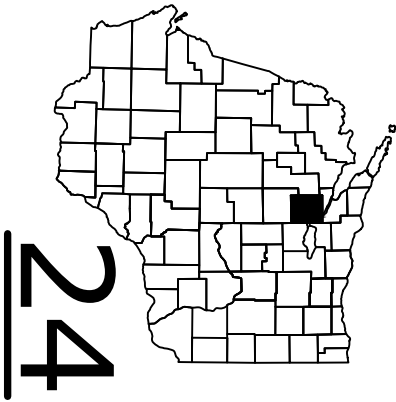


ORDER OF SHEETS

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

TOTAL SHEETS = 174



DESIGN DESIGNATION

A.A.D.T. (2023)	=	10,500
A.A.D.T. (2043)	=	12,300
D.H.V.	=	460
D.D.	=	60/40
T.	=	12%
DESIGN SPEED	=	35-55 MPH
ESALS	=	3,300,000

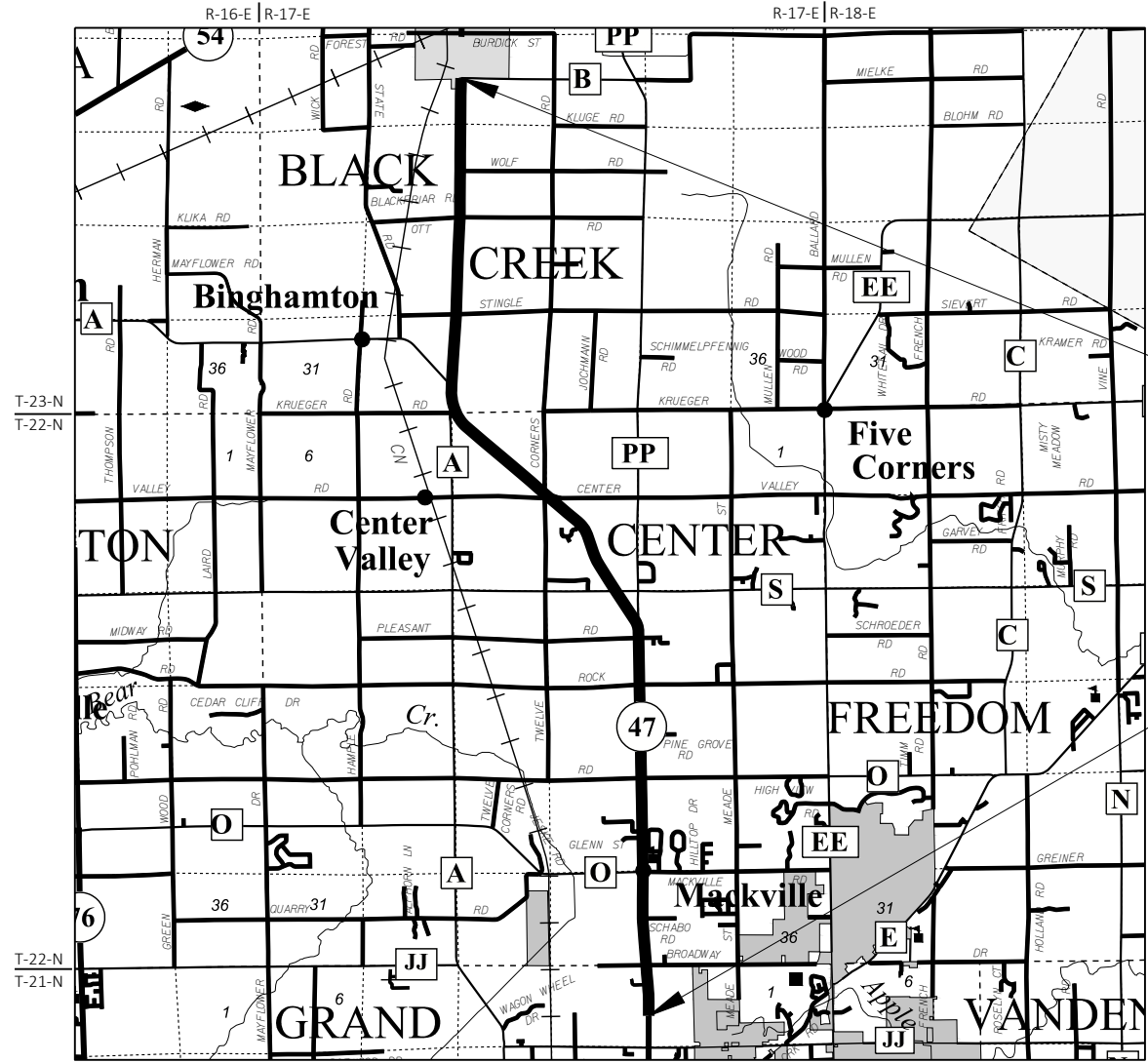
CONVENTIONAL SYMBOLS

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
	TELEPHONE
	WATER
	UTILITY PEDESTAL
	POWER POLE
	TELEPHONE POLE

# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

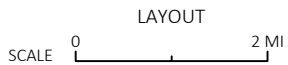
## PLAN OF PROPOSED IMPROVEMENT APPLETON - BLACK CREEK CTH JJ - CTH B STH 47 OUTAGAMIE COUNTY

STATE PROJECT NUMBER  
**6240-22-71**



END PROJECT 6240-22-71  
STA 673+99.39  
Y= 636,934.500  
X= 815,729.495

BEGIN PROJECT 6240-22-71  
STA 100+00.00  
Y= 583,466.812  
X= 825,318.545



TOTAL NET LENGTH OF CENTERLINE = 10.871 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, OUTAGAMIE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. VERTICAL POSITIONS SHOWN ON THIS PLAN ARE NAVD88 (2012) DATUM.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6240-22-71	WISC 2022399	1

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT NORTHEAST REGION
Designer	JILL HILBERT
Project Manager	JESSE HANSEN
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	TAMMY RABE

APPROVED FOR THE DEPARTMENT

DATE: 2/2/2022 *Jesse Hansen P.E.*  
(Signature)

GENERAL NOTES

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

RIGHT-OF-WAY DIMENSIONS IN PLAN ARE BASED ON CURRENT CONSTRUCTION R/L, NOT THE CENTERLINE OF STH 47.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN ARE APPROXIMATE AND SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.

EXISTING DRAINAGE DITCHES AND CULVERT PIPES WILL REMAIN FUNCTIONAL DURING EXCAVATION OPERATIONS.

CURB AND GUTTER RADII ARE SHOWN TO THE FRONT FACE OF CURB.

ORDER OF SECTION 2 DETAIL SHEETS

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN DETAILS
- REMOVAL PLAN
- EROSION CONTROL
- DETOUR PLAN

UTILITY CONTACTS

VICTORIA KASSAB  
AT&T WISCONSIN - COMMUNICATION LINE  
FIRST FLOOR ENGINEERING  
205 S JEFFERSON ST  
GREEN BAY, WI 54301  
(920) 401-7512  
Vk352k@att.com

CHRIS DAILEY  
ATC MANAGEMENT, INC.  
ELECTRICITY-TRANSMISSION  
W 234 N 2000 RIDGEVIEW PARKWAY CT  
P.O. BOX 47  
WAUKESHA, WI 53187-0047  
(262) 506-6884  
cdailey@atcllc.com

SCOTT HEINZELMAN  
CENTURYLINK-COMMUNICATION LINE  
19 W FOND DU LAC ST  
RIPON, WI 54971  
(920) 361-8409, C (920) 757-4802  
scott.heinzelman@lumen.com

VINCE ALBIN  
CHARTER COMMUNICATIONS-COMMUNICATION LINE  
3520 E. DESTINATION DR.  
APPLETON, WI 54915  
(920) 831-9249, C (920) 378-0444  
vince.albin@charter.com

KEN WHITING  
WIN TECHNOLOGY-COMMUNICATION LINE  
4955 BULLIS FARM ROAD  
EAU CLAIRE, WI 54701  
(866) 206-2027, C (920) 376-2996  
ken.whiting@wintechnology.com

SHANE BRUHNKE  
WE ENERGIES-ELECTRICITY  
800 S LYNNDAL DRIVE  
APPLETON, WI 54912  
(920) 380-3450, C (920) 450-5648  
Shane.Bruhnke@we-energies.com

EDDIE HEDLUND  
WE ENERGIES-GAS/PETROLEUM  
800 S LYNNDAL DRIVE  
APPLETON, WI 54912  
(920) 380-3240, C (920) 470-0418  
Eddie.hedlund@we-energies.com

DNR LIAISON

MATT SCHAEVE  
DEPARTMENT OF NATURAL RESOURCES  
2984 SHAWANO AVE  
GREEN BAY, WI 54313  
(920) 366-1544  
matthew.schaeve@wisconsin.gov

OUTAGAMIE COUNTY COMMISSIONER

DEAN STEINGRABER  
HIGHWAY COMMISSIONER  
1313 HOLLAND RD  
APPLETON, WI 54911-8947  
(920) 832-5673  
dean.steingraber@outagamie.org

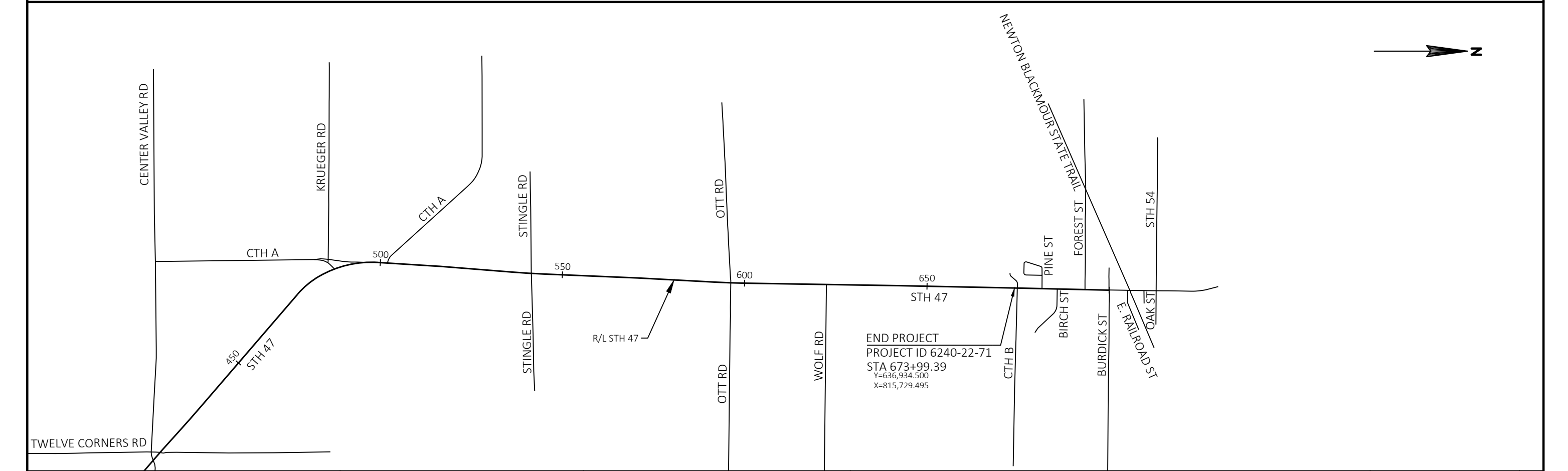
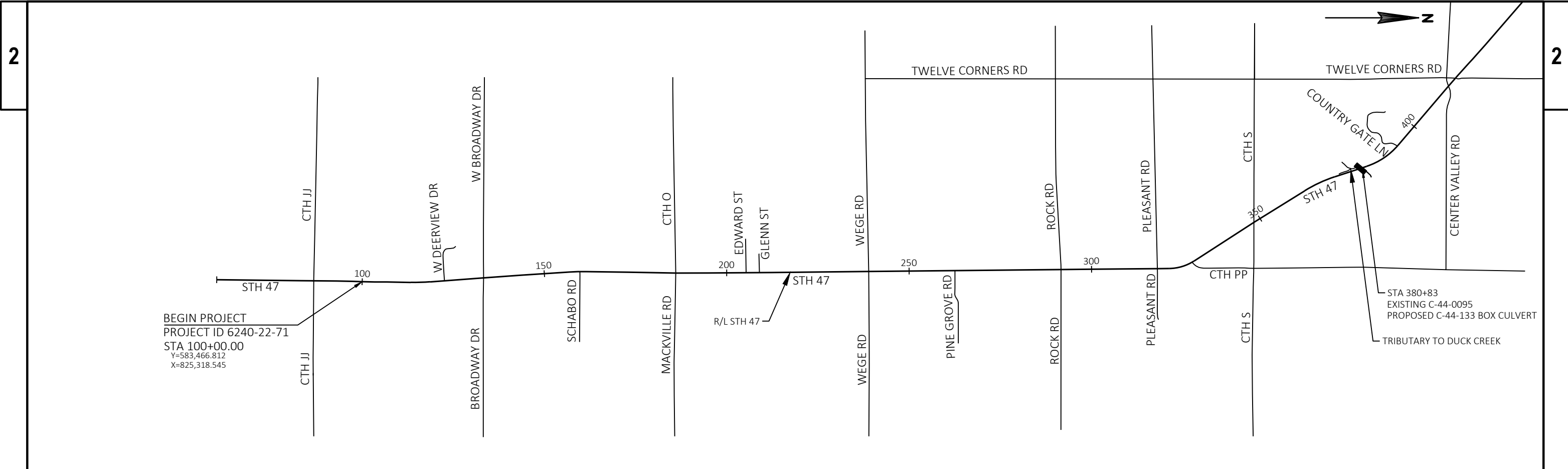
NE REGION SURVEY COORDINATOR

CORMAC MCINNIS, RLS  
944 VANDERPERREN WAY  
GREEN BAY, WI 54304  
(920) 492-5638  
cormac.mcinnis@dot.wi.gov

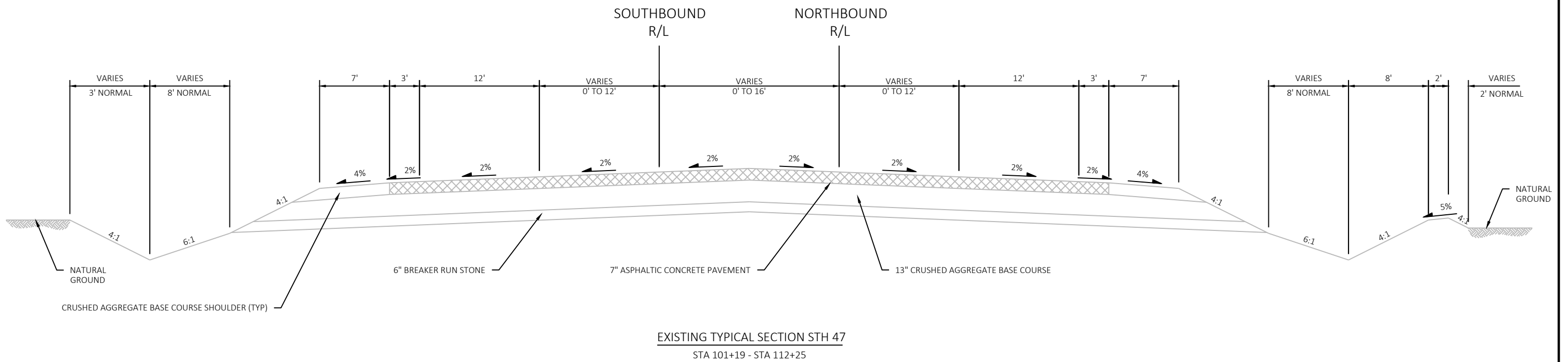
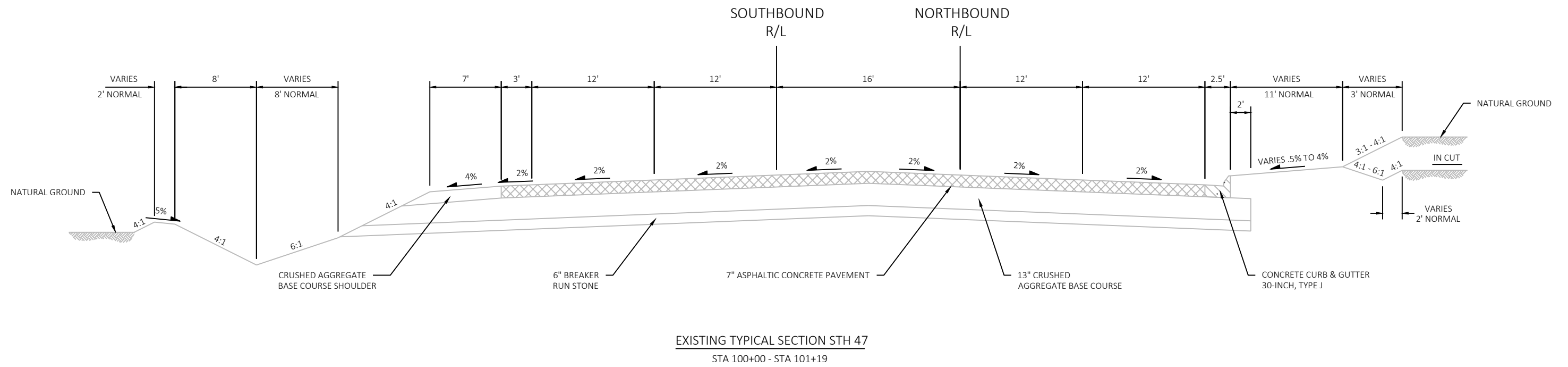
NE REGION PROJECT MANAGER

JESSE HANSEN, PE  
944 VANDERPERREN WAY  
GREEN BAY, WI 54304  
(920) 362-6095  
jesse.hansen@dot.wi.gov

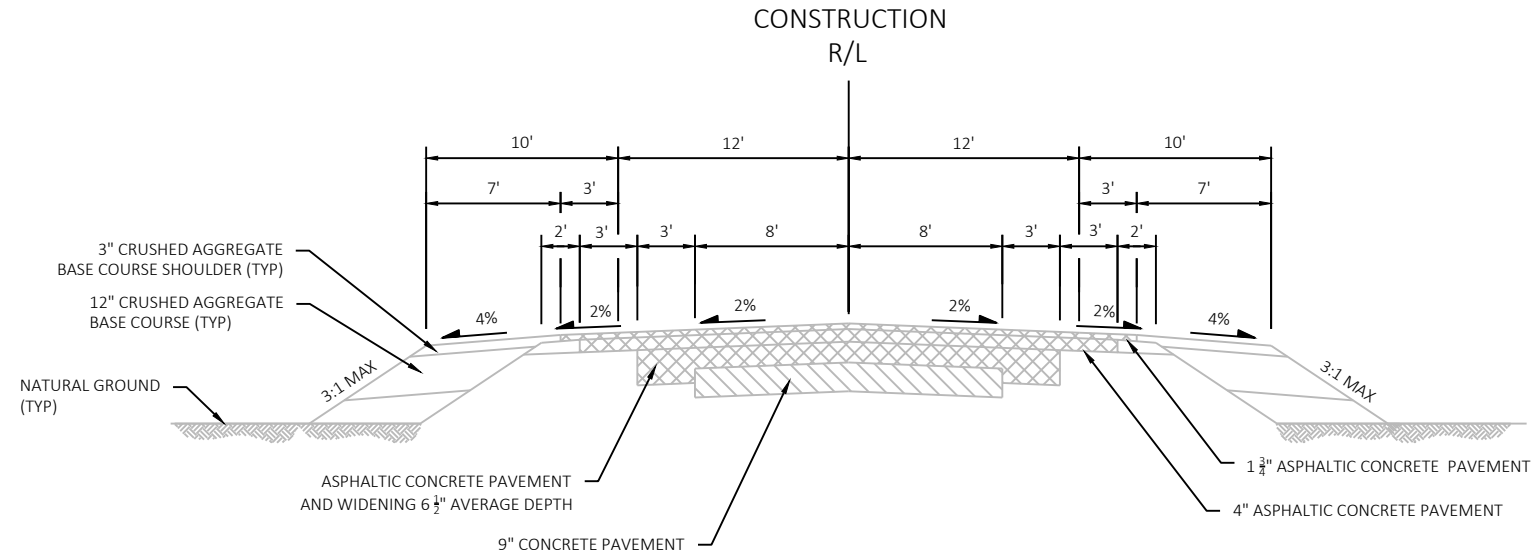




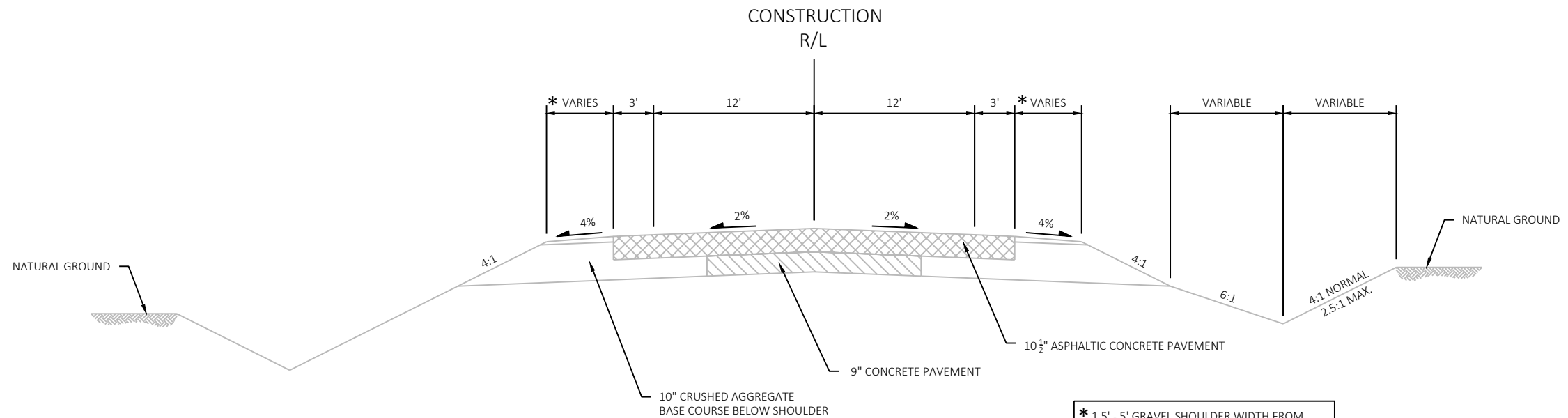
PROJECT NO: 6240-22-71	HWY: STH 47	COUNTY: OUTAGAMIE	PROJECT OVERVIEW	SHEET	<b>E</b>
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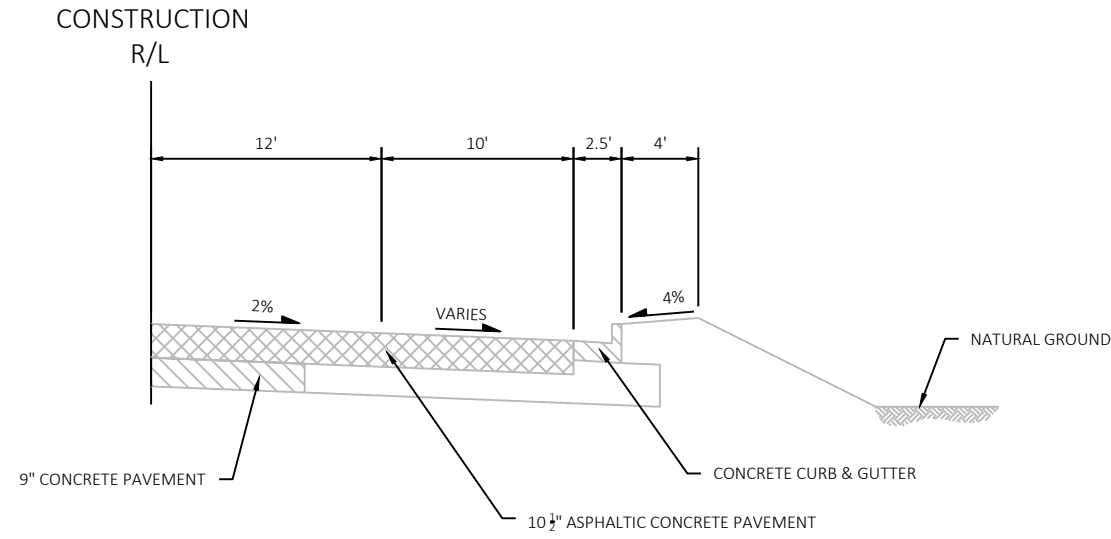
EXISTING TYPICAL SECTION STH 47  
STA 112+25 - STA 114+38



EXISTING TYPICAL SECTION STH 47

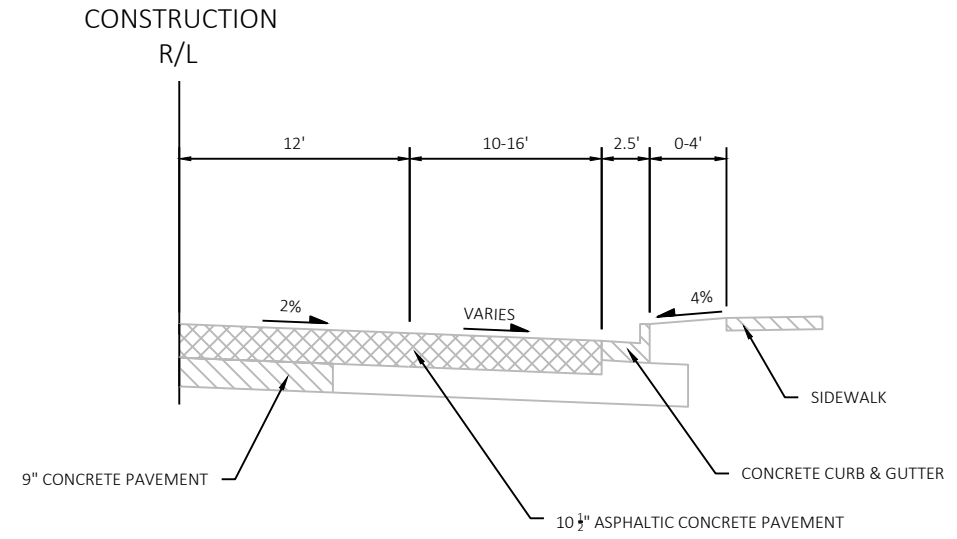
- STA 114+38 - STA 184+65
- STA 184+65 - STA 186+49 LT
- STA 189+98 - STA 190+98 LT
- STA 190+98 - STA 316+39
- STA 369+83 - STA 382+26
- STA 382+26 - STA 385+17 RT
- STA 385+17 - STA 411+36
- STA 411+36 - STA 414+04 RT
- STA 414+04 - STA 417+76
- STA 417+76 - STA 418+39 RT
- STA 419+14 - STA 420+39 LT
- STA 420+39 - STA 467+03

\* 1.5' - 5' GRAVEL SHOULDER WIDTH FROM PROJECT START TO APPROXIMATE STA 262+57  
6± GRAVEL SHOULDER WIDTH FROM APPROXIMATE STA 262+57 - STA 467+03



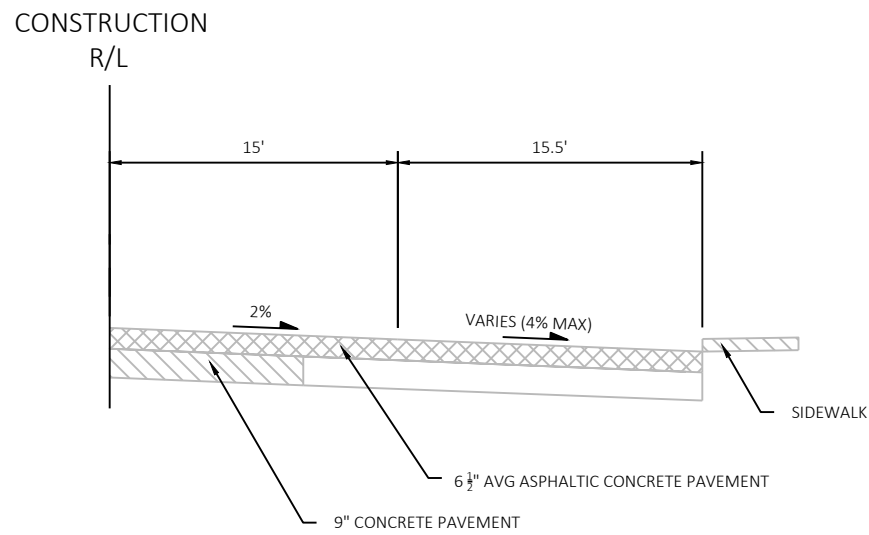
1/2 EXISTING TYPICAL SECTION STH 47

STA 184+65 - STA 186+05 RT  
 STA 186+49 - STA 187+82 LT  
 STA 382+26 - STA 385+17 LT  
 STA 411+36 - STA 414+04 LT  
 STA 417+76 - STA 419+14 LT  
 STA 418+39 - STA 420+39 RT



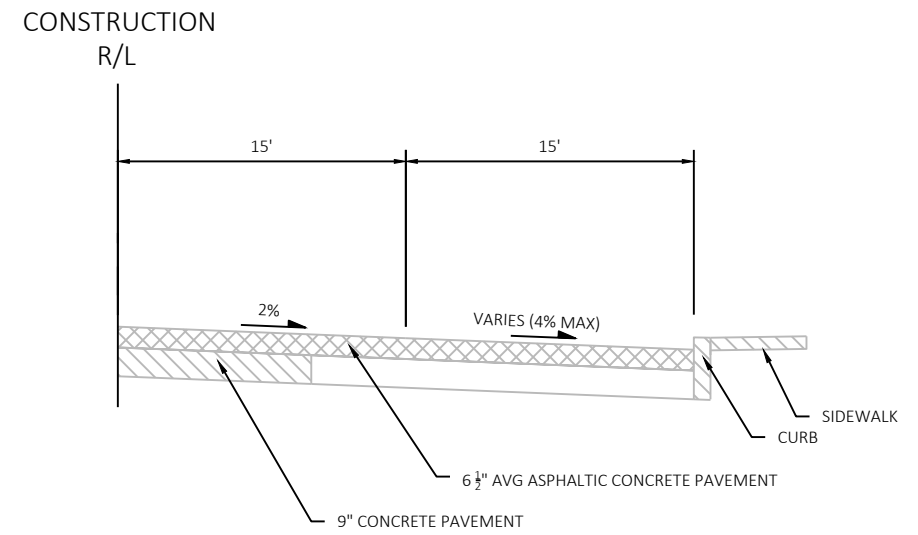
1/2 EXISTING TYPICAL SECTION STH 47

STA 186+05 - STA 187+43 RT



1/2 EXISTING TYPICAL SECTION STH 47 PARKING LANE

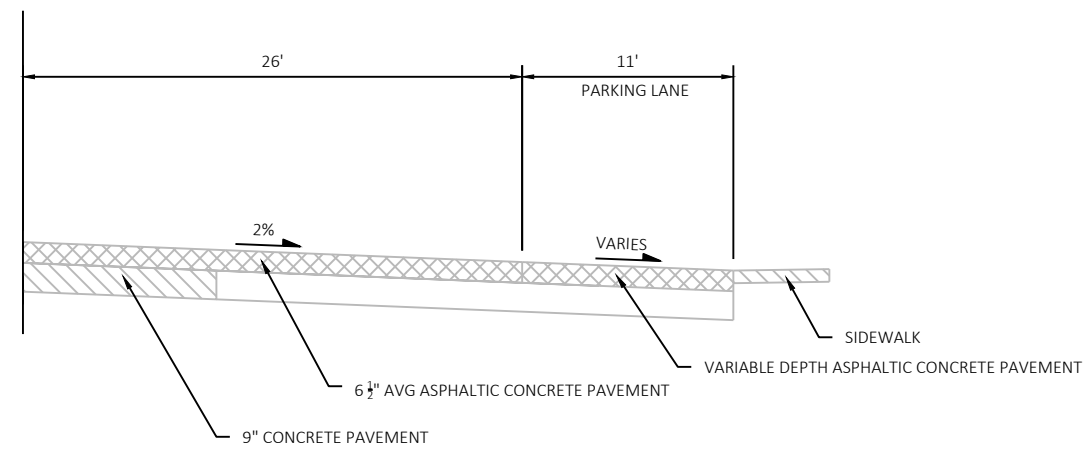
STA 187+43 - STA 188+78 RT



1/2 EXISTING TYPICAL SECTION STH 47 PARKING LANE

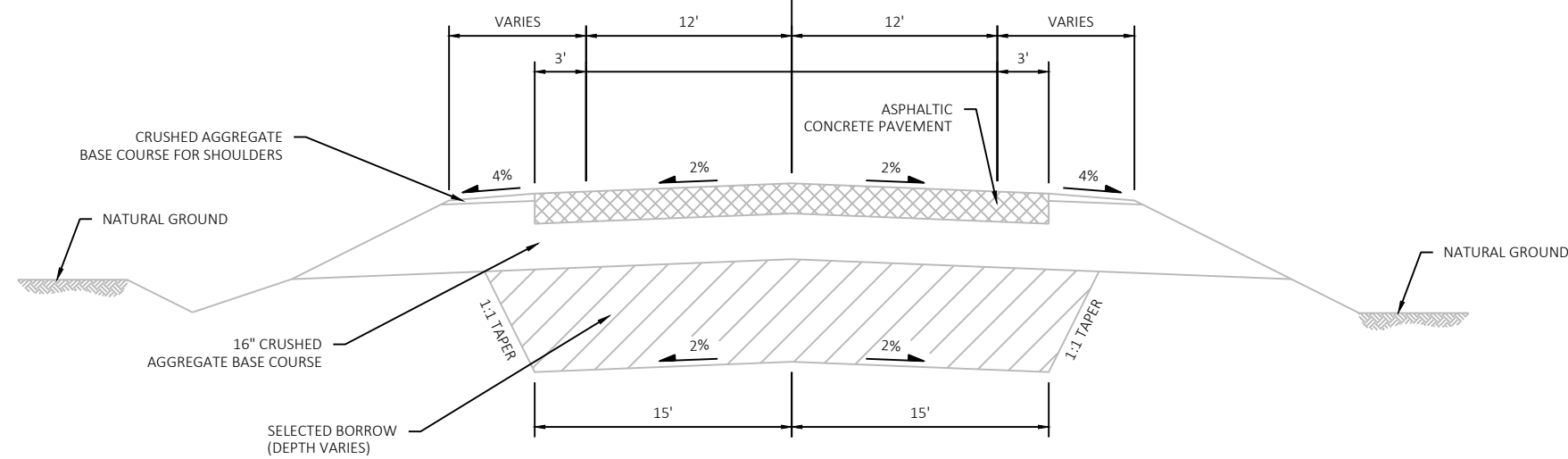
STA 188+78 - STA 189+31 RT  
 STA 187+82 - STA 189+98 LT

CONSTRUCTION R/L



1/2 EXISTING TYPICAL SECTION STH 47  
STA 189+31 - STA 190+98 RT

CONSTRUCTION R/L

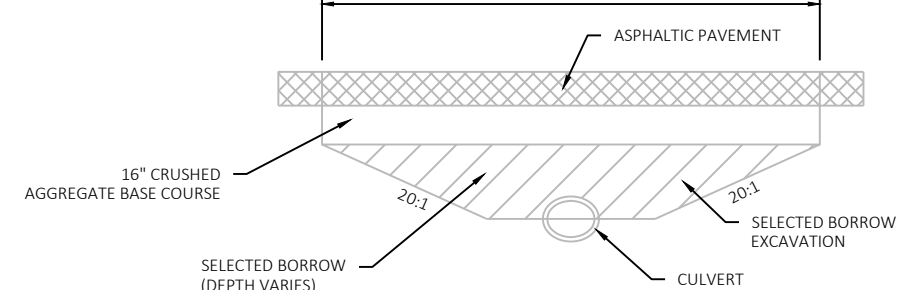


CROSS SECTION

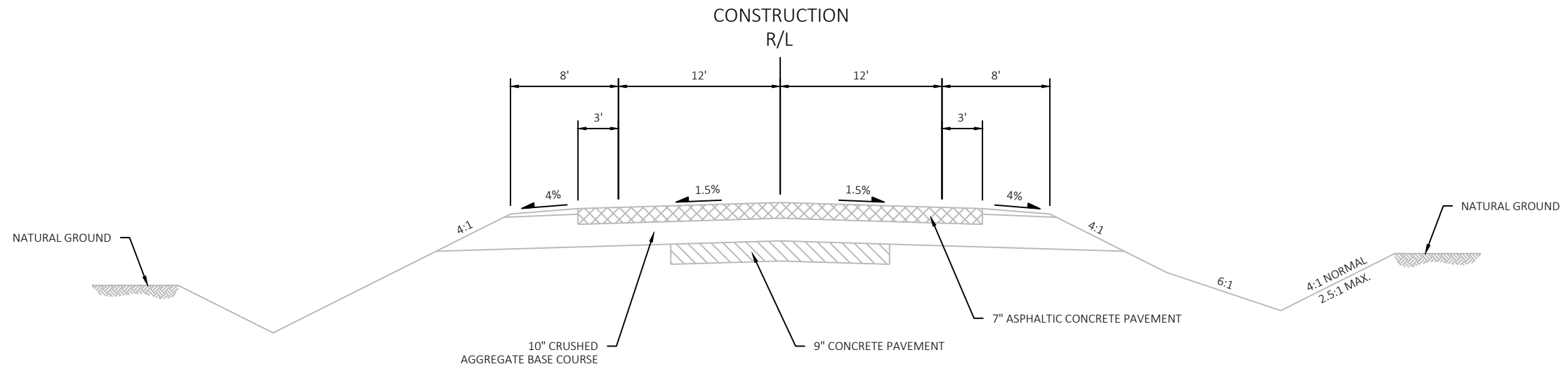
EXISTING TYPICAL SECTION STH 47 (PREVIOUS FROST HEAVE REPAIR)

STA 132+49  
STA 150+96  
STA 259+42

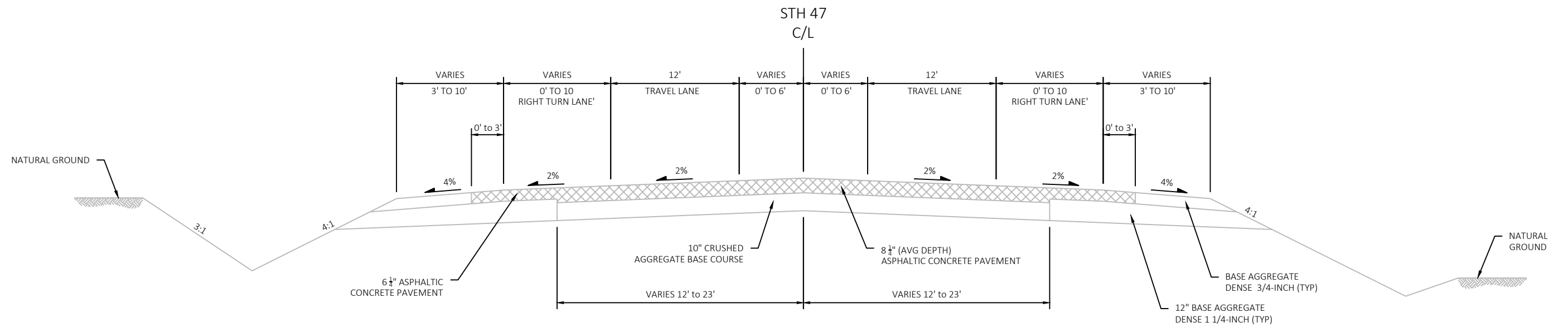
UNDER CUT LIMITS



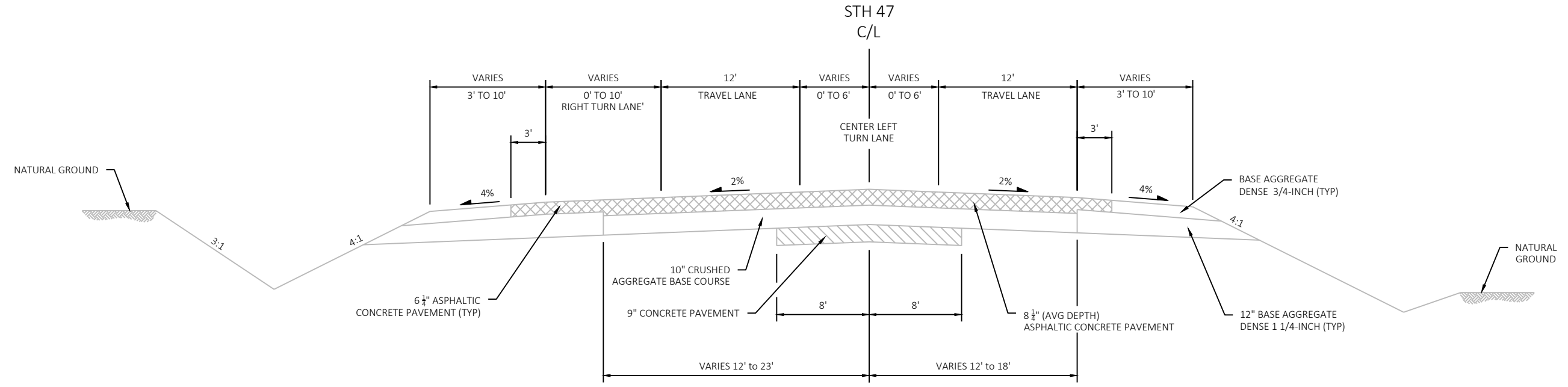
LONGITUDINAL SECTION



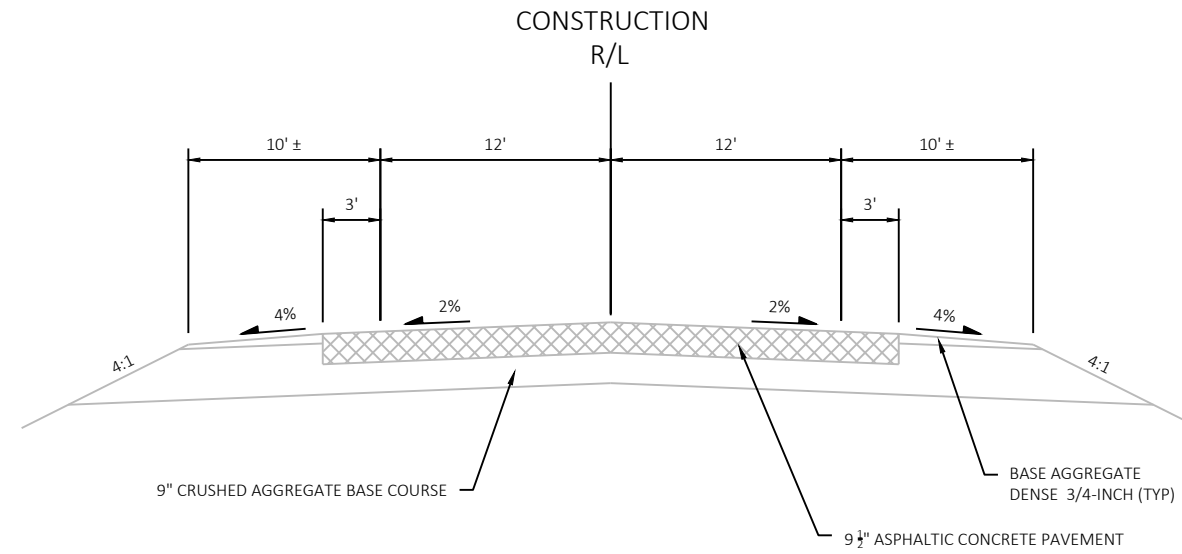
**EXISTING TYPICAL SECTION STH 47**  
 STA 316+39 - STA 326+89  
 STA 361+61 - STA 369+83



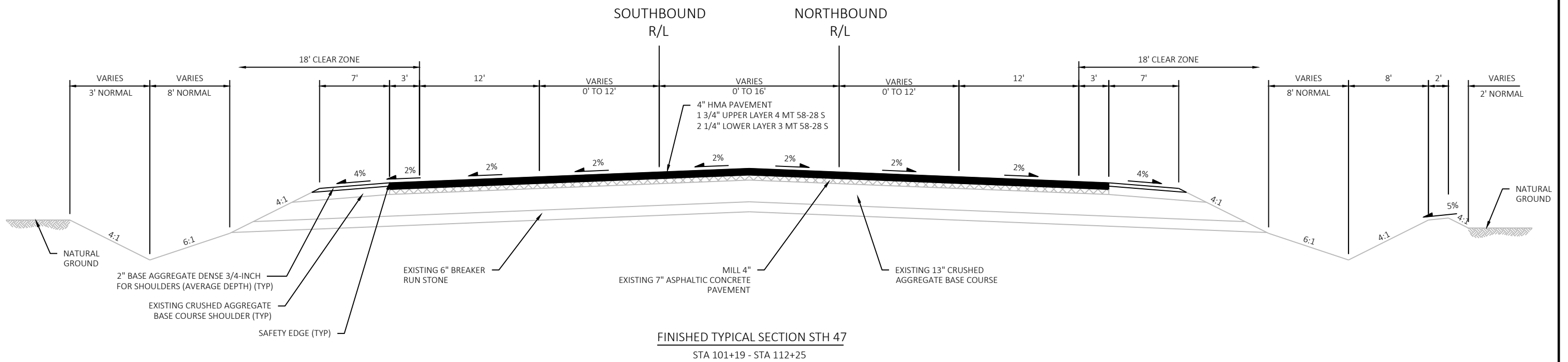
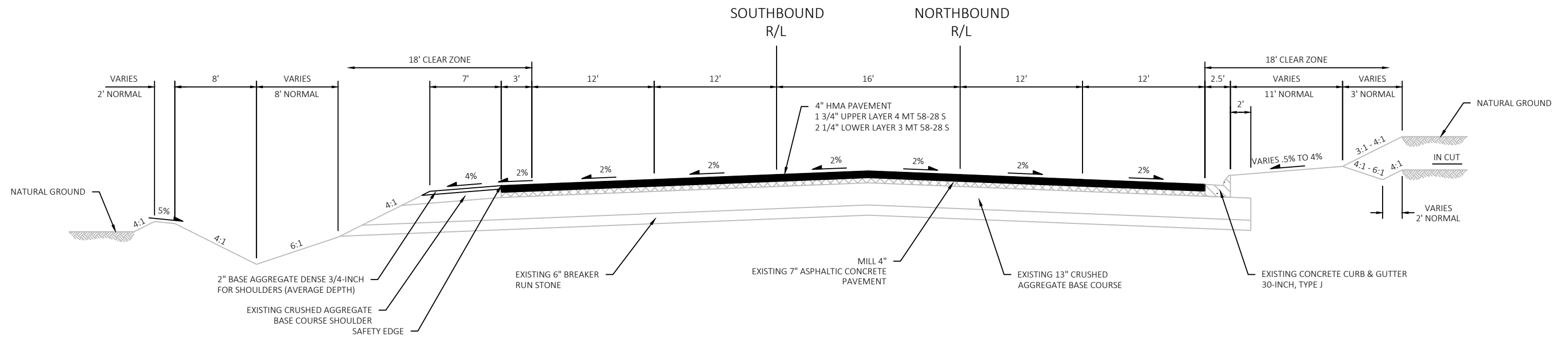
**EXISTING TYPICAL SECTION STH 47**  
 STA 326+89 - STA 357+89

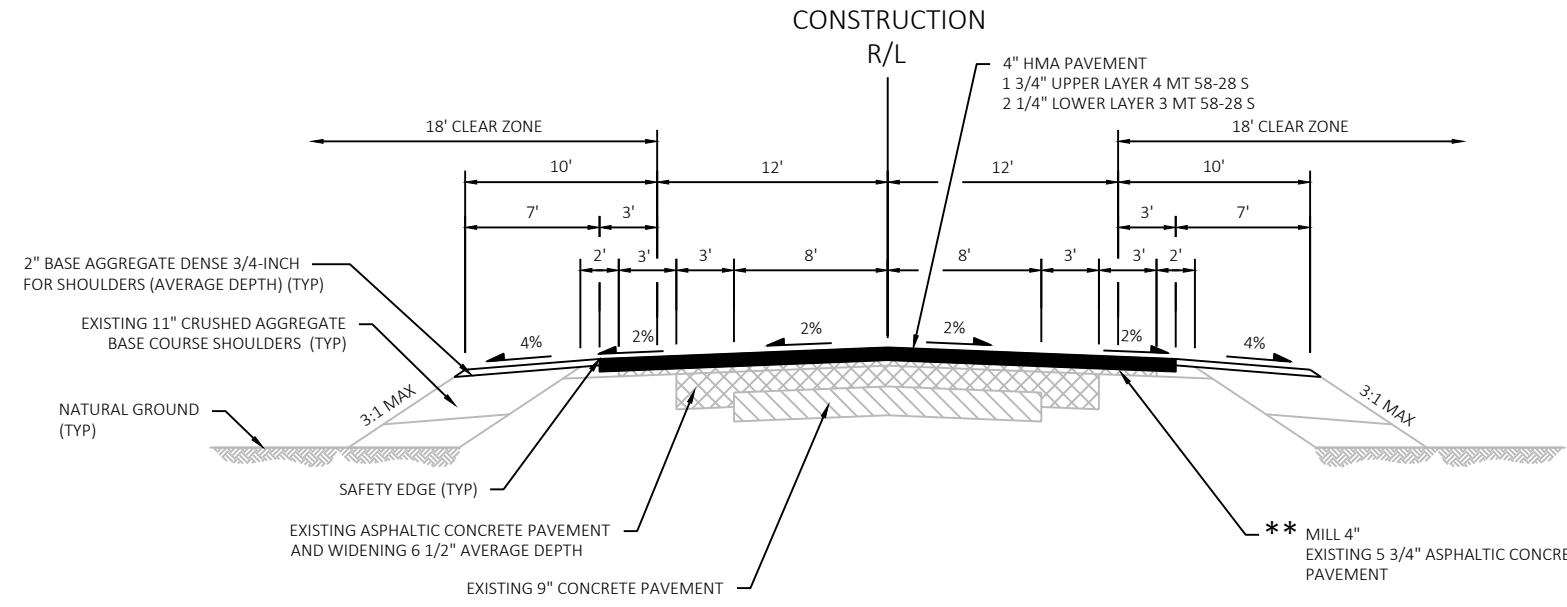


EXISTING TYPICAL SECTION STH 47  
STA 357+89 - STA 361+61



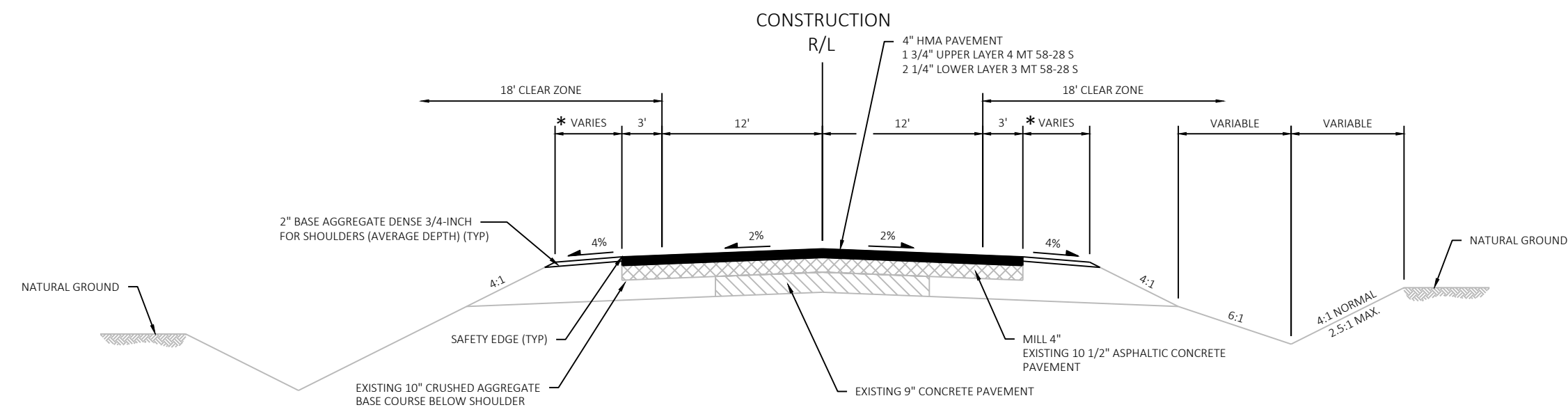
EXISTING TYPICAL SECTION STH 47  
STA 467+03 - STA 673+99.39





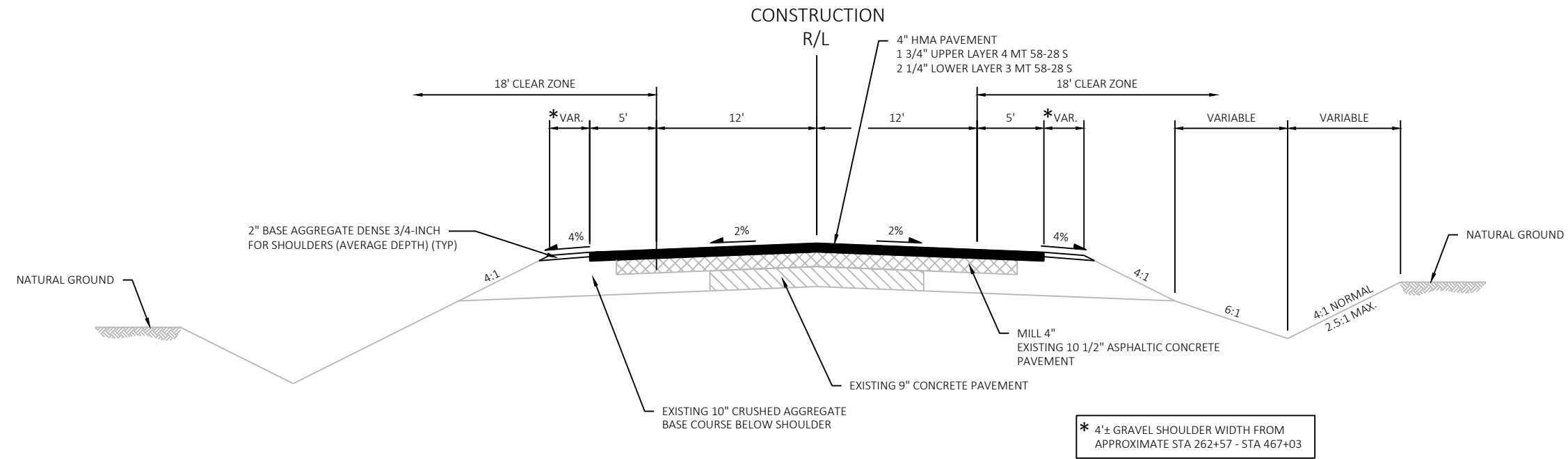
\*\* EXISTING ASPHALT DEPTH MAY BE LESS THAN 4" AT EDGE OF PROPOSED PAVED SHOULDER

FINISHED TYPICAL SECTION STH 47  
STA 112+25 - STA 114+38



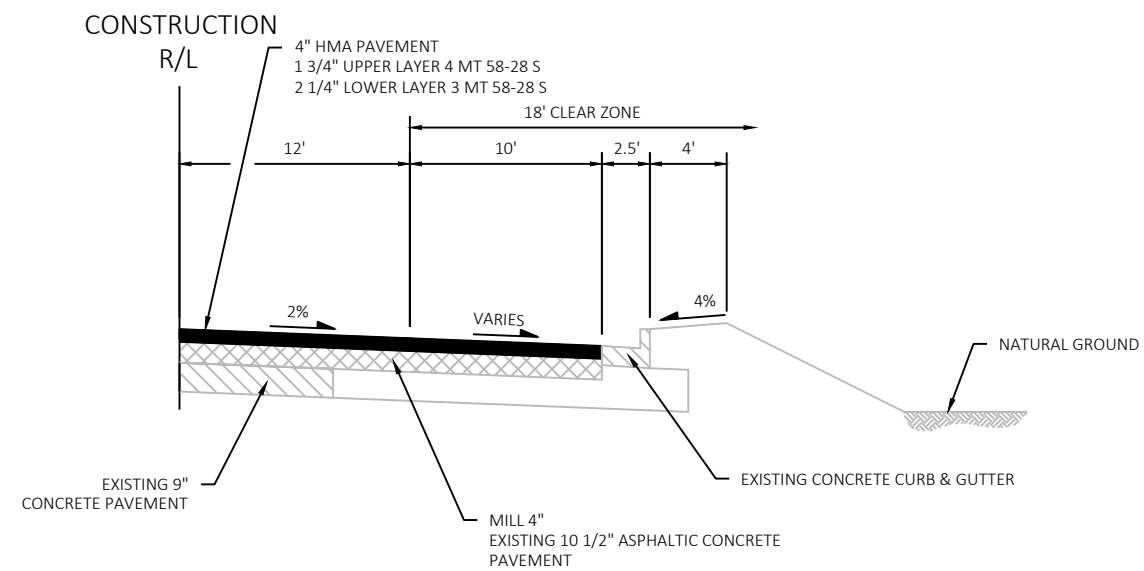
\* 1.5' - 5' EXISTING GRAVEL SHOULDER WIDTH FROM PROJECT START TO APPROXIMATE STA 262+57

FINISHED TYPICAL SECTION STH 47  
STA 114+38 - STA 184+65  
STA 184+65 - STA 186+49 LT  
STA 189+98 - STA 190+98 LT  
STA 190+98 - STA 262+57



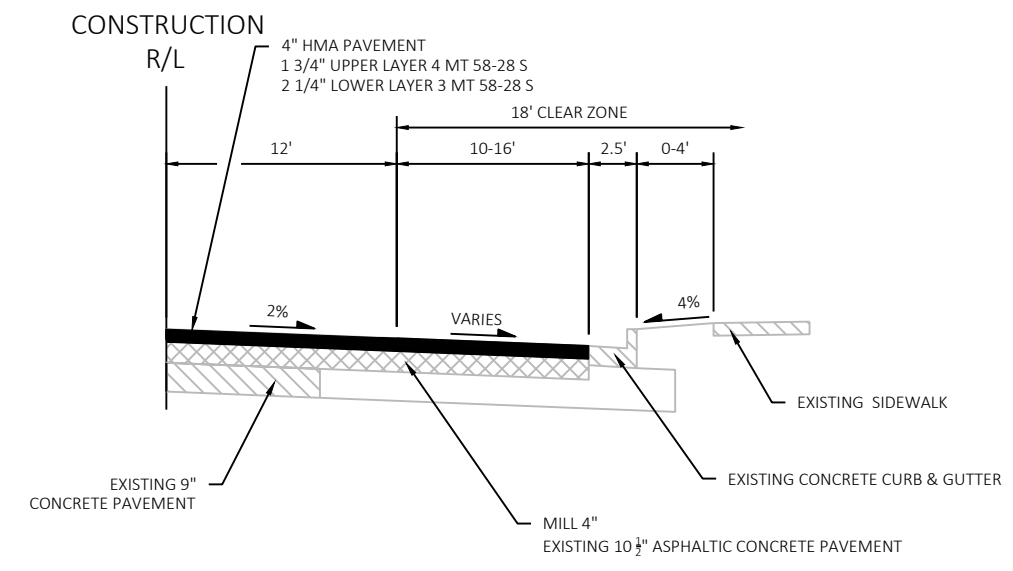
**FINISHED TYPICAL SECTION STH 47**

- STA 262+57 - STA 316+39
- STA 369+83 - STA 382+26
- STA 382+26 - STA 385+17 RT
- STA 385+17 - STA 411+36
- STA 411+36 - STA 414+04 RT
- STA 414+04 - STA 417+76
- STA 417+76 - STA 418+39 RT
- STA 419+14 - STA 420+39 LT
- STA 420+39 - STA 467+03



**1/2 FINISHED TYPICAL SECTION STH 47**

- STA 184+65 - STA 186+05 RT
- STA 186+49 - STA 187+82 LT
- STA 382+26 - STA 385+17 LT
- STA 411+36 - STA 414+04 LT
- STA 417+76 - STA 419+14 LT
- STA 418+39 - STA 420+39 RT

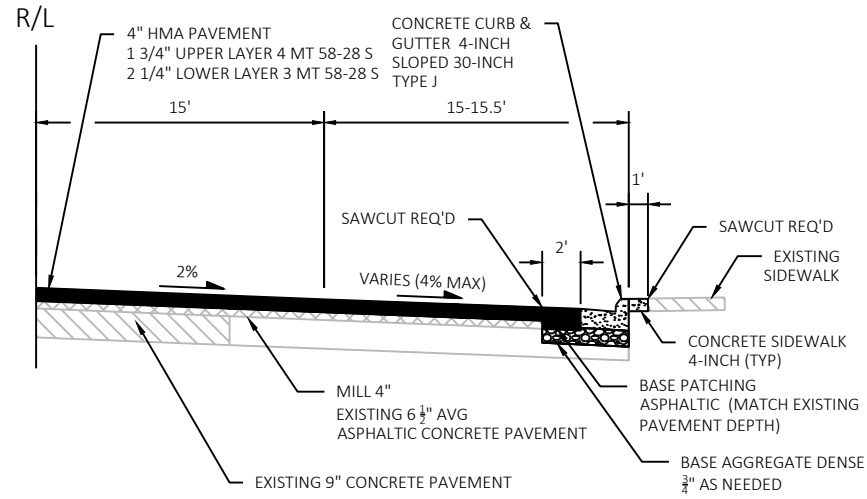


**1/2 FINISHED TYPICAL SECTION STH 47**

- STA 186+05 - STA 187+43 RT

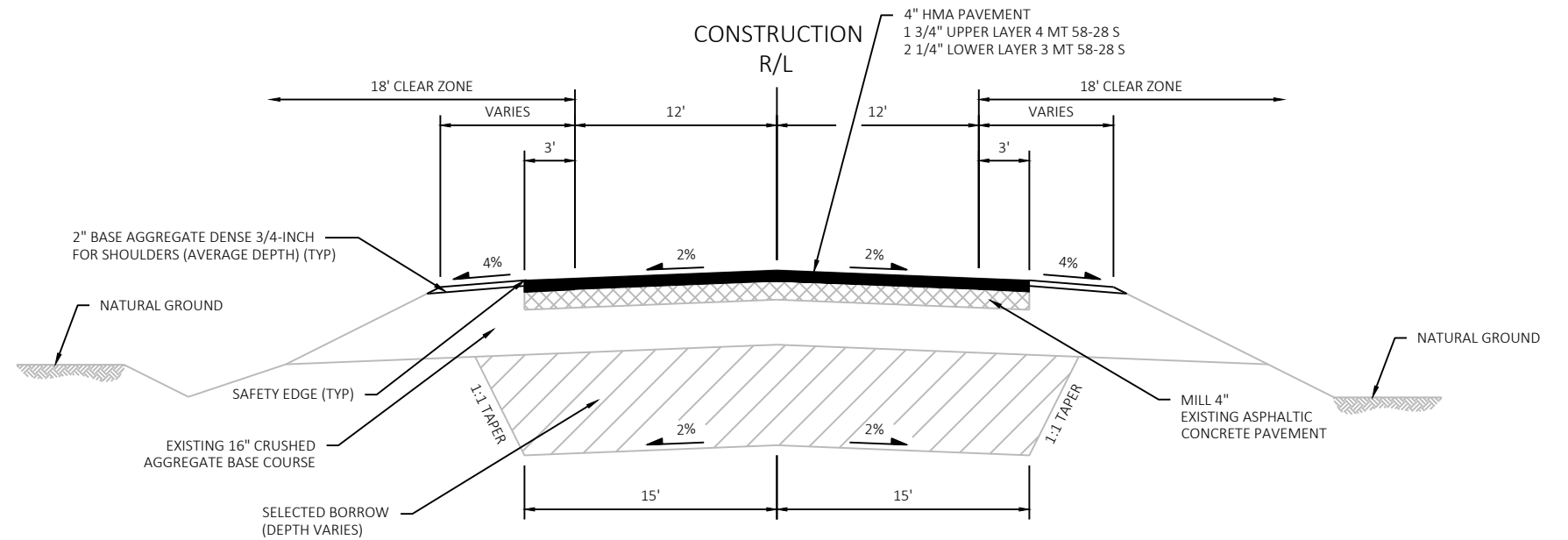


CONSTRUCTION



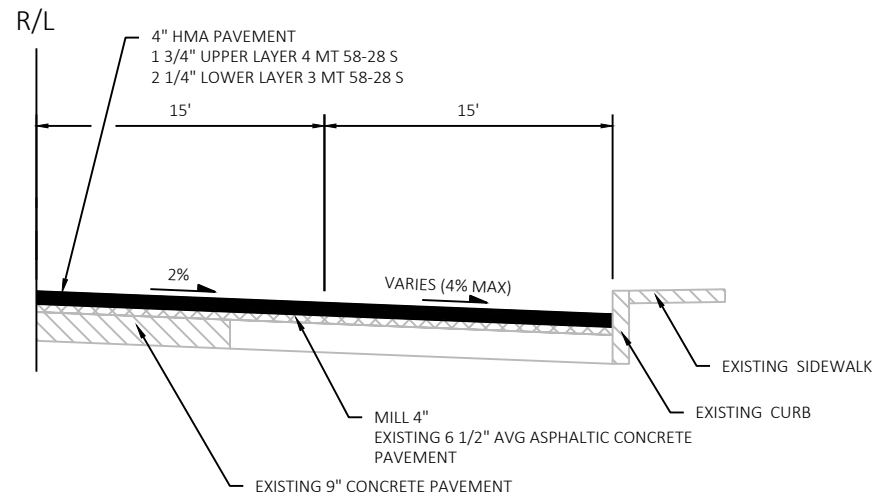
1/2 FINISHED TYPICAL SECTION STH 47 PARKING LANE  
STA 187+43 - STA 189+31 RT

CONSTRUCTION



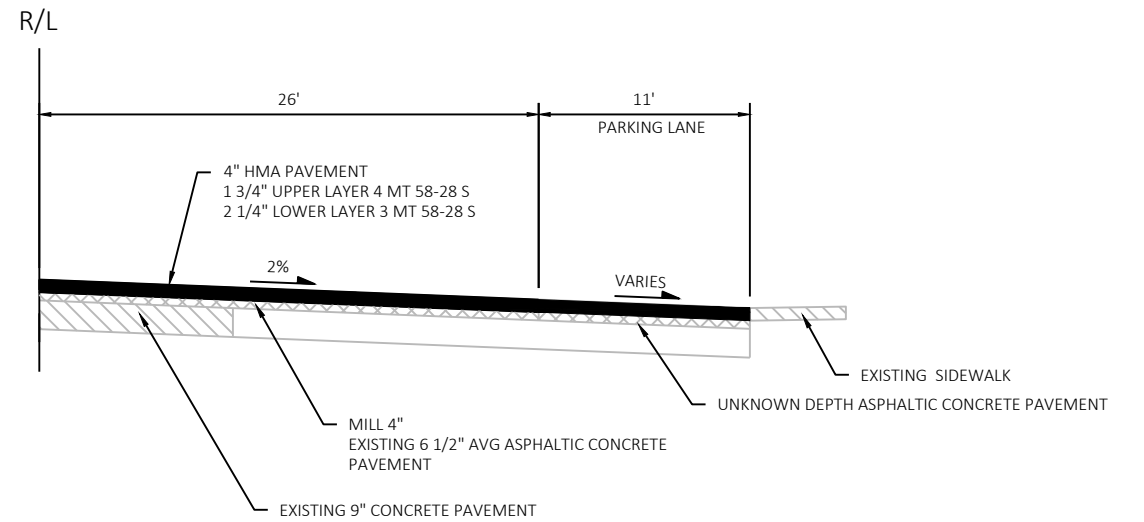
FINISHED TYPICAL SECTION STH 47  
STA 132+49  
STA 150+96  
STA 259+42

CONSTRUCTION

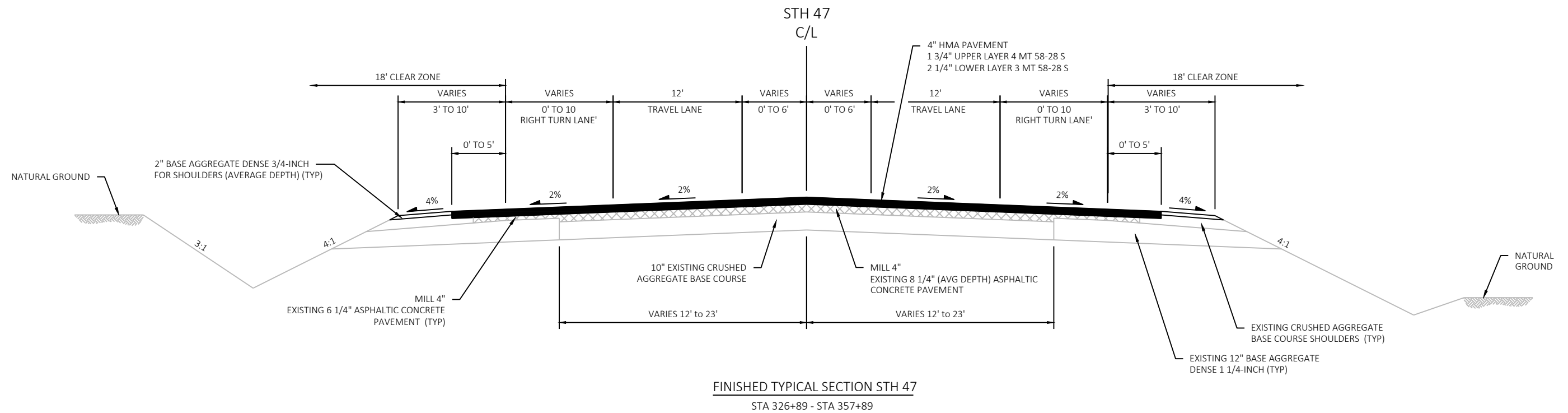
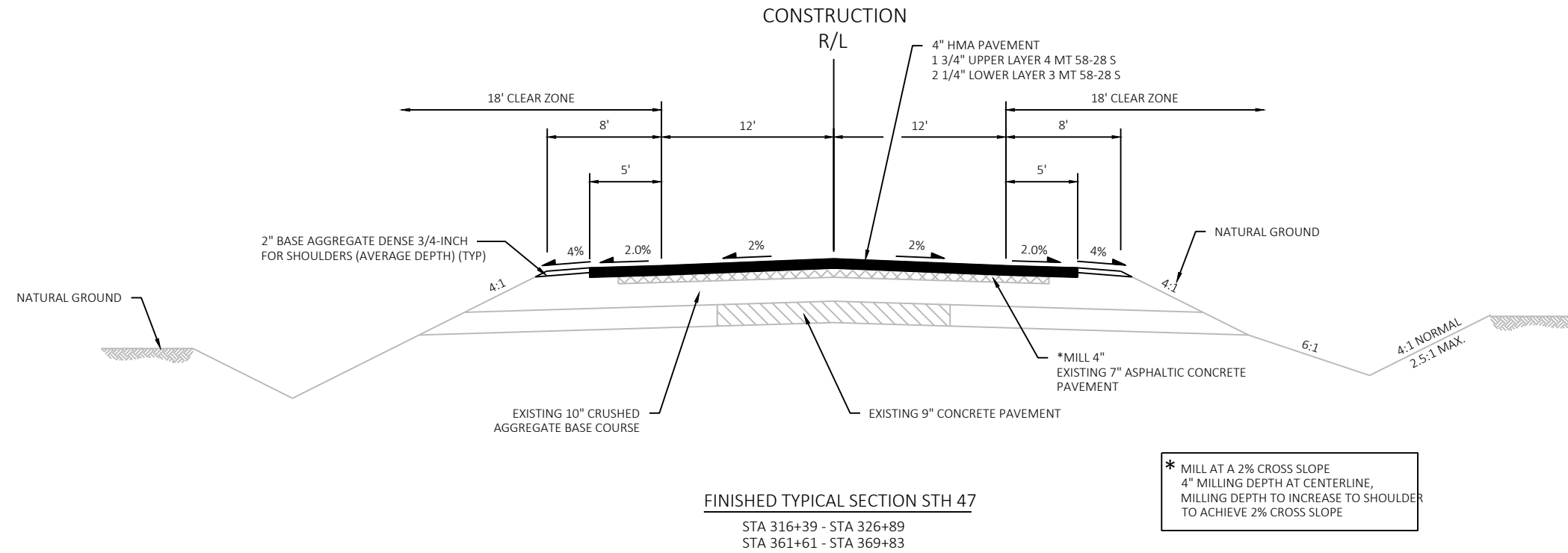


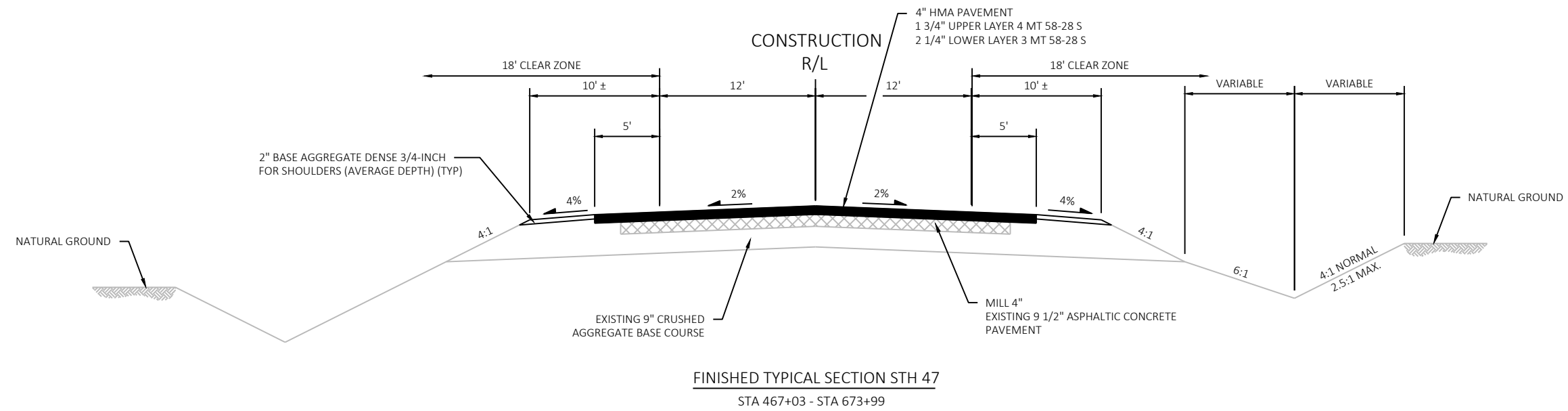
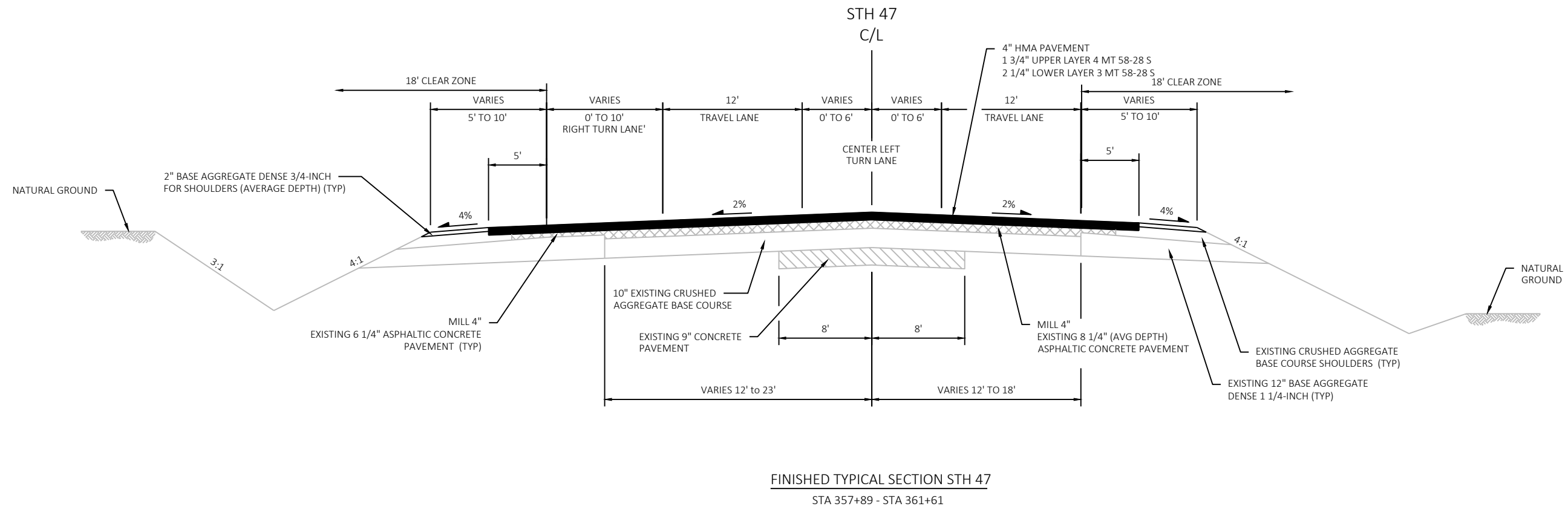
1/2 FINISHED TYPICAL SECTION STH 47 PARKING LANE  
STA 187+82 - STA 189+98 LT

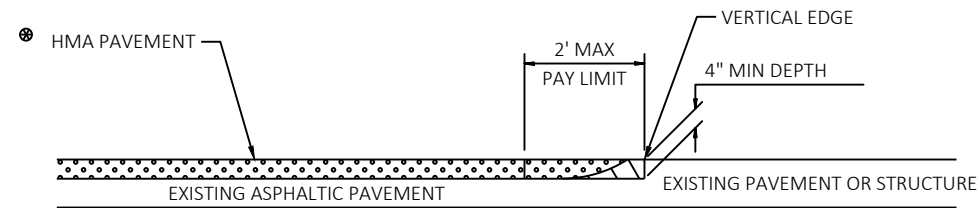
CONSTRUCTION



1/2 FINISHED TYPICAL SECTION STH 47  
STA 189+31 - STA 190+98 RT

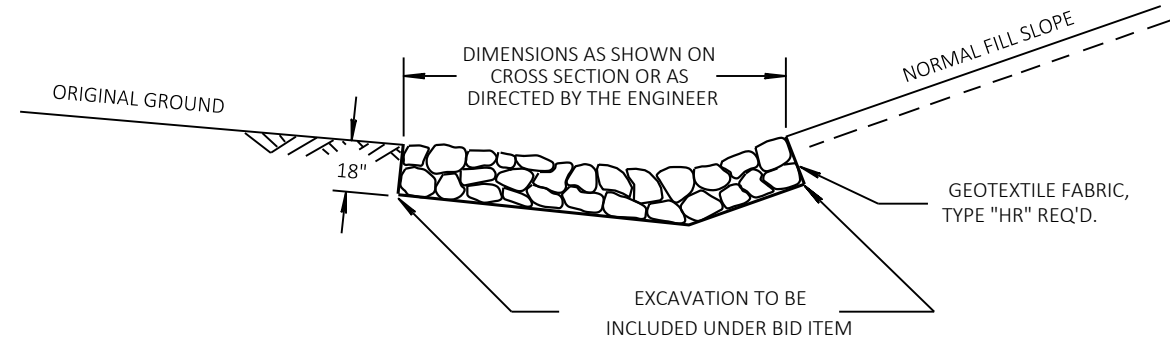




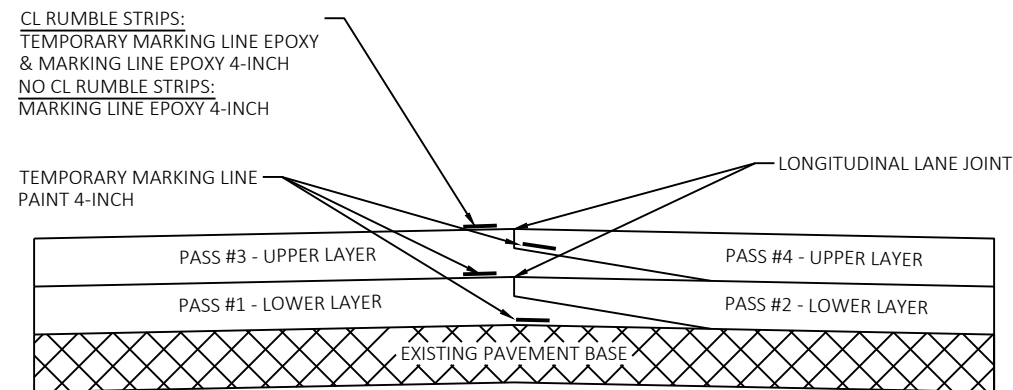


- ⊗ SEE TYPICAL CROSS SECTION FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS
- ⊗ REMOVING ASPHALTIC SURFACE, MILLING
- ⊗ REMOVE ASPHALTIC SURFACE WEDGE AT BUTT JOINT TO CREATE VERTICAL EDGE

BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS (NO PROFILE CHANGE)

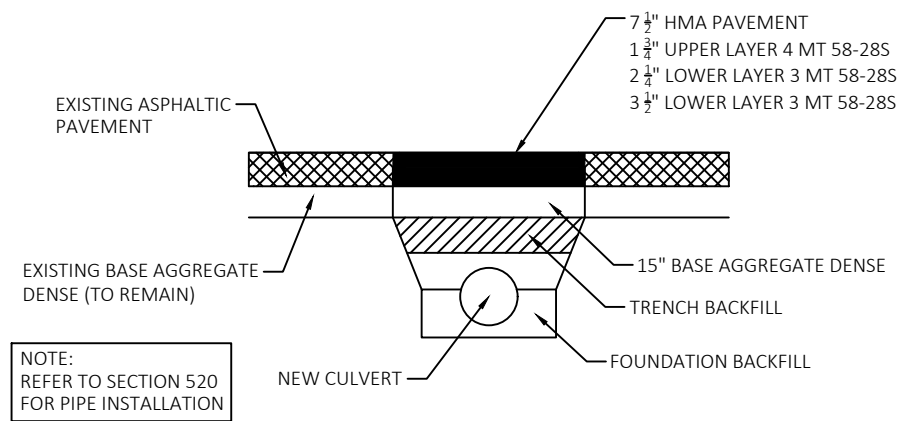


DETAIL FOR RIPRAP MEDIUM IN DITCHES



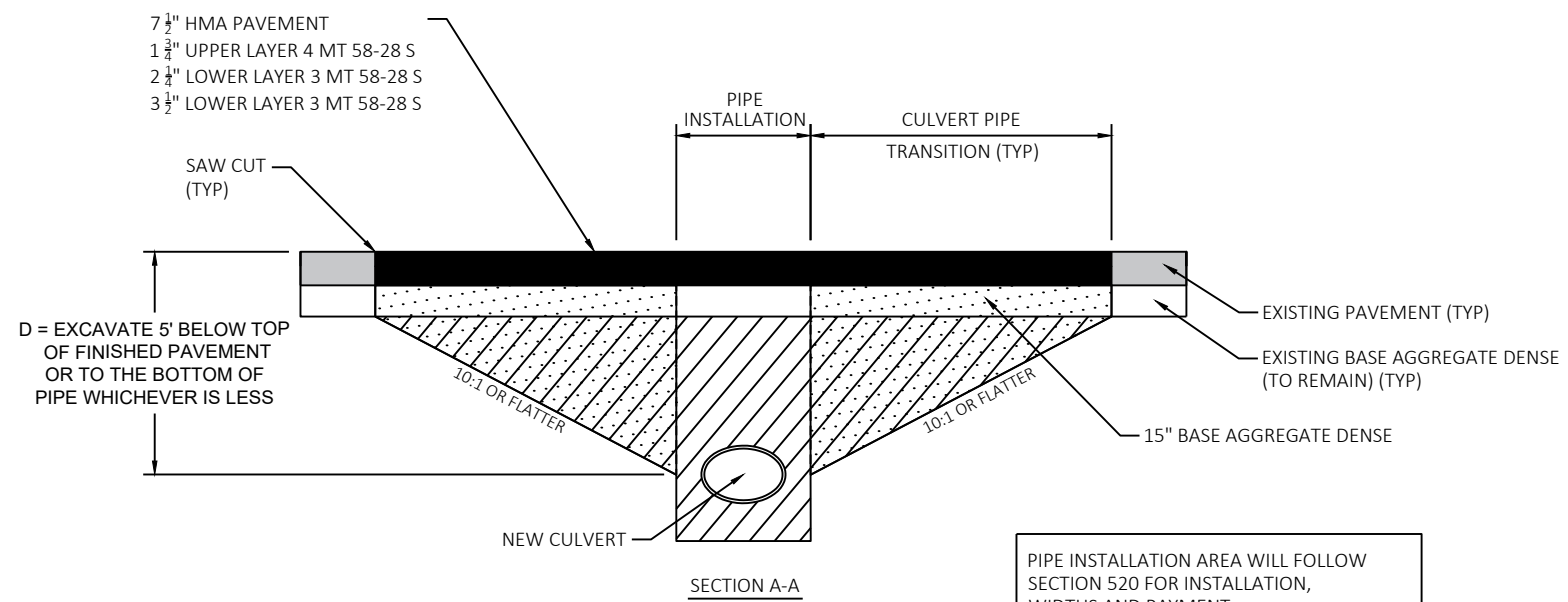
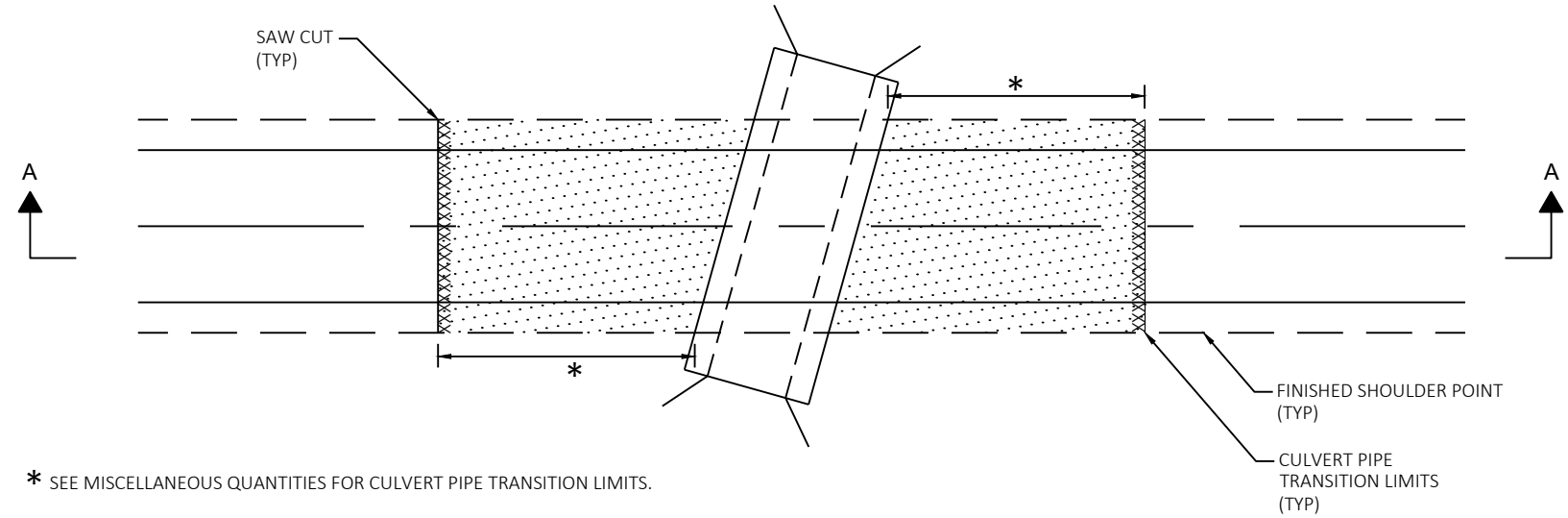
PAVEMENT MARKING DETAIL FOR JOINTS IN HMA PAVEMENTS

STA 100+00 TO 673+99.39



PAVEMENT AT CULVERT REPLACEMENTS

STA 474+75  
STA 496+37  
STA 601+80



COMMON EXCAVATION

FOUNDATION BACKFILL

PIPE INSTALLATION AREA WILL FOLLOW SECTION 520 FOR INSTALLATION, WIDTHS AND PAYMENT.

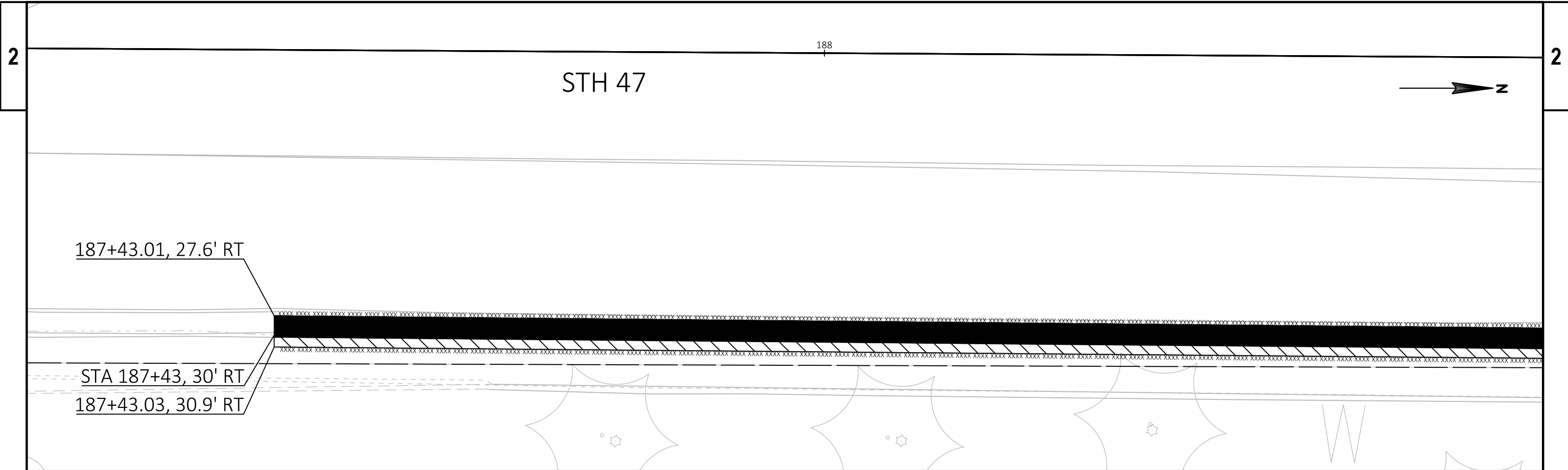
CONSTRUCT TRANSITION PERPENDICULAR TO CULVERT PIPE.

CULVERT PIPE TRANSITION AREAS WILL BE PAID BY SPV "FOUNDATION BACKFILL & COMMON EXCAVATION".


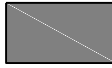

PAVEMENT SAW CUT TO BE PERPENDICULAR TO ROADWAY ALIGNMENT.

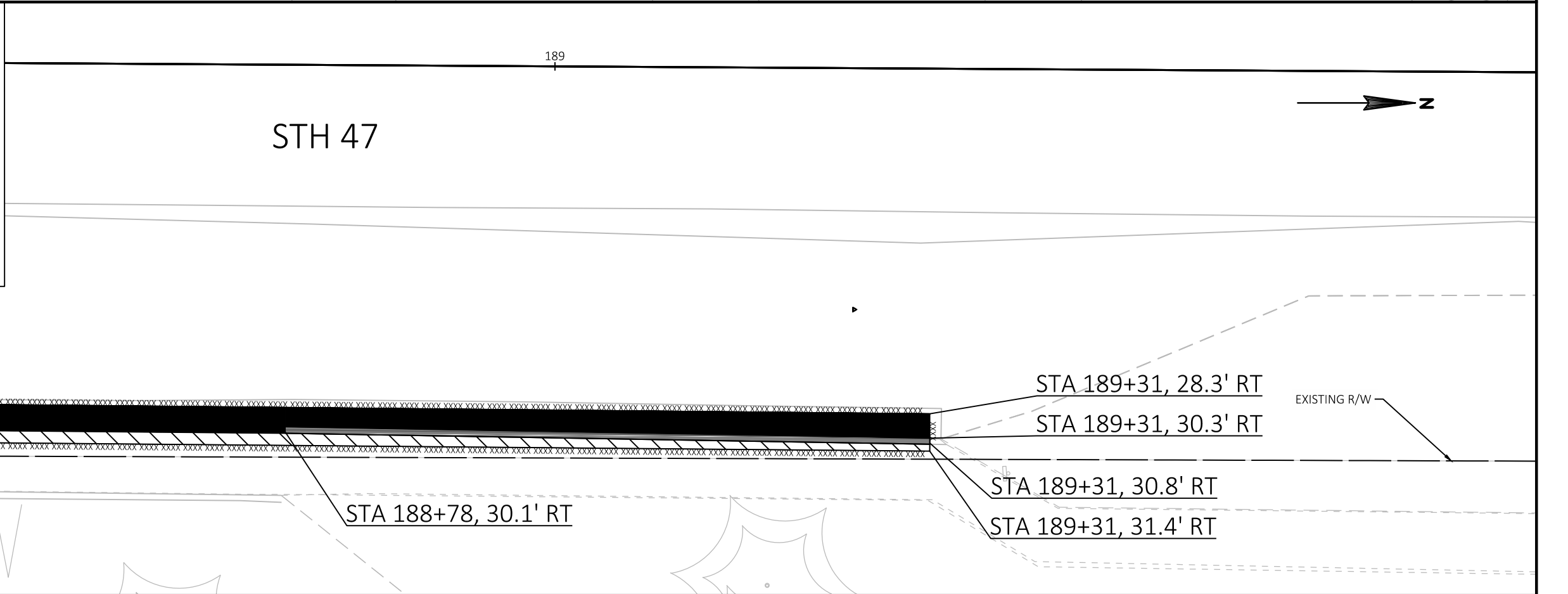
NEW CULVERT PIPES WITH TRANSITION

STA 132+49	STA 326+17
STA 191+82	STA 415+32
STA 201+50	STA 562+83
STA 238+18	STA 617+41

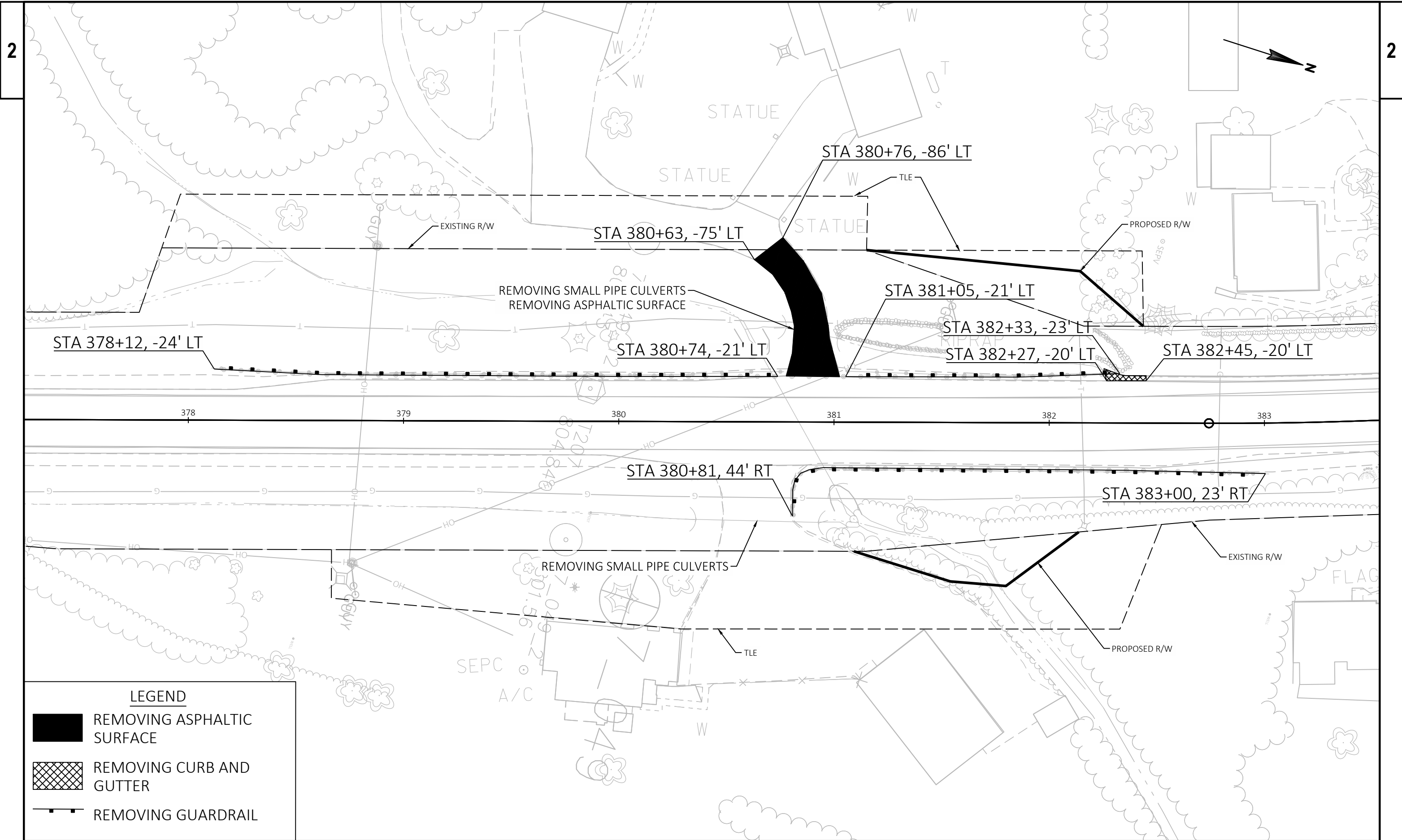


**LEGEND**




-  REMOVING ASPHALTIC SURFACE
-  REMOVING CONCRETE SIDEWALK
-  SAWCUT



PROJECT NO: 6240-22-71	HWY: STH 47	COUNTY: OUTAGAMIE	REMOVAL PLAN	SHEET	<b>E</b>
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**LEGEND**

-  REMOVING ASPHALTIC SURFACE
-  REMOVING CURB AND GUTTER
-  REMOVING GUARDRAIL

PROJECT NO: 6240-22-71

HWY: STH 47

COUNTY: OUTAGAMIE

REMOVAL PLAN

SHEET

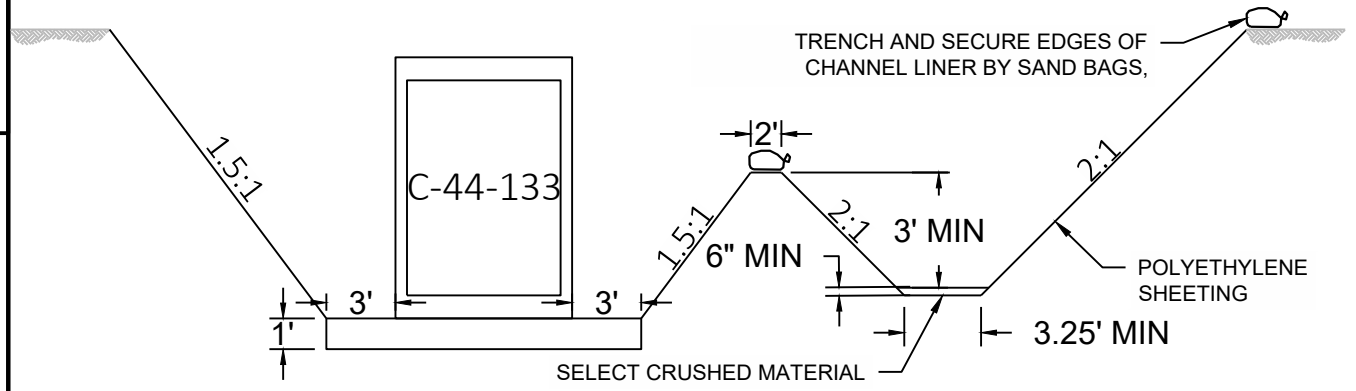
**E**

# TYPICAL SECTION OF TEMPORARY BYPASS CHANNEL

## NOTES

2

2



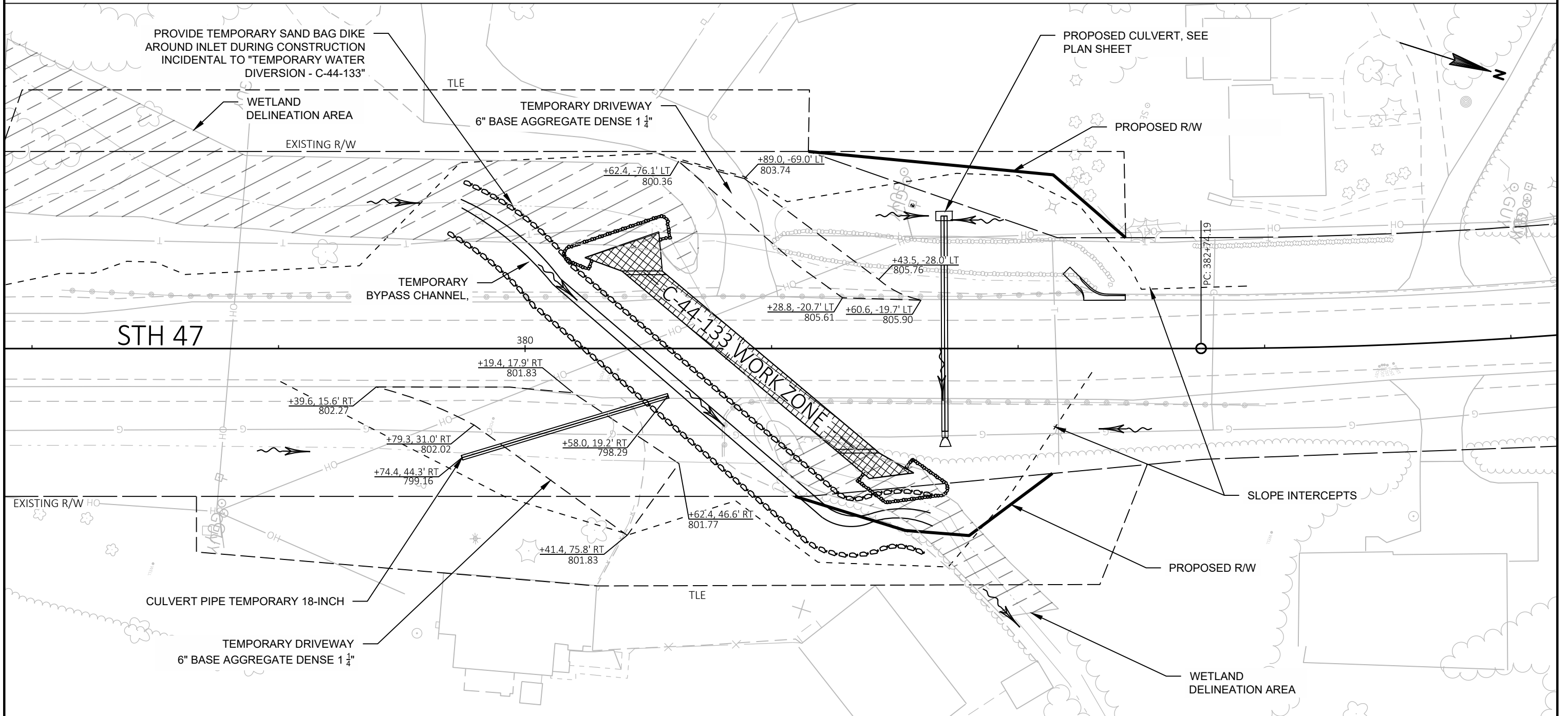
SAND BAGS, SELECT CRUSHED MATERIAL AND POLYETHYLENE SHEETING SHALL BE CONSIDERED INCIDENTAL TO ROADWAY ITEM "TEMPORARY WATER DIVERSION - C-44-133"

WORK FOR THE TEMPORARY BYPASS CHANNEL OR OTHER DIVERSION TECHNIQUES IMPLEMENTED WILL BE PAID UNDER "TEMPORARY WATER DIVERSION - C-44-133"

SUBMIT A WATER DIVERSION PLAN TO THE ENGINEER IF THE CONTRACTOR CHOOSES A DIFFERENT METHOD THAN WHAT IS SHOWN IN THE SCHEMATIC. THE TOP OF THE SANDBAGS IS SHOWN AT ELEVATION 798.29(±) WHICH IS THE STREAM ELEVATION RESULTING FROM A 2-YEAR RAINFALL EVENT PLUS 0.5-FOOT FREEBOARD. IT IS ASSUMED THE WORK ZONE WILL BE INUNDATED FOR RAINFALL EVENTS EXCEEDING 2 YEARS. THE CONTRACTOR MAY CHOOSE TO SET THE TOP OF THE SANDBAGS AT AN ELEVATION GREATER THAN 798.29(±) DEPENDING ON THEIR BEST PRACTICES AND AS THE DIRECTION OF THE ENGINEER.

C-44-133  
Q2 = 120 C.F.S.  
Q2 ELEV. = 797.79(±)





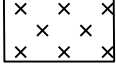
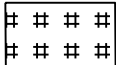

USE AVAILABLE EROSION CONTROL ITEMS IN THE CONTRACT TO IMPLEMENT ANY ADDITIONAL EROSION CONTROL ITEMS NECESSARY TO STABILIZE THE SITE DURING CONSTRUCTION OF THE BOX CULVERT AS APPROVED BY THE ENGINEER IN THE EICP.

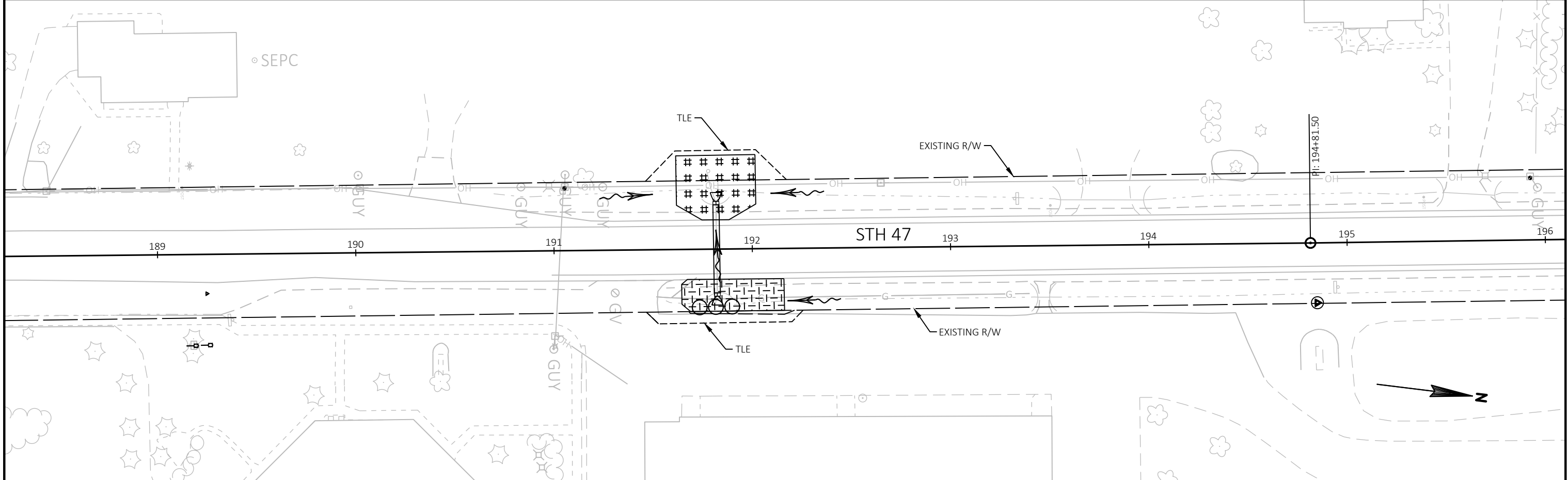
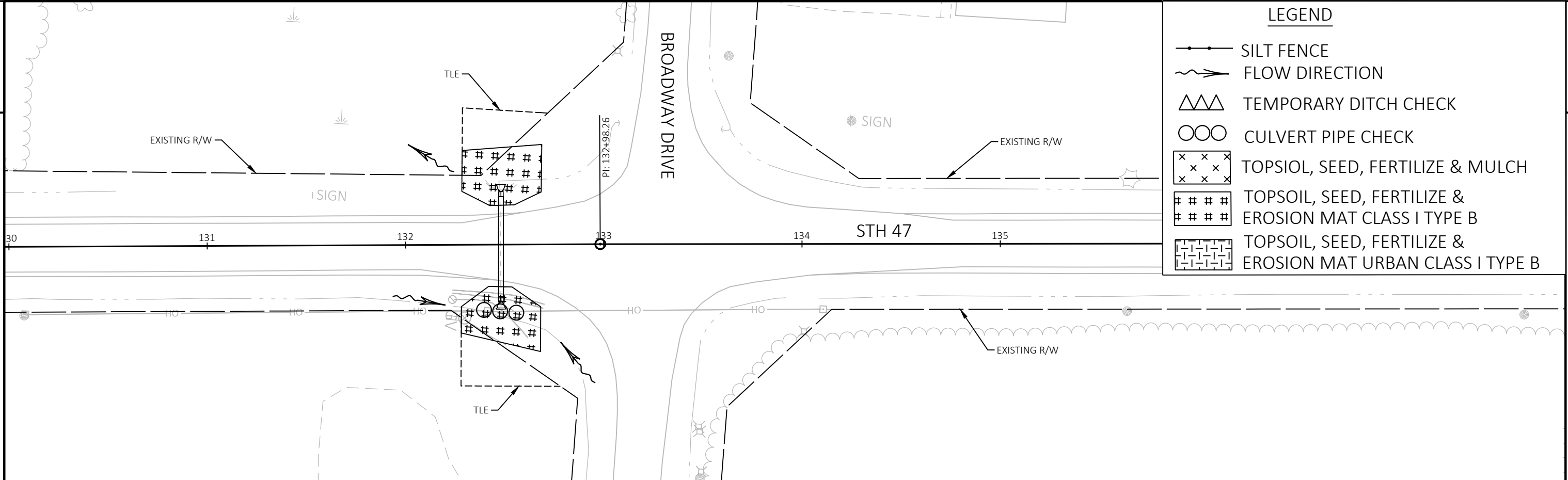


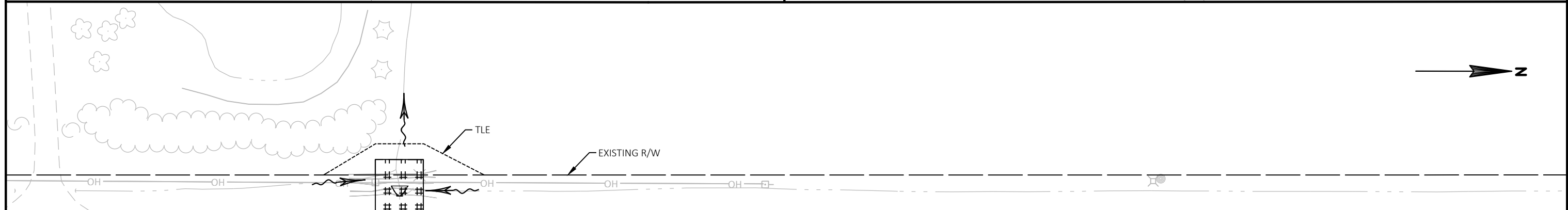
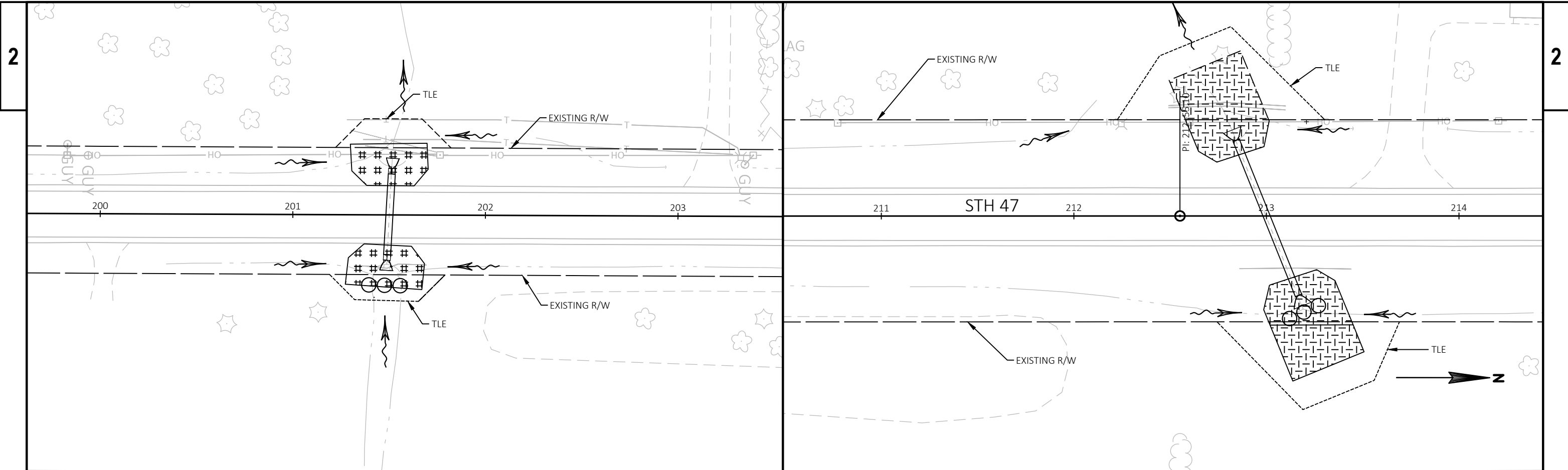
PROJECT NO: 6420-22-71	HWY: STH 47	COUNTY: OUTAGAMIE	PLAN DETAIL - BYPASS CHANNEL	SHEET	E
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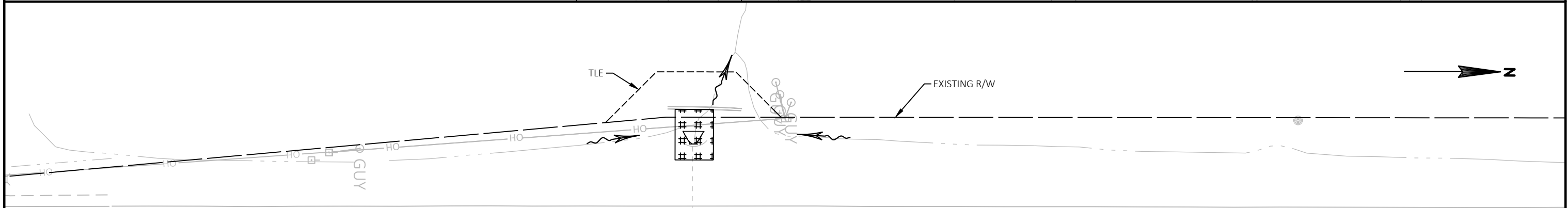
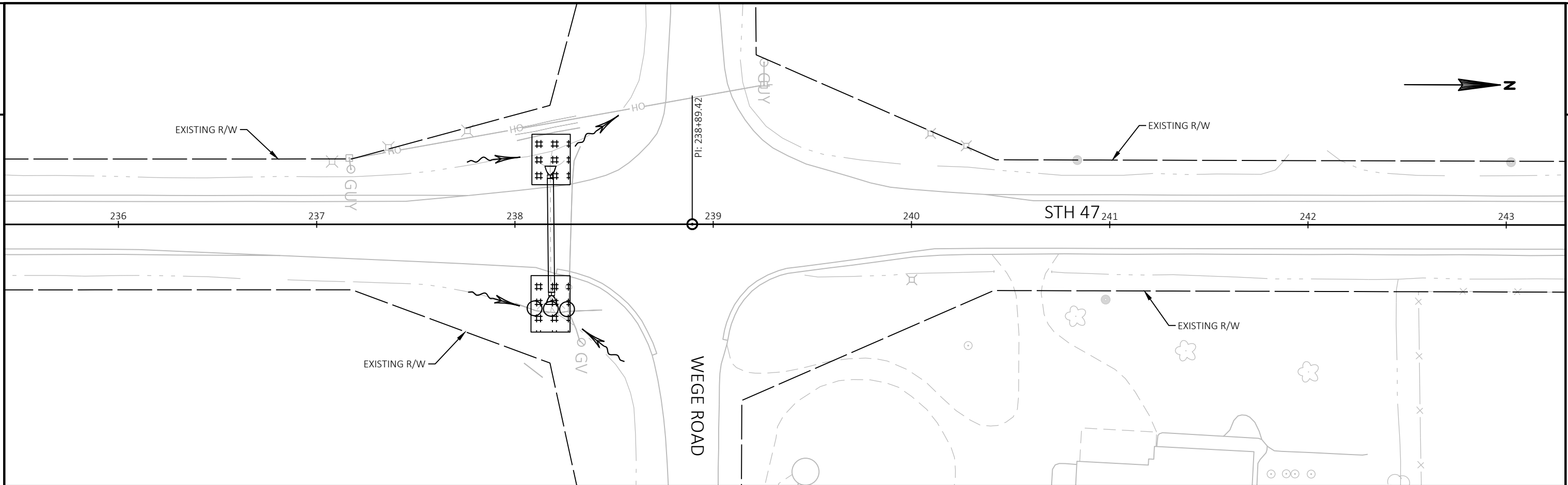
LEGEND

-  SILT FENCE
-  FLOW DIRECTION
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  TOPSOIL, SEED, FERTILIZE & MULCH
-  TOPSOIL, SEED, FERTILIZE & EROSION MAT CLASS I TYPE B
-  TOPSOIL, SEED, FERTILIZE & EROSION MAT URBAN CLASS I TYPE B





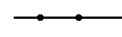
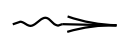

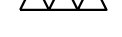

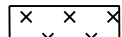
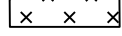
LEGEND	
	SILT FENCE
	FLOW DIRECTION
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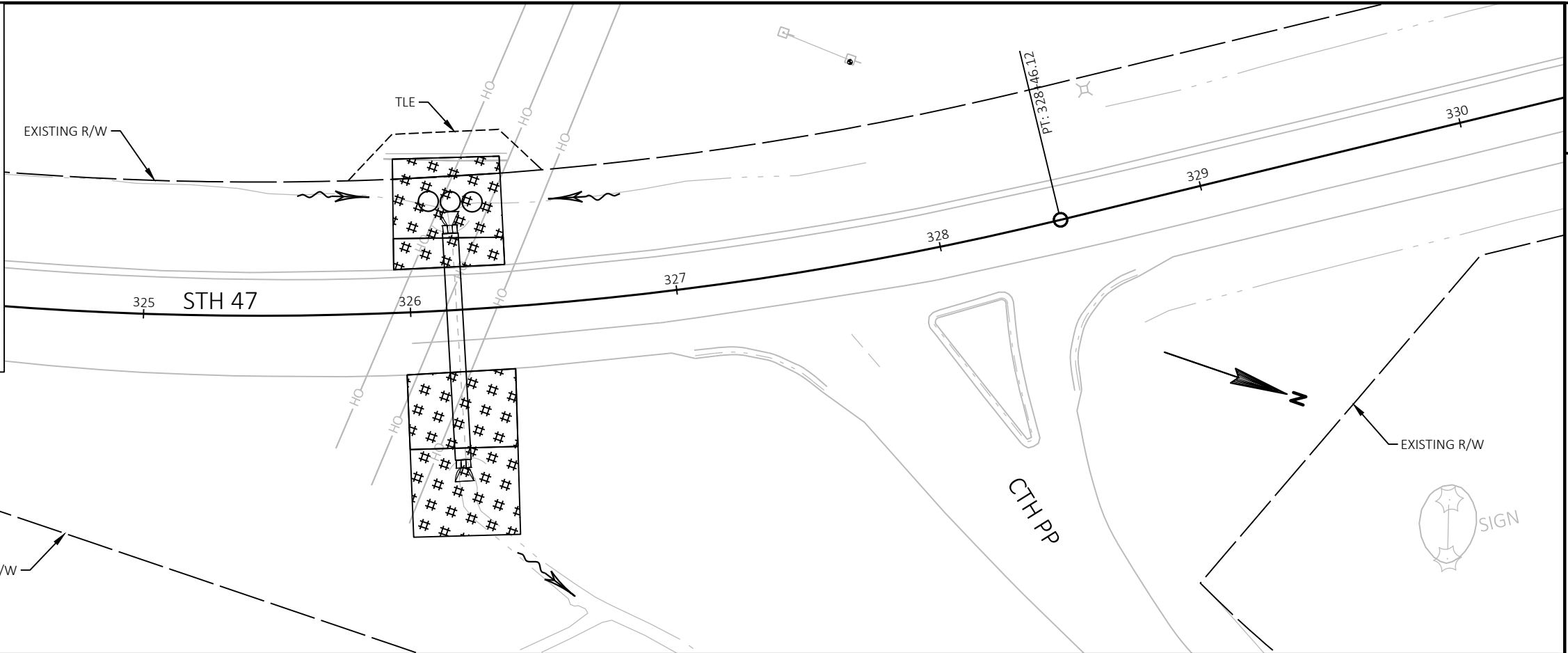


LEGEND	
	SILT FENCE
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	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
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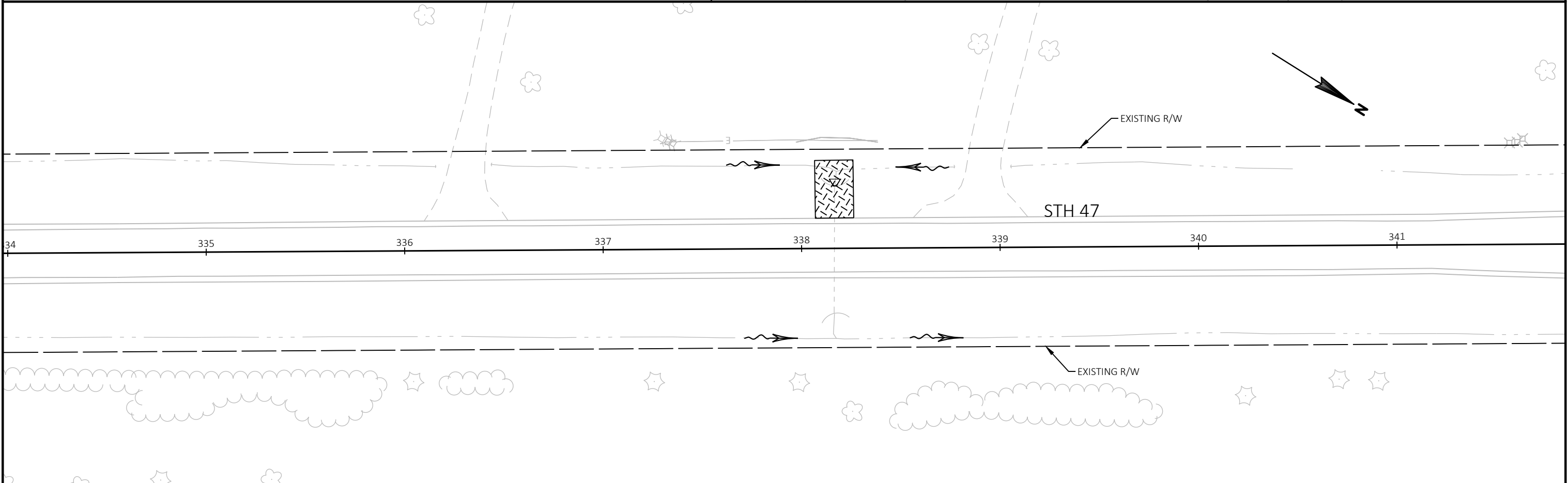
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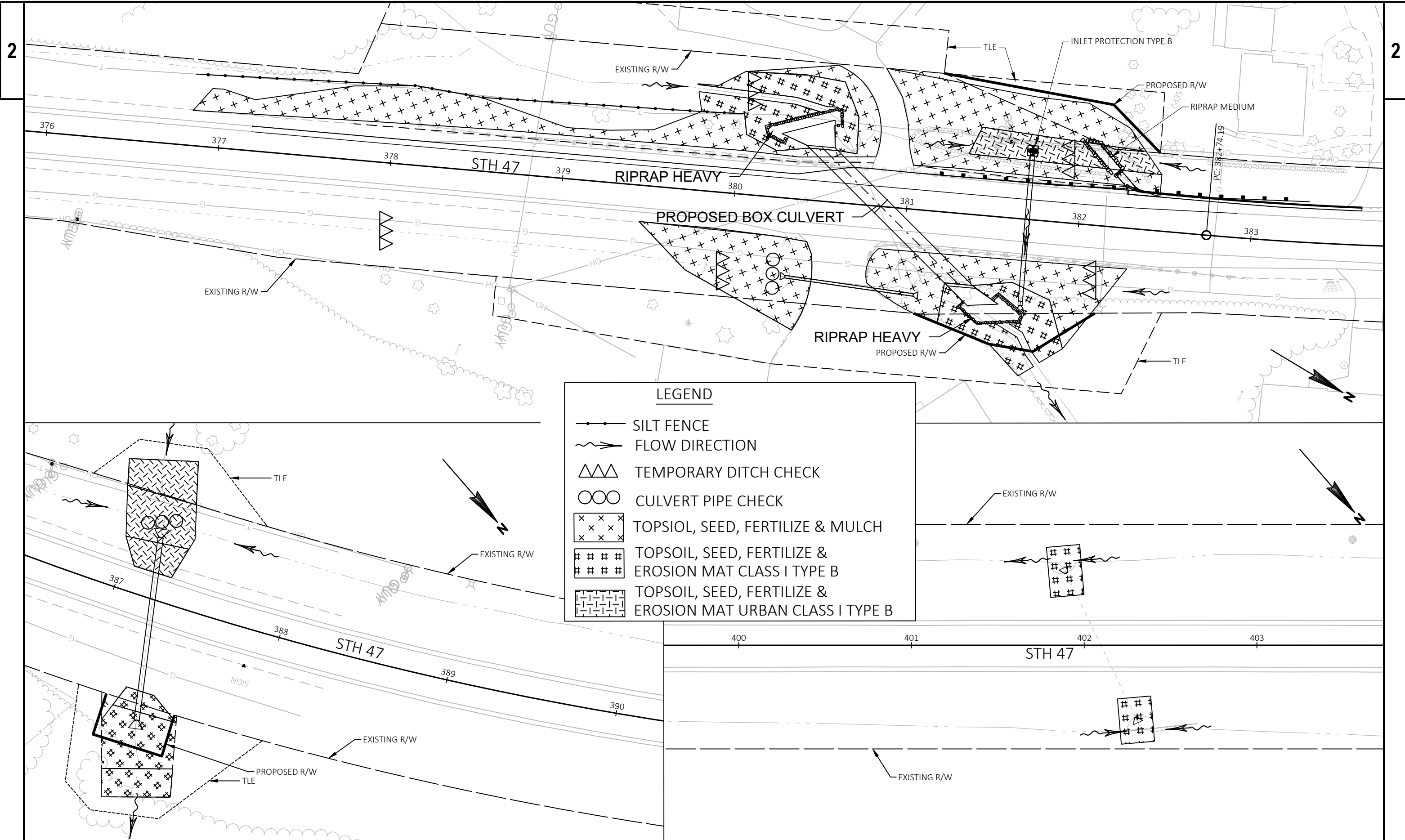
LEGEND

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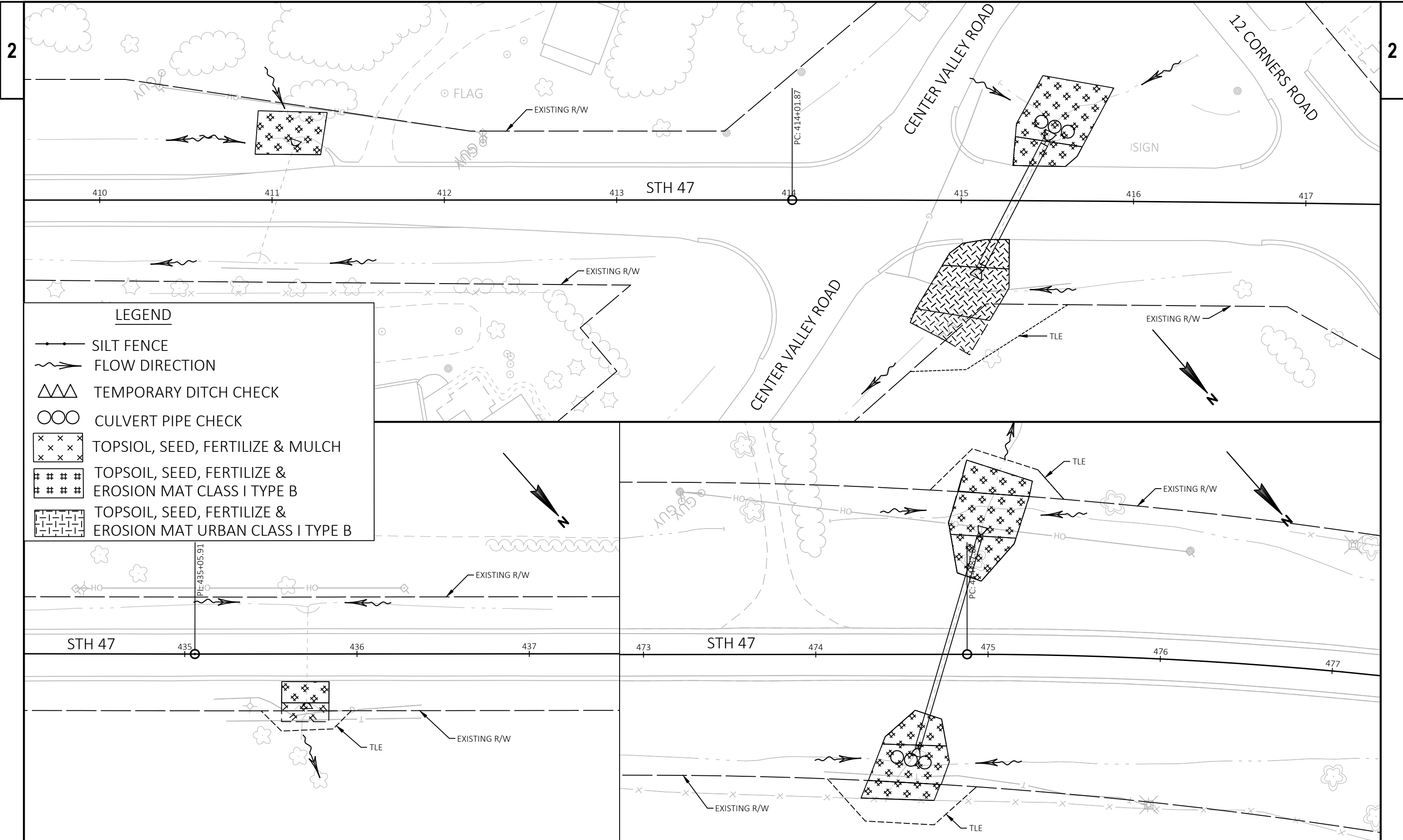
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**LEGEND**

	SILT FENCE
	FLOW DIRECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	TOPSOIL, SEED, FERTILIZE & MULCH
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PROJECT NO: 6240-22-71

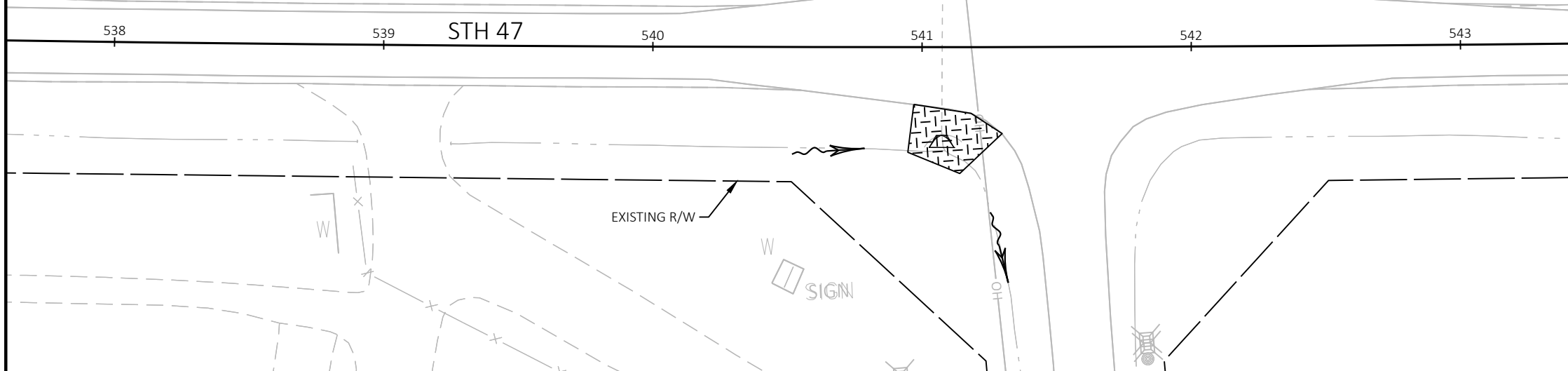
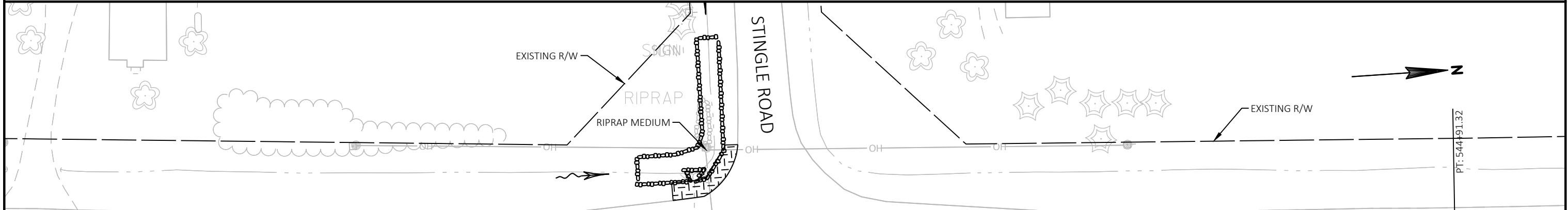
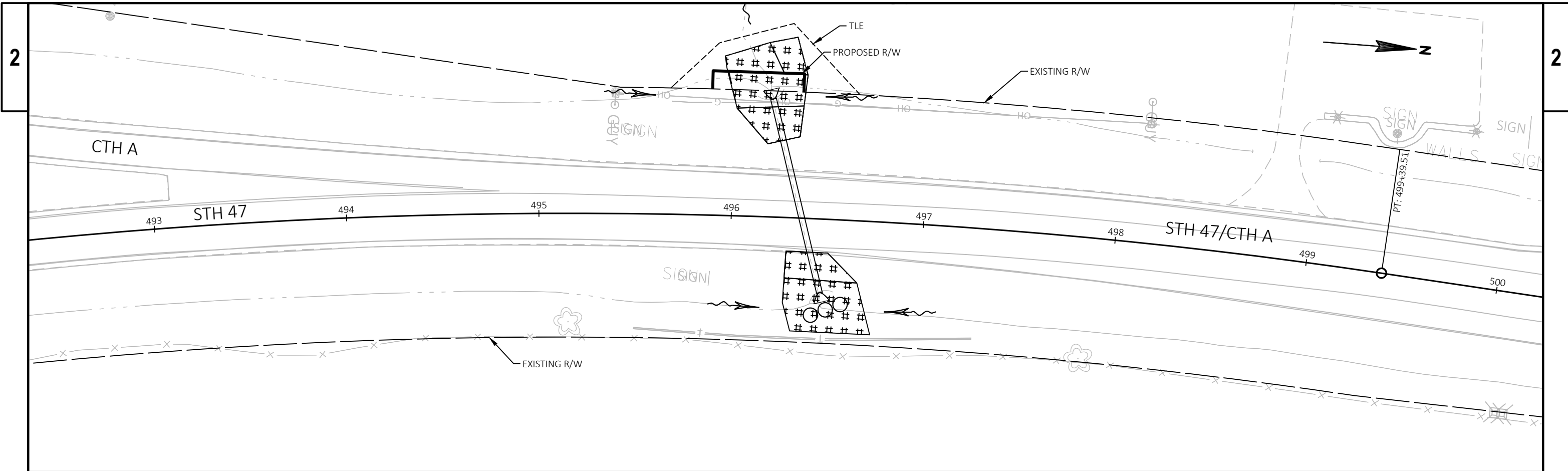
HWY: STH 47

COUNTY: OUTAGAMIE

EROSION CONTROL

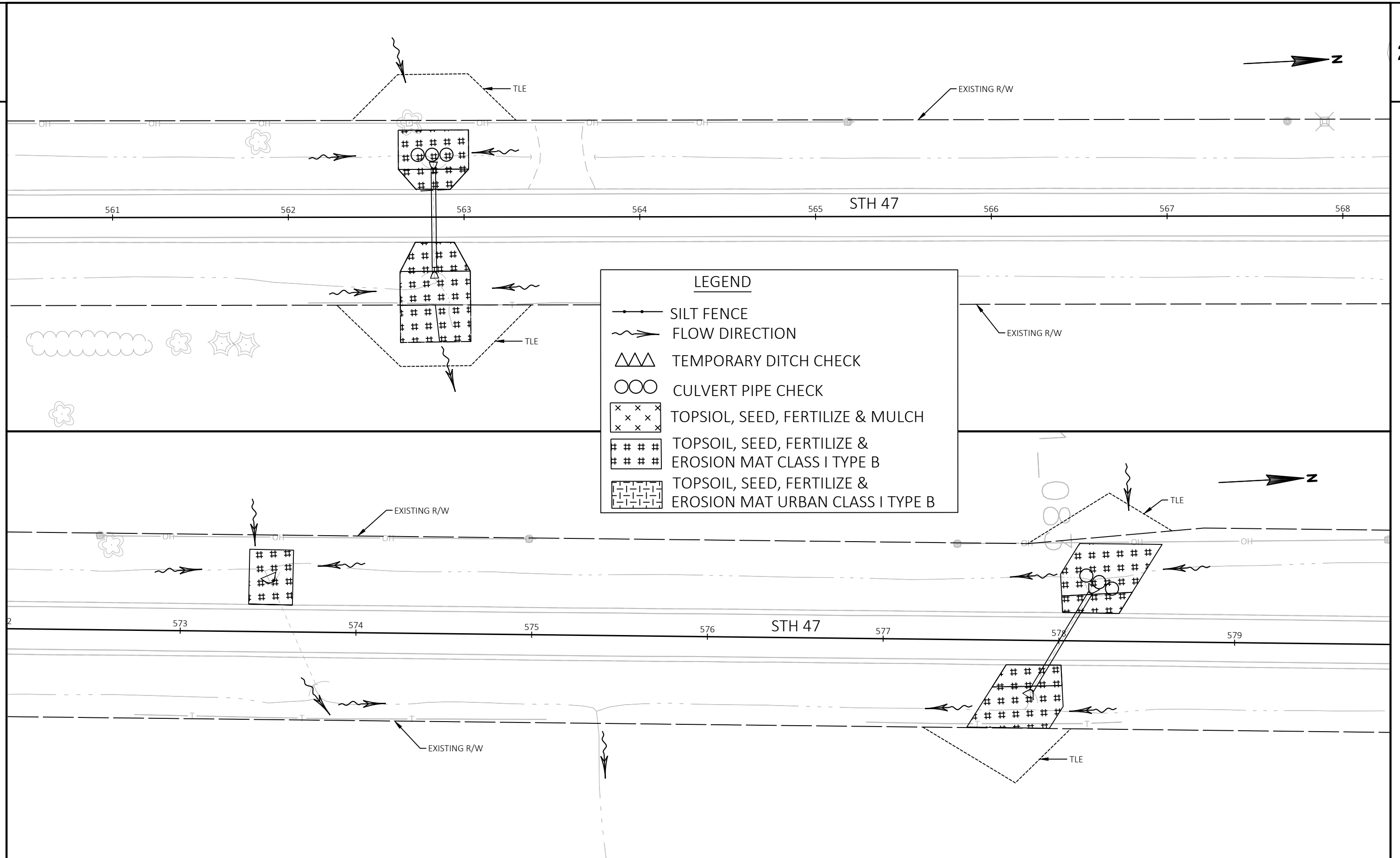
SHEET

E



LEGEND	
	SILT FENCE
	FLOW DIRECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	TOPSOIL, SEED, FERTILIZE & MULCH
	TOPSOIL, SEED, FERTILIZE & EROSION MAT CLASS I TYPE B
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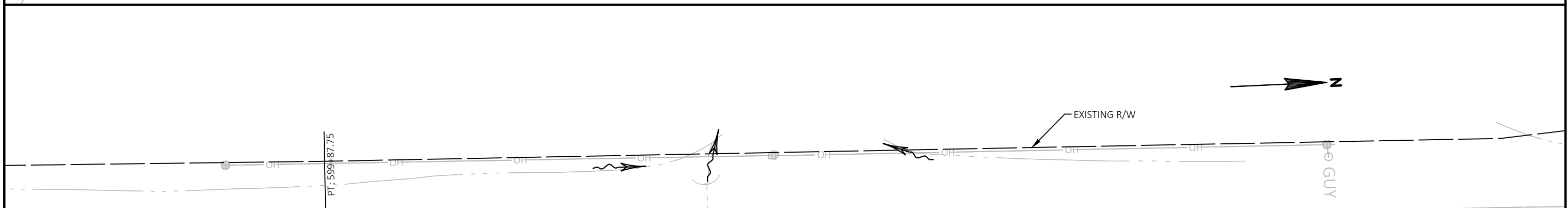
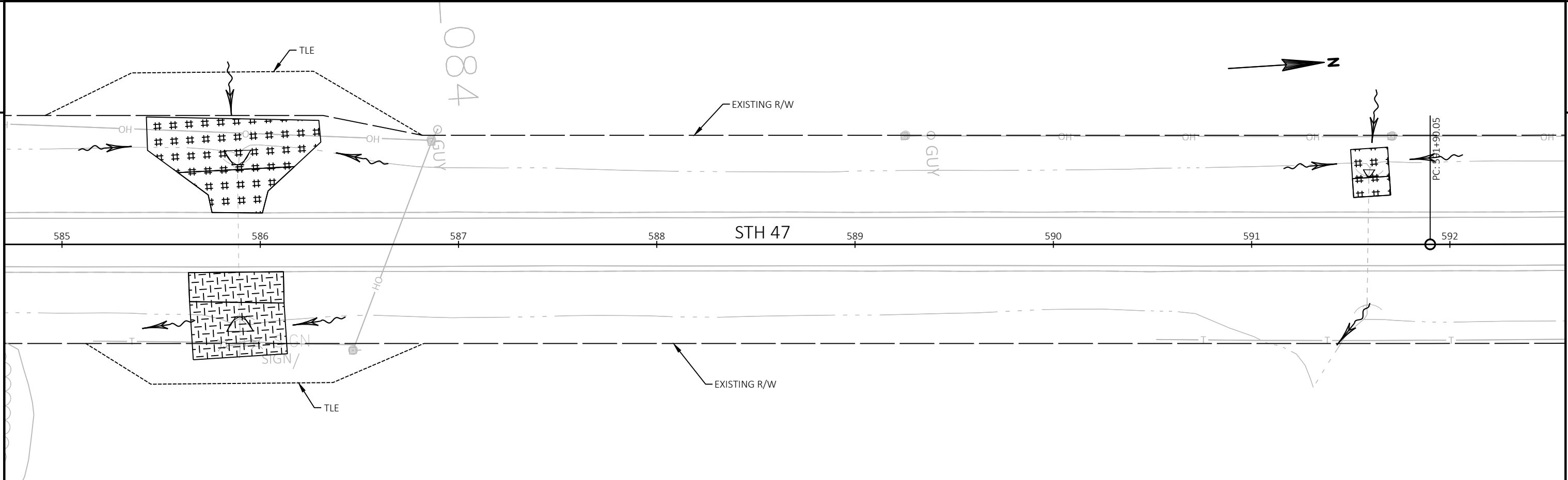
PROJECT NO: 6240-22-71	HWY: STH 47	COUNTY: OUTAGAMIE	EROSION CONTROL	SHEET	<b>E</b>
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**LEGEND**

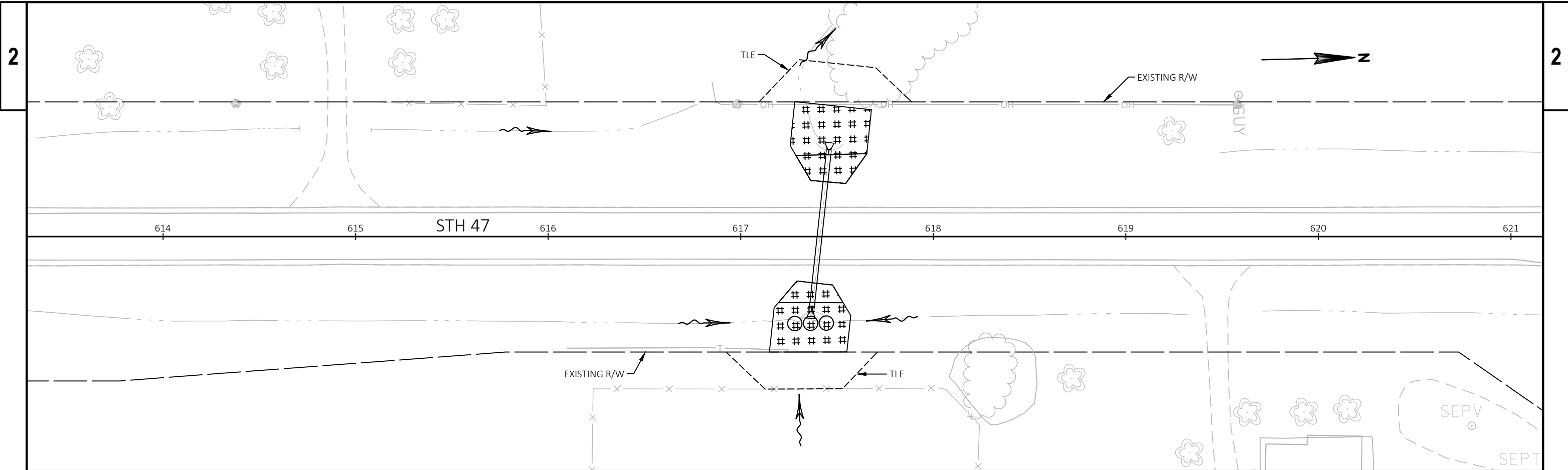
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**LEGEND**

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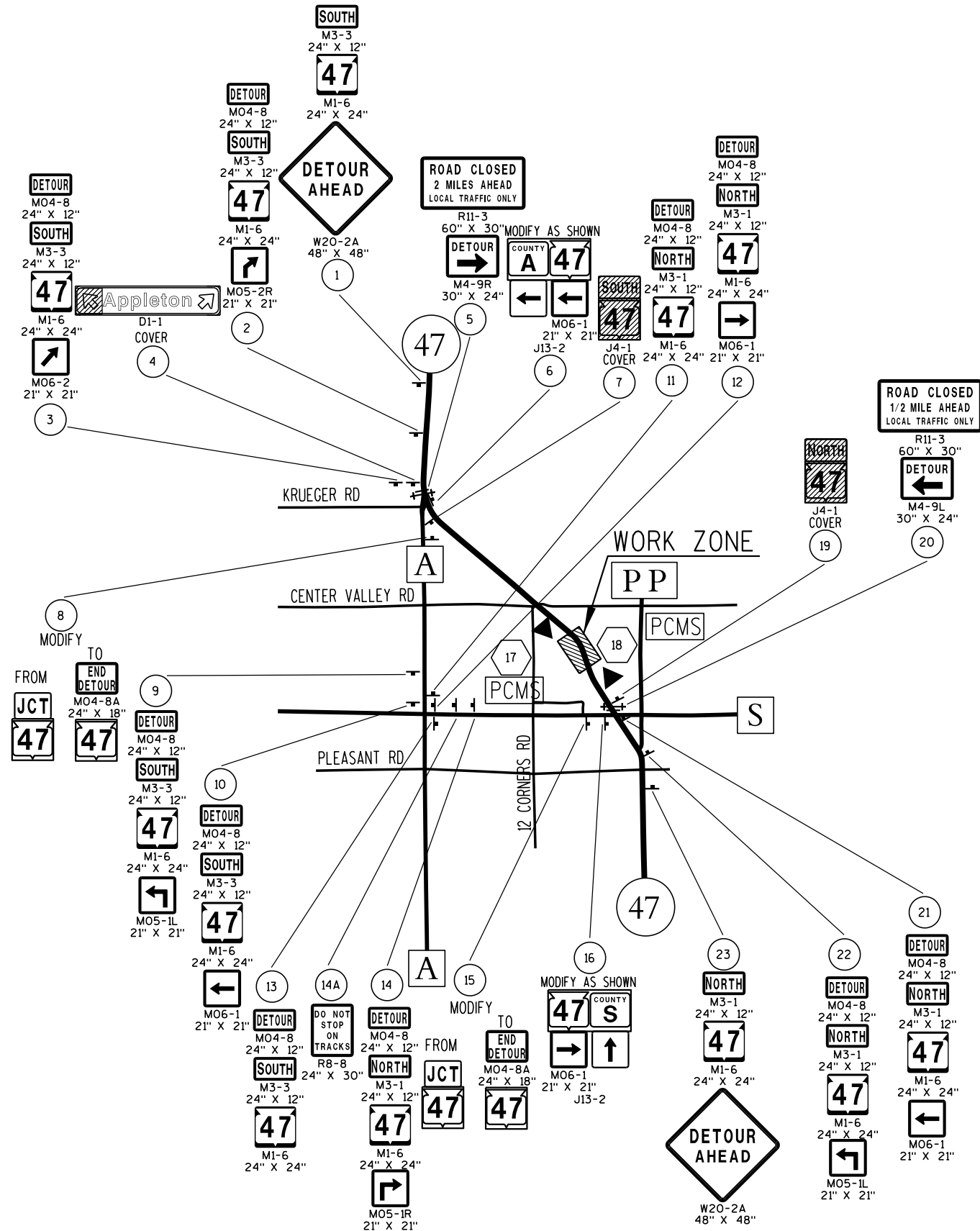
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LEGEND

- SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET
- PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN



PLAN SHEET PRODUCED BY WisDOT-NE REGION

Estimate Of Quantities

6240-22-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	9.000	9.000
0004	201.0205	Grubbing	STA	9.000	9.000
0006	203.0100	Removing Small Pipe Culverts	EACH	12.000	12.000
0008	203.0220	Removing Structure (structure) 01. 2x2 RC Box	EACH	1.000	1.000
0010	203.0220	Removing Structure (structure) 02. C-44-0095	EACH	1.000	1.000
0012	204.0100	Removing Concrete Pavement	SY	1,023.000	1,023.000
0014	204.0110	Removing Asphaltic Surface	SY	1,411.000	1,411.000
0016	204.0115	Removing Asphaltic Surface Butt Joints	SY	243.000	243.000
0018	204.0120	Removing Asphaltic Surface Milling	SY	216,075.000	216,075.000
0020	204.0130	Removing Curb	LF	53.000	53.000
0022	204.0150	Removing Curb & Gutter	LF	18.000	18.000
0024	204.0155	Removing Concrete Sidewalk	SY	21.000	21.000
0026	204.0165	Removing Guardrail	LF	622.000	622.000
0028	204.9060.S	Removing (item description) 01. Apron Endwalls	EACH	14.000	14.000
0030	205.0100	Excavation Common	CY	3,231.000	3,231.000
0032	206.2000	Excavation for Structures Culverts (structure) 01. C-44-133	LS	1.000	1.000
0034	210.2500	Backfill Structure Type B	TON	1,741.000	1,741.000
0036	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 6240-22-71	LS	1.000	1.000
0038	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	804.000	804.000
0040	213.0100	Finishing Roadway (project) 01. 6240-22-71	EACH	1.000	1.000
0042	305.0110	Base Aggregate Dense 3/4-Inch	TON	6,134.000	6,134.000
0044	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,711.000	2,711.000
0046	311.0115	Breaker Run	CY	96.000	96.000
0048	390.0201	Base Patching Asphaltic	TON	16.000	16.000
0050	450.4000	HMA Cold Weather Paving	TON	3,400.000	3,400.000
0052	455.0605	Tack Coat	GAL	28,406.000	28,406.000
0054	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	2.000	2.000
0056	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0058	460.2005	Incentive Density PWL HMA Pavement	DOL	36,700.000	36,700.000
0060	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	45,920.000	45,920.000
0062	460.2010	Incentive Air Voids HMA Pavement	DOL	55,750.000	55,750.000
0064	460.6223	HMA Pavement 3 MT 58-28 S	TON	32,537.000	32,537.000
0066	460.6224	HMA Pavement 4 MT 58-28 S	TON	23,170.000	23,170.000
0068	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	182.000	182.000
0070	465.0315	Asphaltic Flumes	SY	7.000	7.000
0072	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	76,973.000	76,973.000
0074	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	38,689.000	38,689.000
0076	504.0100	Concrete Masonry Culverts	CY	145.000	145.000
0078	505.0400	Bar Steel Reinforcement HS Structures	LB	25,160.000	25,160.000
0080	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	1,580.000	1,580.000
0082	516.0500	Rubberized Membrane Waterproofing	SY	27.000	27.000
0084	520.2018	Culvert Pipe Temporary 18-Inch	LF	88.000	88.000
0086	520.9700.S	Culvert Pipe Liners (size) 01. 30-Inch	LF	66.000	66.000
0088	520.9700.S	Culvert Pipe Liners (size) 02. 36-Inch	LF	107.000	107.000
0090	520.9700.S	Culvert Pipe Liners (size) 03. 42-Inch	LF	88.000	88.000
0092	520.9750.S	Cleaning Culvert Pipes for Liner Verification	EACH	3.000	3.000
0094	521.0336	Apron Endwalls for Culvert Pipe Sloped Cross Drains Steel 36-Inch 4 to 1	EACH	2.000	2.000
0096	521.0535	Apron Endwalls for Pipe Arch Sloped Cross Drains Steel 35x24-Inch 4 to 1	EACH	1.000	1.000
0098	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	2.000	2.000

Estimate Of Quantities

6240-22-71

Line	Item	Item Description	Unit	Total	Qty
0100	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	6.000	6.000
0102	521.1036	Apron Endwalls for Culvert Pipe Steel 36-Inch	EACH	2.000	2.000
0104	521.1042	Apron Endwalls for Culvert Pipe Steel 42-Inch	EACH	2.000	2.000
0106	521.1048	Apron Endwalls for Culvert Pipe Steel 48-Inch	EACH	1.000	1.000
0108	521.1072	Apron Endwalls for Culvert Pipe Steel 72-Inch	EACH	2.000	2.000
0110	521.1235	Apron Endwalls for Pipe Arch Steel 35x24-Inch	EACH	1.000	1.000
0112	521.1249	Apron Endwalls for Pipe Arch Steel 49x33-Inch	EACH	3.000	3.000
0114	521.3118	Culvert Pipe Corrugated Steel 18-Inch	LF	75.000	75.000
0116	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	361.000	361.000
0118	522.0130	Culvert Pipe Reinforced Concrete Class III 30-Inch	LF	245.000	245.000
0120	522.0136	Culvert Pipe Reinforced Concrete Class III 36-Inch	LF	155.000	155.000
0122	522.0142	Culvert Pipe Reinforced Concrete Class III 42-Inch	LF	86.000	86.000
0124	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	9.000	9.000
0126	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	6.000	6.000
0128	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	4.000	4.000
0130	522.1042	Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch	EACH	2.000	2.000
0132	522.2338	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 38x60-Inch	LF	85.000	85.000
0134	522.2638	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 38x60-Inch	EACH	2.000	2.000
0136	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	18.000	18.000
0138	601.0576	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type J	LF	188.000	188.000
0140	602.0405	Concrete Sidewalk 4-Inch	SF	188.000	188.000
0142	606.0200	Riprap Medium	CY	83.000	83.000
0144	606.0300	Riprap Heavy	CY	44.000	44.000
0146	611.0642	Inlet Covers Type MS	EACH	1.000	1.000
0148	611.3902	Inlets Median 2 Grate	EACH	1.000	1.000
0150	618.0100	Maintenance And Repair of Haul Roads (project) 01. 6240-22-71	EACH	1.000	1.000
0152	619.1000	Mobilization	EACH	1.000	1.000
0154	624.0100	Water	MGAL	129.400	129.400
0156	625.0100	Topsoil	SY	10,490.000	10,490.000
0158	627.0200	Mulching	SY	2,420.000	2,420.000
0160	628.1504	Silt Fence	LF	400.000	400.000
0162	628.1520	Silt Fence Maintenance	LF	400.000	400.000
0164	628.1905	Mobilizations Erosion Control	EACH	12.000	12.000
0166	628.1910	Mobilizations Emergency Erosion Control	EACH	7.000	7.000
0168	628.2004	Erosion Mat Class I Type B	SY	6,160.000	6,160.000
0170	628.2008	Erosion Mat Urban Class I Type B	SY	1,915.000	1,915.000
0172	628.7010	Inlet Protection Type B	EACH	1.000	1.000
0174	628.7504	Temporary Ditch Checks	LF	155.000	155.000
0176	628.7555	Culvert Pipe Checks	EACH	115.000	115.000
0178	629.0210	Fertilizer Type B	CWT	6.800	6.800
0180	630.0110	Seeding Mixture No. 10	LB	150.000	150.000
0182	630.0500	Seed Water	MGAL	190.000	190.000
0184	633.5200	Markers Culvert End	EACH	52.000	52.000
0186	642.5001	Field Office Type B	EACH	1.000	1.000
0188	643.0300	Traffic Control Drums	DAY	70.000	70.000
0190	643.0420	Traffic Control Barricades Type III	DAY	146.000	146.000
0192	643.0705	Traffic Control Warning Lights Type A	DAY	292.000	292.000
0194	643.0900	Traffic Control Signs	DAY	11,241.000	11,241.000
0196	643.0920	Traffic Control Covering Signs Type II	EACH	3.000	3.000

Estimate Of Quantities

6240-22-71

Line	Item	Item Description	Unit	Total	Qty
0198	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
0200	643.5000	Traffic Control	EACH	1.000	1.000
0202	645.0105	Geotextile Type C	SY	310.000	310.000
0204	645.0120	Geotextile Type HR	SY	266.000	266.000
0206	646.1020	Marking Line Epoxy 4-Inch	LF	62,854.000	62,854.000
0208	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	111,267.000	111,267.000
0210	646.3020	Marking Line Epoxy 8-Inch	LF	780.000	780.000
0212	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	1,831.000	1,831.000
0214	646.5020	Marking Arrow Epoxy	EACH	8.000	8.000
0216	646.5120	Marking Word Epoxy	EACH	6.000	6.000
0218	646.6120	Marking Stop Line Epoxy 18-Inch	LF	87.000	87.000
0220	646.7120	Marking Diagonal Epoxy 12-Inch	LF	209.000	209.000
0222	646.8120	Marking Curb Epoxy	LF	314.000	314.000
0224	646.8320	Marking Parking Stall Epoxy	LF	200.000	200.000
0226	648.0100	Locating No-Passing Zones	MI	10.870	10.870
0228	649.0105	Temporary Marking Line Paint 4-Inch	LF	165,078.000	165,078.000
0230	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	45,971.000	45,971.000
0232	650.5000	Construction Staking Base	LF	59,242.000	59,242.000
0234	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	206.000	206.000
0236	650.6000	Construction Staking Pipe Culverts	EACH	25.000	25.000
0238	650.6500	Construction Staking Structure Layout (structure) 01. C-44-133	LS	1.000	1.000
0240	650.8000	Construction Staking Resurfacing Reference	LF	59,242.000	59,242.000
0242	650.9910	Construction Staking Supplemental Control (project) 01. 6240-22-71	LS	1.000	1.000
0244	650.9920	Construction Staking Slope Stakes	LF	552.000	552.000
0246	690.0150	Sawing Asphalt	LF	1,701.000	1,701.000
0248	690.0250	Sawing Concrete	LF	608.000	608.000
0250	715.0502	Incentive Strength Concrete Structures	DOL	870.000	870.000
0252	740.0440	Incentive IRI Ride	DOL	86,968.000	86,968.000
0254	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,000.000	2,000.000
0256	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,320.000	1,320.000
0258	SPV.0035	Special 01. Foundation Backfill	CY	1,481.000	1,481.000
0260	SPV.0060	Special 01. Temporary Water Diversion C-44-133 Station 380+83	EACH	1.000	1.000

**CLEARING & GRUBBING SUMMARY**

**REMOVING ASPHALTIC SURFACE**

CATEGORY	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
6240-22-71	212+00	-	213+00	STH 47 LT	1	1
0010	379+00	-	383+00	STH 47 LT & RT	4	4
	386+00	-	388+00	STH 47 LT & RT	2	2
	474+00	-	476+00	STH 47 LT	2	2
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>9</b>	<b>9</b>
<b>PROJECT TOTAL</b>					<b>9</b>	<b>9</b>

CATEGORY	STATION	TO	STATION	LOCATION	204.0110 SY	REMARKS
6240-22-71	187+43	-	189+31	STH 47 RT	42	IN MACKVILLE FOR C&G
0010	264+78	-	266+67	STH 47 LT	264	DRIVEWAY
	273+05	-	273+37	STH 47 RT	33	DRIVEWAY
	280+33	-	280+80	STH 47 RT	40	DRIVEWAY
	282+09	-	282+41	STH 47 RT	32	DRIVEWAY
	294+00	-	294+30	STH 47 LT	28	DRIVEWAY
	311+40	-	311+77	STH 47 LT	29	DRIVEWAY
	314+20	-	314+43	STH 47 LT	18	DRIVEWAY
	315+93	-	316+21	STH 47 RT	29	DRIVEWAY
	330+86	-	331+46	STH 47 RT	118	DRIVEWAY
	336+14	-	336+47	STH 47 LT	30	DRIVEWAY
	361+84	-	362+08	STH 47 LT	25	DRIVEWAY
	364+78	-	365+09	STH 47 LT	31	DRIVEWAY
	371+48	-	371+72	STH 47 RT	19	DRIVEWAY
	371+89	-	372+14	STH 47 RT	19	DRIVEWAY
	380+63	-	380+76	STH 47 LT	124	DRIVEWAY
	383+57	-	383+82	STH 47 RT	28	DRIVEWAY
	393+78	-	394+10	STH 47 RT	28	DRIVEWAY
	427+52	-	427+78	STH 47 RT	23	DRIVEWAY
	428+82	-	429+05	STH 47 RT	21	DRIVEWAY
	429+80	-	430+10	STH 47 LT	34	DRIVEWAY
	451+82	-	452+11	STH 47 RT	32	DRIVEWAY
	464+82	-	465+11	STH 47 RT	31	DRIVEWAY
	498+62	-	499+02	STH 47 LT	29	DRIVEWAY
	509+87	-	510+16	STH 47 LT	32	DRIVEWAY
	511+72	-	511+98	STH 47 LT	24	DRIVEWAY
	512+44	-	512+70	STH 47 LT	23	DRIVEWAY
	514+72	-	515+09	STH 47 RT	32	DRIVEWAY
	607+86	-	608+29	STH 47 LT	42	DRIVEWAY
	619+31	-	619+58	STH 47 RT	27	DRIVEWAY
	637+74	-	638+04	STH 47 LT	30	DRIVEWAY
	652+95	-	653+35	STH 47 LT	38	DRIVEWAY
	655+95	-	656+29	STH 47 LT	34	DRIVEWAY
	658+84	-	659+09	STH 47 LT	22	DRIVEWAY
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>1,411</b>	
<b>PROJECT TOTAL</b>					<b>1,411</b>	

**REMOVING SMALL PIPE CULVERTS**

CATEGORY	STATION	LOCATION	203.0100 EACH	REMARKS
6240-22-71	132+49	STH 47	1	EXISTING 24" CMCP
0010	201+50	STH 47	1	EXISTING 36" CMCP
	238+18	STH 47	1	EXISTING 24" CMCP
	326+17	STH 47	1	EXISTING 57"X38" CSPA
	380+63	STH 47 RT	1	EXISTING 18" CMCP
	380+90	STH 47 LT	1	EXISTING 18" CMCP
	415+32	STH 47	1	EXISTING 42" CMCP
	474+75	STH 47	1	EXISTING 30" CMCP
	496+37	STH 47	1	EXISTING 36" CMCP
	562+83	STH 47	1	EXISTING 24" CMCP
	601+80	STH 47	1	EXISTING 24" CMCP
	617+41	STH 47	1	EXISTING 24" CMCP
<b>6240-22-71 CATEGORY 0010 TOTAL</b>			<b>12</b>	
<b>PROJECT TOTAL</b>			<b>12</b>	

**REMOVING STRUCTURE**

CATEGORY	STATION	LOCATION	203.0220 REMOVING STRUCTURE (STRUCTURE) 01. 2X2 RC BOX EACH	REMARKS
6240-22-71	191+82	STH 47	1	EXISTING 2'X2' RC BOX
0010				
<b>6240-22-71 CATEGORY 0010 TOTAL</b>			<b>1</b>	
<b>PROJECT TOTAL</b>			<b>1</b>	

**REMOVING ASPHALTIC SURFACE BUTT JOINTS**

**REMOVING ASPHALTIC SURFACE MILLING**

204.0115				
CATEGORY	STATION	LOCATION	SY	REMARKS
6240-22-71	100+00	STH 47	15	
0010	9+28	DEERVIEW DR	6	
	19+10	BROADWAY DR	5	
	20+86	BROADWAY DR	6	
	30+84	SCHABO RD	6	
	39+37	CTH O	9	
	40+66	MACKVILLE RD	7	
	49+64	EDWARD ST	5	
	59+33	GLENN ST	6	
	69+08	WEGE RD	6	
	70+66	WEGE RD	8	
	80+70	PINE GROVE RD	7	
	89+38	ROCK RD	7	
	90+80	ROCK RD	6	
	99+39	PLEASANT RD	7	
	100+66	PLEASANT RD	6	
	110+99	CTH PP	13	
	118+80	CTH S	11	
	121+23	CTH S	11	
	129+36	COUNTRY GATE LN	6	
	139+31	CENTER VALLEY RD	6	
	141+15	CENTER VALLEY RD	6	
	149+21	TWELVE CORNERS RD	6	
	151+14	TWELVE CORNERS RD	7	
	159+15	CTH A	11	
	493+08	STH 47	6	CTH A SOUTH LANE
	168+88	CTH A	9	
	179+36	STINGLE RD	6	
	180+63	STINGLE RD	6	
	189+41	OTT RD	5	
	190+56	OTT RD	6	
	200+54	WOLF	6	
	673+99	STH 47	10	
<b>6240-22-71 CATEGORY 0010 TOTAL</b>			<b>243</b>	
<b>PROJECT TOTAL</b>			<b>243</b>	

204.0120						
CATEGORY	STATION	TO	STATION	LOCATION	SY	REMARKS
6240-22-71	100+02	-	122+53	STH 47	10,822	
0010	9+30	-	9+85	W DEERVIEW DR	306	
	122+53	-	133+25	STH 47	3,626	
	19+12	-	19+84	W BROADWAY DR	384	
	20+17	-	20+84	BROADWAY DR	358	
	132+25	-	159+77	STH 47	8,987	
	30+18	-	30+82	SCHABO RD	331	
	159+77	-	186+05	STH 47	9,019	
	39+39	-	39+77	CTH O	226	
	40+22	-	40+64	MACKVILLE RD	214	
	186+05	-	205+33	STH 47	7,629	
	49+66	-	49+85	EDWARD ST	77	
	205+33	-	208+98	STH 47	1,181	
	59+33	-	59+35	GLENN ST	390	
	208+98	-	238+89	STH 47	10,131	
	69+10	-	69+81	WEGE RD	436	
	70+22	-	70+64	WEGE RD	264	
	238+89	-	262+57	STH 47	8,145	
	80+25	-	80+68	PINE GROVE RD	235	
	262+57	-	291+68	STH 47	10,316	
	89+40	-	89+74	ROCK RD	190	
	90+23	-	90+78	ROCK RD	277	
	291+68	-	318+05	STH 47	9,191	
	99+41	-	99+74	PLEASANT RD	195	
	100+24	-	100+64	PLEASANT RD	220	
	318+05	-	327+46	STH 47	3,726	
	110+27	-	110+97	CTH PP	471	
	327+46	-	348+03	STH 47	8,351	
	118+82	-	119+71	CTH S	724	
	120+16	-	121+21	CTH S	713	
	348+03	-	393+01	STH 47	16,714	
	129+38	-	129+78	COUNTRY GATE LN	217	
	393+01	-	414+52	STH 47	7,525	
	139+33	-	139+77	CENTER VALLEY RD	210	
	140+25	-	141+13	CENTER VALLEY RD	453	
	414+52	-	417+28	STH 47	1,326	
	149+23	-	149+77	TWELVE CORNERS RD	236	
	150+25	-	151+12	TWELVE CORNERS RD	463	
	417+28	-	487+17	STH 47	23,998	
	159+17	-	159+84	CTH A	447	
	487+17	-	502+08	STH 47	7,219	
	168+90	-	169+77	CTH A	587	
	502+08	-	541+48	STH 47	13,918	
	179+38	-	179+76	STINGLE RD	184	
	180+25	-	180+61	STINGLE RD	153	
	541+48	-	596+23	STH 47	18,515	
	189+43	-	189+77	OTT RD	109	
	190+23	-	190+54	OTT RD	140	
	596+23	-	622+37	STH 47	8,921	
	200+24	-	200+52	WOLF	126	
	622+37	-	673+99	STH 47	17,367	
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>215,963</b>	

**REMOVING CURB SUMMARY**

					204.0130	204.0150		
					REMOVING	REMOVING CURB		
					CURB	& GUTTER		
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	REMARKS	
6240-22-71	188+78	-	189+31	STH 47 RT	53	-		
0010	382+27	-	382+45	STH 47 LT	-	18		
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>53</b>	<b>18</b>		
<b>PROJECT TOTAL</b>					<b>53</b>	<b>18</b>		

6240-22-71	189+31	-	190+98	STH 47 RT	112	PARKING LANE	
0030							
<b>6240-22-71 CATEGORY 0030 TOTAL</b>					<b>112</b>		
<b>PROJECT TOTAL</b>					<b>216,075</b>		



**REMOVING CONCRETE SIDEWALK**

CATEGORY	STATION	TO	STATION	LOCATION	204.0155 SY
6240-22-71 0010	187+43	-	189+31	STH 47 RT	21
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>21</b>
<b>PROJECT TOTAL</b>					<b>21</b>

**REMOVING GUARDRAIL**

CATEGORY	STATION	TO	STATION	LOCATION	204.0165 LF
6240-22-71 0010	378+12	-	380+74	STH 47 LT	262
	380+81	-	383+00	STH 47 RT	238
	381+05	-	382+27	STH 47 LT	122
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>622</b>
<b>PROJECT TOTAL</b>					<b>622</b>

**REMOVING APRON ENDWALLS SUMMARY**

CATEGORY	STATION	LOCATION	204.9060.S REMOVING (ITEM DESCRIPTION) 01. APRON ENDWALLS EACH	REMARKS
6240-22-71 0010	213+00	STH 47 LT, RT	2	EXISTING 42" APRON ENDWALL
	272+31	STH 47 LT	1	EXISTING 48" APRON ENDWALL
	338+17	STH 47 LT	1	EXISTING 24" APRON ENDWALL
	387+24	STH 47 LT, RT	2	EXISTING 36" APRON ENDWALL
	402+10	STH 47 LT, RT	2	EXISTING 24" APRON ENDWALL
	411+03	STH 47 LT	1	EXISTING 35X24" APRON ENDWALL
	435+71	STH 47 RT	1	EXISTING 35X24" APRON ENDWALL
	573+64	STH 47 LT	1	EXISTING 50X31" APRON ENDWALL
	578+02	STH 47 LT, RT	2	EXISTING 30" APRON ENDWALL
	591+59	STH 47 LT	1	EXISTING 24" APRON ENDWALL
<b>6240-22-71 CATEGORY 0010 TOTAL</b>			<b>14</b>	
<b>PROJECT TOTAL</b>			<b>14</b>	

**EARTHWORK SUMMARY**

CATEGORY	DIVISION	STATION	TO	STATION	LOCATION	* 205.0100 EXCAVATION COMMON CY (1)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL (13)	EXPANDED FILL (13)	MASS ORDINATE +/- (14)
						CUT (2)				FACTOR 1.15	
6240-22-71 0010	TEMP DWY LT	380+35.00	-	381+27.00	STH 47 LT	33	31	2	142	163	-161
	TEMP DWY RT	379+60.00	-	380+75.00	STH 47 RT	45	7	38	101	116	-78
	BOX CULVERT AREA LT	376+93.67	-	382+45.48	STH 47 LT	488	51	437	162	186	251
	BOX CULVERT AREA RT	380+00.00	-	382+09.40	STH 47 RT	85	14	71	271	312	-241
<b>6240-22-71 CATEGORY 0010 TOTAL</b>						<b>651</b>	<b>103</b>	<b>548</b>	<b>676</b>	<b>777</b>	<b>-229</b>
<b>PROJECT TOTAL</b>						<b>651</b>					

N/A	DIVERSION CHANNEL**	380+70.00	-	381+90.00	STH 47	1048	74	974	72	83	891
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\*ADDITIONAL QUANTITY SHOWN ELSEWHERE  
 \*\*DIVERSION CHANNEL QUANTITIES FOR INFORMATION ONLY, INCIDENTAL TO "TEMPORARY WATER DIVERSION - C-44-133"

**NOTES:**

- (1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
- (2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
- (4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
- (5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
- (13) EXPANDED FILL FACTOR = 1.15
- (14) 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.

**CULVERT REPLACEMENT SUMMARY**

CATEGORY	STATION	LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY	* 205.0100 EXCAVATION COMMON CY	* 305.0120 BASE AGGREGATE DENSE 1 1/4- INCH TON	* 455.0605 TACK COAT GAL	* 460.6223 HMA PAVEMENT 3 MT 58-28 S TON	* 460.6224 HMA PAVEMENT 4 MT 58-28 S TON	* 624.0100 WATER MGAL	* SPV.0035 SPECIAL 01. FOUNDATION BACKFILL CY
6240-22-71	132+49	STH 47	128	245	190	27	62	19	2.9	137
0010	191+82	STH 47	92	222	137	19	45	14	2.1	119
	201+50	STH 47	233	282	346	49	112	34	5.2	165
	238+18	STH 47	79	189	117	17	38	12	1.8	96
	326+17	STH 47	219	341	384	46	106	32	5.8	216
	415+32	STH 47	272	439	405	57	131	40	6.1	256
	474+75	STH 47	-	-	111	2	5	1	1.7	-
	496+37	STH 47	-	-	75	2	5	2	1.1	-
	562+83	STH 47	-	376	245	27	61	19	3.7	215
	601+80	STH 47	-	-	77	2	4	1	1.2	-
	617+41	STH 47	-	455	383	42	96	29	5.7	277
<b>6240-22-71 CATEGORY 0010 TOTAL</b>			<b>1,023</b>	<b>2,549</b>	<b>2,470</b>	<b>290</b>	<b>665</b>	<b>203</b>	<b>37.3</b>	<b>1,481</b>
<b>PROJECT TOTAL</b>			<b>1,023</b>	<b>2,549</b>	<b>2,470</b>	<b>290</b>	<b>665</b>	<b>203</b>	<b>37.3</b>	<b>1,481</b>

\*ADDITIONAL QUANTITY SHOWN ELSEWHERE

**PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) 01. 6240-22-71**

CATEGORY	STATION	TO	STATION	LOCATION	211.0100.01 LS
6240-22-71	100+00	-	673+99	STH 47	1
0010	VARIES	-	VARIES	SIDEROADS	-
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>1</b>
<b>PROJECT TOTAL</b>					<b>1</b>

**PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS**

CATEGORY	STATION	TO	STATION	LOCATION	211.0400 STA	REMARKS
6240-22-71	262+57	-	264+79	STH 47 LT	2	SHOULDER WIDENING 3' TO 5'
0010	266+80	-	382+26	STH 47 LT	115	SHOULDER WIDENING 3' TO 5'
	270+57	-	418+39	STH 47 RT	148	SHOULDER WIDENING 3' TO 5'
	385+17	-	411+36	STH 47 LT	26	SHOULDER WIDENING 3' TO 5'
	414+04	-	417+76	STH 47 LT	4	SHOULDER WIDENING 3' TO 5'
	419+14	-	673+99	STH 47 LT	255	SHOULDER WIDENING 3' TO 5'
	420+39	-	673+99	STH 47 RT	254	SHOULDER WIDENING 3' TO 5'
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>804</b>	
<b>PROJECT TOTAL</b>					<b>804</b>	

**BASE AGGREGATE DENSE 3/4-INCH**

CATEGORY	STATION	TO	STATION	LOCATION	*		REMARKS
					305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	624.0100 WATER MGAL	
6240-22-71 0010	100+00	-	101+19	STH 47 LT	11	0.2	SHOULDER
	101+19	-	112+25	STH 47 LT,RT	201	3.0	SHOULDER
	112+25	-	114+38	STH 47 LT,RT	39	0.6	SHOULDER
	114+38	-	184+65	STH 47 LT,RT	593	8.9	SHOULDER
	184+65	-	186+49	STH 47 LT	8	0.1	SHOULDER
	187+43	-	189+31	STH 47 RT	21	0.3	CURB & GUTTER PLACEMENT
	189+98	-	190+98	STH 47 LT	5	0.1	SHOULDER
	190+98	-	262+57	STH 47 LT,RT	604	9.1	SHOULDER
	262+57	-	316+39	STH 47 LT,RT	559	8.4	SHOULDER
	316+39	-	326+89	STH 47 LT,RT	82	1.2	SHOULDER
	326+89	-	357+89	STH 47 LT,RT	262	3.9	SHOULDER
	357+89	-	361+61	STH 47 LT,RT	37	0.6	SHOULDER
	361+61	-	369+83	STH 47 LT,RT	64	1.0	SHOULDER
	369+83	-	382+26	STH 47 LT,RT	129	1.9	SHOULDER
	382+26	-	385+17	STH 47 RT	16	0.2	SHOULDER
	385+17	-	411+36	STH 47 LT,RT	272	4.1	SHOULDER
	411+36	-	414+04	STH 47 RT	14	0.2	SHOULDER
	414+04	-	417+76	STH 47 LT,RT	39	0.6	SHOULDER
	417+76	-	418+39	STH 47 RT	4	0.1	SHOULDER
	419+14	-	420+39	STH 47 LT	7	0.1	SHOULDER
420+39	-	467+03	STH 47 LT,RT	484	7.3	SHOULDER	
467+03	-	673+99	STH 47 LT,RT	2683	40.2	SHOULDER	
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>6,134</b>	<b>92.1</b>	
<b>PROJECT TOTAL</b>					<b>6,134</b>	<b>92.1</b>	

\*ADDITIONAL QUANTITY SHOWN ELSEWHERE

**BOX CULVERT DRIVEWAY SUMMARY**

CATEGORY	STATION	TO	STATION	LOCATION	THICKNESS INCHES	*				REMARKS
						305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	520.2018 CULVERT PIPE TEMPORARY 18-INCH LF	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH EACH	521.3118 CULVERT PIPE CORRUGATED STEEL 18-INCH LF	
6240-22-71 0010	379+39	-	380+19	STH 47 RT	0.064	192	88	2	75	TEMPORARY AND FINAL DW
	381+28	-	381+60	STH 47 LT	-	49	-	-	-	TEMPORARY AND FINAL DW
<b>6240-22-71 CATEGORY 0010 TOTAL</b>						<b>241</b>	<b>88</b>	<b>2</b>	<b>75</b>	
<b>PROJECT TOTAL</b>						<b>241</b>	<b>88</b>	<b>2</b>	<b>75</b>	

\*ADDITIONAL QUANTITY SHOWN ELSEWHERE

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HMA PAVEMENT SUMMARY

\* 455.0605 \* 460.6223 \* 460.6224

CATEGORY	STATION	TO	STATION	LOCATION	TACK COAT GAL	HMA PAVEMENT 3 MT 58-28 S TON	HMA PAVEMENT 4 MT 58-28 S TON	REMARKS	
6240-22-71	100+00	-	122+53	STH 47	1299	1472	1061		
0010	9+30	-	9+85	W DEERVIEW DR	36	42	30		
	122+53	-	133+25	STH 47	435	493	355		
	19+12	-	19+84	W BROADWAY DR	46	52	38		
	20+17	-	20+84	BROADWAY DR	43	49	35		
	132+25	-	159+77	STH 47	1078	1222	881		
	30+18	-	30+82	SCHABO RD	40	45	32		
	159+77	-	186+05	STH 47	1082	1227	884		
	39+39	-	39+77	CTH O	27	31	22		
	40+22	-	40+64	MACKVILLE RD	26	29	21		
	186+05	-	205+33	STH 47	915	1038	748		
	49+66	-	49+85	EDWARD ST	9	10	8		
	205+33	-	208+98	STH 47	142	161	116		
	59+33	-	59+35	GLENN ST	46	53	38		
	208+98	-	238+89	STH 47	1216	1378	993		
	69+10	-	69+81	WEGE RD	52	59	43		
	70+22	-	70+64	WEGE RD	31	36	26		
	238+89	-	262+57	STH 47	977	1108	798		
	80+25	-	80+68	PINE GROVE RD	28	32	23		
	262+57	-	291+68	STH 47	1390	1576	1135		
	89+40	-	89+74	ROCK RD	23	26	19		
	90+23	-	90+78	ROCK RD	33	38	27		
	291+68	-	318+05	STH 47	1243	1409	1016		
	99+41	-	99+74	PLEASANT RD	24	26	19		
	100+24	-	100+64	PLEASANT RD	26	30	22		
	318+05	-	327+46	STH 47	497	564	406		
	110+27	-	110+97	CTH PP	57	64	46		
	327+46	-	348+03	STH 47	1112	1260	908		
	118+82	-	119+71	CTH S	87	99	71		
	120+16	-	121+21	CTH S	86	97	70		
	348+03	-	393+01	STH 47	2246	2545	1834		
	129+38	-	129+78	COUNTRY GATE LN	26	29	21		
	393+01	-	414+52	STH 47	1018	1153	831		
	139+33	-	139+77	CENTER VALLEY RD	25	29	21		
	140+25	-	141+13	CENTER VALLEY RD	55	62	44		
	414+52	-	417+28	STH 47	173	197	142		
	149+23	-	149+77	TWELVE CORNERS RD	29	32	23		
	150+25	-	151+12	TWELVE CORNERS RD	55	63	45		
	417+28	-	487+17	STH 47	3252	3686	2656		
	159+17	-	159+84	CTH A	53	61	44		
	487+17	-	502+08	STH 47	946	1072	772		
	168+90	-	169+77	CTH A	70	80	58		
	502+08	-	541+48	STH 47	1880	2131	1536		
	179+38	-	179+76	STINGLE RD	22	25	18		
	180+25	-	180+61	STINGLE RD	19	21	15		
	541+48	-	596+23	STH 47	2513	2849	2053		
	189+43	-	189+77	OTT RD	13	15	11		
	190+23	-	190+54	OTT RD	17	19	14		
	596+23	-	622+37	STH 47	1210	1371	988		
	200+24	-	200+52	WOLF	15	17	12		
	622+37	-	673+99	STH 47	2359	2674	1927		
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>28,102</b>	<b>31,857</b>	<b>22,956</b>		
6240-22-71	189+31	-	190+98	STH 47 RT	14	15	11	PARKING LANE	
0030									
<b>6240-22-71 CATEGORY 0030 TOTAL</b>					<b>14</b>	<b>15</b>	<b>11</b>		
<b>PROJECT TOTAL</b>					<b>28,116</b>	<b>31,872</b>	<b>22,967</b>		

\*ADDITIONAL QUANTITY SHOWN ELSEWHERE

HMA COLD WEATHER PAVING

CATEGORY	LOCATION	450.4000 TON
6240-22-71	PROJECT	3,400
0010		
<b>TEGORY 0010 TOTAL</b>		<b>3,400</b>
<b>PROJECT TOTAL</b>		<b>3,400</b>

**PWL MIXTURE USE TABLE**

THE FOLLOWING ACCEPTANCE CRITERIA ARE APPLICABLE FOR PROJECT 6240-22-71:

Location	Station	Mixture Use	Underlying Surface	Bid Item	Tons	Thickness (Inches)	Quality Management Program to be used for:	
							Mixture Acceptance	Density Acceptance
24-FT Driving Lanes	100+00-673+99	Lower Layer	Milled Surface	3 MT 58-28 S	21490	2.25	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA 460.2005
24-FT Driving Lanes	100+00-673+99	Upper Layer	HMA Surface	4 MT 58-28 S	15210	1.75	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA 460.2005
Paved Shoulder, passing lanes and turn lanes <1500', other various	100+00-673+99	Lower Layer	Milled Surface	3 MT 58-28 S	11090	2.25	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department; Not eligible for incentive
Paved Shoulder, passing lanes and turn lanes <1500', other various	100+00-673+99	Upper Layer	HMA Surface	4 MT 58-28 S	7960	1.75	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department; Not eligible for incentive

**INCENTIVE DENSITY HMA PAVEMENT LONGITUDINAL JOINTS**

CATEGORY	STATION	TO	STATION	LOCATION	460.2007 DOL	COMMENTS
6240-22-71 0010	100+00	-	673+99	STH 47	<b>45,920</b>	LINEAL FEET ELIGIBLE FOR INCENTIVE
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>45,920</b>	
<b>PROJECT TOTAL</b>					<b>45,920</b>	

**HMA PAVEMENT TEST STRIPS**

CATEGORY	MIX	460.0105.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS	460.0110.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY
		EACH	EACH
6240-22-71	3 MT 58-28 S	1	1
0010	4 MT 58-28 S	1	1
<b>6240-22-71 CATEGORY 0010 TOTAL</b>		<b>2</b>	<b>2</b>
<b>PROJECT TOTAL</b>		<b>2</b>	<b>2</b>

**ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES**

465.0120

CATEGORY	STATION	TO	STATION	LOCATION	TON
6240-22-71 0010	264+78	-	266+67	STH 47 LT	33
	273+05	-	273+37	STH 47 RT	4
	280+33	-	280+80	STH 47 RT	5
	282+09	-	282+41	STH 47 RT	4
	294+00	-	294+30	STH 47 LT	4
	311+40	-	311+77	STH 47 LT	4
	314+20	-	314+43	STH 47 LT	3
	315+93	-	316+21	STH 47 RT	4
	330+86	-	331+46	STH 47 RT	15
	336+14	-	336+47	STH 47 LT	4
	361+84	-	362+08	STH 47 LT	4
	364+78	-	365+09	STH 47 LT	4
	371+48	-	371+72	STH 47 RT	3
	371+89	-	372+14	STH 47 RT	3
	380+63	-	380+76	STH 47 LT	16
	383+57	-	383+82	STH 47 RT	4
	393+78	-	394+10	STH 47 RT	4
	427+52	-	427+78	STH 47 RT	3
	428+82	-	429+05	STH 47 RT	3
	429+80	-	430+10	STH 47 LT	5
	451+82	-	452+11	STH 47 RT	4
	464+82	-	465+11	STH 47 RT	4
	498+62	-	499+02	STH 47 LT	4
	509+87	-	510+16	STH 47 LT	4
	511+72	-	511+98	STH 47 LT	3
	512+44	-	512+70	STH 47 LT	3
	514+72	-	515+09	STH 47 RT	4
	607+86	-	608+29	STH 47 LT	6
	619+31	-	619+58	STH 47 RT	4
	637+74	-	638+04	STH 47 LT	4
	652+95	-	653+35	STH 47 LT	5
	655+95	-	656+29	STH 47 LT	5
	658+84	-	659+09	STH 47 LT	3
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>182</b>
<b>PROJECT TOTAL</b>					<b>182</b>

**ASPHALTIC FLUMES**

465.0315

CATEGORY	STATION	TO	STATION	LOCATION	SY
6240-22-71 0010	382+19	-	382+44	STH 47 LT	7
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>7</b>
<b>PROJECT TOTAL</b>					<b>7</b>

**RUMBLE STRIP SUMMARY**

465.0425  
ASPHALTIC  
SHOULDER  
RUMBLE STRIPS  
2-LANE RURAL

465.0475  
ASPHALT  
CENTERLINE  
RUMBLE STRIPS  
2-LANE RURAL

CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	REMARKS
6240-22-71 0010	GLENN ST	-	WEGE RD	STH 47 CL	-	2,392	
	GLENN ST	-	WEGE RD	STH 47 LT	2,243	-	TYPE 2 SHOULDER RUMBLE STRIPS
	GLENN ST	-	WEGE RD	STH47 RT	2,520	-	TYPE 2 SHOULDER RUMBLE STRIPS
	WEGE RD	-	PINE GROVE RD	STH 47 CL	-	1,968	
	WEGE RD	-	PINE GROVE RD	STH 47 LT	2,009	-	TYPE 2 SHOULDER RUMBLE STRIPS
	WEGE RD	-	PINE GROVE RD	STH47 RT	2,019	-	TYPE 2 SHOULDER RUMBLE STRIPS
	PINE GROVE RD	-	ROCK RD	STH 47 CL	-	2,216	
	PINE GROVE RD	-	ROCK RD	STH 47 LT	2,381	-	TYPE 1 SHOULDER RUMBLE STRIPS
	PINE GROVE RD	-	ROCK RD	STH47 RT	2,289	-	TYPE 1 SHOULDER RUMBLE STRIPS
	ROCK RD	-	PLEASANT RD	STH 47 CL	-	2,237	
	ROCK RD	-	PLEASANT RD	STH 47 LT	1,897	-	TYPE 1 SHOULDER RUMBLE STRIPS
	ROCK RD	-	PLEASANT RD	STH47 RT	2,125	-	TYPE 1 SHOULDER RUMBLE STRIPS
	PLEASANT RD	-	CTH PP	STH 47 CL	-	542	
	PLEASANT RD	-	CTH PP	STH 47 LT	720	-	TYPE 1 SHOULDER RUMBLE STRIPS
	PLEASANT RD	-	CTH PP	STH47 RT	276	-	TYPE 1 SHOULDER RUMBLE STRIPS
	CTH PP	-	CTH S	STH 47 CL	-	876	
	CTH PP	-	CTH S	STH 47 LT	1,749	-	TYPE 1 SHOULDER RUMBLE STRIPS
	CTH PP	-	CTH S	STH47 RT	1,274	-	TYPE 1 SHOULDER RUMBLE STRIPS
	CTH S	-	COUNTRY GATE LN	STH 47 CL	-	3,586	
	CTH S	-	COUNTRY GATE LN	STH 47 LT	3,150	-	TYPE 1 SHOULDER RUMBLE STRIPS
	CTH S	-	COUNTRY GATE LN	STH47 RT	4,597	-	TYPE 1 SHOULDER RUMBLE STRIPS
	COUNTRY GATE LN	-	CENTER VALLEY RD	STH 47 CL	-	1,751	
	COUNTRY GATE LN	-	CENTER VALLEY RD	STH 47 LT	1,485	-	TYPE 1 SHOULDER RUMBLE STRIPS
	COUNTRY GATE LN	-	CENTER VALLEY RD	STH47 RT	1,713	-	TYPE 1 SHOULDER RUMBLE STRIPS
	TWELVE CORNEERS RD	-	CTH A SOUTH INTERSECTION	STH 47 CL	-	6,404	
	TWELVE CORNEERS RD	-	CTH A SOUTH INTERSECTION	STH 47 LT	6,230	-	TYPE 1 SHOULDER RUMBLE STRIPS
	TWELVE CORNEERS RD	-	CTH A SOUTH INTERSECTION	STH47 RT	6,228	-	TYPE 1 SHOULDER RUMBLE STRIPS
	CTH A SOUTH INTERSECTION	-	CTH A NORTH INTERSECTION	STH 47 CL	-	1,053	
	CTH A SOUTH INTERSECTION	-	CTH A NORTH INTERSECTION	STH 47 LT	980	-	TYPE 1 SHOULDER RUMBLE STRIPS
	CTH A SOUTH INTERSECTION	-	CTH A NORTH INTERSECTION	STH47 RT	1,478	-	TYPE 1 SHOULDER RUMBLE STRIPS
	CTH A NORTH INTERSECTION	-	STINGLE RD	STH 47 CL	-	3,538	
	CTH A NORTH INTERSECTION	-	STINGLE RD	STH 47 LT	3,131	-	TYPE 1 SHOULDER RUMBLE STRIPS
	CTH A NORTH INTERSECTION	-	STINGLE RD	STH47 RT	3,162	-	TYPE 1 SHOULDER RUMBLE STRIPS
	STINGLE RD	-	OTT RD	STH 47 CL	-	5,075	
	STINGLE RD	-	OTT RD	STH 47 LT	5,058	-	TYPE 1 SHOULDER RUMBLE STRIPS
	STINGLE RD	-	OTT RD	STH47 RT	4,819	-	TYPE 1 SHOULDER RUMBLE STRIPS
	OTT RD	-	WOLF RD	STH 47 CL	-	2,214	
	OTT RD	-	WOLF RD	STH 47 LT	2,238	-	TYPE 1 SHOULDER RUMBLE STRIPS
	OTT RD	-	WOLF RD	STH47 RT	2,176	-	TYPE 1 SHOULDER RUMBLE STRIPS
	WOLF RD	-	END OF PROJECT	STH 47 CL	-	4,837	
WOLF RD	-	END OF PROJECT	STH 47 LT	4,590	-	TYPE 1 SHOULDER RUMBLE STRIPS	
WOLF RD	-	END OF PROJECT	STH47 RT	4,436	-	TYPE 1 SHOULDER RUMBLE STRIPS	
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>76,973</b>	<b>38,689</b>	
<b>PROJECT TOTAL</b>					<b>76,973</b>	<b>38,689</b>	

**CULVERT LINER SUMMARY**

CATEGORY	STATION	LOCATION	520.9700.S	520.9700.S	520.9700.S	520.9750.S					
			CULVERT PIPE LINERS (SIZE)	CULVERT PIPE LINERS (SIZE)	CULVERT PIPE LINERS (SIZE)	CLEANING CULVERT PIPES FOR LINER	EXISTING CULVERT PIPE MATERIAL	EXISTING CULVERT PIPE DIAMETER	EXISTING CULVERT PIPE SLOPE		
			01. 30-INCH LF	02. 36-INCH LF	03. 42-INCH LF	VERIFICATION EACH					
6240-22-71	213+00	STH 47	-	-	88	1	CMCP	42"	0.005 FT/FT		
0010	387+24	STH 47	-	107	-	1	CMCP	36"	0.036 FT/FT		
	578+02	STH 47	66	-	-	1	CMCP	30"	0.020 FT/FT		
<b>6240-22-71 CATEGORY 0010 TOTAL</b>			<b>66</b>	<b>107</b>	<b>88</b>	<b>3</b>					
<b>PROJECT TOTAL</b>			<b>66</b>	<b>107</b>	<b>88</b>	<b>3</b>					

**APRON ENDWALL SUMMARY**

CATEGORY	STATION	LOCATION	521.0336	521.0535	521.1024	521.1036	521.1042	521.1048	521.1072	521.1235	521.1249	522.1024	522.1030	522.1036	522.1042	522.2638	633.5200	650.6000	
			APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36- INCH 4 TO 1	APRON ENDWALLS FOR PIPE ARCH SLOPED CROSS DRAINS STEEL 35X24-INCH 4 TO 1	APRON ENDWALLS FOR CULVERT PIPE STEEL 24- INCH	APRON ENDWALLS FOR CULVERT PIPE STEEL 36- INCH	APRON ENDWALLS FOR CULVERT PIPE STEEL 42- INCH	APRON ENDWALLS FOR CULVERT PIPE STEEL 48- INCH	APRON ENDWALLS FOR CULVERT PIPE STEEL 72-INCH	APRON ENDWALLS FOR PIPE ARCH STEEL 35X24-INCH	APRON ENDWALLS FOR PIPE ARCH STEEL 49X33- INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24- INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30- INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36- INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42- INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42- INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 38X60- INCH	MARKERS CULVERT END	CONSTRUCTION STAKING PIPE CULVERTS
			EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
6240-22-71	132+49	STH 47	-	-	-	-	-	-	-	-	-	2	-	-	-	-	2	1	
0010	191+82	STH 47	-	-	-	-	-	-	-	-	-	-	2	-	-	-	2	1	
	201+50	STH 47	-	-	-	-	-	-	-	-	-	-	-	2	-	-	2	1	
	213+00	STH 47	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2	1	
	225+59	STH 47 LT, RT	2	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	
	238+18	STH 47	-	-	-	-	-	-	-	-	-	-	2	-	-	-	2	1	
	272+31	STH 47 LT	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	
	326+17	STH 47	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	1	
	338+17	STH 47 LT	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2	1	
	346+77	STH 47 LT, RT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	
	366+12	STH 47 LT, RT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	
	381+70	STH 47 LT, RT	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	1	
	387+24	STH 47	-	-	-	2	-	-	-	-	-	-	-	-	-	-	2	1	
	402+10	STH 47 LT, RT	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2	1	
	411+03	STH 47 LT	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	1	
	415+32	STH 47	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2	1	
	422+14	STH 47 LT, RT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	
	435+71	STH 47 RT	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2	1	
	474+75	STH 47	-	-	-	-	-	-	-	-	-	-	2	-	-	-	2	1	
	496+37	STH 47	-	-	-	-	-	-	-	-	-	-	-	2	-	-	2	1	
	541+07	STH 47 RT, LT	-	-	-	-	-	-	-	-	2	-	-	-	-	-	2	1	
	553+22	STH 47 RT, LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	
	562+83	STH 47	-	-	-	-	-	-	-	-	-	2	-	-	-	-	2	1	
	573+64	STH 47 LT	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	1	
	578+02	STH 47	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2	1	
	585+89	STH 47 RT, LT	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2	1	
	591+59	STH 47 LT	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	
	601+80	STH 47	-	-	-	-	-	-	-	-	-	2	-	-	-	-	2	1	
	617+41	STH 47	-	-	-	-	-	-	-	-	-	2	-	-	-	-	2	1	
<b>6240-22-71 CATEGORY 0010 TOTAL</b>			<b>2</b>	<b>1</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>9</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>52</b>	<b>25</b>	
<b>PROJECT TOTAL</b>			<b>2</b>	<b>1</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>9</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>52</b>	<b>25</b>	

**CULVERT PIPE SUMMARY**

CATEGORY	STATION	LOCATION	522.0124	522.0130	522.0136	522.0142	522.2338	INLET ELEVATION	DISCHARGE ELEVATION
			CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH LF	CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	CULVERT PIPE REINFORCED CONCRETE CLASS III 42-INCH LF	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 38X60-INCH LF		
6240-22-71	132+49	STH 47	60	-	-	-	-	799.50	799.38
0010	191+82	STH 47	-	45	-	-	-	823.43	823.19
	201+50	STH 47	-	-	51	-	-	826.82	826.57
	238+18	STH 47	-	69	-	-	-	843.42	843.01
	326+17	STH 47	-	-	-	-	85	821.89	821.24
	381+70	STH 47 LT, RT	88	-	-	-	-	797.00	799.00
	415+32	STH 47	-	-	-	86	-	818.85	817.87
	474+75	STH 47	-	131	-	-	-	850.30	847.03
	496+37	STH 47	-	-	104	-	-	839.84	837.93
	562+83	STH 47	59	-	-	-	-	842.96	841.74
	601+80	STH 47	69	-	-	-	-	855.45	854.43
	617+41	STH 47	85	-	-	-	-	847.03	843.15
<b>6240-22-71 CATEGORY 0010 TOTAL</b>			<b>361</b>	<b>245</b>	<b>155</b>	<b>86</b>	<b>85</b>		
<b>PROJECT TOTAL</b>			<b>361</b>	<b>245</b>	<b>155</b>	<b>86</b>	<b>85</b>		

**CURB AND GUTTER SUMMARY**

CATEGORY	STATION	TO	STATION	LOCATION	205.0100	390.0201	601.0411	601.0576
					EXCAVATION COMMON CY	BASE PATCHING ASPHALTIC TON	CONCRETE CURB & GUTTER 30-INCH TYPE D LF	CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE J LF
6240-22-71	187+43	-	189+31	STH 47 RT	31	16	-	188
0010	382+27	-	382+45	STH 47 LT	-	-	18	-
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>31</b>	<b>16</b>	<b>18</b>	<b>188</b>
<b>PROJECT TOTAL</b>					<b>31</b>	<b>16</b>	<b>18</b>	<b>188</b>

\*ADDITIONAL QUANTITY SHOWN ELSEWHERE

**CONCRETE SIDEWALK 4-INCH**

CATEGORY	STATION	TO	STATION	LOCATION	602.0405 SF
6240-22-71	187+43	-	189+31	STH 47 RT	188
0010					
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>188</b>
<b>PROJECT TOTAL</b>					<b>188</b>

**INLET SUMMARY**

CATEGORY	STATION	OFFSET	LOCATION	611.0642	611.3902	RIM ELEVATION	INVERT ELEVATION	DEPTH FT
				INLET COVERS TYPE MS EACH	INLETS MEDIAN 2 GRATE EACH			
6240-22-71	381+70	40.0' LT	STH 47	1	1	803.00	799.00	4.00
0010								
<b>6240-22-71 CATEGORY 0010 TOTAL</b>				<b>1</b>	<b>1</b>			
<b>PROJECT TOTAL</b>				<b>1</b>	<b>1</b>			

**MOBILIZATION**

CATEGORY	STATION	TO	STATION	LOCATION	619.1000 EACH
6240-22-71	100+00.00	-	673+99.39	STH 47	1
0010					
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>1</b>
<b>PROJECT TOTAL</b>					<b>1</b>



3

3

MOBILIZATIONS EROSION CONTROL SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	628.1905	628.1910
					MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
6240-22-71 0010	100+00	-	673+99	STH 47	12	7
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>12</b>	<b>7</b>
<b>PROJECT TOTAL</b>					<b>12</b>	<b>7</b>

EROSION CONTROL SUMMARY

CATEGORY	STATION	LOCATION	606.0200	625.0100	627.0200	628.1504	628.1520	628.2004	628.2008	628.7504	628.7555	629.0210	630.0110	630.0500	645.0120	REMARKS
			RIPRAP MEDIUM CY	TOPSOIL SY	MULCHING SY	SILT FENCE LF	SILT FENCE MAINTENANCE LF	EROSION MAT CLASS I TYPE B SY	EROSION MAT URBAN CLASS I TYPE B SY	TEMPORARY DITCH CHECKS LF	CULVERT PIPE CHECKS EACH	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 10 LB	SEED WATER MGAL	GEOTEXTILE TYPE HR SY	
6240-22-71 0010	132+49	STH 47	-	228	-	-	-	228	-	-	6	0.14	3.08	5	-	CULVERT REPLACEMENT
	191+82	STH 47	-	225	-	-	-	134	91	-	6	0.14	3.04	5	-	CULVERT REPLACEMENT
	201+50	STH 47	-	180	-	-	-	180	-	-	6	0.11	2.43	4	-	CULVERT REPLACEMENT
	213+00	STH 47	-	349	-	-	-	-	349	-	6	0.22	4.71	8	-	CULVERT LINING
	225+59	STH 47	-	143	-	-	-	143	-	-	6	0.09	1.93	3	-	CULVERT REPLACEMENT
	238+18	STH 47	-	117	-	-	-	117	-	-	6	0.07	1.58	3	-	CULVERT REPLACEMENT
	272+31	STH 47	-	55	-	-	-	55	-	-	-	0.03	0.74	1	-	ENDWALL REPLACEMENT
	326+17	STH 47	-	461	-	-	-	461	-	-	6	0.29	6.22	10	-	CULVERT REPLACEMENT
	338+17	STH 47	-	63	-	-	-	-	63	-	-	0.04	0.85	1	-	ENDWALL REPLACEMENT
	380+83	STH 47	-	2,574	1935	320	320	475	165	125	6	1.62	34.75	58	-	BOX CULVERT
	381+98	STH 47	6	-	-	-	-	-	-	-	-	-	-	-	16	FLUME
	387+24	STH 47	-	523	-	-	-	252	271	-	6	0.33	7.06	12	-	CULVERT LINING
	402+10	STH 47	-	119	-	-	-	119	-	-	-	0.07	1.61	3	-	ENDWALL REPLACEMENT
	411+03	STH 47	-	108	-	-	-	108	-	-	-	0.07	1.46	2	-	ENDWALL REPLACEMENT
	415+32	STH 47	-	494	-	-	-	230	264	-	6	0.31	6.67	11	-	CULVERT REPLACEMENT
	435+71	STH 47	-	70	-	-	-	70	-	-	-	0.04	0.95	2	-	ENDWALL REPLACEMENT
	474+75	STH 47	-	454	-	-	-	454	-	-	6	0.29	6.13	10	-	CULVERT REPLACEMENT
	496+37	STH 47	-	360	-	-	-	360	-	-	6	0.23	4.86	8	-	CULVERT REPLACEMENT
	541+07	STH 47	60	102	-	-	-	-	102	-	-	0.06	1.38	2	120	ENDWALL REPLACEMENT
	562+83	STH 47	-	374	-	-	-	374	-	-	6	0.24	5.05	8	-	CULVERT REPLACEMENT
	573+64	STH 47	-	87	-	-	-	87	-	-	-	0.05	1.17	2	-	ENDWALL REPLACEMENT
	578+02	STH 47	-	355	-	-	-	355	-	-	6	0.22	4.79	8	-	CULVERT LINING
	585+89	STH 47	-	547	-	-	-	321	226	-	-	0.34	7.38	13	-	ENDWALL REPLACEMENT
	591+59	STH 47	-	51	-	-	-	51	-	-	-	0.03	0.69	2	-	ENDWALL REPLACEMENT
	601+80	STH 47	-	54	-	-	-	54	-	-	-	0.03	0.73	2	-	ENDWALL REPLACEMENT
	617+41	STH 47	-	299	-	-	-	299	-	-	6	0.19	4.04	7	-	CULVERT REPLACEMENT
<b>6240-22-71 CATEGORY 0010 SUBTOTAL</b>			<b>66</b>	<b>8,392</b>	<b>1,935</b>	<b>320</b>	<b>320</b>	<b>4,927</b>	<b>1531</b>	<b>125</b>	<b>90</b>	<b>5.29</b>	<b>113</b>	<b>190</b>	<b>136</b>	
<b>6240-22-71 CATEGORY 0010 UNDISTRIBUTED</b>			<b>17</b>	<b>2,098</b>	<b>485</b>	<b>80</b>	<b>80</b>	<b>1233</b>	<b>384</b>	<b>30</b>	<b>25</b>	<b>1.51</b>	<b>37</b>	<b>-</b>	<b>34</b>	
<b>6240-22-71 CATEGORY 0010 TOTAL</b>			<b>83</b>	<b>10,490</b>	<b>2,420</b>	<b>400</b>	<b>400</b>	<b>6,160</b>	<b>1,915</b>	<b>155</b>	<b>115</b>	<b>6.80</b>	<b>150</b>	<b>190</b>	<b>170</b>	
<b>PROJECT TOTAL</b>			<b>83</b>	<b>10,490</b>	<b>2,420</b>	<b>400</b>	<b>400</b>	<b>6,160</b>	<b>1,915</b>	<b>155</b>	<b>115</b>	<b>6.80</b>	<b>150</b>	<b>190</b>	<b>170</b>	

**INLET PROTECTION TYPE B**

CATEGORY	STATION	OFFSET	LOCATION	628.7010 EACH
6240-22-71 0010	381+70	40' LT	STH 47	1
<b>6240-22-71 CATEGORY 0010 TOTAL</b>				<b>1</b>
<b>PROJECT TOTAL</b>				<b>1</b>

**FIELD OFFICE TYPE B**

CATEGORY	STATION	TO	STATION	LOCATION	642.5001 EACH
6240-22-71 0010	100+00.00	-	673+99.39	STH 47	1
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>1</b>
<b>PROJECT TOTAL</b>					<b>1</b>

**TRAFFIC CONTROL**

CATEGORY	STATION	TO	STATION	LOCATION	643.5000 EACH
6240-22-71 0010	100+00.00	-	673+99.39	STH 47	1
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>1</b>
<b>PROJECT TOTAL</b>					<b>1</b>

TRAFFIC CONTROL DETOUR SIGN SUMMARY 6240-22-71

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 73 DAYS	643.0900 SIGNS 73 DAYS	643.0420 BARRICADES TYPE III 73 DAYS	643.0705 WARNING LIGHTS TYPE A 73 DAYS	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE 73 DAYS	NO OF CYCLES	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
1	STH 47, N. OF NORTH CTH A, PLACE 1/4 MILE N. OF NORTH CTH A INTERSECTION	M 3-3	24"X12"	1	73	73						
	"	M 1-6	24"X24"	1	73	73						47
	"	W 20-2A	48"X48"	1	73	73						
2	STH 47, AT NORTH CTH A, PLACE IN SW QUAD OF NORTH CTH A INTERSECTION	MO 4-8	24"X12"	1	73	73						
	"	M 3-3	24"X12"	1	73	73						
	"	M 1-6	24"X24"	1	73	73						47
	"	MO 5-2R	21"X21"	1	73	73						
3	STH 47, AT SOUTH CTH A, PLACE RIGHT OF EXISTING D1-1 SIGN	MO 4-8	24"X12"	1	73	73						
	"	M 3-3	24"X12"	1	73	73						
	"	M 1-6	24"X24"	1	73	73						47
	"	MO 6-2	21"X21"	1	73	73						TILT RIGHT
4	STH 47, AT SOUTH CTH A, COVER D1-1 SIGN AS SHOWN									1	1	COVER AS SHOWN
5	STH 47, AT SOUTH CTH A, PLACE IN GORE BETWEEN CTH A & STH 47	R 11-3	60"X30"	1	73	73	73	146				2 MILES AHEAD
	"	M 4-9R	30"X24"	1	73	73						
6	STH 47, AT SOUTH CTH A, MODIFY EXISTING J13-2 SIGN AS SHOWN	MO 6-1	21"X21"	1	73	73						LEFT
7	STH 47, S. OF CTH A, COVER EXISTING J4-1 SIGN AS SHOWN									1	1	COVER ENTIRE SIGN
8	CTH A, S. OF STH 47, MODIFY EXISTING J1-1 SIGN AS SHOWN	MO 4-8A	24"X18"	1	73	73						
9	CTH A, N. OF CTH S, PLACE 750' N. OF CTH S INTERSECTION	MO 4-8	24"X12"	1	73	73						
	"	M 3-3	24"X12"	1	73	73						
	"	M 1-6	24"X24"	1	73	73						47
	"	MO 5-1L	21"X21"	1	73	73						
10	CTH A, AT CTH S INTERSECTION, PLACE RIGHT OF EXISTING J13-1 SIGN	MO 4-8	24"X12"	1	73	73						
	"	M 3-3	24"X12"	1	73	73						
	"	M 1-6	24"X24"	1	73	73						47
	"	MO 6-1	21"X21"	1	73	73						LEFT
11	CTH A, N. OF CTH S, PLACE RIGHT OF EXISTING J4-1 SIGN	MO 4-8	24"X12"	1	73	73						
	"	M 3-1	24"X12"	1	73	73						
	"	M 1-6	24"X24"	1	73	73						47
12	CTH S, AT CTH A INTERSECTION, PLACE RIGHT OF EXISTING R1-1 SIGN	MO 4-8	24"X12"	1	73	73						
	"	M 3-1	24"X12"	1	73	73						
	"	M 1-6	24"X24"	1	73	73						47
	"	MO 6-1	21"X21"	1	73	73						RIGHT
13	CTH S, E. OF CTH A, PLACE RIGHT OF EXISTING J4-1 SIGN	MO 4-8	24"X12"	1	73	73						
	"	M 3-3	24"X12"	1	73	73						
	"	M 1-6	24"X24"	1	73	73						47
14	CTH S, E. OF CTH A, PLACE 750' E. OF CTH A INTERSECTION	MO 4-8	24"X12"	1	73	73						
	"	M 3-1	24"X12"	1	73	73						
	"	M 1-6	24"X24"	1	73	73						47
	"	MO 5-1R	21"X21"	1	73	73						
14A	CTH S, E. OF CTH A, PLACE 50' E. OF R&R TRACKS	R 8-8	24"X30"	1	45	73						
15	CTH S, W. OF STH 47, MODIFY EXISTING J1-1 SIGN AS SHOWN	MO 4-8A	24"X18"	1	73	73						
16	CTH S, W. OF STH 47, MODIFY EXISTING J13-2 SIGN AS SHOWN	MO 6-1	21"X21"	1	73	73						RIGHT
PAGE SUBTOTALS				40		2,920	73	146	0		2	

**TRAFFIC CONTROL DETOUR SIGN SUMMARY CONTINUED 6240-22-71**

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 73 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
17	STH 47, S. OF CENTER VALLEY RD, FIELD DETERMINED EXACT LOCATION	PCMS		1					7			PLACE IN ADVANCE TO CLOSURE
18	STH 47, N. OF CTH S, FIELD DETERMINED EXACT LOCATION	PCMS		1					7			PLACE IN ADVANCE TO CLOSURE
19	STH 47, N. OF CTH S, COVER EXISTING J4-1 SIGN									1	1	COVER ENTIRE SIGN
20	STH 47, AT CTH S, PLACE ON RIGHT SHOULDER IN NE QUADRANT OF INTERSECTION	R 11-3	60"X30"	1	73	73	73	146				1/2 MILE AHEAD
	"	M 4-9L	30"X24"	1	73	73						
21	STH 47, AT CTH S INTERSECTION, PLACE LEFT OF EXISTING J13-1 SIGN	MO 4-8	24"X12"	1	73	73						
	"	M 3-1	24"X12"	1	73	73						
	"	M 1-6	24"X24"	1	73	73						47
	"	MO 6-1	21"X21"	1	73	73						LEFT
22	STH 47, S. OF CTH S, PLACE 1/4 MILE S. OF CTH S INTERSECTION	MO 4-8	24"X12"	1	73	73						
	"	M 3-1	24"X12"	1	73	73						
	"	M 1-6	24"X24"	1	73	73						47
	"	MO 5-1L	21"X21"	1	73	73						
23	STH 47, S. OF CTH PP, PLACE 750' S. OF CTH PP INTERSECTION	M 3-1	24"X12"	1	73	73						
	"	M 1-6	24"X24"	1	73	73						47
	"	W 20-2A	48"X48"	1	73	73						
PAGE SUBTOTALS				15		949	73	146	14		1	
<b>6240-22-71 CATEGORY 0010 DETOUR TOTALS</b>				<b>55</b>		<b>3,869</b>	<b>146</b>	<b>292</b>	<b>14</b>		<b>3</b>	

**TRAFFIC CONTROL SUMMARY**

CATEGORY	LOCATION	643.0300 TRAFFIC CONTROL DRUMS		643.0420 TRAFFIC CONTROL BARRICADES TYPE III		643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0900 TRAFFIC CONTROL SIGNS		643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II		643.1050 TRAFFIC CONTROL SIGNS PCMS		REMARKS
		NO. IN SERVICE	DAY	NO. IN SERVICE	DAY	NO. IN SERVICE	DAY	NO. IN SERVICE	DAY	EACH	NO. IN SERVICE	DAY		
6240-22-71 0010	DETOUR	-	-	2	146	4	292	55	3869	3	2	14	6240-22-71 DETOUR	
	S. PROJECT LIMITS	-	-	-	-	-	-	55	7260	-	2	14	ADVANCED WARNING	
	PROJECT	-	-	-	-	-	-	35	105	-	-	-	LOOSE GRAVEL	
	PROJECT	10	70	-	-	-	-	1	7	-	-	-	SHOULDER WORK	
<b>6240-22-71 CATEGORY 0010 TOTAL</b>			<b>70</b>		<b>146</b>		<b>292</b>		<b>11,241</b>		<b>3</b>	<b>28</b>		
<b>PROJECT TOTAL</b>			<b>70</b>		<b>146</b>		<b>292</b>		<b>11,241</b>		<b>3</b>	<b>28</b>		

EDGE LINE PAVEMENT MARKING SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	* 646.1020      646.1040      646.3020      646.3040      646.8120					REMARKS
					MARKING LINE EPOXY 4-INCH LF	MARKING LINE GROOVED WET REF EPOXY 4-INCH LF	MARKING LINE EPOXY 8-INCH LF	MARKING LINE GROOVED WET REF EPOXY 8-INCH LF	MARKING CURB EPOXY LF	
6240-22-71	100+00	-	122+09	STH 47 LT	-	2209	-	-	-	SOLID WHITE
0010	100+00	-	106+56	STH 47 LT	-	41	-	-	-	SKIPS WHITE
	105+43	-	106+59	STH 47 LT	-	-	-	116	-	SOLID WHITE
	123+24	-	132+96	STH 47 LT	-	972	-	-	-	SOLID WHITE
	100+00	-	132+65	STH 47 RT	-	3265	-	-	-	SOLID WHITE
	133+88	-	185+43	STH 47 LT	-	5155	-	-	-	SOLID WHITE
	133+88	-	159+30	STH 47 RT	-	2542	-	-	-	SOLID WHITE
	160+12	-	185+58	STH 47 RT	-	2546	-	-	-	SOLID WHITE
	186+52	-	238+30	STH 47 RT	-	5178	-	-	-	SOLID WHITE
	186+58	-	187+59	STH 47 LT	-	-	-	101	-	SOLID WHITE
	190+13	-	205+11	STH 47 LT	-	1498	-	-	-	SOLID WHITE
	205+77	-	208+72	STH 47 LT	-	295	-	-	-	SOLID WHITE
	209+44	-	238+50	STH 47 LT	-	2906	-	-	-	SOLID WHITE
	239+55	-	262+05	STH 47 RT	-	2250	-	-	-	SOLID WHITE
	239+80	-	291+32	STH 47 LT	-	5152	-	-	-	SOLID WHITE
	263+09	-	291+21	STH 47 RT	-	2812	-	-	-	SOLID WHITE
	292+19	-	317+68	STH 47 RT	-	2549	-	-	-	SOLID WHITE
	292+32	-	317+71	STH 47 LT	-	2539	-	-	-	SOLID WHITE
	318+58	-	327+04	STH 47 RT	-	846	-	-	-	SOLID WHITE
	318+74	-	347+48	STH 47 LT	-	2874	-	-	-	SOLID WHITE
	325+31	-	327+04	STH 47 RT	-	-	-	173	-	SOLID WHITE
	328+69	-	346+83	STH 47 RT	-	1814	-	-	-	SOLID WHITE
	343+80	-	347+45	STH 47 RT	-	-	-	365	-	SOLID WHITE
	345+23	-	346+85	STH 47 RT	-	-	-	162	-	SOLID WHITE
	348+52	-	352+18	STH 47 LT	-	-	-	366	-	SOLID WHITE
	349+12	-	350+57	STH 47 LT	-	-	-	145	-	SOLID WHITE
	348+60	-	413+48	STH 47 RT	-	6488	-	-	-	SOLID WHITE
	349+21	-	392+52	STH 47 LT	-	4331	-	-	-	SOLID WHITE
	393+13	-	411+36	STH 47 LT	-	1823	-	-	-	SOLID WHITE
	415+01	-	416+75	STH 47 RT	-	174	-	153	-	SOLID WHITE
	415+10	-	416+62	STH 47 LT	-	152	-	-	-	SOLID WHITE
	417+60	-	418+60	STH 47 LT	-	-	-	100	-	SOLID WHITE
	419+13	-	486+34	STH 47 LT	-	6721	-	-	-	SOLID WHITE
	420+40	-	541+08	STH 47 RT	-	12068	-	-	-	SOLID WHITE
	485+87	-	487+45	STH 47 RT	-	40	-	-	-	SKIPS WHITE
	487+49	-	494+61	STH 47 LT	-	712	-	-	-	SOLID WHITE
	493+10	-	501+42	STH 47 LT	-	985	-	-	-	SOLID WHITE
	494+61	-	500+09	STH 47 LT	-	137	-	-	-	SKIPS WHITE
	498+79	-	502+41	STH 47 RT	-	91	-	-	-	SKIPS WHITE
	502+81	-	504+31	STH 47 LT	-	-	-	150	-	SOLID WHITE
	502+93	-	541+13	STH 47 LT	-	3820	-	-	-	SOLID WHITE
	541+78	-	595+90	STH 47 RT	-	5412	-	-	-	SOLID WHITE
	541+79	-	595+85	STH 47 LT	-	5406	-	-	-	SOLID WHITE
	596+51	-	674+39	STH 47 LT	-	7788	-	-	-	SOLID WHITE
	596+56	-	622+02	STH 47 RT	-	2546	-	-	-	SOLID WHITE
	622+70	-	674+00	STH 47 RT	-	5130	-	-	-	SOLID WHITE
	20+59	-	20+86	BROADWAY DR	27	-	-	-	-	SOLID WHITE
	110+37	-	110+99	CTH PP	74	-	158	-	53	SOLID WHITE/ISLAND CURB YELLOW
	118+80	-	121+23	CTH S	160	-	310	-	110	SOLID WHITE/ISLAND CURB YELLOW
	150+35	-	150+72	TWELVE CORNERS RD	-	-	67	-	52	SOLID WHITE/ISLAND CURB YELLOW
	159+15	-	159+73	CTH A SOUTH	58	-	110	-	48	SOLID WHITE/ISLAND CURB YELLOW
	168+87	-	169+77	CTH A NORTH	62	-	135	-	51	SOLID WHITE/ISLAND CURB YELLOW
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>381</b>	<b>111,267</b>	<b>780</b>	<b>1,831</b>	<b>314</b>	
<b>PROJECT TOTAL</b>					<b>381</b>	<b>111,267</b>	<b>780</b>	<b>1,831</b>	<b>314</b>	

\*ADDITIONAL QUANTITY SHOWN ELSEWHERE

**CENTERLINE PAVEMENT MARKING SUMMARY**

CATEGORY	STATION	TO	STATION	LOCATION	* 646.1020      646.7120      649.0105      649.0120				REMARKS
					MARKING LINE EPOXY 4-INCH LF	DIAGONAL EPOXY 12-INCH LF	TEMPORARY MARKING LINE PAINT 4-INCH LF	TEMPORARY MARKING LINE EPOXY 4-INCH LF	
6240-22-71	100+00	-	103+92	STH 47	1568	-	4704	-	DOUBLE YELLOW
0010	105+45	-	111+26	STH 47	2324	-	6972	-	DOUBLE YELLOW
	105+45	-	111+26	STH 47	160	160	480	-	MISCELLANEOUS YELLOW
	111+26	-	116+88	STH 47	1124	-	3372	-	DOUBLE YELLOW
	116+88	-	123+04	STH 47	770	-	1998	-	SOLID AND SKIPS YELLOW
	123+04	-	151+04	STH 47	700	-	672	-	SKIPS YELLOW
	151+04	-	163+75	STH 47	1589	-	4119	-	SOLID AND SKIPS YELLOW
	163+75	-	182+56	STH 47	471	-	453	-	SKIPS YELLOW
	182+56	-	194+93	STH 47	1547	-	4008	-	SOLID AND SKIPS YELLOW
	194+93	-	210+97	STH 47	401	-	387	-	SKIPS YELLOW
	210+97	-	240+07	STH 47	728	-	699	233	SKIPS YELLOW/BEGIN RUMBLE STRIPS AT 210+97
	240+07	-	251+34	STH 47	1409	-	3654	1218	SOLID AND SKIPS YELLOW
	251+34	-	264+86	STH 47	2704	-	8112	2704	DOUBLE YELLOW
	264+86	-	275+44	STH 47	1323	-	3429	1143	SOLID AND SKIPS YELLOW
	275+44	-	289+00	STH 47	339	-	327	109	SKIPS YELLOW
	289+00	-	321+53	STH 47	4067	-	10542	3514	SOLID AND SKIPS YELLOW
	321+53	-	326+62	STH 47	1018	-	3054	1018	DOUBLE YELLOW
	326+62	-	337+79	STH 47	1397	-	3621	1207	SOLID AND SKIPS YELLOW
	337+79	-	341+09	STH 47	660	-	1980	660	DOUBLE YELLOW
	341+09	-	343+50	STH 47	964	49	2892	964	MISCELLANEOUS YELLOW
	343+50	-	347+45	STH 47	790	-	2370	790	DOUBLE YELLOW
	348+59	-	352+31	STH 47	744	-	2232	744	DOUBLE YELLOW
	352+31	-	354+53	STH 47	945	-	2835	945	MISCELLANEOUS YELLOW
	354+53	-	391+14	STH 47	7322	-	21966	7322	DOUBLE YELLOW
	391+14	-	401+00	STH 47	1233	-	3195	1065	SOLID AND SKIPS YELLOW
	401+00	-	421+16	STH 47	504	-	486	162	SKIPS YELLOW
	421+16	-	439+77	STH 47	2327	-	6030	2010	SOLID AND SKIPS YELLOW
	439+77	-	457+42	STH 47	442	-	426	142	SKIPS YELLOW
	457+42	-	468+00	STH 47	1323	-	3429	1143	SOLID AND SKIPS YELLOW
	468+00	-	501+09	STH 47	6618	-	19854	6618	DOUBLE YELLOW
	501+09	-	529+03	STH 47	3493	-	9054	3018	SOLID AND SKIPS YELLOW
	529+03	-	595+23	STH 47	1655	-	1590	530	SKIPS YELLOW
	595+23	-	607+78	STH 47	1569	-	4068	1356	SOLID AND SKIPS YELLOW
	607+78	-	614+24	STH 47	1292	-	3876	1292	DOUBLE YELLOW
	614+24	-	624+94	STH 47	1338	-	3468	1156	SOLID AND SKIPS YELLOW
	624+94	-	630+02	STH 47	127	-	123	41	SKIPS YELLOW
	630+02	-	640+94	STH 47	1365	-	3540	1180	SOLID AND SKIPS YELLOW
	640+94	-	648+28	STH 47	1468	-	4404	1468	DOUBLE YELLOW
	648+28	-	659+32	STH 47	1380	-	3579	1193	SOLID AND SKIPS YELLOW
	659+32	-	673+99	STH 47	367	-	354	118	SKIPS YELLOW
	20+45	-	20+86	BROADWAY DR	82	-	246	82	DOUBLE YELLOW
	39+37	-	39+50	CTH O	26	-	78	26	DOUBLE YELLOW
	110+48	-	110+99	CTH P	102	-	306	102	DOUBLE YELLOW
	118+80	-	119+71	CTH S	182	-	546	182	DOUBLE YELLOW
	120+42	-	121+23	CTH S	162	-	486	162	DOUBLE YELLOW
	139+30	-	139+60	CENTER VALLEY RD	60	-	180	60	DOUBLE YELLOW
	159+45	-	159+73	CTH A	116	-	348	116	DOUBLE YELLOW
	168+87	-	169+76	CTH A	178	-	534	178	DOUBLE YELLOW
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>62,473</b>	<b>209</b>	<b>165,078</b>	<b>45,971</b>	
<b>PROJECT TOTAL</b>					<b>62,473</b>	<b>209</b>	<b>165,078</b>	<b>45,971</b>	

\*ADDITIONAL QUANTITY SHOWN ELSEWHERE

**MISCELLANEOUS PAVEMENT MARKING SUMMARY**

CATEGORY	STATION	LOCATION	646.5020	646.5120	646.6120	646.8320	REMARKS
			MARKING ARROW EPOXY EACH	MARKING WORD EPOXY EACH	MARKING STOP LINE EPOXY 18-INCH LF	MARKING PARKING STALL EPOXY LF	
6240-22-71	344+05	STH 47 RT	-	1	-	-	
0010	345+90	STH 47 RT	-	1	-	-	
	346+74	STH 47 RT	-	1	-	-	
	344+46	STH 47 RT	1	-	-	-	
	345+27	STH 47 RT	1	-	-	-	
	346+53	STH 47 RT	1	-	-	-	
	347+14	STH 47 RT	1	-	-	-	
	348+78	STH 47 LT	1	-	-	-	
	349+17	STH 47 LT	-	1	-	-	
	349+37	STH 47 LT	1	-	-	-	
	349+95	STH 47 LT	-	1	-	-	
	350+55	STH 47 LT	1	-	-	-	
	351+55	STH 47 LT	1	-	-	-	
	351+95	STH 47 LT	-	1	-	-	
	119+63	CTH S RT	-	-	16	-	MARK THRU LANE ONLY
	120+39	CTH S LT	-	-	16	-	MARK THRU LANE ONLY
	139+73	CENTER VALLEY RD RT	-	-	30	-	
	140+30	CENTER VALLEY RD LT	-	-	25	-	
<b>6240-22-71 CATEGORY 0010 TOTAL</b>			<b>8</b>	<b>6</b>	<b>87</b>	<b>0</b>	
6240-22-71	189+31	STH 47 RT	-	-	-	200	PARKING LANES
0030							
<b>6240-22-71 CATEGORY 0030 TOTAL</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>200</b>	
<b>PROJECT TOTAL</b>			<b>8</b>	<b>6</b>	<b>87</b>	<b>200</b>	

**LOCATING NO-PASSING ZONES**

CATEGORY	STATION	TO	STATION	LOCATION	648.0100 MI
6420-22-71	100+00	-	673+99	STH 47	10.87
0010					
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>10.87</b>
<b>PROJECT TOTAL</b>					<b>10.87</b>

**CONSTRUCTION STAKING SUMMARY**

CATEGORY	STATION	TO	STATION	LOCATION	650.5000	650.5500	650.6500	650.8000	650.9910	650.9920
					CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING CURB & GUTTER LF	CONSTRUCTION STAKING STRUCTURE LAYOUT (C-44-133) LS	CONSTRUCTION STAKING RESURFACING REFERENCE LF	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) LS	CONSTRUCTION STAKING SLOPE STAKES LF
6240-22-71	100+00	-	673+99	STH 47	57,399	206	1	57,399	-	552
0010	9+28		9+85	W DEERVIEW DR	57	-	-	57	-	-
	19+10		19+85	W BROADWAY DR	75	-	-	75	-	-
	20+15		20+86	BROADWAY DR	71	-	-	71	-	-
	30+15		30+84	SCHABO RD	69	-	-	69	-	-
	39+37		39+85	CTH O	48	-	-	48	-	-
	40+15		40+66	MACKVILLE RD	51	-	-	51	-	-
	49+63		49+85	EDWARD ST	22	-	-	22	-	-
	59+32		59+85	GLENN ST	53	-	-	53	-	-
	69+08		70+66	WEGE RD	128	-	-	128	-	-
	80+15		80+70	PINE GROVE RD	55	-	-	55	-	-
	89+38		90+79	ROCK RD	112	-	-	112	-	-
	99+39		100+66	PLEASANT RD	97	-	-	97	-	-
	110+15		110+99	CTH PP	84	-	-	84	-	-
	118+80		121+23	CTH S	167	-	-	167	-	-
	129+36		129+85	COUNTRY GATE LN	49	-	-	49	-	-
	139+31		141+15	CENTER VALLEY RD	154	-	-	154	-	-
	149+21		151+14	TWELVE CORNERS RD	163	-	-	163	-	-
	159+15		159+85	CTH A SOUTH	70	-	-	70	-	-
	168+88		169+85	CTH A NORTH	97	-	-	97	-	-
	179+36		180+63	STINGLE RD	97	-	-	97	-	-
	189+41		190+56	OTT RD	85	-	-	85	-	-
	200+15		200+54	WOLF RD	39	-	-	39	-	-
				PROJECT	-	-	-	-	1	-
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>59,242</b>	<b>206</b>	<b>1</b>	<b>59,242</b>	<b>1</b>	<b>552</b>
<b>PROJECT TOTAL</b>					<b>59,242</b>	<b>206</b>	<b>1</b>	<b>59,242</b>	<b>1</b>	<b>552</b>

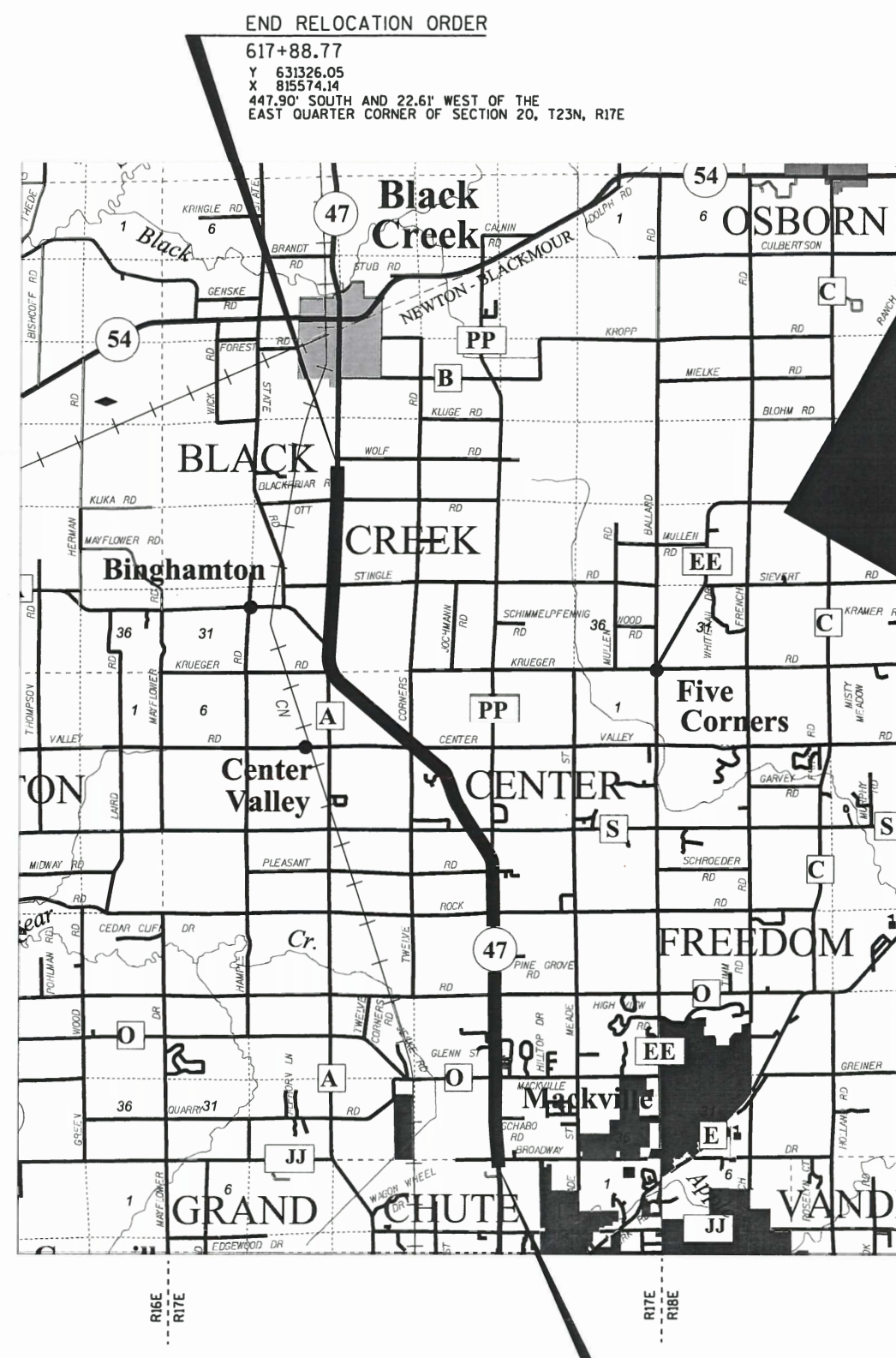
**SAWING SUMMARY**

CATEGORY	STATION	TO	STATION	LOCATION	690.0150	690.0250	REMARKS
					SAWING ASPHALT LF	SAWING CONCRETE LF	
6240-22-71	132+49			STH 47	-	60	CULVERT REPLACEMENT
0010	187+43	-	189+31	STH 47 RT	-	188	SIDEWALK REMOVAL
	187+43	-	189+31	STH 47 RT	188	-	FOR CURB AND GUTTER
	191+82			STH 47	-	60	STRUCTURE REMOVAL
	201+50			STH 47	-	60	CULVERT REPLACEMENT
	238+18			STH 47	-	60	CULVERT REPLACEMENT
	326+17			STH 47	60	60	CULVERT REPLACEMENT
	380+83			STH 47	-	60	STRUCTURE REMOVAL
	415+32			STH 47	-	60	CULVERT REPLACEMENT
	474+75			STH 47	60	-	CULVERT REPLACEMENT
	496+37			STH 47	60	-	CULVERT REPLACEMENT
	562+83			STH 47	60	-	CULVERT REPLACEMENT
	601+80			STH 47	60	-	CULVERT REPLACEMENT
	617+41			STH 47	60	-	CULVERT REPLACEMENT
				STH 47	1,153	-	ASPHALT DRIVEWAYS NORTH OF PINE GROVE RD
<b>6240-22-71 CATEGORY 0010 TOTAL</b>					<b>1,701</b>	<b>608</b>	
<b>PROJECT TOTAL</b>					<b>1,701</b>	<b>608</b>	



R/W PROJECT NUMBER 6240-22-21	SHEET NUMBER 4.01	TOTAL SHEETS 22
R/W PROJECT NUMBER		
<b>PLAT OF RIGHT OF WAY REQUIRED FOR APPLETON - BLACK CREEK CTH JJ - CTH B</b>		
STH 47	OUTAGAMIE COUNTY	
CONSTRUCTION PROJECT NUMBER 6240-22-71		

CONVENTIONAL SYMBOLS			
SECTION LINE	---		
QUARTER LINE	---		
SIXTEENTH LINE	---		
NEW REFERENCE LINE	---		
NEW R/W LINE	---		
EXISTING R/W LINE	---		
PROPERTY LINE	---		
LOT, TIE, AND OTHER MINOR LINES	---		
SLOPE INTERCEPT	---		
CORPORATE LIMITS	---		
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	---		
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)	---		
TEMP. LIMITED EASEMENT AREA	---		
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)	---		
TRANSMISSION STRUCTURES	---		
BUILDING	---		
BUILDING (TO BE REMOVED)	---		
BRIDGE	---		
<b>CONVENTIONAL UTILITY SYMBOLS</b>			
WATER	---		
GAS	---		
TELEPHONE	---		
OVERHEAD TRANSMISSION LINES	---		
ELECTRIC	---		
CABLE TELEVISION	---		
FIBER OPTIC	---		
SANITARY SEWER	---		
STORM SEWER	---		
ELECTRIC TOWER	---		
POWER POLE	---		
TELEPHONE POLE	---		
TELEPHONE PEDESTAL	---		
<b>CONVENTIONAL ABBREVIATIONS</b>			
ACCESS RIGHTS	AR	OUTLOT	OL
ACRES	AC	PAGE	P
AHEAD	AH	POINT OF TANGENCY	PT
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS	(100')
BACK	BK	REEL / IMAGE	R/I
BLOCK	BLK	REFERENCE LINE	R/L
CENTERLINE	C/L	PERMANENT LIMITED EASEMENT	PLE
CERTIFIED SURVEY MAP	CSM	POINT OF BEGINNING	POB
CONCRETE	CONC	POINT OF CURVATURE	PC
COUNTY	CO	POINT OF COMPOUND CURVE	PCC
COUNTY TRUNK HIGHWAY	CTH	POINT OF INTERSECTION	PI
DISTANCE	DIST	REMAINING	REM
CORNER	COR	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
DOCUMENT NUMBER	DOC	RIGHT	RT
EASEMENT	EASE	RIGHT OF WAY	R/W
EXISTING	EX	SECTION	SEC
GAS VALVE	GV	SEPTIC VENT	SEPV
GRID NORTH	GN	SQUARE FEET	SF
HIGHWAY EASEMENT	HE	STATE TRUNK HIGHWAY	STH
IDENTIFICATION	ID	STATION	STA
LAND CONTRACT	LC	TELEPHONE PEDESTAL	TP
LEFT	LT	TEMPORARY LIMITED EASEMENT	TLE
MONUMENT	MON	TRANSPORTATION PROJECT PLAT	TPP
NATIONAL GEODETIC SURVEY NUMBER	NGS	UNITED STATES HIGHWAY	USH
	NO	VOLUME	V



**END RELOCATION ORDER**  
 617+88.77  
 Y 631326.05  
 X 815574.14  
 447.90' SOUTH AND 22.61' WEST OF THE  
 EAST QUARTER CORNER OF SECTION 20, T23N, R17E

LAYOUT  
 SCALE 0 2 MI.

**BEGIN RELOCATION ORDER**  
 132+27.96  
 Y 586691.09  
 X 825251.20  
 108.87' SOUTH AND 121.53' EAST OF THE  
 SOUTHWEST CORNER OF SECTION 35, T22N, R17E

TOTAL NET LENGTH OF CENTERLINE = 9.197 MI.

**NOTES:**

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), OUTAGAMIE COUNTY, NAD83 (1991) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 MONUMENTS (TYPICALLY 1" I.D. X 24" IRON PIPES), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLES) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON DETAIL SHEETS.

**CAUTION:**  
 THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY. DEEDS  
 MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES.

ORIGINAL PLAT PREPARED BY

**G GREMMER & ASSOCIATES, INC.**  
 CONSULTING ENGINEERS  
 Stevens Point • Fond du Lac

95 South Pioneer Road, Suite 300 • Fond du Lac, WI 54606  
 (920) 924-5720 • Fax (920) 924-5725

4/27/20  
 DATE JAY W. PANETTI, PLS

**WISCONSIN**  
 JAY W. PANETTI  
 S-2747  
 WAUPUN,  
 WI  
 LAND SURVEYOR

REVISION DATE  
 6/4/20 N.C.  
 7/1/20 N.C.

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

APPROVED FOR THE DEPARTMENT  
 DATE: 4/27/20 *Curt Van Een*  
 (Signature)



# SCHEDULE OF LANDS & INTERESTS REQUIRED

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED. OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED			T.L.E. ACRES TEMP.
				NEW	EXISTING	TOTAL	
1	4.08	PROPERTY VENTURES LLC	TLE	0	0	0	0.020
2	4.08	GREGG G. MILLER AND DEBBIE A. MILLER	TLE	0	0	0	0.020
3	4.09, 4.10	ST. EDWARDS CONGREGATION OF THE TOWN OF CENTER, OUTAGAMIE COUNTY, WISCONSIN	TLE	0	0	0	0.018
4	4.09	PAUL HOFACKER (1/2 INTEREST) AND KIM CALMES, JOSEPH HOFACKER, MARY FROMM, MICHAEL HOFACKER, JACKIE MURPHY, JAMES HOFACKER, SUE VANDENBERG AND JOHN HOFACKER EQUALLY AS TENANTS IN COMMON (1/2 INTEREST)	TLE	0	0	0	0.019
6	4.10	CHRISTOPHER D. JOSSART AND KIM M. JOSSART, TRUSTEES, OR THEIR SUCCESSORS IN INTEREST, OF THE CHRISTOPHER AND KIM JOSSART REVOCABLE LIVING TRUST DATED MAY 5, 2016, AND ANY AMENDMENTS THERETO	TLE	0	0	0	0.015
7	4.10	MACKVILLE CROSSINGS LLC	TLE	0	0	0	0.007
8	4.10	JON J. WILSON	TLE	0	0	0	0.058
9	4.10, 4.11	KEITH L. REINKE	TLE	0	0	0	0.077
11	4.10	TAMARA A. NICKASCH	TLE	0	0	0	0.012
12	4.11	DALE L. WALBER AND JOAN M. WALBER	TLE	0	0	0	0.013
13	4.11	MAURICE G. BRINCKS AND DENISE A. BRINCKS	TLE	0	0	0	0.006
14	4.11	JOSEPH E. LECKER AND PATRICIA J. LECKER	TLE	0	0	0	0.007
16	4.12	DORN FARMS, A WISCONSIN PARTNERSHIP CONSISTING OF ROBERT DORN AND DAVID L. DORN, ITS PARTNERS	TLE	0	0	0	0.034
17	4.13	DEBRA J. KILEY AS TRUSTEE OF THE JOYCE L. WICHMAN IRREVOCABLE REAL ESTATE TRUST DATED DECEMBER 31, 2008	TLE	0	0	0	0.022
18	4.14	TRAVIS J. DEKEYSER AND KIMBERLY L. DEKEYSER	FEE, TLE	0.012	0	0.012	0.214
19	4.14	RICHARD KRANZ AND CHRISTINE A. KRANZ	FEE, TLE	0.017	0	0.017	0.056
20	4.14	PENNI NEUMAN AND FRANCISCO BAEZ	TLE	0	0	0	0.119
21	4.14	KENNETH G. KRAUSE	TLE	0	0	0	0.050
22	4.14	JERRY L. JACKSON	FEE, TLE	0.024	0	0.024	0.095
23	4.15	BRADLEY A. LANG	TLE	0	0	0	0.035
24	4.16	GARY M. TROFKA AND JANE M. MALIN, TRUSTEES OF THE GARY M. TROFKA AND JANE M. MALIN LIVING TRUST DATED FEBRUARY 9, 2018, AND ANY AMENDMENTS THERETO	TLE	0	0	0	0.011
25	4.14	JERALD A. KUBA	FEE, TLE	0.029	0	0.029	0.078

SHEET 2 OF 22 SHEETS

REVISION DATE 6/4/2020 N.C. 7/1/2020

DATE 4/27/2020

SCALE, FEET

HWY: STH 47

STATE R/W PROJECT NUMBER 6240-22-21

PLAT SHEET 4.02

GRID FACTOR



COUNTY: OUTAGAMIE

CONSTRUCTION PROJECT NUMBER 6240-22-71

PS&E SHEET

E

# SCHEDULE OF LANDS & INTERESTS REQUIRED


AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED. OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

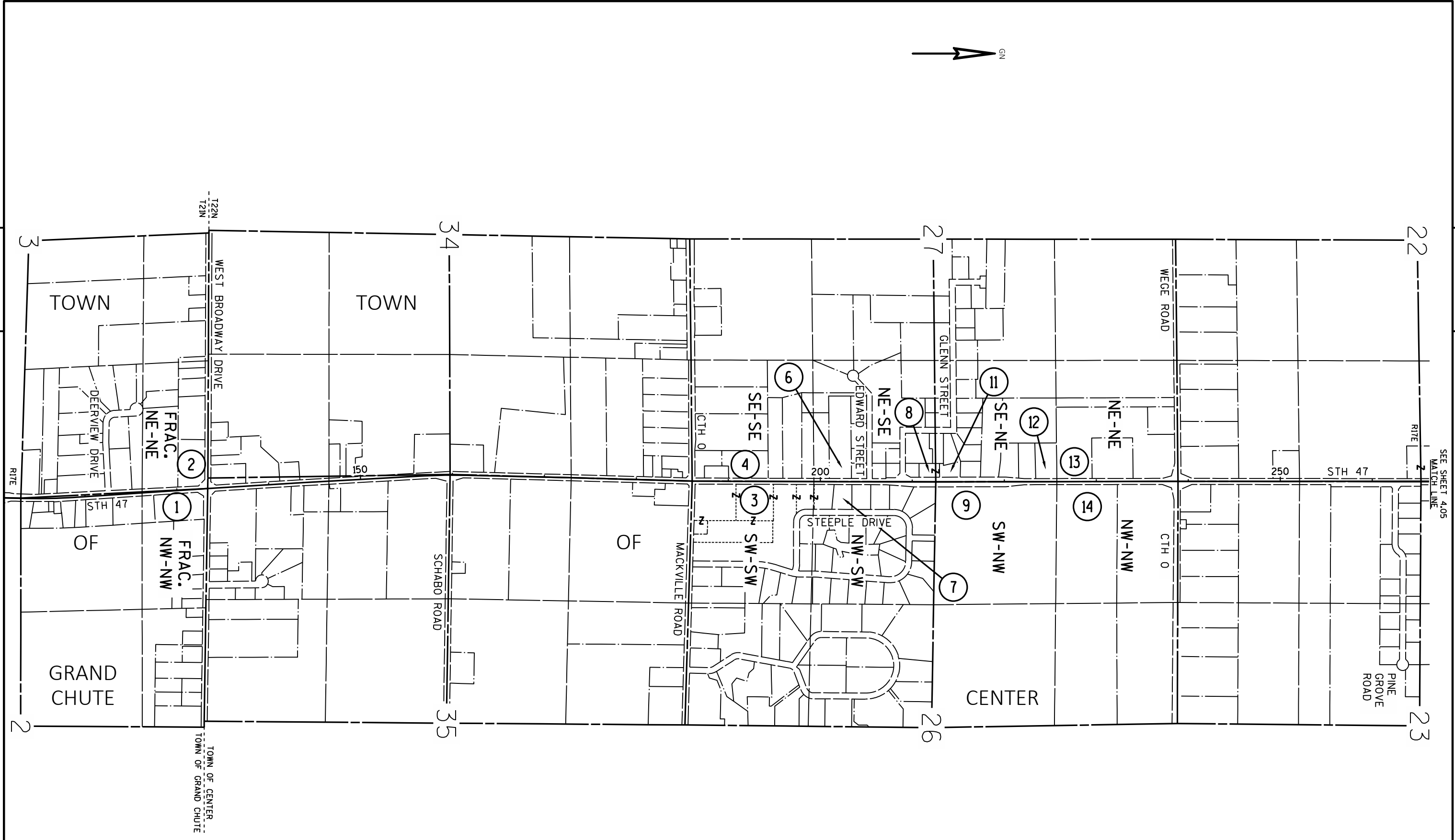
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PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED			T.L.E. ACRES TEMP.
				NEW	EXISTING	TOTAL	
26	4.17	ISAAC G. STILLE	TLE	0	0	0	0.028
27	4.17	NICHOLAS J. SIMON AND JEREMIAH W. SIMON, AN UNDIVIDED ONE-HALF (1/2) INTEREST EACH, AS TENANTS-IN-COMMON (JAMES S. SIMON AND BONNIE J. SIMON LIFE ESTATE)	TLE	0	0	0	0.034
28	4.18	LANG ENTERPRISES, LLC	FEE, TLE	0.006	0	0.006	0.013
29	4.18	DANIEL D. GRUENDEMANN	FEE, TLE	0.004	0	0.004	0.024
30	4.14	MICHAEL R. MILLER AND HEIDI L. MILLER	FEE, TLE	0.008	0	0.008	0.014
31	4.19, 4.20	DAVID L. DORN AND ROBERT M. DORN	TLE	0	0	0	0.063
32	4.19	EMILY A. GANDARA	TLE	0	0	0	0.060
33	4.20, 4.21	ROBERT W. SCHMIDT JR. AND KAREN M. SCHMIDT	TLE	0	0	0	0.161
34	4.22	WITTERHOLT'S FAMILY FARM, LLC	TLE	0	0	0	0.027
36	4.22	WILLIAM S. PALTZER AND DOROTHY A. PALTZER, TRUSTEES OF THE WILLIAM S. PALTZER AND DOROTHY A. PALTZER LIVING TRUST DATED FEBRUARY 3, 1998	TLE	0	0	0	0.026
101	4.10, 4.11, 4.12, 4.13, 4.16, 4.18	AT&T WISCONSIN	RELEASE OF RIGHTS				
102	4.11, 4.14, 4.18, 4.21, 4.22	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS				
103	4.13	ATC MANAGEMENT, INC.	RELEASE OF RIGHTS				
104	4.19, 4.20, 4.21, 4.22	CENTURY LINK, INC.	RELEASE OF RIGHTS				
105	4.16	WE ENERGIES - GAS	RELEASE OF RIGHTS				

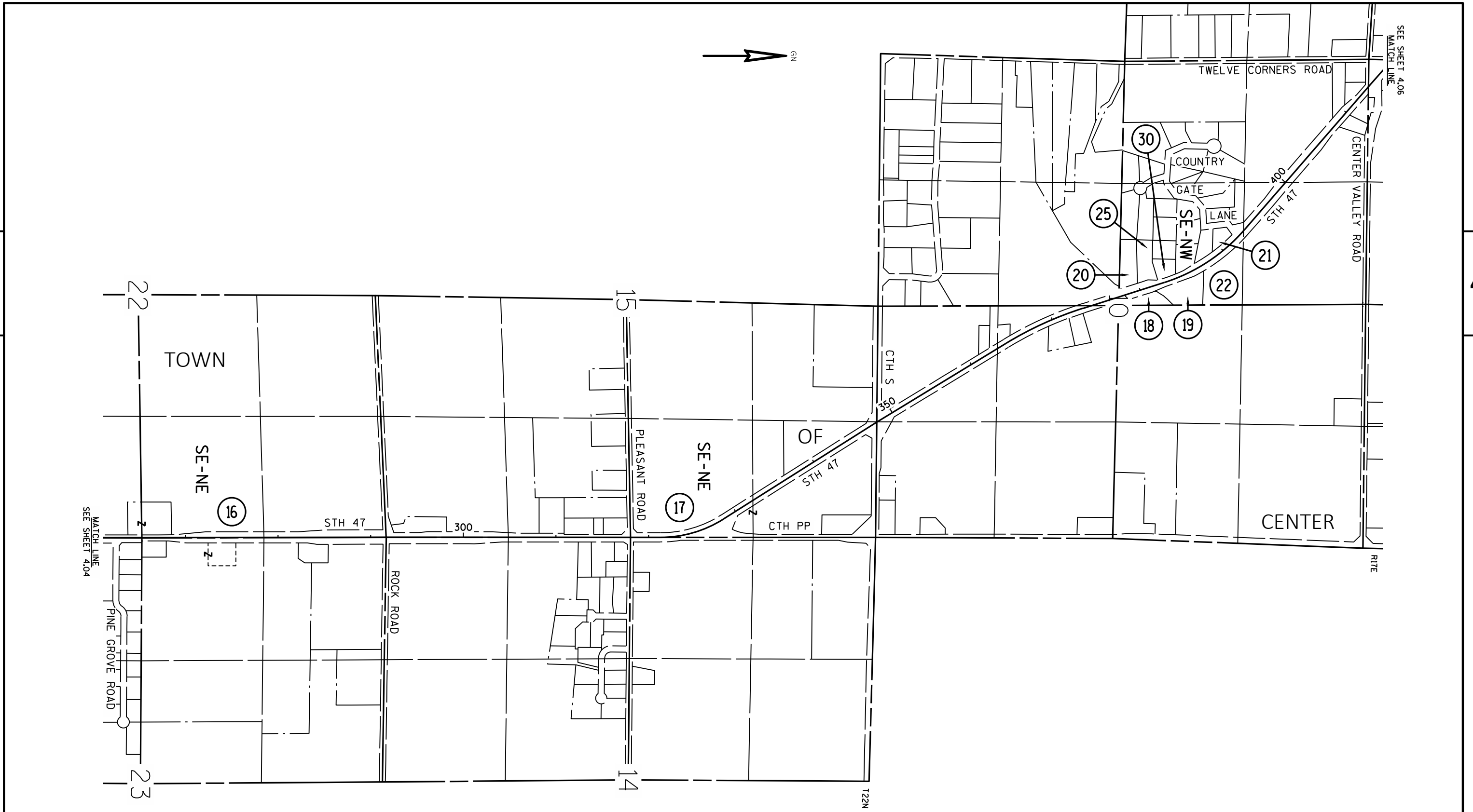
SHEET 3 OF 22 SHEETS

REVISION DATE	6/4/2020	7/1/2020	_____	DATE	4/27/2020	SCALE, FEET	HWY: STH 47	STATE R/W PROJECT NUMBER	6240-22-21	PLAT SHEET	4.03
_____	_____	_____	_____	GRID FACTOR	_____		COUNTY: OUTAGAMIE	CONSTRUCTION PROJECT NUMBER	6240-22-71	PS&E SHEET	_____



SHEET 4 OF 22 SHEETS

REVISION DATE	6/4/2020 N.C.	7/1/2020 N.C.		DATE	4/27/2020	SCALE, FEET	0 500 1000	HWY:	STH 47	STATE R/W PROJECT NUMBER	6240-22-21	PLAT SHEET	4.04
				GRID FACTOR				COUNTY:	OUTAGAMIE	CONSTRUCTION PROJECT NUMBER	6240-22-71	PS&E SHEET	

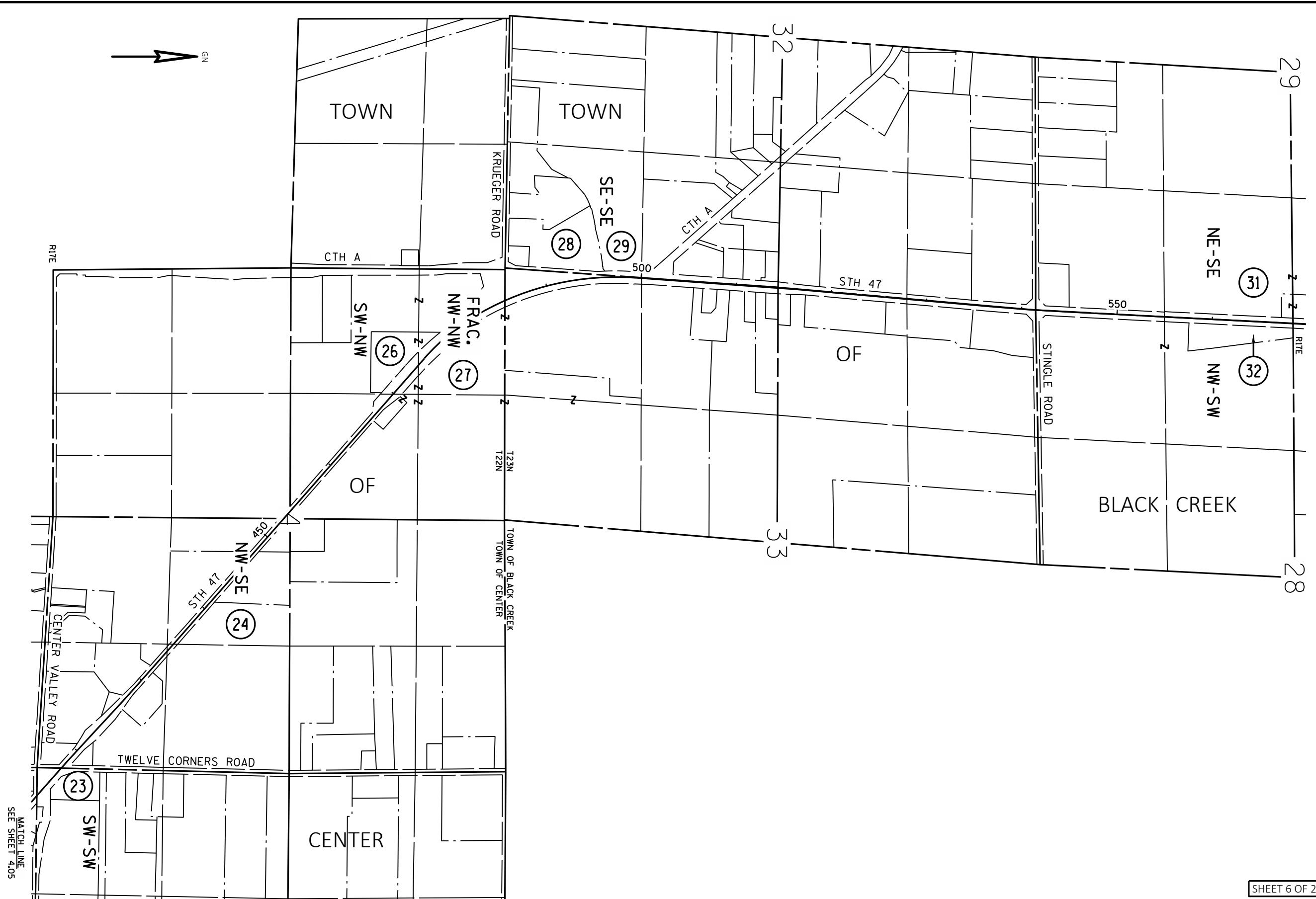


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SHEET 5 OF 22 SHEETS

REVISION DATE	6/4/2020 N.C.	7/1/2020		DATE	4/27/2020	SCALE, FEET	0 500 1000	HWY:	STH 47	STATE R/W PROJECT NUMBER	6240-22-21	PLAT SHEET	4.05
				GRID FACTOR				COUNTY:	OUTAGAMIE	CONSTRUCTION PROJECT NUMBER	6240-22-71	PS&E SHEET	



MATCH LINE  
SEE SHEET 4.05

MATCH LINE  
SEE SHEET 4.07

SHEET 6 OF 22 SHEETS

REVISION DATE	6/4/2020 N.C.	7/1/2020 N.C.	

DATE	4/27/2020
GRID FACTOR	

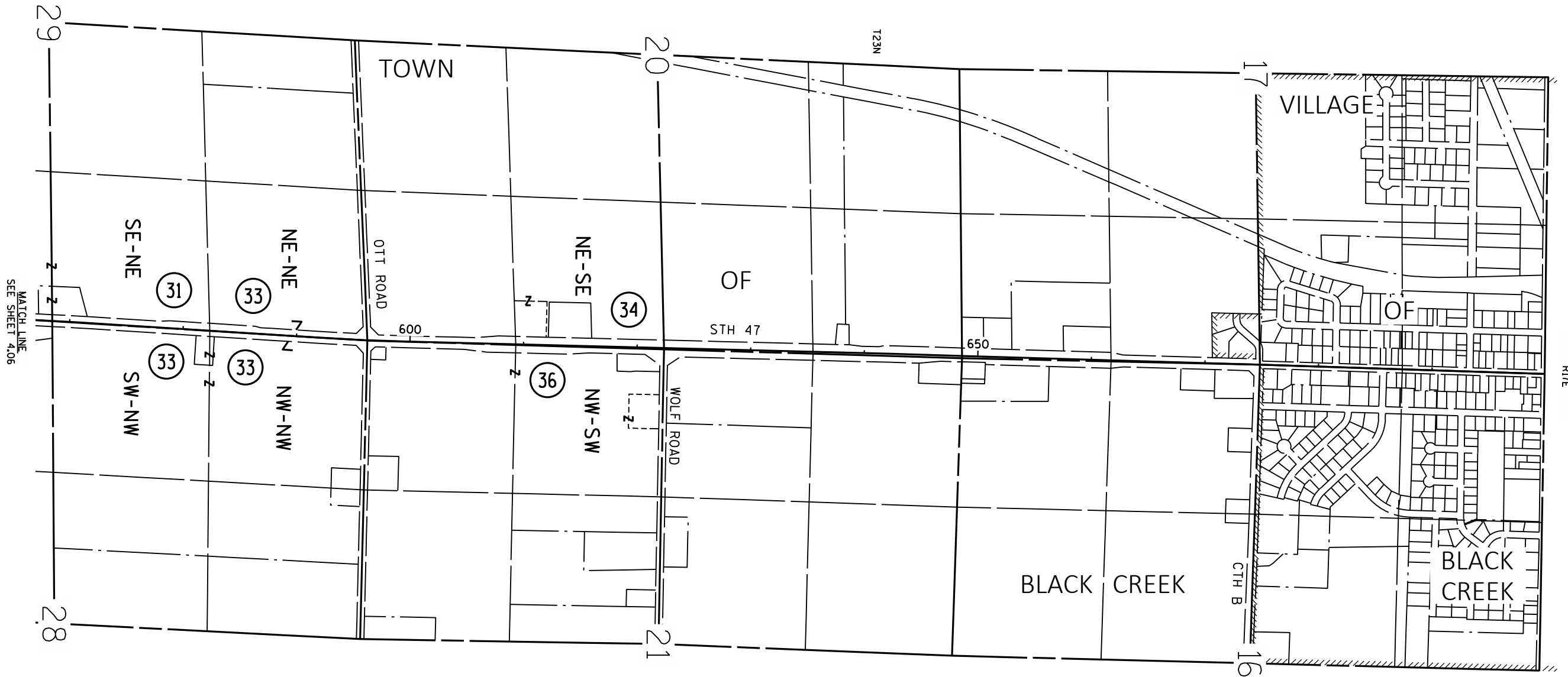
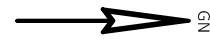


HWY:	STH 47
COUNTY:	OUTAGAMIE

STATE R/W PROJECT NUMBER	6240-22-21
CONSTRUCTION PROJECT NUMBER	6240-22-71

PLAT SHEET	4.06
PS&E SHEET	

E



4

4

SHEET 7 OF 22 SHEETS

REVISION DATE	6/4/2020 N.C.	7/1/2020 N.C.	

DATE	4/27/2020
GRID FACTOR	



HWY:	STH 47
COUNTY:	OUTAGAMIE

STATE R/W PROJECT NUMBER	6240-22-21
CONSTRUCTION PROJECT NUMBER	6240-22-71

PLAT SHEET	4.07
PS&E SHEET	

E

PARCEL 2 - TLE

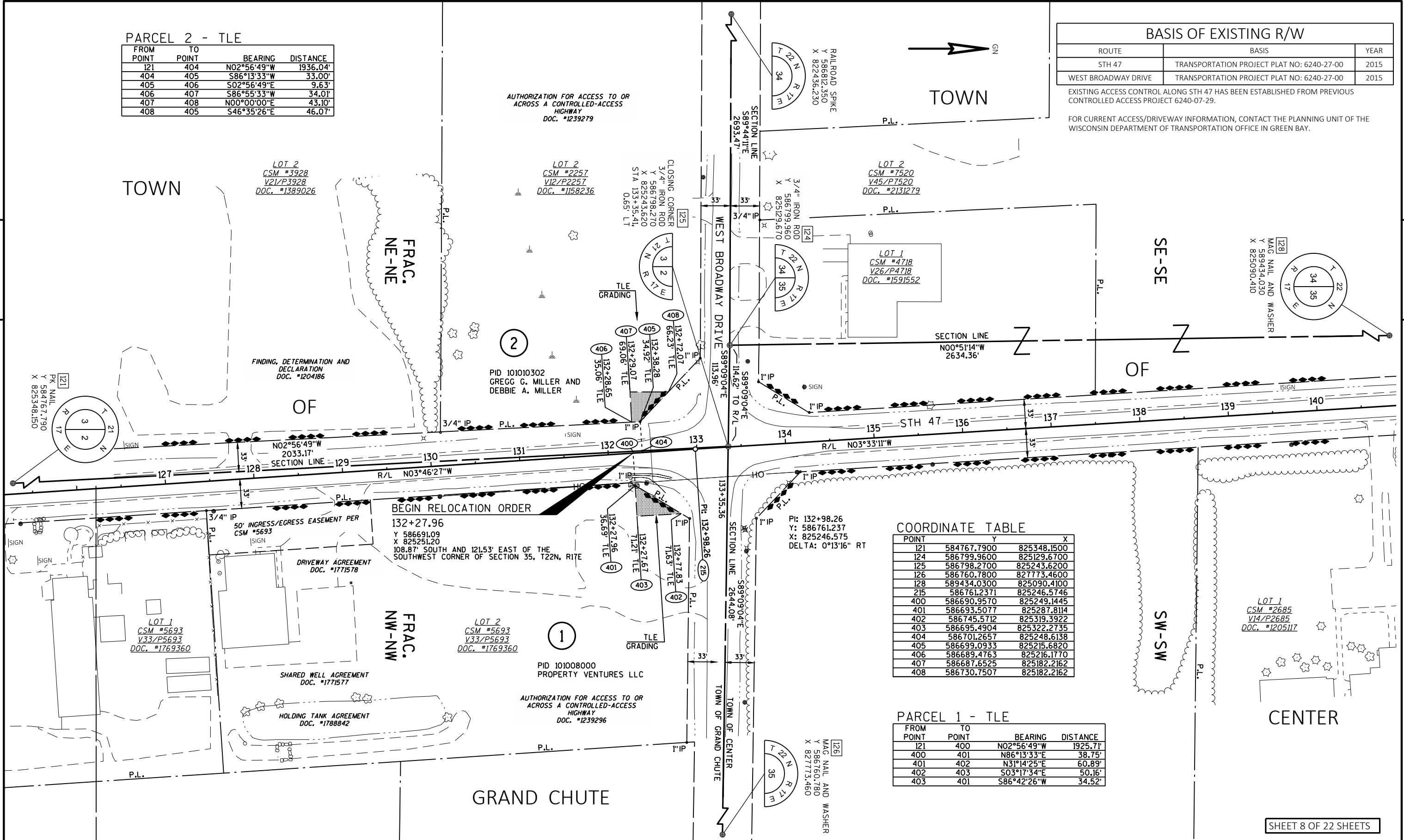
FROM POINT	TO POINT	BEARING	DISTANCE
121	404	N02°56'49"W	1936.04'
404	405	S86°13'33"W	33.00'
405	406	S02°56'49"E	9.63'
406	407	S86°55'33"W	34.01'
407	408	N00°00'00"E	43.10'
408	405	S46°35'26"E	46.07'

BASIS OF EXISTING R/W

ROUTE	BASIS	YEAR
STH 47	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015
WEST BROADWAY DRIVE	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015

EXISTING ACCESS CONTROL ALONG STH 47 HAS BEEN ESTABLISHED FROM PREVIOUS CONTROLLED ACCESS PROJECT 6240-07-29.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.



COORDINATE TABLE

POINT	Y	X
121	584767.7900	825348.1500
124	586799.9600	825129.6700
125	586798.2700	825243.6200
126	586760.7800	827773.4600
128	589434.0300	825090.4100
215	586761.2371	825246.5746
400	586690.9570	825249.1445
401	586693.5077	825287.8114
402	586745.5712	825319.3922
403	586695.4904	825322.2735
404	586701.2657	825248.6138
405	586699.0933	825215.6820
406	586689.4763	825216.1770
407	586687.6525	825182.2162
408	586730.7507	825182.2162

PARCEL 1 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
121	400	N02°56'49"W	1925.71'
400	401	N86°13'33"E	38.75'
401	402	N31°14'25"E	60.89'
402	403	S03°17'34"E	50.16'
403	401	S86°42'26"W	34.52'

4

4

SHEET 8 OF 22 SHEETS

REVISION DATE	6/4/2020	7/1/2020 N.C.	DATE	4/27/2020	SCALE, FEET	0 50 100	HWY:	STH 47	STATE R/W PROJECT NUMBER	6240-22-21	PLAT SHEET	4.08
GRID FACTOR							COUNTY:	OUTAGAMIE	CONSTRUCTION PROJECT NUMBER	6240-22-71	PS&E SHEET	

PARCEL 3 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
130	420	N00°11'00"E	538.29'
420	421	S89°49'00"E	33.00'
421	422	N00°11'00"E	79.03'
422	423	S45°00'00"E	8.11'
423	424	S00°00'00"E	67.31'
424	421	S45°00'00"W	8.47'

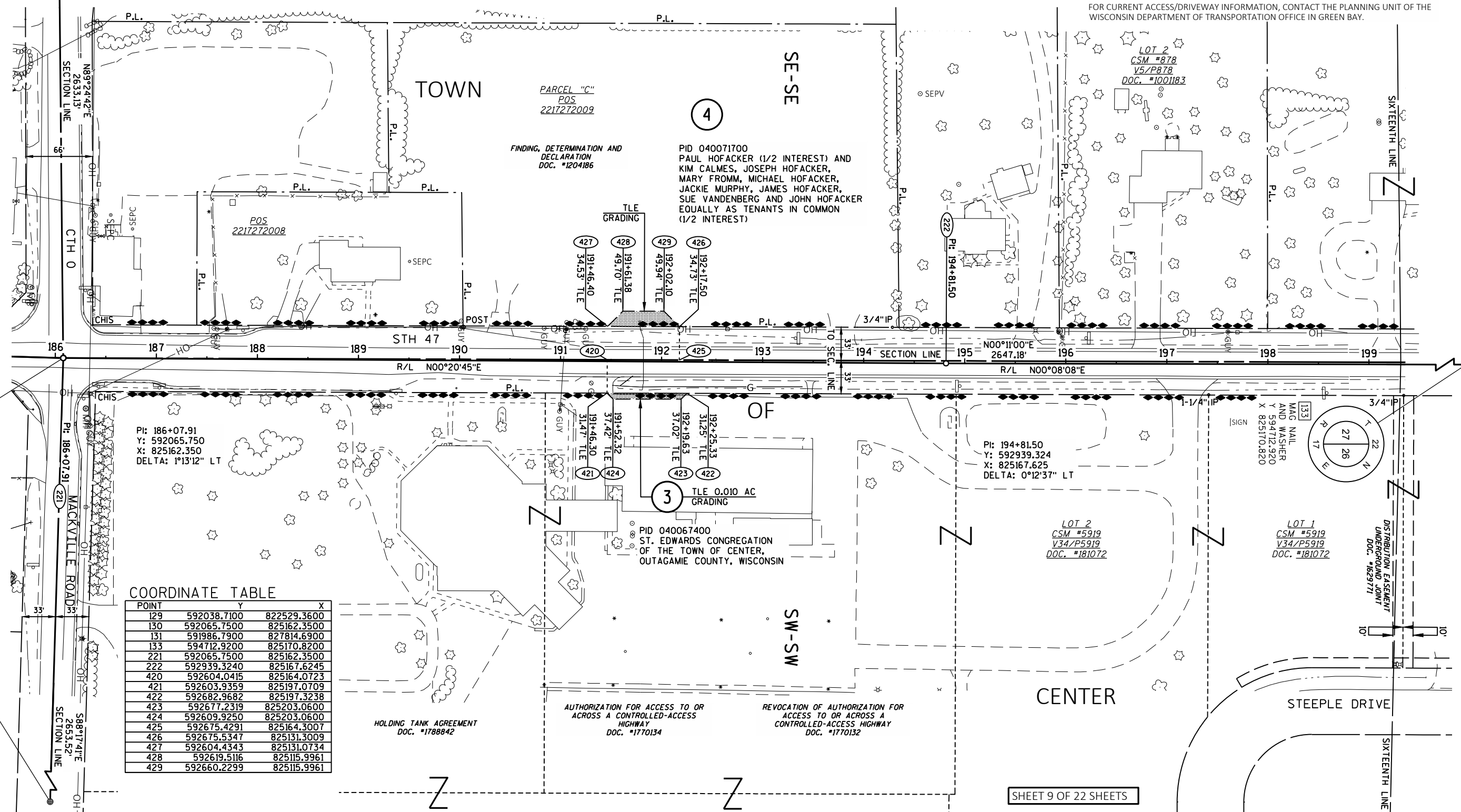
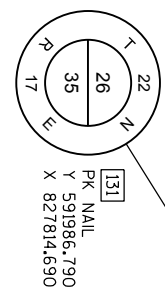
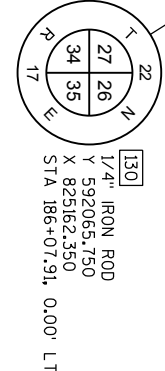
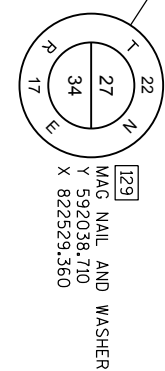
PARCEL 4 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
130	425	N00°11'00"E	609.68'
425	426	N89°49'00"W	33.00'
426	427	S00°11'00"W	71.10'
427	428	N45°00'00"W	21.32'
428	429	N00°00'00"E	40.72'
429	426	N45°00'00"E	21.64'

BASIS OF EXISTING R/W		
ROUTE	BASIS	YEAR
STH 47	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015
CTH O	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015
MACKVILLE ROAD	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015

EXISTING ACCESS CONTROL ALONG STH 47 HAS BEEN ESTABLISHED FROM PREVIOUS CONTROLLED ACCESS PROJECT 6240-07-29.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.



COORDINATE TABLE

POINT	Y	X
129	592038.7100	822529.3600
130	592065.7500	825162.3500
131	591986.7900	827814.6900
133	594712.9200	825170.8200
221	592065.7500	825162.3500
222	592939.3240	825167.6245
420	592604.0415	825164.0723
421	592603.9359	825197.0709
422	592682.9682	825197.3238
423	592677.2319	825203.0600
424	592609.9250	825203.0600
425	592675.4291	825164.3007
426	592675.5347	825131.3009
427	592604.4343	825131.0734
428	592619.5116	825115.9961
429	592660.2299	825115.9961

REVISION DATE	6/4/2020	7/1/2020 N.C.	DATE	4/27/2020	SCALE, FEET	0 50 100	HWY:	STH 47	STATE R/W PROJECT NUMBER	6240-22-21	PLAT SHEET	4.09
			GRID FACTOR				COUNTY:	OUTAGAMIE	CONSTRUCTION PROJECT NUMBER	6240-22-71	PS&E SHEET	



PARCELS 3 & 7 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
130	440	N00°11'00"E	1511.27'
440	441	S89°49'00"E	33.00'
441	442	N00°11'00"E	59.96'
442	443	S45°00'00"E	19.44'
443	444	S01°27'20"W	33.12'
444	441	S45°00'00"W	18.52'

PARCEL 6 - TLE

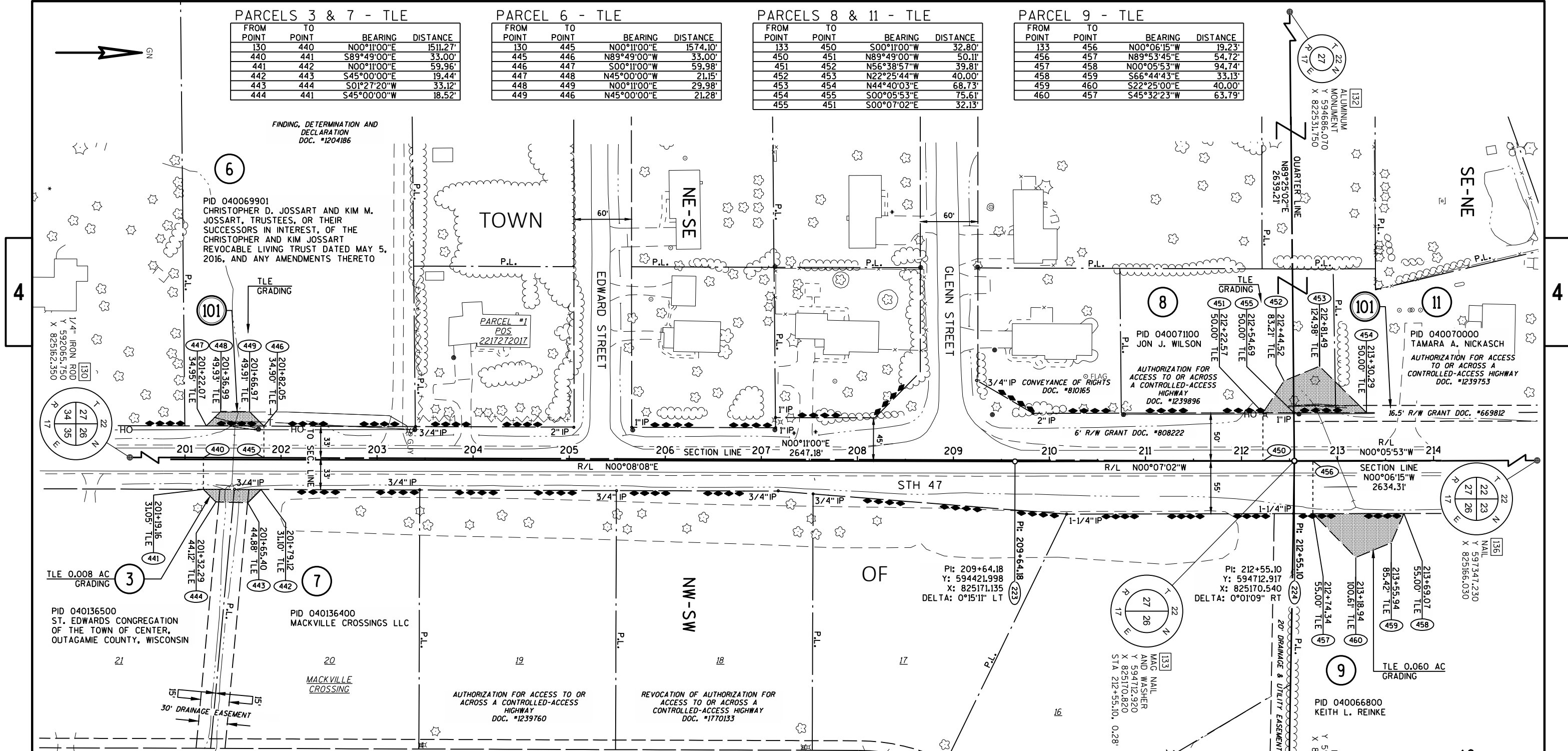
FROM POINT	TO POINT	BEARING	DISTANCE
130	445	N00°11'00"E	1574.10'
445	446	N89°49'00"W	33.00'
446	447	S00°11'00"W	59.98'
447	448	N45°00'00"W	21.15'
448	449	N00°11'00"E	29.98'
449	446	N45°00'00"E	21.28'

PARCELS 8 & 11 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
133	450	S00°11'00"W	32.80'
450	451	N89°49'00"W	50.11'
451	452	N56°38'57"W	39.81'
452	453	N22°25'44"W	40.00'
453	454	N44°40'03"E	68.73'
454	455	S00°05'53"E	75.61'
455	451	S00°07'02"E	32.13'

PARCEL 9 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
133	456	N00°06'15"W	19.23'
456	457	N89°53'45"E	54.72'
457	458	N00°05'53"W	94.74'
458	459	S66°44'43"E	33.13'
459	460	S22°25'00"E	40.00'
460	457	S45°32'23"W	63.79'



FINDING, DETERMINATION AND DECLARATION DOC. #1204186  
 PID 040069901 CHRISTOPHER D. JOSSART AND KIM M. JOSSART, TRUSTEES, OR THEIR SUCCESSORS IN INTEREST, OF THE CHRISTOPHER AND KIM JOSSART REVOCABLE LIVING TRUST DATED MAY 5, 2016, AND ANY AMENDMENTS THERETO

TLE GRADING

101  
 447 448 449 446  
 201+19.16 TLE  
 201+36.99 TLE  
 201+65.97 TLE  
 201+82.05 TLE  
 201+91.91 TLE  
 201+95.95 TLE

TLE 0.008 AC GRADING

PID 040136500 ST. EDWARDS CONGREGATION OF THE TOWN OF CENTER, OUTAGAMIE COUNTY, WISCONSIN

PID 040136400 MACKVILLE CROSSINGS LLC

30' DRAINAGE EASEMENT

PARCEL #1 POS 221722017

SECTION LINE 207

3/4" IP

AUTHORIZATION FOR ACCESS TO OR ACROSS A CONTROLLED-ACCESS HIGHWAY DOC. #1239760

REVOCATION OF AUTHORIZATION FOR ACCESS TO OR ACROSS A CONTROLLED-ACCESS HIGHWAY DOC. #1770133

8  
 PID 040071100 JON J. WILSON

AUTHORIZATION FOR ACCESS TO OR ACROSS A CONTROLLED-ACCESS HIGHWAY DOC. #1239896

6' R/W GRANT DOC. #808222

Pi: 209+64.18  
 Y: 594421.998  
 X: 825171.135  
 DELTA: 0°15'11" LT

Pi: 212+55.10  
 Y: 594712.917  
 X: 825170.540  
 DELTA: 0°01'09" RT

133  
 MAG NAIL AND WASHER  
 Y 594712.920  
 X 825170.820  
 STA 212+55.10, 0.28' RT

11  
 PID 040070000 TAMARA A. NICKASCH

AUTHORIZATION FOR ACCESS TO OR ACROSS A CONTROLLED-ACCESS HIGHWAY DOC. #1239753

16.5' R/W GRANT DOC. #669812

SECTION LINE 214  
 R/L N00°05'53"W 2634.31'

Pi: 213+69.07  
 Y: 597347.230  
 X: 825166.030  
 DELTA: 0°01'09" RT

TLE 0.060 AC GRADING

PID 040066800 KEITH L. REINKE

STONE MONUMENT  
 Y 594657.480  
 X 827843.410

BASIS OF EXISTING R/W

ROUTE	BASIS	YEAR
STH 47	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015
EDWARD STREET	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015
GLENN STREET	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015

EXISTING ACCESS CONTROL ALONG STH 47 HAS BEEN ESTABLISHED FROM PREVIOUS CONTROLLED ACCESS PROJECT 6240-07-29.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

COORDINATE TABLE

POINT	Y	X	POINT	Y	X
130	592065.7500	825162.3500	447	593579.9720	825134.1948
132	594686.0700	822531.7500	448	593594.9242	825119.2426
133	594712.9200	825170.8200	449	593624.9030	825119.3386
134	594667.4800	827843.4100	450	594680.1193	825170.7150
136	597347.2300	825166.0300	451	594680.2797	825120.6076
223	594421.9982	825171.1354	452	594702.1650	825087.3546
224	594712.9171	825170.5396	453	594739.1391	825072.0930
440	593577.0086	825167.1854	454	594788.0224	825120.4122
441	593576.9030	825200.1841	455	594712.4085	825120.5416
442	593636.8626	825200.3759	456	594732.1477	825170.7850
443	593623.1145	825214.1240	457	594732.2472	825225.5089
444	593590.0016	825213.2826	458	594826.9827	825225.3467
445	593639.8456	825167.3865	459	594813.9030	825255.7835
446	593639.9512	825134.3867	460	594776.9256	825271.0372



SHEET 10 OF 22 SHEETS

REVISION DATE	6/4/2020	7/1/2020 N.C.	DATE	4/27/2020	SCALE, FEET	HWY:	STH 47	STATE R/W PROJECT NUMBER	6240-22-21	PLAT SHEET	4.10
GRID FACTOR						COUNTY:	OUTAGAMIE	CONSTRUCTION PROJECT NUMBER	6240-22-71	PS&E SHEET	E

PARCELS 12 & 13 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
133	480	N00°06'15"W	1266.90'
480	481	S89°53'45"W	33.00'
481	482	N31°07'36"W	30.57'
482	483	N00°05'38"E	24.29'
483	484	N27°07'47"E	34.41'
484	481	S00°06'15"E	81.08'

COORDINATE TABLE

POINT	Y	X
133	594712.9200	825170.8200
135	597320.2900	822533.8900
136	597347.2300	825166.0300
137	597339.9800	827799.1900
225	597347.2300	825166.0300
480	595979.8160	825168.5163
481	595979.7560	825135.5164
482	596005.9216	825119.7157
483	596030.2070	825119.6760
484	596060.8347	825135.3690
485	596061.3611	825168.3680
486	596061.4211	825201.3681
487	596031.3646	825220.4587
488	596005.5269	825220.4587
489	595975.6128	825201.5241

PARCELS 9 & 14 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
133	485	N00°06'15"W	1348.44'
485	486	N89°53'45"E	33.00'
486	487	S32°25'19"E	35.61'
487	488	S00°00'00"E	25.84'
488	489	S32°19'57"W	35.40'
489	486	N00°06'15"W	85.81'

BASIS OF EXISTING R/W		
ROUTE	BASIS	YEAR
STH 47	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015
CTH 0	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015
WEGE ROAD	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015

EXISTING ACCESS CONTROL ALONG STH 47 HAS BEEN ESTABLISHED FROM PREVIOUS CONTROLLED ACCESS PROJECT 6240-07-29.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

SHEET 11 OF 22 SHEETS

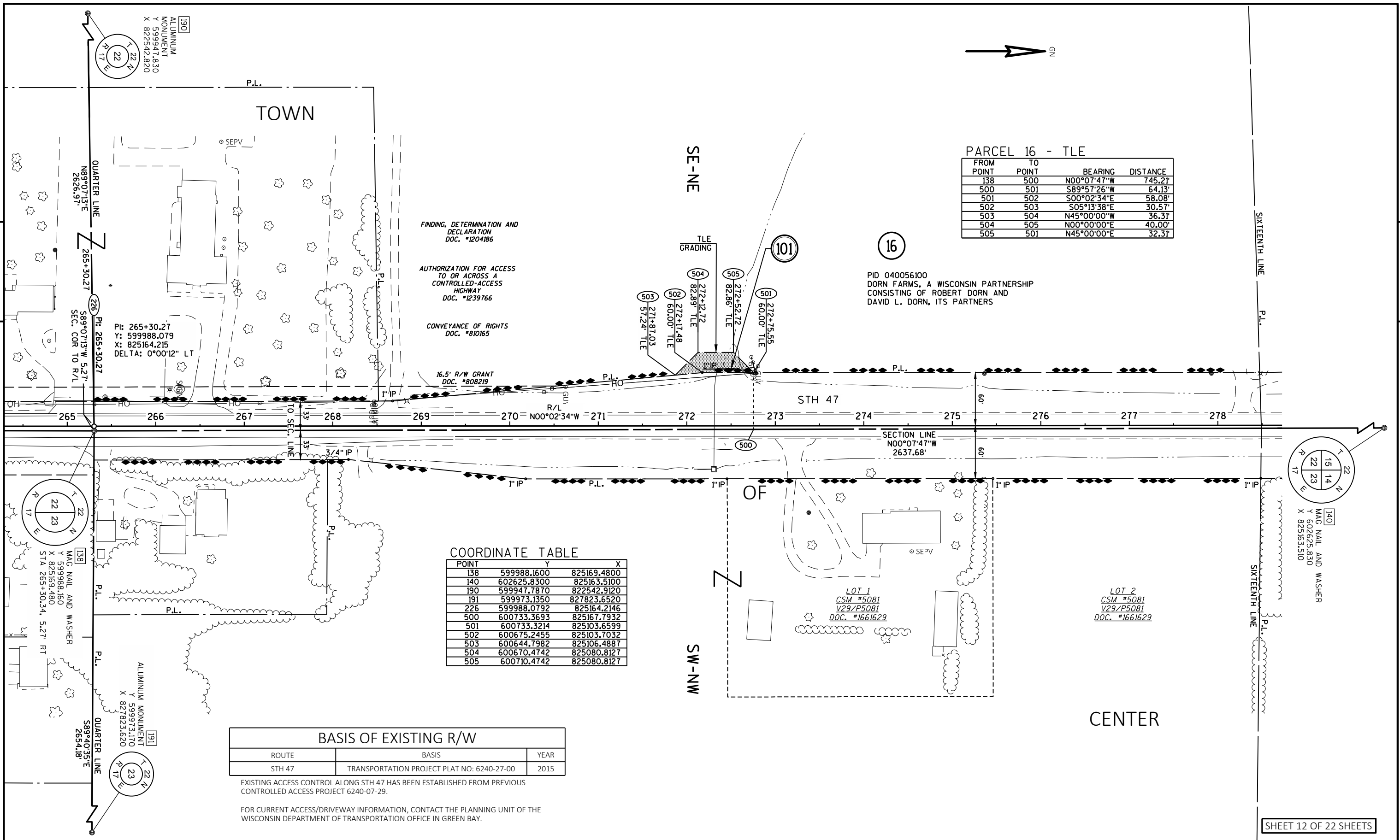
REVISION DATE	6/4/2020	7/1/2020 N.C.
DATE	4/27/2020	
GRID FACTOR		



HWY:	STH 47
COUNTY:	OUTAGAMIE

STATE R/W PROJECT NUMBER	6240-22-21
CONSTRUCTION PROJECT NUMBER	6240-22-71

PLAT SHEET	4.11
PS&E SHEET	E



PARCEL 16 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
138	500	N00°07'47"W	745.21'
500	501	S89°57'26"W	64.13'
501	502	S00°02'34"E	58.08'
502	503	S05°13'38"E	30.57'
503	504	N45°00'00"W	36.31'
504	505	N00°00'00"E	40.00'
505	501	N45°00'00"E	32.31'

FINDING, DETERMINATION AND DECLARATION  
DOC. #1204186

AUTHORIZATION FOR ACCESS TO OR ACROSS A CONTROLLED-ACCESS HIGHWAY  
DOC. #1239766

CONVEYANCE OF RIGHTS  
DOC. #810165

PID 040056100  
DORN FARMS, A WISCONSIN PARTNERSHIP  
CONSISTING OF ROBERT DORN AND DAVID L. DORN, ITS PARTNERS

16.5' R/W GRANT  
DOC. #808219

COORDINATE TABLE

POINT	Y	X
138	599988.1600	825169.4800
140	602625.8300	825163.5100
190	599947.7870	822542.9120
191	599973.1350	827823.6520
226	599988.0792	825164.2146
500	600733.3693	825167.7932
501	600733.3214	825103.6599
502	600675.2455	825103.7032
503	600644.7982	825106.4887
504	600670.4742	825080.8127
505	600710.4742	825080.8127

BASIS OF EXISTING R/W

ROUTE	BASIS	YEAR
STH 47	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015

EXISTING ACCESS CONTROL ALONG STH 47 HAS BEEN ESTABLISHED FROM PREVIOUS CONTROLLED ACCESS PROJECT 6240-07-29.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

SHEET 12 OF 22 SHEETS

REVISION DATE	6/4/2020	7/1/2020 N.C.	DATE	4/27/2020	SCALE, FEET	0 50 100	HWY:	STH 47	STATE R/W PROJECT NUMBER	6240-22-21	PLAT SHEET	4.12
GRID FACTOR							COUNTY:	OUTAGAMIE	CONSTRUCTION PROJECT NUMBER	6240-22-71	PS&E SHEET	

**CURVE TABLE**

FROM POINT	TO POINT	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
230	520	1273.24'	526.65'	N11°51'09"W	522.90'
521	522	1223.24'	72.73'	S21°59'56"E	72.72'

**PARCEL 17 - TLE**

FROM POINT	TO POINT	BEARING	DISTANCE
143	230	N00°00'11"W	321.78'
*230	*520	N11°51'09"W	522.90'
520	521	S66°17'52"W	50.00'
*521	*522	S21°59'56"E	72.72'
522	523	N65°20'02"W	23.94'
523	524	N21°23'33"W	40.00'
524	521	N24°17'14"E	22.15'

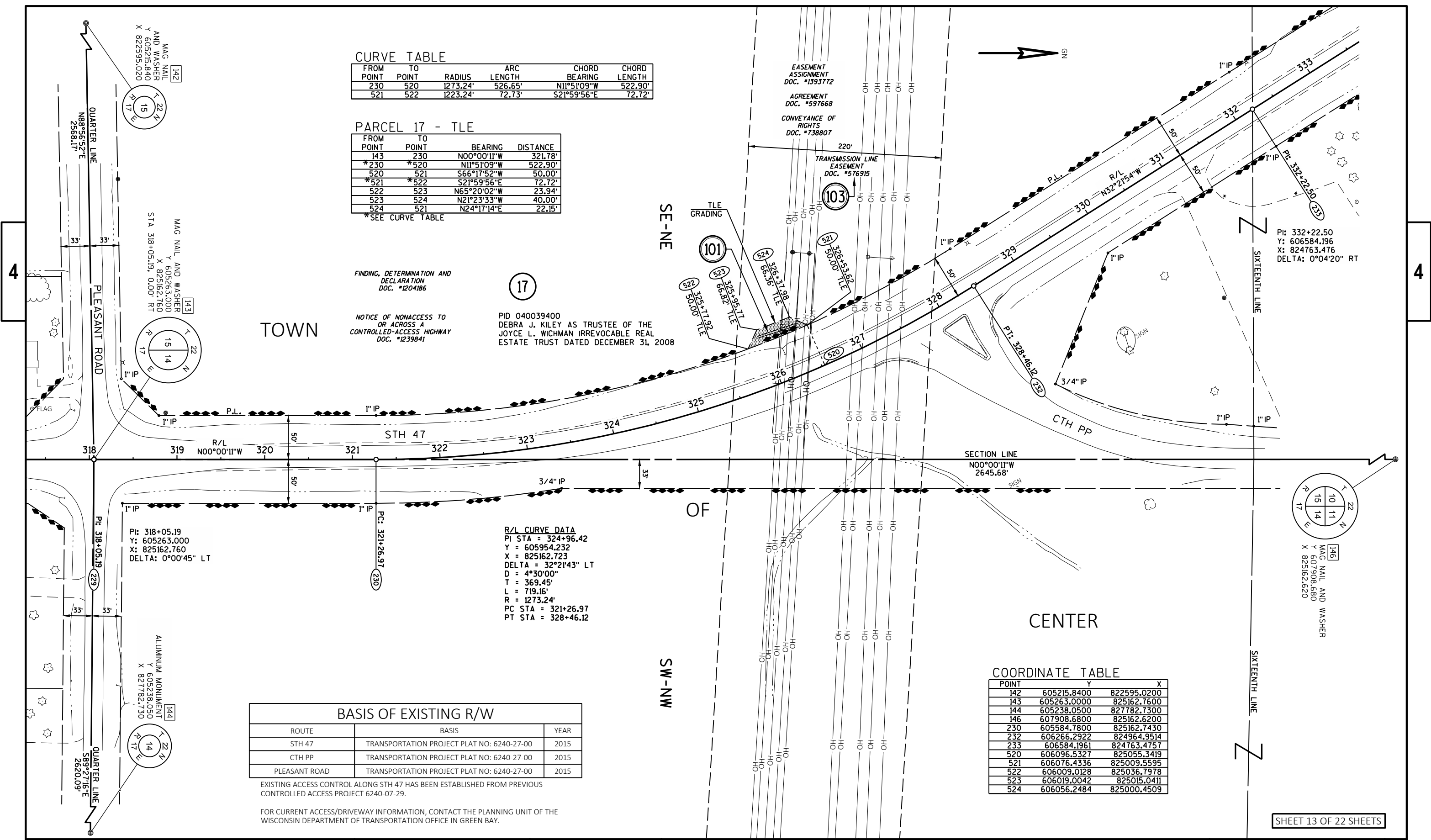
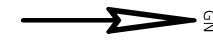
\*SEE CURVE TABLE

FINDING, DETERMINATION AND DECLARATION  
DOC. #1204186

NOTICE OF NONACCESS TO OR ACROSS A CONTROLLED-ACCESS HIGHWAY  
DOC. #1239841

17

PID 040039400  
DEBRA J. KILEY AS TRUSTEE OF THE JOYCE L. WICHMAN IRREVOCABLE REAL ESTATE TRUST DATED DECEMBER 31, 2008



PI: 332+22.50  
Y: 606584.196  
X: 824763.476  
DELTA: 0°04'20" RT

**R/L CURVE DATA**  
PI STA = 324+96.42  
Y = 605954.232  
X = 825162.723  
DELTA = 32°21'43" LT  
D = 4°30'00"  
T = 369.45'  
L = 719.16'  
R = 1273.24'  
PC STA = 321+26.97  
PT STA = 328+46.12

PI: 318+05.19  
Y: 605263.000  
X: 825162.760  
DELTA: 0°00'45" LT

ROUTE	BASIS	YEAR
STH 47	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015
CTH PP	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015
PLEASANT ROAD	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015

EXISTING ACCESS CONTROL ALONG STH 47 HAS BEEN ESTABLISHED FROM PREVIOUS CONTROLLED ACCESS PROJECT 6240-07-29.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

**COORDINATE TABLE**

POINT	Y	X
142	605215.8400	822595.0200
143	605263.0000	825162.7600
144	605238.0500	827782.7300
146	607908.6800	825162.6200
230	605584.7800	825162.7430
232	606266.2922	824964.9514
233	606584.1961	824763.4757
520	606096.5327	825055.3419
521	606076.4336	825009.5595
522	606009.0128	825036.7978
523	606019.0042	825015.0411
524	606056.2484	825000.4509

4

4

SHEET 13 OF 22 SHEETS

REVISION DATE	6/4/2020	7/1/2020 N.C.	DATE	4/27/2020	SCALE, FEET	0 50 100	HWY:	STH 47	STATE R/W PROJECT NUMBER	6240-22-21	PLAT SHEET	4.13
GRID FACTOR							COUNTY:	OUTAGAMIE	CONSTRUCTION PROJECT NUMBER	6240-22-71	PS&E SHEET	E

PARCELS 18 & 19 - FEE

FROM POINT	TO POINT	BEARING	DISTANCE
147	300	S88°33'12"E	2544.57'
300	301	N17°37'46"W	355.10'
301	302	N72°22'14"E	60.00'
302	303	N22°59'28"W	99.50'
303	304	S54°23'23"E	42.16'
304	305	S13°04'01"E	25.95'
305	306	S00°26'26"E	46.92'
306	302	N17°37'46"W	5.40'

PARCELS 18 & 19 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
147	300	S88°33'12"E	2544.57'
300	301	N17°37'46"W	355.10'
301	302	N72°22'14"E	60.00'
302	303	N22°59'28"W	99.50'
303	544	N22°59'28"W	38.64'
544	545	S86°05'22"E	52.34'
545	546	S17°24'35"E	203.15'
546	547	S13°16'31"E	163.76'
547	548	S72°22'14"W	22.57'
548	306	N17°37'46"W	242.71'
306	305	N00°26'26"W	46.92'
305	304	N13°04'01"E	25.95'
304	303	N54°23'23"W	42.16'

PARCELS 19 & 22 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
147	300	S88°33'12"E	2544.57'
300	238	N17°37'46"W	514.46'
*238	*307	N24°14'30"W	439.83'
307	308	N59°08'46"E	60.10'
308	312	N59°08'46"E	24.90'
312	311	N31°27'14"W	41.78'
311	310	S57°56'46"W	24.88'
*310	*555	N32°48'41"W	53.07'
555	556	S85°58'58"E	75.17'
556	557	S41°39'16"E	40.00'
557	558	S00°15'32"W	21.99'
558	559	S48°45'58"W	56.58'
*559	*308	N30°36'10"W	16.99'

COORDINATE TABLE

POINT	X	Y
147	610599.0300	820022.9800
148	610532.4900	822657.9400
151	613200.0800	822647.4000
238	611025.0954	822410.9230
300	610534.7931	822566.7344
301	610873.2144	822459.1888
302	610891.3861	822516.3710
303	610982.9849	822477.5045
304	610958.4381	822511.7781
305	610933.1610	822517.6450
306	610886.2418	822518.0058
307	611426.1425	822230.3347
308	611456.9665	822281.9323
310	611492.1692	822260.4147
311	611505.3751	822281.5044
312	611469.7346	822303.3054
313	610946.5518	822361.8825
314	610982.3140	822377.3008
315	610955.9766	822385.6705
540	610537.5977	822455.6711
541	610841.9192	822358.9595
542	610849.0540	822382.9242
543	610536.9301	822482.1129
544	611018.5530	822462.4149
545	611014.9834	822514.6360
546	610821.1441	822575.4176
547	610661.7613	822613.0215
548	610654.9261	822591.5127
549	611384.2502	822254.6454
550	611355.6967	822203.9725
551	611358.3352	822170.9883
552	611388.4787	822144.6943
553	611445.1259	822148.1699
554	611395.3221	822178.9795
555	611536.7735	822231.6566
556	611531.5073	822306.6428
557	611501.6206	822333.2283
558	611479.6333	822333.1289
559	611442.3419	822290.5821
560	610971.0899	822344.1429

CURVE TABLE

FROM POINT	TO POINT	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
238	307	1909.86'	440.81'	N24°14'30"W	439.83'
308	310	1969.86'	41.26'	N31°26'07"W	41.26'
238	549	1909.86'	392.37'	N23°30'54"W	391.68'
553	554	1849.86'	58.57'	S31°44'30"E	58.56'
310	555	1969.86'	53.07'	N32°48'41"W	53.07'
559	308	1969.86'	16.99'	N30°36'10"W	16.99'

PARCELS 25 & 30 - FEE

FROM POINT	TO POINT	BEARING	DISTANCE
147	543	S88°33'12"E	2459.92'
543	542	N17°37'46"W	327.51'
542	313	N12°10'43"W	99.74'
313	314	N23°19'21"E	38.94'
314	315	S17°37'46"E	27.63'
315	542	S01°28'17"W	106.96'

PARCELS 25 & 30 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
147	543	S88°33'12"E	2459.92'
543	542	N17°37'46"W	327.51'
542	560	N17°37'46"W	128.05'
560	314	N71°17'56"E	35.01'
314	313	S23°19'21"W	38.94'
313	542	S12°10'43"E	99.74'

PARCEL 22 - FEE

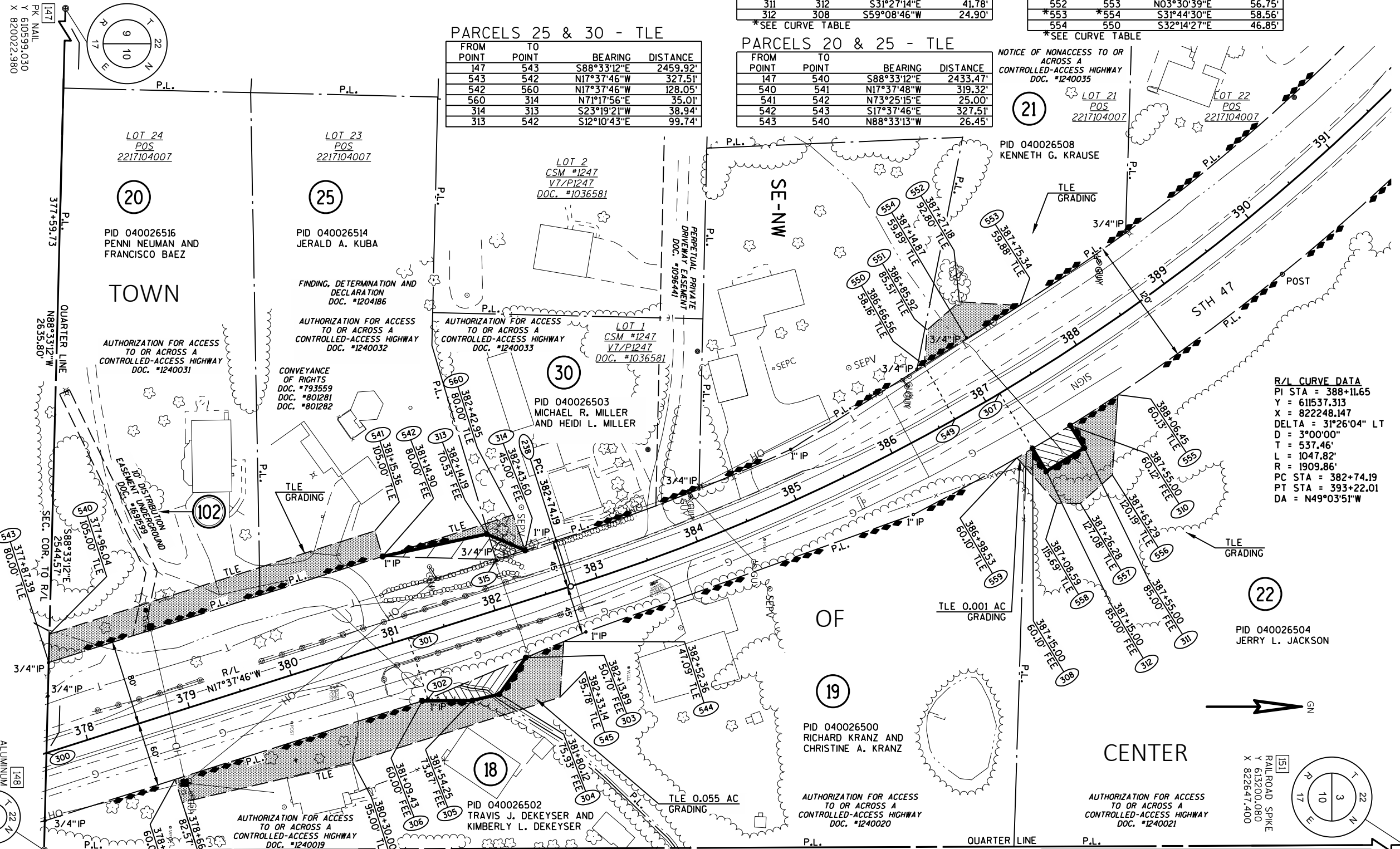
FROM POINT	TO POINT	BEARING	DISTANCE
147	300	S88°33'12"E	2544.57'
300	238	N17°37'46"W	514.46'
*238	*307	N24°14'30"W	439.83'
307	308	N59°08'46"E	60.10'
*308	*310	N31°26'07"W	41.26'
310	311	N57°56'46"E	24.88'
311	312	S17°37'46"E	41.78'
312	308	S59°08'46"W	24.90'

PARCELS 20 & 25 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
147	540	S88°33'12"E	2433.47'
540	541	N17°37'48"W	319.32'
541	542	N73°25'15"E	25.00'
542	543	S17°37'46"E	327.51'
543	540	N88°33'13"W	26.45'

PARCELS 21 - TLE

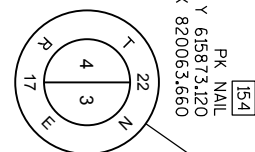
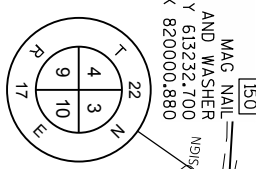
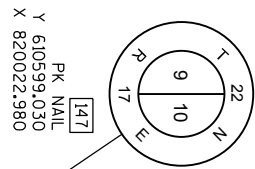
FROM POINT	TO POINT	BEARING	DISTANCE
147	300	S88°33'12"E	2544.57'
300	238	N17°37'46"W	514.46'
*238	*549	N23°30'54"W	391.68'
549	550	S60°35'58"W	58.16'
550	551	N85°25'35"W	33.09'
551	552	N41°05'53"W	40.00'
552	553	N03°30'39"E	56.75'
*553	*554	S31°44'30"E	58.56'
554	550	S32°14'27"E	46.85'



SHEET 14 OF 22 SHEETS

BASIS OF EXISTING R/W		
ROUTE	BASIS	YEAR
STH 47	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015

REVISION DATE	6/4/2020	7/1/2020	DATE	4/27/2020	SCALE, FEET	0 50 100	HWY:	STH 47	STATE R/W PROJECT NUMBER	6240-22-21	PLAT SHEET	4.14
			GRID FACTOR				COUNTY:	OUTAGAMIE	CONSTRUCTION PROJECT NUMBER	6240-22-71	PS&E SHEET	E



COORDINATE TABLE

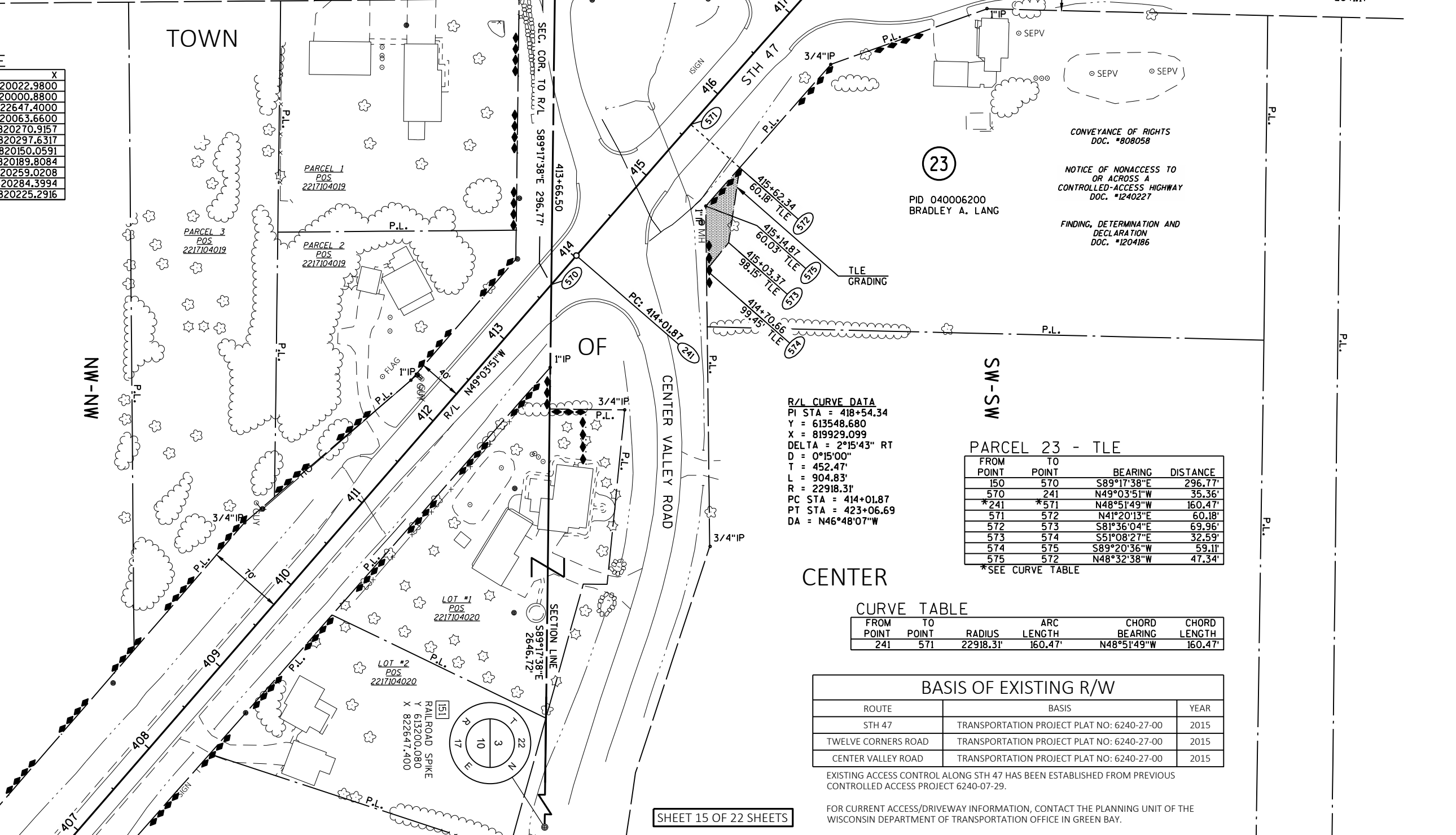
POINT	Y	X
147	610599.0300	820022.9800
150	613232.7000	820000.8800
151	613200.0800	822647.4000
154	615873.1200	820063.6600
241	613252.2136	820270.9157
570	613229.0422	820297.6317
571	613357.7792	820150.0591
572	613402.9659	820189.8084
573	613392.7470	820259.0208
574	613372.2988	820284.3994
575	613371.6214	820225.2916

4

4

TWELVE CORNERS ROAD SECTION LINE N00°28'51"W 2633.76'

TWELVE CORNERS ROAD SECTION LINE N01°21'43"E 2641.17'



23

PID 040006200  
BRADLEY A. LANG

CONVEYANCE OF RIGHTS  
DOC. #808058

NOTICE OF NONACCESS TO  
OR ACROSS A  
CONTROLLED-ACCESS HIGHWAY  
DOC. #1240227

FINDING, DETERMINATION AND  
DECLARATION  
DOC. #1204186

R/L CURVE DATA  
PI STA = 418+54.34  
Y = 613548.680  
X = 819929.099  
DELTA = 2°15'43" RT  
D = 0°15'00"  
T = 452.47'  
L = 904.83'  
R = 22918.31'  
PC STA = 414+01.87  
PT STA = 423+06.69  
DA = N46°48'07"W

PARCEL 23 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
150	570	S89°17'38"E	296.77'
570	241	N49°03'51"W	35.36'
*241	*571	N48°51'49"W	160.47'
571	572	N41°20'13"E	60.18'
572	573	S81°36'04"E	69.96'
573	574	S51°08'27"E	32.59'
574	575	S89°20'36"W	59.11'
575	572	N48°32'38"W	47.34'

\*SEE CURVE TABLE

CENTER

CURVE TABLE

FROM POINT	TO POINT	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
241	571	22918.31'	160.47'	N48°51'49"W	160.47'

BASIS OF EXISTING R/W

ROUTE	BASIS	YEAR
STH 47	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015
TWELVE CORNERS ROAD	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015
CENTER VALLEY ROAD	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015

EXISTING ACCESS CONTROL ALONG STH 47 HAS BEEN ESTABLISHED FROM PREVIOUS CONTROLLED ACCESS PROJECT 6240-07-29.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

SHEET 15 OF 22 SHEETS

REVISION DATE	6/4/2020	7/1/2020 N.C.

DATE	4/27/2020
GRID FACTOR	



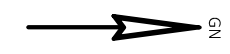
HWY:	STH 47
COUNTY:	OUTAGAMIE

STATE R/W PROJECT NUMBER	6240-22-21
CONSTRUCTION PROJECT NUMBER	6240-22-71

PLAT SHEET	4.15
PS&E SHEET	

E

153  
ALUMINUM MONUMENT  
Y 615883.070  
X 817393.380



TOWN

LOT 1  
CSM #4690  
V26/P4690  
DOC. #1584446

CONVEYANCE OF RIGHTS  
DOC. #808058

UTILITY EASEMENT  
DOC. #308206  
DOC. #308627

AUTHORIZATION FOR ACCESS  
TO OR ACROSS A  
CONTROLLED-ACCESS HIGHWAY  
DOC. #1240235

REVOCATION OF  
AUTHORIZATION FOR ACCESS  
TO OR ACROSS A  
CONTROLLED-ACCESS HIGHWAY  
DOC. #1497911

FINDING, DETERMINATION AND  
DECLARATION  
DOC. #1204186

LOT 3  
CSM #4690  
V26/P4690  
DOC. #1584446

LOT 2  
CSM #4690  
V26/P4690  
DOC. #1584446

PARCEL 24 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
154	590	N89°47'11"W	1335.15'
590	591	S00°57'00"W	1173.96'
591	592	N48°44'46"W	10.36'
592	593	N48°44'46"W	52.37'
593	594	N86°11'39"E	14.87'
594	595	S51°03'52"E	30.00'
595	592	S04°06'36"E	16.71'

COORDINATE TABLE

POINT	Y	X
153	615883.0700	817393.3800
154	615873.1200	820063.6600
245	614661.0261	818708.3388
590	615878.0949	818728.5199
591	614704.2979	818709.0545
592	614711.1307	818701.2643
593	614745.6648	818661.8910
594	614746.6520	818676.7310
595	614727.7986	818700.0666

SW-SE

NW-SE

24

PID 040010001  
GARY M. TROFKA AND JANE M. MALIN,  
TRUSTEES OF THE GARY M. TROFKA AND  
JANE M. MALIN LIVING TRUST DATED  
FEBRUARY 9, 2018, AND ANY AMENDMENTS  
THERE TO

CENTER

PI: 435+05.91  
Y: 614661.026  
X: 818708.339  
DELTA: 0°08'45" LT

SE-SE

NE-SE

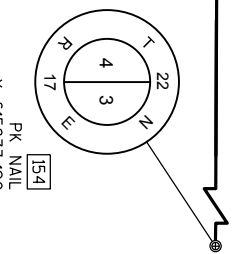
BASIS OF EXISTING R/W

ROUTE	BASIS	YEAR
STH 47	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015

EXISTING ACCESS CONTROL ALONG STH 47 HAS BEEN ESTABLISHED FROM PREVIOUS CONTROLLED ACCESS PROJECT 6240-07-29.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

PK NAIL  
Y 615873.120  
X 820063.660



SHEET 16 OF 22 SHEETS

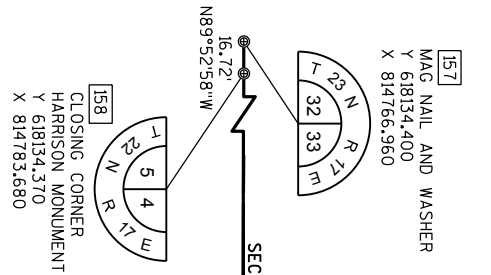
REVISION DATE	6/4/2020	7/1/2020 N.C.	DATE	4/27/2020	SCALE, FEET	HWY:	STH 47	STATE R/W PROJECT NUMBER	6240-22-21	PLAT SHEET	4.16
			GRID FACTOR			COUNTY:	OUTAGAMIE	CONSTRUCTION PROJECT NUMBER	6240-22-71	PS&E SHEET	



PARCEL 26 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
159	610	N89°52'58"W	1689.29'
610	246	S00°00'00"E	844.15'
246	616	S48°42'55"E	21.41'
616	617	S41°17'05"W	95.35'
617	618	S86°59'22"W	34.24'
618	619	N30°53'18"W	40.00'
619	620	N00°00'00"E	22.78'
*620	*617	S44°42'00"E	77.81'

\*SEE CURVE TABLE



R/L CURVE DATA  
 PI STA = 478+75.40  
 Y = 617544.026  
 X = 815424.938  
 DELTA = 19°11'49" RT  
 D = 2°30'00"  
 T = 387.57'  
 L = 767.88'  
 R = 2291.85'  
 PC STA = 474+87.82  
 PT STA = 482+55.70  
 DA = N29°31'06"W

PARCEL 27 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
159	610	N89°52'58"W	1689.29'
610	246	S00°00'00"E	844.15'
246	611	S48°42'55"E	81.18'
611	612	N41°17'05"E	72.13'
*612	*613	N45°34'17"W	86.71'
613	614	N89°27'20"E	33.06'
614	615	S45°32'40"E	40.00'
615	612	S00°32'40"E	33.00'

\*SEE CURVE TABLE

CURVE TABLE

FROM POINT	TO POINT	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
612	613	2759.79'	86.71'	N45°34'17"W	86.71'
620	617	2890.51'	77.81'	S44°42'00"E	77.81'

COORDINATE TABLE

POINT	Y	X
157	618134.4000	814766.9600
158	618134.3700	814783.6800
159	618129.0000	817405.4600
246	617288.3035	815716.1754
610	618132.4572	815716.1754
611	617234.7413	815777.1765
612	617288.9392	815824.7651
613	617349.6374	815762.8439
614	617349.9515	815795.8998
615	617321.9373	815824.4515
616	617274.1775	815732.2632
617	617202.5258	815669.3492
618	617200.7275	815635.1554
619	617235.0543	815614.6208
620	617257.8303	815614.6208

BASIS OF EXISTING R/W

ROUTE	BASIS	YEAR
STH 47	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015

EXISTING ACCESS CONTROL ALONG STH 47 HAS BEEN ESTABLISHED FROM PREVIOUS CONTROLLED ACCESS PROJECT 6240-07-29.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

AUTHORIZATION FOR ACCESS TO OR ACROSS A CONTROLLED-ACCESS HIGHWAY DOC. #1240241

FINDING, DETERMINATION AND DECLARATION DOC. #1204186

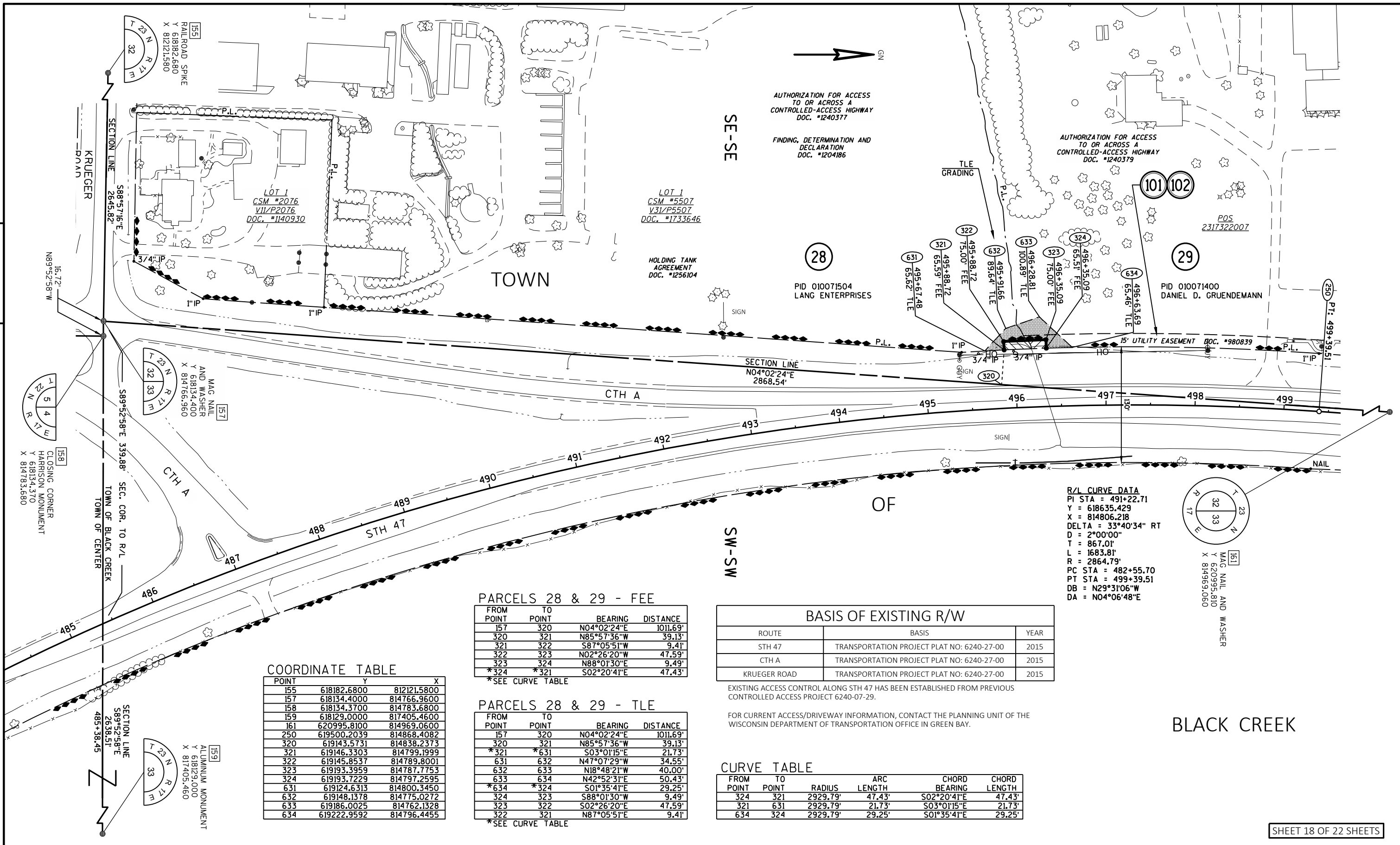
CONVEYANCE OF RIGHTS DOC. #583222

AUTHORIZATION FOR ACCESS TO OR ACROSS A CONTROLLED-ACCESS HIGHWAY DOC. #1240239

SHEET 17 OF 22 SHEETS

REVISION DATE	6/4/2020	7/1/2020 N.C.	DATE	4/27/2020	SCALE, FEET	0 50 100	HWY:	STH 47	STATE R/W PROJECT NUMBER	6240-22-21	PLAT SHEET	4.17
GRID FACTOR							COUNTY:	OUTAGAMIE	CONSTRUCTION PROJECT NUMBER	6240-22-71	PS&E SHEET	E





AUTHORIZATION FOR ACCESS TO OR ACROSS A CONTROLLED-ACCESS HIGHWAY DOC. #1240377

FINDING, DETERMINATION AND DECLARATION DOC. #1204186

AUTHORIZATION FOR ACCESS TO OR ACROSS A CONTROLLED-ACCESS HIGHWAY DOC. #1240379

LOT 1  
CSM #5507  
V31/P5507  
DOC. #1733646

HOLDING TANK AGREEMENT  
DOC. #1256104

28  
PID 010071504  
LANG ENTERPRISES

101 102

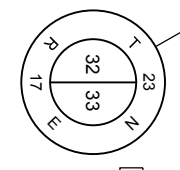
POS  
2317322007

29

PID 010071400  
DANIEL D. GRUENDEMANN

15' UTILITY EASEMENT  
DOC. #980839

R/L CURVE DATA  
PI STA = 491+22.71  
Y = 618635.429  
X = 814806.218  
DELTA = 33°40'34" RT  
D = 2°00'00"  
T = 867.01'  
L = 1683.81'  
R = 2864.79'  
PC STA = 482+55.70  
PT STA = 499+39.51  
DB = N29°31'06"W  
DA = N04°06'48"E



PARCELS 28 & 29 - FEE

FROM POINT	TO POINT	BEARING	DISTANCE
157	320	N04°02'24"E	1011.69'
320	321	N85°57'36"W	39.13'
321	322	S87°05'51"W	9.41'
322	323	N02°26'20"W	47.59'
323	324	N88°01'30"E	9.49'
*324	*321	S02°20'41"E	47.43'

\*SEE CURVE TABLE

PARCELS 28 & 29 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
157	320	N04°02'24"E	1011.69'
320	321	N85°57'36"W	39.13'
*321	*631	S03°01'15"E	21.73'
631	632	N47°07'29"W	34.55'
632	633	N18°48'21"W	40.00'
633	634	N42°52'31"E	50.43'
*634	*324	S01°35'41"E	29.25'
324	323	S88°01'30"W	9.49'
323	322	S02°26'20"E	47.59'
322	321	N87°05'51"E	9.41'

\*SEE CURVE TABLE

BASIS OF EXISTING R/W

ROUTE	BASIS	YEAR
STH 47	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015
CTH A	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015
KRUEGER ROAD	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015

EXISTING ACCESS CONTROL ALONG STH 47 HAS BEEN ESTABLISHED FROM PREVIOUS CONTROLLED ACCESS PROJECT 6240-07-29.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

CURVE TABLE

FROM POINT	TO POINT	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
324	321	2929.79'	47.43'	S02°20'41"E	47.43'
321	631	2929.79'	21.73'	S03°01'15"E	21.73'
634	324	2929.79'	29.25'	S01°35'41"E	29.25'

COORDINATE TABLE

POINT	Y	X
155	618182.6800	812121.5800
157	618134.4000	814766.9600
158	618134.3700	814783.6800
159	618129.0000	817405.4600
161	620995.8100	814969.0600
250	619500.2039	814868.4082
320	619143.5731	814838.2373
321	619146.3303	814799.1999
322	619145.8537	814789.8001
323	619193.3959	814787.7753
324	619193.7229	814797.2595
631	619124.6313	814800.3450
632	619148.1378	814775.0272
633	619186.0025	814762.1328
634	619222.9592	814796.4455

REVISION DATE	6/4/2020	7/1/2020 N.C.

DATE	4/27/2020
GRID FACTOR	



HWY:	STH 47
COUNTY:	OUTAGAMIE

STATE R/W PROJECT NUMBER	6240-22-21
CONSTRUCTION PROJECT NUMBER	6240-22-71

PLAT SHEET	4.18
PS&E SHEET	

SHEET 18 OF 22 SHEETS

COORDINATE TABLE

POINT	Y	X
163	623693.8200	815206.7600
165	626390.0900	815348.3600
192	626407.7030	818011.2760
193	626359.6090	812715.2170
256	626390.0699	815346.6220
650	625780.1374	815316.3270
651	625783.0640	815260.6003
652	625810.4426	815235.9140
653	625850.4107	815237.5113
654	625876.4762	815265.3632
655	625882.2072	815321.6874
656	625879.6353	815370.6607
657	625843.3926	815403.3394
658	625803.4245	815401.7421
659	625769.0603	815365.0227

PARCEL 31 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
163	650	N03°00'22"E	2089.19'
650	651	N86°59'38"W	55.80'
651	652	N42°02'23"W	36.86'
652	653	N02°17'19"E	40.00'
653	654	N46°53'51"E	38.15'
654	651	S02°55'08"W	93.53'

PARCEL 32 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
163	655	N03°00'22"E	2191.40'
655	656	S86°59'38"E	49.04'
656	657	S42°02'23"E	48.80'
657	658	S02°17'19"W	40.00'
658	659	S46°53'51"W	50.29'
659	656	N02°55'08"E	110.72'

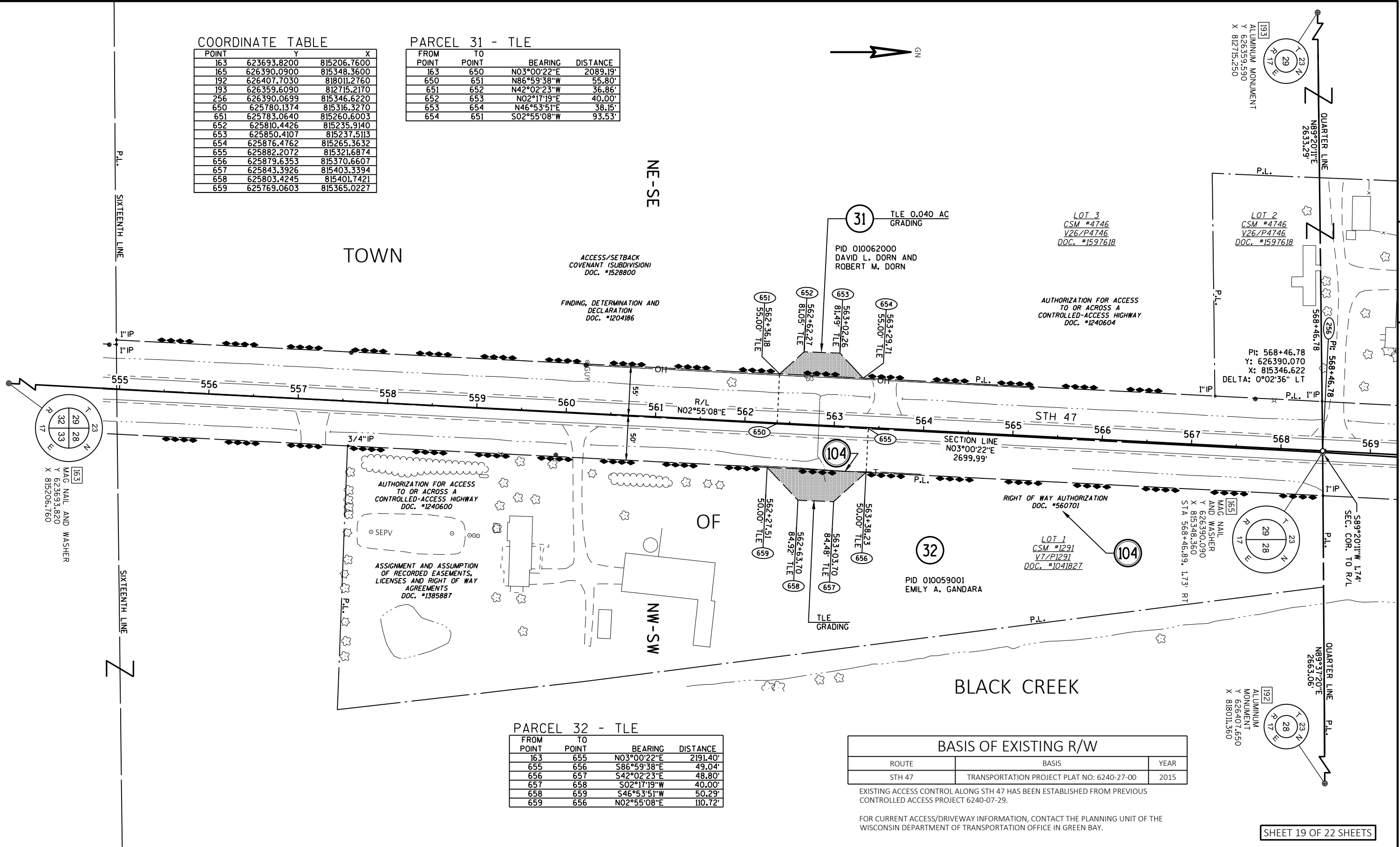
BASIS OF EXISTING R/W

ROUTE	BASIS	YEAR
STH 47	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015

EXISTING ACCESS CONTROL ALONG STH 47 HAS BEEN ESTABLISHED FROM PREVIOUS CONTROLLED ACCESS PROJECT 6240-07-29.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

SHEET 19 OF 22 SHEETS



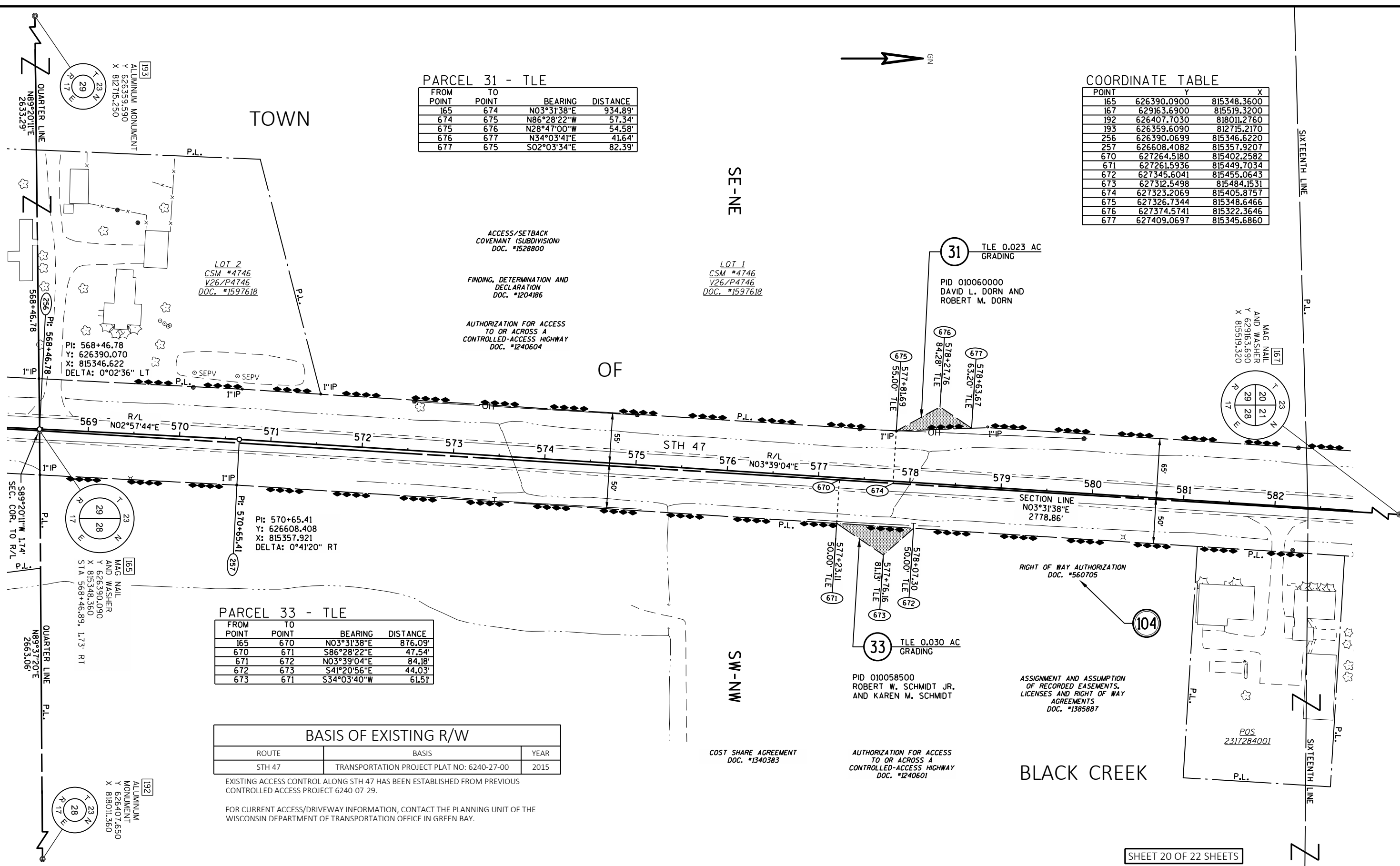
REVISION DATE	6/4/2020	7/1/2020 N.C.	DATE	4/27/2020	SCALE, FEET	0 50 100	HWY:	STH 47	STATE R/W PROJECT NUMBER	6240-22-21	PLAT SHEET	4.19
GRID FACTOR							COUNTY:	OUTAGAMIE	CONSTRUCTION PROJECT NUMBER	6240-22-71	PS&E SHEET	

PARCEL 31 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
165	674	N03°31'38"E	934.89'
674	675	N86°28'22"W	57.34'
675	676	N28°47'00"W	54.58'
676	677	N34°03'41"E	41.64'
677	675	S02°03'34"E	82.39'

COORDINATE TABLE

POINT	Y	X
165	626390.0900	815348.3600
167	629163.6900	815519.3200
192	626407.7030	818011.2760
193	626359.6090	812715.2170
256	626390.0699	815346.6220
257	626608.4082	815357.9207
670	627264.5180	815402.2582
671	627261.5936	815449.7034
672	627345.6041	815455.0643
673	627312.5498	815484.1531
674	627323.2069	815405.8757
675	627326.7344	815348.6466
676	627374.5741	815322.3646
677	627409.0697	815345.6860



ACCESS/SETBACK COVENANT (SUBDIVISION) DOC. #1528800

FINDING, DETERMINATION AND DECLARATION DOC. #1204186

AUTHORIZATION FOR ACCESS TO OR ACROSS A CONTROLLED-ACCESS HIGHWAY DOC. #1240604

LOT 1 CSM #4746 V26/P4746 DOC. #1597618

LOT 2 CSM #4746 V26/P4746 DOC. #1597618

PARCEL 33 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
165	670	N03°31'38"E	876.09'
670	671	S86°28'22"E	47.54'
671	672	N03°39'04"E	84.18'
672	673	S41°20'56"E	44.03'
673	671	S34°03'40"W	61.51'

BASIS OF EXISTING R/W

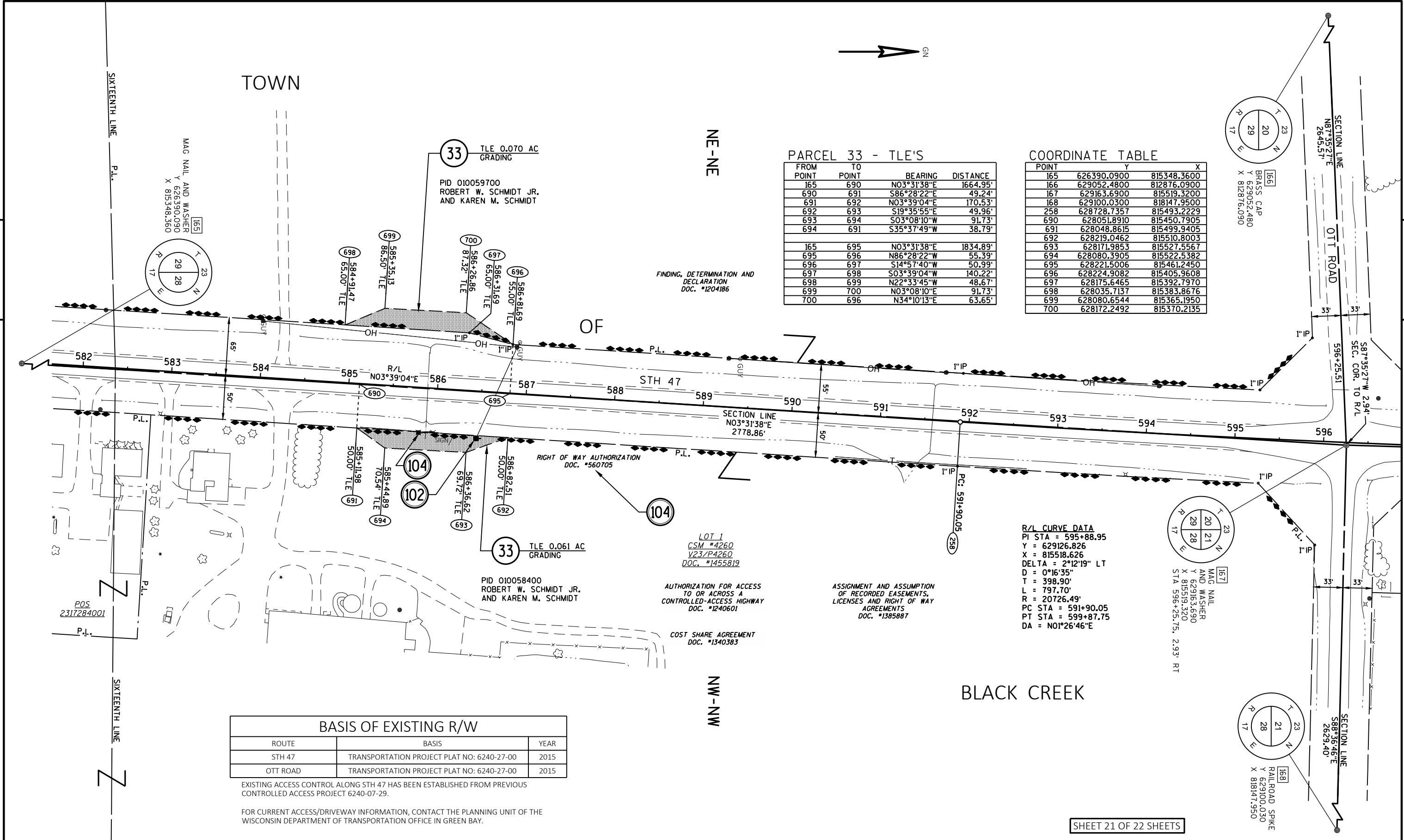
ROUTE	BASIS	YEAR
STH 47	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015

EXISTING ACCESS CONTROL ALONG STH 47 HAS BEEN ESTABLISHED FROM PREVIOUS CONTROLLED ACCESS PROJECT 6240-07-29.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

SHEET 20 OF 22 SHEETS

REVISION DATE	6/4/2020	7/1/2020 N.C.	DATE	4/27/2020	SCALE, FEET	HWY:	STH 47	STATE R/W PROJECT NUMBER	6240-22-21	PLAT SHEET	4.20
			GRID FACTOR			COUNTY:	OUTAGAMIE	CONSTRUCTION PROJECT NUMBER	6240-22-71	PS&E SHEET	



**PARCEL 33 - TLE'S**

FROM POINT	TO POINT	BEARING	DISTANCE
165	690	N03°31'38"E	1664.95'
690	691	S86°28'22"E	49.24'
691	692	N03°39'04"E	170.53'
692	693	S19°35'55"E	49.96'
693	694	S03°08'10"W	91.73'
694	691	S35°37'49"W	38.79'
165	695	N03°31'38"E	1834.89'
695	696	N86°28'22"W	55.39'
696	697	S14°57'40"W	50.99'
697	698	S03°39'04"W	140.22'
698	699	N22°33'45"W	48.67'
699	700	N03°08'10"E	91.73'
700	696	N34°10'13"E	63.65'

**COORDINATE TABLE**

POINT	Y	X
165	626390.0900	815348.3600
166	629052.4800	812876.0900
167	629163.6900	815519.3200
168	629100.0300	818147.9500
258	628728.7357	815493.2229
690	628051.8910	815450.7905
691	628048.8615	815499.9405
692	628219.0462	815510.8003
693	628171.9853	815527.5567
694	628080.3905	815522.5382
695	628221.5006	815461.2450
696	628224.9082	815405.9608
697	628175.6465	815392.7970
698	628035.7137	815383.8676
699	628080.6544	815365.1950
700	628172.2492	815370.2135

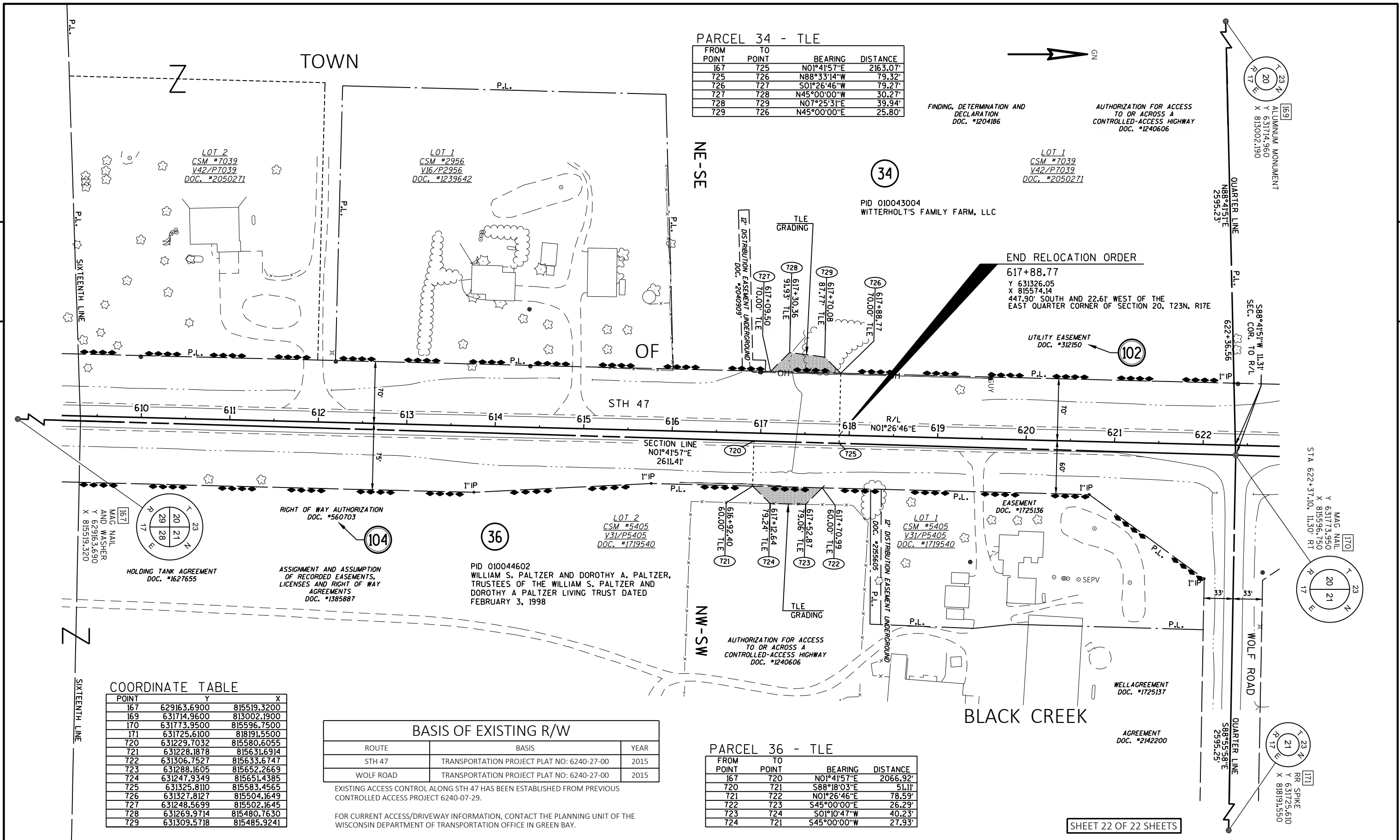
ROUTE	BASIS	YEAR
STH 47	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015
OTT ROAD	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015

EXISTING ACCESS CONTROL ALONG STH 47 HAS BEEN ESTABLISHED FROM PREVIOUS CONTROLLED ACCESS PROJECT 6240-07-29.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

SHEET 21 OF 22 SHEETS

REVISION DATE	6/4/2020	7/1/2020 N.C.	DATE	4/27/2020	SCALE, FEET	0 50 100	HWY:	STH 47	STATE R/W PROJECT NUMBER	6240-22-21	PLAT SHEET	4.21
			GRID FACTOR				COUNTY:	OUTAGAMIE	CONSTRUCTION PROJECT NUMBER	6240-22-71	PS&E SHEET	



PARCEL 34 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
167	725	N01°41'57"E	2163.07'
725	726	N88°33'14"W	79.32'
726	727	S01°26'46"W	79.27'
727	728	N45°00'00"W	30.27'
728	729	N07°25'31"E	39.94'
729	726	N45°00'00"E	25.80'

PARCEL 36 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
167	720	N01°41'57"E	2066.92'
720	721	S88°18'03"E	51.11'
721	722	N01°26'46"E	78.59'
722	723	S45°00'00"E	26.29'
723	724	S01°10'47"W	40.23'
724	721	S45°00'00"W	27.93'

COORDINATE TABLE

POINT	Y	X
167	629163.6900	815519.3200
169	631714.9600	813002.1900
170	631773.9500	815596.7500
171	631725.6100	818191.5500
720	631229.7032	815580.6055
721	631228.1878	815631.6914
722	631306.7527	815633.6747
723	631288.1605	815652.2669
724	631247.9349	815651.4385
725	631325.8110	815583.4565
726	631327.8127	815504.1649
727	631248.5699	815502.1645
728	631269.9714	815480.7630
729	631309.5718	815485.9241

BASIS OF EXISTING R/W

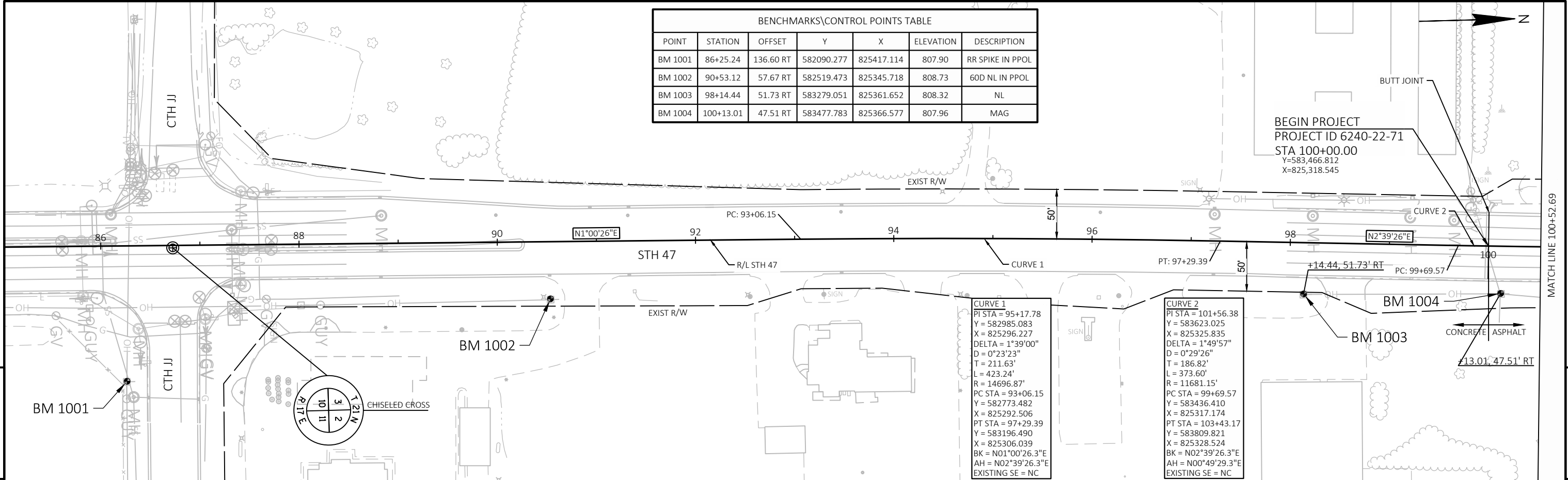
ROUTE	BASIS	YEAR
STH 47	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015
WOLF ROAD	TRANSPORTATION PROJECT PLAT NO: 6240-27-00	2015

EXISTING ACCESS CONTROL ALONG STH 47 HAS BEEN ESTABLISHED FROM PREVIOUS CONTROLLED ACCESS PROJECT 6240-07-29.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

REVISION DATE	6/4/2020	7/1/2020 N.C.	DATE	4/27/2020	SCALE, FEET	0 50 100	HWY:	STH 47	STATE R/W PROJECT NUMBER	6240-22-21	PLAT SHEET	4.22
GRID FACTOR							COUNTY:	OUTAGAMIE	CONSTRUCTION PROJECT NUMBER	6240-22-71	PS&E SHEET	

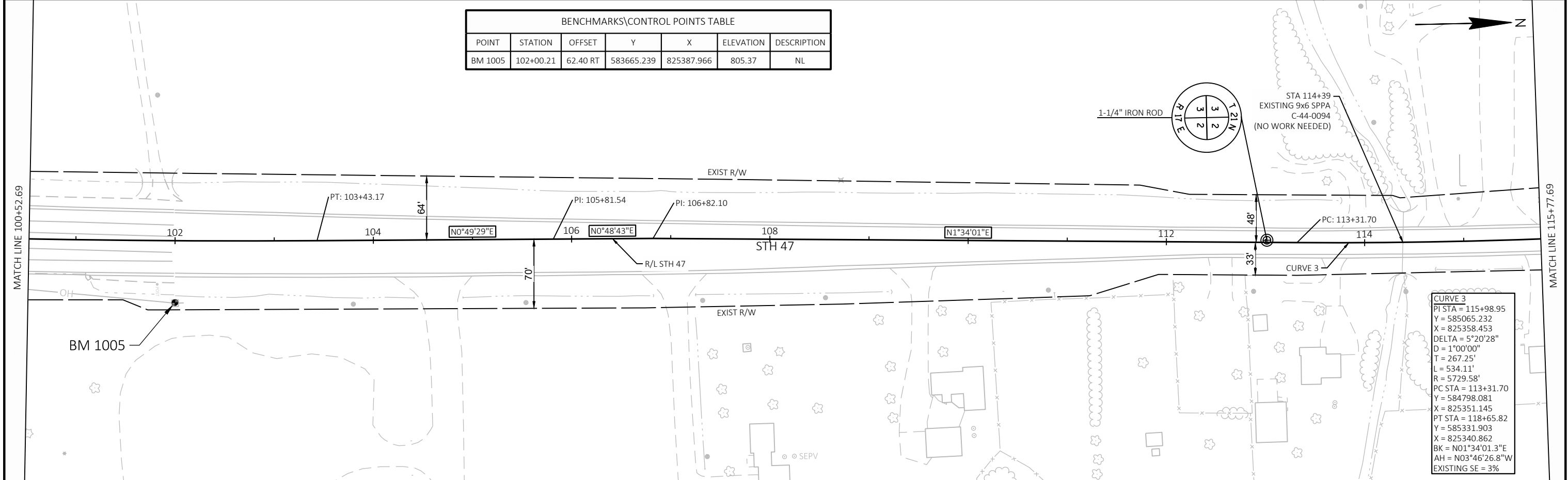
BENCHMARKS\CONTROL POINTS TABLE						
POINT	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
BM 1001	86+25.24	136.60 RT	582090.277	825417.114	807.90	RR SPIKE IN PPOL
BM 1002	90+53.12	57.67 RT	582519.473	825345.718	808.73	60D NL IN PPOL
BM 1003	98+14.44	51.73 RT	583279.051	825361.652	808.32	NL
BM 1004	100+13.01	47.51 RT	583477.783	825366.577	807.96	MAG



CURVE 1	
PI STA = 95+17.78	Y = 582985.083
X = 825296.227	DELTA = 1°39'00"
D = 0°23'23"	T = 211.63'
L = 423.24'	R = 14696.87'
PC STA = 93+06.15	Y = 582773.482
X = 825292.506	PT STA = 97+29.39
Y = 583196.490	X = 825306.039
BK = N01°00'26.3"E	AH = N02°39'26.3"E
EXISTING SE = NC	

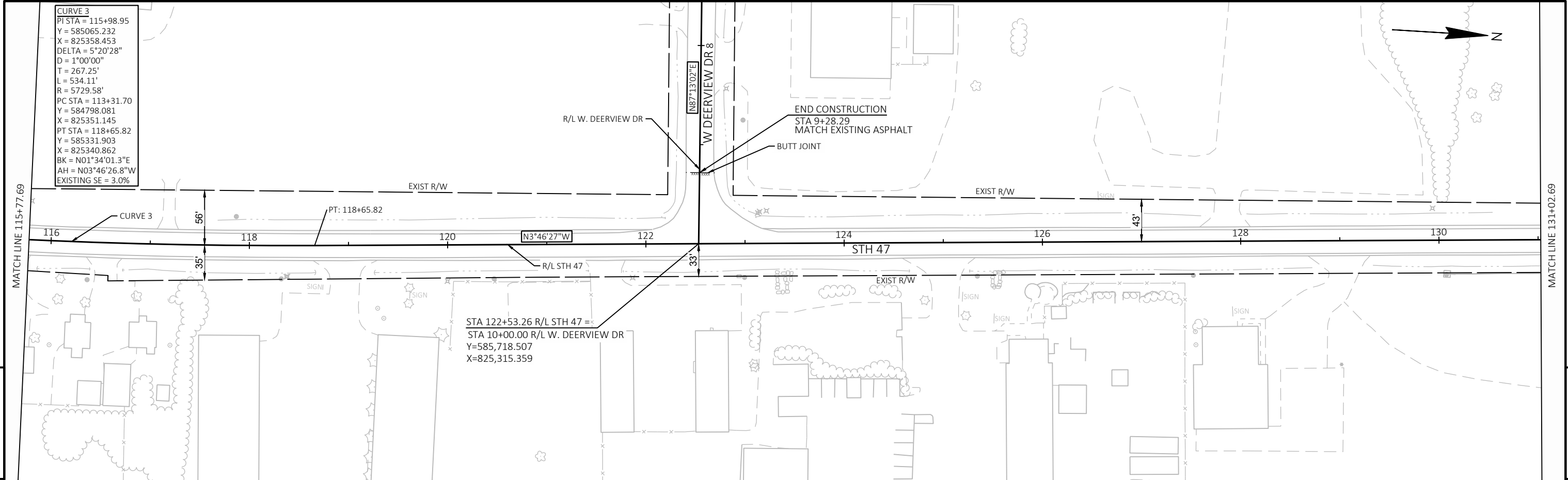
CURVE 2	
PI STA = 101+56.38	Y = 583623.025
X = 825325.835	DELTA = 1°49'57"
D = 0°29'26"	T = 186.82'
L = 373.60'	R = 11681.15'
PC STA = 99+69.57	Y = 583436.410
X = 825317.174	PT STA = 103+43.17
Y = 583809.821	X = 825328.524
BK = N02°39'26.3"E	AH = N00°49'29.3"E
EXISTING SE = NC	

BENCHMARKS\CONTROL POINTS TABLE						
POINT	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
BM 1005	102+00.21	62.40 RT	583665.239	825387.966	805.37	NL



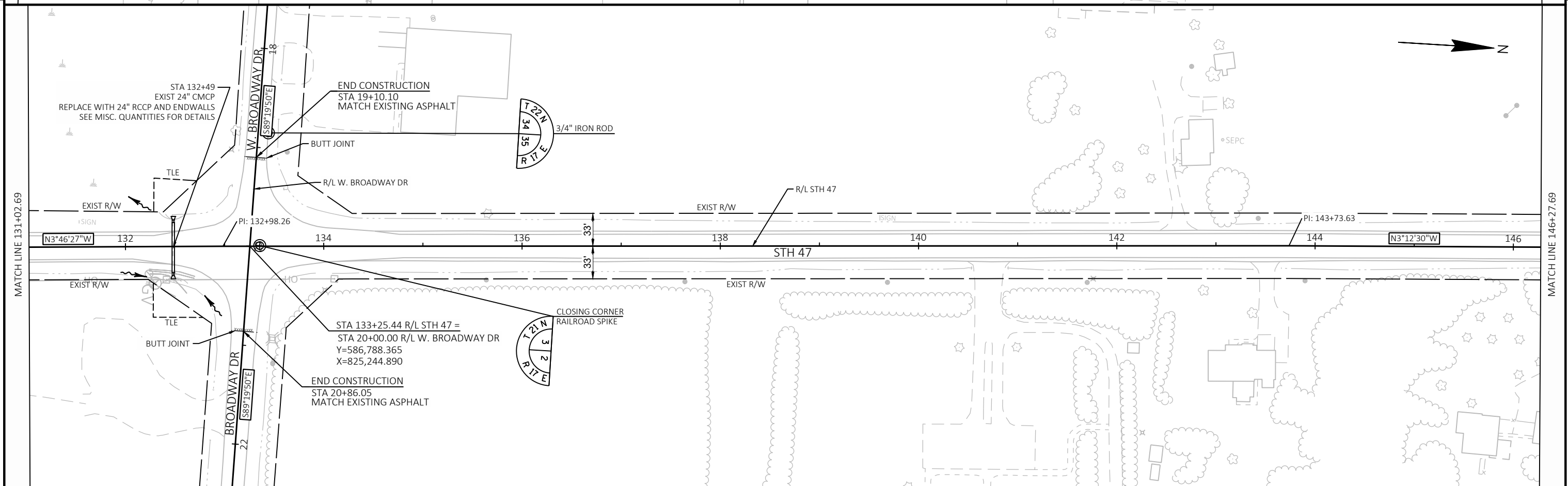
CURVE 3	
PI STA = 115+98.95	Y = 585065.232
X = 825358.453	DELTA = 5°20'28"
D = 1°00'00"	T = 267.25'
L = 534.11'	R = 5729.58'
PC STA = 113+31.70	Y = 584798.081
X = 825351.145	PT STA = 118+65.82
Y = 585331.903	X = 825340.862
BK = N01°34'01.3"E	AH = N03°46'26.8"W
EXISTING SE = 3%	

CURVE 3  
 PI STA = 115+98.95  
 Y = 585065.232  
 X = 825358.453  
 DELTA = 5°20'28"  
 D = 1°00'00"  
 T = 267.25'  
 L = 534.11'  
 R = 5729.58'  
 PC STA = 113+31.70  
 Y = 584798.081  
 X = 825351.145  
 PT STA = 118+65.82  
 Y = 585331.903  
 X = 825340.862  
 BK = N01°34'01.3"E  
 AH = N03°46'26.8"W  
 EXISTING SE = 3.0%

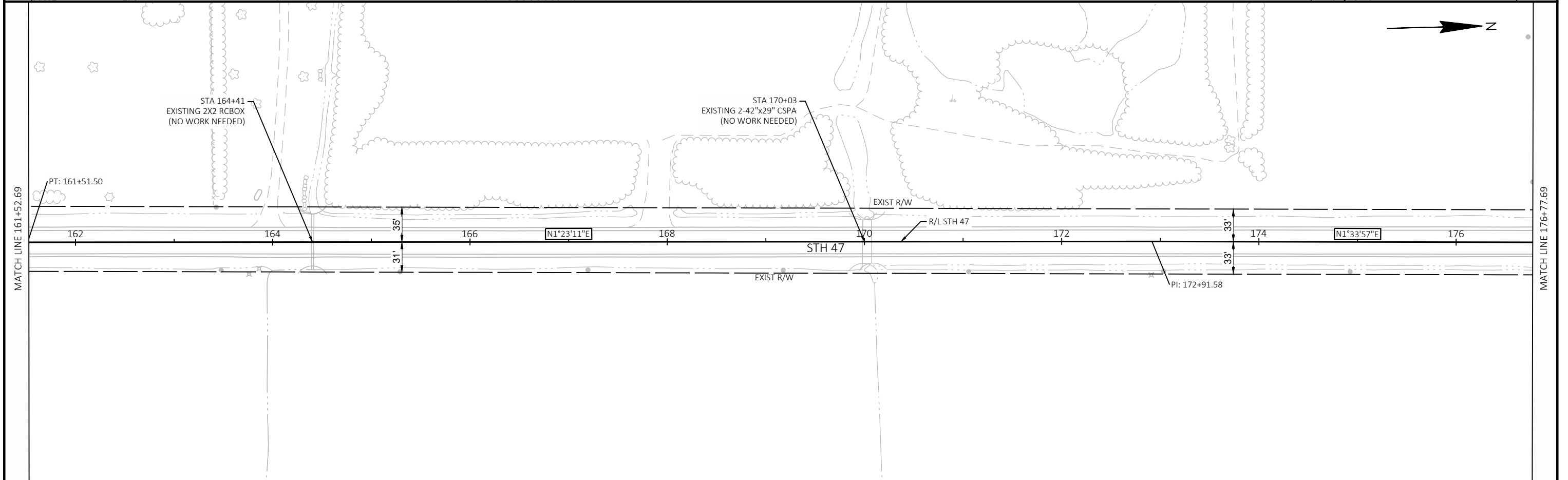
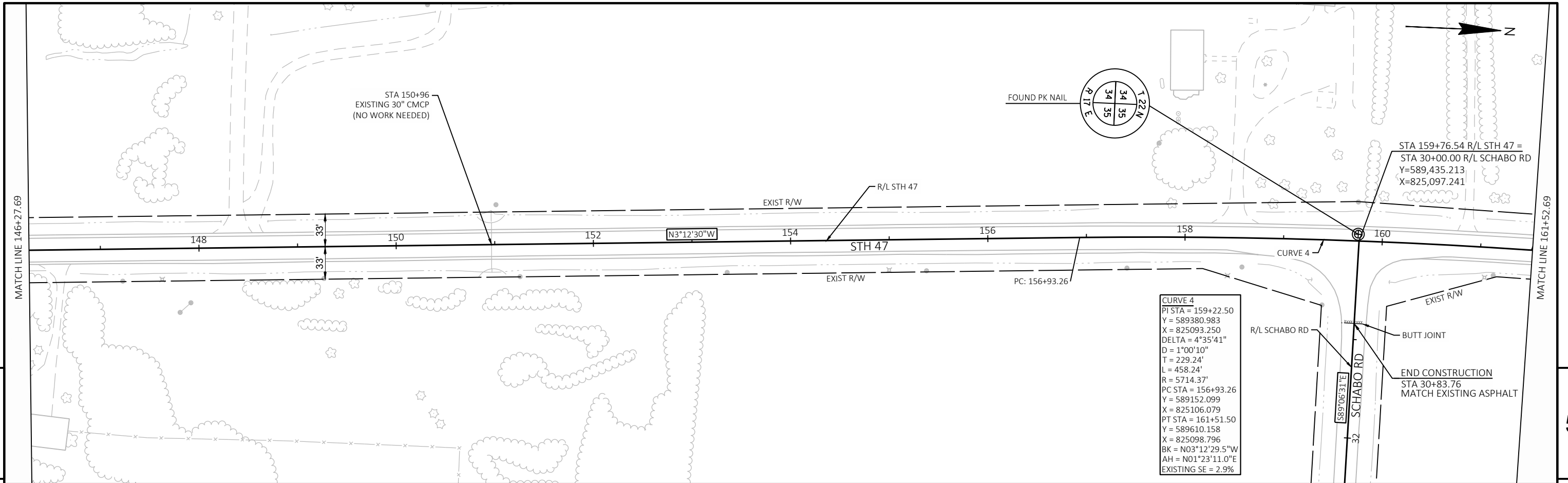


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PROJECT NO: 6240-22-71	HWY: STH 47	COUNTY: OUTAGAMIE	PLAN SHEETS	SHEET	E
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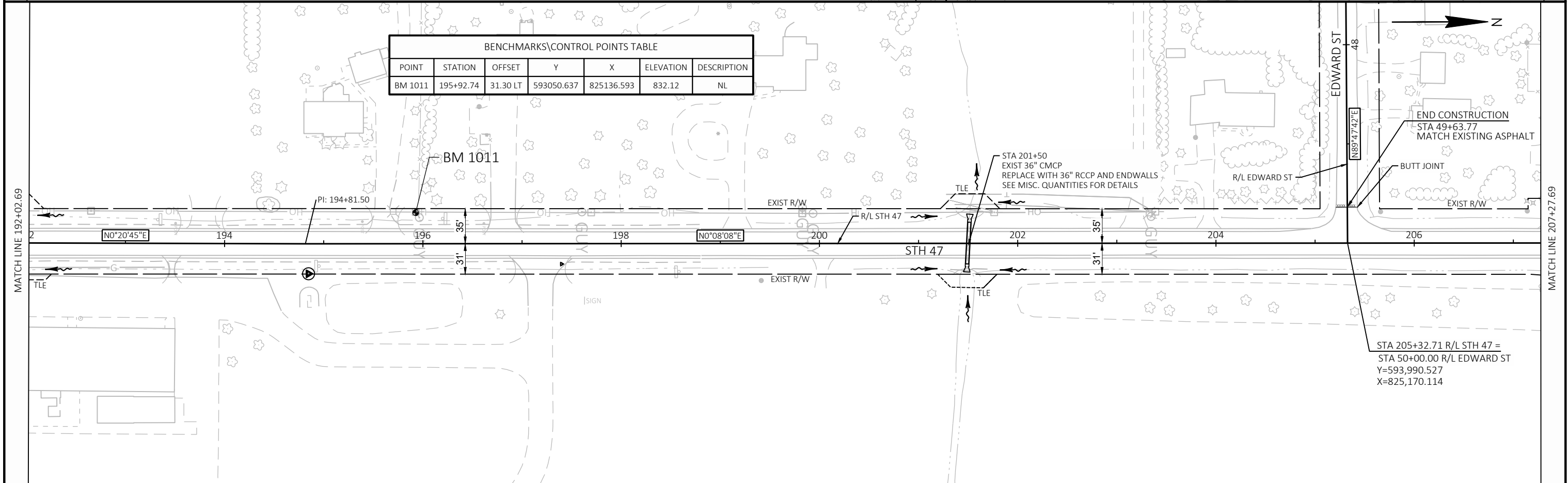
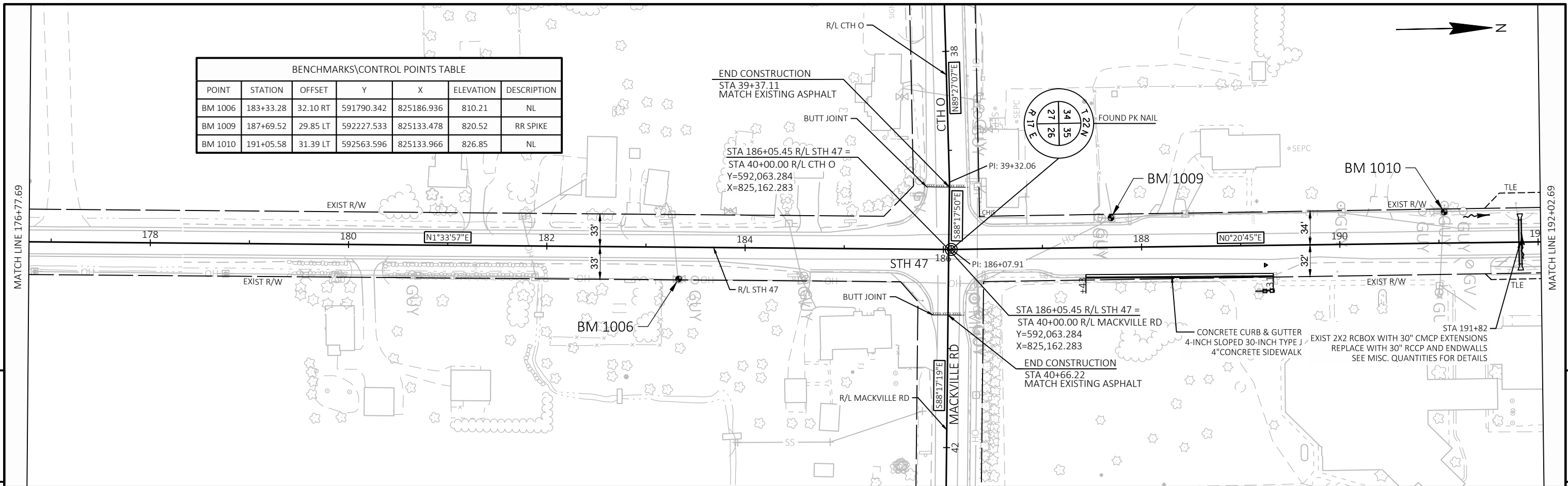


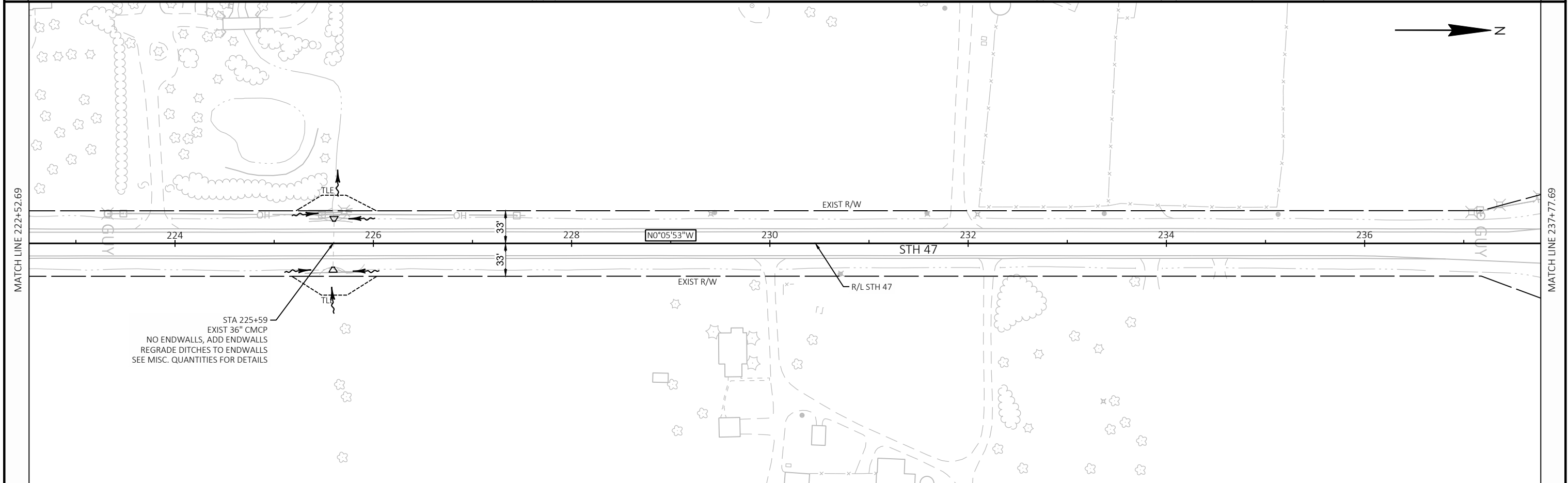
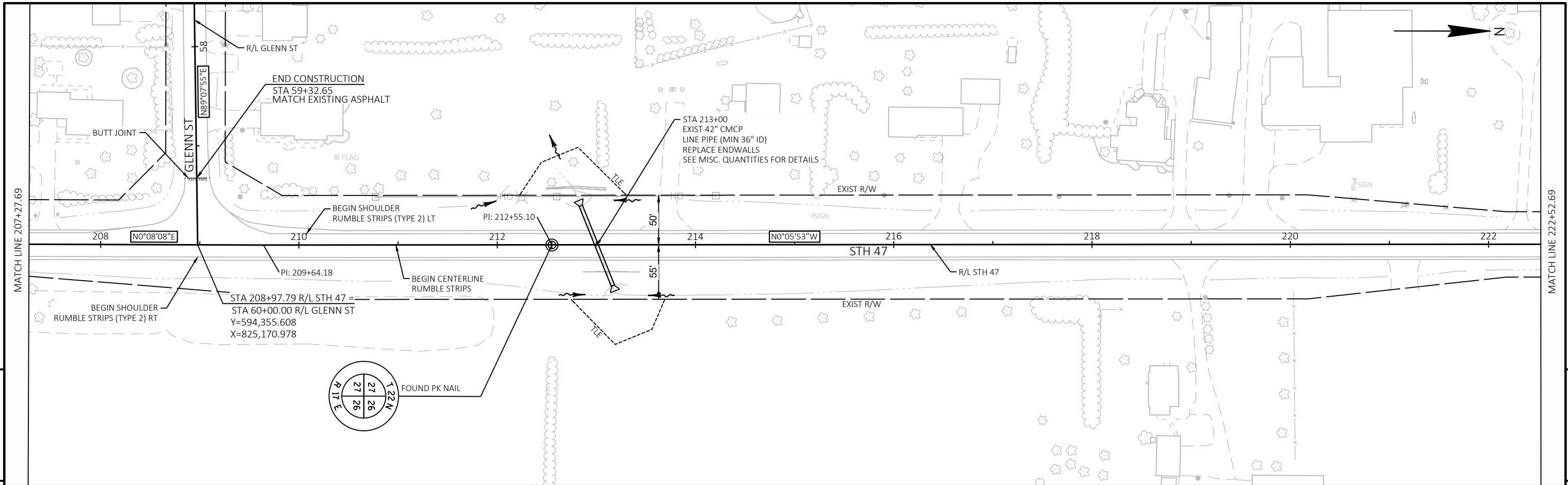
PROJECT NO: 6240-22-71	HWY: STH 47	COUNTY: OUTAGAMIE	PLAN SHEETS	SHEET	E
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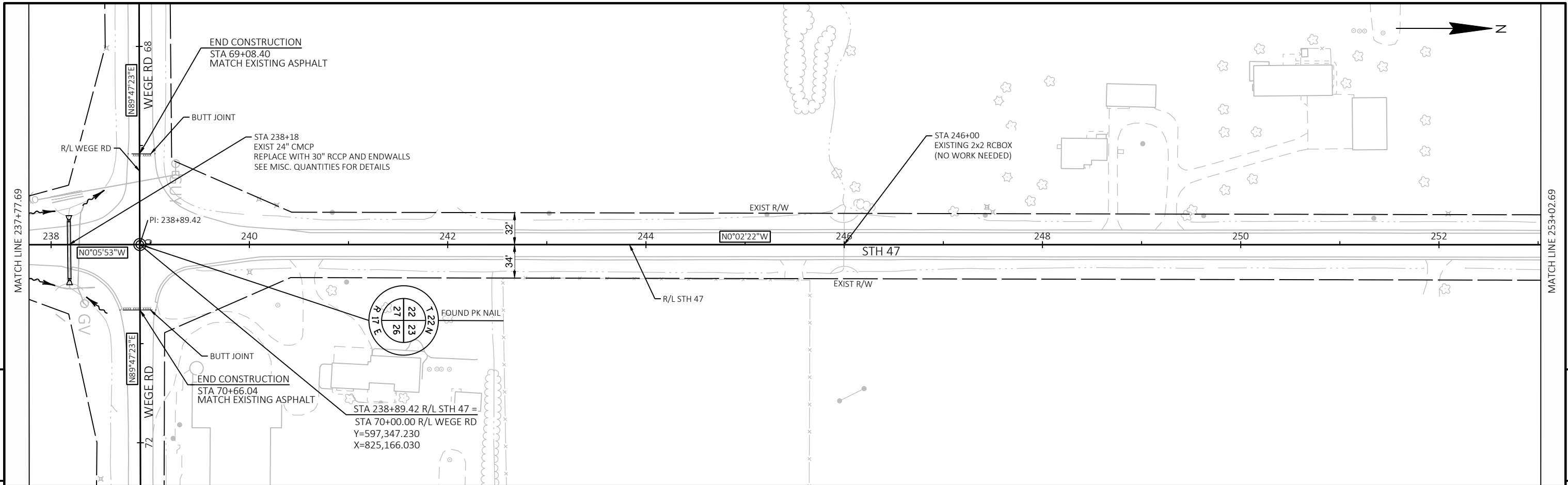
BENCHMARKS/CONTROL POINTS TABLE						
POINT	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
BM 1006	183+33.28	32.10 RT	591790.342	825186.936	810.21	NL
BM 1009	187+69.52	29.85 LT	592227.533	825133.478	820.52	RR SPIKE
BM 1010	191+05.58	31.39 LT	592563.596	825133.966	826.85	NL

BENCHMARKS/CONTROL POINTS TABLE						
POINT	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
BM 1011	195+92.74	31.30 LT	593050.637	825136.593	832.12	NL

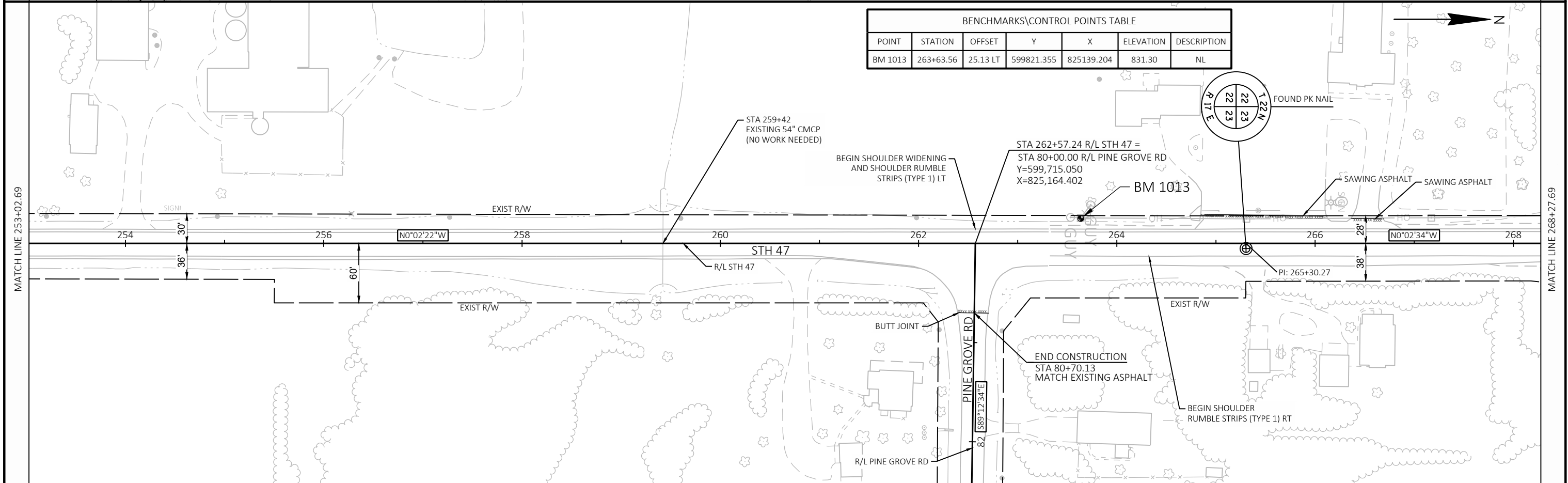




PROJECT NO: 6240-22-71	HWY: STH 47	COUNTY: OUTAGAMIE	PLAN SHEETS	SHEET	<b>E</b>
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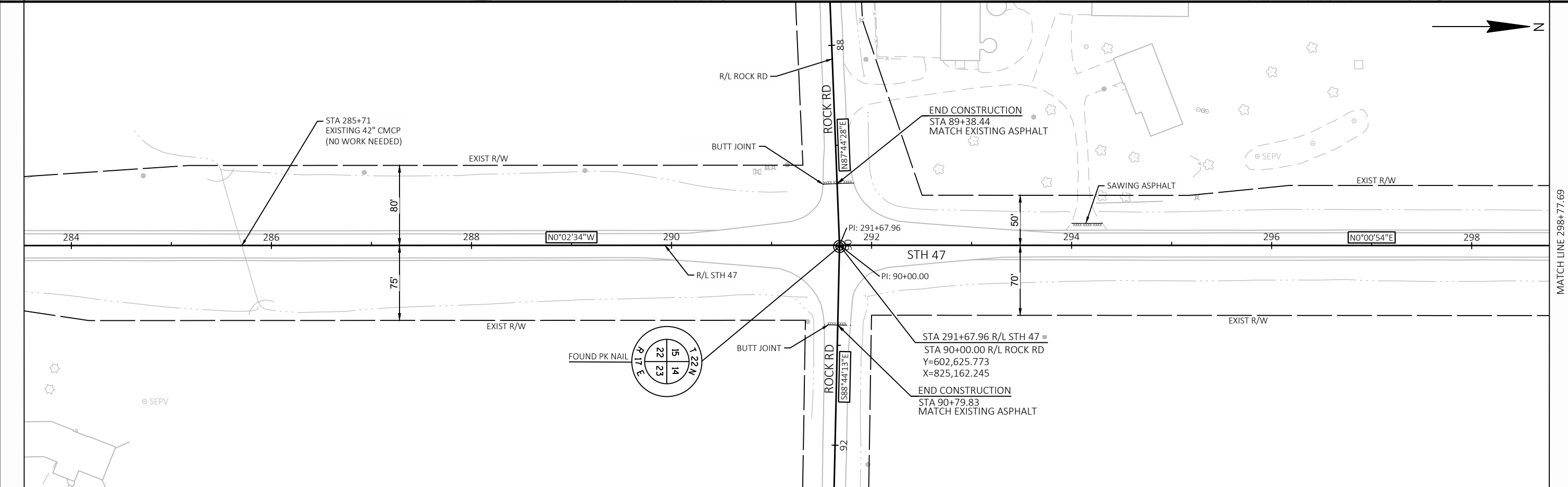
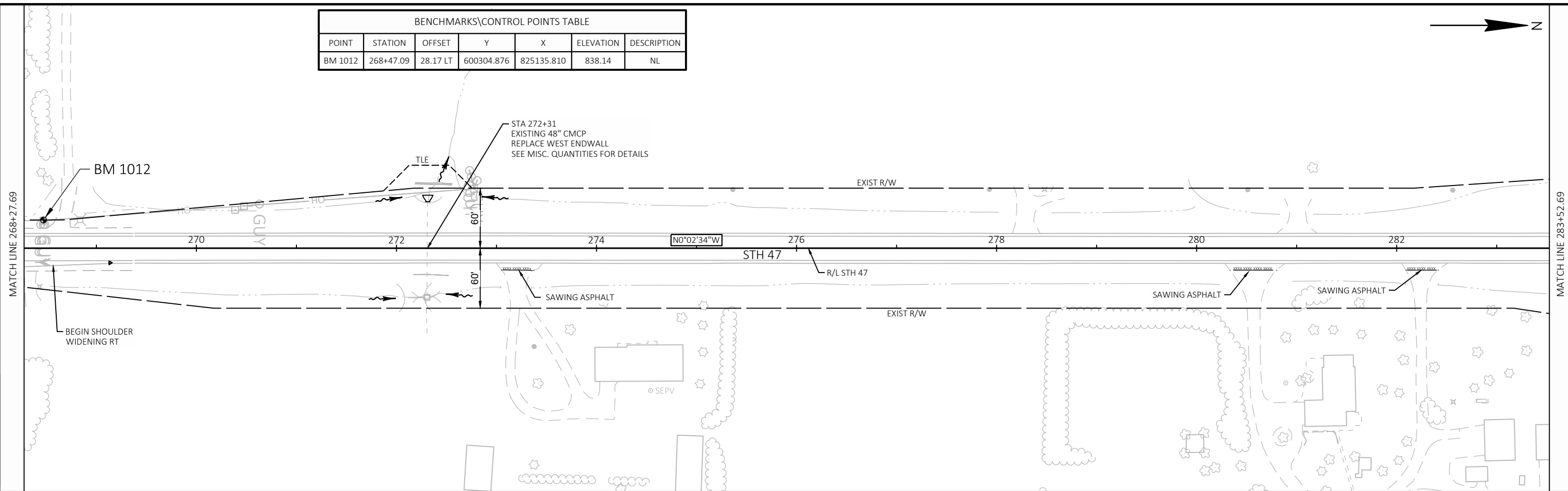


BENCHMARKS/CONTROL POINTS TABLE						
POINT	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
BM 1013	263+63.56	25.13 LT	599821.355	825139.204	831.30	NL

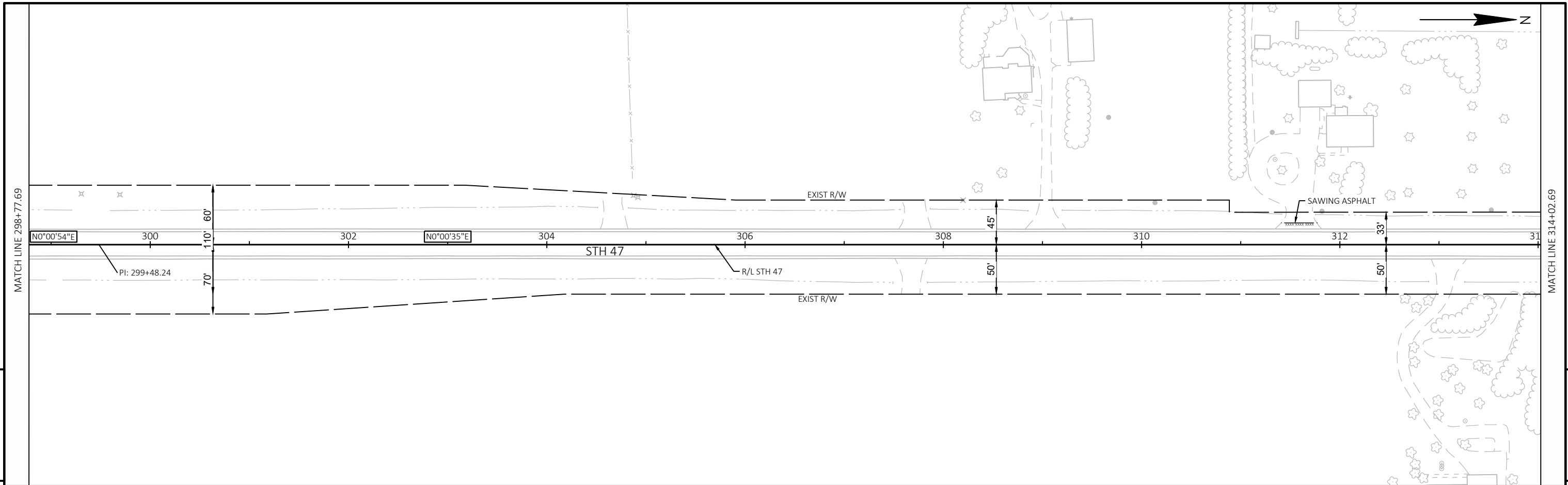


PROJECT NO: 6240-22-71	HWY: STH 47	COUNTY: OUTAGAMIE	PLAN SHEETS	SHEET	<b>E</b>
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BENCHMARKS/CONTROL POINTS TABLE						
POINT	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
BM 1012	268+47.09	28.17 LT	600304.876	825135.810	838.14	NL

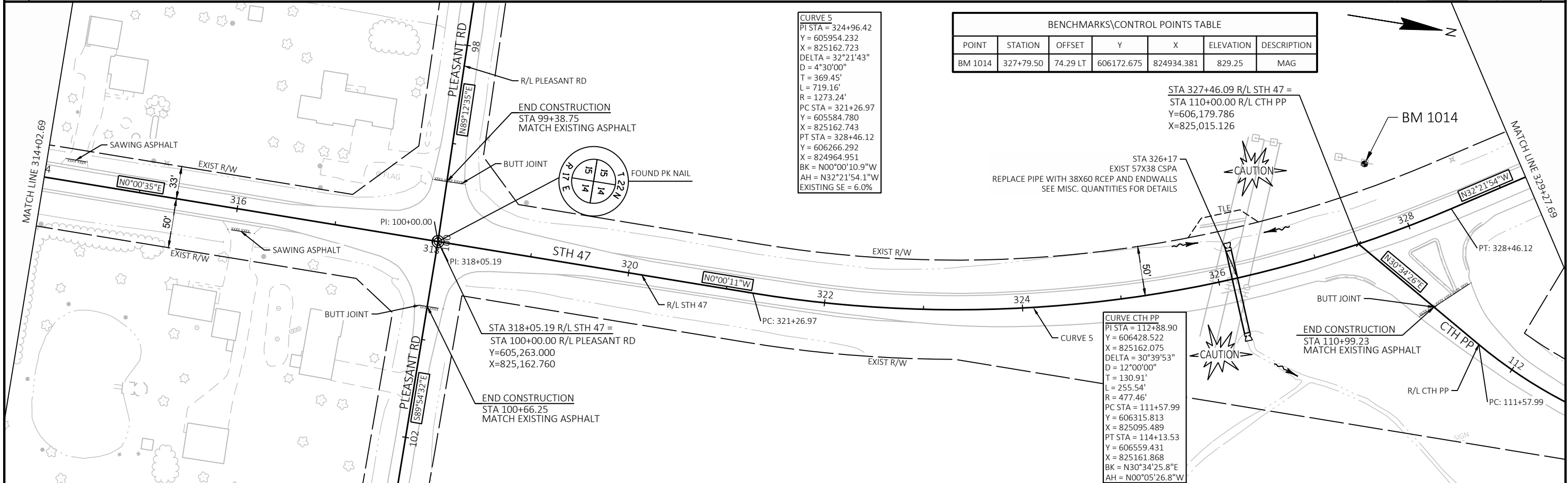


PROJECT NO: 6240-22-71      HWY: STH 47      COUNTY: OUTAGAMIE      PLAN SHEETS      SHEET **E**



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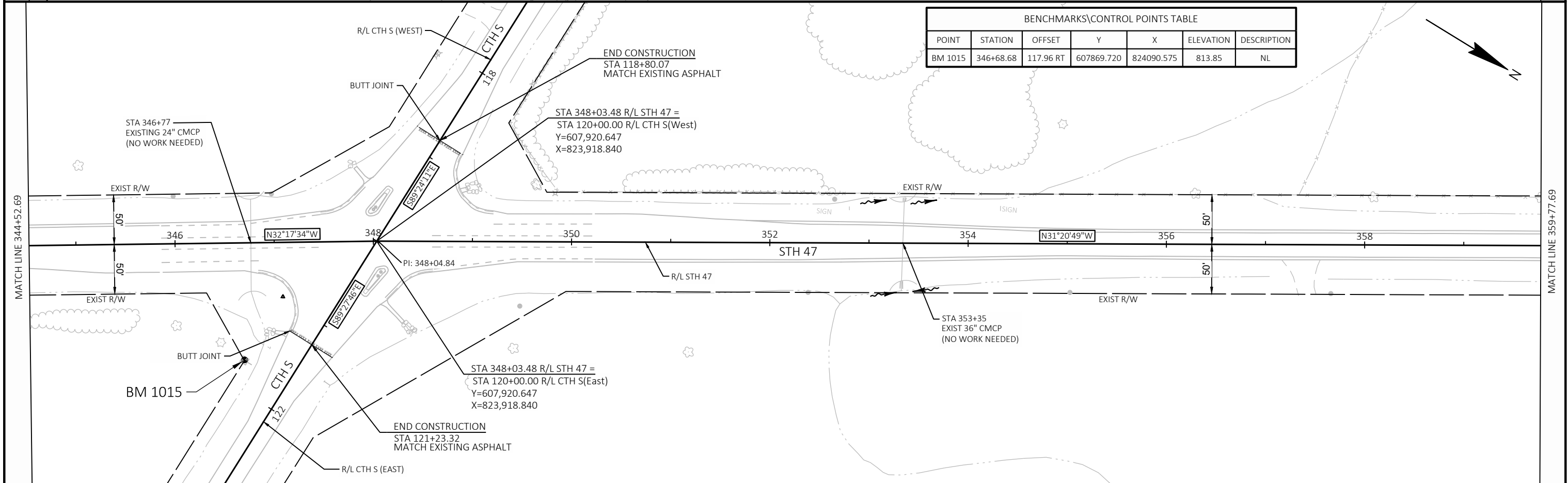
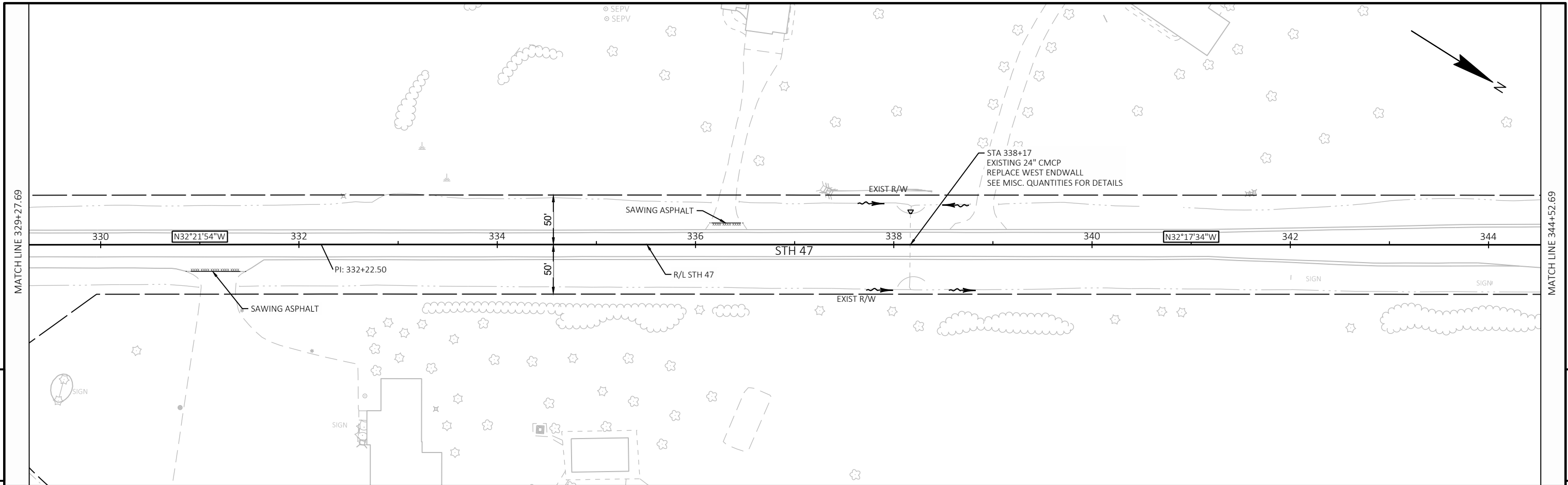
**CURVE 5**  
 PI STA = 324+96.42  
 Y = 605954.232  
 X = 825162.723  
 DELTA = 32°21'43"  
 D = 4°30'00"  
 T = 369.45'  
 L = 719.16'  
 R = 1273.24'  
 PC STA = 321+26.97  
 Y = 605584.780  
 X = 825162.743  
 PT STA = 328+46.12  
 Y = 606266.292  
 X = 824964.951  
 BK = N00°00'10.9"W  
 AH = N32°21'54.1"W  
 EXISTING SE = 6.0%

**BENCHMARKS/CONTROL POINTS TABLE**

POINT	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
BM 1014	327+79.50	74.29 LT	606172.675	824934.381	829.25	MAG

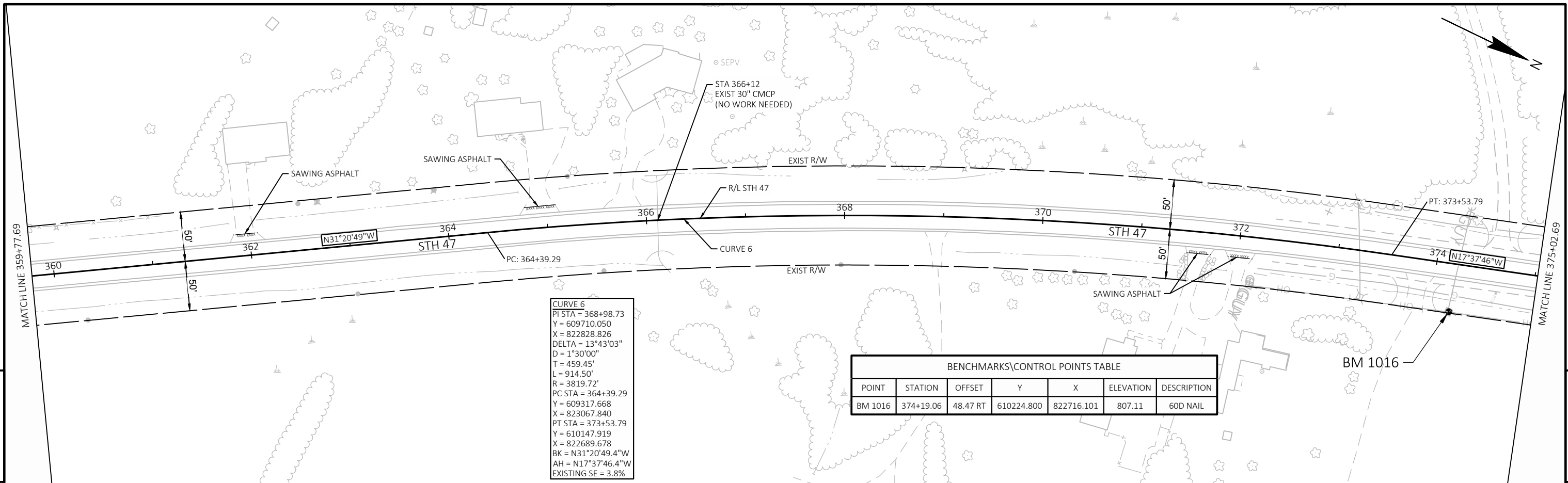
**CURVE CTH PP**  
 PI STA = 112+88.90  
 Y = 606428.522  
 X = 825162.075  
 DELTA = 30°39'53"  
 D = 12°00'00"  
 T = 130.91'  
 L = 255.54'  
 R = 477.46'  
 PC STA = 111+57.99  
 Y = 606315.813  
 X = 825095.489  
 PT STA = 114+13.53  
 Y = 606559.431  
 X = 825161.868  
 BK = N30°34'25.8"E  
 AH = N00°05'26.8"W

PROJECT NO: 6240-22-71      HWY: STH 47      COUNTY: OUTAGAMIE      PLAN SHEETS      SHEET **E**



BENCHMARKS/CONTROL POINTS TABLE						
POINT	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
BM 1015	346+68.68	117.96 RT	607869.720	824090.575	813.85	NL

PROJECT NO: 6240-22-71      HWY: STH 47      COUNTY: OUTAGAMIE      PLAN SHEETS      SHEET      E

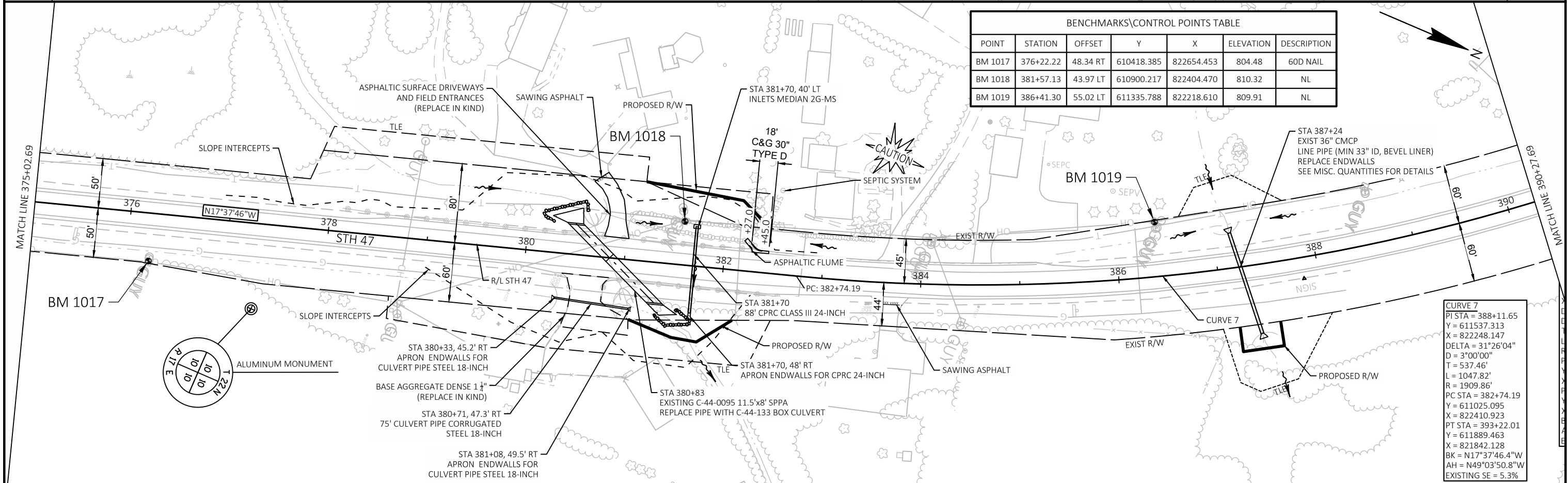


**CURVE 6**  
 PI STA = 368+98.73  
 Y = 609710.050  
 X = 822828.826  
 DELTA = 13°43'03"  
 D = 1°30'00"  
 T = 459.45'  
 L = 914.50'  
 R = 3819.72'  
 PC STA = 364+39.29  
 Y = 609317.668  
 X = 823067.840  
 PT STA = 373+53.79  
 Y = 610147.919  
 X = 822689.678  
 BK = N31°20'49.4"W  
 AH = N17°37'46.4"W  
 EXISTING SE = 3.8%

BENCHMARKS/CONTROL POINTS TABLE						
POINT	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
BM 1016	374+19.06	48.47 RT	610224.800	822716.101	807.11	60D NAIL

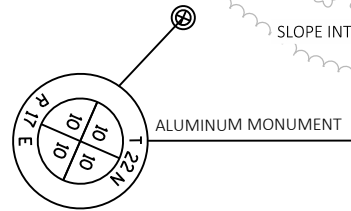
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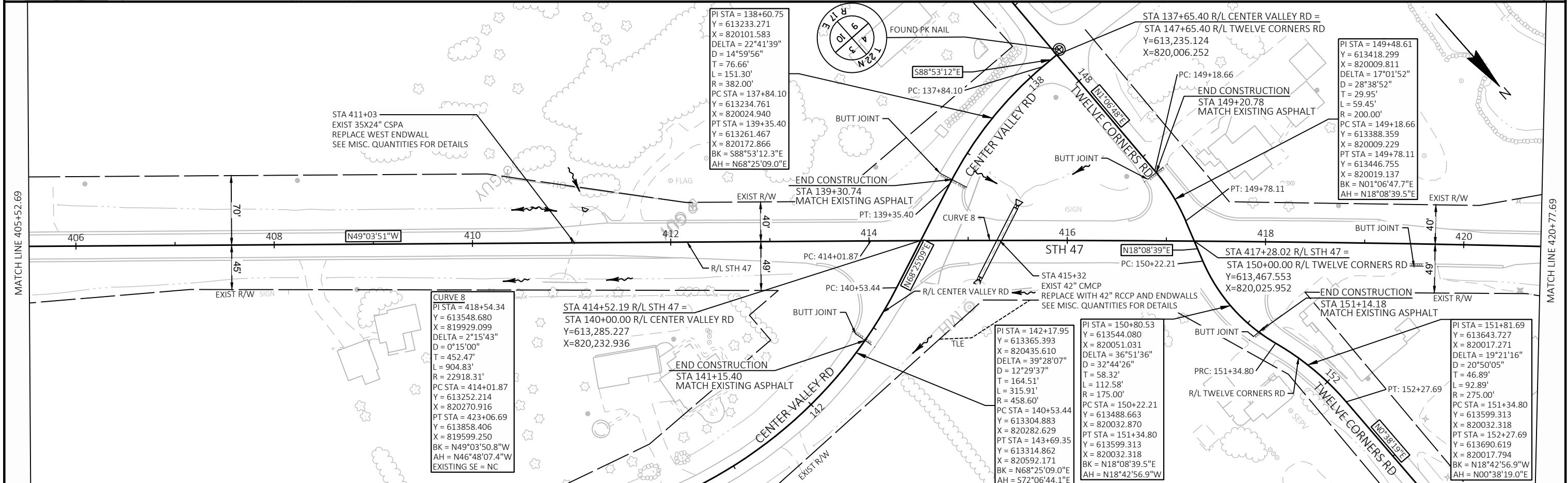
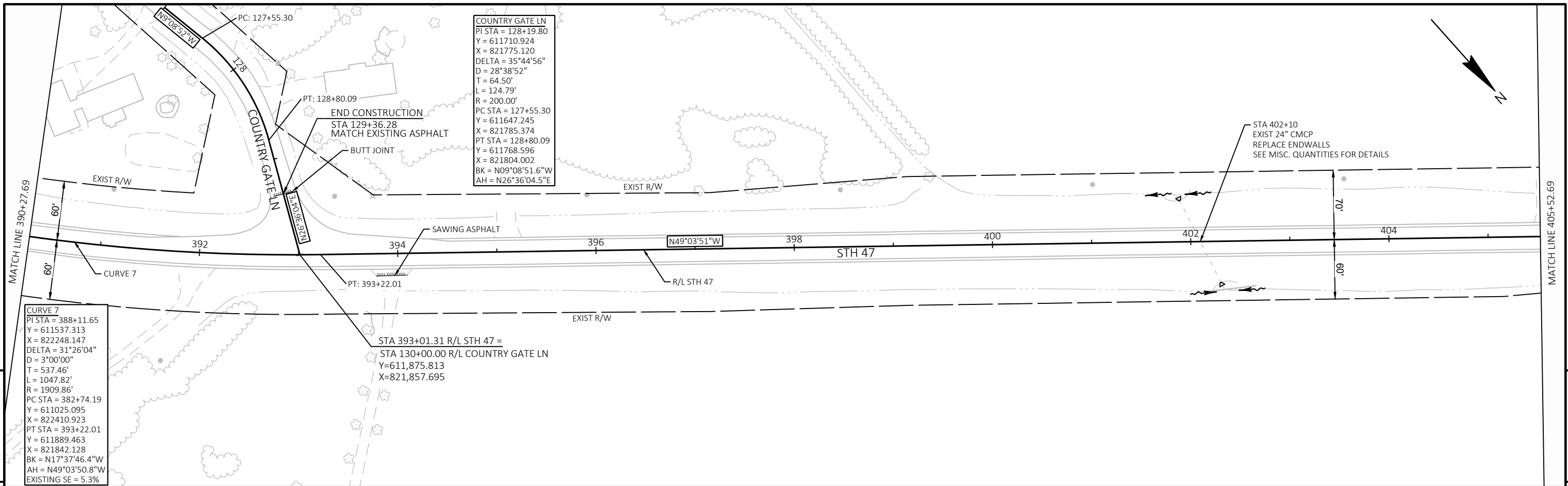
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BENCHMARKS/CONTROL POINTS TABLE						
POINT	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
BM 1017	376+22.22	48.34 RT	610418.385	822654.453	804.48	60D NAIL
BM 1018	381+57.13	43.97 LT	610900.217	822404.470	810.32	NL
BM 1019	386+41.30	55.02 LT	611335.788	822218.610	809.91	NL

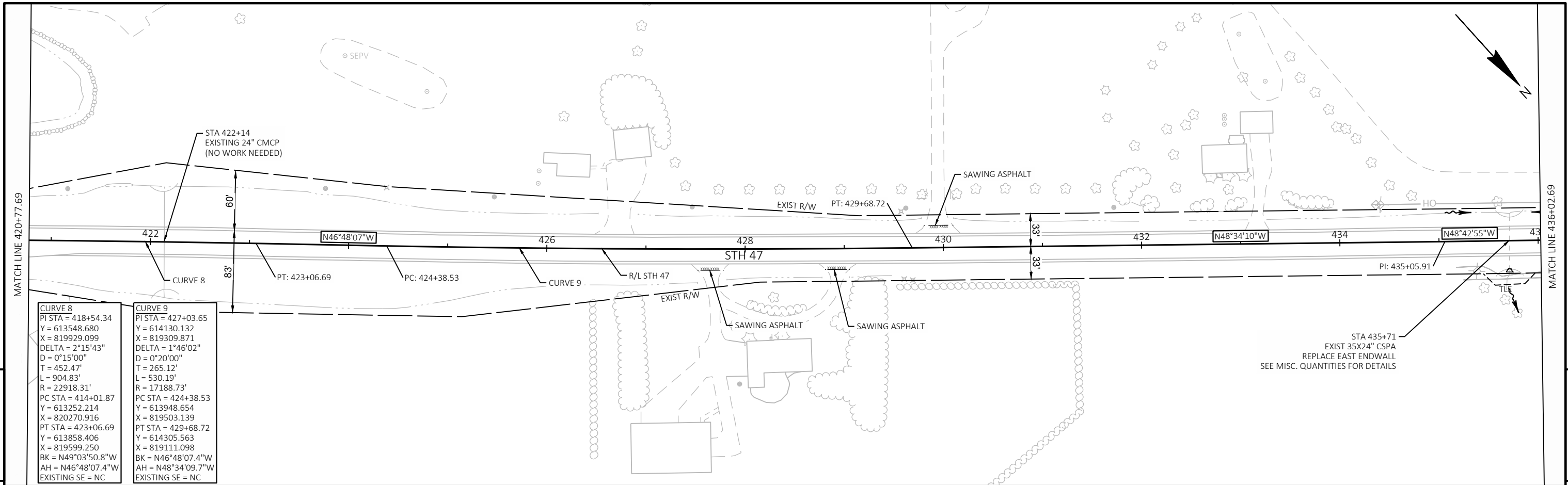
**CURVE 7**  
 PI STA = 388+11.65  
 Y = 611537.313  
 X = 822248.147  
 DELTA = 31°26'04"  
 D = 3°00'00"  
 T = 537.46'  
 L = 1047.82'  
 R = 1909.86'  
 PC STA = 382+74.19  
 Y = 611025.095  
 X = 822410.923  
 PT STA = 393+22.01  
 Y = 611889.463  
 X = 821842.128  
 BK = N17°37'46.4"W  
 AH = N49°03'50.8"W  
 EXISTING SE = 5.3%





PROJECT NO: 6240-22-71	HWY: STH 47	COUNTY: OUTAGAMIE	PLAN SHEETS	SHEET	E
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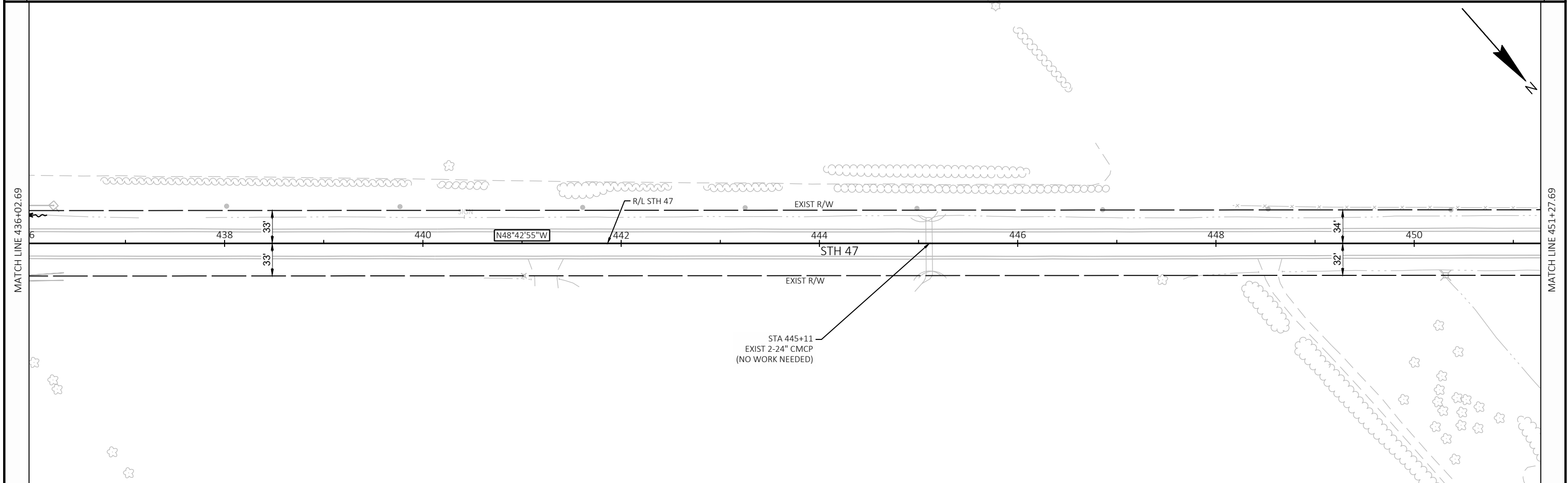




CURVE 8	CURVE 9
PT STA = 418+54.34	PT STA = 427+03.65
Y = 613548.680	Y = 614130.132
X = 819929.099	X = 819309.871
DELTA = 2°15'43"	DELTA = 1°46'02"
D = 0°15'00"	D = 0°20'00"
T = 452.47'	T = 265.12'
L = 904.83'	L = 530.19'
R = 22918.31'	R = 17188.73'
PC STA = 414+01.87	PC STA = 424+38.53
Y = 613252.214	Y = 613948.654
X = 820270.916	X = 819503.139
PT STA = 423+06.69	PT STA = 429+68.72
Y = 613858.406	Y = 614305.563
X = 819599.250	X = 819111.098
BK = N49°03'50.8\"W	BK = N46°48'07.4\"W
AH = N46°48'07.4\"W	AH = N48°34'09.7\"W
EXISTING SE = NC	EXISTING SE = NC

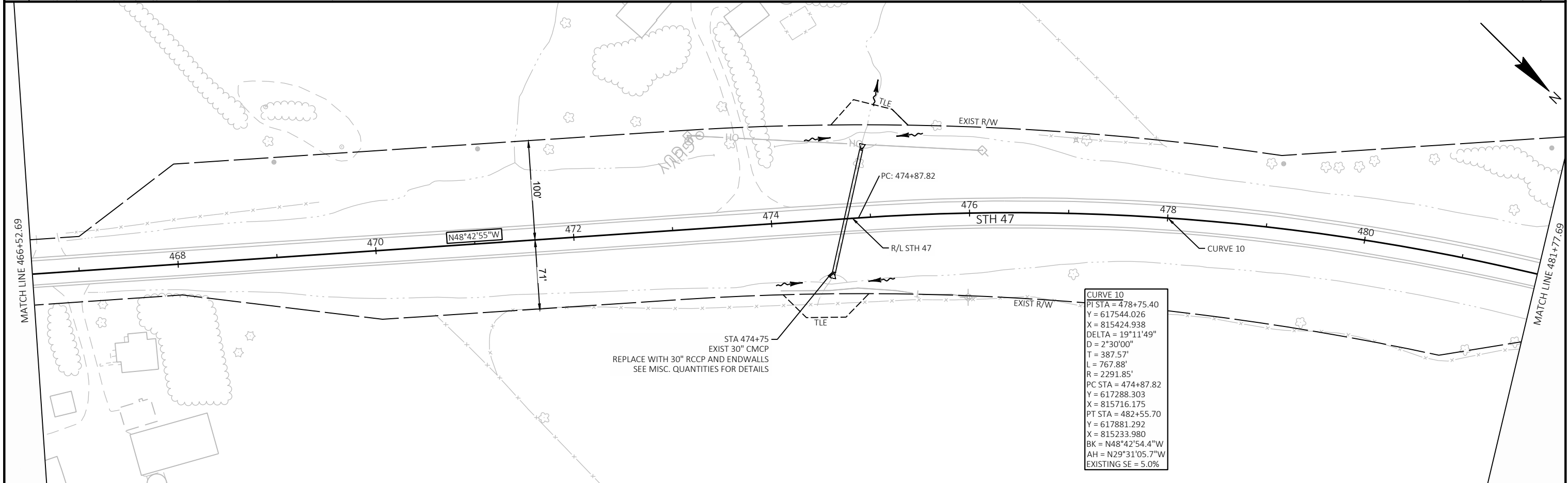
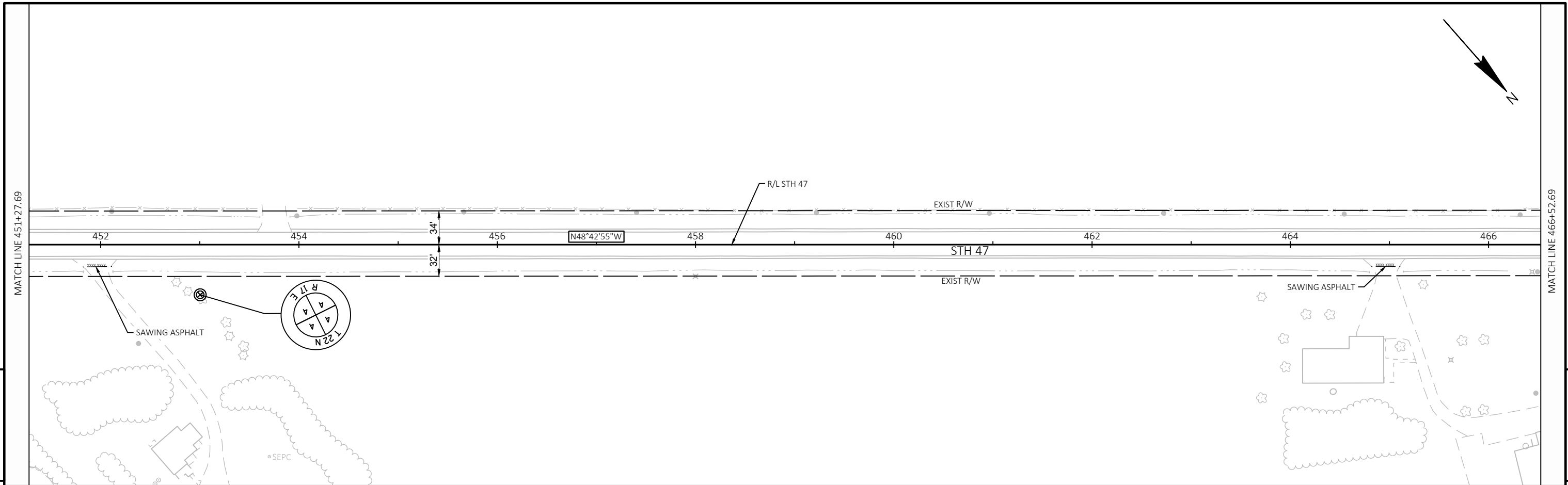
CURVE 9
PT STA = 427+03.65
Y = 614130.132
X = 819309.871
DELTA = 1°46'02"
D = 0°20'00"
T = 265.12'
L = 530.19'
R = 17188.73'
PC STA = 424+38.53
Y = 613948.654
X = 819503.139
PT STA = 429+68.72
Y = 614305.563
X = 819111.098
BK = N46°48'07.4\"W
AH = N48°34'09.7\"W
EXISTING SE = NC

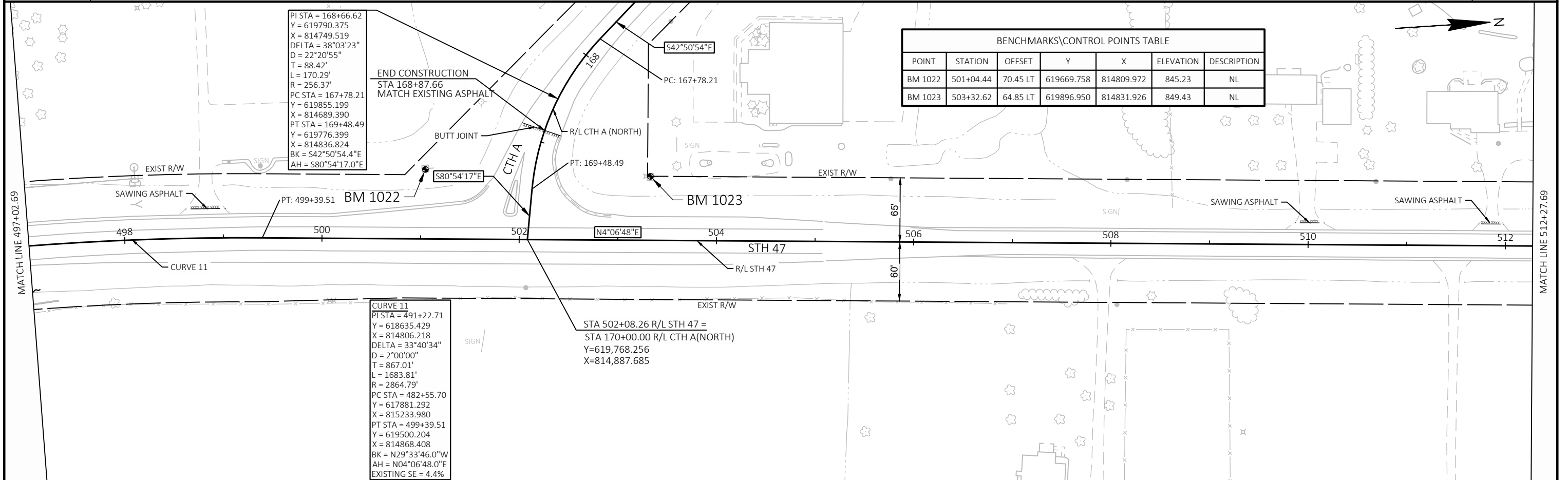
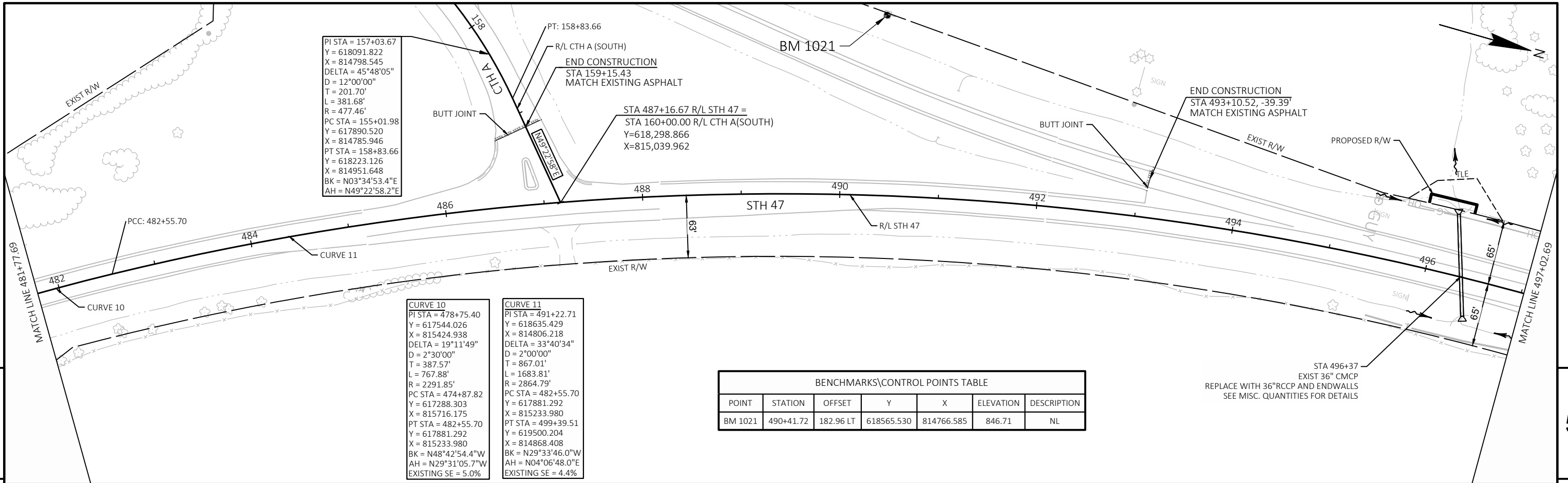
STA 435+71  
EXIST 35X24\" CSPA  
REPLACE EAST ENDWALL  
SEE MISC. QUANTITIES FOR DETAILS



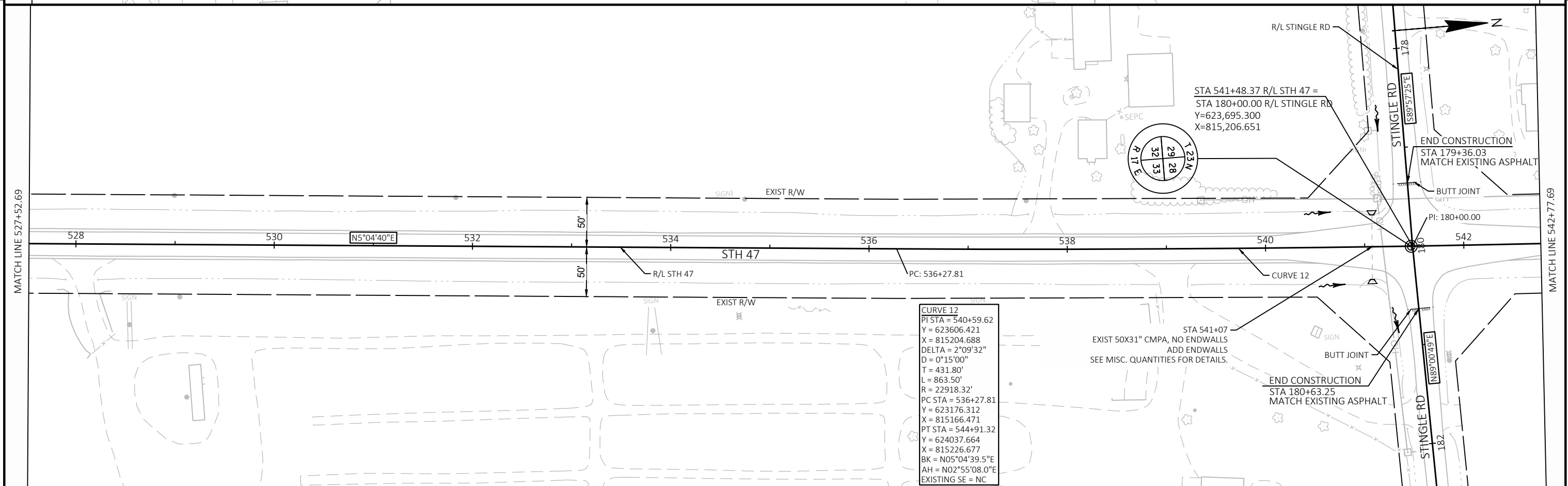
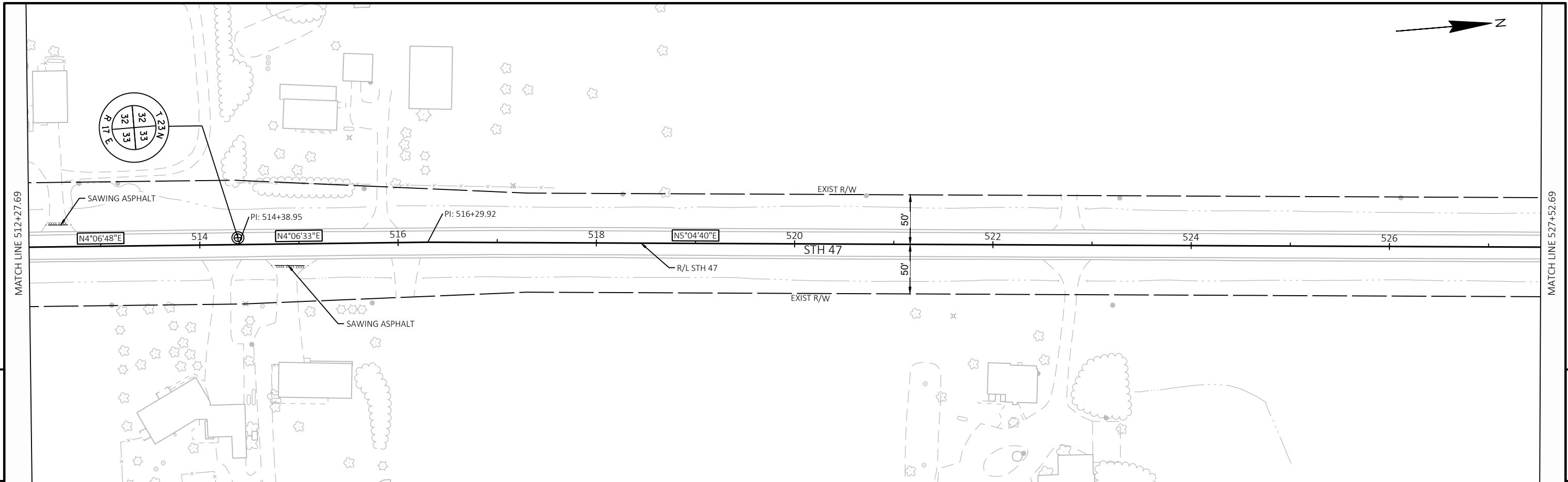
STA 445+11  
EXIST 2-24\" CMCP  
(NO WORK NEEDED)

PROJECT NO: 6240-22-71	HWY: STH 77	COUNTY: OUTAGAMIE	PLAN SHEETS	SHEET	E
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PROJECT NO: 6240-22-71      HWY: STH 47      COUNTY: OUTAGAMIE      PLAN SHEETS      SHEET      E



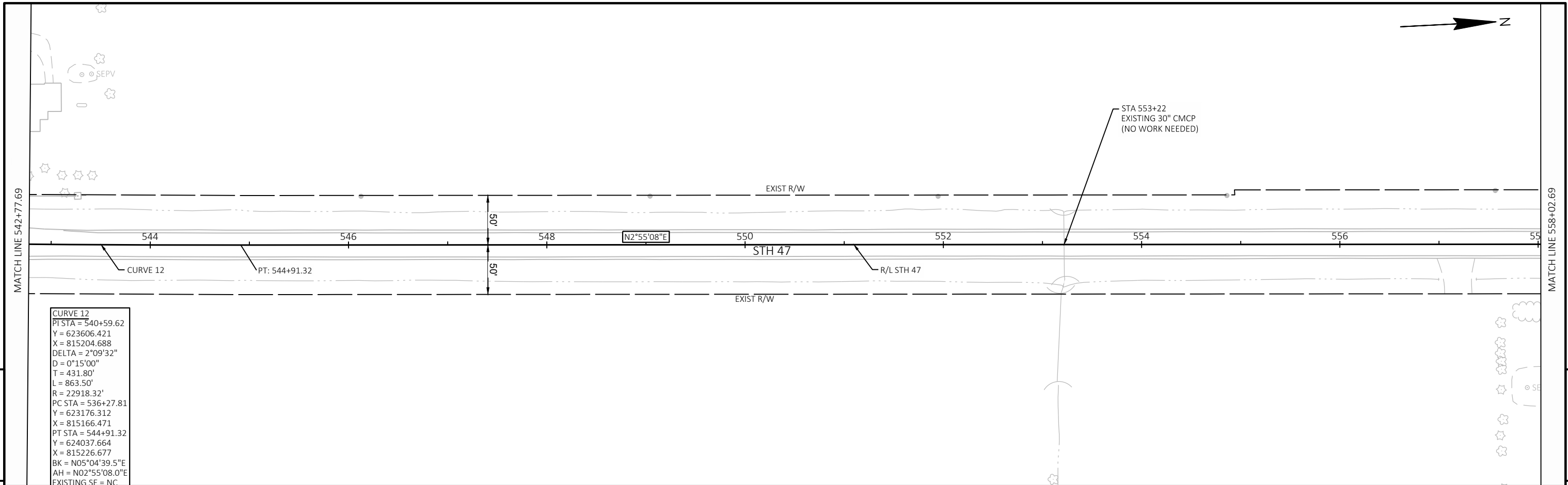
**CURVE 12**  
 PI STA = 540+59.62  
 Y = 623606.421  
 X = 815204.688  
 DELTA = 2°09'32"  
 D = 0°15'00"  
 T = 431.80'  
 L = 863.50'  
 R = 22918.32'  
 PC STA = 536+27.81  
 Y = 623176.312  
 X = 815166.471  
 PT STA = 544+91.32  
 Y = 624037.664  
 X = 815226.677  
 BK = N05°04'39.5"E  
 AH = N02°55'08.0"E  
 EXISTING SE = NC

STA 541+07  
 EXIST 50X31" CMPA, NO ENDWALLS  
 ADD ENDWALLS  
 SEE MISC. QUANTITIES FOR DETAILS.

STA 541+48.37 R/L STH 47 =  
 STA 180+00.00 R/L STINGLE RD  
 Y=623,695.300  
 X=815,206.651

END CONSTRUCTION  
 STA 179+36.03  
 MATCH EXISTING ASPHALT

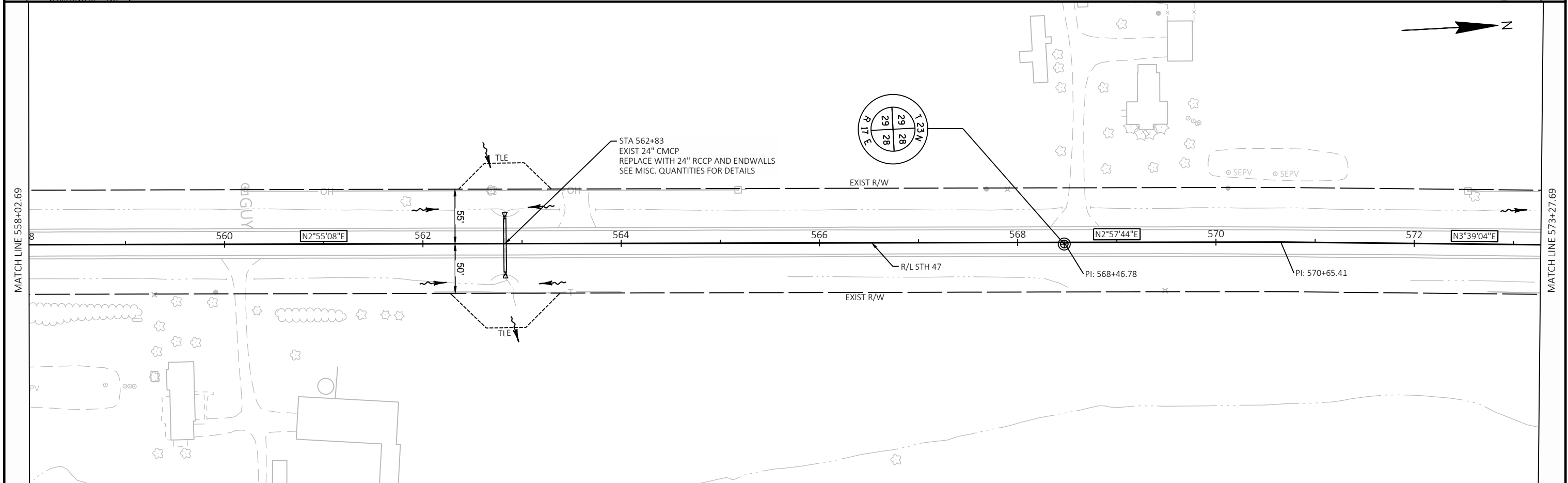
END CONSTRUCTION  
 STA 180+63.25  
 MATCH EXISTING ASPHALT



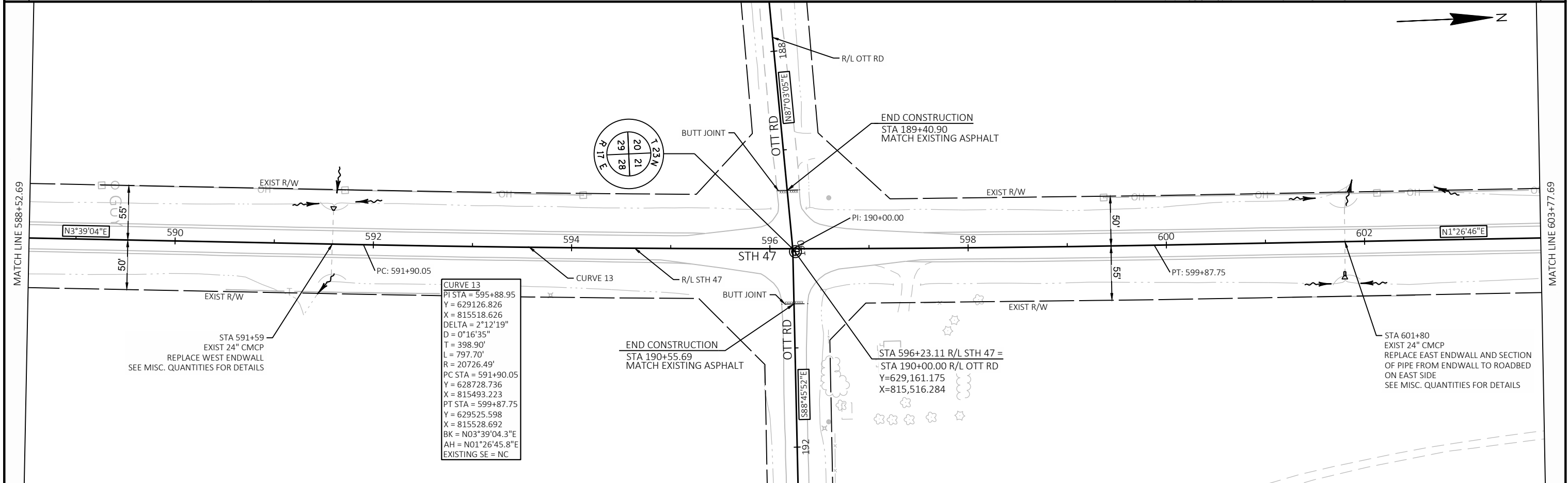
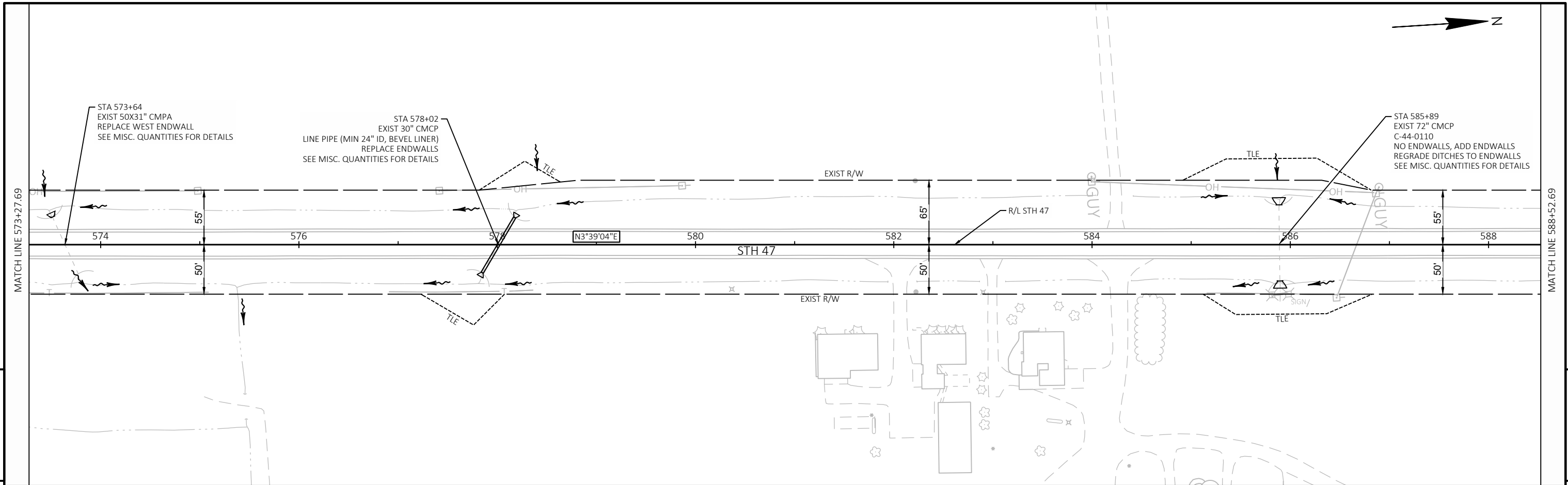
CURVE 12  
 PI STA = 540+59.62  
 Y = 623606.421  
 X = 815204.688  
 DELTA = 2°09'32"  
 D = 0°15'00"  
 T = 431.80'  
 L = 863.50'  
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 PC STA = 536+27.81  
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 X = 815166.471  
 PT STA = 544+91.32  
 Y = 624037.664  
 X = 815226.677  
 BK = N05°04'39.5"E  
 AH = N02°55'08.0"E  
 EXISTING SF = NC

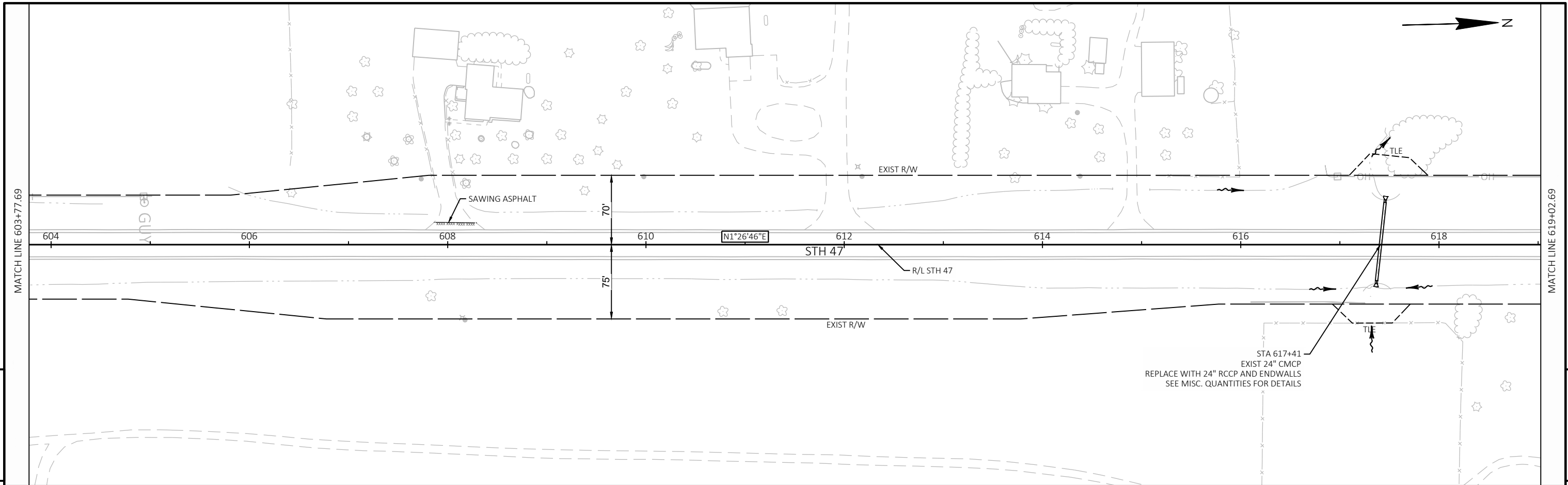
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5



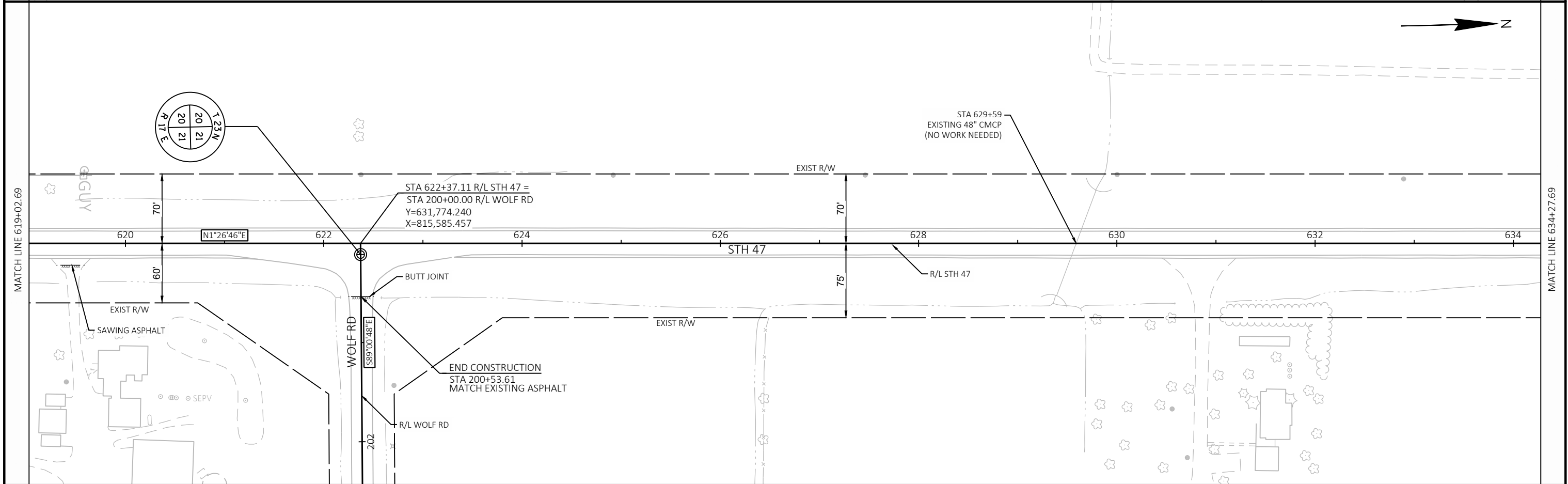
PROJECT NO: 6240-22-71      HWY: STH 47      COUNTY: OUTAGAMIE      PLAN SHEETS      SHEET      E





5

5



PROJECT NO: 6240-22-71

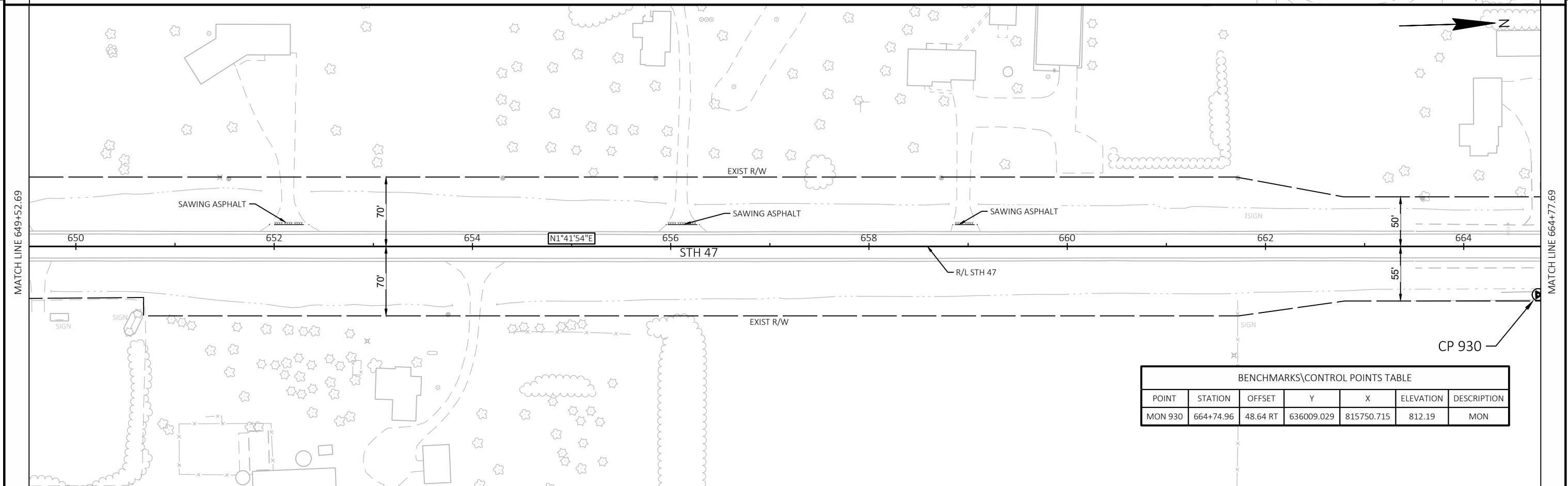
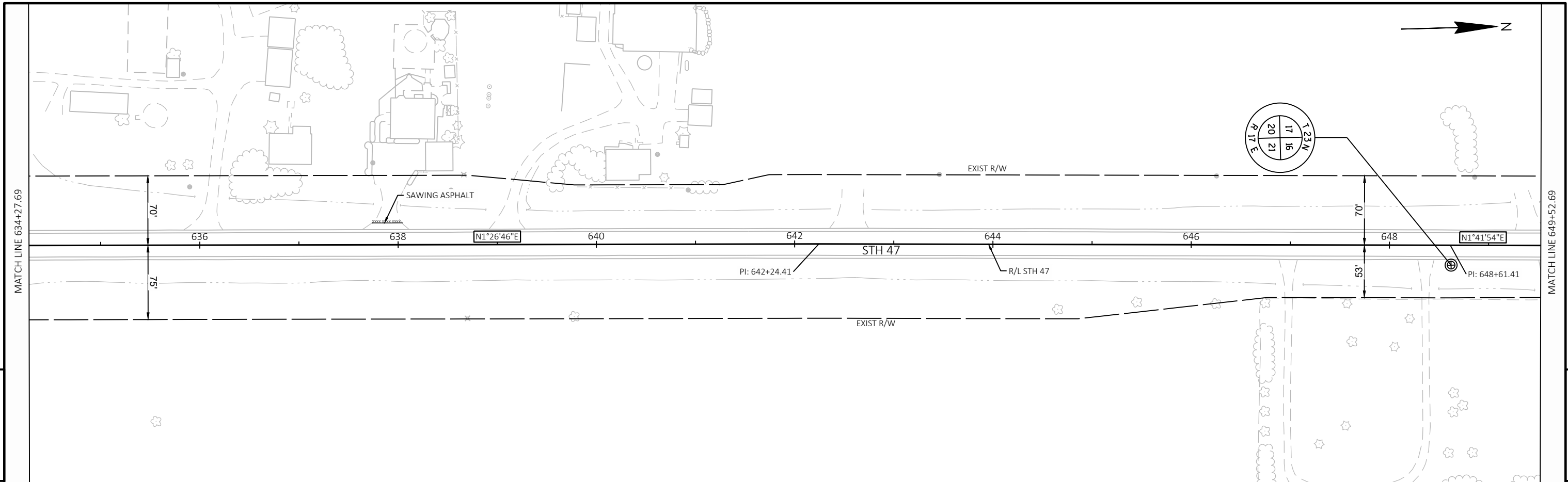
HWY: STH 47

COUNTY: OUTAGAMIE

PLAN SHEETS

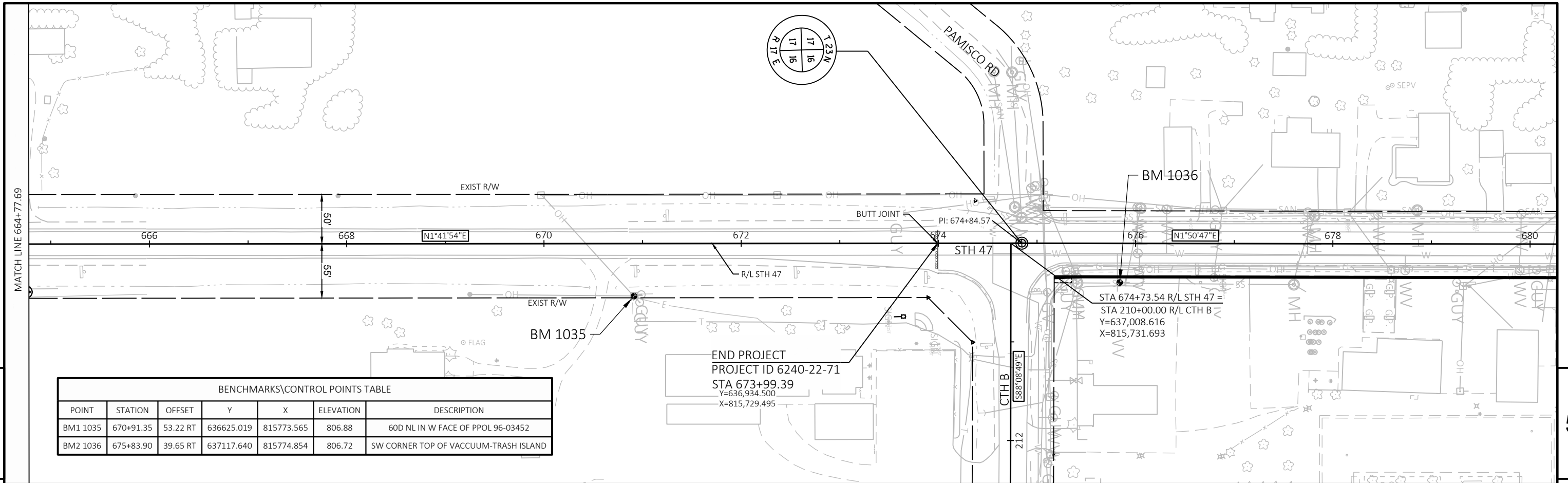
SHEET

E



BENCHMARKS\CONTROL POINTS TABLE						
POINT	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
MON 930	664+74.96	48.64 RT	636009.029	815750.715	812.19	MON





BENCHMARKS\CONTROL POINTS TABLE

POINT	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
BM1 1035	670+91.35	53.22 RT	636625.019	815773.565	806.88	60D NL IN W FACE OF PPOL 96-03452
BM2 1036	675+83.90	39.65 RT	637117.640	815774.854	806.72	SW CORNER TOP OF VACCUUM-TRASH ISLAND

END PROJECT  
 PROJECT ID 6240-22-71  
 STA 673+99.39  
 Y=636,934.500  
 X=815,729.495

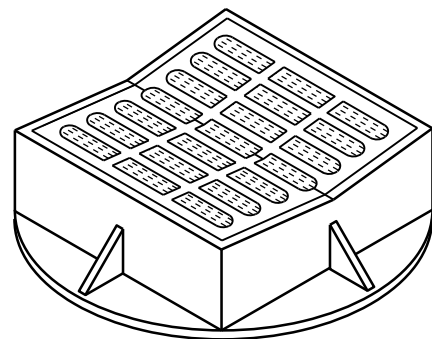
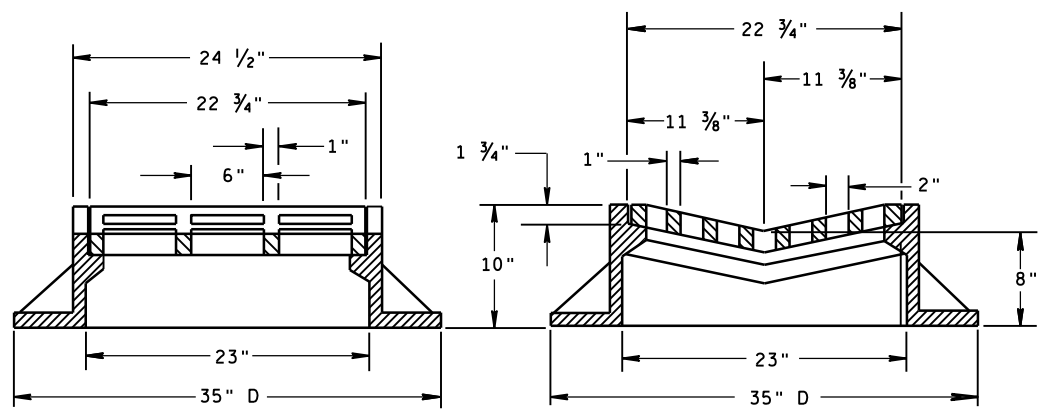
STA 674+73.54 R/L STH 47 =  
 STA 210+00.00 R/L CTH B  
 Y=637,008.616  
 X=815,731.693

5

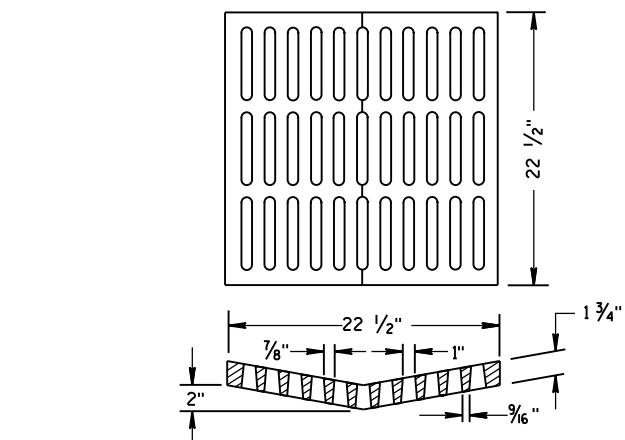
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## Standard Detail Drawing List

08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-06	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F08-02	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS
12A03-10	NAME PLATE (STRUCTURES)
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-08	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-05A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15C18-05B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C18-05C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-06B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C21-10	SIGNING AND MARKING FOR TWO LANE TO FOUR LANE DIVIDED TRANSITIONS
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

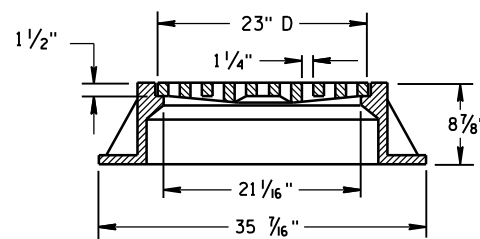
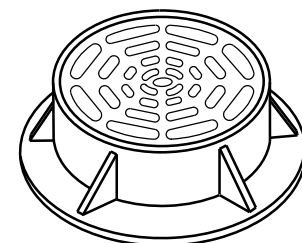
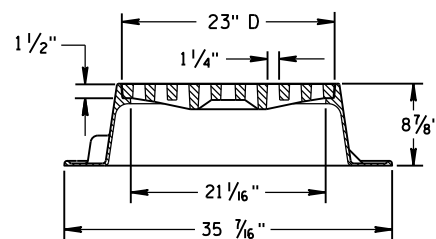
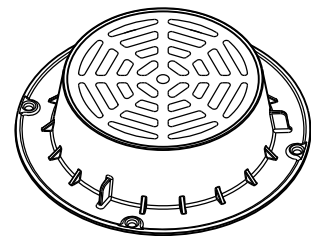


**TYPE "B"**



**ALTERNATIVE GRATE FOR TYPE "B" COVER**

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.  
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



**TYPE "C"**

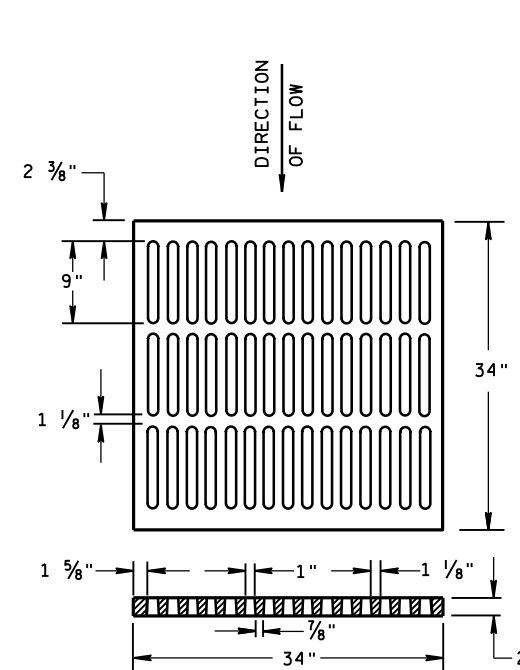
NOTE: EITHER CASTING IS ACCEPTABLE

**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.

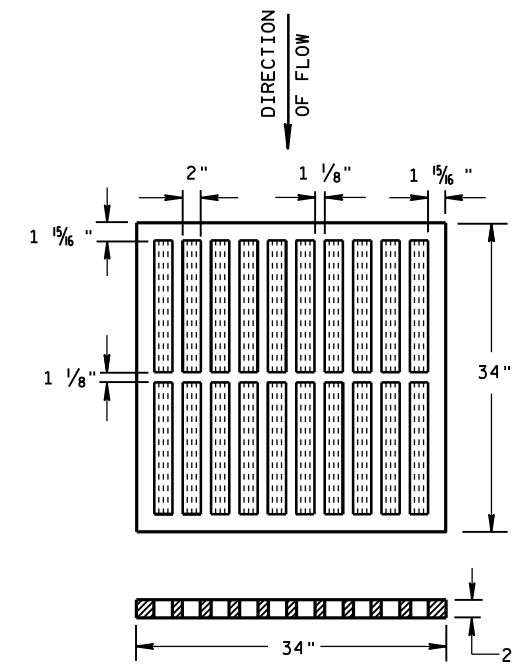
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



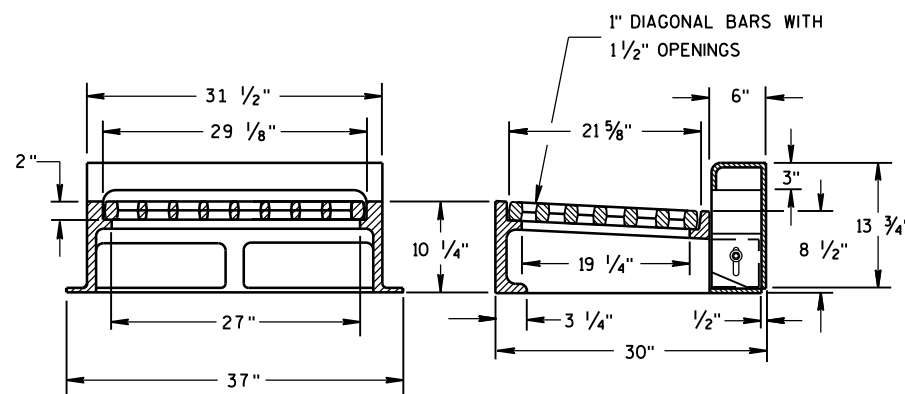
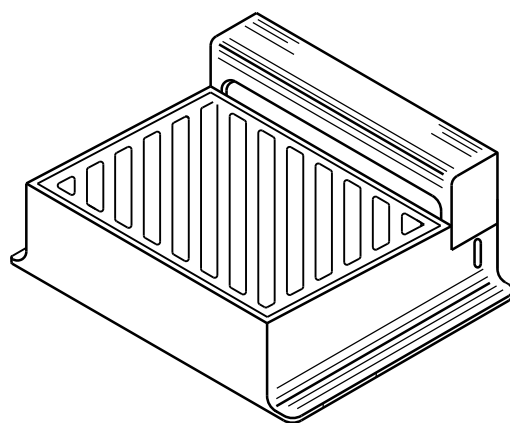
**ALTERNATIVE TYPE "MS"**

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED  
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



**TYPE "MS"**

USE ON FREEWAYS AND EXPRESSWAYS  
NOTED AS TYPE MS ON DRAINAGE TABLE



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

**TYPE "WM"**

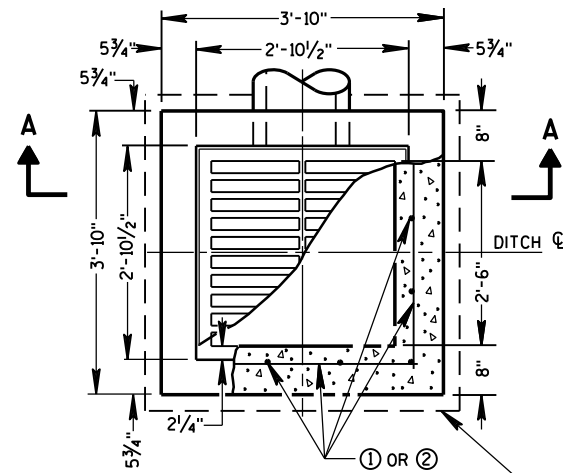
DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.

DIRECTION OF FLOW

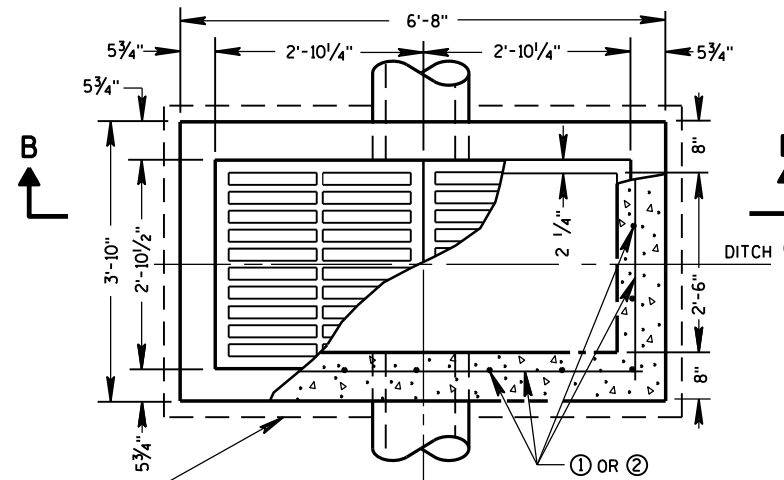
**INLET COVERS  
TYPE B, B-A, C,  
MS, MS-A, & WM**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE 11/27/2013 /S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT ENGINEER  
FHWA

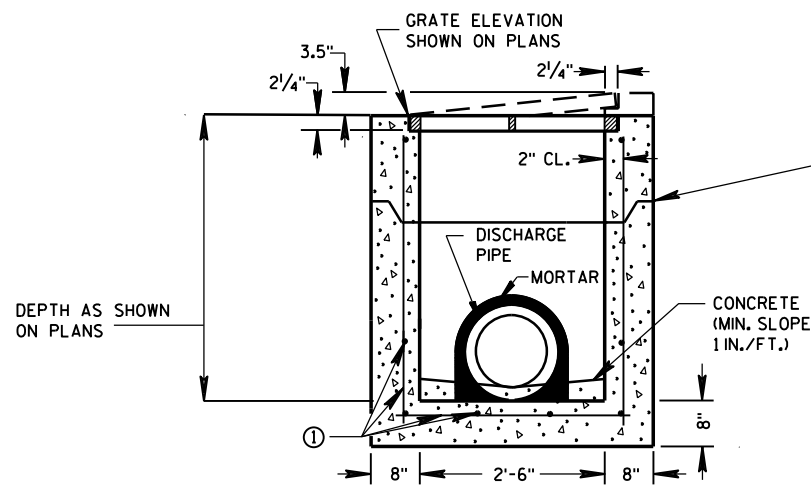


PLAN VIEW

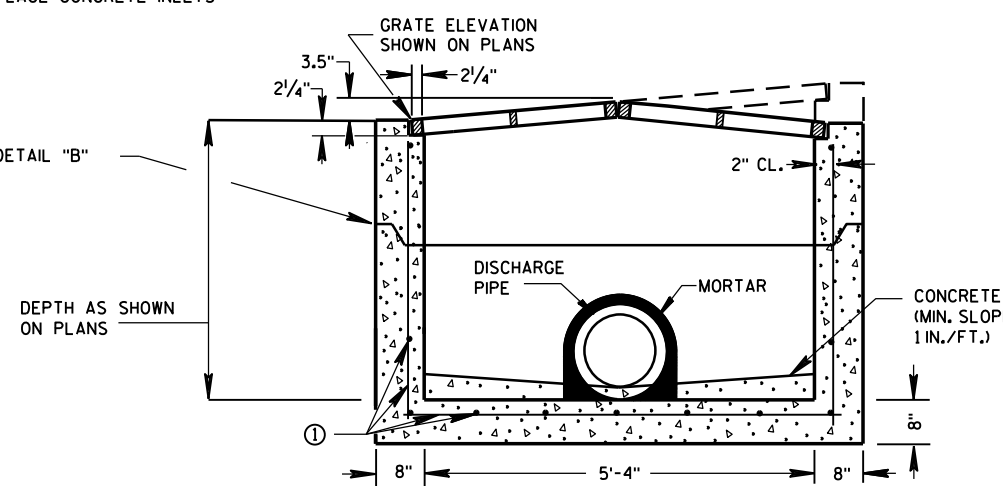


PLAN VIEW

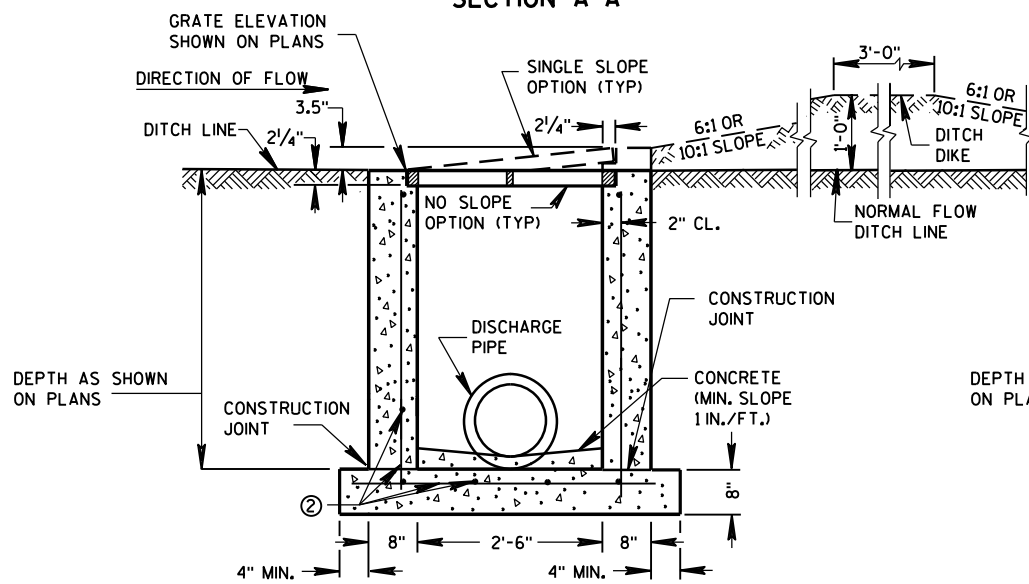
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



PRECAST REINFORCED CONCRETE SECTION A-A

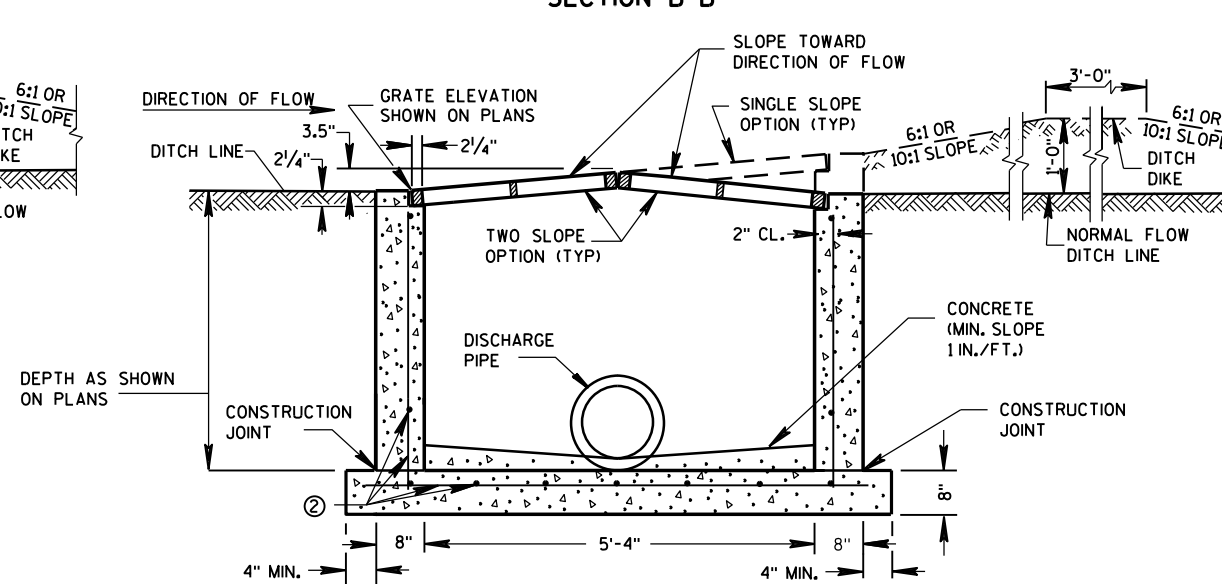


PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 2 GRATE

**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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, IG-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT. BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

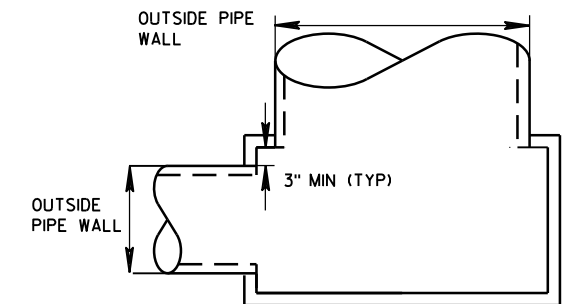
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

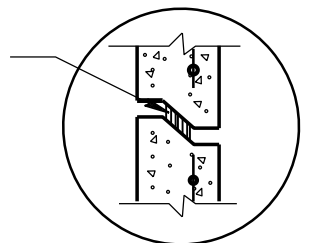
**PIPE MATRIX**

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

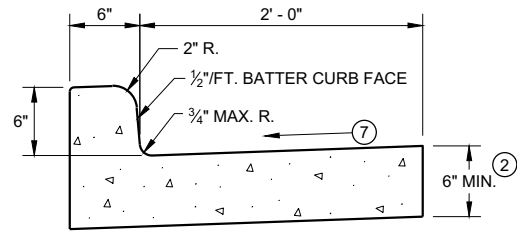


DETAIL "B"

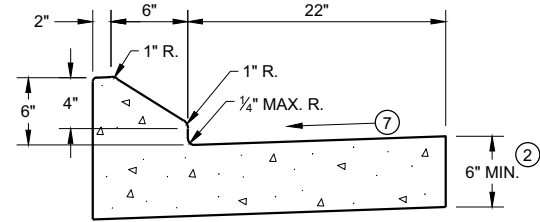
**INLETS MEDIAN 1 AND 2 GRATE**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

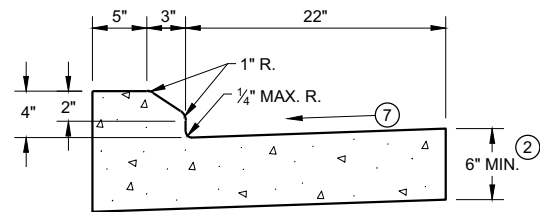
APPROVED  
Sept., 2016 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA UNIT SUPERVISOR



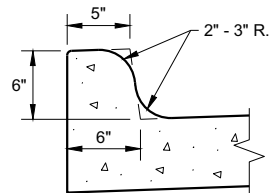
TYPES A<sup>①</sup> & D



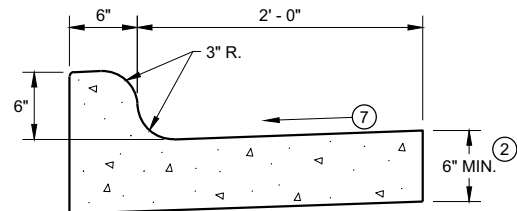
6" SLOPED CURB TYPES G<sup>①</sup> & J



4" SLOPED CURB TYPES G<sup>①</sup> & J

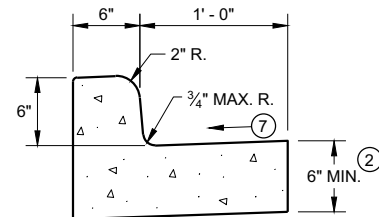


TYPES K<sup>①</sup> & L  
(OPTIONAL CURB SHAPE)



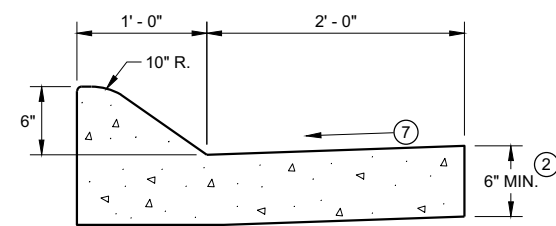
TYPES K<sup>①</sup> & L

CONCRETE CURB AND GUTTER 30"

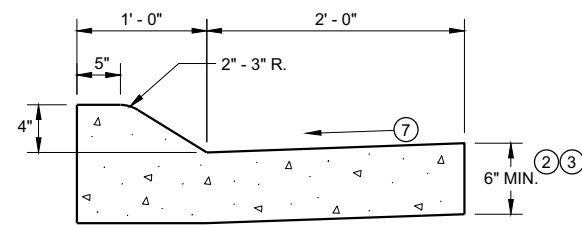


TYPES A<sup>①</sup> & D

CONCRETE CURB AND GUTTER 18"

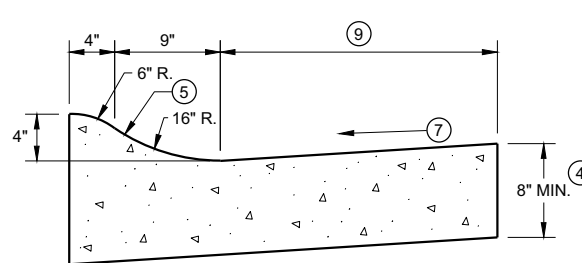


6" SLOPED CURB TYPES A<sup>①</sup> & D



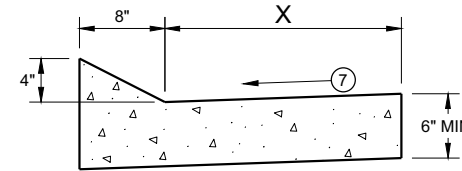
4" SLOPED CURB TYPES A<sup>①</sup> & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R<sup>①</sup> & T

TBT & TBTT	X
30"	22"
36"	28"

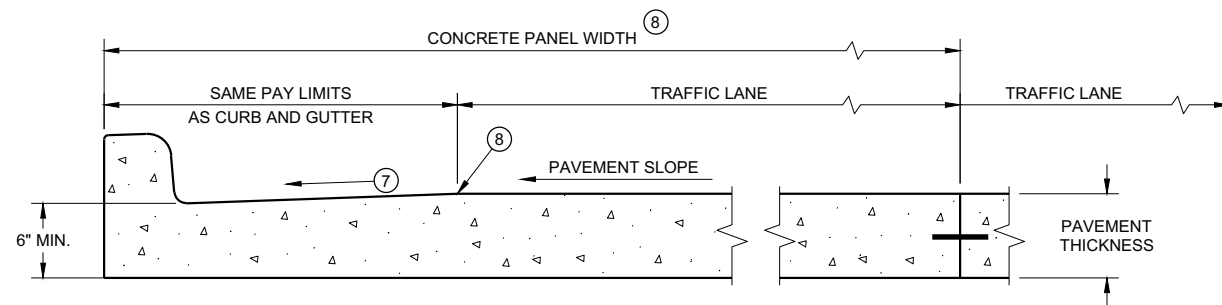


TYPES TBT & TBTT<sup>①</sup>

CONCRETE CURB AND GUTTER

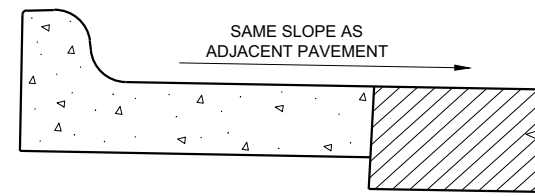
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT \*  
WITH INTEGRAL CURB AND GUTTER

\* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER<sup>⑥</sup>  
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

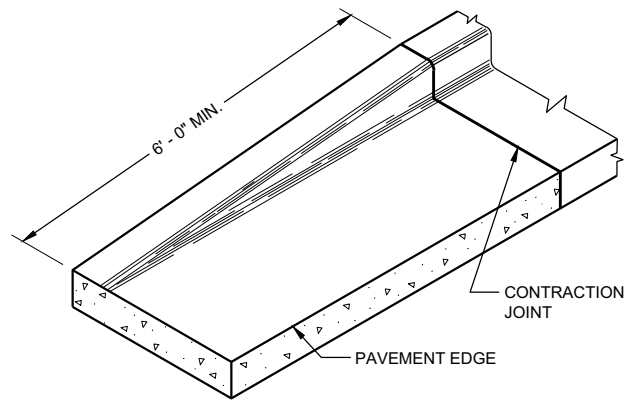
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

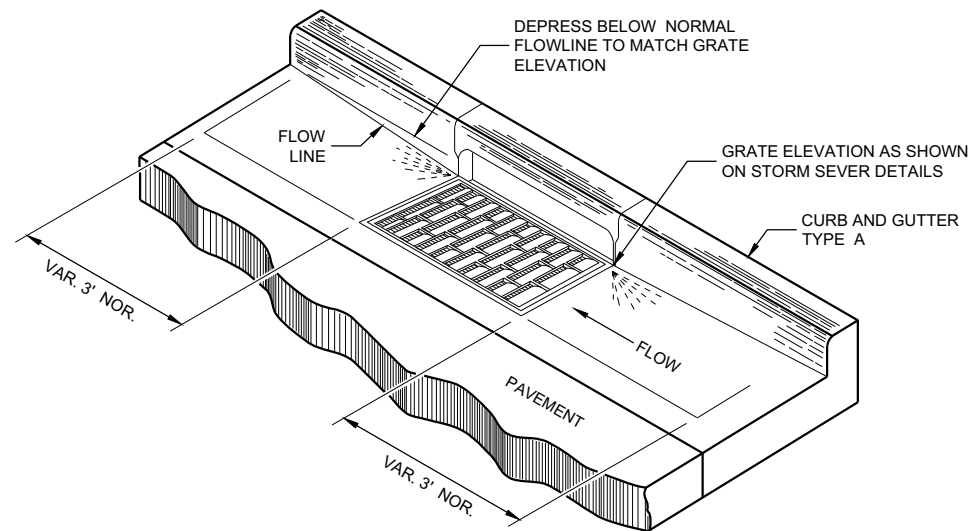
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES  
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES



**END SECTION CURB AND GUTTER**



**DETAIL OF CURB AND GUTTER AT INLETS**  
(TYPICAL H INLET COVER SHOWN)

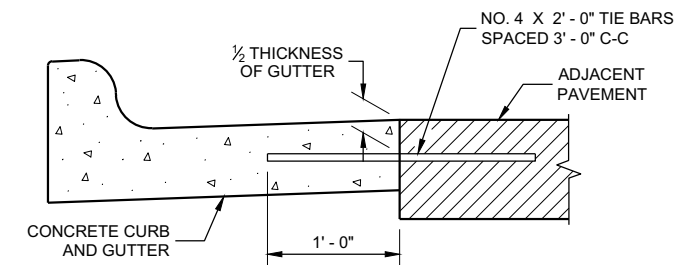
**GENERAL NOTES**

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

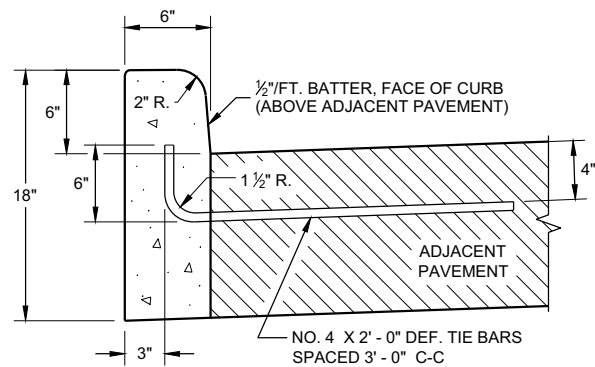
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

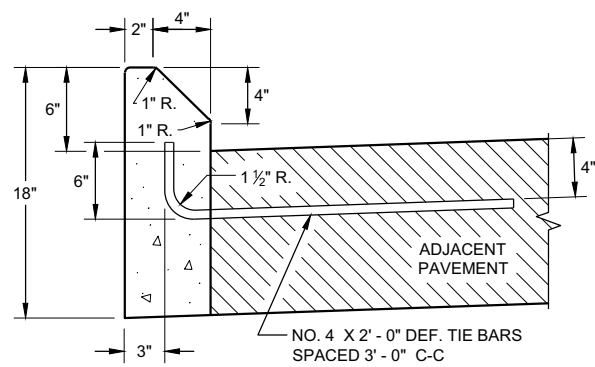
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑨ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



**TYPICAL TIE BAR LOCATION** ①

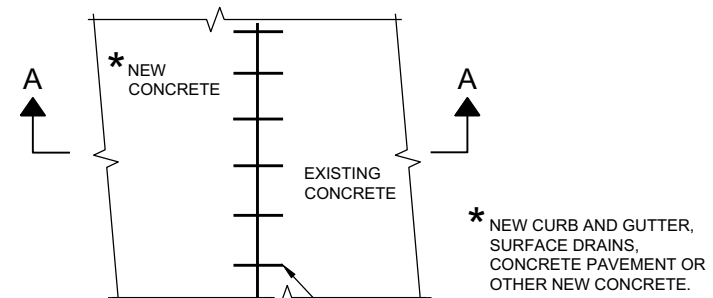


**TYPES A ① & D**

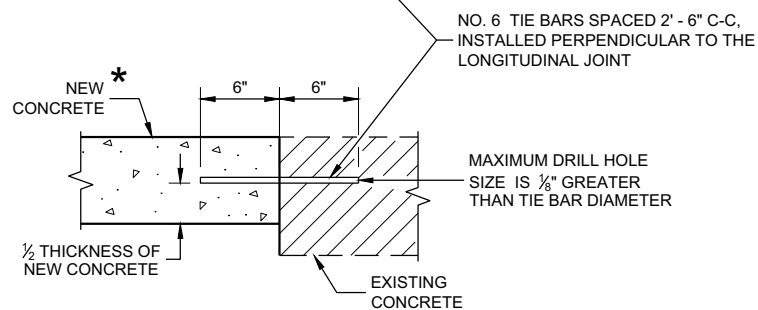


**TYPES G ① & J**

**CONCRETE CURB**

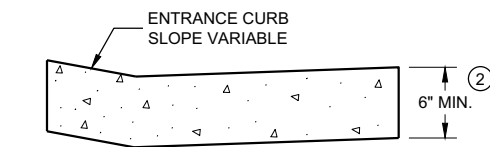


**PLAN VIEW**



**SECTION A - A**

**TIE BARS DRILLED INTO EXISTING PAVEMENT**



**DRIVEWAY ENTRANCE CURB** ⑨  
(WHEN DIRECTED BY THE ENGINEER)

**CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS**

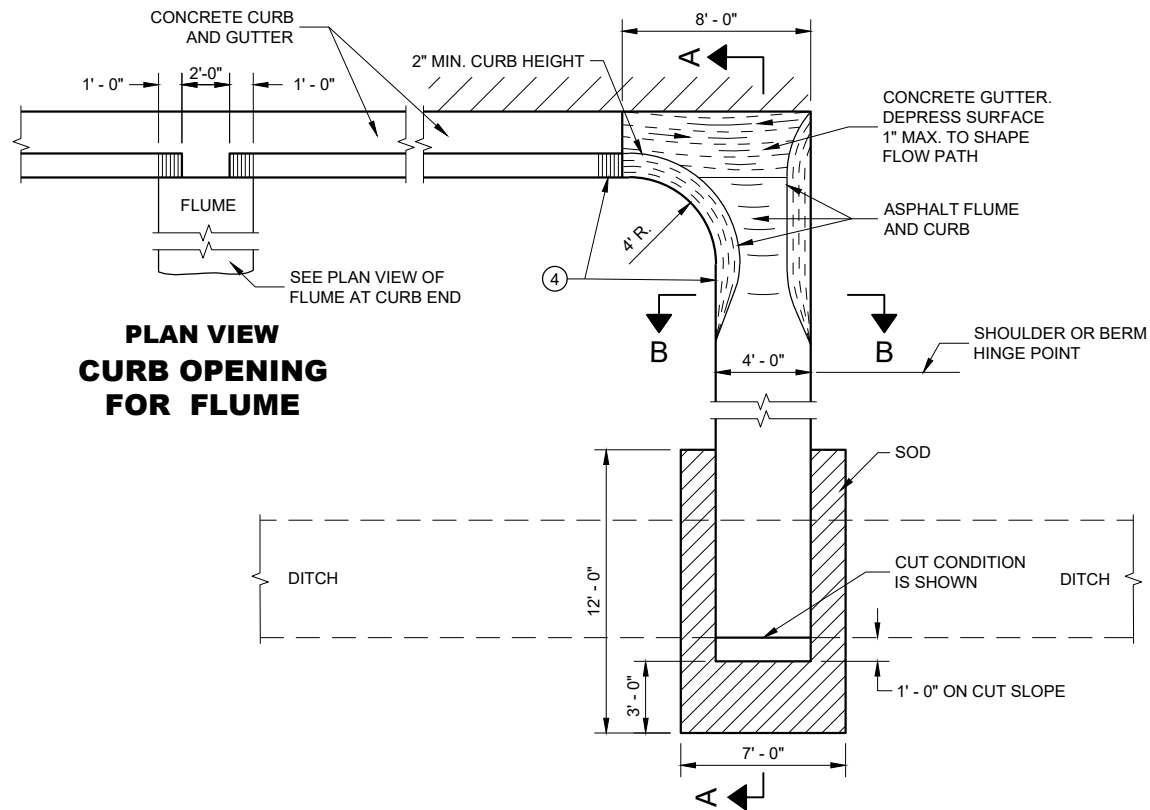
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2021 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

FHWA

NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

### ASPHALTIC FLUME



**PLAN VIEW  
CURB OPENING  
FOR FLUME**

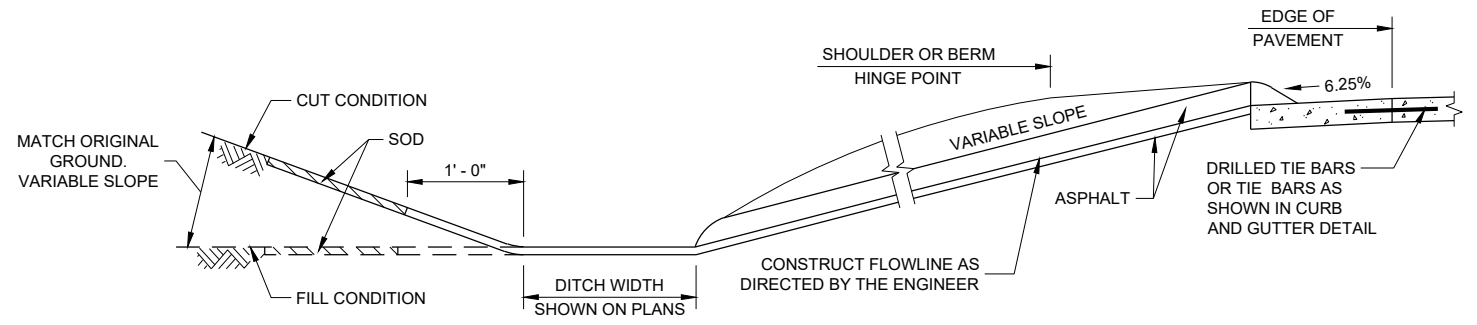
**PLAN VIEW  
FLUME AT CURB END**

### GENERAL NOTES

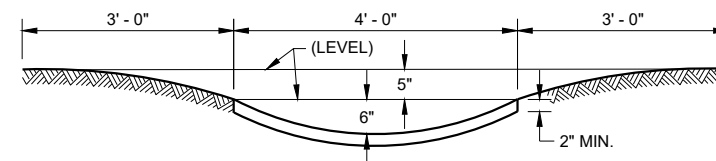
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

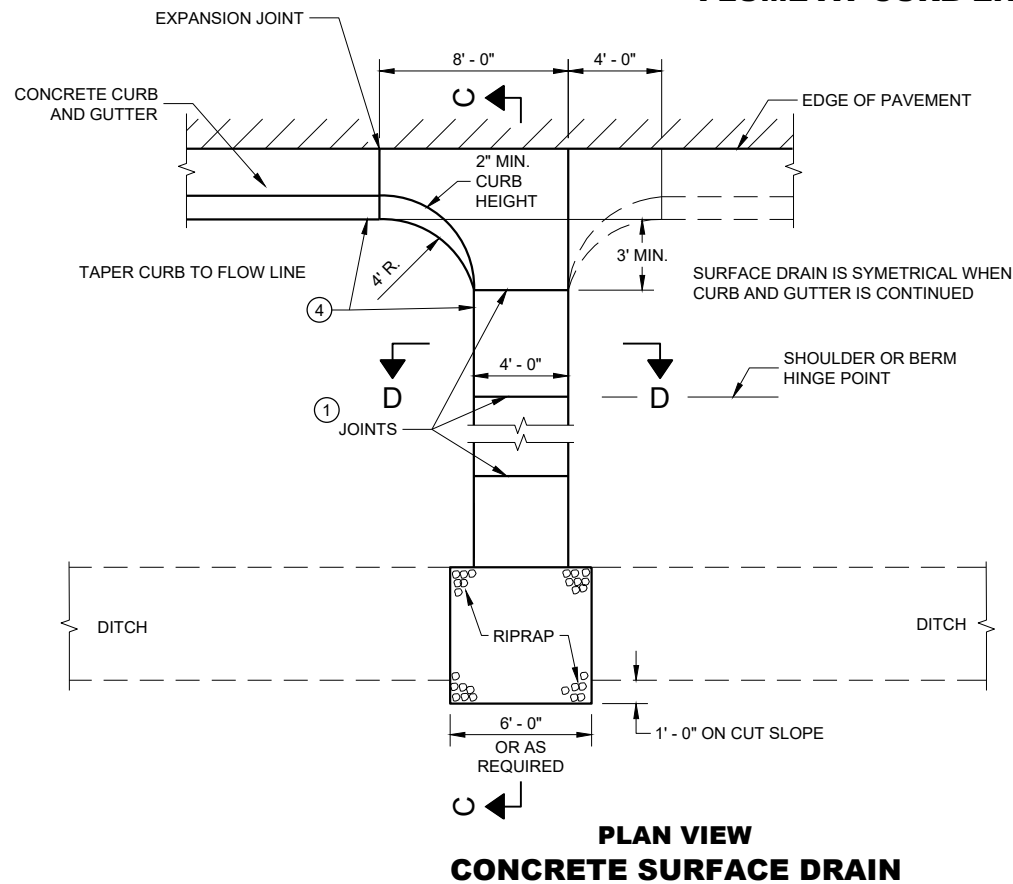
- ① JOINTS SHALL BE 1/8" TO 1/4" WIDE BY 1 1/2" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- ④ ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



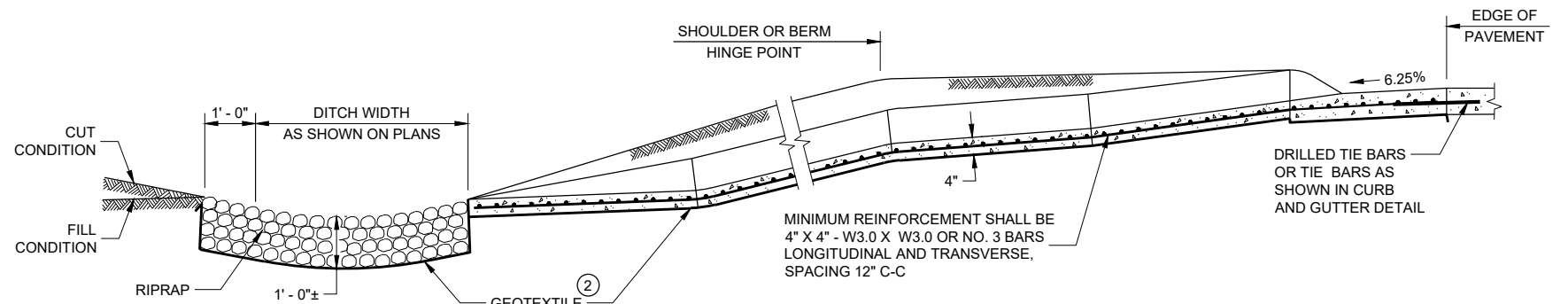
**SECTION A - A**



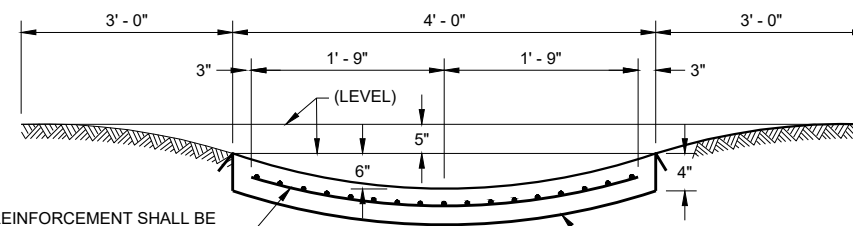
**SECTION B - B**



**PLAN VIEW  
CONCRETE SURFACE DRAIN**



**SECTION C - C**



**SECTION D - D**

MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE, SPACING 12" C-C

### CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

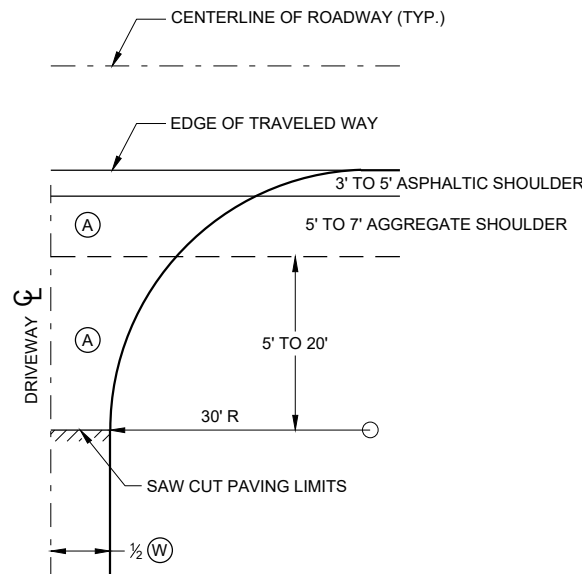
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2021 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

FHWA

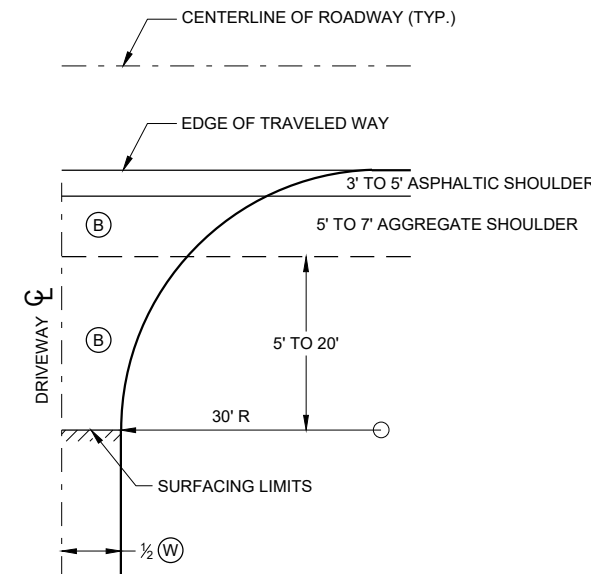
**GENERAL NOTES**

- ① DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.

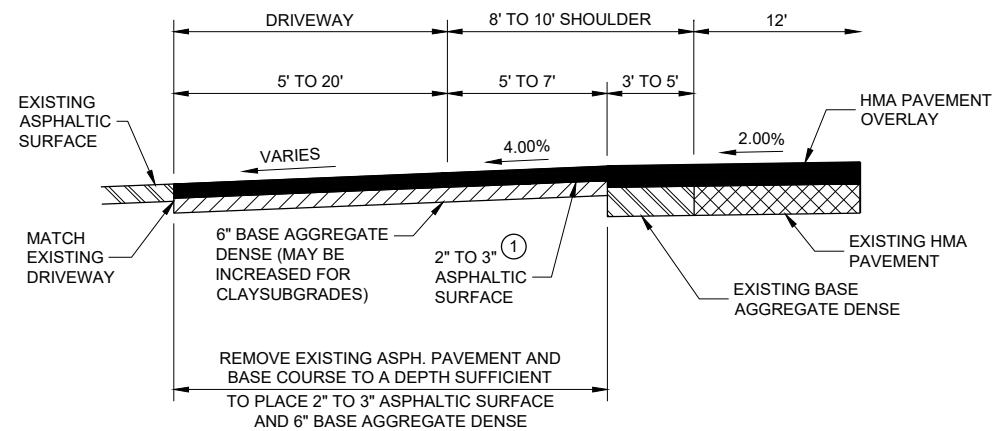


- Ⓐ : PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. (TON)
- Ⓑ : PAID FOR AS BASE AGGREGATE DENSE 1 1/4" (TON)
- ⒲ : DRIVEWAY WIDTH 16' MIN. - 24' MAX.

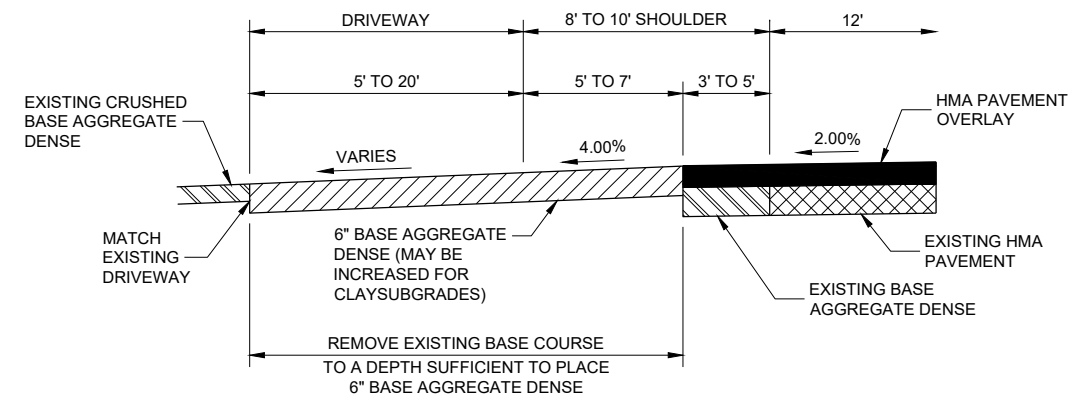
**PLAN VIEW  
HALF SECTION**



**PLAN VIEW  
HALF SECTION**



**PROFILE VIEW  
RURAL ENTRANCE  
WITH ASPHALTIC SURFACE  
RESURFACING PROJECTS**



**PROFILE VIEW  
RURAL ENTRANCE  
WITH AGGREGATE SURFACE  
6" BASE AGGREGATE DENSE  
RESURFACING PROJECTS**

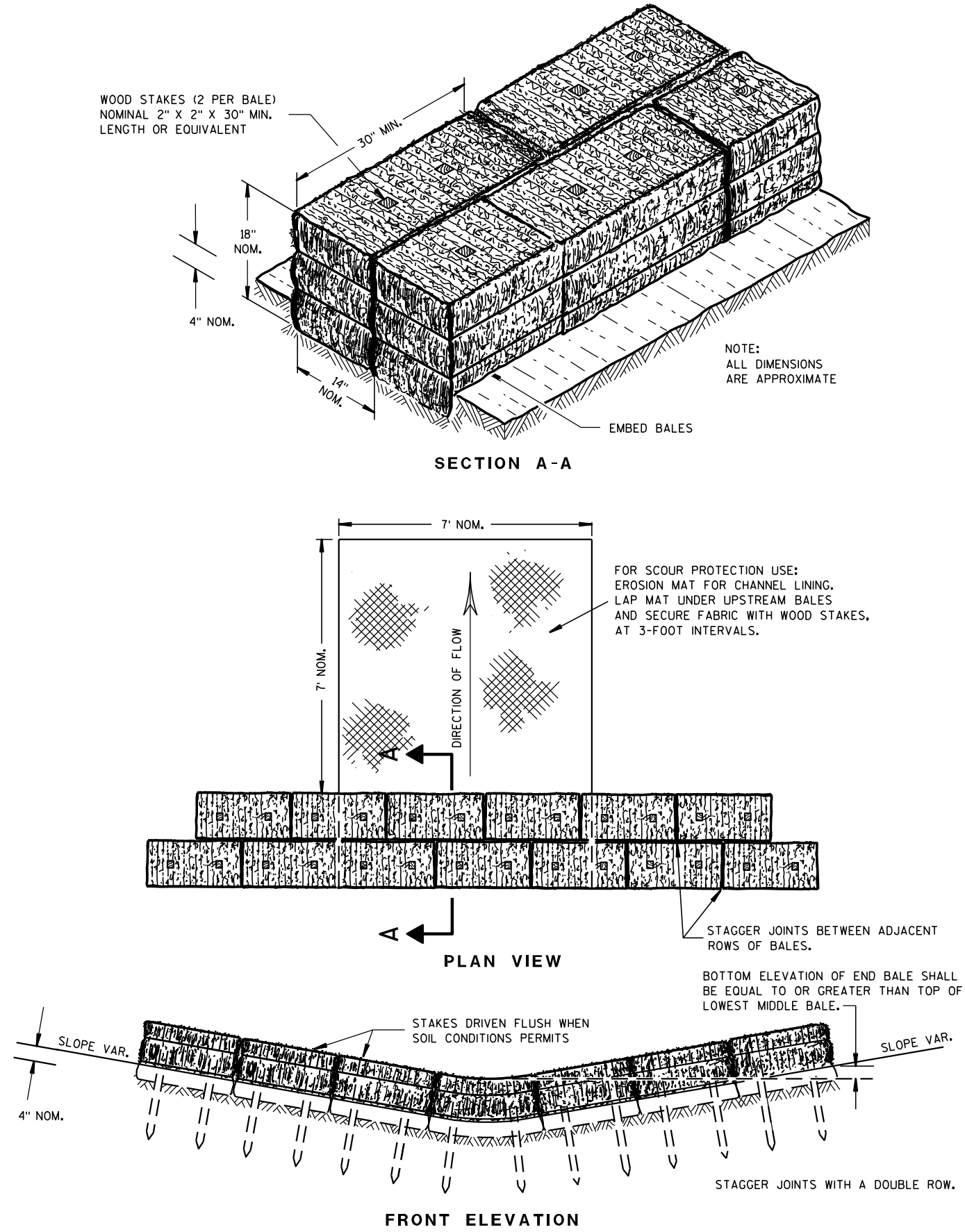
**DRIVEWAYS WITHOUT CURB  
AND GUTTER RESURFACING  
PROJECTS RURAL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
December 2016 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

FHWA



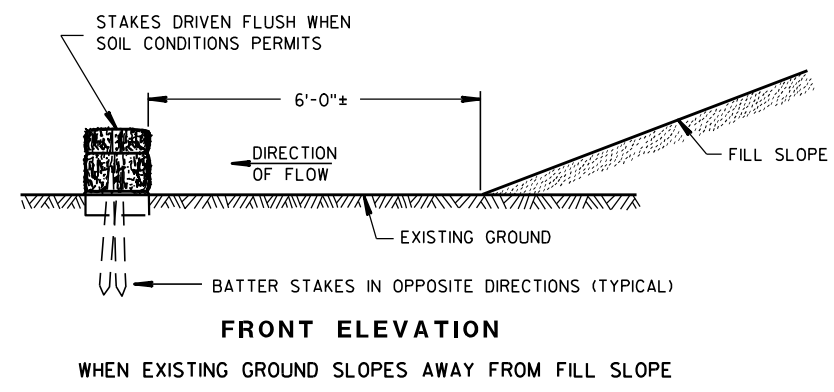
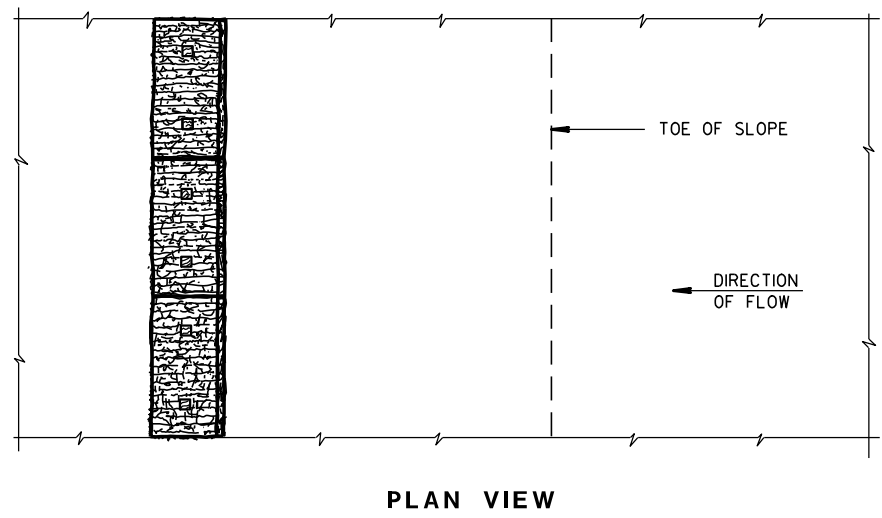
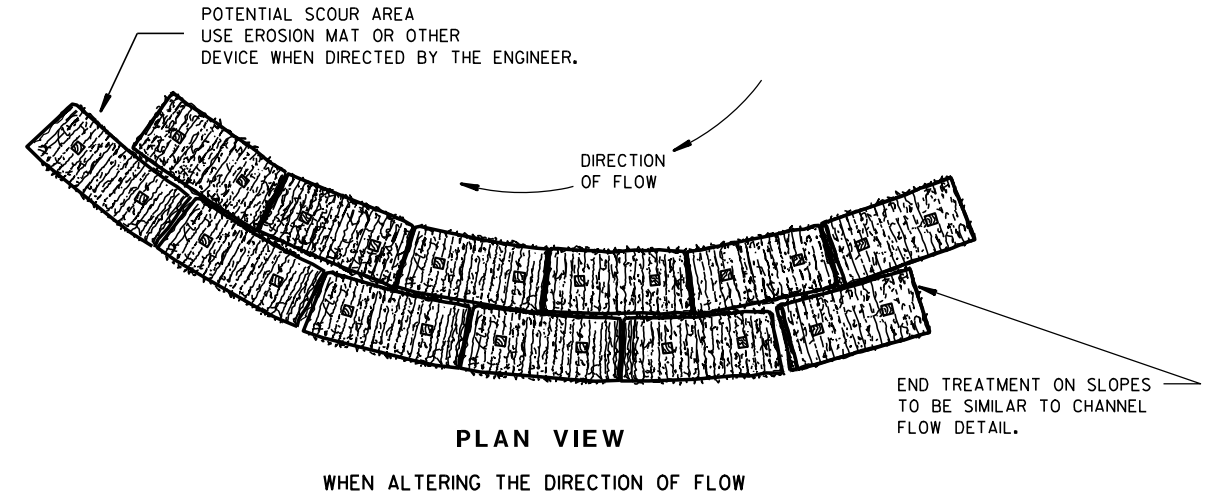


TEMPORARY DITCH CHECK USING EROSION BALES ①

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 TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

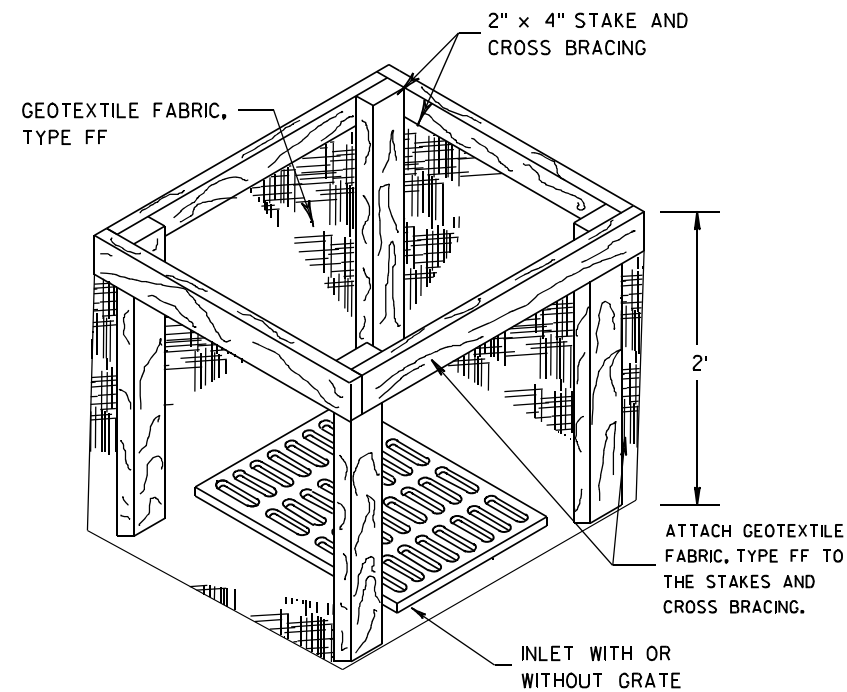
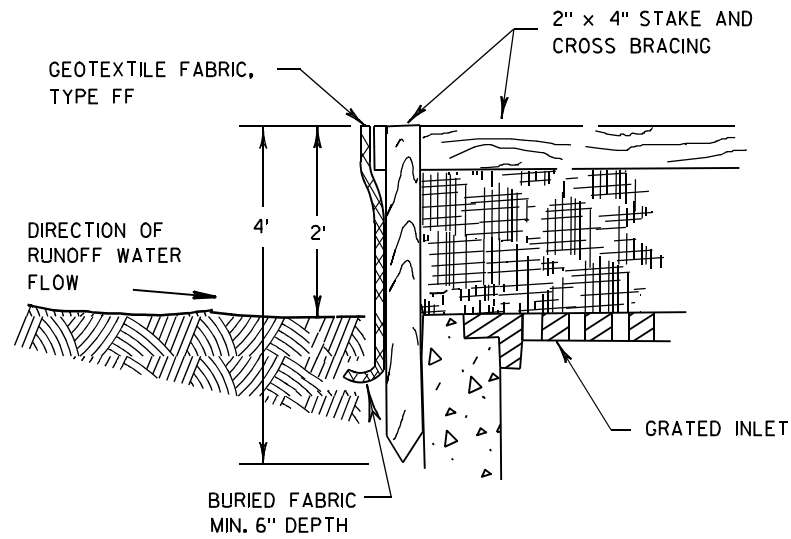


EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
 6/04/02 /S/ Beth Canestra  
 DATE CHIEF ROADWAY DEVELOPMENT ENGINEER  
 FHWA



**INLET PROTECTION, TYPE A**

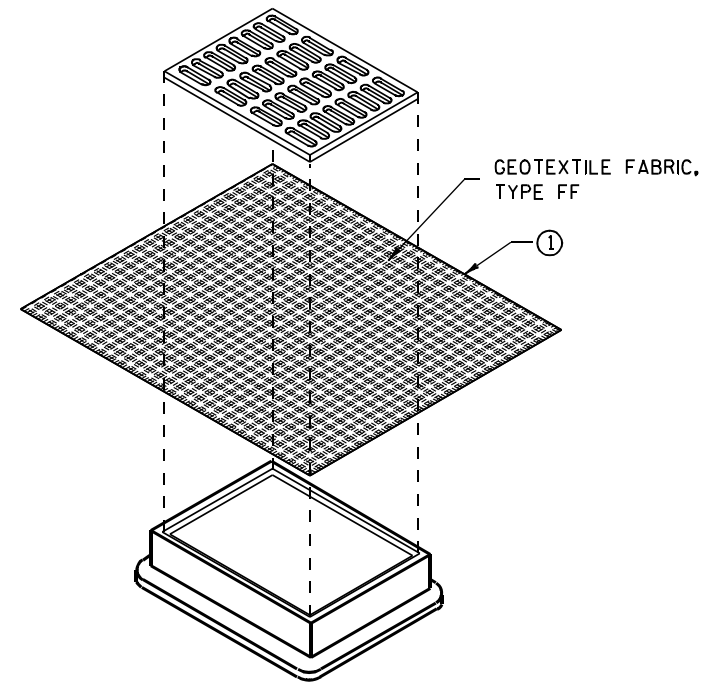
**GENERAL NOTES**

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.

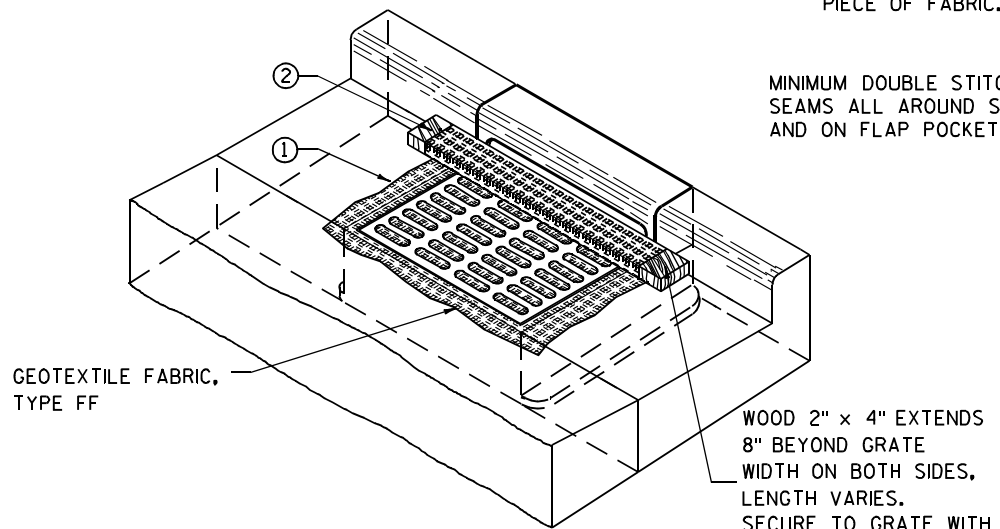
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B  
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



**INLET PROTECTION, TYPE C (WITH CURB BOX)**

**INSTALLATION NOTES**

**TYPE B & C**

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

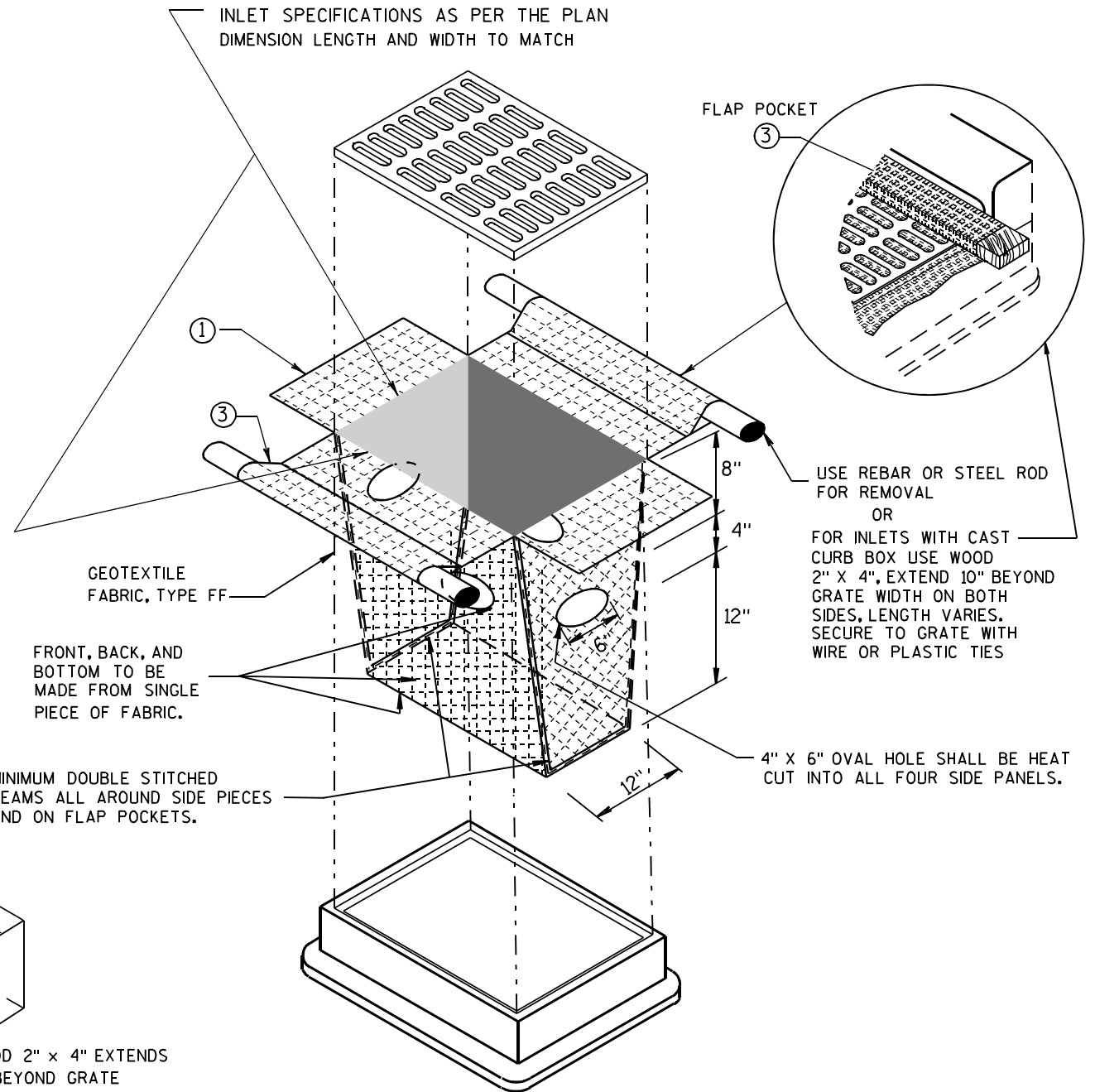
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

**TYPE D**

DO NOT INSTALL INLET PROTECTION TYPE D 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.

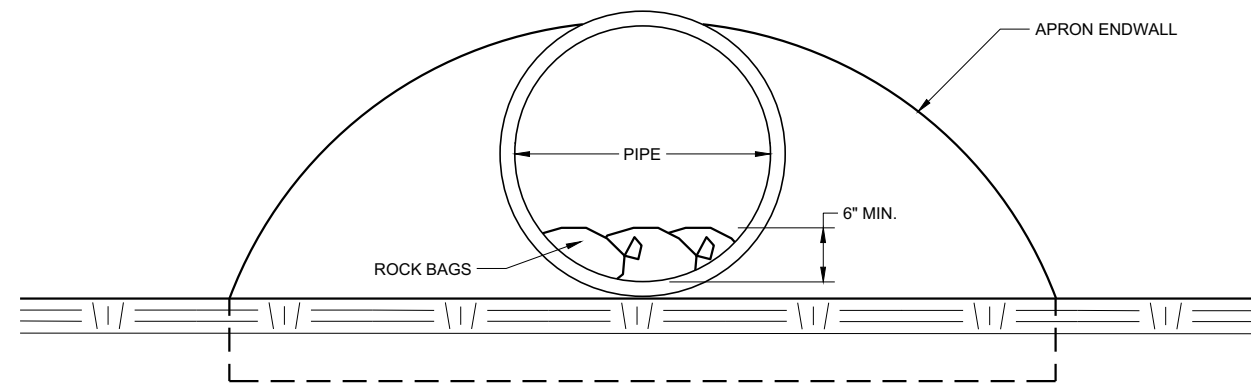
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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



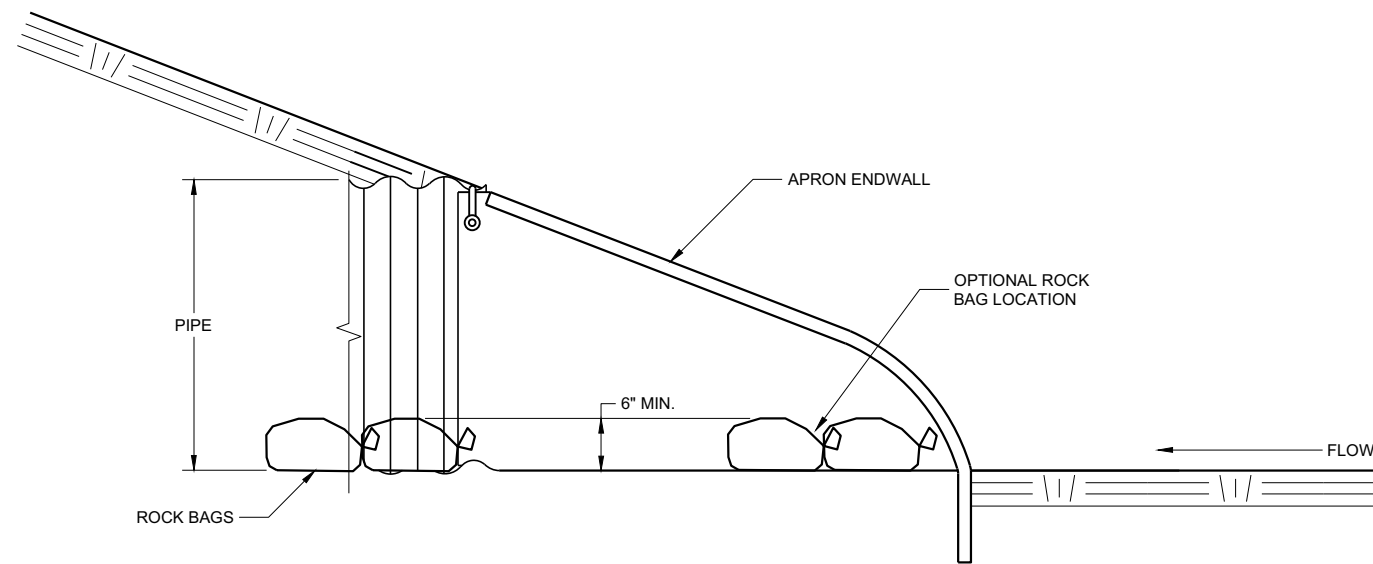
**INLET PROTECTION, TYPE D**

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

<b>INLET PROTECTION TYPE A, B, C, AND D</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/16/02 DATE	/S/ Beth Connestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



**END VIEW**



**SIDE VIEW**

**CULVERT PIPE CHECK**  
(INSTALL ON INLET END ONLY)

**CULVERT PIPE CHECK**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2019 /S/ Daniel Schave  
DATE EROSION CONTROL ENGINEER

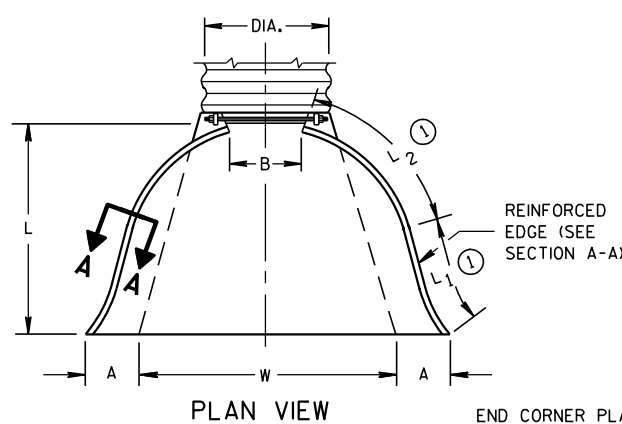
FHWA

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1	L2	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

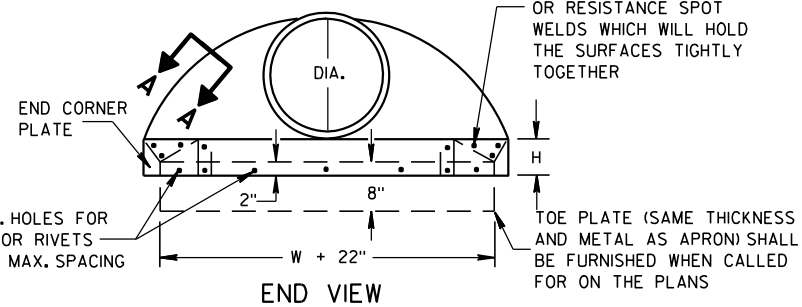
\* EXCEPT CENTER PANEL SEE GENERAL NOTES

REINFORCED CONCRETE APRON ENDWALLS									
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE	
	T	A	B	C	D	E	G		
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1	
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1	
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1	
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1	
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1	
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1	
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1	
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1	
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1	
48	5	24	72	26	98	84	5	3 to 1	
54	5 1/2	27	65	33 1/4-35	98 1/4-100	90	5 1/2	2 1/2 to 1	
60	6	30-35	60	39	99	96	5	2 to 1	
66	6 1/2	24-30	72-78	21-27	99	102	5 1/2	2 to 1	
72	7	24-36	78	21	99	108	6	2 to 1	
78	7 1/2	24-36	78	21	99	114	6 1/2	2 to 1	
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1	
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1	

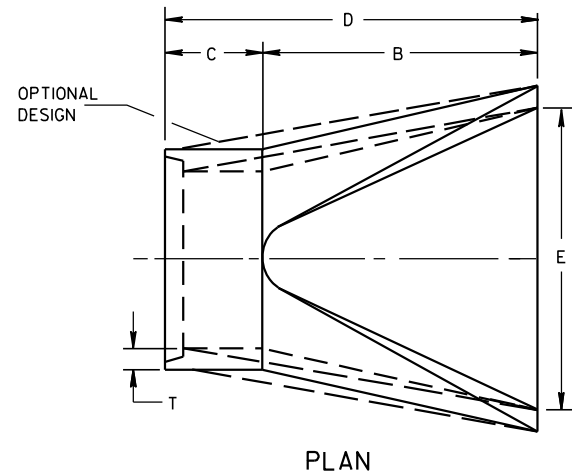
\* MINIMUM  
\*\* MAXIMUM



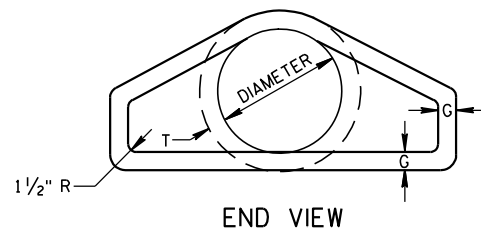
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



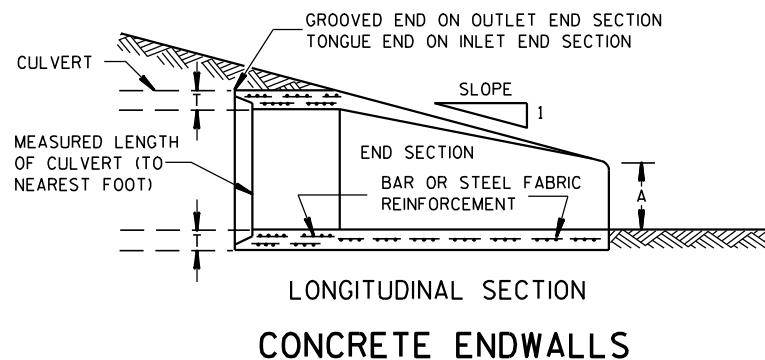
SIDE ELEVATION  
METAL ENDWALLS



PLAN

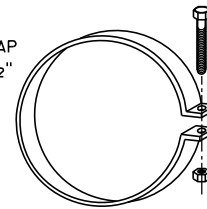


END VIEW

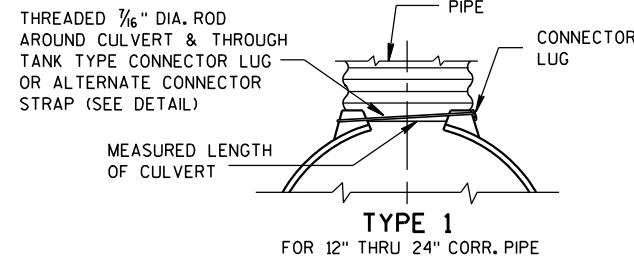


LONGITUDINAL SECTION  
CONCRETE ENDWALLS

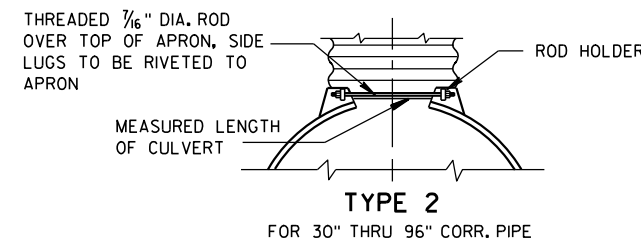
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



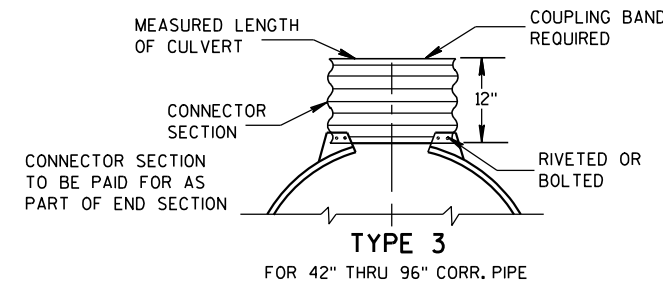
ALTERNATE FOR TYPE 1 CONNECTION  
END SECTION CONNECTOR STRAP



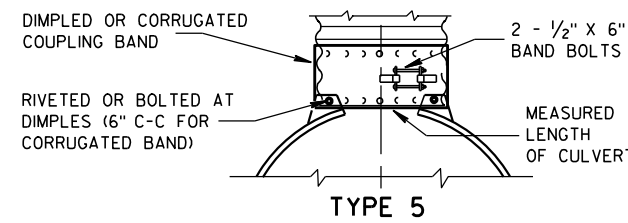
TYPE 1  
FOR 12" THRU 24" CORR. PIPE



TYPE 2  
FOR 30" THRU 96" CORR. PIPE



TYPE 3  
FOR 42" THRU 96" CORR. PIPE



ALTERNATE FOR:  
ALL SIZES CORRUGATED CIRCULAR PIPE

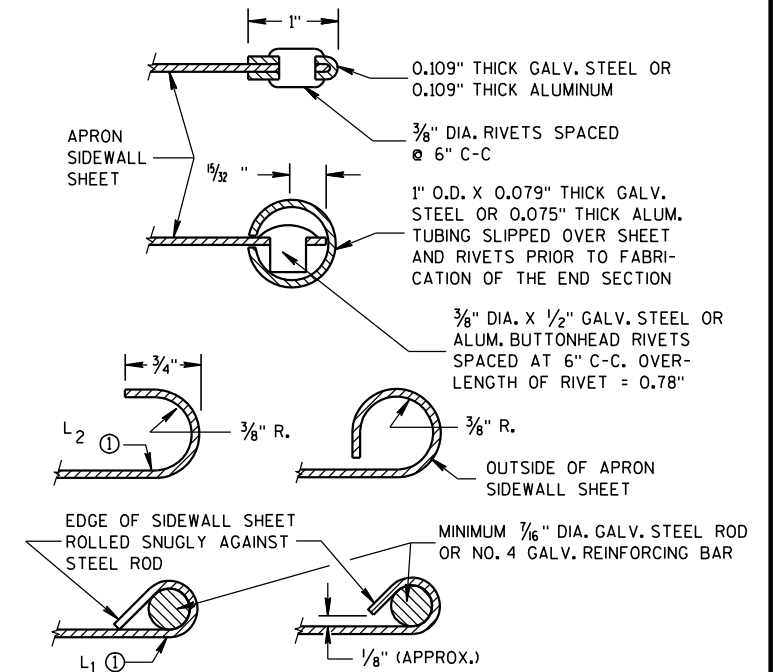
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

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.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VICE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

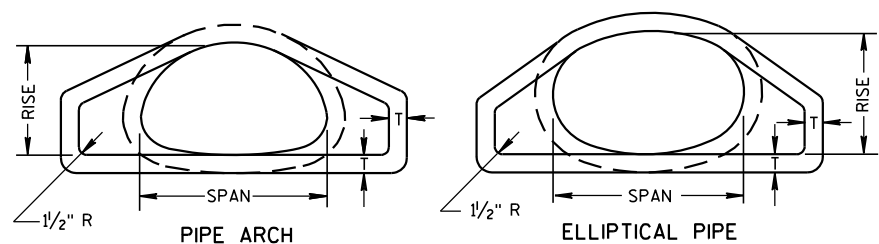
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

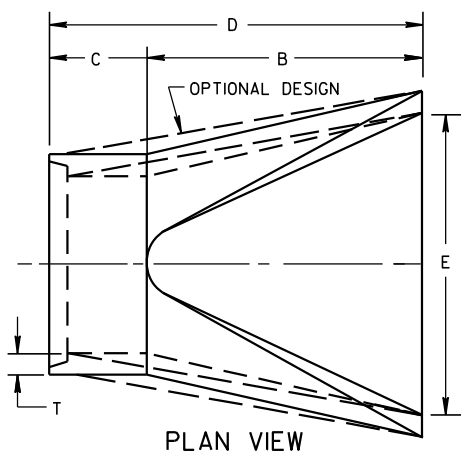
APRON ENDWALLS FOR  
CULVERT PIPE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

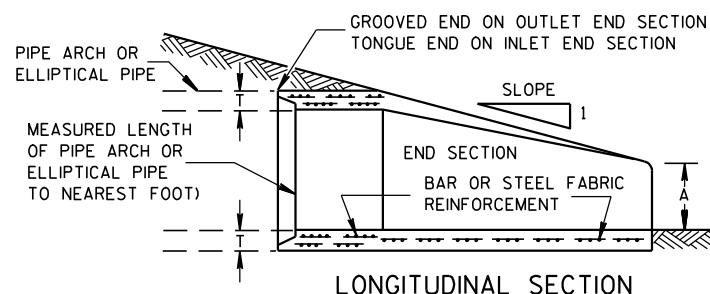
APPROVED  
11/30/94 DATE /S/ Rory L. Rhinesmith  
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER  
FHWA



END VIEW



PLAN VIEW



LONGITUDINAL SECTION

CONCRETE ENDWALLS

**2- 2 2/3" X 1/2" CORRUGATIONS**

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 (⓪)	L2 (⓪)	W (±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/4 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/4 to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

**3" X 1" CORRUGATIONS**

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 (⓪)	L2 (⓪)	W (±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED. \* EXCEPT CENTER PANEL SEE GENERAL NOTES

**REINFORCED CONCRETE PIPE ARCH**

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	**SPAN	**RISE	T	A	B	C	D	E	
24	29	18	3	8 1/2	39	33	72	48	3 to 1
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1
36	44	27	4	11 1/8	60	36	96	72	3 to 1
42	51	31	4 1/2	15 1/8	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5 1/2	25 1/2	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28 1/2	83	19	102	144	2 to 1

**REINFORCED CONCRETE ELLIPTICAL PIPE**

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	**SPAN	**RISE	T	A	B	C	D	E	
24	30	19	3 1/4	8 1/2	39	33	72	48	3 to 1
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1
42	53	34	5	15 3/4	60	36	96	78	2 1/2 to 1
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1

\*\*NOMINAL SIZE

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.

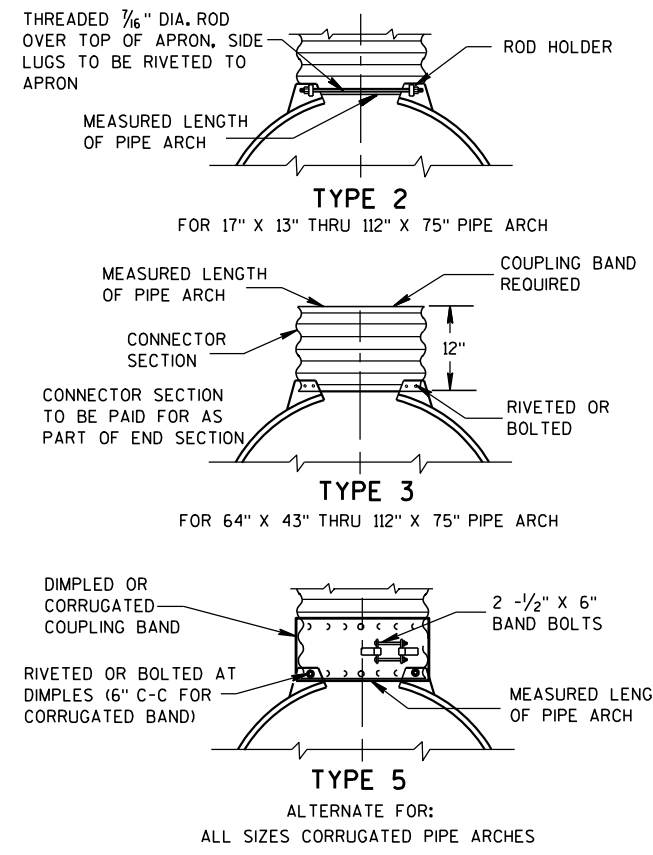
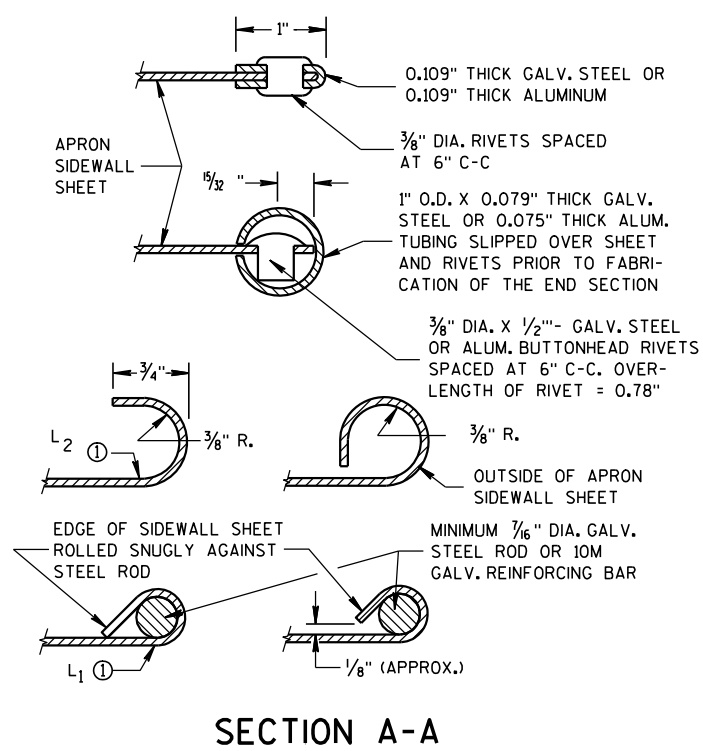
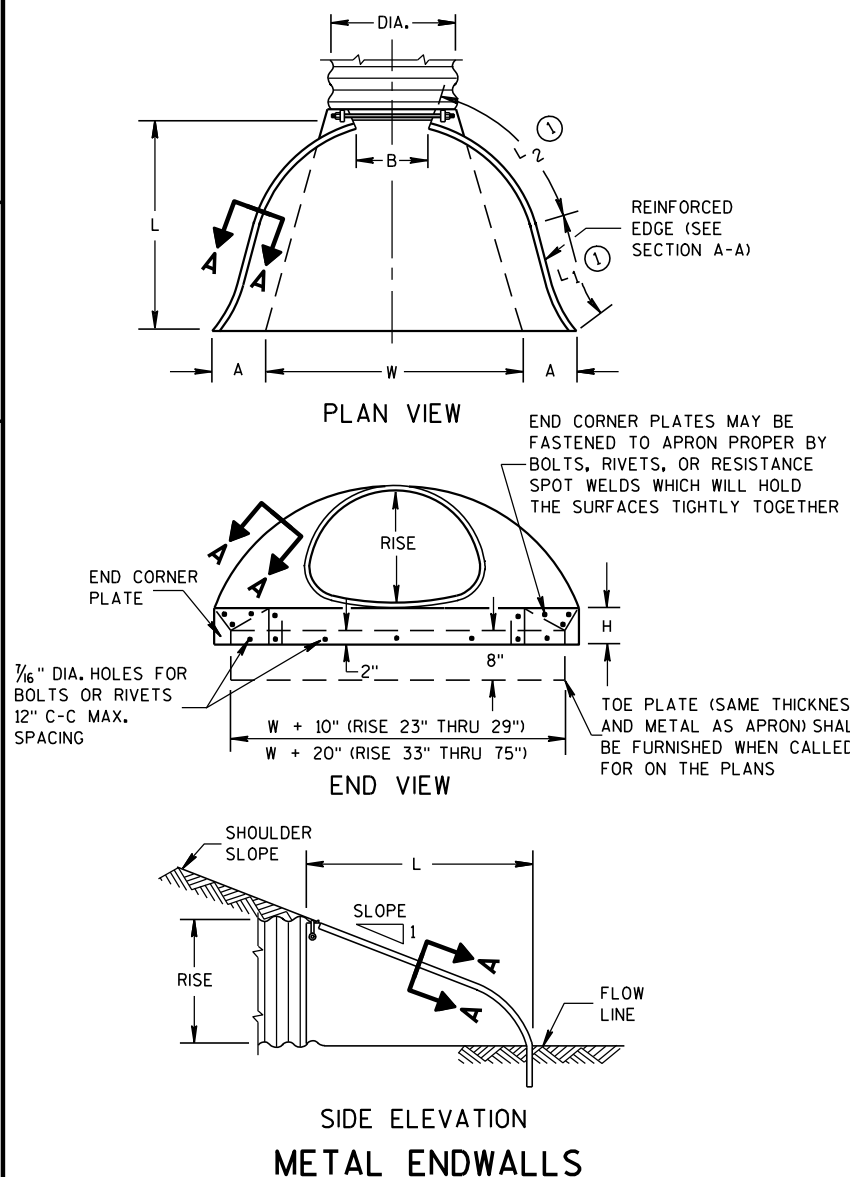
CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

⓪ FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

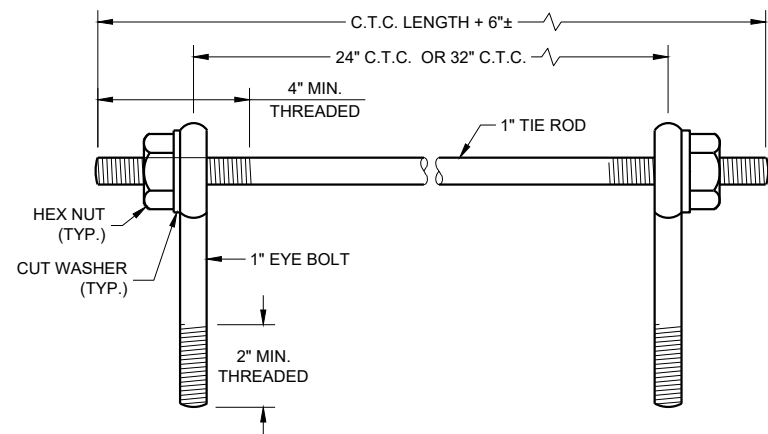


NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

**APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE**

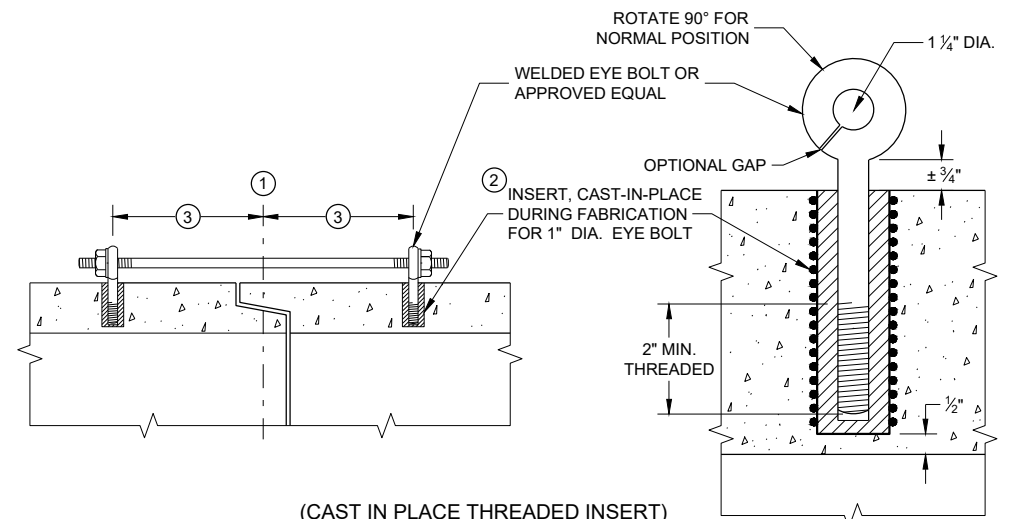
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
11/30/94 /S/ Rory L. Rhinesmith  
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER  
FHWA



**EYE BOLTS AND TIE ROD**

**EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)**



**LONGITUDINAL SECTIONS**

**GENERAL NOTES**

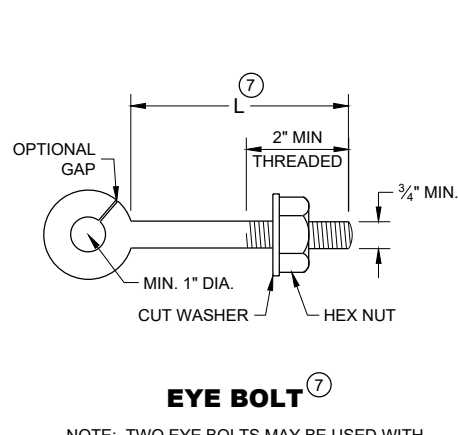
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

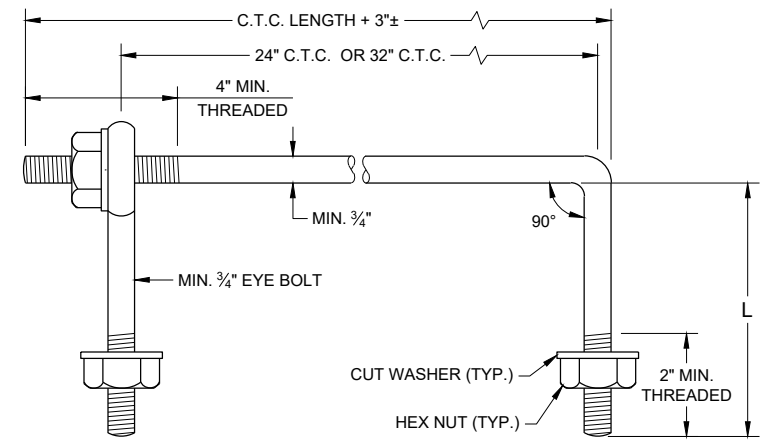
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- ① CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- ④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- ⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.
- ⑦ EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.



**EYE BOLT ⑦**

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.

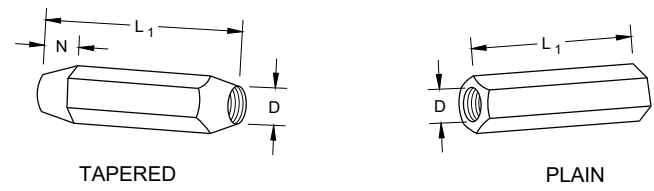


**EYE BOLT AND TIE ROD**

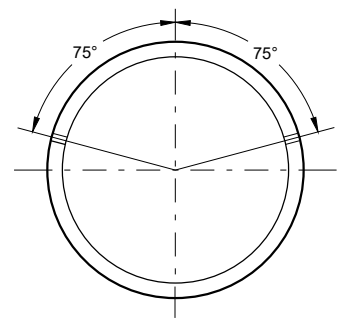
**ADJUSTABLE TIE ROD TABLE**

PIPE DIAMETER	TIE ROD DIAMETER	D	L <sub>1</sub>	N
12 - 60	5/8	5/8	5	1/2
66 - 84	3/4	3/4	5	1/2
90 - 144	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES

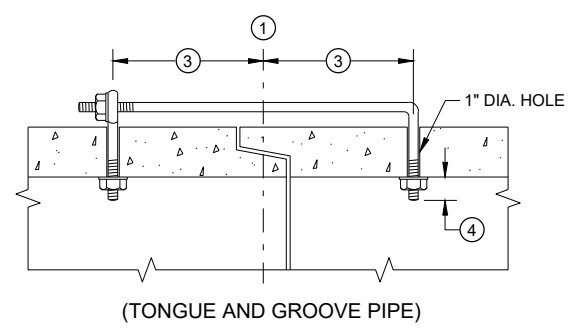


**RIGHT AND LEFT THREADS SLEEVE NUTS**

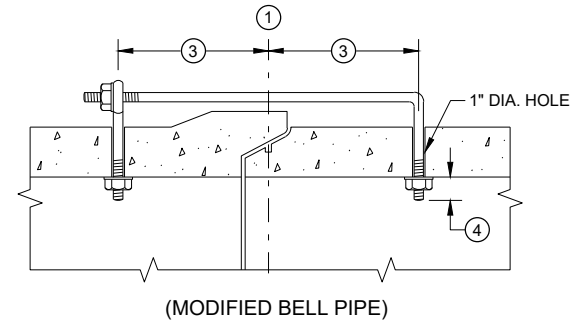


PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

**TRANSVERSE SECTION**



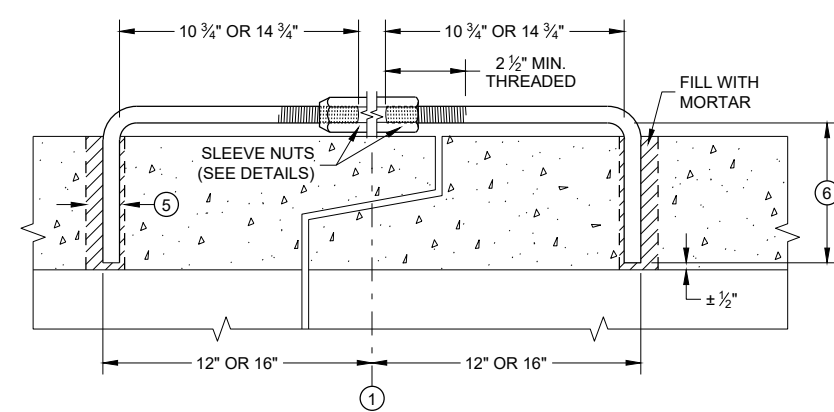
(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

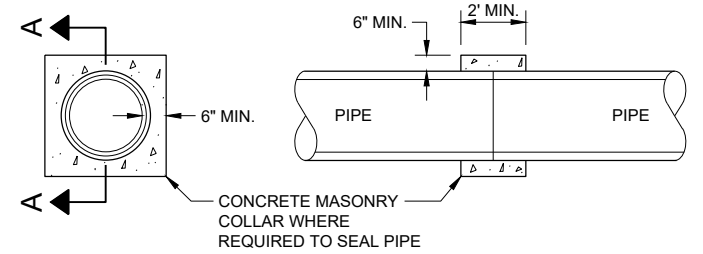
**LONGITUDINAL SECTION**  
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

**EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)**



**LONGITUDINAL SECTION**

**ADJUSTABLE TIE ROD (ALTERNATE NO. 3)**

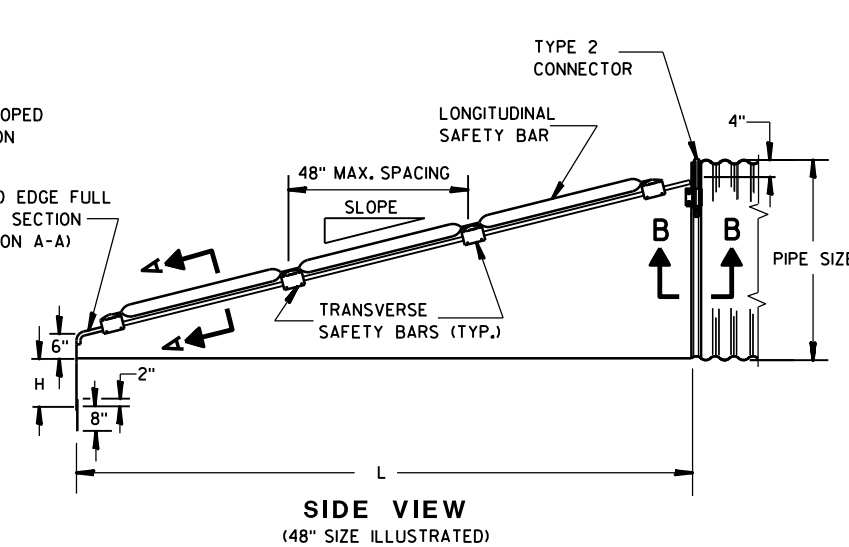
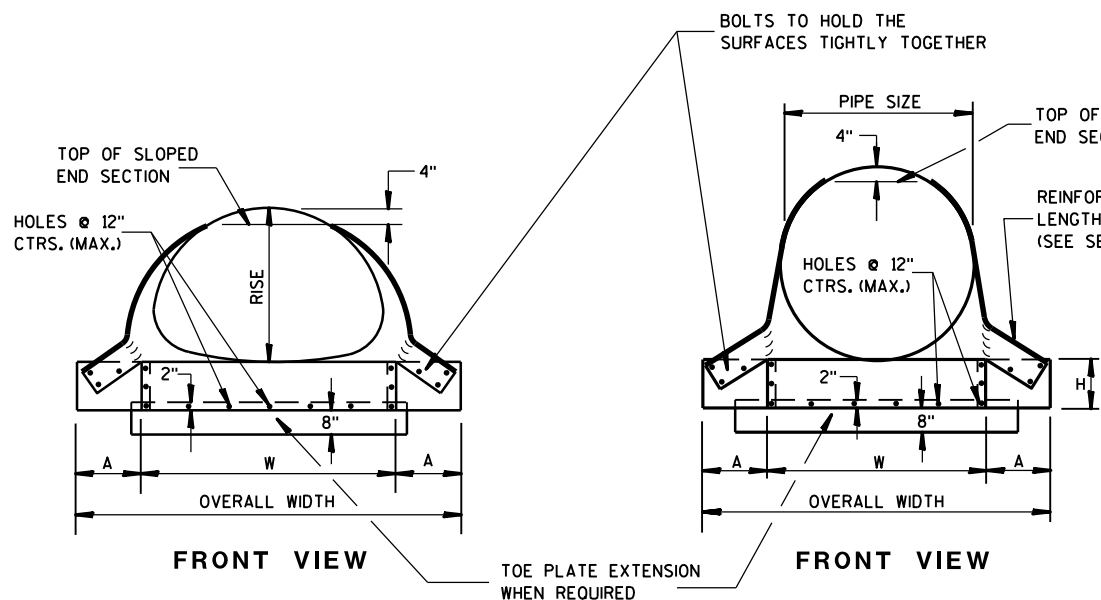


**SECTION A - A**  
**CONCRETE COLLAR DETAIL**

**JOINT TIES FO CONCRETE PIPE AND CONCRETE COLLAR DETAIL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2021 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER  
FHWA



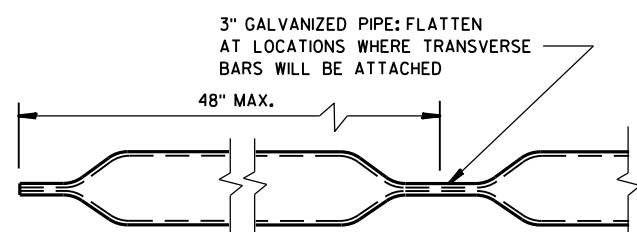
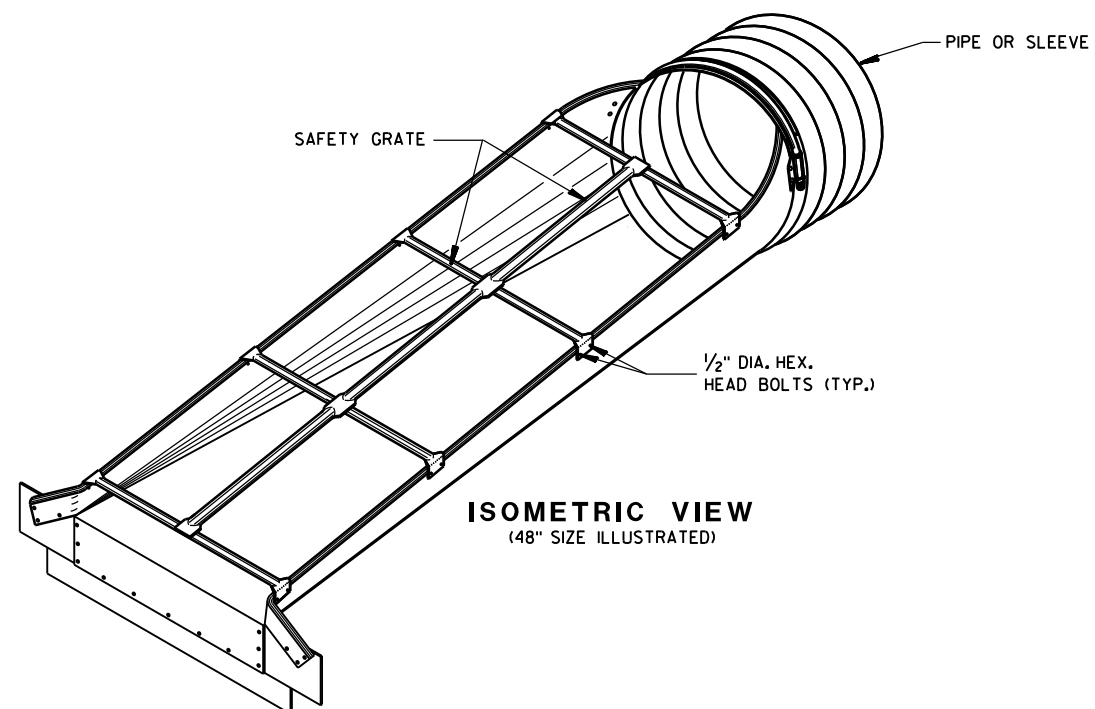
**GENERAL NOTES**

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

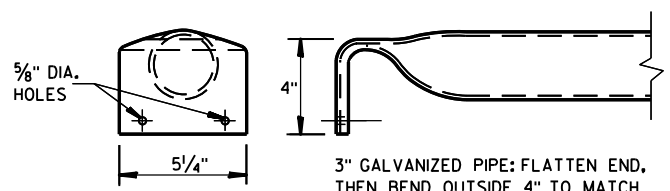
SAFETY GRATES SHALL BE FABRICATED FROM 3-INCH DIAMETER GALVANIZED PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL. THE LONGITUDINAL BAR SHALL BE WELDED TO THE TRANSVERSE BARS WHERE THE BARS CROSS. THE NUMBER OF TRANSVERSE BARS REQUIRED WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

SLOPED STEEL ENDWALLS LOCATED AT THE ENDS OF CONCRETE CULVERT PIPE SHALL BE FURNISHED WITH STEEL ADAPTER SLEEVES.

STEEL APRON ENDWALLS FOR CULVERT PIPE CROSS DRAINS										
PIPE DIA. (IN.)	MIN. THICK. IN.	GAGE	DIMENSIONS (inches)				L DIMENSIONS			
			A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
36	.109	12	12	9	42	66	4:1	104	6:1	156
42	.109	12	16	12	48	80	4:1	128	6:1	192
48	.109	12	16	12	54	86	4:1	152	6:1	228
54	.109	12	16	12	60	92	4:1	176	6:1	264
60	.109	12	16	12	66	98	4:1	200	6:1	300

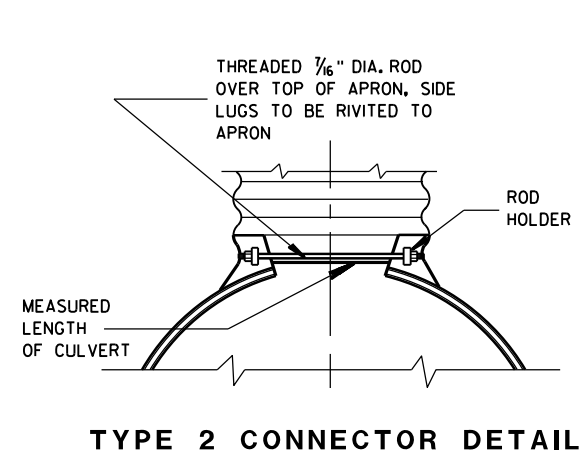


**LONGITUDINAL SAFETY BAR**

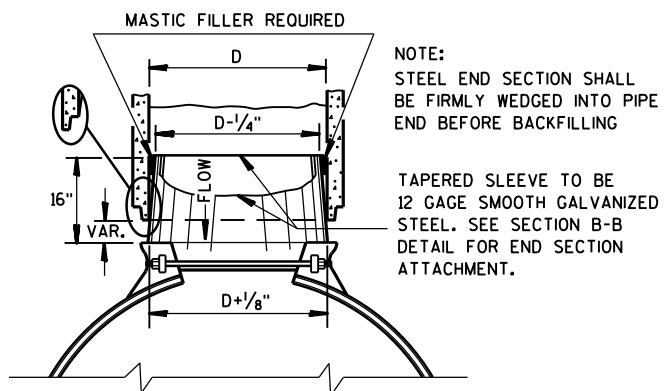


**TRANSVERSE SAFETY BAR**

STEEL APRON ENDWALLS FOR PIPE ARCH SLOPED CROSS DRAINS												
EQUIV. DIA. (IN.)	INCHES		MIN. THICK. IN.	GAGE	DIMENSIONS (inches)				L DIMENSIONS			
	SPAN	RISE			A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
30	35	24	.079	14	12	9	41	65	4:1	56	6:1	84
36	42	29	.109	12	12	9	48	72	4:1	76	6:1	114
42	49	33	.109	12	16	12	55	87	4:1	92	6:1	138
48	57	38	.109	12	16	12	63	95	4:1	112	6:1	168
54	64	43	.109	12	16	12	70	102	4:1	132	6:1	198
60	71	47	.109	12	16	12	77	109	4:1	148	6:1	222



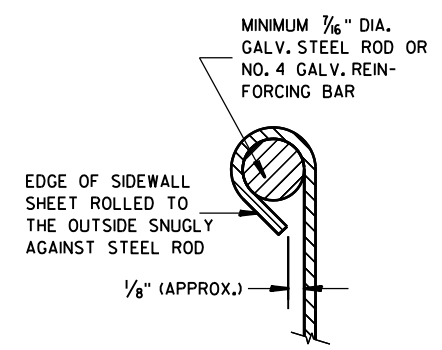
**TYPE 2 CONNECTOR DETAIL**



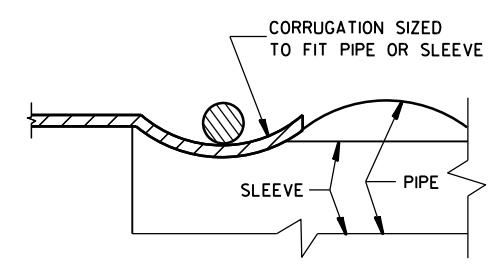
**STEEL ADAPTER SLEEVE FOR CONCRETE PIPE**

NOTE: STEEL END SECTION SHALL BE FIRMLY WEDGED INTO PIPE END BEFORE BACKFILLING

TAPERED SLEEVE TO BE 12 GAGE SMOOTH GALVANIZED STEEL. SEE SECTION B-B DETAIL FOR END SECTION ATTACHMENT.



**SECTION A-A**

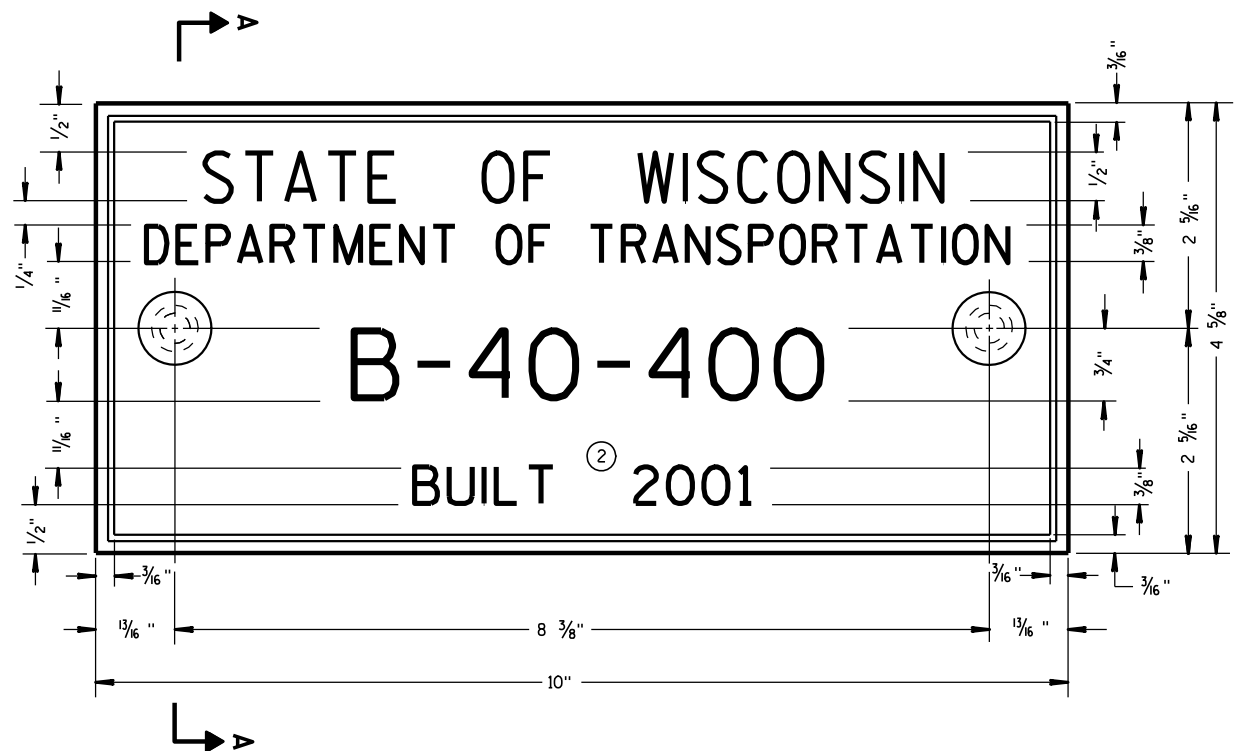


**SECTION B-B**

**STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE 6/5/2012 /S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT ENGINEER



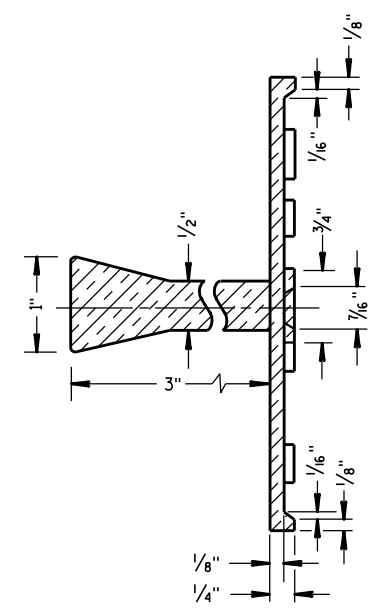
**TYPICAL NAME PLATE**  
(BRIDGES, CULVERTS, AND RETAINING WALLS)

**GENERAL NOTES**

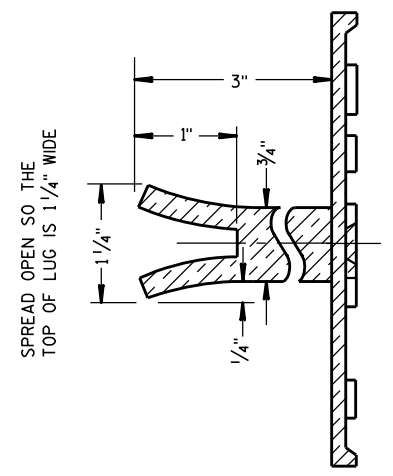
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



**SECTION A-A**



SPREAD OPEN SO THE TOP OF LUG IS 1 1/4" WIDE

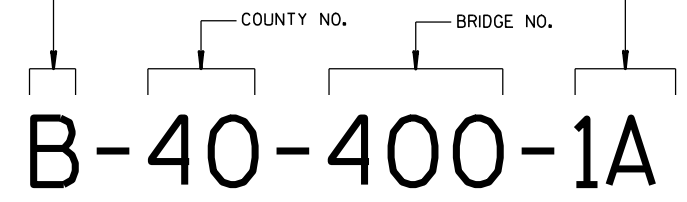
**ALTERNATE LUG**

6

6

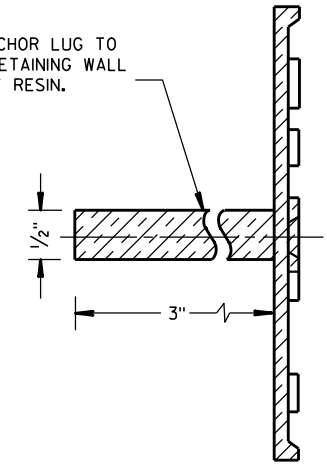
FOR MULTI-UNIT STRUCTURES  
LINE 3 ABOVE SHALL READ

- B = BRIDGE
- C = CULVERT
- R = RETAINING WALL
- UNIT NO. FOR MULTIPLE UNIT BRIDGE



**NUMBERING DESIGNATION  
MULTI-UNIT STRUCTURES**

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.



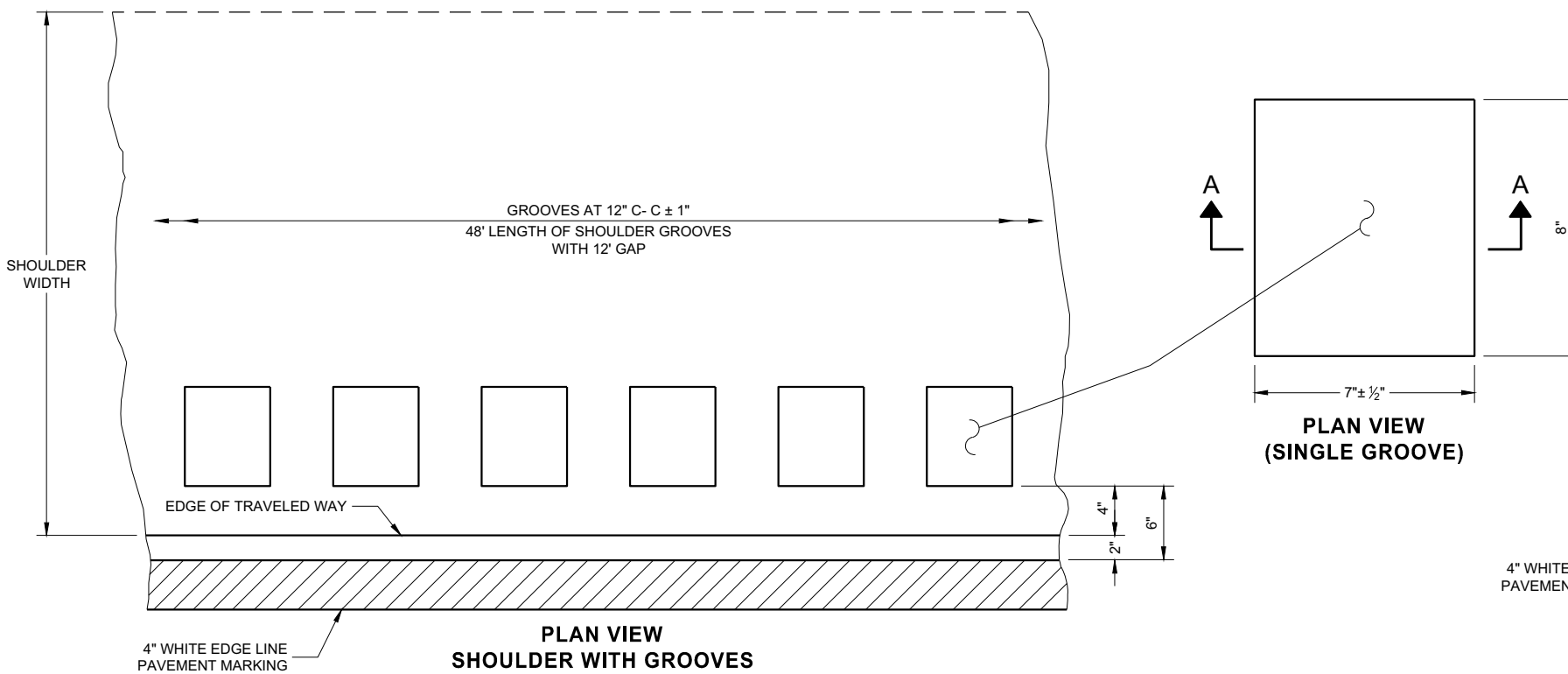
**ALTERNATE LUG**  
(FOR ATTACHMENT TO PRECAST STRUCTURES)

S.D.D. 12 A 3-10

S.D.D. 12 A 3-10

<b>NAME PLATE (STRUCTURES)</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 3/26/10	/S/ Scot Becker CHIEF STRUCTURAL DEVELOPMENT ENGINEER
FHWA	





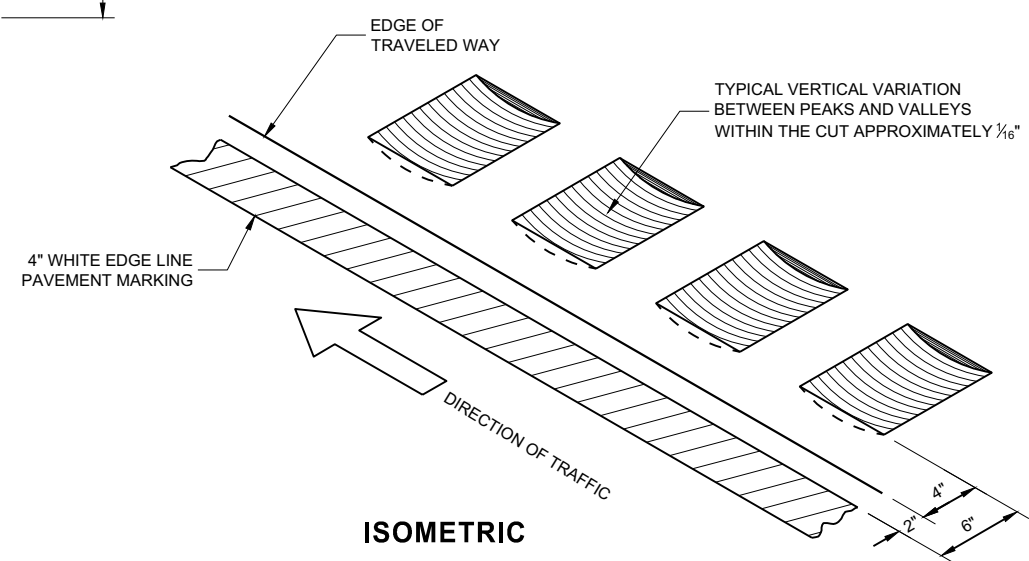
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

**GENERAL NOTES**

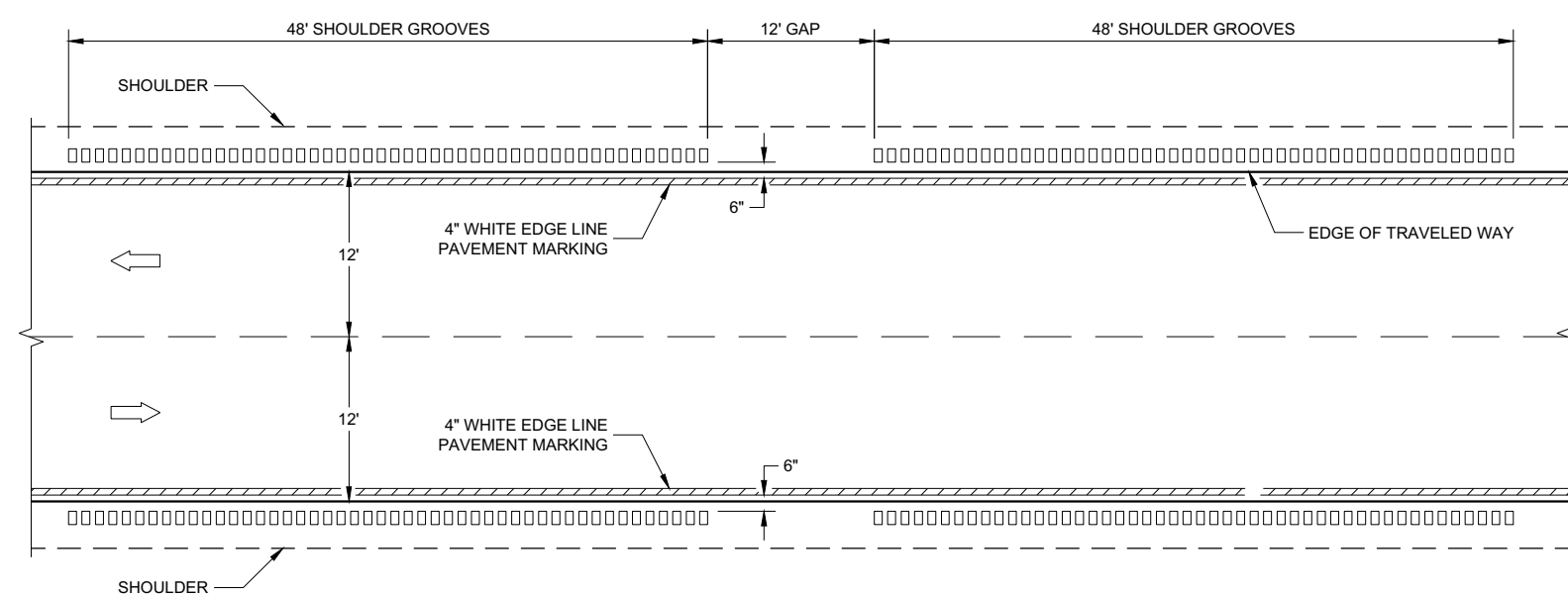
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

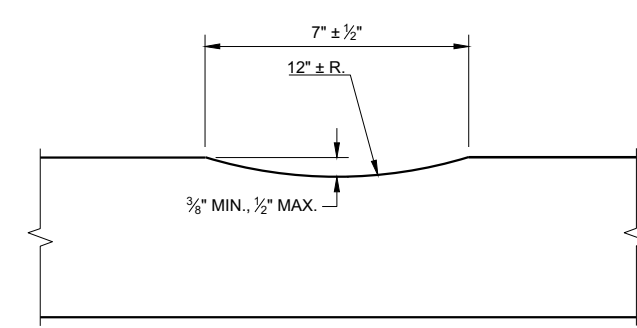
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



ISOMETRIC



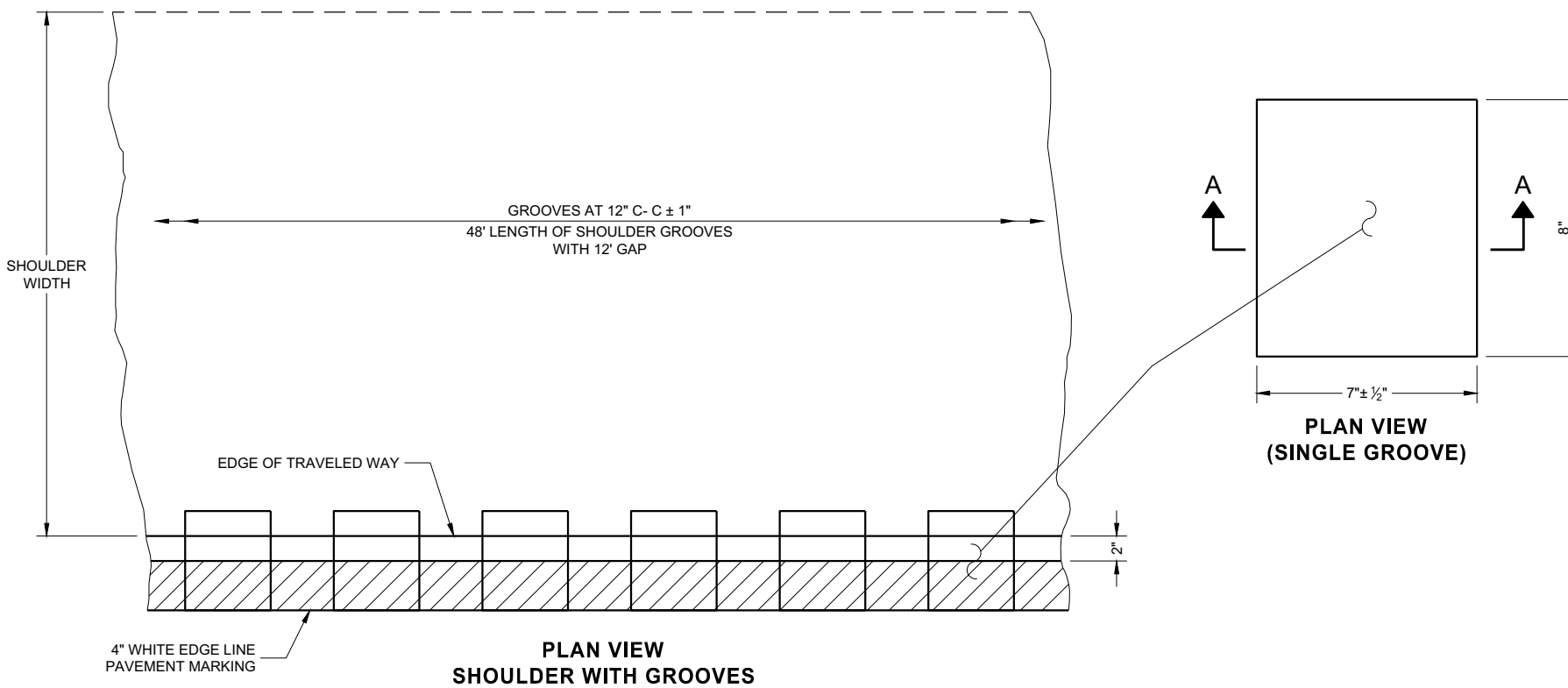
TYPE 1  
2 - LANE SHOULDER RUMBLE STRIP



SECTION A - A

**2-LANE RURAL SHOULDER  
RUMBLE STRIP, MILLING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



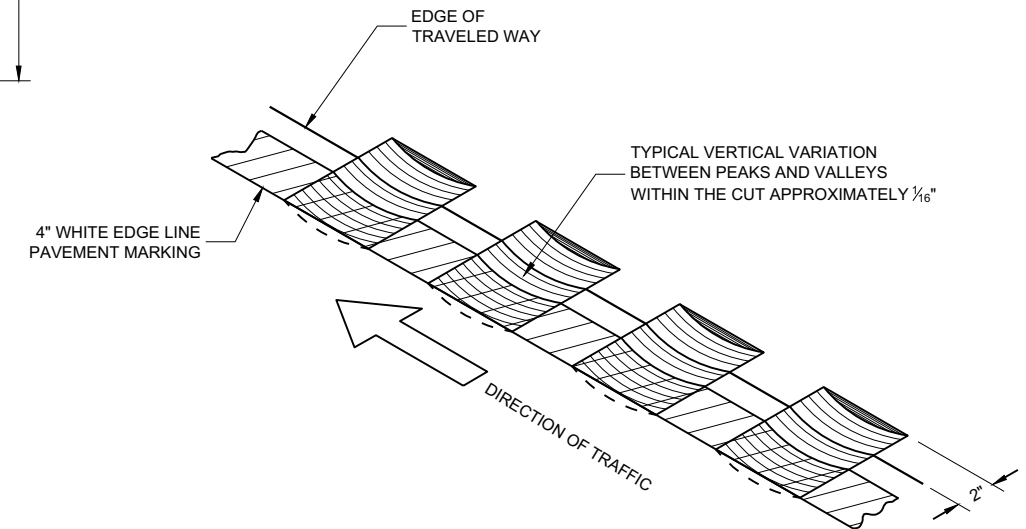
**PLAN VIEW SHOULDER WITH GROOVES**  
**PLAN VIEW (SINGLE GROOVE)**  
**PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP**

**GENERAL NOTES**

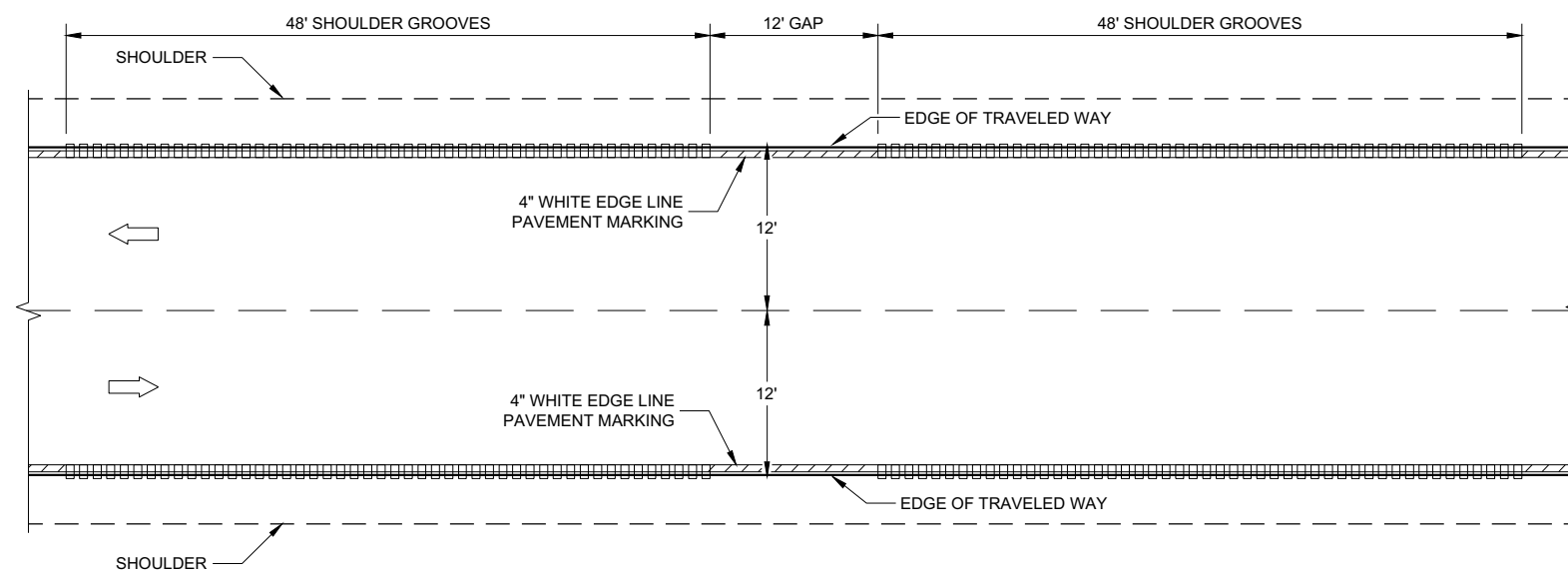
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

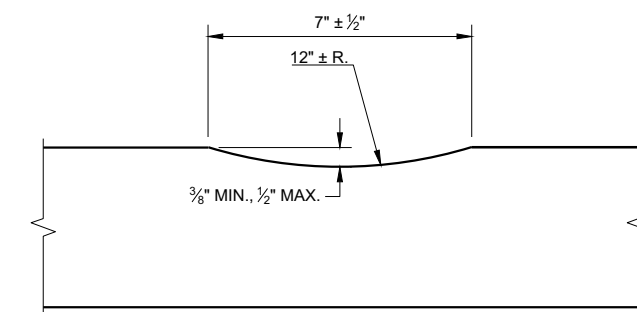
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



**ISOMETRIC**



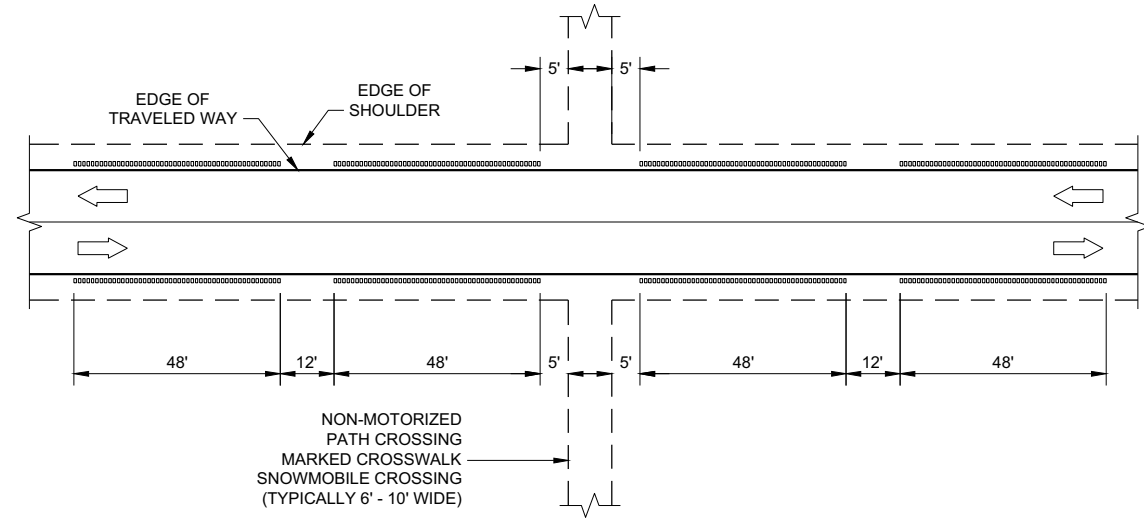
**TYPE 2**  
**2 - LANE SHOULDER RUMBLE STRIP**



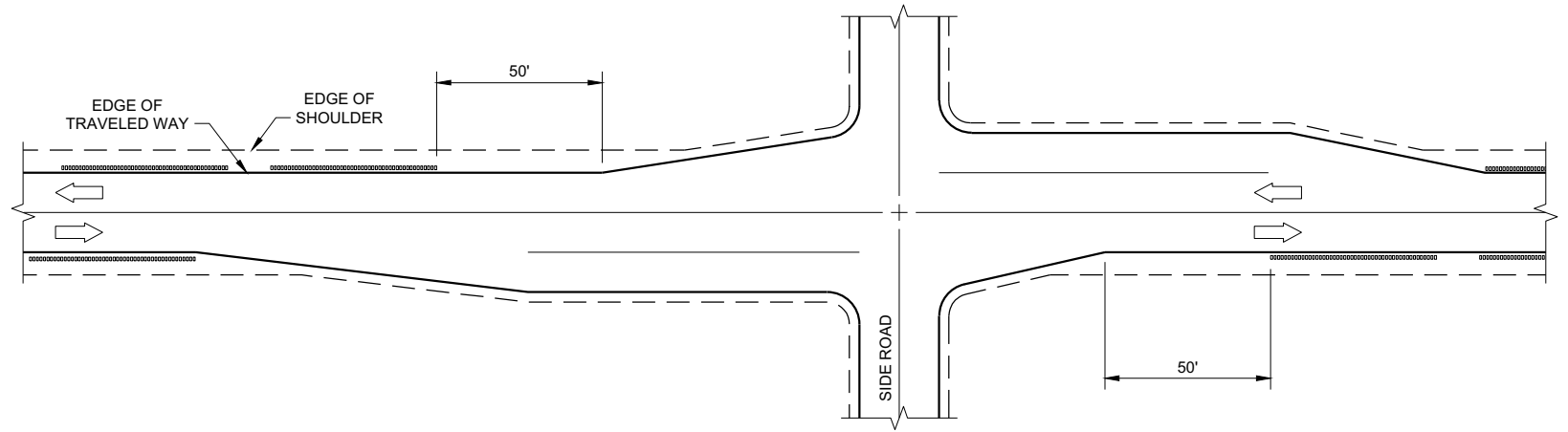
**SECTION A - A**

**2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING**

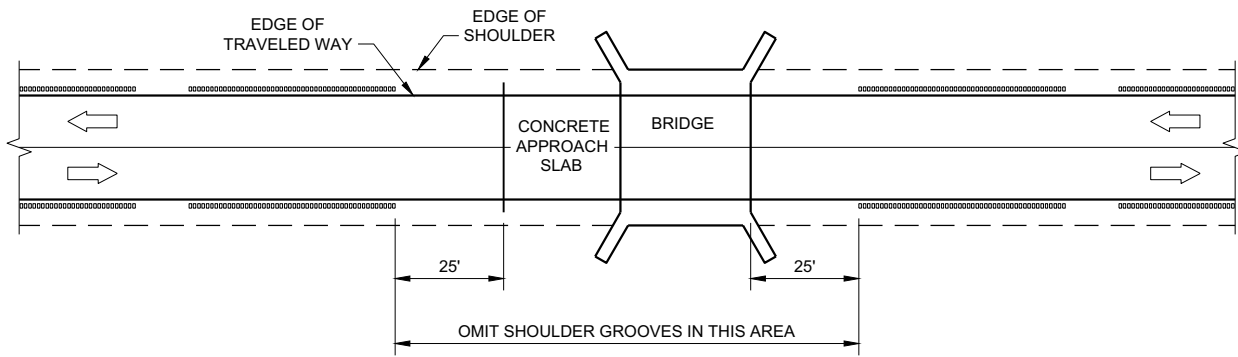
STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION



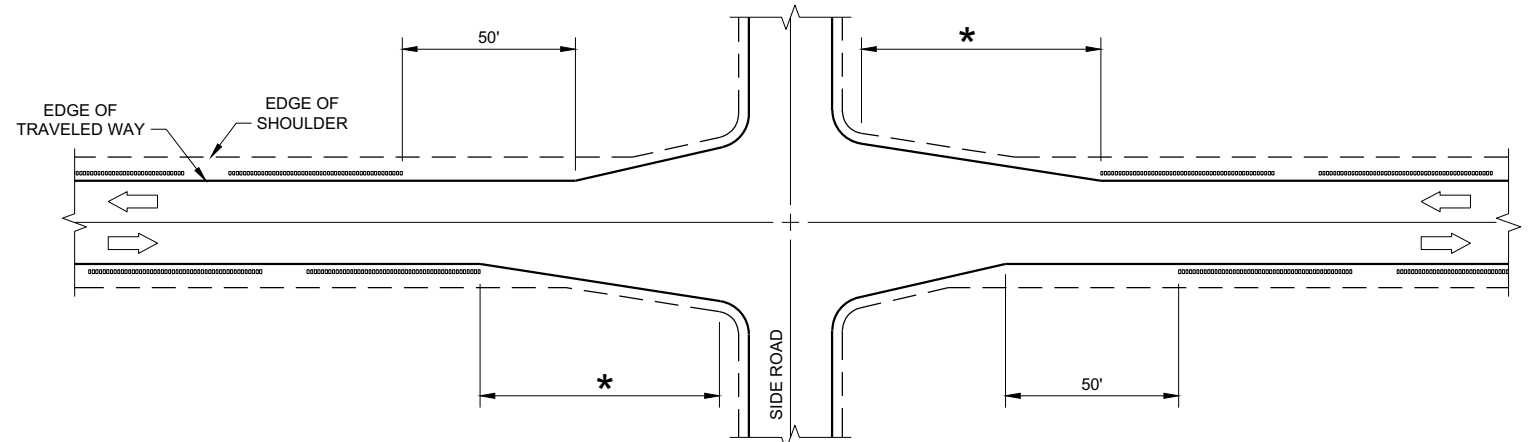
**SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS**



**SHOULDER GROOVES AT RIGHT TURN LANE**

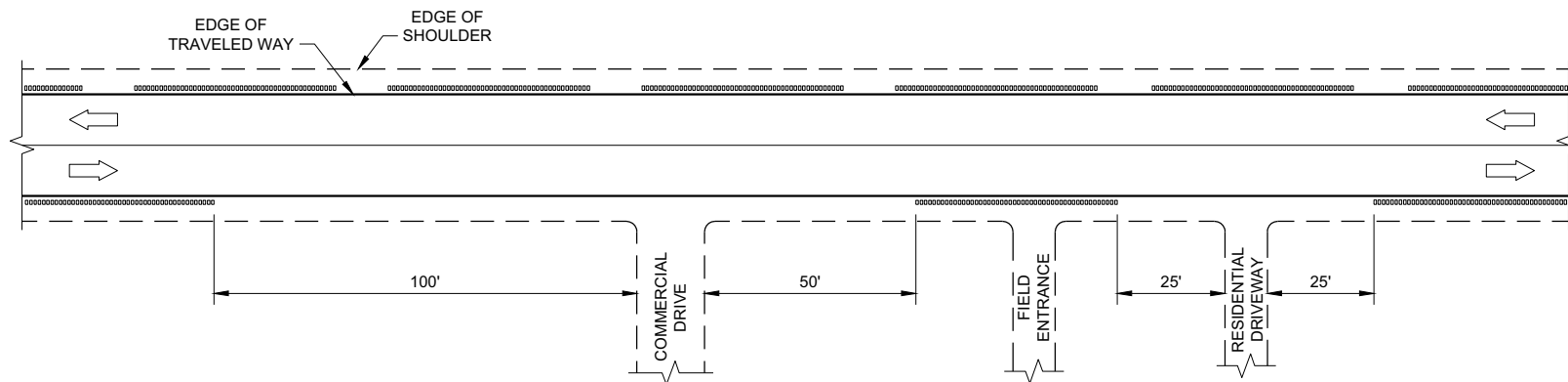


**SHOULDER GROOVES AT BRIDGES**



\* GREATER OF 100' OR APPROACH TAPER LENGTH

**SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER**



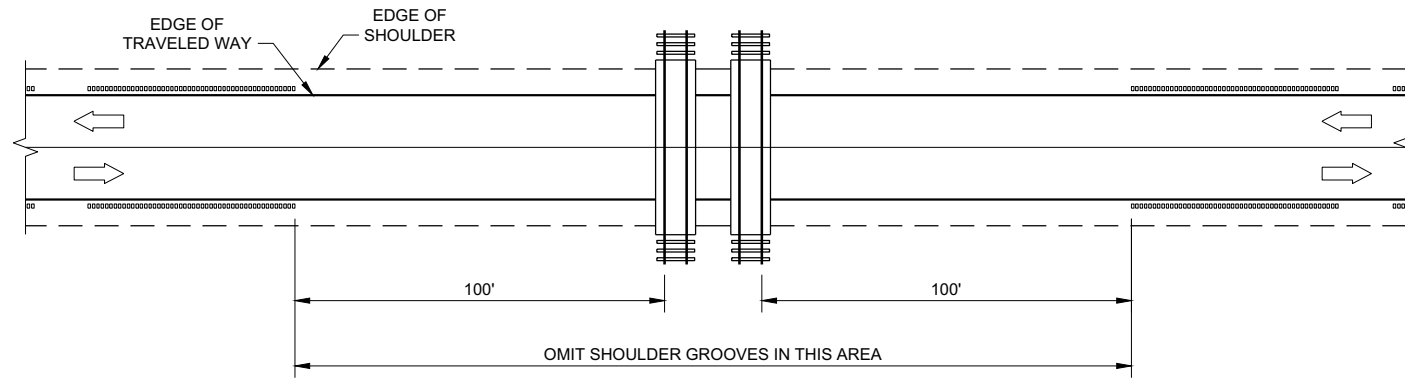
**SHOULDER GROOVES AT DRIVEWAYS<sup>①</sup>**

**GENERAL NOTES**

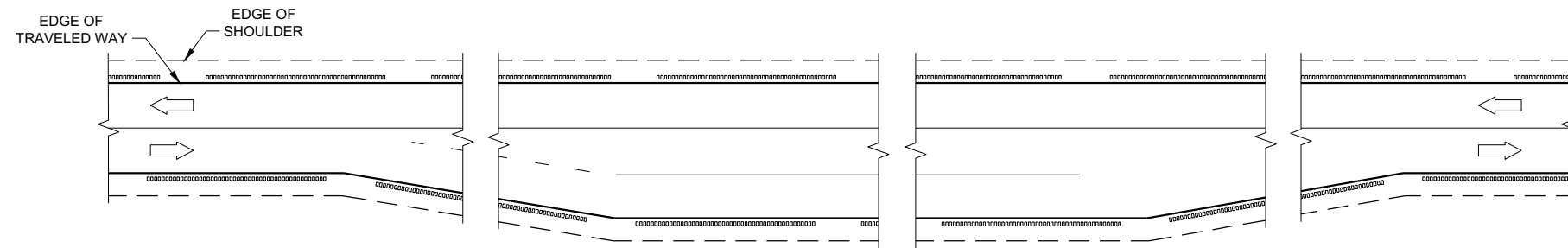
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

**2-LANE RURAL SHOULDER  
RUMBLE STRIP, MILLING**

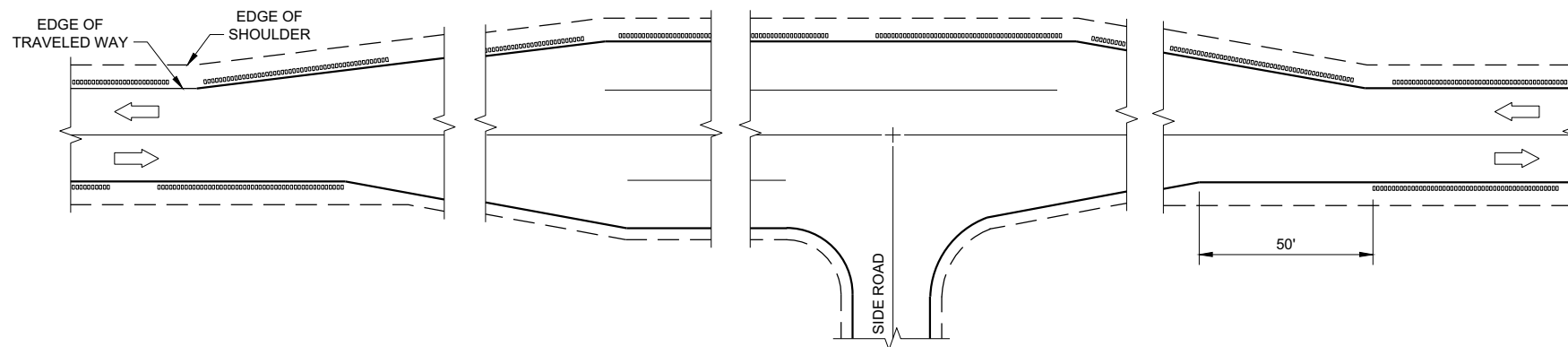
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**SHOULDER GROOVES AT RAILROADS**



**SHOULDER GROOVES AT PASSING AND CLIMBING LANES**



**SHOULDER GROOVES AT BYPASS LANES**

**2-LANE RURAL SHOULDER  
RUMBLE STRIP, MILLING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
7/2018 DATE /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

FHWA

**GENERAL NOTES**

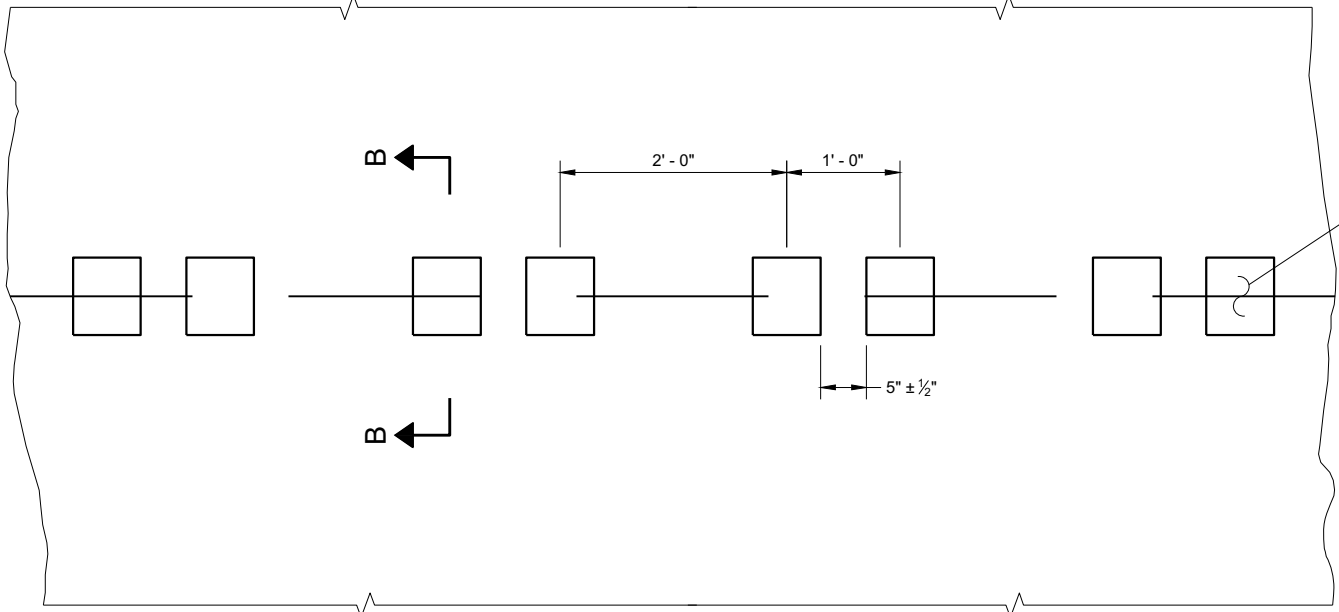
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTERLINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

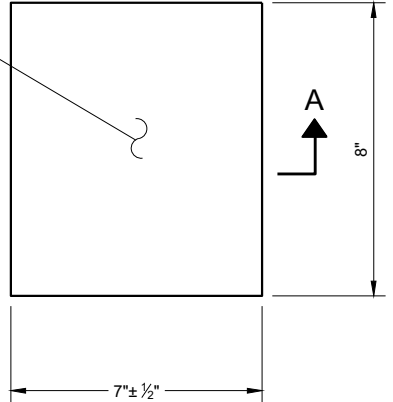
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

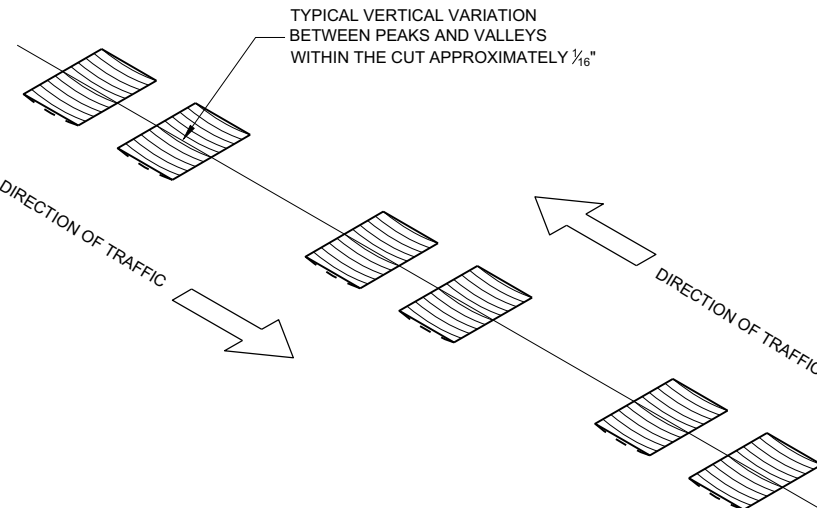
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



**PLAN VIEW  
SHOULDER WITH GROOVES**

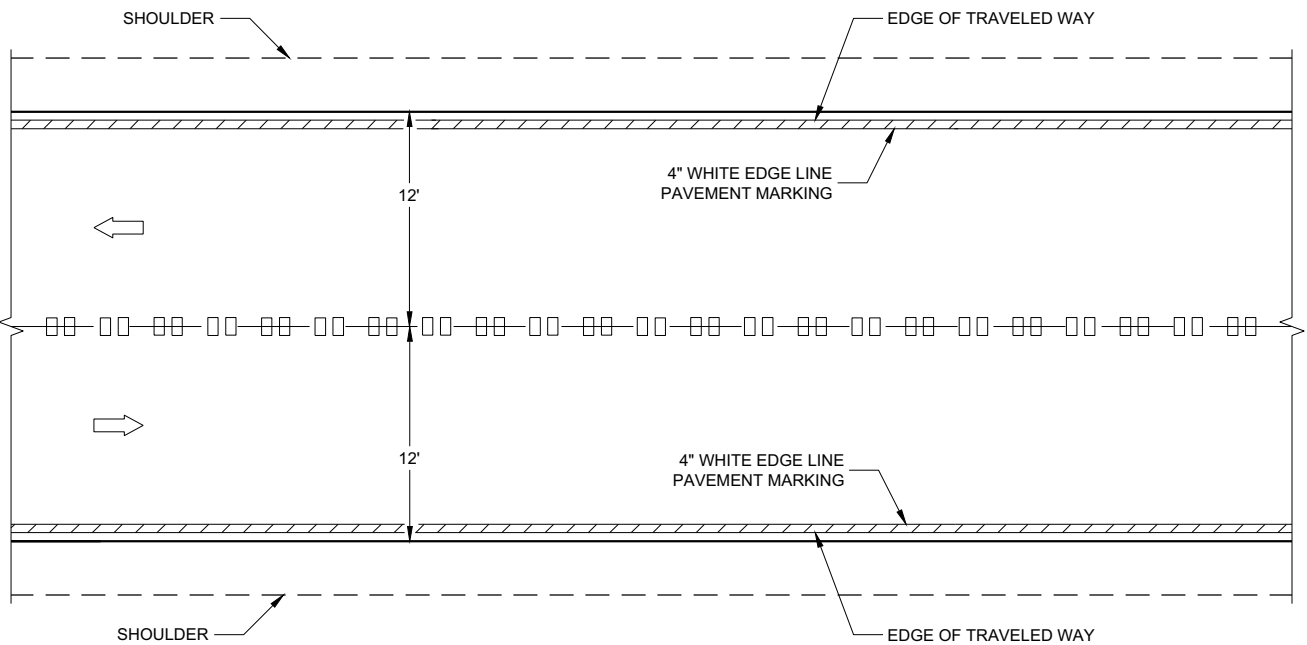


**PLAN VIEW  
(SINGLE GROOVE)**

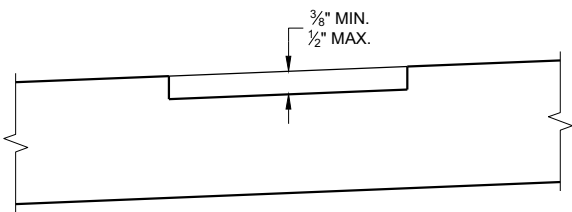


**ISOMETRIC**

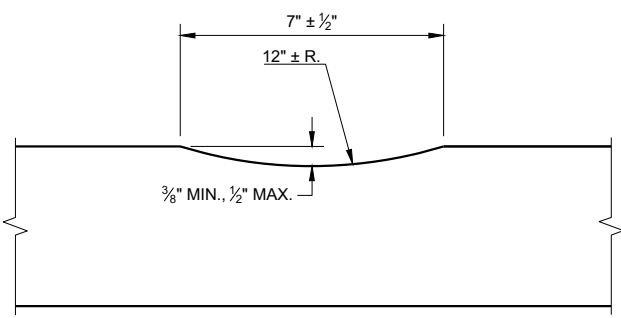
**PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP**



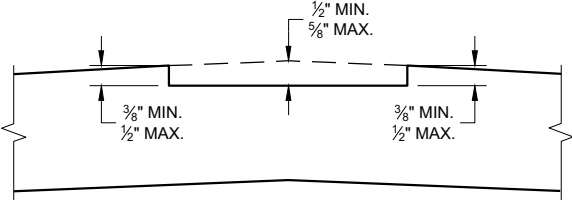
**CENTERLINE GROOVES ON TWO-WAY ROADWAYS**



**SECTION B - B  
SUPERELEVATED ROADWAY**



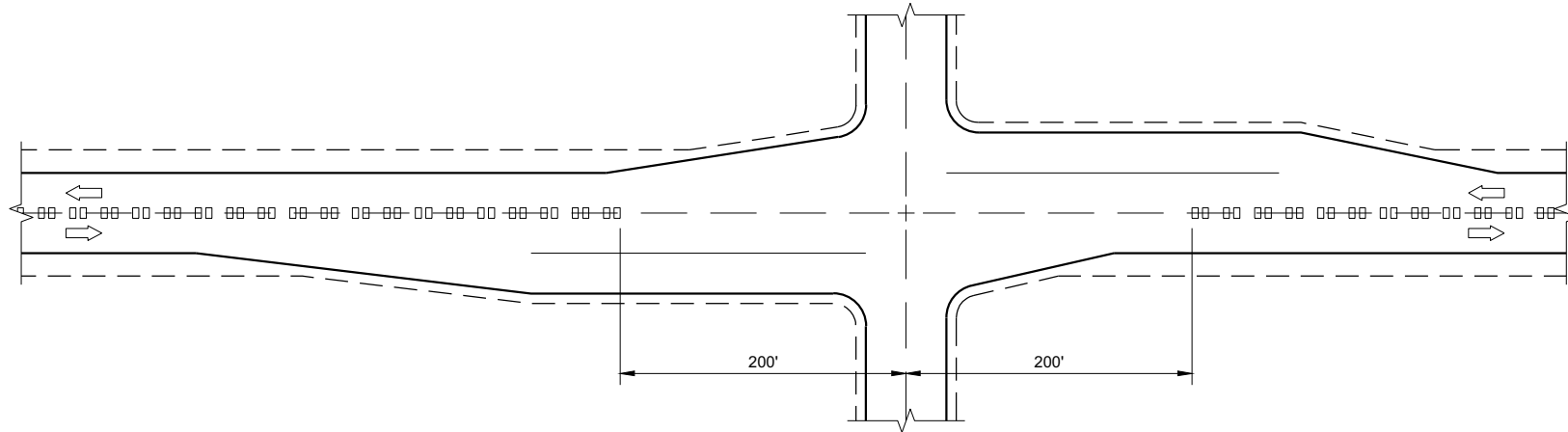
**SECTION A - A**



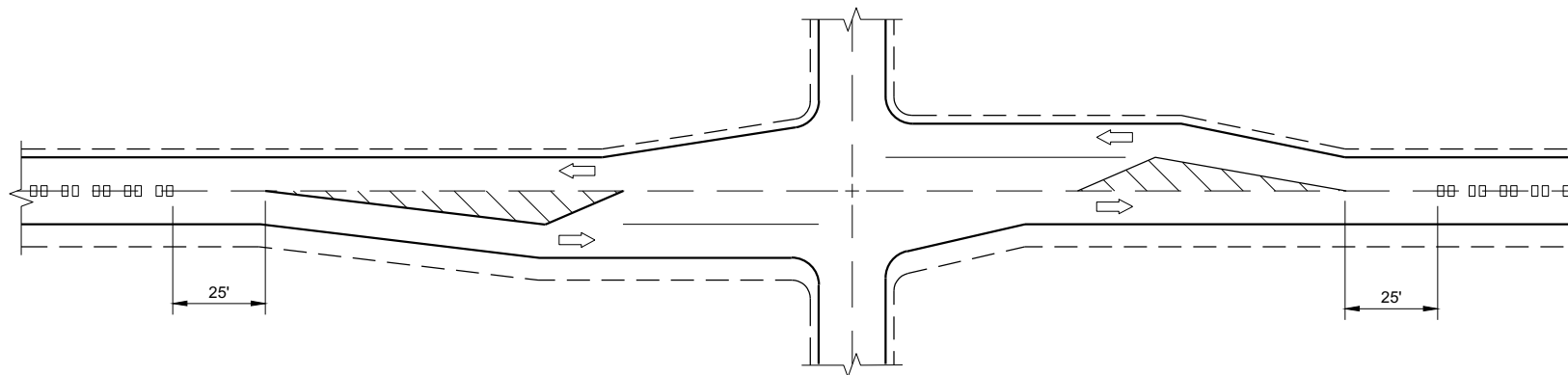
**SECTION B - B  
CROWNED ROADWAY**

**2-LANE RURAL  
CENTER LINE RUMBLE STRIP,  
MILLING**

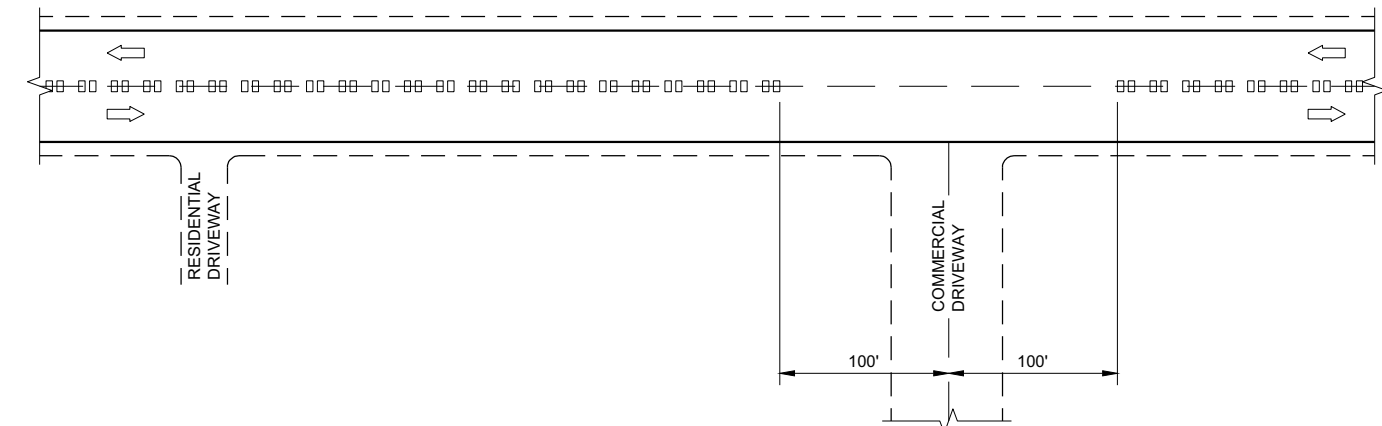
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**CENTERLINE GROOVES AT INTERSECTIONS**



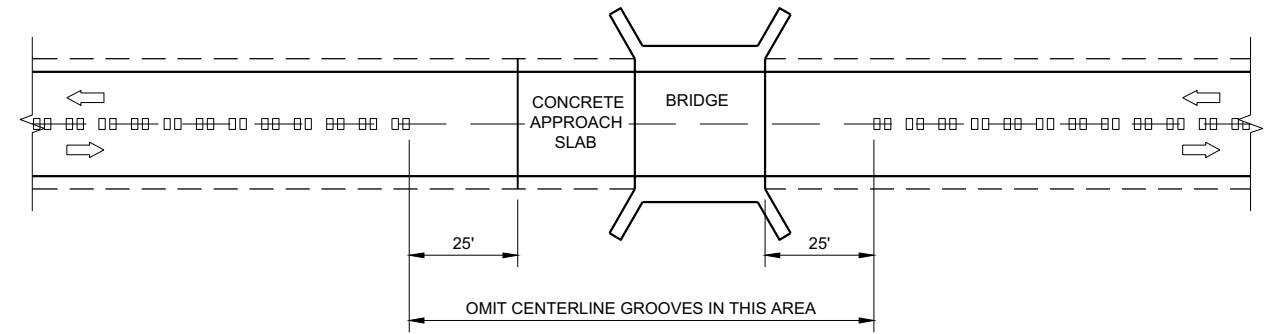
**CENTERLINE GROOVES AT INTERSECTIONS  
(WITH LEFT TURN LANES)**



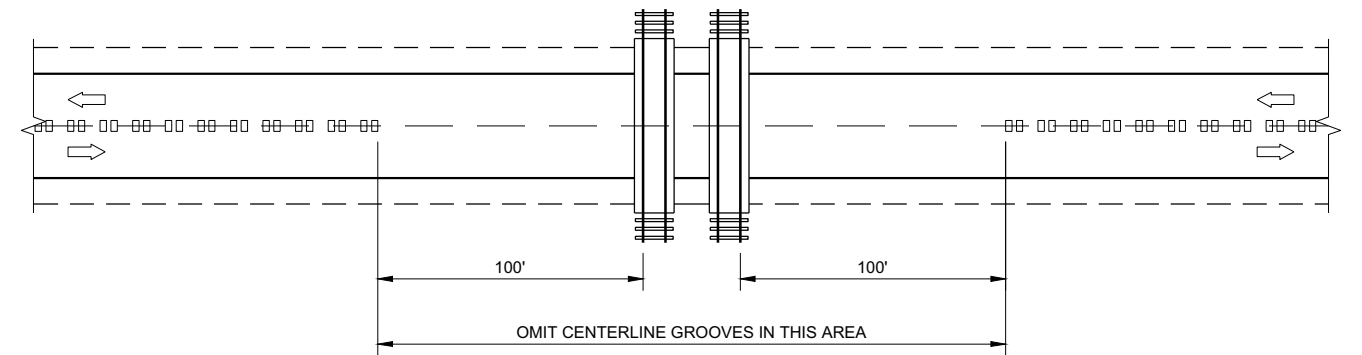
**CENTERLINE GROOVES AT DRIVEWAYS** ①

**GENERAL NOTES**

- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



**CENTERLINE GROOVES AT BRIDGES**



**CENTERLINE GROOVES AT RAILROADS**

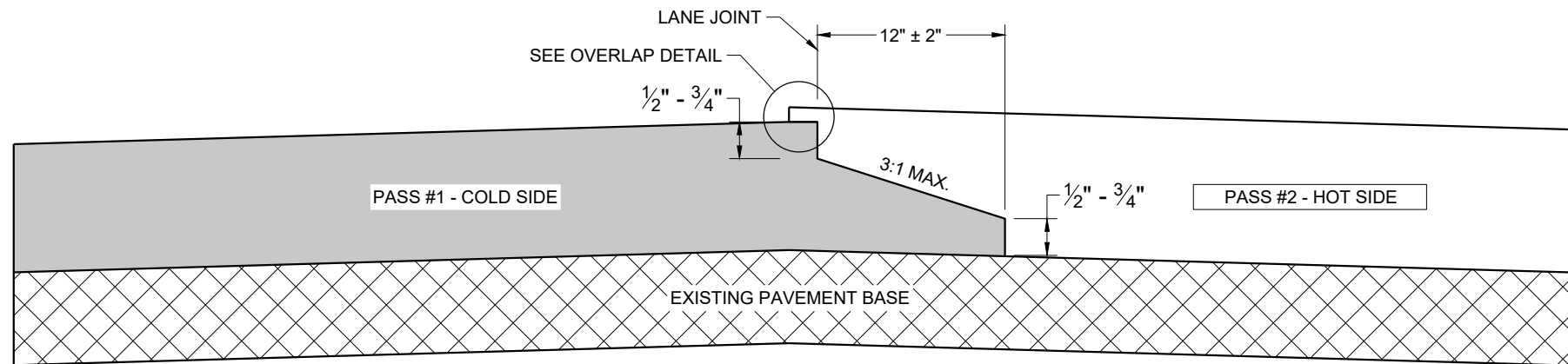
6

6

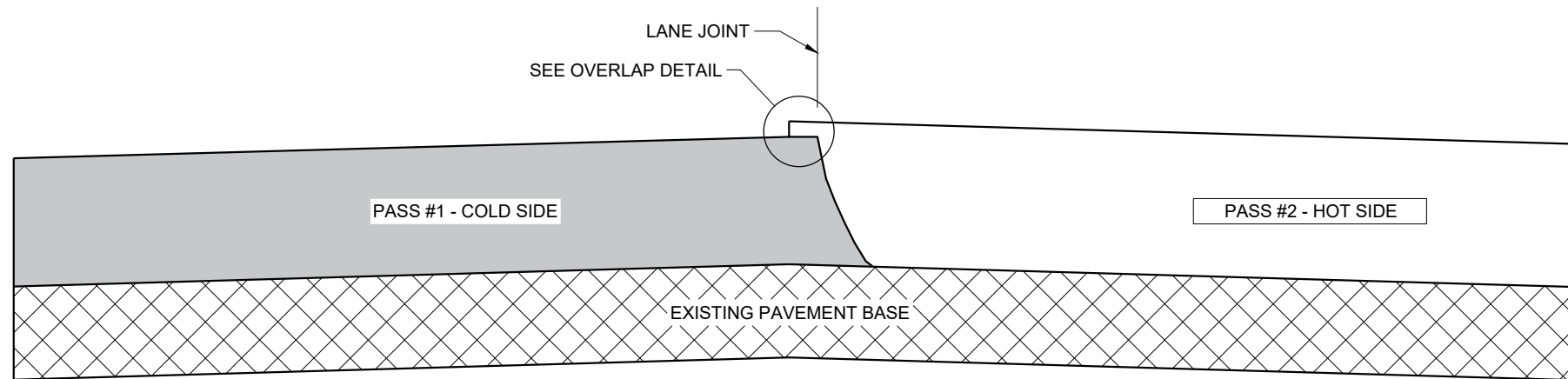
SDD 13A11 - 03b

SDD 13A11 - 03b

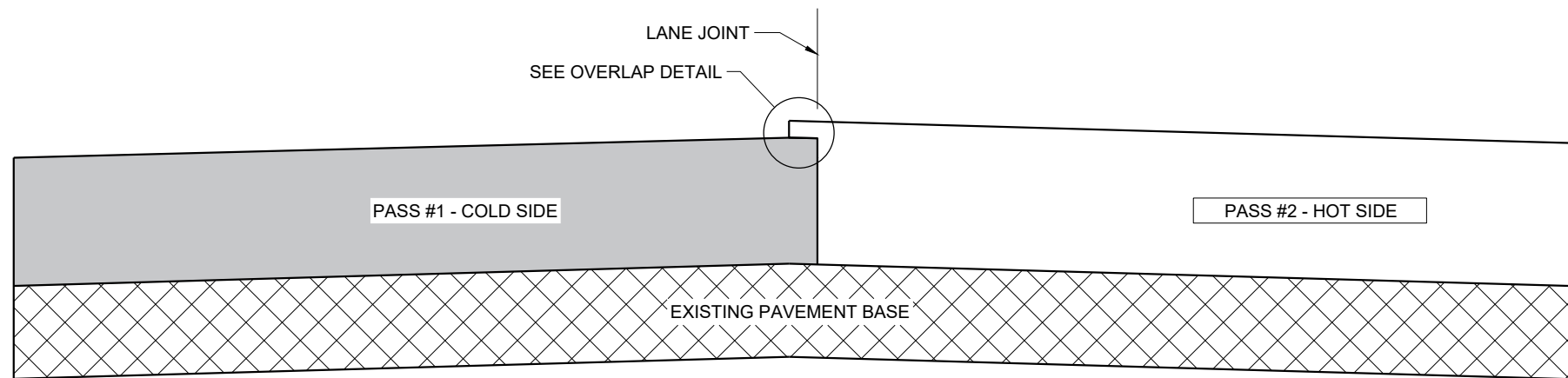
<b>2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 7/2018	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



**TYPICAL PAVEMENT CROSS SECTION  
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION  
VERTICAL JOINT**



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

**GENERAL NOTES**

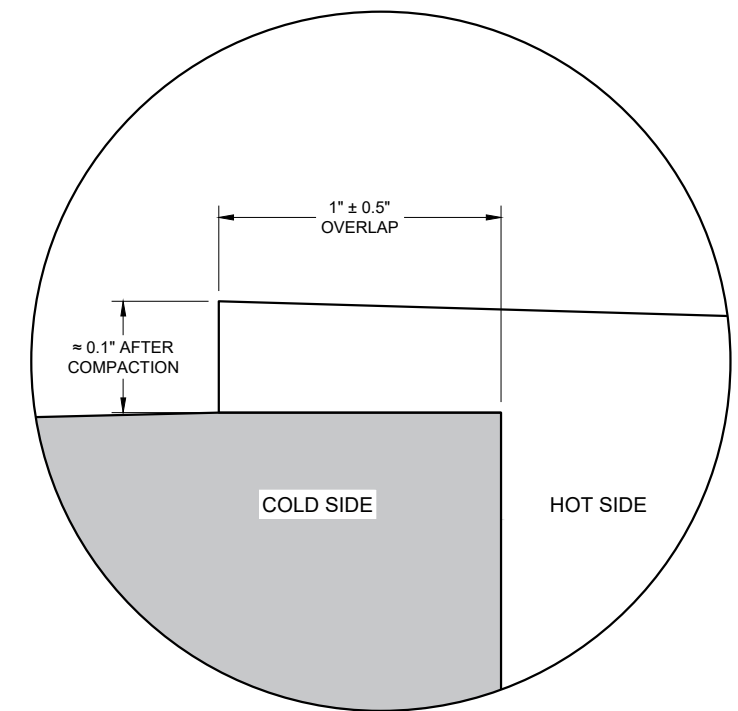
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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)**

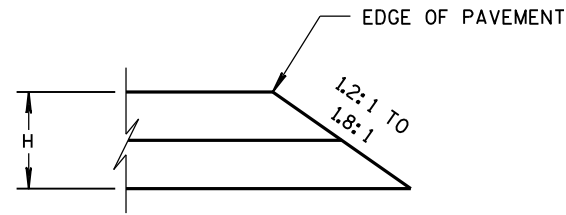
6

6

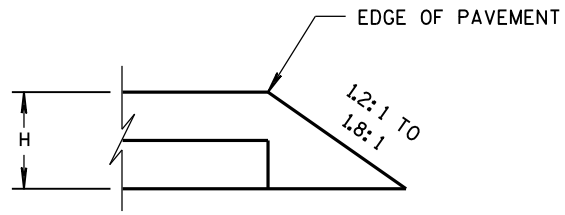
SDD 13C19 - 03

SDD 13C19 - 03

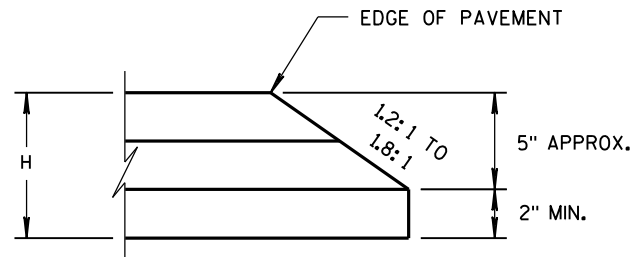
<b>HMA LONGITUDINAL JOINTS</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGINEER
FHWA	



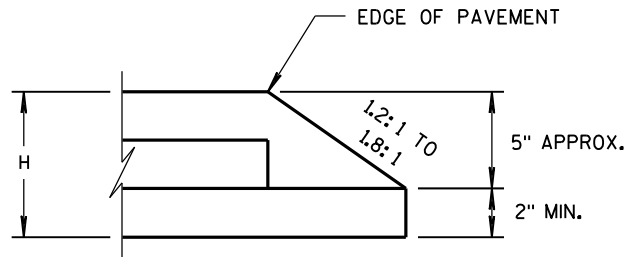
CONSTRUCTED WITH FINAL TWO LAYERS  
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER  
FOR H 5" OR LESS

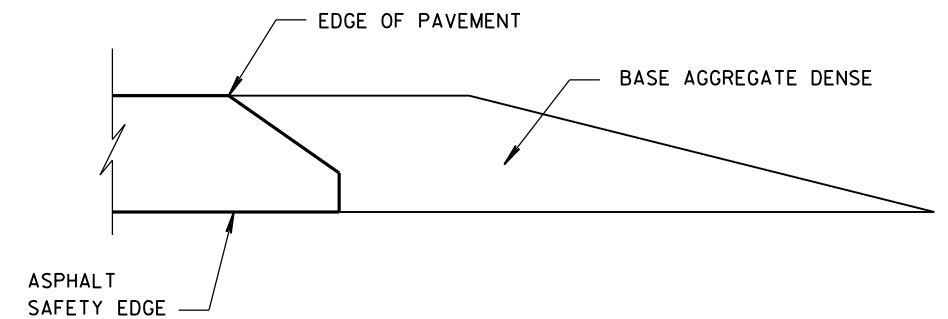


CONSTRUCTED WITH FINAL TWO LAYERS  
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER  
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

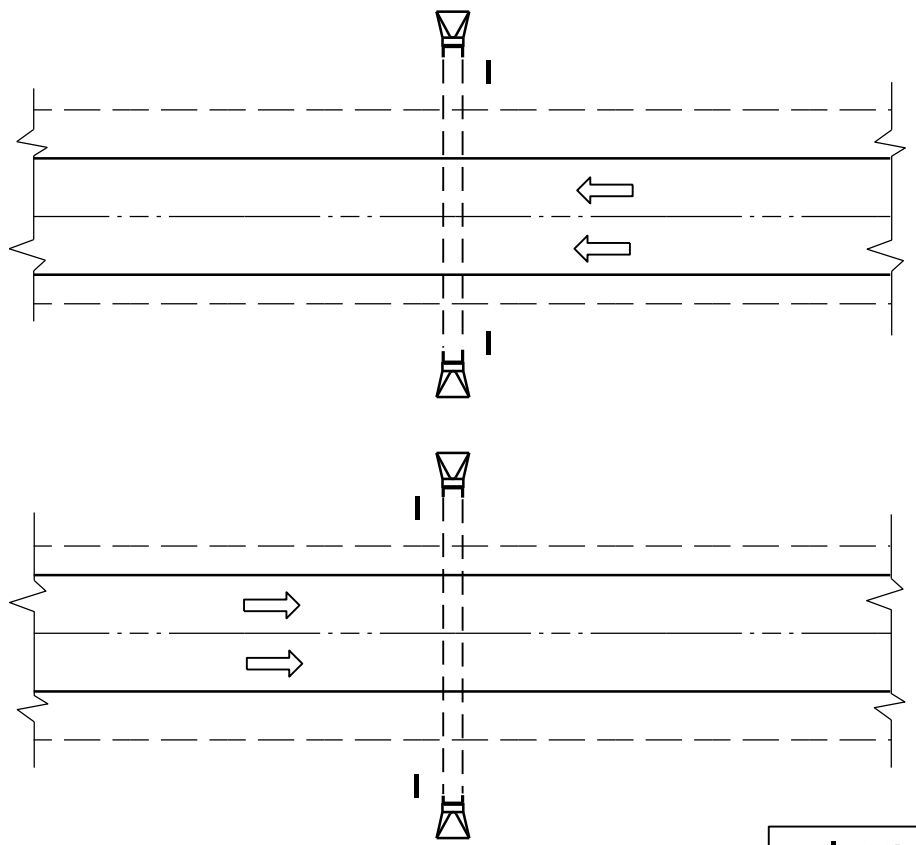
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S.D.D. 14 B 29-1

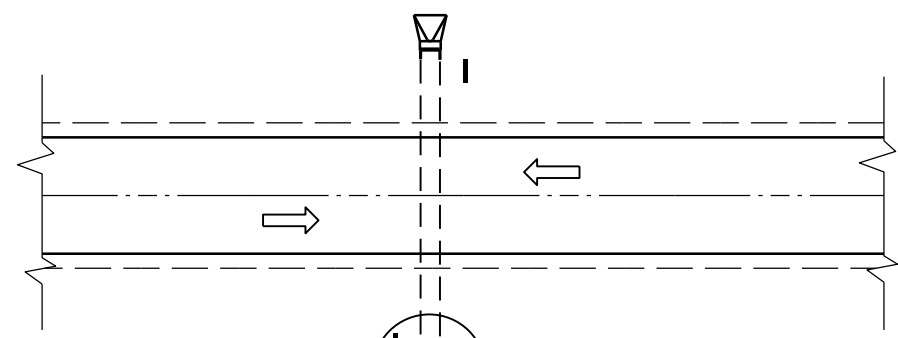
S.D.D. 14 B 29-1

SAFETY EDGE <sub>SM</sub>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 11/30/2012	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

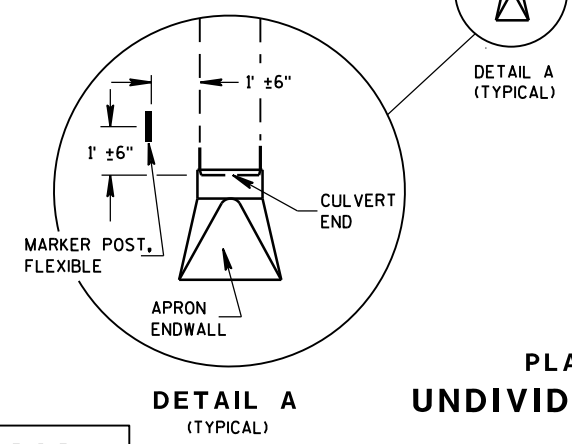




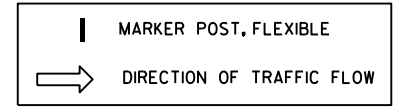
PLAN VIEW  
DIVIDED HIGHWAY



PLAN VIEW  
UNDIVIDED HIGHWAY



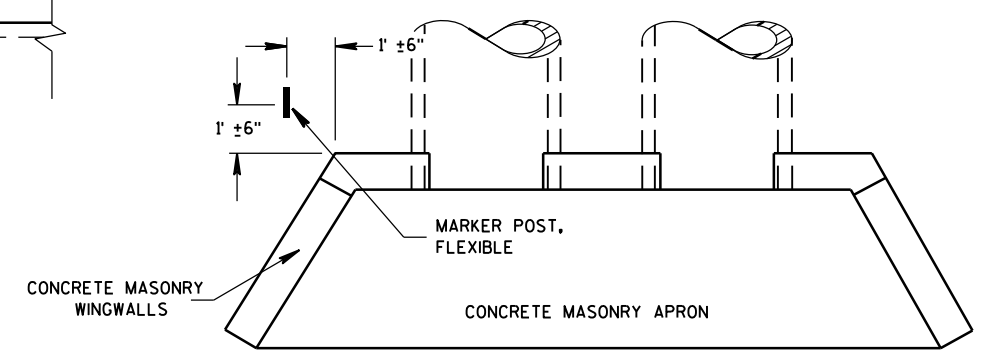
DETAIL A  
(TYPICAL)



FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

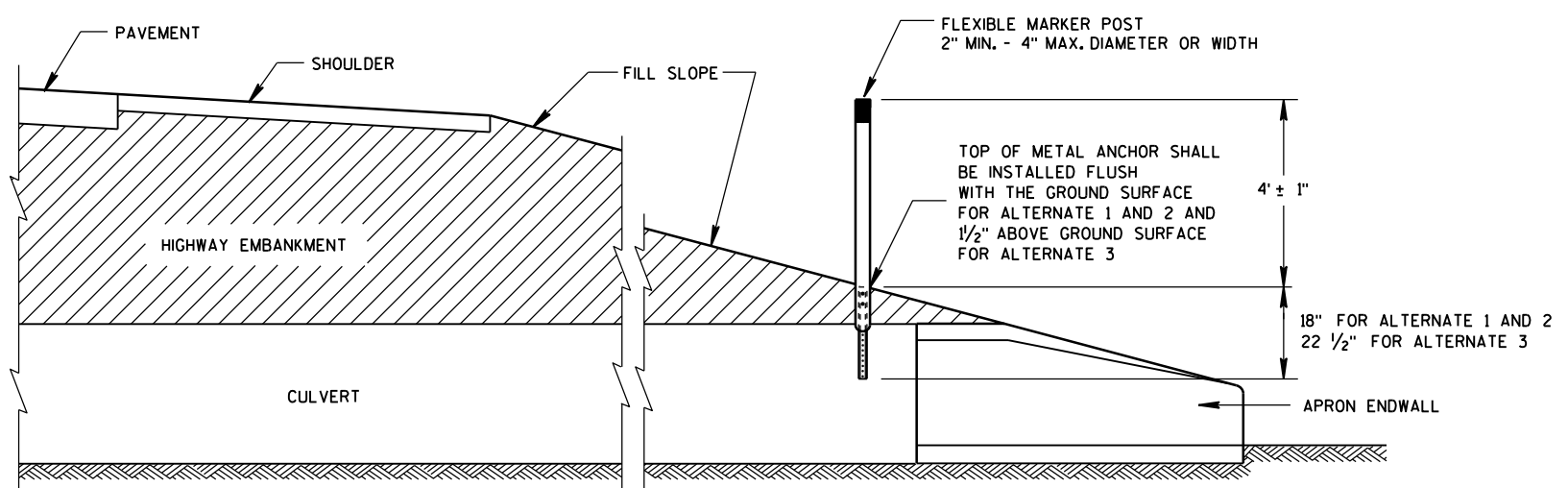
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW  
CONCRETE MASONRY ENDWALLS FOR  
CULVERT PIPE AND PIPE ARCH

6

6



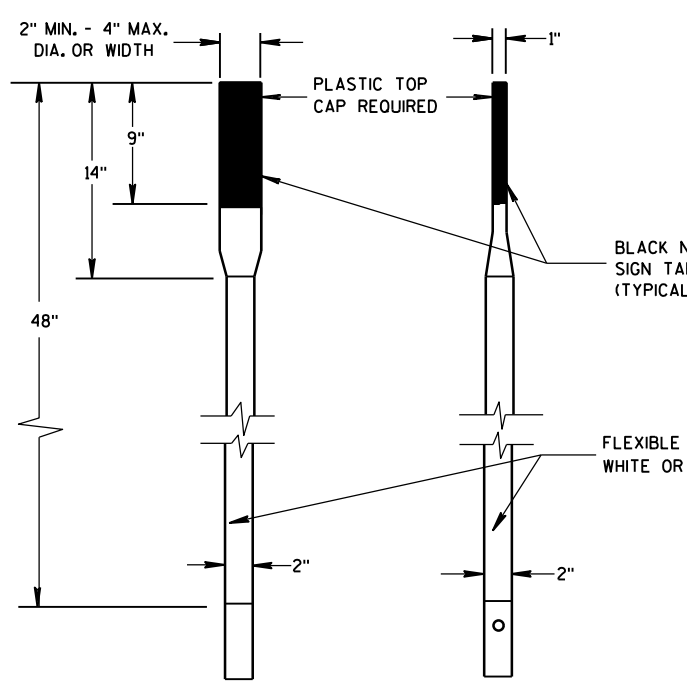
CROSS SECTION  
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST  
FOR CULVERT END

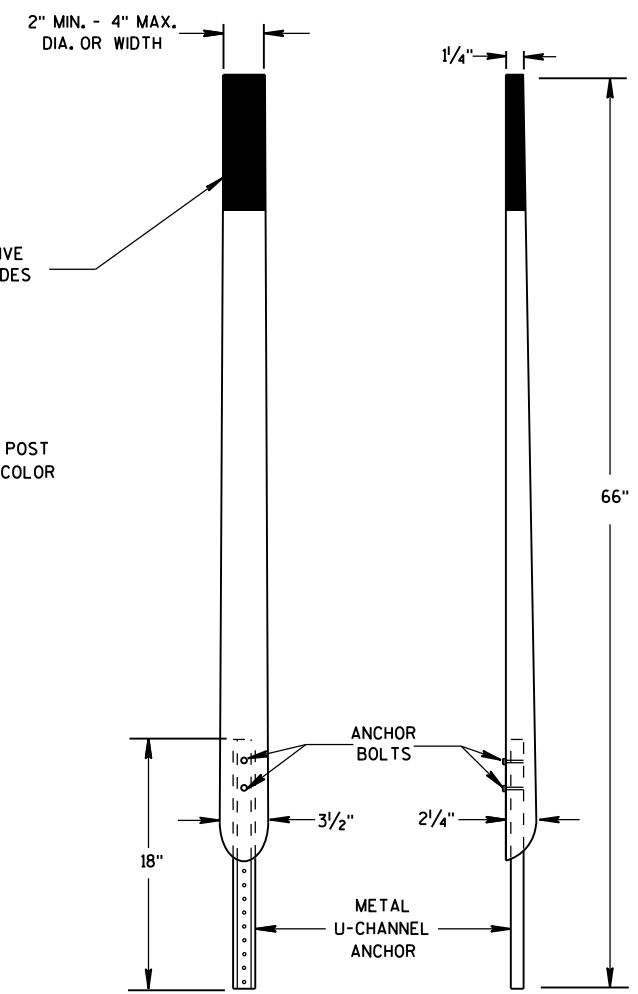
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

S.D.D. 15 A 3-2a

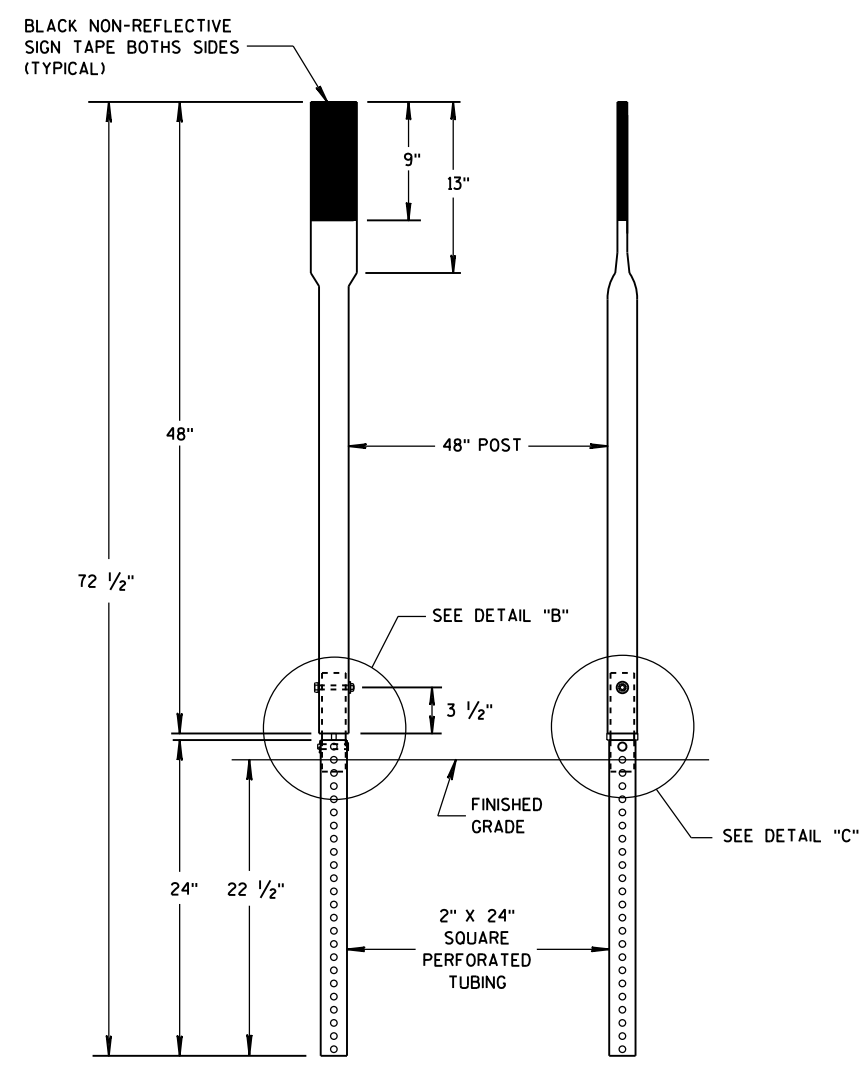
S.D.D. 15 A 3-2a



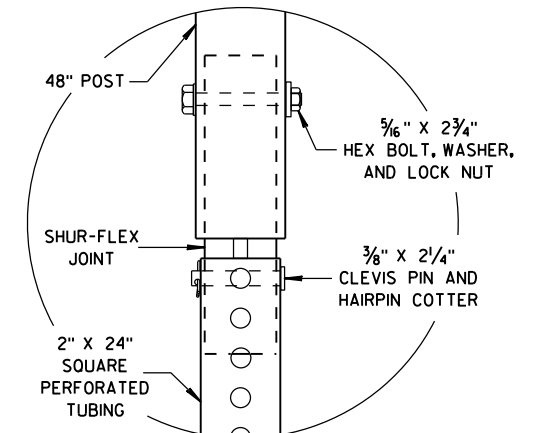
FRONT VIEW SIDE VIEW  
ALTERNATE 1



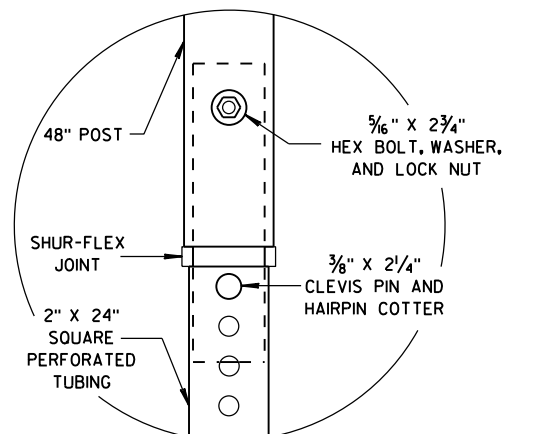
FRONT VIEW SIDE VIEW  
ALTERNATE 2



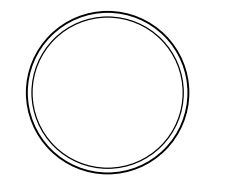
FRONT VIEW SIDE VIEW  
ALTERNATE 3



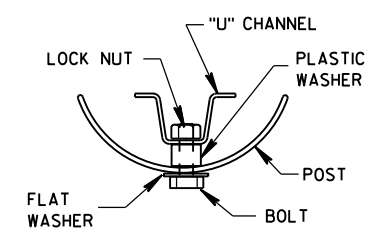
DETAIL B



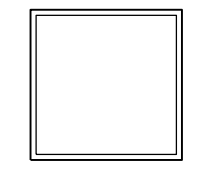
DETAIL C



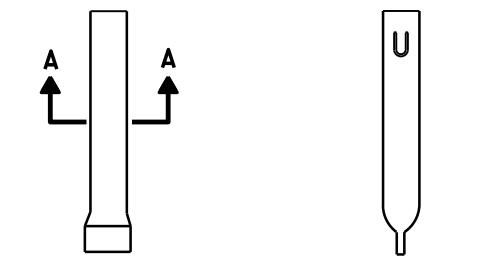
SECTION A-A



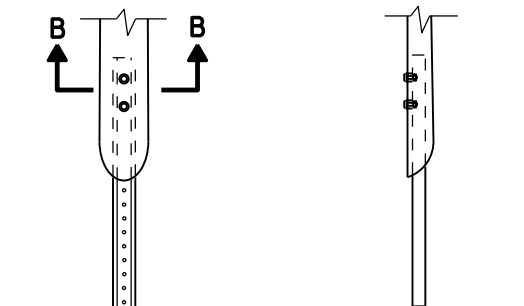
SECTION B-B



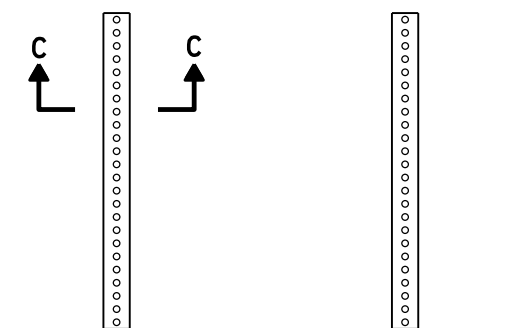
SECTION C-C



FRONT VIEW SIDE VIEW  
ALTERNATE 1



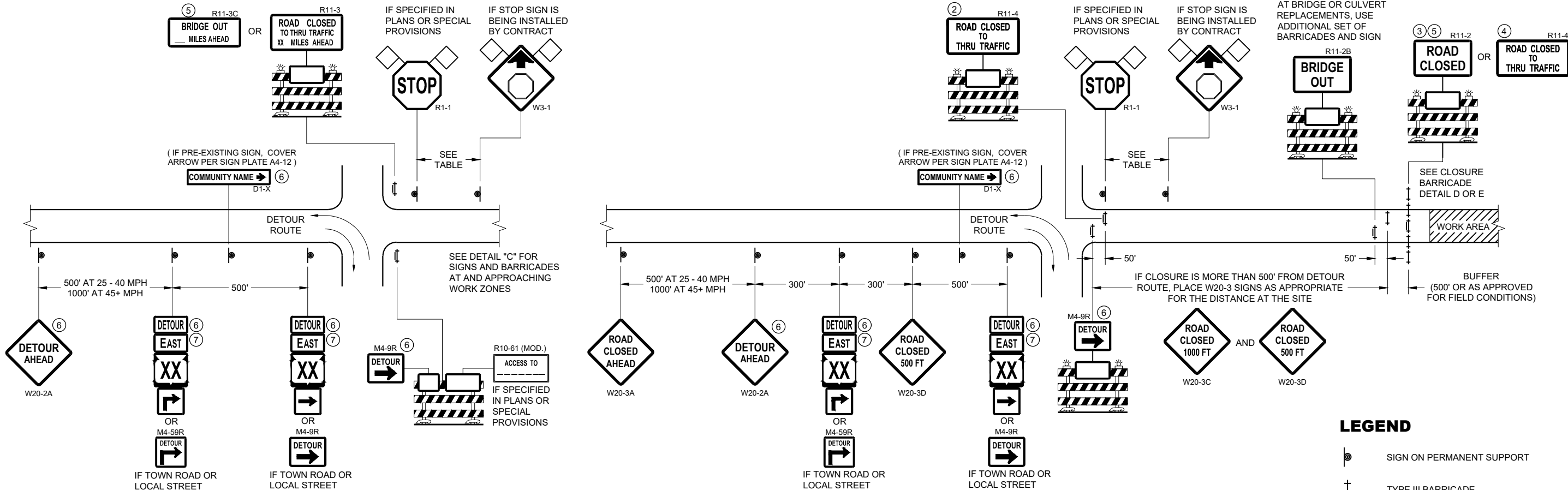
FRONT VIEW SIDE VIEW  
ALTERNATE 2



FRONT VIEW SIDE VIEW  
ALTERNATE 3

**FLEXIBLE MARKER POST ANCHORS**

<b>FLEXIBLE MARKER POST FOR CULVERT END</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/1/2012 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



**DETAIL A  
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )

**DETAIL B  
MAINLINE CLOSURE WITH POSTED DETOUR**

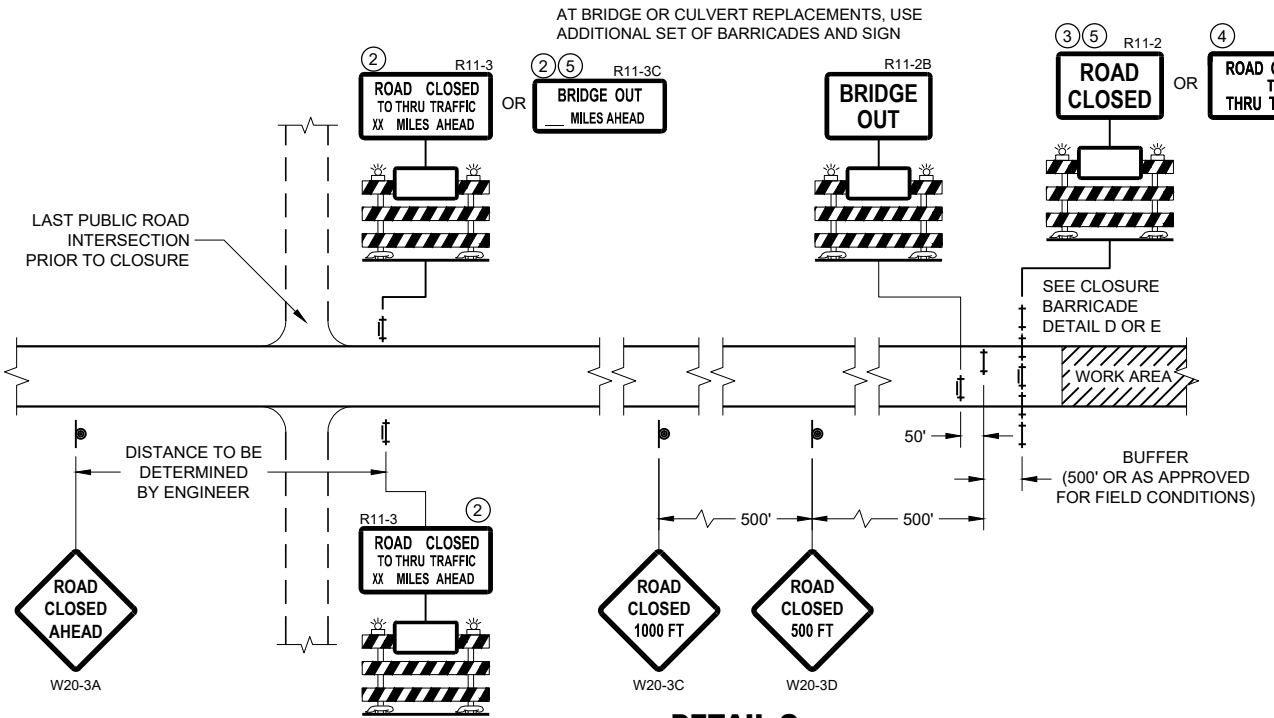
WORK ZONE LESS THAN 1/2 MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )

**LEGEND**

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- M4 - 8
- M3 - X
- M1 - 4 OR M1 - 6 OR M1 - 5A
- M05 - 1 OR M06 - 1

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"  
FOR GENERAL NOTES  
AND FOOTNOTES ① THROUGH ⑦

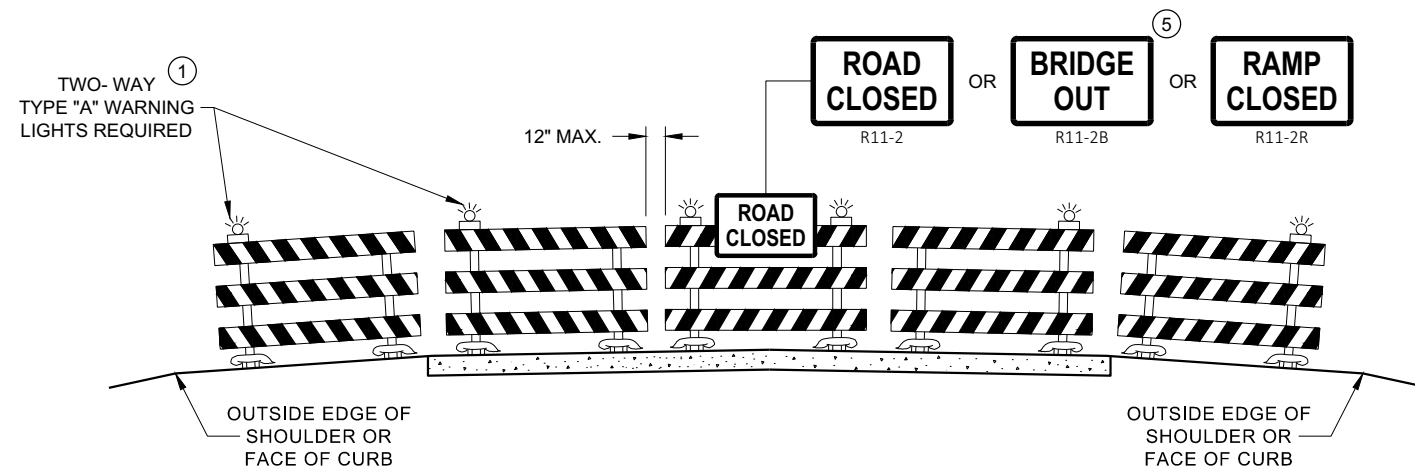


**DETAIL C  
MAINLINE CLOSURE, NO POSTED DETOUR**

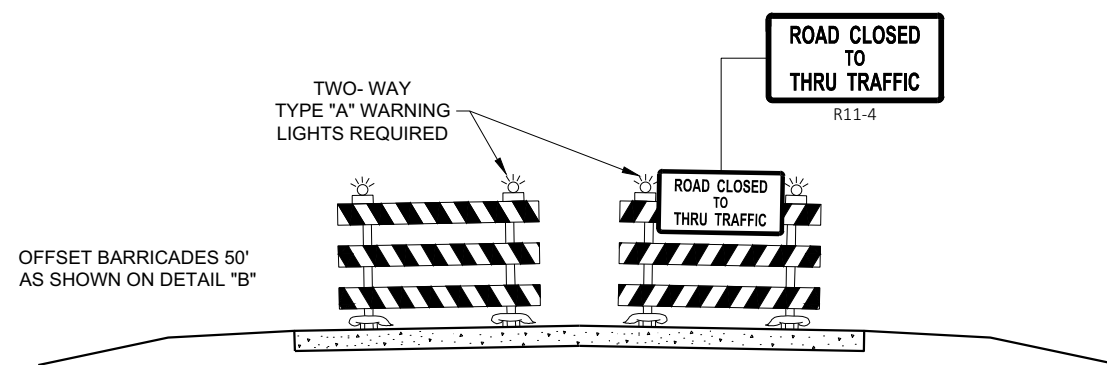
**BARRICADES AND SIGNS  
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER



**DETAIL D  
ROAD CLOSURE BARRICADE DETAIL  
APPROACH VIEW**



**DETAIL E  
LANE CLOSURE BARRICADE DETAIL  
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

**GENERAL NOTES**

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

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

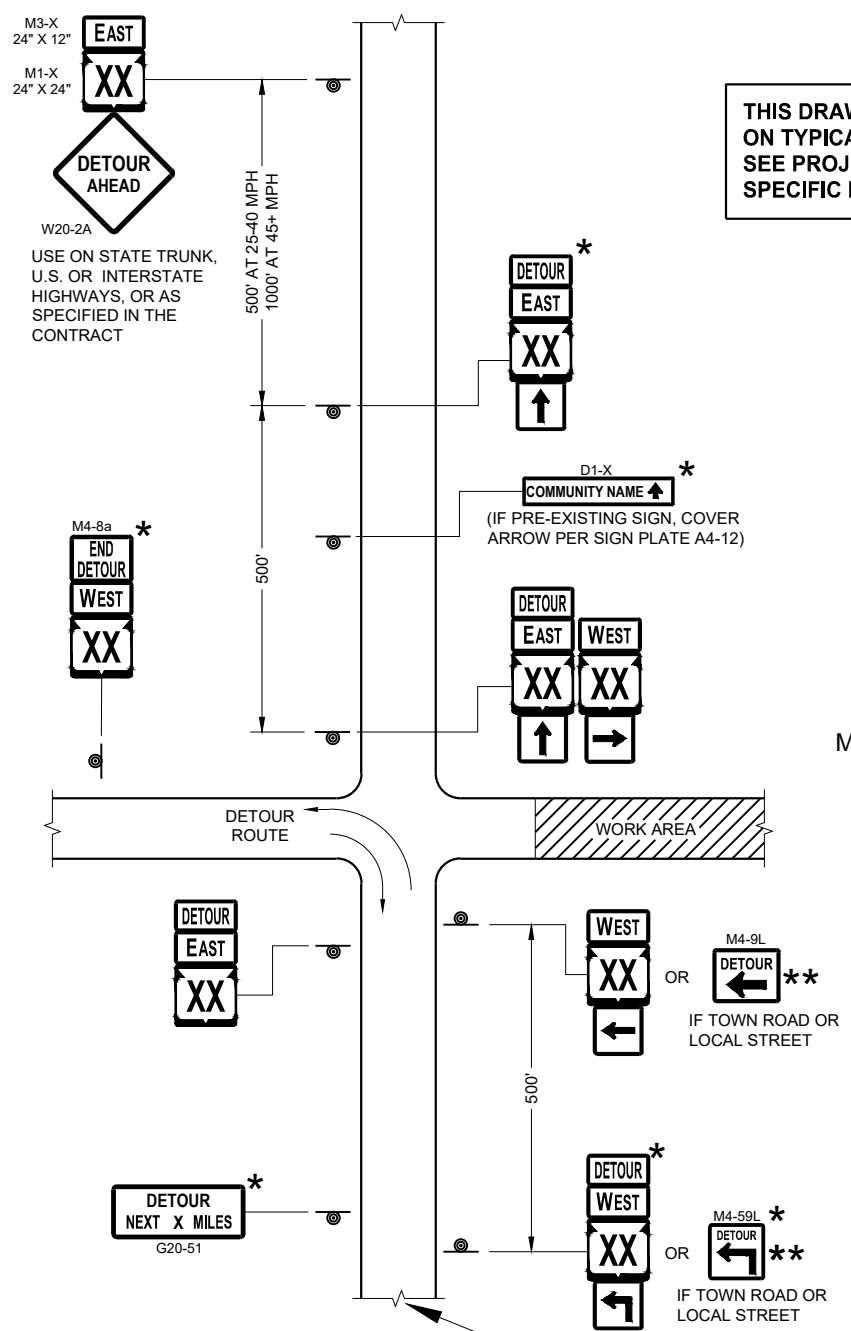
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

**BARRICADES AND SIGNS  
FOR  
VARIOUS CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER



**THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.**

**LEGEND**

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

**GENERAL NOTES**

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

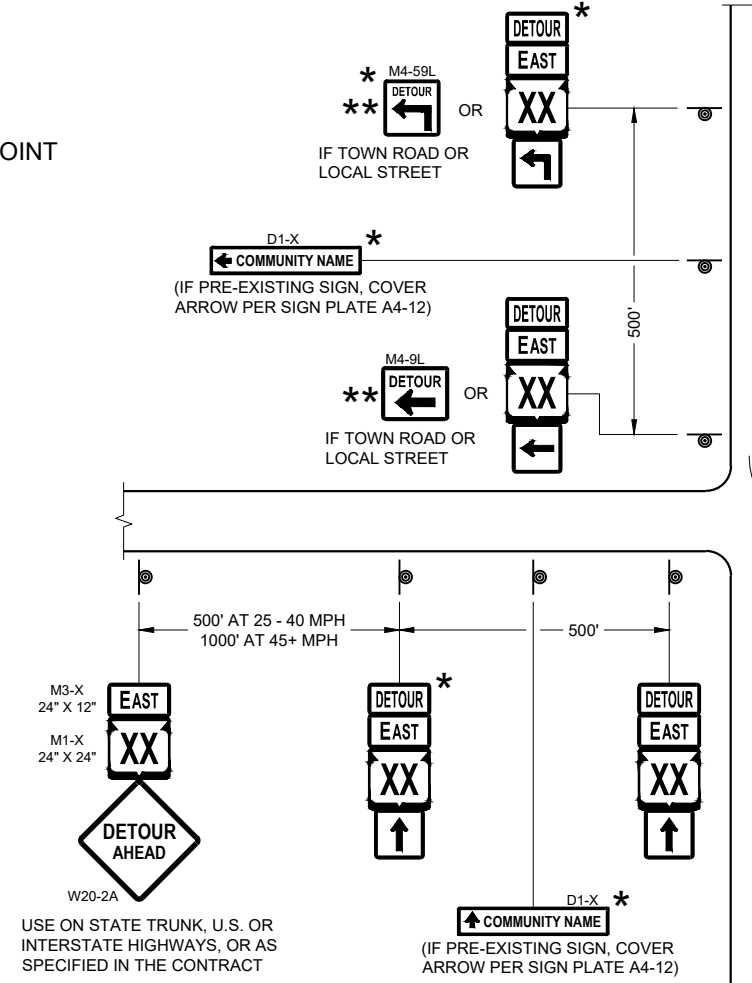
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

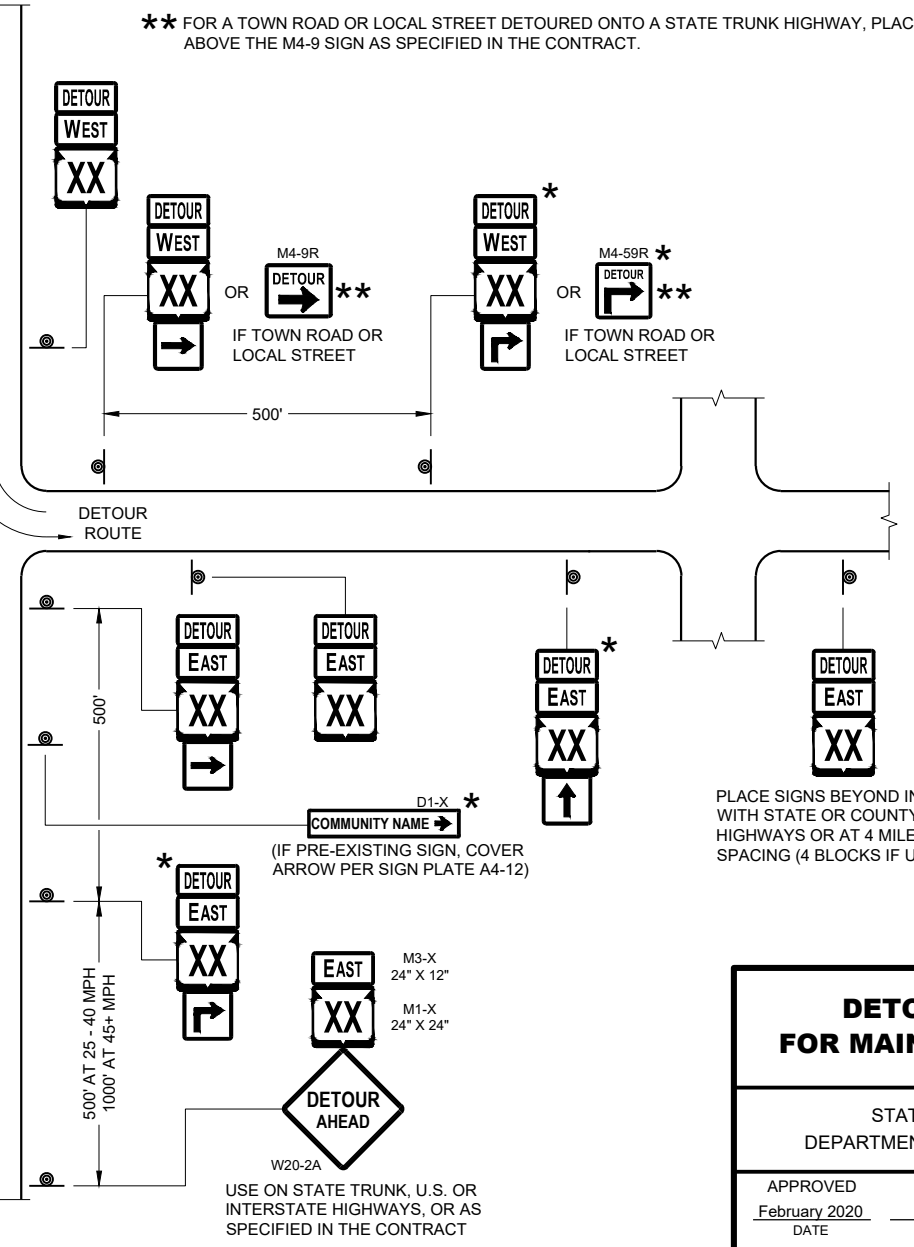
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

- \* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- \*\* FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

MATCH POINT



**DETAIL F  
DETOUR SIGNING**



**DETOUR SIGNING  
FOR MAINLINE CLOSURES**

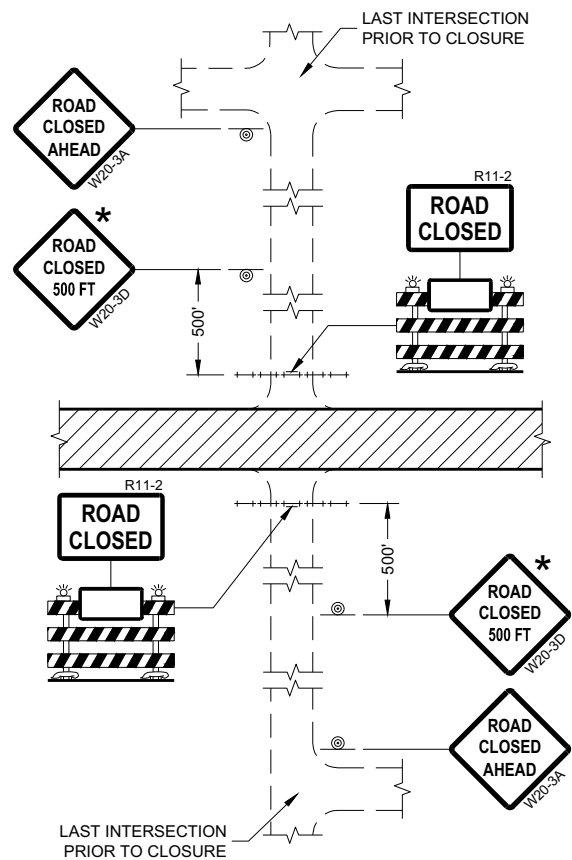
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

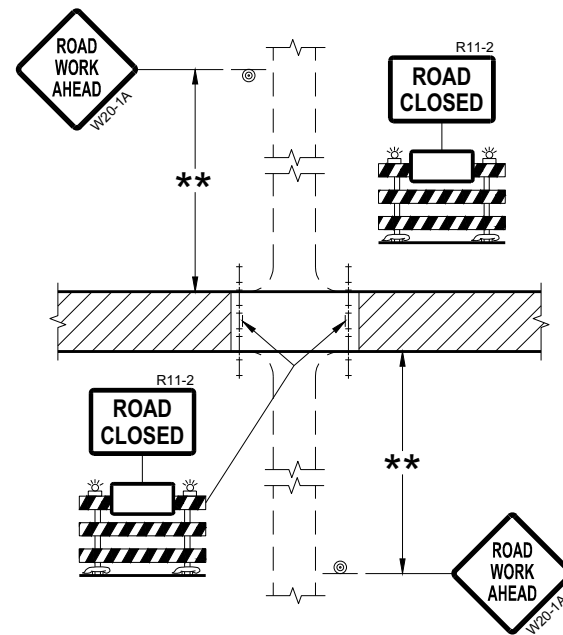
FHWA

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

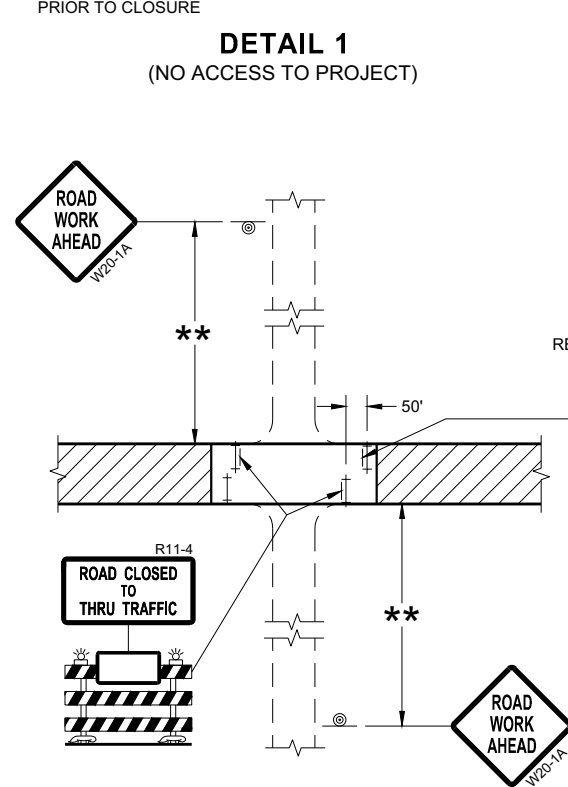
PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA)



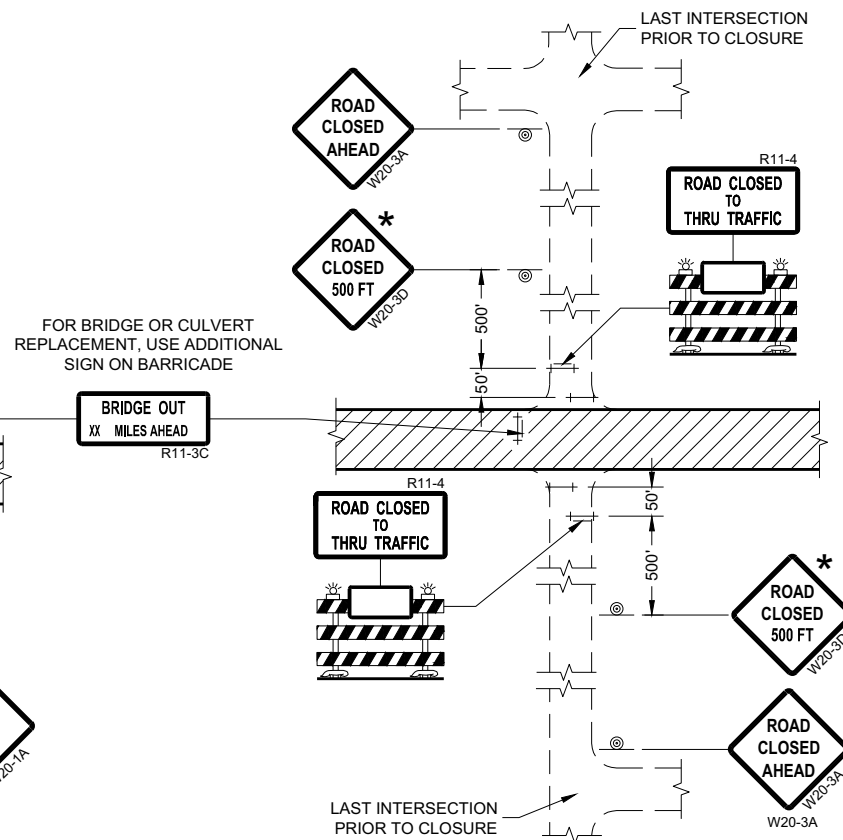
**DETAIL 1**  
(NO ACCESS TO PROJECT)



**DETAIL 2**  
(PUBLIC CROSS-TRAFFIC MAINTAINED.  
NO ACCESS TO PROJECT)



**DETAIL 3**  
(PUBLIC CROSS-TRAFFIC MAINTAINED.  
CONTRACTOR, LOCAL BUSINESS AND  
RESIDENT ACCESS TO PROJECT)



**DETAIL 4**  
(CONTRACTOR, LOCAL BUSINESS AND  
RESIDENT ACCESS TO PROJECT)

**GENERAL NOTES**

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

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

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

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.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:  
R11-2 SHALL BE 48" X 30".  
R11-4 AND R11-3 SHALL BE 60" X 30".

\* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

\*\* 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

**LEGEND**

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

**BARRICADES AND SIGNS  
FOR  
SIDEROAD CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

**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.

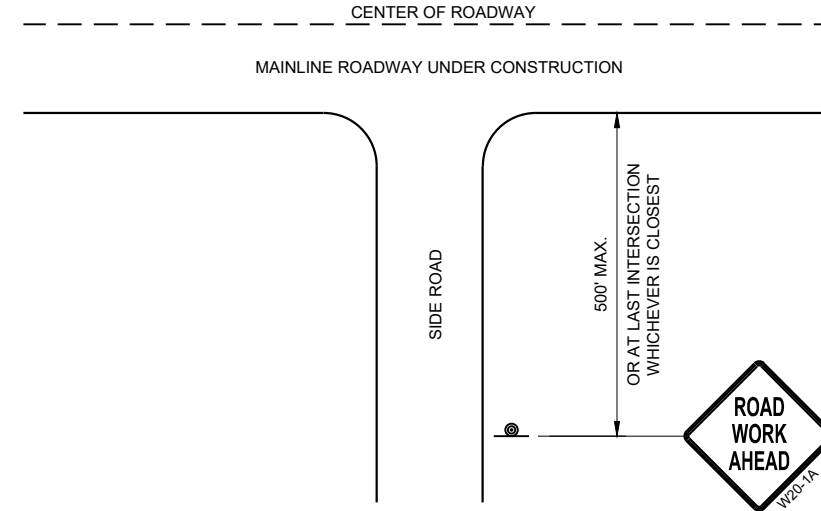
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

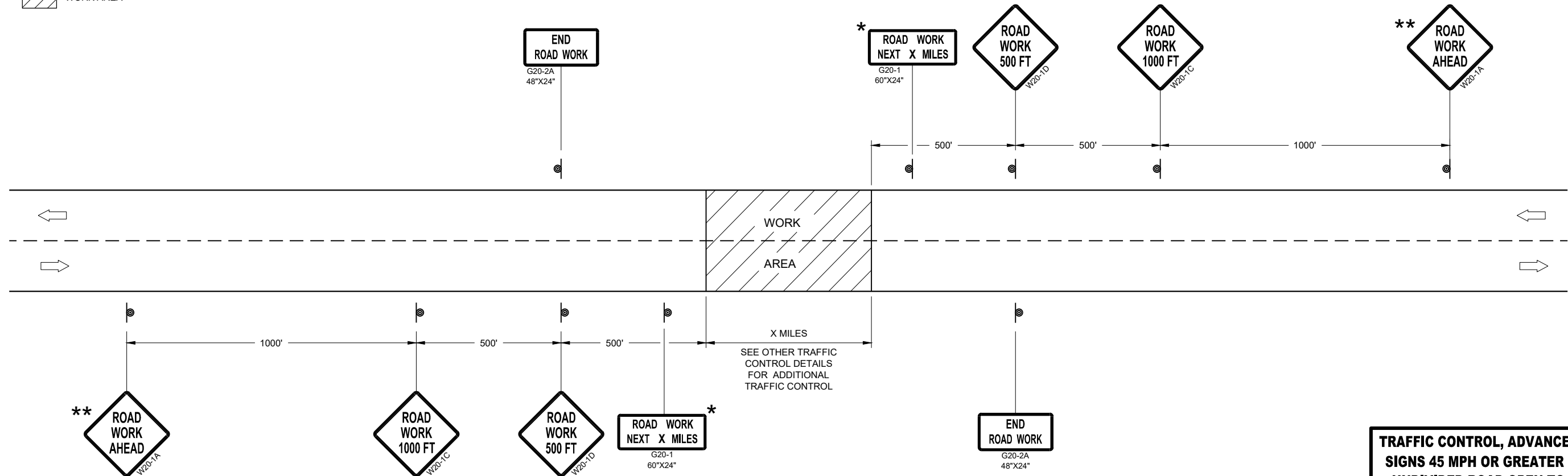
- \* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- \*\* PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

**LEGEND**

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



**TYPICAL SIDE ROAD APPROACH  
WARNING SIGN DETAIL**



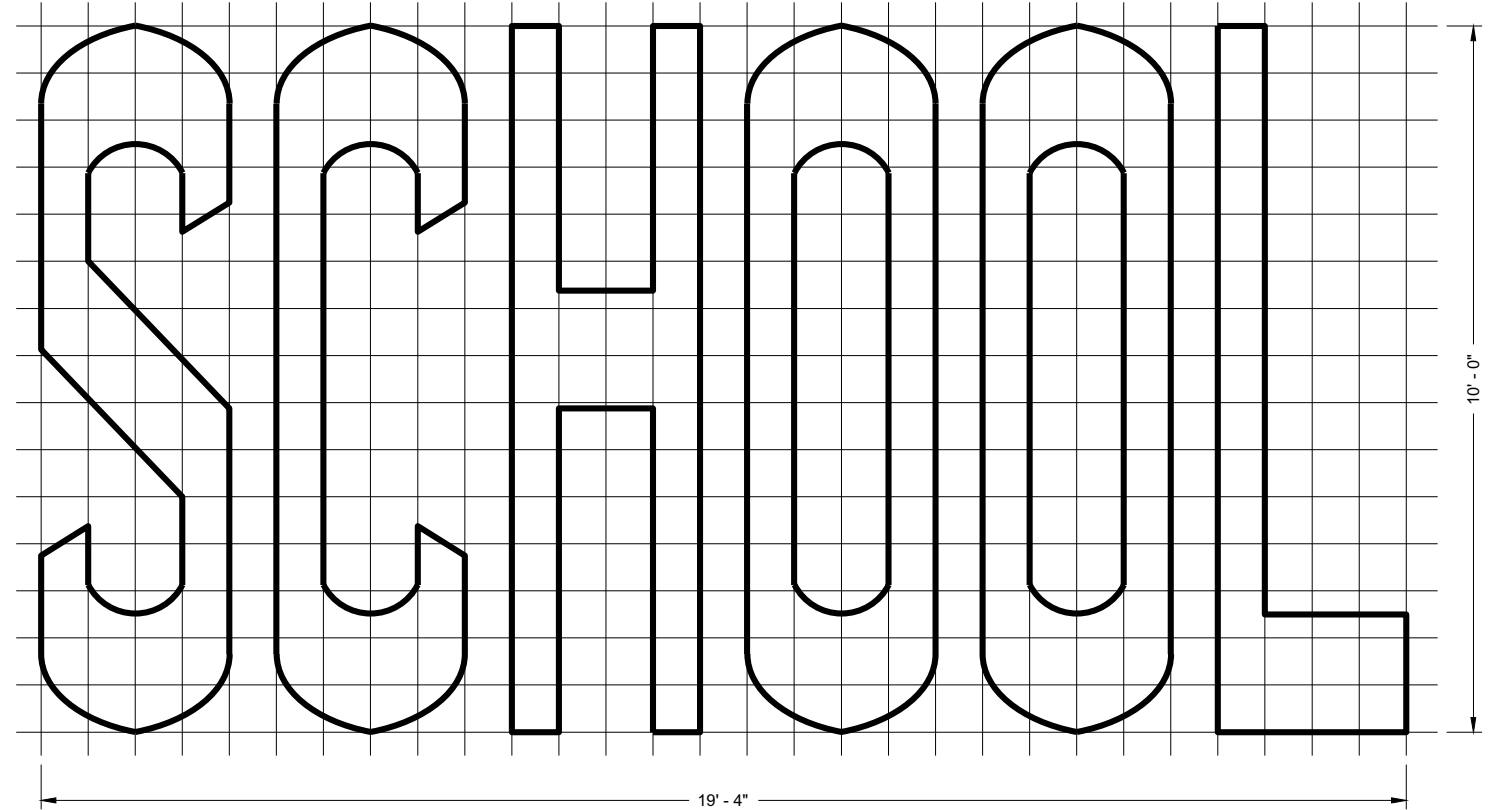
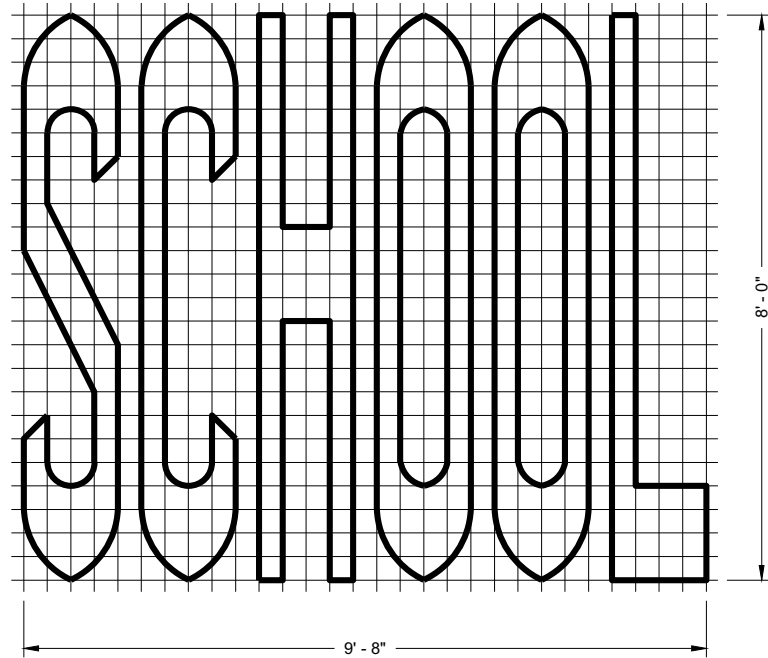
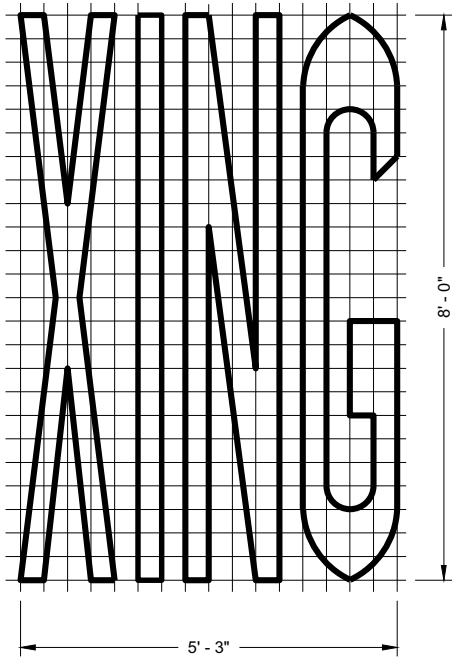
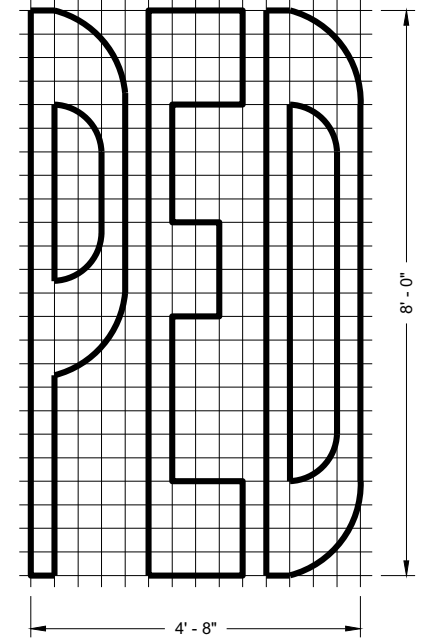
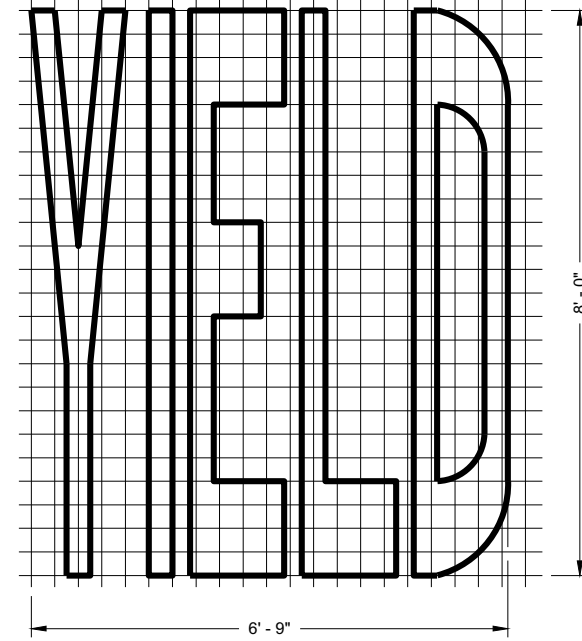
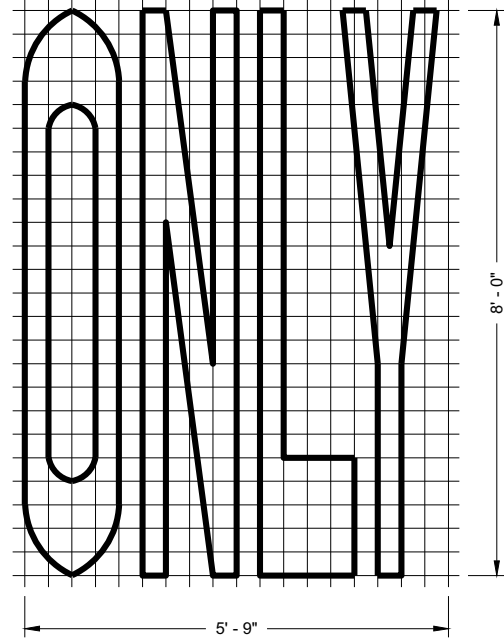
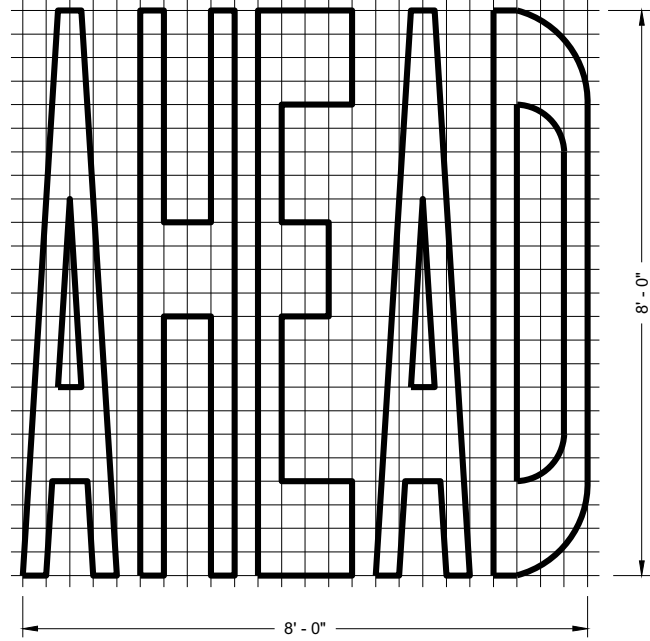
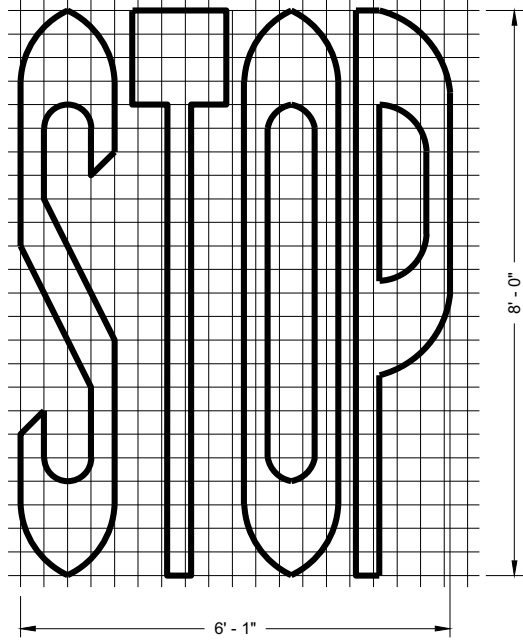
**TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER**

**TRAFFIC CONTROL, ADVANCE WARNING  
SIGNS 45 MPH OR GREATER TWO-WAY  
UNDIVIDED ROAD OPEN TO TRAFFIC**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA



SINGLE LANE

TWO - LANE

**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.

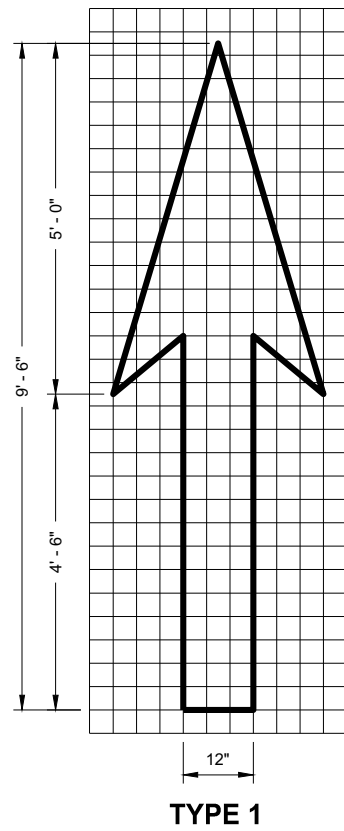
**PAVEMENT MARKING WORDS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

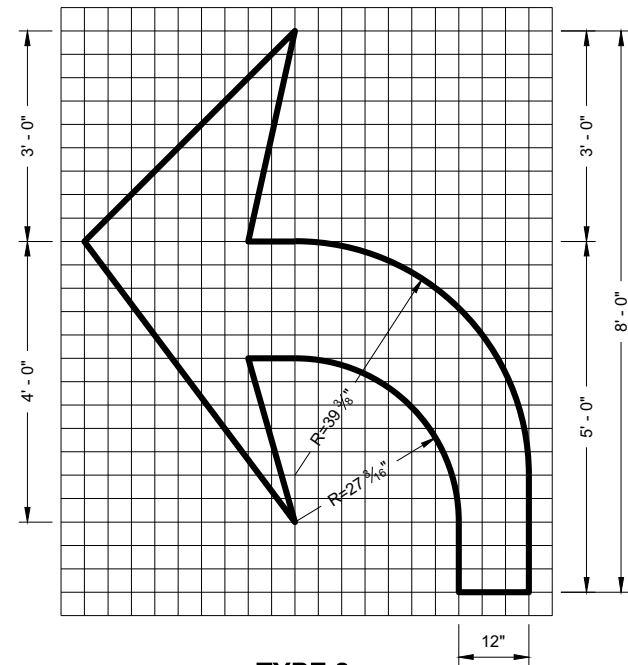
APPROVED  
November 2019 /S/ Matthew Rauch  
DATE STATE SIGNING AND MARKING  
ENGINEER

FHWA

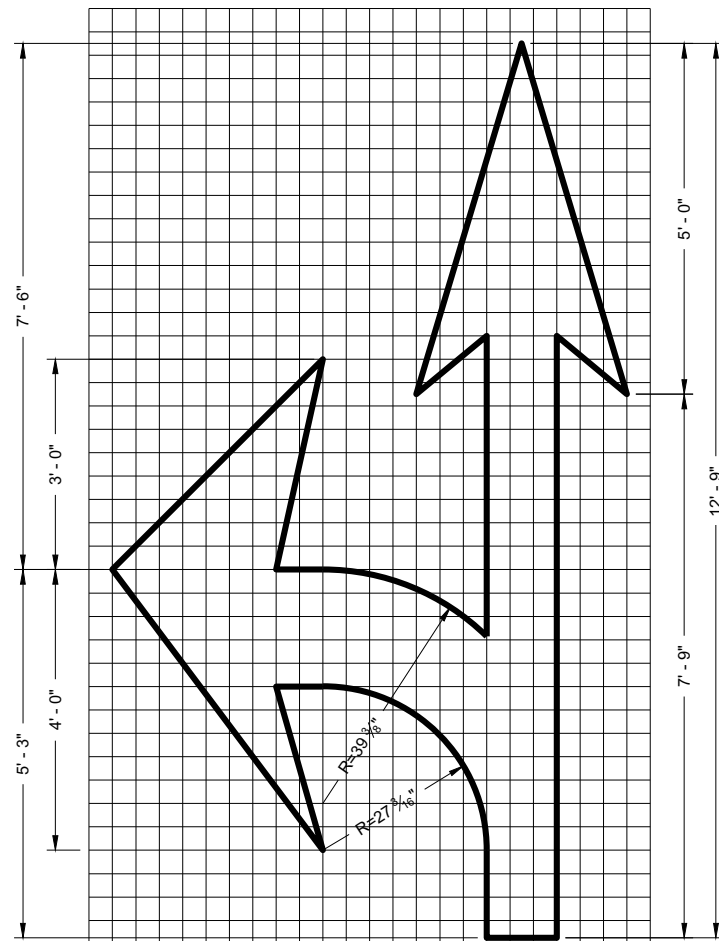




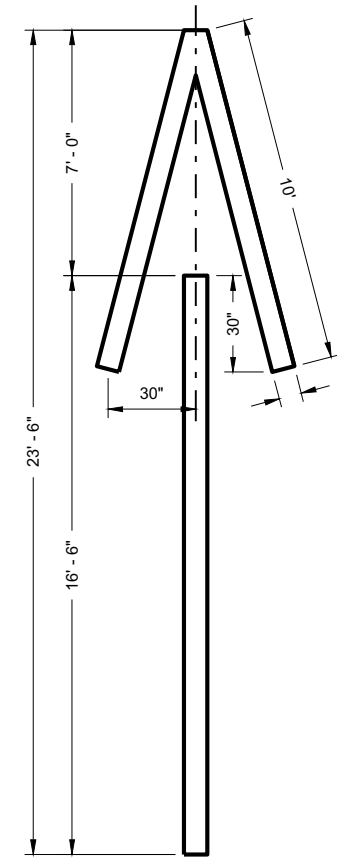
TYPE 1



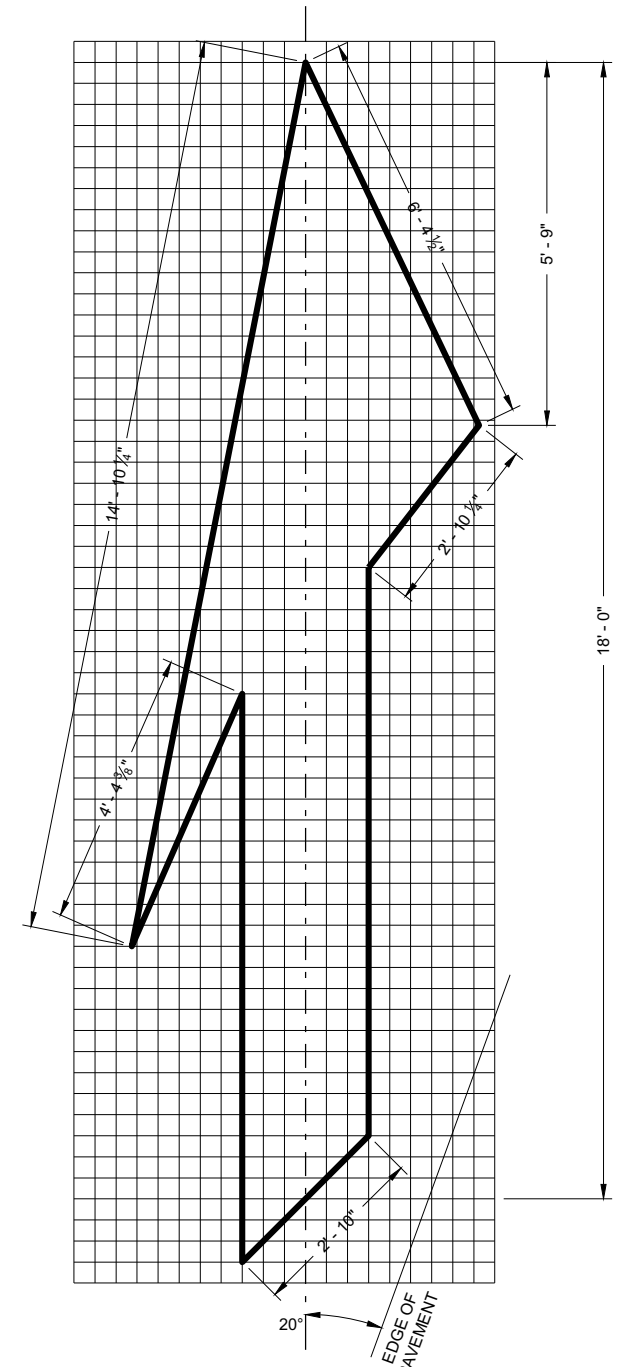
TYPE 2



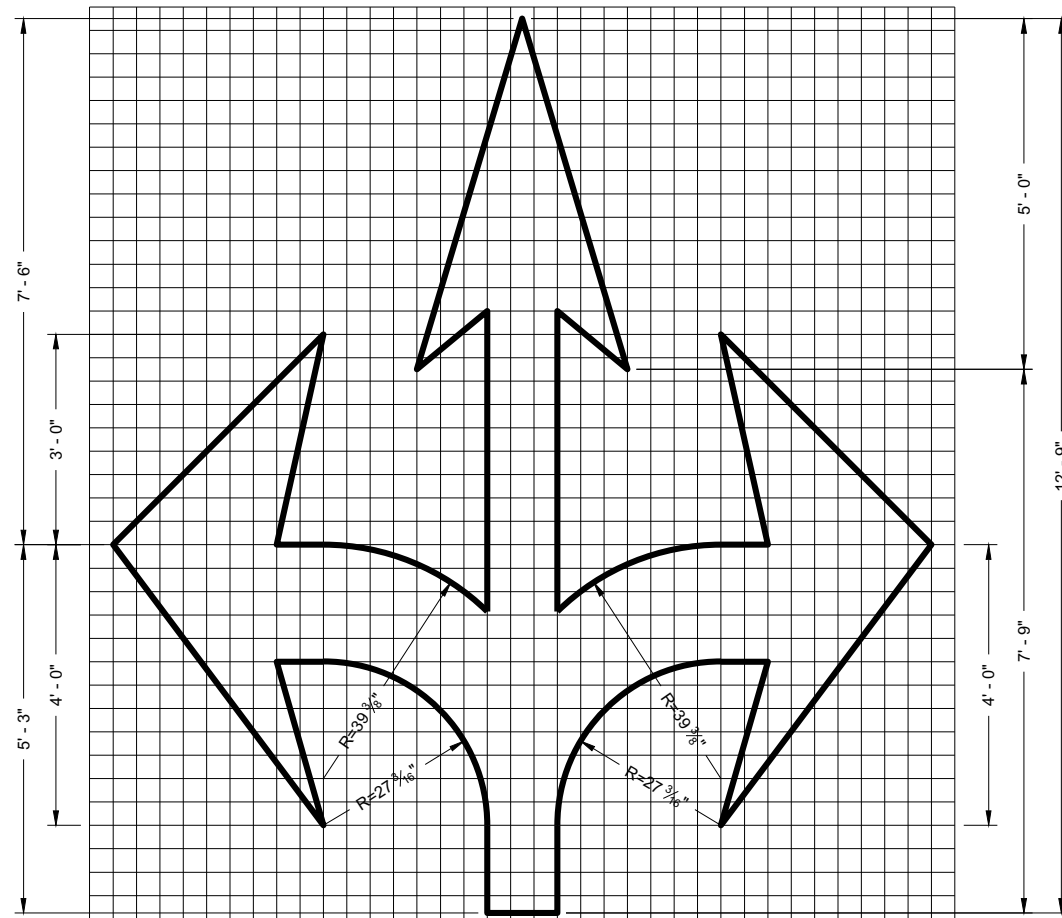
TYPE 3



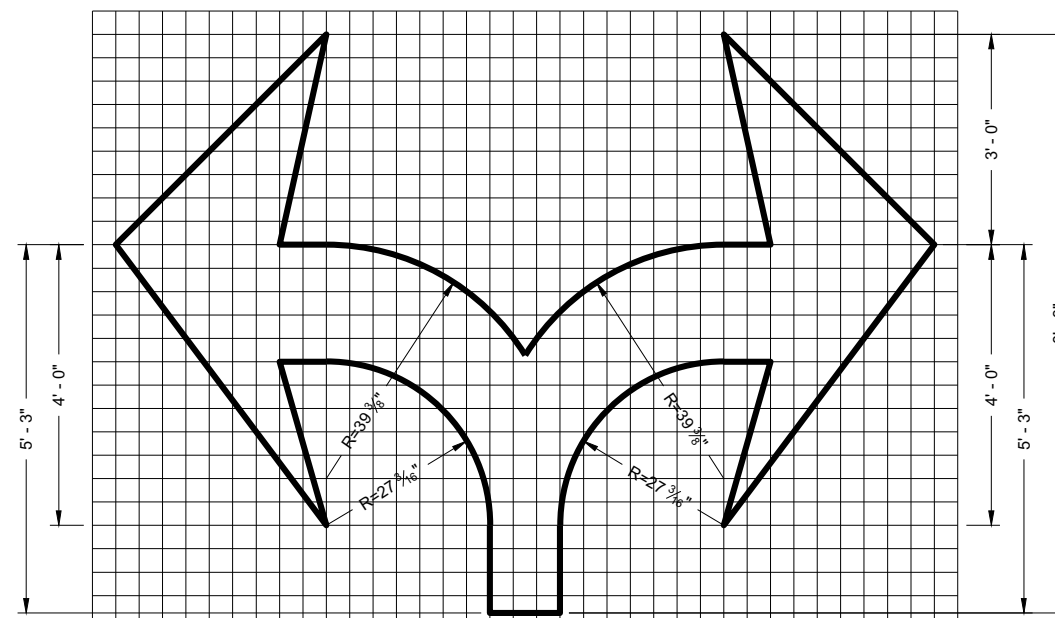
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

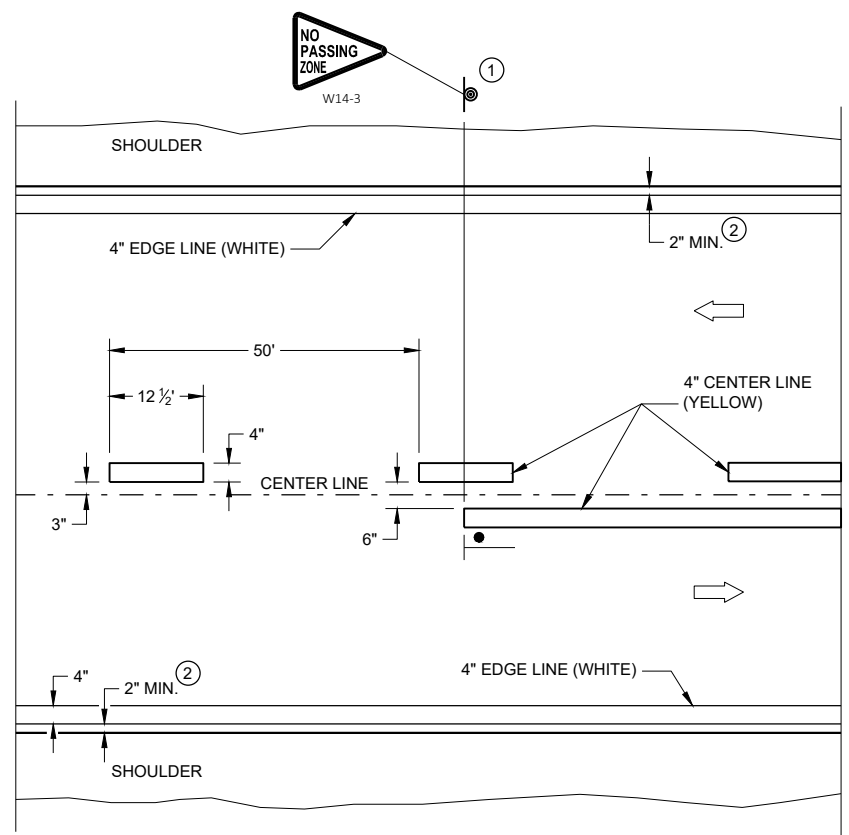
GENERAL NOTES

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.

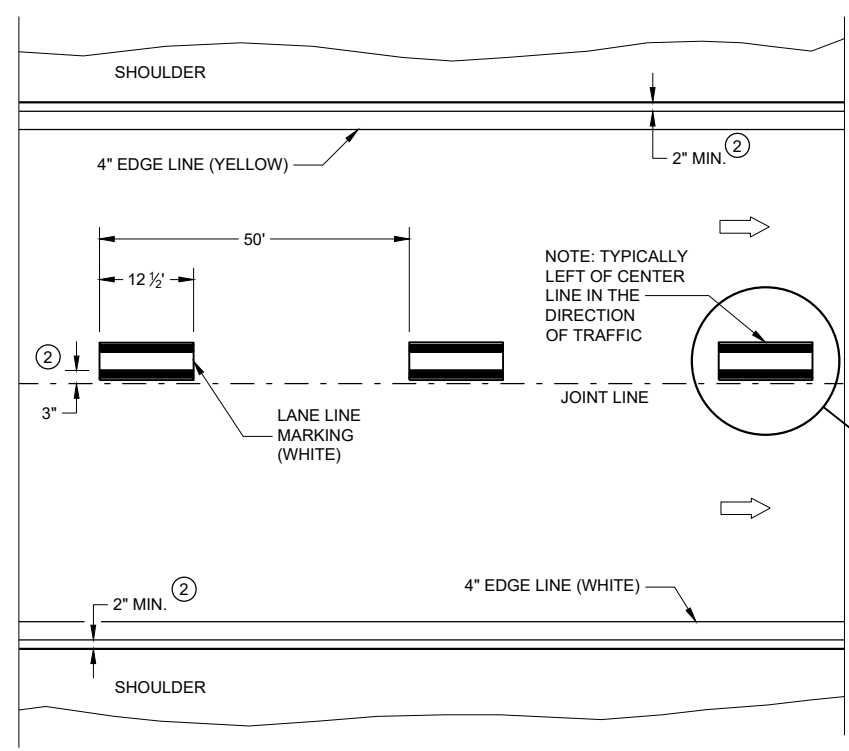
PAVEMENT MARKING ARROWS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2019  
DATE /S/ Matthew Rauch  
STATE SIGNING AND MARKING  
ENGINEER  
FHWA

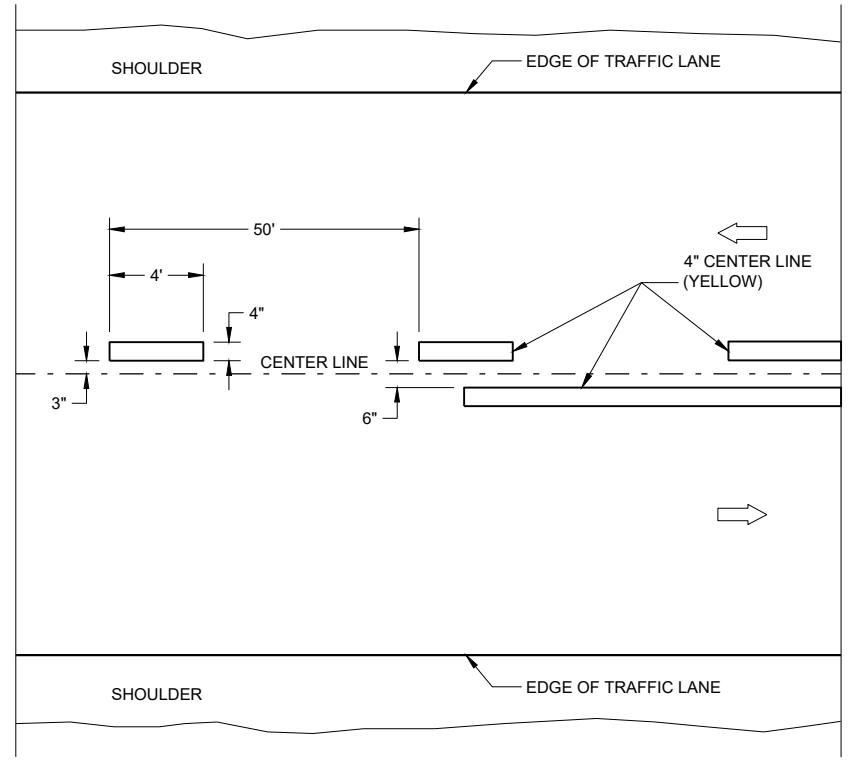


TWO WAY TRAFFIC

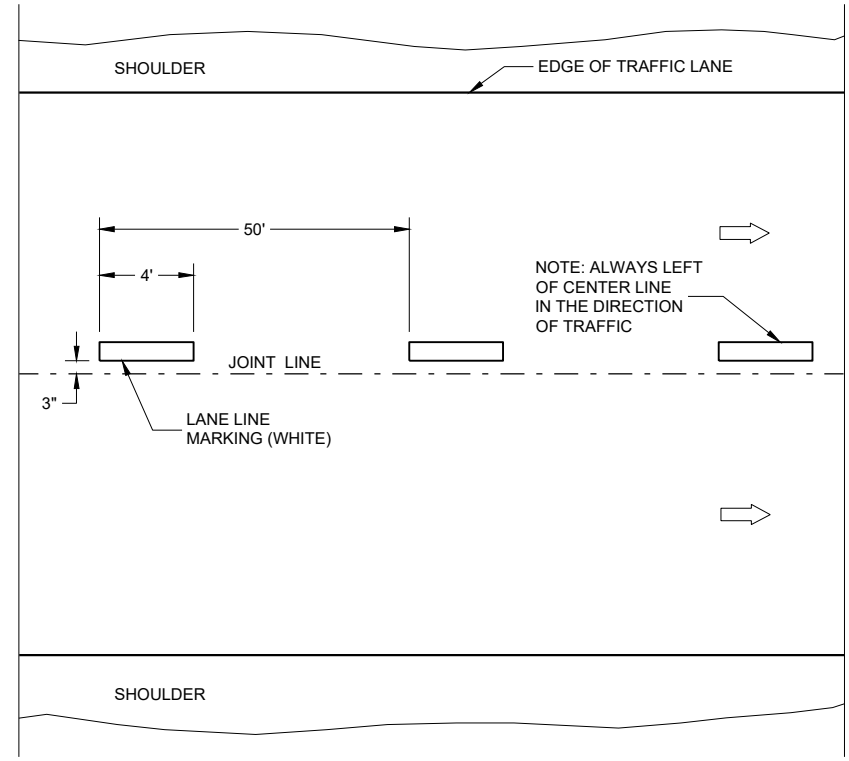


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

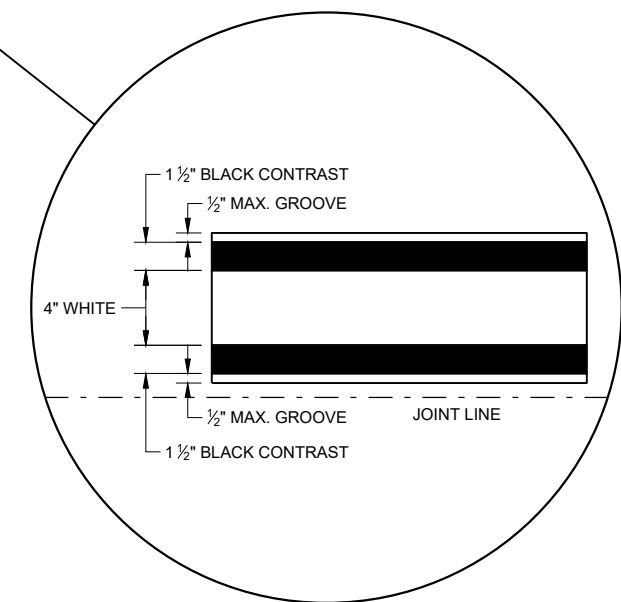
GENERAL NOTES

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

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

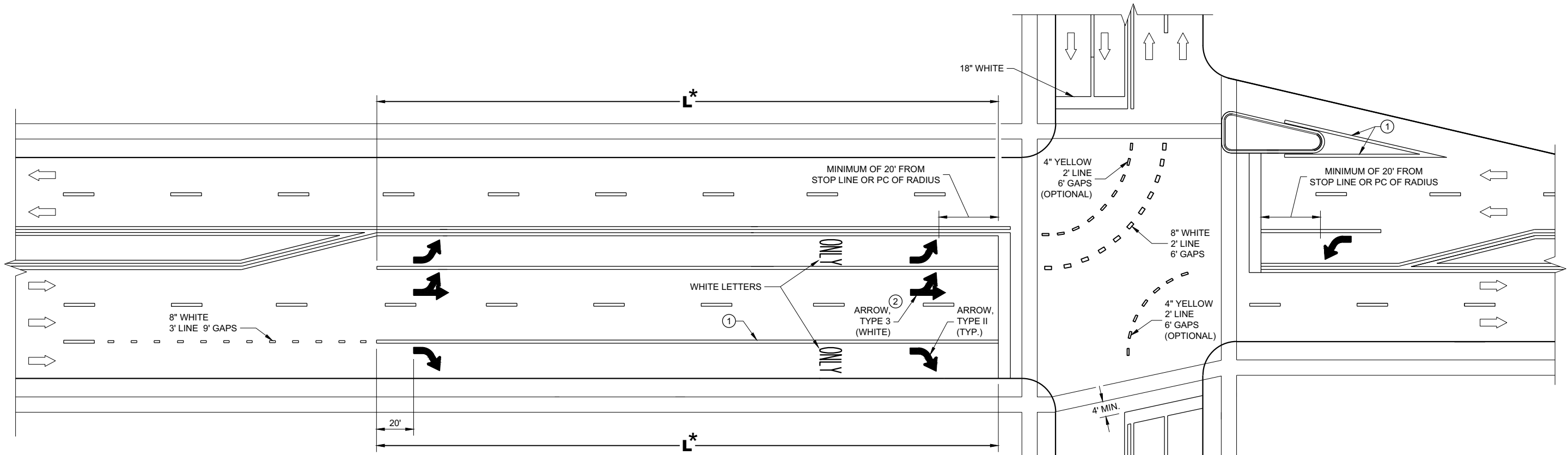
- |• "T" MARKING
- |⊙ SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

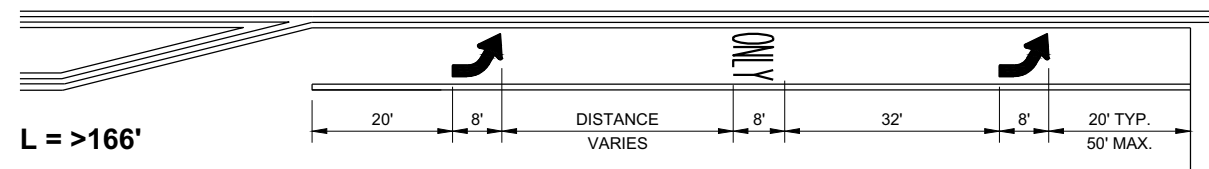
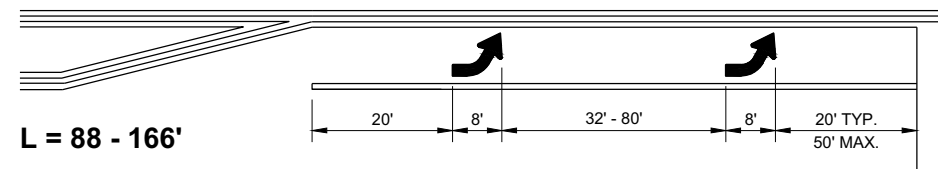
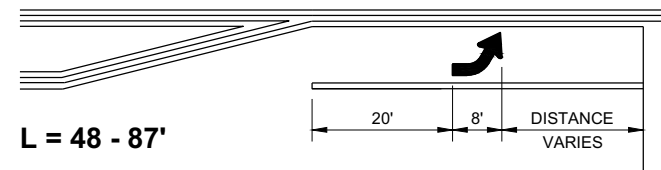
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED  
 February 2020 /S/ Matthew Rauch  
 DATE STATEWIDE SIGNING AND MARKING ENGINEER  
 FHWA



**TURN LANE OPTIONS**

LENGTH OF TURN BAY ( **L** ) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



\*(SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

**GENERAL NOTES**

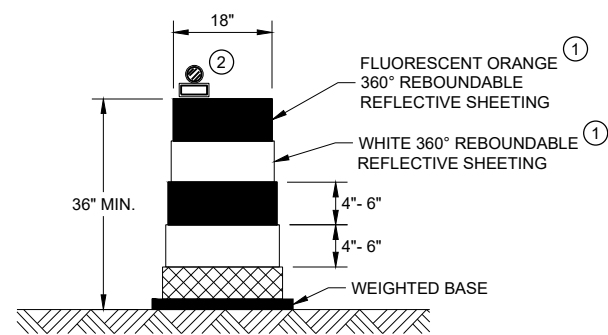
- ① 8" WHITE
- ② QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

➡ DIRECTION OF TRAFFIC

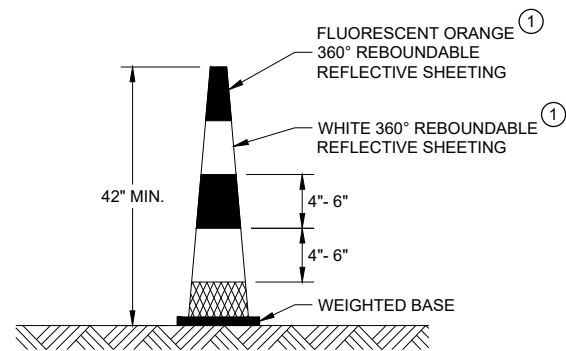
**L** = LENGTH OF TURN BAY

**PAVEMENT MARKING (TURN LANES)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

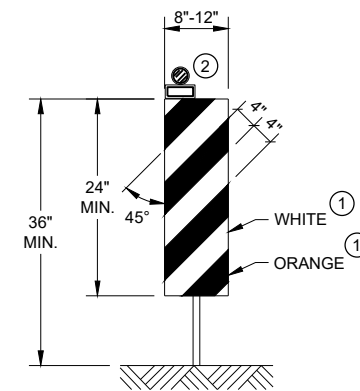


**DRUM**



**42" CONE**

DO NOT USE IN TAPERS  
1/2 SPACING OF DRUMS

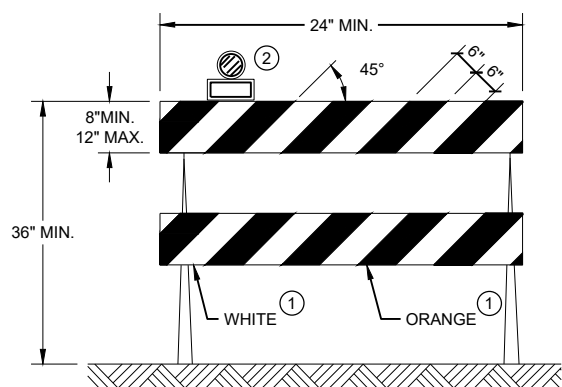


**VERTICAL PANEL**

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

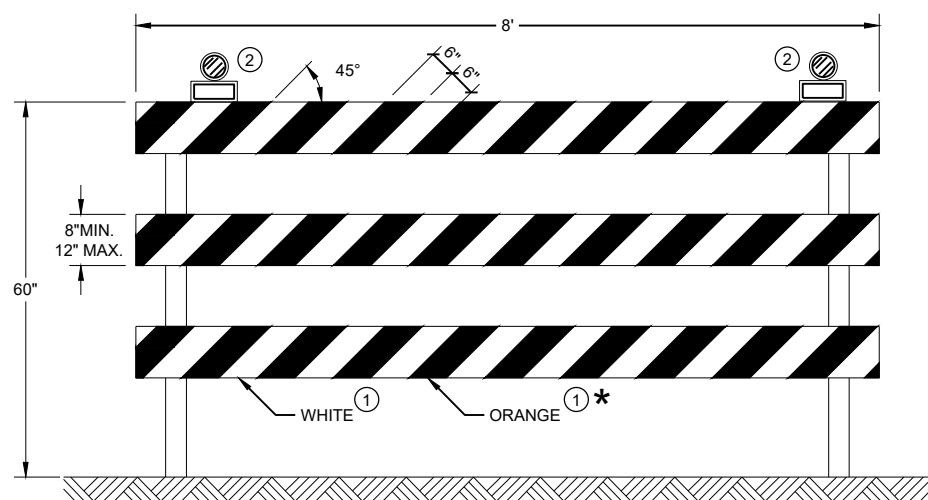
**GENERAL NOTES**

- 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.

<b>CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Andrew Heidtke 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.

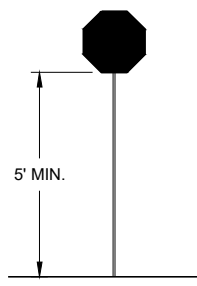
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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**

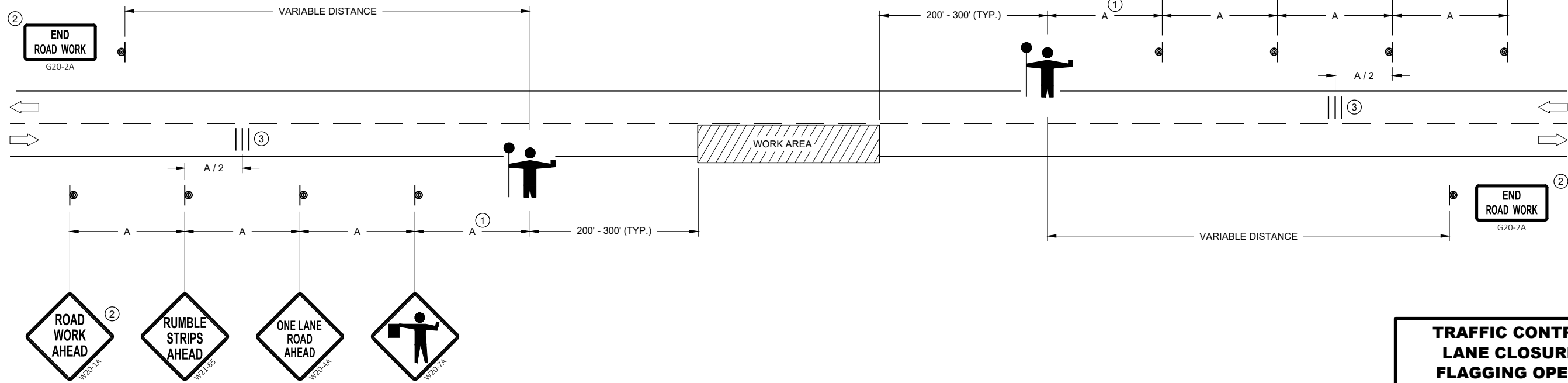
**SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE**

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".



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SDD 15C12 - 08

SDD 15C12 - 08

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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2021 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

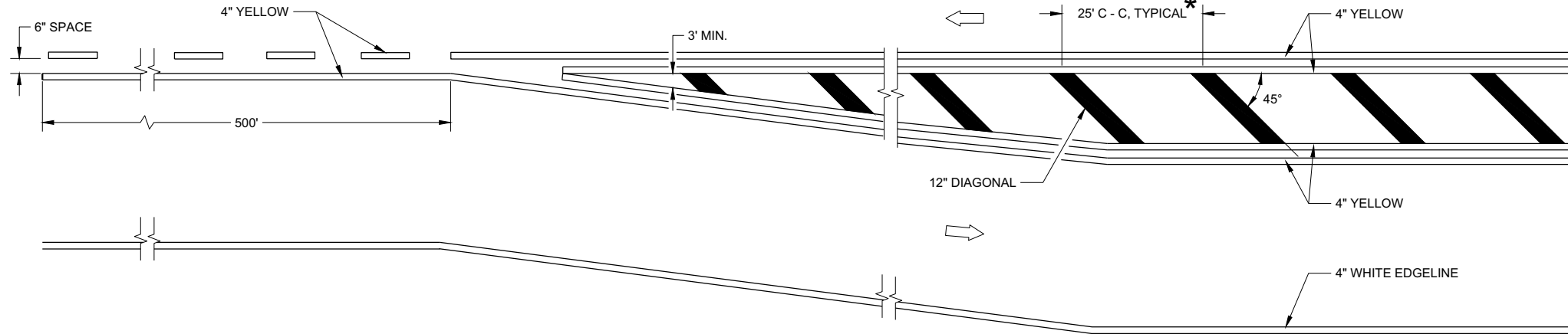
FHWA

**GENERAL NOTES**

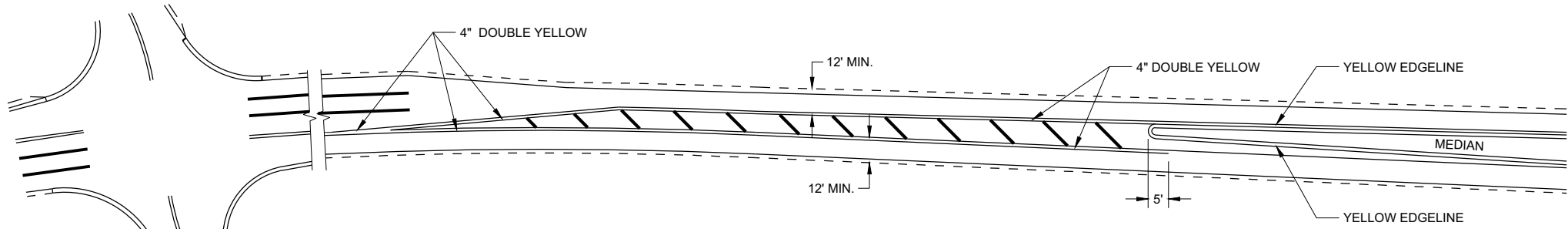
DIAGONALS ARE OPTIONAL WHEN PAINED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

➡ DIRECTION OF TRAVEL

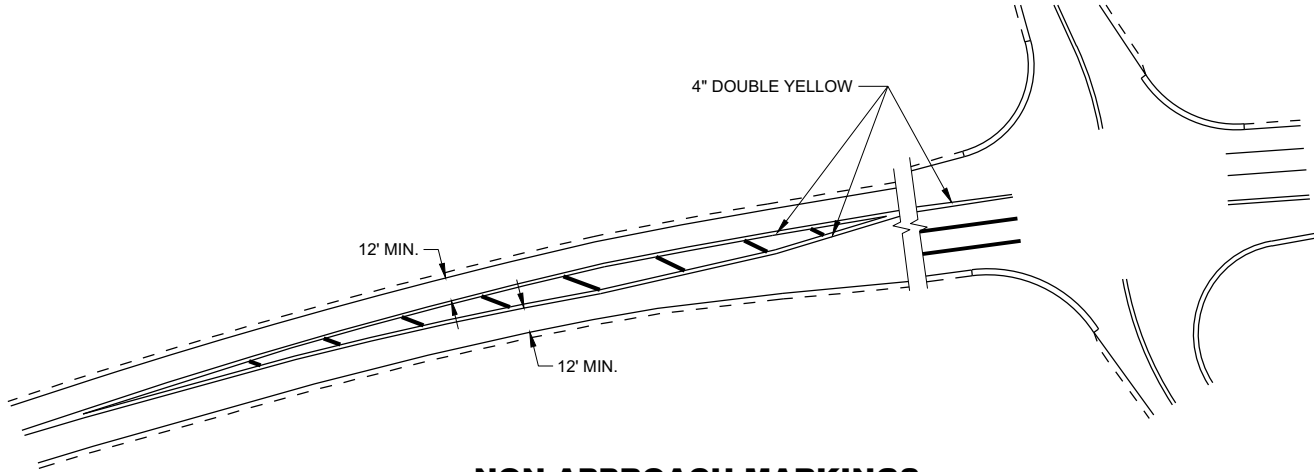
\* WHEN THE PAINTED MEDIAN LENGTH IS LESS THAN 50 FEET THE SPACING IS 10'.



**MEDIAN ISLAND DETAIL**



**APPROACH MARKINGS FOR OTHER MEDIAN TYPES**



**NON-APPROACH MARKINGS**

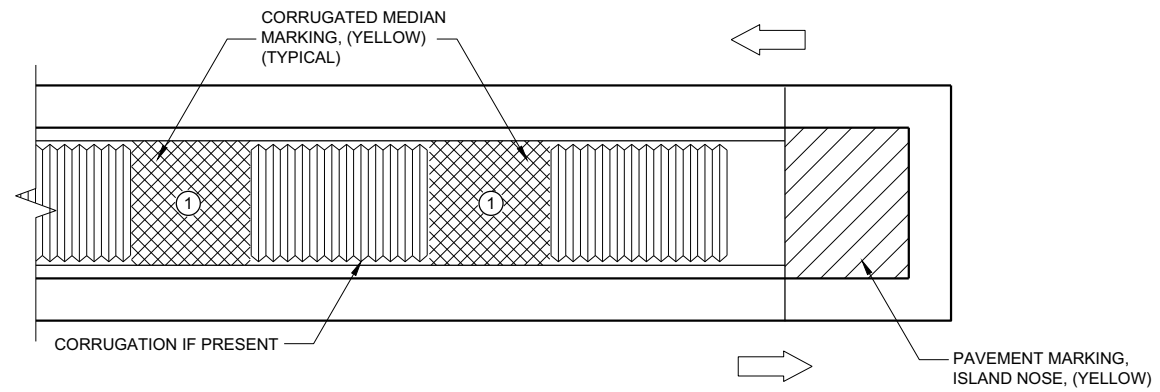
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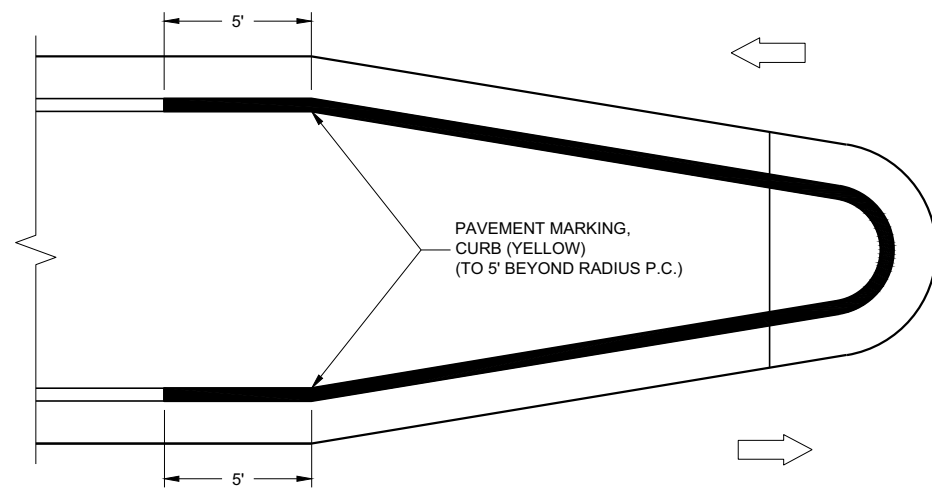
SDD 15C18 - 05a

SDD 15C18 - 05a

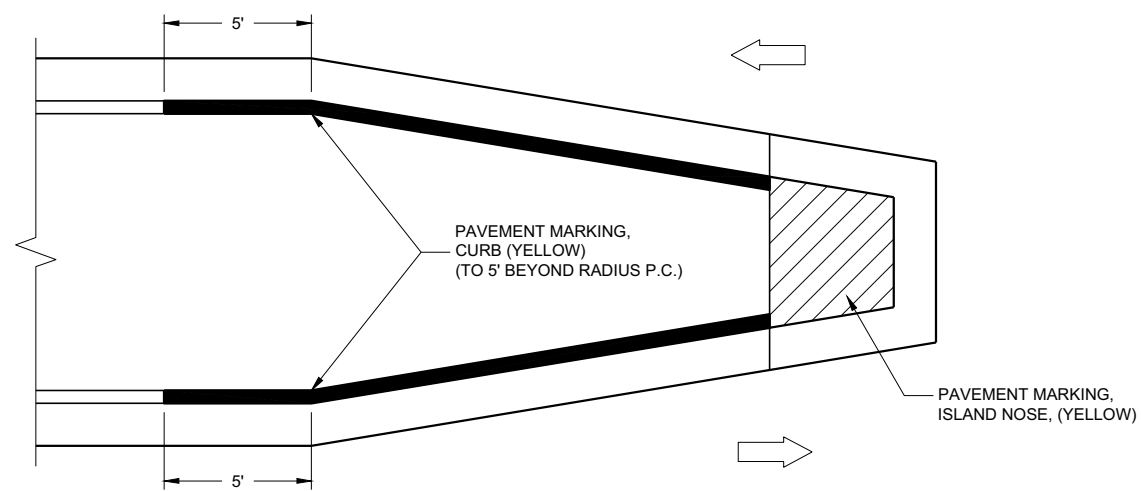
<b>MEDIAN ISLAND PAVEMENT MARKINGS</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2021 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	



**MEDIAN ISLAND WITH SQUARE BLUNT NOSE**



**MEDIAN ISLAND WITH ROUND BLUNT NOSE**







**MEDIAN ISLAND WITH SLOPED NOSE**

**TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS**

**GENERAL NOTES**

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

-  ISLAND NOSE MARKING
-  CURB MARKING
-  CORRUGATED MEDIAN MARKING
-  DIRECTION OF TRAVEL

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SDD 15C18 - 05b

SDD 15C18 - 05b

**PAVEMENT MARKINGS,  
MEDIAN ISLAND NOSE**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2021 /S/ Matthew R. Rauch  
DATE STATE SIGNING AND MARKING  
ENGINEER

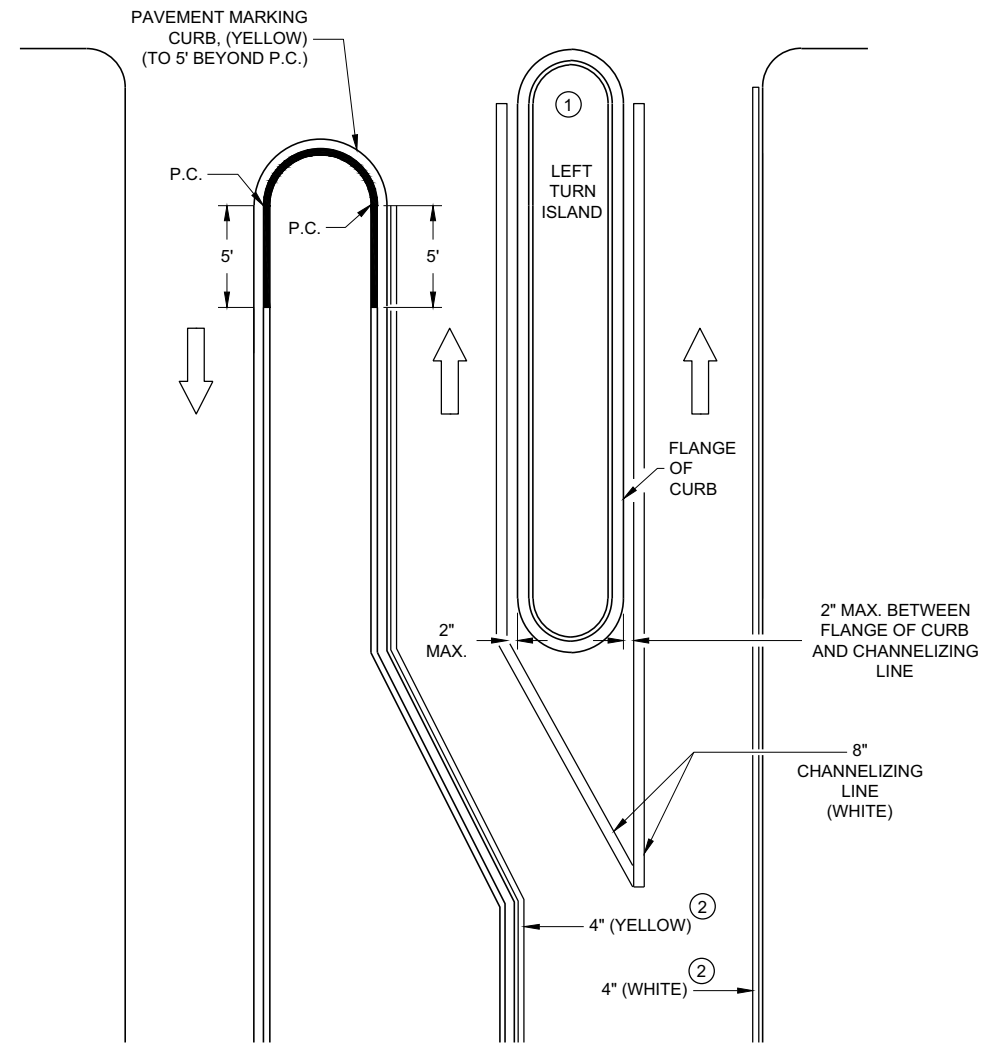
FHWA

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED

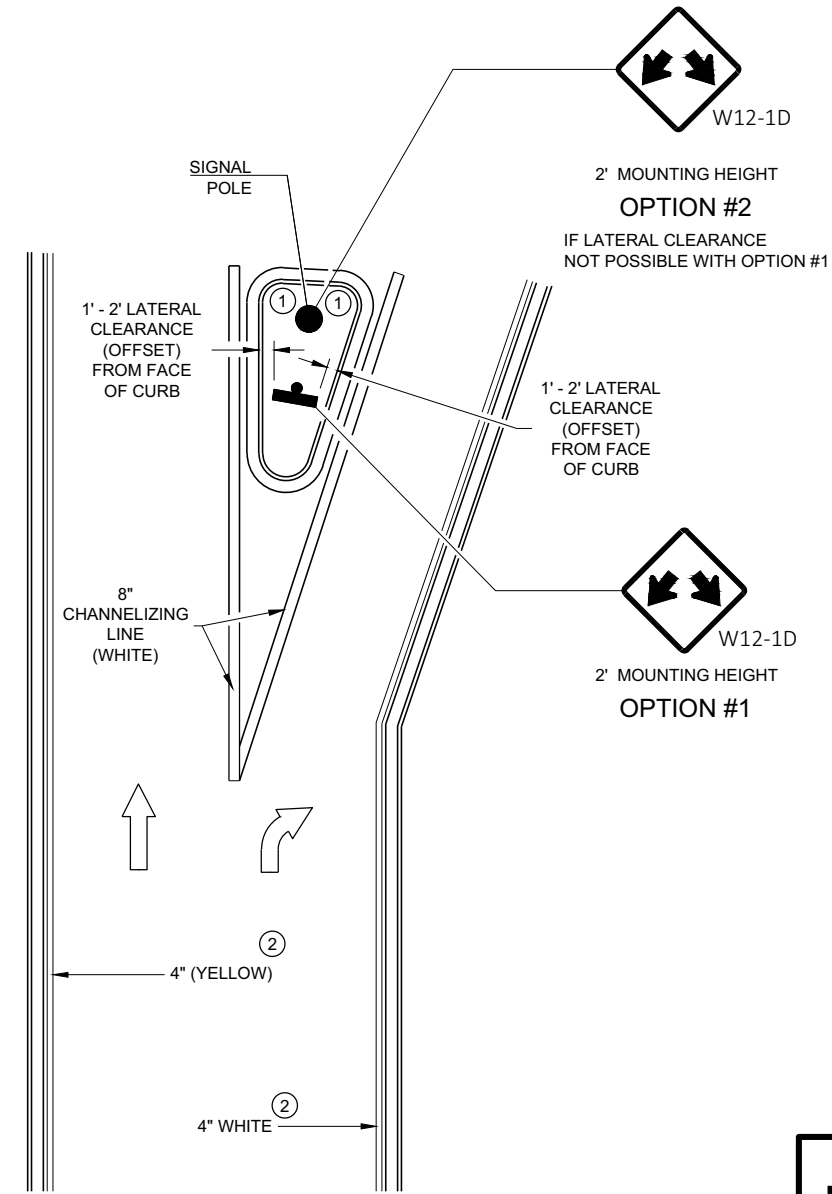
**GENERAL NOTES**

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.  
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

- ① MARK CURB NOSES YELLOW.
- ② MARK ACCORDING TO TABLE.



**LEFT TURN & MEDIAN ISLAND**



**RIGHT TURN ISLAND**

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


SDD 15C18 - 05C

SDD 15C18 - 05C

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2021 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING 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.

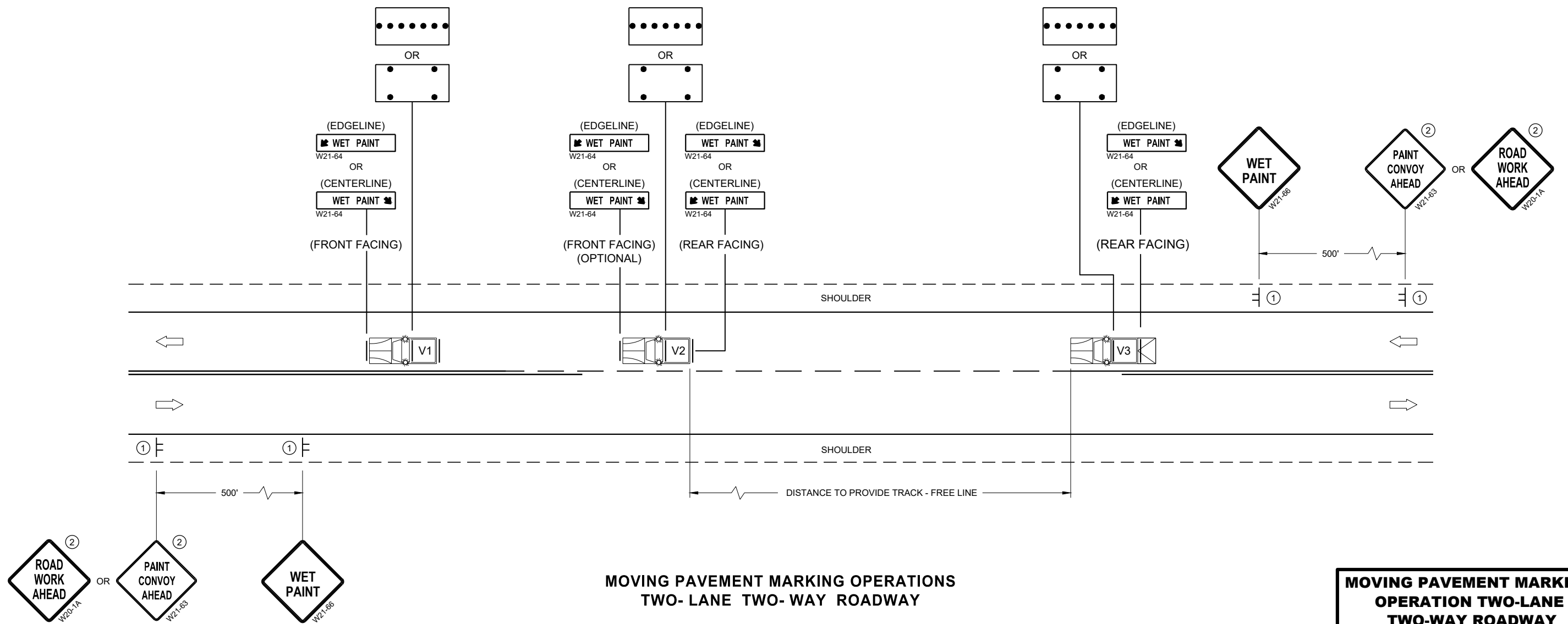
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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.

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



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

**SDD 15C19 - 06a**

**SDD 15C19 - 06a**

<b>MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 DATE	/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 (MERGE)
-  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. 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.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

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.

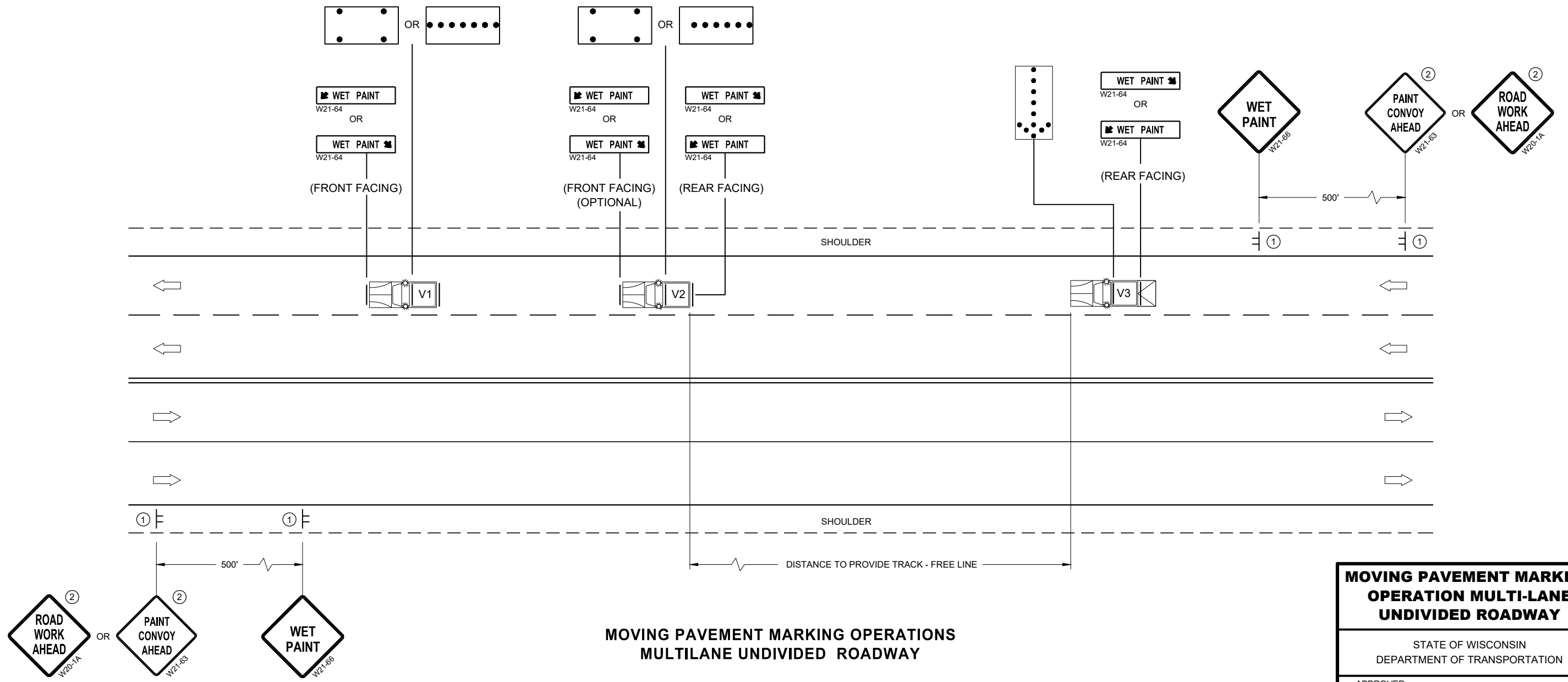
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLES AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL HAVE A MINIMUM HEIGHT OF 28" FOR WET PAVEMENT MARKINGS.

- 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.

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SDD 15C19 - 06b

SDD 15C19 - 06b

**MOVING PAVEMENT MARKING OPERATIONS  
MULTILANE UNDIVIDED ROADWAY**

<b>MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

### GENERAL NOTES

SIGNING AND MARKING IS SHOWN AS TYPICAL PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGNING AND MARKING PLACEMENT.

① USED ONLY WHEN APPROVED BY REGION TRAFFIC ENGINEER.

\* SIGNS MAY BE OMITTED IF SPACE DOES NOT PERMIT PLACEMENT.

\*\* IF POSTED SPEED IS 45 MPH OR GREATER, PLACE W5-54 SIGN UNDER R4-7 SIGN. MOUNT W5-54 SIGN AT 4' MOUNTING HEIGHT (TOP OF ROADWAY TO BOTTOM OF SIGN).

### LEGEND

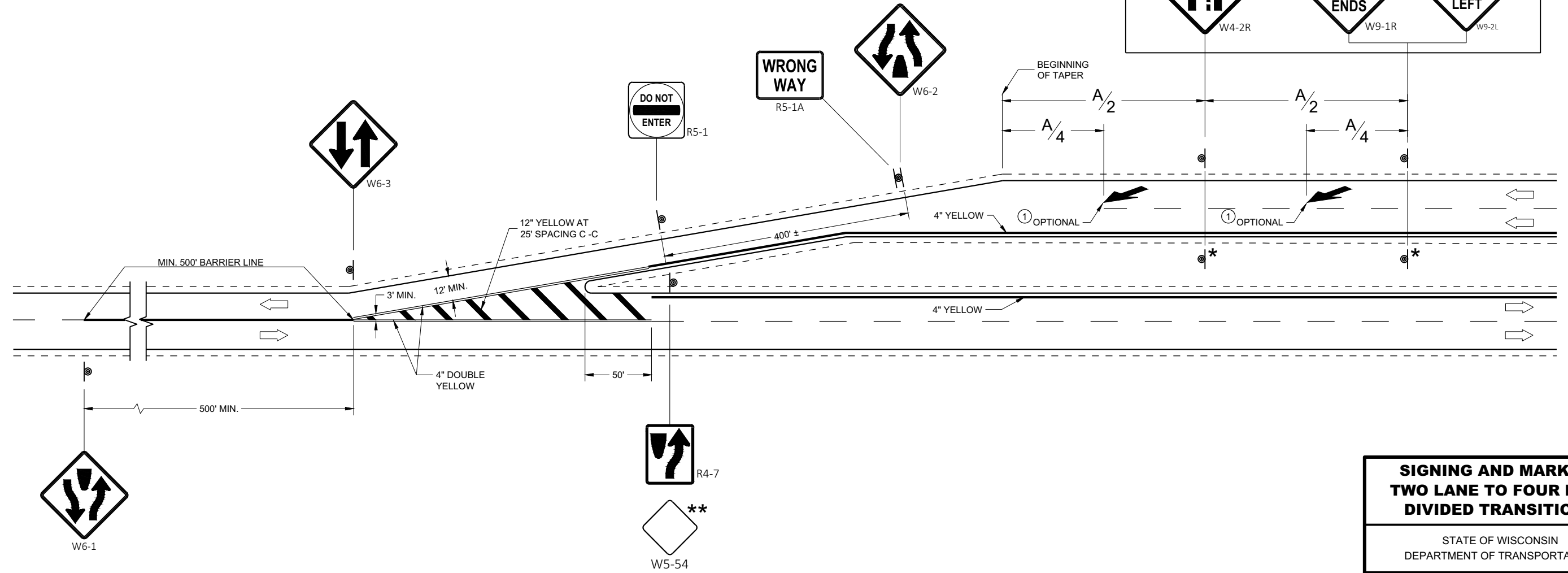
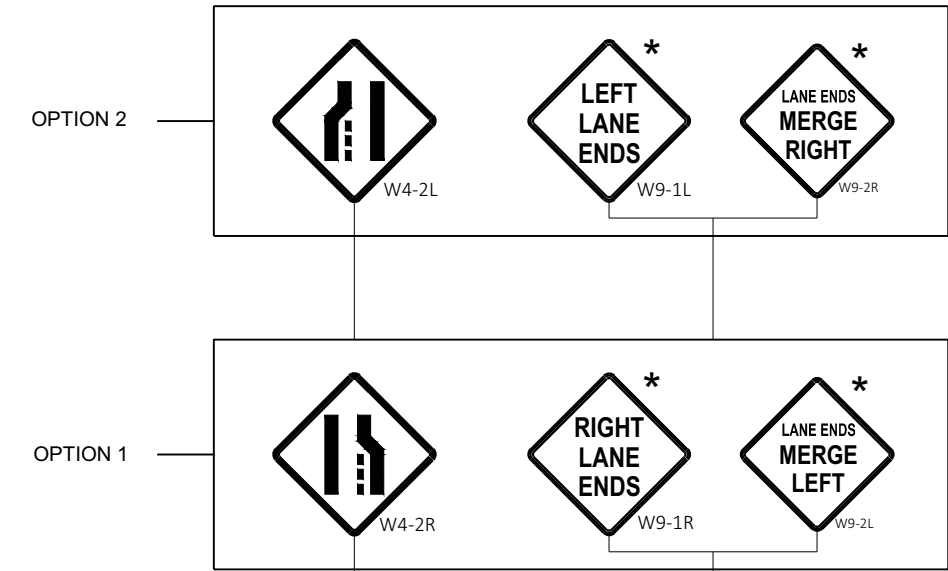
A DISTANCE DEPENDENT ON SPEED (SEE TABLE)

⊙ SIGN MOUNTED ON PERMANENT SUPPORT

➡ DIRECTION OF TRAFFIC

### DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	325'
30	460'
35	565'
40	670'
45	775'
50	885'
55	990'
65	1200'
70	1250'



**SIGNING AND MARKING  
TWO LANE TO FOUR LANE  
DIVIDED TRANSITIONS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2020 /S/ Matthew Rauch  
DATE STATE SIGNING AND MARKING  
ENGINEER

FHWA

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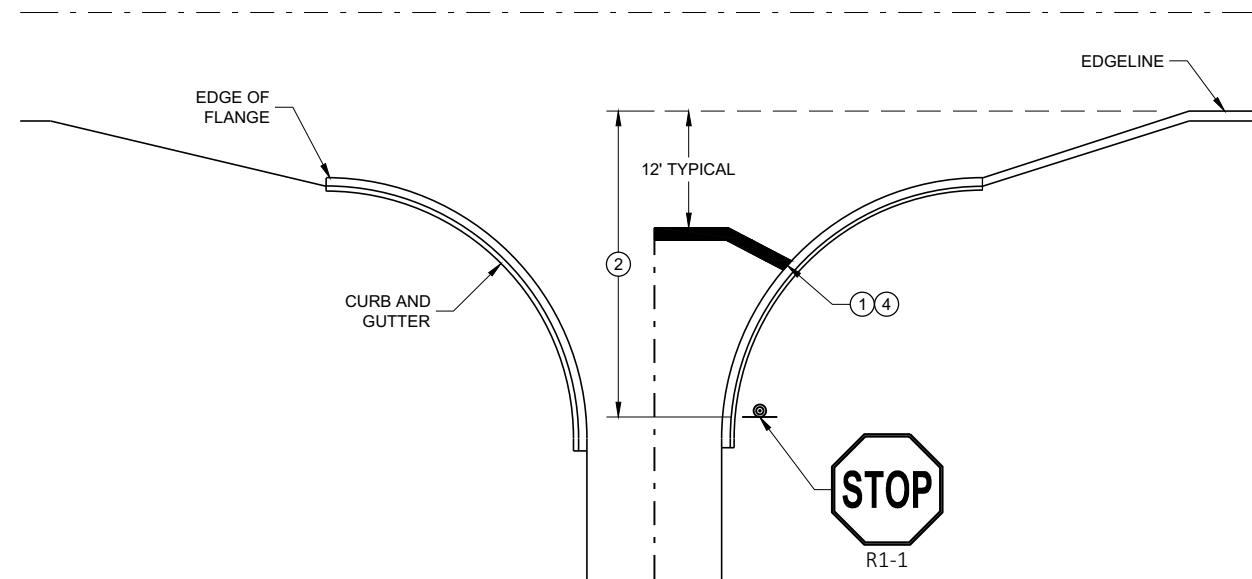
SDD 15C21 - 10

SDD 15C21 - 10

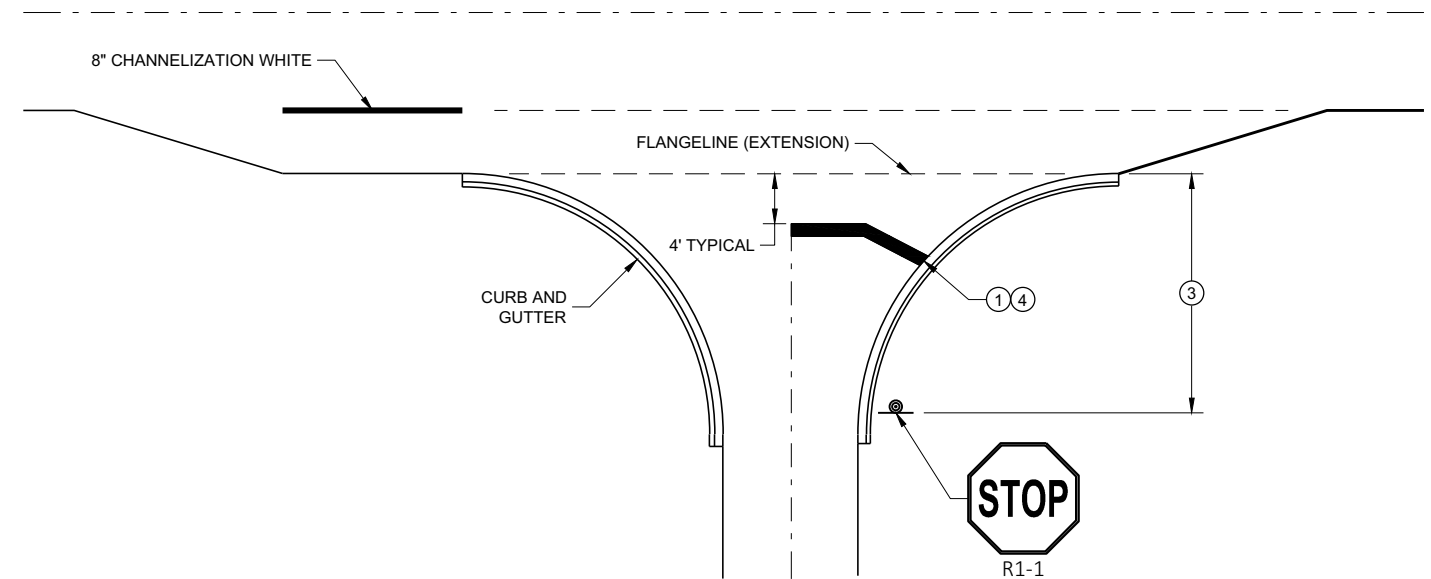
**GENERAL NOTES**

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

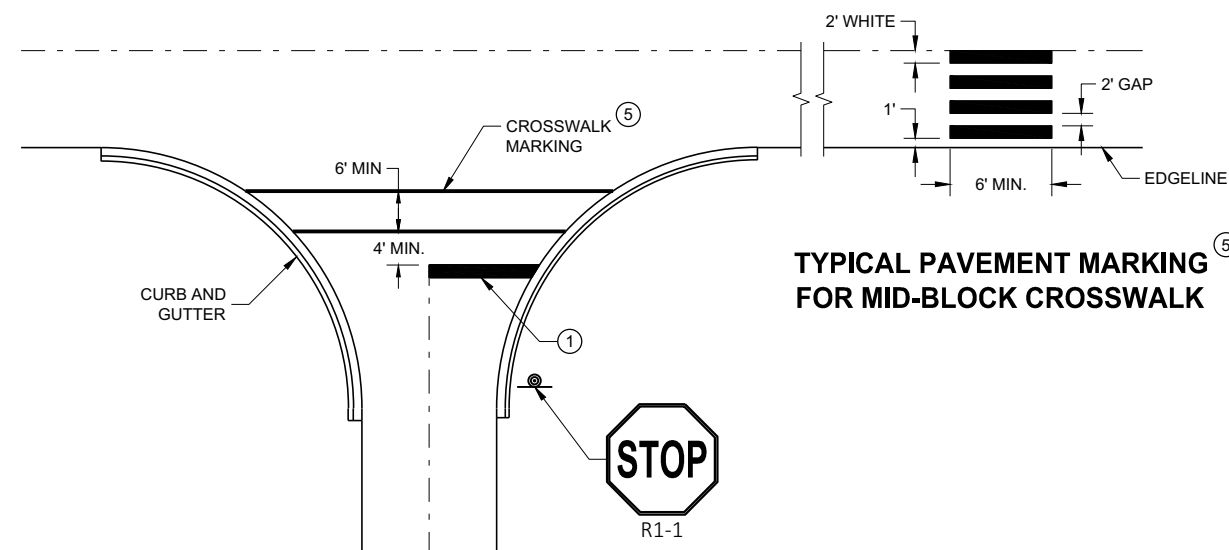
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



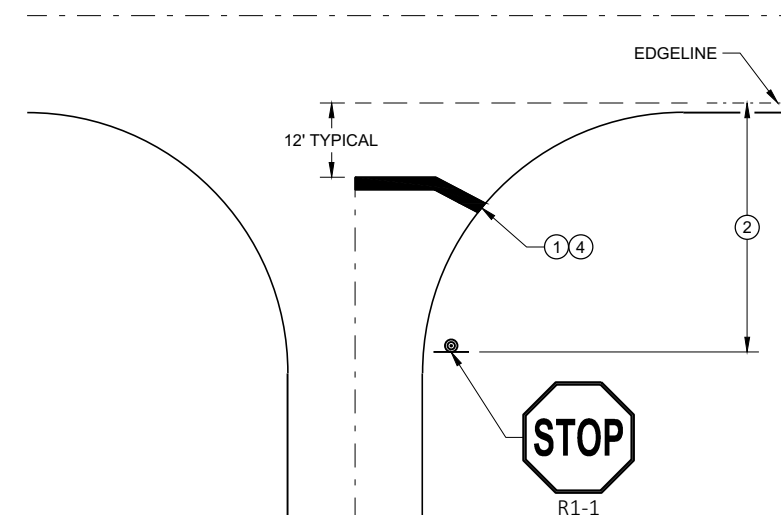
**TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER**



**TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE**



**TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING**



**TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER**

<b>STOP LINE AND CROSSWALK PAVEMENT MARKING</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 DATE	/s/ Matthew Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	

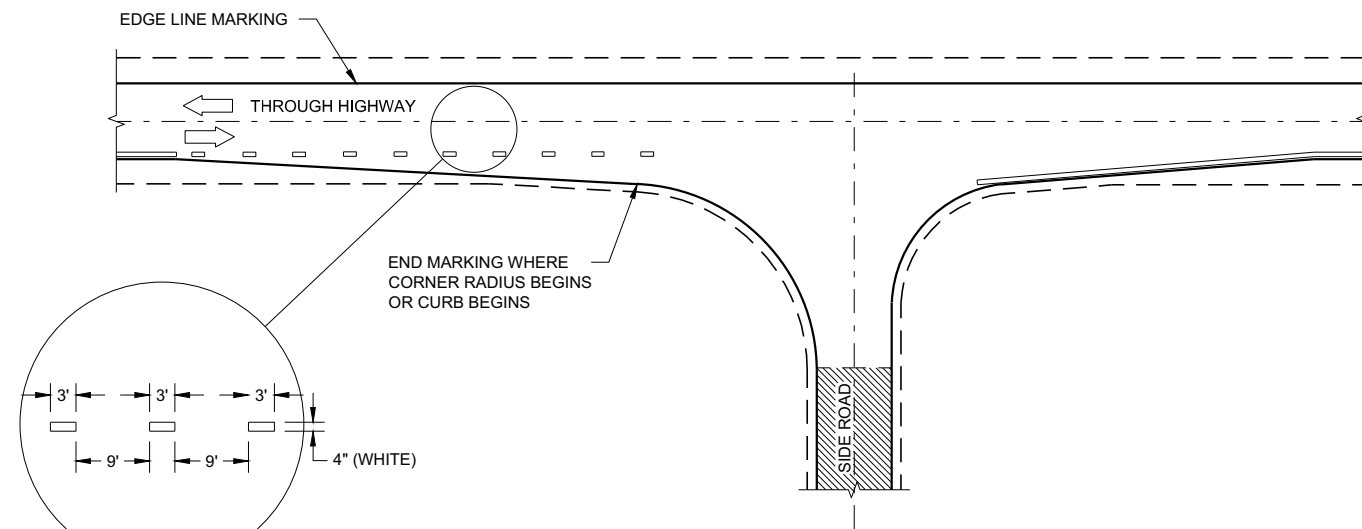
**GENERAL NOTES**

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

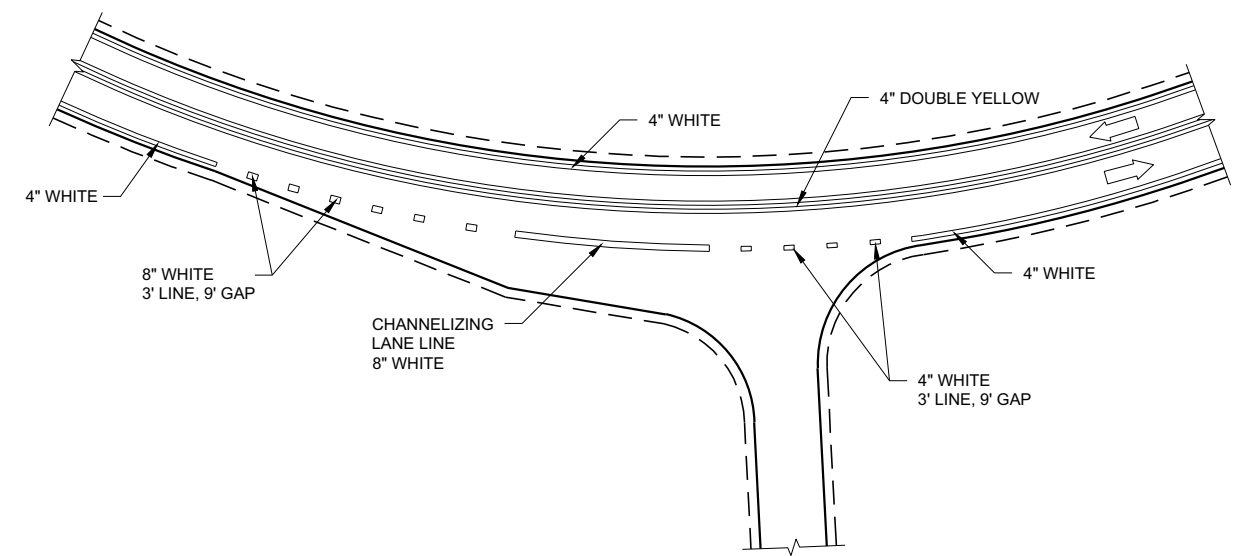
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

**LEGEND**

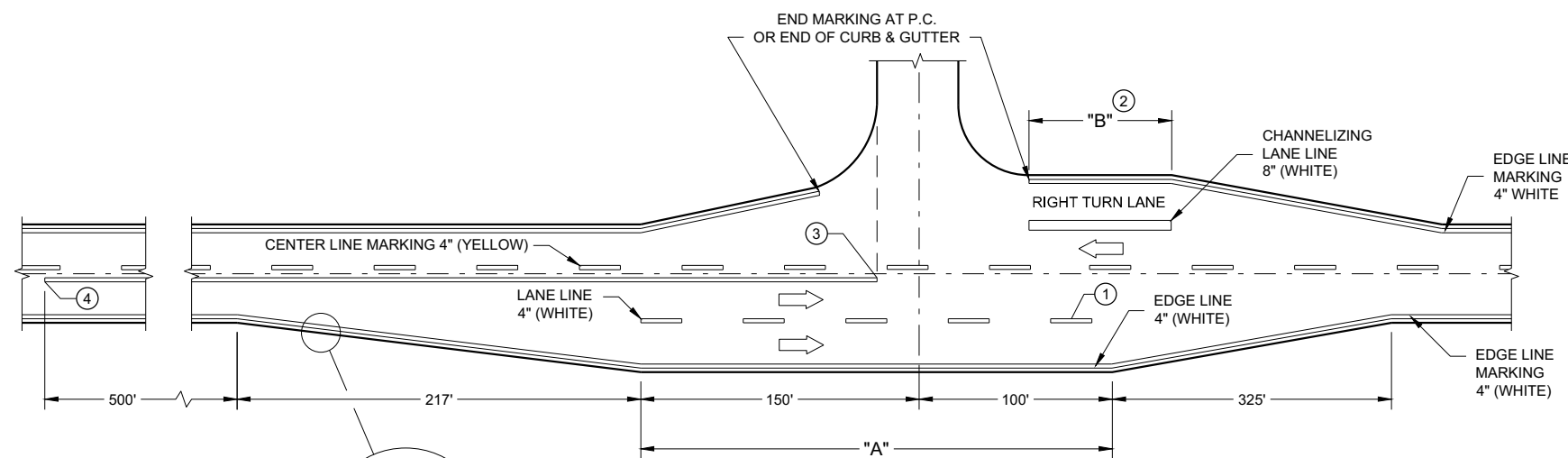
➡ DIRECTION OF TRAVEL



**MINOR INTERSECTION**



**INTERSECTION ON OUTSIDE OF CURVE**







**MAJOR INTERSECTIONS  
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)**

**PAVEMENT MARKING  
(INTERSECTIONS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**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.

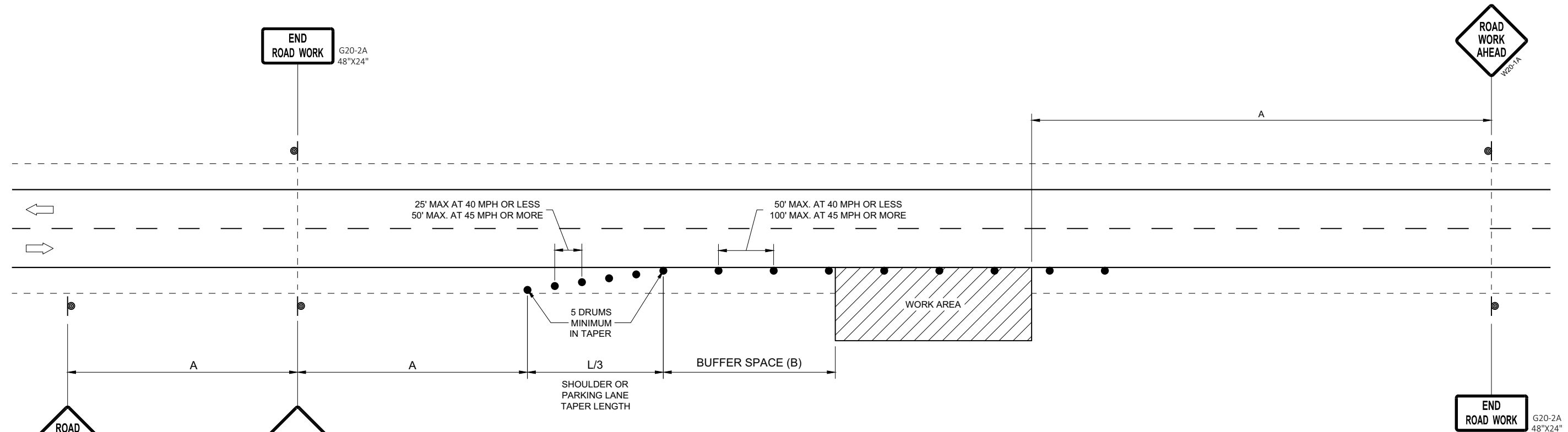
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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.

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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**

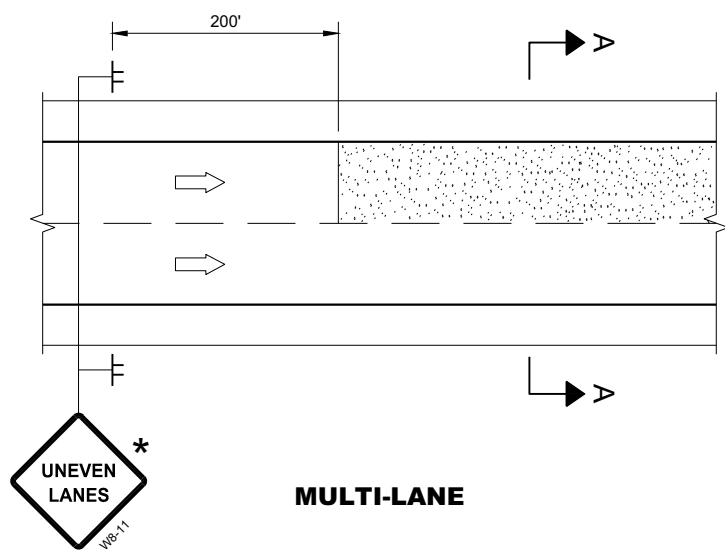
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

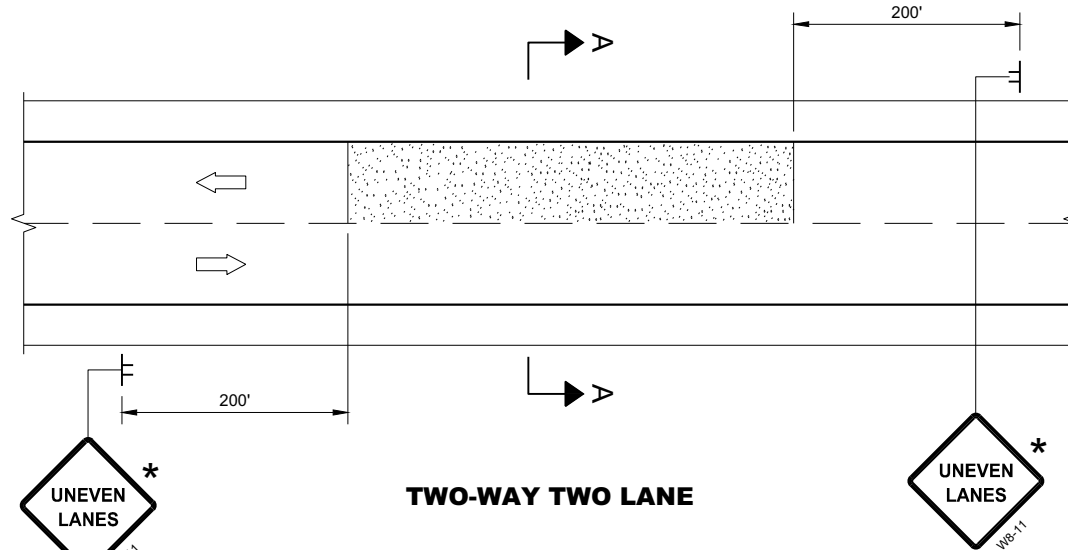
FHWA

SDD 15D28 - 04

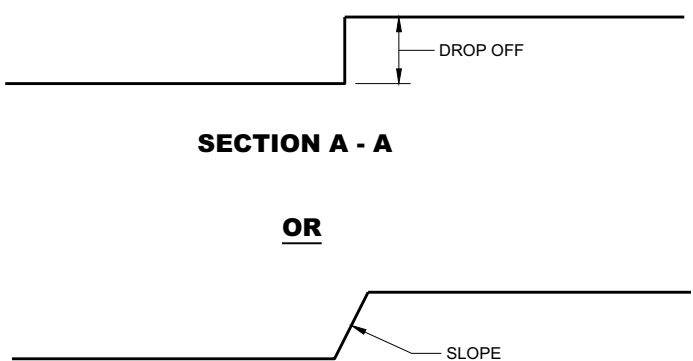
SDD 15D28 - 04



**MULTI-LANE**



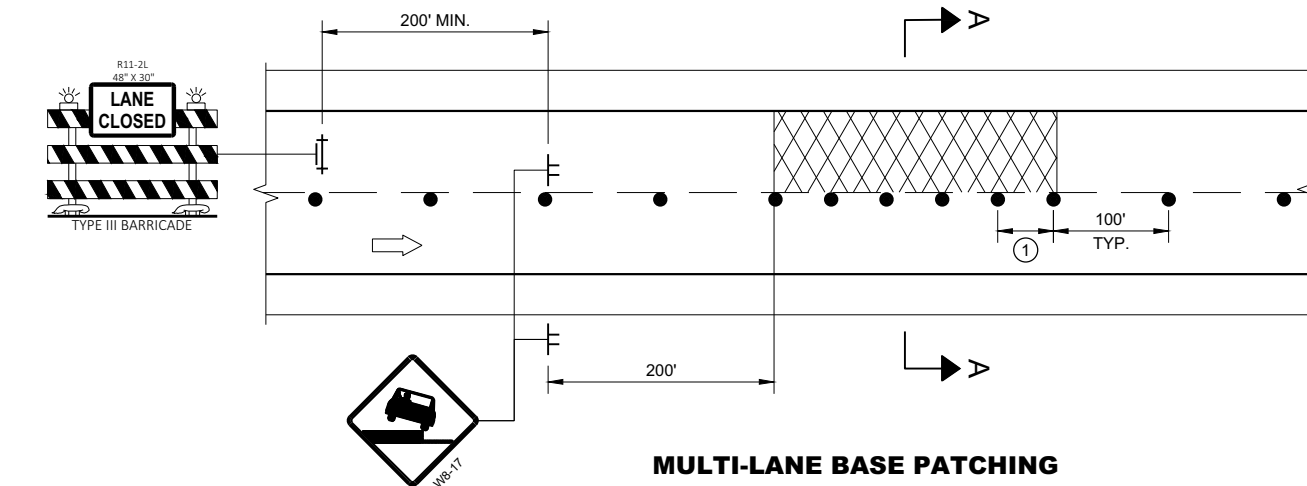
**TWO-WAY TWO LANE**



**SECTION A - A**

**OR**

**SECTION A - A**



**MULTI-LANE BASE PATCHING**

**ADJACENT LANE DROP-OFFS**

**GENERAL NOTES**

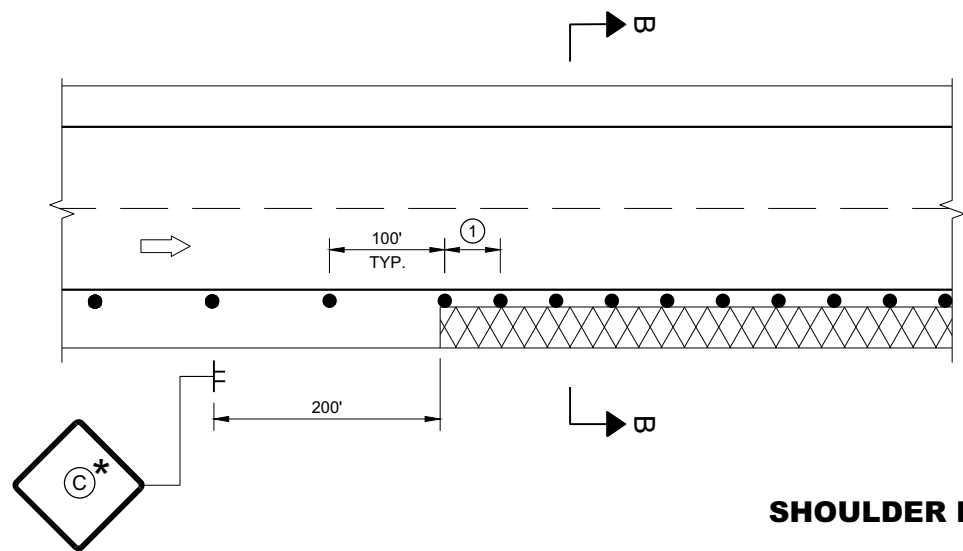
- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- \* IF THE DROP-OFF 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**

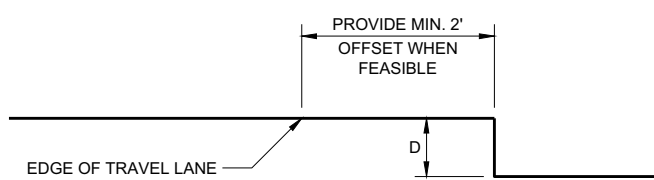
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

6

6



**SHOULDER DROP-OFFS**



**SECTION B - B**

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

SDD 15D39 - 02

SDD 15D39 - 02

**TRAFFIC CONTROL,  
DROP-OFF SIGNING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
March 2018 /S/ Andrew Heidtke  
DATE 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.

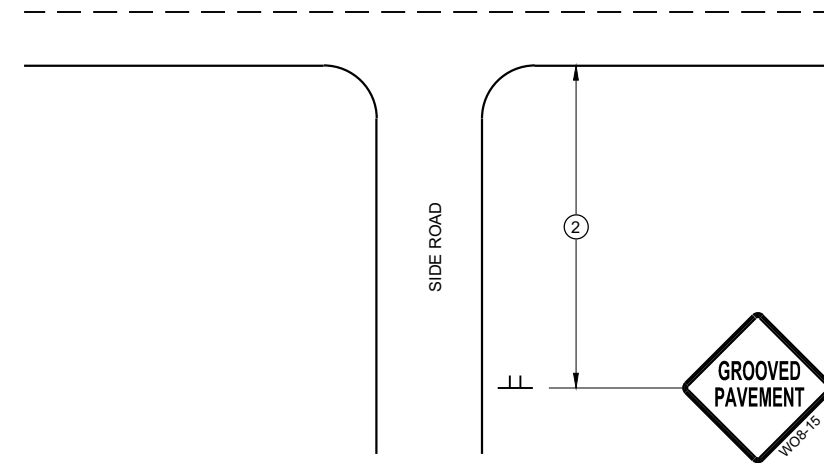
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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.

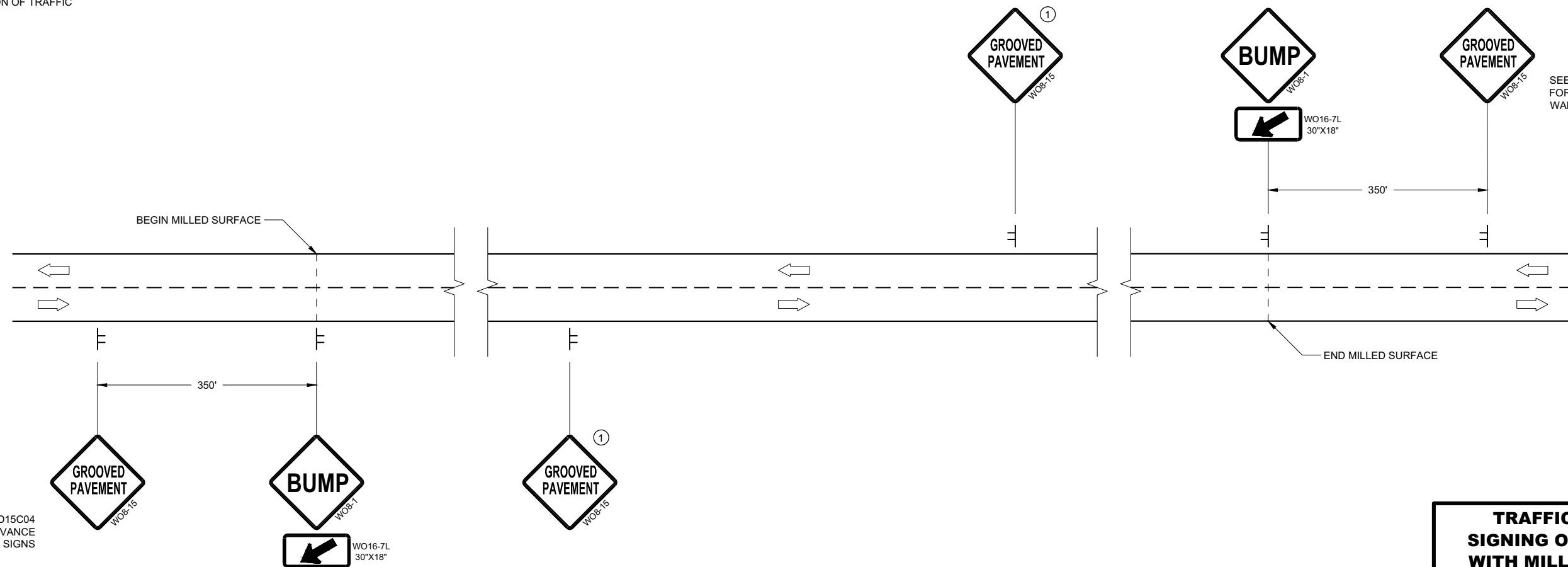
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

**LEGEND**

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



**TYPICAL SIDE ROAD APPROACH SIGN DETAIL**

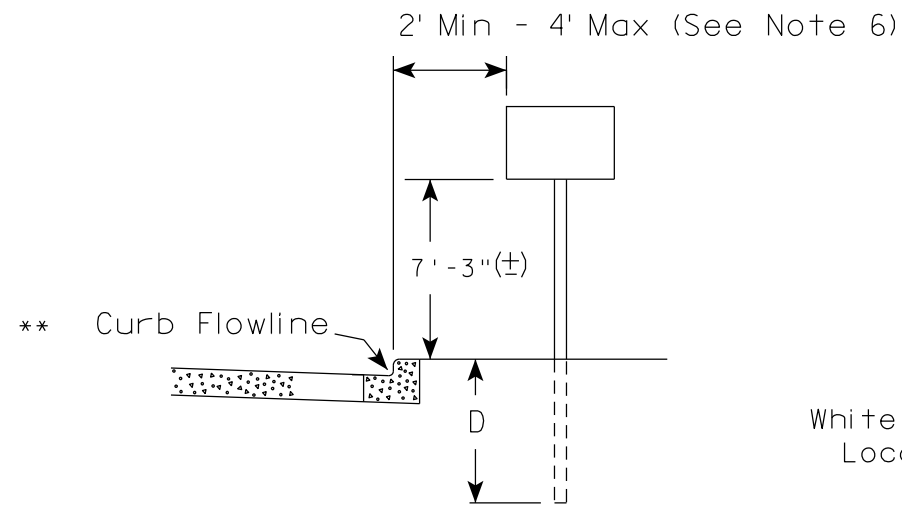


**DETAIL FOR SIGNING ON MILLED SURFACES**

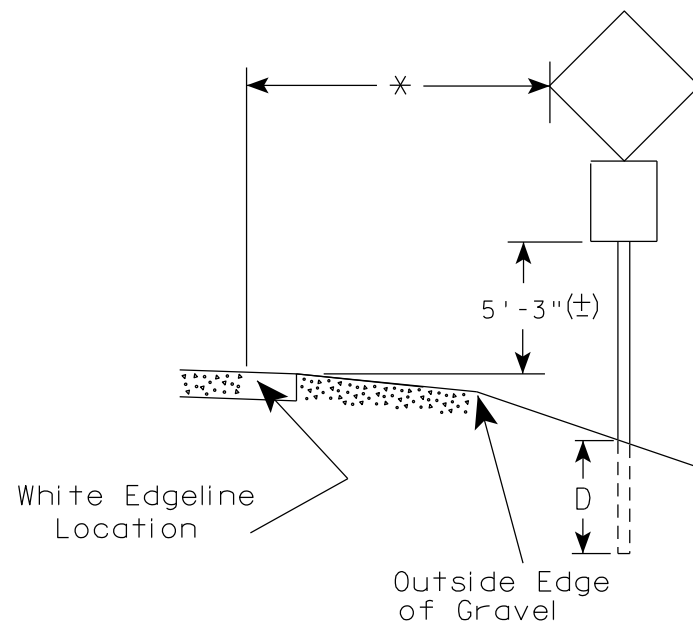
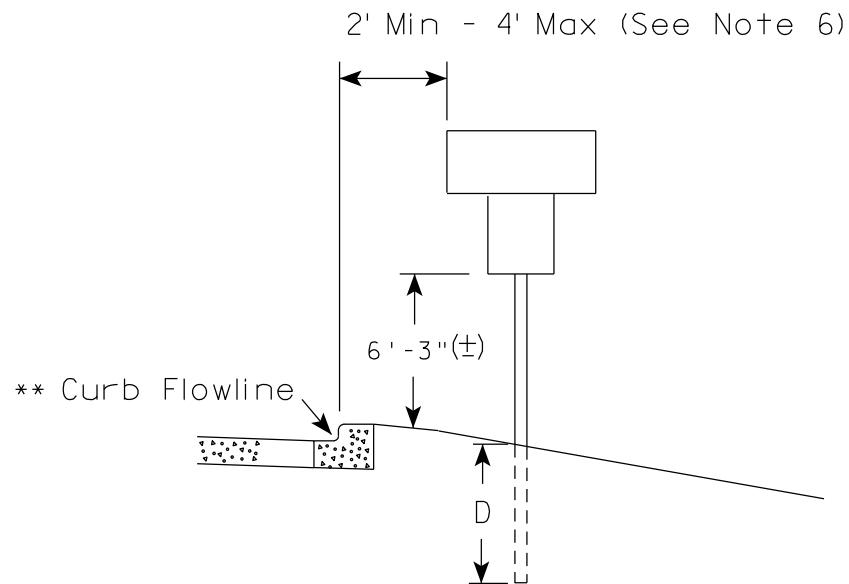
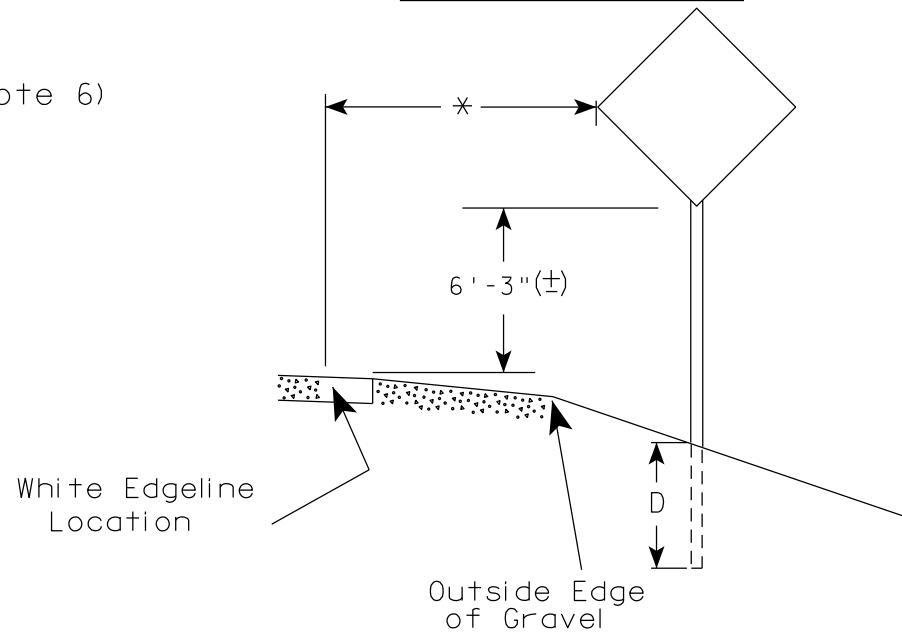
<b>TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2020 DATE	/s/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.  
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation ( Sq. Ft. )	D ( Min )
20 or Less	4'
Greater than 20	5'

\* \* The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

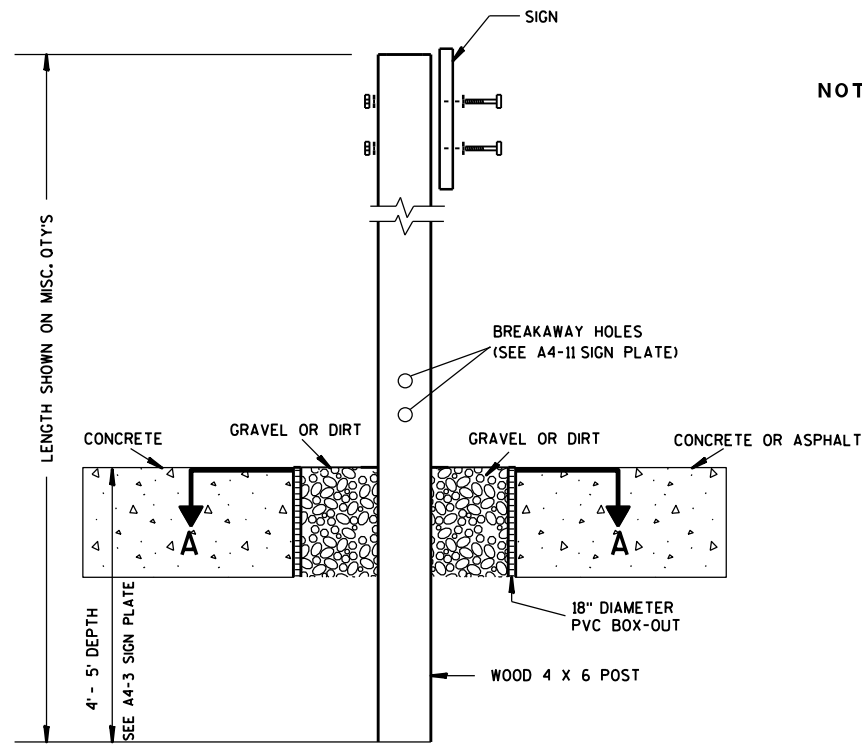
\* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

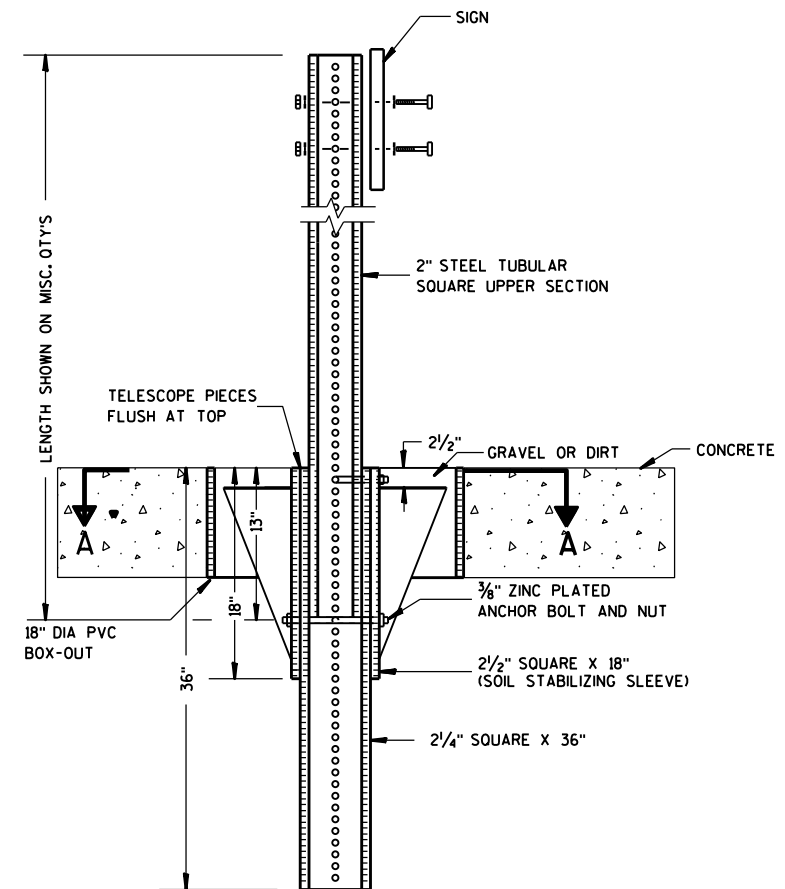
DATE 5/13/2020 PLATE NO. A4-3.22



**ELEVATION VIEW**

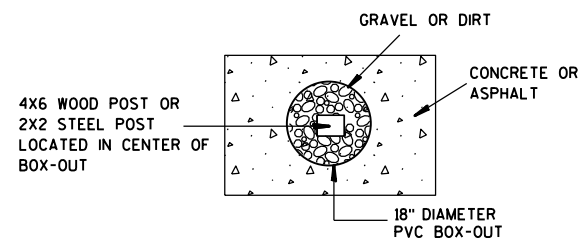
**DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT**

- NOTES:**
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
  2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
  3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



**ELEVATION VIEW**

**DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT**



**PLAN VIEW**

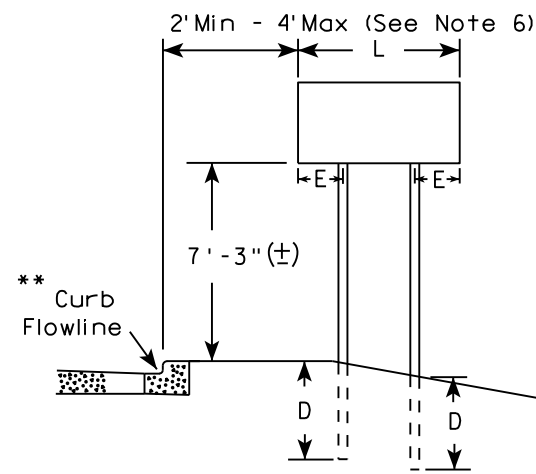
**FOR NEW CONCRETE/ASPHALT INSTALLATIONS**

SIGN POST BOX-OUTS A4-3B	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED <i>Matthew R. Rauch</i> for State Traffic Engineer	
DATE 1/27/14	PLATE NO. A4-3B.1

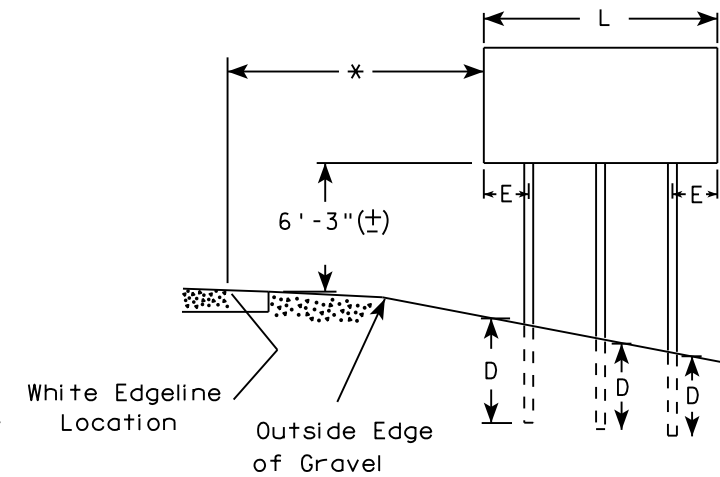
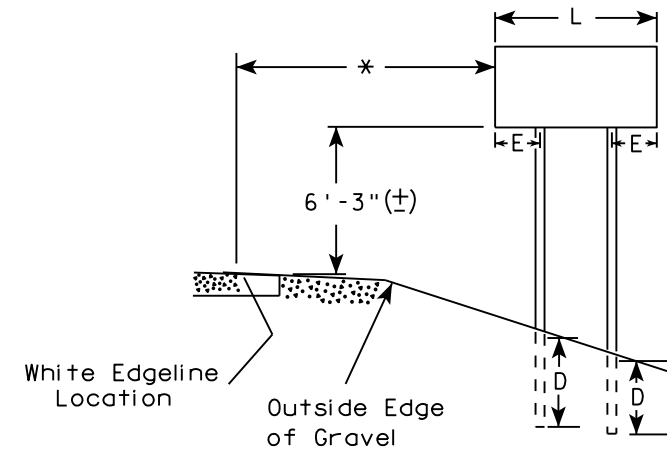
GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

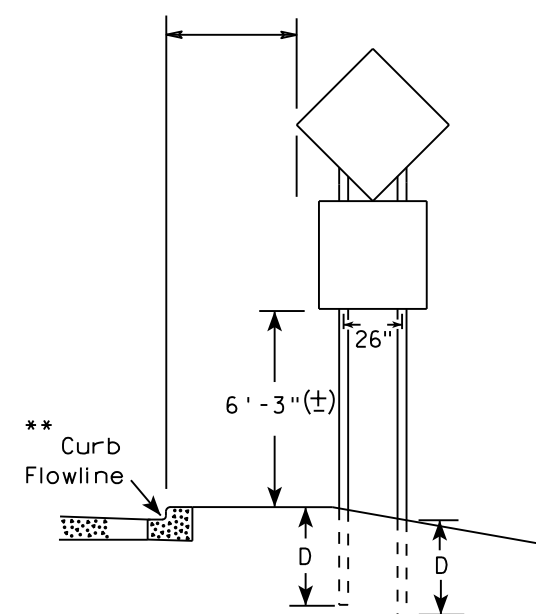
URBAN AREA



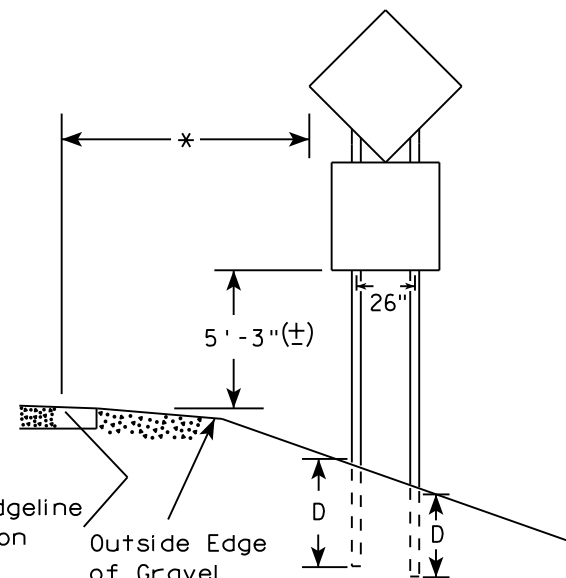
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

\* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

\*\* The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

\*\*\* See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

\*\*\*

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

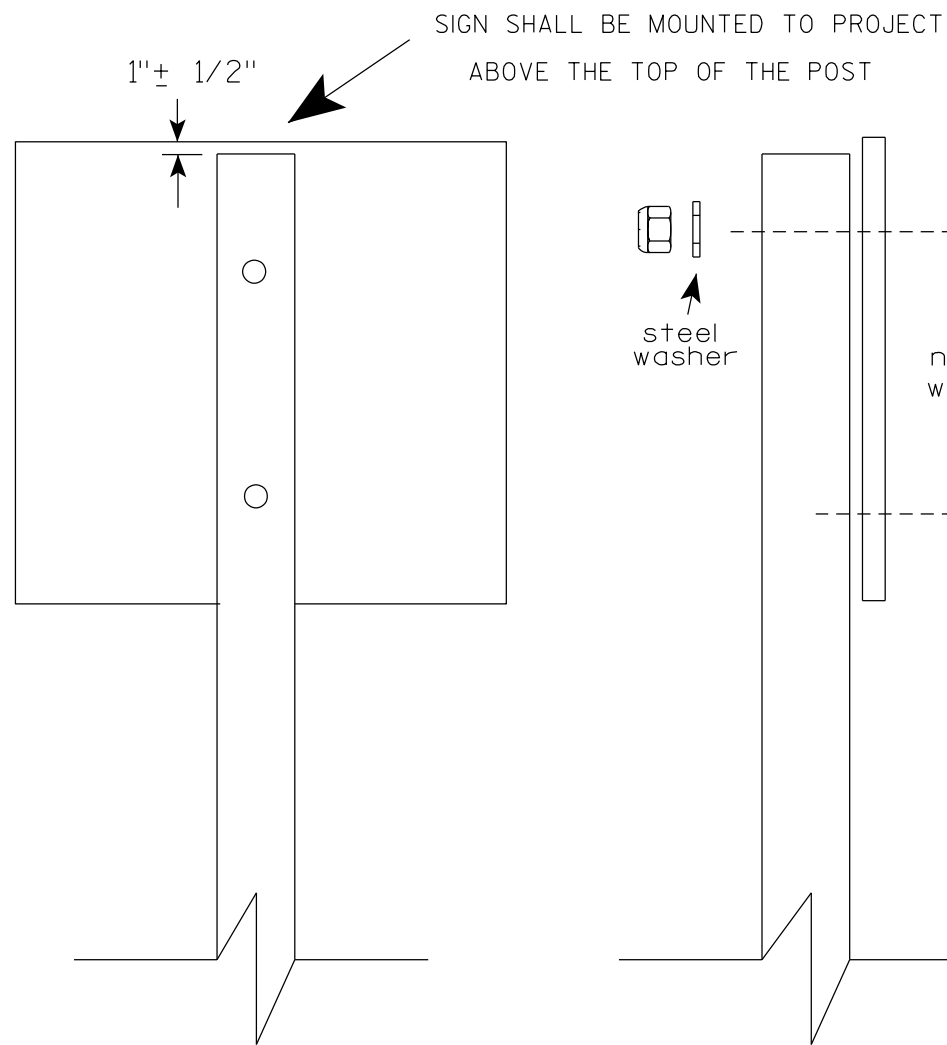
Area of Sign Installation ( Sq. Ft. )	D ( Min )
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

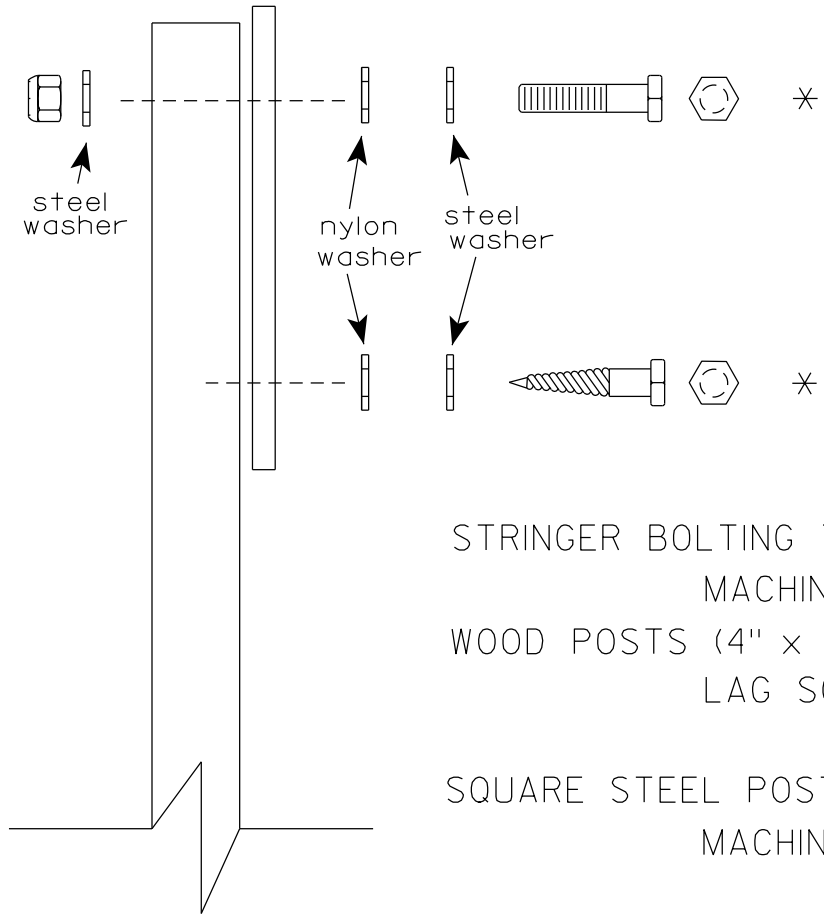
DATE 8/21/17 PLATE NO. A4-4.15



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.



STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS -  $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS -  $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)  
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS -  $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)  
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS -  $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL  
 O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

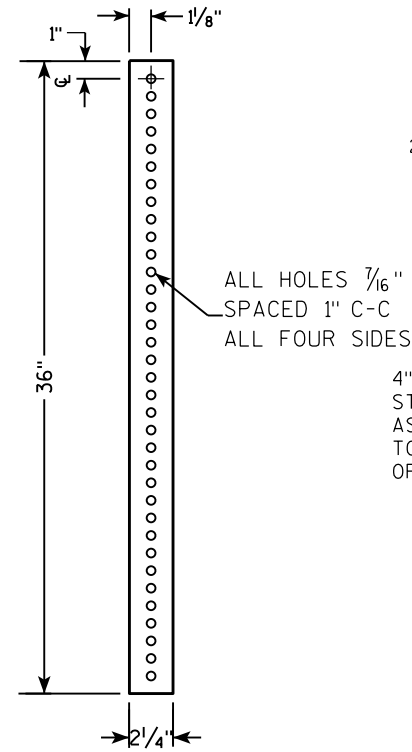
1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ " STEEL  
 1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X .080 NYLON

\* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

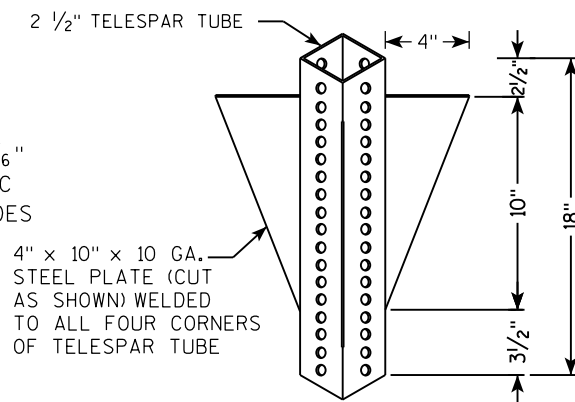
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS  
TWO PIECE SYSTEM**

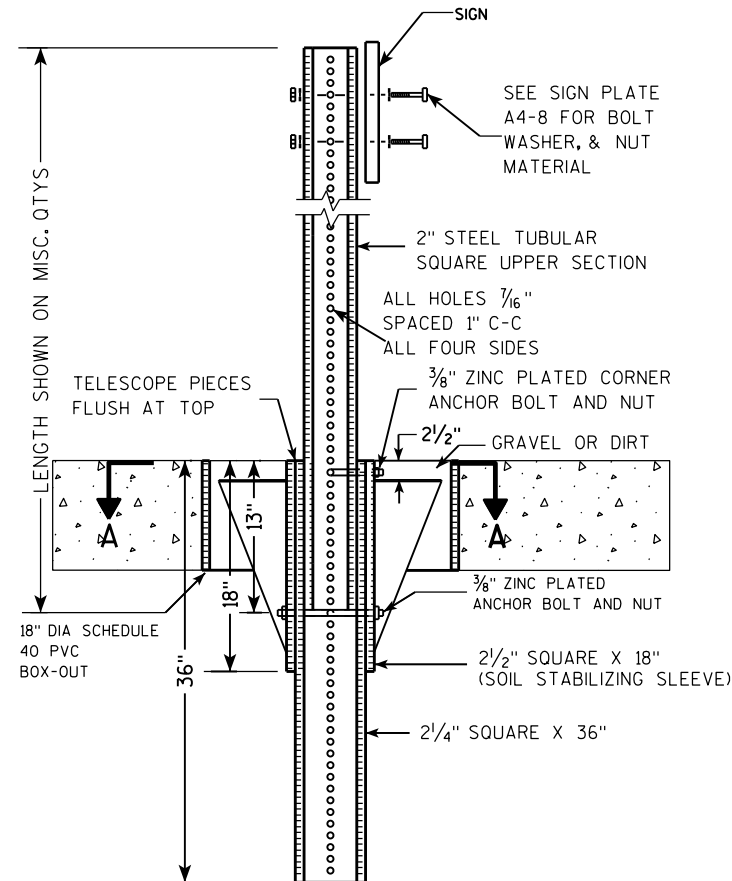
2 1/4" SQUARE  
12 GAUGE  
PERFORATED  
GALVANIZED FINISH



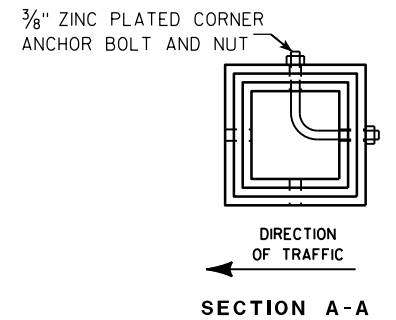
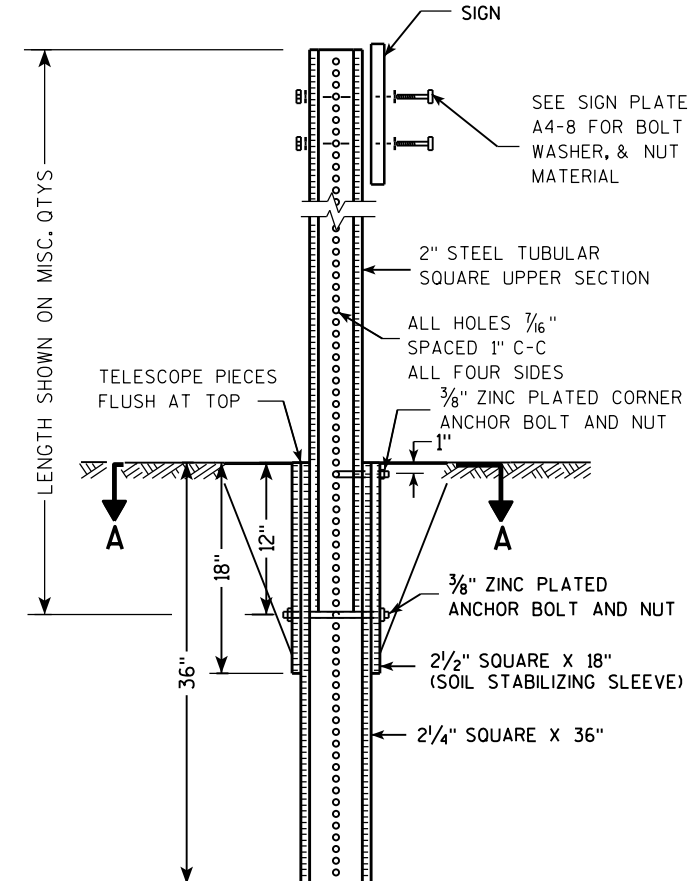
2 1/2" SQUARE  
12 GAUGE  
OMNI-DIRECTIONAL  
PERFORATED  
SOIL STABILIZING SLEEVE  
GALVANIZED FINISH



**DETAIL OF TUBULAR STEEL SIGN POST  
(IN POURED CONCRETE OR ASPHALT)**



**DETAIL OF TUBULAR STEEL SIGN POST  
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)**

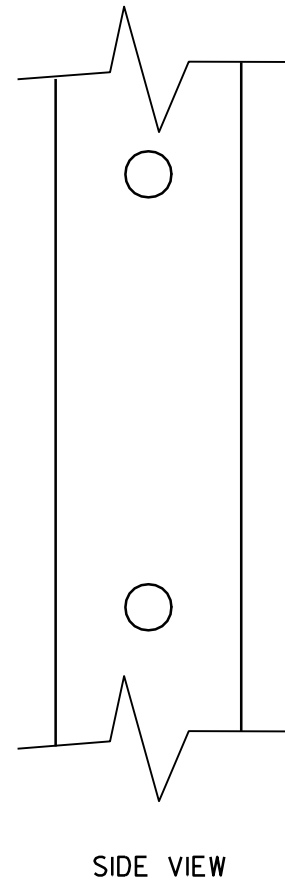
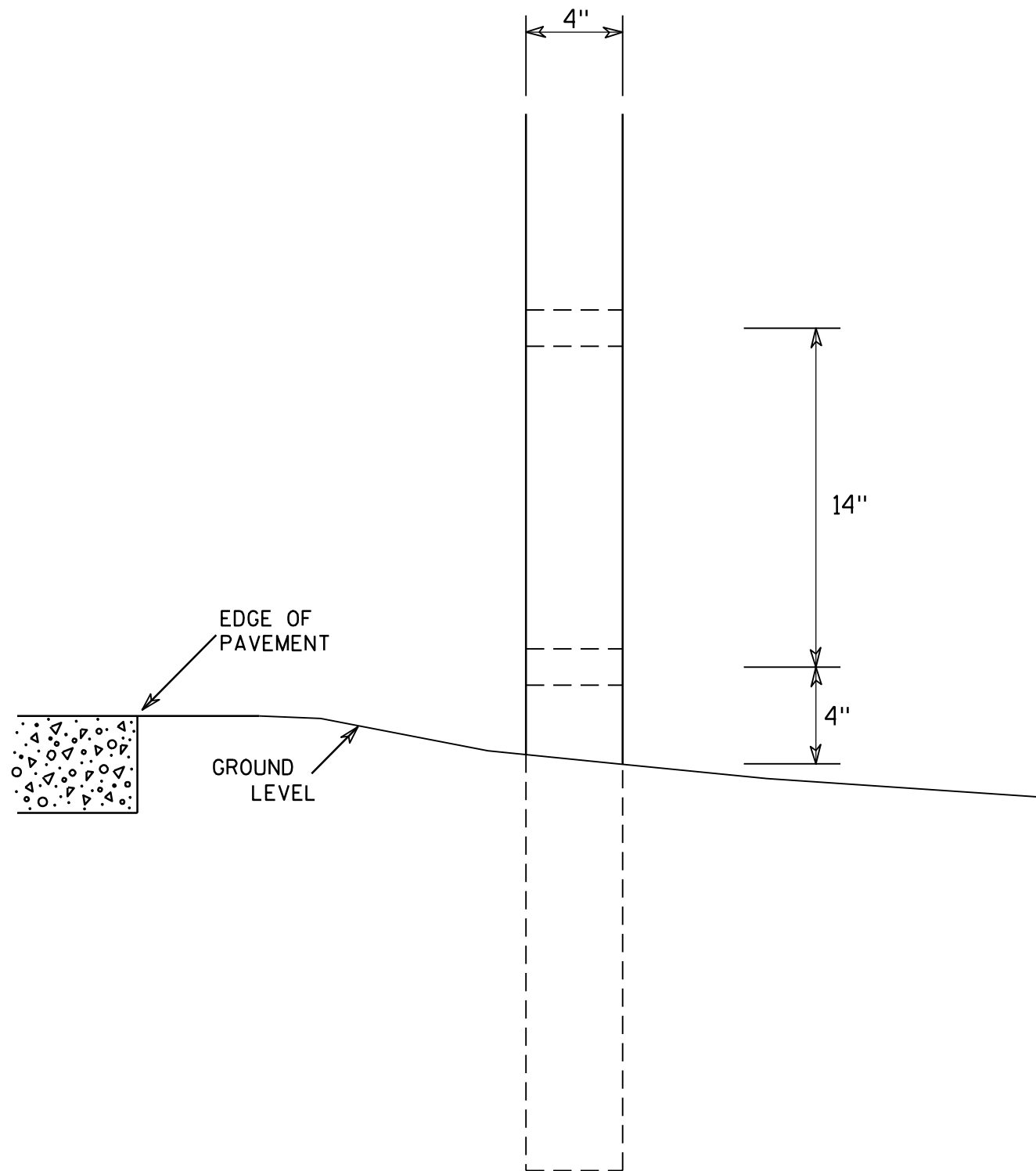


Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**TUBULAR STEEL  
SIGN POST  
A4-9**

WISCONSIN DEPT OF TRANSPORTATION  
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer  
DATE 2/05/15 PLATE NO. A4-9.9



GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

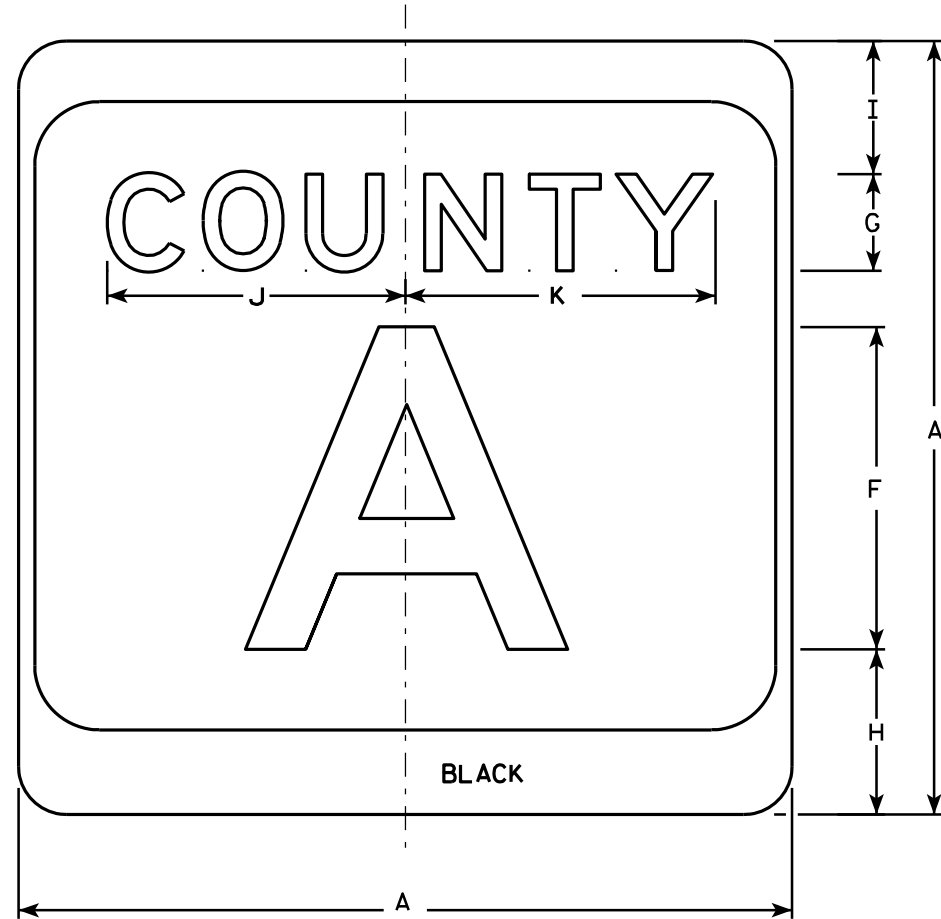
7

7

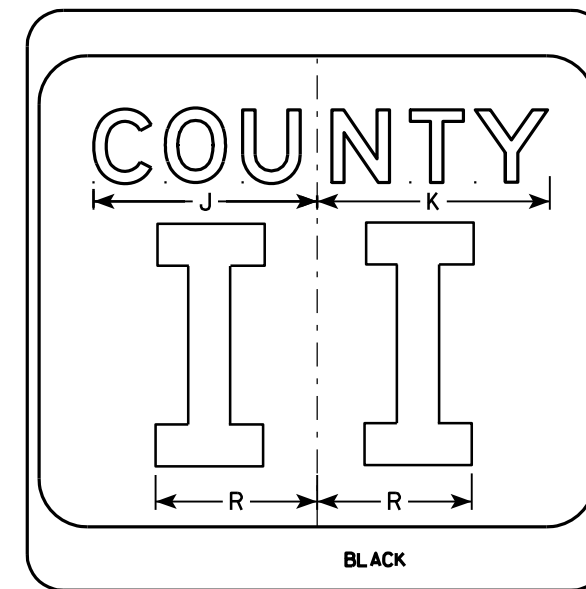
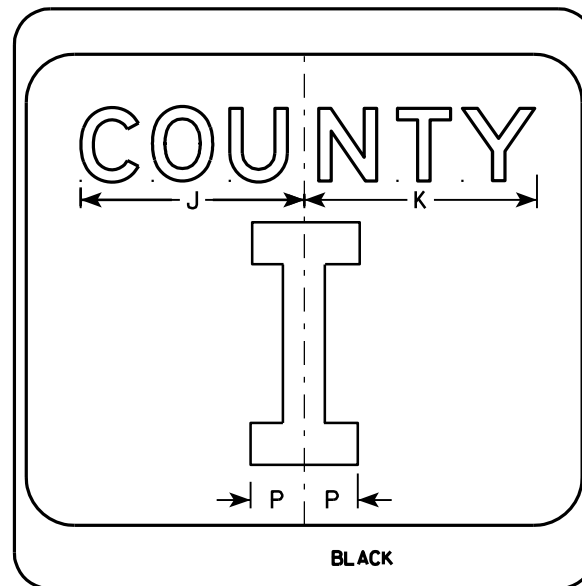
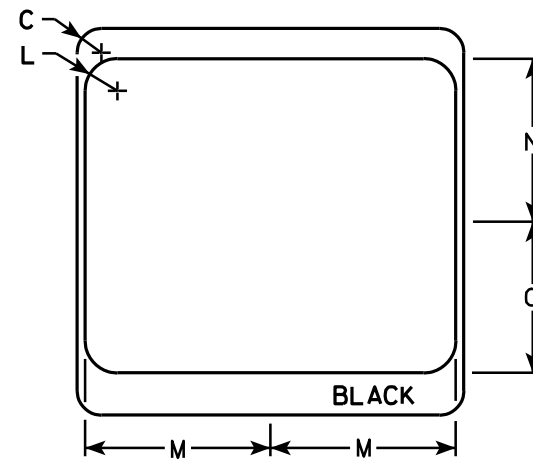
4 X 6 WOOD POST MODIFICATIONS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE 3/27/97	PLATE NO. A4-11.2

**NOTES**

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - White & Black - See Note 7  
Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.  
Message Series D for 2 letters unless message is too big then Series C.  
Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs  
Background - Type H Reflective  
Detour or temporary Signs  
Background - Reflective



M1-5A



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

**CTH MARKER**  
**M1-5A FOR ASSEMBLIES**

WISCONSIN DEPT OF TRANSPORTATION

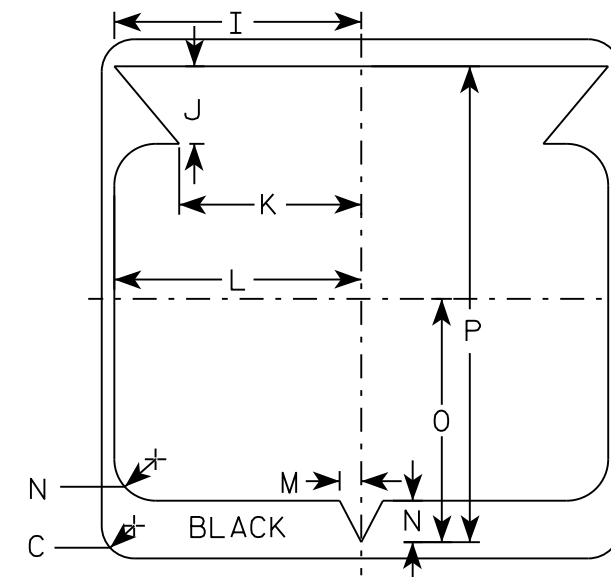
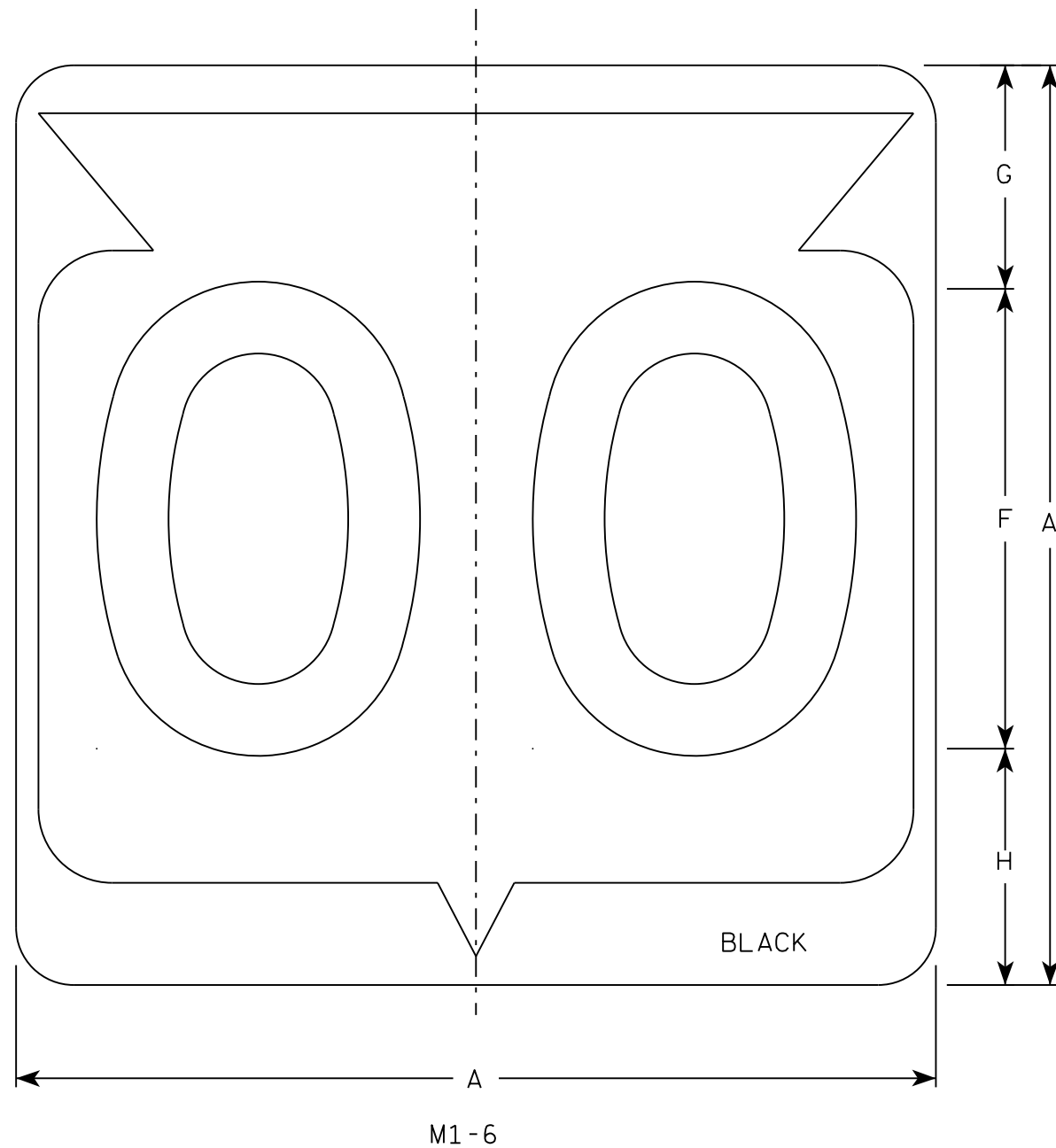
APPROVED *Matthew R. Raub*  
For State Traffic Engineer

DATE 9/27/11 PLATE NO. MI-5A.8

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

STATE ROUTE MARKER  
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ **E**

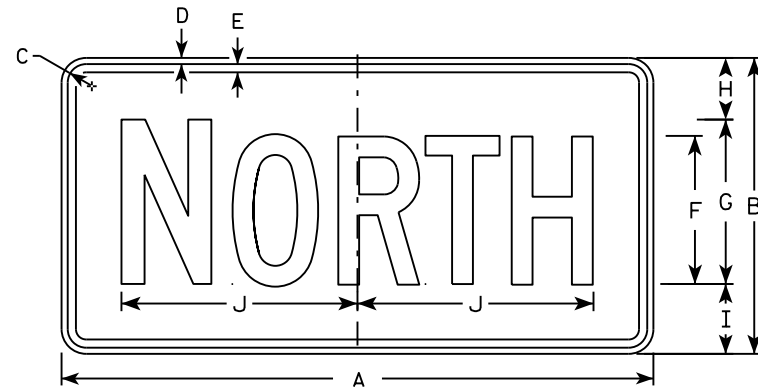
7

7

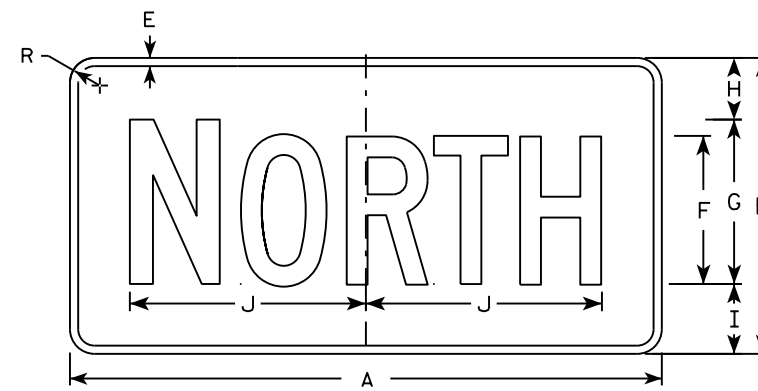


NOTES

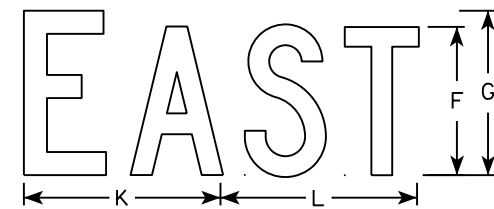
- All Signs Type II - Type H
- Color:
  - Background - See note 5
  - Message - See note 5
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M3-1 thru M3-4 Background - White  
 Message - Black  
 MB3-1 thru MB3-4 Background - Blue  
 Message - White  
 MK3-1 thru MK3-4 Background - Green  
 Message - White  
 MM3-1 thru MM3-4 Background - White  
 Message - Green  
 MN3-1 thru MN3-4 Background - Brown  
 Message - White  
 MP3-1 thru MP3-4 Background - White  
 Message - Blue
- Note the first letter of each direction is larger than the remainder of the message.



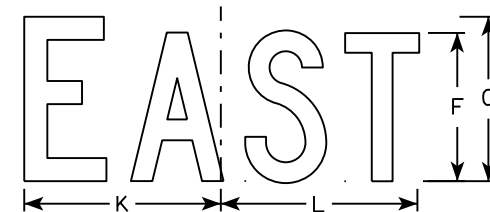
M3-1  
MM3-1  
MP3-1



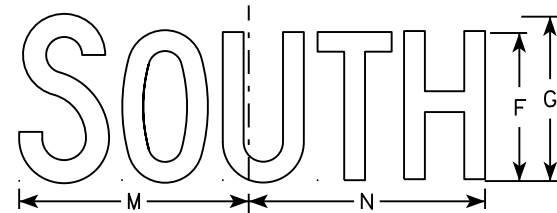
MB3-1  
MK3-1  
MN3-1



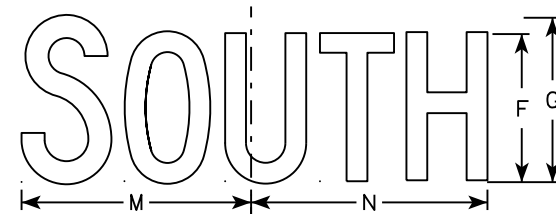
M3-2  
MM3-2  
MP3-2



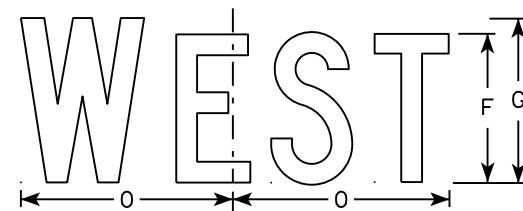
MB3-2  
MK3-2  
MN3-2



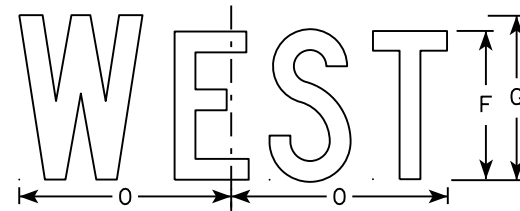
M3-3  
MM3-3  
MP3-3



MB3-3  
MK3-3  
MN3-3



M3-4  
MM3-4  
MP3-4



MB3-4  
MK3-4  
MN3-4

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS  
M3-1 thru M3-4  
SERIES

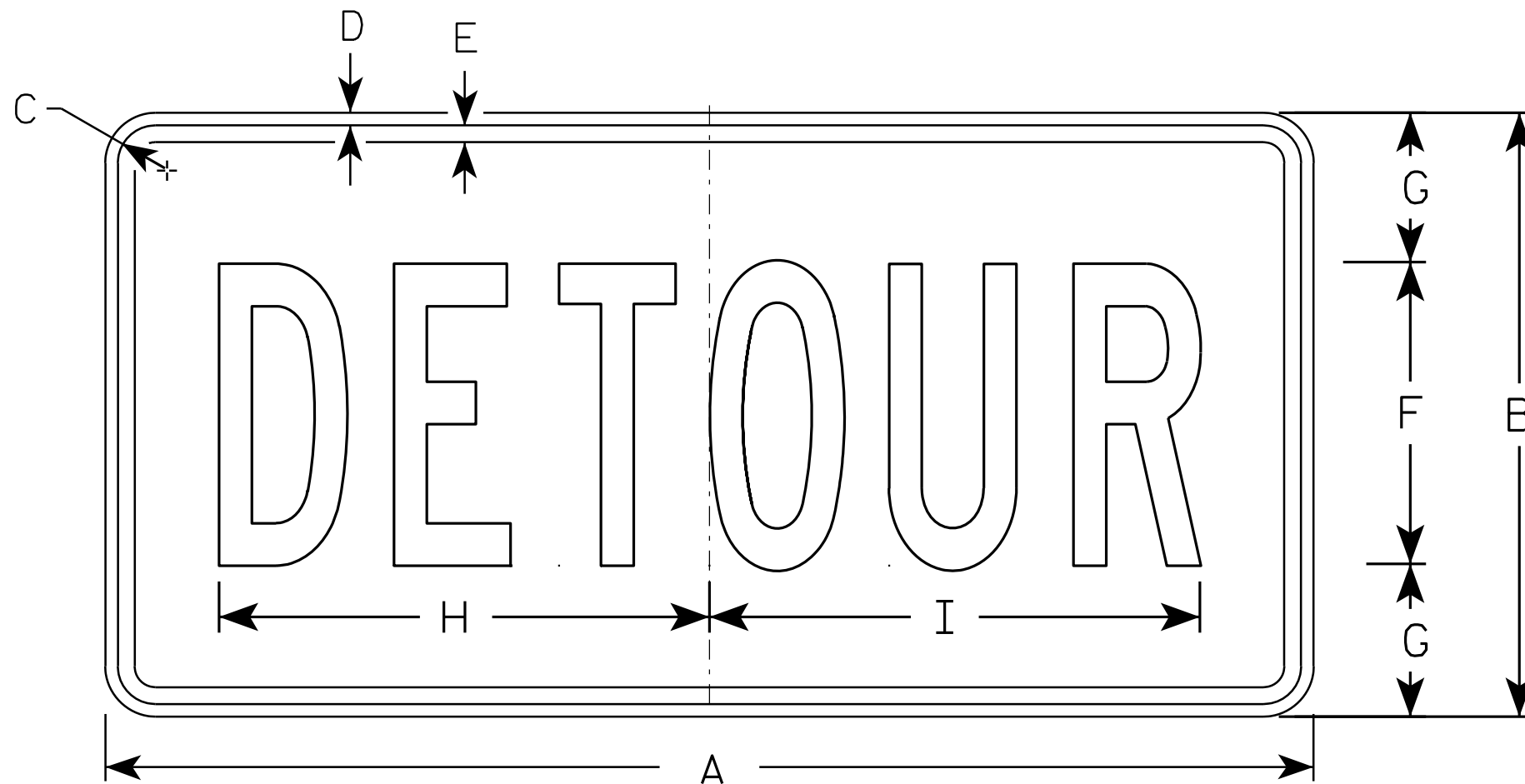
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M3-1.14

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



M4-8

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

**STANDARD SIGN**  
**M4-8**

WISCONSIN DEPT OF TRANSPORTATION

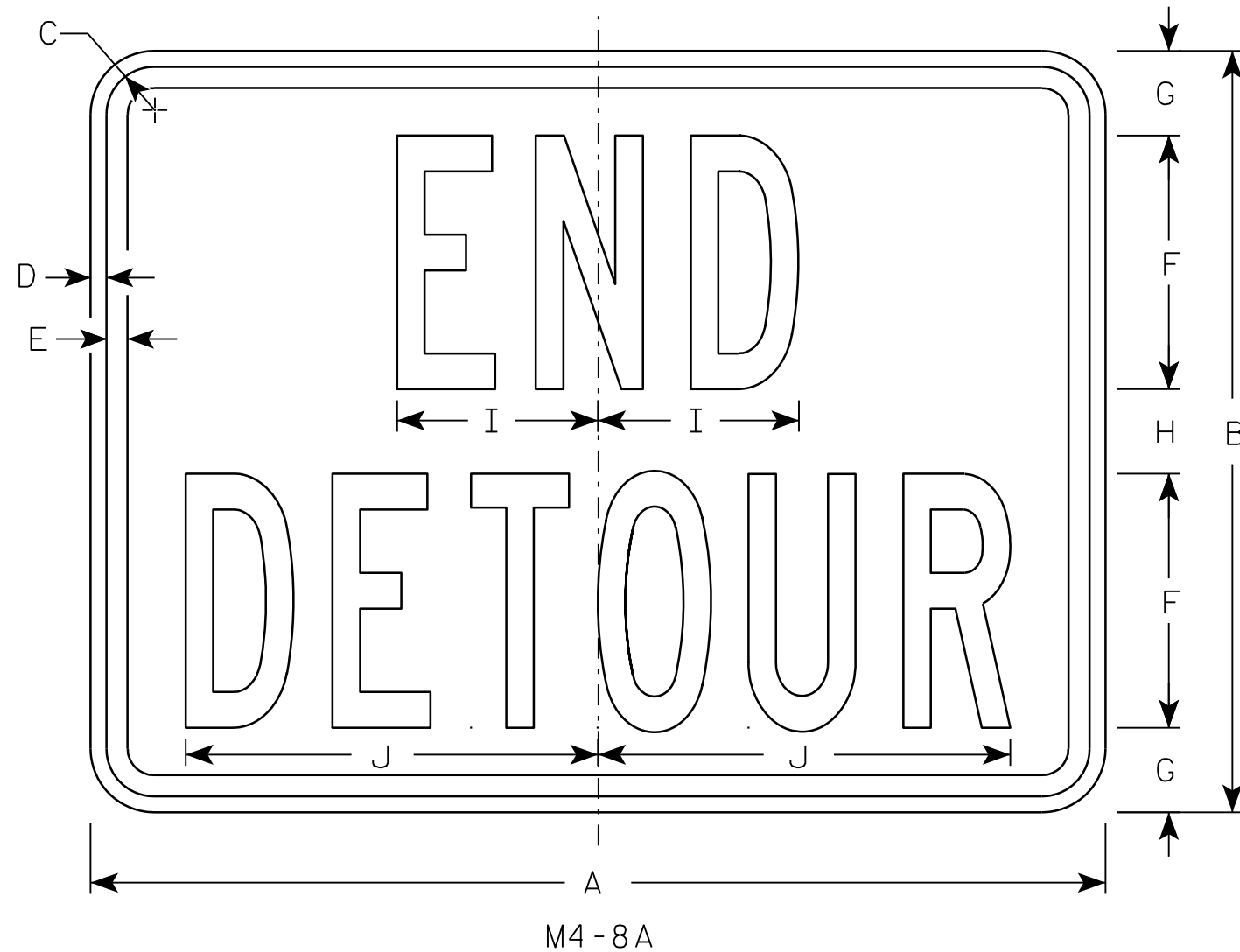
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

STANDARD SIGN  
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

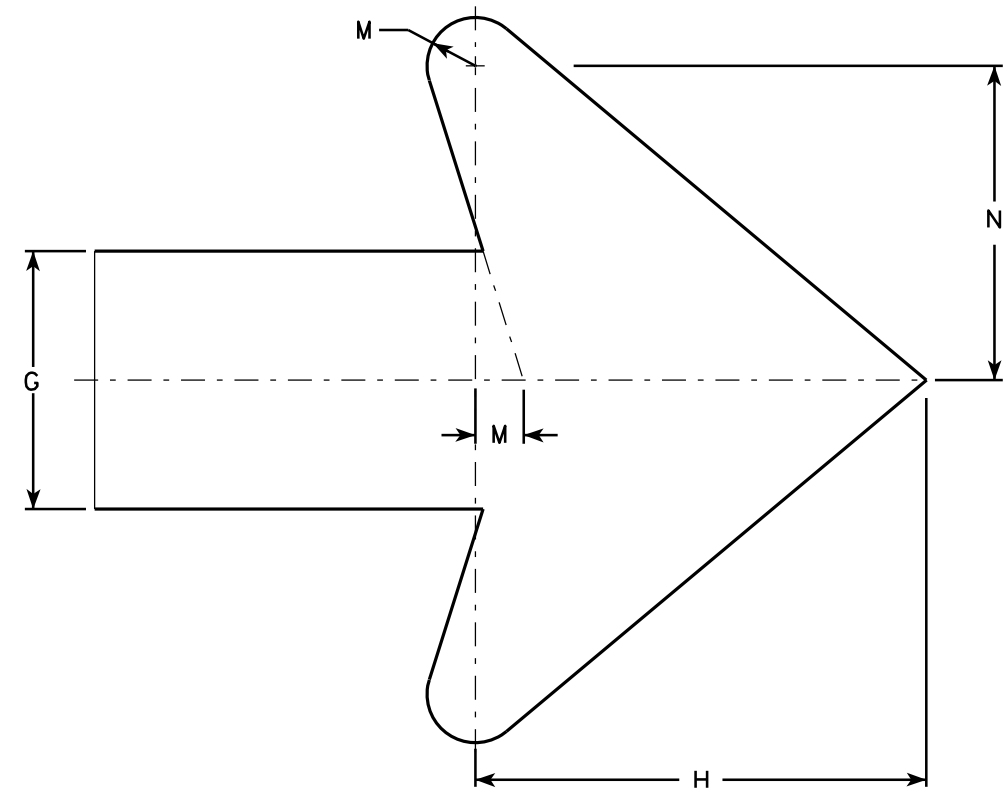
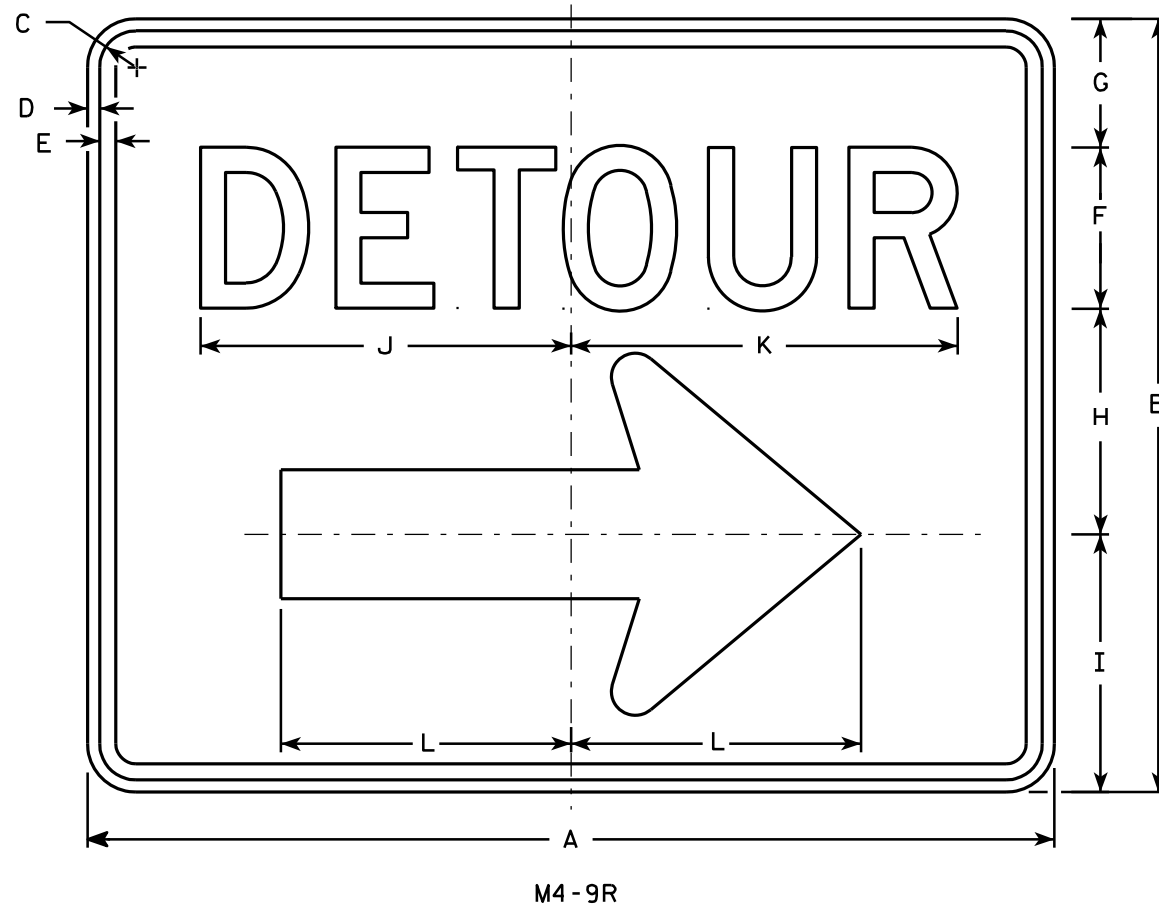
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

**NOTES**

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9L is the same as M4-9R except the arrow is reversed.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

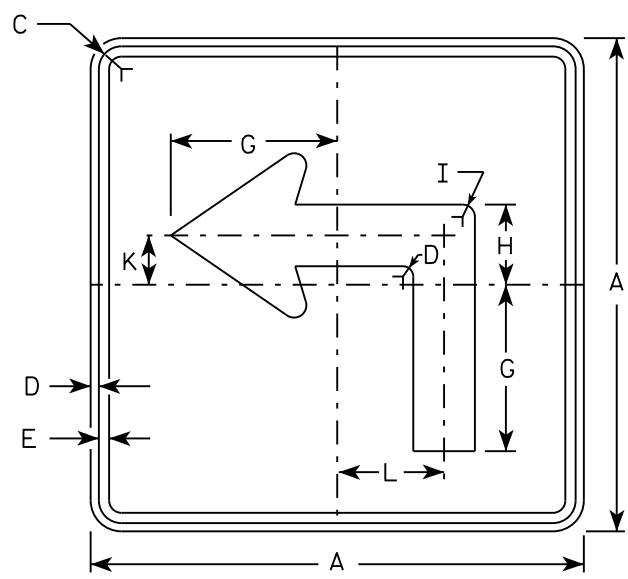
**STANDARD SIGN**  
**M4-9 R & L**

*WISCONSIN DEPT OF TRANSPORTATION*

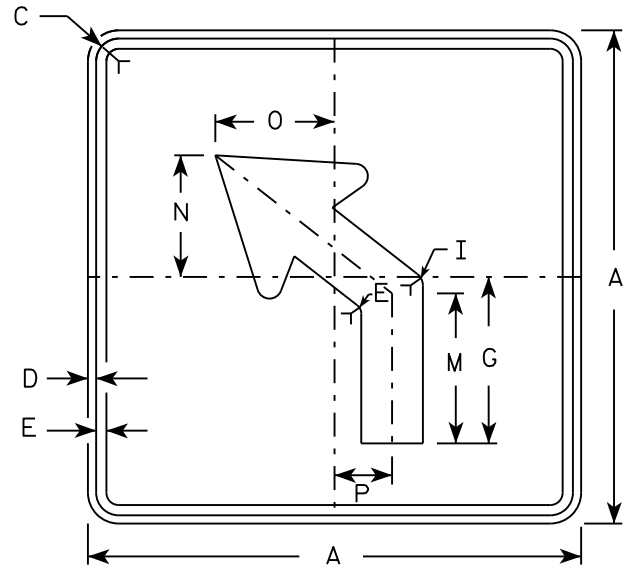
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

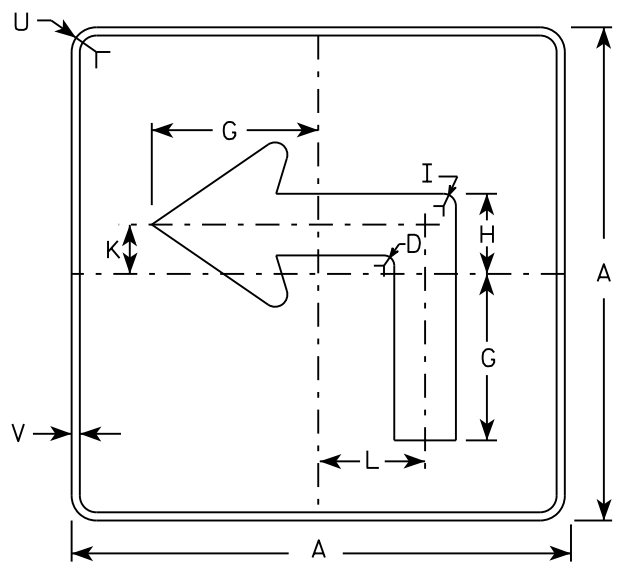
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**



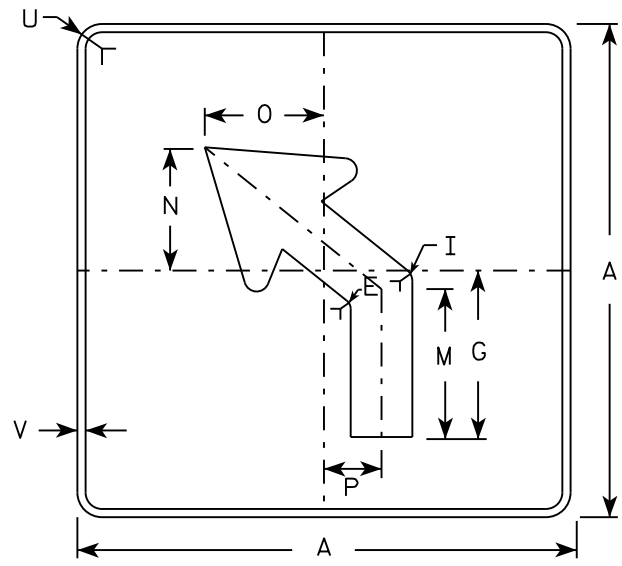
M5-1L  
MM5-1L  
M05-1L  
MP5-1L



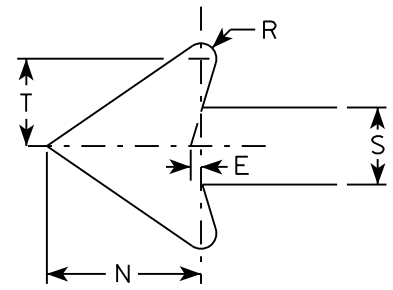
M5-2L  
MM5-2L  
M05-2L  
MP5-2L



MB5-1L  
MK5-1L  
MN5-1L  
MR5-1L



MB5-2L  
MK5-2L  
MN5-2L  
MR5-2L



NOTES

- Signs are Type II - Type H reflective except as shown
- Color:  
Background - See note 4  
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- |                 |   |
|-----------------|---|
| M5-1 and M5-2   | Background - White                      |
|                 | Message - Black                         |
| MB5-1 and MB5-2 | Background - Blue                       |
|                 | Message - White                         |
| MK5-1 and MK5-2 | Background - Green                      |
|                 | Message - White                         |
| MM5-1 and MM5-2 | Background - White                      |
|                 | Message - Green                         |
| MN5-1 and MN5-2 | Background - Brown                      |
|                 | Message - White                         |
| M05-1 and M05-2 | Background - Orange - Type F Reflective |
|                 | Message - Black                         |
| MP5-1 and MP5-2 | Background - White - Type H Reflective  |
|                 | Message - Blue                          |
| MR5-1 and MR5-2 | Background - Brown                      |
|                 | Message - Yellow                        |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

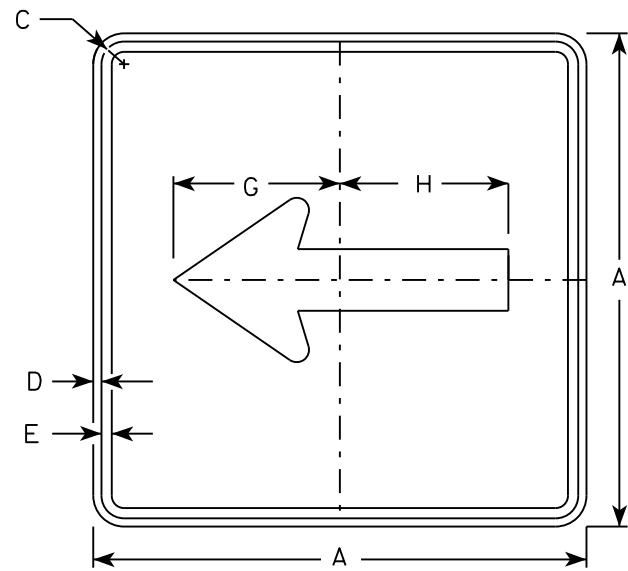
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN  
M5-1 & M5-2

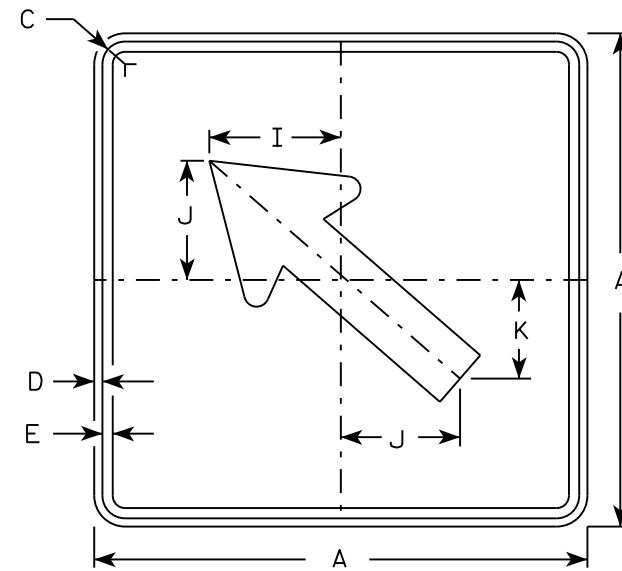
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

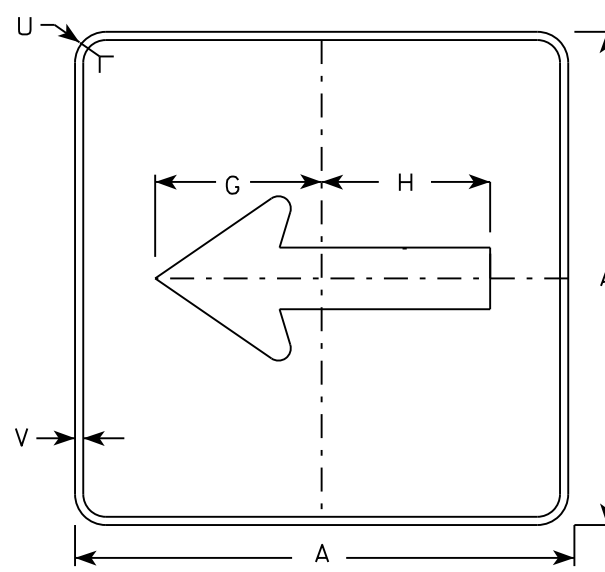
DATE 10/15/15 PLATE NO. M5-1.13



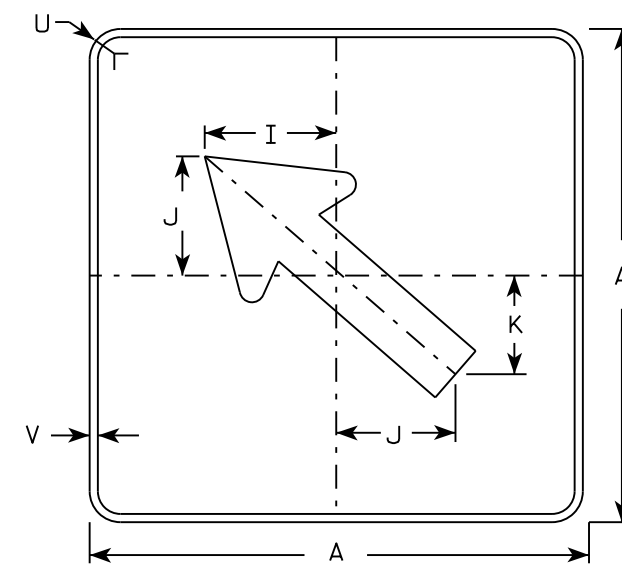
M6-1  
MM6-1  
M06-1  
MP6-1



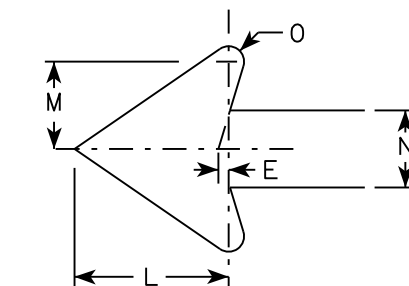
M6-2  
MM6-2  
M06-2  
MP6-2



MB6-1  
MK6-1  
MN6-1  
MR6-1



MB6-2  
MK6-2  
MN6-2  
MR6-2



NOTES

- Signs are Type II - Type H except as Shown
- Color:  
Background - See note 4  
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-1 and M6-2 Background - White  
Message - Black  
MB6-1 and MB6-2 Background - Blue  
Message - White  
MK6-1 and MK6-2 Background - Green  
Message - White  
MM6-1 and MM6-2 Background - White  
Message - Green  
MN6-1 and MN6-2 Background - Brown  
Message - White  
M06-1 and M06-2 Background - Orange - Type F Reflective  
Message - Black  
MP6-1 and MP6-2 Background - White  
Message - Blue  
MR6-1 and MR6-2 Background - Brown  
Message - Yellow

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN  
M6-1 & M6-2  
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - White  
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

7

R8-8

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 1/4	9 5/8	6 5/8	3 5/8	10														5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 1/4	9 5/8	6 5/8	3 5/8	10														5.0
3	36	48	1 3/8	1/2	5/8	6	6	4	13 7/8	14 3/8	9 7/8	5 3/8	15														12.0
4	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	18 1/2	19 1/4	13 1/4	7 1/4	20														20.0
5																											

STANDARD SIGN  
R8-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 3/31/2011 PLATE NO. R8-8.4

PROJECT NO:

HWY:

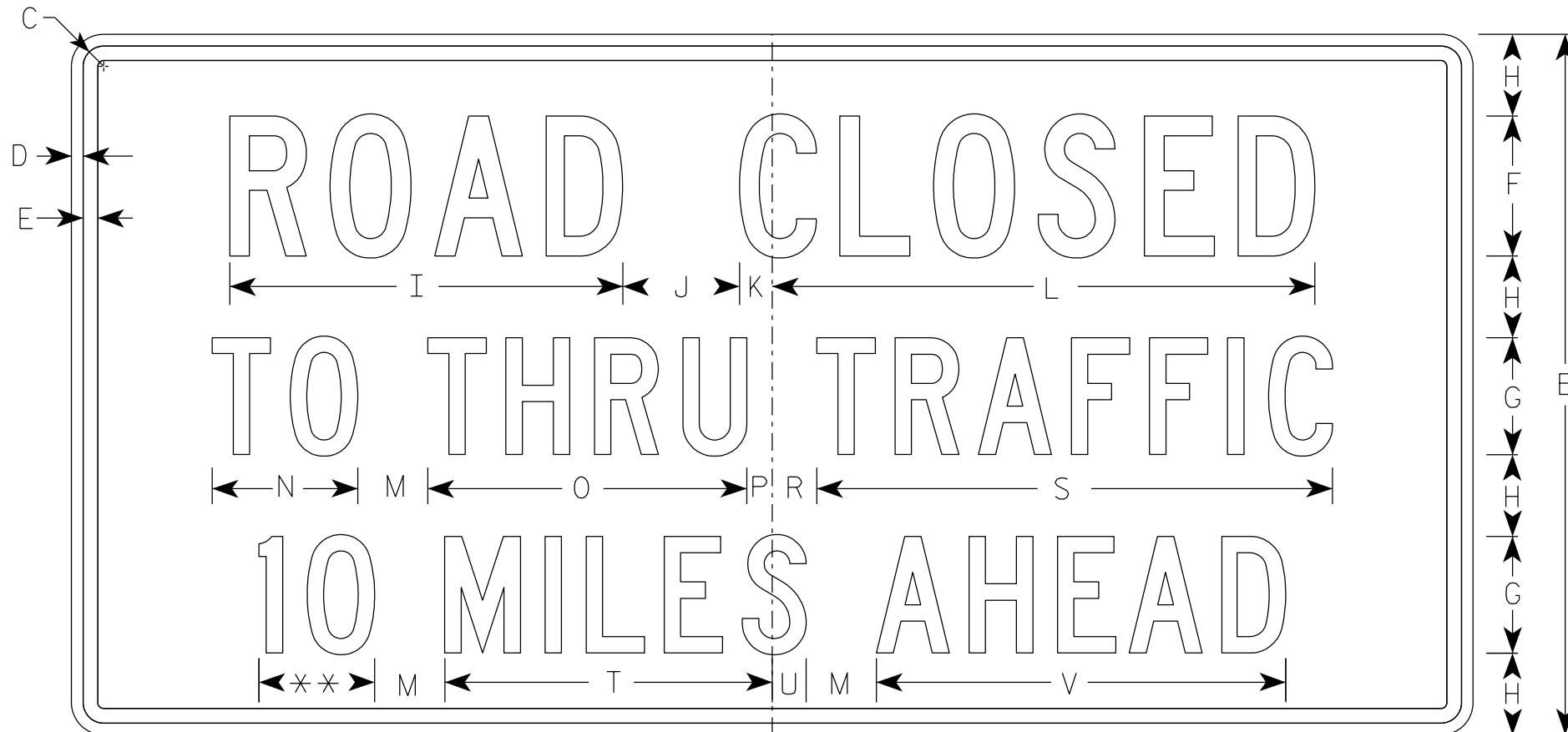
COUNTY:

SHEET NO:

E

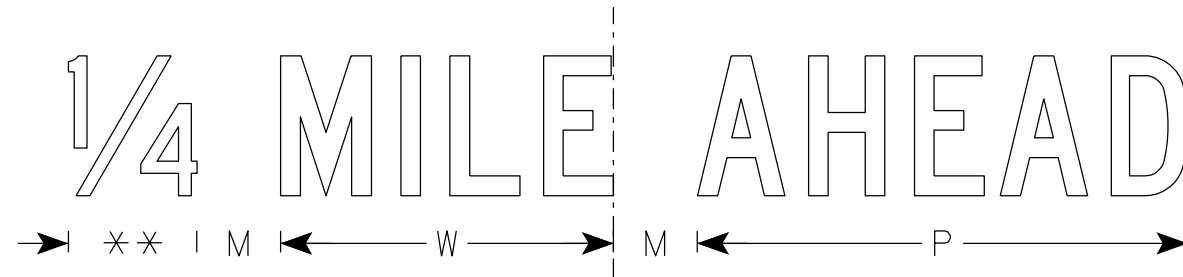
NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

\*\* See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/4	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8			4.5	
2S	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8			12.5	
2M	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8			12.5	
3																											
4																											
5																											

STANDARD SIGN  
R11-3

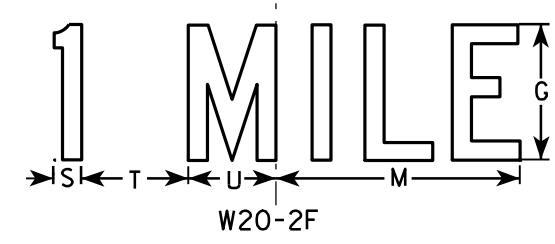
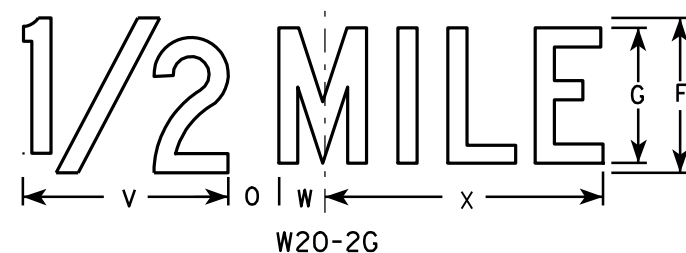
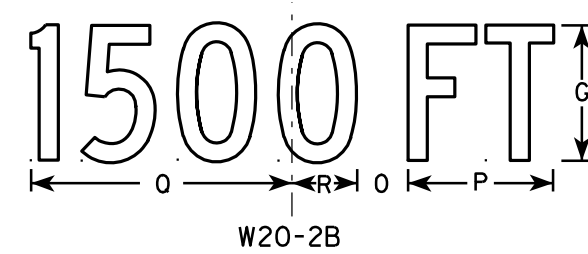
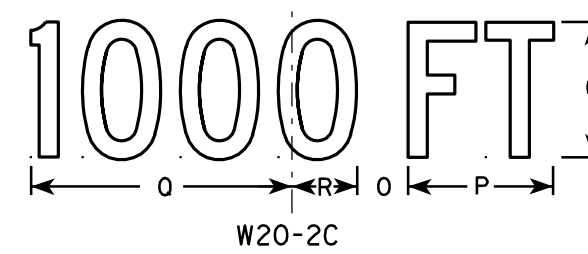
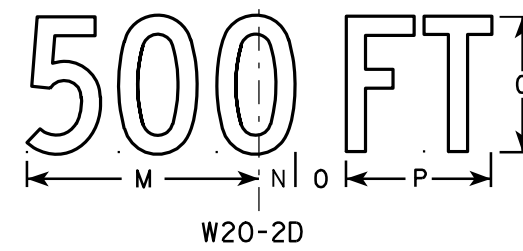
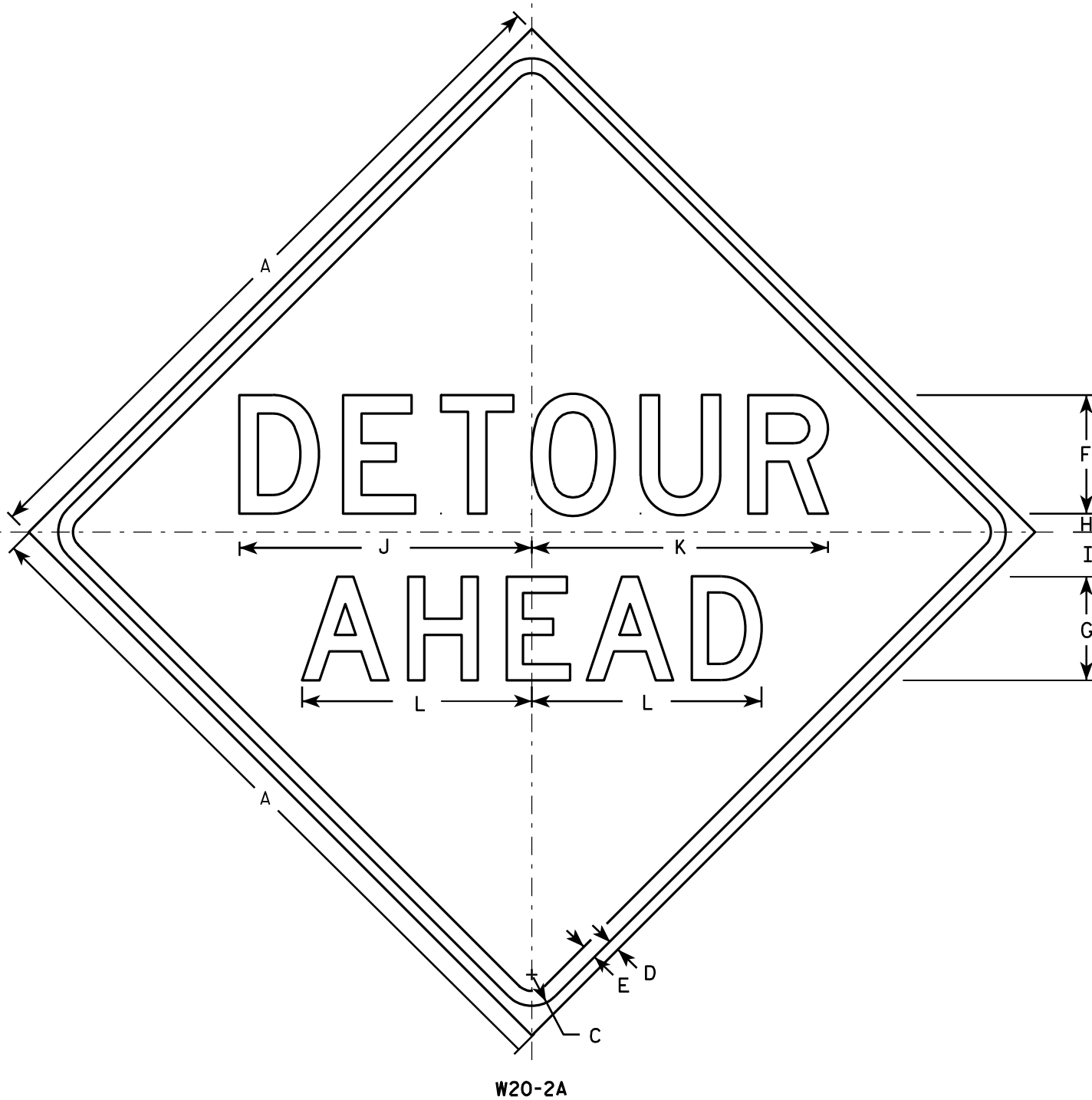
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 6/14/2021 PLATE NO. R11-3.9

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ **E**





**NOTES**

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.  
Line 2 is Series D for AHEAD and Series C for all other distances.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN  
W20-2A, B, C, D, F & G

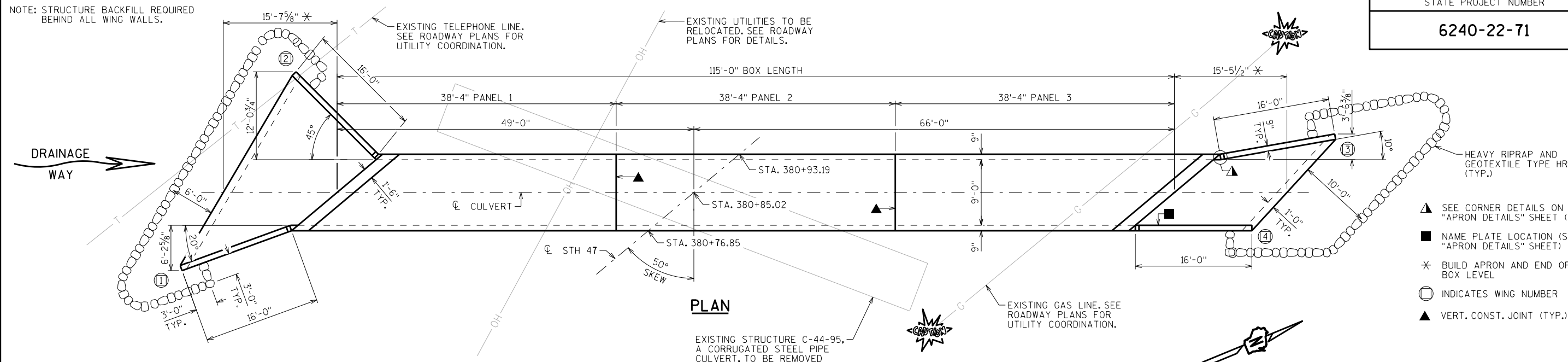
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Raub*  
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

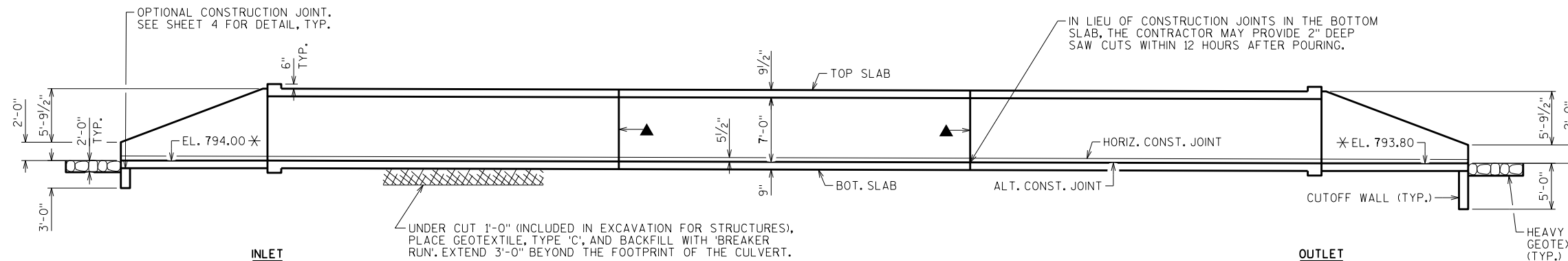
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E

NOTE: STRUCTURE BACKFILL REQUIRED BEHIND ALL WING WALLS.



PLAN

- ▲ SEE CORNER DETAILS ON "APRON DETAILS" SHEET (TYP.)
- NAME PLATE LOCATION (SEE "APRON DETAILS" SHEET)
- \* BUILD APRON AND END OF BOX LEVEL
- INDICATES WING NUMBER
- ▲ VERT. CONST. JOINT (TYP.)



ELEVATION

**LIST OF DRAWINGS**

1. LAYOUT
2. BOX DETAILS
3. APRON DETAILS
4. DETAILS
5. SUBSURFACE EXPLORATION

**DESIGN DATA**

**LIVE LOAD:**  
 DESIGN LOADING: HL-93  
 INVENTORY RATING FACTOR: RF = 1.05  
 OPERATING RATING FACTOR: RF = 1.35  
 WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 255 (KIPS)

**EARTHLOAD:**  
 DESIGNED FOR 3 TO 4.5 FT. OF FILL.  
 NOTE: INVERTS ARE SET 1'-0"± BELOW STREAM BED.

**MATERIAL PROPERTIES:**  
 CONCRETE MASONRY:  $f'_c = 3,500$  P.S.I.  
 BAR STEEL REINFORCEMENT:  $f_y = 60,000$  P.S.I.

**HYDRAULIC DATA**

**100 YEAR FREQUENCY**  
 $Q_{100} = 600$  C.F.S.  
 $VEL_{100} = 9.6$  F.P.S.  
 $HW_{100} = EL. 802.83$   
 WATERWAY AREA = 63 SQ. FT.  
 DRAINAGE AREA = 1.1 SQ. MI.  
 ROADWAY OVERTOPPING = N/A  
 SCOUR CRITICAL CODE = 8

**TRAFFIC VOLUME**

**STH 47**  
 ADT = 7,900 (2043)  
 R.D.S. = 60 M.P.H.

**TOTAL ESTIMATED QUANTITIES**

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0220	REMOVING STRUCTURE C-44-95	EACH	1
206.2000	EXCAVATION FOR STRUCTURES CULVERTS C-44-133	LS	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	1,741
311.0115	BREAKER RUN	CY	96
504.0100	CONCRETE MASONRY CULVERTS	CY	145
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	25,160
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,580
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	27
606.0300	RIPRAP HEAVY	CY	44
645.0105	GEOTEXTILE TYPE C	SY	310
645.0120	GEOTEXTILE TYPE HR	SY	96
NON-BID ITEMS			
	FILLER	SIZE	¾"

**GENERAL NOTES**

- DRAWINGS SHALL NOT BE SCALED.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
- BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.
- THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-44-133" SHALL BE THE EXISTING GROUNDLINE.
- ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.
- THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.
- THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.
- THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS ON CHAPTER 36 STANDARDS OF THE CURRENT WISC. DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".
- THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER. IN LIEU OF THE BREAKER RUN, TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL.

**STRUCTURE DESIGN CONTACTS:**  
 MICAH BROOKS (608) 266-5080  
 LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

ACCEPTED *[Signature]* **3/24/22**  
 CHIEF STRUCTURES DESIGN ENGINEER DATE

**STRUCTURE C-44-133**

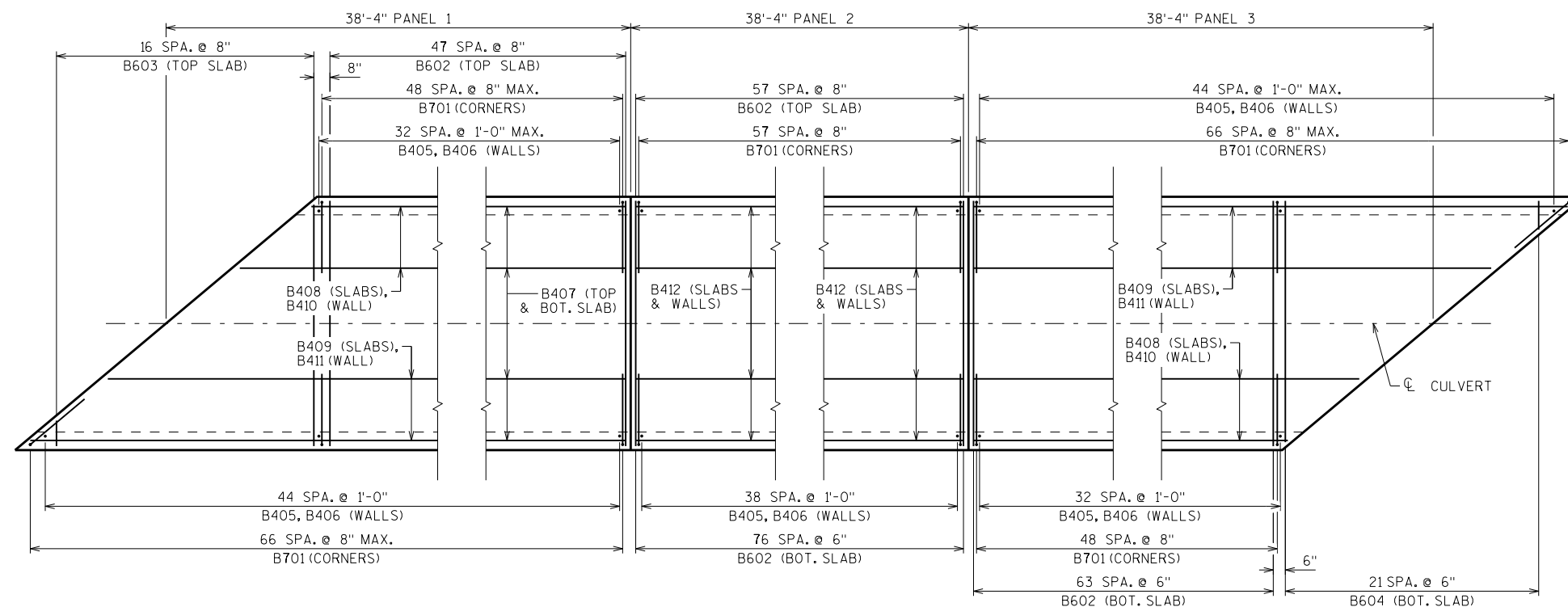
STH 47 OVER DRAINAGE WAY

COUNTY OUTAGAMIE TOWN CENTER

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY MWB DESIGNED CK'D. IFC DRAWN BY MWB PLANS CK'D. IFC

**LAYOUT** SHEET 1 OF 5



**PLAN**

SHOWING TOP SLAB REINF. IN PANEL 1, BOT. SLAB REINF. IN PANEL 3 - PANELS ARE IDENTICAL HEADERS NOT SHOWN FOR CLARITY

**BILL OF BARS**

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

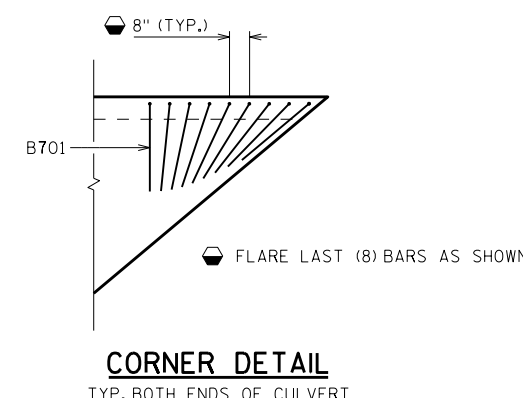
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B701		696	8'-4"	X		CORNERS - VERT.
B602		360	10'-2"			TOP & BOT. SLAB - HORIZ.
B603		34	5'-6"		▲	TOP SLAB - HORIZ. - ENDS - PANEL 1 & 3
B604		44	5'-6"		▲	TOP SLAB - HORIZ. - ENDS - PANEL 1 & 3
B405		234	2'-1"			WALLS - VERT. - DOWELS
B406		234	7'-2"			WALLS - VERT.
B407		32	37'-11"		▲	TOP & BOT. SLAB - LONGIT. - PANEL 1 & 3
B408		16	33'-9"		▲	TOP & BOT. SLAB - LONGIT. - PANEL 1 & 3
B409		16	42'-2"		▲	TOP & BOT. SLAB - LONGIT. - PANEL 1 & 3
B410		10	31'-10"			WALLS - LONGIT. - PANEL 1 & 3
B411		10	43'-11"			WALLS - LONGIT. - PANEL 1 & 3
B412		42	38'-0"			SLABS & WALLS - LONGIT. - PANEL 2
B513		76	4'-0"			CONST. JOINT - DOWELS
B314		23	4'-5"	X		INLET HEADER - STIRRUPS
B315		23	4'-8"	X		OUTLET HEADER - STIRRUPS
B316		46	4'-1"	X		BOT. SLAB HEADERS - STIRRUPS
B817		24	16'-0"			HEADERS - HORIZ.

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

**BAR SERIES TABLE**

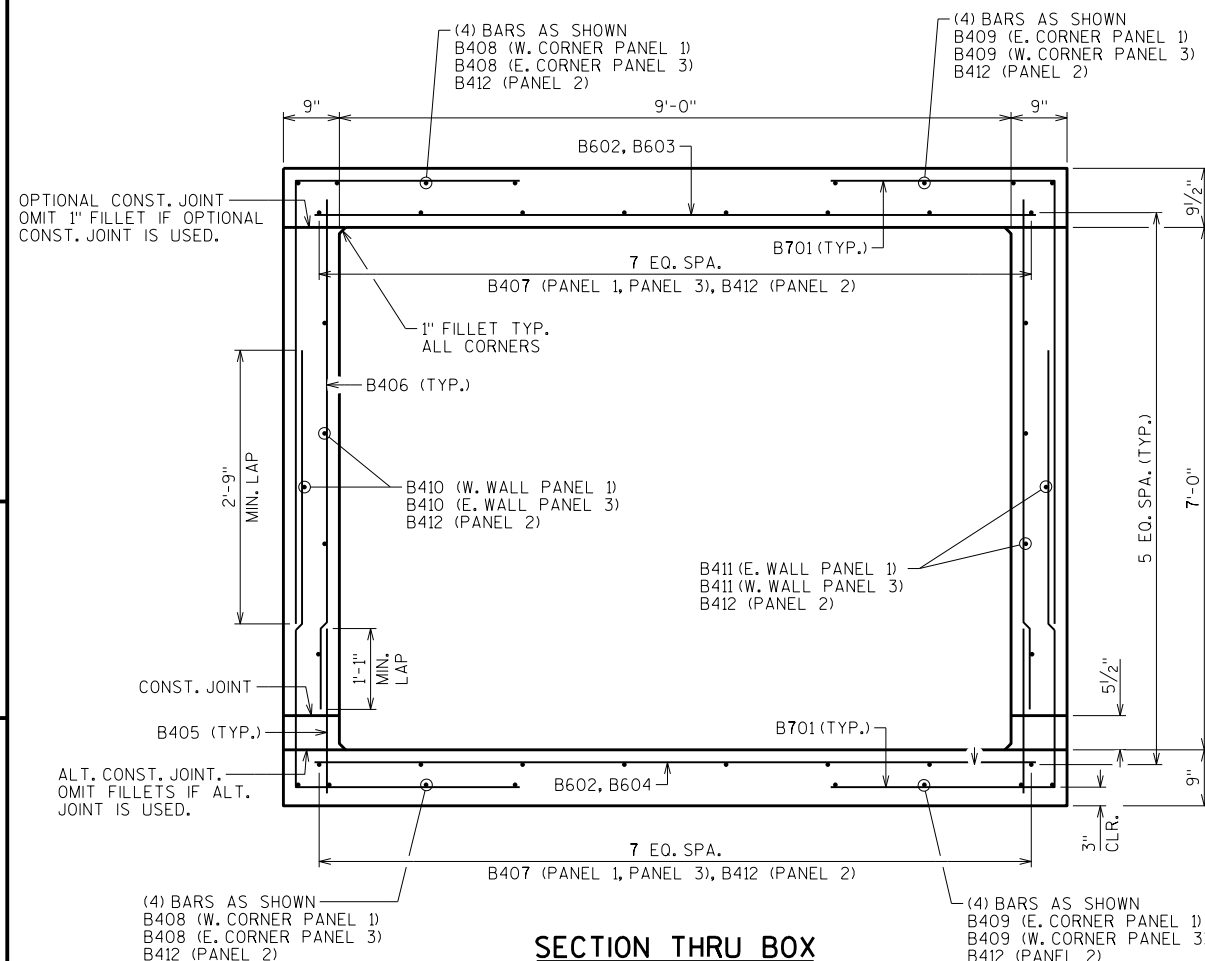
BAR MARK	NO. REQ'D.	LENGTH
B603	2 SERIES OF 17	1'-0" TO 10'-0"
B604	2 SERIES OF 22	1'-1" TO 10'-0"
B407	4 SERIES OF 8	31'-11" TO 43'-11"
B408	4 SERIES OF 4	31'-11" TO 35'-5"
B409	4 SERIES OF 4	40'-4" TO 43'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY.

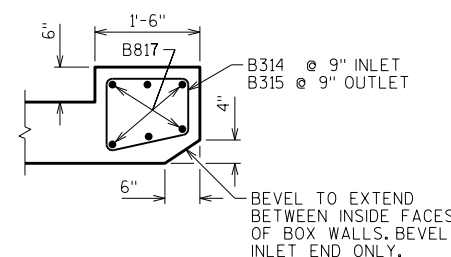


**CORNER DETAIL**

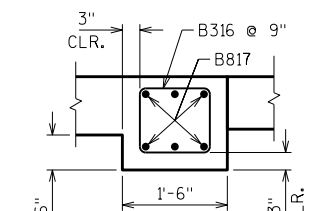
TYP. BOTH ENDS OF CULVERT



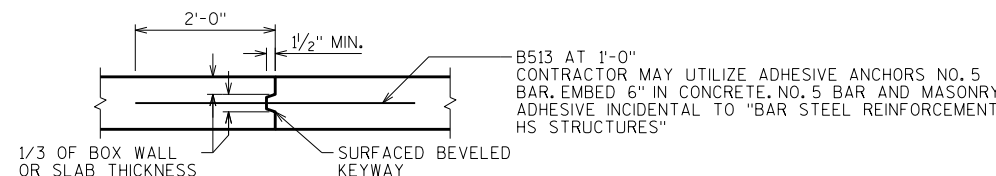
**SECTION THRU BOX**



**SECTION THRU TOP SLAB HEADER**

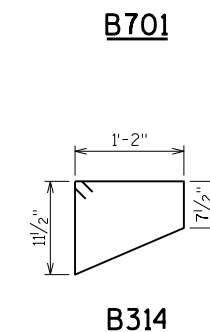


**SECTION THRU BOTTOM SLAB HEADER**



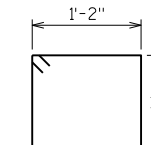
**VERTICAL CONSTRUCTION JOINT**

2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONST. JT. IN BOTTOM SLAB.

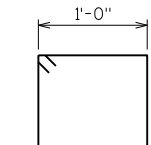


**B701**

**B314**

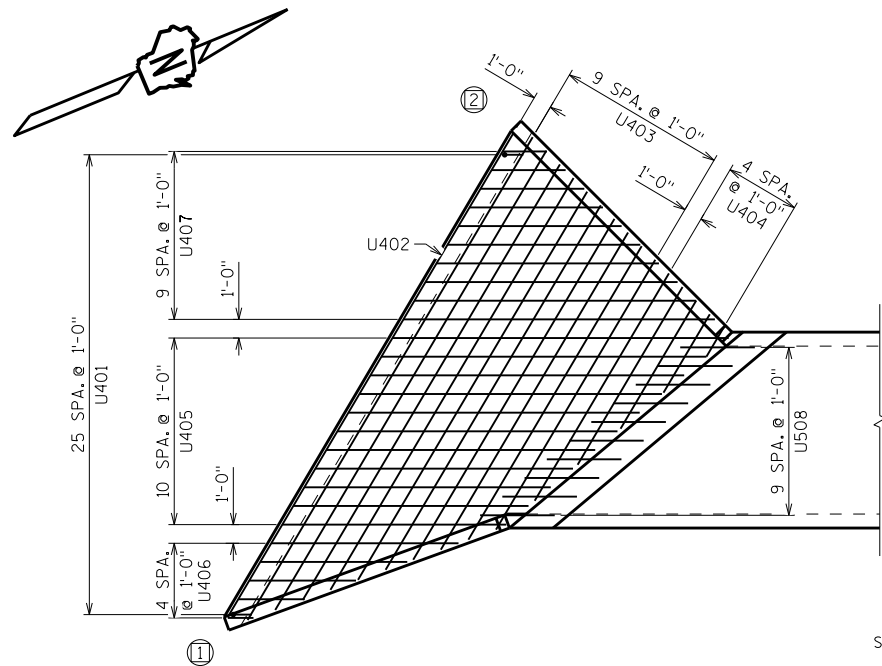


**B315**

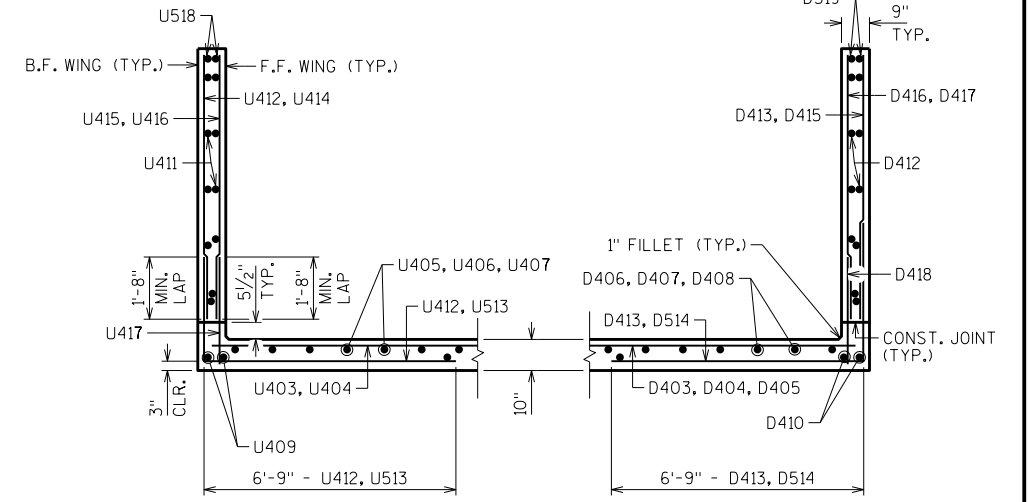
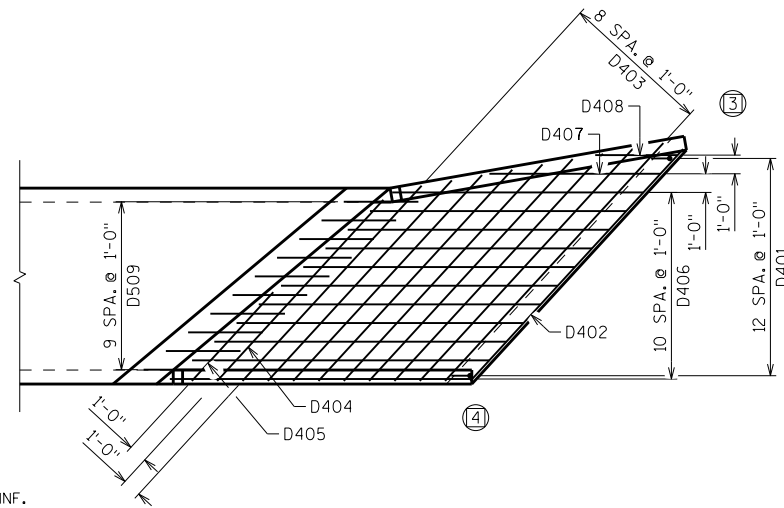


**B316**

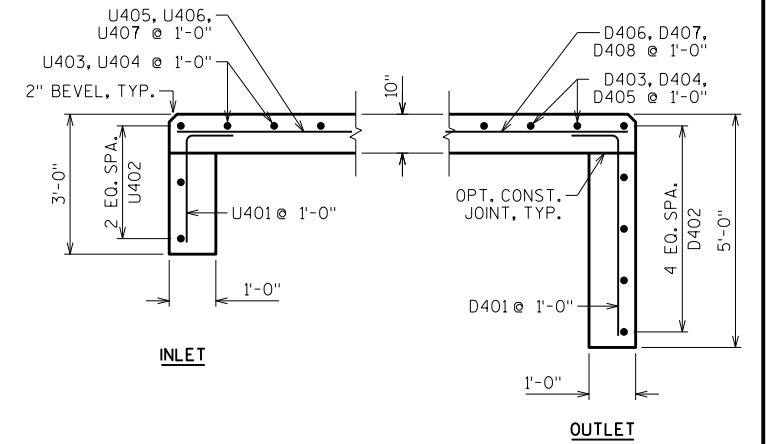
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
<b>STRUCTURE C-44-133</b>			
DRAWN BY: MWB		PLANS CK'D: IFC	
<b>BOX DETAILS</b>			SHEET 2



PLAN  
SHOWING APRON REINF.



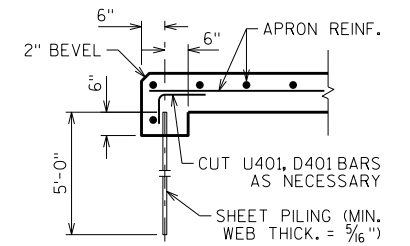
SECTION THRU WINGWALLS



INLET

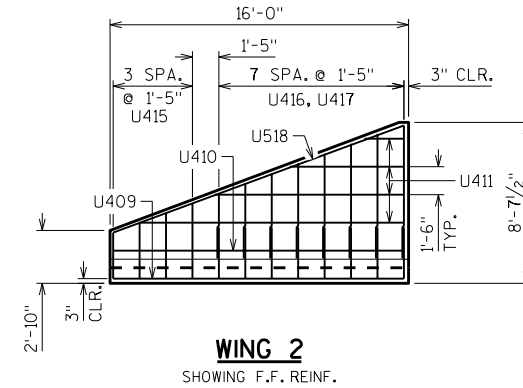
OUTLET

CUT-OFF WALLS

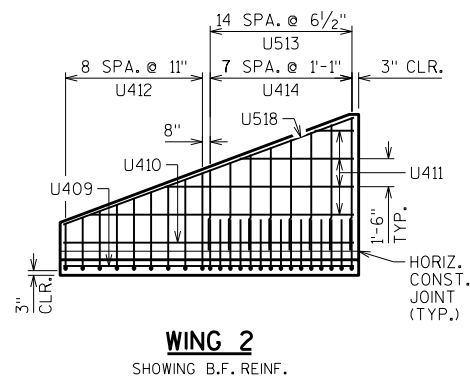


ALTERNATE CUT-OFF WALLS

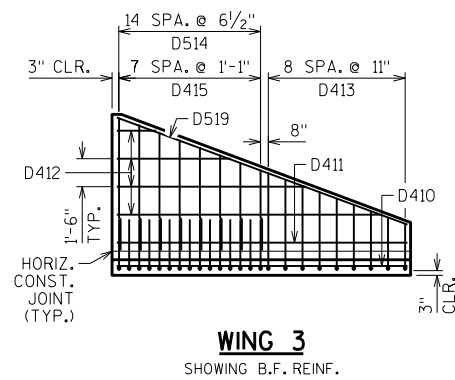
THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.



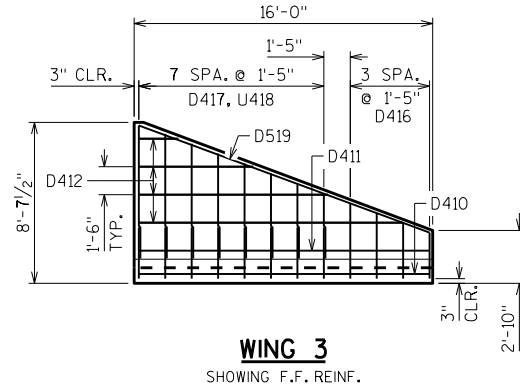
WING 2  
SHOWING F.F. REINF.



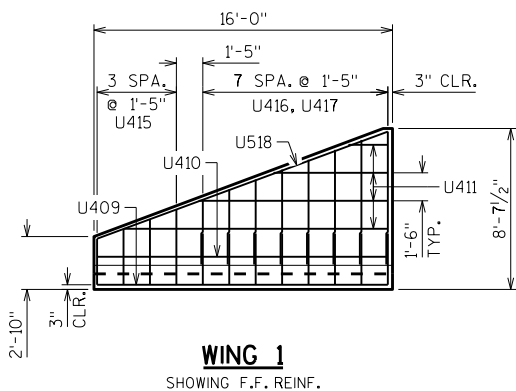
WING 2  
SHOWING B.F. REINF.



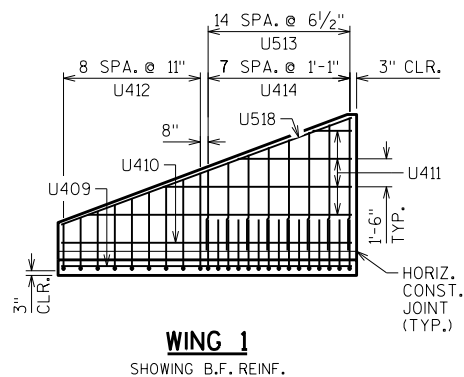
WING 3  
SHOWING B.F. REINF.



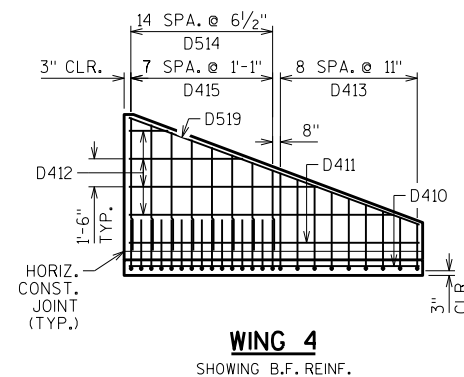
WING 3  
SHOWING F.F. REINF.



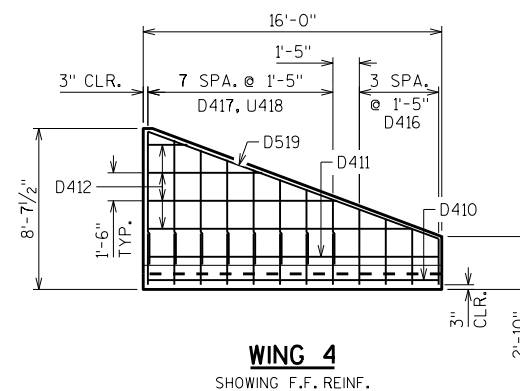
WING 1  
SHOWING F.F. REINF.



WING 1  
SHOWING B.F. REINF.



WING 4  
SHOWING B.F. REINF.



WING 4  
SHOWING F.F. REINF.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
<b>STRUCTURE C-44-133</b>			
DRAWN BY		PLANS CK'D.	IFC
MWB		SHEET 3	
<b>APRON DETAILS</b>			

**BILL OF BARS**

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

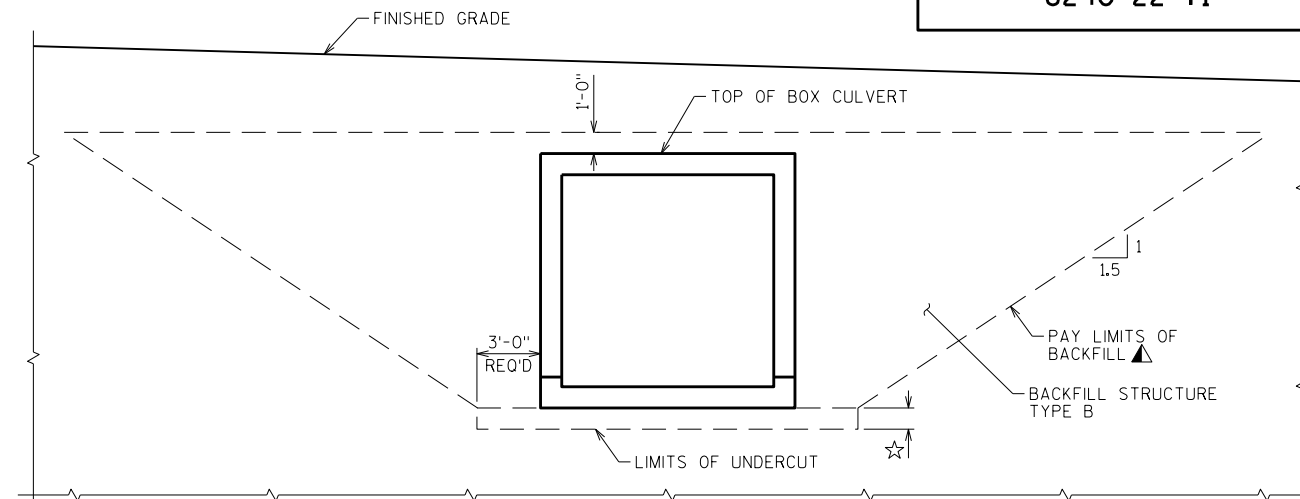
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
U401		26	3'-2"	X		INLET CUTOFF WALL - VERT.
U402		3	30'-2"			INLET CUTOFF WALL - HORIZ.
U403		10	23'-5"		▲	INLET APRON - HORIZ.
U404		5	8'-0"		▲	INLET APRON - HORIZ.
U405		11	15'-0"		▲	INLET APRON - LONGIT.
U406		5	5'-8"		▲	INLET APRON - LONGIT.
U407		10	9'-7"		▲	INLET APRON - LONGIT.
U508		10	4'-0"			INLET APRON - CONST. JOINT
U409		6	15'-7"			WINGS 1 & 2 - HORIZ. - BOT.
U410	X	4	15'-7"			WINGS 1 & 2 - HORIZ.
U411	X	16	8'-2"		▲	WINGS 1 & 2 - HORIZ.
U412	X	18	10'-7"	X	▲	WINGS 1 & 2 - VERT. - B.F.
U513	X	30	9'-5"	X		WINGS 1 & 2 - VERT. - B.F.
U414	X	16	5'-10"		▲	WINGS 1 & 2 - VERT. - B.F.
U415	X	8	3'-3"		▲	WINGS 1 & 2 - VERT. - F.F.
U416	X	16	5'-4"		▲	WINGS 1 & 2 - VERT. - F.F.
U417	X	16	2'-9"			WINGS 1 & 2 - VERT. - DOWELS - F.F.
U518	X	4	16'-7"			WINGS 1 & 2 - HORIZ. - TOP
D401		13	5'-2"	X		OUTLET CUTOFF WALL - VERT.
D402		5	16'-10"			OUTLET CUTOFF WALL - HORIZ.
D403		9	15'-9"		▲	OUTLET APRON - HORIZ.
D404		1	13'-2"			OUTLET APRON - HORIZ.
D405		1	6'-5"			OUTLET APRON - HORIZ.
D406		11	14'-10"		▲	OUTLET APRON - LONGIT.
D407		1	9'-2"			OUTLET APRON - LONGIT.
D408		1	4'-5"			OUTLET APRON - LONGIT.
D509		10	4'-0"			OUTLET APRON - CONST. JOINT
D410		6	15'-7"			WINGS 3 & 4 - HORIZ. - BOT.
D411	X	4	15'-7"			WINGS 3 & 4 - HORIZ.
D412	X	16	8'-2"		▲	WINGS 3 & 4 - HORIZ.
D413	X	18	10'-7"	X	▲	WINGS 3 & 4 - VERT. - B.F.
D514	X	30	9'-5"	X		WINGS 3 & 4 - VERT. - B.F.
D415	X	16	5'-10"		▲	WINGS 3 & 4 - VERT. - B.F.
D416	X	8	3'-3"		▲	WINGS 3 & 4 - VERT. - F.F.
D417	X	16	5'-4"		▲	WINGS 3 & 4 - VERT. - F.F.
D418	X	16	2'-9"			WINGS 3 & 4 - VERT. - DOWELS - F.F.
D519	X	4	16'-7"			WINGS 3 & 4 - HORIZ. - TOP

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

**BAR SERIES TABLE**

BAR MARK	NO. REQ'D.	LENGTH
U403	1 SERIES OF 10	16'-9" TO 30'-1"
U404	1 SERIES OF 5	1'-10" TO 14'-2"
U405	1 SERIES OF 11	12'-0" TO 18'-0"
U406	1 SERIES OF 5	1'-4" TO 10'-0"
U407	1 SERIES OF 10	2'-5" TO 16'-8"
U411	4 SERIES OF 4	2'-1" TO 14'-2"
U412	2 SERIES OF 9	9'-2" TO 11'-11"
U414	2 SERIES OF 8	4'-6" TO 7'-2"
U415	2 SERIES OF 4	2'-5" TO 4'-1"
U416	2 SERIES OF 8	3'-6" TO 7'-2"
D403	1 SERIES OF 9	14'-2" TO 17'-3"
D406	1 SERIES OF 11	13'-5" TO 16'-2"
D412	4 SERIES OF 4	2'-1" TO 14'-2"
D413	2 SERIES OF 9	9'-2" TO 11'-11"
D415	2 SERIES OF 8	4'-6" TO 7'-2"
D416	2 SERIES OF 4	2'-5" TO 4'-1"
D417	2 SERIES OF 8	3'-6" TO 7'-2"

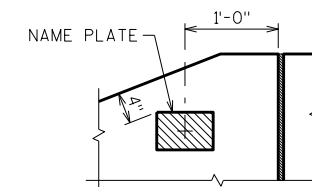
BUNDLE AND TAG EACH SERIES SEPARATELY.



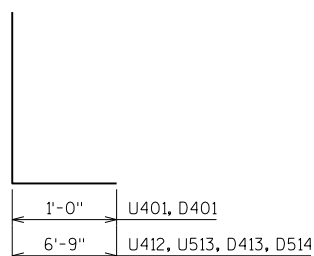
**TYPICAL SECTION THRU BOX CULVERT**

▲ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

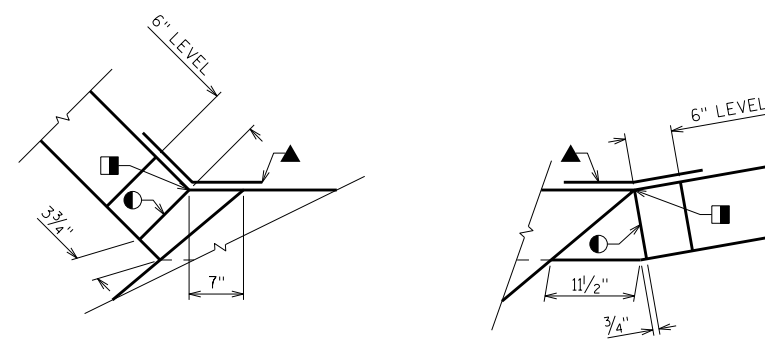
☆ UNDER CUT 1'-0". EXCAVATION FOR UNDER CUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".



**NAME PLATE LOCATION WING 4**

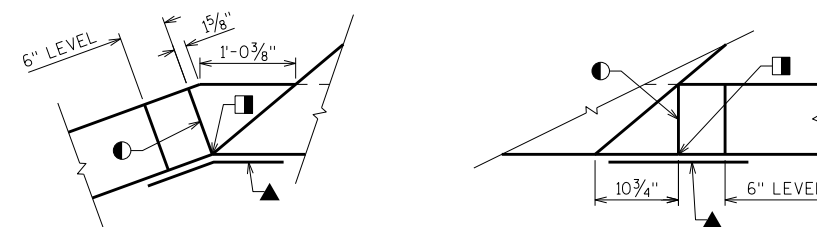


**U401, U412, U513, D401, D413, D514**



**CORNER 2**

**CORNER 3**



**CORNER 1**

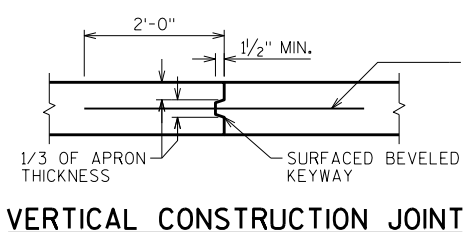
**CORNER 4**

**CORNER DETAILS**

● 3/4" FILLER (TYP.) EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WING.

■ 1" BEVEL (TYP.)

▲ 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WALL.



U508, D509 AT 1'-0" CONTRACTOR MAY UTILIZE ADHESIVE ANCHORS NO. 5 BAR. EMBED 6" IN CONCRETE. NO. 5 BAR AND MASONRY ADHESIVE INCIDENTAL TO "BAR STEEL REINFORCEMENT HS STRUCTURES"

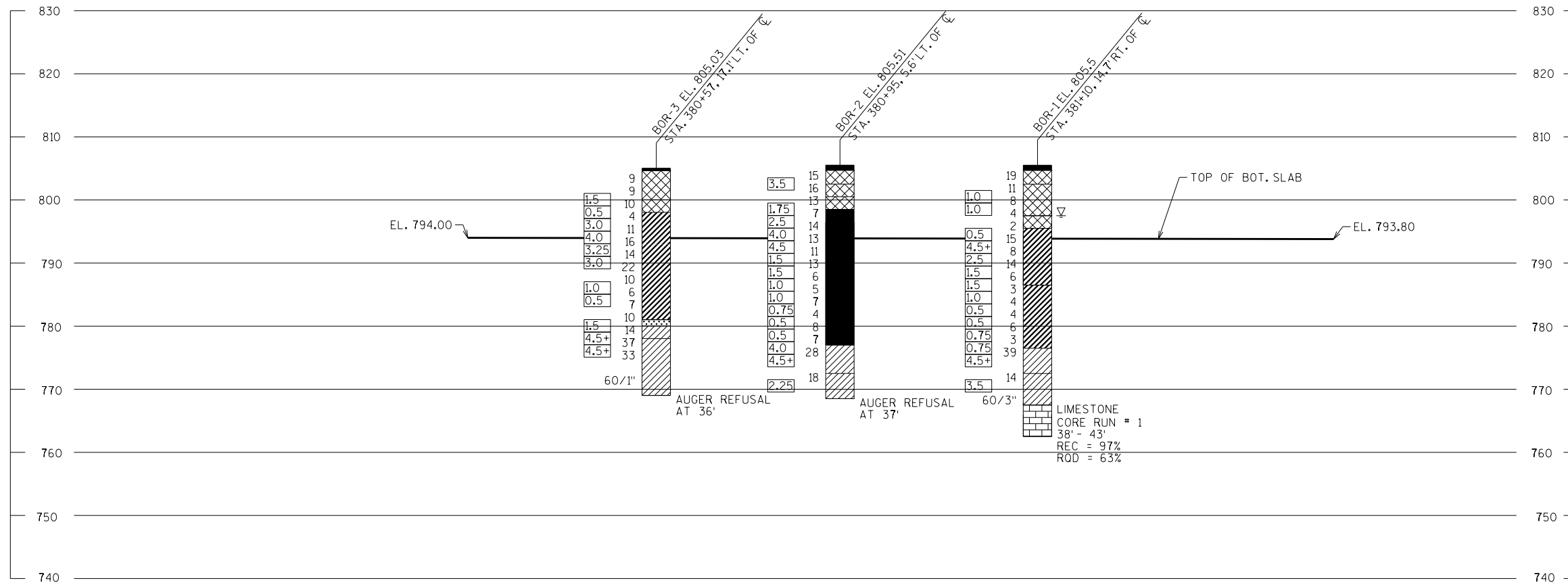
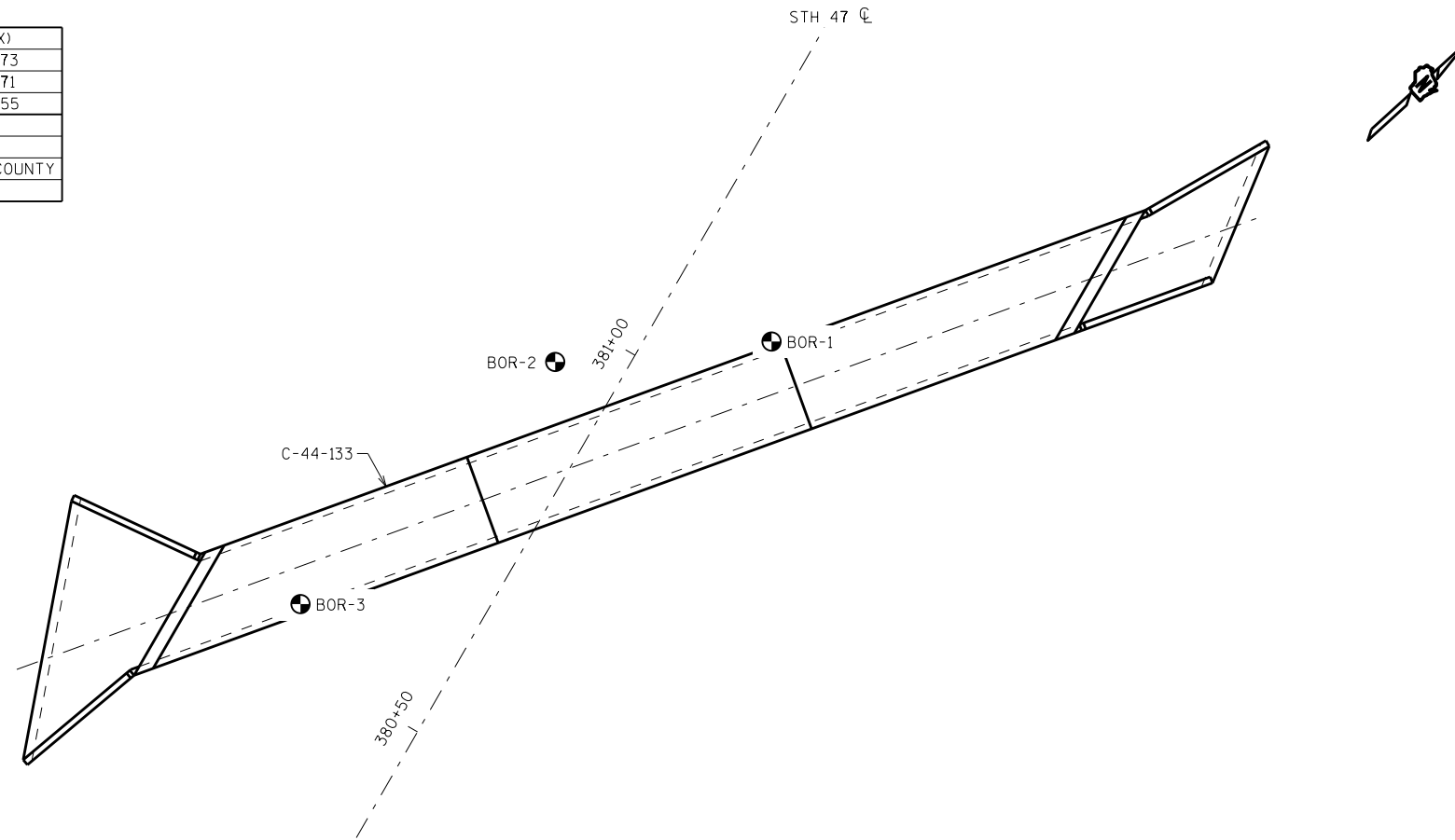
**VERTICAL CONSTRUCTION JOINT**

2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONST. JT. IN BOTTOM SLAB.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
<b>STRUCTURE C-44-133</b>			
DRAWN BY		PLANS CKD.	IFC
MWB		SHEET 4	
<b>DETAILS</b>			

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	12/03/2020	610872.96	822474.73
2	12/04/2020	610853.01	822459.71
3	12/04/2020	610812.62	822460.55

BORINGS COMPLETED BY: GESTRA  
 REPORT COMPLETED BY: WISDOT  
 ALL COORDINATES REFERENCED TO WCCS NAD 83(91) OUTAGAMIE COUNTY  
 COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT



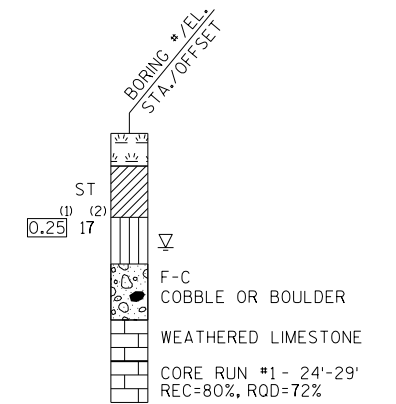
STATE PROJECT NUMBER

6240-22-71

MATERIAL SYMBOLS

	ASPHALT		TOPSOIL		PEAT
	CONCRETE		FILL		GRAVEL
	SAND		CLAY		SILT
	BOULDERS OR COBBLES		LIMESTONE		BEDROCK (UNKNOWN)
	SHALE		SANDSTONE		IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
<b>STRUCTURE C-44-133</b>			
DRAWN BY TLP/MWB		PLANS CK'D. IFC	
<b>SUBSURFACE EXPLORATION</b>			SHEET 5

SCALE = 10.00

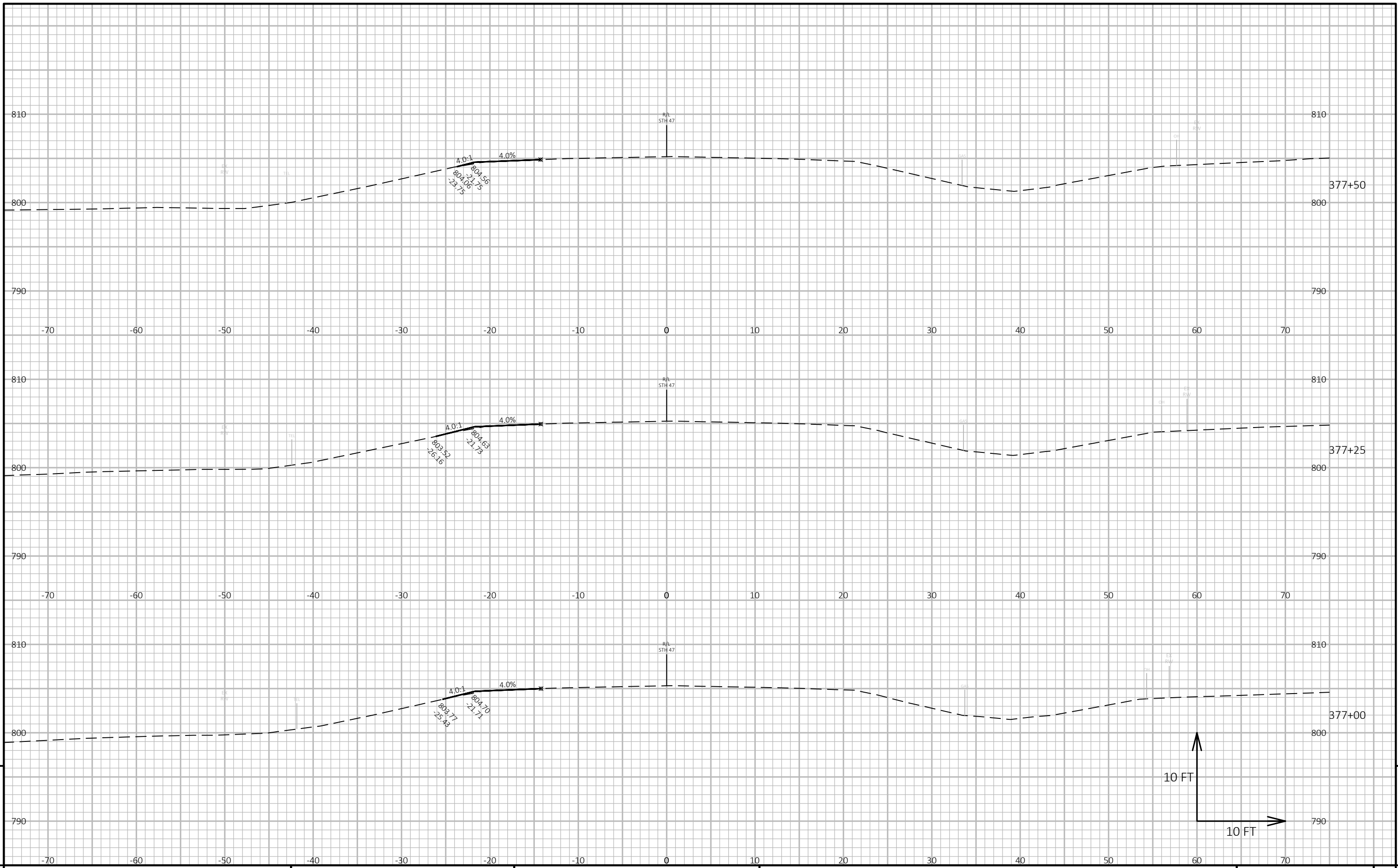


PROJECT ID 6420-22-71 BOX CULVERT AREA LT			AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)			MASS ORDINATE
STATION	REAL STATION	DISTANCE	CUT	PAVEMENT MATERIAL	FILL	CUT	PAVEMENT MATERIAL	FILL	CUT 1.00	PAVEMENT MATERIAL	EXPANDED FILL 1.15	
376+93.67	37693.67	0.00	0.06	0.00	0.36	0	0	0	0	0	0	0
377+00	37700.00	6.33	0.04	0.00	0.39	0	0	0	0	0	0	0
377+50	37750.00	50.00	0.04	0.00	0.27	0	0	1	0	0	1	-1
378+00	37800.00	50.00	0.26	0.00	0.01	0	0	0	0	0	1	-1
378+50	37850.00	50.00	15.05	4.31	0.00	14	4	0	15	4	1	9
379+00	37900.00	50.00	13.13	3.85	0.92	26	8	1	41	12	2	27
379+50	37950.00	50.00	12.73	4.02	3.04	24	7	4	65	19	6	39
380+00	38000.00	50.00	12.40	4.08	3.57	23	8	6	88	26	13	48
380+50	38050.00	50.00	11.88	3.96	5.16	22	7	8	110	34	23	54
380+72.34	38072.34	22.34	10.80	4.16	9.99	9	3	6	120	37	30	53
380+75*	38075.00	-	-	-	-	7	0	90	127	37	133	-44
381+08.20	38108.20	0.00	0.95	0.95	34.15	0	0	0	127	37	133	-44
381+50	38150.00	41.80	81.89	3.44	6.93	64	3	32	191	41	170	-20
382+00	38200.00	50.00	124.17	3.25	2.95	191	6	9	382	47	180	154
382+45	38245.48	45.47	1.78	1.73	2.74	106	4	5	488	51	186	251

\*N4295/N4299 Driveway

PROJECT ID 6420-22-71 BOX CULVERT AREA RT			AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			MASS ORDINATE
STATION	REAL STATION	DISTANCE	CUT	PAVEMENT MATERIAL	FILL	CUT	PAVEMENT MATERIAL	FILL	CUT 1.00	PAVEMENT MATERIAL	EXPANDED FILL 1.15	
380+00*	38000.00	-	-	-	-	24	0	105	24	0	121	-97
380+86.62	38086.62	0.00	38.69	3.08	0.44	0	0	0	24	0	121	-97
381+00	38100.00	13.38	9.89	3.08	109.29	12	2	27	36	2	152	-118
381+50	38150.00	50.00	11.99	3.10	18.47	20	6	118	56	7	288	-239
382+00	38200.00	50.00	13.80	3.09	2.96	24	6	20	80	13	311	-244
382+09.40	38209.40	9.40	14.30	3.13	1.54	5	1	1	85	14	312	-241

\*N4296 Driveway



9

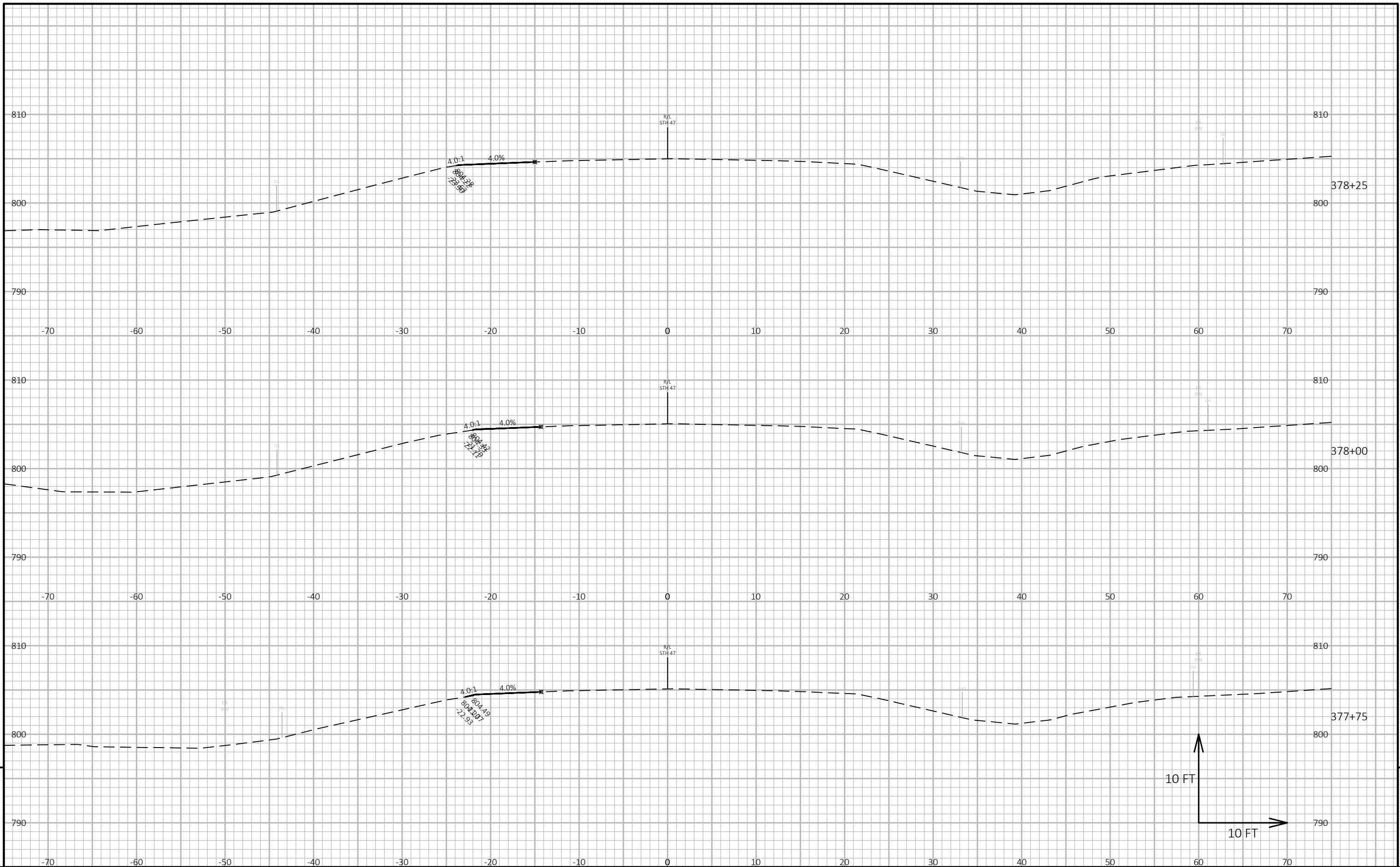
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PROJECT NO: 6240-22-71	HWY: STH 47	COUNTY: OUTAGAMIE	CROSS SECTIONS: STH 47	SHEET	E
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FILE NAME : N:\PDS\C3D\62402200\SHEETSPLAN\090201-XS.DWG PLOT DATE : 1/26/2022 2:16 PM PLOT BY : CAMPSHURE, MICHAEL R PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090201-xs





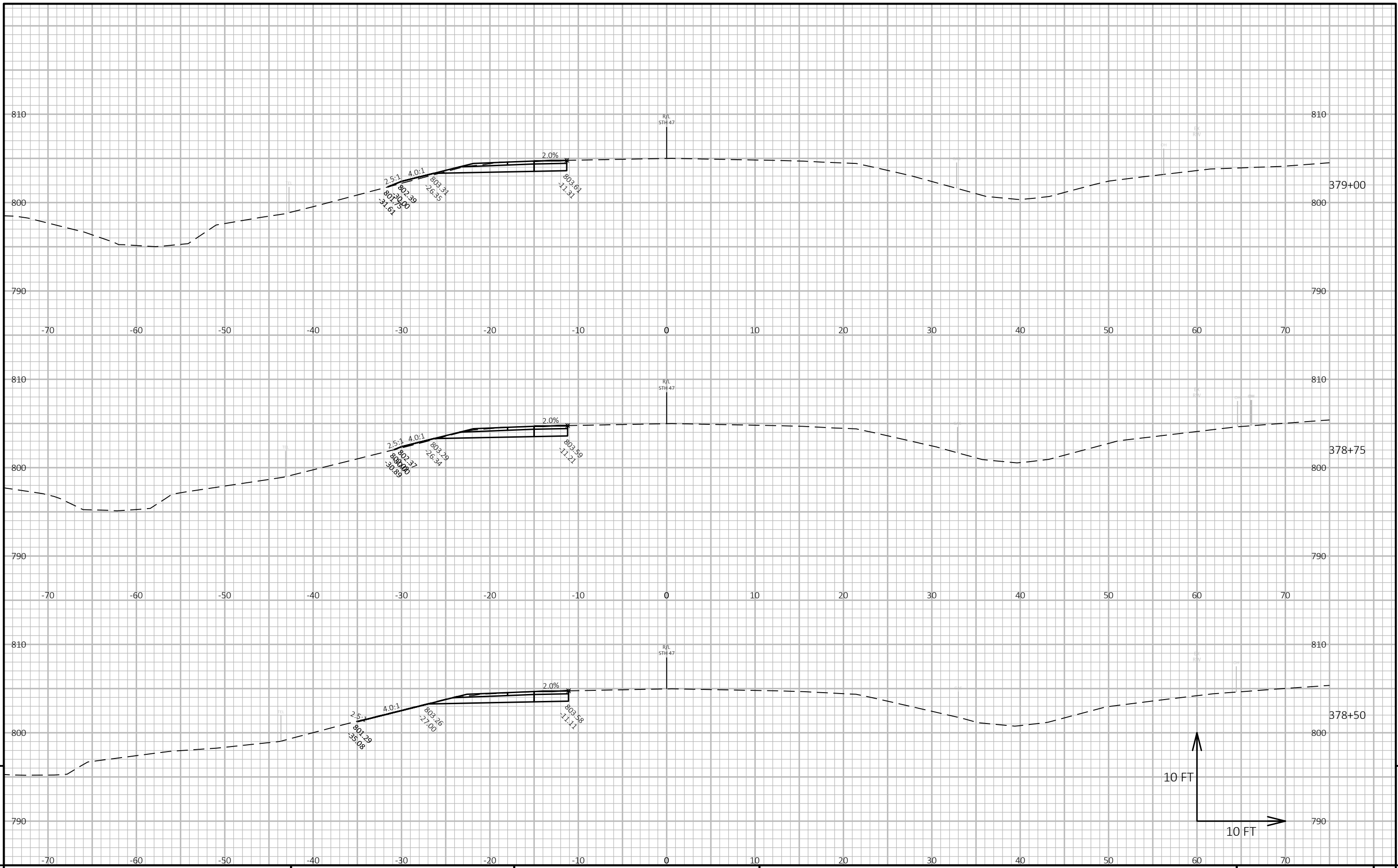
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PROJECT NO: 6240-22-71	HWY: STH 47	COUNTY: OUTAGAMIE	CROSS SECTIONS: STH 47	SHEET	E
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FILE NAME : N:\PDS\C3D\62402200\SHEETSPLAN\090201-XS.DWG PLOT DATE : 1/26/2022 2:16 PM PLOT BY : CAMPSHURE, MICHAEL R PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090202-xs

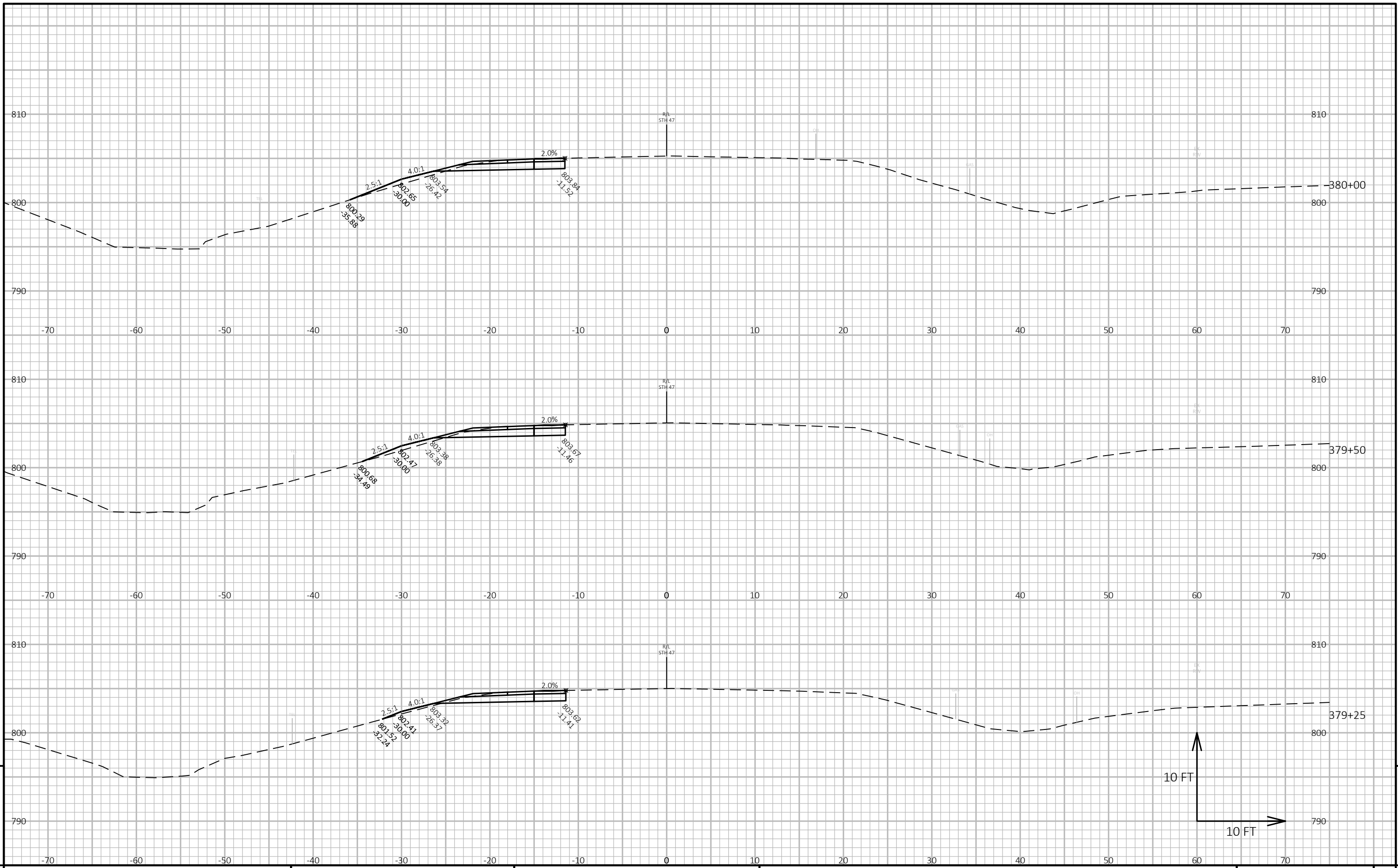


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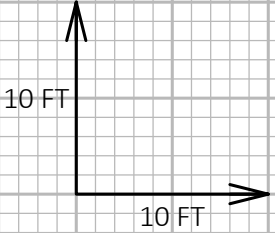
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FILE NAME : N:\PDS\C3D\62402200\SHEETSPLAN\090201-XS.DWG PLOT DATE : 1/26/2022 2:16 PM PLOT BY : CAMP SHURE, MICHAEL R PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49



9

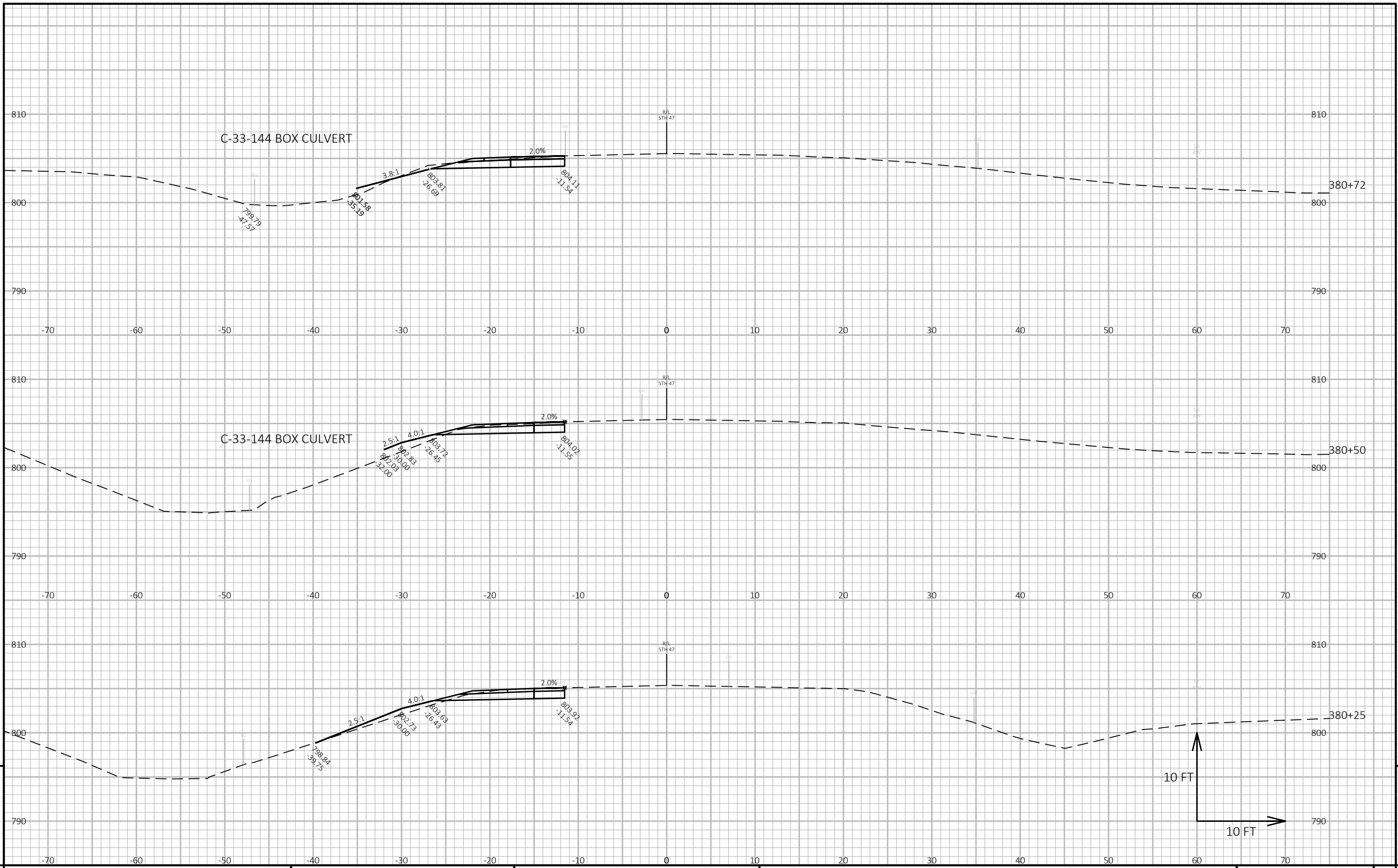
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PROJECT NO: 6240-22-71	HWY: STH 47	COUNTY: OUTAGAMIE	CROSS SECTIONS: STH 47	SHEET	E
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FILE NAME : N:\PDS\C3D\62402200\SHEETSPLAN\090201-XS.DWG      PLOT DATE : 1/26/2022 2:17 PM      PLOT BY : CAMP SHURE, MICHAEL R      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 090204-xs

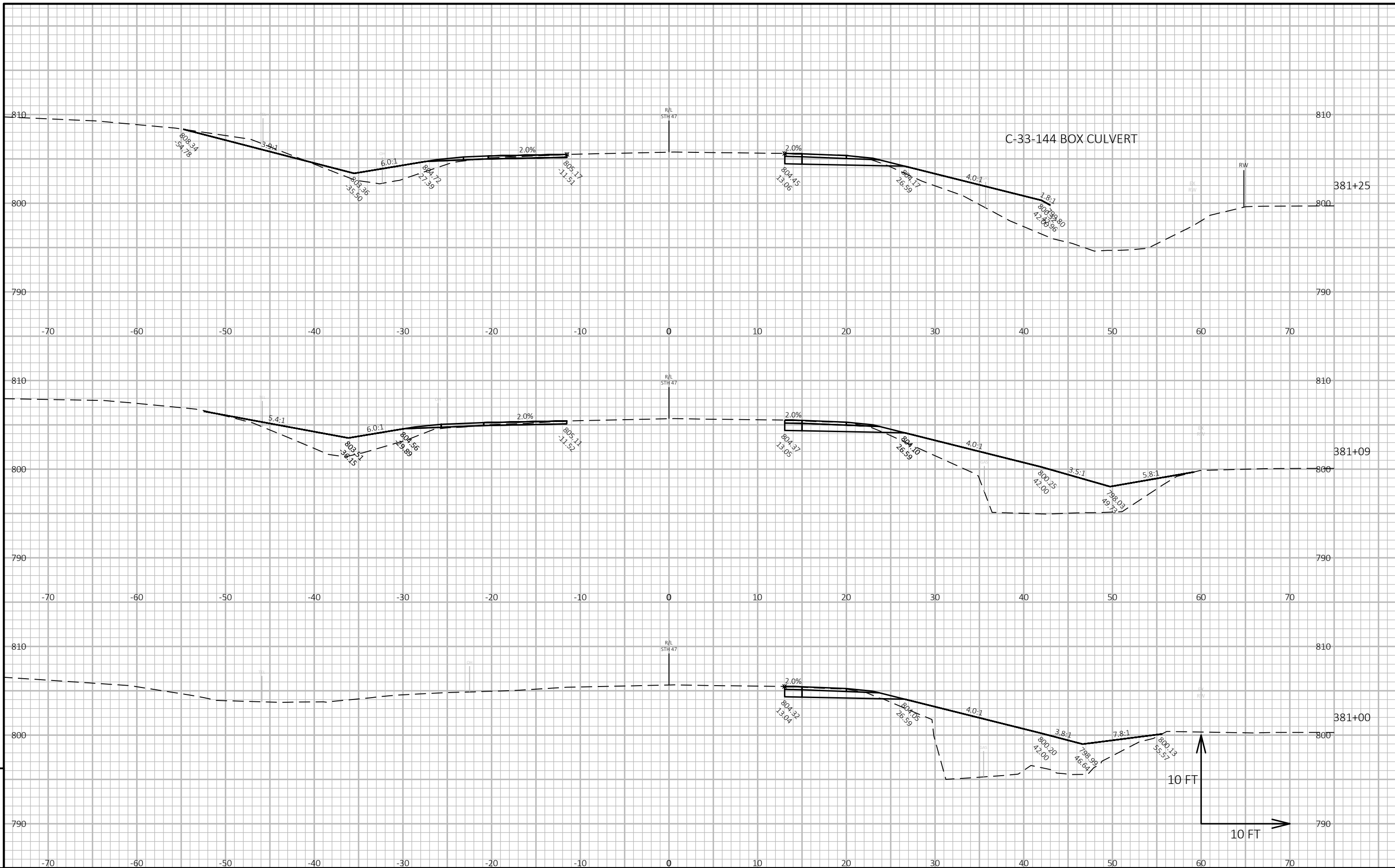


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PROJECT NO: 6240-22-71      HWY: STH 47      COUNTY: OUTAGAMIE      CROSS SECTIONS: STH 47      SHEET      E

FILE NAME : N:\PDS\C3D\62402200\SHEETSPLAN\090201-XS.DWG      PLOT DATE : 1/26/2022 2:17 PM      PLOT BY : CAMPSHURE, MICHAEL R      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49



PROJECT NO: 6240-22-71

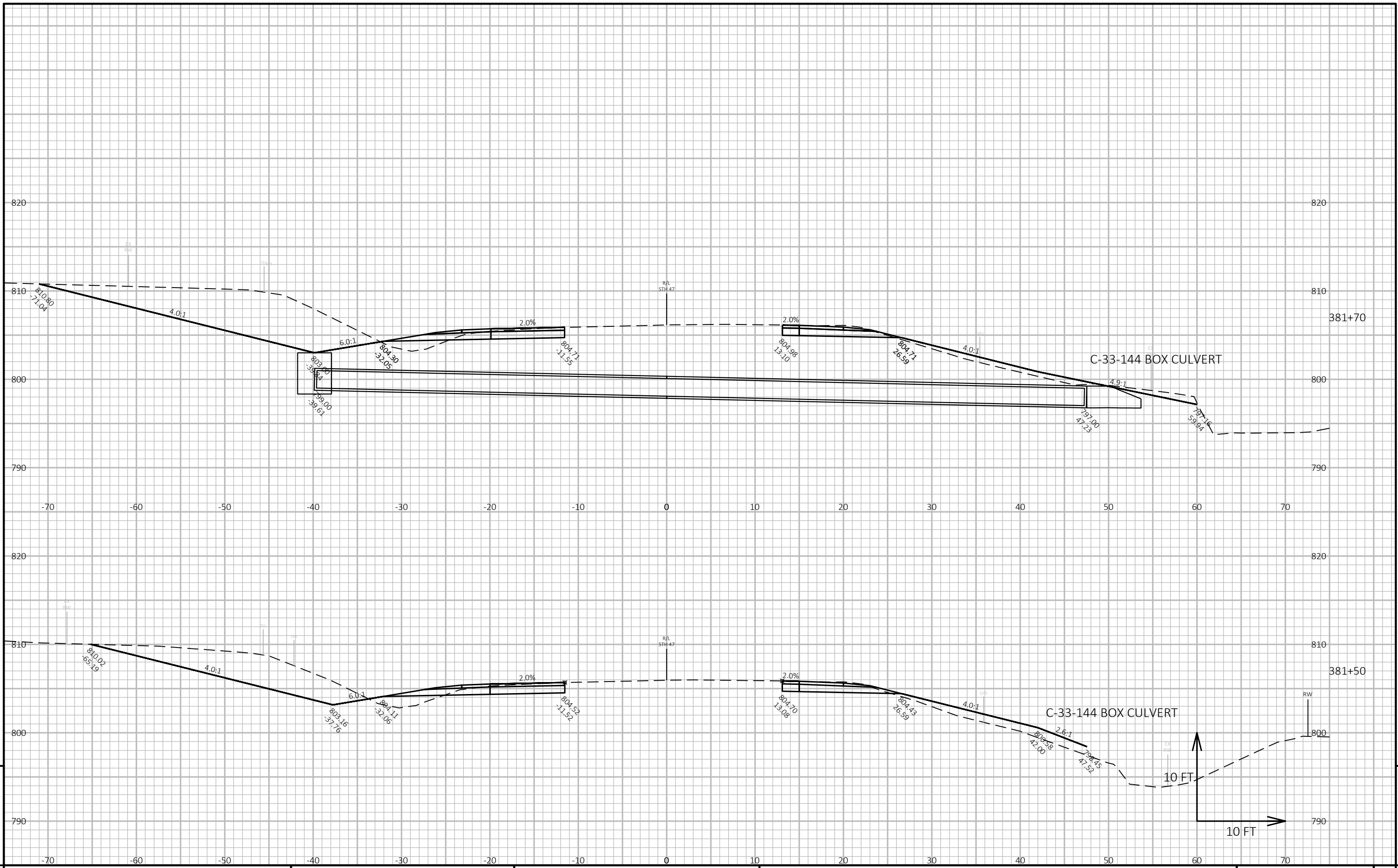
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COUNTY: OUTAGAMIE

CROSS SECTIONS: STH 47

SHEET

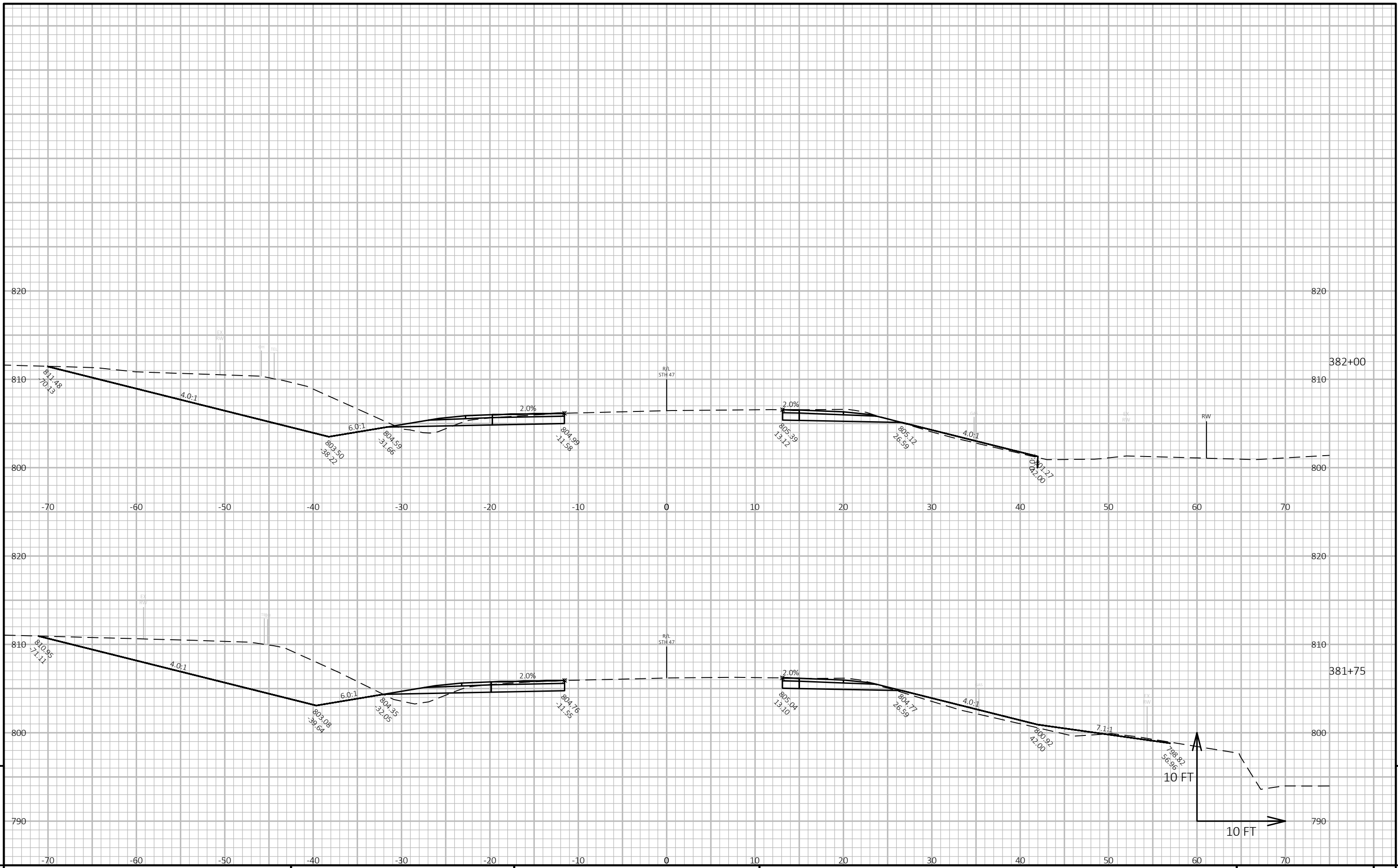
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PROJECT NO: 6240-22-71	HWY: STH 47	COUNTY: OUTAGAMIE	CROSS SECTIONS: STH 47	SHEET E
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PROJECT NO: 6240-22-71

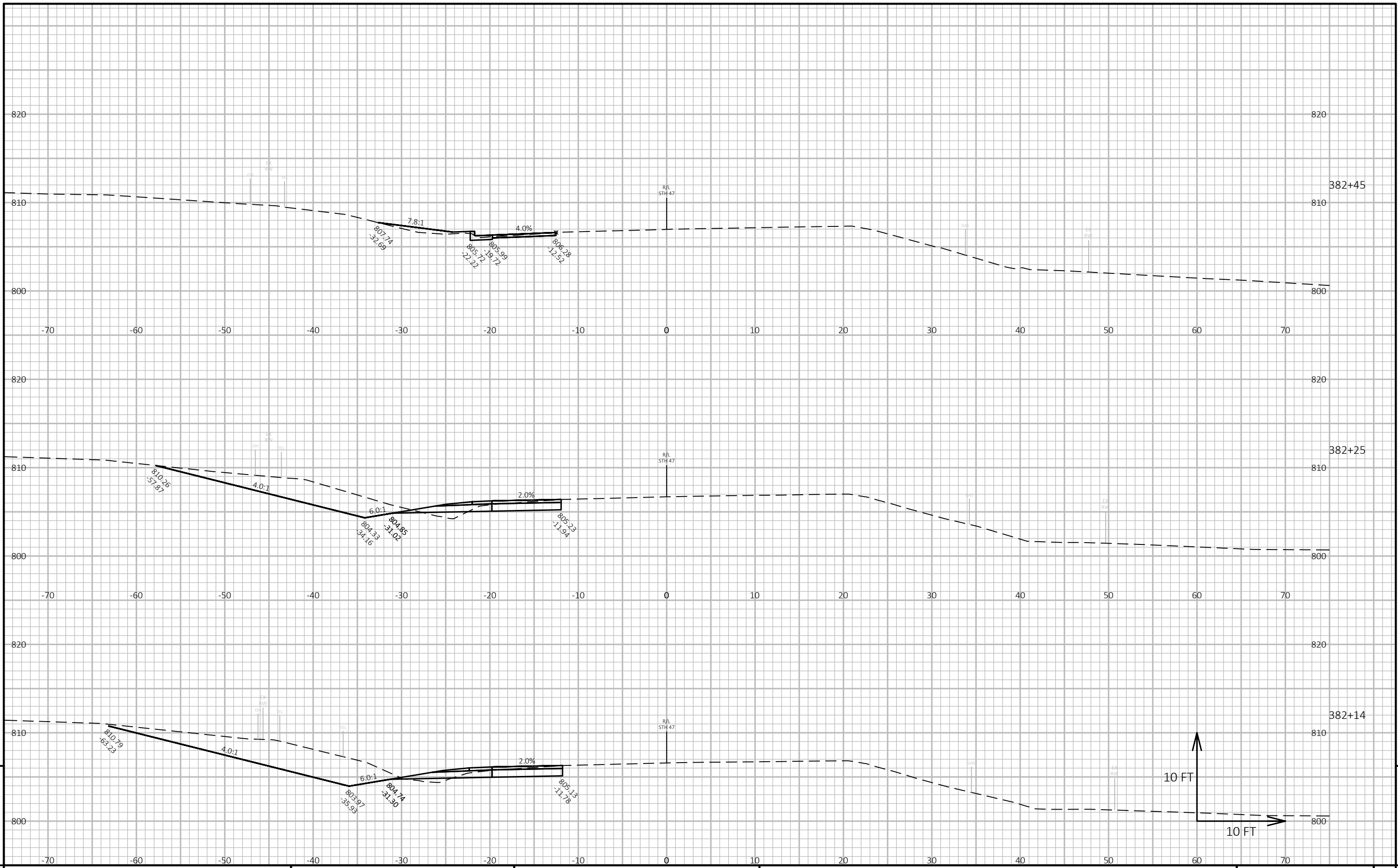
HWY: STH 47

COUNTY: OUTAGAMIE

CROSS SECTIONS: STH 47

SHEET

E



PROJECT NO: 6240-22-71

HWY: STH 47

COUNTY: OUTAGAMIE

CROSS SECTIONS: STH 47

SHEET

E



# Notes



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

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