	REFERENCE	(9954-00-72)	SLOPE STAKES	
			650.5000	650.8000	650.9911	650.9920	
			LF	LF	EACH	LF	
0010	10+39	- 93+25	-	8,286	0.8	-	
0010	93+25	- 107+00	1,375	1,375	0.1	1,375	RAISE ROAD
0010	107+00	- 117+25	-	1,025	0.1	-	
TOTAL 0010			1,375	10,686	1	1,375	

CATEGORY	STATION	SIDE	SAWING	REMARKS
			ASPHALT	
			690.0150	
			LF	
0010	10+39	LT/RT	30	BEGIN PROJECT
0010	69+75	RT	21	STONE POINTE LANE
0010	115+55	LT	22	BIG BAY STATE PARK EXIT
0010	117+10	LT	30	BIG BAY STATE PARK ENTER
TOTAL 0010			103	

PROJECT NO: 9954-00-72

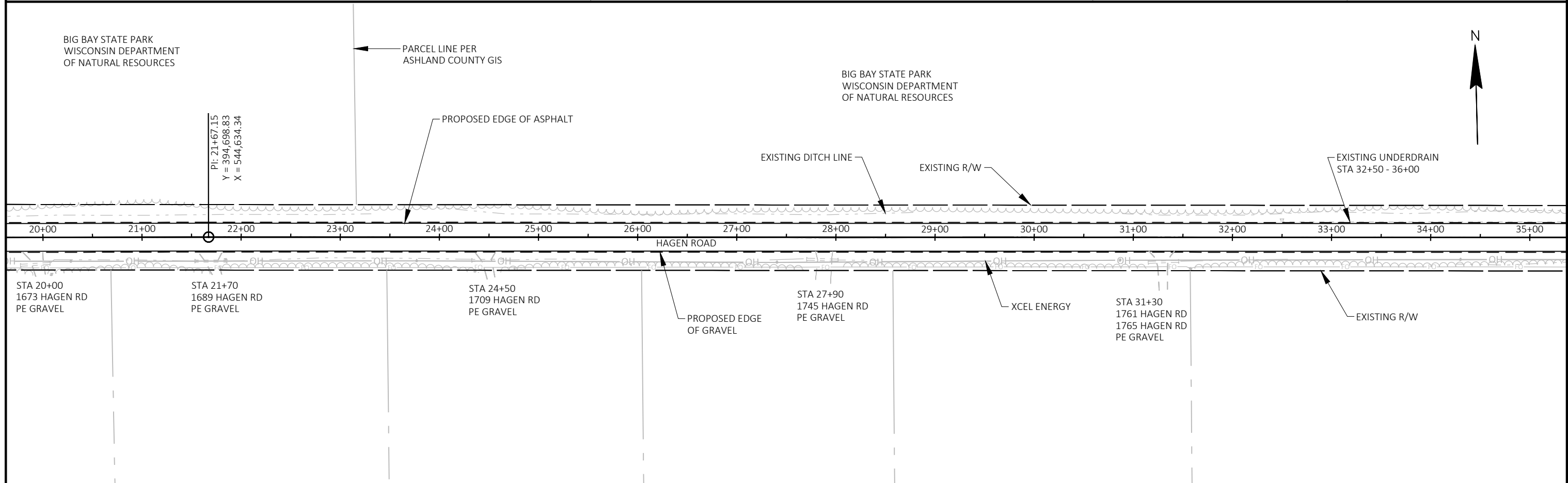
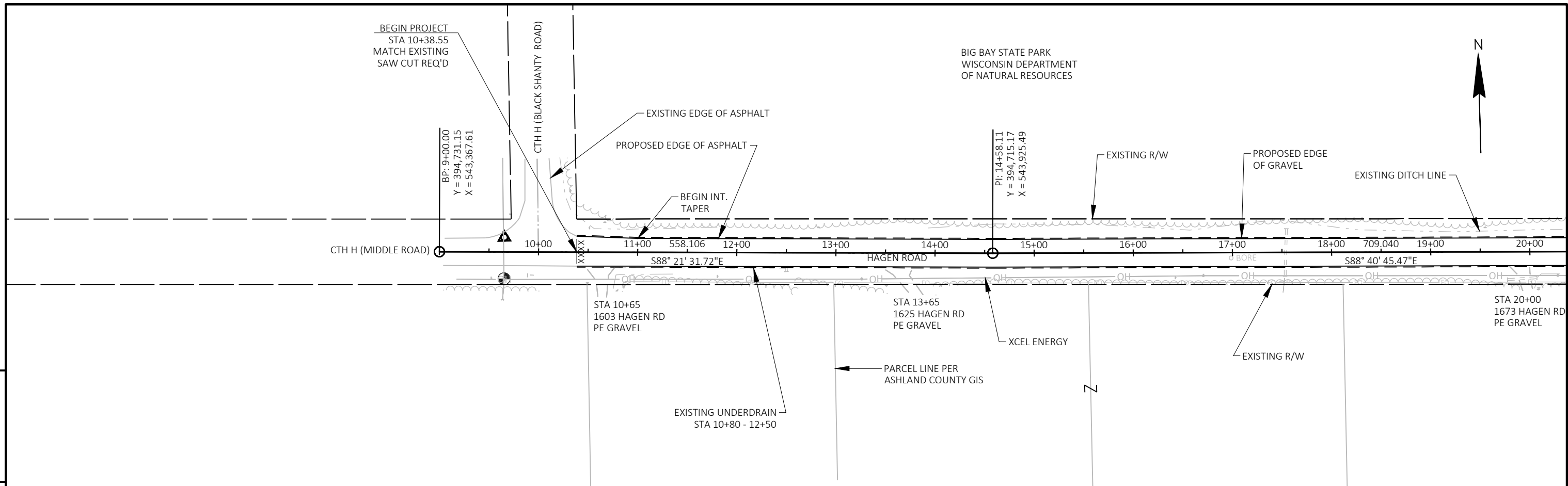
HWY: HAGEN ROAD

COUNTY: ASHLAND

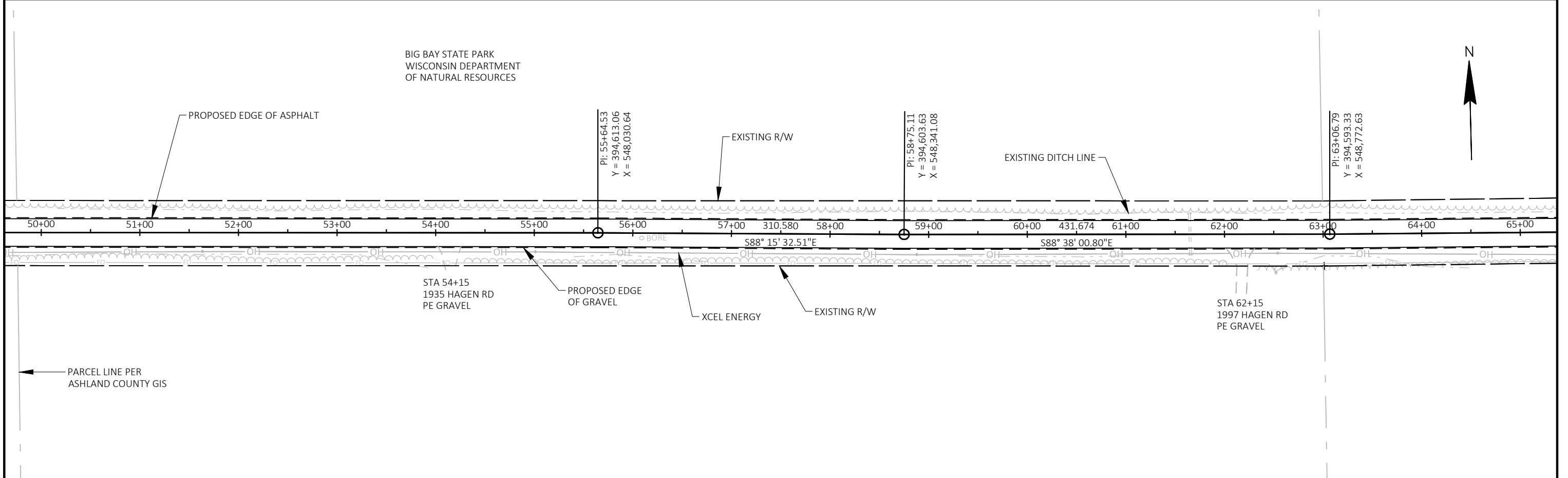
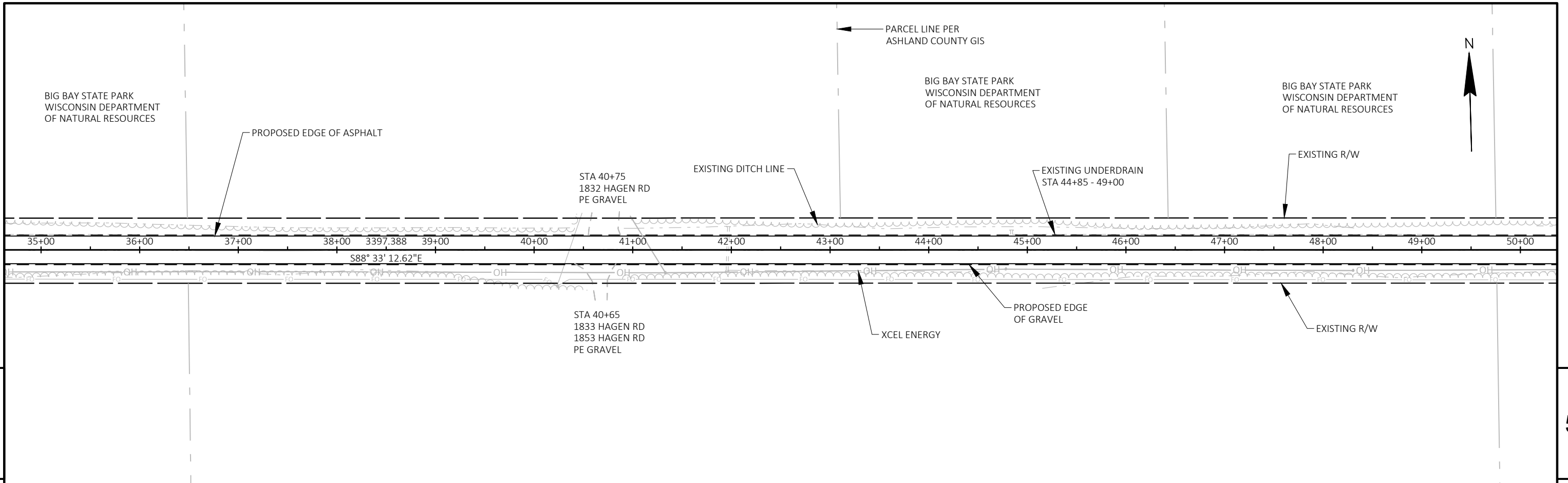
MISCELLANEOUS QUANTITIES

SHEET

E



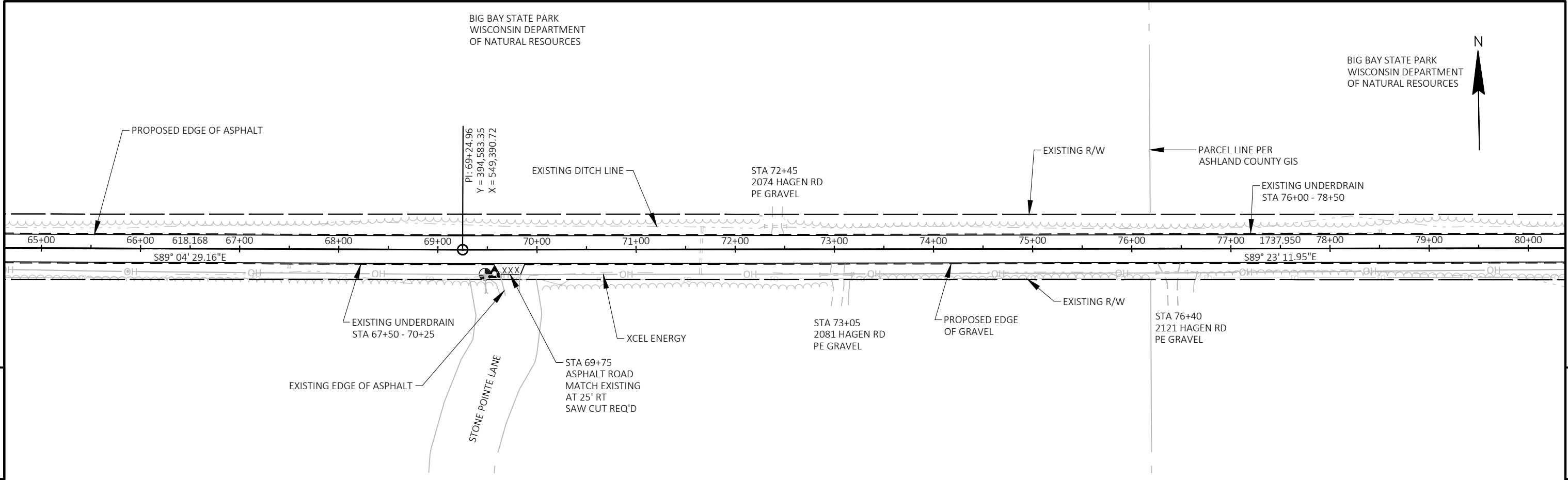
PROJECT NO: 9954-00-72	HWY: HAGEN ROAD	COUNTY: ASHLAND	PLAN: HAGEN ROAD	SHEET	E
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PROJECT NO: 9954-00-72	HWY: HAGEN ROAD	COUNTY: ASHLAND	PLAN: HAGEN ROAD	SHEET	E
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BIG BAY STATE PARK  
WISCONSIN DEPARTMENT  
OF NATURAL RESOURCES

BIG BAY STATE PARK  
WISCONSIN DEPARTMENT  
OF NATURAL RESOURCES

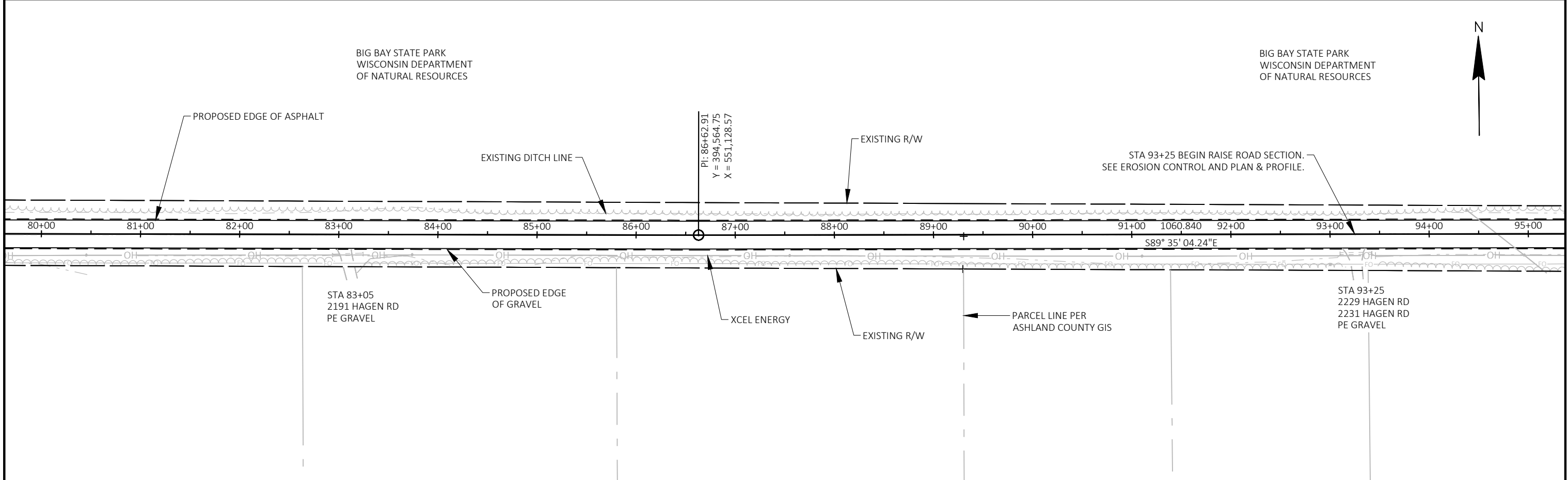


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BIG BAY STATE PARK  
WISCONSIN DEPARTMENT  
OF NATURAL RESOURCES

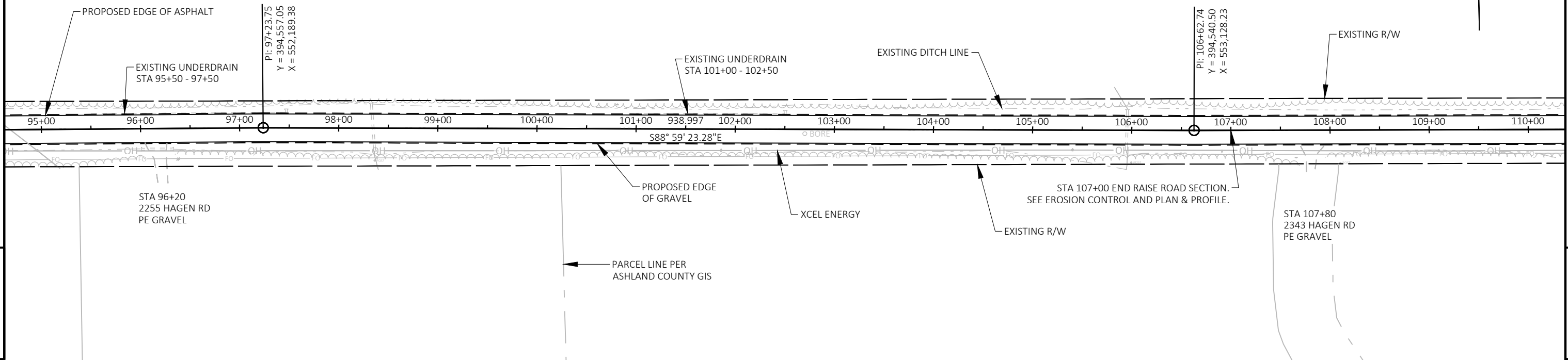
BIG BAY STATE PARK  
WISCONSIN DEPARTMENT  
OF NATURAL RESOURCES



PROJECT NO: 9954-00-72	HWY: HAGEN ROAD	COUNTY: ASHLAND	PLAN: HAGEN ROAD	SHEET	E
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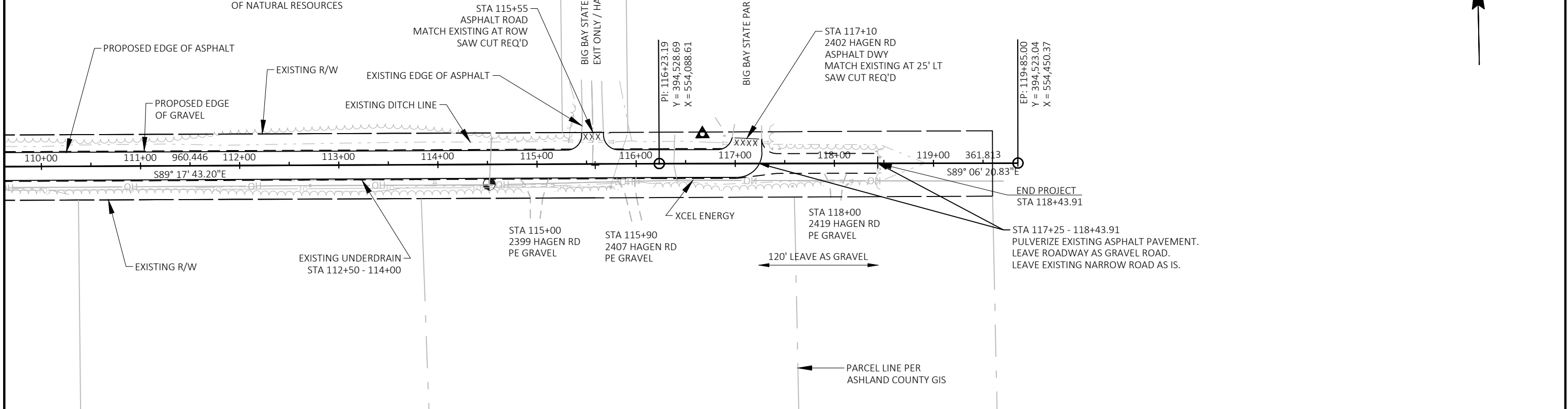
BIG BAY STATE PARK  
WISCONSIN DEPARTMENT  
OF NATURAL RESOURCES



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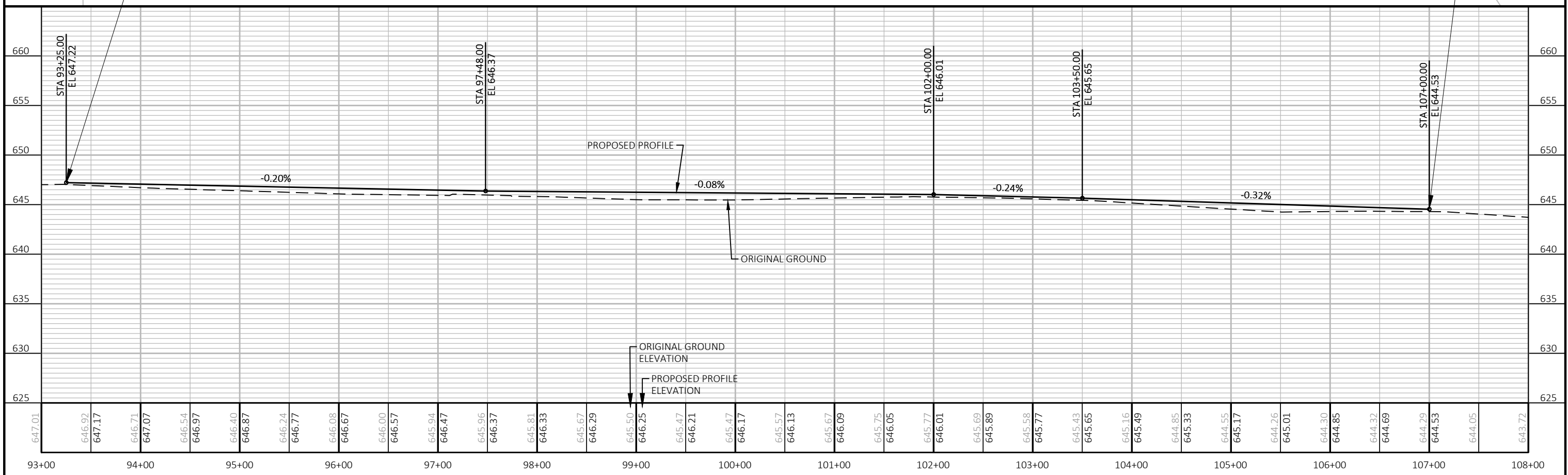
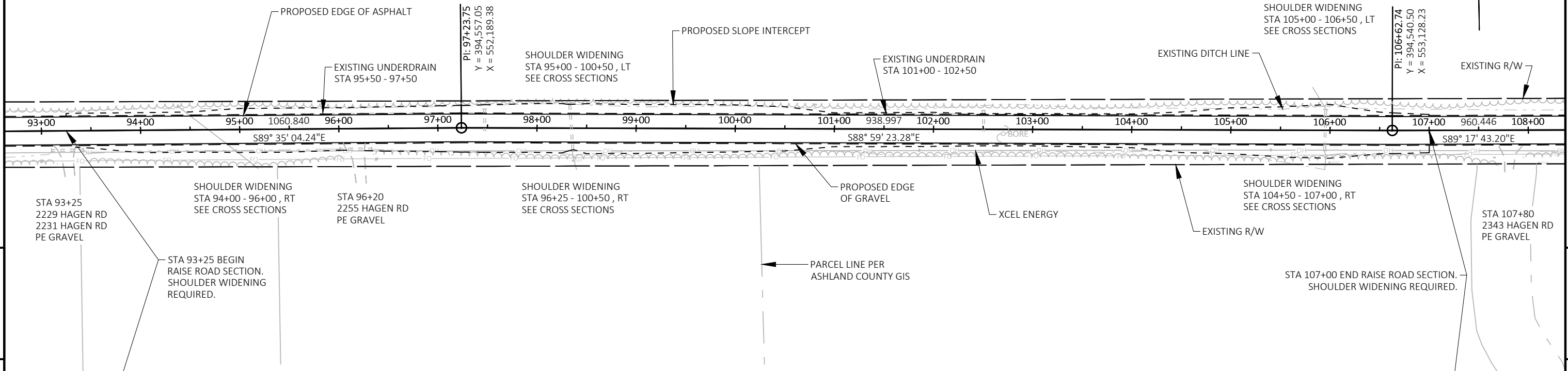
BIG BAY STATE PARK  
WISCONSIN DEPARTMENT  
OF NATURAL RESOURCES



PROJECT NO: 9954-00-72	HWY: HAGEN ROAD	COUNTY: ASHLAND	PLAN: HAGEN ROAD	SHEET	E
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BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
1	9+65.10	624.44	27' RT SPIKE IN POWER POLE AT CTH H
2	69+47.55	651.86	25' RT SPIKE IN POWER POLE AT STONE POINTE LN

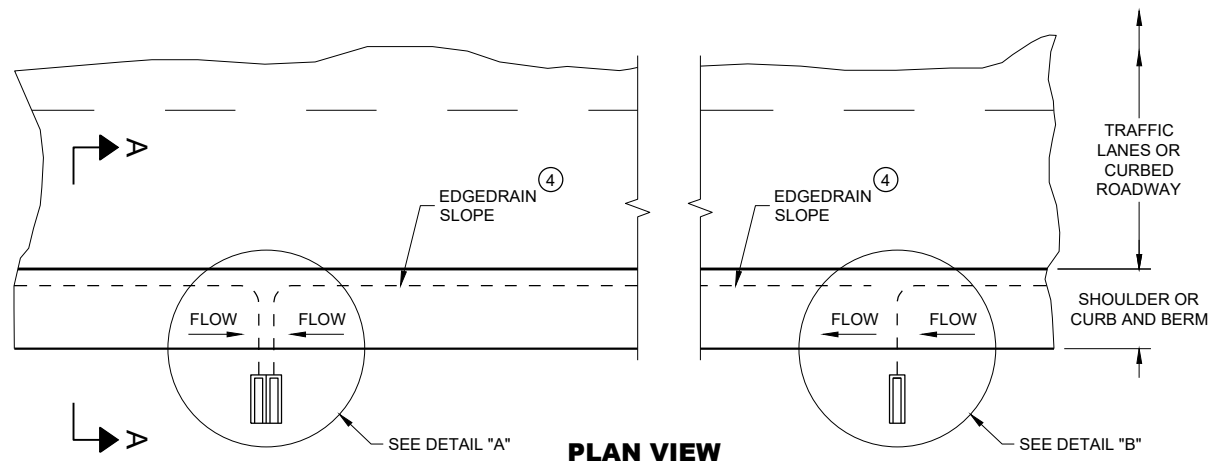
BIG BAY STATE PARK  
WISCONSIN DEPARTMENT  
OF NATURAL RESOURCES



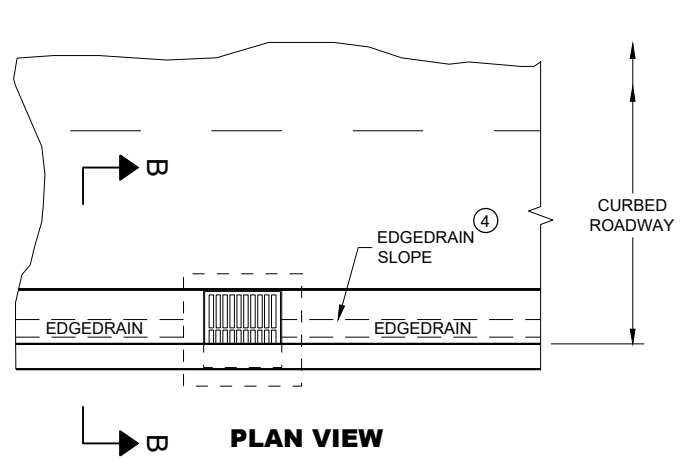
PROJECT NO: 9954-00-72	HWY: HAGEN ROAD	COUNTY: ASHLAND	PLAN AND PROFILE: HAGEN ROAD	SHEET	<b>E</b>
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## Standard Detail Drawing List

08D15-05A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08E09-06	SILT FENCE
13C19-03	HMA LONGITUDINAL JOINTS
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS
15C07-15E	PAVEMENT MARKING FOR BIKE LANES
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-08A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL



**ROADWAY WITH SHOULDERS OR CURBS  
(EDGEDRAIN CONNECTS TO ROADSIDE) ②**

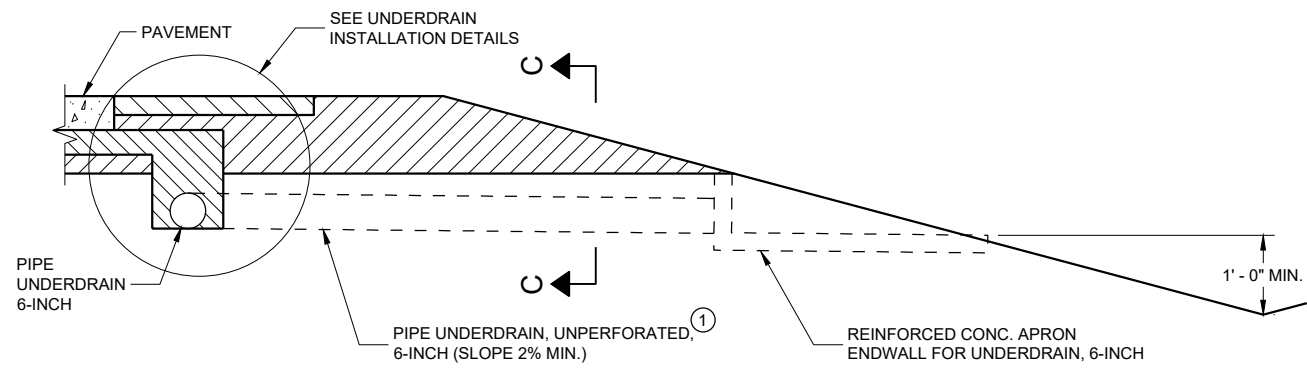


**ROADWAY WITH CURBS  
(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)**

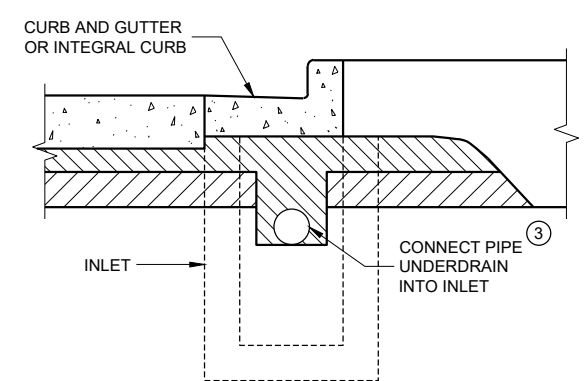
**GENERAL NOTES**

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

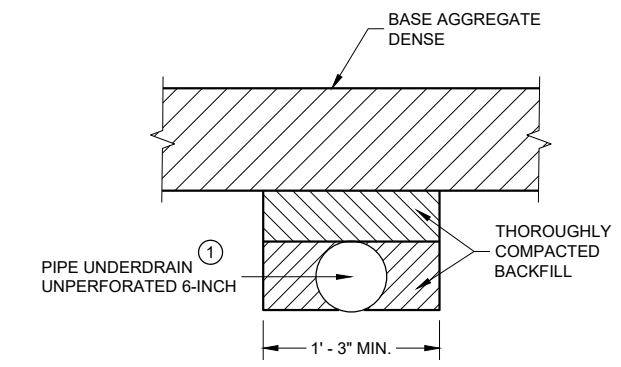
- ① UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:  
  
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.  
  
TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.
- ② MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.
- ③ EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.
- ④ EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



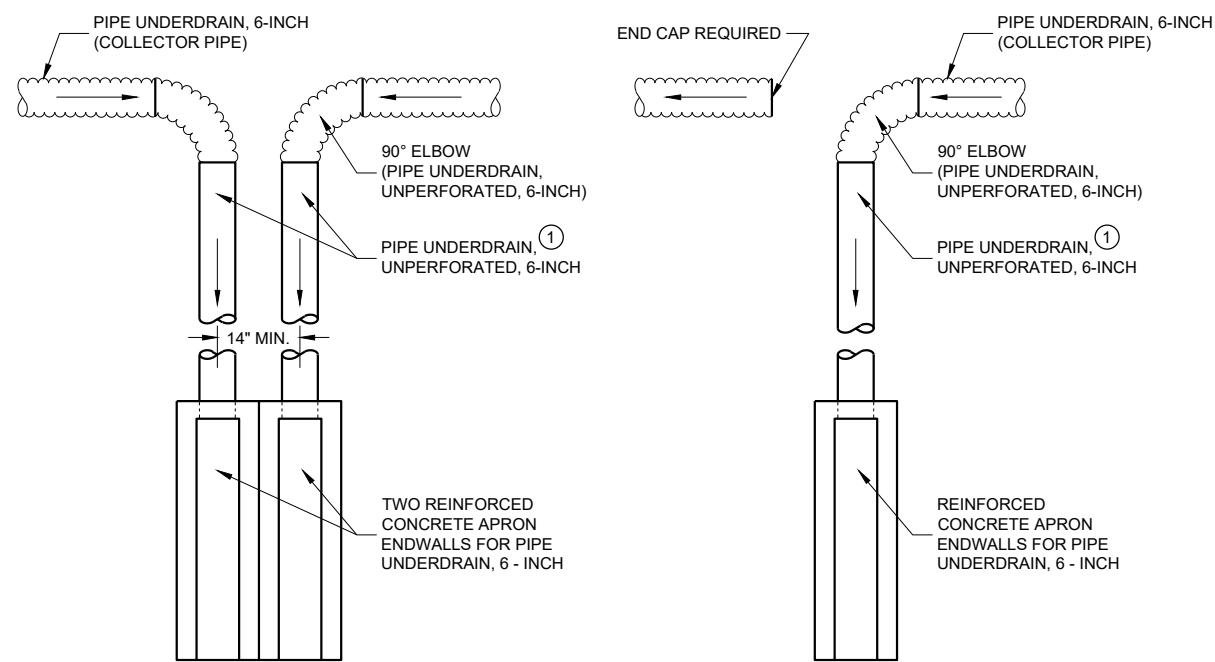
**SECTION A - A  
RURAL CROSS SECTION**



**SECTION B - B  
URBAN CROSS SECTION**



**SECTION C - C  
TRENCH FOR OUTFALL PIPE**



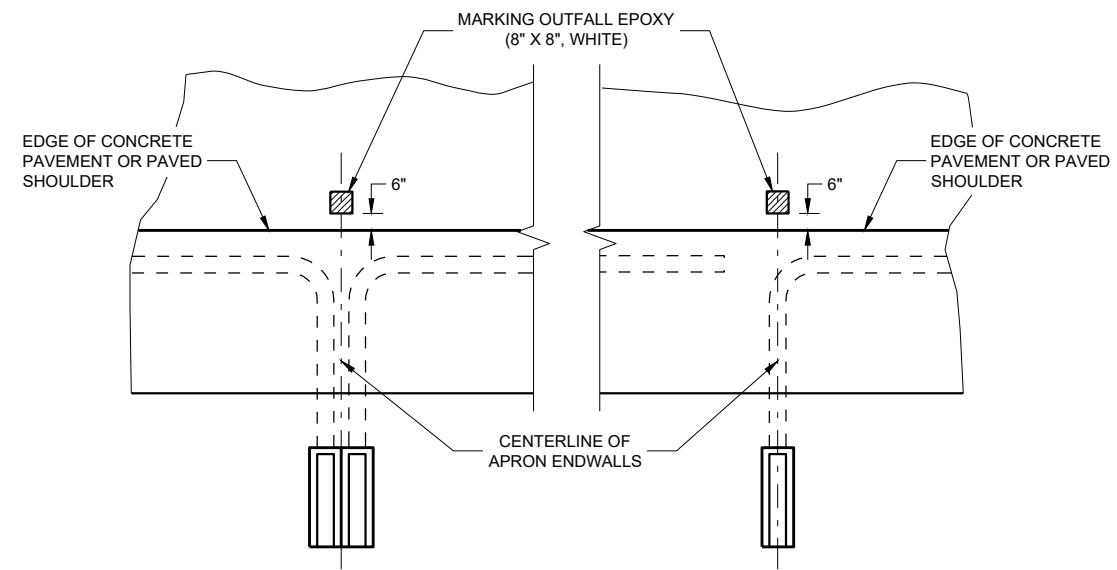
**DETAIL "A"**

TO BE USED AT LOW POINT LOCATIONS

**DETAIL "B"**

TO BE USED AT INTERMEDIATE LOCATIONS

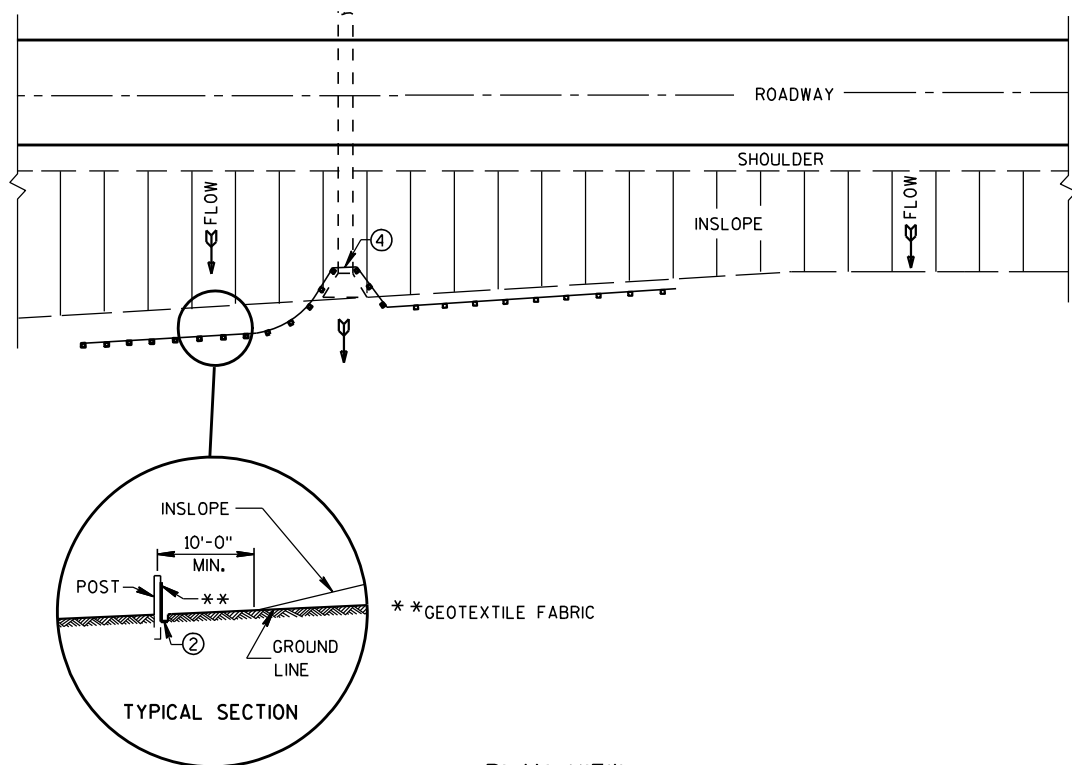
**TYPICAL DRAIN OUT DETAILS**



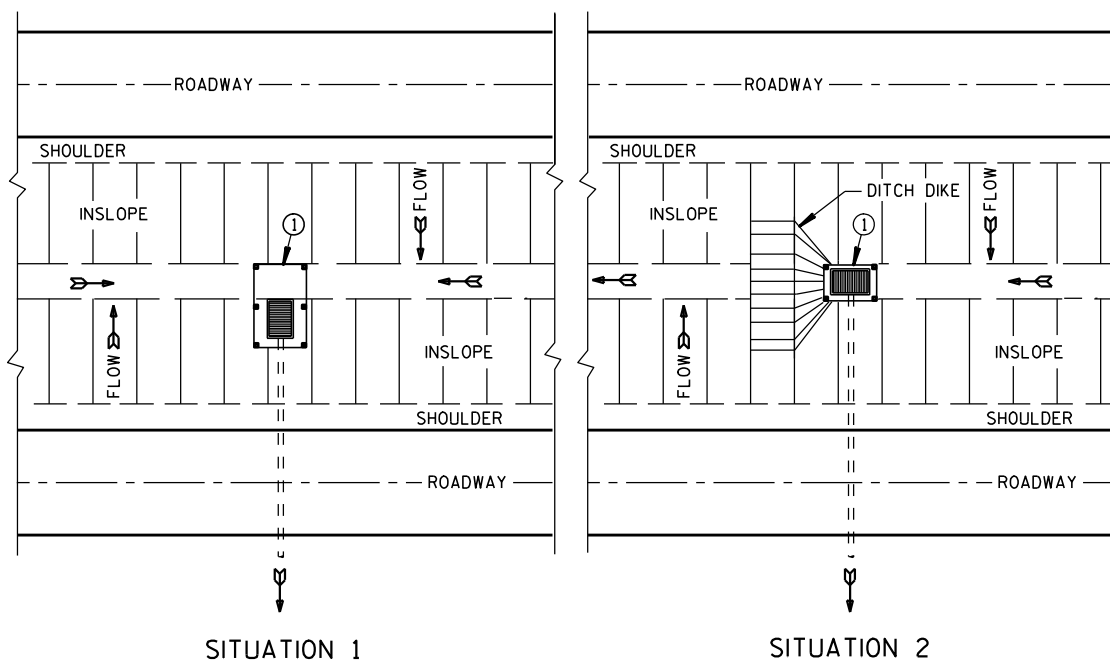
**PAVEMENT MARKINGS FOR OUTFALL MARKERS**

**EDGEDRAIN OUTLET  
AND OUTFALL MARKERS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



PLAN VIEW  
TYPICAL APPLICATION OF SILT FENCE

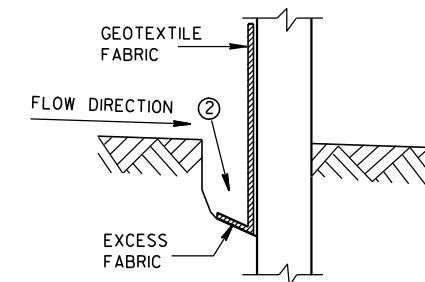


SITUATION 1 SITUATION 2  
PLAN VIEW  
SILT FENCE AT MEDIAN SURFACE DRAINS

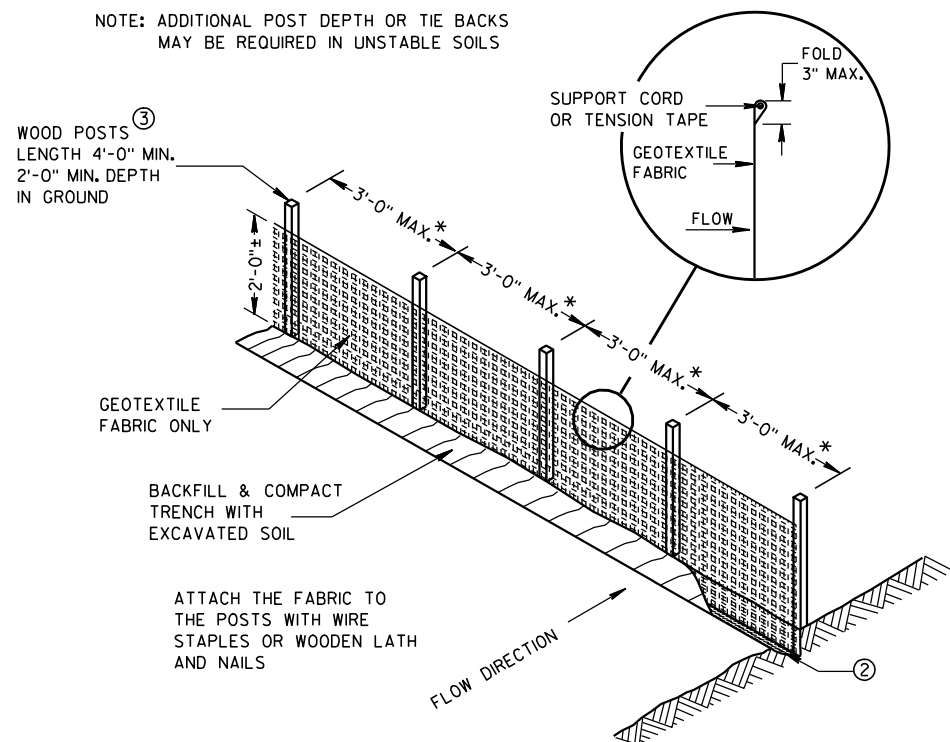
**GENERAL NOTES**

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

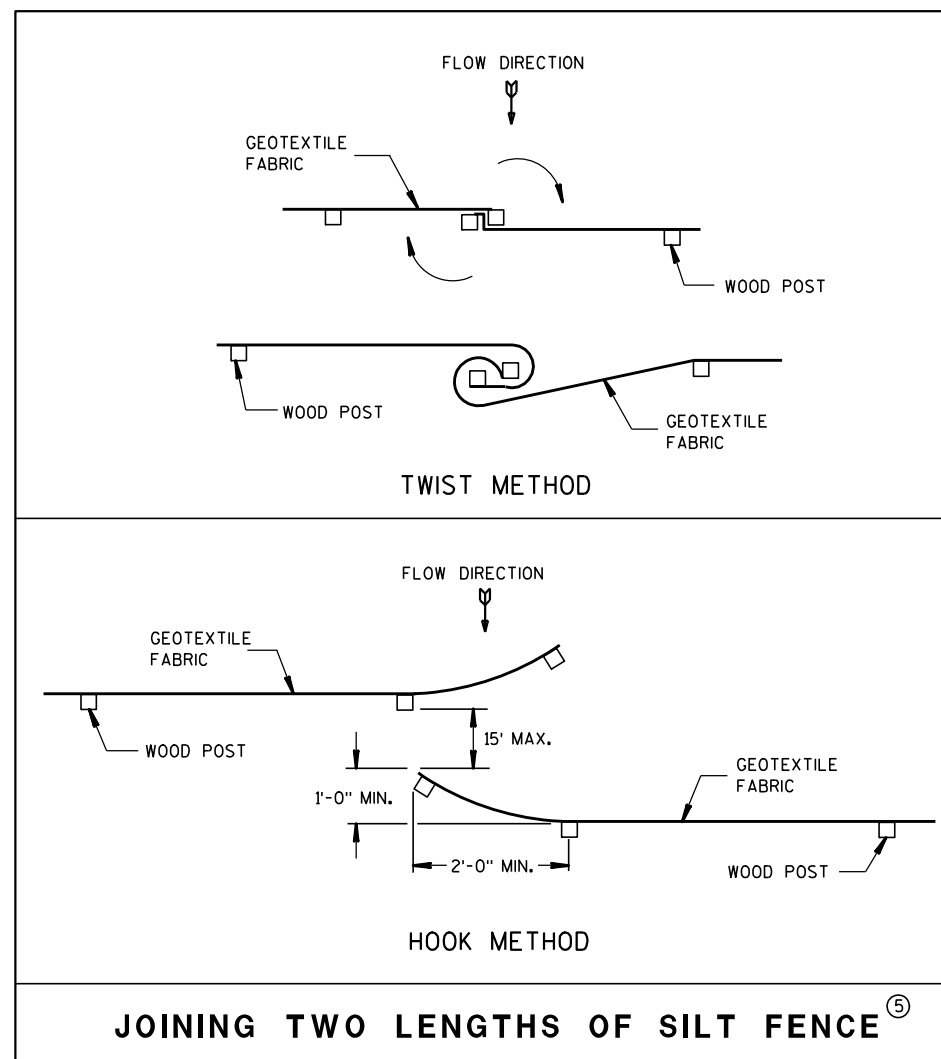
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



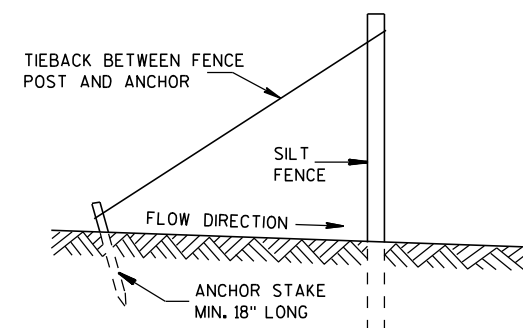
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤

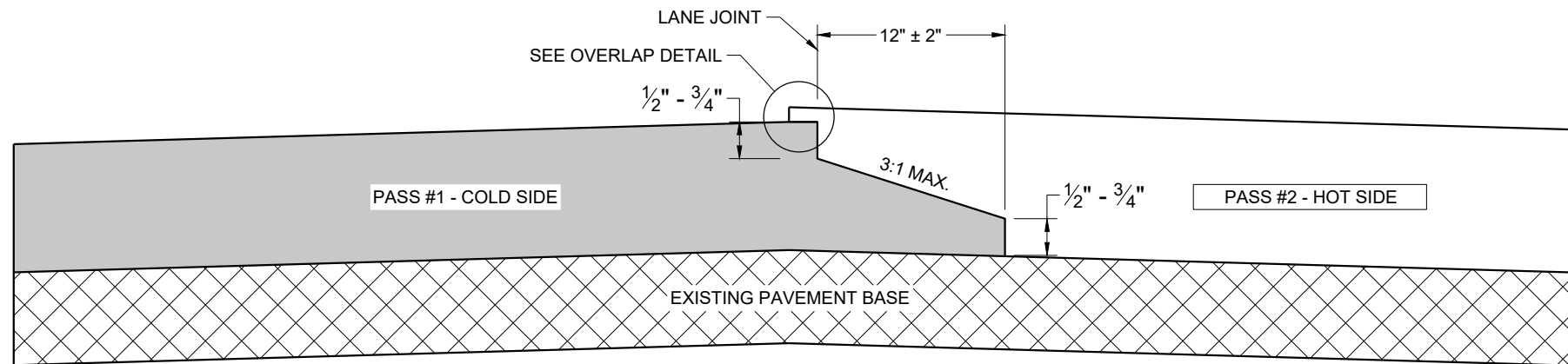


SILT FENCE TIE BACK  
(WHEN REQUIRED BY THE ENGINEER)

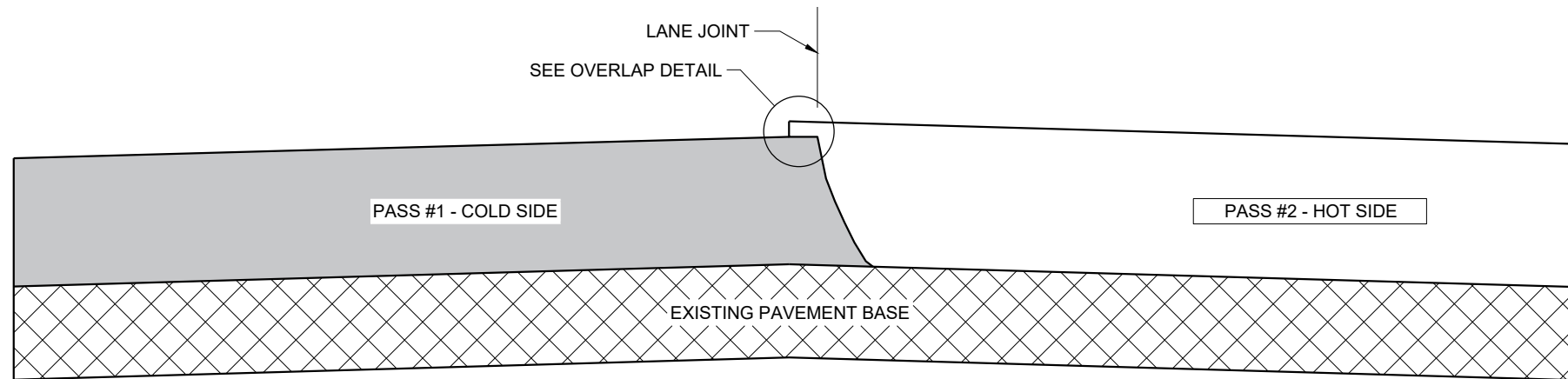
**SILT FENCE**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

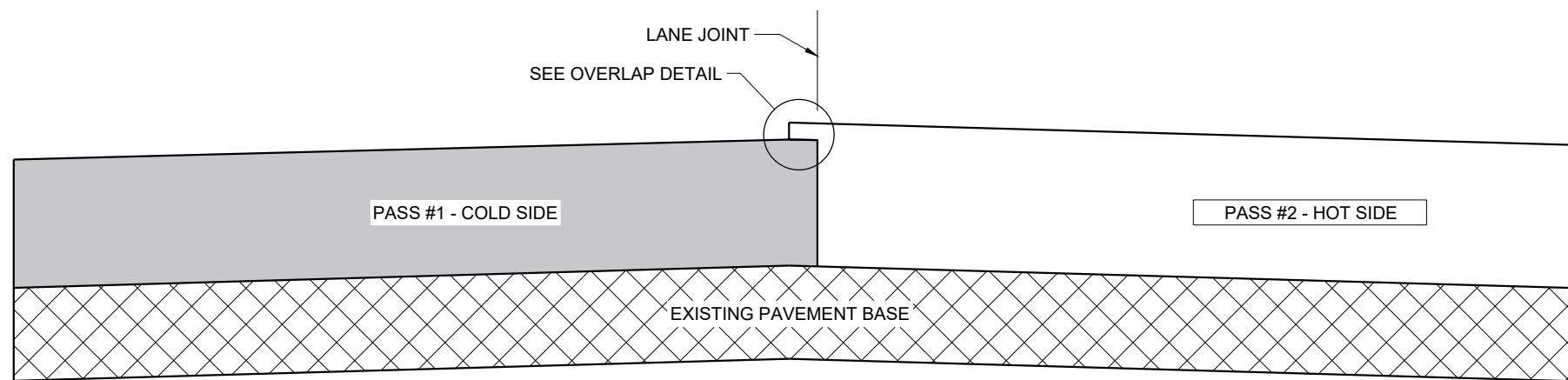
APPROVED  
4-29-05 /S/ Beth Cannestra  
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER  
FHWA



**TYPICAL PAVEMENT CROSS SECTION NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION VERTICAL JOINT (MILLED)**

**GENERAL NOTES**

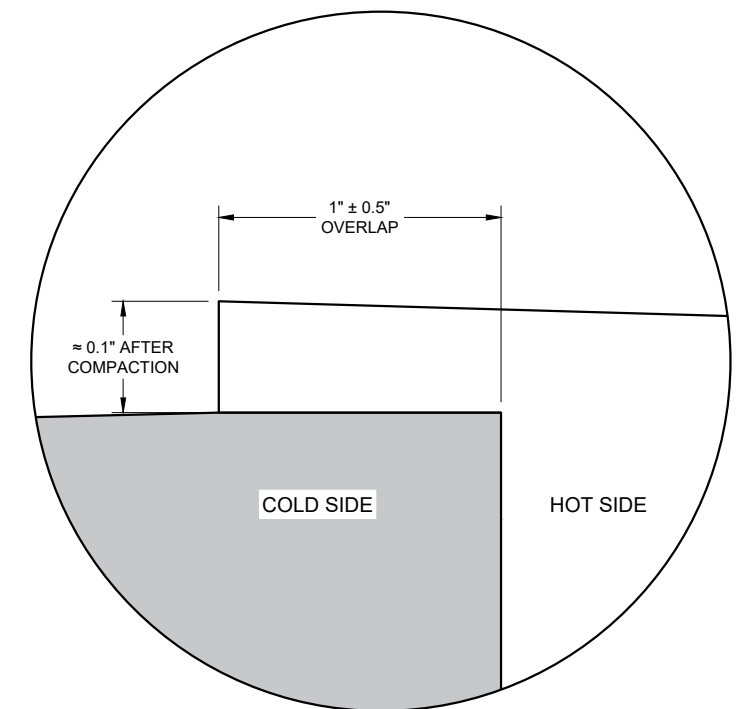
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY  $1" \pm 0.5"$  AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY  $0.1"$  AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO  $2"$  FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



**OVERLAP DETAIL (TYPICAL)**

6

6

SDD 13C19 - 03

SDD 13C19 - 03

<b>HMA LONGITUDINAL JOINTS</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGINEER
FHWA	

**GENERAL NOTES**

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.




ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

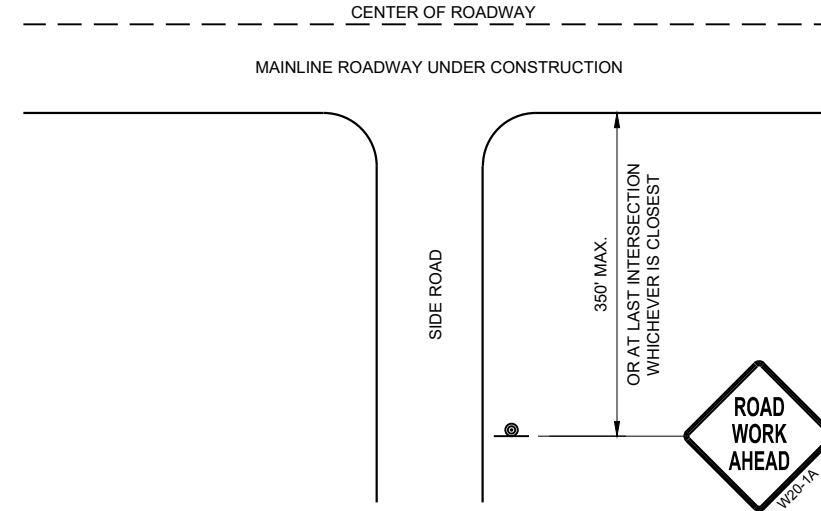
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

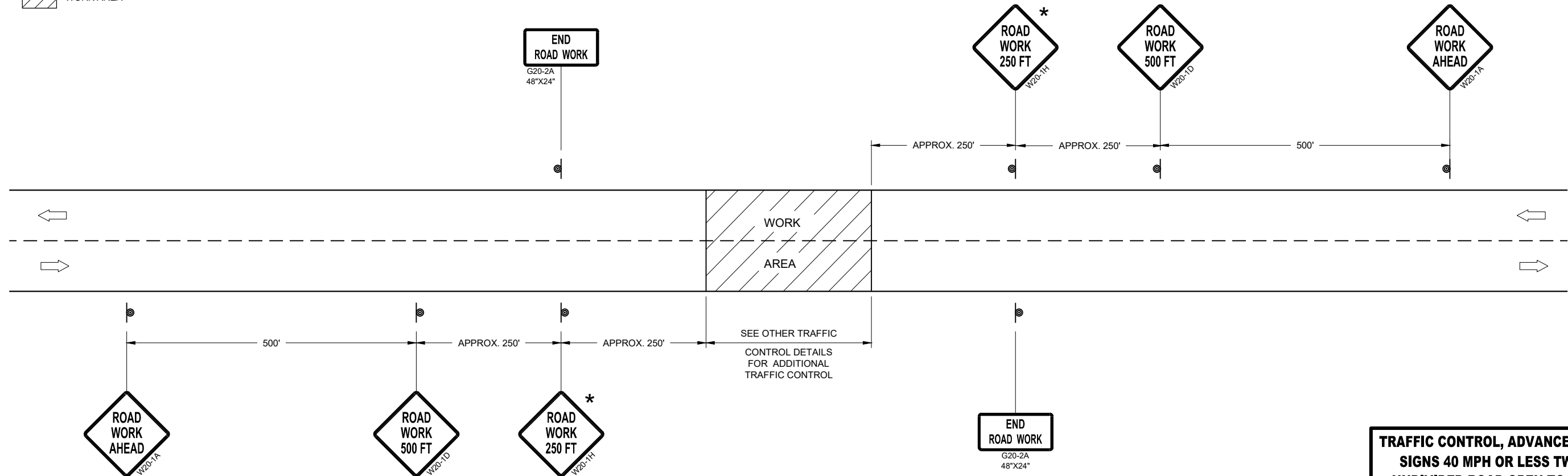
\* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

**LEGEND**

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



**TYPICAL SIDE ROAD APPROACH  
WARNING SIGN DETAIL**



**TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS**

**TRAFFIC CONTROL, ADVANCE WARNING  
SIGNS 40 MPH OR LESS TWO-WAY  
UNDIVIDED ROAD OPEN TO TRAFFIC**

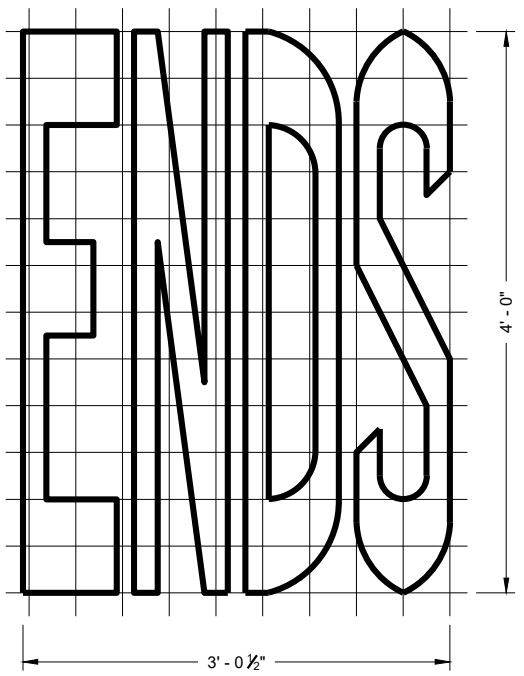
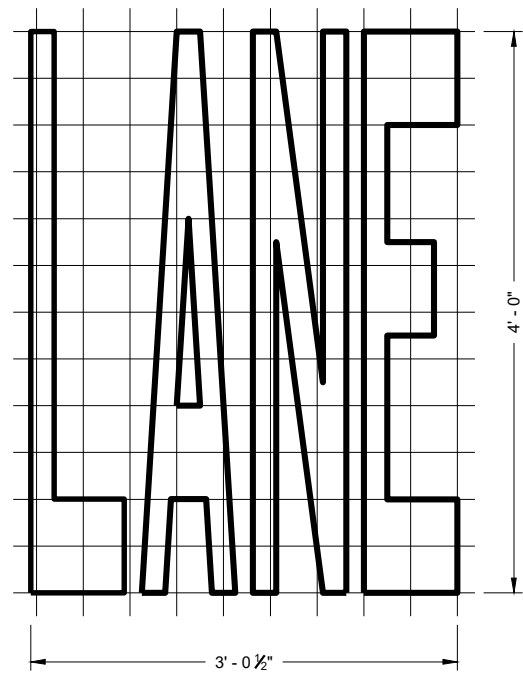
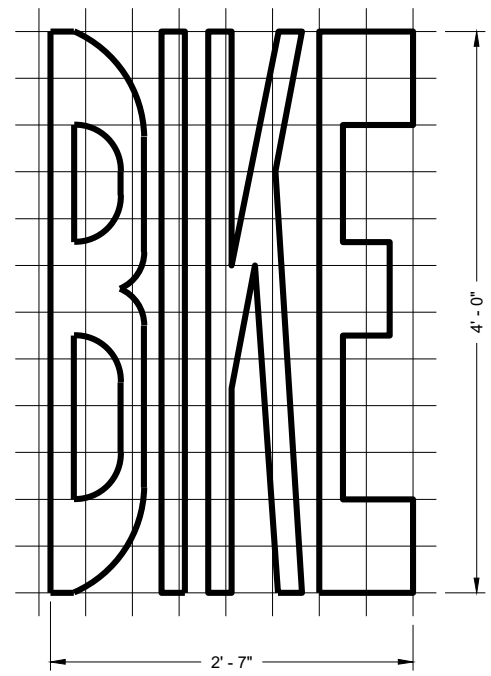
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
July 2018 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA



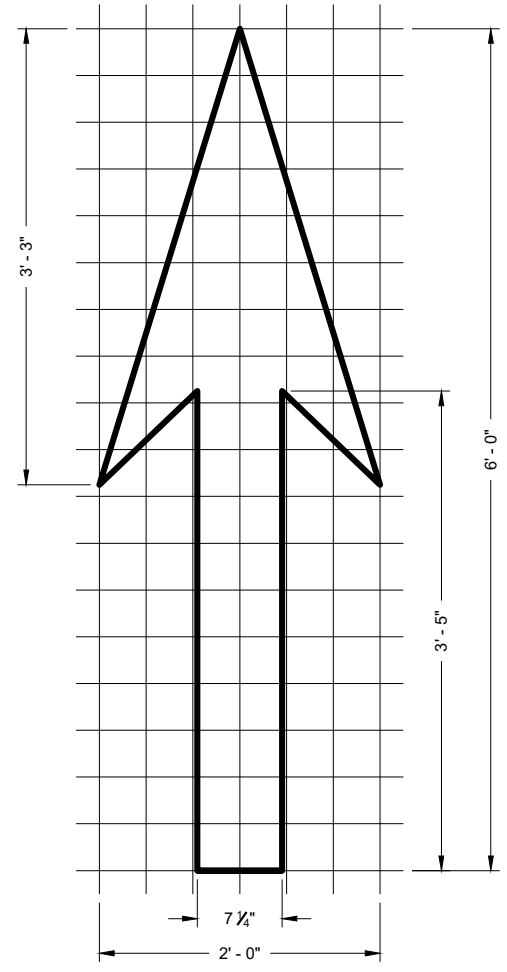
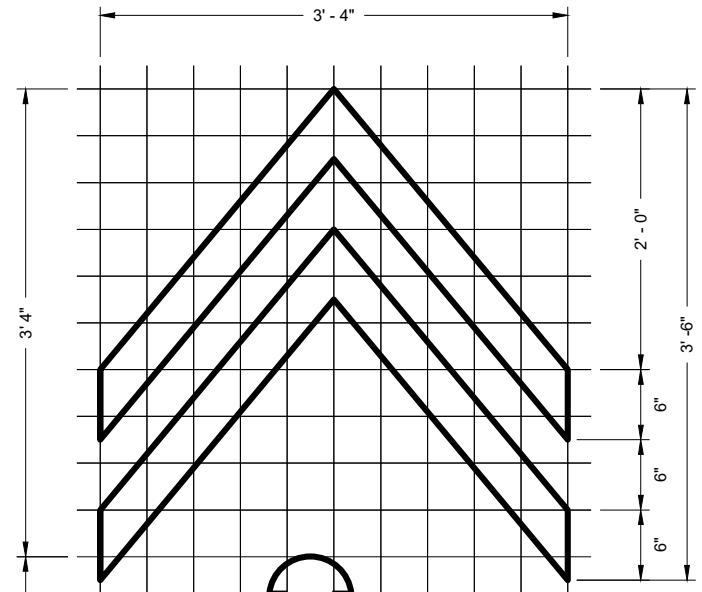
# SDD 15C7-e Pavement Marking For Bike Lanes



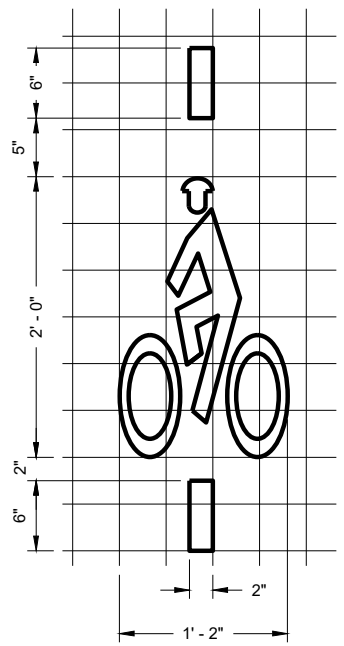
BIKE LANE WORDS

### GENERAL NOTES

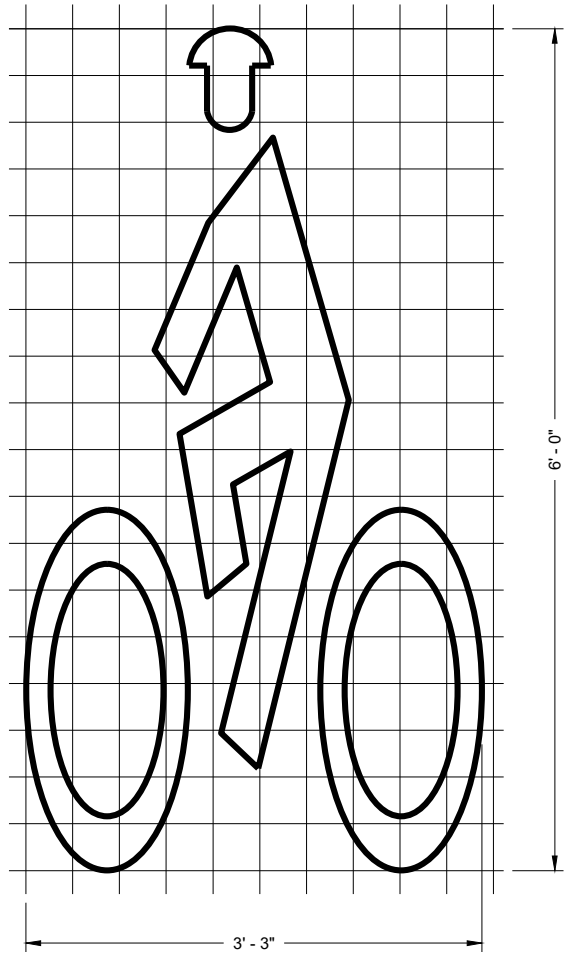
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



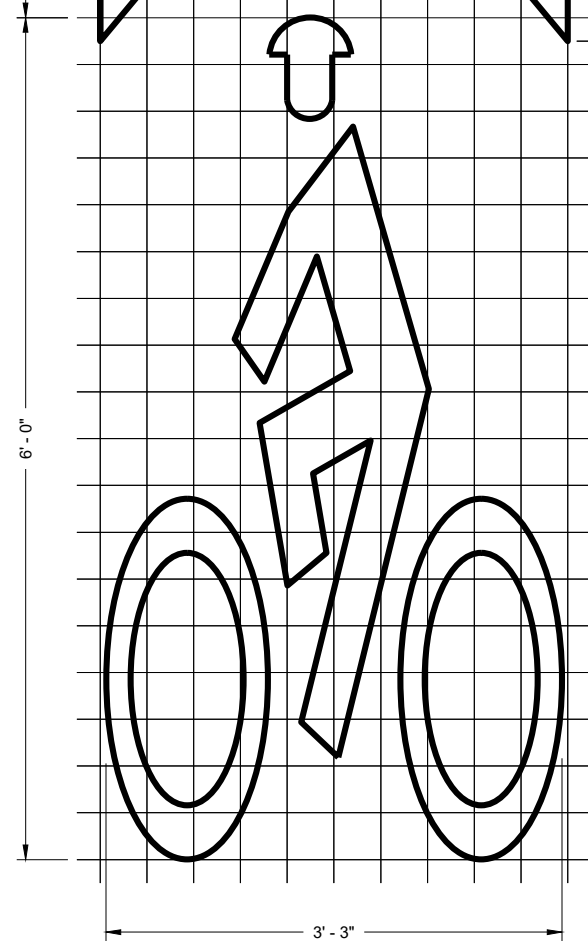
BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING



BIKE LANE SYMBOL



BIKE LANE SYMBOL FOR SHARED LANE

6

6

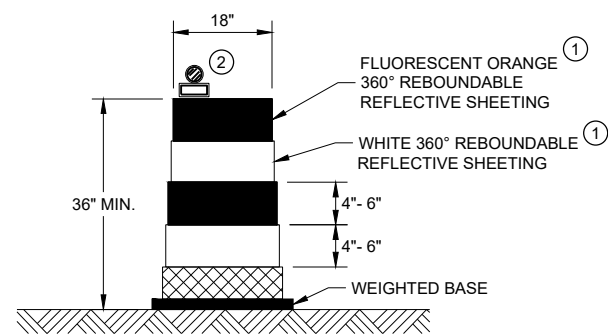
SDD 15C07 - 15e

SDD 15C07 - 15e

<b>PAVEMENT MARKING FOR BIKE LANES</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 DATE	/s/ Matthew Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	

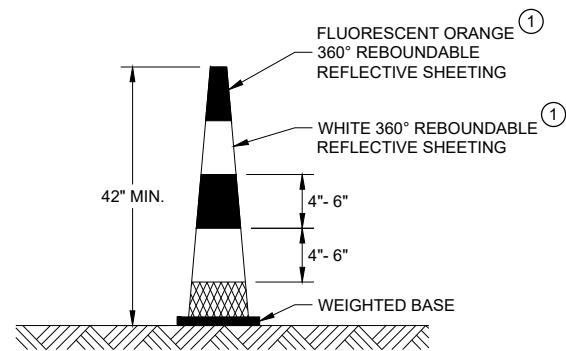






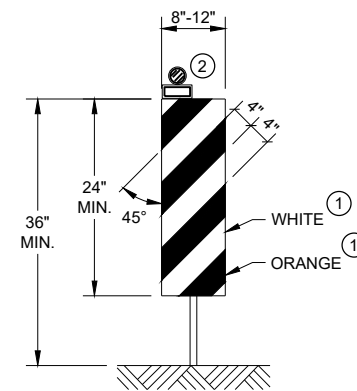
**DRUM**

BALLAST WIDTHS  
RANGE FROM 24"-36"



**42" CONE**

DO NOT USE IN TAPERS  
½ SPACING OF DRUMS  
BALLAST WIDTHS  
RANGE FROM 14"-20"

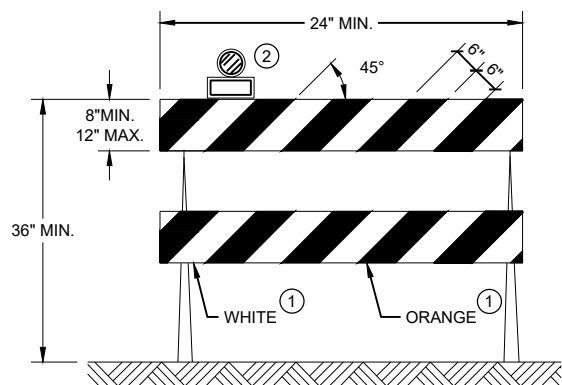


**VERTICAL PANEL**

THE STRIPES SHALL SLOPE DOWNWARD TO  
THE TRAFFIC SIDE FOR CHANNELIZATION.

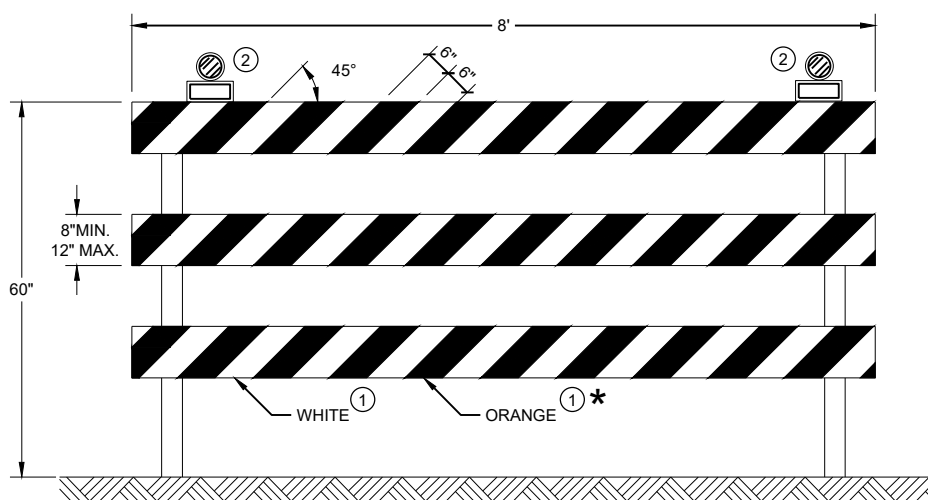
**GENERAL NOTES**

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



**TYPE II BARRICADE**

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES  
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD  
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



**TYPE III BARRICADE**

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP  
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.






\* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

**CHANNELIZING DEVICES  
DRUMS, CONES, BARRICADES  
AND VERTICAL PANELS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
 November 2022 /S/ Andrew Heidtke  
 DATE WORK ZONE ENGINEER  
 FHWA

**LEGEND**

-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

**GENERAL NOTES**

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND LOCATION OF ALL FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

**FLAGGING**

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

**TEMPORARY PORTABLE RUMBLE STRIPS**

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

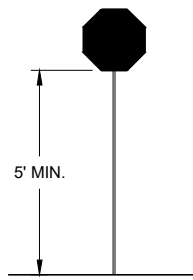
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



**STOP/SLOW PADDLE ON SUPPORT STAFF**

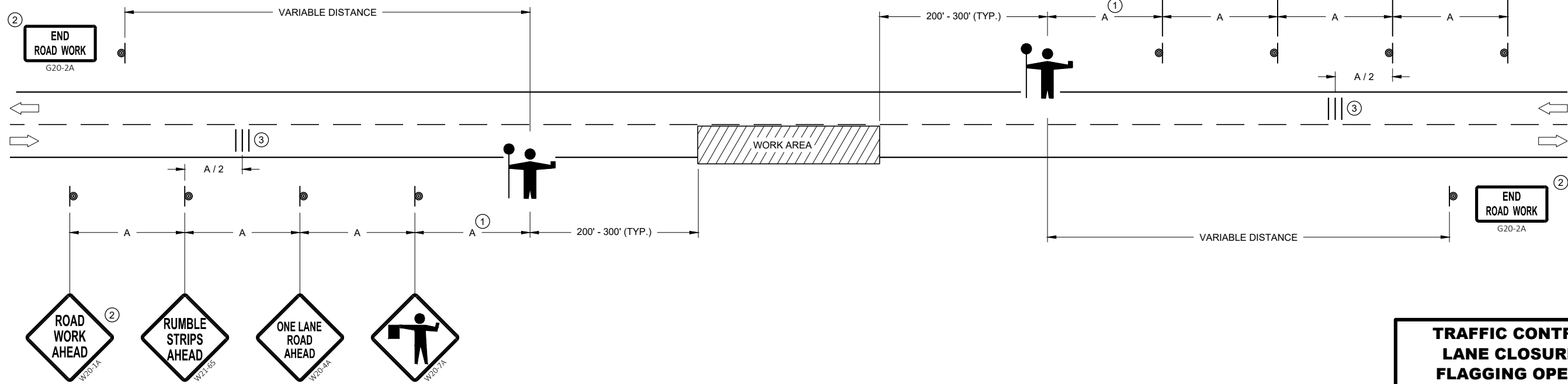
**SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE**

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



W03-4

USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".







**TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE: May 2022 /S/ Andrew Heidtke  
WORK ZONE ENGINEER

FHWA

**LEGEND**

- V1 LEAD VEHICLE
- V2 MARKING VEHICLE
- V3 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC
-  FLASHING ARROW PANEL (CAUTION)

**GENERAL NOTES**

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

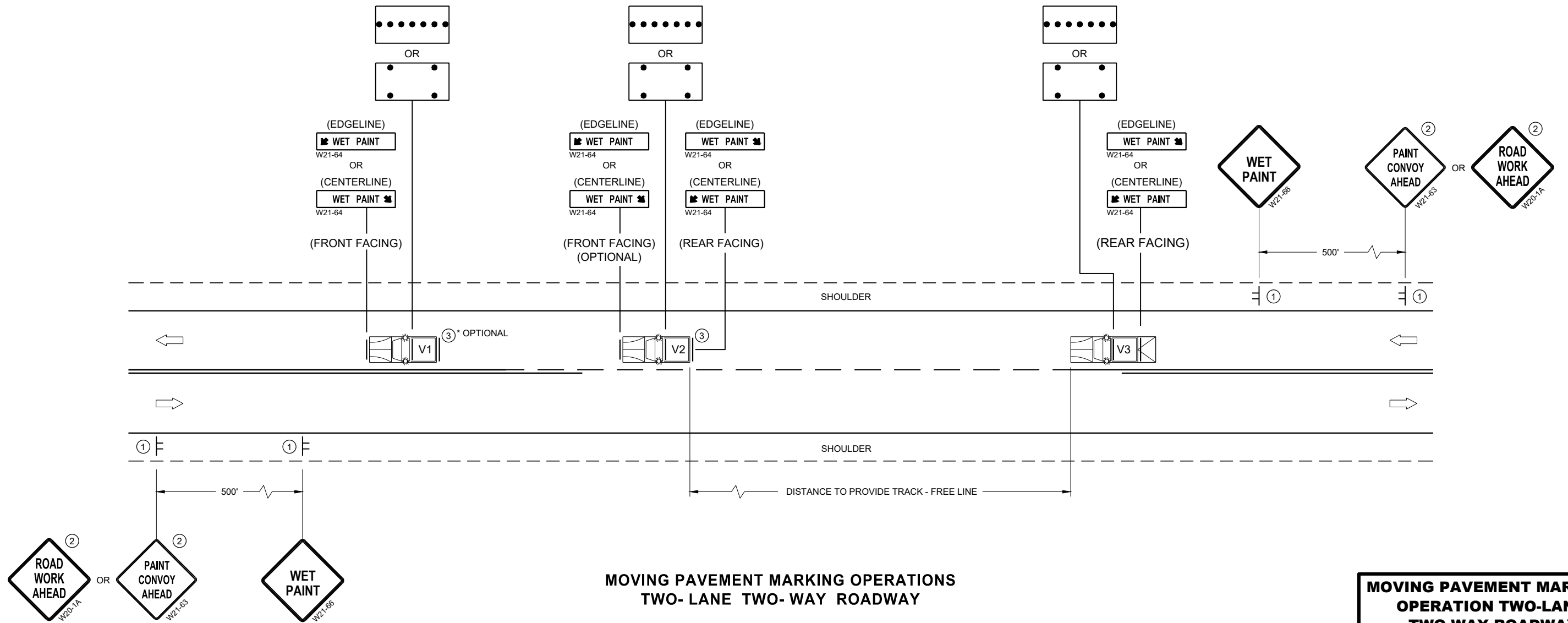
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING.

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.
- ③ V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.

6

6







**MOVING PAVEMENT MARKING OPERATIONS  
TWO-LANE TWO-WAY ROADWAY**

SDD 15C19-08a

SDD 15C19-08a

<b>MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

**LEGEND**

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DIRECTION OF TRAFFIC
-  WORK ZONE

**GENERAL NOTES**

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

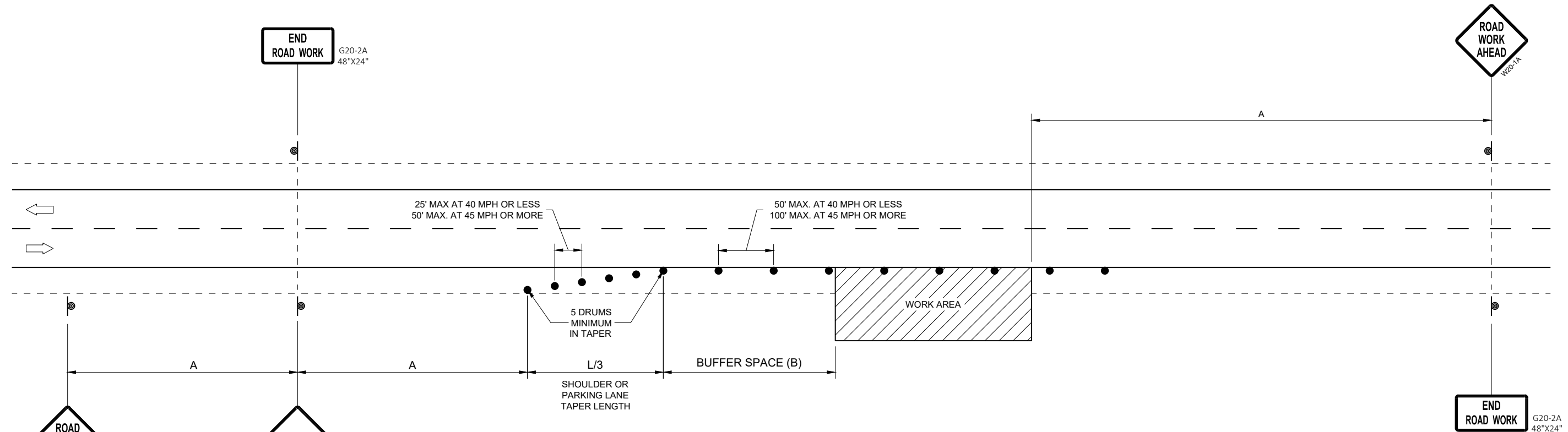
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

6

6



OR  
IF TRAFFIC CONTROL DEVICES  
ENCROACH ONTO TRAVELED WAY, USE

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

**TRAFFIC CONTROL, WORK ON  
SHOULDER OR PARKING LANE,  
UNDIVIDED ROADWAY**

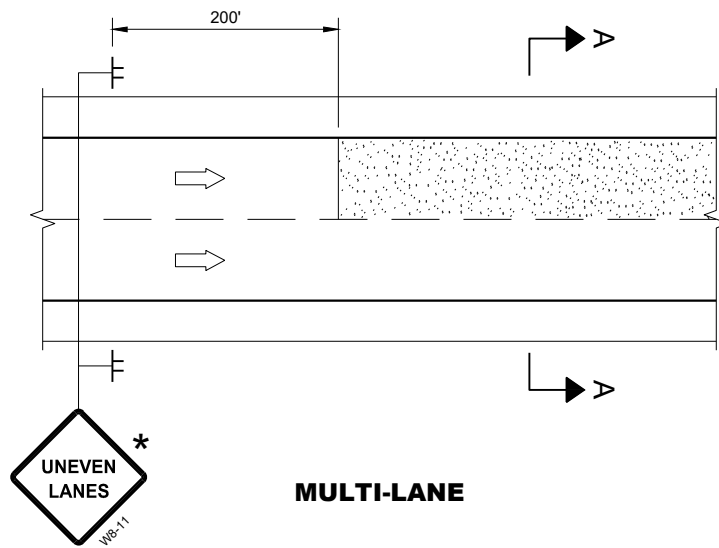
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2020 /S/ Andrew Heidtke  
DATE STATEWIDE WORK ZONE TRAFFIC  
SAFETY ENGINEER

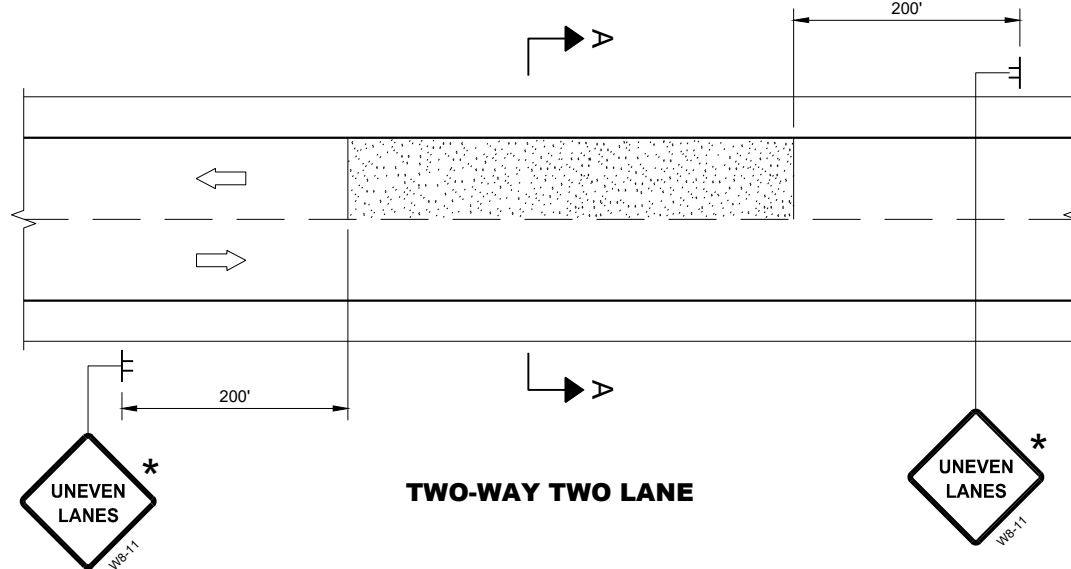
FHWA

SDD 15D28 - 04

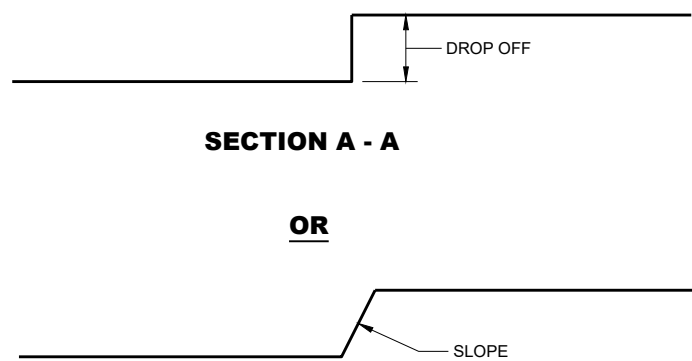
SDD 15D28 - 04



**MULTI-LANE**



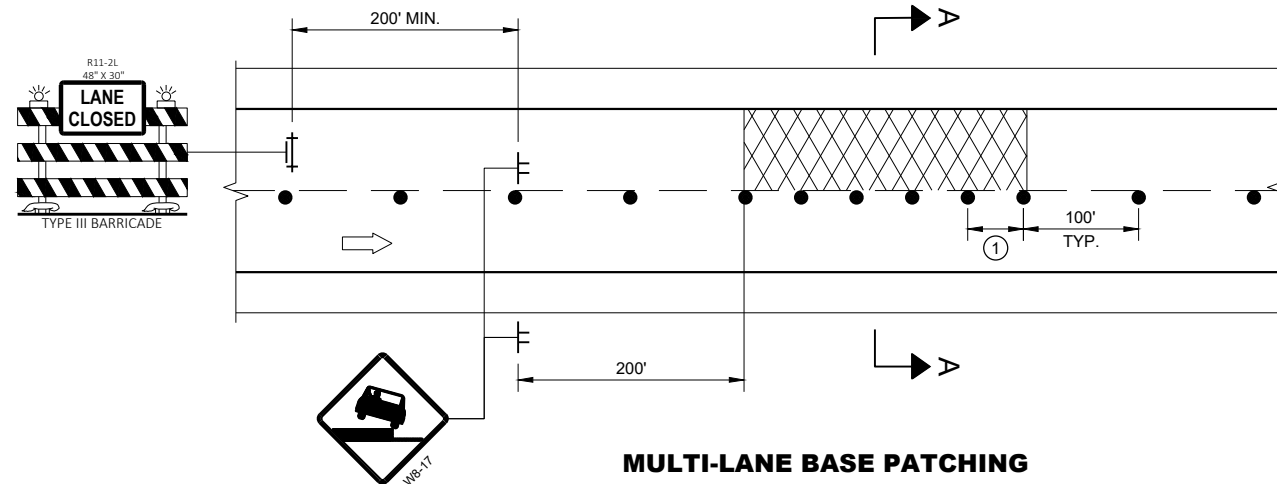
**TWO-WAY TWO LANE**



**SECTION A - A**

**OR**

**SECTION A - A**



**MULTI-LANE BASE PATCHING**

**ADJACENT LANE DROP-OFFS**

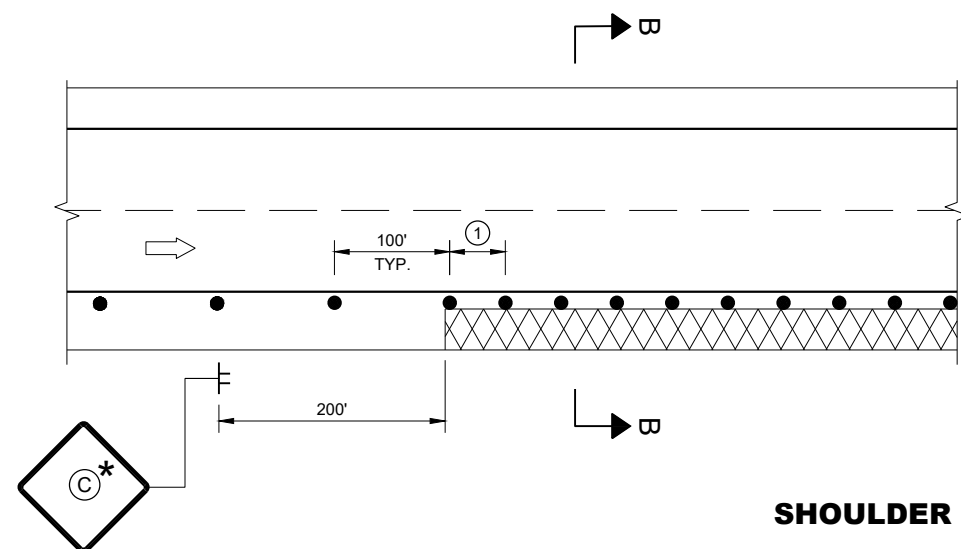
**GENERAL NOTES**

- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- \* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.
- ① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

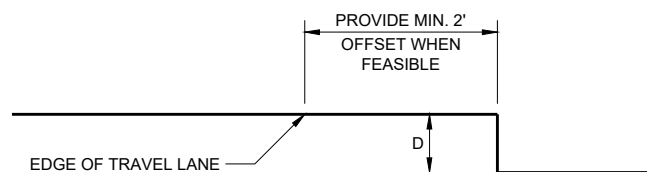
**LEGEND**

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	 LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	 SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT



**SHOULDER DROP-OFFS**



**SECTION B - B**

**TRAFFIC CONTROL, DROP-OFF SIGNING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
March 2018 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA

**GENERAL NOTES**

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

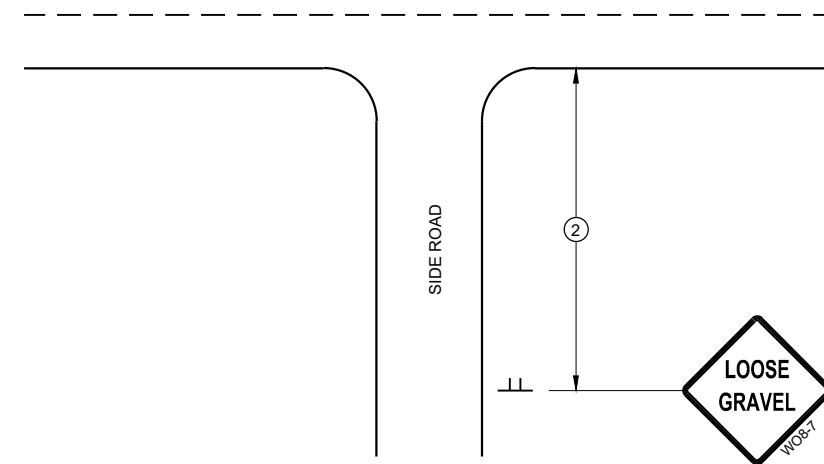
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

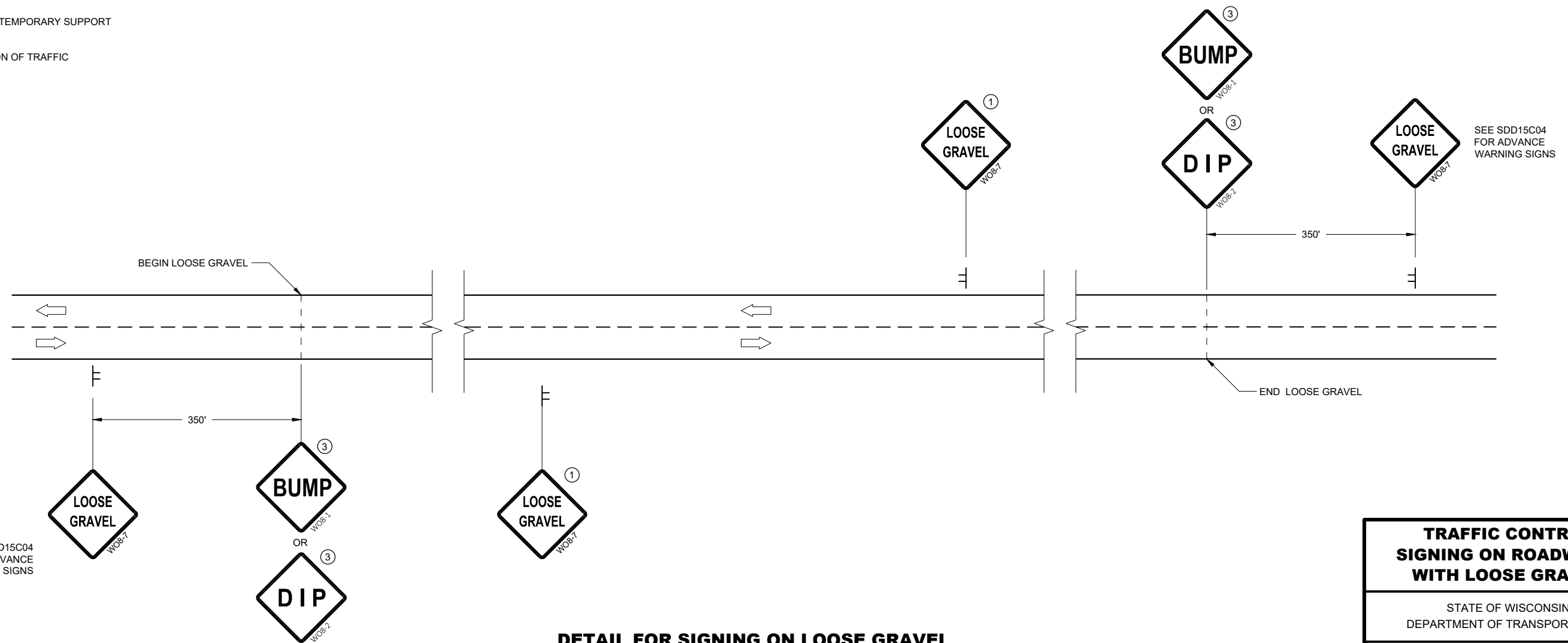
- ① PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- ③ ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

**LEGEND**

- ⊥ SIGN ON TEMPORARY SUPPORT
- ➡ DIRECTION OF TRAFFIC



**TYPICAL SIDE ROAD APPROACH SIGN DETAIL**



**DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES**

<b>TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2021 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

HAGEN ROAD LT SHOULDER WIDENING

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT 1.00 NOTE 1	EXPANDED FILL 1.25 NOTE 2	MASS ORDINATE NOTE 5
LT SHOULDER DIVISION								
93+50	0	0.00	0.00	0	0	0	0	0
94+00	50	0.00	0.00	0	0	0	0	0
94+50	50	0.00	0.00	0	0	0	0	0
95+00	50	1.52	0.35	1	1	1	1	0
95+50	50	1.75	0.40	3	1	4	3	2
96+00	50	1.96	0.40	3	1	7	4	3
96+50	50	1.73	0.54	3	1	10	5	5
97+00	50	1.43	0.80	3	1	13	6	7
97+48	48	1.90	1.44	3	2	16	9	7
98+00	52	2.14	1.55	4	3	20	13	8
98+35	35	2.03	1.85	3	2	23	15	8
99+00	55	1.39	2.20	4	5	27	21	6
99+50	50	1.34	2.31	2	4	29	26	3
100+00	50	1.71	1.76	3	5	32	33	-1
100+50	50	1.70	0.80	3	3	35	36	-1
101+00	50	0.00	0.00	2	1	37	38	-1
101+50	50	0.00	0.00	0	0	37	38	-1
102+00	50	0.00	0.00	0	0	37	38	-1
102+50	50	0.00	0.00	0	0	37	38	-1
103+00	50	0.00	0.00	0	0	37	38	-1
103+50	50	0.00	0.00	0	0	37	38	-1
104+00	50	0.00	0.00	0	0	37	38	1
104+50	50	0.00	0.00	0	0	37	38	1
105+00	50	1.34	0.76	1	1	38	39	-1
105+50	50	1.07	2.81	2	3	40	43	-3
105+95	45	0.98	4.75	2	6	42	49	-7
106+50	55	1.00	0.03	2	5	44	55	-11
107+00	50	0.00	0.00	1	0	45	55	-10
LT SHLD DIVISION SUBTOTAL				45	45			

HAGEN ROAD RT SHOULDER WIDENING

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT 1.00 NOTE 1	EXPANDED FILL 1.25 NOTE 2	MASS ORDINATE NOTE 3
RT SHOULDER DIVISION								
93+50	0	0.00	0.00	0	0	0	0	0
94+00	50	1.47	1.26	1	1	1	1	0
94+50	50	1.46	1.32	3	2	4	4	0
95+00	50	1.13	2.02	2	3	6	8	-2
95+50	50	1.36	1.97	2	4	8	13	-5
96+00	50	1.56	1.08	3	3	11	16	-5
96+50	50	1.35	1.45	3	2	14	19	-5
97+00	50	1.16	0.95	2	2	16	21	-5
97+48	48	1.28	1.19	2	2	18	24	-6
98+00	52	1.45	1.17	3	2	21	26	-5
98+35	35	0.92	1.35	2	2	23	29	6
99+00	65	1.11	2.09	2	4	25	34	-9
99+50	50	1.26	2.01	2	4	27	39	-12
100+00	50	1.36	1.61	2	4	29	45	-16
100+50	50	1.69	0.89	3	2	32	47	-15
101+00	50	0.00	0.00	2	1	34	49	-15
101+50	50	0.00	0.00	0	0	34	49	15
102+00	50	0.00	0.00	0	0	34	49	-15
102+50	50	0.00	0.00	0	0	34	49	-15
103+00	50	0.00	0.00	0	0	34	49	-15
103+50	50	0.00	0.00	0	0	34	49	-15
104+00	50	0.00	0.00	0	0	34	49	-15
104+50	50	1.62	1.38	2	1	36	50	-14
105+00	50	1.64	1.60	3	3	39	54	-15
105+50	50	1.42	4.67	3	6	42	61	-19
105+95	45	1.25	7.08	2	10	44	75	-31
106+50	55	1.39	1.58	3	9	47	86	-39
107+00	50	1.72	1.51	3	3	50	90	-40
RT SHLD DIVISION SUBTOTAL				50	70			

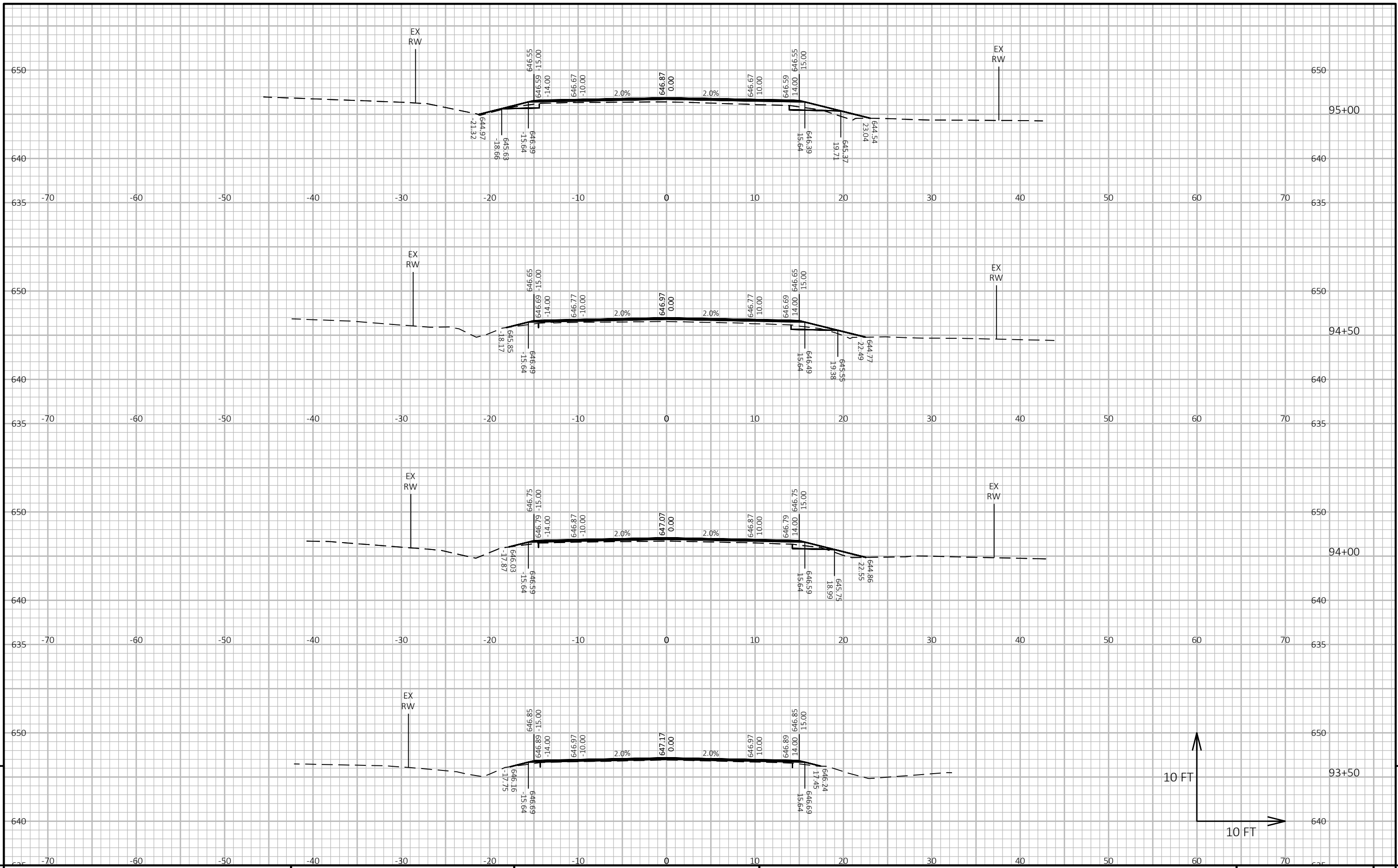
GRAND TOTAL (NOTE 4)      95      115      95      145      50 (NOTE 5)

NOTES:	
1 - CUT	CUT IS FOR ONE SIDE ONLY. PAID AS SHAPING SHOULDERS
2 - EXPANDED FILL	EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR
3 - MASS ORDINATE	THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
4 - GRAND TOTAL	GRAND TOTAL IS THE TOTAL OF BOTH SIDES OF THE ROADWAY.
5 - GRAND TOTAL MASS ORDINATE	MINUS INDICATES A SHORTAGE OF MATERIAL = BORROW REQUIRED

9

9



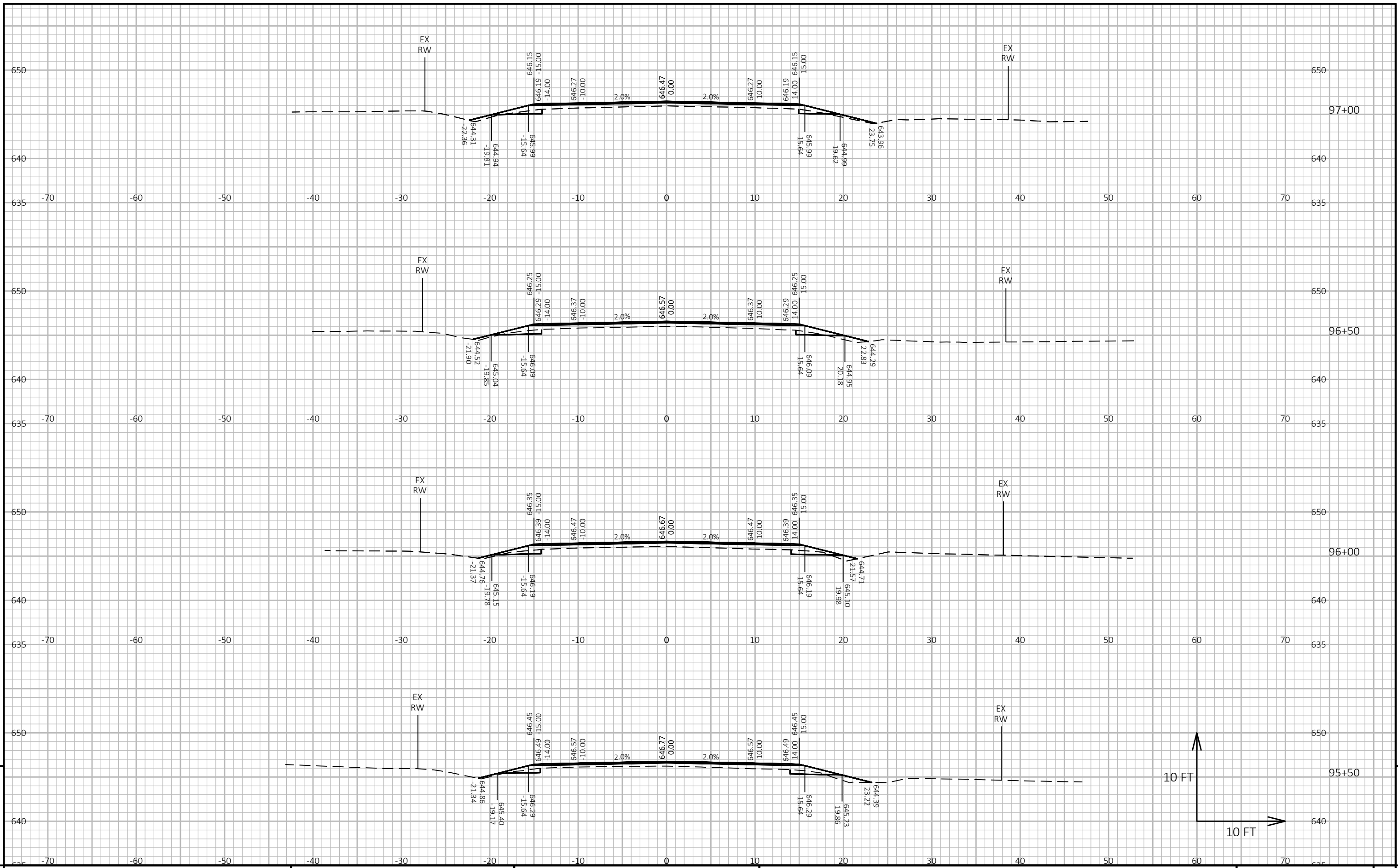


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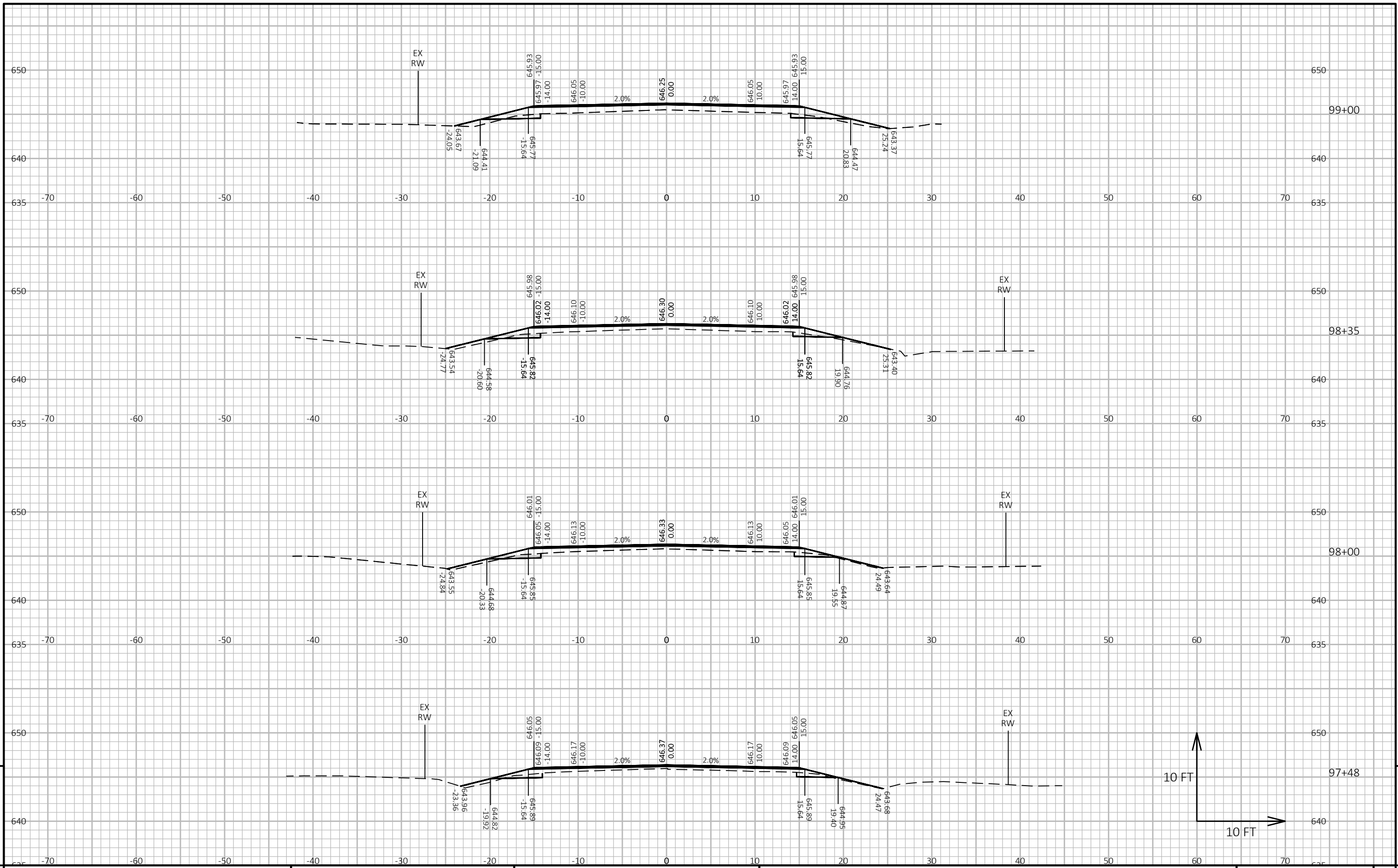
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PROJECT NO: 9954-00-72      HWY: HAGEN ROAD      COUNTY: ASHLAND      CROSS SECTIONS: HAGEN ROAD      SHEET      E

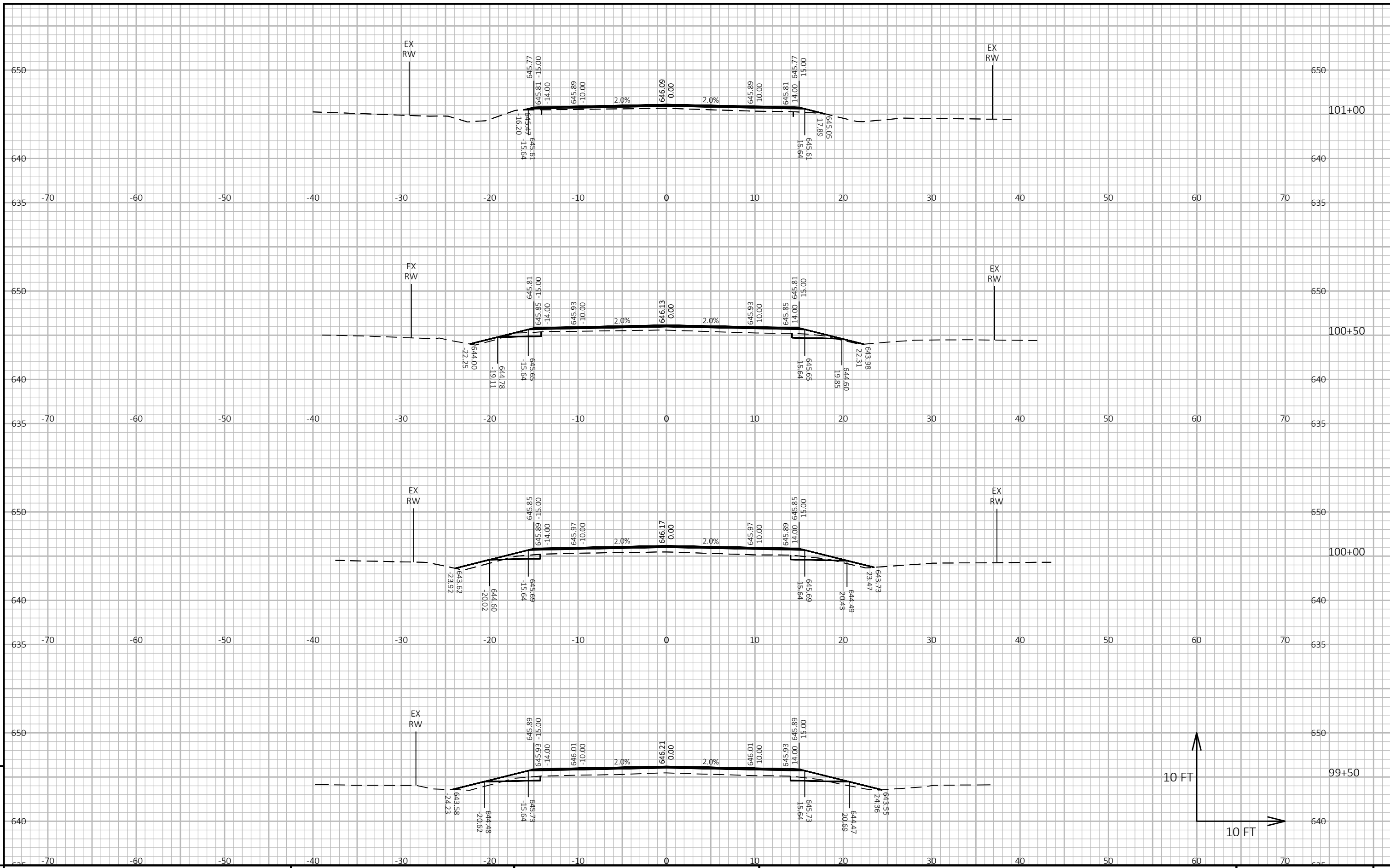
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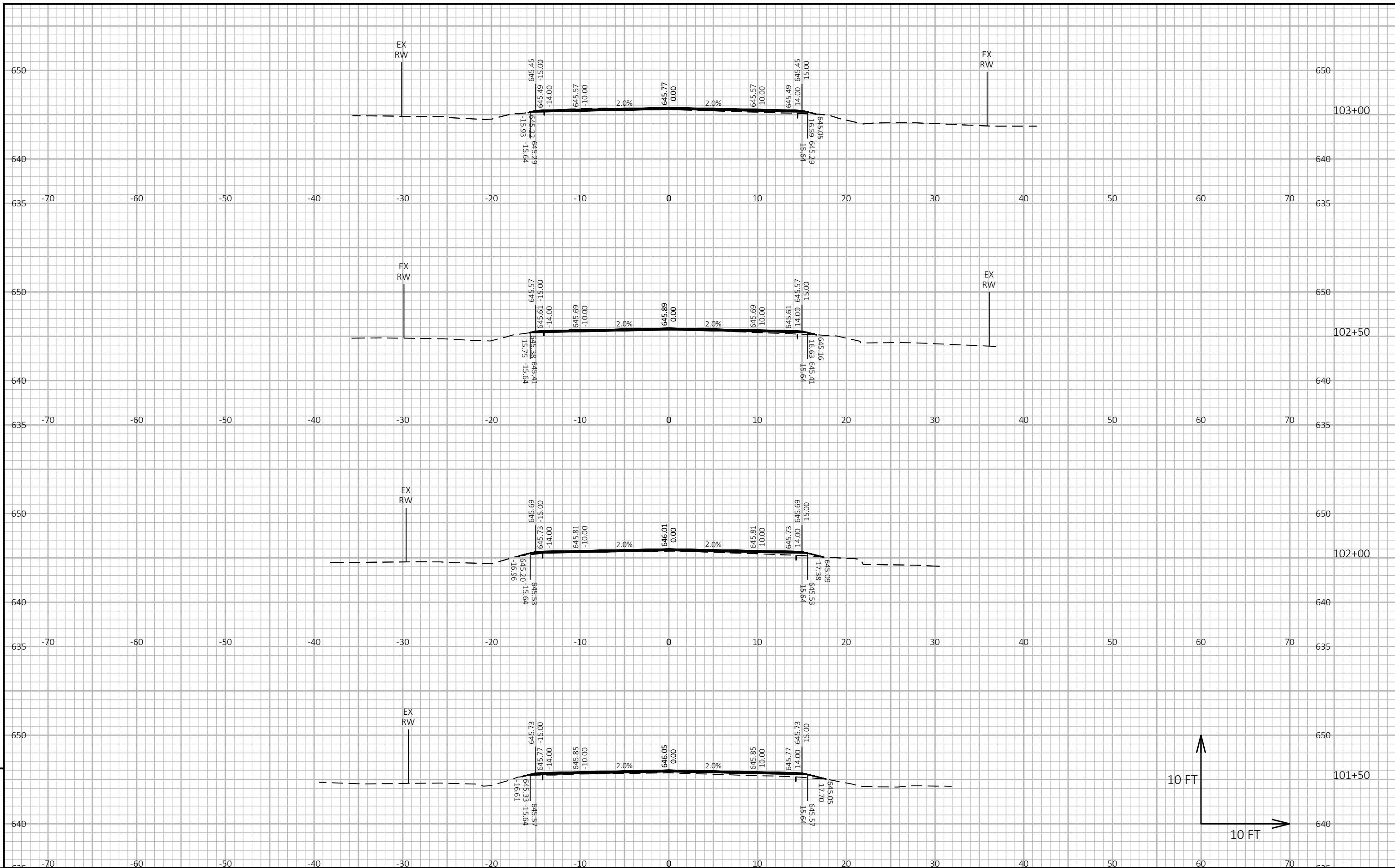


PROJECT NO: 9954-00-72      HWY: HAGEN ROAD      COUNTY: ASHLAND      CROSS SECTIONS: HAGEN ROAD      SHEET      E



PROJECT NO: 9954-00-72	HWY: HAGEN ROAD	COUNTY: ASHLAND	CROSS SECTIONS: HAGEN ROAD
SHEET			<b>E</b>



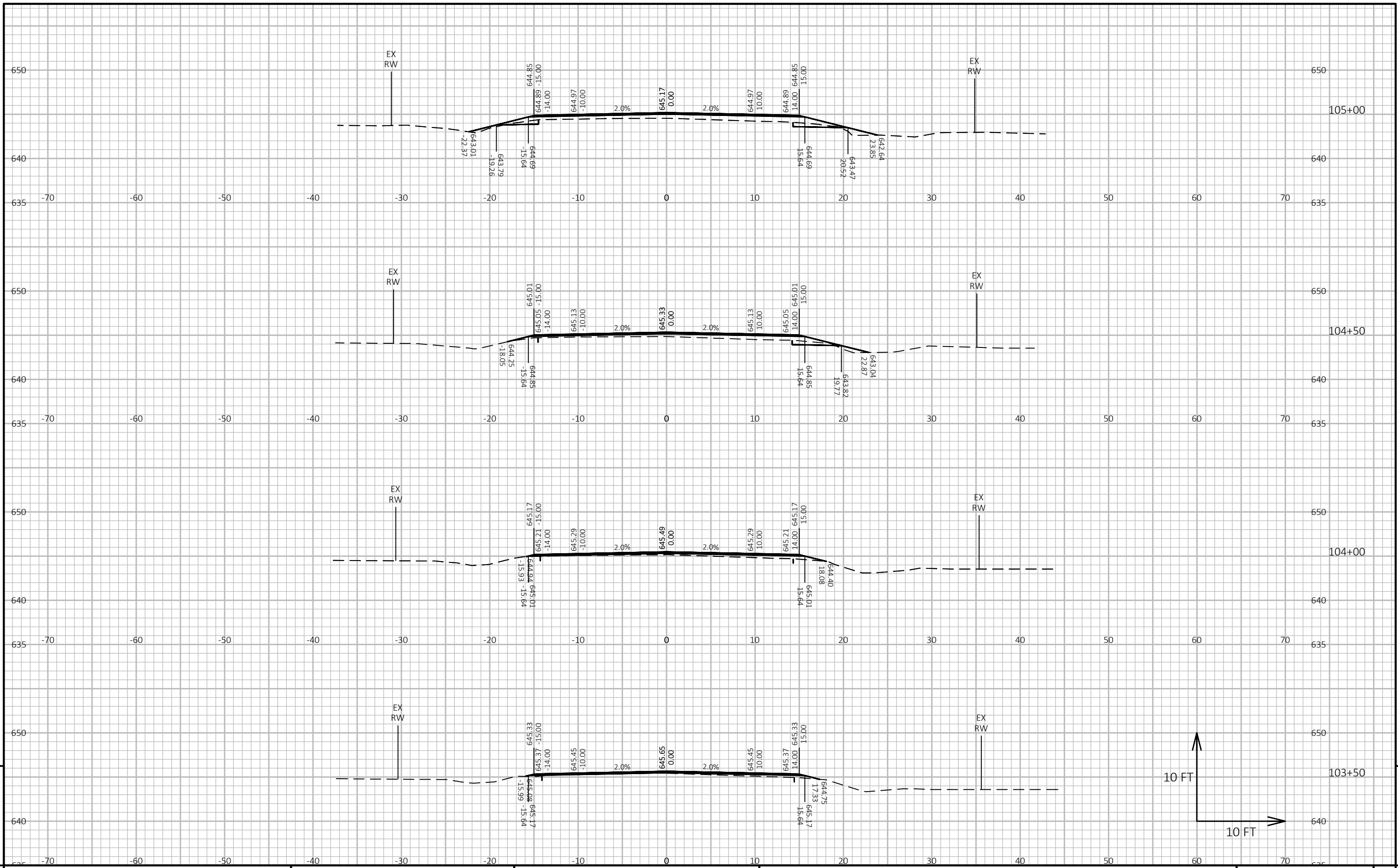


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PROJECT NO: 9954-00-72      HWY: HAGEN ROAD      COUNTY: ASHLAND      CROSS SECTIONS: HAGEN ROAD      SHEET      E

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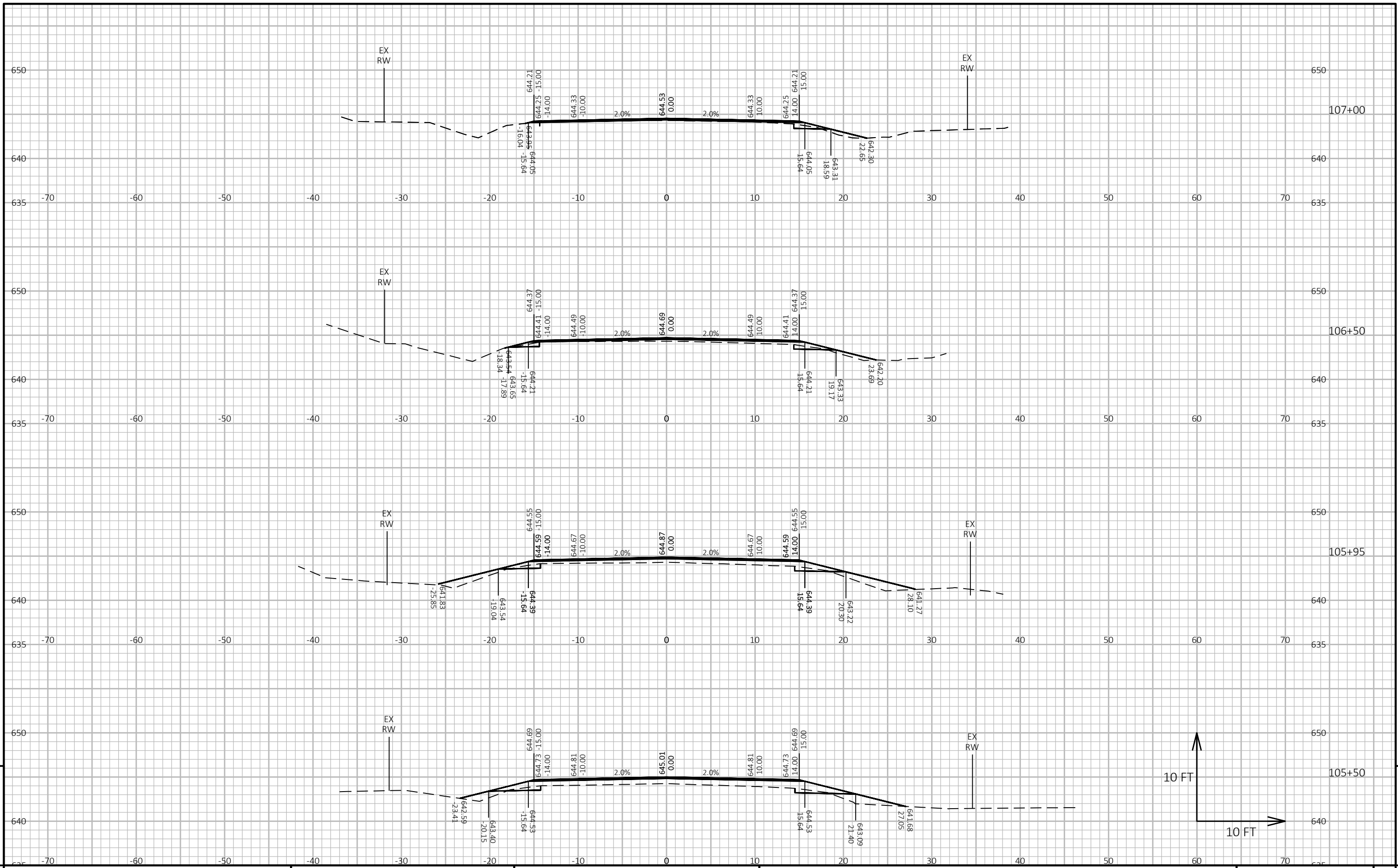


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PROJECT NO: 9954-00-72      HWY: HAGEN ROAD      COUNTY: ASHLAND      CROSS SECTIONS: HAGEN ROAD      SHEET      E

FILE NAME: G:\2023-PROJ\23258061\C3D\SHEETS\090201\_XS.DWG      PLOT DATE: 1/29/2024 2:49 PM      PLOT BY: JACOB FRIBERG      PLOT NAME:      PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49



PROJECT NO: 9954-00-72      HWY: HAGEN ROAD      COUNTY: ASHLAND      CROSS SECTIONS: HAGEN ROAD      SHEET      E



## ***Wisconsin Department of Transportation***

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